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CERTIFIED ELECTRONICS INC

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- SOUND & HI FIDELITY SYSTEMS
- TEST EQUIPMENT

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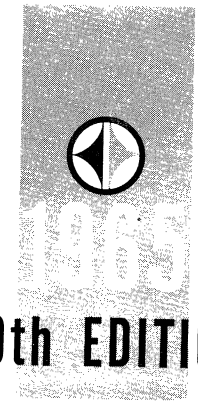

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The RADIO-ELECTRONIC MASTER is the Official Buying Guide and Reference Book for electronic parts and equipment sold by distributors.

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THE RADIO-ELECTRONIC MASTER

GUIDE TO PRODUCT SECTIONS

As publishers of The Radio-Electronic MASTER, we take great pride in the fact that this publication has reflected the progress and growth of the electronic industry for more than 28 years.

The 30 Product Sections listed below broadly categorize related electronic products and services so that you can quickly compare similar items within the sections. However, to locate specific products, always refer to the General Index. NOTE: Catalog pages are arranged alphabetically by manufacturers' names within each section.

Sec. 1200 Pages 23 thru 65	Antennas & Accessories
Sec. 1300 Pages 66 thru 112	Audio: High Fidelity Tuners, Amplifiers, Sound Systems, Intercoms, Kits
Sec. 1320 Pages 114 thru 166	Audio: Speakers & Systems, Enclosures, Microphones, Headphones, Accessories
Sec. 1340 Pages 167 thru 195	Audio: Recording & Playback Equipment, Accessories
Sec. 1400 Pages 196 thru 300	Cabinets, Chassis, Racks, Boxes
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Sec. 1900 Pages 598 thru 636	Communications Equipment (Broadcast, Television, Amateur, Facsimile)
Sec. 2100 Pages 637 thru 860	Connectors (Clips, Plugs, Jacks, Receptacles, Sockets, Terminals, Terminal Boards)
Sec. 2200 Pages 862 thru 870	Controls, Timers, Control Components & Systems
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Sec. 2400 Pages 873 thru 884	Dials, Knobs, Handles, Panel Components
Sec. 2600 Pages 885 thru 889	Environmental Chambers; Fans & Blowers; Air Conditioning
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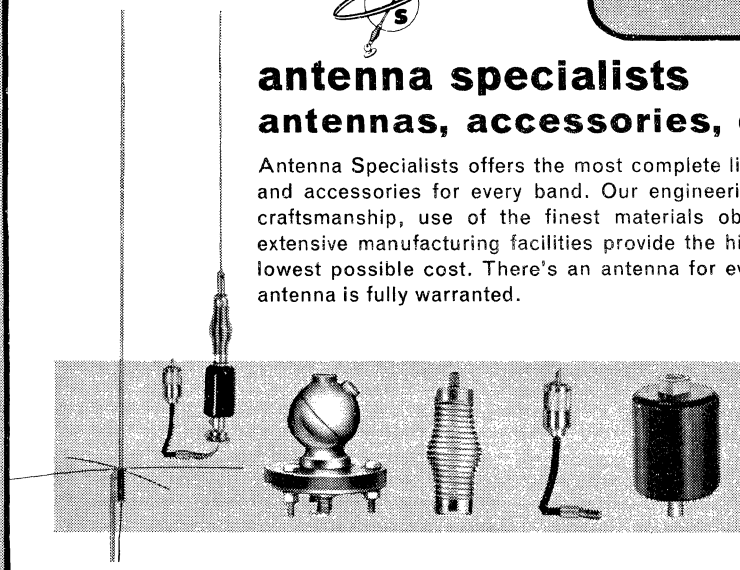
Antenna Specialists offers the most complete line of two-way radio antennas and accessories for every band. Our engineering design experience, skilled craftsmanship, use of the finest materials obtainable, quality control and extensive manufacturing facilities provide the highest quality antennas at the lowest possible cost. There's an antenna for every type of system and every antenna is fully warranted.



Citizens band (27 Mc.)
Professional band (30 through 470 Mc.)
Amateur (2-6-10 meter)
Marine band—(27 Mc.) and (2000 through 2830 kc.)
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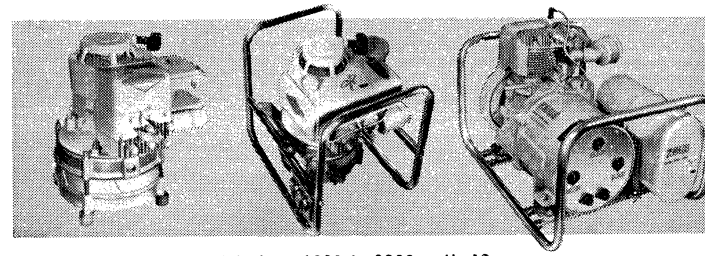

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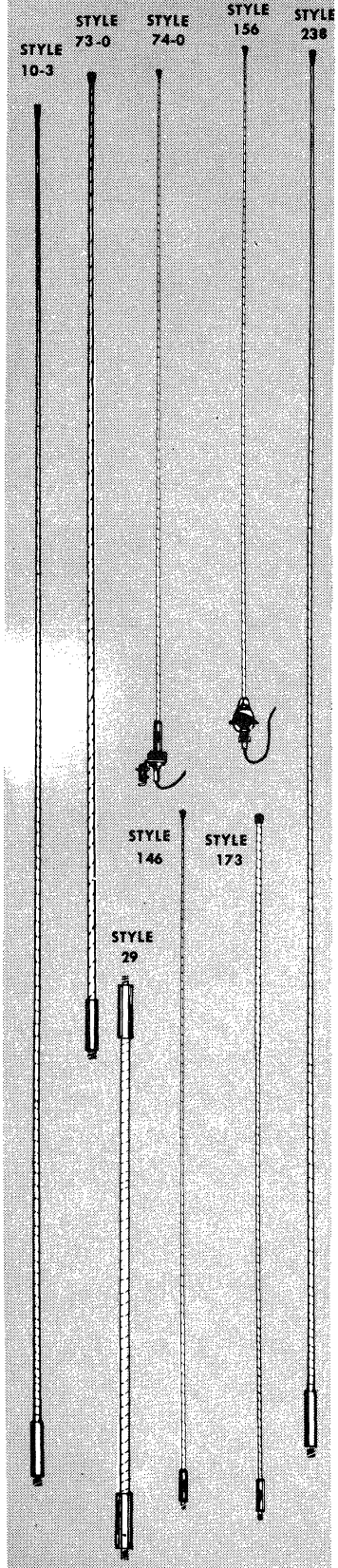
WONDERSHAFT Antennas: Every WonderShaft antenna is a sleek shaft of fiberglass. These rugged, lightweight antennas insulate effectively when operated under live wires; won't corrode; withstand salt water, oil, common chemicals and fumes. Fiberglass sheath provides precipitation static barrier, improving reception; withstands repeated flexing in action.



MOBILE WHIPS

STYLE 10 — Quarter wave whip. Chrome plated brass ferrule with ⅜"-24 thread termination.

STYLE 10-1 — 54"-60" **$6.95**
STYLE 10-2 — 60"-104" **$7.50**
STYLE 10-3 — 96" 27MC CB **$7.50**

STYLE 29 — Base extensions, ½" dia., to accommodate loading coil or attach directly to whips.

STYLE 29-1 — 18" **$5.95**
STYLE 29-2 — 27" **$6.29**
STYLE 29-3 — 36" **$6.95**

NORMAL MODE HELICAL ANTENNAS

STYLE 73 — Distributed-load antenna eliminates additional loading coils; mounts in choice of positions.

Style	Range	Style	Range	Style	Range
73-0	27 MC (CB)	73-5	20 Meters	73-8	40 Meters
73-1	30-35 MC*	73-6	40 Meters	73-9	80 Meters
73-2	35-42 MC*	73-7	80 Meters	73-10	Ch. 5 4.58 MC
73-11	42-50 MC*				
73-3	10 Meters				
73-4	15 Meters				
*specify frequency 4 ft. — $11.25		6 ft. — $15.90		8 ft. — $18.75	

CB (27 MC) LOADED 4' WHIPS

STYLE 74-0 — Rain gutter mounted antenna, detachable installation; cadmium plated steel mounting hardware; includes 9' RG 58/U coaxial cable, shielded phono plug **$14.37**

STYLE 156 — Cowl mount looks and installs like ordinary car antenna. Add antenna coupler to convert for dual CB-AM use. Includes molded plastic ball, chrome plated cap and nut, gasket.

STYLE 156-1 — 4½' cable **$11.85**
STYLE 156-2 — 9' cable **$12.12**
STYLE 156-3 — 20' cable **$12.78**

STYLE 146 — Base loaded whip terminated with ⅜"-24 thread ferrule. Fits either standard ball mount or adjustable cowl mount (Style 192) **$8.95**

STYLE 173 — Top loaded whip with chrome plated brass ferrule, ⅜"-24 thread; fits either standard ball mount or adjustable cowl mount (Style 192) **$5.75**

6 METER MOBILE WHIP

STYLE 238 — 2.7 db. average gain over quarter wave whip. 108" max. length. Chrome plated brass ferrule with ⅜"-24 thread termination **$12.50**

BASE STATION ANTENNAS

STYLE 72-0 — Shortened half wave antenna. Loaded top whip, folded stub in base; 10' 6" overall. U-bolts for mounting on tubing up to 1½" dia. **$47.97**

STYLE 176 — Full half wave, 2-section antenna for maximum aperture. Top whip; lower section with choke stub in base. U-bolts for mounting on 1½" dia. pipe; female UHF connector; 18' 6" overall **$34.62**

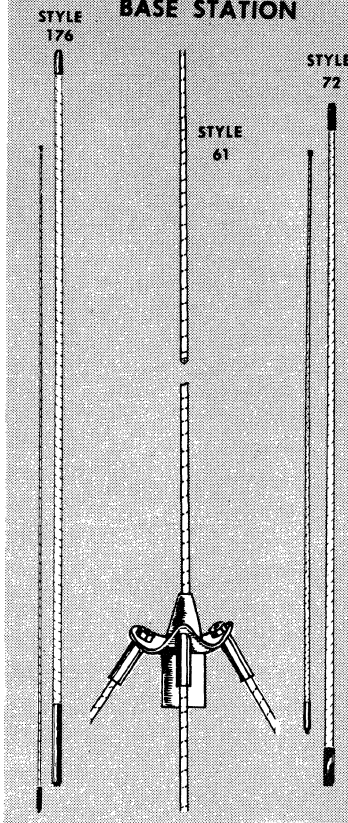
STYLE 61 — Ground plane antenna with high strength fiberglass radiating elements. Cadmium plated steel support bracket for mounting on 1¼" pipe thread. May be trimmed to accommodate any operating frequency between 27 mc and 88 mc; cutting curve furnished **$35.28**

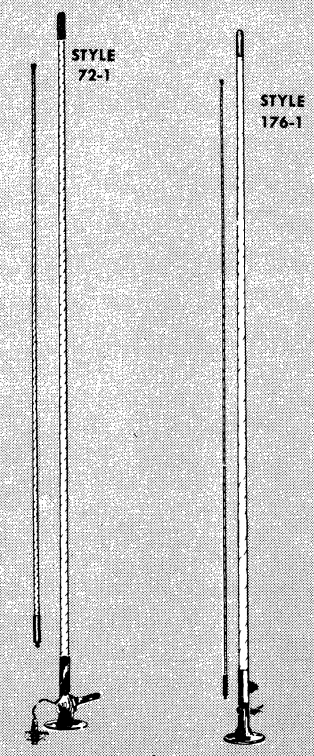
CB MARINE ANTENNAS

STYLE 72-1 — Marine version of Style 72-0. Ideal for runabout boats. Chrome plated deck mount for swift, easy raising and lowering. No ground plates necessary for installation. Feed-through fitting for deck or bulkhead thickness up to 1". PL-259 UHF connector. 10' 6" overall **$67.50**

STYLE 176-1 — Marine version of Style 176 provides base station performance for larger boats. No ground plates necessary for installation. Complete with chrome plated fold-down base and insulated plastic stand-off bracket. SO-239 UHF connector. 18' 6" overall **$54.95**

All prices net.





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GLASS FIBER WONDERSHAFT ANTENNA COLUMBIA PRODUCTS CO.

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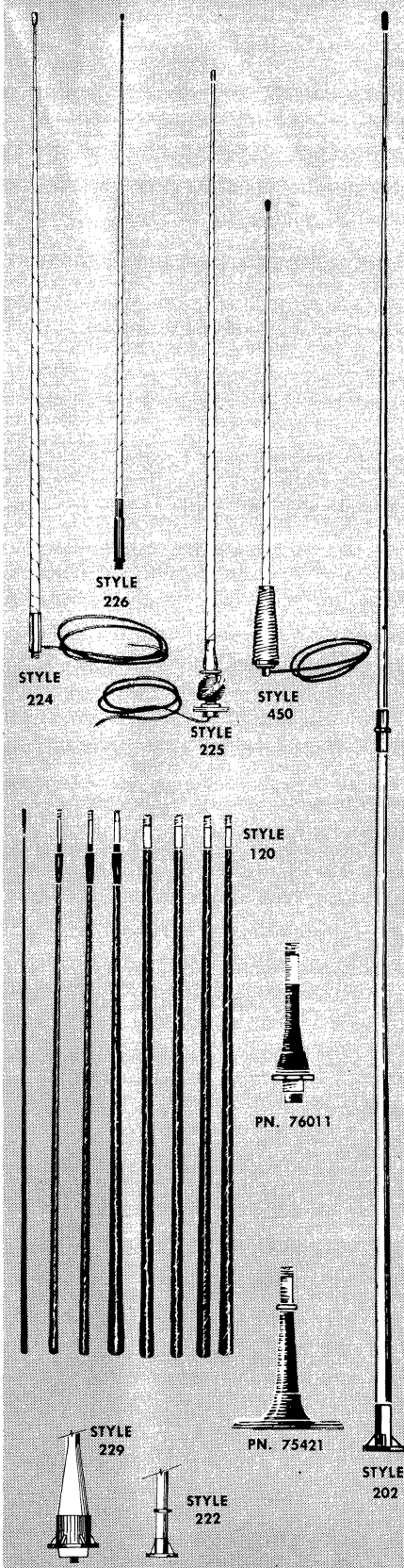
COMMERCIAL ANTENNAS



3 DB HIGH GAIN MOBILE ANTENNAS

STYLE 225 — Center fed, half wave coaxial antenna for maximum efficiency. Antennas are independent of mounting location and length of transmission cable. Provides 3 db. gain over quarter wave whip. 148-166 mc. Cutting curve furnished for trimming antenna to correct resonant length. Aluminum ball mount through which coaxial cable passes; choice of BNC or UHF plug. 76″ maximum length ——— **$25.50**

STYLE 224 — Same antenna as Style 225 except terminates with ⅜″-24 thread; chrome plated brass ferrule. Fits standard ball mount and spring. 72″ maximum length ——— **$18.75**

STYLE 450 — Center fed, coaxial half wave antenna that covers the 450-470 mc band. Isolating choke stub suppresses standing wave on transmission cable. Unit includes 12′ RG 58/U cable; chrome spring; choice of BNC or UHF connector. 19″ overall height ——— **$20.00**

BASE STATION ANTENNA

STYLE 226 — Center fed, half wave coaxial antenna. 148-166 mc. Economy design rated as unity gain compared with a half wave dipole. Chrome plated brass mounting tube; UHF connector; U-bolts. Cutting curve furnished for trimming antenna to correct resonant length. 78″ maximum length ——— **$18.75**

WHIP ANTENNAS

STYLE 120 — Fiberglass-encased antenna, forerunner of AT-1011/U military antenna. 4 tapered sections form rugged 16′ mobile antenna; 4 base extension sections to extend to 32′ stationary antenna. Choice of Stand-off Base, PN 75421 or Feed-through Base, PN 76011 ——— **$295.00**

STYLE 202 — Heavy duty whip antenna excellent for shipboard or base station use. 2-sections; ¾″ tip dia., 3¼″ base dia. Stainless steel center joint; 35′ overall height. Conductor terminates in naval bronze mounting fitting with 7⅝″ dia. flange; four 21/32″ mounting holes equally spaced on a 6″ bolt hole circle ——— **$295.00**

STYLE 222 — Same as Style 202 except conductor terminates in a metal band 12″ above mounting flange ——— **$329.25**

STYLE 229 — Same as Style 202 except bottom of antenna is designed to function as its own feed-thru insulator mounting base. Bolt hole pattern is eight 23/32″ holes equally spaced on 10¾″ dia. bolt circle ——— **Not available**

ACCESSORIES

STYLE 70-1 — Saturn Ball Mount — universal swivel mount has locking ring, faces serrated for positive adjustments; low-loss molded fiberglass insulator plate mounts watertight on flat and curved surfaces ——— **$7.95**

STYLE 192 — Adjustable Cowl Mount — mounts and looks like a conventional AM auto antenna. Molded plastic ball; chrome plated cap, nut; gasket. Choice of RG 58/U coaxial transmission cable lengths.

STYLE 192-1 — 4½′ ——— **$3.81**

STYLE 192-2 — 9′ ——— **$4.65**

STYLE 192-3 — 20′ ——— **$6.57**

STYLE 97 — Bumper Mount — rugged, no-holes assembly; bright cadmium plated chains, brackets adjust to all bumpers; attach in minutes. Special low-loss molded insulator — **$7.50**

STYLE 197 — Mounting Package — used for bulkhead mounting Style 72-0 on boat. 2 insulated stand-off brackets, complete with chrome plated brass bolts, nuts and lock washers ——— **$9.77**

STYLE 190 — Chrome Plated Swivel Base — with stainless steel external hardware. UHF coaxial termination ——— **$9.57**

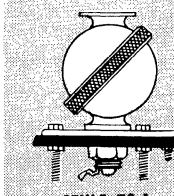
STYLE 191 — Chrome Plated Spring — heavily plated to improve appearance, protect against corrosion. Lock washer included ——— **$5.37**

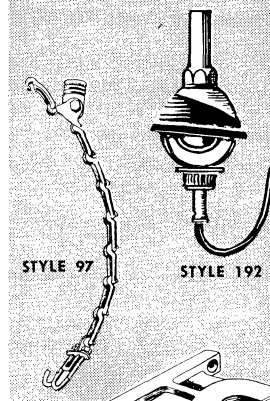
STYLE 71-1 — Barrel Type Base Spring — cadmium plated. Faces ground flush to assure perfect alignment ——— **$4.50**

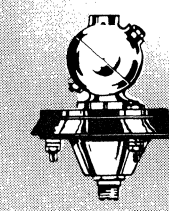
STYLE 155 — Ball Mount — universal swivel base mount; black painted finish ——— **$5.94**

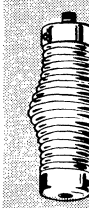
All prices net.

ACCESSORIES For Your WonderShaft Antennas

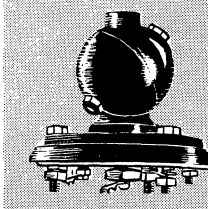

STYLE 70-1


STYLE 97
STYLE 192
STYLE 197


STYLE 190


STYLE 191

STYLE 71-1


STYLE 155

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subsidiary of the *Shakespeare* Company • Columbia, South Carolina

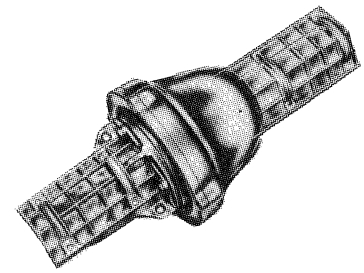
Heavy Duty Antenna Rotor Systems

CDE CORNELL-DUBILIER

ROTORS FOR TV, COLOR TV, FM & FM-STEREO

Class 252 • 00

Previously considered necessary only for deep fringe area reception, antenna rotors are now required in nearly every location due to the more demanding performance requirements of color TV and FM stereo broadcasting. The Cornell-Dubilier antenna rotors are the only heavy duty TV-FM antenna rotors available. They are designed to support the heaviest antennas and provide reliable performance under the most severe conditions. All CDE TV-FM antenna rotors are supplied with the heavy duty weatherproof bell casting motor unit illustrated. This unit provides four to five times the turning and braking torque of competitive models, features a 6" diameter built-in thrust bearing, and utilizes heavier gears and construction throughout. Coupled with the wide selection of control boxes offered, the CDE rotor is clearly the outstanding buy in antenna rotors.

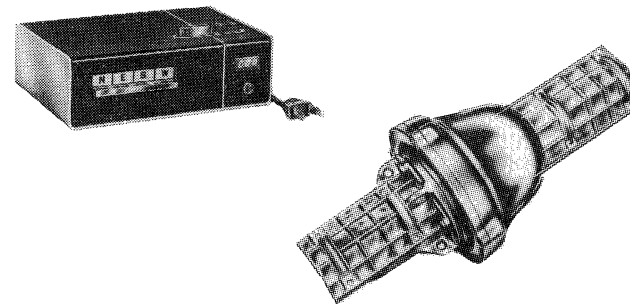


MANUAL COMPASS PATTERN MODEL

Class	Model
252 • 11	TR-2C

The TR-2C antenna rotor system combines the smart styling of a Raymond Loewy/William Snaith Inc. control box design with the rugged CDE bell motor unit. The control box is extremely small and blends with any decor. CDE's exclusive compass pattern indicating light system and end of rotation light provide for rapid rough tuning with fine tuning visually or by FM tuning indicator. The touch-bar control system provides precise and accurate antenna orientation. TR-2C uses 8 wire cable. 110v AC model is standard; 220v AC model optional at added cost.

LIST PRICE $39.95

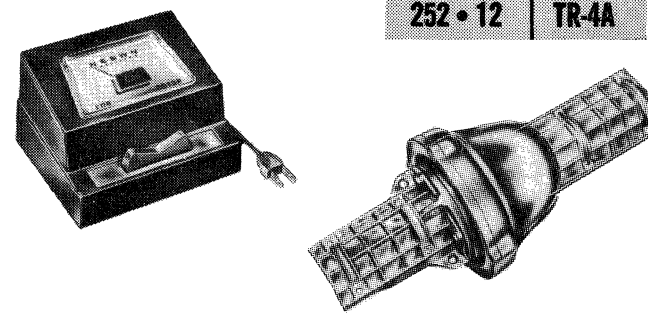


MANUAL METER MODEL

Class	Model
252 • 12	TR-4A

The model TR-4A couples a meter control system with the heavy duty CDE bell casting motor unit. The compass calibrated meter provides for rapid rough tuning with fine tuning visually or by FM tuning indicator. The touch bar control system permits rapid and precise antenna orientation. The TR-4A model uses 4 wire control cable. Standard model is 110v AC; 220v AC models are available at added cost.

LIST PRICE $39.95

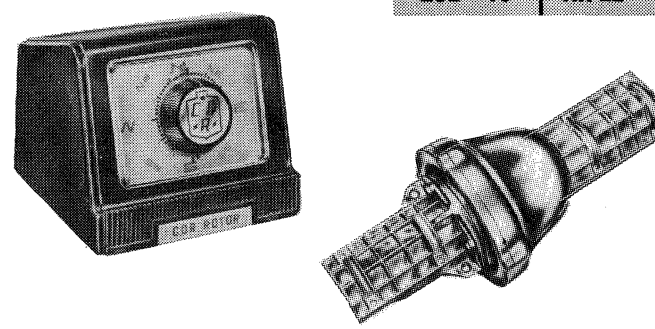


AUTOMATIC MODEL

Class	Model
252 • 15	AR-22

The model AR-22 rotor system combines automatic control and the heavy duty bell motor unit. When the AR-22 control knob is turned to the desired antenna direction, the motor unit follows in precise 6 degree steps. When the desired direction is reached, the unit shuts itself off automatically. The automatic model represents the ultimate in convenient and precise antenna direction control. The system uses 4 wire cable. 110v AC is standard; 220v AC models available at added cost.

LIST PRICE $49.95



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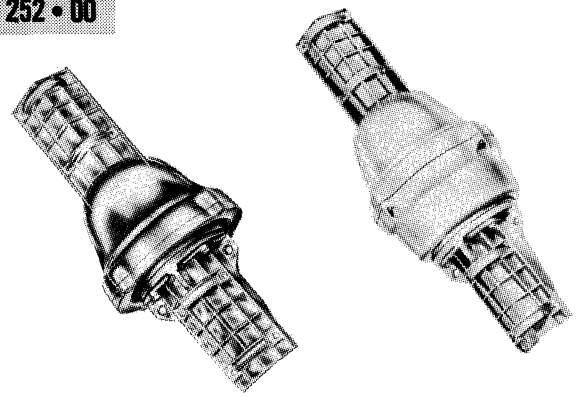
CDE CORNELL-DUBILIER

Heavy Duty Antenna Rotor Systems

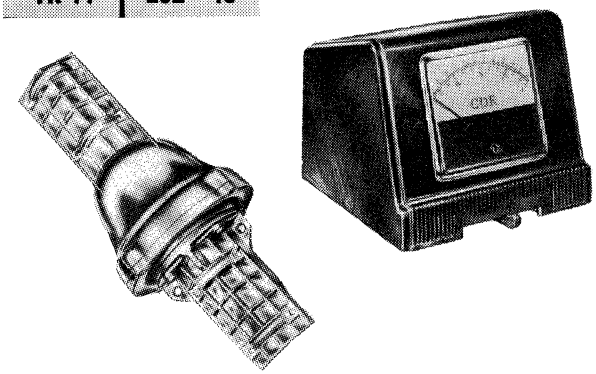
Class 252 • 00



ROTORS FOR AMATEUR APPLICATIONS

Cornell-Dubilier antenna rotors are the standby of amateurs throughout the world. Both amateur models utilize the famous CDE bell casting motor units. Both types are designed for mast or tower mounting. The famous HAM-M model is designed to support and operate the heaviest amateur beams available. The recently introduced model TR-44 is designed specifically for intermediate loads — large VHF arrays and small HF combination antennas. The two types cover the range of amateur requirements for accurate, precisely calibrated antenna rotors.

Model TR-44 | Class 252 • 45

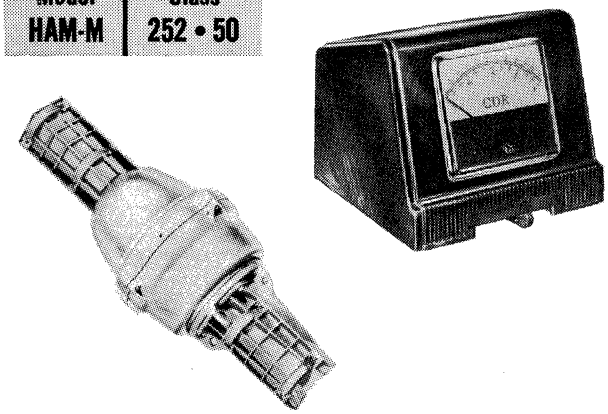


INTERMEDIATE AMATEUR MODEL

Although dimensionally identical to CDE TV rotors, the TR-44 has been designed specifically for intermediate amateur requirements. It greatly surpasses TV rotors in wind resistance, torque and dead weight capability. In addition it features a positive braking system built into the motor unit. The control is precisely calibrated to provide for rotation and indication through a complete 360 degree range. 110v AC is standard; 220v AC models available at added cost.

AMATEUR NET PRICE $59.95

Model HAM-M | Class 252 • 50

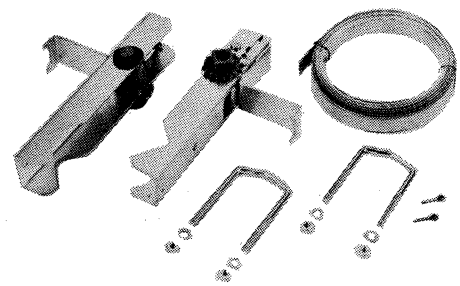


ADVANCED AMATEUR MODEL

The famous HAM-M is the best unit available for amateur use. It supports 1000 pounds dead weight and features a positive brake to lock the rotor in position against 3500 inch-pounds of torque from wind-pressure. Designed for tower or mast mounting, the HAM-M is supplied with a precisely calibrated control for complete 360 degree rotation and indication. Double stage switch provides for direction indication without moving antenna. 110v AC standard; 220v AC models available at added cost.

AMATEUR NET PRICE $119.50

Type AK-85 | Class 252 • 00



ROTOR ACCESSORIES - CHIMNEY MOUNT

The patented Cornell-Dubilier "SPEE-DEE" mount chimney mount provides a convenient means for quickly securing any TV or FM antenna mast or rotor mast. The patented ratchet type tightening device permits quick and easy installation. All parts used are corrosion resistant. The AK-85 includes two corner brackets with ratchet tighteners and mast mounting provisions, two lengths of banding strap, two mast U-bolts with hardware and two cotter pins for locking ratchet pawls.

LIST PRICE $4.95

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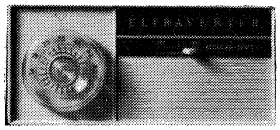
BLONDER-TONGUE

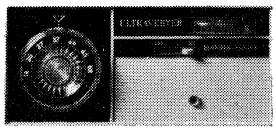
UHF PRODUCTS

UHF CONVERTERS



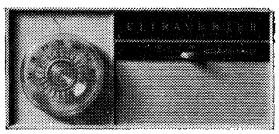
ALL-CHANNEL, ALL TRANSISTOR UHF CONVERTER BTX-99 Adds all UHF channels (14 to 83) to any TV set. The ideal converter for prime signal areas. In many of these areas, it performs well with an indoor antenna. The many quality features than made the original '99' America's best selling converter are incorporated in this unit.

The all-transistor circuit enhances the performance of the BTX-99 by providing maximum signal power and drift-free, distortion free performance. UL approved. Net **19.85**



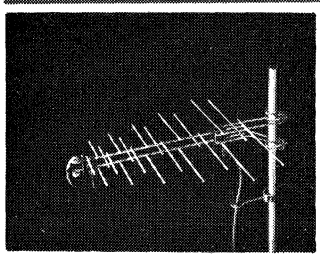
DELUXE ALL-CHANNEL, ALL TRANSISTOR UHF CONVERTER/AMPLIFIER, MODEL BTX-11 Adds all UHF channels (14 to 83) to any TV set. The most powerful and stable UHF converter ever engineered for the home. It is the perfect selection almost anywhere within the range of a UHF station producing superlative TV pictures even in weak signal areas.

The BTX-11 features easy pinpoint tuning with a dual-speed channel selector and vernier tuning. This deluxe converter also incorporates a powerful low-noise signal amplifier as well. It triples TV signal strength. The result: sharp, clear black and white pictures, full fidelity, brilliant color TV—no ghosts, no snow. UL approved Net **$31.20**



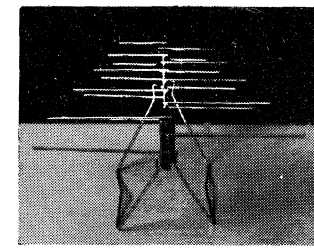
ALL-CHANNEL TUNNEL DIODE UHF CONVERTER, MODEL BTD-44 Adds UHF channels (14 to 83) to any TV set. Especially recommended for prime signal areas as the most economical quality converter available today. Utilizes tunnel diode for maximum reliability. Uses penny pinching modern cordless power for convenience and economy of operation. Operates on ordinary flashlight battery which lasts from 6 to 9 months. Net **$13.20**

UHF ANTENNAS



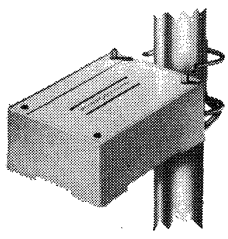
Blonder-Tongue UHF antennas are designed to match the high performance standards on all UHF channels of its famed UHF converters. They employ the well-known Periodic principle.

GOLDEN DART OUTDOOR UHF ANTENNA The unique use of the Periodic principle contributes to a uniform, high gain across the entire UHF spectrum for sharp, ghost-free pictures. Full bandwidth — makes the Golden Dart excellent for color and black & white TV. Completely pre-assembled — nothing to snap out, no screws to tighten, the Dart mounts to the mast in seconds. Smallest and most compact of all UHF antennas, it's easy to piggyback with any VHF antenna. Rugged, unitized and welded construction means no moveable joints to cause trouble. For deep fringe area reception, two Darts can be stacked with sturdy, easy-to-use stacking bars (model 3519). Dart Net **3.55** Stacking bars Net **.95**



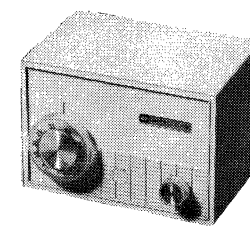
GOLDEN ARROW INDOOR UHF ANTENNA Outperforms other available indoor UHF antennas by providing peak performance on all UHF channels 14-83. The Golden Arrow employs 10 working elements to provide constant high gain and matched impedance on all channels. The excellent design minimizes ghosts and other interference. Full bandwidth, flat response means sharp black and white reception and true fidelity color pictures. Sturdily built, the Golden Arrow snaps together easily and securely. Net **2.70**

UHF AMPLIFIERS AND COUPLERS



ABLE-U2 CHANNEL 14 to 83 MAST-MOUNTED UHF AMPLIFIER Where black and white pictures are fuzzy, where color pictures lack brilliance, the addition of the Able-U2 will produce a dramatic improvement. The Able-U2 uses a 2 transistor circuit to provide maximum gain, excellent impedance match and assure low-noise, snow-free reception. Remote AC power supply sends a safe 15 volts to the mast mounted amplifier on the same down lead that delivers the signals to the set. 300 ohm stripless screws at terminals. Miracle Mount for instant mast mounting. Net **$26.95**

U/BOOST CHANNEL 14 to 83 INDOOR UHF AMPLIFIER, MODEL UTB-1 Though not as effective as the Able-U2, it can be used in some poor signal areas to bring in sharper, clear pictures. Effective with weak TV sets or non-amplified converters. A.C. convenience receptacle for UHF converters or all-channel TV set. 300 ohm stripless terminals. Net **$17.35**



UHF COUPLER, MODEL UHF-2 Recommended for all UHF areas — can be used to combine or split UHF channels. Low loss, high isolation. Net **$2.30**

ALL CHANNEL COUPLER — MODEL UV-2 World's first channel 2 to 83 coupler capable of delivering full power signals to 2 UHF or 2 VHF and UHF receivers operating on the same antenna. Excellent interset isolation, low loss. Net **$2.00**

UHF-VHF ANTENNA COUPLER, MODEL A-107 Combines UHF and VHF antennas, or provides separate VHF and UHF output from a single antenna. Isolation 15db. 300 ohm. Net **$3.15**

Net

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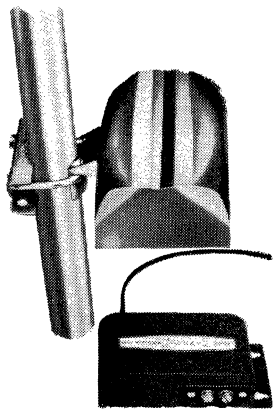
BLONDER-TONGUE

PRODUCTS TO IMPROVE HOME TV RECEPTION

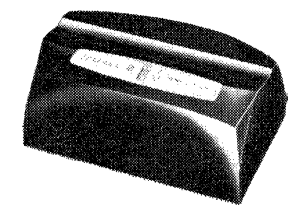
WORLD'S FIRST ALL CHANNEL UHF/VHF AMPLIFIERS

World's first channel 2-83 amplifiers. The perfect mate to any all-channel TV receiver, they also improve reception when used with sets equipped with UHF converters. Only obsolesence-proof TV amplifiers on the market.

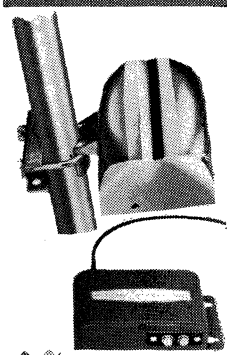


U/VAMP-2 WORLD'S FIRST MAST-MOUNTED UHF/VHF AMPLIFIER The world's first channel 2 to 83 amplifier. Mounts at antenna to achieve optimum signal-to-noise ratio. Unique two transistor circuit provides power to turn fuzzy pictures into sharp, clear ones, and handle strong local TV signals without overloading. Built-in FM filter reduces overload caused by local FM stations. Remote AC power supply sends AC power up to the mast mounted amplifier on the same downlead that delivers the signal to the set. Stripless 300 ohm screws. Rugged weather-protected cast aluminum amplifier housing. Other U/Vamp-2 features: separate antenna inputs for UHF and VHF allow the use of the best antenna for each band. Built-in low-loss UHF/VHF splitter which means that no additional unit is required to separate the signals at the TV set or UHF converter antenna terminals. Net **$33.25**

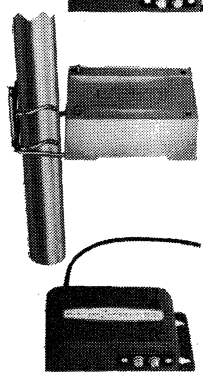
VU-ALL 2, WORLD'S FIRST INDOOR UHF/VHF AMPLIFIER Installs easily anywhere in the home. Unique two-transistor circuit design achieves excellent gain, low noise figure for superior reception on up to two TV sets. For 2-set operation it provides an excellent impedance match, necessary isolation between sets, plus an increase in the antenna signal power. Single 300 ohm input accepts combined UHF/VHF twinlead. Low noise 2-transistor circuit provides gain to bring in weak channels and minimize overloading on strong local station. Built in FM filter prevents overload from strong local FM Stations. 300 ohm stripless terminals.
Net **$27.50**



MAST MOUNTED VHF AMPLIFIERS



VAMP-2 MAST-MOUNTED, 2-TRANSISTOR, 2-SET VHF AMPLIFIER Deluxe home TV amplifier. Costs a few dollars more than most all-transistor amplifiers, but outperforms them all. Powerful 2-transistor circuit brings in weak, distant channels with sparkling clarity. All new circuit minimizes overload from strong local TV or FM stations. When used with one set—amplifier increases signals five times. Convenient splitter at the power supply, provides connections to 2 sets. Excellent for color. Easy installation on the mast in seconds. The remote power supply can be installed anywhere indoors, sends a safe 15 volts to the amplifier on the same twinlead that brings the signal down. The amplifier is housed in a rugged weather-proof aluminum cast housing. Stripless 300 ohm screws. Net **$25.85**

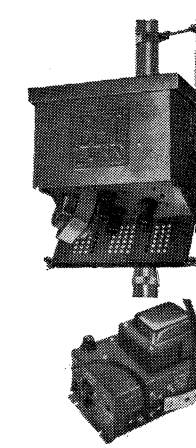


VAMP-1 MAST-MOUNTED TRANSISTOR VHF AMPLIFIER Has a lower noise figure than any tubed booster on the market, lower than most transistor boosters. Designed for mast mounting to take advantage of best signal-to-noise ratio and provides clean snow-free reception. Especially designed transistor circuit increases antenna signals up to five times. Especially designed FM trap — reduces overload from strong local FM stations. Easy installation with famous 'Miracle Mount' which snaps on any antenna mast in seconds. Separate remote power supply can be installed at set. Patented 300 ohm stripless terminals. Net **$17.10**

VAMP-2-75 75 OHM HOME TV AMPLIFIER SYSTEM Powerful, low-noise 2-transistor TV amplifier is ideal as the heart of the small professional system in the home, TV showroom or service shop. Delivers all the signal power to bring in the weak signals, will not overload due to strong local TV or FM stations. Excellent for color. Most important, it is equipped for use with 75 ohm coax cable. Single 75 ohm output can be split to deliver signals to as many as 8 TV sets. Input is 300 ohm, eliminating the need for a separate balun. Rugged, weatherproof cast aluminum amplifier housing. Can be mounted on mast in seconds. Remote AC power supply, which can be installed anywhere indoors, sends a safe 15 volts to amplifier on the same coax cable that brings the signal down. Net **$29.55**

MAST-MOUNTED TV/FM AMPLIFIER (with remote power supply) — MODEL AB-3 — Low-noise amplifier virtually eliminates snow. Can be used in a fringe area home installation, or as a pre-amplifier in a master TV system.

The remote power supply sends AC power up to the mast-mounted amplifier on the same down-lead that carries the antenna signal down. It provides the correct power to the amplifier for any length of connecting cable up to one mile (when open twin-lead is used). Amplifier uses low noise frame-grid tubes. Provides 25 db minimum gain on all VHF-TV and FM stations. Choice of 300 ohm or 75 ohm output. Stripless terminals for 300 ohm twin-lead; solderless "quick-disconnect" terminals for 75 ohm coax. No balun is needed because the input is matched to 300 ohm antennas. Net **$78.50**



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Net

BLONDER-TONGUE

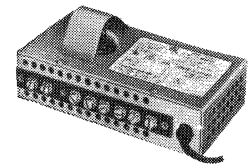
PRODUCTS TO IMPROVE HOME TV RECEPTION

IN-THE-HOME VHF/FM SIGNAL AMPLIFIERS

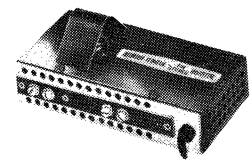
TRANSISTOR 4-SET TV/FM BOOSTER, MODEL IT-4 — The IT-4 "Quadrabooster," designed around a rugged, long-life transistor, is very inexpensive to operate and requires almost no maintenance. The transistor takes so little power that it need never be turned off. Specially designed for weak signal areas, the "Quadrabooster" provides crisp, brilliant pictures for as many as four TV or FM sets from a single antenna. Used for one set it increases signal strength 4 to 8 times. Used for two, three or four sets, it has amplifying power to spare and provides necessary isolation between sets. Net **$19.95**

2-SET TV/FM BOOSTER, MODEL B-42 Low-cost combination booster-distribution system provides clear, sharp reception for up to 2 TV or FM sets from one antenna. The B-42 more than doubles signal voltage for a single set, with excellent isolation. Its frame-grid tube amplifier is ideal where there are both strong and weak signals because it can handle strong signals without overloading. Net **$14.25**

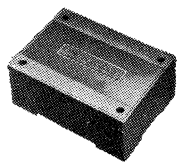
4-SET TV/FM BOOSTER, MODEL B-24c Triples signal power to one set. Also acts as an amplified coupler to operate up to 4 TV or FM sets. Provides proper impedance match and isolation between sets and increases picture power when used with 2 or 3 sets. With 4 sets it insures that each TV or FM set receives more than 90% of the signal power picked up by the antenna. Net **$17.25**



FM STEREOBOOSTER, FMB — Covers the entire FM band, increases signal strength 8 times (18 db) prior to the signal entering the tuner or radio. This assures the most powerful, distortion-free reception. Extremely low noise figure — absolutely essential in FM stereo where overall signal-to-noise ratio may be degraded by a factor of 20 db or more over regular FM reception. Signal handling capability — won't overload when there are strong local stations present. Low VSWR eliminates distortion resulting from phase and amplitude variation and standing waves caused by impedance mismatch. Compact, easy to install anywhere indoors — near the FM tuner or radio, on the base board. Net **$14.55**

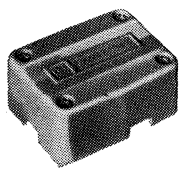


EXACT-MATCH COUPLERS



4-SET COUPLER, COLOR-4 — Super deluxe 4-set coupler, especially for Color TV. Offers maximum interset isolation (16 to 24 db), excellent impedance match and only a 6.5 db insertion loss. The Color-4 uses ferrite broadband transformers in balanced bridge design and it has a VSWR of less than 1.5. Result: Lower inherent insertion loss, less smear and ghosts, sharper pictures than any other 4-set coupler. Net **$6.85**

2-SET COUPLER MODEL A-102—Delivers more signal to each TV or FM set, with greater inter-set isolation than other couplers. Isolation: 10-20 db. Net **$2.00**



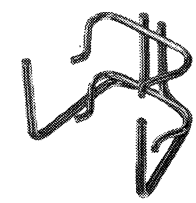
UHF COUPLER, MODEL UHF-2—Recommended for all UHF areas—can be used to combine or split UHF channels. Low loss, high isolation. Net **$2.30**

ALL CHANNEL COUPLER—MODEL UV-2 —World's first channel 2 to 83 coupler. Capable of delivering full power signal to 2 UHF or 2 VHF and UHF receivers operating on the same antenna. Excellent interset isolation, low loss. Net **$2.00**

4-SET COUPLER MODEL A-104 — Directional coupler with flat response from 50-220 mc. Feeds 4 VHF receivers from one antenna, or mixes 4 antennas into one line. Isolation: 12-20 db. Net **$3.00**

HI-LO ANTENNA COUPLER MODEL A-105 Combines high and low band VHF antennas, or provides separate high and low output from a single antenna. Isolation: 21 db. **$3.10**

UHF-VHF ANTENNA COUPLER, A-107 The choice in UHF areas throughout the country. It combines VHF and UHF antennas, or provides separate VHF and UHF outputs from a common line or antenna. Less than 1.0 db loss. Net **$3.15**



NEW — MIRACLE MOUNT— snaps on any mast. Fits all B-T couplers. Net **$.73**

Net

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BLONDER-TONGUE

MASTER ANTENNA SYSTEM COMPONENTS

BROADBAND AMPLIFIERS

MODEL MLA-C, BROADBAND 40 DB VHF AMPLIFIER

Broadband VHF amplifier with all the features essential for easy installation and superior reception in large or small TV systems. More than 40 db amplification on all VHF channels. Separate high and low band tilt and gain controls.

MAX. OUTPUT (across 75 ohms) 2.0 volts per band for less than 1% cross-modulation 3.5 volts per band for less than 3% cross modulation. Net **$94.85**
MODEL MLA-FM — Similar to MLA-C but includes FM band. Net **$107.50**

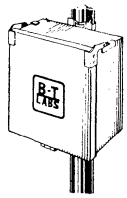
MODEL HAB, BROADBAND VHF/FM AMPLIFIER

For use in master, community and home TV systems. 25 db min. gain. Both 300 and 75 ohm inputs and outputs. Separate hi and lo band gain controls. Uses frame grid tubes. Max. Output (across 75 ohms): 0.9 volts for less than 1% cross modulation (low band); 0.6 volts for less than 1% cross modulation (high band): 2.5 volts for less than 3% cross modulation (low band); 1.0 volts for less than 3% cross modulation (high band). Net **$49.65**

MODEL DA8-B, 8 OUTLET VHF DISTRIBUTION AMPLIFIER

Ideal for garden apartments, motels, TV showrooms, deluxe home installation and other small TV systems. Provides 8 amplified, isolated TV outlets from one input. Choice of 75 ohm or 300 ohm input and output. 10 db minimum gain on all channels at each outlet. 22 db isolation. Low noise, all triode circuitry. Prevents overload through 10:1 gain control range. Net **$64.55**

HOUSINGS



MODEL MWH-2 WEATHERPROOF HOUSING

Weatherproof enclosure for Master TV equipment. Has perforated mounting surface and adjustable support brackets. Front-opening sealed door and sturdy hasp. Irridite-finish, cadmium-plated steel. 18¼"x14"x6".
Net **$33.70**

MODEL MRH-A WEATHERPROOF & RADIATION-PROOF HOUSING

Same as MWH-2 except is also radiation-proof.
Net **$42.20**

MODEL BH-1 INDOOR BREEZEWAY HOUSING

Fully ventilated. Perforated mounting surface. Keyed slots for vertical or horizontal mounting. Provision for locking. 20"x27"x10½".
Net **$36.60**

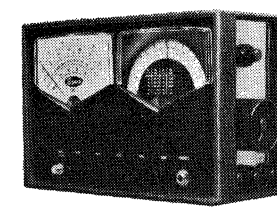
INSTRUMENTS

MODEL 4102 RF SWITCHER (DC to 900 MC)

Permits two signal tracings to be simultaneously displayed on an oscilloscope, either superimposed or alternatively at the rate of 30 cps. Also permits either tracing to be seen independently for making direct, immediate comparisons between input and output voltages of any circuit under test; for precisely measuring VSWR, amplifier gain or attenuation; and other applications involving equipment performance evaluation against given standards. Provision for 360° phase adjustments. Net **$215.00**

MODEL FSP 3B TRANSISTOR FIELD STRENGTH WATTMETER

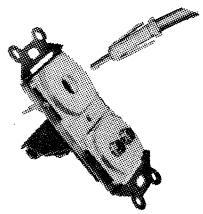
Portable — weight 10 lbs. Rechargeable, battery-powered. Frequency: 52-220 mc in one range; Sensitivity: 5 microvolts minimum readable signal and 60 microvolts full scale; Bandwith: 3 db points, 0.5 mc. Percentage Modulation Ranges: 0 to 5% and 0 to 50%. Measurement Range: 10.0 microvolts to 3 volts in 18 ranges 0.25 micro-microwatts to 10 watts in 10 ranges. Input impedance 75 ohm unbalanced and 300 ohm balanced.
Net **$440.75**



BLONDER-TONGUE

SPLITTERS, TAPOFFS, FEED-THRUS, BALUNS, CONNECTORS

VERSA-TAPS, FLUSH-MOUNTED MATV OUTLETS



Use separate cover plates so that Versa-Taps can be installed and system checked out before rooms are painted — at the same time electrical outlets are installed.

- Can be covered with any standard AC well-plates to eliminate problems of matching decor.
- Wide variety available for VHF, FM or UHF, plus any combination.
- All Versa-Taps available with 23 db, 17 db or 12 db isolation.

MODEL	DESCRIPTION	PRICE
V-1PFT	75 ohm Feed Thru	$1.70
V-1SMT	Matching Transformer	3.10
V-1S12-X	300 ohm output 12db Tapoff	2.00
V-1S17-X	300 ohm output 17db Tapoff	2.00
V-1S23-X	300 ohm output 23db Tapoff	2.00
V-1P12	75 ohm output 12db Tapoff	2.15
V-1P17	75 ohm output 17db Tapoff	2.15
V-1P23	75 ohm output 23db Tapoff	2.15
V-1M12	75 ohm output 12 db Tapoff	2.65
V-1M17	75 ohm output 17db Tapoff	2.65
V-1M23	75 ohm output 23db Tapoff	2.65
V-2P12	75 ohm, two 12 db outputs Tapoff	3.15
V-2P17	75 ohm, two 17 db outputs Tapoff	3.15
V-2P23	75 ohm, two 23 db outputs Tapoff	3.15
V-1U12	75 ohm, output 12 db Tapoff	2.50
V-1U17	75 ohm, output 17db Tapoff	2.50
V-1U23	75 ohm, output 23 db Tapoff	2.50
V-2U12	Two 75 ohm outputs, 12 db Tapoff	3.70
V-2U17	Two 75 ohm outputs, 17 db Tapoff	3.70
V-2U23	Two 75 ohm outputs, 23db Tapoff	3.70
V-3156-12	27db FM (300 ohm) with 12db TV (75 ohm) Tapoff	3.30
V-3156-17	27db FM (300 ohm) with 17db TV (75 ohm) Tapoff	3.30
V-3156-23	27db FM (300 ohm) with 23db TV (75 ohm) Tapoff	3.30

S = 300 ohm stripless screws (no mating connector needed)
P = Solderless autoplug (mating plug supplied)
M = Benconector (mating plug M-73 supplied)
U = UHF connector (order mating plug separately)

INDOOR TAPOFFS

MODEL TF-731B. Flush mounted. Bridge input connector. One output stripless screws output 17 db isolation. Net **$2.00**
MODEL TF-771B. Flush mounted. Stripless bridge input connector. (1) 75 ohm output with QD connectors. 17 db isolation. Net **$2.55**
MODEL TS-731B. Surface mounted. QD input connector. One 300 ohm outlet wiht stripless screws. 17 db isolation. Net **$2.75**
MODEL TS-771B. Surface mounted. QD input connector. One 75 ohm output with QD connectors. 17 db isolation. Net **$2.70**
MODEL TO2-75. Surface mounted. QD input connector. Two auto type output connectors. 17 db isolation. Net **$4.80**
MODEL TO2-300. Surface mounted. Bridge type input connector. Two 300 ohm outputs with stripless screws. 17 db isolation. Net **$4.80**

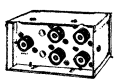
OUTDOOR TAPOFFS

MODEL MT-11. Outdoor tapoff. Spliceless. One 75 ohm tapoff from RG-11/U cable. Available with 12, 17 or 23 db isolation loss. Net **$4.50**

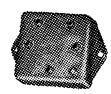
FEED-THRU OUTLETS

MODEL TF-771. Flush-mounted, feed-thru wall plate. Input and output both 75 ohms. Net **$1.95**
MODEL TF-331. Flush-mounted feed-thru wall plate. Input and output both 300 ohms. Net **$1.30**

SPLITTERS

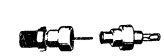


MODEL TS-772. Indoor surface mounted 2-way Hybrid Splitter. Splits or combines two 75 ohm cables. QD connectors. Net $3.55



MODEL TS-774. Indoor surface mounted 4-way splitter. Splits four 75 ohm cables. QD connectors. Net **$5.00**

*TERMINAL CONNECTORS



75 OHM QD (SOLDERLESS)

300 OHM STRIPLESS PLUG

300 OHM STRIPLESS SCREWS

75 OHM STRIPLESS BRIDGE

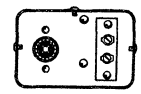
MODEL S-1. Rotary coax Cutter and Stripper. Net **$2.50**

MODEL CR-1. Crimping tool and cutting pliers for QD connectors. Net **$10.50**

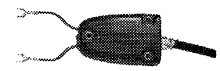
CABLE CONNECTORS

P-11S	"UHF" type solderless male plug for RG-11/U cable.	Net	$1.10
P-59T	"UHF" type solderless male plug for RG-59/U cable.	Net	1.10
MC	"UHF" type cable connector. Connects two male plugs or one plug and an MPT-75 terminator.	Net	1.65
CL-1111	Couples two RG-11/U cables together.	Net	1.90
CL-1159	Couples RG-11/U cable to RG-59/U cable.	Net	1.90
CL-5959	Couples two RG-59/U cables together.	Net	1.90
AC-1000	Feed-thru bushing. Use with CL-5959, CL-1111, CL-1159.	Net	2.40
AD-1	Adapts Q.D. to UHF SO-239 connectors.	Net	2.55
AD-2	Benconector to SO-239 adaptor.	Net	3.85
P-75S	Male solderless auto type plug.	Net	.42
POU-59	Push-on UHF plug for RG-59/u.	Net	2.25
POB-59	Push-on Benconector plug for RG-59/u.	Net	1.45

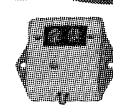
MATCHING TRANSFORMERS



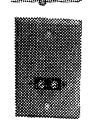
MBb
Outdoor balun matches 75 ohms to 300 ohms or vice versa. Net **$6.15**



CABLEMATCH
Indoor. 75 ohm to 300 ohm. VHF and FM high impact plastic eliminates grounding problem with 'hot chassis' sets. Solderless AUTOPLUG for coax connection. Net **$1.90**



TS-731
Indoor, surface mounted. Matches 75 ohms to 300 ohms or vice versa. Net **$2.65**



TF-731
Indoor, flush mounted. Matches 75 ohms to 300 ohms or vice versa. Net **$2.85**

75 OHM TRAPS & ATTENUATORS

MODEL MWT-2 LO-BAND/FM TRAP. Can be tuned to attenuate any frequency from 54 thru 180 mc. Less than 0.25 db loss. Net **$41.25**
MODEL MWT-3 HI-BAND TRAP. Can be tuned to attenuate any frequency from 135 thru 216 mc. Less than 0.25 db loss. Net **$42.25**
MODEL SA-3 VARIABLE ATTENUATOR. 0 to 38 db. Lab. accuracy. Steps of 6 db, 12 db and 20 db. 75 ohm input and output. QD. connectors. Net **$12.00**
MODEL SA-7 VARIABLE ATTENUATOR. 0 to 62 db in steps of 1 db. Lab accuracy. 75 ohm input and output. "UHF" SO-239 type connectors. Net **$22.05**

Net
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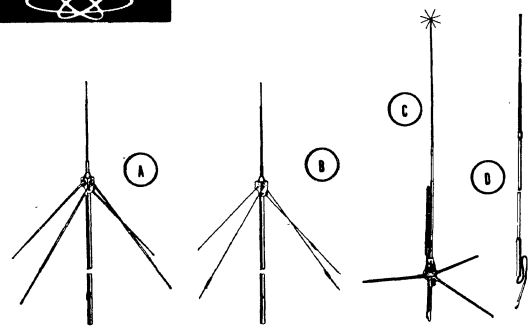
GC ELECTRONICS

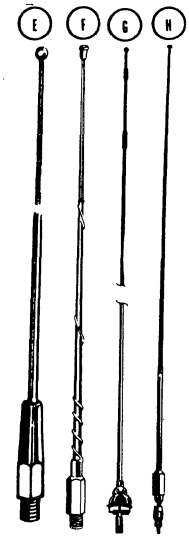
CITIZENS BAND ANTENNAS and ACCESSORIES



(A) GROUND PLANE ANTENNA KIT ROD RADIAL TYPE—Complete Base Station Antenna, pre-assembled and including mast, cable and all hardware. No guy wires. Radial elements are durable aluminum tubing. For use with chimney, wall or tripod mount.
Cat. No. 29-740 Net **$25.50**

(B) GROUND PLANE ANTENNA KIT RADIAL WIRE TYPE—Base station antenna kit—including mast, co-ax cable and all hardware. Most parts are pre-assembled average installation time is ½ hour. 4 guy wires act as "ground plane."
Cat. No. 29-730 Net **$15.90**

(C) COLINEAR GAIN GROUND PLANE ANTENNA—3.4 Db Gain: Doubles effective radiated power of your Citizens Band transceiver in all directions . . . achieves gain through concentration of power at lower angles to the horizon, both receiving or transmitting.
Cat. No. 29-748 Net **$29.97**



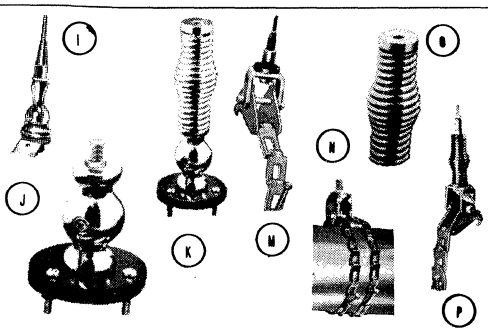
(E) 102" STAINLESS STEEL TAPERED WHIP—High-impact, flexible whip made of selected alloy. Standard threated fitting used with body mount or bumper mount.
Cat. No. 29-700 Net **$6.90**

100" STAINLESS STEEL TAPERED WHIP—Same as 102" Whip #29-700, but designed for use with flexing spring type body mount or bumper mount.
Cat. No. 29-702 Net **$6.90**

(F) "TEL-COIL" WHIP (Pat. Pend)—48" tapered fibre glass whip, "loaded" type. Step-taper wound helical conductor is superior to other "short" Whips which use base or center loading coils. Standard threaded fitting for any body or bumper mount, truck lid mount.
Cat. No. 29-710 Net **$7.20**

(G) TOP LOADED WHIP STAINLESS STEEL—Utilizes top loading to raise radiating portion of antenna to highest possible point. Raises radiation resistance to 52 ohms for perfect match to coax cable. Improved matching, increased effective height of radiating portion. Single hole, top-loading body mount and coaxial receptacle.
Cat. No. 29-704 Net **$8.90**

(H) CITIZENS WHIP—Chrome-plated whip designed for transceiver mounting. High efficiency base loading coil completely enclosed in polypropylene plastic. With PL-259 connector.
Cat. No. 29-708 Net **$5.97**



(I) TRUNK LID MOUNT—Unique mount requiring no outside holes on car. Designed specifically for "Telcoil" 29-710 antenna, but may be used with other short "whips." Cat. No. 29-716 Net **$3.30**

(J) BODY MOUNT—Heavy-duty, chrome plated body mount fastens to side, cowl, or fender. Ball swivel provides all angle adjustment, from vertical to horizontal.
Cat. No. 29-718 Net **$4.80**

(K) BODY MOUNT—Same as Body Mount #29-718 except this model is supplied with flexing spring #29-276. Cat. No. 29-720 Net **$8.40**

(M) BUMPER MOUNT—Durable, chrome plated chain type bumper adjusts to most bumpers from sports car to truck. Cat. No. 29-722 Net **$7.95**

(N) BUMPER MOUNT—Double chain mount for greater stability.
Cat. No. 29-723 Net **$14.20**

(O) FLEXING ANTENNA SPRING—Tapered, heavy-duty, chrome plated steel spring built-in flexible center conducter. Cat. No. 29-726 Net **$3.90**

(P) BUMPER MOUNT—Same as Bumper Mount #29-722 except this model includes flexing spring #29-726. Cat. No. 29-724 Net **$11.85**

CABLE ASSEMBLIES — Made of RG 58/U cable, terminated on one end with PL 259 plug, other end stripped and terminated with lugs.

Cat. No.	Length	Net
29-760	6 ft.	**$2.91**
29-762	10 ft.	**3.21**
29-764	15 ft.	**3.57**

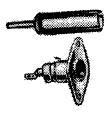
CALL LETTERS — Metal foil, pressure sensitive labels to mark mobile station with FCC call letters. Set of 78 numerals plus two "W"s Characters ¾" high.

Cat. No.	Descrip. Per Set	Net
29-776	Gold Letters on White	**$1.20**
29-778	Silver Letters on Black	**1.20**

DIS-CON-NECT—Remove mobile whip antennas in two seconds—without tools. Incorporates bayonet lock device . . . made of stainless steel.
Cat. No. 29-772 Net **$2.97**

INSULATOR REPLACEMENT—Replacement insulator for Ground Plane Antennas No. 29-744 and 29-746. Also general purpose insulator.
Cat. No. 29-738 Net **$ .60**

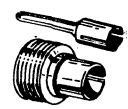
ANTENNA CONNECTOR—For connections on auto antennas and ground lines.
Cat. No. 1747 Net **$ .16**



AUTO ANTENNA PLUG — Shielded positive connector plug, same as used on Motorola and other radios.
Cat. No. 1740 Net **$ .11**

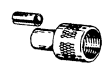
ANTENNA CONNECTOR JACK — Shielded type jack fits No. 1740 plug for auto antenna and phonograph connections.
Cat. No. 1741 Net **$ .15**

GENERATOR NOISE SUPRESSOR — Reduce generator noise when motor is accelerated. For Citizens and three Amateur bands. 3 minutes to install.
Complete with Mounting Bracket and Instructions.
Cat. No. 65-510 Net **$4.95**



ADAPTERS—Adapts a PL 259 plug to a phono pin (RCA type) plug.
Cat. No. 29-784 Net **$ .45**

ADAPTER—Adapts a SO 239 Socket to a standard auto radio (Motorola type) socket.
Cat No. 29-786 Net **$ .45**



ADAPTER—Adapts a standard auto radio (Motorola type) plug to a phono pin (RCA type) plug.
Cat. No. 29-788 Net **$ .24**

GUTTER CLAMP—Holds long whip antennas down when not in use. Fastens easily to drain rails on any car.
Cat. No. 29-770 Net **$ .99**

5 FT. TOWER—Self supporting. Made of electro galvanized tubing. Folds and unfolds like an umbrella.
Cat. No. 9143 Net **$9.54**

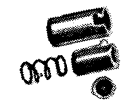
CITIZENS BAND COUPLER—Use any Citizens Band mobile antenna for both Citizens Band and AM broadcast. Complete with SO-239 coaxial chassis receptacle for attachment of Citizens Band antenna. 2-ft. lead and auto plug for connecting broadcast radio and two feet of lead with PL-259 coaxial plug for C-B transceiver.
Cat. No. 29-824 Net **$8.97**

GC HAS A COMPLETE LINE OF C-B CONDENSER AND SUPPRESSORS
Write for Catalog
GC ELECTRONICS, ROCKFORD, ILL.

FUSE CONNECTOR (Regular Type) — Same as used on auto radios and other equipment. 2½" long x ⅜" diam. For ¼" fuses.
Cat. No. 1749 Regular Fuse Connctor Net **$ .18**

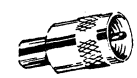
JUMBO FUSE HOLDER—Large size fuse holder, 2¼" long x ½" dia. 14 amps.
Cat. No. 1748 Jumbo Fuse Holder Net **$ .17**

REPLACEMENT PARTS FOR ANTENNA AND FUSE CONNECTORS



Cat. No.		Net
1791	Sleeve of Fuse Connector	**$.04**
1792	Sleeve of Antenna Connector	**.02**
1793	End piece for Antenna and Fuse Connector	**.03**
1796	Spring for Antenna and Fuse Connector	**.01**
1795	Bakelite Bushing	**.02**

PL-259 CONNECTOR — To mate with Adapters 29-780, 29-782, 29-784, 29-786. For use with RG-/U cables 8-9-10-11-12-13-58-63-65.
Cat. No. 29-790 PL-259 Connector Net **$1.05**



RIGHT ANGLE ADAPTER—For attaching Tel Coil Whip #29-710 or similar antenna to base station. Fits all transceivers using #PL 259 plug. Makes base station antenna where it is impractical to install a roof-top antenna or where base station has to be movable.
Cat. No. 29-780 Net **$3.45**

ADAPTER—Adapts a Pl 259 plug to a standard auto radio (Motorola type) plug.
Cat. No. 29-782 Net **$ .45**

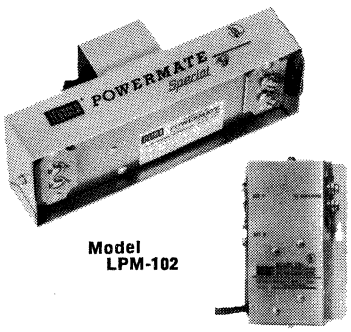
JERROLD® **TV-FM RECEPTION PRODUCTS FOR THE HOME**

POWERMATE SOLID-STATE AMPLIFIERS

NOW A Powermate for every area, every application, and every budget. Get the most from any VHF, UHF, or FM broad-band antenna. See crystal-clear black and white or vivid, glowing color TV. Hear brilliant FM sound.

7 ANTENNA AMPLIFIERS

Powermate outdoor antenna amplifiers each comprise a universal mounting (mast, boom, or flat surface) amplifier and a remote power supply (usually mounted on back of TV set). All models shipped complete with necessary mounting hardware and (if necessary) coaxial cable connectors.



Model LPM-102

NEW MODEL LPM-102 (TV-FM)

Hi-gain (11.5 db av) single-transistor Powermate Special for areas with no overload problems. Net **$19.95.**

MODEL APM-102 (TV-FM)

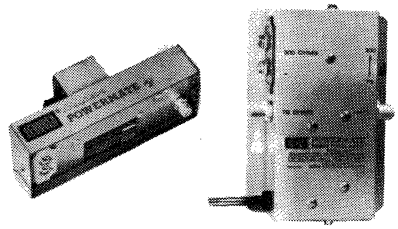
Super-gain, low-noise, twin-transistor Powermate for fringe areas with no overload problems. Net **$26.63.**

MODEL SPM-102 (TV)

Super-overload, hi-gain, lo-noise, twin-transistor Super Powermate for overload problem areas. Net **$29.95.**

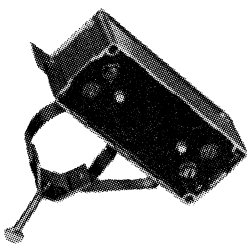
NEW MODEL SPC-103 (TV)

Coaxial cable version of SPM-102. For areas with down-lead pick-up problems. Net **$31.97.**



NEW MODEL SPC-132 (TV)

The "De-Snower." For details of this super-gain Powermate see page 36. Net **$65.50.**

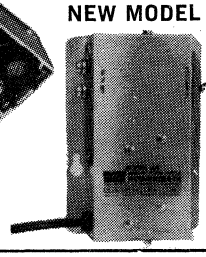


Model ULP-104

NEW MODEL ULP-104 (UHF)

Hi-gain (4.7 db av.), single-transistor, UHF Powermate Special for better viewing on UHF receivers or easier conversion by UHF converters. Net **$23.30.**

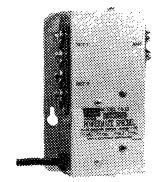
NEW MODEL UPM-104 (UHF)



Super-gain (13.7 db av.), twin-transistor UHF Powermate for fringe and deep-fringe areas. Net **$33.50.**

5 AMPLIFIED COUPLERS

Powermate indoor amplified couplers mount on any flat surface and are equipped with universal (strip or no-strip) crown washer screw terminals for simple connection of 300-ohm twin-lead. Each is attractively housed and is powered from any 117-v ac source.

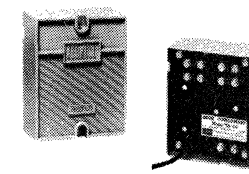


NEW MODEL TA-12 (TV-FM)

This transistorized, amplified, Indoor Powermate Special 2-set coupler provides sufficient gain (3 db av lo-band, 4.5 db av hi-band) to more than adequately supply two sets from a single antenna in areas with no overload problems. Net **$11.95.**

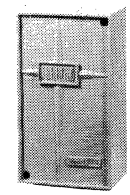
NEW MODEL TA-24 (TV-FM)

A special transistor in this Indoor Powermate provides sufficient gain (3.2 db av lo-band, 4.5 db av hi-band) to adequately supply four sets from a single antenna in areas with no overload problems. If only two or three sets are connected more signal is available at each of two outputs or at one of three outputs. Net **$16.75.**



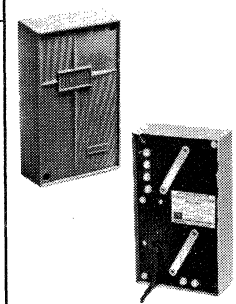
MODEL TA-66 (TV)

The twin-transistor Indoor Super-Powermate 4-set amplified coupler is the hi-gain (7.5 db av. lo-band, 5.6 db av hi-band super overload unit for fringe areas with overload problems. With only 2 or 3 sets connected has same advantages as TA-24. Net **$22.95.**



NEW MODEL TAU-12 (UHF)

First transistorized UHF amplified 2-set coupler, the Indoor Powermate Special provides sufficient gain (2.5 db av.) to more than adequately supply each of two UHF sets from a single antenna. 10 db isolation between outputs. Net **$19.95.**



NEW MODEL SRX (FM)

Jerrold Model SRX Stereo Range Extender (the Indoor Powermate for the FM band) provides excellent gain (15.5 db average) across the entire FM band (88-108 mc) and incorporates an input filter which splits FM from the TV bands to permit using a single broad-band TV antenna for both TV and FM reception. The filter has a maximum loss of only one db across the entire TV band except for channel 6 (82-88 mc). Model SRX should not be used with a TV antenna for color reception on channel 6. The SRX performs exceptionally well with FM antennas (only one output is used). Two outputs are provided so that both an FM and a TV set may be connected to the amplifier in areas where TV channel 6 reception is not disturbed. **Net $19.95.**

TOP-OF-THE-SET UHF CONVERTERS

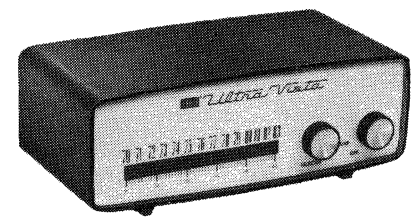
The Super-Vista and Vista convert all UHF channels, 14 to 83, to either of VHF channels 5 or 6. The Ultra-Vista, specially-designed for MPATI and translator areas, converts UHF channels 70 to 83 to either of VHF channels 7 or 8. All units feature nuvistor oscillator for 12-second warm-up and no-drift performance. Decorator-styled to blend with any decor.

SUPER-VISTA MODEL SVC-560 (UHF 14-83 to VHF 5 or 6)

Featuring exceptionally high-gain, low-noise circuitry, Model SVC-560 provides top-flight reception of all uhf channels in all signal areas. Net **$27.50.**

VISTA MODEL VC-100 (UHF 14-83 to VHF 5 or 6)

Economical Model VC-100 gives strong-signal-area residents excellent reception of all uhf channels. Net **$19.95.**



ULTRA-VISTA MODEL UVC-7083 (UHF 70-83 to VHF 7 or 8)

Ultra-sensitive MPATI and translator area converter. Preamplifies UHF signals, converts them, and amplifies VHF output for unparalleled reception in all areas. Net **$31.75.**

Net

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JERROLD® TV-FM RECEPTION PRODUCTS FOR THE HOME

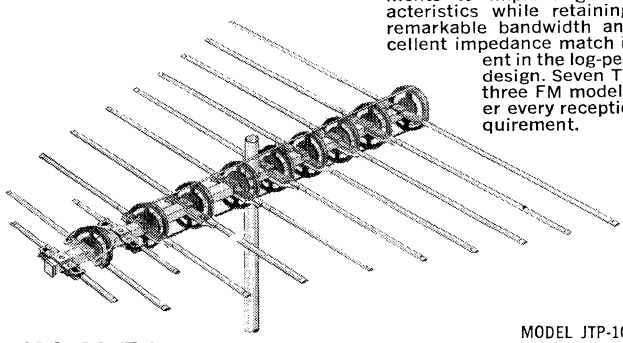
ANTENNAS

A complete line of the world's finest antennas for VHF, UHF, and FM reception in every area.

VHF ANTENNAS

PARALOG (TV)

The unique Paralogs are true broad-band log-periodic antennas with added parasitic elements to improve gain characteristics while retaining the remarkable bandwidth and excellent impedance match inherent in the log-periodic design. Seven TV and three FM models cover every reception requirement.



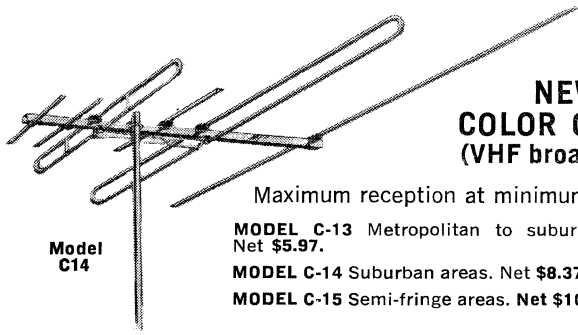
MODEL JTP-100

PARALOG (TV)

MODEL JTP-40	4 driven and	2 parasitic elements	Net **$11.97**
MODEL JTP-60	6 driven and	2 parasitic elements	Net **$17.97**
MODEL JTP-100	8 driven and	3 parasitic elements	Net **$23.97**
MODEL JTP-130	10 driven and	4 parasitic elements	Net **$29.97**
MODEL JTP-160	10 driven and	7 parasitic elements	Net **$35.97**
MODEL JTP-190	10 driven and	10 parasitic elements	Net **$41.97**
MODEL JTP 220	10 driven and	13 parasitic elements	Net **$47.97**

PARALOG (FM)

MODEL FMP-8	for fringe areas.	Net **$17.97**
MODEL FMP-10	for deep-fringe areas.	Net **$23.97**
MODEL FMP-16	for extreme fringe areas.	Net **$35.97**



Model C14

NEW COLOR GUARD (VHF broad-band)

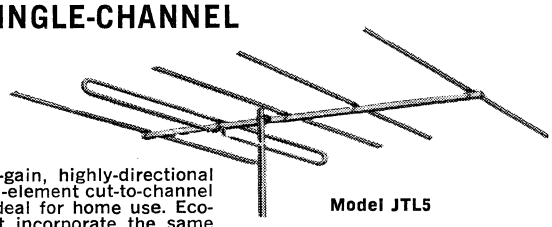
Maximum reception at minimum price.

MODEL C-13 Metropolitan to suburban areas. Net **$5.97.**

MODEL C-14 Suburban areas. Net **$8.37.**

MODEL C-15 Semi-fringe areas. **Net $10.17.**

NEW SINGLE-CHANNEL YAGIS



Model JTL5

These high-gain, highly-directional five and ten-element cut-to-channel yagis are ideal for home use. Economical yet incorporate the same care in construction and the same quality materials used in all Jerrold-Taco antennas.

LOW TV CHANNELS

MODEL JTL5-2 Net **$7.70** MODEL JTL5-4 Net **$6.30**
MODEL JTL5-3 Net **$6.57** MODEL JTL5-5 Net **$5.97**
MODEL JTL5-6 Net **$5.83**

HIGH TV CHANNELS

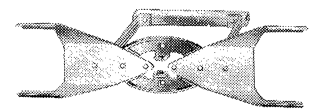
MODEL JTH10—(indicate hi-channel desired 7 thru 13) Net (any one) **$5.61.**

NEW BROAD-BAND YAGIS

MODEL JLB-26 For several low channels in the same direction. Net **$20.25.**
MODEL JHB-713 For several high channels in the same direction. Net **$7.65.**

UHF ANTENNAS
NEW PARACYL (UHF)

The revolutionary Paracyl UHF antennas feature the extended resonance driver, a new concept in driver construction. The only antenna in the industry which operates effectively over the entire UHF band with a single dipole. Five models cover every UHF-TV reception requirement.



EXTENDED RESONANCE DRIVER

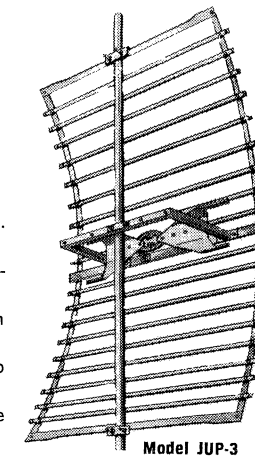
MODEL JUP-1 Local to suburban areas. Net **$4.17.**

MODEL JUP-2 Difficult local to suburban areas. Net **$6.57.**

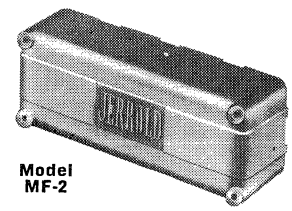
MODEL JUP-3 Suburban to medium fringe areas. Net **$17.97.**

MODEL JUP-4 Difficult suburban to fringe areas. Net **$23.97.**

MODEL JUP-5 Fringe to deep fringe areas. Net **$32.70.**



Model JUP-3



Model MF-2

LOW-LOSS COUPLERS

Permit connection of 2, 3, or 4 TV and/or FM sets to antenna down-load. Feature positive match, low forward loss, and high isolation. Housed in rugged plastic case and equipped with "no-strip" serrated washers.

MODEL MF-2 Two-set coupler for VHF fringe areas. Minimum forward loss. Net **$2.70.**

MODEL MF-4 Four-set coupler for all VHF areas. Design similar to MF-2. Net **$3.45.**

NEW MODEL UF-2 UHF two-set coupler. Feeds two UHF sets from single antenna. Low-loss device with good inter-set isolation. Net **$2.70.**

MODEL 820-2 Economy two-set coupler for metropolitan area. Net **$2.20.**

MODEL 820-3 Economy three-set coupler for metropolitan area. Net **$2.55.**

FILTERS AND TRAPS

NEW MODEL TX-HP
(high-pass filter)

Blocks interference from interfering signals below 50 mc. Net **$3.57.**

MODEL TX-FM
(band-pass filter)

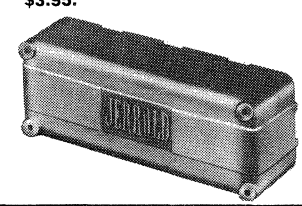
Separates FM and TV signals from a down-lead carrying both and delivers each to respective sets with negligible loss. Net **$3.95.**

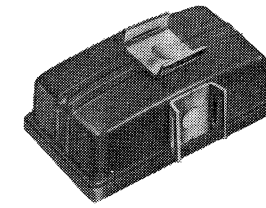
MODEL 1435-*
(Single-channel trap)

Attenuates any single TV channel (2-13) 20 db min. Net **$4.77.**
***Specify channel desired.**

MODEL 1435-FM

Attenuates FM band 20 db min. Net **$4.77.**





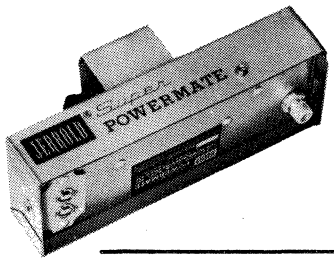
JERROLD®

TV-FM DISTRIBUTION SYSTEMS EQUIPMENT

For Motels, Apartment Houses, Dealer Showrooms, Homes

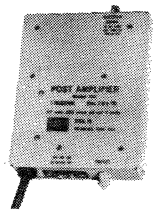
TV AND FM AMPLIFIERS

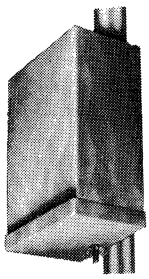
MAST-MOUNTED "DE-SNOWER" AMPLIFIERS



NEW MODEL SPC-132 (TV)

Jerrold Model SPC-132 "De-Snower" is a super hi-gain (29 db average in the hi TV band) preamplifier for use in extreme fringe areas and when high driver gain is needed. Preamplification is supplied by the twin-transistor mast-mounted head, Model SPC. The coaxial down-lead insures against spurious signal or noise pick-up and the input to remote power supply Model 132 is back-matched to prevent any ghosting or smearing of pictures due to mis-match. The signal is again amplified by a three-transistor post amplifier integral with the Model 132 power supply. The most powerful of the famous Powermates. Shipped complete with 3 F-59-A connectors and all necessary mounting hardware. Net **$65.50.**



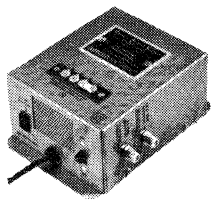


MODEL DSA-* (* = ANY SINGLE TV CHANNEL)

This single-channel TV amplifier features 28 db gain and ±¼ db max. response flatness for any single TV channel. Provides a choice of 75 or 300 ohm antenna inputs. Amplifier output is 75 ohms and the remote power supply Model 405-P provides either 75 or 300 ohm output. Net **$65.67.**

MODEL DSA-FM (FM ONLY)

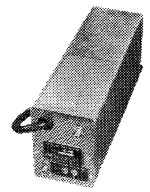
Provides 25 db min. gain for entire FM band. Response flatness ±½ db. max. Otherwise similar to DSA-*. Net **$65.67.**

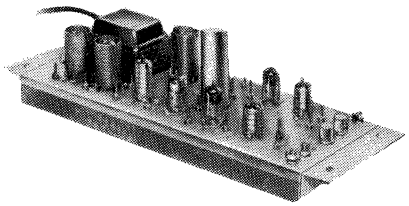


INDOOR "DE-SNOWER" AMPLIFIERS

MODELS 406A-* and 406A-FM

Similar electrical specifications to those of Models DSA-* and DSA-FM except that the 406A Models have self-contained power supplies. Plug into any 115v ac source. Net (either) **$46.17.**



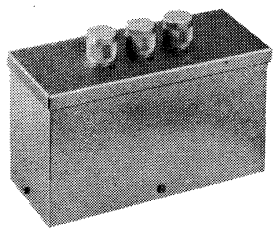


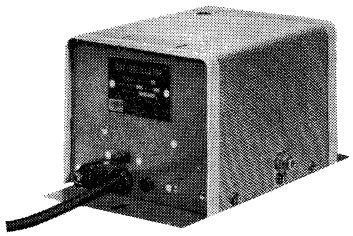
BROAD-BAND AMPLIFIERS

MODEL 2880 (TV-FM)

One full volt output per channel (highest in the industry for broad-band amplifiers) makes Model 2880 the ideal amplifier for a large system. Other features include 41 db min. gain lo-band, 44 db min. hi-band, plug-in cable equalization, and dual manual gain control with a 14 db range. Net **$225.75.**

NEW UHF TO VHF CONVERTERS



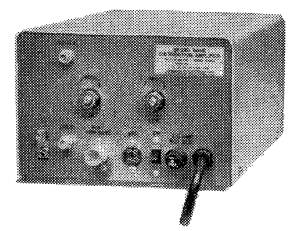


MODEL U4V

Better Fringe-Area Reception—Features a mixer head (Model 454T) incorporating a solid-state VHF amplifier installed right at the UHF antenna where signal-to-noise ratio is optimum. The unit provides a conversion gain (7 db min. low-band VHF, 5 db min. hi-band VHF) and an excellent noise figure (10 db typical, 14 db max). The oscillator-power supply (Model 463) may be conveniently mounted on a shelf or wall indoors at a distance of up to 100 feet from the head. Oscillator signals and dc power are carried via one coaxial cable up to the head and amplified VHF signals are carried via another coaxial cable down to the power supply. Model U4V will convert any UHF channel to any VHF channel. Order by specifying UHF channel to be converted to a specific VHF channel. Net **$135.00.**

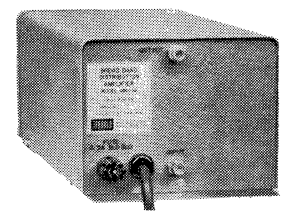
MODEL U3V

Better Local Area Reception—Features a mixer head (Model 454) similar to that used with U4V but without solid-state amplifier. The remote oscillator-power supply (Model 463) is the same as that used with the U4V. The conversion loss is low (9 db typical, 12 db max.) and the noise figure depends on the noise figure of the following VHF amplifier. Net **$105.00.**



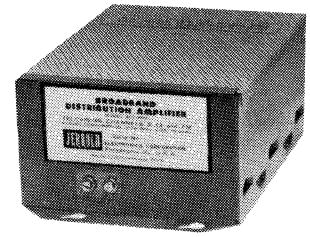
MODEL 2300A (TV-FM)

The amplifier for medium systems featuring excellent overload capability, 0.3 volts output, 40 db gain (hi-band), plug-in cable equalization, and a dual manual gain control with 14 db range. Net **$113.08.**



MODEL ABD-1A (TV-FM)

The small system amplifier which accommodates the new 8-way splitter Model G-1518. 0.3v output capability and 22 db gain (lo-band). Net **$68.95.**



MODEL ACL-200 (TV-FM)

Ideal for dealer showrooms and deluxe home installations, Model ACL-200 combines high-gain (20 db lo-band) and high overload capability with an excellent noise figure. 75 or 300 ohm output selected by switch. Net **$40.50.**

Net

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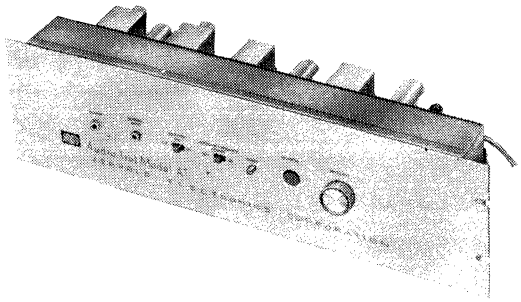
JERROLD®

AM/FM SOUND INSERTER FOR TV SYSTEMS

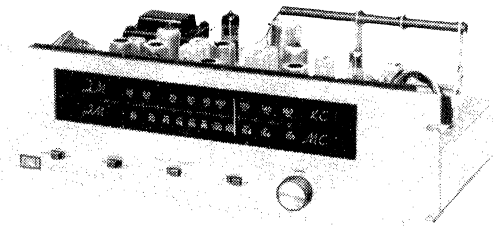


AUDIO-TROL Model AT-*

Jerrold's latest audio modulation equipment Model AT-* uses the unused TV channels to transport music, voice, radio, etc. to every receiver in a TV distribution system. The audio source may be an FM tuner, an AM radio, records, tape or microphone. Any commercial TV receiver can be used to reproduce the audio program through the speaker. Simply installed at the head-end, there is no need for additional equipment or alterations in any room. Model AT-* presents a unique method to add audio to an existing or planned TV distribution system in Hotels, Hospitals, Schools and Apartment Houses. Net **$204.75.**

*Order by channel number.

AM/FM TUNER MODEL AFT-300



A highly selective and sensitive, drift-free tuner for converting any AM or FM broadcast signal into an audio source for Jerrold's "AUDIO-TROL" Model AT-*.

While absolutely independent in its function, Model AFT-300 is the perfect companion piece to Model AT-* and can be incorporated together with the Audio-Trol in a single cabinet, or can be rack-mounted separately. Net **$139.73.**

ANTENNAS—J55/105 - SERIES

These 75-ohm heavy-duty VHF and FM antennas are built to last as long as the systems fed by them. Primarily for large systems in difficult reception areas, these antennas are highly-directional and pull in the hard to get signals.

ORDERING INFORMATION

CUT-TO-CHANNEL MODELS

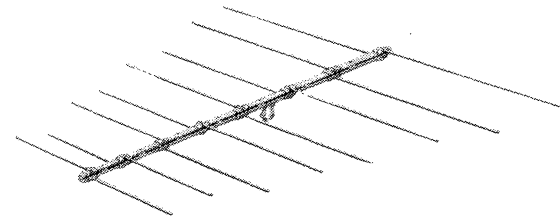
Channels 2 thru 13 and FM. Order J55—(specify lo-channel) for lo-band and J105 — (specify hi-channel) for hi band or J55-FM for the FM band. Net (any one) **$37.50.**

BROAD-BAND MODELS

Lo-Band J55-Lo.
Net **$74.25.**
Hi-Band J105-Hi.
Net **$74.25.**

Average Shipping Weight
Cut-to-Channel Models: 10 lbs.
Broad-Band Models: 14½ lbs.

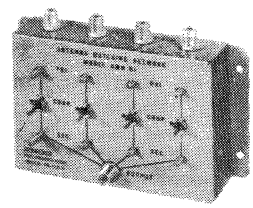
Stacking kits for multiple arrays of cut-to-channel models are available:
For a 2-bay vertical array order Model JSS1 and specify channel. Net **$17.97.**
For a 2-bay horizontal array order Model JSS2 and specify channel. Net **$17.97.**
For a 4-bay vertical array order Model JSS4 and specify channel. Net **$53.91.**
For a quad-array order Model JSS3 and specify channel. Net **$53.91.**



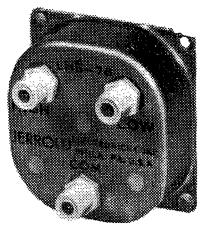
ANTENNA MIXING/SPLITTING NETWORKS

75-OHM VHF

MODELS AMN-HI and AMN-LO



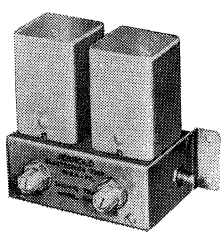
Tuneable splitting or mixing networks for hi and lo TV bands respectively. Used at system head end. AMN-HI splits or mixes up to 4 non-adjacent hi-band channels (7 to 13) with less than 1 db insertion loss. AMN-LO splits or mixes up to 3 non-adjacent lo-band channels (2 to 6) with less than ½ db insertion loss. Net (either) **$18.15.**



MODEL LHS-76

Splits or mixes TV hi and lo-bands. Less than 0.6 db insertion loss. VSWR less than 1.2:1. Rejection greater than 30 db on either side of cross-over (140 mc). Net **$14.50.**

75-OHM VHF TRAPS



MODEL TLB (59.75-83.75 mc), TFM (88-108 mc), and THB (179.75-211.25 mc)

Each trap consists of two tunable L-C circuits in a modified bridged-tee network. Tuning is by Teflon-dielectric trimmers with screwdriver adjustment. With both circuits tuned to an interfering signal, rejection is 40 db minimum with insertion loss only 1 db at 1 mc off the interfering frequency. Complete with two F-59 connectors for RG-59/U cable. Net (any one) **$38.55.**

300-OHM VHF

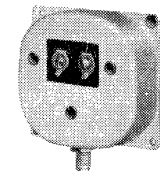
MODELS TX-HP, TX-FM, 1435-*, and 1435-FM

For details see page 35.

MODEL 1460A (UHF)

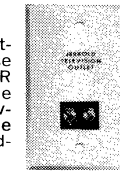
Mixes or splits UHF/VHF antennas. Net **$2.46.**

MATCHING TRANSFORMERS — VHF



MODEL T-732

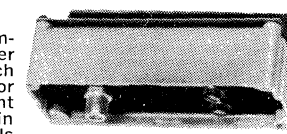
Surface mounting. Flat response 50-250 mc. VSWR 1.26. Isolates line from ac-dc receivers. C-52 male connector included. Net **$3.60.**



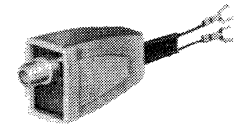
MODEL T-373

Flush Mounting version of T-732. Net **$3.60.**

NEW MODEL TO-374A

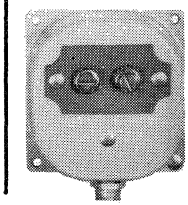


New Model TO-374A is an impedance matching transformer (300 ohms to 75 ohms) which by-passes low-frequency ac or dc current. Allows replacement of twin-lead with coaxial lead-in to both preserve color signals and prevent reception problems caused by spurious signal or noise pick-up. For antennas with POWERMATE antenna amplifiers, two TO-374A units are used back-to-back between the amplifier and the remote power supply. For unamplified antennas, a Model T-378 matching transformer can be used in combination with the Model TO-374A. Shipped complete with necessary hardware for mast-mounting, an F-59A connector and a weatherboot. Net **$2.95.**



NEW MODEL T-378

Economical, receiver-mounting matching transformer (300 to 75 ohms) featuring built-in isolation. Shipped complete with F-59A male connector. Net **$1.95.**



UHF MODELS MTU-372 and MTUO-374

Model MTU-372 (indoor) and Model MTUO-374 (outdoor) are newly-designed wideband 300/75 ohm impedance matching units. Response is flat over entire uhf range (470 to 890 mc). Maximum insertion losses from 0.6 db at 470 mc to 1.2 db or less at 890 mc. Shipped with an F-59A connector.

Model MTUO-374 Net **$6.00**
Model MTU-372 Net **$3.60**

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JERROLD®

ACCESSORIES

SOLDERLESS COAXIAL CABLE FITTINGS

G-SERIES

New chassis fittings mate with new connectors for simplest, fastest, most-reliable push-type connection or disconnection of RG-59/U coaxial cable, twin-lead (antenna wire) or 75-ohm terminators.

MODEL G-61
Chassis fitting incorporating the new, positive-grip clutch and a special spring which insures a good ground connection while permitting the quick-disconnect feature. Model G-61 has a threaded shank (identical with that of the popular F-61A) and requires ⅜" mounting hole. Net **$.48.**

MODEL G-59
Male cable connector provides solderless connection to RG-59/U cable. Features built-on ferrule. Pushes on or pulls off new G-61 chassis fitting for firm, reliable connections or rapid disconnections. Net **$.48.**

MODEL G-300
New 75-300 ohm adapter combines new G-59 type push-on fitting with new "no-strip" crown washer terminal to provide simple, quick connection or disconnection of 300 ohm twin-lead to G-61 chassis fitting. Net **$.60.**

MODEL TR-75G
75-ohm terminating resistor for G-61 or G-62 chassis fittings. Net **$.90.**

F-SERIES

Can be permanently installed on all tyes of RG-59/U, RG-6/U and RG-11/U cables with simple crimping tools. Carefully machined of brass. All exposed surfaces heavily silver plated. Accurately matched to 75 ohms with a VSWR less than 1.05:1 up to 200 mc. "F" connectors can be wrench tightened and all sizes will adapt to each other.

MODEL F-59
Male Cable Connector—For RG-59-type cables. Mates with F-61, F-81, A-61, AF-101 and AF-201. With separate ferrule. Net **$.48.**

MODEL F-59A
Male Cable Connector—Same as F-59 with attached ferrule. Net **$.48.**

MODEL F-56
Male Cable Connector—For RG-6-type cables. Mates with F-61A, F-81, A-61, AF-101 and AF-201. Net **$.62.**

MODEL AF-101
Adapta-Fit Male Connector—For RG-11/U type cables. Mates with F-81, F-61A, and A-61. Requires Crimping Tool PL-602. Net **$1.26.**

MODEL AF-201
Same as AF-101, but for RG-11 Poly Foam Cables. Net **$1.26.**

MODEL F-61A
Female Chassis Fitting—Direct replacement for F-61. Incorporates new clutch collet. Net **$.55.**

MODEL F-81
Female Coupling—Accepts F-59 or F-56. Mounts in ⅜" diameter panel hole for use as feed-thru. Net **$.75.**

MODEL F-71
Male Coupling Adapter—Mates with F-61A, F-81 or A-61. Net **$.96.**

MODEL TR-72F
Similar to TR-72. Mates with F-61A, F-81 or A-61. Net **$.90.**

MODEL A-61
Adapter—Adapts older type C-61 female fittings to F-59 or F-56 male connectors. Net **$1.25/25.**

C-SERIES

MODEL C-52
Male Connector mates with C-61. For RG-59/U type cables use Crimping Tool PL-601 or PL-602. Net **$.48.**

MODEL C-61
Female Chassis Fitting—Accepts C-52 or A-61. Mounts in 5/16" diameter chassis hole. Net **$.48.**

MODEL C-81
Female Coupling—Accepts two C-52, or A-61. Mounts in ¼" diameter panel hole for feed-thru. Net **$.60.**

MODEL TR-72
Close-tolerance 72 ohm resistor for line or equipment termination. Mates with C-61 or C-81. Net **$.90.**

MODEL TR-72B
Inexpensive 72 ohm terminator for use with B-59 type bushings. Terminates UT-22 or UT-33. Net **$.90.**

FERRULES

For use with Jerrold Solderless Connectors.

1026—For use with RG-6/U type cables. Net **$2.86.** C

1051—For use with RG-59/U type cables. Net **$1.43.** C

1095—For use with RG-11/U type cables. Net **$4.29.** C

TOOLS

PL-601—Crimps type 1051 and 1026 ferrules. For F-59, F-56 and C-52 connectors and B-59 bushings. Net **$4.29.**

PL-602—Crimps all three ferrules—1051, 1026 and 1095. For F-59, C-52, AF-101 and B-59 bushings. Net **$5.39.**

CD-11—Cuts attenuator opening in coax cable for Jerrold pressure taps. Net **$2.16.**

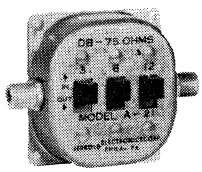
CT-2—Replacement cutting tip for CD-11. Net **$1.10.**

PLUG-IN ATTENUATOR PAD

MODEL PIP—For use with Model 2880 or 2300A low band equalization. These pads are available in attenuation values of 0, 3, 6, 9, 12 and 15 db. Net **$1.35.**

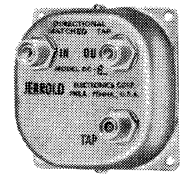
IN-LINE ATTENUATOR

MODEL PDL—Fixed attenuator pad for 75 ohm circuits. Shipped with two F-59 connectors for in-line applications. For chassis mounting, order an F-71 connector. Specify 3, 6, 10 or 20 db. Net **$3.51.**



VARIABLE ATTENUATOR

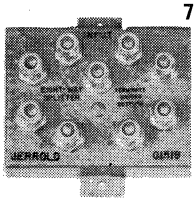
MODEL A-21 Switch type, Variable RF Attenuator providing precise attenuation over the frequency range of 0 to 250 megacycles. The unit is matched to 75 ohms with a VSWR of less than 1.05 and is capable of handling 500 milliwatts of power. Model A-21 attenuates from 0 to 21 db in 3 db steps. Two F-59 connectors are included. Net **$12.87.**



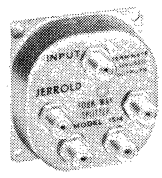
DIRECTIONAL COUPLER

MODEL DC-8 is a back-matched directional-coupler type tap unit with a band pass from 7 mc to 216 mc. The insertion loss is 1.5 db and tap loss is 8 db. Isolation between line and tap outputs is 30 db at channel 6. Excellent 75 ohm match on all three terminals. VSWR is 1.3. Shipped complete with 3 mating F-59A connectors. Shipping weight—6 oz. Net **$8.47.**

75-OHM LINE SPLITTERS



Model G-1518



Model 1514

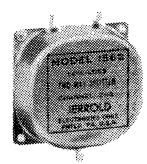
Jerrold line splitters feature hybrid circuitry for excellent 75-ohm impedance match and isolation between outputs. Terminate unused outputs of 1514 with TR-75F and of G-1518 with TR-75G.

8-Way Coaxial Splitter
Model G-1518 Net **$18.58**

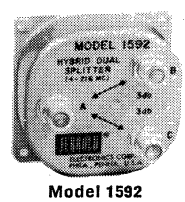
2-Way Splitter
Model 1562 Net **$ 5.20**

4-Way Splitter
Model 1514 Net **$ 9.13**

Hybrid Two-Way Splitter
Model 1592 Net **$ 7.87**



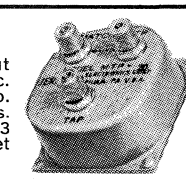
Model 1562



Model 1592

RESISTIVE SPLITTER

MODEL MTP-20 matches the trunk line in and out as well as the tap. The band width is 0-216 mc. The insertion loss is 2 db and tap loss is 20 db. Excellent 75 ohm match on all three terminals. VSWR better than 1.2:1. Shipped complete with 3 F-59A connectors. Shipping weight — 6 oz. Net **$6.50.**



Model	Description	Bandwidth	Maximum Splitting Loss	Isolation Between Outputs	Shipped with Connectors	Shipping Weight
1562	2-way	54-216 mc	3.5 db	15-20 db	Not Required	6 oz.
1592	2-way	7-216 mc	3.5 db	15-20 db	F-59	6 oz.
1514	4-way	24-216 mc	6.5 db	12 db	F-59	7 oz.
G-1518	8-way	54-216 mc	10.0 db	7-17 db	G-59	1½ lbs.

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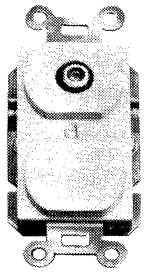
JERROLD®

ULTRA-TAPS

Flush or surface-mounting 300 or 75-ohm output devices incorporating one basic tap-off unit.



BASIC TAP-OFF UNIT FOR TV OR FM

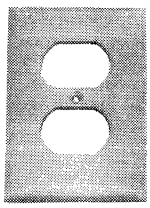
MODEL UT-22 (W, R, or Y)

Provides a choice of three isolation and feed-thru values and is used to tap TV or FM signals from RG-59 type feeder cables. Simple crimp-on bushings and new positive-gripping clutch provide fast solderless connections to the feeder. Model UT-22 can be flush or surface mounted. For flush-mounting the unit fits a standard 2″ x 4″ (or combination) wall box, and new cover plates are available in a variety of types. A special housing is also available for surface mounting. Equipped with a "Gamma" receptacle, the unit accepts the new 75 or 300 ohm push-on plugs. Net **$2.70.**

ISOLATION AND FEED-THRU CHART

	A—Isolation B—Feed-Thru Values in db			
Ch.	MODELS UT-22 and UT-33 COLOR CODE			
		White	Red	Yellow
2	A	35	27	22.5
	B	0.2	0.4	0.2
6	A	34	25	19
	B	0.2	0.4	0.3
7	A	31	21	13
	B	0.25	0.5	0.4
13	A	30	20	11.5
	B	0.25	0.5	1.0

FLUSH COVER PLATES



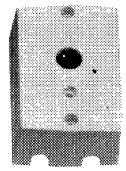
MODEL UT-PI

Single outlet ivory cover plate, sturdy molded plastic. Net **$.21.**

MODEL UT-PS

Single outlet cover plate, brushed stainless steel. Net **$.60.**

SURFACE HOUSING



MODEL UT-SH

Single outlet ivory surface mounting box, sturdy molded plastic.

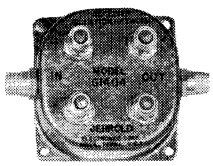
(Not for use with UT-33). Net **$.30.**

SPECIAL WALL TERMINAL UNIT (Without Isolation or Feed-Thru)

MODEL UT-12

A wall terminal unit providing connection to a TV or FM set from a remotely mounted isolation unit such as G-1401, 1401, or PT-1461. Similar to Model UT-22 in all other respects. Net **$2.10.**

ISOLATION NETWORKS



MODEL G-1404

This four-outlet tap-off comprises a network providing high isolation between the four outputs. Equipped with new "Gamma" chassis fittings, the unit permits quick connect and disconnect of coaxial cables to the receivers. Line output and input terminals use F-59 connectors for permanent feed-thru continuity. Two F-59 and four G-59 cable connectors included. Shipping weight 8 oz. Net **10.39.**

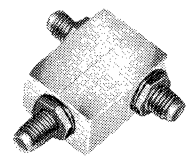
ISOLATION BY CHANNEL

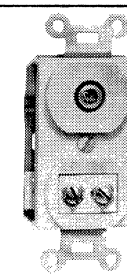
Isolation in db's (col. A). Feed-through loss in db's (col. B).

2		6		7		13	
A	B	A	B	A	B	A	B
22	.25	18	.50	15	1.2	13	1.4

IN-LINE TAP MODEL 1401

Surface mounting, capacitive line tap for RG-59/U type feeders. Color-coded attenuation values permit use with highest gain amplifiers. Specify R, Y or GR. Complete with mounting bracket and three C-52 cable connectors. Terminate the last tap on a feeder line with TR-72 terminator. Net **$3.75.**





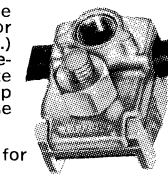
COMBINATION TAP-OFF UNIT FOR TV AND FM

MODEL UT-33

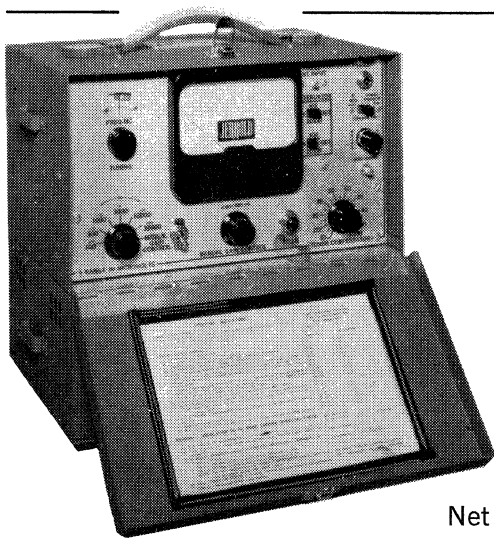
Available in the same isolation and feed-thru values as Model UT-22. Has additional isolation to separate TV and FM signals for simultaneous connection of a TV receiver and an FM receiver and is flush-mounted in the same manner as Model UT-22. For surface mounting a standard surface mounting box is required. Net **$3.30.**

PRESSURE TAPS MODEL PT-1461A

Pressure tap for RG-11/U (single shield) type feeders. Surface mounting. Removable color coded isolation units. (Specify R, Y or GR.) Unique design minimizes shunt capacity. (Requires use of CD-11 Cutting Punch.) Complete with F-59 cable connector. Terminate the last tap on a feeder line with TR-72F terminator. (Use AF-101 cable adapter with F-81.) Net **$3.75.**



MODEL PT-1462A Same as PT-1461A, but for use with double-shielded RG-11/U. Net **$3.75.**



FIELD STRENGTH METER

MODEL 704B

Reads Down to 5 Microvolts and Up to 3 Volts

Recognized throughout the industry as outstandingly accurate and reliable, the Model 704B—Jerrold's Top-of-the-Line in field strength meters—is a calibrated, direct reading instrument for TV and FM measurements. It is a professional quality instrument for making measurements of RF signal strength within the frequency range of 54 to 220 mc. Its specially-designed tuner assures increased selectivity, 75 ohm impedance and uniform gain—as required for highest accuracy. Extremely versatile, its range of uses includes field intensity surveys, orienting antennas, measuring RF attenuation of coaxial cables and balancing TV distribution systems.

Net **$395.00.**

FEATURES

- Reads down to 5 microvolts and up to 3 volts, in 8 ranges.
- Bandwidth is 0.6 mc.
- Separates audio carriers from adjacent video carriers.
- Precise readings in db or microvolts ±0.8 db over entire range.
- Reads percent of amplitude modulation of FM carriers, percent of AM distortion of FM amplifiers and percent of AM of RF generators.
- Lightweight, durable aluminum cabinet with carrying handle.
- Calibration card on hinged door panel for permanent reference.
- Phone output for listening to FM signals.
- Oscilloscope output for examining composite video.

DISTRIBUTOR SALES DIVISION JERROLD ELECTRONICS **PHILADELPHIA 32, PENNA.**

A subsidiary of THE JERROLD CORPORATION

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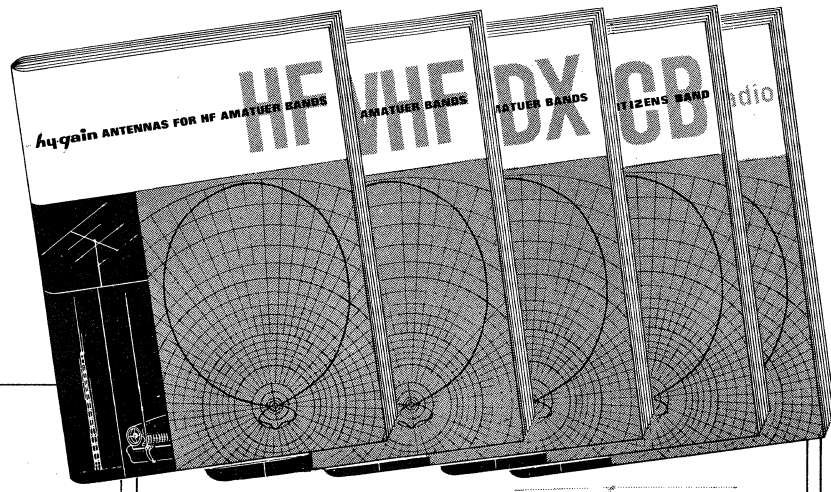
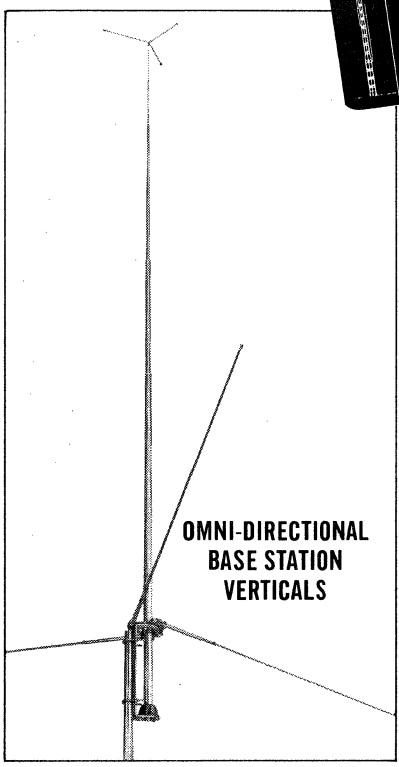
Net

hy-gain

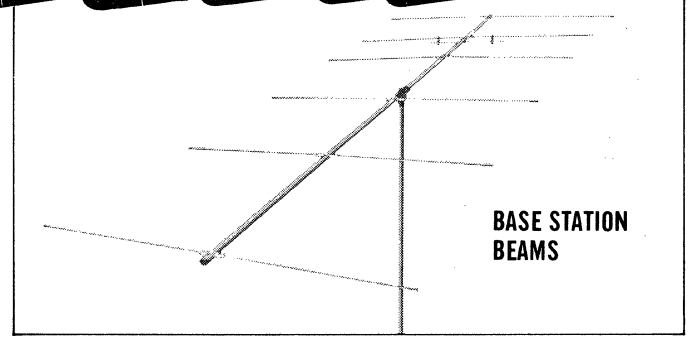
THE ANTENNA MANUFACTURER WITH A RECORD OF "FIRSTS"

OVER 300 MODELS OF COMMUNICATIONS ANTENNAS AND ACCESSORIES FOR 1.5 THRU 1,000 MEGACYCLES

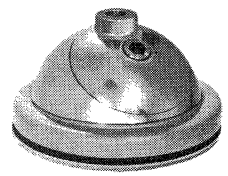




OMNI-DIRECTIONAL BASE STATION VERTICALS

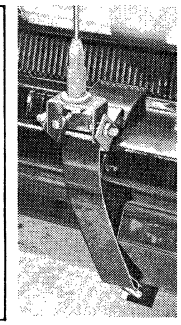


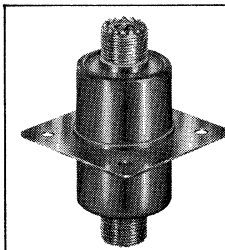
BASE STATION BEAMS



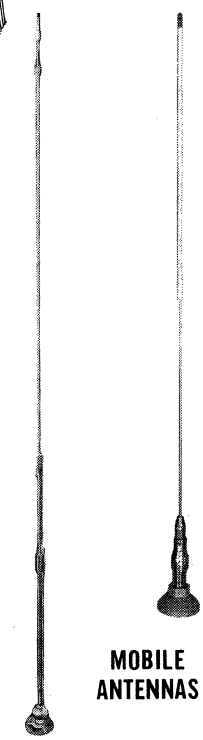
MOBILE BODY MOUNTS

MOBILE BUMPER MOUNTS





LIGHTNING ARRESTER



MOBILE ANTENNAS

CITIZENS BAND: Base Station Beams and Verticals, Mobile Antennas and Accessories

AMATEUR BANDS: Base Station Beams, Verticals, Doublets, Halos – Mobile Antennas ¾, 1¼, 2, 6, 10, 15, 20, 40, 80 and 160 Meters

PROFESSIONAL: Base Station and Mobile Antennas for the 25 to 470 megacycle Business Radio Bands

COMMERCIAL—INDUSTRIAL—MILITARY: Log Periodics, Parasitic Arrays for Discrete Frequencies, Verticals, Vehicular Antennas, Rotators, Direction Indicators, Rotating Mast Assemblies. Research and Development on all Antenna Types – Any Frequency Range.

HY-GAIN ANTENNA PRODUCTS CORPORATION

Lincoln, Nebraska

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JONTZ MFG. CO.

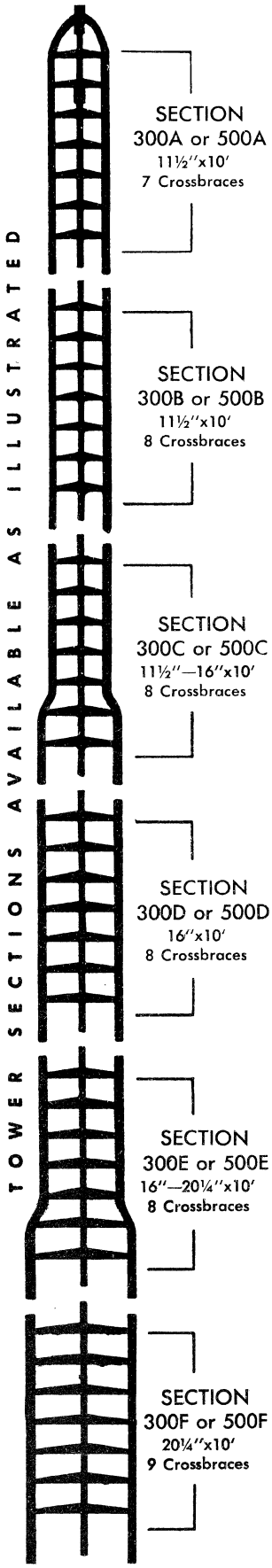
MISHAWAKA, INDIANA

SELF-SUPPORTING

Super Kwick-Climb

TOWERS

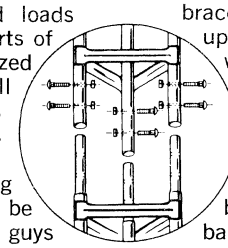
SELF-SUPPORTING UP TO 60 FEET HIGH
HOT DIP GALVANIZED HEAVY DUTY MODELS
ZINC ELECTROPLATED ECONOMY MODELS
NO LOST TOWER FOOTAGE
FAST, EASY SECTIONAL ERECTING



With these two Jontz Tower models you can fill any tower needs . . . from small suburban to heavy-duty commercial installations. Sectional construction and special drive-in bases make erection fast and simple. The Zinc Electroplated Economy Model No. 300 will easily withstand high wind loads normally encountered in most parts of the country. The Hot Dip Galvanized Heavy Duty Model No. 500 will withstand hurricane force winds having been tested at wind loads of 80 mph.

Model No. 500 is self-supporting up to 60 feet high. Model 300 can be extended to 200 ft. by use of guys every 20 feet and Model 500 up to 500 ft. by use of guys every 20 feet. There is no lost tower footage when mounting in either concrete or the special drive-in base. Since the tower is separate from the base, it may be moved to another location without impairing strength.

Both towers are fabricated in 10'0" sections and can be erected in one piece or by sections. Model 300 is made from 1¼"x18 ga. tubular uprights and is zinc electroplated and dipped in clear Butyrate lacquer. The Model 500 is made from 1¼" x 16 ga. tubular uprights and is hot dip galvanized.



New, extra-wide corrugated crossbraces give 75% more weld contact with uprights. Tower sections lock together with 2 self-locking ⅜" bolts in each leg. The splined bolts prevent thread damage and stop hole stretch when tower moves in the wind.

HOW TO ORDER: 1. Specify if to be mounted in concrete or drive-in base. 2. Order by specific sections, starting at the base. See illustration for section numbers.

SHIPPING: For best freight rates, 40 ft. and over towers will be shipped in section combinations permitting 2 telescoped bundles, unless otherwise specified. (Example: a 60 ft. tower will consist of section A, C, D, E, and 2 F's.)

ZINC ELECTROPLATED ECONOMY MODEL NO. 300

Size	Net	Ship Wt.
40'0"	$ 63.95	130 lbs.
50'0"	82.50	172 lbs.
60'0"	99.95	215 lbs.
70'0"	115.95	245 lbs.
80'0"	134.25	292 lbs.

HOT DIP GALVANIZED HEAVY-DUTY MODEL NO. 500

Size	Net	Ship Wt.
40'0"	$ 93.00	160 lbs.
50'0"	117.00	211 lbs.
60'0"	141.00	262 lbs.
70'0"	164.00	302 lbs.
80'0"	188.00	357 lbs.

Add 15 lbs. per Tower for hardware.
Add approximately 3 lbs. per section for galvanized No. 300 Towers.

HEAVY DUTY DRIVE-IN BASE

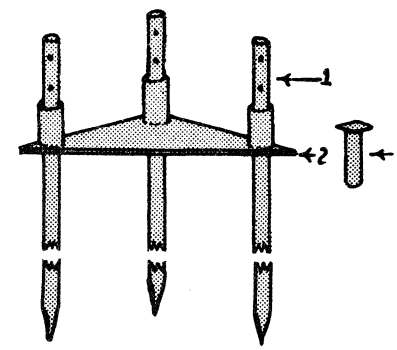
For Jontz self-supporting towers

Specifications:

1—Drive-in legs: 1¼" x 16 gauge x 36"

2—Base plate: 18" triangle x 14 gauge for 40' towers—22" triangle for towers 50' or higher —state tower height

3—Driving cap: 2" x 1¼" to drive individual legs.



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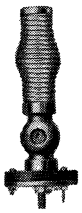
ANTENNAS MOUNTS

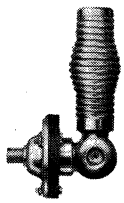
Master Mobile

Master Mobile Mounts
Division of Whitehall Electronics
Los Angeles 16, California

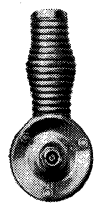
All products are for Universal Use — Mobile, Home, Marine, C.A.P., Civil Defense, Emergency, etc.



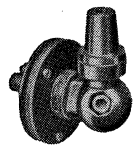
MODEL 232



MODEL 232C (COAXIAL TYPE)
(Coaxial Type Base Mounts Optional)



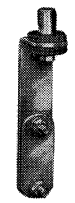
MODEL 232C



MODEL 321C

232 SERIES

MODEL 140

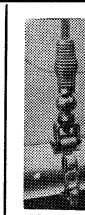


MODEL 142

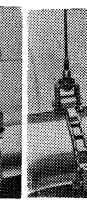
SEPARATE SPRINGS FOR UNIVERSAL MOUNTS

100 SERIES

100W SERIES



No. 444 Universal Mount $17.80



No. 445 Mount $7.95

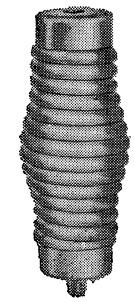
No. 446 Mount $13.45

MOUNT SPECIFICATIONS

(All types are tapped for 3/8" Stud Fitting on Antenna End. Shipping Weight Approx. 3 lbs.)

232	Base Mount—Double Tapered Spring—Swivel Base	$ 8.75
232C	Base Mount—Double Tapered Spring—Swivel Base Coax Conn.	8.75
232SS	Base Mount—Double Tapered Spring—Spec. Stainless	12.95
232SSC	Base Mount—Double Tapered Spring—Spec. Stainless—Coax. Conn.	12.95
232X	Base Mount—Heavy Duty—Double Tapered Spring—Swivel Base	9.85
232XC	Base Mount—Heavy Duty—Double Tapered Spring—Coax. Conn.	9.85
232XSSC	Base Mount—Heavy Duty—Double Tapered Spring— Spec. Stainless—Coax Conn.	14.95
232XSS	Base Mount—Heavy Duty—Double Tapered Spring—Spec. Stainless	14.95
232XX	Base Mount—Extra Heavy Duty Spring	10.85
232XXC	Base Mount—Extra Heavy Duty Spring—Double Tapered Spring—Coax Conn.	10.85
232XXSS	Base Mount—Extra Heavy Duty Spring—Double Tapered—Spec. Stainless	15.95
232XXSSC	Base Mount—Extra Heavy Duty Spring—Double Tapered—Spec. Stainless—Coax Conn.	15.95
321 or 321C	Base Mount—Where no spring desired—with spec. rigid type ball joint	7.95
140	Universal Mount—Double Tapered Spring	6.95
140X	Universal Mount—Heavy Duty—Double Tapered Spring	7.95
140SS	Universal Mount—Special Stainless	9.65
140XSS	Universal Mount—Special Heavy Duty Stainless	10.95
140XX	Universal Mount—Extra Heavy Duty—Double Tapered Spring	8.95
140XXSS	Univresal Mount—Extra Heavy Duty—Stainless Steel	11.95
142	Universal Mount—Less Spring, with Insulators for Direct Mounting by Series 100 Ant. or or 92 Ext. and 106 Antenna	3.95
446SS	Universal Mount—Special Stainless—Chain Mount	14.90
446XSS	Universal Mount—Heavy Duty—Special Stainless—Chain Mount	15.90
446XXSS	Universal Mount—Extra Heavy Duty—Special Stainless—Chain Mount	16.90
446	Universal Mount—Heavy Duty Spring—Chain Mount	13.45
446L	Universal Mount—Double Tapered Spring—Chain Mount	12.45
446XX	Universal Mount—Extra Heavy Duty Doubled Tapered Spring—Chain Mount	14.45
444	Universal Mount—Heavy Duty Spring—Swivel Base—Chain Mount	17.80
444L	Universal Mount—Double Tapered Spring—Swivel Base—Chain Mount	16.70
444XX	Universal Mount—Extra Heavy Duty Spring—Swivel Base—Chain Mount	18.80
444SS	Universal Mount—Special Stainless—Swivel Base—Double Tapered Spring—Chain Mount	20.90
444XSS	Universal Mount—Special Stainless—Heavy Duty—Swivel Base—Chain Mount	22.90
444XXSS	Universal Mount—Extra Heavy Duty—Special Stainless—Swivel Base—Chain Mount	23.90
445	Universal Mount—Threaded, 3/8"-24—Chain Mount	7.95

HEAVY DUTY UNIVERSAL SPRINGS



Heavy duty flexible mounting spring mounts on the base and holds the antenna. Special flexible "give" spring prevents sharp impacts and breakage. Maintains vertical antenna position under normal wind loads.

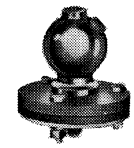
3/8-24 tapped hole for antenna mast. 3/8-24 stud for antenna base. 5" h. Tightening wrenches supplied.

Model MMW-7 ..... **$4.50**
Cad plated with black painted ends. Lockwasher included.

Model MMW-7HC **$5.50**
Heavy Cad plated for extra protection. Lockwasher included.

Model MMW-7SS **$8.95**
Deluxe—Stainless Steel spring high quality appearance. Lockwasher included.

BASE MOUNT



MMW-3 APS

New design incorporating the last word in modern design for strength and service. Easy one-man installation, no special tools needed. Mounts watertight on flat or curved surface. Mounting template provided. 3/8-24 thread mounting hole for whips and antennas.

Model MMW-3AE
High gloss ebony finish **$6.95**

Model MMW-3AP
High gloss polished finish **$7.95**

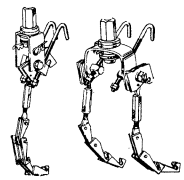
Model MMW-3AES
Ebony finish. St. St. hardware **$8.95**

Model MMW-3APS
Polish finish St. St. hardware **$9.25**

WHIP ANTENNA SPECIFICATIONS

MODEL Overall St. Steel Length	Base Specifications	Net Price
100-60S	60" Threaded 3/8" Stud to fit all Mounts	$4.95
100-72S	72" Threaded 3/8" Stud to fit all Mounts	4.95
100-78S	78" Threaded 3/8" Stud to fit all Mounts	5.00
100-86S	86" Threaded 3/8" Stud to fit all Mounts	5.15
100-90S	90" Threaded 3/8" Stud to fit all Mounts	5.20
100-96S	96" Threaded 3/8" Stud to fit all Mounts	5.25
100-103S	103" Threaded 3/8" Stud to fit all Mounts	6.95
106-60S	Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.15
106-72S	72" Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.15
106-78S	78" Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.20
106-86S	86" Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.35
106-90S	90" Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.40
106-96S	96" Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.50
106-103S	103" Pl. End 1/4" Dia. (Fits Mod. 92 Ext.)	6.45

Comb. 106-96" whip with #92 Ext. (18") gives up to 112" adj. ..... **Net $8.00**



UNIVERSAL MOUNTINGS

Unique shaped links adjustable to fit any width surface. For use with spring and or whip. (3/8"-24 thread). Easily attaches in minutes.

MM530	Deluxe Double Mount Stain. Steel	Net $21.95
MM531	Deluxe Single Mount Stain. Steel	Net 11.95
MM520	Double Mount S-Cad. Plated	Net 7.95
MM519	Single Mount S-Cad. Plated	Net 4.95

SEPARATE SPRINGS FOR BUMPER MOUNTS

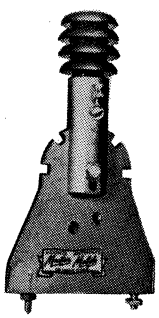
	Net
100 — Regular	$4.50
100-X — Heavy Duty	5.50
100SS — Stainless Steel	6.95
100XSS — Heavy Duty Stainless Steel	7.95
100WX — Heavy Duty w/Male stud	5.50
100XX — Extra Heavy Duty Spring	6.50
100WXX — Extra Heavy Duty Spring — Male Stud on one end	6.50
100XXSS — Extra Heavy Duty Spring — Stainless Steel	8.95

New Model No. 132-J Junior Body Mount — Same design as standard No. 232 Master Mount but smaller size. Built to approved Master spec. for quality, workmanship and finish **$4.17**

Model No. 132-JC — Same as above with Coax Connector ..... **Only $5.17**

New Model No. 140-J Junior Bumper Mount — Same design as our standard No. 140 Master Mount but smaller spring — yet of same high quality construction and finish ..... **Net $4.17**

Coaxial Conversion Kit — No. 118 fits No. 232 and No. 118J fits No. 132J Models. ..... **Net $1.00**



Retractable CB Antenna

CG-275 GUTTER MOUNT

This new precision-built mobile antenna mount enables you to achieve maximum gain and coverage with a car roof level antenna — WITHOUT DRILLING HOLES IN YOUR CAR TOP!

$7.95

NET

POSITIVE LOCK — positively locks antenna in position.
RETRACTABLE — won't dip even at high speed!
ADAPTABLE — attaches easily and quickly to your car's rain gutter. Any standard 3/8" 24-thread whip mounts in just seconds.
RUGGED — steel and aluminum construction, ruggedly built to take a tremendous beating!

TMI

UNIVERSAL MOUNT

For use with any antenna having 3/8" 24-thread. Entire assembly of alloy steel, chrome plated.

$4.45

NET

UNIVERSAL MOUNT MMM-75

For Trunk Lid, Cowl Mounting. Adjustable to fit any curved or flat surface. Special fiberglass insulation. Equipped with coaxial connector.

$7.95

NET

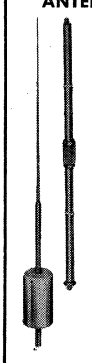
CB MARINE Antenna CBM-16

New top-loaded "Ocean Sentry" design for greater radiation efficiency, less wind resistance, perfect match to transceiver, operation independently of ground. 72" high with 1/2 wave end fed fiberglass antenna with EZ-off quick disconnect. 1.5 db gain. SWR at resonance 1.5:1. 50 ohms input. Complete with cable, mounting and antenna.

$19.95

NET

DARTLINE FOLD-OVER ANTENNA WITH COIL



Power Rating: AM-dc input, 250 watts — SSB dc input, 500 watts.

AM-29: 36" Stain. Steel Laydown Ext. breaks at 18" for fender or deck mount. **$11.95**

AM-35: 48" Stain. Steel Laydown Ext. breaks at 36" for bumper mount. **$14.25**

COIL & WHIP

AM-30	80 Meter	$9.95
AM-31	40 Meter	8.95
AM-32	20 Meter	7.95
AM-33	15 Meter	6.95
AM-34	10 Meter	5.95

Net

© U.C.P., Inc.

ANTENNAS MOUNTS

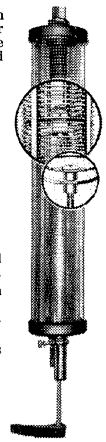
Master Mobile

Master Mobile Mounts
Division of Whitehall Electronics
Los Angeles 16, California

All products are for Universal Use — Mobile, Home, Marine, C.A.P., Civil Defense, Emergency, etc.

HY "Q" construction with wider spacing of turns for high frequency bands. Use as center or base loaded antenna with 60" whip.

No. 750
MASTER DELUXE ALL-BANDER



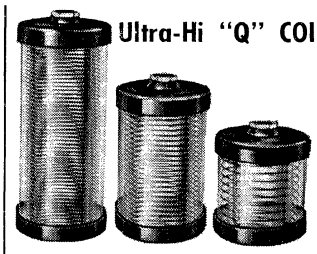
Covers 10 thru 75 and all intermediate frequencies.

Silverplated single turn contact, positive spring. Eccentric cam contact, easy selection of turn.

Automatic lock prevents damage to coil.

Net
$14.95

Ultra-Hi "Q" COILS



FOR 80-40-20 & 15, METERS

After many years of experimentation, here is the coil with the highest "Q" ever obtained. Tested and found to have a "Q" of well over 515. Use with 36" base section, 60" whip.

• **Ruggedized construction • Greater efficiency • Precision made • 2¾" Diameter**

ANY BAND . . . AMATEUR NET EA.
$5.25

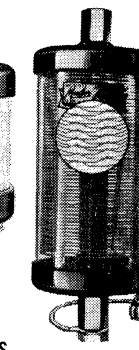
NEW

MULTI-BAND
TRANS. ANTENNA COILS

New Plug-In Coils! Just plug into desired pair of jacks and presto! . . . your coil is ready for operation on the desired band. No switches, no sliding contacts, no loose connections. Built and tested for maximum resonance.

- **Rigidly tested and engineered — found to have a "Q" of 525**
- **Operates into a 25-ohm cable**
- **Positive contact — noisefree, trouble-free operation**
- **Weathersealed**
- **Ruggedized construction**
- **Factory pre-tuned — no adjustment is necessary**
- **Higher efficiency — lower loss**

THE VICTORY
No. 999
10-15-20 METERS ONLY



MODEL SSB 156
75 & 40 METERS ONLY

YOUR CHOICE $14.95

DELUXE ULTRA-HI "Q" COILS

Extremely efficient for SSB operation and with power units.

New design for higher "Q", top efficiency and lighter weight. No arcing with high power transmitters. For use with 3 ft. base section and 60" whip.

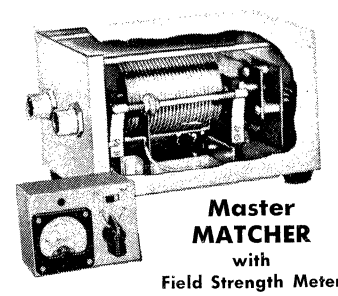
15 meter	$ 6.95	2374 Kc.	$15.95
20 meter	6.95	2738 Kc.	15.95
40 meter	8.95	2768 Kc.	15.95
75/80 meter	9.95	4507.5 Kc.	10.95
160 meter	14.95	4585 Kc.	10.95
2251 Kc.	15.95	4325 Kc.	10.95

ULTRA HY "Q" C.A.P. COILS

			Net
UH	"Q"	2374 KC.	$ 8.95
UH	"Q"	2738 KC.	8.95
UH	"Q"	2768 KC.	8.95
UH	"Q"	4507.5 KC.	7.95
UH	"Q"	4585 KC.	7.95
UH	"Q"	4325 KC.	7.95
UH	"Q"	160 Meters	12.95
UH	"Q"	2251 KC.	12.95

(Additional HY "Q" C.A.P. Coils to be used with HY "Q" C.A.P. Antennas according to frequency desired. These coils are interchangeable. Other freq. coils priced upon request.)

Deluxe UHQ coils are ideal for use with the Master Mobile K-73 500 watt SSB Linear Amplifier or any other high power SSB amplifier.



Master MATCHER
with Field Strength Meter

Automatically tunes Band by remote control

Motor-driven variable inductance controlled by a switch from the operating position. Makes possible tuning the antenna to the exact resonant frequency. QSY in any particular band without moving to adjust antenna loading coil. All guess work is eliminated, and the field strength meter, with automatic panel light indicator, shows when roller is at minimum inductance position. With the Master Matcher maximum efficiency is possible with minimum effort.

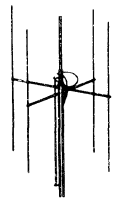
For 6 volts: Model 2495-6
For 12 volts: Model 2495-12
Amateur Net $24.95 Complete

2 METER "J"
Mobile/Fixed
ANTENNA

Provides 2 db. gain over standard co-axial antennas. Vertically polarized. Perfect impedance match for 52 ohm line. Factory-cut balun supplied. Overall height is 86". Ideal antenna for 2-meter mobile or fixed station use.

Model AM-28
Amateur Net
$14.95

"CLOVERLEAF" ANTENNA



Provides 3 db. gain. VSWR less than 1.5:1. Omnidirectional pattern with gain equal to 2 el. beam. Complete balun to match 52 ohm coax. Factory pre-tuned. All aluminum.

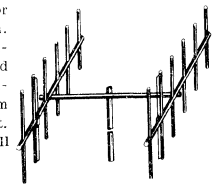
AM-23 .....420-450 mc.
AM-24 .....220-225 mc.
BR-1 .....150-174 mc.
AM-25 .....144-148 mc.

Amateur Net $12.95

Model AM-26—
50-54 mc. $19.95

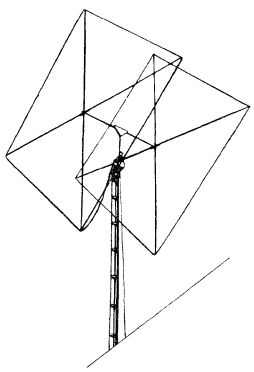
TWIN-SIX 2 METER BEAM

Sturdy, lightweight stacked beam. 12 db. forward gain. 25-30 db. front-to-back ratio. Easy to assemble for horizontal or vertical polarization. Complete with all hardware for stacking and assembly, balun, matching harness for 52 ohm coax, and 3-foot mast. Pre-tuned at factory. All heavy-duty aluminum.



Model AM-5 Amateur Net $16.95

Model AM-4 Six element beam 8.95



The GIANT CUBICAL QUAD
. . . a giant in CB performance!

INCREASES RANGE — The Q-11 was designed specifically for Citizens Band use, and is particularly effective in increasing communications range with the power limitations on this band.

HEAVY DUTY but LIGHT WEIGHT — Beam element clamps are constructed of heavy-duty cad-plated steel treated to resist corrosion while the elements are made of rigid aluminum and fiberglas tubing to give maximum service. Its light weight enables it to be used with most TV-type rotors.

RUGGED — The Quad Antenna is a square loop beam which is light weight and still rugged enough to withstand high winds.

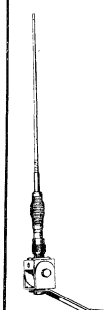
EASILY ASSEMBLED — It can be assembled on the ground and lifted into place, or assembled on the tower.

SPECIFICATIONS: Forward Gain, 8 db; Front to Back, Up to 40 db; Type of Feed, 52 ohm coax; Polarization, Horizontal or Vertical; Longest Element, 9'3"; Boom Length, 65½".

For class D, 27-mc operation
MODEL Q-11 $39.95 Net

AIR SENTRY "SHORTY"

Whip only, 18" —
Overall length, 23"

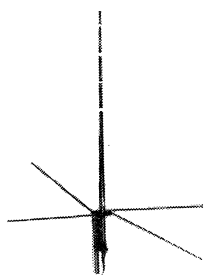


CBM-14

Top loaded fiberglass antenna complete with mount designed especially for CB class D, 27 mc operation.

CB-1	(for passenger cars)	$10.95
CB-3	Spare antenna for CB-1	5.25
CBM-14	(with mount for marine use)	12.40
CBA-15	(with 12 ft. coax cable and mount for aircraft application	8.45
AM-7	2 meter 1½ wave antenna with mount	16.75
AM-10	6 meter shortened ¼ wave antenna with mount	10.95

AM-7, AM-10, CB-1, CBA-15



DYNA-MASTER
DYNAMIC CO-LINEAR

Compare these BASE STATION GROUND PLANE features • Up to 20 db signal to noise improvement • Linear impedance matching insures maximum signal transfer from antenna to receiver without the losses of conventional matching transformer • Completely weather-sealed in epoxy • Lower angle of radiation gives increased range • Built-in lightening protection • On SSB radiated power will be doubled • Antenna is equally effective on upper, lower or double sideband • Terminates in SO-239 connector • Elements are heavy wall aluminum with tightly swedged telescoping sections.

ABR-365	1½ Wave, adjustable, (144-174 mcs), 5.8 db gain	$34.95
AM-106	¾ Wave, (50-54 mcs), 3.7 db gain	34.95
CR-133	¾ Wave, (30-35 mc), 3.7 db gain	34.95
CR-137	¾ Wave, (35-40 mc), 3.7 db gain	34.95
CR-145	¾ Wave, (40-50 mc), 3.7 db gain	34.95
CB-5	¾ Wave, Class D, 27 mc, 3.7 db gain	24.95

AIR-SENTRY
Less than 47" long

Can be mounted on top, fenders or trunk lid. Simple peaking adjustment provided. Omnidirectional in horizontal plane; vertically polarized.

For class D, 27-mc operation in automotive, aircraft, marine applications.

MODEL CBS-311
$5.25
NET

52 ohms
60 watts
RG/58 or equivalent
1.5 mc minimum
1.1 to 1 at resonant frequency

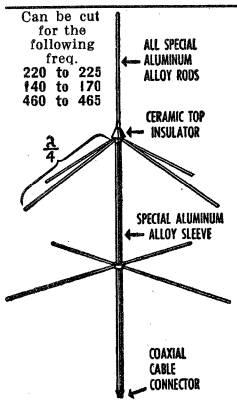
ANTENNAS MOUNTS

Master Mobile

Master Mobile Mounts
Division of Whitehall Electronics
Los Angeles 16, California

All products are for Universal Use — Mobile, Home, Marine, C.A.P., Civil Defense, Emergency, etc.

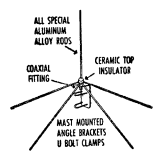
2 METER ANTENNAS — FIXED • MOBILE



GROUND PLANE ANTENNA

Model 300 — Master DeLuxe . . . NEW! . . . brings in that DX. Outperforms any type of vertical dipole. "Drooping" Type Ground Plane plus four straight radials to give a low angle of radiation for general coverage, an almost perfect circle radiation pattern. Ideal for CD and defense nets. Covers complete Amateur and with Broad and char. Matches 52 ohm coax cable through threaded coax fitting at end. Straight radials are adjustable (up or down) to eliminate standing waves on trans. lines. For medium or low-powered trans. Sturdily built of finest alloys to withstand corrosion, high winds and extreme icing. With 36" length of ¾" pipe for mounting purposes.

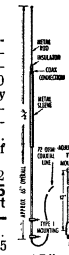
Model 300 Amateur's ..... **Net $12.95**
MB-1 — Mounting Bracket ..... **Net 1.00**



Model GP-4 — Four "Drooping" Radials for perfect match to 52 ohm coax cable. Complete amateur band coverage. Specify other frequencies. Attaches to Mast with U-Bolts. (U-Bolts and Mounting Brackets furnished). Also attachable to side of building. Sturdy, with special alloys, to withstand corrosion and extreme weather.

MODEL GP-4 Amateur's Net $5.95

TWO METER COAX ANTENNAS



No. 214—MASTER DE-LUXE . . . ruggedly constructed, vertically polarized, frequency range 140 to 170 MC. Completely waterproofed. Highly polished chrome enhances appearance of any vehicle. Furnished with 10 ft. of 72 Ohm Coax Cable.

Type 1—On side with 2 brackets furnished. **$15.95**
Type 2 — Master Mount (No. 232X or 140X)—
Mounts sold separately.
Complete $17.45
Adjustable mtg.—adjusts to 17".

2 METER STANDARD MODEL

No. 114 COAX VHF ANTENNA — At a popular price! For OPEN TYPE VEHICLES using 140 MC to 165 MC. Mounts any convenient place with standard Master Mounts. Baked enamel finish. With 10 ft. Coax Cable and 18" Adjustable Section.

Net, Only $9.95

No. 613

No. 613 — NEW IMPROVED MASTER VHF ROOF TOP ANTENNA. This new high performance antenna features an improved type positive-lock coaxial connector. Designed for police, fire, taxi cabs and amateurs using 140 MC to 165 MC. Stainless steel wire with threaded fitting. Easily changed without disturbing mounting. Comes with 10 ft. coax cable ..... **Net $4.95**

No. 113 — ROOF TOP ANTENNA without De Luxe Connections ..... **Net 3.96**
No. 117 — Extra Antenna for No. 113 and No. 114 ..... **Net .97**
No. 116 — Extra Antenna for No. 214 and No. 613 ..... **Net 1.70**

No. 460

with 10' Coax (RG 58/U)

$7.95
465-mc

No. B-20
$2.25

No. CB-19
$5.45
465-mc

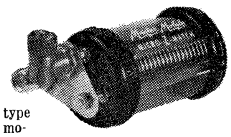
New improved CB-2 Meter antennas for high performance. Stainless steel and chrome plated brass. Self-tapping threads. Easy to install with one 7/16" hole.

MICRO-Z-MATCH

MICROMETER IMPEDANCE MATCHING INDUCTANCE for MOBILE ANTENNAS

- Used on all bands with any type coaxial cable to match any mobile antenna.
- Roller coil construction with rear cap rotating the inductance within the case. 4 microhenries maximum inductance.
- Silver plated coil and roller contacts for low loss.
- Micrometer type calibration permits infinite adjustment and positive resetting.
- Adjustability — Easily adjustable for minimum standing wave ratio (1:1).

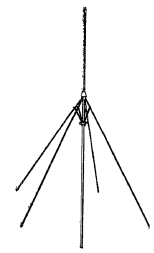
Without coax adapter kit Micro-Z-Match may be connected between antenna connector and ground connection.



No. 925
Complete with Coax Adp. Kit
Net
$9.95

Without coax adapter kit Micro-Z-Match may be connected between antenna connector and ground connection.

GROUND PLANE (Drooping Type) FOR 6 METERS No. MGP-6



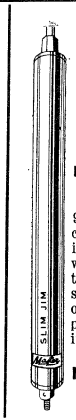
Aluminum alloy tubing, coax cable connector. For medium or low powered trans.

$14.95 NET

NEW SLIM-JIM

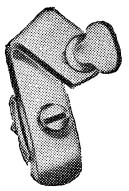
All-Band BASE LOADING Antenna Coil

For 10, 11, 15, 20, 40, 80 Meters.

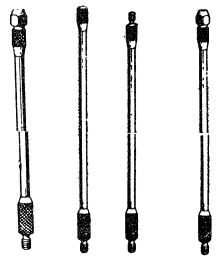


96" S.S. Whip included. Positive locking action whip provides accurate and tight contact wherever set. Just slide in or out to final loading point and lock whip into position.

No. B-1080
$17.95



No. 10-H
Tennahold
Fits all cars
Amateur Net.....
$1.00



EXTENSIONS — with 3/8"-24 thread, fits all mounts and coils

88	36"	Lower section for all bands, gray hammertone	$4.05
88S		Stainless Steel	5.25
90	26"	Extension for 100 Series Whips	3.55
92	18¼"	Extension for 106 Series Whips	3.50
94	36¼"	Extension for 106 Series Whips	4.06
115	36"	Extension for Models No. 114 and No. 215	4.25
12*	12"	Base Section for AB Antenna (baked enamel)	2.75
12C*	12"	Chrome Base Section for AB Antenna	3.25
18*	18"	Base Section for AB Antenna (baked enamel)	2.75
18C*	18"	Chrome Base Section for AB Antenna	3.25
24*	24"	Base Section for AB Antenna (baked enamel)	3.25
24C*	24"	Chrome Base Section for AB Antenna	3.65

Model 92 Model 90 Model 88 Model 115

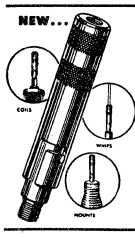
*NOTE: Base Sections for use with ALL-BANDER Antenna Coils.

TENNACLIP

Designed to store mobile whip in convenient "storage" position. Instant release. Fits all cars.

No. 20-C

Amateur $1.00 Net



E-Z-OFF Antenna Connector

Noise-free. Connect or remove loading coils, whips, or mounts in a jiffy. No wrenches, pliers or screwdriver needed. High-grade stainless steel . . . will not corrode.

- Precision made
- Maximum efficiency
- Positive lock

Model No. E-Z-295

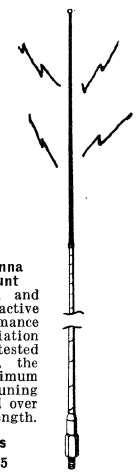
Amateur Net $2.95

NEW MASTER FLEX-'R

No. 711

Designed to relieve stress and strain and prevent damage that could be transmitted to the loading coil.

$1.95



MASTER FIBRE-GLAS WHIPS

FLEXIBLE, INDESTRUCTIBLE UNIVERSAL ANTENNA

- **Completely Weatherproof** — permanent and rust resistant, corrosion proof.
- **Break-Proof** — specially designed flexibility prevents failure due to fatigue or breakage.
- **Safe**—permanent insulation featured in Master Whips make it absolutely safe, prevents burns.
- **Base Fitting**—3/8" x 24 thread with male brass—chrome plated fittings.

FG-60 60" Amateur Net.....$4.95
FG-72 72" Amateur Net.....$4.95
FG-84 84" Amateur Net $5.15
FG-96 96" Amateur Net $5.25
FG-103 103" Amateur Net $6.95

11 METER CITIZENS BAND ANTENNA

A base-loaded stainless-steel whip antenna with an overall height of 40 inches.
The bottom of the whip has been wound into a coil which is potted in a pliable plastic to add rigidity to the coil.
The base of the whip is fitted with a ¼" diameter brass slug, for use with a standard-broadcast 8-ball type cowl mount; also roof-top or trunk-lid type mounting.
The antenna is cut to offer very low standing-wave ratio over most of the band when fed with a 52-ohm coax.

YOUR CHOICE EACH $12.95

ANTENNA WITH PL-259 PLUG
Model No. PL-259..$6.95

MASTER MAGIC WAND TUNABLE

Combination Coil & Whip
New Magic-Wand Top-Loaded Antenna Mounts On Any Standard Base Mount

A newly designed single band coil and whip antenna in 1 compact and attractive unit. Top loaded to provide top performance and efficiency at the most useful radiation angle for communications. Built and tested in the Master Mobile Laboratories, the Master Magic-Wand provides a minimum wind resistance which minimizes detuning effects at high speeds. Antenna wound over tapered fiberglas whip for maximum strength.

Available in 5 ft. & 6 ft. Lengths

No. MM810—10 Meters—5 Ft. L.	$8.95
No. MM811—11 Meters—27 Mc.—5 Ft. L.	8.95
No. MM811-35—11 Meters—35"	8.95
No. MM811-45—11 Meters—45"	8.95
No. MM815—15 Meters—5 Ft. L.	8.95
No. MM820—20 Meters—5 Ft. L.	8.95
No. MM840—40 Meters—6 Ft. L.	9.95
No. MM880—80 Meters—6 Ft. L.	9.95

CLAMP-ON ANTENNAS

CG-120
Same as CG-360 but without removable whip feature.
Net $5.95

CG-360
108 to 470 Mc
Net $8.95

CG-110
11 Met. Cit. Bd.
27 Mc
Net $10.30

Master Mobile Mounts
LOS ANGELES, CALIFORNIA

Net

© U.C.P., Inc.

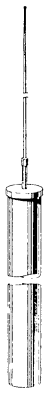
ANTENNAS MOUNTS

Master Mobile

Master Mobile Mounts
Division of Whitehall Electronics
Los Angeles 16, California

All products are for Universal Use — Mobile, Home, Marine, C.A.P., Civil Defense, Emergency, etc.

SKYMASTER COAX ANTENNA



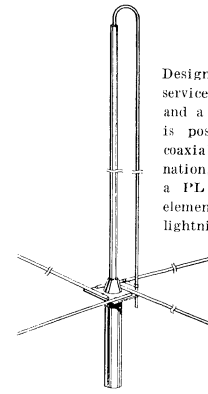
Skymaster gives you a lower "radiation angle" of your antenna for a better contact for vertically polarized stations in the citizens band. The Skymaster has a nominal impedance of 72 ohms, used with 72 ohm cable. Matches RG59/U coax cable for perfect match to most transmitters and improves receiving.

Both radiator and skirt are of heavy-gauge aluminum tubing, and a resilient machined polyethylene insulator is used for low weight and high strength. Silverplated coax connector is used for easier connection and lowest SWR.

- **Easily installed on any existing mount**
- **Concentrated signal for best coverage**
- **Perfect match for transmitting and receiving**
- **Highest quality components**
- **Tested and approved in Master Mobile's own laboratory**

SM-700-2 — 2 Meters ..... **Net $10.95**
SM-700-6 — 6 Meters ..... **Net $15.95**
SM-700-10 — 10 Meters ..... **Net $17.95**
SM-700-11 — 11 Meters ..... **Net $17.95**

BASE STATION MONOPOLE ANTENNA



Designed around a folded radiating element, intended for service in installations requiring a ground plane configuration and a wider useful frequency range for a single antenna than is possible in the standard ground plane design using a coaxial stub tuner. Antenna is fed by an end seal type termination, through a Type SO 239 female connector mating with a PL 259 plug. Radiating elements and all ground plane elements are permanently grounded, therefore, damage by lightning is reduced to a minimum.

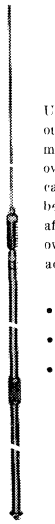
- VSWR (using 50 ohm cable) $1.31
- Bandwidth (under 2.1 VSWR) ..... ±4%
- Maximum power input ..... 750 watts
- Internal feedline RG-8A/U
- Nominal input impedance ..... 50 ohms
- Termination ..... SO. 239

SR-600-2 — 2 Meters ..... **Net $14.95**
SR-600-6 — 6 Meters ..... **Net $16.95**
SR-600-10 — 10 Meters ..... **Net $24.50**
SR-600-11 — 11 Meters ..... **Net $24.50**

CITIZENS BAND ANTENNA

"RANGE BUSTER"

MODEL CB-35



Under field test conditions, this antenna outperformed any other CB unit and maintained a 1:1 Standing Wave Ratio over the entire CB frequency. Anyone can install it . . . it's universal . . . can be mounted anywhere on auto without affecting performance. AND, it folds over neatly. Overall length is 6'3." It's adjustable.

- **Weather-sealed**
- **Precision-engineered**
- **All parts individually replaceable**

CB NET $19.95

MODEL CB-29

Adjustable to resonant frequency, this Citizen Band mobile antenna is designed especially for deck or fender mounting with unique lay-over feature. Consists of special stainless steel 86" whip plus 36" lay-down extension. Adjusts from 104" to 119"

CB NET $15.95

MODEL CB-32

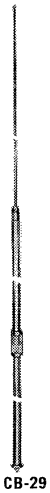
Combined with the stainless steel lay-down extension is a vinyl covered 47" top loaded fiberglass whip for greater radiation efficiency and increased range. Adjustable peaking. Signal to noise improvement of 4 db or more 83" overall length.

CB NET $16.95

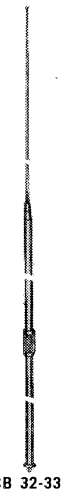
MODEL CB-33

Same as CB-32 except top loaded fiberglass whip is only 18", reducing overall to 57" without reducing range and radiation efficiency.

CB NET $16.95



CB-29



CB 32-33

ASTRONAUT ANTENNA FOR CITIZENS BAND

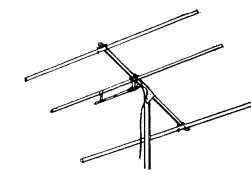
Can be resonated precisely to any frequency between approx. 20 and 30 mc. by means of the tip rod attached to top of antenna. Provides outstanding performance. Swivel connection permits installation either horizontally or vertically on curved or flat surfaces. Length approx. 60"

For class D, 27-mc operation

MODEL CBV-6 $15.95

3-ELEMENT BEAM ANTENNA

Handles up to 1 Kw. Input

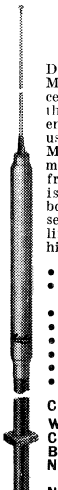


Sturdy and lightweight 3 element beam provides a power gain of approximately 2½ (8 DB) in the forward direction and reduces interference from the sides and rear by approximately 10 to 1 (Front to back ratio 20 DB).

A coaxial gamma match is pretuned at the factory to give an excellent VSWR of 1.1 to 1 at band center when fed with a 52 OHM coax.

SR-500-2, 2 Meters **$10.95**
SR-500-6, 6 Meters **$12.95**
SR-500-10, 10 Meters **$24.95**
SR-500-11, 11 Meters **$24.95**

MASTER MARINE MARVEL MARINE ANTENNA

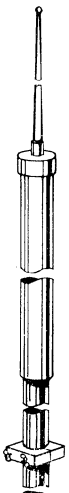


Designed, built and tested in Master Mobile's own floating laboratory, the new center-loaded Master Marine Antenna is the latest result of many years of experience in producing the finest in Antennas used throughout the world! The Marine Marvel, seasure and powerful, provides maximum power radiation on all marine frequencies from 2 to 3 megacycles. Here is the Antenna that was made for your boat! . . . engineered to withstand the most severe type of marine service, with long life assurance by being fabricated of the highest quality material available.

- **10½ Ft. Overall Length.**
- **Capacity 4 Ft. Stainless Steel Plastic-Coated Whip.**
- **18" Center-Loaded Impregnated Coil**
- **5 Ft. Anodized Base Section**
- **Absolutely Waterproof-Weatherproof.**
- **No Electrolysis.**
- **Rugged Insulators.**
- **Adjustable Antenna Lead**

COLORS AVAILABLE —
WHIP — Yellow, Blue or Black.
COIL — Yellow, Blue or Black.
BASE — Gold (Spec. Saltwater Anodized)

No. MMM-2710 Antenna ¾ Solid Mounts — 5 Ft. Base **$29.95**
No. MMM-2715 Antenna & Solid Mounts — 10 Ft. Base **$35.95**
No. MMM-2700 Antenna — 5 Ft. Base less Mounts) **$27.95**
No. MMM-2705 Antenna — 10 Ft. Base (less Mounts) **$33.95**
MMM-10 SOLID MOUNTS....per set $5.50



MARINE MOUNTING BRACKETS

MMM-1 for 1" mast **$5.95**
MMM-15 for 1½" mast **$6.75**

MMM-1

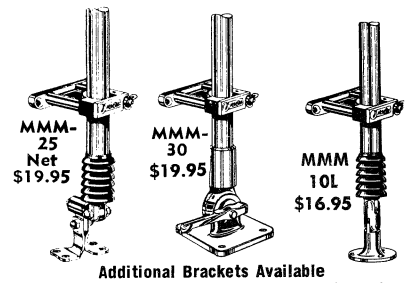
MMM-15

MASTER SUPER MARINE ANTENNA No. MMM-2750

The Master Super-Deluxe Marine Antenna in 12 ft. anodized 1⅜" tubing. Coil section is 35" long. Impregnated coil covered with phenolic tubing. 8' fiberglas whip. Here is the ultimate in Marine Antennas!

MMM-2750 Antenna & Solid Mounts $49.95
Without Mounts..... $47.95

MARINE LAYDOWN MOUNTS



MMM-25 Net $19.95

MMM-30 $19.95

MMM 10L $16.95

Additional Brackets Available

New deluxe series. Can be mounted on side of cabin or upright on deck. Mounts swivel, and are adjustable to any position. Chrome-plated brass with high impact waterproof-weatherproof phenolic insulator.

Electronics Div Whitehall Corporation

Master Mobile Mounts

LOS ANGELES, CALIFORNIA 90016

© U.C.P., Inc.

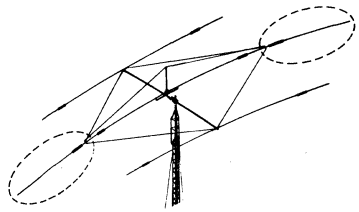
Net

Mosley

Mosley

TA-40KR

40 METER OPERATION



In only a few minutes time you can now convert your Mosley Model TA-33, TA-32, TA-31, or TA-36 for operation on 40 meters as a single rotatable dipole. Beam operation on 10, 15 and 20 meters is virtually uneffected. The Model TA-40KR, when installed on the driven element of a Model TA-33, TA-32, TA-31 or TA-36, will exhibit a typical figure eight pattern obtained from a half wave antenna.

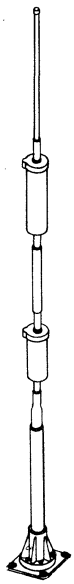
This new, easily assembled 40 meter conversion kit, Model TA-40KR incorporates the same precision engineering and high quality aluminum construction you expect in a Mosley beam. No additional feed line is needed for 40 meter operation. Complete instructions for assembly are provided.

Only a Mosley conversion kit which incorporates the famous Mosley trap assembly design with features that maintain stability of resonance under all weather conditions assures you of continued top performance with your "Trapmaster" beam on 40 meters.

Because of the difference in mechanical strength of some antennas as well as possible differences in electrical design, use of the Model TA-40KR conversion kit is not recommended on any antennas other than Mosley Models TA-33, TA-32, TA-31, and TA-36.

SWR 1.5/1 or better at resonant frequencies. Maximum element length 38 ft. 7 in. Turning radius 19 ft. 6 in. Assembled weight 10 lbs. Trap Assemblies, Hardware, mast and line for guying is supplied. Shipping weight

Mosley TA-40KR $44.79



RV-4

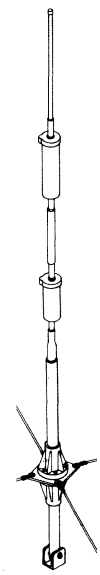
RV-4 VERTICAL ANTENNA

A pace setter in 10, 15, 20 and 40 meters is the Mosley RV-4 Vertical Antenna. Operate on 1 quarter wave on all four bands. This antenna features Trap-Master traps, Automatic band switching on all four bands, Self supporting and completely factory pretuned to maintain low SWR over entire range.

The RV-4RK kit for roof mounting includes radial wire, mast and hinged mounting. No radials required for ground mounting if a good ground connection can be provided within a few inches of the antenna base. Maximum power rating 750 watts on AM phone, final amplifier, Uses single 52 ohm coax line. Antenna height 20' 8-5/8" above insulator, with roof mount 25' 2-5/8". Weight of antenna 10 lbs., with roof mount 14½ lbs.

Mosley RV-4 . . . . . $30.42

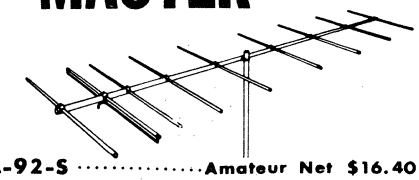
Mosley RV-4RK $16.77



RV-4 with RV-4RK Kit

SCOTCH · MASTER

2&6 Meter Antennas



MOSLEY Model A-92-S ·····**Amateur Net $16.40**

New Mosley SCOTCH-MASTER two meter beam is a nine element antenna. May be mounted vertically or horizontally, will handle maximum legal power, amplitude modulated or 2,000 watts P.E.P. SSB. Mounting bracket fits masts up to 1½" OD. Antenna is matched for 300 ohm balanced line. Boom is of sturdy medium weight wall 1¼" OD aluminum tubing to achieve maximum strength with minimum weight and wind loading characteristics. Stacked arrays feature 300 or 75 ohm balanced feed.

SPECIFICATIONS AND PERFORMANCE DATA: Forward gain, 14 Db. Front-to-back 20 Db. SWR, 1.5 to 1 or less at resonant frequencies. Maximum element length, 41 inches. Boom length, 12 feet. Turning radius, 6.5 feet. Assembled weight, 4 pounds. Maximum wind surface area, 1.25 square feet. Wind load, 25 pounds. Antenna is shipped in kit form.

MOSLEY Model A-76-S ·····**Amateur Net $35.10**

The Mosley SCOTCH-MASTER six meter beam has seven elements. Provides maximum forward gain and excellent directivity. SCOTCH-MASTER will handle the full legal power, amplitude modulated. Mounting bracket fits up to 1½ inch OD mast. Antenna is "Gamma" matched for 52 ohm unbalanced line. Boom is of heavy guage 1¼" OD aluminum. Easily rotated with TV rotor and can be mounted vertically or horizontally.

SPECIFICATIONS AND PERFORMANCE DATA: Forward gain, 12 Db. Front-to-back, 20 Db. Boom length, 24 feet. Turning radius, 13 feet. Assembled weight, 12.5 pounds. Maximum wind surface area. 2.5 square feet. Wind load, 51 pounds. Antenna is shipped in kit form, complete with detailed instructions.

MOSLEY Model A-56-S ·····**Amateur Net $28.16**

The New Mosley SCOTCH-MASTER six meter beam features five elements, maximum forward gain and excellent directivity. This gamma matched beam will handle the full legal power amplitude modulated. Can be mounted vertically or horizontally. Feed with 52 or 75 ohm line.

SPECIFICATIONS AND PERFORMANCE DATA: Forward gain, 10 Db. Front-to-back, 20 Db. or better. SWR, 1.5 to 1 or less at resonant frequencies. Maximum element length, 118 inches. Boom length, 12 feet. Turning radius, 7 feet 8¾ inches. Assembled weight, 6.5 pounds. Wind load, 32 pounds horizontally, 56 pounds vertically. Antenna is shipped in kit form, complete with detailed instructions.

··Mosley SCOTCH·MASTER Stacking Kits··

MOSLEY Model A-92-S-SK1 ·····**Amateur Net $3.15**

A kit for stacking two horizontally polarized A-92 SCOTCH-MASTER beams, one above the other. Comes complete with matching transformer, insulator, complete instructions and phasing line. Feed point impedance - 300 ohm balanced line. This stacked array will attain 3 Db additional gain over single horizontally mounted beam.

MOSLEY Model A-92-S-SK2H ·····**Amateur Net $44.35**

A kit for stacking four horizontally polarized A-92 SCOTCH-MASTER beams, two over two. Complete with support members, mounting plates, phasing line, insulators, hardware and instructions. Feed point impedance - 75 ohm balanced line. This stacked array will attain 6 Db additional gain over a single horizontally mounted beam.

MOSLEY Model A-92-S-SK2V ·····**Amateur Net $44.35**

A kit for stacking four A-92 SCOTCH-MASTER beams, two over two, in the vertical plane. Comes complete with support members, mounting plates, insulators, phasing line, hardware and instructions. Feed point impedance - 75 ohm balanced line. This stacked array will attain 6 Db additional gain over a single vertically mounted beam.

Net

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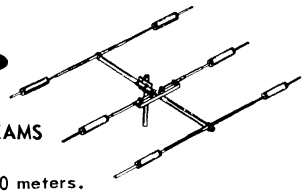
TRAP MASTER



3 BAND BEAMS

10 – 15 – 20 meters.

3 ELEMENT beam provides outstanding performance on 10, 15 and 20 meter bands. Up to 8 db., forward gain with 25 db., or better, front-to-back, 1.1/1 or less, SWR at resonant frequencies.

Model TA-33 . . . . . Amateur Net, $104.75

2 ELEMENT version of the famed TRAP-MASTER Beam rated to a full KW. 5.5 db. forward gain with 20 db. front-to-back. 7' boom and 28' maximum element length.

Model TA-32 . . . . . Amateur Net, $72.98

3 BAND DIPOLE is rated to 1 KW. For the Ham who wants to begin with an inexpensive three band dipole and in two additional steps have the Famous TA-33 "Trap-Master" Beam.

Model TA-31 . . . . . Amateur Net, $27.14

Conversion kit to make the TA-31 a TA-32.
Model TA-31-32 . . . . Amateur Net, $44.52

Conversion Kit to make the TA-32 a TA-33.
Model TA-32-33 Amateur Net, $30.86

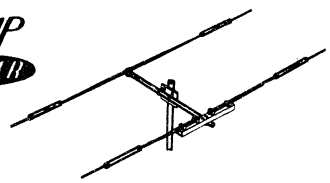
"JR" FOR 300 WATTS or LESS
10 – 15 – 20 meter bands.

Trap-Master "Junior" Beams provide the same fine performance as the world famous Model TA-33. Traps are rated to 300 watts (AM).

3 ELEMENT "JUNIOR" Beams provide the forward gain and 25 db. front-to-back. SWR is usually less than 1.5/1 at resonant frequencies. Aluminum boom is 1¼" OD. x 12'. Maximum element length, 26' 8". Turning radius is 14' 9". Wind load, 86 pounds. Assembled weight, 20 pounds. Recommended feed-line, RG-8/U.

Model TA-33 Jr. . . . . Amateur Net, $72.98

TRAP MASTER



2 ELEMENT "JUNIOR" with 5.5 db. forward gain with approximately 20 db. front-to-back. Aluminum boom is 6' long and maximum element lentgh is 26' 8". Has turning radius of just 13' 9". Assembled weight, 14 pounds. Wind load, 62 pounds.

Model TA-32 Jr. . . . . Amateur Net, $51.98

3 BAND DIPOLE rated to 300 watts. For the Ham who wants to begin with an inexpensive three band dipole and in two additional steps have the famous TA-33 Jr. "Trap-Master" Beam.

Model TA-31 Jr. . . . . Amateur Net, $23.85

Conversion Kit to make the TA-31 Jr. a TA-32 Jr.
Model TA-31-32 Jr. . . Amateur Net, $30.35
Conversion Kit to make the TA-32 Jr. a TA-33Jr.
Model TA-32-33 Jr. . . Amateur Net, $26.37

"TRAP-MASTER" VERTICAL ANTENNAS

3 BAND VERTICAL for 10, 15 and 20 meter bands. Weatherproof traps need no adjusting and provide automatic band-switching. One quarter wave operation for low angle radiation. Requires 4 or more 16' radials. With guy rope and base. The V-3 is rated to a full KW (AM) the V-3 Jr. is rated to 300 watts (AM).

Model V-3 . . . Net, $24.10
Model V-3 Jr. . Net, $18.85

10 thru 40 meters

Automatic bandswitching with this vertical. Electrical ¼ wavelength each band with low angle radiation makes this an excellent low cost DX antenna. Low SWR with exceptionally flat response over full bandwidth. Traps are weather and dirt proof for long, reliable service. Will handle full KW (AM). Sturdy aluminum construction. Requires 4 radial wires, 30' each. With guy rope and base.

Model V-4-6. . Amateur Net, $28.50

80 Meter BASE LOADING COIL. Base loading coil for operating V-4-6 Vertical on 75 and 80 meter bands. Space wound on heavy ceramic form. Handles full KW (AM). Mounts on base section of vertical. With coax connectors.

Model D-4BC Amateur Net, ... $16.45

Work 10, 15, 20, 40 and 80 with one antenna . . . one RG-8/U feed line. Designed and built to meet United States Air Force electrical and structural specifications. The V-5 is 100% rust proof and performs billiantly on each of the 5 bands. It is capable of handling power of 1 KW to the antenna! Weather proof trap assemblies are used throughout . . . no external loading coil needed. Maximum length of antenna is 43 ft., 8 in. Supplied complete with polyethylene guy rope, heavy duty base with internal coax fitting and all necessary hardware.

Model V-5 . . Amateur Net, 124.43

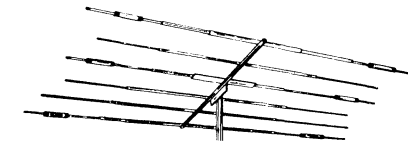
HEAVY DUTY BASE MOUNT

Supplied with the V-5 and V-4-8 Antennas.

For 40 and 80 meter bands. ¼ wavelength vertical on each band. Oversize trap assembly handles 1 KW (AM). Maximum overall length of antenna is 52' 3". Requires 12 radials each 64' in length. Complete with base mount (heavy duty), polyethylene guy rope and hardware

Modle V-4-8 . Amateur Net, $89.25

3 BAND BEAM



This wide spaced. six element configuration employs 4 operating elements on 10 meters, 3 operating elements on 15 meters and 3 operating elements on 20 meters. Automatic bandswithing built for operation at maximum legal amateur power. Forward gain on 10 meters is 8 db., on 15 meters is 8.5 db. on 20 meters is 8 db. Front-to-back is 20 db. or better on all 3 bands. SWR is 1.5/1 or better at resonance. maximum element length is 29'. Boom is 24'. Turning radius is 19' 3". Assembled weight is 69 lbs. just one coaxial feed line needed. 52 ohm. RG-8/U is recommended.

Model TA-36 . . . Amateur Net, $132.10

3 ELEMENT BEAM for 20 and 40 meters. Forward gain on 20 meters, 8 db.; on 40 meters, 5.0 db.; front-to-back on 20 meters, 25 db.; on 40 meters, 20 db.; maximum element length, 54' 8"; turning radius, 29'; boom length, 20'. Antenna weight (with Tilting Head), 150 lbs. Just one coaxial feed-line is needed. 52 ohm, RG-8/U is recommended.

Model TA-20-40 . Amateur Net, $354.39

"TRAP-MOBILE"
for 10, 15 and 20 meters.

Automatic Bandswitching! 3 Band Mobile Antenna functions without switches. Overall length of 7' 8" provides electrical ¼ wavelength on each band assuring excellent performance with low SWR over full bandwidth. Stainless steel whip sections permit antenna to lay forward over car for garaging. Stainless steel base stud, 3/8"–24, fits standard mounts. Feed with RG-8/U coax, preferably 22½ feet in length.

Model MA-3 Amateur Net, $22.00

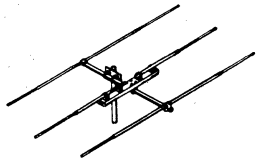
Whip-Klip – Universal clip for mobile whip antennas.

Model MWK . Amateur Net $1.03

Mosley

Mosley

"POWER-MASTER" BEAM ANTENNAS



"Power-Master" Antennas are full sized arrays, each designed for a single band, 10, 15, or 20 meter. All are 100% rust-proof, stainless steel hardware, high impact polystyrene insulators with aluminum elements and boom. "Power-Master" is fed with 52 ohm coax.

Forward gain - 8.9 db., front-to-back - 25 db., SWR - 1.1/1, maximum element length - 18' 7", boom - 12' x 1¼" OD x .058, turning radius - 11' 1", wind load - 69 lbs.

Model A-310 . . . . . Net, $41.36

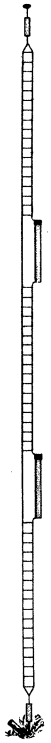
Forward gain - 8.5 db., front-to-back - 25 db., SWR - 1.1/1, maximum element length - 23' 4", boom - 12' x 1¼" OD x .058, turning radius - 13' 2", wind load - 87 lbs.

Model A-315 . . . . . Net, $46.87

A-203-C is a wide spaced, three element, 20 meter beam. "Gamma" matched for 52 ohm impedance, featuring anti-flutter design. VSWR-1.5/1 or better. Feed impedance - 52 ohm. Gain 8 db. or better. Front-to-back 24 db. Boom length 24 ft. Maximum element length 37 ft. Turning radius 22 lbs. Shipping weight 49½ lbs. Wind load (80 mph wind) - 140 lbs. Handles full legal power.

Model A-203-C $113.95

EL TORO



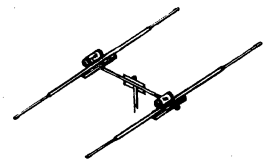
This three band compact antenna was designed for 20, 40 and 75/80 or 15, 40 and 80 meters. Installs in minutes, comes in kit form, weighs less than two lbs. and has automatic band switching is just a few of the outstanding features of the EL TORO antennas They are trap type grounded quarter wave length cantennas, using 52 ohm coax line. Antenna length 58 ft. Kit contains 65 ft. of 450 ohm open wire, two condensers of suitable rating and three antenna insulators.

Available in three pretuned models TW-3X....Rated to 1000 watts input to the final amplifier on AM and CW, 2000 watts PEP on SSB. Tuned for 20, 40 and 75/80.
Model TW-3X $19.95

TW-3X Jr. ...Rated to 300 watts on CW and 1000 wattd PEP input to the final amplifier on SSB. Tuned for 20, 40 and 75/80.
Model TW-3X Jr. $14.95

NS-3....Rated same as Model TW-3X Jr. except that it is tuned for the 15, 40 and 80 meter Novice bands.
Model NS-3 . . . . . $14.95

"SIGNAL-MASTER" ANTENNAS



This 2 element Signal-Master is the antenna for 40 meters. Rated to 1 KW. 100% rust proof. Forward gain – 5 db., Transmission line – 52 ohm coax (RG-8/U), Boom – 2" OD x .110" wall x 20', Maximum element length – 44' 3", Turning radius – 24' 4", Wind load (EIA Standard) – 200 lbs., Antenna weight – 58 lbs. F/B – 20 db.

Model S-402 . . . Net, $130.73

TRAP DIPOLES

Resonates at 40 and 80 meters. ½ wavelength on each band. Rated to 1 KW. Antenna length, 114' 11". Ideal where a bi-directional pattern is desired. Antenna weight, 7 lbs.

Model TD-2 . . . . . Net, $39.42

Will operate on 10, 15 and 20 meters. Rated to 300 watts AM. Overall wire length of 24 feet. ½ electrical wavelength on each of three bands. Antenna weight, 1¾ lbs.

Model TD-3 Jr. . . . . Net, $15.23

DIPOLE LOADING COILS

Coils are space-wound with plated No. 12 copper wire and are rated to 1 KW.

Type 40-D . . . . . Net, $8.78
Type 75/80-D . . . . . Net, $8.78

MAST PLATE ADAPTER KIT

Mast Plate Adapter for 2" OD Mast complete with Aluminum Angle and hardware.

Model AK-60 . . . . . Net, $4.88

CITIZENS BAND ANTENNAS

DELUXE LINE

3 element beam for best point-to-point communication. 9.3 db. gain. Use the A-311 on each end to develope 80 watts ERP. Less mast, coax line and rotor.

Model A-311. . . . Net, $39.75

Coaxial ground plane vertical antenna. 100% rust and corrosion proof. Can be mounted on tower, pole or chimney mount. Excellent base station antenna.

Model CA-27 . . . . . Net, 38.54

CITIZENS BAND ANTENNAS

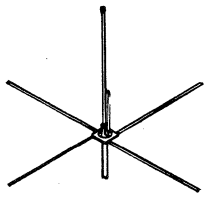
DELUXE LINE

Ground Plane Vertical is ideal as base station antenna. 360 degree pattern and vertical polarization for effective communication with mobiles. High impact polystyrene base with internal coax fitting, less coax line.

Model V-27-GP . . . . . Net, $36.70

STANDARD LINE

The V-11-UGP is ideal as basestation antenna. 360 degree pattern and vertical polarization for effective communication with mobiles. Rugged, 6061-T6 aluminum. 100% rust and corrosion proof.

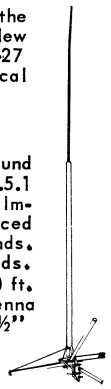


Model V-11-UGP. . Net, $23.06

SCOTCH-MASTER UL-27

For Citizen Band operation, the Uni-Linear tops Mosley's New Scotch-Master Line. The UL-27 is an Omni-Directional Vertical Ground Plane Antenna.

SPECIFICATIONS AND PERFORMANCE DATA: Gain over standard ground plane up to 4 db. VSWR: 1.5.1 over entire band. Feed Point Impedance: 52 ohm coax Unbalanced line. Assembled Weight: 8 pounds. Wind Load (EIA STD): 50 pounds. Antenna Height: Less than 20 ft. Number of Radials: 3. Antenna mounting fits masts up to 1½"

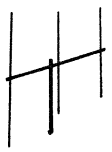


UL-27 . . . . . Net, $34.35

A-311-S

Mosley A-311-S, 3 element beam is designed for the economy minded CB'er who wants the utmost in dependable two-way communications.

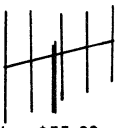
SPECIFICATIONS AND PERFORMANCE DATA: Number of elements - 3. Antenna Weight - 12.5 lbs. Boom Length - 12 ft. Maximum Element Length - 18' 8¾". Front-to-Back - 20 db. Vertical Wind Load - 65 lbs. Horizontal Wind Load - 35 lbs. Forward Gain - 8 db. Type Matching - Gamma. Impedance Point - 52 ohms. Radiation - Uni-Directional.



A-311-S . . . . . Net, $35.00

A-511-S

Number of Elements - 5. Antenna Weight - 16.5 lbs. Boom Length - 24 ft. Maximum Element Length - 18' 8¾". Front-to-Back 20 db. Vertical Wind Load - 112 lbs. Horizontal Wind Load 62 lbs. Forward Gain - 9.5 Type Matching - Gamma. Impedance Point - 52 ohms. Radiation - Uni-Directional.



A-511-S . . . . . Net, $55.00

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for SHORT WAVE LISTENERS

A seven band receiving dipole that offers real "DX-Ability" on 11, 13, 16, 19, 25, 31 and 49 meters. Made of No. 16 tinned copper wire with glazed porcelain insulators. Entire antenna weighs just 2 lbs. and is 40 feet in length. 75 ohm twin-lead transmission line supplied.

Model SWL-7 . . . . . Net, $15.04

A receiving dipole for 10, 15, 20, 40 and 75/80 meters. Antenna is 69 feet in length. Has all the same mechanical construction as the Model SWL-7.

Model RD-5 . . . . . Net, $16.54

Net

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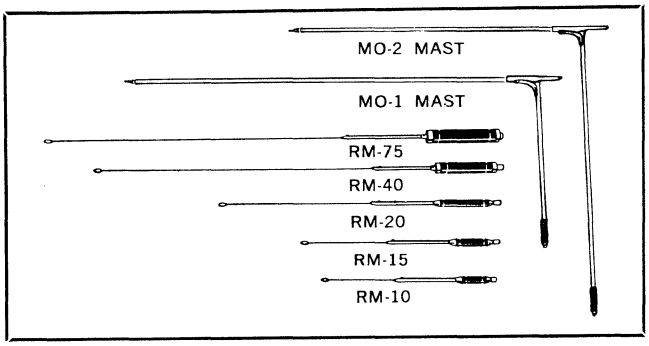
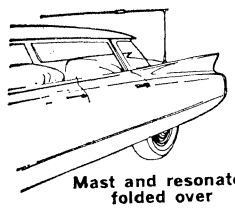
NEW-TRONICS ANTENNAS AND ACCESSORIES

HUSTLER MOBILE ANTENNA

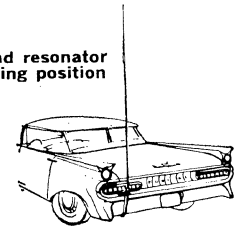
10-15-20-40-75 METERS





Mast and resonator folded over

Mast and resonator in mobiling position



One mast and five resonators permit operating on any of five bands with exceptional results. Fold over aluminum mast is 54" long. When opened to full length, the two sections of the mast are rigidly held in a vertical position. Each resonator has a special coil for maximum radiating efficiency. Tuning for center frequency is by the adjustable stainless steel rod of the resonator. Mast has ⅜-24 base stud to fit all standard mobile mounts. SWR is less than 2 to 1 for any center frequency setting within the band as follows: 10m., 100 to 120 kc ; 15m., 100 to 120 kc ; 20m., 80 to 100 kc ; 40m., 40 to 50 kc ; 75m., 25 to 30 kc (all approximation). Power rating: Input 500 W PEP. NO NEED FOR MATCHING DEVICES. USE ANY FEED LINE LENGTH OF 52 OHM CABLE.

Model	Description	Mount or Height	Net
MO-1	54" mast folds at 15" Fr. Base	Rear deck or fender	**$7.95**
MO-2	54" mast folds at 27" Fr. Base	Bumper	**7.95**
RM-10	10 meter resonator	80" max.—75" min.	**5.95**
RM-15	15 meter resonator	81" max.—76" min.	**6.95**
RM-20	20 meter resonator	83" max.—78" min.	**7.95**
RM-40	40 meter resonator	92" max.—87" min.	**9.95**
RM-75	75 meter resonator	97" max.—91" min.	**11.95**

ANY MAST OR RESONATOR MAY BE PURCHASED SEPARATELY

HUSTLER CB MOBILE ANTENNA

FOLD-OVER TYPE FOR FENDER OR BUMPER MOUNT:

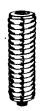
Sturdy mast and an 11 meter tunable center loaded resonator provides exceptional results with every CB transceiver. Less signal fading when car is in motion. Total extended height is only 83 inches.

The 54-inch aluminum mast folds over to permit assembly to clear openings in garages, etc. When opened to full height, the two sections of the mast are held rigidly in a vertical position. Mast has ⅜-24 stud to fit standard mobile mounts. SWR less than 2 to 1.

Model CB-111 for Rear Deck or Fender. MO-1 mast with 11 meter resonator. Mast folds over 15" from base **$13.90**

Model CB-211 for Bumper Mount. MO-2 mast with 11 meter resonator. Mast folds over 27" from base **$13.90**

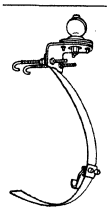
RM-11 11 meter resonator **$5.95**



RESONATOR SPRING

Stainless steel spring designed to be used between mast and resonator of HUSTLER antenna. Also useful for other light duty applications. Has ⅜-24 female thread on one and ⅜-24 stud on other.

RSS-2 ..... **3.45**



BUMPER MOUNTS

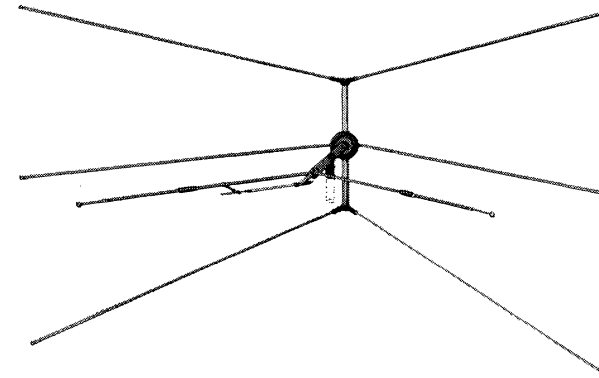
Model BM-1 Stainless steel strap fits tightly against any shape large and small bumpers.

Will fit any car where clearance between top of bumper and car body is as low as ¼".

Whip receptacle is a heavy chrome plated 1½" die cast ZAMAK swivel ball with ⅜-24 thread. All metal parts are heavy cadmium plated **$6.95**

MODEL BM-2 Same as Model BM-1 except without swivel ball base **$4.95**

6 METER BASE STATION ANTENNA COVEYA-6

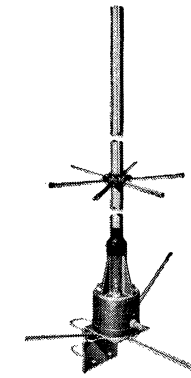


Unusual antenna configuration that produces a cardioid pattern without side nulls

- 10 DB gain over ½ wave dipole
- 25DB front to back ratio
- Band width—1000 KC with VSWR under 2 to 1
- Gamma Matched
- 52 ohm coax feed line
- Adjustable for center frequency 50 to 54 mc.
- Made entirely of seamless heat treated aluminum tubing
- Aluminum castings and hardware are iridited.
- Power capacity — 1 KW
- Weight 8½ pounds
- Boom length 34 inches
- Tuning radius 55 inches

Conveya-6 ..... **$39.9**

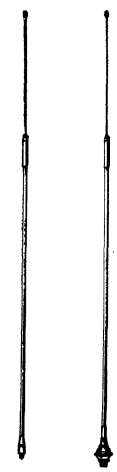
PRO-27 CB BASE STATION ANTENNA



OUTSTANDING FEATURES:

- 19'-8" high
- .64 wave length antenna
- Feedline RG8 or RG58 not limited to 60 feet in length
- Only available base station antenna tunable for low SWR of 1.1 to 1.
- Extremely low angle radiation
- Field strength exceeded by no other antenna
- Omni-directional
- Die cast aluminum base with iridite finish
- Seamless aluminum tubing, heat treated
- 3/16" thick steel angle mounting bracket with iridite finish.

Pro-27 ..... **$32.95**



PHANTOM CB MOBILE ANTENNA

First and only Fiberglass Antenna armored with copper braid and waterproofed with vinyl. Exceptional performance provided by heavy copper conductor which exposes the area of greatest radiation or antenna current. Fiberglass core has exceptional strength and flexibility. Has 17-7PH stainless tip rod for tuning to 23 channels. No critical feedline length required. Low standing wave ratio with 52 ohm line. Only 48 inches high.

Model FG-27. Antenna with ⅜-24 stud. Fits all standard mounts **$4.7**

Model FGB-27. Antenna with swivel base, 60" lead and PL-259 connector **$5.9**

NEW-TRONICS CORPORATION Cleveland, Ohio

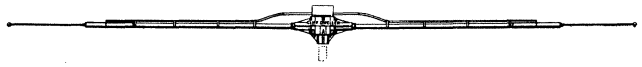
"The Home of Originals"

© U.C.P., Inc.

NEW-TRONICS ANTENNAS AND ACCESSORIES

CLIFF-DWELLER

REMOTABLE TUNED ROTATABLE DIPOLE DESIGNED SPECIALLY FOR 40 AND 75 METERS IN LIMITED ANTENNA SPACE. ALSO FOR 10 METERS.



ELECTRICAL FEATURES:

- Band switching and antenna resonance finger tip controlled from transmitter location in shack
- VSWR: 1.1 to 1 or less across entire band
- Feed-point variable to compensate to antenna environment
- No traps . . . no baluns . . . no matching devices
- Feed direct with any length 52 ohm cable
- Power handling capacity—maximum legal limit.

MECHANICAL FEATURES:

- Approximate lengths—

28'-6"-26'	7.0-7.3mc.	40 plus 10 meters
30'-6"-26'	3.5-4.0mc.	75 plus 10 meters
31'-4"-26'	Two-bander	40, 75 plus 10 meters

- Self supporting, accepts 1¼" threaded pipe for mounting in standard rotators
- Maximum turning radius approx. 15'-8"
- Sturdy, iridited aluminum die cast housing for motors and gear trains which drive end sections of dipole
- Heat treated air craft type, 1¼" heavy wall aluminum tube
- Completely waterproofed resonators and housings

Model No.	Freq. mc.	Weight	Price
CD 40	7.0-7.3	20 lbs.	$ 92.50
CD 75	3.5-4.0	20 lbs.	$ 99.50
CD 40-75	Two bander	24 lbs.	$129.50

EXTENDABLE CB ANTENNA
FOR COWL OR FENDER MOUNT

Model CB-27 23 channel coverage . . . tunable . . . low SWR. 4 section, heavy duty chrome plated brass tubing assembly. Opens to 60". Collapses to 27". Swivel base, mounts on any car surface. Fits any hole 15/16" or 1". Sealed loading coil solidly affixed to tubing. Stainless tuning rod with etched tuning scales. 5 feet of detachable RG-58/U coaxial cable with PL-259 connector $10.44

Assembly may be used for Amateur (28-30 MC.)

Model CB-2 This mast has same features as mast on Model CB-27 except has standard ⅜-24 male threaded stud. It may be used in combination with Model CB-1A or any other standard base $8.64

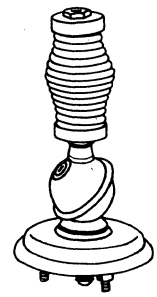
Model CB-1A Base has chrome plated split ball to meet severe angle requirements of fender beyond 30°. ⅜-24 female thread. Ball swivels up to 180° $1.80
(Series BL lead required)

Model AD-1 Adapter to convert Model CB-1A to accept PL-239 ..... $1.10

6 AND 2 METER ANTENNA
FOR COWL OR FENDER MOUNT

HF-62 Similar in appearance and construction as the CB-27, however, electrical characteristics of this tunable antenna and low SWR permit extensive coverage on the 6 and 2 meter bands. Includes 5 feet of detachable RG-58/U cable with PL-259 connector. 52 ohm match. Tuning range: 30-54 mc; 144-148 mc. $10.44

HF-2 Mast has same features and appearance as mast on Model HF-62 except has ⅜-24 male thread stud. May be used with Model CB-1A or any other standard base to meet individual requirements $8.64



COMMERCIAL BASE AND SPRING

No exposed mounting bolt heads. One man installation. Lighter weight. Reduced spring assembly length. Tough, molded mounting pad.
Engineered and built to meet the most critical standards, the improved design embodied in the ball, base and spring has no equal in appearance and performance.

ALL STAINLESS MODELS

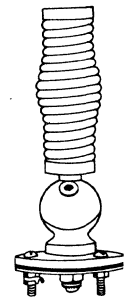
Stainless 2" ball, stainless spring. (17-7-PH) THE ONLY ALL STAINLESS ASSEMBLY ON THE MARKET.

NTS-1	Base, ball and spring assembly	$19.44
NTS-2	Base and ball assembly only	8.97
NTS-3	Spring only	10.47

CHROMIUM PLATED MODELS

Same as stainless models except all elements are triple chrome plated.

NT-1	Base, ball and spring assembly	$8.49
NT-2	Base and ball assembly only	5.01
NT-3	Spring only	3.51



PROFESSIONAL BASE AND SPRING

C-29-32 — Assembly includes heavily chrome plated 1½" die cast ZAMAK ball, ⅜-24 female thread. Adjustable to 180°. Stainless steel spring sturdily built to withstand sharp impacts. Gray Cycolac insulator and cadmium plated hardware $5.07

C-30-32 Same as C-29-32 except has chrome plated spring $4.11

C-32 Base ⅜-24 female thread $2.01

C-29 Stainless steel spring only. Has ⅜-24 threaded stud $3.06

C-30 Chrome plated, oil-tempered spring only $2.10

GUTTER CLIP:

Model GC-1 Plastic holder swivels on cadmium plated clamp. Attaches firmly to gutter. Since whip is contained in plastic, it will not rattle ..... $.90

STAINLESS STEEL WHIPS WITH REMOVABLE ADAPTOR

Made of 17-7PH taper ground stainless steel; the best available for this purpose. Adaptors are heavy cadmium plated. Two hex hollow head screws firmly seize whip. ⅜-24 male thread. Wrench included.

SW60R	60" Stainless Whip	$3.27
SW96R	96" Stainless Whip	$3.93
SW102R	102" Stainless Whip	$4.23
SW108R	108" Stainless Whip	$4.50

CADMIUM PLATED WHIPS WITH FIXED ADAPTOR

Made of special alloy cadmium plated oil tempered steel. Taper ground. Heavy cadmium plated adaptor permanently attached to whip. ⅜-24 male thread.

TW60	60" Cadmium Plated Whip	$2.85
TW96	96" Cadmium Plated Whip	$3.45
TW102	102" Cadmium Plated Whip	$3.75
TW108	108" Cadmium Plated Whip	$3.90

COAXIAL LEADS

RG-58/U with PL-259 on one end and live terminal and ground terminal on other end, split end.

L-14-60	5 ft.	$2.43
L-14-144	12 ft.	$3.12
L-14-240	20 ft.	$3.90

HIGH IMPEDANCE LEADS

With Pin Plug on one end and live terminal and ground terminal on other end, split end.

L-13-60	5 ft.	$1.23
L-13-144	12 Ft.	$1.56
L-13-240	20 ft.	$1.95

SPECIAL LEADS

RG-58/U with PL-259 and specially designed end to fit CB-27 and HF-62.

BL-14-60	5 ft.	$2.70
BL-14-144	12 ft.	$3.35
BL-14-240	20 ft.	$4.00

NEW-TRONICS CORPORATION Cleveland, Ohio

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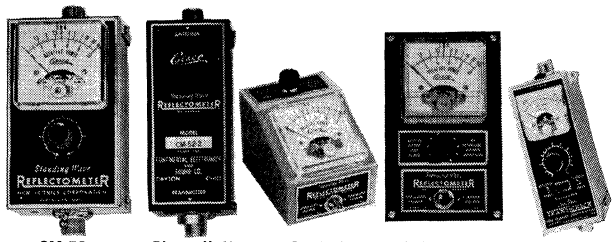
Cesco DIVISION NEW-TRONICS ANTENNAS AND ACCESSORIES



CM-52 | Phase Unit | Control CM-52-2 | CM-52-2 and CM-52-2 Special | CB-52-T

STANDING WAVE REFLECTOMETERS

MODEL CM-52

Mutual inductance and capacity coupling are employed between linear conductors for continuous measurement of standing waves on transmission lines. For continuous line insertion 25 to 1,000 watts, at frequencies from 3 to 200 mc. Operates on power input of 10 watts, 7 mc and up. Requires only five watts input, 25 mc and up. Line insertion loss, less than 1 db at 30 mc. Ideal for inserting in to coax feed lines at antenna for visual reading in SWR while making antenna adjustments: SWR observed immediately, at all times, without adjustment of Reflectometer. No balancing adjustments, no reversing. Prevents false loading from antenna tuner, match box, pi network, etc. Reduces line reflection, making possible increased radiated power. Uses 0-100 ua meter calibrated directly in standing wave ratio and relative power. Each unit hand calibrated and perfectly balanced. Includes loading control and forward to reflected power reversing toggle switch. With 83-1R (SO-239) connectors at each end. Gray hammertone aluminum case, 3"wx2¼"dx5¼"h. Shipped with key-type mounting on back and full instructions.

Cesco Model CM-52 (52-ohm coax line) **$29.95**

MODEL CM-52-2

Dual units electrically identical to CM-52 but built in two units for remote control. With 10 ft. cable and plug wired to control and indicator unit. 52-ohm phase unit may be used with control and indicator unit: permits purchasing second phase unit separately, when required. Size, Control unit, 3⅞wx2⅞x2¾" with sloping panel: Phase Unit, 2¼wx2¼dx5¼"h.

Cesco Model CM-52-2 (52-ohm coax line) **$34.95**

Cesco Model CM-52-2 Phase Unit—Less Control unit **$12.95**

Cesco Model CM-52 or CM Special—Same as standard dual unit but with control panel for Collins grille or built-in installation **$34.95**

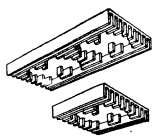
CITIZENS' BAND INLINE TRANSICHECK

The Inline Transicheck, a patented development by CESCO employing a miniature true coaxial cylindrical unit utilizing mutual inductance and capacity coupling between linear conductors for conducting test, measuring power output and standing wave ratio on Citizen Band transceivers operating in the 26 and 27 MC bands. No power loss or detuning is created when placed in line for continuous use. All units are supplied with detailed instruction book.

Cesco Model CB-52-T **$22.95**

TRANSISTOR HEAT SINKS

$1.25 ea.

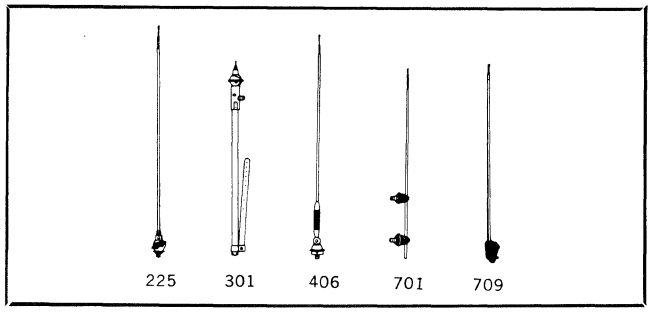


$1.95 ea.

Cesco's unique method of producing heat sinks from match plate greens and aluminum castings increases heat radiating efficiency with less heat sink area. Heat sinks are poured from a special aluminum bullion with a copper additive which produces an even heat flow over the entire surface area.

Heat sinks are fabricated standard in several types. Other patterns of fabrications are available on quantities of twenty-four (24) or more. Each Heat Sink is packaged with a transistor mechanical data sheet.

NEW-TRONICS AUTOMOBILE ANTENNAS



No. 225 Hi-ball black plastic base with chrome hood, 3-section mast 48" detachable lead. Extends to 40"; collapses to 17" $3.9

No. 226 Same as No. 225 except with 2-section mast. Extends to 40" collapses to 21" $3.9

No. 227 Same as No. 225 except with 54" detachable lead. Mast extends to 57¼"; collapses to 22¼" $4.5

No. 301 Disappearing type antenna with 54" permanent lead. 3-section antenna extends to 53¼" and collapses completely $6.9

No. 303 Same as No. 301 except with 36" lead. 3-section mast extends to 25" and collapses to 3¾" $5.9

No. 410 Flex-O-Matic Ball-Tronic Antenna. Adjustable to any angle up to 180°. 23⅝" stainless steel whip. 48" detachable lead $5.9

No. 406 Same as No. 410 except has 3-section mast which extends to 56¼" and collapses to 24". 54" detachable lead $7.9

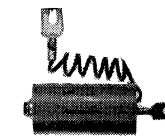
No. 701 Side-cowl antenna with 2 plastic insulators and 36" detachable. 3-section mast extends to 57½" and collapses to 22½" $6.9

No. 709 Volkswagen side cowl antenna with single stanchion and molded insulator. 36" detachable lead. 3-section mast extends to 56½" and collapses to 20½". $5.9

ABOVE PRICES FOR BOX PACKAGING

VOLTAGE REGULATOR FILTER

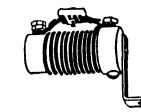
A fixed type L/C combination for the elimination of noise created by points of generator control relay in the voltage regulator which is prevalent in communication receivers. No tuning or adjusting required. Unit is not voltage critical. Works on 6-12-24 and 32 volt systems.



Casco Model VR-30 ..... **$2.95**

GENERATOR NOISE FILTER

Tunable for 6, 12 or 24 volt generators; stops noise in mobile gear caused by generator brushes. For aircraft, amateur, C-B and industrial mobile uses. Conservatively rated at 30 amps. Phenolic coil form, brass hardware and die cast mtg. bracket. Easily installed.

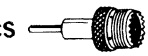


Cesco Model 3-30 (Standard, 3-30 mc) **$2.95**

PHANTOM ANTENNA LOAD

Non-inductive 52-ohm substitute antenna load has adequate power rating for any C-B transceiver in the 26-27 mc. range. Suited for testing and repairing citizens band units. Also useable as a coaxial line terminator.

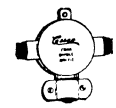
Cesco Phantom Antenna Load **$1.49**

CS  **CABLE ADAPTERS** SC

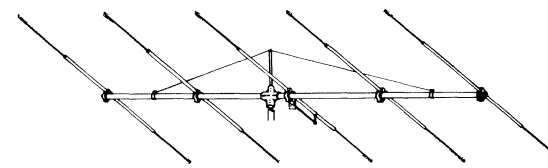
Cesco Model CS—Permanent connector comprises 83-IR, SO-239 coaxial socket and auto radio type spade lug. One-piece construction. **$1.29**

Cesco Model SC—Rugged, permanent adapter connects auto radio spade plug to coaxial socket 83-IR or SO-239. No floating pins. **$1.29**

COAX DIPOLE DRI-FIT CONNECTOR



Ideal connector for; dipole antennas. Completely moisture-proof, one-piece aluminum alloy construction. Handles power to maximum legal limits. Can be installed easily in a few minutes. For use with coaxial cables RG-8, RG-58, RG-11 or RG-59, or with 300-ohm twin lead. Has eye pull up for inverted V's. Weight, 2 oz. **$2.95**



C-B BEAM ANTENNAS

Ruggedly built from high quality aluminum tubing. 1¼" diameter boom. Elements have ½" diameter center sections with ⅜" diameter inserts. Elements can mount either horizontally or vertically. Factory pre-tuned with Gamma Match for perfect match and efficiency. Resonated at 27.085 mc. on Channel 11. Works exceptionally well on all channels with low VSWR of 1.2 or less. Has maximum forward gain and front to back ratio for this type configuration. Assembles in minutes and is permanently secured with special locking rings. Lightweight. Fits on 1¼" O.D. mast.

Cesco Model 11M3—3 element beam 9′ 4″ boom **$29.95**

Cesco Model 11M4—4 element beam 14′ 1″ boom **$39.95**

Cesco Model 11M5—5 element beam 18′ 10″ boom **$49.95**

NEW-TRONICS CORPORATION Cleveland, Ohio

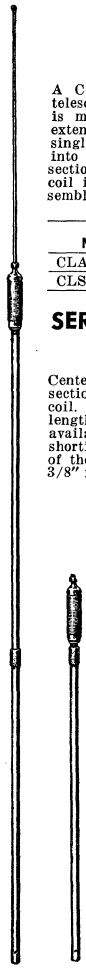
"The Home of Originals"

PREMAX ANTENNAS--MOUNTINGS--ACCESSORIES

SERIES C CENTER-LOADED MARINE ANTENNAS

A Center-Loaded Collapsible type Antenna, consisting of two telescoping, adjustable base sections on which the loading coil is mounted, with a tapered top whip section, giving a total extended length of about 19 feet. This Antenna collapses to a single unit with the whip section telescoping through the coil into the lower section, making a collapsed length of 7 feet. The sections are of seamless aluminum, or stainless steel and the coil is wound on low-loss bakelite tubing and treated after assembly with weatherproof coating.

No.	Type	Base O.D.	Base I.D.	Wt. Lbs.	List Price
CLA-619	Aluminum	1.000"	.834"	5	$50.00
CLS-1119	Stainless	1.000"	.900"	7	110.00



SERIES C

SERIES B CENTER-LOADED ANTENNAS FOR MOBILE & MARINE USE

Center-Loaded Whip-Type Antennas consist of a standard base section or spring-type on which is mounted a special Premax coil. The top is a taper-ground stainless steel whip 6 ft. in length, giving a total overall height of 9 ft. Various coils are available or the standard 75-meter coil can be adapted by shorting out turns on the coil. Antennas can be used with any of the Standard Premax Mountings shown below, or will fit any 3/8" x 24-thread mounting.

NO.	FREQ.	PRICE
BXS-14	14,000 kc. (20M.)	$16.00
BXS-23	2374 kc. (CAP)	16.50
BXS-31	3105 kc. (APT)	16.50
BXS-38	3800 kc. (75M)	16.50
BXS-43	4325 kc. (CAP)	16.50
BXS-46	4585 kc. (CAP)	16.50
BXM-25	2000 to 3000 kc. (Marine)	16.50
	(Same as BXS but with Spring)	
BSS-14	14,000 kc. (20M.)	26.50
BSS-23	2374 kc. (CAP)	27.50
BSS-31	3105 kc. (APT)	27.50
BSS-38	3800 kc. (75M.)	27.50
BSS-43	4325 kc. (CAP)	27.50
BSS-46	4585 kc. (CAP)	27.50
BSM-25	2000 to 3000 kc. (Marine)	27.50

SERIES B COILS

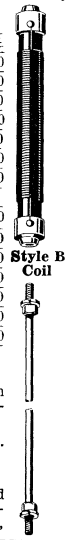
Premax also supplies the Series "B" coils in the standard frequencies above. Special frequencies available on request.

List Price ..... **$9.00 ea.**

MAST EXTENSIONS

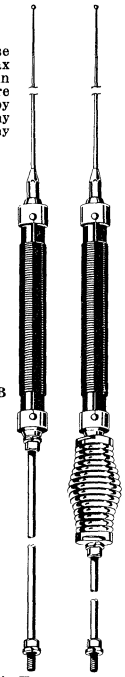
Polished Stainless Mast Extensions—threaded 3/8"-24 on both ends and supplied with stainless nuts and lockwashers. Available in 12", 18", 24", 30" and 36" lengths.

Prices range from $4.00 to $8.00 list each



Style B Coil

BX Mast Extension



Type BXS

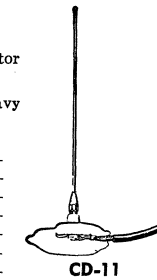
Type BSS

MOBILE VHF WHIPS

Style CD-11 Series—Permanent type. Porcelain insulator mounts thru ½" hole in rooftop.

Style CD-21 Series—Emergency type. Attaches by heavy duty suction cup.

NO.	FREQ.	PRICE
CD-112	108 to 120 mc.	$4.00
CD-114	144 mc.	4.00
CD-115	152 to 162 mc.	4.00
CD-212	108 to 120 mc.	2.80
CD-214	144 mc.	2.80
CD-215	152 to 162 mc.	2.80



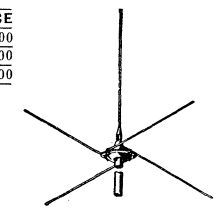
CD-11

CD-21

GROUND PLANE ANTENNAS FOR POINT-TO-POINT USE

For point-to-point installations, Premax has two VHF Antennas: The Style GP-3 which has elements of heavily-plated spring steel with skirt wires that can be bent down to any angle to match coax cable. Mounting is within a water-proof housing that fits standard 1/2" pipe. Cable carries down thru pipe.

NO.	FREQ.	USE	PRICE
GP-312	120 mc.	For aircraft and CAP.	$8.00
GP-314	140 mc.	For 2 meter and CD.	8.00
GP-315	150 mc.	For police and taxi	8.00

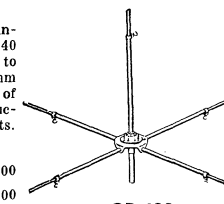


GP-3

PREMAX ADJUSTABLE GROUND PLANE ANTENNAS 20-60 mc

Another low-cost type Ground Plane Antenna is adjustable from 20 to 40 mc. or 40 to 60 mc. Standing wave ratio matching to 52-ohm line is 1.07 to 1.13 and to 72-ohm line is 1.27 to 1.23 depending on type of transformer cable. All-aluminum construction employing adjustable tubular elements.

GP-430	Adjustable 20-40 mc.	$50.00
GP-450	Adjustable 40-60 mc.	40.00



GP-400 Series

MOBILE MOUNTINGS FOR USE WITH WHIPS WITH 3/8"—24 MALE THREAD

Type CA

CA BUMPER MOUNTING

"Chain Style — clamps on any bumper with 1" clearance; no drilling; theft-proof.

Price **$11.00**

Type SA-2

SA-2 SPRING ADAPTOR

Stainless steel Spring Adaptor—can be attached to types R-2, R-3, L-1, CA and NA-1 to provide greater flexibility. Height 4¼", diameter 2⅜".

Price **$12.50**

Type R-2

R-2 UNIVERSAL COAX TYPE MOUNTING

Solid Polished Aluminum split-ball can be adjusted to any angle. Has shielded coax connection and stainless hardware.

Price **$15.00**

Type R-3

R-3 UNIVERSAL MOUNTING

Solid Polished Aluminum Swivel Ball. Heavy stainless steel back-up plate with grounding screws. Stainless steel hardware.

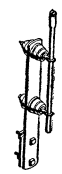
Price **$15.00**

Type NA-1

TYPE NA-1

Bumper mounting with ceramic cone insulator and steel bracket.

Price **$8.50**



Type L-1

TYPE L-1

Bumper mounting, 2 pairs ceramic cone insulators with steel bracket. 10" adjustment.

Price **$14.00**

Type RS-2

TYPE RS-2 COMBINATION

Similar to R-2 except has spring as shown under SA-2.

Price **$25.00**

Type F

TYPE F

30° adjustable mounting for fender, cowl or gravel pan. Chrome-plated brass with phenolic insulation.

Price **$14.50**

Type V

TYPE V

Thru-deck mounting designed for Style BX and BS Center-Loaded Marine Antennas. White porcelain cones with a maximum opening for 1-1/2" deck. Stud threaded 7/16"-24.

Price **$9.00**

PREMAX PRODUCTS, DIV. CHISHOLM-RYDER CO., NIAGARA FALLS, N. Y.

Trade Discount Applies to List Prices Only.

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PREMAX ANTENNAS--MOUNTINGS--ACCESSORIES

VERTICAL TELESCOPING ANTENNAS
PREMAX STAINLESS STEEL ANTENNAS

Premax stainless steel antennas, fully telescoping and adjustable, have a locking device that holds the sections firmly at any desired point insuring a perfect electrical contact. Made of a high grade polished stainless steel tubing, hard-drawn to an extremely high tensile and yield strength, they are well suited for the most severe strains from high seas or winds.

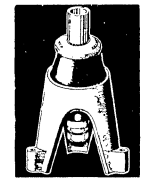
PREMAX ALUMINUM ANTENNAS

Premax aluminum antennas are lightweight, corrosion resistant and have adequate strength to meet practically all needs for marine, commercial and mobile installations that demand convenience in erecting and dependable performance. They are constructed of highly polished, specially tempered aluminum tubing engineered to withstand wind velocities up to 60 miles per hour.

PREMAX STEEL ANTENNAS

Inexpensive, popular, fully adjustable telescoping steel antennas for commercial, amateur, civil defense or other installations, made of high-tensile copper-nickel steel tubing, are heavily cadmium-plated. A positive locking device insures proper electrical contact between sections. *Not recommended for marine use on salt water.*

BASE MOUNTINGS FOR VERTICALS



TYPE 1 BASE INSULATOR

Heavy-duty type Base Mounting Insulator with compression rating up to 10,000 lbs. Has wet-process brown-glazed porcelain cones. Available in galvanized malleable iron, and chrome-plated brass, in rigid-post, hinged-post. Ht. to post base, 7 to 9 inches. Wt. 8 lbs.

List Price.....$52.00 to $105.00

TYPE 6 BASE INSULATOR

For marine, mobile unit, roof-top or tower. Lead-thru construction permits connections below deck. Flanges 6" in diameter with 6 bolts on a 5" circle. For ½" to 3" deck. Available in galvanized malleable iron, and chrome-plated brass. Rigid post, and hinged post styles. Ht. from flange to post base, 3" to 5". Wt., 11½ lbs.

List Price.....$78.00 to $170.00

SPECIFICATIONS & DESCRIPTIONS OF TELESCOPING VERTICALS

NO.	DESCRIPTION	EXTD.	COLL.	BASE O.D.	BASE I.D.	WGT.	LIST PRICE
SS-1118	3-Sec. Stainless	18'4"	6'3"	.750"	.680"	6	$ 90.00
SS-1124	4-Sec. Stainless	24'3"	6'3"	1.000"	.900"	9	135.00
SS-1130	5-Sec. Stainless	30'0"	6'4"	1.250"	1.120"	13	185.00
SS-1135	6-Sec. Stainless	35'7"	6'4"	1.500"	1.370"	19	255.00
AL-312	2-Sec. Aluminum	12'4"	6'4"	.500"	.334"	1½	15.00
AL-518	3-Sec. Aluminum	18'5"	6'4"	.750"	.584"	3	25.00
AL-324	4-Sec. Aluminum	24'4"	6'4"	1.000"	.834"	5	35.00
AL-530	5-Sec. Aluminum	30'0"	6'5"	1.250"	1.084"	7	55.00
AL-535	6-Sec. Aluminum	35'8"	6'5"	1.500"	1.310"	12	75.00
112-M	2-Sec. Steel	11'8"	6'0"	.656"	.556"	4	12.00
318-M	3-Sec. Steel	17'3"	6'2"	.875"	.775"	7	18.00
224-M	4-Sec. Steel	22'9"	6'3"	1.063"	.963"	11	25.00
130-M	5-Sec. Steel	28'3"	6'4"	1.250"	1.150"	15	30.00
136-M	6-Sec. Steel	33'9"	6'5"	1.500"	1.400"	20	38.00

STANDOFF INSULATORS

TYPE 10-S

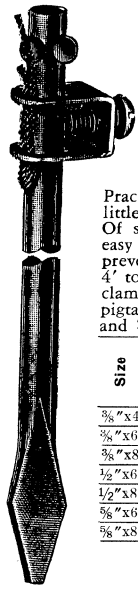
A heavy-duty Insulator with chrome-plated brass base and head caps—regular or hinged clamps. Insulator is brown-glazed porcelain in extra heavy style. Ht. to center of clamp, about 4½". Wt., 3 lbs.

List Price.....$60.00 to $87.50

TYPE 13-S

Heavy, rugged cast caps and base plates in aluminum, or chrome-plated brass. Heavy brown-glazed porcelain insulator, 3 inches in diameter. Ht. to center of clamp, 4¾". Wt., 2½ lbs.

List Price.....$15.50 to $34.00



PROTECT YOUR EQUIPMENT WITH A PREMAX GROUND ROD!

Practical and efficient Ground Rods, costing so little that it doesn't pay to fuss with makeshifts! Of smooth, hard-drawn steel, chisel-pointed for easy driving and heavily copper-plated for rust prevention and to insure clean electrical contact. 4' to 8' lengths in ⅜", ½" and ⅝" with screw clamp (illustrated) or in 6' and 8' lengths in pigtail wire, drilled hole or plain style, ½" and ⅝" only.

Size	Screw Clamp No.	List	Hole No.	Hole List	Pigtail No.	Pigtail List	Plain No.	Plain List
⅜"x4'	J-64	$ 90						
⅜"x6'	J-66	115						
⅜"x8'	J-68	165						
½"x6'	G-86	240	H-86	$225	P-86	$240	X-86	$210
½"x8'	G-88	295	H-88	280	P-88	300	X-88	275
⅝"x6'	G-106	335	H-106	330	P-106	335	X-106	310
⅝"x8'	G-108	420	H-108	410	P-108	420	X-108	395

All ⅜" Dia. Rod —25 per bundle
All ½" Dia. Rods—20 per bundle
All ⅝" Dia. Rods—10 per bundle

MOBILE WHIP ANTENNAS

HEAVY DUTY TAPERED STAINLESS—TYPE ES

Solid one-piece taper-ground whips, ¼" at base tapering to 3/32" at tip with top ball. High-tensile stainless steel fabricated by special formula, comparing favorably with the best spring steel, yet having excellent corrosion-resistant properties.

HEAVY DUTY TAPERED CHROME-SILICON—TYPE EC

Same as above only fabricated from chrome-silicon steel of exceptionally high-tensile strength and uniformity of temper, with high fatigue values developed by special heat treatment during fabrication.

STANDARD WEIGHT TAPERED STAINLESS WHIP WITH NON-REMOVABLE ADAPTOR—TYPE TS

Stainless steel whips of extremely high tensile strength with a permanent type stainless adaptor, with ⅜" male thread.

STANDARD WEIGHT WHIP WITH REMOVABLE ADAPTOR—TYPE VS

Same whip as above except supplied with a removable adaptor locked in place by dual set screws.

NO.	LENGTH	PRICE
ES-760	60"	$7.00
ES-772	72"	7.00
ES-784	84"	8.00
ES-796	96"	8.00
EC-660	60"	5.50
EC-672	72"	5.50
EC-684	84"	6.50
EC-696	96"	6.50

AD-700 — Separate Stainless Adaptor with ⅜" male thread for ES and EC series whips. **$2.25**

NO.	LENGTH	PRICE
TS-860	60"	$7.00
TS-872	72"	7.00
TS-884	84"	7.50
TS-896	96"	7.50
TS-8108	108"	8.00
VS-960	60"	8.00
VS-972	72"	8.00
VS-984	84"	8.50
VS-996	96"	8.50
VS-9108	108"	9.00

AD-900 Same as AD-700 except drilled for VS series whips. **$2.25**

ALL PRICES SHOWN ARE LIST PRICES SUBJECT TO USUAL COMMERCIAL DISCOUNTS.

PRICES EFFECTIVE AT TIME OF PRINTING AND ARE SUBJECT TO CHANGE WITHOUT NOTICE.

PREMAX PRODUCTS, DIV. CHISHOLM-RYDER CO., NIAGARA FALLS, N. Y.

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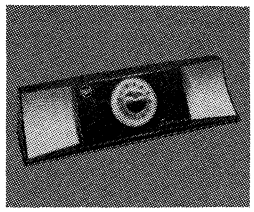
INDOOR ANTENNAS

FOR SUPERIOR SOUND AND PICTURE QUALITY

PARTS & ACCESSORIES



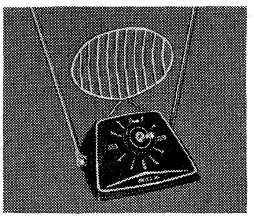
STOCK No. 10A1000
10A1001
10A1002

FINISH: MAHOGANY
WALNUT
IVORY

$9.95 OPTIONAL LIST PRICE

RCA STARLINER

- ARMS FOLD OUT OF SIGHT
- 12 POSITION ELECTRONIC SWITCH
- COLOR — B&W — UHF — VHF-FM
- TELESCOPING ARMS EXTEND 102"
- 14" x 4" x 3½" — WT. 2½ LBS.



STOCK No. 10A1010
10A1011
10A1012

FINISH: MAHOGANY
WALNUT
IVORY

$7.35 OPTIONAL LIST PRICE

RCA SENTRY

UHF-VHF

- NEW RADAR COIL DESIGN
- SELECTOR SWITCH
- 4 SECTION ARMS
- 6 FT. LINE—SOLDERED LUGS
- WT. — 2½ LBS.

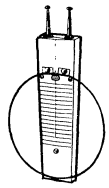
NEW RCA "BRITE SITE" TV AND FM ANTENNA

- Covers Entire VHF-TV and FM Bands
- Can Be Completely Concealed
- Printed Circuit for Simple Installation

Economical TV-FM indoor antenna that produces excellent results when used in locations up to thirty miles from station. Actually a full-size conical antenna projected on a flat surface 52x12" in size. Extremely convenient where use of an outdoor antenna is impractical. Designed for use in attics, on garage or utility room ceilings, beneath rugs, on walls, under sofas, etc. Antenna elements are deposits of finely powdered pure silver in plastic binder, imprinted on a tough, flexible, fibrous sheet. Recommended for use at the highest practical level within the home (away from metallic plumbing and heating systems). Very simple to install—just set it in position that provides best reception—tack it and forget it. Since it is not exposed to the weather, it will last for years. Gain characteristics are similar to those of standard outdoor conical antennas. Supplied complete with 10 feet of 300-ohm twin line—ready to use. Shpg. wt., 1¾ lbs.

$3.95 OPTIONAL LIST PRICE

STOCK NO 103052-A

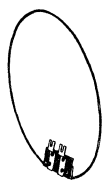


STOCK NO. 103890

STOCK NO. 107261

STOCK NO. 109139

STOCK NO. 109920



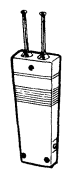
STOCK NO. 109921

STOCK NO. 107260

RCA portable TV antennas

STOCK NO. 104458

STOCK NO. 112691



STOCK NO. 102382

STOCK NO. 104457

Model Series	Stock No.
8PT-703	102382
140P01	104457
140P01U	104458
14P-903U	104458
14PD-802	104457
14PD-805	104457
14PD-805U	104458
14PT-802U	104458
14PT-901	104457
14PT-901U	104458
14PT-903	104457
14S-707	103052A
14S-707GU	103052A
14S-7707	103052A
17D-818	104457
17D-818U	104458
17PD-807E	104457
17PD-809	104457
17PD-809E	104457
17PT-807	104457
17PT-807E	104457
17PT-807U	104458
17PT-904	104457
17PT-904U	104458
17PT-907	104457
17S-709	103890
94A-06MU	109921
94A-06MV	109920
94A-08MU	109921

Model Series	Stock No.
94A-08MV	109920
94A-10MU	109921
94A-10MV	109920
94A-12RS	112691
94A-13MU	109921
94A-13MV	109139
94A-16MU	109921
94A-16MV	112691
94A-17MU	109921
94A-17MV	112691
94A-18MU	109921
94A-18MV	112691
94A-18RS	112691
K94A-19MV	109139
K94A-19MU	107261
170P-042	107260
170P-042U	107261
170T-122	107260
170T-124U	107261
171A-02	109139
171A-024	107260
171A-024U	107261
172A-04MU	107261
172A-04MV	109139
173A-50MU	107261
173A-50MV	109139
173A-54MV	109139
192A-06MU	109921
192A-06MV	109920
192A-07MU	109921

Model Series	Stock No.
192A-07MV	109920
192A-07RS	109920
192A-09MU	107261
192A-09MV	109139
193A-48MU	109921
193A-48MV	109920
193A-49MU	109920
193A-51MU	109921
193A-51MV	109920
193A-52MU	109921
193A-52MV	109920
193A-52RS	109920
193A-53MU	109921
193A-53MV	109920
193A-54MU	107261
193A-54MV	109139
193B-57MU	109921
193B-57MV	112691
193B-57RS	112691
193K-040MU	109921
193K-040MV	109920
21D-828U	104458
21D-830	104457
21D-862U	104458
21PD-811	104457
21PD-811U	104458
21PD-847U	104458
21PT-9095	104457
21T-824	104457

RADIO CORPORATION OF AMERICA

RCA PARTS AND ACCESSORIES — CAMDEN, N.J.

Trade Discount Applies To List Prices Only

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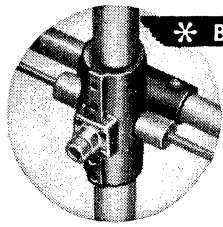
UHF • VHF — Complete Antenna Coverage —

Precision Industrial Antennas by SCALA

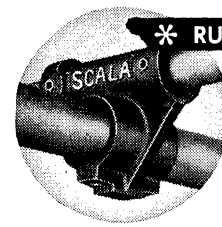
Why you get better performance with Scala Antennas–



✻ BUILT-IN BALUN

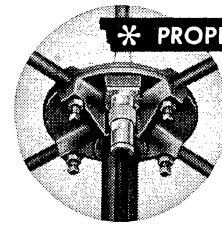
(pat. pending)

Provides a balanced feed system assuring equal distribution of current to the driven element, greater electrical and mechanical stability. The balun allows the driven element to be supported by metal and eliminates the necessity of using the insulator as a mechanical support.



✻ RUGGED CONSTRUCTION

Elements are supported by machined castings providing a larger support area, damping vibrations and reducing the concentration of stress and metal fatigue. Mechanical splices are never used. All units are available in metals other than aluminum if desired.



✻ PROPER STRUCTURAL DESIGN

A machined casting, webbed for extra strength and structural support is used to hold parasitic elements in the ground plane antenna. Set screws and lock nuts provide simple assembly and easy installation.

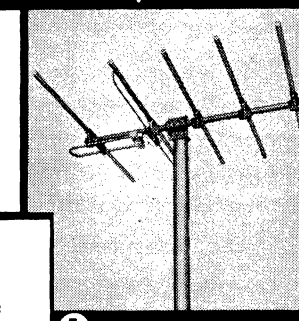
✻ BUILT-IN HEATER

Most of the antennas described below can be obtained with a 24 volt heating system for maximum weather protection and assured winter operation.

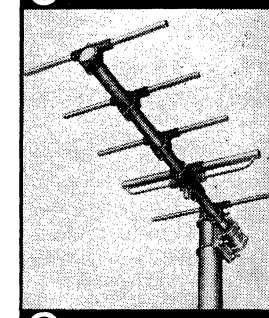
✻ TESTING AND INSPECTION

Each antenna is tested twice for impedance match—once during manufacture and again prior to dis-assembling for shipment. New models are field-tested for one year before released for production.

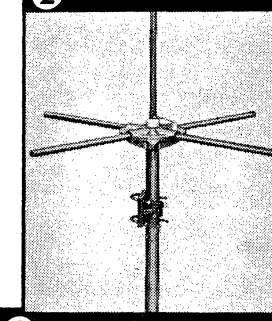
**Shipped complete—all U-bolt mounting clamps and brackets are included. Unit is ready for installation.*



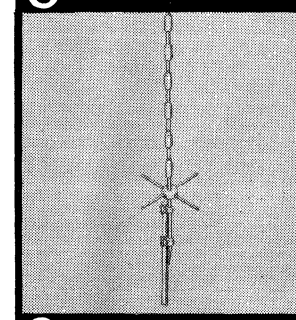
1 MODEL CA5-150



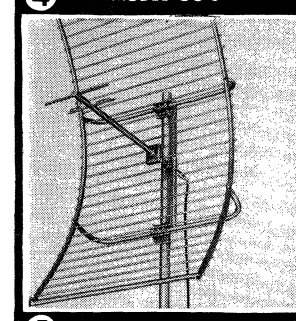
2 MODEL CA5-450



3 MODEL GPC-150



4 MODEL OG-6



5 MODEL PR-450

1 YAGI—VHF

The Scala Model CA5-150 is a 52-ohm 5 element yagi. Nine db gain on the major lobe is assured by careful design and Scala's exclusive feed system which eliminates radiation from the feed line and provides equal distribution of current to the driven element. The VSWR is less than 1.3 to 1. For complete weatherproofing and year-around operation, the boom can be provided with a 24 v heater. The unit is annodized and dichromate sealed.

2 YAGI—UHF

The Scala Model CA5-450 general communications antenna is a product of years of extensive research. Its construction is possible only because of developments in foam plastics and Teflon insulated cable. A Teflon insulated balun is located within a chamber filled with a special foam plastic for complete moisture and corrosion protection. High strength 7/16" solid aluminum rod is used for the parasitic elements. VSWR is less than 1.3 to 1. Gain is 10 db. Two units may be mounted in an array for an increase in gain up to 3 db and greater directivity. Shipped completely assembled, the unit is annodized and dichromate sealed.

3 GROUND-PLANE—40-170 MC

The Scala Model GPC-150 ground-plane antenna is ideal for non-directional, all weather communications. It is the first ground-plane antenna that can be obtained with 24 v heaters throughout — including the radial elements, providing a completely weatherproof and safe year-round operating antenna. Another version of this unit, comes equipped with a reflector and provides a cardioid radiation pattern with increased gain. In all cases the VSWR is less than 1.3 to 1. The unit is annodized and dichromate sealed.

4 OMNI-DIRECTIONAL GAIN ANTENNAS

Scala's Omni-Directional Gain Antennas—150 Mc and 450 Mc—use half-wave independently fed radiators. Model OG-4 (150 Mc) provides 4 db plus gain over dipole; Model OG-6 (450 Mc) 6 db plus gain over dipole. All elements at DC ground supported by metal. Extremely rugged anodized aluminum construction. Shipped ready for installation.

5 PARAFLECTOR®—350-1000 MC

The Scala Model PR-450 Paraflector® is a major contribution toward the improvement of antenna construction and performance in the 350 to 1000 mc range. Essentially, a parabolic section in one plane, the driver is positioned to approach a point source. Over the 350 to 1000 mc range, the Paraflector® is equal to a parabolic dish of the same aperture and has the advantage of lower cost, lighter weight, ease of assembly, installation and rugged construction.

EXACTING DESIGN—TESTED MATERIALS—PRECISION MANUFACTURE

In addition to the antennas described above, and other standard communications, telemetering and community systems, Scala maintains a complete engineering service to design and manufacture special antennas to your specific requirements.

Write for complete catalog on Scala antennas and engineering services.

SCALA RADIO COMPANY

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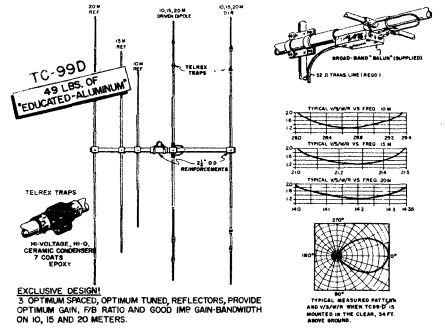
telrex "The-performance-line" WITH A "MATERIAL" DIFFERENCE

"BEAMED-POWER" — "BALANCED-PATTERN" — "PERFECT-MATCH" ARRAYS

LABORATORY TUNED, MATCHED, & CALIBRATED TO ASSURE PROPER AND EXACT ASSEMBLY

for "TOP-MAN"-ON-THE-FREQUENCY-RESULTS AT YOUR SITE!

10, 15 and 20 Meter MODEL TC-99D Amateur net price $249.00



EXCLUSIVE DESIGN! 3 OPTIMUM SPACED, OPTIMUM TUNED, REFLECTORS, PROVIDE OPTIMUM GAIN, F/B RATIO AND GOOD IMP. GAIN-BANDWIDTH ON 10, 15 AND 20 METERS.

TC-99D SPECIFICATIONS

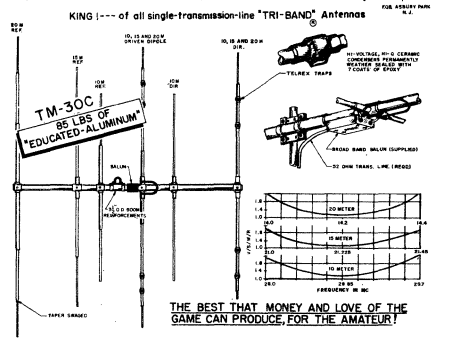
FREQ. RANGE	POLARIZATION	GAIN - MEASURED
10, 15 and 20 METERS	LINEAR, HORIZONTAL	8.5 DB, AVERAGE
SIDE NULLS 35 DB	F/B RATIO 28 DB +	V. S. W. R. (3/1 AT RESONANCE, 3 BANDS
WEIGHT 49 LBS.	ENVIRONMENTAL 95 MPH	BEAMWIDTH TO 1/2 PWR. PT. 60° - 3 BANDS
SHIPPING WT. 60 LBS	WIND SURFACE AREA 6.5 SQ/FT.	WIND LOAD AT 100 M.P.H. 250 LBS
LONGEST EL. LGTH. 36 FT.	TURNING RADIUS 21 FT.	RECOMMENDED SUPPORT MAST 2" O.D.
POWER RATING 2 KW P.E.P.	CONSTRUCTION ALUMINUM DURAL, MICARTA INSULATION, STAINLESS STEEL ELEC. HDWR. HEAVY-DUTY CAD. PLT. STEEL GUSSET PLT. MOUNTING.	RECOMMENDED ROTATOR 75 MPH AREAS — GOOD — TV ROTATOR 120 MPH AREAS — TELREX MODEL TS-238-RIS
BOOM ALUM. 3" O.D. x .18" LONG		

TM-30C SPECIFICATIONS

FREQ. RANGE	POLARIZATION	GAIN-MEASURED
10, 15 AND 20 METERS	LINEAR, HORIZONTAL	10 DB, AVERAGE
SIDE NULLS 35 DB	F/B RATIO 30 DB	V. S. W. R. (3/1 AT RESONANCE, 3 BANDS
WEIGHT 85 LBS	ENVIRONMENTAL 95 MPH	BEAMWIDTH TO 1/2 PWR PT. 55°- 3 BANDS
SHIPPING WT. 114 LBS	WIND SURFACE AREA 9.5 SQ. FT.	RECOMMENDED SUPPORT MAST 2" O.D.
LONGEST EL. LGTH. 36 FT	TURNING RADIUS 28 FT	WIND LOAD AT 100 MPH. 300 LBS
POWER RATING 3 K.W. P.E.P.	CONSTRUCTION ALUMINUM DURAL, MICARTA INSULATION, STAINLESS STEEL ELEC. HDWR. HEAVY-DUTY CAD. PL. STEEL GUSSET PLATE MOUNTING.	RECOMMENDED ROTATOR TELREX MODEL TS 238-RIS OR TELREX MODEL TS238-RIS
BOOM ALUM. 3" O.D. x 26' LONG		

10, 15 and 20 Meter MODEL TM-30C Amateur net price $378.00

KING (---- of all single-transmission-line "TRI-BAND" Antennas



THE BEST THAT MONEY AND LOVE OF THE GAME CAN PRODUCE, FOR THE AMATEUR!

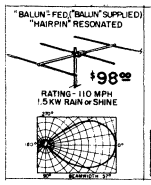
ALSO AVAILABLE "TRI-BAND©" MODEL TC88D.....$149.00
4 BAND SINGLE TRANS-LINE ARRAY.
4 EL on 10, 4 EL on 15, 3 EL on 10 & 3 EL on 40.....$999.99

"DUO-BAND" MODEL DC-105, 3 EL on 10 & 3 EL on 15M.....$195.00
"DUO-BAND" MODEL DB-99D, 3 EL on 15 & 3 EL on 20M..... 249.00
"DUO-BAND" MODEL DB-30C, 4 EL on 15 & 3 EL on 20M..... 378.00

telrex OPTIMUM SPACED "MONARCH" MONO-BAND ARRAYS

"BALUN"-FED, LABORATORY TUNED, MATCHED AND CALIBRATED TO PROVIDE OPTIMUM PERFORMANCE & BANDWIDTH PER ELEMENT, PER DOLLAR

"BALUN"-FED ("BALUN" SUPPLIED) "HAIRPIN" RESONATED

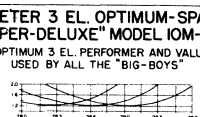


$98.00

RATING - 110 MPH 1.5 KW RAIN or SHINE

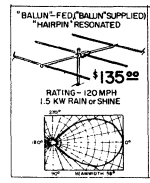
10 METER 3 EL. OPTIMUM-SPACED "SUPER-DELUXE" MODEL 10M-313B

AN OPTIMUM 3 EL. PERFORMER AND VALUE --- USED BY ALL THE "BIG-BOYS"



GAIN IN DB	10.0	BOOM LGTH. & DIA.	14'X2"
F/B RATIO IN DB	24	LONGEST ELEM. LGTH.	18'-0"
1/2 POWER BEAMWIDTH	57°	TURNING RADIUS	12'-0"
WIND AREA SQ. FT.	2.75	NET WEIGHT LBS	21
WIND LOAD, 100 MPH. LBS	82	SHIPPING WEIGHT LBS	28

"BALUN"-FED ("BALUN" SUPPLIED) "HAIRPIN" RESONATED

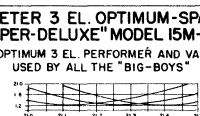


$135.00

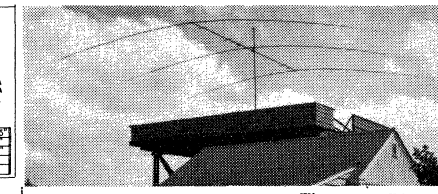
RATING - 120 MPH 1.5 KW RAIN or SHINE

15 METER 3 EL. OPTIMUM-SPACED "SUPER-DELUXE" MODEL 15M-317B

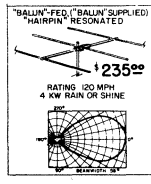
AN OPTIMUM 3 EL. PERFORMER AND VALUE --- USED BY ALL THE "BIG-BOYS"



GAIN IN DB	10.0	BOOM LGTH. & DIA.	17'X25"
F/B RATIO IN DB	24	LONGEST ELEM. LGTH.	24'-0"
1/2 POWER BEAMWIDTH	58°	TURNING RADIUS	14'-6"
WIND AREA SQ. FT.	3.55	NET WEIGHT LBS	37
WIND LOAD, 100 MPH. LBS	107	SHIPPING WEIGHT LBS	48



"BALUN"-FED ("BALUN" SUPPLIED) "HAIRPIN" RESONATED

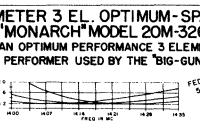


$235.00

RATING 120 MPH 4 KW RAIN OR SHINE

20 METER 3 EL. OPTIMUM-SPACED "MONARCH" MODEL 20M-326B

AN OPTIMUM PERFORMANCE 3 ELEMENT PERFORMER USED BY THE "BIG-GUNS"



GAIN IN DB	10	BOOM LGTH. & DIA.	26'X3"
F/B RATIO IN DB	28	LONGEST ELEM. LGTH.	36'
1/2 POWER BEAMWIDTH	58°	TURNING RADIUS	24'
WIND AREA SQ. FT.	8.53	NET WEIGHT LBS	71
WIND LOAD, 100 MPH. LBS	266	SHIPPING WEIGHT LBS	85

ALSO AVAILABLE

10	METER	5	ELEMENT	MODEL	10M-518B	$165.00
10	"	5	"	"	10M-523	245.00
10	"	6	"	"	10M-636	425.00
15	"	5	"	"	15M-525	235.00
15	"	5	"	"	15M-532	365.00
20	"	5	"	"	20M-536	385.00
20	"	5	"	"	20M-546	595.00
40	"	3	"	"	40M-335	635.00

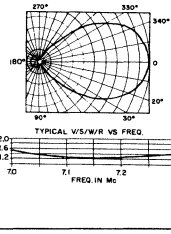
MANY MORE — WRITE FOR CONDENSED SPEC & PRICE LIST PL-65

MODEL 40M-346

$785.00 F.O.B ASBURY PARK N.J.

CUSTOM-BUILT TO ORDER

SPECIFICATIONS	
GAIN IN DB OVER WAVE DIPOLE	9.0
F/B RATIO IN DB	30
BEAMWIDTH TO PWR. POINT	59°
WIND AREA IN SQ. FT.	1.350
WIND LOAD AT 100 M.P.H. IN LBS	427
BOOM LGTH. & DIA. approx.	46'x 3½"
LONGEST ELEM. LGTH. approx.	64'
TURNING RADIUS approx.	40'
NET WEIGHT LBS approx.	177
SHIPPING WT. LBS approx.	222

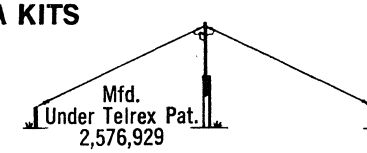


telrex "BALUN" FED INVERTED "V" ANTENNA KITS

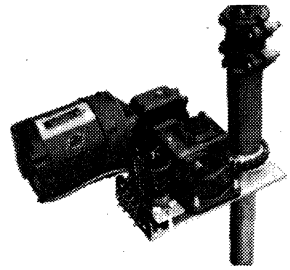
SIMPLE-TO-INSTALL, HI-PERFORMANCE ANTENNA SYSTEMS:

1 KW P.E.P. Mono-Band Kit $16.95*
2 KW P.E.P. Mono-Band Kit $21.00*

*Kit comprises, encapsulated, "Balun," copperweld, insulators, plus installation and adjustment instructions for any Mono-band 80 thru 10 Meters. Also available 2, 3, 4, 5 Band Models.



TELREX ROTATOR-INDICATOR System MODEL TS250RIS



Mast Feeds Thru Rotator For Safe, Easier, Installation

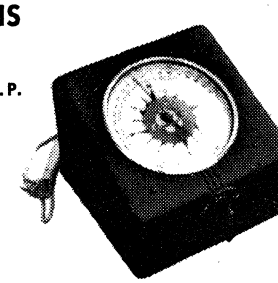
- 1200 IN/LBS ROTATION TORQUE
- SELF LOCKING BY STURDY WORM GEARS
- SELSYN AZIMUTH INDICATION
- ACCOMMODATES 2" O.D. MASTING
- MALLEABLE CAST MASTING CLAMP SUPPLIED
- OUTPUT SPEED APPROX. 1 RPM

A Really Sturdy ROTATOR-INDICATOR SYSTEM— NOT a Modified TV Rotator! Designed To Out-Perform, Outlast!

$250.00 f.o.b. A. P.

ALSO

TS325RIS..$325.00
TS435RIS..$435.00
TS535RIS..$535.00
TS585RIS..$585.00



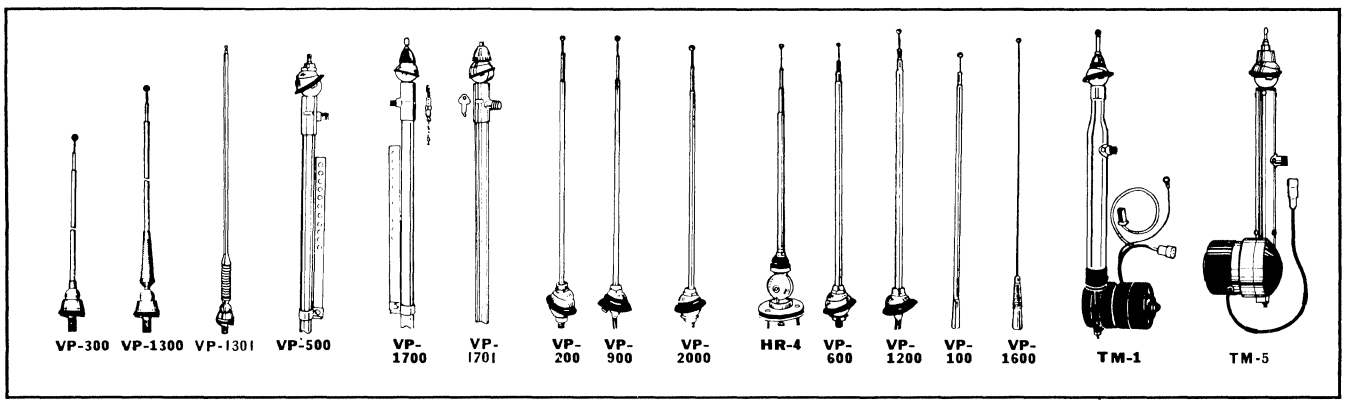
TELREX LABS.
ASBURY PARK, N.J.

© U.C.P., Inc.

TENNA Auto Antennas and Mounts

THE TENNA MANUFACTURING COMPANY, INC., CLEVELAND, OHIO

World's largest maker of Auto Aerials



SWIVEL BALL TYPE TOP MOUNT ANTENNAS

"DELUXE" SATELLITE

Ball rotates full 360° in any direction. Mast may be locked at any angle. Mounts from outside. Extends 23" to 57", with 48" cable.
Model VP-300* ..... **Net 2.75**

"FLEXO-MAST" SATELLITE

Swing-back spring resists impact for maximum flexibility. Extends 23" to 57", with 48" cable.
Model VP-1300* ..... **Net 4.20**

NEW FLEXO-MAST SATELLITE

A new improved Spring antenna for rugged duty and high impact use. Stainless Steel Spring for the maximum in flexibility. Universal Swivel-Ball base. Mounts on top, side or any angle. 3 sections extend 23" to 57" with 48" cable.
Model VP-1301 ..... **Net 4.20**

SIDE MOUNT AND CONCEALED ANTENNAS

"DELUXE" SIDE MOUNT

Triple chrome plated with chrome cap-nuts and screw-on connectors. Extends 23" to 57", with 48" polyethylene cable.
Model VP-400* ..... **Net 2.75**

ECONOMY SIDE MOUNT

Same as VP-400, but with gray cap-nuts.
Model VP-1000* ..... **Net 2.55**

"DELUXE" CONCEALED TYPE

Large seamless steel tube reduces capacity losses. Tilts 40° from vertical. Extends 0" to 50", with 48" radar-type cable.
Model VP-500* ..... **Net 3.50**
Model VP-1100* —Economy type, extends 4" to 35". ..... **Net 3.35**

SAF-KEY ANTENNA

Mast completely disappears. Breakproof! Mast can only be raised with combination key; key ring included with antenna. Sweeps back 40°. Extends 0" to 50", with 48" cable.
Model VP-1700* ..... **Net 4.25**

ECONOMY SAF-KEY ANTENNA

Built along the lines of VP-1700 disappearing antenna except that Mast extends to 48" cable — 39° from 0".
Model VP-1701* ..... **Net 4.20**

3 SECTION TOP MOUNT ANTENNAS

"DELUXE" BALL AND ROCKER

Quick top mounting on cowl, rear deck or fenders. Diecast body; diecast rocker and chrome cover cap. Extends 23" to 57", with 48" radar-type cable.
Model VP-200* ..... **Net 2.65**

"LEADER" WITH SPLIT WASHER BASE

Similar to VP-200, but with black Tenite and split washer base for simple top mounting. Extends 23" to 57", with 48" cable.
Model VP-900 ..... **Net 2.45**
Model VP-1800*—"Economy Shorty" extends 17" to 35", with 48" cable. ..... **Net 2.05**
Model VP-1900*—"Leader Shorty" extends 23" to 50", with 48" cable. ..... **Net 2.15**

POPULAR BALL AND ROCKER

Triple chrome finish, sweeps back 40° and locks. Die cast rocker has positive grounding teeth. Extends 23" to 57", with 54" cable.
Model VP-2000* ..... **Net 2.65**
Model VP-800*—Economy type. Same as 2000, but has stamped rocker design and 48" cable. ..... **Net 2.55**

2 SECTION TOP MOUNT ANTENNAS

"DELUXE" ALL CHROME

"Ball and rocker" base, sweeps back 40°. Die cast rocker has positive grounding teeth. Has chrome cover cap. Extends 22" to 39", with 48" cable.
Model VP-600* ..... **Net 2.15**

"LEADER" MAGIC MOUNT

Triple chrome plated, mounts easily by one person. Has split-washer base. Looks like 3 sections. Extends 22" to 39", with 48" cable.
Model VP-1200* ..... **Net 2.05**

"ECONOMY" BALL AND ROCKER

Triple chrome plated with stamped rocker and plastic ball. Extends 22" to 39", with 48" cable.
Model VP-1500* ..... **Net 2.00**

REPLACEMENT MASTS

"DELUXE" THREE SECTION

Installs instantly by slipping base over broken portion of old mast and tightening set screws. Weatherproof, anti-rattle construction with chrome finish. Extends 23" to 57".
Model VP-100* ..... **Net 1.75**

FLEX-O-ROD MAST

Single section, chrome plated 26" rod bends to 90°. Polished, high tempered stainless steel spring.
Model VP-1600* ..... **Net 1.65**

SPECIALTY ANTENNAS

TENNAMATIC ELECTRIC ANTENNA

Universal design approved by all major auto manufacturers. Unconditionally guaranteed for one year. For 12-volt systems only. Mast extends 39"; collapses to less than 1". Patented motor design can't "burn out"; give positive 15 lb. thrust for free action in sub-zero weather. Comes with switch and bracket, 54" radar cable (copper shielded), 72" electric harness, cable clips, anchor brackets, metal screws and installation instructions.
Model TM-1—Front mount. ..... **Net 21.55**
Model TM-2—Rear mount. ..... **Net 22.55**
With 18' cable and 20' electric harness. Extra clips supplied. Rear mount adapter pad for crown rear fenders. .....
Model TM-3—Rear mount kit of 15' cable extension, 14' harness extension and rear mount adapter pad. Converts TM-1 to TM-3. **Net 3.55**

NEW TENNAMATIC

New Electric Antenna patterned after TM-1 but designed to fit more cars. New dress parts — 4 section mast extends to 35" from 1¼". Includes same hardware as above models.
TM-5—Front Mount 54" lead ..... **Net 27.55**
TM-6—Rear Mount 216" lead ..... **Net 28.55**

"HOT-ROD" POLICE ANTENNA

Police type antenna for the "hot-rod" enthusiast. Four sturdy sections. Ninety-two inches when extended. Fifteen-foot coaxial lead. Uses MB-2 swivel mounting base.
Model HR-4 ..... **Net 6.42**

***NOTE: Prices shown are for Skin Pack—VP**
Available in box (X suffix) .05 decrease.
Available in bulk (A suffix) .08 decrease.
Specify on order VP, X or A.

RADAR TYPE LEAD CABLES

Radar type ultra high "Q" coaxial cables with polyethylene insulation and 100 per cent shielding. **Type L** has aircraft connector to antenna and pin plug. Extension **Type LE** has male and female pin plug fittings.

Model	Length	Model	Length
LE-12	12"	**L-72**	72"
LE-18	18"	**LE-48**	48"
LE-24	24"	**LE-108**	108"
LE-36	36"	**LE-144**	144"
L-36	36"	**LE-180**	180"
L-48	48"	**LM-144***	144"
L-54	54"	**LM-180***	180"
L-60	60"	**MRC-54†**	54"

**Communication lead. † Universal replacement cable. Equipped with three different mounting nuts for all or any assemblies.

EXACT REPLACEMENT ANTENNAS

Complete Kit, Model ER-1

Kit contains handsome, gold finished, floor display stand with 3 each of 47 Exact Replacement models. Gives Distributor an exact replacement for every original equipment installation. Completely assembled, ready for quick and profitable installation. Skin packed on attractive display cards. Small display space required.

SMALLER STAND FOR DEALERS

DER-1

Dealer gold finished, rotating counter display holds 12 antennas of dealer's choosing to suit local needs. Write for leaflet explaining full Exact Replacement Program. Multiplies sales at most attractive profits.

A SURE WAY TO INCREASE ANTENNA PROFITS!

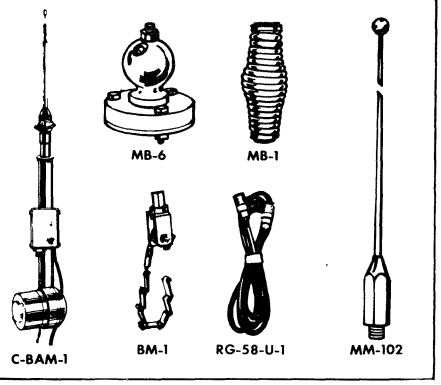
RACK MODEL ER-1

WHERE PROGRESS IS A HABIT AND SALES LEADERSHIP AN ESTABLISHED FAC

Tenna COMMUNICATION ANTENNAS

THE TENNA MANUFACTURING COMPANY, INC., CLEVELAND, OHIO

World's largest maker of Auto Aerials



C-BAM DUAL PURPOSE ELECTRIC ANTENNA

Receives CB, AM and FM. Top loaded coil eliminates need for long, cumbersome whips. Extends to 55", collapses to 9½", complete coil disappears. Completely automatic. Sturdy, 4 section. Installs front or rear. C-BEE model same as C-BAM but receives CB only.

C-BAM-1—front ..... **Net $23.49**
C-BAM-2—rear ..... **Net $24.98**
C-BEE-1—front ..... **Net $19.49**
C-BEE-2—rear ..... **Net $20.98**

COMMUNICATION GEAR

BASES

MB-4—Chrome plated Ball and Phenolic Base ..... **Net $4.02**
MB-5—Cadmium plated, resistant painted black Ball and Phenolic Base ..... **Net $3.52**
MB-6—Same as above, except contains Cadmium plated Ball with plated hardware. **Net $3.03**

SPRINGS

SP-1—Stainless steel Spring ..... **Net $4.04**
SP-2—Cadmium plated, black resistant painted Spring ..... **Net $2.75**
SP-3—Cadmium plated Spring ..... **Net $2.04**

STAINLESS STEEL WHIPS

MM Series. Number denotes length. **MM-40, MM-55, MM-60, MM-72, MM-84, MM-96, MM-102, MM-108**

Add following letters to **MM** numbers for type of adapter desired. **A** for non-removable. **B** for removable. **C** for set-screw type. **D** no adapter.

BUMPER MOUNTS

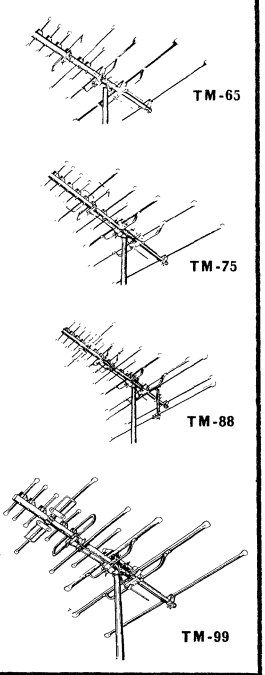
For any standard spring or whip assembly.

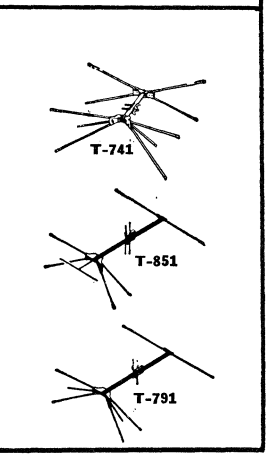
BM-1—Single Chain Mount ..... **Net $4.85**
BM-2—Double Chain Mount ..... **Net $6.14**

CABLES

RG-58-U-1 Split end to PL-259
RG-58-U-2 PL-259 on each end. specify length; 5', 12', 15', 22'

Tenna *Mileage-Metered* YAGIS and CONICAL ANTENNAS





NEW MILEAGE-METERED YAGIS — ESPECIALLY SUITED FOR COLOR TV

Six VHF antennas for clear-cut Television reception from any transmitter far or near. Designed for excellent color reception and black and white.

A Model for the 100 mile range — with models for distance in between.

Features are "quick-rig" design . . . good solid gain across channels 2-6 and 7-13 . . . Gold Anodized Finish.

Big ¾" dipoles and 1" booms for rugged duty and wind resistance.

MODEL TM-60 Reception Range: 1-40 miles

Ideal replacement for "conical" antenna. Yagi directness assures precise picture clarity and positive reception.

Two low band driven elements offer gain and directivity across channels 2-6.

High band has driven element, reflector and two directors for channels 7-13.

All aluminum. Low wind resistance. And . . . BIG ¾" dipoles! Shipping wgt. for carton of two: 9.7 lbs. ..... **Net $6.17**

MODEL TM-65 Reception Range: 40-60 miles

A compound broadband antenna On channels 2-6, four elements. On channels 7-13, five elements. All phased for maximum gain and directivity.

All aluminum. One-inch boom and "Sure Grip" mast clamp. Reflectors reinforced with aluminum dowels. And . . . BIG ¾" dipoles! ..... **Net $11.37**

Shipping wgt. for carton of two: 14.2 lbs.

MODEL TM-75 Reception Range: 60-80 miles

On low band channels five elements used, two driven and phased for maximum front to back ratio.

On high band channels, seven elements active and adjusted for maximum gain and directivity.

Ideal for color because of flat gain characteristics.

Aluminum dowel reinforced reflector. One inch diameter boom. And . . . BIG ¾" dipoles! ..... **Net $13.77**

Gold anodized finish, order TM-75A.

Shipping wgt. for carton of two: 9.1 lbs.

MODEL TM-70 Reception Range: 80-90 miles

Nine element broadband Model with three driven dipoles including separate high band dipole. Competitive but equally priced models have only 2 dipoles.

Preassembled. Aluminum dowel reinforced 7/16" reflector. Newly designed clamp. ..... **Net $10.77**

Gold anodized finish, order TM-70A ..... **Net $13.77**

Shipping wgt. for single carton: 7 lbs.

MODEL TM-88 Reception Range: 80-90 miles

A broadband compound array with seven active elements on low band; eight active elements on high band. Plus three driven dipoles.

All aluminum. Quick rigged. "Sure Grip" mast clamp. Low wind resistance. Higher sensitivity for all channels. One-inch boom. And . . . BIG ¾" dipoles! ..... **Net $14.97**

Gold anodized finish, order TM-88A. ..... **Net $18.19**

Shipping wgt. for single carton: 10 lbs.

MODEL TM-99 Reception Range: 90-100 miles

Tenna's **finest Model** designed for extreme fringe areas, and **proved for pinpoint color reception!**

Four driven dipoles: two on high band, two on low. Maximum front to back ratio. Ideal for rotor installation. And . . . BIG ¾" dipoles! Reflector System (shown): Makes TM-99 40 times more sensitive. Composed of 1 element spaced behind and in the same plans as the rear driven element of the array w/2 elements mounted below, thus providing the finest possible front to back ratio across the maximum number of channels.

Order TM-99R for Reflector System, TM-99RA for Gold Anodized Reflector, or TM-99A for Gold without Reflector. ..... **Net $18.17**

TM-99. Shipping wgt. 13 lbs. ..... **Net $20.97**

TM-99R and TM-99RA. Shipping wgt. 15 lbs. ..... **Net $26.97**

CUT-CHANNEL YAGIS

Cut-to-channel Yagis available upon request. Specify channels and number of elements (5 or 10).

UHF ANTENNAS

Tenna Model U-Z1—All-Aluminum construction, pre-assembled. Minimum wind resistance. Very high front-to-back ratio; increased gain. Covers channels 14 through 83. Shpg. wt., 3¼ lbs.

Tenna Model U-Z2—Horizontally stacked, highly directive. Pre-assembled all-aluminum construction. Low wind resistance. Covers channels 14 through 83. Shpg. Wt., 4 lbs.

CONICAL YAGI MIRACLE ANTENNAS

Deluxe antenna for areas where co-channel interference is a problem. Provide high gain, broad band width and high directivity for near fringe areas. Miracle Reflector System gives front to back ratio as high as 30 to 1. Usable on channels 2 through 13. All aluminum elements are completely preassembled.

Tenna Model CY-8R Yagi—Ten elements. Reflector system eliminates need for stacking. Shipping Weight, 6 lbs.

Tenna Model CY-8RA—Same, but gold anodized.

Tenna Model CY-7 Yagi—Seven elements. Includes "Presto" instant mount assembly and stacking bars. Shipping Weight 4½ lbs.

Tenna Model CY-7A—Same, but gold anodized.

Tenna Model CY-8 Yagi—Eight elements. With stacking bars. Shipping Weight, 5 lbs.

Tenna Model CY-8A—Same, but gold anodized.

CONICAL ARRAYS

Full size, all aluminum antennas cover all channels 2 through 13. Available with high-channel Director Bar for greatly improved reception on upper channels. Choice of four or six forward elements and two or four reflector elements. Stacked arrays consist of two bays with connecting bars for stacking. Completely pre-assembled with Instant Mount Assembly. Includes high impact molded polystyrene insulator.

SINGLE ARRAYS

Tenna Model	Forward Elements	Refl. Elements	HF Stubs	Director Bar	Shpg. Lbs.
T-751	4	4	----------	1	3
T-801	4	2	----------	----------	2½
T-811	4	4	----------	----------	2⅞
T-741	4	4	2	----------	3
T-851	4	2	----------	1	2⅞
T-791	4	2	2	----------	2⅝
T-771	6	2	----------	----------	2⅞
T-781	6	2	----------	1	3⅛

STACKED ARRAYS

T-752†	8	8	----------	2	6⅜
T-802†	8	4	----------	----------	5¼
T-812†	8	8	----------	----------	6
T-742†	8	8	4	----------	6⅛
T-852†	8	4	----------	2	5½
T-792†	8	4	4	----------	5¼
T-772†	12	4	----------	----------	5½
T-782†	12	4	----------	2	6

*Bulk-packed 6 per master carton; for individually boxed antennas, packed four per master carton, add suffix **A** to number (example: T-751**A**). †Bulk-packed three per master carton; for individually boxed units, packed four per master, add suffix **A**.

CONICAL ANTENNA KITS

Contain conical arrays, mount, masts, cable and all necessary hardware. "Do-It-Yourself" kits.

CHIMNEY MOUNT

Tenna Model	Array Type	Shpg. Lbs.	Tenna Model	Array Type	Shpg. Lbs.
DK-801	T801A	8½	DK-741	T741A	9
DK-802	T802A	13	DK-742	T742A	13¾
DK-811	T811A	8⅞	DK-751	T751A	9
DK-812	T812A	13¾	DK-752	T752A	14
DK-791	T791A	8⅝	DK-851	T851A	8⅞
DK-792	T792A	13¼	DK-852	T852A	13¼
DK-771	T771A	8⅞	DK-781	T781A	9⅛
DK-772	T772A	13¼	DK-782	T782A	13¾

SWIVEL MOUNT

DK-801-3	T801A	6½	DK-741-3	T741A	7
DK-802-4	T802A	11¼	DK-742-4	T742A	12
DK-811-3	T811A	6⅞	DK-751-3	T751A	7
DK-812-4	T812A	12	DK-752-4	T752A	12½
DK-791-3	T791A	6⅝	DK-851-3	T851A	6⅞
DK-792-4	T792A	11½	DK-852-4	T852A	11½
DK-771-3	T771A	6⅞	DK-781-3	T781A	7⅛
DK-772-4	T772A	11½	DK-782-4	T782A	12

WHERE PROGRESS IS A HABIT AND SALES LEADERSHIP AN ESTABLISHED FACT

Net

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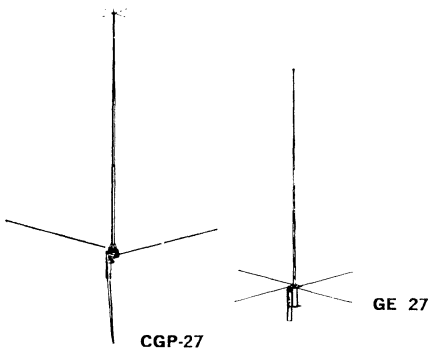
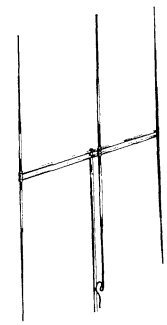
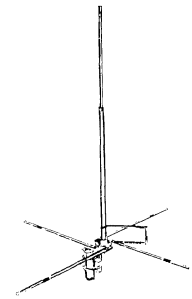
TENNA BASE STATION ANTENNAS


CGP-27

GE 27


3V-27


DG-27

CSJ-27

SM-27

⅝ WAVE LENGTH 20-FOOT COLINEAR GROUND PLANE ANTENNAS

Omni-directional fixed base station antenna concentrates RF energy at lower radiation angle than any other design. ⅝ wave length gives 3.4 db gain over a ground plane, doubles effective radiated power, vastly increases useable CB range.

TWO MODELS AVAILABLE
CGP-27 GOLD ANODIZED **Net $32.97**
CGP-27 STANDARD SILVER **Net $29.97**

Closely-fitted assembly mostly pre-constructed to reduce installation time. Coaxial fitting at front of base; line goes to CB set on outside of suporting mast. Reactance cancelling coil provides very close match, lowers VSWR. BASE: cast aluminum. MAST HOLDER: reinforced phenolic. EXPOSED FITTINGS: epoxy-sealed against corrosion.

CHARACTERISTICS:

Impedance — 50 ohms
Termination — SO-239
VSWR — 1 to 1.2
Lightning protection — gap
Polarization — vertical

SPECIFICATIONS:

Radiating element — tapered hi tensile ⅝ wave length with capacity hat
Support pipe — up to 1½" diameter
Height — 20 feet
Weight — 8 lbs.
VERTICAL RADIATION PATTERN

HALF WAVE END FEED ANTENNA

Provides a 3 db gain over standard ground plane. Antenna is 17'3" high, has weather-protected matching transformer mounted in base. Heavy construction throughout for many years of trouble-free service. Greatly improves effective power of base station transmitter and effective sensitivity of receiver. Direct ground furnished for lightning protection, reduction of static noise.

MODEL GE 27 . . . **Net $28.43**

CHARACTERISTICS:

Impedance — 50 ohms
Termination — accepts PL 259 connector
VSWR — 1.3 to 1
Lightning protection — direct ground
Polarization — vertical, pattern semi-directional

SPECIFICATIONS:

Radiator — ½ wave length tapered aluminum
Radials — 3 full lengths
Potted transformer
Height — 17'3"
Weight — 9 lbs.
VERTICAL RADIATION PATTERN

YAGI ANTENNA
3V-27 **Net $36.00**

This Citizens Band Yagi sets new industry standards for performance and mechanical stability. Light, versatile, rugged and say to install — these are features Citizens and enthusiasts expect and get from Tenna. Use this Yagi to substantially increase your CB range, reduce interference.

The special configuration of the 3V-27 yagi uses a 2 db gain half wave end-fed antenna as its heart. Most other CB yagis employ a 0 db dipole. High angle of radiation seriously limits the expected gain. The half wave end-fed radiator used in the new 3V-27 has an inherently low angle of radiation, placing an enhanced signal out low along the ground. Transmitted signal is far stronger, received signal is clearer and sharper.

Constructed of aircraft-type aluminum, it is light and strong, made to mount vertically. Greater strength and rigidity through the use of a truss construction on the boom.

Light, versatile, rugged and EASY TO INSTALL. TENNA has completely eliminated the guesswork and possibility of assembly error through a fool-proof design. Element positions are predetermined, then elements and their corresponding sockets are numbered for easy matching.

The 3V-27 is designed to give a light and balanced load on supporting masts and can be turned with TV types of rotators.

CHARACTERISTICS
Impedance — 50 ohms
VSWR — Within 1.6 to 1
Lightning protection — gap
Polarization — vertical
Double heavy wall aluminum structure
Tapered 3 section elements

SPECIFICATIONS
Separate clamps for vertical and horizontal mounting
Weight — 10 lbs. Length — 9 ft.

QUARTER WAVELENGTH RADIATOR ANTENNA STANDARD GROUND PLANE ANTENNA
DG-27 **Net $15.99**

Featuring the only inductively shortened radials available.

The DG-27 is a ¼ WAVELENGTH RADIATOR ANTENNA — nine feet long — that makes an efficient inconspicuously fixed base station antenna. The radiator is aluminum tubing rigidly held to prevent whipping. The radiator holder is a rugged machined aluminum heavy-duty casting; has an open bracket design for easy mounting of the coaxial cable.

On the DG-27 model the radials are shortened to 50" and loaded with an inductor coil to compensate for length. Four short radials are used to provide: a better match, improved ground effect, less wind resistance, lighter weight, less wind whipping and easier mounting, takes up less space.

CHARACTERISTICS
Impedance — 50 ohms
Termination — accepts PL-259 connector
VSWR — 1.3 to 1
Lightning protection — direct ground
Polarization — vertical
SPECIFICATIONS
Radiator — heavy duty aluminum tubing
Radials — has shortened inductively loaded radials
Will mount on up to 1½" masting
Height — 9 ft. Weight — 3½ lbs.

COAXIAL SLEEVE ANTENNA
CSJ-27 **Net $19.95**

The CSJ-27 is a COAXIAL SLEEVE CITIZENS BAND ANTENNA, neat, light, trim and mechanically superior. Its slim lines blend into the surroundings whether mounted on a mast or a chimney. The skirt or sleeve of the antenna is made from 1 inch diameter aluminum tubing, with an insulated sleeve on the bottom for mounting. The tapered radiator consists of ½" diameter aluminum tubing tapering to a second section ⅜" O.D. It has an inherent low angle of radiation which makes it a naturally better performer. This efficient, hard working antenna will give many faithful years of trouble-free service. No radials required — the coaxial provides this function. The base, made of reinforced molded phenolic, is supported by a cast aluminum bracket.

CHARACTERISTICS
Impedance — 50 ohms
Termination — 50 ohm feedline
VSWR — less than 1.5 to 1
Lightning protection — gap
Polarization — vertical
SPECIFICATIONS
Radiator — tapered two sections
Coaxial Sleeve — 1" aluminum tubing
Height — 18 ft. Weight — 3 lbs.

HALF WAVELENGTH END-FED ANTENNA REQUIRES NO RADIALS
SM-27 **Net $19.95**

The SM-27 is ½ WAVELENGTH END-FED ANTENNA which provides a 2 db gain vertically polarized, omnidirectional base station antenna for Citizens and use. The radiator is rigidly constructed tapering from 1⅛" to 1 inch O.D. to ¾" O.D. tubing. The base, made of reinforced molded phenolic, is supported overall by a cast aluminum bracket. No radials are required — makes this antenna easy to install. Comes complete with launcher cable.

CHARACTERISTICS
Impedance — 50 ohms
Termination — takes PL-259 connectors
VSWR — 1.3 or 1
Lightning protection — Gap
Polarization — vertical
Pattern — omnidirectional
SPECIFICATIONS
Radiator — tapered aluminum sections
Base — cast aluminum with two U-bolt assemblies
Height — 17 ft. Weight — 7 lbs.

DELUXE CITIZENS BAND ANTENNA KITS OUTSTANDING TENNA VALUES!

Springs are End Bell design that will bend through a 90° arc without breaking. (Try this on any other antenna on the market!) Every mast is a full 102" stainless steel whip with adaptor.

MODEL P-100 — Complete kit includes 102" stainless steel whip. Rugged full-size spring with heavy-duty, double cadmium-plated steel coils; ⅜" phenolic insulator and all mounting hardware. Cadmium-plated for weather-resistance. Heavy-duty MB-6 2" diameter ball with double cadmium plate. **Net $8.97**

MODEL P-100-D — Same as above, except spring is polished stainless steel, ball is heavy-duty chrome-plated. **Net $16.95**

MODEL P-200-D — with complete bumper assembly. Fits all cars. No holes to drill. 102" stainless steel whip. Double chain bumper mount. Heavy-duty cadmium-plated steel spring. **Net $12.20**

ECONOMY KITS

MODEL P-10—102" stainless steel whip, heavy-duty cadmium-plated steel spring and 2" ball, base. **Net $7.75**

MODEL P-20 — Same as P-200-D, except bumper mount is single chain. **Net $10.90**

TENNA UNIVERSAL TOP LOADED MANUALS GIVE TOP-NOTCH SALES PERFORMANCE!

MODEL TL-1 "DELUXE" SATELLITE WITH ROTATING BALL — Rotates full 360°. Locks at any angle, fits anywhere on car. Triple chrome-plated 3-section mast. Extends 23" to 57". 48" detachable cable. Easily installed. **Net $7.17**

MODEL TL-2 "DELUXE" BALL & ROCKER BASE — Quick, easy top mounting, 40° sweepback. Extends 23" to 57". 48" radar-type polyethylene cable, 3-section mast. **Net $7.17**

MODEL TL-3 "DELUXE" CONCEALED-TYPE — Top-loaded coil completely disappears, 40° sweepback. Extends 0" to 50". Large seamless steel tube reduces capacity losses. 48" radar-type polyethylene cable. **Net $8.14**

MODEL TL-4 "SPECIAL" BALL & ROCKER MOUNTING — Triple chrome-plated base to tip. 40° sweepback. Locks at angle. Die-cast rocker has positive grounding teeth. Extends 23" to 57", has 54" cable. **Net $7.47**

MODEL TL-5 "FLEX-O-MAST" SATELLITE — Bounces back when hit! Spring gives maximum flexibility, prevents breaking. Triple chrome-plated mast. Easily installed, extends 23" to 57". 48" cable. **Net $8.37**

COMMUNICATION ANTENNAS by ward

for every mobile frequency and application

CBI B ANTENNA

This is a low priced Mobile Communications Antenna

- **Black Painted Swivel Base**
- **Cadmium Steel Spring**
- **102" Cadmium Whip**

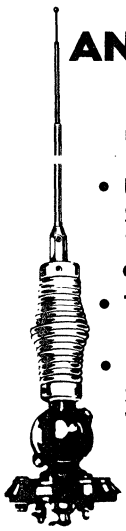
CBIA ANTENNA

A Deluxe Mobile Communications Antenna

- **Chrome Swivel Base**
- **Chrome Spring**
- **Stainless Steel 102" Whip**

May be adapted for citizen band

CBII ANTENNA



FEATURES

- **Universal Swivel Base Heavily Plated and Painted**
- **Triple Cadmium Plated Spring**
- **102" Stainless Steel Tapered Whip**

CBIII ANTENNA

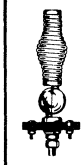
FEATURES

- **Chrome Plated Swivel Base With Stainless Steel Hardware**
- **Triple Chrome Plated, Barrel Type Spring Bends Through 100 Degrees**
- **102" Stainless Steel Tapered Whip**

CB-IB S BASE-SPRING

- **Cadmium Steel Spring**
- **Black Painted Swivel Base**

CB-IAB S BASE-SPRING



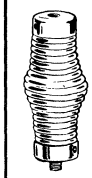
- **Chrome Spring**
- **Chrome Swivel Base**

May be adapted for citizen band

CB-II S SPRING

- **Triple Cadmium Plated Spring**

CB-III S SPRING

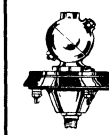


- **Triple Chrome Plated Barrel Type Spring Bends Through 100 Degrees**

CB-II B BASE

- **Universal Swivel Base Heavily Plated and Painted**
- **Deluxe**

CB-III B BASE



- **Chrome Plated Swivel Base* With Stainless Steel Hardware**
- **Deluxe**

*Coaxial

CB-IW WHIP

- **102" Cadmium Whip With Press Fit Cadmium Plated Adapter**

CB-IAW WHIP

- **102" Stainless Steel Whip With Press Fit Chrome Plated Adapter**

THE FOLLOWING CABLES ARE AVAILABLE

SPECIFY NO. 85-187 . . . 15' Lead for Deluxe Hot Rod Antenna.

SPECIFY NO. 85-189 . . . 15' Coaxial Lead for Citizen Band Antenna.

SPECIFY NO. 85-180 . . . 17' Communication Lead for Citizen Band Antenna.

SPECIFY NO. 85-11 . . . 20' Communication Lead for Citizen Band Antenna.

ward PRODUCTS CORPORATION

AMSTERDAM, NEW YORK

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ward DISGUISE ANTENNAS

INTRODUCING TWO NEW DESIGNS
NOW AVAILABLE IN 5 MODELS . . .

Model WCAB-71

Completely Disguised Mast and Base

Looks exactly like ordinary 3-section car radio aerial. Uses triple chrome plated brass tubing and stainless steel tip rod. Length is fixed at 55½" by permanent connections at the telescopic joints. Model includes mast and base only.

Model WCA-143

Partially Disguised

Same as WCAB-71 except mast is made of 55½" type 17-7 PH stainless steel tapered rod. Use where exceptionally high strength is a necessity. Model includes mast and base only.
Shipping Weight 2 lbs. 8 oz.

Model WCA-248

Completely Disguised Mast and Base

Looks exactly like ordinary 3-section car radio aerial. Uses triple chrome plated brass tubing and stainless steel tip rod. Length is fixed at 55½" by permanent connections at the telescopic joints. Model includes mast and base only.
Shipping Weight 1 lb.

Model WCA-249

Partially Disguised

Same as WCA-248, except mast made of 55½" type 17-7 PH stainless steel tapered rod. Use where exceptionally high strength is a necessity. Model includes mast and base only.
Shipping Weight 1 lb.

Model WCA-235
Same as WCAB-71 except with 70" mast. Shipping Weight 2 lbs. 8 oz.

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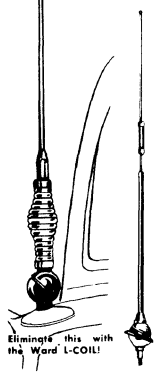
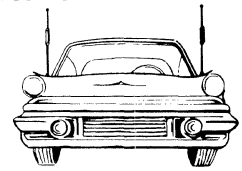
ward **NEW FOR '63**
L-COIL CITIZEN BAND ANTENNA



WHY USE TWO ANTENNAS WHEN ONE WILL DO?

The new Ward L-COIL Citizen Band Antenna may be used for Standard Broadcast AND Citizen Band without the necessity of installing an extra antenna on your automobile. The only accessory the Citizen Band enthusiast will need is a switch box for instant changeover from standard broadcast to citizen band.

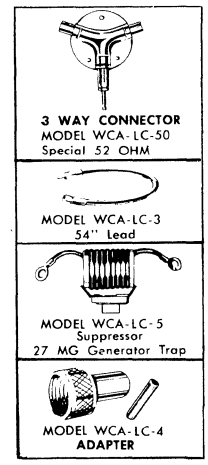
MODEL WCA-LC-1
27MC
54" Lead Cable Included

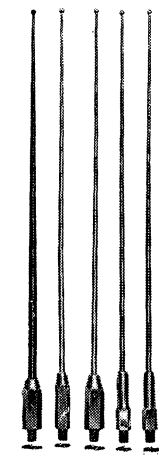


Ward recommends for rough terrain conditions the Dual L-COIL antenna kit. This will give you the ultimate in reception. The modulation is excellent and you will be surprised at the distance it brings in from base stations.

MODEL WCA-LC-2
Dual Ward L-COIL Antennas with 54" leads

Note: WCA-LC-50 3 Way Connector must be used with Dual Antenna kit.





HEAVY DUTY MASTS

Finest stainless steel: heavy-duty performance. 84½" mast bends to bring tip and base 30" apart without distortion. All base studs ⅜-24 threads. All taper ground with ball tip. WCA-320 series — 60" long, choice of adapters: Chrome press fit, cadmium plated press fit; ⅝" hex steel, cadmium plated with set screws; ½" hex stainless steel with set screws.

WCA-321 series — 72", same choices.
WCA-322 series — 84", same choices.
WCA-323 series — 96", same choices.
WCA-324 series — Fiberglass in all 4 lengths.

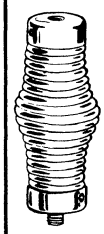
ROOF TOP ANTENNAS
3 efficient models

WCA-250
2 Meter whip
143-149 mc.

WCA-252
1¼ Meter whip
220-225 mc.

WCA-254
Plug in 2 Meter whip
143-149 mc

SPRINGS



WCA-301
Stainless steel spring and mounts. Deluxe model for that high quality appearance and extremely high corrosion conditions. Lockwasher included.

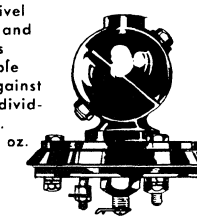
WCA-3ACH
Heavily Chrome Plated for extra protection in areas where corrosion is a greater problem. Lockwasher included.

WCA-3A
Heavily Cadmium Plated with lockwasher included.

BASES

WCA-315
CHROME PLATED SWIVEL BASE
With external hardware of stainless steel. For smarter, dressed-up appearance and added protection Individually packed. Wt. 1 lb., 8 oz.

WCA-310
Universal swivel base plated and painted parts provide double protection against corrosion. Individually packed. Wt. 1 lb., 8 oz.



ADAPTERS

MODEL 89-358
⅝" Hex steel, cadmium plated with set screws. ⅜-24 thread for use on any standard WARD mast as listed. Lockwasher included.

MODEL 89-357
½" Hex stainless steel, with set screws. ⅜-24 thread for use on any standard WARD mast as listed. Lockwasher included.

ward **PRODUCTS CORPORATION**
AMSTERDAM, NEW YORK

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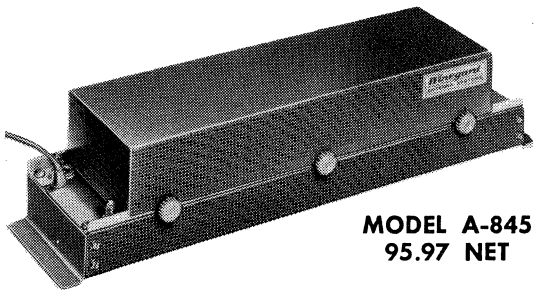
Winegard DISTRIBUTION SYSTEM EQUIPMENT

AMPLIFIERS



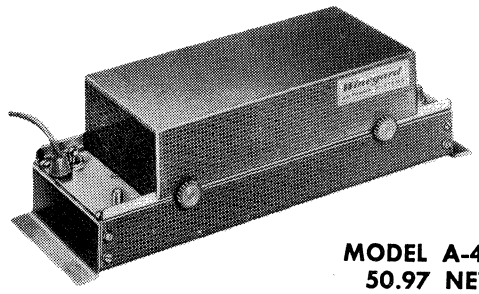
8-TUBE
45db
GAIN

MODEL A-845
95.97 NET

A high gain amplifier for large distribution systems in hotels, motels, hospitals, schools, etc. Has all the features needed for a top quality installation. Underwriters' Laboratories, Inc. Listed.

SPECIFICATIONS

TUBES: six 6HA5; two 6DJ8. **GAIN:** +45db. **BANDPASS:** 54-108MC, 174-216MC. **RESPONSE:** ±.25db per 6MC channel. **NOISE FIGURE:** 3.7db lo-band; 5db hi-band. **MAX. SIGNAL INPUT:** gain control at max., .008V per band; gain control at min., .025V per band. **MAX. SIGNAL OUTPUT:** 3.2V. **CONTROLS:** gain, 0-10db; tilt, 3-6db. **INPUT:** 75 ohm. **OUTPUT:** 75 ohm. Blue baked enamel perforated steel cabinet, 2 7/8" x 14 1/2" x 3 3/8". AC cord. **SWITCHES:** OFF-ON; power to preamplifier. AC fuse. 117V 60CPS 48 watts.



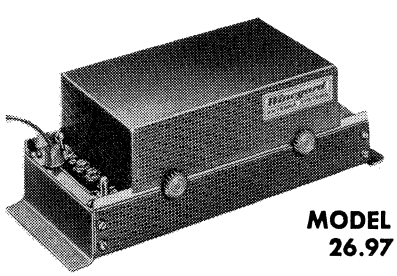
4-TUBE
30db
GAIN

MODEL A-430
50.97 NET

A high gain amplifier designed to drive up to 40+ TV outlets. Recommended for smaller motels, apartments, etc., and deluxe home systems. Finest quality. Underwriters' Laboratories, Inc. Listed.

SPECIFICATIONS

TUBES: four 6HA5. **GAIN:** +30db. **BANDPASS:** 54-108MC, 174-216MC. **RESPONSE:** ±.25db per 6MC channel. **NOISE FIGURE:** 3.7db lo-band, 5db hi-band. **MAX. SIGNAL INPUT:** gain control at max., .02V per band; gain control at min., 1V per band. **MAXIMUM SIGNAL OUTPUT:** 2V. **CONTROLS:** gain, 0-10db. **INPUT:** 75 or 300 ohm. **OUTPUT:** 75 ohm. Two C-59 75 ohm connectors supplied. Blue baked enamel perforated steel cabinet, 2 7/8" x 11" x 3 3/8". AC cord. **SWITCHES:** OFF-ON; power to preamplifier. AC fuse. 117V 60CPS 25 watts.



2-TUBE
15db
GAIN

MODEL A-215
26.97 NET

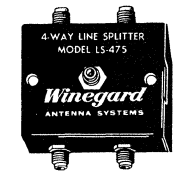
The ideal home system amplifier for up to 10 outlets. Will also function as power supply for Winegard's transistor antenna preamplifier, Models AP-220T and AP-275T. Underwriters' Laboratories, Inc. Listed.

SPECIFICATIONS

TUBES: two 6HA5. **GAIN:** +15db. **BANDPASS:** 54-108MC, 174-216MC. **RESPONSE:** flat, ±.25db per 6MC channel. **NOISE FIGURE:** 3.7db lo-band, 5db hi-band. **MAX. SIGNAL INPUT:** 350,000 microvolts. **MAX. SIGNAL OUTPUT:** 2V. **INPUT:** 75 or 300 ohm. **OUTPUT:** 75 or 300 ohm. Two C-59 75 ohm connectors supplied. Blue baked enamel perforated steel cabinet, 2 7/8" x 9 1/4" x 3 3/8". AC cord. **SWITCHES:** ON-OFF; power to preamplifier. AC fuse. 117V 60CPS 14 watts.

LINE SPLITTERS

2-WAY
MODEL
LS-275
5.40
NET



4-WAY
MODEL
LS-475
8.25
NET

Model LS-275 is a matched, reactive type splitter to split trunk line into two legs.
Model LS-475 is a matched, reactive type splitter to split trunk line into three or four legs. Unused outputs must be terminated with 75 ohm resistor.

IMPEDANCE: 75 ohms (all terminals)
ATTENUATION: (2-way) 3db at all outputs
(4-way) 6db at all outputs
MOUNTING: Surface mount, 2 wood screws provided.
FITTINGS: (2-way) 3 C-59 cable connectors provided
(4-way) 5 C-59 cable connectors provided

ATTENUATION PADS

Mod. VP-3 — 300 ohm

2.70 NET Reduces incoming signal from −6 to 20db. Used ahead of distribution amplifier it smooths incoming signal.

Mod. VP-7 — 75 ohm

7.77 NET Identical to above, but 75 ohm in and out. C-59 connectors included.

300 ohm — FIXED

MOD.	db	NET
FP3-6	6	**1.80**
FP3-12	12	**1.80**
FP3-20	20	**1.80**

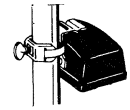
75 ohm — FIXED

Includes C-59 connectors

MOD.	db	NET
FP7-3	3	**5.37**
FP7-6	6	**5.37**
FP7-12	12	**5.37**
FP7-20	20	**5.37**

MATCHING TRANSFORMERS

MOD. T-5911M **3.72 NET**



Mast Mount

MOD. T-5911S **3.72 NET**

Surface Mount

Weatherized housing. Will pass AC-DC current. To block AC-DC current remove 2 coils in circuit. Antenna mount.

Identical to above, but mounts inside on wall. (T-5911S)

"Pigtail Transformer" for back of TV set

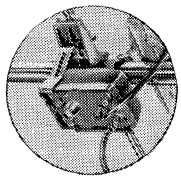
Mod. T-73 **1.80 NET**

Attractive, durable back-of-set matching transformer. Use to run RG-59/U direct to TV sets.

© U.C.P., Inc.

Winegard DISTRIBUTION SYSTEM EQUIPMENT

CHANNEL CONTROL COUPLERS



MOD. CCC-2 (thru 13) . . . . 7.98 NET*

Does all three — 1. Couple any number of yagis to single down-lead. 2. Equalize signal to predetermined level on every channel. 3. Match 300 ohm yagi antenna to 75 ohm coaxial cable. Versatile, convenient, inexpensive.

SPECIFICATIONS

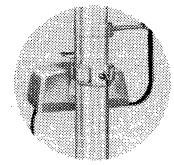
INSERTION LOSS: max. —1.7db lo-band, —2.5db hi-band. **BANDPASS:** single 6MC channel. **RESPONSE:** ± ¼ db per 6MC channel. **ISOLATION FIGURE:** min. 18db lo-band, 14db hi-band. **VSWR:** 1.2:1. **INPUT:** 300 ohm. **OUTPUT:** 75 ohm.

*** PLUG-IN ATTENUATION PADS — 7 MODELS FROM —3db TO —20db . . . . . .98 NET**

VHF YAGI COUPLERS

MOD. CA-* 3.30 NET

Allow you to couple up to 8 different cut-channel yagis on mast, using a single down-lead. Or couple cut-channel yagis with any TV VHF broad-band or all-channel antenna.



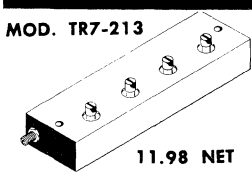
SPECIFICATIONS

INSERTION LOSS: lo-band, max. .75db; hi-band, max. 2db. **BANDPASS:** 6MC. **RESPONSE:** flat, ±.25db per 6MC channel. **VSWR:** max. 1.3:1. **ISOLATION FIGURE:** lo-band, min. 20db; hi-band, min. 16db. **INPUT:** 300 ohm. **OUTPUT:** 300 ohm.

* Specify Channel

TV-FM CHANNEL TRAPS

MOD. TR7-213

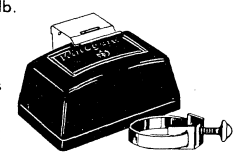


11.98 NET

General-purpose wavetrap. 4 independent traps together cover the entire VHF TV-FM spectrum. 1st and 2nd or 3rd and 4th traps tuned together attenuate by an average of 50db. Undesirable frequencies outside of these bands are effectively eliminated by a VHF TV-FM bandpass filter by an average of 37db.

MOD. TR-213, 4.60 NET

General-purpose wavetrap. 3 independent traps together cover the entire VHF TV-FM spectrum. Any trap can be used individually or in conjunction with the others. Each trap attenuates —12 to 30db.



MOUNTS INSIDE OR OUT

MOD. TR-713, 6.00 NET

For very severe interference in the high VHF TV band. It has 3 independent traps which can be used individually or in combination to attenuate 1, 2 or 3 separate frequencies. 3 traps tuned togther attenuate —40db.

MOD. TR-2FM, 6.00 NET

For very severe interference in the low VHF TV-FM bands. It has 3 independent traps which can be used individually or in combination to attenuate 1, 2 or 3 separate frequencies. 3 traps tuned together attenuate —49db.

MOD. TR-FM, 3.00 NET

Preset by the factory to attenuate the entire FM band without affecting TV frequencies by 25db.

COAXIAL CABLE CONNECTORS

For RG-59/U

For attaching RG-59/U coax to any standard miniature jack, including all Winegard products having 75 ohm jacks.
MOD. C-59 . . . . . **.59 NET**

For RG-11/U

For attaching RG-11/U coax to any standard miniature jack, including all Wingeard products having 75 ohm jacks.
MOD. C-11 . . . . . **1.47 NET**

CABLE-TO-CABLE CONNECTOR (For 59/U or 11/U) Mod. C-81, .70 NET

CONNECTOR FERRULE CRIMPING TOOL . . . . . Mod. CR-1, 5.39 NET

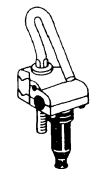
LINE DROP TAPS

SINGLE SINGLE DOUBLE DOUBLE QUAD

Drops branch lines from either RG-59/U or RG-11/U trunk lines. Branch lines must be RG-59/U.

	MODEL	ISOLATION	NET
SINGLE DROP TAP	LTD-175	9db	**3.57**
SAME, TERMINATED	LTD-175T	9db	**3.57**
DOUBLE DROP TAP	LTD-275	16db	**5.73**
SAME, TERMINATED	LTD-275T	16db	**5.73**
QUAD	LTD-475T	15db	**11.70**

RG-11/U PRESSURE TAP

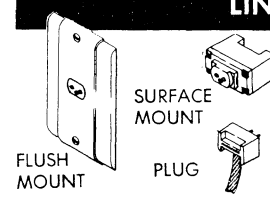


Drops RG-59/U branch line from RG-11/U trunk line. Includes attenuator. Ideal for outdoor use.

MODEL	ISOLATION	NET
C-11PTY	15db avg.	**4.14**
C-11PTR	20db avg.	**4.14**
C-11PTG	10db avg.	**4.14**

RG-11/U COAX CONNECTOR (Terminated) . . . . MOD. C-11T, 1.80 NET
PRESSURE TAP GOUGING TOOL . . . . . MOD. GT-1, 6.00 NET

LINE TAP-OFFS

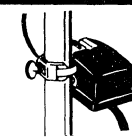


FLUSH MOUNT SURFACE MOUNT PLUG

Complete and preassembled. Includes wall plate, receptacles, divider plate and nylon plug. Standard Ivory matches convenience outlets. Specify isolation: 6, 10, 15 or 20db.

DESCRIPTION	MODEL	NET
TV TAP — FLUSH MOUNT — 75 OHM INPUT, 300 OHM OUTPUT	LTF-73	**2.10**
SAME AS ABOVE, BUT SURFACE MOUNT	LTS-73	**1.77**
TV TAP — FLUSH MOUNT — 300 OHM INPUT, 300 OHM OUTPUT	LTF-33	**2.10**
SAME AS ABOVE, BUT SURFACE MOUNT	LTS-33	**1.77**
TV TAP — FLUSH MOUNT — 75 OHM INPUT, 75 OHM OUTPUT	LTF-77	**2.10**
SAME AS ABOVE, BUT SURFACE MOUNT	LTS-77	**2.10**

HI-LO ANTENNA COUPLER



MOD. F-100 2.40 NET

Couples high and low band TV VHF antennas or splits signals in order to amplify high and/or low band. Mounts indoors or out.

75-OHM MODEL F-175 5.97 NET

FM COUPLER-SPLITTER

MOD. CA-FMB 2.70 NET

Couples FM antenna and VHF TV antenna on same mast with single down-lead. Or splits signals for use as a TV and FM set coupler.

75-OHM MODEL CA7-FMB 6.60 NET

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Net

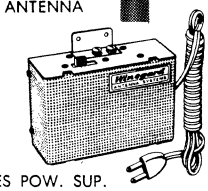
Winegard ANTENNA AMPLIFIERS COUPLERS • ACCESSORIES

VHF-COLORTRON TWIN NUVISTOR PREAMPL.

MOD. AP-220N, 23.97 NET

America's most popular all-channel antenna amplifier. Can be used almost anywhere, even near local stations without overloading. Fits directly on Colortron antenna driven element, yet mounts easily on any VHF antenna. Weatherproof design.

MOUNTS ON ANY ANTENNA



INCLUDES POW. SUP.

SPECIFICATIONS

NUVISTORS: two 13CW4. **GAIN:** +15db lo-band, +10db hi-band. **BANDPASS:** 54-88MC, 174-216MC. **RESPONSE:** ±¼db per 6MC channel. **VSWR:** 1.5:1, or better, input and output. **NOISE FIGURE:** max. 4db lo-band, max. 5.1db hi-band. **MAX. SIGNAL INPUT:** 200,000 microvolts per band. **MAX. SIGNAL OUTPUT:** 1,100,000 microvolts lo-band; 635,000 microvolts hi-band. **INPUT:** 300 ohm. **OUTPUT:** (2) 300 ohm. **SWITCH:** OFF-ON-AUTO. AC fuse. 117V 60CPS 4.8 watts.

ALSO 75-OHM MODEL AP-275, 26.97 NET

VHF-COLORTRON TWIN TRANSIS. PREAMPL.

MOD. AP-220T, 26.97 NET

New high gain VHF-TV and FM antenna preamplifier boasts a flat 18db gain across low and high bands plus FM 88 to 108 mc. Can be used closer to stations than other transistor amplifiers without overloading.

SPECIFICATIONS

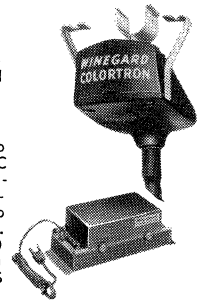
TRANSISTORS: one 2N2495, one 2N2966. **GAIN:** +18db per band. **RESPONSE:** flat, ±¼db per 6MC band. **BANDPASS:** 54-108MC, 174-216MC. **VSWR:** Input 1.5:1 max. Output 1.75:1 max. **NOISE FIGURE:** max. 4.5db lo-band, max. 3.7db hi-band. **MAX. SIGNAL INPUT:** 45,000 microvolts lo-band, 30,000 hi-band. **MAX. SIGNAL OUTPUT:** 360,000 microvolts lo-band, 240,000 hi-band. **INPUT:** 300 ohm. **OUTPUT:** 300 ohm. 117V 60CPS 1.8 watts.

ALSO 75-OHM MODEL AP-275T, 29.97 NET

SUPER COLORTRON TRANSIS. PREAMPL.

MOD. AP-75T, 47.97 NET

High-powered, VHF-TV and FM transistor antenna preamplifier for deluxe installations. (New 75 ohm model replaces the AP-215N 300 ohm model.)



SPECIFICATIONS

TRANSISTORS: one 2N2495, one 2N2966. **TUBES:** two 6HA5. **GAIN:** +30db. **RESPONSE:** flat, ±¼db per 6MC channel. **BANDPASS:** Mod. AP-75T is designed to increase signals on VHF TV-FM bands (54-108MC, 174-216MC). **NOISE FIGURE:** max. 4.5db lo-band, 4.7db hi-band. **MAX. SIGNAL INPUT:** 30,000 microvolts. **MAX. SIGNAL OUTPUT:** 2V. **INPUT:** 300 ohm. **OUTPUT:** 300 or 75 ohm. **SWITCHES:** (on amplified power supply) OFF-ON, OFF-ON REMOTE AMPL. AC fuse. 117V 60CPS 14 watts.

STEREOTRON FM NUVISTOR PREAMPL.

MOD. AP-320, 23.97 NET

Same as Model AP-220N except circuit designed especially for FM frequencies 88-108 megacycles. Mounts on Stereotron antenna driven element or on any other FM antenna. 300 ohm terminals. Extends FM reception distance up to 200 miles and more. Also 75 ohm model.

RED-HEAD VHF TRANSIS. PREAMPL.

MOD. RD-300, 17.97 NET

Biggest selling single transistor preamplifier for fringe area use. Mounts on any TV or FM antenna. Powers up to 6 TV/FM sets.

MOUNTS ON ANY ANT.

POWER SUPPLY

SPECIFICATIONS

TRANSISTOR: 2N2360. **GAIN:** +18db lo-band, +14db hi-band. **BANDPASS:** 54-108MC, 174-216MC. **RESPONSE:** ±¼db per 6MC channel. **VSWR:** 1.5:1 or better, input and output. **NOISE FIGURE:** 3.8db on Ch. 2 to 4.9db on Ch. 13, ±.5db. **MAX. SIGNAL INPUT:** 20,000 microvolts. **MAX. SIGNAL OUTPUT:** 160,000 microvolts. **INPUT:** 300 ohm. **OUTPUT:** (2) 300 ohm. **SWITCH:** OFF-ON. 117V 60CPS 1.4 watts.

UHF ANTENNA TRANSIS. PREAMPL.

MOD. UHF-212, 29.97 NET

New twin transistor preamplifier with high gain circuit for use in almost any UHF reception area. Exceptionally uniform frequency response on all UHF channels 14-83. Measured gain of +12db. VSWR 1.65:1. 300 ohm input and output. Mounts on any UHF antenna. Includes power supply.

POWER SUPPLY

MOD. UHF-110X, 20.97 NET

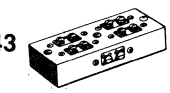
Single transistor preamplifier for use in fringe areas. Has less gain than Mod. UHF-212 and lower maximum signal input limit. 300 ohm input and output. Mounts on any UHF antenna. Includes power supply.

MULTI-SET TV-FM COUPLERS

TWO-SET MOD. CC-23, 2.37 NET

America's most popular two-set coupler. Maintains best possible impedance match. High signal isolation prevents interaction. VSWR with both outputs loaded: 1.25:1 or better. Can be installed inside or out. 300-ohm input and outputs. High impact polystyrene case.

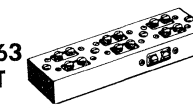
4-SET MOD. LT-43 3.45 NET



300 ohm input and four 300 ohm outputs. VSWR with all outputs loaded: 1.26:1. Mounts inside. No-strip terminals.

75-OHM MOD. LT-47 3.45 NET

6-SET MOD. LT-63 4.77 NET



300 ohm input and six 300 ohm outputs. VSWR with all outputs loaded: 1.15:1. Mounts inside. No-strip terminals.

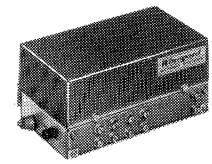
75-OHM MOD. LT-67 4.77 NET

ELECTRONIC TWO-SET

MOD. EC-230, 10.80 NET

Transistorized coupler "boosts" signal min. +10db to provide sharp, clear reception to two sets, even in deep fringe areas. Cross modulation level: 45,000 microvolts. Ideal for color or black and white.

4-SET BOOSTER-COUPLER



MOD. BC-208, 17.98 NET

Runs 1-4 sets (or outlets). Provides +8db gain to each output. Boosts signal, cuts snow. Uses two 6HA5 ampliframe shielded triodes to produce higher gain and less noise than similar products. Complete isolation between sets. Can be used for FM, too.

TRANSIS. FM BOOSTER-AMPLIFIER

MOD. FM-318, 10.80 NET

Transistorized to boost FM signal from antenna by minimum +17db. Greatly improves FM reception. Flat frequency response, maximum signal input 45,000 microvolts.

TV-FM OUTLETS

Disconnect type outlets are complete and preassembled. Includes wall plate, receptacle(s), divider plate(s) and nylon plug(s). Choice of ivory or brown — match standard AC electric outlets. 0db loss.

FLUSH MOUNT

SURFACE MOUNT

PLUG

DESCRIPTION	MODEL	NET
300SL, 1 TV-FM, FLUSH MOUNT	T-3	**1.29**
SAME, SURFACE MOUNT	T-35	**1.08**
75SL, 1 TV-FM, FLUSH MOUNT	T-7	**1.71**
SAME, SURFACE MOUNT	T-75	**1.21**
300SL, TV-ROTOR, FLUSH	TR-3	**2.39**
SAME, 75SL	TR-7	**2.52**
300SL, VHF, UHF, ROTOR, FLUSH	TR-320	**2.39**
300SL, VHF, UHF, ROTOR, FLUSH	TR-32U	**2.39**

Net

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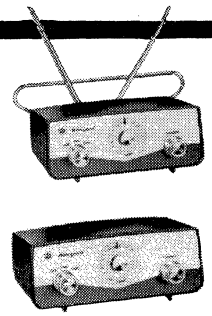
Winegard ANTENNAS • VHF • UHF • FM



UHF CONVERTERS

Sized right, styled right. Superior circuitry gives superb performance. Models for every UHF reception area. Autumn brown cabinet blends with any TV set.

- 2-TUBE MOD. WITH BUILT-IN UHF AND VHF ANTENNAS. UC-200-A, **33.47 NET.**
- SAME, WITHOUT BUILT-IN ANTENNAS. UC-200, **29.95 NET.**
- 1-TUBE MOD. WITH BUILT-IN UHF AND VHF ANTENNAS. UC-100A, **23.28 NET.**
- SAME, WITHOUT BUILT-IN ANTENNAS. UC-100, **19.95 NET.**

EXTRA FEATURES . . . .
EXTRA PERFORMANCE!

UHF ANTENNAS

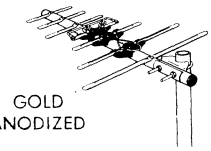
GOLD ANOD.

"TRACKER" MOD. U-540, 17.98 NET

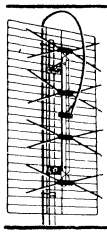
Our most powerful! Uses incident wave principle with tangent paraboloid reflector system. Extremely uniform frequency response on all UHF channels 14-83. Measured gain of +13db. 4-ft. size, completely factory preassembled. Recommended for all UHF reception areas.

"TRACER" MOD. U-807, 3.57 NET

Modified high gain yagi design. Very flat frequency response on all UHF channels 14-83. Small, compact, completely factory preassembled.

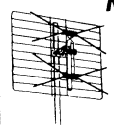


GOLD ANODIZED



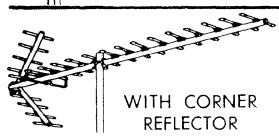
4-BAY BOW-TIE MOD. KU-420 4.70 NET

Popular fringe area model. Sturdy construction. Factory preassembled.



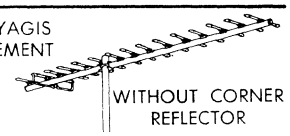
2-BAY MOD. KU-220 3.90 NET

Smaller version of 4-bay model for primary signal areas.



WITH CORNER REFLECTOR

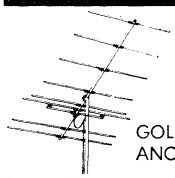
UHF YAGIS 16-ELEMENT



WITHOUT CORNER REFLECTOR

High gain cut-to-channel yagis for regular or translator UHF. Ask for complete list and prices.

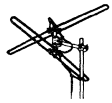
FM ANTENNAS



GOLD ANOD.

"STEREOTRON" Mod. SF-8, 14.18 Net

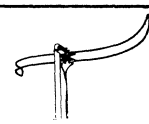
High gain FM yagi brings in those distant stations, improves the locals and helps stereo reception as well. Finest quality. Completely factory preassembled. Accepts Nuvistor preamplifier Mod. AP-320 or AP-375.



MOD. FM-3T "TURNSTILE" 7.53 NET

GOLD ANODIZED

Popular FM antenna for primary signal areas. Has exclusive offset mount allowing it to be mounted on mast with TV antenna. Can be stacked.



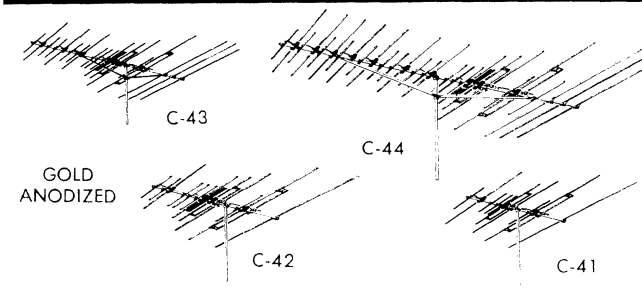
"RANGER" MOD. FR-1 4.17 NET

GOLD ANODIZED

Low cost FM antenna for primary areas. "S" design.

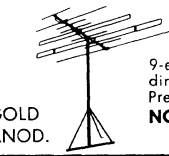
COMPLETE INSTALLATION MOD. FR-1K, 5.38 NET

ALL-CHANNEL VHF



No finer antennas anywhere.. Extremely high gain models for every reception area. Incorporates Winegard's patented Electro-Lens* director system. Super sensitive, super efficient. Uniform frequency response, high front-to-back ratio, pinpoint directivity. VSWR 1.5:1 or better. Corrosion-proof, completely factory preassembled. Nationally advertized in LIFE, etc.

MOD. C-44 . . 38.97 NET **MOD. C-42 . . 20.97 NET**
MOD. C-43 . . 31.14 NET **MOD. C-41 . . 14.97 NET**
MOD. C-40 (Not Shown) . . . . 8.98 NET



GOLD ANOD.

"SUPER POWERBEAM"
MOD. G-41S, 11.97 NET

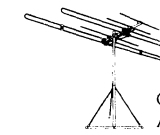
9-element fringe area antenna with Winegard's Electro-Lens* director system. Finest antenna for the money anywhere Preassembled.

NON-ANODIZED MOD. K-415, 9.61 NET

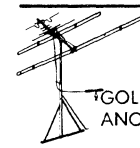
"POWERBEAM" KIT MOD. G-41K, 13.05 NET

Ideal for primary reception areas. Outperforms conicals, in-lines, rabbit ears, etc. Complete installation includes mount, mast, wire, etc. Preassembled.

NON-ANODIZED MOD. K-41K, 8.07 NET



GOLD ANOD



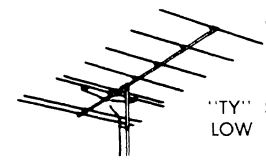
GOLD ANOD.

"TWILIGHT" MOD. TL-283, 15.72 NET

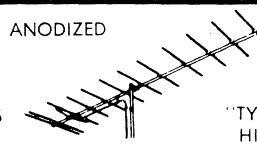
VHF, UHF and FM reception all from one antenna Patented design. Complete installation includes mast mount, wire and all hardware. Preassembled.

VHF CUT-CHANNEL & BROAD-BAND YAGIS

GOLD ANODIZED



"TY" SERIES LOW BAND

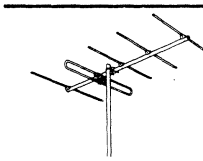


"TY" SERIES HI BAND

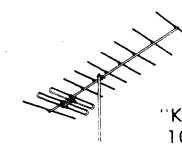
Extra rugged, extra high gain yagis for use whenever the very finest is desired. Models for each channel and each band. Precision tuned for maximum performance.

EXAMPLES — NET

MOD. TY-3 (Ch. 3) 24.69 **MOD. TY-7 (Ch. 7) 12.90**
MOD. TY-6 (Ch. 6) 21.99 **MOD. TY-12 (Ch. 12) 12.90**



"K-5" SERIES 5-ELEMENTS



"K-10" SERIES 10-ELEMENT

Compare with folded dipole yagis at twice the cost! Full size, wide spaced elements. Complete series in both 5 and 10-element models

EXAMPLES — NET

5-ELEMENT	10-ELEMENT
MOD. K5-02 (Ch. 2) 6.56	**MOD. K10-02 (Ch. 2) 12.4**
MOD. K5-07 (Ch. 7) 2.65	**MOD. K10-07 (Ch. 7) 4.4**

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AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

INSTITUTIONAL ELECTRONICS FOR OVER 25 YEARS RELIABILITY

AMERICAN COMMUNICATIONS CORPORATION now offers all the materials (and supervision) to complete a wide variety of electronic Systems installations. AMERICAN'S Professional Engineers will lay out these installations on architectural plans gratis, where AMERICAN'S equipment is used. Systems include:

Status Controls — for hotel/motel rooms; hospitals; factory production, test, inspection, count-down, etc.

Closed-circuit TV — for hotel and motor-inn registration and check-out; hospitals; apartment buildings; schools; industrial inspection and remote monitoring.

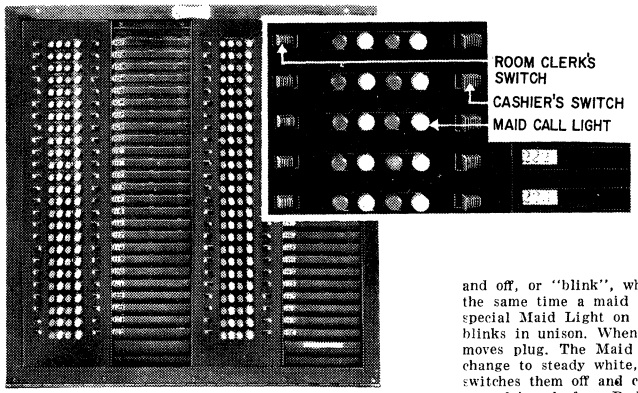
Additional Systems:

Signal Mail Rack	Automatic Wake-up
Message-at-Desk	Selective Paging
Maid Call	Motel-O-Phone
Master Radio/TV Antennas	Area Sound/Lighting
Centralized Radio	Emergency Alert
Room TV • Stereo Sound	Automatic Fire Alarm
Public Address	Audio/Visual (silent) Call
Background Music	Doctor's Call Board

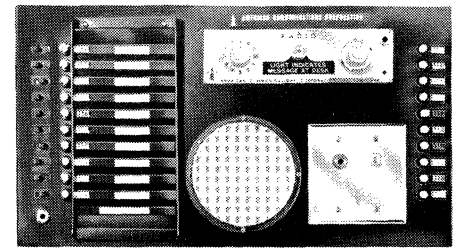
ACC's Newest — TV-SET THEFT ALARM

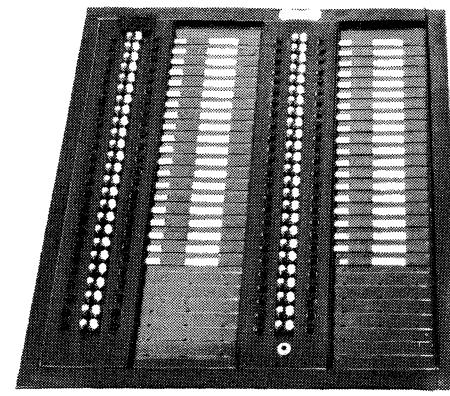
ROOM STATUS CONTROLS

ONLY ONE CONTROL WIRE REQUIRED PER ROOM! LITERATURE AVAILABLE (SPECIFY NUMBER OF ROOMS).



(left) A-L3/50 (50 rooms, 4 lights). Switches: left row, Room Clerk; right, Cashier.
(upper-right) A-L5/10 (10 rooms, 1 light). Demonstration Panel. Shows Room Speaker, two types of Room Units; Housekeeper lights are at right.
(lower-right) A-L4/50 (50 rooms, 2 lights). Housekeeper panel has only lights.





ROOM STATUS CONTROLS, originated by AMERICAN COMMUNICATIONS CORPORATION, are now considered an essential facility in the efficient and economical operation of hotels and motels; 4 basic designs now make this electronic aid available to occupancies of all sizes, to instantly signal to Front Office and Housekeeper the changing rental status of all guest rooms.

In addition, such instantaneous sequential control and monitoring is adaptable to 1) hospitals, for bed status ("available", "occupied", "on change") control between Admitting Office, Cashier, and Floor Supervisor, 2) restaurants, for table reservation control between Reservation Desk, Maitre d', and Waiter, and 3) Schools, Factories, Laboratories, Missile Centers, etc.

OPERATION — Operating procedures depend upon the particular model. All, however, utilize switches and lamps for maximum reliability — relays are NOT used in **AMERICAN'S** room status controls systems.

No. A-LI-2 (2 board), A-LI-3 (3 board); 3 lights. (No Maid Light, and does not connect to guest rooms.) When guest has registered, Room Clerk switches color from Green — Room Available, to Amber — Room Rented. When guest checks out, Cashier switches signal to Red — Room on Change. Housekeeper signals when room is ready for occupancy by switching from Red to Green.
(†) Net: *A-LI-2/—, $25.00; *A-LI-3/—, $30.00.

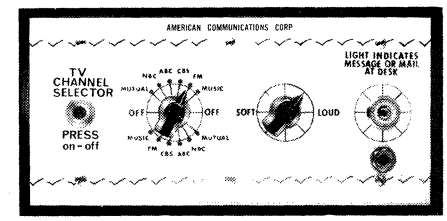
FOLLOWING SYSTEMS CONNECT TO GUEST ROOMS

No. A-L3-2 (2 board), A-L3-3 (3 board); 4 lights. Room Unit has jack **and** light. Status board Maid lights — the 4th row of lamps — show white, and start to pulse on and off, or "blink", when maid plugs into room jack; at the same time a maid paging circuit is connected, and a special Maid Light on guest-room Room Unit lights, and blinks in unison. When room has been serviced, maid removes plug. The Maid Lights on the control boards now change to steady white, and remain on until Housekeeper switches them off and changes the status lights on all the control boards from Red to Green — Room Available; the special Maid Light on the Room Unit goes out automatically when maid removes plug.
(†) Net: *A-L3-2/—, $40.50; *A-L3-3/—, $45.50.

No. A-L4-2 (2 board); 2 lights. For reasons of economy, this Room Checkout model, especially designed to meet the needs of the smaller occupancies, such as motels and motor inns, permits maid to **automatically** change status indication directly from guest room! Also, it has only 2 status lights (one Green, one White) on Front Office board, and 1 (White) light on Housekeeper panel. "Green", signals Room Available; No Light, Rented. Green **and** White, blinking, indicates Maid in Room and that Maid Call circuit is connected. White (steady) indicates room On Change.
(†) Net: *A-L4-2/—, $25.00.

No. A-L5-2 (2 board); 1 light. This Room Checkout system is the ultimate in design economy! One light on Front Office board lights to show Room Available; No Light, Rented. When guest checks out, front office clerk moves status switch so light starts to blink — room On Change. Upon instruction from Housekeeper, or upon noting blinking light on a hall signal unit, maid enters room and plugs into Room Unit. This connects Maid Call circuit (even if room is not on change). Upon completing room, maid removes plug, which **automatically** changes Front Office and Housekeeper lights to steady — Room Available.
(†) Net: *A-L5-2/—, $15.00.

GENERAL INFORMATION — In a 2-board system. Front Office board includes switching facilities and lights for Room Clerk, Cashier; a 3-board installation provides separate panels for these offices. All front office boards include standard guest Room Rack. Controls may be on wall panels, flush or surface mounted, or in desk consoles, depending upon size. Monitor boards (lights only) can be supplied for supervisory personnel.



A-ELP1 Electroluminous Panel. Operates on A-C. Diffuses a night-light glow in room. Mounts on standard outlet box. **Manufactured to order.**

(†) **Priced per room, up to 100 rooms; less cable, Room Unit (where required).**
* **Protected by Pending Patents.**

MAID CALL SYSTEMS

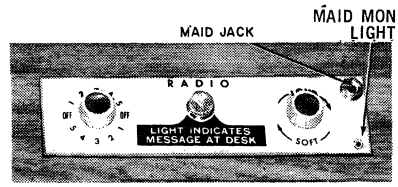
No. A-MC-A/- is visual type. Maid plugs into room jack, which lights a lamp on a Light Panel in Housekeeper's office. Can then be paged if paging circuit is connected. Light goes out when Maid removes plug from jack. This system includes room jacks, Maid Plugs, **A-MC** Light Panel (lights only), Power Supply.

No. A-MC-B/- *Blink Light type. This newest design makes room recovery extremely rapid, through its Maid Monitor/Housekeeper "blink lights".

Soon as Maid enters guest room she plugs into Maid Jack on Room Unit. Immediately a tiny light under the jack slowly blinks on and off; at the same time, a second light blinks on Housekeeper's Light Panel, indicating "Maid in Room". Housekeeper can now page Maid if paging is provided.

When Maid has readied room, she plugs all the way into room jack, then removes plug. Maid's light now goes out but Housekeeper's light changes to steady-on —"Room Ready"; she can now switch light off at her convenience.

Installation includes Room Jacks, Maid Plugs, an **A-MC1/-** Light Panel (with lamps and switches), Power Supply, Blinker Unit.



A-P5-A Room Unit, includes jack and light for "blink light" Room Status and Maid Call. **Net $15.00.**

Room Clerk can use a **No. A-MC** Light Panel to monitor room status shown on Housekeeper panel.

SPECIFICATIONS

Maid Call Light Panels are built for Desk, Flush, or Surface mounting, in sizes to suit needs. Material: steel; standard finish: gray Hammertone enamel. Designation strips identify rooms. Lamps have long operating life, on 24 V. circuit.

Net Prices (Discounts on larger units.)

No. A-MC-A/- Maid Call System, w/**No. A-MC** Light Panel, Power Supply, and 1 Maid Plug per 10 rooms, but less Room Unit, **$5.00 per room.**

No. A-MC-B/- Maid Call System, w/**No. A-MC-1** Light Panel. Power Supply, Blinker Unit, and 1 Maid Plug per 10 rooms, but less Room Unit, **$8.50 per room.**
Prices are for up to 100 rooms.

AMERICAN COMMUNICATIONS CORPORATION

JAMAICA, NEW YORK 11434

Net

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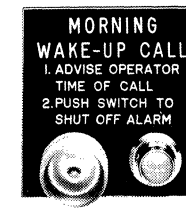
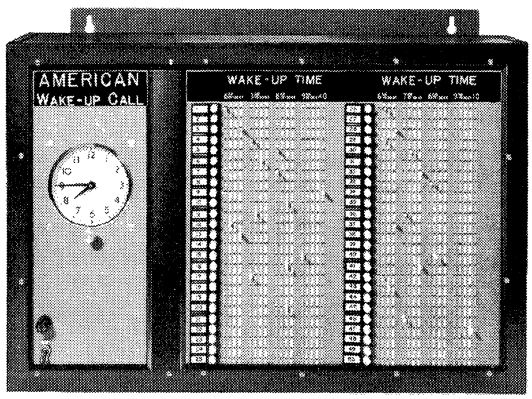
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

REQUIRES ONLY ONE CONTROL WIRE PER GUEST ROOM

AUTOMATIC WAKE-UP CALL*



No. A-P8-A Wake-up Call room unit.



No. A-WA1/50 Automatic Wake-up Call.

AMERICAN'S No. A-WA-1/- Automatic Wake-up Call is a tremendous time-saver for occupancies of any size. **Model A-WA-1/50** here illustrated is for a 50-room hotel or motel.

Master Control Panel has for each guest room a room designation strip, lamp, and 17 Time Jacks — one for each quarter-hour from 6 to 10 AM. When telephone Operator receives guest's wake-up call time, she inserts a plug into the respective Time Jack. Operation now is fully automatic: Wake-up Call "remembers" calling time and sends an insistent to the room, at the proper calling time.

This calling signal is both visible and audible: (a) at 2-second intervals a light blinks at both the office control panel, and in guest room; and, (b) in one model a recording advises guests to "shut me off" and in another a buzzer sounds loudly, when guest pushes a button (at blink light on Room Unit), signal light goes out in guest room and on office panel, and audio signal stops.

GENERAL SPECIFICATIONS

No. A-WA-1/- System includes Master Control Panel with Time Clock for 4-hour timing (up to 6 hours can be supplied); complete set of Time-set Plugs; either an **AMERICAN No. A-TD** continuous-play Tape Deck and pre-recorded Tape (not sold separately) or a Buzz Generator; 2-second Timer; and, guest-room Unit. Long-life, low-current signal lamps are used. Fuse holder, Off-On Power Switch, are front-mounted. Satin-black steel case is approx. 31 x 21 (plus 2″ mtg. skirt at top) x 4″ deep (50-room unit, illustrated); wgt. approx. 100 lbs. Operates on 115 V., 60 cy. A-C.

Net $20.00 per room, less room units; materials only. **Room Unit** (light, switch, wired and assembled on lettered metal plate, to mount on 2-gang outlet box). **Net $8.75 ea.** Cable extra.

* This system protected by pending patents.

SIGNAL MAIL RACK & MESSAGE-AT-DESK

REQUIRES ONLY ONE CONTROL WIRE PER GUEST ROOM

AMERICAN COMMUNICATIONS manufactures two signal systems, either of which may be used to expedite message and/or mail handling in hotels, motels, schools, factories, hospitals, and other institutions.

The **Mail (and Message) Rack Signal System** is comprised of numbered pockets, one for each room (or other unit), and a lamp and switch for each pocket. Each pocket is wired to a guest-room. When clerk files mail (or messages) in pocket, he switches on a corresponding lamp; simultaneously, a duplicate lamp in the remote room lights, and remains lit until guest acknowledges the signal.

A new **2-Way model, No. A-MR2,** with access from either side and lamps and switches on both, enables Mail Clerk to insert mail from one side and silently signal guest and for Telephone Operator to insert messages from the opposite side (and also signal the guest).

The **Message-at-Desk Signal** is identical with the Mail Rack System, except that there are no pockets — only lamps and switches mounted on a control panel. Message clerk — usually the telephone operator — signals to guest that there is a message (or mail) by moving a switch as above described. **Model A-MD1/85** (illus.), for example, is a desk-top model for 85 guest rooms.

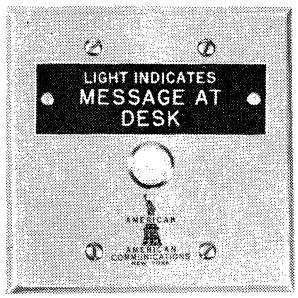
The Racks and Panels are available in a variety of constructions to suit individual requirements as to location and number of rooms, and in standard or special finishes as decor dictates. The Mail Rack is available with shelf at top of each pocket for room key.

If guest room is not wired for radio, a separate wall plate, **A-P20-3-A,** is provided for the signal lamp; otherwise, it can be included on the radio control panel (See Room Unit on facing page).

Long-life lamps in Signal Mail Racks and Message-at-Desk units are easily replaced from front. A metal stop strip across the back of each row of pockets, in the standard or **A-MR3 Mail/Message Rack,** permits insertions only from front. **Model A-MR3/100** (illus.), is for 100 rooms, but units can be built to 1,000 or more.

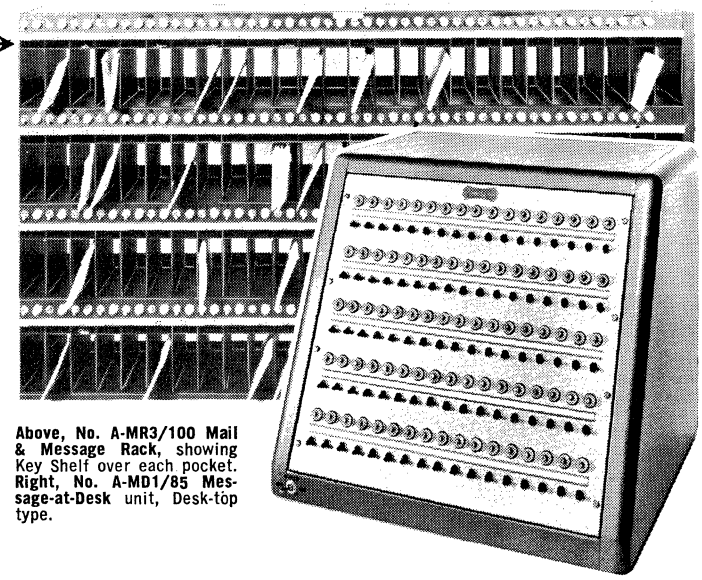
They may be made for Flush-wall recessed), Surface-wall or Desk (table-top) mounting. An easily removable end cover plate permits access to writing. Power Supply unit (included) is controlled by a switch. House signal wiring carries only low, safe voltage.

AMERICAN'S No. A-22X/- Multi-conductor Cable is used for connection to distribution point, and A-19/1 or A-19/2 wire for runs to Room Units.



No. A-P20-3-A Signal Plate, in guest room, measures 4⅝″ sq.

KEY SHELF →



Above, No. A-MR3/100 Mail & Message Rack, showing Key Shelf over each pocket. **Right, No. A-MD1/85 Message-at-Desk** unit, Desk-top type.

SPECIFICATIONS — Signal Mail/Message Racks

Standard finish, velvet black enamel. Material is steel. Standard pocket measurements: approx. 8″ deep x 7¾″ high (incl. 1⅛″ for Key Shelf, where used) x 2″ wide. Specify whether wiring termination board is to be placed at left or right end of Rack.

NET PRICES

A-MR2/- Signal Mail Rack System, 2-way type, ***$17.50.**
A-MR3/- Signal Mail Rack System, 1-way type, standard, ***$12.50.**

***Per pocket**

The foregoing **Net Prices** are less connecting wire and Room Unit, but including Power Supply for up to 100 rooms. Discounts apply on larger installations.

SPECIFICATIONS — Message-at-Desk

Standard finish, Flush or Surface mounting type, velvet black or gray enamel; Desk-top type, gray enamel. Other colors to suit decor are special. Material is steel.

NET PRICE

A-MD1/- Message-at-Desk System, Desk type; and, **A-MD2/- Message-at-Desk System,** Flush Panel type, **$7.50 per room** for up to 100 rooms. Above **Net Price** is less connecting wire and Room Unit, but including Power Supply.

AMERICAN COMMUNICATIONS CORPORATION
JAMAICA, NEW YORK 11434

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AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

MASTER RADIO OR TV ANTENNA SYSTEM (& CATV)

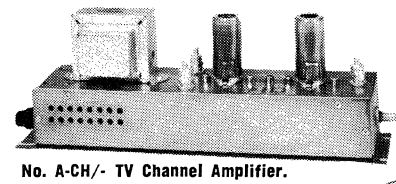
Installation requirements for an **AMERICAN COMMUNICATIONS Master Antenna System** whether for Radio or TV — or both — mainly depend upon field signal strength and local interference. A field-strength survey must be made to determine whether the received signals are sufficiently strong and reasonably "clean".

If TV signal strength in the area is low, a weatherproof **No. A-BA Broadband Booster Amplifier** (shown mounted on mast) located at the antenna may be used, for an additional 25 db gain on all VHF channels; power supply and Off-On control are a separate, remote unit, No. A-BAP (not shown), which may be up to 500 ft. distant. Input and Output, each 300 or 75 ohms. Terminals permit use as Broadband, High-band, or Low-band Amplifier.

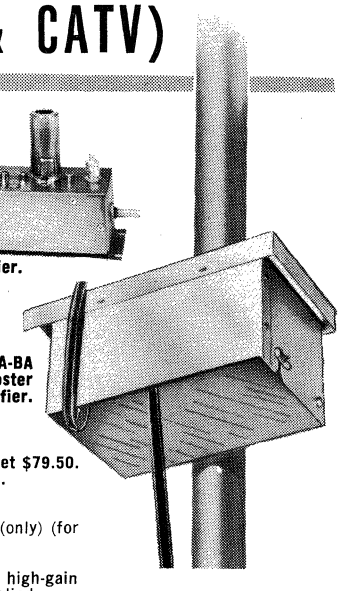
The Radio signals are fed to the **Centralized Radio System,** and the TV signals are distributed to the various TV risers.

TV signals on UHF channels may be converted to unused non-adjacent VHF channels by means of a **No. A-U/V-C Converter** (not shown); its UHF Mixer head mounts at antenna, and delivers VHF signal to remote oscillator. Specify the UHF and VHF channels. Converters are also available to cover VHF High to VHF Low, **No. A-V/V-C.**

To deliver adequate signal strength at each TV outlet, it usually is necessary to use low noise, high gain, head-end amplifiers, one for each channel. A **No. A-CH/- TV Amplifier Strip** is shown here. A group of up to 7 such channel amplifiers can be assembled in one steel cabinet, **No. A-C/CH/-** (not shown here).



No. A-CH/- TV Channel Amplifier.



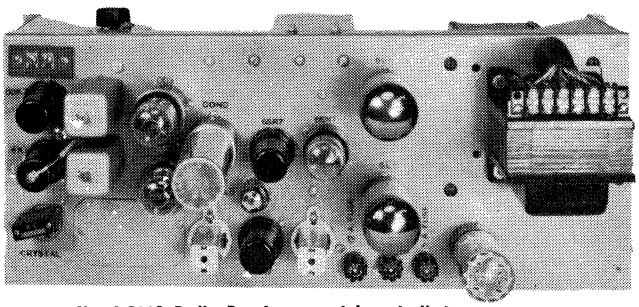
No. A-BA TV Booster Amplifier.

SPECIFICATIONS

No. A-CH/- TV Channel Amplifier. Bandwidth, 6 mc.; gain, 45 db. Low-noise cascode input. Output, 1 V. per ea. two outputs.

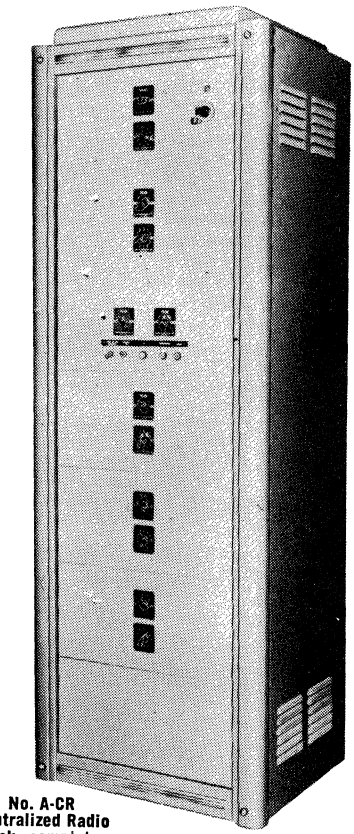
No. A-BA Weatherproof Broadband TV Booster Amplifier, w/No. A-BAP Power Supply. **Net $79.50.**
No. A-U/V-C Converter, w/UHF Mixer Head. Specify UHF and VHF channels. **Net $75.00.**
No. A-V/V-C Converter, w/Mixer Head, for VHF to VHF. Specify channels. **Net $75.00.**
No. A-CH/- Channel Amplifier. Specify which of channels 2 to 13. **Net $44.00.**
No. A-C/CH/- Channel Amplifiers in Metal Cabinet. Specify channels. **Net,** Cabinet A (only) (for 1-3 Amplifier Strips), **$8.50;** Cabinet B (1-5), **$14.80;** Cabinet C (1-7), **$32.50.**

For Community Antenna TV (CATV) installations, special towers, high-gain directional antenna arrays, and low-noise amplifiers can be supplied. **For Coaxial Fittings,** see **last two pages.**



No. A-300C Radio Receiver, crystal controlled.

CENTRALIZED RADIO SYSTEM



No. A-CR Centralized Radio Rack, complete

The control center of **AMERICAN COMMUNICATIONS'** "Channelized" Radio System is the **No. A-CR Rack Unit** shown here. Signals from the Antenna System are fed to the Rack-and-Panel assembly, and then to remote speakers (guest rooms, public areas, etc.) through a system of properly selected cable and matching components as specified by the Supervising Engineer.

No. A-CR Rack can be modified to suit requirements. The standard Rack, however, is comprised of 4 **AMERICAN** No. A-300C AM Crystal-controlled Radio Receivers, 1 No. A-300T AM Tunable Radio Receiver, a panel-controlled **No. A-P/M Preamplifier/Mixer** (for mixing a high-impedance microphone and phonograph), Monitor Speaker, power supplies and controls, and Timer. The Radio Receivers deliver a minimum of 40 watts audio power. (Additional amplification, if needed, is incorporated in a second Rack).

If the tunable receiver is a **No. A-300F** (for FM reception), the house manager may tune it, like the **A-300A** AM Radio Receiver, to a continuous-music station for background music, available to guest when he switches to this channel — within the operating hours automatically controlled by the Timer.

The Monitor Speaker (optional), hinged to Rack, has same response as room speakers for true check of programs as received in guest rooms. Switching permits its use on background music, P.A., etc.

If Rack is to be used with **AMERICAN'S** Emergency Alert System, the standard model will include 8 hermetically-sealed relays — one each for the 5 radio receivers, one in preamplifier/mixer, one in the automatic timer circuit, and one in a booster amplifier circuit. These enable remote Emergency Alert equipment to assume control and deliver to all the loudspeakers a suitably high signal whenever needed, regardless of off-on status of Rack, room speaker channel-selector switch, or P.A. system.

Rack can include additional facilities, as for example switching into Muzak or other wire line, or use of tape or record player, for background music. For **Stereo FM reception,** using a multiplexed FM station as the source of both stereo channels, a Stereo Multiplex Adaptor is added to the existing FM receiver, and the two resulting audio channels are fed to stereo equipment.

Receivers are high-fidelity type, with push-pull output. The **No. A-300C Radio Receiver** is shown here; **No. A-300T,** and **-F,** have same physical dimensions and general appearance. Several features make these receivers exceptionally reliable and efficient: (A) the single electrolytic capacitor is plug-in type for servicing convenience; (B) circuits are triple-fused (one each for power line, filament supply, high-voltage supply); and, (C) voltage regulator tubes limit surge potentials to safe values. For trouble-free performance over long periods of continuous operation in commercial service, only close-tolerance, high-quality components are used, and operated within wide safety margins, in a ruggedized receiver design.

SPECIFICATIONS

Radio Receivers

Tuning range, 540-1,720 kc.; sets have 1 RF and 2 IF stages. Output transformer has taps that present balanced load impedances to the following lines: 8, 16, 32, 250 (70 V.), and 500 ohms. Rated audio output, 40 W. Each Receiver has a Selector Switch, knob-controlled from front of panel, for selection of (1) Radio; (2) Microphone or Phonograph; and (3) Muzak, or other wire line.

Tube complement, **No. A-300T:** 1, 6SA7; 2, 6SK7; 2, 0D3/VR150; 1, 6SR7; 1, 6SN7GTB; 1, 6AL5; 1, 5R4; 2, 6L6GC. **No. A-300C** has same complement, except 6K8 replaces 6SA7.

Rack

The **No. A-CR Centralized Radio Rack** is made of cold-rolled steel 1/16" thick; panels are aluminum, 3/32" thick. Standard finishes, Rack and Panels, slate gray or black ripple enamel. Rack amply ventilated by louvers on 3 sides. Easy-access rear door has slip-joint hinges. Rack measures approx. 68 x 22 x 18" deep. Fully fused; use on 20 A. mains service, 115 V., 60 cy. Supplied completely equipped as described.

No. A-CR, complete, incl. Time Clock. **Net Price $250.00 per channel. (Monitor Speaker, extra.)**

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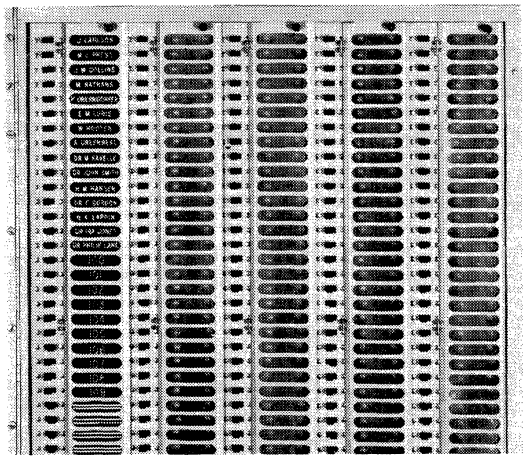
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

DOCTORS CALL BOARDS

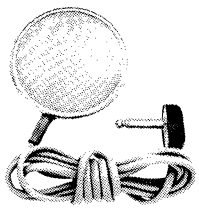


No. A-DCB/- Doctors "IN" or Call Board. Also available w/Message Signal, Intercom, etc.

No. A-DCB/- Doctors "IN" and "OUT" Call Board shows on-duty status of doctors at all times. **AMERICAN** also can supply this Call Board with Message Signal, Intercom, etc.; in double-sided construction (names on both sides, switches one side); and, less switches (for monitoring). Doctor may receive message (shown by blinking light), and leave special instructions (via intercom) with front desk — usually remote from exit — where these facilities are provided. Flush-mounting type shown. Steel panel is hinged, as are the illuminated nameplate panels.

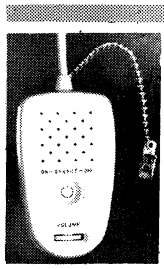
Net Price, A-DCB/100 Doctors Call Board, basic unit for 100 rooms, **$10.00 per room, per Board,** less connecting wire but w/Power Supply for 115 V., 60 cy. AC. Other quotations upon request.

PILLOW SPEAKER/"MIKE"



No. A-S/M Pillow Speaker, may serve also as **Microphone!** Ideal for hospital use: waterproof (may be sterilized), stainless steel case, rugged construction, exceptional fidelity, has bedclothes clip and chain (not shown), and special flat-to-wall plug. Alnico magnet; available voice coil impedances: 3.2, 2,000, 5,000 and 10,000 ohms. Measures 7/8" x 3" dia. Cord is 10 ft. long (other lengths to order). **Net Price, $8.25.** Quantity discounts.

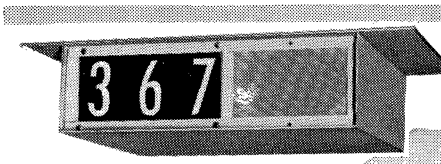
PILLOW SPEAKER CONTROLS



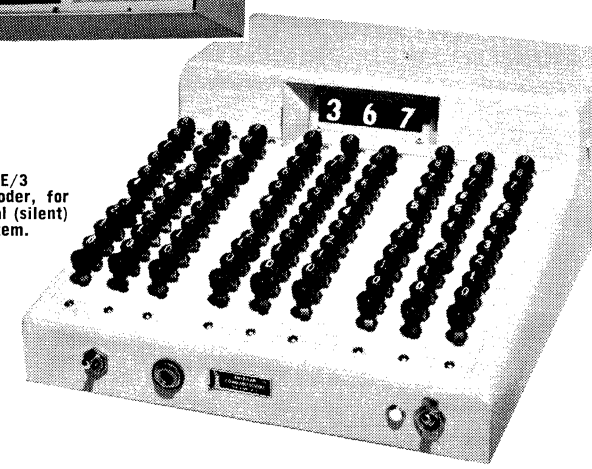
The **No. A-S/C-T Pillow Speaker and Remote Control** (illustrated) has dynamic earphone w/3.2 ohm voice coil. Unit connects to adaptor in TV set. Button controls set OFF-ON, and selects station; wheel adjusts volume. High-impact plastic case (ivory) w/suspension chain and bed-clip. Cord w/adaptor plug is 5 ft. long. Size: 4½ x 2½ x 1⅛ ins. deep. Use with GE Hospital-model TV set CBM620 VVY, or equal. **Net Price, $16.00.**

The **No. A-S/C/N-RT** (not illustrated) is a combination Radio and TV Pillow Speaker, Remote Control and Nurse Call. Operates in conjunction with stepper relay (not supplied). **Net Price, $29.32.**

AUDIO/VISUAL (SILENT) PAGING SYSTEM



No. A-A/VP-D Decoder. Has 4" numerals. Also available without speaker.



No. A-A/VP-E/3 3-bank Encoder, for Audio/Visual (silent) Paging System.

Designed for use with a Call Board, **AMERICAN'S** Audio/Visual Paging System presents an efficient means of personnel paging in hospitals, department stores, schools, hotels, factories, offices, etc.

In operation, a designated person (Telephone Operator, for instance, in a hospital) sets up on a desk-top Encoder, the call number assigned to a person (doctor or nurse) whose attention is wanted. This can be any number from 1 to 999 per bank of push-buttons. This number then instantly appears in the window of remote readout indicators or Decorders, wherever located. The called person can acknowledge the call in a variety of ways — house phone, Intercom, etc.

Encoder No. A-A/VP-E/3 shown here has two additional banks of buttons which permit two additional calls to be set up at the same time, and by automatic switching, each will be signaled, in sequence, 20 seconds after the preceding one. Or, by operating a switch, any one of the three sets of numbers can be held in view and shown steadily until acknowledged.

A jack on the front skirt, for microphone, permits audio paging, emergency instructions, etc. A pilot light indicates the "ON" condition. Encoders may be located in several offices, and Decorders at any number of remote points.

SPECIFICATIONS

Encoder No. A-A/VP-E/3, 3-bank, is a desk-top unit in metal housing. Dimen., approx. 11 x 5¾ x 14" deep. Operates on 115 V., 60 cy. A-C.

Decoder No. A-A/VP-D is a signal/speaker assembly in metal housing approx. 25 (incl. flanges) x 5¾ x 15½" deep. This unit is surface-ceiling mount type; other types of mounting can be supplied. Speaker is 5" PM type in an acoustic chamber designed for maximum intelligibility. Readout unit displays numerals 4" high that are readable at over 60 ft. Available without speaker.

Standard finishes: Encoder, buff enamel; Decoder, flat polar white enamel.

Net Prices:

Encoders: A-A/VP-E/1, **$450.00;** A-A/VP-E/2, **$550.00;** A-A/VP-E/3 (3 digits, as illus.), **$650.00.** Priced per # of digits, as below.

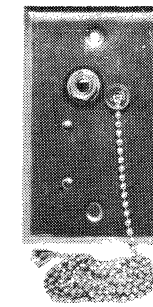
Decoders: A-A/VP-D/1, **$125.40;** A-A/VP-D2, **$234.40;** A-A/VP-D3 (3 lights, as illus.), **$354.40.** Priced per number of lights.

Auxiliary Equipment (for Paging) — A-PS Paging Set (Microphone and Amplifier, 1 each for paging — not illustrated), **Net $75.00/set.**

PATIENT'S RADIO WALL-PLATE

Although designed for use by patients in hospitals, the No. A-RW1 Radio Wall-plate shown here, is a convenience wherever used. Operates by pull chain.

Has stepper switch and a jack. Switch has continuous rotation through "Off", 5 positions for selection of radio programs, and back to "Off", and so-on. Jack provides connection for pillow speaker.



No. A-RW1 Radio Wall-plate.

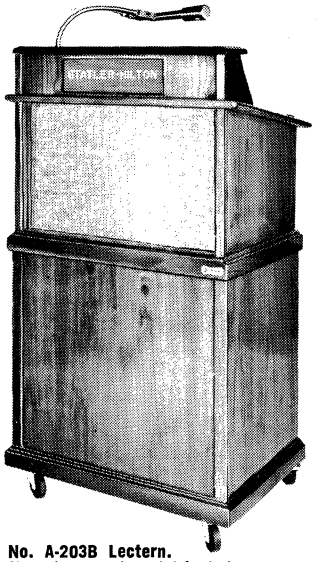
SPECIFICATIONS

No. A-RW1 Radio Wall-plate. Switch is pull-chain actuated, continuous rotation, double-pole, 5 positions and "Off". Either single-circuit or circuit-opening jack available, for PL-55 plug; specify which desired. Plate steel, approx. 2¾" x 4½" high; overall depth, from front of plate, 2¼". Fits standard outlet box. Bead chain is steel, 3 ft. long; cut to desired length. **Net Price, $6.85.**

AMERICAN COMMUNICATIONS CORPORATION
JAMAICA, NEW YORK 11434

AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS – MOTELS – INSTITUTIONS

NEW PORTABLE ELECTRONIC LECTERN



No. A-203B Lectern. New, improved model includes **two separate Column Speakers!**

UNQUESTIONABLY THE BEST HEAVY-DUTY ELECTRONIC LECTERN MADE

- **The greatest advance in Lecterns — 2 separate Column Speakers!**
- Completely self-contained. Demountable Base is optional!
- Use anywhere. More built-in features than any other make!
- Most RUGGED, RELIABLE Portable Electronic Lectern on the market!
- **IDEAL** for banquets, conventions, auctions, sales meetings, dances, at Churches, Schools, Hospitals, etc.

AMERICAN'S improved No. A-203 Electronic Lectern is efficient, portable and **unified** — nothing else to buy (includes microphone, amplifier, two separate Column Loudspeakers and reading light, with provision for optional equipment). When combined with Base, it constitutes a Podium. High-quality cardiod microphone, w/Off-On switch, is adjustable in height and position; side mounted for maximum desk room. Amplifier is high-quality, reliable, high-fidelity type, w/separate Bass and Treble controls to suit any acoustic situation of speaker or audience, and for maximum voice fidelity and minimum feedback. Loudspeakers, two in number, are **AMERICAN'S** new Column type, each with 3 speakers. Lectern (top section) lifts off Base (bottom section) for table top use, and has space for reference material under sloped reading desk. Base folds for easy, convenient storage!

Optional equipment: (1) jack with extra speaker for covering large audiences; (2) tape machine for background music or recording; (3) jack for patching into existing P.A. system; (4) jack, and neck microphone with long lead, for speaking away from Lectern (as for audience participation, etc.); (5) built-in or remote timer, and signal light. Engraved bakelite Nameplate is extra, **Net $10.00.**

SPECIFICATIONS

No. A-203A Lectern (only) is fully equipped, ready to use, as described. **A-203B** is above Lectern, plus Base; latter has quiet, ball-bearing casters. Made of selected hard wood, in rich walnut. A-203B, overall: 28″ x 19″ x 50″ high. Approx. weights: A-203A, 75 lbs.; A-203B, 105 lbs. Microphone has gooseneck stand. Amplifier audio output, 10 watts. Junction box for A-C linecord; specify cord length required. Operates on 115 V., 60 cy. **No. A-203C** is **A-203B** w/jack for second, auxiliary speaker (supplied).

Net Prices: A-203A, $305.00; A-203B, $405.00; A-203C, $435.00.

APARTMENT "ANNUNCITEL"

AMERICAN'S new **No. A-AA/-"Annuncitel"** solves many problems of Apartment House owners and architects. It is a low-cost, combination multiple station 2-way telephone and transistorized annunciator, for intercommunication and signaling between apartments and lobby, service entrance, garage, etc.

WITH ANNUNCITEL —

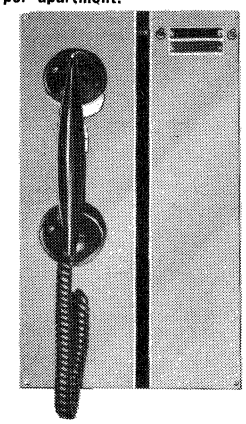
1) House manager can tell which apartment called his office in his absence.
2) Tenants can be signaled from service entrance when a package arrives.
3) Service attendant can handle all apartment calls that arrive simultaneously, without neglecting any call.
4) Arriving visitors can have immediate contact with tenants.
5) Tenants can reach doorman or superintendent immediately, in an emergency.
6) Attendant can contact garage or other in-building locations, or automatically leave signal to be called.

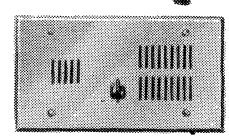
The Master Station or lobby unit has hanger-type telephone handset, and 25-name apartment designation strip. Apartment Station is a wall-mount panel that fits a 3-gang outlet box. Both available in stainless steel or color-anodized aluminum.

The annunciator, a transistorized design employing new solid-state techniques, can be built into either unit, or both, to show which station is calling and which is being called. The transistorized design virtually eliminates service problems.

Net Price, Master and 25 Apartment Stations, **$30.00 per apartment.**

MASTER STATION





APARTMENT STATION

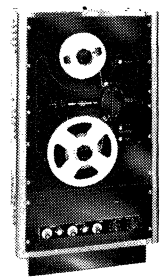
PRE-SIGNAL FIRE ALARM SYSTEM

The Emergency Alert warble-tone signal is also part of AMERICAN'S **Pre-signal Fire Alarm System** designed to protect hospitals, schools, hotels, etc., against panic due to sounding of general evacuation bells by operation of heat detectors or manual break-glass stations. A Control Panel Assembly connects these detectors or manual stations to the warble-tone signal box, allowing an attendant in the occupancy to exercise judgment as to the urgency of the alert before sounding the general alarm.

BUILDING ALERT SYSTEM

AMERICAN'S Emergency Alert System may be used with AMERICAN'S **Building Alert System** (particularly suited to apartment building complexes), in which a warble tone is fed to outdoor speakers to summon the patrolman on the beat, if any emergency arises.

BACKGROUND MUSIC MAKER



Where recorded tape is to be used for highest fidelity background music, **AMERICAN** manufacturers the **No. A-BM/- Background Music Maker** (illustrated). Unit is also available recessed in cabinet and closed-over by a front door.

Ideal for **hotels, motor-inns, travel terminals, medical centers, bowling alleys, restaurants, shopping centers (one A-BM Background Music Maker can supply hi-fi sound to all the units in a Center), etc. Will play up to 16, 8 or 4 hours of original music; then automatically repeat. Can be supplied for stereo systems. Includes facilities for public address or paging.**

Rack includes tape transport with 10½″ reels, preamplifier, standard 30 W hi-fi audio amplifier (other power outputs to order), phono and 2 microphone inputs, and controls (separate Bass and Treble tone controls, Phono Gain control, and 2 Microphone Gain controls).

SPECIFICATIONS

No. A-BM/- Background Music Maker. Cabinet overall dimen. approx. 48 (high, incl. footing) x 22 x 20″ deep. Rear (servicing) door has slip-joint hinges. Material is 1/16″ steel. Fully louvered for maximum ventilation. Standard finishes: slate gray or black ripple enamel.

No. A-RT/- Recorded Tape, long-play Background Music (choice of mood-music library).

Catalog of extensive library of mood-music supplied to purchasers. **Model A-BM/-** is supplied for 4-, 8- or 16-hour play. **Net Prices: A-BM/16, $1,400.00; A-BM/4-8, $985.00. Tapes: A-RT/16, $178.00; A-RT/8, $90.00; A-RT/4, $39.60.**

SPECIAL SERVICES FOR AMERICAN'S CUSTOMERS

Our Registered Professional Engineers will assist in planning installations anywhere. Also, technically-accurate drawings will be prepared for those who wish to accompany their quotations with drawings, but lack the facilities to prepare them.

FINANCING

AMERICAN COMMUNICATIONS CORPORATION can arrange financing of its Systems installation and/or equipment, including TV Receivers.

CLOSED-CIRCUIT TELEVISION

AMERICAN COMMUNICATIONS CORPORATION will design your **CCTV System** (for Monitoring, Surveillance, Guest Registration, Inspection, etc.), and sell the complete equipment and parts as a "package" — either outright or conditional sale.

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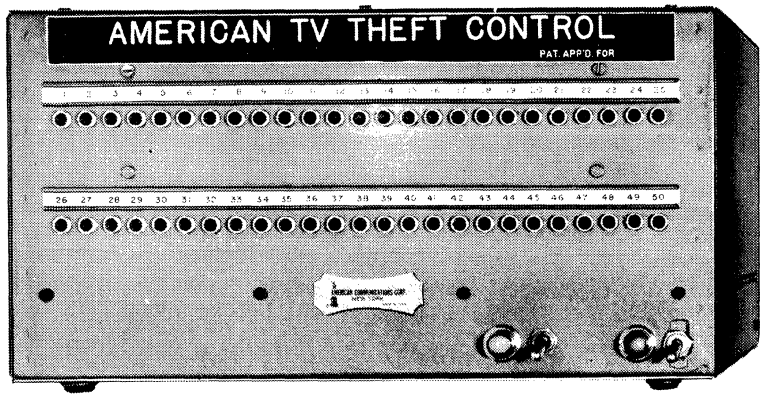
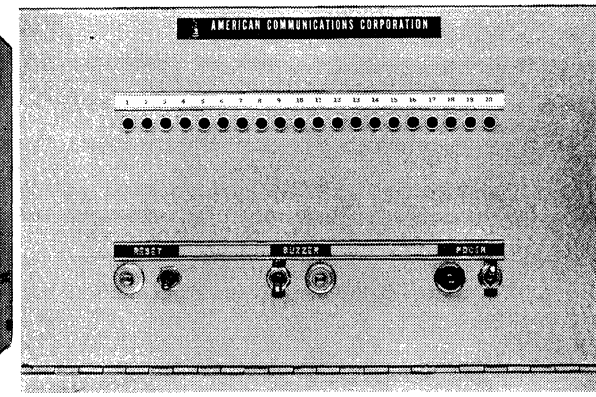
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

AMERICAN'S New TV-set THEFT ALARMS*



A-TA-B/50 TV-set Theft Alarm for Hotels.



NEW! A-TA-C/20 TV-set Theft Alarm for Motels.

AMERICAN'S TV-set Theft Alarm is now available in designs that meet the needs of occupancies of any size; in addition to the **Model B,** for hotels of 50 rooms or more, there is the new **Model C,** for motels of under 50 room units.

Both models operate to signal any attempt to steal the television set it protects.

In addition, **AMERICAN'S** Theft Alarm has other uses:

In Apartment Houses, to signal doorman of any attempt to illegally enter an apartment.

In Apartment Houses, so tenant can alert superintendent or doorman, in an emergency, without sounding an alarm. (A "panic button" is provided in each apartment.)

In Stores, Factories, Churches, etc., to signal any attempt to steal valuable electric appliances, tools, money boxes, etc.

Installation may be made by any electrician, following detailed instructions supplied with each System (Control Panel or Console, and Room Units). **Requires only one control wire per guest room.**

Operation: Equipment under protection (TV-set, appliance, etc.) is electronically "booby trapped" during the process of being plugged into the wall outlet. Any attempt by unauthorized persons to remove connection from wall outlet, or cut power cord, starts alarm signal. This signal is indicated at the Front Office as a flashing light, loud buzz or both, on either a desk-mount assembly (Console unit), or on a wall panel; both designs are here illustrated. The latter is more suited to hotels of several hundred rooms.

Note that the flashing light can be an existing signal system, such as **AMERICAN'S** Message-at-Desk.

There is no alarm in the guest room to alert the thief, but the Front Office signal, once triggered, cannot be stopped until Front Office attendant has operated a Reset switch (which cancels buzz and flashing light); a room indicator lamp remains lit, however, until house personnel has checked the guest room and restored the circuit to its normal alert condition.

Apartment House owners can now offer their tenants maximum security at negligible cost. Tenant is protected against an unlawful entry going undetected, can signal for help in an emergency.

Price is same, for either Console or Panel type (surface- or flush-mounted).

SPECIFICATIONS

No. A-TA-B/- TV-set Theft Alarm, including Front Office Control Console, complete w/room lights, loud-sounding buzzer, bright alarm light, flasher, alarm reset and power on-off switches and bullseye, solid state devices, and power supply; and, Room Kit (Conversion Cord, Conversion Outlet, one each per room). Control Console (A-TA-B/50) measures approx. 15″ x 7¾″ x 9″ deep; wt., approx. 30 lbs.; finish, gray crackle enameled steel. Operates on 115 V., 60 cy. A-C. **Net Price, A-TA-B/-, $12.00/room,** incl. Room Kit; minimum 50 rooms. Cable not included.

No. A-TA-C/- TV-set Theft Alarm, incl. Front Office Control Panel, and Room Kit. Panel may be hinged (illus.); includes room lights, reset switch and indicator light, alarm switch and light, and power off-on switch and indicator light. Panel (A-TA-C/20) measures approx. 15½″ x 10″ x 9″ deep; wt., approx. 22 lbs.; finish gray crackle enameled steel. Current supply, same as A-TA-B/-. **Net Price, A-TA-C/-,** under 50 rooms, **$15.00/room,** incl. Room Kit. Cable extra.

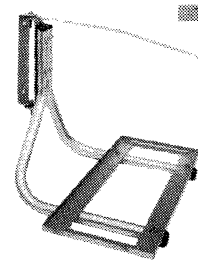
*Protected by Pending Patents.

TV TABLE

No. A-TVT-B Table. For TV sets. Control panel and speaker **(A-BW4/-** Baffle Cabinet, equipped) will fit underneath (illus.). Black, or color to suit. Metal legs. **Net $10.14.**

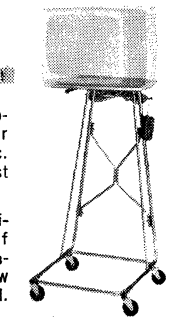
No. A-TVT-B Table. Room Unit (A-BW4/-, equipped) fits below.

TV MOUNTS



No. A-TVB1 Bracket (left). Swivel wall-mounted support for 19″ TV sets, particularly the Designer series, or equivalent, for hospitals, hotels, etc. Saves floor space. Set easily positioned for best viewing. **Net $6.78.** (Other sizes to order.)

No. A-TVS Roll-away TV Stand (right). Easily positioned under, for example, a hospital bed. Shelf holds set over bed. Hard-rubber casters, bolted ⅞-in. diam. steel tubing. Shipped KD. Bar holds pillow speaker cord or, as shown, TV Remote Control Cord. **Net $25.49.**

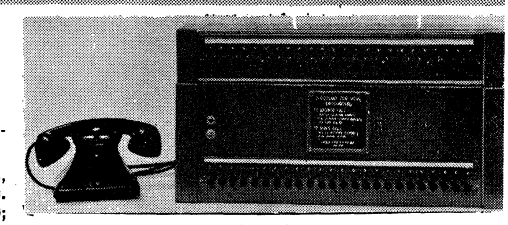


MOTEL-O-PHONE SYSTEM

AMERICAN developed this interior telephone System specially for Motels, Motor Inns, and small Hotels. This Multiple Telephone Switchboard is described as "selective ringing, common talking." Unit illustrated is for 48 telephones, add units for each 24 telephones.

You increase the basic Interior Telephone System from a maximum of 24 stations by adding 24-station units on top (illus.).

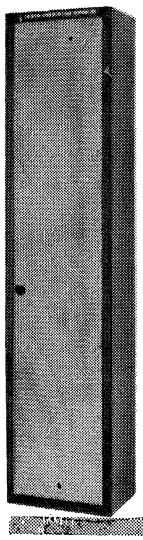
Net Prices: No. A-MTS Basic Unit, for 24 phones, w/115 V. A-C Power Supply, **$350.00; No. A-MTS--A Add-A-Board,** for 24 phones, **$150.00; A-FP** French-style Desk Phones, **$25.00.**



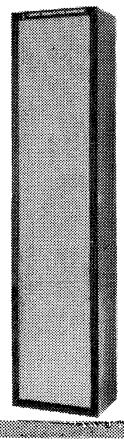
AMERICAN'S Interior Telephone, 48 stations.

AMERICAN COMMUNICATIONS CORPORATION
JAMAICA, NEW YORK 11434

AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

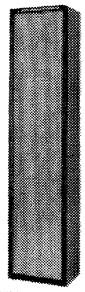


No. A-S3A — 8, 8-in. Hi-Fi, 80 watts, 72 x 12 x 8″, 50 lbs., **Net $95.95.**

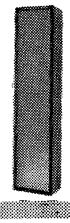


No. A-S3B — 6, 8-in., Hi-Fi, 60 watts, 53 x 12 x 7″, 35 lbs., **Net $85.95.**

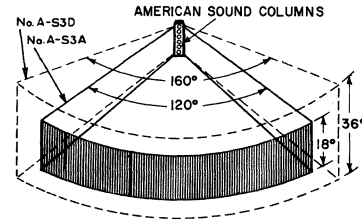
No. A-S3C — 6, 6-in., Wide-range, 30 watts, 40 x 9 x 5½″, 20 lbs., **Net $64.95.**



No. A-S3D — 5, 4-in., Budget, 20 watts, 27 x 7½ x 4″, 12 lbs., **Net $29.95.**



(No. A-S3E, not illus., 8, 6-in., Wide-range, 48 watts, 52 x 10 x 6″, 25 lbs., **Net $74.95.)**



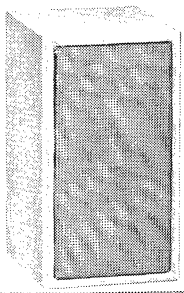
COLUMN SPEAKERS

NEW "MULTICOUSTIC" COLUMN SPEAKERS

Newest addition to **AMERICAN'S** Sound System equipment is the series of **Column Speakers** shown above. Due to the narrow vertical and wide horizontal dispersion pattern of these in-line speaker arrays (see diagram), approx. 90% of the sound is beamed more effectively.

Result: (a) Less sound reflection and reverberation;
(b) Less microphone feedback (howl);
(c) Less need for acoustic treatment;
(d) More audience coverage;
(e) Improved intelligibility.

Nominal line match, 8 ohms or 70 volts. Standard finish; walnut, on ¾-in. hardwood, except **A-S3D** (five 4-in. speakers), ½-in. Interior specially designed in accordance with **AMERICAN'S** famous Acoustical Labyrinth.



NEW! 50 W. AUDITORIUM SPEAKER

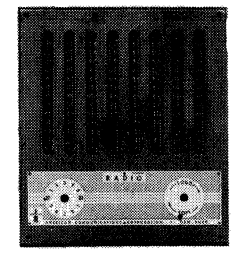
No. A-S5/50 High-power Speaker, 50 watts. for large-auditorium use. Newest addition to **AMERICAN'S** line of advanced sound equipment. Specially designed to meet the growing needs of hotels and other institutions for a speaker that will reproduce **all** the sound within hearing capability, and at adequate volume. This is the type of service required, for example, by the newest **Discotheque** technique (pioneered by **AMERICAN** in the first such sound installation — the famous Shepheard's room, The Drake Hotel, New York).

Its unsurpassed sound quality results from a careful choice of woofer, tweeter and crossover network, combined with an acoustic system comprised of an L.F. labyrinth and H.F. multi-cellular projector assembled in a functional housing suitable for any type of decorative enclosure.

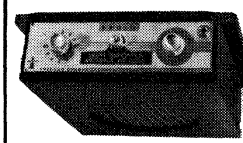
Approx. 30″ wide x 54″ high x 24″ deep; approx. wt., 180 lbs.; finish, slate gray. Grille cloth covers front area. Frequency range: approx. 30-20,000 cps. Power rating, up to 50 W. **A-S5/50, Net $160.00.**

WOOD BAFFLES

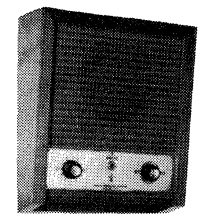
(NOTE: All Baffles, both wood and metal [A-B4/-], priced less escutcheon, controls, etc., unless otherwise specified.)



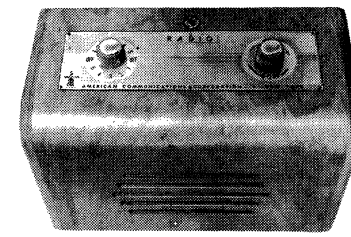
VERTICAL VENTS — No. A-BW/2- Baffle is hardwood, finished in light mahogany. This vertical-vent baffle is a popular number. For 6″ or 8″ speaker, as specified. Baffle only, **A-BW/2-, Net $11.88.**



UNDER-TABLE BAFFLE — No. A-BW4- Baffle mounts under table, has pressure-release vents on sides, projects sound downward. Hardwood baffle is dull black. Cable opening in rear. Grille cloth backed by wire mesh. Mounting holes in flanges. For 6″ or 8″ speaker. Baffle only: **A-BW4/6. Net $11.06; A-BW4/8, Net $13.15.**

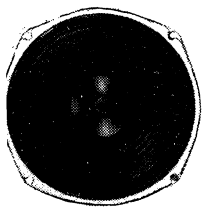


SLANTING FRONT — No. A-BW3/- Bafffle, surface mount, slanting front. Hardwood, light mahogany. Choice of grille cloth. A general-purpose design, for 6″ or 8″ speaker. Baffle only, for either size speaker, **A-BW3/-, Net $12.75.**

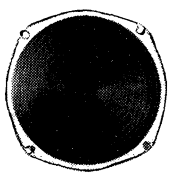


BUDGET BAFFLE — No. A-BW5/6 Bentwood Baffle. Solidly constructed Danish maple, standard finish, other finishes to order. Louvered, slanting surface allows baffle to be wall or under-table mounted; louvered ends contribute to voice intelligibility. Sound projection and pressure-release areas grille cloth covered. For speakers only. Dimens.: approx. 11½″ w. x 8″ h. (max.) x 4″ d. at base and 4⅞″ at top. Baffle only, for 6″ speaker, **A-BW5/6, Net $7.85;** w/escutcheon, controls, knobs, jacks, 6″ speaker (illus.), **A-BW5-A/6, Net $12.75.**

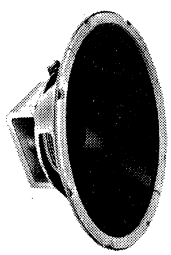
LOUDSPEAKERS



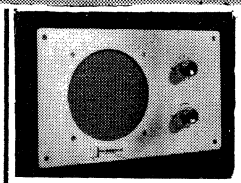
No. A-S1/- High-fidelity Speaker, with dual cones for wide frequency response. 6″, **A-S1/6, Net $4.27; A-S1/8** (illus.), **$6.05.**



No. A-S2/- Wide-range Speaker, 6″ (illus.), **A-S2/6, Net $3.08; A-S2/8, Net $4.86.**

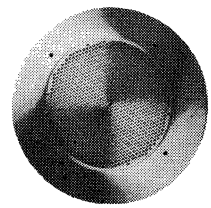


No. A-S4/12 High-fidelity Speaker, 12″. Power rating, 25 W.; frequency response, approx. 35-15,000 cy.; voice coil 1½″ diam., impedance 8 ohms. Mtg. centers 11⅝″. **A-S4/12, Net $21.15.**

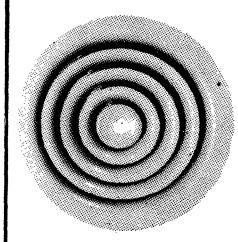


METAL BAFFLES

"DECORATOR" BAFFLE (top) — No. A-B4/- Baffle, Decorator style. Brushed aluminum (standard finish); gold anodized available. For 6″ or 8″ speaker, as specified. Baffle only, **A-B4A/6-8** (illus.), **Net $11.23; A-B4G, Net $16.18.**

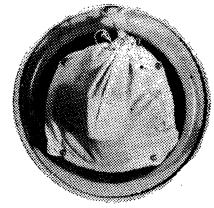


CEILING BAFFLE, STANDARD — No. A-B2/- Baffle, standard model. Brushed aluminum (standard finish), or gold anodized. **A-B2/6,** for 6″ speaker, **Net $2.55 (A-PR/6** Plaster Ring, **Net $1.19); A-B2/8, Net $2.67 (A-PR/8, Net $1.49).**



CEILING BAFFLE. LOUVERED — No. A-B3/- Baffle, louvered type. Enameled iron, white; colors to order. **A-B3/6,** for 6″ speaker,

Net $4.15
A-B3/8..... Net $5.25
(A-PR/8..... Net $1.49);
A-B3/12.... Net $7.43
(A-PR/12.... Net $2.06).



DUST BAG

No. A-D/- Speaker Dust Bag. Fungus, vermin proofed. 6″, **A-D/6, Net 45¢. A-D/8** (illus.), **57¢, A-D/12, 59¢.**

AMERICAN COMMUNICATIONS CORPORATION

JAMAICA, NEW YORK 11434

Net

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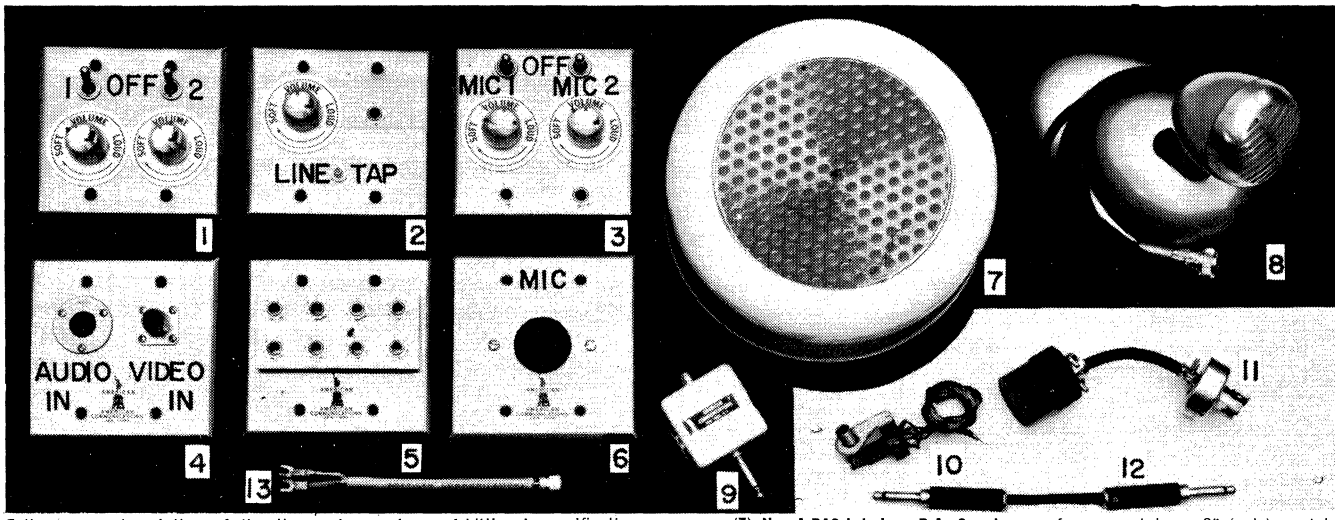
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

PUBLIC ADDRESS PARTS & ACCESSORIES



Following is description of the items shown above. Additional specifications will be supplied upon request.

(1) **No. A-SVC Speaker Volume Control.** Has 2 controls, w/dials, for 2 public areas, and switches to control background music. **Net $22.50.**

(2) **No. A-A/TVC Audio/TV Control.** Includes 3.3K ohm volume control w/dial, seize jack, and master antenna outlet. **Net $14.40.**

(3) **No. A-IC Integrating Control** on 2-gang plate, w/2 ea. center-off switches, Volume Controls and seize jacks. **Net $22.20.**

Items 1, 2 and 3, above, operate on 70-volt lines. Other impedances available.

(4) **No. A-A/V-JP Closed-circuit unit** — Audio/Video Jack Plate — on 2-gang plate, w/Cannon XLR-314 socket for Audio In, and socket for PL-239 for Video In. **Net $11.88.**

(5) **No. A-PP-F Flush Patch Plate,** on 2-gang plate, w/4 circuit jacks. **Net $2.97 per circuit** (4 circuits shown).

(6) **No. A-MOP Microphone Outlet Plate,** flush type, on 2-gang plate, w/Hubbell Polarized socket. **Net $4.00.**

(7) **No. A-PAS-I Indoor P.A. Speaker,** surface mount type, 8" (only). Metal is enamel finished. Supplied less speaker. **Net $5.81.**

No. A-PAS-O Outdoor P.A. Speaker (not illus.), on swivel mount, w/weather-proof housing and A-T3 output transformer. **Net $23.71**

(8) **No. A-DS Microphone,** Desk Stand w/press-to-talk switch, Cord, Plug, **Net $17.23.**

Also available (not shown): **No. A-MF Floor-stand Microphone. Net $25.54;** and **No. A-MB Banquet-stand Microphone. Net $11.88.**

(9) **No. A-A Adaptor** — PL-55 one end, Amphenol 75-PC1M connector opposite end, to adapt seize jack to Amphenol adaptor, **Net $2.24.**

(10) **No. A-SJ-1 Seize Jack** (circuit opening), wired assembly, **Net $2.70.**

*(11) **No. A-MEC Microphone Extension Cord,** SJ cord w/Hubbell 7554 plug one end, 7555 other end, **Net $6.72.**

*(12) **No. A-MCPC Maid Call Patch Cord,** 2-conductor cord w/PL-55 ea. end, Ne **$1.51.**

*(13) **No. A-TVH TV Hook-up Lead,** A-TV92-S Coax., w/lugs one end, A-C59 othe end, **Net $2.50.**

* **Standard length 6 ft., other lengths — and constructions — to order.**

MICROPHONE MIXERS

No. A-6M
6-channel Portable
Microphone Mixer

AMERICAN'S A-6M Portable Microphone Mixer has 200-ohm inputs for 6 microphones, individual gain controls (mixers) for each of the 6 microphones, master gain control, Cue Jack for headphone monitoring of broadcast-quality program material, pilot light, and "Off-On" switches for Service and Standby power supplies; separate Bass, Treble electronic tone controls available.

The 6 mixers work from individual low-noise preamplifiers into the master gain control; gain is adequate for remote operation.

Output is +15 dbm; gain, 55 db; frequency range, 30-15,000 cy./sec. ±1. db. Output is universal (50-600 ohms impedance). Operates on 115-120 V., 60 cy. A-C.

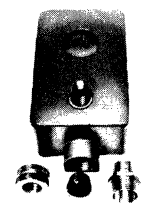
No. A-10M Portable Microphone Mixer (not shown) for 10 microphones is similar in construction.

SPECIFICATIONS

Slope-front metal cabinet (A-6M) measures approx. 22" x 7" x 8" high. Gray crackle finish. Carrying handle. Fused power supplies. Terminations at rear of cabinet. Instrument furnished w/Hubbell or Cannon connectors. **Net Prices,** No. A-6M, **$495.00;** No. A-10M, **$825.00.**

Stereo Microphone Mixers available, on order, for 2 or 4 outputs.

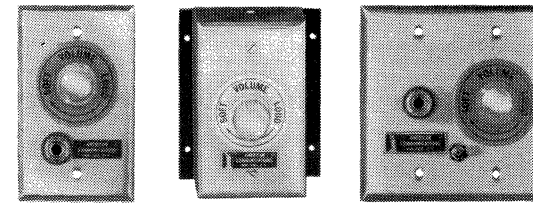
WEATHERPROOF MICROPHONE



No. A-WM Weatherproof Microphone. New! Rugged, high-fidelity dynamic microphone in diecast aluminum housing. Supplied complete w/coupling to fit all standard stands and with neoprene cable gland, and gland nut. Grille opening protected by metallic screen and non-resonant, waterproof covering. Waterproof push-to-talk button permits talk-back for intercom use; signal light indicates "Microphone in Use". Available without switch or light. Impedance 35-50 ohms; can be supplied w/built-in matching transformer tapped for 200/600 ohm lines (other impedances to order). Frequency response 40-15,000 cps. Approx. 3⅜" x 6¼" x 2¾" deep, overall, (less fittings); approx. wt. 3 lbs. **Net $45.85.**

NEW P.A. CONTROL UNITS

These new Control Units by **AMERICAN** meet the everyday needs o the Public Address technician. Each includes a 4-watt, wire-wound volume control, either 3.3K ohms (for 70 volt line) or **AMERICAN'S** patented, continuous-rotation 12.5 ohm (voice coil) control. Seize jacks are circuit-opening type, for PL-55 plug. Standard plates are brushed stainless steel; also available in white enamel, and brushed or bright brass finish.



No. A-CU1/- Speaker Control w/Seize Jack — With 3.3K ohm **(A-CU1/1)** or 12.5 ohm **(A-CU1/2)** control, dial, knob; seize jack. Plugging into jack disconnects speaker from its feed line, connects speaker to plug circuit (paging assembly, etc.). Plate mounts on std. 1-gang outlet box. **Net $8.55.**

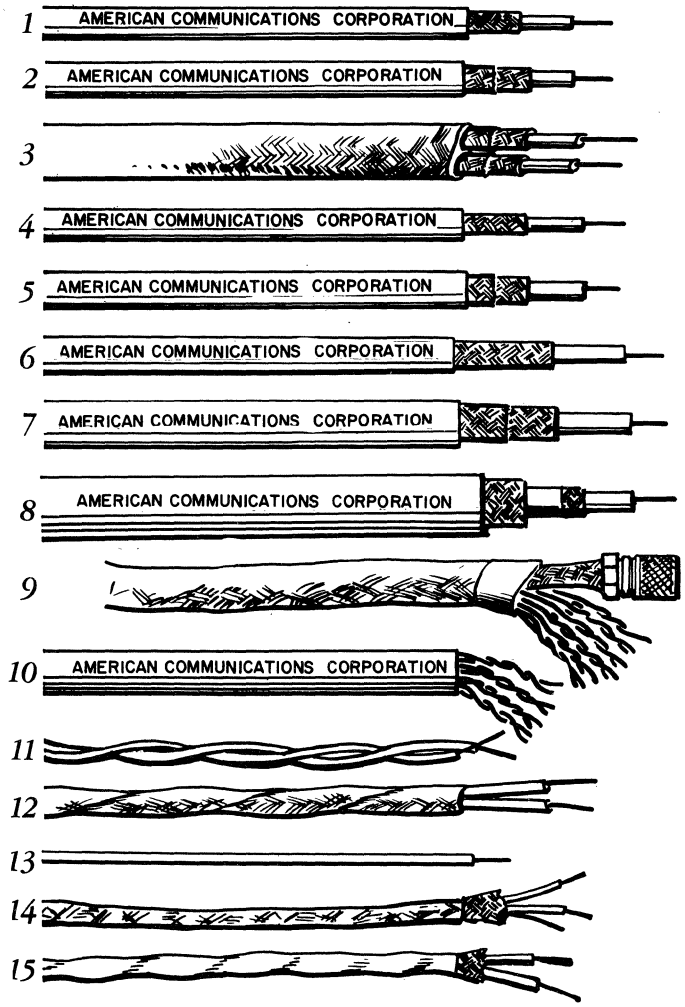
No. A-CU2/- Speaker Volume Control.—A surface-mount, general purpose unit. With 3.3K ohm **(A-CU2/1)** or 12.5 ohm **(A-CU2/2)** control, dial, knob. Metal case 1" deep has ½" flange on sides, black finish (std.); plate is single gang. Metal-bushed holes for wire entry through top or bottom. **Net $7.25.**

No. A-CU3/- Speake Volume Control w Seize Jack, Maste TV Antenna Connec tion.—Used in cor ference rooms, etc With 3.3 K ohi **(A-CU3/1)** or 12. ohm **(A-CU3/2)** cor trol, dial, knot seize jack; A-1601- TV-set line tap (7 ohms). Other tap offs available. Plat mounts on 2-gan outlet box. **Ne $10.95.**

AMERICAN COMMUNICATIONS CORPORATION
JAMAICA, NEW YORK 11434

AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

CABLE & WIRE



Special Wire and Cable combinations can be fabricated on quantity orders. Types here listed meet all specifications for the respective types, and are those used in making **AMERICAN'S** Systems installations. Specification sheets supplied upon request.

TV COAXIAL CABLE

	Net Per Ft.
(1) A-TV91-S (RG-59/U w/1 shield)	$.04
(2) A-TV92-S (RG-59/U w/2 shields)	.06
(3) A-2TV92-S (twin A-TV92-S)	.20
(4) A-TV61-S (RG-6A/U w/1 shield)	.05
(5) A-TV62-S (RG-6A/U w/2 shields)	.07
(6) A-TV11-S (RG-11/U w/1 shield)	.09
(7) A-TV12-S (RG-11/U w/2 shields)	.10
(8) A-TV12-S-2J (A-TV12-S w/shields insulated from each other)	.20

TV & RADIO COMBINATION CABLE

(9) A-TV/R92-S/- (combo.: A-TV92-S w/4 to 7 twisted pr.) **Net/ft.: -4/11¢; -5/12¢; -6/13¢; -7/14¢**

*Request quotations for -91-S, -61-S, -62-S; or more pairs.

MULTI-CONDUCTOR RADIO CABLE

(10) A-22/2/- (4 to 9 twisted prs. No. 22, for Centralized Radio Systems). **Net/ft.: -/4 5¢ -/5 6¢; -/6 7¢; -/7 8¢; -/8 9¢; -/9 10¢.**

SPEAKER & SYSTEM WIRING

(11) A-19/2 (No. 19 twisted pr., black & white, no jacket)	$.02
(12) A-19/2/J (No. 19 twisted pr., black & white, white cotton jacket)	.03
(13) A-20/1 (No. 20, 1 conductor, red or black)	.01

MICROPHONE CABLE

(14) A-20/2-G-S (No. 20 2-conductor twisted pr. plus ground wire and shield, woven cotton jacket)	$.04
(15) A-20/2-S (No. 20 2-conductor twisted pr. w/shield & plastic sheath)	.04

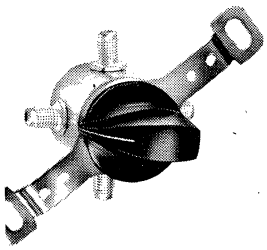
MULTI-CONDUCTOR STATUS BOARD & MESSAGE CABLE

(16) A-22X/27 (No. 22 — also No. 24 or No. 26 — twisted pr. w/plastic jacket over 27 prs.)	†*
(17/20) (Ditto as No. 16, except 101, 201, 301 or 401 prs.)	†*

(†) Not illustrated

***Prices on request.**
Prices subject to change without notice.

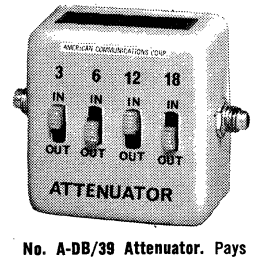
NEW! COAX. SWITCHES



No. A-SW/4 Coaxial Switch. Inexpensive, functional equivalent of lab.-type switching units, for general-purpose use.

No. A-SW/- Coaxial Switch. Low-cost, small-space, light-weight coaxial switch; C-type UHF connectors for coax. cable. Illustrated is a 1-pole, 4-position unit for switching one input to four circuits (antennas, transmitters, exciters, receivers, test equipment, etc.). Other multi-pole, multi-position types available, to meet ham radio, TV, lab. and other requirements. Power rating up to 1 kw., amplitude modulated; impedance, 52-75 ohms. Approx. 2″ x 2″ diam. Supplied w/hardware (pointer knob, mounting saddle, and 5 C-type male connectors w/ferrules). **A-SW/2,** 1- pole, 2- position, **Net $5.75; A-SW/4** (illus.), **Net $6.50.**

DB ATTENUATORS



No. A-DB/39 Attenuator. Pays for itself in the time it saves determining loss required for best TV picture, etc. Slide switches are used.

AMERICAN'S No. A-DB/39 and **No. A-DB/59 Attenuators** (the latter not illustrated) provide at low cost, quick and convenient means for determining losses in a number of essential tests in TV installations. These include: measurement of amplifier gain, and equipment losses.

SPECIFICATIONS:
Insertion loss of **A-DB/39** is in fixed steps of 3 to 39 db, and, of the **A-DB/59,** 3 to 59 db, for TV frequencies, when used in 75-ohm circuits. Two **A-CH61** solderless TV connectors afford connection to 75-ohm coaxial connectors. Housing is steel, ecru enameled; overall, 2″ x 2″ x 1″ deep **(A-DB/39).**
Net: A-DB-39, $7.75; A-DB/59, $19.90.

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Net

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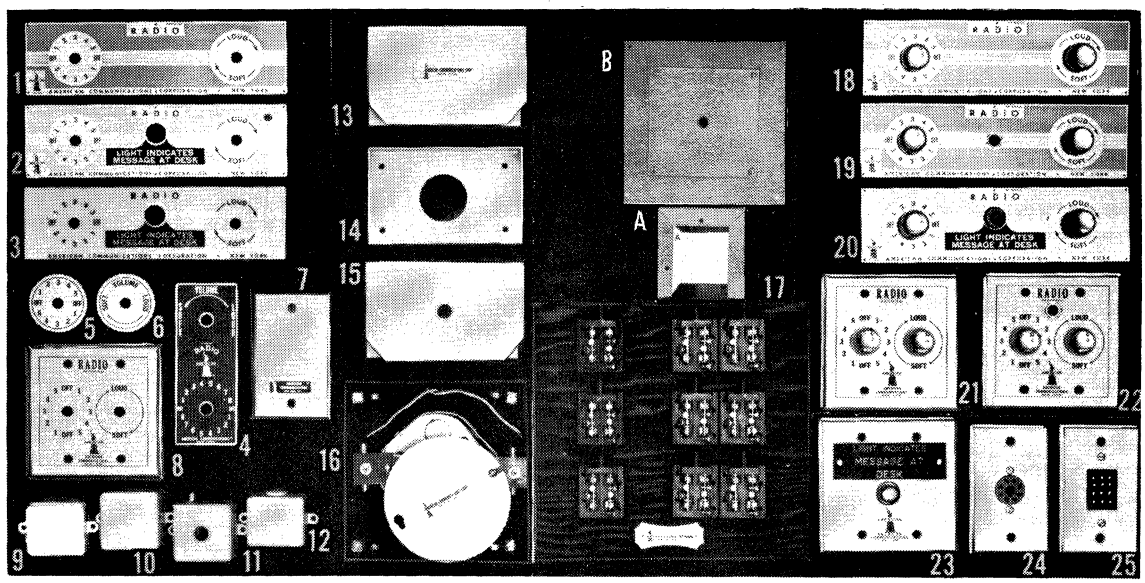
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS – MOTELS – INSTITUTIONS

RADIO PARTS & ASSEMBLIES



BLANK (UNASSEMBLED) ESCUTCHEON PLATES

Measurements: No. 1 — No. 3, 9 x 2½″; No. 4, 2⅛″ x 5⅛″; No. 5, No. 6 (dials), 2″ diam. (hole in latter is ⅜″ diam.). No. 7, 2¾″ x 4½″. No. 8, 4⅝″ sq.

(1) **No. A-P1 Radio Escutcheon.** Patterned bronze, clear lacquered. Lettered: Off — 1 (through) 5 — Off and Loud-Soft. **Net $2.15.**
No. A-P2 Radio/Maid Call Escutcheon (not shown). Same as **A-P1,** except w/hole, centered between controls, for jack. **Net $2.18.**
No. A-P3 Radio/Message Escutcheon (not shown). Same as **A-P1,** except w/added hole in center for lamp socket, and wording: Light indicates Message-at-Desk. **Net $2.23.**

(2) **No. A-P4 Radio/Message/Maid Call Escutcheon.** Same as **A-P3,** except w/added hole at upper-right for jack. **Net $2.27.**
No. A-P5 Radio/Message/Maid Call/Status Escutcheon (not shown). Same as A-P4, except w/added hole, below hole for jack, for Status Maid Light. **Net $2.67.**

(3) **No. A-P3P Radio Escutcheon, plastic.** Same as **A-P3,** except material is translucent plastic. For use with incandescent or luminescent light source. **Net $1.90.**

(4) **No. A-P1V Radio Escutcheon,** vertical. Brown enameled brass. Lettering same as **A-P1,** except radio numerals to 8. **Net $1.61.**

(5) **No. A-D1/5 Selector Plate.** Aluminum disc, black lettered Off — 1 (through) 5 — Off. **Net 66¢.**

(6) **No. A-D2 Volume Plate.** Aluminum disc, black lettered: Loud — Volume — Soft. **Net 59¢.**

(7) **No. A-P10 Wall Plate,** 1-gang, blank. Available in aluminum, stainless steel, plain steel and brass, in various finishes, to order. Standard finishes: brushed stainless steel, brushed aluminum. **Net 57¢.**
No. A-P20 Wall Plate, 2-gang, blank (not illus.). Materials and finishes as **A-P10. Net 63¢.**

(8) **No. A-P20-1 Radio Wall Plate.** Uses 2-gang plate **A-P20.** Same lettering as **A-P1. Net $2.15.**
No. A-P-20-2 Radio/Maid Call Wall Plate (not shown). Same as **A-P-20-1,** except w/added hole for Maid Call jack **Net $2.30.**
No. A-P20-3 Message Wall Plate (not shown). Has hole for lamp socket, on 2-gang plate. **Net $2.10.**

BLANK HOUSINGS

Standard finish: ecru enamel; material; steel.
Measurements: (small housings) No. 9, No. 12, 2″ x 1¾″ x ¾″ deep; No. 10, No. 11, 2″ sq. x 1⅛″ deep; (large housings) No. 13 - No. 15, 5¼″ x 3⅜″ x 1⅞″ deep. Mounting tabs on No. 9 - No. 12.

(9) **No. A-BC1 Accessory Box,** small, blank. **Net 36¢**

(10) **No. A-BC2 Accessory Box,** large, blank. **Net 45¢.**

(11) **No. A-BC3, Accessory Box,** large, w/metal grommet and TV feedthrough **A-FT 81.** Used as TV Outlet and Cable Accessory Box. **Net $1.05.**

(12) **No. A-BC4 Accessory Box,** small, w/rubber grommet. **Net 42¢.**

(13) **No. A-BC10 Termination (Accessory) Box,** large, surface mounted. Open at 2 corners for feedthrough; back plate has opening (optional) for cable, and back-to-back mounting. **Net $1.16.**

(14) Shows opening at back of **No. A-BC10.**

(15) **No. A-BC11 Radio Outlet Box,** surface mounted. Has metal grommet in top. **Net $1.29.**

APPARATUS

(16) **No. A-SB-R Radio Splice Box,** on wood or masonite board 6″ sq. x ¼″ thick. Suspension wire is shown. Includes outlet box (shown open), 4 insulated cable clamps, and 2 **A-1601** line taps. **Net $6.88.**

(17) **No. A-RS-A Riser Switchboard.** Has 9 D.P.S.T. knife switches (one switch per riser pair) on wood (or masonite) mounting approx. 9½″ sq. ½″ thick. **Net 99¢ per switch** (illus., 9 switches), assembled and wired.

PANEL ASSEMBLIES

(18) **No. A-P1-A Radio Control Panel.** This is **A-P1** Escutcheon assembled with Radio Selector Switch and Volume Control. **Net $9.15.**

(19) **No. A-P2-A Radio/Maid Call Panel.** Same assembly as **A-P1-A,** except w/**A-MJ** Maid Call jack added, on **A-P2** Escutcheon. **Net $10.50.**

(20) **No. A-P3-A Radio/Message Panel.** Switch, Control, and Message light, on **A-P3** Escutcheon. **Net $10.80.**
No. A-P4-A Radio/Message/Maid Call Panel (not shown). Same items as on **A-P3-A** panel, plus Maid Call jack, all on **A-P4** Escutcheon. **Net $12.15.**

(21) **No. A-P20-1-A Radio Wall Plate** assembly, w/Switch and Volume Control. On aluminum 2-gang plate. **Net $9.15.**

(22) **No. A-P20-2-A Radio/Maid Call** assembly. Same as **A-P20-1-A,** but w/Maid Call jack added. On aluminum 2-gang plate. **Net $10.50.**

(23) **No. A-P20-3-A Message-at-Desk Wall Plate** assembly, w/instructions and lamp. On aluminum 2-gang plate. **Net $3.50.**

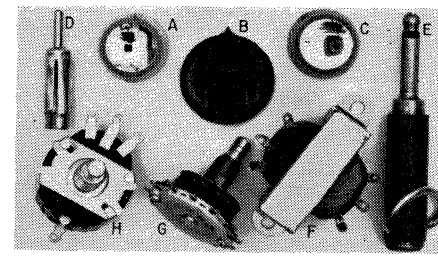
(24) **No. A-P10-TV-A TV Remote Plate** assembly. On 1-gang plate, w/octal socket. **Net $1.05.**

(25) **No. A-P10-C-A Connector Plate** assembly. On aluminum 1-gang plate. Has Jones connector; specify number of connections. **Net $2.61.** (12-pin, illus.).

(A) **No. A-CB-S Connection Box,** surface mtg. Accessible from rear. For mounting control plates. Bushing one side. Enameled steel. **Net $2.08.**

(B) **No. A-CB-F Connection Box,** flush mounting. Shown with bushed plate, for cable. Steel, Hammertone enameled. **Net $4.46.**

PARTS



(A) **No. A-K1 Knob,** clear plastic. Silver insert, shor short pointer, 1 screw. **Net 22¢.**

(B) **No. A-K3 Pointer Knob,** black plastic. Has screw. **Net 24¢.**

(C) **No. A-K2 Knob,** beige plastic. Gold insert, shor pointer, 1 screw. **Net 22¢.**

(D) **No. A-MP Plug,** quick-disconnect type. **Net 18¢**

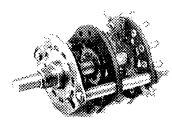
(E) **No. A-MSP Maid Call Plug,** w/belt ring. **Net $1.44**

(F) **No. A-T1 Transformer,** 70 volts to 3.2 ohms **Net $1.03.**

(G) **No. A-CS Radio Selector Switch.** Ceramic wafer dual wiper, 5 positions, center off, 360° con tinuous rotation. **Net $2.30.**

(H) **No. A-VC Volume Control.** A patented potentic meter with 360° continuous rotation. Standar resistance 12.5 ohms. **Net $2.30.**

(Items G and H for Centralized Radio use.)



No. A-CS-A/5 Radio/Alert Selector Switch. AMERICAN'S 360° continuous-rotation radio channe selector switch, is equipped witl extra circuit wafer for **AMERICAN'S** patented emergency aler system. **Net $4.98**

AMERICAN COMMUNICATIONS CORPORATION
JAMAICA, NEW YORK 11434

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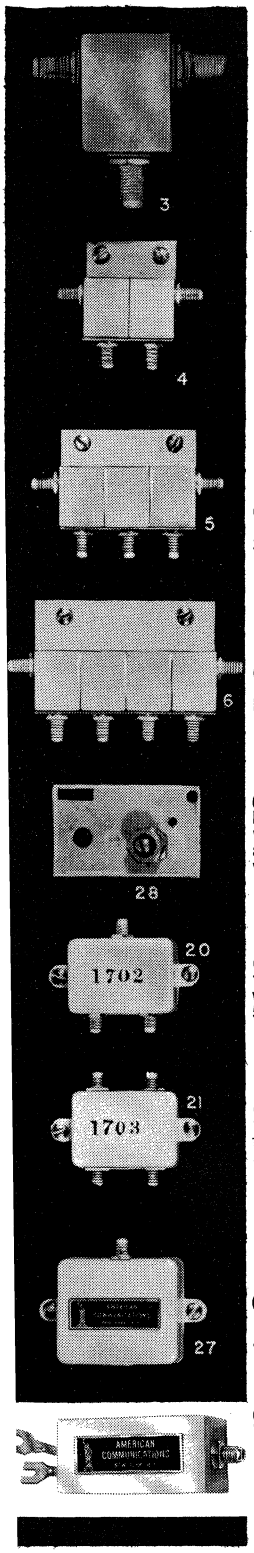
Net

AUDIO / VISUAL / SIGNAL SYSTEMS & PARTS
FOR HOTELS – MOTELS – INSTITUTIONS

MASTER ANTENNA SYSTEM COMPONENTS



(1) No. A-1601-1 Isolation Unit. A Single-unit TV line tap. Attenuation color codes per Note 1. Outdoor housing; 75 ohms. **Net $1.80.**

(2) No. A-1602-1 Double-unit Line Tap, for 2 TV sets. (Notes 1, 2) **Net $3.20.**

(3) No. A-1603-1 Triple-unit Line Tap. (Notes 1, 2) **Net $4.60.**

(4) No. A-1604-1 Quad-unit Line Tap. (Notes 1, 2) **Net $6.00.**

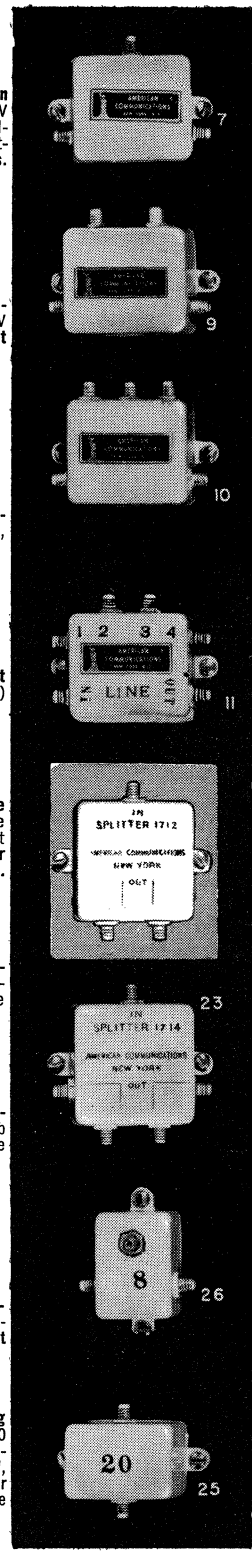
(5) No. A-VLC Volume Limiter Control. For use within TV set to limit audio volume of regular volume control. **Net $3.81.**

(6) No. A-1702 Line Splitter, 2-way. Has 6 db forward attenuation. (Note 5) **Net $1.80.**

(7) No. A-1703 Line Splitter, 3-way. Has 10 db forward attenuation. (Note 5) **Net $2.80.**

(8) No. A-CTVB Convenience TV Box, w/connector A-CH61. (Note 3) **Net 77¢.**

(9) No. A-MT Matching Transformer, 75 to 300 ohms. Solderless connector for RG-59/U one end, 3-in. leads w/lugs other end. Up to 6 db voltage step-up. **Net $2.87.**



(10) No. A-1601-2 Single-unit Line Tap, 75 ohms (Notes 1, 3) Indoor housing. **Net $1.80.**

(11) No. A-1602-2 Double-unit Line Tap, for 2 TV sets. (Notes 1, 3) **Net $3.20.**

(12) No. A-1603-2 Triple-unit Line Tap. (Notes 1, 3) **Net $4.60.**

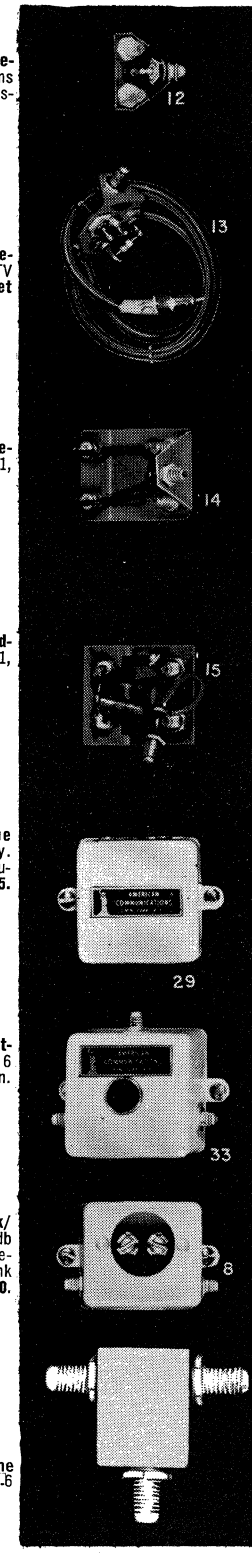
(13) No. A-1604-2 Quad-unit Line Tap. (Notes 1, 3) **Net $6.00.**

(14) No. A-1712 Line Splitter, hybrid 2-way. Has 3 db forward attenuation. (Note 3) **Net $3.25.**

(15) No. A-1714 Line Splitter, hybrid 4-way. Has 6 db forward attenuation. (Note 3) **Net $4.75.**

(16) No. A-T/R-T Trunk/Riser Tap. Various db values of isolation. Creates Risers form Trunk Line. (Note 5) **Net $1.80.**

(17) No. A-DBLA-DB Line Attenuator Pad. 3-6-10-6 20-30. (Note 5) **Net $1.77.**



(18) No. A-1601-G Single-unit Line Tap. Gem flush-mount. 75 ohms. (Note 1) **Net $1.80.**

(19) No. A-1602--G Double-unit Line Tap for 2 TV sets. (Notes 1, 7) **Net $3.20.**
No. A-1602-GL (illus.). Same as **A-1602-G,** except per Note 8. **Net $3.20.**

(20) No. A-1603-G Triple-unit Line Tap. (Notes 1, 7) **Net $4.60.**
No. A-1603-GL (Not illus.). (Notes 1, 7, 8) **Net $5.20.**

(21) No. A-1604-G Quad-unit Line Tap. (Notes 1, 7) **Net $6.00.**
No. A-1604-GL (Not illus.). (Notes 1, 7, 8) **Net $6.70.**

(22) No. A-CTVB/MJ Convenience TV Box, w/A-MJ jack. (Note 3) **Net 77¢.**

(23) No. A-1601/R-FT Combination Unit. Combination TV room tap with bushed box for centralized radio cable feedthrough. (Note 1) **Net $2.80.**

(24) A-1601-3 Single-unit Line Tap, 75 ohms, screw terminals. (Note 3) **Net $1.80.**

(25) No. A-1600 Feedthrough Tap. No isolation. **Net $1.80.**

(See Notations on facing page)

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AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
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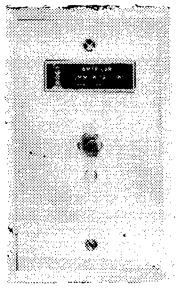
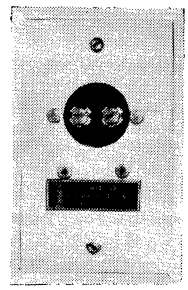
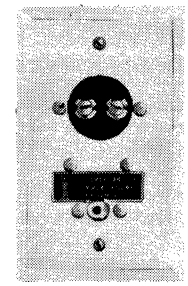
MASTER ANTENNA SYSTEM COMPONENTS



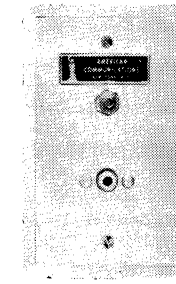
No. A-1601-4 Single-Unit Line Tap. TV outlet, 75 ohms. (Note 4) **Net $1.90.**



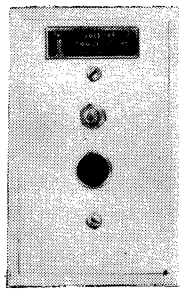
No. A-1601-5 TV Outlet, 300 ohms, screw terminals. (Note 4) **Net $2.70.**



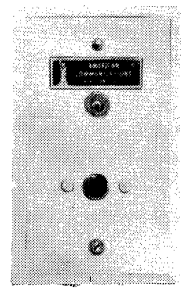
No. A-1601-6 TV Outlet, 75 ohms, screw terminals, FM outlet. (Note 4) **Net $4.05.**



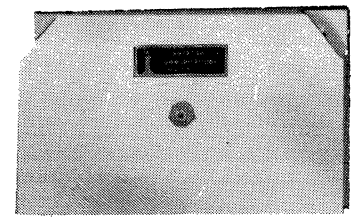
No. A-1601-7 Outlet, 75-ohm Tap, w/FM outlet. (Note 4) **Net $4.05.**



No. A-1601/R, 1601 & Radio Plate. Wall plate grommeted for cable. **Net $2.40.**



No. A-TV/75 Tap, 75 ohms, w/A-MJ jack for FM. (Note 4). **Net $4.05.**



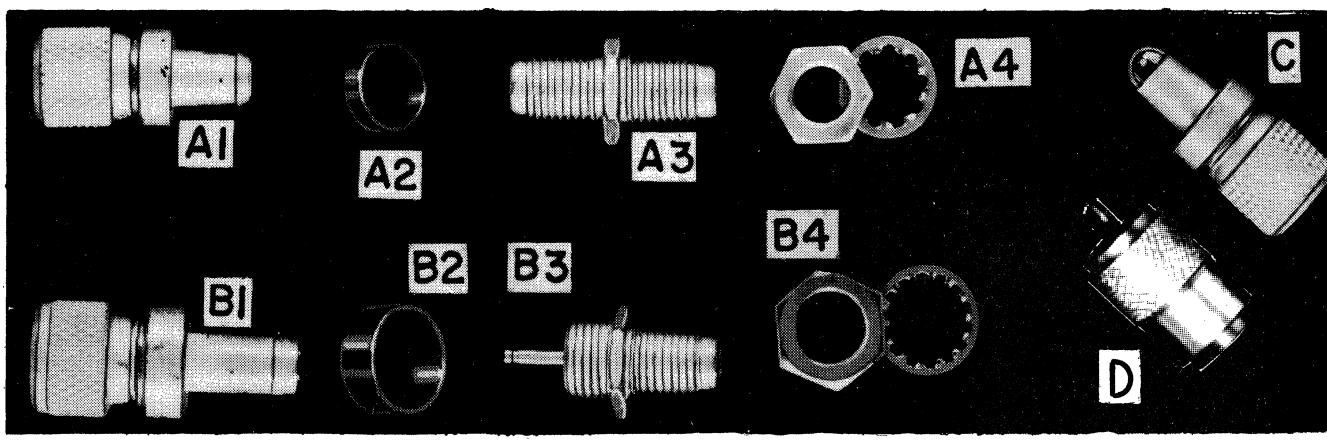
No. A-TV/R-SB TV/Radio Splice Box, surface mount, **w/A-1601.** In **A-BC10** Termination Box. **Net $2.95.**

ADDITIONAL PARTS (not illustrated)

No. A-WN Porcelain Wire Nut. Net 2¢. No. A-CC Cable Clamp, insulated. Net 6¢. No. A-RP Plastic Rawl Plugs. For mounting various radio and TV boxes; 5 per strip. **Net 5¢,** per strip of 5. **No. A-P8-A Plate.** "Morning Wake-up Call" control assembly. **Net $7.50. No. A-P10-P Plate,** punched. (Note 6) **Net 61¢. No. A-R-BP Radio Plate,** bushed. (Note 6) **Net 77¢. No. A-TV/R-P TV or Radio Plate,** blank. (Note 6) **Net 61¢. No. A-CT-1 Crimping Tool,** light duty. For **A-F59** ferrules. **Net $4.50. No. A-CT-2 Crimping Tool,** heavy duty. For **A-F59** and **A-F6** ferrules. **Net $7.75.**

(Note 1) Attenuation coded red, yellow, green Blue.
(Note 2) On mounting bracket.
(Note 3) Surface mount, in **A-BCI** Accessory Box.
(Note 4) Flush mount, on single-gang wal plate **A-P10.**
(Note 5) Surface mount.
(Note 6) Single or double gang, flush mount
(Note 7) Gem flush-mount, 75 ohms.
(Note 8) GL is G type, plus 8-in. (standard length) coax. lead from 2nd tap, for back-to-back mounting.

TV COAXIAL CONNECTORS



(A1) **No. A-C59 Solderless TV Connector** for **RG-59/U** coaxial cable, **w/A-F59. Net 31¢.**
(A2) **No. A-F59 Ferrule.** Crimping ring for **A-C59. Net $1.65/C.**
(A3) **No. A-FT81 Feedthrough TV Connector** or TV convenience connector w/¼" **A-NW-FT81. Net 42¢.**
(A4) **No. A-NW-FT81 Nut & Washer,** ¼", for **A-FT81. Net 3¢.**
(B1) **No. A-C6 Solderless TV Connector** for **RG-6/U** coax. **Net 39¢.**
(B2) **No. A-F6 Ferrule.** Crimping ring for **A-C6. Net $2.50/C.**
(B3) **No. A-CH61 Convenience Connector,** chassis mount, w/5/16" **A-NW-CH61 Net 35¢.**
(B4) **No. A-NW-CH61 Nut & Washer,** 5/16", for **A-CH61. Net $.047.**
(C) **No. A-TR72 Terminator,** 72 ohms. **Net 53¢.**
(D) **No. A-PL259 Connector,** for **RG-11/U** or **RG-8/U,** or double-shielded equivalents. **Net 26¢.**

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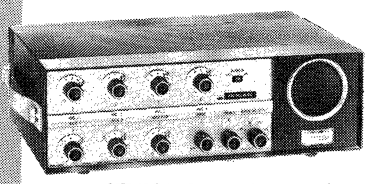
Net

BOGEN SOUND SYSTEMS

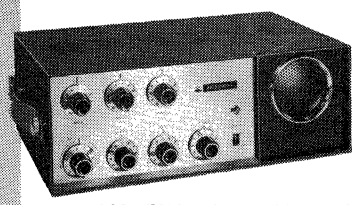
FLEX-PAK® DELUXE PA AMPLIFIERS

	*MTX30A All Transistor	MX60A	MX30A	M330A	M60A
POWER OUTPUT	30 w. @ 2% (Full power: 30- 20,000 cps)	60 w. @ 2% (Full power: 30- 25,000 cps)	30 w. @ 2% (Full power: 25- 50,000 cps)	30 w. @ 2%	60 w. @ 3%
PEAK POWER	50 watts	85 watts	50 watts	50 watts	100 watts
POWER CONSUM.	60 watts	180 watts	125 watts	120 watts	160 watts
FREQ. RESPONSE	±1 db, 15-25,000 cps	±1 db, 10-30,000 cps	±1 db, 10-30,000 cps	±2 db, 20-20,000 cps	±2 db, 20-20,000 cps
SENSITIVITY	Mic.: 2 MV (high imp); Mag.: 3 MV; Aux.: 0.3-v	Mic.: 3.5 MV (high imp); Mag.: 2 MV; Aux.: 0.15-v	Mic.: 3.5 MV (high imp); Mag.: 2 MV; Aux.: 0.15-v	Mic.: 6 MV; Mag.: 50 MV; Aux.: 0.3-v	Mic.: 9 MV; Mag.: 24 MV; Aux.: 0.4-v
GAIN	Mic.: 125 db; Mag.: 120 db; Aux.: 95 db	Mic.: 125 db; Mag.: 120 db; Aux.: 85 db	Mic.: 125 db; Mag.: 120 db; Aux.: 85 db	Mic.: 120 db; Mag.: 105 db; Aux.: 95 db	Mic.: 122 db; Mag.: 115 db; Aux.: 96 db
HUM and NOISE (below rated output)	Mic. —70 db; Mag. —65 db; Aux. —85 db.	Mic. —70 db	Mic. —70 db	Mic. —65 db; Aux. —80 db	Mic. —65 db; Aux. —80 db
INPUTS	4 mic. (convert to low impedance, with T200, T500 or T50 transformer); 2 mic. (high imp.); 2 mag. phono or tape playback heads; 2 aux. (high imp., high level); 1 600-ohm balanced telephone line with WMT1 transformer; 2 bridging. Note: 4 mics. and any two of the other nine inputs may be simultaneously mixed and faded.	4 mic. (convert to low impedance with T200, T500 or T50 transformer); 1 mic. (high imp. or mag. tape); 2 aux. (high imp. high level/fader); 1 600 ohm balanced telephone line with WMT1 transformer; 1 bridging input/output. Note: 6 inputs can be simultaneously mixed and faded.	4 mic. (convert to low impedance with T200, T500 or T50 transformer); 1 mic. (high imp. or mag. tape); 2 aux. (high imp. high level/fader); 1 600-ohm balanced telephone line with WMT1 transformer; 1 bridging input/output. Note: 6 inputs can be simultaneously mixed and faded.	3 mic. (high or low imp. — 2 convert to mag.); 1 aux. channel (2 inputs/fader control); 1 600-ohm balanced telephone line with WMT1 transformer. Note: 4 inputs can be simultaneously mixed and faded.	3 mic. (high or low imp. — 2 convert to mag.); 1 aux. channel (2 inputs/fader control); 1 600-ohm balanced telephone line with WMT1 transformer. Note: 4 inputs can be simultaneously mixed and faded.
OUTPUT IMPEDANCE	4, 8, 16 ohms, tape and booster jacks, 25-v, balanced (21 ohms), 70-v. balanced (163 ohms)	4, 8, 16 and 83 ohms, balanced 25-v. line, balanced 70-v. line	4, 8, 16 and 163 ohms, balanced 25-v. line, balanced 70-v. line	4, 8, 16 ohms, balanced 25-v (16 ohms), 70-v (163 ohms)	4, 8, 16 ohms, balanced 25-v (16 ohms), balanced 70-v (82 ohms)
CONTROLS	4 individual mic. (each with speech filter or wide-range switch) • 1 high imp. mic./mag. phono/tape head/aux.-fader control with speech filter switch • 1 high imp. mic./mag. phono/tape head/aux.-600 ohm line fader control with speech filter switch • master vol. • bass • treble • power switch • calibrated low freq. filter (variable) determines low freq. cut-off of any of 6 inputs • provision for remote control or precedence of all six inputs and master vol.	4 individual mic. (each with speech filter switch) • 1 mic./mag./tape with speech filter switch • aux. 1/aux. 2 • master vol. • bass • treble • power switch • calibrated low freq. filter (variable) determines low freq. cut-off of all inputs • provision for remote control or precedence of all six inputs and master vol.	4 individual mic. (each with speech filter switch) • 1 mic./mag./tape with speech filter switch • aux. 1/aux. 2 • master vol. • bass • treble • power switch • calibrated low freq. filter (variable) determines low freq. cut-off of all inputs • provision for remote control or precedence of all six inputs and master vol.	3 mic. • aux. 1/2 • master vol. • bass • treble • power switch • provision for remote control or precedence for mic.	3 mic. • aux. 1/2 • master vol. • bass • treble • power switch • provision for remote control or precedence for mic.
TONE CONTROL ACTION	Treble (10 kc) +12 db to —14 db; Bass (50 c) +15 db to —9 db	Treble (10 kc) +13 db to —15 db; Bass (50 c) +15 db to —10 db	Treble (10 kc) +13 db to —15 db; Bass (60 c) +15db to —10 db	Treble (10 kc) +10.5 db to —14.5 db; Bass (50 c) +13.5 db to —9 db	Treble (10 kc) +12 db to —15.5 db; Bass (50 c) +15 db to —9.5 db
TRANSISTORS or TUBES	32-transistors, 3-silicon diodes, 2-zener diodes	8 tubes: 3—12AX7A, 3—7247, 2—8417 plus 5-silicon rectifiers	8 tubes: 3—12AX7A, 3—7247, 2—7868 plus 5-silicon rectifiers	5 tubes: 2—7868, 1—7247, 2—6EU7 plus 2-silicon rectifiers and 1-bias silicon diode	5 tubes: 2—8417, 1—7247, 2—6EU7 plus 2-silicon rectifiers and 1-bias silicon diode
DIMENSIONS	16½" W, 12" D, 4¾" H	16½" W, 12" D, 4¾" H	16½" W, 12" D, 4¾" H	14⅞" W, 9⅞" D, 5¾" H	14⅞"W, 9⅞"D, 5¾" H
SHIP. WEIGHT	24 lbs.	40 lbs.	34 lbs.	20 lbs.	28 lbs.
LIST PRICE	$398.75 (Zone 2: $403.00)	$324.40 (Zone 2: $329.35)	$262.40 (Zone 2: $266.75)	$188.75 (Zone 2: $191.75)	$231.25 (Zone 2: $235.45)



MTX30A Shown with MMS-1

MX60A/MX30A Shown with MMS-1



M330A/M60A Shown with MSK-1

*Operates on 105-125 VAC or 12-15 VDC — from —20°C to +70°C (158°F)

MMS-1: monitor meter and speaker for models MTX30A, MX60A, MX30A — allows operator to check sound levels both by ear and by eye. **List Price: $59.90** (Zone 2: **$60.05**)

MSK-1: monitor speaker for models MTX30A, MX60A, MX30A, M330A, M60A — allows operator to check sound levels. **List Price: $14.90** (Zone 2: $15.05)

The outstandingly versatile Flex-Pak accessories include: matching, removable phono-top, wall mounting kit, control-guard locking plate, plug-in lo-impedance transformers . . . and many more.

VERSATILE BOGEN PREAMPLIFIER

MXM . . . MIXER-PREAMPLIFIER

MXM

The self-powered MXM accommodates 5 microphones or 4 microphones and a tuner or phonograph (both crystal and magnetic cartridges). Features include: separate gain control for each channel; master gain control; individual speech filters for each channel, output level meter, sockets for plug-in low-impedance transformers; feedback-type distortion-free tone controls plus new Memory Markers which permit instant resetting of controls to previously determined levels. May be remote controlled with SR2 and SR4 remote controllers. **Output:** +18 db at less than 1% distortion. **Power Consumption:** 27 w. **Frequency Response:** ±2 db, 20 to 20,000 cps. **Hum:** (below rated output) mic., —60 db. **Output Impedance:** Hi-impedance, cathode follower driven, 600 ohms with T161 or T165B (broadcast quality) accessory plug-in transformers. **Input Sensitivity:** Hi-impedance, 4 mv.; Lo-impedance, 0.4 mv.; mag., 4 mv.; Xtal, 0.2 v.; aux., 0.5 v. **Tubes:** total of 9 (4 — EF86, 2 — 12AX7, 1 — 6CG7, 1 — 6BF6, 1 — 6X4). **Tone Controls:** treble (10 kc) +12 db to —12 db; bass (60 c) +12 db to —12 db. **Dimen.:** 16¼" W, 13" D, 5⅜" H. **Ship. Wt.:** 21 lbs. **List Price: $267.35** (Zone 2. $271.10)

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BOGEN "MU" PA AMPLIFIERS

BOGEN SOUND SYSTEMS

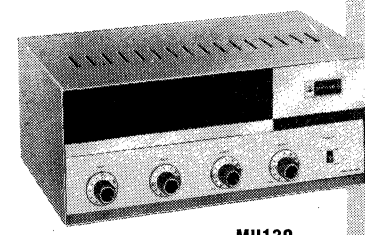
The handsomely styled new "MU" series amplifiers offer: 1 or 2 microphone inputs, a variety of auxiliary inputs, individual and master volume controls, separate bass and treble controls, Memory Markers for resetting controls to previously determined levels, constant voltage output taps and many more features as outlined below.

	MU1250 ALL TRANSISTOR*	MU130	MU15A	MU10A
POWER OUTPUT	50 w. at 10% (continuous)	30 w. at less than 2% distortion	15 w. at less than 2% distortion	10 w. at less than 3% distortion
PEAK POWER	70 watts	50 watts	25 watts	15 watts
POWER CONSUMPTION	Full power: 116 w (117-VAC), 6.7 amps. (12VDC) Quiescent: 16 w (117VAC); .3 amps (12VDC)	120 w	90 w	70 w
FREQUENCY RESPONSE	±2 db 30 to 15,000 cps	±2 db 20 to 20,000 cps	±2 db 20 to 20,000 cps	±2 db 20 to 20,000 cps
GAIN	**Mic.** 125 db **Aux.** 95 db	**Mic.** 122 db **Aux.** 95 db	**Mic.** 125 db **Aux.** 100 db	**Mic.** 125 db **Aux.** 100 db
HUM AND NOISE (below rated output)	**Mic.** —65 db **Aux.** —70 db	**Mic.** —65 db **Aux.** —80 db	**Mic.** —60 db **Aux.** —80 db	**Mic.** —60 db **Aux.** —80 db
OUTPUT IMPEDANCE	4, 8 and 16 ohms; 25-v balanced line; 70-v (122 ohms) balanced	4, 8 and 16 ohms (16 ohms balanced); 25-v balanced (use 16 ohm tap), 70-v 163 ohms)	4, 8 and 16 ohms (16 ohm balanced); 25-v balanced (42 ohms); 70-v (326 ohms)	4, 8 and 16 ohms; 25-v balanced (62 ohms); 70-v (500 ohms)
INPUTS	**2-mic.** (hi-or-low impedance, no transformer required) **2 aux. 1 mag. phono or tape**	**1 mic.** (hi-impedance converts to low-impedance with T200, T500 or T50 transformers) **1 aux.** (hi-impedance, hi-level)	**2 mic.** (hi-impedance, converts to low-impedance with T200, T500 or T50 transformers) **2 aux.** (hi-impedance, hi-level)	**1 mic.** (hi-impedance converts to low-impedance with T-155/6/7 transformers) **2 aux.** (hi-impedance, hi-level)
TUBES and/or TRANSISTORS	**Total of 11 transistors** and 3 silicon rectifiers: 2—2N3053 7—2N2712 2—2N1557 3—MR322	**Total of 4 tubes** and silicon rectifiers: 1—6EU7 1—7247 2—7868	**Total of 4 tubes** and 3 silicon rectifiers: 1—6EU7 1—6AV6 2—6GW8/ECL86	**Total of 3 tubes** and silicon rectifier 1—6EU7 2—6GW8/ECL86
TONE CONTROLS	**Treble** (10 kc) —17 db **Bass** (50 cps) +10 db to —17 db	**Treble** (10 kc) +12 db to —14 db **Bass** (50 cps) +15 db to —9 db	**Treble** (10 kc) +12 db to —14 db **Bass** (50 c) +15 db to —9 db	**Treble** (10 kc) —17 db **Bass** (50 c) —17 db
DIMENSIONS	15¾" W, 10" D, 6¾" H	15¾" W, 10" D, 6¾" H	15¾" W, 10" D, 6¾" H	15¾" W, 10" D, 6¾" H
SHIPPING WEIGHT	14 lbs.	20 lbs.	19 lbs.	15 lbs.
LIST PRICE	$237.50 (Zone 2: $239.65)	$149.90 (Zone 2: $152.90)	$139.90 (Zone 2: $143.05)	$97.40 (Zone 2: $99.65)

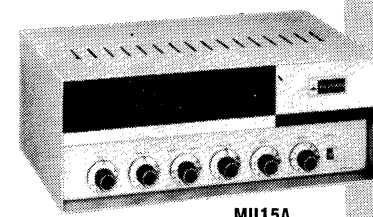
*Operates on 12-VDC or 117-VAC. Will operate within a temperature range of —20°C to +65°C (—4°F to +149°F)

Accessories: matching phono-top, control-guard locking plate, rack panel mounting kits, carrying cases, remote volume controls . . . and more.

MU1250 Shown with phono-top



MU130



MU15A

MU10A

MOBILE AMPLIFIERS

BT35; 35-WATT COMPACT TRANSISTOR MOBILE PA AMPLIFIER

55-watts when used as electronic siren

Excellent for police, fire, CD and boats; radio receiver connects easily to aux. input. Splashproof-gasket seals chassis in cabinet. Temperature range —20°C to +65°C (149°F). Polarity protection. Accessory siren tone-fog horn generator. Adjustable fixed-lock bracket. Built-in RF/line filters.

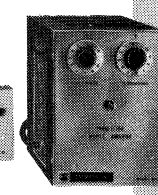
Power Output: 35 watts @ less than 10% (continuous); 55 watts with siren generator **Peak Power:** 55 watts **Power Consumption:** Full power: 4 amps; Quiescent: 0.6 amps 12-15 VDC **Frequency Response:** 150-15,000 cps ±3 db. **Inputs:** 1 mic. (low impedance) • 1 aux. #1 (high level) tuner/tape/phono, 1 aux. #2 (high level) accessory (tone signal) **Gain:** microphone, 110 db.; auxiliary, 90 db. **Hum and Noise:** microphone, —90 db. (below rated output); aux., —95 db. (below rated output) **Sensitivity:** mic.: 1 MV; aux.: 0.4 volts **Output Impedance:** 4, 8, 16 ohms (output socket for accessory siren/fog horn generator) **Controls:** 1 mic. • 1 aux. volume • 1 selector switch/power (4 positions); power off, mic., radio, Aux. **Transistors:** 5 transistors — 1 silicon diode: 2 — 2N2431, 1 — 2N555, 2 — 2N1557, 1 —silicon diode **Dimensions:** 8" W, 6¼" D, 3" H **Shipping Weight:** 8 lbs. List Price: **$132.40** (Zone 2: **$133.35**)

SF-1 SIREN/FOG HORN GENERATOR. All-silicon transistor, easily attaches to dashboard or bottom of BT35. Furnished with 6 ft. cable and plug for attaching to BT35. Provision for remote/accessory foot switch for generator activation. Siren may be operated automatically or manually. List Price: **$91.20** (Zone 2: **$91.60**)

BT20; 20-WATT TRANSISTOR MOBILE PA AMPLIFIER

Power Output: 20 watts @ less than 10% (continuous) **Power Consumption:** Full power: 3.8 amps; Quiescent: 0.8 amps; 12-15 VDC **Frequency Response:** 250 — 12,000 cps ±3 db. **Inputs:** 1 mic. (low impedance) • 1 aux. (tuner, tape, phono) **Gain:** mic., 110 db.; aux., 90 db. **Hum and Noise:** mic. —90 db. (below rated output); aux. —95 db. (below rated output) **Sensitivity:** mic., 1 MV; aux., 0.4 volts **Output Impedance:** 4, 8, 16 ohms **Controls:** 1 mic.; 1 aux./power **Transistors:** (5): 2 — 2N2431, 1 — 2N555, 2 — 2N669 **Dimensions:** 4½" W, 4" D, 6½" H **Shipping Weight:** 5 lbs. List Price: **$99.90** (Zone 2: **$100.85**)

BT35



BT2

All prices and specifications subject to change without notice. Zone 2 includes the states of Ariz., Ark., Cal., Col., Ida., La., Miss., Mont., Nev., N.M., Okla., Oreg., Tex., Utah, Wash. and Wyo. Alaska and Hawaii run slightly higher.

BOGEN SOUND SYSTEMS

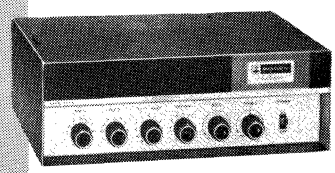
"CHB" SERIES PA AMPLIFIERS

Models CHB100, CHB1250, CHB50 and CHB35A share these outstanding features: systems-tested circuitry for continuous, heavy-duty operation; protection against circuit damage caused by accidental shorting or disconnecting of loudspeaker lines; no "double duty" control devices; built-in remote control circuit permits volume adjustment from up to 2,000 feet away; Memory Level Markers.

CHB100

CHB1250 Shown with phono-top

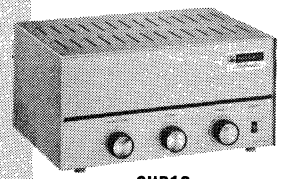
CHB50/CHB35A



CHB1225

CHB20A

CHB14A



CHB10

	CHB100	CHB1250*	CHB50	CHB35A	CHB1225**	CHB20A	CHB14A	CHB10
POWER OUTPUT	100 w. at 5% distortion	50 w. at 10% continuous	50 w. at 5% distortion	35 w. at 5% distortion	20 w at 10% continuous	20 w at 5% distortion	14 w. at 5% distortion	10 w.
FREQUENCY RESPONSE	±2 db, 20 to 20,000 cps	±2 db, 30 to 15,000 cps	±2 db, 20 to 20,000 cps	±2 db, 20 to 20,000 cps	±2 db, 60 to 20,000 cps	±2 db, 20 to 20,000 cps	±2 db, 20 to 20,000 cps	±2 db, 40 to 12,000 cps
INPUTS	**2 Mic.** (hi-impedance) **1 Mag. Phono** **2 Aux.** (hi-impedance hi-level) Provision for WMT 1	**2 Mic.** (hi- or low impedance) or mag. phono/tape head **2 Aux.** (hi-impedance hi-level)	**2 Mic.** (hi-impedance) **1 Mag. Phono** **2 Aux.** (hi-impedance hi-level) Provision for WMT 1	**2 Mic.** (hi-impedance) **1 Mag. Phono** **2 Aux.** (hi-impedance hi-level) Provision for WMT 1	**2 Mic.** (hi or low impedance) **2 Aux.** (hi-impedance, hi-level)	**1 Mic.** (hi-impedance) **2 Aux.** (hi-impedance hi-level) Provision for WMT 1	**1 Mic.** (hi-impedance) **2 Aux.** (hi-impedance hi-level) Provision for WMT 1	**1 Mic.** (hi-impedance) **1 Phono** (hi-impedance hi-level) Provision for WMT 1
HUM & NOISE (below rated output)	**Mic.** —70 db **Aux.** —80 db	**Mic.** —65 db **Aux.** —80 db	**Mic.** —70 db **Aux.** —80 db	**Mic.** —65 db **Aux.** —80 db	**Mic.** —65 db **Aux.** —70 db	**Mic.** —65 db **Aux.** —80 db	**Mic.** —55 db **Aux.** —80 db	**Mic.** —60 db **Phono** —75 db
SENSITIVITY	**Mic.** 5 mv **Aux.** .3-v **Mag. Phono** 15 mv	**Mic.** less than 1 mv (low impedance) 2.5 mv (hi-impedance) **Aux.** .5-v	**Mic.** 5 mv **Aux.** .3-v **Mag. Phono** 15 mv	**Mic.** 4 mv **Aux.** .2-v **Mag. Phono** 12 mv	**Mic.** 3 mv (hi-impedance) **Mic.** 2 mv (low impedance) **Aux.** 0.5-v	**Mic.** 3 mv **Aux.** .5-v	**Mic.** 4 mv **Aux.** .4-v	**Mic.** 6 mv **Phono** .2-v
GAIN	**Mic.** 125 db **Aux.** 100 db **Mag. Phono** 115 db	**Mic.** 125 db **Aux.** 95 db	**Mic.** 120 db **Aux.** 95 db **Mag. Phono** 110 db	**Mic.** 125 db **Aux.** 100 db **Mag. Phono** 115 db	**Mic.** 120 db **Aux.** 90 db	**Mic.** 125 db **Aux.** 100 db	**Mic.** 120 db **Aux.** 95 db	**Mic.** 110 db **Phono** 90 db
OUTPUT IMPEDANCE	4, 8 and 16 ohms, 25-v line balanced, (6 ohms) 70-v line (50 ohms) 2 speaker sockets and screw terminals	4, 8 and 16 ohms, 25-v line balanced, 70-v line, 2 speaker sockets and screw terminals	4, 8 and 16 ohms, 25-v line (12 ohms) 70-v line (100 ohms) 2 speaker sockets and screw terminals	4, 8 and 16 ohms, 25-v line (18 ohms) 70-v line (143 ohms) 2 speaker sockets and screw terminals	4, 8 and 16 ohms, 25-v (25 ohms) balanced, 70-v (196 ohms) balanced	4, 8 and 16 ohms, 25-v line balanced (31 ohms), 70-v line (250 ohms) 2 speaker sockets and screw terminals	4, 8 and 16 ohms, 25-v line (45 ohm) 70-v (355 ohm) 2 speaker sockets and screw terminals	4, 8 and 16 ohms, 25-v line (62 ohms), 70-v (500 ohms) 1-speaker socket and screw terminals
TONE CONTROL ACTION	**Treble** (10 kc) ±12 db to —15 db **Bass** (50 cps) +14 db to —9 db	**Treble** (10 kc) —17 db **Bass** (50 cps) +10 db to —17 db	**Treble** (10 kc) +10 db to —15 db **Bass** (50 cps) +11 db to —10 db	**Treble** (10 kc) +10 db to —16 db **Bass** (50 cps) +14 db to —10 db	**Treble** (10 kc) —11 db **Bass** (50 cps) +9 db to —9 db	**Treble** (10 kc) +10 db to —16 db **Bass** (50 cps) +14 db to —10 db	**Treble** (10 kc) —15 db **Bass** (50 cps) —17 db	**Treble** (10 kc) —24 db
TUBES or TRANSISTORS	**Total of 7 tubes and silicon rectifier:** 1—6EU7 1—12AX7 4—7868 1—6C4	**Total of 9 transistors and silicon rectifier:** 6—2N417 2—2N1557 1—2N669 1—MR322	**Total of 5 tubes and silicon rectifier:** 1—6EU7 1—12AX7 2—6L6GC 1—6C4	**Total of 5 tubes, 2 silicon rectifiers and 1-silicon diode:** 1—6EU7 2—7868 1—12AX7 1—6C4	**Total of 11 transistors and 3 silicon rectifiers:** 9—2N2712 2—RCA 40050 (matched) 1—50D100D 2—50D100A	**Total of 3 tubes, 2 silicon rectifiers and 1-silicon diode:** 1—6EU7 2—6GW8	**Total of 3 tubes, 2 silicon rectifiers:** 1—6AU6 2—ECL86	**Total of 3 tubes:** 1—12AX7/ ECC 83 1—7868 1—6V4/ EZ80
POWER CONSUMPTION	300 w 105-125 VAC 50-60 cycles	**No signal** 0.8A (12 VDC) **Max. signal** 7.5A (12 VDC)	150 w. 105-125 VAC 50-60 cycles	125 w 105-125 vac 50-60 cycles	**No Signal** 12 w (117 vac) 0.3A (14 VDC) **Max. Signal** 50 w (117 VAC) 2.5A (14 VDC)	90 w 105-125 (VAC) 50-60 cycles	70 w 105-125 (VAC) 50-60 cycles	50 w 105-125 (VAC) 50-60 cycles
DIMENSIONS	6¾" H, 15¾" W, 10" D	6¾" H, 15¾" W, 10" D	6¾" H, 15¾" W, 10" D	6¾" H, 15¾" W, 10" D	4-7/16" H, 13⅛" W, 10" D	6¾" H, 15¾" W, 10" D	6¾" H, 15¾" W, 10" D	5¾" H, 11¼" W, 8¼" D
SHIPPING WEIGHT	25 lbs.	17 lbs.	21 lbs.	21 lbs.	17 lbs.	17 lbs.	16 lbs.	**Model CHB10** 12 lbs. **Model CHB10-LC** (less cage) 10 lbs.
LIST PRICE	$194.85 (Zone 2: $198.60)	$187.25 (Zone 2: $189.80)	$142.35 (Zone 2: $145.50)	$122.35 (Zone 2: $125.35)	$182.25 (Zone 2: $184.50)	$99.90 (Zone 2: $102.45)	$79.85 (Zone 2: $82.40)	**Model CHB10** $64.75 (Zone 2: $66.50) **Model CHB10-LC** (less cage) $60.00 (Zone 2: $61.50)

*Operates on 12-15 VDC **Operates on 12-15 VDC and 117 VAC

Accessories: matching phono-top, control-guard locking plate, rack panel mounting kits, carrying cases, remote volume controls . . . and more. WMT1 transformer provides 500/600 ohm telephone line input for wired background music.

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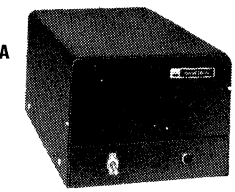
BOGEN SOUND SYSTEMS

"MO" SERIES BOOSTER AMPLIFIERS

	MO100A	MO60A	MO30A	MT30 ALL TRANSISTOR BOOSTER
POWER OUTPUT	100 w. at less than 2% distortion	60 w. at less than 2% distortion	30 w. at less than 2% distortion	30 w. at less than 1% distortion
POWER CONSUMPTION	250 watts	160 watts	105 watts	60 watts (117 VAC or 12-15 VDC)
FREQUENCY RESPONSE	±1 db, 8 to 50,000 cps	±1 db, 4.5 to 70,000 cps	±1 db, 4.5 to 70,000 cps	±1 db, 10 to 25,000 cps
INPUTS	High impedance: 0.5 megohms Low impedance: 500 ohms with T161 transformer	High impedance: 0.5 megohms Low impedance: 500 ohms with T161 transformer	High impedance: 0.5 megohms Low impedance: 500 ohms with T161 transformer	High impedance convertible to low impedance with T161, T163, T165B line transformers
SENSITIVITY	High impedance: better than 2-v; Low impedance: with T161 transformer, better than 0.5-v	High impedance: better than 2-v; Low impedance: with T161 transformer, better than 0.5-v	High impedance better than 2-v; Low impedance: with T161 transformer, better than 0.5-v	High impedance: 1-v; Low impedance: with T161 transformer 0.25-v
HUM (below rated input)	—80 db	—80 db	—80 db	—85 db
OUTPUT IMPEDANCE	16 ohms balanced, 25-v C.T. balanced (6.25 ohms), 70-v C.T. balanced (49 ohms), and 115-v output (for industrial applications)	4, 8, 16 ohms, 25-v (10 ohms) balanced 70-v (83 ohms) balanced	4, 8, 16 ohms, 25-v (21 ohms) balanced 70-v (163 ohms) balanced	4, 8, 16 ohms, 25-v (21 ohms) balanced 70-v (163 ohms) balanced
TUBES or TRANSISTORS	(5) tubes and (3) silicon rectifiers: 1—7247, 4 —8417	(3) tubes, (2) silicon rectifiers (1) bias sil-diode 1—7247, 2—8417	(3) tubes, (2) silicon rectifiers, (1) bias sil-diode: 1—7247, 2—7868	(6) transistors (2) silicon diodes
DIMENSIONS	8" W, 13" D, 6¾" H	8" W, 13" D, 6¾" H	8" W, 13" D, 6¾" H	8" W, 13" D, 5" H
SHIPPING WEIGHT	29 lbs.	28 lbs.	23 lbs.	19 lbs.
LIST PRICE	$227.40 (Zone 2: $232.65)	$176.25 (Zone 2: $180.45)	$144.90 (Zone 2: $148.40)	$173.15 (Zone 2: $176.35)



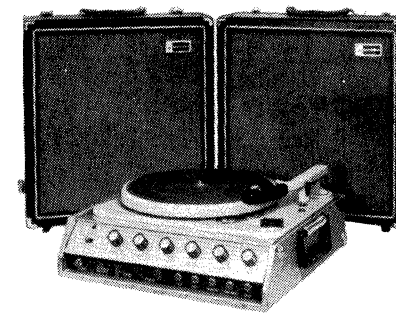
MO100A
MO60A
MO30A
MT30

"VP" SERIES PORTABLE TRANSCRIPTION PLAYERS

VP25 & VP50 ALL-TRANSISTOR SYSTEMS

Phono Mechanism: high-fidelity B51 turntable; automatic tone arm cueing; continuously variable speed from 29 to 86 rpm — plus 4 click-stop speed positions (16, 33-1/3, 45, and 78 rpm); rubber turntable mat; up to 16" records; separate motor power switch; complete with G.E. variable reluctance cartridge with dual sapphire-tipped styli.

Amplifier: — **Power Output:** VP25 — 20 w. (continuous sine wave), 30 w. (peak); VP50 — 40 w. (continuous sine wave), 60 w. (peak). **Transistor and Diodes:** VP25 (total 15); 11 — 2N2712 silicon, 2 — 2N2147 germanium, 2 — silicon diodes; VP50 (total 17); 9 — 2N2712 silicon, 2 — 2N3053 silicon, 4 — 2N2147 germanium, 2 — silicon diodes. **Frequency Response:** ±1 db, 45-18,000 cps. **Power Consumption:** VP25 — 50 w. (117 VAC); Ampl: 2 amp. 12-15 VDC; VP50 — 120 w. (117 VAC); Ampl: 6 amp. 12-15 VDC (Note: inverter is required for both VP25 and VP50 to operate phono mechanism on 12-15 VDC). **Inputs:** (4) Mic. 1; Radio/Tape; Phono (internal); Mic. 2. **Outputs:** VP25 — 2-8 ohm speaker sockets 10 w. each; Monitor; Tape. VP50 — 2-speaker sockets on panel; 2-speaker sockets on bottom — all in parallel — connected to impedance selector lug. Terminal strip: 4, 8, 16 ohm and 25 v. balanced 70 v.; Monitor; Tape. **Controls:** Channel 1: Treble; Bass; Vol; Selector Switch; Channel 2: Vol; Four position Tone Switch, Power Switch.



VP50-DS

Systems: **VP25** — in single portable case; heavy 12" loudspeaker in lid; 25' cable and plug. **Dimen.:** 15¾" W, 16½" D, 10¾" H (less handle and projections). **Ship. Wt.:** 34¼ lbs. **List Price: $236.30** (Zone 2: $240.25)

VP50-DS: in two portable cases; split speaker case offers two 12" loudspeakers each with 25' cable and plug. **Dimen.:** transcription player case: 15¾" W, 16½" D, 7" H (less handle and projections). Speaker case: 15¾" W, 16½" D, 11½" H (less handle and projections). **Ship. Wt.:** combined 48 lbs. **List Price: $332.35** (Zone 2: $338.15).

VP-25-SC: same as VP25 with the addition of one SC-35 sound column with one type C2 cable (25') **List Price: $339.60** (Zone 2: $346.65).

VP50-SC: same as VP50-DS but with two SC-35 sound columns instead of the two 12" speakers. **List Price: $461.85** (Zone 2: $471.75).

VP50-LS: same as VP50-DS but without speakers. **List Price: $255.25** (Zone 2: $259.15).

VP25

Accessories: **DS-12** speaker case — split case mounts 2-12" loudspeakers with cables and plugs. **Wt.:** 16 lbs. **List Price: $77.10** (Zone 2: $79.05).

DS-12AD — similar to DS-12 but with cables and plugs which permit using 4 or more speakers. **Wt.:** 16 lbs. **List Price: $77.10** (Zone 2: $79.05).

SC-35 Sound Column — 35 w. sound column complete with cable and plug. 42" H, 6" D, 9½" W. **Wt.:** 25 lbs. **List Price: $103.35** (Zone 2: $106.35).

MON-2 Monitor Amplifier System includes 10 w. high gain amplifier and 8" Alnico PM speaker in carrying case. **List Price: $87.65** (Zone 2: $90.90).

C3 Battery Connector Cable: used to operate VP25 and VP50 amplifiers from 12-15 v. battery. **List Price: $6.15** (Zone 2: $6.40).

Several types of microphones are available.

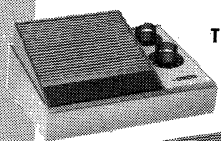
VP10

VP10 — budget-priced portable. **Phono Mechanism:** silent-operating, sturdy B41 record player with automatic motor start will play all records up to 12" at 4 standard speeds (16, 33-1/3, 45 and 78 rpm).

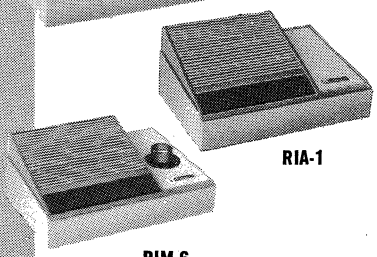
Amplifier: wide-range 10-watt peak; speaker connector on front panel; power switch; bass & treble controls; volume controls for phono and microphone; input for mic. jack. **Tubes:** total of 4 (1 — 6AV6, 1 — EZ81, 1 — 12AX7, 1 — 7355). **Dimen.:** 15½" x 14" x 11½". **Ship. Wt.:** 26 lbs. VP10 in single carrying case with 1 heavy-duty 12" speaker and 25' cable mounted in removable cover. **List Price: $129.10** (Zone 2: $133.10). Lectern Accessory LEC-1 is available.

All prices and specifications subject to change without notice. Zone 2 includes the states of Ariz., Ark., Cal., Col., Ida., La., Miss., Mont., Nev., N.M., Okla., Oreg., Tex., Utah, Wash. and Wyo. Alaska and Hawaii run slightly higher.

BOGEN SOUND SYSTEMS



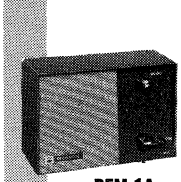
TIA-6
TIA-12



RIA-1

RIM-6

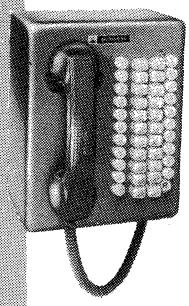
X220B



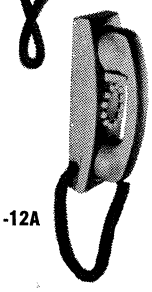
REM-1A

REM-3A

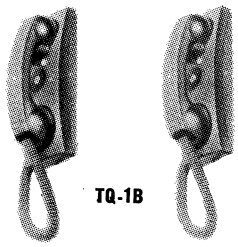
TSL-16



TQA-21



TQ-12A



TQ-1B

SERIES "T" INTERCOMS

Fully transistorized intercoms of unlimited flexibility, high intelligibility, simple installation and unique styling.

TIA-6 MASTER STATION (can call any other station). For systems up to 6 stations — all masters or one master plus remotes. Vol. control, talk-listen bar and 7-position selector (including "mute" and "all-call" positions.) Operates from 117 v. AC; 8 w. power consumption, 8 ohm speaker impedance. **Dimen.:** 7¾" W, 7" D, 4" H. **Ship. Wt.:** 4 lbs. **List Price: $59.40** (Zone 2: $60.00)

TIA-12 MASTER STATION. For systems up to 12 stations. Similar to TIA-6 in design and operation but does not permit calling all stations simultaneously. **Dimen.** and **Ship. Wt.** same as TIA-6. **List Price: $66.25** (Zone 2: $66.85)

RIA-1 REMOTE STATION (can call only 1 pre-selected master and reply when called). Similar in appearance to TIA-6 with matching loudspeaker. **Dimen.:** same as TIA-6. **Ship. Wt.:** 3 lbs. **List Price: $18.10** (Zone 2: $18.55)

TIM-12 MASTER STATION. For intermix systems combining up to 12 masters and remotes in any combination. Same features as TIA-6 plus 12-position selector switch. Specifications, dimensions, and ship. wt.: same as TIA-6. **List Price: $79.90** (Zone 2: $80.50)

RIM-6 SELECTIVE REMOTE STATION (can call any of 6 pre-selected masters). Features, dimensions: same as TIM-12. **Ship. Wt.:** 3 lbs. **List Price: $39.85** (Zone 2: $40.30)

SERIES "X" INTERCOMS

Rugged utility intercoms, used in an 11 or 22 station system (all masters or mixed masters and remotes); featuring push-button convenience, high intelligibility, and simple installation, housed in handsome tan and gold steel cabinets. **Power Supply:** 117 v. AC, 35 w. **Output Impedance:** 50 ohms balanced. **Tubes:** 3 (1 — 12AX7, 1 — 6W6GT, 1 — 6X4). **Dimen.:** X120B & X220B — 10" W, 7½" D, 7" H.

X120B MASTER STATION can call up to 10 masters or remotes. 10 selector push-buttons, 6 ft. master cable ending in plug for solderless connections to junction box, complete with tubes. **Ship. Wt.:** 15 lbs. **List Price: $141.50** (Zone 2: $143.75)

X220B MASTER STATION can call up to 21 masters or remotes. 21 selector push-buttons, same features as X120B. **Ship. Wt.:** 16 lbs. **List Price: $173.90** (Zone 2: $176.30)

REM-1A REMOTE with call-initiating switch to 1 master — with vol. control and 6-ft. cable. **Ship. Wt.:** 3 lbs. **List Price: $31.00** (Zone 2: $31.40)

REM-3A REMOTE with selective call-initiating switch to 3 masters — with vol. control and 6-ft. cable. **Ship. Wt.:** 3 lbs. **List Price: $37.75** (Zone 2: $38.15)

HSX HANDSET for private conversation — attaches to X120B and X220B. **List Price: $66.60** (Zone 2: $67.00)

JB-2 JUNCTION BOX (one required for X120B; two for X220B) **List Price: $9.85** (Zone 2: $10.15)

INTERNAL PHONE SYSTEMS

TSL-BOGEN-PHONES — a unique and extremely flexible telephone system that provides multiple, simultaneous conversations without a costly central exchange. To call, lift phone, press selector button, and then ring-button . . . buzzer sounds at called station, person called lifts phone and starts conversation . . . no switching, no dialing, no switchboard delay. System provides 100% trunkage.

TSL-16 with 1 ring button and 15 station selector buttons. **Dimen.:** 9½" W, 3¼" D, 3¾" H. **Ship. Wt.:** 4 lbs. **List Price: $53.25** (Zone 2: $53.75)

TSL-8 with 1 ring button and 7 station selector buttons. Same dimensions and Ship. Wt. as TSL-16. **List Price: $45.65** (Zone 2: $46.00)

PRS-16 Power Supply (1 required for each telephone system). **Dimen.:** 6" W, 2" D, 3½" H. **Ship. Wt.:** 5 lbs. **List Price: $48.80** (Zone 2: $49.40)

TRC Phone-Page Adapter allows paging from Series TSL phones: **List Price: $42.20** (Zone 2: $42.50)

TQ BOGEN-PHONES — low-cost telephone system. To call, lift phone, press station button . . . buzzer sounds at called station . . . bypassing the switchboard. Selective ringing with common talk line. Handset with base is 9½" x 3¼" x 3¼", **Ship. Wt.:** 5 lbs.; comes supplied with 4' snarlproof cord and junction box.

TQ-1 (pair) for 2-station systems. **List Price: (pair) $51.45** (Zone 2: $52.05)

TQ-1B TWIN-PHONE — 2-station battery-operated phone system. Requires 4 standard Type D Flashlight cells. Supplied complete with 2 instruments, 50' of cable, battery case and connectors. **List Price: $45.80** (Zone 2: $46.40)

TQ-6A phone for up to 7-station system. **List Price: (each) $29.35** (Zone 2: $29.65)

TQ-12A phone up to 13-station system. **List Price: (each) $36.00** (Zone 2: $36.35)

PRS-1A Power Supply (1 required for each system) **List Price: $31.55** (Zone 2: $31.85)

TRA Phone-Page Adapter allows paging from Series TQ phones: **List Price: $42.20** (Zone 2: $42.50)

PRS-5 Multi-mix Power Adapter to combine TQ-12A or TQ-6A phones with trumpets and PA amplifier. **List Price: $147.37** (Zone 2: $148.25)

TQA ATTEND-A-PHONE System gives communication between a central location and each of a number of remote stations. May be used with TRA adapter for paging through amplifier and loudspeakers. Features: low-cost installation, easily expanded, simple to use, completely private.

TQA-21 Central Switchboard — master station with handset and 21 pushbuttons with signal lamps, signal bell and power supply which plugs into standard 110 v. AC outlet, 6' cables and plugs. **Dimen.:** 8½" W, 7½" D, 10¼" H. **Ship. Wt.:** 14½ lbs. **List Price: $270.25** (Zone 2: $271.10)

XQA-21 Expansion Board — used in connection with TQA-21 to provide switching facilities for additional 21 remote stations. No additional power equipment needed. **Dimen.:** 5¾" W, 5¾" D, 10¼" H. **Ship. Wt.:** 9 lbs. **List Price: $204.35** (Zone 2: $205.00)

TQX Remote Station Phone — composed of handset, coiled cord, base and junction box, which may be desk or wall mounted. **Dimen.:** 3¼" W, 3¼" D, 9½" H. **Ship. Wt.:** 4 lbs. **List Price: $31.85** (Zone 2: $31.95)

JB2 Junction Box (2 required for each TQA-21 and XQA-21). **List Price: $9.85** (Zone 2: $10.15)

LEAR SIEGLER, INC. / ISi ® *BOGEN COMMUNICATIONS DIVISION*

Trade Discount Applies To List Prices Only

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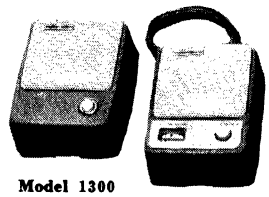
FANON-MASCO INTERCOMS

The complete intercom line styled for the modern office and home at economy prices.

WIRED SYSTEMS



Model 1300

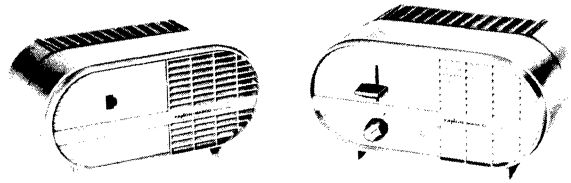
Model 1300—The most economical 2-station transistorized intercom system, complete with 50 ft. cable. Suitable for 117V. AC or optional battery use. Remote can call master even if turned "off." Ideal for the home or office. Volume control and press-to-talk switch. Weight 3½ lbs.
$15.95 Net

Model 1300DC—Similar to Model 1300 (above) but suitable for 9V battery use only. (Eveready 216 or equivalent). Battery not supplied.
$13.50 Net

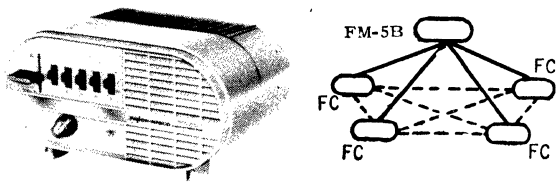
Model PS-13—A special power supply used with Model 1300DC to adapt if for AC operation. May also be used as a 9V battery recharger.
$3.20 Net

Model 131—Outdoor remote for use with Model 1300 to expand system and provide door intercom. **$5.25 Net.**

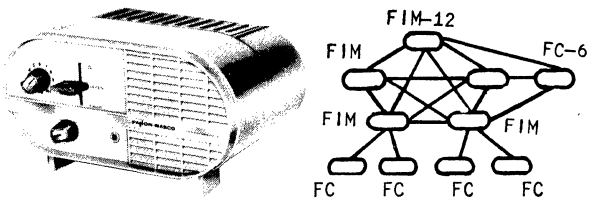
Model 132—Indoor remote to be used with Model 1300 to expand number of stations in system. **$4.50 Net.**



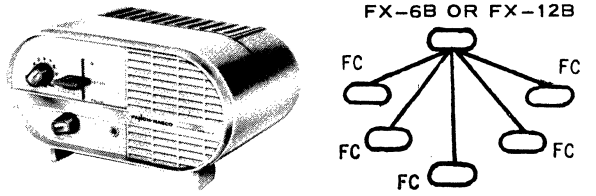
FX-2B TWIN—$23.90 Ultra-sensitive 2-station system with 50 ft. cable. Powerful amplifier picks up slightest noise. Three way Dictate-Talk-Listen switch. Remote has TALK-LISTEN switch to permit originating calls to master: Use it anywhere — home or business. Extra remote **FSB** may be added: **$7.95**. Weight: 6 lbs.



FM-5B MONITOR —$25.40. A master used with up to four FCB remotes in a MASTER-TO-REMOTE system. "Switch-board" feature provides direct remote-to-remote conversations. Master can monitor any or all remotes. Master can "set-up" remotes to monitor other remotes. Remotes can originate calls to master and to other remotes. Busy-light flashes during conversations. **Weight: 4 lbs.**



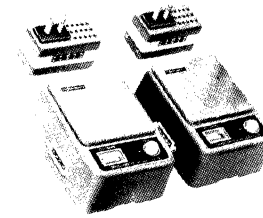
FIM-12B INTERMIX —$31.20. A deluxe twelve station intermix master which can be used in any combination of masters and/or remotes. Master has 3 position Talk-Listen-Dictate switch. Use in conjunction with two types of remotes: FC-6 which can selectively call any one of six masters, and **FCB** which can call only one master. **Weight: 4 lbs.**



FX-12B MANAGER —$28.40. A dual purpose master for use with up to ten FC remotes, in a MASTER-TO-REMOTE system, or up to eleven masters in ALL MASTER system. Twelve position rotary selector switch with "All-Call" and "Standby". Dictate-Talk-Listen switch. Five private conversations may be held in an all master system. New: Masters can be non-private "hands free" operation. Weight: 4 lbs.

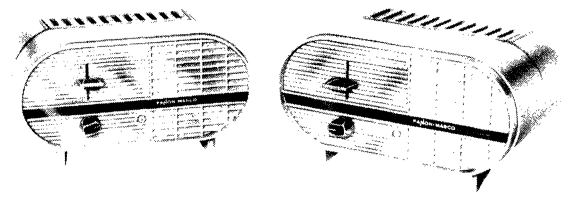
FCB, REMOTE—$8.40—Used in conjunction with **FM-5B, FX-6B, FIM-12B.**

WIRE-LESS SYSTEMS

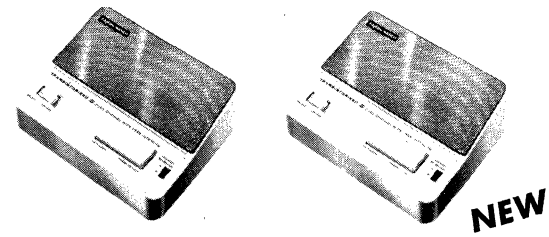


NEW!

Model 1340—Economy WIRELESS—39.95. A complete transistorized 2 station wireless system ready to operate. Simply plug them into AC outlets (on same power line). These operate on very low voltage from their own AC power supply. Each unit 4½"x3¼". Special noise-free, high sensitivity circuit is used. All metal construction. Sandalwood tan and gold. 2½ pounds. Model 1341, Additional single station wireless units. **$20.95**

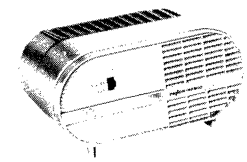


FW-50B DeLuxe WIRELESS—49.95. A complete 2 station system ready to operate. No wires—no installation—just plug into any AC or DC outlet. Four tubes plus silicon rectifier amplifier. Three way Talk-Listen Dictate switch. Weight: 7 lbs. Model FW-51, additional single station for above, may be added, **$25.45**. 4 lbs.

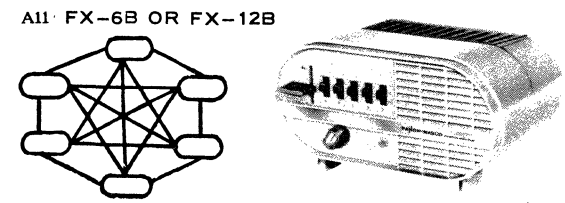


NEW!

FW-60—Dual Channel WIRELESS—59.95—Extremely sensitive 2-station wireless has 5 transistors—3 diodes and can be operated on two separate communication frequencies. This permits two systems to be operated independently of one another or permits selective call. Portable—can be moved from room to room or between buildings. A.V.C. circuit eliminates noise and distortion. Each 6¼"x5¼". Five pounds. Model FW-61, additional single station wireless units. 2½ lbs. **30.70**



RB-1, BABY-COM—14.50: A one-station, wire-less radio intercom. No installation, no wires required—merely plugs in to any AC or DC outlet and voice is heard through any radio (even car or battery radios). Ideally suited as a portable baby-sitter. Extremely sensitive, can be heard 300 ft. away. Blue & pink cabinets. Weight: 4 lbs.



NOW WITH HANDS-FREE OPERATION!

FX-6B EXECUTIVE—23.90 A dual purpose master, for use with up to five FC remotes in a MASTER-TO-REMOTE system, or up to six masters in an ALL MASTER system. Five individual station selector switches. Dictate-Talk-Listen switch. In all master systems, 3 private conversations or conference of all stations may be held. Weight: 4 lbs.

FC-6B, REMOTE—13.20—Six station selective remote used with **FIM-12B**

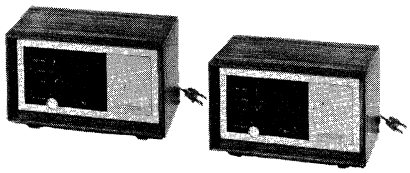
FANON-MASCO INDUSTRIAL INTERCOMS

Exciting New EXECUTIVE Series

Characterized by its distinctive walnut cabinetry, an exciting new line of intercoms fills the need for deluxe intercommunication equipment.

Moderately priced, the FANON-MASCO "Executive" series offers exceptional styling and skilled craftsmanship. Finished in rich, hand-rubbed oil walnut, each unit is 9½"x5"x4¾" deep. Black and gold appointments.

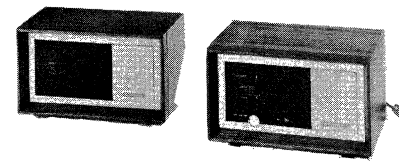
The "Executive" series is offered as a 2-station wired or 2-station wireless system to which additional units can be added. A 6 station selective master as well as a non-selective master are also available.



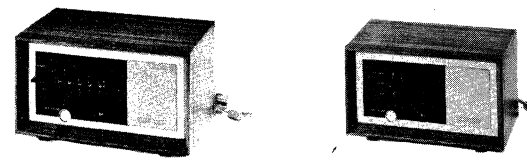
WIRELESS

X-604 Executive WIRELESS. $62.95 Net. —A complete two-station system ready to operate—just plug in any AC or DC outlet, turn on and talk. Four tubes and silicon rectifier amplifier. Special squelch circuit for noise-free operation. Three-way talk-listen-dictate switch. Additional stations **Model X-602** may be added to wireless system—**Each $32.95 Net.**

2-STATION WIRED

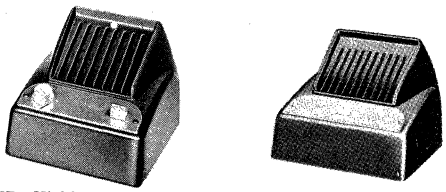


X-600 Executive WIRED. $37.50 Net.—Ultra-sensitive two station system includes X-601 master and XR-01 remote with 50 feet of cable. Master has talk-listen-dictate switch; Remote has talk-listen switch to originate calls to master and may be used as private or non-private remote. Additional **XR-01** units may be added to system. **Each $14.95 Net.**



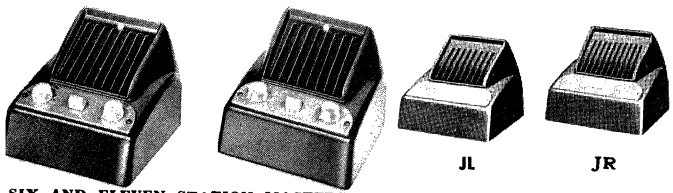
X-606 Executive 6-station MASTER. $29.95 Net.—Selective master for use with five other X-606 in all-master system or with five XR-01 remotes. All master system provides 3 simultaneous conversations.

X-601 Executive NON-SELECTIVE Master. $23.95 Net. Can be used with up to five XR-01 remotes. Call originating at master is heard by all remotes simultaneously. Remotes can call master at will.



DELUXE JMR—Highly sensitive two-station intercom system in heavy duty die-cast metal cabinets with **durable enamel** finish. Rugged pushbar talk-listen switch on both master and remote. Remote can answer "hands free", or be completely private. Volume control and pilot light on master. 7½" x 6¾" x 5½" high. Weight of 2 station system with 50' of cable: 10 lbs. **$41.25 Net.**

MODEL JR—Additional remote station for above. Weight: 5 lbs. **$11.35 Net.**

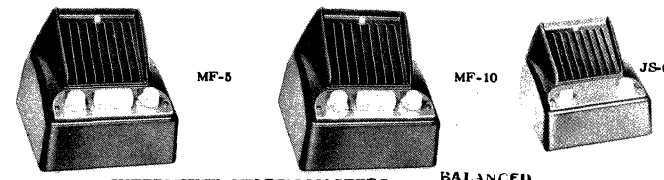


SIX AND ELEVEN STATION MASTERS—IJM-5 and IJM-10. These famous dual-purpose masters are designed for both master-to-remote and master-to-master operation. No modification is required as units have built-in switch for immediate conversion. Heavy duty die-cast cabinets in **durable enamel** finish. **IJM-5** can be used with up to 5 other masters or remotes. **IJM-10** for use with up to 10 other masters or remotes. **IJM-10** all-master system can carry on up to 5 separate conversations at the same time. Any master can be called even if its power is off. All have station selector switch, volume control and pushbar "talk-listen-lock" position. A paging horn can be added. Size each: 7½" x 6¾" x 5½"

IJM-5 six station master **$33.00 Net.**

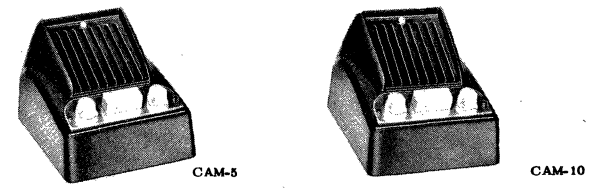
IJM-10 eleven station master **$38.25 Net.**

REMOTES FOR USE WITH ABOVE IJM-5 and IJM-10
JL remote, less talk-listen switch. Weight: 3½ lbs. **$10.65 Net.**
JR remote, with talk-listen switch. Weight: 3½ lbs. **$11.35 Net.**



INTERMIXED SYSTEM MASTERS **BALANCED LINE**

Model **MF-5** six station master and MF-10 eleven station master units for use in combination with other remotes or other masters. Heavy duty, "big job" masters of die-cast metal in **durable enamel** Each has station selector switch, volume control and push-bar "talk-listen" switch. In an eleven station all-master system up to five separate conversation lines are available. A master may be called even though it is turned off. Cabinet size: 7½" x 6¾" x 5½". Weight per unit: 7 lbs. MF-5 six station master **$41.25 Net.** MF-10 eleven station master **$46.80 Net.**



INTERMIXED SYSTEM MASTERS

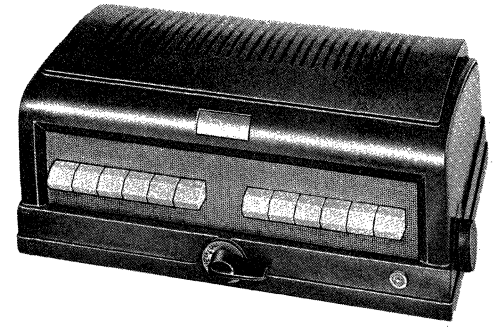
AC POWER TRANSFORMER **BALANCED LINE**

MODEL CAM-5 six station master and **CAM-10** eleven station master similar to above but with higher audio power output and AC power transformer.
CAM-5 six station master weight: 7 lbs. **$51.75 Net.**
CAM-10 eleven station master weight: 7 lbs. **$57.75 Net.**

REMOTES
MODEL JL remote, less talk-listen switch. Weight: 3½ lbs. **$10.65 Net**
MODEL JS remote, with talk-listen switch. Weight: 3½ lbs. **$13.75 Net**
MODEL JS-6 six-station selective remote to call up to six masters in system., Talk-listen switch. Weight: 3½ lbs. **$22.70 Net.**

7 and 13 Station BALANCED LINE Masters

A completely flexible system designed for most comprehensive installations. The Model JMP-6B accommodates up to six master or remote stations and the Model JMP-12B can handle up to twelve additional masters or remotes. The masters can call any of the remotes in the system at the same time and can also page and receive replies from paging horns. Conferences can be arranged between masters and up to 6 separate conversation lines are available in a 13 station master-to-master system. Cabinet is heavy-duty die-cast metal with durable grey enamel finish. Size overall: 13" x 8½" x 5⅛" high.



JMP-6B Seven station master. Weight: 10½ lbs. **$71.70 Net.**

JMP-12B Thirteen station master. Weight: 10½ lbs. **$77.60 Net.**

AC POWER TRANSFORMER BALANCED INTERMIX SYSTEMS

MODEL AC-12B Thirteen station. Weight: 12½ lbs. $108.60 Net.

MODEL AC-24B Twenty-five station. Weight: 12½ lbs. $126.75 Net.

Net

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FANON-MASCO

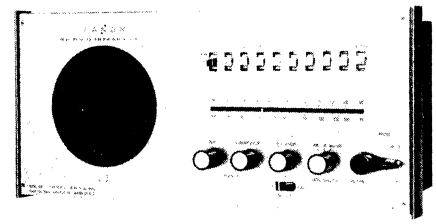
FLUSH-WALL INTERCOMS

AM/FM, MUSIC AND INTERCOM SYSTEM FOR HOME

FANON MASCO 5509 Master provides up to nine remotes for AM or FM reception plus phono music or voice. Input accommodates record player or tape recorder Highly sensitive and selective AM and FM tuners and wide band noise free amplifier rated at 2 watts. AFC on tuner with AFC-OFF switch for tuning weak stations. Master and remote can call each other at any time. Remotes can call each other by switching at master. Master may monitor all remotes Each remote has volume control. Satin chrome or copper front panel: 15¼" x 7" x 1". Rough-in dimensions: 13⅞" x 5⅞". Ship wt.: 12½ lbs. **$104.95 Net.**

MODEL 56 INDOOR REMOTE—High styled indoor remote with talk-listen switch and volume control. Five inch speaker. Satin chrome or copper finish. 6" x 8½". Rough-in dimensions: 4⅞" x 8". Ship wt.: 2½ lbs. **$9.75 Net.**

MODEL BD OUTDOOR REMOTE—Weatherproof gasket sealed Weatherized speaker. Remote can originate call to master. Durable copper enamel finish. 4¾" x 6¾". Rough-in dimension: 3⅞" x 5¼". Ship wt.: 2 lbs. **$5.95 Net.**
BDR REMOTE same as above with pushbutton. **$7.50 Net.**

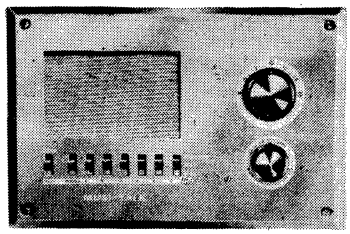


COMPLETE SYSTEM CONSISTS OF:

FANON MASCO 55EK . . . 1 master, 3 Model 56 indoor remotes, 1 Model BD outdoor remote, hardware. Ship wt.: 24 lbs. **$119.95 Net.**

FANON MASCO 551K . . . complete installation kit of rough-in materials, plaster rings, 200 feet of cable for 55EK. Ship wt.: 8 lbs. **$14.95 Net.**

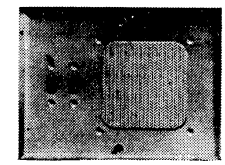
MUSI-TALK AM RADIO AND INTERCOM SYSTEM



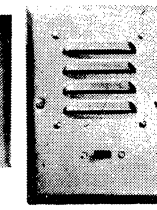
MC — MASTER CONTROL

FANON MASCO MC, MASTER CONTROL
A six tube, six-station master from which you may converse with any or all remotes. The master can "set-up" two or more remotes for **direct communication** with one another. "Monitor" feature enables master and remotes to eavesdrop any other locations. Powerful printed circuit radio can be "piped" to as many rooms as desired. Simultaneous radio and intercom operation is featured. Stylish satin copper panel is 11" x 7¾". **$52.50 Net.** Rough-in dimensions: 5½" x 10¼" x 3½".

FANON MASCO MCL, MASTER CONTROL
Has all the intercom features listed above, less the radio. A phono input jack enables you to plug in any external music source for complete music distribution.
$32.95 Net.



BC — REMOTE



BD — REMOTE

BC, INDOOR REMOTE—Four indoor remotes provide instant 2-way conversation among themselves and the master, as well as radio-music throughout the home. Remotes can originate calls to the master, or to other remotes. Remotes may also "monitor" any other locations. Talk-Listen switch and Privacy switch. Satin copper panel is 6¼" x 4¾". **$5.95 Net.**

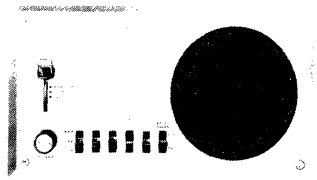
BD, DOOR REMOTE—Has weatherproof rubber gasket and "weatherized" speaker to withstand all types of weather. Door remote can originate calls to the master and any indoor remote. Enables you to answer the door from within the house and to "pipe" music to the porch or patio. Copper finish panel 6¾" x 4¾", List: $5.95. BDR outdoor remote w/pushbutton **$5.95 Net.**

FANON MASCO EK **(Electronic Kit)** — Consists of 1 MC Master Control, (with radio), 3 BC Indoor Remotes, 1 BD Door Remote and hardware. **$62.95 Net.**

FANON MASCO EKL **(Electronic Kit)** — Consists of 1 MCL Master Control, (less radio), 3 BC Indoor Remotes, 1 BD Door Remote and hardware. **$44.95 Net.**

FANON MASCO IK **(Installation Kit)** — Consists of 1 master plaster box, 4 remote plaster boxes, 200 ft. of wire and hardware. This installation kit is used in conjunction with either the EK or EKL electronic kits. **$11.95 Net.**

TRANSISTORIZED SIX STATION INTERCOM SYSTEM



COMPLETE SYSTEM CONSISTS OF:

FANON MASCO 44EK . . . One master, 3 model BC indoor remotes, 1 model BD outdoor remote, hardware. Ship wt.: 13 lbs. **$42.60 Net.**

FANON MASCO 441K . . . complete installation kit of rough-in materials, plaster rings, 200 feet of cable. Ship. wt.: 5 lbs. **$11.25 Net.**

FANON MASCO 4405 —Built-in and battery operated the master provides for up to five remotes. Complete two-way communication from master to all remotes or master can set up remote to remote. Long battery life when master is in "stand-by" since no battery drain occurs until signalled with "beep" tone from remote. "Battery saver" switch limits drain when in monitor or baby-sitting position. Music can be added to system, by plugging radio or phono into jack on BJ remote. Satin chrome or copper front panel: 10½" x 5¾". Rough-in dimensions: 9⅝" x 4½" x 3½". Ship wt.: 5 lbs. **$35.25 Net.**

MODEL BC INDOOR REMOTE—Remotes may originate calls to master or monitor other remotes. Talk-listen switch and "privacy" switch. Satin chrome or copper finish panel: 6¼" x 4¾". Rough-in dimensions: 5¼" x 3⅞" x 2". Ship wt.: 2 lbs. **$5.95 Net.**

MODEL BJ REMOTE same as above with phono jack to add music source. **$8.95 Net.**

MODEL BD OUTDOOR REMOTE—Weatherized speaker in gasket sealed cover. Remote can call master. Baked copper enamel finish. 4¾" x 6¾". Rough-in dimensions: 3⅞" x 5½". Ship wt.: 2 lbs. **$7.50 Net. BDR** same w/pushbutton. **$5.95 Net.**

NEW "ENTRY-SENTRY" 2 STATION INTERCOM FOR THE HOME

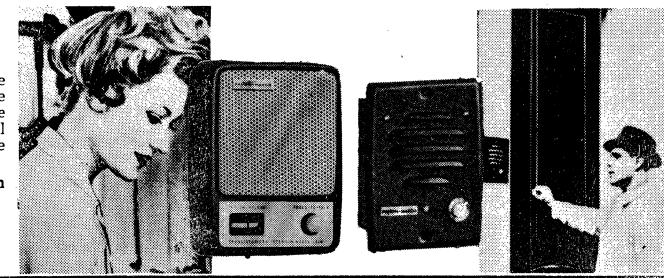
Protect Your Loved Ones... Don't Open the Door — "Answer" it!

Model ES-13—New ultra-sensitive transistor intercom between inside and outside the front door for greater convenience and safety. Remote unit can signal master even when system is turned off. Safe, low voltage power supply operates system. Additional remotes can be added. All metal construction. Remote can surface mount or be recessed. Complete system with 50' cable. Weight 2½ lbs. **$16.75 Net.**

Model ES-13 DC—Same as ES-13 less power supply. For use with battery (Eveready 216, etc.) only. Not supplied. **$14.50 Net.**

Model 132—Additional indoor remote to expand system. **$4.50 Net.**

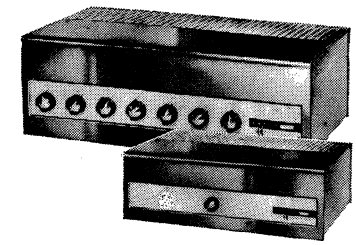
Model 131—Additional outdoor remote to expand system. **$5.25 Net.**



FANON-MASCO

AMPLIFIER SYSTEMS POWER-FLEX P. A.

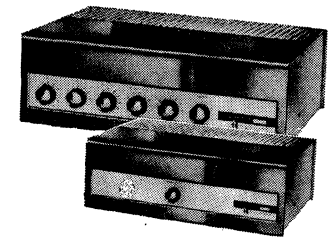
MODEL FMA-100 POWER-FLEX 100 WATT AMPLIFIER



Power Output: 100 watts at less than 5% RMS distortion. **Peak Power Output:** 130 watts (music wave-form rating). **Frequency Response:** 50-15,000 cps, ± 3 db. **Inputs.** 3 high impedance microphone inputs (expandable to 5). One mike input is convertible to magnetic phono cartridge; 1 phono input and 1 radio input on fader control. Model LZT low impedance mike transformers (2) can be added or 1 low impedance balance line transformer for wired music can be used. **Input Sensitivity:** Microphone—4 millivolts, Phono-Radio—0.3 volts, Phono/magnetic—4 millivolts, Low impedance mike—0.3 millivolts. 600 ohm balanced line—0.1 volts. **Gain:** Microphone—130 db, Phono-Radio—90 db. **Regulation:** 25 volts and 70 volts, no load-full load —3 db at 1 KC. **Hum and Noise:** Fundamental —80 db below rated output. Phono —75 db below rated output. Microphone —65 db below rated output. **Input Impedance:** Microphone high impedance 0.5 meg. Phono-radio—1 meg. **Speaker Outputs:** 4, 8, 16 ohms; 25 volt line—6.2 ohms; 70 volt line—50 ohms. **Booster/Tape Recorder Output:** 1 volt—low impedance. **Controls:** 3 microphone volume; 1 phono-radio fader; 1 master; 1 bass, 1 treble; 1 power on/off switch. (chassis) 1 phono magnetic switch; 1 bias adj; 1 regulator voltage adj; 2 hum adj. **Tone Controls:** Bass — 17 db boost at 50 cps; 14 db cut at 50 cps. Treble—14 db at 15 KC and 15 db cut at 15 KC. **Power Consumption:** 280 watts at 117 volts AC (60 cycle). **Fuse:** 4 amp—3 AG slo-blo. **Tubes:** (2)12AX7A; (1)6AU6A; (1)12AZ7; (1)6L6-GC; (1)6CY7; (1)NE-51H; 1 full wave bridge silicon rectifier for power supply; 1 silicon rectifier for bias supply. **Dimensions:** 18"x6⅝"x10¾" including knobs and feet. **$113.95 Net.**

MODEL FMB-100 100 WATT BOOSTER AMPLIFIER. Similar to above amplifier less microphone and tone controls. Single high impedance input (0.5 volt at full output). Volume and On/Off controls. **$98.95 Net.**

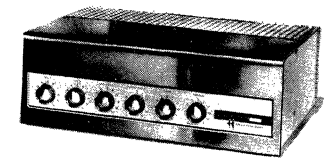
MODEL FMA-65 POWER-FLEX 65 WATT AMPLIFIER



Power Output: 65 watts at less than 5% RMS distortion. **Peak Power Output:** 80 watts (music wave form rating). **Frequency Response:** 50-15 KC, ±3 db. **Inputs:** 2 high impedance microphone inputs (expandable to 4). One mike input is convertible to magnetic phono cartridge; 1 phono input and 1 radio input on fader control. 2 model LZT low impedance mike transformers can be added or 1 low impedance balanced line transformer for wired music can be used. **Input Sensitivity:** Microphone—5 millivolts, Phono-radio—0.3 volts, Phono/magnetic—5 millivolts, Low impedance mike—0.3 millivolts, 600 ohm balance line—0.1 volts. **Gain:** Microphone—126 db; Phono-Radio—86 db. **Regulation:** 25 volt and 70 volt line, no load-full-load —3 db at 1 KC. **Hum and Noise:** Fundamental —80 db at rated output; Phono—75 db below rated output; Microphone—65 db below rated output. **Input Impedance:** Microphone high impedance—0.5 meg.; Phono Radio—1 meg. **Speaker Outputs:** 4, 8, 16 ohms; 25 volt line—9.6 ohms; 70 volt line—75 ohms. **Booster/Tape Recorder Output:** 1 volt; low impedance. **Controls:** 2 microphone volume; 1 phono-radio fader; 1 master; 1 bass; 1 treble; 1 power on/off switch. (Chassis) 1 phono-mag switch; 1 bias adj; 1 regulator voltage adj; 1 hum adj. **Tone Controls: Bass**—17 db boost at 50 cps; 14 db cut at 50 cps. Treble—14 db boost at 15 KC; 15 db cut at 15 KC. **Power Consumption:** 210 watts at 117 volts AC (60 cycle). **Fuse:** 3 amp—3 AG slo-blo. **Tubes:** (2)12AX7A; (1)7199; (2)EL-34; (1) 6CY7; (1)NE-51H; 1 full wave bridge silicon rectifier for power supply; 1 silicon rectifier for bias supply. **Dimen.:** 18"x6⅝"x10¾" incl. knobs and feet. **$95.95 Net.**

MODEL FMB-65 65 WATT BOOSTER AMPLIFIER. Similar to above amplifier, less microphone and tone controls. Single high impedance (0.5 volt at full output). Volume and On/Off controls. **$83.95 Net.**

MODEL FMA-35 POWER-FLEX 35 WATT AMPLIFIER

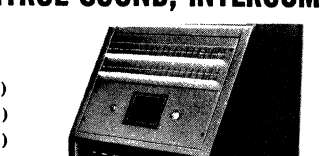


Power Output: 35 watts at less than 5% RMS distortion. **Peak Power Output:** 50 watts (music wave form rating). **Frequency Response:** 50-15,000 cps, ± 3 db. **Inputs:** 2 high impedance microphone inputs (expandable to 4) One mike input is convertible to magnetic phono cartridge; 1 phono input and 1 radio input on fader control. 2 model LZT low impedance mike transformers can be added or 1 low impedance balanced line transformer for wired music can be used. **Input Sensitivity:** Microphone—5 millivolts; Phono/Radio—0.3 volts; Phono/magnetic—5 millivolts Low impedance mike—0.3 millivolts; 600 ohm balanced line—0.1 volt. **Gain:** Microphone—123 db; Phono/Radio—83 db. **Regulation:** 25 volt and 75 volt line, no load-full load —3 db at 1 kc. **Hum and Noise:** Fundamental—80 db at rated output; Phono—70 db at rated output; Microphone —65 db. below rated output. **Input Impedance:** Microphone high impedance—0.5 meg; Phono/Radio—1 meg. **Speaker Outputs:** 4, 8. 16 ohms; 25 volt line — 18 ohms; 70 volt line — 140 ohms. **Booster/Tape Recorder Output:** 1 volt — low impedance. **Controls:** 2 microphone volume; 1 phono/radio fader; 1 master; 1 bass; 1 treble; 1 power on/off switch (chassis); 1 phono-mag\ switch; 1 bias adj; 1 hm adj. **Tone Controls:** Bass — 17 db at 50 cps; 14 db cut at 50 cps; Treble — 14 db boost at 15 KC; 15 db cut at 15 KC. **Power Consumption:** 115 watts at 117 volt AC (60 cycle). **Fuse:** 2 amp — 3AG slo blo. **Tubes:** (2)12AX7A; (1)6AV6; (2)6L6-GC; (1)5AR4/GZ34; 1 silicon rectifier for bias supply. **Dimen.:** 18"x6⅝"x10¾". **$74.95 Net.**

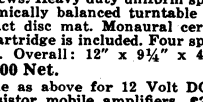
MODEL FMA-20 20 WATT AMPLIFIER

Power Output (Rated): 20 watts at less than 5% distortion. **Peak Power Output** (Music Wave-Form Rating): 25 watts. **Frequency Response:** 20 to 20,000 cps. ±1 db. **Regulation:** 25 & 70v line; no load-full load, 3 db at 1 kc. **Inputs:** 1 microphone, 1 phono/radio (fader). **Gain:** 123 db microphone, 88 db phono. **Input Sensitivity:** Microphone 3 millivolts, phono 0.32 volts. **Hum and Noise:** Fundamental —78 db, microphone —57 db, phono —72 db. **Tone Control:** Treble cut: 2,500 cps at 3 db; 10,000 cps. at 12 db. **Output Impedance:** 4, 8, 16Ω. 70 volt line, **Input Impedance:** High impedance 0.5 megohms, convertible to low impedance by use of optional input transformer for 50Ω unbalanced or 200Ω balanced. **Controls:** (4) Two microphone volume, one phono-radio fader. One tone, one master, one bias adjustment. **Power Consumption:** 70 watts at 117 volts, 60 cps. **Tubes:** 2—12AX7/ECC83, 2—7189A, 1—6CA4/EZ81 and one selenium rectifier. **Shipping Weight:** 14 lbs. **Dimensions:** 13½" W, 10¼" D, 5¼" H. **$59.95 Net.**

MODEL FMA-11 11 WATT AMPLIFIER



Power Output (Rated): 11 watts at less than 5% distortion. **Peak Power Output** Music Wave-Form 14 watts. **Frequency Response:** 50 to 15,000 cps ±3 db. **Regulation:** 25 & 70 volt; no load-full load, 3 db at 1 kc. **Inputs:** 1 microphone, 1 phono (fader control). **Gain:** 120 db microphone, 82 db phono. **Input Sensitivity:** Microphone 5 millivolts phono 0.4 volts. **Hum & Noise:** Fundamental —90 db, microphone —65 db, phono —75 db. **Tone Control:** Treble cut: 2500 cps at 3 db; 10,000 cps at 12 db. **Output Impedance:** 4, 8, 16 ohms, 25 & 70 volt line. **Input Impedance:** High impedance 0.5 megohms, convertible to low impedance by use of input transformer for 50 ohms unbalanced or 150-250 ohms balanced. **Controls:** (3) 1 microphone volume, 1 phono-radio fader, 1 tone with AC switch. **Power Consumption:** 60 watts at 117 volts, 60 cps. **Tubes:** 1—12AX7, 1—6V4, 1—6L6GC. **Shipping** Weight: 13 pounds. **Dimensions:** 13½"W, 10¼"D, 5¼"H. **$39.90 Net.**

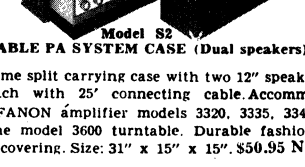


UNIVERSAL 4-SPEED PHONO MODEL 3600

Phonograph attachment designed for use on all FANON-MASCO amplifiers from 11 to 100 watts. Easily mounts to top of amplifier with two set screws. Heavy duty uniform speed motor with dynamically balanced turntable with constant-contact disc mat. Monaural ceramic dual sapphire cartridge is included. Four speed 16, 33, 45 and 78. Overall: 12" x 9¼" x 4½". Wt.: 10 lbs. **27.00 Net.**

3612—Same as above for 12 Volt DC. For use with transistor mobile amplifiers. **$34.50 Net.**

3604—Automatic record changer with four speeds. For use on 117 V AC. Overall: 12½" x 12½" x 8". Wt.: 12 lbs. **$44.95 Net.**

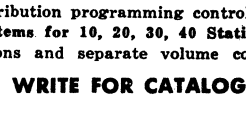


Model S2

PORTABLE PA SYSTEM CASE (Dual speakers)

Handsome split carrying case with two 12" speakers, each with 25' connecting cable. Accommodates FANON amplifier models 3320, 3335, 3345 plus the model 3600 turntable. Durable fashion fabric covering. Size: 31" x 15" x 15". **$50.95 Net.**

CENTRAL CONTROL SOUND, INTERCOM



27 WATTS

SC-10 (10 station)

SC-20 (20 station)

SC-30 (30 station)

SC-40 (40 station)

Complete systems for the distribution programming controlled intercommunications. **27 Watt systems for 10, 20, 30, 40 Stations.** Individual selection of all stations and separate volume control for incoming intercommunication.

WRITE FOR CATALOG

Net

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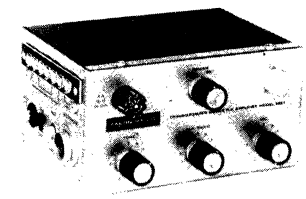
FANON-MASCO

PA AMPLIFIERS AND SYSTEMS

TRANSISTORIZED MOBILE AMPLIFIERS

Versatile, fully-transistorized mobile amplifiers ideally suited for continuous duty by Civil Defense, police, fire and other civic organizations where compact quality audio power is required. Their design and performance is unexcelled for every portable PA operation for carnivals, sporting events, yachting, buses and general mobile application.

MODEL 3527 27 WATT MOBILE AMPLIFIER

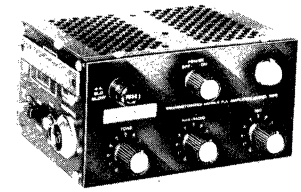


Exceptionally compact transistorized mobile amplifier for dash or glove compartment mounting where a high audio power is required. Operates on 12 volts DC with very low current drain in standby. Can be used with a 12 volt power supply from 110 volt AC. Complete with mounting fixtures. This unit is finished in black and satin chrome.

Power Output—27 watts at less than 10% distortion @ 1 kc. **Frequency Response:** 150 cycles to 10 kc. 3 db. **Inputs:** 1 microphone, 1 X-tal phono, 1 radio input (fed from radio receiver voice coil). **Gain:** 110 db—microphone; phono 70 db. **Input Sensitivity:** low impedance microphone (50-2,000 ohms) 0.5 millivolts for full output X-tal Microphone 3 millivolts full output. X-tal Phono 0.5 volts for full output. Radio 0.25 volts—for full output (from voice coil 3.2—16 ohms). **Hum** and **Noise:** 70 db.—below full output. **Tone Control:** Max. treble position—10 db, down at 4 kc. **Output Impedance:** 4, 8, 16 ohms. **Input Impedance**—Microphone 2,000 ohms, (aux), 50 K. ohms radio 3.2—16 ohms. **Controls:** (5): Microphone volume, radio or phono volume (mike-input may be mixed with radio or phono input), tone control, power on-off switch, radio-aux. selector slide switch (interaction between controls less than 1 db). **Power Consumption:** 3.5 amps @ 12.6 V for 27 watts output. **Transistors:** 2—2N408; 3—2N669. **Cable Connectors:** (not supplied) Microphone—Amphenol Plug #91-MC4M, phono—RCA type phono plug (Cinch-Jones #13A). Power plug and 7' cable with battery clamps supplied. **Dimensions:** 6½" W, 3¼" H, 4¾" D. **Shipping Wt:** 4 lbs. **$62.95 Net.**

Power Supply — Model PS-27 with 117 volt AC primary and 12.6 volt output. **Ship. Wt.** 3¼ lbs. **$37.50 Net.**

MODEL 3512 12 WATT MOBILE AMPLIFIER

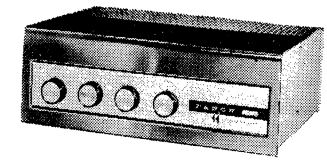


High power in a small package! Here's a fully transistorized mobile featuring high gain and a minimum of distortion. Can be used with 12 volt power supply from 110 volt AC.

Power Output (Rated): 12 watts at less than 10% distortion. **Frequency Response:** 150 cycles—10 kc, 3 db down. **Inputs:** One microphone, one X-tal phono, (aux.) radio input (to be fed from radio receiver voice coil). **Gain:** Microphone 105 db, phono 65 db. **Input Sensitivity:** Low impedance microphone (50-2000 ohms). 0.5 millivolts for full output. X-tal microphone 3 mv for full output. X-tal phono 0.5 volts for full output. **Hum and Noise:** 70 db below full output. **Tone Control:** Max. treble position: 10 db. down at 4 kc, 3 db down at 1.5 kc. **Output Impedance:** 4, 8 and 16 ohm. **Input Impedance:** Microphone 2000 ohms, Phono 50 K ohms, Radio 3.2—16 ohms. **Controls** (5): Microphone volume, aux. radio volume, tone control, power on-off switch, radio-aux. selector slide switch, (interaction between controls less than 1 db). **Power Consumption:** 24 watts at 12.6 volts (2A) for 12 w. output. **Transistors:** Two—2N408, one—2N669, two—3577. **Cable Connectors:** (not supplied) Microphone input: Amphenol #91-MC4M. **Phono:** RCA type phono plug (Cinch-Jones #13A). Power plug and 7 ft. cable with battery clamps supplied. **Shipping Wt:** 4 lbs. **Dimensions:** 6½" W., 3⅛" H., 4¾" D. **$52.50 Net.**

Power Supply — Model PS-27 with 117 volt AC primary and 12.6 volt output. **Ship. Wt.** 3¼ lbs. **$37.50 Net.**

MODEL FMM-35 AD 35 WATT MOBILE AMPLIFIER WITH POWER SUPPLY

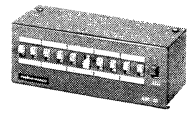


May be operated on 12 volts DC or 117 volts AC. A medium-high power transistorized amplifier designed to give maximum efficiency and dependable mobile service. Compactly styled with tamper-proof input and output connectors, the 3535 utilizes conservatively-rated transistors that operate at low temperature under continuous duty. **Power Output** (Rated): 35 watts at less than 5% distortion. **Frequency Response:** 250-7,000 cycles — 3 db. down. **Inputs:** (1) low imp. mic.; (1) 600 ohm balanced line (optional); (1) high impedance mic.; (1) phono. **Gain:** microphone: 105 db. phono, 85 db. **Input Sensitivity:** low impedance mic. — 0.5 millivolts for full output; high impedance mic. — 5 millivolts for full output; phono — 0.5 volts for full output. **Hum** and **Noise:** Fundamental: 65 db below full output. Microphone: 55 db below full output. Phono: 62 db below full output. **Tone Control:** Treble cut 3 db at 2000 cps, 20 db at 10,000 cycles. **Output Impedance:** 4, 8, 16 ohms and 70 volt line. **Input Impedance:** low imp. — mic. — 200 ohm; phono — 0.5 meg.; high imp. mic. — 0.1 meg. **Controls:** one microphone volume. One phono volume. One tone control. "Power on-off" switch. **Transistors:** (6) 2 — 2N1544, 3 — 2N408, 1 — 2N554. **Power Consump.** 95 watts for max. output. 117 volts AC at 0.9 amps. 12.6 v D.C. at 4.3 amps. **Shipping Wt:** 16 lbs. **Dimensions:** 13½" W., 10¾" D., 5¼" H. **$104.95 Net.**

NEW "ADD-ON" SYSTEM ACCESSORIES FOR POWER-FLEX SERIES

TWO CHANNEL MICROPHONE PRE-AMPLIFIER MP2

Model MP-2 permits the addition of two mike inputs to the amplifier as you need them. It may be used with high impedance mikes or low impedance mikes (when LZT transformer added). Unit mounts on top of 35, 65 or 100 watt amplifier and connects to special input plug on chassis of amplifier. Equipped with two separate volume controls, the MP-2 utilizes a 12AX7 twin triode for channel pre-amplification.
Only 3" x 4" x 2" the MP-2 is designed to be mounted on top of FANON-MASCO's new POWER-FLEX amplifiers. Weight: 2 lbs. **$13.50 Net.**



SPEAKER AREA SELECTOR CONTROL BOARD ASC-10

You can select any location or loudspeaker group to receive programming with the Model ASC-10. Up to ten different areas can be set to receive program from main amplifier source singularly or as a group. A special switch is provided to override the selective slide switches to provide a general "all-call" to all speaker areas. With the Selector-Control personnel can be paged in one area at a time without disturbing others. Unit mounts to top of any POWER-FLEX series amplifier and is 10" x 4" x 2" high. Wt.: 2 lbs. **$13.50 Net.**

PRIORITY PAGING ELECTRONIC CONTROL PPC-1

A solid state electronic control device that automatically cuts out normal program source from amplifier to speakers in favor of one microphone for special announcements. The unit, Model PPC-1, is controlled by the mike on/off switch, remotely. There is no need to adjust levels or perform any switching at the amplifier. A high or low impedance mike with switch can be used. Plugs into 35, 65 or 100 watt amplifiers. PPC-1 is 2" x 2" x 3½" high and weighs 8 ounces. **$7.50 Net.**

BALANCED LINE WIRED MUSIC TRANSFORMER BMT

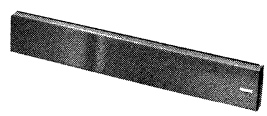
Adapts any FANON-MASCO 35, 65 or 100 watt amplifier for wired music reproduction. To be used with 500-600 ohm balanced line. 2" dia. x 4". Wt: 1 lb. **$14.95 Net.**

LOW IMPEDANCE MICROPHONE TRANSFORMER LZT

For use with 50 ohm unbalanced microphone or 200 ohm balanced mike input. Permits a low impedance microphone to be used at a long distance from the amplifier. Size: 2" diam x 4" high. Wt: 1 lb. **$11.95 Net.**

CONTROL COVER PLATE MODEL CCP-1

Cover panel for control settings discourages tampering and readjustment. Unit snaps into place — no keys to lose. 18" x 2½". Weight 1 lb. Used with 35, 65 and 100 watt amplifiers. **$5.95 Net.**

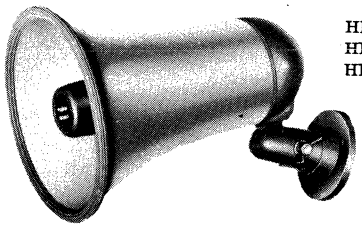


REMOTE VOLUME CONTROL MODEL RMC-2

Special control unit to adjust the gain of two mike channels from a remote location. The RMC may be mounted directly to a microphone or be used separately. Connects with shielded conductor cable. 3" x 4½" x 1" overall. Shpg. wt. 8 ozs. **$8.25 Net.**

FANON-MASCO P. A. HORNS & SPEAKERS

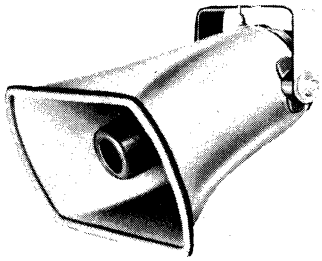
PAGING & TALK-BACK P.A. LOUDSPEAKERS



HDA-5
HDA-6
HDA-10

Compact, high power rated speakers for continuous duty with excellent response and high acoustical efficiency. 8 ohm. 45 ohm available at slightly higher price. Weatherproof.

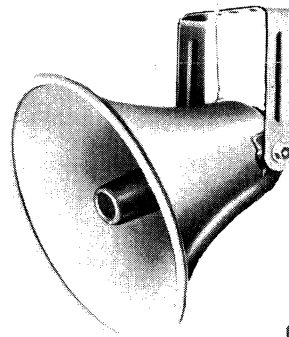
HDB-8
HDB-10



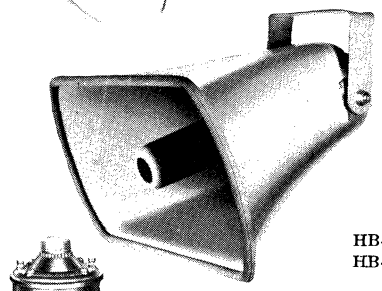
High power rated wide angle dispersion outdoor speakers for uniform sound pattern. Heavy duty U-bracket. Weatherproof. 8 ohm. 45 ohm available at slightly higher price.

Model No.	Power (rated)	Freq. Response	Size "	Net 8 Ohm
HDA-5	15w	400-12kc	5¼x6	$10.95
HDA-6	15w	350-13kc	6½x8	19.77
HDA-10	30w	250-13kc	10¼x9	14.97
HDB-8	25w	350-13kc	8¼x5½	20.37
HDB-12	30w	250-13kc	11x6½	25.50

ROUND & WIDE ANGLE TRUMPETS & DRIVERS



HA-15
HA-20



HB-15
HB-20

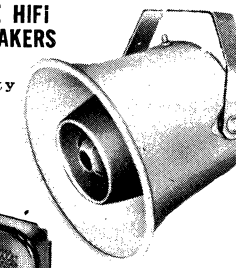
DU-35

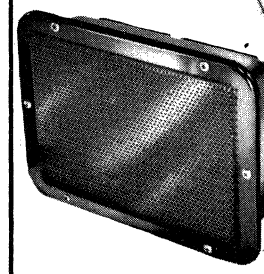
HORN SPECIFICATIONS

Model No.	Low Freq. Cut Off	Air Column	Size "	Net
HA-15	200cps	2½ ft	15x11½	$17.10
HA-20	150cps	3½ ft	20x16	20.37
HB-15	200cps	2½ ft	15x8¼	22.77
HB-20	150cps	3½ ft	20x10½	25.77

SPECIAL PURPOSE HIFI AND BUILT-IN SPEAKERS

HFA-12 Hifidelity outdoor loudspeaker for music with wide response. Weatherproof. 8 ohms.





HS-9 Special cabinet type speaker for flush mount in wall or cabinet. Designed for voice frequencies. 8 ohm.

Model No.	Freq. Resp.	Power rated	Size "	Net
HFA-12	100-15kc	10w	12x9	$32.97
HFA-8	150-10kc	5w	8x5½	14.97
HS-9	250-6kc	10w	7x9x3	17.10

DRIVER SPECIFICATIONS—all 16 ohms

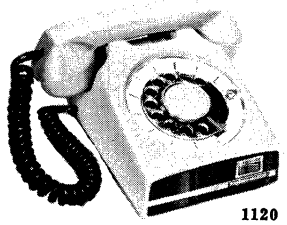
Model No.	Freq. Resp.	Power rated	Size "	Net
DU-25	120-6.5kc	25w	3x3	$14.10
DU-35	85-7.5kc	35w	4¼x4	17.97
DU-45	80-12kc	45w	4½x4	22.17
DU-60	70-12kc	60w	5½x5	28.77
DU-35T	85-7.5kc	35w	4¼x5	25.17
DU-60T	70-12kc	60w	5½x6	35.97

See complete P.A. horn line and specifications in Catalog #11

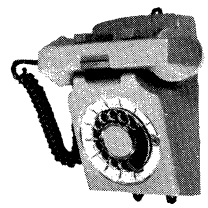
FANON-MASCO TELEPHONE SYSTEMS

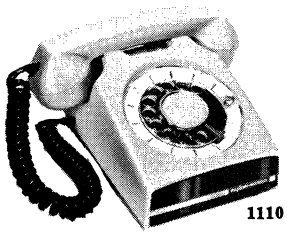
SELECTIVE TALKING
SELECTIVE RINGING

A complete line of telephone intercommunication equipment, designed to meet the needs of any home, office, factory and institution.

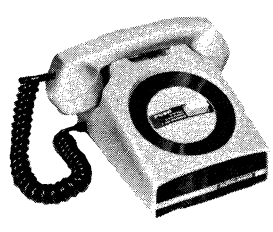


1120





1110



1100 SERIES DIAL TELEPHONE SYSTEMS—10 and 20 station

Deluxe, precision-made that permit as many private lines in system as there are pairs of phones. Private talking. Conference call facility. Model 1120 has decade switch and can be used with 19 other masters in system. Model 1110 can be used with 10 others. Master to remote system uses one 1120 or 1110 and Model 1101 remotes.

1120—20 station master dial phone. **$59.95 Net.**

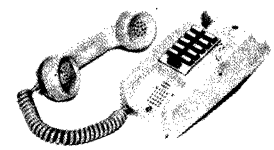
1110—10 station master dial phone. **$49.95 Net.**

1101—Remote station telephone. **$39.95 Net.**

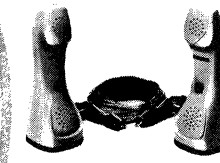
PS-111—AC Power Supply for 1100 series. **$25.90 Net.**

WB-11—Universal Wall Mount for 1100 series. **$3.75 Net.**

PR-11—Paging Relay for 1100 series. **$22.50 Net.**



"88" SERIES PUSHBUTTON TELEPHONE SYSTEMS



New! VERTI-PHONE
2 station telephone intercom Model VP-2

Fanon-Masco's new telephone intercom system that provides multiple conversation lines (full trunkage) without a switchboard. Six, ten or single button masters may be intermixed within the system. Excellent voice quality and "soft tone" signalling. Sturdy high impact styrene construction in handsome beige with gold trim. Loud Buzzer optional. For wall or desk mounting. May be mounted to standard gem box for hidden wiring. Any multi-button master may be connected to an unlimited number of master or remote phones depending upon the situation requirement. Paging from any phone is possible with optional paging relay.

8811—An 11 station master telephone with 10 station buttons and one ringer button. With coiled cord and terminal box. **$38.95 Net.**

8807—A seven station master phone with 6 station buttons and one ringer button. With coiled cord and terminal box. **$31.50 Net.**

8801—Single station remote telephone for use with 6 or 10 button phones. Can ring one master only. With coiled cord. **$23.95 Net.**

PSA-88—6 volt DC power supply from 115 volt AC line to power above system. **$17.95 Net.**

PR-10—Special paging relay activated by a predesignated position on master phones that closes circuit to P.A. paging system. **$22.50 Net.**

EB-881—Optional loud buzzer mounts inside phone, for noisy areas. **$2.25 Net.**

VP-2—Unique vertical design 2 station intercom system for "private" talking. Transistorized. Excellent voice quality. Each stands 8" high. 50 ft. cable. **$29.95 Net.**

Net

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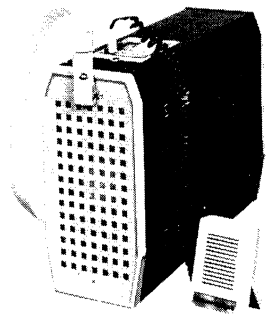
FANON-MASCO ELECTRONIC SPECIALTIES

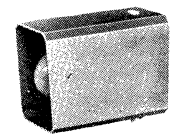
COMPLETE PORTABLE PA SYSTEM



Model MVS-5

Amplifies voice and music simultaneously. Ideal for speeches, square dances, music, guided tours, etc. Slip it over your shoulder and away you go. Handy mike with coil cord. Powerful 8 watt amplifiers operates on 6 standard "D" cells. Separate inputs for mike or use with radio, recorder or phono. Volume control with on/off switch. Complete system weighs 9½ pounds. Acoustical range is over 600 yards. Height: 7¼ inches, Width: 3¾ inches, Length: 11¼ inches, Color: Sea Green, **$67.50 Net.**

HAND SIZED TRANSISTORIZED MEGAPHONE



Model MV-2 with built-in 1 watt amplifier—3 transistors. Durable, high-impact plastic case with built-in microphone. Exceptional range for a small package—150 yards. Operates on 8 penlite cells. Handy wrist strap. Press-to-talk/lock switch. Only 4"x7"x3" in size and weighs 1½ lbs. **$14.95 Net.**

FANON MEGAVOX MODEL MV-8
Transistorized Megaphone

Fully portable lightweight megaphone with 600 yard range. Indispensable for police, fire, CD, industry communication. Lightweight aluminum, baked enamel finish, waterproof microphone, carrying strap. No connecting cables or power supply required. Pistol grip trigger and volume control.

Power Output: 5 watts-10 watts peak. **Amplifier:** Five transistors including 2 RCA 3577 in push-pull class B. **Current:** Eight 1½V flashlight batteries "C" size with life of 10 hours continuous average. **Weight:** 4.6 lbs. **Size:** 9"x14". **$67.50 Net.**

MEGAVOX MODEL MV-1

Popular and compact, this megaphone has range of approx. 300 yds. Powered by 4 "D" size flashlight cells. Separate "low" and "high" volume switches. Over 6 hours continuous operation. **Weight:** 3¼ lbs. **Size:** 6½" x 12½". **$26.95 Net.**

CITIZENS BAND TRANSCEIVERS

9 TRANSISTORS

100 milliwatts

Model FCB-99A is a pair of precision made transistorized receivers that provides 2 way radio communication in the 27 mc band. Extremely compact and all-metal construction. No license required. For all outdoor activities, meetings, crowd control, hunting, boating, etc. Each 9 transistor unit is crystal controlled and is standard on channel 9. Up to 22 channels can be used. Metal cases are 6½"x2½"x1½" with 48" telescoping antenna.

Specify FCB-99A for a pair that is complete with batteries, carrying cases and earphones. **MODEL FCB-99A** (pair) **$64.95 Net.**

Model FCB-9A. A single transceiver complete with batteries, case and earphone. **$34.95 Net.**

5 TRANSISTORS

80 milliwatts

Model FCB-55 is a pair of high quality superheterodyne tranceivers for radio communication in the 27 mc citizens band. No license is required and a range of up to 1½ miles may be obtained depending upon the terrain on which they are used. Suits all out door/indoor CB requirements where limited range is acceptable.

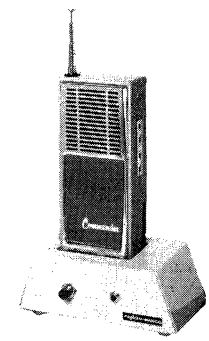
Each 5 transistor transceiver is crystal controlled on channel 9. Optional channel crystals are available for 5, 15, 10 and 11. Up to 22 channels can be used. Cases are metal and 6"x2½"x1½" plus 48" telescoping antenna. Specify FCB-55 for a pair that are equipped with earphones **MODEL FCB-55** (pair) **$44.95 Net.**

Model FCB-5 — A single transceiver complete with earphone. **$24.40 Net.**

¾ WATT

13 Transistors Exclusive "Free-Call"

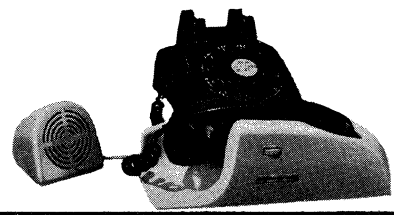
Model FCB-13—Powerful Class D Citizens Band transceiver for extended range. Twice the distance of 100 milliwatt transceivers. Superhet receiver has push-pull audio section for best intelligibility. Well modulated transmit signal over long distances. Exclusive "Free-Call" permits unit to receive at all times with minimal battery drain. Features Variable Squelch Adjust, Automatic Volume Control and Battery-Life Indicator. Powered by 8 penlite cells. Case is metal construction with 48" telescope antenna. Standard channel 9. Channel 5, 10, 11 and 15 optional. Permit required. Unit is 8"x3½"x2" and weighs 1¼ pounds. Complete with earphone, leather case, batteries and set X-tals. **$64.95 Net.**



Model PS-130—AC power supply for FCB-13 converts 117 volt AC to 12 volt DC to use unit as base station. Weighs 1½ lbs. **$9.95 Net.**

MODEL PHA-4
TRANSISTORIZED TELEPHONE AMPLIFIER with EXTENSION SPEAKER

Frees hands while telephoning and fills room with sound for conferences. 4 transistors. Uses one 9 v. battery included. 10" x 4½" x 3". Ship wt. 4 lbs. **$12.95 Net.**



A COMPLETE LINE OF TAPE RECORDERS

including High fidelity Stereo and Monaural machines as well as quality Battery/AC recorders is now available from FANON-MASCO. Write for complete catalogs!

FANON ELECTRONIC INDUSTRIES, INC NEWARK NEW JERSEY
Warehouses in Los Angeles, San Francisco, Dallas, Seattle, Honolulu and Toronto

All prices shown are net. Add 5% on West Coast.

McGOHAN PUBLIC ADDRESS AMPLIFIERS M SERIES

McGohan Amplifiers have long been recognized as high quality, sensibly priced units whose performance invariably exceeds the rated specifications. These amplifiers are ruggedly constructed of fine components to assure dependable performance under the toughest operating conditions. Each is capable of fine fidelity distortionless sound at its full rated output. Attractive styling in two-tone grey color combination. Control knobs have adjustable indicators for reset to pre-determined setting. All models have an AC outlet on rear of chassis.

M 102 10 watt amplifier — with separate bass and treble controls, constant voltage output taps, socket for plug-in low impedance transformer, one phono and one microphone channel.

SPECIFICATIONS — R.M.S. POWER OUTPUT: 10 watts at less than 1% distortion. **POWER RESPONSE:** within 1 db, 40 to 15,000 c.p.s. **FREQUENCY RESPONSE:** ± 1.5 db 20 to 20,000 c.p.s. **REGULATION:** 1 db at 50 and 1,000 c.p.s. no load to full load. **GAIN:** mic. 120 db, phono 80 db. **HUM:** (below rated output), mic. —55 db, phono—75 db. **TONE CONTROLS:** treble (15 k.c.) +15 db to —18 db, bass (50 c.p.s.) +18 db to —18 db. **OUTPUT IMPEDANCE:** 4, 8, and 16 ohms, 25 volt and 70 volt line. **TUBES:** total of 6 (1-6AU6, 1-6CA4, 2-6EU7, and 2-6BQ5). **POWER CONSUMPTION:** 50 watts. Uses Cannon XLR-3-11C microphone connector. **DIMEN:** 10½"Wx7"Dx5½"H. **SHIP WT:** 13 lbs. **LIST PRICE:** $87.50.

M 203 20 watt amplifier — with separate bass and treble controls, constant voltage taps, sockets for plug-in low impedance transformers, one phono and two microphone channels.

SPECIFICATIONS — R.M.S. POWER OUTPUT: 20 watts at less than 1% distortion. **POWER RESPONSE:** within 1 db, 40 to 15,000 c.p.s. **FREQUENCY RESPONSE:** ±1.5 db, 20 to 20,000 c.p.s. **REGULATION:** 1.5 db at 50 and 1,000 c.p.s. no load to full load. **GAIN:** mic. 120 db, phono 80 db. **HUM** (below rated output), mic. —60 db, phono—75 db. **TONE CONTROLS:** treble (15 k.c.) +15 db to —18 db, bass (50 c.p.s.) +18 db to —18 db. **OUTPUT IMPEDANCE:** 4, 8, and 16 ohms, 25 volt and 70 volt line. **TUBES:** total of 6 (3-6EU7, 2-7868, and 1-6CA4). **POWER CONSUMPTION:** 70 watts. Uses Cannon XLR-3-11C microphone connector. **DIMEN:** 14"Wx9"Dx5½"H. **SHIP WT:** 18 lbs. **LIST PRICE:** $124.50.

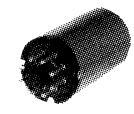
M 305 30 watt amplifier — with separate bass and treble controls, constant voltage taps, sockets for plug-in low impedance transformers, one phono and four microphone channels.

SPECIFICATIONS — R.M.S. POWER OUTPUT: 30 watts at less than 1% distortion. **POWER RESPONSE:** within 1 db, 40 to 15,000 c.p.s. **FREQUENCY RESPONSE:** ±1.5 db, 20 to 20,000 c.p.s. **REGULATION:** 1.5 db at 50 and 1,000 c.p.s. no load to full load. **GAIN:** mic. 120 db, phono 85 db. **HUM** (below rated output), mic. —60 db, phono—75 db. **TONE CONTROLS:** treble (15 k.c.) +15 db to —18 db, bass (50 c.p.s.) +18 db to —18 db. **OUTPUT IMPEDANCE:** 4, 8, 16, and 163 ohms. Balanced 25 volt line and 70 volt line. **TUBES:** total of 7 (4-6EU7, 2-7868, and 1-5AR4). **POWER CONSUMPTION:** 85 watts. Uses Cannon XLR-3-11C microphone connector. **DIMEN:** 14"Wx9"Dx5½"H. **SHIP WT:** 23 lbs. **LIST PRICE:** $169.50.

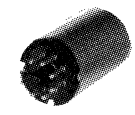
MX 102 10 watt Wired Music Amplifier — with separate bass and treble controls, constant voltage taps, sockets for plug-in low impedance transformers. One music and one microphone channel.

SPECIFICATIONS — same as M 102; except, tone controls are screw driver adjusted and covered to prevent improper use. Amplifier has "limit control" for music channel—which enables the maximum volume to be pre-set so that the adjustment of volume by front control will not result in excessive level. Amplifier microphone response is uneffected by tone controls. Use LT-2 transformer for isolation between telephone line and amplifier. **DIMEN:** Same as M 102. **SHIP WT:** 13 lbs. **LIST PRICE:** $90.00.

MC-1 input matching transformer — provide low impedance inputs for all McGohan amplifiers equipped for plug-in microphone input transformers. Has 60 d.b. electro-magnetic shielding; frequency response ± 1 d.b. 30-15,000 c.p.s.; Impedance 50 ohms or 200 ohms (with center tap) to 50,000 ohms.
MC-1 . . . List $18.75



LT-2 plug in matching transformer — provides for use of telephone or wired music line when used with McGohan MX 102 music amplifier. Frequency response ± 1 d.b. 30-20,000 c.p.s.; Impedance 150 ohms or 600 ohms (with center tap) to 15,000 ohms.
LT-2 . . . List $15.00



All prices and specifications subject to change without notice.
Prices 5% higher west of Denver, Colo.

DON McGOHAN, INC., CHICAGO 24, ILL. **McGOHAN**

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NEWCOMB

PORTABLE PHONOGRAPHS & TRANSCRIPTION PLAYER / P.A. SYSTEMS

R SERIES

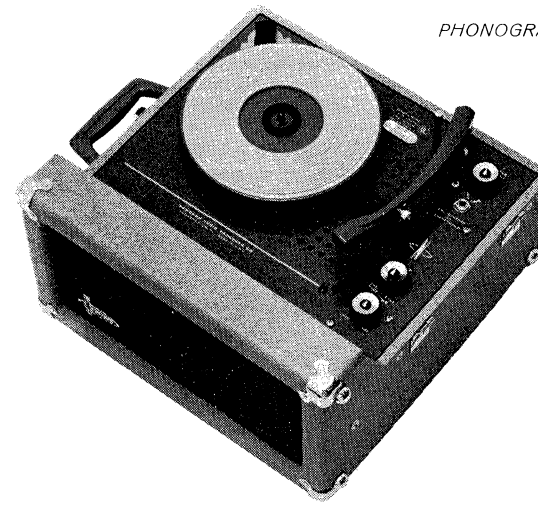
Efficient teaching tools of moderate cost and excellent quality, Newcomb R Series models are built with many extra features for convenience, performance, safety, and reliability. All are UL approved. All are transformer-powered for maximum safety and best performance. Made in the U.S.A.

Handy bid specifications are available from the factory to authorized personnel. Condensed instructions, sealed in plastic, permanently attached inside lid. SPECIFICATIONS AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

R-124V variable speed 4 speed — R-124 fixed speed 4 speed

MONOPHONIC

PHONOGRAPH



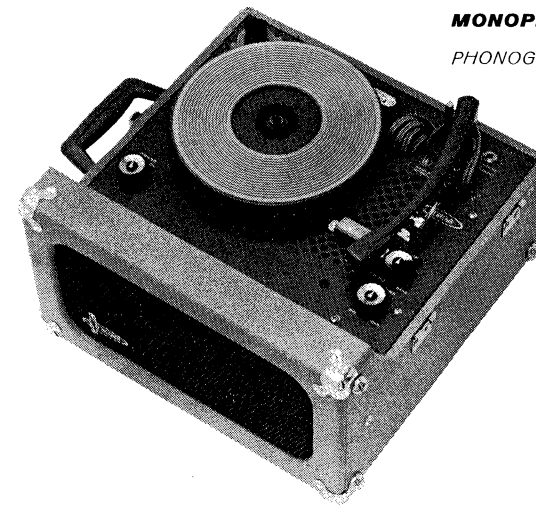
The Newcomb Model R-124V high fidelity, transformer-powered classroom phonograph is an extraordinary combination of ruggedness and high fidelity sound...an outstanding value. It has Newcomb's four-speed, variable-speed motor; big two-way, 9" oval, dual-cone high fidelity loudspeaker; "Bi-Coupled" 12 watt output system; jeweled pilot light; "Power Point" type plug-in ceramic high fidelity cartridge; rubber record mat and "twist-up" 45 center spindle; standard jack for external speaker, headphones, or Headphone Listening Center Accessory; idler release interlocked with separate motor switch; spring-suspension feet, Hideaway cord compartment, bass-treble dual-acting tone control, compensated volume control, Tempo Control that smoothly varies speed as much as 20%. Case is crack-proof, warp-proof, glue-blocked plywood covered with warm gray, washable, scratch-resistant vinyl; further protected with metal corners, come-apart hinges; kickproof, die-formed, perforated metal grill. Service access through bottom vent plate. Dimensions: 8¼" x 14¾" x 14¾"; weight 20 pounds. Power consumption: 55 watts, 117 volts, 60 cycles a.c. MODEL R-124V PROFESSIONAL NET $85.95 plus excise tax.

MODEL R-124 FIXED SPEED, except for the absence of Tempo Control, is identical to the R-124V. PROFESSIONAL NET $69.50 plus excise tax.

R12-C4 fixed speed 4 speed

MONOPHONIC

PHONOGRAPH



The Newcomb Model R12-C4 is a transformer-powered, 10 watt utility model that offers safety, dependability, and high performance at low cost. The good sound of the R12-C4 begins with the heat- and moisture-resistant ceramic "Power Point" type cartridge with turnover dual sapphire styli. The powerful 10 watts peak output system is amply stabilized with inverse feedback to give clean, highly intelligible sound at all volume levels. The compensated, wide-range tone and volume controls tailor the sound to its specific function. The output system is matched to a big, two-way 9" oval, dual-cone speaker. The tweeter cone greatly improves distribution and treble response. The R12-C4 is equipped with a rubber record mat and "twist-up" 45 center post, output jack for headphones or external speaker, drop pad to protect pickup, positive tone arm lock screw, pilot light, spring suspension feet, and a compartment in the deck in which to stow the power cord. Main power switch turns off everything including idler pressure. DIMENSIONS: 8¼" x 14⅛" x 14⅛"; weight 19 pounds. Power consumption: 55 watts, 117 volts, 60 cycles a.c. PROFESSIONAL NET: $62.50 plus excise tax.

R-164V variable speed 4 speed — R-164 fixed speed 4 speed

MONOPHONIC

PORTABLE COMBINATION TRANSCRIPTION PLAYER P.A. SYSTEM

The Newcomb Model R-164V is a versatile, medium-power, portable combination transcription player/public address system that will play any size record up to 17¼" masters. The R-164V has a big 12" round, dual cone high fidelity loudspeaker with 25 foot cord and "Bi-Coupled" 12 watt output system. Speaker enclosure forms lid of case. It has a jeweled pilot light and lighted operating panel, "Power Point" type plug-in ceramic high fidelity cartridge, rubber record mat and "twist-up" 45 center spindle. Microphone input jack. Mixing controls. Bass tone control does not affect voice. Separate treble control. Output jack for speaker, headphones or Newcomb Headphone Listening Center Accessory. The R-164V has a long tone arm of cast metal, protective drop pad, Hideaway power cord, 4 speed settings, tempo control which smoothly varies speed as much as 20%, pickup stop post, pickup lock screw, separate motor power switch that automatically retracts idler. Hinged deck lifts for servicing. Dimensions: 11" x 15½" x 15½"; weight 25 pounds. Power consumption: 55 watts, 117 volts, 60 cycles a.c. PROFESSIONAL NET: $107.50

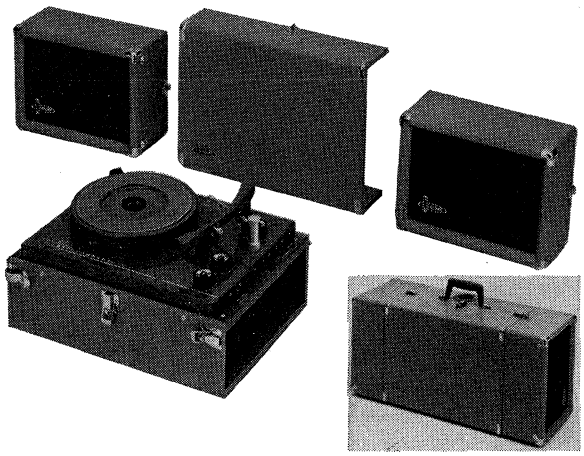
MODEL R-164 FIXED SPEED, except for the absence of Tempo Control is identical to the R-164V. PROFESSIONAL NET: $93.25 plus excise tax.

NEWCOMB AUDIO PRODUCTS CO. • HOLLYWOOD 38, CALIFORNIA — NEWCOMB

NEWCOMB

STEREO PHONOGRAPHS, TRANSCRIPTION PLAYERS, HEADPHONE LISTENING CENTERS, TABLE RADIOS

R SERIES



RS-20 4 speed, fixed speed

The highly portable and compact Newcomb RS-20 has two full-range, nine-inch oval, dual-cone speakers which can be spaced to create a realistic illusion of dimensional sound. The RS-20 provides true stereo reproduction or high fidelity monophonic sound at the flip of a switch, plays any record size up to twelve-inch at any standard speed. Rubber-matted turntable has twist-up 45 spindle. Separate turntable on-off switch retracts idler. There are also a dual-acting bass-treble tone control and a volume control. Power cord tucks into Hideaway compartment. Ventilation is through grills in ends of player unit which remove for access to tubes and motor. Closed, the RS-20 measures 8½" x 11⅛" x 24¾", weighs 28 pounds. For use on 117 volts, 60 cycles a.c. | PROFESSIONAL NET: $149.50 plus excise tax.

The RS-20 phonograph player unit is available with other loudspeaker combinations:

MODEL RS-20-2 is in 2 cases with 2 dual-cone 12" reproducers in a split case measuring 16¾" x 16¼" x 13⅛", 21 lbs. Player case alone is 10½" x 11⅛" x 15⅛", 21 lbs. **PROFESSIONAL NET: $184.00** plus excise tax

MODEL RS-20-C2 is in 3 cases with 2 C-100 two-way, fully enclosed, ducted port reproducers each 10¼" x 14¾" x 20", 10½ lbs. **PROFESSIONAL NET: $278.50.** plus excise tax

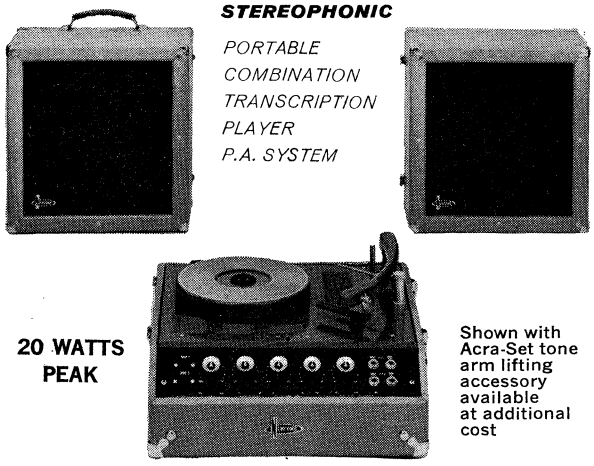
MODEL RS-20-KN2 is in 3 cases with 2 KN-200 hyper-efficient, two-way, ducted port, fully enclosed reproducers each 10¼" x 16⅞" x 23½", 35 lbs. **PROFESSIONAL NET: $385.00.** plus excise tax

RS-1620V 4 speed, variable speed

RS-1620 4 speed, fixed speed

STEREOPHONIC

PORTABLE COMBINATION TRANSCRIPTION PLAYER P.A. SYSTEM



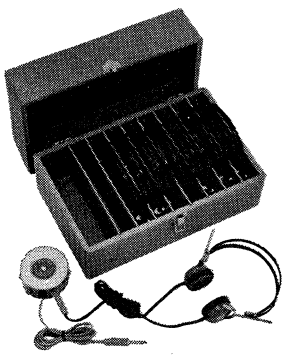
20 WATTS PEAK

Shown with Acra-Set tone arm lifting accessory available at additional cost

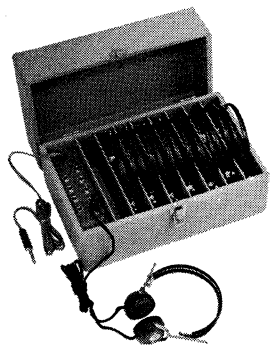
Newcomb RS-1620V stereophonic/monophonic portable combination transcription player/public address systems are simple to operate, durable, economical. Stereo or mono at the flip of a switch. Bi-Coupled output system delivers 10 watts peak per channel, 20 watts peak combined. Compatible cartridge is a turnover ceramic, plug-in type with jeweled styli. Rubber-matted turntable plays records to 17¼" masters. Tempo control +5% to −15%. Two mike inputs and left and right input jacks for radio or tape. On lighted, slanted panel are separate mixers for each mike and phono, voice filters, separate bass and treble tone controls ganged for both channels, but bass does not affect voice. Player unit measures 8" x 15½" x 16½". For use on 117 volts, 60 cycles a.c.

	Variable Speed Model Number	Prof. Net	Fixed Speed Model Number	Prof. Net
With S-212 split case containing two 12" dual cone hi-fi drivers. Closed case: 16¾" x 16¼" x 13⅛". 21 lbs.	RS-1620V-2	**$215.00**	RS-1620-2	**$205.00**
With S-212HF split case containing two 2-way systems — 12" woofers, 3½" tweeters. Closed: 16¾" x 16¼" x 13⅛", 23 lbs.	RS-1620V-HF2	**$239.00**	RS-1620-HF2	**$229.00**
With 2 C-100 2-way reproducers ea. in sep. encl. Each measures 10¼" x 14¾" x 20", 19½ lbs.	RS-1624V-C2	**$309.50**	RS-1620-C2	**$299.50**

NEWCOMB HEADPHONE LISTENING CENTER KITS AND PARTS



LC8BP KIT



R-HDB8 KIT

Designed for library use, language study, group-within-a-group listening, a multiple-headphone adapter plugs into the output jack found on all Newcomb phonographs, radios, and transcription players. Up to 8 pairs of phones and an additional adapter may be connected to each adapter unit. The adapter takes two forms — either a separate, circular terminal box, or a jack strip built into the carrying case. Newcomb headphones are sturdy, sensitive, double phones colored bright red and black. Generous six foot cords. Carrying case is made of plywood covered with gray vinyl, has a full-size carrying handle, compartments for 8 sets of phones and adapter, measures 14" x 8¾" x 7½"

HDP HEADPHONE SET ONLY with pin tips. **PROF. NET: $3.95.**

HDPB HEADPHONE SET ONLY with standard phone plugs. **PROF. NET: $4.60.**

8AP CIRCULAR ADAPTER ONLY takes up to 8 HDP phone sets, has standard phone plug for source connection, standard phone jack for additional adapter. **PROF. NET: $14.95.**

8BP CIRCULAR ADAPTER ONLY takes up to 8 HDPB phone sets, has standard phone plug for source connection, standard phone jack for additional adapter. **PROF. NET: $17.50.**

LC8AP KIT includes 8AP adapter, compartmented case, 8 sets of HDP headphones. **PROF. NET: $59.55.**

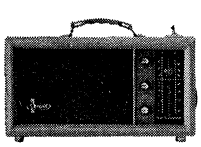
LC8BP KIT includes 8BP adapter, compartmented case, 8 sets of HDPB headphones. **PROF. NET: $67.30.**

R-HDB8 KIT includes compartmented case with built-in phone jack strip and 8 HDPB phones. Source connector is a phone plug. Phone jack for additional kit. **PROF. NET: $59.55.**

R-HDB8-J KIT is same as above but with Jones plug on connecting cord and Jones socket for additional kits in jack strip. **PROF. NET: $59.55.**

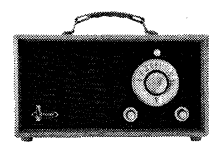
TABLE MODEL RADIOS

AFM-1500 AM & FM



Highly sensitive, rendered very stable by a.f.c. and temperature-compensated oscillators, the AFM-1500 provides high fidelity sound through its 15 watts peak push-pull amplifier and 20 watt, 9" oval, dual-cone loudspeaker. It has a telescoping FM antenna, "Hi-Q" ferrite rod AM antenna, tuning eye, reference scale, large tuning knob, compensated volume control, external antenna terminals, jack for external speaker or headphones, jack for external amplifier, p.a. or tape recorder. 16¾" x 9¾" x 8⅝", 20¼ lbs. 70 watts, 117 volts, 60 cycles a.c. **PROF. NET: $164.50** plus excise tax

AM-500 AM



Trim, rugged, easy to carry, the AM-500 is an economical, continuous-duty transformer-powered radio with a 5 watts peak, inverse-feedback amplifier and 8" oval, dual-cone loudspeaker whose special tweeter cone gives improved distribution and high frequency response. It has a built-in "Hi-Q" antenna and terminals for external antenna. Pilot light index illuminates direct-driven dial. Same jacks as AFM-1500. Neat power cord stowage on back of both 6½" x 8" x 15½", 10 lbs. 40 watts, 117 volts, 60 cycles a.c. **PROF. NET: $59.95** plus excise tax

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NEWCOMB

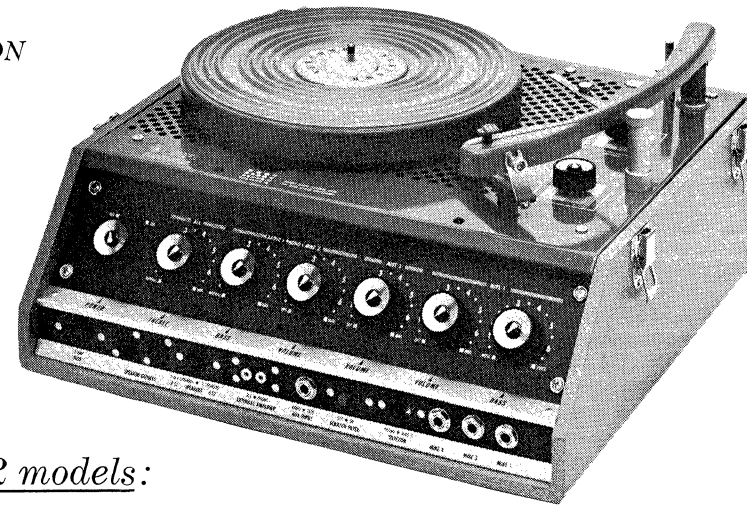
TR SERIES

HIGH POWER, PORTABLE, COMBINATION

TRANSCRIPTION PLAYER

PUBLIC ADDRESS SYSTEMS

...outstanding for their highest quality sound, intelligibility, portability, versatility, and simplicity of operation...



features common to all TR models:

FOUR SPEED, VARIABLE SPEED, play any size record up to 17¼" masters.

AMERICAN-MADE MOTOR delivers full starting torque at any speed setting, no warm-up required, stable under all conditions, requires no more attention than conventional fixed-speed motors.

INDEPENDENT MOTOR SWITCH automatically retracts idler.

TEMPO CONTROL, separate from speed selector, varies speed +5% to −15%. No flutter-producing friction discs or cone drives.

SPEED-O-SCOPE neon strobe.

BIG TURNTABLE—10", 2 lbs.

STA-KLEEN, deep-ribbed rubber mat, special groove for handling 45's.

LONG TONE ARM, one-piece, cast metal, raises upright for stylus inspection, mounted on resilient acoustical filter, has stylus pressure adjustment for 78's or LP's.

RUGGED STOP POST prevents putting arm in wrong position.

LOCK SCREW secures arm during transportation.

DROP PAD, rubber-covered, protects stylus and cartridge.

PHONO PICK-UPS: GE twist-needle with individually replaceable sapphire styli in "M" models. High fidelity ceramic in others.

STEREO CONVERSION: ceramic cartridge may be replaced with stereo cartridge. Then a patch cord is connected between stereo output jack to auxiliary input jack on second player for perfectly balanced, fully controllable stereo.

HIGH POWER AMPLIFIERS, low distortion, inverse feedback, some have ultra-linear circuits, all engineered for optimum performance with speakers used. Frequency response ±2 db 20—20,000 cycles.

TRANSFORMER-POWERED for safety and performance.

BROAD-BAND OUTPUT TRANSFORMERS humidity-protected with mylar or acetate. Impedance selector—4 or 8 ohms (16, 8, & 4 on TRS-1680).

FUSE POST accessible from front panel.

COMPLETE, FLEXIBLE CONTROLS: separate volume mixers for phono and mike; voice filter, scratch filter; phono bass control does not affect voice mike; bass controls electrically interlocked with phono volume to automatically protect against bass overload at high levels, greatly reducing operating experience required for perfect results.

OUTPUT JACKS: "ALL" used to feed entire program to external amplifier, amplified monitor, or tape recorder. "PHONO" delivers phono signal only; useful for caller or m.c. who wants to monitor music only without interference from own voice. "STEREO" on ceramic models.

INPUT JACKS: One for each mike; number depends on model. "AUXILIARY" for signal from radio, tape machine, or stereo channel.

ILLUMINATED, SLOPING OPERATING PANEL.

TWO JEWELED PILOT LIGHTS.

RUGGED CASE made of warp-proof, crack-proof ⅜" plywood, glue-blocked, covered with scratch-resistant, washable, gray vinyl.

METAL CORNER PROTECTORS.

COME APART HINGES.

SPRING-FLOATED FEET.

HEAVY #18 GAUGE STEEL MOTOR BOARD, reinforced.

THROUGH VENTILATION for long parts life.

EASY ACCESS. Hinged motor board raises to reach tubes and motor. Perforated bottom plate unscrews to check wiring.

KICKPROOF GRILLES of die formed metal and armored baskets protect speakers.

25' SPEAKER CORDS with stowage provisions. Straps for wall hanging.

HIDEAWAY COMPARTMENT for 8' power cord.

FULL-SIZE HANDLES on all cases and a hand-hold slot on player units for assistant carrier.

PERMANENT SERIAL NUMBER stamped in metal and riveted to motor board.

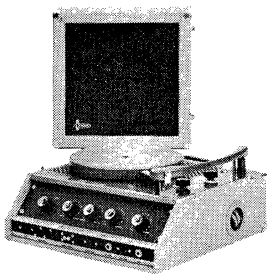
TRANSPARENT PLASTIC CARD HOLDER on each case

PRINTED INSTRUCTION BOOK with each system.

CONDENSED INSTRUCTIONS sealed in plastic permanently attached inside lid.

BID SPECIFICATIONS AVAILABLE from factory to authorized personnel.

MADE IN U.S.A



TR-1625 SERIES 25 WATT CERAMIC PICKUP STEREO JACK

TR-1625 Series player-amplifier units are carefully matched to the reproducers for great efficiency and better coverage than has heretofore been possible with a system in this class. It is equipped with a plug-in, "power point" type, high fidelity ceramic cartridge with separate jeweled standard and microgroove styli. It has a separate treble tone control, bass control that does not affect mike, phono volume mixer, mike volume mixer, scratch filter switch, voice filter switch. There are output jacks for 2 speakers, "Phono," "All," stereo; input jacks for one mike and another for auxiliary equipment.

	PROF. NET
MODEL TR-1625 in a single split case with one 12" dual-cone 30-watt speaker, 35 lbs.	139.50
MODEL TR-1625-2, two cases, includes one S-212, 50 lbs.	172.50
MODEL TR-1625-NE2, three cases, two N-12ET, 63 lbs.	237.00
MODEL TR-1625-CS2, three cases, two CS-48, 73 lbs.	247.00
MODEL TR-1625-SCS2, three cases, two SCS-412, 124 lbs.	387.00

TR-1625M SERIES 25 WATT MAGNETIC PICKUP

When monophonic music reproduction is to be a player's primary function, a Newcomb TR model equipped with a magnetic cartridge is your best choice. The TR-1625M is equipped with a GE variable reluctance, twist-needle cartridge with sapphire styli and necessary preamplifier built in. Motor is a 4-pole deluxe unit. Player has a separate treble tone control, bass control that does not affect mike, phono volume mixer, mike volume mixer, scratch filter switch, voice filter switch. There are output jacks for 2 speakers, "Phono," and "All"; input jacks for mike and auxiliary.

	PROF. NET
MODEL TR-1625M in a single split case with one 12" dual-cone 30-watt speaker, 36 lbs.	154.50
MODEL TR-1625M-2, two cases, includes one S-212, 51 lbs.	187.50
MODEL TR-1625M-NE2, three cases, two N12ET, 64 lbs.	252.00
MODEL TR-1625M-RHF, two cases with one 2-way speaker system in base reflex enclosure, 18" x 24" x 12½", 65 lbs.	211.50
MODEL TR-1625M-CS2, three cases, two CS48, 74 lbs.	262.00
MODEL TR-1625M-SCS2, three cases, two SCS-412, 125 lbs	402.00

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Net

NEWCOMB

HIGH POWER PORTABLE
TRANSCRIPTION PLAYER
P. A. SYSTEMS

TR SERIES

TR-1640 SERIES 40 WATT CERAMIC PICKUP STEREO JACK

TR-1640 models provide impressive audience coverage at moderate cost. Motor is a heavy-duty, four-pole unit. Player is equipped with a plug-in, "power point" type, high fidelity ceramic cartridge with separate jeweled standard and microgroove styli, ultra-linear amplifier. It has a treble tone control for all channels, bass tone for phono, phono volume mixer, mike volume mixer, bass tone for mike, impedance switch for speakers, scratch filter switch. There are output jacks for 2 speakers, "Phono," "All," stereo. Inputs for one mike auxiliary.

	PROF. NET
MODEL TR-1640 in a single split case with one 12″ 50-watt speaker, 36 lbs.	169.95
MODEL TR-1640-E2, two cases, includes one S-212, 51 lbs.	196.50
MODEL TR-1640-E4, three cases, one S-212, one S-212E, 72 lbs.	261.00
MODEL TR-1640-2, two cases, one S-212H, 51½ lbs.	209.50
MODEL TR-1640-4, three cases, one S-212H, one S-212E, 72½ lbs.	273.05
MODEL TR-1640-NE2, three cases two N12ET, 64 lbs.	261.00
MODEL TR-1640-NE4, five cases, four N12ET, 98 lbs.	390.00
MODEL TR-1640-NH2, three cases, two N12HT, 78 lbs.	331.00
MODEL TR-1640-NH4, five cases, four N12HT, 126 lbs.	530.00
MODEL TR-1640-CS2, three cases, two CS48, 74 lbs.	271.00
MODEL TR-1640-CS4, five cases, four CS48, 118 lbs.	410.00
MODEL TR-1640-SCS2, three cases, two SCS-412, 125 lbs.	411.00
MODEL TR-1640-SCS4, five cases, four SCS-412, 220 lbs.	690.00

TR-1640M SERIES 40 WATT MAGNETIC PICKUP

A more powerful music room model which handles with ease four speakers, the TR-1640M player unit has an ultra-linear output system, two-way crossover-network loudspeaker systems, and the GE variable reluctance cartridge. The phono circuit is converted to a second mike channel by flipping a selector switch. It has a treble tone control for all channels, phono volume mixer, phono bass tone control, mike bass tone, mike volume mixer, impedance switch for speakers, scratch filter. There are output jacks for 2 speakers, "Phono," and "All"; input jacks for 2 mikes and auxiliary.

	PROF. NET
MODEL TR-1640M-HF in a single split case with 2-way speaker system including a 12″ 50-watt woofer, crossover and separate 3½″ tweeter, 36½ lbs.	205.00
MODEL TR-1640M-E2, two cases, includes one S-212, 52 lbs.	220.00
MODEL TR-1640M-E4, three cases, one S-212, one S-212E, 73 lbs.	284.50
MODEL TR-1640M-HF2, two cases, one S-212HF, 54 lbs.	244.00
MODEL TR-1640M-HF4, three cases, one S-212HF, one S-212E, 75½ lbs.	309.50
MODEL TR-1640M-KN, two cases, one KN-200, 66 lbs.	288.25
MODEL TR-1640M-KN2, three cases, two KN-200, 101 lbs.	421.00
MODEL TR-1640M-NE2, three cases, two N12ET, 65 lbs.	284.50
MODEL TR-1640M-NE4, five cases, four N12ET, 99 lbs.	413.50
MODEL TR-1640M-NH2, three cases, two N12HT, 79 lbs.	354.50
MODEL TR-1640M-NH4, five cases, four N12HT, 127 lbs.	553.50
MODEL TR-1640M-NN2, three cases, two N12NT, 86 lbs.	394.50
MODEL TR-1640M-NN4, five cases, four N12NT, 141 lbs.	633.50
MODEL TR-1640M-CS2, three cases, two CS48, 75 lbs.	294.50
MODEL TR-1640M-CS4, five cases, four CS48, 119 lbs.	433.50
MODEL TR-1640M-SCS2, three cases, two SCS-412, 126 lbs.	434.50
MODEL TR-1640M-SCS4, five cases, four SCS-412, 221 lbs.	713.50

TR-1656M SERIES 56 WATT MAGNETIC PICKUP

These fully integrated systems achieve phenomenal acoustic output. They include 56 watts peak output system, four-pole deluxe motor, GE variable reluctance cartridge. The phono channel converts to a *third* microphone channel by flipping a switch. First mike channel has separate bass attenuating control for voice clarity. Second mike is flat. Phono tone controls regulate third mike. There are a separate treble tone control for all channels, bass tone for phono, phono volume mixer, mike 2 mixer, mike 1 mixer, mike 1 bass tone, speaker impedance switch, scratch filter. Output jacks for 2 speakers, "Phono," and "All"; input jacks for 3 mikes and auxiliary.

	PROF. NET
MODEL TR-1656M-HF2, two cases, includes one S-212HF, 57 lbs.	288.50
MODEL TR-1656M-HF4, three cases, one S-212HF, one S-212HFE, 80 lbs.	377.00
MODEL TR-1656M-X2, two cases, one S-212X, 59 lbs.	311.00
MODEL TR-1656M-X4, three cases, one S-212X, one S-212XE, 84 lbs.	421.50
MODEL TR-1656M-NF2, two cases, one S-212NF, 63 lbs.	329.85
MODEL TR-1656M-NF4, three cases, one S-212NF, one S-212NFE, 92 lbs.	459.35
MODEL TR-1656M-KN2, three cases, two KN-200, 104 lbs.	465.85
MODEL TR-1656M-KN4, five cases, four KN200, 176 lbs.	731.35
MODEL TR-1656M-NE2, three cases, two N12ET, 68 lbs.	329.00
MODEL TR-1656M-NE4, five cases, four N12ET, 102 lbs.	458.00
MODEL TR-1656M-NH2, three cases, two N12HT, 82 lbs.	399.00
MODEL TR-1656M-NH4, five cases, four N12HT, 130 lbs.	598.00
MODEL TR-1656M-NN2, three cases, two N12NT, 89 lbs.	439.00
MODEL TR-1656M-NN4, five cases, four N12NT, 144 lbs.	678.00
MODEL TR-1656M-CS2, three cases, two CS48, 78 lbs.	339.00
MODEL TR-1656M-CS4, five cases, four CS48, 122 lbs.	478.00
MODEL TR-1656M-SCS2, three cases, two SCS-412, 129 lbs.	479.00
MODEL TR-1656M-SCS4, five cases, four SCS-412, 224 lbs.	758.00

DIMENSIONS OF NEWCOMB TR PLAYERS

Single speaker TR players form a single case with the speaker mounting used as the lid. They measure 16¾″ x 16¼″ x 13¼″. In multiple-speaker models (except TRS-1680) the phono-amplifier unit closed measures 16¾″ x 16¼″ x 8½″. Speaker dimensions are given on facing page. Accessory speakers may be added to one- or two-speaker models at any time.

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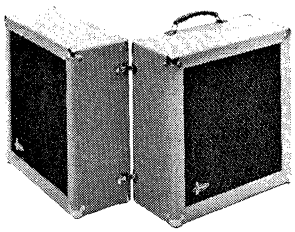
NEWCOMB

PORTABLE LOUDSPEAKERS

TR SERIES

Newcomb makes many types of portable loudspeakers for use with Newcomb Portable Combination Transcription Player/Public Address Systems. They vary in portability, directivity, efficiency, and frequency response. For example, the column speaker is highly directive, but not nearly as easy to carry as the compact S-212 Series models. The KN-200 reproducer combines widest frequency range with highest efficiency and exceptional intelligibility. The N-12 Series speakers are highly efficient, directive, intelligible and portable. All are excellent instruments, built to withstand rough treatment. Construction and finish matches player units.

ON THIS PAGE ARE SHOWN THE VARIOUS LOUDSPEAKER MODELS USED WITH NEWCOMB TR SERIES SYSTEMS

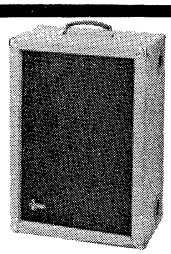


NEWCOMB S-212 SERIES

These open-back designs are the most popular of all square dance system reproducers because they provide a unique combination of light weight, high output per watt input, and low cost. Their wide-range response makes them ideal for general use. Each model includes two independent reproducers in a split case. Speakers snap together back-to-back for carrying. Case size: 16¾″ x 16¼″ x 13⅛″. 25′ cords stow on hooks inside case.

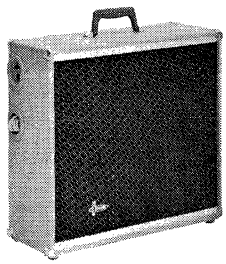
- **MODEL S-212** includes two 12″ dual-cone wide range 30 watts peak reproducers of good conversion efficiency. Impedance per speaker is 8 ohms. Weight: 21 lbs. **PROFESSIONAL NET: $64.50**
- **MODEL S-212E** is same as S-212 but has series extension jacks. **PROFESSIONAL NET: $64.50**
- **MODEL S-212H** includes two 50 watts peak 12″ reproducers of wide-range and excellent conversion efficiency. Impedance per speaker is 8 ohms. Weight 21½ lbs. **PROFESSIONAL NET: $77.50**
- **MODEL S-212HE** is same as S-212H but has series extension jacks. **PROFESSIONAL NET: $77.50**
- **MODEL S-212HF** includes two 50 watt speak 12″ woofers and two 3½″ tweeters with crossover. Impedance per reproducer is 8 ohms. Weight 23 lbs. **PROFESSIONAL NET: $88.50**
- **MODEL S-212HFE** is same as S-212HF but has series extension jacks. **PROFESSIONAL NET: $88.50**
- **MODEL S-212X** includes two 60 watts peak super-power, aluminum-dome 12″ dual-cone loudspeakers of superior efficiency and very wide range. Impedance per speaker is 8 ohms. Weight: 25 lbs. **PROFESSIONAL NET: $110.65**
- **MODEL S-212XE** is same as S-212X but has series extension jacks. **PROFESSIONAL NET: $110.65**
- **MODEL S-212NF** includes two 60 watts peak super-power woofers and two 3½″ tweeters with crossover. These systems combine exceptional response range with super efficiency. Impedance per reproducer is 8 ohms. Weight: 29 lbs. **PROFESSIONAL NET: $129.50**
- **MODEL S-212NFE** is same as S-212NF but has series extension jacks. **PROFESSIONAL NET: $129.50**

MODELS WITH "E" SUFFIX are only for use with other speakers and are not intended for use alone.



NEWCOMB KN-200 REPRODUCER

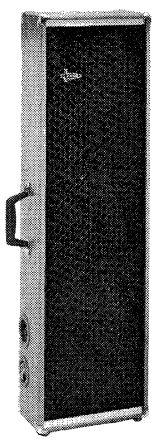
Designed to give you all the sound, all the quality, all the range, all the coverage inherent in your fine Newcomb sound system, the KN-200 is a fully-enclosed, ducted-port, two-way speaker system of advanced design. It is highly efficient, delivers the widest frequency response possible with a portable speaker... full music reproduction plus crisp high frequency intelligibility. The KN-200 includes a massive 12″ woofer, crossover, horn tweeter and treble control. It includes a parallel extension jack and impedance change switch for 8 or 16 ohms. 25 foot cord stows into "Hideaway" compartment. Size: 10¼″ x 16⅞″ x 23½″. Weight: 35 lbs. **PROFESSIONAL NET: $132.75**



NEWCOMB N-12 SERIES SPEAKERS

Most unusual for a portable speaker, Newcomb N-12 models are back-loaded, dual-labyrinth reproducers for those who want high directivity, firm bass, crisp and clean highs. They provide the advantages of a closed-back reproducer in problem halls and auditoriums. 25 foot cord stows in "Hideaway" compartment. Enclosure measures 7⅞″ x 18¼″ x 19½″. Offered in three models...

- **MODEL N12ET** is a 30 watts peak system using an efficient 12″ woofer and two 3½″ tweeters and crossover. Included is a series-type extension jack with shorting switch which permits using the N12ET as either a regular or extension speaker. Impedance is 8 ohms. Weight 17 pounds. **PROFESSIONAL NET: $64.50**
- **MODEL N12HT** is a 50 watts reproducer with a 12″ heavy duty woofer, a directional horn tweeter and full crossover network. This reproducer provides highest sound output per watt input. Included are a parallel extension jack and impedance changing switch. Impedance: 8 and 16 ohms. Weight: 24 pounds. **PROFESSIONAL NET: $99.50**
- **MODEL N12NT** is a 60 watts peak reproducer with an extra heavy duty 12″ woofer, a directional horn tweeter and full crossover network. This reproducer provides highest sound output per watt input. Included are a parallel extension jack and an impedance changing switch. Impedances: 8 and 16 ohms. Weight 27½ pounds. **PROFESSIONAL NET: $119.50**



NEWCOMB COLUMN SPEAKER, MODEL CS48

This is one of the most practical of all column speakers. It combines exceptional directivity with portability, has good efficiency and greater effective range than most columns. Power handling capacity is 60 watts peak. 25 foot cord and plug tuck into "Hideaway" cord compartment. It has an extension jack and switch for use with extension speakers. Size: 39⅞″ x 11¼″ x 6⅜″. Weight: 22 lbs.

PROFESSIONAL NET: $69.50

NEWCOMB SUPER COLUMN, MODEL SCS-412

Here's the best column speaker you've ever heard. The Newcomb SCS-412 gives you super intelligibility, super efficiency, super power handling capacity. It contains four *twelve-inch* speakers specially developed for column use. Its peak power handling capacity of 120 watts makes for dependability and unusually low distortion when used with conventionally-powered systems. Each amplifier watt is converted into more sound than is available from any other column. The SCS-412 makes small amplifiers sound like big ones. It will project your voice clear as crystal, syllable-perfect over the noisiest big crowd. It takes a man-size system to produce these results. The SCS-412 stands 56″ high, is 15″ wide, 7½″ deep, weighs 42½ pounds. Impedance is 8 ohms. It has a 25 foot cord, "Hideaway" cord compartment, series type jack with shorting switch. **PROFESSIONAL NET: $139.50**

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NEWCOMB

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NEWCOMB

STEREOPHONIC SYSTEMS
MICROPHONES, ACCESSORIES

TR SERIES

Built with a great reserve of power for most uses – 40 watts peak per channel – the Newcomb TRS-1680 is perhaps the most complete and flexible portable sound system ever built. It reproduces stereo or mono with the turn of a knob. Stereo or mono tape or radio can be fed to the system. Live music and speech are reproduced either stereo- or monophonically.

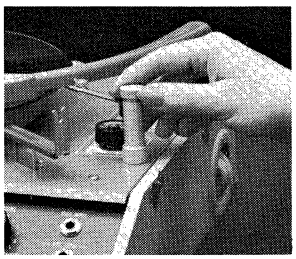
TRS-1680 SERIES 80 WATT

It has three mike channels. The central mike puts the speaker or square dance caller in the middle, midway between the reproducers. There are separate treble, bass, and volume controls for phono or other reproduced sound. Each mike channel has its own, individual tone and volume controls. Mike tone controls are rotated for treble adjustment, pushed or pulled for bass. There is a blend control to provide any degree of stereo you wish. There are "Left" and "Right" inputs for radio, tape, or auxiliary; a scratch filter; "All" or "Phono" monitor jacks; jacks for two or four speakers with an impedance-matching switch. Turntable-amplifier unit DIMENSIONS: 9¼" x 17⅞" x 18⅝"; 43 lbs. POWER CONSUMPTION: 180 watts, 117 volts, 60 cycles a.c. A wide choice of reproducers to meet specific assignments is offered...

	PROF. NET
MODEL TRS-1680-NF2, two cases, includes one S-212NF, 72 lbs.	$429.00
MODEL TRS-1680-NF4, three cases, two S212NF, 101 lbs.	$558.50
MODEL TRS-1680-KN2, three cases, two KN-200, 113 lbs.	$565.00
MODEL TRS-1680-KN4, five cases, four KN-200, 183 lbs.	$830.50
MODEL TRS-1680-NH2, three cases, two N12HT, 91 lbs.	$498.50
MODEL TRS-1680-NH4, five cases, four N12HT, 139 lbs.	$697.50
MODEL TRS-1680-NN2, three cases, two N12NT, 98 lbs.	$538.50
MODEL TRS-1680-NN4, five cases, four N12NT, 153 lbs.	$777.50
MODEL TRS-1680-CS2, three cases, two CS48, 87 lbs.	$438.50
MODEL TRS-1680-CS4, five cases, four CS48, 131 lbs.	$577.50
MODL TRS-1680-SCS2, three cases, two SCS-412, 138 lbs.	$578.50
MODEL TRS-1680-SCS4, five cases, four SCS-412, 233 lbs.	$857.50

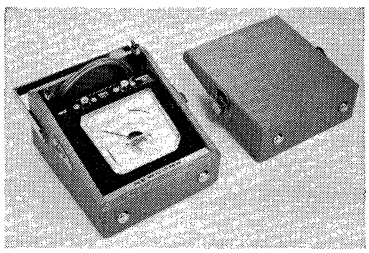
ACRA-SET TONE ARM LIFTER AND RECORD-CUEING DEVICE

MODEL A-1

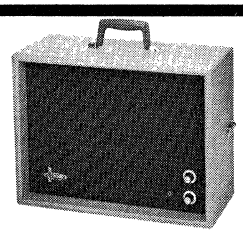


Acra-Set is an accessory available at additional cost for repeating passages and protecting records. You simply twist the knob on top to gently lift or lower tone arm. Lifter has a 100-division scale and a traveling stop with a pointer. It is simply installed by drilling a 3/16" hole which is readily located with a template. Holes are predrilled at the factory on current transcription players. Specify your model number when ordering; correct template and C-1 cue sheets will be supplied. **PROF. NET: $12.50**

MODEL VU-1 PORTABLE VISUAL OUTPUT METER



Model VU-1 Output Meter permits you to see that your voice is being amplified to the proper level, helps you make the most of your fine Newcomb TR system. Meter is high quality instrument with jeweled d'Arsonval movement and a scale calibrated in both db and volume units from 0 to 100 over the working range of the system. Also indicates overloading. Simple internal adjustment matches meter to any TR player; instructions are permanently mounted in lid. One end of the supplied patch cord connects player to "All" monitor jack, other end to "Input" on meter. Supplementary "All" monitor jack on meter. **PROF. NET: $29.95**



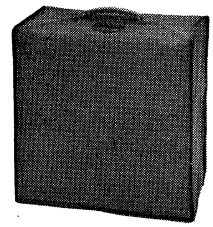
AMPLIFIED MUSIC MONITORS

With a Newcomb Amplified Monitor you can hear reproduced music without interference or feedback squeal from caller's or speaker's voice. Connected to "Phono" channel of transcription player, monitor reproduces music only, not mike channels. Or, it may be connected to "All" jack to reproduce voice and music. It can also be used as a stereo channel with a TR-1625 or TR-1640.

MODEL M-12: 12" speaker; 10 watt amplifier; 17⅞" x 13⅜" x 7½"; 17¼ lbs. **PROF. NET: $79.50**

MODEL M-9: 9" oval, dual-cone speaker; 10 watt amplifier; 13¼" x 10⅛" x 7"; 10 lbs. **PROF. NET: $69.50**

PROTECTIVE CANVAS COVERS



Made of tightly woven, fleece-lined, rubberized mackintosh covert, with stout zipper closure and flap that tucks under handle. Transparent slot for identification.

No. CA-102 for use with TR-1625, TR-1625M, TR-1640, TR-1640M amplifier sections only. **PROF. NET: $5.95**

No. CA-103 for use with S-212 type split case speaker assemblies and all TR series systems with single speaker in case lid. **PROF. NET: $5.95**

No. CA-104 for use with TRS-1680 amplifier section only. **PROF. NET: $5.95**

No. CA-110 for use with KN-200 or K-400 reproducers. **PROF. NET: $6.63**

No. CA-111 for use with C-100 or J-200 reproducers. **PROF. NET: $5.95**

No. CA-119 for use with M-12 monitor. **PROF. NET: $5.95**

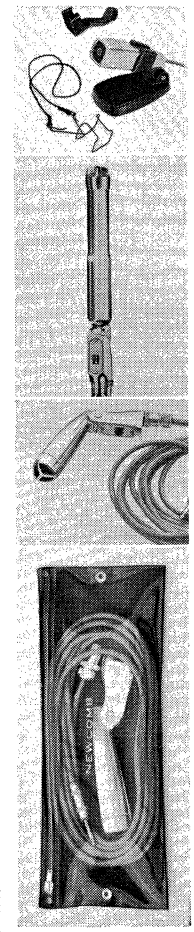
No. CA-132 for use with M-9 monitor. **PROF. NET: $5.95**

No. CA-136 for use with all N-12 series reproducers. PROF. **NET: $5.95**

No. CA-137 for use with CS48 column speaker. **PROF. NET: $9.30**

No. SCS-412 for use with SCS-412 column speaker. **PROF. NET: $12.63**

MICROPHONES



Model N-30 Crystal Microphone with lavaliere cord, stand adapter, switch, and shielded plug. **PRO. NET 13.95**

Model N-30D Desk Mounting for N-30 only. **PRO. NET 1.85**

Model N-36 Dynamic Professional Quality Microphone is the perfectionist's choice with any TR system, especially intended for use with TR-1640M, TR-1656M and TRS-1680 series models. Supplied with shielded cord and plug and on-off switch. **PRO. NET 50.00**

Model N-23 Dynamic Microphone of very high quality with switch and shielded plug, recommended for general purpose use with all TR series systems. **PRO. NET 39.50**

Model MS-23 Accessory Bag of heavy plastic, zippered, for microphones, etc., can be attached inside lid of speaker case. **PRO. NET 2.10**

Model PP-61 Stereo Conversion Pickup Cartridge, plug-in type, for any TR series player equipped with stereo output jack and plug-in ceramic cartridge. **PRO. NET 4.65**

Model WC-64 Connecting Cable, four feet long with plugs for connecting two TR ceramic models together for stereo. **PRO. NET 4.65**

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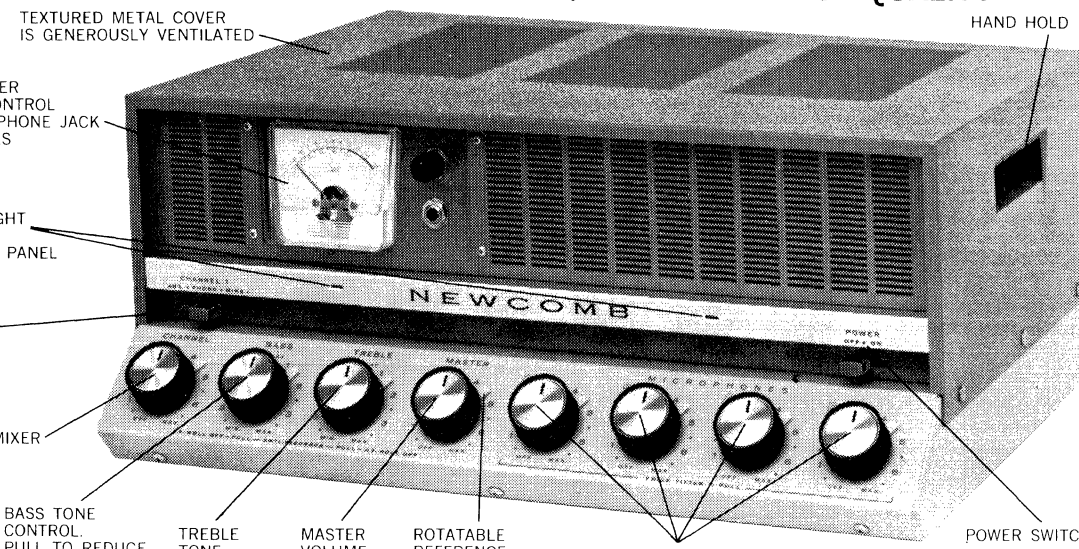
NEWCOMB

MODULAR PUBLIC ADDRESS AMPLIFIERS

CUSTOM SERIES K

MODULAR PUBLIC ADDRESS AMPLIFIERS OF THE VERY BEST QUALITY



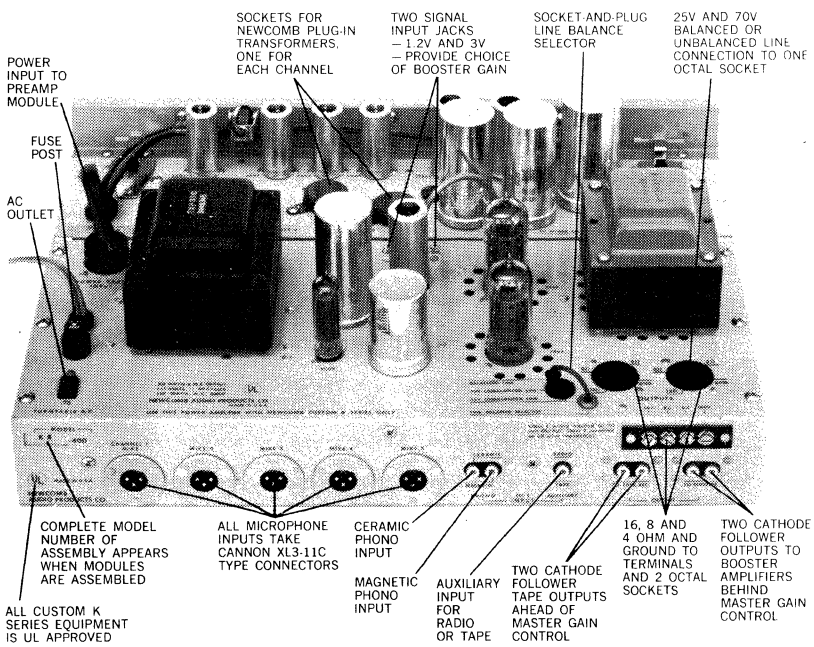
Flexibility and performance without equal are provided by Newcomb Custom K Series public address amplifiers. "Custom" has a very real meaning in this instance. Within minutes you can assemble exactly the right combination of channels, power and features to custom fit a particular situation. You are not faced with the hours of assembly labor and testing necessary with conventional modular designs. You simply select the Newcomb Custom K mixer/preamplifier with the number of channels — three, four, or five — you need. Then choose the power amplifier module — 40, 60, or 125 Watts — needed for the location. Drop the power amplifier into the preamplifier chassis. Two plug-in connections. No soldering. Drive a few sheet metal screws and you're in business. Take your choice of a well-ventilated cabinet cover or a rack panel mount. A VU meter accessory with a phone jack is available and can be quickly added to any front end. A remote control accessory is available for the four-channel module.

Any preamplifier may be used as a mixer by itself by inserting a Model P Power Supply instead of a power amplifier module. Any power output module becomes a straight power amplifier when it is mounted in the Newcomb Model KB Booster Chassis. The Newcomb Custom K modular system is so simple and straightforward that it's a wonder public address amplifiers weren't made this way to begin with.

All modules are completely interchangeable.

The latest developments in vacuum tube technology and skilled hanc craftsmanship are united to produce superb performance. Performance of Newcomb Custom K Series amplifiers has no equal. They operate with extremely low distortion at all power levels, supply unusually high usefu power, run unbelievably cool. Vacuum tube design was chosen for the Custom K Series because no other method of amplification today provides the same combination of maximum performance, stability, reliability extended life, and outright value. With vacuum tubes, repairs are easier and faster to make, cost less.

Visually, Custom K Series assemblies are exceedingly handsome, fin ished in soft, light shades of green. The control panel is slanted for con venient operation either seated or standing, and it is well illuminated Custom K Series models abound with such refinements as movable ref erence markers on all knobs. To cut in a voice filter you simply pull the appropriate mixer knob. To kill feedback, pull tone control knobs. Wher you're out to prove what you can do, when you're putting in a model job a job you'll be proud to put your nameplate on, that's the time to build with Newcomb Custom K.

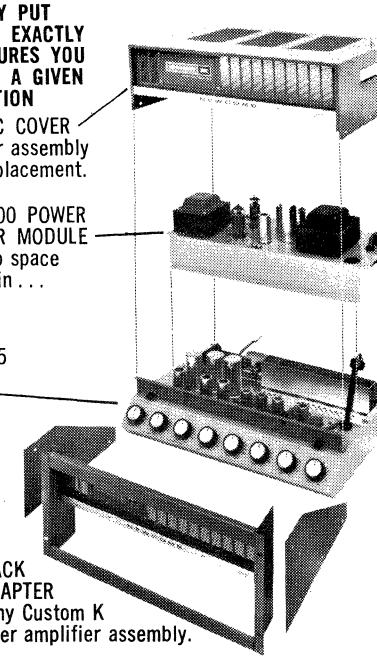


INSTANTLY PUT TOGETHER EXACTLY THE FEATURES YOU NEED FOR A GIVEN INSTALLATION

MODEL KC COVER drops over assembly for shelf placement.

MODEL 600 POWER AMPLIFIER MODULE drops into space provided in . . .

MODEL K5 MIXER/ PREAMP MODULE



MODEL KR-875 RACK PANEL ADAPTER accepts any Custom K mixer-power amplifier assembly.

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NEWCOMB

MODULAR PUBLIC ADDRESS AMPLIFIERS

CUSTOM SERIES K

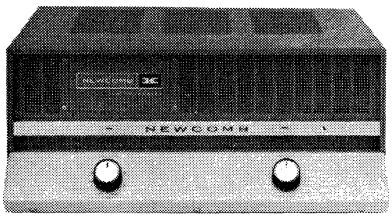
70 COMBINATIONS FROM 14 UNITS

The modular concept makes it possible for you to get exactly the features you need without delay. Four chassis and four power units combine to form **15** basic assemblies. The VU meter may be added to **12** assemblies. **8** models (K4R assemblies with and without VU meter) become remote-control units with the addition of the RB4 accessory. All **35** may be rack panel mounted or covered for free-standing use. (UL requires that they be purchased with one or the other.)

AS SIMPLE TO SPECIFY AS THEY ARE TO ASSEMBLE

Model number of a basic assembly consists of a combination of preamp model number and power amplifier model number as follows:

Preamp Mixer ↓ / Power Amp →	Model 1250 125 watts	Model 600 60 watts	Model 400 40 watts	Model P Power Supply
Model K5 5 Channel	K5—1250 $439.00	K5—600 $399.00	K5—400 $369.00	K5—P $277.00
Model K4R 4 Channel	K4R—1250 $424.50	K4R—600 $384.50	K4R—400 $354.50	K4R—P $262.50
Model K3 3 Channel	K3—1250 $399.00	K3—600 $359.00	K3—400 $329.00	K3—P $237.00
Model KB Booster Chassis	KB—1250 $224.50	KB—600 $184.50	KB—400 $154.50	← Complete Power Amplifier Only / ↑ Complete Mixer-Preamp Only



MODEL KB BOOSTER CHASSIS WITH MODEL KCB COVER

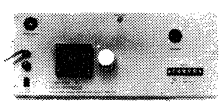
Specifications For Complete Mixer-Preamplifier Power Amplifier Assemblies				
	Mike Gain	133 db	130 db	128 db
	Auxiliary Gain	85.4 db	82.4 db	80.4 db
	Hum, input shorted: Mike, —60 db below full output Magnetic pickup, —50 db below full output Auxiliary input, —60 db below full output All controls off, —80 db below full output			

List prices of combinations are shown without cover, rack mounting or VU meter.

SPECIFICATIONS — K3, K4R, K5 MIXER-PREAMPLIFIERS

All of the Newcomb Custom K mixer-preamplifier modules have space at the back of the chassis into which may be inserted either a Model 400, 600 or 1250 power amplifiers or the Model P power supply. Power is normally supplied to the front end by the power amplifier module; Model P is used when the preamp section is to be used as a separate mixer-control unit. Mixer models differ principally in the number of input channels. Each has one mike channel that is convertible by switch to use with a magnetic or ceramic phono pickup (preamp provides full RIAA response curve) or with a flat tuner or tape input. **Outputs:** 2 from each of two cathode followers, one before and one after the master control. Maximum output from followers: 10 volts into high impedance load. **Distortion:** less than ½%. D.C. on all filaments. **Frequency response:** ±1 db 20-20,000 cycles. **Bass tone control range:** —18 db to +18 db. **Low frequency roll off:** 3 db at 100 cycles, —12 db at 20 cycles. **Treble tone control range:** —18 db to +18 db. **High frequency roll off:** 3 db at 5,000 cycles, —12 db at 20,000 cycles. **Microphone impedance:** 2 megohms convertible to low impedance by Newcomb hum-free plug-in transformer. **Input volts required** for 1 volt output from cathode followers: **Mikes,** .0028 volts, gain 54* db, 2 megohms. **Magnetic,** .0022 volts, 100,000 ohms. Equalized to full RIAA curve. **Ceramic pickup,** .086 volts. Equalized to RIAA curve. **Tuner or Tape input** (Aux.), .34 volts, ½ meg., gain 6.4* db. *Gain stated is with 1 meg. output load. With 600 ohm output using TR-100 add 13 db. **Hum** below 10 volts output (inputs shorted): **Mikes,** —80 db. **Magnetic pickup,** —70 db. **Aux. input,** —80 db. **All controls off,** —100 db. Socket supplies power for VU-2T volume indicating meter. Note: K4R provides for remote control of all inputs. **Dimensions,** all models: 17″ x 13⅝″ x 7⅜″ (height dimension includes KC cover). **Weight,** all models: 7 pounds. All microphone inputs require Cannon XL3-11C type connectors.

	Model K3	Model K4R	Model K5
Number of Channels and mixing controls	3	4	5
Number of Channels with voice filters	2	3	4
Tubes	two 6AB4 three 12AX7	three 6AB4 three 12AX7	four 6AB4 three 12AX7
LIST: (with tubes, without cover)	$199.50	$225.00	$239.50



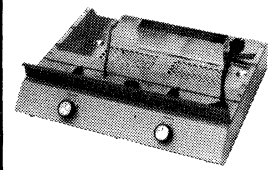
FOR SEPARATE MIXER-PREAMPLIFIER ONLY...

MODEL P POWER SUPPLY takes the place of the power amplifier in the space provided in the K3, K4R, and K5 preamp modules, and supplies power to them through an octal socket. (It is never needed when a Model 400, 600, or 1250 power amplifier is used.) Model P includes a socket for a plug-in output transformer and output terminals for a balanced or unbalanced 600 ohm line. **Maximum 600 ohm output** = 0 VU. **Input** power: 117 volts, 60 cycles, 22 watts. **Wt.** 4½ lbs. **List:** (with tubes) $37.50.

SPECIFICATIONS — 400, 600, 1250 POWER AMPLIFIER MODULES

The power amplifier modules in Newcomb's Custom K Series are not usable alone; they must be installed in a K3, K4R, or K5 mixer-preamplifier chassis. If they are to be used simply as a booster amplifier, they can be mounted in a Model KB Booster Chassis. Circuits in all power amplifier modules are resistance-capacity coupled, screen-regulated, with fixed bias and inverse feedback. They include power supply for K3, K4R, and K5 preamps. All have an a.c. outlet and an external fuse post. All three models have some identical specifications: **Input impedance:** 1 megohm convertible to low impedance with hum-free plug-in line or bridging transformers. **Output impedances:** 4, 8, and 16 ohms to a terminal strip and two octal sockets; 25 and 70 volts balanced or unbalanced line to one octal socket. **Hum and noise:** 80 db below steady state power rating.

	Model 400	Model 600	Model 1250
POWER OUTPUT: steady state RMS at less than 5% T.H.D.	40 watts	60 watts	125 watts
POWER OUTPUT: at less than 1% T.H.D.	35 watts	50 watts	110 watts
PEAK POWER: (Note: Music power peak rating is higher)	80 watts	120 watts	250 watts
INPUT—1.2 V or 3 V required for maximum rated steady state power output			
GAIN: at 1 meg. input 1.2 V in 3 V in	74 db 70 db	76 db 72 db	79 db 75 db
GAIN: at 600 ohms input using TR-100 1.2 V in 3 V in	61 db 57 db	63 db 59 db	66 db 62 db
FREQUENCY RESPONSE: ±1 db 20-20,000 cps at	35 watts	60 watts	110 watts
all ±0 db 20-20,000 cps at	1 watt	1 watt	1 watt
POWER CONSUMPTION: 117 volts, 60 cycles a.c.	110 watts	145 watts	185 watts
TUBES: All models include 5 silicon rectifiers	one 7199 two 6878 one 6CU5	one 7199 two 6L6GC one 6CU5	two 12AU7 two 6550 one 6CU5
WEIGHT:	16½ lbs.	21¼ lbs.	30½ lbs.
LIST: (with tubes)	$129.50	$159.50	$199.50



FOR COMPLETE POWER AMPLIFIER ONLY

MODEL KB CHASSIS is the same size as the K3, K4R, and K5 preamp modules and accommodates Model 400, 600, or 1250 power amplifier modules when they are to be used as boosters. Model KB includes volume control, low frequency roll-off switch, power switch, and pilot lights. It has a lighted, slanted operating panel and factory-wired socket for Newcomb plug-in, hum-free transformers. **Dim.:** 17″ x 13⅝″ x 7⅜″. **Wt.:** 5 lbs. (without cover). **List:** $25.00.

Trade Discount Applies To List Prices Only

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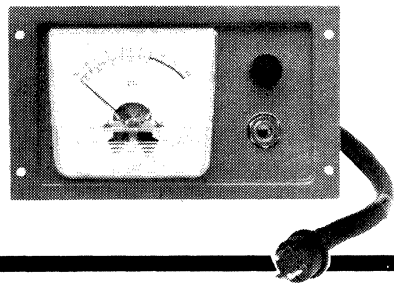
NEWCOMB

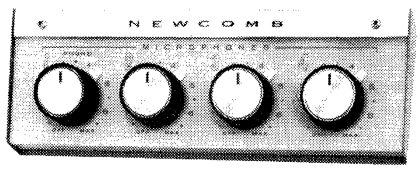
MODULAR PUBLIC ADDRESS AMPLIFIERS

CUSTOM SERIES K



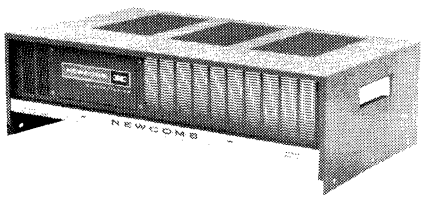
MODEL VU-2T ACCESSORY TRANSISTORIZED VU METER

for use with Newcomb Custom K Model K3, K4R or K5 mixer/preamp, the VU-2T has sensitivity control and a monitor headphone jack for wide-band crystal headphones only. The VU-2T obtains power from the preamp, is installed in place of the removable front plate, simply plugs into the socket provided. LIST: $49.50



MODEL RB4 ACCESSORY REMOTE CONTROL UNIT

for use with the K4R only. A four-channel unit, it may be placed up to 2,000 feet from the amplifier. A 5 wire unshielded cable is required. Cable extra. Dimensions: 3" x 9" x 1⅜". Weight: 1½ pounds. LIST: $19.50

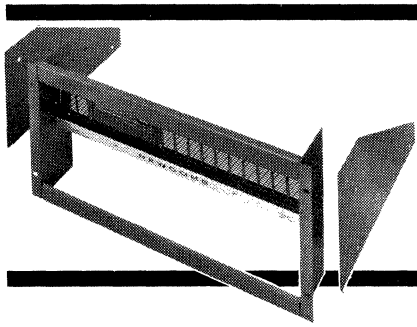


MODEL KC COVER

for assemblies incorporating Model K3, K4R, or K5 mixer-preamplifier modules. Size: 17⁷⁄₁₆" x 12⁷⁄₁₆" x 5⁷⁄₁₆". Weight: 5 pounds. LIST: $25.00

MODEL KCB COVER

for booster amplifier assemblies incorporating Model KB Booster Chassis. Size: 17⁷⁄₁₆" x 12⁷⁄₁₆" x 5⁷⁄₁₆". Weight: 5 pounds. LIST: $25.00



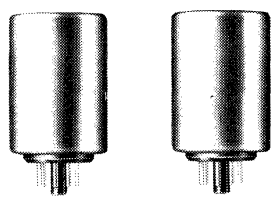
MODEL KR-875 RACK PANEL ADAPTER

for assemblies incorporating Model K3, K4R, or K5 mixer-preamplifier modules. Size: 19" x 8¾". Weight: 5 pounds. LIST: $25.00

MODEL KR-875B RACK PANEL ADAPTER

for assemblies incorporating Model KB Booster Chassis. Size: 19" x 8¾". Weight: 5 pounds. LIST: $25.00

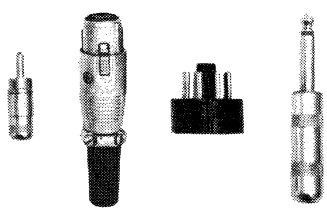
HUM-FREE PLUG-IN TRANSFORMERS



MODEL TR-91 input transformers are designed for all Newcomb amplifiers wired to accept them. They provide 30/50 ohms or 200/250 ohms input impedance depending on wiring of transformer socket. Normal Newcomb amplifier wiring connects the TR-91 for 30/50 ohms. Frequency response: 20 to 20,000 cycles. Wt: 1¼ lbs. LIST: $25.

MODEL TR-100 input transformers are identical to TR-91 models. They provide 125/150 ohms or 500/600 ohms impedance depending upon wiring of socket with 125/150 ohms normal. Frequency response: 20 to 20,000 cycles. Weight: 1¼ pounds. LIST: $37.50

MODEL TR-92B is a bridging transformer, otherwise identical to above models. Weight: 1¼ pounds. LIST: $37.50



CONNECTORS

MODEL PW-157 is a phono, tape, or radio input plug for all Custom K mixer/preamplifiers. LIST: $.75

MODEL PW-139 is a Cannon XL3-11C type microphone connector. LIST: $2.50

MODEL PW-156 is an octal plug for speaker line outputs. LIST: $.45

MODEL PW-142 is a two-contact shielded phone plug for monitor phones. LIST: $1.50

THE RICHEST-LOOKING RACK PANEL INSTALLATIONS IMAGINEABLE

are provided by Newcomb Custom K amplifiers. The two-tone soft green tints of the finish, recessed panels, the stimulating design of the equipment combine to give an impression of professionalism and permanence. Mounted in the Model 70-19 Cabinet Rack illustrated above, top to bottom, are a Newcomb louvered panel, Newcomb TB2-525C Intercom, K3 Mixer-preamp, lever key panel AFM-750-875G AM-FM Radio, E2-525G Industria Preamplifier, two KB-1250 complete power amplifiers, 1050CG Phono Changer Drawer, louvered panel. All Newcomb rack panel equipment, except Custom K series, is listed in the last two Newcomb Pathfinder pages in this section.

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NEWCOMB

STEREO TAPE RECORDERS, TWO-CHANNEL AMPLIFER, SYSTEMS

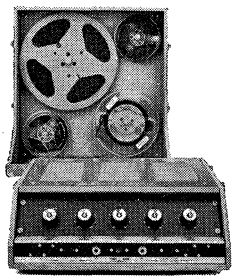
TAPE RECORDERS

NEW TX-10 SERIES

CYBERNETICALLY ENGINEERED FOR INTUITIVE OPERATION ▪ SOUND ON SOUND RECORDING ▪ THREE HEADS ▪ HYSTERESIS MOTOR ▪ MONITOR BEFORE OR AFTER RECORDING ▪ ANY SIZE REELS — 3″ TO 10½″ ▪ MIXING CONTROLS ▪ POINTER-TO-POINTER METERS ▪ DIFFERENTIAL BRAKING

Essentially a machine for the perfectionist, the Newcomb TX-10 incorporates virtually all of the features professional users have said they would like to see in a portable recorder. The TX-10 is thoroughly dependable, a high precision instrument, with a transport mechanism that is probably the most foolproof, the gentlest on tape of any machine in the world. Tape movement is controlled with a telescoping joy stick. Operation is intuitive. The natural thing to do is the right thing to do. You can record sound on sound ad infinitum. For example, you first record on track one. Twist the selector and you record on track two while the signal from track one is being transferred to track two. Twist the switch again and you are adding new material to track one while the previously combined signal from track two is being re-recorded on track one. There is no limit to the number of times this can be done. Tape loads in a straight line. No pressure pads on heads. All tape guides are stainless steel. Shuts off automatically at reel's end. Head covers remove for easy cleaning and editing. A pause-edit position of the joystick permits inching tape to exact location desired. The TX-10 is a two-speed machine — 7½ ips and 3¾ ips — selected by push button with automatic speed-frequency correction. (15/7½ ips machines available on special order.) A relatively powerful, cool-running hysteresis synchronous motor and dynamically-balanced flywheel drive keep flutter and wow below .2% at 7½, .25% at 3¾, or .1% at 15 ips. The TX-10 has three heads — record, playback, and erase. 100KC bias and erase oscillators with indicators. Response is ±2 db 30-18,000 cps at 7½ ips, or ±3 db 30-13,000 cps at 3¾ ips. The TX-10 may be operated either vertically or horizontally. The dual volume indicating meters are illuminated, arranged pointer-to-pointer, show playback as well as recording levels. Too prevent accidental erasure, you must push a separate interlock button to record. The four-digit counter permits close measurements even with a 10½″ reel fully loaded with thin-base tape. There are separate "mike" and "line" input mixing controls for each channel, a balance control, a ganged volume control, a pilot light. A roomy opening on the left-hand side of the case provides for all inputs and power cord stowage. There are sockets for Cannon XLR-3-12C male connectors, easily accessible sockets for Newcomb plug-in input transformers to permit use of low impedance microphones. Outputs are on the right side of the case.
Dimensions: 12⅞″ x 16¾″ x 9½″. Weight: 36½ lbs. Power requirements: 95 watts, 117 volts, 60 cycles a.c.

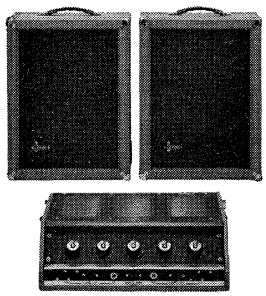
PROFESSIONAL USERS NET: $750.00. Unmounted CA-133 carrying case $25.00



MODEL SA-80B

2 CHANNEL POWER AMPLIFIER WITH TONE, VOLUME, AND BALANCE CONTROLS

The Newcomb SA-80B is a two channel, stereo/monaural, portable, power amplifier designed especially for use with the Newcomb TX-10 Series Tape Recorders. The amplifier puts out 40 watts peak per channel, a total of 80 watts peak. The controls are conveniently grouped on a slanted operating panel that is brightly illuminated by two pilot lights. Controls are ganged. They consist of a bass boost and attenuation control, treble boost and attenuation, volume control, and a balance control. There is an input jack for each channel, a stereo-monaural selector switch, output impedance selectors, and two speaker sockets for each channel. The removable cover carries tape reels of all sizes up to and including 10½″. A plastic zippered bag for miscellaneous cords is included. Frequency response — 20-20,000 cycles ±1 db. Distortion per channel at 20 watts r.m.s. — less than 1%. Hum below —65 db. Output impedances per channel — 16, 8, 4 ohms. 8½″ x 16¾″ x 16⅜″; 32 pounds. **PROFESSIONAL USERS NET: $199.50.**

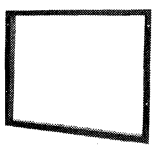


PORTABLE AMPLIFIER-REPRODUCER SYSTEMS

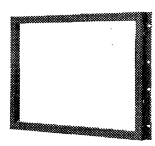
MODEL SA-80B-J2 consists of one SA-80B and two Model J-200 Reproducers. Latter are two-way speaker systems with tweeter level controls, enclosed in compact cases, use latest techniques to provide excellent, full-range coverage in music rooms and small auditoriums. Each measures 14¾″ x 20″ x 10¼″. Three-case system weighs 71 pounds. **PROFESSIONAL NET: $368.40.**

MODEL SA-80B-K2 consists of one SA-80B and two Model K-400 Reproducers. Latter are three-way loudspeaker systems developed for those who seek the very best possible reproduction that can be provided by translating advanced engineering concepts into portable form. Each measures 16⅞″ x 23½″ x 10¼″. Three-case system weighs 102 pounds. **PROFESSIONAL NET: $468.40.**

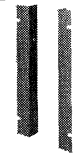
MOUNTING HARDWARE FOR THE TX-10



MODEL **SR-85** is a custom frame for mounting the TX-10 in home high fidelity installations. **PROFESSIONAL NET: $10.**



MODEL SR-86 is a frame for rack mounting the TX-10 in Newcomb Model 35-19 or 70-19 cabinet racks. (cannot be used with door.) **PROFESSIONAL NET: $15.95.**



MODEL SR-97 is a pair of rack brackets for mounting the TX-10 in standard 19″ racks. (Cannot be used in Newcomb Models 35-19 and 70-19 cabinets.) **PROFESSIONAL NET: $3.95.**

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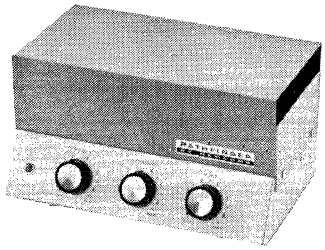
NEWCOMB PATHFINDER PUBLIC ADDRESS EQUIPMENT



MODEL E-10B

10 watt amplifier
Low priced, deluxe, full push-pull output

The Newcomb E-10B offers a surprising number of deluxe features for so compact and economical an amplifier. It has the slanted operating panel and control markers which distinguish all Pathfinder models. The E-10B has separate mixers for microphone and ceramic phono pickup (or radio or tape). Mike input is a standard 3-contact phone jack suitable for high or low impedance mike. The E-10B is wired for plug-in transformers for instant conversion for use with low impedance mike. Output impedances to socket are 4, 8, 16 ohms, plus 25 and 70 volt line taps. Output jack for recorder or booster amplifier. Unit has a wide-range treble tone control, 25,000 hour pilot light. UL approved.

SPECIFICATIONS: Power Output: 10 watts RMS, 20 watts peak at less than 5% distortion. **Frequency Response:** ±2 db 30 through 15,000 cycles. **Mike Gain:** 118 db at 2 meg. .0055 volts delivers full power. **Phono Gain:** 79 db at 1 meg.; 33 volts delivers full power. **Output To Tape Jack:** Delivers 4.4 volts max. or 1 volt at ½ watt output. **Hum:** Fundamental, 70 db below rated output. **Power Response:** ± 3 db, 70 through 13,000 cycles at 5% distortion. **Size:** 10¼″ x 6½″ x 5¾″ high. **Weight:** 9 lbs. **Power Consumption:** 60 watts, 117 volts, 60 cycles. **Tubes:** 1-12AX7, 1-6AU6, 2-6V6, 1-6X4.
LIST: (with tubes) $75.00.

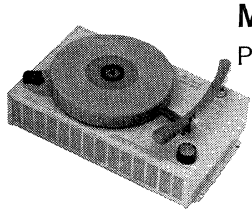
MODEL E-5P

5-channel mixer preamplifier

The Newcomb E-5P is a high performance, low-priced, multipurpose mixer-preamplifier with 4 microphone channels (one convertible to magnetic phono), one high level channel with two inputs (chosen by selector switch) – one for ceramic phono pickup, the other for tape or radio. Master gain control. Each mike input jack is standard 3-contact phone jack. Each mike channel is wired for plug-in transformers for instant conversion to low impedance microphone usage. The E-5P has a VU meter with concealed sensitivity adjustment, outputs for tape, booster, and a.c., 25,000-hour pilot lamp. Operating panel is slanted for easy viewing and operating sitting or standing. Performance is excellent with individual mike input tubes for minimum crosstalk and d.c. on all filaments. UL approved.

SPECIFICATIONS: Cathode Follower Outputs: 6 volts at less than 2% into high impedance load. **Volume Indicating Meter:** Adjustable from 2 to 6 volts. **Frequency Response:** ±2 db 30 through 20,000 cycles. **Mike Inputs:** 2 meg.; .0025 volts for 2 volts out. **Ceramic Phono or Radio or Tape Input:** 1 meg. .32 volts for 2 volts output. **Magnetic Phono Input:** .011 volts for 2 volts output. **Hum:** Fundamental, 80 db below 6 volts output. **Size:** 14⅛″ x 8 5/16″ x 5″ high. **Weight:** 11¾ lbs. **Power Consumption:** 31 watts 117 volts 60 cycles A.C. **Tubes:** 4-12AV6, 1-12AU6, 5-0C5, 1 power silicon rectifier.
LIST: (with tubes) $139.50.

HIGH QUALITY, LOW PRICE PUBLIC ADDRESS AMPLIFIERS WITH MANY DELUXE FEATURES



MODEL P-4

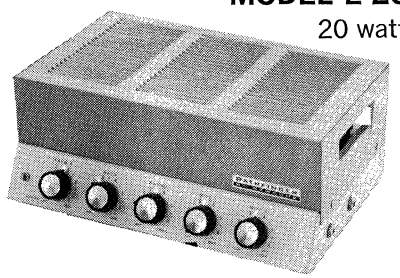
PHONO TOP

The Newcomb P-4 is a 4-speed record player that is designed to fit on top of the E-20, E-40 or E-75 Pathfinder amplifier. It includes an automatic idler release on the power switch to prevent flat spots, a plug-in turnover-type dual-sapphire-styli ceramic cartridge, pickup hold-down screw and drop pad. Dimensions: 8 5/16″ x 14″ x 5″ high over all. Weight: 6 lbs. **LIST: $39.95.**

All Newcomb Pathfinder power amplifiers and the E-5P preamplifier have slanted operating panels for convenient control in either a sitting or standing position. This feature is important, too, with rack mounted installations where units may be mounted near the floor as well as at eye level. All control knobs have white, rotable reference markers for quick return to a pre-determined setting. All have a 25,000 hour pilot light. All are UL approved. Newcomb public address amplifiers Models E-20, E-40, and E-75 all have the following features: Each has two microphone channels with mixer controls and one high level channel with mixer for ceramic phono pickup, radio or tape. Mike channels are wired for Newcomb plug-in transformers for instant conversion to use with low impedance microphones. High level control is compensated; as volume is reduced, bass is proportionately sustained. Mike not affected by this control. There are separate bass and treble master tone controls. Output taps on terminal strip and two sockets are for 25 volt balanced or unbalanced line plus 70 ohms unbalanced, and 16, 8, and 4 ohms. There is an output jack for recorder or booster and an a.c. output receptacle. Pathfinder equipment has a distinctive two-tone finish in soft tints of olive-gray and spruce.

MODEL E-20

20 watt



SPECIFICATIONS: Power Output: 20 watts RMS, 40 watts peak at less than 5% distortion. **Frequency Response:** ±2 db 30 through 15,000 cycles. **Mike Gain:** 122 db at 2 meg.; .005 volts delivers full power. **Phono Gain:** 83 db at 1 meg. .315 volts delivers full power. **Output To Tape Jack:** Delivers 6 volts max. or 1 volt at ½ watt output. **Hum:** Fundamental, 70 db below rated output. **Power Response:** ±3 db 50 through 20,000 cycles at 5% distortion. **Size:** 14⅛″ x 9½″ x 5¾″ high. **Weight:** 14¼ lbs. **Power Consumption:** 80 watts, 117 volts, 60 cycles A.C. **Tubes:** 1-12AX7, 1-6BR8, 2-EL-84, 1-5Y3.
LIST: (with tubes) $99.50.

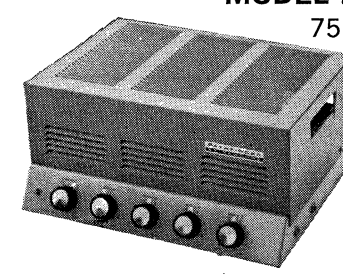
MODEL E-40

40 watt

SPECIFICATIONS: Power Output: 40 watts RMS, 80 watts peak at less than 5% distortion. **Frequency Response:** ±2 db 30 through 15,000 cycles. **Mike Gain:** 125 db at 2 meg.; .005 volts delivers full power. **Output To Tape Jack:** Delivers 6 volts max. or 1 volt at 1 watt output. **Hum:** Fundamental, 70 db below rated output. **Power Response:** ±2 db 40 through 20,000 cycles at 5% distortion. **Size:** 14⅛″ x 9½″ x 6¾″ high. **Weight:** 19¼ lbs. **Power Consumption:** 160 watts, 117 volts, 60 cycles A.C. **Tubes:** 1-12AX7, 1-6BR8, 4-EL84, 1-5U4.
LIST: (with tubes) $129.50

MODEL E-75

75 watt



SPECIFICATIONS: Power Output: 75 watts RMS, 150 watts peak at less than 5% distortion from a fixed bias, screen regulated, output system. **Frequency Response:** ±2 db 30 through 15,000 cycles. **Mike Gain:** 128 db at 2 meg.; .005 volts delivers full power. **Phono Gain:** 88 db at 1 meg.; 3 volts delivers full power. **Output To Tape Jack:** Delivers 6 volts max. or 1 volt at 1.87 watts output. **Hum:** Fundamental, 70 db below rated output. **Power Response:** ±2 db 50 through 20,000 cycles at 5% distortion. **Size:** 7″ x 13½″ x 14½″. **Weight:** 26 lbs. **Power Consumption:** 185 watts, 117 volts 60 cycles. **Tubes:** 2-12AX7, 1-6C4, 2-7027A, 1-6V6GT, 3 power silicon rectifiers.
LIST: (with tubes) $189.50.

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NEWCOMB PATHFINDER PUBLIC ADDRESS SYSTEMS

MODEL E-1008S

10 watt PORTABLE system

The Newcomb E-1008S System consists of one E-10B amplifier and one P-108 speaker assembly. The P-108 contains an efficient 8″ loudspeaker protected by a kickproof, perforated metal grille, microphone carrying straps (but no mike), and space for carrying the E-10B amplifier. Size: 11¼″ x 14¾″ x 9″ deep. System weight: 17½ lbs.
LIST: $115.00.

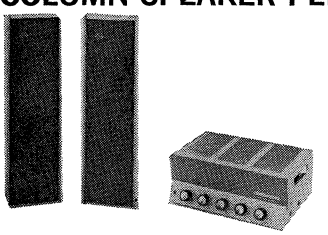
MODEL E-20-212R

20 watt PORTABLE system

This 20 watt system consists of one Newcomb E-20 amplifier and one P-212R dual speaker assembly which also acts as a carrying case for the amplifier. The P-212R includes two efficient 12″ dual-cone loudspeakers, each with a 25 foot cord and plug. Speaker baffles snap together back to back. Inside are mike carrying straps but no microphone. Speakers are protected by kickproof perforated metal grilles. System closed measures 13½″ x 15¼″ x 23″, weighs 37 lbs.
LIST: $199.50.

MODEL E-40-212H 40 watt PORTABLE system. Included in the E-40-212H are one Newcomb E-40 amplifier and one P-212H dual speaker case assembly which also acts as a carrying case for the amplifier. There are two 12″ heavy duty loudspeakers each with a 25 foot cord and plug, kick-proof perforated metal grilles and mike carrying straps but no microphone. Size 13½″ x 15¼″ x 23″, weight 44 lbs.
LIST: $242.00.

COLUMN SPEAKER PERMANENT SYSTEMS



MODEL E-20-2C8F 20 watt consists of one E-20 amplifier, two Model C-8 column speakers, and 100 feet of speaker cord. No microphone. Weight: 54¾ lbs.
LIST: $336.20.

MODEL E-40-2C8F 40 watt consists of one E-40 amplifier, two Model C-8 column speakers, and 100 feet of speaker cord. No microphone. Weight: 60 lbs.
LIST: $366.20.

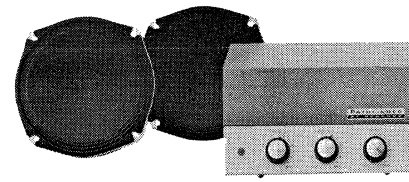
MODEL E-75-4C8F 75 watt consists of one E-75 amplifier, four Model C-8 column speakers, and 200 feet of speaker cord. No microphone. Weight: 107 lbs.
LIST: $662.90.

MODEL E-20-2C12F 20 watt consists of one E-20 amplifier, two model C-12 super column speakers, and 100 feet of speaker cord. No microphone. Weight: 93¼ lbs.
LIST: $569.50.

MODEL E-40-2C12F 40 watt consists of one E-40 amplifier, two model C-12 super column speakers, and 100 feet of speaker cord. No microphone. Weight: 98½ lbs.
LIST: $599.50.

MODEL E-75-2C12F consists of one E-75 amplifier, two model C-12 super column speakers, and 100 feet of speaker cord. No microphone. Weight: 105 lbs.
LIST: $659.50.

MODEL E-75-4C12F 75 watt consists of one E-75 amplifier, four model C-12 super column speakers and 200 feet of speaker cord. No microphone. Weight: 184 lbs.
LIST: $1129.50.



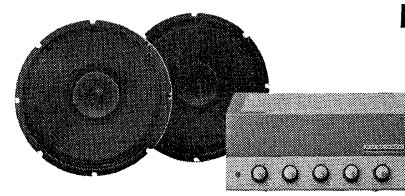
MODEL E-10-28F

10 watt PERMANENT system

This system includes one Newcomb Model E-10B amplifier, two eight-inch extended range loudspeakers, and 100 feet of speaker cord. No microphone included. System weight: 12 lbs.
LIST: $99.00.

MODEL E-20-48F

This is a 20 watt sound system for permanent installation consisting of one Newcomb Model E-20 amplifier, four 8″ extended range loudspeakers, and 200 feet of speaker cord. No microphone. System weight: 20¼ lbs.
LIST: $147.50.



MODEL E-20-212F

20 watt PERMANENT system

This twenty watt system includes one Newcomb E-20 amplifier, two 12″ dual-cone loudspeakers, and 100 feet of speaker cord. No microphone included. System weight: 20¾ lbs.
LIST: $143.50.

MODEL E-40-212FH 40 watt PERMANENT system includes one Newcomb E-40 amplifier, two heavy duty 12″ loudspeakers, and 100 feet of speaker cord. No microphone. System weight: 28 lbs.
LIST: $184.50.

MODEL E-40-412F 40 watt PERMANENT system includes one Newcomb E-40 amplifier, four dual-cone loudspeakers, and 200 feet of speaker cord. No microphone. System weight: 32½ lbs.
LIST: $217.50

MODEL E-75-412FH 75 watt PERMANENT system includes one Newcomb E-75 amplifier, four heavy duty 12″ loudspeakers, and 200 feet of speaker cord. No microphone. System weight: 43 lbs.
LIST: $299.50

SPEAKER ASSEMBLIES

MODEL P-108 is an 8″ speaker in a portable case fitted for carrying the Newcomb E-10B amplifier. It has a kickproof, perforated metal grille, 25 foot cord with octal plug and microphone straps. Dimensions: 11¼″ x 14¾″ x 9″ deep. Weight: 9 lbs.
LIST: $40.00.

MODEL P-212R consists of two efficient 12″ dual-cone speakers, each with 25 foot cord and octal plug. in a split portable case designed to carry the E-20 amplifier with or without the P-4 phone top. Case is covered with gray vinyl, has kickproof, perforated metal grilles, and microphone-carrying straps. Dimensions: 13½″ x 15¼″ x 23″. Weight: 22½ lbs.
LIST: $100.00.

MODEL P-212H consists of two heavy duty 12″ loudspeakers, each with 25 foot cord and octal plug, in a split portable case designed to carry the E-40 amplifier with or without the P-4 phono top. Case is covered with gray vinyl, has kickproof, perforated metal grilles, and microphone-carrying straps. Dimensions: 13½″ x 15¼″ x 23″. Weight: 24½ lbs.
LIST: $112.50.

MODEL C-8 COLUMN SPEAKER combines exceptional vertical directivity with broad horizontal coverage. Enclosure tapered front to back for ganging. Contains four efficient 8″ speakers. Dimensions: 6½″D x 11⅜″W 40″ H. Weight: 20¼ lbs.
LIST: $115.85.

MODEL C-12 SUPER COLUMN SPEAKER with four 12″ speakers provides super intelligibility, super efficiency, super power handling capacity — 120 watts peak. Dimensions: 7½″ D x 15¼″ W x 56″ H. Weight: 39½ lbs.
LIST: $232.50.

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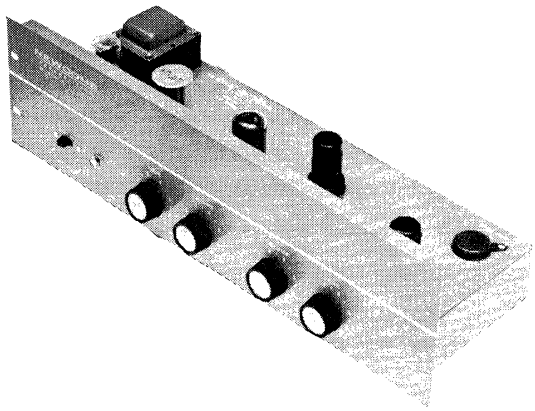
NEWCOMB PATHFINDER
PUBLIC ADDRESS EQUIPMENT



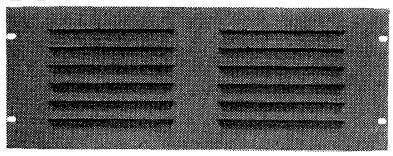
MODEL E2-525G INDUSTRIAL PREAMPLIFIER

Designed for industrial sound systems, the Newcomb E2-525G has 125 to 600 ohm balanced line output. Maximum output at 600 ohms = 10 volts line output. Inputs: one mike at 2 meg impedance, convertible to low impedance by means of Newcomb plug-in transformer (socket provided) · one high level crystal phono; one radio or tape. At 600 ohm line output: mike output of .0015 volts delivers 1 volt; phono input of .15 volts delivers 1 volt out. Frequency response: ±2 db 30 to 15,000 cycles. Electronic remote switching turns mike on and music off when paging. Remote switching line may be unshielded 3-conductor cable up to several thousand feet long. No relays required. There are separate tone controls for mike and phono. Mike input socket is a standard 3-contact phone jack usable with low or high impedance microphones. Tubes: 1-6SF5, 1-6SN7, 1-6J5, 1-6X5, 25 watts, 117 volts, 60 cycles a.c. Dimensions: 19″ x 5¼″ x 6⅛″ deep. Weight: 9 lbs. **LIST: $129.50.**

PANELS FOR CABINET RACK

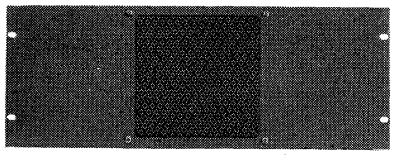
BLANK PANELS

Model Number	Dimensions	Weight lbs.	List
175G	1¾″ x 19″	1¾	$3.00
350G	3½″ x 19″	1¾	$3.50
525G	5¼″ x 19″	2½	$4.00
700G	7″ x 19″	3	$4.50
875G	8¾″ x 19″	3½	$5.00
1050G	10½″ x 19″	4¼	$5.50



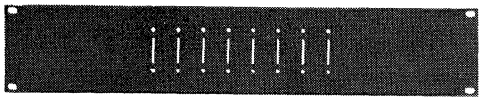
LOUVERED PANELS

Model Number	Dimensions	Weight lbs.	List
L-525G	5¼″ x 19″	2½	$5.00
L-700G	7″ x 19″	3	$5.75
L-875G	8¾″ x 19″	3½	$6.50
L-1050G	10½″ 19″	4¼	$7.25



MONITOR PANEL

MODEL 700MPG measures 7″ x 19″, has perforated metal grille, requires 6″ speaker, weight 3 lbs. (See also radio panels.)
LIST: $10.00.



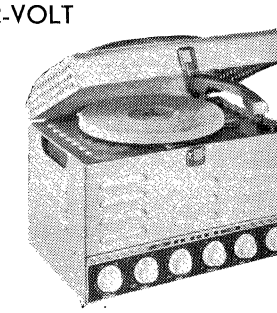
LEVER KEY PANELS

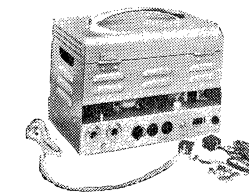
All lever key panels have 1″ slots 1″ apart wtih 1⅝″ mounting holes. Each panel measures 3½″ x 19″. Weight of each panel is 1¾ lbs.

Model No.	No. of slots	LIST
LK-350-6G	6	$5.00
LK-350-8G	8	$5.50
LK-350-10G	10	$6.00
LK-350-12G	12	$6.50
LK-350-14G	14	$7.00
LK-350-16G	16	$7.50

Name strip Model No.	LIST
SR-6	$2.50
SR-8	$2.60
SR-10	$2.70
SR-12	$2.80
SR-14	$2.90
SR-16	$3.00

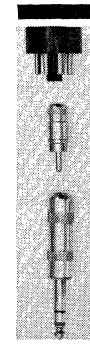
MOBILE AMPLIFIERS 12-VOLT





Newly developed E-253M Series Newcomb Amplifier designed for use anywhere. Ultra modern 25 watt unit available in several styles with and without turntable (see below). May be used on either 12-volt storage battery or 117 volt 60 cycle AC power source with equal effectiveness. Consumes as much as 20% less battery current, weighs up to 30% less. Separate bass and treble tone controls; two microphone channels each with the new standard broadcast type connectors and convertible to low impedance with Newcomb humless plug-in input transformers; high gain separate phono channel for ceramic pickups; extra input for tape; standby switch to reduce idle battery consumption more than 70%; new freedom from vibrator hash; heat resistant ceramic pickup and turret type motor in 3-speed phono top; completely U/L Approved.

POWER OUTPUT: 25 watts at less than 3% total harmonic distortion, peak power 40 watts. FREQUENCY RESPONSE: 30 — 20,000 cycles ± 2 db. HUM LEVEL: 70 db below 25 watts. INPUTS: Two mike (2 meg.) gain 122 db; one phono (2 meg.) gain 90 db; and one tape (2 meg.) gain 90 db. Mike inputs convertible to low impedance using Newcomb plug-in transformers. CONTROLS: On stand-by switch, one power switch and treble tone control, one bass tone, one phono, two microphone, one phono motor control (on phono top models), and one hum balance control. OUTPUT IMPEDANCE: 4, 8, 16, and 500 ohms and a 70 volt tap to impedance selector and two output sockets. POWER CONSUMPTION On 117 volts 60 cycles AC, 100 watts. On 12 volts DC, 8.85 amps (with phono top, 10.3 amps.). Stand-by current less than 3 amps. SIZE: 14⅛x9½x8″ high (with cover (height 10¼″). TUBES: 1-12AX7 1-12AU6, 2-6L6G, 2-6X5GT, 1-12AV7, E-253M — plain top model list price **$214.50.** (Weight, 24 lbs.). E-253M3 — 3-speed phono-top model, list price **$248.10.** (Weight, 28¼ lbs.). PC — Protective turntable cover with "king-sized" handle for use on Model E-253M only, list price **$15.00.** (Weight, 2¾ lbs.). Above prices include both battery and AC power cables.



CONNECTORS

MODEL PW-156 is an octal speaker plug for all Pathfinder model **LIST: $.45.**

MODEL PW-157 is a phono tap or radio input plug for all Pathfinder models. **LIST: $.75.**

MODEL PW-144 is a three contact, shielded mike plug for all Pathfinder models. **LIST: $1.75.**

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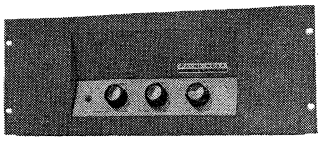
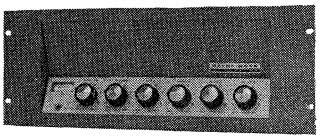
NEWCOMB PATHFINDER PUBLIC ADDRESS EQUIPMENT

RACK AND PANEL EQUIPMENT

AMPLIFIER PANELS — MODEL E-10-700PG

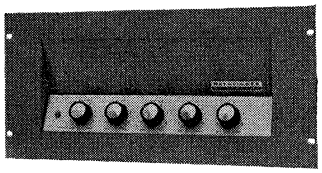


Panel only for rack mounting a standard Newcomb E-10B amplifier. Dimensions: 19″ x 7″. Weight: 3 lbs.
LIST: $17.50.



MODEL E-52040-700PG

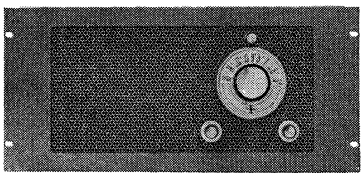
Panel only for either the Newcomb E-5P preamplifier, the E-20 or E-40 amplifier. Dimensions: 19″ x 7″. Weight: 3½ lbs.
LIST: $18.50.



MODEL E75-875PG

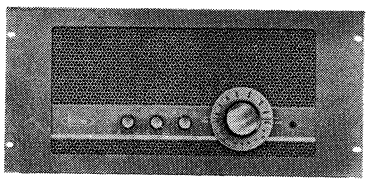
Panel only for rack mounting a standard Newcomb E-75 amplifier. Dimensions: 19″ x 8¾″. Weight: 4 lbs.
LIST :$19.50.

PANEL MOUNTED RADIOS—MODEL AM-500-875G AM RADIO

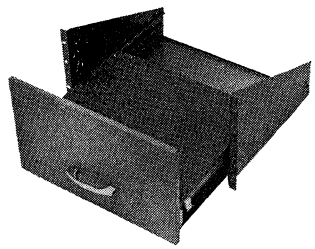


This is a complete, transformer-powered AM radio in which the output amplifier and 8″ oval speaker act as a monitor. The output to external amplifiers is taken off ahead of the volume control so adjustment of monitor volume has no affect on output to sound system or tape recorder. The AM-500-875G is a dependable, rugged, continuous duty receiver with a large, direct-driven tuning dial with conelrad markings, lighted index. 40 watts, 117 volts, 60 cycles a.c. Dimensions: 19″ x 8¾″ x 7½″ deep. Weight: 12¼ lbs.
LIST: $109.00.

MODEL AFM-750-875G AM-FM RADIO



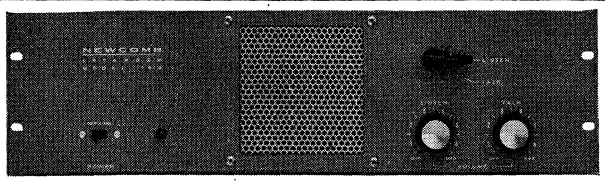
A complete, transformer-powered AM-FM radio in which the output amplifier and 8″ oval speaker act as a monitor, the AFM-750-875 has AFC (and defeat switch) and temperature-compensated oscillators for exceptionally stable performance. Output to external amplifier is taken off ahead of the volume control so adjustment of monitor volume has no affect on output to sound system or recorder. 54 watts, 117 volts, 60 cycles a.c. Dimensions: 19″ x 8¾″ x 7½″ deep. Weight 14½ lbs.
LIST: $249.00.



MODEL 1050CG

PHONO CHANGER DRAWER

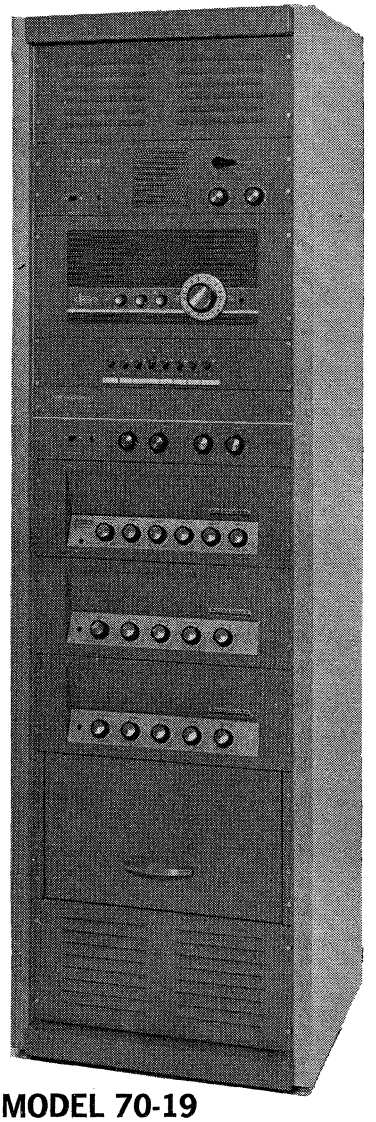
The front panel dimensions of the 1050CG phonograph changer drawer is 19″ x 10½″. It has a 16½″ x 15″ removable motor board. Depth from the top of the motor is 3¾″. Clearance above top of motor board is 6⅛″. Weight 19¼ lbs. Finest double-extension, roller bearing glides provide a stable level platform for player.
LIST: $65.00.



MODEL TB-525G

PANEL-MOUNTED INTERCOM

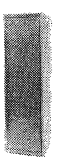
A complete intercom amplifier and speaker, the TB-525G is designed for industrial installations wherein paging speakers are used for intercommunication. Input and outgoing impedances: 500 ohms. Separate incoming and outgoing volume controls. Talk-listen switch. Pilot light. Tubes: (3) 1-6SL7, 1-6v6, 1-6X5. 40 watts, 117 volts, 60 cycles a.c. Dimensions: 19″ x 5¼″ x 6⅛″ deep. Weight: 9¼ lbs. **LIST: $183.50.**



MODEL 70-19

CABINET RACK

Contemporarily styled, solidly built, beautifully finished in an olive-gray tint compatible with Newcomb Pathfinder equipment, the 70-19 has a ventilated back, provides 70″ of panel space. Panels are standard 19″ width. Last three digits of model number indicate panel depth. e.g. "875" stands for 8¾″ panel depth. Dimensions: 21⅞″x 74″x 18½″ deep. Weight 84 lbs. **LIST: $262.00.**



MODEL 70D Door with lock for front of 70-19 cabinet. Weight: 23 lbs.
LIST: $50.00.

MODEL 35-19 CABINET RACK A short cabinet rack with ventilated back ,35″ of panel space. Dimensions: 21⅞″ x 39″ x 18½″ deep. Weight: 52 lbs.
LIST: $187.50.

MODEL 35D Door with lock for front of 35-19 cabinet. Weight: 12 lbs.
LIST: $29.50.

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NEWCOMB

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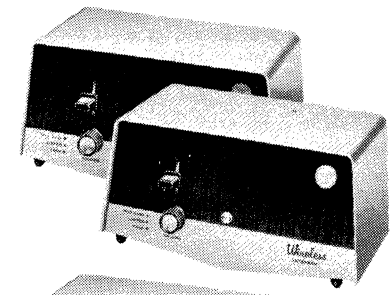
INTERCOMS

RCA offers a complete line of quality intercoms designed for office, home, farm or factory use at an economical price. Manufactured at RCA's traditionally high standards of engineering and design, the intercoms shown here are suitable for almost any possible application from simple wireless 2-way talk listen systems to flexible multi-unit systems with a variety of talk-listen-monitor options. The unsurpassed styling of these fine intercoms will harmonize beautifully with any decor. Installation, in all cases, is simple and inexpensive. Complete instructions are furnished with all units.

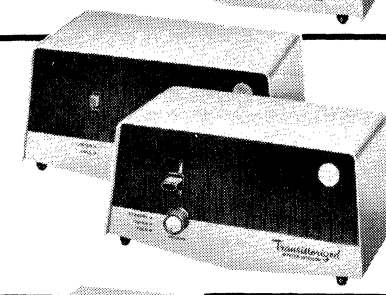
WIRELESS INTERCOM SYSTEM
Type 17641



The RCA Wireless Intercom makes use of the existing power lines for the transmission of voice. Just plug the units into any standard home electrical outlet and the installation is complete. Ideal for use anywhere . . . home, office, farm or factory, the RCA Wireless will operate between rooms, office floors and even between adjacent buildings if on the same power line.

2 station system **$99.50***
Add'l. station (17646) **$49.75***

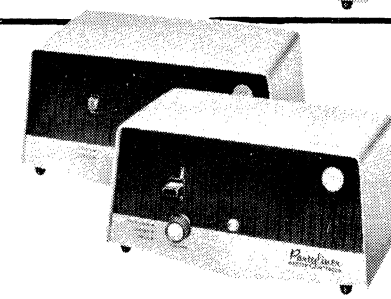
TRANSISTORIZED INTERCOM SYSTEM
Type 17642



The ultimate in low-cost installation. Battery operated (inexpensive penlight cells) it can be installed anywhere independent of ac current. Ideal outdoor system for farms, camps, storage yards, warehouses. Comes complete with master, remote and 50 feet of cable. As many as four additional remotes may be added to system.

1 master and 1 remote **$52.95***
Add'l. remote (17648) **$15.50***

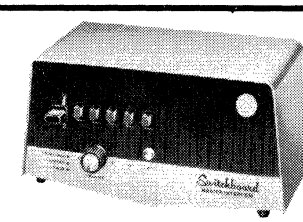
PARTYLINER INTERCOM SYSTEM
Type 17640



Ultra-sensitive "Partyliner" system comes complete with master, remote and 50 feet of cable. Powerful amplifier picks up the slightest noise. Remote can answer calls from a distance without operating switch making the "Partyliner" ideal for use as an electronic baby sitter. As many as four additional remotes can be added to system. Range of master to any remote is about 500 feet.

1 master and 1 remote **$39.00***
Add'l. remote (17647) **$15.50***

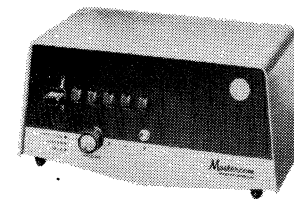
SWITCHBOARD MASTER INTERCOM
Type 17643



Used with as many as four remotes, the switchboard feature provides direct remote-to-remote conversations. Master can monitor any or all remotes or can set-up remotes to monitor other units. Remotes can originate calls to master and other remotes. Busy light flashes during conversation.

Master only **$49.95***

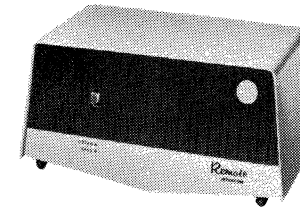
MASTERCOM MASTER INTERCOM
Type 17644



A dual-purpose master, the "Mastercom" can be used with as many as five remotes in a master-to-remote system or with as many as five additional masters in an all-master hook-up. In all-master systems, three private conversations can be held simultaneously or a conference may be held using all six stations.

Master only **$49.95***

REMOTE STATION
Type 17645



The RCA Intercom Standard Remote Station can be used with either the RCA Mastercom or Switchboard unit. It can be installed for private or non-private operation. When private, its Call switch must be used to converse, but there's no interception by Master. When non-private, the Remote may reply to the master from a distance without using its switch, but its Call switch must be used to originate calls to its master. The RCA Remote Station can also be installed so that the call switch is inoperative and thereby unable to originate calls.

$15.50*

*Optional List Price

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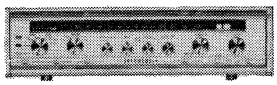
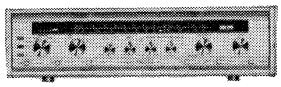
Sherwood TUNERS • AMPLIFIERS • SPEAKERS

MOST HONORED OF THEM ALL



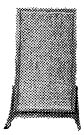
S-8000 IV

40 + 40 FM/MX STEREO RECEIVER. Combines in one unit the famed performance of Sherwood's FM tuner and multiplex circuitry, two phono preamplifiers and stereo control amplifiers. Features professional-quality zero-centered tuning meter, Stereo Indicator Light, balanced fly wheel tuning, friction-locked stereo bass and treble controls, ganged loudness control, phono level control, stereo balance control, stereo function and input selector switch. Slide switches control scratch and rumble filters, FM Inter-Channel Hush, phase reverse, and tape monitor. Inputs for tape playback, tape monitor, phono, and two auxiliaries. Outputs for recording and 4, 8, 16 ohm speakers. Has powered center channel for mono extension speakers, and front panel stereo headphone jack and separate speaker disabling switch.

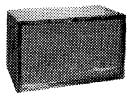


S-7700 II

General Specifications—Power Output: Stereo 40 + 40 watts (80 watts mono) at 1½% IM distortion. Frequency Response: 20-20,000 cps ± ½ db. @ rated output. Hum and noise: phono input 63 db. below 40 watts. DC filament supply. Phono sensitivity 1.4 mv. Typical sensitivity: FM; 0.95 μv. for 20 db. quieting, 1.8 μv. for −30 db. noise and distortion IHF. Capture ratio: 2.4 db. Selectivity: FM 200 kc. @ −3 db. FM Detector: 1.0 mc peak-to-peak. Tubes: 19 plus 3 silicon rectifiers, 9 diodes. Power consumption 115-125V, 60 cps fused, 225w.
Size: 16¼″ x 4″ x 14″ deep.
S-8000 IV (less case) Fair Trade Net **$329.50**
S-7700 II, similar to above, but with AM reception added, (less case) Fair Trade Net **$374.50**

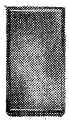


SR-2

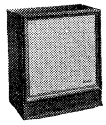


SR-3

"TANGLEWOOD" 4-WAY SPEAKER SYSTEM. Response: 29-17,500 cps ±2½ db. Power: handles 75-watts program. Features two 10″ woofers with staggered 17½ and 18½ cps resonance, 8″ midwoofer, 8″ midrange, and two 3½″ tweeters. Crossovers at 200, 600, and 3,500 cps. Size: 13½″ x 24″ x 13″ deep.
SR-4, hand-rubbed Walnut finish **$219.50**

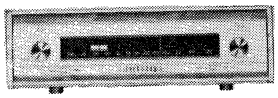


SR-1



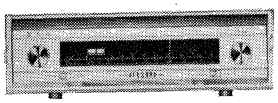
SR-4

"RAVINIA" 3-WAY SPEAKER SYSTEM. Response: 48 cps to 17,500 cps ± 2½ db. Power: handles 60-watts program. High compliance 12″ woofer, 8″ mid range and 3″ ring radiator tweeter. Crossovers at 600 and 3,500 cps.
Size: 26¼″ x 15″ x 13¼″ deep.
SR-3, hand-rubbed Walnut finish **$139.50**
"BERKSHIRE" 3-WAY SPEAKER SYSTEM. Response: 53 cps to 17,500 cps ± 2½ db. Power: handles 50-watts program material. High compliance 10″ woofer. Mid range and tweeter same as Ravinia. Same crossover network.
Size: 24″ x 13″ x 9½″ deep.
SR-2, hand-rubbed Walnut finish **$99.50**
"NEWPORT" 2-WAY SPEAKER SYSTEM. Response: 53-17,000 cps ±2½ db. Power: handles 45-watts. Has 10″ woofer and 4″ midtweeter. Crossover at 1800 cps. Size: 24″ x 13″ x 9½″ deep.
SR-1, hand-rubbed Walnut finish **$84.50**



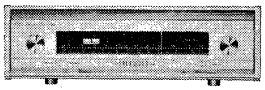
S-3000 V, S-3000 III

Sherwood is best known for its outstanding FM tuners, the first ever to achieve 0.95 μv sensitivity. All four models **S-3000 V FM/MX STEREO, S-3000 III FM, S-2000 IV FM/AM,** and **S-2100 II FM/MX STEREO/AM** feature: **FM Interchannel Hush** which automatically eliminates noisy "hash" between FM channels; velvet-smooth **Flywheel Tuning;** professional **Zero-Centered Tuning Meter; 20% Longer Dial Scales.**



S-2000 IV

General Specifications—Typical Sensitivity: FM, 0.95 μv for 20 db. quieting, 1.8 μv for 30 db. quieting; IHF. Capture ratio: 2.4 db. Sensitivity: 1.8 μv for −30 db. noise and distortion below 100% FM, AM-2μv @ 60% mod. for 0.5V output, 6 db. S/N; Typical Selectivity: FM—200 kc @ −6 db.; AM—(wide) 15 kc @ −6 db., (narrow) 5 kc @ −6 db.; FM Detector: 1.0 mc peak-to-peak; Frequency Response: FM 20-20,000 cps ± ½ db., AM—(wide) 20-7,500 cps @ −6 db.; Distortion: FM—less than ⅓% IM @ 100% mod. Hum and Noise Level: FM −60 db. below 100% mod., AM −55 db. below 100% mod.; Audio Output: 2.0 volts output @ 100% FM; Tube Complement: 9 plus 2 rectifiers. Power Consumption: 80 watts, 115-125V, 50-60 cps; Dimensions: 14″ x 4″ x 10½″ deep.



S-2100 II

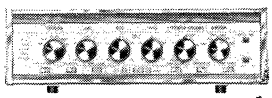
S-3000 V, with Tuning Meter and Stereo Indicator Light; Fair Trade Price (less case) **$165.00**

S-2100 II, with Tuning Meter and Stereo Indicator Light; Fair Trade Price (less case) **$209.50**

S-3000 III, Fair Trade Price (less case) **$120.50**

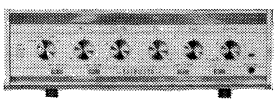
S-2000 IV, Fair Trade Price (less case) **$170.50**

Sherwood's top-rated **S-5000 II — STEREO DUAL AMPLIFIER** — offers the maximum flexibility in stereo and monophonic operation.



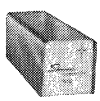
S-5000 II S-5500 IV

General Specifications—Bass and treble controls have friction type dual knobs to adjust one channel separately from the other or together. Power output: Stereo, 40 + 40 watts music power (80 watts mono IHF music power). Frequency Response: 20-20,000 cps ± db. at 36 watts. IM Distortion: 1½% at rated output. Hum and Noise: phono input, 60 db. below rated output. DC filament supply. Sensitivity: Radio, 0.25 volt; phono, 1½ mv. Inputs: phono (RIAA); tapehead (NAB) and 6 high-level. 2 cathode follower recording outputs. Controls include: 12 db/octave scratch and rumble filters and presence rise switch. Tubes: 4-7868, 6-12AX7/ECC83, 4 silicon rectifiers. Power consumption: 110 watts, 115-125V, 60 cps, fused.
Size: 14″ x 4″ x 12½″ deep.
S-5000 II, Fair Trade Price, (less case) **$199.50**
S-5500 IV, Same as S-5000 II without presence rise feature, (less case) **$179.50**



S-1000 III

The famous Sherwood "Music Center" monophonic amplifier offers music power output of 40 watts. This amplifier design is recognized for providing the many features and flexibility appreciated by the high-fidelity expert, yet. offering the utmost in simplicity of operation.
General Specifications, S-1000 III — similar to one channel of S-5000 II. Five tubes, Size: 14″ x 4″ x 10½″ deep.
S-1000 III, Fair Trade Price (less case) **$124.50**



STEREO INDICATOR LIGHT SL-1. Gives instant identification when FM/Stereo is tuned. Special sensing circuitry prevents false indications (frequent with some other identification devices) due to noise impulses. Operates with any type FM tuner. Size: 2½″ x 2¼″ x 7½″ deep.
SL-1 ..... **$29.50**

CASES for amplifiers and tuners (Walnut tone leatherette), $7.50; for receivers $9.50. **GENUINE WALNUT WOOD CASES** for receivers; richly finished, **$29.50**

RACK PANEL MOUNTING for tuners. Fit standard relay racks. Panel size 5¼″ x 19″, Price: **$7.50.**

SPEAKERS used in Sherwood speaker systems are available separately. Complete specs on request. R12 woofer (21 cps res.), **$37.50;** R10T woofer (18 cps res.), **$26.90;** R10 woofer (23 cps res.), **$24.90;** R8T midwoofer **$16.95;** R8 midrange, **$14.95;** R4 tweeter, **$16.95;** R5 tweeter **$14.95.**

CROSSOVER NETWORKS. The Sherwood line of crossover networks features performance precise enough for the finest 2, 3 or 4-way high fidelity speaker system at a cost within the reach of the budget-wary experimenter. All networks feature 12 db/octave attenuation, 16 ohms impedance.

Model	Crossover Frequency	Speaker Application	Dimensions	Net Price
SX6	600 cps	2-way	4x7½x3	$16.90
SX8	800 cps	2-way	4x7½x3	15.50
SX36	3500 cps	2-way	4x5x3	6.50
SRX63	600,3500 cps	3-way	6x6x3	15.50

ONE YEAR WARRANTY — Every Sherwood product is covered by a full one-year warranty against defects in material and workmanship. Tubes carry standard EIA 90-day warranty.

Sherwood Electronic Laboratories, Inc. Chicago, Illinois

Net

© U.C.P., Inc.

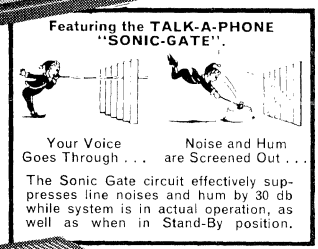
NEW TALK-A-PHONE WIRELESS AND HOME INTERCOM SYSTEMS

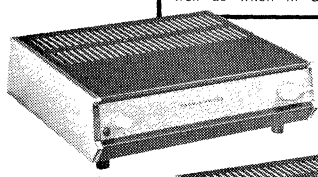
TWO NEW WIRELESS SYSTEMS

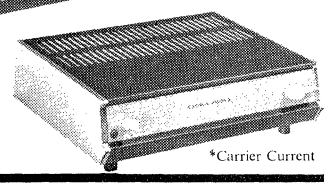
Two NEW, high-quality wireless intercoms, featuring the exclusive TALK-A-PHONE "SONIC GATE" circuit. Provides dependable communication where permanent, wired systems are not practical. Ideal for use in offices, factories, stores, homes, apartments, nurseries, farms, etc. Distinctively styled cabinets combine the look and feel of fine grained leather with the strength and rigidity of steel. Beautifully finished in charcoal gray with brushed chrome side panels. Each station has a translucent indicator which illuminates when "On." All stations must be connected to outlets on the **same electric company service transformer.** Built-in Ground Adapter provides greater sensitivity where electrical wiring is routed over long paths. U.L. Approved.

NEW TALK-A-PHONE 12-STATION SELECTIVE WIRELESS* SYSTEM

- No Installation
- No Wiring
- No Cables
- Just Plug-in and Talk







*Carrier Current

• 6 Separate 2-Way Conversations Simultaneously
• Selective Paging with Reply • Push-Button Channel Selector
• Start a System with any number of Masters and Staffs

Provides selective communication. Each Master is equipped with a 6 or 12-channel selector; can converse with any other station selectively; can receive calls on any channel Master elects to use. As many as 6 separate conversations may be held simultaneously, with 12 Masters. Masters can talk with any station in system; can also set up conferences.

Wireless Staff Stations are for use where calls need not be originated, but where reply must be made. They are available for operation on any single channel desired—to match that of Master. They also can be used to receive Paging Calls from any Selective Wireless Master in the system . . . use as many Wireless Staffs as needed (all Staffs must operate on same channel for this purpose). Two or more Wireless Staffs on the same channel will function as a 2-Station System (without Master); they can originate calls and reply to each other.

Start a system with any number of Masters and Staffs. Where up to 12 stations are used, each on a separate channel, Master can converse selectively with any channel. If more than 12 stations are used, channels must be *shared*; stations on same channel will receive all calls to that channel. To change location, merely pick up unit and move . . . no rewiring or new installation is necessary. All stations are equipped with the original TALK-A-PHONE UNI-TRANS feature, which permits continuous one-way transmission for periods when you wish to dictate or "listen-in."

T-LCM-8912. 12-Station Selective Wireless Master. Complete, with tubes and instructions, ready to use. Operates on 110-120 volts, AC or DC. Size 14"wx8¾"dx3⅛"h. Shipping weight, 12½ lbs.
List Price Per Station $154.00.....Net **89.80**

T-LCM-8906. 6-Station Selective Wireless Master.
As above except for 6-Station Capacity. Shpg. Wt. 10 lbs.
List Price Per Station $136.00.....Net **79.50**

Wireless Staff Stations. Receive and reply on a single channel only.

T-LCS-901 Channel 1	T-LCS-903 Channel 3	T-LCS-905 Channel 5
T-LCS-902 Channel 2	T-LCS-904 Channel 4	T-LCS-906 Channel 6

Complete with tubes and instructions, ready to use. Operates on 110-120 volts, AC or DC. Size, 10½"wx8¾"dx3⅛"h. Shipping weight, 7 lbs.
List Price Per Station $77.00.....Net **45.00**

NEW TALK-A-PHONE 2-STATION WIRELESS* SYSTEM

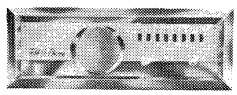
A complete system of 2 stations, ready to use. Simply place each unit where desired, plug each into nearest electrical outlet, and talk! Add more stations anytime. All stations will receive any messages transmitted from any point. Move units anywhere, plug into electrical outlet and use—no re-wiring or new installation necessary. The original TALK-A-PHONE UNI-TRANS is built in—provides continuous one-way transmission; ideal for dictation, or listening-in on baby. 110-120 V. AC-DC. Size, 10½"wx8¾"dx3⅛"h.

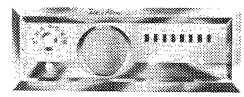
T-LC-33. Complete with tubes and instructions. Weight 16 lbs. List Price Per System $138.00 . . .Net **79.90**

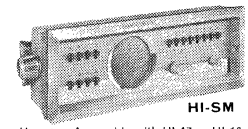
T-LC-17. Additional Single Station. Weight 8 lbs. List Price Each $69.00.....Net **39.95**

CRADLEPHONE—Optional for all units above. Add H to model No. when ordering.
List Price per Station add $59.95.....Net add **$35.00**

NEW TALK-A-PHONE All-Transistor HOME INTERCOM-RADIO SYSTEMS

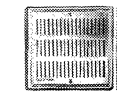

HI-9 or HI-8


HI-9R or HI-29R


HI-SM
Housing Assembly with HI-17 or HI-16

HI-4

HI-1


T-LR-2R

This new TALK-A-PHONE Intercom System saves the housewife and homeowner miles of tiresome steps, hours of time . . . Makes home life easier, more comfortable and more enjoyable . . .

LISTEN-IN ON BABY, CHILDREN OR SICK ROOM . . . from any room in the house, day or night • ANSWER OUTSIDE DOORS FROM ANY ROOM . . . in any part of the house—without opening doors to strangers • TALK FROM ROOM TO ROOM . . . back and forth, upstairs or downstairs, any time, day or night • YOUR FAVORITE RADIO PROGRAMS . . . follow you throughout the house with the flick of a switch.

TALK-A-PHONE All-Transistor Home Intercom units are beautifully finished in gold, polished and satin silver tones. All Masters and Staff Stations are designed for flush mounting; or with optional Housing Assembly, these stations can be mounted on walls, cabinets, or set on tables, shelves, etc. Plaster Ring included for 8 and 16-Station units require $14\frac{1}{16}$"w, 4⅜"h, 3½"d wall opening. Front panel size: 15¼"w, 5¼"h. HI-4 requires 4⅛"w, 6½"h, 2"d wall opening. Front Panel size: $4\frac{13}{16}$"w x $7\frac{3}{16}$"h. Sub-Stations are designed for flush mounting only, do not need Plaster Ring. Requires 2" square wall opening, 2" deep. Front Panel size: 3⅜"w, 5⅜"h. Stations do not plug into electrical outlet. Operates from Battery or HI-PS Power Supply Unit. Total capacity: up to 16 stations including Central Master. With full instructions.

CENTRAL MASTER STATIONS. Only one used per system. Contains the All-Transistor Amplifier (and radio when built-in). Place in any room. Master can call and converse with any other station (or stations) in system; can listen-in to any Station that user makes "non-private". If system has Model HI-9R Central Master (built-in radio), the Master and any Staff can listen to standard AM radio broadcasts. "Additional" Masters can be used in rooms where it is desired to listen to AM radio programs different from those tuned in at Central Master.

HI-9 Central Master Station. Without radio, less battery.
List Price, Each, $99.50.....Net Each **58.00**

HI-9R Central Master Station. With built-in radio. Less battery.
List Price. Each, $154.00.....Net Each **89.50**

HI-17 Central Master Station. Same as HI-9 except has total 16 station capacity. Without built-in radio.
List Price Each $146.00.....Net Each **85.50**

HI-29R Additional Master Station. With built-in radio. Less battery.
List Price, Each, $154.00.....Net Each **89.50**

STAFF STATIONS. 4, 8 and 16-Station Capacity Staff Stations can be combined within the same system and used with choice of one 8-station capacity or one 16-station capacity Central Master Station. (When HI-9R is used, any HI-4, HI-8 and HI-16 staff, can listen to radio of HI-9R).

HI-4 Staff Station. Provides same facilities as HI-8 but has 4-Station capacity. For flush mounting in wall. With accessory T-SM-L, can be surface mounted.
List Price Each $29.95.....Net Each **17.50**

HI-8 Staff Station. Use as needed to call and converse with one or more Staff, Master or Sub-Stations. Can be switched to "private" or "non-private" operation as desired. When "non-private", as in baby or sick room use, another Staff or Master can listen in. Staff can listen to standard AM radio programs of HI-9R Central Master.
List Price Each $54.00.....Net Each **31.50**

HI-16 Staff Station. Same as HI-8 except has total 16 station capacity.
List Price Each $99.95.....Net Each **58.50**

HI-SM HOUSING ASSEMBLY. For enclosing any 8 or 16-Station Capacity Master or Staff, to permit mounting on walls or cabinets, or placing on tables, shelves, etc.
List Price Each $19.00.....Net Each **11.00**

HI-1 OUTDOOR SUB-STATION. For front and rear entrance applications. Complete with push-button for connection to regular house chime, bell or buzzer. Has illuminated nameplate. When caller rings bells, any Master or Staff may reply and converse with caller. Caller operates no controls.
List Price Each $27.50.....Net Each **15.95**

T-LR-2R ALTERNATE OUTDOOR SUB-STATION. For flush mounting. Requires wall opening 4⅛" square, 2" deep. Stainless steel front panel measures $4\frac{13}{16}$" square Complete with plaster ring. Without push button or illuminated nameplate.
List Price Each $21.00.....Net Each **11.95**

Model T-SM Optional accessory for surface mounting T-LR-2R on wall.
List Price Each $6.80.....Net each **4.00**

Model TSM-L Optional accessory for Surface mounting HI-4 Staff on wall.
List Price Each $7.80.....Net Each **4.60**

HI-JB8 JUNCTION BOX for connecting Masters and Staffs up to a total of 8 stations. See #2 of "How to Determine Cable Needs."
List Price Each $7.00.....Net Each **4.00**

HI-JB16 JUNCTION BOX Same as above except for up to 16 stations.
List Price Each $9.95.....Net Each **5.95**

BATTERY. Use any 9-volt dry battery, such as ignition or telephone battery; or six standard #6 dry cells in series—available from local sources. *Note: When battery is used, power supply is not required.*

HI-PS POWER SUPPLY UNIT. One required per system (only when battery is not used). Plugs into any 110-120 volt, 60 cycle AC electrical outlet in basement, attic, etc.
List Price Each $27.50.....Net Each **15.95**

HOW TO DETERMINE CABLE NEEDS

Masters and Staff Stations. Use #6226 cable in one of 2 ways: (1) Measure from 1st unit to 2nd unit only; from 2nd unit to 3rd unit only, etc., until last unit is reached—then total. Cable between last and 1st unit not needed. (2) Place a Common Junction Box (Model HI-JB) in attic, basement, closet, etc. Measure from each Master and Staff to Junction Box and total. Double length #6226 required for 16-Station units. Connect HI-4 to nearest 8 or 16-Station unit or to HI-JB with #6214 cable.

Outdoor Sub-Stations: Connect to nearest Master or Staff only with #6202 cable.

Battery or Power Supply Unit: Connect with #6202 cable to Master Stations only.

CABLE. For indoor or outdoor use.

Type No.	No. Pairs	Approx. O.D.	LIST, Per Ft.	NET, Per Ft.
6226	13	⅜"	.47c	28c
6214	7	$\frac{7}{16}$"	.24c	14c
6202	1	$\frac{3}{16}$"	.06¢	3½¢

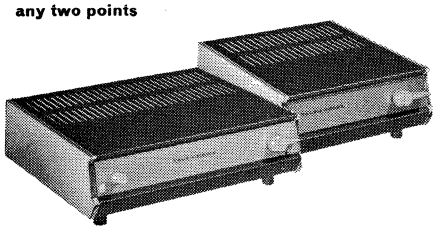
All Prices Slightly Higher West of Rockies. All Prices and Specifications Subject to Change Without Notice.
Manufactured under exclusive TALK-A-PHONE Patents

TALK-A-PHONE CO.
CHICAGO 25, ILLINOIS

NEW TALK-A-PHONE Deluxe Intercom Systems

Quality intercommunication systems designed for the Office, Business, Plant, House, Farm, Professional Man, or any other private or commercial application. A flick-of-a-finger gives you instant and direct two-way conversation between any two points—anywhere. Masters have translucent indicator which illuminates when system is "on." In cabinets that combine the look and feel of fine grained leather with the strength and rigidity of steel. Beautifully finished in charcoal gray and brushed chrome. Resists industrial liquids and atmospheres. Size: Masters, 10½"w x 8¾"d x 3⅛"h.; Subs, 7½"w x 8¾"d x 2⅛"h. U.L. Approved.

2-way voice communication between any two points



TALK-A-PHONE 2-STATION SYSTEM

T-LC-2 A complete, high-quality intercommunication system. Includes a Master Station, a Sub-Station and 50 feet of interconnecting cable. Additional cable available for distances up to 2000 feet. Easy to install and operate. Master and Sub-Station can originate calls to each other and carry on a 2-way conversation. Sub-Stations can be used "privately" or "non-privately". When "private", Master cannot listen-in on Sub-Station; yet Sub can answer and originate calls. When "non-private", persons at Sub-Station can answer calls at a distance without operating controls, as well as originate calls. Master is equipped with a translucent indicator, illuminated by permanent-type bulb, to show when system is "on". Rugged, high-gain amplifier is built to withstand continuous use and to require a minimum of maintenance. Adjustable Volume. Only Master plugs into electrical outlet, 110-120 volts, AC or DC. Master in deluxe cabinet finish, Sub-Station cabinet is of same style and color, but is in grained, baked enamel finish. U.L Approved.

Model T-LC-2 2-Station System complete with tubes, easy-to-follow instructions, and 50 feet of cable. Wt. 13 lbs.
List Price complete $62.00.....Net complete **36.00**

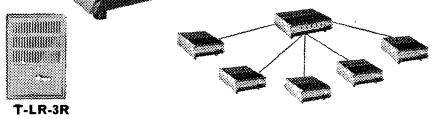
No. 6303 (3 conductor) cable. 175° F. individually covered conductors with overall plastic jacket and milar shield. Provides noise-free cable lines in Industry, Office and Home. For indoor and outdoor use where additional lengths are required between the Master and Sub-Station.
List Price per foot 6¾c.....Net per foot **.04**

No. 5303 (3 conductor) cable for indoor use.
List Price per foot 5c.....Net per foot **.03**

Optional Wall Mounting Brackets for Model T-LC-2 Sub-Station are available. See description below.

A system of one Master Station which can communicate with from one to ten Sub-Stations. Subs can call Master, but not each other.

T-LR-3 or T-LR-3M



T-LR-3R

TALK-A-PHONE MASTER SELECTIVE SYSTEMS

T-LM A new system consisting of one Master Station and from one to ten Sub-Stations. Master Station can talk and listen to any one Sub-Station, several Sub-Stations or with all Subs simultaneously. Sub-Stations do not communicate with each other. Only the Master Station plugs into an electrical outlet. You may start with only one Master and one or two Sub-Stations and then add later when necessary. Installation of system has optional feature whereby Sub-Stations can be connected "privately," or "non-privately" and still originate calls to the Master under either application. Once a conversation has been initiated with a "non-private" system, persons at Sub-Stations need operate no controls and can reply from a distance. When the system is connected "privately," Master unit cannot "listen in" on Sub-Stations. However, they can reply when called, and also originate calls to the Master. Operates universally on 110-120 volts, AC-DC. U.L. Approved.

T-AC The T-AC-5406 and T-AC-5411 Master Stations operate as above with the added feature of 10 times volume output. A desirable feature for large or noisy areas and for paging. Operates on 110-120 volts, AC only.

Use only one Master in each System.

Optional Wall Mounting Brackets for Models T-LR-3 and T-LR-3M are available. See description below.

Model T-LM-5 Master selective Station for 5 Sub-Stations, complete with tubes and easy-to-follow instructions. Wt. 8 lbs.
List Price each $59.95.....Net each **34.95**

Model T-LM-10 Master Selective Station for 10 Sub-Stations, complete with tubes and easy-to-follow instructions. Wt. 8 lbs.
List Price each $75.00.....Net each **44.00**

Model T-AC-5406 Master Station. 5 sub-station capacity. High Volume Output. Wt. 8 lbs.
List Price each $75.00.....Net each **44.00**

Model T-AC-5411 Master Station. 10 sub-station capacity. High Volume Output. Wt. 8 lbs.
List Price each $89.95.....Net each **52.50**

Model T-LR-3 Sub-Station (in same deluxe finish as Masters) for use with any of above Masters. Wt. 6 lbs.
List Price each $27.50.....Net each **15.95**

Model T-LR-3M Sub-Station (in cabinet of same style, color and size as above, but in grained, baked enamel finish) for use with any of above Masters. Wt. 6 lbs.
List Price each $21.00.....Net each **11.95**

Model T-LR-3R Flush mounted Sub-Station for use with any of above Masters. Requires wall opening 4⅛" W. x 6½" H. Stainless steel front panel measures 4 13/16" W. x 7 3/16" H. Complete with plaster ring.
List Price each $21.00.....Net each **11.95**

Model T-SM-L Optional accessory for surface mounting T-LR-3R on wall.
List Price each $7.80.....Net each **4.60**

Model T-HP-3 Hi-Power Staff Station for wall mounting. Charcoal Gray metal case. Wt. 8 lbs.
List Price each $28.00.....Net each **16.50**

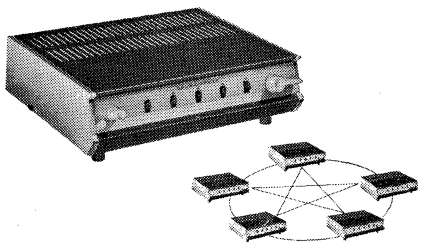
Model T-C-20 Nine-inch weatherproof re-entrant horn. Charcoal Gray color. Wt. 5 lbs.
List Price each $44.95.....Net each **26.50**

T-S-100 Wall Switch for origination of call through T-C-20 or T-HP-3.
List Price each $6.00.....Net each **3.50**

No. 6303 (3 conductor) cable. 175° F. individually covered conductors with overall plastic jacket and milar shield. Provides noise-free cable lines in Industry, Office and Home. For indoor and outdoor use to connect Sub-Station to Master.
List Price per foot 6¾c.....Net per foot **.04**

No. 5303 (3 conductor) cable for indoor use.
List Price per foot 5c.....Net per foot **.03**

A system of up to ten Master Stations. Each station can call and communicate with any other.



TALK-A-PHONE SUPER SELECTIVE SYSTEMS

T-LS A new system of all Master Stations. Any Station can call any other Station in system. Several completely private 2-way conversations are possible at same time. A versatile, low cost intercom system offering extreme flexibility, meeting many requirements in industry, offices, homes, etc. Any Station can call and carry on a conversation with any other Station or Stations in the system with absolute "privacy." Have a visitor in your office and your mind is at ease that no one can eavesdrop on your conversation. Stations can be located even 1000 feet apart. Variable volume, adjustable at each unit, controls incoming voice. You can start with two or three masters, and then add later as required. Operates universally on 110-120 volts, AC-DC. U.L. Approved.

T-AC The T-AC-505 and T-AC-510 Master Stations operate as above but provides a system with the added feature of 10 times volume output. A desirable feature for large or noisy areas and for calling many stations at once. T-AC-505 and T-AC-510 Masters cannot be intermixed with any other master. For 110-120 volts, AC only.

Model T-LS-5 Super Selective Station for five Masters, complete with tubes and easy-to-follow instructions. Wt. 8 lbs.
List Price each $59.95.....Net each **34.95**

Model T-LS-10 Super Selective Station for ten Masters, complete with tubes and easy-to-follow instructions. Wt. 8 lbs.
List Price each $75.00.....Net each **44.00**

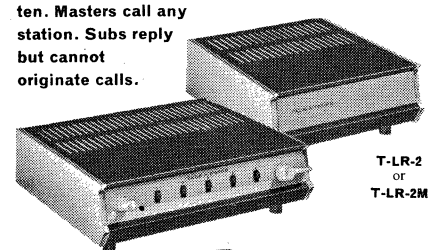
Model T-AC-505 Super-Selective Station for 5 Masters. Hi-Volume Output. Wt. 8 lbs. Complete with instructions.
List Price $75.00.....Net each **44.00**

Model T-AC-510 Same as T-AC-505 except for 10 Masters.
List Price each $89.95.....Net each **52.50**

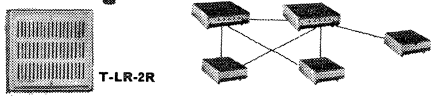
No. 5506 (6-conductor) Cable for connecting T-LS-5 or T-AC-505 Masters.
List Price per foot 13c.....Net per foot **.07½**

No. 9911 (11-conductor) Cable for connecting T-LS-10 or T-AC-510 Masters.
List Price per foot 24c.....Net per foot **.14**

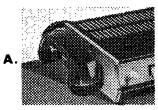
A system combining one or more Master Stations with one or More Sub-Stations up to a combined total of ten. Masters call any station. Subs reply but cannot originate calls.



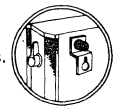
T-LR-2 or T-LR-2M



T-LR-2R



A.



B.

TALK-A-PHONE COMBINATION SYSTEMS

T-CL For the more flexible type of communication system requiring the operation of more than one Master Station, along with Sub-Stations which need not originate calls. Personnel can answer incoming calls even though they are 25 to 40 feet from their unit. Master Stations may talk to each other and to all Sub-Stations in the system selectively; or you can have one or more Sub-Stations which are exclusive to only one Master Station (as illustrated in the diagram at left). Master Stations have the option of making themselves "private", or "non-private" at will. You can begin with two stations (at least one must be a Master) and add other units as required. Model T-CL-5 Master Station has a total inter-connecting capacity of five stations, including Masters and Sub-Stations; while Model T-CL-10 Master Station has a total capacity of ten stations. Sub-Stations are not plugged into electric current. U.L. Approved. 110-120 volts. AC-DC.

Optional Wall Mounting Brackets for Models T-LR-2 and T-LR-2M are available. See description below.

T-AC The T-AC-605 and T-AC-610 Master Stations operate as above but provides a system with the added feature of 10 times volume output. A desirable feature for large or noisy areas and for calling many stations at once. T-AC-605 and T-AC-610 Masters cannot be intermixed with any other master. For 110-120 volts, AC only.

Model T-CL-5 Combination Master for five station use, complete with tubes and easy-to-follow instructions, Wt. 8 lbs. List Price each $72.00.....Net each **42.00**

Model T-CL-10 Combination Master for ten station use, complete with tubes and easy-to-follow instructions. Wt. 8 lbs. List Price each $87.00.....Net each **51.00**

T-AC-605 Combination Master for 5-Station use. Hi-Volume Output. Wt. 8 lbs. Complete with instructions.
List Price each $87.00.....Net each **51.00**

T-AC-610 Same as T-AC-605 except for 10-Station use.
List Price each $102.00.....Net each **59.95**

Model T-LR-2 Sub-Station (in same deluxe finish as Masters) for use with any of above Masters. Wt. 6 lbs.
List Price each $27.50.....Net each **15.95**

Model T-LR-2M Sub-Station (in cabinet of same style, color and size as above, but in grained, baked enamel finish) for use with any of above Masters. Wt. 6 lbs.
List Price each $21.00.....Net each **11.95**

Model T-LR-2R Flush mounted Sub-Station for use with any of above Masters. Requires wall opening 4⅛" square. Stainless steel front panel measures 4 13/16" square. Complete with plaster ring.
List Price each $21.00.....Net each **11.95**

Model T-SM Optional accessory for surface mounting T-LR-2R on wall. List price each $6.80....Net each **4.00**

Model T-HP-3 Hi-Power Sub-Station for wall mounting in charcoal gray metal case. Wt. 8 lbs.
List Price each $28.00.....Net each **16.50**

Model T-C-20 Nine-inch weather proof re-entrant horn. Charcoal gray color. List Price each $44.95....Net each **26.50**

No. 6210 (5 pair) Cable for interconnecting T-CL-5 or T-AC-605 Masters.
List Price per foot 24c.....Net per foot **.14**

No. 6226 (13 pair) Cable for interconnecting T-CL-10 or T-AC-610 Masters.
List Price per foot 47c.....Net per foot **.28**

No. 6902 (2-conductor) Cable for connecting Sub-Station to T-CL-5, T-CL-10, T-AC-605 or T-AC-610.
List Price per foot 3½c.....Net per foot **.02**

A. CRADLEPHONE—Optional for any unit above (except T-CL-5, T-CL-10, T-AC-605, T-AC-610, T-C-20, T-HP-3, T-LR-3R and T-LR-2R.) Add "H" to Model No. when ordering.
List Price Per Station, add $59.95.....Net, add **35.00**

B. WALL MOUNTING BRACKETS—Optional accessory for use with TALK-A-PHONE Models T-LR-3, T-LR-3M, T-LR-2, T-LR-2M, T-C-41, T-C-41M, T-C-42, T-C-42M, and T-LC-2 Sub Station to enable mounting on wall, side of desk, etc. One pair required per station. Permits mounting with front panel upward, downward or sideward.

Model T-W1 Mounting Brackets, per pair. List Price $1.25. Net **.75**

HOW TO DETERMINE CABLE REQUIREMENTS

For **Master Selective Systems** measure from each Sub-Station to the Master and order total. For **Super Selective Systems**—measure from first Master to second Master only, from second Master to third Master only, etc., and total. Cable between first and last Master not necessary. For **Combination Systems**—Master cable; measure from first Master to second Master only, from second Master to third Master only, etc., and total; Sub-Station cable; measure from each Sub-Station to nearest Master only.

TALK-A-PHONE CO., CHICAGO 25, ILLINOIS

All Prices Slightly Higher West of Rockies—All Prices and Specifications Subject to Change Without Notice. Manufactured under exclusive TALK-A-PHONE Patents

Trade Discount Applies To List Prices Only

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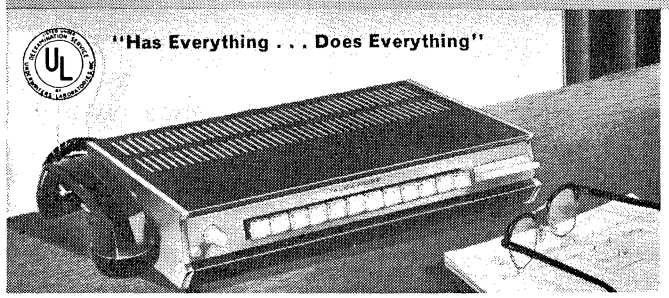
THE ALL-NEW, ALL-TRANSISTOR TALK-A-PHONE "CHIEF" AND "CHIEF REDI-POWER" INTERCOMMUNICATION SYSTEMS



One Model Meets Every Requirement

Setting a new standard in quality, design and performance, the new TALK-A-PHONE "CHIEF" and "CHIEF REDI-POWER" meets every intercom need of office, factory, institution, or any other commercial or private application. "CHIEF" Master Stations of 6, 12, 20, 30, 40 or 50 station capacity can be intermixed with "CHIEF REDI-POWER" Masters of different capacities, together with Staff Stations and Horns within the same system in any desired combination. Masters can talk with any other Master or Staff . . . page . . . and can utilize other optional equipment shown as well. Staffs can answer any Master and can originate calls to one Master, or to two Masters selectively.

ONLY THE TALK-A-PHONE "CHIEF" AND "CHIEF REDI-POWER" GIVE YOU ALL THESE FEATURES

- **DISTINCTIVELY STYLED**—Less than 3-inches high. In cabinets that combine the look and feel of fine-grained leather with the strength and rigidity of steel. Attractively finished in charcoal gray and brushed chrome.
- **"PRIVATE" OR "NON-PRIVATE" MASTERS AND STAFFS**—Exclusive Dynasonic Design enables stations to perform "privately" (so no one can listen-in), or "non-privately" (for reply without use of controls). The same station can be "private" to one or more Masters and "non-private" to others, and retain full communication facilities.
- **INCOMING CALL CHIME**—A standard feature of Masters. Indicates that your station is being called. Caller talks, you reply.
- **MONITORING SIGNAL**—A standard feature of Masters and Staffs. Visually indicates to a "non-private" station that it is being monitored.
- **BUSY SIGNAL**—A standard feature of Masters and Staffs. Visually indicates when station you call is "busy." All units have facility to override "busy signal" for important calls.
- **DYNASONIC SELECTOR**—An exclusive TALK-A-PHONE feature that permits intermixing of stations and variation of performance. Add to system at anytime without discarding original equipment.
- **MULTI-MAGIC STATION SELECTOR**—A patented, exclusive TALK-A-PHONE feature that enables selection of up to 30 stations with only 12 push buttons . . . 40 and 50 stations with 14 push buttons . . . in the same attractive cabinet style and size.
- **UNI-TRANS DICTATION CONTROL**—No need to operate or hold down controls when one-way transmission is desired or when Cradle Phone is used.
- **EXTERNAL RELAY CONTROL**—A standard built-in feature of Masters. Enables Master to activate external relays for operating siren, gong, light, etc. For use in extremely high noise level areas to signal personnel, who can then communicate with caller from Master in quieter location or in sound booth.
- **RECIPROCAL POWER SUPPLY**—Each Master operates on 110-120 volts, AC only, and should be plugged-in. Where no electrical outlet is available, up to 30% of the Masters in the system can operate without being plugged-in.
- **NOISE-FREE VOICE RANGE POWER**—The rugged, all-transistor high-gain amplifier provides unsurpassed clarity and naturalness of tone. The exclusive, patented TALK-A-PHONE circuit enables performance without noise, hum or distortion when used with TALK-A-PHONE cable.
- **HI-POWER STAFF STATIONS AND HORNS**—For use with any TALK-A-PHONE Master where exceptionally high volume at Staff locations is needed. Ideal for paging speakers. T-HP-3 provides more than twice the volume of universal Staff; T-C-20 provides about 4 times greater volume . . . more with REDI-POWER Masters.
- **WALL SWITCH**—Combine with TALK-A-PHONE Horn or Hi-Power Staff to add origination-of-call feature.
- **"LD" LONG DISTANCE**—(optional accessory on "CHIEF" Masters). For use over cable lines of 2,000 ft., 5,000 ft., 10,000 ft. or more without loss of volume. Functions only between Masters with LD . . . not between an LD Master and Staff. Built-in at factory at additional cost.
- **CRADLE PHONE**—(optional accessory on Masters or Staffs). Has live microphone. Provides listening privacy and greater speaking convenience. Diminishes background noises in noisy areas. Eliminates use of controls in conversation between Masters. Cuts off incoming voice from loudspeaker when in use.
- **RIGHT-OF-WAY RELAY**—(optional accessory). Use with "CHIEF REDI-POWER" Masters to page any group of stations with a single button. Paged stations can also be used for intercommunication. RW-10 capacity, 10 stations. For greater capacity use more RW-10's. Connects to one Master, other Masters also utilize facilities.
- **POWER PAGING BOOSTER**—(Optional accessory). Use with "CHIEF" Masters to page a group of speakers with a single button. 30 watts output. Requires its own paging speakers (as T-C-20, T-HP-3). Provides paging facility only . . . paged stations cannot reply or originate calls through paging speakers. Connects to one Master, other Masters can also utilize facilities.

All "CHIEF" and "CHIEF REDI-POWER" Master Stations come complete with junction box and built-in power supply attached by 6' flexible cable. Master size: 14"w, 3⅛"h, 8¾"d. For 110-120 volts, AC only. U.L. Approved.

T-C-4906 Master 6 station capacity. Wt. 13 lbs.
List Price Per Station $136.00 ..... Net **79.50**

T-C-4912 Master 12 station capacity. Wt. 14 lbs.
List Price Per Station $154.00 ..... Net **89.80**

T-C-4920 Master 20 station capacity. Wt. 17 lbs.
List Price Per Station $184.00 ..... Net **107.40**

T-C-4930 Master 30 station capacity. Wt. 20 lbs.
List Price Per Station $214.00 ..... Net **125.00**

T-C-4940 Master 40 station capacity. Wt. 23 lbs.
List Price Per Station $244.00 ..... Net **142.60**

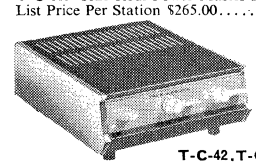
T-C-4950 Master 50 station capacity. Wt. 26 lbs.
List Price Per Station $274.00 ..... Net **160.20**

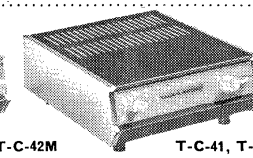
How to Determine Cable Requirements. To inter-connect Master Stations, measure from first Master to second Master only, from second to third Master only, etc., until the last unit in the system is reached, and total. For T-C-4920 and T-C-RP-5920, use two lengths of 6226 Cable; and for T-C-4930 use three lengths of 6226 Cable, etc. To connect T-C-41, T-C-20, T-C-42 or T-HP-3 Staff Stations, measure from Staff Station to the one Master to which Staff Station originates calls. To connect the T-C-42 Staff Station measure a separate length of cable from Staff Station to each Master Station to which Staff originates calls (for each T-C-41 or T-C-42, follow same procedure).

TALK-A-PHONE ALL-TRANSISTOR "CHIEF REDI-POWER" MASTERS These units have all the operational features of the "CHIEF," plus the additional feature of built-in extra power (up to 20 watts) for use when and as needed. Provides additional volume for calling many stations at once, or noisy locations singly. Needs no separate power booster, which would eliminate return speech. Return speech is received at normal room volume. REDI-POWER Masters have a self-compensating amount of volume, whether you call 2, 10 or 20 stations simultaneously. Each station receives its pre-determined volume with no division of output as you call more stations at once. Use REDI-POWER Masters with "CHIEF" Masters and Staffs in same system. Add RW-10 and REDI-POWER Masters can page any group of stations with a single selector button. Paged stations can also be used for intercommunication. Operates on 110-120 volts, AC only. U.L. Approved.

T-C-RP-5912 Redi-Power Master 12 station capacity. Wt. 18 lbs.
List Price Per Station $235.00 ..... Net **138.00**

T-C-RP-5920 Redi-Power Master 20 station capacity. Wt. 21 lbs.
List Price Per Station $265.00 ..... Net **155.00**


T-C-42, T-C-42M


T-C-41, T-C-41M

T-C-41R

TALK-A-PHONE "CHIEF" UNIVERSAL STAFF STATIONS For use with any "CHIEF" or "CHIEF REDI-POWER" Master. Like Masters, Staff Stations can be connected "privately" or "non-privately", and can originate calls. When "non-private", calls can be answered at a distance from Staff without using controls. Persons at "non-private" Staffs may reply to all Masters in the system (whether directly connected to them or not) and can originate calls to one Master or two Masters, depending upon Staff's capacity. Connected "privately" no one can listen-in to Staff, but any Master can call. "Private" Staffs can originate calls and reply to one or two Masters. Each Staff has "busy signal" and "monitoring signal" features. Staffs do not connect to an electrical outlet . . . are distinctively styled in modern cabinets that combine the look and feel of fine grained leather with the strength and rigidity of steel. Attractively finished in charcoal gray and brushed chrome. Size: 7½"w x 8¾"d x 2⅞"h.

T-C-41. Staff Station for origination-of-call to one Master. Wt. 8 lbs.
List Price, Each $36.50 ..... Net **21.50**

T-C-41M. Same operation as T-C-41 and in cabinet of same style, color and size, but in grained baked enamel finish. Wt. 8 lbs. List Price, Each $29.95 ..... Net **17.50**

T-C-42. Staff Station for origination-of-call to two Masters. Wt. 8 lbs.
List Price, Each $45.00 ..... Net **26.50**

T-C-42M. Same operation as T-C-42 and in cabinet of same style, color and size, but in grained baked enamel finish. Wt. 8 lbs. List Price, Each $38.50 ..... Net **22.50**

T-C-41R Flush mounted Staff Station for use with any of above Masters. Requires wall opening 4⅛" W. x 6½" H. Stainless steel front panel measures 4 13/16" W. x 7 3/16" H. Complete with plaster ring. List Price Each $29.95 ..... Net each **17.50**

T-SM-L Optional accessory for surface mounting T-C-41R on wall.
List price each $7.80 ..... Net each **4.60**

T-HP-3. Hi-Power Sub-Station for wall mounting in charcoal gray metal case. Wt. 8 lbs.
List Price, Each $28.00 ..... Net **16.50**

T-C-20. Nine-inch weatherproof re-entrant horn. List Price, Each $44.95 .. Net **26.50**

Optional Wall Mounting Brackets for Models T-C-41, T-C-41M, T-C-42 and T-C-42M are available. See description on preceding page.

Optional Equipment

Cradle Phone Available on all Models. Add "H" to Model No. when ordering.
List Price, Each—add $59.95 ..... Net add **35.00**

LD—Long Distance Feature Available on "Chief," Master Stations. Add "LD" to Model No. when ordering. List Price, Each—add $20.00 ..... Net add **11.75**

T-S-101 Wall Switch For origination of call to one Master through T-C-20, or T-HP-3 in Chief systems. List Price, Each $11.95 ..... Net **6.95**

T-S-102 Wall Switch For origination of call to two Masters through T-C-20, or T-HP-3 in Chief systems. List Price, Each $19.95 ..... Net **11.70**

T-RW-10 Right-of-Way Relay. List Price, Each $63.00 ..... Net **37.00**

T-HP-30 Power Booster. List Price, Each $138.00 ..... Net **81.00**

Cable (For Indoor and Outdoor Use)

6206 Cable for connecting T-C-41, T-C-42, T-HP-3, T-C-20 with origination of call.
List Price per Ft. 14c ..... Net per Ft. **8½c**

6214 Cable for inter-connecting T-C-4906 Masters. List Price per Ft. 24c. Net per Ft. **14c**

6226 Cable for inter-connecting T-C-4912, T-C-4920, T-C-4930, T-C-4940, T-C-4950, T-C-RP-5912 and T-C-RP-5920 Masters. List Price per Ft. 47c ..... Net per Ft. **28c**

6902 Cable for connecting T-HP-3, T-C-20 without origination of call.
List Price per Ft. 3½c ..... Net per Ft. **2c**

All Prices Slightly Higher West of Rockies-All Prices and Specifications Subject to Change Without Notice. Manufactured under exclusive TALK-A-PHONE Patents

New "Built-in Business Intercom" for offices, stores, medical centers, etc. can be supplied on request. Write today for details.

TALK-A-PHONE CO.
CHICAGO 25, ILLINOIS

TECH-MASTER CUSTOM-QUALITY TV and Hi-Fi

CUSTOM CRAFTED CONSTELLATION TV CHASSIS

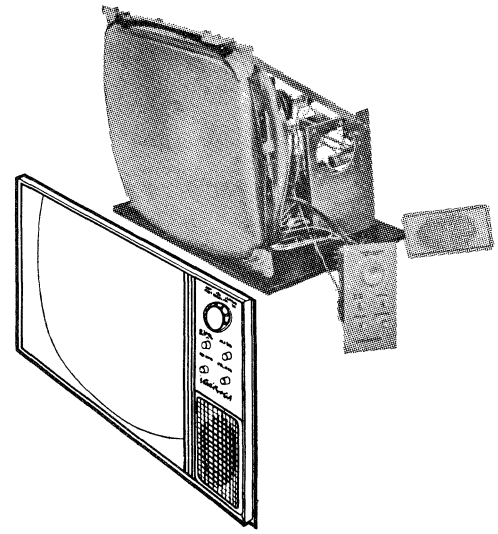
A magnificient tribute to fine television design and engineering. Extremely versatile! Perfect for custom installations in newly designed cabinetry or for replacing worn out sets in existing consoles. Especially desirable for use in family heirloom or antique cabinets.

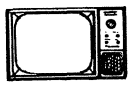
The Tech-Master Custom-Crafted Constellation T.V. Chassis is truly a star performer. This A.C. transformer powered model is not commercially mass-produced, but hand crafted with the same care as our highest priced receivers. Super sensitive for fringe or troublesome areas, the custom crafted receiver operates efficiently with any standard indoor antenna in normal signal area. 15 tubes, 2 silicons, 3 diodes, power-packed circuit delivers bright, sharp, rock steady picture and clean, undistorted static-free sound. Rarely will you find a comparable, quality receiver such as this.

FEATURES

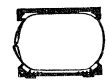
- Advanced and latest super-sensitive turret tuner with PRE-SET fine tuning (set it once and forget it.)
- Deflection 110-114 degrees.
- Operates new low-voltage electrostatic focus kinescopes 17" to 27".
- High Voltage 18-20 KV.
- Full power transformer for SAFE chassis operation. No Shock Hazard.
- Power THERMISTOR for line surge elimination.
- Silicon full wave power rectifiers.
- Sensitivity 8 UV for 20 Vpp.
- Audio output 4.7 watts.
- 3 stage video I.F. stagger-tuned bifilars.
- Bandwidth 3.25 MC. at 3 DB.
- Video detector transformer with diode and tweet filter built in (minimum radiation.)
- DC coupled video Amplifier stage.
- Adjacent channel video and sound traps.
- Keyed A.G.C. continuously adjustable for local to fringe area.
- Automatic noise cancellation circuit continuously adjustable for area characteristics.
- Bright spot eliminator circuit.

TUBES: 6GK5, 6CG8, 2-6BZ6, 6CB6, 12BY7, 6U8, 6DT6, 6BQ5, 6BU8, 6DE7, 6CG7, 6DQ6, 6AX4, IK3, 2 Silicon rectifiers, 3 Diodes





ACCESSORY UNITS FOR MODEL NO. 6115



MK23B-23" mask (bonded tube)....**$10.00**
MK23-23" mask (unbonded tube)..**$10.00**

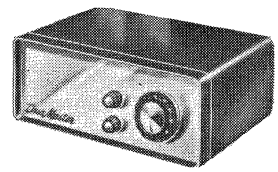
BR23-23" bonded tube mounting brackets **$10.00**

Model No. 5116 (Shown above) Chassis, speaker, and knobs, less picture tube with mtg. hardware.....**Price $199.00**

DUO MASTER TV PLUG-IN TUNER

A Super Sensitive Black & White or Color TV Remote Control System

An ideal self-contained remote-control system for all TV sets. Just plug a single, thin coaxial lead into your TV receiver and you can select your station, fine-tune both picture and sound, and adjust picture intensity . . . right from your armchair, from up to 50 feet from the set. There is a separate loudspeaker in the handsomely styled DUO-MASTER cabinet . . . or you can use the speaker in your TV set or hi-fi system . . . or any extension speaker . . . or plug headphones right into the DUO-MASTER for private listening.



Model 23A
Net Price $79.50

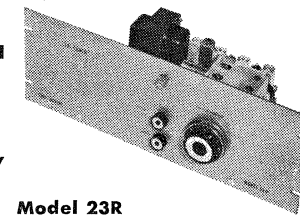
FEATURES: 3 IF stages; 2 audio stages; jacks with low impedance connections for external amplifier or tape recorder take-off; a complete television sound receiver. Positive or negative going video signal output.

TUBES: 9 plus rectifier; separate audio detector; improved color response thru isolation circuit design.

SIZE: 12½" x 8" x 6"; **WGT.:** 15 lbs.

TECH-MASTER TV TUNER

Industrial Model TV Tuner Designed for Continuous Duty



Model 23R

Specially designed, high quality TV Tuner incorporating exceptionally **rugged,** heavy duty components. The 7" x 19" front panel permits convenient rack mounting installation. Specifications same as Model 23A. The outstanding design features are augmented by superb construction and top quality, unusually sturdy, foolproof components that will withstand long, continuous service with maximum efficiency.

Model 23R, Rack Mounting TV Tuner **Net Price $150.00**
Model 23B, Same as above, except 4 Mc bandwidth **Net Price $195.00**

Model 39A — A Most Versatile

28 WATT STEREO AMPLIFIER and PREAMPLIFIER

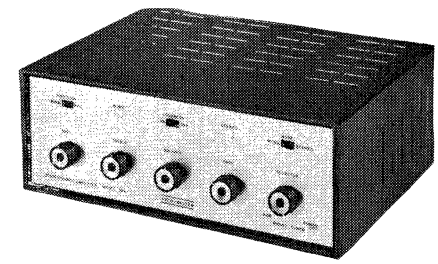
Ideal for 90% of all Hi-Fi and Stereo Layouts

This highly adaptable Stereo Amplifier System contains two channels of faithful audio, faultlessly designed and superbly produced. It provides a high degree of efficiency at a very low price. Performance is outstanding; it compares with units generally available at much higher prices. This is possible because of Tech-Master's diversified background and long experience in providing outstanding products at minimum cost. All the desirable features for modern high fidelity stereo performance are included, without skimping. But efficiency in design and production make the low price possible. Servicemen recommend this unit for its high quality and ease of installation. For the budget conscious this amplifier provides excellent value.

FEATURES

Completely hand wired • Dual Channel • Provisions for Crystal or Ceramic Phono, Tuner, and Auxiliary Inputs • Controls: Ganged Bass, Ganged Treble, Ganged Volume/Loudness, Balance Controls • **Additional Functions:** Selector Switch, Speaker Reverse Switch, Loudness Switch, Mono / Stereo Switch, Indicator Lights • **Power Transformer Supply** for complete line isolation.

Power: 117 volts, 60 cycles. 50 watts.
Tubes: 2-6BQ5, 12AX7, EZ80.
Size: 12½" W x 4¼" H x 8" D.
Weight: 9 lbs.



Model 39A, Stereo Amplifier and Preamplifier Net Price $69.50

Model PA39+, with Magnetic Preamp ..Net Price $89.50

TECH-MASTER corporation—Brooklyn, New York

Net

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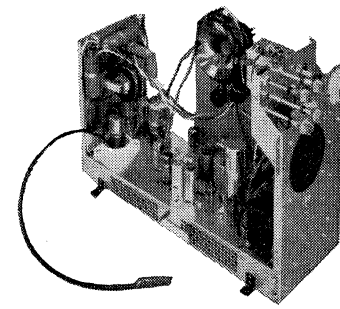
TECH-MASTER QUALITY KITS AND COMPONENTS

POPULAR VIDEOLA TV CRAFT KIT



The most up-to-date TV kit, with the latest improvements in tubes and circuitry. Ideal for student work or home project. This kit not only provides excellent training in television, but builds into a first-class, top quality modern receiver that anyone would be proud to own. Coils are preadjusted and tuned at the factory. Quality components, carefully selected and packed by personnel experienced in the TV-kit field insure satisfaction. Step-by-step instructions with pictorial and schematic diagrams are easy to follow — leave nothing to the imagination. Sockets, terminal strips and connectors riveted on chassis.

FEATURES

• Advanced and improved, super-selective, 12-channel tuner • Full power transformer for **safe** cold chassis operation • Operates new low-voltage electrostatic-focus kinescope (17″ to 27″ — including 19″ and 23″ sizes) — 110° to 114° deflection • 18 to 20 KV anode voltage • High-efficiency circuit-sensitivity of 9 uv at 20V peak-to-peak • High power audio output • Three-stage stagger-tuned IF using high-gain bi-filar coils • Keyed Automatic gain control • Adjustable noise cancellation circuit • Bright spot eliminator circuit — removes bright spot when set is turned off • Ceramic core horizontal output transformer with beam power amplifier • 6″ x 17″ x 1¾″ chassis size — Weight 21 lbs.

MODEL 1561.....**PRICE $99.95**

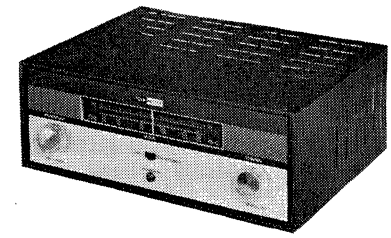
TUBE COMPLEMENT

6CY5 RF Amplifier; 6AT8 RF Oscillator and converter; 2-6BZ6 1st, 2nd IF Amplifier; 6CB6 3rd IF Amplifier; 12BY7 Video Amplifier; 6U8 4.5 mc Amplifier, Sync Splitter; 6DT6 Sound detector; 6BQ5 Audio Output; 6BU8 Noise cancellation, sync separator, keyed AGC; 6DE7 Vertical oscillator, vertical output; 6CG7 Horizontal oscillator; 6DQ6 Horizontal output; 6AX4 Damper; 1K3 H.V. rectifier; 2 Silicon rectifiers for low voltage supply; 2 Diodes horizontal phase detector; 1 Diode Video detector.

QUANTITY PURCHASES
— TV kits and wired chassis available for schools, export (in all voltages) and other special applications. Quotations and Specifications supplied on request.

New Model 50 FM TUNER WITH MULTIPLEX

This new FM Tuner provides the ultimate in up-to-the-minute high fidelity performance. It is a super-sensitive instrument, superbly engineered and beautifully built, leaving little to be desired. Operation is exceptionally smooth and efficient. Circuits are designed to be electronically trouble free and they meet every critical standard. Here is maximum quality in minimum space. Specifications are equivalent to the very finest equipment available, incorporating every modern technical feature. The complete unit is hand crafted. Designed for operation with Model 49 Stereo Amplifier below or with any high quality stereo amplifier.



Model 50 FM Tuner with Multiplex
Net Price **$99.50**

FEATURES

- **Frequency Coverage:** 87.5 Mc to 108.5 Mc.
- **IF Frequency:** 10.7 Mc.
- **Sensitivity:** 1.8 uv for 20 db quieting.
- **Frequency Response:** 20 to 20,000 cps.
- **Harmonic Distortion:** Less than 1%.
- **Variable AFC Control:** 0 to 100 Kc/volt.
- **Wide Band Ratio Detector.**
- **Controls:** Power/AFC, Tuning, FM/FM Stereo Switch, Stereo Beam Indicator.
- **Antenna:** 300 ohms input.
- **5 Tubes, 1 silicon rectifier**

MULTIPLEX ADAPTER
Switching Type

- **Separation:** 32 db at 400 cycles.
- **Stereo Indicator Light**
- **2 Tubes,** 4 germanium rectifiers.
- **Stereo Beam Indicator on front panel.**
- **Weight:** 9 lbs.
- **Power:** 117 volts, 60 cycles. 30 watts.

SUPER QUALITY FM TUNER-AMPLIFIER and STEREO AMPLIFIER

Model 51 STEREO TUNER with SOLID STATE AMPLIFIER

A super de luxe Stereo Tuner, same as Model 50 described above, combined with a top quality Solid State Stereo Amplifier of ultra modern design. Provides the last word in stereo performance at moderate cost. All the latest development in versatility and construction features are included, with a full complement of controls. The additional convenience of a complete stereo system housed on one compact chassis fills a need for those who have limited space but desire all the advantages of separate high fidelity components.

FEATURES

- Tuner specifications same as Model 50 above.
- **Amplifier Power Output:** 20 watts total.
- **Harmonic Distortion:** Less than 2%.
- **Hum and Noise:** 60 db.
- **Cross Talk:** Better than 60 db.
- **Frequency Response:** 30 to 15,000 cps.
- **Controls:** Tuning, Dual Bass, Dual Treble, Dual Volume, Balance and Variable AFC Controls, Selector Switch, for Magnetic Pickup, Ceramic Pickup, FM Monaural, FM Multiplex, Auxiliary.
- **Stereo Beam Indicator on front panel.**
- **Output:** 8 ohms.
- **Additional Inputs:** Magnetic Phono, Ceramic Phono, Auxiliary.
- **Power:** 117 volts, 60 cycles. 65 watts.
- **7 Tubes,** 5 silicon rectifiers, 4 germanium diodes, 10 transistors.
- **Size:** 12½″ W x 4¼″ H x 10″ D.
- **Weight:** 13 lbs.

Model 51, FM Stereo Tuner with Solid State Amplifier ....Net Price $169.50

Model 49 STEREO AMPLIFIER

This high quality 32 watt Stereo Amplifier meets all the requirements of the most critical high fidelity enthusiast. It combines exceptional design features and unexcelled hand crafted construction to provide truly outstanding performance over the full 30 to 15,000 cycle range, with minimum distortion. Here is a modern stereo amplifier at a very attractive price that will operate at maximum efficiency with either of the fine tuners shown above or with any other good tuner for broadcast reception. Or, coupled with a record player or turntable it will provide a low cost, highly satisfying hi-fi phono system with plenty of power.

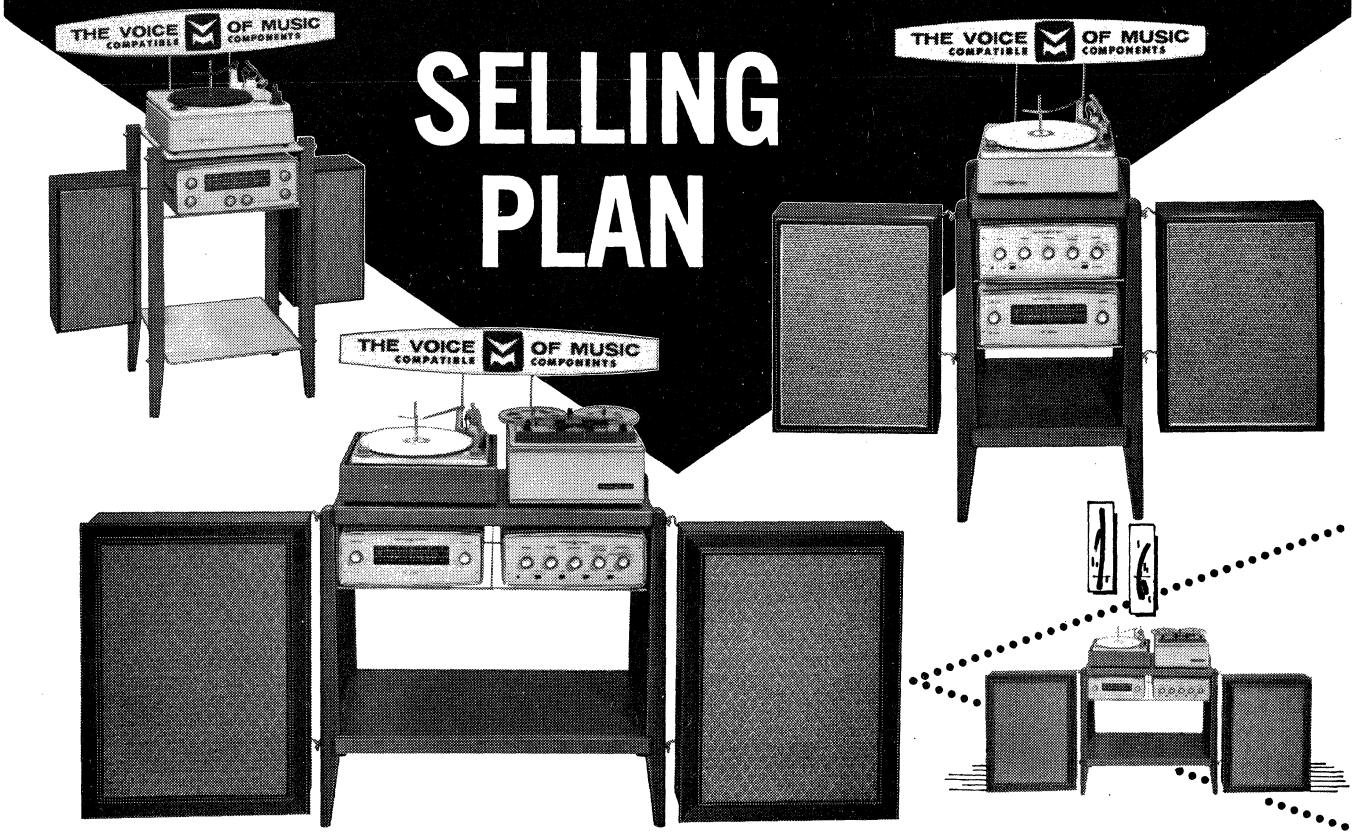
FEATURES

- **Power Output:** 32 watts total; 64 watts peak.
- **Frequency Response:** 30 to 15,000 cps ±1 db.
- **Harmonic Distortion:** Less than 1%.
- **Hum and Noise:** 75 db (low level) with magnetic preamp.
- **Cross Talk:** 55 db at 1,000 cps.
- **Controls:** Dual Bass, Dual Treble, Balance, Ganged Volume/Loudness.
- **Additional Functions:** Stereo/Mono Switch, Channel Reverse Switch, Loudness Switch, Selector Switch.
- **Output:** 4 ohms.
- **Inputs:** Ceramic Cart., Tuner, Auxiliary, Magnetic w/added-on preamp.
- **Tubes:** 4-7189, 2-ECC83/12AX7, 2-silicon diodes, 2-ECC83/12AX7 in magnetic preamp.
- **Power:** 117 volts, 60 cycles. 110 watts.
- **Size:** 12½″ W x 4¼″ H x 8″ D.
- **Weight:** 10 lbs.

Model 49, Stereo Amplifier .....**Net Price $ 99.50**
Model 49+, Stereo Amplifier with Magnetic Preamp ....Net Price $119.50

TECH-MASTER corporation—Brooklyn, New York

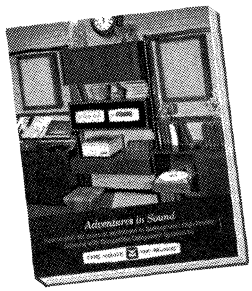
UNIQUE V·M "COMPONENT SYSTEMS" SELLING PLAN



NEW, "2-way" Component Selling Centers in Fine Furniture Designs . . .

1. Sell V·M Compatible Component Systems FIRST . . .

2. Then go home with the buyer as choice furniture!



V·M has produced a new, easy to understand, full-color booklet telling how to select a component music system. Be sure to see this invaluable merchandising aid and learn how it can play an important part in building your component business.

Just look at all V·M has done to make your components selling easier and more effective! First, we designed three separate component selling and demonstration centers with one characteristic in common: each was created specifically to sell *complete V·M compatible component systems* . . . most acceptable to your customer, most profitable for you.

Then, we designed them for effective step-up selling to help every salesman do a better job, more easily.

Finally, we planned these centers so V·M identification can be removed in a jiffy, and they are ready to go home with the customer to help you complete the sale. We had them built to a fine-furniture standard of quality so they would be welcome anywhere . . . quality walnut is used throughout. What a closer! No need to ever discount when you have selling tools like these.

What's more you get the complete package of selling center and the components it contains for the price of the components alone! Fair enough?

Discover for yourself all the profit potential built into this unique "2-way" selling center plan . . . a telephone call is all it takes. And, we have two important new speaker systems to show you, too, designated Model 43 and Model 33. See them soon!

THE VOICE OF MUSIC®

V·M CORPORATION • BENTON HARBOR, MICHIGAN • RECORD CHANGERS, PHONOGRAPHS, TAPE RECORDERS AND HIGH FIDELITY COMPONENTS

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whatever electronic products
you require...

...you'll find it
faster in
this catalog...
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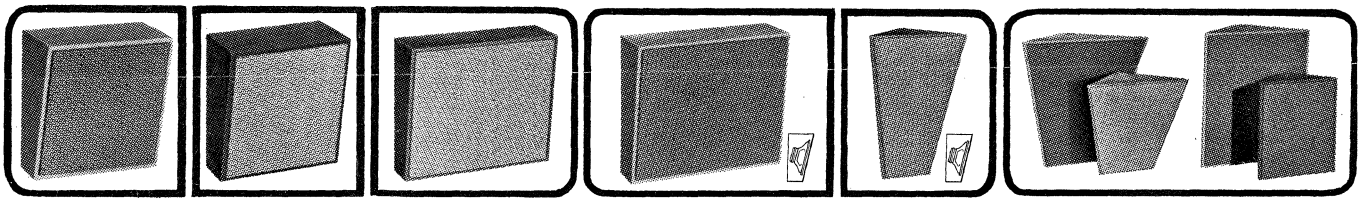
of electronic
products
sold through
distributors

Argos PRODUCTS COMPANY

Quality by design in sound reproduction

WALL BAFFLES • BAFFLES WITH SPEAKERS HIGH FIDELITY SPEAKER SYSTEMS • KITS



REGULAR DELUXE PROFESSIONAL

Argos offers three lines of WALL BAFFLES designed to satisfy your most critical requirements. All use the famous Argos Speedy Mounting Clip for fast installation.

Regular Wall Baffles—WB4/5D, etc., are the standard of the industry for quality. Available in wood-grained vinyl, blonde or walnut. Beautifully sculptured. Cane grille.

Deluxe Wall Baffles—DWB-8A, etc., are made of satin-smooth birch and are available in either American Walnut or Whited Birch finish. Cane grille.

Professional Wall Baffles—PWB-8C, designed for use where a larger cubic content baffle is desired but only an 8″ speaker is required. Wood-grained vinyl, blonde or walnut. Cane grille.

Model	Spkr. Cap.	Width, Height, Depth, In.	Cubic In.	Ship. Wt. Lbs.	List Each
WB-4/5D	4/5	6½ x 6⅜ x 4	100	2¾ *	$5.00
WB-6D	6	8⅛ x 8¾ x 5	210	4½ *	6.10
WB-6/9D	6/9	10 x 10¾ x 6½	400	6¼ *	7.25
WB-8D	8	10 x 10¾ x 6½	400	6¼ *	7.25
WB-10D	10	12⅛ x 12⅝ x 7⅞	800	8 *	8.75
WB-12D	12	13⅞ x 14¼ x 9⅛	1180	11 *	10.00
DWB-8A	8	9¾ x 10½ x 6½	400	5½ *	10.00
DWB-12A	12	13⅝ x 14 x 9⅛	1180	9 *	14.00
PWB-8C	8	16¼ x 14 x 6¼	1000	6	10.00

* Shipping weight of two in carton.

THINLINE BAFFLES with SPEAKERS

Thin, wide, with a sculptured shadow line around attractive cane grille, Argos Thinlines provide heavy-duty public address performance. Walnut or blonde wood-grained vinyl looks like wood. Many component options, installed, pre-wired to screw terminals. Mount to wall with clip.

Deluxe Series, 8″ Jensen speakers, 6 oz. ceramic magnet, 15 watts, 8 ohms, 9¾″ H x 12¼″ W x 4⅜″ D.

WB-208C-8″—Baffle only. Wt. 3¼ lbs.... **List $7.25**
WB-208CS—Baffle, spkr. Wt. 5¾ lbs.... **List $17.85**
WB-208CSL—Baffle, spkr., L pad. Wt. 5¾ lbs.... **List $21.40**
WB-208CST—Baffle, spkr. 70.7V trans. Wt. 6¼ lbs.. **List $21.40**
WB-208CSLT—Baffle, spkr., L pad, 70.7V trans. Wt. 6¼ lbs.... **$25.50**

Deluxe Series, 12″ Jensen speakers, 10 oz. ceramic magnet, 18 watts, 8 ohms, 14″ H x 16¼″ W x 6¼″ D.

WB-212C-12″—Baffle only. Wt. 5¾ lbs.. **List $10.00**
WB-212CS—Baffle, spkr. Wt. 9¾ lbs.... **List $25.60**
WB-212CSL—Baffle, spkr., L pad. Wt. 9¾ lbs.... **List $29.40**
WB-212CST—Baffle, spkr., 70.7V trans. Wt. 10¼ lbs.... **List $29.40**
WB-212CSLT—Baffle, spkr., L pad, 70.7V trans. Wt. 10¼ lbs.. **$33.40**

Efficiency Series, 8″ Jensen speakers, 2.4 oz. ceramic magnet, 10 watts, 8 ohms, 9¾″ H x 12¼″ W x 4⅜″ D.

WB-308CS—Baffle, spkr. Wt. 5 lbs.... **List $14.85**
WB-308CSV—Baffle, spkr., vol. contr. Wt. 5 lbs... **List $18.15**
WB-308CST—Baffle, spkr. 70.7V trans. Wt. 5½ lbs.. **List $19.20**
WB-308CSVT—Baffle, spkr., vol. contr. 70.7V trans. Wt. 5½ lbs.... **List $21.60**

Economy Series 8″ Jensen speakers, 1 oz. ceramic magnet, 6 watts, 8 ohms, 9¾″ H x 12¼″ W x 4⅜″ D.

WB-108CS—Baffle, spkr. Wt. 4¾ lbs.... **List $12.35**

Slanting Corner Baffle 8″ Jensen speaker, 6 oz. ceramic magnet, 15 watts, 8 ohms. 18″ H x 12½″ W x 6¼″ D.

SCB-208S—Baffle, spkr. Wt. 6 lbs.... **List $22.75**

CORNER BAFFLES

Long-time contractor favorites for clip-on mounting ease, Argos Corner Baffles are better-looking and-sounding than ever. Corner location increases effective air mass. Bass reflex design is used.

Using Argos Speedy Mounting Clips, wall mounting is fast and not visible. Leads for your speaker are pre-wired to screw terminals placed on top of the baffle. The cane grille is held in place by clips; not marred by visible screws. Grilles come off easily for speaker attachment.

Sturdily built, the baffles are available in the new Blonde or Walnut wood-grained vinyl.

Slanting Corner Baffles

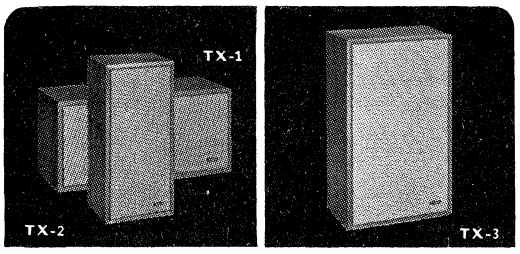
SCB-8D—Takes 8″ spkr. up to 5½″ deep. Internal volume: 680 cubic inches. Size: 15″ H x 17¼″ W x 9″ D. Wt. 6 lbs.... **List Price $14.20**

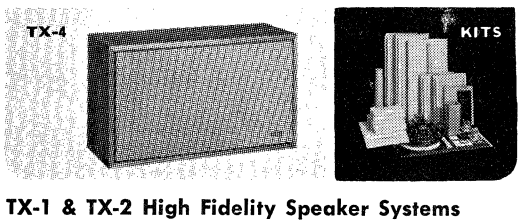
SCB-12D—Takes 12″ spkr. up to 6½″ deep. Volume: 1240 cubic inches. Size: 20″ H x 20¾″ W x 10½″ D. Wt. 8 lbs.... **List Price $19.95**

Regular Corner Baffles

CB-8D—Takes 8″ spkr. up to 4½″ deep. Volume: 525 cubic inches. Size: 14″ H x 12¼″ W x 6½″ D. Wt. 4½ lbs.... **List $11.65**

CB-12D—Takes 12″ spkr. up to 6¼″ deep. Volume: 1520 cubic inches. Size: 20″ H x 17¾″ W x 9″ D. Wt. 8½ lbs.... **List $18.40**





TX-1 & TX-2 High Fidelity Speaker Systems

Here are two versions of a system unequalled for pure value. Both are 24″ x 11″ x 9″ deep and feature a special 8″, 45 cycle woofer and 3½″ tweeter. Response 45 to 17,000 cycles. Impedance is 8-ohms. Terminals are marked for stereo phasing. Optional-use miniature legs provided.

TX-1—System, walnut wood-grain vinyl finish. Wt. 18 lbs.... Audiofile net, each **$29.95**
Special STEREO PAIR.... Audiofile net, pair **$54.00**

TX-1E—Enclosure only. Wt. 15 lbs.... Audiofile net, each **$19.95**
Special STEREO PAIR.... Audiofile net, pair **$37.00**

TX-2—System in genuine walnut enclosure. Wt. 23 lbs... Audiofile net, each **$44.50**
Special STEREO PAIR.... Audiofile net, pair **$79.50**

TX-2E—Enclosure only. Wt. 19½ lbs.... Audiofile net. each **$29.95**
Special STEREO PAIR.... Audiofile net, pair **$54.00**

TX-3—Two-way system with 12″ woofer and 3½″ tweeter. Overall response 50 to 17,000 cycles. 25″ x 14¾″ x 9″ deep enclosure. Finished in walnut wood-grain vinyl. Distinctive sculptured shadow line around modern cane grille. Terminals marked for stereo phasing. Impedance is 8-ohms. Wt. 23 lbs.... Audiofile net, each **$39.95**
Special STEREO PAIR.... Audiofile net, pair **$72.00**

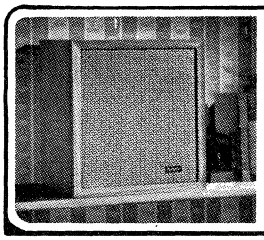
TX-3E—Enclosure only. Wt. 19 lbs.... Audiofile net, each **$24.95**
Special STEREO PAIR.... Audiofile net, pair **$45.95**

TX-4—Has three magnificent speakers: a 12″ woofer, 8″ solid back midrange, and 3½″ direct radiator type tweeter. Response 35 to 17,000 cycles. Input is 8-ohms and terminals are marked for stereo phasing.

Hand-rubbed oiled walnut cabinet 25″ x 14¾″ x 9″ deep. Perfect for use in either horizontal or vertical position. Wt. 29 lbs.... Audiofile net, each **$79.95**
Special STEREO PAIR.... Audiofile net, pair **$145.00**

TX-4E—Enclosure only. Wt. 23 lbs.... Audiofile net, each **$39.95**
Special STEREO PAIR.... Audiofile net, pair **$72.00**

KITS—Complete, two- and three-way system kits, plus individual cabinet kits are available.



TX-5 High Fidelity Speaker Systems

The TX-5 has sound fidelity normally associated with more costly and far larger high fidelity speaker systems.

The ¾″ hand-rubbed oiled walnut cabinet is a modest 12⅜″ x 13⅜″ x 10″ deep. Has 8″ woofer and a 3½″ tweeter. Overall response 50 to 17,000 cycles. Speakers are wired through a crossover network to a terminal strip, marked for stereo phasing. Input is 8 ohms.

TX-5—Wt. 16 lbs.... Audiofile net, each **$32.50**
Special STEREO PAIR.... Audiofile net, pair **$59.00**

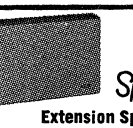
TX-12—Has superb tonal realism from full-bass to the most crisp, high frequency passages. Features 12″ woofer, 8″ solid back midrange. 3½″ tweeter. Response from 40 to 17,000 cycles.

Enclosure is richly oiled and hand-rubbed ¾″ American Walnut. 24″ x 19″ x 5⅞″ deep. Gracefully metal legs. Impedance 8 ohms; terminals marked for stereo phasing.

TX-12—Wt. 25 lbs.... Audiofile net, each **$54.95**
Special STEREO PAIR.... Audiofile net, pair **$99.95**

Brass legs furnished with TX-12 available as accessory for any speaker system.

Model HFA-1—Set of cabinet legs.... Audiofile net **$2.95**



Space Saver

Extension Speaker System

Features 8″ woofer, 3½″ tweeter, crossover network. Handles 12-watts. 8 ohms input. Volume control. Furniture-finished hardwood enclosure 18″ x 12″ x 3¾″ thin. Walnut or whited birch finish.

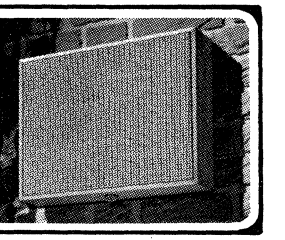
HFB-8SV—Wt. 6½ lbs.... Audiofile net, each **$17.95**

Patio OUTDOOR SPEAKER

Durable redwood and cane have been combined with special moisture-resistant full-range, 10-watt power capacity 8″ speaker. Input is 8-ohms. Handy volume control saves running indoors to adjust audio level.

The ¾″ redwood enclosure has sealer coat; can be stained or painted. Baffleboard marine grade plywood. Place 14″ x 10½″ x 3½″ enclosure in sheltered spot and it will provide delightful listening for years to come.

PAT-10—Wt. 5½ lbs.... Audiofile net, each **$14.95**

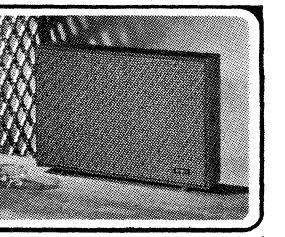


Petite High Fidelity Speaker System

Special high compliance woofer and separate tweeter are skillfully matched to the petite-size 18″ x 12″ x 3¾″ enclosure. Richness and fullness of sound is almost unbelievable. Response is 50 to 17,000 cycles. Input is 8-ohms.

Enclosure is ¾″ American Walnut, hand-rubbed and oiled to a lustrous finish. Grille is contemporary cane. Recessed volume control. Graceful brass feet, wall hangers included.

PHF-1—Wt. 8¾ lbs.... Audiofile net, each **$29.95**
Special STEREO PAIR.... Audiofile net, pair **$54.00**



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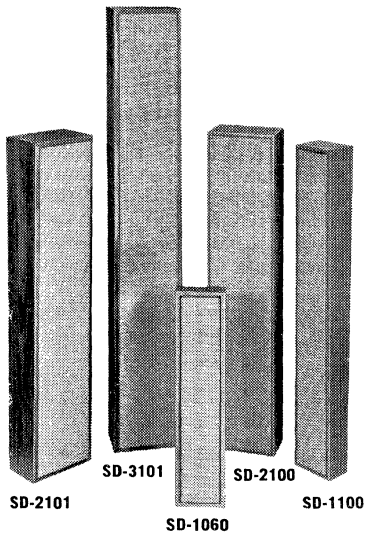
Argos PRODUCTS COMPANY

Quality by design in sound reproduction

SOUND COLUMNS • SPEAKER SYSTEMS
PORTABLE SOUND SYSTEMS • TUBE CADDIES



SOUND DIRECTOR Sound Columns

Working elements field-proven in use 6-years before release by Argos. Provide completely intelligible P.A. system coverage of large audiences in churches, school and public auditoriums, hotel meeting rooms and restaurants. Available in 6-speaker columns and 10-speaker columns with 8-speaker option. Speakers 16-ohms. Simple to install. Neat in appearance. Complete detailed instructions.

SD-1060: (6 speakers) Rooms up to 60-feet in length. Power 30-watts. Finished in walnut grain vinyl; cane grille. Size: 30¼" x 7" x 3⅛". Wt. 10 lbs. ..... **List Price $66.50**

SD-1100: (10 speakers) Power 50-watts. Rooms up to 200' in length. Converts to 8 speakers for rooms up to 125-feet. Walnut grain vinyl finish; cane grille. Tilts to focus sound "beam." Built-in focusing scale. Size 49¼" x 7" x 6". Wt. 26½ lbs. ..... **List Price $108.00**

SD-1101: Same as SD-1100, except deluxe housing is oiled, hand-rubbed walnut. Wt. 29 lbs. ..... **List Price $125.00**

SD-2100: (10 speakers) Power 50-watts. Same characteristics as SD-1100. Speaker column tilts inside housing for focusing. Built-in focusing scale. Size: 50½" x 10¾" x 8¼". Wt. 43 lbs. ..... **List Price $132.50**

SD-2101: Same as SD-2100, except deluxe housing is oiled, hand-rubbed walnut. Wt. 50 lbs. ..... **List Price $165.00**

SD-3101: A deluxe feature, (10 speakers) 50-watt, walnut enclosed unit. Has internal focusing plus speaker column—may be moved up and down within the housing. Useful where enclosure should be at different height than the speaker column. Focusing scale reads directly in feet. Size 69½" x 10¾" x 8¾". Wt. 63 lbs. ..... **List Price $249.50**

Complete line of speaker components and mounting hardware.

For technical specs., instructions, other details, write for special information sheets.

THE NEW VOICE DIRECTOR

Another sound solution by Argos — with a sound column. Combines unique "audience-reaching" characteristics of a sound column, and the portability of a battery-powered transistor amplifier to create a completely different kind of sound system. — includes:

- battery powered 25-watt transistor amplifier operates up to 400 hours on long-life flashlight batteries, or up to 200 hours on standard "D" flashlight cells.
- proven Argos SOUND DIRECTOR reproduction system gives completely uniform, intelligible coverage of large audiences — indoors or outside. Six speakers.
- microphone and 18-foot cable, microphone stand and lavalier.
- all neatly contained in an attractive, compact, fitted case measuring only 6⅞" x 9¾" x 29¾". The Voice Director gives absolutely intelligible audience coverage which is 50% to 100% greater than any system of comparable power. Ideally suited for use by schools, churches, public speakers, entertainers, conference groups, etc. Wt. 30 lbs.

PSD-5060, professional net (less batteries) **$169.95**

PSD-5060-1, identical to above but with deluxe microphone incorporating a built-in volume control. Wt. 30 lbs. Professional net (less batteries) **$199.50**

For technical specs., accessories, other details, — write for special Voice Director sheet.

Extension Satellite SOUND DIRECTOR. Use with VOICE DIRECTOR for extended coverage or with any P.A. system. 6-speakers; 30-watts; 16-ohms has self-storing stand and 50-feet of cable. Size: 30⅝" x 6⅞" x 3¾".

SD-4060 Wt. 12½ lbs. **Professional net $54.95**

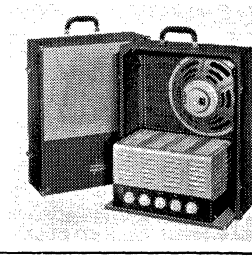
SOUND CADDY SYSTEM

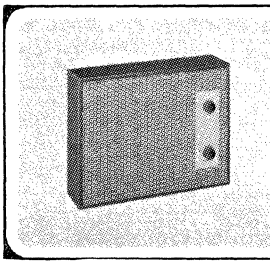
Highly serviceable portable case. Has two Jensen 12-in. heavy-duty 18-watt PA speakers (10 oz. ceramic magnet), 8-ohms. Space below for most amplifiers (with turntable) up to 35-watts, and many of greater power capacity. Amplifier mounting board can slip out when case is opened but holds firmly in place when closed. Heavy plywood construction, steel corner angles.

Double coated, tough, grey vinyl covering. Has matching Saran plastic grille. 17¾" wide x 22" high x 13⅛" deep. Wt. 28½ lbs.

SC-2DS ..... **List Price $66.50**

SC-2D—Same as above without speakers. Wt. 20 lbs. **List Price $41.50**





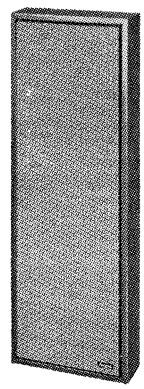
MULTI-BAFFLES for walls, ceilings

Solve all your intercom problems with these 14" x 10" baffles. Surface mount models 3½" deep; recessed models 1½". Mount on ceiling with screws; walls with clips. Blonde or walnut vinyl finish, plastic cane grille.

MBX8, surface mount series, baffle. Wt. 3¾ lbs. ..... **List $ 9.75**
MBX8S, with 8" Jensen speaker. Wt. 5½ lbs. **19.85**
MBX8SL, with speaker, L-pad. Wt. 5½ lbs. **24.00**
MBX8SLT, speaker, L-pad, trans. Wt. 6 lbs. **28.10**
MBX8SLTC, speaker, L-pad, trans., 6-pos. select switch. Wt. 6½ lbs. **34.95**

Recessed mount MBR series, slightly less.

MUSIC COLUMN



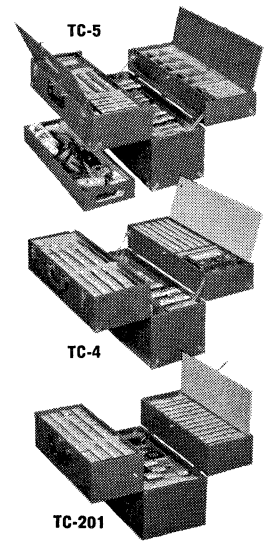
Designed especially for music reproduction where acoustics make conventional speaker systems unworkable.

The Argos MUSIC COLUMN is the long-sought for answer for controlling excessive echo reverberation and for projecting high-quality music over a large area. Using the SOUND DIRECTOR sound column principle the MUSIC COLUMN projects sound in a pattern which is wide horizontally and narrow vertically. Audio levels throughout the audience are remarkably uniform.

Frequency response of the 12 speaker, six woofer, six tweeter speaker system and crossover network is 50 to 17,000 cycles. Power handling capacity is 30-watts.

Enclosure is richly finished, oiled and hand-rubbed American Walnut. An attractive cane grille covers the speakers. Size: 42" x 14½" x 5". Wt. 43 lbs.

MSB-1121 ..... **List Price $188.00**



TUBE CADDIES, vinyl-clad

TC-5 $21.95 Super Tube Caddy. Our largest Tube Caddy . . a real man-size case with space for everything. Has ove 3300 cu. in. volume, roughly ⅓ larger than TC-4. Designe for the man who believes in carrying a full load to save extr trips. Holds countless tubes and tools, soldering gun, mete accessories. Tool tray clearance 2¾ in. Handsome, ne brown vinyl covering. Size 24" W x 16½" H x 8½" D. Wt. 19 lb

TC-4 $15.95 Carry-All Tube Caddy — most popular Tub Caddy ever made. Gives quick availability to all section Holds up to 262 tubes . . . less with tools and meter. Durabl new brown vinyl covering. Size 21" W x 15" H x 8" D. Wt. 12 lb

TC-100 $13.95 The Pacemaker Tube Caddy (Not illust. Same size as TC-4 but built for the thrifty buyer. Popul break-away design gives quick access to all sections. Hol up to 262 tubes . . . less with tools and meter. Durable, ne brown vinyl covering. Size 21" W x 15" H x 8" D. Wt. 11 lb

TC-201 $9.95 The Pacemaker Junior. Smaller, easy-to-car size for quick trips or as a matched companion to other Arg Tube Caddies. Holds up to 143 tubes . . . less with tools a meter. Durable, new, brown vinyl covering. Size 15¾" W 12½" H x 8" D.

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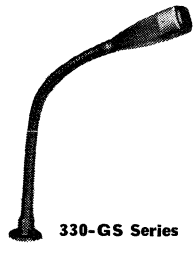
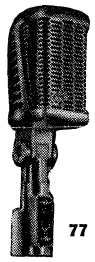
ASTATIC Microphones, Accessories


330-GS Series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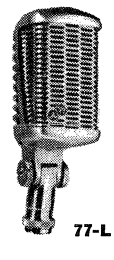
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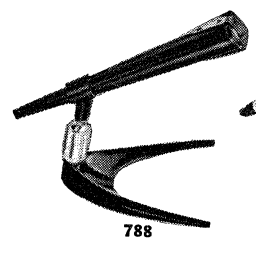
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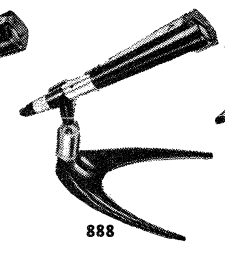
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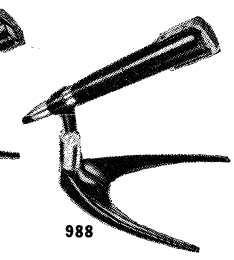

988

SERIES 330-GS GOOSENECK MICROPHONES

Professional performing, all purpose gooseneck microphones for intercommunications, tape recording, amateur language laboratories and many other applications. Gooseneck is permanently attached, 13″ in length. Satin chrome finish for both microphone and gooseneck assembly. Complete with 7′ single conductor, shielded cable (335L-GS, 2-cond. for balanced line).

Model 332-GS Crystal—Output, −54 db; response, 30–15,000 cps. List Price..... **$24.50**

Model 333-GS Ceramic—Output, −58 db; response, 30–10,000 cps. List Price..... **$24.50**

Model 335H-GS Dynamic Hi-Z—Output, −56 db; response, 100–12,000 cps. List Price..... **$33.00**

Model 335L-GS Dynamic Lo-Z—Output, −57 db; response, 100–12,000 cps. List Price..... **$30.00**

MODEL 77 DYNAMIC CARDIOID

Most positive anti-feedback mike ever built. Also available in gold finish. Unidirectional design has suspended cartridge; eliminates external shock mounts. Built-in impedance selector. **Front-to-Back Pick-up:** 18 db differential. **Output:** −48 db. **Frequency Response:** 30–15,000 cps. **Impedance:** Low-Z, 30–50 ohms; medium, 150–250 ohms; high, 40,000 ohms. Shipping Weight, approximately 3 lbs., less stand.

Model 77—With on-off switch and provisions for locking in "on" position. List Price..... **$82.50**

Model 77 Gold Finish—List Price..... **$92.50**

Model 77-L—Head only for mounting on G Stand. List.. **72.50**

Model 77-L Gold Finish—List Price..... **82.50**

Model G-77—Includes G Stand and 8′ cable. List Price.. **97.45**

MODEL 788 "METRO" DYNAMIC

Wide range and rugged construction for voice and music reproduction in PA, recording and TV, indoor or outdoor. **Response:** 60–13,000 cps. **Output:** −58 db, lo-Z; −56 db, hi-Z. Black die cast alloy housing with brushed gold trim. Omnidirectional. Balanced high or low imped. by simple change. Max. dia. 1⅜″ x 8⅞″ h. Built-in On-Off switch. Desk-floor stand adapter, lavalier cord and assembly, belt clip. 20′ cable. Net Weight, 8 oz.

Model 788—Dynamic Microphone. List Price..... **$79.50**

MODEL 888 "TEMPO" DYNAMIC

High fidelity and advance styling for applications in color TV, sound stage and deluxe PA systems. **Response:** 50–15,000 cps. Multi-impedance, 50–200, balanced, and hi-Z. **Output Level:** −58 db, lo-Z; −56 db, hi-Z. Die cast alloy housing in satin black with brushed chrome finish; 9⅛″ long x 1 9/32″ max. dia. Includes SA-8 desk-floor stand adapter, lavalier cord and assembly with belt clip and 20′ two-wire shielded cable. Weight, 9 oz.

Model 888—Dynamic Microphone. List Price..... **$110.00**

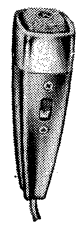
MODEL 988 "VOGUE" DYNAMIC

Beauty and high fidelity for the most exacting color TV and broadcast requirements. **Response:** 40–17,000 cps. **Output Level:** −56 db, hi-Z. Adjustable imped.: 50, 150 or 250 ohms for balanced line. Black housing with brushed gold finish. 9 11/32″ long x 1 9/32″ max. dia. With desk-floor stand adapter, lavalier cord and assembly and 20′ cable. Net Weight, 8¾ oz.

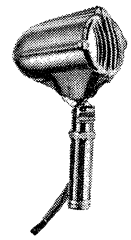
Model 988—Dynamic Microphone. List Price..... **$150.00**

MODEL A-8 "FUTURA" DESK STAND

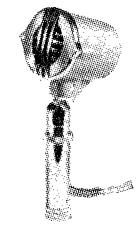
For Models 788, 888, and 988 mikes. Has ⅝″-27 thread. **Model A-8 Desk Stand** (Illus. on Models listed)—List... **$8.25**


330 Series

A-7


DN-50

JT-30


10-C, 10-D

D-104

SERIES 330 MICROPHONES

Small, slim mikes with quality performance for various applications at real low price. Model 331 has momentary on, spring-return switch, furnished with hang-up bracket. Cable provides for audio and relay connections. All other models have slide switch with "lock-on" position complete with lavalier and stand adapter with ⅝″-27 thread. High impedance except No. 335L.

Model	Type	Output	Freq.	Body	Grille	Cap	List
331	Ceramic	−58 db	300–7000	Black	Black	Chrome	$17.90
332	Crystal	−54 db	30–15000	Chrome	Black	Chrome	17.90
333	Ceramic	−58 db	30–10000	Black	Black	Chrome	17.90
335H	Dynamic	−56 db	100–12kc	TV Gray	Chrome	Chrome	26.50
335L	Dynamic	−57 db	100–12kc	TV Gray	Chrome	Chrome	23.50

Model A-7 Desk Stand—With adjustable swivel. List.... **$2.45**

MODEL DN-50 "THE COMMENTATOR"

General purpose. Unitary moving coil system, carefully proportioned acoustic circuit. **Response:** 50–10,000 cps. **Output:** DN-50, −51 db; DN-HZ, −52 db. Semi- or non-directional. Opalescent gray and bright chrome finish. With 10′ cable. **Size:** 6⅛″ h. 2⅝″ grille dia., 4⅝″ d. Net Wt., 1 lb. 12 oz. (mike only).

Model DN-50—Dynamic Mike, 50 ohms imped. List.. **$33.50**

Model GDN-50—Same as above with grip-to-talk stand. 6′ two conductor shielded cable. List Price..... **$52.70**

Model UG8-DN50—Same as above, but balanced. List.. **57.70**

Model DN-HZ—Same, but Hi-Z. List Price..... **39.70**

Model GDN-HZ—Same as DN-HZ with grip-to-talk stand. 6′ two conductor shielded cable. List Price..... **$59.90**

Model G Stand—With grip-to-talk On-Off switch. List.. **24.95**

Model UG8 Stand—Same as Model G; use with DN balanced line. List Price..... **$29.95**

SERIES JT-30 "SPOKESMAN"

Streamline die-cast alloy housing; gray Hammerlin finish with chrome grille and fittings; includes handle and interlocking base. Concentric cable connector. For general PA, recording and communication. 8″ high, 2 5/16″ grille dia., 5⅛″ base dia. Weight, 21 oz.

Model JT-30 Crystal—Output, −49 db; impedance, 1–5 megs; response 30–10,000 cps. Complete with 8′ single-conductor shielded cable. List Price..... **$18.40**

Model JT-30-C Ceramic—Same as JT-30 except with −54 db output and 5′ cable. List Price..... **$18.90**

Model JT-30-F Crystal (Head Only)—Same as Model JT-30, except less handle and desk stand. Threaded ⅝″-27 for mounting. List Price..... **$15.90**

Model JT-30-CF Ceramic (Head Only)—Same as Model JT-30-C, except less handle and desk stand. Threaded ⅝″-27 for mounting. List Price..... **$16.40**

MODELS 10-C, 10-D "THE VOICE"

Ideal for SSB, AM transmitters, paging and industrial applications. High impedance. **Output:** −52 db, Model 10-D; −54 db, Model 10-C. **Range:** 300–3,000 cps. Plug-in ⅝″-27 thread mounting with 5′ cable.

Model 10-C Ceramic—Gray chrome grille. List Price.. **$29.70**

Model G-10-C Ceramic—Same as above, but with "G" (grip-to-talk) stand. List Price..... **$49.90**

Model 10-D Dynamic—Chrome body and grille. List... **39.70**

Model G-10-D Dynamic—Same as above, but with "G" (grip-to-talk) stand. List Price..... **$59.90**

SERIES D-104 "PREMIER"

The radio amateur's first choice. Balanced performance. Machined brass parts; heavy mesh grille; chrome finish. Standard ⅝″-27 thread mounting; adaptable to SC-11 lock-switch adapter or can be mounted on Model G (grip-to-talk) stand. Metal seal crystal offers protection against moisture and dryness. Ceramic immune to excessive heat and humidity. 3″ dia., 1⅛″ deep. Weight, 14 oz. Complete with 5′ single conductor shielded cable.

Model D-104 Crystal—Output, −46 db; impedance, 1–5 megs; response, 30–7,500 cps rising 500–4,000 cps. List.. **$31.00**

Model D-104C Ceramic—Output, −49 db; all other characteristics similar to D-104. List Price..... **$31.00**

Model SC-11 Adapter—List Price..... **9.00**

Model G Stand—With grip-to-talk On-Off switch. List.. **24.95**

ASTATIC PHONO CARTRIDGES

For over 25 years Astatic has maintained its number one position as the world's leader in supplying the most complete line of phonograph pickup cartridges for both original equipment manufacturers and distributors.

THE ASTATIC CORP.

CONNEAUT, OHIO, U.S.A. • In Canada: Canadian Astatic Ltd., Toronto, Ontario
Export Sales: Roburn Agencies, Inc., New York 13, N. Y., U.S.A.
MANUFACTURERS OF PHONOGRAPH CARTRIDGES • NEEDLES • PICKUPS • MICROPHONES
RECORDING TAPE • ELECTRONIC DEVICES

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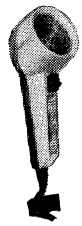
ASTATIC Microphones, Accessories

MICROPHONES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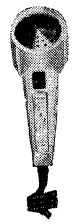

511

531

150, 151

10M5A

L-1

200-S, 241-S

T-3

551

MODEL 513H MOBILE MICROPHONE

Dynamic mike for Citizens' Band and other communications. Low background noise, feedback and hum. Semi-directional polar pattern. Wide temperature range; humidity-proof. **Frequency Response:** 200–9,000 cps. **Output Level:** −50 db at 1 v./dyne/cm². **Impedance:** 40,000 ohms. With press-to-talk switch, snap-removal mounting bracket and three-conductor (one shielded) coiled cable 5½′ long, extended. **Size:** 2¼″ w. x 2½″ d. x 6″ h. Weight, 10 oz.
Model 513H Mobile Mike—List Price..... **$34.50**

MODEL 511 MOBILE MICROPHONE

Ceramic element mike for Citizens' Band and similar uses. Low background noise, feedback and hum. Semi-directional polar pattern. **Frequency Response:** 200–4,000 cps. **Output Level:** −50 db at 1 v./dyne/cm². **Impedance:** 250,000 ohms (1000 cps). With press-to-talk switch, snap-removal mounting bracket and three-conductor (one shielded) coiled cable extending to 5½′ long. **Size:** 2¼″ w. x 2½″ d. x 6″ h. Weight, 7 oz.
Model 511 Ceramic Mike—List Price..... **$19.95**

MODEL 531 MOBILE MICROPHONE

High performance ceramic mike for amateur and Citizens' Band applications. Carefully calculated response characteristic for maximum clarity and intelligibility. Semi-directional polar pattern. Fully shielded to minimize hum pickup. **Frequency Response:** 150–3,500 cps with 6 db rise in 2,000 cps range. **Output Level:** −50 db at 1 v./dyne/cm². **Impedance:** 250,000 ohms, approx. at 1,000 cps (EIA, 100,000 ohms). With press-to-talk switch, molded Cycolac* plastic housing and three-conductor (one shielded) coiled vinyl cord, 5′ long extended. **Size:** 2⅜″ w. x 1 5/16″ d. x 3⅜″ h. Weight, 7¼ oz.
Model 531 Mobile Mike—List Price..... **$12.75**
*Borg-Warner trademark.

SERIES 150 RECORDER MIKES

For tape recorder use. Low cost; high output; outstanding performance; compact in size. **Size:** 2 3/16″ sq. x 1¼″ d. Plastic housing with rigid metal grille. With 5′ cable.

Model 150 Crystal Mike—Frequency response, 30–10,000 cps. Output, −44 db. List Price..... **$6.50**

Model 151 Ceramic Mike—Frequency response, 30–8,000 cps. Output, −48 db. List Price..... **$6.50**

MODEL 10M5A "COMMUNICATOR"

For mobile, ship-shore, etc. Sensitive and rugged. **Response:** 100–4,000 cps. Press-to-talk DPST switch. Retracting cable 12-in. coiled extends to 8′. Gray finish.
Model 10M5A Carbon Microphone—List Price..... **$29.50**

MODEL L-1 CRYSTAL LAPEL MIKE

Tiny dual diaphragm with spring clip and 15′ of small diameter single conductor shielded cable. Machined brass housing with wire mesh front and rear grilles; black melamine finish. **Output:** −62 db. **Impedance:** 1–5 megohms. **Response:** 30–10,000 cps. 1½″ dia., ¾″ deep. Weight, 7 oz.
Model L-1 Crystal Lapel Microphone—List Price..... **$27.35**

"VELVET VOICE" CRYSTAL MICROPHONES

For PA, home recording, ham, paging, radio. Use with floor or desk stand or in hand. Gold finished housing and handle; chrome grille; brown detachable base. ⅝″-27 mounting. 8″ high, 2½″ grille dia. 5⅛″ base dia. Weight, 24 oz.
Model 200—Output, −50 db; impedance, 1–5 megs; response, 30–7,000 cps. With 8′ cable. List Price..... **$19.50**
Model 200-S—With on-off switch in handle. List Price.. **$21.50**
Model 241-S—Same as 200-S, except response 30–10,000 cps with rising response from 1,500–5,500 cps. List Price..... **$21.50**

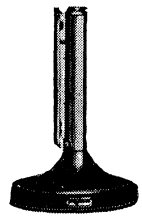
MODEL T-3 CRYSTAL

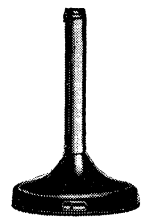
For studios, intercom, amateur, PA, recording. **Response:** 30–10,000 cps. **Output Level:** −54 db. Semi- or non-directional. With connector, 10′ cable. All chrome finish.
Model T-3 Crystal Microphone—List Price..... **$29.30**

MODEL 551 INDUSTRIAL MICROPHONE

Dynamic industrial mike provides high intelligibility in noisy areas. Housing and transformer shielded. Withstands temperatures to 200° F; 180° F indefinitely. Moisture-sealed. Semi-directional polar pattern. **Frequency Response:** 300–6,000 cps, high impedance; 300–6,500 cps, low impedance. **Output Level:** −50 db at 1 mw/10 dynes/cm², low impedance; −46 db at 1 v./dyne/cm², high impedance; both open circuit, 1000 cps. **Impedance:** 150 or 40,000 ohms, adjustable. With press-to-talk switch, virtually unbreakable Delrin* housing, and four-conductor (shielded mike, two relay) coiled cord extends to 8′ long. **Size:** 1⅞″ x 2″ x 6⅞″. Weight, 20 oz.
Model 551 Industrial Mike—List Price..... **$69.50**
*DuPont trademark.

STANDS, CARTRIDGES AND LINE TRANSFORMER


Models G, UG8


Models E-5-G, E-5-B

Model E-1

MICROPHONE STANDS

Model G Desk Stand—Has grip-to-talk SPST on-off switch, sliding bar for "lock-on". Use with DN-50, DN-HZ, T3, D-104, D-104-C, 10-C, 10-D and 77L. Finish: Bright chrome, gray Hammerlin base. List Price..... **$24.95**

Model UG8 Stand—Same as Model G, with DPDT switch for balanced or unbalanced line. Thread, 13/16″ x 27; eight-terminal strip in base adapts to any circuit. List Price..... **$29.95**

Model E-5-G and E-5-B Desk Stands—Finish: Gray or brown Hammerlin base with bright chrome stem. Has ⅝″-27 thread. Overall height 8″. List Price..... **$7.75**

Model E-1 Desk Stand—Finish: Gray Hammerlin base, bright chrome trim. Has ⅝″-27 thread. Overall hgt., 5½″. List.. **$8.25**

LT-6

Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ

REPLACEMENT MICROPHONE CARTRIDGES

Model	Fig.	Use with Astatic Mike Model	List
MC 151	D	CX, CX-1, 200, 241, JT-30, JT-30-F, JT-40, T-3	$7.00
MC 127	D	CC, CC-1, VC, VC-1, JT-30-C, JT-30-CF, JT-40-C, T-3C	7.00
MC 451	E	10M5, 10M5A, 11M5	8.75
MC 563	B	DN-50, DN-500, DN-HZ, DN-MZ, 10-D	16.50
MC 320	A	D-104	9.50
MC 321	A	D-104-C	7.00
MC 551	C	M-301	7.00
MC 558*	....	332	7.00
MC 559-2*	....	331	7.00
MC 560*	....	335H, 335L	7.75

*Mikes without screw-fastened caps should be returned to factory for repairs.

MODEL LT-6 LINE-MATCHING TRANSFORMER

Matches low impedance microphone to high impedance amplifier input; or high impedance dynamic microphone to low impedance amplifier input. Permits long length of cable on the low impedance side of the transformer. Eliminates high frequency loss and objectionable hum pickup. Completely shielded. **Input:** 30–50 or 150–250 ohms. **Output:** 40,000 ohms or higher. **Response:** ±1 db, 20–20,000 cps. Supplied with Amphenol 91-852 and 75-MCIF end connectors. Opalescent gray body with chrome finish connectors. **Size:** ⅞″ dia.
Model LT-6 Transformer—List Price..... **$17.50**

THE ASTATIC CORP.

CONNEAUT, OHIO, U.S.A. • In Canada: Canadian Astatic Ltd., Toronto, Ontario
Export Sales: Roburn Agencies, Inc., New York 13, N. Y., U.S.A.

MANUFACTURERS OF PHONOGRAPH CARTRIDGES • NEEDLES • PICKUPS • MICROPHONES
RECORDING TAPE • ELECTRONIC DEVICES

ASTATIC PHONO NEEDLES

Needle for needle, Astatic always has the highest quality with the most complete stocks of any maker anywhere. No matter who the original equipment maker of the phonograph, Astatic has just the needle made for that particular cartridge on hand, ready for immediate delivery.

ATLAS SOUND

ATLAS PAGING AND TALK BACK SPEAKERS

All speakers approved by Federal Civil Defense Administration.

The HU and CJ models listed below are all equipped with the well-known "Versalock" mounting bracket. This rigid, rugged and dependable bracket is completely adjustable on both a horizontal and vertical plane, affording "pin-point" directivity and simple secure mounting. The HU and TP horns are constructed of aluminum, while the CJ horns are molded of indestructible Fiberglas. Rugged diecastings and tough steel parts add strength wherever necessary. All models are 100% weatherproof under all climatic conditions.

HU-12N Small in size and low in cost. Excellent for low power paging and talk-back systems where limited coverage is required.

HU-15N The famous ATLAS SOUND "work horse," HU-15N is the most popular all-purpose, trouble-free speaker of its type and size.

HU-24N Similar to HU-15N. The larger horn improves low frequency response and increases over-all efficiency. For paging and talk-back systems that are also required to reproduce music.

CJ-14N A wide angle speaker with a rectangular horn opening which gives broad sound dispersion in the horizontal plane while maintaining good vertical coverage.

EC-10 The lowest priced American-made speaker designed specially for low power systems requiring limited coverage. Made possible by a breakthrough in design, materials and performance, EC-10 gives improved results and high efficiency for intercom and other applications formerly using cone speakers.

Horn sections are molded of a new, tough, all-weather, acrylic plastic and the handsome beige-brown color combination blends with any decor. The tough steel bracket is adjustable and makes mounting simple and secure. Model EC-10 is unmatched where size, weight, appearance and high efficiency combined with low cost are factors.

CJ-30N Similar to CJ-14N, except the power handling capacity is increased and the larger, wide angle horn improves low frequency response.

TP-15N One high efficiency driver unit does the work of two for low cost bi-directional coverage in long corridors and outdoors. The universal bracket mounts the dual horns at a 10° angle down or out from wall surface or pole.

MODEL	POWER	IMPEDANCE (specify)	FREQUENCY cps	SOUND LEVEL#	DISPERSION	DIMENSIONS	SHIPPING WEIGHT	NET PRICE
EC-10	6 Watts	8 or 45 ohms	400-13,000	112 db	125°	6¼" Bell dia. 6⅜" deep	2½ lbs.	8Ω $14.25 45Ω $15.15
*HU-12N	7.5 Watts	8 or 45 ohms	350-13,000	115 db	120°	7½" Bell dia. 7¼" deep	3½ lbs.	8Ω $16.80 45Ω $17.70
*HU-15N	25 Watts	8 or 45 ohms	250-13,000	123 db	100°	9¾" Bell dia. 8¾" deep	6 lbs.	8Ω $20.70 45Ω $21.60
HU-24N	25 Watts	8 or 45 ohms	200-13,000	124 db	95°	11¼" Bell dia. 12" deep	6 lbs.	8Ω $23.10 45Ω $24.00
CJ-14N	7.5 Watts	8 or 45 ohms	350-13,000	115 db	120° x 60°	5½" high 9½" wide 8" deep	3½ lbs.	8Ω $18.60 45Ω $19.50
CJ-30N	25 Watts	8 or 45 ohms	250-13,000	121 db	120° x 60°	6" high 14" wide 11¼" deep	7 lbs.	8Ω $26.10 45Ω $27.00
TP-15N	25 Watts	8 or 45 ohms	250-13,000	120 db Each horn	100° Each horn	9¾" Bell dia. 16½" long	7½ lbs.	8Ω $32.10 45Ω $33.00
TP-24N	25 Watts	8 or 45 ohms	200-13,000	121 db Each horn	95° Each horn	11¼" Bell dia. 23" long	8 lbs.	8Ω $35.70 45Ω $36.60
DU-12N	7.5 Watts	8 or 45 ohms	350-13,000	115 db	110°	7" Bell dia. 14" long	4 lbs.	8Ω $21.60 45Ω $22.50
DC-5	6 Watts	8 ohms	120-7,000	105 db	—	7" Bell dia. 14" long	3 lbs.	8Ω $14.25

* Available with factory preassembled and prewired T-11 weatherproof line transformer. Model HU-12NT: Net Price $23.25. Model HU-15NT: Net Price $27.15.

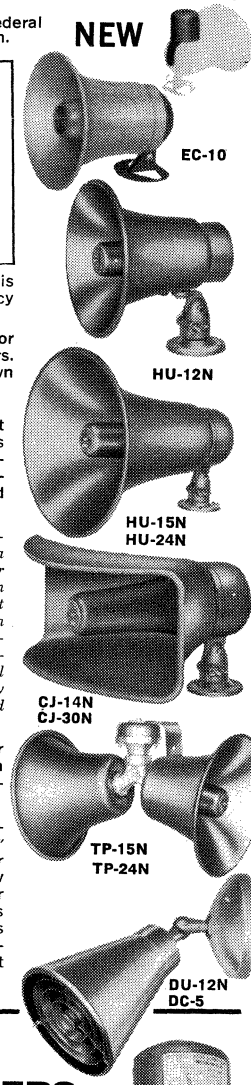
Measured at 4 ft. on axis rated power.

TP-24N Same as TP-15N but equipped with oversized horns for improved low frequency response. Excellent for bi-directional paging locations required to reproduce music.

The DéCor speakers described below are designed to simulate a lamp, handsomely styled for contemporary interiors. All horn parts, fully adjustable bracket and base-canopy, are finished in brushed satin aluminum. Base-canopy conceals wiring and matching transformer, if required. All mounting hardware included. May be used outdoors in sheltered locations.

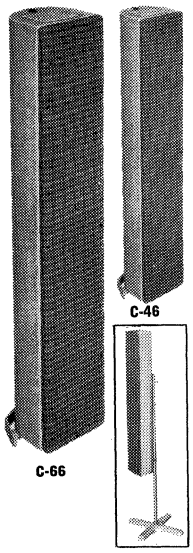
DU-12N Equipped with a driver type reproducer unit for high efficiency, directivity and intelligibility.

DC-5 Equipped with a high efficiency weather-resistant 5" diameter cone speaker for pleasing reproduction of low level voice and music. Ideal for locations where appearance is a critical factor, such as churches, conference halls, restaurants and similar quiet surroundings.



ATLAS Columair SOUND COLUMNS

(with exclusive EASY-MOUNT Universal Bracket)

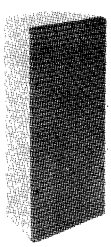


The "Columair" consists of an in-line array of six frequency adjusted cone speakers. The in-line configuration produces a sound pattern having a broad horizontal and narrow vertical distribution. Provides uniform sound intensity even at varying distances from the sound column. EASY-MOUNT swivel bracket permits optimum adjustment of critical beam pattern. Transformer cover plate located at top of enclosure. Constructed of heavy gauge steel finished in light beige two tone spatter. Plastic grill cloth in contrasting shade covers front plywood panel. Interior lined with "Tufflex" acoustic padding. Fine appearance blends with most décors.

SPECIFICATIONS	C-46	C-66
Speaker Array	Six, Four-Inch	Six, Six-Inch
Frequency Range	200-10,000 cps	125-10,000 cps
*Power Capacity	20 Watts	40 Watts
**Vert. Distribution Angle	26-36 Degrees	22-32 Degrees
**Hor. Distribution Angle	120-160 Degrees	120-160 Degrees
Impedance (Total)	16 Ohms	16 ohms
Dimensions	28" x 5¼" x 5"	42" x 7¾" x 6"
Net Weight	8¼ Lbs.	18½ Lbs.
Net Price	$37.50	$57.00

Model MK-1 Columair stand attachment kit. ..... Net Price $ 1.20
Model SS-4 Speaker stand for Columair. ..... Net Price $13.50

New WR-7

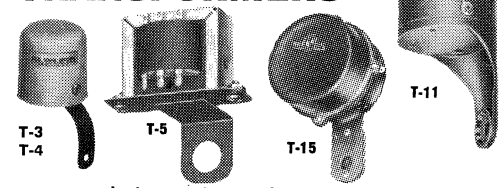


ATLAS WR-7 DECORETTE TWO-WAY SPEAKER SYSTEM

WR-7 A high fidelity design woofer/tweeter system for speech and music installations requiring above average sound quality. Positions horizontally or vertically on concealed wall brackets. Beige finish and grill cloth match ATLAS SOUND Columair. Construction is similar to C-46 and C-66. Ideal for auxiliary use with sound columns. ..... **Net Price $22.50**

WR-7 Specifications: Power: 15 watts. Impedance: 8 ohms. Response: 70-15,000 cps. Speakers: special 5" x 7" ellipsoid woofer with 6 oz. ceramic magnet, special 3" tweeter. Dimensions: 18" long, 8" wide, 5½" thin. Shipping wt. 8 lbs.

ATLAS LINE MATCHING TRANSFORMERS



• convenient • efficient • low loss • weather proof

T-3 includes weatherproof housing and bracket for EC-10. Primary from 45 to 2,000 ohms in six steps. 25 volt line power taps from 5 to .31 watts ..... **Net Price $3.75**

T-4 includes weatherproof housing and bracket for EC-10. Primary from 1000 to 16,000 ohms in five steps. 70 volt line power taps from 5 to .31 watts ..... **Net price $3.75**

T-5 for DU-12 and DC-5 DéCor speakers equipped with bracket to mount under wall canopy for a neat installation. Primary marked in impedance and power steps from 7.5 to .31 watts in six steps. Secondary 8 ohms..... **Net Price $3.00**

T-11 for HU, CJ, TP and WT-6 speakers. Completely weather proof, includes bracket for simple attachment to the speaker, varnish impregnated and all soldering lugs clearly marked. Primary from 45 to 8,000 ohms in nine impedances. Also marked for 70v. and 25v. Power ratings from 15 to .65 watts. Secondary 4, 8, 16 ohms..... **Net Price $5.55**

T-10 for "Columair" C-46 and all general use. Same specs as T-11 above, less weatherproof housing... **Net Price $3.90**

T-15 for CJ-44 Cobra-Jector and all high power driver units. Includes weather proof housing and universal mounting bracket. Primary from 100 to 2,000 ohms in seven steps. Also marked for 70v. line from 50 to 2.5 watts. Secondary 4, 8, 16 ohms..... **Net Price $9.90**

T-16 for "Columair" C-66 and for general application. Specs same as T-15 above, less weatherproof housing.
Net Price $5.10

ATLAS SOUND, Division of AMERICAN TRADING AND PRODUCTION CORPORATION, Brooklyn, N. Y. 11218 Canada: Atlas Radio Corp., Toronto

Net

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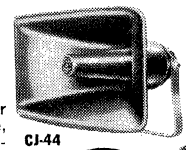
ATLAS SOUND

ATLAS COBRA-JECTOR

MODEL CJ-44 ALL PURPOSE WIDE ANGLE PROJECTOR—COMPLETE WITH SUPER POWER DRIVER—POLYESTER FIBRE GLASS CONSTRUCTION

All weather speaker with "Acousti-Matched" built in driver unit. The projector and reproducer is a single package, matched design resulting in maximum conversion efficiency. (Power input in watts versus sound pressure output.) The CJ-44 controlled response has been carefully restricted within frequency limits most useful in PA and high level music reproduction. As a result, speaker output energy is not wasted in the reproduction of frequencies that do not contribute to efficient performance.

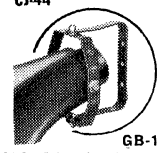
Net Price $47.70



CJ-44

All speakers approved by Federal Civil Defense Administration.

DR-54
DR-42
DR-32



GB-1

Input Power (cont.)	40 watts
Power Equalized Response*	60 watts
Input Impedance	16 ohms
Response	115-12,000 cps
Dispersion	120° x 60°
Dimensions—Bell	23" x 13"
Overall length	19"
Weight	16 lbs. net 19 lbs. shipping

*Input range limited to frequencies above horn cut off.

MOUNTING BRACKET FOR CJ-44 AND ALL DR PROJECTORS

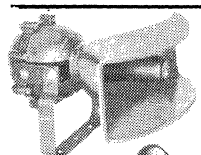
MODEL GB-1 For all Atlas projectors using "U" type bracket mounting. It permits the speaker to be quickly adjusted in both a horizontal and vertical plane and securely locked in position. Average adjustment limits 160° on the horizontal and 65° on vertical direction. Bonderized steel, baked enamel finish, all hardware supplied. Shipping weight 3 lbs. ..... **Net Price $3.60**

ATLAS DR PROJECTORS

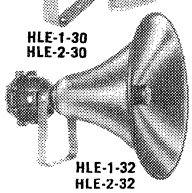
NON-RESONANT—STURDY—WEATHERPROOF

Atlas DR projectors are the result of many years of acoustic research. This costly engineering and elaborate tooling has resulted in projectors that are without acoustical or mechanical equal. All acoustical sound paths are clean and uniform without steps or pockets to disturb the normal function of the horn. These critical design features eliminate conditions of turbulence, frequency cancellation and resultant signal distortion. All models are equipped with a heavy duty "U" bracket. This bracket is securely fastened to a main body casting which will not fail when subjected to extreme conditions of stress, strain and vibration.

SPECIFICATIONS	DR-54	DR-42	DR-32
Air Column	4½ ft.	3½ ft.	2½ ft.
Low Frequency	115 cps	140 cps	190 cps
Bell Diameter	26 inches	21 inches.	16½ inches
Length (less driver)	19 inches	16 inches	12½ inches
Shipping Weight	23 lbs.	14 lbs.	10 lbs.
Net Price	$29.40	$21.60	$18.00



HLE-1-30
HLE-2-30



HLE-1-32
HLE-2-32

ATLAS EXPLOSION-PROOF HIGH EFFICIENCY SPEAKERS

APPROVED BY UNDERWRITERS LABORATORIES FOR USE IN HAZARDOUS LOCATIONS WHERE EXPLOSIVE ATMOSPHERES EXIST

Highly efficient due to exclusive design of explosion barrier. **Class 1** speakers for use in atmospheres containing ethyl ether, cyclopropane, gasoline, naphtha, benzine, butane, acetone, lacquer, natural gas, etc. **Class 2** can be used in Class 1 conditions as well as in atmospheres containing dust of magnesium, coal, coke, flour, starch, grain, etc.

HLE-30 type speaker preferred where space limitations exist; excellent for paging and talk back applications. **HLE-32** type more efficient due to larger horn size—where maximum coverage is required.

SPECIFICATIONS	HLE (1 or 2) 30		HLE (1 or 2) 32	
Power Input	60 watts		60 watts	
Voice Coil Impedance	16 ohms*		16 ohms*	
Freq. Response	250 to 12,000 cps		190 to 12,000 cps	
Overall Length	17½ inches		21½ inches	
Bell Opening	14 in. x 6 in.		16½ inch diameter	
Cable Entrance	½" conduit		½" conduit	
Shipping Weight	22 lbs.		25 lbs.	
Net Price	HLE-1-30	$73.50	HLE-1-32	$82.20
	HLE-2-30	$85.50	HLE-2-32	$94.20

*Available with 45 ohm V.C. add $1.50 to net price. T-16 line trans. mounting facilities available within explosion-proof housing. For details see description of T-16.

ATLAS HEAVY DUTY SPEAKER

SPB-1

Model SPB-1 Ruggedized, weatherproof speaker for industrial service. Heavy gauge bell with protective screen and fully adjustable "Versalock" bracket. Power: 25 watts. Impedance: 8 ohms. Response: 300-13,000 cps. Dispersion: 110°. Dimensions: 7¼" bell diameter, 6⅛" deep. Shipping wt. 5½ lbs. ..... **Net Price $27.00**

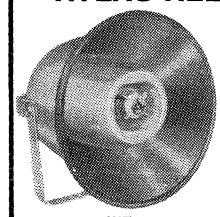
ATLAS MOBILE SPEAKER

New

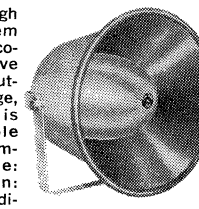
MO-1

Model MO-1 Weatherproof speaker with special, rigid, one-piece cast bracket for fail-safe use on vehicles. Concealed wiring and special, one-piece horn discourage tampering. High efficiency for use with mobile radio transceivers. Power: 25 watts. Impedance: 8 ohms. Response: 300-13,000 cps. Dispersion: 120°. Dimensions: 7¼" bell diameter, 6⅜" deep. Shipping wt. 4½ lbs. **Net Price $26.40**

ATLAS ALL WEATHER HI-FI SPEAKERS



WT-6

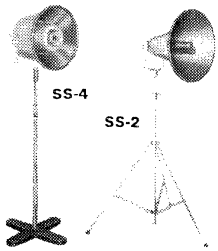


W-6

Model WT-6 Weatherproof, high fidelity type two-way system with horn-loaded woofer and coaxial horn tweeter. Attractive beige color for indoor and outdoor use wherever wide range, clean music reproduction is important. Fully adjustable bracket. Power: 15 watts. Impedance: 8 ohms. Response: 100-15,000 cps. Dispersion: 120°. Dimensions: 15" bell diameter, 12" deep. Shipping wt. 16 lbs. ..... **Net Price $36.00**

Model W-6 Identical to WT-6, but less tweeter. Extended range to 8,000 cp with special cone speaker. Shipping wt. 14 lbs. ..... **Net Price $27.0**

ATLAS SUPPORT STANDS



SS-4

SS-2

Model **SS-4** for permanent and portable use, for all types of speakers of medium weight and size. Easy-Off top fitting supplied for convenient attachment of speaker. Cast iron base offers adequate stability for average use. Upright polished chrome steel tubing adjustable to over 6 ft. Beige shrivel base. Weight 20 lbs. **Net Price $13.50**

Model **SS-2.** Heavy duty, all purpose support. Maximum stability due to wide surface spread. All parts plated steel and paint finish. Equipped with Easy-Off top adaptor to facilitate removal of speaker. Height extension 5 to 10 ft. Weight 29 lbs. ..... **Net Price $26.40**

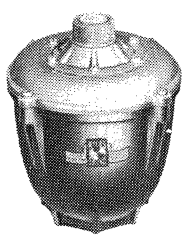
ATLAS BI-DIRECTIONAL BAFFLES WITH SPEAKER

Models TW-10 and TW-11 Baffle/Speaker combinations complete with 8 cone speaker. Grill openings on both sides of baffles give bi-directional cove age in corridors and outdoors in sheltered locations. Decorative beige finisl Dimensions: 9" diameter and 5" thin.

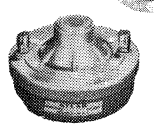
TW-10 with adjustable bracket, special 8 ohm, 8" speaker. Shipping wt. 5 lb **Net Price $9.6**

TW-11 with 5" x 6" bracket, universal mounting plate for flat surfaces ar electrical boxes, special 8 ohm, 8" speaker. Shipping wt. 5½ lbs. **Net Price $11.4**

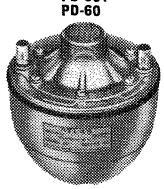
ATLAS DRIVER UNITS • SUPER POWER—SUPER EFFICIENT



PD-60T
PD-60



PD-4V



PD-5VH

PD-5VT

PD-20
New

Lifetime guarantee against electro-acoustical failure when operated to specifications. New designs, materials and double weather sealing give the ultimate in response, efficiency and trouble-free, reliable service. Models PD-5VH, PD-5VT, PD-60 and PD-60T feature self-aligning, field replaceable diaphragm assemblies. Excellent for replacement in any trumpet with standard 1⅜" x 18 driver threads.

SPECIFICATIONS	PD-60T	PD-5VT	PD-5VH	PD-4V	PD-20
Power (continuous)*	60 watts	40 watts	40 watts	30 watts	20 watts
Power (equalized response)†	100 watts	60 watts	60 watts	50 watts	25 watts
Voice Coil Impedance	16 ohms	16 ohms	16 ohms	16 ohms	16 ohms
Sound Intensity#	136 db	131 db	131 db	128 db	125 db
Frequency Response cps	70-12,000	80-12,000	80-12,000	85-7,000	120-7,000
Transformer Imp. ohms	16, 85, 125, 250, 500, 1000, 2000	16, 125, 250, 500, 1000, 2000			
Trans. Power Taps, Watts 70 Volt Line	60, 40, 20, 10, 5, 2.5	40, 20, 10, 5, 2.5			
Shipping Weight	8 lbs.	7 lbs.	5 lbs.	4 lbs.	2¾ lbs.
Net Price	$37.20	$30.60	$22.50	$17.70	$13.80

PD-60 Same as PD-60T Less Transformer $30.60

* Integrated speech and music full range. † Input range limited to frequencies above horn cut off.
# Measured 4 ft. on axis, 6 ft. air column with integrated full power input.

ATLAS BI-DIRECTIONAL BAFFLE

Models TW-8 and TW-9 Identical to TW-10 and TW-11 b less the special ATLAS SOUND speaker. Will accommoda any standard 8" cone.

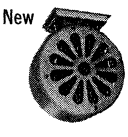
TW-8 Baffle only with adjustable bracket. Less speak Shipping wt. 3½ lbs. ..... **Net Price $6.**

TW-9 Baffle only with 5" x 6" bracket. Less speaker. Shippi wt. 4 lbs. ..... **Net Price $8.**

New

TW-8
TW-10

New



TW-9
TW-11

ATLAS SOUND, Division of AMERICAN TRADING AND PRODUCTION CORPORATION, Brooklyn, N. Y. 11218 Canada: Atlas Radio Corp., Toronto

ATLAS SOUND

ATLAS "FULL GRIP-VELVET ACTION" MICROPHONE STANDS

NO SLIPPING—NO RATTLE—NO NOISE—NO SCRATCHING—NO WEAR

The "Full Grip" clutch is standard on all models—it offers an extended length clutch body, permitting a secure, full hand grip. The clutch mechanism of all "Velvet Action" stands is inner-lined with a wear-proof bakelite locking collet which grips without jamming, slipping or sudden dropping. All chrome plated surfaces are carefully polished prior to plating to assure a uniform "Super-Chrome" wear resistant, lifetime finish. All threads on tube assemblies are individually inspected to assure a perfect fit when assembled to the base castings. All bases are functionally designed to offer maximum stability for a given base weight. The maximum base mass is located at the outer periphery of the casting where the concentrated weight is most effective. All bases include self leveling, shock absorbing base pads, plus three additional "anti-tip" points located between the base pads. All models terminate with a 5/8"-27 thread at the microphone end.

MS-10C Economy model suitable for most applications where a low cost stand is required. Offers adequate base stability for average weight microphone.

MS-12C Similar to above but increased base weight offers an added advantage. Flat design of base is modern in appearance and is finished in a dark gun metal shrivel finish. Equipped with base pads to absorb shock.

MS-11C Full chrome design. Entire stand base and upright tube assembly completely finished in "Super-Chrome." Excellent for use where fine appearance is a requirement. An excellent choice for use with full chrome plated microphones. Equipped with base pads.

MS-4 Three section telescoping microphone stand permitting a wide variation of adjustment. Can be adjusted from 26 inches to 61 inches in height. Excellent for use in schools, etc. where it is necessary to adjust the stand over a wide range of height adjustment. Minimum collapsed length offers convenience in transportation.

MS-20 DeLuxe model. Maximum stability suitable for use with heavy, expensive microphones. Large oversize tube assembly, 7/8" diameter telescoping tube, 1 1/8" diameter base tube, base diameter 12 inches. Oversize clutch assembly assures secure locking adjustment. Top adaptor included for 5/8"-27 microphones.

MS-25 Professional Microphone Stand. The ultimate in microphone stands. Features the "Safety Air Lock Cushion." This sensational feature prevents any accidental or sudden slippage of the telescoping section. If the clutch mechanism is accidently released the stand cannot suddenly crash down—thus prevents damage to the microphone from severe mechanical shock. The telescoping section is at all times "cushioned on air" and the controlled escapement of air will only permit a slow smooth and quiet collapse of the stand. Base finished in a combination of chrome and shrivel. Heavy duty tube assembly, 1 1/8" and 7/8" combination—5/8"-27 top adaptor.

MS-11S - MS-12S Automatic "Sleeve Action" models. A fully automatic means of adjusting the height of the stand. A slight downward pressure on the "Sleeve Action" control permits the telescoping section to be lowered—cannot change its position without a deliberate pressure on the actuating sleeve control. Two models full chrome base or shrivel finish.

CS-1 Fully collapsible, portable stand quick and simple to set up. Collapsible to a minimum overall length of 23 inches.

CS-52 A unique three-legged floor stand which combines handsome design with maximum stability. The cast iron base, with base pads on each leg, is finished in dark gun-metal shrivel. Standard full chrome upright tube assembly. Two piece base disassembles easily for compact handling.
Packed: One complete stand packed in a single carton, suitable for reshipment.

CS-42 Similar to CS-52 in design, except that base is readily collapsible for portable use or convenient storage.
Packed: One complete stand packed in a single carton, suitable for reshipment.

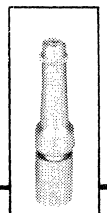
Model	Weight	Base Finish	Tube Finish	Height Adj.	Base Dia.	Net Price
MS-10C	10 lbs.	Grey Shrivel	Full Chrome	35" to 64"	10 inches	$ 6.00
MS-12C	12 lbs.	Grey Shrivel	Full Chrome	35" to 65"	10 inches	$ 6.45
MS-11C	13 lbs.	Full Chrome	Full Chrome	35" to 65"	10 inches	$ 8.25
MS-4	11 lbs.	Grey Shrivel	Full Chrome	26" to 61"	10 inches	$ 9.45
MS-20	15 lbs.	Grey Shrivel	Full Chrome	37" to 66"	12 inches	$10.20
MS-25	22 lbs.	Chrome & Grey	Full Chrome	37" to 66"	17 inches	$16.80
MS-11S	13 lbs.	Full Chrome	Full Chrome	35" to 65"	10 inches	$15.00
MS-12S	12 lbs.	Grey Shrivel	Full Chrome	35" to 65"	10 inches	$13.50
CS-1	5 lbs.	Chrome & Cad	Full Chrome	23" to 62"	collapsible	$12.60
CS-52	9 lbs.	Grey Shrivel	Full Chrome	34" to 62"	15 inches	$ 7.05
CS-42	9 lbs.	Grey Shrivel	Full Chrome	34" to 62"	16 inches	$ 8.25

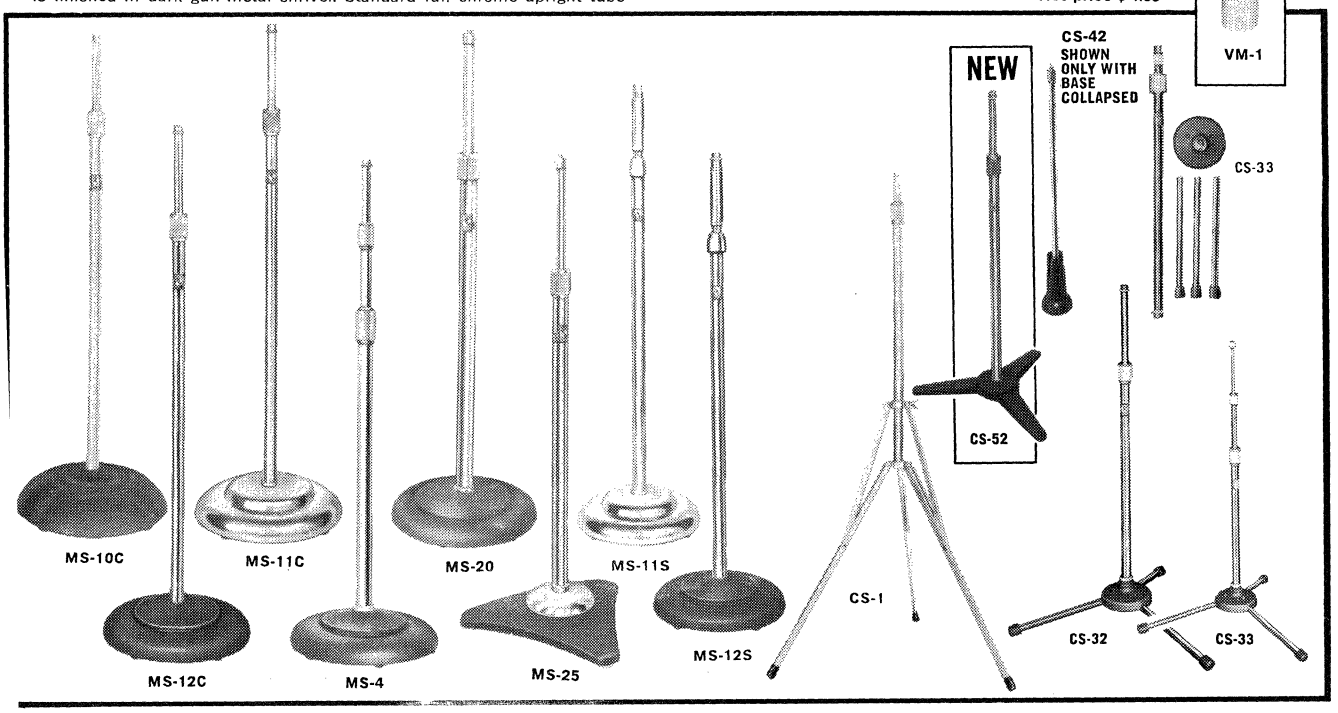
CS Type Demountable Microphone Floor Stands—with full grip—"Velvet Action," fully collapsible—quick and simple "Come Apart" base design. This new and revolutionary design in microphone stands is ideal for fixed as well as portable applications. Excellent for use when it is desired to contain the stand within the amplifier or speaker carrying case. The stability of the assembled stand is equal to many types employing heavy cast iron base construction. The base legs are easily removed to permit minimum size, lightweight transportation. The spring lock leg-holding mechanism of this ingenious design offers a quick and simple "Come Apart" feature. No tools or screw fastenings are required to hold the base assembly together. No small parts to become lost. The self-leveling legs are chrome plated, tipped with skid-proof rubber shock absorbent bumpers —eliminates vibrational conductivity . . . protects polished floor surfaces against damage.

Model	Finish	Height Adj.	Shipping Weight	Net Price
CS-32	Full Chrome	36" to 64"	5 lbs.	$ 7.50
CS-33	Full Chrome	26" to 64"	4 lbs.	$ 8.70

Each stand is individually packed complete in a single carton.
Model CS33 can be collapsed to a total length of only 22½".

VM-1 SHOCK MOUNT The VM-1 shock mount will eliminate or greatly reduce microphone pick up of external mechanical shock and stand vibrations.
The shock mount is equipped with male and female 5/8"-27 threads permitting convenient insertion between the microphone and the microphone stand.
The VM-1 is constructed of die castings and brass turnings finished in bright polished chrome — overall length 4¾", diameter 1" ..... **Net price $ 4.50**





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ATLAS SOUND

ATLAS MICROPHONE DESK STANDS AND ACCESSORIES

DS-4 Highly polished molded phenolic base is light beige in color with chrome upright tube. The smooth base will not scratch or mar table tops. Upright tube can be easily removed from base. Base diameter 5", height of tube 4", thread size ⅝"-27. Shipping weight ½ lb. **Net Price $1.50**

DS-5 Non-Adjustable Desk Stand. Base cast iron, finished in gun metal shrivel. Stable base is equipped with pads to prevent damage to desk or table tops. Base diameter 6", tube height 4" chrome finish. Shipping Weight 2 lbs. **Net Price $1.95**

DS-7 Same as above but equipped with upright adjustable from 8 to 13 inches. Equipped with standard "Velvet Action" clutch adjustment. Thread ⅝"-27. Shipping Weight 3 lbs. **Net Price $3.30**

DS-10 "Stream Liner" Desk Stand. Features "Rear Cable Exit". Mike cable is concealed under center section of chrome trim and directed out at rear of base; results in added stability and improved appearance. Constructed of precision die castings, finish gun metal grey, bright chrome trim. Rubber bumpers prevent damage. ⅝"-27 thread. Shipping Weight 1½ lbs. **Net Price $3.30**

TS-8 Adjustable Banquet Stand. Low silhouette base is a trim, modern design. Upright adjustable from 14½" to 26". Both base and upright finished in full super-chrome. Shipping wt. 5½ lbs. **Net Price $6.15**

DS-9 Professional Desk Stand. Handsome appearance of modern, low silhouette base and tapered upright, both finished in satin chrome, complements the finest microphones. Stable 8" diameter base protects against accidental microphone damage. 4" upright tube. 5 felt base pads. (4 lbs.) **Net Price $5.10**

DS-14 Desk stand is functionally and aesthetically suited to slim, elongated microphones. Gun-metal shrivel finished base with protective felt pads and 3" polished chrome upright tube with ⅝"-27 thread (2 lbs.) **Net Price $2.70**

SB-1 Dispatcher and Switchboard Mike Support. For use over telephone switchboards, dispatcher's desk, dais, banquet table, etc. 12 inch long, flexible, chrome plated "goose neck" arm is mounted on a spring loaded swivel, can be swung aside when not in use. A feed thru hole is located at the mike end of the "goose neck" so that the mike cable can be concealed within the flexible arm. Base casting is rear loaded so that the base will not tip forward. Finish grey shrivel. Shipping Weight 13 lbs. **Net Price $10.05**

SW-1 Gyromatic Swivel permits microphone to be adjusted to any angle, up, down, around. Locks in any position. Die cast finished in chrome. **Net Price $2.85**

LO-2 "Lock-On" accessory for instantaneous microphone attachment or removal without threading on or off any stand or support. One half of LO-2 remains fastened to the microphone, the other half stays on the stand. Excellent for floor show, sports announcing and similar uses where microphones must often be removed. Positive lock holds microphone safely in hanging positions on booms, ceiling supports and stage battens. Chrome finish. **Net Price $2.10**

SO-1 "Snap-On" accessory. Identical to LO-2 but less locking feature. Spring loaded, ball bearing design for secure, safe microphone attachment and quick disconnect on any upright floor stand. **Net Price $1.65**

FS-1 Foot Switch for press-to-talk paging applications using any microphone with a single ended input. May also be hand operated on desks and switchboards. Easily rewired for press-to-open circuit requirements. **Net Price $7.80**

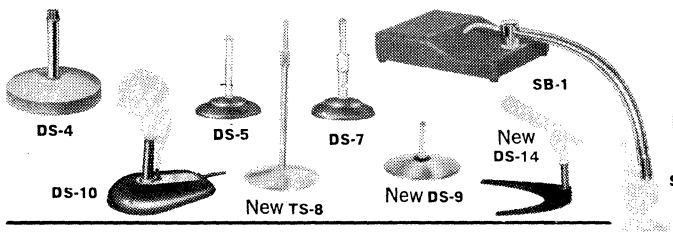
NS-1 "The Chesty" Neck Supported Mike Holder. Permits a quick and simple "three way" adjustment. Mike is always in a suitably "close talking" position reducing acoustic feedback problems. Wide comfortable chest support prevents rolling due to sudden movement. Cool and lightweight, weighing only 6 oz. **Net Price $3.60**

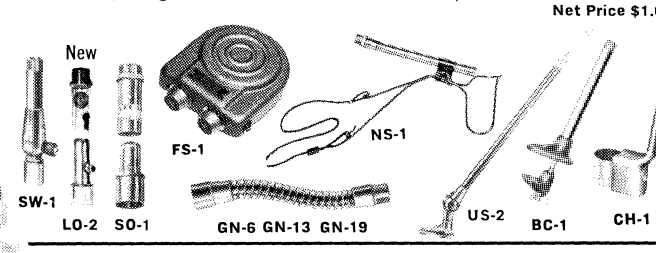
GN "Goose Necks" can be attached to any microphone stand or fixture; ends have ⅝"-27 male and female threads—all finished in bright chrome, model numeral indicates overall length of "goose neck" in inches. **Net Price GN-6 $1.20, GN-13 $1.65, GN-19 $2.40**

US-2 The Atlas US-2 Multi-Purpose microphone support. Excellent for use with language laboratories, dispatcher desks, telephone switchboards, pulpits, etc. The boom arm vertical adjustment and the rotation motion is spring loaded and will "float" the mike in the desired position without requiring a locking adjustment. The microphone cable may be concealed within the boom arm and will feed thru the swivel assembly and base flange. A small opening is provided at the microphone end of the boom for cable entry. Finished in "super-chrome". Specifications—Boom arm length 12¾"; vertical adjustment of boom 180°; rotation 360°; base length 2⅝". **Net Price $5.70**

BC-1 Bracket Clamp. A multitude of useful applications. Can be used with a boom arm, goose neck, etc. Chrome tube 6" long. Clamp can be removed and top flange screwed or bolted in position. ⅝"-27 thread. **Net Price $2.10**

CH-1 Cable Hanger. Fits all tubes ⅞" to 1¼" diameter. The mike cable can be quickly coiled and looped over the cable hanger when moving, storing or transporting the mike and stand. Finished in polished chromium. **Net Price $1.65**





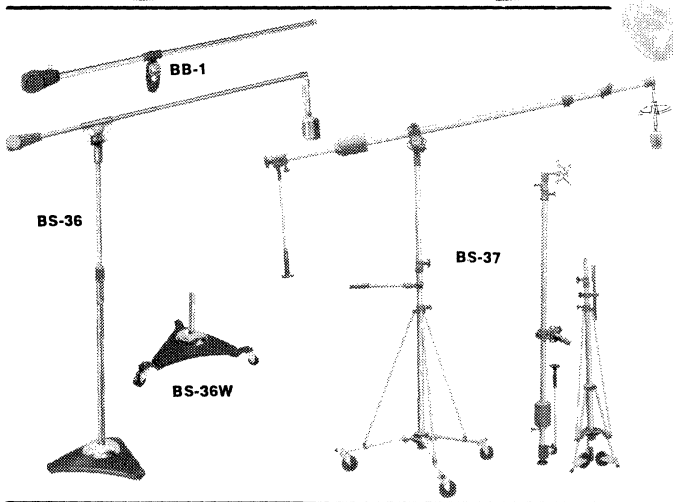
ATLAS BOOM STANDS

BB-1 "Baby Boom" Attachment. Versatile device that can be attached to any type of floor stand. All swivel parts are precision die castings resulting in smooth operation and secure positioning. Length of boom 31"—Chrome plated ⅝"-27 thread. Shipping weight 3½ lbs. **Net Price $4.8**

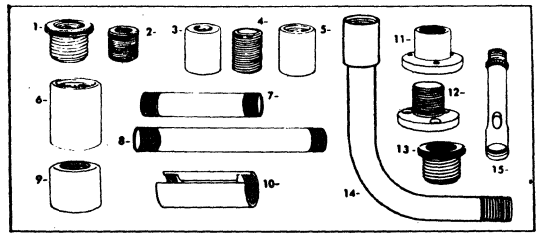
BS-36 Professional Boom Stand with "Safety Air Lock Cushion" offers all the advantages of "Floating Action" plus a secure and dependable locking adjustment. The Air Lock built into the vertical section prevents any accidental or sudden slippage of the upright section. A gyromatic swivel joint is provided at the microphone end. The base casting is equipped with shock absorbent chrome plated, "domes of silence". Specifications: Boom length 62" (extension may be added). Vertical extension from 48" to 72". All tubular sections super-chrome plated. Base finished in polished chrome and gun metal. Shipping weight 36 lbs. **Net Price $39.9**

BS-36W Mobile Model. Identical to the BS-36 except that the base is supplied with ball bearing swivel casters, permitting the entire stand to be wheeled to various positions in the studio. Shipping weight 40 lbs. **Net Price $45.9**

BS-37 Porto Boom. For most exacting TV studio, sound motion picture application, etc., ideal for portable service. Fully collapsible down to dimensions permitting its transportation in all automobiles. Air check prevents any accidental collapse of the upright. Detailed description sheet available. Specifications: Upright retracted 5¼ ft., extended 9 ft. Boom retracted 7 ft. extended 18 ft. All tubular sections aluminum processed in "Alumilite". Counter weight cast iron with bronze locking mechanism. Base casters swivel type. Base spread 42" on radius. Shipping weight 73 lbs. **Net Price $390.0**



ATLAS MICROPHONE ADAPTORS AND FITTINGS



Model	Description	Net Price
AD- 1	⅝"-27 female to ½" pipe thread male (RCA Adaptor)	$ .54
AD- 2	⅛" pipe female to ⅝"-27 male	.39
AD- 3	⅛" pipe female to ⅝"-27 female	.39
AD- 4	¾" long, ⅝"-27 male running thread	.21
AD- 5	⅝"-27 female to ⅝"-27 female, coupling	.39
AD- 6	⅞"-27 female to ⅞"-27 female, coupling	.72
AD- 7	3" long tube ⅝"-27 male each end	.42
AD- 8	6" long tube ⅝"-27 male each end	.48
AD- 9	⅞"-27 female to ⅝"-27 female	.45
AD-10	⅝"-24 female to ⅝"-27 female (W. E. Adaptor)	.78
AD-11	Flange, ⅝"-27 female. Base Diameter 1¾"	.45
AD-12	Flange, ⅝"-27 male. Base holes on 1¼" mounting centers	.45
AD-13	⅞"-27 male to ⅝"27 female	.51
AD-14	Right angle bent tube: ⅝"-27 male and female each end	.90
AD-15	Cable "Feed-Thru" adaptor: ⅝"-27 male and female each end	.90

Note: Thread sizes specified as ⅛" pipe is I.P.S. (Electrical fitting) Measures Approx. ⅜" dia. All adaptors chrome plated.

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Electro-Voice®

BC-TV-RECORDING MICROPHONES-DYNAMICS

Cardiline™ Unidirectional Microphones

MODEL 642—A highly directional dynamic microphone combining the best characteristics of cardioid and distributed front-opening designs.* Essentially cardioid unidirectional up to 500 cps; highly directional over balance of range. Working distance is 2 to 3 (or more) times that of conventional types. Excellent for boom use with Model 356 shock mount. Minimum mechanical shock transfer and wind noise interference. Response: Flat from 30 to 10,000 cps or choice of 5 or 10 db low frequency reduction steps by screwdriver adjustment. Acoustalloy® diaphragm. Impedance: 50, 150 and 250 ohms, externally adjustable. Output level: —48 db. Cast aluminum case with non-reflecting gray finish. Supplied with Cannon UA-3-14 connector, 20′ 3-conductor shielded broadcast cable and UA-3-11 Cannon connector. Length, 17⅞″; max. diameter, 3³⁄₁₆″. Must be used with Model 356 or 327. Net weight, 3 lbs., 4 oz.
Net Each **$234.00**

MODEL 643—Similar to Model 642 above but designed for more specialized and extended long-range pickup. Provides cardioid pickup pattern to 100 cps and is highly directional over balance of range. Includes integral 2-position bass tilt-down switch and 100 cps cutoff filter. Impedance: 50, 150 or 250 ohms changed by internal connector pin. Lightweight cast and extruded aluminum case with integral shock mount and removable wind filter. Output level: —47 db; Response: 30 to 10,000 cps. Length, 7′ 2″; max. diam. 4″. Cannon UA-3-14 and UA-3-11 connectors; supplied with 20′ cable and storage case. Fits ⅝″-27 or ½″ pipe threads. Net Each..... **$936.00**
*U.S. Patent No. 3,095,084

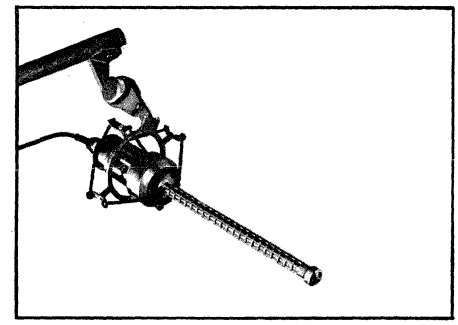
Cardioid Unidirectional Microphones

MODEL 666 SUPER CARDIOID—Variable-D®* principle for high discrimination against sounds from back. Permits close talking without bass accentuation. Working distance increased by 1.7:1 over pressure microphones. Single moving element is exclusive, rugged Acoustalloy® diaphragm. Response: 30 to 16,000 cps. Output: —58 db. Internal connector pin impedance change. Wired for 150 ohms; taps at 50 and 250 ohms. Non-reflecting gray finished aluminum case. Built-in Cannon UA-3 connector. Clamp-on stand mount with ⅝″-27 thread and ½″ pipe thread adapter, 20′ cable. Length, 7¾″; diameter, 1¾″. Net weight, 11 oz. Net Each..... **$153.00**

MODEL 666R RISING RESPONSE CARDIOID—Like Model 666, but with response which rises 4½ db from 100 to 2,000 cps, reducing pickup of low frequency reverberations, room "rumble" and prop noise. Particularly suited to boom use. Output: —57 db. Net Each..... **$153.00**

MODEL 665 CARDIOID—Similar in design and function to the Model 666, but for less exacting applications. Uniform response 50 to 14,000 cps. Recessed switch provides 50 or 250 ohms. Pressure-cast zinc case. Non-reflecting gray finish. Diameter, ⅞″; length, 7³⁄₁₆″; 18′ cable. Fits ⅝″-27 threaded stand. Net weight, 1 lb. 10 oz. Net Each..... **$90.00**

MODEL 668—Entirely new Continuously-Variable-D®* cardioid designed specifically for boom use in broadcasting and recording. Extremely smooth cardioid pattern for maximum reduction of ambient noise and reverberation. Integral windscreen eliminates noise caused by motion of boom-mounted microphone through the air. Built-in equalizer provides choice of four response curves in both high and low frequency ranges. Acoustalloy® diaphragm. Response: 40-12,000 cps. Output: — 51 db. Internal impedance selector permits 50, 150 or 250 ohm connection. Non-reflecting gray finished aluminum case. Two-foot mechanical isolation cable and twenty-foot three-conductor shielded broadcast type cable included. Supplied complete with shock isolating boom mount. Length: 8″, diameter: 3¼″. Net Each..... **$297.00**
*U.S. Patent No. 3,115,207



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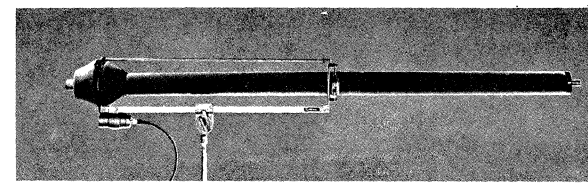

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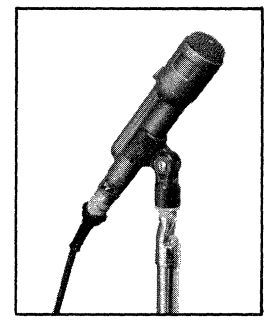

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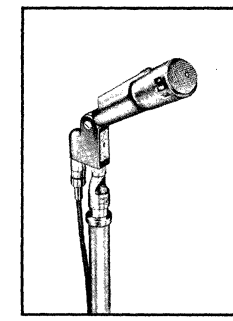

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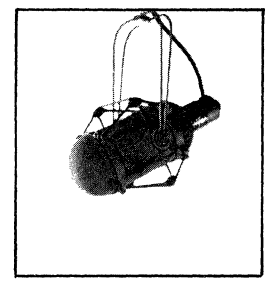

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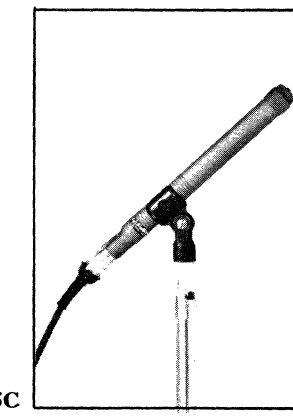

655C

Omnidirectional Microphones

MODEL 655C SLIM-TRIM TV DYNAMIC—Frequency response, 40 to 20,000 cps. Output level, —58 db. Excellent level affords high signal-to-thermal noise ratio. Can be used on stand, in hand or on boom. Easily concealed in studio props. Acoustalloy® diaphragm. Pop-proof grille. Impedance: 50, 150 and 250 ohms. Impedance easily changed. Non-reflecting gray finish. Cannon UA-3 connector. Clamp-on stand mount included with ⅝″-27 thread and ½″ pipe thread adapter. Length, 10½″ w/o connector; diameter, 1″; 20′ cable. Net weight, 7 oz.
Net Each..... **$120.00**

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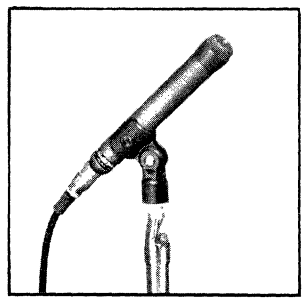
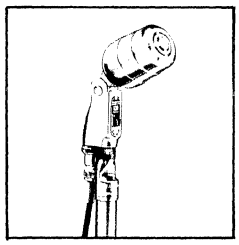


654A

MODEL 654A SLIM-TRIM BROADCAST DYNAMIC—Frequency Response, 50 to 16,000 cps. Output level: —58 db. Can be used stand-mounted, hand-held or as lavalier. Matches all low impedance inputs. Built-in Cannon XLR-3 connector. Acoustalloy® diaphragm. 18′ cable. Length, $6\frac{15}{16}$″ diameter, 1⅛″. Non-reflecting gray finish. Net weight, 16 oz. Supplied with Model 300 clamp and lavalier neck cord.
Net Each.....**$60.00**

MODEL 635 BROADCAST DYNAMIC — Compact, rugged, versatile. Omnidirectional. Response: 40 to 13,000 cps. Acoustalloy® diaphragm. Output level: —55 db. 50-250 ohms impedence selector. Head tilts through 90° arc. Cannon XL-3 connector. ⅝″-27 thread; size 2″ x 6¼″. Satin chrome finish, 18′ cable. Net weight, 1 lb. Net Each **$49.20**

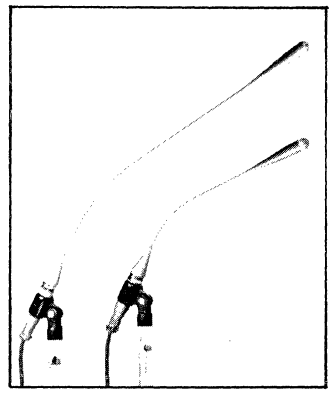
635



649B

MODEL 649B MINIATURE LAVALIER—Smallest dynamic lavalier—weighs only 31 grams without cable; length, 2¼″; diameter, ¾″. Ideal for programming where unobtrusive or concealed microphone placement is desirable. Frequency response: 60 to 12,000 cps. Output: —61db. Acoustalloy® diaphragm. Omnidirectional. Matches all low impedance inputs. 30′ shielded cable. Aluminum case finished in non-reflecting gray. Complete with neck cord, belt clip and stand mounting clamp.
Net Each.....**$63.0(**

"Thin-Trim" Dynamic Microphones



652
652A

MODEL 652—Almost invisible dynamic microphone. Microphone is mounted on the end of the semirigid tube bringing the moving coil element closer to the user for full range, pop free response. Breath and wind filter is an integral part of the microphone. Two clear plastic baffles provided to give either 8 db or 5 db boost in the brilliance range of 5,000 cps for added articulation. The microphone without the baffles gives a smooth response from 80 to 8,000 cps. Acoustalloy® diaphragm. The Model 652 is mounted in a $\frac{3}{16}$″ steel tube and finished in non-reflecting gray. Output level, —60 db. Matches all low impedances. Furnished with 3-conductor shielded 20′ cable and Model 300 stand coupler. Length of microphone, 25″. Weight 11 oz. Net Each.....**$72.0(**

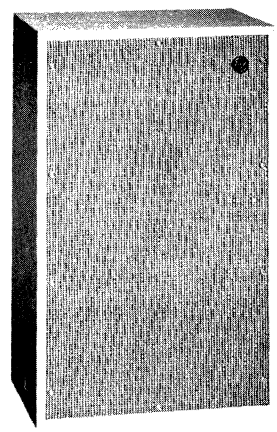
MODEL 652A—Same as Model 652 except 15″ long.
Net Each **$72.0**

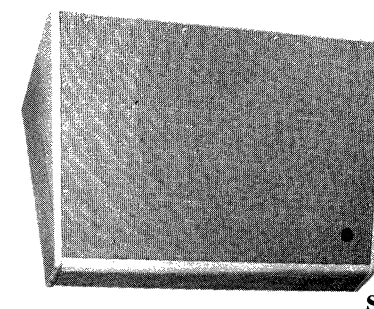
Sentry Series Studio Monitor Speaker Systems

SENTRY I WALL OR CEILING MODEL — The first loudspeaker system designed specifically for monitor use in recording and broadcast studios. Permits precise monitoring and equalization uncolored by monitor speaker. Extremely wide, flat response allows use as studio reference standard. Precision driver components include 12″ Radax loudspeaker, Diffraction Horn high frequency driver and special crossover. Provides smooth frequency response from 30 to 20,000 cps. Internal matching transformer accommodates 16, 150, and 600-ohm amplifier impedances. Quality hardwood cabinet, smooth sanded and sealed, ready for finishing in your choice of colors if desired. Neutral cane grille cloth. Dimensions: 21¾″ h x 37″ w x 17″ d.
Net Each.....**$149.(**

SENTRY II FLOOR MODEL — Same specifications as those shown for Sentry I. Finished on all four sides to permit vertical or horizontal mounting. Includes protective metal trunk-type corners which may be attached for portable applications. Dimensions: 32″ x 20″ x 13″ deep. Net Wt. 68 lbs. Net Each...**$159.**

SENTRY II





SENTRY I

Electro-Voice®

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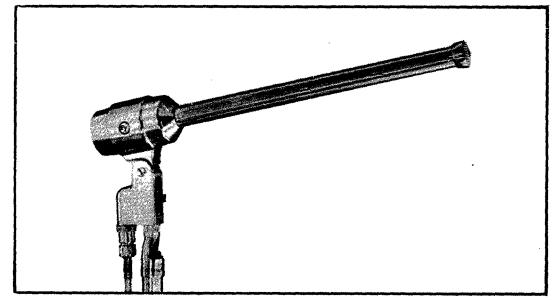
Electro-Voice®

GENERAL PURPOSE MICROPHONES

Unidirectional Line Microphone

MODEL 644 SOUND SPOT® — Another Electro-Voice revolutionary development, the Sound Spot Model 644 is a combination cardioid and distributed front opening* instrument, making it the most directional P.A. microphone ever. The Model 644 has the farthest front pickup, or better than 2.5 times the working distance of pressure types. Work close or far away without change of frequency response.
Cancellation from the rear and sides exceeds 20 db above 700 cps giving practically complete rejection of unwanted sound. Cardioid below 700 cps. This feature gives extremely high rejection of random noise. Reverberation and feedback are vastly lower than with any other P.A. microphone, allowing much greater leeway in loudspeaker placement.
The effective front acceptance angle is 45° each side of center, providing best isolation of individual performers. The Model 644 is 9 db better on the reduction of wind noise and has far less response to shock than most other microphones.
Frequency response is smooth from 40 to 10,000 cps. Acoustalloy® diaphram. High output: —53 db. Dual high and low impedance selected by changing one tap on MC4M cable connector. The case is high-pressure die-cast zinc with ¾" aluminum tube; satin chrome finish. Rear diameter 2 5/16", length 16". Cable is 16'. Weight, 2 lbs. 9 oz. Net Each.....**$66.00**
*U.S. Patent No. 3,095,084



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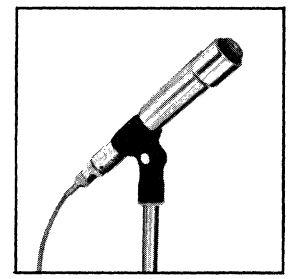
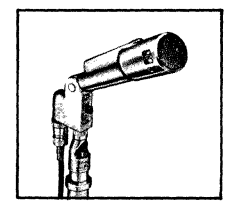


676

Cardioid Unidirectional Dynamic Microphones

NEW MODEL 676 CARDIOID DYNAMIC — Radically new design brings truly professional quality to public address, recording, communications, and other general purpose microphone applications. Exclusive Continuously - Variable-D®* principle assures uniform, symmetrical cardioid pattern at all frequencies. Frequency response 40 to 15000 cps. Highest discrimination against feedback and unwanted sound. Exclusive three position switch offers controlled low-frequency attenuation to overcome rumble and feedback when microphone is used at a distance. Slim design permits full view of person speaking. May be used hand held or with stand mounting clamp supplied. Rugged high pressure die-cast construction. Acoustalloy® diaphragm. 150 ohms or high-Z; impedance changed by moving one wire in cable connector. Output level — 58 db. Satin chrome finish. 16' cable. Size 7⅜" by 1¼" diameter. Net weight 12 oz., less cable. Net Each.....**$60.00**
MODEL 676A—Non-reflecting Gray finish. Shipped wired for 50 ohms. Net Each.....**$60.00**
MODEL 676G—Gold finish. Net Each.....**$66.00**
MODEL 664 CARDIOID DYNAMIC — Similar to Model 666 in function, but designed for quality tape recording, communications, and public address applications. Cardioid pattern at all frequencies, with Variable-D* feature. Permits close talking without "booming" or bass accentuation. Provides better discrimination against unwanted sound. Blast filter minimizes wind effect. Acoustalloy® diaphragm shielded from dust and magnetic particles. Response 40-15,000 cps. Output —58 db. On-Off switch. 150-ohm and high impedance. Impedance changed by moving one wire in MC4 cable connector. Pressure-cast case. Chrome finish. 16' cable. Size 7 3/16" long, less stand coupler, 1⅞" diameter. Net weight, 1 lb. 10 oz. Net Each.....**$51.00**
MODEL 664A—Non-reflecting Gray finish. Shipped wired for 50 ohms. Net Each.....**$51.00**
MODEL 664G—Gold finish. Net Each.....**$54.00**
MODEL 641—Modern two-tone design dynamic microphone. High output level, wide-range response. For public address, home recording, communications, electronic teaching aids, paging systems. Integral On-Off switch, wide frequency response. 50 to 10,000 cps. Output —57db. 16 foot cable. Case is chrome plated die-cast zinc and gray high impact plastic. Standard ⅝"-27 stand connector. Available in Hi-Z or balanced 150 ohms. Specify when ordering. Shipping weight: 1 lb. Net Each.....**$21.00**



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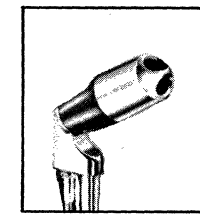

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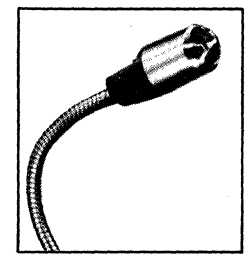

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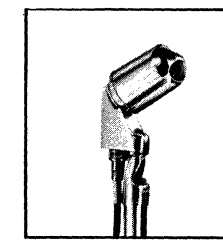

MODEL 634A—Similar to Model 641 (above) except furnished without stand mounting stud or on-off switch. Fits any stand, boom or gooseneck with complete cable concealment. Ideal for desk mounting on electronic teaching aids, amateur and commercial communications and switchboard mounting for paging systems. 6 foot cable and standard ⅝" -27 threads in rear of case. Hi-Z or balanced 150 ohms. Specify when ordering. Net Each.....**$18.00**
MODEL 638—Rugged, compact general purpose microphone. Ideal for all applications requiring maximum performance from microphone of minimum size. Response: 70 to 10,000 cps. Output: —57 db. 16-foot cable. Die-cast case with satin chrome finish. Standard ⅝"-27 stand connector. Available in Hi-Z or balanced 150 ohms; specify when ordering. Shipping weight: 1 lb. Net Each.....**$20.10**
*U.S. Patent No. 3,115,207

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MODEL 636 "SLIMAIR" DYNAMIC—Exceptionally fine for PA, recording and general use. Response 60-13,000 cps. Output —58 db. Pop-proof head. Wide pickup range. On-Off switch. Satin chrome finish. Tiltable head. Built-in MC-4 connector. ⅝"-27 thread. Hi-Z or Lo-Z by changing one wire in connector. 16' cable. 10¼" long including stud, 1⅛" max. diameter. Net Each.....**$43.50**

MODEL 636G—Gold finish. Net Each.....**$46.50**

MODEL 630 HIGH FIDELITY, HIGH-OUTPUT DYNAMIC—Famous for quality at low cost. Response 60-11,000 cps; output level–55 db. Unaffected by heat or humidity. Acoustalloy® diaphragm. Tiltable head. Built-in MC-3 connector. On-Off switch. Satin chrome finish. Available in Hi-Z or 150 (matches 50-250) ohms. Lo-Z balanced to ground. Size: 2" x 6¼". 16' cable. Net weight, 1 lb. Net Each.....**$31.50**

MODEL 647A DYNAMIC LAVALIER—Smallest high quality microphone in the entire public address field delivers big microphone performance. Extremely rugged dynamic construction assures long life. Frequency response, 60 to 12,000 cps. Acoustalloy® diaphragm. Impedance Hi-Z or balanced 150 ohms, selected from free end of cable. Size 3¾" long, ¾" diameter, net weight 2 oz. Output level —60 db, finish is non-reflecting gray. 18' cable attached. Shipped complete with neck cord, belt clip and stand mounting clamp. Net Each.....**$49.50**

MODEL 623 SLIM DYNAMIC—Ideal for PA, recording and general use. Use on stand or in hand. Omnidirectional. Response 60-12,000 cps; output level —56 db. Acoustalloy® diaphragm. Hi- or Lo-Z by changing one wire in connector. Pressure cast; satin chrome finish. Tiltable head. On-Off switch. Built-in MC-4 connector. ⅝"-27 thread. 7½" x 1⁵⁄₁₆". 16' cable. Net Weight, 15 oz. Net Each.....**$34.20**

MODEL 611 "MERCURY" DYNAMIC—Traditional styling, fine performance for general sound pickup. Response 50-9000 cps; output level—55 db. Omnidirectional. Acoustalloy® diaphragm. Tiltable head. On-Off Switch. Built-in MC-3 connector. ⅝"-27 thread. Satin chrome finish. Available in Hi-Z or 150 (matches 50-250) ohms. Lo-Z balanced to ground. 2⅜" x 3⅛" x 6¼" inc. stud. 16' cable. Net Weight 1¼ lbs. Net Each..**$27.00**

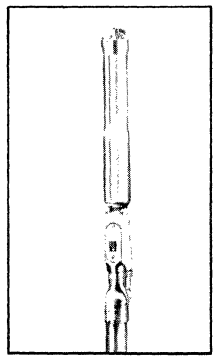
MODEL 624 DYNAMIC LAVALIER—Most economical dynamic lavalier on the market. For chest or hand use. Supplied with neck cord, support clip and 18' cable. Non-reflecting gray finish. Wire mesh head acoustically treated for wind and moisture protection. Output —56 db, response 100-7,000 cps. Acoustalloy® diaphragm. Available in Hi-Z or 150 ohm, not balanced to ground. 3⁵⁄₃₂" x 1⁷⁄₃₂". Cable has integral strain relief. Net Weight, 14 oz. Net Each.....**$25.50**

MODEL 615 "CENTURY" DYNAMIC—Incomparable for paging, home recording, amateur, or any low-cost applications. an be used in hand, on table, on stand, or overhead. Omnidirectional. Acoustalloy® diaphragm. Withstands extreme temperature, humidity, corrosion and shock. Response: 80-8,000 cps. Output: —55 db. Available in Lo-Z (matches 50-250 ohms) or Hi-Z. Lo-Z not balanced to ground. 5' cable. Pressure cast case, Metalustre gray. Rugged, lightweight. Size 3" x 2⁵⁄₁₆" x 1". With ⅝"-27 thread stand adapter. AC-DC insulated. Net Each.....**$15.3(**

Crystal and Ceramic Microphones

MODEL 951 CARDIOID CRYSTAL—Uses same Variable-D®* principle as E-V's BC-TV cardioids to obtain uniform directivity at all frequencies, high discrimination against unwanted sound. The 951 is an excellent wide-range, all-purpose PA microphone for a great variety of acoustic conditions, and especially useful where background noise and reverberation are a problem. Response 50-11,000 cps. Output —60 db. Hi-Z On-Off switch. Pressure-cast case. Metalustre gray finish. 16 cable. MC-1 connector. 5⅜" 1. (excluding stud), 1¾" dia overall. Net wt., less cable, 1¼ lbs. Net Each.....**$32.7(**

*U.S. Patent No. 3,115,207



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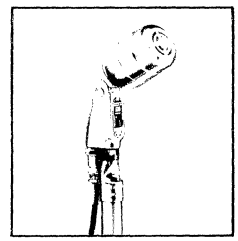

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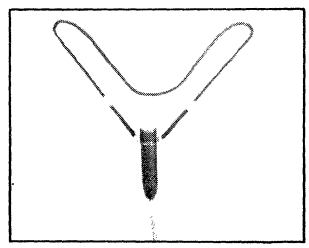

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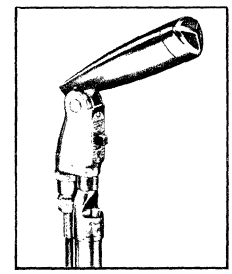

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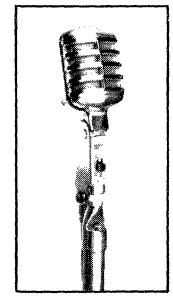

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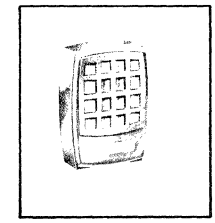

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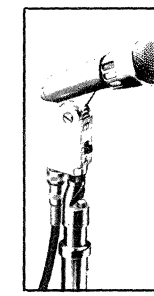

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Electro-Voice®

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MODEL 911 CRYSTAL—Same smart design and fine performance as Model 611. Response 50-10,000 cps. Output—50 db. Metal Seal Crystal. MC-1 connector. Hi-Z. 16′ cable. Net weight 1½ lbs. Net Each.....**$19.50**

MODEL 926 SLIM CRYSTAL—Level and response ideal for general purpose use. Response 60-8000 cps; output level —60 db. Hi-Z. Pressure cast case, satin chrome finish. Tiltable head. ⅝″-27 thread. 6¾″ x 1 5/16″. 16′ cable with integral strain relief. Net Weight 11 oz. Net Each.....**$17.70**

MODEL 920 "SPHEREX" CRYSTAL—Omnidirectional pickup. Response 60-10,000 cps; output level —50 db. Strong wire-mesh head acoustically treated for wind and moisture protection. High capacity, moisture sealed crystal. Hi-Z. Satin chrome. ⅝″-27 thread. Diam. 2¼″. 16′ cable. Net Weight 8 oz. Net Each.....**$16.50**

MODEL 924 LAVALIER CRYSTAL—Unique crystal lavalier for chest or hand use. Supplied with neck cord, support clip and 18′ cable. Non-reflecting gray finish. Wire mesh head acoustically treated for wind and moisture protection. Output—60 db. Response 60-8000 cps. Hi-Z. 3 5/32″ x 1 1/32″. Cable has integral strain relief. Net Weight 8 oz. Net Each.....**$12.00**

MODEL 714—A high output, ceramic hand-held communications microphone for paging, ham radio, and Citizens Band use. Molded, tough, gray Cycolac case, usually found only in most expensive mobile microphones, assures long life and protection from accidental shock damage. Response tailored for maximum intelligibility. High level, high impedance output —55 db over range of 60 to 7,000 cps. DPDT switch shorts microphone in "off" position and closes relay circuit in "on" position. 2½″ x 1 7/16″ x 3⅝″; 3-conductor coiled cord 10″ retracted. Net weight is 8 oz. including cable. Shipped complete with hang-up bracket. Net Each.....**$9.90**

MODEL 717—Similar to Model 714 above except close talking cardioid pickup pattern for rejection of unwanted background noise and feed-back. Specially designed ceramic element with apertures on either side of diaphragm provides effective attenuation of sonuds arriving from the rear and sides. Output level —55 db. Frequency response 100 to 7000 cps. Net Each..**$11.70**

MODEL 729 CERAMIC CARDIOID—The Model 729 is the lowest priced cardioid ever built. Random noise, reverberation and feedback reduced by a factor of 67%. Front pickup range nearly double that of pressure microphones. For public address, call and paging systems, home recorders, especially stereo, and general communications. Discrimination against sound from the rear makes the 729 execellent for amateur radio VOX operations. Tailored for single sideband. Output: —60 db. Response: 60 to 8,000 cps. High impedance only. Metalustre gray front with medium gray back. Attractive desk stand and floor stand adapter supplied. Net weight, less cable and stand, 9 oz. Net Each.....**$14.70**

MODEL 729SR—With relay control switch. Net Each.....**$15.90**

MODEL 727 SLIM CERAMIC—A new approach to the design of ceramic microphones for PA, recording and general use; similar in appearance to Model 729. Withstands extremes of temperature and humidity. Response 60-8000 cps. Output —55 db. High impedance only. 5′ cable. Metalustre gray front with medium gray back. Size: 7¾″ x 1⅜″ x 1½″. Supplied with attractive desk stand and floor stand coupler. Net Weight less cable, stand, 9 oz. Net Each.....**$10.80**

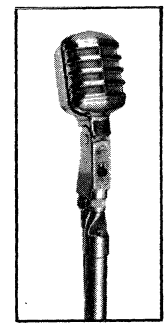
MODEL 727SR—With relay control switch. Net Each....**$12.00**

MODEL 715 "CENTURY" CERAMIC—Use in any position—in hand, on table, on stand or overhead. Ceramic element. 60-7000 cps; output —55 db. Hi-Z. 5′ cable. Omnidirectional. Metalustre gray finish. Rugged, lightweight. 3″ x 2 3/16″ x 1″. With ⅝″-27 adapter. AC-DC insulated. 6 oz. Net Each...**$7.80**

MODEL 715S—With switch. Net Each.....**$9.00**

MODEL 715SR—With relay control switch. Net Each....**$10.50**

MODEL 718 CERAMIC—An improved replacement for home recording microphones. 5′ cable includes a molded-on phono plug, with adapter, to match all late model home recorders. Improved high-level (—55 db) ceramic element resists damage from temperature, humidity extremes. Response: 60 to 6000 cps. 3 9/16″ x 1¾″ x 1 13/16″. Net Weight 8 oz. Net Each.....**$7.20**



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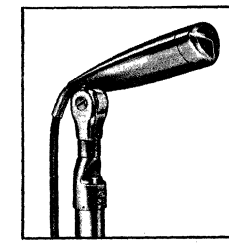

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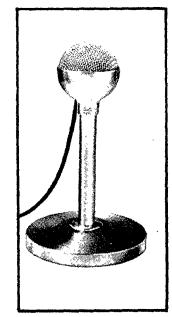

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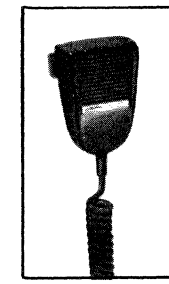

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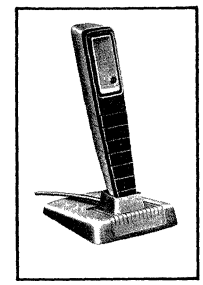

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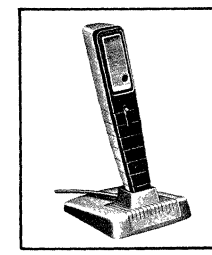

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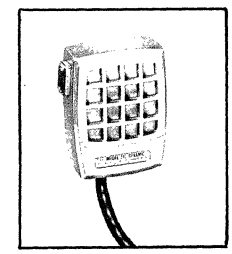

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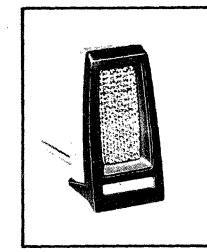

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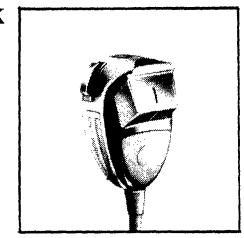
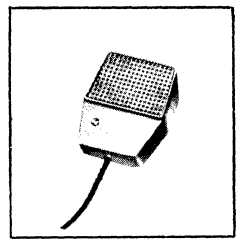
205STCKK





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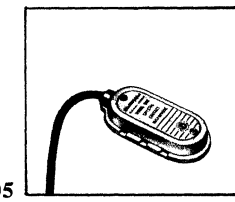

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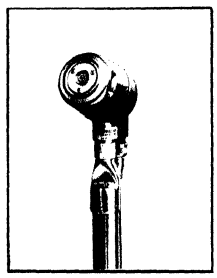

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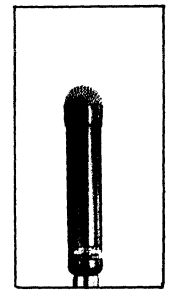

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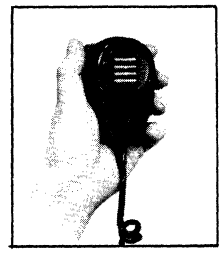
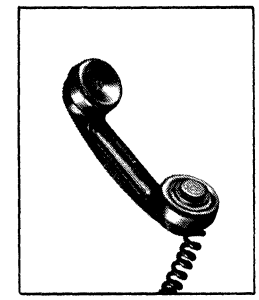


600E



625SKK

MODEL 712 CERAMIC—Low cost ceramic microphone. Fits need of low cost PA, home recording, paging and general use. Handheld. Moisture sealed ceramic. Response 70-7000 cps. High output —55 db. Hi-Z. Attractive gray Styron case. Size 3" x 2¼" x 1⅜". 5' cable. Net Weight 4 oz. Net Each.....**$4.50**

Electro-Voice®

Differential And Special Purpose Microphones

MODEL 606 DIFFERENTIAL DYNAMIC—Close talking, noise cancelling. Accepts sounds of close origin (¼") and rejects sounds of distant origin. Response: 100 to 5,000 cps. Output at ¼": —55 db. Acoustalloy® diaphragm. ⅝"-27 thread. Built-in connector. Satin Chrome. 2' x 3¼" x 2½" including stud. Lo-Z balanced line (matches 50-250 ohms) or Hi-Z. 16' cable. Net Each.....**$31.50**

MODEL 600E DYNAMIC MOBILE MIKE—Reliability factors have been improved over all previous designs. High-impact Cycolac case and rugged dynamic construction assure protection against shock damage. Easy-action switch provides years of use—shorts microphone in "off" position to eliminate electrical noise pickup and closes relay circuit when depressed. High output level —55 db. Response 100 to 7,000 cps specifically matched to high intelligibility requirements. Size 2½" x 1½" x 4" long; color, communications gray. Shielded coiled cord, 1' retracted, 6' extended. Weight 10 oz. Complete with hang-up bracket. 150 ohms or Hi-Z. Net Each.....**$23.40**

MODEL 602E—Similar to model 600E but noise-cancelling dynamic microphone for use in areas of heavy background noise. It accepts sounds of close origin (¼") and rejects sounds of a distant origin. Output level: —55 db, 100-7,000 cps. Press-to-talk switch. Shielded coiled cord, 1' retracted, 6' extended. Avail able in Hi-Z or balanced line 150 ohm. Weight, less cable, 8 oz Net Each.....**$34.5(**

MODEL 210E CARBON—Similar to Model 600E but single button carbon. Output —50 db. Press-to-talk switch. 6' coile cord. Net Each.....**$21.0(**

MODEL 205STCKK Differential Carbon — Close-talking, noise cancelling, single button carbon. For aircraft and emergency com munications. FAA approved — Certificate No. 1040. Blastproo waterproof and shock resistant. Output at ¼": —50 db. Blac phenolic case. Press-to-talk switch. Mounting bracket, 6' coile cord. Size: 2¼" x 2¼" x 4". Net weight, less cable, 8 oz. Net Each.....**$30.0**

MODEL 205STCKKP — Same as above with PJ-068 plug. Net Each.....**$32.8**

MODEL 625SKK DYNAMIC DIFFERENTIAL HANDSE —For paging, intercom and communications. Sturdy bakeli housing contains noise-cancelling 250 ohm microphone an 150 ohm magnetic receiver. Response: 100-5,000 cps. Outp level: —55 db. Switch closes microphone and relay circui Six-foot five conductor coiled cord. Dimensions: 8½" x 3" 2⅝". Net weight: 1½ lbs. Net Each.....**$51.(**

MODEL 625TRSKK—Identical to Model 625SKK above e cept with two-stage transistor amplifier for direct replaceme in carbon microphone circuits. FAA type certificate: 3R42- Net Each.....**$73.**

MODEL 648 INTERCOM MICROPHONE—Extremely v satile paging, intercom, or PA mike. Response: 50-10,000 c Output —58 db. Choice of Lo-Z (matches 50-250 ohms) or hi impedance. Omnidirectional. Acoustalloy® diaphragm. No reflecting gray. Less Cable. Size: 6 1/16" x 1" (including ⅝"- thread adapter). Net Weight (with adapter), 8½ oz. Net Each.....**$33.**

MODEL 805 CONTACT—For guitar, banjo, other string instruments. Hi-Z. Sealed crystal. Chrome finish. 15' cab Net Each.....**$12.**

Electro-Voice®

MICROPHONE ACCESSORIES

MODEL 327 WINDSCREEN PACKAGE—Consists of 324 shock mount and 326 windscreen, for use with Model 642 microphone. Fabricated of Acoustifoam*. eliminates "blast" caused by fast panning of boom, or when used outdoors. Net weight, 1 lb., 8 oz. Net Each.....**$60.00**

MODEL 324 SHOCK MOUNT—Suspension mount for Model 642 microphone. Will accept Model 326 windscreen. Net Each.....**$36.90**

MODEL 326 WINDSCREEN KIT—Acoustifoam* windscreen for Model 642 microphone. Compatible with Model 324 Shock mount. Net Each.....**$26.10**

MODEL 356 SUSPENSION SHOCK MOUNT—For use with Model 642 on boom or floor stand when no windscreen is used. Net Each.....**$30.00**

MODEL 335A WINDSCREEN—Acoustifoam* windscreen fits 630, 641, 634, 635 microphones. Net weight, ½ oz. Net Each.....**$7.50**

MODEL 355 WINDSCREEN—Designed to reduce or eliminate wind noise, this windscreen is constructed of Electro-Voice Acoustifoam*, a material which will not alter frequency response or polar characteristics of microphone. Also protects against mechanical shock damage and pickup of dust and magnetic particles. For use with models 655C, 654A, 676, 636, 623, 647 and 926. Size, 9" x 3¼". Net weight, ½ oz. Color: gray. Net Each.....**$6.60**

MODEL 524A WINDSCREEN—Designed specifically for use with Model 666 microphone. Minimizes wind effect on boom operation or when used outdoors. Made of Acoustifoam.* Weight, ½ oz. Net Each.....**$7.20**

MODEL 300 DETACHABLE MICROPHONE CLAMP—Light weight adapter fits any 1" cylindrical microphone providing positive mounting to either ½" pipe thread or ⅝"-27 stand. Net Each.....**$4.50**

MODEL 310 DETACHABLE MICROPHONE CLAMP—Similar to Model 300 above, but designed for ¾" diameter microphones. Net Each.....**$3.60**

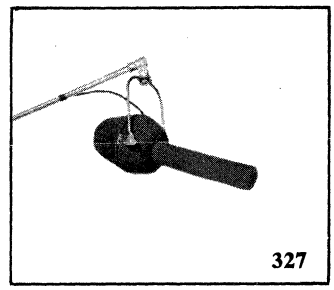
MODEL 366 SUSPENSION SHOCK MOUNT—Extremely light. Designed for use with 666 microphone. Installs without tools. Pigtail cable connection wth UA-3 connectors provides cable loop isolating boom shock noises. For any microphone with 1" diameter. Net Each.....**$24.00**

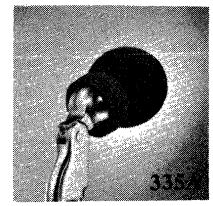
MODEL 448 SWIVEL BOOM MOUNT—Designed specifically for use with Model 648 microphone. Holds mike 11⅞" off mounting surface. 62° elbow bend. MC-2M connector. Satin chrome finish. Extends 4" below mounting surface, 2½" diam. mounting base. Net Weight, 1 lb. 5 oz. Net Each.....**$14.40**

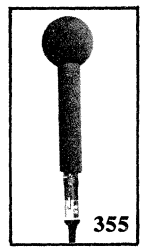
MODEL 502A MATCHING TRANSFORMER—Designed for use in series with mike line. Transformer windings have low distributed capacity and are amply shielded against inductive hum by a shield inside pressure-cast case. Designed for 50, 150, 250 and 500 ohms—to Hi-Z. Broadcast fidelity—response 40-20,000 cps ± 1 db. 2⅞" x 1 15/16" diameter. Net Each.....**$10.50**

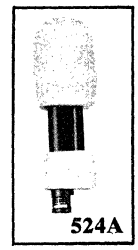
MODEL 513 FILTER—Designed for use with low impedance microphones, has switch to match 50, 150 or 250 ohms. When used in line between microphone and preamp., it rejects unwanted noise below 100 cps. 2¼" diameter, 5⅝" long. Net weight 1 lb. 10 oz. Net Each.....**$42.00**

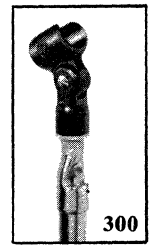
*Electro-Voice Trademark

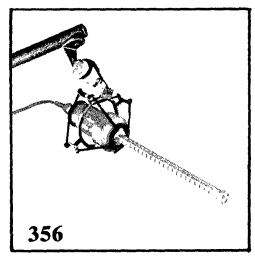


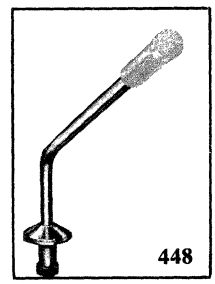


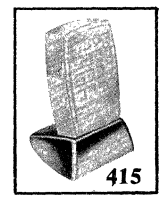


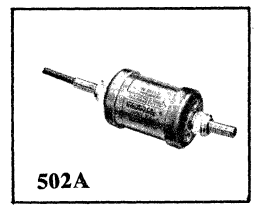


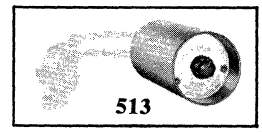


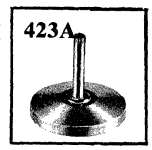


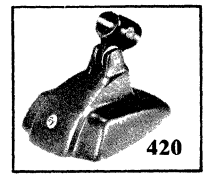












Microphone Stands

MODEL 415 RECLINING DESK STAND—Mounts 615, 715, 15S at 15° tilt. Metalustre gray. Size 2⅝" x 2¾" x 1". Net Weight, 4 oz. Net Each.....**$1.05**

MODEL 418 DESK STAND—Use with microphones using nall-type stud such as Models 611, 623, 630, 641, 635, 636, 911, nd 951. Die cast base. Gray finish. Net Each.....**$6.00**

MODEL 418-S—With switch. Net Each.....**$9.00**

MODEL 419 DESK STAND—Similar to Model 418 but for use ith microphones using large-type stud such as Models 644, 664, nd 665. Net Each.....**$6.00**

MODEL 419S—With switch. Net Each.....**$9.00**

MODEL 420 DESK STAND—Heavy cast iron stand finished in TV gray. Specifically designed for use with E-V 666, 655C, 654A, 652, 652A, 676 or other microphones with 1" diameter. Clamp attachment for mounting 1" cylindrical mikes, without tools. Base holds mike in position when subjected to ordinary strain. Net Weight, 3 lbs. Net Each.....**$12.00**

MODEL 423A DESK STAND—Sturdy smartly styled, round die-cast base, 5⅛" diameter. Rests firmly on rubber base buttons. Rich satin chrome. ⅝"-27 thread. 5" matching stem riser. Net Weight, 1 lb. Net Each.....**$3.00**

MODEL 428 TOUCH-TO-TALK STAND—Fits standard ⅝"-27 thread. Lever-type DPDT switch for relay operation or microphone On-Off—closes or opens instantly or locks in "talk" position. Satin chrome; gray plastic switch lever with locking button. 7" x 5⅛" base diameter. Net Weight, 1¾ lbs. Net Each.....**$10.50**

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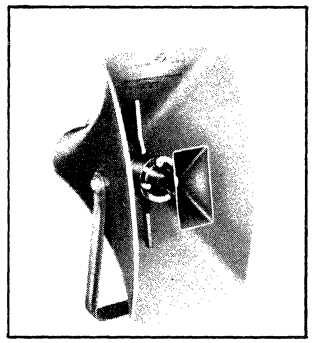
Electro-Voice®

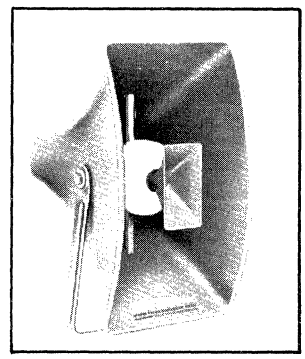
PUBLIC ADDRESS HORNS AND DRIVERS



848

Compound Diffraction Projector

MODEL 848—Combines FC100 Compound Diffraction Horn plus DC30 Compound Driver for finest wide-angle sound, lowest distortion, highest quality of any projector. Specifications: Frequency response, 150-10,000 cps; impedance, 16 ohms; dispersion, 90° x 120°; power handling capacity, 30 watts; sound pressure level, 117 db; dimensions, 10½" x 20½" x 20". Net Weight, 13½ lbs.; Shpg. Wt. 17 lbs. Complete. Net Price.....**$49.50**



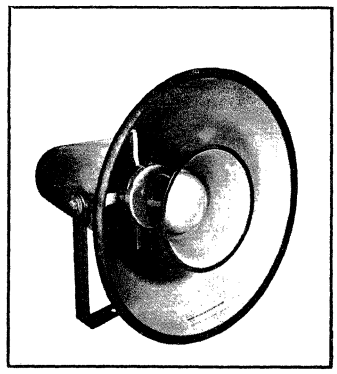
FC100

Projector Horns

Completely new designs assure finest performance with Electro-Voice projector horns. Two basic types from which to choose . . . compound and reentrant.

EXCLUSIVE COMPOUND HORNS permit widest range at lowest distortion, plus complete directional control of both highs and lows. Best wide-angle coverage with exclusive diffraction horns means better sound through entire coverage area. Concentrating compound horn provides highest efficiency at lowest distortion. Natural voice and music reproduction result in higher intelligibility without annoying peaks.

MODEL FC100—Similar to the famous CDP®, the FC100 provides two diffraction horns for uniform wide-angle coverage. Frequency response is not compromised since both horns are ideally designed to handle a specific portion of the range. Compound horn reduces distortion far below any other projector design. Flexible coverage control provided by individual adjustment of each horn. Large horn is fiberglass with Mesa Tan finish molded in. Use any E-V convertible driver. Specifications: Low-frequency horn — cut-off, 100 cps; taper, 100 cps; air column length, 58"; sound distribution, 90° x 120°. High frequency sound distribution, 90° x 120°; crossover, 1,000 cps. Mouth size 10½" x 20½", depth (less driver), 20". Net Wt. (less driver), 10¾ lbs. Shpg. Wt., 12¼ lbs. Net Price.....**$30.00**



AC100

MODEL AC100—Concentrating version of CDP®. Has all of the quality advantages of FC100, except utilizes round horns for most concentrated coverage with greatest efficiency. Retains compound design for lowest distortion—widest range. Use any E-V convertible driver. Specifications: Low-frequency horn—cut-off, 100 cps; taper, 100 cps; air column length, 58"; sound distribution, 80°. High-frequency sound distribution, 30°; crossover, 1,000 cps. Diameter, 21"; depth (less driver), 21"; Net Wt. (less driver), 11 lbs. 6 oz. Shpg. Wt., 13½ lbs. Net Price....**$33.00**

REENTRANT HORNS provide wider range than ever before at lowest cost. Unique E-V ring reflector design provides better balanced highs than possible with conventional exponential designs, by reducing high-frequency losses often encountered in reentrant horns. Smoother response plus added useful range increases intelligibility and adds to more natural sound. Rugged aluminum die-cast mounting plate plus precision die-cast reentrant tubes assure long-lasting performance. Heavy spun aluminum round bell or fiberglass rectangular horn provides either concentrated coverage or medium angle coverage. Electro-Voice Reentrant Horns accept any standard driver with 1⅜"-18 threads.

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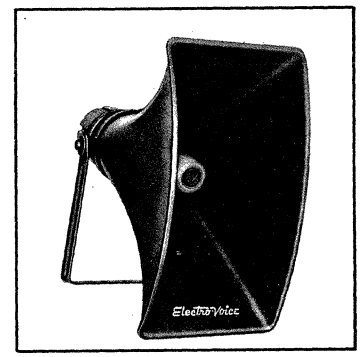
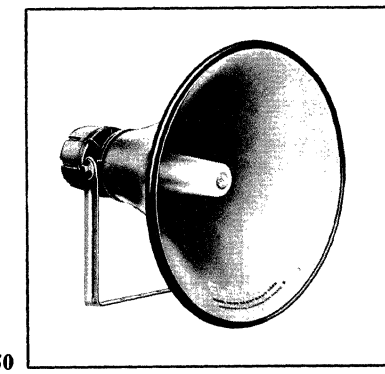
MODEL FR150—Reentrant Horn. Medium-angle low-cost rectangular horn provides good coverage at low cost. Virtually indestructible fiberglass horn has Mesa Tan color molded in. Adjustable mounting angle allows best coverage. Can be stacked for multiple speaker applications. Ideal for car-top installation or wherever low silhouette is needed, and where bass response cannot be sacrificed. Accepts Electro-Voice convertible drivers or any standard driver with 1⅜"-18 thread. Specifications: Low-frequency cut-off, 150 cps; taper, 150 cps; air column length, 45"; sound distribution, 70° x 100°; mouth size, 10½" x 20½"; depth (less driver), 21"; Net Wt. (less driver), 9½ lbs. Shpg. Wt., 12 lbs. Net Price.....**$23.40**

MODEL AR150—Reentrant Horn. Round concentrating horn for maximum penetration at lowest cost. E-V ring reflector plus precision new exponential design contributes to widest range yet achieved from this horn type. Smoother curve results in high intelligibility, and remarkably natural voice and music quality. Rubber edge-damping ring eliminates resonances. High-efficiency design allows more useful volume from driver over entire range. Accepts Electro-Voice Convertible drivers or any standard driver with 1⅜"-18 thread. Specifications: Low-frequency horn—cut-off, 150 cps; taper, 150 cps; air column length, 41"; sound distribution, 85°; diameter, 21"; depth (less driver), 17". Net Weight (less driver), 6½ lbs. Shipping Weight, 8 lbs Net Price....**$23.40**



FR150



AR150

Versatile Convertible Drivers

Now, for the first time, here are drivers that can be used interchangeably in compound or reentrant horns. Used on either type of horn, the new Electro-Voice Convertible Drivers feature highest efficiency available. Increased power handling plus extra increased efficiency make the 40- and 50-watt drivers uniquely useful where high power at minimum cost is essential. The high efficiency of all E-V Convertible Drivers is achieved without resorting to "peaked" response which may increase loudness, but does reduce intelligibility. The smooth response of these drivers insures most natural reproduction of voice and music for more satisfying quality with vastly reduced feedback problems and greatly increased tonal range. Double flux ceramic magnets provide long-lasting high efficiency in entirely new low-loss magnetic circuits. Edgewise-wound ribbon voice coils give 18% more efficiency.

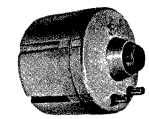
Diaphragm Replacement Kits allow easy field maintenance of E-V Drivers.

DRIVER	8 Ohm	16 Ohm
828 or DC30 (Used on Model 848)	....	82016
DS30 (Used on Model 844)	8410	....
DC30B	....	83137
DC40	....	82088
DC50	....	82089
Net Price	**$7.20**	**$7.20**

Replacement kits not available for DC30BT, DC40T or DC50T.

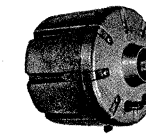
The drivers are rugged and weatherproof; conversion to either reentrant or compound use can be made instantly in the field. Voice coils are also field replaceable, thus reducing repair costs to a minimum. E-V Convertible Drivers are available with 16-ohm voice coils or with built-in 70.7-volt line constant voltage transformers. This entirely new design concept gives better performance at minimum cost, making E-V Drivers your best buy.

DC30B



DC30BT

DC40



DC50

	DC30B	DC30BT	DC40	DC40T	DC50	DC50T
Frequency Response††	150–10,000	150–10,000	140–11,000	140–11,000	140–11,000	140–11,000
Program Power Capacity	30	30	40	40	50	50
Sound Pressure Level† — FC100 Compound Horn	117 db	117 db	120 db	120 db	124 db	124 db
Sound Pressure Level† — AR150 Reentrant Horn	126 db	126 db	129 db	129 db	133 db	133 db
Voice Coil Impedance	16	16	16	16	16	16
Transformer Impedances, Ohms	.....	167, 333, 1000, 2000	.....	125, 250, 500, 1000	.....	100, 143, 200, 500
Transformer Power Taps, Watts	.....	30, 15, 5, 2.5	.....	40, 20, 10, 5	.....	50, 35, 25, 10
Dimensions (overall)	5½" dia. 3" l.	5½" dia. 5½ l.	6¼" dia. 4¼" l.	6¼" dia. 6" l.	6¼" dia. 4¼" l.	6¼" dia. 6" l.
Net Price	**$19.80**	**$25.80**	**$25.20**	**$32.70**	**$32.70**	**$39.30**

†Measured at 4' on-axis with full rated power from 750–1250 cps. ††Measured on-axis with FC100 horn.

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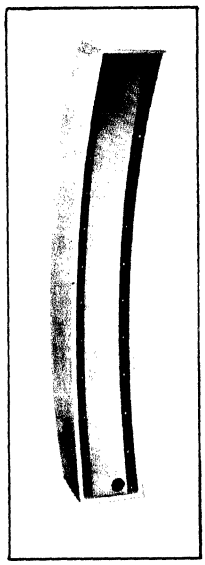
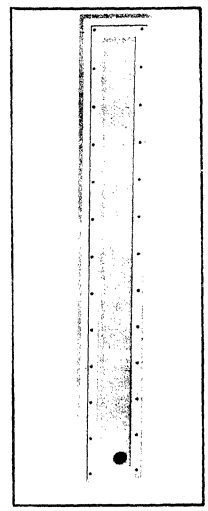
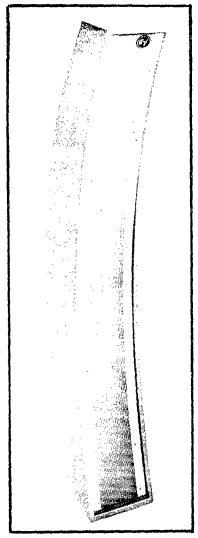


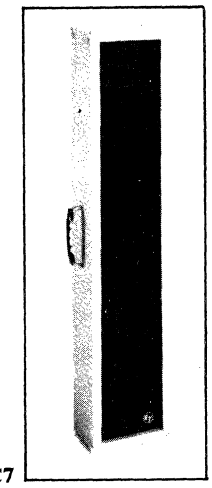
LR4A



LR4S



LR7



PC7

Line Radiator™ Loudspeakers

Three new, wide-angle speaker designs permit wide horizontal dispersion while almost eliminating sound output above or below speaker. Superb for voice-reinforcement systems. Unusually wide frequency range coverage.

MODEL LR4A—Curved design* overcomes unwanted high-frequency dispersion at ends, eliminating echo and feedback. Contains nine 3″ x 5″ and three 3½″ cone speakers, 160° horizontal dispersion; 60° vertical dispersion. Frequency response: 200–15,000 cps. Power handling capacity: 25 watts program, 50 watts peak. Nominal impedance: 8 ohms. Size 49″ h. x 7″ w. x 13″ d. Mesa tan finished wooden enclosure. Shipping weight: 30 lbs. Net Price.....**$75.00**

MODEL LR4S—Electrical filter removes end speakers from circuit as frequencies increase, eliminating high-frequency lobes at ends. Specifications like LR4A, except that dispersion is 160°, horizontal; 30°, vertical. Weatherproof enclosure with mesa tan finish. Size 52″ h. x 7 9/16″ w. x 4⅝″ d. Shipping weight: 32 lbs. Net Price.....**$84.00**

MODEL LR7 — The largest of the revolutionary Electro-Voice Line Radiators. Both low- and high-frequency response extended. Utilizes nine 5″ x 7″ loudspeakers and two T35 vhf drivers for frequency range of 100 to 20,000 cps. Full half-section crossover at 3500 cps. Horizontal coverage 160°, vertical coverage 45°. Power handling capacity 50 watts, impedance 8 ohms. Non-resonant, curved* wood enclosure finished in Mesa Tan. Universal mounting brackets supplied. Dimensions: 60″ high x 11″ wide x 14″ deep. Shipping weight 57 lbs. Net Price.....**$165.00**

*U.S. Patent No. 3,125,181

MODEL PC7—Compact, light-weight columnar loudspeaker specifically designed for portable applications. Features wide frequency range combined with wide horizontal and restricted vertical distribution pattern. Utilizes 6 heavy duty 5″ x 7″ cone speakers in rugged wood cabinet. Tastefully finished in durable gold leatherette with contrasting black grille. Equipped with convenient carrying handle. Frequency response 100 to 10,000 cps. Horizontal coverage 160°, vertical coverage 40°. Power handling capacity 60 watts peak; impedance 16 ohms. Connecting jack accommodates standard ¼″ phone plug. Dimensions: 42″ h. x 8½″ w. x 5¾″ d. Shpg. Wt. 21 lbs. Net Price.....**$58.2**

Electro-Voice®

Paging Speakers

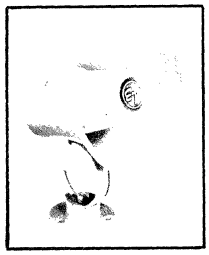
MODEL PA7 REENTRANT PROJECTOR — Attractively styled horn is constructed completely of Cycolac — virtually indestructible. Non-resonant horn won't dent, finish can't wear off. Electro-Voice diaphragm design eliminates loading problem provides cleanliness of reproduction never before achieved in small projectors. Handles 7½ watts over a range of 400 to 13,000 cps. Wide 120° dispersion angle provides excellent coverage. Mounting bracket allows horn to be positioned at any angle. 6¾″ diameter by 6″ deep. Weight 3¼″ lbs. Net Price.....**$16.**

PA 7-45—Same as above but with 45-ohm voice coil. Net Price.....**$17.**

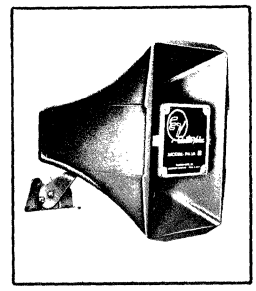
MODEL PA15—A compact speaker of rugged, die-cast construction finished in mesa tan. Smooth, rising response provides high intelligibility and efficiency. Field-replaceable driver. Universal swivel mount. Frequency response: 350—13,000 cps. Power handling capacity: 15 watts program. Nominal impedance: 8 ohms. Dispersion: 120°. Size: 9″ h. x 6″ w. x 9½″ Weight, 4¼ lbs. net. Net Price.....**$20.**

MODEL PA15T—Same, but with integral matching transformer for 70.7-volt lines. Transformer taps: 1.5, 2.5, 5, 10, 15 watts 3300, 2000, 1000, 500, 350 ohms. Weight, 4½ lbs. Net Price.....**$24.**

MODEL PA15-45—Same, but with 45-ohm impedance. Net Price .....**$21.**



PA7



PA15

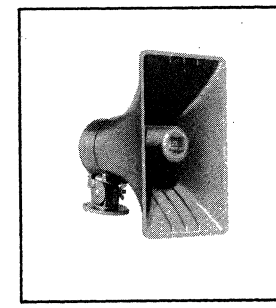
MODEL PA30—Entirely new thirty watt paging projector. Rectangular horn design for maximum versatility, wide dispersion. Rugged, high—impact horn and conservatively rated driver assure maximum reliability. Smooth response for both voice and music. Universal swivel bracket permits placement in any position. Accepts Model TR3 line matching transformers for convenient, attractive installation in large systems. Frequency response: 250 to 14,000 cps. Power handling capacity: 30 watts. Nominal impedance: 8 ohms. Dispersion: 120 degrees by 90 degrees. EIA sensitivity rating 54 db. Sound pressure level 123 db. Dimensions: 11″ H x 6½″ W x 8½″ D. Net weight: 5 lbs. 9 oz. Shipping weight: 7½- lbs.
Net Price.....**$20.70**

MODEL PA30-45—Same as standard PA30, but with 45 ohm voice coil for simple installation in intercom systems.
Net Price.....**$21.60**

MODEL 844—For medium-angle sound distribution. Features smooth response with better lows to provide natural paging without feedback. Handles 30 watts—to reduce costs. Rugged die-cast horn, plus field-replaceable voice coil keeps service costs at a minimum. Frequency response, 250–13,000 cps; power handling capacity, 30 watts; nominal impedance, 8 ohms; dispersion, 90°; EIA sensitivity rating, 51 db; sound pressure level, 120 db; dimensions, 9⅞″ diameter x 8⁹⁄₁₆″ deep; Net Weight, 5 lbs. 10 oz.; Shipping Weight, 8½ lbs.
Net Price.....**$23.40**

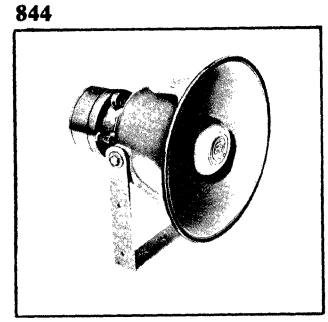
MODEL 844-45—Same as standard 844, but with 45-ohm voice coil for simple installation in intercom systems. Net Price..**$24.30**

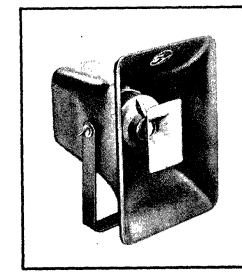
MODEL 847—Utilizing the famous CDP® Principle—this wide-angle speaker provides higher articulation without annoying "peaked" response over a uniform 120° x 90° area. Low distortion results from use of TWO diffraction horns. 25-watt power handling capacity. Fiberglass horn has mesa tan color molded in. Frequency response, 250–10,000 cps; power handling capacity, 25 watts; sound pressure level, 114 db; dispersion, 90° x 120°; impedance, 16 ohms; dimensions, 11¾″ x 7¾″ x 10⁷⁄₃₂″; Net Weight, 8 lbs.; Shipping Weight, 10 lbs. Net Price....**$30.60**



PA30

844





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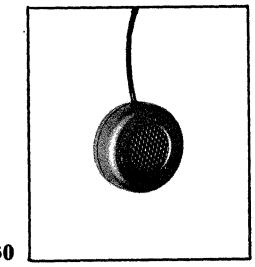


DU30

Underwater Loudspeakers

MODEL DU30—Pool Speaker. For use in swimming pools to provide voice and music audible underwater. May be mounted at any depth down to 4 feet. Specifications: Impedance, 16 ohms. Power handling capacity, 30 watts. Frequency response, 40 to 10,000 cps. Size, 5¾″ diameter x 2⅜″ deep. Weight (with cable), 8 lbs. 4 oz. Twelve-foot Underwriters approved cable. Resistant to chlorine, bromine, salt water, oil, grease, gasoline.
Net Each.....**$58.50**

Electro-Voice®

E-V Musicaster Hi-Fi Outdoor Weatherproof Speaker Systems

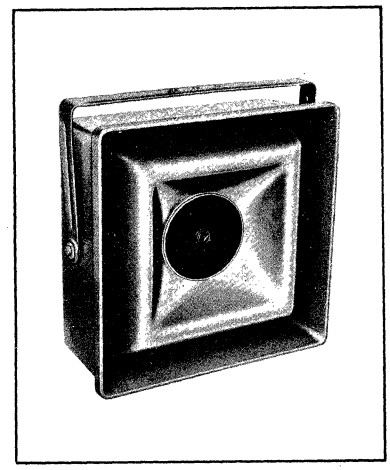
MUSICASTER—Provides high fidelity performance in a compact, portable system. Sturdy aluminum diecast housing protects weatherproof cone speaker and extends bass response through back-loaded folded horn. Dual Radax cone radiates smooth useful highs through 120° angle. Provision for mtg. 70.7-volt line transformer inside. Specifications: Frequency response, 60–13,000 cps; nominal impedance, 8 ohms; dispersion, 120°, power handling capacity, 30 watts program; sound pressure level, 110 db; dimensions, 21½″ x 21½″ x 8½″; Net Weight, 31 lbs.; Shipping Weight, 34 lbs. Net Price.....**$60.00**

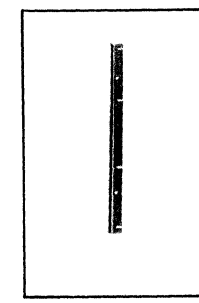
MUSICASTER II—Same fine performance as the Musicaster except has added brilliance and wider coverage from Very-High-Frequency Range Extender. Smooth response to 18,000 cps. Complete with crossover. Net Weight, 33 lbs. Shipping Weight, 35 lbs. Net Price.....**$81.00**

MODEL MB-1—Surface mounting bracket allows mounting of Musicaster flat against wall for neat unobtrusive installation. Replaces standard "U" bracket. Shipping Weight, 1 lb.
Net Price.....**$3.60**

Note: Sound Pressure Level is measured at 4′ on-axis with full rated power from 750 to 1250 cps.

MUSICASTER





MB-1

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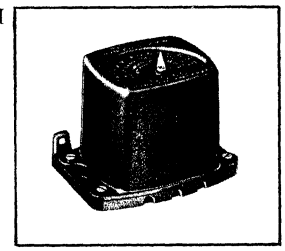
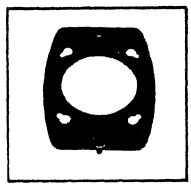
TH





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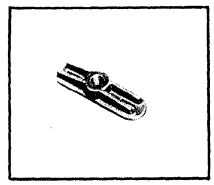
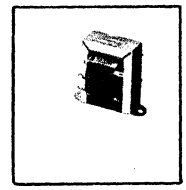
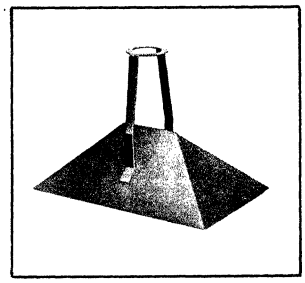


AP-1

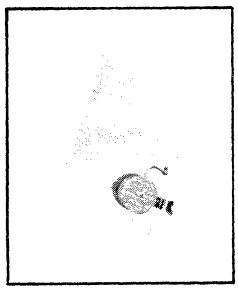


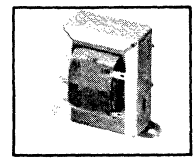
TR5



RA-1

TR7





TM60

MODEL TR5—5-watt 70.7-volt line transformer. 5, 2.5, 1.25 and .625-watt line power taps. 4, 8 and 16 ohms secondary impedances. Accepts solderless terminals in TH housing. Frequency response ± 2 db, 35–20,000 cps. Insertion loss 0.8 db. Overall dimensions 2″ x 1 11/16″ x 1⅜″. Mounting hole centers, 1¾″. Shipping Weight, 1 lb. Net Price.....**$3.00**

MODEL TR15—Same as TR5 except 15-watt capacity with 15, 10, 5, 2.5-watt line power taps. Overall dimensions 1¾″ h., 2⅞″ w., 2 5/16″ d. Shpg. Wt. 1½ lbs. Net Price.....**$3.60**

MODEL TR30—Same as TR5 except 30-watt capacity with 30, 20, 10 and 5-watt line power taps. Overall dimensions 1¾″ h., 2⅞″ w., 2 5/16″ d. Mounting hole centers, 2⅜″. Shpg. Wt., 1½ lbs. Net Price.....**$5.20**

MODEL TR50—Same as TR5 except 50-watt capacity with 50, 40, 25 and 15-watt line power taps. Overall dimensions 2¼″ h., 2 5/16″ w., 2¼″ d. Mounting hole centers. 2⅜″. Shpg. Wt., 2 lbs. Net Price.....**$5.40**

MODEL TM5—Universal 5-watt 25- and 70.7-volt line transformer. Primary line power taps 5, 2.5, 1.25, .625 watts. Secondary impedance 8, 16 ohms. Accepts solderless terminals in TH housing. Frequency response ± 2 db, 35-20,000 cps. Insertion loss 0.8 db. Overall dimensions 2⅜″ x 1 15/16″ x 1⅝″. Mounting hole centers, 2″. Shipping weight 1 lb. Net Price.....**$3.60**

MODEL TM15—Same as TM5 except 15-watt capacity with 15, 7.5, 3.75, 1.875 watt line power taps. Overall dimensions, 2⅞″ x 2⅜″ x 1⅞″. Mounting hole centers, 2⅜″. Shipping weight 1½ lbs. Net Price.....**$4.20**

MODEL TM30—Same as TM5 except 30-watt capacity with 30, 15, 7.5, 3.75 watt line power taps. Overall dimensions 3⅛″ x 2¾″ x 2″. Mounting hole centers, 2 13/16″. Shipping weight 2 lbs. Net Price.....**$5.40**

MODEL TM60—Same as TM5 except 60-watt capacity with 60, 30, 15, 7.5 watt line power taps. Overall dimensions 3 9/16″ x 3 1/16″ x 2½″. Mounting hole centers, 3⅛″. Shipping weight 2½ lbs. Net Price.....**$7.20**

MODEL TR7-2—7½-watt 25-volt line transformer and weatherproof housing designed specifically for use with the Model PA7. Mounts quickly and easily inside PA7 bracket. Primary impedance taps 83, 156, 312, 624, and 1248 ohms; 7½, 4, 2, 1, and ½ watt line power taps. 8 ohms secondary impedance. Shipping Wt. 1½ lbs. Net Price.....**$3.60**

MODEL TR7-7—Same as TR7-2 above except designed for 70.7 volt line applications. Primary impedance taps 660, 1250, 2500, 5000 and 10,000 ohms; 7½, 4, 2, 1 and ½ watt line power taps. 8 ohms secondary impedance. Shipping weight 1½ lbs. Net Price.....**$3.60**

MODEL TR3-2—30-watt 25-volt line transformer and weatherproof housing designed specifically for use with the Model PA30. Line power taps at 30, 15, 8, 4, 2 watts. Secondary impedance 8 ohms. Shipping weight 1½ lbs. Net Price....**$9.00**

MODEL TR3-7—Same as TR3-2 above except designed for 70.7-volt line applications. Net Price.....**$9.0(**

Electro-Voice®

PA TRANSFORMERS AND ACCESSORIES

Transformers

MODEL TH — Transformer Housing provides neat weatherproof mounting of any E-V transformer. Mount vertically or horizontally on any flat surface or on horn bracket. Exclusive wattage indicator tells power setting at a glance. No soldering required with E-V transformers. Size: 4″ h., 5″ w., 3½″ d. Net Weight, 1 lb. 11 oz. Shipping Weight, 2½ lbs. Net Price..**$5.10**

MODEL 598—Mounting Bracket. Facilitates easy mounting of transformer housing to standard wall box. Net Price.....**$1.50**

Accessories

MODEL AP-1—Pipe stand adapter for mounting any E-V speaker "U" bracket to standard ½″ pipe. Shipping Weight 1 lb. Net Price.....**$3.0(**

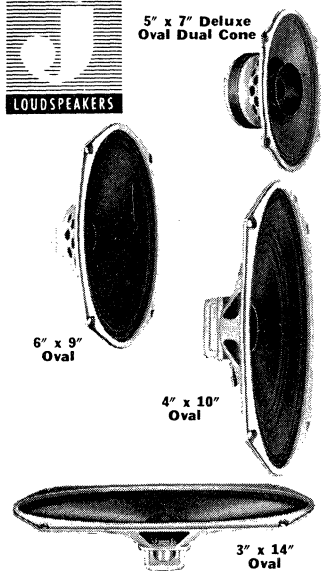
MODEL AD-1—Driver adapter allows use of E-V Convertibl Driver on horns with 1 7/16″-16 thread (W.E.—RCA) for improve performance. Shipping Weight, 1 lb. Net Price.....**$1.8**

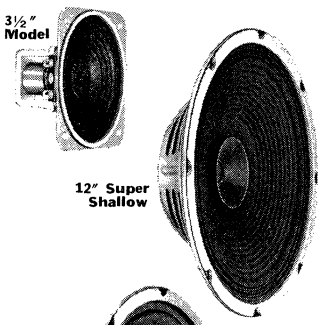
MODEL AD-2—Horn adapter allows use of E-V reentran horns with drivers having 1 7/16″-16 thread (W.E.—RCA) fo improved performance. Shipping Weight, 1 lb. Net Price...**$1.8(**

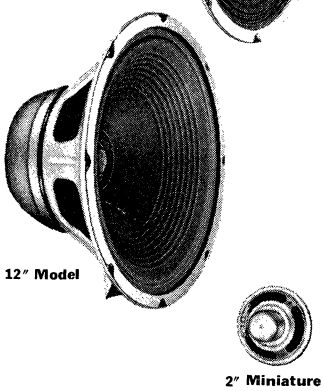
MODEL RA-1—Radial Adapter instantly converts FC100 hor or 848 projector to "radial" applications. Superior to typica "360°" projectors. Diffraction horns give better spread an adapter reflects sound off-axis, to eliminate hot spot. No tool required. Extends 2½″ in front of FC100 horn with DC30A Shipping Weight, 1 lb. Net Price.....**$3.6**

MODEL 879—Joining Kit for two or more 848, FR150 o FC100 horns in multiple array. One kit required for eac junction of two horns. Shipping Weight, 1 lb. Net Price.....**$1.6**

Concert Series Speakers







OVAL GROUP

Nom. Size, Inches	Jensen No.	Mag.* Wt., Oz.	Voice Coil: Imp., Ohms	Voice Coil: Power Watts†	Voice Coil: Dia., In.	Dimensions, Inches: H. x W.	Dimensions, Inches: Depth	Dimensions, Inches: Baffle Opening	Net Each
2 x 6	P2X6X3	.68	3.2	3.5	9/16	2¼ x 6¼	2 5/16	1 15/16 x 5 15/16	$ 2.97
3 x 5	P3X5X3	.68	3.2	4.0	9/16	3 x 5	2 5/16	2¾ x 4 11/16	2.70
3 x 5	P3X5X8	.68	8	4.0	9/16	3 x 5	2 5/16	2¾ x 4 11/16	2.70
3 x 14	P3X14T3	3.16	3.2	7.5	¾	3½ x 14 1/16	3 1/16	2¾ x 13 5/16	10.17
4 x 6	P4X6X3	.68	3.2	4.0	9/16	4 1/16 x 6 1/16	2	3 11/16 x 5 11/16	2.88
4 x 6	P4X6W3	1.00	3.2	4.5	9/16	4 1/16 x 6 1/16	2¼	3 11/16 x 5 11/16	3.09
4 x 6	P4X6V3	1.47	3.2	5.0	9/16	4 1/16 x 6 1/16	2¼	3 11/16 x 5 11/16	3.24
4 x 8	P4X8V8	1.47	8	7.0	9/16	4 x 8	2½	3⅜ x 7 9/16	3.90
4 x 8	P4X8U8	1.73§	8	7.0	1	4 x 8	2 15/32	3⅜ x 7 9/16	4.50
4 x 8	P4X8U40	1.73§	40 CT	7.0	1	4 x 8	2 15/32	3⅜ x 7 9/16	4.80
4 x 10	P4X10V8	1.47	8	7.0	9/16	4 5/16 x 10	2 29/32	3 13/16 x 9 1/2	4.26
4 x 10	P4X10U8	1.73§	8	7.5	1	4 5/16 x 10	2 21/32	3 13/16 x 9 1/2	4.86
4 x 10	P4X10U20	1.73§	20 CT	7.5	1	4 5/16 x 10	2 21/32	3 13/16 x 9 1/2	5.16
4 x 10	P4X10U40	1.73§	40 CT	7.5	1	4 5/16 x 10	2 21/32	3 13/16 x 9 1/2	5.16
5 x 7	P5X7V3	1.47	3.2	6.0	9/16	5 x 7¼	2 27/32	4¼ x 6½	3.66
5 x 7	P5X7V8	1.47	8	6.0	9/16	5 x 7¼	2 27/32	4¼ x 6½	3.66
5 x 7	P5X7VD3‡	1.47	3.2	6.0	9/16	5 x 7¼	2 27/32	4¼ x 6½	4.05
5 x 7	P5X7VD8‡	1.47	8	6.0	9/16	5 x 7¼	2 27/32	4¼ x 6½	4.05
5 x 7	P5X7U3	1.73§	3.2	8.0	1	5 x 7¼	2½	4¼ x 6½	4.50
5 x 7	P5X7U8	1.73§	8	8.0	1	5 x 7¼	2½	4¼ x 6½	4.50
5 x 7	C5X7RD3‡	10.0	3.2	10.0	1	5 x 7¼	2 17/32	4¼ x 6½	6.99
5 x 7	C5X7RD8‡	10.0	8	10.0	1	5 x 7¼	2 17/32	4¼ x 6½	6.99
6 x 9	P6X9V3	1.47	3.2	7.5	9/16	6⅜ x 9⅛	3¼	5¼ x 8⅛	4.17
6 x 9	P6X9V8	1.47	8	7.5	9/16	6⅜ x 9⅛	3¼	5¼ x 8⅛	4.17
6 x 9	P6X9VD3‡	1.47	3.2	7.5	9/16	6⅜ x 9⅛	3¼	5¼ x 8⅛	4.53
6 x 9	P6X9VD8‡	1.47	8	7.5	9/16	6⅜ x 9⅛	3¼	5¼ x 8⅛	4.53
6 x 9	P6X9V20	1.47	20 CT	7.5	9/16	6⅜ x 9⅛	3¼	5¼ x 8⅛	4.47
6 x 9	P6X9U3	1.73§	3.2	9.0	1	6⅜ x 9⅛	3	5¼ x 8⅛	4.74
6 x 9	P6X9U8	1.73§	8	9.0	1	6⅜ x 9⅛	3	5¼ x 8⅛	4.74
6 x 9	C6X9T40	4.8	40 CT	10.0	1	6⅜ x 9⅛	2 13/16	5¼ x 8⅛	5.70
6 x 9	C6X9RD3‡	10.0	3.2	11.0	1	6⅜ x 9⅛	3	5¼ x 8⅛	10.17
6 x 9	C6X9RD8‡	10.0	8	11.0	1	6⅜ x 9⅛	3	5¼ x 8⅛	10.17

GENERAL PURPOSE GROUP

3	P3W3	1.00	3.2	3.5	9/16	3	1 7/8	2 5/8	$ 2.85
3½	P35W3	1.00	3.2	4.0	9/16	3½	2 1/8	3 1/8	2.85
4	P4W3	1.00	3.2	4.5	9/16	4 1/8	2 5/16	3½	2.61
4	P4V3	1.47	3.2	5.0	9/16	4 1/8	2 5/16	3½	2.82
5	P5W3	1.00	3.2	5.0	9/16	4 21/32	2¼	4	2.67
5	P5V3	1.47	3.2	5.5	9/16	4 21/32	2¼	4	2.91
5	C5T3	4.8	3.2	6.0	¾	4 21/32	1 25/32	4	4.77
5¼	P525W3	1.00	3.2	5.5	9/16	5¼	2½	4½	2.85
5¼	P525V3	1.47	3.2	6.0	9/16	5¼	2½	4½	3.03
5¼	C525T3	4.8	3.2	6.5	¾	5¼	2 1/32	4½	4.95
6	P6W3	1.00	3.2	6.0	9/16	6 3/32	2¾	5¼	3.06
6	P6V3	1.47	3.2	6.5	9/16	6 3/32	2¾	5¼	3.27
6	C6T3	4.8	3.2	7.5	¾	6 3/32	2 9/32	5¼	4.95
7	P7V3	1.47	3.2	7.0	9/16	7	3 1/16	6⅜	4.26
8	P8V3	1.47	3.2	8.0	9/16	7 11/16	3 1/4	6¾	3.66
8	P8U3	1.73§	3.2	9.0	1	7 11/16	3	6¾	4.32
8	P8T3	2.5*	3.2	10.0	1	7 11/16	3 7/32	6¾	5.04
8	C8T8	4.8	8	10.5	1	7 11/16	2 29/32	6¾	5.10
8	C8S8	6.0	8	11.0	1	7 11/16	2 29/32	6¾	5.97
8	C8SS8•	6.0	8	11.0	1	8 1/16	2 5/32	6¾	6.00
8	C8R8	10.0	8	12.0	1	7 11/16	3	6¾	6.57
10	C10T3	4.8	3.2	11.0	1	10 5/32	5¼	8¾	8.37
10	C10S8	6.0	8	12.0	1	10 5/32	5¼	8¾	8.10
10	C10SS8•	6.0	8	12.0	1	10 5/32	2¾	8¾	8.16
12	C12T3	4.8	3.2	12.0	1	12 1/8	6 1/16	10½	9.45
12	C12S8	6.0	8	13.0	1	12 1/8	6 1/16	10½	8.94
12	C12SS8•	6.0	8	13.0	1	12 1/8	3 15/32	10½	8.97
12	C12R8	10.0	8	14.0	1	12 1/8	6 1/16	10½	9.57
12	C12RS8•	10.0	8	14.0	1	12 1/8	3 15/32	10½	9.60
12	C12P8	16.0	8	18.0	1½	12 1/8	6½	10½	17.97
12	C12N8	27.0	8	20.0	1½	12 1/16	6¼	10½	23.70
15	C15P8	16.0	8	20.0	1½	15 1/8	7	13¼	23.97
15	C15N8	27.0	8	25.0	1½	15 1/8	7	13¼	29.70

*All model numbers beginning with "C" have SYNTOX-6® ceramic magnets. All others DP-Alnico 5. †Program power. Peak power is twice program rating. ‡Dual cone. §Performance equivalent to EIA 2.15 oz. #Dual cone and high-compliance annulus. •Super-shallow dual cone. ▪Performance equivalent to EIA 3.16 oz.

ELECTRONIC MUSICAL INSTRUMENT GROUP

All models have SYNTOX-6® ceramic magnets.

BASS GUITAR

Nom. Size, Inches	Jensen No.	Mag. Wt., Oz.	Voice Coil: Imp., Ohms	Voice Coil: Power Watts†	Voice Coil: Dia., In.	Dimensions, Inches: H. x W.	Dimensions, Inches: Depth	Dimensions, Inches: Baffle Opening	Net Each
12	EM-1200	16	8	50	1½	12 1/16	6¼	10½	$21.57
15	EM-1500	27	8	60	1½	15⅛	7	13¼	31.20

GUITAR

8	EM-801	10	8	25	1	8 1/16	4 17/32	6¾	$11.97
10	EM-1001	10	8	30	1	10 1/16	5¼	8¾	12.90
12	EM-1201	11	8	40	1¼	12⅛	6½	10½	17.70
12	EM-1202	16	8	50	1½	12 1/16	6¼	10½	21.57
15	EM-1501	27	8	60	1½	15⅛	7	13¼	31.20

ACCORDION

12	EM-1202	16	8	50	1½	12 1/16	6¼	10½	$21.57
15	EM-1501	27	8	60	1½	15⅛	7	13¼	31.20

ORGAN

6 x 9	EM-6900	10	8	12	1	6⅜ x 9⅛	3	5¼ x 8½	$ 8.85
8	EM-802	10	8	15	1	8 1/16	4 17/32	6¾	11.97
10	EM-1002	10	8	18	1	10 1/16	5¼	8¾	12.90
12	EM-1203	10	8	20	1	12 1/16	6⅛	10½	13.50
12	EM-1204	16	8	25	1½	12⅛	6½	10½	21.57
15	EM-1502	27	8	30	1½	15⅛	7	13¼	31.20

†Program power. Peak power is twice program rating.

MINIATURE GROUP

For small-space use in new or replacement applications. DP-Alnico 5 magnets. P20001 thru P20003, 2" sq. x ⅞" d. for 1¾" baffle; mag. wt., .47 oz. P27501 and 2, 2¾" sq. x 1⅛" d. for 2½" baffle; mag. wt., .65 oz.

Nom. Size, In.	Jensen No.	Voice Coil: Imp., Ohms	Voice Coil: Pwr. W.	Voice Coil: Dia., In.	Net Each
2	P20001	6–8	.10	½	$3.30
2	P20002	10–12	.10	½	3.30
2	P20003	100	.10	½	3.48
2¾	P27501	6–8	.25	⅜	3.90
2¾	P27502	12–16	.25	9/16	3.90

FOR PROFESSIONAL SERIES HORNS, DRIVERS AND ACCESSORIES . . . SEE JENSEN CATALOG 1070

FOR HIGH FIDELITY UNITARY LOUDSPEAKERS AND SYSTEMS . . . SEE JENSEN CATALOG 165

Net

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Concert Series Speakers

JENSEN LOUDSPEAKERS

SPECIAL AUTOMOTIVE GROUP

Superior performance in confined mounting areas. No. C4T8 intended for Jaguar, MG and other British cars; C525T8 for Volkswagen and Karmann-Ghia; C6T8 installs between rear seats where provided for in Chevrolet SS, Buick, Pontiac and Oldsmobile.

Nom. Size, Inches	Jensen Number	Mag.▲ Wt., Oz.	Voice Coil Imp., Ohms	Voice Coil Power Watts†	Voice Coil Dia., In.	Dimensions, Inches H. x W.	Dimensions, Inches Depth	Dimensions, Inches Baffle Opening	Net Each
4	C4T8	4.8	8	5.5	¾	4 1/8	1 11/16	3 11/16	$4.20
5¼	C525T8	4.8	8	6.5	¾	5¼	2 1/16	4 7/8	4.95
6	C6T8	4.8	8	7.5	¾	6 1/16	2 9/16	5 5/8	4.95

INTERCOM GROUP

Designed for effective pickup and reproduction of speech in intercom replacement and original equipment. Supplied with DP-Alnico 5 magnets.

Nom. Size, Inches	Jensen Number	Mag. Wt., Oz.	Voice Coil Imp., Ohms	Voice Coil Power Watts	Voice Coil Dia., In.	Dimensions, Inches H. x W.	Dimensions, Inches Depth	Dimensions, Inches Baffle Opening	Net Each
2 x 6	P2X6V45	1.47	45	4.0	9/16	2 5/16 x 6 5/16	2 3/8	1¾ x 5¾	$3.45
3	P3V45	1.47	45	4.0	9/16	3	1 7/8	2 5/8	2.85
3 x 5	P3X5X45	.68	45	4.0	9/16	3 1/16 x 5 1/16	2	2 9/16 x 4 9/16	2.64
3½	P35V45	1.47	45	4.5	9/16	3½	2 1/16	3 1/8	2.85
4	P4W45	1	45	4.5	9/16	4 1/16	2 1/16	3½	2.91
5	P5W45	1	45	5.0	9/16	4 11/16	2 9/16	4	3.06
8	P8U45	1.73*	45	9.0	1	7 11/16	3	6¾	4.50
8	P8T45	2.5‡	45	10.0	1	7 11/16	3 1/4	6¾	5.10

COMMUNICATION AND AIRCRAFT GROUP

Feature special response characteristics for maximum speech intelligibility in high noise conditions. Widely used in amateur, CB and aircraft equipment. No. PC5V45 is excellent for speaker/microphone use. Aircraft types referred to particular makes are for cabin music and announce systems. Where specification number is shown, unit is original equipment item. No. CA6T3 has special voice response widely used in private aircraft. DP-Alnico 5 magnet unless otherwise noted.

COMMUNICATION TYPES

3 x 5	PC3X5V3	1.47	3.2	5.0	9/16	3 1/16 x 5 1/16	2	2 9/16 x 4 9/16	$ 3.27
3½	PC35V3	1.47	3.2	5.0	9/16	3½	2 1/8	3 1/8	3.00
4	PC4V3	1.47	3.2	5.0	9/16	4 1/16	2 1/16	3½	3.00
5	PC5V3	1.47	3.2	5.0	9/16	4 11/16	2 9/16	4	3.12
5	PC5V45	1.47	45	5.0	9/16	4 11/16	2 9/16	4	3.15
6	CA6T3	4.8▲	3.2	7.5	¾	6 1/16	2 1/4	5¼	4.95
8	CC8R3	10.0▲	3.2	12.5	1	7 11/16	3	6¾	6.75
.....	AP-10 (ST-590)	1.47	3.2	5.0	9/16	6¾ x 5	5 1/16	.....	17.97
.....	AP-10 (ST-591)	1.47	45	5.0	9/16	6¾ x 5	5 1/8	.....	17.97

AIRCRAFT TYPES

4	4J6 (V414-12)■	.68	12	4.5	9/16	4 1/16	1 13/16	3½	$ 3.48
5	PA5T45♦	3.16	45	6.0	¾	4¾	2 3/8	4	4.80
8	8J10 (V1321-2)§	1.73	12	9.0	1	7 11/16	2 15/16	6¾	8.10
8	C8R (C7430)#	10.0▲	•	12.0	1	7 11/16	3	6¾	17.25

*Performance equivalent to EIA 2.15 oz. †Program power. Peak power is twice program rating. ‡Performance equivalent to EIA 3.16 oz. §For Douglas aircraft. #For Boeing aircraft. •Transformer. ▲SYNTOX-6® ceramic magnet. ■For Viscount or Douglas aircraft. ♦For Lockheed aircraft.

CONCERT-FIDELITY SPEAKER GROUP

Advanced design, hi-fi quality speakers for full range music reproduction. Dual cone and true coaxial types for single-speaker systems offer low resonance and good bass response; coaxial types have special tweeters with integral crossover. Woofer, tweeter and midrange units provide for multi-speaker systems with 2-way and 3-way crossovers. Crossovers incorporate high frequency control, knob and escutcheon; mount in single hole (25/64" drill) with bushing lengths for up to ¾" panel. Binding post terminals. Impedance, 8 ohms.

Type	Nom. Size, In.	Jensen No.	Frequency Range, cps	Power, Watts †	Dimensions, Inches H. x W.	Dimensions, Inches D.	Dimensions, Inches Baffle Opening	Net Each
Full Range, Dual Cone	8	DC-80	40–14,000	11	8 1/16	4 5/8	7	$11.97
	12	DC-120	25–13,000	13	12 1/16	6¼	10½	13.77
3-element Coaxials*	8	KD-80	30–15,000	12	8 1/16	4¾	7	16.95
	12	KD-120	20–15,000	14	12 1/16	6 5/16	10½	19.95
High Compliance Woofers	8	W-80	30–2,000	15	8 1/16	4 5/8	7	11.55
	12	W-120	20–2,000	18	12 1/16	6¼	10½	13.35
	15	W-150	20–2,000	20	15 1/16	7 5/16	13¼	19.95
Midrange§	8	M-81	600–4,000	25	8 1/16	4 9/16	7	8.88
Cone Tweeter	3½	TW-350	2,000–15,000	15	3½	2 1/8	3½	3.57
Compression Horn Tweeters	.....	TH-100	1,000–16,000	25	4x10½	11½	3x9½	11.97
	.....	TH-200	2,000–16,000	25	3x7¼	6 3/8	2x6 1/16	10.68
2-way Crossover*	.....	XN-100	1000‡	.....	1 5/8x2 3/8	3¼	.....	9.30
	.....	XN-200	2000‡	.....	1 5/8x2 3/8	3¼	.....	9.30
3-way Cross.*	.....	XN-640	600/4000‡	.....	1 5/8x2 3/8	3¼	.....	11.97

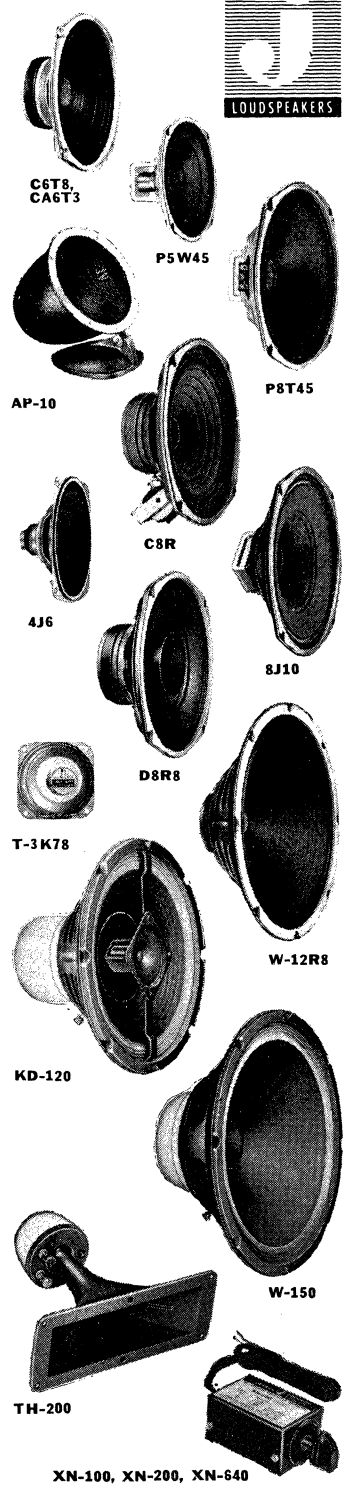
*With HF control. †Program power; peak power is twice program rating. ‡Crossover points. §Closed-back.

HI-FI REPLACEMENT SPEAKER GROUP

Multi-application hi-fi replacements used in many makes of hi-fi equipment. Imp. 8 ohms.

Type	Nom. Size, In.	Jensen No.	Frequency Range, cps	Mag. Wt., Oz.	Power, Watts †	Dimensions, Inches H. x W.	Dimensions, Inches D.	Dimensions, Inches Baffle Opening	Net Each
Full Range, Dual Cone	8	D-8R8	50–14,000	10*	12	7 11/16	3	6¾	$ 8.79
	12	D-12R8	40–13,000	10*	14	12 1/16	4½	10½	10.95
Woofers	8	W-8R8	45–2,000	10*	20	7 11/16	3	6¾	8.19
	12	W-12R8	35–2,000	10*	25	12 1/16	4½	10½	10.65
	15	W-15N8	30–2,000	27*	30	15 1/16	6	13¼	33.75
Midrange, Closed-back	8	M-8U8	600–4,000	1.73‡	25	7 11/16	3	6¾	4.59
	8	M-8R8	600–4,000	10*	30	7 11/16	3	6¾	8.40
Direct Radiator Tweeters	3	T-3K78	2,000–15,000	.68	15	3	1 3/8	2 5/8	2.97
	3½	T-35K78	2,000–15,000	.68	15	3½	1¾	3 1/16	3.15
	3½	T-35W8	2,000–15,000	1.00	15	3½	2 1/16	3 1/16	3.30
	3½	T-35V8	2,000–15,000	1.47	15	3½	2 1/16	3 1/16	3.57
Compression Horn Tweeters	.....	T-107	2,000–16,000	1.47	25	3 x 7¼	6 3/8	2 x 6 1/16	9.90
	.....	T-109	1,000–16,000	1.00	25	4 x 10½	11½	3 x 9½	11.10

*SYNTOX-6® ceramic magnet; all others DP-Alnico 5. †Program power; peak power is twice program rating. ‡Performance equivalent to EIA 2.15 oz.



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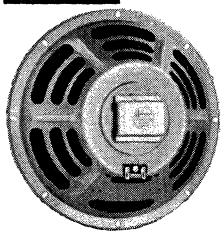
VIKING AND WEATHER MASTER® SERIES REPLACEMENT SPEAKERS

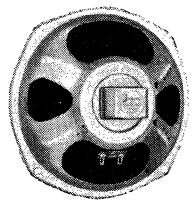
JENSEN VIKING SERIES REPLACEMENT SPEAKERS

Dependable, economical service replacement speakers used by countless manufacturers in original equipment such as home and auto radios, and even jet aircraft. Employ DP-Alnico 5 magnets, precision wound voice coils and heavily plated metal parts.

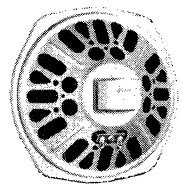
CIRCULAR RADIATOR GROUP



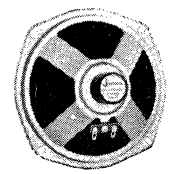
12J10, 10J10



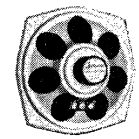
8W3



7W3



6K7, 5K7, 5K5



525K7

Nom. Size, Inches	Jensen No.	Mag. Wt., Oz.	Voice Coil: Imp., Ohms	Voice Coil: Power Watts	Voice Coil: Dia., In.	Dimensions, Inches: H. x W.	Dimensions, Inches: Depth	Dimensions, Inches: Baffle Opening	Net Each
3	3K7	.68	3.2	3.5	9/16	3	1 1/2	2 3/8	$2.09
3 1/2	35K7	.68	3.2	4.0	9/16	3 1/2	1 3/4	3 1/8	2.09
4	4K5	.55	3.2	4.0	9/16	4 3/16	1 3/4	3 1/2	1.60
4	4K7	.68	3.2	4.5	9/16	4 3/16	1 7/8	3 1/2	1.95
5	5K5	.55	3.2	5.0	9/16	4 11/16	1 7/8	4	1.79
5	5K7	.68	3.2	5.5	9/16	4 11/16	1 7/8	4	2.12
5 1/4	525K7	.68	3.2	5.5	9/16	6 1/16	2 3/16	4 1/4	2.39
6	6K7	.68	3.2	6.0	9/16	6 1/16	2 3/8	5 1/4	2.39
7	7W3	1.00	3.2	7.0	9/16	7	3	6 3/8	3.60
8	8W3	1.00	3.2	8.0	9/16	7 11/16	3 1/4	6 3/4	3.22
10	10J10	1.73	3.2	10.0	1	10 1/8	4	8 3/4	4.95
12	12J10	1.73	3.2	11.0	1	12 1/8	4 3/4	10 1/2	5.78

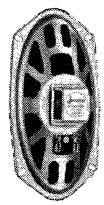
4K5

4K7, 35K7

3K7

OVAL RADIATOR GROUP

5X7W3, 5X7W9



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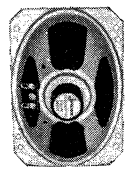
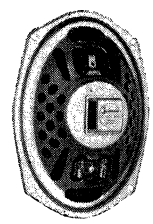
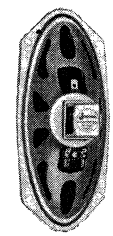


4X6K7

3X5K5



6X9W3, 6X9W9



4X10W9

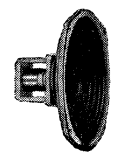
Nominal Size, Inches	Jensen No.	Magnet Weight, Ounces	Voice Coil: Imp., Ohms	Voice Coil: Power Watts	Voice Coil: Dia., Inches	Dimensions, Inches: H. x W.	Dimensions, Inches: Depth	Dimensions, Inches: Baffle Opening	Net Each
3 x 5	3X5K5	.55	3.2	4.0	9/16	3 1/16 x 5 1/16	1 3/4	2 1/2 x 4 1/2	$2.26
4 x 6	4X6K7	.68	3.2	4.5	9/16	4 1/8 x 6 1/8	1 7/8	3 11/16 x 5 11/16	2.64
4 x 8	4X8W9*	1.00	8–10	6.0	9/16	4 x 8	2 3/8	3 1/2 x 7 1/2	3.30
4 x 10	4X10W9*	1.00	8–10	6.0	9/16	4 5/16 x 10 1/16	3	3 3/8 x 9 3/8	3.58
5 x 7	5X7W3*	1.00	3.2	6.0	9/16	5 x 7 1/4	2 15/16	4 1/4 x 6 1/4	2.94
5 x 7	5X7W9*	1.00	8–10	6.0	9/16	5 x 7 1/4	2 15/16	4 1/4 x 6 1/4	2.94
5 x 7	5X7V3	1.47	3.2	6.0	9/16	5 x 7 1/4	2 27/32	4 1/16 x 6 3/4	2.97
5 x 7	5X7V9	1.47	8–10	6.0	9/16	5 x 7 1/4	2 27/32	4 1/16 x 6 3/4	2.97
6 x 9	6X9W3*	1.00	3.2	7.5	9/16	6 3/8 x 9 1/8	3 3/8	5 1/4 x 8 1/8	3.27
6 x 9	6X9W9*	1.00	8–10	7.5	9/16	6 3/8 x 9 1/8	3 3/8	5 1/4 x 8 1/8	3.27
6 x 9	6X9V3	1.47	3.2	7.5	9/16	6 3/8 x 9 1/8	3 1/4	5 3/4 x 8 9/16	3.52
6 x 9	6X9V9	1.47	8–10	7.5	9/16	6 3/8 x 9 1/8	3 1/4	5 3/4 x 8 9/16	3.52

*With combination pin-jack and solder-lug terminals; wide use as auto replacement.

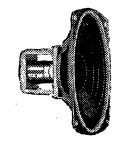
WEATHER MASTER® SERIES OUTDOOR SPEAKERS

WP-602

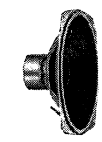
WP-502



WF-500



WP-402



WF-400A

Long service in outdoor conditions such as drive-in theatre use. Types with prefix WF- have special moisture proof and anti-fungus impregnated fiber cones. Other types employ Mylar* laminated fiber cones. DP-Alnico 5 magnets; fungus-proof spiders; non-swelling gaskets. Adhesives are unaffected by heat. *Registered DuPont trademark.

Nominal Size, Inches	Jensen No.	Magnet Weight, Ounces	Voice Coil: Imp., Ohms	Voice Coil: Power Watts	Voice Coil: Diameter, Inches	Dimensions, Inches: H. x W.	Dimensions, Inches: Depth	Dimensions, Inches: Baffle Opening	Net Each
4	WF-400A	.68	3.2	4.0	9/16	4 3/16	1 3/4	3 1/2	$2.17
4	WP-402	1.00	3.2	4.5	9/16	4 3/16	2 1/4	3 1/2	2.42
5	WF-500	1.00	3.2	5.0	9/16	4 11/16	2 3/16	4	2.48
5	WP-502	1.47	3.2	5.5	9/16	4 11/16	2 3/16	4	2.70
6	WP-602	1.47	3.2	6.0	9/16	6 1/16	2 3/4	5 1/4	3.03

FOR PROFESSIONAL SERIES HORNS, DRIVERS AND ACCESSORIES . . . SEE JENSEN CATALOG 1070

FOR HIGH FIDELITY UNITARY LOUDSPEAKERS AND SYSTEMS . . . SEE JENSEN CATALOG 165

Net

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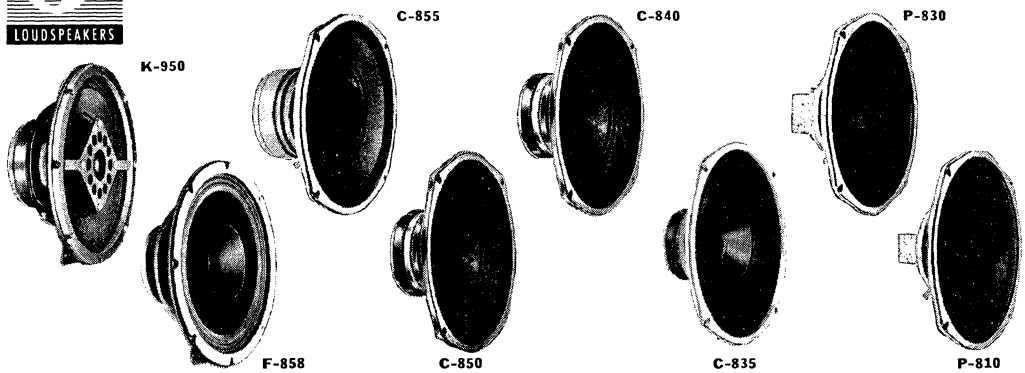
Professional Series Speakers

8" SPEAKERS FOR DISTRIBUTED SOUND

VALUE ENGINEERED FOR LOWEST INSTALLED COST



This new line of Jensen 8-inch Professional Series loudspeakers is specially designed to meet the exacting rigorous demands of commercial sound service. The 8-inch size is ideal for the majority of all distributed sound systems giving more than adequate low frequency range with a minimum of enclosure and mounting complications.

A **complete line** of speakers **value engineered** for lowest **installed cost** with such features as the handy 10-pack, preattached transformers, exclusive solderless connectors, weather and corrosion resistant designs . . . and many more. A wide selection of models to meet every need—from the lowest cost highly competitive application to the most sophisticated, highest quality system.

Four conventional type speakers with varying sensitivity and power rating (magnetic energy) with the typical 90° coverage angle. Two models have dual cone radiating system with 95° coverage angle and unusual high frequency range. Another basic model is an 8" coaxial with 110° coverage angle and unusual frequency range and smoothness for the finest quality and intelligibility. This 110° coverage angle provides approximately **twice** the coverage area, so **fewer** are required for a given installation. Still another model is the unique Jensen FLEXAIR* with dual-cone radiator; super-low resonance for those small acoustic enclosures and back boxes; big-speaker lows the remarkable h-f range to match.

PREATTACHED TRANSFORMERS

The eight basic models mentioned above are all available with preattached 25-volt or 70.7-volt "constant voltage" transformers, Models 25CV4 or 70CV4. Factory attachment insures lower cost to the end user.

AVAILABLE IN HANDY 10-PACK

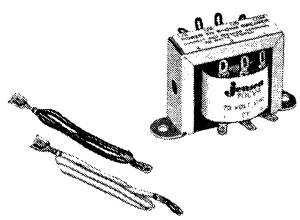
All of these speakers are available at added savings and convenience bulk-packed ten per carton (with or without transformers). These handy 10-pack cartons have individual sleeves for each speaker thus giving speaker protection of odd lots until actual installation.

KWIKON* INSTANT CONNECTORS

Simply twist bare ends of two 12" input leads supplied for each speaker to incoming signal cable leads, insulate with wire-nut or tape. Slide sleeve clips onto input terminal lugs of speaker or preattached transformer as speaker assembly is raised into place. KWIKON* instant connectors also provide simple fast power tap readjustment on transformer. *T.M.

Model	Type	Power Rating[2]	Sensitivity[3]	Magnet[4] Wt., Oz.	Freq. Range, CPS	Nom. V.C. Dia.	Max. Depth	W/O Transformer List	W/O Transformer Net Ea. Boxed	W/O Transformer Net Each in 10-Pack	Transformer Preattached List	Transformer Preattached Net Ea. Single	Transformer Preattached Net Each in 10-Pack
K-950	Coaxial[1]	16	85.5 db	10.0	30–14,000	1″	3¼″	$24.50	**$14.70**	**$13.23**	$29.25	**$17.55**	**$15.80**
F-858	FLEXAIR	12.0	85.5 db	10.0	30–18,000	1″	3″	20.50	**12.30**	**11.07**	25.25	**15.15**	**13.63**
C-855	Dual Cone	12	85.0 db	10.0	30–18,000	1″	3 1/16″	13.50	**8.10**	**7.29**	18.25	**10.95**	**9.86**
C-850	Conventional	12	85.5 db	10.0	30–13,000	1″	3″	12.95	**7.77**	**6.99**	17.70	**10.62**	**9.56**
C-840	Conventional	11	84.5 db	6.0	30–13,000	1″	2 15/16″	10.95	**6.57**	**5.91**	15.70	**9.42**	**8.48**
C-835	Dual-Cone	10.0	84.0 db	4.8	35–18,000	1″	2 13/16″	10.00	**6.00**	**5.40**	14.75	**8.85**	**7.97**
P-830	Conventional	10	84.0 db	2.5	40–13,000	1″	3½″	7.25	**4.35**	**3.91**	12.00	**7.20**	**6.48**
P-810	Conventional	9	82.0 db	1.47	60–13,000	¾″	3¼″	5.80	**3.48**	**3.13**	10.55	**6.33**	**5.70**

[1]V.C. and magnet information pertain to L-F unit only. [2]Maximum speech and music level as indicated on standard VU meter (peak power is substantially higher). [3]Axial free field sound pressure level at a distance of 10 ft. for an input of 1.0 watt 800–1,250 cps warble frequency band (re .000204 dynes/cm²). [4]All magnets are Jensen Syntox-6® ceramic except P-810 and P-830 with DP-Alnico-5.



"CONSTANT VOLTAGE" TRANSFORMERS

Specially designed for use with the popular "constant voltage" distribution systems. Primary (input) windings are center-tapped for balanced-to-ground input circuits or for special circuit needs. Tapped secondary windings provide adjustment of power to the 8-ohm speaker in 3 db steps from ⅛ watt to 4 watts. Nominal core size ⅝″ x ⅝″. Two 1/16″ dia. mounting holes on 2⅜″ centers. Available separately or preattached to these special 8-inch speakers.

Model	Line	Packing	List	Net	Net Ea. 50-Pack
25CV4	25-volt	Single	$4.75	**$2.85**	.....
25CV4B	25-volt	50-Pack	4.75	**2.85**	**$2.57**
70CV4	70-volt	Single	4.75	**2.85**	.....
70CV4B	70-volt	50-Pack	4.75	**2.85**	**2.57**

FOR PROFESSIONAL SERIES HORNS, DRIVERS AND ACCESSORIES . . . SEE JENSEN CATALOG 1070

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Professional Series Speakers

JENSEN CALSTAR* COLUMN SPEAKERS

CALSTAR Controlled-Angle Lobe-Suppressed Twin-Array Reproducers are the result of an exhaustive study of directional sound radiation by Jensen engineers. In a CALSTAR column, an array of small woofers, covering the lower frequency range, is combined with a shorter array of tweeters covering the high frequency range (where the polar sharpening would otherwise become severe). Next, the signal distribution to each element is "tailored" so that the effective array length decreases as the frequency increases. The final result is a column design in which the vertical coverage angle is unusually constant for all frequencies and therefore exceptionally uniform sound quality and high speech intelligibility are achieved throughout the audience area. The exact signal distribution at each frequency provided by the pattern shaping networks has also been chosen to suppress unwanted side lobes.

*T.M.

MODEL 55

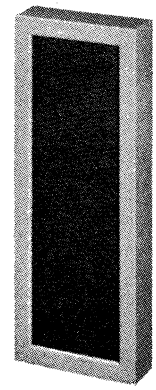
10-Element Twin-Array 60°, 30-Watt, 8-ohm Column Speaker.

List **$133.00.** Net Each. **$79.80**

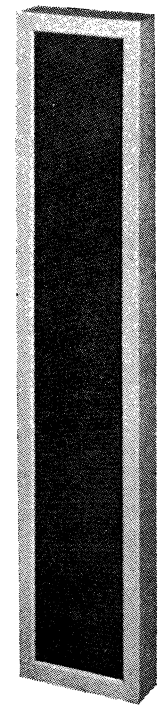
MODEL 1010

20-Element Twin-Array 30°, 60-Watt, 8-ohm Column Speaker.

List **$233.00.** Net Ea. **$139.80**



MODEL 55



MODEL 1010

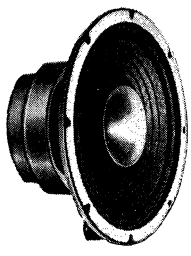
TECHNICAL SPECIFICATIONS

MODEL 55		MODEL 1010
8 ohms	Input Impedance	8 ohms
30 watts	Power Rating[1]	60 watts
100–10,000 cps	Frequency Range	100–10,000 cps
60° total (±30°)	Vertical Coverage	30° total (±15°)
120° total (±60°)	Horizontal Coverage	120° total (±60°)
20 db	Lobe Suppression[2]	20 db
2000 cps	Crossover Frequency	2000 cps
11½" W., 3¾" D., 30" H.	Dimensions	11½" W., 3¾" D., 56⅛" H.

Sensitivity Table[3]

Model 55				Model 1010		
25'	50'	100'	Input Power, Watts	25'	50'	100'
90.0	84.0	78.0	5	94.5	88.5	82.5
92.0	86.0	80.0	7.5	96.5	90.5	84.5
93.0	87.0	81.0	10	97.5	91.5	85.5
95.0	89.0	83.0	15	99.5	93.5	87.5
96.0	90.0	84.0	20	100.5	94.5	88.5
98.0	92.0	86.0	30	102.5	96.5	90.5
—	—	—	60	105.5	99.5	93.5

1. Maximum speech and music level as indicated by VU meter. (Peak power is substantially higher.)
2. Maximum level outside main lobe relative to main lobe intensity.
3. Axial free field sound pressure level at listed distance (db above .000204 dynes/sq. cm.) in 800-1250 cps warble frequency band.



H-970 COAXIAL

with Compression-Driver Horn-Tweeter.

Here at long last is a genuine coaxial loudspeaker in 8-inch size with compression-driver horn-tweeter. Tweeter horn passes through the woofer core terminating in a circular horn inside and concentric with the woofer diaphragm. This design thus yields a circular (symmetrical) radiation pattern at all frequencies ideal for higher-power high-ceiling distributed sound. Excellent speech intelligibility with high quality reproduction for industrial areas, heavy-duty portable, and central speaker system use.

List Price **$45.00.** Net Each..... **$27.00**

TECHNICAL SPECIFICATIONS

Input Impedance.....8 ohms
Power Rating.....20 watts
Response Range.....30–15,000 cps
Angular Coverage.....115°
Resonant Frequency.....60 cps
Crossover Frequency.....2000 cps
Woofer Magnet[1].....16.0 oz.
Sensitivity[2].....87.0 db
Dimensions.....8⅛" OD x 4¾" D.

1. SYNTOX-6* (Ceramic)
2. Axial sound pressure level at a distance of 10 ft. for an 800–1250 cps warble band signal input of 1.0 watt.

FOR PROFESSIONAL SERIES HORNS, DRIVERS AND ACCESSORIES . . . SEE JENSEN CATALOG 1070

FOR HIGH FIDELITY UNITARY LOUDSPEAKERS AND SYSTEMS . . . SEE JENSEN CATALOG 165

Trade Discount Applies To List Prices Only

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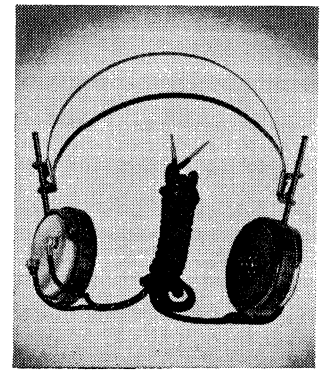
HEADPHONES By C. F. CANNON CO.

THE "CHIEF"
Cannon-Ball Bakelite Headset

A high quality headset of durable molded black plastic. Attractive in appearance, it is a sensitive and practical phone for every headset use. Inside terminals. Diameter of diaphragm is 2 1/16". Double coils, two in each receiver. Alnico permanent magnets. Supplied with vinyl plastic covered headband with permanent adjustment and no removable parts. Cotton covered cord, 4½ ft. long.

CC-2—2000 ohms D.C..... **List $4.15 Net $2.49**
CC-3—3000 ohms D.C..... **List 4.40 Net 2.64**
CC-5—5000 ohms D.C..... **List 5.75 Net 3.45**
CC-11—11 ohms D.C..... **List 4.15 Net 2.49**



BRANDES "SUPERIOR"
Matched Tone Headset

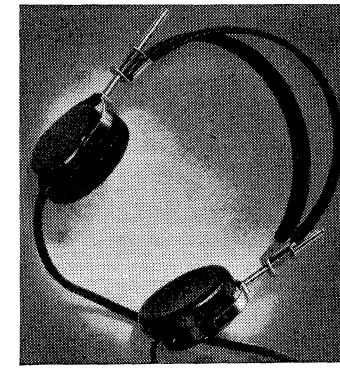
A rugged headset, millions of which are in use all over the world. Large size diaphragms of 2⅛" diameter assure efficient performance. Outside terminals, with polished aluminum cases and bakelite caps. Double coils, two in each receiver. Chrome steel magnets. Steel headband with permanent adjusment. 4½ ft. cotton covered cord.

BS-2—2000 ohms D.C. **List $4.30 Net $2.58**

BRANDES "ADMIRAL"
Matched Tone Headset

The Brandes "Admiral" is of the same general construction as the Brandes Superior, but has terminals on the inside.

BA-2—2000 ohms D.C. **List $4.30 Net $2.58**
BA-3—3000 ohms D.C. **List 4.80 Net 2.88**
BA-5—5000 ohms D.C. **List 6.00 Net 3.60**



CANNON-BALL ALNICO MAGNETIC No. 25

A New Headset of Unusual Quality, Efficiency and Durability, powered by Alnico V magnets.

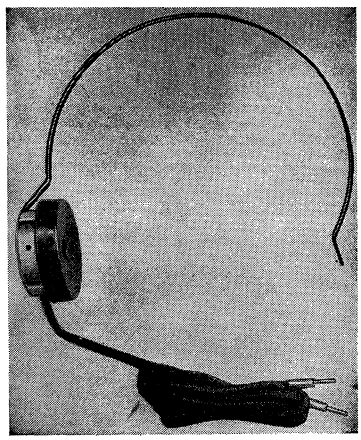
The headband is covered by attractive black extruded vinylite and provides utmost wearing comfort. Limits turn of phone to prevent twisting of cord. Cap and case of molded plastic. Large size diaphragm 2⅛". Equipped with sanitary moisture-resistant plastic cord with riveted crotch piece.

AM-25-2 ..... **List $6.50 Net $3.90**
AM-25-3 ..... **List 7.00 Net 4.20**
AM-25-5 ..... **List 8.50 Net 5.10**

ALNICO MAGNETIC No. 15

A new, small size, extra sensitive double headset, light in weight. Diameter of diaphragm 1⅞". Molded cap and case. Steel adjustable headband. 4½ ft. cord.

AM-15-2 ..... **List $3.65 Net $2.19**
AM-15-3 ..... **List 3.90 Net 2.34**



CANNON-BALL "ALNICO"
Single Headphone

Equal in clarity and volume to most double headsets, efficient and attractive. Permits listening while being addressed by others. Concealed terminals. Diaphragm 1⅞". Bakelite case and caps. Alnico magnet, double coils. 4½ ft. cord. Spring steel headband permanently attached.

AM-15-1—1000 ohms D.C..... **List $2.00 Net $1.20**

THE "MASTER"
Cannon-Ball Headset

Used extensively in hospitals and other institutions as well as for general purposes, and is especially recommended for institutions. Inside terminals Aluminum cases with black bakelite caps. Spring steel adjustable headband with no removable parts. Diaphragm 2 1/16" diameter. Double coils. Chrome steel magnets. 4½ ft. cotton-covered cord.

MC-2—2000 ohms D.C... **List $4.30 Net $2.58**
MC-3—3000 ohms D.C... **List 4.65 Net 2.79**
MC-5—5000 ohms D.C... **List 5.75 Net 3.45**

CANNON-BALL "EMPIRE"
Lightweight Headset

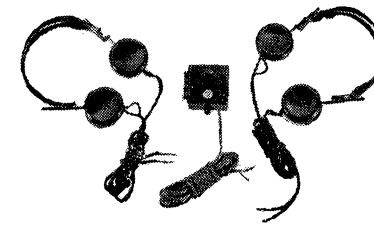
A low-priced light-weight headset with large magnet and double coils. Reproduces with clarity and good volume. Diameter of diaphragm is 1⅞". Polished aluminum cases with bakelite caps. Steel adjustable headband. 4½ ft. cord. Inside terminal connections.

EC-2—2000 ohms D.C... **List $3.80 Net $2.28**
EC-3—3000 ohms D.C... **List 4.05 Net 2.43**

THE "DIXIE"
Cannon-Ball Headset

The "Dixie" is of the same general construction as the "Master" headset except that the terminals are on the outside. Bakelite case Alnico magnets.

CD-2—2000 ohms D.C... **List $3.90 Net $2.34**
CD-3—3000 ohms D.C... **List 4.15 Net 2.49**

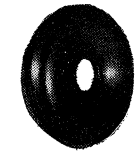


CANNON-BALL HEARING AID FOR TELEVISION

Provides private listening without disturbing others. Excellent for persons hard of hearing. Can be attached to any television set and permits listening to phones alone, speaker alone, or both together.

FOR TELEVISION
Kit complete with 15 foot cord, phone volume control and two sets of phones
List $16.50 Net $9.90
With one headset .. **List 12.50 Net 7.50**

MOLDED RUBBER CUSHIONS



Fit standard size headsets. Molded-in air chamber provides maximum wearing comfort.

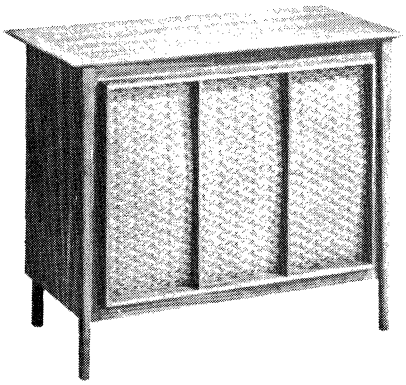
per pair ..... **List $1.00 Net $ .60**

Phones can be supplied with any resistance required or with variations to meet special requirements.

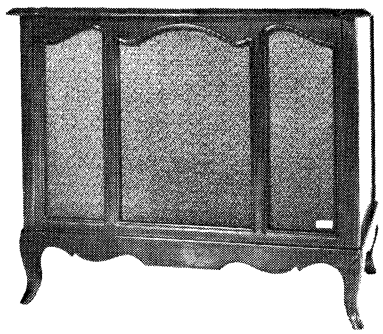
Sanitary plastic covered cords available for institutional use. Write for special quotation.

LTV UNIVERSITY
A DIVISION OF LING-TEMCO-VOUGHT, INC

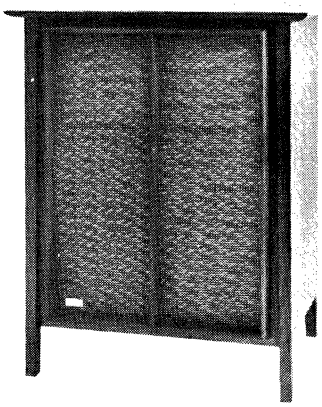
High Fidelity Speaker Systems



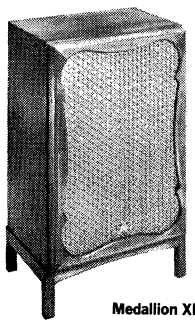
CLASSIC MARK II. For the ultimate in uncolored sound reproduction, University has combined a high-compliance 15" woofer, a high-compliance 8" mid-range and the exclusive Sphericon Super Tweeter in the Classic Mark II system. The Classic Mark II is the logical choice for discriminating music lovers.



CLASSIC FRENCH PROVINCIAL. The latest in the famous University Classic line, the Classic French Provincial combines an improved version of the Classic Mark II speakers in the very distinguished appearance of a French provincial style enclosure.

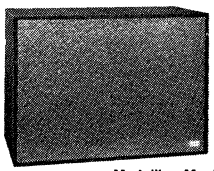


CLASSIC DUAL XII. Dual 12" high-compliance bass and mid-range speakers combined with the exclusive Sphericon Super Tweeter give the Classic Dual XII a brilliance of sound as yet unmatched in the Hi-Fi speaker industry.



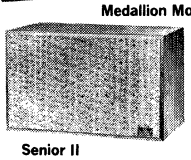
Medallion XII

MEDALLION XII. Phenomenal music reproduction from such a compact three speaker system is obtained by combining a 12" high-compliance woofer, 8" mid-range and the Sphericon Super Tweeter in the University Medallion XII system.



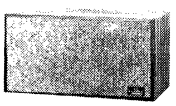
Medallion Monitor

MEDALLION MONITOR. For persons who want a bookshelf type speaker system but do not want to sacrifice sound for size, the Medallion Monitor is the logical choice. The speaker system used in the Medallion XII has been improved and placed in a new enclosure with fixed grille.



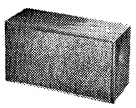
Senior II

SENIOR II. One of the all time favorites in compact speaker systems, the Senior II gives music reproduction of a clarity and quality approaching that of much larger systems.



Companion II

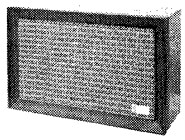
COMPANION II. Where space is at a premium and the budget must be considered, the Companion II assures you of satisfying musical enjoyment at a reasonable cost.



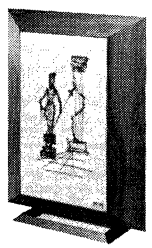
Companionette

COMPANIONETTE. The perfect choice for the college student or apartment dweller, the Companionette gives a sound hitherto unattainable in a system of its size.

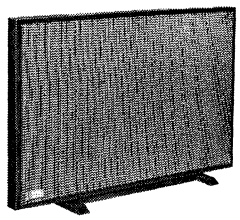
MINI-FLEX. The world's smallest compact speaker system yet one that produces bass response which will surprise even the most critical listener. The University Mini-Flex is a development as yet unmatched by other manufacturers.



MINI-FLEX II. The newest development in miniature speaker systems, the University Mini-Flex II is the latest version of the famous Mini-Flex system. Combining a specially engineered woofer-mid-range speaker and separate tweeter, this system gives a truly fantastic sound.



SYL-O-ETTE. University's offering for the decorator is the Syl-o-ette system. This thin-line system is available with three different decorator grilles to match any decor.



TRI-PLANAR. You will wonder where the sound comes from in University's Tri-Planar system. Only 1¾" deep, this system gives a richness to bass only thought obtainable with large standing enclosures many times its size.

SPECIFICATIONS

Model	Frequency Response (cps)	Power Capacity (IPM*)	Impedance (ohms)	Dimensions (LxWxD in Inches)	Price
Classic Mark II	20-40,000	60 Watts	4-8	35x28¼x17½	$295.00
Classic French Prov.	20-40,000	60 Watts	4-8	35x28¼x17½	325.00
Classic Dual XII	25-40,000	50 Watts	4-8	31½x23¾x15½	229.50
Medallion XII	28-22,000	40 Watts	8-16	17x24x11¼	134.95**
Medallion Monitor	28-22,000	40 Watts	8-16	17x24x11¼	129.00
Senior II	30-22,000	30 Watts	8	25x15⅝x12⅛	89.50
Companion II	35-18,000	30 Watts	8	24x13½x11½	69.50
Companionette	40-17,000	20 Watts	8	21¾x11½x8⅝	69.50
Mini-Flex	35-20,000	20 Watts	8	15x9-7/16x5-3/16	69.50
Mini-Flex II	45-18,000	20 Watts	8	15x9½x6	49.50
Syl-o-ette	40-20,000	30 Watts	8	20x23x4	95.95
Tri-Planar	45-17,000	20 Watts	4-8	23x15x1¾	79.95

*Integrated Program Material **Less grille and base

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LTV UNIVERSITY
A DIVISION OF LING-TEMCO-VOUGHT, INC

High Fidelity Component Speakers

SERIES 200 Wide-Range High Compliance Models

Model	Frequency Response (cps)	Power Capacity (Watts IPM**)	Impedance (Ohms)*	Dimensions (Dia.-Depth)	Shipping Wt. (Pounds)	Price
315-C***	25-20,000	50	8-16	15¼"x12"	34½	$156.00
312***	28-40,000	35	8-16	13"x6⅝"	10¼	73.00
6201***	28-18,500	35	8-16	13"x6⅝"	9½	57.75
Diffusicone 12	25-15,000	35	8-16	13"x6⅝"	8¾	39.75
308***	30-17,000	35	8-16	9⅜"x6⅛"	5	42.00
Diffusicone 8	30-15,000	35	8-16	9⅜"x6⅛"	4¾	28.00

Mustang Thin-Line Speakers

M-8	70-10,000	30	8-16	8¼"x2½"		19.00
M-8D	70-12,000	30	8-16	8¼"x2½"		19.50
M-12	35-10,000	30	8-16	12⅜"x3⅜"		20.50
M-12D	35-14,000	30	8-16	12⅜"x3⅜"		21.00
M-12T***	35-40,000	30	8-16	12⅜"x3⅜"		32.00

*May be used with amplifiers with output impedance of 8 or 16 ohms.

**Integrated Program Material.

***Equipped with separate tweeter: Models 312 and M-12T have Sphericon Super Tweeter; Model 315-C has brilliance and presence controls; Models 312 and 6201 are equipped with brilliance controls.

WOOFERS, MID-RANGE and TWEETERS

Dual Voice Coil Woofers — High Compliance Models

Model	Frequency Response (cps)	Power Capacity (Watts IPM*)	Impedance (Ohms)**	Dimensions (Dia.-Depth)	Shipping Wt. (Pounds)	Price
C-15HC	15-800	60	4-20**	15"x8⅛"	24¾	$89.50
C-12HC	20-3,000	50	4-20**	13"x6⅞"	9	49.50
C-8HC	20-3,000	30	4-20**	9⅜"x4¼"	7¼	39.95

High Efficiency Models

C-15W	25-1,500	60	4-20**	15⅜"x10½"	26¾	85.00
C-12SW†	30-6,000	30	8-16	13"x6¾"	7¼	39.50
C-8W	50-5,000	25	8-16	8¼"x6⅞"	3	15.00

*Integrated Program Material.

**Impedance Range Depending on Strapping of Voice Coils.

†Equipped with Built-in Crossover Network for 5000, 2500, and 700 cps Crossover

Mid-Range Speakers, Horns and Drivers

C-8M Cone Speaker	500-5,000	50	8	8¼" Dia. x 4" Depth	3	$16.95
T-30 Driver*	500-18,000	50	8	3½" Dia. x 3¾" Depth	2¼	30.00
T-50 Driver*	500-20,000	50	8	4¼" Dia. x 4⅛" Depth	5¼	49.50
H-600 Horn	600 cps cutoff			7¾" L. x 8¾" W. x 4¾" D.	1¾	19.00
Cobreflex Horn	350 cps cutoff			10¼" L. x 18½" W. x 9¼" D.	2¼	24.15

*For use with Cobreflex and H-600 horns.

Tweeters

T-202 Sphericon	3,000-40,000	30	4-16	4⅝" x 2¾"	2½	$24.95
T-203E & W††	3,000-40,000	30	4-16	6¾" L. x 5¼" W. x 2¾" D.	2¾	24.95
HF-206	3,500-22,000	30	8	6" L. x 3⅜" W. x 6⅝" D.	3½	32.00
4401	2,000-15,000	25	8	6" L. x 2¾" W. x 6⅜" D.	2¼	18.00
UXT-5	4,500-17,500	25	8	4¼" L. x 2½" W. x 4" D.	2¼	21.00

††Models T-203 E & W equipped with case for use outside of enclosure; available in ebony and walnut. Both equipped with built-in crossover network and brilliance control. For use with amplifiers having 4-8-16 ohms outputs.

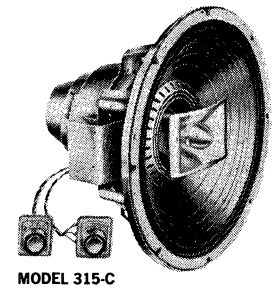
Crossover Networks and Attenuaters

Model	Crossover Frequencies (cps)	Impedance (Ohms)	Dimensions (L.xW.xD.)	Shipping Wt. (Pounds)	Price
N-1*	1250, 2500, 5000, 10000	4-8-16	3⅝"x3¼"x3"	2	$14.00
N-2A	350, 700	4-8-16	3⅜"x3¼"x3"	2½	18.00
N-2B	1250, 2500, 5000	4-8-16	3⅜"x3¼"x3"	2½	14.00
N-3*	350, 700, 5000	8	7"x5"x3"	5¼	32.00
SK-1	150 cps Network for use in single woofer stereo system.				5.95
AP-8	L pad for presence and brilliance controls.				3.95

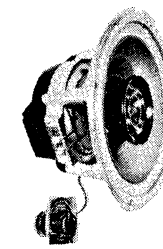
*Model N-1 equipped with built-in brilliance control. N-3 equipped with built-in brilliance and presence controls.

Wide-Range High Compliance Models

University Series 200 component speakers represent the ultimate in quality and engineering knowhow in the industry. Their high power-handling capacity and ruggedness of construction using modern die-cast baskets and molded seamless cones assures long-life adherence to original performance standards. These speakers are designed for use in any pre-finished or custom built enclosure and may be mounted from either the front or rear of the baffle panel. Where baffle mounting space is at a premium and high quality music reproduction is desired, Series 200 University component speakers are the logical choice for the discriminating music lover or audiophile.

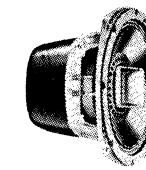


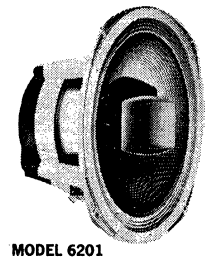
MODEL 315-C
Super 15" 3-Way Diffaxial Speaker



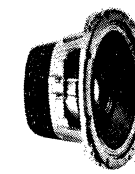
MODEL 312
12" 3-Way Diffaxial Speaker

MODEL 308
8" 3-Way Diffaxial Speaker





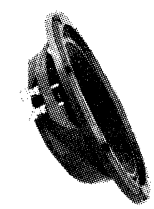
MODEL 6201
12" 2-Way Diffaxial Speaker



MODEL DIFFUSICONE-8
8" Full Range
Diffaxial Speaker

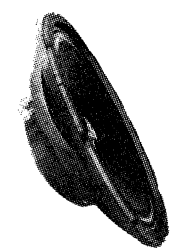
University MUSTANG Series Thin-Line High Fidelity Component Speakers

The newest addition to University's line of component speakers—the Mustang Series. These completely new speakers represent the latest engineering development in the industry. As in our Series 200 models, the Mustangs are constructed using strong die-cast baskets and molded seamless cones to assure long life and adherence to original performance. Mutangs are ideal for in-wall mounting for background music systems and home high fidelity installations. For quality sound at an economical price where space is at a premium, choose a Mustang.

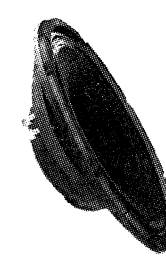


MUSTANG Model M-8
8" Diffaxial Speaker

MUSTANG Model M-8D
8" 2-Way Diffaxial Speaker



MUSTANG Model M-12
12" Diffaxial Speaker



MUSTANG Model M-12D
12" 2-Way Diffaxial Speaker

MUSTANG Model M-12T
12" 3-Way Diffaxial Speaker

LTV UNIVERSITY
A DIVISION OF LING-TEMCO-VOUGHT, INC.

PUBLIC ADDRESS AND HIGH FIDELITY

drivers

MODEL ID-20 (20 watts) For speech and music systems requiring moderate sound power output, and where performance with economy is a primary consideration. Designed to deliver maximum output, the ID-20 utilizes its efficiency to the best advantage, producing a substantial "punch" with clear, penetrating sound.

MODEL ID-30 (30 watts) Redesigned version of the world famous MA-25—ideal for installations requiring single medium power units or multiple driver/horn arrangements. The ID-30, with its unusually wide upper midrange response (up to 7500 cycles), produces musical balance and noise penetration far in excess of higher-cost competitive models. Completely weatherproof with tropicalized 2" voice coil and breakdown-proof linen base diaphragm. A top value!

MODEL ID-40 (40 watts) Latest, maximized version of the famous, earlier Model SA-HF, often referred to as the "workhorse" of the sound industry, and widely used by high fidelity manufacturers and audio hobbyists as well. Extended high frequency response and excellent efficiency assure an essentially uniform response characteristic for pleasing, natural reproduction of speech and music, while delivering that extra "punch" needed to cut through heavy noise. Tropicalized and weatherproofed, the ID-40 can be relied upon to give continuous top-flight performance under adverse weather conditions.

MODEL ID-40T (40 watts) Offers the same power capacity, efficiency and frequency response as the ID-40, and incorporates a built-in line-matching transformer. The transformer terminal plate is inside the rugged, die cast aluminum housing; entrance is made through an exclusive watertight dural gland nut, assuring positive weatherproofing after connections have been made. Terminals are labeled in impedances and in wattage consumed on "constant voltage" lines. Transformer impedances: 45/122/250/500/1000/2000 ohms. 70 V. line power taps: 40/20/10/5/2.5 watts.

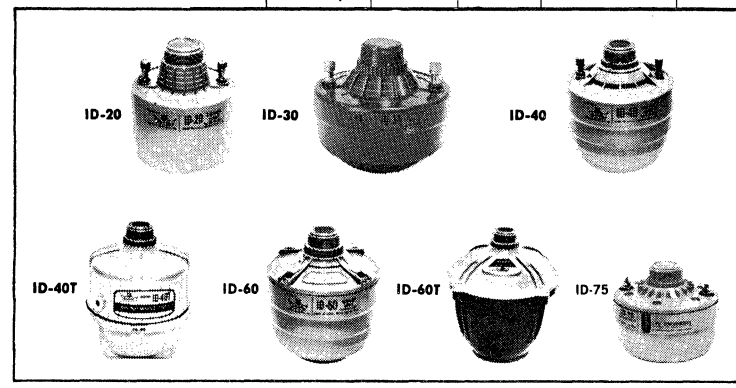
ID-60 (60 Watts) The premium compression driver in the world famous University line. Ideally suited to applications requiring the greatest power handling capacity, maximum efficiency, widest frequency response and rugged construction that will withstand a lifetime of hard use. Use of rugged outer case assures utmost durability even when abused or in hazardous environment. Water tight voice coil terminals are located in the base of the housing. Without question, the ID-60 is the finest wide range, high power driver ever offered.

MODEL ID 60T (60 watts) Similar to the ID-60, but with high-impact plastic outer-case, the ID-60T includes a husky built-in line matching transformer, with its terminals immediately available at the base of the driver housing. Ideal for rental work requiring repeated set-up and dismantling of equipment, and for semi-permanent systems where changes in the number or location of speakers are likely to affect line impedance requirements. Transformer impedances: 16/80/165/250/500/1000/2000 ohms. 70 volt line power taps: 60/30/20/10/5/2.5 watts.

ID-75 (75 Watts) The University Model ID-75 is the newest offering in high power drivers in the P. A. industry. This 75 watt model is designed for use in either high-power electronic siren or public address applications. A large super power W shaped Alnico VB magnet, exclusive with University, virtually eliminates reluctance losses normally present in other designs. This W shaped magnet gives the lowest leakage and maximum gap flux density resulting in peak electro-mechanical efficiency. The ID-75 is, without a doubt, the finest high power driver made for electronic siren and special purpose high-power P. A. applications.

SPECIFICATIONS

DRIVER MODEL	FREQUENCY RESPONSE	POWER RATING	VOICE COIL IMPEDANCE	DIMENSIONS (Overall)	SHIP. WT.
ID-20	120-6500 cps	20 watts	16 ohms	3½" dia. 3¾" d.	2½ lbs.
ID-30	85-7500 cps	30 watts	16 ohms	4⅛" dia. 3¾" d.	3 lbs.
ID-40	80-12000 cps	40 watts	16 ohms	4½" dia. 4⅞" d.	4¼ lbs.
ID-40T	80-12000 cps	40 watts	16 ohms	5" dia. 6¼" d.	5¼ lbs.
ID-60	70-12000 cps	60 watts	16 ohms	4-11/16" dia. 5" d.	4¼ lbs.
ID-60T	70-12000 cps	60 watts	16 ohms	6¾" dia. 6¾" d.	6½ lbs.
ID-75	150-7000 cps	75 watts	16 ohms	4¼" dia. 3¾" d.	4½ lbs.



trumpets

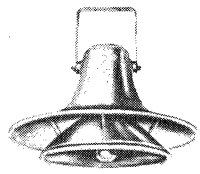
DIRECTIONAL MODELS GH, LH, PH, SMH For maximum penetration of distance and noise. Reflex construction assures maximum conversion efficiency, full weather protection. Baked finish.

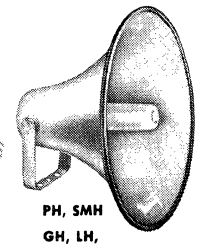
RADIAL MODELS RLH, RPH, RSH For uniform 360° overhead sound distribution from a single projector. Fewer speakers needed to cover high-ceiling factories, hangars, church interiors, etc. Baked finish.

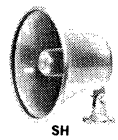
WIDE ANGLE COBREFLEX† Outstanding feature is pair of folded exponential horns having twin air columns in a single assembly. "Dual Exponential Flare" design results in very smooth radiation pattern and high efficiency. Rugged construction. Use singly or in clusters. Baked finish.

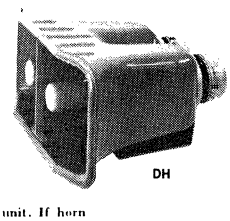
WIDE ANGLE MODEL CLH† Longest air column length and wide-angle bell designed for maximum low frequency response. Omni-directional mounting bracket permits speaker to be rotated horizontally and vertically for optimum projection . . . tune out reverberation, dead spots. Perfect for multi-speaker cluster arrays. Can be "stacked" in any configuration. Fiberglas bell.

MODEL L30-1 CLH Horn Stacking Kit for clamping bell rims together in any desired configuration. Each kit clamps two horns. Shpg. wt., 6 oz.


RLH, RPH, RSH


PH, SMH GH, LH,


SH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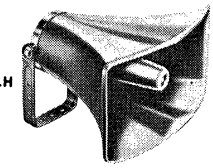
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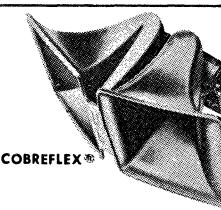
COBREFLEX®

SPECIFICATIONS

HORN MODEL	LOW FREQUENCY CUT-OFF	SOUND DISTRIBUTION	AIR COLUMN LENGTH	HORN LENGTH	BELL DIA.	SHIP. WT.
GH	85 cps	65°	6½ ft.	28"	31"	22 lbs.
LH	120 cps	75°	4½ ft.	19"	25¾"	16½ lbs.
PH	150 cps	85°	3½ ft.	15¾"	20⅜"	11¼ lbs.
SMH	200 cps	95°	2½ ft.	12"	16¼"	8 lbs.
RLH	120 cps	360°	5 ft.	18½"	28½"	25 lbs.
RPH	140 cps	360°	4 ft.	13¾"	25½"	19 lbs.
RSH	180 cps	360°	3 ft.	11"	19"	13 lbs.
COBREFLEX†	200 cps	120°x60°	2½ ft.	10¼"	18½"x 9¼"	10¼ lbs.
CLH†	120 cps	120°x60°	4½ ft.	20"	21½"x11½"	13¼ lbs.
SH	350 cps	90°	1½ ft.	7"	8¾"	2½ lbs.
DH	180 cps	40°x60°	3¼ ft.	13⅝"	20⅜"x 9⅝"	10 lbs.

SPECIFICATION NOTE: Low frequency limit based on capability of driver unit. If horn cut-off is higher than rated low frequency limit of driver, horn will be determining factor.
†*Patented.*

accessories

MODEL CTR TRANSFORMER/JUNCTION HOUSING Die cast aluminum. Weatherproof. Houses models 5433, 5434, or other transformers up to 2⅜" x 2⅞" x 2¾". Adjustable slotted adapter mounts transformers with centers 1½" to 2⅞". Junction box for speaker lines. Bar strap for mounting to "U" brackets. Screws to wall. Also holds University paging speakers. Shpg. wt., 1½ lbs.

MODEL PB-1 TRANSFORMER HOUSING Weatherproof. For MIL-A, CMIL-A. 1B-A and C1B-A paging speakers. Use Model 5434 transformer, or other type with 2" mounting center and 1-15/16" h. x 1⅝" w. maximum dimensions. Shpg. wt., ½ lb.

MODEL 5433 TRANSFORMER 30 watt capacity. Use with ID-20, ID-30 or to feed a number of smaller paging speakers. Primary impedance: 45/165/200/250/500/1000/2000 ohms. Secondary impedance: 4/8/16 ohms. 70 v. line power taps: 30/25/20/10/5/2.5 watts. Dimensions: 1-15/16" x 2-5/16" x 1¾". Mtg. hole centers: 2⅜". Shpg. wt. 1 lb.

MODEL 5434 TRANSFORMER 15 watt capacity. Primary impedance: 45/325/500/1000/2000/4000/8000 ohms. Secondary impedance: 4/8/16 ohms. 70 v. line power taps: 15/10/5/2.5/1.25/.65 watts. Dimensions: 1⅝" x 1-15/16" x 1⅝". Mtg. hole centers: 2". Fits CTR and PB-1. Shpg. wt., ½ lb.

2YC CONNECTOR Allows use of two driver units on a single radial, directional, or wide-angle trumpet. Shpg. wt., 1 lb.

RTA ADAPTER Fits University trumpets to Western Electric and RCA drivers having 1-7/16-16 threads. Shpg. wt., ½ lb.

WEA ADAPTER Fits University drivers to Western Electric and RCA trumpets having 1-7/16-16 threads. Shpg. wt., ½ lb.

SPA ADAPTER Replaces standard triangular base used on all University CR and MM-2 paging speakers for mounting to ½" IPS threaded pipe. Shpg. wt., ½ lb.

MODEL ST Transformer/Junction Box Adapter. Fits MM-2, ES-50. Weatherproofed. For bulkhead, wall, ceiling mounting. Houses transformers up to 2¼" x 2¼" x 2¾", with 2" and 2⅜" mounting centers. Use as terminal or junction box. Shpg. wt., 1 lb.

MODEL SB Bulkhead Mounting Adapter. Fits MM-2, ES-50. 3 mounting holes 120° apart on 5-13/16" mounting circle diameter. For flush-fit mounting onto bulkhead, wall, ceiling. Shpg. wt., 1 lb.

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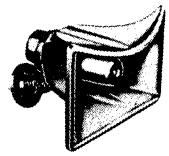
LTV UNIVERSITY
A DIVISION OF LING-TEMCO-VOUGHT, INC

Public Address Loudspeakers

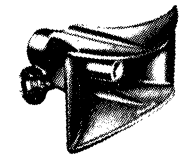
paging / talk-back

MIL-A New version of the MIL, with higher power capacity (7.5 watts continuous duty) and improved lower frequency. High conversion efficiency for perfect operation in low power systems. OLB*.



CMIL-A Similar to CIB-A, but for use in lower power operations where excessive sound would be wasted. Offers high efficiency, maximum intelligibility. OLB*.

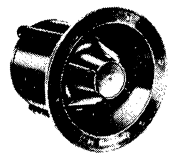
IB-A New version of world's most widely used medium power speaker. 25 watts continuous duty power capacity. Lower frequency response improved to 250 cps. High efficiency, special rising frequency characteristic. OLB*.



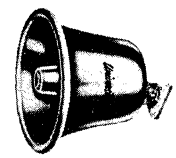
CIB-A Exclusive University wide-angle horn for uniform sound pattern with optimum vertical dispersion. Ideal for wide area coverage where ambient noise level not excessive. Design minimizes feedback problems. OLB*.

*Exclusive patented swivel mounting OMNI-LOK BRACKET; also fastens to ½" pipe without additional fixture.

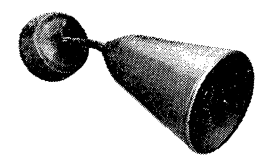
IBR-A Small radial speaker with built-in driver. Economical solution where total number of speakers must be kept to a minimum but where wide coverage is required.



MIS Compact reflex speaker designed for flange or flush mounting in cabinets, walls, etc. Ideal replacement for less efficient cone speakers. Tropicalized and weatherproof. High-impact plastic housing.

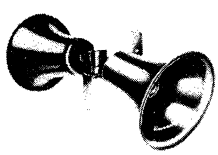


CR Big power in a small package. Built-in driver with heavy duty 2" voice coil. High intelligibility in noisy areas. Frequency response ideal for music reproduction.

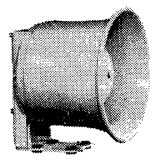


LIL-8 In appearance, a handsome, functional lamp—in performance, a truly superior paging speaker. Compact, yet offers high power handling capacity, wide frequency range and high conversion efficiency for improved results with low power systems.

multi-duty

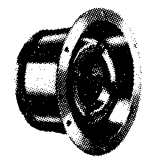


2WP Bi-directional paging projector covers two opposite areas effectively, efficiently with one driver. (Takes any University driver except 1D-60T.) Supplied less driver.

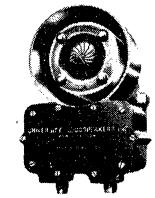


ES-50 Versatile, high power speaker, especially developed for electronic siren applications. Rated full 50 watts for typical siren signal above 400 cps. As general-purpose speaker, full power rating applies over entire 250-10,000 cps range of integrated program material.

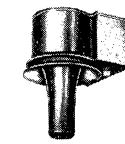
MM-2 Power capacity and frequency response ideal for clear, noise-cutting reception. Screws permit removal from front to expose diaphragm for cleaning. Serrated swivel mounting bracket.



MM-2F Flush mounting version of MM-2. Performance and specications identical to MM-2. These speakers are the ruggedest in the P.A. field. Completely weather-proof. Performance unaffected even after being completely drenched (as on boats).



MM-2TC Complete speaker, using cast aluminum bell and weatherproof housing with space for a line matching transformer and/or volume control which can be mounted right into position. For bulkhead, wall or ceiling mounting, the MM-2TC-T comes with multi-impedance transformer and pad attenuator built in.



MSR All die-cast reflexed air column speaker with radial deflector for 360° horizontal dispersion. Hermetically sealed driver easily removed. Provisions for line matching transformer and volume control. Wall/ceiling bulkhead mounting. MSR-T comes with multi-impedance transformer and pad attenuator built in.

specifications

MODEL	FREQUENCY RESPONSE	POWER RATING	IMPEDANCE (specify when ordering)	DISPERSION	*SOUND PRESSURE LEVEL	†SENSITIVITY AS MICROPHONE	DIMENSIONS	SHIPPING WEIGHT
IB-A	250-13,000 cps	25 watts	4, 8, 45 ohms	90°	123 db	—26 DBM	10¼" dia. 9" deep	4 lbs.
CIB-A	250-13,000 cps	25 watts	4, 8, 45 ohms	120° x 60°	123 db	—22 DBM	7⅜" hi. 14" wide 12" deep	5½ lbs.
MIL-A	350-13,000 cps	7.5 watts	4, 8, 45 ohms	120°	115 db	—23 DBM	7 13/16" dia. 6⅞" deep	3¼ lbs.
CMIL-A	350-13,000 cps	7.5 watts	4, 8, 45 ohms	120° x 60°	115 db	—20 DBM	6¼" hi. 9½" wide 8½" deep	4 lbs.
MIS	500-13,000 cps	5 watts	4, 8, 45 ohms	150°	111 db	—22 DBM	5½" o.d. 4 7/16" deep 6 holes on 4⅞" mtg. dia.	2½ lbs.
CR	250 -8000 cps	20 watts	16 ohms	90°	119 db	—22 DBM	11½" dia. 11½" deep	8¾ lbs.
IBR-A	300-10,000 cps	25 watts	4, 8, 45 ohms	360°	108 db	—32 DBM	13" dia. 10¼" deep	5¼ lbs.
2WP	350 cps horn cut-off	Depends upon driver used	Depends upon driver used	120° each horn	Depends upon driver used	Depends upon driver used	8½" dia. each bell 20½" long	4 lbs.
MM-2	350-10,000 cps	25 watts	16 ohms	150°	117 db		6" o.d. 5" deep	5¼ lbs.
ES-50	250-10,000 cps	50 watts**	16 ohms	120°	123 db		6 13/16" o.d. 6⅞" deep	5½ lbs.
MM-2F	350-10,000 cps	25 watts	16 ohms	150°	117 db		7¼" o.d. 3"¾ deep	5¼ lbs.
MM-2TC	350-10,000 cps	25 watts	16 ohms	120°	117 db		10" high 6 7/16" w. 4 7/16" deep	MM-2TC—8½ lbs. MM-2TC-T—9¾ lbs.
MSR	250-10,000 cps	25 watts	16 ohms	360°	114 db		10¾" hi. 7¾" w. 8¼" deep	MSR—10¼ lbs. MSR-T—11¼ lbs.
LIL-8	300-10,000 cps	15 watts	8 ohms	110°	119 db	—27 DBM	15½" long 6⅞" dia.	4½ lbs.

*Sound pressure readings taken at 4 ft. with "Full Range" power input. Reduce by 6 db each time distance is doubled. Reduce by 3 db each time power input is halved; increase by 3 db when power input is doubled.

†DBM re 10 dynes/cm².

Note: MIS and all MM speakers are patented.

**See ES-50 description above.

HIGH 'A' . . . HIGH AUDIBILITY . . . exclusive with UNIVERSITY LOUDSPEAKERS

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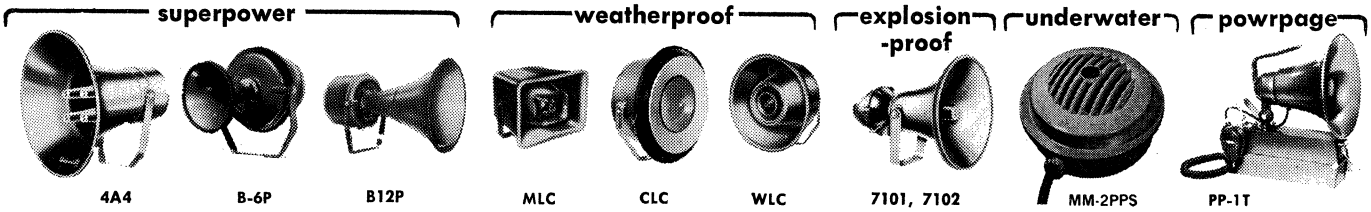
LTV UNIVERSITY
A DIVISION OF LING-TEMCO-VOUGHT, INC

Special Purpose Loudspeakers

superpower | weatherproof | explosion-proof | underwater | powrpage



4A4 B-6P B12P MLC CLC WLC 7101, 7102 MM-2PPS PP-1T

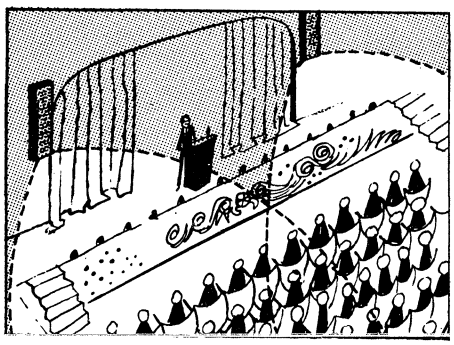
specifications

MODEL		FREQUENCY RESPONSE	POWER RATING	DISPERSION	IMPEDANCE	DIMENSIONS DIAMETER (overall)	DIMENSIONS DEPTH (overall)	SHIPPING WEIGHT
MLC		150-15,000 cps	15 watts	120°	8 ohms	12¾" x 9⅛"	10⅝"	10 lbs.
CLC		55-14,000 cps	30 watts	120°	8 ohms	22¾"	12 1/16"	23 lbs.
WLC		50-15,000 cps	30 watts	90°	8 ohms	33½"	20"	68 lbs.
7101 and 7102†		200-10,000 cps	30 watts	95°	16 ohms	15¾"	19"	23¾ lbs.
4A4 Used With 4 Drivers of Types	ID-30	120- 7,500 cps	120 watts	80°	4, 16, 64	30¾"	28⅞"	46 lbs. less drivers
	ID-40	120-12,000 cps	160 watts		4, 16, 64			
	ID-40T	120-12,000 cps	160 watts		wide variation			
	ID-60	120-12,000 cps	240 watts		4, 16, 64			
B-6P Used With 6 Drivers of Types	ID-30	200- 7,500 cps	180 watts	100°	2.7, 10.7, 24, 96 ohms	12½"	21⅜"	55 lbs. less drivers
	ID-40	200-12,000 cps	240 watts					
	ID-60	200-12,000 cps	360 watts					
B-12P Used With 12 Drivers of Types	ID-30	100- 7,500 cps	360 watts	80°	1.3, 5.3, 12, 21.3, 48, 192 ohms	31½"	47"	60 lbs. less drivers
	ID-40	100-12,000 cps	480 watts					
	ID-60	100-12,000 cps	720 watts					

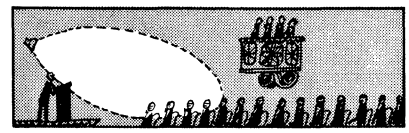
**POWRPAGES, as well as all other University P.A. Loudspeakers, are approved for Civil Defense matching funds.

†Transformer impedances, 7101 and 7102: 45/165/200/250/500/1000/2000 ohms. 70 V. line power taps, 7101 and 7102: 30/25/20/10/5/2.5 watts.

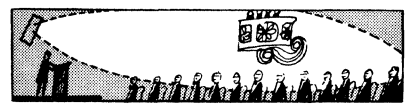
UNILINE® Sound Columns



Wide horizontal dispersion—the UNILINE, delivering sound in depth over a large area.

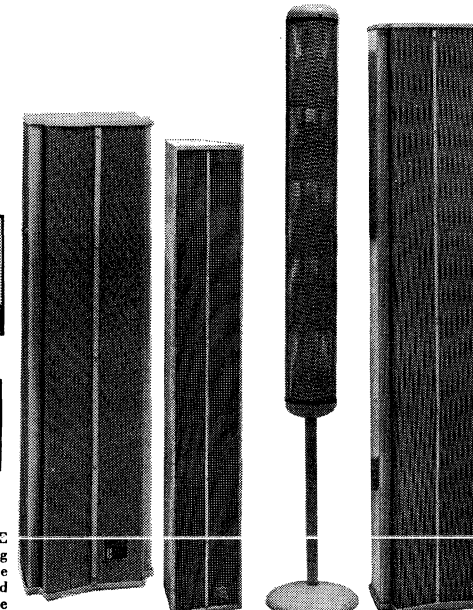


Conventional speaker contour.



UNILINE column contour.

Constant loudness contours shown for a UNILINE column versus a conventional speaker, illustrating the situation that exists at representative midrange frequencies, where most of the 'punch' of the sound is concentrated. With UNILINE, loudness is the same for a listener located anywhere in the auditorium.



Model CSO-4 Model CS-3 Model CSR-4 Model CSO-6

SPECIFICATIONS	CSO-6* Full Range Music and Speech	CS-4 Full Range Music and Speech	CSO-4* Full Range Music and Speech	CS-3 Music and Speech	CSR-4* Full Range Music and Speech
speakers	6 extended range 8"	4 extended range 8"	4 extended range 8"	8 special multi-design	4 extended range 6"
frequency range	55-17,000 cps	70-17,000 cps	70-17,000 cps	150-10,000 cps	65-20,000 cps
power capacity	120 watts IPM**	80 watts IPM**	80 watts IPM**	25 watts IPM**	60 watts IPM**
impedance	16 ohms	8 ohms	8 ohms	16 ohms	8 ohms
vertical angle	16°	22°	18°	22°	18°
horizontal angle	120°	120°	120°	120°	360°
dimensions	60¼"x11⅞"x7¾"	40⅜"x11"x9-1/16"	41⅜"x7¾"x11⅞"	48"x7½"x8¾"	52"x7"
shipping wt. lbs.	61	46	46	33	30

*Completely weatherproof **Integrated program material.

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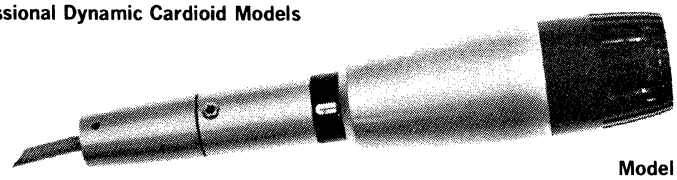
LTV UNIVERSITY
A DIVISION OF LING TEMCO VOUGHT, INC

UNIVERSITY Dynamic Microphones

Broadcasting, Recording, Communications and General Purpose Models

UNIVERSITY'S *new series of dynamic microphones embraces every possible need in the audio field. Widely acclaimed in the industry, each* UNIVERSITY *microphone is designed and engineered to maintain the same exacting quality standards for which* UNIVERSITY *is famous the world over. Each and every* UNIVERSITY *microphone, from the economically priced Model 2000 to the top of the line Model 1050, is covered by* UNIVERSITY'S *exclusive* 5 YEAR *warranty to assure reliable trouble free operation for many years. To own the finest—choose* UNIVERSITY!

Professional Dynamic Cardioid Models



Model 1000

Model 1000

The University Model 1000 is the ideal microphone for many broadcast and recording applications. For such applications as location broadcasts in radio and television and use in main-studio interview type programs, the Model 1000 will give superior results. Broad frequency response, from 30 to 16,000 cps, shock mounted cartridge and noise rejecting characteristics, Model 1000 is for high quality live recording. Impedance is selectable between 50, 200, and 20,000 ohms. Output level for 50 and 200 ohms—54db/1mw/10 dynes/cm², for 20,000 ohms is 17mv/10 dynes/cm². Hum reference—120db/.001 gauss. Dimensions 1¾" by 8¾". Shipping Wt. 3¾ lbs. Supplied complete with an 18 ft. 2 conductor shielded broadcast type cable and stand adaptor. Price $81.00

Model 1040

Same as above but equipped with on-off switch and Cannon Connector. Dimensions—1¾" dia., 10⅛" length. Shipping Wt. 4 lbs. Supplied with 18 ft. shielded broadcast type 2 conductor cable and slide-on stand adaptor. Price $87.00

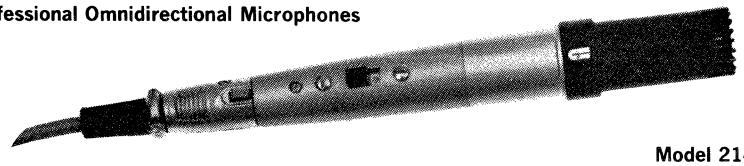
Model 1050

Same as above except equipped with microphone-stand adaptor and on-off switch. Accepts the Cannon Model XLR-3-11C plug. Supplied with 18 ft. 2 conductor shielded broadcast type cable. Dimensions—1¾" dia., 10⅜" length. Shipping Wt. 4 lbs. Price $87.00

Model 1100

The University Model 1100 has highly directional characteristics. It is designed to pick up sound from a limited area. Impedance selection 50, 200 or 20,000 ohms. Frequency response 30-16,000 cps. Output level for 50 and 200 ohms is—54db/10mw/10 dynes/cm², for 20,000 ohms is 17mv/10 dynes/cm². Hum reference—120db/.001 gauss. Dimensions—1½" dia., 7¾" length. Supplied with an 18 ft. 2 conductor shielded broadcast type cable and slide-on microphone stand adaptor. Shipping Wt. 3¾ lbs. Price $74.40

Professional Omnidirectional Microphones



Model 2140

Model 2140

The University Model 2140 is ideal for high quality general soundcasting applications in churches, night clubs, schools and industrial and commercial public address installations. Frequency response 30-20,000 cps. Impedance selection 50, 200 or 20,000 ohms. Output level for 50 and 200 ohms is—55db/10 dynes/cm², for 20,000 ohms is 16mv/10 dynes/cm². Hum reference—120db/.001 gauss. Dimensions—1⅛" dia., 9" length. Equipped with on-off switch integral in microphone case, accepts Cannon Model XLR-3-11C plug. Supplied with 18 ft. 2 conductor shielded broadcast type cable slide-on stand adaptor. Shipping Wt. 3¾ lbs. Price $45.36

Model 2150

Same as above except equipped with microphone-stand adaptor and on-off switch. Dimensions—1⅛" dia., 9⅜" length. Shipping Wt. 3¾ lbs. Price $46.74

Model 2200

The University Model 2200 fulfills all the critical requirements of a professional broadcast microphone and soundcasting applications in churches, night clubs, schools, and industrial and commercial public address installations. Frequency response 30-20,000 cps. Impedance selection 50, 200, or 20,000 ohms. Output level for 50 and 200 ohms is—55db/1mw/10 dynes/cm², for 20,000 ohms is 16 mv/10 dynes/cm². Hum reference—120db/.001 gauss. Supplied with an 18 ft. 2 conductor shielded broadcast type cable. Dimensions—1⅛" dia., 10¼" length. Shipping Wt. 3¼ lbs. Price $43.74

Model 2240

Same as above except equipped with on-off switch integral in microphone case accepts the Cannon Model XLR-3-11C plug. Dimensions—1⅛" dia., 11½" length. Shipping Wt. 3¼ lbs. Price $49.80

Model 2250

Same as above except equipped with microphone-stand adaptor. Dimensions—1⅛" dia., 11¾" length. Shipping Wt. 3¾ lbs. Price $51.18

Model 4040

The University Model 4040 fulfills critical requirements of a professional broadcast mircrophone. Ideal for churches, night clubs, schools and location broadcasting of AM, FM and television. Frequency repsonse—50-20,000 cps. Impedance selection 50, 200, or 20,000 ohms. Output level for 50 and 200 ohms is—55db/1mw/10 dynes/cm², for 20,000 ohms is 16mv/10 dynes/cm². Hum reference—120db/.001 gauss. Dimensions—1⅛" dia., 7½" length. Equipped with on-off switch, accepts the Cannon Model XLR-3-11C plug. Supplied with an 18 ft. 2-conductor shielded broadcast type cable and slide-on stand adaptor. Shipping Wt. 2¾ lbs. Price $63.64

Model 4050

Same as above except equipped with microphone-stand adaptor. Dimensions—1⅛" dia., 7¼" length. Shipping Wt. 2¾ lbs. Price $65.48

Communications Microphones

Model 9000

The University Model 9000 is ideal for mobile communications and mobile public address systems. Equipped with a 14" coiled, 6' extended, 3-conductor cable, "push-to-talk" switch and panel mounting bracket. Frequency response 95-9500 cps. Impedance 25,000 ohms. Output level—55db/1.0 volt/10 dynes/cm². Hum reference—120db/.001 gauss. Dimensions—4" H. x 2¼" W. x 1¾" D. Net weight—10 oz. Price $24.75

Model 2040

The University Model 2040 is ideal for applications in churches, schools and industrial and commercial public address installations—improving home tape recordings and ham broadcasting rigs. Equipped with an 18 ft. 2-conductor shielded flexible cable and slide-on stand adaptor and on-off switch. Frequency response 50-20,000 ohms. Impedance selection 50 or 20,000 ohms. Output level: 50 ohms is—50db/1mw/10 dynes/cm², 20,000 ohms is 28mv/10 dynes/cm². Hum reference—120db/.001 gauss. Dimensions—1⅛" dia., 5⅜" length. Shipping Wt. 2¾ lbs. Price $30.60

Professional Lavalier Microphones

Model 2100

The University Model 2100 may be used as a lavalier, hand-held or desk-stand mounted. Frequency response—30-20,000 cps. Impedance selection 50, 200 or 20,000 ohms. Output level: for 50 and 200 ohms is—55db/1mw/10 dynes/cm², for 20,000 ohms is 16mv/10 dynes/cm². Hum reference—120db/.001 gauss. Dimensions—1⅛" dia., 7¾" length. Supplied with neck-cord, clip and 18 ft. 2-conductor shielded broadcast type cable. Shipping Wt. 3¼ lbs. Price $39.30

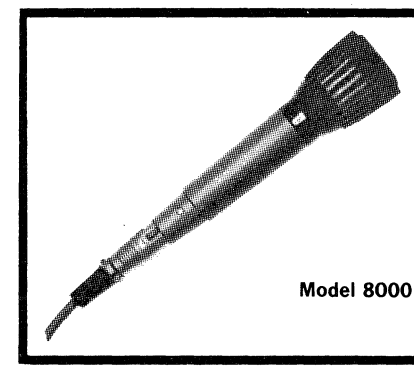
Model 4080

The Model 4080 is an ultra-compact lavalier microphone. Ideal for churches, night clubs, schools, location broadcasting of AM, FM and television. Frequency response 60-20,000 cps. Impedance selection 50 or 200 ohms. Output level: 50 to 200 ohms is—55db/1mw/10 dynes/cm². Hum reference—120db/.001 gauss. Dimensions—1¼" dia., 3⅜" length. Supplied with neck-cord, clip and 25 ft. flexible plastic cable. Shipping Wt. 2¼ lbs. Price $52.96

Model 4000

The Model 4000 is a premium quality microphone, may be used as a lavalier or hand-held or desk stand mounted. Ideal for applications such as churches, night-clubs, schools and location broadcasting of AM, FM and television. Frequency response—50-20,000 cps. Impedance selection 50, 200 or 20,000 ohms. Output level: 50 and 200 ohms is—55db/1mw/10 dynes/cm², 20,000 ohms is 16mv/10 dynes/cm². Dimensions—1⅛" dia., 5⅛" length. Supplied with neck-cord, clip and 18 ft. flexible plastic broadcast type cable. Shipping Wt. 2¾ lbs. Price $54.96

University Public Address and Home Recording Microphones



Model 8000

Model 8000, Cardioid Dynamic Microphone

The University Model 8000 has highly directional characteristics. Its cardioid dynamic cartridge is shock mounted ideal for announcing booths at stadiums, arenas and fieldhouses, church sound systems, industrial and commercial public address installations, home tape recordings and upgrading ham and citizens band broadcasting rigs. The Model 8000 is equipped with a 15 ft., 3-conductor shielded broadcast type cable, accepts the Cannon Model XLR-4-11C plug. Slide-on stand adaptor is supplied. Frequency response 70-15,000 cps. Impedance selection 50 and 20,000 ohms. Output level: 50 ohms is—60db/1mw/10 microbar, 20,000 ohms is 8.5mw/10 microbar. Dimensions—1¾" dia., 6⅜" length. Shipping Wt. 1¾ lbs. Price $29.95

Model 2000 Omnidirectional Dynamic Microphone

The University Model 2000 is ideal for general soundcasting applications and improving home tape recordings and upgrading ham broadcasting rigs. Supplied with a 15 ft. 3-conductor shielded flexible cable and slide-on stand adaptor. Frequency response 50-14,000 cps. Impedance selection 50 or 20,000 ohms. Output level: 50 ohms is—50db/1mw/10 dynes/cm², 20,000 ohms is 28mv/10 dynes/cm². Hum reference—120db/.001 gauss. Dimensions—1¼" dia., 6" length. Shipping Wt. 2¾ lbs. Price $23.10

University Microphone Accessories

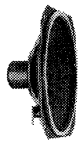
MODEL DS-10. Microphone desk stand. Desk stand for use with any microphone with standard 5/8-27 NPSM thread. May be used with any University microphone and stand adaptors. Dimensions—4½" H. x 7⅞" W. x 4⅝" D. Shipping Wt. 3½ lbs. Price $6.9

MODEL SA-10. Slide on stand adaptor. Dimensions—2⅞" L x 2" W. x ½" D. Shipping Wt. ¼ lb. Price $3.4

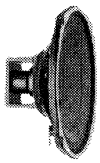
NOTE: All University Microphones are factory assembled for high impedance except the 1000 and 1100 series which are connected for low impedance. All models are finished in Acrylic silver-gray and non-reflecting black except the Model 4080 which is antique bronze

AKTRON REPLACEMENT SPEAKERS

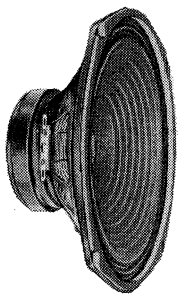
- ALUMINUM VOICE COILS
- ALNICO 5 MAGNETS
- SPECIALLY TREATED BLUE CONES
- BLUE LUMINESCENT BAKED ENAMEL FINISH



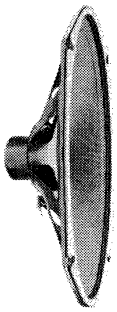
4" SQUARE CUP HOUSING



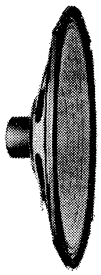
5" PIN CUSHION



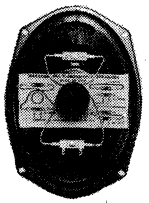
8" CERAMIC MAGNET



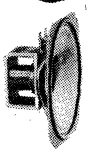
4" x 10" OVAL CUP HOUSING



6" x 9" FLAT CUP HOUSING



6" x 9" MULTI-IMPEDANCE



4" WEATHERPROOF

Size and Shape	Part No.	Magnet Weight Ounces	VOICE COIL Dia. Inches	VOICE COIL Impedance (Ohms)	Power in Watts	Suggested Dealer Prices
2¼" Round	23A8	.53 cup	9/16	8	1	$2.16
2¾" Round	28A8	.53 cup	9/16	8	2	1.95
3" Square	3A3	.53 cup	9/16	3.2	2	1.62
3" Square	3C3	1.00	9/16	3.2	3	1.83
3½" Square	35A3	.53 cup	9/16	3.2	2	1.62
3½" Square	35C3	1.00	9/16	3.2	3	1.83
4" Square	4A3	.53 cup	9/16	3.2	2	1.47
4" Square	4B3	.68	9/16	3.2	2	1.74
4" Square	4C3	1.00	9/16	3.2	3	1.82
4" Square	4D3	1.47	9/16	3.2	3	2.10
5" Pin Cushion	5A3	.53 cup	9/16	3.2	2	1.59
5" Pin Cushion	5B3	.68	9/16	3.2	2	1.77
5" Pin Cushion	5C3	1.00	9/16	3.2	3	1.89
5" Pin Cushion	5D3	1.47	9/16	3.2	3	2.13
5" Round	R5A3	.53 cup	9/16	3.2	2	1.59
5" Round	R5B3	.68	9/16	3.2	2	1.77
5" Round	R5D3	1.47	9/16	3.2	3	2.13
5¼" Pin Cushion	53B3	.68	9/16	3.2	2	1.89
5¼" Pin Cushion	53C3	1.00	9/16	3.2	3	1.98
6" Pin Cushion	6B3	.68	9/16	3.2	3	2.01
6" Pin Cushion	6C3C	1.00 cup	3/4	3.2	5	2.10
6" Pin Cushion	6D3	1.47	9/16	3.2	5	2.40
6" Pin Cushion	6E3C	2.18 cup	1	3.2	7	2.73
6" Pin Cushion	6E8C	2.18 cup	1	8	7	2.73
8" Pin Cushion	8C3C	1.00 cup	3/4	3.2	4	2.82
8" Pin Cushion	8D3	1.47	9/16	3.2	5	3.12
8" Pin Cushion	8E3C	2.18 cup	1	3.2	6	3.57
8" Pin Cushion	8F3	3.16	3/4	3.2	8	3.96
8" Pin Cushion	8H3	6.80	1	3.2	12	5.58
8" Pin Cushion	8E8	2.15	3/4	8	6	3.57
8" Pin Cushion	8E8C	2.18 cup	1	8	7	3.57
8" Round Flat	8E8CF	2.18 cup	1	8	7	3.57
8" Round	8E8S	2.15	¾	8	6	4.05
8" Round Flat	8EU8F	*3.00	¾	8	6	4.28
8" Pin Cushion	8F8	3.16	3/4	8	8	3.96
8" Pin Cushion	8G8	4.64	1	8	10	5.19
8" Pin Cushion	8GU8	*6.00	1	8	10	5.89
8" Pin Cushion	8H8	6.80	1	8	12	5.58
8" Pin Cushion	8HU8	*10.00	1	8	12	6.29
8" Round	8K8	10.10	1-1/4	8	20	8.21
10" Round	10F3	3.16	3/4	3.2	8	5.01
10" Round	10H3	6.80	1	3.2	12	7.05
10" Round	10F8	3.16	3/4	8	8	5.01
10" Round	10H8	6.80	1	8	12	7.05
12" Round	12E3C	2.18 cup	1	3.2	7	5.28
12" Round	12F3	3.16	3/4	3.2	8	5.73
12" Round	12H3	6.80	1	3.2	12	7.75
12" Round	12E8C	2.18 cup	1	8	7	5.28
12" Round	12F8	3.16	3/4	8	8	5.73
12" Round	12H8	6.80	1	8	12	7.75
12" Round	12HU8	*10.00	1	8	12	8.45
12" Round	12K8	10.10	1-1/4	8	20	10.18
15" Round	15H8	6.80	1	8	14	10.95
3" x 5"	135A3	.53 cup	9/16	3.2	2	1.77
3" x 5"	135C3	1.00	9/16	3.2	3	1.98
2½" x 10"	210D3	1.47	9/16	3.2	5	3.69
4" x 6"	46A3	.53 cup	9/16	3.2	2	1.83
4" x 6"	46B3	.68	9/16	3.2	3	2.01
4" x 6"	46C3	1.00	9/16	3.2	4	2.13
4" x 8"	48E3C	2.18 cup	1	3.2	5	3.27
4" x 10"	410E3C	2.18 cup	1	3.2	6	3.45
5" x 7"	57A3	.53 cup	9/16	3.2	2	2.01
5" x 7"	57C3C	1.00 cup	3/4	3.2	5	2.46
5" x 7" Flat	57C3CF	1.00 cup	3/4	3.2	5	2.46
5" x 7"	57D3	1.47	9/16	3.2	5	2.76
5" x 7"	57E3C	2.18 cup	1	3.2	7	3.03
5" x 7"	57F3X	3.16	1	3.2	8	3.90
5" x 7"	†F57C8C	1.00 cup	¾	8	5	2.91
6" x 9"	69A3	.53 cup	9/16	3.2	2	2.29
6" x 9"	69C3C	1.00 cup	3/4	3.2	5	2.76
6" x 9"	69D3	1.47	9/16	3.2	5	3.03
6" x 9"	69E3C	2.18 cup	1	3.2	7	3.45
6" x 9" Flat	69E3CF	2.18 cup	1	3.2	7	3.45
6" x 9"	69H3	6.80	1	3.2	10	5.76
6" x 9"	69C8C	1.00 cup	¾	8	5	2.76
6" x 9"	69E8C	2.18 cup	1	8	7	3.45
6" x 9"	† F69E8C	2.18 cup	1	8	7	3.99

*Ceramic Magnet — All others Alnico 5 †Has two mounting holes Crinoline dust screen.

MULTI-IMPEDANCE SPEAKERS 10-20-40 OHM

Oaktron's new "three in one" multi-impedance series

- Specially developed heavy voice coil winding for maximum power handling.
- Dual solderless terminal strip arrangement for simplified hook up.
- Complete wiring diagram accompanies each speaker.

6" Pin Cushion	6EMC	2.18 cup	1	10-20-40	6	$3.15
4" x 10"	410EMC	2.18 cup	1	10-20-40	6	3.90
5" x 7"	57EMC	2.18 cup	1	10-20-40	7	3.48
6" x 9" Flat	69EMCF	2.18 cup	1	10-20-40	7	3.90

NOTE—Transformer Mounting Boss on all 4", 5" Round, 8" and 12" Speakers.

EIA WARRANTY APPLIES TO ALL OAKTRON SPEAKERS.

WEATHERPROOF SPEAKERS

Specially Impregnated Cones, Gaskets and Dust Caps

3½" Square	35D8M	1.47	9/16	8	3	$2.37
4" Square	4D8M	1.47	9/16	8	3	2.37
5" Round	R5D8M	1.47	9/16	8	3	2.40
8" Pin Cushion	8F8M	3.16	3/4	8	8	4.14
6" x 9" Flat	69E3CFM	2.18 cup	1	3.2	6	3.63

Net

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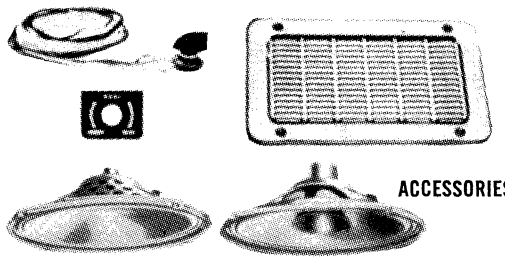
REAR SEAT SPEAKER KITS and Accessories

Featuring Oaktron's High Energy cup housing speakers.
Solderless hookup — No special tools required for installation.



6" x 9" CUP

TWIN CONE

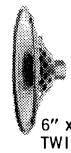
Model	Speaker	Grille	Control	Magnet Size	Sugg. Dealer Price
RK57	5 x 7	Gray	3 Pos. Switch	1.0 oz. cup	$4.75
RK57C	5 x 7	Chrome	3 Pos. Switch	1.0 oz. cup	5.06
RK57F	5 x 7	Gray	Fader	1.0 oz. cup	5.06
RK57CF	5 x 7	Chrome	Fader	1.0 oz. cup	5.37
AK69	6 x 9	Gray	3 Pos. Switch	.53 oz. cup	4.76
AK69C	6 x 9	Chrome	3 Pos. Switch	.53 oz. cup	5.06
AK69F	6 x 9	Gray	Fader	.53 oz. cup	5.06
AK69CF	6 x 9	Chrome	Fader	.53 oz. cup	5.37
RK69	6 x 9	Gray	3 Pos. Switch	1.0 oz. cup	5.40
RK69C	6 x 9	Chrome	3 Pos. Switch	1.0 oz. cup	5.60
RK69F	6 x 9	Gray	Fader	1.0 oz. cup	5.60
RK69CF	6 x 9	Chrome	Fader	1.0 oz. cup	5.90
WK69	6 x 9 Twin Cone	Gray	3 Pos. Switch	2.18 oz. cup	6.12
WK69C	6 x 9 Twin Cone	Chrome	3 Pos. Switch	2.18 oz. cup	6.39
WK69F	6 x 9 Twin Cone	Gray	Fader	2.18 oz. cup	6.39
WK69CF	6 x 9 Twin Cone	Chrome	Fader	2.18 oz. cup	6.65

ACCESSORIES	Sugg. DLR Price
Fader Control with Presoldered wire and hardware	$1.53
Switch Control with Presoldered wire and hardware	1.26
Chrome Grill with hardware	1.35
Grey Grill with hardware	1.08

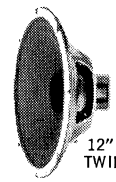
NOTE—Kits can be supplied with other Oaktron speakers. Please request quotation from factory.

TWIN CONE SPEAKERS

Matched dual cones for true high fidelity sound reproduction.



6" x 9" TWIN CONE



12" ROUND TWIN CONE

Size and Shape	Part Number	Magnet Weight Ounces	VOICE COIL Dia. Inches	VOICE COIL Impedance (Ohms)	Power in Watts	Sugg. Dealer Price
8" Pin Cushion	8E8WC	2.18 cup	1	8	6	$3.84
8" Pin Cushion	8F8W	3.16	3/4	8	8	4.26
8" Pin Cushion	8H8W	6.80	1	8	12	5.89
8" Pin Cushion	8HU8W	10.00	1	8	12	6.59
12" Round	12F8WX	3.16	1	8	10	6.54
12" Round	12H8W	6.80	1	8	12	8.19
5" x 7"	57E8W	2.15	9/16	8	6	3.30
6" x 9"	69E8WC	2.18 cup	1	8	6	3.72
6" x 9"	69EU8W	*3.00	¾	8	6	4.35
6" x 9"	69H8W	6.80	1	8	10	6.21

INTERCOM SPEAKERS

Size and Shape	Part No.	Magnet Weight Ounces	VOICE COIL Dia. Inches	VOICE COIL Impedance (Ohms)	Power In Watts	Sugg. Dealer Price
3½" Square	35A45	.53 cup	9/16	45	2	$1.77
4" Square	4A45	.53 cup	9/16	45	2	1.77
4" Square	4D45	1.47	9/16	45	3	2.28
5" Pin Cushion	5D45	1.47	9/16	45	3	2.31
8" Pin Cushion	8F45	3.16	3/4	45	8	4.15

TWEETER SPEAKERS

These speakers are true compression type, using totally enclosed baskets and molded curvilinear cones for maximum high frequency radiation, 8 ohm aluminum voice coils and Alnico 5 magnets—Blue luminescent enamel finish.

Size and Shape	Part Number	Impedance	Magnet Weight	V.C. Dia.	Power Watts	Frequency Response	Sugg. Dealer Price
3" Square	3C8T		1.00 oz.	9/16"	4	3000-16,000	$1.95
3½" Square	35D8T		1.47 oz.	9/16"	5	3000-16,000	2.25
4" Square	4D8T	8 Ohms	1.47 oz.	9/16"	5	3000-15,000	2.25
5" Round	5D8T		1.47 oz.	9/16"	5	2000-15,000	2.31
4" x 6"	46D8T		1.48 oz.	9/16"	6	2000-17,000	2.43

SYSTEMS

Matched Trio for Multi-Speaker Application

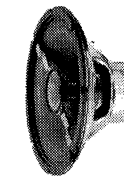
Size in Inches	Part Number	Impedance	Magnet Weight	V.C. Dia.	Power Watts	Frequency Response	Sugg. Dealer Price
12 6x9 4x6 Harness with Crossover	ST-124	8 Ohms	12" Woofer 6.80 oz. 6"x9" Mid Range 3.16 oz. 4"x6" Tweeter 1.47 oz.	1" 3/4" 9/16"	12	35-15,000	$16.50

HIGH FIDELITY SPEAKERS

ALL OAKTRON HI-FIDELITY SPEAKERS ARE ENCLOSED IN A PLASTIC COVERING AND INDIVIDUALLY BOXED TO INSURE MAXIMUM PROTECTION.

COAXIAL SPEAKERS

Oaktron's coaxial type speakers are superbly engineered to produce a flat response over a wide range of frequencies. These speakers are finished in a glossy royal blue luminescent enamel and feature a unique cross over network, solid basket compression type tweeters, specially treated aluminum voice coils and Alnico 5 magnets. These features combined with Oaktron's superior workmanship offer the finest in coaxial speakers.



12" COAXIAL

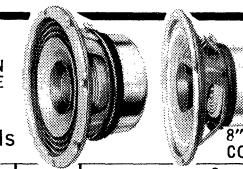
Size in Inches	Part Number	Impedance	Magnet Weight	V.C. Dia.	Power Watts	Frequency Response	Sugg. Dealer Price
8	CA-8	8 Ohms	8" Woofer 3.16 oz. 3" Tweeter .53 oz.	3/4" 9/16"	8	60-14,000	$7.70
8	CA8-HD	8 Ohms	8" Woofer 6.80 oz. 3" Tweeter .53 oz.	1" 9/16"	12	50-14,000	9.10
12	CA-12	8 Ohms	12" Woofer 6.80 oz. 3" Tweeter 1.00 oz.	1" 9/16"	12	35-14,000	11.70
12	‡CA12HD	8 Ohms	12" Woofer 10.10 oz. 3½" Tweeter 1.00 oz.	1¼" ⅝"	20	25-14,000	15.25
15	CA-15	8 Ohms	15" Woofer 6.80 oz. 5" Tweeter 1.00 oz.	1" 9/16"	14	30-13,000	15.60
6x9	CA-69	8 Ohms	6"x9" Woofer 2.15 oz. 3" Tweeter .53 oz.	3/4" 9/16"	6	70-14,000	6.54
6x9	CA-69-HD	8 Ohms	6"x9" Woofer 6.80 oz. 3" Tweeter .53 oz.	1" 9/16"	10	60-14,000	9.10

‡Chrome Finished Dust Cover.

CLASSIC SERIES

Twin cone speakers:

- Perfectly matched dual cones
- Smooth Response
- Heavy magnets • Large voice coils



6" TWIN CONE

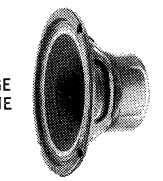
8" T CON

Size in Inches	Part Number	Impedance	Magnet Weight	V.C. Dia.	Power Watts	Frequency Response	Sugg. Dealer Price
6	‡FE6W Free Edge Cone	8	*6.00 oz.	1"	12	40-15,000	7.75
8	‡ FE8KW Free Edge	Ohms	10.10 oz.	1¼	20	30-14,000	$11.80
12	‡12K8W	Ohms	10.10 oz.	1¼	20	25-13,000	13.90

‡Chrome Finished Dust Cover. *Ceramic Magnet

FREE EDGE CONE SUSPENSION

SAME GENERAL APPEARANCE AS COAXIAL SPEAKERS
Excellent woofer characteristics combined with a perfectly matched twin cone to complete a truly exceptional full range high fidelity speaker.



8" FREE EDGE TWIN CONE

Size in Inches	Part Number	Impedance	Magnet Weight	V.C. Dia.	Power Watts	Frequency Response	Sugg. Dealer Price
6x9	FE69WC Twin Cone	8 Ohms	2.18 oz.	1"	8	40-15,000	$6.85
8	FE-8	8 Ohms	6.80 oz.	1"	12	35- 6,500	7.95
8	FE-8W Twin Cone	8 Ohms	6.80 oz.	1"	12	40-16,000	8.70

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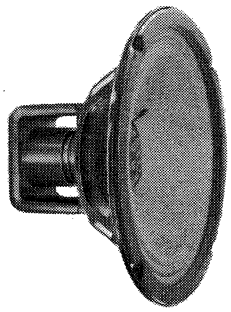
Net

AKTRON ARCHITECTURAL SOUND SPEAKERS LINE TRANSFORMERS



OA51
8" ROUND

OA56U
8" PIN CUSHION
DOUBLE TRANSFORMER
EMBOSS

ARCHITECTURAL SOUND SPEAKERS

- **Aluminum Voice Coils**
- **Attractive Blue Luminescent Finish**

Oaktron Architectural Sound speakers are designed specifically for commercial sound applications. Through the use of specially treated aluminum voice coils and carefully selected component parts, these speakers have proven their exceptional durability even under the most adverse conditions. These important features combined with Oaktron's superior workmanship and rigid quality control procedures assure the finest in commercial sound speakers.

Size and Shape	Part No.	Magnet Weight Ounces	Voice Dia. Inches	Coil Impedance Ohms	Power In Watts	Std. Bulk Pack	Wt. Case	Net Price
6" Pin Cushion	OA21	2.18 cup	1	8	7	24	20	$2.73
8" Round	OA40	2.15	¾	8	6	24	20	3.57
8" Round-Flat	OA41U	*3.00	¾	8	6	24	30	4.28
8" Pin Cushion	OA43	3.16	¾	8	8	24	36	3.96
8" Pin Cushion	OA45	4.64	1	8	10	24	56	5.19
8" Pin Cushion	OA46U	*6.00	1	8	10	24	48	5.89
8" Pin Cushion	OA48	6.80	1	8	12	24	58	5.58
8" Pin Cushion	OA49U	*10.00	1	8	12	24	59	6.29
8" Round	OA51	10.10	1¼	8	20	16	55	8.21
8" Pin Cushion	‡OA53	3.16	¾	8	8	24	36	4.26
8" Pin Cushion	‡OA54U	*10.00	1	8	12	24	59	6.59
8" Pin Cushion	†OA56U	*6.00	1	8	10	24	48	6.79
12" Round	OA68	6.80	1	8	12	8	32	7.75
12" Round	OA69U	*10.00	1	8	12	8	33	8.45
12" Round	OA71	10.10	1¼	8	20	8	40	10.18

* Ceramic magnet—all others Alnico 5.
† Dual 8 ohm voice coil.
‡ Twin cone speakers.

LINE TRANSFORMERS

CONSTANT VOLTAGE LINE TRANSFORMERS for impedance matching to 70.7 volt of 25 volt lines. This system provides simplified matching of speakers to an amplifier even though the individual speaker is required to produce different amounts of power. Oaktron transformers possess maximum efficiency and response characteristics through the use of new materials and the most advanced design parameters.

CONSTANT VOLTAGE: UNIVERSAL IMPEDANCE—MATCHING TYPES—INDIVIDUALLY BOXED

Transformers can be mounted at Factory

Part Number	Primary Impedance/ Power	Secondary Impedance (Ohms)	Nominal Watts	Core Size	DIMENSIONS Height	DIMENSIONS Width	DIMENSIONS Depth	Mtg. Centers	Shpg. Wt., Lbs.	Net Price
				70.7 CONSTANT VOLTAGE LINE						
T-71	2/1/.5	8/4	. .	⅜ x ⅜	1¼	1½	1¼	1¾	½	$1.53
T-72	5/2.5/1.25 .62/.31	8/4	. .	½ x ⅝	1⅜	1¾	1⅝	2	¾	2.07
				25 VOLT CONSTANT VOLTAGE LINE						
T-25	2/1/.5	8/4	. .	⅜ x ⅜	1¼	1½	1¼	1¾	½	1.53
T-26	5/2.5/1.25 .62/.31	8/4	. .	½ x ⅝	1⅜	1¾	1⅝	2	¾	2.07
				UNIVERSAL IMPEDANCE						
T-501	500/1000 1500/2000	8/4	4	½ x ½	1⅝	1 11/16	1¼	2	½	1.80
T-502	500/1000 1500/2000	8/4	8	⅝ x ⅝	1⅝	1 15/16	1⅜	2⅜	¾	2.35

All Oaktron Speakers Have Aluminum Voice Coils

Transformer Mounting Facilities on All Architectural Sound Speakers
Double Transformer Emboss on All 8" Pin Cushion Models
EIA Warranty Applies to All Oaktron Sueakers

THE BLUE PRINT TO BETTER SOUND

OAKTRON INDUSTRIES, INC., MONROE, WISCONSIN

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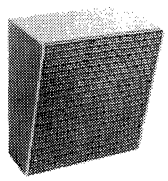
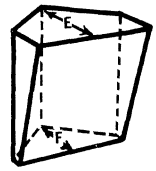
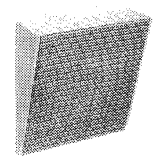
Oaktron's DELUXE and CUSTOM Baffles are smartly designed to compliment any decor. Rugged one half inch cabinet hardwood construction assures longer service even under the most severe conditions.

Beautifully finished in a natural blonde or walnut these baffles represent the ultimate in appearance and sound reproduction. Speaker and baffle mounting hardware included.

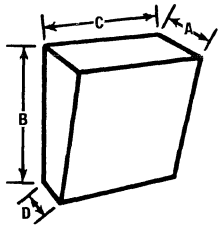


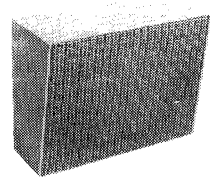
DELUXE WALL BAFFLE





DELUXE "KORNER" BAFFLE





CUSTOM WALL BAFFLE

DELUXE WALL BAFFLES

4"&5"	WB4-5-B	Blonde	Cabinet Hardwood	4½"	6¼"	6½"	2½"	$3.25
4"&5"	WB4-5-W	Walnut	Cabinet Hardwood	4½"	6¼"	6½"	2½"	3.25
6"	WB6-B	Blonde	Cabinet Hardwood	4⅝"	8"	9⅜"	2⅝"	4.10
6"	WB6-W	Walnut	Cabinet Hardwood	4⅝"	8"	9⅜"	2⅝"	4.10
8"	WB8-B	Blonde	Cabinet Hardwood	6¼"	10⅜"	9½"	3½"	4.45
8"	WB8-W	Walnut	Cabinet Hardwood	6¼"	10⅜"	9½"	3½"	4.45
12"	WB12-B	Blonde	Cabinet Hardwood	9⅛"	14⅛"	13¾"	5⅜"	5.80
12"	WB12-W	Walnut	Cabinet Hardwood	9⅛"	14⅛"	13¾"	5⅜"	5.80

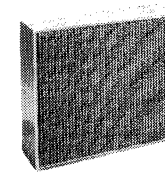
DELUXE "KORNER" BAFFLES

Speaker Size	Model	Furniture Finish	Material	DIMENSIONS A	B	C	D	E	F	Sugg. Dealer Price
8"	KB8-B	Blonde	Cabinet Hardwood	4"	10⅜"	9½"	1"	8¼"	5⅛"	$7.40
8"	KB8-W	Walnut	Cabinet Hardwood	4"	10⅜"	9½"	1"	8¼"	5⅛"	7.40
12"	KB12-B	Blonde	Cabinet Hardwood	5⅜"	14"	13½"	1¾"	11¾"	8⅛"	10.15
12"	KB12-W	Walnut	Cabinet Hardwood	5⅜"	14"	13½"	1¾"	11¾"	8⅛"	10.15

CUSTOM WALL BAFFLES

8"	CWB8-B	Blonde	Cabinet Hardwood	6"	9⅜"	12"	4¼"	$5.35
8"	CWB8-W	Walnut	Cabinet Hardwood	6"	9⅜"	12"	4¼"	5.35
12"	CWB12-W	Blonde	Cabinet Hardwood	9"	14"	16"	5¼"	7.40
12"	CWB12-W	Walnut	Cabinet Hardwood	9"	14"	16"	5¼"	7.40

SLIMLINE WALL BAFFLES

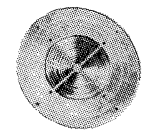


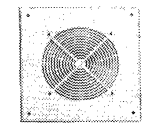
8"	SWB8-B	Blonde	Cabinet Hardwood	3⅞"	10½"	12½"	3⅞"	$5.20
8"	SWB8-W	Walnut	Cabinet Hardwood	3⅞"	10½"	12½"	3⅞"	$5.20

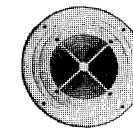
REDUCER RINGS

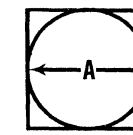
Model	Speaker Size	Material	Sugg. Dealer Price
R12/8	Reduces 12" to 8"	Tempered Presdwood	$1.25
R12/10	Reduces 12" to 10"	Tempered Presdwood	1.25

CEILING BAFFLES









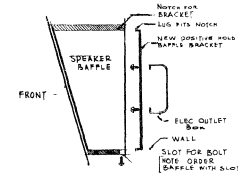
Oaktron's Ceiling Baffles possess qualities and design achieved only after years of engineering in this field. The extremely high efficiency and wide sound dispersion of these units result in superior acoustical sound reproduction. One piece construction eliminates vibration and rattle. Mount directly to the ceiling or to the convenient plaster ring. Available in satin or pebble aluminum and white baked enamel steel. Speaker mounting hardware included.

Speaker Size	Model	Finish	Shape	Material	Dimension A	Sugg. Dealer Price
8"	CR8-S	Satin	Round	Aluminum	12¾"	$3.30
8"	CR8-W	White	Round	Steel	12¾"	3.10
8"	CS8-S	Satin	Square	Aluminum	12⅛"	3.30
8"	CS8-W	White	Square	Steel	12⅛"	3.10
8"	CR8-P	Pebble	Round	Aluminum	12¾"	3.20

PLASTER RING

8"	PR8	Grey	—	Steel	—	$1.90

NEW, POSITIVE HOLD, BAFFLE BRACKET



Mount Baffle to Standard Electrical Outlet Box

Part No.	Material	Finish	Sugg. Dealer Price
B-8	3/32" Steel	Aluminum Painted	$ .60

For use with Oaktron Deluxe 8" baffles only.

Note — Baffles can be supplied with speaker and transformer installed at a total cost of the units supplied plus 60¢ for installation.

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QUAM *Quality Line* SPEAKERS

These speakers are engineered and manufactured solely for replacement, public address, high fidelity and outdoor applications. EIA standard dimensions. Fully dust-proofed. Baked gold enamel finish. EIA service guarantee. Only Quam speakers have the U shaped coil pot construction which provides an unbroken flux path of sufficient cross section to carry the full energy of the magnetic field.

ANY QUAM SPEAKER CAN BE SUPPLIED WITH VOICE COIL IMPEDANCES OTHER THAN THOSE LISTED FOR AN ADDITIONAL $.60

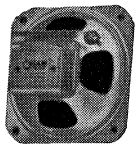
Fig. A

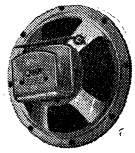
Fig. B

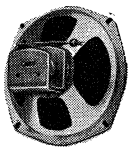
Fig. C

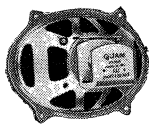
Fig. D

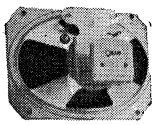
Fig. E

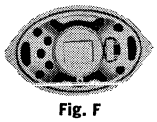
Fig. F

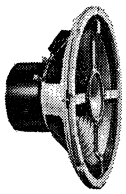
Fig. G

REPLACEMENT SPEAKERS Voice coil impedance 3.2 ohms ± 10%

MODEL No.	SIZE	FIGURE	MAGNET WEIGHT OR FIELD	POWER HANDLING WATTS	DEPTH	SHIP WT., LBS.	DEALER NET
22A06Z8**	2¼"	J	.45 oz. Alnico V	.25	1	1/4	$ 2.85
22A06Z100**	2¼"	J	.45 oz. Alnico V	.25	1	1/4	3.15
25A05	2½"	I	.55 oz. Alnico V	1.5	1-1/8	1/4	1.89
25A07	2½"	A	.65 oz. Alnico V	1.5	1-1/4	1/4	2.40
26A07	2"x6"	L	.65 oz. Alnico V	2	1-19/32	1/2	2.58
27A06Z12**	2¾"	J	.55 oz. Alnico V	.25	1	1/4	2.82
30A05	3"	I	.55 oz. Alnico V	2	1-3/8	1/2	1.89
3A05*	3½"	I	.55 oz. Alnico V	2	1-13/32	1/4	1.89
3A07*	3½"	A	.65 oz. Alnico V	2.5	1-33/64	1/2	2.40
35A05*	3"x5"	L	.55 oz. Alnico V	2	1-21/32	1/2	2.52
4A05*	4"	I	.55 oz. Alnico V	2.5	1-1/2	1/4	1.77
4A07*	4"	A	.65 oz. Alnico V	3	1-23/32	1/2	2.58
4A1	4"	A	1.0 oz. Alnico V	3	2-3/16	3/4	2.76
4A15	4"	A	1.47 oz. Alnico V	3	2-3/16	3/4	3.03
46A07*	4"x6"	E	.65 oz. Alnico V	3.5	1-15/16	3/4	2.85
46A1	4"x6"	E	1.0 oz. Alnico V	3.5	2-1/4	1	3.06
46A15	4"x6"	E	1.47 oz. Alnico V	3.5	2-1/4	1	3.30
48A2*	4"x8"	K	1.4 oz. Alnico V	4.5	2-3/16	1	4.77
410A2*	4" x 10"	M	1.4 oz. Alnico V	6	2-11/16	1¼	5.37
5A05*	5"	I	.55 oz. Alnico V	3	1-11/16	1/2	2.10
5A07*	5"	C	.65 oz. Alnico V	3.5	1-7/8	3/4	2.70
5A1	5"	C	1.0 oz. Alnico V	3.5	2-5/16	1	2.91
5A15	5"	C	1.47 oz. Alnico V	3.5	2-5/16	1	3.15
52A1	5¼"	C	1.0 oz. Alnico V	4	2-25/64	1	2.97
52A21	5¼"	C	2.15 oz. Alnico V	4	2-21/32	1-1/4	3.63
52C10#	5¼"	N	10.0 oz. Ceramic	10	2-1/4	2-1/8	5.97
57A1	5"x7"	D	1.0 oz. Alnico V	5	2-11/16	1	3.30
57A15	5"x7"	D	1.47 oz. Alnico V	5	2-11/16	1	3.66
57A21	5"x7"	D	2.15 oz. Alnico V	5	2-61/64	1-1/4	4.05
58A15Z8	5"x8"	F	1.47 oz. Alnico V	5	2-3/4	1-1/4	4.26
6A1	6½"	C	1.0 oz. Alnico V	5	2-5/8	1	3.18
6A15	6½"	C	1.47 oz. Alnico V	5	2-5/8	1	3.45
6A21	6½"	C	2.15 oz. Alnico V	5	2-7/8	1-1/4	3.87
6A31	6½"	C	3.16 oz. Alnico V	6	3-11/64	1-3/4	4.56
69A1*	6"x9"	D	1.2 oz. Alnico V	6	2-3/4	1-1/4	3.60
69A1S*	6"x9"	D	1.2 oz. Alnico V	6	2-1/8	1	5.10
69A2*	6"x9"	D	1.4 oz. Alnico V	8	2-15/16	1-1/2	4.50
69A3	6"x9"	D	3.2 oz. Alnico V	10	3-5/16	2	5.52
610A1Z8	6"x10"	F	1.2 oz. Alnico V	8	2-13/16	1-3/4	5.10
7A21*	7"	C	1.4 oz. Alnico V	6	2-31/32	1	4.35
8A1	8"	C	1 oz. Alnico V	6	3-1/2	1	3.57
8A21	8"	C	2.15 oz. Alnico V	7	3-13/32	1-1/2	4.65
8A31	8"	C	3.16 oz. Alnico V	9	3-21/32	2	5.40
10A31	10"	B	3.16 oz. Alnico V	9	4-1/2	2-3/4	6.90
10A4A	10"	B	4.64 oz. Alnico V	10	4-1/2	3-3/4	7.77
10A6A	10"	B	6.8 oz. Alnico V	12	4-5/8	3-1/2	8.70
12A31	12"	B	3.16 oz. Alnico V	10	4-19/32	3-3/4	7.17
12A4A	12"	B	4.64 oz. Alnico V	12	5-1/8	3-3/4	8.55
12A6A	12"	B	6.8 oz. Alnico V	14	5-1/4	4-1/2	9.57

* Very shallow unit.
# Ceramic magnet. • Dual cone.

**Impedance of 22A06Z8 is 8 ohms, 22A06Z100 is 100 ohms, 27A06Z12 is 12 ohms.
† 20 ohms, center tapped

Net

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QUAM *Quality Line* SPEAKERS

Fig. H

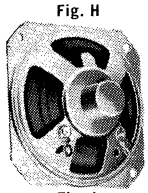
Fig. I

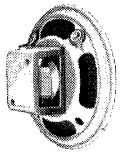
Fig. J

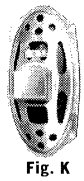
Fig. K

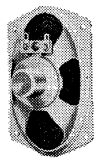
Fig. L

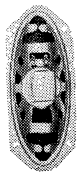
Fig. M

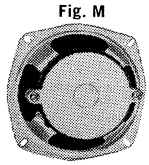
Fig. N

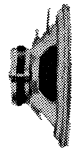
Fig. O

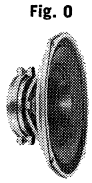
FIG. P

FIG. Q

OUTDOOR SPEAKERS

Voice coil impedance 3.2 ohms ±10%

These long-life speakers have the improved Humi-Gard Cone which utilizes a Mylar plastic film to provide maximum resistance to moisture and dirt and sand abrasion, yet does not interfere with response characteristics. Air gap surfaces cadmium plated and enameled. Quantity quotations on request.

All Quam speakers are available weather-proofed for an additional 70c list. When ordering weather-proofed speakers use part numbers appearing in this catalog and add suffix "OT" to part number. (Humi-Gard Cone available only on 3½", 4" 5", and 6½" speakers.)

MODEL No.	SIZE	FIGURE	MAGNET WEIGHT OR FIELD	POWER HANDLING WATTS	DEPTH	SHIP. WT., LBS.	DEALER NET
3A07 OT*	3½"	A	.65 oz. Alnico V	2.5	1-33/64	1/2	2.40
4A05 OT	4"	I	.55 oz. Alnico V	2½	1-1/2	1/4	1.95
5A05 OT	5"	I	.55 oz. Alnico V	3	1-11/16	1/2	2.28

PUBLIC ADDRESS SPEAKERS

Voice coil impedance 8 ohms ± 10%

8A1PA	8"	C	1 oz. Alnico V	8	3-1/2	1-1/4	$3.57
★8A21PA	8"	C	2.15 oz. Alnico V	10	3-9/16	2	4.92
★8A31PA	8"	C	3.16 oz. Alnico V	10	3-9/16	2	5.70
8A4PA	8"	B	4.64 oz. Alnico V	12	3-3/4	2-3/4	6.60
8A6PA	8"	B	6.8 oz. Alnico V	12	3-7/8	3-1/4	7.80
8C6PA	8"	O	6.0 oz. Ceramic	12	3	2-1/2	6.00
8C10PA	8"	O	10.0 oz. Ceramic	12	3-1/8	3	7.17
10A31PA	10"	B	3.16 oz. Alnico V	12	4-13/32	2-3/4	6.90
10A4PA	10"	B	4.64 oz. Alnico V	14	4-1/2	3-1/4	7.77
10A6PA	10"	B	6.8 oz. Alnico V	14	4-5/8	3-1/2	8.70
10C12PA	10"	O	12 oz. Ceramic	20	3-3/4	3-3/4	10.80
12A31PA	12"	B	3.16 oz. Alnico V	12	5	3-1/4	7.17
12A4PA	12"	B	4.64 oz. Alnico V	15	5-1/8	3-3/4	8.55
12A6PA	12"	B	6.8 oz. Alnico V	15	5-1/4	4	9.57
12C12PA	12"	O	12 oz. Ceramic	25	4-1/2	4-1/2	11.97
12C10PA	12"	O	10.0 oz. Ceramic	15	4-3/8	4	9.57

BACKGROUND MUSIC SPEAKERS

Voice coil impedance 8 ohms

MODEL NUMBER	SIZE	FIGURE	FREQUENCY RESPONSE (CPS)	MAGNET WEIGHT	POWER HANDLING WATTS	DEPTH	SHPG. WEIGHT POUNDS	DEALER NET
8C6PAX#•	8"	P	50-20000	6.0 oz.	12	3"	2	6.57
8C10PAX#	8"	P	50-20000	10.0 oz.	15	3-1/8"	2-1/2	7.77
8C6PAS#	8"	Q	50-6000	6.0 oz.	10	2-1/8"	2-1/4	6.00
12C6PAS#•	12"	Q	40-12000	6.0 oz.	15	3-1/2"	2-3/4	8.97
12C10PAX#•	12"	P	50-15000	10.0 oz.	15	4-3/8"	4	10.17

INTERCOM SPEAKERS

Voice coil impedance 45 ohms ±10%

3A07Z45*	3½"	A	.65 oz. Alnico V	2.5	1-33/64	1/2	2.55
4A07Z45*	4"	A	.65 oz. Alnico V	3.0	1-23/32	1/2	2.73
4A1Z45	4"	A	1.0 oz. Alnico V	3.0	2-3/16	3/4	2.91
5A1Z45	5"	C	1.0 oz. Alnico V	3.5	2-5/16	1	3.06

HIGH FIDELITY SPEAKERS

MODEL No.	SIZE	FIGURE	SPEAKER TYPE	FREQUENCY RESPONSE CPS	Pwr Hndlg Watts	V.C. Impedance	Shippg Wt. Lbs.	DEALER NET
15C12CO	15"	G	Coaxial, 2000cps. Xover	25-18,000	25	8	8-1/2	31.50
12A6CO	12"	G	Coaxial, 2000cps. Xover	50-15,000	14	8	6-1/2	20.70
8A4CO	8"	G	Coaxial, 2000cps. Xover	50-15,000	10	8	2-3/4	13.77
12C12X	12"	H	Extended range dual cone	30-16,000	18	8	5-1/4	15.60
10C12X	10"	H	Extended range dual cone	40-15,000	15	8	4-1/2	14.40
8C12X	8"	H	Extended range	50-14,000	15	8	3-3/4	12.00
69C6X	6"x9"	D	Extended Range dual cone	50-15,000	12	8	2-1/2	8.37
6A21X	6½"	C	Extended Range dual cone	75-15,000	5	8	1-1/2	5.37
15C12L	15"	H	Low frequency woofer	20-4,000	15	8	7-1/2	21.00
12C12L	12"	H	Low frequency woofer	30-3,000	15	8	5-1/4	15.60
5A15T	5"	A	High frequency tweeter	2,000-15,000	10	14	1	3.40
3A15T	3½"	B	High frequency tweeter	2,000-15,000	10	14	3/4	3.45
CO2-50			Crossover Unit for use with 5A15T&3A15T				1/2	1.20

REAR SEAT AUTO SPEAKER KITS

These kits contain everything required for the installation of the speaker. They include a dash-mounting fader control, cable, flocked screen grill, baffle plate, all necessary hardware and complete installation instructions.

†Chrome plated grill.
▲Sponge rubber baffle plate gasket

MODEL NUMBER	SIZE	FIELD OR MAGNET WEIGHT	POWER HANDLING WATTS	VOICE-COIL IMPEDANCE (OHMS)	SHPG. WEIGHT POUNDS	DEALER NET
AS-1	6-1/2"	1.47 oz.	5	3.2	2	5.97
AS-1Z10	6-1/2"	1.47 oz.	5	10	2	5.97
AS-2▲	6" x 9"	2.15 oz.	9	3.2	3-1/2	8.37
AS-2Z10▲	6" x 9"	2.15 oz.	9	10	3-1/2	8.37
AS-2C†▲	6" x 9"	2.15 oz.	9	3.2	3-1/2	9.09
AS-3	5" x 7"	1.47 oz.	5	3.2	2-1/4	7.17
AS-4	6" x 9"	1.2 oz.	6	3.2	1-3/4	4.50
AS-4Z10	6" x 9"	1.2 oz.	6	10	1-3/4	4.50

AUTOMOTIVE SPEAKERS

MODEL NUMBER	SIZE	FIGURE	MAGNET WEIGHT	POWER HANDLING WATTS	DEPTH	VOICE-COIL IMPEDANCE OHMS	SHIPPING WEIGHT POUNDS	DEALER NET
410A2Z10	4" x 10"	M	1.4 oz.	6	2-11/16"	8-12	1¼	5.67
410A2Z20CT*	4" x 10"	M	1.4 oz.	6	2-11/16"	18-22	1¼	5.97
410A2Z40CT*	4" x 10"	M	1.4 oz.	6	2-11/16"	35-45	1¼	5.97
46A1Z10	4" x 6"	E	1.0 oz.	3.5	2-1/4	8-12	1	3.27
48A2Z20CT*	4" x 8"	K	1.4 oz.	4.5	2-3/16"	18-22	1	5.37
57A1Z10	5" x 7"	D	1.0 oz.	5	2-11/16"	8-12	1	3.57
57A1Z20CT*	5" x 7"	D	1.0 oz.	5	2-11/16"	18-22	1	3.90
57A1Z40	5" x 7"	D	1.0 oz.	5	2-11/16"	35-45	1	3.57
6A21Z10	6-1/2"	C	2.15 oz.	5	2-7/8"	8-12	1¼	4.17
69A2Z10	6" x 9"	D	1.4 oz.	8	2-15/16"	8-12	1½	4.77
69A2Z20CT*	6" x 9"	D	1.4 oz.	8	2-15/16"	18-22	1½	5.04
69A2Z40CT*	6" x 9"	D	1.4 oz.	8	2-15/16"	35-45	1½	5.04

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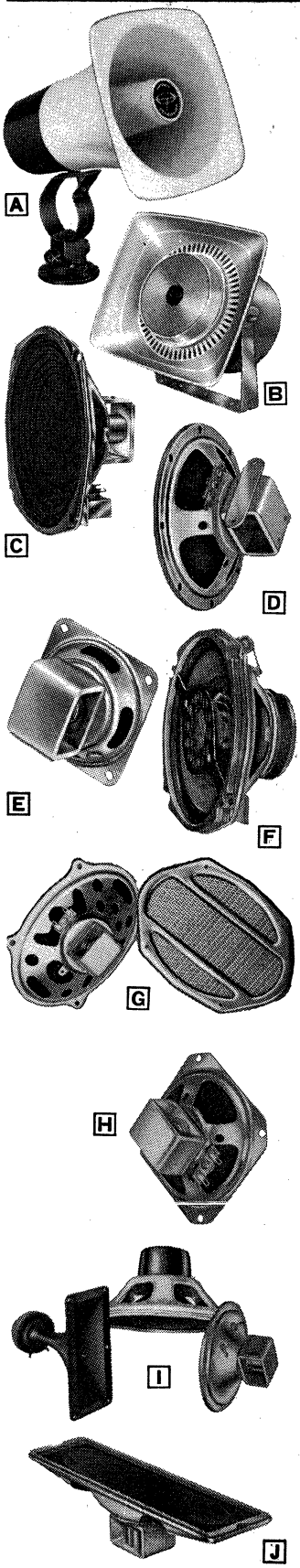
OXFORD TRANSDUCER CORPORATION

Subsidiary of OXFORD ELECTRIC CORPORATION

Quality Speakers for Every Application



A OP SPECIALIST SERIES

Models OP-6 and OP-8 represent the most advanced weatherproof paging and talkback speakers. They incorporate new design innovations with new materials to provide the highest efficiency with the lowest distortion factors of any competitive units available.

B OH-10 WEATHERPROOF DUAL SPEAKER SOUND SYSTEM

A high efficiency co-axial speaker that reproduces music and voice with the fidelity of an expensive indoor high-fidelity speaker system yet, the OH-10 is rugged and completely weatherproof. Components are housed in die-cast aluminum inclosure which is designed to compliment every setting from the shopping center to the patio.

C PUBLIC ADDRESS SPEAKERS

Oxford public address speakers are designed for higher output, with less power input. This maximum conversion efficiency in power and coverage permits a reduction in the number of speakers usually required in an installation. And, lower rated power amplifiers may be used with a substantial savings in cost.

D INTER-COM SPEAKERS

Oxford high efficency Inter-com speakers are designed to give round, full and clear reproduction in the voice frequency range and at the same time suppress unwanted background noises. Even whispers will be reproduced with great clarity in areas with high background noise levels . . . shouts are reproduced without distortion.

E ALL WEATHER SPEAKERS

Oxford offers a complete line of All Weather speakers specifically designed for maximum operating performance regardless of weather conditions. They feature exclusive Oxford HYDRO-PRUF cones for full environmental protection. Special moisture protected voice coils prevent humidity damage. Extra heavy cadmium plating, inside and out, resists corrosion.

F CERAMIC SPEAKERS

Featuring shallow construction, these speakers are ideal for in-wall, stereo wing, picture frame, and other installations where space is at a premium. In addition to the standard models, Oxford also offers ceramic units with exclusive Oxford Hidden Magnet design. The magnet is mounted between the basket and the cone, permitting use of the dual cone for extended range while retaining the thin silhouette.

G EXACT REPLACEMENT AUTOMOTIVE RADIO SPEAKERS

A complete line is available, including exact replacement speakers, universal speakers, special units for custom automobiles, and speakers specifically designed for transistorized automobile radios.

H REPLACEMENT SPEAKERS

Oxford manufactures the most complete line of standard replacement speakers available for original equipment, including, phonographs, tape recorders, radios and television sets. The speaker sizes range from 2" through 15", in dimensions to insure a perfect installation.

I HIGH FIDELITY SPEAKERS

The Oxford line offers a full range of woofers, tweeters, extended range and co-axial speakers. They are all designed to reproduce the entire audio spectrum with true high fidelity so necessary for fine stereo reproduction. For the price conscious hi-fi equipment buyer, Oxford offers the most outstanding value.

J SPECIAL PURPOSE SPEAKERS

As a "full line" loudspeaker manufacturer, Oxford also produces speakers for many "special purposes." The most popular of these is a series designed for use with electric musical instruments, such as guitars and electronic organs. It is only with a speaker designed for this particular application that the full quality of the instrument and performance can be appreciated.

Manufacturers, Write for Quotes on OEM Quantities.

OXFORD TRANSDUCER CORPORATION

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Chicago 47, Illinois

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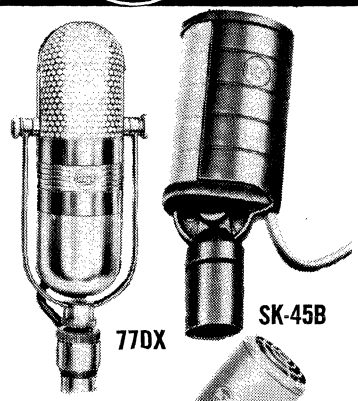
Broadcast Quality MICROPHONES



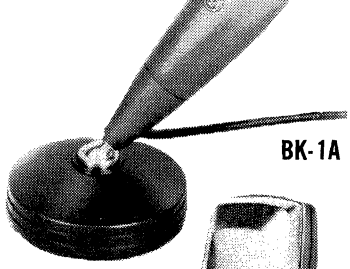
POLYDIRECTIONAL RIBBON MICROPHONE—77DX

The standard quality microphone of the broadcast industry, the RCA Type 77-DX, is available in two models; one with a low-gloss finish for TV, the other a satin chrome and gray enamel finish for AM and FM. The 77-DX offers a choice of unidirectional, bidirectional, or nondirectional pickup patterns which are easily changed by a selector switch. Three frequency response variations on the basic pickup patterns may also be obtained, thus a total of nine different directional characteristics may be utilized. The 50 to 15,000 cycle frequency response of the 77-DX makes it suitable for every high fidelity broadcasting and recording application. The low-hum pickup level (−128 dbm) makes the 77-DX useful in high-hum areas. Output impedance is factory connected for 250 ohms; however, it may be easily reconnected for a 30 to 150 ohm output impedance. The effective output levels are −50 dbm in the bidirectional pattern, −53 dbm and −56 dbm in the uni- and non-directional patterns (EIA ratings, −144 db, −147 db and −150 db respectively.

This microphone mounts on a standard ½-inch pipe thread which can be adapted to ⅝-inch-27 thread. The 77-DX is supplied with a protective cloth zippered bag, and 30 feet of three conductor shielded cable, less plug. Overall dimensions are 11½ inches long, 3¾ inches wide and 2¼ inches deep.

77-DX Satin Chrome Finish (MA-2311) **$206.00***

77-DX Low Luster Gray Finish (MA-2312) **$197.00***

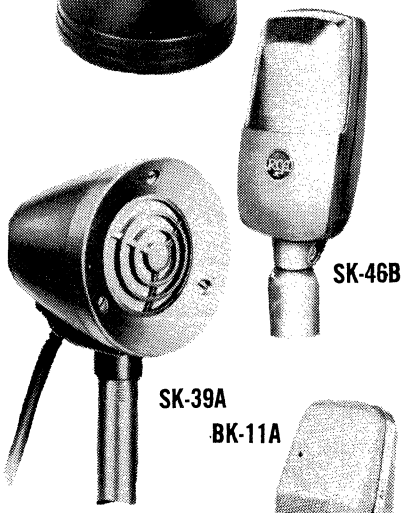


BI-DIRECTIONAL RIBBON MICROPHONE—BK-11A

All the advantages of the famous 44-BX microphone have been combined with the latest developments in ribbon microphone design to produce the new BK-11A general purpose microphone. In the studio or at indoor remotes, whether a simple interview program or full orchestra pickup, the bidirectional characteristics and excellent frequency response (30 to 15,000 cycles) make the BK-11A an extremely useful production tool. The BK-11A has an effective output level of −56 dbm @ 1000 cycles (EIA rating, −147 db). The output can be connected for 30, 150, and 250 ohm operation. A three position switch permits selection of desired frequency ranges for voice and music.

The BK-11A has been designed for use with the inexpensive MA-2306 desk stand, and it can also be used with any standard ½-inch pipe thread desk or floor stand. Thirty feet of three conductor cable is supplied without a connector.

BK-11A (MA-2316) **$131.25***



UNIAXIAL RIBBON MICROPHONE—BK-5B

The BK-5B is a high-quality ribbon instrument designed especially for use in high noise areas, as well as being suitable for general studio purposes. The BK-5B makes an excellent control room microphone when mounted on an adjustable microphone arm. Maximum sensitivity of the BK-5B is in the major mechanical axis, and this produces an extremely directional cardiod pattern. Frequency response from 50 to 15,000 cycles permits using the BK-5B for all types of high fidelity voice and music pickups. The effective output level is −56 dbm (EIA ratings, −150 db). The output is connected for 250 ohms, but may easily be changed to 30 or 150 ohms. The low-luster umber gray finish makes it ideal for TV.

It is supplied wih thirty feet of three conductor cable, less connector. A wind-screen is available for outdoor use. The BK-5B is supported by a fork mounting which has a ⅛-inch straight pipe thread.

BK-5B (MA-2314) **$146.50***

DIRECT PRESSURE LAVALIER MICROPHONE—BK-6B

The BK-6B is a lightweight microphone with excellent speech balance, ideal for remotes, interviews, and other applications where an inconspicuous microphone is needed. The 2.3 ounce unit is 2 1/16 by 1 5/16-inches, and its effective output level is −67 dbm (EIA ratings, −158 db). Wide range frequency response (80-12,000 cps) permits using the microphone for all speech applications. The 250 ohm output impedance may be changed to 30 or 150 ohms by a simple change of cable connections. Hum pickup is very low (−112 dbm).

The small size and lanyard mounting make the BK-6B extremely versatile. Thirty feet of three conductor cable is supplied, less connector.

BK-6B with lanyard and fastener (MA-2315) **$86.00***

BI-DIRECTIONAL RIBBON MICROPHONE SK-46B

The SK-46B is designed for high quality indoor use. It has excellent frequency response and bidirectional pickup characteristics. Output impedance is 200 ohms, but it may be reconnected to produce a 15,000 ohm output. Effective output level is −58 dbm at 250 ohms (EIA rating, −150 db) or −60 dbm at 15,000 ohms. Dependable performance as well as attractive styling make the SK-46B an ideal choice for applications requiring an economical high quality microphone. The SK-46B has a ⅝-inch−27 mounting thread and is supplied with 25 feet of two conductor cable (less connector).

SK-46B (MA-2319) **$49.00***

NON-DIRECTIONAL PRESSURE MICROPHONE—BK-1A

Ideal for outdoor use or wherever constant handling is required the BK-1A offers smooth response for both voice and music. The BK-1A is also an excellent unit for sports, panel shows, interviews, and remotes. The pressure actuated microphone provides uniform response from 60 to 10,000 cycles. The swivel mounting of the BK-1A can be used to control directional characteristics. The vertical position is nondirectional the horizontal position is semidirectional. The output impedance is 250 ohms, but 30 and 150 ohm connections are included. Effective output level of the BK-1A is −52 dbm (EIA ratings, −148 db) while hum pickup is below −102 dbm.

The BK-1A may be mounted on any type stand having ½-inch pipe thread and is perfect for use with the MA-2306 desk stand. Thirty feet of three conductor cable is supplied, less connector.

BK-1A (MA-2313) **$73.50***

NON-DIRECTIONAL PRESSURE MICROPHONE—SK-45B

Ideal for talk-back, cue, and public address use, the rugged lightweight SK-45B microphone offers good voice reproduction. This dynamic microphone is essentially nondirectional with a −56 db output level (EIA rating, −147 db) when connected for a 150 to 200 ohm balanced output, and −58 db when specially connected for a 15,000 ohm output. Response from 70 to 12,000 cycles makes it excellent for announce work. Mounting with any ⅝-inch−27 fixture thread permits the use of low cost stands. Finish is low gloss gray, and the SK-45B is supplied with 25 feet of cable less connector.

SK-45B (MA-2318) **$45.00***

NON-DIRECTIONAL PRESSURE MICROPHONE—SK-39A

Cue and talk-back applications are perfect for this inexpensive dynamic microphone. The SK-39A is rugged and relatively insensitive to mechanical shock and wind. Its plastic diaphragm makes it impervious to moisture and rain. Output level is −55dbm (EIA rating, −150 db). The SK-39A may be used with amplifiers having a 250 ohm input. The umber gray unit may be mounted on any ⅝ inch−27 fixiutre thread. The 15-ounce microphone is supplied with 25 feet of two conductor cable (less connector).

SK-39A (MA-2317) **$23.40***

STANDS AND ACCESSORIES

Windscreen—**MA-2325**—For use with BK-5B microphone **$16.50**

Boom Mount—**MA-2324**—Special shock mounting which isolates BK-5B microphone from vibration **$36.50***

Holder—**MA-2307**—⅝″−27 female thread. For use with BK-6B microphone. ..... **$ 3.35***

Adaptor—**MA-2308**—⅝″−27 female fitting—½″ male pipe thread. Use to adapt a ⅝″−27 microphone to a ½″ pipe thread stand. ..... **$ .50***

Adaptor—**MA-2309**—½″ female pipe thread, ⅝″−27 male fitting. Use to adapt a ½″ microphone to a ⅝″−27 stand. ..... **$ .90***

Desk Stand—**MA-2306**—½″ pipe fit—male 4⅜″ dia. 1⅜″ h. Dull gray finish. For use with BK-1A and BK-11A microphones. ..... **$ 7.75***

Desk Stand—**MA-2305**—½″ pipe fit—male 4½″ wide 6⅝″ long, ¾″ high or 1¾″ (incl. Stem). Crinkle and chrome finish, 4 lbs. For use with 77-DX and BK-5B Microphones, (MA-2311, 2312, 2314) **$16.75***

Desk Stand—**MA-2301**—⅝″−27 male thread, 7″ to 11″ chrome tube, 8″ dia. Crinkle base. About 2½ lbs. **$ 5.20***

Banquet Stand—**MA-2302**—⅝″−27 male thread, 13″ to 25″ chrome tube, 8″ dia. Crinkle base. About 6 lbs. **$ 5.85***

Floor Stand—**MA-2303**—⅝″−27 male thread, ⅞″ dia 35″ to 65″ chrome tube. 12″ dia. Crinkle base. **$ 9.00***

Floor Stand (Deluxe)—**MA-2304**—⅝″−27 male thread 1⅛″ dia. 37″ to 66″ chrome tube. Triangular 17″ dia Crinkle base **$16.50***

**User Price (Optional)*

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SHURE

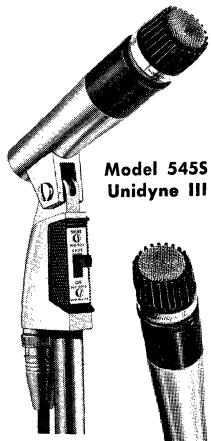
FAMOUS UNIDYNE MICROPHONES

Model "545" Unidyne III *

UNIDYNE III SERIES

THE ONLY CARDIOID MICROPHONES FEATURING PICKUP PATTERN SYMMETRICAL ABOUT AXIS AND UNIFORM AT ALL FREQUENCIES

The world's finest moderately priced dynamic cardioid microphone for public-address system use. The Unidyne III approaches the theoretical ideal of the cardioid pickup pattern. This means completely uniform pickup about the axis at all frequencies — in all planes. Remarkably faithful reproduction of the human voice makes the Unidyne III a superior choice for public-address applications. Low frequency characteristics of the Unidyne III eliminate boominess, and make it a favorite for pickup of drums and bass instruments. Striking black and satin chrome finish in compact modern design makes the Unidyne III a stylish addition to any platform. Model 545 is suitable for handheld and/or stand use with Model A25 Swivel Adapter included. Model 545S is mounted on lifetime swivel and includes on-off switch. Model 544 is furnished with cable attached and is designed for gooseneck mountings. 544-G6 includes 6" gooseneck; 544-G12 includes 12" gooseneck; 544-G18 includes 18" gooseneck.



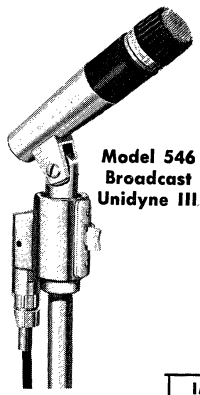
Model 545S Unidyne III *

TYPE: Dynamic. FREQUENCY RESPONSE: 50-15,000 cps. POLAR PATTERN: Cardioid (Uniform with frequency, symmetrical about axis). MAGNETIC CIRCUIT: uses Alnico V magnet. CASE: Die cast zinc and "Armo-Dur". FINISH: Satin chrome and black. CABLE CONNECTOR: Equivalent to Amphenol MC4M plug. CABLE: 18 ft., 3 conductor shielded. STAND THREAD: 5/8" — 27 thread. DIMENSIONS: Length — 5 7/16", Diam. — 1 15/64". NET WEIGHT: 6/10 lb., Shipping Weight 2 7/8 lbs. FURNISHED ACCESORIES: A25 type swivel adapter. OPTIONAL ACCESSORIES: A86A cable type transformer, S33B desk stands.

IMPEDANCE TABLE	OUTPUT LEVEL
L-50-250 ohms	—57 db (0 db = 1 milliwatt per 10 microbars) .141 millivolts/microbar
H-High	—55 db (0 db = 1 volt per microbar); 1.760 millivolts/microbar

MODEL	LIST PRICE
545	$ 85.00
545S	$ 89.95
544	$ 80.00
544-G6	$ 83.00
544-G12	$ 83.75
544-G18	$ 85.00

Model 544 Gooseneck Unidyne III*



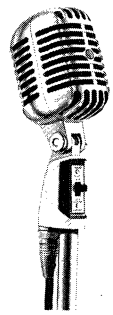
Model 546 Broadcast Unidyne III*

* U.S. Patent D190,864 other Patents Pending

BROADCAST UNIDYNE III

MODEL 546. Ultra compact, unidirectional, distinctive design, weights only 1 lb.! Recommended for critical broadcast and theater-stage sound system operation and highest quality public address and recording applications. Truly uniform cardioid pick-up pattern, symmetrical about axis. Special live-rubber vibration-isolating shock mount. Improved self-adjusting lifetime swivel permits tilting of head 180°. Cannon XL-3-11 connector. 20 ft. 2-conductor shielded broadcast type cable. Head only 1 15/64" diam., 5 7/16" long. 50-15,000 cps frequency response.

IMPEDANCE TABLE	OUTPUT LEVEL	MODEL	LIST PRICE
L — 50 Ohms	—55 db (0 db = 1 milliwatt per 10 microbars); .079 millivolts/microbar	546	$135.00
H — 150 Ohms	—55 db (0 db = 1 milliwatt per 10 microbars); .176 millivolts/microbar		



Model "55S" Unidyne

UNIDYNE II SERIES

Famed Throughout the World for Ruggedness and Reliability

The Unidynes are the largest selling microphones throughout the world — used consistently by famed celebrities for those important events where the faithfulness of sound reproduction is critical. A sturdy construction provides immunity of the moving-coil system to abnormal atmospheric conditions and severe mechanical shock. Model 55S is highly recommended for fine quality public address, theater-stage sound systems, recording and remote broadcasting, and low-gain tape recording. It is also the field-proved standard for fixed station use in the police, fire, transportation, forestry and commercial services. Smooth frequency response from 50 to 15,000 cps. Furnished with an 18-foot cable and plug assembly. Model 55SW is same as Model 55S except it has On-Off switch.

Model "556S" Broadcast

Model 556S is specially constructed and tested to meet the requirements of the broadcast and television studio, and is held within close tolerances in frequency response and directivity. It is a moving-coil type microphone with a frequency range of 40 to 15,000 cps, production uniformity guaranteed to plus or minus 2½ db. As a further precaution against mechanical vibration pickup, the 556S is provided with an additional isolation unit, of live rubber construction in combination with the stand connector and a built-in high quality cable connector. Furnished with a 20-foot, high quality, shielded, 2-conductor cable with Cannon plug attached. Both the 55S and the 556S feature the patented "Uniphase" network system. All units include multi-impedance switch for High, Medium or Low Impedance.

IMPEDANCE TABLE	OUTPUT LEVEL
L-35-50 ohms	—54 db (0 db = 1 milliwatt per 10 microbars); .063 millivolts/microbar
M-150-250 ohms	—55 db (0 db = 1 milliwatt per 10 microbars); .125 millivolts/microbar
H-High	—57 db (0 db = 1 volt per microbar); 1.410 millivolts/microbar

MODEL	LIST PRICE
556S	$135.00
55S	$ 83.00
55SW	$ 85.00

All Shure Dynamic, Controlled Magnetic, and Ceramic Microphones are eligible for FCDA purchases.

Available in Gold finish for $10 additional (List Price)

Trade Discount Applies To List Prices Only

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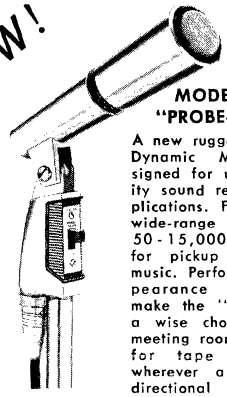
SHURE P.A. SYSTEM MICROPHONES

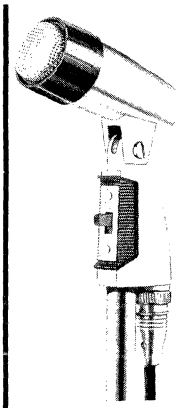
NEW!



MODEL 550S— "PROBE-DYNAMIC"

A new rugged, high quality Dynamic Microphone designed for use in top-quality sound reinforcement applications. Features smooth, wide-range response from 50-15,000 cps. Excellent for pickup of voice and music. Performance and appearance characteristics make the "Probe-Dynamic" a wise choice for use in meeting rooms, auditoriums, for tape recording or wherever a quality omni-directional microphone is required, and moderate cost is an important consideration. Dual impedance. Comes complete with on-off switch, swivel and 18 ft. 2-conductor cable. Model 550S in satin chrome finish. Model 550S(Gold) in gold finish. Available in matched pairs for stereo recording. (Matched to ± 1 db in level and 1½ db in frequency response.)

List Price:	**Model 550S $69.00** **Model 550S (Gold) $79.00**
Type:	**Dynamic**
Frequency Response:	**50 to 15,000 cps**
Output:	**57.5 db** **58.5 db (0 db = 1 volt/microbar); 1.18 millivolts/microbar**
Impedance:	**Dual: Choice of 50 to 250 ohms and High**
Diaphragm:	**Shure Duracoustic**
Case:	**Model 550S** **Satin finished chrome case, stainless steel mesh grille** **Model 550S (Gold)** **Gold finished case and grille**
Dimensions: (not including swivel)	**1⅛" diameter, 6½" long**
Net Weight: (less cable)	**15 oz.**



SONODYNE II

MODEL 540S. A compact, modernistic microphone with high output dynamic element at moderate cost. The "Sonodyne II" features **adjustable frequency response** which allows the user to tailor the microphone to the application — One of the most versatile microphones on the market! High output Dynamic element Omni-Directional pick-up pattern. Frequency response: 60 to 10,000 cps with provisions for alternate response for voice intelligibility in paging and communications systems. Reliable on-off switch. Model 540 also available without switch. Improved positive action lifetime swivel permits tilting head 150°. 15 ft. 2-conductor shielded cable, equivalent to Amphenol MC3M connector.

IMPEDANCE TABLE	OUTPUT LEVEL
L—50-250 Ohm	—56.5 db (0 db = 1 Milliwatt per microbar); .141 millivolts/microbar
H—High	—55 db (0 db = 1 volt per microbar); 1.76 millivolts/microbar

LIST PRICE		
	Model 540S (with switch)	$49.95
	Model 540 (without switch)	$47.95

SONODYNE

MODEL 51. The "Sonodyne" is ideal for all general purposes, including public address, wire and tape recording, and similar applications. Ideal high-quality, moderately- priced replacement for the conventional microphone supplied with tape recorders. The wide range frequency response is 60 to 10,000 cps. This rugged microphone is one of the pressure type, with conventional semi-directional characteristics, and it may be used for close-talking without undue low frequency emphasis. Multi-impedance — for low, medium and high impedance. Has built-in receptacle and a 15-foot, two-conductor shielded cable with microphone plug attached. Satin chrome finish. Model 51S is same as Model 51 except it has on-off switch.

IMPEDANCE TABLE	OUTPUT LEVEL
L—35-50 Ohms	—52.0 db (0 db = 1 Milliwatt per 10 microbars); .089 millivolts/microbar
M—150-250 Ohms	—52.5 db (0 db = 1 Milliwatt per 10 microbars); .238 millivolts/microbar
H—High	—49.5 db (0 db = 1 volt per microbar); 2.510 millivolts/microbar

LIST PRICE		
	51	$49.50
	51S	$51.50

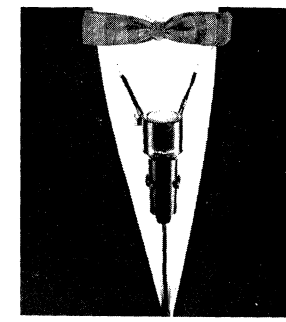
MODEL 560 DYNAMIC LAVALIER

Model 560 Dual Impedance, Dynamic Microphone with "tailored" response specifically designed for lavalier use. A truly excellent general purpose lavalier microphone at a very practical price. Compact and lightweight. Modern black satin all-metal case with stainless steel grille meets virtually every lavalier application, with quick change from High to Low impedance by simply moving pin jacks. New design clip-grip lavalier assembly holds microphone securely to wearer. Lightweight 18 foot attached cable permits maximum freedom of movement.

SPECIFICATIONS — FREQUENCY RESPONSE: Specially adapted to give optimum performance for lavalier use. DIAPHRAGM: Shure Duracoustic. CABLE: Non-detachable 18 ft., two-conductor shielded. CASE: Non-reflecting, black satin finished all-metal case with stainless steel grille. DIMENSIONS: 3 29/32" long by 1⅓" diameter. NET WEIGHT: 5 ounces; packaged weight: 13 ounces.

IMPEDANCE TABLE	OUTPUT LEVEL
150-250 Ohms	—55.5 db (0 db = 1 Milliwatt per 10 microbars); .149 millivolt/microbar
High	—56.5 db (0 db = 1 volt per microbar); 1.33 millivolt/microbar

MODEL	LIST PRICE
560	$42.50



560 Lavalier

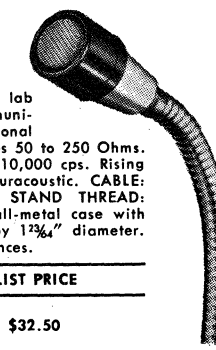
MODEL 777 "SLIM-X"

The "777" Slim-X Microphones are rugged little microphones weighing only 6 ounces. They use a "Metal Seal" crystal for long operating life under adverse conditions of heat and humidity. Designed for good-quality voice reproduction, their versatility and "hand-ability" make them ideal for use by lecturers, announcers, instructors, and Hams; for audience participation shows; carnivals; and for use with home recorders. Smooth response from 60 to 10,000 cps. Output: —62db (0 db = 1 volt per microbar).

MODEL	TYPE	LIST PRICE
777	Includes Lavalier card, molded stand adapter	$25.00
777S	Same as 777 with on-off switch	$27.00

MODEL 561 DYNAMIC GOOSENECK

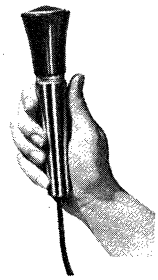
Compact, high quality, tamper-proof dynamic microphone with attached cable and standard ⅝"-27 thread for direct mounting on flexible gooseneck or fixed pipe. Extremely rugged, dynamic cartridge (Model R50) easily replaced in field. Excellent voice response for language lab systems, paging applications, base-station communications and talk-back and cuing from professional control-room installations. Low impedance. Matches 50 to 250 Ohms. **SPECIFICATIONS**—FREQUENCY RESPONSE: 40 to 10,000 cps. Rising characteristic to 4500 cps. DIAPHRAGM: Shure Duracoustic. CABLE: Non-detachable 4 ft., two-conductor shielded. STAND THREAD: ⅝"-27. CASE: Black and chrome satin finished all-metal case with stainless steel grille. DIMENSIONS: 2 41/64" long by 1 23/64" diameter. NET WEIGHT: 5 ounces; packaged weight: 9 ounces.



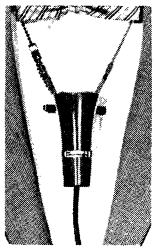
OUTPUT LEVEL	LIST PRICE
—56.0 db (0 db = 1 Milliwatt per 10 microbars); 1.41 millivolts/microbar	$32.50

SHURE PUBLIC ADDRESS MICROPHONES

THE COMMANDO SERIES

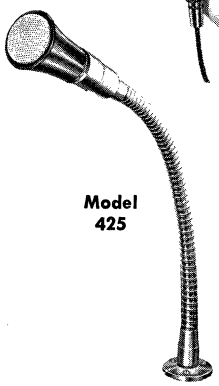


Model 415



Model 420

Model 430



Model 425

U. S. Patent 2,454,425

The Commando Series represents a significant achievement in providing quality performance at nominal cost — incorporating Shure's rugged, patented Controlled Magnetic cartridge in a dramatic-looking versatile series of microphones. Suitable for indoor or outdoor use, these microphones feature high output, smooth response, extreme ruggedness and ability to withstand severe moisture and temperature conditions. Model 420 is specially designed for lavalier use and it, as well as the Model 430, features adjustment for high or low impedance by simple pin-jack changing method. Model 430 includes an "On-Off" switch as well as detachable cable. Both Models 415 and 430 are furnished with Shure Model A25 Swivel Stand Adapter for Stand-mounted use. Model 425 is specially designed for gooseneck mounting but can also be utilized as stand-mounted units with A25B Swivel Adapter Models with gooseneck attached are numbered 425-G plus number to indicate length of gooseneck in inches.

SPECIFICATIONS FOR "COMMANDO" MODELS 415, 420, 425 and 430

LIST PRICE: Model 415 - $27.50; Model 420 - $30.00; Model 425 - $30.00; Model 430 - $38.50; Model 425-G6 - $33.00; Model 425-G12 - $33.75; Model 425-G18 - $35.00

TYPE: Controlled Magnetic

FREQUENCY RESPONSE: 60 to 10,000 cps

IMPEDANCE: Model 415 — High. Model 420-425-430 — Equipped with readily changeable pin-jacks (no soldering required) furnishing a choice of two impedances: H—High and L—150 to 250

OUTPUT LEVEL: High — 52 db (0 db = 1 volt per microbar); 2.510 millivolts/microbar. Low —52 db (0 db = 1 milliwatt per 10 microbars); .225 millivolts/microbar

POLAR PATTERN: Omnidirectional

CASE: Model 415 — Impact-resistant polystyrene and die-case zinc. Model 420 — Impact-resistant polystyrene. Model 425 — Impact-resistant polystyrene and brass. Model 430 — Impact-resistant polystyrene and die-cast zinc.

FINISH: Model 415 — Non-reflecting gray and satin chrome. Model 420 — Non-reflecting gray. Model 425-430 — Non-reflecting gray and satin chrome.

CABLE: Model 415 — 7 ft. non-detachable single-conductor shielded. Model 420 — 20 ft. non-detachable two-conductor shielded. Model 425 — 7 ft. non-detachable two-conductor shielded. Model 430 — 15 ft. two-conductor shielded with Amphenol MC2M connector for attaching to microphone.

SWITCH: Models 415-420-425 — None. Model 430 — Press-to-talk switch — normally closed.

DIMENSIONS: Model 415 — Length 6 13/16". Diameter of head 1¾". Diameter of handle 13/16". Model 420 — Length 3 11/16". Diameter 1¾". Model 425 — Length 3 11/16". Diameter 1¾". Model 430 — Length 6 37/64". Diameter of head 1¾". Diameter of handle 13/16".

NET WEIGHT: Model 415 — ½ lb. Models 420-425 — ¼ lb. Model 430 — ⅜ lb. (Less cable)

PACKAGED WEIGHT: Model 415 — 1⅜ lbs. Models 420-425 — ¾ lb. Model 430 — 2⅛ lbs.

FURNISHED ACCESSORIES: Model 415 — Model A25B Swivel Adapter. Models 420 — Lavalier Cord and clip assembly. Readily detachable for use of microphone as a hand-held type. Model 430 — Switch locking plate for keeping switch in "On" position, Model A25B Swivel Adapter.

OPTIONAL ACCESSORIES: Model 415 — Model S38B or S33B Desk Stand. A34L Lavalier Assembly. Models 420-425 — Model A86A Cable Type Transformer. Model 430 — Model A86A Cable Type Transformer and Model S38B or S33B Desk Stand. A34L Lavalier Assembly.

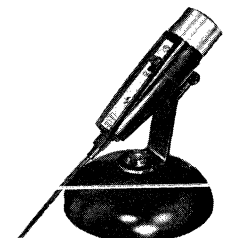
LOW COST, WIDE-RANGE "VERSADYNE" AND "VERSAPLEX" MICROPHONES

Smooth response makes these units a "best-buy" for general public address, home recording and call-system use where both performance and economy are important. High-performance dynamic cartridge is unaffected by temperature and humidity variations. Choice of high or low impedance dynamic or high impedance ceramic models each complete with switch plus stand adapter and lavalier cord. Small size and light weight, this unit is equally adaptable to hand-held, stand-mounted or lavalier use. Model 575S and 275S feature high impedance and high output, for applications where only a moderate length of cable is required. The low impedance, Model 575SB is designed for use in installations where long cable lengths are required, or for use with transistor amplifiers requiring a medium or low impedance microphone.

SPECIFICATIONS

	MODEL 575S "VERSADYNE"	MODEL 575SB "VERSADYNE"	MODEL 275S "VERSAPLEX"
LIST PRICE	$24.00	$21.00	$15.00
TYPE	DYNAMIC		CERAMIC
FREQUENCY RESPONSE	40 to 15,000 cps		40 to 12,000 cps
OUTPUT LEVEL	—59 db (0 db = 1 volt per microbar); 1.110 millivolts/microbar	—62 db (0 db = 1 Milliwatt per 10 microbars); .071 millivolts/microbar	—59.5 db (0 db = 1 volt per microbar); 1.050 millivolts/microbar
POLAR PATTERN	OMNIDIRECTIONAL		
IMPEDANCE	High: 100,000 Ohms or Higher	150-250 Ohms	High: 1 to 5 Megohms Recommended
FINISH	Black high-impact plastic body with satin anodized cap and stainless steel grille		
DIMENSIONS	4¾" long x 1¼" diam.		

Surprising Quality for these Low Prices.



Models 275S - 575S

Patent Pending

Trade Discount Applies To List Prices Only

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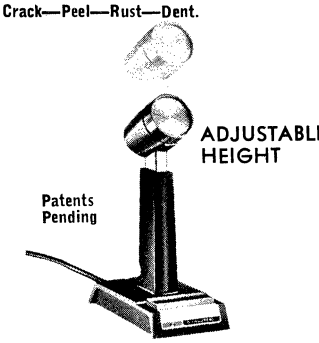
SHURE DISPATCHING . . GENERAL PURPOSE MICROPHONES

MODEL 450 "DISPATCHER" MICROPHONE *

Made of Rugged "ARMO-DUR"—Won't Crack—Peel—Rust—Dent.

New modern design fits every decor for paging use. Integrated case design, made of gray "Armo-Dur", features telescoping height adjustment for maximum convenience. Rugged Controlled Magnetic element with impedance switch for low or high impedance. Push-to-talk switch bar with optional features provide every desired switching option.

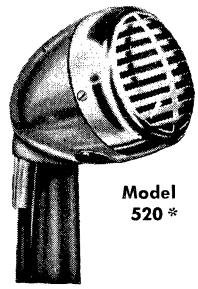
SPECIFICATIONS — ELEMENT TYPE: Controlled Magnetic. FREQUENCY RESPONSE: 100 to 9000 cps. CASE: Two-tone Gray "Armo-Dur". CABLE: 7 ft., four-conductor (two-conductor shielded). SWITCH: Push-to-talk switch button with optional locking feature to operate independent microphone and relay circuits. Relay portion of switch is normally open. Microphone portion of switch is normally open or normally closed as required. DIMENSIONS: 4" wide, 5 1/16" deep, 10 5/16" high (adjustable). NET WEIGHT: 1½ lbs.



MODEL	IMPEDANCE	OUTPUT LEVEL	LIST PRICE
450	50-250	—54 db (0 db = 1 Milliwatt per 10 microbars); 2.380 millivolts/microbar	$49.50
	High	—52.5 db (0 db = 1 volt per microbar); .281 millivolts/microbar	

THE "GREEN BULLET"

Designed to provide quality music and speech reproduction at moderate cost. Rugged! Practically immune to the effects of high temperatures and humidity. Features: high output, good response, high impedance without the need of a transformer. Modern metallic green finish with plated grille. Frequency response is 100 to 7000 cps. Furnished with 7 ft. single-conductor shielded cable. High impedance. Use with Shure Model S34B or S36A Desk Stands.


Model 520 *

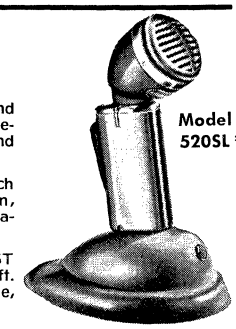
MODEL	OUTPUT LEVEL	IMPEDANCE	LIST PRICE
520	—52.5 db (0 db = 1 volt per microbar); 2.38 millivolts/microbar	High	$22.50
520B	—51 db (0 db = 1 milliwatt per 10 microbars); .281 millivolts/microbar	150-250 Ohms	$22.50

MODEL 520SL "DISPATCHER"

Model 520SL recommended for mobile and fixed station use, also for public address, recording call systems, radio telephone and amateur use.

Model 520SL equipped with grip-to-talk switch DPST — normally closed-normally open, and 7 ft. 2-conductor shielded cable, equivalent to Amphenol MC3M plug.

Model 520SLB has grip-to-talk switch DPST — normally closed-normally open, and 7 ft. 4-conductor (2 conductors shielded) cable, equivalent to Amphenol MC4M plug.


Model 520SL *

MODEL	OUTPUT LEVEL	IMPED-ANCE	LIST PRICE
520SL	—52.5 db (0 db = 1 volt per microbar); 2.38 millivolts/microbar	High	$45.00
520SLB	—51.0 db (0 db = 1 millivolt per 10 microbars); .281 millivolts/microbar	150-250 Ohms	$49.25

NEW CERAMIC NOISE-CANCELLING AND LOW COST PALM MICROPHONES FOR CB, AMATEUR, MOBILE

U. S. Patent D194.749

New, Model 202 effectively reduces Background Noise for use in Mobile Ham and CB rigs. All models are . . .

Loaded with features — yet priced unusually low. "Shaped" voice response is patterned after professional mobile and SSB amateur response curves . . . assures maximum intelligibility. Professional design and construction. Long-life slide-switch, guaranteed full year. Virtually indestructible "Armo-Dur" wonder plastic case; Shock-, shatter-, corrosion-, rust-, and weather-proof. Coiled-cord won't kink. "Lifetime" hang-up bracket. Choice of ceramic (model 201) or controlled magnetic (model 401A and 401B) elements. (401B recommended for parallel balanced line operation where long cable lengths are required.)

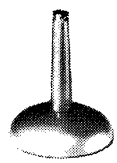
SPECIFICATIONS

	Model 202	Model 201	Model 401A*	Model 401B*
LIST PRICE	$20.00	$18.00	$22.00	$22.00
TYPE	CERAMIC		CONTROLLED MAGNETIC	
FREQUENCY RESPONSE	200 to 4,000 cps free from undesirable peaks.			
OUTPUT LEVEL	—55.5 db (0 db = 1 volt per microbar); 1.680 millivolts/microbar		—49 db (0 db = 1 volt per microbar); 3.500 millivolts per microbar	—48 db (0 db = 1 milliwatt per 10 microbars); .390 millivolts/microbar
IMPEDANCE	High—Recommended load impedance; 1 to 5 megohms		Hight—Recommended load impedance; 100,000 oms or more	Low—Recommended load impedance; 150-250 ohms
POLAR PATTERN	Special Noise Cancelling	OMNIDIRECTIONAL		
DIMENSIONS	4" High x 2¾" Wide x 1⅝" Deep			

* U. S. Patent 2,454,425

MICROPHONE STANDS

S34B TAKE-APART STAND

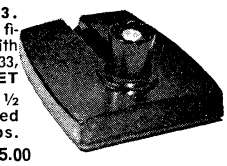


MODEL S34B. Handy low-cost gray stand for desk or hand use. One twist of wood handle locks it securely in base for use as a table stand, or releases handle for use in hand. Metal base. Suitable for use with Models 510, 520, 707A and 710. **NET WEIGHT:** ⅝ lb. Packaged weight, ⅞ lb. LIST PRICE $4.50

S38 ROUND STAND

This stand is a heavy die-cast base. Metal screw machine stud connects microphone adapter to stand base. **NET WEIGHT:** ⅝ lb., Packaged weight, 1 lb. **MODEL S38.** (Bronze) for use with 245, 777 Series microphones. **MODEL S38B.** (Black) for use with Models 275S, 275SK, 415, 430, 575S, 575SB. LIST PRICE $4.50.

S33 MODERN DESK STAND



MODEL S33. Baked bronze finish. For use with Models 300, 333, 525, and 535. **NET WEIGHT:** 2½ lbs., Packaged weight, 3 lbs. **LIST PRICE: $15.00**

MODEL S33B. Same as S 33 — in black finish. For use with Models 330, 530, 544, 545, 546, 556S, 576, 578, 415, and 430. LIST PRICE: $15.00.

S36A "TEARDROP" DESK STAND MODEL S36A. Streamlined gray desk mount fits all Shure connector-type microphones including 51, 51S, 55S, 55SW, 315, 315S, 540S, 545S, and 737A. Accommodates A25 type Swivel Adapter. **NET WEIGHT:** 1 lb., packaged weight, 1⅜ lbs. LIST PRICE: $6.50.

* U. S. Patent 2,454,425

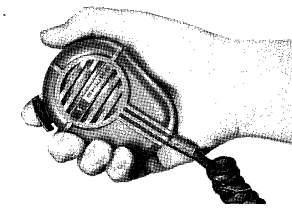
SHURE COMMUNICATIONS MICROPHONES

More Shure Mobile and Fixed Station Microphones are used in Professional Installations than all other makes combined!

THE "404" WITH HIGH IMPACT "ARMO-DUR" CASE

MODEL	OUTPUT LEVEL	IMPED-ANCE	CABLE LENGTH TYPE DESCRIPTION	SWITCH MIC. CIRC.	RELAY CIRC.	LIST PRICE
404B	−50 db (0 db = 1 milliwatt per 10 microbars); .293 millivolts/ microbar	150-250 Ohms	5½ ft. Coiled cord, Copper, 4 conductor (2 shielded)	CLOSED*	OPEN	$33.00
404C	−50.5 db (0 db = 1 volt per microbar); 2.930 millivolts/ microbar	High	5½ ft. Coiled cord, Copper, 3 conductor (1 shielded)	CLOSED*	OPEN	$33.00
405T ***	−1 db loaded with 500 ohms (0 db = 1 milliwatt per 100 microbars)	100-500 Ohms	5 ft. extended 4 conductor stranded coiled cord	——	OPEN	$48.50

*Provision for simple change to normally open.
***Transistorized for direct replacement of carbon microphones.

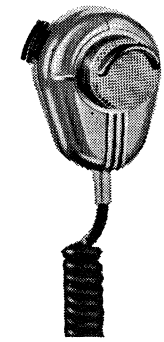


The Shure Controlled Magnetic "404" is recommended for those applications where a rugged hand-held microphone is needed. It is ideal for outdoor public address (sports arenas, athletic fields, carnivals, etc.) and for mobile communications. The "404" is designed for high speech intelligibility. Easy to use, fits snugly in the palm of the hand. Leaf-type switches control the mic. circuit and an external relay or switching circuit. Omni-directional. Freq. response 200 to 8000 cps. Only 3 1/16" high, 2 5/8" wide, 1 49/64" deep. Includes mounting bracket. U. S. Patent 2,454,425

a new breakthrough in microphone design . . .

SHURE MODEL 488 NOISE-CANCELLING MICROPHONE!

Outperforms and obsoletes all others . . . confirmed by laboratory and field comparison tests!



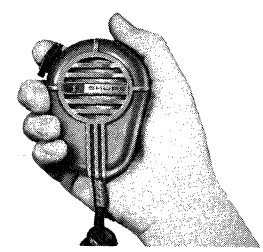
Provides highly intelligible speech communication in mobile and fixed-station use where high volume background noise is found, such as airplanes, helicopters, motorcycles, trucks, fire engines, power boats, sporting events, drop forges, press-rooms, engine-rooms, factories. The 488 incorporates the patented Shure Controlled Reluctance cartridge into a distance discriminate microphone that effectively cancels background noise to permit transmission under conditions that would be impossible with any other microphone. Correct placement of microphone for close-talk use is assured by convenient rubber lip-guard. Rugged, impact-resistant "Armo-Dur" case is lightweight, easier to handle in extremes of temperature. Four versions of the 488 are available: 488A — high impedance; 488B — low impedance; and 488C and 488T — transistorized for direct replacement of carbon microphones (488T FAA Certified for Aircraft applications). All models equipped with coiled-cord and long-life heavy-duty push-to-talk switches. Field-testing these blade-type switches confirms their operating life rating to be in excess of one million cycles.

SPECIFICATIONS

MODEL	488A High Impedance	488B Low Impedance	488C Transistorized	488T Transistorized Aircraft
List Price	$57.50	$57.50	$62.50	$72.50
Noise Discrimination	Far Superior to Standard Communication Microphones			
Frequency Response	(SPECIALLY TAILORED FOR BEST INTELLIGIBILITY) 200 to 4000 Cycles Per Second			
Type	Controlled Reluctance			
Output Level (0 db = 1 volt per 100 microbar field)	.125 volts (−18 db)	.014 volts (−37 db)	0.45 volts (−7 db) using 6 volts and 500 ohm load	0.71 volts (−3 db) using 12 volts and 500 ohm load
Impedance	High: Recommended Load 100,000 ohms or more	150-250 ohms	Recommended Load 500 ohms	Recommended AC Load 100 to 800 ohms
Cable	Three-Conductor (One-conductor shielded) cadmium copper coiled cord (5½' extended)	Four-Conductor (Two-conductor shielded) cadmium copper coiled cord (5½' extended)	Four-Conductor cadmium copper coiled cord (5½' extended)	Three-Conductor Tinsel coiled cord (5½' extended) with PJ 068 — plug attached
Switch Mic. Circuit Relay Circuit	Normally closed* Normally open	Normally open** Normally open	Normally open Normally open	Normally open Normally open
Case	GRAY HIGH IMPACT "ARMO-DUR" WITH PERFORATED STEEL GRILLE AND RUBBER LIP-GUARD			
Dimensions	3 1/16" high x 2 5/8" wide x 2½" deep			
Weight	¾ lb.			
Accessories	MOUNTING BRACKET FOR PERMANENT PLACEMENT			

*Provision for simple change to normally open **Provision for simple change to normally closed U. S. Patent 2,454,425

MODEL 100 SERIES CARBON MICROPHONES



Now featuring "Armo-Dur" high impact, corrosion-proof units. Used around the world for police, taxi, bus, track and commercial applications — more than all other makes combined! Adopted as standard microphones for professional two-way radio communications equipment. The "100 Series" microphones are provided with a bracket for permanent placement in portable or mobile equipment. They fit naturally and comfortably in the palm of the hand. They are light, compact and rugged units — with a reputation for long-life performance under "rough and tumble" operating conditions.

SPECIFICATIONS — TYPE: Carbon. FREQUENCY RESPONSE: 300 to 4,000 cps. (Tailored voice response). OUTPUT LEVEL: 5 db below 1 volt for 100 microbar speech signal. IMPEDANCE: Recommended load — 50 to 100 ohms. POLAR PATTERN: Omnidirectional. CASE: High-Impact "Armo-Dur". FINISH: Gray. CABLE: Cadmium copper coiled cord with trimmed and tinned leads. SWITCH: Model 104A — DPST normally open switch to control microphone and relay. Model 104B — SPST normally open relay switch (no microphone switch). DIMENSIONS: 3 1/16" high, 2 5/8" wide, 1 49/64" deep. NET WEIGHT: ⅝ lb. PACKAGED WEIGHT: 1 lb.

MODEL	LIST PRICE
104A	$30.00
104B	$30.00

 All Shure Dynamic, Controlled Magnetic and Ceramic Microphones are eligible for FCDA Purchases. © U.C.P., Inc.

SHURE MICROPHONE ACCESSORIES

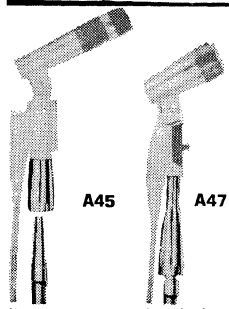
MODEL S39A VIBRATION-ISOLATION STAND

Ideal for use on table, desk, in the footlight area of a stage, for remote broadcasting (particularly for sporting events, conference tables, panels, and for all applications where vibration is a problem. The S39A provides maximum isolation from extreme mechanical vibration by its capacity to absorb mechanical shock as a sponge absorbs water. The Model S39A Stand is designed for all Shure microphones and Swivel Adapter assemblies. An extension adapter is furnished to increase the height of certain microphones for cable connector clearance. Made of durable black crackle finish plastic with heavy duty foam rubber isolation.

NET WEIGHT: 2⅛ lbs., Packaged Weight, 2⅝ lbs.

LIST PRICE: **$25.00.**

QUICK DISCONNECT MICROPHONE ISOLATION UNITS



Designed for use with microphones normally mounted on desk or floor stands but which must be periodically removed from stand for hand-held or carry-around use. In addition, because of a molded rubber insert, the adaptors effectively isolate the microphones from mechanical vibration, shocks and noises carried to the microphone through the desk or floor stand. Quick disconnect operation is instant, easy, and silent. Made of aluminum and anodized for beauty and long wear despite frequent handling.
Model A45 is designed for microphones incorporating an isolation assembly such as the Shure Models 556, 330 and 546.
Model A47 is designed for microphones with connectors such as Shure Models 55S, 51, 545S, 540S, 737A or nearly all microphones with a standard ⅝"-27 thread.

	A45	A47
LIST PRICE	$12.00	$12.00
DIMENSIONS	3½" high x 1⅝" diam. assembled	5½" high x 1⅝" diam. assembled
WEIGHT ADDED TO HAND HELD MICROPHONE	2.3 oz.	3.6 oz.
NET WEIGHT	3.3 oz.	4.6 oz.

NEW CABLE TYPE TRANSFORMER

Model A95A is a high-quality, cable-type transformer which makes it possible to connect a low impedance microphone (35-50 ohm and 150-250 ohm) to a high impedance amplifier. It is housed in a compact, sturdy and magnetically-shielded case, 2½" long x ¾" diameter. Use of this transformer solves the problem of excessive high frequency loss and objectionable hum when long lengths of microphone cable are necessary. Model A95A may also be used in specialized applications requiring high impedance to low impedance circuit connections. Attractive gray and black case furnished with Cannon XL-3-11 input and Amphenol MC1F output plugs installed. Frequency response: 20 to 20,000 cps, plus or minus 1 db.

List Price: $17.50

COILED CORD SETS

Tinsel Coiled Cord with trimmed and tinned leads and Amphenol MC4M connector attached (3 conductor shielded) for use with General Electric EM10A and 505K microphones.
Model: C10C List Price **$12.00**

Tinsel Coiled Cord with Amphenol MC4M plug for use with General Electric EM10A-2 and Shure 405K and 405 KB Microphones.
Model: C11C List Price **$12.00**

Standard Coiled Cord with trimmed and tinned leads for use with Shure 404C, 488A microphones.
Model: C12C List Price **$9.75**

Standard Coiled Cord with trimmed and tinned leads for use with Shure 404B, 488B microphones.
Model: C14C List Price **$10.00**

Standard Copper Coiled Cord with trimmed and tinned leads. Used in "CB" and "100" Series Microphones.
Model: C15C List Price **$6.25**

Tinsel Coiled Cord with Amphenol MC4M Connector for use with General Electric equipment.
Model: C16C List Price **$9.50**

Tinsel Coiled Cord with spade lugs for use in Motorola equipment.
Model: C17C List Price **$7.75**

Standard Coiled Cord with Amphenol MC4M Connector for use with Motorola equipment.
Model: C18C List Price **$9.50**

Tinsel Coiled Cord with Amphenol MC4M Connector for use with Motorola equipment.
Model: C19C List Price **$9.50**

Tinsel Coiled Cord For use with Shure 201, 401A.
Model: C20C List Price **$7.00**

Tinsel Coiled Cord For use with Shure 401B.
Model: C21C List Price **$7.75**

Tinsel Coiled Cord with PJ-068 connector for use with Shure 488T.
Model: C22C List Price **$15.00**

Tinsel Coiled Cord For use with Shure 275 SK.
Model: C23C List Price **$ 6.00**

MICROPHONE REPLACEMENT CARTRIDGES

CARBON REPLACEMENT CARTRIDGE—MODEL R10

Rugged microphone cartridge replacement for "CB", "100", and "120" Series Carbon Microphones. Includes mounting hardware, installation instructions. **Model R10** **List Price $8.50**

Model 99A149 replacement cartridge for microphone models: CB20, CB21, CB50 and 115. **Model 99A149** **List Price $8.50**

CRYSTAL CARTRIDGE — MODEL R7

Available as a replacement for the cartridges in the Shure Crystal Microphones of the 707A and 708A Series, and other microphones of similar design. High output — 48 db below 1 volt per microbar. Supplied with rubber mounting rings and installation instructions.
Model R7 **List Price $8.25**

DYNAMIC — MODEL R50

Replacement cartridge for Shure Dynamic Microphones, Models: 540 (Series II), 540S (Series II), 560, 561, 575S and 575SB.
Model R50 **List Price $15.00**

SLIM-X MICROPHONE CARTRIDGE

The Model 99A186 replacement cartridge assembly for the 777 Series Slim-X Microphones. Crystal element metal-sealed for long life under adverse conditions of heat and humidity. Requires only one solder connection. **Model 99A186** **List Price $10.00**

CONTROLLED MAGNETIC CARTRIDGE — MODEL R5 *

Direct replacement for cartridges used in the following Shure microphone models: 510C, 510MD, 510S, 520, 520SL, 505C, 505K, 404C, 405C and 405K. Also ideal for replacement of crystal cartridges in Shure cases of the Model 707A and 708A Series, where heat and humidity are a problem. Supplied with rubber mounting ring.
Model R5 **List Price $11.00**

LOW IMPEDANCE CARTRIDGE — MODEL R5B *

Model R5B is the replacement cartridge for cartridges used in microphone models 505B, 505T, 404B, 405B, 405T, 510SLB, 520SLB, and 520B. Model R5B is physically identical to Model R5; but low impedance (150 to 250 ohms). Can be used in any R5 applications which require a low impedance cartridge.
Model R5B **List Price $11.00**

MODEL R4M FOR SHURE "COMMANDOS" *

The Model R4M controlled magnetic cartridge assembly is the direct replacement cartridge for use in the models 430, 425, 420 and 415 Shure "Commando" microphones. **Model R4M** **List Price $15.00**

MODEL R5T CONVERSION KIT *

Includes a controlled magnetic cartridge and transistor amplifier to convert carbon microphones into improved controlled magnetic transistorized microphones. Conversion takes only minutes with a screwdriver, long-nose pliers, soldering iron.

SPECIFICATIONS: Controlled magnetic with transistor amplifier. 200 to 4,000 cps, semi-directional. Output Level: 1 db loaded with 500 ohms (0 db — 1 milliwatt per 100 microbars). **List Price: $25.00.**

NOTE: For complete Shure Microphone Cartridge replacement information, write for AL188, Microphone Cartridge Replacement Guide.

"GRIP-TO-TALK SLIDE-TO-LOCK" SWITCH

Heavy-Duty Switch withstands the most severe field requirements of paging and dispatching systems. Ideal for Police, Taxi Cab, Railroad, Airport, Bus, Truck, and all emergency communications work. Can be used with Shure connector-type crystal, dynamic and carbon microphones of any impedance. Fits handily on Shure S36A Desk Stand. Rich satin chrome finish.

Model: A88A **List Price: $12.50** **Model A88A**

ON-OFF PRESS-TO-TALK SWITCHES

Model A83B. Rotary-type "On-Off" switch. Quickly attached to any cable-connector type Shure microphone. (Amphenol MC3 type only)
Model: A83B **List Price: $11.00**

Model A84B. Momentary Press-to-Talk "On-Off" switch.
Model: A84B **List Price: $11.00**

Model A85C. Momentary Press-to-Talk Relay-Type Switch.
Model: A85C **List Price: $11.50**

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Trade Discount Applies To List Prices Only
* U. S. Patent 2,454,425

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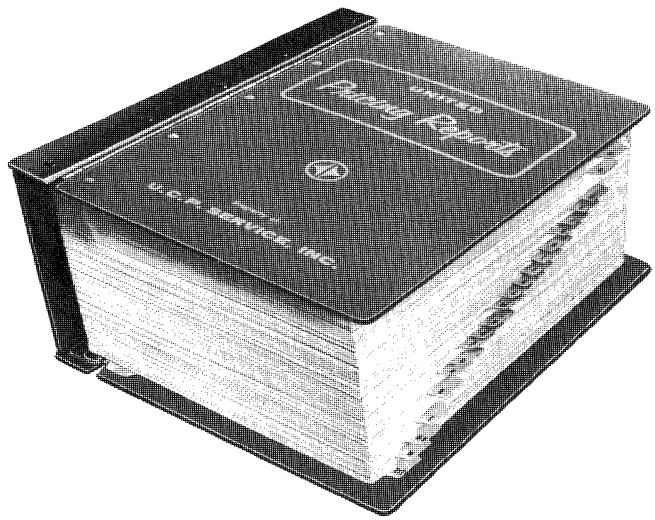

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SONOTONE audio products

Ceramike Microphones

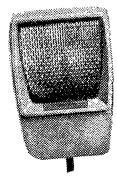


Fig. A

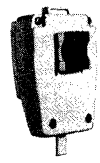


Fig. B

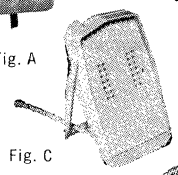


Fig. C

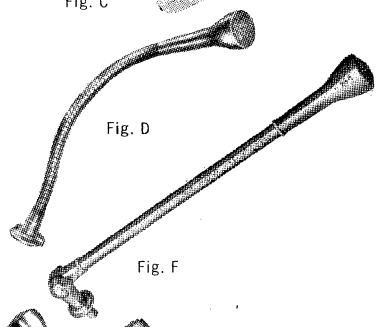


Fig. D

Fig. F

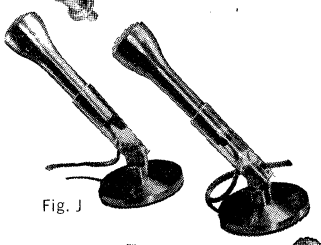


Fig. J

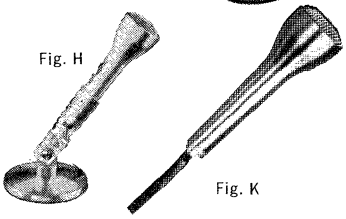


Fig. H

Fig. K

SONOTONE CERAMIKE 'CM-3050'. Low-impedance CB mike. "Push-to-talk" button, shatterproof case, lightweight. Complete with coiled 4-conductor shielded cable. Fig. A. net **$9.00.**

SONOTONE CERAMIKE 'CM-3050M'. Same as 'CM-3050' with magnetic dashboard mount. Fig. B. Net **$10.50.**

SONOTONE CERAMIKE 'CM-1018'—Low impedance microphone for tape recording and communication applications. Fig. K. Stand not included. Net **$11.10.**

Response: 50 ot 10,000 cps
Sensitivity: —56 db
Recommended impedance: 250K (usable to 33K)
Damping grid: Lanced, louvered metal grid

SONOTONE CERAMIKE 'CM-1050WR'—Wide-range, low-impedance microphone. Ideal for voice and music applications. Fig. K. Stand not included. Net **$11.10.**

Response: 50 to 10,000 cps
Sensitivity: —58 db
Recommended impedance: 250K (usable to 33K)
Damping grid: Lanced, louvered metal grid

SONOTONE CERAMIKE 'CM-1050SR'—Speech-range, low-impedance microphone, designed for speech applications, such as tape recording and communications. Looks like Fig. K. Net **$11.10.**

SONOTONE CERAMIC 'CMT-1050WR' — (Matched Twins) — Designed for music and speech taping in stereo. Each mike is matched to within ±2 db. Fig. K. Stands not included. Specs are the same as 'CM-1050WR.' Net **$22.50.**

SONOTONE CERAMIKE 'CMC-1050WR' (Combination Stand and Mike)—Attractive microphone with matching stand. Use for taping, PA systems and learning labs. Low-impedance, wide-range mike. Looks like Fig. K. Specs are the same as Model "CM-1050WR." Net **$14.10.**

SONOTONE CERAMIKE 'CM-10A39'—Ruggedized for classroom and other hard-usage applications. Has new bend relief sleeve and slim cable. Ideal mike for learning labs. Specs are the same as 'CM-10A.' Shown here with optional stand 'CMS1-10.' Sleeve made of rugged plastic. Fig. K. Net **$11.10.**

Response: 50 to over 11,000 cps
Sensitivity: —56 db ±2 db
Transducer: Ceramic element
Damping grid: Lanced, louvered metal grid

SONOTONE CERAMIKE 'CM-30.' Perfect for mobile units. Intelligibility unsurpassed. Sensitivity curve favors voice frequency range. Ruggedly built to take the punishment of mobile use. Lightweight, shatterproof plastic case. Convenient "push-to-talk" button and dashboard mounting bracket. Spring-spiraled 4-conductor shielded cable, net **$8.40.**

SONOTONE CERAMIKE 'CM-30M.' With new magnetic dashboard mount—no holes to drill, no brackets to attach, net **$9.90.**

Response: 60 to 7,000 cps
Sensitivity: —49 db ±2 db
Case: Shatterproof plastic

SONOTONE CERAMIKES 'CM-40' & 'CM-41'—Low price ceramic mikes in high impact plastic case. Unique swing type stand sits upright for table use. Model CM-41 has push-to-talk switch. Fig. C CM-40, net **$5.94**; CM-41, net **$7.54.**

Both CM-40 & 41
Response: 40 to 8,000 cps
Sensitivity: —50 db

SONOTONE CERAMIKE 'CM-17A.' Omnidirectional high impedance model provides natural sound reproduction and long-term trouble-free service in audio-visual labs, language labs, PA system. 13" flexible gooseneck keeps hands free for writing and taking messages. Excellent for all speech needs. 6' shielded cable, net **$14.70.** Fig. D.

Response: 50 to over 11,000 cps
Sensitivity: —56 db ±2 db
Transducer: Ceramic element
Damping Grid: Lanced, louvered metal grid

Models utilizing the CM-17A element available in a variety of mountings as follows:

SONOTONE CERAMIKE 'CM-17B'—13" boom mike. Fixed boom mounted with 350° swivel. 7' mike cable, net **$17.10.** Fig. F

SONOTONE CERAMIKE 'CM-17C'—6" flexmike. Flexible gooseneck with fixed base mount. 7' mike cable, net **$13.50.**

SONOTONE CERAMIKE 'CM-17D'—6" boom mike. Solid boom with fixed base mount. 7' mike cable, net **$13.50.**

SONOTONE CERAMIKE 'CM-17E'—3" boom mike. Solid boom with fixed base mount. 7' mike cable, net **$12.30.**

SONOTONE CERAMIKE 'CM-17F'—solid boom with 350° mount and flange. Top mounting base plate similar to Fig. F. Net **$17.10.**

SONOTONE CERAMIKE 'CM-18A'—13" flexmike. Low impedance omnidirectional microphone with push-to-talk button to keep audio control at the user's fingertips. Ideal for transistorized system, net **$20.70.**

SONOTONE CERAMIKE 'CM-18'—13" flexmike with same electrical characteristics as the CM-18A except that it has no push-to-talk switch, net **$19.50.**

Response: 200 to 8,000 cps
Sensitivity: —63 db ±2 db
Damping grid: Lanced, louvered metal grid

SONOTONE CERAMIKE 'CM-T10A' (Matched Twin)—Ideal for taping the new FM stereo broadcast "off-the-air" and other stereo taping applications. Every CM-T10A set is electronically matched at the factory to a tolerance of ±2 db to eliminate the risk of distortion. 7' shielded cable and phone plug. Per pair, net **$21.30.** See Fig. J

Response: 50 to over 11,000 cps
Sensitivity: —56 db ±2 db
Damping grid: Lanced, louvered metal grid

MATCHING TABLE STAND CMS-10 available with 5/8 No. 27 thread for floor stand mounting, net **$3.00.**

SONOTONE CERAMIKE 'CM-10A' — Natural, clean reproduction over the full audible range. Ideal for tape recording, also excellent for home movie, PA systems and conference pickups. 7' shielded cable with phone plug, net **$10.50.** See Fig. K

Response: 50 to over 11,000 cps
Sensitivity: —56 db ±2 db
Transducer: Ceramic element
Damping grid: Lanced, louvered metal grid

SONOTONE CERAMIKES 'CMC-10A' — Combination package consisting of CM-10A mike and CMS-10 table stand; Net **$13.50.** See Fig. H.

SONOTONE CERAMIKE 'CM-12A'—For PA systems in long lead installations. Low impedance with push-to-talk buttons, net **$17.70.** See Fig. K

Response: 200 to 8,000 cps
Sensitivity —63.5 db ±2 db
Transducer: Ceramic element
Damping grid: Lanced, louvered metal grid

SONOTONE SONO/COM HEADSETS

SHM-1000—HEADSET (crystal phone) with hi-impedance ceramic microphone (noise cancelling). Freq. resp. (headset) 80 to 10,000 cps, (mike) 50 to 10,000 cps. Sensitivity: (mike) —53 db. Net **$40.75.**

SHM-1100—HEADSET (crystal phone) with low-impedance (600 ohms) magnetic microphone (noise cancelling). Freq. resp. (headset) 80 to 10,000 cps, (mike) 100 to 8500 cps. Sensitivity: (mike) —58 db. Net **$46.75.**

SHM-1200—HEADSET (ceramic phone) with ceramic boom microphone (noise cancelling). Freq. resp. (headset) 80 to 10,000 cps, (mike) 50 to 10,000 cps. Sensitivity: (mike)—53 db. Net **$40.75.**

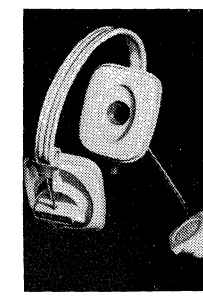
SHM-1300—HEADSET (ceramic phone) with low impedance (600 ohms) magnetic microphone (noise cancelling). Freq. resp. (headset) 80 to 10,000 cps, (mike) 100 to 10,000 cps (useful response). Sensitivity: (mike) —58 db. Net **$46.75.**

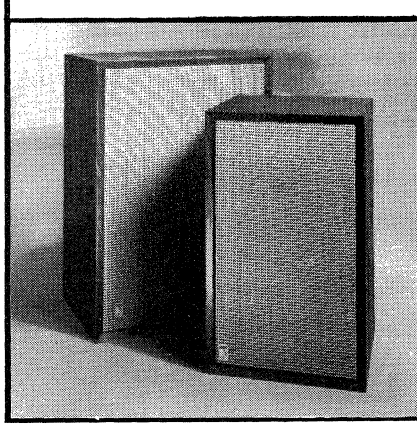
SH-2000—HEADSET only (crystal). Freq. resp. 80 to 10,000 cps. Net **$26.25.**

SH-2100—HEADSET ONLY (ceramic phone) available in four decorator colors. Freq. resp. 80 to 10,000 cps. Net **$26.25.**

SB-3000—HI-Z CERAMIC MICROPHONE (noise cancelling) Freq. resp. 50 to 10,000 cps. Sensitivity: —53 db. Net **$14.50.**

SB-310—LOW-Z MAGNETIC MICROPHONE (noise cancelling). Freq. resp. 100 to 10,000 cps (useful response). Sensitivity: —58 db (open circuit). Net. **$20.50.**





SONOTONE SPEAKER SYSTEMS

ATTRACTIVE OILED WALNUT HAND-FINISHED CABINETS COMPLETE WITH QUALITY SPEAKERS

THE BEVERLY HILLS Model 'SE-880' enclosure with double 8-inch speakers, net **$54.75.**

ELECTRICAL—Response: 45 to 20,000 cps; Power Rating: 40 watts average programming, 80 watts peak; Impedance: 8 to 16 ohms.

PHYSICAL—Speakers: (2) 8-inch coaxial cone speakers; Size: 11" x 24" x 17½"; Weight: 36 pounds.

THE SCARSDALE Model 'SE-80' enclosure with single 8-inch speaker, net **$39.75.**

ELECTRICAL—Response: 45 to 20,000 cps; Power Rating: 20 watts average programming, 40 watts peak; Impedance: 8 ohms.

PHYSICAL—Speaker: Single 8-inch coaxial cone speaker; Size: 11½" x 12½" x 20½"; Weight: 27 pounds.

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HEADSETS

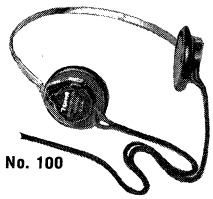
"L" HEADSET (Nos. 50, 56)

No. 50

High quality headset. Designed for use in educational training, broadcast work and communication systems. Response of up to 9,000 cps. Prolonged exposure to excessive heat and humidity will not affect performance. All types have bakelite shell and cap. No. 50 has black rubber covered double headband and nylon waterproof tinsel conductor 'Y' cord with No. 501 plug. No. 56 has vinyl covered adjustable double headband and over-the-head molded neoprene cord with No. 501 plug.

No. 56

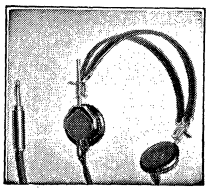
FEATHERWEIGHT (Nos. 100, 104, 106, 107)


No. 100

No. 104

World famous **TRIMM** Featherweight headsets are recommended for amateur radio use, language training, electronic testing apparatus, etc. Weight is less than 5 ozs. All types have black bakelite shell and cap and mercerized cotton waterproof tinsel conductor 'Y' cord. No. 100 and 106 have nickel plated headband and cord with pin tips. No. 104 and 107 have black fabric covered double headband and cord with pin tips.

COMMERCIAL (Nos. 151, 152, 155-159)



One of the most rugged **TRIMM** headsets. Developed for marine and aircraft radio service, amateur radio, and language training. Weighs less than 5 ozs. All types have a black bakelite shell and cap and mercerized cotton waterproof tinsel conductor cord. No. 151 has nickel plated headband and over-the-head cord with pin tips. No. 152 has black fabric covered double headband and over-the-head cord with pin tips. No. 155 has black vinyl covered double headband and 'Y' cord with No. 501 plug. No. 156 and 157 have black rubber covered double headband and 'Y' cord with No. 501 plug. No. 158 and 159 have black rubber covered double headband and 'Y' cord with pin tips.

ACME (Nos. 24, 25, 27)

A superior low cost headset. Recommended for crystal sets, Geiger counters, toys and radio systems where low cost is important. All types have black bakelite shell and cap. No. 24 has black vinyl covered double headband and cotton tinsel conductor 'Y' cord with pin tips; No. 25 has black enameled headband and cotton tinsel conductor 'Y' cord with pin tips. No. 27 has black enameled single headband and plastic covered stranded wire single cord with pin tips.

SINGLE EARPHONES	List		List
No. 27-03—3.2 ohm	2.05	**No. 27-1K**—1K ohm D.C.	2.20
No. 27-9-03—3.2 ohm w/plug	2.90	**No. 27-2K**—2K ohm D.C.	2.35

DEPENDABLE (NOS. 70, 71, 72)

Recommended for code teaching, electronic organs and low cost language labs. All types have black bakelite shell and cap, black vinyl covered headband and mercerized cotton tinsel conductor cord; (No. 71 has plastic covered stranded wire cord). No. 70 as shown has double headband and 'Y' cord with pin tips; No. 72 has single headband and single cord with pin tips.

SINGLE EARPHONES	List
No. 72-03—3.2 ohm	3.50
No. 72-1K—1K ohm D.C.	3.60
No. 72-2K—2K ohm D.C.	3.75

REX (Nos. 30, 32)

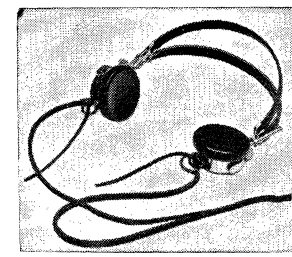
Lowest cost **TRIMM** bi-polar type headset. Recommended for crystal sets, code training and widely used on institutional radio systems. Weighs only 6 ozs. All types have black bakelite shell and cap and black vinyl covered headband. No. 30 has double headband and cotton tinsel conductor 'Y' cord with pin tips; No. 32 has single headband and plastic covered stranded wire single cord with pin tips.

SINGLE EARPHONES	List
32-9-03 3.2 ohm w/plug	3.35
32-03 3.2 ohm	2.50
32-1K 1K ohm d.c.	2.60

ARMY-NAVY (Nos. 28, 29)

Built for severe use. Has black bakelite cap and brass shell with satin chrome finish, black rubber covered double headband with thumbscrew locking device for yoke adjustment and nylon waterproof tinsel conductor 'Y' cord with pin tips. No. 28-9 and 29-9 are supplied with No. 501 plug.

STANDARD TYPES	List
28 (W) 600 ohm	20.00
29 (K) 20M ohm	20.00
STANDARD TYPES w/plug	**List**
28-9 (W) 600 ohm	21.65
29-9 (K) 20M ohm	21.65



STANDARD DUAL HEADSETS — PART NUMBERS AND LIST PRICES

IMPEDANCE*	ACME		REX		DEPENDABLE		FEATHERWEIGHT		COMMERCIAL		"L"	
	Part #	Price	Part #	Price	Part #	Price	Part #	Price	Part #	Price	Part #	Price
3.2Ω	**24-03** **25-03**	3.90 3.45	**30-03**	4.50	**70-03**	5.10	**100-03** **104-03**	11.00 11.00	**151-03** **152-03**	12.10 12.10	—	
3.2Ω w/plug	**24-9-03**	4.75	**30-9-03**	5.35	**70-9-03**	5.90	**100-9-03** **104-9-03**	12.80 12.80	**151-9-03** **152-9-03** **155-03**	13.90 13.90 13.00	—	
8Ω w/plug	—		—		—		—		—		**50-08** **56-08**	23.00 27.65
600Ω	—		—		**70-06**	5.20	**100-06** **104-06**	11.00 11.00	**151-06** **152-06** **158**	12.10 12.10 13.50	—	
600Ω w/plug	—		—		—		**100-9-06** **104-9-06**	12.80 12.80	**151-9-06** **152-9-06** **155-06** **156**	13.90 13.90 13.00 15.00	**50-06** **56-06**	23.00 27.65
1500Ω	**24-15**	3.95	—		**70-15**	5.30	**100-15** **104-15**	11.00 11.00	—		—	
2KΩ D.C.	**24-2K** **25-2K**	4.05 3.60	**30-2K**	4.70	**70-2K** **71-2K**	5.40 6.40	**100-2K** **104-2K**	11.00 11.00	**151-2K** **152-2K**	12.10 12.10	—	
2KΩ D.C. w/plug	**24-9-2K**	4.90	**30-9-2K**	5.55	**70-9-2K**	6.20	**100-9-2K** **104-9-2K**	12.80 12.80	**151-9-2K** **152-9-2K** **155-2K**	13.90 13.90 13.00	—	
2MΩ w/plug	—		—		—		—		—		**50-2M** **56-2M**	23.00 27.65
3KΩ D.C.	—		**30-3K**	5.00	**70-3K**	5.70	—		—		—	
4KΩ D.C.	**24-4K** **25-4K**	4.35 3.90	—		**70-4K**	6.00	**100-4K** **104-4K**	11.00 11.00	—		—	
4KΩ D.C. w/plug	—		—		**70-9-4K**	6.80	**100-9-4K** **104-9-4K**	12.80 12.80	—		—	
5MΩ w/plug	—		—		—		—		—		**50-5M** **56-5M**	23.00 27.65
12MΩ w/plug	—		—		—		—		—		**50-12M** **56-12M**	24.00 28.65
17MΩ	—		—		—		—		**159**	13.50	—	
17MΩ w/plug	—		—		—		—		**157**	15.00	—	
24MΩ	—		—		—		**106** **107**	11.00 11.00	—		—	
24MΩ w/plug	—		—		—		**106-9** **107-9**	12.80 12.80	—		—	

Impedance at 1000 c.p.s. unless shown as D.C. resistance

NOTE: In above listings -9 in code indicates "with plug." For plug descriptions see other TRIMM listings in Section 2100.

Trade Discount Applies To List Prices Only

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HEADSETS AND ACCESSORIES

STEREO HEADSETS

Stereo headsets are available in four models, construction details of which are described on the previous page. They range from inexpensive units in the Acme line to top quality, extended frequency range "L" models. For the best high fidelity performance, usually associated with stereo, the "L" is recommended. "50 Series" has nylon "Y" cord. "56 Series" has nylon over-the-head cord.

	List
ACME	
24-14-03—3.2 ohm w/513 3-circuit plug	**$6.20**
DEPENDABLE	
70-14-03—3.2 ohm w/513 3-circuit plug	**7.00**
70-14-2K—2K ohm w/513 3-circuit plug	**7.90**
FEATHERWEIGHT	
104-14-03—3.2 ohm w/513 3-circuit plug	**13.60**
104-14-2K—2K ohm w/513 3-circuit plug	**13.60**
"L"	
50-14-08—8 ohm w/516 3-circuit plug	**27.00**
50-14-16—16 ohm w/516 3-circuit plug	**27.00**
50-14-6M—6M ohm w/516 3-circuit plug	**28.00**
56-14-08—8 ohm w/516 3-circuit plug	**31.65**
56-14-16—16 ohm w/516 3-circuit plug	**31.65**
56-14-6M—6M ohm w/516 3-circuit plug	**32.65**

STEREO CONTROL BOX

Designed for headsets described above. Contains 3-circuit jack to mate 513 or 516 plugs and two controls of value suitable for volume adjustment on both channels when using low impedance headsets. Construction similar to other types described on this page.

464-1C—Brown Hammertone **$9.40**

TELEPHONE OPERATOR'S HEADSET

A high quality transmitter/receiver unit commonly used in switchboard applications. Lightweight construction and complete adjustability assures wearing comfort and proper transmitter placement.

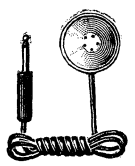
RECEIVER—Impedance 275 ohms at 1000 c.p.s.

TRANSMITTER—Carbon type, impedance 25 ohms Frequency range 300-5000 c.p.s.

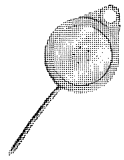
PLUG—Standard twin 2-circuit Trimm type 505.

No. 252AW ..... **List $77.75**

PILLOW-PHONE



Intended for under-the-pillow or other very local loudspeaker applications such as in hospitals, night listening in the home, etc. Sealed, waterproof ultra thin disc shaped magnetic unit 2" dia. and less than 7/16" thick, edges rounded, and by comparison making other types appear very bulky. Has stainless steel face, pearl grey plastic shell and cord terminal cover. Replaceable 5 ft. grey vinyl tinsel cord with color matched plug attached "85" series uses **TRIMM** No. 514 type plug, (1/4" dia. sleeve), "86" series uses **TRIMM** No. 536 type plug (3/4" dia. sleeve).



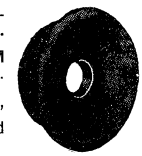
As an extra accessory, (part No. 85-20, illustrated at left, attached to unit), a grey neoprene snap on ring, and used particularly in hospitals for hanging unit on bedside hook is available. This fits either series.

STANDARD TYPES

		List			List
85-03	3.2 ohm	**$11.00**	**86-03**	3.2 ohm	**$11.00**
85-2M	2M ohm	**11.00**	**86-2M**	2M ohm	**11.00**

EAR CUSHIONS

Provides the user with maximum comfort when wearing headsets and excludes disturbing noises. **All prices are per pair.**



654 Sponge rubber, Military Type MC-162. Fits **TRIMM** Acme, Commercial, Featherweight, "L" type and Rex. **List $1.60.**

655 Solid rubber, Military Type MC-162A. Fits **TRIMM** "L" type and "S" headset. Also fits Permoflux headset and Military Type ANB-H-1 units. **List $3.00.**

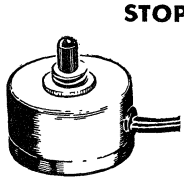
656 Sponge rubber face, solid rubber back, Military Type MX-41/AR. Fits same types as 655. **List $4.20.**

658 Chamois donut type, Military Type NAF 48490-1. Fits same types as 655. **List $13.35.**

658-2 Chamois donut type. Fits Clevite-Brush type "A" headset. **List $16.95.**

660 Sponge rubber. Fits **TRIMM** Army-Navy, "B", Dependable and discontinued Professional type. Also fits Clevite-Brush type "A" and "BA" headsets. **List $2.50.**

STOP-IT COMMERCIAL TRIMMER



Permits user to turn off audio signal of TV or radio set without getting up from chair, giving listener freedom to choke off unwanted commercials. Other uses that suggest themselves are to suppress loudspeaker when phone rings, etc.

No. 639—"STOP-IT" (Illustrated at left) consists of housing containing switch to which is attached 20 ft. cord ready to install in accordance with instructions with each unit ..... **List $3.40**

See other TRIMM Listings in Section 2100

GROUP HEARING AID COMPONENTS

Single Earphones

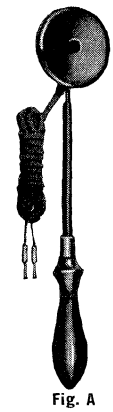


Fig. A

There are two basic types of earphones for group hearing aid use, the lorgnette handle type for churches and mortuaries, and the headband type for theatres and auditoriums. The Featherweight and "L" models are available for this application. All have 6 ft. mercerized cotton waterproof tinsel conductor cord. Nos. 110, 114, 115 and 51 are headband types. Nos. 120, 124 and 52 are lorgnette handle types. Those listed with plugs employ type 512 flat plug (exception: No. 115, recommended for hard of hearing, has type 511 plug.)

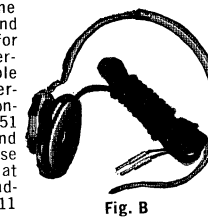


Fig. B

FEATHERWEIGHT—PART NOS. AND LIST PRICES

Impedance	110	114	115	120	124
3.2 ohm	110-03 7.60			120-03 10.00	
3.2 ohm w/plug		114-03 8.50	115-03 8.50		124-03 10.90
300 ohm	110-3 7.60			120-3 10.00	
300 ohm w/plug		114-3 8.50			124-3 10.90
1K ohm D.C.	110-1K 7.60			120-1K 10.00	
1K ohm D.C. w/plug		114-1K 8.50			124-1K 10.90
2K ohm D.C.	110-2K 7.60			120-2K 10.00	
2K ohm D.C. w/plug		114-2K 8.50			124-2K 10.90

"L"—PART NOS. AND LIST PRICES

Impedance	51	52
8 ohm w/plug	51-08 11.00	52-08 13.00
300 ohm w/plug	51-3 11.00	52-3 13.00
1K ohm D.C. w/plug	51-1K 11.50	52-1K 13.50

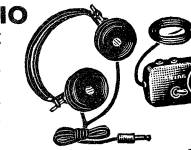
VOLUME CONTROL OUTLET BOXES

All boxes measure 3¾" x 2⅛" x 1¼". All edges and corners are rounded. Available in Brown or Gray Hammertone or Glossy Ivory Enamel finish. Type 460, 461 and 462 contain one 2-circuit open type jack and control of specified resistance. These are the most commonly used boxes in group hearing aid installations. Dual control boxes 467, 468 and 469 each contain two jacks and controls as above, operated independently. Other types available, listed below.

VOLUME CONTROL OUTLET BOXES

CONTROL RESISTANCE	BROWN HAMMERTONE Part No.	List	GLOSSY IVORY Part No.	List	GRAY HAMMERTONE Part No.	List
1K	**460-1K**	**5.50**	**461-1K**	**5.50**	**462-1K**	**5.50**
10K	**460-10K**	**5.50**	**461-10K**	**5.50**	**462-10K**	**5.50**
25K	**460-25K**	**6.20**				
50K	**460-50K**	**6.20**				
100K	**460-100K**	**6.20**	**461-100K**	**5.50**		
500K	**460-500K**	**6.20**				
DUAL CONTROL OUTLET BOXES						
1K	**467-1K**	**9.40**	**468-1K**	**9.40**	**469-1K**	**9.40**
10K	**467-10K**	**9.40**	**468-10K**	**9.40**	**469-10K**	**9.40**
25K	**467-25K**	**11.25**	**468-25K**	**11.25**	**469-25K**	**11.25**
DUAL JACK OUTLET BOXES						
Less Control —Jacks only	**477**	**3.85**	**478**	**3.85**		
Less Control —w/load res.	**480**	**4.80**	**481**	**4.80**	**482**	**4.80**
SINGLE JACK OUTLET BOXES						
Less Control	**484**	**3.30**	**485**	**3.30**	**486**	**3.30**
AUDIO JUNCTION BOXES						
Less Control 4 Jacks only	**490**	**4.50**	**491**	**4.50**	**492**	**4.50**

HEADSET KITS FOR TV AND RADIO



Kits described provide simple means of attaching headset or extension speaker to TV or radio sets. Consists of one of several types of headsets, including plug, and a small control-outlet box with attached 15 ft. cord. Box has remote on-off switch for loudspeaker and volume control for headset. Two jacks provided for multiple listening.

	Li
CONTROL BOX, only	
No. 631	**$7**
KITS, including control box and headset or earphone, with plug.	
No. 632 —With No. 24-9-03 double Acme Headset	**11**
No. 632-1—With No. 27-9-03 single Acme Earphone	**10**
No. 632-2—With two double Acme headsets No. 24-9-03 and 631 box	**16**
No. 633 —With No. 70-9-03 double Dependable Headset	**13**
No. 634 —With No. 104-9-03 double Featherweight Headset	**18**
No. 635 —With No. 115-03 single Featherweight earphone	**15**
No. 637 —With No. 85-03 Pillow-Phone	**18**

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MICROPHONES BY TURNER

MODEL SR-5850—Fixed mounted dynamic microphone with push-to-talk switch. Designed for fixed mounted applications, this microphone is ideal for grocery call stations, switchboards, paging, dispatches, etc. The switch is line-shorting and is designed to actuate a relay. The switch is a six-terminal slide switch which allows the user to wire anything from DPDT to SPST. The microphone is in a die cast satin chrome housing on a 16″ flexarm with a 3 hole mounting flange attached. Impedance is 150 ohms. The cable extends 4′ from the base of the mounting flange and is 4 conductor (two shielded). Response from 70 to 12,000 cps. Output level: —58 db. Overall length: 22″. Shipping weight: 3 lbs. Net price.....**$26.10**

BROADCAST MICROPHONES

TURNER 400 SERIES MICROPHONES. High quality broadcast type microphones featuring adjustable impedance and response. Wide response pressure operated moving coil dynamic, essentially non-directional. Recommended for motion picture studio, TV, broadcast and high fidelity recording applications. Positive grip cam lock allows instant insertion or removal of microphone without disconnecting.

MODEL 401—Screwdriver, impedance and response adjustment. Response from 40 cps to 20,000 cps. Output level: —60 db. at high impedance. Cable is three conductor shielded plastic jacketed 20 ft. long. Slate blue, non-reflecting finish. Net price **$75.00**

MODEL 510—Broadcast cardioid dynamic with 40-15,000 c.p.s. frequency response. Combination 50 to 200 ohms impedance selected at the free end of the cable. Professional slate blue finish. 20 ft. cable supplied. Connector is cannon XLR-4-11C. Cardioid discrimination is typically 25 db over the entire range. Furnished complete with stand adaptor and matching shock-mounted desk stand. Net price.....**$90.00**

MODEL 404—Same as Model 403, except with line shorting switch. Net price **$51.00**

MODEL 58—A dynamic lavalier microphone that's a natural for any application requiring freedom and mobility—panel shows, interview, sportscasting, etc. Only 4″ long. Weight, 3½ oz. Choice of either high or 150 ohms impedance selected at the free end of the cable. Response from 60 to 13,000 cps at high impedance. Output level: —60 db. Net price **$34.20**

MODEL 58A—Same as Model 58, but is combination 50 or 200 ohm selected at free end of cable. Net price **$34.20**

MODEL 220—A high-quality dynamic lavalier microphone designed for am., fm., and TV broadcast use. Combination output impedance of 50 or 200 ohms selected at the terminal end of the cable. Response from 60 to 20,000 cps. Output level: —90 db. at 50 ohm. Cable is 25 ft. attached rubber covered, three conductor shielded. Net price **$75.00**

PUBLIC ADDRESS AND GENERAL PURPOSE MICROPHONES

MODEL 33D—Dynamic type. Excellent for paging, communications, announcing, P.A. use, ham radio. Satin chrome finish, 90 degree swivel coupler, supplied with 20′ cable. Response: 100-9000 cps. Output level: —54 db. Impedance: 50, 200 ohms or high. Net price.....**$21.00**

MODEL 44D—NEW! Compact modern design coupled with variable low end bass response makes the 44D an excellent microphone for paging and communications systems. Omni-directional pick-up pattern. Very sturdy. Combination cycolac and die cast zinc alloy case. Use indoors or outside—anywhere. Response: 85-15,000 cps—adjustable to 60-15,000 cps. Output level: —56.5 db. Complete with removable 12′ cable and on-off switch. Specify Hi or 150 ohm when ordering. Net Price.....**$27.00**

MODEL 44X—Same as Model 44D except with high output crystal interior for extra gain and sensitivity. Response: 60-10,000 cps. Output level: —53 db. Net price.....**$21.00**

MODEL 44C—Same as Model 44D except with Turner's famous Ceramic interior. Response: 60-10,000 cps. Output level: —58 db. Net price.....**$21.00**

MODEL 204D—A dynamic microphone designed to give top performance under hard use conditions. Response: 60-13,000 cps. Output level: —53 db. High impedance. Comes with lavalier, desk stand, and stand adapter. Net price.....**$24.30**

MODEL 304C—Provides four-in-one versatility to perform as a P.A. or intercom microphone. Accessories, desk stand, lavalier clip and string, and stand adapter. Response: 60-10,000 cps. Output level: —60 db. Net price.....**$9.90**

MODEL 80—A crystal microphone ideal for home recording, paging or amateur use. Small and graceful with satin chrome finish. 7″ cable supplied. Response: 80-7000 cps. Output level: —54 db. High impedance. Net price.....**$9.57**

Matching C-4 stand. Net price.....**$3.90**

MODEL 95D—A dynamic P.A. microphone for use in churches, schools, nightclubs, and high quality recording applications. Available with on-ff switch. Complete with 20′ cable. Response: 100-10,000 cps. Output level: —58 db. Choice of 50, 200 or high ohms. Net price.....**$22.50**

MODEL P9D—This handy dynamic hand-held or stand microphone is well suited for paging, P.A., amateur and mobile use. Extremely rugged, heavy case. Push-to-talk switch. High or 200 ohms (specify when ordering). 7′ cable supplied. Amphenol MC1M (MC2M on 200 ohms) connector in microphone. Output level: —52 db. Dimensions: 2½″ x 5″ in length x 1¾″ in depth. Shipping weight: 2 lbs. Net price.....**$19.50**

MODEL 250—A dynamic microphone ideal for dispatch, paging, P.A., control tower and amateur use. Wired to operate both relay and mike circuits at a touch. Features on-off push-to-talk and lock switch. Also features Turner's "lift-switch". Response from 60 to 10,000 cps. Output level: —52 db. Complete with single unit satin chrome case and 20 ft. three conductor (one shielded) cable. Net price.....**$33.00**

MODEL 251—The Model 251 is the industrial and commercial sound contractors favorite in the 250 family. Rugged—one piece die cast case (no other accessories needed), gleaming satin chrome finish—three-way switching and 150 ohm impedance all add up to the paging microphone of the commercial sound industry. Why fuss with grip-to-talk devices when it's so easy to touch the 251's front bar or just simply pick it up. Convenient lock on-off switch, too. Airports, clubs, high schools, reception desks, dining rooms, are all favorite installations of 251 convenience. Comes wired for relay operation, too, with 20′ four conductor (two shielded) cable. Response: 70-10,000 cps. Output level: —52 db. Size is 7¾″ high x 5½″ in depth. Shipping weight: 4 lbs.

Net price.....**$33.00**

Net

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MICROPHONES BY TURNER

NEW...Model 500 Cardioid Dynamic

. . . Smooth, uniform response from 40 to 15,000 cps.
. . . Minimal popping and breath noise at close range.
. . . New Dynaflex diaphragm for maximum uniformity.
. . . Excellent sensitivity (—55 db. 150 ohm —79 db.)
. . . Rugged, yet graceful slender design.

An outstanding new cardioid microphone with unexcelled uniformity. From original conception to drawing board to testing laboratory, the guiding principle in the development of the Model 500 Cardioid has been uniformity. The result is a low-cost cardioid microphone with a smooth, uniform response curve. All model 500's are truly interchangeable in any system, with no testing necessary for possible variations in frequency response of front-to-back ratio.

SPECIFICATIONS

TYPE: Cardioid dynamic
RESPONSE: 40-15,000 cps.
OUTPUT: High —55 db. (below 1.0 v/microbar) 150 ohms —79 db.
IMPEDANCE: High or 150 ohms
POLAR PATTERN: Cardioid (Symmetrical about axis)
MAGNETIC CIRCUIT: Alnico 5 magnet with Armco magnetic iron
CASE: Die cast zinc alloy
CABLE CONNECTOR: Cannon 4 pln XLR-4-11C
CABLE: Detachable 20 ft., three conductor (shielded) black rubber jacketed.
DIMENSIONS: Length $6\frac{13}{16}$" — diameter $1\frac{17}{32}$"
WEIGHT: 12 oz. (less cable)
SHIPPING WEIGHT: 3 lbs.
STANDARD ACCESSORIES: Model C-7 desk stand . . . List price . . . **$9.50**

MODEL 500 ..... Net Price $50.40
MODEL S-500 (with on-off switch) Net Price $52.50

COMMUNICATIONS AND CITIZENS BAND MICROPHONES

MOBILE

MODEL 350C—Most used as original equipment. This low-cost ceramic microphone with on-off switch is familiar to most mobile radio operators. More 350C microphones are used as original equipment on citizens band and marine transceivers than any other microphone. New extra-tough cycolac case for years of service. Rugged ceramic interior allows you to use the 350C in any climate. Complete with hanger button and standard dash bracket for easy mounting. Equipped with 11" retracted, five-foot extended, rubber-jacketed, coiled cord. Ideal for citizens band, amateur use, mobile rigs and paging. Wired for relay operation. Response: 80-7000 cps. Output level: —54 db. Complete installation instructions included. Shipping weight: 1 lb. Net price.....**$7.50**

MODEL 355C—New style inexpensive mobile microphone with grip-to-talk handy switch. The easiest, most convenient switch function on today's market. More comfortable to hold—more comfortable to use. The 355C features an output level of —50 db. It's extra hot for a high gain signal. Response: 80-7000 cps. Complete installation instructions enclosed. Shipping weight: 1 lb. Net price.....**$7.50**

MODEL 358—Dynamic mobile microphone, 600 ohm impedance, designed for use with transistorized CB transceivers. Standard 355 type case and versatile switch, and three conductor (one shielded) coiled cord. Output level: —66 db. (—50 db. re. hi impedance). Response: 300-6000 cps. Shipping weight: 1 lb. Net price.....**$15.00**

MODEL 333—New top quality mobile microphone with tinsel shielded koiled kord; noise canceling effect; limited voice frequency response of 300-3000 c.p.s. output level —54 db rugged cycolac case with handy push to talk switch. Net price.....**$12.90**

MODEL SR90—The Model SR90 is available in two popular versions—the "D" (pressure operated dynamic) and the 'R" for carbon. Both feature the 90's slender die cast zinc alloy case with the Turner exclusive front hanger button. Both come in satin chrome finish. Dynamic models are available in two impedances, hi or 200 ohms. Relays switching is standard. Three conductor (one shielded) 11" retracted, 5' extended coiled cord on hi impedance models and 4 conductor (two shielded) on 200 ohm units. Output level: —52 db. at hi impedance. Response: 200-10,000 cps.

Model SR90R is equipped with a very high quality telephone type carbon interior to give you maximum voltage output and high intelligibility as well. Same general appearance and features as Model SR90D. Output level: —40 db. Response: 200-4000 cps. Choose the Model SR90R wherever maximum output with a minimum of distortion is specified . . . taxicabs, police, etc. Shipping weight: 2 lbs. Model SR-90D. Net price.....**$25.50**
Model SR90R. Net price.....**$15.90**

BASE STATION

MODEL 254X—The most popular base station microphone in use today. The number one favorite of CB's. Excellent for inexpensive P.A. systems as well. It features push-to-talk front touch bar or locking on-off lever switch. Comes wired for relay operation. Deluxe light grey hammertone finish. Extra high output. Output level: —48 db. for more clear signal strength. Response: 100-8000 cps. Cable is 7' three conductor (shielded). Size is $7\frac{3}{4}$" in height x $5\frac{1}{2}$" in depth. Shipping weight: 3 lbs. Net price.....**$14.10**

MODEL 254C—Same as 254X except with famous 21C ceramic interior. Output level: —54 db. Net price.....**$14.10**

MODEL J-254X—A special model for electronic switching. The "J" model has an extra set of contacts which will allow you to wire into any CB rig manufactured that has a high impedance input. Output level: —48 db. Response: 80-7000 cps. Net price.....**$15.90**

MODEL J-254C—Same as Model J-254X except with Ceramic interior. Output level: —54 db. Net price.....**$15.90**

MODEL 254R—A CB base station microphone with carbon element for Kaar, Bendix Pacific, RCA marine sets, Dumont and many others. Impedance: 40 ohms nominal DC resistance. Output level: —38 db. Cable is 7', 4 conductor (unshielded). Operates by touch bar on-off switch and lever lock- on-off switch. Net price.....**$15.42**

MODEL 254D—New 600 ohm base station model. Dynamic interior for smooth response of 300-6000 cps. Output level: —66 db. (—50 db. — RE Hi impedance). Comes with 7' cable terminated in 91-MPM5L plug. Net price.....**$21.90**

MODEL 454X—NEW! A new base station model with limited frequency response. Designed for the voice range, it's extra hot. Output level: —48 db. Response: 300-3000 cps. SSB. Attractive telephone black finish. Your choice of VOX or PTT switch operation. Comes complete with 3 conductor (one shielded coiled cord). Net price.....**$15.90**

MODEL 454C—Same as Model 454X except has Ceramic interior. Output level: —52 db. Net price.....**$15.90**

CUSTOM INTERIORS

Turner has complete facilities for designing and manufacturing all kinds of special application microphone interiors, soft speakers for dictating machines, anything you need. Write for full information on this service.

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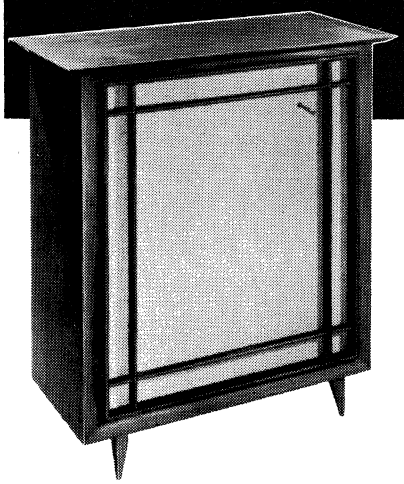
Wharfedale

ACHROMATIC SPEAKER SYSTEMS



ACHROMATIC W 90 MK II

SIX-WAY SPEAKER SYSTEM

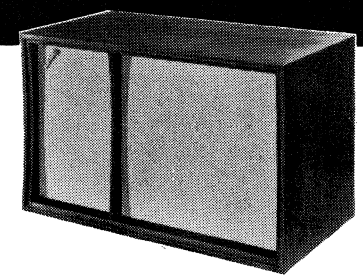
6 speakers — 2 bass, 2 mid-range, 2 treble . . . superbly matched and integrated with a magnificent sand-filled enclosure.

The W90 MK II is the ultimate in Achromatic speaker systems. This system has successfully restored the characteristic sound of the great Wharfedale systems used by G. A. Briggs in his concert demonstrations. The W90 is a new format in speaker systems . . . neither compact, nor large . . . yet highly versatile. The W90 has an attractive bouclé grille fabric and a useful table top, making the cabinet outstandingly handsome . . . a fine addition to any living room.

■ Impedance: 8 ohms ■ Power Requirements: 12 watts or more ■ Crossover: 500 and 6000 cps (LC Network) ■ Dimensions: 32¼″ H x 30¾″ W x 14¼″ D (when used vertically) ■ Shipping Weight: 130 pounds (including 7 pounds of dry sand) ■ Finishes: Oiled or Polished Walnut $272.50; Utility (Utility model is styled without decorative center molding or extended top) $256.50.

Shown on B67 Base

ACHROMATIC W 60 MK II

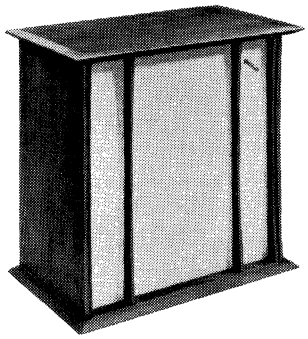


FULL RANGE TWO-SPEAKER SYSTEM IN EXCLUSIVE SAND-FILLED ENCLOSURE

The W60 MK II is the new version of the original Achromatic speaker system. This has remained the most popular model in the Wharfedale line, establishing a new standard for compact speaker systems . . . a tribute not only to its engineering, but to fine furniture detailing and finishes. The W60 has been chosen consistently on the basis of comparative listening tests.

This full range, two way system is built around an outstanding 12½″ low frequency driver, and a superlatively smooth 5″ tweeter. From every standpoint, it is to be regarded as suitable for the finest installations.

■ Impedance: 8 ohms ■ Power Requirements: 5 watts or more ■ Crossover: 1500 cps (LC Network) ■ Dimensions: 14¼″ H x 13″ D x 24″ W (when used horizontally) 14¼″ W x 13″ D x 24″ H (when used vertically) ■ Shipping Weight: 50 pounds (including 6½ pounds of dry sand) ■ Finishes: Oiled or Polished Walnut $122.50; Utility (Utility model is styled with plain flat molding) $106.50.



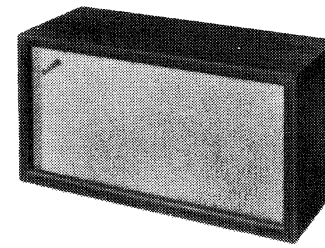
ACHROMATIC W 70 MK II

FULL RANGE THREE-SPEAKER SYSTEM IN EXCLUSIVE SAND-FILLED ENCLOSURE

The W70 MK II is a fine musical instrument providing excellent bass response; clear transparent highs, without stridency; and in addition, the fullness which comes from a superb mid-range. An extremely handsome and versatile three-way speaker system, it is capable of standing by itself, vertically or horizontally. Speaker complement of the W70 MK II includes a 12½″ low frequency driver, 10¼″ mid-range; and the exceptionally smooth cone type Wharfedale Super 3 tweeter. The W70 MK II reflects the restyling of the new line, with new grille fabric, table top and base; making it an exceptionally versatile and attractive addition to any room decor.

■ Impedance: 8 ohms ■ Power Requirements: 6 watts or more ■ Crossover: 1500 and 6000 cps (LC Network) ■ Dimensions: 23⅞″ H x 24″ W x 14½″ D (when used vertically) ■ Shipping Weight: 65 pounds (including 6½ pounds of dry sand) ■ Oiled or Polished Walnut $172.50; Utility (Utility model is styled without curved molding or decorative center molding, or extended top and base) $153.50.

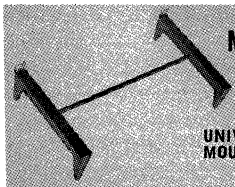
ACHROMATIC W 40 MK II



FULL RANGE TWO-SPEAKER SYSTEM IN EXCLUSIVE SAND-FILLED ENCLOSURE

The W40 MK II Wharfedale Achromatic system is not only an outstanding speaker system, but an exceptional value. The 10″ low frequency driver is a newly developed speaker, with extremely high flux density and high compliance, paired with the same outstanding 5″ tweeter used in the larger W60 system. Bass response is excellent; highs exhibit the traditional pleasing impression of a much larger system. The W40 MK II is ultra-compact, exceptionally versatile, and best suited to music systems or rooms where space must be carefully utilized.

■ Impedance: 8 ohms ■ Power Requirements: 5 watts or more ■ Crossover: 1500 cps ■ Dimensions: 12½″ H x 23½″ W x 10⅛″ D (when used horizontally) 12½″ W x 23½″ H x 10¼″ (when used vertically) ■ Shipping Weight: 37 pounds (including 5½ pounds of dry sand) ■ Finishes: Oiled or Polished Walnut $83.50; and Utility (Utility model is styled with plain flat molding) $72.50.

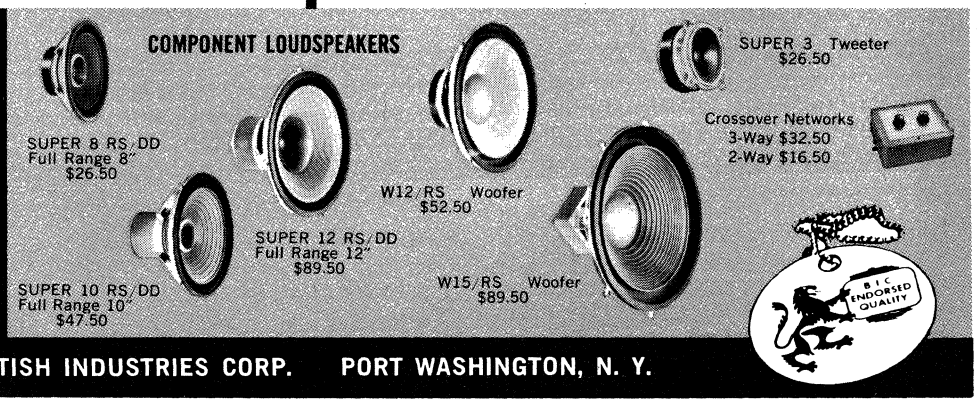


Model B67

UNIVERSAL MOUNTING BASE

Universal mounting base for the W60, W70 or W90 speaker systems. Oiled or Polished Walnut true wood veneers $10.50; also in sanded Birch hardwood $9.50.

COMPONENT LOUDSPEAKERS



WHARFEDALE DIV. BRITISH INDUSTRIES CORP. PORT WASHINGTON, N. Y.

Net

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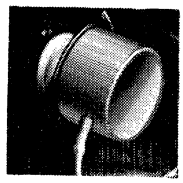
audiotex® HI-FI ACCESSORIES

AUDIOTEX MFG. CO., DIV. of G-C TEXTRON, INC.
ROCKFORD, ILL. • LOS ANGELES 18, CALIFORNIA

TAPE ACCESSORIES



TELEPHONE PICK-UP

Records both sides of a telephone conversation — suction cup attaches to any phone. Plugs into tape recorder.

CAT. NO. 30-150 (plug not included) ..... **List: $5.95**

CAT. NO. 30-152 (with standard phone plug) .... **List: $6.95**

AUDIOTESTER TAPE

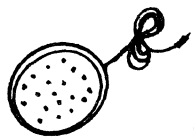
For checking performance of stereo and mono tape machines and associated equipment. Tests include head alignment, resonance, frequency response, NAB equalization, intermodulation, flutter, metronome balance, and distortion. 7.5 ips tape comes with detailed instruction.

CAT. NO. 30-206 (Standard tolerance) ..... **List: $6.50**

CAT. NO. 30-208 (Precise tolerance) ..... **List: $8.25**

CAT. NO. 30-210 (4 track test tape) ..... **List: $6.50**

PILLOW SPEAKER



Personal Instrument for Private Listening. For use with transistor radios or across voice coil leads of any speaker. Electromagnetic element for maximum sensitivity and widest possible tone range. For private listening, without disturbing others. Comes with cord and miniature phone plug to fit transistor radios.

CAT. NO. 30-160 ..... **List: $4.95**

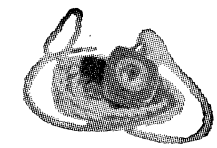
MISCELLANEOUS HI FI ACCESSORIES

PROFESSIONAL HEADPHONES

High quality instruments for stereo and monophonic play. Frequency range 50-15,000 cps. Moving coil elements contain dual 16 ohm voice coils and lightweight plastic diaphragms. Supplied with connecting cable and plugs. Impedance: 16/16 ohms (stereo) or 8 ohms (mono).

CAT. NO. 30-158 ..... **List $49.00**

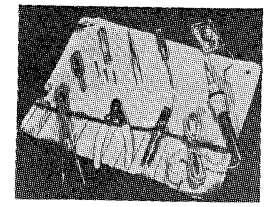
MINIATURE EARPHONE



For private listening to radios, TV, and hi-fi. Electro-dynamic type with frequency range 50-4000 cps. Lightweight metal clip holds phone to either ear.

CAT. NO. 30-154 (15 ohm) ..... **List: $2.95**

CAT. NO. 30-156 (2000 ohm) .. **List: $2.95**



CAT. NO. 30-244

List: $16.50

ENGINEER'S HI-FI SERVICE TOOL KIT

Special tools for the audiophile or professional for repair, installation and adjustment of hi-fi and music equipment. Heavy duty plastic pouch contains miniature-tip soldering iron; precision tweezer; neolite circuit tester; phono & recorder oil; set of jeweler's screwdrivers; Phillips screwdriver; miniature screw holding screwdriver ("Minihold"); wire stripper and cutter, and a package of solder.

PHONO AND RECORDER OIL

Specially compounded non-gumming oil in handy plastic drop-by-drop applicator. Contains rust inhibitor.

CAT. NO. 30-250 ..... **List: $.65**

FM INDOOR ANTENNA

Folded Dipole for local or strong signal locations. Comes ready to install with 6′ lead wire and spade lugs.

CAT. NO. 30-270 ..... **List: $2.10**

VIBRATION PADS

Resilient pads made of foam plastic and sponge rubber. Laminations reduce rumble, minimize feedback, and protect cabinets. Four available sizes to fit wide variety of units.

CAT. NO.	SIZE	LIST
30-162	6″x12″	$0.90
30-164	9″x12″	1.25
30-166	12″x12″	1.60
30-168	13″x16″	2.25

HI FI DECALS

Jumbo assortment of attractive labels. Includes identification tabs for controls, cabinets, chassis parts and remote control devices.

CAT. NO. 30-314 ..... **List: $1.85**

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audiotex® HI-FI ACCESSORIES

AUDIOTEX MFG. CO., DIV. of G-C TEXTRON, INC.
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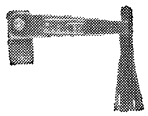
PHONO ACCESSORIES



RECORD BRUSH

Camel hair brush clips on tone arm; sweeps grooves while record is playing. Adjustable swivel permits use with any record player.

CAT NO. 30-000 ..... **List: $.75**

ATOMIC STAT-ELIM

Anti-static dust eliminator drains static charge by ionizing air surface of record. Contains mildly radio-active element; lightweight holder attaches to tone arm.

CAT NO. 30-002 ..... **List: $3.95**

STYLUS BRUSH

Automatically cleans stylus each time tone arm is moved from rest position. Self-adhesive bottom attaches to turntable; adjustable to any height.

CAT. NO. 30-004 ..... **List: $1.40**

Record Spray
STATI-KLEER

Cleans, Destaticizes and Lubricates in One Easy Operation

New Audiotex Stati-Kleer, with Miracle Silicone. The finest record cleaning spray available. Just spray on and wipe off. Cleans and lubricates all plastic records. One application eliminates harmful dirt and dust in record grooves for hours and hours.

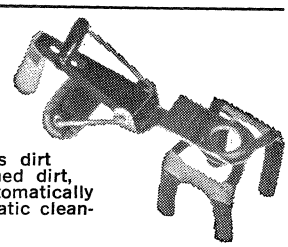
CAT. NO. 30-007 ..... **List: $1.65**

RECOR-DE-STAT

Squeeze bottle of anti-static detergent with velvet pad applicator. Long velvet fibers reach bottom of record grooves. Anti-static detergent cleans records; leaves dust-repelling film.

CAT NO. 30-010 ..... **List: $2.00**

DUST BUG
Four-in-One Record
Cleaner & Static Eliminator



Applies cleaning fluid, brushes dirt from grooves, picks up loosened dirt, eliminates static charge automatically while record is playing. Anti-static cleaning fluid included.

CAT. NO. 30-012 (player model) ..... **List: $9.60**
CAT. NO. 30-016 (fluid refill) ..... **List: $2.00**
CAT. NO. 30-018 (plush pad replacement) ..... **List $1.40**

45-RPM RECORD ADAPTOR

Plastic adaptor slips over standard spindle to play any 45 RPM disc.

CAT. NO. 30-034 ..... **List: $.25**

DISK-O-KLEEN

Silicone treated record cleaning cloth eliminates static charge. Specially woven velvet material has extra length nap to reach bottom of grooves.

CAT. NO. 30-022 ..... **List: $1.40**

KLEEN-O-RECORD

Triple action cloth, Anti-Static Record Cleaning Cloth, silicone impregnated, which cleans, lubricates and de-staticizes records. Long lasting.

CAT. NO 30-024 ..... **List: $.75**

RECORD SAVERS

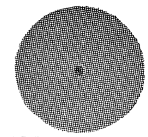
Heavy-duty polyethelene envelopes protect records when not in use.

CAT NO.	SIZE	LIST
30-062	For 12" records. Pkg. of 5	$.55

45-RPM RECORD INSERTS

Plastic snap-in inserts adapt large hole 7" records for play on 3 speed changers. Spring-like construction holds insert firmly in place.

CAT NO. 30-030 (Pkg. of 6) ..... **List: $.30**



TURNTABLE RECORD CUSHIONS

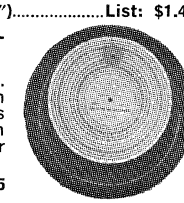
Thick plastic sponge cushions eliminate record slip, reduce magnetic pull, prolong record life.

CAT. NO. 30-040 (10") ..... **List: $1.25**
CAT. NO. 30-042 (12") ..... **List: $1.40**

TURNTABLE RUBBER MAT KIT

Heavy rubber mat fits any 12" turntable. Has tapered ridges 7", 10", and 12" in diameter. Supports any size record by its blank outside rim, keeping grooves from touching. Strobe disc and 45 RPM adaptor included.

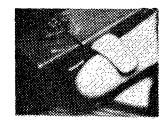
CAT. NO. 30-044 ..... **List: 5.25**



PHONO COVERS

Heavy duty embossed vinyl covers for turntables and changers.

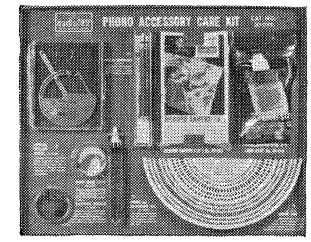
CAT. NO.	SIZE & USE	LIST PRICE
30-052	17½" x 16½" x 8½" For many phono & transcription players such as: Gray, Rek-O-Kut Metzner	3.75
30-054	2½" x 16" x 8½" For many phono & transcription players such as: Gray, Rek-O-Kut, Metzner	4.05



TONE ARM LIFT

Provides precise control of tone arm. Made of spring metal, plastic coated; attaches to tone arm.

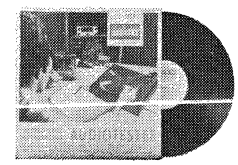
CAT. NO. 30-066 ..... **List: $.50**



PHONO ACCESSORY KIT

Complete phono and record care kit contains record brush, recor-de-stat, 12" record savers, tone arm lift, stylus microscope, stylus weight gauge, strobe disc, and phono and recorder oil.

CAT. NO. 30-098 List: $9.95



AUDIOTESTER TEST RECORD

12" plastic LP has stereo tests on Side 1; mono on Side 2. Side 1: metronome balance, pickup alignment, channel separation, frequency response. RIAA equalization, turntable rumble. Side 2: stylus wear, frequency response, RIAA equalization, IM distortion, turntable rumble, tone arm resonance.

CAT. NO. 30-200 ..... **List: $4.98**

STYLUS MICROSCOPE

Optical instrument for checking stylus wear. Has adjustable focus and magnifying power of 50. Complete with pen-type pocket clip.

CAT NO. 30-218 ..... **List: $2.50**

PHONO LEVEL

Bubble-type gauge for precise measurement of phonograph level. Accurate to better than 1°.

CAT NO. 30-224 ..... **List: $2.50**

Trade Discount Applies To List Prices Only
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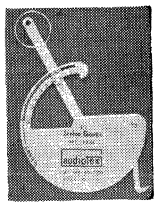
audiotex® HI-FI ACCESSORIES

AUDIOTEX MFG. CO., DIV. of G-C TEXTRON, INC.
ROCKFORD, ILL. • LOS ANGELES 18, CALIFORNIA

PHONO ACCESSORIES (Continued)

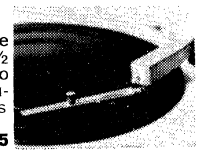


STYLUS WEIGHT GAUGE

Measures force needed to lift tone arm from record. Calibrated in bands with an expanded scale at low force. Accurately gauges correct stylus pressure.

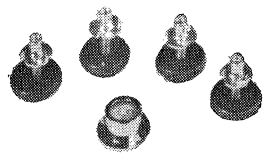
CAT. NO. 30-220 ..... **List: $2.80**

DECI-GRAM STYLUS PRESSURE GAUGE



Precisely calibrated, 1 to 10 gram pressure gauge measures stylus pressure within ½ gram. The sturdy DECI-GRAM is built to close tolerances to give you years of accurate service. Use it often . . . your records will last longer, sound better.

CAT. NO. 30-222 ..... **List: $1.65**



PHONO LEVEL KIT

Includes bubble-type phono level and four adjustable feet for balancing of any phonograph or turntable.

CAT NO. 30-226 ..... **List: $3.25**

STROBE DISC

New design shows not only correct speed but also ± 2% and ± 4% deviations.

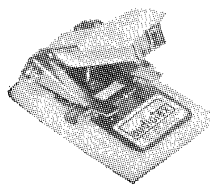
CAT. NO. 30-228 (Cardboard) ..... **List: $ .55**
CAT. NO. 30-230 (Plastic) ..... **List: $1.65**

TAPE ACCESSORIES

TAPE SPLICER — EZE SPLICE MODEL

For fixing broken tape and editing. Provides easy-to-repair mitre cut.

CAT. NO. 30-100 ..... **List: $2.75**



TAPE SPLICER—PROFESSIONAL MODEL

Easy to use, precise cutter/splicer with pair of curved cutting blades. Leaves tape edges free of adhesive. For use with any ¼" tape.

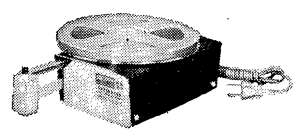
CAT. NO. 30-104 ..... **List: $9.97**

SPLICING TAPE

For use with any tape splicer. Special cold setting, non-flowing adhesive on Mylar* base. 100" spool, ½" width. Enough for 200 splices. *TM of Dupont

CAT. NO. 30-110 ..... **List: $.50**

TAPERASER



Removes all traces of signal and noise from audio tapes and 16 or 35 mm magnetic sound film. Powerful erase action (to —52 db) lowers residual noise level below that of some virgin tape. Erases tape on reels up to 10½" in diam. Complete operation takes only 30 seconds.

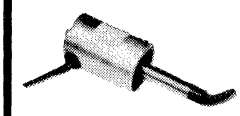
CAT. NO. 30-114 ..... **List: $33.00**

LANGUAGE LAB ACCESSORY AND SERVICE KIT

Have all your professional Audiotex service aids and accessories in one compact container. Includes tape and record labels, splicing tape, tape threading leader, Hi-Fi service tool kit, tape strobe, head cleaner, head lubricant, kleen-tape, head demagnetizer, and a professional model tape splicer.

CAT. NO. 30-099 ..... **List: $54.95**

HEAD-DEMAG TAPE HEAD DEMAGNETIZER



Safely removes all trace of magnetism from recording heads. Curved, flat tip is plastic-covered — can't scratch or damage. Reaches most heads with cover left on; on-off switch eliminates unplugging when device is not in use.

CAT. NO. 30-112 ..... **List: $12.10**

TAPE END CLIPS

Stops straying tape ends. Reusable plastic clip, works with any reel.

CAT. NO. 30-116 (Pkg. of 18) ..... **List: $.60**

REEL-NEAT TAPE CLIPS

Works on full or partially full reels. Keep tape neatly wound for convenience in storage. Snap-on clips, fit any reel, full or partially empty. Made of non-magnetic stainless steel. Fits snugly on wheel—does not interfere with placing reel back into storage carton. Package of 5.

CAT. NO. 30-130 ..... **List: $1.25/Pkg.**

TAPE AND RECORD LABELS

36 pressure-sensitive ½" x 2" labels provide handy index to the music library. Space for title, date, and number.

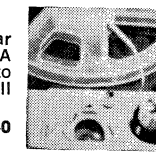
CAT. NO. 30-118 ..... **List: $.55**

TAPE CUEING LABELS

Color coded, pressure-sensitive numbered tabs for marking selections anywhere on a tape. Package contains five sheets, six tabs to a sheet, and includes identification labels for the reel or box.

CAT. NO. 30-120 ..... **List: $1.65**

TAPE THREADING LEADER



For easy threading of tape on reel. 24" Mylar leaders with pressure sensitive adhesive. A small foam rubber ball at one end drops into hub of take-up reel. On fast rewind, the ball releases without damaging tape.

CAT. NO. 30-122 (Pkg. of 10) ..... **List: $1.40**

TAPE HEAD CLEANER AND LUBRICANT

For cleaning and lubricating tape heads. Remove harmful dirt and grease. Lubricant contains silicone. Stops tape squeel, reduces friction. Tapes last longer, give better fidelity.

CAT. NO. 30-124-1
2 oz. Cleaner ..... **List: $1.00**

CAT. NO. 30-124-2
2 oz. Lubricant ..... **List: $1.00**

KLEEN-TAPE

30' of specially impregnated cloth tape on 3" reel for cleaning tape heads. "Plays" through any standard tape recorder in less than 2 minutes.

CAT. NO. 30-126 ..... **List: $3.50**

Pat. No. 3008852

It's so easy to order from this catalog . . .

When ordering products shown in this book or writing for additional information, please be sure to specify:

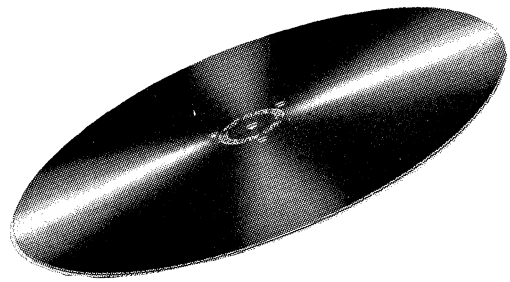
1. **Manufacturer's Catalog Numbers and Page Numbers.**
2. **The Year and Edition of This MASTER.**

This will avoid confusion and expedite delivery.

Thank you!

The
RADIO-ELECTRONIC
MASTER

audiodiscs®



For truly fine recording and reproduction

For more than 25 years, Audiodiscs have consistently maintained their position of eminent leadership in every field of instantaneous disc recording.

A superior lacquer coating, applied to the mirror-smooth aluminum base by a patented process, gives these outstanding advantages: maximum uniformity of coating, permanent resistance to humidity, longer stylus life, freedom from audible background scratch, long playback life, brilliant frequency response, and freedom from deterioration with age.

DESCRIPTION		Size Inches	List Price	Carton Contains
RED LABEL AUDIODISCS Standard throughout the recording profession, these discs exceed the most exacting requirements for top quality and dependability. The finest discs obtainable. Aluminum base, double-sided. Embossed labels.		7*	$1.54	25
		8	1.21	25
		10	1.71	25
		12	2.81	25
		16	5.06	25
SINGLE FACE RED LABEL For professional use where only one side is to be recorded. Both sides coated; the recordable side identified with embossed label. Exactly the same fine qualities as Standard Red Label, but bringing real economy to single-face applications.		12	2.20	25
		16	4.07	25
YELLOW LABEL AUDIODISCS The popular choice for all general purpose recording which requires high, uniform quality. Aluminum base, double-sided. Designed primarily for applications where the super quality Red Label AUDIODISCS are not required. Paper labels.		7*	1.31	25
		8	1.02	25
		10	1.36	25
		12	2.20	25
		16	4.07	25
REFERENCE LABEL AUDIODISCS Provide maximum economy for test cuts, filing and reference recordings, auditions and equipment adjustments, which do not demand complete surface perfection. Aluminum base. Paper labels.		10	1.16	25
		12	1.71	25
		16	3.05	25
BLUE LABEL AUDIODISCS These discs offer the very best in recording quality at a low price for schools, homes, amateur and demonstration work. Made of the same materials as professional type AUDIODISCS — but on a thinner aluminum base. Paper labels.		6½	.60	50
		8	.84	50
		10	1.20	50
MASTER AUDIODISCS Where copies of recordings (pressings) are to be made by the electroplating process, these discs are the outstanding choice. Their excellence and consistent quality are well known to all record processors. Fine results with either silvering or gold sputtering. Aluminum base. Center pin and one drive pin hole. Also available with center hole only.	Double Sided	10	2.75	25
		12	3.52	25
		13¼	4.86	25
		16	6.55	25
		17¼	7.65	25
	Single Face	10	2.20	25
		12	2.75	25
		13¼	3.54	25
		14	3.65 3.78■	25
		16	5.17	25
		17¼	5.61	25

***Standard 45 rpm disc with 1½" diameter center hole. Also available with conventional center hole. To specify, indicate "Small Center Hole" on orders.**

■West of the Rockies. All Prices Subject to Change Without Notice.

audiopoints®

microscopically matched recording and playback styli

The complete line of Audiopoints covers the full range of recording and playback needs — for professional as well as general use. Audiopoints are made by skilled Craftsmen, and conveniently packaged in cards, boxes or envelopes.

RECORDING AUDIOPOINTS

SAPPHIRE No. 14 — long recognized as the finest recording stylus made. Short or long dural shank, 87° included angle.
List Price $8.25

SAPPHIRE No. 20 — especially designed for professional microgroove recording. Short or long dural shank. **List Price $8.25**

SAPPHIRE No. 202 — a high-quality professional stylus. Short or long brass shank.
List Price $6.60

STELLITE No. 34 — a favorite with many professional and non-professional users. Short or long shank. 87° included angle.
List Price $2.50

PLAYBACK AUDIOPOINTS

SAPPHIRE No. 113 — meets the requirements of the most critical professional recordists. Straight dural shank.
List Price $4.50

SAPPHIRE No. 123 — for professional use with microgroove recordings.
List Price $2.00

"RED CIRCLE" SAPPHIRE No. 103 — for professional use with instantaneous recordings or vinyl transcriptions. Straight dural shank. **List Price $2.00**

"RED CIRCLE" SAPPHIRE No. 303 — same as No. 103, except with bent dural shank. Ideal for phonograph records.
List Price $2.00

THE COMPLETE LINE OF PROFESSIONAL QUALITY audiotape TRADE MARK

Description	Type No.	Length	Reel†	List Price
STANDARD RECORDING on plastic base	151	150 ft.	3″ Plastic Reel	$0.70
	151MB	150 ft.	3″ Plastic Reel in Mailing Box	0.70
	351	300 ft.	4″ Plastic Reel	1.35
	651	600 ft.	5″ Plastic "C-Slot" Reel	2.25
	851	850 ft.	5¾″ Plastic Reel	2.95
	1251	1200 ft.	7″ Plastic "C-Slot" Reel	3.50
	2551H	2500 ft.	NARTB Hub	7.85
	2551R	2500 ft.	10½″ Aluminum Reel	10.80
	‡2551FS	2500 ft.	10½″ Fiberglass Reel	10.80
	5051H	5000 ft.	NARTB Hub	14.40
	5051R	5000 ft.	14″ Aluminum Reel	21.35
Meets the most exacting requirements of the professional, educational and home recordist at minimum cost. Known the world over for its matchless performance and consistent uniform quality. **Series 51, in the red box.**				
audiotape **LONGER RECORDING on 1 mil Mylar***	261	225 ft.	3″ Plastic in Self-Mailer Pkg.	1.00
	961	900 ft.	5″ Plastic "C-Slot" Reel	3.60
	1261	1200 ft.	5¾″ Plastic Reel	4.15
	1861	1800 ft.	7″ Plastic "C-Slot" Reel	6.20
	3661H	3600 ft.	NARTB Hub	11.40
	3661R	3600 ft.	10½″ Aluminum Reel	14.35
	‡3661FS	3600 ft.	10½″ Fiberglass Reel	14.35
	7261H	7200 ft.	NARTB Hub	24.00
	7261R	7200 ft.	14″ Aluminum Reel	30.00
50% more recording time per reel. The strong, super-durable polyester film base assures trouble-free operation even under severe conditions of heat and humidity. **Series 61, in the orange box.**				
audiotape **LONGER RECORDING on 1 mil plastic**	941	900 ft.	5″ Plastic "C-Slot" Reel	3.50
	1241	1200 ft.	5¾″ Plastic Reel	3.75
	1841	1800 ft.	7″ Plastic "C-Slot" Reel	5.50
	3641H	3600 ft.	NARTB Hub	9.85
	3641R	3600 ft.	10½″ Aluminum Reel	12.80
	‡3641FS	3600 ft.	10½″ Fiberglass Reel	12.80
	7241H	7200 ft.	NARTB Hub	18.40
	7241R	7200 ft.	14″ Aluminum Reel	25.35
50% more recording and playback time on low-cost 1-mil cellulose acetate base, affording maximum economy for applications where high strength is not required. **Series 41, in the blue box.**				
audiotape **DOUBLE RECORDING on ½ mil Mylar***	331	300 ft.	3″ Plastic Reel	1.37
	1231	1200 ft.	5″ Plastic "C-Slot" Reel	3.50
	1831	1800 ft.	5¾″ Plastic Reel	5.00
	2431	2400 ft.	7″ Plastic "C-Slot" Reel	6.50
Twice as much recording time per reel as standard plastic-base tape. Suitable for extended-play applications where tape tension is not excessive. **Series 31, in the tan box.**				
audiotape **DOUBLE RECORDING on "Tempered" Mylar***	331T	300 ft.	3″ Plastic in Self-Mailer Pkg.	1.60
	631T	600 ft.	3¼″ Plastic in Self-Mailer Pkg.	2.95
	1231T	1200 ft.	5″ Plastic "C-Slot" Reel	5.45
	1831T	1800 ft.	5¾″ Plastic Reel	6.75
	2431T	2400 ft.	7″ Plastic "C-Slot" Reel	9.50
	4831T-R	4800 ft.	10½″ Aluminum Reel	22.00
	‡4831T-FS	4800 ft.	10½″ Fiberglass Reel	22.00
Twice as much recording time per reel as standard plastic-base tape, and is twice as strong as other double-length tapes. Will not stretch or break on any tape recorder — will not dry out or embrittle with age. **Series 31T, in the maroon box.**				
audiotape **STANDARD RECORDING on 1½ mil Mylar***	671	600 ft.	5″ Plastic "C-Slot" Reel	2.65
	1271	1200 ft.	7″ Plastic "C-Slot" Reel	4.25
	2571H	2500 ft.	NARTB Hub	8.30
	2571R	2500 ft.	10½″ Aluminum Reel	11.20
	‡2571FS	2500 ft.	10½″ Fiberglass Reel	11.20
	5071H	5000 ft.	NARTB Hub	16.65
	5071R	5000 ft.	14″ Aluminum Reel	24.50
A premium-quality professional tape that provides the utmost in mechanical strength and immunity to temperature and humidity. Will not dry out or embrittle with age. **Series 71, in the green box.**				
audiotape **MASTER RECORDING on Plastic Base**	651-M	600 ft.	5″ Plastic "C-Slot" Reel	2.75
	1251-M	1200 ft.	7″ Plastic "C-Slot" Reel	4.30
	2551H-M	2500 ft.	NARTB Hub	9.25
	2551R-M	2500 ft.	10½″ Aluminum Reel	12.20
	‡2551FS-M	2500 ft.	10½″ Fiberglass Reel	12.20
	5051H-M	5000 ft.	NARTB Hub	16.95
	5051R-M	5000 ft.	14″ Aluminum Reel	23.90
The finest, professional-quality recording tape. Base material 1½-mil acetate. Maximum fidelity, uniformity, frequency response and freedom from noise and distortion. . . . **Plus low print-through. Series 51M, in red and gold box.**				
audiotape **MASTER RECORDING on 1½ mil Mylar***	671-M	600 ft.	5″ Plastic "C-Slot" Reel	3.20
	1271-M	1200 ft.	7″ Plastic "C-Slot" Reel	5.10
	2571H-M	2500 ft.	NARTB Hub	10.00
	2571R-M	2500 ft.	10½″ Aluminum Reel	13.50
	‡2571FS-M	2500 ft.	10½″ Fiberglass Reel	13.50
Super-durable tape that meets highest standards of performance. Withstands extreme temperature and is virtually immune to humidity. . . . **Plus low print-through. Series 71M, in the green and gold box.**				

†COLORED PLASTIC REELS. Audiotape on 5″ and 7″ reels can be supplied on colored reels at no increase in price. To designate color (Red, Yellow, Green or Blue) add "RR" and "YR", and "GR" or "BR" to Type No. E.g. — Type 1251YR covers 1200 feet of plastic-base tape on Yellow Reel.

‡"FS" in Type No. indicates Fiberglass reel with solid hub and 5/16″ center hole.

*"Mylar" is the registered DuPont trade mark for its polyester film.

Trade Discount Applies To List Prices Only

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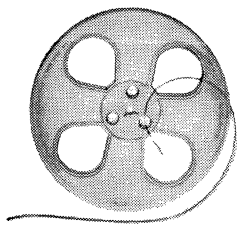
Description	Type No.	Length	Reel	List Price
audiotape **TRIPLE RECORDING on "Tempered" Mylar***	633T	600′	3¼″ Plastic in Self-Mailer Pkg.	$2.95
Three times as much recording time per reel as standard-plastic-base tape, plus the same extra strength as other "Tempered" Mylar Audiotapes. **Series 33T, in the olive box.**	1833T	1800′	5″ Plastic "C-Slot" Reel	6.95
	3633T	3600′	7″ Plastic "C-Slot" Reel	11.95

OTHER **AUDIOTAPE** ITEMS

"tape-a-letter" **The mailable correspondence tape** "Tape-a-letter" tapes give tape correspondents top quality Audiotape in impact-resistant plastic re-usable self-mailers. Available in 4 Audiotape types — Standard, Longer, Double and Triple Recording with 150′ to 600′ on a reel.	Standard Recording 1015-0101-0425	150′	3″ Plastic in "Self-Mailer"	$0.70
	Longer Recording 1034-0102-0425	225′	3″ Plastic in "Self-Mailer"	1.00
	Double Recording 1042-0103-0425	300′	3″ Plastic in "Self-Mailer"	1.60
	Triple Recording 1042-3106-0420	600′	3¼″ Plastic in "Self-Mailer"	2.95

Item		Type No.	Reel	List Price
EMPTY AUDIOTAPE REELS IN INDIVIDUAL BOXES All Audiotape reels, the complete range of sizes and types, are available, individually packaged in standard Audio boxes. Five and seven-inch reels feature the popular C-slot design for fast, easy threading. In addition to the standard clear plastic, C-Slot reels are available in four attractive jeweltone colors, at no extra cost.	Standard Reels	3PB	3″ Plastic Reel in Box	$0.25
		3PMB	3″ Plastic Reel in Mailing Box	0.25
		3.25PB	3¼″ Plastic Reel in Mailing Box	0.40
		4PB	4″ Plastic Reel in Box	0.45
		5PB	5″ Plastic C-Slot Reel in Box	0.60
		5.75PB	5¾″ Plastic Reel in Box	0.75
		7PB	7″ Plastic C-Slot Reel in Box	0.75
		10RB	10½″ Aluminum Reel in Box	4.00
		10FS	10½″ Fiberglass Reel in Box	4.00
		10H	NARTB Metal Hub	0.70
		10S	Pr. 10½″ Alum. Flanges (NAB) w. screws	3.40
		14RB	14″ Aluminum Reel in Box	7.40
	Colored Plastic Reels	5PBR	Red	5″ Plastic C-Slot Reel in Box	0.60
		5PBY	Yellow		
		5PBG	Green		
		5PBB	Blue		
		7PBR	Red	7″ Plastic C-Slot Reel in Box	0.75
		7PBY	Yellow		
		7PBG	Green		
		7PBB	Blue		

* "Mylar" is the registered DuPont trade mark for its polyester film.

Audiotape Accessories

Items	Type No.	List Price
EMPTY AUDIOTAPE BOXES Standard, durably-constructed, Audiotape boxes are available in all the popular sizes for filing and storing tapes.	3B	$0.15
	3MB	0.15
	3.25B	0.15
	4B	0.20
	5B	0.20
	7B	0.20
	10B	0.75
	14B	1.00
AUDIOTAPE CORRUGATED MAILING BOXES Strong, re-usable containers	5M	0.15
	7M	0.20
	10M	0.30
AUDIO SELF-TIMING LEADER TAPE A strong, durable leader tape of white Mylar* material with spaced markings to permit accurate timing of leader intervals.	3L	0.55
AUDIO SPLICING TAPE Unusually durable pressure-sensitive tape that provides a solid, noise-free splice. White thermosetting adhesive holds firmly and instantly, will not ooze to cause sticky splices. On superior-strength Mylar.*	ST-0.25-66	0.57
	ST-0.50-100	0.65
	ST-50-66	1.75
	ST-75-66	2.50

Items	Type No.	List Price
AUDIO HEAD CLEANER Especially formulated for use on magnetic recording heads. Contains silicone solvent for sharper sound.	2HC	$1.00
AUDIO ADHESIVE REEL LABELS Provide positive identification of your tapes, right on the reel. Simply press to apply, pull to remove.	30AL	0.20
AUDIO HEAD DEMAGNETIZER Removes all permanent magnetism from recording and reproducing heads in a matter of seconds.	400	10.00
AUDIO HEAD ALIGNING TAPE Pre-recorded at 2,000, 10,000 and 15,000 cps (15″/sec) with precisely correct head alignment. Individually boxed, with instructions. Base material, 1½-mil Mylar.*	200	10.00
"HOW TO MAKE GOOD TAPE RECORDINGS" — NEW STEREO EDITION Complete handbook of tape recording. Over 160 pages of interesting information of practical value to every recordist. Liberally illustrated.	15P	1.50

Type EP AUDIOTAPE, extra precision magnetic recording tape for telemetering, electronic computers and other specialized applications, is also available. Ask for bulletin on EP AUDIOTAPE.

AUDIOFILM on 35mm, 17½mm and 16mm base, is also available. Ask for information.

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BURGESS MAGNETIC RECORDING TAPE

by the makers of BURGESS BATTERIES

40 years of successful developments in acoustics, coatings and coating processes, and solid state physics have enabled Burgess engineers to produce a superlative magnetic tape characterized by these quality features . . .

- SUPERB FREQUENCY RESPONSES
- LOW NOISE LEVEL • HIGH SENSITIVITY
- UNIFORM, TROUBLE-FREE PERFORMANCES ASSURED BY BURGESS QUALITY CONTROL

BURGESS NUMBER	TAPE LENGTH	REEL SIZE	†SUGG. DEALER PRICE	LIST PRICE	DESCRIPTION
111-1.5	150′	3″	$ .42	$ .70	**SERIES NO. 111** 1.5 mil ¼″ ALL-PURPOSE PLASTIC — 1.5 mil cellulose acetate for all general recording needs. Recognized throughout the recording industry as perfect for flawless recordings at minimum cost. The popular standard series tape.
111-2.5	250′	3¼″	.75	1.25	
111-3	300′	4″	.81	1.35	
**111-6	600′	5″	1.35	2.25	
111-8.5	850′	5¾″	1.71	2.85	
**111-12	1200′	7″	2.10	3.50	
111-24R	2400′	10½″ M	6.54	10.90	
111-24H	2400′	10½″	5.10	8.50	
111-24RPS	2400′	10½″	6.15	10.90	
111-25HPB	2500	10½″	4.41	7.35	
111-48R	4800′	14″	13.26	22.10	
111-48H	4800′	14″	10.20	17.00	
111-50HPB	5000′	14″	8.91	14.85	
½-111-24R	2400′	10½″	12.30	19.40	SERIES NO. 111 1.5 mil ½″
½-111-24H	2400′	10½″	10.75	16.96	
190-2.25	225′	3″	.54	.90	**SERIES NO. 190** 1.0 mil ¼″ EXTRA-PLAY PLASTIC — 1.0 mil cellulose acetate for maximum economy. Superb reproduction with full frequency response and 50% more recording time.
190-9	900′	5″	2.10	3.50	
190-12	1200′	5¾″	2.55	4.25	
190-15	1500′	7″	2.70	4.50	
190-18	1800′	7″	3.30	5.50	
190-36R	3600′	10½″ M	7.71	12.85	
190-36H	3600′	10½″	6.00	10.00	
190-37.5HPB	3750′	10½″	5.97	9.95	
190-72R	7200′	14″	15.60	26.00	
190-72H	7200′	14″	12.00	20.00	
190-75HPB	7500′	14″	11.97	19.95	
½-190-36R	3600′	10½″	15.44	25.74	SERIES NO. 190 1.0 mil ½″
'102-6	600′	5″	1.59	2.65	**SERIES NO. 102** 1.5 mil ¼″ ALL-PURPOSE MYLAR* — 1.5 mil mylar* for super toughness, flawless performance under all conditions. Immune to heat or humidity, will not dry out or become brittle.
102-8.5	850′	5¾″	2.55	4.25	
102-12	1200′	7″	2.55	4.25	
102-24R	2400′	10½″ M	6.72	11.20	
102-24H	2400′	10½″	5.28	8.80	
102-24RPS	2400′	10½″	6.73	11.20	
102-25HPB	2500′	10½″	4.98	8.30	
102-48R	4800′	14″	14.70	24.50	
102-48H	4800′	14″	11.10	18.50	
102-50HPB	5000′	14″	9.98	16.65	
½-102-24R	2400′	10½″	13.45	22.42	SERIES NO. 102 1.5 mil ½″

'rice each in quantities of 12 or more reels.
tter "R" designates tape on NAB Reel with 3" center hole, letter "H" signates tape on metal hub.

BURGESS NUMBER	TAPE LENGTH	REEL SIZE	†SUGG. DEALER PRICE	LIST PRICE	DESCRIPTION
150-2.25	225′	3″	$ .60	$1.00	**SERIES NO. 150** 1.0 mil ¼″ EXTRA-PLAY POLYESTER MYLAR* — 1.0 mil polyester mylar* for trouble-free operation in all weather. Performs brilliantly, unaffected by heat or humidity. 50% more recording time per reel.
150-3.75	375′	3¼″	1.05	1.75	
150-9	900′	5″	2.16	3.60	
150-12	1200′	5¾″	2.79	4.65	
150-15	1500′	7″	3.10	5.15	
150-18	1800′	7″	3.72	6.20	
150-36R	3600′	10½″ M	8.64	14.40	
150-36H	3600′	10½″	7.20	12.00	
150-36RPS	3600′	10½″	8.64	14.40	
150-37.5HPB	3750′	10½″	7.20	12.00	
150-72R	7200′	14″	18.00	30.00	
150-72H	7200′	14″	14.40	24.00	
150-75HPB	7500′	14″	14.40	24.00	
½-150-36R	3600′	10½″	17.28	28.80	SERIES NO. 150 1.0 mil ½″
200-3	300′	3″	.96	1.60	**SERIES NO. 200 & 290** .5 mil ¼″ DOUBLE LENGTH TENSILIZED POLYESTER MYLAR* — .5 mil double length tensilized polyester mylar* gives double the recording time of conventional tape. Twice the strength of conventional thin tape. Ideal for use under adverse conditions. Won't stretch or become brittle.
200-6	600′	4″	1.83	3.05	
200-12	1200′	5″	3.27	5.45	
200-17	1700′	5¾″	4.24	7.05	
200-24	2400′	7″	5.70	9.50	
200-48R	4800′	10½″	13.20	22.00	
200-48H	4800′	10½″	11.70	19.50	
200-48RPS	4800′	10½″	13.20	22.00	
290-6	600′	3¼″	1.50	2.50	
290-36	3600′	7″	7.17	11.95	
131-12	1200′	7″	2.64	4.40	**SERIES NO. 131** 1.5 mil ¼″ LOW PRINT THROUGH PROFESSIONAL QUALITY PLASTIC — 1.5 mil cellulose acetate. Provides absolute minimum layer-to-layer signal transfer.
131-24R	2400′	10½″	7.44	12.40	
131-24H	2400′	10½″	6.00	10.00	
131-48R	4800′	14″	15.60	26.00	
131-48H	4800′	14″	12.00	20.00	
½-131-24R	2400′	10½″	15.00	25.00	SERIES NO. 131 1.5 mil ½″
138-12	1200′	7″	3.06	5.10	**SERIES NO. 138** 1.5 mil ¼″ LOW PRINT THROUGH PROFESSIONAL QUALITY ALL-PURPOSE MYLAR* — 1.5 mil mylar* insures good strength and storage characteristics. Provides absolute minimum layer-to-layer signal transfer.
138-24R	2400′	10½″	8.10	13.50	
138-24H	2400′	10½″	6.66	11.10	
138-48R	4800′	14″	20.40	34.00	
138-48H	4800′	14″	16.80	28.00	
½-138-24R	2400′	10½″	17.28	28.80	SERIES NO. 138 1.5 mil ½″
175-6	600′	5″	1.44	2.40	**SERIES NO. 175** 1.5 mil ¼″ ALL-PURPOSE POLYVINYL CHLORIDE — More tear resistant than acetate. For heavy duty recording applications.
175-12	1200′	7″	2.25	3.75	

"HPB" designates tape on plastic hub, bulk packaged. "RPS" designates plastic reel with 5/16" EIA center hole.

ACCESSORIES

RGESS MBER	SIZE	† SUGG. DEALER PRICE	LIST PRICE	DESCRIPTION
T-15 White	150′L ¼″W (White tape)	$ .66	$1.10	Mylar* Leader Tape
T-15 Red	150′L ¼″W (Red tape)	.66	1.10	
T-15 Blue	150′L ¼″W (Blue tape)	.66	1.10	
T-15 Green	150′L ¼″W (Green tape)	.66	1.10	
T-15 Yellow	150′L ¼″W (Yellow Tape)	.66	1.10	
T-15M	150′L ¼″W	.66	1.10	Metalized Mylar* Leader Tape
T-5	150″L ½″W	.28	.39	Splicing Tape
B-3	Clear Plastic 3″ Reel	.15	.25	Empty Reel, Boxed
B-3¼	Clear Plastic 3¼″ Reel	.27	.45	Empty Reel, Boxed
B-4	Clear Plastic 4″ Reel	.33	.55	Empty Reel, Boxed
B-5	Clear Plastic 5″ Reel	.39	.65	Empty Reel, Boxed
B-5¾	Clear Plastic 5¾″ Reel	.45	.75	Empty Reel, Boxed
B-7	Clear Plastic 7″ Reel	.45	.75	Empty Reel, Boxed
B-10.5RPS	Clear Plastic 10½″ Reel with EIA hub	2.70	4.50	Empty Reel, Boxed
B-14M	Metal 14″ Reel	5.22	8.70	Empty Reel, Boxed

BURGESS NUMBER	SIZE	† SUGG. DEALER PRICE	LIST PRICE	DESCRIPTION
B-3	For 3″ Reel	$ .09	$ .15	Empty Box
B3¾	For 3¼″ Reel	.09	.15	Empty Box
B-4	For 4″ Reel	.12	.20	Empty Box
B-5	For 5″ Reel	.12	.20	Empty Box
B-5¾	For 5¾″ Reel	.12	.20	Empty Box
B-7	For 7″ Reel	.12	.20	Empty Box
B-10½	For 10½″ Reel	.45	.75	Empty Box
B-14	For 14″ Reel	.60	1.00	Empty Box
MB-4	For 4″ Reel & Box	.09	.15	Corrugated Mailing Carton
MB-5	For 5″ Reel & Box	.09	.15	Corrugated Mailing Carton
MB-7	For 7″ Reel & Box	.12	.20	Corrugated Mailing Carton

† Price each in quantities of 12 or more accessories.
** Also available in colored reels Red, Blue, Green, Yellow or Violet.
* Trade Mark of DuPont

Trade Discount Applies To List Prices Only
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WORLD'S FINEST

Garrard

AUTOMATIC TURNTABLES

The **all-new** GARRARD LAB 80 is an **Automatic Transcription Turntable** which insures the professional reproduction of LP records (33⅓ and 45 rpm only), without compromise, through a galaxy of advancements developed by the GARRARD LABORATORIES.

■ Dynamically balanced tone arm is built of Afrormosia, the least resonant of all woods; held in precision alignment by an aluminum stabilizer along its entire length ■ Built-in stylus pressure adjustment has calibrated audible/visible scale . . . "clicks" on ¼ gram settings ■ Needle pivots set into ball bearings eliminate even minimal friction ■ Lightweight, low-mass shell is compatible for all cartridges, including new low-mass professional models. Incorporates slide-in-and-lock feature with safe finger lift ■ Exclusive patented bias compensator accurately cancels out tone arm skating force . . . adjustable to match stylus pressure setting ■ Integral cueing device for manual operation provides feather-touch control ■ Finger-tip tab controls on coordinated single panel ■ All new automatic spindle incorporates exclusive GARRARD pusher principle for safest positive action ■ Exclusive magnetic trip mechanism is ultra-sensitive . . . trips reliably, a virtually zero force . . . uses revolutionary Dupont Delrin® pla tic for low coefficient of friction ■ Extra-heavy 12 inch ca turntable, statically and dynamically balanced ■ New LAB 8 GARRARD LABORATORY SERIES motor is completely isolate with revolutionary suspension of rubber anti-vibration moun ing assembly.

An all new Garrard automatic turntable, the A70 was inspired by the renowned TYPE A. The A70 incorporates new and meaningful features —exclusively GARRARD ■ New dynamically-balanced, counterweight-adjusted tone arm ■ New ball bearing pivots, low center of gravity ■ New adjustable bias compensator—prevents skating ■ New audible/visible "click" settings on built-in stylus pressure gauge ■ New lightweight slide-in-and-lock shell accepts all cartridges including professional high-compliance types ■ New ultra-sensitive Dupont Delrin® trip mechanism ■ Exclusive full size, heavy balanced, cast "sandwich" turntable ■ Double-shielded laboratory series 4-pole shaded motor ■ GARRARD's exclusive pusher platform for gentlest automatic record handling.

The GARRARD AT60 is a wholly-improved version of the widely-popular AT6 with a dramatic difference in performance. Many meaningful new features have been incorporated, truly making it a leader in its field ■ New dynamically-balanced, non-magnetic, heavy, cast turntable ■ New tubular overarm ■ New automatic bias compensator ■ Counterweighted, adjustable, dynamically-balanced tone arm ■ New ball bearing pivots ■ Built-in stylus pressure adjustment and gauge ■ New featherweight plug-in-and-lock shell compatible with all cartridges ■ New unitized control panel ■ New super-sensitive Dupont Delrin® trip mechanism ■ Automatic intermix ■ Double-shielded laboratory series 4-pole motor.

The GARRARD M50 is a compact automatic turntable w superior and advanced features never before available i unit of such modest price ■ New counterweighted c aluminum tone arm ■ New featherweight plug-in-and-l shell accommodates all cartridges ■ New unitized con panel ■ New super-sensitive Dupont Delrin® trip mechani ■ New oversized turntable ■ Simple convenient stylus pr sure adjustment ■ Compact and slim design fits "any" cabi

ACCESSORIES : Bases, Mounting Boards, Carrying Cases, Dust Covers, "45" Spindles, Stylus Pressure Gauge

GARRARD DIV. BRITISH INDUSTRIES CORP. PORT WASHINGTON, N. Y.

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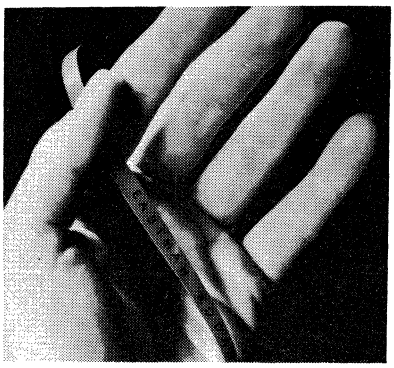
Net

Eastman Kodak Sound Recording Tapes

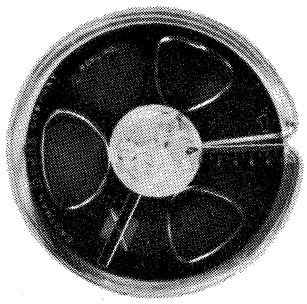
INTERNATIONAL RESISTANCE COMPANY



EASTMAN KODAK MEANS QUALITY. The only professional quality tapes available at popular tape prices. Two great types . . . Professional Low Print-Through and Professional High Output. Both are lifetime coded to identify the brand and provide convenient indexing.

CONSISTENT UNIFORMITY due to Eastman Kodak's exclusive emulsion process, consistent high quality is maintained from batch to batch and from reel to reel.

NO STRETCH. New DUROL® base material is the Eastman Kodak's cellulose triacetate that is smooth, tough and durable. Breaks are clean . . . splices are made quickly, easily with minimum program loss.



NEW BINDER MATERIAL. Coatings of "R-type" binder give a smoother, tougher recording surface that reduces tape noise and distortion. It is extremely abrasion resistant, preventing oxide build-up at the recording head.

THREAD EASY REEL loads fast and easy. Rugged one-piece construction has indexing scale, built-in splicing jig and handy writing surface for titling or identification.

DESCRIPTION	KODAK TYPE NO.	EASTMAN TYPE NO.	LENGTH	REEL
½ MIL PLASTIC — STANDARD PLAY	31A1	A303-1.5	150′	3′ plastic reel in mailing box
ype A303 Professional Low Print-Through. Features astly superior low print-through with absolutely no acrifice in output characteristics. Ideal for mastering nd general-purpose recording. DUROL base material. ¼" wide.	31A6	A303-6.25	625′	5" plastic "Thread Easy"
	31A12	A303-12.5	1250′	7" plastic "Thread Easy"
	31AMH25	A303-MH25	2500′	Metal NAB hub
	31AHF25	A303-HF-25	2500′	10½" metal NAB hub and flange
	31APHB25	A303-PHB25	2500′	Plastic NAB hub (unboxed)
	31APH25	A303-PH25	2500′	Plastic NAB hub
	31APHB50	A303-PHB50	5000′	Plastic NAB hub (unboxed)
½ MIL PLASTIC — HIGH OUTPUT	34A12	A304-12.5	1250′	7" plastic "Thread Easy"
ype A304 Professional High Output. High output, low oise characteristics with remarkable low print through. ermits the adjustment of record equalization to im- rove signal-to-noise ratio. Smooth, homogeneous oxide ıyer suppresses tape noise and intermodulation dis- ɔrtion. DUROL base material. ¼" wide.	34AMH25	A304-MH25	2500′	Metal NAB hub
	34AHF25	A304-HF25	2500′	10½" metal NAB hub and flange
	34APHB25	A304-PHB25	2500′	Plastic NAB hub (unboxed)
	34APH25	A304-PH25	2500′	Plastic NAB hub
	34APHB50	A304-PHB50	5000′	Plastic NAB hub (unboxed)
MIL PLASTIC — EXTRA PLAY	21A9	A203-9	900′	5" plastic "Thread Easy"
onger play with DUROL strength and good low print- ırough without sacrifice of excellent general-purpose ɜatures. ¼" wide.	21A18	A203-18	1800′	7" plastic "Thread Easy"
MIL POLYESTER — EXTRA PLAY "TENSILIZED"	21P9	P203-9	900′	5" plastic "Thread Easy"
olyester base for strength—new "R-Type" binder for utstanding sound recordings. ¼" wide.	21P18	P203-18	1800′	7" plastic "Thread Easy"
½ MIL POLYESTER — DOUBLE PLAY "TENSILIZED"	11P4	P103-4	400′	3" plastic reel in mailing box
xtra thin and treated for extra strength. Longer length ır more playing time. ¼" wide.	11P12	P103-12.5	1250′	5" plastic "Thread Easy"
	11P25	P103-25	2500′	7" plastic "Thread Easy"
½ MIL POLYESTER — TRIPLE PLAY "TENSILIZED"	12P6	P105-6	600′	3¼" plastic reel in mailing box
ew ultra-thin tape with 3 times standard playing time ith no loss in frequency response.	12P18	P105-18	1800′	5" plastic "Thread Easy"
	12P36	P105-36	3600′	7" plastic "Thread Easy"

INTERNATIONAL RESISTANCE COMPANY
Distributor Division
Philadelphia, Pa. 19108

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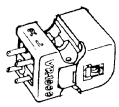
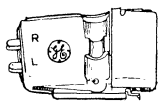
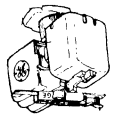
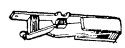
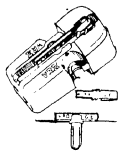
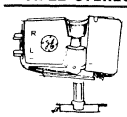
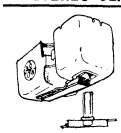
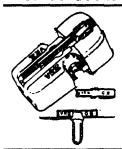
AUDIO COMPONENTS

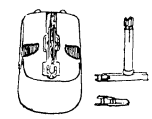
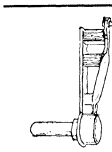
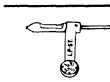
GE ELECTRONICS

CARTRIDGES

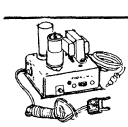
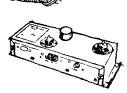
	Cat. No.	Stylus Radius (Inches)	Application	Repl't Stylus	Resistance	Freq. Resp. (Cy/Sec)	Output	Each‡ Price
	VR-1000-5	.0005 Diamond	Stereo	DR-5D	1100 ohms per channel nominal	20-20,000 ±3 db	1 mv per cm/sec min	$29.95
	VR-1000-7	.0005 Diamond	Stereo	DR-7D				24.95
	VR-225	.0007 Diamond	Stereo	VR-221	386 ohms per channel nominal	20-17,000	3.8 cm/sec 5 mv @	17.95
	VR-227	.0007 Diamond	Stereo	VR-222		20-20,000		16.95
	4G-052	.001 Diam and .003 Saph*	Mono		600 ohms nominal	20-20,000	10 mv at 5.5 cm/sec @ 1,000 cycles	16.95
	4G-053	.001 Diam and .003 Diam	Mono					19.95
	4G-061	.001 Diamond	Mono					13.95
	4G-063	.003 Diamond	Mono					13.95
	4G-050	.001 Saph* and .003 Saph*	Mono	4G-01D				12.95
	4G-040	.003 Sapphire*	Mono	4G-02D				9.95
	4G-041	.001 Sapphire*	Mono	4G-03D				9.95
	4GS-01D	.001 Diamond	Mono	4G-01S				13.95
	4GS-02D	.0025 Diamond	Mono	4G-02S				13.95
	4GD-01D-02D	.001 Diam and .0025 Diam	Mono	4G-03S				19.95
	4GD-01D-02S	.001 Diam and .0025 Saph*	Mono					16.95
	4GS-01S	.001 Sapphire*	Mono					9.95
	4GS-02S	.0025 Sapphire*	Mono					9.95
	4GD-01S-02S	.001 Saph* and .0025 Saph*	Mono					12.95
	C100A	.0007 Diam and .003 Saph*	Stereo	TA-1	.....	20-12,000	450 mv	15.90
	C200	.0007 Diam and .003 Saph*	Stereo	TA-1	.....	20-17,000	300 mv	15.90

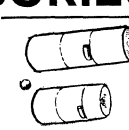
STYLI

	Cat. No.	Stylus Radius (Inches)	Application	Price Each‡
VR-1000 STEREO STYLI				
	DR-7D	.0007 Diamond	Stereo	$ 9.95
	DR-5D	.0005 Diamond	Stereo	11.95
VR-22 STEREO STYLI				
	VR-221	.0005 Diamond	Stereo	$7.95
	VR-222	.0007 Diamond	Stereo	6.95
	VR-223	.0007 Sapphire*	Stereo	2.99
"STEREO CLASSIC" "GOLDEN CLASSIC" STYLI				
	ST-5D	.0005 Diamond	Stereo	$7.95
	ST-7D	.0007 Diamond	Stereo	6.95
	ST-7S	.0007 Sapphire*	Stereo	2.99
VR-11 STYLI				
	4G-01D	.001 Diamond	Monaural	$5.95
	4G-C2D	.0025 Diamond	Monaural	5.95
	4G-03D	.003 Diamond	Monaural	5.95
	4G-01S	.001 Sapphire*	Monaural	2.29
	4G-02S	.0025 Sapphire*	Monaural	2.29
	4G-03S	.003 Sapphire*	Monaural	2.29

	Cat. No.	Stylus Radius (Inches)	Application	Price Each‡
RPX STYLI				
	RPJ-010A	.001 Saph* and .003 Saph*	Monaural	4.95
	RPJ-012A	.001 Diam and .003 Diam	Monaural	11.95
	RPJ-013A	.001 Diam and .003 Saph*	Monaural	6.95
	RPJ-007A	.001 Saph* and .0025 Saph*	Monaural	4.95
	RPJ-011A	.001 Diam and .0025 Diam	Monaural	11.95
	RPJ-01D	.001 Diamond	Monaural	$5.95
	RPJ-02D	.0025 Diamond	Monaural	5.95
	RPJ-03D	.003 Diamond	Monaural	5.95
	RPJ-01S	.001 Sapphire*	Monaural	2.29
	RPJ-02S	.0025 Sapphire*	Monaural	2.29
	RPJ-03S	.003 Sapphire*	Monaural	2.29
	RPJ-004	.001 Diamond	Monaural	$5.95
	RPJ-002	.0025 Diamond	Monaural	5.95
	RPJ-003	.003 Diamond	Monaural	5.95
	RPJ-005	.001 Sapphire*	Monaural	2.29
	RPJ-006	.0025 Sapphire*	Monaural	2.29
	RPJ-001	.003 Sapphire*	Monaural	2.29
TA-1				
	TA-1	.0007 Diamond .003 Saph*	Stereo	$9.95

ACCESSORIES

	Cat. No.	Description	Output Impedance	Frequency Response	Price Each‡
	UPX-003C	Self-powered Phone Preamp 3⅝"W, 3⅝"L, 3⅜"H	At 30 cycles 120,000 ohms At 15,000 cycles	.....	$14.95
	MA-2G	Self-powered FM Stereo Adapter 2¼"W, 10"L, 3"H	1700 ohms 12,000 ohms	50 to 15,000 Cy/Sec ±3db	39.95

	Cat No.	Description	Application	Price Each
	RX109	45-rpm Adapter (Long)	Use with G-E and VM Record Changers	$3.5
	RX209	45-rpm Adapter (Short)		2.5

* All sapphires are synthetic. ‡ Manufacturer's suggested retail price.

GENERAL ELECTRI

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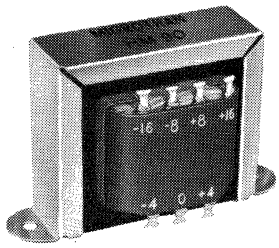
Net

MICROTRAN

PRECISION HI-FI ACCESSORIES

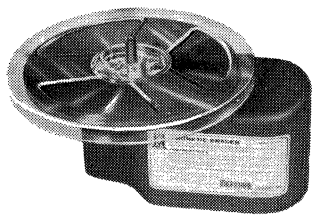
stereo 3rd channel — output matching transformers model HM-90



This precision transformer has been designed for the Audiophile who wishes to convert his Monaural System to Stereo or who wishes to modify or enlarge his Stereo system.

- Permits "hole-in-the-middle" fill in with 3rd Channel Speaker.
- Two HM-90 permits construction of Single cabinet, Single location, stereo system.
- Permits addition of any combination of Monaural or Stereo speakers, regardless of ratings.
- Permits these changes to be made and still maintain matched impedances, required polarities, and desired power levels.
- Power: 30 watts: Peak Power 100 watts.
- Frequency Response (Power): 40 to 20,000 cycles.
- Impedance Range: +16, +8, +4, 0, −4, −8, −16 ohms (Minus sign refers to reversed polarity.)
- Insertion Loss: Less than 1 db. in most hookups. When used on +4Ω and in −4Ω and in −4Ω out Taps, 3 db.
- Simple Connections: Easy to follow instructions show connections to be made to numbered solder lugs for each type of stereo system.
- Finish: Vacuum Varnish impregnation.
- Size: 3¾″ x 2½″ x 2 5/16″ hi; 3⅛″ Mtg. ctrs.
- Weight: 2 lbs.
- Model HM-90—USER NET: $6.33

Magnetic Tape Eraser — Model HD-11M Epoxy Molded

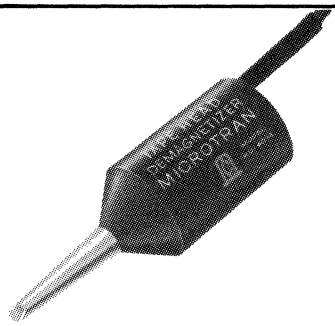


A heavy duty bulk tape demagnetizer that develops a high intensity magnetic field. Erases recorded signals and noise from magnetic tape without rewinding. Saves unnecessary wear on heads and tape. Noise level reduced below level of standard erase heads. Restores tape up to ½″ to like new condition or better.

- Spindle mounting of reel permits rapid thorough coverage without missed spots.
- Reel Size Range: 5″ x 7″ x 10½″.
- Spindle removable for use with other reel sizes.
- Accessory: Adapter hub for use with N.A.B. 10½″ reels.
  (Model HD-11-AD . . . User Net $2.30)
- Universal Use: May also be used for Demagnetizing record Playback-Erase Heads, watches and other metal objects.
- Rating: 117 Volts AC, 5 Amps.
- Finish: Case Epoxy — High impact.
- Size 7″ L x 3½″ W x 3¼″ H.
- Weight: 9 lbs.
- Model HD-11M—USER NET: $18.95

A MUST FOR STEREO RECORDING
Most stereo recorders do not provide facilities for pre-erasing both tracks

Tape Head Demagnetizer — Model HD-40M *(For Tape Recording Heads)*

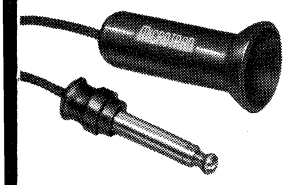


Permanent magnetizing of recording heads during normal use of tape recorders is a common occurrence. Magnetized heads cause high noise level and harmonic distortion.

The HD-40M Head Demagnetizer, when properly used, removes any residual permanent magnetism from the heads. It consists of a heavy duty alternating current electromagnet with an extended pole piece designed for easy access to the recording heads of most tape recorders. When energized, contact of the demagnetizer pole piece with the pole tip of the recording head causes the head to be saturated by an alternating magnetic field. Gradual removal of the head from this saturating field neutralized any residual permanent (DC) magnetism in the recording head.

- Removes permanet magnetism
- Reduces noise level
- Reduces harmonic distortion
- Improves signal to noise ratio
- Insures high frequency response
- Reduces hum of tape head
- Special finish on pole piece prevents marring recording head surfaces
- Rating 117 volts AC, 1 AMP.
- FINISH: High impact molded epoxy
- SIZE: 4″ Long x 1¼″ Diameter
- WEIGHT: 7 ozs.
- Model HD-40M—USER NET: $6.15

telephone pick-up coil — model HP-61



For transcribing telephone conversations with recorder or making messages audible on amplifier. May also be used as probe for locating sources of hum.

- Equalized Level: Local and distant conversations recorded with more constant signal level than base mounted units.
- Suction Cup: Mounting on telephone receiver.
- Universal Model: One unit suitable for all types of telephones.
- Plug-in Use: Supplied with 68″ shielded cable, terminated with standard phone plug for mike input of recorder or amplifier.
- Finish: Optical Black.
- Compact: Size only ⅝″ diameter x 2″ long.
- Weight: 1½ ounces.
- Model HP-61—USER NET: $4.77

hum-bucking telephone pick-up coil — model HP-70

For transcribing telephone conversations, this coil is designed for use with high impedance input tape recorders, amplifiers and dictating machines. This deluxe unit has been designed with symmetrical hum cancelling pick-up coils. Ruggedly constructed of high impact plastic.

- Eliminates high stray hum pick-up usually encountered with conventional pick-up coils.
- Color: Grey.
- Size: 2½″ L x ⅞″ W x ⅝″ H.
- Model HP-70—USER NET: $6.95

- Mounting: Double Suction Cup
- Cable Length: 5 Feet.
- Termination: Tinned Leads
- Shipping Weight: 2 ozs.

As above with Molded Phone Plug Termination.

- Shipping Weight: 3 ozs.
- Model HP-71 USER NET: $7 50.

MICROTRAN company inc.
Valley Stream, New York

Also see EEM pages for additional items and list of franchised distributors.

Net

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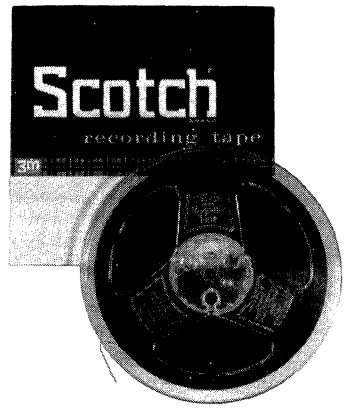
Scotch® Brand Recording Tape



No. 102 All Purpose, Extra Strength: For all general recording—especially suited for irreplaceable recordings or long term storage. On super-tough, weather balanced 1½ mil polyester backing.

No. 111 All Purpose: For all general recording. International standard of the recording industry—provides flawless sound reproduction at low cost. 1½ mil plastic backing.

No. 120 High Output: Over 100% more output, greater dynamic range and freedom from distortion on signal peaks. 1½ mil plastic backing.

No. 131 Low-Print: Reduces print-through (signal transfer from layer to layer) to a point below the noise level of most professional machines. Has excellent recording characteristics and allows long time storage. 1½ mil plastic backing.

No. 138 Low Print, Extra Strength: Same recording qualities as No. 131 on strong 1½ mil polyester backing.

No. 150 Extra Length, Extra Strength: 50% more playing time—withstands temperature and humidity extremes. High potency oxide on 1 mil polyester backing.

No. 175 Heavy Duty Tenzar®: This new, longer-wearing tape shrugs off hard use, rough handling . . . lasts 15 times longer than ordinary tapes. Made with a wear-resistant high potency oxide coating of the type proved exceedingly durable in heavy duty tapes for high speed computers. Available on red, blue, green, yellow or clear reels.

No. 190 Extra Length: 50% more tape—as much recording time as 1½ reels of standard tape. High potency oxide offers complete purity of sound. 1 mil plastic backing.

No. 200 Double Length, Double Strength: As much playing time as two reels of standard tape—enough to record an entire opera, concert or conference. High potency oxide on tensilized polyester backing.

Nos. 201, 202, and 203 LOW NOISE: Low Noise tapes are new products engineered primarily for professional use. Their unique qualities make them especially useful for the mastering and sub-mastering of pre-recorded tapes and records. Available in 1½ mil plastic (No. 201) and polyester backings (No. 202), as well as 1 mil polyester (No. 203).

No. 282 Sandwich: With exclusive micro-thin protective plastic shield over oxide coating. Eliminates oxide rub-off, wears up to 30 times longer, drastically reduces machine maintenance and provides superb sound fidelity. Strong, weatherproof 1½ mil polyester backing.

No. 290 Triple Length: The tape that gives maximum playing time for each reel size. Especially suitable for continuous recording of lengthy conferences, meetings, conventions. ½ mil tensilized polyester backing.

No. 8000 Quick-Load Cartridge: These compact cartridges slip into place in seconds and are ready to play. Completely self-contained. No threading. No loose ends. For use in home, education and industry. Available in 320′ or 560′ of high potency No. 150 tape in transparent or opaque cases.

"Living Letters" Tapes (in Plastic Containers): Three tape lengths available for a variety of uses, providing up to maximum recording time on a 3″ reel. Plastic container provides excellent re-useable mailer or dust-free storage unit.

ACCESSORIES

Empty Self Threading Reel in a Plastic Collar: A tape reel that threads itself. Holds tape firmly, but gently, when you start recorder. Threads up automatically—accommodates all tape thicknesses or leader tape. Reel comes complete with a snap-tight plastic collar that seals reel edges against dust, makes reel self-storing without a box. List Price—7″ reel $1.50.

No. 24 Colored Leader & Timing Tapes: Used to identify ends of tape and selections within a roll. Yellow and White in handy dispenser packages. List Price—¼″ x 100′—$.90.

No. 41 Splicing Tape: A self-sticking tape expressly made for neat noisless splices. On metal dispensers. List Price—½″ x 150″ $.39.

No. 51 Conductive Sensing Tape: For recorders with electroni sensing controls. Sticks tight, stays clean. On dispenser car List Price—7/32″ x 150″ $1.89.

No. 12 End-of-Reel Tape Clips: One clip packed free in eac box. Prevents tape spilling. 10 clips per package—$.35.

Empty Reels and Boxes: Empty 3″, 4″, 5″ and 7″ plastic reel plus boxes, are a must for editing and extra take-up reel need List Price—3″ $.25 to 7″ $.75.

CATALOG NO.	LENGTH	REEL	LIS PRIC
102-¼-600	600′	5″	$ 2.6
102-¼-1200	1200′	7″	4.2
102-¼-2500H	2500′	HUB	8.5
102-¼-2500R	2500′	10½″	11.3
111-¼-150	150′	3″	.7
111-¼-300	300′	4″	1.3
111-¼-600	600′	5″	2.2
111-¼-1200	1200′	7″	3.5
111-¼-2500H	2500′	HUB	7.8
111-¼-2500R	2500′	10½″	10.8
120-¼-300	300′	4″	1.3
120-¼-600	600′	5″	2.2
120-¼-1200	1200′	7″	3.5
120-¼-2500H	2500′	HUB	7.8
120-¼-2500R	2500′	10½″	10.8
131-¼-1200	1200′	7″	4.4
131-¼-2500H	2500′	HUB	9.2
131-¼-2500R	2500′	10½″	12.2
138-¼-1200	1200′	7″	5.1
138-¼-2500H	2500′	HUB	11.1
138-¼-2500R	2500′	10½″	13.9
150-¼-900	900′	5″	3.6
150-¼-1800	1800′	7″	6.2
150-¼-3600H	3600′	HUB	11.4
150-¼-3600R	3600′	10½″	14.3
175-¼-600	600′	5″	2.4
175-¼-1200	1200′	7″	3.7
190-¼-900	900′	5″	3.5
190-¼-1800	1800′	7″	5.5
190-¼-3600H	3600′	HUB	9.8
190-¼-3600R	3600′	10½″	12.8
200-¼-600	600′	4″	3.0
200-¼-1200	1200′	5″	5.4
200-¼-2400	2400′	7″	9.5
200-¼-4800RPS	4800′	10½″	22.0
201-¼-1200	1200′	7″	4.4
201-¼-2500-RO	2500′	10½″	12.2
202-¼-1200	1200′	7″	5.
202-¼-2500-RO	2500′	10½″	13.9
203-¼-1800	1800′	7″	7.2
203-¼-3600-RO	3600′	10½″	17.
282-¼-600	600′	5″	3.
282-¼-1200	1200′	7″	4.9
290-¼-1800	1800′	5″	6.9
290-¼-3600	3600′	7″	11.9
8000-¼-320 C	320′		4.0
8000-¼-560 O	560′		4.
8000-¼-560 C	560′		4.
111-¼-150-LL	150′	3″	.
200-¼-300-LL	300′	3″	1.
290-¼-600-LL	600′	3″	2.

Magnetic Products Division 3M COMP

"SCOTCH", "TENZAR" AND THE PLAID DESIGN ARE REGISTERED TRADEMARKS MINNESOTA MINING AND MANUFACTURING COMPANY, ST. PAUL, MINNESOTA 5

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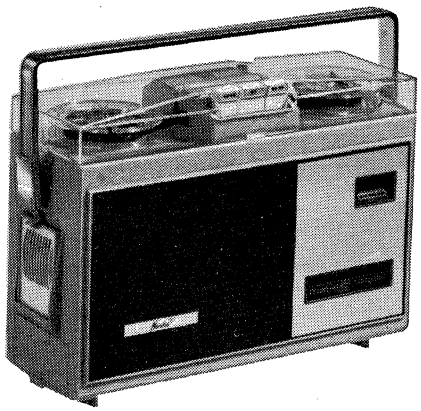
Norelco® 'CONTINENTAL' Tape Recorders

Whether you are a music lover, a recordist or a high fidelity enthusiast, we are confident you will find one of the justly famous Norelco 'Continental' family of professional quality tape recorders ideally suited to your specific recording requirements.

The CONTINENTAL '101' MODEL EL 3586

100% Transistorized, Battery-Operated Portable Tape Recorder



It's here—Exactly the portable you've been waiting for, for candid, on-the-shoulder, split-second recordings of any sound, any voice, anywhere, every time.

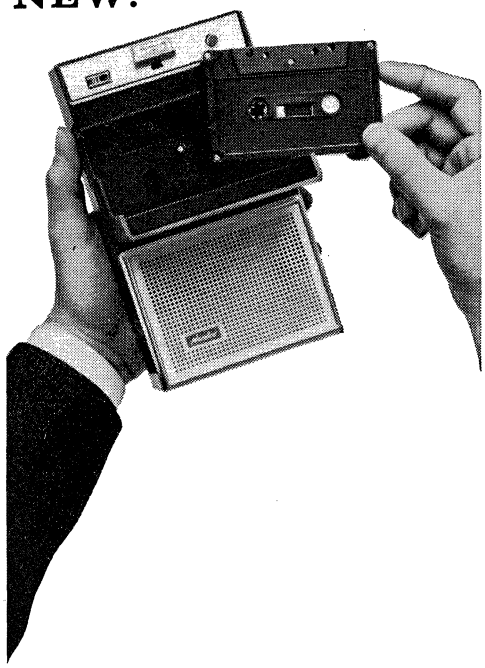
Nothing approaches this recent addition to the Norelco family of tape recorders when it comes to on-the-fly, extra-fidelity recordings of interviews, inventories, lectures, theatrical and musical performances, parties, nature walks, ball games and singing gondoliers. Enclosed in a handsome high-impact polystyrene case, and with its full complement of 6 low cost, (20 hr. recording life) "D" cell batteries, the Continental "101" weighs a mere 7 lbs. Provides up to 2 hours of recording and playback time on a single reel.

OTHER FEATURES AND SPECIFICATIONS: Instantaneous operation, minimum battery drain, small size, superior circuitry—thanks to 100% transistorized construction; **Compatibility**—tapes are fully interchangeable with any constant-speed, 1⅞ ips, 2-track recorder; **Simple operation**—3 self-locking push-buttons handle all recording and play-back functions; **Self-contained—with dynamic microphone** and Norelco 4" speaker; **Combined indicator**—for modulation level and battery life; **Combined volume control**—for recording and playback; Bass-treble control—for setting tone level you want. **Storage space**—for microphone; **Input**—for mike/radio/phonograph; **Output**—for external amplifier; **Tape speed**—1⅞" ips, constant-speed, capstan-drive; **Frequency response**—80-8000 cps; **Signal-to-noise ratio**—better than —40 db; **Size**—11" x 3¾" x 8".

The CARRY-CORDER™ '150'

NEW!

Cartridge Tape Recorder Pocket-Size! Cordless! Revolutionary!



The only moderately priced, miniaturized tape recorder in the world today that gives you professional quality, plus: the convenience of instantaneous snap-in, long-play tape cartridges . . . The simplicity of one master control switch for virtually all operations . . . The fatigue-proof portability of a 35 MM candid camera . . . The multiple advantages of a portable tape recorder and a portable phonograph rolled into one . . . AND, SOUND QUALITY THAT IS NOTHING SHORT OF MIRACULOUS!

SPECIFICATIONS AND FEATURES: Weight—3 lbs. (including batteries); **Size**—7¾" x 4½" x 2¼"; **Cartridge Playing Time**—One hour (½ hour per side); **Tape Speed**—1⅞ ips (constant speed motor, capstan drive); **Fast Forward or Rewind**—70 seconds; **Controls**—One (1) 4-position switch for Start/Stop/Fast-Forward/Fast-Rewind; One (1) Recording Safety Interlock Button; One (1) Recording Volume Dial; One (1) Playback Volume Dial; One (1) remote-control Start/Stop switch (can be used as an integral part of the microphone, or completely independently); **Power Source**—Five (5) ordinary "C" cell flashlight batteries; **Battery Life**—Approximately 20 hours. **Indicators**—One (1) Combined Battery Condition and Recording Level Meter; One (1) Expended-Time Tape Scale; **Input**—One (1) for Microphone, Record Player, Radio, or Second Tape Recorder; **Output**—One (1) to Headphones, Amplifier-Speaker set-up, or Second Tape Recorder; **Frequency Response**—120-6000 cps, ±3 db; **Signal-to-Noise Ratio**—better than —45 db; **Microphone**—omni-directional, moving-coil dynamic, with remote-control start/stop switch; **Carrying Case**—Fitted black vinyl with shoulder strap and microphone pouch (Carry-Corder remains in case while in use); **Tape Cartridges**—set of four (4) included with recorder, (3 un-recorded and 1 pre-recorded demonstration tape); **Patch Cord**—(for hook-up to external sound reproduction and recording sources).

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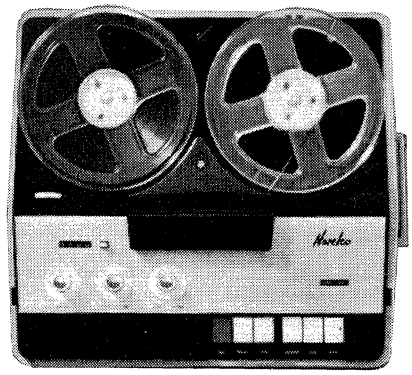
The CONTINENTAL '201' MODEL EL 3528
(Available early '65)



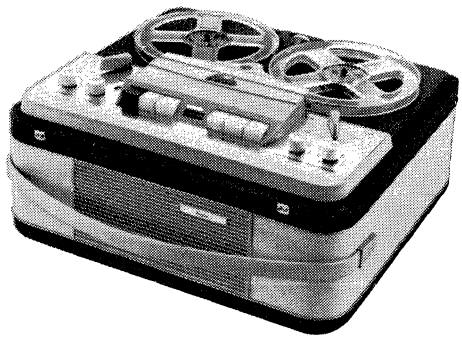
with Dual Preamps for 4-Track Stereo Playback through Radio, Phono or TV Set

Completely self-contained, two-speed, 4-track Mono Record/Playback

The discerning listener can now enjoy a top-quality recorder, newly designed with every built-in feature for home recording and playback, yet stripped of unnecessary features, functions and accessories so that the cost may be kept low.

SPECIFICATIONS AND FEATURES: Tape Speeds—7½, 3¾ ips; **Frequency Response**—60-15,000 cps; **Wow and Flutter**—less than 0.15% rms; **Special Facilities**—Mixing; Pause Button; **Fast Forward and Rewind**—under two minutes for 1,200 ft. of tape; **Audio Facilities**—self-contained recording/playback through radio, phonograph or TV set, loudspeaker (also usable as portable P. A. system); **Input Sensitivity**—0.25 Mv microphone, 130 Mv radio-phono; **Output**—to external power amplifier, for external speaker, headphones and stereo line; **Microphone**—moving-coil dynamic; **Bias & Erase Frequency**—approximately 50 Kc; **Signal-to-Noise Ratio**—better than —40 db; **Weight**—18 lbs.; **Size**—15¾" x 13¾" x 6¾".

The CONTINENTAL '301' MODEL EL 3549



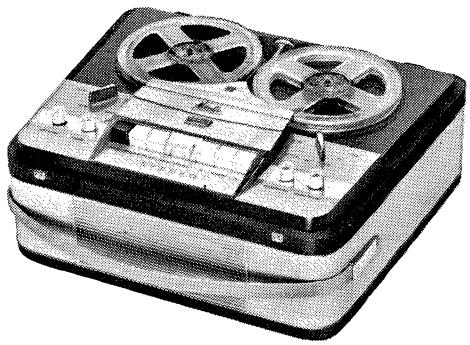
with Dual Preamps for 4-Track Stereo Playback with Radio, Phono or TV Set

Completely self-contained, 4-Speed 4-track Mono Record/Playback

100% transistorized to provide years of carefree, trouble-free performance with no tubes to replace and no warm-up time required ever! Four speeds includes the new super-slow 15/16 ips giving up to 32 hours recording and playback on a single 7" reel of tape! Dual preamps permit stereo playback with radio, phono or TV set as well as with external hi-fi stereo system.

SPECIFICATIONS: Four Speeds—7½, 3¾, 1⅞ and super-slow 15/16 ips, providing up to 32 hours recording time on a single 7" reel; **Four-Track Stereo Playback** with any external amplifier and speaker, through self-contained dual preamps. **Four-Track Mono Record and Playback. Frequency Response**—at 7½ ips, 50-18,000 cps; **Signal-to-Noise Ratio**—better than —48 db; **Wow and Flutter**—at 7½ ips, 0.14%; **Transistor Complement**—OC58 or AC107 (3), OC75 (1), 2N2429 (2), OC44 (2), OC74 (1), OC26 (1), OC79 (1); **Voltage**—117 volts; **Frequency**—60 cps; **Power Dissipation**—55 watts; **Weight**—29 lbs.; **Fast Wind and Rewind**—less than 180 seconds for 1800 feet—7" reel; **Size**—16½" x 15½" x 8¼".

The CONTINENTAL '401' MODEL EL 3534



100% Transistorized, 4-Speed 4-Track Stereo/Mono Record and Playback

◆ fully self-contained with dynamic stereo microphone, two speakers (one in the removable cover for perfect stereo separation), dual hi-fi preamps, and dual recording and playback amplifiers ◆ fully compatible with conventional pre-recorded magnetic tapes ◆ self-contained phono/P.A. system ◆ mixing facilities ◆ interlocking pause button ◆ can also play through external hi-fi amplifier ◆ multiplay facilities ◆ new 4th tape speed of 15/16 ips provides 32 hours of recording on a single 7" reel.

SPECIFICATIONS: Four Speeds—7½, 3¾, 1⅞ and 15/16 ips; **Tracks**—stereo 2 (dual); monophonic 4; **Heads**—Stacked; **Frequency Response**—at 7½ ips, 50-18,000 cps; at 3¾ ips, 60-14,000 cps; at 1⅞ ips, 50-10,000 cps; at 15/16 ips, 60-4500 cps; **Signal-to-Noise Ratio**—better than —48 db; **Wow and Flutter**—less than 0.14% at 7½ ips; **Modulation Indicator**—Meter; **Program Indicator**—Built-in, 4-digit adjustable; **Pause Button**—instantaneous with locking device; **Fast Forward and Reverse**—Less than 2 minutes for 1200 ft. of tape; **Automatic Stop**—At ends of tape (with metalized strips); **Inputs**—(1) for stereo microphone; (2) for stereo phono or tuners; (1) for foot pedal, with facilities for a footswitch control for pause function; **Outputs**—(2) for extension speakers, (1—two channel) for external amplifiers, (1) for stereo headphones; **Microphone**—Stereophonic (dual elements); **Transistor Complement**—AC-107 (4), OC75 (6), OC74 (2), OC44 (2), 2N1314 (2), OC79 (1); **Power Consumption**—65 watts; **Size**—18¼" x 15" x 10"; **Weight**—38 lbs.

NORELCO 'CONTINENTAL' ACCESSORIES (available wherever Norelco 'Continental' tape recorders are sold

DESCRIPTION	MODEL No.	FOR USE WITH
Deluxe Carrying Case	DL 86	101
Texon Carrying Case	CC 86	101
AC Adapter	BE 86, BE 50	101, 150
Remote Mike Switch	RS 86	101
Foot Pedal	FP 86	101, 150
Listening Headset	HP86EL3775/85	101, 150
Close Talking Mike	CTM 86	101, 150

DESCRIPTION	MODEL No.	FOR USE WITH
Telephone Pickup Coil	TP 86	101, 150
Monitoring Headset	EL3775/21	301
Foot Control	EL3984/15	201, 301, 401
Telephone Pickup Coil	TP34/49	301, 401
Stereo Headset	EL3775/37	401
Mike Adapter	2A1048	401
Slide Synchronizer	EL3769/54	ALL MAKES

For complete technical data and detailed descriptions of Norelco 'Continental' Tape Recorders, write:
NORTH AMERICAN PHILIPS COMPANY, INC., High Fidelity Products Division, **New York, N. Y. 1001**

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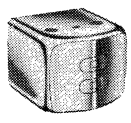
Nortronics® THE COMPLETE SOURCE FOR REPLACEMENT TAPE HEADS

Record/Play and Record Only Heads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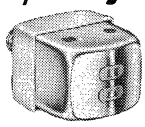
1200 THRU 1249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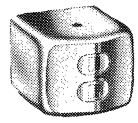
1250 THRU 1299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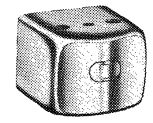
1850 THRU 1899
2050 THRU 2099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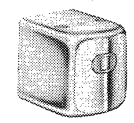
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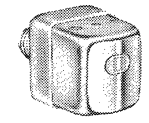
3200 THRU 3249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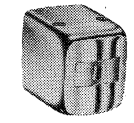
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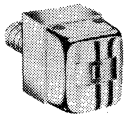
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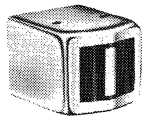
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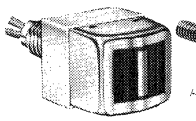
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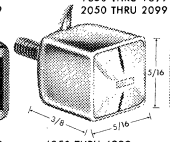
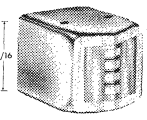


4950 THRU 4999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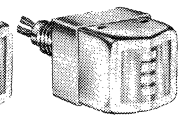
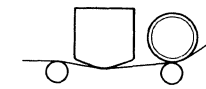

5650 THRU 5699

NEW HYPERBOLIC FACE



available on all R/P heads. Gives improved tape to gap contact on recorders not requiring pressure pads.

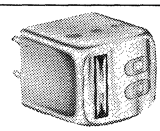
NORTRONICS MODEL NO. NO MOUNT	NORTRONICS MODEL NO. REAR MOUNT	HEAD DESCRIPTION	HEAD FUNCTION	APPLICATION (see notes)	1 KC INDUCTANCE (millihenrys)	1 KC IMPEDANCE (ohms)	MAXIMUM BIAS FREQUENCY (Kilocycles)	DC RESISTANCE (ohms)	NET EACH (No Mount)
1000	1050	STANDARD 4-TRACK STEREO Hyperbolic Metal Face Laminated Cores	Record/Play	1	800	5000	80	700	$21.00
1001	1051		Record/Play	2	400	2500	100	390	21.00
1002	1052		Record/Play	5	100	650	140	90	21.00
1200	1250	PREMIUM 4-TRACK STEREO Hyperbolic Metal Face Laminated Cores	Record/Play	1	800	5000	80	700	$28.20
1201	1251		Record/Play	2	400	2500	100	390	28.20
1202	1252		Record/Play	5	100	650	140	90	28.20
1203	1253		Record Only	6	50	320	250	90	28.20
1205	1255		Record Only	3	200	1300	120	390	28.20
1207	1257		Record/Play	4	200	1300	120	200	28.20
1800	1850	STANDARD 2-TRACK STEREO Hyperbolic Metal Face Laminated Cores	Record/Play	1	800	5000	60	720	$23.30
1801	1851		Record/Play	2	400	2500	100	410	23.30
1802	1852		Record/Play	5	100	650	100	130	23.30
2000	2050	PREMIUM 2-TRACK STEREO Hyperbolic Metal Face Laminated Cores	Record/Play	1	800	5000	60	720	$30.30
2001	2051		Record/Play	2	400	2500	100	410	30.30
2002	2052		Record/Play	5	100	650	100	130	30.30
2003	2053		Record Only	6	50	320	200	130	30.30
2600	——	PREMIUM 2-TRACK MONO Hyperbolic Metal Face Laminated Cores	Record/Play	1	800	5000	60	400	$15.90
2601	——		Record/Play	2	400	2500	100	165	15.90
2602	——		Record/Play	5	100	650	100	70	15.90
2603	——		Record Only	6	50	320	200	70	15.90
3000	3050	STANDARD 2-TRACK MONO Hyperbolic Metal Face Laminated Cores	Record/Play	1	800	5000	60	400	$8.40
3001	3051		Record/Play	2	400	2500	100	165	8.40
3002	3052		Record/Play	5	100	650	100	70	8.40
3100	3150	2-TRACK MONO—CENTER TRACK Cylindrical Metal Face Solid Cores	Record/Play	1	1000	6300	60	625	$8.40
3101	3151		Record/Play	2	400	2500	80	350	8.40
3200	3250	PREMIUM 2-TRACK MONO Hyperbolic Metal Face Laminated Cores	Record/Play	1	800	5000	60	400	$15.90
3201	3251		Record/Play	2	400	2500	100	165	15.90
3202	3252		Record/Play	5	100	650	100	70	15.90
3203	3253		Record Only	6	50	320	200	70	15.90
4100	4150	PREMIUM FULL-TRACK Hyperbolic Face Laminated Cores	Record/Play	2	250	1500	60	200	$34.70
4101	4151		Record Only	6	70	400	100	125	34.70
——	4950	MINIATURE	Record/Play	5	40	250	150	125	$14.00*
5601	5651	PREMIUM 4-CHANNEL Hyperbolic Metal Face Laminated Cores	Record Only	6	50	320	220	150	$99.00
5602	5652		Record/Play	5	90	600	220	100	99.00
5603	5653		Record/Play	2	370	2200	80	690	99.00

Note: Add $1.50 for Rear Mount except on 4950. Add $6.00 for Rear Mount on 5650 Series. *(Rear Mount)

APPLICATION NOTES

1. High-impedance general-purpose Record/Play or Play Only head for vacuum-tube circuits.
2. Medium-impedance Record/Play head for vacuum-tube or transistor circuits.
3. Medium-impedance Record Only head for vacuum-tube circuits.
4. Medium-low-impedance Record/Play head for transistor circuits.
5. Low-impedance Record/Play head for transistor circuits.
6. Low-impedance Record Only head for vacuum-tube or transistor circuits.

"Combo" Heads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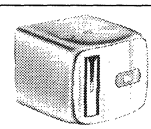
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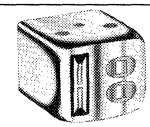
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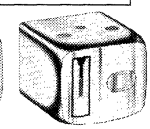
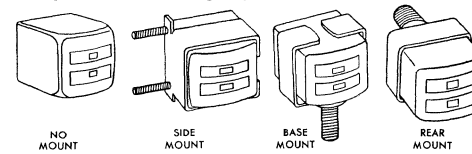

6125 THRU 6149

NORTRONICS MODEL NO. (NO MOUNT)	HEAD DESCRIPTION	HEAD FUNCTION	EQUIVALENT HEAD SPECIFICATION REFERENCE		NET EACH
6000	4-TRACK STEREO Metal Face "COMBO"	Erase, Record/Play	Record/Play = 1201	Erase = 1400	$33.00
6001		Erase, Record Only	Record Only = 1203	Erase = 1400	33.00
6002		Erase, Record/Play	Record/Play = 1201	Erase = 1401	33.00
6003		Erase, Record/Play	Record/Play = 1000	Erase = 1402	33.00
6025	4-TRACK MONO Metal Face "COMBO" Center Track	Erase, Record/Play	Record/Play = 1000	Erase = 1402	$18.00
6100	2-TRACK STEREO Metal Face "COMBO"	Erase, Record/Play	Record/Play = 2001	Erase = 2201	$36.00
6125	2-TRACK MONO Metal Face "COMBO" Center Track	Erase, Record/Play	Record/Play = 2601	Erase = 3601	$21.00

ADDITIONAL MOUNTING STYLES

NO MOUNT	SIDE MOUNTS	BASE MOUNTS	NET EACH
ALL ERASE HEADS	QUIK-KIT 18	QUIK-KIT 19	$1.00
3000 THRU 3049 3100 THRU 3149 3200 THRU 3249	QUIK-KIT 20	QUIK-KIT 21	$1.00
ALL OTHER RECORD/PLAY, RECORD ONLY, AND PLAY ONLY HEADS	QUIK-KIT 38	QUIK-KIT 66	$1.00

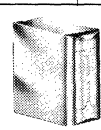
Examples of Mounting Styles Available



Erase Heads

1400 THRU 1449

1450 THRU 1499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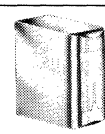
2250 THRU 2299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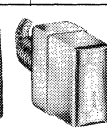
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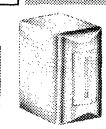
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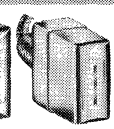
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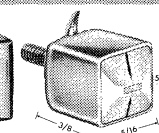

5350

MINIATURE

#4950 and 5350 for use with magnetic drums and discs, film stripes and miniature recorders. 5/16" x 5/16" x 3/4" with all-metal face.

NORTRONICS MODEL NO. NO MOUNT	NORTRONICS MODEL NO. REAR MOUNT	HEAD DESCRIPTION	1 KC INDUCTANCE (millihenrys)	60 KC IMPEDANCE (ohms)	OPERATING ERASE CURRENT* (milliamps)	DC RESISTANCE (ohms)	60 KC OPERATING VOLTAGE (volts)	NET EACH (No Mount)
1400	1450	4-TRACK STEREO ERASE Metal Face	80	30,000	3-5	270	90-150	$12.00
1401	1451		10	2,800	10-15	40	28-42	12.00
1402	1452		.13	40	80-140	2	3-6	12.00
2200	2250	2-TRACK STEREO ERASE Metal Face	80	25,000	4.5-7.0	205	100-150	$12.00
2201	2251		8	2,000	16-24	35	32-48	12.00
2202	2252		.20	50	100-150	2	5-8	12.00
3600	3650	2-TRACK MONO ERASE Metal Face	80	25,000	4.5-7.0	205	100-150	$ 8.00
3601	3651		8	2,000	16-24	35	32-48	8.00
3602	3652		.20	50	100-150	2	5-8	8.00
4400	4450	FULL-TRACK MONO ERASE Metal Face	40	12,000	10-15	88	100-150	$14.00
4401	4451		3.6	1,000	32-48	25	32-48	14.00
	5350	MINIATURE	.5	1,200	28-42	38	32-48	$12.00†

*60 db erasure of saturated tape. Voltages shown are RMS.

NOTE: Add $1.50 for Rear Mount except on 5350. †(Rear Mount)

All specifications subject to change without notice.

Net

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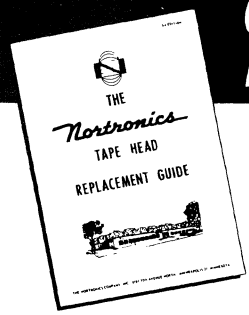
OPEN UP NEW SALES AND SERVICE BUSINESS WITH NORTRONICS TAPE HEAD REPLACEMENT PROGRAM!



With Nortronic Tape Head Replacement Guide—WHICH SPECIFIES REPLACEMENT FOR 440 TAPE RECORDERS BY MANUFACTURER AND MODEL NUMBER—it's easy for you to satisfy customer requests for tape head replacements and accessories.

SEND FOR YOUR FREE COPY OF THIS EXCLUSIVE GUIDE . . . GET FULL DETAILS ON HOW YOU CAN PARTICIPATE IN THIS MONEY-MAKING PROGRAM!

See your local Nortronics Representative or write: Thor Johnson, Distributor Sales Manager

■ Tape Recording Accessories

QUIK-KIT 74 Adjustable Head Mounting Assembly. Unique design permits alignment of head for height, face and azimuth. Two TG-7 Guide Posts can be added if desired; if space does not permit, tabs for guide posts can be snapped off. Base has hole for mounting on recorder. For all Nortronics *no mount* Record, Play or Record/Play heads *except* 3000 thru 3299 Series and miniature heads. Base size (with tabs): 1 1/16" W, 1 27/32" L. Without tabs: 1 1/16" W, 1 7/32" L. . . . . Net Each **$2.25**

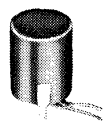
QUIK-KIT 77 Adjustable Head Mounting Assembly. Identical to Quik-Kit 74 (including dimensions) but for *no mount* heads in 3000 thru 3299 Series. Net Each **$2.25**

QUIK-KIT 78 Adjustable Head Mounting Assembly. Identical to Quik-Kit 74 (including dimensions) but for *no mount* erase heads. . . . . Net Each **$2.25**

AT-100 AZIMUTH AND AMPLIFIER ALIGNMENT TAPE
A 7.5 I.P.S. full-track master professional tape. It contains frequencies from 40 to 10,000 cycles for checking azimuth and equalization. Full instructions are on the tape. . . . . Net Each **$4.95**

TAPE RECORDER ACCESSORIES

NORTRONICS NUMBER	DESCRIPTION	NET EACH
L-5	L-bracket for side-mount heads.	$ .50
L-6	As above but with narrow base.	.70
TG-7	Tape Guide Post. Vertically adjustable with tapped mounting hole in base. Chrome-Plated brass for long life.	1.00
TG-8	Tape Guide Plate. For side-mount heads and L-5 or L-6 bracket; gives additional guiding.	.50



BIAS OSCILLATOR TRANSFORMERS

T60T2—For transistor circuits. Features Ferrox-cube E-core for high Q, maximum efficiency and distortion-free waveform. Supplies 40-120 volts at 60-100 kc. With instructions. Net Each **$4.50**

T60F—Oscillator for 12AU7 tube circuits. Supplies 40-120 volts at 60-100 kc. to Nortronics Erase and Record heads. With instructions. . . . . Net Each **$4.50**

NORTRONICS CONVERSION KITS

FOR WEBCOR

W-6—Converts older 2800, 2900 and 2000 Series (except 2020 Series) to 4-track stereo Play, retaining all existing monophonic Record and Play functions. Convenient, head-shifting assembly, fully assembled. . . Net Each **$36.00**

W-2—Converts older 210, 2020, 2100, 2600 and 2700 Series to 4-track stereo Play. . . . . Net Each **$27.00**

FOR WOLLENSAK-REVERE

WR-30—Converts all monophonic Wollensak and Revere tape recorders to full-track Record/Play, fully assembled. . . . . Net Each **$57.00**

WR-35—Retains monophonic Record/Play capabilities — converts 2-track stereo to 4-track stereo Play, fully assembled. . . . . Net Each **$25.50**

WR-40—Complete assembly converts monophonic machines to monophonic Record/4-track stereo Play, fully assembled. . . . . Net Each **$32.50**

WR-60—Positive shifter provides four-channel monophonic Record/Play, 2 and 4-track stereo Erase/Record (with second channel record pre-amp). Complete assembly, fully assembled. . . . . Net Each **$49.50**

CONVERSION KITS (CONTINUED)

FOR PENTRON

P-6—Retains monophonic Record/Play capabilities—converts monophonic to 4-track stereo Play. . . . . Net Each **$29.70**

P-7—4-track stereo Erase conversion kit replaces monophonic Erase. . . . . Net Each **$15.00**

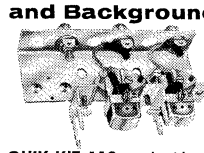
FOR VM

V-6—Retains monophonic Record/Play capabilities—converts monophonic to 4-track stereo Play. . . . . Net Each **$25.50**

V-7—4-track stereo Erase conversion kit to replace monophonic Erase. . . . . Net Each **$14.50**

RPE-20—Direct replacement monophonic Record/Play and Erase kit for Wollensak-Revere. Complete assembly mounted on a special plate, wired and ready to install. . . . . Net Each **$15.60**

■ New Cartridge Mount for Broadcasting and Background Music Cartridge Players



Designed for Fidelipac or Viking Cartridges, this new head bracket assembly eliminates the need for rear mount heads! Provides complete "Micrometer" type alignment. Heads are replaced by quick-release screw clamp. *Supplied less heads.*

QUIK-KIT 110 used with all 1000, 1200, 1800, 2000, 2600 and 4100 Series heads. . . . . Net Each **$11.10**
Order Model 2002 head for Gates M6211 and M6213.

QUIK-KIT 111 used with all 3000, 3100 and 3200 Series heads. . Net Each **$11.10**
Order Model 3201 head for ATC, Collins, Macarta, RCA, Spotmaster, Sparta, Tapecaster and Gates M5944.

■ Direct Replacement Using Rear-Mount Heads

Model 3251—Premium 2-track monophonic R/P head used for direct replacement on the following machines: ATC, Collins, Macarta, RCA, Spotmaster, Sparta, Tapecaster, Gates M5944; and as a replacement head for Robins-M/M 3FM20. . . Net Each **$17.40**

Model 2052—Premium 2-track stereo R/P head used for direct replacement on Gates M6211 and M6213. . . . . Net Each **$31.80**

■ Cross-Reference for Robins-Michigan/Magnetics and Shure Bros. Tape Heads

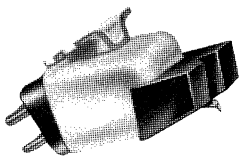
NORTRONICS MODEL NO.	QUIK-KIT NO.	DESCRIPTION	NET EACH* (Not Including QK)
		ROBINS-M/M Type	
1851	—	3F20-101	$24.80
1801	'66	3F20-105	23.30
3251	—	3FM20-104, 3FM20-108	17.40
3001	20	3L20	8.40
1800	38	5B20LS, 7B17, 10B20LS	23.30
1000	38	5Q17, 5Q17-105	21.00
1000	103	5QT17, 5QT17-105	21.00
3000	20	7L17, 7L17-108, 10L17-104	8.40
3601	18	5S1, 5S1-103, 7EM12A	8.00
2201	18	5SS1	12.00
1401	18	9QE3	12.00
3600	18	40EM12	8.00
6002	38	5AV17	33.00
		ROBINS-SHURE Type	
RPE-23	—	5TRB	$15.60
		SHURE BROTHERS Type	
RPE-23	—	815, TR5, TR5B, TR5B-J, TR5D, TR5H	$15.60
RPE-24	—	815H, TR5C, TR5K, TR5L, TR5Z-1, TR5Z-2J	15.60
3101	20	817, TR16A, TR16-J, TR21C-J	8.40

*Quik-Kit numbers, when shown, indicate additional required mounting hardware. Order separately, using ADDITIONAL MOUNTING STYLES TABLE on opposite page.

Pickering

FOR THOSE WHO CAN HEAR *THE DIFFERENCE*

THE WORLD'S LARGEST AND MOST EXPERIENCED MANUFACTURER OF MAGNETIC PICKUPS



the new
V-15
MICRO-MAGNETIC*
"engineered application"
SERIES

Whether it's record changer, automatic turntable, or professional type manual turntable APPLICATION, PICKERING has ENGINEERED the RIGHT V-15 pickup for each. All four of these pickups are radically different from any other cartridge. Super-lightweight—only 5 grams! Perfect for low mass tone arm systems. Complete with PICKERING'S Exclusive "floating stylus" and patented replaceable V-GUARD stylus assembly** that protects your record and your diamond as it plays.

V-15 / AC-1 **FOR RECORD CHANGERS** where high output and heavier tracking forces are required—3 to 7 grams.

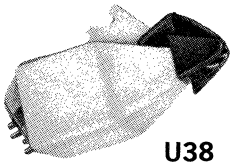
V-15 / AT-1 **FOR AUTOMATIC TURNTABLES** that operate with lighter tracking forces and in systems that require higher output. 1 to 5 grams tracking force.

V-15 / AM-1 **FOR MANUAL TURNTABLES** and High quality systems where low mass, high compliance and very light tracking forces are demanded, ¾ to 3 gram tracking force.

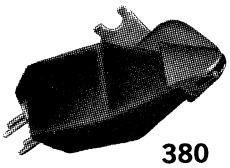
V-15 / AME-1 **ELLIPTICAL STYLUS** pickup for manual and late model automatic turntables will give distortion-free performance thru its unequalled tracking ability. ¾ to 3 grams tracking force.

SEE CHART BELOW FOR TECHNICAL SPECIFICATIONS

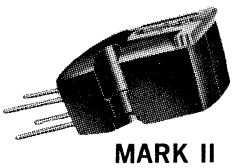
PICKERING'S FAMOUS "FLOATING STYLUS" STEREO CARTRIDGES



U38



380



MARK II

U38 SERIES STEREO CARTRIDGE designed expressly for automatic turntables, featuring high output and a rugged stylus assembly Tracking forces in two models for todays light tracking and tripping automatics.

U38/AT **FOR STANDARD OPERATION** 2 to 5 gram tracking force.

U38/ATG **FOR FEATHERWEIGHT OPERATION** 1 to 3 gram tracking force.

SEE CHART BELOW FOR TECHNICAL SPECIFICATIONS

380 SERIES **380 SERIES STEREO CARTRIDGE** a very high output magnetic pickup designed for use in record changers and manual turntables. Mu-Metal shielding permits use where hum problems demand a very high signal-to-noise ratio. Equipped with replaceable V-GUARD stylus assembly.
380C FOR RECORD CHANGERS 4 to 7 grams tracking force.
380A FOR MANUAL TURNTABLES 2 to 5 grams tracking force.

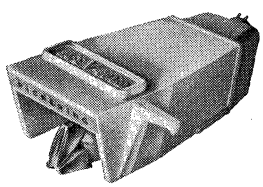
SEE CHART BELOW FOR TECHNICAL SPECIFICATIONS

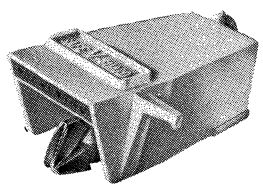
MARK II **MK 11 STEREO CARTRIDGE** a low cost, high quality magnetic cartridge for the budget-minded audiophile. Built to the exacting quality control standards that have made PICKERING world famous, Convenient T-GUARD stylus assembly permits simple replacement.
MK 11C FOR RECORD CHANGERS 4 to 7 grams tracking force.

SPECIFICATIONS

	V-15 AME-1	V-15 AM-1	V-15 AT-1	V-15 AC-1	U38/AT	U38/ATG	380A	380C	MK II C
Frequency Response	20 to 20,000 CPS	20 to 20,000 CPS	20 to 20,000 CPS	20 to 20,000 CPS	20 to 20,000 CPS	20 to 20,000 CPS	20 to 17,000 CPS	20 to 17,000 CPS	20 to 15,000 CPS
Nominal Output See Note 1	5.5 mv	5.5 mv	7.5 mv	8.0 mv	11.0 mv	11.0 mv	11.5 mv	18.0 mv	7.5 mv
Channel Separation	35 db	35 db	35 db	35 db	35 db	35 db	35 db	35 db	20 to 25 db
Tracking Force See Note 2	¾ to 3 grams	¾ to 3 grams	1 to 5 grams	3 to 7 grams	2 to 5 grams	1 to 3 grams	2 to 5 grams	4 to 7 grams	4 to 7 grams

Note 1: Output with reference to 5.5 cm/sec standard record velocity
Note 2: Recommended by manufacturer for optimum performance





PLUG-IN HEADS FOR GARRARD

Premounted and prewired U38 cartridges in a shell of exclusive PICKERING design. Simply plug-in and your Garrard is ready to play.

STANDARD OPERATION

GA/38AT For Garrard Type A 2 to 5 grams tracking force

G6/38AT For Garrard Model AT6 2 to 5 grams tracking force

FEATHERWEIGHT OPERATION

GA/38ATG For Garrard Type A 1 to 3 grams tracking force

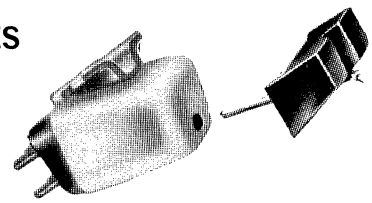
G6/38ATG For Garrard Model AT6 1 to 3 grams tracking force

© U.C.P., Inc.

Pickering EXCLUSIVE "FLOATING STYLI" FOR PICKERING CARTRIDGES

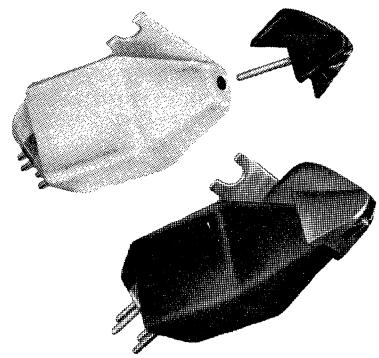
REPLACEMENT STYLUS CHART

V-GUARD FOR V-15 SERIES



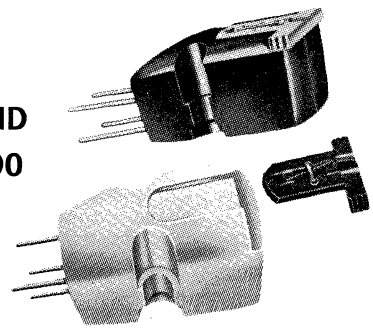
MODEL	APPLICATION	RADIUS	COLOR
D1507AC	STEREO-MONO 3 TO 7 GRAMS	.7 mil	Red
D-1507AT	STEREO-MONO 1 TO 5 GRAMS	.7 mil	Black
D1507AM	STEREO-MONO ¾ TO 3 GRAMS	.7 mil	Gold
D1507AME	STEREO-MONO ¾ TO 3 GRAMS	.7 mil	Brown
D1510	MONO 1 TO 5 GRAMS	1.0 mil	White
D1527	78 RPM 3 TO 7 GRAMS	2.7 mil	Blue

V-GUARD FOR U38 AND 380 SERIES



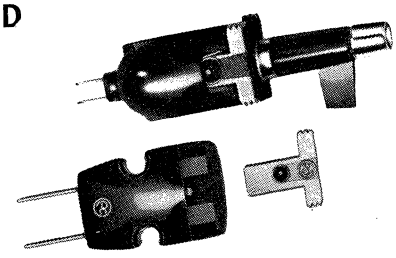
D3807ATG	STEREO-MONO 1 TO 3 GRAMS	.7 mil	Gold
D3807AT	STEREO-MONO 2 TO 5 GRAMS	.7 mil	Black
D3807A	STEREO-MONO 2 TO 5 GRAMS	.7 mil	Yellow
D3807C	STEREO-MONO 4 TO 7 GRAMS	.7 mil	Red
D3810A	STEREO-MONO 2 TO 5 GRAMS	1.0 mil	Gray
D3810C	MONO 4 TO 7 GRAMS	1.0 mil	White
D3827C	78 RPM 4 TO 7 GRAMS	2.7 mil	Blue

T-GUARD FOR MK 11 AND STEREO 90 SERIES



D3707A	STEREO-MONO 3 TO 5 GRAMS	.7 mil	Yellow
D3707C	STEREO-MONO 4 TO 7 GRAMS	.7 mil	Red
D3710A	MONO 3 TO 5 GRAMS	1.0 mil	Gray
D3710C	MONO 4 TO 7 GRAMS	1.0 mil	White
D3727C	78 RPM 4 TO 7 GRAMS	2.7 mil	Blue
D9007C	STEREO-MONO 4 TO 7 GRAMS	.7 mil	Black

T-GUARD FOR 350 AND 370 SERIES



D3510	MONO 2 TO 6 GRAMS	1.0 mil	Red
D3505	MONO 2 TO 6 GRAMS	0.5 mil	Green
D3527	MONO 2 TO 6 GRAMS	2.7 mil	Yellow

PICKERING & CO., INC., PLAINVIEW, LONG ISLAND, N.Y

*MICRO-Magnetic is a Trademark of Pickering & Co.

**U.S. Patent #2,917,590

Printed in U.S.A.

*Only **PICKERING & CO., INC.** manufactures the genuine V-GUARD and T-GUAR stylus assemblies used in the Stereo Fluxvalve which is covered under the followin patents: U.S. #2,917,590; Great Britain #783,372; Canada #605,673; Japa #261,203; and other patents are pending throughout the world.

Export: Ad Auriema, 85 Broad St., New York
Canada: C. W. Pointon Ltd., 66 Racine Road, Rexdale, Ontario, Canada

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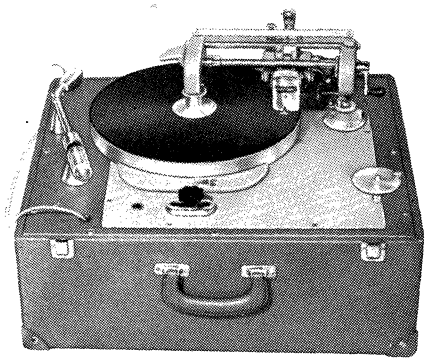
KOSS | REK-O-KUT PROFESSIONAL DISC-CUTTING EQUIPMENT



$750.00* net complete

NEW IMPERIAL II
RECORD CUTTER AND PLAYBACK UNIT

MOTOR: Custom built Hysteresis Synchronous motor fitted with lamitex drive pulley. Suspended in shock mounts to prevent transmission of motor vibration.

RECORDING AREA: Records from 6" up to 13¼" masters.

SPEEDS: Simple, finger-tip speed control. Records at both 33⅓ and 45 R.P.M. Includes Idler and Adapter for 78 R.P.M. recordings.

OVERHEAD RECORDING LATHE: Model M-12S Lathe. **HAND CRANK** for run-in and run-off spiral grooves. **PROVISION FOR INTERCHANGING LEADSCREWS** for Standard and Microgroove. Equipped with standard 120 line leadscrew. **LIFTOMATIC SAFETY CAM** prevents double cutting and stylus damage. Automatically raises cutter as center of disc is approached. **CALIBRATED SCALE FOR TIMING.**

RECORDING HEAD: Model RH-5 response from 30-13,000 cycles.

PLAYBACK ARM: Rek-O-Kut Tonearm for records up to 13¼" with dual-sapphire magnetic cartridge.

RECORDING AMPLIFIER UNIT

R8B AMPLIFIER SPECIFICATIONS

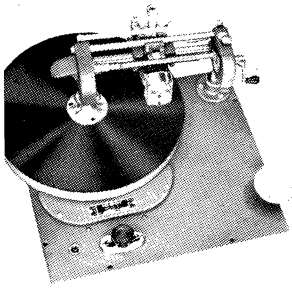
OUTPUT: 20 watts.
RESPONSE: ±2db from 20 to 20,000 cps at full output.
HARMONIC DISTORTION: .3% @ 1,000 cps at full output.
INTERMODULATION DISTORTION: .8% at full output.
HUM LEVEL: (below rated output) Tape—60db; Mike—64db; Phone—61db.
4 INPUTS: Microphone, tape and phono-mixing, plus tuner (high level).
CONTROLS: Phono, microphone and tape level, master volume, bass ±22db @ 50 cps), treble (±20db @ 15 kc), playback-recording switch, power switch.
RECORDING LEVEL INDICATION: Damped volume unit type meter with special calibrated scale.
OUTPUTS: Speaker and cutter (16, 8 and 4 ohms). Monitor (for use with high impedance headphones), pre-amp (2,000 ohms).
TUBES: 2—6973; 1—6AN8.
TRANSISTORS: 3—2N408; 5—2N406.
RECTIFIERS: 1N2071 Silicon.
PREAMPLIFIER SECTIONS: Completely transistorized.
POWER REQUIREMENTS: 115 watts, 117 VAC, 50-60 cps.
VINYL COVERED CARRYING CASES with storage lid and handle.

Size:
Height: 7"
Depth: 10"
Length: 20½"

Weight:
R8B Amplifier: 25 lbs.
Recorder: 45 lbs.

PRICES: IMPERIAL II COMPLETE ..... net **$750.00***
Disc Recorder, less amplifier
MODEL DR ..... net **$530.00***
Case for Model DR Disc Recorder
MODEL C-DR ..... net **$ 50.00***
Recording Amplifier
MODEL R8B (can be rack mounted) ..... net **$250.00***
Case for R8B Amplifier
MODEL C-B ..... net **$ 25.00***
ACCESSORIES AVAILABLE:
Portable dual speaker set
MODEL SPK-44 ..... net **$ 79.95***
Also available are headphones and microphones.

MODEL TR-43H 2 SPEED (33-45)

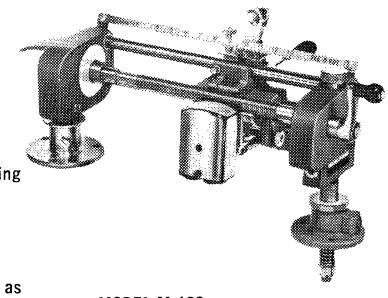


12" RECORDING TURNTABLE
With Accessory Idler for 78 rpm Speed

NET PRICE:
$175.00*
(Less Lathe & Cutter)

esign and construction of the Model TR-43H is similar to he Rek-O-Kut 16" professional recording tables. The Model M-12S Overhead Recording mechanism is mounted to the hassis in a few moments.
HASSIS: Cast ribbed aluminum drilled to accommodate the M-12S Lathe.
DLERS: Neoprene compound for maximum traction.
ILING: Shafts and bearings are self-oiling. Require infrequent lubrication.
PEEDS: Instantaneous speed shift engages either 45 or 33⅓ rpm idlers.
INISH: Gray wrinkle.
IMENSIONS: Front to back 16½"; width 16"; height above motor board 1⅜"; depth below motor board 5".
HIPPING WEIGHT: 20 bs.

MODEL M-12S
12" OVERHEAD LATHE



This professional lathe is designed to very exacting specifications and features the following:
- Interchangeable Leadscrews.
- Hand-crank for run-in and run-off Spiral Grooves.
- Timing Scale.
- Accommodate Standard Cutting Heads.
- Depth of Cut Adjustment.

LIFT-O-MATIC: Automatically lifts cutter from disc as it approaches end of lead-screw
Designed for instantaneous replacement of the M-12.
Supplied with 120-line leadscrew

MODEL M-12S
less cutter
NET PRICE **$160.00***

LEADSCREWS FOR OVERHEAD LATHES

Lines/inch	Model M-5S	Net Price	Lines/inch	Model M-12S	Net Price	Lines/inch	Model M-12	Net Price
120	MS-120	$39.95	120	M12S-120	$35.95	120	M12-120	$19.95
—	—	—	—	—	—	—	—	—
210	MS-210	49.95	210	M12S-210	44.95	210	—	—
216	—	—	216	—	—	216	M12-216	29.95
240	MS-240	49.95	240	M12S-240	44.95	240	M12-240	29.95
270	MS-270	49.95	270	M12S-270	44.95	270	—	—

Leadscrews of 210 lines/inch or more = microgroove.

MODEL RH-5 CUTTER . . . $125.00 net

For use with Rek-O-Kut overhead lathes. Designed for vertical mounting—can be fitted to standard lathe brackets other than Rek-O-Kut.

SPECIFICATIONS

mpedance: 8-15-500 ohms. **Sensitivity:** Approximately 1.8 watts at 1000 cycles or 6.3 cm/sec peak recorded velocity **Frequency Response:** ±2 db from 1000 to over 13,000 cycles. From 1000 down to 30 cycles. Built-in attenuation per R.I.A.A. curve within 2 db. **Distortion:** 1.2% at 1000 cps. **Mounting:** Universal mounting for most lathes. 1⅛" between mounting holes of cutter. **Stylus:** Short shank steel or sapphire ⅝" overall stylus length. (Stylus not supplied.)

The policy of Rek-O-Kut Co., Inc., is one of continual improvement in design and manufacture. Hence, we reserve the right to change specifications and design without notice.

***All prices slightly higher West of Rockies.**

Export: Morhan Exporting Corp., 458 B'way, N.Y.C. Canada: Atlas Radio, 50 Wingold Ave., Toronto 19

Net

© U.C.P., Inc.

KOSS | REK-O-KUT TURNTABLES, TONEARMS and STEREOPHONES

MODEL R-34 TWO SPEED TURNTABLE

A complete turntable, tonearm (Model S-340) and base unit. This unit uses an isolation suspension system, totally eliminating acoustic feedback, reducing vertical rumble to a negative factor.

SPECIFICATIONS

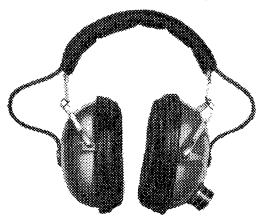
Speeds: 33⅓ rpm and 45 rpm
Noise Level: —60 db below average recorded level (@ 7 cm/sec @ 1000 cps).
Wow and Flutter: .08% RMS
Motor: hysteresis synchronous with lifetime lubrication.
Rekothane Belt: molded to Rek-O-Kut specifications.
Turntable: one-piece cast aluminum, 12", professional quality, dynamically balanced, weighted rim.
Finish: grey deck plate, aluminum tonearm, oil-walnut base
Instant Speed Selector: changes speed from 33⅓ rpm to 45 rpm
Dimensions: (with Rek-O-Kut tonearm) 15" wide x 14⅝" deep x 5½" high.
Net Price: **$89.95**

MODEL B-12H/B-12GH 3-SPEED TURNTABLE

Ideal for broadcasting studios, professional musicians and record collectors.

SPECIFICATIONS

Speeds: 33⅓ rpm, 45 rpm, 78 rpm
Noise Level: —59 db below average recording level (B-12GH: —57 db)
Wow and Flutter: 0.085% RMS. (B-12GH: 0.09% RMS.)
Motor: B-12H: custom-built computor type heavy-duty hysteresis synchronous motor. B-12GH: high efficiency hysteresis synchronous motor, lifetime lubrication.
45 rpm Hub: removable
Pilot Light: neon light acts as "on/off" indicator.
Finish: grey and two-tone aluminum
Deck Dimensions: 14" x 15-22/32"
Minimum Dimensions: (for cabinet installation) B-12H: 17¾" wide x 16" deep x 3" above deck x 6¼" below deck. B-12GH: same as B-12H, but 4¾" below deck
Net Price: B-12H **$165.00** B-12GH **$109.95**

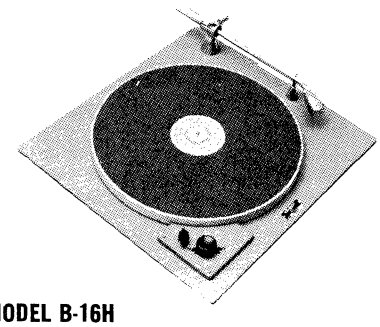


MODEL PRO-4 STEREOPHONES

Engineered to meet the most rigid requirements. Shatter-proof and shock-proof. Adjustable, spring steel headband and fluid filled ear cushions designed to fit head contour, thus forming a more efficient seal for almost complete attenuation of ambient noise. High quality drivers mounted in acoustically designed enclosures provide unusually smooth frequency response. Removable cushions can be cleaned with soap and water.

SPECIFICATIONS

Frequency Response: 30-20,000 cps.
Impedance: 50 ohms. Can be used with systems having 4, 8 or 16 ohm output taps. Use 4 ohm tap if available. 600 ohms can be obtained on special order. Specify Model No. PRO-600.
Maximum Input: designed to function with amplifiers capable of delivering up to 60 watts per channel. Distortion: less than 1% at maximum output of 120 db S. P. L. Weight: 19 ounces. Shipping Weight: 2 pounds.
Net Price **$45.00**



MODEL B-16H 3-SPEED 16" PRECISION TURNTABLE

SPEEDS: 33⅓, 45 and 78 rpm.
SPEED SELECTION: Mastermatic, self-locking, instantaneous shift. Engages either idler without stopping turntable or removing disc.
STARTING: From standing start to operating speed — at 78 rpm ..... ¾ turn
at 33⅓ and 45 rpm ..... ¼ turn
MOTOR: Self-lubricating, CUSTOM-BUILT HYSTERESIS SYNCHRONOUS.
NOISE LEVEL: —50 db below average recording level.
45 RPM HUB: Built-in—retractable—requires no external adapter.
CHASSIS DECK: Radial-ribbed aluminum casting. Designed for flush mounting in rectangular cut-out. PRE-DRILLED: for ready mounting of Rek-O-Kut Turntable Arm Model S-260.
DIMENSIONS: 18¾" x 20". Fits existing consoles and cabinets with slight modification.
CLEARANCE REQUIRED: Above Deck—1½". Below Deck—6½".
FINISH: ..... Wrinkle gray.
SHIPPING WEIGHT: ..... 34 pounds
Net Price: **$275.00**

NOTE: All Rek-O-Kut Turntables are supplied for 110-120 volt, 60 cycle AC operation. Available in other voltages and frequencies at additional cost.

MODEL CVS-12 VARIABLE-SPEED TURNTABLE

The CVS-12 permits continuous speed variation from 25 rpm to 100 rpm without resetting or stopping the record. It can therefore be used with 33⅓, 45 and 78 rpm records, and permits them to be slowed down to ⅓ normal tempo or speeded up to as much as 300%.
Shipping Weight: 15 lbs. **Price:** **$99.95**

NOTE: This turntable operates at either 50 or 60 cycles. At 50 cycles speed can be varied from 20 rpm to 85 rpm.

P-VC Portable Phono **Net Price: $149.95**
RT-VM Portable Phono & PA System. **Net Price: $349.95**
SPK-44 Portable Dual Speaker Set. **Net Price: $79.95**

MODEL SP-3X STEREOPHONES

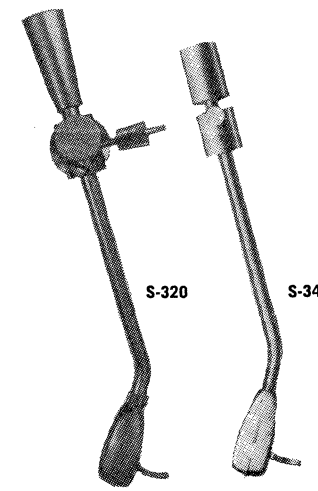
The new standard of quality. Will reproduce any sound the human ear can hear. Extremely sensitive 3½" sound reproducers mounted in each earpiece catch the hidden sounds of your recordings. Soft sponge foam ear and head cushions provide lightweight comfort for extended periods of listening.
Frequency Response: 10-15,000 cps.
Impedance: 4-16 ohms. Comes complete with T-2 Adapter Plate that connects to any system that will play speakers.
Net Price **$24.95**

CONSOLE CABINET

For B-16H & other Rek-O-Kut turntables

Designed to accommodate the B-16H Turntable without the use of either screws or bolts. Floats on felt. Has 2 storage compartments and piano-hinged doors with flush ring-latches. Includes built-in electrical outlet and adjustable leveling domes. Metallic grey finish. Dimensions 33" high x 22" wide x 20½" deep.
Model C-7B Shipping weight: 65 lbs. **Net Price:** **$150.00**

Model C-7BT
Identical to C-7B but with the addition of a ¾" motor board to accommodate various Rek-O-Kut turntables. Shipping weight: 70 lbs. **Net Price:** **$165.00**



MODEL S-320 PROFESSIONAL TONEARM

Meets and exceeds the critical requirements of the ultra-high compliance cartridges. Tracks at 1 gram or less.
Constructions: tubular aluminum. Die-cast cartridge shell.
Tracking Error: under 1°
Horizontal Movement: maximum freedom achieved by bearing made of inner and outer races and two rows of hardened steel balls into which shaft of arm fits.
Vertical Movement: friction-free movement is achieved by suspending arm in gimbal using a cross-shaft at each end of which are five 1mm chrome-steel balls.
Cartridge Shell: accepts all standard stereophonic or monophonic cartridges. Plugs into arm. Secured by twist-lock. Open front permits visible location of stylus in grooves. 4-wire construction, factory installed lugs.
Static Balance: acoustically isolated counterweight.
Dynamic Balance: exclusive Omni-Balance provides perfect dynamic (lateral) balance with any cartridge.
Resonance: below audibility—varies from 9-12 cycles depending on cartridge
Vertical Height Adjustment: permits setting tonearm parallel to record surface
Standard Plugs: Standard phono plugs connect directly to each stereo channel. Cables are color-coded. Spade lug for separate ground connection to chassis of pre-amplifier. 100% shielding for lowest possible hum level.
Net Price: **$34.95** includes Omni-Balance

MODEL S-260 TONEARM (Not Illustrated)

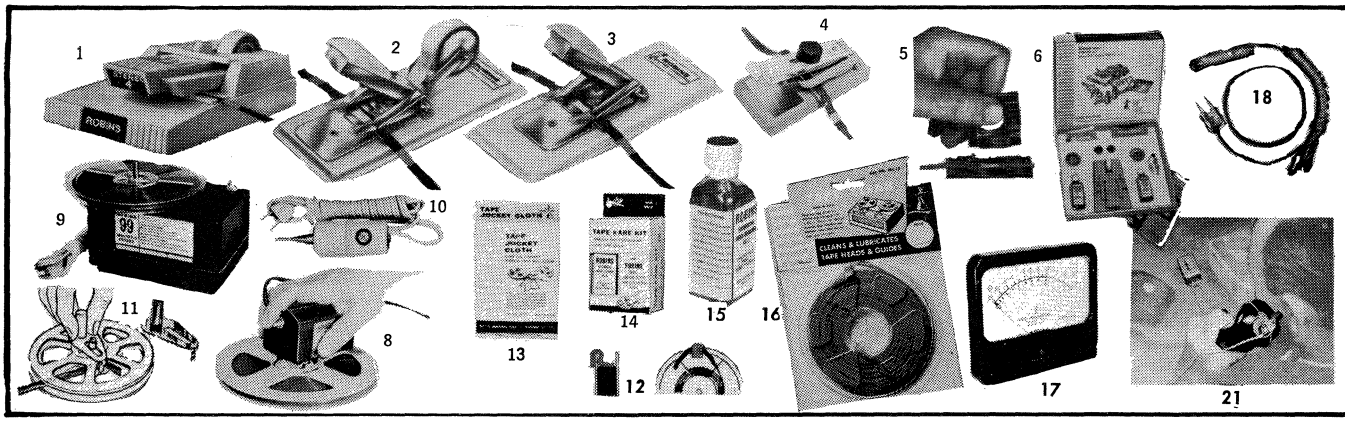
16" Tonearm less Omni-Balance **Net Price:** **$36.95**

MODEL S-340 TONEARM

A modified version of the S-320 tonearm. Tracks at less than one gram. Resonance factor is below 12 cycles. Removable cartridge shell handles any standard cartridge.
Net Price: **$24.95**

Sales Office: Milwaukee, Wisc

ROBINS® TAPE SPLICERS AND ACCESSORIES



GIBSON GIRL® "STEREO 4" TAPE SPLICERS for precision splicing of 4 track tapes without loss of program material on the outside tracks. They work equally well on single and 2 track tapes. All units have blade centering adjustment for lifetime accuracy, and replaceable cartridge.

1. **DELUXE STEREO 4 TAPE SPLICER features** "See-thru" windows indicating "CUT" and "TRIM" positions for easy operation. Tape guide and fingers secure tape during splicing. Easy threading integral tape dispenser with roll of ½" x 100" splicing tape. Safety lock protects blades when not in use.
   #TS-8D ..... **List $12.75**
2. **STANDARD STEREO 4 TAPE SPLICER** with most features of TS-8D except for position index windows. Made of metal and plastic. Has integral tape dispenser with roll of ⅜" x 100" tape.
   #TS-4S ..... **List 9.50**
3. **JUNIOR STEREO 4 TAPE SPLICER.** Same as TS-4S without tape dispenser and splicing tape.
   #TS-4J ..... **List 7.25**

REPLACEMENT CUTTER KITS FOR ROBINS STEREO 4 SPLICERS. Each kit contains replacement cutter cartridge and 2 cutter pads. **#RK-2** for TS-4A series splicers. **#RK-3** for TS-4S and TS-4J. **#RK-8** for TS-8D **#RP-2** cutter pads for TS-4A series and TS-4S. **#RP-8** cutter pads for TS-8D ..... **List ea. 1.50**

4. **GIBSON GIRL® INDUSTRIAL TAPE SPLICERS.** For computer, TV, industrial and special purpose tapes. Rugged construction, mounted on heavy cast base with precision features that have made them the accepted standard of professional users. Precise blade centering adjustment. Long life, replaceable blades.
   #TS-250 for ¼" tapes **List 85.00** **#TS-1000** for 1" tapes **List 85.00**
   #TS-500 for ½" tapes **List 85.00**

   #RB-1 Replacement blades for above. 12 to pkg. ..... **List 3.35**

Custom built splicers for special tapes, punch tapes, edge punch cards, and applications available — send for quotation.

5. **GIBSON GIRL® "SEMI-PRO".** Compact, low cost splicer has tape alignment guide with adhesive back, hand held cutter, and blade cover. Plastic.
   #SP-4 ..... **List 2.50**

GIBSON GIRL® "HOBBYIST" SPLICER. Adhesive backed plastic tape guide fastens to recorder and unique, curved, cutting blades. (Not illus.)
#H-4 ..... **List 1.25**

6. **GIBSON GIRL® STEREO 4 ACCESSORY KITS** — Everything you need for better tape recording and editing. **DELUXE KIT** contains: Deluxe Stereo 4 tape splicer, splicing tape, tape threader, reel holders, head and guide lubricant, head cleaner, tape cleaning cloth, tape clips, reel labels and tape editing guide book.
   #TK-8DLX ..... **List 16.75**

STANDARD KIT contains: Standard Stereo 4 tape splicer, splicing tape, tape threader, reel holders, head cleaner, tape cleaning cloth, tape clips, reel labels, tape editing book. (Not illus.)
#TK-4STD ..... **List 13.50**

JUNIOR KIT contains same accessories as above with Junior Splicer. (Not illus.)
#TK-4JR ..... **List 11.25**

GIBSON GIRL® TAPE KARE KIT contains: H-4 Hobbyist splicer, ½" splicing tape, tape cleaning cloth, tape clips, and tape editing guide book. (Not illus.)
#TK-4H ..... **List 3.70**

ROBINS SPLICING TAPE. Special formula, Mylar, tackiness, thickness, strength and cold flow carefully controlled. (Not illus.)

#ST-234 ¼" x 100"	**List .40**	**#ST-500** ½" x 100"	**List .50**
#ST-375 ⅜" x 100"	**List .45**	**#ST-750** ¾" x 100"	**List .75**

LEADER TAPE — 1½ mil White Mylar. 100 ft. x ¼" wide on 2½" reel. Splice Leader Tape at beginning and end of tapes to stop loss of tape due to threading and use. Ideal for indexing between recorded sections of a reel. (Not illus.)
#LT-100 ..... **List 1.00**

9. **MAGNETIC BULK ERASER** — Completely erases recorded and unwanted signals in seconds. Reduces background noise levels from 3 to 6 db below normal erase heal level. For reels up to 10½" dia. x ½" wide. 110 v., 60 cycle A.C.; U.L. Listed
   #ME-99 ..... **List 43.50**

LOW COST BULK ERASER — Reduces background noise levels of tape from 2-4 db below normal erase head level. For reels up to 7" x ¼" wide. 110 v., 60 cycle A.C., Non U.L. (Not illus.)
#ME-77 ..... **List 24.50**

8. **HANDY ERASER**—Hand held Magnetic Bulk Tape Eraser. Erases recorded and unwanted signals. Reduces background noise levels of tape below normal erase head level. Weight 2 lbs. 4 amps, 110-120 v. 60 cy. A.C.
   #ME-55 ..... **List 16.66**
10. **HEAD DEMAGNETIZER** — U.L. Listed. Removes signal damaging residual magnetism from tape head — for optimum signal to noise ratio. Easy to use. 110 volts, 60 cycle A.C.
    #HD-6 ..... **List 10.00**

LOW COST HEAD DEMAGNETIZER — Non U.L. 110 v. 60 cycle A.C. (Not illus.)
#HD-3 ..... **List 6.00**

11. **TAPE THREADER** — Eliminates awkward fumbling. Place tape against reel, slip threader on, turn crank — tape is treaded.
    #TT-1 ..... **List 1.00**
12. **TAPE HOLDING CLIPS.** Keep tape from unwinding. Pkg. of 12.
    #TC-12 ..... **List .40**
13. **TAPE "JOCKEY CLOTH"** cleans and lubricates tape with Silicone. Washable and reuseable.
    #JCT-2 ..... **List 1.00**
14. **TAPE KARE KIT** contains head cleaner and tape jockey cloth.
    #TK-2 ..... **List 2.00**
15. **HEAD CLEANER** removes grime and accumulated oxides from heads.
    #HC-2 ..... 2 oz. bottle ..... **List 1.00**
15. **RECORDING HEAD AND GUIDE LUBRICANT.** Silicon base liquid provides friction-free tape path, reducing head and tape wear.
    #RC-2-22 ..... 2 oz. bottle ..... **List 1.00**
15. **TAPE AND PHONO DRIVE OIL.** For rotating and moving parts. Inhibits rust and oxidation.
    #RC-2-33 ..... 2 oz. bottle ..... **List .75**
15. **NON-SLIP FOR TAPE AND PHONO DRIVES.** Helps stop slippage of idler wheels, pulley belts, and cords. Fast drying and penetrating, dries to tack-free yet non-slip surface.
    #RC-2-56 2 oz. bottle ..... **List 1.00**
16. **TAPE CLEAN.** 5" reel of chemically treated cloth tape. Cleans and lubricates tape heads when played through recorder. Deposits layer of Silicone for friction-free performance.
    #HC-5 ..... **List 2.75**
17. **"VU-METER"** — Size 4½". 0-100% mod.; —20 to 3 db. Dual impedance output. Sensitivity, 200 micro amps; shunts for 1.2 or 12 v. "zero" VU. Mounts in 2¾" dia. hole. Requires 1½" depth. Eliminates "guess work" of level control.
    #VU-100 ..... **List 32.00**
18. **TAPE STROBE AND LIGHT KIT.** Check tape speed, accuracy, flutter and wow operating at 15, 7½ and 3¾ ips speeds. Kit has strobe tape and neon light. With instructions.
    #TK-5 ..... **List 2.00**

REPLACEMENT TAPE RECORDER PRESSURE PADS. Complete assortment of pre-cut felt pads for most recorders. Worn pads cause wow, flutter, loss of highs and tape squeal. Pkg. of 50 felt pads. (Not illus.)
#PP-1 ..... **List 1.00**

REEL HOLDERS. Reduces reel wobbling. A must for verticle decks. (Not illus.)
#RH-2 ..... (Pair) ..... **List .85**

21. **TELE-TAPE TELEPHONE PICK-UP COIL AND TRANSISTORIZED BEEPER.** Makes it easy to comply with most regulations. Transistorized battery operated generator injects 1 KC "Beep" into phone lines and recorder at 15 second intervals. Has ON-OFF switch and 6 ft. cable to phone and 6 ft. cable to recorder. Easy-On spring fastens pick-up to phone. Uses standard 22½ volt battery.
    #TRB-3 (battery not included) ..... **List 30.00**

TELE-TAPE TELEPHONE PICK-UP COIL fastens to phone with Easy-On mechanical spring. Has 6 ft. shielded cable. (Not illus.)
#TRP-1 ..... **List 6.00**

CLEAN-TIPS. For cleaning tape heads and 1001 other uses. Finest surgical cotton (non-sterile) wound on 6" long sticks. (Not illus.)
#Q-100 ..... Package of 100 ..... **List .75**

TAPE KARE HEAD CLEANER AND LUBE KIT. Contains 2 oz. bottles of head cleaner and head and guide lubricant. (Not illus.)
#TK-6 ..... **List 2.00**

REPLACEMENT REELS (Not illus.)

#TR-20	2" reel, gray plastic, with mailing box	**List .25**
#TR-25	2½" reel, grey plastic, with mailing box	**List .25**
#TR-30	3" Virgin Styrene reel, with mailing box	**List .25**
#TR-32	3¼" reel, grey plastic	**List .35**
#TR-50	5" Virgin Styrene reel, with white box	**List .60**
#TR-70	7" Virgin Styrene reel, with white box	**List .75**
#TR-105N	¼" tape, 10½" grey fiberglass reel for std. spindle	**List 3.00**
#TR-105R	¼" tape, 10½" grey fiberglass reel for 3" NAB hub	**List 3.00**

TAPE STORAGE CANS. Reduces tape "ageing". Ribs on cans nest for stacking (Not illus.)
#TC-7 for 7" reel ..... **List .85** **#TC-5** for 5" reel ..... **List .60**

REEL LABELS. Self stick adhesive. Write on or type titles, etc. (Not illus.)
#SL-30 ..... (Package of 30 labels) ..... **List .45**

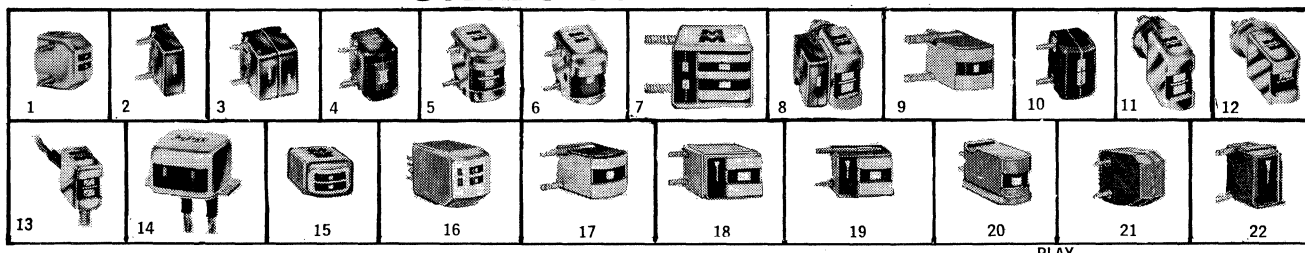
TAPE KARE CHEMICAL KIT — Contains 2 oz. bottles of head cleaner, head and guide lubricant, Non-Slip for tape and phono drives, and tape and phono drive oil. With 50 clean tips. (Not illus.)
#TK-7 ..... **List 3.75**

TAPE RECORDER MAINTENANCE KIT FOR LANGUAGE LABS, AUDIO VISUAL DEPTS. AND BROADCAST STUDIOS. A complete tape accessory kit for everyday maintenance and operating needs. Contains: ME-99 Bulk Eraser — completely erases entire reels of tape in seconds, U.L. listed; HD-6 Head Demagnetizer removes signal damaging residual magnetism from tape head, U.L. listed; TS-8D Deluxe Stereo 4 Tape Splicer; TC-12 Tape Holding Clips; SL-30 Reel Labels for efficient indexing; JCT-2 Tape Cleaning Cloth; 6 rolls of ST-500 ½" Splicing Tape; TT-1 Tape Threader; TK-5 Strobe and Light Kit; and TK-6 Head and Guide Cleaning and Lube Kit. (Not illus.)
#AVK-1 ..... **List $78.00**

 Trade Discount Applies To List Prices Only © U.C.P., Inc.

ROBINS® M/M EXACT REPLACEMENT AND STEREO CONVERSION TAPE HEADS

Write For Latest Replacement & Conversion Data Book ..... .35



SPECIFICATIONS — R/P HEADS

	PART NO.	TYPE	TAPE SPEED (IPS)	IMPED. (1KC)	REC. LEVEL (BELOW SAT.) (DB)	AUDIO CURRENT (MA) A	BIAS CURRENT (MA)	BIAS FREQ. (KC)	PLAY LEVEL (1KC) (MV)	PLAY LEVEL (10KC) BEL. 1KC LEVEL	INDUCT. (NOM.) (H)	FIG. NO.	LIST PRICE
	2FM20-500	½ TRACK MONO R/P & ERASE*	7.5	1650	—12	—	—	—	2.15	—10	—	8	$20.00
	3F20-101	½ TRACK STEREO R/P	7.5	2000	—12	.043	1.0	62	1.8	—13	.3	11	29.00
	3F20-105	½ TRACK STEREO R/P	7.5	2000	—12	.043	1.0	62	1.8	—13	.3	13	29.00
	3FM20-104	½ TRACK MONO R/P	7.5	2000	—12	.043	1.0	62	1.8	—13	.3	12	13.00
	3FM20-108	½ TRACK MONO R/P	7.5	2000	—12	.043	1.0	62	1.8	—13	.3	12	13.00
	3FM20-502	½ TRACK MONO R/P & ERASE*	7.5	2000	—12	—	—	—	2.7	—13	.3	8	35.00
	3L20-101	½ TRACK MONO R/P	7.5	2460	—12	.03	1.25	50	1.64	—13	.35	6	10.00
	5AV17	¼ TRACK STEREO R/P & ERASE*	3.75	3600	—12	.020	0.25	80	1.8	—12	.5	7	32.00
N	5P17	¼ TRACK STEREO R/P	3.75	3500	—12	.018	.2	65	1.8	—12	.5	15	22.50
	5QT17	¼ TRACK STEREO R/P	7.5	3340	—12	.020	.3	80	2.4	—6.0	.5	1	16.00
	5QT17-105	¼ TRACK STEREO R/P	IDENTICAL TO 5QT17 (ABOVE) EXCEPT MOUNTING LUGS ON 5QT17-105 ARE ON OPPOSITE SIDE										21.50
	5TRB	COMB. ½ TRACK MONO R/P & ERASE *	7.5	1450	+	.05	1.5	50	+	+	+	14	17.00
N	6AV17-203	¼ TRACK STEREO R/P & ERASE*	7.5	4100	—12	.022	.30	65	2.5	—3	.6	16	24.00
	7B17	½ TRACK STEREO R/P	7.5	5150	—12	.032	.7	80	3.5	—8	.75	5	15.00
	7H17	½ TRACK MONO R/P	7.5	5150	—12	.042	.8	80	3.0	—8.0	0.75	9	10.00
N	7H40	½ TRACK MONO R/P	7.5	5150	—12	.022	.3	50	6.0	—10	.7	17	8.50
N	7HV17-102	½ TRACK MONO R/P & ERASE*	3.75	5150	—12	0.22	.4	60	3.2	—14	.75	18	13.00
N	7HV40-101	½ TRACK MONO R/P & ERASE*	7.5	5150	—12	.022	.3	50	6.0	—10	.7	19	13.00
	7L17	½ TRACK MONO R/P	7.5	5150	—12	.023	1.0	80	2.15	—11	.75	6	10.00
	7L17-108	½ TRACK MONO R/P	SAME AS 7L17 EXCEPT MOUNTS FROM OPPOSITE SIDE										
N	10H25	½ TRACK MONO R/P	7.5	7000	—12	.022	.6	60	3.0	—10	1.0	20	10.00
	10L17-104	½ TRACK MONO R/P	7.5	7030	—12	.020	1.0	80	2.6	—12	1.0	6	10.00

NOTE: All series **L** (single track), **B** (two track) and **Q** (four track) are electrically and mechanically interchangeable for easy stereo conversion.
*Erase and record specs in separate charts.

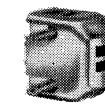
9QE3 erase head is a ¼ track replacement for 5S1 and 5SS1 heads.

N—New part.

SPECIFICATIONS — ERASE HEADS

	PART NO.	TYPE (ERASE)	TAPE SPEED (IPS)	IMPED. @ ERASE FREQ.	ERASE FREQ. (KC)	ERASE CURRENT (MA)	ERASURE (DB) (200) (CY. SAT.)	INDUCT. (NOM.) (MH)	FIG. NO.	LIST PRICE
	2FM20-500	½ TRACK MONO	7.5	1,750	62	17	—55	5.0	8	*
	3FM20-502	½ TRACK MONO	7.5	1,750	62	17	—55	5.0	8	*
	5AV17	¼ TRACK STEREO	3.75	2,800	80	15	—60	11.0	7	*
	5S1	½ TRACK MONO	7.5	1,750	62	17	—55	5.0	2	$ 7.00
	5SS1	½ TRACK STEREO	7.5	1,750	62	17	—55	5.0	3	13.00
	5S1-103	½ TRACK MONO	IDENTICAL TO 5S1 EXCEPT MOUNTS FROM OPPOSITE SIDE							7.00
	5TRB	½ TRACK MONO	7.5	780	25	27	—50	—	14	*
N	6AV17-203	¼ TRACK STEREO	7.5	52	65	95	—60	.25	16	*
	7EM12A	½ TRACK MONO	7.5	2,200	80	30	—50	5.4	4	8.00
N	7HV17-102	½ TRACK MONO	7.5	2,400	60	19	—55	18.0	18	*
N	7HV40-101	½ TRACK MONO	7.5	2,000	50	19	—55	18.0	19	*
	9QE3	¼ TRACK STEREO	7.5	2,500	75	12.5	—60	9.0	10	10.00
	40EM12A	½ TRACK MONO	7.5	10,000	52	10	—50	40.0	4	8.00
N	40EQ3-101	¼ TRACK STEREO	7.5	8,000	60	10	—60	40.0	21	8.50
N	50HE6-201	½ TRACK MONO	7.5	6,000	60	12.5	—55	50.0	22	7.00

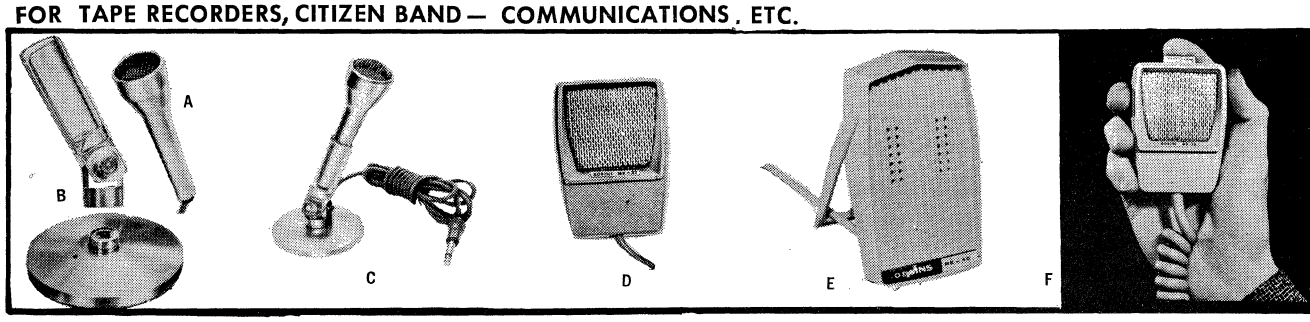
ROBINS M/M STEREO HEAD CONVERSION KITS
Converts 90% of all U.S. made two track Stereo recorders to 4 track with only a screwdriver or pliers. For Mono units too, but additional amplifier is required. Kit contains: 4 track R/P head, head alignment tape, hardware and instructions.
#5K17 (5QT17 head) **List 18.00**
#5K17U (5QT17-105 head) **23.50**



A COMPLETE KIT containing assortment of 14 most popular Heads. Ideal for labs and service organizations. Includes FREE 9″ x 10″ x 6″ cabinet and replacement data. Total 23 heads.
#DD-6—6 **List 303.00**

ROBINS® CERAMIC MICROPHONES

FOR TAPE RECORDERS, CITIZEN BAND — COMMUNICATIONS, ETC.



A—HIGH IMPEDANCE OMNIDIRECTIONAL CERAMIC MICROPHONE for tape recorders, etc. 50 to 11,000 cycles per second. Sensitivity —56 db ±2 db. Solid metal housing with Satin Chrome finish and Gold Toned wire grill. High sensitivity is assured by new ceramic transducer element. Element is encased in a Neoprene cushion for protection against physical shock. Complete with 7 ft. shielded cable with phone plug.
#MK-10A ..... **List 17.50**

B—MICROPHONE SWIVEL STAND. Tip resistant, padded, metal base with Satin Chrome finish and removable microphone swivel socket. Socket has ⅝″ No. 27 threads to fit all standard floor stands. For use with #MK-10A microphone or similar types.
#MKS-10 ..... **List 7.50**

C—HIGH IMPEDANCE OMNIDIRECTIONAL MICROPHONE AND SWIVEL STAND. #MK-10A microphone and #MKS swivel stand.
#MKC-10 ..... **List 24.50**

D—HIGH IMPEDANCE CERAMIC MICROPHONE FOR TAPE RECORDERS, ETC. Frequency response 80 to 9,500 cps—53 db. Ceramic transducer element encased and cushioned in Neoprene to withstand physical shock. High impact plastic housing. Complete with 6 ft. shielded cable with phone plug.
#MK-32 ..... **List 15.50**

E—HIGH IMPEDANCE CERAMIC MICROPHONE WITH SWING OUT STAND FOR TAPE RECORDERS, ETC. Frequency response 40 to 8,000 cps. Sensitivity —50 db. Ceramic transducer element encased and cushioned in Neoprene to withstand physical shock. High impact plastic housing with Ivory finish. Built-in swing-out stand for use on flat surface or suspended. Complete with 5 ft. shielded cable.
#MK-40 ..... **List 10.50**

F—CERAMIC MICROPHONE FOR CITIZENS BAND—COMMUNICATIONS, ETC. Designed for continuous service. Withstands high temperature and high humidity. Will operate even if immersed in water. Frequency response: 60 to 7,000 cycles per second —49 db. Excellent transmission assured in noisy locations as frequency response is limited to the voice range. High sensitivity is assured by transducer element encased in a Neoprene cushion to withstand moisture and physical shock. Mike has push-to-talk switch, high impact shatter-proof housing, strong strain relief to protect internal connections of the mike, 6 ft. of multiple conductor shielded coil cable with tinned ends and dashboard mounting bracket for easy installation in autos, boats, etc.
#MK-30 ..... **List 17.50**

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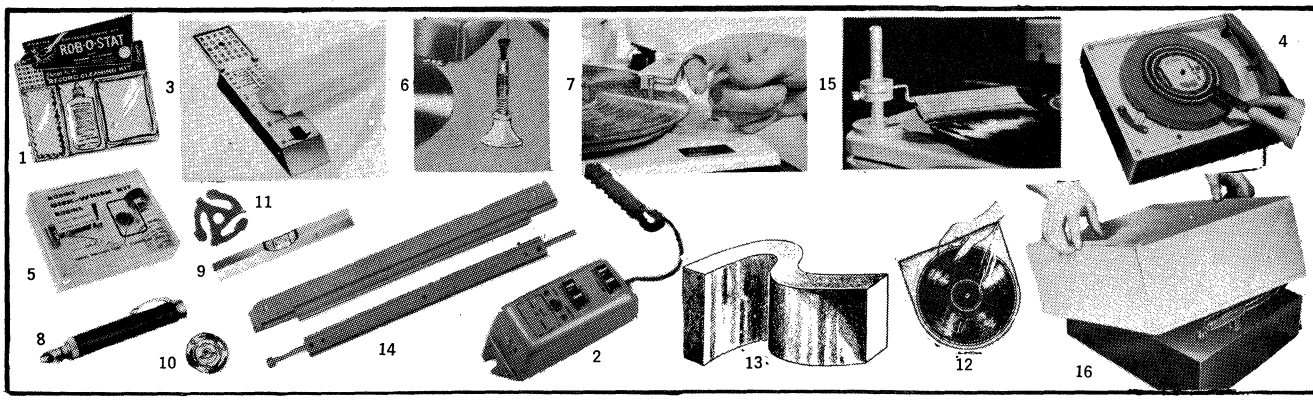
ROBINS® PHONO AND RECORD ACCESSORIES



1. **ROB-O-STAT RECORD CLEANING KIT.** Contains super-soft velvet and foam applicator mitt, 1½ oz. plastic bottle of Anti-Static cleaner and lubricant and polyfoam pad for cleaning velvet mitt.
#ESK-6 ..... **List $2.00**

2. **HI-FI STOP-O-MATIC.** Automatically turns off amplifier and changer when last record has played. Allows you to fall asleep to your favorite music without "burning-up" equipment. Has switch control permitting use of amplifier without changer.
#HFS-1 ..... For European Changers ..... **List 10.00**
#HFS-2 ..... For U.S. made Changers ..... **List 10.00**

3. **NEW IMPROVED STYLUS GAUGE** — A sturdy, accurately calibrated gauge measures stylus pressure from ½ gram to 8 grams.
#SG-2 ..... **List 1.25**

4. **STROBE AND LIGHT KIT.** Checks proper speed of turntable, changer or phono. Contains strobe disc and neon lamp. Place strobe disc on turntable, set changer to desired speed and hold lamp over disk. For 110 v. 60 cycle A.C.
#ESK-5 ..... **List 2.00**

5. **DISK-WHISK KIT** — Cleans records automatically. Clips on to tone arm. Loosens and removes dust and dirt from record grooves and deposits Anti-Static fluid containing Silicone to clean and lubricate records. Includes bottle of Anti-Static fluid with applicator.
#ESK-7 ..... **List 4.00**

RENEWAL KIT FOR ESK-7. Contains Anti-Static fluid and 2 mohair Cylinders. (Not illus.)
#ESK-8 ..... **List 2.00**

6. **KLEENEEDLE BRUSH** — Automatic changer brush. Removes "dust-blob" each time arm passes over brush. Adjustable height. Pressure sensitive base pad for mounting.
#NB-1 ..... **List 1.55**

7. **COMBINATION TONE ARM LIFT AND RECORD BRUSH.** Clips on to tone arm providing convenient finger lift. Floating action nylon brush removes dust from record grooves.
#RBL-1 ..... **List 1.00**

CLIP-ON RECORD BRUSH. Clips on to tone arm and sweeps dust from records automatically. (Not illus.)
#RB-75 ..... **List .65**

HOBBYIST RECORD KARE KIT. Contains stylus pressure gauge, and turntable level. (Not illus.)
#ESK-1A ..... **List 2.50**

PROFESSIONAL KARE KIT. Contains stylus pressure gauge, stylus microscope, and turntable level. (Not illus.)
#ESK-2A ..... **List 3.25**

DELUXE SOUND ENGINEERED RECORD KARE KIT. Contains stylus pressure gauge, stylus microscope, turntable level, record cleaning cloth, KleeNeedle brush, record brush, and tone arm lift. (Not illus.)
#ESK-3A ..... **List 5.75**

SOUND ENGINEERED TURNTABLE LEVELING KIT contains four adjustable rubber feet to mount under turntable base, and circular 4-way spirit level. Level mounts on top deck of turntable. (Not illus.)
#ESK-4 ..... **List 3.90**

POLYESTER PHONO CUSHIONS. Foam mat cushions record drop. Reduces slippage. (Not illus.)
#PC-12 11¾" dia. ..... **List 1.25** **#PC-10** 9¾" dia. ..... **List 1.00**

RIM REST PHONO CUSHION. Has graduated ridges for 7", 10", and 12" records. Records rest on rims only. Delicate sound grooves never touch rim rest. Fits all turntables. Made of Supple Polyethylene. 12" dia. (not illus.)
#PC-33 ..... **List 2.75**

PHONO STROBE DISC — Tests phono or turntable for correct speed. Disc is placed on turntable under neon or fluorescent lingt. (Not illus.)
#SD-4 ..... Tests 16, 33⅓, 45, and 75 RPM speeds ..... **List .50**
#SD-1 ..... Same as above, except tests 3 speeds ..... **List .35**

8. **STYLUS MICROSCOPE** — Inspects stylus tip, to detect signs of wear, chips, etc. Precision ground lenses for clear magnification, knurled focusing adjustment, convenient slot secures needle; and pen type pocket clip. 3¾" long, ½" dia. Imported.
#MX-1 ..... **List 2.75**

HOBBYIST STYLUS MICROSCOPE — Direct reading with precision plastic lens. (Not illus.)
#MX-40 ..... **List 1.25**

9. **TURNTABLE LEVEL** — Place on turntable for accurate leveling. Insures correct tracking; minimizes stylus and record groove wear.
#TL-1 ..... **List 1.35**

15. **CLEAN SWEEP.** Large Camel's Hair Brush supported on a machine Aluminum support, sweeps entire tracking surface of records with each revolution. Helps protect record and stylus from dust damage. Pressure sensitive base pad mounts securely to any phono equipment.
#RB-88 ..... **List 5.95**

10. **ROUND TURNTABLE LEVEL** — A must for Stereo output balance.
#TL-2R ..... **List 2.50**

CLIP-ON TONE-ARM-LIFT. A convenient finger grip for manipulating tone arm. Minimizes scratching of records due to fumbling. (Not illus.)
#TA-1 ..... **List .35**

11. **RECORD SPIDERS.** Low cost, hi-impact plastic '45 adaptors.
#RA-45 ..... Package of 5 ..... **List .25**

CONICAL '45 SPINDLE ADAPTOR — Plastic, for easy loading of '45's. (Not illus.)
#SA-45 ..... **List .25**

METAL 45 RPM RECORD ADAPTORS. Sturdy, nickel plated metal for easy snap-in insertion. Pkg. of 5. (Not illus.)
#RA-45M ..... **List .30**

12. **ROUND-BOTTOM PROTECTIVE PLASTIC DIS-CLOSURES.** For 12" records. Prevents scratching, seals out dust and moisture. (Pkg. of 15).
#E-15 ..... **List 1.00**

SQUARE COVERS — For 12" records or standard 12" record jackets. (Pkg. of 15). (Not illus.)
#EJ-15 ..... **List 1.00**

"JOCKEY-CLOTH" FOR RECORDS. Contains Silicone. Cleans and lubricates. Reduces record wear. Washable. (Not illus.)
#JC-1 ..... **List .75**

PHONO DRIVE OIL. Highly refined lubricant formulated for moving and rotating parts. Inhibits rust and oxidation. 2 oz. bottle. (Not illus.)
#RC-2-33 ..... **List .75**

NON-SLIP FOR PHONO DRIVES. Helps stop slippage of drive parts. Fast drying, stable and penetrating, dries to tack-free, non-slip surface. 2 oz. bottle. (Not illus.)
#RC-2-56 ..... **List 1.00**

13 **FIBERGLASS ACOUSTIC INSULATION.** For lining speaker cabinets, record changers, tape decks, etc. 36" x 36" x 1" thick. Damps "boom" and distortion causing standing waves inside speaker enclosures.
#AM-90 ..... **List 2.50**

ISOLATION PAD FOR RECORD CHANGER BASE. Absorbs vibration, minimizes acoustic feedback, reduces excessive noise and rumble. Use for recorders and TV chassis, etc. (Not illus.)
#IP-16 ..... **List 2.00**

14. **ALUMINUM COMPONENT SLIDES.** Easy to install drawer slides for record changers or other equipment. Load capacity — 30 lbs. Length — 13". Maximum extension — 14". Has precision ball bearing and special silencer spring to reduce vibration. Slides smoothly. With screws.
#CS-1311 ..... **List 5.00**

16. **CHANGER COVERS** — Soft plastic covers. **TURNTABLE COVERS**

#CC-1	13" x 13½" x 8" ..**List 1.95**	**#CC-3**	22" x 16½" x 9" .**List 2.50**
#CC-2	12½" x 15" x 8" ..**List 1.95**	**#CC-4**	17¼" x 17½" x 9" .**List 2.50**
#CC-5	17" x 15" x 18¾"**List 1.95**	**#CC-678**	12" x 15½" x 5" .**List 4.95**

45 RPM SPINDLE FOR RECORD CHANGERS (Not illus.)

Precision made, all metal spindle fits easily without twisting and jamming. Fits most changers with straight spindles, including: V-M, Glaser-Steers, Columbia, G-E, Motorola, Philco, R.C.A., Westinghouse, Sylvania, Zenith and many others. **#SA-55** ..... List **$4.50**

ROBINS BOOKS. (Not illus.)

#TE-24 "TAPE EDITING AND SPLICING GUIDE BOOK" by N. M. Haynes. 24 pages. Illustrated ..... **List .40**

#TE-48 "TELEVISION TAPE RECORDING" by George B. Goodall. 48 pages. Illustrated ..... **List 1.00**

#TE-96 "WHAT YOU SHOULD KNOW ABOUT YOUR TAPE RECORDER" A complete guide book to care, use, and operation of tape recorders. 96 pages, illustrated. Trouble shooting guide and glossary of recording terms included ..... **List 1.00**

#TE-127 "TAPE RECORDING THE SOUNDS OF YOUR LIFE." 128 pages. Illustrated. All about recording techniques. How to capture the sounds that surround you. How to make creative sound your hobby. ..... **List 1.35**

#TE-129 "HOW TO GET THE MOST OUT OF YOUR TAPE RECORDER." 128 pages. Illustrated. Practical uses for your recorder. Using a portable recorder, taping shortwave, adding sound to 8mm films and slides. All about sound effects. **List 1.35**

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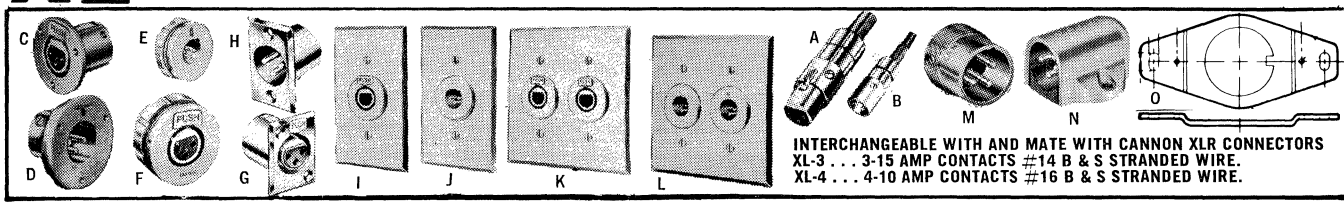
ROBINS® INDUSTRIES CORP., FLUSHING, N. Y., 11356

IS THE EXCLUSIVE SUPPLIER IN THE U.S.A. FOR

XL★ AUDIO AND ELECTRONIC CONNECTORS

CANNON® PLUGS



INTERCHANGEABLE WITH AND MATE WITH CANNON XLR CONNECTORS
XL-3 . . . 3-15 AMP CONTACTS #14 B & S STRANDED WIRE.
XL-4 . . . 4-10 AMP CONTACTS #16 B & S STRANDED WIRE.

STRAIGHT CORD PLUG. Cable relief spring entry. Zinc alloy shell, Phenolic insulator. Satin Nickel finish.

FIG. A SOCKET CONTACTS
#XL-3-11★ 3 CONTACTS LIST $1.90 #XL-4-11★ 4 CONTACTS List $2.50
#XL-3-11 3 contacts —— #XL-4-11 4 contacts ——

FIG. B PIN CONTACTS
#XL-3-12★ 3 CONTACTS LIST $1.90 **#XL-4-12★ 4 CONTACTS LIST $2.50**
#XL-3-12 3 contacts —— #XL-4-12 4 contacts ——

RECEPTACLE. Wall mount. Has mounting holes. Zinc alloy shell. Phenolic insulator. Satin Nickel finish.

FIG. C SOCKET CONTACTS—LATCH LOCK
#XL-3-13★ 3 CONTACTS LIST $1.90 **#XL-4-13★ 4 CONTACTS LIST $2.50**
#XL-3-13 3 contacts —— #XL-4-13 4 contacts ——

FIG. D PIN CONTACTS
#XL-3-14★ 3 CONTACTS LIST $1.50 **#XL-4-14★ 4 CONTACTS LIST $2.10**
#XL-3-14 4 contacts —— #XL-4-14 4 contacts ——

RECEPTACLE. Panel mount. The mounting nut accommodates 1/32" panel. Reversing the nut permits mounting on panel up to 5/16" thick. Zinc alloy shell. Satin Nickel finish.

FIG. E SOCKET CONTACTS—LATCH LOCK
#XL-3-13N★ 3 CONTACTS LIST $2.25 #XL-3-13N 3 contacts ——

FIG. F PIN CONTACTS
#XL-3-14N★ 3 CONTACTS LIST $2.25 **#XL-4-14N★ 4 CONTACTS LIST $2.90**
#XL-3-14N 3 contacts —— #XL-4-14N 4 contacts ——

RECEPTACLE. Wall mount. Compact rectangular flange saves mounting space. Zinc alloy shell. Satin Nickel finish.

FIG. G SOCKET CONTACTS—LATCH LOCK
#XL-3-31★ 3 CONTACTS LIST $2.25 **#XL-4-31★ 4 CONTACTS LIST $3.10**
#XL-3-31 3 contacts —— #XL-4-31 4 contacts ——

FIG. H PIN CONTACTS
#XL-3-32★ 3 CONTACTS LIST $1.75 **#XL-4-32★ 4 CONTACTS LIST $2.10**
#XL-3-32 3 contacts —— #XL-4-32 4 contacts ——

MANUFACTURED BY CANNON PLUGS (AUSTRALIA) PTY. LTD. ® "CANNON" IS A TRADEMARK REGISTERED IN THE U.S. PATENT OFFICE AND IN OTHER COUNTRIES BY CANNON ELECTRIC COMPANY.

SINGLE GANG RECEPTACLE. Wall mount. Consists of XL-3-13N Socket Receptacle and mounting bracket XL-MB-1 assembled to wall plate.

FIG. I SOCKET CONTACTS
#XL-3-35★ 3 CONTACTS LIST $5.00 #XL-3-35 3 contacts ——

SINGLE GANG RECEPTACLE. Wall mount. Consists of XL-( )-14N Pin Receptacle and mounting bracket XL-MB-1 assembled to wall plate.

FIG. J PIN CONTACTS
#XL-3-36★ 3 CONTACTS LIST $5.00 **#XL-4-36★ 4 CONTACTS LIST $6.40**
#XL-3-36 3 contacts —— #XL-4-36 4 contacts ——

TWO GANG RECEPTACLE. Wall mount. Consists of 2 XL-3-13N Socket Receptacles and 2 mounting brackets XL-MB-1 assembled to double wall plate.

FIG. K SOCKET CONTACTS
#XL-3-35-2G★ 3 CONTACTS LIST $11.00 #XL-3-35-2G 3 contacts ——

TWO GANG RECEPTACLE. Wall mount. Consist of 2 XL-( )-14N and 2 mounting brackets XL-MB-1 assembled to double wall plate.

FIG. L PIN CONTACTS
#XL-3-36-2G★ 3 CONTACTS LIST $11.00 **#XL-4-36-2G★ 4 CONTACTS LIST $12.00**
#XL-3-36-2G 3 contacts —— #XL-4-36-2G 4 contacts ——

RECEPTACLE. Microphone or 90° mounting receptacle. Two mounting holes. Removable insert for soldering, inspection, etc. Zinc alloy shell. Satin Nickel finish

FIG. N PIN CONTACTS
#XL-3-42★ 3 CONTACTS LIST $2.20 **#XL-4-42★ 4 CONTACTS LIST $2.65**
#XL-3-42 3 CONTACTS —— #XL-4-42 4 contacts ——

ADAPTOR RECEPTACLE. Mounts directly in or on to microphone and other units or surfaces where they can be adequately supported. Threads to mate into unit of equipment. Satin Nickel finish.

FIG. M PIN CONTACTS
#XL-3-50T★ 3 CONTACTS LIST $2.80 #XL-3-50T 3 contacts ——

MOUNTING BRACKET. XL-( )-13N and XL-( )-14N Receptacles can be installed in the floor or at other convenient locations using this bracket for mounting receptacles in a Russel and Stoll Box No. 2503 and other boxes.

FIG. O #XL-MB-1★ ..... LIST $1.00 #XL-MB-1 ——

★ALL XL PLUGS ARE SUPPLIED EITHER IN BULK PACKED FOR O.E.M. AND INDUSTRIAL USE (AVAILABLE THROUGH INDUSTRIAL DISTRIBUTORS) OR INDIVIDUALLY PACKAGED FOR REPLACEMENT USE (AVAILABLE FROM GENERAL LINE DISTRIBUTORS. ORDER XL-( ) ★ (STAR SUFFIX) FOR INDIVIDUAL PACKAGE FOR REPLACEMENT USE.

ROBINS® AUDIO CONNECTORS, CONTROLS AND SWITCHES

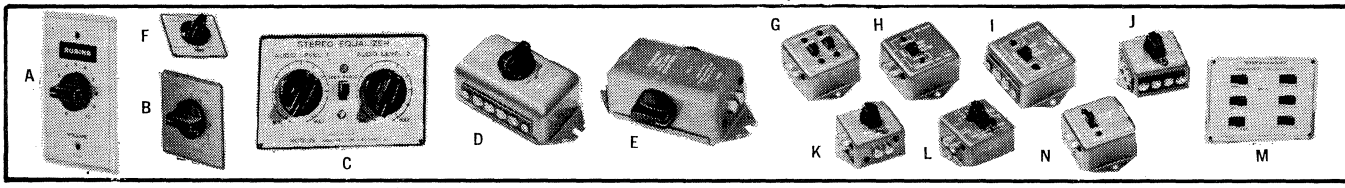


Fig	Cat. No.	Impedance	Type of Mount'g	List
A	VC-5W	8 ohms	Wall Plate	6.00
A	VC-6W	16 ohms	Wall Plate	6.00
B	VC-5P	8 ohms	Panel Mount	5.50
B	VC-6P	16 ohms	Panel Mount	5.50
D	VC-5S	8 ohms	Surface Mount	7.00
D	VC-6S	16 ohms	Surface Mount	7.00

STEREO SPEAKER EQUALIZER WITH PHASING SWITCH. L-Pad controls adjust Stereo Speakers for equal output. Can control 2 Mono speakers.
C VC-7 8 ohms Wall or Panel **12.50**
C VC-8 16 ohms Wall or Panel **12.50**

DUAL VOLUME CONTROL ADAPTOR. For two channel, high impedance Stereo circuits. Has 2 Phono jack inputs, 2 phono plug outputs. Separate volume controls.
E VC-9 Surface Mount **7.50**

SPEAKER FADER CONTROL. Adjusts volume of Hi-Fi, radio, TV and remote speakers. Can be used to control volume of individual speaker.
F VC-10P Panel Mount **2.50**
A VC-10W Wall Mount **3.00**

MULTI-SPEAKER SELECTOR SWITCH WITH 7 POSITIONS. Select any or all speakers, up to 3. Constant impedance at all switch positions.
A SW-1W Wall Mount **5.50**
D SW-1S Surface Mount **6.00**

STEREO-MONO SELECTOR WITH CHANNEL REVERSING. Switch from Mono to Stereo. Has 2 phono jack inputs and outputs. Dual channel feed through for Stereo Outputs have STEREO/MONO Switch.
G SW-2 Surface Mount with Reverse **3.50**
H SW-3 Surface Mount without Reverse **3.00**

SPEAKER PHASE CONTROL. For multiple or Stereo speaker installations. Provides proper phasing of speakers. With instructions and hardware.
I SW-4S Surface Mount **2.50**
SW-4P Panel Mount (Not Illus.) **1.75**

STEREO SPEAKER SELECTOR SWITCH. 3 position switch gives variety of Stereo speaker selections. 2 remote pair of Stereo speakers can be connected to a Stereo amplifier and either or both "cut-in" at will. Complete with screw terminals, hardware and instructions.
J SW-5 Surface Mount **6.25**

STEREO INPUT SELECTOR SWITCH. Connect both channels of any one of 3 Stereo sources to one pair of outputs. Has 3 phono jack inputs, 1 output.
K SW-6 Surface Mount **6.25**

STEREO SPEAKER SELECTOR SWITCH. Has 1 pair phono jack inputs and 3 pairs outputs. Select any of 3 pairs of Stereo speakers.
K SW-7 Surface Mount **6.25**

MONAURAL SPEAKER SELECTOR. Select either or both of 2 remote speakers or remote speaker and Hi-Fi set.
F SW-8 Surface Mount **2.50**

MONAURAL MULTI-SPEAKER SELECTOR. Hook up 5 remote speakers to one input. Select any one of 5 remote speakers. Has one input and 5 output phono jacks.
L SW-9 Surface Mount **5.50**

MONAURAL MULTIPLE SELECTOR CONTROL. Select one of 5 input circuits to one output. Inputs are for AM, FM, Phono, Tape, and Aux. Phono jack output and input connections.
L SW-10 Surface Mount **5.00**

6 SPEAKER SELECTOR. For multi speaker Mono or Stereo Systems. Hook up up to 6 remote speakers; 6 mono or 3 pairs of Stereo speakers. With On-Off switches.
M SW-11 Panel Mount **3.50**

12 SPEAKER SELECTOR. Connections for up to 6 pairs of speakers. Mono or Stereo. 6 On-Off Switches.
M SW-12 Panel Mount **4.25**

PHONO-TUNER ADAPTOR. Old sound equipment having only one input can be brought up to date using this adaptor. Unit has 2 phono jack inputs for use with phonos, tuners, etc. With selector switch for either input, phono jack for connecting amplifier.
N SW-13 Surface Mount **2.50**

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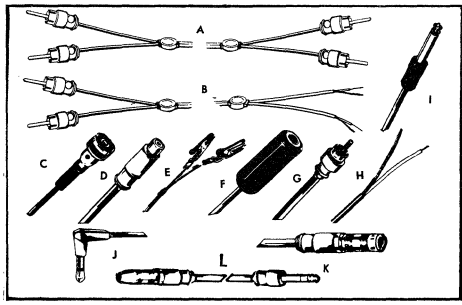
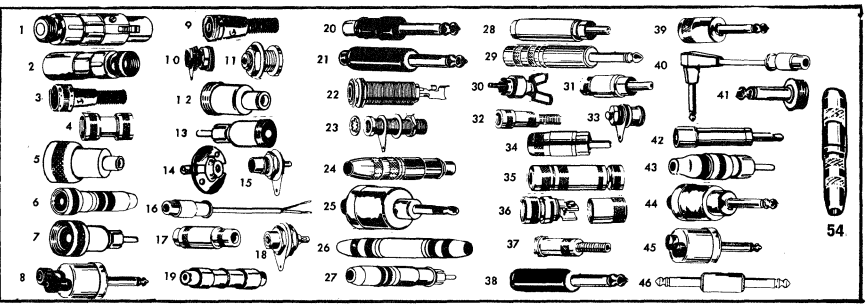
ROBINS® PATCH CORDS AND ADAPTORS





STEREO CABLE ASSEMBLIES

Fig.	Cat. No.	Length	List	Fig.	Cat. No.	Length	List
A	SMM-36	36″	3.25	B	SMS-36	36″	2.90
A	SMM-72	72″	3.75	B	SMS-72	72″	3.25
A	SMM-120	120″	4.50	B	SMS-120	120″	3.75

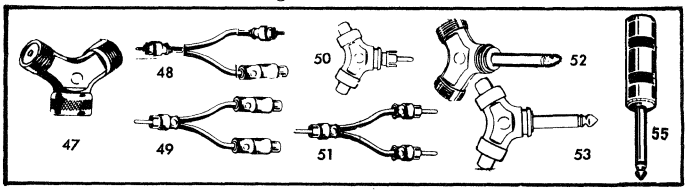
L—SJT-300 Stereo extension cable. Phono plug (3 cond.) to extension jack (3 cond.). 25 ft. shielded cable. For Stereo headphones and other Stereo adaptations..... **List 10.00**

MOLDED CABLE ASSEMBLIES

Cat. No.	Adoptor at One End Fig.	Adoptor at Other End Fig.	Length In Inches	List	Cat. No.	Adoptor at One End Fig.	Adoptor at Other End Fig.	Length In Inches	List
BS-120	C	H	120″	2.25	MS-72	G	H	72″	1.15
FF-72	D	D	72″	1.95	MS-120	G	H	120″	1.65
MC-120	G	E	120″	2.25	MT-72	G	I	72″	2.20
MF-18	G	D	18″	1.25	MT-120	G	I	120″	2.75
MF-36	G	D	36″	1.35	TC-72	I	E	72″	1.90
MF-72	G	D	72″	1.75	TC-120	I	E	120″	2.40
MF-120	G	D	120″	2.00	TF-72	I	D	72″	2.20
MJ-72	G	F	72″	2.50	TJ-120	I	F	120″	3.50
MM-18	G	G	18″	1.05	TS-72	I	H	72″	1.75
MM-36	G	G	36″	1.20	TS-120	I	H	120″	2.25
MM-72	G	G	72″	1.50	TT-72	I	I	72″	2.40
MM-120	G	G	120″	2.00	TT-120	I	I	120″	2.70
MS-18	G	H	18″	.80	XJ-180	J	K	180″	5.00
MS-36	G	H	36″	.95	XM-120	I	G	120″	4.00

ADAPTORS

FIG.	CAT. NO.	DESCRIPTION	LIST
1.	#AC-1	2-Cond., has input connector (#D-2), output connector, with unsoldered internal wire permitting connection to terminal.	3.05
2.	#AC-2	Female Mic. Connect. to input Connect.	3.05
3.	#B-1	Microphone Connector, female	.60
4.	#BB-1	Misc. Connect., double female, for connecting 2 cables with male connectors.	1.00
5.	#BF-1	Phono Jack input to female Mic. Connect. output Outside dia. main body — ½″.	1.25
6.	#BJ-1	2-Cond. Phone Jack input to female Mic. output. Removeable coupler ring converts connector to male type. Body O.D. ½″.	1.75
7.	#BP-1	Phono plug — female microphone connector.	1.00
8.	#BPJT-1	Binding Post, dual purpose, Banana Jack input to Phone plug output.	2.60
9.	#D-1	Microphone Connector, male.	.45
10.	#D-2	Mic. Panel Connect. Mounts in .385″ hole.	.40
11.	#D-3	Panel Connector, male, single contact.	.45
12.	#DF-1	Phono Jack input to male Mic. Connect. output	1.25
13.	#DP-1	Phono Plug — male Mic. Connector.	1.00
14.	#F-1	Phono Jack. Pkg. of 3.	.45
15.	#F-2	Phono Jack — back of panel mount. 2-Cond.	.50
16.	#F-3	2-Cond., long handle, phono jack to 3″ shld'd. cable. Converts screw or solder type terminals to std. Phono Jack. Mates with #M-2 adaptor.	.80
17.	#F-4	Phono Extension Jack, removable handle, shld'd. cable clamp.	.60
18.	#F-5	RF Phono Jack for front of panel mount.	.60
19.	#FF-1	Phono Plug to Phono Plug.	1.00
20.	#FT-1	Phono Plug Output — Phono Jack Input.	1.25
21.	#FTR-1	Phone Adapt., female Phono Jack end of handle. Has internal resistor circuit for connection between crystal phono pickup or radio or TV set and input of tape recorder. May be used as adaptor with magnetic phono by opening plug and twisting leads of resistor together.	1.95
22.	#J-1	Phone Jack w/long bushing. Mounts in panels up to 1¼″ thick. Mates with "Littel plugs". Ideal for Mic. Connect. 2-Cond.	1.30
54.	#J2	¼″ 2 Cond. Extension Phone Jack with Solder Terminals. Completely Shielded	2.15
22.	#J-3	Same as J-1, except 3-cond.	1.50
23.	#JA-1	Phono Jack Adapt. Mounts in panels up to 1¼″ thick.	.95
24.	#JF-1	2-Cond. Phone Jack input to Phono Jack output.	1.45
25.	#JG-1	Jack input, std. ¼″ 2-cond. to special plug for mate with jack in American Geloso Recorder. Permits use of U.S. made Microphone and plugs with recorder.	2.35
26.	#JJ-1	Coupler, 2-cond. Phone Jack ea. end. Connects 2 cables having phone plug terminations.	2.25
26.	#JJ-3	Same as JJ-1, except 3-cond.	2.75
27.	#JM-1	2-cond. phone jack input to phono plug output.	1.45
28.	#JM-2	Compact Adapt., phono jack input to phono plug output, connects Ceramic Phono Cartridge to audio amplifier which was designed for magnetic cartridge.	2.95
29.	#JR-1	Std. 2-cond. Phone Plug to 2-cond. short extension Jack. Use with late models Revere and Wollensak recorders.	2.00
30.	#M-1	Phono Plug. Pkg. of 4.	.50
31.	#M-2	Phono Plug, 2-cond. w/long screw on handle. Cable clamp.	.60
32.	#MB-1	Minature Mic. Connect. Use w/single cond. shld'd. cable. Straight Connect., single contact, female coupling ring.	.60
33.	#PC-1	Panel Connect., single contact, male.	.45
34.	#RF-1	RF Plug, 2-cond. long screw on handle. Cable clamp.	.80
35.	#SC-1	Straight Connect. w/2-screw terminals. Single contact, female, 2-piece handle w/built-in cable clamp. Connects cable with stripped ends without solder.	2.25
36.	#SC-2	Straight Connect., same as SC-1, short handle no cable clamp.	1.65
37.	#SC-3	Straight Connect., single contact, male.	.50
38.	#T-1	Phone Plug.	.80
39.	#T-1S	"Silent Phone Plug", 2-cond. w/1″ lgth. shld'd. Phenolic handle. Features circuit closing device when plug is removed. Ideal for use with musical instruments.	1.75
55.	#T3	¼″ Phone Plug, 3 cond. with Solder Terminals. Shielded Metal Handle.	2.05
40.	#TAF-1	Phone Plug, right angle, 2-cond. w/long handle molded to 2″ shld'd. cable. Adapts phone jack to phono plugs.	1.75
41.	#TD-1	Mic. input, male to Phone Plug output.	.60
42.	#TJF-1	Std. Phono plug to "Tini-plug" (9/16″) output.	1.40
43.	#TJM-1	2-cond. "Tini-jack" input to phono plug output.	1.45
44.	#TJS-1	"Silent Plug" Adapt. w/2-cond. Jack input to 2-cond. plug output. Circuit closes when plug is removed.	2.95
45.	#TJT-1	Tip Jack input to Phone Plug output.	2.35
46.	#TTS-2	Coupler, 2-cond. phone plugs connect 2 assemblies having extension jack terminations.	2.00
"Y" ADAPTORS — Phono Jack and Plug type, Microphone Connectors.			
47.	#YBDD-1	Light weight die cast, connects 2 cables (with std. mic. connectors) in parallel to one single connector.	1.65
48.	#YFMM-1	1 Phono Plug connect. in parallel to 1 Phono Jack and 1 Phono Plug. Shielded Cable, 4″ length.	2.00
49.	#YMFF-1	Phono Plug connect. to 2 phono jacks. 4″ shld'd. cable	2.00
50.	#YMFF-2	2 Phono Jacks connect. in parallel to std. Phono Plug.	2.00
51.	#YMMM-1	3 Phono Plugs connect. together. 4″ Shld'd. cable.	2.00
52.	#YTDD-1	2 male Mic. Connect's. connected in parallel to std. 2-cond. Phone Plug.	1.90
53.	#YTFF-1	2 Phono Jacks connect. in parallel to std. 2-cond. Phone Plug.	1.90



FM INDOOR ANTENNA — FOLDED DIPOLE. Eliminates need for outdoor antenna in most locations. Easily concealed under rug or back of cabinet.
#FMA-1 **2.00**

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SONOTONE audio products Replacement Cartridges

NEW! SONO-FLEX™ NEEDLE

Flick it—bend it—knock it—it springs back, ready to play. Gripped in a resilient butyl rubber mount, needle shank can be flexed in a 360° orbit without damage. What's more, Sono-Flex provides higher compliance, wider and flatter frequency response, lower IM distortion, and longer needle and record life. Standard in the Sonotone models 9TAF, 16TAF, 916TAF and Velocitone Mark IV. 21T, 21TR and 22T and 23T. Available as replacement needles for Sonotone Models 9T, 9TA, 9TAV, 16T, 16TA and 916TA.

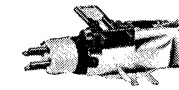
N-9916-FS 0.7-mil sapphire, sapphire ---------- net $1.65
N-9916-FS77 dual 0.7-mil sapphire ---------- net $1.65
N-9916-FSD 0.7-mil diamond, 3-mil sapphire ---------- net $2.25
N-9916-FD77 dual 0.7-mil diamond ---------- net $2.85

'VELOCITONE MARK IV' HIGH COMPLIANCE CERAMIC STEREO/MONO. Ideal for use with professional tonearms and changers. HIGH COMPLIANCE, increased tracking ability add longer record life. Provided with matched equalizers (no tools required) to feed directly into the "magnetic" phono input of any stereo preamp. Universal terminal plug for fast, easy replacement. "Sono-Flex" Needle.

SPECIFICATIONS (with equalizers): Response: 20 to 20,000 cps, ±2 db to 17,000 cps; Output voltage: 7; Compliance: 15 x 10-6 cm/dyne; Channel separation: 30 db; Tracking force: 1.5-3 grams for professional arms; 3-4 grams for changers. 9TAFHC-SDV diamond/sapphire, net **$12.15.** 9TAFHC-D77V dual diamond, net **$14.55.**

HIGH COMPLIANCE CERAMIC STEREO/MONO MODEL '9TAFHC'. Features low stylus mass and HIGH COMPLIANCE for flawless, hum-free reproduction of stereo and mono records. New universal tonearm terminal plug for fast, easy replacement. "Sono-Flex" Needle.

'9TAFHC' SPECIFICATIONS: Response: 20 to 20,000 cps (±½ db 20 to 6,000 cps; ±2 db 20 to 17,000 cps); Output voltage: .20 volt; Compliance: 15 x 10-6 cm/dyne; Channel separation: 30 db; Tracking force: 1.5-3 grams for professional arms; 3-4 grams for changers. 9TAFHC-S dual sapphire, net **$5.55;** 9TAFHC-S77 dual sapphire, net **$5.55;** 9TAFHC-SD diamond/sapphire, net **$7.26;** 9TAFHC-D77 dual diamond, net **$7.86.**

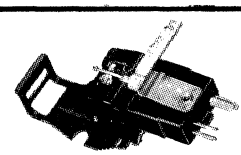


MODEL 9TAF. Features new Sono/Flex needle. Ceramic stereo/mono cartridge with low stylus mass and high compliance for flawless, hum-free reproduction of stereo and mono records. New universal tonearm terminal plug.

SPECIFICATIONS: Response: 20 to 20,000 cps ±2 db; Output voltage: .35 volts; Compliance: 6; Channel separation: 30 db; Tracking force: 2-4 grams for professional arms; 3-5 grams for changers; 9TAF-S dual sapphire, net **$5.31;** 9TAF-S77 dual sapphire, net **$5.31;** 9TAF-SD sapphire/diamond, net **$6.96;** 9TAF-D77 dual diamond, net **$7.56.**

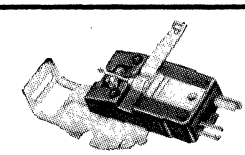
MODEL '21TR' STEREO CERAMIC. New safety-type, retractable mounting bracket. Extra protection buttons to protect the record and needle assembly. High output voltage. "Sono-Flex" Needle. Also available, the '21T' with standard snap-in mounting bracket.

'21TR' Equipped with retractable mounting bracket. Response: Entire audio hearing range; Output voltage: 0.60 volt; Compliance: 5.5 x 10-6 cm/dyne; Channel separation: 21 db; Tracking force: 4-7 grams. 21TR-S dual sapphire, net **$4.17;** 21T-S dual sapphire, net **$3.90;** 21T-S77 dual sapphire, net, **$3.90;** 21TR-SD diamond/sapphire, net **$5.82;** 21T-SD diamond/sapphire, net **$5.55.**



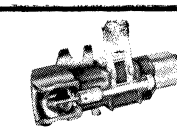
MODEL '22T' HIGH COMPLIANCE STEREO CERAMIC. New standard mounting bracket permits easy installation and servicing. Once installed, it snaps in and out of mounted bracket. Fits standard tonearms and is designed for many cross-reference replacements. "Sono-Flex" Needle.

'22T' Equipped with snap-in mounting bracket. Response: Entire audio hearing range; Output voltage: 0.30 volt; Compliance: 10.0 x 10-6 cm/dyne; Channel separation: 24 db; Tracking force: 2-4 grams. 22T-S dual sapphire, net **$4.17;** 22T-S77 dual sapphire, net **$4.17;** 22T-SD diamond/sapphire, net **$5.82.**



MODEL '23T' HIGH COMPLIANCE STEREO CERAMIC. High compliance, high output voltage, standard snap-in mounting bracket and protective "bottoming" buttons to protect the needle and record.

'23T' Equipped with snap-in mounting bracket. Response: Entire audio hearing range; Output voltage: 0.40 volt; Compliance: 10 x 10-6 cm/dyne; Channel separation: 26 db; Tracking force: 2-4 grams. 23T-S dual sapphire, net **$4.59;** 23T-S77 dual sapphire, net **$4.59;** 23T-SD diamond/sapphire, net **$6.24.**

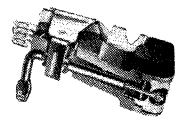


MODEL 916TAF. Features new Sono-Flex needle. Lo-cost stereo cartridge employing some of the basic design features of the audiophile-accepted Velocitone Mark IV New universal tonearm terminal plug makes for fast, easy replacement.

SPECIFICATIONS: Response: 20 to 15,000 cps ±3 db; Output voltage: 0.42 volt; Compliance: 4.0 x 10-6 cm/dyne; Channel separation: 28 db; Tracking force: 3-5 grams for professional arms; 4-6 grams for changers. 916TAF-S dual sapphire, net **$4.59;** 916TAF-S77 dual sapphire, net **$4.59;** 916TAF-SD sapphire/diamond, net **$6.24.**

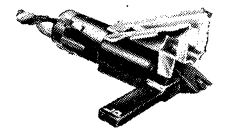
MODELS 16TAF AND 18TA CERAMIC STEREO/MONO. Remarkable quality.

SPECIFICATIONS: Response: 20 to 10,000 cps flat (±2 db with smooth rolloff to 20,000 cps); Output 0.65 V (16TAF); 1.0 V (18TA); Channel separation: 22 db; Tracking force: 5-7 grams. 16TAF-S dual sapphire, net **$3.90;** 16TAF-S77 dual sapphire, net **$3.90;** 16TAF-SD diamond/sapphire, net **$5.50;** 18TA-S dual sapphire, net **$3.60;** 18TA-S77 dual sapphire, net **$3.60;** 18TA-SD sapphire/diamond, net **$5.25.**



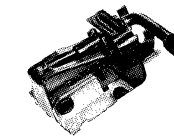
MODEL '8TA' CERAMIC STEREO/MONO TURNOVER. More than 30 leading manufacturers protect the quality of their hi-fi stereo phonographs with this cartridge.

SPECIFICATIONS: Response: 20 to 20,000 cps (±2.5 db, 20 to 15,000 cps) Output voltage: 0.3 volt; Compliance: 3.0 x 10-6 cm/dyne; Channel separation: 20 db; Tracking force: 4.6 grams for changers; 3-5 grams for professional arms. 8TA4-S dual sapphire, net **$5.25;** 8TA4-S77 dual sapphire, net, **$5.25;** 8TA4-SD diamond/sapphire, net **$6.90.**



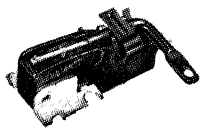
MODEL '10T2' CERAMIC STEREO/MONO. Excellent for those converting to stereo or replacing old stereo cartridges. Easy conversion with package which includes "fuse-clip" mounting bracket and "jack-in" terminal plug with electrical contacts.

SPECIFICATIONS: Response: 20 to 15,000 cycles ±2.5 db; Output voltage: 0.5 volt; Compliance: 1.5 x 10-6 cm/dyne; Channel separation: 18 db; Tracking force: 5-7 grams. 10T2-S dual sapphire, net **$4.17;** 10T2-S77 dual sapphire, net **$4.17;** 10T2-SD diamond/sapphire, net **$5.82;** 10T2-SD77 diamond/sapphire, net **$5.82.**



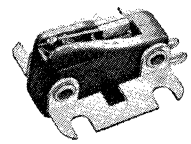
MODEL '2TA' CERAMIC MONO. Plays stereo records. An improved version of the famous Sonotone "2T series." New needle assembly, plus increased compliance and lower tracking force, make it ideal for both stereo and mono records.

SPECIFICATIONS: Response: 20 to 20,000 cycles (flat to 12,000) Output voltage: 1.0 volts; Compliance: 2.0 x 10-6 cm/dyne; Tracking force: 6 grams. 2TA-S dual sapphire, net **$3.69;** *2TA-LB-S dual sapphire, net **$3.69;** 2TA-SD diamond/sapphire, net **$5.34;** *2TA-LB-SD diamond/sapphire, net **$5.34.**



MODEL '3T' CERAMIC MONO. Original equipment in many top quality phonographs. Available with or without brackets.

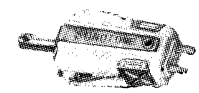
SPECIFICATIONS: Response: 20 to 20,000 cps (flat to 15,000); Output voltage: 0.5 volt; Compliance: 2.0 x 10-6 (minimum); Tracking force: 4-6 grams. *3T-LB-S & 3T-S dual sapphire, net **$4.65;** *3T-LB-SD & 3T-SD diamond/sapphire, net **$6.30.**



MODEL '1P' CERAMIC MONO. Single needle ceramic. Selected by leading high fidelity phonograph manufacturers to protect quality of their products.

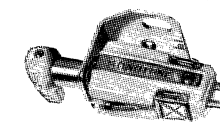
SPECIFICATIONS: Response: 20 to 20,000 cps (flat to 12,000); Output voltage: 1.0 volt; Compliance: 1.0 x 10-6 cm/dyne; Tracking force: 8-10 grams. *1P-LB-1S & 1P-1S sapphire, net **$2.91;** *1P-LB-2S & 1P-2S sapphire, net **$2.91;** *1P-LB-3S & 1P-3S sapphire, net **$2.91;** *1P-LB-1D & 1P-1D diamond, net **$4.56;** *1P-LB-3D & 1P-3D diamond, net **$4.56.**

NEW MONO & STEREO CRYSTAL CARTRIDGES



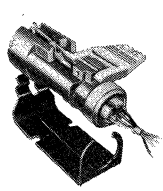
MODEL '14T' MONO CRYSTAL CARTRIDGES. Direct replacement for thousands of Ronette and Vaco mono cartridges now on the market. It will also replace other cartridges of this type. Turnover type cartridge for LP, 45 and 78 records.

Specifications: Response: Entire audio hearing range; Output voltage: 3.6 volts; Compliance: 1.0 x 10-6 cm/dyne; Tracking force: 10 grams. 14T S dual sapphire, net **$1.50;** *14TLB-S dual sapphire, net **$1.35.**



MODEL '20T1' STEREO CRYSTAL CARTRIDGE. Complete with mounting bracket. Turnover type cartridge for LP, 45 and 78's. Replacement for Ronette, Vaco, BSR and many others. Without bracket: model '20TLB.'

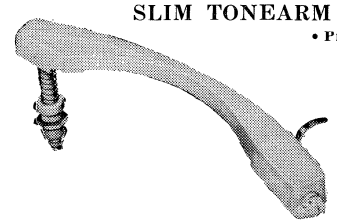
Specifications: Response: Entire audio hearing range: Output voltage: 1.0 volt. For 2-volt, order model "20T2"; Separation: 12 db; compliance: 1.0 x 10-6 cm/dyne; Tracking force: 8 grs. 20T1-S dual sapphire, net **$2.10;** *20TILB-S, net **$1.95;** 20T2-S dual sapphire, net **$2.10;** *20T2LB-S, net **$1.95.**



MODEL '12T'. Budget-priced stereo crystal cartridge. Improves the quality of stereo phonographs at low cost. Two versions—the "12THR" (high voltage output) and the "12TLA" (low voltage output).

SPECIFICATIONS (Model 12THR): Response: 20 to 15,000 cps (±2 db to 10,000 cps); Output voltage: 2.5 volts; Compliance: 1.4 x 10-6 cm/dyne in all directions of stylus motion; Channel separation: 20 db; Tracking force: 9 to 11 grams. 12THR-S dual sapphire, net **$3.51;** 12THR-S77 dual sapphire, net **$3.51.**

SLIM TONEARM COMPLETE WITH CRYSTAL CARTRIDGE

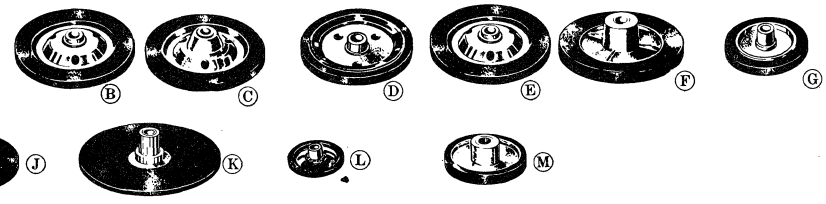


- **Prewired ready for use**
- **Shielded cable**
- **Spring mounting post**
- **Packaged with installation hardware**

STEREO AND MONO

STEREO	T20T1-S	Complete with '20T1' stereo crystal cartridge. Net **$2.70.**
	T20T2-S	Complete with '20T2' stereo crystal cartridge. Net **$2.70.**
MONO	T14T-S	Complete with '14T' mono crystal cartridge. Net **$2.10.**

Walsco ELECTRONICS PHONO DRIVES



(B) IDLER WHEEL—2⅛" O.D. With bushing. Used on GE, Motorola, Philco, Webcor. Similar to Item No. 1440 but has .160" tire thickness.
Cat. No. 1437 Net **$1.27**

(C) IDLER WHEEL—2⅛" O.D. With bushing. Used on Columbia, GE, Motorola, Webcor.
Cat. No. 1438 Net **$1.38**

(D) IDLER WHEEL—2" O.D. With bushing. For use on Webcor. Model 1134, 1136, 1151, 1121-1.
Cat. No. 1439 Net **$1.27**

(E) IDLER WHEEL—2⅛" O.D. Comes with bushing. Similar to Item No. 1437 but has .140" tire thickness at the outer edge. Use on Webcor Model 1135 record changer.
Cat. No. 1440 Net **$1.75**

(F) IDLER WHEEL—2⅛" O.D. Used on most Webcor tape recorders.
Cat. No. 1441 Net **$2.00**

(G) IDLER WHEEL—1½" O.D. With bushing. For use with Philco & Webcor.
Cat. No. 1443 Net **$ .80**

(H) MOLDED IDLER WHEEL — RCA 45 RPM. For use with RCA Series RP168 & RP190.
Cat. No. 1447 Net **$ .92**

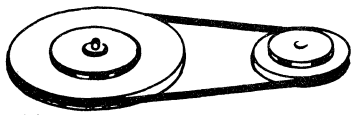
(J) IDLER WHEEL—2" O.D. For use with Collaro record changers in the 520 Series.
Cat. No. 1448 Net **$2.00**

(K) IDLER WHEEL—2½" O.D. For use with all Collaro record changers in the 54 and 530 Series.
Cat. No. 1449 Net **$2.00**

(L) IDLER WHEEL—1" O.D. For use with Crescent. In Models of 550 Series.
Cat. No. 1450 Net **$1.10**

(M) IDLER WHEEL—1¾₆" O.D. For use with VM Models 920 and 990, and Silvertone record changers.
Cat. No. 1452 Net **$ .85**

RECORDER DRIVE BELTS
ROUND BLACK RUBBER DRIVES



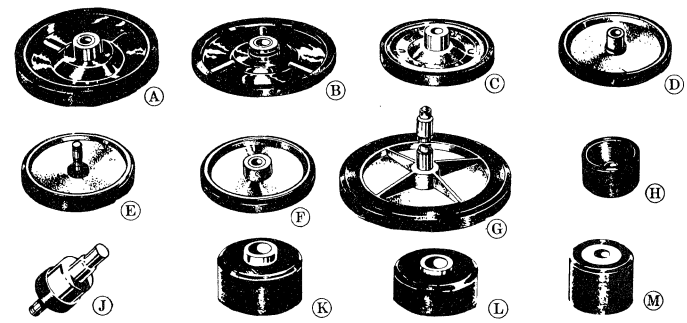
Precision ground to exacting tolerances for positive, non-slipping drive action. Will eliminate "wow" and "rumble".

Cat. No.	Insd. Circum.	Thickness	Used On	Dealer Net
1410-06	6.2"	.139"	Model VM-700, 701, 710, 711, 714 Tape Recorders	$ .45
1410-07	7.4"	.139"	RCA SRT 301, 401, 402, 403, Wilcox-Gay 3A10, 3A11	.52
1410-08	8.6"	.139"	Pentron, Crestwood & other tape recorders	.46
1410-10	10.6"	.139"	Crescent and other tape recorders	.58
1410-12	12.0"	.093"	Ampro and most Revere recorders	.58
1410-14	14.5"	.139"	Most Revere Recorders	1.07
1410-15	15.3"	.139"	Webcor Tape Recorders	1.07
1410-18	18.1"	.139"	Ampro Tape Recorders	1.42
1410-20	20.4"	.139"	Ampro Tape Recorders	1.75
1410-21	21.1"	.139"	Ampro, Gen. Ind., Webcor & other Tape Recorders	1.75
1410-50	10.75"	.085"	Webcor & Revere	.67
1410-51	11.3"	.063"	Viking Tape Recorders	1.17
	5.8"	.139"	Replaces Belts on	
1410-52	4.3"	.139"	Webcor 11 x 1736 pkg.	.95
1410-53	6.5"	.210"	Revere Tape Recorders	.52
1474	9.8"	.139"	Crestwood Tape Recorders	.62

Made of a tough, durable, specially treated fabric, to give years of service. Gives smooth, silent, non-slip action.

Cat. No.	Width	Inside Circum.	Used On	Net
1409-02	5⁄16"	17"	Pentron Tape Recorders	2.20
1409-03	5⁄16"	12¼"	Pentron, Crescent & other Tape Recorders	2.20
1409-04	5⁄16"	12 13⁄32"	VM 700, 701, 710, 711, 714 Tape Recorders	2.25
1409-05	3⁄16"	17"	Webcor Tape Recorders	2.08

CAPSTAN PRESSURE ROLLER—1" O.D. For use on many Pentron tape recorders.
Cat. No. 1488 Net $1.47



(A) IDLER WHEEL—2½" O.D. With bushing. Use on Gen. Ind., Seeburg, and other record players.
Cat. No. 1430 Net **$1.27**

(B) IDLER WHEEL—2½" O.D. Used on Webcor Model 110 record players. Replaces Manufacturer's Part No. 45P1530.
Cat. No. 1431 Net **$1.50**

(C) IDLER WHEEL—2" O.D. Use on Admiral, Columbia, Crescent, GE, Motorola, Philco, RCA, Seeburg, Silvertone and VM.
Cat. No. 1432 Bushing I.D.—.215 Net **$ .73**
1487 Bushing I.D.—.183 Used on older Silvertone, etc. Net **$1.03**

(D) IDLER WHEEL—2" O.D. With bushing. Use on VM and GE.
Cat. No. 1433 Net **$ .88**

(E) IDLER WHEEL—2" O.D. With Shaft. Use on Admiral, Crescent, Motorola, Philco, RCA, Seeburg, Silvertone and VM.
Cat. No. 1434 Net **$ .88**

(F) IDLER WHEEL—2" O.D. With bushing. Use on Milwaukee Stamping, Philco, Zenith and Westinghouse.
Cat. No. 1435 Net **$1.00**

(G) DRIVE WHEEL—3" O.D. For use on Zenith Cobramatic Changers. Replaces Manufacturer's Part Nos. S-16922 and S-21754, which are inter-changeable.
Cat. No. 1473 Net **$3.75**

(H) DRIVE WHEEL—1" O.D. For use on Crescent changers of the 550 series.
Cat. No. 1451 Net **$1.35**

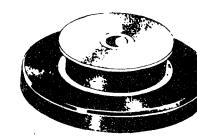
(J) 3-STEP DRIVE SLEEVE Used on Webcor Model 135, 136 and other late record changers.
Cat. No. 1469 Net **$1.17**

(K) PRESSURE ROLLER—⅞" O.D. For use with certain Webcor tape recorders.
Cat. No. 1455 Net **$1.63**

(L) PRESSURE ROLLER—⅞" O.D. For use on certain Webcor tape recorders, 220 series and 2614, 2615.
Cat. No. 1482 Net **$1.33**

(M) PRESSURE ROLLER—¾" O.D. For use with VM Model 700, 701, 710, 711, 714 tape recorders.
Cat. No. 1458 Net **$1.20**

PRESSURE ROLLER—¾" O.D. For certain RCA & Wilcox-Gay tape recorders.
Cat. No. 1457 Net **$1.75**

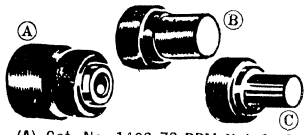


TAKE-UP DRIVER For use with VM tape recorder Model 700.
Cat. No. 1484 Net **$3.92**

SEND FOR FREE CATALOG of the complete UP-TO-DATE PHONO DRIVE LINE

Net
© U.C.P., Inc.

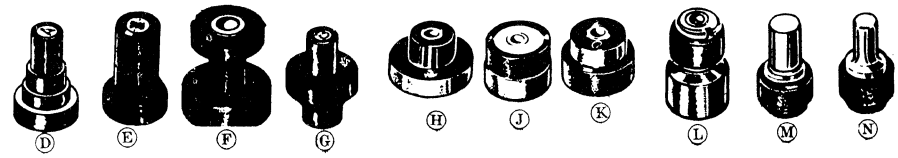
Walsco ELECTRONICS PHONO DRIVES



(A) Cat. No. 1460 78 RPM Net **$ .95**
1470 78 RPM Net **1.07**
(B) Cat. No. 1461 45 RPM Net **$ .95**
1471 45 RPM Net **.92**
(C) Cat. No. 1462 33⅓ RPM Net **$ .75**
1472 33⅓ RPM Net **.92**

1460, 1461 and 1462 are a Turret Drive group that is used on Crescent, GE, Motorola, RCA, VM and other record changers.

The 1470 series is used on RCA, VM and other record changers.



NOTE: Drives No. 1460, 1461 and 1462 are the same as No. 1470, 1471 and 1472 except that the 1460 series is approximately 1/64" larger in rubber diameter than the 1470 series. If model number of changes or manufacturer's part number is not known, use 1460 series. For most purposes, these two series are interchangeable.

(D) 33⅓ RPM PULLEY—½" O.D. Used on RCA, R.P.-205/190 series motors replaces Mfg.'s Part No. 102941.
Cat. No. 1495-01 Net **$ .95**

(E) 45 RPM PULLEY—½" O.D. Used on RCA, R.P.-205/190 series motors. Replaces Mfg.'s Part No. 102942.
Cat. No. 1495-02 Net **$ .95**

(F) 78 RPM PULLEY—½" O.D. Used on RCA, R.P.-205/190 series motors. Replaces Mfg.'s Part No. 102943.
Cat. No. 1495-03 Net **$ .95**

(G) 16 RPM PULLEY—⅞" O.D. Used on RCA, R.P.-205/190 series motors. Replaces Mfg.'s Part No. 102944.
Cat. No. 1495-04 Net **$ .95**

(H) Cat. No. 1463 78 RPM Net **$1.83**
Standard Pack: 3

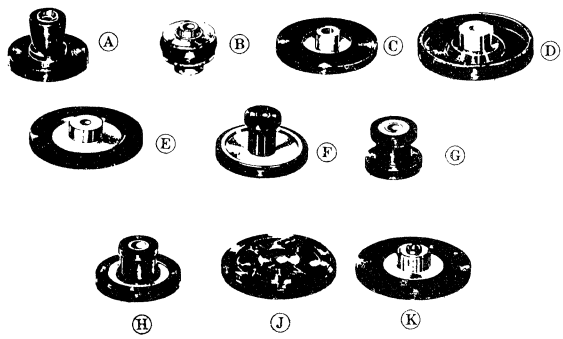
(J) Cat. No. 1464 45 RPM Net **$1.83**
Standard Pack: 3

(K) Cat. No. 1465 33⅓ RPM
Standard Pack: 3
Net **$1.83**

Above 3 items are turret drives for GE and Webcor record changers.

(L) Cat. No. 1466 78 RPM Net **$1.13**
(M) Cat. No. 1467 45 RPM Net **$1.13**
(N) Cat. No. 1468 33⅓ RPM Net **$1.13**

For use on Crescent, Motorola, VM, RCA and other record changers.



(A) IDLER WHEEL—1 11/32" O.D. This is a molded rubber wheel for use on RCA Series RP-199 record changers.
Cat. No. 1454 Net **$1.58**

(B) IDLER WHEEL—1" O.D. For use with all Zenith Cobra-Matic record changers.
Cat. No. 1459 Net **$2.40**

(C) CAPSTAN IDLER—1¾" O.D. For use with VM tape recorders in the 700 series.
Cat. No. 1485 Net **$1.10**

(D) IDLER WHEEL—2" O.D. Used on certain Eicor Tape Recorders and Silvertone Record Changers.
Cat. No. 1475 Net **$1.77**

(E) IDLER WHEEL—2" O.D. For use with certain Pentron Tape Recorders.
Cat. No. 1483 Net **$1.33**

(F) IDLER PULLEY—1⅝" O.D. This is a molded rubber wheel for use on VM Record Changers in 1200 series. Also used on other types.
Cat. No. 1453 Net **$2.08**

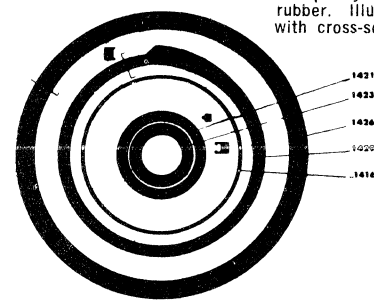
(G) IDLER PULLEY—1 5/16" O.D. A molder rubber wheel for use with VM Record Changers in the 1200 series having 4-pole motors.
Cat. No. 1456 Net **$2.17**

(H) IDLER PULLEY—1⅝" O.D. This is a molded rubber wheel for use on certain VM record changers.
Cat. No. 1486 Net **$2.17**

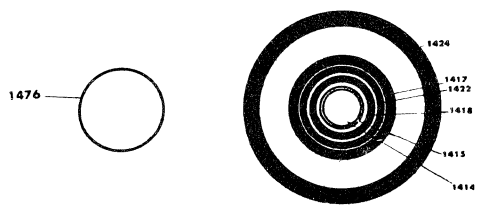
(J) INTER WHEEL—2" O.D. For use with Garrard Model RC-80 Record Changers.
Cat. No. 1444 Net **$2.20**

(K) INTER WHEEL—2" O.D. Has a ball-bearing hub cap. For use with Garrard T & TA record players.
Cat. No. 1445 Net **$2.20**

BELTS & CAM TIRES — Special Shapes. These belts and tires are made of highest quality abrasion-resistant neoprene rubber. Illustrations are actual size with cross-sections shown on tires.



INDEX FINGER CUSHION
Used on Webcor 100, 121, 1124 series. Also on Webcor 110 and 114 series.
Cat. No. 1419
Net **$ .23** pr.



WALSCO TIRES & BELTS

Cat. No.	I.D.	Wall Thickness	Length	Used on	Net
1414	5/8"	1/32"	1/4"	Admiral, GE, VM	$ .20 per pair
1415	21/32"	1/32"	1/4"	Garrard, GE, Philco	.20 per pair
1416	2¾"	1/16"	3/16"	Zenith	.22 each
1417	1½"	5/32"	3/16"	Admiral, Garrard	.18 each
1418	7/8"	1/8"	3/16"	Genl. Ind., Wilcox-Gray	.15 each
1424	2⅞"	1/4"	1/4"	Admiral, Crescent, RCA	.40 each
1476	15/16"	1/32"	1/4"	Admiral	.22 per pair

RUBBER BUMPERS—Used on VM Record Changers.
Cat. No. 1411
Net **$ .30** pr.

WALSCO RECORD ARM SLEEVE — For Garrard. Protects record arm and reduces vibration. Resilient, long-lasting neoprene rubber. (2 required).
Net **$ .20** pr.
Cat. No. 1412

WALSCO VELOCITY TRIP — For Webcor, precision-molded to manufacturers specifications.
Cat. No. 1413
Net **$ .22** pr.

WALSCO CARRIES THE MOST COMPREHENSIVE LINE OF EXACT REPLACEMENT PHONO DRIVES IN THE INDUSTRY. ADDITIONS ARE BEING CONSTANTLY MAINTAINED. FOR THE VERY LATEST LISTS, PLEASE WRITE WALSCO ELECTRONICS, ROCKFORD, ILLINOIS

WALSCO PHONO HARDWARE KIT — Kit contains over 60 parts, including phono jacks and plugs, assorted screws, spacers and springs, in transparent plastic box.
Cat. No. 1497 Net **$1.82**

© U.C.P., Inc.

A-M Akro-Mils Parts Cabinets

DESIGN YOUR OWN PARTS WAREHOUSE. Akro-Mils' totally new concept in small item storage for the 60's enable you to design your own small parts warehouse . . . exactly to YOUR storage needs! These space saving, time saving cabinets with the built-in look reduce your storage costs and promote greater labor, inventory and production efficiency.

Completely versatile, these compact modular cabinets can be used individually on any flat surface . . . or stacked in any desired combination of cabinets. They can be hung from a wall or integrated into any standard shelving set-up. You can save the cost of shelving by stacking.

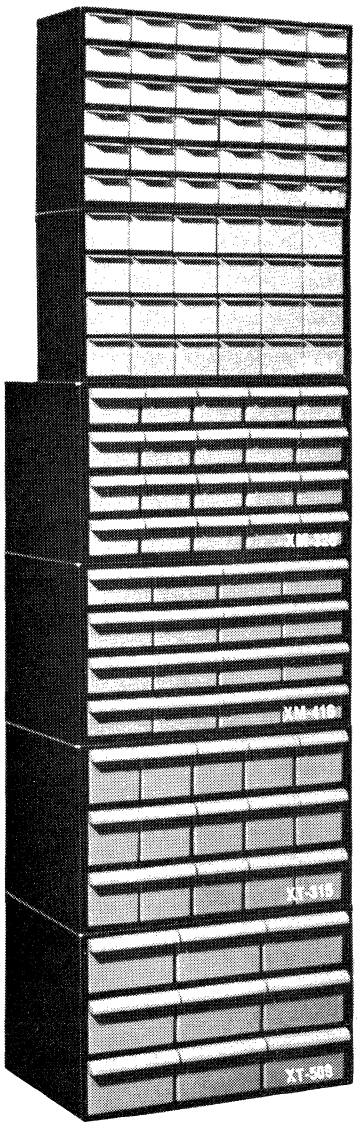
Securely welded of steel, cabinets are constructed to last a lifetime of daily use. Baked-on gray finish won't chip or rub off.

Drawers are available in two different materials. The see-thru, ordinary strength molded drawers give you instant visual inventory control. The hi-impact molded drawer is the strongest drawer made, is virtually indestructible, actually surpasses any other material in strength and durability . . . is not transparent and is finished in permanent, granite gray color.

All drawers have an ingenious system of vertical, horizontal and criss cross dividers making an infinite variety of compartments available. Rust and corrosion proof, open and close smoothly, operate quietly, dent proof, safety feature . . . no sharp edges to cause cuts or scratches, non-toxic, non conductive, resistant to most chemicals including acids, easy to clean one-piece seamless construction, 60% lighter than steel yet drawers cannot twist or spring out of shape.

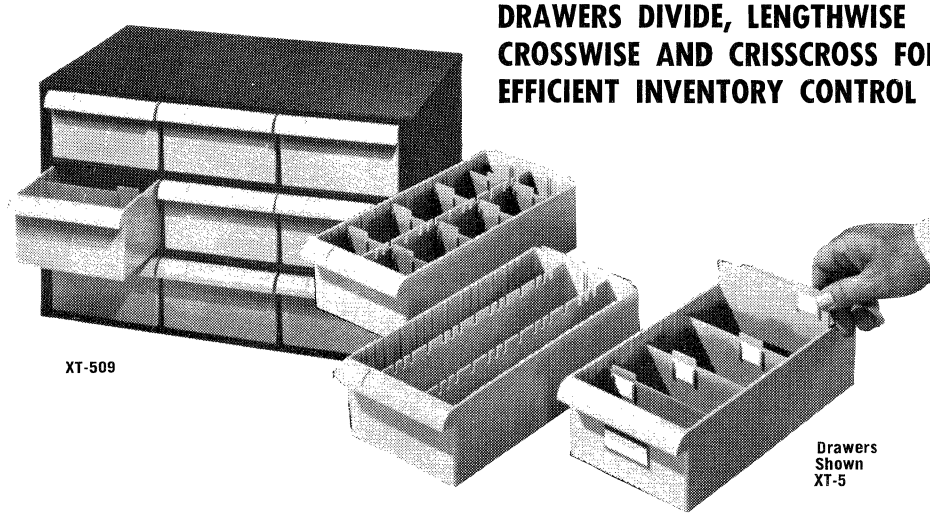
Dividers have lock-tight dovetail design (except XJD-1, JD-1, XM-3 and M-3 drawers) to prevent drawer sides from spreading, easily moved to new position if desired. Dividers can be placed lengthwise, cross-wise or criss-crossed to provide any size or shape of compartment. Dividers fit into grooves to prevent creepage of parts into adjacent compartment.

Both drawer materials come in the same six sizes and the six different cabinets fit both style drawers. Cabinets are made to contain 9, 15, 16, 20, 24 and 36 drawers, see table below.



COMPLETELY FLEXIBLE . . . Six different cabinets — six different drawer sizes. Can be stacked in any combination.

DRAWERS DIVIDE, LENGTHWISE CROSSWISE AND CRISSCROSS FOR EFFICIENT INVENTORY CONTROL



XT-509

Drawers Shown XT-5

CABINETS WITH HI-IMPACT SUPER STRONG DRAWERS	SUPER STRONG DRAWER NUMBER	CABINET SIZE All 17⅞" Wide		DRAWER SIZE— INCHES			NUMBER OF DRAWERS INCLUDED	SHIPPING WEIGHT POUNDS	NET * COST COMPLETE
		Deep	High	High	Wide	Long			
XJ-36	XJD-1	6"	11⅛"	1 7/16	2¾	5⅞	36	13	**$12.48**
XG-24	XG-1	6"	9⅞"	2	2¾	5¾	24	11	**$12.48**
XM-320	XM-3	11"	10¼"	2	3	11	20	16½	**$19.98**
XM-416	XM-4	11"	10¼"	2	4	11	16	16¾	**$17.98**
XT-315	XT-3	11"	10⅝"	3 1/32	3⅛	11	15	17	**$17.98**
XT-509	XT-5	11"	10⅝"	3 1/32	5¼	11	9	15¾	**$17.98**

STRONGEST DRAWER MADE VIRTUALLY INDESTRUCTIBLE

*Industrial user net prices F.O.B. shipping point. All local or state taxes additional.

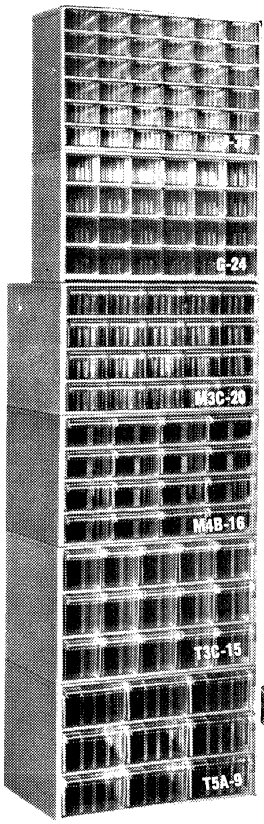
EXTRAORDINARY GUARANTEE!

"X" SERIES HI-IMPACT Drawers are Guaranteed for 5 years against any breakage. We invite you to make the "DROP" test on these unique drawers—drop it . . . FULLY LOADED on any surface—steel, concrete or wood. If the drawer shatters, return to us with a signed note on your company letterhead and we will send you a replacement drawer . . . free.

Net

© U.C.P., Inc.

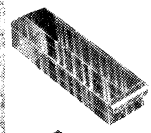
A-M Akro-Mils Parts Cabinets



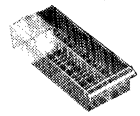
VISUAL INVENTORY CONTROL DRAWERS

JD-1 COMPACT DRAWERS 1-7/16" h. x 2¾" w. x 5⅞" l.

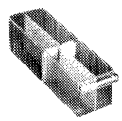
G-1 DEEP COMPACT DRAWERS 2" h. x 2¾" w x 5¾" l.



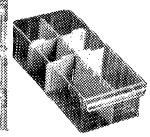
M-3 LONG DRAWERS 2" h. x 3" w. x 11" l.



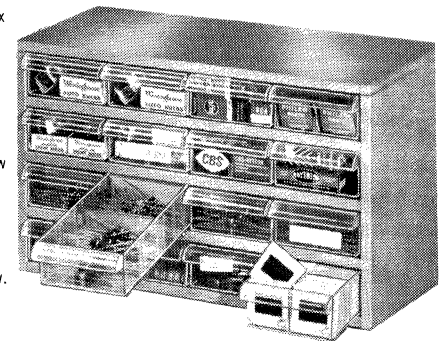
M-4 LONG WIDE DRAWERS 2" h. x 4" w. x 11" l.



T-3 LONG DEEP DRAWERS 3-1/32" h. x 3⅛" w. x 11" l.



T-5 LONG WIDE DEEP DRAWERS 3-1/32" h. x 5¼" w. x 11" l.



To fill your requirements where stock must be readily accessible and easy to locate, these see-through, sturdy molded drawers will also give you instant visual inventory control.

Strong and sturdy, these drawers provide instant selection—no searching or lost motion. A glance tells you how much you have and what you need. Tedious, time-consuming records and counting are virtually eliminated.

CABINETS WITH SEE-THRU TRANSPARENT DRAWERS	VISUAL SEE-THRU DRAWER NUMBER	CABINET SIZE All 17⅞" Wide		DRAWER SIZE—INCHES			NUMBER OF DRAWERS INCLUDED	SHIPPING WEIGHT POUNDS	NET COST COMPLETE
		Deep	High	High	Wide	Long			
J-36	JD-1	6"	11⅛"	1⁷⁄₁₆	2¾	5⅞	36	13	**$12.48**
G-24	G-1	6"	9⅞"	2	2¾	5¾	24	11	**$12.48**
M3C-20	M-3	11"	10¼"	2	3	11	20	16½	**$19.98**
M4B-16	M-4	11"	10¼"	2	4	11	16	16¾	**$17.98**
T3C-15	T-3	11"	10⅝"	3³⁄₃₂	3⅛	11	15	17	**$17.98**
T5A-9	T-5	11"	10⅝"	3³⁄₃₂	5¼	11	9	15¾	**$17.98**

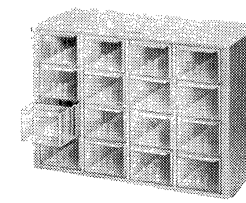
HANDY BIN STEEL CABINETS

Find things fast—store small things better

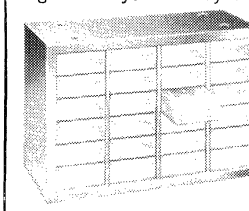
These two cabinets can be used separately or stacked depending on your individual requirments. Instant visual control of all stock is at your disposal at all times.

What a relief! No more time wasted searching for small items in your shop, office or lab. Keep small things handy . . . orderly . . . and at your fingertips in an A-M SEE THRU Drawer Cabinet.

24F Deep Compact Drawers: 2" x 2¾" x 5¾"



101 USES. Perfect for resistors, capacitors, controls . . . electric hardware . . . Unconditional guarantee . . . you must be delighted or your money back.



24HB Compact Drawers 1¼" x 2¾" x 5¾"

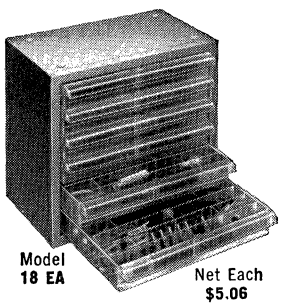
All Models Modular Add & Stack

No other cabinets made have all these desirable features.

- **"See Thru" spillproof plastic drawers. Super strength to store heaviest metal parts.**
- **"Fit Tight" plastic dividers to adjust compartment sizes to your needs.**
- **Rigid, welded steel cabinets with enamel finish that won't chip or rub off.**
- **Modular—stacks neatly, stand or hangs on the wall.**
- **Slots for drawer front index labels. Press-on labels supplied with each drawer.**

24F—9" x 13" x 6" with 16 DEEP COMPACT drawers **$5.63**

24HB—9" x 13" x 6" with 24 COMPACT drawers **$5.63**



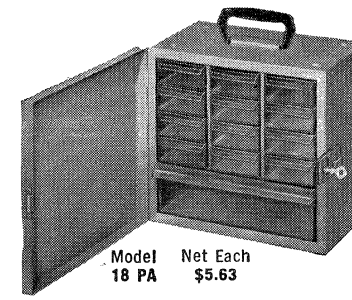
Model **18 EA** Net Each **$5.06**

6 MINIATURE PARTS DRAWERS

Six "roll-out" compartments per drawer—easiest access to tiniest of items. Comes with 9 dividers per drawer, plus labels. Cabinet 9" H. x 10" W. x 6" D. Wgt. 5¾ lbs.

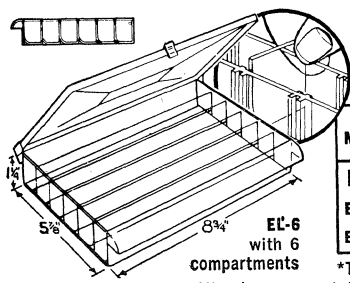
13-DRAWER PORTABLE LOCKING CABINET

12 compact plastic drawers, 1¼" x 2¾" x 5¾". 1 jumbo drawer 2½" x 8¾" x 5¾". Steel case has hinged door with lock clasp. Contents can't spill. Cabinet 9" H. x 10" W. x 6½" D. Wgt. 5¾ lbs.



Model **18 PA** Net Each **$5.63**

101 USES FOR THESE FULLY ADJUSTABLE COMPARTMENTED PLASTIC BOXES

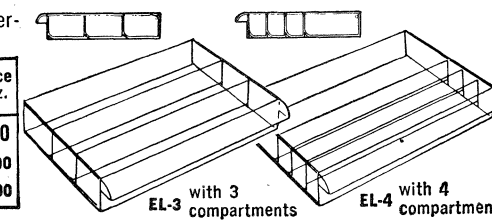


EL-6 with 6 compartments

Curved "roll-out" type compartments—finger-tip can roll small items out with ease.

Model	Compartments	Dividers	Compartment Size Inches	Wt. Doz.	Price Doz.
EL-6	6	9	8-3/4 x 1-1/4 x 15/16	7 lbs.	$9.00
EL-3	3	9	8-3/4 x 1-1/4 x 1-7/8	7 lbs.	$9.00
EL-4	4	7	*	7 lbs.	9.00

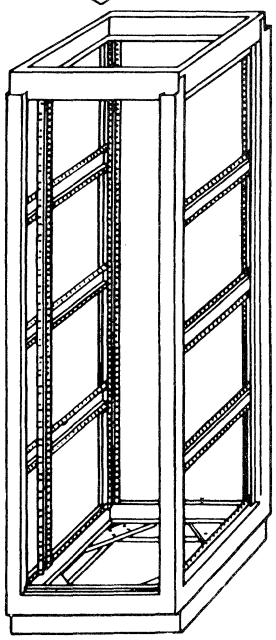
*THREE 8-3/4 x 1-1/4 x 15/16—ONE 8-3/4 x 1-1/4 x 2-7/8



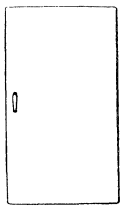
EL-3 with 3 compartments **EL-4** with 4 compartments

All prices are net for industrial users. Prices F.O.B. shipping point. Local or State taxes, if applicable, are additional.

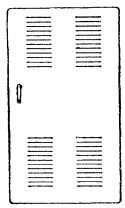
Series "60" Racks



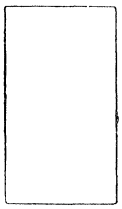
Ⓐ Upright Rack



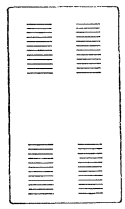
Ⓑ Plain Door



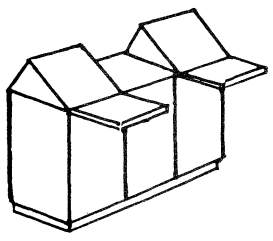
Ⓒ Louvered Door



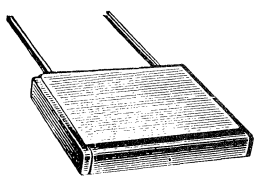
Ⓓ Plain Side



Ⓔ Louvered Side



Typical Assembly



Ⓕ Desk Top

Scientifically designed to meet all requirements for human needs as well as component physical specifications; the most practical cabinet rack developed for either a single piece of equipment or a large instrumentation system. Very economical to the user, units are shipped fully assembled and ready for immediate use.

Basic frame welded in a solid unit composed of 14-gauge cold-rolled steel channels. Sides have "U" braces with perforated channels for fastening vertical adjustable mounting rails. Rails also support other types of equipment such as brackets, shelves, slides, etc. Eliminates need of drilling holes in the rack. Sides and rear door made of 16 gauge steel. Door may be mounted to open left or right. Vertical channel, 6" wide, welded to door to prevent vibration or whip. Two pairs of panel mounting rails are supplied; fully adjustable. Panels may be mounted in front and rear at the same time. Front rails drilled and tapped 10-32 W.E. spacing. Rear rails are drilled according to universal spacing.

All Series Sixty enclosures may be quickly combined with each other to create units of any desired width as shown in the Add-A-Rack series. In addition, such accessories as desk tops, turrets, drawers, slides, sloping panel supports and front door are easily installed.

Standard finishes are smooth baked enamel over a primer. For two-tone gray, specify by adding suffix **SG.** For two-tone blue, add suffix **SB** to order number. Standard Bud relay rack panels are available for the Series Sixty racks in light gray and light blue; when ordering, add suffix **SG** for gray; **SB** for blue.

UPRIGHT CABINET RACKS (FIG. A)

Completely assembled with sides, rear door and top. Standard units have plain sides and door; solid top. For greater ventilation, order units with louvered sides and/or rear door; both, with solid top. Width, 24 1/16", all units. Inside depth 20¼" clear on units with 22" outside depth; 23¾", all others. Top opening 18½" w. x 17" d. on units with 22" outside depth; 18½" w. x 20½" d., all others. **Specify Color When Ordering:** Add suffix **SG** to number for gray; suffix **SB,** for blue.

With Plain Sides and Door							Louvered Sides, Plain Door			
Bud No. 60-	Net Each, Lots of 1-9	10-14	15-19	Height	Outside Depth	Panel Space	Wt., Lbs.	Bud No. 60-	Net Each, Lots of 1-9	10-14	15-19
2300	$106.30	$ 95.67	$ 85.05	29 5/8"	22"	21"	118	2600	$112.00	$100.80	$ 89.60
2301	131.45	118.30	105.15	40 1/8"	22"	31½"	156	2601	140.00	126.00	112.00
2302	146.05	131.45	116.85	50 3/8"	22"	42"	173	2602	156.50	140.85	125.20
2303	166.25	149.60	133.00	61 1/8"	22"	52½"	197	2603	179.00	161.10	143.20
2304	180.25	162.20	144.20	69 7/8"	22"	61¼"	220	2604	194.75	175.28	155.80
2305	200.00	180.00	160.00	78 5/8"	22"	70"	235	2605	216.50	194.85	173.20
2306	218.65	196.80	174.90	87 3/8"	22"	78¾"	265	2606	235.15	211.64	188.12
2307	125.50	112.95	100.40	29 5/8"	25½"	21"	156	2607	135.15	121.64	108.12
2308	151.20	136.10	120.95	40 1/8"	25½"	31½"	176	2608	159.80	143.82	127.84
2309	168.00	151.20	134.40	50 3/8"	25½"	42"	185	2609	178.00	160.20	142.40
2310	186.50	167.85	149.20	61 1/8"	25½"	52½"	211	2610	203.70	183.33	162.96
2311	207.30	186.55	165.85	69 7/8"	25½"	61¼"	240	2611	219.90	197.91	175.92
2312	230.30	207.25	184.25	78 5/8"	25½"	70"	256	2612	244.20	219.78	195.36
2313	251.35	226.20	201.10	87 3/8"	25½"	78¾"	267	2613	266.20	239.58	212.96
With Louvered Sides and Door								**Plain Sides, Louvered Door**			
2700	$110.20	$ 99.18	$ 88.16	29 5/8"	22"	21"	118	2800	$108.50	$ 97.65	$ 86.80
2701	137.00	123.30	109.60	40 1/8"	22"	31½"	156	2801	134.30	120.87	107.44
2702	153.40	138.06	122.72	50 3/8"	22"	42"	173	2802	149.20	134.28	119.36
2703	175.30	157.77	140.24	61 1/8"	22"	52½"	197	2803	169.70	152.73	135.76
2704	190.80	171.72	152.64	69 7/8"	22"	61¼"	220	2804	184.10	165.69	147.28
2705	212.00	190.80	169.60	78 5/8"	22"	70"	235	2805	204.30	183.87	163.44
2706	230.20	207.18	184.16	87 3/8"	22"	78¾"	265	2806	223.40	201.06	178.72
2707	129.90	116.91	103.92	29 5/8"	25½"	21"	156	2807	127.70	114.93	102.16
2708	156.90	141.21	125.52	40 1/8"	25½"	31½"	176	2808	145.00	130.50	116.00
2709	174.70	157.23	139.76	50 3/8"	25½"	42"	185	2809	171.10	153.99	136.88
2710	194.30	174.87	155.44	61 1/8"	25½"	52½"	211	2810	190.00	171.00	152.00
2711	215.90	194.31	172.72	69 7/8"	25½"	61¼"	240	2811	211.10	189.99	168.88
2712	239.80	215.82	191.84	78 5/8"	25½"	70"	256	2812	234.60	211.14	187.68
2713	261.30	235.17	209.04	87 3/8"	25½"	78¾"	267	2813	256.10	230.49	204.88

ACCESSORY PERFORATED TOP

Bud No.	Width	Depth	Fits Upright Rack	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
60-2370	21 15/16"	17"	With overall depth of 22"	6	$5.65	$5.10	$4.50
60-2371	21 15/16"	20½"	With overall depth of 25½"	7	6.00	5.40	4.80

ACCESSORY DOORS

Doors are interchangeable; may be used for front or rear of rack; mount to open either left or right.

Plain Type (Fig. B)								Louvered Type (Fig. C)			
Bud No.	Net Each, Lots of 1-9	10-14	15-19	Ht.	Width	Fits Rack With Panel Space of	Wt., Lbs.	Bud No.	Net Each, Lots of 1-9	10-14	15-19
60-2340	$16.05	$14.45	$12.85	21 7/16"	18 15/16"	21"	8	60-2540	$18.35	$16.52	$14.68
60-2341	19.80	17.80	15.85	31 15/16"	18 15/16"	31½"	11½	60-2541	22.70	20.43	18.16
60-2342	21.90	19.70	17.50	42 7/16"	18 15/16"	42"	15½	60-2542	25.20	22.68	20.16
60-2343	24.30	21.85	19.45	52 15/16"	18 15/16"	52½"	19	60-2543	27.95	25.16	22.36
60-2344	27.05	24.35	21.65	61 11/16"	18 15/16"	61¼"	22¼	60-2544	31.05	27.95	24.84
60-2345	30.05	27.05	24.05	70 7/16"	18 15/16"	70"	25½	60-2545	34.50	31.05	27.60
60-2346	32.80	29.50	26.25	79 3/16"	18 15/16"	78¾"	29	60-2546	37.70	33.93	30.16

ACCESSORY SIDES

Plain Type (Fig. D)								Louvered Type (Fig. E)			
Bud No.	Net Each Pair, Lots 1-9	10-14	15-19	Ht.	Width	Fits Rack With Panel Space of	Wt., Lbs.	Bud No.	Net Each Pair, Lots 1-14	15-24	25-34
60-2560	$24.10	$21.70	$19.30	26 55/64"	22"	21"	12½	60-2580	$28.10	$25.30	$22.50
60-2561	31.50	28.35	25.20	37 23/64"	22"	31½"	17½	60-2581	37.20	33.50	29.75
60-2562	36.65	33.00	29.30	47 55/64"	22"	42"	21	60-2582	44.20	39.80	35.35
60-2563	42.70	38.45	34.15	58 23/64"	22"	52½"	26¼	60-2583	51.95	46.75	41.55
60-2564	46.70	42.05	37.35	67 7/64"	22"	61¼"	30	60-2584	57.40	51.65	45.90
60-2565	51.45	46.30	41.15	75 55/64"	22"	70"	34	60-2585	63.60	57.25	50.90
60-2566	59.00	53.10	47.20	84 39/64"	22"	78¾"	38	60-2586	70.75	63.70	56.60
60-2567	30.15	27.15	24.10	26 55/64"	25½"	21"	14½	60-2587	34.70	31.25	27.75
60-2568	39.40	35.45	31.50	37 23/64"	25½"	31½"	20	60-2588	45.30	40.75	36.25
60-2569	45.85	41.25	36.70	47 55/64"	25½"	42"	24	60-2589	52.75	47.50	42.20
60-2570	53.35	48.00	42.70	58 23/64"	25½"	52½"	29½	60-2590	61.35	55.20	49.10
60-2571	58.35	52.50	46.70	67 7/64"	25½"	61¼"	34½	60-2591	67.10	60.40	53.70
60-2572	64.30	57.90	51.45	75 55/64"	25½"	70"	39	60-2592	73.95	66.55	59.15
60-2573	67.76	61.00	54.20	84 39/64"	25½"	78¾"	43½	60-2593	77.90	70.10	62.30

SERIES SIXTY DESK TOP (FIG. F)

May be used in connection with any Series Sixty enclosure. Furnished completely assembled with wood-grained Formica surface. Fastens to panel mounting rails by two pre-drilled channels. Will support in excess of 200 lbs. Surface 24 1/16" wide, 19½" deep, 3 1/16" high. Available in two colors. **Specify Color:** Add suffix **SG** for gray; **SB** for blue.

Bud No.	Fits Series Sixty	Support Channel	Wt., Lbs.	Ea., 1-14	Ea., 15-24	Ea., 25-34
60-2360	With 22" depth	21 9/32" long	22	$36.05	$32.45	$28.85
60-2362●	With 25½" depth	24¾" long	23	36.75	33.08	29.40

● New product.

533-63A

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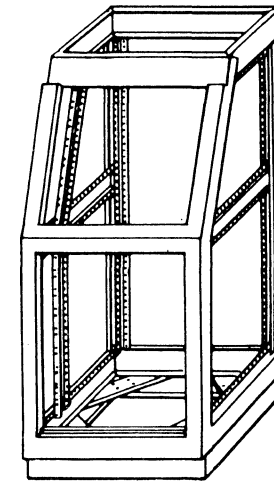
Series "60" Cabinets

INCLINED PANEL CABINET RACKS (FIG. G)

Completely assembled with sides, rear door and solid top. Available in four combinations of plain or louvered sides and rear door. Size, 50⅝" h. x 24 1/16" w. x 22" d., outside; 20¼" d., clear inside. Weight, 165 lbs. **Specify Color When Ordering:** Add suffix **SG** to number for gray; suffix **SB,** for blue.

With Plain Sides and Door				Incline Panel Hgt.	Vert. Panel Hgt.	Top Opening W. x D.	Louvered Sides and Plain Door			
Bud No. 60-	Net Each, Lots of 1-9	10-14	15-19				Bud No. 60-	Net Each, Lots of 1-9	10-14	15-19
2330	$165.25	$148.70	$132.20	10½"	29¾"	18½" x 11¾"	2630	$147.20	$132.48	$117.76
2331	175.15	157.65	140.10	15¾"	24½"	18½" x 10"	2631	184.20	165.78	147.36
2332	175.15	157.65	140.10	17½"	22¾"	18½" x 9⅜"	2632	184.20	165.78	147.36
With Louvered Sides and Door							Plain Sides, Louvered Door			
2730	$170.90	$153.81	$136.72	10½"	29¾"	18½" x 11¾"	2830	$168.50	$151.65	$134.80
2731	181.00	162.90	144.80	15¾"	24½"	18½" x 10"	2831	178.40	160.56	142.72
2732	181.00	162.90	144.80	17½"	22¾"	18½" x 9⅜"	2832	178.40	160.56	142.72



G **Inclined Panel Rack**

ACCESSORY FRONT DOORS

Plain Type (Fig. J)						Fits Rack Top Open. Size, In.	Wt., Lbs.	Louvered Type (Fig. K)			
Bud No.	Net Each, Lots of 1-9	10-14	15-19	Height	Width			Bud No.	Net Each, Lots of 1-9	10-14	15-19
60-2350	$19.85	$17.85	$15.90	30 3/16"	18 15/16"	18½x11¾	11	60-2550	$22.80	$20.52	$18.24
60-2351	18.55	16.70	14.85	25 15/16"	18 15/16"	18½x10	9½	60-2551	21.30	19.17	17.04
60-2352	18.00	16.20	14.40	23 3/16"	18 15/16"	18½x9⅜	9	60-2552	20.70	18.63	16.56

ACCESSORY REAR DOORS

60-2342	$21.90	$19.70	$17.50	42 7/16"	18 15/16"	All sizes	15½	60-2542	$25.20	$22.68	$20.16

ACCESSORY SIDES

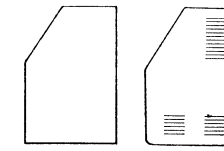
Specify "L" for left side or "R" for right side, determined when facing front of rack.

60-2574*	$38.45	$34.60	$30.75	47 55/64"	22"	18½x11¾	11	60-2594†	$44.20	$39.80	$35.35
60-2575*	39.55	35.60	31.65	47 55/64"	22"	18½x10	9½	60-2595†	45.50	40.95	36.40
60-2576*	39.55	35.60	31.65	47 55/64"	22"	18½x9⅜	9	60-2596†	45.50	40.95	36.40

*Fig. H. †Fig. I.

ACCESSORY PERFORATED TOPS

Bud No.	Width	Depth	Fits Rack Top Size, In.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
60-2372	21 15/16"	11 13/16"	18½ x 11¾	4	$4.40	$3.95	$3.50
60-2373	21 15/16"	10"	18½ x 10	3	4.25	3.85	3.40
60-2374	21 15/16"	9 13/32"	18½ x 9⅜	3	4.20	3.80	3.35

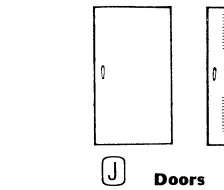


H **Side Panels** I

ADD-A-RACK SERIES

Each assembly consists of frame, top, bottom, rear door and cowlings; used as an add-on unit to join any of the Series Sixty enclosures into a bank of two or more. One standard rack plus several Add-A-Racks make any desired number of racks combined for optimum width. Colors same as above Racks.

Plain Sides					Louvered Sides					
Bud No. 60-	For Add-on to Rack No. 60-	Net Each, Lots of 1-9	10-14	15-19	Bud No. 60-	For Add-on to Rack No. 60-	Net Each, Lots of 1-9	10-14	15-19	Wt., Lbs.
2500	2300, 2600	$ 86.10	$ 77.50	$ 68.90	2900	2700, 2800	$ 88.40	$ 79.56	$ 70.72	92
2501	2301, 2601	104.75	94.30	83.80	2901	2701, 2801	107.65	96.89	86.12	113
2502	2302, 2602	114.70	103.25	91.75	2902	2702, 2802	118.00	106.20	94.40	115
2503	2303, 2603	125.30	112.75	100.25	2903	2703, 2803	128.95	116.06	103.16	145
2504	2304, 2604	140.00	126.00	112.00	2904	2704, 2804	144.00	129.60	115.20	148
2505	2305, 2605	156.00	140.40	124.80	2905	2705, 2805	160.45	144.41	128.36	152
2506	2306, 2606	167.35	150.60	133.90	2906	2706, 2806	172.25	155.03	137.80	158
2507	2307, 2607	100.00	90.00	80.00	2907	2707, 2807	102.30	92.07	81.84	120
2508	2308, 2608	117.25	105.55	93.80	2908	2708, 2808	120.15	108.14	96.12	132
2509	2309, 2609	128.00	115.20	102.40	2909	2709, 2809	131.30	118.17	105.04	138
2510	2310, 2610	139.60	125.65	111.70	2910	2710, 2810	143.25	128.93	114.60	142
2511	2311, 2611	156.10	140.50	124.90	2911	2711, 2811	160.10	144.09	128.08	164
2512	2312, 2612	174.00	156.60	139.20	2912	2712, 2812	178.45	160.61	142.76	168
2513	2313, 2613	192.50	173.25	154.00	2913	2713, 2813	197.40	177.66	157.92	172
2530	2330, 2630	132.90	119.60	106.30	2930	2730, 2830	136.20	122.58	108.96	119
2531	2331, 2631	142.10	127.90	113.70	2931	2731, 2831	145.40	130.86	116.32	119
2532	2332, 2632	142.10	127.90	113.70	2932	2732, 2832	145.40	130.86	116.32	125

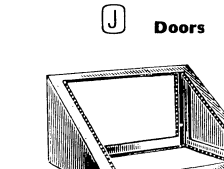


J **Doors** K

SERIES SIXTY TURRETS (FIG. L)

Made of 16 gauge steel; designed so that any one of three sides may be attached to a Series Sixty upright rack or any horizontal surface. Accommodate standard 19" panels. All mounting rails have universal spacing. Sides easily removed when a series of interconnecting turrets are desired. **Specify Color When Ordering:** Add suffix **SG** for dark gray; **SB** for dark blue. For panels, order standard Bud panels with suffix **SG** for light gray; **SB** for light blue.

Bud No.	Width	Depth	Height	Panel Space Sloping	Bottom	Rear	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
60-2364	22 1/16"	17⅞"	12 5/16"	17½"	14"	8¾"	17	$39.05	$35.15	$31.25
60-2365	22 1/16"	14⅜"	10 3/16"	12¼"	10½"	7"	14	32.55	29.30	26.05
60-2366	22 1/16"	20 13/16"	14⅜"	21"	17½"	10½"	20	41.00	36.90	32.80

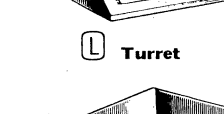


L **Turret**

SERIES SIXTY DRAWER (FIG. M)

Fits into any Series Sixty cabinet rack. Slides easily on nylon rollers. Capable of supporting heavy loads. Drawer extends to full depth while stops prevent drawer from falling out. Slides are easily attached to panel supporting rails. Silver anodized handles. Shipped completely assembled. **Specify Color When Ordering:** Add suffix **SG** to stock number for gray; **SB** for blue.

Bud No.	Size (Inside), Inches	Weight, Lbs.	Net Each, Lots of 1-14	15-24	25-34
60-2368	16⅝ x 6¾ x 19¼	28	$32.05	$28.85	$25.65



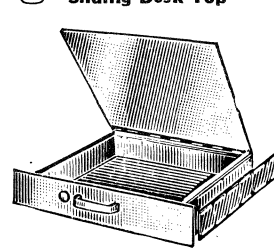
M **Drawer**

SERIES SIXTY SLIDING DESK TOP AND DESK TOP DRAWER

Fit standard Series Sixty racks. Smooth Formica* writing surface resists damage. Fits flush with front of unit when not in use. **No. 60-2361 Desk Top:** Usable area 11" x 16⅞". Occupies 1¾" h. panel space. Tested to support 75 lbs. distributed weight. Ball-bearing slide mechanism mounts directly in Series Sixty racks; brackets supplied to fit other Bud cabinets. Size, 16⅞" w. x 15⅛" d. x 1¾" h. with 19" wide front panel. **No. 60-2363 Desk Top Drawer:** Hinged desk top on drawer to hold small tools, parts, etc. Ingenious latch on front panel both locks and releases drawer or top as desired. Mounts to U-brackets in cabinet; slides on nylon rollers; hardware supplied. Front panel, 19" w. x 3½" h. Inside size, 16⅝" x 3¼" x 15".

Bud No.	Fig.	Specify Color by Suffix:	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
60-2361	N	**B**, black wrinkle; **G**, gray wrinkle; **HG**, gray hammertone; **SB**, smooth blue; **SG**, smooth gray	8	$16.65	$14.99	$13.32
60-2363●	O	**SB**, smooth blue; or **SG**, smooth gray	19	55.00	49.50	44.00

● New product. *Synthane Corp. trademark.



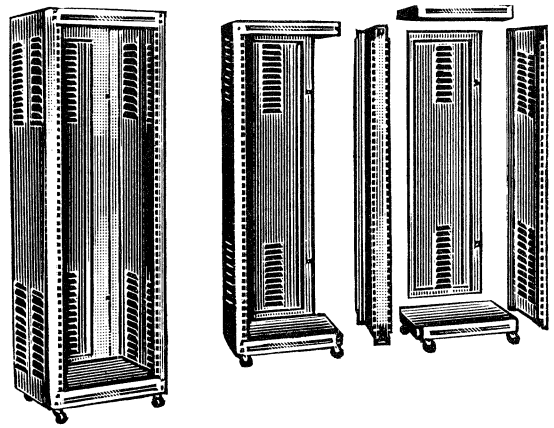
N **Sliding Desk Top**

O **Desk Top Drawer**

533X-63A

Cabinet Racks, Accessories

DELUXE RELAY RACKS WITH ADD-A-RACK



High quality relay racks made of 16-gauge steel with 7/64" panel supports. Panel mounting supports are recessed so that no panel edges will be exposed. Both back and sides are fully louvered for best ventilation. Snap catches are positioned on the door. Rounded corners and red-lined chrome trim give streamlined appearance. Base constructed with four special supports so that casters may be applied directly to base for mobility. All standard panels will fit these racks: 22" wide for 19" panels; 27" wide for 24" panels.

Super Deluxe Series Relay Racks are equipped with adjustable panel mounting supports permitting forward and backward adjustment of panels for more efficient use of space. Adjustable points are at 1" intervals for 9" to 15" clearance behind panels. Super Deluxe Racks are fitted with both front and rear doors, the rear to cover any equipment behind the panel while making it easily accessible. The front door, not louvered, conceals controls on the front panel.

Add-A-Rack Series—Where relay racks are to be joined in series. Provides additional strength and improved appearance. Includes door, top, bottom and coupling unit, all that is needed to make a double relay rack out of a single Deluxe series.

All Racks Listed are shipped knocked-down with all necessary hardware and assembly instructions. Casters optional. When ordering specify finish. Add suffix **"HG"** for gray hammertone; suffix **"G"** for gray wrinkle; and suffix **"B"** for black wrinkle.

SUPER DELUXE TWO-DOOR RACKS

WITH 19" WIDE PANEL SPACE

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-9	10-14	15-19
CR-2174	42 1/16"	36 3/4"	102	$ 64.13	$ 57.72	$51.30
CR-2171	47 5/16"	42"	104	72.65	65.39	58.12
CR-2172	66 9/16"	61 1/4"	138	93.77	84.39	75.02
CR-2175●	75 5/16"	70"	150	96.00	86.40	76.80
CR-2173	82 5/16"	77"	163	112.56	101.30	90.05

WITH 24" WIDE PANEL SPACE

CR-2494●	42 1/16"	36 3/4"	119	$ 83.00	$ 74.70	$66.40
CR-2491●	47 5/16"	42"	122	93.00	83.70	74.40
CR-2492●	66 9/16"	61 1/4"	160	121.00	108.90	96.80
CR-2495●	75 5/16"	70"	175	123.00	110.70	98.40
CR-2493●	82 5/16"	77"	190	145.00	130.50	116.00

ADD-A-RACK ASSEMBLIES

Includes door, top, bottom and coupling unit for add-on use with racks indicated.

Bud No.	For Use With Rack No.	Wt., Lbs.	Net Each, Lots of 1-9	10-14	15-19
AR-1275*	RR-1271	61	$ 34.90	$31.41	$27.92
AR-1276*	RR-1272	81	43.75	39.37	35.00
AR-1277*	RR-1273	94	51.25	46.12	41.00
AR-1778	CR-1774	70	44.34	39.91	35.47
AR-1775	CR-1771	74	49.01	44.11	39.21
AR-1776	CR-1772	100	60.96	54.86	48.77
AR-1779●	CR-1780	107	62.00	55.80	49.60
AR-1777	CR-1773	113	74.90	67.41	59.92
AR-4274●	CR-2474	82	55.00	49.50	44.00
AR-4271●	CR-2471	87	62.00	55.80	49.60
AR-4272●	CR-2472	117	77.75	69.98	62.21
AR-4275●	CR-2475	125	79.25	71.33	63.41
AR-4273●	CR-2473	132	93.25	83.93	74.61
AR-2278*	CR-2074	102	60.15	54.13	48.12
AR-2275*	CR-2071	86	68.06	61.25	54.65
AR-2276*	CR-2072	110	85.17	76.65	68.14
AR-2279●	CR-2075	120	87.00	78.30	69.60
AR-2277*	CR-2073	130	103.75	93.38	83.00
AR-3278●	CR-2484	100	78.00	70.20	62.40
AR-3275●	CR-2481	119	87.00	78.30	69.60
AR-3276●	CR-2482	129	109.00	98.10	87.20
AR-3279●	CR-2485	140	111.00	99.90	88.80
AR-3277●	CR-2483	152	131.00	117.90	104.80

*Gray hammertone standard; for black or gray wrinkle add 10% to price.

DOOR HANDLES, CATCH SETS

No. 9347: Fits flush with cabinet door; exposed parts chrome plated. **Nos. 9196 and 9223:** Lever-type handles are chrome plated with corrosion-resistant steel spindle and cam; fit Super Deluxe racks.

Bud No.	Description	Net Each, Lots of 1-49	50-99	100-149
9196	Non-locking handle	$2.66	$2.39	$2.13
9223	9196 with lock and key	5.00	4.50	4.00
9347	Flush-mount catch set	.98	.88	.78

TRUCK CASTERS

Use with all Bud relay racks and other floor mounted units. Ball bearing wheels are hard tread composition. **RC-7756** is for heavy duty applications. **RC-7758** is for extra heavy duty use (Series 60 Racks).

Bud No.	Height	Weight (Set of 4)	Net Each, Lots of 1-49	50-99	100-149
RC-7756	2 5/8"	1 3/4 lbs.	$0.90	$0.81	$0.72
RC-7757	2"	1 lb.	.40	.36	.32
RC-7758	3 1/4"	6 lbs.	2.17	1.95	1.74

● New product.

DELUXE RELAY RACKS

17 1/8" Overall Depth

WITH 19" WIDE PANEL SPACE

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-9	10-14	15-19
CR-1774	42 1/16"	36 3/4"	82	$45.17	$40.65	$36.14
CR-1771	47 5/16"	42"	92	51.10	45.99	40.88
CR-1772	66 9/16"	61 1/4"	115	63.96	57.56	51.17
CR-1780●	75 5/16"	70"	125	65.00	59.50	52.00
CR-1773	82 5/16"	77"	135	76.57	68.91	61.26

WITH 24" WIDE PANEL SPACE

CR-2474●	42 1/16"	36 3/4"	96	$57.50	$51.75	$46.00
CR-2471●	47 5/16"	42"	108	65.00	58.50	52.00
CR-2472●	66 9/16"	61 1/4"	135	81.50	73.35	65.20
CR-2475●	75 5/16"	70"	146	83.00	74.70	66.40
CR-2473●	82 5/16"	77"	158	97.60	87.84	78.08

EXTRA DEEP DELUXE RACKS

Same as above, except 22" deep instead of 17 1/8" deep. Gray hammertone finish standard; for black or gray wrinkle add 10% to price.

WITH 19" WIDE PANEL SPACE

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-9	10-14	15-19
CR-2074	42 1/16"	36 3/4"	98	$ 63.10	$56.79	$50.48
CR-2071	47 5/16"	42"	102	71.40	64.26	57.12
CR-2072	66 9/16"	61 1/4"	137	89.35	80.42	71.48
CR-2075●	75 5/16"	70"	148	90.80	81.72	72.66
CR-2073	82 5/16"	77"	159	106.13	95.52	84.90

WITH 24" WIDE PANEL SPACE

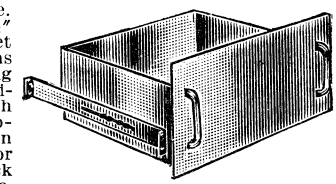
CR-2484●	42 1/16"	36 3/4"	115	$ 81.00	$ 72.90	$64.80
CR-2481●	47 5/16"	42"	119	91.00	81.90	72.80
CR-2482●	66 9/16"	61 1/4"	160	114.00	102.60	91.20
CR-2485●	75 5/16"	70"	173	116.00	104.40	92.80
CR-2483●	82 5/16"	77"	186	136.00	122.40	108.80

SPACE SAVER RELAY RACKS

Same as Deluxe Series, except only 10" deep (9" inside, clear) to save space but retain panel height and width. Suited for use with Bud panel mounting chassis as well as standard 19" relay rack panels; lend themselves to Add-A-Rack assembly. Gray hammertone finish standard; for black or gray wrinkle add 10% to price.

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-9	10-14	15-19
RR-1271	47 5/16"	42"	70	$36.60	$32.95	$29.28
RR-1272	66 9/16"	61 1/4"	91	45.85	41.26	36.68
RR-1273	75 5/16"	70"	100	53.75	48.37	43.00

●NEW DRAWER WITH ADJUSTABLE SLIDES



Fits any cabinet or cabinet rack with 19" panel space. Slide bracket adjustable 16 3/8" to 22 1/8" to fit any cabinet with depth 17" to 23". Fastens by bracket to panel mounting rail in front and rear of cabinet. Nylon rollers for smooth movement. Hardware supplied. Specify color when ordering: Add suffix **HG** for gray hammertone; **B** for black wrinkle; or **G** for gray wrinkle.

Bud No.	Inside Size, Inches	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
D-1721●	16 3/8 x 6 3/8 x 16 1/4	19 1/2	$40.80	$36.72	$32.64

534-63A

Net

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Relay Racks and Panels

STANDARD RELAY RACK PANELS

Choice of steel or aluminum relay rack panels, 1/8" or 3/16" thick, in both 19" and 24" widths. Specify color when ordering, use letter suffix: **B** for black wrinkle; **G** for gray wrinkle; **HG** for gray hammertone; **SB** for smooth blue; **SG** for smooth gray. Aluminum panels 5005 H-36 alloy.

STANDARD 19" WIDE PANELS

Ht., In.	1/8" STEEL Bud No. PS-	Net Each, Lots of 1-49	50-99	100-149	1/8" ALUMINUM Bud No. PA-	Net Each, Lots of 1-49	50-99	100-149
1¾	1250	$0.84	$0.76	$0.67	1101	$1.09	$0.98	$0.87
3½	1251	1.00	.90	.80	1102	1.42	1.28	1.14
5¼	1252	1.25	1.13	1.00	1103	1.92	1.73	1.54
7	1253	1.42	1.28	1.14	1104	2.42	2.18	1.94
8¾	1254	1.75	1.58	1.40	1105	2.84	2.56	2.27
10½	1255	2.09	1.88	1.67	1106	3.59	3.23	2.87
12¼	1256	2.42	2.18	1.94	1107	4.09	3.68	3.27
14	1257	2.84	2.56	2.27	1108	4.76	4.28	3.81
15¾	1258	3.09	2.78	2.47	1109	5.34	4.81	4.27
17½	1259	3.51	3.16	2.81	1110	5.85	5.27	4.68
19¼	1260	3.84	3.46	3.07	1111	6.43	5.79	5.14
21	1261	4.26	3.83	3.41	1112	7.01	6.31	5.61

•STANDARD 24" WIDE PANELS

1¾	3420	$1.25	$1.13	$1.00	2401	$1.70	$1.53	$1.36
3½	3421	1.45	1.31	1.17	2402	2.20	1.98	1.76
5¼	3422	1.80	1.62	1.44	2403	3.00	2.70	2.40
7	3423	2.05	1.85	1.65	2404	3.75	3.38	3.01
8¾	3424	2.55	2.30	2.05	2405	4.40	3.96	3.52
10½	3425	3.05	2.75	2.45	2406	5.60	5.04	4.48
12¼	3426	3.60	3.24	2.88	2407	6.35	5.72	5.09
14	3427	4.15	3.74	3.33	2408	7.40	6.66	5.92
15¾	3428	4.70	4.23	3.76	2409	8.30	7.47	6.64
17½	3429	5.20	4.68	4.16	2410	9.10	8.19	7.28
19¼	3430	5.75	5.18	4.60	2411	10.00	9.00	8.00
21	3431	6.35	5.72	5.09	2412	11.00	9.90	8.80

STANDARD 3/16" THICK ALUMINUM PANELS

Ht., In.	Standard 19" Wide Panels Bud No. PA-	Net Each, Lots of 1-49	50-99	100-149	Standard 24" Wide Panels• Bud No. PA-	Net Each, Lots of 1-49	50-99	100-149
1¾	3101	$1.74	$ 1.57	$1.39	2431	$ 3.10	$ 2.79	$ 2.48
3½	3102	2.27	2.04	1.82	2432	4.00	3.60	3.20
5¼	3103	3.07	2.76	2.46	2433	5.50	4.95	4.40
7	3104	3.87	3.48	3.10	2434	6.80	6.12	5.44
8¾	3105	4.54	4.09	3.63	2435	8.00	7.20	6.40
10½	3106	5.74	5.17	4.59	2436	10.15	9.04	8.12
12¼	3107	6.54	5.89	5.23	2437	11.50	10.35	9.20
14	3108	7.62	6.86	6.10	2438	13.50	12.15	10.80
15¾	3109	8.54	7.69	6.83	2439	15.05	13.55	12.05
17½	3110	9.36	8.42	7.49	2440	16.50	14.85	13.20
19¼	3111	10.29	9.26	8.23	2441	18.20	16.38	14.56
21	3112	11.22	10.10	8.98	2442	20.00	18.00	16.00

SURFACE SHIELD PANELS

Bright aluminum alloy 5005 H-36 panels have blemish-free mill finish. Covered on both sides with sturdy, pressure-sensitive, white paper; protects against damage and useful for marking for drilling, positioning, etc. Standard notched sizes.

STANDARD 19" WIDE PANELS

Ht., In.	1/8" ALUMINUM Bud SFA-	Net Each, Lots of 1-49	50-99	100-149	3/16" ALUMINUM Bud SFA-	Net Each, Lots of 1-49	50-99	100-149
1¾	1831	$0.97	$0.87	$0.78	3161	$1.79	$1.61	$1.43
3½	1832	1.34	1.21	1.07	3162	2.36	2.12	1.89
5¼	1833	1.80	1.62	1.44	3163	3.17	2.85	2.54
7	1834	2.21	1.99	1.77	3164	3.91	3.52	3.13
8¾	1835	2.66	2.39	2.13	3165	4.68	4.21	3.74
10½	1836	3.34	3.01	2.67	3166	5.90	5.31	4.72
12¼	1837	3.85	3.47	3.08	3167	6.80	6.12	5.44
14	1838	4.45	4.01	3.56	3168	7.85	7.06	6.28
15¾	1839	4.97	4.47	3.98	3169	8.76	7.88	7.01
17½	1840	5.47	4.92	4.38	3170	9.67	8.70	7.74
19¼	1841	5.99	5.39	4.79	3171	10.57	9.51	8.46
21	1842	6.50	5.85	5.20	3172	11.48	10.33	9.18

•STANDARD 24" WIDE PANELS

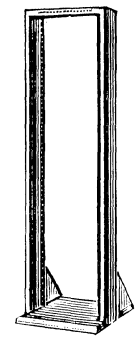
1¾	2451	$ 1.90	$ 1.71	$1.52	3401	$ 3.55	$ 3.20	$ 2.85
3½	2452	2.50	2.25	2.00	3402	4.70	4.23	3.76
5¼	2453	3.30	2.97	2.64	3403	6.30	5.67	5.04
7	2454	4.20	3.78	3.36	3404	7.75	6.98	6.21
8¾	2455	4.90	4.41	3.92	3405	9.30	8.37	7.44
10½	2456	6.20	5.53	4.96	3406	11.70	10.53	9.36
12¼	2457	7.00	6.30	5.60	3407	13.50	12.15	10.80
14	2458	8.20	7.38	6.56	3408	15.60	14.04	12.48
15¾	2459	9.20	8.28	7.36	3409	17.40	15.66	13.92
17½	2460	10.00	9.00	8.00	3410	19.20	17.28	15.36
19¼	2461	11.00	9.90	8.80	3411	21.00	18.90	16.80
21	2462	12.00	10.80	9.60	3412	22.80	20.52	18.24

RACK SHELVES

Heavy gauge steel shelves with 1" flange for rigidity and strength. Mount on chassis supporting angles in rack to hold power supplies, modulators, etc. Width 19". Black enamel finish.

Bud No.	Depth, Inches	Weight, Lbs.	Net Each, Lots of 1-24	25-49	50-99
CB-1976	15"	6½	$3.47	$3.12	$2.78
CB-1977	12"	5½	2.64	2.38	2.11

•NEW DELUXE TELEPHONE-TYPE RELAY RACKS



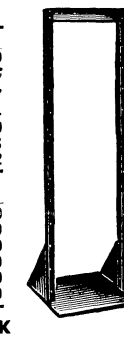
Sturdy open rack with extra strength and greater capacity. Upright U-member is unitize-welded with ventilation provided at top. Two panel-mounting rails, at front and rear, tapped 10-32 with W.E. spacing. Made of 12 ga. steel throughout. Chassis-type base drilled for RC-7756 casters. Triangular brackets hold uprights to base; holes provided on both sides for bolting racks together in "Add-A-Rack" manner. Add suffix **HG** for gray hammertone finish; **B** for black wrinkle; or **G** for gray wrinkle. Nos. RR-1367–RR-1369 have 20⅞" base width and take 19" wide panels. Nos. RR-2467–RR-2469 have 25⅞" base width and take 24" wide panels.

Bud No.	Height, Overall	Panel Space	Net Each, Lots of 1-9	10-14	15-19
RR-1367	64 5/8"	61¼"	$35.50	$31.95	$28.40
RR-1368	73 3/8"	70"	36.25	32.63	29.01
RR-1369	80 3/8"	77"	43.00	38.70	34.40
RR-2467	64 5/8"	61¼"	45.00	40.50	36.00
RR-2468	73 3/8"	70"	46.00	41.40	36.80
RR-2469	80 3/8"	77"	54.50	49.05	43.60

TELEPHONE-TYPE RELAY RACKS

Standard Models: 3" channels and crossbars of 7/64" steel. Base has chassis type bottom with side angles. Base drilled for RC-7756 casters. Black wrinkle (suffix **"B"**) or gray hammertone (suffix **"HG"**).

Heavy Duty Models RR-1265 and RR-1465: Two 3½" x 5" x ¼", 20⅜" long angles form base. Steel channels are 3" x 1⅜", 72¼" long. Cross bars are ⅛" x 2 3/32" angles. Panel holes tapped 12-24 with W.E. space. Black wrinkle finish only. Usually bolted to floor.



FOR 19" WIDE PANELS

Bud No.	Height, Overall	Panel Space	Net Each, Lots of 1-9	10-14	15-19
RR-1263	35 39/64"	31½"	$21.71	$19.53	$17.37
RR-1363	40 55/64"	36¾"	21.96	19.76	17.57
RR-1264	70 39/64"	66½"	24.80	22.32	19.84
RR-1364	75 55/64"	71¾"	25.13	22.62	20.10
RR-1366	81 7/64"	77"	29.98	26.98	23.98
RR-1265	72¼"	66½"	54.78	49.30	43.82

•FOR 24" WIDE PANELS

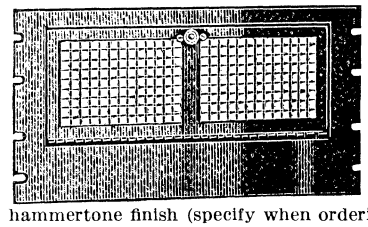
RR-1463	35 39/64"	31½"	$28.00	$25.20	$22.40
RR-2463	40 55/64"	36¾"	29.00	26.10	23.20
RR-1464	70 39/64"	66½"	32.00	28.80	25.60
RR-2464	75 55/64"	71¾"	33.00	29.70	26.40
RR-2466	81 7/64"	77"	39.00	35.10	31.20
RR-1465	72¼"	66½"	71.00	63.90	56.80

TABLE-MOUNT TELEPHONE RACK

Sturdy rack with chassis type base mounts heavy components on table where enclosures are not required. Panel mount rails recessed for flush mount of 19" panels. Shipped knocked down. Specify black wrinkle (suffix **"B"**) or gray hammertone (**"HG"**).

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
RR-1248	24"	21"	15	$ 9.10	$ 8.19	$7.28
RR-1249	31"	28"	18	11.19	10.07	8.95

VENTILATED DOOR RACK PANELS



Generous perforated area in door provides adequate ventilation for adjacent units. Also features a newly designed plunger-type latch for positive locking and easy opening. Distance from hinged side of opening to bottom, 3½"; from lock side of opening to top, 1". Available in black or gray wrinkle finish or gray hammertone finish (specify when ordering). ⅛" steel, 19" long.

Bud No.	Height, Overall	Door Size, Inches	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
PS-814	10½"	15⅜ x 6	6	$7.52	$6.77	$6.03
PS-815	12¼"	15⅜ x 7½	7	8.27	7.44	6.62

NON-VENTILATED METAL DOOR PANELS

PS-615	10½"	15⅜ x 6	7¼	$6.08	$5.47	$4.86
PS-616	12¼"	15⅜ x 7½	8¼	7.52	6.77	6.02

VENTILATING GRILLE PANELS

Substitute for solid panels for extra ventilation. Made of ⅛" steel with die-cut grille 13 13/32" wide. Standard notched 19" wide sizes. Specify black wrinkle (suffix **B**), gray wrinkle (suffix **G**), or gray hammertone (suffix **HG**).

Bud No.	Height, Overall	Grille Height	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
PS-808	5¼"	3⅜"	2½	$3.26	$2.93	$2.61
PS-809	7"	4⅞"	3½	3.54	3.19	2.83
PS-810	8¾"	3⅜"*	5	4.26	3.83	3.41
PS-811	10½"	5⅞"*	5¾	4.51	4.06	3.61
PS-812	12¼"	7⅜"*	6¼	4.84	4.36	3.87

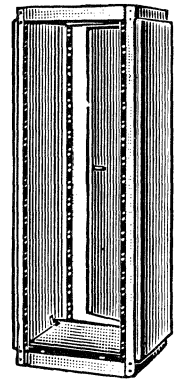
*Allows 3½" space for chassis mounting.

• New product.

534X-63A

Racks, Cabinets, Blowers

PRESTIGE BALL CORNER RACKS



Attractive, practical housing for permanent or mobile instrumentation. Standard Prestige relay rack consists of framework, top, bottom, two ball cornered sides, and a ball corner door. Sides attach to frame by means of a tongue-and-slot arrangement at bottom and two screws at top. Sides easily removable for access. Drilled and tapped panel mounting rails on all four vertical members of frame. Doors mount from either left or right side. Slotted base takes ball-cornered side panels on any of the four sides. Door and side clearance permits covering of equipment without damage to knobs or controls. Provision made for recessed casters. Extra doors available for placing on any of the sides. Knockout holes provided for attaching two or more units together. Bottom will support 500 lbs., panel rails 200 lbs. suspended vertically between rails. Units take Bud SD-1717 sliding drawer assembly or CD-2210 console drawer. Shipped knocked-down, with necessary assembly hardware. **Gray hammertone finish only. Now furnished with adjustable panel mounting rails.**

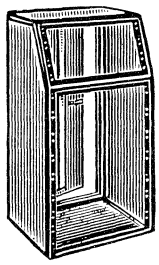
Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-9	10-14	15-19
CR-2280	69 9/16"	61 1/4"	179	$108.35	$ 97.51	$ 86.68
CR-2281	71 13/16"	66 1/2"	186	115.55	103.99	92.44
CR-2282	82 5/16"	77"	213	129.75	116.77	103.80
DR-2290	Door for CR-2280		28	13.50	12.15	10.80
DR-2291	Door for CR-2281		33	14.40	12.96	11.52
DR-2292	Door for CR-2282		39	16.20	14.58	12.96

PRESTIGE ADD-A-RACKS

Where relay racks are to be joined in series the Add-A-Rack assembly is lower in cost yet provides additional strength and improved appearance. Consists of top, bottom, rear door and framework. Made of 16 gauge steel. Extra ball corner doors will fit adjustable panel mounting rails which are recessed so that panel will be flush with face of rack. Add-A-Racks may be added at any time as needed. Gray hammertone finish.

Bud No.	Used to Add-A-Rack to	Net Each, Lots of 1-9	10-14	15-19
CR-2284	CR-2280	$ 85.29	$76.76	$68.23
CR-2286	CR-2281	92.15	82.94	73.72
CR-2287	CR-2282	103.47	93.12	82.78

IMPERIAL INCLINED PANEL CONSOLE

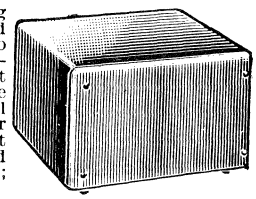


Smart looking all-aluminum Imperial console built for strength while keeping weight factor in mind. Complete assembly includes framework, top, bottom, two sides, and reinforced door with concealed hinges and flush mounted latch. Extrusions and joints are ball-cornered aluminum castings. Inclined panel set at 22½° angle for comfortable viewing. Cast brass, heavy duty hinges specifically designed to enable components, blowers, etc., to be mounted on rear door. Framework for top, inclined panel area and front are extrusions, drilled and tapped to accept standard rack panels. Casters may be attached to bottom. Standard Bud aluminum panels may be used to enclose the front and inclined panel spaces. Gray hammertone finish only.

Bud No.	Overall, Inches W. x D. x H.	Vertical Panel Size, Inches	Weight, Lbs.
BI-1828	20 15/16 x 18 5/8 x 40 11/16	19 1/16 x 28 1/16	41
BI-2228	20 15/16 x 22 1/8 x 40 11/16	19 1/16 x 28 1/16	47
BI-2419	20 15/16 x 19 17/32 x 43 21/32	19 1/16 x 24 9/16	43
BI-2421	20 15/16 x 21 9/32 x 43 21/32	19 1/16 x 24 9/16	46

Bud No.	Net Each, Lots of 1-9	10-14	15-19
BI-1828	$155.00	$139.50	$124.00
BI-2228	170.00	153.00	136.00
BI-2419	190.00	171.00	152.00
BI-2421	200.00	180.00	160.00

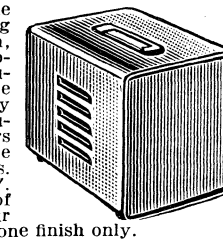
CONTOUR UTILITY CABINETS



Attractively designed utility housing with rounded contour corners. Flanged panels also have rounded corners to preserve the symmetry of design. Constructed of 20 gauge steel. Both front and rear panels are removable; the front panel is solid while the rear panel is louvered for proper ventilation. Four rubber feet, attached to base, prevent scratching surface the unit is placed on. Body is smooth, dark gray enamel; panel is smooth light gray enamel.

Bud No.	Overall Size, Inches H.	W.	D.	Net Each, Lots of 1-24	25-49	50 & Over
CU-463	4 7/32	6 7/32	3 3/4	$ 5.50	$4.95	$4.40
CU-465	4 7/32	6 7/32	5 3/4	6.35	5.72	5.08
CU-585	5 7/32	8 7/32	5 3/4	8.35	7.52	6.68
CU-587	5 7/32	8 7/32	7 3/4	9.10	8.19	7.28
CU-7125	7 7/32	12 7/32	5 3/4	9.70	8.73	7.76
CU-7127	7 7/32	12 7/32	7 3/4	10.35	9.32	8.28

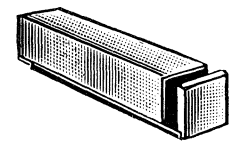
PORTACAB



Attractive, versatile cabinets desirable as housings for instrumentation requiring highly stylized appearance. Custom, quality look achieved in standard production models. Made entirely of aluminum to minimize weight. Flexible recessed handle permits easy portability as well as vertical stacking. Well louvered for adequate ventilation. Louvers point inward, permitting side-to-side placement of cabinets without space loss. Aluminum front panel recessed ½". Welded back has opening. Perimeter of panel follows contour of body. Has four detachable rubber feet. Gray hammertone finish only.

Bud No.	Size, Inches W. x D. x H.	Wt., Lbs.	Bud Chassis	Net Each, Lots of 1-24	25-49	50-99
WA-1540	6 1/8 x 8 x 8	2½	AC-402	$ 9.20	$ 8.28	$ 7.36
WA-1541	8 1/8 x 12 x 9	3	AC-407	12.00	10.80	9.60
WA-1542	10 1/8 x 8 x 8	3½	AC-406	10.65	9.59	8.52
WA-1543	11 1/8 x 18 x 11	6½	AC-416	13.50	12.15	10.80
WA-1544	14 1/8 x 18 x 12	7¾	AC-420	15.50	13.95	12.40

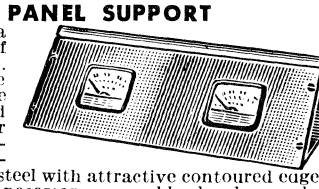
MINISLIDE



Ideal for housing components or assemblies where easy access to internally mounted parts is important. Can be mounted in a number of positions in a rack or cabinet. Accessibility achieved by removing sliding cover. Design of Minislide Box provides adequate shielding and protection from dust. Sturdily made of .050 aluminum. 4 self-tapping fastening screws included. Choice of gray hammertone (**GH**) or natural aluminum (**NA**).

Bud No.	Finish	Size, Inches W. x D. x H.	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
MS-2150	(GH)	3 1/8 x 13 x 2 5/8	1	$3.75	$3.38	$3.00
MS-2151	(GH)	5 1/8 x 13 x 2 5/8	1½	4.30	3.87	3.44
MS-2152	(GH)	3 1/8 x 17 x 2 5/8	1¼	4.15	3.74	3.32
MS-3050	(NA)	3 1/8 x 13 x 2 5/8	1	2.85	2.57	2.28
MS-3051	(NA)	5 1/8 x 13 x 2 5/8	1½	3.50	3.15	2.80
MS-3052	(NA)	3 1/8 x 17 x 2 5/8	1¼	3.35	3.02	2.68

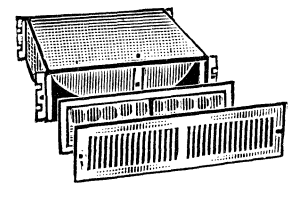
DUAL-VIEW PANEL SUPPORT



Designed for installation on a rack where an oblique view of instrument panel is desired. Engineered so that the entire assembly occupies no more space than size of supported panel. Panel support cover can be removed for easy servicing or installation of instruments. Made of heavy gauge steel with attractive contoured edges. Comes knocked-down with necessary assembly hardware, but without panels. Bud panels to fit these supports are PS-1253 (steel), and PA-1104 (aluminum) for Model IP-1120; PS-1255 (steel), and PA-1106 (aluminum) for IP-1121. Furnished in black wrinkle (add suffix **"B"**), gray hammertone (add suffix **"HG"**), gray wrinkle (add suffix **"G"**), smooth gray (suffix **"SG"**), or smooth blue (suffix **"SB"**).

Bud No. IP-1120—Requires 19" x 7" panel space. Wt., 3½ lbs. Net Each, Lots of 1-14.....**$4.15**
Lots of 15-24, Each....**$3.74** Lots of 25-34, Each....**$3.32**
Bud No. IP-1121—Requires 19" x 10½" panel space. Wt., 6¾ lbs. Net Each, Lots of 1-14.....**$5.80**
Lots of 15-24, Each....**$5.22** Lots of 25-34, Each....**$4.64**

TRANS-AIRE BLOWER



Ideal for use where excessive heat is generated by equipment in an enclosed rack, cabinet or console. Brings in fresh air or exhausts heated air, enabling use as an exhaust or intake blower, depending upon mounting position. Unit will operate in any position—vertical or horizontal. May be mounted to rails of standard cabinet or rack. Use of Bud Chassis Supporting Angles SA-1349, SA-1350 or CE-2219 is recommended when blower is mounted in rack or cabinet. Motor is rubber mounted to reduce vibration. Operating noise factor reduced to minimum. Thermal overload protection to prevent overheating. Automatic reset. Oil impregnated, fiberglas disposable filter can be changed without removing unit from cabinet. Three sizes provide air displacement from 100 c.f.m. to 750 c.f.m. at 0° static pressure. Complete with filter, chrome-plated grille and 18" three-wire cord. All dimensional and technical data in table below. **Weight:** B-23 17¼ lbs., B-25 33 lbs.; B-27 35¼ lbs.; replacement filter 1 lb.

BLOWERS

Bud No.	Panel Space	Depth	Air c.f.m. High	Air c.f.m. Low	Mot. hp	Net Each, Lots of 1-9	10-14	15 Up
B-23	3½"x19"	12"	200	100	1/20	$47.10	$42.39	$37.68
B-25	5¼"x19"	14½"	500	250	1/6	53.35	48.02	42.68
B-27	7" x19"	14½"	750	350	¼	61.35	55.22	49.08

FILTERS FOR ABOVE BLOWERS

Bud No.	Unit	Net Each, Lots of 1-24	25-49	50-99
BF-24	Filter for use with B-23	$1.35	$1.22	$1.08
BF-26	Filter for use with B-25	1.50	1.35	1.20
BF-28	Filter for use with B-27	1.65	1.49	1.32

535-62A

Net

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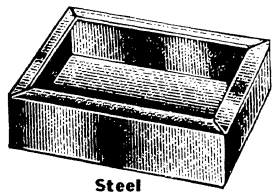
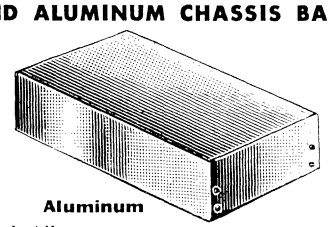
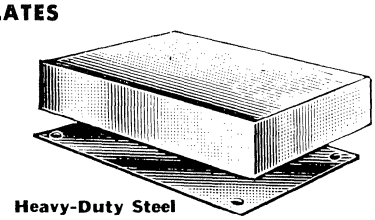
Chassis, Dial Lock

STEEL AND ALUMINUM CHASSIS BASES, PLATES


Steel


Aluminum


Heavy-Duty Steel

Each chassis is made from a single sheet of metal. All corners are reinforced and spot welded. Aluminum bases are welded on Government approved welders as used for aircraft parts; natural finish aluminum alloy 5005 H-14. All four sides are folded at the bottom for added rigidity and strength.

STEEL CHASSIS BASES

Made of 20 gauge steel except as otherwise specified.

Size, Inches D. x W. x H.	Zinc Plated Finish Bud CB-	Net Each, Lots of 1-24	25-49	50-99	Black Wrinkle Finish Bud CB-	Net Each, Lots of 1-24	25-49	50-99
5½ x 5½ x 1●	101*	$1.47	$1.32	$1.18				
5 x 7 x 2	629*	1.30	1.17	1.04	628*	$1.07	$0.96	$0.86
4½ x 8 x 1½●	102*	1.60	1.44	1.28				
5 x 9 x 1½●	103*	1.40	1.26	1.12				
5 x 9½ x 2½	645*	1.67	1.50	1.34	644*	1.37	1.23	1.10
5 x 9½ x 1½	776*	1.69	1.52	1.35	788*	1.20	1.08	.96
5 x 10 x 3	605*	1.84	1.66	1.47	604*	1.27	1.14	1.02
5 x 13 x 3●	105	2.30	2.07	1.84				
6 x 8 x 2●	104	1.57	1.41	1.26				
6 x 14 x 3	756	2.05	1.85	1.64	755	1.75	1.58	1.40
7 x 7 x 2	1191	1.50	1.35	1.20	789	1.20	1.08	.96
7 x 9 x 2	1192	1.59	1.43	1.27	790	1.40	1.26	1.12
7 x 11 x 2	1193	1.67	1.50	1.34	791	1.45	1.31	1.16
7 x 12 x 3	793	2.05	1.85	1.64	792	1.57	1.41	1.26
7 x 13 x 2	1194	1.92	1.73	1.54	646	1.54	1.39	1.23
5 x 13½ x 2½	1198	2.17	1.95	1.74	647	1.77	1.59	1.42
7 x 15 x 3	1189	2.40	2.16	1.92	649	2.00	1.80	1.60
8½ x 15 x 3	666	2.71	2.44	2.17	665	2.24	2.02	1.79
4 x 17 x 3	1066	2.14	1.93	1.71	1068	1.80	1.62	1.44
7 x 17 x 2½	1199	2.37	2.13	1.90	648	1.99	1.79	1.59
7 x 17 x 3	758	2.59	2.33	2.07	757	2.15	1.94	1.72
8 x 10 x 2½	702	2.02	1.82	1.62	701	1.72	1.55	1.38
8 x 12 x 2½	704	2.24	2.02	1.79	703	1.75	1.58	1.40
8 x 12 x 3	760	2.34	2.11	1.87	759	1.85	1.67	1.48
8 x 17 x 2	774	2.34	2.11	1.87	650	1.70	1.53	1.36
8 x 17 x 3	775	2.62	2.39	2.10	651†	2.05	1.85	1.64
10 x 12 x 3	1195	2.25	2.03	1.80	652	1.89	1.70	1.51
12 x 12 x 3●	106	3.34	3.01	2.67				
10 x 14 x 3	779	2.44	2.20	1.95	653	2.04	1.84	1.63
10 x 17 x 2	769	2.39	2.15	1.91	654†	2.00	1.80	1.60
10 x 17 x 3	637	2.84	2.57	2.27	636†	2.00	1.80	1.60
10 x 17 x 3	1196‡	3.05	2.75	2.44	655†‡	2.54	2.29	2.03
10 x 23 x 3	1197‡	3.42	3.08	2.74	656‡	2.86	2.57	2.29
11 x 17 x 2	770‡	2.81	2.53	2.25	657†‡	2.35	2.12	1.88
11 x 17 x 3	771‡	3.49	3.14	2.79	658†‡	2.77	2.49	2.22
12 x 17 x 2	661‡	3.09	2.78	2.47	663†‡	2.44	2.20	1.95
12 x 17 x 3	662‡	3.67	3.30	2.94	664†‡	2.91	2.62	2.33
13 x 17 x 2	772‡	3.72	3.35	2.98	659†‡	2.91	2.62	2.33
13 x 17 x 3	773‡	4.07	3.66	3.26	660†‡	3.41	3.07	2.73
10 x 17 x 4	641‡	3.51	3.16	2.81	640†‡	2.92	2.63	2.34
13 x 17 x 4	643‡	4.68	4.21	3.74	642†‡	3.92	3.53	3.14
10 x 17 x 5	624‡	5.34	4.81	4.27	623‡	4.51	4.06	3.61
13 x 17 x 5	626‡	5.93	5.34	4.74	625‡	4.93	4.44	3.94

*22 gauge. †Punched to accommodate chassis mounting brackets. ‡18 gauge.

STEEL CHASSIS BOTTOM PLATES

Protect wiring and keep out dust from chassis bottom. Four embossed feet. Two finishes to match chassis finish.

Fits Chassis Size, In. W. x L.	Zinc Plated Finish Bud BP-	Net Each, Lots of 1-49	50-99	100-149	Black Wrinkle Finish Bud BP-	Net Each, Lots of 1-49	50-99	100-149
5 x 7	706	$0.69	$0.62	$0.55	705	$0.57	$0.51	$0.46
5 x 9½	667	.75	.68	.60	680	.62	.56	.50
5 x 10	538	.73	.66	.58	536	.67	.60	.54
7 x 7	668	.97	.87	.78	681	.92	.83	.74
7 x 9	669	.99	.89	.79	682	.94	.85	.75
7 x 11	670	1.07	.96	.86	683	.95	.86	.76
7 x 12	539	1.12	1.01	.90	537	.99	.89	.79
7 x 13	671	1.20	1.08	.96	684	1.02	.92	.82
5 x 13½	672	1.00	.90	.80	685	.84	.76	.67
4 x 17	1067	1.07	.96	.86	1069	.84	.76	.67
7 x 17	673	1.37	1.23	1.10	686	.90	.81	.72
8 x 10	708	1.05	.94	.84	707	.92	.83	.74
8 x 12	710	1.34	1.21	1.07	709	1.06	.95	.85
8 x 17	674	1.54	1.39	1.23	687	.95	.86	.76
10 x 12	675	1.57	1.41	1.26	688	.95	.86	.76
10 x 14	514	1.33	1.20	1.06	517	1.25	1.13	1.00
10 x 17	676	1.60	1.44	1.28	689	1.20	1.08	.96
11 x 17	677	1.60	1.44	1.28	690	1.20	1.08	.96
12 x 17	678	1.87	1.68	1.50	691	1.27	1.14	1.02
13 x 17	679	2.24	2.02	1.79	692	1.47	1.32	1.18

HEAVY DUTY CHASSIS

Complete with 20 ga. bottom plate for uses requiring extra strength to hold heavy weights. Made of 16 ga. steel; 17″ wide.

Size, In. D. x H.	Zinc Plated Finish Bud CB-	Net Each, Lots of 1-24	25-49	50-99	Black Wrinkle Finish Bud CB-	Net Each, Lots of 1-24	25-49	50-99
8 x 3	1765	$4.76	$4.28	$3.81	1758	$4.26	$3.83	$3.41
11 x 3	1767	4.84	4.36	3.87	1760	4.34	3.91	3.47
13 x 2	1768	5.34	4.81	4.27	1761	4.84	4.36	3.87
13 x 3	1769	5.43	4.89	4.34	1762	4.93	4.44	3.94
13 x 4	1770	5.85	5.27	4.68	1763	5.26	4.73	4.21

ALUMINUM CHASSIS BASES

Bud No.	Size, Inches D. x W. x H.	Ga.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
AC-430	4 x 6 x 3	18	½	$1.34	$1.21	$1.07
AC-431	4 x 6 x 2	18	½	1.10	.99	.88
AC-432	4 x 17 x 3	16	1¼	2.33	2.10	1.86
AC-402	5 x 7 x 2	18	½	1.17	1.05	.94
AC-429	5 x 7 x 3	18	¾	1.42	1.28	1.14
AC-403	5 x 9½ x 2	18	½	1.24	1.12	.99
AC-401●	5 x 9½ x 2½	18	¾	1.47	1.32	1.18
AC-421	5 x 9½ x 3	18	¾	1.60	1.44	1.28
AC-404	5 x 10 x 3	18	¾	1.63	1.47	1.30
AC-422	5 x 13 x 3	18	¾	1.84	1.66	1.47
AC-433	6 x 17 x 3	16	1¼	2.67	2.40	2.14
AC-405	7 x 7 x 2	18	½	1.35	1.22	1.08
AC-406	7 x 9 x 2	18	½	1.46	1.31	1.17
AC-407	7 x 11 x 2	18	¾	1.58	1.42	1.26
AC-408	7 x 12 x 3	18	1	2.00	1.80	1.60
AC-409	7 x 13 x 2	18	¾	1.67	1.50	1.34
AC-411	7 x 15 x 3	16	1½	2.67	2.40	2.14
AC-423	7 x 17 x 3	16	1¾	2.75	2.48	2.20
AC-424	8 x 12 x 3	16	1½	2.42	2.18	1.94
AC-425	8 x 17 x 2	16	1½	2.51	2.26	2.01
AC-412†	8 x 17 x 3	16	1¾	2.84	2.56	2.27
AC-413	10 x 12 x 3	16	1½	2.67	2.40	2.14
AC-414	10 x 14 x 3	16	1¾	2.84	2.56	2.27
AC-415†	10 x 17 x 2	16	1¼	2.68	2.41	2.14
AC-416†	10 x 17 x 3	16	2	3.17	2.85	2.54
AC-426†	11 x 17 x 2	14	2¼	3.42	3.08	2.74
AC-417†	11 x 17 x 3	14	2¾	3.97	3.57	3.18
AC-418†	12 x 17 x 3	14	2¾	4.08	3.67	3.26
AC-419†	13 x 17 x 2	14	2½	3.51	3.16	2.81
AC-420†	13 x 17 x 3	14	2¾	4.26	3.83	3.41
AC-427†	10 x 17 x 4	14	3½	4.51	4.06	3.61
AC-428†	13 x 17 x 4	14	3¾	5.76	4.73	4.21

†Punched to accommodate chassis mounting brackets.

ALUMINUM CHASSIS BOTTOM PLATES

Bud No.	Fits Chassis W. x L., In.	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
BPA-1589	5 x 7	⅛	$0.74	$0.67	$0.59
BPA-1590	5 x 9½	¼	.75	.68	.60
BPA-1591	5 x 10	¼	.75	.68	.60
BPA-1592	7 x 7	⅛	.77	.69	.62
BPA-1593	7 x 9	⅛	.80	.72	.64
BPA-1594	7 x 11	⅛	.90	.81	.72
BPA-1595	7 x 12	½	.97	.87	.78
BPA-1596	7 x 13	½	1.14	1.03	.91
BPA-1597	10 x 17	¾	1.52	1.37	1.22
BPA-1598	13 x 17	¾	2.07	1.86	1.66

CHASSIS DECKS

Use in carrying cases, cabinets, etc.; deck is folded 1½″ over at front and ½″ on sides. Black enamel finish only.

Bud No.	Size, In. W. x D.	Fits Cabinet Number	Net Each, Lots of 1-24	25-49	50-99
CB-522	4¾ x 5½	CU-1098	68c	61c	54c
CB-523	4¾ x 4½	CU-1099	65c	59c	52c
CB-525	5¾ x 5½	CU-1124, CU-1096	78c	70c	62c

CHASSIS SUPPORTING ANGLES

Distribute weight to sides of the rack to relieve the panel. Angles are 3″ x 1⅜″ x 7/64″ steel. Black enamel finish. **No. CE-2219** designed for attachment to rails of Console Pedestal or Prestige Relay Racks. Slotted for infinite vertical adjustment; extend to full cabinet depth; 21″ x 3″ x 2¾″.

Bud No.	Length, Inches	Weight, Lbs.	Net Per Pair, Lots of 1-24	25-49	50-99
SA-1349	14½	4	$2.25	$2.03	$1.80
SA-1350	12	3	2.17	1.95	1.74
CE-2219	21	7½	3.00	2.70	2.40

DIAL LOCK

The only simple-to-operate, efficient and inexpensive, positive dial lock on the market. Dual purpose design functions as both dial lock and position indicator. Completely eliminates problems of dial slippage and accidental movement. Nickel-plated brass construction.

Bud No. DL-1947 Dial Lock—Net Each..... **17c**

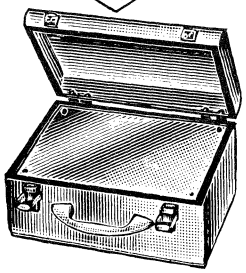
● New product.

WRITE FOR INFORMATION AND PRICES ON BUD CONSOLE AND TABLE ASSEMBLIES.

537X-63A

Cases, Racks, Chassis

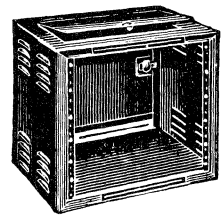
•NEW TRANSICASES



Handsome, portable instrument case with unlimited applications. Contour design fabricated of .040″ aluminum with flush-fitting aluminum panel. Foam-rubber lined lid protects instruments in case; mounted on two slide-off, bright nickel-plated hinges with toggle catches. Rubber feet at both base and back; metal plugs supplied to fill holes if rubber feet are not used. Bright nickel-plated handle. **Specify Color:** Add suffix **SB** for smooth blue; **SG**, for smooth gray enamel.

Bud No.	Inside Panel Size, Inches	Clear Internal Space Below Panel	Clear Internal Space Above Panel	Internal Aperture	Overall Size, Inches W. x D. x H.	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
TC-300	8 15/16 x 5 15/16	4 13/32″	1 15/32″	8″ x 5 31/32″	10 1/16 x 7 x 6	3¾	$24.95	$22.46	$19.96
TC-301	10⅜ x 7¼	4 13/32″	1 15/32″	9 7/16″ x 7 9/32″	11½ x 8¼ x 6	4½	25.50	22.95	20.40
TC-302	11⅞ x 7 13/16	5 29/32″	1 15/32″	10 15/16″ x 7 31/32″	13 x 9 x 7½	6	26.00	23.40	20.80
TC-303	15⅜ x 7 15/16	5 29/32″	1 15/32″	14 7/16″ x 7 31/32″	16½ x 9 x 7½	8	26.50	23.85	21.20
TC-304	19 x 7	7 11/32″	1 15/32″	18 1/16″ x 7 1/32″	20⅛ x 8 x 9	10	27.90	25.11	22.32

DELUXE CABINET RACKS



Rounded corners, red-lined chrome trim. There is a recessed, hinged door on the top with a snap catch. These racks are made of heavy gauge steel and are of sturdy construction. The five large sizes have a hinged rear door, while the small sizes have a welded panel in the rear. Adequate ventilation is assured by means of louvered sides and a 2½-inch opening in the bottom of the back extends the entire width. "NO-SCRATCH" EXTENDED METAL FEET ARE EMBOSSED ON THE BOTTOM. In black wrinkle (add suffix **"B"** to number when ordering), gray wrinkle (suffix **"G"**), and hammertone gray (suffix **"HG"**). **Size:** 14¾″ x 22″ w. Fits 19″ panels. **Aluminum panel cover supplied.**

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
CR-1726	8 25/32″	7″	24	$15.28	$13.75	$12.22
CR-1741	10 9/16″	8¾″	28	16.70	15.03	13.36
CR-1740	12 5/16″	10½″	31	19.12	17.21	15.30
CR-1742	14 1/16″	12¼″	32	20.12	18.11	16.10
CR-1739	15 13/16″	14″	35	21.96	19.76	17.57
CR-1743*	19 5/16″	17½″	40	26.22	23.60	20.98
CR-1727*	22 13/16″	21″	43	28.06	25.25	22.45
CR-1744*	28 1/16″	26¼″	51	30.14	27.13	24.11
CR-1728*	33 5/16″	31½″	58	31.98	28.78	25.58
CR-1745*	36 13/16″	35″	63	33.65	30.29	26.92

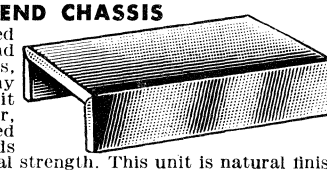
*These sizes have both top and rear doors.

HEAVY-DUTY CABINET RACKS

Similar to above units with Add-A-Cab feature (similar to Add-A-Rack) for continuously expanding systems. Panel mounting rails are integral part of the sides. Removable rear door. Louvered sides and 2½″ x 17⅞″ opening in the bottom of the back assure adequate ventilation. Made of 16 ga. steel. Gray hammertone finish; black or gray wrinkle at 10% additional charge. **Size:** 17⅞″ d. x 22″ w.

CR-1736	24½″	19¼″	50	$26.65	$23.98	$21.32
CR-1737	31½″	26¼″	57	28.75	25.87	23.00
CR-1738	40¼″	35″	70	34.15	30.73	27.32
ACR-1936	Add-A-Cab for CR-1736		42	25.40	22.86	20.32
ACR-1937	Add-A-Cab for CR-1737		52	27.40	24.66	21.92
ACR-1938	Add-A-Cab for CR-1738		57	32.55	29.29	26.04

OPEN-END CHASSIS



Primarily intended to be used with the various sizes and styles of Bud metal cabinets, these chassis are ideal for any type of small built-up unit such as a record amplifier, code oscillator, etc. U-shaped construction is used with ends folded over ⅜″ for additional strength. This unit is natural finish aluminum alloy 5005 H-14.

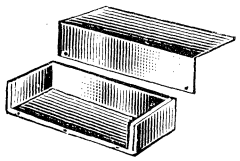
Bud No.	Size, Inches D. x W. x H.	Fits Cabinet Number	Net Each, Lots of 1-24	25-49	50-99
CB-38	7 x 6 x 2	C-1584	$1.00	$0.90	$0.80
CB-30	5 x 7 x 1½	.....	.97	.87	.78
CB-41	7 x 7 x 1½	C-973	1.24	1.12	.99
CB-39	7 x 8 x 2	C-1585	1.17	1.05	.94
CB-996	5½ x 9 x 1½	C-993	1.09	.98	.87
CB-976	7½ x 9 x 1½	C-999, CD-1481	1.40	1.26	1.12
CB-40	7 x 10 x 2	C-1586	1.37	1.23	1.10
CB-997	7 x 11 x 1½	C-994, CD-1482	1.30	1.17	1.04
CB-998	7 x 13 x 1½	C-995, CD-1483	1.59	1.43	1.27

MINIATURE ALUMINUM CHASSIS

Small versions of above with ¼″ flange on bottom for bottom plate or fastening. Ideal for limited space uses. Natural finish.

CB-1623	2⅞ x 2¾ x 1¼	.....	$0.38	$0.34	$0.30
CB-1624	1¾ x 3⅛ x 1	CU-883	.42	.38	.34
CB-1625	3¼ x 4½ x 2	C-1788	.48	.43	.38
CB-1626	2¾ x 4⅛ x 1	CU-728	.45	.41	.36
CB-1627	3¾ x 4⅛ x 1½	CU-729	.45	.41	.36
CB-1628	3 x 6⅛ x 1¼	C-1788	.53	.48	.42
CB-1629	5¾ x 4⅞ x 1½	CU-1098	.57	.51	.46
CB-1617	4 x 3⅛ x 1	C-1606, C-1610	.41	.37	.33
CB-1618	4 x 4⅛ x 1	C-1607, C-1611	.50	.45	.40
CB-1619	4 x 5⅛ x 1	C-1608, C-1612	.53	.48	.42
CB-1620	4 x 6⅛ x 1	C-1609, C-1613	.55	.50	.44

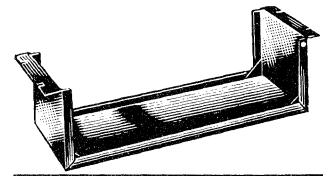
•NEW CONVERTA-BOX



Versatile enclosure combines welded base and two-sided cover. Components or controls are easily mounted to any surface of the unit. All contents easily accessible. Cover and base are fastened by self-tapping screws. Rigid 20 ga. cadmium-plated steel.

Bud No.	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CU-341	1½ x 4 x 3	½	$1.90	$1.71	$1.52
CU-452	2 x 5 x 4	1	2.00	1.80	1.60
CU-482	2 x 8 x 4	1¼	2.09	1.88	1.67
CU-592	2½ x 9½ x 5	1¾	2.25	2.03	1.80
CU-622	2½ x 12 x 6	2¾	2.50	2.25	2.00
CU-712	2½ x 15 x 7	3½	3.34	3.01	2.67

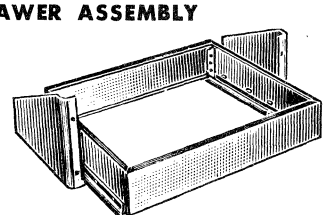
PANEL CHASSIS



Panel mounting chassis for vertical installation where depth is limited or front service is desired. Made of .062″ aluminum alloy 5005 H-14 in natural finish. Front flange has standard notching. Fits standard 19″ panel space.

Bud No.	Height, Inches	Weight, Lbs.	Net Each, Lots of 1-24	25-49	50-99
CB-1370	1¾	¾	$2.30	$2.07	$1.84
CB-1371	3½	1¼	2.59	2.33	2.07
CB-1372	5¼	1½	2.84	2.56	2.27
CB-1373	7	2	3.26	2.93	2.61
CB-1374	8¾	2¼	3.76	3.38	3.01
CB-1375	10½	2¾	4.43	3.99	3.54
CB-1376	12¼	3	4.84	4.36	3.87
CB-1377	14	3¼	5.34	4.81	4.27

SLIDING DRAWER ASSEMBLY



Ideal for use as a record player mounting base, typewriter base, apparatus and instrument base, writing desk, etc. Installs quickly and simply in any standard rack. Can't fall out or tilt. Provides a completely safe mounting base for anything put on it. Ball bearing suspension for easy sliding. Chassis formed from one-piece 14 gauge aluminum; electro-welded. Support brackets formed from one-piece ⅛″ aluminum. Slide rail fastens securely to chassis, slides in and out easily on channeled ball bearings. Stop screw on slide rail prevents drawer from falling out of channel. Support brackets and channel finished in natural aluminum; chassis, slide and plate finished in light gray hammertone. Will support up to 50 lbs. **Chassis Size:** 16¾″ x 14″ x 3″, with ½″ flange top and bottom. *Fastens to top or bottom.

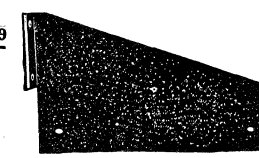
Bud No.	Description	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
SD-1717	Sliding drawer	5	$11.43	$10.29	$9.14
TP-1718	Drawer plate*	1⅛	2.56	2.30	2.05

CHASSIS MOUNTING BRACKETS

Mounts chassis to panels, essential when panel supports entire chassis weight. Heavy gauge steel 6½″ high, cut away at bottom to mount flush to panel. Black enamel finish.

Bud No.	Depth, In.	Net Per Pair, Lots of 1-49	50-99	100-149
MB-458	8	$1.09	$0.98	$0.87
MB-448	10	1.35	1.22	1.08
MB-459	11	1.50	1.35	1.20
MB-449	12	1.75	1.58	1.40
MB-460	13	1.69	1.52	1.35
MB-450*	10	1.97	1.77	1.58
MB-451*	13	2.09	1.88	1.67

*8½″ high for chassis height of 4″.



TRIANGULAR MOUNTING BRACKETS

Ideal for rigid support of shelves to take heavy loads. Heavy gauge steel with ¾″ flange. Black enamel finish only.

Bud No.	Height, In.	Depth, In.	Wt., Lbs.	Net Per Pair, Lots of 1-9	10-14	15-19
MB-1266	5	5	1	$1.00	$0.90	$0.80
MB-1267	7	7	1	1.17	1.05	.94
MB-1268	9	9	1½	1.42	1.28	1.14

• New product.

535X-63A

Net

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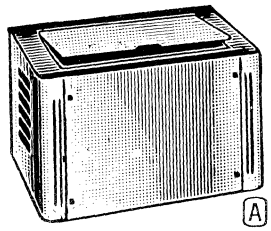
Cabinets and Cases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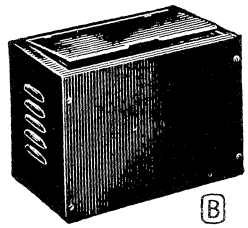
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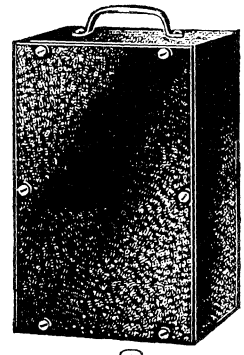

C

STREAMLINED CABINETS (FIG. A)

Ideal for housing devices not requiring excessive depth. Recessed, hinged cover with convenient finger lift for access. Panels fit flush with embossed, rounded corner fronts. Recommended for use with Bud Open End Chassis. Back opening 3½" h. provides for cables or rear controls; louvered sides provide ample ventilation. **Size:** 8¼" d. x 8" h., overall. Specify black wrinkle (suffix **"B"**), gray wrinkle (suffix **"G"**) or gray hammertone (suffix **"HG"**) finish.

Bud No.	Width, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CD-1480	10½"	8" x 8"	5¾	$ 5.90	$ 5.31	$ 4.72
CD-1481	12½"	8" x 10"	6	6.01	5.41	4.81
CD-1482	14½"	8" x 12"	6½	6.31	5.68	5.05
CD-1483	16½"	8" x 14"	7	6.77	6.09	5.42
CD-1484	18½"	8" x 16"	7¾	7.36	6.62	5.89
CD-1485*	20¾"	12" x 18"	15	14.95	13.45	11.96

*Depth is 12"; has ½" vertical chrome strip at corners.

INSTRUMENT AND RECEIVER CABINETS (FIG. B)

Economy version of the Streamlined Cabinet series. Recessed, hinged cover provides access to contents. Front panel is attached with self-tapping screws. Louvers provide ample ventilation. Bud Open End Chassis are suited for use with these units. Black wrinkle finish only.

Bud No.	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
C-973	7 x 8 x 8	5	$4.18	$3.76	$3.34
C-993	7 x 10 x 8	5½	4.84	4.36	3.87
C-994	7 x 12 x 8	5¾	5.01	4.51	4.01
C-995	7 x 14 x 8	6	5.26	4.73	4.21
C-1190	8 x 16 x 8	7	7.60	6.84	6.08
C-975	9 x 15 x 11	8	9.19	8.27	7.35
C-999	12 x 18 x 12	15	9.92	8.93	7.94

CARRYING CASES (FIG. C)

A versatile cabinet that accepts a variety of equipment. Removable front and back panels; handle may be attached to top. Available in sturdy steel or lightweight aluminum to suit your requirements.

STEEL CASES

Specify black wrinkle (suffix **"B"**) or gray hammertone (suffix **"HG"**) finish when ordering.

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CC-1095	5 x 6 x 9	3¼	$3.01	$2.71	$2.41
CC-1091	5 x 9 x 6	3¼	3.01	2.71	2.41
CC-1096	6 x 7 x 12	4	4.18	3.76	3.34
CC-1092	6 x 12 x 7	4	4.18	3.76	3.34
CC-1097	7 x 7¾ x 15	5	4.68	4.21	3.74
CC-1100	8 x 10 x 10	5	4.84	4.36	3.87
CC-1093	7 x 15 x 9	5	5.85	5.27	4.68

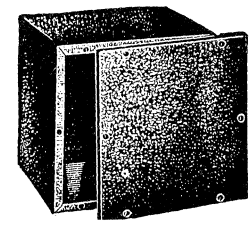
NATURAL FINISH ALUMINUM CASES*

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
ACC-2095	5 x 6 x 9	1⅛	$3.09	$2.78	$2.47
ACC-2091	5 x 9 x 6	1⅛	3.09	2.78	2.47
ACC-2096	6 x 7 x 12	1⅓	4.50	4.05	3.60
ACC-2092	6 x 12 x 7	1⅓	4.50	4.05	3.60

GRAY HAMMERTONE ALUMINUM CASES*

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
ACC-2095HG	5 x 6 x 9	1⅛	$3.51	$3.16	$2.81
ACC-2091HG	5 x 9 x 6	1⅛	3.51	3.16	2.81
ACC-2096HG	6 x 7 x 12	1⅓	5.09	4.58	4.07
ACC-2092HG	6 x 12 x 7	1⅓	5.09	4.58	4.07

*Aluminum alloy 5005 H-14.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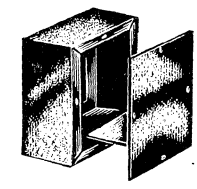
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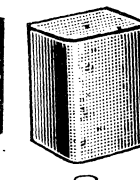

F

METAL UTILITY CABINETS (FIG. D)

Highly useful housing for all types of electronic equipment such as mixers, monitors, frequency meters, etc. Both front and back panels are removable for easy accessibility.

STEEL CABINETS

Specify black wrinkle (suffix **"B"**) or gray hammertone (suffix **"HG"**) finish.

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
CU-883	2 x 4 x 4	¾	$1.09	$0.98	$0.87
CU-728	3 x 5 x 4	⅞	1.22	1.10	.98
CU-729	4 x 5 x 6	1¼	1.38	1.24	1.10
CU-1098	6 x 6 x 6	2½	2.09	1.88	1.67
CU-1099	5 x 6 x 9	3	2.34	2.11	1.87
CU-879	7 x 8 x 10	5	3.34	3.01	2.67
CU-1124	6 x 7 x 12	4	3.29	2.96	2.63
CU-880	8 x 10 x 10	5½	4.01	3.61	3.21
CU-881	8 x 11 x 12	6	4.34	3.91	3.47
CU-882	7 x 9 x 15	7½	4.51	4.06	3.61

NATURAL FINISH ALUMINUM CABINETS*

AU-1083	2 x 4 x 4	¼	$1.29	$1.16	$1.03
AU-1028	3 x 5 x 4	¼	1.37	1.23	1.10
AU-1029	4 x 5 x 6	½	1.50	1.35	1.20
AU-1039	6 x 6 x 6	¾	2.17	1.95	1.74
AU-1040	5 x 6 x 9	1	2.51	2.26	2.01

GRAY HAMMERTONE ALUMINUM CABINETS*

AU-1083HG	2 x 4 x 4	¼	$1.50	$1.35	$1.20
AU-1028HG	3 x 5 x 4	¼	1.67	1.50	1.34
AU-1029HG	4 x 5 x 6	½	1.84	1.66	1.47
AU-1039HG	6 x 6 x 6	¾	2.42	2.18	1.94
AU-1040HG	5 x 6 x 9	1	2.84	2.56	2.27

*Aluminum alloy 5005 H-14.

MINIATURE UTILITY CABINETS (FIG. E)

Ideal housing for construction of electronic devices using miniature tubes and transistorized circuitry. Front panel has a built-on chassis. Both front and rear panels are removable; fastened by self-tapping screws. Black wrinkle enamel finish.

Bud No.	Size, In. H. x W. x D.	Chassis W. x D., In.	Net Each, Lots of 1-49	50-99	100-149
C-1793	4 x 4 x 2	3⅛ x 1⅞*	$1.34	$1.21	$1.07
C-1794	4 x 5 x 3	4⅛ x 2⅞*	1.48	1.33	1.18
C-1795	5 x 4 x 3	3⅛ x 2⅞†	1.62	1.46	1.30
C-1796	6 x 5 x 4	4⅛ x 3⅞‡	1.70	1.53	1.36
C-1797	5 x 6 x 4	5⅛ x 3⅞†	1.92	1.73	1.54
C-1798	6 x 6 x 6	4⅞ x 5⅞‡	2.17	1.95	1.74

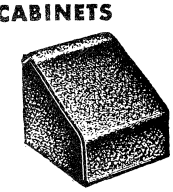
*1" high. †1¼" high. ‡1¾" high.

STREAMLINED MULTI-PURPOSE CABINETS (FIG. F)

Attractive cabinet with curved corners; uses chassis No. CB-1625. Back is entirely open for ventilation. Finished in light gray wrinkle only.

Bud No.	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
C-1787	4½ x 5½ x 3½	1	$1.70	$1.53	$1.36
C-1788	6½ x 5½ x 3½	1½	1.75	1.58	1.40

UNIVERSAL SLOPING PANEL CABINETS



Fully enclosed and shielded housing with one-piece detachable back and sides fastened to body with four self-tapping screws. Components may be mounted on back, bottom, sides or front. Will accommodate Bud Miniature Aluminum Chassis. **Size:** 4" d. x 4¼" h. Gray hammertone finish only.

ALUMINUM MODELS

Aluminum alloy 5005 H-14.

Bud No.	Uses Chassis	Width	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
AC-1610	CB-1617	4"	½	$1.68	$1.51	$1.34
AC-1611	CB-1618	5"	½	1.75	1.57	1.40
AC-1612	CB-1619	6"	¾	1.90	1.71	1.52
AC-1613	CB-1620	7"	¾	2.10	1.89	1.68

STEEL MODELS

C-1606	CB-1617	4"	¾	$1.45	$1.30	$1.16
C-1607	CB-1618	5"	¾	1.55	1.39	1.24
C-1608	CB-1619	6"	1⅛	1.65	1.48	1.32
C-1609	CB-1620	7"	1⅛	1.90	1.71	1.52

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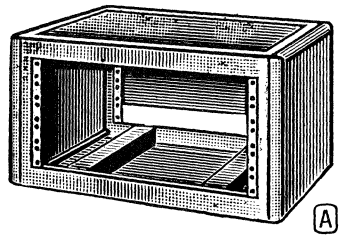
Equipment Cabinets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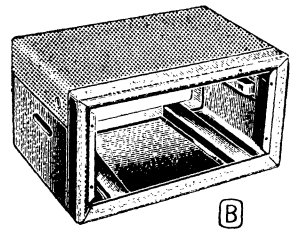
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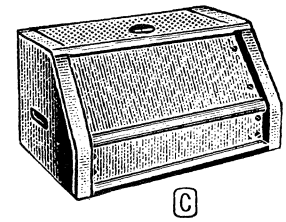
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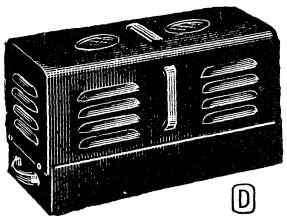
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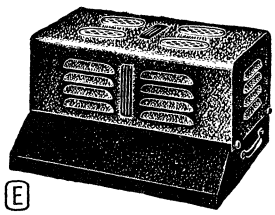
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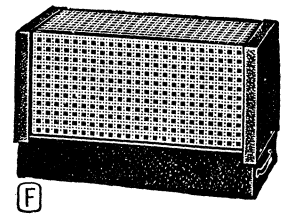
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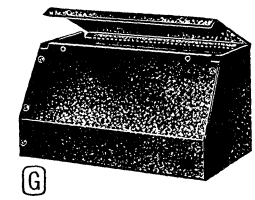

G

PRESTIGE VERSA-CABINETS (FIG. A)

Sturdy framework with ball cornered sides, perforated back, solid bottom plate and two supporting channels. Front, back, top and bottom are removable for easy access; also accept 19″ panels for full closure; top panel may be perforated. An opening, 1¾″ x 19″, across the bottom of the back is supplied for controls, knobs, leads, etc.; may be covered with PS-1250 or PA-1101 panels if desired. Sides, attached by holding flanges and nut, may be removed to join one or more cabinets together, using holes supplied in frame; units may also be stacked similarly. Handles may be attached to sides if desired. Comes complete with 4 rubber mounting feet. Top may be closed, using PS-1256HG or PA-1107HG solid panels, PS-616HG or PS-815HG door panels, or PC-1710 perforated panel. **Size:** 23 3/16″ w. x 15 25/64″ d. overall. Gray hammertone finish only. Weight, 28 to 35 lbs.

VERSA-CABINETS

Bud No.	Height, Overall	Panel Space	Rear Panel	Net Each, Lots of 1-14	15-24	25-34
PC-1700	8¾″	5¼″	3½″	$27.25	$24.52	$21.80
PC-1701	10½″	7″	5¼″	28.92	26.03	23.14
PC-1702	12¼″	8¾″	7″	30.75	27.67	24.60
PC-1703	14″	10½″	8¾″	33.50	30.15	26.80
PC-1704	15¾″	12¼″	10½″	35.25	31.72	28.20

PERFORATED STEEL TOP PLATE

Bud No.	Size, In.	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
PC-1710	12¼ x 19	2½	$2.70	$2.43	$2.16

STANDARD PRESTIGE CABINETS (FIG. B)

Hinged solid or perforated cover with smooth grommet finger holes for easy lifting. Cabinet supplied with two supporting rails, laterally movable to fit any chassis width. Two safety shielded handle slots supplied. Made of 16 gauge steel. Takes standard 19″ panels. Complete with embossed feet. **Size:** 21⅝″ w. x 14¾″ d. overall. Gray hammertone finish only.

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
C-1440	9½″	7″	26	$28.22	$25.40	$22.58
C-1441	11¼″	8¾″	27	30.06	27.05	24.05
C-1442	13″	10½″	29	32.82	29.54	26.26
C-1550*	9½″	7″	26	30.56	27.50	24.45
C-1551*	11¼″	8¾″	27	32.73	29.46	26.18
C-1552*	13″	10½″	29	35.57	32.01	28.46

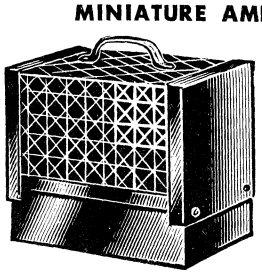
*With perforated cover; others solid.

PRESTIGE SLOPING PANEL CABINETS (FIG. C)

Ventilated top opens completely. Removable panel trim bar permits installation or removal of panels with chassis attached. Top panel is swept back for easy viewing. Takes standard 19″ panels. Shielded lifting handles. Rear opening 2½″ x 18″ for controls, etc.; panel recess 1¼″; bottom panel 3½″ high. **Size:** 22″ w. x 9″ top depth. Gray hammertone finish only. Weight, 26, 28 and 31 lbs.

Bud No.	Size, In. H. x D.	Slope Height	Net Each, Lots of 1-14	15-24	25-34
C-1555	11⅜ x 14⅜	7″	$36.00	$32.40	$28.80
C-1556	13¼ x 15⅛	8¾″	38.65	34.78	30.92
C-1557	14¾ x 16⅛	10½″	41.45	37.30	33.16

MINIATURE AMPLIFIER FOUNDATION



With the increased use of miniature tubes, smaller cabinets can be used when designing a compact amplifier. This amplifier foundation was designed expressly for this purpose. The chassis is 5″ x 7″ x 2″. Height, 6″. The cover is made of perforated metal. A streamlined handle makes this cabinet portable. Black wrinkle only. Net Wt., 1½ lbs.

Bud No.	Net Each, Lots of 1-24	25-49	50-99
CA-1754	$4.00	$3.60	$3.20

STREAMLINED FOUNDATIONS (FIG. D)

Attractive unit houses amplifiers and similar apparatus. Standard chassis with removable top cover with chrome trim. Sides and ends louvered. Handles attached to chassis. Overall height, 9″; chassis 2 5/16″ high. Specify black wrinkle (suffix **"B"**), or gray wrinkle (suffix **"G"**).

Bud No.	Size, In. W. x D.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CA-1750	10 1/16 x 5	4¾	$6.76	$6.08	$5.41
CA-1751	12 1/16 x 7	5	8.02	7.22	6.42
CA-1752	17 1/16 x 7	8	8.52	7.67	6.82
CA-1753	17 1/16 x 10	9	9.27	8.34	7.42

SLOPING PANEL FOUNDATIONS (FIG. E)

Removable top cover mounted on 3½″ sloping front chassis. Cover is gray wrinkle with chrome trim; chassis is black wrinkle. Overall height, 9½″.

Bud No.	Chassis W. x D.	Top Depth	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CA-1980	10″ x 8″	5″	5	$ 8.68	$ 7.81	$6.94
CA-1981	12″ x 10″	7″	6	9.35	8.42	7.48
CA-1982	17″ x 10″	7″	8	10.69	9.62	8.55
CA-1983	17″ x 13″	10″	10	11.19	10.07	8.95

STANDARD FOUNDATIONS (FIG. F)

Standard chassis with perforated cover for maximum ventilation. Handles are attached to chassis. Chassis 2½″ h., except CA-1128, 3″ h. Overall height, 8 5/16″, except CA-1128, 8 13/16″. Black wrinkle finish only.

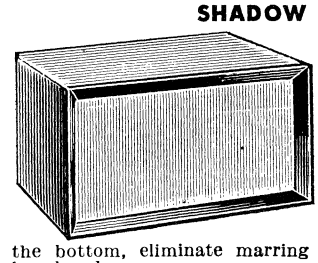
Bud No.	Size, Inches W. x D.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CA-699	9⅝ x 5⅛	3	$5.61	$5.05	$4.49
CA-1125	13⅝ x 5⅛	4¾	6.43	5.79	5.14
CA-1126	17⅛ x 7⅛	6	7.26	6.53	5.81
CA-1128	12⅛ x 10⅛	7	7.52	6.77	6.02

SLOPING PANEL CABINETS (FIG. G)

Hinged top for easy access; front panel also removable. Specify black wrinkle (suffix **"B"**) or gray hammertone (suffix **"HG"**).

Bud No.	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
C-1584	6½ x 7 1/16 x 7 5/16	2½	$3.30	$2.97	$2.64
C-1587	8 x 8 1/16 x 8	2¾	4.51	4.06	3.61
C-1585	6½ x 9 1/16 x 7 5/16	3	3.75	3.38	3.00
C-1588	8 x 10 1/16 x 8	3¼	5.01	4.51	4.01
C-1586	6½ x 11 1/16 x 7 5/16	3½	4.34	3.91	3.47
C-1894	8 x 14 1/16 x 8	4	5.34	4.81	4.27
C-1892	8 x 13 1/16 x 8½	5¼	5.95	5.36	4.76
C-1896	9 x 18 1/16 x 8⅛	7	7.68	6.91	6.14
C-1893	10 x 18 1/16 x 10½	8½	7.85	7.07	6.28

SHADOW CABINET



Extremely versatile housing with both front and rear panels and bottom panel removable for installation or servicing purposes. Front panel is recessed one inch to prevent accidental movement of knobs, etc., attached to it. Front edge of body is beveled. The two-piece body is of 18 gauge steel and the panels are of 16 gauge steel. Finish is light gray hammertone. Four rubber feet, attached to the bottom, eliminate marring of surfaces on which it may be placed.

Bud No.	Overall Size, Inches Width	Height	Depth	Uses Bud Chassis No.	Net Each, Lots of 1-24	25-49	50 Over
SB-2140	14¼	8	10	AC-424,CB-704	$6.50	$5.85	$5.20
SB-2141	13¼	7½	9	AC-407,CB-1193	5.00	4.50	4.00
SB-2142	17	9½	11½	AC-411,CB-666	8.85	7.97	7.08
SB-2143	15½	6	9	AC-409,CB-1194	4.85	4.37	3.88

536X-62A

Net

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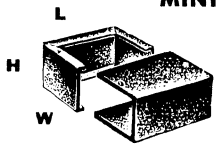
Boxes, Baffles, Cases

MINIBOXES, HANDY BOXES



Design of this box permits installation of more components than would be possible in the conventionally designed boxes the same size. Two-piece construction. **Either snap-lock or screw type.** The flange type construction assures adequate shielding. Made from heavy .040 ga. aluminum. Available in natural aluminum finish and gray hammertone finish.

GRAY HAMMERTONE MINIBOXES

Bud No.	Size, Inches L. x H. x W.	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
CU-2100A	2¾ x 2⅛ x 1⅝	¼	$0.74	$0.67	$0.59
CU-2101A	3¼ x 2⅛ x 1⅝	¼	.76	.68	.61
CU-2102A	4 x 2⅛ x 1⅝	¼	.80	.72	.64
CU-2103A	4 x 2¼ x 2¼	¼	.90	.81	.72
CU-2104A	5 x 2¼ x 2¼	¼	.95	.86	.76
CU-2105A	5 x 4 x 3	½	1.20	1.08	.96
CU-2106A	5¼ x 3 x 2⅛	¼	1.02	.92	.82
CU-2107A	6 x 5 x 4	¾	1.50	1.35	1.20
CU-2108A*	7 x 5 x 3	¾	1.65	1.49	1.32
CU-2109A*	8 x 6 x 3½	1	2.10	1.89	1.68
CU-2110A*	10 x 6 x 3½	1¼	2.35	2.12	1.88
CU-2111A*	12 x 7 x 4	1¾	3.20	2.88	2.56
CU-2112A*	17 x 5 x 4	2¼	3.20	2.88	2.56
CU-2113A*	10 x 2 x 1⅝	½	1.20	1.08	.99
CU-2114A*	12 x 2½ x 2¼	¾	1.55	1.40	1.24
CU-2115A	4 x 2 x 2¾	¼	.92	.83	.74
CU-2116A	4¼ x 2¼ x 1½	¼	.92	.83	.74
CU-2117A	3¼ x 2⅛ x 1⅛	¼	.78	.70	.62

*.050" aluminum.

NATURAL FINISH MINIBOXES

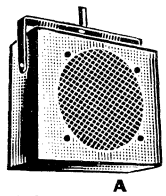
CU-3000A	2¾ x 2⅛ x 1⅝	¼	$0.59	$0.53	$0.47
CU-3001A	3¼ x 2⅛ x 1⅝	¼	.61	.55	.49
CU-3002A	4 x 2⅛ x 1⅝	¼	.64	.58	.51
CU-3003A	4 x 2¼ x 2¼	¼	.72	.65	.58
CU-3004A	5 x 2¼ x 2¼	¼	.76	.68	.61
CU-3005A	5 x 4 x 3	½	.96	.86	.77
CU-3006A	5¼ x 3 x 2⅛	¼	.82	.74	.66
CU-3007A	6 x 5 x 4	¾	1.20	1.08	.96
CU-3008A	7 x 5 x 3	¾	1.32	1.19	1.06
CU-3009A	8 x 6 x 3½	1	1.68	1.51	1.34
CU-3010A	10 x 6 x 3½	1¼	1.88	1.69	1.50
CU-3011A	12 x 7 x 4	1¾	2.56	2.30	2.05
CU-3012A	17 x 5 x 4	2¼	2.56	2.30	2.05
CU-3013A	10 x 2 x 1⅝	½	.96	.86	.77
CU-3014A	12 x 2½ x 2¼	¾	1.24	1.12	.99
CU-3015A	4 x 2 x 2¾	¼	.74	.67	.59
CU-3016A	4¼ x 2¼ x 1½	¼	.74	.67	.59
CU-3017A	3¼ x 2⅛ x 1⅛	¼	.62	.56	.50

HANDY BOXES

Similar to Miniboxes in design and construction, except made of 22 gauge steel. Black wrinkle finish only. Screw type only.

HB-1621	4¼ x 2¼ x 1½	½	$1.15	$1.04	$0.92
HB-1622	4 x 2 x 2¾	½	1.17	1.05	.94

SILVER SONANCE BAFFLES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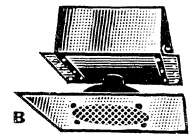

B

Universal Enclosures

Bud Adjustable Mount-Bracket (**shown in Fig. A and listed below**) permits adjustment to any angle in a horizontal position. Hole in bracket passes ½" conduit, permitting any of the speaker housings to be suspended from the ceiling. Bi-lateral feature permits sound to come from both front and back. Made of heavy gauge steel. Sound-deadening compound eliminates metallic resonance. All screws and nuts furnished for mounting speaker. No holes to drill. Light gray hammertone finish, except CS-2270, 71, 72 and 73, primer finish only.

BAFFLES (FIG. A)

Bud No.	For Spkr. Dia., In.	Size, Inches H. x W. x D.	Net Each, Lots of 1-24	25-49	50-99
CS-2240	4, 5	7¼ x 6¾ x 3 15/32	$ 4.92	$ 4.43	$3.94
CS-2241	5, 5½, 6	8¼ x 7½ x 4	5.33	4.80	4.26
CS-2242	6, 8	10 37/64 x 9½ x 5 1/16	8.58	7.72	6.86
CS-2243	10, 12	15 1/32 x 13½ x 7 13/64	11.67	10.50	9.34
CS-2270	4, 5	7¼ x 6¾ x 3 15/32	4.58	4.12	3.66
CS-2271	5, 5½, 6	8¼ x 7½ x 4	4.84	4.36	3.87
CS-2272	6, 8	10 37/64 x 9½ x 5 1/16	8.16	7.34	6.53
CS-2273	10, 12	15 1/32 x 13½ x 7 13/64	11.15	10.04	8.92

MOUNTING BRACKETS

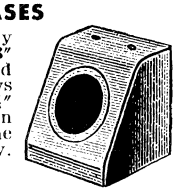
Bud No.	For Baffle	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
AB-2250	CS-2240	¾	$1.14	$1.03	$0.91
AB-2251	CS-2241	1	1.14	1.03	.91
AB-2252	CS-2242	1¼	1.41	1.27	1.13
AB-2253	CS-2243	2¾	1.65	1.49	1.32

RECESSED CEILING, WALL ENCLOSURES (FIG. B)

Suitable for an 8" speaker. Adjustable brackets make the housing ideal for old and new installations. Treated with sound deadening compound. Grille plate is a 14" square for use with acoustical tile ceiling. Depth, 4 1/16". Housing dimensions, 10" x 10" x 4".

Bud No.	Description	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CS-2244	Gray housing with grille	8¼	$10.00	$9.00	$8.00
CS-2274	Primer housing with grille	8¼	9.69	8.72	7.75
CS-2245	Gray grille plate only	4	2.20	1.98	1.76
CS-2275	Primer grille plate only	4	2.00	1.80	1.60

UNIVERSAL METER CASES



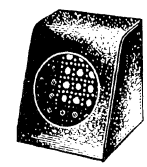
Center hole punched for 2" meters, plus easily removed knock-out ring to provide fit for 3" meters. Single piece detachable back and sides fastened to case with self-tapping screws for easy installation and servicing. Two ⅜" knock-out holes in top provide for installation of feed-through insulators, switches, volume controls, etc. Gray hammertone finish only. **Size:** 4¼" h. x 4" w. x 4" d.

Bud No.	Construction	Weight, Lbs.	Net Each, Lots of 1-49	50-99	100-149
CM-1935	Steel	1	$1.22	$1.10	$0.98
CMA-1936	Aluminum	¾	1.47	1.32	1.18

•NEW WIDE UNIVERSAL METER CASE

Same as above, except extra wide to permit installation of small components along with a meter or accommodate a 4" meter. Made of 5005 H-14 aluminum. **Size:** 4¼" h. x 6" w. x 4" d.

CMA-1930	Aluminum	¾	$2.40	$2.16	$1.92



MINIATURE SPEAKER CASES

Safe, convenient steel housing for 2" and 3" speakers. Black wrinkle finish only.

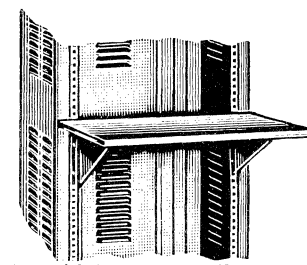
Bud No.	For Size Speaker	Net Each, Lots of 1-24	25-49	50-99
CS-1685	2"	$1.58	$1.42	$1.26
CS-1686	3"	1.58	1.42	1.26

WALL TYPE SPEAKER CASES

Steel speaker cases for table or wall use; similar in appearance to Miniature cases, above. Keyway holes are provided for wall mounting; embossed feet for table use. Unaffected by weather; will not warp or split. Brown wrinkle enamel finish only.

Bud No.	For Speaker	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CS-1938	4"	7½ x 6½ x 4¼	1¾	$2.67	$2.40	$2.14
CS-1939	5"	7½ x 6½ x 4¼	1¾	2.75	2.48	2.20
CS-1940	6"	9½ x 8 x 5⅝	3	3.26	2.93	2.61
CS-1941	8"	11½ x 9½ x 7	4	4.01	3.61	3.21
CS-1942	10"	13½ x 11½ x 8¼	5	5.01	4.51	4.01
CS-1943	12"	15½ x 13½ x 9¾	6	6.10	5.49	4.88

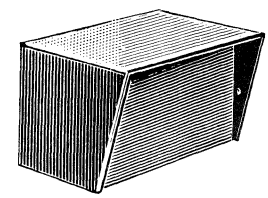
SHELF ASSEMBLY



Immediately adds extra utility to a standard rack at very little cost. Useful as a desk, work space, etc. Gray or black wrinkle finish or gray hammertone finish will match all standard Bud rack finishes. Can't fall off or tilt; will support any reasonable weight. Shelf portion supported by two brackets, punched to fit standard panel mounting strips. No panel support needed but can be attached over panel if desired. Slides welded to bottom of shelf; mounting brackets slip into slides and fasten with two screws. All necessary hardware furnished. Formed of 16 gauge steel; ½" flange on all four sides; overall height, 7⅛". Brackets are 7" high. Specify finish.

Bud No.	Size, Inches D. x W.	Weight, Lbs.	Net Each, Lots of 1-14	15-24	25-34
SA-1719	16 x 22	14	$10.40	$9.36	$8.32
SA-1720	20 x 22	15	10.55	9.50	8.44

COWL-TYPE MINIBOX



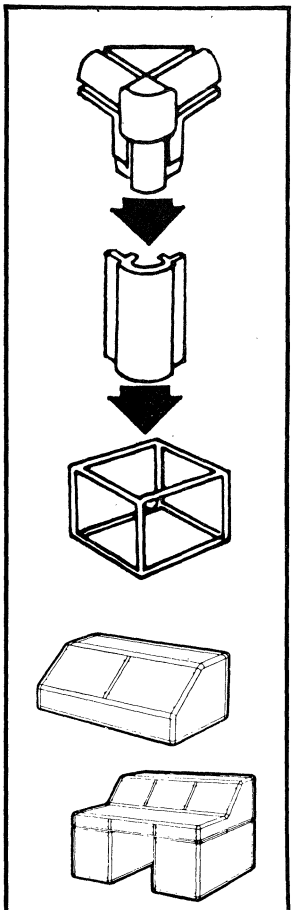
The cowl-type Minibox has a projecting cover to reduce glare on the panel from overhead lighting. It also provides protection for controls and dials. Cover has two box braces to which bottom is attached with sheet metal screws. When assembled, this type of construction results in a sturdy, rigid housing. Constructed of .040" aluminum and available in natural or light hammertone gray finish.

Bud No.	Overall Size, Inches H.	W.	D.	Net Each, Lots of 1-49	50-99	100 & Over
SC-2130*	6	10	7	$5.95	$5.36	$4.76
SC-2131*	7	12	8	6.50	5.85	5.20
SC-2132*	3	8	5	3.45	3.11	2.76
SC-2133*	5	5	5	3.60	3.24	2.88
SC-3030†	6	10	7	4.30	3.87	3.44
SC-3031†	7	12	8	4.70	4.23	3.76
SC-3032†	3	8	5	2.45	2.21	1.96
SC-3033†	5	5	5	2.60	2.34	2.08

*Painted light gray hammertone. †Natural aluminum finish.
• New product.

537-63A

Imlok "Prototyper" Cabinets



Typical Structures

System of metal cabinet construction, ideal for research and prototype work, permits quick assembly of cases, cabinets and racks using the simplest of tools. Complex structures may be built to your design using a variety of corner castings and extrusions held rigidly with friction clips or screws. Panels may be cut to size from sheet aluminum or steel, fitted grooves or screw fastened. No grinding or welding needed.

EXTERNAL CORNER CONNECTORS

Bud No.	Description	Net Each, Lots of 1-14	15-24	25 Up
BI-1001	90° basic corner connector for rectangular cabinets. Use with BI-2004, BI-2014, BI-2024, BI-2034, BI-2044, BI-2054 or BI-2064 extrusions.	$0.96	$0.86	$0.77
BI-1016	67½° corner connector holds vertical wall and horizontal wall to a third rising at 67½° to the horizontal. One leg fits BI-2041 extrusion; other two fit any 90° external extrusion.	1.35	1.22	1.08
BI-1024	60° corner connector similar to BI-1016. One leg fits BI-2081; other legs fit any 90° external extrusion.	1.35	1.22	1.08
BI-1002	45° corner connector similar to BI-1016. One leg fits BI-2005, BI-2015, or BI-2025; other two legs fit any 90° external extrusion.	.96	.86	.77
BI-1020	30° corner connector similar to BI-1016. One leg fits BI-2061; other two legs fit any 90° external extrusion.	1.35	1.22	1.08
BI-1012	22½° corner connector similar to BI-1016. One leg fits BI-2021; other two legs fit any 90° external extrusion.	1.35	1.22	1.08

EXTERNAL STANDARD EXTRUSIONS

Bud No.	Description	Net Each, Lots of 1-9	10-14	15 Up
BI-2004	12 ft. long, 90° external extrusion most used; has panel retaining groove on each flange for 0.050″ panels. Ideal for small to medium sized structures with unbraced spaces up to 2 ft. long.	$ 7.44	$ 6.70	$ 5.95
BI-2004-3	3 ft. length BI-2004	2.18	1.96	1.74
BI-2004-6	6 ft. length BI-2004	4.13	3.72	3.30
BI-2004-9	9 ft. length BI-2004	5.93	5.34	4.74
BI-2064	12 ft. long, 90° extrusion with panel retaining flange to take 20 gauge panels.	8.27	7.44	6.62
BI-2064-3	3 ft. length BI-2064	2.40	2.16	1.92
BI-2064-6	6 ft. length BI-2064	4.58	4.10	3.64
BI-2064-9	9 ft. length BI-2064	6.53	5.88	5.22
BI-2041	12 ft. long, 67½° extrusion; companion to BI-1016 for unbraced spans up to 3 ft. long.	11.37	10.23	9.10
BI-2041-3	3 ft. length BI-2041	3.30	2.97	2.64
BI-2041-6	6 ft. length BI-2041	6.30	5.67	5.04
BI-2041-9	9 ft. length BI-2041	9.00	8.10	7.20
BI-2081	12 ft. long, 60° extrusion; companion to BI-1024 connector. For unbraced spans up to 3 ft. long.	11.37	10.23	9.10
BI-2081-3	3 ft. length BI-2081	3.30	2.97	2.64
BI-2081-6	6 ft. length BI-2081	6.30	5.67	5.04
BI-2081-9	9 ft. length BI-2081	9.00	8.10	7.20
BI-2005	12 ft. long, 45° extrusion used with BI-1002 connector; for spans up to 2 ft. long.	8.00	7.20	6.40
BI-2005-3	3 ft. length BI-2005	2.33	2.10	1.86
BI-2005-6	6 ft. length BI-2005	4.43	3.99	3.54
BI-2005-9	9 ft. length BI-2005	6.30	5.67	5.04
BI-2061	12 ft. long, 30° extrusion used with BI-1020 connector.	11.37	10.23	9.10
BI-2061-3	3 ft. length BI-2061	3.30	2.97	2.64
BI-2061-6	6 ft. length BI-2061	6.30	5.67	5.04
BI-2061-9	9 ft. length BI-2061	9.00	8.10	7.20
BI-2021	12 ft. long, 22½° extrusion used with BI-1012 connector.	11.37	10.23	9.10
BI-2021-3	3 ft. length BI-2021	3.30	2.97	2.64
BI-2021-6	6 ft. length BI-2021	6.30	5.67	5.04
BI-2021-9	9 ft. length BI-2021	9.00	8.10	7.20
BI-2014	12 ft. long, 90° strengthened extrusion similar to BI-2004 but stronger for use in unbraced spans up to 3 ft. long.	8.27	7.44	6.62
BI-2014-3	3 ft. length BI-2014	2.40	2.16	1.92
BI-2014-6	6 ft. length BI-2014	4.58	4.12	3.66
BI-2014-9	9 ft. length BI-2014	6.53	5.89	5.22
BI-2015	12 ft. long, 45° external strengthened extrusion used in place of BI-2005 in unbraced spans up to 3 ft. long.	9.65	8.69	7.72
BI-2015-3	3 ft. length BI-2015	2.78	2.50	2.22
BI-2015-6	6 ft. length BI-2015	5.33	4.80	4.26
BI-2015-9	9 ft. length BI-2015	7.65	6.89	6.12
BI-2054	12 ft. long, 90° strengthened extrusion with two 11/16″ extended flanges to take standard ⅛″; retaining groove at root of flanges.	12.78	11.50	10.22
BI-2054-3	3 ft. length BI-2054	3.68	3.31	2.94
BI-2054-6	6 ft. length BI-2054	7.05	6.35	5.64
BI-2054-9	9 ft. length BI-2054	10.13	9.12	8.10
BI-2024	12 ft. long, 90° strengthened extrusion with one flange extended 5/8″ to fit ⅛″ panel; other has normal panel-retaining groove.	10.25	9.23	8.20
BI-2024-3	3 ft. length BI-2024	3.00	2.70	2.40
BI-2024-6	6 ft. length BI-2024	5.70	5.13	4.56
BI-2024-9	9 ft. length BI-2024	8.10	7.29	6.48
BI-2025	12 ft. long, 45° strengthened extrusion with one 5/8″ extended flange for ⅛″ panel and one normal panel-retaining groove flange.	10.83	9.75	8.66
BI-2025-3	3 ft. length BI-2025	3.15	2.84	2.52
BI-2025-6	6 ft. length BI-2025	6.00	5.40	4.80
BI-2025-9	9 ft. length BI-2025	8.55	7.70	6.84
BI-2034	12 ft. long, 90° heavy-duty extrusion takes loadings for spans over 3 ft. long. Additional returns reinforce strength. Flanges are both 5/8″ deep.	16.79	15.11	13.43
BI-2034-3	3 ft. length BI-2034	4.88	4.39	3.90
BI-2034-6	6 ft. length BI-2034	9.30	8.37	7.44
BI-2034-9	9 ft. length BI-2034	13.28	11.95	10.62
BI-2044	12 ft. long, 90° reinforcing angle screws to return flanges of BI-2034 for extra rigid, boxed in section. Use with heavy-duty BI-1011 spacer bar and BI-2018 and BI-2028 extrusions to build almost any size structure.	6.66	5.99	5.33
BI-2044-3	3 ft. length BI-2044	2.45	2.21	1.96
BI-2044-6	6 ft. length BI-2044	3.68	3.31	2.94
BI-2044-9	9 ft. length BI-2044	5.25	4.73	4.20

SPECIAL CONNECTORS, ACCESSORIES

No. BI-1003—T-junction connector permits making "T" with 2 lengths of extrusions; also used for picture frame effect. Fits 90° external extrusions.

No. BI-1005—90° table-top or foot connector used in place of radiused corner; has well to hold glass or wood table-top. Used also as foot or as wall mount. One leg fits 90° external extrusion; other two fit BI-2009.

No. BI-1008—Stacking plate for use with BI-1005 to permit stacking.

No. BI-1009—90° spacer bar cruciform connector.

No. BI-4001—Package of 50 friction clips; for assembly without use of screws.

No. BI-4302—Concealed brass hinge fits 90° extrusions; 3 mounting holes take 6-32 or 10-32 screws.

No. BI-4601—Chrome plated ventilation ring for dress-up. Used in addition to slots and louvers. Clips (supplied) into 2⅝″ hole. Has stainless steel gauze.

Bud No.	Net Each, Lots of 1-14	15-24	25 Up
BI-1003	$0.96	$0.86	$0.77
BI-1005	1.26	1.13	1.01
BI-1008	.63	.57	.50
BI-1009	1.76	1.58	1.41
BI-4001	1.26	1.13	1.01
BI-4302	1.76	1.58	1.41
BI-4601	2.87	2.58	2.30

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Net

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Imlok "Prototyper" Cabinets

INTERNAL EXTRUSIONS

Bud No.	Description	Net Each, Lots of 1-9	10-14	15 Up
BI-2032	12 ft. long, 90° internal extrusion to fit BI-1028; has two panel retaining grooves; for unbraced spans up to 3 ft. long.	$12.81	$11.53	$10.25
BI-2032-3	3 ft. length BI-2032	3.75	3.38	3.00
BI-2032-6	6 ft. length BI-2032	7.05	6.35	5.64
BI-2032-9	9 ft. length BI-2032	10.15	9.14	8.12
BI-2051	12 ft. long, 67½° internal extrusion to fit BI-1017 connector. For use in unbraced spans up to 3 ft.	11.37	10.23	9.10
BI-2051-3	3 ft. length BI-2051	3.30	2.97	2.64
BI-2051-6	6 ft. length BI-2051	6.30	5.67	5.04
BI-2051-9	9 ft. length BI-2051	9.00	8.10	7.20
BI-2091	12 ft. long, 60° internal extrusion; fits BI-1025 connector.	11.37	10.23	9.10
BI-2091-3	3 ft. length BI-2091	3.30	2.97	2.64
BI-2091-6	6 ft. length BI-2091	6.30	5.67	5.04
BI-2091-9	9 ft. length BI-2091	9.00	8.10	7.20
BI-2006	12 ft. long, 45° internal extrusion has two ⅝" flanges, one with panel-retaining groove. For flat-topped, sloping front cabinets.	11.66	10.49	9.33
BI-2006-3	3 ft. length BI-2006	3.38	3.04	2.70
BI-2006-6	6 ft. length BI-2006	6.45	5.81	5.16
BI-2006-9	9 ft. length BI-2006	9.23	8.31	7.38
BI-2071	12 ft. long, 30° internal extrusion; fits BI-1021 connector.	11.37	10.23	9.10
BI-2071-3	3 ft. length BI-2071	3.30	2.97	2.64
BI-2071-6	6 ft. length BI-2071	6.30	5.67	5.04
BI-2071-9	9 ft. length BI-2071	9.00	8.10	7.20
BI-2031	12 ft. long, 22½° internal extrusion; fits BI-1013 connector.	11.37	10.23	9.10
BI-2031-3	3 ft. length BI-2031	3.30	2.97	2.64
BI-2031-6	6 ft. length BI-2031	6.30	5.67	5.04
BI-2031-9	9 ft. length BI-2031	9.00	8.10	7.20

SPACER BAR AND TABLE-TOP EXTRUSIONS

BI-2008	12 ft. long, spacer bar extrusion used to subdivide panels or act as cross-bracing members.	$20.33	$18.30	$16.26
BI-2008-3	3 ft. length BI-2008	5.85	5.27	4.68
BI-2008-6	6 ft. length BI-2008	11.18	10.06	8.94
BI-2008-9	9 ft. length BI-2008	16.13	14.52	12.90
BI-2009	12 ft. long, table-top extrusion for use at base of cabinet, as vertical member where double radius between cabinets is undesirable. Has flange with normal retaining groove; other is 1" deep to support table or bench top.	10.25	9.23	8.20
BI-2009-3	3 ft. length BI-2009	3.00	2.70	2.40
BI-2009-6	6 ft. length BI-2009	5.70	5.13	4.56
BI-2009-9	9 ft. length BI-2009	8.10	7.29	6.48

EXTERNAL SPACER BAR CONNECTORS

Bud No.	Description	Net Each, Lots of 1-14	15-24	25 Up
BI-1011	This connector specially designed for use with 90° external heavy duty extrusion BI-2034. One leg fits this extrusion as well as all other 90° external extrusions. The other two legs fit BI-2008.	$1.35	$1.22	$1.08
BI-1018	67½° external spacer bar connector; brace or sub-divide walls where BI-1016 is used at corners. One leg fits BI-2041; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1026	60° version of BI-1018. One leg fits BI-2081; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1007	45° version of BI-1018. One leg fits BI-2005, BI-2015 or BI-2025; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1022	30° version of BI-1018. One leg fits BI-2061 extrusion; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1014	22½° version of BI-1018. One leg fits BI-2021; other two fit any spacer bar extrusion.	1.35	1.22	1.08

INTERNAL CORNER CONNECTORS

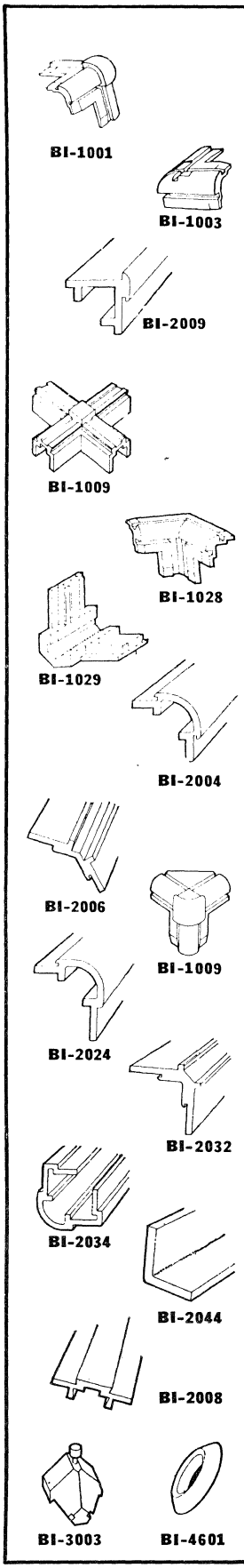
BI-1028	90° internal connector gives an included angle of 90° for L-shaped structures. One leg fits BI-2032 extrusion; other two fit any 90° external extrusion, (BI-2004, BI-2014, BI-2024, BI-2034, BI-2054).	$1.35	$1.22	$1.08
BI-1017	67½° internal connector used where two walls are to meet to include a 67½° angle. One leg fits BI-2051 extrusion; other two fit any 90° external extrusion.	1.35	1.22	1.08
BI-1025	60° version of BI-1017. One leg fits BI-2091; other two fit any 90° external extrusion.	1.35	1.22	1.08
BI-1006	45° version of BI-1017. One leg fits BI-2006; other two fit any 90° external extrusion. Helps make flat top, sloping front structure.	1.26	1.13	1.01
BI-1021	30° version of BI-1017. One leg fits BI-2071; other two fit any 90° external extrusion.	1.35	1.22	1.08
BI-1013	22½° version of BI-1017. One leg fits BI-2031; other two fit any 90° external extrusion.	1.35	1.22	1.08

INTERNAL SPACER BAR CONNECTORS

BI-1029	90° internal spacer connector permits bracing or sub-division of spans of BI-2032. One leg fits BI-2032 internal extrusion; other two fit BI-2008 spacer bar extrusion.	$1.35	$1.22	$1.08
BI-1019	67½° internal spacer bar connector is companion to BI-1017 for sub-dividing or cross-bracing. One leg fits BI-2051; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1027	60° version of BI-1019 above; companion for BI-1025. One leg fits BI-2091; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1010	45° version of BI-1019; companion for BI-1006. One leg fits BI-2006; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1023	30° version of BI-1019; companion to BI-1021. One leg fits BI-2071; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1015	22½° version of BI-1019; companion to BI-1013. One leg fits BI-2031; other two fit any spacer bar extrusion.	1.35	1.22	1.08

CUTTING JIGS

Bud No.	Description	Net Each, Lots of 1-4	5-9	10 Up
BI-3003	90° cutting jig permits easy mitering of any 90° external extrusion. Makes assembly quick, easy.	$15.80	$14.22	$12.64
BI-3002	45° cutting jig for mitering any 45° external extrusion.	15.80	14.22	12.64



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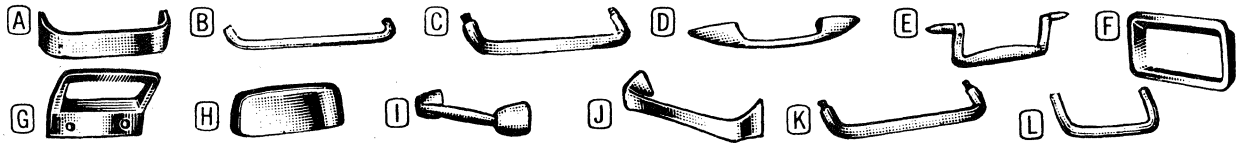
Cabinet Hardware

BUD HANDLES



Fabricated from steel, brass or cast aluminum. Durable finish provides long wear and attractive appearance. Skin packed in pairs or bulk packed (priced singly) with all necessary mounting hardware. Designed for rugged applications, they have unlimited use in electronic, electrical and other fields.

Bud No.	Fig.	Description	Net Per Pair, Lots of 1-49	50-99	100-149	Bulk Pack*: Net Each, Lots of 50-99	100-199	200-499
H-9100	A	1″ x ¼″ chrome-plated solid brass; 4″ x ½″ mtg. cntrs.; 1″ hand clearance; four ½″ x 6-32 threaded screws	$3.96	$3.56	$3.17	$1.86	$1.67	$1.49
H-9101	A	Same, but 8″ x ½″ mtg. centers	6.15	5.54	4.92	2.90	2.61	2.33
H-9102	A	⅜″ x ¼″ chrome-plated solid brass; 4″ mtg. centers; 1″ hand clearance; two ½″ x 6-32 threaded screws	3.15	2.84	2.52	1.60	1.44	1.28
H-9103	A	Same, but has 6″ mounting centers	3.60	3.24	2.88	1.70	1.53	1.36
H-9110	B	⅜″ steel rod angular formed, chrome-plated; 6″ mtg. ctrs.; 1¼″ hand clearance; two ½″ x 10-32 screws	2.79	2.51	2.23	1.06	.95	.85
H-9111	B	⅜″ steel rod, chrome plated, 4″ mtg. ctrs.; 1″ hand clearance; two ½″ x 10-32 threaded screws	1.50	1.35	1.20	.58	.52	.46
H-9112	B	6″ mtg. center version of H-9111	1.89	1.70	1.51	.72	.65	.58
H-9113	B	8″ mtg. center version of H-9111	2.10	1.89	1.68	.82	.74	.66
H-9114	B	½″ steel rod, chrome-plated; 8″ mtg. centers; 1½″ hand clearance; two ½″ x ¼-28 thd. screws	3.51	3.16	2.81	1.32	1.19	1.06
H-9115	C	⅜″ steel rod, chrome-plated; 4″ mtg. ctrs.; 15/16″ hand clearance; two ¼-28 thd. nuts	2.40	2.16	1.92	.96	.86	.77
H-9116	C	Same, but has 6″ mtg. centers	3.00	2.70	2.40	1.14	1.03	.91
H-9120	D	Silver-anodized die-cast aluminum; 4⅜″ inside, 5⅜″ outside mtg. centers; 1″ hand clearance: four ½″ x 6-32 threaded screws	3.51	3.16	2.81	1.60	1.44	1.28
H-9121	D	Same, except chrome plated alloy	4.95	4.46	3.96	2.34	2.11	1.87
H-9123	D	Similar to H-9120 but 4½″ mtg. centers; 1″ hand clearance; two ½″ x 10-32 thd. screws	2.61	2.35	2.09	1.14	1.03	.91
H-9122	E	Silver-anodized die-cast aluminum; hinged on ¼″ steel pins with 2 hinge blocks; 6½″ inside, 7¼″ outside mtg. centers; 1½″ hand clearance; four ⅜″ x 10-32 threaded screws	5.94	5.35	4.95	2.82	2.54	2.26
H-9130	F	Silver-anodized die-cast aluminum; 3″ mtg. centers; two ⅜″ x 10-32 thd. screws; size 4 15/16″ x 3″	5.25	4.73	4.20	2.50	2.25	2.00
H-9131	G	Silver-anodized die-cast aluminum; size, 4″ x 2⅞″; 2¼″ mtg. centers; two ¾″ x ¼-28 thd. raised, counter-sunk screws and nuts	3.90	3.51	3.12	1.78	1.60	1.42
H-9140	H	Silver-anodized die-cast aluminum; 3½″ mtg. centers; ¾″ hand clearance; two ½″ x 10-32 threaded screws	2.34	2.11	1.87	1.08	.97	.86
H-9150	I	Silver-anodized die-cast aluminum; 4″ x ⅝″ mtg. centers; 1¼″ hand clearance: four ½″ x 10-32 threaded screws	3.15	2.84	2.52	1.42	1.28	1.14
H-9151	J	Silver-anodized die-cast aluminum; 5 5/8″ x ⅝″ mtg. centers; 1⅜″ hand clearance; four ½″ x 10-32 threaded screws	5.10	4.59	4.08	2.34	2.11	1.87
H-9152	J	Similar to above except 3⅞″ mtg. centers; 1⅛″ hand clearance; two ½″ x 10-32 threaded screws	4.14	3.73	3.31	1.95	1.76	1.56
H-9160	K	Chrome-plated ⅜″ steel rod; 3½″ mtg. centers; 1 11/16″ hand clearance; two ¼″-28 hex nuts	2.70	2.43	2.16	1.02	.92	.82
H-9161	K	Same, but with 5¼″ mounting centers	3.15	2.84	2.52	1.20	1.08	.96
H-9162	K	Same, but with 7″ mounting centers	3.24	2.92	2.59	1.24	1.12	.99
H-9163	K	Same, but with 8¾″ mounting centers	3.51	3.16	2.81	1.32	1.19	1.06
H-9164	K	Same, but with 10½″ mounting centers	3.96	3.56	3.17	1.35	1.22	1.08
H-9165	K	Same, but with 12¼″ mounting centers	4.35	3.92	3.48	1.50	1.35	1.20
H-9166	L	Chrome-plated ¼″ brass rod; 1 29/32″ mtg. centers; 1″ hand clearance; two ½″ x 6-32 thd. screws	1.20	1.08	.96	.54	.49	.43
H-9168	L	Same, but 3″ mtg. centers; two ¼″ x 6-32 thd. screws	1.35	1.22	1.08	.58	.52	.46

*Number shown is for skin packed pairs. For bulk packed handles (priced singly), add suffix **B** to number (example: H-9100**B**).

Inside SC-4312

Precision built slides for smooth operation, long life under repeated movement conditions. Use with full 17″ chassis in std. 19″ panel rack or cabinet. Drilled for either panel rail bracket or direct slide rail mounting. Brackets and hardware supplied. "Quick detach" models permit change of instrumentation at point of use with infinitesimal delay in exchange. **"SC" Series:** For commercial uses where top quality and performance is required, but MIL specs are not. Load ratings conservative with plus factor of at least 2:1 under normal conditions. **"SI" Series:** Adhere to MIL specifications for industrial or military requirements. Channels 7075T6 aluminum extrusions per QQ-A-277; parts of 302 stainless steel per MIL-S-5059A; bearings are 440 stainless steel per QQ-S-763. Aluminum-parts anodized per MIL-A-8625A; stainless steel parts passivated per MIL-S-5002. Lubricant is hi-low temp. grease per MIL-G-3278. Load rating extra conservative with plus factor of at least 3:1 under normal conditions.

CHASSIS SLIDES

"SC" SERIES

Bud No.	Description	Load Cap. Per Pair	Net Each, Lots of 1-14	15-24	25-34
SC-4312	Full ball-bearing slide 12″ long; 12″ travel; height, 2″; inner members do not disconnect or tilt; aluminum extrusions of 2014T6 per QQ-A-261; precision broached for flawless operation	150 lbs.	$27.15	$24.45	$21.70
SC-4316	Same, but 16″ long; 16″ travel	110 lbs.	29.10	26.20	23.30
SC-4320	Same, but 20″ long; 20″ travel	95 lbs.	31.80	28.60	25.45
SC-4412	Same, but outer track ball bearing, inner track dry lubricated friction type; quick detach facility; locks in extended position; height 2″; 12″ long; 12″ travel	150 lbs.	39.30	35.35	31.45
SC-4416	Same as SC-4412, but 16″ long; 16″ travel	110 lbs.	42.15	37.95	33.70
SC-4420	Same as SC-4412, but 20″ long; 20″ travel	95 lbs.	44.10	39.70	35.30
SC-4512	Quick detach, tilting slide with lock in extended position. Permits 90° tilt of chassis below horizontal position in 45° increments; height, 3½″; 12″ long; 12″ travel	275 lbs.	56.25	50.65	45.00
SC-4516	Same, but 16″ long; 16″ travel	215 lbs.	60.90	54.80	48.70
SC-4520	Same, but 20″ long; 20″ travel	180 lbs.	64.65	58.20	51.70

"SI" SERIES

SI-4212	Ball-bearing; 12″ long; 12″ travel; 3½″ high	275 lbs.	$41.25	$37.15	$33.00
SI-4216	Same, but 16″ long; 16″ travel	225 lbs.	45.00	40.50	36.00
SI-4220	Same, but 20″ long; 20″ travel	180 lbs.	48.75	43.90	39.00
SI-4012	Same as SI-4212 except outer track ball bearing; inner, dry-lubricated friction type; quick disconnect; extended lock position	275 lbs.	48.75	43.90	39.00
SI-4016	Same, but 16″ long; 16″ travel	225 lbs.	53.40	48.15	42.80
SI-4020	Same, but 20″ long; 20″ travel	180 lbs.	59.10	53.20	47.30
SI-4112	Similar to SI-4012, but with tilting action 90° above and below horizontal in 45° increments	275 lbs.	64.65	58.20	51.70
SI-4116	Same, but 16″ long; 16″ travel	225 lbs.	69.30	62.35	55.45
SI-4120	Same, but 20″ long; 20″ travel	180 lbs.	72.15	64.95	57.70

531X-63A

Net

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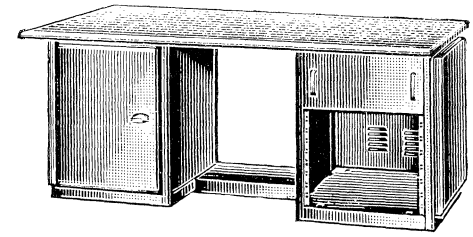
CABINET ASSEMBLIES AND AMATEUR ACCESSORIES

BUD CONSOLE ASSEMBLIES

Variety of panels, sides, doors, pedestal, table tops and drawer permit easy assembly of a variety of console units, custom made to individual requirements. Typical basic unit would consist of one pedestal, an end pedestal, three or more panels, a door, a table top and a foot rest as illustrated. Many variations of this basic design may be made, and additions or changes in design can be accomplished at any time. Because the system is sold in parts, it offers the user the highest versatility in designing or expanding units as needed.



BASIC PEDESTAL

Consists of top, bottom and four panel-mounting channels drilled and tapped to accept standard 19" panels on each of four sides. Bottom is slotted so that sides or doors may be installed on any side. Three knock-out holes provided on each of two sides for use in assembling pedestals in series. Channels will support 200 lbs. suspended between them; bottom will support 500 lbs. Bottoms have recessed mounting brackets for hidden caster attachment. Shipped knocked-down, with necessary hardware. **Size:** 22" w. x 22" d. x 29 13/16" h.

END PEDESTAL

May be used as a housing or as a support. Panel mounting rails are drilled and tapped for mounting panels on each of two sides. Accepts full size solid or louvered panels, ball-cornered doors or sides. Base has hidden caster mounting supports. When used, No. CT-2206 table top is required; eliminates the need for a second CP-2200 pedestal. **Size:** 22" w. x 5" d. x 29 13/16" h. inside.

PANELS

Full-sized panels may be used to enclose the openings on any side of either of above pedestals. Available either solid or louvered. Louvered panels can be positioned with louvers pointing down or up, inside or outside the pedestal. **Size:** 24 15/32" h. x 19" w.

BALL-CORNERED SIDE

Can be used to enclose any side of either of above pedestals for an enhanced appearance. Attach by tongue and slot arrangement at the bottom; and, two screws at the top. Quickly removable from exterior of pedestal for service or inspection. Provide sufficient clearance for installation over knobs and dials. **Size:** 25 1/16" h. x 20 1/4" w. x 1 1/16" d.

BALL-CORNERED DOOR

Unique hinge and locking arrangement designed so that door may open from right or left side. Attaches to any side of either pedestal with sufficient clearance for knobs, and dials. **Size:** 25 1/16" h. x 20 1/4" w. x 1 1/16" d.

TABLE TOPS

Made of 16 ga. steel and available in three lengths. Adjustable from front to back in three positions to allow overhang as desired. Attach to the pedestals by means of brackets welded to underside of top. **Size:** 30" w. x 1 1/16" thick.

FOOT REST

Joins two pedestals or one pedestal and one end pedestal, depending on the size top used. Adjustable in two positions, front to back. **Size:** 22" l. x 10" w. x 2 3/8" thick.

CONSOLE DRAWER

Fits into pedestal in any position from top to bottom. Slides easily on nylon rollers. Capable of supporting heavy loads. Drawer extends to full depth of pedestal. Easily removable slides fasten to mounting channels in pedestal; stops prevent drawer from falling out. **Size:** 16 3/4" w. x 19 1/8" d. x 6 7/16" h., inside.

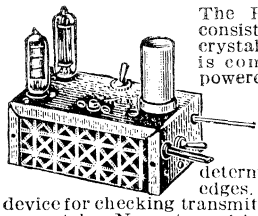
PARTS ORDERING INFORMATION

Bud No.*	Description	Wt. Lbs.	Net Each, Lots of 1-14	15-24	25-34
CP-2200	Basic pedestal	36	$36.00	$32.40	$28.80
CF-2202	End pedestal	19	18.95	17.05	15.16
CP-2215	Plain panel	9	5.26	4.73	4.21
CP-2216	Louvered panel	9	6.00	5.40	4.80
CK-2217	Ball-cornered side	13	8.95	8.06	7.16
CD-2220	Ball-cornered door	13	10.95	9.85	8.76
CT-2205	Table top, 25" long	18	22.00	19.80	17.60
CT-2206	Table top, 52" long	35	26.00	23.40	20.80
CT-2207	Table top, 69" long	45	32.10	28.89	25.68
CF-2201	Foot rest	7	3.85	3.46	3.08
CD-2210	Console drawer	24	32.00	28.80	25.60

*Specify Color: Add suffix **GH** for gray hammertone; add **BH** for brown hammertone.

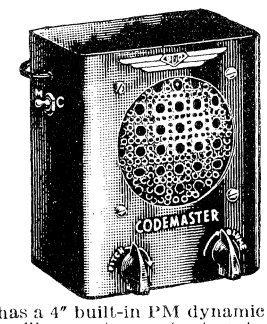
BUD AMATEUR ACCESSORIES

BUD SELF-POWERED FREQUENCY CALIBRATOR MODEL FCC-90B



The Bud FCC-90B consists of a 100 kc crystal oscillator that is completely self-powered. It will give 100 kc check points on all bands, enabling the operator to determine exact band edges. An excellent device for checking transmitter frequencies accurately. No extra wiring is required. Plug into any 110 v. receptacle, connect pick-up lead to the antenna binding post and unit is ready. ON-OFF and STAND-BY switch included. Weight, 1½ lbs.
Bud No. FCC-90B—Net Each..... **$20.48**

BUD CODE PRACTICE OSCILLATORS AND MONITORS MODEL CPO-128B



The Bud Codemaster is a real money-saver. No longer do you have to consider your code practice oscillator useless after you have learned the code. A flip of the switch and you have a good CW monitor. This is a really versatile instrument. It has a 4" built-in PM dynamic speaker and will operate up to twenty earphones. A volume control and pitch control permit adjustments to suit individual requirements. Any number of keys can be connected in parallel to the oscillator for group pratice. This unit will operate on 110 volts AC or DC. An external speaker may be plugged in without the use of an output transformer. All controls are placed on the front of the unit and all jacks are in the rear. **Size:** 6½" high, 5½" wide and 3½" deep. Wt., 3¼ lbs.
Bud No. CPO-128B—Net Each. **$19.13**

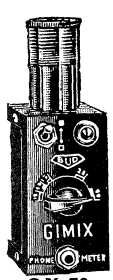
MODEL CPO-130A

Similar to Model CPO-128B except speaker not included. Monitor feature is present and a jack is provided for output. Twenty pairs of phones and keys may be operated at one time. Operates PM speaker. **Size:** 5½" x 4½" x 3½". Weight, 3¼ lbs. Gray hammertone finish.
Bud No. CPO-130A—Net Each. **$16.50**

MODEL CPO-155T

Available in earphone model only. Small, lightweight, operates entirely on transistors. Power supplied by penlight cells. **Size:** 1½" x 2¼" x 4¼". Finished in light gray hammertone.
Bud No. CPO-155T—Net Each... **$5.88**

BUD GIMIX GX-79



GX-79

Bud GX-79 Gimix, a multi-purpose unit requiring no power supply. Calibrated for use on 10, 15, 20, 40, and 80 meter bands. No additional coils are needed, as the one coil supplied does the work on all bands. It can be used as wave-meter, monitor, field strength indicator, carrier shift indicator, and a sensitive neutralizing instrument. Shipping Weight, 1 lb.
Bud No. GX-79—Net Each..... **$9.48**

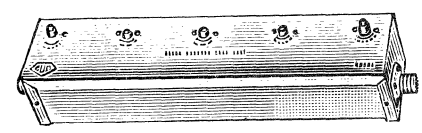
WIRELESS PHONO OSCILLATOR

Converts any standard record player to wireless operation. Record reproduction may then go to a radio receiver without use of wires. Installation instructions provided. Wired and tested; with tubes. Operates on 115 v. AC or DC. Frequency range, 1100-2150 kc. Gray hammertone finish. Weight, 1 lb.
Bud No. WO-6A—Net Each..... **$12.05**

MODEL HF-600 HIGH PASS FILTER

Designed to have a cut-off frequency at 42 mc, rejecting signals from 0-42 mc. No attenuation above 42 mc; picture strength and quality are not affected. **Size:** 3¼" x 2⅛" x 1⅛", in an attractive aluminum case. Complete installation instructions are included. Shipping Weight, 1 lb.
Bud No. HF-600—Net Each..... **$4.95**

LOW PASS FILTER LF-601



ADJUSTABLE
HANDLES 1 KW
LOW LOSS

Can reduce or eliminate harmonics when installed at the transmitter. Has minimum attenuation of 85 db on all frequencies above 54 mc and a minimum of 93 db above 70 mc. Maximum rejection adjustable from 60 to 90 mc. This tunable feature provides 2 slots at least 100 db down on any 2 TV channels. Cut-off frequency is 42 mc. The unit will handle a full kilowatt modulated on a reasonably flat line. Insertion loss is less than 1 db. Since the design of the filter provides an adjustable feature, the unit can be used on either a 52 or a 72 ohm coax. All capacitors used are variable. **Size:** 12" x 2½" x 2½". Shipping Weight, 2½ lbs.
Bud No. LF-601—Net Each..... **$17.25**

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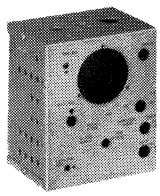
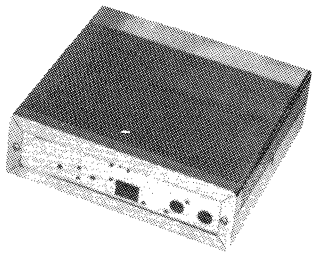
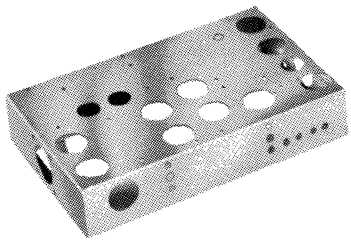
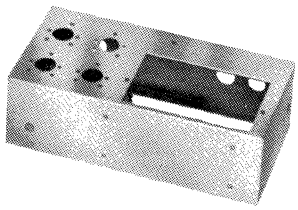
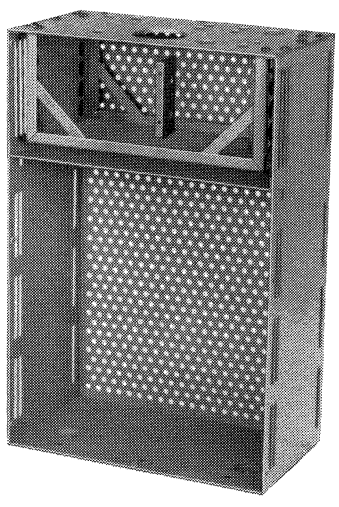
SPECIAL FABRICATION SERVICE











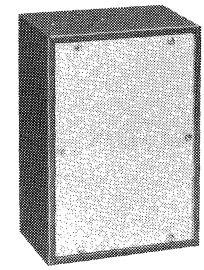
Consult your local Authorized Bud Distributor about your special enclosure problems. In reality, he is an extension of the factory's engineering department and can recommend the proper design and size for your equipment. His advice will save you time and money.

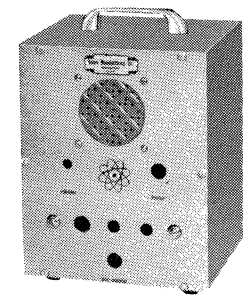
These are the services we perform:

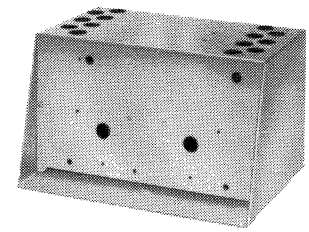
1. Modification of our standard products.
2. Specially punched panels, chassis and boxes.
3. Standard construction employing steel or aluminum.
4. Special construction employing the Imlok system of aluminum extrusions, castings and sheets.
5. Original designs based upon your circuitry requirements.

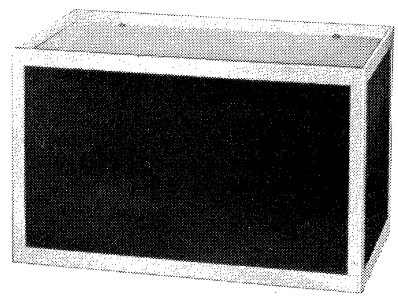
Bud can supply you with a pilot model or a production run. Our more than 35 years of experience in the electronic industry assures you that we can readily understand your problems and solve them economically. 112,000 sq. ft. of completely integrated plant facilities — from engineering, tooling and fabrication to painting, assembly and packaging insure quick delivery. Almost every type of industry, branches of the armed forces, the Space Agency and the Nuclear Energy Commission use Bud products.

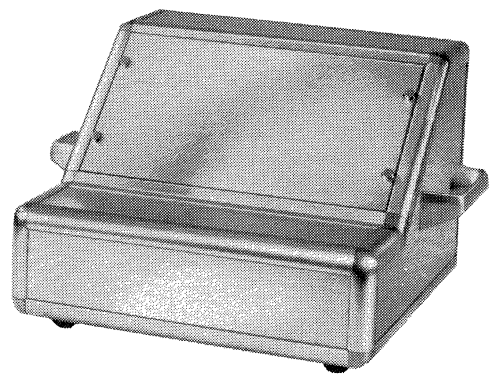
Whenever a special sheet metal enclosure is required, call in your local Authorized Bud Distributor. He is anxious to cooperate with you.

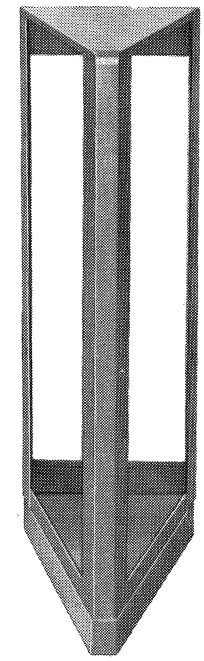












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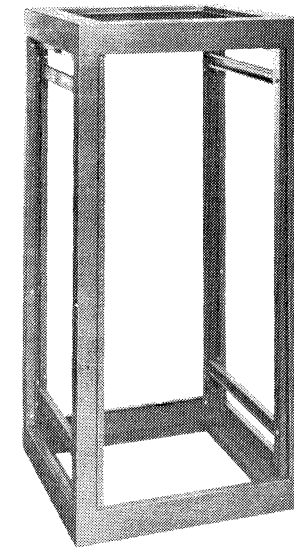
CALIFORNIA CHASSIS CO.

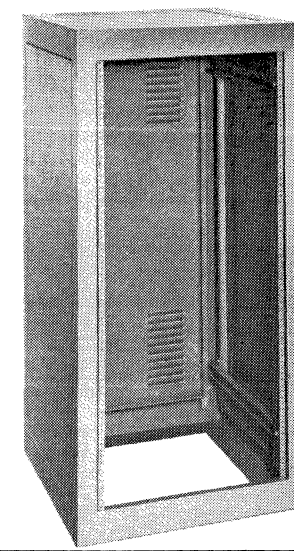
Lynwood, Calif.

ds DESIGNER SERIES

ALL-STEEL WELDED CABINET

This flexible AWC cabinet is available as a complete package or as separate components to satisfy individual requirements. Doors and sides are interchangeable. Doors have chrome handles — spring loaded hinge pins provide rapid removal and servicing without tools. Panel mounting angles are tapped 10-32 with universal spacing for all standard panels. Louvers on doors and sides available. Standard finish — gray hammertone; other finishes optional.



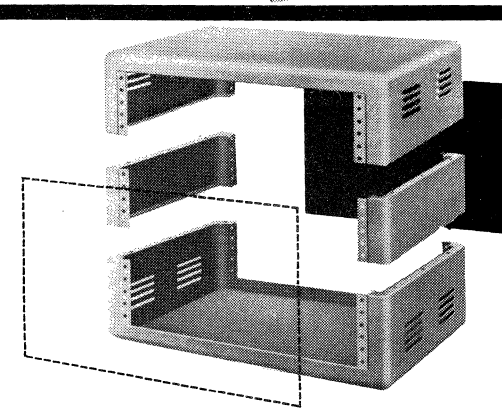


AWC-42	Assembly consisting of 42 inch panel space frame, two sides, one door, top, one pair panel mounting angles and all necessary hardware	$125.00
AWC-61	Same as above except 61¼ inch panel space frame	153.00
AWC-70	Same as above except 70 inch panel space frame	166.00
AWC-77	Same as above except 77 inch panel space frame	192.00
AWCF-42	Basic frame only — 42 inch panel space	60.40
AWCF-61	Basic frame only — 61¼ inch panel space	75.40
AWCF-70	Basic frame only — 70 inch panel space	80.40
AWCF-77	Basic frame only — 77 inch panel space	95.40
AWCS-42	Side panel — 42 inches high ..... each	14.75
AWCS-61	Side panel — 61¼ inches high ..... each	17.75
AWCS-70	Side panel — 70 inches high ..... each	19.75
AWCS-77	Side panel — 77 inches high ..... each	22.75
AWCD-42	Door — 42 inches high	17.95
AWCD-61	Door — 61¼ inches high	20.95
AWCD-70	Door — 70 inches high	23.95
AWCD-77	Door — 77 inches high	26.95
AWCT-42	Top	7.05
AWCT-61	Top	7.05
AWCT-70	Top	7.05
AWCT-77	Top	7.05
AWCP-42	Panel mounting angles — 42 inches long ..... pair	10.10
AWCP-61	Panel mounting angles — 61¼ inches long ..... pair	14.10
AWCP-70	Panel mounting angles — 70 inches long ..... pair	15.10
AWCP-77	Panel mounting angles — 77 inches long	17.10
AWCZ-42	Vertical supports for chassis brackets ..... set of four	14.30
AWCZ-61	Vertical supports for chassis brackets ..... set of four	16.25
AWCZ-70	Vertical supports for chassis brackets ..... set of four	17.30
AWCZ-77	Vertical supports for chassis brackets ..... set of four	19.35

ds DESIGNER SERIES

MULTI-PURPOSE EXPANDABLE CABINET

The MPX enclosure combines clean design and attractive finish with utility, strength and versatility. Inserts permit vertical expansion of cabinet. Standard finish — gray hammertone; other finishes optional.



MPX CABINET — Consists of top, bottom, rear panel 5¼" high and assembly hardware. Basic cabinet provides 7" of panel space front and back $29.75

MPXF-10 1¾" FILLER — each filler group listed consists of two sides, rear panel same height as sides and hardware 9.22

MPXF-11	3½"	FILLER	$10.35	MPXF-18	15¾"	FILLER	$17.35
MPXF-12	5¼"	FILLER	11.50	MPXF-19	17½"	FILLER	18.50
MPXF-13	7"	FILLER	12.50	MPXF-20	19¼"	FILLER	19.50
MPXF-14	8¾"	FILLER	13.60	MPXF-21	21"	FILLER	20.60
MPXF-15	10½"	FILLER	14.69	MPXF-22	24½"	FILLER	21.80
MPXF-16	12¼"	FILLER	15.80	MPXF-23	26¼"	FILLER	22.95
MPXF-17	14"	FILLER	16.95	MPXF-24	28"	FILLER	24.10

MPX Cabinet without inserts	Width 21⅝ in.	Height 11¼ in.	Depth 18½ in.
Font panel opening	19⅛ in.	7 in.	——
Back panel opening	19⅛ in.	7 in.	——
Inserts (in increments of 1¾ to 26¼ in.)	——	1¾ to 26¼ in.	18½ in. (side)

Recommended total panel height with inserts: 35 inches. This cabinet accepts standard relay rack panels and is drilled for universal panel mountings. 16 gauge cold rolled steel construction.

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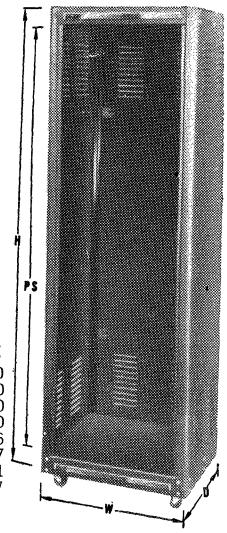
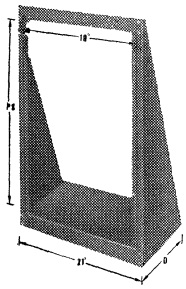
CALIFORNIA *Chassis* COMPANY

CABINET RACKS

These racks are made entirely of 16 gauge steel except for the heavy steel panel supports. They have universal spacing, the holes being tapped for 10/32" screws. Panels fit into a recess so that the edges do not show. Mounting plate on bottom of rack permits casters to be fastened directly to base for easy mobility. Casters are not included in price of rack but may be ordered separately. No. TC-10.
All standard 19" panels RETMA, Western Electric or Amateur will fit these racks.
Double rows of louvres side and rear give ample ventilation.
Finish is black wrinkle, gray wrinkle or silver hammertone. Black will be furnished unless specified otherwise.



NO. CAT.	PANEL SPACE	HEIGHT	WIDTH	DEPTH	INSIDE DEPTH	CLEAR.	SHIP. WT. LBS.	NET PRICE
CR-36	36¾	42	22	17	15½		90	52.00
CR-42	42	47¼	22	17	15½		96	58.60
CR-61	61¼	66½	22	17	15½		120	74.00
CR-77	77	82¼	22	17	15½		145	88.00
CRD-36	36¾	42	22	24	22½		99	66.86
CRD-42	42	47¼	22	24	22½		105	79.17
CRD-61	61¼	66½	22	24	22½		133	94.81
CRD-77	77	82¼	22	24	22½		160	113.97



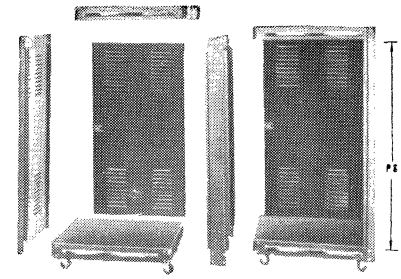
DOR SERIES

This open rack is made of 16 gauge steel. It is useful where the larger, heavier floor model is not necessary.

Mounting holes are on universal centers tapped 10/32".

Cat. No.	Panel Space	Overall Height	Width	Depth	Ship. Wt.	Net Price
DOR-21	21 x 19	25	21	12	18	9.66
DOR-28	28 x 19	32	21	12	19	11.92

MULTI RACK SERIES

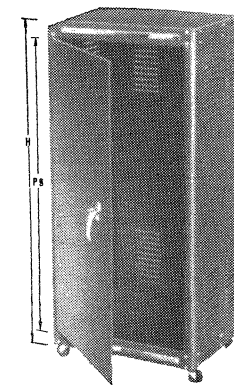


With this unit and a standard rack of the same size one can make a multiple rack or a series of connected racks. Each unit consists of a door, top, bottom, and a multi-rack connecting unit. This must have the same panel space as the unit it is to be used with. All hardware except casters is furnished. Colors are black rwinkle, gray wrinkle or gray hammertone.

CATALOG NO.	PANEL SPACE	FITS RACK	SHPG. WT.	NET PRICE
MR-36	36¾	CR-36	75	52.00
MR-42	42	CR-42	80	58.60
MR-61	61¼	CR-61	100	74.00
MR-77	77	CR-77	118	88.00

FRONT DOOR RACKS

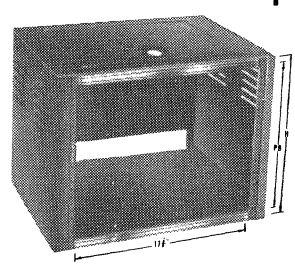
This deluxe rack series has, in addition to the rear door, a front door which completely encloses the panels. Rack strips may be moved towards the rear of the rack to allow space for meters, switches, etc. Rack strips are punched with universal spacing, and tapped 10/32". Casters, TC-10, fit to base of rack, but are not included in price. Finish is black wrinkle (B), Graw wrinkle (G), or gray hammertone (GH). Black wrinkle shipped if no color is specified.



CATALOG NO.	HEIGHT	PANEL SPACE	SHPG. WT.	NET PRICE
FDR-36	42	36¾	102	74.50
FDR-42	47¼	42	118	83.50
FDR-61	66½	61¼	152	108.50
FDR-77	82¼	77	185	138.00

DESK CABINET RACKS

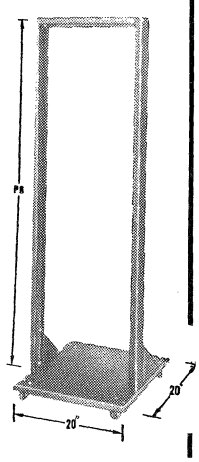
This solid welded, rounded front, deluxe desk cabinet has a professional look as well as being a sturdy utility unit. Embossed feet are on all sizes to reduce marring.
Cabinets have universal punching, accommodating W. E.; RETMA; or Amateur notched panels. Unit is made from 16 ga. steel, hav niga 2" opening on bottom rear for ventilation in addition to side louvers.
The five smaller models have solid welded backs. The five larger models have a removable hinged rear door.
All models clear 14½" inside depth — Outside width is 21½". Black wrinkle is standard. If gray wrinkle or gray hammertone is desired please specify. No additional charge.



CATALOG NO.	PANEL SPACE	HEIGHT	SHPG. WT.	NET PRICE
DCR-7	7	8 15/16	25	18.00
DCR-8	8¾	10 11/16	27	18.37
DCR-10	10½	12 7/16	29	21.00
DCR-12	12¼	14 3/16	31	22.06
DCR-14	14	15 13/16	33	24.05
DCR-17	17½	19 7/16	37	28.78
DCR-21	21	22 13/16	39	30.80
DCR-26	26¼	28 3/16	47	33.00
DCR-31	31½	33 7/16	51	35.05
DCR-35	35	36 15/16	58	37.00

OR SERIES

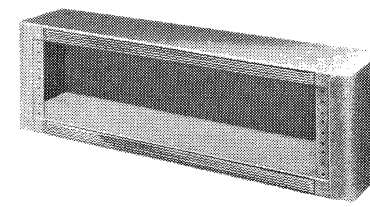
These open racks are constructed so the uppermost panel mounts at the top of the ⅛" steel upright. There is no loss of space at the top. Rack uprights are punched with universal spacing and tapped 10/32". Two brackets of ⅛" steel bind the uprights and a chassis like base into one solid unit.



ATALOG NO.	PANEL SPACE	OVERALL HEIGHT	SHPG. WT.	NET PRICE
R-31	31½	32¾	27	22.76
R-36	36¾	38	28	22.97
R-42	42	43¼	30	24.63
R-61	61¼	62½	37	25.45
R-66	66½	67¾	39	25.96
R-71	71¾	73	41	26.88
R-77	77	78¼	42	31.28

MINIATURE CABINET RACKS

The MCR combines stylized function and compactness for desktop use. Available in three sizes. Accepts standard relay rack panels and "PC" chassis units. Attractive gray hammertone with chrome trim; other finishes optional.



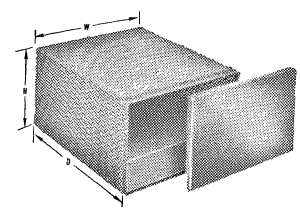
MCR-12 CABINET — Panel space 19" x 5¼" $14.27
MCR-13 CABINET — Panel space 19" x 7" 14.57
MCR-14 CABINET — Panel space 19" x 8¾" 14.87

All above items available in gray hammertone finish. Other finishes available on special order. Contact factory for special finish prices.

All MCR units have embossed feet to protect desk tops.

TYPE	WIDTH	PANEL SPACE	DEPTH	HEIGHT	WT.
MCR-12	21⅝	19 x 5¼	6⅞	7⅛	11½ lb.
MCR-13	21⅝	19 x 7	6⅞	8⅞	12½ lb.
MCR-14	21⅝	19 x 8¾	6⅞	10⅝	13½ lb.

LOW TEMPERATURE CABINETS



This cabinet made of perforated metal with 3/32 holes on 3/16 centers, solves most thermal problems. It is a real space saver, the chassis being almost the size of the cabinet.

Chassis is .063 aluminum and bolts to the rear panel which is welded to the perforated screen. Rear steel panel has rectangular hole in it to allow access to connectors in chassis. Front panel has no screws but is held on by control knobs mounted in chassis.

Chassis and front are one piece when unit is complete and can be easily removed yet cabinet chassis and front panel are solidly held together.

Catalog Number	Cabinet Size H	W	D	Front Panel	Chassis Size	Hole in Rear Panel	Net Price
LTC-463	4½	x 7 3/16	x 9 3/16	4½x 7¼	6 15/16x 8 15/16x1½	⅞x4	10.00
LTC-464	4½	x 9 3/16	x 7 3/16	4½x 9 3/16	8 15/16x 6 15/16x1½	⅞x5	10.00
LTC-469	5 11/16	x 8¾	x11 3/16	5⅝x 8¾	8 7/16x10 15/16x2	1½x5	11.64
LTC-470	5 11/16	x11 3/16	x 8 11/16	5⅝x11¾	10 15/16x 8 7/16x2	1½x6	11.64

CALIFORNIA CHASSIS CO. — Lynwood, California

"ALL PRICES SUBJECT TO CHANGE W/O NOTICE"

Net

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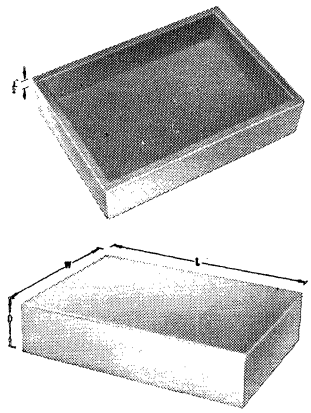
CALIFORNIA *Chassis* COMPANY

STANDARD ALUMINUM CHASSIS—All chassis are stamped and formed from one piece of material. All four corners welded and sides flanged to accommodate bottom plates.



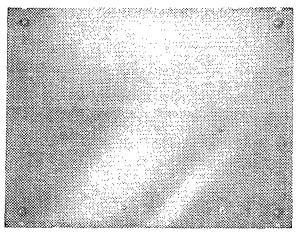
Aluminum	W	L	D	Gauge	App. Wt.	Net Price
A-134	2½	4½	1	18	¼	1.12
A-135	3½	4½	1	18	¼	1.22
A-136	3½	5½	1	18	¼	1.22
A-137	4	6	1½	18	¼	1.34
A-155	4	6	2	18	¼	1.41
A-149	4	6	3	18	¼	1.53
A-138	4	5	2	18	⅜	1.38
A-121	5½	5½	1	18	¼	1.45
A-101	5	7	2	18	⅜	1.22
A-150	5	7	3	18	⅜	1.62
A-147	4	8	2	18	⅜	1.63
A-119	4½	8	1½	18	⅜	1.31
A-122	5	9	1½	18	⅜	1.39
A-102	5	9½	2½	18	⅜	1.96
A-120	6	8	2	18	¾	1.68
A-103	5	10	3	18	½	1.82
A-104	7	7	2	18	½	1.53
A-105	7	9	2	18	¾	1.63
A-113	7	11	2	18	¾	1.77
A-106	8	10	2½	18	1	2.48
A-151	6	14	3	18	1	2.75
A-114	7	13	2	18	¾	1.87
A-139	5	13	3	18	¾	2.04
A-107	8	12	2½	18	1	2.77
A-117	7	12	3	18	1	2.30
A-124	8	12	3	18	1	2.55
A-108	10	12	3	18	1¼	2.94
A-129	12	12	3	18	1½	3.28
A-115	10	14	3	18	1¼	3.18
A-130	7	15	3	18	1¼	2.90
A-125	9	15	3	18	1½	3.45
A-118	4	17	3	18	1	2.62
A-145	6	17	3	18	1¼	2.87
A-144	7	17	2	18	1	2.81
A-152	7	17	3	18	1½	3.08
A-109	8	17	2	18	1½	2.90
A-116	8	17	3	16	1½	3.48
A-140	10	17	2	16	2¼	3.57
A-110	10	17	3	16	2½	3.91
A-153	10	17	4	16	3	5.02
A-141	10	17	5	14	3¼	7.82
A-146	11	17	2	16	1½	3.71
A-128	11	17	3	14	2½	4.67
A-127	12	17	2	14	2¼	4.22
A-123	12	17	3	14	2½	5.02
A-126	13	17	2	14	2½	4.50
A-111	13	17	3	14	2¾	4.85
A-112	13	17	4	14	3¼	7.48
A-142	13	17	5	14	3½	8.50
A-133	14	17	3	14	3¼	5.95
A-131	15	17	4	14	3¾	8.42
A-148	15	17	6	14	4	11.40
A-132	10	23	3	16	2½	5.27
A-154	17	17	3	16	2½	6.75
A-143	17	17	4	14	4¼	10.00

ENTIRE LINE OF CHASSIS DUPLICATED IN STEEL.

USE PREFACE "C" INSTEAD OF "A" FOR PLATED STEEL CHASSIS.

All aluminum chassis are etched finish. 1" and 1½" chassis are flanged on long side only and contain no mounting holes.

CHASSIS BOTTOM PLATES



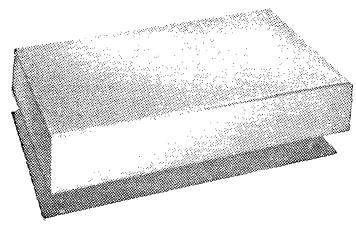
CATALOG NO.	SIZE	ALUM. WEIGHT	STEEL WEIGHT	Steel Net Price
BP-105	7 x 9	¼ lb.	¾ lb.	1.00
BP-113	7 x11	½ lb.	1 lb.	1.19
BP-106	8 x10	¼ lb.	¾ lb.	1.17
BP-139	5 x13	¼ lb.	½ lb.	1.16
BP-114	7 x13	½ lb.	1 lb.	1.34
BP-107	8 x12	¾ lb.	1¼ lb.	1.50
BP-117	7 x12	½ lb.	1 lb.	1.22
BP-108	10 x12	¾ lb.	1½ lb.	1.56
BP-129	12 x12	¾ lb.	1½ lb.	1.70
BP-115	10 x14	¾ lb.	2 lb.	1.63
BP-130	7 x15	½ lb.	1 lb.	1.43
BP-125	9 x15	¾ lb.	1½ lb.	1.87
BP-118	4 x17	½ lb.	1 lb.	1.16
BP-145	6 x17	½ lb.	1 lb.	1.41
BP-144	7 x17	½ lb.	1 lb.	1.36
BP-109	8 x17	½ lb.	1¾ lb.	1.53
BP-110	10 x17	¾ lb.	2½ lb.	1.60
BP-128	11 x17	1 lb.	2 lb.	1.68
BP-123	12 x17	1¼ lb.	3 lb.	2.04
BP-111	13 x17	1½ lb.	3¼ lb.	2.24
BP-133	14 x17	1½ lb.	3½ lb.	2.43
BP-131	15 x17	1½ lb.	3½ lb.	2.47
BP-143	17 x17	2 lb.	5 lb.	2.99
BP-132	10 x23	1½ lb.	3¼ lb.	2.24

Steel bottom plates may be supplied in either zinc plate or black enamel — aluminum is caustic etched.
Actual size of BP is ⅛" under chassis size which is shown. This allows 1/16" of set back when attached to bottom of chassis.

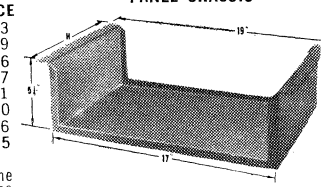
CATALOG NO.	SIZE	ALUM. WEIGHT	STEEL WEIGHT	Net Price
BP-134	2½x 4½	1 oz.	2 oz.	.58
BP-135	3½x 4½	2 oz.	¼ lb.	.63
BP-136	3½x 5½	2 oz.	¼ lb.	.68
BP-137	4 x 6	2 oz.	¼ lb.	.71
BP-138	4 x 5	2 oz.	¼ lb.	.66
BP-147	4 x 8	¼ lb.	½ lb.	.85
BP-121	5½x 5½	2 oz.	½ lb.	.77
BP-101	5 x 7	2 oz.	¼ lb.	.77
BP-119	4½x 8	¼ lb.	½ lb.	.88
BP-122	5 x 9	¼ lb.	½ lb.	.92
BP-102	5 x 9½	¼ lb.	½ lb.	.90
BP-120	6 x 8	¼ lb.	½ lb.	.92
BP-151	6 x14	½ lb.	1¼ lb.	1.16
BP-103	5 x10	¼ lb.	½ lb.	.93
BP-104	7 x 7	¼ lb.	½ lb.	.99

HEAVY DUTY CHASSIS 16 GAUGE STEEL			Net Price
HD-109	6¾#	8x17x2	4.68
HD-116	7½	8x17x3	5.15
HD-110	8½	10x17x3	5.24
HD-146	8	11x17x2	5.19
HD-128	10	11x17x3	5.80
HD-126	9½	13x17x2	6.17
HD-111	11½	13x17x3	6.55
HD-112	12	13x17x4	7.48

Bottom Plates Included



PANEL CHASSIS

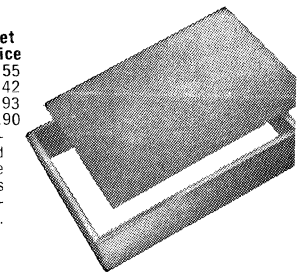


CAT. NO.	HEIGHT	WEIGHT	NET PRICE
PC-110	1¾	2 #	2.33
PC-111	3½	2¾	2.69
PC-112	5¼	4	2.96
PC-113	7	4½	3.47
PC-114	8¾	5¾	4.01
PC-115	10½	6¾	4.40
PC-116	12¼	7½	4.76
PC-117	14	8½	5.15

Larger Sizes On Request

These are constructed so the sharp rib corner is cut to a 45° angle protecting the user's wrist. 16 gauge zinc steel is standard. 14 gauge etched aluminum on request at no added cost.

REMOVABLE TOP CHASSIS



Cat. No.	Weight	Dimensions	Net Price
RT-1	5¼#	10x17x3	3.55
RT-2	7	13x17x3	4.42
RT-3	6½	10x17x4	3.93
RT-4	9	13x17x4	4.90

Experimenters and the radio amateur when designing, will find it economical to use this type chassis, as the tops and bottoms may be easily replaced or discarded. Steel-Electro Zinc Only.

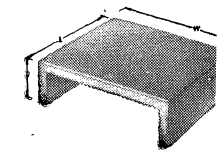
TOPS ONLY FOR REMOVABLE TOP CHASSIS

Cat. No.	Weight	Dimensions	Net Price
T-1	3#	10x17	1.70
T-2	4	13x17	2.09

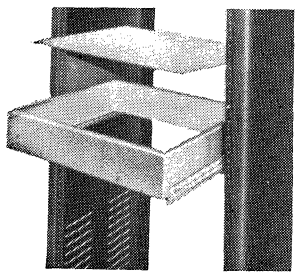
Made From 16 Gauge Steel — Electro Zinc Finish

Cat. No.	Weight	W	L	D	Net Price
EC-1	1 #	7	x 6	x2	1.02
EC-2	¾	5	x 7	x1½	.97
EC-3	1	5½	x 9	x1½	1.12
EC-4	1¼	7½	x 9	x1½	1.39
EC-5	1½	7	x13	x1½	1.58
EC-6	2¼	7¾	x15	x2	1.68
EC-7	1	7	x 8	x2	1.16
EC-8	1¼	7	x10	x2	1.39

These chassis are ideal for any type of unit which is built-up, such as a record changer. Steel — Electro Zinc Only



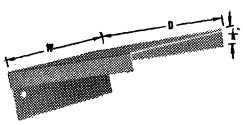
SLIDING DRAWER CHASSIS



The drawer chassis is used where there is a need to pull out the chassis without disconnecting it from the rack. Chassis rolls in and out on ball bearings in a formed channel. When assembled it forms a rigid unit which will fit any 19" rack. Brackets are ⅛" Aluminum. Chassis and top plate are 14 gauge aluminum. Finish, except for slide rail assembly, is gray hammertone.

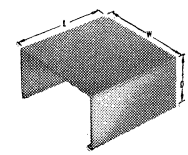
Cat. No.	Chassis Size	Brk. H	Wt.	Net Price
SD-399	16¾x14x3	6½"	6½#	$15.52

PLATFORM CHASSIS



These steel platforms are useful as variable level chassis simply by fastening to any side of a carrying case, utility box, etc. They may also be used as shields. Black enamel finish.

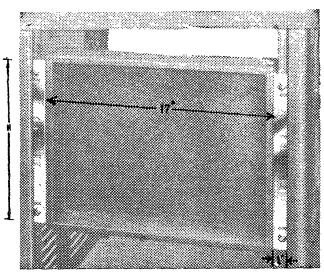
			Net Price
CD-260	4¾	5½	.70
CD-261	4¾	4½	.60
CD-262	5¾	5½	.82



MINIATURE ALUMINUM CHASSIS

These are small open end chassis for use where space is limited.

Catalog No.	Width	Length	Depth	Approx. Shpg. Wt.	Net Price
MA-210	2⅝	2¾	1¼	¼#	.
MA-211	1¾	3⅛	1	¼	.
MA-212	3¼	4½	2	¼	.
MA-213	2¾	4⅛	1	¼	.
MA-214	3¾	4⅛	1½	¼	.
MA-215	3	6⅛	1¼	¼	.



CHASSIS FLANGES

These 1" chassis flanges will convert any 17" chassis to a 19" panel rack chassis. Made of 1 gauge Zinc plated steel.

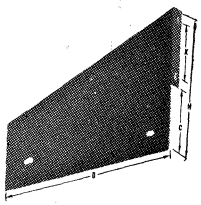
Catalog No.	Height	Shpg. Wt.	Net Price
CF-12	5¼	½#	
CF-13	7	½	
CF-14	8¾	1	
CF-15	10½	1	
CF-16	12¼	1	
CF-17	14	1	

"ALL PRICES SUBJECT TO CHANGE W/O NOTICE"

CALIFORNIA *Chassis* COMPANY

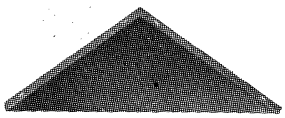
CHASSIS MOUNTING BRACKETS

To assure the proper support for a chassis a sturdy mounting bracket it uted. Flange is 5/8" inside dimension. Elongated hole 3/16" x 11/32" is centered in flange. "X" shows the distance between flange holes. Finished in Zinc plated "C" or Wrinkle "W" may be had at additional cost of 15%.



Black Enamel	Height	x	Depth	Clearance	Wt.	Net Price
E-58B	6½	2½	8	3 1/16	1¼	1.38
E-57B	6½	2½	9	3 1/16	1½	1.50
E-48B	6½	2½	10	3 1/16	1¾	1.56
E-59B	6½	2½	11	3 1/16	1¾	1.63
E-49B	6½	2½	12	3 1/16	1¾	1.75
E-60B	6½	2½	13	3 1/16	2	1.78
E-50B	8½	3½	10	4 1/16	2½	1.96
E-51B	8½	3½	13	4 1/16	3	2.09
E-52B	12	7	15	4 1/16	4½	3.09
E-53B	14	8	17	5 1/16	5¾	3.55

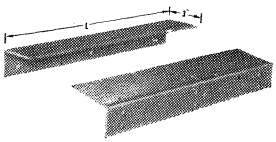
TRIANGULAR MOUNTING BRACKETS



Cat. No.	Height	Dimensions	Net Price
MB-55	½	5x5	1.02
MB-77	1½	7x7	1.19
MB-99	1¾	9x9	1.41

Steel — Black Enamel Only

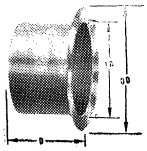
CHASSIS SUPPORT ANGLES



These angles when bolted to the sides of a cabinet will support a heavy chassis unit. They are made of 1/8" thick steel and are finished in black enamel only.

Cat. No.	Length	Width	Shpg. Lbs. Wt.	Price Net
CA-12	12	3	3	2.14
CA-14	14½	3	4	2.24

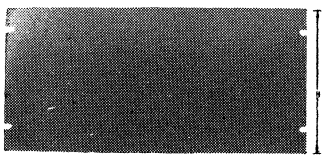
METER SHIELD



This shield is made of spun aluminum. It will fit over the meter and effectively stops most interference. Furnished with no holes and in natural finish only.

Catalog Number	L	I.D.	O.D.	Meter Size	Net Price
MSA-2	2-3/16	2-1/32	2⅞	2	1.75
MSA-3	2	2-25/32	3¾	3	1.75

RELAY RACK PANELS



Regular panels are made from 1/8" steel or aluminum material. Aluminum is 1100 H 14. Notching is either Western Electric (WE) or Amateur (A). Finish Black or Gray Wrinkle or Silver Gray Hammertone. Aluminum is standard and will be sent unless steel is specified. Panels in any material will be furnished 24" wide instead of 19" wide at twice the cost.

Notching: Western Electric	Notching: Amateur	Height	Width	Wt. Alum.	Wt. Steel	Net Price
PW-10	PA-10	1¾	19	½	1¼	1.19
PW-11	PA-11	3½	19	¾	2¼	1.79
PW-12	PA-12	5¼	19	1¼	4	2.26
PW-13	PA-13	7	19	1½	4¾	3.08
PW-14	PA-14	8¾	19	2	6	3.91
PW-15	PA-15	10½	19	2½	6¾	4.73
PW-16	PA-16	12¼	19	3	8¾	5.00
PW-17	PA-17	14	19	3½	9¾	5.64
PW-18	PA-18	15¾	19	4	10¾	6.45
PW-19	PA-19	17½	19	4½	12	7.30
PW-20	PA-20	19¼	19	5	13	8.15
PW-21	PA-21	21	19	5½	15¾	8.75
PW-22	PA-22	24½	19	6	18½	10.30
PW-23		26¼	19	7	20¼	11.30

METER PANELS

All panels are 5¼" x 19" x 1/8" steel or aluminum, black or grey wrinkle — designed to handle either 2" or 3" meters. All units Western Electric notch.

ALUMINUM

Cat. No.	Wt.	No. Holes	Dia.	Net Price
MPA-32	1	3	2 3/16	2.69
MPA-52	1¼	5	2 3/16	3.13
MPA-33	1⅛	3	2 13/16	2.69
MPA-53	1	5	2 13/16	3.13

STEEL

Cat. No.	Wt.	No. Holes	Dia.	Net Price
MPS-32	3	3	2 3/16	1.94
MPS-52	2¾	5	2 3/16	2.55
MPS-33	3½	3	2 13/16	1.94
MPS-53	3	5	2 13/16	2.55

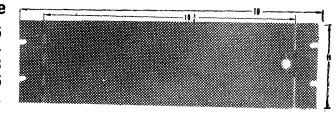
Small holes are for 2" meters, larger holes are for 3" meters.

HARD ALUMINUM PANELS

Cat. No.	Height	Width	Wt.	Net Price
PWHA-10	1¾	19	½	1.63
PWHA-11	3½	19	¾	2.22
PWHA-12	5¼	19	1¼	2.80
PWHA-13	7	19	1½	3.48
PWHA-14	8¾	19	2½	4.08
PWHA-15	10½	19	2½	4.93
PWHA-16	12¼	19	3	5.78
PWHA-17	14	19	3½	6.63
PWHA-18	15¾	19	4	7.22
PWHA-19	17½	19	4½	7.82
PWHA-20	19¼	19	5	8.42
PWHA-21	21	19	5½	9.60
PWHA-22	24½	19	6	11.70
PWHA-23	26¼	19	7	11.90

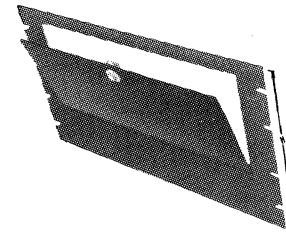
These 1/8" panels are recommended for high quality work. They are 2024T3 aluminum. Notching is Western Electric, but Amateur on request at no added cost. We also carry a complete line of 3/16" or .188 panels. These are all 2024T3.

SIDE HINGED PANELS



Cat. No.	Height	Wt.	Net Price
SH-12	5¼	4¼	3.66
SH-13	7	5½	3.94
SH-14	8¾	6¾	4.23
SH-15	10½	7¼	4.56
SH-16	12¼	8¾	4.91

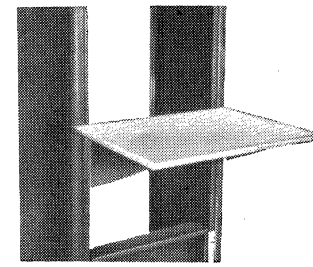
FRONT HINGED DOOR PANEL



This door gives access to the chassis top. It is free moving and has a substantial catch. Made of 1/8" steel. Please specify finish.

Cat. No.	Height	Door	Net Price
FH-430	10½	6 x15⅜	6.07
FH-432	12¼	7½x15⅜	7.48

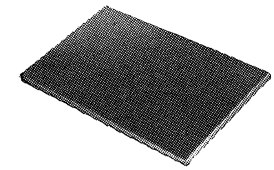
EXTERIOR RACK SHELVES



The exterior shelf replaces a panel when a shelf is needed. Unit is composed of a 16 gauge steel shelf with seam welded front corners and two supporting 1/8" steel brackets. All hardware included.

Cat No.	Shelf Size	Wt.	Net Price
ER-416	16x22	12	11.66
ER-420	20x22	15	11.83

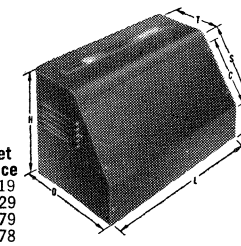
INTERIOR RACK SHELVES



These 16 gauge steel shelves may be supported in the rack by chassis support angles CA-12 or CA-14. They are used to form a strong shelf for modulator units, power supplies etc. Finish black enamel.

Cat. No.	Size	Shpg. Wt.	Price Net
RS-512	12x19	5½	2.64
RS-515	15x19	6½	3.47

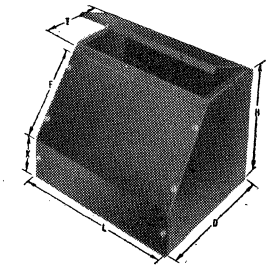
SLOPING FRONT CABINETS



These deluxe all purpose steel cabinets are designed for wide use in the electronic field. Front and top corners are rounded, sides have stainless steel ventilators. Embossed feet to prevent scratching. Gray wrinkle finish.

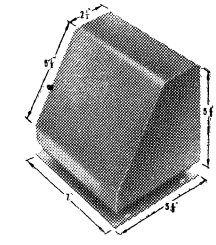
Catalog No.	D	H	L	T	X	S	Use This Chassis C	Net Price
SFC-42	8	8	8	4¼	2¾	6	5¼ C-104	5.19
SFC-44	8	8	10	4¼	2¾	6	5¼ C-105	7.29
SFC-46	8	8	14	4¼	2¾	6	5¼ C-114	8.79
SFC-48	12	12	18	6	3⅛	10⅜	9½ C-110	11.78

HINGED TOP SLOPING CABINET



This cabinet provides for a complete opening of top and front. Bottom has embossed feet. Rear has opening for connectors. Black wrinkle or Gray hammertone finishes.

ENCLOSED METER CABINET



Enclosed Meter Cabinet bottom is open. Bottom plate with embossed feet and four sheet metal screws included. Gray wrinkle unless other color specified. Available in black wrinkle, silver gray hammertone at no additional cost. Steel or Aluminum.

Catalog No. EMC-2

CALIFORNIA CHASSIS CO. — Lynwood, California

"ALL PRICES SUBJECT TO CHANGE W/O NOTICE"

Net

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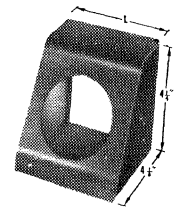
CALIFORNIA *Chassis* COMPANY

METER CABINETS

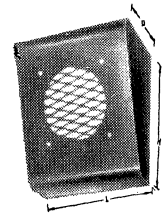
Meter Size	Aluminum Cat. No.	Net Price		Gray Hammertone Cat. No.	Wt. Lbs.	Net Price
2″	4 ″ MC-2	1.43	½	SMC-2	1½	1.12
3″	4 ″ MC-3	1.43	½	SMC-3	1½	1.12
No Holes	4 ″ MC-4	1.43	½	SMC-4	1½	1.12
2″	4 ″ MC-6*	1.43	½	SMC-6*	1½	1.12
3″	4 ″ MC-7*	1.43	½	SMC-7*	1½	1.12
No Holes	7½″ MC-8	2.06	¾	SMC-8	2¼	1.87
3″	6 ″ HAC-MC-7*	2.06	¾			

* Indicates it has two ½″ holes on ¾″ centers at top of cabinet for insulators. 2″ meter hole is 2 3/16″. 3″ meter hole is 2 13/16″.



WALL SPEAKER CASES

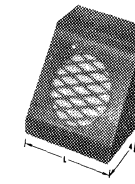
These all metal cases have keyslotted holes on the rear for easy mounting. They are also provided with embossed feet on one side. Finish is gray hammertone for ease of cleaning.



Catalog No.	Speaker Size	Hole Size	H	L	D	Wt.	Net Price
WS-304	4	3½	7½	6½	4¼	1¾	3.52
WS-305	5	4	½7	6½	4¼	1¾	3.71
WS-306	6	4¾	9½	8	5⅝	3	4.19
WS-308	8	6½	11½	9½	7	4	5.15
WS-310	10	8½	13½	11½	8¼	5	6.47
WS-312	12	10½	15½	13½	9¾	6	8.12

MINIATURE SPEAKER CABINETS

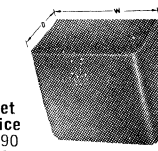
These small meter cabinets are like the MC series except the meter hole is covered by an expanded metal shield. Furnished in steel only. Black wrinkle standard.



Catalog No.	Length	Meter Size	Wt. Lbs.	Net Price
MS-261	4″	2″	¾	1.77
MS-262	4″	3″	¾	1.77

STREAMLINED MINIATURE CABINETS

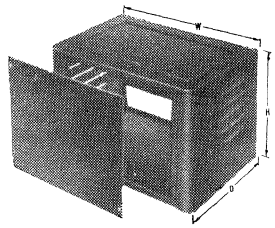
This miniature steel cabinet has a radiussed face. The base has four embossed feet. There rear is open except for a ¼″ flange down two sides. This gives rigidity as well as a place to attach a back cover. Gray wrinkle standard.



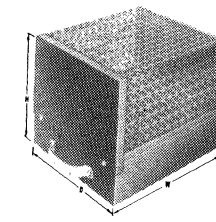
Catalog No.	H	W	D	Wt.	Net Price
SM-271	4½	5½	3½	1 #	1.90
SM-272	6½	5½	3½	1½	1.96

DELUXE AMPLIFIER FOUNDATION

This foundation is used where the chassis must be covered and appearance is important. Material is steel, finish is black wrinkle. Gray hammertone at no extra cost. Use suffix B or GH.

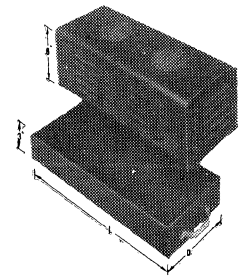


Cat. No.	Length	Depth	Wt.	Net Price
DA-420	10	5	4½	6.82
DA-421	12	7	5	8.04
DA-422	17	7	8	8.50
DA-423	17	10	9	9.25



STREAMLINED INSTRUMENT CABINET

Miniature aluminum chassis MA series are usually used with this cabinet. Black wrinkle is standard.



Catalog No.	Panel Space	Height	Width	Depth	Wt.	Net Price
SC-31	8x 8	8	10½	8¼	5¾	4.37
SC-32	8x10	8	12½	8¼	6	5.42
SC-33	8x12	8	14½	8¼	6½	5.88
SC-34	8x14	8	16½	8¼	7	6.17
SC-35	8x16	8	18½	8¼	7¾	6.77
SC-36	12x18	12	20½	12	15	12.17

AMPLIFIER FOUNDATIONS

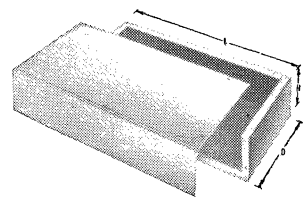
These consist of a chassis and perforated metal cover. They have ample ventilation. Handles are included in each package Black wrinkle standard.

Catalog No.	Height	Width	Depth	Chassis Height	Shpg. Wt.	N Pr
AF-240*	6	7⅜	5⅛	2	2	4
AF-241	8 5/16	9⅝	5⅛	2½	3	5
AF-242	8 5/16	13⅝	5⅛	2½	4⅜	6
AF-243	8 5/16	17⅛	7⅛	2½	6	7
AF-244	8 13/16	17⅛	10⅛	3	8	10

* Has one handle only — at top.

UTILITY BOX — REMOVABLE COVER

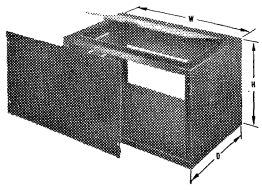
This model allows complete accessibility to the interior of the unit. All work may be completed before cover is installed.



Cat. No.	D	L	H	Net Price
HA-10	3x	4	x1½	1.50
HA-11	4x	5	x2	1.96
HA-12	4x	8	x2	2.14
HA-13	5x	9½	x2½	2.15
HA-14	6x12		x2½	3.23
HA 15	7x15		x2½	3.82

INSTRUMENT CABINETS

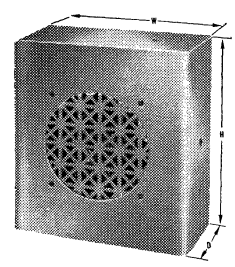
This cabinet has a hinged access door on top and removable front cover. The elimination of the rounded corners gives more inside room. The rear has a 3½″ opening for ventilation plus louvers at each end. The open end chassis, E.C. series, is usually used with these cabinets. Black wrinkle only.



Cat. No.	H	W	D	Ship. Wt.	Net Price
HTC-342	7	8	8	5	4.15
HTC-343	7	10	8	5½	5.36
HTC-344	7	12	8	5¾	5.65
HTC-345	7	14	8	6	6.05
HTC-346	8	16	8	7	8.35
HTC-347	9	15	11	8	8.53
HTC-348	12	18	12	14½	12.22

UNIVERSAL SPEAKER HOUSING—This versatile unit can be screwed to the wall or mounted directly to an outlet box. If greater adjustability is desired a yoke or "U" shaped speaker bracket, one of the USHB series, can be used.

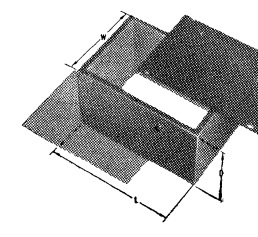
Speaker openings face front and back for bilateral sound projection. This makes them very adaptable for use in halls or auditoriums. Being of steel they do not weather and are easy to clean. Interior is coated with a sound deadening material. Finish is silver gray hammertone.



Cat. No.	Speak. Size	H	L	D	Wt.	Price Net
USH-534	4 or 5	7¼	6¾	3½	2½	5.51
USH-535	5 or 6	8¼	7½	4	2¾	5.98
USH-536	6 or 8	10 9/16	9½	5	4½	9.62
USH-540	10 or 12	15	13½	7 7/32	9	13.09

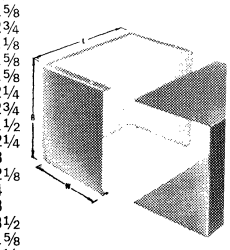
METAL UTILITY CABINETS

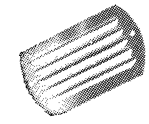
Catalog No.	Wt. Stl.	D	W	L	Wt. Alm.	Painted Alum.
CAB-1	¾	2″	4″	4″	⅜	1.68
CAB-2	1	3″	5″	4″	½	1.87
CAB-3	1½	4″	5″	6″	¾	2.14
CAB-4	2½	6″	6″	6″	1	2.56
CAB-5	3¼	5″	6″	9″	1¼	3.47
CAB-6	4¾	7″	8″	10″	2	5.10
CAB-7	5	6″	7″	12″	2	4.93
CAB-8	6	8″	10″	10″	2½	7.15
CAB-9	7	8″	11″	12″	2¾	8.58
CAB-10	7	7″	9″	15″	2¾	8.75



MINIATURE CABINETS

Aluminum Gray Hammertone Cat. No.	Net Price	Etched Aluminum Cat. No.	Net Price	L	H	W
M-51	.83	M-81	.61	2¾	x2⅛	x1⅝
M-52	.95	M-82	.85	2¾	x2⅛	x2¾
M-53	.88	M-83	.61	3¼	x2⅛	x1⅛
M-54	1.04	M-84	.66	3¼	x2⅛	x1⅝
M-55	.92	M-85	.65	4	x2⅛	x1⅝
M-56	1.00	M-86	.83	4	x2¼	x2¼
M-57	1.16	M-87	.83	4	x2	x2¾
M-58	1.17	M-88	.87	4¼	x2¼	x1½
M-59	1.21	M-89	.90	5	x2¼	x2¼
M-60	1.41	M-90	1.34	5	x4	x3
M-61	1.38	M-91	1.26	5¼	x3	x2⅛
M-62	1.85	M-92	1.28	6	x5	x4
M-63	1.89	M-93	1.34	7	x5	x3
M-64	2.28	M-94	2.02	8	x6	x3½
M-65	1.53	M-95	1.34	10	x2	x1⅝
M-66	3.66	M-96	3.23	10	x6	x3½
M-67	2.04	M-97	1.53	12	x2½	x2¼
M-68	3.56	M-98	2.89	12	x7	x4
M-69	4.08	M-99	3.40	17	x5	x4





CHROME VENTILATING LOUV

These are made of stainless with a high polish finish. The our sloping face cabinets but be adopted to any unit. The behind a 2x4 3/8 rectangular and mount on 4-27/32 centers. pair with screws.

Catalog No. TRM-40 .78

CALIFORNIA CHASSIS CO. — Lynwood, California

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LMB® Box Chassis

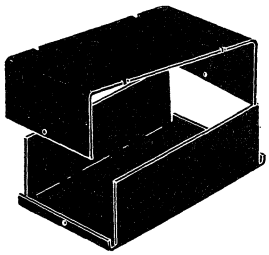
The Engineered Precision Line with Interlocking and Flangelocking Construction

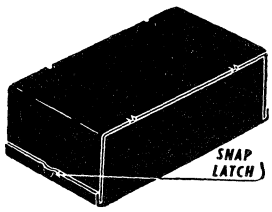
Here is the answer to box chassis needs, for the laboratory, manufacturer, experimenter, or builder. The following L. M. B. Boxes are available from stock in either interlocking (screw fastened) or snap latch. All screw fastenings are drilled and tapped. Self tapping screws are not used. Available colors include natural aluminum, gray or brown hammertone, and black crackle. When ordering specify style and color.

Aluminum used in all LMB products is aircraft quality specifications type 3003-H 14.

All prices quoted are dealer net. Manufacturers Special Discounts on Application.

Interlocking





INTERLOCKING (SCREW-FASTENED OR SNAP LATCH)

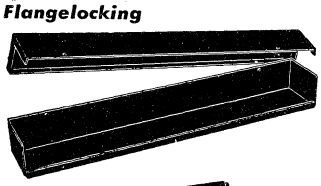
Model	Size	Price	Model	Size	Price
M00	2¼" x 1½" x 1⅜"	.57	138	6¼" x 3½" x 2⅛"	1.32
00Z	2⁵⁄₁₆" x 2⅛" x 1¾"	.64	139	5½" x 3" x 1¼"	1.01
000	3¼" x 2⅛" x 1⅝"	.68	140PL	3" x 4" x 5"	1.29
00	4" x 2⅛" x 1⅝"	.71	140	3" x 4" x 5"	1.61
100	2¾" x 2⅛" x 2⅝"	.89	141PL	6" x 4" x 3"	1.44
101	4¼" x 2¼" x 1¼"	.87	141	6" x 4" x 3"	1.72
102	4" x 2" x 2¾"	1.02	142PL	6" x 4" x 5"	1.68
107	4" x 2¼" x 2¼"	.96	142	6" x 4" x 5"	2.11
108	5" x 2¼" x 2¼"	1.03	143	4" x 4" x 2"	1.33
135	3¾" x 3" x 2⅛"	.97	144	10" x 4" x 2½"	2.19
136	5¼" x 3" x 2⅛"	1.08	145	7" x 5" x 3"	2.11
650	6½" x 2⅛" x 1⅝"	1.05	146	8" x 6" x 4½"	2.99
137	8" x 3" x 2¾"	1.61	15	12" x 2" x 1¾"	1.61
850	8½" x 2⅛" x 1⅝"	1.35			

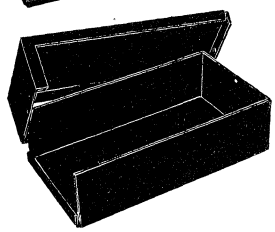
SIDELOCK and ENDLOCK CONSTRUCTION

L. M. B. aluminum Box chassis with sidelock and endlock construction are dust proof, semi-water, and rain proof. Sturdy construction and 100% shielded. The following models are available in plain aluminum, or finished in black, gray, or brown. Endlock or sidelock construction:

Model	Size	Price	Model	Size	Price
221	2¾" x 3⅛" x 1⅝"	1.13	654	6" x 5" x 4"	2.51
321	3¼" x 2⅛" x 1⅝"	1.13	666	6" x 6" x 6"	3.39
421	4" x 2⅛" x 1⅝"	1.13	686	6" x 8" x 6"	4.27
422	4" x 2¼" x 2¼"	1.29	695	6" x 9" x 5"	3.84
424	4" x 2" x 4"	1.98	753	7" x 5" x 3"	2.60
435	4" x 3" x 5"	2.19	754	7" x 5" x 4"	2.76
444	4" x 4" x 4"	1.89	863	8" x 6" x 3½"	2.86
531	5¼" x 3" x 1½"	1.29	865	8" x 6" x 5"	3.57
532	5¼" x 3" x 2⅛"	1.47	1063	10" x 6" x 3½"	3.57
534	5⅝" x 3" x 4"	2.06	1085	10" x 8" x 5"	4.42
543	5" x 4" x 3"	1.87	1221	12" x 2" x 1¾"	1.87
546	5" x 4" x 6"	2.74	1274	12" x 7" x 4"	4.65
645	6" x 4" x 5"	2.60	1754	17" x 5" x 4"	5.27

Flangelocking





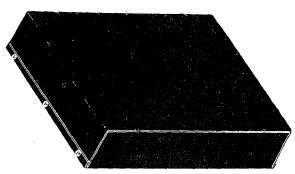
Endlock

SLIDE COVER

SLIDE COVER (or dust cover) BOXES

Designed by BROADCAST ENGINEERS

No.	L	W	H	Ea.	No.	L	W	H	Ea.
16—Natural Aluminum	13"	3⅛"	2⅝"	$1.85	18—Natural Aluminum	13"	5¼"	2⅝"	3.50
16—Gray, Black, Brown	13"	3⅛"	2⅝"	2.52	18—Gray, Black, Brown	13"	5¼"	2⅝"	4.30
17—Natural Aluminum	13"	4⅛"	2⅝"	3.18	19—Natural Aluminum	17"	3⅛"	2⅝"	3.35
17—Gray, Black, Brown	13"	4⅛"	2⅝"	3.95	19—Gray, Black, Brown	17"	3⅛"	2⅝"	4.15



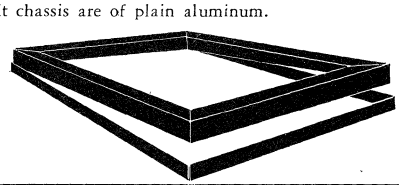
SHIELDED CHASSIS

SHIELDED CHASSIS

	L	W	H	Ea		L	W	H	Ea.
No. 20 Plain	7½"	7"	2"	$1.67	No. 21 Anodized	13"	10"	3"	$5.81
No. 20 Anodized	7½"	7"	2"	2.06	No. 22 Plain	17"	10"	3"	5.13
No. 21 Plain	13"	10"	3"	4.34	No. 22 Anodized	17"	10"	3"	6.67

PRINTED CIRCUIT CHASSIS

Printed circuit chassis are made with a shallow base with a cap cover on the bottom so that it can be removed to work on the assembly without removing the printed circuit from the chassis. All printed circuit chassis are of plain aluminum.



STANDARD SIZES

Model No.	L	W	D	Mounting Lip	Price
PC 325	3	2	½	3⁄16"	ea. .70
PC 635	6	3	½	3⁄16"	ea. .80
PC 645	6	4	½	⅛"	ea. .91
PC 855	8	5	½	⅛"	ea. 1.04
PC 10875	10	8	¾	½"	ea. 1.52
PC 12975	12	9	¾	⅝"	ea. 1.76

Model No.	Size	Mounting Lip	Price
D 7131	7 x 13 x 1	½"	ea. 1.17

for use in building with the Danco model No. 14 printed amplifier circuit

Model No.	Size	Mounting Lip	Price
D 541	5 x 4 x 1	½"	ea. $ .63

for use in building with the Danco model No. 21, 31, 41 printed preamplifier circuit

WRITE FOR COMPLETE CATALOG — PRICES SUBJECT TO CHANGE

L M B • LOS ANGELES, CALIF.

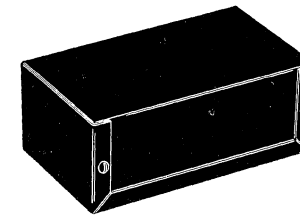
Net

© U.C.P., Inc.

L M B® Box Chassis (Continued)

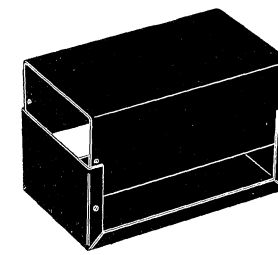
	Each	DEALER NET Plain	Gray, Black, Brown
T-F 770	2¾x2⅛x1⅝	$ .62	$ .81
T-F 771	2¾x2⅛x2¾	.68	.95
T-F 772	3¼x2⅛x1⅛	.62	.84
T-F 773	3½x2⅛x1⅝	.62	.84
T-F 774	4 x2⅛x1⅝	.62	.95
T-F 775	4 x2¼x2¼	.75	.97
T-F 776	4 x2 x2¾	.75	1.00
T-F 777	4¼x2¼x1½	.72	1.00
T-F 778	5 x2¼x2¼	.78	1.03
T-F 779	5 x4 x3	.94	1.32
T-F 780	5¼x3 x2⅛	.82	$1.12
T-F 781	6 x5 x4	1.47	1.83
T-F 782	7 x5 x3	1.40	1.86
T-F 783	8 x6 x3½	1.72	2.25
T-F 784	10 x6 x3½	2.02	2.54
T-F 785	10 x2 x1⅝	1.15	1.57
T-F 786	12 x2½x2¼	1.37	1.67
T-F 787	12 x7 x4	2.71	3.43
T-F 788	17 x5 x4	2.92	3.44

TITE-FIT BOX CHASSIS



	Each	PRICES Plain	Gray, Black, Brown
J-870	2¾x2⅛x1⅝	.62	$ .81
J-871	2¾x2⅛x2¾	.68	.95
J-872	3¼x2⅛x1⅛	.62	.84
J-873	3½x2⅛x1⅝	.62	.84
J-874	4 x2⅛x1⅝	.62	.95
J-875	4 x2¼x2¼	.75	.97
J-876	4 x2 x2¾	.75	1.00
J-877	4¼x2¼x1½	.72	1.00
J-878	5 x2¼x2¼	.78	1.03
J-879	5 x4 x3	.94	1.32
J-880	5¼x3 x2⅛	$ .82	$1.12
J-881	6 x5 x4	1.47	1.83
J-882	7 x5 x3	1.40	1.86
J-883	8 x6 x3½	1.72	2.25
J-884	10 x6 x3½	2.02	2.54
J-885	10 x2 x1⅝	1.15	1.57
J-886	12 x2½x2¼	1.37	1.67
J-887	12 x7 x4	2.71	3.43
J-888	17 x5 x4	2.92	3.44

JIFFY BOX CHASSIS



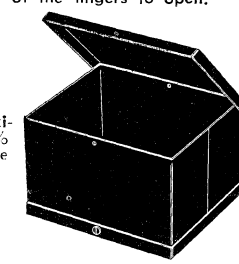
NO SCREWS

Just push together to close and the Catches snap into place—just a slight pressure of the fingers to open.

		ALUM. GAUGE Each	PRICES Plain	Gray, Black, or Brown
U-C 970	4x 4x2	.040	$1.57	$1.82
U-C 971	5x 4x3	.040	1.69	1.98
U-C 972	6x 5x4	.040	2.18	2.52
U-C 973	6x 6x6	.040	2.55	3.02
U-C 974	7x 5x3	.040	2.98	3.48
U-C 975	9x 6x5	.051	3.38	3.89
U-C 976	10x 8x7	.051	$4.63	$5.35
U-C 977	12x 7x6	.051	4.46	5.30
U-C 978	10x10x8	.051	5.90	6.85
U-C 979	12x11x8	.051	7.06	8.02
U-C 980	15x 9x7	.051	7.15	8.11

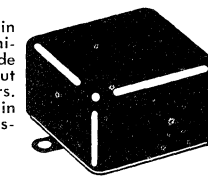
UTILITY BOXES

Give approximately 25% more usable spaces for building.



MINIATURE BOX CHASSIS

Precision made in steel only, cadmium plated. Made with or without mounting ears. Covers solder in when used in assembly.



SIZES

No.	L	W	H
M-01	1⅛"	x 1"	x ½"
02	1"	x ⅞"	x ½"
*04	1¼"	x 1 3/32"	x ⅞"
*06	1½"	x 1⅛"	x ½"
07	1¾"	x 1"	x ¾"
*08	2¼"	x 1"	x 5/16"

* Without Mounting Ears

No.	L	W	H
* 09	2⅝"	x 1"	x ⅜"
010	1¾"	x 1¼"	x ⅞"
011	2"	x 1¼"	x ¾"
*012	2"	x 1¼"	x 1"
*013	1¾"	x 1¼"	x 1"
014	1½"	x 1½"	x ¾"
*015	2"	x 1¾"	x ½"

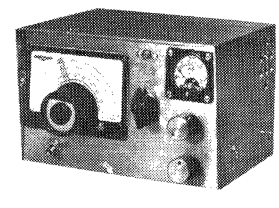
No.	L	W	H
016	2"	x 1¾"	x ¾"
017	2"	x 1¾"	x 1"
018	2"	x 2"	x 1¼"
*019	2½"	x 1¾"	x 9/16"
*020	1½"	x 1½"	x 1"
*021	2½"	x 1¾"	x ¾"
022	3⅛"	x 1¾"	x ½"

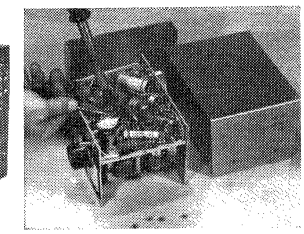
PRICES

	Plain	Plated
With Mounting Ears in Lots of 100 to 999 ea.	.49	.65
Without Mounting Ears 100 to 999 ea.	.41	.57
Covers for LMB Miniature Boxes 100 to 999 ea.		.15

UTILITY ENCLOSURES

No.	L	W	H	Plain	Gray
W-1A	7"	x 5"	x 4½" with built in chassis	$3.97	$4.84
W-1B	10"	x 4"	x 3½" with built in chassis	3.97	4.84
W-1C	8½"	x 6⅛"	x 5" with built in chassis	4.43	5.33
W-1D	18"	x 9"	x 11" will accommodate an 11" x 17" 2", 3" or 4" chassis	9.75	13.13

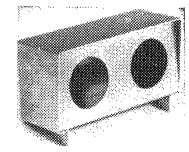


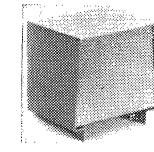


"AL-CAB" CABINETS for meter cases or any application where outstanding appearance is needed

No.	L	W	H		Plain	Gray
W-2AP	3½"	x 4"	x 3"	with holes	$1.88	$2.18
W-2A	3½"	x 4"	x 3½"	without holes	1.98	2.28
W-2B	3"	x 7"	x 3½"	with and without holes	2.25	2.67
W-2C	2⅜"	x 7"	x 3½"	without holes	2.93	3.36
W-2E	4½"	x 4½"	x 3½"	without holes	2.30	2.60

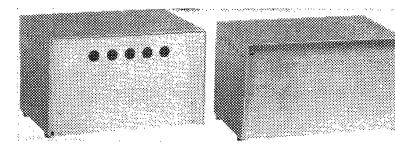
Holes in W-2AP, 2B are 2¼", 2 13/16". For 4" Meter holes and knock-out, add 10% to above prices.





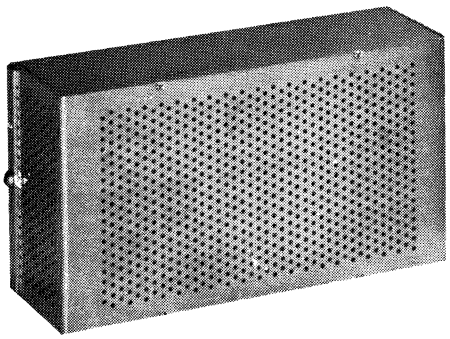
W.M. "AL-CAB" Deluxe Series All with Built-in Chassis

No.	L	W	H	Plain	Gray
W-2F	7½" x	5"	x 4½"	$4.40	$5.18
W-2G	13" x	10"	x 5¾"	9.36	11.06
W-2H	7" x	11"	x 6"	7.38	8.63
W-2J	8" x	11½"	x 7½"	8.10	9.35

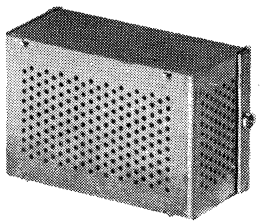


WRITE FOR COMPLETE CATALOG PRICES SUBJECT TO CHANGE

LMB® (Continued)



LMB PERFORATED BOX CHASSIS



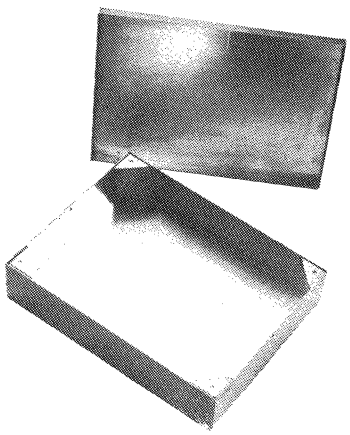
LMB Perforated Boxes are adaptable wherever heat dissipation is required as they are spaced in perforations that are set by laboratory research to give utmost heat dissipation and also give utmost shielding. They are die perforated on three sides and top of the box.

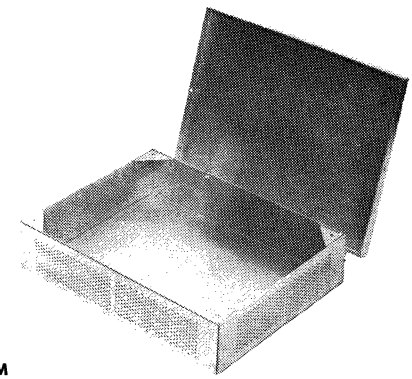
NO.	FINISH	SIZE	NET EA.	NO.	FINISH	SIZE	NET EA.
00Z	Plain or Gray	2 5/16 x 2 1/8 x 1 3/4	$ .83	138	Plain or Gray	6 1/4 x 3 1/2 x 2 1/8	$1.82
000	" "	3 1/4 x 2 1/8 x 1 5/8	.95	139	" "	5 1/2 x 3 x 1 1/4	1.36
00	" "	4 x 2 1/8 x 1 5/8	1 02	140	" "	3 x 4 x 5	1.75
100	" "	2 3/4 x 2 1/8 x 2 5/8	1.20	141	" "	6 x 4 x 3	1.88
101	" "	4 1/4 x 2 1/4 x 1 1/4	1.12	142	" "	6 x 4 x 5	2.18
102	" "	4 x 2 x 2 3/4	1.41	143	" "	4 x 4 x 2	1.40
107	" "	4 x 2 1/4 x 2 1/4	1.09	144	" "	10 x 4 x 2 1/2	2.19
108	" "	5 x 2 1/4 x 2 1/4	1.50	650	" "	6 1/2 x 2 1/8 x 1 5/8	1.41
135	" "	3 3/4 x 3 x 2 1/8	1.36	850	" "	8 1/2 x 2 1/8 x 1 5/8	1.59
136	" "	5 1/4 x 3 x 2 1/8	1.50	15	" "	12 x 2 x 1 3/4	1.79
137	" "	8 x 3 x 2 3/4	2.14				

LMB PRESENTS SOMETHING NEW IN CHASSIS —

THE CHASSIS WITH THE CAP COVER AS ORIGINATED BY LMB

Built with the new original LMB popular cap cover construction. This construction enables the builder to use either the top or the bottom of the chassis for construction. The Chassis can also be mounted on its side and construction can be on both top and bottom at the same time. Sturdily built from Aircraft quality aluminum, Type 3003, H-14, the same material as is used in the construction of all LMB precision box chassis. Special technique in welding the corners makes for a stronger chassis than the orthodox type. Cap construction allows for using all the space inside the chassis without being hindered by the mounting flange, which takes from 10% to 20% of the mounting space out of the average chassis.
The P Series are perforated on all four sides and are ideal where heat dissipation is a factor. LMB chassis — the better chassis, with the year's ahead advanced construction for your better project application. An advanced quality product competitively priced.





ALUMINUM

WITHOUT COVER				WITH CAP COVER			PERFORATED		
NO.	SIZE L W H	GUAGE	NET	NO.	L W H	NET	NO.	L W H	NET
572	5x 7x2	18	$1.17	572C	5x 7x2	$1.75	572P	5x 7x2	$2.05
573	5x 7x3	18	1.42	573C	5x 7x3	1.95	573P	5x 7x3	2.25
5952	5x9 1/2x2	18	1.25	5952C	5x9 1/2x2	1.85	5952P	5x9 1/2x2	2.15
5103	5x10x3	18	1.65	5103C	5x10x3	2.25	5103P	5x10x3	2.55
5133	5x13x3	18	1.85	5133C	5x13x3	2.50	5133P	5x13x3	2.80
6173	6x17x3	18	2.67	6173C	6x17x3	3.40	6173P	6x17x3	3.70
772	7x 7x2	18	1.35	772C	7x 7x2	1.90	772P	7x 7x2	2.20
792	7x 9x2	18	1.46	792C	7x 9x2	1.95	792P	7x 9x2	2.25
7112	7x11x2	18	1.58	7112C	7x11x2	2.30	7112P	7x11x2	2.60
7123	7x12x3	18	2.03	7123C	7x12x3	2.75	7123P	7x12x3	3.05
7153	7x15x3	18	2.67	7153C	7x15x3	3.60	7153P	7x15x3	3.90
7173	7x17x3	18	2.75	7173C	7x17x3	3.70	7173P	7x17x3	4.00
8123	8x12x3	18	2.42	8123C	8x12x3	3.23	8123P	8x12x3	3.53
8172	8x17x2	18	2.52	8172C	8x17x2	3.50	8172P	8x17x2	3.80
8173	8x17x3	16	2.95	8173C	8x17x3	4.50	8173P	8x17x3	4.80
10123	10x12x3	18	2.70	10123C	10x12x3	3.60	10123P	10x12x3	4.30
10143	10x14x3	18	2.95	10143C	10x14x3	4.30	10143P	10x14x3	4.70
10172	10x17x2	16	2.85	10172C	10x17x2	4.37	10172P	10x17x2	4.77
10173	10x17x3	16	3.40	10173C	10x17x3	5.18	10173P	10x17x3	5.98
10174	10x17x4	16	4.85	10174C	10x17x4	6.37	10174P	10x17x4	7.17
11173	11x17x3	14	4.20	11173C	11x17x3	6.60	11173P	11x17x3	7.10
12172	12x17x2	14	4.50	12172C	11x17x2	6.60	12172P	12x17x2	7.20
12173	12x17x3	14	4.60	12173C	12x17x3	6.90	12173P	12x17x3	7.50
13172	13x17x2	14	4.50	13172C	13x17x2	6.60	13172P	13x17x2	7.30
13173	13x17x3	14	4.80	13173C	13x17x3	6.90	13173P	13x17x3	7.50
13174	13x17x4	14	5.95	13174C	13x17x4	7.95	13174P	13x17x4	8.55

WRITE FOR COMPLETE CATALOG

Net

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QUALITY CABINETS by LMB

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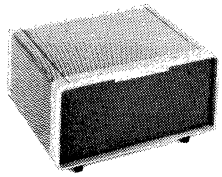
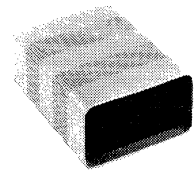


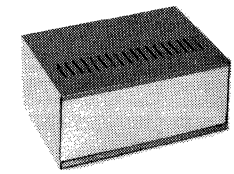
Perforated, removable top, 3 tone, body gray, trim ivory, recessed front panel blue gray.

	Net Ea. Plain	Net Ea. Gray
CO-1 14½"x13"x16½"	$17.95	$19.95
CO-2 12"x10"x6½"	15.75	17.95



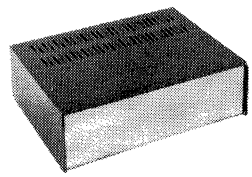
Perforated 3 sides, built in chassis, recessed front panel. Color, body gray, panel dark gray.

	Net Ea. Plain	Net Ea. Gray
CO-3 7¼"x5½"x3⅛"	$5.05	$5.85



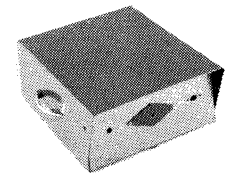
Slotted ventilation, front panel recessed, simulated gold or silver, beveled. Colors - gray Bronze Hammertone, Black Crackle, Plain.

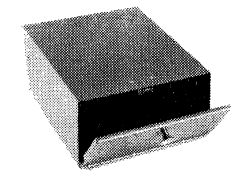
	Net Ea. Plain	Net Ea. Colors
CB-1 8"x10"x4½"	$5.99	$7.1(
CB-2 6"x8"x4½"	5.18	6.2(



Slot ventilation, recessed panel, Vinyl covered, color Brown (simulated wood), panel either silver or gold simulated. Panel beveled. With chassis.

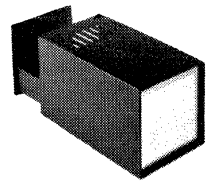
	Net Ea. Brown
V-1 16"x12"x4½"	$18.00
V-2 9"x12"x4½"	15.98
V-3 7"x11"x4½"	14.74





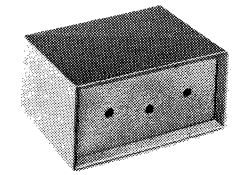
Hooded front, hinged door in rear, front panel removable by removin three screws. Chrome carrying handle. Colors blue, gray, bronze han mertone, black crackle, plain. Steel or aluminum.

	Net Ea. Plain	Net Ea Colors
HA-1 (ALUM.) 11½"x10"x5"	$11.78	$12.5
HS-1 (Steel) 11½"x10½"x5	8.84	10.9



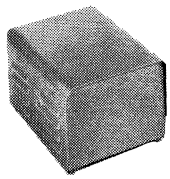
Slot ventilated, built in chassis, recessed panel, simulated gold or silver. Chassis attached to back plate and is removable. Colors - gray bronze hammertone, black crackle, plain.

	Net Ea. Plain	Net Ea. Colors
SQ-1 8½"x4½"x4½"	$5.07	$6.53



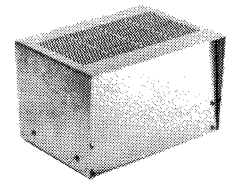
Double cabinet, inside cabinet fully shielded. Double recessed pan Colors, Gray, Bronze Hammertone, Black crackle, Plain.

	Net Ea. Plain	Net E Color
CM-1 6"x8"x3⅞"	$4.50	$5.7



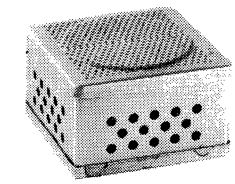
Aluminum with chassis contoured, hooded front recessed panel, slotted ventilation on bottom, louvres on side. Colors Gold, Gray, bronze hammertone, black crackle, plain.

	Net Ea. Plain	Net Ea. Colors
B-1 10"x8"x6"	$11.15	$12.83
B-2 9"x6"x5"	10.02	11.48



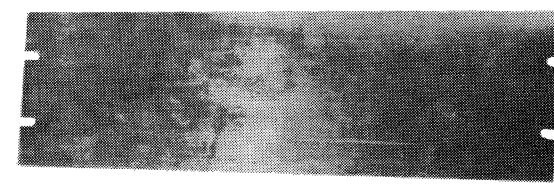
Hooded Front, built in chassis, perforated top & Back, colors Plain, Gray & Bronze Hammertone, Black Crackle.

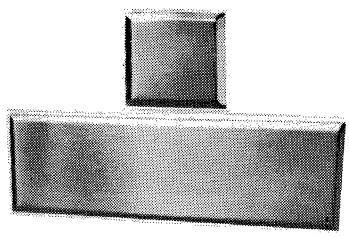
	Net Ea. Plain	Net Ea. Colors
WR-1 10"x6⅞"x6¼"	$7.50	$8.93



Speaker Case Perforated. With Mounting Clan Colors - Gray Hammertone, Telephone Black

	Net E
SP-1 3½"x3½"x2⅛"	ea $3.





Front panel beveled, for equipment decorative panel. Simulated gold or silver.

	Net Ea.
F-1 panel 4½"x4½"	$ .80
F-2 panel 14"x4½"	2.00
F-3 panel 16"x4½"	2.25

HARD ALUMINUM PANELS

These ⅛" panels are recommended for high quality work Made from 2024T3 aluminum. West Electric Notching. Finish Black or Gray wrinkle or Silver Hammertone.

No.	Height	Width	Net Ea.
A-1	1¾"	19"	$1.63
A-2	3½"	19"	2.06
A-3	5¼"	19"	2.72
A-4	7"	19"	3.32
A-5	8¾"	19"	3.93
A-6	10½"	19"	4.59
A-7	12¼"	19"	5.25
A-8	14"	19"	$ 6
A-9	15¾"	19"	6
A-10	17½"	19"	7
A-11	19¼"	19"	8
A-12	21"	19"	8
A-13	24½"	19"	10
A-14	26¼"	19"	11

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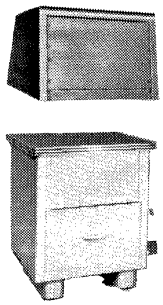
CONSOLES FOR INDUSTRY...SCHOOLS...AIRPORTS...BROADCASTING RECORDING...TESTING APPARATUS...FOR 19" RACK PANELS



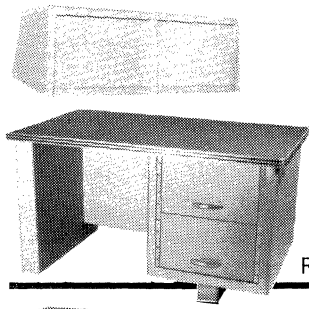
RB-100

RB-100 SINGLE PEDESTAL UNIT

This unit is designed for economy in the smaller broadcast station, school lab, etc.; a low cost unit with a wide range of uses. This unit is equipped with a sliding drawer (PD-1050-16) built into the cabinet. A blank panel (PM-1610) is provided above or below the drawer for equipment. The top has office gray linoleum touched off by attractive metal trim.

NOTE: Drawers furnished with panel mtg. screws showing unless requested as pictured.

Net Price **$148.50**



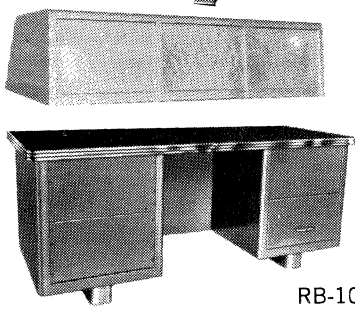
RB-101

RB-101 DOUBLE PEDESTAL UNIT

This console is designed for The Dual Turret RBT-101, equivalent to a 3(classroom unit. This unit is equipped with a sliding drawer (PD-1050-16) built in the upper or lower section of the cabinet. A blank panel (PM-1610) is provided in the remaining space. This console has a hard linoleum top trimmed with metal molding.

See Note above.

Net Price **$189.75**



RB-102

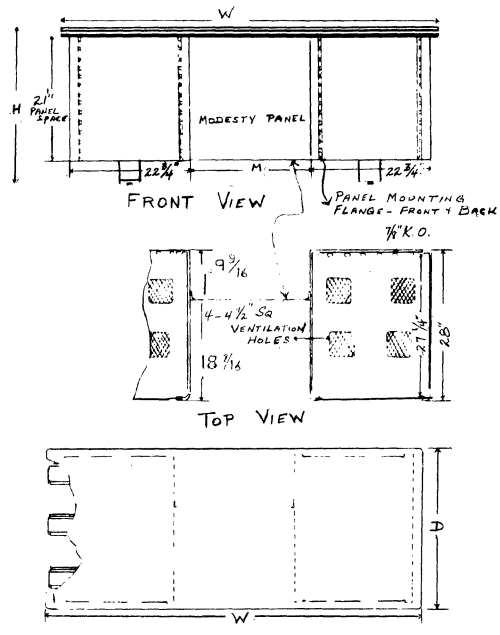
RB-102 TRIPLE PEDESTAL UNIT

This unit is the ultimate in console design. It is able to handle equipment fo a 60 classroom unit. Plenty of space is provided on this large top for wor area. A sliding drawer (PD-1050-16) with sufficient room for a 16" Transcrip tion turntable is provided in this unit. Three blank 10½" (PM-1610) panel are provided in the remaining space. The top is an attractive office gray se off by metal trim.

See Note above.

Net Price **$330.0**

ARCHITECTS AND ENGINEERS SPECIFICATIONS



MATERIAL: 18 ga. CRS

CONSTRUCTION:

1. Spot weld throughout. 2. Tops are spot welded and fastened wit sheet metal screws. 3. Corners, brazed for added strength and finis appearance. 4. Modesty panels in the two larger models are removab via sheet metal screws. 5. Each pedestal has 21" panel space bot front and rear recessed ¼". Rear panel furnished with (4) 4½" screene ventilating holes same as bottom of each pedestal. 6. Panel mountir holes are punched on standard Western Electric spacing. 10-24 ov head screws, Tinnerman clips and finish washers furnished. 7. Six 7/ wire knockouts are provided toward rear of bottom of each pedesta These knockouts accommodate ½" conduit or pipe. 8. Top is covere with gray matching linoleum and trimmed with a special aluminu trim. Trim provides 2 spaces for plastic feature strips.

FINISH: Iron phosphate dipped and finished with Silver Gray Hamme tone Bake On Enamel. Other colors available.

Catalog No.	H	D	W	M	Inside Pedestal Depth	Ship. Wt.
RB-100	29"	30"	26"		27¼"	125
RB-101	29"	30"	53"	23¼"	27¼"	190
RB-102	29"	30"	70"	21½"	27¼"	250

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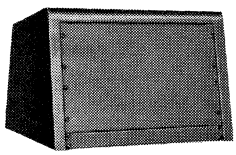
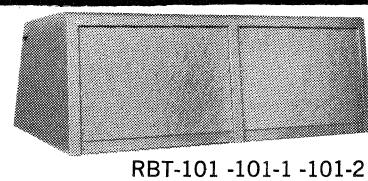
MWMI

METAL WORKS INCORPORATED
STANDARD & CUSTOM DESIGNS
HERMANN, MISSOURI

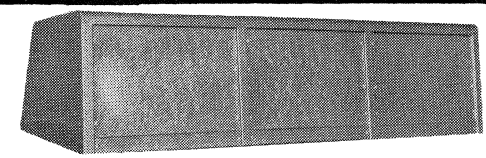
TURRETS FOR USE WITH "RB" SERIES — 19" PANELS



RBT-100 -100-1 -100-2



RBT-101 -101-1 -101-2



RBT-102 -102-1 -102-2

Turret console combinations are attractive instruments that accentuate any control room, office, etc., with their modern design.

Turrets featured in three different series and three sizes within each series offer a multiple of combinations that can be used in conjunction with our RB series of consoles. These combinations are readily adaptable to specialized applications in control equipment, testing facilities, sound systems, control units in language laboratories and many other applications in industry and entertainment services.

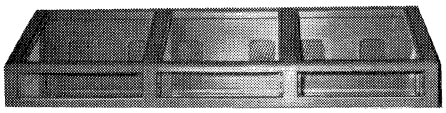
The standard turret which has 12¼" panel space is especially designed for use on the consoles (RB-100, RB-101, RB-102) and on equipment tables (RB-80-1, RB-80-3, RB-90-1, RB-90-3), although it has a wide variety of other uses.

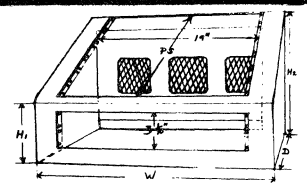
MATERIAL: 18 ga. CRS. **CONSTRUCTION:** 1. Spot weld throughout. 2. Corners brazed for added strength and finish appearance. 3. Removable rear panel for easy access to cabinet components. 4. Five ⅞" knockouts provided in rear of each panel space. These knockouts accommodate ½" conduit or pipe. 5. Two 6⅛" channel irons formed from 18 ga. CRS comprise the bottom of each turret. This type construction adds **rigidity.** 6. Front panel space has 10° slope. Rear of turrets has 10° slope. 7. Panel mounting holes are punched on standard Western Electric spacing. 8. 10/24 oval head screws, Tinnerman clips and finishing washers are furnished. 9. Panel spacing is recessed ¼". FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

For front height add 2" to H dimension.

Cat. No.	W	H	WT	WB	PS	No. of Units	Shipping Weight	Net Price
RBT-100	21¾	15½	13½	18	12¼	1	40 lbs.	$46.68
RBT-101	42	15½	13½	18	12¼	2	65 lbs.	63.54
RBT-102	62¼	15½	13½	18	12¼	3	110 lbs.	82.25
RBT-100-1	21¾	17¼	12¾	18	14	1	50 lbs.	48.74
RBT-101-1	42	17¼	12¾	18	14	2	80 lbs.	66.04
RBT-100-2	21¾	13¾	11⅝	15⅞	10½	1	35 lbs.	46.20
RBT-102-1	62¼	17¼	12¾	18	14	3	130 lbs.	85.97
RBT-101-2	42	13¾	11⅝	15⅞	10½	2	60 lbs.	62.87
RBT-102-2	62¼	13¾	11⅝	15⅞	10½	3	105 lbs.	79.37

INSTRUCTORS TURRETS FOR USE WITH "RB" SERIES — 19" PANELS





The T-103-1, 103-2, 103-3 series of turrets are especially designed for the language lab control unit ensemble. The low slope affords easy vision of the classroom as well as the equipment installed therein. These turrets are the result of considerable study in the field of audio education and are designed with the instructor, as well as maintenance personnel, in mind. Other applications of this turret are feasible where low slope aids vision of dials, meters and switch panel from a standing position. Takes panels:—ARP-123; RP-123; PM-163 or PA-163—lower space. Upper space:—ARP-1217; RP-1217; PM-1617 or PA-1617. Panels not furnished—order separately.

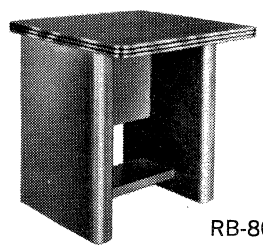
*SPECIFICATIONS

MATERIAL: 18 ga. CRS. **CONSTRUCTION:** 1. Spot weld throughout. 2. Corners brazed for added strength and finished appearance. 3. Removable rear panel for easy access to cabinet components. 4. Five ⅞" knockouts provided in rear of each panel space. These knockouts accommodate ½" conduit or pipe. 5. Two 6⅛" channel irons formed from 18 ga. CRS comprise the bottom of each turret. This construction adds **rigidity.** 6. Front panel, 3½" x 19", is made especially for our SP-1635 switch panel. 7. 17½" panel space in all bays provides ample space for most installations. 8. Panel mounting holes are punched on standard Western Electric spacing. 9. 10/24 oval head screws, Tinnerman clips and finishing washers are furnished. 10. Panel spacing is recessed 5/16" to flush mount panel. FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

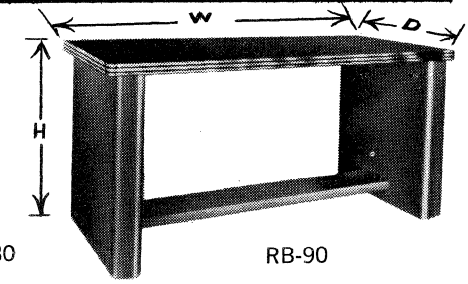
Cat. No.	W	H1	H2	D	PS	Shipping Weight	Net Price
T-103-1	22	6⅜	10	18½	17½	40 lbs.	$37.50
T-103-2	42¾	6⅜	10	18½	17½	65 lbs.	67.50
T-103-3	63⅜	6⅜	10	18½	17½	95 lbs.	99.00

EQUIPMENT TABLES FOR SMALL OR LARGE DESK EQUIPMENT

Equipment tables are exclusively in the line. They are very handy when small equipment is being used. Models 80-1 — 80-3 have an overhanging top and plenty of knee room and are used for the smaller equipment. Models 90-1—90-3 are for larger table mounting equipment and have larger tops for more working area. Top is attractive linoleum with bright metal trim. Finish is modern silver gray hammertone.



RB-80



RB-90

Cat. No.	Width-in.	Height-in.	Depth-in.	Ship. Wt. Lbs.	Net Price
RB-80-1	26	29	26	75	$62.91
RB-80-2	36	29	26	95	68.11
RB-80-3	46½	29	26	120	71.62
RB-90-1	53	29	30	120	84.94
RB-90-2	60	29	30	130	87.12
RB-90-3	70	29	30	150	89.27

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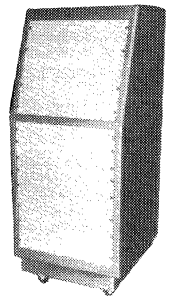
CABINET CONSOLES



CR-1001

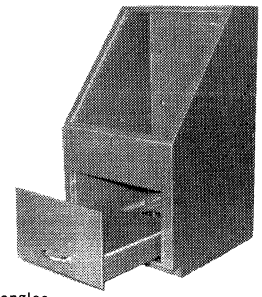
This is a combination console and rack cabinet for applications requiring a minimum of horizontal space.

The upper panel space is large enough to mount a 17" television screen for testing equipment.

Lower panel area has sufficient space for control equipment.

Net Price **$150.00**

CR-1005



This console rack fits in well where height might be a problem yet offers a sufficient amount of panel space for most applications.

The base area contains a space for mounting a record player or an automatic turntable drawer. The control panel area has a 38° slope for good visibility.

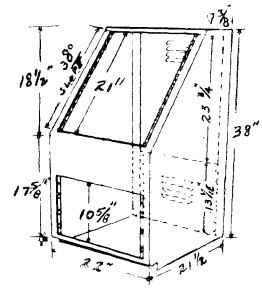
Rear of console rack has a removable louvered panel for easy servicing of the unit.

Net Price **$112.50**

CR-1001

MATERIAL: 16 ga. CRS except panel mounting angles and these are made of 13 ga. CRS. CONSTRUCTION: 1. Spot welded and brazed throughout. 2. Upper and lower panel mounting angles drilled and tapped to 10-32 thread. 3. Ball corners brazed for added strength and finish appearance. 4. Rear panel removable, attached with Tinnerman clips and screws. 5. 1¾" x 6" rectangle slot punched out of bottom and 1½" dia. hole in rear bottom for wiring inlet. 6. All reinforced channel iron on sides (3 ea. side) formed from 18 ga. CRS. 7. Channel support panel mounting angles and are fastened with ¼ x 20 binding head screws. 8. Upper panel space is on a 20° slope. 9. Two sets of four louvers each provided in top and bottom of rear panel. 10. Sides, front and back, and top, are formed with ⅝" radius. 11. Sides and top have a ¼" flange turned in for added strength and smooth corners. 12. Four gussets—one on each corner, drilled for mounting 2½" rubber casters. 13. Casters are guaranteed to hold up 100 lbs. of weight each; total load capacity per console is 400 lbs. 14. Cabinet weight—105 lbs. 15. Shipping weight—140 lbs. Shipped assembled. FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

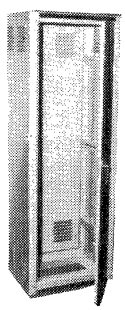
ARCHITECTS AND ENGINEERS SPECIFICATIONS



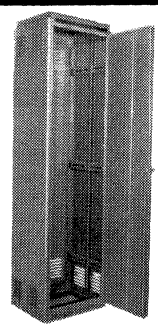
CR-1005

MATERIAL: 16 ga. CRS. CONSTRUCTION. 1. Spot welded and brazed throughout. 2. Upper and lower panel mounting holes are punched to standard 1¼" x ½" spacing. 3. 10-24 Tinnerman clips, 10-24 oval head screws and finishing washers furnished. 4. Rear panel removable; attached with sheet metal screws. 5. Upper panel space has a 38° slope. 6. All corners are square—not rounded. 7. Cabinet strength is accomplished via formed parts eliminating channels for supporting members. 8. Louvers in fixed lower rear panel are reversed and faced up to help dissipate heat. 9. Shipping weight—110 lbs. FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

TRANSMITTER RACKS



STR Standard



DTR Deluxe

Transmitter racks are made to accommodate 19", 24" and 30" rack panels. All models are furnished with front and rear doors.

Rear door opening provides easy access for equipment maintenance and installation. Front door furnishes full covering for dials, knobs, etc., mounted on panels. Front door is provided with a locking handle and rear door with a flush mounted lock and handle. This gives added protection where it is necessary to lock all components.

Slotted channels (3 per side) permit panel mounting angles to be recessed to full cabinet depth by simply tightening screws that hold each angle in place.

	Catalog No.	Net Price *		Catalog No.	Net Price *
Standard For 19" Panels	STR-3675	$105.62	DeLuxe For 19" Panels	DTR-3675	$117.56
	STR-4200	107.89		DTR-4200	119.83
	STR-6125	114.28		DTR-6125	126.23
	STR-7000	119.26		DTR-7000	127.71
	STR-7700	121.72		DTR-7700	142.15
For 24" Panels	STR-7024	158.98	For 24" Panels	DTR-7024	176.72
	STR-7724	179.85		DTR-7724	200.44
For 30" Panels	STR-7030	182.90	For 30" Panels	DTR-7030	209.39
	STR-7730	186.82		DTR-7730	214.50

*Assembled Price.

ARCHITECTS AND ENGINEERS SPECIFICATIONS

MATERIAL: 16 ga. CRS. Panel mounting angles 16 ga. CRS. Punch for Tinnerman Clips.

CONSTRUCTION:

1. Louvers are provided in sides and rear door—four sets of six louvers each.
2. Assembled with ¼-20 bolts and nuts.
3. Rear doors swing on rigid slip joint hinges. Front doors mounted on continuous hinges.
4. All models furnished with stainless steel feature strip (colored) trim.
5. Shipped knocked down unless otherwise requested.

FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

Size	Catalog No.	Width-in.	Height-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.	Net Price
Standard for 19" Panels	STR-3675	23	42	18½	36¾	130	$105.62
	STR-4200	23	47¼	18½	42	140	107.89
	STR-6125	23	66½	18½	61¼	150	114.28
	STR-7000	23	75¼	18½	70	155	119.26
	STR-7700	23	82¼	18½	77	160	121.72
For 24" Panels	STR-7024	27⅞	75¼	24	70	230	158.98
	STR-7724	27⅞	82¼	24	77	245	179.85
For 30" Panels	STR-7030	33⅞	75¼	24	70	250	182.90
	STR-7730	33⅞	82¼	24	77	265	186.82
DeLuxe for 19" Panels	DTR-3675	23	43⅞	18½	36¾	135	117.56
	DTR-4200	23	49⅛	18½	42	145	119.83
	DTR-6125	23	68⅜	18½	61¼	155	126.23
	DTR-7000	23	77⅛	18½	70	160	127.71
	DTR-7700	23	84⅛	18½	77	160	142.15
For 24" Panels	DTR-7024	27⅞	77⅛	24	70	235	176.72
	DTR-7724	27⅞	48⅛	24	77	250	200.44
For 30" Panels	DTR-7030	33⅞	77⅛	24	70	255	209.39
	DTR-7730	33⅞	84⅛	24	77	270	214.50

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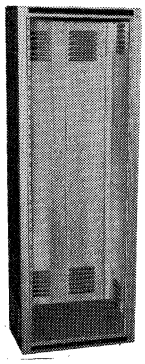
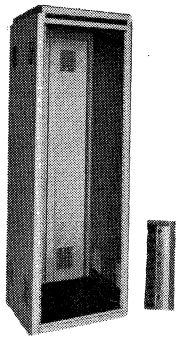
METAL WORKS INCORPORATED
STANDARD & CUSTOM DESIGNS
HERMANN, MISSOURI

CABINET RELAY RACKS FOR STANDARD 19" RACK PANELS



SCR standard



DCR deluxe

Cabinet Relay Racks are rigidly constructed of 16 ga. steel. These racks are completely bolted together.

Panel mounting space is recessed ¼" to give a more modernistic and pleasing appearance. The rear doors swing on rigid slip joint hinges which permit it to be easily removed. The standard type rack has square front vertical corners. The rounded type rack has rounded front vertical corners. The deluxe type rack has a dome top with rounded front vertical corners.

Front door with 1¼" depth furnished on request.

ARCHITECTS AND ENGINEERS SPECIFICATIONS

Standard	Net Price *	Round Corner	Net Price *	DeLuxe	Net Price *
SCR-3675	$46.37	RCR-3675	$46.37	DCR-3675	$54.70
SCR-4200	49.87	RCR-4200	49.87	DCR-4200	63.36
SCR-6125	61.88	RCR-6125	61.88	DCR-6125	67.65
SCR-7000	66.52	RCR-7000	66.52	DCR-7000	69.46
SCR-7700	69.30	RCR-7700	69.30	DCR-7700	81.29

*Assembled Price

MATERIAL: 16 ga. CRS.
CONSTRUCTION:
1. Panel mounting angles are punched to standard 1¼" x ½" spacings and are formed as part of the cabinet side.
2. Panel mounting offset is ¼" deep (See Inset).
3. 10-24 Tinnerman clips, oval head screws and finishing washers furnished for panel space.
4. Louvers are provided in sides and rear door—Four sets of six louvers each.
5. Assembled with ¼-20 pan head bolts and nuts.
6. Rear doors swing on rigid slip joint hinges permitting easy removal.
7. All models furnished with stainless steel feature strip (colored) trim, top and bottom.
8. All models shipped knocked down unless assembled is requested.
FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

Model	Catalog No.	Height-in.	Width-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.	Net Price *
Standard	SCR-3675	41⅛	22⅜	18½	36¾	100	$46.37
	SCR-4200	46⅜	22⅜	18½	42	110	49.87
	SCR-6125	65⅝	22⅜	18½	61¼	130	61.88
	SCR-7000	74⅜	22⅜	18½	70	140	66.52
	SCR-7700	81⅜	22⅜	18½	77	150	69.30
Round Corner	RCR-3675	41⅛	22⅜	18½	36¾	100	46.37
	RCR-4200	46⅜	22⅜	18½	42	110	49.87
	RCR-6125	65⅝	22⅜	18½	61¼	130	61.88
	RCR-7000	74⅜	22⅜	18½	70	140	66.52
	RCR-7700	81⅜	22⅜	18½	77	150	69.30
DeLuxe	DCR-3675	43	22⅜	18½	36¾	105	54.70
	DCR-4200	48¼	22⅜	18½	42	115	63.36
	DCR-6125	67½	22⅜	18½	61¼	135	67.65
	DCR-7000	76¼	22⅜	18½	70	145	69.46
	DCR-7700	83¼	22⅜	18½	77	155	81.29

AMPLIFIER CABINETS RACKS AND CONSOLES

For Recessed Application—TB Series
The recessed type amplifier enclosure has a grille cover. The door is equipped with a lock and piano hinge. The grille has an opening in the top part to permit hot air to escape. The back enclosure is designed to reflect the hot air toward the front of the cabinet so that it may escape. Adequate knockouts are placed in back for all wiring purposes. All TB's are furnished complete with TBG-1000 grille.

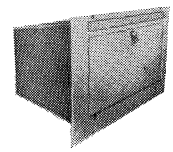
Surface Mounted—STB Series
Same size and panel space as TB listed above. Made for those applications where surface mounting is required. STB Panel Mtg. Angles furnished on request.

Heavy Duty—HTB Series
This cabinet offers adequate panel mounting space for most applications where the above listed TB's are too small. The rack portion of the cabinet is completely removable and mounted on 4 nylon ball bearing slides. The rack will support a maximum of 200 lbs. of weight. Maintenance convenience is offered in that the rack can be pulled forward to afford easy access to all components. Sturdy construction features of this cabinet are incorporated to give you quality in an economical unit. Doors are furnished with flush mounted locks.

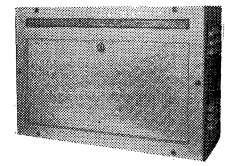
TB and STB
MATERIAL: 16 ga. CRS body
11 ga. CRS grille
CONSTRUCTION:
1. All spot weld and braze construction.
2. Panel mounting angles are supported in slotted bracket, adjustable 9½" front to rear, affording ample clearance for dials, tuning knobs, switches, etc., on TB only.
3. 10½" of maximum panel space.
4. Panel mounting angles are punched for use with Tinnerman clips.
FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

HTB
MATERIAL: 16 ga. CRS cabinet
⅛" thick angle iron with 11 ga. bracing on rack.
CONSTRUCTION:
1. Spot weld and electric arc construction on cabinet. Electric arc weld on removable rack.
2. Panel mounting angles drilled and tapped for 10/24 thread.
3. Nylon ball bearing slides used on rack.
4. Complete panel mounting rack is removable.
5. Front door made to provide adequate clearance space for dials, knobs, etc.
FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

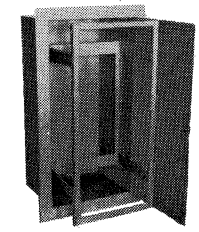
TB Series



STB Series



HTB Series



Catalog No.	Model	Height	Width	Depth	Ship. Wt.	Net Price
TBG-1000	Grille	16"	23"		13 lbs.	$15.51
TB -1200	Encl.	13"	20"	12"	35 lbs.	25.30
TB -1500	Encl.	13"	20"	15"	38 lbs.	27.70
TB -1800	Encl.	13"	20"	18"	41 lbs.	28.74

Catalog No.	Inside			Outside			Net Price
	H	W	D	H	W	D	
STB-1200	14"	21"	11 15/16"	16"	23"	12"	$29.25
STB-1500	14"	21"	14 15/16"	16"	23"	15"	32.42
STB-1800	14"	21"	17 15/16"	16"	23"	18"	34.20

Catalog No.	Height	Cabinet Only Width	Depth	Height	Removable Rack Width	Removable Rack Depth	P.S.	Ship. Wt.	Net Price
HTB-1575	17¾"	21 5/16"	18"	18⅜"	20 5/16"	16"	15¾"	85	$ 66.47
HTB-2800	30"	21 5/16"	18"	30⅝"	20 5/16"	16"	28"	125	85.93
HTB-4200	45¼"	21 5/16"	18"	44⅝"	20 5/16"	16"	42"	175	107.13
HTB-6152	61¼"	21 5/16"	18"	63⅞"	20 5/16"	16"	61¼"	225	135.96

Door frame is 27¼" wide or 2 27/32" wider each side than cabinet width. Add 6" to cabinet height for overall height of door frame.

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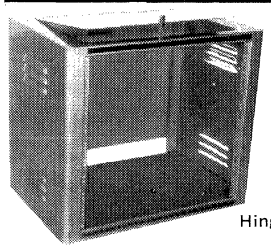
MWMI

METAL WORKS INCORPORATED

STANDARD & CUSTOM DESIGNS

HERMANN, MISSOURI

DELUXE DESK CABINET RACKS FOR STANDARD 19″ RACK PANELS — 15″ DEEP



Hinged Door Back Type

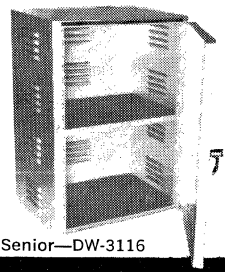
DC SERIES These cabinets are completely welded together to save on assembly time and costs. Panel mounting angles are punched to standard 1¼″-½″ spacings. Enough 10-24 speed clips and machine screws are furnished to mount several rack panels. To give a more pleasing appearance, the mounting angles are constructed to permit recessing of rack panels. All models have a recessed door on top for easy access to equipment. The six largest sizes have a door in back which permits access from the back. All models have a bright chrome strip on top and bottom of front. Phono drawer PD-1050-14 can be mounted in these cabinets except DC-875.

ARCHITECTS AND ENGINEERS SPECIFICATIONS — MATERIAL: 16 ga. CRS. CONSTRUCTION: 1. Completely welded together for rigidity. 2. Rounded front corners. 3. Panels fastened with Tinnerman clips. 4. 10-24 screws, Tinnerman clips and finish washers furnished. 5. 5/16″ recessed panel mounting flanges. FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

Catalog No.	Width-in.	Height-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.	Net Price
DC- 875*	22¾	10⅞	15	8¾	26	$16.75
DC-1050*	22¾	12⅝	15	10½	28	18.48
DC-1225*	22¾	14⅜	15	12¼	30	21.28
DC-1400*	22¾	16⅛	15	14	35	22.44
DC-1750	22¾	19⅝	15	17½	38	25.74
DC-2100	22¾	23⅛	15	21	42	27.59
DC-2450	22¾	26⅝	15	24½	46	27.97
DC-2625	22¾	28⅜	15	26¼	48	28.38
DC-3150	22¾	33⅝	15	31½	52	29.53
DC-3500	22¾	37⅛	15	35	56	31.35

(*) Solid back type.

DELUXE WALL MOUNTING AMPLIFIER CABINET SENIOR MODEL...JUNIOR MODEL



Senior—DW-3116

Here is a sturdy cabinet designed for housing the new style amplifiers. Completely welded construction with facilities for wall mounting. DW3116 comes complete with cabinet shelf and door with locking handle. Tamper proof inside hinges. Deep enough for the new larger amplifiers and wide enough for amplifiers using plugs on the side. Plenty of ventilation from louvers on sides and back.

MATERIAL: 16 ga. CRS

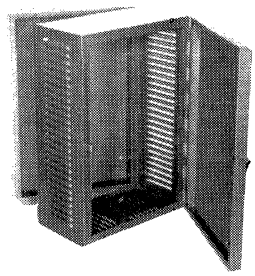
CONSTRUCTION:

1. Completely welded together for rigidity.
2. Panels fastened with Tinnerman clips.
3. 10-24 screws, Tinnerman clips and finish washers furnished.

FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

Catalog No.	Height	Depth	Width	PS	Ship. Wt.	Net Price
Senior DW-3116	31″	16″	21″	28″	75 lbs.	$67.50
Junior DW-1616	16⅛″	16″	21″	14″	50 lbs.	44.25

SECTIONAL WALL MOUNTING CABINET 193 SERIES



This series of cabinets is designed for maximum installation convenience. Swing out feature of cabinets permit less handling of components on the job or in the shop. Dowel pins and heavy hinge assure you of durability and a greater amount of weight acceptance of components. Camloc studs interlock two sections with a flush lock mounted on front door in sizes A & B and a locking handle in sizes C & D to complete a totally enclosed locking unit. The cabinets are available in four vertical panel sizes. If a phono drawer is required, order PD-1050-14. If a shelf is needed order CS-1207. Additional bracing is provided for rack mounting weight in excess of 250 lbs. Indicate this by prefix WT i.e. (WT 193) and letter size of cabinet. See specifications below.

ARCHITECTS AND ENGINEERS SPECIFICATIONS

MATERIAL: 16 ga. CRS. 11 ga. reinforced angle for wall mounting. CONSTRUCTION: 1. Each section shall be spot welded and brazed at corners for sturdiness. 2. Panel mounting holes shall be tapped for 10-32 threads. 3. Bottom and sides of middle section shall be louvered for maximum heat dissipation. 4. Dowel pins shall be provided to prevent sagging. 5. Each section shall be hinged with heavy continuous steel hinge. 6. Extra bracing shall be provided when weight of components exceeds 250 lbs. 7. All louvers shall be 6″ in length. FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

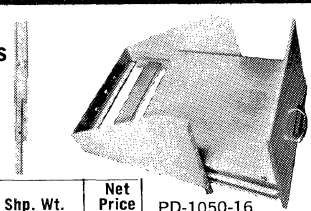
Model No.	Dimensions								Ship. Weight	Net Price
	A	B	C	D	E	F	G-ps	D-E-F		
193A	20⅝	18 13/16	19⅛	4½	11	1¾	15¾	17¼	50#	$74.27
193B	20⅝	31	19⅛	4½	11	1¾	28	17¼	75#	78.26
193C	20⅝	45	19⅛	4½	11	1¾	42	17¼	125#	95.73
193D	20⅝	64 5/16	19⅛	4½	11	1¾	61¼	17¼	175#	105.86

PANEL MOUNTING PHONO & STORAGE DRAWERS FOR 19″ RACKS

325 SLIDE

With Ball Bearing Drawer Slides

All drawers illustrated are made of 16 ga. steel. Phono drawer chassis has a ¾″ flange to accommodate a plywood or masonite base for a record changer. Base is included with drawer.



PD-1050-16

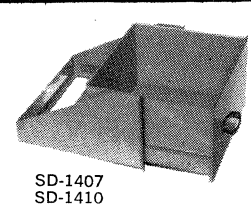
PD-1050-14

Catalog No.	PS	Chassis Size	Shp. Wt.	Net Price
PD-1050-14-E	10½″	15 13/16″W x 14″D x 3¼″H	16 lbs.	$33.75
PD-1050-16-E	10½″	15 13/16″W x 16″D x 3¼″H	18 lbs.	33.75
PD-1050-14	10½″	16⅜″W x 14″D x 3¼″H	16 lbs.	21.75
PD-1050-16	10½″	16⅜″W x 16″D x 3¼″H	18 lbs.	21.75

Storage Drawers

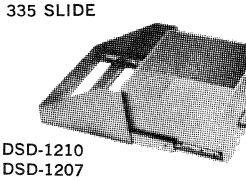
Catalog No.	PS	Storage Area	Shp. Wt.	Net Price
SD-1407	7″	16¼″W x 14″L x 6¼″D	16 lbs.	23.25
SD-1410	10½″	16¼″W x 14″L x 9¾″D	18 lbs.	24.75
SD-1607	7″	16¼″W x 16″L x 6¼″D	20 lbs.	23.25
SD-1610	10½″	16¼″W x 16″L x 9¾D	22 lbs.	24.75
DSD-1207	7″	15 13/16″W x 16″L x 6¼″D	20 lbs.	32.25
DSD-1210	10½″	15 13/16″W x 16″L x 9¾″D	22 lbs.	33.75

Finished in Silver Gray Hammertone with an attractive chrome drawer pull.



SD-1407
SD-1410

335 SLIDE



DSD-1210
DSD-1207

PD-1050-16 or 14 Phono Drawer. The phono drawer is obtainable in two sizes, 14¾″ o/a depth and 16¾″ o/a depth. The 14¾″ o/a depth will fit all cabinets while the 16¾″ o/a depth can be used in all cabinets except DC & 193 cabinets. Mounted on slides with nylon rim ball bearing rollers, this drawer pushes in and out with ease. Extends a full 12″ from front of cabinet. If full extension slide is desired add suffix "E" to these part numbers. Weight load—75 lbs.

SD-1407 or SD-1410 — 14¾″ o/a depth in 7″ or 10½″ height SD-1607 or SD-1610 — 16¾″ o/a depth in 7″ or 10½″ height Standard Storage Drawers come in 4 sizes to accommodate extra tape reels, tools, and what have you. Same slides as illustrated in our PD-1050 shown above. Use SD-1410 or 1407 in any cabinets. Use SD-1610 or 1607 in all cabinets except DC & 193 cabinets.

DSD-1210 or 1207 Delux Storage Drawer. The ultimat in storage drawer capacit and convenience. Thes drawers feature a full exter sion slide permitting th drawer to be pulled out 15 from cabinet. Smooth opera tion is provided by ball bea ing rollers. Install drawe removal and positive stop ping, positive closing are ac ditional features offerec Weight load—150 lbs.

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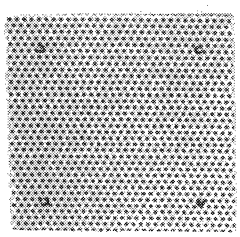
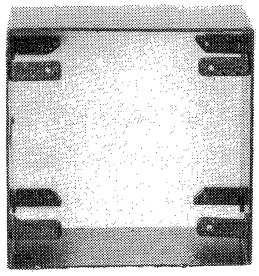
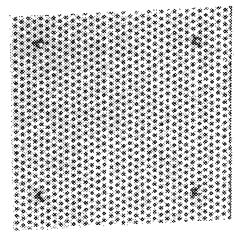
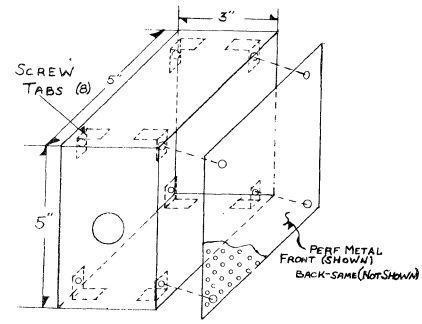
STANDARD & CUSTOM DESIGNS
HERMANN, MISSOURI

INTERCOM SPEAKER BOX—ISB 45



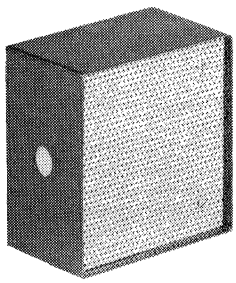






NET PRICE

Quantity 1-9	**$3.71**
Quantity 10-50	**3.00**



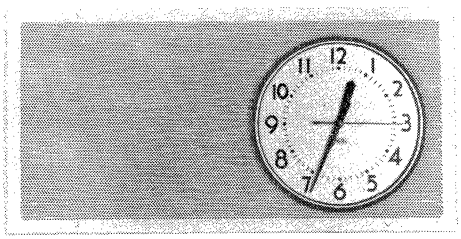
Speaker boxes, ideal for use in buildings where intercommunication between departments or locations is desired and where station expense is to be held to a minimum.

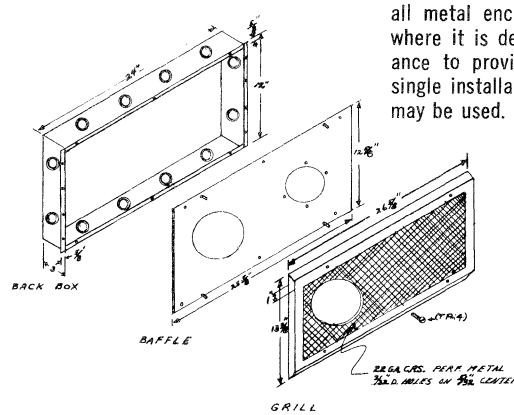
These boxes will accept 4″ or 5″ speakers, perforated metal front and back permitting voice receptance from most directions. Painted in Dark Gray Hammer-X with perforated metal in white enamel giving a beautiful two-tone combination.

SPECIFICATIONS

Material: 16 ga CRS and 20 ga perforated metal
CONSTRUCTION:
(1) Box size shall be 5″W x 5″H x 3″D.
(2) Box shall be of a continuous wrap, spotwelded.
(3) Perforated metal shall be removable by tapping screws front and back.
(4) Hole size of perforated metal shall be .093 on .156 staggered centers, or 47% open area.
(5) Weight per box 1½ lbs.

SPEAKER CLOCK HOUSING—SPCL-400





The combination Speaker-Clock Housing is an all metal enclosure designed for installations where it is desirable for economy and appearance to provide a speaker and a clock in a single installation. Either 8″, 9″, or 10″ clocks may be used. **Clocks are not furnished.**

SPECIFICATIONS

Back Box (SCB-1)

Material: 16 ga steel

Construction:

1. Shall be of 3 pieces spotweld construction. Two ends and a wrap.

2. Shall be acoustically treated to prevent sound resonance.

3. Size: Shall be 24″L x 12″W x 3″D outside dimensions.

4. Shall have 3 in 1 knockouts. K.O. size: 1⅜″, 1⅛, and ⅞″, for conduit sizes 1″, ¾″, and ½″.

5. Back box to wall studs: Shall have eight ⅛″ holes.

Finish: Outside shall be baked on Oxide Primer. Interior shall have sound deadener undercoating.

SPECIFICATIONS

SCS-2 Baffle (Sub plate)

Material: 18 ga CRS

Construction:

1. Mounting: Grille shall be mounted to baffle by 8/32 internally threaded rivets permanently attached to baffle. Baffle to Back box: six 10-24 Tinnerman clips and machine screws.

2. Shall have two holes: 1 for 8″ speaker and 1 for clock (specify clock hole size).

3. Size shall be 12⅝″W x 25⅝″L.

Finish: Shall be Black Semi-gloss bake on enamel.

SPECIFICATIONS

SCG-3 Grille

Material: 18 ga CRS frame with 22 ga perforated metal .093 holes on 5/16″ centers, staggered.

Construction:

1. Shall be welded to 18 ga CRS frame.

2. Shall have a clock hole corresponding to baffle clock hole.

3. Shall have mounting brackets welded in place to hang clock.

4. Size shall be 13⅜″ x 26⅝″.

Finish: Shall be glossy white bake on enamel.

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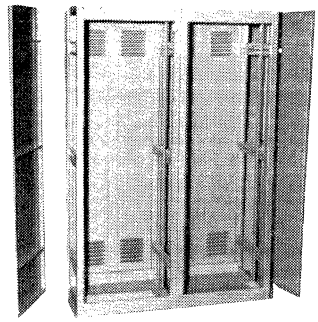
STANDARD & CUSTOM DESIGNS
HERMANN, MISSOURI

DUPLI-RACK

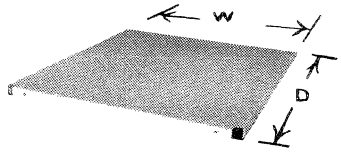


Dupli-rack features a maximum of cabinet space in a minimum of floor space at a savings in cost. To increase the size of an installation, simply remove the detachable side panels, bolt the units together through holes provided, forming a sturdy unit, and slip the detachable side panels on each side. This becomes an attractive installation where the addition of units will always remain the same in color tone and freshness of appearance. Each unit is of weld construction, forming a sturdy and rigid piece of equipment. Basic unit consists of frame and rear door.

SPECIFICATIONS MATERIAL: 16 ga. CRS. Panel mounting angles 11 ga. CRS. CONSTRUCTION: (1) Braze and spotweld assembly. (2) Detachable side panels are formed and supported and fastened by brackets. (3) Louvers provided in rear door. (4) Panel mounting angles drilled and tapped to 10-24 thread on standard 1¼" x ½" spacing. (5) Locking handle furnished on front door with flush mounted lock and separate handle on rear door.

Rack with Rear Door					Detachable Side Panels			Front Door		
	Overall Ht.	Panel Space	Ship. Wt. Lbs.	Net Price		Ship. Wt. Lbs. (Per Pair)	Net Price	Ship. Wt. Lbs.		Net Price
DR-3675	42⅞"	36¾"	100	$ 71.12	DSP-36	20	$27.36	FDR-36	10	$15.39
DR-4200	48⅛"	42"	104	72.63	DSP-42	24	31.89	FDR-42	12	17.49
DR-6125	67⅜"	61¼"	120	77.88	DSP-61	32	38.64	FDR-61	18	22.35
DR-7000	76⅛"	70"	129	83.88	DSP-70	36	42.54	FDR-70	20	24.87
DR-7700	83⅛"	77"	133	104.13	DSP-77	40	48.93	FDR-77	22	28.11

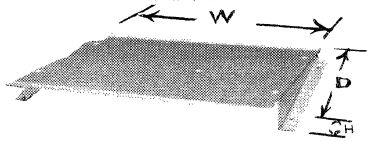
CABINET RACK SHELF FOR CABINET RACKS, DESK RACKS AND CONSOLES



Constructed of one piece of No. 16 gauge sheet steel. Formed 1" high. Shelf has holes in side and front and back for mounting to cabinet or rack. Finished in brilliant silver gray hammertone unless otherwise specified.

Catalog No.	For:	Width-in.	Depth.-in.	Ship. Wt. Lbs.	Net Price
CS-1201	RB Models	22⅝	26 15/16	14	$4.09
CS-1202	DC Models	22⅝	11 19/32	9	3.05
CS-1203	SCR Models	22⅛	14 9/16	10	3.27
CS-1204	RCR and DCR Models	22⅛	14 9/16	10	3.27
CS-1205	HTB Models	20 5/16	16	10	3.27
CS-1206	DR Models	22⅛	16	10	3.27
CS-1207	193 Models	20⅝	10⅝	7	2.97
CS-1208	STR Models	19⅜	14 9/16	9	3.27

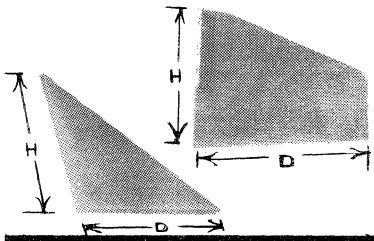
TURRET SHELF FOR "RBT" TURRETS



The Turret Shelf is designed for extremely heavy equipment in the turret. It is made of No. 16 gauge steel and is designed to be movable both forward and backward, and up and down. This model fits all Turrets. Special sizes available upon request. Finished in standard gray hammertone.

Catalog No.	Height-in.	Width-in.	Depth-in.	Ship. Wt. Lbs.	Net Price
TS-1000	1¾	17	10½	8	$6.82

CHASSIS MOUNTING BRACKETS TRIANGULAR AND STANDARD TYPE

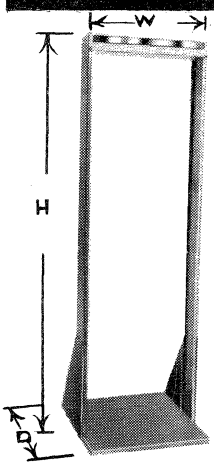


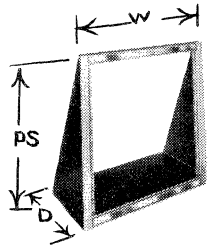
These brackets are made of No. 16 gauge sheet steel. The standard brackets are notched for 3" and 4" high chassis and will fit any of our standard or heavy duty chassis. The triangular brackets can be used where greater strength is required. All brackets are sold in pairs only and are finished in gray hammertone.

(*) Standard type notched for 3" chassis.
(**) Standard type notched for 4" chassis.

Catalog No.	Height-in.	Depth-in.	Ship. Wt. Lbs.	Net Price
MB-155	5	5	2	$ .83
MB-177	7	7	3	.96
MB-199	9	9	5	1.16
CB-308*	7	8	3	.83
CB-311*	7	11	4	1.18
CB-313*	7	13	4	1.39
CB-413**	8¾	13	5	1.49
CB-417**	8¾	17	7	1.78

RELAY RACKS CHANNEL AND TABLE TYPE





TR DESK TYPE

These Table Racks are constructed of heavy No. 16 gauge steel and are completely welded together for strength. Mounting holes are drilled to standard 1¼"—½" spacings. All panel mounting hardware is supplied. Each rack is finished in silver gray hammertone and is trimmed with bright chrome molding.

Catalog No.	Width-in.	Height-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.	Net Price
TR-121	22	24	12	21	17	$6.93
TR-128	22	31	12	28	20	8.58

RR CHANNEL TYPE

Channel Relay Racks are constructed of No. 11 ga. steel. The vertical channels are drilled and tapped on 1¼"—½" spacing and for No. 10-24 machine screws. Racks are shipped knocked down or assembled. Hardware included. Each rack is finished in silver gray hammertone unless otherwise specified.

Catalog No.	Width-in.	Height-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.	Net Price
RR-156	19 1/16	61 3/16	20	56	70	$29.50
RR-163	19 1/16	68 3/16	20	63	80	30.47
RR-170	19 1/16	75 3/16	20	70	90	31.31
RR-177	19 1/16	82 3/16	20	77	100	31.51
RR-184	19 1/16	89 3/16	20	84	110	33.00

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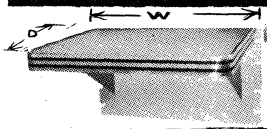
STANDARD & CUSTOM DESIGNS

HERMANN, MISSOURI

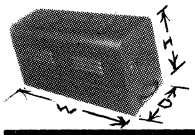
DESK PANEL TO FIT 19″ RACKS



The Desk Panel is constructed of No. 16 gauge steel and is entirely spotwelded together for strength. The front corners of the top are rounded to give a pleasing appearance. This model is finished in the standard silver gray hammertone lacquer.

Catalog No.	Panel Size-in.	Top Size-in.	Ship. Wt.	Net Price
DT-1050	19″ x 10½″	17¾″ Wide x 16″ Deep	15 Lbs.	$14.02

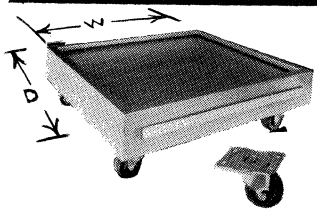
AMPLIFIER FOUNDATIONS STREAMLINED TYPE



A modern cover with rounded corners and bright chrome trim. Constructed of cold rolled steel and finished in gray hammertone.

Catalog No.	Width-in.	Height-in.	Depth-in.	Ship. Wt. Lbs.	Net Price
SAF-919	12	9	7	10	$6.19
SAF-925	17	9	7	11	5.28
SAF-928	17	9	10	13	6.60

ROLLER TRUCKS FOR CABINET AND TRANSMITTER RACKS

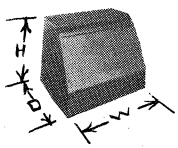


Made entirely from No. 16 gauge steel with reinforced corners for the 2½″ dia. rollers. Trucks are completely assembled. They are finished in gray hammertone.

Casters — 2½″ dia. ball bearing type. 400 lb. cap. Shipping wt. 2¼ lbs.

Catalog Number	For:	Inside Dimensions Width-in.	Inside Dimensions Depth-in.	Shipping Wt. Lbs.	Net Price
RT-500	"DC" Models	23	15¼	19	$22 56
RT-501	"RR" Models	20½	19½	20	22.77
RT-502	"SCR", "RCR", "DCR" (19″ Panels)	23	19	21	22.97
RT-503	"STR", "DTR"	23½	19	24	23.10
RT-504	"DTR" and "STR" (24″ Panels)	27½	24¼	28	24.21
RT-505	"DTR" and "STR" (30″ Panels)	33½	24¼	30	25.03

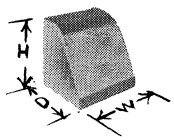
UTILITY CABINETS SLOPING FRONT, REMOVABLE PANEL TYPE



This Cabinet is constructed of No. 18 gauge steel. It has a rounded top corner and a removale front panel. Back of cabinet is provided with louvres and has an opening for leads. Finished in gray hammertone.

Catalog No.	Height-in.	Width-in.	Depth-in.	Use Chassis No.	Ship. Wt. Lbs.	Net Price
SFC-500	8	8	8	SC-104	6	$6.52
SFC-501	8	10	8	SC-105	7	6.72
SFC-502	8	14	8	SC-109	8	6.93
SFC-503	9	18	8	SC-112	10	7.34
SFC-504	12	18	12	SC-116	14	8.17

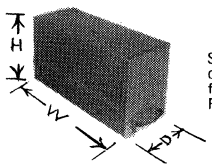
MINIATURE UTILITY CABINET



This Miniature Utility Cabinet is made of No. 22 gauge steel. The back is removable and also ventilated. It has a clean modern appearance and is finished in gray hammertone.

Catalog No.	Width-in.	Height-in.	Depth-in.	Ship. Wt. Lbs.	Net Price
UC-100	4 3/16	4½	4¼	1	$1.07
UC-101	5 3/16	4½	4¼	1½	1.22
UC-102	6 3/16	4½	4¼	2	1.40
UC-103	7 3/16	4½	4¼	2½	1.65

AMPLIFIER FOUNDATIONS PERFORATED COVER TYPE

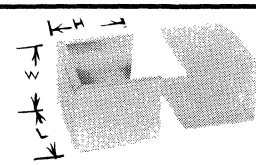


Similar to the streamlined type except that this cover is made of perforated metal for better ventilation. Finished in gray hammertone.

Catalog No.	Width-in.	Height-in.	Depth-in.	Ship. Wt. Lbs.	Net Price
AF-915	10	9	5	8	$4.04
AF-920	14	9	6	9	4.87
AF-924	17	9	7	10	6.85
AF-922	12	9	10	10	5.78
AF-927	17	9	10	11	7.75

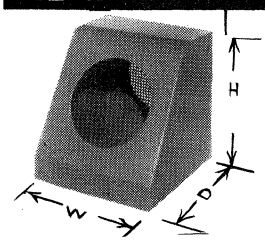
MINIATURE (2 PIECE) ALUMINUM CASES

These Handy Two Piece Cases are made of No. 16 gauge aluminum. The design of this case permits installation of a variety of components. Natural aluminum or gray hammertone finish is avajlable. Shipping weight of all cases is 1 lb.



Catalog No.	Length-in.	Width-in.	Height-in.	Net Price
MA-1000	2¾	2⅛	1⅝	$ .60
MA-1001	3¼	2⅛	1⅝	.61
MA-1002	4	2	2¾	.83
MA-1003	4	2⅛	1⅝	.63
MA-1004	4	2¼	2¼	.83
MA-1005	4¼	2¼	1½	.86
MA-1006	5	2¼	2¼	.87
MA-1007	5	4	3	.96
MA-1008	5¼	3	2⅛	.96
MA-1009	6	5	4	1.20
MA-1010	7	5	3	1.32
MA-1011	8	6	3½	2.03
MA-1012	10	2	1⅝	1.16
MA-1013	10	6	3½	2.15
MA-1014	12	2½	2¼	1.24
MA-1015	12	7	4	2.77
MA-1016	17	5	4	3.30

METER CASES FOR 2″ OR 3″ METERS



These Meter Cases are available to accommodate 2″ or 3″ Meters. They are made of No. 22 gauge steel. A rounded top corner and a sloping front gives this model a modernistic appearance. Finished in silver gray hammertone.

atalog No.	For:	Width-in.	Height-in.	Depth-in	Ship. Wt. Lbs.	Net Price
MC-200	2″ Meter	4 3/16	4½	4¼	1	$1.07
MC-300	3″ Meter	4 3/16	4½	4¼	1	1.07

Net

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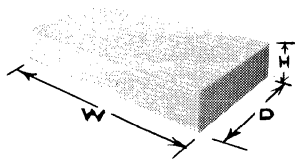
MWI METAL WORKS INCORPORATED

STANDARD & CUSTOM DESIGNS

HERMANN, MISSOURI

CHASSIS Standard Steel and Aluminum Blank Chassis



These Standard Chassis are constructed of one piece of metal. They have reinforced corners. The bottoms are flanged on two sides to give maximum strength with maximum room.

Steel chassis are made of No. 18 gauge sheet steel and are finished in gray hammertone.

Aluminum chassis are constructed of No. 18 gauge (.040) sheet aluminum and is available in natural aluminum or gray hammertone.

Steel		Size				Aluminum		
Catalog No.	Ship. Wt. Lbs.	Depth-in.	Width-in.	Height-in.	Net Price	Catalog No.	Ship. Wt. Lbs.	Net‡ Price
SC-100	2	5½	9½	1½	$ .83	AC-100	1	$1.12
SC-101	2	5	7	2	.89	AC-101	1	.99
SC-102	3	5	10	3	1.09	AC-102	1	1.36
SC-103	4	6	14	3	1.32	AC-103	2	2.15
SC-104	2	7	7	2	.98	AC-104	1	1.12
SC-105	2	7	9	2	1.09	AC-105	1	1.19
SC-106	3	7	11	2	1.16	AC-106	1	1.32
SC-107	3	7	11	3	1.25	AC-107	1	1.40
SC-108	3	7	12	3	1.31	AC-108	1	1.57
SC-109	3	7	13	2	1.31	AC-109	1	1.44
SC-110	4	7	15	3	1.49	AC-110	2	2.35
SC-111	3	4	17	3	1.31	AC-111	1	2.08
SC-112	4	7	17	3	1.58	AC-112	2	2.48
SC-113	4	10	12	3	1.55	AC-113	2	2.31
SC-114	5	10	14	3	1.65	AC-114	3	2.84
SC-115	5	10	17	2	1.72	AC-115	3	2.72
SC-116	5	10	17	3	1.74	AC-116	3	2.98
SC-117	5	10	17	4	2.08	AC-117	3	3.63
SC-118	5	12	17	2	1.82	AC-118	3	3.27
SC-119	5	12	17	3	2.15	AC-119	3	3.89
SC-120	6	12	17	4	2.35	AC-120	3	4.24
SC-121	1	4	6	2	.93	AC-121	½	1.10
SC-122	1	4	6	3	1.01	AC-122	½	1.17
SC-123	1¼	5	7	3	1.07	AC-123	¾	1.25
SC-124	1¼	5	9½	2	1.19	AC-124	½	1.14
SC-125	1½	5	9½	3	1.28	AC-125	¾	1.46
SC-126	1¾	5	13	3	1.41	AC-126	¾	1.64
SC-127	1½	6	17	3	1.62	AC-127	1¼	2.54
SC-128	1¾	8	12	3	1.58	AC-128	1½	2.07
SC-129	2½	8	17	2	1.50	AC-129*	1½	2.31
SC-130	3	8	17	3	1.80	AC-130*	1¾	2.69
SC-131	4	11	17	2	2.09	AC-131*	2¼	3.29
SC-132	4	11	17	3	2.45	AC-132*	2¾	3.95
SC-133	5	13	17	2	2.57	AC-133*	2½	3.30
SC-134	5	13	17	3	3.00	AC-134*	2¾	4.13
SC-135	7	13	17	4	3.45	AC-135*	3¾	4.58

HEAVY DUTY STEEL CHASSIS

Heavy duty chassis are similar to standard steel chassis except that this model is constructed of No. 16 gauge material. Bottom plates are included with this chassis. Heavy duty chassis are available in gray hammertone.

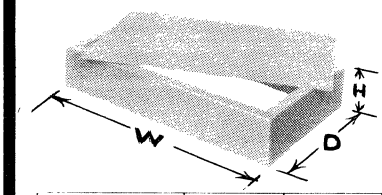
Catalog No.	Depth-in.	Width-in.	Height-in.	Ship. Wt. Lbs.	Net Price
HC- 82	8	17	2	8	$2.89
HC- 83	8	17	3	9	3.14
HC-112	11	17	2	10	3.30
HC-113	11	17	3	11	3.55
HC-132	13	17	2	12	3.80
HC-133	13	17	3	13	3.96
HC-134	13	17	4	14	4.46
HC-174	17	17	4	17	5.94

BOTTOM PLATES Steel and Aluminum

Steel		Aluminum			
Cat. No.	Net Price	Cat. No.	Net Price	Dimensions-in.	Ship. Wt. Lbs.
BP-401	$.55	ABP-401	$1.19	4 x 7	2
BP-402	.40	ABP-402	.78	5 x 7	1
BP-403	.41	ABP-403	.76	5 x 10	1
BP-404	.40	ABP-404	.79	5½ x 9½	1
BP-405	.58	ABP-405	.71	6 x 14	1
BP-406	.43	ABP-406	.78	7 x 7	1
BP-407	.45	ABP-407	.83	7 x 9	1
BP-408	.58	ABP-408	.89	7 x 11	1
BP-409	.71	ABP-409	.96	7 x 12	2
BP-410	.66	ABP-410	1.14	7 x 13	2
BP-411	.68	ABP-411	1.19	7 x 15	2
BP-412	.70	ABP-412	1.22	7 x 17	2
BP-413	.71	ABP-413	1.47	8 x 17	2
BP-414	.71	ABP-414	1.34	10 x 12	2
BP-415	.73	ABP-415	1.22	10 x 14	2
BP-416	.94	ABP-416	1.55	10 x 17	2
BP-417	.96	ABP-417	1.95	11 x 17	3
BP-418	1.12	ABP-418	2.08	13 x 17	3
BP-419	1.64	ABP-419	2.15	17 x 17	4

Bottom plates are made to match standard steel and aluminum chassis. They are made of No. 18 gauge steel and aluminum. Finished in natural aluminum, black enamel, or gray hammertone, and furnished with four dimple glides.

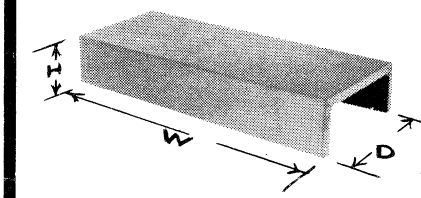
REMOVABLE TOP TYPE CHASSIS



Made of No. 18 gauge sheet steel. Top and bottom edges of chassis are flanged in on four sides. Top plate, which is included with chassis, is removable. Finished in black enamel or gray hammertone.

Chassis Catalog No.	Depth.-in.	Width-in.	Height-in.	Ship. Wt. Lbs.	Net Price
RTC-103	10	17	3	8	$3.43
RTC-104	10	17	4	10	3.80
RTC-133	13	17	3	11	3.58
RTC-134	13	17	4	12	4.37
Replacement Tops					
TRC-1710	10	17		2	1.32
TRC-1713	13	17		3	1.58

CHASSIS - STEEL and ALUMINUM Open End Type

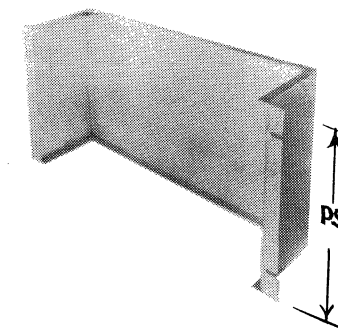


Made of No. 18 gauge steel or aluminum with reinforced corners. Finished in natural aluminum, black enamel, or gray hammertone.

Steel		Aluminum					
Cat. No.	Net Price	Cat. No.	Net Price	Depth-in.	Width-in.	Height-in.	Ship. Wt. Lbs.
OC-101	$.65	AOC-101	$2.01	5	7	2	1
OC-102	.74	AOC-102	2.05	5	10	3	1
OC-103	.83	AOC-103	2.06	6	14	3	1
OC-104	.99	AOC-104	2.03	7	7	2	1
OC-105	1.00	AOC-105	2.05	7	9	2	1
OC-106	1.07	AOC-106	2.06	7	11	2	1
OC-109	1.24	AOC-109	2.08	7	13	2	1
OC-112	1.29	AOC-112	2.10	7	17	3	2
OC-113	1.44	AOC-113	2.15	10	12	3	2
OC-114	1.55	AOC-114	2.18	10	14	3	2
OC-116	1.65	AOC-116	2.21	10	17	3	3

PANEL MOUNTING TYPE CHASSIS

Made of heavy gauge aluminum. Flanges are notched for standard 1¼"—½" rack mounting. All chassis are 5¼" deep. Corners are reinforced for strength. Natural aluminum finish.



Catalog No.	Panel Space-in.	Ship. Wt. Lbs.	Net Price
RMC-161	1¾"	1	$2.08
RMC-163	3½"	2	2.48
RMC-165	5¼"	2	2.63
RMC-167	7"	2	3.13
RMC-168	8¾"	3	3.43
RMC-1610	10½"	3	3.88
RMC-1612	12¼"	3	3.98
RMC-1614	14"	4	4.62

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Net

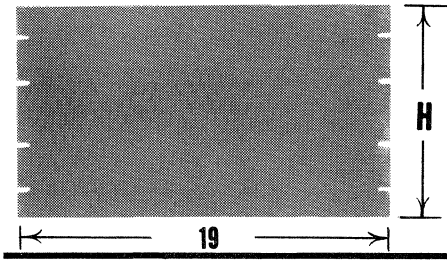
METAL WORKS INCORPORATED
STANDARD & CUSTOM DESIGNS
HERMANN, MISSOURI

19″ RACK PANELS

Steel panels finished in Silver Gray Hammertone unless otherwise specified.

1/8″ Aluminum and Steel Blank Panels

Aluminum Furnished Unpainted — Painted on Request, So States on Order.

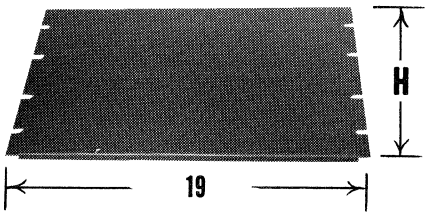


Aluminum				Steel*		
Catalog No.	Ship. Wt. Lbs.	Height-in.	Net Price	Catalog No.	Ship. Wt. Lbs.	Net Price
ARP- 121	.4	1¾	$.83	RP- 121	2	$.70
ARP- 123	.8	3½	1.16	RP- 123	5	.79
ARP- 125	1.2	5¼	1.65	RP- 125	7	.99
ARP- 127	1.6	7	1.98	RP- 127	8	1.15
ARP- 128	2.0	8¾	2.31	RP- 128	9	1.42
ARP-1210	2.5	10½	2.94	RP-1210	10	1.65
ARP-1212	2.8	12¼	3.47	RP-1212	12	1.98
ARP-1214	3.3	14	4.16	RP-1214	13	2.26
ARP-1215	3.6	15¾	4.33	RP-1215	14	2.57
ARP-1217	4.1	17½	4.95	RP-1217	15	2.81
ARP-1219	4.5	19¼	5.28	RP-1219	16	3.12
ARP-1221	4.9	21	5.80	RP-1221	16	3.45

*Steel Price on Request.

Formed 1/16″ Thick Aluminum and Steel Blank Panels

Aluminum Furnished Unpainted — Painted on Request, So States on Order.

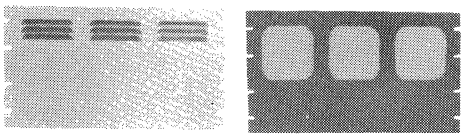


Aluminum				Steel*		
Catalog No.	Ship. Wt. Lbs.	Height-in.	Net Price	Catalog No.	Ship. Wt. Lbs.	Net Price
PA- 161	½	1¾	$.99	PM- 161	1	$.79
PA- 163	1	3½	1.29	PM- 163	2½	.89
PA- 165	1¼	5¼	1.65	PM- 165	3½	1.12
PA- 167	1½	7	2.11	PM- 167	4	1.24
PA- 168	1½	8¾	2.56	PM- 168	4½	1.49
PA-1610	1¾	10½	3.17	PM-1610	5	1.75
PA-1612	2	12¼	3.63	PM-1612	6	2.06
PA-1614	2¼	14	4.16	PM-1614	6½	2.48
PA-1615	2½	15¾	4.59	PM-1615	7	2.77
PA-1617	2½	17½	5.15	PM-1617	7½	3.12
PA-1619	2¾	19¼	5.61	PM-1619	8	3.40
PA-1621	3	21	6.07	PM-1621	8	3.80

*Steel Price on Request.

Formed 1/16″ Thick Steel Ventilated Panels

Louvre Type

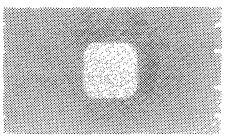


Grille Type *				Louvre Type			
Catalog No.	Height-in.	Shp. Wt. Lbs.	Net Price	Catalog No.	Height-in.	Shp. Wt. Lbs.	Net Price
VP- 205	5¼ panel	3½	$2.76	LP- 105	5¼ panel	3½	$2.76
VP- 207	7 panel	4	3.01	LP- 107	7 panel	4	3.04
VP- 208	8¾ panel	4½	3.30	LP- 108	8¾ panel	4½	3.30
VP-2010	10½ panel	5	3.63	LP-1010	10½ panel	5	3.63
VP-2012	12¼ panel	6	4.09	LP-1012	12¼ panel	6	4.08

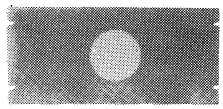
*Grille Price on Request.

Formed 1/16″ Thick Steel Ventilated Panels

Round Hole SRP



Square Hole SRP-1

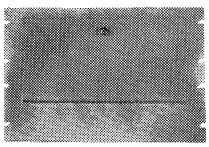


Round Hole	Speaker	Height-in.	Square Hole	Ship. Wt. Lbs.	Net Price
SRP- 68	6″	8¾″ panel	SRP 68-1	4½	$2.57
SRP- 810	8″	10½″ panel	SRP 810-1	5	3.30
SRP-1012	10″	12¼″ panel	SRP1012-1	6	3.88
SRP-1214	12″	14″ panel	SRP1214-1	6½	4.54

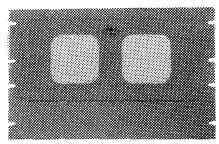
Formed 1/16″ Thick Steel Meter Panels 5¼″ High

Catalog No.	Size and Style	Ship. Wt. Lbs.	Net Price
MP-23	For 2″ meter with 3 holes	3½	$1.32
MP-25	For 2″ meter with 5 holes	3½	1.90
MP-33	For 3″ meter with 3 holes	3½	1.32
MP-35	For 3″ meter with 5 holes	3½	1.90

Standard Type



Grille Type



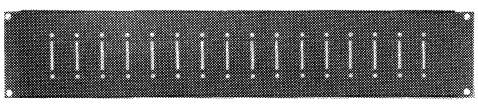
1/8″ Thick Steel Door Panels

Panels have flush doors, with piano hinge and are equipped with spring catch and chrome knob — All doors are located 1″ from top, to allow space for chassis at bottom.

Standard Door Panel	Net Price	Height-in.	Ship. Wt. Lbs.	Grille Panel	Net Price	Door Opening
DP- 875	$4.79	8¾″ Panel	5	GDP- 875	$5.69	4½″ x 15⅜″
DP-1050	5.12	10½″ Panel	5½	GDP-1050	6.14	6″ x 15⅜″
DP-1225	5.45	12¼″ Panel	6	GDP-1225	6.77	7½″ x 15⅜″

Switch Panels

Furnished with 16 slots 1″ apart unless otherwise specified.



Catalog No.	Height-in.	Ship. Wt. Lbs.	Net Price
SP-1635	3½	2	$2.97

Slots 3/16″ W x 1⅛″ L — Screw Holes 15⅝″ Centers

ALL ABOVE PANELS ARE AVAILABLE 30″ AND 24″ WIDE

Net

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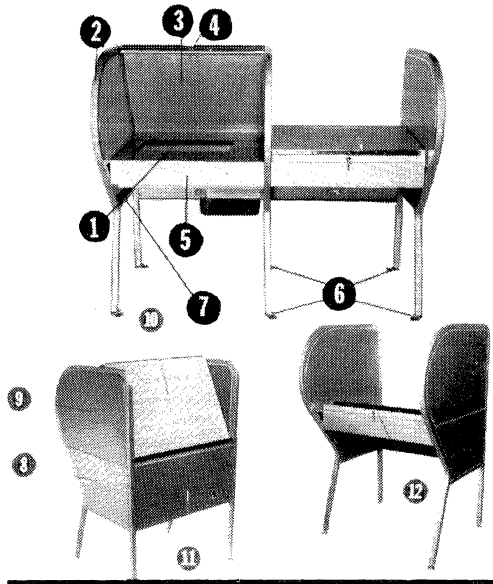
MWI

METAL WORKS INCORPORATED

STANDARD & CUSTOM DESIGNS

HERMANN, MISSOURI

ALL METAL LANGUAGE LABORATORY FURNITURE



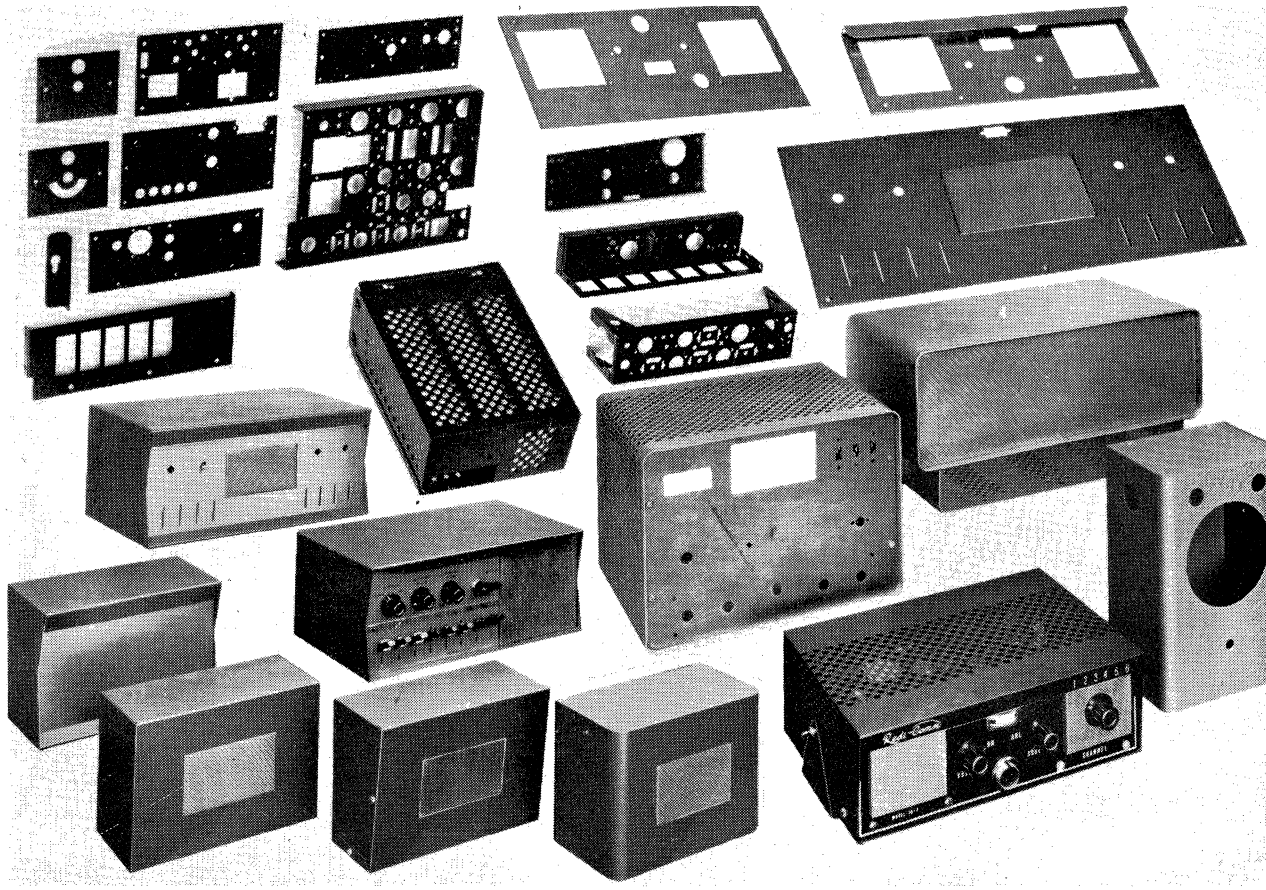
METAL WORKS new design in Student Booths brings you "tomorrow's booth" today! Featured below are three views of the 500 Series. These booths are designed to minimize noise entering the booth and prevent the students' response from adding to the general noise level. Designed to meet today's needs in an ever expanding educational program, they can be added to as funds permit, or as the language program expands, by simply bolting on additional units, consisting of only 1 leg and deck. They are adaptable to flush mount any tape recorder. Design is simple, yet unique in that the curved one piece leg conformation does away with sharp corners. No part of the booths protrude into the aisle leaving all aisle space clear for passage. 'K' leg permits easier entry and discharge from booth.

WHY METAL BOOTHS ARE BEST FOR SCHOOL USE

Metal Booths provide an important safety feature, insuring that all accessible surfaces are at ground potential. Metal Booths also provide better head dissipation permitting equipment to run cooler, and are less resonant than wood or plywood. An installation providing less mechanical hum from deck. Complete information about Metal Works all metal language laboratory furniture furnished on request.

CUSTOM METAL-WORK TO CUSTOMER SPECIFICATION: IF YOU CAN DRAW IT — WE CAN MAKE IT! QUOTATIONS ON REQUEST!

- A few illustrations of metalware parts featuring a multitude of hole patterns, designs and shapes available through MWI Wales Stripping fabrication.
- Many manufacturers have us punch standard chassis, MA cases, panels, etc., as fast economical solutions for some of their requirements.
- Wide choice of materials such as aluminum, cold roll steel, special plated steel sheet, etc., made up to your specifications.

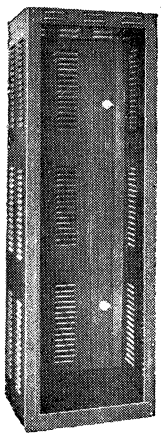


CABINETS CHASSIS

MIDDLETOWN MANUFACTURING CO.

MIDDLETOWN IN CONNECTICUT

CASES PANELS



DE LUXE RELAY RACKS

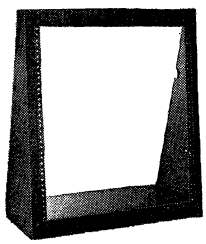
Middletown De Luxe Relay Racks are made of 16-gauge steel with 1/8" panel supports which are recessed so that edges of panels set flush. Standard 19" panels fit these racks. (See next page.)

Adequate ventilation is provided by louvres in the two sides, the door and in the top at front and back. Door is hung on sturdy hinges and has snap catches. Racks come with rigid, built-in caster supports. (Casters not included in price of rack.) Furnished in either black or grey wrinkle finish. Shipped knocked down with all necessary hardware.

Rack shelves and supporting angles to fit these Relay Racks are available. Information and prices on request.

Cat. No. (Black Wrinkle)	Overall Size H	W	D	Panel Size H	W	Dealer Cost
DRR 4236	42 1/16	22	17 1/4	36 3/4	19	$45.00
DRR 4742	47 3/16	22	17 1/4	42	19	51.00
DRR 6661	66 3/16	22	17 1/4	61 1/4	19	63.50
DRR 8277	82 3/16	22	17 1/4	77	19	76.00

Note: When ordering grey wrinkle, add prefix "G" to catalog number. Dimensions in Inches.

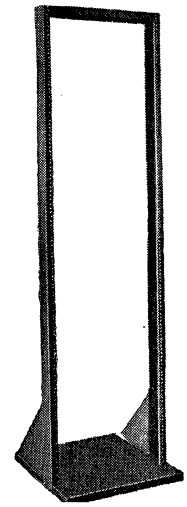


OPEN-TYPE TABLE RELAY RACKS

For table mounting of power transmitters, P. A. systems and other radio and electronic apparatus. Rack is ruggedly constructed with strong base to accommodate heavy components. Drilled and tapped for conventional 19" wide panels which set in recess so that no edges are exposed. (See next page.)

Shipped knocked down with necessary hardware. Black wrinkle finish.

Catalog Number	Overall Size H	W	D	Panel Space H	W	Dealer Cost
TRR 24	24	21	12	21	19	$ 8.30
TRR 31	31	21	12	28	19	10.40



OPEN-TYPE CHANNEL RELAY RACKS

Sturdy construction with rigid supporting members and side angle braces make these racks perfectly suited to all heavy-duty assignments. Made of 1/8" steel channels, 3" deep. Held together with angle cross pieces of the same material. Chassis type base. Drilled and tapped to accommodate conventional 19" panels. (See next page.) Black wrinkle finish. Shipped knocked down with necessary hardware.

Cat. No.	Overall Size H	W	D	Panel Size H	W	Dealer Cost
OCR 35	35 1/2	21	22	31 1/2	19	$21.60
OCR 70	70 1/2	21	22	66 1/2	19	24.60

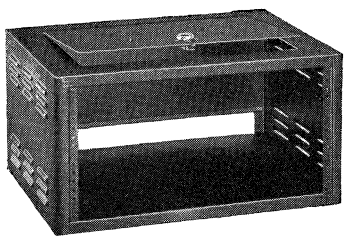
Dimensions in inches

CASTERS

Catalog Number	Dealers Cost
CA 234	.99 ea.

CHASSIS SUPPORTING BRACKETS

Catalog Number	Size	Dealer Cost
CSB 12	12 x 3 x 3	$1.98
CSB 14	14 1/2 x 3 x 3	2.08



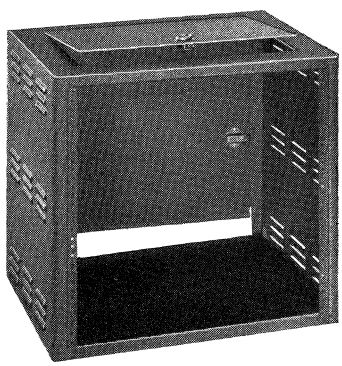
D. C. DELUXE CABINET RACKS — USE 19" RACK PANELS

Middletown D. C. Cabinets conform to the conventional design of streamlined cabinets used by builders of amateur and commercial equipment.

Features

- ★ **Constructed of 16 gauge steel, electrically welded.**
- ★ **Adequate ventilation is provided by sufficient louvres in sides, and ventilation in back.**
- ★ **Front Vertical posts rounded.**
- ★ **Flush panel mounting (recessed).**
- ★ **Drilled and tapped for 10/32" screws on universal centers.**
- ★ **Flush door in top fitted with flush snap-lock and piano hinges.**
- ★ **Black Wrinkle finish. *Grey Wrinkle if desired.***

Standard 19" panels fit these cabinets. For panel sizes, see listing next page.



CATALOG NUMBER (Black Wrinkle)	OVERALL SIZE H	W	D	PANEL SPACE H	W	TYPE OF UNIT	Dealer Cost
*DC 108	10 1/2	21 1/2	15	8 3/4	19	Single	$13.80
*DC 1210	12 1/4	21 1/2	15	10 1/2	19	Single	15.60
*DC 1412	14	21 1/2	15	12 1/4	19	Single	16.80
*DC 1514	15 3/4	21 1/2	15	14	19	Single	18.60
**DC 1917	19 1/4	21 1/2	15	17 1/2	19	Double	22.20
**DC 2119	21	21 1/2	15	19 1/4	19	Double	23.40
**DC 2321	22 3/4	21 1/2	15	21	19	Double	24.00
**DC 2826	28	21 1/2	15	26 1/4	19	Triple	25.80
**DC 3635	36 3/4	21 1/2	15	35	19	Quad.	28.20

*Door in Top only.

**Door in Top & Rear.

Note: When ordering grey wrinkle, add prefix "G" to catalog number. Dimensions in Inches.

Net

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CABINETS CHASSIS CASES PANELS

MIDDLETOWN MANUFACTURING CO.

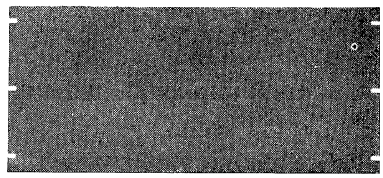
MIDDLETOWN IN CONNECTICUT

RACK PANELS — 19" LONG
(Steel and Aluminum)

Middletown Rack Panels are offered in either 1/8" steel or 1/8" aluminum. They are 19" wide and are slotted for conventional W. E. mounting. Twelve standard sizes. Furnished in black or grey wrinkle finish.

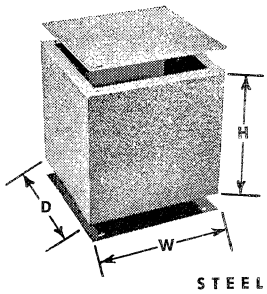
Note: When ordering grey wrinkle, add prefix "G" to catalog number.

*Available on special order.
Aluminum panels 3/16" thick available at 60% increase in cost above 1/8" al. panels.



Cat. No. Steel (Blk. Wrinkle)	Dealer Cost	Height	Cat. No. Aluminum (Black Wrinkle)	Dealer Cost
R.P. 1	$ .85	1¾"	A.R.P. 1	$ 1.10
R.P. 3	1.02	3½"	A.R.P. 3	1.44
R.P. 5	1.23	5¼"	A.R.P. 5	1.94
R.P. 7	1.43	7"	A.R.P. 7	2.45
R.P 8	1.76	8¾"	A.R.P. 8	2.86
R.P. 10	2.10	10½"	A.R.P. 10	3.60
R.P. 12	2.45	12¼"	A.R.P. 12	4.05
R.P. 14	2.87	14"	A.R.P. 14	4.79
R.P. 15	3.11	15¾"	A.R.P. 15	5.32
R.P. 17	3.52	17½"	A.R.P. 17	5.87
R.P. 19	3.70	19¼"	A.R.P. 19	6.37
R.P. 21	4.20	21"	A.R.P. 21	6.89
R.P. 26*	5.40	26¼"	A.R.P. 26*	9.18
R.P 35*	7.50	35"	A.R.P. 35	11.94

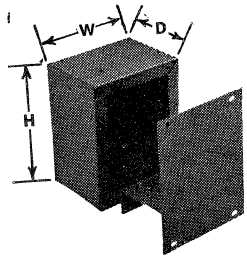
STEEL AND ALUMINUM CASES



These cases are similar to our standard steel utility cans except they have flat tops and bottoms which are held in place with self tapping screws and are removable. These cases are of sturdy construction and have spot welded corners. Case has flanges on all edges. Steel cases furnished in black wrinkle. Aluminum cases are natural.

STEEL					ALUMINUM	
Catalog Number	W	Size D	H	Dealer Cost	Catalog Number	Dealer Cost
SC 442	4"	4"	2"	$ .96	AC 442	$1.26
SC 453	4"	5"	3"	1.08	AC 453	1.38
SC 465	4"	6"	5"	1.36	AC 465	1.60
SC 564	5"	6"	4"	1.64	AC 564	1.60
SC 666	6"	6"	6"	1.98	AC 666	1.85
					AC 596	2.50
SC 1276	12"	7"	6"	2.89	AC 1276	3.75
SC 1287	12"	7¾"	6½"	3.32		
SC 1576	15"	7¾"	6½"	3.49		
SC 1597	15"	9"	7"	3.95		

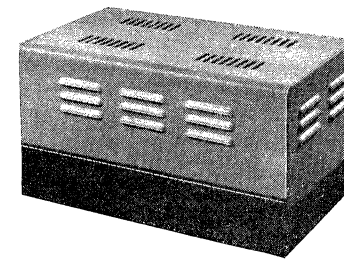
STEEL CASES WITH BUILT IN CHASSIS



Catalog Number	H	W	D	Chassis Size	Dealer Cost
SCWC 442	4	4	2	1 x2⅞x1⅞	$1.26
453	4	5	3	1 x3⅞x2⅞	1.46
543	5	4	3	1¼x2⅞x2⅞	1.46
654	6	5	4	1¾x3⅞x3⅞	1.70
645	5	6	4	1¼x4⅞x3⅞	1.70
666	6	6	6	1¾x4⅞x5⅞	1.92

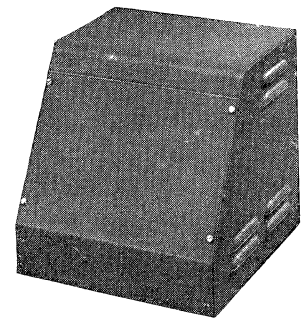
AMPLIFIER FOUNDATIONS—DeLuxe Models

This unit is designed to meet the most critical requirements. It has rounded corners, special Middletown designed louvres on all 4 sides and elongated holes on top to give maximum ventilation. Chassis are finished in Black wrinkle. Covers are finished in Grey wrinkle. Chassis are drilled for bottom plates which are listed separately. Covers all have a depth of 6"



Cat. No.	Size	Dealer Cost
A.F.-5109	5 x 10 x 9"	$4.20
A.F.-6149	6 x 14 x 9"	4.85
A.F.-7179	7 x 17 x 9"	5.62
A.F.-10129	10 x 12 x 9"	5.62
A.F.-10179	10 x 17 x 9"	6.38
A.F.-13179	13 x 17 x 9"	7.68

SLOPING FRONT PANEL CABINETS

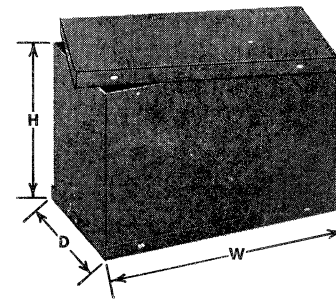


Sloping front panel cabinets have a wide application in the electronic field since they are adaptable for various uses. They are constructed of heavy gauge steel electrically spot-welded. Top corner is rounded, front panel is removable, and louvres on sides provide ventilation.

Back panel is ventilated on top and an opening is provided on the bottom so that connections can be made directly to the rear of the chassis. Finished in Grey wrinkle.

Cat. No.	H.W.D.	Chassis Size	Dealer Cost
S.F.-888	8 x 8 x 8"	7 x 7 x 2"	$4.48
S.F.-8108	8 x 10 x 8"	7 x 9 x 2"	4.97
S.F.-8128	8 x 12 x 8"	7 x 11 x 2"	5.26
S.F.-8148	8 x 14 x 8"	7 x 13 x 2"	5.32
S.F.-121812	12 x 18 x 12"	10 x 17 x 3"	9.42

STEEL UTILITY CANS



These Utility Cans are ruggedly constructed from sheet steel with spot welded reinforced corners. Tops and bottoms are removable and are flanged on all four sides. Held in place with self-tapping screws.

Cat. No.	D	W	H	Weight	Dealer Cost
U.C.565	5½ x	6 x	5½"	3 lbs.	$2.16
U.C.596	5 x	9 x	6"	5 lbs.	2.51
U.C.8107	8 x	10 x	7"	6 lbs.	3.12
U.C.81010	8 x	10 x	10"	7 lbs.	3.72
U.C.11128	11 x	12 x	8"	9 lbs.	4.58

CABINETS CHASSIS CASES PANELS

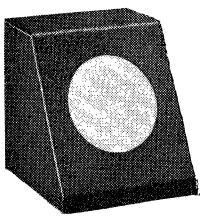
MIDDLETOWN MANUFACTURING CO.

MIDDLETOWN IN CONNECTICUT

METER PANELS

Middletown Meter Panels are made 5¼" high and are made to the same specifications as our Rack Panels—are available to fit 3" meters.

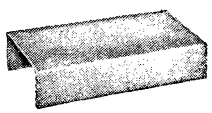
Cat. No.	Holes	Hole Size	Dealer Cost
R.P.M. 33	3	2 13/16"	$1.65
R.P.M. 35	5	2 13/16"	2.23



METER CASES

These cases have sloping front panel with rounded top corner which blends with streamline equipment. They are sturdily constructed from sheet steel with welded joints.

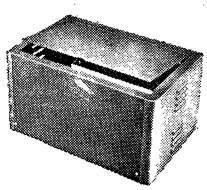
Cat. No.	Meter	Hole Size	H.W.D.	Dealer Cost
M.C. 13	Single 3"	2 13/16"	4½ x 4 x 4	$1.32
M.C. 33	3-3" Meters	2 13/16"	4½ x 11¼ x 4	3.24



ALUMINUM MIDGET CHASSIS

These small, open-end aluminum chassis are ideal for miniature tube assemblies and all applications where space is limited. Made of prime sheet aluminum with ¼" flange on bottom for fastening down, or attaching bottom plate. Finish is natural aluminum.

Cat. No. AMC	D	Size W	H	Dealer Cost	Cat. No. AMC	D	Size W	H	Dealer Cost
221	2 5/16	2¾	1¼	$ .36	541	5¾	4⅞	1½	$ .57
131	1¾	3⅛	1	.39	431	4	3⅛	1	.42
342	3¼	4½	2	.42	441	4	4⅛	1	.48
241	2¾	4⅛	1	.42	451	4	5⅛	1	.51
341	3¾	4⅛	1½	.42	461	4	6⅛	1	.57
361	3	6⅛	1¼	.51					

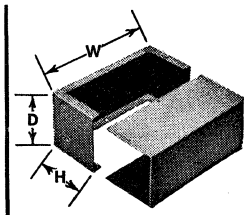


ROUNDED CORNER CABINETS

These are de luxe streamlined cabinets with front vertical corners rounded. Flush panel door, hung on full-length piano hinge, provided in top for convenient access. Ventilating louvres on sides. Opening at bottom of rear panel permits easy accessibility for leads, cables, etc. Front panel held in position with self-tapping screws. Grey wrinkle finish. Sturdily built of sheet steel.

Catalog No.	Size H	W	D	Panel Space H	W	Chassis Size D	W	H	Dealer Cost
RC 8108	8	10	8	8	8	7	7	2	$4.47
RC 8128	8	12	8	8	10	7	9	2	4.91
RC 8168	8	16	8	8	14	7	13	2	6.27
RC 91711	9	17	11	9	15	10	14	3	9.35
RC 122012	12	20	12	12	18	10	17	3	11.59

Chassis are not included unless ordered.
See chassis listings. Dimensions in Inches.



MULTI-MOUNTS

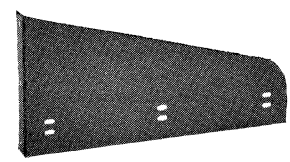
These are all-purpose boxes with an unlimited field of application in radio and electronics. Made from prime sheet aluminum. Two-piece telescoping construction, each half forming three sides. Finish is natural aluminum or grey hammer-tone.

Natural Aluminum Catalog Number	Dealer Cost	SIZE H	W	D	Grey Hammertone Catalog Number	Dealer Cost
MM 122	$ .69	1⅝	2¾	2⅛	GHMM 122	$ .78
MM 132	.69	1⅝	3¼	2⅛	GHMM 132	.78
MM 142	.74	1⅝	4	2⅛	GHMM 142	.81
MM 242	.95	2¼	4	2¼	GHMM 242	1.05
MM 252	.98	2¼	5	2¼	GHMM 252	1.08
MM 354	1.15	3	5	4	GHMM 354	1.26
MM 253	1.12	2⅛	5¼	3	GHMM 253	1.20
MM 465	1.40	4	6	5	GHMM 465	1.50
MM 375	1.56	3	7	5	GHMM 375	1.88
MM 386	2.30	3½	8	6	GHMM 386	2.52
MM 3106	2.90	3½	10	6	GHMM 3106	3.14
MM 4127	3.21	4	12	7	GHMM 4127	3.60
MM 4175	3.80	4	17	5	GHMM 4175	4.23
MM 1102	1.15	1⅝	10	2	GHMM 1102	1.37
MM 2122	1.55	2¼	12	2½	GHMM 2122	1.65
MM 2420	.93	2¾	4	2	GHMM 2420	1.02
MM 1420	.95	1½	4¼	2¼	GHMM 1420	1.05

CHASSIS BRACKETS

Mounting

These brackets are for chassis listed on next page. Front end of the bracket is seven inches high. Finished in black wrinkle.



Catalog Number	Size	Shipping Weight	Dealer Cost
C.B. 8	For 8" Base	2 lbs.	$ .96
C.B. 11	For 11" Base	3 lbs.	1.35
C.B. 13	For 13" Base	3 lbs.	1.62

Net

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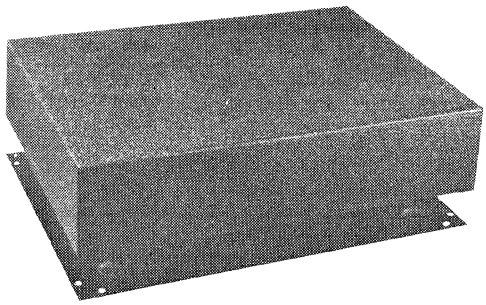
CABINETS CHASSIS CASES PANELS

MIDDLETOWN MANUFACTURING CO.

MIDDLETOWN IN CONNECTICUT

CHASSIS AND BOTTOM PLATES



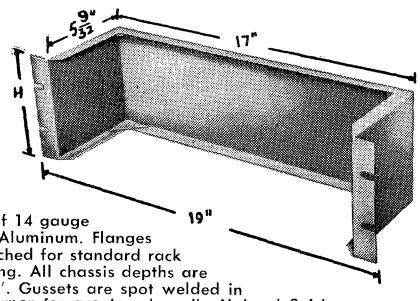
Middletown **STANDARD** Steel Chassis are made from one piece of steel, spot welded at all four corners. 22-, 20- and 16-gauge steel is used as indicated in the table. Bottom edges are folded over on four sides for additional rigidity. Black wrinkle finish.

Middletown **ALUMINUM** Chassis are made from one piece of prime sheet aluminum, 16- and 18-gauge aluminum is used as indicated in the table. The design and construction of these chassis are identical with Middletown blank steel chassis. Natural aluminum finish.

Middletown **BOTTOM PLATES** are drilled and have pressed bumpers at corners. Material is 20-gauge steel. Gauge of aluminum bottom plates match gauge of chassis. Natural finish.

PANEL CHASSIS

TO FIT 19" STANDARD RACKS



Made of 14 gauge (.064) Aluminum. Flanges are notched for standard rack mounting. All chassis depths are 5-9/32". Gussets are spot welded in each corner for greater strength. Natural finish.

	Height	Ship. Wt. Lbs.	Dealer Cost
PCV1	1¾"	¾	$2.50
PCV3	3½"	1¾	2.80
PCV5	5¼"	1½	3.05
PCV7	7"	2	3.45
PCV8	8¾"	2¼	4.10
PCV10	10½"	2¾	4.45
PCV12	12¼"	3	4.90
PCV14	14"	3¼	5.30

CHASSIS — STEEL AND ALUMINUM

STEEL Cat. No.	STEEL GAUGE	ALUMINUM Cat. No.	ALUMINUM GAUGE	SIZE D	SIZE W	SIZE H	DEALER COST Steel	DEALER COST Alum.
*BS 442	22	ABC 442	18	4	4	2	.94	1.10
BS 462	22	ABC 462	18	4	6	2	1.05	1.30
BS 463	20	ABC 463	18	4	6	3	1.07	1.35
BS 4173	20	ABC 4173	16	4	17	3	1.65	2.38
BS 572	22	ABC 572	18	5	7	2	1.05	1.35
BS 573	22	ABC 573	18	5	7	3	1.11	1.41
BS 591	22	ABC 591	18	5½	9½	1½	1.10	1.41
BS 592	22	ABC 592	18	5	9½	2	1.15	1.45
BS 5103	22	ABC 5103	18	5	10	3	1.25	1.62
BS 5133	20	ABC 5133	18	5	13	3	1.59	1.82
BS 6143	20	ABC 6143	16	6	14	3	1.68	2.55
BS 6173	20	ABC 6173	16	6	17	3	1.80	2.75
BS 772	22	ABC 772	18	7	7	2	1.10	1.35
BS 792	22	ABC 792	18	7	9	2	1.33	1.48
BS 7112	20	ABC 7112	18	7	11	2	1.37	1.59
BS 7123	20	ABC 7123	18	7	12	3	1.52	1.94
BS 7132	20	ABC 7132	18	7	13	2	1.48	1.68
BS 7153	20	ABC 7153	16	7	15	3	1.76	2.90
BS 7173	20	ABC 7173	16	7	17	3	1.97	2.88
BS 8123	20	ABC 8123	16	8	12	3	1.82	2.33
BS 8172	20	ABC 8172	16	8	17	2	1.79	2.65
BS 8173	20	ABC 8173	16	8	17	3	1.97	2.95
BS 10123	20	ABC 10123	16	10	12	3	1.89	2.70
BS 10143	20	ABC 10143	16	10	14	3	1.98	3.21
BS 10172	20	ABC 10172	16	10	17	2	1.98	3.15
BS 10173	20	ABC 10173	16	10	17	3	2.05	3.40
BS 10174	20	ABC 10174	16	10	17	4	2.40	4.25
BS 11172	16	ABC 11172	16	11	17	2	2.60	3.52
BS 11173	16	ABC 11173	16	11	17	3	2.85	4.23
BS 12172	20	ABC 12172	16	12	17	2	2.13	3.79
BS 12173	20	ABC 12173	16	12	17	3	2.45	4.42
BS 12174	20	ABC 12174	16	12	17	4	2.58	4.88
BS 13172	16	ABC 13172	16	13	17	2	3.00	3.94
BS 13173	16	ABC 13173	16	13	17	3	3 45	4.62
BS 13174	16	ABC 13174	16	13	17	4	3.85	5.37

Steel Chassis available in zinc plate at additional cost
**No flange on 4 x 4 x 2 Chassis*

STEEL AND ALUMINUM BOTTOM PLATES

CATALOG NUMBER STEEL	SIZE	CATALOG NUMBER ALUMINUM	DEALER COST Steel	DEALER COST Alum.
BP 46	4 x 6	ABP 46	$ .40	$ .88
BP 417	4 x 17	ABP 417	.60	1.35
BP 57	5 x 7	ABP 57	.42	.82
BP 59B	5 x 9½	ABP 59B	.42	.82
BP 59	5½ x 9½	ABP 59	.42	.84
BP 510	5 x 10	ABP 510	.48	.88
BP 513	5 x 13	ABP 513	.70	1.00
BP 614	6 x 14	ABP 614	.66	1.34
BP 617	6 x 17	ABP 617	.74	1.38
BP 77	7 x 7	ABP 77	.48	.88
BP 79	7 x 9	ABP 79	.51	.92
BP 711	7 x 11	ABP 711	.60	.98
BP 712	7 x 12	ABP 712	.60	1.06
BP 713	7 x 13	ABP 713	.66	1.20
BP 715	7 x 15	ABP 715	.72	1.24
BP 717	7 x 17	ABP 717	.78	1.30
BP 812	8 x 12	ABP 812	.80	1.20
BP 817	8 x 17	ABP 817	.81	1.40
BP 1012	10 x 12	ABP 1012	.81	1.40
BP 1014	10 x 14	ABP 1014	.84	1.54
BP 1017	10 x 17	ABP 1017	1.02	1.62
BP 1117	11 x 17	ABP 1117	1.05	2.00
BP 1217	12 x 17	ABP 1217	1.11	2.20
BP 1317	13 x 17	ABP 1317	1.20	2.30

Steel Bottom Plates available in zinc plate at additional cost

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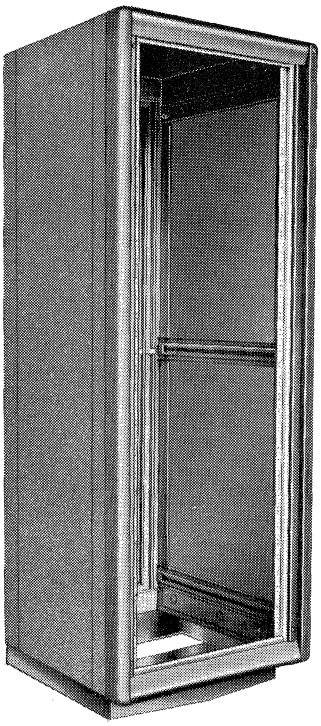
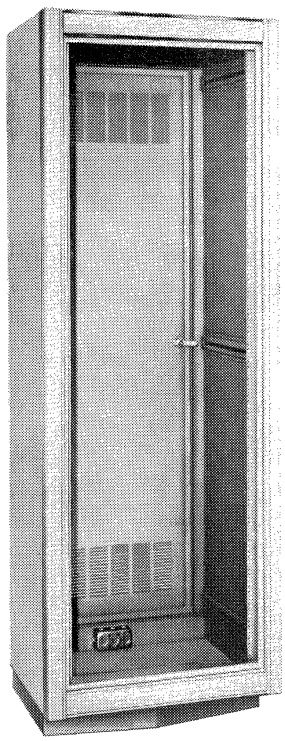
SUPERIOR CHARACTERISTICS OF

PAR-METAL Modular Cabinet Racks



SERIES "PL" RACKS
With Rear Door Only
equipped with detachable
side panels.
(Recessed base is optional)

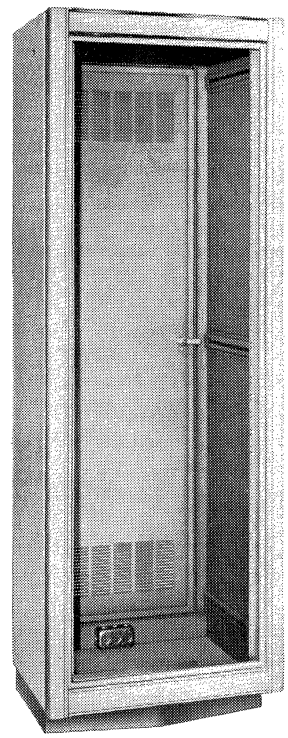


SERIES "PX" RACKS
With Rear Door Only
(Recessed base is optional)

Every **Par-Metal Modular Cabinet Rack** is securely welded into an integral unit, except where needed for purposes of adjustment or accessibility. No metal screws, clips, or similar devices are used. Every care has been taken to facilitate your assembly problems with a minimum of parts, an efficient utilization of space, and rapid accessibility to interior components.

Although smartly styled, there has been no sacrifice in rugged construction. The same sturdy frame is used in our "PL" & "PR" series providing a solid foundation for maximum loading under severe conditions. Series "PL" may be combined with our console units listed on Par-Metal Pages 9 thru 13 to solve your equipment housing problems.

DESIGN: All sizes listed may be obtained with conventional solid side walls, or with open side walls and detachable side panels. Slide shields for use between racks are also available.



SERIES "PR" RACKS
With Rear Door Only
equipped with detachable
side panels.
(Recessed base is optional)

DIMENSIONS: Racks are available for 19", 24", or 30" wide panels. Cabinet heights are 48⅛", 67⅜", 77⅛" and 83⅛"; depths available are 18" or 24".

MODULAR GROUPS: All models may be joined into modular groups; cabinets of the same height, in varying panel widths, with and without front doors, may be intermixed; Series "PL" racks may be combined with our console units.

•

MID-RAIL MOUNTING OF PANELS: The panel mounting angles or "strips" are fully adjustable on all racks, and may be positioned at any location from front to back. Additional panel mounting angles may be easily inserted where needed for mounting terminal boards, etc.

•

VERTICAL SIDE SUPPORTS: These supports provide a simple method for supporting chassis and other equipment in the racks. The means of attaching such brackets is fully adjustable so that chassis may be accurately lined up with the front panels. No drilling or other fabrication is required. The chassis may then be installed or removed with a minimum of effort. The vertical side supports also facilitate the installation of special sliding devices.

•

ADJUSTABLE FLOOR LEVELERS are supplied with all racks as standard.

•

SLIDING SHELVES AND DRAWERS: These are constructed for mounting on the front of the racks the same as regular panels.

•

SLOPING INSTRUMENT PANELS and EXTENSION DESK TABLES for single and modular assemblies are available for all modular racks.

•

ANGULAR SECTION FRAMES are available as standard units for all Modular Cabinet Racks listed on **Par-Metal Pages 4 to 6,** with a choice of 30° or 45° angles.

MODIFICATIONS: Without departing from the basic design of our racks, it is possible to modify them to meet your special requirements. Standard ventilated tops are available. They may also be modified with our standard dies for making openings, louvers, circular holes, etc., in sides, tops, bottoms and doors of racks.

FACILITIES for special ventilation problems and other custom requirements are available. A few examples in common use are shown on **Par-Metal Page 3.**

All of our products incorporate the same exacting standards of quality and uniformity which we have maintained for over three decades. If you have a specific problem, do not hesitate to consult us.**Personalized and interested engineering assistance is always available.**

PAR-METAL PRODUCTS CORP. • Long Island City 3, N.Y.

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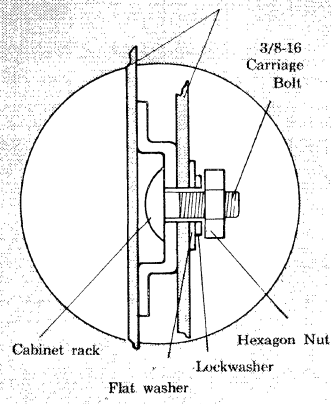
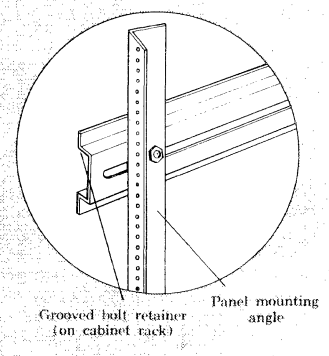
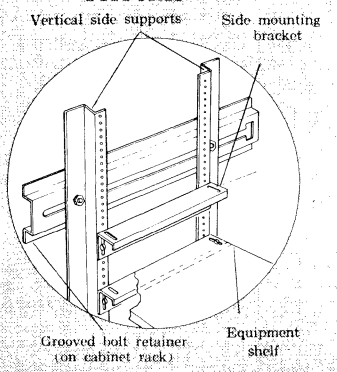
BOLT RETAINER RAILS



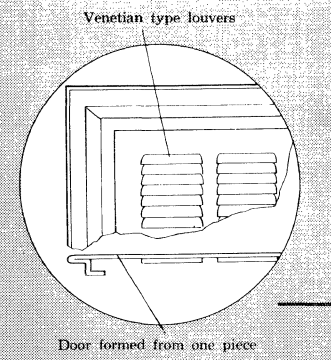
PANEL MOUNTING ANGLES



VERTICAL SIDE SUPPORTS



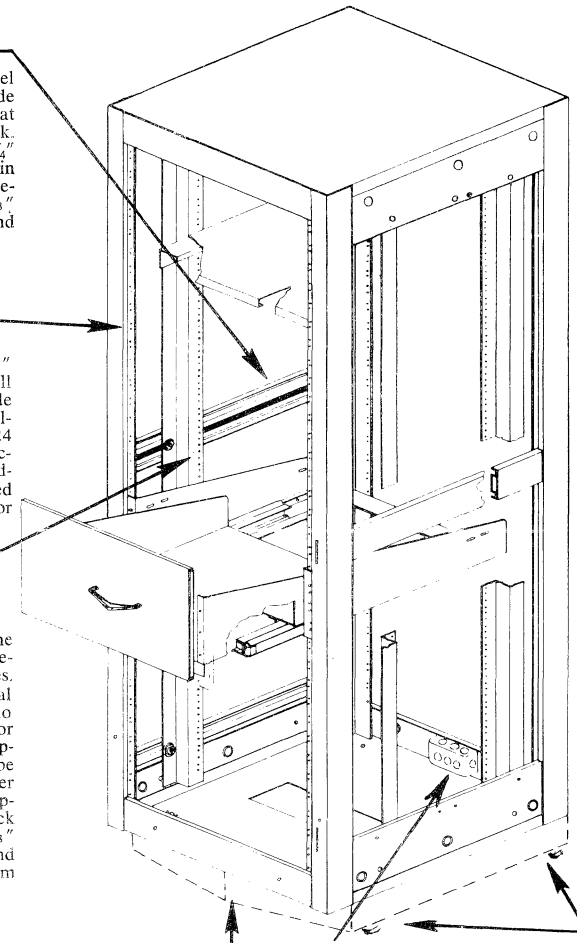
DOORS



DETAILS OF CONSTRUCTION AND ASSEMBLY

RACK CONSTRUCTION:

The frame shown is used on series "FL", "FR", "PL", and "PR" racks. The top and bottom is made from 7/64" steel. The four uprights are also 7/64" steel, and have multiple-formed angle bends to insure rigidity. Series "PX" and "FX" racks are similar, except that the solid side walls are made from 1/16" steel. The entire assembly is securely welded to form an integral unit.



• **BOLT RETAINER RAILS:**

To these are bolted the panel mounting angles and vertical side supports, which may be located at any position from front to back. These rails are made from 7/64" steel, and are rigidly welded in place. Angles and supports are securely fastened to rails with 3/8" diam. steel bolts, lock washers, and hexagon nuts.

• **PANEL MOUNTING ANGLES:**

They are made from 1½" x 1½" x 3/16" thick structural steel. All holes are die punched to provide accurate spacings with close tolerances; holes are tapped 12/24 thread on 5/8"-5/8"-½" universal spacings for standard rack panels. Additional angles may be purchased for mounting terminal blocks or other devices.

• **VERTICAL SIDE SUPPORTS:**

These supports are fastened to the same bolt retainer rails used for securing the panel mounting angles. Holes are 5/8"-5/8"-½" universal spacings tapped 10/32 thread, to provide maximum adjustment for side mounting brackets and equipment shelves. They may also be used for attaching slides or other custom made brackets. The supports are made from 7/64" thick steel, locked in place with 3/8" diameter screws, lock washers and hexagon nuts, to afford maximum support.

• **SIDE MOUNTING BRACKETS:**

These may be used separately or with shelves as shown. Slotted holes on the brackets provide any vertical adjustment required.

DOORS:

For sake of clarity, doors are not shown on the frame drawing. They are stamped from one piece of 1/16" steel, and "dutch-formed" on all sides providing smooth double-thick edges. Adequate ventilation is obtained from full ventilating (venetian-type) louvers. Lock type handles are supplied on racks with both front and rear doors. Non-locking handles are used on racks with rear doors only; locking type handles are optional.

• **OUTLETS:**

"Knockout holes" are available on cabinet side for connecting cables; a duplex outlet, outlet box and plate are mounted on cabinet under rear door.

• **RECESSED SUB-BASES:**

They are available for all modular type racks as an optional accessory.

• **FLOOR LEVELERS:**

Four are supplied with all modular type racks.

PAR-METAL PRODUCTS CORP.

Long Island City 3, N.Y.

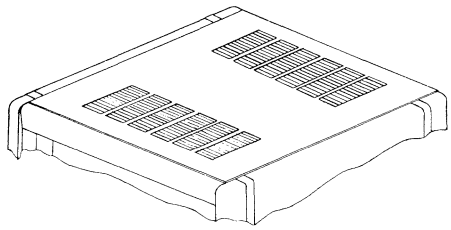
PAR-METAL ELECTRONIC HOUSINGS

MODIFICATIONS OF MODULAR CABINET RACKS

CABINET TOPS

Without departing from the basic design of our Modular Cabinet Racks (see Par-Metal Pages 4 to 6), it is possible for us to modify them to meet your special requirements. Below are several modifications, which we have adopted as standard. We have available many standard dies for making openings, louvers, circular holes, etc., in the sides, tops, and bottoms of racks.

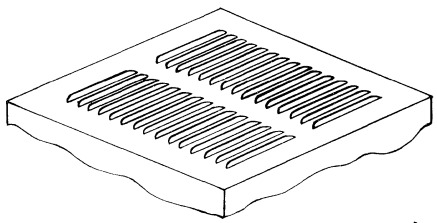
FOR SERIES "PL" AND "FL" CABINET RACKS ONLY



With "venetian" type louvers in top similar to those used on standard rack doors. In ordering, specify the rack catalog number, "WITH TOP MODIFICATION TC". Additional cost per rack is as follows:

Rack Size	Net Price
22″ wide, 18″ deep	$2.00
22″ wide, 24″ deep	2.00
27″ wide, 24″ deep	2.50
33″ wide, 24″ deep	3.00

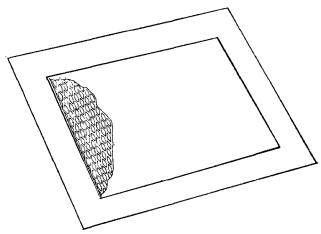
FOR SERIES "PR", "FR", "PX", AND "FX" RACKS



With 7″ wide pressed louvers in top from front to back as illustrated above. When ordering, add to rack catalog number "WITH TOP MODIFICATION TB". Additional cost per rack is as follows:

Rack Size	Louvers	Net Price
22″ wide, 18″ deep	2 rows	$3.00
22″ wide, 24″ deep	2 rows	3.50
27″ wide, 24″ deep	2 rows	4.00
33″ wide, 24″ deep	3 rows	5.10

FOR SERIES "PL", "FL", "PR", "FR", "PX" AND "FX" RACKS

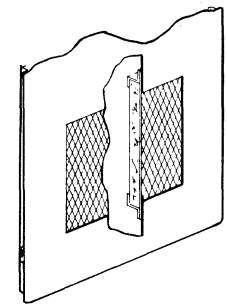


With rectangular opening in top as shown above. The opening is covered with flat expanded steel mesh, .055″ thick, having diamond shaped openings 5/16″ x 7/8″; mesh is spot-welded underneath. When ordering, add to rack catalog number. "WITH TOP MODIFICATION TA". Additional cost per rack is as follows:

Rack Size	Opening Size	Net Price
22″ wide, 18″ deep	16″ x 12″	$5.25
22″ wide, 24″ deep	16″ x 18″	5.75
27″ wide, 24″ deep	21″ x 18″	6.50
33″ wide, 24″ deep	27″ x 18″	8.00

DOOR MODIFICATIONS

FOR DOORS ON ALL MODULAR CABINET RACKS

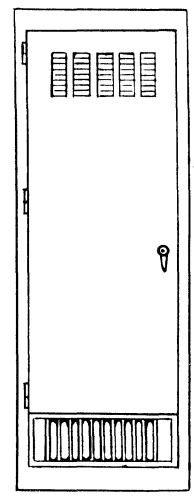


Above is illustrated a grilled opening and interior frame for a removable air filter, which is installed in the lower section of the door. The same provision can be made at the top of the door, if so specified. The filter sizes below are standard; other sizes are available if required. When ordering, specify the rack catalog number "WITH MODIFICATION FD DOOR". (Prices include filters).

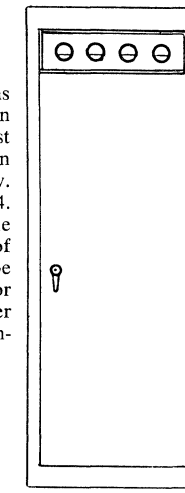
Rack Size	Filter Size	Net Price
22″ wide, 18″ deep	10″ x 10″ x 1″	$ 7.50
22″ wide, 24″ deep	10″ x 10″ x 1″	7.50
27″ wide, 24″ deep	10″ x 10″ x 1″	7.50
*33″ wide, 24″ deep	10″ x 10″ x 1″	15.00

*On each door—cabinet has double doors

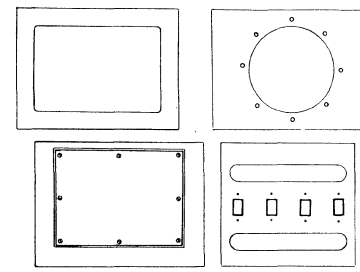
MODIFIED LENGTH, HINGING, LOUVRES, ETC.



There are several modifications on our standard racks which can be made without additional cost as follows: 1. Doors hinged on left side. 2. Louvers at top only. 3. Louvers at bottom only. 4. Louvers omitted entirely. The drawings illustrate doors of modified length which can be made to your specifications for use with cooling units, meter panels, etc. at a nominal increase in cost.



SPECIAL OPENINGS, HOLES, ETC.



The drawing above indicates some of the stock tools which we have available. Such tools can be used for square or rectangular openings of almost any size. We also have tool equipment to punch or nibble holes up to 14″ diameter. These openings or holes can be located in cabinet sides, tops, bottoms or doors within the limits of such equipment.

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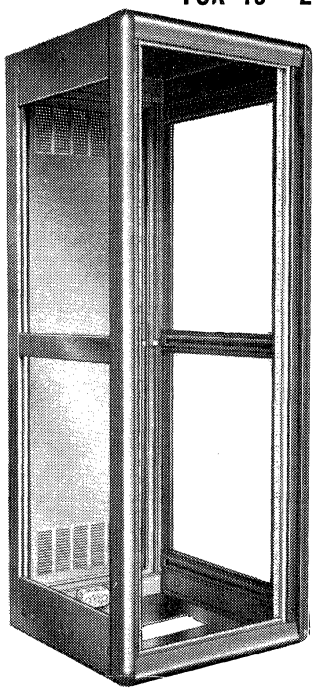
PAR-METAL Modular Cabinet Racks

SERIES "PL" & "FL" RACKS WITH OPEN SIDE WALLS

FOR 19" - 24" - 30" WIDE PANELS — 18" & 24" DEEP WITH DETACHABLE SIDE PANELS



SERIES "PL" RACKS
With Rear Door Only
(Recessed base is optional)

Series "PL" and "FL" racks are attractively styled with built-in custom quality. Ball corners are not used merely as a sales feature, but are attractively blended into a functional modular design. The rack frames have the same rugged construction featured in all **Par-Metal Modular** Racks.

Serious consideration has been given to the problem of stability, as well as maximum flexibility for modular assembly. Removable side panels make the interior readily accessible for assembly, inspection, and adjustment.

SPECIFICATIONS: Constructional details of rack frame and material specifications are on Par-Metal Page 2.

ACCESSORIES: All accessories listed on Par-Metal Pages 7 and 8 may be used with these racks. ROLLER TRUCKS are listed on Par-Metal Page 17. RACK PANELS are listed on Par-Metal Pages 18 and 19.

STANDARD EQUIPMENT: All racks are equipped as shown, with door(s), one pair of panel mounting angles, and all necessary hardware. Recessed sub-bases are not included, but listed as an optional accessory.

Before Ordering Please Read Instructions Below:

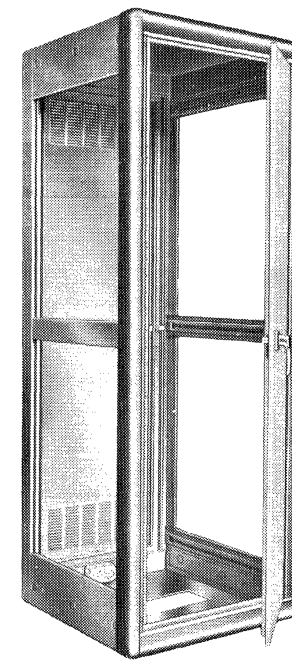
Specify racks by catalog number; also detachable side panels. (Catalog number of side panels is for one pair.) If racks are set up in rows, please specify number in each row, so we can supply proper front joining vertical trims used between adjoining racks.

FINISHES: Your Choice of the Following:

Specify finish "LH" for light grey hammertone enamel. Specify finish "DH" for dark grey hammertone enamel. Specify finish "LD" for light grey hammertone cabinets with dark grey hammertone trim on front of assembly. Specify finish "GM" for dark grey metallic enamel. Specify finish "BG" for blue grey wrinkle enamel. Specify finish "PC" for primer coat only.

Locking type handles are standard on series "FL" racks. They may be obtained on series "PL" racks at $1.00 extra. Plain doors without louvers may be substituted for louvered doors (and vice-versa) without additional charge. Other useful modifications to doors and racks are illustrated on PAR-METAL Page 3.

Complete engineering type detailed drawings of these cabinet racks are available in our Catalog 63. Write directly to home office for personalized and interested engineering assistance.



SERIES "FL" RACKS
With Front and Rear Doors
(Recessed base is optional)

RECESSED RACK SUB-BASES: These heavy duty bases will fit under any of the racks listed below. They are rigidly made from 7/64" thick steel with the 4 holes in the top matching those in the racks, and with 4 adjustable floor levelers at bottom. Where roller trucks are mounted under racks, recessed bases are not recommended or required. Complete listing of recessed bases for all cabinet racks and prices are given in chart below.

TYPE "PL" SERIES RACKS — WITH REAR DOORS ONLY

Catalog No.	Overall Dimensions Height	Width	Depth	Panel Space	Clear Inside Depth	**Clear Inside Width (Front)	Clear Inside Width (Rear)	Shipping Wt. Lbs.	Net Price	DETACHABLE SIDE PANELS Catalog No. (Per Pr.)	Shipping Wt. Lbs. (Per Pr.)	Net Price (Per Pr.)	RECESSED BASES (Optional) Cat. No.	Shipping Wt. Lbs.	Net Price
FOR 19" WIDE PANELS — 18" DEEP RACKS															
PL-4818-A	48⅛"	22"	18"	42" x 19"	16⅝"	17¾"	19⅛"	110	$ 92.00	RL-418	40	$40.00	RB-2217	18	$15.00
PL-6718-A	67⅜"	22"	18"	61¼" x 19"	16⅝"	17¾"	19⅛"	150	105.00	RL-618	55	48.90	RB-2217	18	15.00
PL-7718-A	76⅛"	22"	18"	70" x 19"	16⅝"	17¾"	19⅛"	160	116.75	RL-718	60	52.20	RB-2217	18	15.00
PL-8418-A	83⅛"	22"	18"	77" x 19"	16⅝"	17¾"	19⅛"	180	128.50	RL-818	65	55.80	RB-2217	18	15.00
FOR 19" WIDE PANELS — 24" DEEP RACKS															
PL-4824-A	48⅛"	22"	24"	42" x 19"	22⅝"	17¾"	19⅛"	125	110.50	RL-424	50	47.20	RB-2223	22	16.00
PL-6724-A	67⅜"	22"	24"	61¼" x 19"	22⅝"	17¾"	19⅛"	165	126.00	RL-624	60	55.80	RB-2223	22	16.00
PL-7724-A	83⅛"	22"	24"	70" x 19"	22⅝"	17¾"	19⅛"	175	137.75	RL-724	65	59.40	RB-2223	22	16.00
PL-8424-A	76⅛"	22"	24"	77" x 19"	22⅝"	17¾"	19⅛"	190	152.75	RL-824	70	62.60	RB-2223	22	16.00
FOR 24" WIDE PANELS — 24" DEEP RACKS															
PL-4827-A	48⅛"	27"	24"	42" x 24"	22⅝"	23¾"	24⅛"	150	139.75	RL-424	50	47.20	RB-2723	25	17.50
PL-6727-A	67⅜"	27"	24"	61¼" x 24"	22⅝"	23¾"	24⅛"	185	158.75	RL-624	60	55.80	RB-2723	25	17.50
PL-7727-A	76⅛"	27"	24"	70" x 24"	22⅝"	23¾"	24⅛"	200	170.50	RL-724	65	59.40	RB-2723	25	17.50
PL-8427-A	83⅛"	27"	24"	77" x 24"	22⅝"	23¾"	24⅛"	215	187.75	RL-824	70	62.60	RB-2723	25	17.50
FOR 30" WIDE PANELS — 24" DEEP RACKS															
PL-6733-A	67⅜"	33"	24"	61¼" x 30"	22⅝"	28¾"	30⅛"	245	189.50	RL-624	60	55.80	RB-3323	28	18.75
PL-7733-A	76⅛"	33"	24"	70" x 30"	22⅝"	28¾"	30⅛"	270	205.50	RL-724	65	59.40	RB-3323	28	18.75
PL-8433-A	83⅛"	33"	24"	77" x 30"	22⅝"	28¾"	30⅛"	285	224.25	RL-824	70	62.60	RB-3323	28	18.75

TYPE "FL" SERIES RACKS — WITH FRONT AND REAR DOORS

Catalog No.	Overall Dimensions Height	Width	Depth	Panel Space	*Clear Inside Depth	**Clear Inside Width (Front)	Clear Inside Width (Rear)	Shipping Wt. Lbs.	Net Price	DETACHABLE SIDE PANELS Catalog No. (Per Pr.)	Shipping Wt. Lbs. (Per Pr.)	Net Price (Per Pr.)	RECESSED BASES (Optional) Cat. No.	Shipping Wt. Lbs.	Net Price
FOR 19" WIDE PANELS — 18" DEEP RACKS															
FL-4818-A	48⅛"	22"	18"	42" x 19"	16¼"	17¾"	19⅛"	125	$109.25	RL-418	40	$40.00	RB-2217	18	$15.00
FL-6718-A	67⅜"	22"	18"	61¼" x 19"	16¼"	17¾"	19⅛"	170	128.00	RL-618	55	48.90	RB-2217	18	15.00
FL-7718-A	76⅛"	22"	18"	70" x 19"	16¼"	17¾"	19⅛"	180	145.25	RL-718	60	52.20	RB-2217	18	15.00
FL-8418-A	83⅛"	22"	18"	77" x 19"	16¼"	17¾"	19⅛"	200	157.00	RL-818	65	55.80	RB-2217	18	15.00
FOR 19" WIDE PANELS — 24" DEEP RACKS															
FL-4824-A	48⅛"	22"	24"	42" x 19"	22¼"	17¾"	19⅛"	145	130.75	RL-424	50	47.20	RB-2223	22	16.00
FL-6724-A	67⅜"	22"	24"	61¼" x 19"	22¼"	17¾"	19⅛"	190	149.00	RL-624	60	55.80	RB-2223	22	16.00
FL-7724-A	76⅛"	22"	24"	70" x 19"	22¼"	17¾"	19⅛"	205	166.75	RL-724	65	59.40	RB-2223	22	16.00
FL-8424-A	83⅛"	22"	24"	77" x 19"	22¼"	17¾"	19⅛"	215	181.25	RL-824	70	62.60	RB-2223	22	16.00
FOR 24" WIDE PANELS — 24" DEEP RACKS															
FL-4827-A	48⅛"	27"	24"	42" x 24"	22¼"	23¾"	24⅛"	170	160.00	RL-424	50	47.20	RB-2723	25	17.50
FL-6727-A	67⅜"	27"	24"	61¼" x 24"	22¼"	23¾"	24⅛"	220	188.00	RL-624	60	55.80	RB-2723	25	17.50
FL-7727-A	76⅛"	27"	24"	70" x 24"	22¼"	23¾"	24⅛"	240	199.00	RL-724	65	59.40	RB-2723	25	17.50
FL-8427-A	83⅛"	27"	24"	77" x 24"	22¼"	23¾"	24⅛"	245	223.00	RL-824	70	62.60	RB-2723	25	17.50
FOR 30" WIDE PANELS — 24" DEEP RACKS															
FL-6733-A	67⅜"	33"	24"	61¼" x 30"	22¼"	28¾"	30⅛"	280	231.50	RL-624	60	55.80	RB-3323	28	18.75
FL-7733-A	76⅛"	33"	24"	70" x 30"	22¼"	28¾"	30⅛"	310	252.75	RL-724	65	59.40	RB-3323	28	18.75
FL-8433-A	83⅛"	33"	24"	77" x 30"	22¼"	28¾"	30⅛"	325	274.00	RL-824	70	62.60	RB-3323	28	18.75

* Clearance between front and rear doors.

** Indicates clearance for chassis between panel mounting strips

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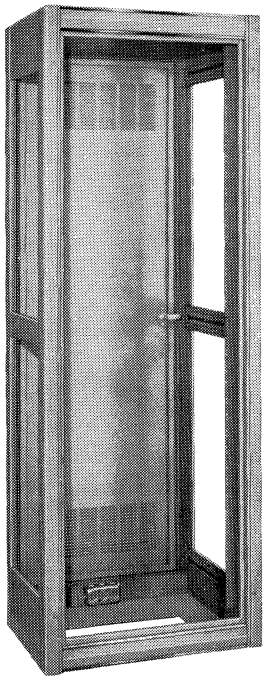
PAR-METAL Modular Cabinet Racks

SERIES "PR" & "FR" RACKS WITH OPEN SIDE WALLS

FOR 19" - 24" - 30" WIDE PANELS — 18" & 24" DEEP WITH DETACHABLE SIDE PANELS



SERIES "PR" RACKS
With Rear Doors Only
(Recessed base is optional)

Series "PR" and "FR" racks use the same sturdy cabinet frames as the "PL" and "FL" racks listed on **PAR-METAL Page 4.** New horizontal mouldings and vertical corner trims on the front of racks, with new compact side panels, creates a distinctive appearance in keeping with the current trend in cabinet styling. In effect, a frame is provided which can be finished in a contrasting color at your option.

SPECIFICATIONS: Constructional details of rack frame and material specifications are on **Par-Metal Page 2.**

ACCESSORIES: All accessories listed on **Par-Metal Pages 7** and **8** may be used with these racks. ROLLER TRUCKS are listed on **Par-Metal Page 17.** RACK PANELS are listed on **Par-Metal Pages 18** and **19.**

STANDARD EQUIPMENT: All racks are equipped as shown, with door(s), one pair of panel mounting angles, and all necessary hardware. Recessed sub-bases are not included, but listed as an optional accessory.

CORNER TRIMS: Where racks are assembled in groups or rows, please specify number of racks in each row so that proper joining trims can be supplied.

Before Ordering Please Read Instructions Below:

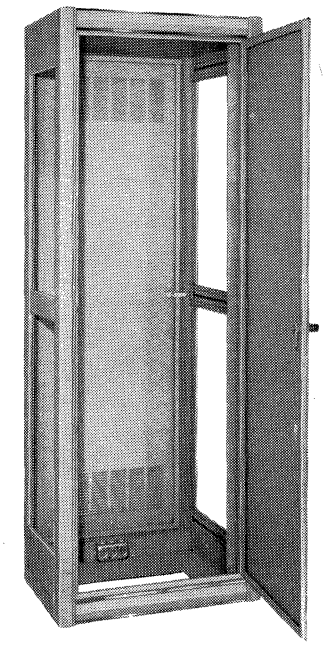
Specify racks by catalog number; also detachable side panels. (Catalog number of side panels is for one pair.) If racks are set up in rows, please specify number in each row, so we can supply proper front joining vertical trims used between adjoining racks.

FINISHES: Your Choice of the Following:

Specify finish "LH" for light grey hammertone enamel. Specify finish "DH" for dark grey hammertone enamel. Specify finish "LD" for light grey hammertone cabinets with dark grey hammertone trim on front of assembly. Specify finish "GM" for dark grey metallic enamel. Specify finish "BG" for blue grey wrinkle enamel. Specify finish "PC" for primer coat only.

Locking type handles are standard on series "FR" racks. They may be obtained on series "PR" racks at $1.00 extra. Plain doors without louvers may be substituted for louvered doors (and vice-versa) without additional charge. Other useful modifications to doors and racks are illustrated on **PAR-METAL Page 3.**

Additional engineering information such as completely detailed drawings of these cabinet racks are given in our Catalog 63. Write directly to home office for assistance.



SERIES "FR" RACKS
With Front and Rear Doors
(Recessed base is optional)

RECESSED RACK SUB-BASES: These heavy duty bases will fit under any of the racks listed below. They are rigidly made from 7/64" thick steel with the 4 holes in the top matching those in the racks, and with 4 adjustable floor levelers at bottom. Where roller trucks are mounted under racks, recessed bases are not recommended or required. Complete listing of recessed bases for all cabinet racks and prices are given in chart below.

TYPE "PR" SERIES RACKS — WITH REAR DOORS ONLY

Catalog No.	Overall Dimensions Height	Width	Depth	Panel Space	Clear Inside Depth	**Clear Inside Width (Front)	Inside (Rear) Width	Wt. Lbs. Shipping	Price Net	DETACHABLE SIDE PANELS Catalog No. (Per Pr.)	Shipping Wt. Lbs. (Per Pr.)	Net Price (Per Pr.)	RECESSED BASES (Optional) Cat. No.	Shipping Wt. Lbs.	Net Price
FOR 19" WIDE PANELS — 18" DEEP RACKS															
PR-4818-B	48⅛"	22"	18"	42" x 19"	16⅝"	17¾"	19⅛"	110	$ 80.60	RS-418-B	40	$34.50	RB-2217	18	$15.00
PR-6718-B	67⅜"	22"	18"	61¼" x 19"	16⅝"	17¾"	19⅛"	150	92.20	RS-618-B	55	41.40	RB-2217	18	15.00
PR-7718-B	76⅛"	22"	18"	70" x 19"	16⅝"	17¾"	19⅛"	160	103.80	RS-718-B	60	44.70	RB-2217	18	15.00
PR-8418-B	83⅛"	22"	18"	77" x 19"	16⅝"	17¾"	19⅛"	180	115.20	RS-818-B	65	48.30	RB-2217	18	15.00
FOR 19" WIDE PANELS — 24" DEEP RACKS															
PR-4824-B	48⅛"	22"	24"	42" x 19"	22⅝"	17¾"	19⅛"	125	97.70	RS-424-B	50	41.70	RB-2223	22	16.00
PR-6724-B	67⅜"	22"	24"	61¼" x 19"	22⅝"	17¾"	19⅛"	165	112.00	RS-624-B	60	48.30	RB-2223	22	16.00
PR-7724-B	76⅛"	22"	24"	70" x 19"	22⅝"	17¾"	19⅛"	175	123.50	RS-724-B	65	51.90	RB-2223	22	16.00
PR-8424-B	83⅛"	22"	24"	77" x 19"	22⅝"	17¾"	19⅛"	190	138.30	RS-824-B	70	55.10	RB-2223	22	16.00
FOR 24" WIDE PANELS — 24" DEEP RACKS															
PR-4827-B	48⅛"	27"	24"	42" x 24"	22⅝"	22¾"	24⅛"	150	126.20	RS-424-B	50	41.70	RB-2723	25	17.50
PR-6727-B	67⅜"	27"	24"	61¼" x 24"	22⅝"	22¾"	24⅛"	185	143.80	RS-624-B	60	48.30	RB-2723	25	17.50
PR-7727-B	76⅛"	27"	24"	70" x 24"	22⅝"	22¾"	24⅛"	200	155.30	RS-724-B	65	51.90	RB-2723	25	17.50
PR-8427-B	83⅛"	27"	24"	77" x 24"	22⅝"	22¾"	24⅛"	215	172.30	RS-824-B	70	55.10	RB-2723	25	17.50
FOR 30" WIDE PANELS — 24" DEEP RACKS															
PR-6733-B	67⅜"	33"	24"	61¼" x 30"	22⅝"	28¾"	30⅛"	245	173.20	RS-624-B	60	48.30	RB-3323	28	18.75
PR-7733-B	76⅛"	33"	24"	70" x 30"	22⅝"	28¾"	30⅛"	270	189.00	RS-724-B	65	51.90	RB-3323	28	18.75
PR-8433-B	83⅛"	33"	24"	77" x 30"	22⅝"	28¾"	30⅛"	285	207.40	RS-824-B	70	55.10	RB-3323	28	18.75

TYPE "FR" SERIES RACKS — WITH FRONT AND REAR DOORS

Catalog No.	Overall Dimensions Height	Width	Depth	Panel Space	*Clear Inside Depth	**Clear Inside Width (Front)	Inside Width (Rear)	Shipping Wt. Lbs.	Net Price	DETACHABLE SIDE PANELS Catalog No. (Per Pr.)	Shipping Wt. Lbs. (Per Pr.)	Net Price (Per Pr.)	RECESSED BASES (Optional) Cat. No.	Shipping Wt. Lbs.	Net Price
FOR 19" WIDE PANELS — 18" DEEP RACKS															
FR-4818-B	48⅛"	22"	18"	42" x 19"	16¼"	17¾"	19⅛"	125	$ 97.70	RS-418-B	40	$34.50	RB-2217	18	$15.00
FR-6718-B	67⅜"	22"	18"	61¼" x 19"	16¼"	17¾"	19⅛"	170	115.20	RS-618-B	55	41.40	RB-2217	18	15.00
FR-7718-B	76⅛"	22"	18"	70" x 19"	16¼"	17¾"	19⅛"	180	132,20	RS-718-B	60	44.70	RB-2217	18	15.00
FR-8418-B	83⅛"	22"	18"	77" x 19"	16¼"	17¾"	19⅛"	200	143.80	RS-818-B	65	48.30	RB-2217	18	15.00
FOR 19" WIDE PANELS — 24" DEEP RACKS															
FR-4824-B	48⅛"	22"	24"	42" x 19"	22¼"	17¾"	19⅛"	145	118.00	RS-424-B	50	41.70	RB-2223	22	16.00
FR-6724-B	67⅜"	22"	24"	61¼" x 19"	22¼"	17¾"	19⅛"	190	134.90	RS-624-B	60	48.30	RB-2223	22	16.00
FR-7724-B	76⅛"	22"	24"	70" x 19"	22¼"	17¾"	19⅛"	205	152.50	RS-724-B	65	51.90	RB-2223	22	16.00
FR-8424-B	83⅛"	22"	24"	77" x 19"	22¼"	17¾"	19⅛"	215	166.80	RS-824-B	70	55.10	RB-2223	22	16.00
FOR 24" WIDE PANELS — 24" DEEP RACKS															
FR-4827-B	48⅛"	27"	24"	42" x 24"	22¼"	22¾"	24⅛"	170	146.50	RS-424-B	50	41.70	RB-2723	25	17.50
FR-6727-B	67⅜"	27"	24"	61¼" x 24"	22¼"	22¾"	24⅛"	220	172.90	RS-624-B	60	48.30	RB-2723	25	17.50
FR-7727-B	76⅛"	27"	24"	70" x 24"	22¼"	22¾"	24⅛"	240	183.80	RS-724-B	65	51.90	RB-2723	25	17.50
FR-8427-B	83⅛"	27"	24"	77" x 24"	22¼"	22¾"	24⅛"	245	207.40	RS-824-B	70	55.10	RB-2723	25	17.50
FOR 30" WIDE PANELS — 24" DEEP RACKS															
FR-6733-B	67⅜"	33"	24"	61¼" x 30"	22¼"	28¾"	30⅛"	280	215.20	RS-624-B	60	48.30	RB-3323	28	18.75
FR-7733-B	76⅛"	33"	24"	70" x 30"	22¼"	28¾"	30⅛"	310	236.20	RS-724-B	65	51.90	RB-3323	28	18.75
FR-8433-B	83⅛"	33"	24"	77" x 30"	22¼"	28¾"	30⅛"	325	257.20	RS-824-B	70	55.10	RB-3323	28	18.75

* Clearance between front and rear doors.

** Indicates clearance for chassis between panel mounting strips.

PAR-METAL PRODUCTS CORP. • Long Island City 3, N. Y.

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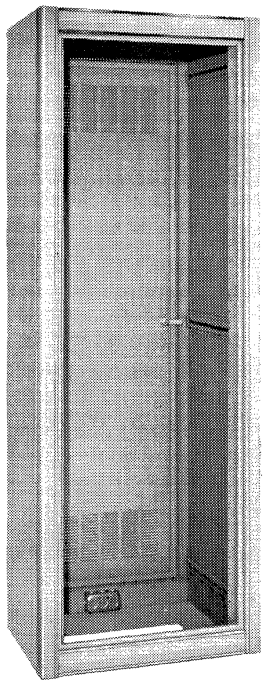
PAR-METAL Modular Cabinet Racks

SERIES "PX" & "FX" RACKS WITH SOLID SIDE WALLS

FOR 19" - 24" - 30" WIDE PANELS — 18" & 24" DEEP



SERIES "PX" RACKS
With Rear Door Only
(Recessed base is optional)

Series "PX" and "FX" racks are similar to our "PR" racks listed on **PAR-METAL Page 5** except that they are constructed with **SOLID SIDE WALLS** as shown. Where open side racks are not required, the cost of detachable side panels is eliminated.

These racks feature the same horizontal mouldings and corner trims used on our "PR" series, resulting in a trim, compact appearance. The new styling, in effect, provides an attractive frame around the front of the rack where contrasting color finishes are used.

SPECIFICATIONS: Constructional details of rack frame and material specifications are listed on **Par-Metal Page 2.**

ACCESSORIES: All accessories listed on **Par-Metal Pages 7 and 8** may be used with these racks. ROLLER TRUCKS are listed on **Par-Metal Page 17.** RACK PANELS are listed on **Par-Metal Pages 18 and 19**

STANDARD EQUIPMENT: All racks are equipped as shown, with door(s), one pair of panel mounting angles, and all necessary hardware. Recessed sub-bases are not included, but listed as an optional accessory.

CORNER TRIMS: Where racks are assembled in groups or rows, please specify number of racks in each row so that proper joining trims can be supplied.

Before Ordering Please Read Instructions Below:

Specify racks by catalog number. If racks are set up in rows, please specify number in each row, so we can supply proper front joining vertical trims used between adjoining racks.

FINISHES: Your Choice of the Following:

Specify finish "LH" for light grey hammertone enamel. Specify finish "DH" for dark grey hammertone enamel. Specify finish "LD" for light grey hammertone cabinets with dark grey hammertone trim on front of assembly. Specify finish "GM" for dark grey metallic enamel. Specify finish "BG" for blue grey wrinkle enamel. Specify finish "PC" for primer coat only.

Locking type handles are standard on series "FX" racks. They may be obtained on series "PX" racks at $1.00 extra. Plain doors without louvers may be substituted for louvered doors (and vice-versa) without additional charge. Other useful modifications to doors and racks are illustrated on **Par-Metal Page 3.**

Complete engineering type detailed drawings of these cabinet racks are available in our Catalog 63. Write directly to home office for personalized and interested engineering assistance.

SERIES "FX" RACKS
With Front and Rear Doors
(Recessed base is optional)

RECESSED RACK SUB-BASES: These heavy duty bases will fit under any of the racks listed below. They are rigidly made from 7/64" thick stee with the 4 holes in the top matching those in the racks, and with 4 adjustable floor levelers at bottom. Where roller trucks are mounted under racks recessed bases are not recommended or required. Complete listing of recessed bases for all cabinet racks and prices are given in chart below.

TYPE "PX" SERIES RACKS — WITH REAR DOORS ONLY

Catalog No.	Overall Dimensions Height	Width	Depth	Panel Space	Clear Inside Depth	**Clear Inside Width (Front)	Clear Inside Width (Rear)	Shipping Wt. Lbs.	Net Price	RECESSED BASES (Optional) Catalog No.	Shipping Wt. Lbs.	Net Price
FOR 19" WIDE PANELS — 18" DEEP RACKS												
PX-3718-B	42 7/8"	22"	18"	36 3/4" x 19"	16 5/8"	17 3/4"	19 1/8"	105	$ 69.00	RB-2217	18	$15.00
PX-4818-B	48 1/8"	22"	18"	42" x 19"	16 5/8"	17 3/4"	19 1/8"	120	80.60	RB-2217	18	15.00
PX-6718-B	67 3/8"	22"	18"	61 1/4" x 19"	16 5/8"	17 3/4"	19 1/8"	155	92.20	RB-2217	18	15.00
PX-7718-B	76 1/8"	22"	18"	70" x 19"	16 5/8"	17 3/4"	19 1/8"	170	103.80	RB-2217	18	15.00
PX-8418-B	83 1/8"	22"	18"	77" x 19"	16 5/8"	17 3/4"	19 1/8"	185	115.20	RB-2217	18	15.00
FOR 19" WIDE PANELS — 24" DEEP RACKS												
PX-4824-B	48 1/8"	22"	24"	42" x 19"	22 5/8"	17 3/4"	19 1/8"	140	97.70	RB-2223	22	16.00
PX-6724-B	67 3/8"	22"	24"	61 1/4" x 19"	22 5/8"	17 3/4"	19 1/8"	180	112.00	RB-2223	22	16.00
PX-7724-B	76 1/8"	22"	24"	70" x 19"	22 5/8"	17 3/4"	19 1/8"	195	123.50	RB-2223	22	16.00
PX-8424-B	83 1/8"	22"	24"	77" x 19"	22 5/8"	17 3/4"	19 1/8"	210	138.30	RB-2223	22	16.00
FOR 24" WIDE PANELS — 24" DEEP RACKS												
PX-4827-B	48 1/8"	27"	24"	42" x 24"	22 5/8"	22 3/4"	24 1/8"	155	126.20	RB-2723	25	17.50
PX-6727-B	67 3/8"	27"	24"	61 1/4" x 24"	22 5/8"	22 3/4"	24 1/8"	200	143.80	RB-2723	25	17.50
PX-7727-B	76 1/8"	27"	24"	70" x 24"	22 5/8"	22 3/4"	24 1/8"	225	155.30	RB-2723	25	17.50
PX-8427-B	83 1/8"	27"	24"	77" x 24"	22 5/8"	22 3/4"	24 1/8"	240	172.30	RB-2723	25	17.50
FOR 30" WIDE PANELS — 24" DEEP RACKS												
PX-6733-B	67 3/8"	33"	24"	61 1/4" x 30"	22 5/8"	28 3/4"	30 1/8"	260	173.20	RB-3323	28	18.75
PX-7733-B	76 1/8"	33"	24"	70" x 30"	22 5/8"	28 3/4"	30 1/8"	280	189.00	RB-3323	28	18.75
PX-8433-B	83 1/8"	33"	24"	77" x 30"	22 5/8"	28 3/4"	30 1/8"	300	207.40	RB-3323	28	18.75

TYPE "FX" SERIES RACKS — WITH FRONT AND REAR DOORS

Catalog No.	Overall Dimensions Height	Width	Depth	Panel Space	*Clear Inside Depth	**Clear Inside Width (Front)	Clear Inside Width (Rear)	Shipping Wt. Lbs.	Net Price	RECESSED BASES (Optional) Catalog No.	Shipping Wt. Lbs.	Net Price
FOR 19" WIDE PANELS — 18" DEEP RACKS												
FX-4818-B	48 1/8"	22"	18"	42" x 19"	16 1/4"	17 3/4"	19 1/8"	135	$ 97.70	RB-2217	18	$15.00
FX-6718-B	67 3/8"	22"	18"	61 1/4" x 19"	16 1/4"	17 3/4"	19 1/8"	175	115.20	RB-2217	18	15.00
FX-7718-B	76 1/8"	22"	18"	70" x 19"	16 1/4"	17 3/4"	19 1/8"	190	132.20	RB-2217	18	15.00
FX-8418-B	83 1/8"	22"	18"	77" x 19"	16 1/4"	17 3/4"	19 1/8"	205	143.80	RB-2217	18	15.00
FOR 19" WIDE PANELS — 24" DEEP RACKS												
FX-4824-B	48 1/8"	22"	24"	42" x 19"	22 1/4"	17 3/4"	19 1/8"	160	118.00	RB-2223	22	16.00
FX-6724-B	67 3/8"	22"	24"	61 1/4" x 19"	22 1/4"	17 3/4"	19 1/8"	205	134.90	RB-2223	22	16.00
FX-7724-B	76 1/8"	22"	24"	70" x 19"	22 1/4"	17 3/4"	19 1/8"	225	152.50	RB-2223	22	16.00
FX-8424-B	83 1/8"	22"	24"	77" x 19"	22 1/4"	17 3/4"	19 1/8"	235	166.80	RB-2223	22	16.00
FOR 24" WIDE PANELS — 24" DEEP RACKS												
FX-4827-B	48 1/8"	27"	24"	42" x 24"	22 1/4"	22 3/4"	24 1/8"	175	146.50	RB-2723	25	17.50
FX-6727-B	67 3/8"	27"	24"	61 1/4" x 24"	22 1/4"	22 3/4"	24 1/8"	235	172.90	RB-2723	25	17.50
FX-7727-B	76 1/8"	27"	24"	70" x 24"	22 1/4"	22 3/4"	24 1/8"	265	183.80	RB-2723	25	17.50
FX-8427-B	83 1/8"	27"	24"	77" x 24"	22 1/4"	22 3/4"	24 1/8"	270	207.40	RB-2723	25	17.50
FOR 30" WIDE PANELS — 24" DEEP RACKS												
FX-6733-B	67 3/8"	33"	24"	61 1/4" x 30"	22 1/4"	28 3/4"	30 1/8"	295	215.20	RB-3323	28	18.75
FX-7733-B	76 1/8"	33"	24"	70" x 30"	22 1/4"	28 3/4"	30 1/8"	320	236.20	RB-3323	28	18.75
FX-8433-B	83 1/8"	33"	24"	77" x 30"	22 1/4"	28 3/4"	30 1/8"	345	257.20	RB-3323	28	18.75

* Clearance between front and rear doors.

** Indicates clearance for chassis between panel mounting strip

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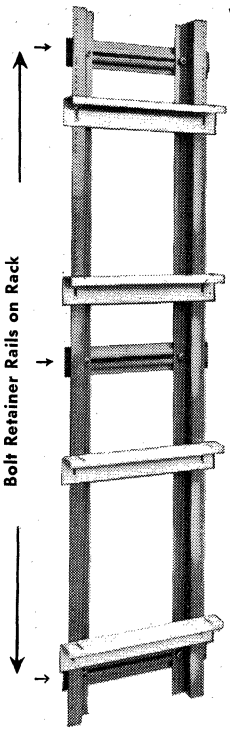
PAR-METAL CABINET RACK ACCESSORIES

VERTICAL SIDE SUPPORTS



These vertical side supports are supplied in sets of four uprights to fit all Modular racks listed on PAR-METAL Pages 4 thru 6. (Cut shows side mounting brackets in place which are sold separately — see listing below).

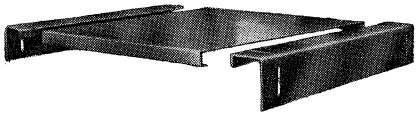
Supports are fastened to bolt retainer rails which hold panel mounting angles in place, and are adjustably mounted from front to back of rack. Holes are **drilled** and **tapped vertically** to provide adequate vertical adjustment for mounting brackets, shelves, and various sliding devices.

The clearance between supports (from right to left) when installed in racks for **19"** wide panels is **17¾"**; clearance when installed in racks for **24"** wide panels is **22¾"**; clearance when installed in racks for **30"** wide panels is **28¾"**. All supports are 2⅝" wide and 1½" deep.

Supports are made from 7/64" thick steel, finished in aluminum enamel. Each set is supplied with ⅜" dia. bolts, lock washers, and nuts for rack mounting.

Cat. No.	Height	To Fit Modular Cabinet Racks	Sh. Wt. Lbs.	Net Price Set of 4
VS-36	40 27/32"	PX-3718-B	22	$15.00
VS-42	46 3/32"	Series 4818, 4824, 4827	25	16.50
VS-61	65 11/32"	Series 6718, 6724, 6727, 6733	35	21.75
VS-70	74 3/32"	Series 7718, 7724, 7727, 7733	39	25.50
VS-77	81 3/32"	Series 8418, 8424, 8427, 8433	45	28.35

SIDE MOUNTING BRACKETS



Brackets BR-118 and Shelf SS-1918

These brackets will fit on Vertical Side Supports shown above. They are sold in pairs, and slotted to provide vertical adjustment at any height required. Brackets are 2" wide and 1-13/16" high. The vertical face of the bracket is also slotted to match holes in equipment shelves listed below. Where desirable, the horizontal face of the bracket may be bolted to the vertical side supports. They are made from ⅛" steel, zinc plated finish. Necessary bolts are supplied.

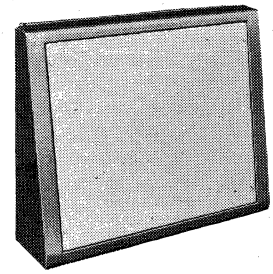
Cat. No.	Length	To Fit Racks	Shpg. Wt.	Net Price
BR-118	14"	All 18" deep racks	4 lbs.	$3.30 per pair
BR-124	20"	All 24" deep racks	6 lbs.	4.45 per pair

EQUIPMENT SHELVES

These shelves will assemble with the side mounting brackets listed above, to make a complete shelf between Vertical Side Supports. Made from 1/16" steel, zinc plated. Necessary bolts for assembly are included. All shelves are ⅞" high.

Cat. No.	Width	Depth	To Fit Racks	Net Price
SS-1918	17⅝"	14¼"	19" panels-18" deep	$3.50
SS-1924	17⅝"	20¼"	19" panels-24" deep	4.20
SS-2724	22⅝"	20¼"	24" panels-24" deep	4.95
SS-3324	28⅝"	20¼"	30" panels-24" deep	7.20

SLOPING RACK MOUNTING PANELS



These panels are intended for installation on relay racks, and are installed the same as other standard rack panels.

The front slopes at an angle of 20°, and it may be used with the slope upward or downward.

Front and back have removable panels. They are designed for single unit or modular group assemblies.

Constructed from 1/16" sheet steel; panels are included in prices listed below. Available in all finishes—please specify when ordering. **All panels are 7⅝" deep.**

Cat. No.	Panel Space Required on Rack	Sloping Panel Size	Rear Panel Size	Net Price
SP-1719	17½" x 19"	15¾" x 19"	14" x 19"	$42.00
SP-1724	17½" x 24"	15¾" x 24"	14" x 24"	50.00
SP-1730	17½" x 30"	15¾" x 30"	14" x 30"	65.00

RACK TYPE EXTENSION TABLES

These tables are mounted to the front of cabinet racks. They are made from ¾" plywood to which is bonded 1/16" thick formica of a dark grey pattern on both top and apron, which is 2½" high.

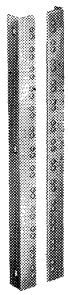
The apron is substantially reinforced for fastening to horizontal channel type supports. The channels are made from 7/64" thick steel, and are bolted to vertical side supports which are securely mounted on the inside wall of the rack. The tables may be adjusted at any height from the floor. This assembly provides a very rigid structure, with a smooth writing space across the entire top. There are no metal parts exposed, and no painted metal surfaces to deteriorate with constant usage.

The tables may be installed on any of the modular cabinet racks (without front doors) listed on PAR-METAL Pages 4 thru 6. They are also available for modular rows of four or more racks.

ALL OF THESE TABLE ASSEMBLIES REQUIRE ONLY 3½" OF PANEL SPACE (height).

Cat. No.	Table Size	Type	Rack Panel Width	Net Price
RX-119	21¼" x 20"	Single	19"	$ 33.60
RX-219	42⅛" x 20"	Double	19"	62.40
RX-319	64¼" x 20"	Triple	19"	83.20
RX-419	86⅜" x 20"	Quadruple	19"	113.20
RX-124	26¼" x 20"	Single	24"	38.40
RX-224	52⅛" x 20"	Double	24"	76.00
RX-324	79¼" x 20"	Triple	24"	102.40
RX-130	32¼" x 20"	Single	30"	44.00
RX-230	64⅛" x 20"	Double	30"	80.00

PANEL MOUNTING ANGLES

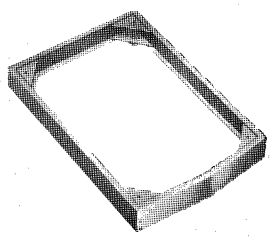


These panel mounting angles (or strips) are the same as used in all Modular type racks (see PAR-METAL Pages 4 thru 6). They are supplied with necessary bolts to fit into the bolt retainer rails which hold the pair of panel mounting angles regularly supplied with each rack (see PAR-METAL Page 2 for further description).

It is often desirable to use an additional pair of panel mounting angles for mounting chassis, terminal strips, etc. They may be adjusted to any depth within the rack from front to back.

Angle No.	Length	To Fit Modular Cabinet Racks	Net Price Per Pair
PA-36	40-27/32"	PX-3718	$ 9.50
PA-42	46-3/32"	PL, FL, PX, FX, PR, FR-4818, 4824, 4827	11.50
PA-61	65-11/32"	PL, FL, PX, FX, PR, FR-6718, 6724, 6727, 6733	15.90
PA-70	74-3/32"	PL, FL, PX, FX, PR, FR-7718, 7724, 7727, 7733	18.10
PA-77	81-3/32"	PL, FL, PX, FX, PR, FR-8418, 8424, 8427, 8433	19.80

RECESSED RACK SUB-BASES



These heavy duty bases will fit under any of the **Par-Metal Modular Cabinet Racks** shown on **Par-Metal Pages 4 through 6.**

They are rigidly made from 7/64" thick steel with the 4 holes in the top matching those in the racks, and with 4 adjustable floor levellers at the bottom.

To Fit Modular Cabinet Racks

Cat. No.	Width	Depth	Net Price
RB-2217	22"	18"	$15.00
RB-2223	22"	24"	16.00
RB-2723	27"	24"	17.50
RB-3323	33"	24"	18.75

They will be finished in the same enamel as the racks for which they are ordered. Where roller trucks are mounted under the racks, recessed bases are not recommended or required.

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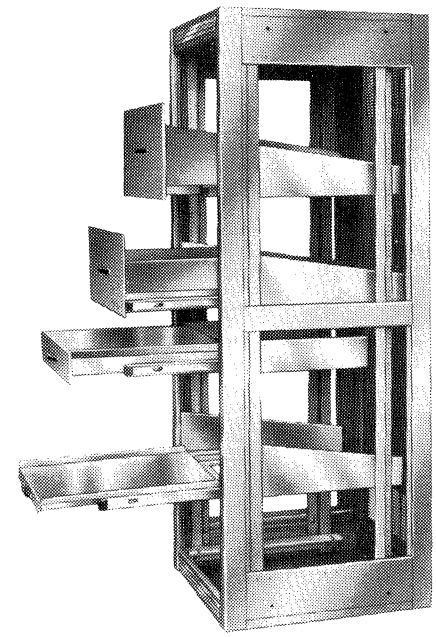
PAR-METAL RACK TYPE SLIDE ASSEMBLIES



GENERAL DESCRIPTION

These slide assemblies will save considerable layout and assembly time as an alternate method of attaching individual slides directly to the interior of a rack. All models are screw mounted to the front panel mounting angles of relay racks, the same as regular panels Additional holes are provided in the side brackets of the shelf assembly for mounting to our standard vertical side supports. Either method will provide a rigid support; both may be used together where desirable.

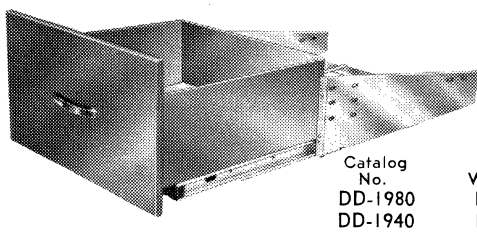
The basic slide assemblies for use in 19″ wide panel **racks will accommodate chassis up to 17″ wide.** All of the "usable space" noted below may be fully extended from the front of the rack; load capacities are based on the shelf in this position. All units are ruggedly constructed to withstand constant usage. The frames and brackets are made from 7/64″ thick steel. All parts are securely welded or fastened with stainless steel rivets.

BASIC SLIDE ASSEMBLIES

The basic slide assembly illustrated is sold as a complete unit, ready for installation in all 18″ or 24″ deep racks. Panels may be attached to chassis by using standard *brackets or any other convenient method. The panel and chassis assembly is then bolted directly to the slide pan. Formed panels with a minimum height of 7″ are recommended. Four models are listed to fit racks using panels either 19 or 24″ wide. The BS-1940 and BS-2419 are identical in size, but have different load capacities. All load capacities are conservatively rated to carry the full load with the sliding shelf completely extended. All parts are zinc plated.

Catalog No.	Usable Space Width	Usable Space Depth	Panel Width	Rack Depth	Bracket Height	Shelf Height	Load Capacity	Net Price	Shipping Weight
BS-1980	17 1/8″	14″	19″	18″ and 24″	6 1/2″	1 3/4″	50 lbs.	$19.25	24 lbs.
BS-1940	17 1/8″	20″	19″	24″	6 1/2″	1 3/4″	36 lbs.	25.50	32 lbs.
BS-2419	17 1/8″	20″	19″	24″	6 1/2″	1 3/4″	60 lbs.	30.75	32 lbs.
BS-2424	22 1/8″	20″	24″	24″	6 1/2″	1 3/4″	55 lbs.	33.00	35 lbs.

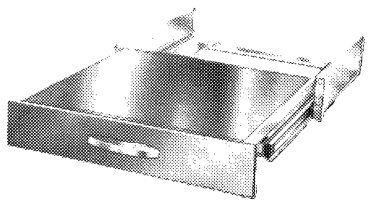
Special brackets are available for mounting rack panels, as listed on Par-Metal page 21.



STORAGE DRAWER ASSEMBLIES

These drawers are suitable for stationery, instruments, parts, etc. The drawers are mounted on the basic slide assemblies described above. They are available either 7″ or 10 1/2″ high to match standard rack panels of the same height. Three models are listed for racks with 19″ wide panels and one for 24″ wide panel racks.

Catalog No.	Usable Space Width	Usable Space Length	Depth	Panel Height	Panel Width	Rack Depth	Load Capacity	Net Price	Shipping Weight
DD-1980	17″	14″	5″	7″	19″	18″ and 24″	40 lbs.	$26.50	33 lbs.
DD-1940	17″	20″	5″	7″	19″	24″	25 lbs.	35.00	42 lbs.
DD-2419	17″	20″	8″	10 1/2″	19″	24″	45 lbs.	41.90	50 lbs.
DD-2424	22″	20″	8″	10 1/2″	24″	24″	45 lbs.	46.75	50 lbs.



DESK SHELF ASSEMBLIES

This assembly effectively provides a retractable writing desk, or may be used for supporting test instruments or other devices. When not in use, it saves valuable aisle space. The writing surface is charcoal grey micarta. The front requires only 3 1/2″ of panel space, and is provided with a drawer pull. It is made for racks using panels either 19″ or 24″ wide. No. SK-1970 and SK-2419 are identical except for load capacity.

Catalog No.	Shelf Size Width	Shelf Size Depth	Writing Surface	Pulls Out	Panel Width	Rack Depth	Load Capacity	Net Price	Shipping Weight
SK-1970	17″	17″	Micarta	16 3/8″	19″	18″ and 24″	36 lbs.	$36.00	32 lbs.
SK-2419	17″	17″	Micarta	16 3/8″	19″	18″ and 24″	60 lbs.	41.50	32 lbs.
SK-2424	22″	17″	Micarta	16 3/8″	24″	24″	60 lbs.	48.75	35 lbs.

IMPORTANT: When ordering, please specify paint finish on front panels or drawer fronts of series "DD" or "SK" assemblies. Standard finishes are grey hammertone, black wrinkle, blue grey wrinkle, primer coat only. Other finishes available.

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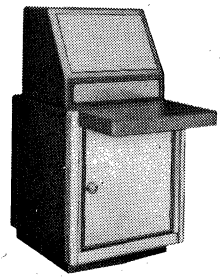
PAR-METAL MODULAR CONSOLE ASSEMBLIES

GENERAL DESCRIPTION

SINGLE UNIT ASSEMBLY

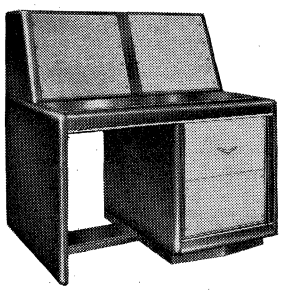


This illustration shows one of our three basic single unit assemblies. Other single unit assembles are shown on the next page.

The combination of a control cabinet mounted on table, desk or similar support usually called a console has been in general use in the electronics industry many years.

While it is obvious that no particular fixed design can serve every requirement, **we have devised a group of standard units,** the combination of which is readily adaptable for specialized applications in control equipment, testing facilities, sound distribution systems and industrial purposes. These models have been functionally designed and smartly styled to keep pace with current trends. New modular units have been added, all of which may be grouped or expanded to meet your specific needs.

DOUBLE UNIT ASSEMBLY



In this double unit assembly, the pedestal rack can also be fitted on the left side.

The **versatile pedestal racks** are the keystone to the entire assembly. They are constructed for heavy duty use, having all the essential features of our type "PL" cabinet racks listed on PAR-METAL Page 5. This would include panel mounting angles which are adjustable from front to back, and provision for installing chassis mounting brackets and shelves where needed. They offer an efficient utilization of space, complete accessibility for servicing, and are **solidly built** to withstand heavy strains **whether in a laboratory or a moving vehicle.**

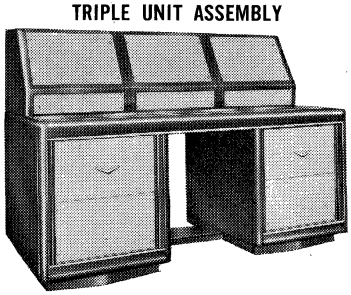
Two models of pedestal frames are available, which are identical except for the depth (front to back). PD-224 frame (24¼" deep) unit may also be used without an extension desk table.

There are four models of desk panel cabinets suitable for mounting on the pedestal frame top to make a complete console. Single or multiple unit consoles may be combined with our Series "PL" racks.

The PD-234 frame (34¼" deep) forms a complete desk structure without the use of extension shelves. When one of our desk panel cabinets is mounted on top, additional space is available in front as a desk writing surface. The 34¼" depth also provides additional interior space.

Unit assemblies are not limited to triple units, and may be extended to modular groups of five or more. If you have a specific problem, do not hesitate to consult us.

TRIPLE UNIT ASSEMBLY



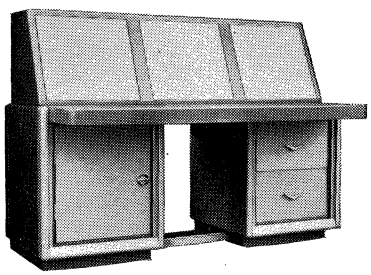
Various triple unit assemblies are available as shown on this and the followng page.

The **side panels** are readily detachable from the outside. No drilling or fitting is necessary for the assembly of pedestals, cabinets, brackets, shelves or drawers. All panel mounting holes are tapped for screws—no metal screws or clips are used.

STANDARD FINISH — is a combination of light and dark grey hammertone enamel on pedestal frames. All panels are supplied in light grey hammertone enamel.

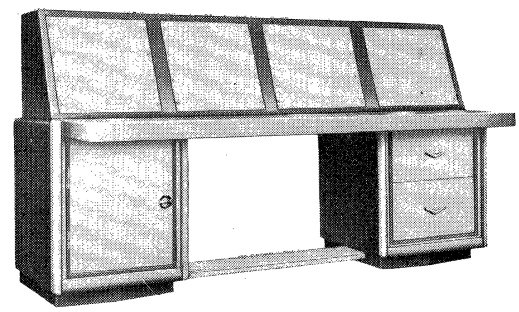
OPTIONAL FINISHES: Specify Finish "**LH**" for all items in light grey hammertone enamel. Specify Finish "**DH**" for all items in dark grey hammertone enamel. Specify Finish "**GM**" for all items in dark grey metallic enamel. Specify Finish "**BG**" for all items in blue grey wrinkle enamel. Specify Finish "**PC**" for all items in primer coat only.

ALTERNATE TRIPLE UNIT ASSEMBLY



The above unit consists of: two No. PD-224 pedestal frames, two No. EP-24 exterior side panels, two No. KP-24 interior side panels, one No. HS-103 high slope cabinet, one No. CD-24 center desk section and one CT-319 extension table, (door drawers, or rack panels for front and back are optional).

TYPICAL QUAD UNIT ASSEMBLY



The above unit consists of: two No. PD-224 pedestal frames, two No. EP-24 exterior side panels, two No. KP-24 interior side panels, one No. HS-104 high slope cabinet, one No. CD-24-2 center desk section and one CT-419 extension table, (door drawers, or rack panels for front and back are optional).

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PAR-METAL MODULAR CONSOLE ASSEMBLIES

The group charts below list all necessary and alternate components for single, double, and triple unit assemblies, and also provides a check list to determine your exact requirements. **There are four models of desk panel cabinets specially designed to fit on the top of the assemblies detailed below. For simplicity, they have been omitted; for a complete description see Par-Metal Page 13.** All of the 19" wide panels listed on Par-Metal Pages 18 and 19 may be mounted on these assemblies. Refer to Par-Metal Page 8 for sliding drawers shown in the illustrations on Page 9. **Other component parts suitable for use with these assemblies are shown on Par-Metal Pages 11 and 12.**

FOR SINGLE UNIT ASSEMBLIES

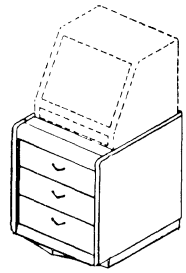

FIGURE "A" AS ABOVE
FIGURE "B" (LESS TOP CABINET)

PARTS REQUIRED

	Par-Metal Page No.	Quant.	Fig. "A"	Fig. "B"
Pedestal Frame	11	1	PD-224	PD-224
Exterior Side Panel	11	2	EP-24	EP-24
Extension Desk Table	12	1		
Formica Table Top	12	1	*	WT-241

*Table top not required.

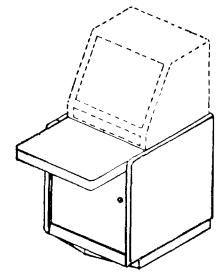

FIGURE "C" AS ABOVE
FIGURE "D" (LESS TOP CABINET)

Fig. "C"	Fig. "D"	Fig. "E"	Fig. "F"
PD-224	PD-224	PD-234	PD-234
EP-24	EP-24	EP-34	EP-34
CT-119	CT-119		
*	NT-241	HT-341	WT-341

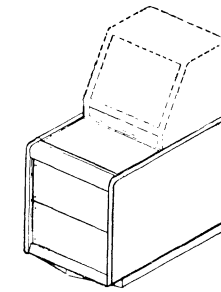

FIGURE "E" AS ABOVE
FIGURE "F" (LESS TOP CABINET)

FOR DOUBLE UNIT ASSEMBLIES

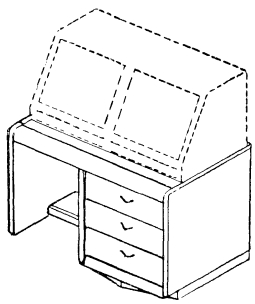

FIGURE "G" AS ABOVE
FIGURE "H" (LESS TOP CABINET)

PARTS REQUIRED

	Par-Metal Page No.	Quant.	Fig. "G"	Fig. "H"
Pedestal Frame	11	1	PD-224	PD-224
End Pedestal Assembly	11	1	DU-24	DU-24
Exterior Side Panel	11	1	EP-24	EP-24
Interior Side Panel	11	1	KP-24	KP-24
Extension Desk Table	12	1		
Formica Table Top	12	1	*	WT-242

*Table top not required

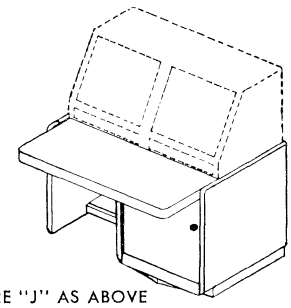

FIGURE "J" AS ABOVE
FIGURE "K" (LESS TOP CABINET)

Fig. "J"	Fig. "K"	Fig. "L"	Fig. "M"
PD-224	PD-224	PD-234	PD-234
DU-24	DU-24	DU-34	DU-34
EP-24	EP-24	EP-34	EP-34
KP-24	KP-24	KP-34	KP-34
	CT-219		
*	NT-242	HT-342	WT-342

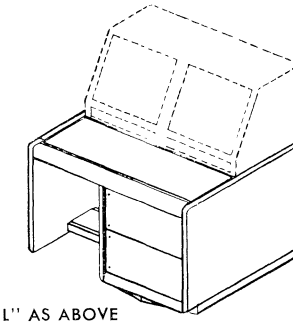

FIGURE "L" AS ABOVE
FIGURE "M" (LESS TOP CABINET)

FOR TRIPLE UNIT ASSEMBLIES

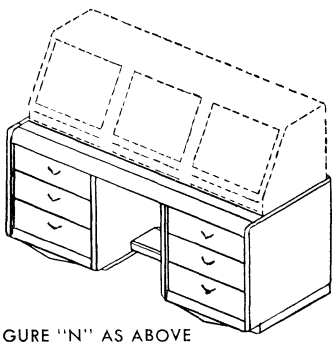

FIGURE "N" AS ABOVE
FIGURE "O" (LESS TOP CABINET)

PARTS REQUIRED

	Par-Metal Page No.	Quant.	Fig. "N"	Fig. "O"
Pedestal Frames	11	2	PD-224	PD-224
Center Desk Section	11	1	CD-24	CD-24
Exterior Side Panels	11	2	EP-24	EP-24
Interior Side Panels	11	2	KP-24	KP-24
Extension Desk Table	12	1		
Formica Table Top	12	1	*	WT-243

*Table top not required

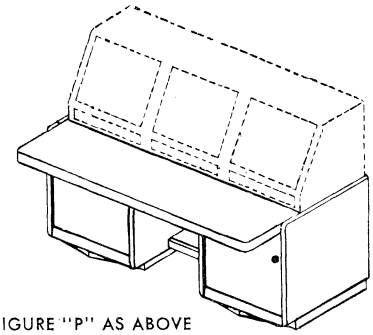

FIGURE "P" AS ABOVE
FIGURE "R" (LESS TOP CABINET)

Fig. "P"	Fig. "R"	Fig. "S"	Fig. "T"
PD-224	PD-224	PD-234	PD-234
CD-24	CD-24	CD-34	CD-34
EP-24	EP-24	EP-34	EP-34
KP-24	KP-24	KP-34	KP-34
CT-319	CT-319		
*	NT-243	HT-343	WT-343

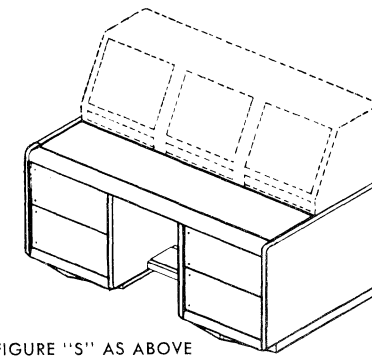

FIGURE "S" AS ABOVE
FIGURE "T" (LESS TOP CABINET)

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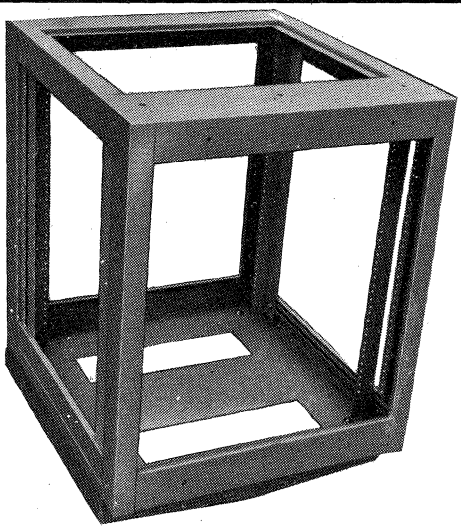
PAR-METAL MODULAR CONSOLE ASSEMBLIES



Cat. No. PD-224

RACK PEDESTAL FRAMES

The rack pedestal is the principal component used in all single and multiple unit assemblies. It combines the essential features of our **type "PL" racks** listed on Par-Metal Page 4 and is attractively styled for any environment.

The bottom and step base are formed from 7/64" steel; all other parts are made from 1/16" steel. They are substantially welded together to insure the extra strength and stability needed for heavy duty installation, wherever located. They are capable of carrying heavy transformers, large power supplies, motors, compressors, and similar apparatus.

Panel space at front and back is 21" x 19". Panel mounting angles (or "strips") may be located at any position from front to back, and have tapped holes for mounting standard rack panels, sliding shelves, phono drawers, or storage drawers. Two pairs are supplied — one pair for front mounting and another pair for rear mounting. Additional tapped holes are available at the sides for mounting chassis supports and shelves.

The various units required to make up complete assemblies are listed on **Par-Metal Pages 11, 12,** and **13.** The component check lists on **Par-Metal Page 10** enables you to easily select the parts required. Pedestal frames may be obtained as standard units with heavy duty casters at a nominal additional cost. See listing and description on **Par-Metal Page 12.**

STANDARD FINISH — is a combination of light and dark grey hammertone enamel on pedestal frames.

OPTIONAL FINISHES: Specify Finish **"LH"** for light grey hammertone enamel. Specify Finish **"DH"** for dark grey hammertone enamel. Specify Finish **"GM"** for dark grey metallic enamel. Specify Finish **"BG"** for blue grey wrinkle enamel. Specify Finish **"PC"** for primer coat only.

CATALOG NO. PD-224 (24¼" deep)

Overall Dimensions (with side panels, front and rear trim) 30" high, 24½" wide, 25⅜" deep.
Overall dimensions (less side panels, front and rear trim) 29" high, 22" wide, 24¼" deep.
Height of pedestal rack (less step base): 26½"
Panel Mounting Space: Front and Back: 21" high x 19" wide.
Clear opening at front and back: 19⅛"
Clear opening between panel mounting angles: 17¾"
*Clear opening at left and right: 17⅝" wide, 21" high
Clear inside depth (front to back): 23⅛"
*Suitable for standard rack panel 19" wide, 21" high (if needed).

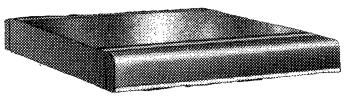
NET PRICE $80.00

CATALOG NO. PD-234 (34¼" deep)

Overall Dimensions (with side panels, front and rear trim) 30" high, 24½" wide, 35⅜" deep.
Overall Dimensions (less side panels, front and rear trim) 29" high, 22" wide, 34¼" deep.
Height of pedestal rack (less step base): 26½"
Panel Mounting Space: Front and Back: 21" high x 19" wide.
Clear opening at front and back: 19⅛"
Clear opening between panel mounting angles: 17¾"
*Clear opening at left and right side: 22⅝" wide, 21" high.
Clear inside depth (front to back): 33⅛"
*Suitable for standard rack panel 24" wide, 21" high (if needed).

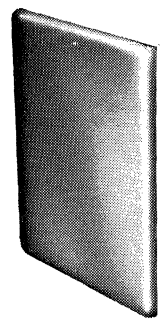
NET PRICE $95.00

CENTER DESK SECTION
(For Triple and Quad Unit Assemblies)



The center desk section shown is attached between two rack pedestals to make up a triple or quad unit assembly. Consists of table top support and floor brace illustrated on Par-Metal Page 10. Formica table top not included in price of sections. Sections finished to match color of pedestal frames, unless otherwise ordered.

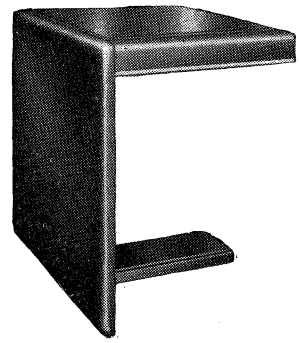
Cat. No.	For Assembly with	Front to Back	Length	Net Price
CD-24	PD-224	25⅜"	22"	$16.80
CD-242	PD-224	25⅜"	44"	33.60
CD-34	PD-234	35⅜"	22"	19.80
CD-342	PD-234	35⅜"	44"	39.60



DETACHABLE SIDE PANELS

All panels are made from 1/16" sheet steel. All corners are securely welded and ground smooth. Each panel has cowl fasteners at top and bottom, so that they may be quickly removed to provide complete access to interior of pedestals. Prices include front horizontal mouldings on pedestal frames. Panels are finished to match color of pedestal frames, unless otherwise ordered.

Cat. No.	Description	To fit Pedestal	For use on	Net Price
EP-24	Exterior side panel	PD-224	All assemblies	$20.00
KP-24	Interior side panel	PD-224	" "	17.50
EP-34	Exterior side panel	PD-234	" "	25.00
KP-34	Interior side panel	PD-234	" "	20.00



END PEDESTAL
(For Double and Triple Unit Assemblies)

End pedestals are designed to make up various assemblies as shown on Par-Metal Pages 9 and 10. They may be installed on either the right or left hand side of pedestal frame. Formica top not included in prices below. Will be finished to match pedestal frame unless otherwise ordered. All end pedestals are 30" high.

Cat. No.	For Assembly With	Length	Front to Back	Net Price
DU-24	Pedestal PD-224	23¼"	25⅜"	$38.50
DU-242	Pedestal PD-224	45¼"	25⅜"	55.30
DU-34	Pedestal PD-234	23¼"	35⅜"	45.00
DU-342	Pedestal PD-234	45¼"	35⅜"	64.80

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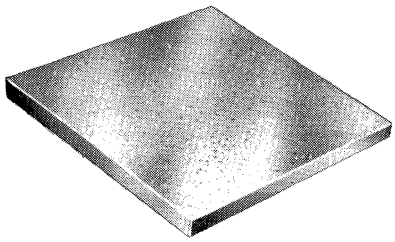
PAR-METAL MODULAR CONSOLE ASSEMBLIES



FORMICA BONDED TABLE TOPS

These table tops are made from 3/4" thick plywood to which is bonded 1/16" thick patterned grey formica. There are no metal spacers between units, providing a clear unobstructed writing surface across the entire top. The table top required for any particular assembly may be easily identified from the check list of component groups on **Par-Metal Page 10.** The listings below are a cross reference and also include prices.

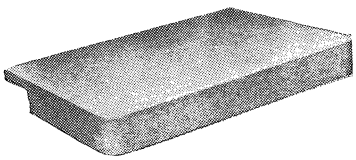
For Use on No. PD-224 Pedestal Frames (24¼" deep)

Catalog No.	Assembly	Refer to: Figure	Par-Metal Page No.	Net Price
WT-241	Single Unit Assembly	"B"	10	**$15.00**
NT-241	Single Unit Assembly	"D"	10	**12.00**
WT-242	Double Unit Assembly	"H"	10	**24.00**
NT-242	Double Unit Assembly	"K"	10	**24.00**
WT-243	Triple Unit Assembly	"O"	10	**42.00**
NT-243	Triple Unit Assembly	"R"	10	**32.00**
WT-244	Quad Unit Assembly	—	10	**56.00**
NT-244	Quad Unit Assembly	—	9	**40.00**

For Use on No. PD-234 Pedestal Frames (34¼" deep)

Catalog No.	Assembly	Refer to: Figure	Par-Metal Page No.	Net Price
HT-341	Single Unit Assembly	"E"	10	**$11.20**
WT-341	Singie Unit Assembly	"F"	10	**23.40**
HT-342	Double Unit Assembly	"L"	10	**18.20**
WT-342	Double Unit Assembly	"M"	10	**46.00**
HT-343	Triple Unit Assembly	"S"	10	**24.00**
WT-343	Triple Unit Assembly	"T"	10	**62.00**
HT-344	Quad Unit Assembly	—	9	**34.00**
WT-344	Quad Unit Assembly	—	9	**72.00**

EXTENSION DESK TABLES



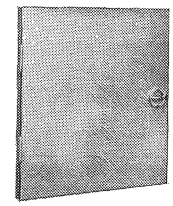
These extension tables are used in console assemblies illustrated on Par-Metal Pages 9 and 10. They are made from 3/4" thick plywood, to which is bonded 1/16" thick grey formica.

The formica covers both the top and apron of the table which is 2-1/2" deep. The apron is substantially reinforced for fastening to horizontal channel supports. The assembly provides a rugged structure with a smooth writing space across the entire top.

There are no metal parts exposed, and no metal surfaces to deteriorate with constant usage. As these tables are mounted above the front panels on the pedestal frame, the full front panel space of 21" may be used.

Cat. No.	For Use on Assemblies	Overall Size	Net Price
CT-119	Single Unit	16" x 22" x 2½"	**$24.00**
CT-219	Double Unit	16" x 44" x 2½"	**40.00**
CT-319	Triple Unit	16" x 66" x 2½"	**56.00**
CT-419	Quad Unit	16" x 88" x 2½"	**70.00**

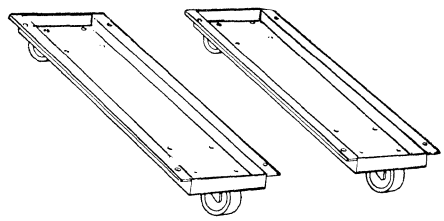
PEDESTAL FRAME DOORS



These doors are made to enclose the front or back of pedestal frames. They are **"double wall"** type with **smooth surfaces inside and outside.** A push button spring catch provides easy operation with a minimum projection from the front of the door.

They are made in two heights: **21"** high to completely enclose the front opening of the pedestal, with a **10½"** high door, which may be inserted above or below a sliding drawer or rack panel. They can be supplied to match finish of console assembly, or any finish listed on Par-Metal Page 9.

Cat. No.	For assembly with Pedestal	Size	Net Price
DR-1019	No. PD-224 or 234	10½"x19"	**$13.50**
DR-2119	No. PD-224 or 234	21 "x19"	**16.50**



Cat. No.	For use on	*Net Price
CA-24	Pedestal Frame No. PD-224	**$15.00**
CA-34	Pedestal Frame No. PD-234	**15.00**

*Price is for a pair, for installation on one pedestal frame.

PEDESTAL CASTER ASSEMBLIES

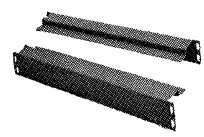
These assemblies are made specifically for use on our No. PD-224 and No PD-234 pedestal frames listed on Par-Metal Page 11. They replace the regular recessed sub-bases, and are used where mobility is required. The caster plates are made from 7/64" thick steel for heavy-duty usage. Casters are equipped with 3" diameter composition wheels, capable of supporting loads of 225 lbs. per wheel.

Where pedestal frames with caster assemblies are required, they will be supplied at an additional cost of $4.00 per frame. Simply specify on your pedestal frame order **"with casters."** They may be obtained separately as listed in chart at the left for replacement of recess sub-bases on pedestal frames now in use.

MOUNTING BRACKETS

These brackets may be mounted on each side of the pedestal.

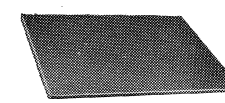
They are slotted to match the Tapped holes in the sides of the pedestal and may be adjusted to any height.



Cat. No.	To Fit Pedestal	Overall Size	Net Price Per Pair
CB-24	PD-224	2½" x 2 31/32" x 18 13/16"	**$4.20**
CB-34	PD-234	2½" x 2 31/32" x 28 13/16"	**5.80**

SHELVES

These shelves are drilled for assembly with Mounting Brackets CB-24 and CB-34. Both shelves are 17½" wide and ⅝" high.



Cat. No.	To Fit Brackets	For Pedestal	Depth	Net Price
SS-24	CB-24	PD-224	22¾"	**$4.60**
SS-34	CB-34	PD-234	32¾"	**6.40**

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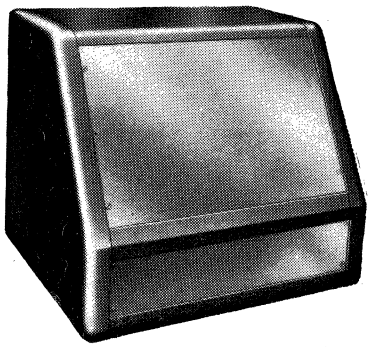
PAR-METAL MODULAR CONSOLE ASSEMBLIES

DESK PANEL CABINETS

The desk control cabinets shown below are ideal **for use in the laboratory, for test equipment** and **other industrial applications.** Each cabinet section is made from 1/16" sheet steel, rigidly welded together—ready for use without a multiplicity of clips, studs, nuts and other fastening devices.

Cabinets are regularly supplied with full hinged ventilated doors at the back (except Series LS-101, etc.). Tapped holes are also provided for mounting standard 19" wide panels; panels (blank or ventilated) up to 15¾" high are optional at the same price.

STANDARD FINISH: All panels are supplied in light grey hammertone enamel with frame in dark grey hammertone enamel. For complete list of optional finishes at the same price, please refer to Par-Metal Page 9.



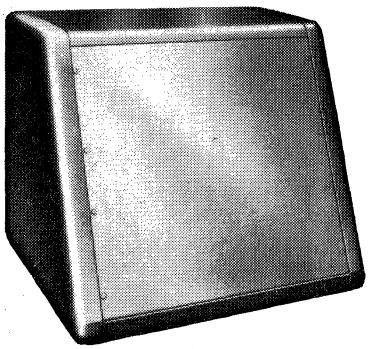
"CX" SERIES

DUAL PANEL DESK CONTROL CABINETS

On Series "CX" cabinets, the upper panel is 12¼" high, and is sloped at an angle of 30°; the lower vertical panel is 3½" high. A hinged removable door is mounted on the back, with the hinges at the bottom for easy access to the interior. The door is louvered for efficient ventilation, and held closed with a push-button type spring catch. In double, triple and quad unit cabinets individual doors are used on each unit.

The bottom of the cabinet has a removable panel size 15¾" x 19" for each unit. All panels supplied are the formed type 19" wide (see Par-Metal Page 19). Standard aluminum or steel rack panels, ⅛" thick, may be substituted for formed steel panels without additional cost.

Catalog No.	Description	Height	Width	Depth (at bottom)	Depth (at top)	Net Price
CX-101	Single Unit	18⅞"	22"	18⅞"	11⅝"	**$ 70.00**
CX-102	Double Unit	18⅞"	44"	18⅞"	11⅝"	**115.00**
CX-103	Triple Unit	18⅞"	66"	18⅞"	11⅝"	**160.00**
CX-104	Quad Unit	18⅞"	88"	18⅞"	11⅝"	**200.00**



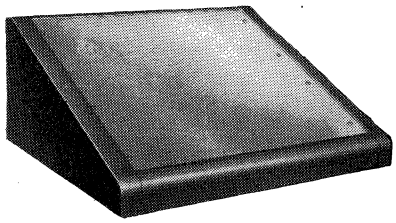
"HS" SERIES

HIGH SLOPE PANEL DESK CABINETS

On Series "HS" cabinets, the front panel size is 17½" x 19", and is sloped at an angle of 23°. A hinged removable door is mounted on the back, with the hinges at the bottom for easy access to the interior. The door is adequately louvered, and held closed with a push-button type spring catch. In double, triple and quad units, individual doors are used on each unit.

The bottom of the cabinet has a removable panel size 15¾" x 19" for each unit. All panels supplied are the formed type 19" wide (see Par-Metal Page 19). Standard aluminum or steel rack panels, ⅛" thick, may be substituted for formed steel panels without additional cost.

Catalog No.	Description	Height	Width	Depth (at bottom)	Depth (at top)	Net Price
HS-101	Single Unit	18⅞"	22"	18⅞"	11⅝"	**$ 66.50**
HS-102	Double Unit	18⅞"	44"	18⅞"	11⅝"	**110.00**
HS-103	Triple Unit	18⅞"	66"	18⅞"	11⅝"	**150.00**
HS-104	Quad Unit	18⅞"	88"	18⅞"	11⅝"	**190.00**

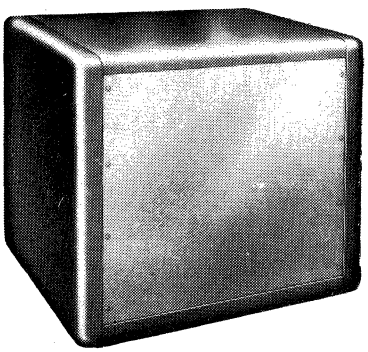


"LS" SERIES

LOW SLOPE PANEL DESK CABINETS

On Series "LS" cabinets, the front panel is 17½" x 19", and slopes upward at an angle of 23°. The bottom has a removable panel size, 15¾" x 19". Standard aluminum or steel rack panels, ⅛" thick, may be substituted for the formed steel panels regularly supplied at no additional cost.

Catalog No.	Description	Height	Width	Depth	Net Price
LS-101	Single Unit	9⅛"	22"	18⅞"	**$ 40.00**
LS-102	Double Unit	9⅛"	44"	18⅞"	**70.00**
LS-103	Triple Unit	9⅛"	66"	18⅞"	**100.00**
LS-104	Quad Unit	9⅛"	88"	18⅞"	**130.00**



"VF" SERIES

VERTICAL DESK PANEL CABINETS

On Series "VF" cabinets, the vertical front panel, the top panel, and the bottom panel are removable. All have the same size, 15¾" x 19". A hinged removable door is mounted on the back, adequately ventilated with hinges at the bottom for easy access to the interior. The door is held closed with a push-button spring catch; in double, triple and quad units, individual doors are used on each unit.

All panels supplied are the formed type 19" wide (see Par-Metal Page 19). Standard aluminum or steel panels, ⅛" thick, may be substituted for formed steel panels without additional cost.

Catalog No.	Description	Height	Width	Depth	Net Price
VF-101	Single Unit	18⅞"	22"	18⅞"	**$ 55.00**
VF-102	Double Unit	18⅞"	44"	18⅞"	**100.00**
VF-103	Triple Unit	18⅞"	66"	18⅞"	**145.00**
VF-104	Quad Unit	18⅞"	88"	18⅞"	**185.00**

Complete dimensional information on Desk Panel Cabinet Racks including explanatory drawing of side section is available in our Catalog 63. Kindly write directly to home office for personalized and interested engineering assistance.

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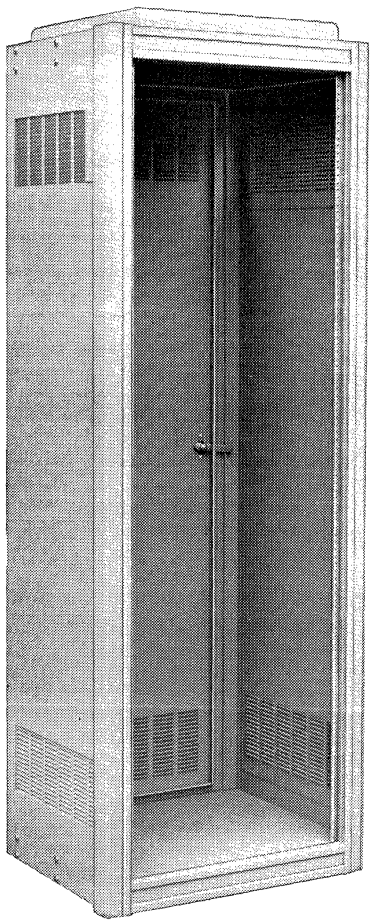
PAR-METAL TYPE "A" RELAY RACKS

DELUXE TYPE—FOR 19" WIDE PANELS



"ER" SERIES
WITH REAR DOOR ONLY

CABINET: The entire cabinet is made from 1/16" sheet steel. The sides are adequately ventilated with "venetian" type louvres similar to our modular cabinet racks. The vertical corner trims and formed mouldings at top and bottom are designed to effect a distinctive frame around the front of the rack. Racks are shipped **"knocked down"** for easy assembly.

CORNER TRIMS: All front vertical corner and joining trims are narrow type (do not overlap panels) to permit installation of sliding shelves, drawers, tables, etc.

PANEL MOUNTING: Angle irons are 7/64" thick steel, holes are accurately drilled and tapped 10-32 thread for all types of panels.

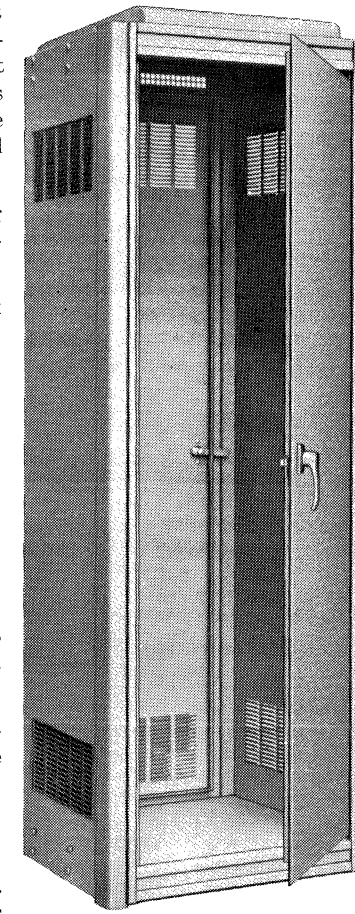
HARDWARE: Doors are the same as our universal racks. **"Series ER-225A"** racks are equipped with "automobile" type non-locking handles on rear doors. On **"Series FD-225A"** racks, similar handles with key locks are used on both front and rear doors. Hinges are the "slip-joint" type so that doors may be easily removed.

FINISH: Blue grey wrinkle finish is standard. Black wrinkle enamel or grey hammertone enamel is also available without extra charge if so specified on your order.

ROLLER TRUCK: Use either No. RT-412 or HD-412 for all racks listed on this page; roller trucks are listed on **Par-Metal Page 17.**

PANELS: Panels 19" wide to fit these racks are listed on **Par-Metal Pages 18 and 19.**

SHELVES: For Series ER-223-A Racks use shelf No. ER-2212 listed on **Par-Metal Page 21.** To install shelves in Series FD-225A, it is recommended that Vertical Side Supports, Brackets and Shelves listed on **Par-Metal Page 7** be used.

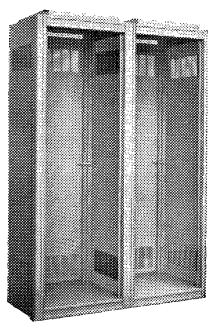


"FD" SERIES
WITH FRONT AND
REAR DOOR

Catalog No.	Doors	Overall Dimensions	Panel Space	Clear Inside Width (Front)	Clear Inside Width (Rear)	Clear Inside Depth	Shipping Wt. Lbs.	Ne Pri
ER-223-A	Rear only	43¼x22x18"	36¾x19"	**17⅝"	19"	16¾"	90	**$ 52.2**
ER-225-A	Rear only	67¾x22x18"	61¼x19"	**17⅝"	19"	16¾"	120	**64.3**
ER-227-A	Rear only	83½x22x18"	77 x19"	**17⅝"	19"	16¾"	140	**77.7**
FD-223-A	Front & Rear	43¼x22x18"	36¾x19"	19⅛"	19"	*16"	110	**66.9**
FD-225-A	Front & Rear	67¾x22x18"	61¼x19"	19⅛"	19"	*16"	150	**83.1**
FD-227-A	Front & Rear	83½x22x18"	77 x19"	19⅛"	19"	*16"	175	**103.9**

*clearance between front and rear doors. **between panel mounting angles.

MULTI-RACK CABINET ASSEMBLIES



MULTI-RACK ASSEMBLY

MULTI-RACK ASSEMBLIES: Both **Series "ER"** and **"FD"** racks may be s up in rows as shown. The use of "venetian type" louvers provides a flat exteri surface on the sides of the racks; separate side plates with welded screw stu inserted at top and bottom of adjacent sides simplifies the assembly — no scre drivers or wrenches are needed. Vertical joining trims overlap the joint betwe racks on the sketch.

SERIES "FD" RACKS: This series with front and rear doors has adjustat panel mounting angles, which may be located at any distance from front rear of rack. VERTICAL SIDE SUPPORTS listed on **Par-Metal Page 7** w fit into these racks.

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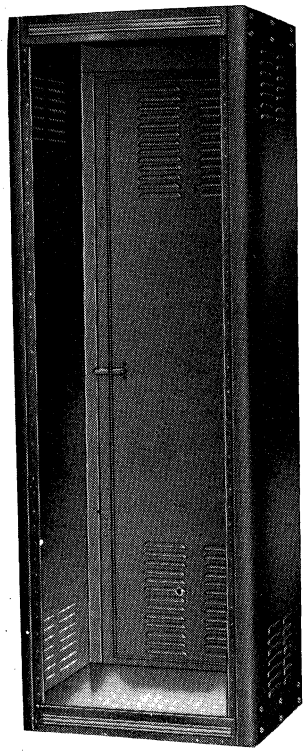
PAR-METAL TYPE "A" RELAY RACKS

ROUNDED CORNER TYPE—FOR 19" WIDE PANELS



"ER" SERIES
WITH REAR DOOR ONLY

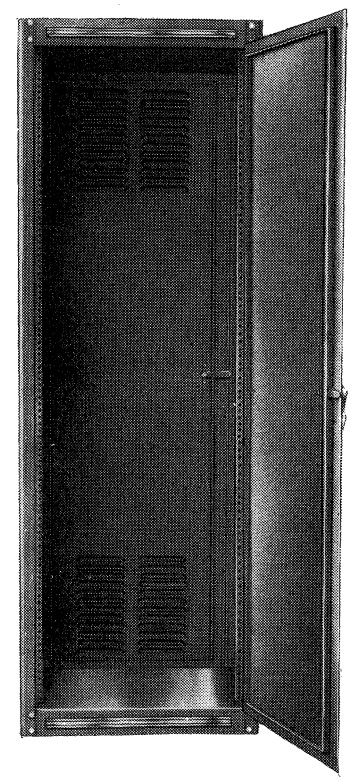
THESE RACKS ARE SIMILAR in construction to our Series ER-225A Racks. They provide a combination of standard functional design and superior construction at a modest price. The vertical front corners are nicely rounded, and the top and bottom are trimmed with chrome finished mouldings. The panels fit into a recess, so that the edges are not exposed.

CABINET: Entire cabinet is constructed of 1/16" thick cold-rolled steel. These racks are shipped "knocked-down" with necessary bolts for easy assembly. Screws for mounting panels are supplied.

PANEL MOUNTING: Angle irons are 7/64" thick steel, holes are accurately drilled and tapped 10-32 thread for all types of panels.

HARDWARE: Doors are of same design as our universal racks. "SERIES ER-215A" racks are equipped with "automobile" type non-locking handles on rear doors. On "SERIES FD-215A" racks, similar handles with key locks are used on both front and rear doors. Hinges are the "slip-joint" type so that doors may be easily removed.

FRONT DOOR RACKS: On Series FD-215A racks, the front panel mounting angles are recessed 2" deep to allow clearance for dials, etc. The clear inside depth behind the panel is 15".



"FD" SERIES
WITH FRONT AND REAR DOOR

SPECIFICATIONS

Catalog No.	Doors	Overall Dimensions	Panel Space	Clear Inside Depth	Clear Inside Width (Rear)	Clear Inside Width (Front)	Shipping Wt. Lbs.	Net Price
ER-213-A	Rear only	42 x22x18"	36¾x19"	16¾"	19"	**17⅝"	85	$37.20
ER-215-A	Rear only	66½x22x18"	61¼x19"	16¾"	19"	**17⅝"	110	54.90
ER-217-A	Rear only	82¼x22x18"	77 x19"	16¾"	19"	**17⅝"	130	66.30
FD-215-A	Front & Rear	66½x22x18"	61¼x19"	*15"	19"	19⅛"	130	73.92
FD-217-A	Front & Rear	82¼x22x18"	77 x19"	*15"	19"	19⅛"	155	89.10

*clearance behind panel. **between panel mounting angles.

FINISH: Blue grey wrinkle finish is standard. Black wrinkle enamel or grey hammertone enamel is also available without extra change if so specified on your order.

PANELS: Panels 19" wide to fit these racks are listed on **Par-Metal Pages 18 and 19.**

ROLLER TRUCK: No. RT-412 will fit all racks listed on this page. Roller trucks are listed on **Par-Metal Page 17.**

SHELVES: For series ER-215A racks, use shelf No. ER-2212. For series FD-215A racks, use shelf No. R-2225. Both shelves are listed on **Par-Metal Page 21.**

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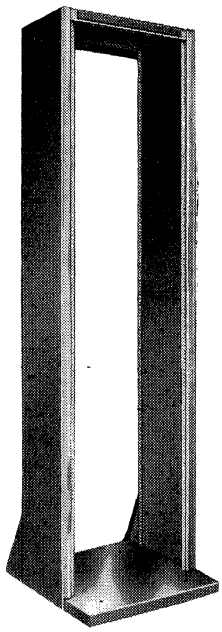
PAR-METAL CHANNEL RELAY RACKS

DELUXE TYPE RACKS for 19" and 24" wide panels



No. RR-197

These DeLuxe Channel Type Relay Racks **are made from 7/64" thick steel,** and extend the utility and applicability of the standard channel relay rack.

The panel space is 77" x 19", to match a standard height used on enclosed cabinet racks. The upright channels have been modified to an 8" overall depth, which when combined with a formed recess for the panels, greatly increases the rigidity of the rack. The edges of the panels are not exposed.

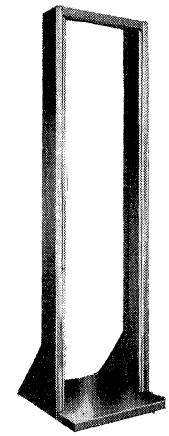
The rack is drilled and tapped for 10/32 screws at **both front and back,** permitting the optional use of either panels, or dish type chassis mounted to the racks at both front and back. The **full** panel space of 77" x 19" is available on the back, the same as the front.

Clear distance between panel mounting flanges (from front to back) is 6-3/4". It is practicable to use this 6" depth as an enclosure for dish type chassis listed on **Par-Metal Page 21.**

When such chassis are mounted at the back, the addition of standard or hinged type panels (see **Par-Metal 19**) will make a rack enclosure with a clear depth of 6-3/4".

The top cross-brace is provided with a grille for ventilation where needed. Two holes are located on each side for bolting racks together in rows; there are no projecting screw heads on the sides. Top brace and vertical channel members are securely welded together. Base and rear braces are shipped knocked down, with all necessary bolts for assembly. Panel mounting screws are also supplied.

FINISH: Standard finish is black ripple enamel. Blue grey wrinkle or grey hammertone is also available without extra charge if so specified on your order.



No. RX-195

STANDARD TYPE RACKS for 19" wide panels

Racks are sturdily constructed from 7/64" pressed steel, and are braced at the back as illustrated. They have been improved by a formed recess for the panels; edges of panels are no longer exposed, and rigidity of the rack has been greatly increased. Two vertical members and top crossbrace are securely WELDED TOGETHER.

Panel mounting holes are accurately drilled for standard rack panels, tapped for 10-32 machine screws at the front only. An ample supply of panel mounting screws are supplied.

Upright channels are 3" deep with flanges 1⅛" wide. Clearance between uprights is 17¾". Base is 20⅞" deep and extends both front and rear, and is 21" wide for either unit.

FINISH: Standard finish is black wrinkle. For blue grey wrinkle or grey hammertone enamel add 10%.

CAT. NO.	OVERALL HEIGHT	PANEL HEIGHT	SHP. WT. LBS.	NET PRICE
RX-195	74 7/16"	71¾"	55	$25.5
RX-193	39 7/16"	36¾"	45	21.0

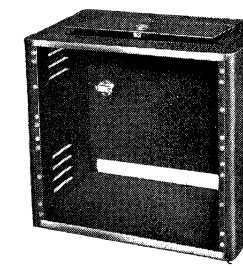
Catalog Number	Overall Dimensions Height	Width	Depth	Panel Space	Clearance between Uprights	Clear Depth in Channel	Shipping Weight	Net Price
RR-194	64-5/8"	21-1/8"	26"	61-1/4"x19"	17-7/8"	6-3/4" inside	88 lbs.	$38.50
RR-196	73-3/8"	21-1/8"	26"	70" x19"	17-7/8"	6-3/4" inside	95 lbs.	41.00
RR-197	80-3/8"	21-1/8"	26"	77" x19"	17-7/8"	6-3/4" inside	102 lbs.	43.50
RR-1922	64-5/8"	26-1/8"	26"	61-1/4"x24"	22-7/8"	6-3/4" inside	100 lbs.	49.00
RR-1923	73-7/8"	26-1/8"	26"	70" x24"	22-7/8"	6-3/4" inside	105 lbs.	52.50
RR-1924	80-3/8"	26-1/8"	26"	77" x24"	22-7/8"	6-3/4" inside	112 lbs.	55.00

DESK PANEL CABINET RACKS For Standard 19" Rack Panels

In keeping with our other De Luxe racks, the vertical front corners are rounded and the top and bottom are trimmed with chrome finished mouldings. Panels fit into a recess, so that the edges are not exposed. Panel mounting holes are accurately drilled on universal centers, for standard rack panels. Holes are tapped for 10/32 machine screws.

They may be used with any chassis up to 13" x 17" in size. All cabinets are rigidly constructed of 1/16" thick cold rolled sheet steel, with all joints electrically welded. Louvres provide ample ventilation through sides and back. Piano type hinges are used on the top doors, which are provided with chrome plated handles. Panel mounting screws and washers are furnished.

FINISH: BLACK RIPPLE ENAMEL is standard. Blue grey wrinkle or grey hammertone is also available without extra charge if so specified on your order.



No. DL-1713

PANELS: Rack panels to fit these racks are listed on **Par-Metal Pages 18 and 19.**

(With door in top only) (not illustrated)

Catalog No.	Cabinet Size	Available Panel Space	Shp.Wt. Lbs.	Net Price
DL-128	10½"x21½"x15" deep	8¾"x19"	28	$16.20
DL-1210	12¼"x21½"x15" deep	10½"x19"	29	17.70
DL-1225	14" x21½"x15" deep	12¼"x19"	30	19.20
DL-1413	15¾"x21½"x15" deep	14" x19"	32	21.00

RACK SHELF: Rack shelf No. R-2128 listed on **Par Met Page 21** is designed to fit these racks.

(With door in top and door on rear panel)

Catalog No.	Cabinet Size	Available Panel Space	Shp.Wt. Lbs.	Ne Pric
DL-1713	19¼"x21½"x15" deep	17½"x19"	38	$22.
DL-2613	28" x21½"x15" deep	26¼"x19"	48	26.
DL-3513	36¾"x21½"x15" deep	35" x19"	58	29.

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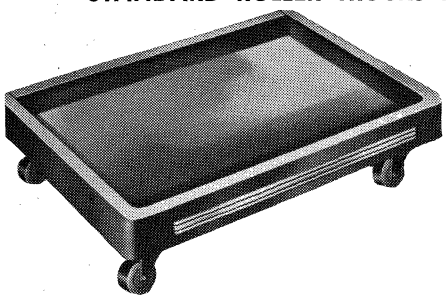
PAR-METAL — ROLLER TRUCKS

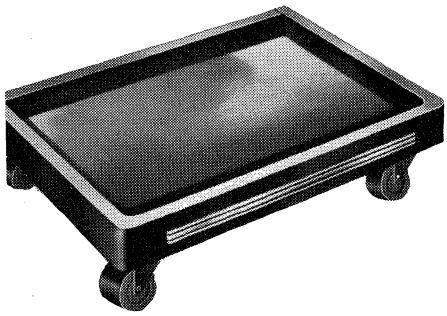
STANDARD ROLLER TRUCKS FOR RACKS



These trucks are especially designed for use on our Cabinet racks, and have rounded corners at the front with a chrome finished moulding. Overall size is about 2" wider than the racks for better distribution of weight. Casters are ball-bearing swivel type with 2" rubber composition wheels. **FINISH: BLUE GREY RIPPLE** is standard. Also available in Grey Hammertone at an additional cost of 10%. Shipping weight on all sizes is 22 lbs.

Catalog No.	Will Fit Rack No.	Par-Metal Rack Page No.	Net Price
RT-410	DL-1713, 2613, 3513	17	$10.68
RT-412	ER-213, ER, FD-215, 217-A	15	12.87
	ER-223, ER-225, ER-227-A	14	
	FD-223, 225, 227-A	15	
	PX, FX-3718, 4818, 6718	6	
	PX, FX-7718, 8418	6	
RT-420	PX, FX-4824, 6724, 7724, 8424	6	17.64

HEAVY DUTY ROLLER TRUCKS

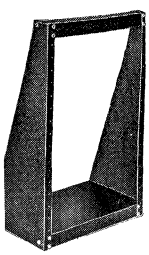


Heavy duty roller trucks are similar in size and design to the standard units, except that they have reinforced bottoms, and are equipped with heavy-duty swivel type casters, and 3" diam. wheels. Recommended for use on all 24" deep racks, and on other racks where necessary. 3" casters have a load capacity of 225 lbs. per wheel. **FINISH: BLUE GREY RIPPLE** is standard; Black Ripple is optional without extra charge. Also available in Grey Hammertone or primer coat only at an additional cost of 10%. Shipping weight is 35 lbs.

Catalog No.	Will Fit Rack No.	Par-Metal Rack Page No.	Net Price
HD-412	ER-223, ER-225, ER-227-A	15	$22.00
	FD-223, FD-225, FD-227-A	15	
	PX, FX-3718, 4818, 6718	6	
	PX, FX-7718, 8418	6	
HD-420	PX, FX-4824, 6724	6	25.40
	PX, FX-7724, 8424	6	
*HD-425	PL, FL, PR, FR-4818, 6718	4, 5	25.60
	PL, FL, PR, FR-7718, 8418	4, 5	
*HD-426	PL, FL, PR, FR-4824, 6724,	4, 5	28.30
	PL, FL, PR, FR-7724, 8424	4, 5	
HD-427	PX, FX-4827, 6727,	6	28.60
	PX, FX-7727, 8427	6	
*HD-432	PL, FL, PR, FR-4827, 6727	4, 5	31.10
	PL, FL, PR, FR-7727, 8427	4, 5	
HD-434	PX, FX-6733, 7733, 8433	6	35.50
*HD-438	PL, FL, PR, FR-6733, 7733	4, 5	38.60
	PL, FL, PR, FR-8433	4, 5	

*For racks with detachable side panels attached to racks.

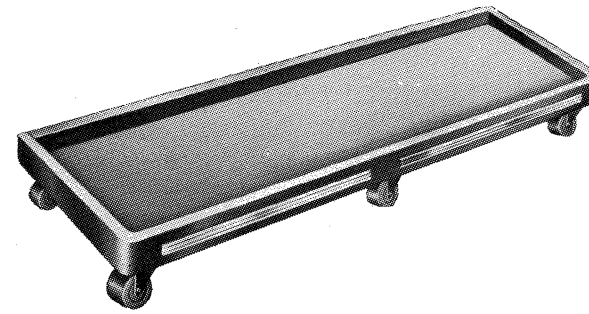
TABLE TYPE RACKS



THESE RACKS are intended for table mounting and are useful where a regular floor type heavy duty rack is not required. The base is constructed of one piece, similar to a chassis. Mounting holes are accurately drilled on universal centers, tapped for 10/32 screws. They are finished in black ripple enamel and shipped "knocked down" with all necessary screws.

Cat. No.	Overall Size	Panel Space	Shp. Wt. Lbs.	Net Price
TR-2520	24x21x12"	21x19"	17	$8.70
TR-3220	31x21x12"	28x19"	20	9.90

HEAVY DUTY DOUBLE WIDTH ROLLER TRUCKS



It is often necessary to mount groups of 2 of our enclosed racks on roller trucks. The truck illustrated above is used for that purpose. They are similar to our heavy duty trucks except that they have been reinforced with heavier steel because of their greater length.

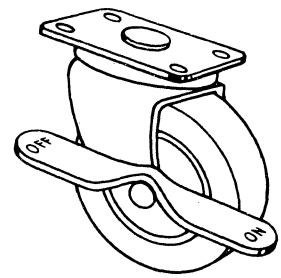
They are supplied with 6 heavy-duty swivel type casters with 3" diameter wheels. These casters have a load capacity of 225 lbs. per wheel.

FINISH: BLUE GREY RIPPLE is standard; Black Ripple is optional without extra charge. Also available in Grey Hammertone or primer coat only at an additional cost of 10%.

Catalog No.	Will Fit Rack No.	Par-Metal Rack Page No.	Net Price
HD-412-2	ER-223, ER-225, ER-227-A	15	$44.00
	FD-223, FD-225, FD-227-A	15	
	PX, FX-3718, 4818, 6718	6	
	PX, FX-7718, 8418	6	
HD-420-2	PX, FX-4824, 6724	6	50.80
	PX, FX-7724, 8424	6	
*HD-425-2	PL, FL, PR, FR-4818, 6718	4, 5	51.20
	PL, FL, PR, FR-7718, 8418	4, 5	
*HD-426-2	PL, FL, PR, FR-4824, 6724	4, 5	56.60
	PL, FL, PR, FR-7724, 8424	4, 5	
HD-427-2	PX, FX-4827, 6727	6	57.20
	PX, FX-7727, 8427	6	
*HD-432-2	PL, FL, PR, FR-4827, 6727	4, 5	62.20
	PL, FL, PR, FR-7727, 8427	4, 5	
HD-434-2	PX, FX-6733, 7733, 8433	6	71.00
*HD-438-2	PL, FL, PR, FR-6733, 7733	4, 5	77.20
	PL, FL, PR, FR-8433	4, 5	

*For racks with detachable side panels attached to racks.

BRAKE TYPE CASTERS



During the past few years, the use of brakes on roller trucks has become desirable both as a utility and safety measure. This is particularly true where racks have been loaded to capacity with heavy equipment.

We now have available foot brake type casters as illustrated for use on all heavy duty roller trucks. Brake type casters are supplied to replace the **two front casters** of single roller trucks and to replace the **three front casters** of double roller trucks. Additional cost **per roller truck** is as follows:

For single units (HD-412, etc.).....$ 8.50
For double units (HD-412-2, etc.)..... 12.75

WE CAN SUPPLY ON A "SEMI-CUSTOM" BASIS pressed steel roller trucks for our cabinet racks up to 36" wide and 88" long. They can be equipped with 4" dia. wheel casters and necessary foot brakes. The extra width is used in front of the rack assembly to provide stability where extension shelves and other accessories are mounted on the front of the racks. Drawings and prices available upon request.

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PAR-METAL RACK PANELS 19"-24"-30" WIDE

All panels on this page are uniformly slotted to fit modular cabinet racks and all type "A" racks. They will also fit any other rack equipment having multiple 1¼"- ½" spacings or what is commonly termed as W.E. spacing.

In addition to finishes listed below, Primer Coat is optional at the same prices as Grey Hammertone. Other finishes listed on Par-Metal Page 4 are also available.

STANDARD STEEL BLANK PANELS
1/8" STEEL

Standard flat panels made from ⅛" thick steel, either 19", 24", or 30" wide.

19" WIDE PANELS — ⅛" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
6600	G-6600	$ .81	1¾"	H-6600	$ .87
6601	G-6601	1.02	3½"	H-6601	1.11
6602	G-6602	1.29	5¼"	H-6602	1.41
6603	G-6603	1.56	7"	H-6603	1.71
6604	G-6604	1.86	8¾"	H-6604	2.04
6605	G-6605	2.10	10½"	H-6605	2.31
6606	G-6606	2.49	12¼"	H-6606	2.73
6607	G-6607	2.89	14"	H-6607	3.18
6608	G-6608	3.24	15¾"	H-6608	3.54
6609	G-6609	3.60	17½"	H-6609	3.96
6610	G-6610	3.98	19¼"	H-6610	4.38
6611	G-6611	4.29	21"	H-6611	4.71

24" WIDE PANELS — ⅛" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
6201	G-6201	$1.38	3½"	H-6201	$1.52
6202	G-6202	1.77	5¼"	H-6202	1.95
6203	G-6203	2.16	7"	H-6203	2.38
6204	G-6204	2.76	8¾"	H-6204	3.04
6205	G-6205	3.15	10½"	H-6205	3.47
6206	G-6206	3.57	12¼"	H-6206	3.93
6207	G-6207	4.35	14"	H-6207	4.79
6208	G-6208	4.95	15¾"	H-6208	5.45
6209	G-6209	5.40	17½"	H-6209	5.94
6210	G-6210	6.09	19¼"	H-6210	6.70
6211	G-6211	6.60	21"	H-6211	7.26

30" WIDE PANELS — ⅛" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
6301	G-6301	$2.10	3½"	H-6301	$2.31
6302	G-6302	2.55	5¼"	H-6302	2.81
6303	G-6303	3.00	7"	H-6303	3.30
6304	G-6304	3.60	8¾"	H-6304	3.96
6305	G-6305	3.99	10½"	H-6305	4.39
6306	G-6306	4.71	12¼"	H-6306	5.18
6307	G-6307	5.37	14"	H-6307	5.91
6308	G-6308	6.00	15¾"	H-6308	6.60
6309	G-6309	6.72	17½"	H-6309	7.39
6310	G-6310	7.44	19¼"	H-6310	8.18
6311	G-6311	8.16	21"	H-6311	8.98

STANDARD ALUMINUM BLANK PANELS

These aluminum panels are made from No. 3003-H14 aluminum alloy. Panels 24" or 30" wide, made from 3/16" aluminum, are available on order.

19" WIDE PANELS — ⅛" ALUMINUM

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
6675	G-6675	$ .96	1¾"	H-6675	$1.05
6676	G-6676	1.35	3½"	H-6676	1.47
6677	G-6677	1.86	5¼"	H-6677	2.04
6678	G-6678	2.37	7"	H-6678	2.61
6679	G-6679	2.88	8¾"	H-6679	3.15
6680	G-6680	3.42	10½"	H-6680	3.75
6681	G-6681	3.89	12¼"	H-6681	4.26
6682	G-6682	4.56	14"	H-6682	5.01
6683	G-6683	5.13	15¾"	H-6683	5.64
6684	G-6684	5.60	17½"	H-6684	6.15
6685	G-6685	6.27	19¼"	H-6685	6.90
6686	G-6686	6.87	21"	H-6686	7.56

24" WIDE PANELS — ⅛" ALUMINUM

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
6275	G-6275	$1.80	1¾"	H-6275	$1.98
6276	G-6276	2.28	3½"	H-6276	2.51
6277	G-6277	3.00	5¼"	H-6277	3.30
6278	G-6278	3.81	7"	H-6278	4.19
6279	G-6279	4.74	8¾"	H-6279	5.21
6280	G-6280	5.73	10½"	H-6280	6.30
6281	G-6281	6.66	12¼"	H-6281	7.33
6282	G-6282	7.62	14"	H-6282	8.38
6283	G-6283	8.58	15¾"	H-6283	9.44
6284	G-6284	9.54	17½"	H-6284	10.49
6285	G-6285	10.47	19¼"	H-6285	11.52
6286	G-6286	11.40	21"	H-6286	12.54

30" WIDE PANELS — ⅛" ALUMINUM

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
6376	G-6376	$2.73	3½"	H-6376	$3.00
6377	G-6377	3.96	5¼"	H-6377	4.36
6378	G-6378	5.19	7"	H-6378	5.71
6379	G-6379	6.42	8¾"	H-6379	7.06
6380	G-6380	7.65	10½"	H-6380	8.42
6381	G-6381	8.88	12¼"	H-6381	9.77
6382	G-6382	10.11	14"	H-6382	11.12
6383	G-6383	11.34	15¾"	H-6383	12.47
6384	G-6384	12.57	17½"	H-6384	13.83
6385	G-6385	13.80	19¼"	H-6385	15.18
6386	G-6386	15.00	21"	H-6386	16.50

19" WIDE PANELS — 3/16" ALUMINUM

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
6675-3	G-6675-3	$1.65	1¾"	H-6675-3	$1.74
6676-3	G-6676-3	2.28	3½"	H-6676-3	2.40
6677-3	G-6677-3	3.36	5¼"	H-6677-3	3.54
6678-3	G-6678-3	4.14	7"	H-6678-3	4.38
6679-3	G-6679-3	5.16	8¾"	H-6679-3	5.43
6680-3	G-6680-3	6.18	10½"	H-6680-3	6.51
6681-3	G-6681-3	7.20	12¼"	H-6681-3	7.59
6682-3	G-6682-3	8.22	14"	H-6682-3	8.64
6683-3	G-6683-3	9.30	15¾"	H-6683-3	9.78
6684-4	G-6684-3	10.35	17½"	H-6684-3	10.89
6685-3	G-6685-3	11.40	19¼"	H-6685-3	12.00
6686-3	G-6686-3	12.60	21"	H-6686-3	13.26

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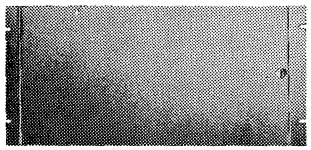
PAR-METAL RACK PANELS 19" & 24" WIDE

In addition to finishes listed below, Primer Coat is optional at the same prices as Grey Hammertone. Other finishes listed on Par-Metal Page 4 are also available.

SIDE HINGED BLANK PANELS 1/8" STEEL 19" WIDE

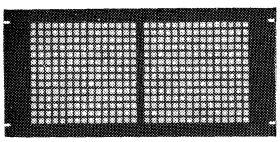


These door panels are made from 1/8" steel, hinged at the sides with a cowl type fastener to hold the door closed.

May be mounted on racks with hinges on right or left side. Clear opening (width) is 15¾".

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
HP-350	GP-350	$3.15	3½"	HA-350	$3.37
HP-525	GP-525	3.27	5¼"	HA-525	3.60
HP-700	GP-700	3.57	7"	HA-700	3.93
HP-875	GP-875	3.84	8¾"	HA-875	4.22
HP-1050	GP-1050	4.14	10½"	HA-1050	4.56
HP-1225	GP-1225	4.41	12¼"	HA-1225	4.85
HP-1400	GP-1400	4.77	14"	HA-1400	5.25
HP-1750	GP-1750	6.90	17½"	HA-1750	7.59
HP-2100	GP-2100	7.50	21"	HA-2100	8.25

GRILLE PANELS 19" WIDE — 1/8" STEEL

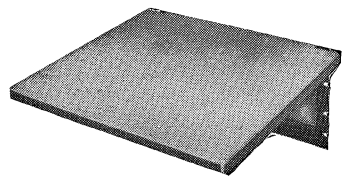


This modern type ventilating grille panel is stamped into the panel itself; it is not a pieced assembly.

Black Wrinkle Cat. No.	Grey Wrinkle Cat. No.	Net Price	Panel Size	Grille Size	Grey Hammertone Cat. No.	Grey Hammertone Net Price
P-661	G-661	$2.94	5¼"	3⅜x14⅜"	H-661	$3.23
P-662	G-662	3.24	7"	4⅞x14⅜"	H-662	3.56
P-663	G-663	3.87	8¾"	6⅞x14⅜"	H-663	4.26
P-664	G-664	3.54	8¾"	*3⅞x14⅜"	H-664	3.89
P-665	G-665	4.29	10½"	8⅜x14⅜"	H-665	4.72
P-666	G-666	4.02	10½"	*5⅞x14⅜"	H-666	4.42
P-667	G-667	4.35	12¼"	*7⅜x14⅜"	H-667	4.79

* Allows 3½" space at bottom for chassis mounting.

STANDARD DESK PANELS

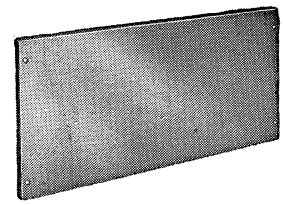


hese standard tables are igidly made of 1/16" thick urniture steel. The round- d front corners are of eamless construction and ie flanges of the shelf are olded in to provide smooth lges underneath.

hey are securely mounted to regular 1/8" steel panels, ze 10½ x 19". They may be obtained in two sizes and nishes as listed below. The tables are 22" wide to give ull working space across the front of the racks when ounted in place. Shipping weight is 25 lbs.

Cat. No.	Width	Depth	Finish	Net Price
BT-2216	22"	16"	Black enamel	$15.45
GT-2216	22"	16"	Blue Grey enamel	15.45
HT-2216	22"	16"	Grey Hammertone	17.00
BT-2220	22"	20"	Black enamel	16.95
GT-2220	22"	20"	Blue Grey enamel	16.95
HT-2220	22"	20"	Grey Hammertone	18.65

FORMED BLANK PANELS



These panels are made from 1/16" thick steel, with formed edges to make an overall thickness of 7/16". They are made 19" and 24" wide, with mounting holes on standard centers to fit relay racks.

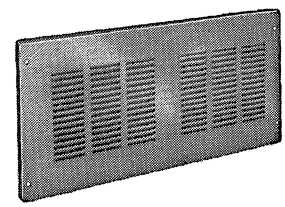
19" WIDE FORMED PANELS — 1/16" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
P-600	G-600	$1.29	1¾"	H-600	$1.42
P-601	G-601	1.38	3½"	H-601	1.52
P-602	G-602	1.56	5¼"	H-602	1.72
P-603	G-603	1.83	7"	H-603	2.01
P-604	G-604	2.19	8¾"	H-604	2.39
P-605	G-605	2.46	10½"	H-605	2.71
P-606	G-606	2.88	12¼"	H-606	3.17
P-607	G-607	3.24	14"	H-607	3.56
P-608	G-608	3.72	15¾"	H-608	4.09
P-609	G-609	4.11	17½"	H-609	4.52
P-610	G-610	4.53	19¼"	H-610	4.98
P-611	G-611	4.95	21"	H-611	5.45

24" WIDE FORMED PANELS — 1/16" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
P-641	G-641	$1.95	3½"	H-641	$2.15
P-642	G-642	2.37	5¼"	H-642	2.61
P-643	G-643	2.85	7"	H-643	3.14
P-644	G-644	3.42	8¾"	H-644	3.76
P-645	G-645	3.78	10½"	H-645	4.16
P-646	G-646	4.14	12¼"	H-646	4.55
P-647	G-647	4.62	14"	H-647	5.08
P-648	G-648	5.22	15¾"	H-648	5.74
P-649	G-649	5.82	17½"	H-649	6.40
P-650	G-650	6.45	19¼"	H-650	7.10
P-651	G-651	7.02	21"	H-651	7.72

19" WIDE FORMED PANELS — 1/16" STEEL VENTILATED TYPE



These are standard formed panels with louvre type ventilation as shown above.

Same panels can be supplied in 24" width if required.

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
PV-603	GV-603	$3.45	7"	HV-603	$3.80
PV-604	GV-604	3.90	8¾"	HV-604	4.29
PV-605	GV-605	4.29	10½"	HV-605	4.72
PV-606	GV-606	4.86	12¼"	HV-606	5.35
PV-608	GV-608	5.70	15¾"	HV-608	6.27
PV-611	GV-611	7.56	21"	HV-611	8.32

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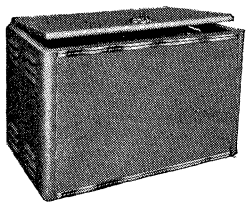
PAR-METAL — DESK CABINETS — AMPLIFIER CHASSIS

DELUXE TYPE CABINETS

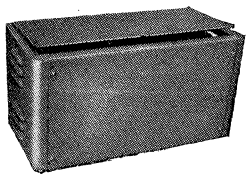


These cabinets make attractive housings for commercial and amateur use. The formed type door, with modern handle, is **hinged at the back** for full access to the interior.

Chrome finished mouldings are mounted on the front at top and bottom. Cabinet has ventilating louvres **on each side**, and full width opening at back for leads, etc. Standard finish is blue grey ripple enamel. Prices do not include chassis which are listed on PAR METAL Page 21.

Catalog No.	Overall Dimensions	Panel Size	For Chassis	Shp. Wt. Lbs.	Net Price
CA-300	9x12⅛x 8"	8½x10"	7x 9x2"	6	$ 7.95
CA-301	9x16⅛x 8"	8½x14"	7x13x2"	7	9.00
CA-302	10x17⅛x11"	9½x15"	10x14x3"	8	12.15
CA-303	10x20⅛x 9"	9½x18"	8x17x3"	11	12.15
CA-304	13x20⅛x12"	12½x18"	10x17x3"	15	13.65

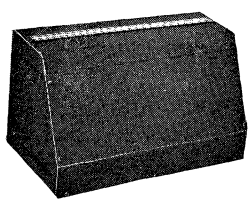
ROUNDED CORNER TYPE CABINETS



Standard type cabinets are similar in design to those listed above. They have **flat type doors**, hinged at back to permit full access to the interior. The vertical front corners are rounded; ventilating louvres are stamped in both sides, and full width opening is provided at the back for leads. Standard finish is blue grey ripple enamel. Prices do not include chassis, which are listed on PAR METAL Page 21.

Catalog No.	Overall Dimensions	Panel Size	For Chassis	Shp. Wt. Lbs.	Net Price
CA-200	8½x10⅛x 8"	8½x 8"	7x 7x2"	6	$ 5.85
CA-201	8½x12⅛x 8"	8½x10"	7x 9x2"	7	6.30
CA-202	8½x16⅛x 8"	8½x14"	7x13x2"	8	7.65
CA-203	9½x17⅛x11"	9½x15"	10x14x3"	11	10.05
CA-204	12½x20⅛x12"	12½x18"	10x17x3"	15	11.85

SLOPING FRONT CABINETS

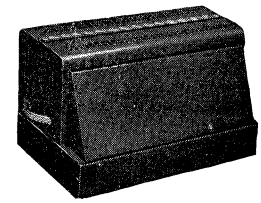


May be readily adapted as instrument cases for use in studios, laboratories, etc.

- Top corner is rounded and trimmed with a chrome moulding, and with the blue grey ripple finish makes a very attractive case.
- A chassis may be mounted to a front panel and removed as a unit.
- Rear of case is ventilated, with an opening for connections.
- Prices do not include chassis, which are listed on PAR METAL Page 21.

Catalog No.	Overall Dimensions	For Chassis	Shp. Wt. Lbs.	Net Price
SF-500	8x 8x 8"	7x 7x2"	6	$ 5.70
SF-501	8x10x 8"	7x 9x2"	7	6.30
SF-502	8x14x 8"	7x13x2"	8	6.75
SF-503	9x18x 8"	7x17x3"	10	8.40
SF-504	12x18x12"	10x17x3"	14	10.20

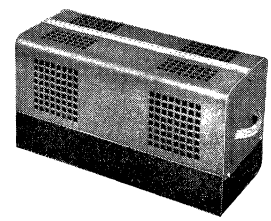
AMPLIFIER FOUNDATION CHASSIS
SLOPING FRONT TYPE



These amplifier foundations are useful where a sloping panel is desirable for mounting meters, etc. This panel is removeable and protrudes 3" from the face of the screen cover. All parts are finished in blue grey ripple enamel, trimmed with a chrome finished moulding and handles at each end. **Chassis are supplied WITH bottom plates.**

Cat. No.	Chassis Size	Screen Cover	Shp. Wt. Lbs.	Net Price
F-10120	10x12x3"	6½" high	11	$ 9.15
F-10170	10x17x3"	6½" high	13	10.80
F-13170	13x17x3"	6½" high	15	11.85

ROUNDED CORNER TYPE

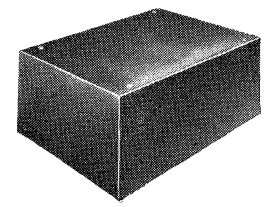


Rounded corners effectively streamline the screen covers of these chassis. Ventilation is obtained through rectangular screen openings. The moulding and handles, finished in chrome with red striping, gives the units a distinctive, modern design.

The screen cover is finished in blue grey ripple enamel to contrast with the black chassis. Chassis are drilled for bottom plates, which are listed on PAR METAL Page 21

Cat. No.	Chassis Size	Depth of Cover	Shp. Wt. Lbs.	Net Price
DF-510	5x10x3"	6"	7	$5.10
DF-615	6x14x3"	6"	8	5.67
DF-717	7x17x3"	6"	9	6.57
DF-1012	10x12x3"	6"	9	6.57
DF-1017	10x17x3"	6"	10	7.35
DF-1317	13x17x3"	6"	12	8.76

STEEL UTILITY CASES



These cases have flat tops and bottom which are removable.

Made from 20 gauge sheet steel, with flanged edges and spot-welded corners. Finished in black ripple enamel.

Cat. No.	Overall Size	Shp. Wt. Lbs.	Net Price	Cat. No.	Overall Size	Shp. Wt. Lbs.	Net Pri
MC-442	4x 4x 2"	1	$1.11	MC-666	6x 6x 6"	3	$2.
MC-453	4x 5x 3"	2	1.32	MC-8101	8x10x10"	7	3.
MC-596	5x 9x 6"	4	2.52	MC-8107	8x10x 7"	6	3.
MC-654	6x 5x 4"	3	1.47	MC-1128	11x12x 8"	9	4.

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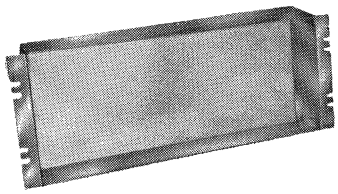
PAR-METAL BLANK CHASSIS BASES

VERTICAL RACK MOUNTING CHASSIS

TO FIT 19" STANDARD RACKS



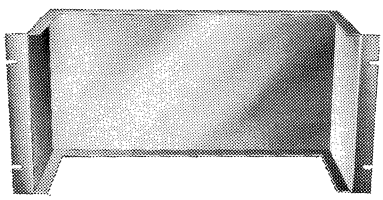
These chassis are fabricated from 1/16" **thick aluminum** with etched finish, or 1/16" **thick steel, zinc** plated. Overall length including mounting flanges is 18¾". They are designed to mount under 19" wide formed panels listed on PAR METAL Page 19. The 4 15/16" height is for use with 5¼" high panels, 6 11/16" for 7" high panels, etc.

Additional slots are provided in chassis side flanges to clear panel attachment screws. Although chassis are 18¾" overall width, they will fit on any relay rack.

ALUMINUM Cat. No.	Net Price	Chassis Dimensions	STEEL Cat. No.	Net Price
AC-402	$3.98	4-15/16"x17"x3"	SC-402	$3.06
AC-403	4.54	6-11/16"x17"x3"	SC-403	3.45
AC-404	5.10	8- 7/16"x17"x3"	SC-404	3.84
AC-405	5.64	10- 3/16"x17"x3"	SC-405	4.23
AC-406	6.30	11-15/16"x17"x3"	SC-406	4.59

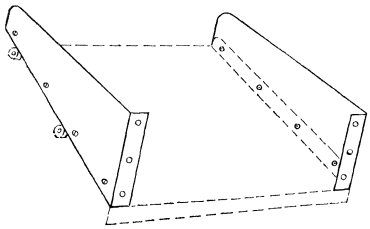
VERTICAL RACK MOUNTING CHASSIS

TO FIT 19" STANDARD RACKS



These chassis are suitable for installation in all cabinet relay racks. They may also be used on Deluxe channel racks listed on PAR-METAL Page 16. Material used is 1/16" aluminum, with corners welded for added rigidity. Etched finish on inside and outside. All chassis are 5¼" deep; overall width is 19"; chassis width inside is 16⅞".

Catalog No.	Height	Shipping Wt. Lbs.	Net Price
AC-430	1¾"	2	$2.70
AC-431	3½"	3	3.09
AC-432	5¼"	3	3.51
AC-433	7"	4	3.90
AC-434	8¾"	5	4.29
AC-435	10½"	5	4.80
AC-436	12¼"	6	5.46
AC-437	14"	7	5.97



PANEL MOUNTING BRACKETS FOR BASIC SLIDE ASSEMBLIES

These brackets are useful for attaching rack panels to the sliding shelves of our series "BS" basic slide assemblies listed on Par-Metal page 11. Special short screws and nuts are supplied for mounting brackets which assures free movement of the shelf after assembly.

Brackets are made from 1/16" steel, zinc plated. Brackets are 6½" high at front, and 3½" at back. Front flange is 5/16" wide. Made in two lengths, for 14" and 20" deep shelf assemblies. Price listed below is for one pair of brackets, with mounting screws and nuts.

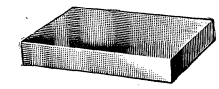
Cat. No.	Length	To Fit Assembly	Net Price
BR-14	14¼"	BS-1980	$2.55 pair
BR-20	20¼"	BS-1940, 2419, 2424	3.45 pair

SHELVES FOR CABINET RACKS

These shelves are designed to fit into the various type "A" enclosed racks listed in this catalog. They are constructed to be mounted inside the rack, with side bolt mounting. All shelves are 1" high, and finished in black ripple enamel. Shipping weight of all shelves is 10 lbs.

Catalog No.	Will Fit Rack No.	Par-Metal Rack Page No.	Shelf Size	Net Price
ER-2112	ER-213, ER-215, ER-217	13	13"x21 15/16"	$3.60
R-2225	FD-215, FD-217	13	12"x21 15/16"	3.60
ER-2212	ER-223, ER-225, ER-227-A	12	15"x21 15/16"	3.60
R-2128	DL-1713, 2613, 3513	14	12"x21 3/16"	2.94

CHASSIS



Stamped from one piece of cold rolled steel zinc-plated, and have four solid sides with welded corners. Bottom edges are flanged in on four sides to provide additional reinforcement, and they are drilled for bottom plates. The chassis are made from #20 gauge steel, except those marked (*) which are stamped from 1/16" steel for heavy-duty use.

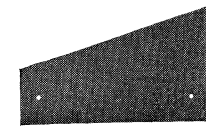
Cat. No. Zinc Plated	Size	Shp. Wt. Lbs.	Net Price
C-4508	5 x 10 x 3"	3	$1.38
C-4510	7 x 7 x 2"	2	1.08
C-4511	7 x 9 x 2"	2	1.29
C-4513	7 x 13 x 2"	3	1.56
C-4515	7 x 17 x 3"	4	1.98
C-4532	8 x 17 x 3"	5	1.98
C-4524	10 x 14 x 3"	5	2.01
C-4526	10 x 17 x 3"	7	2.22
C-4533*	11 x 17 x 2"	7	2.91
C-4534*	11 x 17 x 3"	9	3.18
C-4535*	13 x 17 x 2"	8	3.12
C-4536*	13 x 17 x 3"	9	3.51
C-4537*	13 x 17 x 4"	10	3.87
C-4540*	17 x 17 x 4"	13	4.65

BOTTOM PLATES

These bottom plates have holes to match the standard type chassis listed above, and also have pressed bumpers at the four corners.

Cat. No. Zinc Plated	Size	Shp. Wt. Lbs.	Net Price
CP-4508	5 x 10"	1	$ .48
CP-4510	7 x 7"	1	.57
CP-4511	7 x 9"	1	.66
CP-4513	7 x 13"	2	.75
CP-4515	7 x 17"	2	.87
CP-4531	8 x 17"	2	.90
CP-4524	10 x 14"	2	.90
CP-4528	10 x 17"	2	1.08
CP-4533	11 x 17"	2	1.05
CP-4535	13 x 17"	3	1.26
CP-4540	17 x 17"	4	1.71

CHASSIS MOUNTING BRACKETS



These brackets are made for assembly with our standard or heavy duty type chassis listed directly above. Panels must be at least 7" high.

FINISH: Black enamel only. They are made from 1/16" thick steel. Cat. Nos. SB-78 thru SB-713 Chassis Mounting Brackets are to be used with the stipulated size base only. Cat. No. SB-717 is used for 17" Bases and larger sizes.

Cat. No.	Base Dimension	Shp. Wt. Lbs.	Net Price
SB- 78	For 8"	2	$1.05
SB-710	For 10"	2	1.23
SB-711	For 11"	2	1.32
SB-713	For 13"	3	1.50
SB-717	For 17"	4	2.31

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PRICES

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DELIVERY

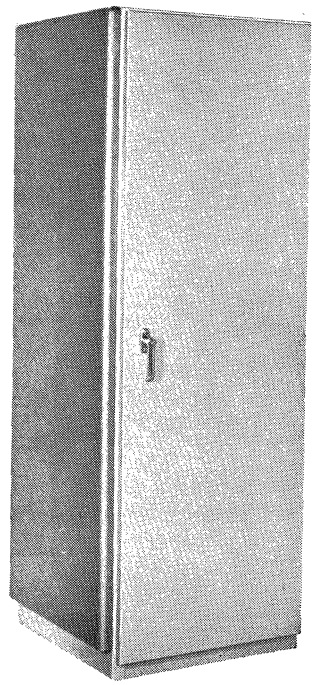
Delivery is often dependent on availability of raw materials. Check with your distributor for delivery information at the time you place your order.

PREM-Ō-RAK® MODULAR VERTICAL FRAMES

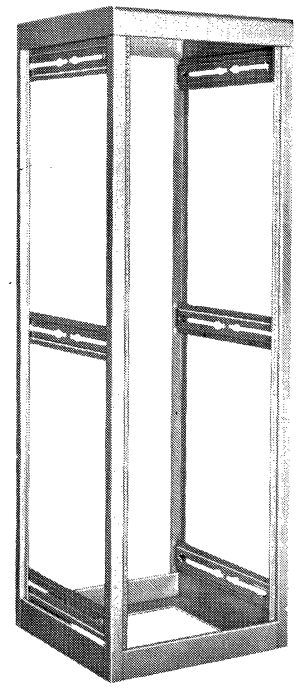
22″ and 25½″ DEEP for 19″ and 24″ PANELS

- **Designed for MULTIPLE INSTALLATIONS.**
- **TOPS OF FRONT AND REAR ARE ROUNDED.**
- **Frames accommodate Ball Cornered End Panels (CEP Series)**

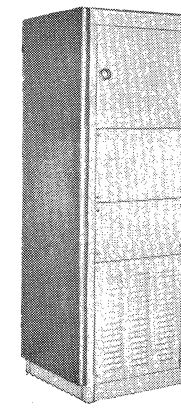
- Frame Made of No. 14 gauge steel.
- Supplied with two pair of No. 12 gauge steel Panel Mounting Angles. Both legs of the angle are tapped 10-32 on E.I.A. spacings (⅝-⅝-½) to accommodate Front Panels & Chassis Support Angles (CSA series).
- Panel mounting angles are held in place at three points by ⅜″ carriage bolts and are adjustable to any desired position by means of channel slides.
- Three combination 1⅜″ and 1⅛″ diameter knockouts furnished on both sides of top and bottom to provide access for cabling between racks.
- Frame completely welded throughout.
- Top of frame is solid. Round hole and 5 mounting holes on top of frame to accommodate Exhaust (EF Series) and Intake (IF Series) Fans, available at additional cost.
- Knockouts supplied on sides of uprights for use in ganging frames.
- A rectangular cutout is provided in bottom for leads, etc.
- Rectangular knockouts provided on front and rear of uprights of frame to accommodate hinge and handle brackets, so that door can be mounted either left or right hand. Doors can be mounted to front or rear of frame.
- Holes punched in bottom to accommodate CA-4 (2″), CA-5 (3″) and CA-6 (double 2″) casters.
- Finished in Gray Hammertone.



Above unit consists of Frame FA Series), 2 End Panels (CEP Series) and Door (DF Series).



FA FRAME



Above unit consists of Frame (FA Series), 2 End Panels (CEP Series), Flush Door (CD Series), Louvred Panel (FPL Series) and Formed Panels (FP Series)

FRAMES — 22″ WIDE

22″ DEEP					25½″ DEEP		
Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	Panel Space	Cat. No.	Shpg. Wt. Lbs.	Net Price
FA-42-22	50	$78.00	48⅝″	42 x 19″	FA-42-255	58	$81.96
FA-52-22	65	84.60	59⅛″	52½ x 19″	FA-52-255	75	88.80
FA-61-22	80	95.85	67⅞″	61¼ x 19″	FA-61--255	92	105.60
FA-70-22	100	112.44	76⅝″	70 x 19″	FA-70-255	115	123.60
FA-77-22	110	115.59	83⅝″	77 x 19″	FA-77-255	127	127.20

FRAMES — 27″ WIDE

22″ DEEP					25½″ DEEP		
FA-2761-22	90	105.00	67⅞″	61¼ x 24″	FA-2761-255	98	114.60
FA-2770-22	110	123.60	76⅝″	70 x 24″	FA-2770-255	123	135.60
FA-2777-22	120	126.00	83⅝′	77 x 24″	FA-2777-255	135	138.00

ODIFICATIONS AVAILABLE FOR CUSTOMIZED REQUIREMENTS FOR FA FRAMES

Louvres, cutouts or holes in top.
Solid bottom — no cut-out.
Base can be supplied inverted.
Omission of rectangular KO's on uprights.
Opening in top with ½″ recess for mounting a panel.

- Provisions for eye bolts in top.
- Provisions for mounting special size casters.
- Provision for rubber gasketing and filters.
- Panel mounting angles can be supplied copper plated .0005″.
- Special finishes available.

INDUSTRIAL DISCOUNT SCHEDULE

Applies to any PREMIER products listed in this catalog.

If total order at net price is:	DISCOUNT
Up to $199.99	Net Price
$200 to $399.99	Net Less 10%
$400 to $549.99	Net Less 15%
$550 to $699.99	Net Less 20%
$700 to $999.99	Net Less 25%
$1,000 to $2,499.99	Net Less 30%
$2,500 OR MORE	Net Less 33⅓%

ORDERING GUIDE

FRAME	Use END PANEL (Page 11)	Use DOOR (Page 11)	Use CHASSIS SUPPORT ANGLE (Page 7)	Use SHELF (Page 7)	Use CHASSIS SLIDES (Pages 25, 26, 27)
Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Length
FA-42-22	CEP-42-22	DF-42	CSA-22	S-22-22	20″
FA-52-22	CEP-52-22	DF-52	CSA-22	S-22-22	20″
FA-61-22	CEP-61-22	DF-61	CSA-22	S-22-22	20″
FA-70-22	CEP-70-22	DF-70	CSA-22	S-22-22	20″
FA-77-22	CEP-77-22	DF-77	CSA-22	S-22-22	20″
FA-42-255	CEP-42-255	DF-42	CSA-255	S-22-255	24″
FA-52-255	CEP-52-255	DF-52	CSA-255	S-22-255	24″
FA-61-255	CEP-61-255	DF-61	CSA-255	S-22-255	24″
FA-70-255	CEP-70-255	DF-70	CSA-255	S-22-255	24″
FA-77-255	CEP-77-255	DF-77	CSA-255	S-22-255	24″
FA-2761-22	CEP-61-22	DF-2761	CSA-22	S-27-22	20″
FA-2770-22	CEP-70-22	DF-2770	CSA-22	S-27-22	20″
FA-2777-22	CEP-77-22	DF-2777	CSA-22	S-27-22	20″
FA-2761-255	CEP-61-255	DF-2761	CSA-255	S-27-255	24″
FA-2770-255	CEP-70-255	DF-2770	CSA-255	S-27-255	24″
FA-2777-255	CEP-77-255	DF-2777	CSA-255	S-27-255	24″

ALL PRICES F.O.B. BRONX, N. Y. 10474

SEE PAGES 23, 24, 25, 26 & 27 FOR HANDLES, SLIDES, BLOWERS and FANS

Net

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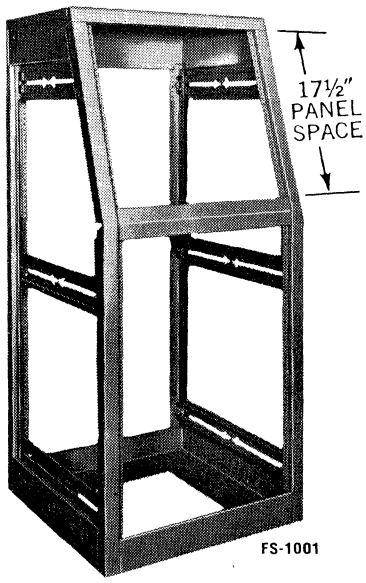
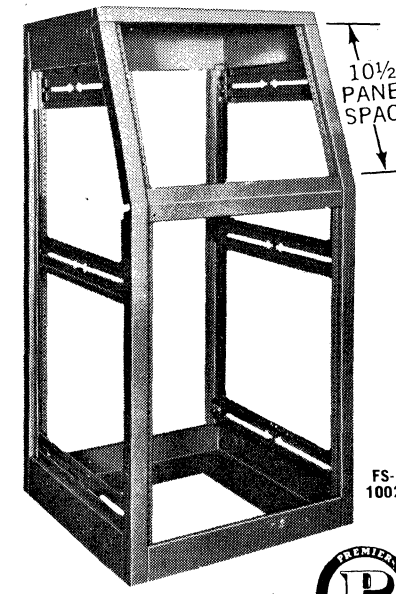
PREM-Ō-RAK® MODULAR CONSOLE SYSTEM

10½" and 17½" SLOPED FRONT CONSOLE FRAMES FOR 19" and 24" PANELS



FS-1001

- TOPS OF FRONT AND REAR ARE ROUNDED
- Frames accommodate Ball Cornered End Panels (CEP Series)
- Designed for Multiple Installations
- Made of No. 14 Gauge (.0747) Steel
- Sloped Front Is 19° from Vertical
- Frame Completely Welded Throughout
- All Panel Mounting Angles are made of No. 12 Gauge Steel and Tapped on both legs 10/32 on E.I.A. Spacings (⅝-⅝-½). Front and Rear Vertical Angles Are Adjustable to Any Desired Position.
- Panels Fit into ½" Recess.
- Combination 1⅜" and 1⅛" Diameter Knockouts on Top and Bottom to Provide Access for Cabling Between Racks.
- Holes Punched in Bottom to Accommodate CA-4 (2"), CA-5 (3") and CA-6 (double 2") casters.
- A Rectangular Cutout Is Provided in Bottom for Leads, etc.
- Front Cross Piece Removable.
- Rectangular Knockouts On Rear Uprights to Accommodate Hinge and Handle Latch Brackets so that Door can be Mounted Either Left or Right.
- Finished in Gray Hammertone.



FS-1002

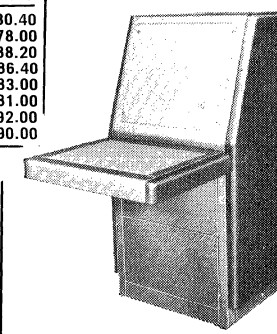
Cat. No.	Width	Hgt.	Depth	Sloped Front Panel Space	Front Vertical Space	Rear Vertical Space	Ship. Wt. Lbs.	Net Price
FS-1001	22"	50"	22"	17½ x 19"	26¼ x 19"	42 x 19"	66	$80.40
FS-1002	22"	47"	22"	10½ x 19"	29¾ x 19"	42 x 19"	64	78.00
FS-1003	27"	50"	22"	17½ x 24"	26¼ x 24"	42 x 24"	76	88.20
FS-1004	27"	47"	22"	10½ x 24"	29¾ x 24"	42 x 24"	74	86.40
FS-1001-255	22"	50"	25½"	17½ x 19"	26¼ x 19"	42 x 19"	75	83.00
FS-1002-255	22"	47"	25½"	10½ x 19"	29¾ x 19"	42 x 19"	73	81.00
FS-1003-255	27"	50"	25½"	17½ x 24"	26¼ x 24"	42 x 19"	85	92.00
FS-1004-255	27"	47"	25½"	10½ x 24"	29¾ x 24"	42 x 19"	83	90.00

MODIFICATIONS AVAILABLE FOR CUSTOMIZED REQUIREMENTS FOR FS AND/OR CPF SERIES

* Vertical Panel Mounting Angles can be supplied Copper Plated .0005".
* Top of CPF Frame can be modified to accept a one-piece Multiple-width Formica Panel when used with work-top (WTO Series) and/or other pedestal frames.
* Louvres, holes or cut-outs in top of FS frame.
* Opening in top of FS with ½" recess for mounting a panel.

ORDERING GUIDE

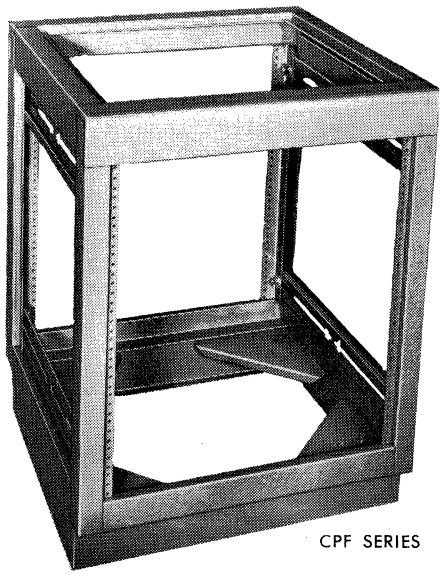
FRAME Cat No.	USE END PANEL (Page 11) Cat. No.	USE REAR DOOR (Page 11) Cat. No.	USE SHELF (Page 5) Cat. No.	USE CHASSIS SLIDES (Pgs. 25, 26, 27) Length
FS-1001	CEP-1201 (LH and/or RH)	DF-42	SH-101	20"
FS-1002	CEP-1202 (LH and/or RH)	DF-42	SH-101	20"
FS-1003	CEP-1201 (LH and/or RH)	DF-2742	SH-102	20"
FS-1004	CEP-1202 (LH and/or RH)	DF-2742	SH-102	20"
FS-1001-255	CEP-1201-255 (LH and/or RH)	DF-42	SH-104	24"
FS-1002-255	CEP-1202-255 (LH and/or RH)	DF-42	SH-104	24"
FS-1003-255	CEP-1201-255 (LH and/or RH)	DF-2742	SH-105	24"
FS-1004-255	CEP-1202-255 (LH and/or RH)	DF-2742	SH-105	24"



Above unit consists of Fran (FS Series), 2 End Pane (CEP-1201 Series), Writi Work Shelf (WW Series) a 2 End Panels (CEP Series) f shelf.

CONSOLE PEDESTAL FRAMES

PREM-Ō-RAK®


CPF SERIES

- TOPS OF FRONT AND REAR ARE ROUNDED.
- Frames accommodate Ball Cornered End Panel (CEP Ser.es).
- Units are designed for multiple installation.
- Adjustable panel mounting angles front and rear are tapped on both legs for 10/32 machine screws on E.I.A. spacings (⅝-⅝-½).
- Panels fit into ½" recess.
- Two rectangular knockouts supplied on one t cross member to accommodate channels Writing Work Shelf.
- Brackets welded in base and punched to acco modate CA-5 (3") casters and supplied w adapter to accommodate CA-4 (2") casters.
- Frame made of No. 16 gauge steel; pai mounting angles of 12 gauge steel.
- Finished in Gray Hammertone.

Cat. No.	Width	Depth	Height with Casters	Height without Casters	Front & Rear Panel Space	Top Panel Space	Shpg. Wt. Lbs.	Ne Pri
CPF-101	22"	22"	30"	29½"	21 x 19"	17½ x 19"	45	$56.
CPF-102	22"	22"	37"	36½"	28 x 19"	17½ x 19"	48	64.
CPF-103	27"	22"	30"	29½"	21 x 24"	17½ x 24"	50	63.
CPF-104	27"	22"	37"	36½"	28 x 24"	17½ x 24"	53	72.
CPF-101-34	22"	34¼"	30"	29½"	21 x 19"	29¾ x 19"	54	78.
CPF-101-255	22"	25½"	30"	29½"	21 x 19"	21 x 19"	53	65.
CPF-102-255	22"	25½"	37"	36½"	28 x 19"	21 x 19"	55	78.
CPF-103-255	27"	25½"	30"	29½"	21 x 24"	21 x 24"	58	68.
CPF-104-255	27"	25½"	37"	36½"	28 x 24"	21 x 24"	59	83.

ORDERING GUIDE

FRAME Cat. No.	Use END PANEL (Page 11) Cat. No.	Use DOOR (Page 3) Cat. No.	Use SHELVES (Page 5) Cat. No.	Use CHASSIS-SLII (Pgs. 25, 26, 2 Length
CPF-101	CEP-401	CD-21	SH-101	20"
CPF-102	CEP-402	CD-28	SH-101	20"
CPF-103	CEP-401	CD-2124	SH-102	20"
CPF-104	CEP-402	CD-2824	SH-102	20"
CPF-101-34	CEP-401-34	CD-21	SH-103	—
CPF-101-255	CEP-401-255	CD-21	SH-104	24"
CPF-102-255	CEP-402-255	CD-28	SH-104	24"
CPF-103-255	CEP-401-255	CD-2124	SH-105	24"
CPF-104-255	CEP-402-255	CD-2824	SH-105	24"

SEE PGS. 23, 24, 25, 26 & 27 FOR HANDLES, SLIDES, BLOWERS & FANS

PREMIER PAGE 2

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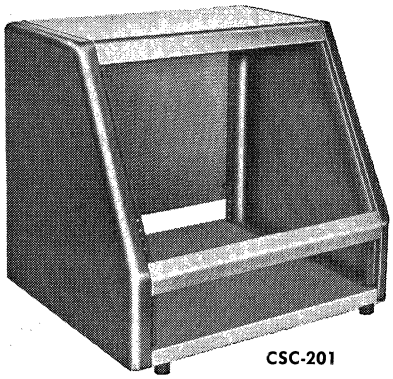
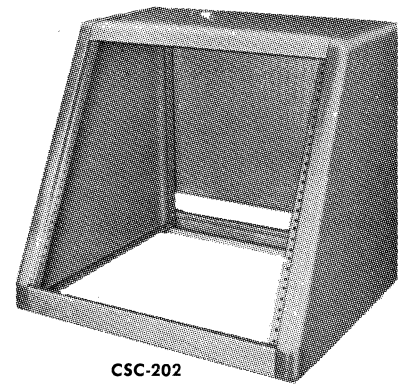
PREM-O-RAK® MODULAR CONSOLE SYSTEM

CONSOLE SLOPING CABINETS



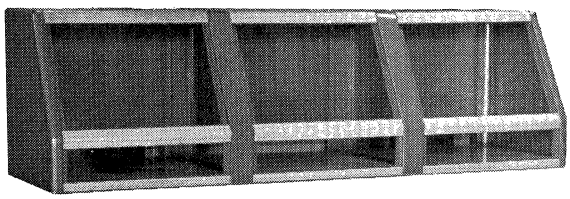
CSC-201

- BOTH FRONT AND REAR HAVE ATTRACTIVE BALL CORNERS.
- Shipped knocked down with necessary hardware for easy assembly.
- All screws for assembling console are not visible from the outside.
- Both front and rear are tapped for 10/32 machine screws on E.I.A. spacings (5/8-5/8-1/2).
- Interlocking removable rear panel made of perforated metal and held in place by four captive screws.
- Made of No. 16 gauge steel.
- Rear panel has 1¾" opening on bottom for leads, etc.
- Panels fit into ½" recess.
- May be used individually or in multiples.
- Handsomely finished in Two Tone Hammertone—Top, cross-piece and base are Gray Hammertone. Rear and side panels are Brown Hammertone.



CSC-202

Cat. No.	Width	Height	Depth	Sloped Panel Space	Front Vertical Panel Space	Rear Panel Space	Slope from Vertical	Bottom Panel Space	Ship. Wt. Lbs.	Net Price
CSC-201	21¾"	18⅛"	18"	12¼" x19"	3½" x 9"	15¾" x 19"	30°	———	35	$55.00
CSC-202	21¾"	18⅞"	18⅞"	17½" x 19"	———	15¾" x 19"	25°	15¾" x 19"	40	$60.00



One Triple CSC-201 consists of one CSC-201 and two CMS-301

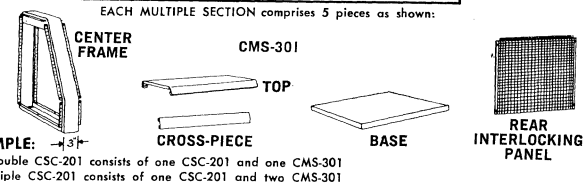
DESIGNED FOR MULTIPLE INSTALLATION

The PREM-O-RAK CONSOLE CABINETS can be joined together to make multiple units by means of a center frame section which is bolted to the top, cross-piece and base. When ordering multiple units specify number of units, such as Double, Triple, etc.

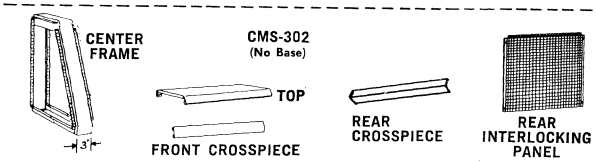
MULTIPLE SECTION for SLOPING CABINET

Catalog No.	Shipping Wt. Lbs.	Net Price
CMS-301	26	$36.00
CMS-302	28	$40.00

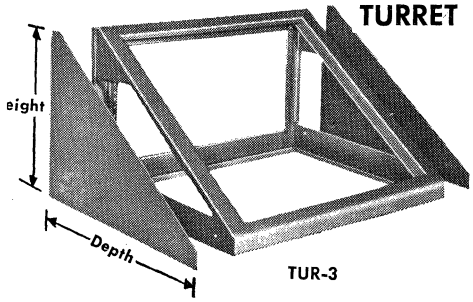
EACH MULTIPLE SECTION comprises 5 pieces as shown:



One Double CSC-201 consists of one CSC-201 and one CMS-301
One Triple CSC-201 consists of one CSC-201 and two CMS-301

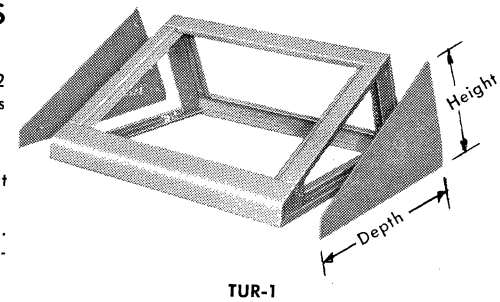


TURRET WITH FLAT SIDE PANELS



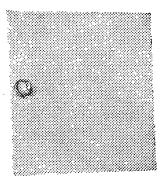
TUR-3

- Made of No. 16 gauge steel.
- All panel openings tapped for 10/32 machine screws on E.I.A. spacings (5/8-5/8-1/2).
- Panels fit into ½" recess.
- Flat side panels are assembled at factory before shipping.
- Frame finished in Gray Hammertone. Side panels finished in Brown Hammertone.



TUR-1

Cat. No.	Width	Height	Depth	Sloped Front Panel Space	Rear Panel Space	Bottom Panel Space	Ship. Wt. lbs.	Net Price
TUR-1	22"	9¾"	21"	14" x 19"	7" x 19"	17½" x 19"	25	$40.00
TUR-3	22"	12¼"	17½"	17½" x 19"	8¾" x 19"	14" x 19"	20	34.80



FLUSH DOORS — ½" DEEP

For Prem-O-Rak Console Frames CPF, FS, FA, MSF, POR and CSC Series.

- Made of 16 gauge steel • Finished in Gray Hammertone.
- Doors can be mounted either left or right hand by rotating door 180°.
- Hinge brackets are punched to accommodate panel mounting angles on cabinets.
- Furnished with attractive round chrome plated handle and snap catch.

Cat. No.	Height	Width	Shpg. Wt. Lbs.	Net Price
CD-17	17½"	19"	7	$11.90
CD-21	21"	19"	8	12.85
CD-26	26¼"	19"	9	14.40
CD-28	28"	19"	10	15.10
CD-29	29¾"	19"	11	15.75
CD-42	42"	19"	16	25.65
CD-1724	17½"	24"	8	14.30
CD-2124	21"	24"	9	15.40
CD-2824	28"	24"	12	18.15
CD-2924	29¾"	24"	13	18.90
CD-4224	42"	24"	17	31.50

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PREMIER PAGE 3

Net

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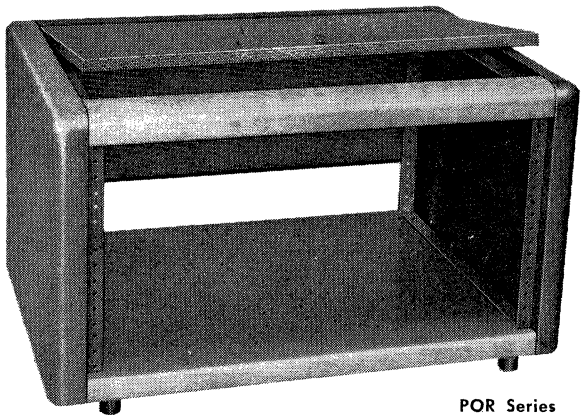
PREM-Ō-RAK® DESK CABINET RACKS



POR Series

BOTH FRONT AND REAR OF TOP HAVE ATTRACTIVE BALL CORNERS.

THE ARISTOCRAT OF DESK CABINET RACKS

Available in 24 different sizes—
from 3½" to 35" panel spaces

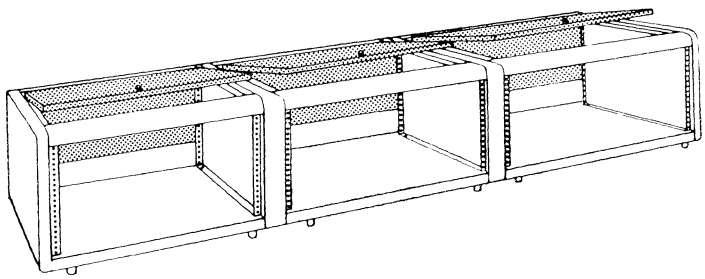
Both 15½" and 18" deep for standard 19" panels

Modifications Available For Customized Requirements

- Solid top panel
- Solid rear panel
- Full rear panels-solid or perforated
- Drop handles (HW-5) welded to sides
- Recessed handles on sides
- Unit can be supplied completely welded
- Special finishes
- Holes and cutouts in sides and base.

- All screws for assembling PREM-O-RAK are not visible from the outside.
- Both front and rear verticals are tapped for 10/32 machine screws on E.I.A. spacings (5/8-5/8-1/2") so that panels may be mounted on both front and rear if desired.
- Interlocking removable top made of perforated metal and held in place by only one captive screw.
- Interlocking removable rear panel made of perforated metal and held in place by two captive screws.
- Rigidly constructed of #16 gauge steel.
- Rear Panel has 3½" opening on bottom for leads, etc., except on POR-3, 318, 5, 518.
- Panels fit into ½" recess.
- Base supplied with four rubber feet.
- Components may be mounted on base before assembly of rack into a complete unit.
- HANDSOMELY FINISHED IN TWO-TONE HAMMERTONE.
  Top cross braces and base are Gray Hammertone.
  Top & rear panel & side panels are Brown Hammertone
  Also avail. all Gray Hammertone. Specify when ordering

15¼" DEEP				ALL CABINETS ARE 21¾" WIDE		18" DEEP			
Catalog No.	Shp. Wt. Lbs.	Use Slide Length	Net Price	Overall Height	Panel Space	Catalog No.	Ship. Wt. Lbs.	Use Slide Length	Net Price
POR-3	18	14"	$25.10	5⅞"	3½"	POR-318	20	16"	$26.40
POR-5	20	14"	26.40	7⅝"	5¼"	POR-518	22	16"	29.10
POR-7	22	14"	27.75	9⅜"	7"	POR-718	24	16"	30.70
POR-8	24	14"	29.10	11⅛"	8¾"	POR-818	26	16"	32.25
POR-10	26	14"	33.30	12⅞"	10½"	POR-1018	29	16"	36.75
POR-12	28	14"	36.05	14⅝"	12¼"	POR-1218	31	16"	40.00
POR-14	32	14"	40.20	16⅜"	14"	POR-1418	35	16"	44.35
POR-17	40	14"	47.85	19⅞"	17½"	POR-1718	44	16"	52.70
POR-21	44	14"	52.00	23⅜"	21"	POR-2118	48	16"	57.55
POR-26	45	14"	56.15	28⅝"	26¼"	POR-2618	49	16"	61.85
POR-31	50	14"	58.90	33⅞"	31½"	POR-3118	55	16"	65.65
POR-35	55	14"	62.40	37⅜"	35"	POR-3518	60	16"	68.80



Above unit is one Triple POR-8 which consists of one POR-8 two MOR-8

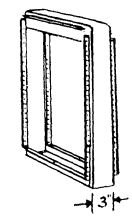
MULTIPLE SECTION FOR PREM-O-RAK DESK CABINETS

PREM-O-RAK DESK CABINETS can be joined together to ma multiple units by means of a center frame section which is bolt to the top cross pieces and base. When ordering multiple un specify number of units, such as Double, Triple, etc.

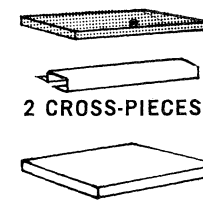
EXAMPLE: One Double POR-1218 consists of one POR-1218 a one MOR-1218.
One Triple POR-8 consists of one POR-8 and t MOR-8.

EACH MULTIPLE SECTION (MOR Series) comprises 6 pieces as shown.

15¼" DEEP					18" DEEP		
Cat. No.	Ship. Wt. Lbs.	Net Price	Overall Height	Panel Space	Cat. No.	Ship. Wt Lbs.	Net Price
MOR-3	16	$17.60	5⅞"	3½"	MOR-318	18	$18.50
MOR-5	17	18.50	7⅝"	5¼"	MOR-518	19	20.40
MOR-7	18	19.40	9⅜"	7"	MOR-718	20	21.60
MOR-8	19	20.40	11⅛"	8¾"	MOR-818	21	22.70
MOR-10	20	23.40	12⅞"	10½"	MOR-1018	23	25.85
MOR-12	21	25.30	14⅝"	12¼"	MOR-1218	24	27.80
MOR-14	23	28.20	16⅜"	14"	MOR-1418	26	31.10
MOR-17	31	33.55	19⅞"	17½"	MOR-1718	34	37.00
MOR-21	33	36.45	23⅜"	21"	MOR-2118	37	40.30
MOR-26	34	39.40	28⅝"	26¼"	MOR-2618	38	43.35
MOR-31	36	41.25	33⅞"	31½"	MOR-3118	40	46.00
MOR-35	40	43.70	37⅜"	35"	MOR-3518	44	48.20



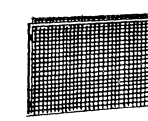
CENTER FRAME



TOP

2 CROSS-PIECES

BASE



REAR INTERLOCKIN PANEL

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SEE PAGES 23, 24, 25, 26 & 27 FOR HANDLES, SLIDES, BLOWERS and FANS

PREMIER PAGE 4

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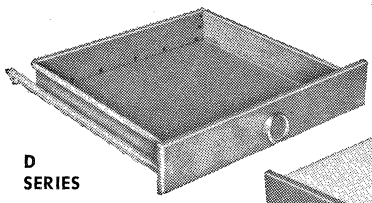
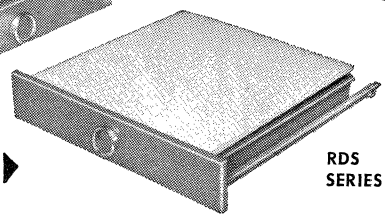
PREM-Ô-RAK® MODULAR CONSOLE SYSTEM

SLIDING DRAWERS



D SERIES



RDS SERIES

SLIDING SHELVES

- Made of No. 16 gauge steel.
- Mounted on suspension slides, which sustain 46 lbs.
- Drawer extends 16" from front of cabinet.
- Supplied with brackets for mounting to tapped holes of panel mounting angles.
- Furnished with attractive, round chrome-plated handle.
- Shipped knocked down with all necessary hardware for easy assembly.
- Will fit CPF, FS, MSF & FA SERIES.
- Finished in Gray Hammertone.
- Sliding shelves supplied with Gray linen weave Formica (2-C-1) on top surface.

SLIDING DRAWERS

Cat. No.	Panel Size	Drawer Size W	D	H	Shpg. Wt. Lbs.	Net Price
	FOR 19" WIDE PANEL SPACE					
D-1916	10 3/8" x 18 7/8"	16 1/8"	16	6"	23	$18.90
D-2016	6 7/8" x 18 7/8"	16 1/8"	16	6"	22	18.15
D-2316	3 3/8" x 18 7/8"	16 1/8"	16	2 11/16"	16	17.10
	FOR 24" WIDE PANEL SPACE					
D-2116	10 3/8" x 23 7/8"	21 1/8"	16	6"	25	22.70
D-2216	6 7/8" x 23 7/8"	21 1/8"	16	6"	24	21.75
D-2416	3 3/8" x 23 7/8"	21 1/8"	16	2 11/16"	17	18.90

SLIDING SHELVES

Cat. No.	Panel Size	Shelf Size	Shpg. Wt. Lbs.	Net Price
	FOR 19" WIDE PANEL SPACE			
RDS-319-22	3 3/8" x 18 7/8"	16 3/16" x 15 15/16"	20	$34.65
	FOR 24" WIDE PANEL SPACE			
RDS-324-22	3 3/8" x 23 7/8"	21 3/16" x 15 15/16"	22	44.10

SHELF FOR FRAMES CPF, FA, MSF & FS SERIES

- Made of No. 16 Ga. Steel.
- Finished in Gray Hammertone.
- Mounts to 10-32 tapped holes on side leg of Panel Mounting Angles.

Cat. No.	Depth	Width	For use with	Net Price
SH-101	20 1/2"	19 15/16"	CPF-101, CPF-102 FS-1001, FS-1002 22" (Deep) x 22" (Wide) FA	$ 9.45
SH-102	20 1/2"	24 15/16"	CPF-103, CPF-104 FS-1003, FS-1004 22" (Deep) x 27" (Wide) FA	10.72
SH-103	32 3/4"	19 15/16"	CPF-101-34	12.60
SH-104	24"	19 15/16"	CPF-101-255 & 102-255 FS-1001-255 & 1002-255	11.00
SH-105	24"	24 15/16"	CPF-103-255 & 104-255 FS-1003-255 & 1004-255	12.00

FORMICA WRITING PANELS

19" and 24" WIDE — 1/2" THICK

Gray Linen Weave Pattern Formica 2-C-1 bonded to plywood as top surface; Unfinished Formica bonded to bottom surface.

19" WIDE

Cat. No.	Panel Space	Fits into	Net Price
FWP-1019	10 1/2" x 19"	WW-15-22 & WW-15-255	$6.60
FWP-1419	14" x 19"	WW-18-22 & WW-18-255	8.40
FWP-1719	17 1/2" x 19"	WW-22-22 & WW-22-255, WTO-22-22 & Top Panel Space of CPF-101 and CPF-102	10.20
FWP-2919	29 3/4" x 19"	CPF-101-34, WTO-22-34	24.00

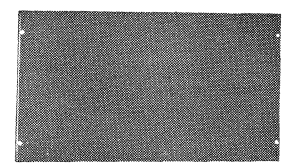
24" WIDE

Cat. No.	Panel Space	Fits into	Net Price
FWP-1024	10 1/2" x 24"	WW-2715-22, WW-2715-255	$7.20
FWP-1424	14" x 24"	WW-2718-22, WW-2718-255	9.00
FWP-1724	17 1/2" x 24"	WW-2722-22, WW-2722-255, WTO-27-22 & Top Panel Space of CPF-103 & CPF-104	10.80

MODIFICATIONS AVAILABLE

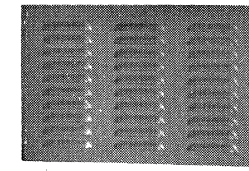
- One piece Multiple Widths
- Other standard Formica colors or Patterns

FORMED PANELS — 19" and 24" WIDE



FP Series

BLANK



FPL Series

LOUVRED

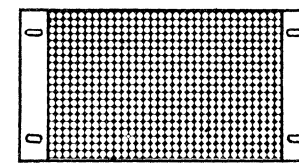
- Made of one piece of No. 16 gauge steel, with edges formed for overall depth of 1/2".
- Each panel has only 2 mounting holes on each side.
- Finished in Gray Hammertone.

BLANK

19" WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	24" WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price
FP-119	1 1/2	$1.21	1 3/4"	FP-124	2	$1.40
FP-319	2	1.25	3 1/2"	FP-324	3	1.52
FP-519	2 1/2	1.45	5 1/4"	FP-524	3 1/2	1.72
FP-719	3	1.65	7"	FP-724	4	2.00
FP-819	4	2.02	8 3/4"	FP-824	5	2.45
FP-1019	5	2.50	10 1/2"	FP-1024	6	3.00
FP-1219	6	2.90	12 1/4"	FP-1224	7	3.45
FP-1419	6 1/2	3.25	14"	FP-1424	7 1/2	3.90
FP-1519	7	3.75	15 3/4"	FP-1524	8	4.50
FP-1719	7 1/2	4.15	17 1/2"	FP-1724	8 1/2	4.95
FP-1919	8	4.52	19 1/4"	FP-1924	9	5.42
FP-2119	9	4.95	21"	FP-2124	10	5.95
FP-2219	10	5.50	22 3/4"	FP-2224	11	6.60
FP-2619	11	6.12	26 1/4"	FP-2624	12	7.35
FP-2819	12	6.60	28"	FP-2824	13	7.95
FP-4219	18	11.00	42"	FP-4224	20	13.20

LOUVRED

19" WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	24" WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price
FPL-719	3	$3.48	7"	FPL-724	4	$4.16
FPL-819	4	3.90	8 3/4"	FPL-824	5	4.70
FPL-1019	5	4.30	10 1/2"	FPL-1024	6	5.15
FPL-1219	6	4.85	12 1/4"	FPL-1224	7	5.82
FPL-1419	6 1/2	5.22	14"	FPL-1424	7 1/2	6.30
FPL-1719	7 1/2	6.12	17 1/2"	FPL-1724	8 1/2	7.35
FPL-2119	9	7.60	21"	FPL-2124	10	9.12
FPL-2219	10	8.25	22 3/4"	FPL-2224	11	9.35
FPL-2619	11	8.52	26 1/4"	FPL-2624	12	10.25
FPL-2819	12	9.05	28"	FPL-2824	13	10.85
FPL-4219	18	15.40	42"	FPL-4224	20	18.70



PFP Series

PERFORATED

- Made of No. 20 gauge steel with 1/16" diameter holes on 3/16" staggered centers.
- Edges formed on 4 sides.
- Overall depth 1/2".
- Each panel has 2 mounting holes on each side.
- Finished in Gray Hammertone.

19" WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	24" WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price
PFP-319	1 3/4	$2.75	3 1/2"	PFP-324	2 3/4	$3.50
PFP-519	2 1/4	3.00	5 1/4"	PFP-524	3 1/4	3.90
PFP-719	2 3/4	3.75	7"	PFP-724	3 3/4	5.00
PFP-819	3 3/4	4.25	8 3/4"	PFP-824	4 3/4	5.75
PFP-1019	4 3/4	5.00	10 1/2"	PFP-1024	5 3/4	6.25
PFP-1219	5 3/4	5.60	12 1/4"	PFP-1224	6 3/4	7.40
PFP-1419	6 1/4	6.20	14"	PFP-1424	7 1/4	8.00
PFP-1519	6 3/4	6.80	15 3/4"	PFP-1524	7 3/4	8.90
PFP-1719	7 1/4	7.25	17 1/2"	PFP-1724	8 1/4	9.50
PFP-1919	7 3/4	7.95	19 1/4"	PFP-1924	8 3/4	10.50
PFP-2119	8 3/4	8.50	21"	PFP-2124	9 3/4	11.25
PFP-2619	10 3/4	10.00	26 1/4"	PFP-2624	11 3/4	13.00
PFP-2819	11 3/4	11.00	28"	PFP-2824	12 3/4	14.25

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PREMIER PAGE 5

Net

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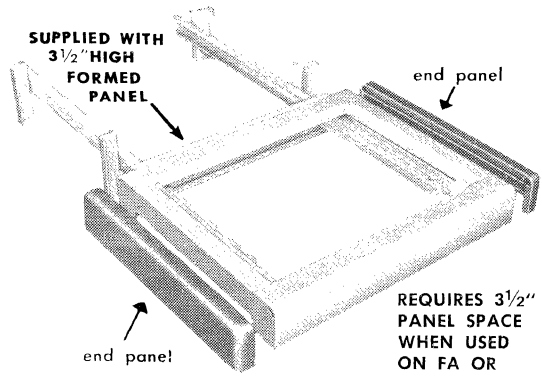
PREM-O-RAK® MODULAR CONSOLE SYSTEM

WRITING WORK SHELVES

- Made Of No. 16 Gauge Steel
- Tops Of Front And Rear Are Rounded
- Shipped Knocked Down • Finished In Gray Hammertone
- Supplied With Channels And Brackets For Mounting To Inside of Frames



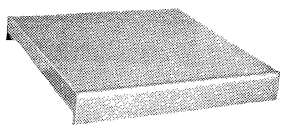
NOTE:
Top of shelf can be modified to accept one piece multiple width Formica panel when used in multiple installations.

END PANELS FOR WRITING WORK SHELF

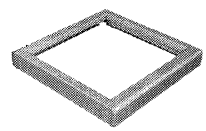
• Ball cornered • Attaches to Writing Work Shelf by means of 2 captive screws • Made of one piece of No. 18 gauge steel • Finished in Brown Hammertone

Cat. No.	Lbs.	Used With	Net Price
CEP-15	1½	WW-15-22, 15-255; 2715-22, 2715-255	$3.75
CEP-18	2	WW-18-22, 18-255; 2718-22, 2718-255	4.00
CEP-22	2½	WW-22-22, 22-255; 2722-22, 2722-255	4.25

WORK TOPS FOR MULTIPLE ASSEMBLY — 3" HIGH



CWT Series
Solid Type



WTO Series
Open Type

- Tops of front and rear are rounded.
- Designed for mounting between two Pedestal Frames or when used with End Pedestal (PE Series).
- USE SHORT END PANELS (CSS Series) FOR THIS INSTALLATION.
- Made of No. 16 gauge steel.
- Finished in Gray Hammertone.

NOTE:
Top of WTO series can be modified to accept one piece multiple width Formica panel when used with pedestal frame CPF series.

WORK TOPS

Solid Type

Cat. No.	Width	Depth	Shp. Wt. Lbs.	Net Price
CWT-601	22"	22"	14	$14.00
CWT-603	27"	22"	18	16.50
CWT-601-34	22"	34¼"	20	20.80

Open Type

Cat. No.	Width	Depth	Panel Space	Shpg. Wt. Lbs.	Net Price
WTO-22-22	22"	22"	17½ x 19"	9½	$28.35
WTO-27-22	27"	22"	17½ x 24"	11	34.02
WTO-22-34	22"	34¼"	29¾ x 19"	12	44.10

DESIGNED FOR SINGLE OR MULTIPLE INSTALLATION

22" WIDE — 3" HIGH

To Fit 22" DEEP FRAMES				To Fit 25½" DEEP FRAMES			
Cat. No.	Shpg. Wt. Lbs.	Net Price	Top Panel Space	Depth	Cat. No.	Shpg. Wt. Lbs.	Net Price
WW-15-22	11	$37.80	10½" x 19"	15"	WW-15-255	12	$38.60
WW-18-22	12	39.70	14" x 19"	18½"	WW-18-255	13	40.50
WW-22-22	13	41.58	17½" x 19"	22"	WW-22-255	14	42.38

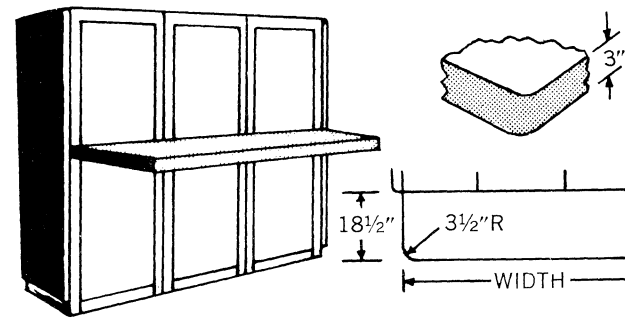
27" WIDE

WW-2715-22	14	43.40	10½" x 24"	15"	WW-2715-255	15	44.26
WW-2718-22	15	44.74	14" x 24"	18½"	WW-2718-255	16	45.52
WW-2722-22	16	46.00	17½" x 24"	22"	WW-2722-255	17	46.80

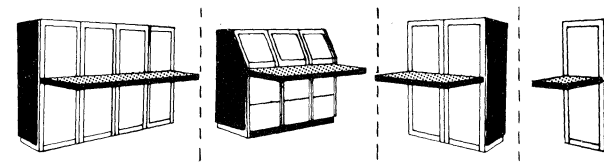
ONE PIECE FORMICA WORK WRITING SHELVES

For 22" Wide FA and FS FRAMES

- Gray linen weave Formica (2-C-1) bonded to ¾" plywood
- Other Standard Formica Colors or Patterns Available.
- 3" self edged Formica skirt on 3 sides
- Supplied with 3½ x 19" formed panel, channels and brackets



TO FIT 22" DEEP FRAMES				TO FIT 25½" DEEP FRAMES	
Cat. No.	Net Price	Depth	Width	Cat. No.	Net Pric
For 1 Vertical Frame (FA or PRXA Series) or 1 Sloped Front Frame (FS Series)					
OFT-2218-22	$75.00	18½"	22"	OFT-2218-255	$76.0(
For 2 Vertical Frames (FA or PRXA Series) or 2 Sloped Front Frames (FS Series) Side By Side					
OFT-4418-22	95.00	18½"	44"	OFT-4418-255	96.0(
For 3 Vertical Frames (FA or PRXA Series) or 3 Sloped Front Frames (FS Series) Side By Side					
OFT-6618-22	115.00	18½"	66"	OFT-6618-255	117.0(
For 4 Vertical Frames (FA or PRXA Series) or 4 Sloped Front Frames (FS Series) Side By Side					
OFT-8818-22	140.00	18½"	88"	OFT-8818-255	142.0



NOTE:
ONE PIECE Formica shelves available for us with semi-circular arrangements when used wit Wedge Frames.

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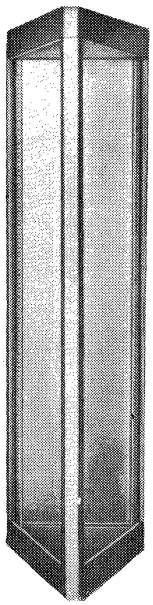
PREM-Ō-RAK® MODULAR CONSOLE SYSTEM

30° and 45° WEDGE FRAMES



- Designed for use in Semi-Circular Arrangements when bolted to Pedestal Frames (CPF Series) or Transmitter Rack Frames (FA Series)

NOTE: One piece Formica Shelf available for semi-circular arrangements.

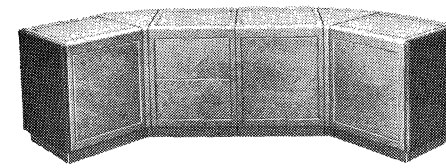
- Constructed of 16 gauge steel
- Completely welded throughout
- Supplied with formed panel on rear
- End panels (CEP Series) can be mounted to the side of wedge frames if desired
- Finished in Gray Hammertone

30° WEDGE RACK FRAMES

Cat. No.	Height	Width	For Use With	Net Price
WED-30-42-22	48⅝"	22"	FA-42-22	$122.10
WED-30-52-22	59⅛"	22"	FA-52-22	132.00
WED-30-61-22	67⅞"	22"	FA-61-22	138.60
WED-30-70-22	76⅝"	22"	FA-70-22	148.50
WED-30-77-22	83⅝"	22"	FA-77-22	155.10
WED-30-42-255	48⅝"	25½"	FA-42-255	146.50
WED-30-52-255	59⅛"	25½"	FA-52-255	154.44
WED-30-61-255	67⅞"	25½"	FA-61-255	158.40
WED-30-70-255	76⅝"	25½"	FA-70-255	171.60
WED-30-77-255	83⅝"	25½"	FA-77-255	178.20

45 WEDGE RACK FRAMES

Cat. No.	Height	Width	For Use With	Net Price
WED-45-42-22	48⅝"	22"	FA-42-22	$125.40
WED-45-52-22	59⅛"	22"	FA-52-22	135.30
WED-45-61-22	67⅞"	22"	FA-61-22	141.90
WED-45-70-22	76⅝"	22"	FA-70-22	151.80
WED-45-77-22	83⅝"	22"	FA-77-22	158.40
WED-45-42-255	48⅝"	25½"	FA-42-255	149.82
WED-45-52-255	59⅛"	25½"	FA-52-255	157.30
WED-45-61-255	67⅞"	25½"	FA-61-255	161.70
WED-45-70-255	76⅞"	25½"	FA-70-255	174.90
WED-45-77-255	83⅝"	25½"	FA-77-255	181.50



30° Wedge Pedestal Frames

Catalog No.	Height	Width	For Use With	Net Price
WED-30-101	29½"	22"	CPF-101 & 103	$102.30
WED-30-102	36½"	22"	CPF-102 & 104	108.90

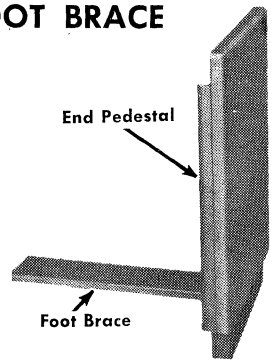
45° Wedge Pedestal Frames

Catalog No.	Height	Width	For Use With	Net Price
WED-45-101	29½"	22"	CPF-101 & 103	$105.00
WED-45-102	36½"	22"	CPF-102 & 104	112.20

END PEDESTAL and FOOT BRACE

FOR DOUBLE UNIT ASSEMBLY

- Made of No. 18 gauge steel
- Ball cornered
- End Pedestal mounts to Work Top CWT Series or WTO Series. Foot Brace mounts to Pedestal Frame CPF Series and End Pedestal PE-901
  - Foot Brace can be mounted between two Pedestal Frames (CPF Series).
- Finished in Brown Hammertone

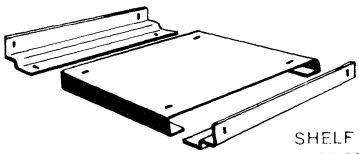


END PEDESTAL

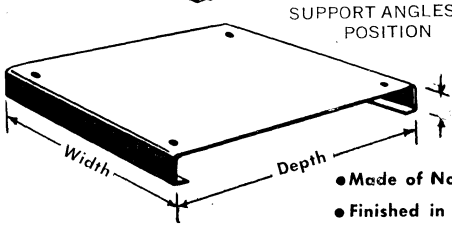
Cat. No.	Depth	Height	Shpg. Wt. Lbs.	Net Price
PE-901	22"	29½"	25	$31.50
PE-901-34	34¼"	29½"	30	47.25

FOOT BRACE

Cat. No.	Shpg. Wt. Lbs.	Used With	Net Price
FB-801	3	22" Wide Work Tops	$8.92
FB-802	3½	27" Wide Work Tops	9.64



SHELF AND CHASSIS SUPPORT ANGLES IN POSITION



S SERIES

SHELVES

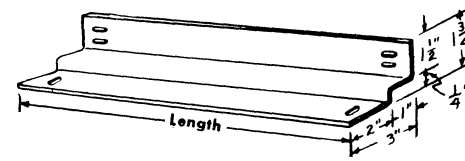
- Made of No. 16 Gauge Steel
- Finished in Gray Hammertone

Cat. No.	Depth	Width	To Fit Frames		Net Price
S-22-22	20⅜"	17½"	22" W x 22" D	FA	$3.93
S-27-22	20⅜"	22½"	27" W x 22" D	FA	5.10
S-22-255	23⅞"	17½"	22" W x 25½" D	FA	4.62
S-27-255	23⅞"	22½"	27" W x 25½" D	FA	5.82
S-22-18	16⅜"	17½"	22" W x 18" D	PRXA	3.39
S-27-18	16⅜"	22½"	27" W x 18" D	PRXA	4.14
S-33-18	16⅜"	28½"	33" W x 18" D	PRXA	5.58
S-22-24	22⅜"	17½"	22" W x 24" D	PRXA	4.38
S-27-24	22⅜"	22½"	27" W x 24" D	PRXA	5.58
S-33-24	22⅜"	28½"	33" W x 24" D	PRXA	6.84

CHASSIS SUPPORT ANGLES

- Made of No. 12 ga. steel
- Accommodates Shelf (S Series)
- Finished in Gray Hammertone
- Mounts to tapped holes on side legs of Panel Mounting Angles of FA & PRXA series.

CSA SERIES



Cat. No.	Length	To Fit Frames	Net Price Pair
CSA-18	16⅛"	18" deep PRXA	$4.50
CSA-22	20⅛"	22" deep FA	5.00
CSA-24	22⅛"	24" deep PRXA	5.25
CSA-255	23⅝"	25½" deep FA	5.50

PANEL MOUNTING ANGLES—1¼" x 1¼"

Made of #12 Ga. (.104) thick steel punched and tapped 10—32 on E.I.A. spacings (⅝-⅝-½) on both legs. Finished in Grey Hammertone.

PANEL MOUNTING ANGLES			
Cat. No.	Height	Net Price Pr.	TO FIT RACKS
PMA-212-12	21"	7.60	CPF-101 and 103
PMA-282-12	28"	10.00	CPF-102 and 104
PMA-362-12	36¾"	11.00	PRXA, RMA, & FD-36 series
PMA-422-12	42"	13.20	FA, PRXA, FS, RMA & FD—42 series
PMA-522-12	52½"	15.20	FA and PRXA—52 series
PMA-612-12	61¼"	16.50	FA, PRXA, RMA & FD—61 series
PMA-702-12	70"	18.50	FA, PRXA, RMA & FD—70 series
PMA-722-12	77"	20.00	FA, PRXA, RMA & FD—77 series

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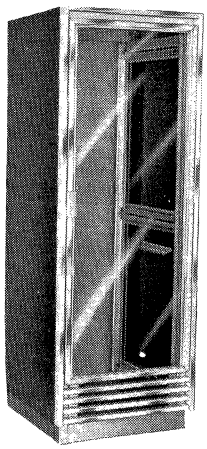
PREM-Ō-RAK® MODULAR SQUARE FRAMES



22" and 25½" DEEP for 19" PANELS

- Designed for MULTIPLE INSTALLATIONS.
- New Square Instrument System of Metal Cabinetry.
- The newest concept in high styling and economy
- The new square look "framed" with Satin Brushed Aluminum Trim (Optional).
- Frame Made of No. 14 gauge steel.
- Supplied with two pair of No. 12 gauge steel Panel Mounting Angles. Both legs of the angle are tapped 10-32 on E.I.A. spacings (⅝-⅝-½) to accommodate front panels & Chassis Support Angles (CSA series).
- Panel mounting angles are held in place at three points by ⅜" carriage bolts and are adjustable to any desired position by means of channel slides.
- Frame completely welded throughout.
- Knockouts supplied on sides of uprights for use in ganging frames.
- A rectangular cutout is provided in bottom for leads, etc.
- Three combination 1⅜" and 1⅛" diameter knockouts furnished on both sides of top and bottom to provide access for cabling between racks.
- Rectangular knockouts provided on front and rear of uprights of frame to accommodate hinge and handle brackets, so that door can be mounted either left or right hand. Doors can be mounted to front or rear of frame.
- Holes punched in bottom to accommodate CA-4 (2") and CA-5 (3") casters.
- Finished in Light Gray Metallic Enamel.

MODIFICATIONS AVAILABLE for customized requirements

- Solid bottom — no cut-out.
- Base can be supplied inverted.
- Rectangular knock-outs on uprights may be omitted.
- Provision for eye bolts on top.
- Provision for mounting special size casters.
- Provision for rubber gaskets and filters.
- Panel mounting angles may be copper plated .0005.
- Special finishes available.

ALUMINUM TRIM

Neatly designed Aluminum Vertical Trim for a shadow box effect, attaches to the front edge of End Panels. When ordering End Panels, add suffix "T" to catalog number, so that panel may be prepared for trim. Example — 2 MSP-61-22-T. Horizontal Trim attaches to top of Frame front. When ordering Frames, add suffix "T" to catalog number so that Frame may be prepared for trim.

NOTE: Horizontal trim should not be ordered if using Front Door. MDF Series

FRAMES 22" WIDE

22" DEEP				Front & Rear Vertical Panel Space	25½" DEEP			
Cat. No.	Top Panel Space	Ship. Wt. Lbs.	Net Price		Cat. No.	Top Panel Space	Ship. Wt. Lbs.	Net Price
MSF-42-22	17½x19"	50	$78.00	42x19"	MSF-42-255	21x19"	55	$81.96
MSF-52-22	17½x19"	65	84.60	52½x19"	MSF-52-255	21x19"	75	88.80
MSF-61-22	17½x19"	80	95.85	61¼x19"	MSF-61-255	21x19"	90	105.60
MSF-70-22	17½x19"	100	112.44	70x19"	MSF-70-255	21x19"	110	123.60
MSF-77-22	17½x19"	110	115.59	77x19"	MSF-77-255	21x19"	125	127.20

ALSO AVAILABLE FOR 24" PANELS.

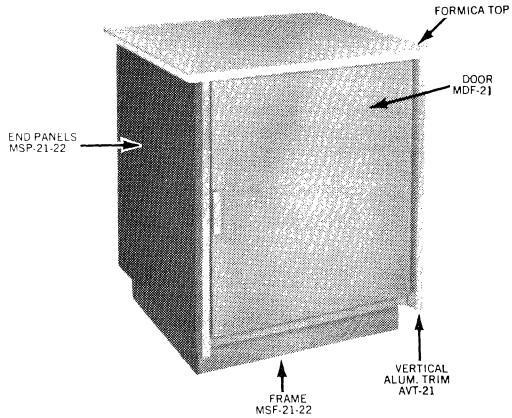
ORDERING GUIDE

Frame Cat. No.	Use End Panel Cat. No.	Use Louvred End Panel Cat. No.	Use Door Cat. No.	Use Louvred Door* Cat. No.	Use Shelf (Page 5) Cat. No.
MSF-21-22	MSP-21-22	MSP-21-22LV	MDF-21	MDF-21LV	SM-101
MSF-28-22	MSP-28-22	MSP-28-22LV	MDF-28	MDF-28LV	SM-101
MSF-21-255	MSP-21-255	MSP-21-255LV	MDF-21-255	MDF-21-255LV	SH-105
MSF-28-255	MSP-28-255	MSP-28-255LV	MDF-28-255	MDF-28-255LV	SH-105

For Aluminum Trim see Page 9.

* When ordering Louvred Doors, specify left or right hand hinging.

PREM-Ō-RAK® MODULAR SQUARE PEDESTAL FRAMES



- Adjustable panel mounting angles, front and rear, are tapped for 10/32 machine screws on E.I.A. spacings. (⅝-⅝-½").
- Panels fit into ½" recess.
- Frame and Door finished in Light Grey Metallic Enamel; End Panels in Dark Grey Metallic Enamel.
- Brackets welded in base and punched to accommodate CA-5 (3") casters and supplied with adapter to accommodate CA-4 (2") casters.
- Frame made of No. 16 gauge steel; panel mounting angles o 12 gauge steel.

ACCESSORIES AVAILABLE

Formica Tops for single or multiple units.

MODIFICATIONS AVAILABLE

Frames made on special order in any panel space. For example — 35", 36¾", 43¾"-48", 78¾".

FRAME

Cat. No.	Width	Depth	Hgt. with Casters	Hgt. without Casters	Front & Rear Panel Space	Top Panel Space	Shpg. Wt. Lbs.	Net Price
MSF-21-22	22"	22"	30"	29½"	21x19"	17½x19"	45	$57.0(
MSF-28-22	22"	22"	37"	36½"	28x19"	17½x19"	50	66.0(
MSF-21-255	22"	25½"	30"	29½"	21x19"	21x19"	50	60.0(
MSF-28-255	22"	25½"	37"	36½"	28x19"	21x19"	55	69.0(

	Blank	Louvred	Height	Width	Net Price
END PANELS ¾" WIDE	MSP-21-22	MSP-21-22LV	26"	22"	$13.50
	MSP-28-22	MSP-28-22LV	33"	22"	15.50
	MSP-21-255	MSP-21-255LV	26"	25½"	15.50
	MSP-28-255	MSP-28-255LV	33"	25½"	17.50
DOORS ¾" WIDE	MDF-21	MDF-21LV	24½"	21½"	19.50
	MDF-28	MDF-28LV	31½"	21½"	22.00

PREMIER PAGE 8

SEE PAGES 23, 24, 25, 26 & 27 FOR HANDLES, SLIDES, BLOWERS and FANS

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Net

PREM-Ō-RAK®

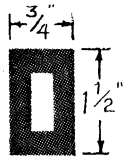
PANELS, DOORS and TRIM for MODULAR SQUARE FRAMES

END PANELS 13/16" DEEP

- Made of one piece of No. 16 gauge steel.
- End panels attach to frame by means of a bracket on bottom and held securely by two captive screws on top.
- Panels supplied blank or louvred.
- Finished in Dark Grey Metallic Enamel.

22" WIDE					25½" WIDE			
Blank Cat. No.	Louvred Cat. No.	Shp. Wt. Lbs.	Net Price	Height	Blank Cat. No.	Louvred Cat. No.	Shp. Wt. Lbs.	Net Price
MSP-42-22	MSP-42-22LV	22	$18.90	45¼"	MSP-42-255	MSP-42-255LV	27	$22.05
MSP-52-22	MSP-52-22LV	26	22.70	55¾"	MSP-52-255	MSP-52-255LV	32	25.85
MSP-61-22	MSP-61-22LV	30	25.20	64½"	MSP-61-255	MSP-61-255LV	34	27.75
MSP-70-22	MSP-70-22LV	32	27.10	73¼"	MSP-70-255	MSP-70-255LV	38	30.25
MSP-77-22	MSP-77-22LV	34	29.30	80¼"	MSP-77-255	MSP-77-255LV	40	32.20

ALUMINUM TRIM



SATIN FINISH

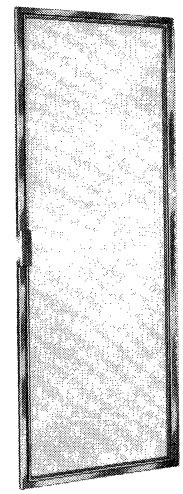
Neatly designed Aluminum Vertical Trim for a shadow box effect, attaches to the front edge of End Panels. When ordering End Panels, add suffix "T" to catalog number, so that panel may be prepared for trim. Example — 2 MSP-61-22-T. Horizontal Trim attaches to top of Frame front. When ordering Frames, add suffix "T" to catalog number so that Frame may be prepared for trim. NOTE: Horizontal trim should not be ordered if using Front Door. MDF Series

VERTICAL TRIM			HORIZONTAL TRIM		
Cat. No.	To Fit	Net Price	Cat. No.	To Fit	Net Price
AVT-21	MSP-21-22T, 21-255T	$10.80	AHT-19	Single 22" Wide Frame	$8.80
AVT-28	MSP-28-22T, 28-255T	13.60	AHT-24	Single 27" Wide Frame	10.80
AVT-42	MSP-42-22T, 42-255T	19.20	AHT-38	Two 22" Wide Frames Side by side	17.60
AVT-52	MSP-52-22T, 52-255T	23.20	AHT-48	Two 27" Wide Frames side by side	21.60
AVT-61	MSP-61-22T, 61-255T	26.80			
AVT-70	MSP-70-22T, 70-255T	30.40			
AVT-77	MSP-77-22T, 77-255T	33.20			

DOORS — 21½" WIDE — 13/16" DEEP

- Made of No. 16 gauge steel.
- Doors can be mounted either left or right hand by rotating door 180°.
- Doors hung on slip jointed hinges and furnished with handsome door pull.
- Finished in Light Grey Metallic Enamel.

BLANK Cat. No.	LOUVRED Cat. No.	Shpg. Wt. Lbs.	Height	Net Price
MDF-42	MDF-42LV	20	45 9/16"	$26.40
MDF-52	MDF-52LV	25	56 1/16"	29.40
MDF-61	MDF-61LV	30	64 13/16"	36.60
MDF-70	MDF-70LV	35	73 9/16"	36.00
MDF-77	MDF-77LV	40	80 9/16"	38.40



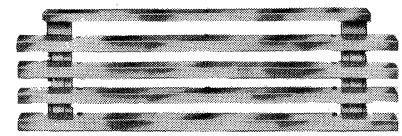
ALUMINUM PLEXIGLASS DOOR

Satin finish aluminum with ¼" thick Plexiglass. Aluminum handle and magnetic catch assembled to frame at factory.

Cat. No.	To Fit Frame No.	Net Price
MPD-42	MSF-42-22 & 42-255	$ 99.00
MPD-52	MSF-52-22 & 52-255	109.00
MPD-61	MSF-61-22 & 61-255	119.00
MPD-70	MSF-70-22 & 70-255	129.00
MPD-77	MSF-77-22 & 77-255	139.00

Doors available in other heights when used with Aluminum Blower Grille (AG Series) when standard doors listed above do not fit.

ALUMINUM BLOWER GRILLE



Snaps into position — easily removable. Aluminum extrusions assembled to steel frame. Satin finish Aluminum.

Cat. No.	Height	Width	Net Price
AG-519	5¼"	19"	$30.00
AG-719	7"	19"	33.00
AG-819	8¾"	19"	36.00
AG-1019	10½"	19"	39.00

ORDERING GUIDE For Aluminum Trim, See Listings Above

Frame Cat. No.	Use End Panel Cat. No.	Use Louvred End Panel Cat. No.	Use Door Cat. No.	Use Louvred Door* Cat. No.	Use Chassis Support Angle (Page 7) Cat. No.	Use Shelf (Page 7) Cat. No.	
MSF-42-22	MSP-42-22	MSP-42-22LV	MDF-42	MDF-42LV	CSA-22	S-22-22	
MSF-52-22	MSP-52-22	MSP-52-22LV	MDF-52	MDF-52LV	CSA-22	S-22-22	
MSF-61-22	MSP-61-22	MSP-61-22LV	MDF-61	MDF-61LV	CSA-22	S-22-22	* When
MSF-70-22	MSP-70-22	MSP-70-22LV	MDF-70	MDF-70LV	CSA-22	S-22-22	ordering
MSF-77-22	MSP-77-22	MSP-77-22LV	MDF-77	MDF-77LV	CSA-22	S-22-22	Louvered
MSF-42-255	MSP-42-255	MSP-42-255LV	MDF-42	MDF-42LV	CSA-255	S-22-255	Doors,
MSF-52-255	MSP-52-255	MSP-52-255LV	MDF-52	MDF-52LV	CSA-255	S-22-255	specify left or
MSF-61-255	MSP-61-255	MSP-61-255LV	MDF-61	MDF-61LV	CSA-255	S-22-255	right hand
MSF-70-255	MSP-70-255	MSP-70-255LV	MDF-70	MDF-70LV	CSA-255	S-22-255	hinging.
MSF-77-255	MSP-77-255	MSP-77-255LV	MDF-77	MDF-77LV	CSA-255	S-22-255	

PREMIER PAGE 9 SEE PAGES 23, 24, 25, 26 & 27 FOR HANDLES, SLIDES, BLOWERS and FANS

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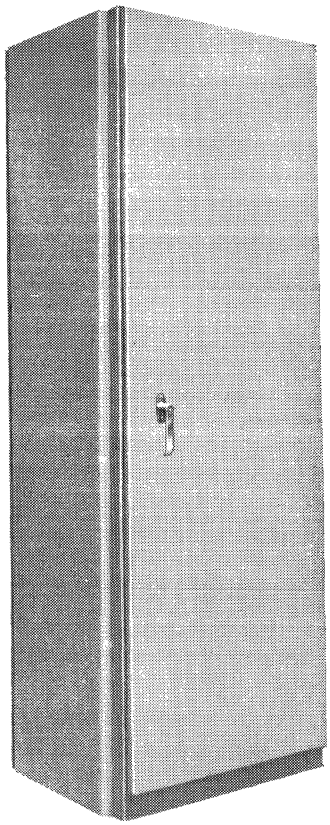
PREMIER MODULAR Square Cornered FRAMES

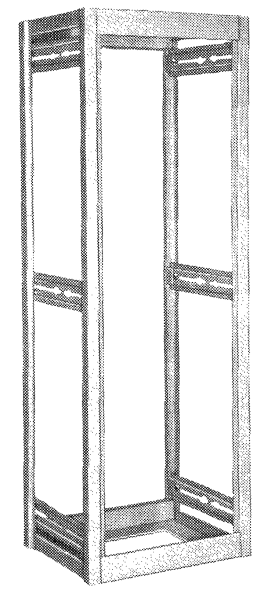
18" and 24" DEEP For 19", 24" and 30" PANELS



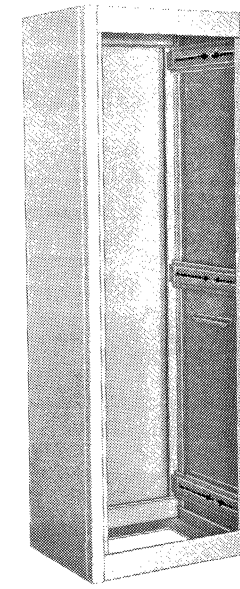
Above unit consists of Frame (PRXA Series), Rounded Side Panels (SP Series) and Door (DF Series)

- **DESIGNED FOR MULTIPLE INSTALLATIONS**
- **TOPS of FRONT and REAR are SQUARE**
- **FRAMES ACCOMMODATE FLUSH SIDE PANELS (FL Series) or ROUNDED SIDE PANELS (SP Series)**

- Frame made of No. 14 gauge steel.
- Supplied with two pair of No. 12 gauge steel Panel Mounting Angles. Both legs of the angle are tapped 10-32 on E.I.A. spacings (⅝-⅝-½) to accommodate Front Panels & Chassis Support Angles (CSA series).
- Panel mounting angles are held in place at three points by ⅜" carriage bolts and are adjustable to any desired position by means of channel slides.
- Frame completely welded throughout.
- Top of frame is solid. Round hole and 5 mounting holes on top of frame to accommodate Exhaust (EF Series) and Intake (IF Series) Fans, available at additional cost.
- Knockouts supplied on sides of uprights for use in ganging frames.
- A rectangular cutout is provided in bottom for leads, etc.
- Rectangular knockouts provided on front and rear of uprights of frame to accommodate hinge and handle brackets, so that door can be mounted either left or right hand. Doors can be mounted to front or rear of frame.
- Holes punched in bottom to accommodate CA-4 (2"), CA-5 (3") and CA-6 (double 2") casters.
- Finished in Gray Hammertone.



PRXA FRAME



Above unit consists of Frame (PRXA Series), Flush Side Panels (FL Series) and Door (DF Series)

FRAMES

18" DEEP Cat. No.	Shpg. Wt. Lbs.	Net Price	22" WIDE Height	Panel Space	24" DEEP Cat. No.	Shpg. Wt. Lbs.	Net Price
PRXA-36	40	$42.50	42⅞"	36¾ x 19"	PRXA-36-24	50	$62.50
PRXA-42	48	46.80	48⅛"	42 x 19"	PRXA-42-24	58	70.80
PRXA-52	60	57.60	58⅝"	52½ x 19"	PRXA-52-24	72	78.00
PRXA-61	70	71.70	67⅜"	61¼ x 19"	PRXA-61-24	85	99.54
PRXA-70	88	86.76	76⅛"	70 x 19"	PRXA-70-24	108	118.56
PRXA-77	100	88.56	83⅛"	77 x 19"	PRXA-77-24	120	126.00
18" DEEP			**27" WIDE**		**24" DEEP**		
PRXA-2761	100	80.58	67⅜"	61¼ x 24"	PRXA-2761-24	134	112.38
PRXA-2770	104	95.58	76⅛"	70 x 24"	PRXA-2770-24	140	123.00
PRXA-2777	116	100.20	83⅛"	77 x 24"	PRXA-2777-24	156	128.76
18" DEEP			**33" WIDE**		**24" DEEP**		
PRXA-3361	122	85.56	67⅜"	61¼ x 30"	PRXA-3361-24	162	118.80
PRXA-3370	126	109.14	76⅛"	70 x 30"	PRXA-3370-24	169	140.64
PRXA-3377	142	110.76	83⅛"	77 x 30"	PRXA-3377-24	190	143.52

Modifications Available

For Customized Requirements

FOR PRXA FRAMES

- Louvres, cutouts or holes in top.
- Solid bottom — no cut-out.
- Base can be supplied inverted.
- Omission of rectangular KO's on uprights.
- Opening in top with ½" recess for mounting a panel.
- Provisions for eye bolts in top.
- Provisions for mounting special size casters.
- Provision for rubber gasketing and filters.
- Panel mounting angles can be supplied copper plated .0005".
- Special finishes available.

ORDERING GUIDE

FRAME Cat. No.	ROUNDED SIDE PANEL (Page 11) Cat. No.		FLUSH SIDE PANEL (Page 11) Cat. No.	Use DOOR (Page 11) Cat. No.	Use CHASSIS SUPPORT ANGLE (Page 7)	Use SHELF (Page 7)	Use CHASSIS SLIDES (Pages 25, 26, 27)
PRXA-36	SP-36		FL-36	DF-36	CSA-18	S-2218	16"
PRXA-42	SP-42	USE	FL-42	DF-42	CSA-18	S-2218	16"
PRXA-52	SP-52		FL-52	DF-52	CSA-18	S-2218	16"
PRXA-61	SP-61	EITHER	FL-61	DF-61	CSA-18	S-2218	16"
PRXA-70	SP-70		FL-70	DF-70	CSA-18	S-2218	16"
PRXA-77	SP-77	OR	FL-77	DF-77	CSA-18	S-2218	16"
PRXA-36-24	SP-36-24		FL-36-24	DF-36	CSA-24	S-2224	22"
PRXA-42-24	SP-42-24		FL-42-24	DF-42	CSA-24	S-2224	22"
PRXA-52-24	SP-52-24		FL-52-24	DF-52	CSA-24	S-2224	22"
PRXA-61-24	SP-61-24		FL-61-24	DF-61	CSA-24	S-2224	22"
PRXA-70-24	SP-70-24		FL-70-24	DF-70	CSA-24	S-2224	22"
PRXA-77-24	SP-77-24		FL-77-24	DF-77	CSA-24	S-2224	22"
PRXA-2761	SP-61		FL-61	DF-2761	CSA-18	S-2718	16"
PRXA-2770	SP-70		FL-70	DF-2770	CSA-18	S-2718	16"
PRXA-2777	SP-77		FL-77	DF-2777	CSA-18	S-2718	16"
PRXA-2761-24	SP-61-24		FL-61-24	DF-2761	CSA-24	S-2724	22"
PRXA-2770-24	SP-70-24		FL-70-24	DF-2770	CSA-24	S-2724	22"
PRXA-2777-24	SP-77-24		FL-77-24	DF-2777	CSA-24	S-2724	22"
PRXA-3361	SP-61		FL-61	DF-3361	CSA-18	S-3318	16"
PRXA-3370	SP-70		FL-70	DF-3370	CSA-18	S-3318	16"
PRXA-3377	SP-77		FL-77	DF-3377	CSA-18	S-3318	16"
PRXA-3361-24	SP-61-24		FL-61-24	DF-3361	CSA-24	S-3324	22"
PRXA-3370-24	SP-70-24		FL-70-24	DF-3370	CSA-24	S-3324	22"
PRXA-3377-24	SP-77-24		FL-77-24	DF-3377	CSA-24	S-3324	22"

ALL PRICES F.O.B. BRONX, N. Y. 10474 **PREMIER PAGE 10** **SEE PGS. 23, 24, 25, 26 & 27 FOR HANDLES, SLIDES, BLOWERS & FAN**

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PREMIER PANELS AND DOORS

ROUNDED SIDE PANELS FOR PRXA FRAMES 1½" DEEP

Made of No. 16 Gauge Steel Finished in Gray Hammertone

15" WIDE FOR 18" DEEP FRAMES

Cat. No.	Size	Shpg. Wt. Lbs.	Net Price
SP-36	42¾ x 15 x 1½"	19	$16.50
SP-42	48 x 15 x 1½"	20	17.40
SP-52	58½ x 15 x 1½"	21	19.54
SP-61	67¼ x 15 x 1½"	23	22.62
SP-70	76 x 15 x 1½"	26	24.32
SP-77	83 x 15 x 1½"	28	26.15

21" WIDE FOR 24" DEEP FRAMES

Cat. No.	Size	Shpg. Wt. Lbs.	Net Price
SP-36-24	42¾ x 21 x 1½"	21	$21.50
SP-42-24	48 x 21 x 1½"	22	22.44
SP-52-24	58½ x 21 x 1½"	25	24.58
SP-61-24	67¼ x 21 x 1½"	28	27.12
SP-70-24	76 x 21 x 1½"	31	29.18
SP-77-24	83 x 21 x 1½"	34	31.50

END PANELS — 1-11/32" DEEP FOR FA FRAMES

- Made of one piece of 16 gauge steel.
- BALL CORNERED.
- End panels attach to frame by means of a bracket on bottom and held securely by two captive screws on top.
- Panels supplied blank. Louvres furnished at no additional charge.
- Finished in Brown Hammertone.

22" WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price	Hgt.	25½" WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price
CEP-42-22	23	$18.90	45¼"	CEP-42-255	28	$22.05
CEP-52-22	27	22.70	55¾"	CEP-52-255	32	25.85
CEP-61-22	30	25.20	64½"	CEP-61-255	35	27.75
CEP-70-22	33	27.10	73¼"	CEP-70-255	38	30.25
CEP-77-22	35	29.30	80¼"	CEP-77-255	40	32.20

DOORS FOR FS, FA and PRXA FRAMES 13/16" DEEP

• Made of No. 16 gauge steel • Doors can be mounted either left or right hand by rotating door 180° • Doors supplied blank. Louvres furnished at no additional charge • Doors hung on slip jointed hinges and equipped with locking handle and 2 keys • Door mounted to frame by 3 removable hinge brackets, permitting the door to be mounted either left or right hand. Handle latch bracket also supplied • Finished in Gray Hammertone. • **Specify hinged-side when doors are furnished louvred.**

21½" WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	26½" WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price
DF-36	17	$25.00	40 5/16"	DF-2736	23	$30.00
DF-42	20	26.40	45 5/16"	DF-2742	26	32.40
DF-52	25	29.40	56 1/16"	DF-2752	31	35.40
DF-61	28	33.60	64 13/16"	DF-2761	34	39.60
DF-70	31	36.00	73 9/16"	DF-2770	38	43.50
DF-77	34	38.40	80 5/16"	DF-2777	41	45.00

32½" WIDE (DOUBLE DOORS with 3 Point Locking Device)

Cat. No.	Shpg. Wt. Lbs.	Height	Net Price	Cat. No.	Shpg. Wt. Lbs.	Height	Net Price	Cat. No.	Shpg. Wt. Lbs.	Height	Net Price
DF-3361	40	64 13/16"	$45.00	DF-3370	45	73 9/16"	$50.50	DF-3377	48	80 5/16"	$54.00

FLUSH SIDE PANELS FOR PRXA FRAMES — ½" DEEP

- Fits into side recess of frame.
- Made of one piece of No. 16 gauge steel.
- Clips on to horizontal side section of frame. Finished in Gray Hammertone.

15" WIDE for 18" DEEP FRAMES Cat. No.	To Fit Frame No.	Shpg. Wt. Lbs.	Net Price Each	Height	21" WIDE for 24" DEEP FRAMES Cat. No.	To Fit Frame No.	Shpg. Wt. Lbs.	Net Price Each
FL-36	PRXA-36	18	$14.75	42¾"	FL-36-24	PRXA-36-24	20	$19.75
FL-42	PRXA-42	19	15.66	48"	FL-42-24	PRXA-42-24	21	20.46
FL-52	PRXA-52	21	17.72	58½"	FL-52-24	PRXA-52-24	24	22.50
FL-61	PRXA-61, 2761, 3361	22	20.64	67¼"	FL-61-24	PRXA-61-24, 2761-24; 3361-24	27	24.90
FL-70	PRXA-70, 2770, 3370	25	22.26	76"	FL-70-24	PRXA-70-24, 2770-24; 3370-24	30	26.88
FL-77	PRXA-77, 2777, 3377	27	24.00	83"	FL-77-24	PRXA-77-24, 2777-24; 3377-24	33	29.00

END PANELS FOR SLOPED FRONT CONSOLE FRAME — 1-11/32" DEEP

- Ball Cornered.
- Made of 1 Pc. No. 18 Gauge Steel.
- End Panels Attached to Frame by Means of a Bracket on Bottom & Held Securely by 2 Captive Screws on Top.
- Supplied Blank; Louvres Furnished at No Additional Charge.
- Finished in Brown Hammertone.

22" WIDE End Panels	Used for Frame	Ship. Wt. Lbs.	Net Price	25½" WIDE End Panels	Used for Frame	Ship. Wt. Lbs.	Net Price
CEP-1201 LH	Left side FS-1001 & 1003	20	$22.62	CEP-1201-255 LH	Left side FS-1001-255 & 1003-255	22	$22.75
CEP-1201 RH	Right side FS-1001 & 1003	20	22.62	CEP-1201-255 RH	Right side FS-1001-255 & 1003-255	22	22.75
CEP-1202 LH	Left side FS-1002 & 1004	18	18.90	CEP-1202-255 LH	Left side FS-1002-255 & 1004-255	20	19.50
CEP-1202 RH	Right side FS-1002 & 1004	18	18.90	CEP-1202-255 RH	Right side FS-1002-255 & 1004-255	20	19.50

END PANELS FOR PEDESTAL FRAMES

- Made of one piece of No. 18 gauge steel.
- Finished in Brown Hammertone. Also available in Gray Hammertone. Please specify.
- For easy installation and access, the end panels attach to pedestal frame CPF Series by means of 2 brackets on bottom and held securely with 2 captive screws on top.

END PANEL 1-11/32" DEEP

- Ball Cornered.

Cat. No.	Width*	Height	For use with	Shpg. Wt. Lbs.	Net Price
CEP-401	22"	26"	CPF-101 & 103	17	$15.75
CEP-402	22"	33"	CPF-102 & 104	20	18.90
CEP-401-34	34¼"	26"	CPF-101-34	22	20.80
CEP-401-255	25½"	26"	CPF-101-255 & 103-255	21	17.50
CEP-402-255	25½"	33"	CPF-102-255 & 104-255	24	19.00

SHORT END PANEL — 1-11/32" DEEP

Used only when work top is mounted between 2 pedestal frames.

Cat. No.	Width*	Height	For use with	Shpg. Wt. Lbs.	Net Price
CSS-701	22"	23"	CPF-101 & 103	15	$10.00
CSS-701-34	34¼"	23"	CPF-101-34	18	13.20
CSS-701-255	25½"	23"	CPF-101-255 & 103-255	17	12.00

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Net

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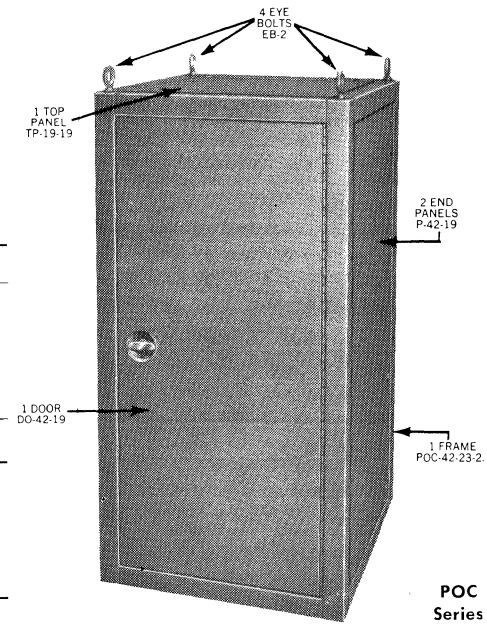
PREM-O-CUBE HEAVY DUTY CUBICLES

FOR STANDARD 19, 24 and 30" WIDE PANELS

- Frame made of No. 12 gauge steel and supplied with 10-32 tapped holes on EIA spacings (⅝-⅝-½") on both legs of all vertical uprights.
- Top of frame supplied with knock-out in each corner to accommodate eye bolts for lifting.
- Top and side panels and doors made of No. 14 gauge steel and supplied with a return flange on all sides for easy gasketing.
- Doors and/or side panels can be mounted to any openings of frame.
- Finished in Green Kromotex. Also available in Grey Hammertone or Grey Kromotex. Specify when ordering.



POC Series

FRAMES 23" WIDE for 19" PANELS

Overall Height	Panel Height	23" Deep Cat. No.	Net Price	28" Deep Cat. No.	Net Price	34" Deep Cat. No.	Net Price
40¾"	36¾"	POC-36-23-23	$ 87.00	POC-36-23-28	$ 92.00	POC-36-23-34	$ 98.00
46"	42"	POC-42-23-23	92.00	POC-42-23-28	97.00	POC-42-23-34	103.00
65¼"	61¼"	POC-61-23-23	112.00	POC-61-23-28	117.00	POC-61-23-24	123.00
74"	70"	POC-70-23-23	120.00	POC-70-23-28	125.00	POC-70-23-24	131.00
81"	77"	POC-77-23-23	127.00	POC-77-23-28	132.00	POC-77-23-24	138.00
84½"	80½"	POC-80-23-23	131.00	POC-80-23-28	136.00	POC-80-23-24	142.00

FRAMES 28" WIDE for 24" PANELS

40¾"	36¾"	—	—	POC-36-28-28	97.00	POC-36-28-34	103.00
46"	42"	—	—	POC-42-28-28	102.00	POC-42-28-34	108.00
65¼"	61¼"	—	—	POC-61-28-28	122.00	POC-61-28-34	128.00
74"	70"	—	—	POC-70-28-28	130.00	POC-70-28-34	136.00
81"	77"	—	—	POC-77-28-28	137.00	POC-77-28-34	143.00
84½"	80½"	—	—	POC-80-28-28	141.00	POC-80-28-34	147.00

FRAMES 34" WIDE for 30" PANELS

40¾"	36¾"	—	—	—	—	POC-36-34-34	109.00
46"	42"	—	—	—	—	POC-42-34-34	114.00
65¼"	61¼"	—	—	—	—	POC-61-34-34	134.00
74"	70"	—	—	—	—	POC-70-34-34	142.00
81"	77"	—	—	—	—	POC-77-34-34	149.00
84½"	80½"	—	—	—	—	POC-80-34-34	153.00

PANELS AND DOORS FOR PREM-O-CUBE HEAVY DUTY CUBICLES

END PANELS

Blank and Louvred — ¾" DEEP. Made of No. 14 gauge steel with return bend for easy gasketing.

FOR 19" WIDE

BLANK Cat. No.	Net Price	Height	LOUVRED Cat. No.	Net Price
P-36-19	$22.40	36¾"	PL-36-19	$30.40
P-42-19	24.40	42"	PL-42-19	32.40
P-61-19	32.40	61¼"	PL-61-19	40.40
P-70-19	35.60	70"	PL-70-19	43.60
P-77-19	38.40	77"	PL-77-19	46.40
P-80-19	40.00	80½"	PL-80-19	48.00

FOR 24" WIDE

P-36-24	24.00	36¾"	PL-36-24	32.00
P-42-24	26.00	42"	PL-42-24	34.00
P-61-24	34.00	61¼"	PL-61-24	42.00
P-70-24	37.20	70"	PL-70-24	45.20
P-77-24	40.00	77"	PL-77-24	48.00
P-80-24	41.60	80½"	PL-80-24	49.80

FOR 30" WIDE

P-36-30	26.80	36¾"	PL-36-30	34.80
P-42-30	28.80	42"	PL-42-30	36.80
P-61-30	36.80	61¼"	PL-61-30	44.80
P-70-30	40.00	70"	PL-70-30	48.00
P-77-30	42.80	77"	PL-77-30	50.80
P-80-30	44.40	80½"	PL-80-30	52.40

DOORS

Blank and Louvred

- Made of No. 14 gauge steel
- Continuous hinge flush fitting
- Supplied with 3 point latching device and round flush handle

FOR 19" WIDE

Blank	Net Price	Height	Width	Louvred	Net Price
DO-36-19	$38.08	36¾"	19"	DOL-36-19	$46.08
DO-36-24	40.80	36¾"	24"	DOL-36-24	48.80
DO-36-30	45.56	36¾"	30"	DOL-36-30	53.56
DO-42-19	41.48	42"	19"	DOL-42-19	49.48
DO-42-24	44.20	42"	24"	DOL-42-24	52.20
DO-42-30	48.96	42"	30"	DOL-42-30	56.96
DO-61-19	55.08	61¼"	19"	DOL-61-19	63.08
DO-61-24	57.80	61¼"	24"	DOL-61-24	65.80
DO-61-30	62.56	61¼"	30"	DOL-61-30	70.56
DO-70-19	60.52	70"	19"	DOL-70-19	68.52
DO-70-24	63.24	70"	24"	DOL-70-24	71.24
DO-70-30	68.00	70"	30"	DOL-70-30	76.00
DO-77-19	65.28	77"	19"	DOL-77-19	73.28
DO-77-24	68.00	77"	24"	DOL-77-24	76.00
DO-77-30	72.76	77"	30"	DOL-77-30	80.76
DO-80-19	68.00	80½"	19"	DOL-80-19	76.00
DO-80-24	70.72	80½"	24"	DOL-80-24	78.72
DO-80-30	75.48	80½"	30"	DOL-80-30	83.48

ACCESSORIES FOR PREM-O-CUBE HEAVY DUTY CUBICLES

TOP & BOTTOM PANELS

Size	Blank Cat No.	Net Price	Louvred Cat. No.	Net Price
19x19"	TP-19-19	$15.20	TPL-19-19	$20.20
19x24"	TP-19-24	17.20	TPL-19-24	22.20
19x30"	TP-19-30	19.60	TPL-19-30	24.60
24x24"	TP-24-24	19.20	TPL-24-24	24.20
24x30"	TP-24-30	21.60	TPL-24-30	26.60
30x30"	TP-30-30	24.00	TPL-30-30	29.00

PANEL MOUNTING ANGLES

12 gauge steel; tapped 10-32 on E.I.A. spacings

Length	Cat. No.	Net Price
36¾"	PMA 362-12	$11.00
42"	PMA 422-12	13.20
61¼"	PMA 612-12	16.50
70"	PMA 702-12	18.50
77"	PMA 772-12	20.00
80½"	PMA 802-12	21.00

HORIZONTAL CROSS PIECES

Fits Frame Depth	Cat. No.	Net Price
23"	HCP-23	$2.50
28"	HCP-28	3.00
34"	HCP-34	3.50

ROLLER TRUCKS

with 4" Diameter Rockite Casters

Size	Cat. No.	Net Price
23x23"	CRT 19-19	$50.00
23x28"	CRT 19-24	52.00
23x34"	CRT 19-30	54.40
28x28"	CRT 24-24	54.00
28x34"	CRT 24-30	56.40
34x34"	CRT 30-30	58.80

EYE BOLTS

2" Dia. — Cat. No. EB-2

Net Price — $6.00 for 4

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SEE PAGES 23, 24, 25, 26 & 27 FOR HANDLES, SLIDES, BLOWERS and FANS

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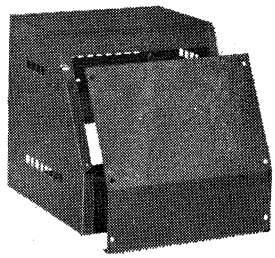
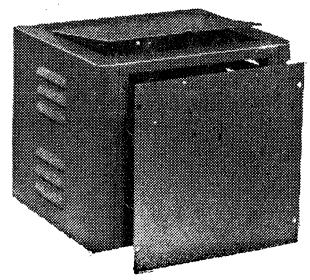
PREMIER Standard PRECISION BUILT METAL HOUSINGS



SLOPING FRONT

Cabinet has rounded top corners and a removable front panel. Back of cabinet is perforated and has opening for leads. Constructed of #20 gauge steel. Finished in Blue-Gray Wrinkle.

Catalog No.	H.	W.	D.	Use Chassis No.	Ship. Wt. Lbs.	Net Price
SFC-500	8 x	8⅛ x	8″	CH-403	6	$4.90
SFC-501	8 x	10⅛ x	8″	CH-404	7	5.45
SFC-502	8 x	14⅛ x	8″	CH-406	8	5.84
SFC-503	9 x	18⅛ x	8″	CH-409	10	8.38
SFC-504	12 x	18⅛ x	12″	CH-415	14	10.70



HINGED TOP ROUNDED CORNER TYPE

Cabinet has front vertical rounded corners and a removable front panel. Back of cabinet is louvred and has opening for leads. Constructed of #20 gauge steel. Finished in Blue-Gray Wrinkle.

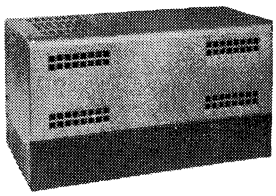
Catalog No.	H.	W.	D.	Panel Size	Use Chassis No.	Ship Wt. Lbs.	Net Price
HTC-200	8x10¾₁₆x		8″	8x 8″	CH-403	6	$5.05
HTC-201	8x12¾₁₆x		8″	8x10″	CH-404	6½	5.45
HTC-202	8x16¾₁₆x		8″	8x14″	CH-406	11	7.10
HTC-203	9x17¾₁₆x		11″	9x15″	CH-413	6½	10.96
HTC-204	12x20¾₁₆x		12″	12x18″	CH-415	13½	12.96
HTC-205	8x14¾₁₆x		8″	8x12″	CH-405	7¼	6.28

INDUSTRIAL DISCOUNT SCHEDULE

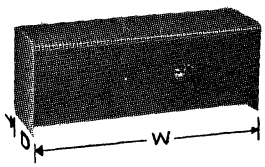
Applies to any PREMIER products listed in this catalog.

If total order at net prices is:	DISCOUNT
Up to $199.99	Net Price
$200 to $399.99	Net Less 10%
$400 to $549.99	Net Less 15%
$550 to $699.99	Net Less 20%
$700 to $999.99	Net Less 25%
$1,000 to $2,499.99	Net Less 30%
$2,500 OR MORE	Net Less 33⅓%

AMPLIFIER FOUNDATIONS



STANDARD TYPE



PERFORATED TYPE COVERS

STANDARD TYPE

TOP COVER has perforations, rounded corners and is 6″ high. Finishd in Blue-Gray Wrinkle.

CHASSIS constructed of one piece with corners spot-welded. Finished in Black Wrinkle.

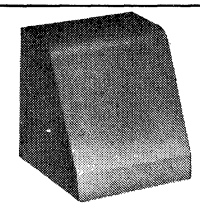
Cat. No.	Chassis Size	Ship. Wt. Lbs.	Net Price
AF-510	5″ x 10″ x 3″	5	$5.05
AF-615	6″ x 14″ x 3″	7	5.85
AF-1017	10″ x 17″ x 3″	11	7.85
AF-1317	13″ x 17″ x 3″	13	9.43

PERFORATED TYPE COVERS

TOP COVER made of perforated steel and has rounded corners with solid ends. 6″ high except PC-57*. Finished in Blue-Gray Wrinkle. Supplied without chassis.

Cat. No.	W.	D.	Use Chassis No.	Ship. Wt. Lbs.	Net Price
*PC-57	7″	5″	ACH or CH-426	1	$3.40
PC-510	10″	5″	ACH or CH-401	1¾	3.45
PC-615	14″	6″	ACH or CH-402	2⅜	4.00
PC-717	17″	7″	ACH or CH-409	3	4.40
PC-1012	12″	10″	ACH or CH-412	3	4.50
PC-1017	17″	10″	ACH or CH-415	3¼	5.45

* 4″ high.

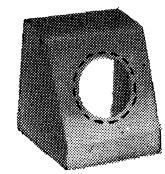


STEEL and ALUMINUM Sloping Panel Cabinets

ROUND TOP CORNERS WITH SLOPING FRONT

No. 20 gauge Steel—Black Wrinkle Finish. No. 18 gauge (.040) Aluminum—Natural Aluminum finish.

Steel Cat. No.	W.	D.	H.	Ship. Wt. Lbs.	Net Price	Alum. Cat. No.	Net Price
SPC-1200	4³⁄₁₆	x4¹⁄₁₆	x4⁵⁄₁₆	¾	$1.20	ASPC-1200	1.51
SPC-1201	5³⁄₁₆	x4¹⁄₁₆	x4⁵⁄₁₆	1	1.36	ASPC-1201	1.71
SPC-1202	6³⁄₁₆	x4¹⁄₁₆	x4⁵⁄₁₆	1	1.54	ASPC-1202	1.94
SPC-1203	7³⁄₁₆	x4¹⁄₁₆	x4⁵⁄₁₆	1½	1.86	ASPC-1203	2.33

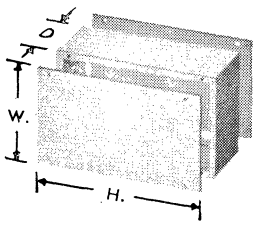


2 in 1 STEEL & ALUMINUM METER CASES

Center Hole for 2″ meter (2-3/16″ dia.) increases to 3″ (2-13/16″ dia). meter hole by simply removing a knock-out. Size: 4³⁄₁₆x4⁵⁄₁₆x-4¹⁄₁₆″. Supplied with two ½″ dia. knockouts. #20 gauge steel—Black Wrinkle Finish, #18 gauge (.040) Aluminum — Natural Aluminum Finish.

	Cat. No.	Sh. Wt.	Net Price
ALUMINUM	ASPC-23	¾	$1.66
STEEL	SPC-23	¾	1.40

UTILITY CASES



ALUMINUM

Constructed of #16 ga. (.051) aluminum with ½″ flanged edges, spot welded corners and two removable flat covers. Natural Aluminum finish or Gray Hammertone.

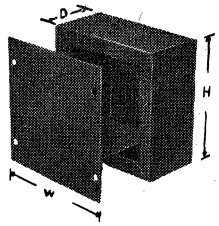
Natural Aluminum Cat. No.	Net Price	Size H. W. D.	Ship. Wt. Lbs.	Gray Hammertone Cat. No.	Net Price
AC-442	$1.40	4 4 2″	½	PAC-442	$1.55
AC-453	1.54	4 5 3″	¾	PAC-453	1.78
AC-564	1.82	5 6 4″	1	PAC-564	2.25
AC-596	3.00	5 9 6″	1½	PAC-596	3.40
AC-666	2.10	6 6 6″	1½	PAC-666	2.35
AC-1276	4.10	12 7 6″	2¼	PAC-1276	4.55
AC-1597	5.65	15 9 7″	3½	PAC-1597	6.25
AC-695	3.00	6 9 5″	1½	PAC-695	3.40

STEEL

Constructed of #20 ga. sheet steel with ½″ flanged edges, spot welded corners, and two removable flat covers. Finished in Black Wrinkle.

Catalog No.	H.	W.	D.	Ship. Wt. Lbs.	Net Price
C-442	4″	4″	2″	⅞	$1.05
C-453	4″	5″	3″	1¼	1.25
C-564	5″	6″	4″	1¾	1.45
C-596	5″	9″	6″	3	2.25
C-666	6″	6″	6″	2¼	2.00
C-695	6″	9″	5″	3	2.25
C-754	7″	5″	4″	2	1.60
C-8101	10″	10″	8″	6	3.75
C-1276	12″	7″	6″	4½	3.15

STEEL UTILITY CASES WITH CHASSIS ATTACHED



Made of #20 gauge steel with a chassis spot welded to front panel. Front and rear panels are removable. Finished in black wrinkle.

Catalog No.	Height	Width	Depth	Chassis Size	Ship. Wt. Lbs.	Net Price
CA-1400	4″	4″	2″	1 x 2⅞ x 1⅞″	1	$1.35
CA-1401	4″	5″	3″	1 x 3⅞ x 2⅞″	1¼	1.60
CA-1402	5″	4″	3″	1¼ x 2⅞ x 2⅞″	1¼	1.60
CA-1403	6″	5″	4″	1¾ x 3⅞ x 3⅞″	2	2.00
CA-1404	5″	6″	4″	1¼ x 4⅞ x 3⅞″	2	2.00
CA-1405	6″	6″	6″	1¾ x 4⅞ x 5⅞″	3	2.10

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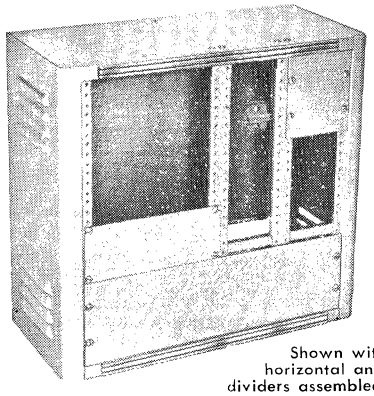
PREMIER Standard PRECISION BUILT METAL HOUSINGS



MDK Series

Shown with panels, horizontal and vertical dividers assembled.

MODU-RAK®

12" DEEP MINIATURE DESK RACKS

for modular construction of test equipment

FOR STANDARD 19" RACK PANELS

- Front vertical corners are rounded and the top and bottom are trimmed with red striped chrome moulding.
- Rigidly constructed of No. 16 gauge cold rolled sheet steel.
- Panels fit into a recess so that the edges are not exposed.

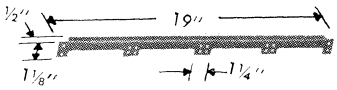
21¾" WIDE x 12" DEEP

	Catalog No.	Overall Height	Available Panel-Space	Ship. Wt. Lbs.	Net Price
WITH REMOVABLE REAR PANEL	MDK-50	7"	5¼ x 19"	16	$11.25
	MDK-70	8¾"	7 x 19"	20	11.65
	MDK-80	10½"	8¾ x 19"	21	12.35
	MDK-100	12¼"	10½ x 19"	23	14.20
	MDK-120	14"	12¼ x 19"	25	15.50
	MDK-140	15¾"	14 x 19"	29	17.50
WITH REAR DOOR	MDK-170	19¼"	17½ x 19"	36	21.25
	MDK-210	22¾"	21 x 19"	39	23.15
	MDK-260	28"	26¼ x 19"	40	25.35
	MDK-280	29¾"	28 x 19"	41	27.35

- Panel mounting holes are tapped for 10-32 machine screws on E.I.A. Spacings (⅝-⅝-½")
- 6 knock-out holes are provided on top and bottom of MDK-70 through MDK 280 series to accommodate angle brackets (Cat. No. AB-2).
- Rear doors have snap catches.
- Bolts are not visible from the outside and these units have the same appearance as the welded models.
- FINISHED IN GRAY HAMMERTONE
- SHIPPED KNOCKED-DOWN WITH ALL NECESSARY HARDWARE FOR EASY ASSEMBLY

ACCESSORIES FOR SUBDIVIDING MODU-RAK INTO MODULAR UNITS

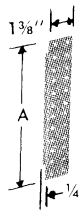
HORIZONTAL DIVIDERS



- Holes punched to accommodate vertical dividers (DV Series) which subdivides MODU-RAK into 9½" and 4¾" widths.
- Made of No. 16 gauge steel.
- Finished in gray hammertone.

Catalog No.	Dimensions	Net Price
DH-19	19" x 1⅛"	$3.42
DH-95	9½" x 1⅛"	2.80

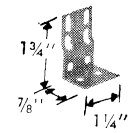
VERTICAL DIVIDERS



- Two rows of 10-32 tapped holes punched on E.I.A. Spacings.
- Made of No. 16 gauge steel.
- Finished in gray Hammertone.

Cat. No.	"A" Available Panel Mtg. Space	Net Price
DV-5	5¼"	$0.95
DV-7	7"	1.30
DV-8	8¾"	1.60
DV-10	10½"	1.95
DV-12	12¼"	2.05
DV-14	14"	2.25
DV-17	17½"	2.95
DV-21	21"	3.60
DV-26	26¼"	4.45
DV-28	28"	4.70

ANGLE BRACKETS



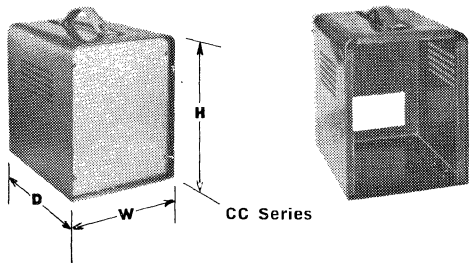
- Punched to accommodate vertical dividers.
- Made of No. 16 gauge steel.
- Finished in gray hammertone.

Cat. No.	Net Price	sold in
AB-2	$1.09 pr.	pairs only

COMPACT CABINETS

With ROUNDED CORNERS ON BOTH FRONT AND REAR OF TOP

"Customized" Design for Instrumentation



FEATURES

• DISTINCTIVE NEW STYLING • COMPLETE VERSATILITY • ECONOMICAL • SIX SIZES • STURDY STEEL BODY

SPECIFICATIONS

• Body made of 20 gauge steel • Front Panel made of .064 aluminum • Recessed Handle supplied on top • Perforated Sides for ventilation • Base supplied with four rubber feet • Panel fits into ½" recess • Two-inch opening in rear for leads • Finished in two tone Metallic Grey Enamel; Body — dark grey metallic; Front panel —light grey metallic • Supplied with necessary screws for assembly • Welded construction

MODIFICATIONS AVAILABLE

- Louvres on sides
- Holes and cutouts in body and panel
- Special sizes
- Special finishes

Cat. No.	Depth	Width	Height	Use Chassis	Wt. in Lbs.	Net Price
CC-2000	8"	6⅛"	8"	ACH 426 5 x 7 x 2	4	$8.35
CC-2001	8"	8⅛"	8"	ACH 403 7 x 7 x 2	5	9.10
CC-2002	8"	10⅛"	8"	ACH 404 7 x 9 x 2	6	9.75
CC-2003	12"	8⅛"	9"	ACH 405 7x11x2	7	10.60
CC-2004	18"	11⅛"	11"	ACH 415 10x17x3	10	12.70
CC-2005	18"	14⅛"	12"	ACH 423 13x17x3	11	14.50

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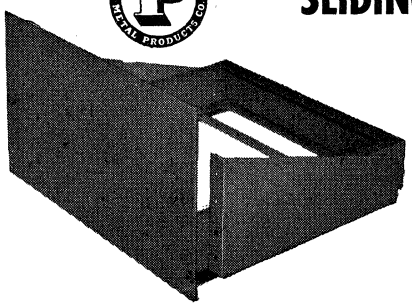
PREMIER RACK ACCESSORIES



SLIDING DRAWERS TO FIT STANDARD 19" RACKS 15" AND 18" DEEP

Panel made of #12 gauge steel; chassis of #16 steel and has a 1" flange on top and bottom to accommodate plywood for the record changer. The chassis is mounted on ball-bearing suspension slides which can sustain 40 lbs. Drawer extends 11" from front of cabinet. Entire unit mounts on angle brackets which can be bolted on to the cabinet. Supplied knocked down with all necessary bolts for easy assembly. Locks in place by means of 2 latches. Finished in Black or Blue-Gray wrinkle, and Gray or Brown Hammertone.

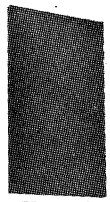
SPECIFY COLOR WHEN ORDERING.

Catalog No.	Will Fit Rack No.	Panel Size	Chassis Size W. D. H.	Ship. Wt. Lbs.	Net Price
RD-10 RD-12	R, RS, DCR-18, SDR-18, RMA & FD Models	10⅜" x 18⅞" 12⅛" x 18⅞"	17" x 16" x 3" 17" x 16" x 4"	15 18	$17.25 19.15
RD-10-14	DCR, SDR, DRK, RMA & FD	10⅜" x 18⅞"	17" x 14" x 3"	14½	17.10
RD-12-14	R, RS, DCR-18, SDR-18 Models	12⅛" x 18⅞"	17" x 14" x 4"	17	19.00

FRONT DOORS TO FIT STANDARD 19" DESK RACK CABINETS AND ENCLOSED RACKS

Constructed from one piece of #16 gauge steel. Two concealed piano hinges are provided with holes, punched to accommodate E.I.A. spacings and are made to fit on top of the panels. Supplied with cylinder lock and cam bracket to hold door in position. All necessary bolts furnished for easy assembly. All doors are 20½" wide x 1¼" deep. Finished in Black or Blue Gray Wrinkle, Gray or Brown Hammertone.

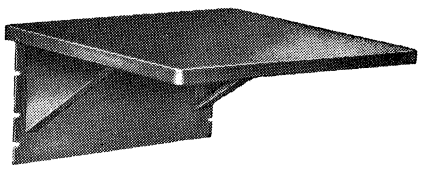
SPECIFY COLOR WHEN ORDERING.



FD-300-306 MODELS

Cat. No.	Will Fit Rack No.	Height	Ship Wt. Lbs.	Net Price
FD-300	DCR, DRK, SDR, 18260	26¼"	10	$14.66
FD-301	DCR, DRK, SDR, 18310	31½"	11	17.04
FD-302	DCR, DRK, SDR, 18350	35"	12	19.00
FD-303	DCR, DRK, SDR, 18120	12¼"	6	11.05
FD-304	DCR, DRK, SDR, 18140	14"	7	12.00
FD-305	DCR, DRK, SDR, 18170	17½"	8	13.04
FD-306	DCR, DRK, SDR, 18210	21"	9	14.04

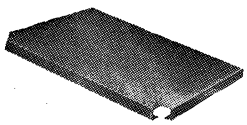
DESK PANELS



- Made of No. 16 gauge steel and bolted to a standard steel panel 10½"x19".
- Front corners are rounded.
- Finished in BLACK or Blue-Gray Enamel Gray or Brown Hammertone.
- SHIPPED KNOCKED DOWN WITH ALL NECESSARY HARDWARE FOR EASY ASSEMBLY.

Cat. No.	Width	Depth	Ship. Wt. Lbs.	Net Price
DP-1016	22"	16"	20	$17.90
DP-1020	22"	20"	22	18.30

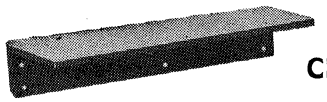
RACK SHELVES



Made of one piece of #16 Ga. Cold Rolled Steel, 1" high. Holes are punched on sides for mounting to rack. Finished in Black or Blue-Gray Wrinkle, Gray or Brown Hammertone.

SPECIFY COLOR WHEN ORDERING.

Cat. No.	Will Fit Rack No.	Shelf Size	Shp. Wt. Lbs.	Net Price
RS-1106	All 15¼" SDR and DCR Racks	12x21 5/16	7	$3.10
RS-1107	R, RS, DR, 18" deep RMA Racks	15x21 13/16	7	3.85
RS-1108	18" deep FD Racks	13x21 13/16	7	3.50
RS-1110	For 27" wide - 24" deep Racks (RMA-27 and FD-27 Series)	22x26⅞	8	7.26
RS-1111	MDK Series - 21¾" wide	10x21 5/16	6	3.00
RS-1112	For 22" wide - 24" deep Racks (RMA, FD Series)	22x21 13/16	7	6.20
RS-1113	18" deep DCR & SDR Racks	16x21 5/16	7	3.95

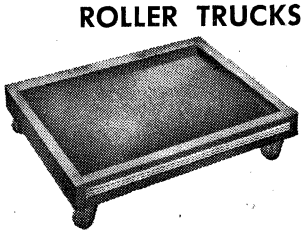


CHASSIS SUPPORTS

Made of #12 gauge steel. Finished in black enamel. Sold in pairs only.

Cat. No.	Size	Ship. Wt. Lbs.	Net Price
CS-12	12 x 3 x 3"	4	$2.15
CS-14	14½ x 3 x 3"	5¼	2.35

ROLLER TRUCKS FOR RACKS



Made from 1 piece of No. 16 ga. Cold Rolled Steel. Supplied with either 2" or 3" diameter casters and bolts for easy assembly. Finished in Black or Blue-Gray Wrinkle, Gray or Brown Hammertone with a red striped chrome molding.

SPECIFY COLOR WHEN ORDERING.

With 2" Dia Casters Cat. No.	Ship. Wt. lbs.	Net Price	Will Fit Rack No.	Inside Dimensions	With 3" Dia. Casters Cat. No.	Ship. Wt. lbs.	Net Price
RT-1100	22	$10.45	All 15¼" Racks	15¾ x 22¼"	RT-1100-3	24	$15.70
RT-1101	22	13.20	R, RS, DR, 18" deep FXR, RMA, FD, DCR and SDR Racks	18¾ x 22¾"	RT-1101-3	24	18.45
RT-1103	23	16.38	24" deep FD and RMA Racks	22½ x 24½"	RT-1103-3	25	21.65
RT-1110	25	24.50	RMA-27 and FD-27 Series	27½ x 24½"	RT-1110-3	27	30.00
RT-1111	30	31.50	RMA-7030	33½ x 24½"	RT-1111-3	32	36.75

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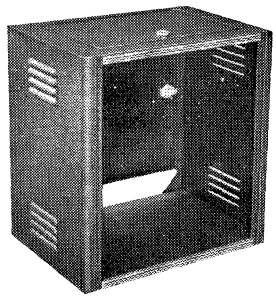
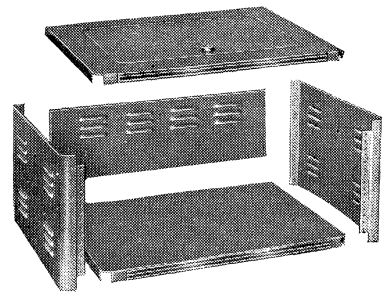
PREMIER DESK CABINET RACKS

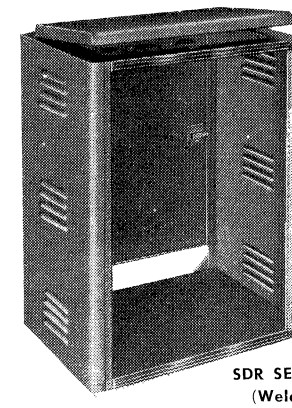
IN WELDED AND KNOCKED DOWN MODELS — BOTH 15¼" AND 18" DEEP



DCR SERIES (A)
(Welded)



DRK SERIES (B)
(Knocked Down)



SDR SERIES (C)
(Welded)

MODIFICATIONS AVAILABLE FOR CUSTOMIZED REQUIREMENTS

- Omission of Chrome mouldings and moulding holes.
- Weld Drop Handles (HW-5) on sides.
- Perforated top door.
- Omission of louvres on sides and/or rear door.
- Solid top — no door.
- Cut outs or holes on sides, top, rear and base.
- Special finishes.

- Front vertical corners are rounded and the top and bottom are trimmed with red striped chrome finished moulding.
- Rigidly constructed of No. 16 Ga. cold rolled sheet steel.
- Panels fit into a ¼" recess so that the edges are not exposed.
- Round hole and 5 mounting holes on top of frame to accommodate Exhaust (EF Series) and Intake (If Series) Fans, available at additional cost.
- Panel mounting holes are tapped for 10-32 machine screws on E.I.A. Spacings (⅝-⅝-½).
- P ano type hinges are used on the top doors, which are provided with snap catches.
- Top door on Model SDR open to 90° and have a rounded front corner.
- DRK is identical to DCR except shipped knocked down with all necessary bolts for easy assembly. On these models the bolts are not visible from the outside and have the same appearance as the welded models.
- Gussets welded at bottom of rear on Models 170-350 for additional strength.
- Cabinets finished in either Black or Blue, Gray Wrinkle, Gray or Brown Hammertone.
- Specify color when ordering.

WALL MOUNTING BRACKETS

FOR MOUNTING DESK CABINET RACKS ON WALL — REMOVE REAR DOOR AND USE WALL MOUNTING BRACKETS.

Catalog No. WB-19
Net Price $3.14

Sold in sets only.
Finished in Gray.
Shipping Weight 2½ lbs.

21¾" WIDE x 15¼" DEEP

	Catalog No. (A)	Net Price	Catalog No. (C)	Net Price	Catalog No. (B)	Net Price	Overall Height	Panel Space	Ship. Wt. Lbs.	Use Slide Length*
WITH DOOR ON TOP ONLY	DCR-70	$13.90	SDR-70	$19.00	DRK-70	$13.15	8¾"	7"	22	14"
	DCR-80	14.60	SDR-80	19.75	DRK-80	13.90	10½"	8¾"	24	14"
	DCR-100	16.45	SDR-100	21.55	DRK-100	15.75	12¼"	10½"	26	14"
	DCR-120	17.80	SDR-120	22.85	DRK-120	17.95	14"	12¼"	28	14"
	DCR-140	19.75	SDR-140	24.85	DRK-140	19.00	15¾"	14"	32	14"
WITH DOOR ON TOP AND REAR	DCR-170	23.40	SDR-170	28.45	DRK-170	22.65	19¼"	17½"	40	14"
	DCR-190	24.50	SDR-190	29.65	DRK-190	23.75	21"	19¼"	42	14"
	DCR-210	25.40	SDR-210	30.75	DRK-210	24.70	22¾"	21"	44	14"
	DCR-260	27.40	SDR-260	32.55	DRK-260	27.40	28"	26¼"	45	14"
	DCR-310	28.85	SDR-310	34.00	DRK-310	28.15	33¼"	31½"	50	14"
	DCR-350	30.30	SDR-350	35.40	DRK-350	29.60	36¾"	35"	55	14"

21¾" WIDE x 18" DEEP

	Catalog No. (A)	Net Price	Catalog No. (C)	Net Price	Overall Height	Panel Space	Ship. Wt. Lbs.	Use Slide Length*
WITH DOOR ON TOP ONLY	DCR-1880	$17.55	SDR-1880	$22.70	10½"	8¾"	26	16"
	DCR-18100	19.75	SDR-18100	24.85	12¼"	10½"	29	16"
	DCR-18120	21.30	SDR-18120	26.40	14"	12¼"	31	16"
	DCR-18140	23.66	SDR-18140	28.80	15¾"	14"	35	16"
WITH DOOR ON TOP AND REAR	DCR-18170	28.05	SDR-18170	33.20	19¼"	17½"	44	16"
	DCR-18190	29.40	SDR-18190	34.50	21"	19¼"	46	16"
	DCR-18210	30.45	SDR-18210	35.60	22¾"	21"	48	16"
	DCR-18260	32.86	SDR-18260	38.00	28"	26¼"	49	16"
	DCR-18310	34.65	SDR-18310	39.70	33¼"	31½"	55	16"
	DCR-18350	36.40	SDR-18350	41.50	36¾"	35"	60	16"

SPECIFY COLOR WHEN ORDERING

*Use Slide Adapter Kit (Cat. No. SAK-35) for rear mounting. (See Page 26)

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SEE PAGES 23, 24, 25, 26 & 27 FOR HANDLES, SLIDES, BLOWERS and FANS

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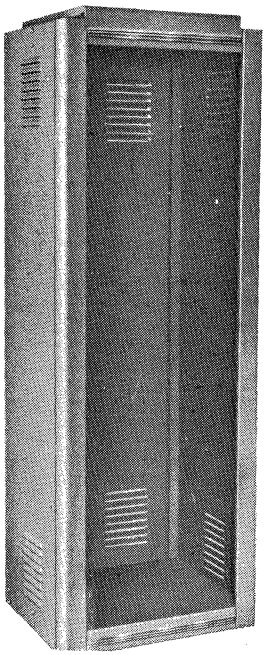
PREMIER ENCLOSED RELAY RACKS

FOR STANDARD 19" RACK PANELS

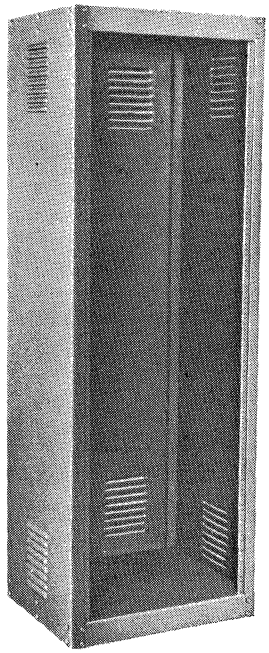
- Rigidly constructed of #16 gauge cold rolled sheet steel.
- The panel mounting angles are of #12 gauge steel and are tapped for 10-32 machine screws on E.I.A. spacings (5/8-5/8-1/2).
- Panels fit into a 5/16" recess so that the edges are not exposed.
- Racks are shipped knocked down with all necessary bolts for easy assembly.
- Rear doors are hung on sturdy slip-jointed hinges, and closed by a chrome handle. Locking handle with two keys available at additional cost.
- Holes punched in bottom to accommodate CA-4 and CA-5 casters.
- Round hole and 5 mounting holes on top of cabinets to accommodate Exhaust (EF Series) and Intake (IF Series) Fans, available at additional cost.
- STANDARD TYPE have square front vertical corners.
- DELUXE TYPE — The removable vertical corner mouldings are rounded and cover the mounting screws.
- DELUXE TYPE — Top and bottom are trimmed with red stripped chrome finished moulding.
- FRONT DOOR TYPE has front vertical rounded corners and is supplied with locking chrome handle and two keys for front door.
- Cabinets finished in either Black or Blue Gray Wrinkle, Gray or Brown Hammertone.
- SPECIFY COLOR WHEN ORDERING.

DELUXE TYPE



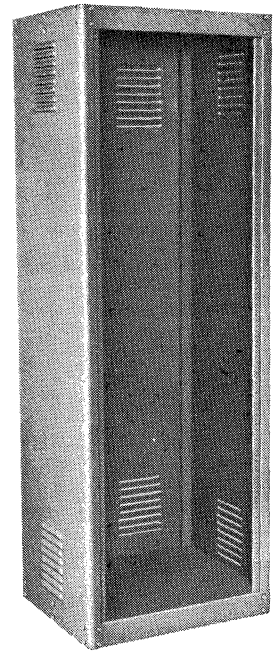
DR SERIES

STANDARD TYPE



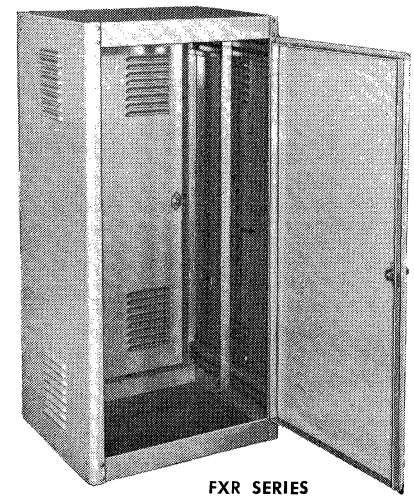
RS SERIES

ROUNDED TYPE



R SERIES

FRONT DOOR TYPE



FXR SERIES
Supplied with adjustable Panel Mounting Angles

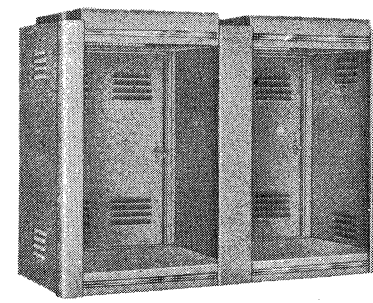
SPECIFY COLOR WHEN ORDERING
Racks are 22" wide x 18" deep

	Cat. No.	Overall Height	Panel Space	Use Slide Length*	Ship. Wt.—Lbs.	Net Price
DELUXE	DR-3619	43 1/8"	36 3/4"	16"	85	$56.70
	DR-6119	67 5/8"	61 1/4"	16"	135	69.30
	DR-7719	83 3/8"	77"	16"	160	83.90
STANDARD	RS-3619	41 7/8"	36 3/4"	16"	80	41.70
	RS-6119	66 3/8"	61 1/4"	16"	120	62.10
	RS-7719	82 1/8"	77"	16"	140	74.55
ROUNDED	R-3619	41 7/8"	36 3/4"	16"	80	41.70
	R-4219	47 1/8"	42"	16"	90	47.75
	R-6119	66 3/8"	61 1/4"	16"	120	62.10
	R-7719	82 1/8"	77"	16"	140	74.55
FRONT DOOR	FXR-3619	41 7/8"	36 3/4"	16"	93	61.60
	FXR-4219	47 1/8"	42"	16"	105	70.65
	FXR-6119	66 3/8"	61 1/4"	16"	140	88.84
	FXR-7719	82 1/8"	77"	16"	164	104.50

	Cat. No.	Overall Height	Panel Space	Use Slide Length*	Used With	Net Price
MULTIPLE RACK SECTIONS	DMR-3619	43 1/8"	36 3/4"	16"	DR-3619	$56.96
	DMR-6119	67 5/8"	61 1/4"	16"	DR-6119	68.02
	DMR-7719	83 3/8"	77"	16"	DR-7719	81.18
	MR-3619	41 7/8"	36 3/4"	16"	R&RS-3619	39.40
	MR-4219	47 1/8"	42"	16"	R&RS-4219	45.45
	MR-6119	66 3/8"	61 1/4"	16"	R&RS-6119	57.60
	MR-7719	82 1/8"	77"	16"	R&RS-7719	69.95
	MXR-3619	41 7/8"	36 3/4"	16"	FXR-3619	59.40
	MXR-4219	47 1/8"	42"	16"	FXR-4219	68.45
	MXR-6119	66 3/8"	61 1/4"	16"	FXR-6119	86.65
	MXR-7719	82 1/8"	77"	16"	FXR-7719	102.50

MULTIPLE RACK UNITS

These racks can be joined together to make multiple units by means of a solid center partition which is bolted to the top and bottom. Each multiple section comprises a top, bottom, rear door and center partition. On MXR Models, front door is also supplied. When ordering multiple units, specify number of units, such as double, triple, quad, etc.



ABOVE UNIT IS ONE DOUBLE DR3619

Example:

One Double DR-3619 consists of one DR-3619 and one DMR-3619.

One Triple RS-3619 consists of one RS-3619 and two MR-3619.

One Quad R-3619 consists of one R-3619 and three MR-3619.

*Use Slide Adapter Kit (Cat. No. SAK-35) for rear mounting. (See Page 26)

ALL PRICES F.O.B. BRONX, N. Y. 10474

PREMIER PAGE 17 SEE PAGES 23, 24, 25, 26 & 27 FOR HANDLES, SLIDES, BLOWERS and FANS

Net

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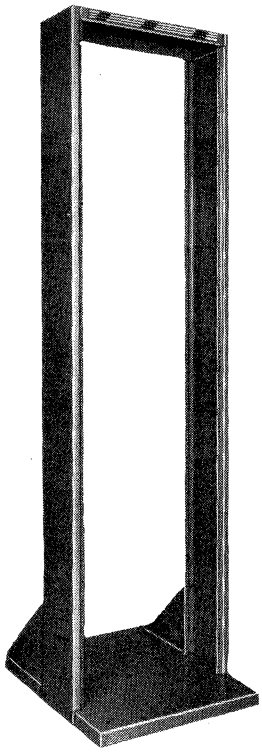
PREMIER DELUXE CHANNEL TYPE UTILITY RACKS



- Made of No. 12 gauge (.104) steel Tapped 10-32 on EIA spacings (⅝—⅝—½) both front and rear.
- Uprights 8⅛" deep.
- Panels Fit into ½" Recess. Either flat or Formed Panels may be used.
- Standard finish—grey hammertone. Also available in blue-grey wrinkle or black wrinkle.
- Top ventilated by means of grille.
- Racks can be bolted side by side.
- There are no screw heads projecting.
- Vertical members and top cross piece are welded together.
- The base and rear supports are shipped knocked down.
- Holes punched in base to accommodate CA-5 (3") casters.

MODIFICATIONS AVAILABLE
For RR Utility Racks

- Provisions for mounting special size casters.
- Other Heights Available.
- Special Finishes Available.

FOR 19" WIDE PANELS						FOR 24" WIDE PANELS				
Cat. No.	Width	Panel Space	Shpg. Wt. Lbs.	Net Price	Height	Cat. No.	Width	Panel Space	Shpg. Wt. Lbs.	Net Price
RR-2164	21 1/16"	61¼x19"	85	$38.00	64½"	RR-2664	26 1/16"	61¼x24"	100	$49.00
RR-2173	21 1/16"	70x19"	90	41.00	73¼"	RR-2673	26 1/16"	70x24"	105	52.00
RR-2180	21 1/16"	77x19"	95	45.00	80¼"	RR-2680	26 1/16"	77x24"	105	56.00

RR-2100 Series

SEE PAGES 23, 24, 25, 26 & 27 FOR HANDLES, SLIDES, BLOWERS and FANS

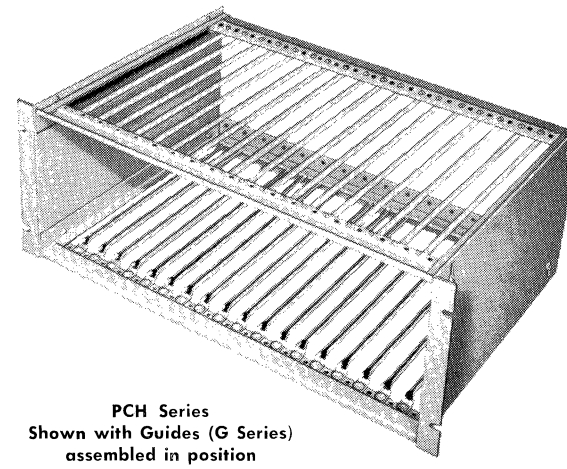
PREMIER PRINTED CIRCUIT CARD HOLDER

TO FIT STANDARD 19" and 24" WIDE RACKS FOR 5¼" — 7" — 8¾" HEIGHTS

- To accommodate Printed Circuit Cards from 4½" to 14½" deep.
- 19" wide holder accommodates up to 32 cards; 24" wide holder — up to 42 cards. • Spacing of guide holes on .200 centers.
- Unit shipped unassembled and supplied with all necessary hardware.
- Guides are easily positioned by using push rivets.
- Entire unit made of No. 16 gauge cold rolled steel. Guides are cadmium plated and colored Iridite.
- Frame finished in Grey Hammertone.
- Guides (G series) sold in pairs and ordered as a separate item.
- Connector panels are supplied on rear for mounting of connectors. Made of ⅛" aluminum. Holes tapped 4-40.

MODIFICATIONS AVAILABLE

- Special sizes • Different guide spacings
- Vinyl coated guides for insulation



PCH Series
Shown with Guides (G Series) assembled in position

	FOR 19" WIDE PANEL SPACE FRAME					FOR 24" WIDE PANEL SPACE FRAME	
	Cat. No.	Net Price	Depth	Use Guide No.	Net Price Pair	Cat. No.	Net Price
5¼" HIGH	PCH-519-6	$12.00	6¼"	G-6	$.27	PCH-524-6	$14.50
	PCH-519-8	12.00	8¼"	G-8	.34	PCH-524-8	15.50
	PCH-519-10	14.00	10"	G-10	.40	PCH-524-10	16.50
	PCH-519-12	15.00	12"	G-12	.47	PCH-524-12	17.50
	PCH-519-14	16.00	14"	G-14	.53	PCH-524-14	18.50
	PCH-519-16	17.00	16"	G-16	.59	PCH-524-16	19.50
7" HIGH	PCH-719-6	13.00	6¼"	G-6	.27	PCH-724-6	15.50
	PCH-719-8	14.00	8¼"	G-8	.34	PCH-724-8	16.50
	PCH-719-10	15.00	10"	G-10	.40	PCH-724-10	17.50
	PCH-719-12	16.00	12"	G-12	.47	PCH-724-12	18.50
	PCH-719-14	17.00	14"	G-14	.53	PCH-724-14	19.00
	PCH-719-16	18.00	16"	G-16	.59	PCH-724-16	20.50
8¾" HIGH	PCH-819-6	14.00	6¼"	G-6	.27	PCH-824-6	16.50
	PCH-819-8	15.00	8¼"	G-8	.34	PCH-824-8	17.50
	PCH-819-10	16.00	10"	G-10	.40	PCH-824-10	18.50
	PCH-819-12	17.00	12"	G-12	.47	PCH-824-12	19.50
	PCH-819-14	18.00	14"	G-14	.53	PCH-824-14	20.50
	PCH-819-16	19.00	16"	G-16	.59	PCH-824-16	21.50

PREMIER PAGE 18

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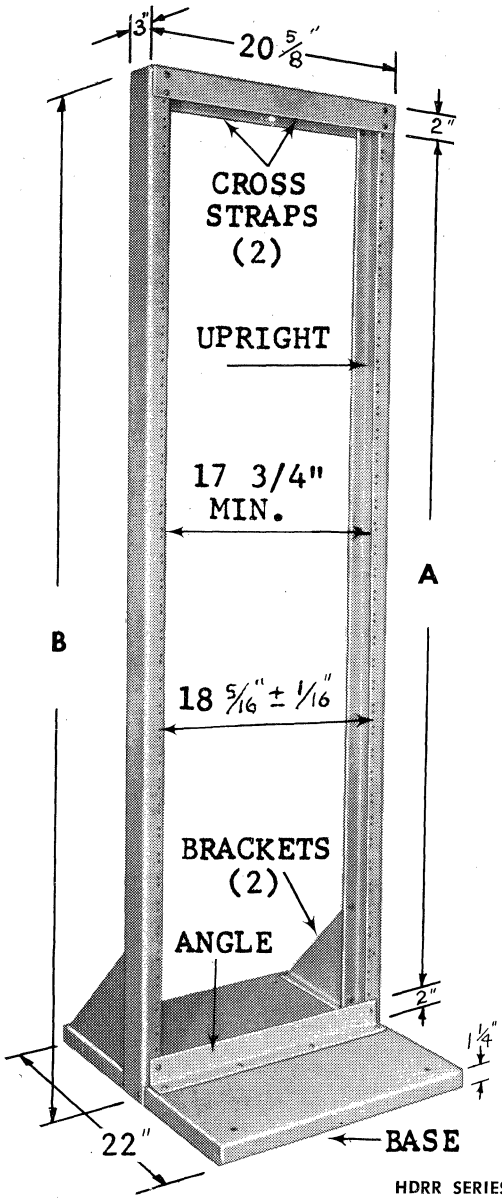
PREMIER RELAY RACKS



HDRR SERIES

HEAVY DUTY RELAY RACK

MEETS MIL-STD-189

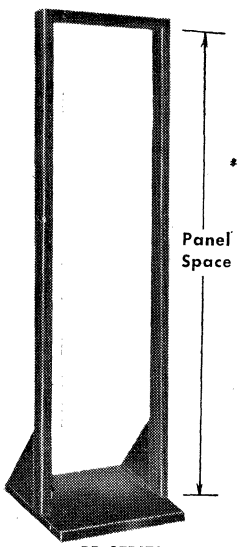
- Uprights and top cross straps made of 3/16" sheet steel.
- Base and Brackets made of No. 12 gauge sheet steel.
- Base angle made of 2 x 2 x 3/16" steel.
- Panel mounting holes are tapped 10-32 on E.I.A. spacings (1¼-½").
- Finished in Zinc Chromate Primer (MIL SPEC. 6889A).
- Shipped knocked down and assembled with ¼-20 x ¾" long hex head cap screws and nuts.

Catalog No.	Panel Space (A)	Frame Height (B)	Net Price
HDRR-6619	66 21/32"	71 29/32"	$67.00
HDRR-7319	73 21/32"	78 29/32"	73.00
HDRR-7719	77 5/32"	82 13/32"	77.00

ALSO AVAILABLE IN HEIGHTS UP TO 10 FT.

PRICES UPON REQUEST

SEE PGS. 23, 24, 25, 26 & 27 FOR HANDLES, SLIDES, BLOWERS & FANS



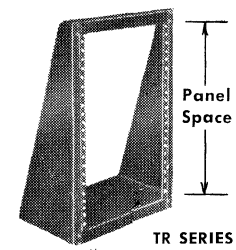
RR SERIES

CHANNEL RELAY RACKS

- Rigidly constructed of #12 gauge cold rolled sheet steel and finished in Black Wrinkle.
- Vertical members and top crossbrace are welded together.
- Panel mounting holes are tapped for 10/32 machine screws on E.I.A. spacings (5/8-5/8-½").
- Racks are shipped knocked down with all necessary bolts for easy assembly.
- Base punched to accommodate CA-4 (2") and CA-5 (3") casters.

Cat. No.	H.	W.	D.	Panel Space	Shp. Wt. Lbs.	Net Price
RR-800	39¼"	20"	18⅜"	36¾" x 19"	40	**$21.20**
RR-801	74¼"	20"	20⅞"	71¾" x 19"	55	**25.20**
RR-802	79½"	20"	20⅞"	77" x 19"	60	**29.20**

TABLE TYPE RELAY RACKS



TR SERIES

- Rigidly constructed of #16 gauge cold rolled sheet steel and finished in Black Wrinkle.
- Base constructed of one piece, similar to a chassis.
- Panel mounting holes are tapped for 10/32 machine screws on E.I.A. spacings (5/8-5/8-½").
- Racks are shipped knocked down with all necessary bolts for easy assembly.

Cat. No.	H.	W.	D.	Panel Space	Shp. Wt. Lbs.	Net Price
TR-2119	25"	21"	12"	21 x 19"	17	**$ 8.82**
TR-2819	32"	21"	12"	28 x 19"	20	**11.04**

NOTE: Available in Gray Hammertone at no additional cost. Add "GH" to catalog number when ordering.

ALL PRICES F.O.B. BRONX, N. Y. 10474

Net

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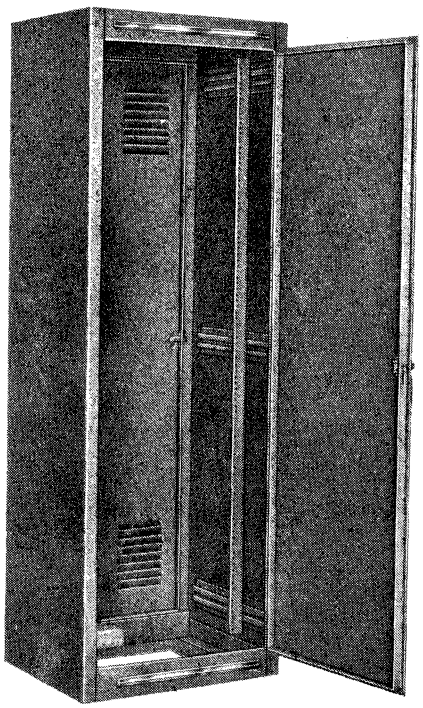
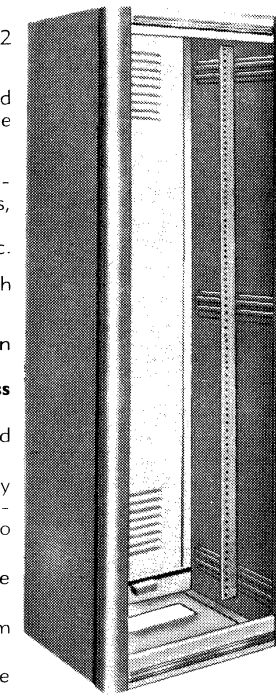
PREMIER HEAVY DUTY RACKS

FOR 19", 24" AND 30" RACK PANELS — 18" AND 24" DEEP

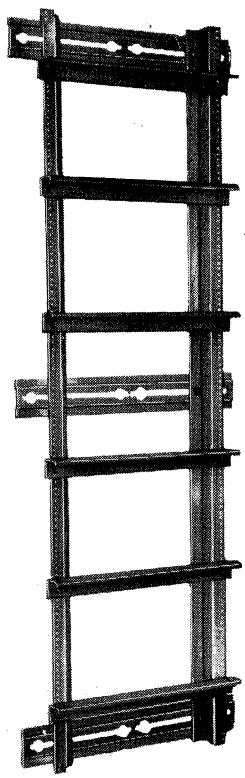


FD SERIES

- Rigidly constructed of #16 gauge steel with a #12 gauge steel bottom and welded throughout.
- Panel mounting angles are 3/16" thick and are tapped 10-32 on E.I.A. spacings (5/8-5/8-1/2).
- Rear doors are hung on sturdy slip-jointed hinges and closed by a chrome handle. Locking handle with 2 keys available at additional cost.
- Round hole and 5 mounting holes on top of frame to accommodate Exhaust (EF Series) and Intake (IF Series) Fans, available at additional cost.
- A rectangular cut-out is made in the bottom for leads, etc.
- RMA-7030 Rack supplied with double rear doors and with a 3-point locking device.
- FD Series are furnished with locking handle and 2 keys on Front Door.
- **All racks are supplied without louvres on sides unless specified.**
- Vertical rounded corner "J" type moldings are supplied with RMA series.
- When joining RMA racks for multiple installation, specify amount of center "U" type moldings (supplied at no additional cost). EXAMPLE: Three RMA-3619 requires two "J" and two "U" moldings.
- Tops and bottoms are trimmed with red striped chrome moulding.
- Panel mounting angles are adjustable to any distance from the front by means of channel slides.
- A Duplex Receptacle and Outlet Box are furnished in the Back Under the Door.
- Racks finished in either Black or Blue-Gray wrinkle, Gray or Brown Hammertone.



RMA SERIES



PMA SERIES

SPECIFY COLOR WHEN ORDERING

18" DEEP RACKS Cat. No.	Shpg. Wt. Lbs	Net Price	H & W	Panel Space	Use Slide* Length
RMA-3619	100	$ 66.15	42 7/8 x 22"	36 3/4 x 19"	16"
RMA-4219	130	78.00	48 1/8 x 22"	42 x 19"	16"
RMA-6119	150	86.01	67 3/8 x 22"	61 1/4 x 19"	16"
RMA-7618	170	105.84	76 1/8 x 22"	70 x 19"	16"
RMA-7719	190	109.20	83 1/8 x 22"	77 x 19"	16"

18" DEEP RACKS WITH FRONT DOORS Cat. No.	Shpg. Wt. Lbs.	Net Price
FD-3619	115	$102.39
FD-4219	120	108.00
FD-6119	175	115.77
FD-7019	200	132.30
FD-7719	220	142.34

24" DEEP RACKS Cat. No.	Shpg. Wt. Lbs.	Net Price	H & W	Panel Space	Use Slide* Length
RMA-3619-24	110	$ 84.00	42 7/8 x 22"	36 3/4 x 19"	22"
RMA-4219-24	130	93.05	48 1/8 x 22"	42 x 19"	22"
RMA-6119-24	175	122.40	67 3/8 x 22"	61 1/4 x 19"	22"
RMA-7618-24	200	132.30	76 1/8 x 22"	70 x 19"	22"
RMA-7719-24	225	148.86	83 1/8 x 22"	77 x 19"	22"
RMA-2742	170	120.78	48 1/8 x 27"	42 x 24"	22"
RMA-2761	210	137.58	67 3/8 x 27"	61 1/4 x 24"	22"
RMA-2770	240	148.59	76 1/8 x 27"	70 x 24"	22"
RMA-2777	270	165.39	83 1/8 x 27"	77 x 24"	22"
RMA-7030	240	191.85	76 1/8 x 33"	70 x 30"	22"

24" DEEP RACKS WITH FRONT DOORS Cat. No.	Shpg. Wt. Lbs.	Net Price
FD-3619-24	125	$105.00
FD-4219-24	150	111.00
FD-6119-24	200	152.16
FD-7019-24	255	158.76
FD-7719-24	270	181.89
FD-2742	180	140.19
FD-2761	230	165.39
FD-2770	260	176.22
FD-2777	290	198.45

* Use Slide Adapter Kit (Cat. No. SAK-35 for rear mounting. (See page 26)

VERTICAL SIDE SUPPORTS and PANEL MOUNTING ANGLES

To Fit Premier Heavy Duty Racks — Finished in Gray Hammertone.

VERTICAL SIDE SUPPORTS
1 1/4" DEEP x 2 3/8" WIDE

Cat. No.	Ht.	Net Price
PVS-362	36 3/4"	$15.00
PVS-422	42"	16.50
PVS-522	52 1/2"	19.15
PVS-612	61 1/4"	20.85
PVS-702	70"	25.40
PVS-772	77"	27.45

PANEL MOUNTING ANGLES
1 1/4" x 1 1/4"

Cat. No.	Ht.	Net Price
PMA-362	36 3/4"	$11.00
PMA-422	42"	13.20
PMA-522	52 1/2"	15.20
PMA-612	61 1/4"	16.50
PMA-702	70"	18.50
PMA-772	77"	20.00

SHELVES

Cat. No.	Depth	Width	To Fit Racks Panels	Deep	Net Price
S-1819	14 1/4"	17 1/2"	19"	18"	$3.5
S-1824	14 1/4"	22 1/2"	24"	18"	4.0
S-1830	14 1/4"	28 1/2"	30"	18"	4.5
S-2419	20 1/4"	17 1/2"	19"	22", 24", 25 1/2"	3.1
S-2424	20 1/4"	22 1/2"	24"	22", 24", 25 1/2"	5.0
S-2430	20 1/4"	28 1/2"	30"	24"	6.0

SIDE MOUNTING BRACKETS

Cat. No.	Length	To Fit Racks	Net Price
SMB-18	14"	All 18" deep FD & RMA Racks	$3.3
SMB-24	20"	All 24" deep FD & RMA Racks	4.3

SEE PAGES 23, 24, 25, 26 & 27 FOR HANDLES SLIDES, BLOWERS and FANS

PREMIER PAGE 20

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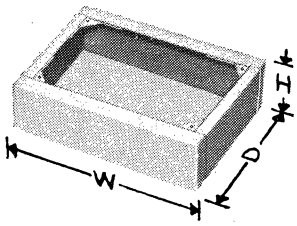
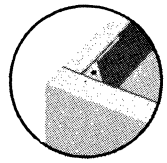
PREMIER STEEL and ALUMINUM CHASSIS

STEEL and ALUMINUM BLANK



EXCLUSIVE PREMIER FEATURE!



View of Chassis Showing Gusset Spot-Welded in Corner.

Chassis are of one piece construction with gussets spot-welded to the bottom flanges for additional strength. Corners have rounded effect and single inside thickness for mounting components. Bottom edges are flanged in on four sides and punched for bottom plates.

Steel chassis are made of No. 20 gauge cold rolled steel, except those marked * which are of No. 16 gauge. Steel chassis are finished in either Black Wrinkle or Zinc Plated. Zinc plated furnished if finish is not specified.

Aluminum chassis are made of No. 18 gauge (.040) aluminum, except those marked * which are of No. 14 gauge (.064). Natural Aluminum Finish.

ALUMINUM Cat. No.	Ship. Wt. Lbs.	Net Price	Size D.	W.	H.	STEEL Cat. No.	Ship. Wt. Lbs.	Net Price
ACH-400	½	$1.33	5½"	9½"	1½"	CH-400	1	$1.10
ACH-401	¾	1.52	5"	10"	3"	CH-401	1½	1.55
ACH-402	1	2.57	6"	14"	3"	CH-402	2½	1.80
ACH-403	½	1.33	7"	7"	2"	CH-403	1¼	1.30
ACH-404	½	1.39	7"	9"	2"	CH-404	1½	1.55
ACH-405	¾	1.52	7"	11"	2"	CH-405	1⅞	1.60
ACH-406	¾	1.64	7"	13"	2"	CH-406	2	1.70
ACH-407	1	2.89	7"	15"	3"	CH-407	2¾	2.00
ACH-408	1	2.36	4"	17"	3"	CH-408	2¼	1.80
ACH-409	1½	2.85	7"	17"	3"	CH-409	3⅛	2.20
ACH-410	1⅛	2.89	8"	17"	2"	CH-410	2¾	2.00
ACH-411	1½	3.00	8"	17"	3"	CH-411	5¼	2.20
ACH-412	1¼	2.68	10"	12"	3"	CH-412	2¾	2.15
ACH-413	1¼	3.40	10"	14"	3"	CH-413	3¼	2.25
ACH-414	1¼	3.26	10"	17"	2"	CH-414	3¼	2.30
ACH-415*	1⅞	3.65	10"	17"	3"	CH-415*	6	2.60
ACH-416*	2	4.20	10"	17"	4"	CH-416*	7½	2.90
ACH-417*	1¾	3.48	11"	17"	2"	CH-417*	5¼	3.15
ACH-418*	2	4.27	11"	17"	3"	CH-418*	6¼	3.45
ACH-419*	1⅞	3.81	12"	17"	2"	CH-419*	5	2.40
ACH-420*	2⅛	4.51	12"	17"	3"	CH-420*	7	2.90
ACH-421*	2⅞	4.98	12"	17"	4"	CH-421*	8½	3.15
ACH-422*	1⅞	4.02	13"	17"	2"	CH-422*	6	3.45
ACH-423*	2⅛	4.79	13"	17"	3"	CH-423*	7	4.00
ACH-424*	2½	5.48	13"	17"	4"	CH-424*	10	4.55
ACH-425	⅞	1.64	7"	11"	3"	CH-425	2¼	1.70
ACH-426	¼	1.29	5"	7"	2"	CH-426	1	1.25
ACH-427	1¼	2.91	8½"	15"	3"	CH-427	3	2.30
ACH-428	¼	1.50	5"	7"	3"	CH-428	1¼	1.30
ACH-429	¾	1.80	5"	13"	3"	CH-429	2	1.90
ACH-430	1	2.19	8"	12"	3"	CH-430	2½	2.00
ACH-431	¼	1.29	4"	6"	2"	CH-431	1	1.25
ACH-432	¼	1.33	4"	6"	3"	CH-432	1	1.25
ACH-433	⅞	1.83	7"	12"	3"	CH-433	2½	1.75
ACH-434	1	2.70	6"	17"	3"	CH-434	4	2.15
ACH-435*	2½	5.37	10"	23"	3"	CH-435*	10	3.30
ACH-436	¼	1.09	4"	6"	1½"	CH-436	¾	1.25
ACH-437	⅜	1.13	4"	8"	2"	CH-437	1	1.30
ACH-438*	3	10.79	17"	17"	4"	CH-438*	13	6.50
—	—	—	10"	17"	5"	CH-439*	8½	3.50
—	—	—	13"	17"	5"	CH-440*	11	5.15
ACH-441	1	1.68	8"	10"	2½"	CH-441	2½	1.70

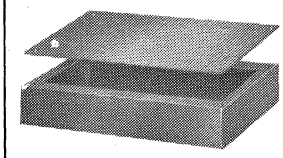
*Made of No. 14 gauge (.064) aluminum.

*Made from No. 16 gauge steel.

FOR BOTTOM PLATES AND CHASSIS MOUNTING BRACKETS SEE PAGE 22

REMOVABLE TOP

Made of #16 Ga. Cold Rolled Steel. Top and Bottom edges flanged in on four sides. Top plate is removable. Finished in either Black Wrinkle or Zinc Plated. Zinc plated furnished if finish is not specified.



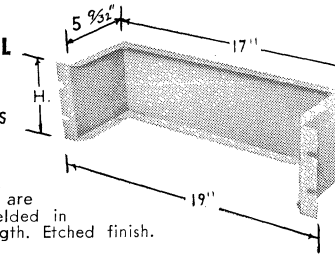
Cat. No.	Size	Ship. Wt. Lbs.	Net Price
RCH-415	10 x 17 x 3	5	$4.82
RCH-416	10 x 17 x 4	5	5.35
RCH-423	13 x 17 x 3	9	5.05
RCH-424	13 x 17 x 4	10	6.25

REPLACEMENT TOPS

Cat. No.	Size	Ship. Wt. Lbs.	Net Price
RTC-415	10 x 17	2	$1.90
RTC-423	13 x 17	3	2.30

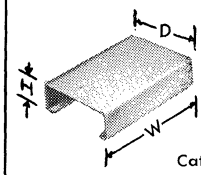
ALUMINUM VERTICAL PANEL

TO FIT 19" STANDARD RACKS



Made of 14 gauge (.064) Aluminum. Flanges are notched for standard rack mounting. All chassis depths are 5-9/32". Gussets are spot welded in each corner for greater strength. Etched finish.

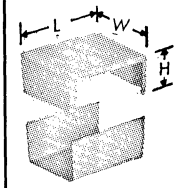
Catalog No.	Height	Ship. Wt. Lbs.	Net Price
ACH-1200	1¾"	¾	$2.55
ACH-1201	3½"	1¾	2.79
ACH-1202	5¼"	1½	3.04
ACH-1203	7"	2	3.51
ACH-1204	8¾"	2¼	4.14
ACH-1205	10½"	2¾	4.44
ACH-1206	12¼"	3	4.95
ACH-1207	14"	3¼	5.35



ALUMINUM OPEN END

Made of 18 ga. (.040) Aluminum.

Catalog No.	Depth	Width	Height	Ship. Wt. Lbs.	Net Price
ACH-1350	2⅝"	2¾"	1¼"	¼	$ .40
ACH-1351	1¾"	3⅛"	1"	¼	.44
ACH-1352	3¼"	4½"	2"	¼	.46
ACH-1353	2¾"	4⅛"	1"	¼	.46
ACH-1354	3¾"	4⅛"	1½"	¼	.46
ACH-1355	3"	6⅛"	1¼"	¼	.55
ACH-1356	5¾"	4⅞"	1½"	¼	.58
ACH-1357	4"	3⅛"	1"	½	.46
ACH-1358	4"	4⅛"	1"	½	.50
ACH-1359	4"	5⅛"	1"	½	.54
ACH-1360	4"	6⅛"	1"	½	.58



ALUMINUM MINIATURE UTILITY CASES

A two piece case made of #16 Ga. (.051) aluminum. Natural Aluminum Finish or Gray Hammertone.

Natural Aluminum Cat. No.	Net Price	L.	W.	H.	Ship Wt. Lbs.	Gray Hammertone Cat. No.	Net Price
AMC-1000*	$ .70	2¾"	2⅛"	1⅝"	¼	PMC-1000*	$ .79
AMC-1001*	.70	3¼"	2⅛"	1⅝"	¼	PMC-1001*	.79
AMC-1002*	.73	4"	2⅛"	1⅝"	¼	PMC-1002*	.83
AMC-1003	.96	4"	2¼"	2¼"	⅜	PMC-1003	1.06
AMC-1004	.99	5"	2¼"	2¼"	½	PMC-1004	1.09
AMC-1005	1.17	5"	4"	3"	½	PMC-1005	1.23
AMC-1006	1.09	5¼"	3"	2⅛"	1	PMC-1006	1.19
AMC-1007	1.39	6"	5"	4"	¾	PMC-1007	1.53
AMC-1008	1.56	7"	5"	3"	1⅛	PMC-1008	1.69
AMC-1009	2.31	8"	6"	3½"	1½	PMC-1009	2.45
AMC-1010	2.88	10"	6"	3½"	1¾	PMC-1010	3.04
AMC-1011	3.24	12"	7"	4"	2	PMC-1011	3.57
AMC-1012	3.84	17"	5"	4"	½	PMC-1012	4.20
AMC-1013	1.17	10"	2"	1⅝"	¼	PMC-1013	1.23
AMC-1014	1.53	12"	2½"	2¼"	¼	PMC-1014	1.65
AMC-1015	.93	4"	2"	2¾"	⅜	PMC-1015	1.20
AMC-1016	.96	4¼"	2¼"	1½"	¼	PMC-1016	1.06

*18 Gauge (.040)

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Net

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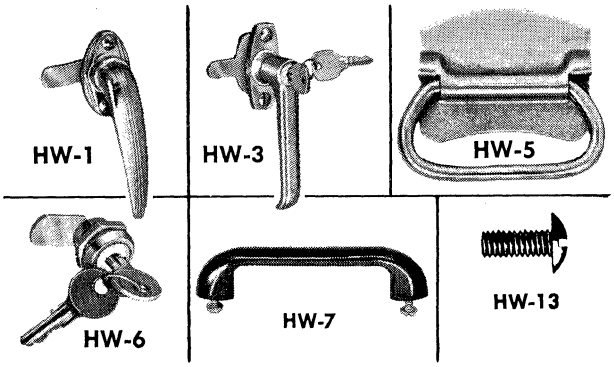
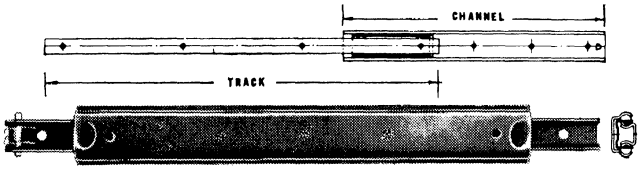
PREMIER HARDWARE



Cat. No.	Item	Net Price
HW-1	NON-LOCKING HANDLE Chrome plated	$2.40
HW-3	LOCKING HANDLE with 2 keys — Chrome plated	5.10
HW-5	DROP HANDLE **Finished in Black, Gray and Blue Wrinkle; Gray and Brown Hammertone**	.75
HW-6	CYLINDER LOCK with 2 keys — Nickel plated	4.20
HW-7	BLACK NYLON HANDLE with 2 screws	.51
HW-13	TRUSS HEAD MACHINE SCREWS 10/32 x 3/4" Nickel plated	2.00 per 100*

Minimum Quantity



"A" SERIES

Patent No. 2,542,247

- May be mounted on side or underneath.
- Ball bearing spacer and patented silencer spring eliminates slide noise and vibration.
- All members made of 16 gauge cold rolled steel.
- Black oxidized finish.

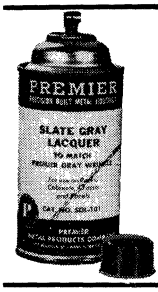
Catalog No.	Slide Travel	Channel Length	Track Length	Load Cap.	Net Price Per Pair
A-50-13	9"	11"	13"	50	$2.80
A-40-15	11	11	15	40	2.90
A-30-165	12½	11	16½	30	3.00
A-30-185	14½	11	18½	30	3.20

PREMIER ECONOMY SLIDES

"330" SERIES

- Side mounted.
- Each slide rolls on 2 concealed and dust-free nylon wheels.
- No metal-to-metal contact—noiseless operation.
- Drawer is tilted up for quick removal.
- Made of 16 gauge cold rolled steel and zinc plated.

Catalog No.	Slide Travel	Track Length	Channel Length	Load Cap.	Net Price Per Pair
330-62-12	7⅞"	12"	12"	62	$3.25
330-58-14	9⅞	14	14	58	3.40
330-54-16	11⅞	16	16	54	3.50
330-50-18	13⅞	18	18	50	3.70
330-46-20	15⅞	20	20	46	3.80

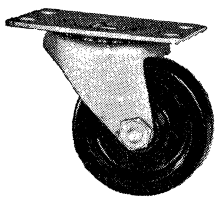


SPRAY CAN LACQUER Available in 3 Colors

Cat. No.	To Match
SGL-101	Premier Blue-Gray Wrinkle
GHL-102	Premier Gray Hammertone
BHL-103	Premier Brown Hammertone

NET PRICE: $1.95 EACH 12 oz. CAN

2" - 3" - 4" DIA. CASTERS



Made of non-marking composition wheel with Ball Bearing Swivel Plate. Packed one set of 4 in box with screws for assembly.

Cat. No.	Kind of Wheel	Wheel Size	Overall Height	Cap. per caster—lbs.	Net Price Set of 4
CA-4	Plaskite	2" dia. x 1 3/16"	2 7/16"	80	$4.25
CA-5	Rockite	3" dia. x 1¼"	3 13/16"	225	10.00
CA-6	Soft Double Rubber	2" dia. x 1 5/8"	2 13/16"	125	12.00
CA-7*	Rockite	3" dia. x 1¼"	3 13/16"	225	22.00
CA-8**	Rockite	4" dia. x 1 5/8"	5¼"	450	44.00

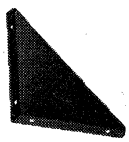
*Foot operated friction brake for positive locking wheel.
**With roller bearing wheel.

CHASSIS MOUNTING BRACKETS

- Constructed of No. 16 gauge steel.
- Finished in Black enamel.
- Sold in pairs only.

STANDARD TYPE

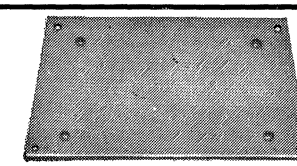
	Cat. No.	H.	D.	Ship. Wt. Lbs.	Net Price
Notched for 3" Chassis	CB-78	6½"	8"	1½	$1.06
	CB-710	6½"	10"	1¾	1.42
	CB-711	6½"	11"	2	1.55
	CB-712	6½"	12"	2 1/8	1.66
	CB-713	6½"	13"	2¼	1.80
	CB-717	6½"	17"	3	2.80
Notched for 4" Chassis	CB-810	8½"	10"	2⅜	2.10
	CB-813	8½"	13"	3	2.22



TRIANGULAR TYPE

Cat. No.	Height	Depth	Ship. Wt. Lbs.	Net Price
TCB-55	5"	5"	1	$1.04
TCB-77	7"	7"	1	1.18
TCB-99	9"	9"	1½	1.44

ALUMINUM AND STEEL BOTTOM PLATES



The bottom plates have holes to match the chassis and have 4 pressed dimples. Steel plates made of No. 20 gauge steel, finished in either Black Wrinkle or Zinc Plated. Aluminum plates made of No. 18 gauge (.040). Natural aluminum finish.

ALUMINUM Cat. No.	Net Price	Size	STEEL Cat. No.	Ship. Wt. Lbs.	Net Price
ABP-400	$0.87	5½" x 9½"	BP-400	1	$0.50
ABP-401	.87	5" x 10"	BP-401	1	.55
ABP-402	1.32	6" x 14"	BP-402	1	.75
ABP-403	.90	7" x 7"	BP-403	1	.55
ABP-404	.96	7" x 9"	BP-404	1	.60
ABP-405	1.06	7" x 11"	BP-405	1	.80
ABP-406	1.32	7" x 13"	BP-406	2	.80
ABP-407	1.32	7" x 15"	BP-407	2	.90
ABP-408	1.32	4" x 17"	BP-408	2	.85
ABP-409	1.36	7" x 17"	BP-409	2	.95
ABP-410	1.53	8" x 17"	BP-410	2	.95
ABP-412	1.50	10" x 12"	BP-412	2	.95
ABP-413	1.37	10" x 14"	BP-413	2	1.00
ABP-414	1.72	10" x 17"	BP-414	2	1.25
ABP-418	2.16	11" x 17"	BP-418	3	1.30
ABP-419	2.28	12" x 17"	BP-419	3	1.35
ABP-422	2.41	13" x 17"	BP-422	3	1.45
ABP-423	.87	5" x 7"	BP-423	1	.50
ABP-424	.99	5" x 13"	BP-424	1	.80
ABP-425	1.32	8" x 12"	BP-425	2	1.15
ABP-426	.87	4" x 6"	BP-426	1	.50
ABP-427	1.14	7" x 12"	BP-427	2	1.00
ABP-428	1.36	6" x 17"	BP-428	2	.95
ABP-429	2.55	10" x 23"	BP-429	2	2.00
ABP-430	.87	4" x 8"	BP-430	1	.50
ABP-431	2.57	17" x 17"	BP-431	4	2.10
ABP-432	2.41	8½" x 15"	BP-432	1½	1.45
ABP-433	1.14	8" x 10"	BP-433	1	1.00

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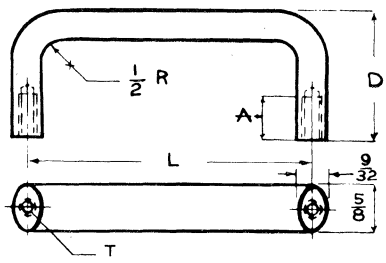
PREMIER HANDLES for INSTRUMENTS and EQUIPMENT



HW-16 SERIES

MATERIAL: Aluminum per QQ-A-325-A.
FINISH: Black Anodize per MIL-A-8625 Type II. Also available in Semi/Frost per MIL-A-8625 Type II. Specify by adding letter S to part number. Example: HW-16A1-S.

Cat. No.	L	D	A	T	Net Price
HW-16A1	3	1 9/32	9/32	10-24	$1.26
HW-16A4	4 9/16	1 1/2	1/2	10-24	1.28
HW-16A6	6 7/16	1 3/4	1/2	10-24	1.84
HW-16A7	9	1 3/4	1/2	10-24	2.07

HW-17 SERIES

MATERIAL: Brass per QQ-B-626 Comp 22½ Hard.
FINISH: Nickel Plate and Polish per MIL-QQ-N-290 Type VI. Also available in black oxide finish per MIL-F-495A. Specify by adding letter B to part number. Example: HW-17B1-8.

Cat. No.	L	D	A	T	Net Price
HW-17B1	3	1 9/32	9/32	10-32	$1.55
HW-17B4	4 9/16	1 1/2	1/2	10-32	1.75
HW-17B6	6 7/16	1 3/4	1/2	10-32	2.06
HW-17B7	9	1 3/4	1/2	10-32	2.41

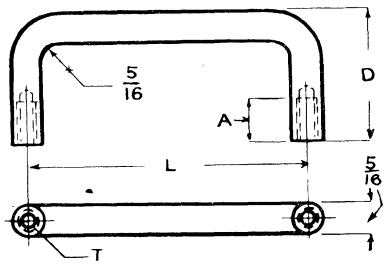
NEW!

PREMIER Heavy Duty MULTIPLE OUTLET BOXES

FOR RACK CABINETS and WORK BENCHES

- Completely wired — ready to plug in
- Reset circuit breaker
- Steel case finished in Gray Hammertone
- Available in 3 lengths

SEND FOR DETAILS



HW-18 SERIES

MATERIAL: Brass per QQ-B-626 Comp 22½ Hard.

FINISH: Nickel Plate and Polish per MIL-QQ-N-290 Type VI. Also available in black oxide finish per MIL-F-495A. Specify by adding letter B to part number. Example: HW-18B3-B.

Cat. No.	L	D	A	T	Net Price
HW-18B3	3	1 5/16	7/16	8-32	$ .95
HW-18B13	4 9/16	1 1/2	9/16	10-32	1.05
HW-18B14	6	1 1/2	9/16	10-32	1.05
HW-18B16	6 7/16	1 3/4	9/16	10-32	1.10

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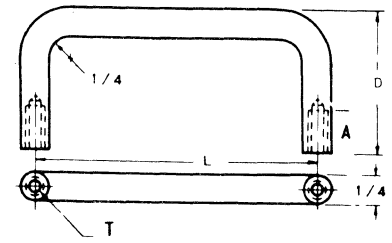


HW-19 SERIES

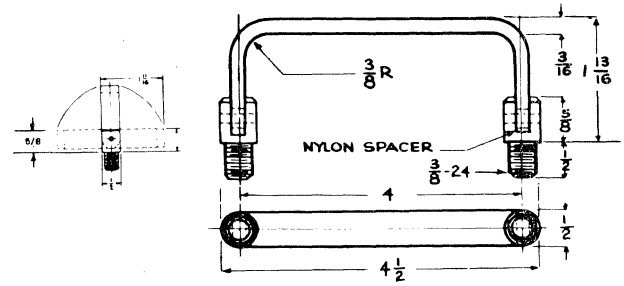
MATERIAL: Brass per QQ-B-626 Comp 22½ Hard.
FINISH: Nickel Plate and Polish per MIL-QQ-N-290 Type VI. Also available in black oxide finish per MIL-F-495A. Specify by adding letter B to part number. Example: HW-19B1-B.

Cat. No.	L	D	A	T	Net Price
HW-19B1	2	1½	9/16	8-32	$1.10
HW-19B2	3	1½	9/16	8-32	1.10
HW-19B3	4	1½	9/16	8-32	1.18
HW-19B4	6	1½	9/16	8-32	1.28

HW-20 SERIES

MATERIAL: Aluminum per QQ-A-325A.
FINISH: Black Anodize per MIL-A-8625 Type II. (Also available in Semi/Frost per MIL-A-8625 Type II. Specify by adding letter S to part number. Example: HW-20A1-S.

Cat. No.	L	D	A	T	Net Price
HW-20A1	2	1½	9/16	8-32	$ .76
HW-20A2	3	1½	9/16	8-32	.76
HW-20A3	4	1½	9/16	8-32	.83
HW-20A4	6	1½	9/16	8-32	1.00



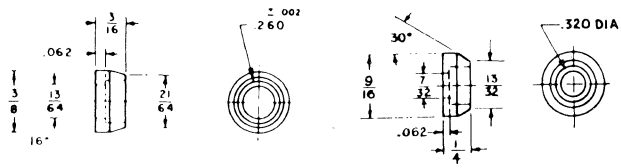
HW-21 SERIES

HW-21A
MATERIAL: Bow-Aluminum MIL Spec QQ-A-274. Ferrules MIL Spec QQ-A-325A.
FINISH: Nickel Plate and Polish MIL-QQ-N-290 Type VI.

HW-22B
MATERIAL: Bow-Brass MIL Spec QQ-B-626 Comp 22½ Hard. Ferrules MIL Spec QQ-B-626 Comp 22½ Hard.
FINISH: Semi-Frost Per MIL-A-8625 Type II.

NOTE: Handle and Ferrules are furnished with nylon spacer and roll-pin ⅛ dia. to hold bow in any given position. Swings 180° to either plane.

Cat.No.	Material	Net Price
HW-21A	Aluminum	$2.19
HW-22B	Brass	2.76



FERRULES FOR ABOVE HANDLES

FOR 1/4" DIAMETER HANDLES
HW-23AF (ALUMINUM) Made of Aluminum per QQ-A-325A, anodized black per MIL-A-8625 Type II.
Net Price .10

HW-24BF (BRASS) Made of Brass per QQ-B-626 comp. 22½ hard, nickel plated and polished per MIL-QQ-N-290 Type VI.
Net Price .12

FOR 5/16" DIAMETER HANDLES
HW-25BF (BRASS) Made of Brass per QQ-B-626 comp. 22½ hard, nickel plated and polished per MIL-QQ-N-290 Type VI.
Net Price .12

Net
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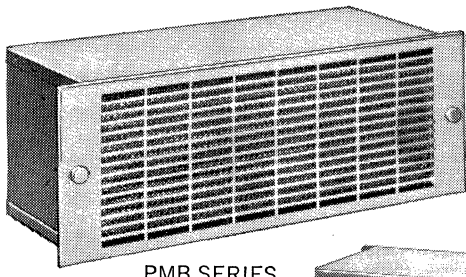
PREM-O-KOOL™ BLOWERS and FANS

MAXIMUM COOLING with MINIMUM SPACE!



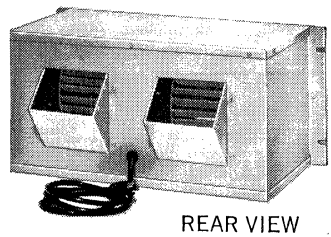
PMB SERIES

TO FIT STANDARD 19" WIDE PANEL SPACE

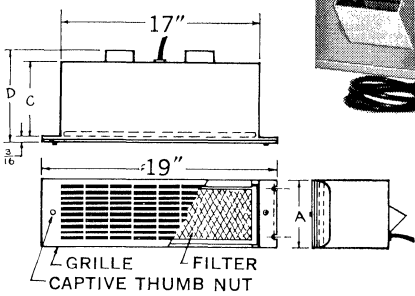
PANEL MOUNTED BLOWERS

- Permanently lubricated motors with lubricant temperature range from −29°C to +148°C.
- Permanent type washable filter—easily removable from front.
- Low noise level with minimum of vibration.
- Standard E.I.A. notching.
- Grille supplied with 2 captive thumb nuts.
- Units furnished with 3'6" lead with molded male plug.
- Performance data prepared by impartial, independent testing laboratory.
- Motors are 115 Volt 50/60 cycle, single phase AC.
- Housing and grille made of cold rolled steel and finished in gray hammertone.

GRILLE FINISHED TO MATCH COLOR OF PREMIER CABINETS OR FRAMES AT NO ADDITIONAL COST.



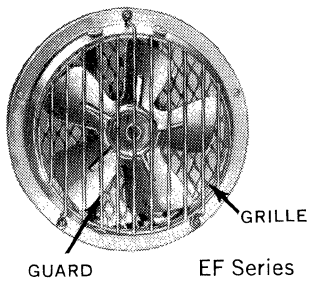
REAR VIEW

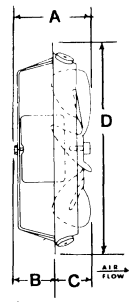


Units available to fit Standard 24" wide panel space. Prices upon request.

CATALOG NO.	PMB-5-150	PMB-7-285	PMB-8-410*	PMB-10-750
CFM at 0" S.P.	150	285	410	750
PANEL HEIGHT (A)	5¼"	7"	8¾"	10½"
FILTER	16⅝"x47⅛" x½"	16⅝"x6¾" x½"	16⅝"x8⅜" x½"	16⅝"x10⅛" x½"
DEPTH OF ENCLOSURE ONLY (C)	6¼"	8½"	9¾"	11½"
OVERALL DEPTH including outlets and front grille (D)	7"	10¼"	11¼"	13⅜"
MOTOR				
RPM	3000	1500	1500	1500
WATTS	120	78	125	255
VOLTS	115	115	115	115
CYCLES	50/60	50/60	50/60	50/60
AMPS	1.5	1.1	1.3	2.2
TYPE	Ball Bearing shaded pole	Ball bearing permanent split capacitor	Ball bearing permanent split capacitor	Ball bearing permanent split capacitor
SHIPPING WT. LBS.	14	24	26	35
NET PRICE	$125.00	$150.00	$175.00	$220.00

*Supplied with grille on rear outlets.





PREM-O-KOOL™ EXHAUST and INTAKE FANS

PREM-O-KOOL fans are available for exhausting air from cabinets (EF Series) and for drawing air into cabinets (IF Series).

- Motors are 115 volts 50/60 cycle single phase AC.
- Minimum space required. • Supplied with 18" lead.
- Fan and motor assembly shock mounted for minimum noise and vibration.
- Permanently lubricated ball bearing, shaded pole motors with low temperature rise.
- Easily interchangeable accessories for flexibility of mounting in cabinets.
- Cut-out and mounting holes for fans can be provided on any Premier rack or cabinet at slight additional cost.

Patent No. 3,019,965. Other Patents Pending.

EXHAUST FANS

Cat. No.	CFM	Motor Watts	RPM	Fan Blade Dia.	A	B	C	D	Hole Dia. Required	Net Price
EF-165	165	20	1650	6½"	2⅞"	1⅝"	1¼"	8½"	7⅜"	$50.00
EF-220	220	25	1550	6½	3¼	1⅝	1⅝	8½	7⅜	45.00
EF-300	300	65	3000	6½	4⅛	2⅝	1½	8½	7⅜	45.00
EF-400	400	46	1460	8	3⅝	1⅞	1¾	10½	9¼	54.00
EF-550	550	90	1600	9	4⅜	2⅛	2¼	11½	10⅝	57.00
EF-750	750	105	1560	10	4⅜	2⅛	2¼	12½	11⅝	60.00

ACCESSORIES FOR EXHAUST FANS

GUARDS

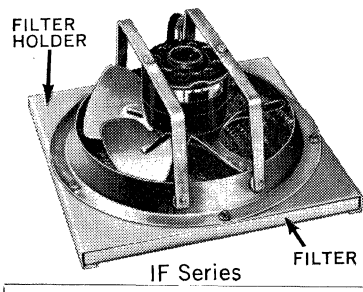
Cat. No.	Used with Fan	Dia.	Depth	Net Price
GU-6	EF165, 220, 300	6¾"	1⅞"	$2.40
GU-8	EF400	8¼	2⅜	2.40
GU-9	EF550	9¼	2⅜	3.00
GU-10	EF750	10¼	2⅜	3.60

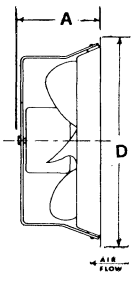
GRILLES

Cat. No.	Used with Fan	Dia.	Net Price
GR-6	EF165,220,300	8½"	$2.40
GR-8	EF400	10½	2.40
GR-9	EF550	11½"	3.00
GR-10	EF750	12½	3.60

SLEEVES

Cat. No.	Used with Fan	Dia.	Depth	Net Price
SL-6	EF165,220,300	8½"	1¾"	$3.60
SL-8	EF400	10½	2	3.60
SL-9	EF550	11½	2⅜	4.20
SL-10	EF750	12½	2⅜'	4.80





INTAKE FANS

Cat. No.	CFM	Motor Watts	RPM	Fan Blade Dia.	Dimensions A	Dimensions D	Hole Diam. Required	Net Price
IF-160	160	20	1650	6½"	2⅞"	8½"	7⅜"	$50.00
IF-180	180	25	1550	6½	3¼	8½	7⅜	45.00
IF-300	300	65	3000	6½	4⅛	8½	7⅜	45.00
IF-360	360	46	1460	8	3¾	10½	9¼	54.00
IF-540	540	90	1600	9	4⅜	11½	10⅝	57.00
IF-740	740	105	1560	10	4⅜	12½	11⅝	60.00

PREMIER CABINETS AND RACKS

FA, PRXA, RMA, R, RS, DR, DCR, DRK, SDR, POR and FXR models may be supplied with one round and 5 mounting holes to accommodate Exhaust and Intake Fans, at additional cost.

ACCESSORIES FOR INTAKE FANS

FILTERS — Permanent washable type, ½" thick

Cat. No.	Used with Fan	Size	Net Price
FL-6	IF 160, 180, 300	8⅜"Sq.	$2.40
FL-8	IF 360	10⅜ Sq.	2.40
FL-9	IF 540	11⅜ Sq.	3.00
FL-10	IF 740	12⅜ Sq.	3.00

FILTER HOLDERS

Cat. No.	Used with Fan	Size	Depth	Net Price
FH-6	IF 160, 180, 300	8⅜" Sq.	⅝"	$4.80
FH-8	IF 360	10⅜ Sq.	⅝	4.80
FH-9	IF 540	11⅜ Sq.	⅝	6.00
FH-10	IF 740	12⅜ Sq.	⅝	7.20

ALL PRICES F.O.B. BRONX, N. Y. 10474

PREMIER PAGE 24

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

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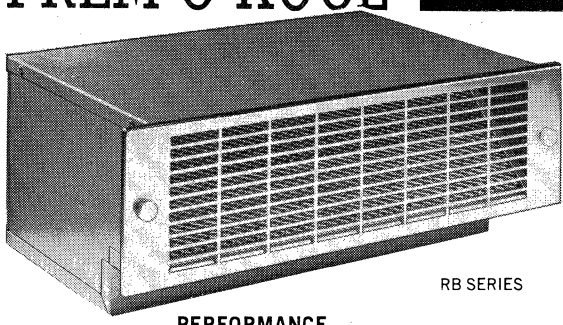
PREM-O-KOOL™ RECESSED BLOWERS



RB SERIES

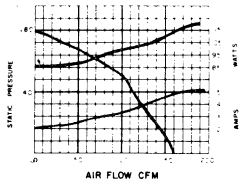
FOR INSTALLATION IN THE OPEN BASE AREA OF ELECTRONIC RACKS

For maximum air delivery with minimum panel height. Built to the same general specifications as above Panel Mounted Blowers (PMB Series).

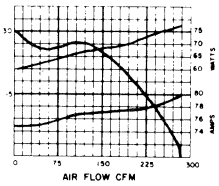
Cat. No.	RB-150-3	RB-280-5
CFM at O" S.P.	150	280
PANEL HEIGHT	3½"	5¼"
FILTER	16⅝x5¼x½"	16⅝x6¾x½"
DEPTH of ENCLOSURE ONLY	8½"	10½"
OVERALL DEPTH including outlets and front grille	9 7/16"	12 7/16"
MOTOR		
RPM	3000	1500
WATTS	120	78
VOLTS	115	115
CYCLES	50/60	50/50
AMPS	1.5	.8
TYPE	Shaded pole, permanent lubrication, ball bearing	Permanent split capacitor, permanent lubrication, ball bearing
SHIP. WT. Lbs.	15	24
NET PRICE	$125.00	$140.00

PERFORMANCE

RB-150-3



RB-280-5



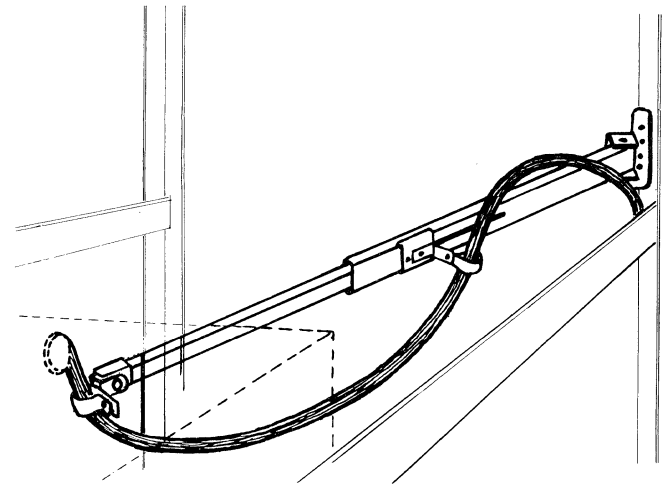
PREMIER BALL BEARING ACTION CABLE RETRACTOR

FOR CONTROL OF POWER SUPPLY CABLES

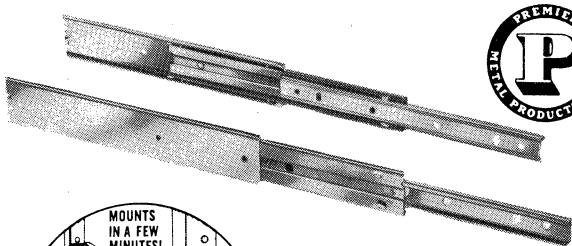
- Smooth gliding, stress-free motion
- Heavy duty construction
- Quick, simple installation
- Spring tension keeps cable "jam-proof"

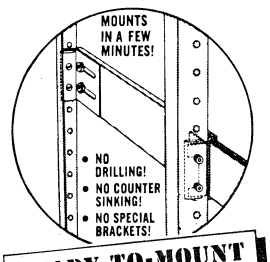
The PREMIER CABLE RETRACTOR is designed for easy and fast installation in both new and existing equipment. It is attached to rear of cabinet and controls power supply cables most efficiently. As the chassis is extended, the retractor pivots and the inner ball bearing actuated member glides out as necessary.

CATALOG NO. PCR-3-16 **Net Price $15.85**



PREM-Ō-RAK® FULL EXTENSION HEAVY DUTY CHASSIS SLIDES





- Exclusive "QUICK DISCONNECT" allows for immediate removal of chassis
- Glides smoothly on Nylon rollers
- Slide mounts standard 17" wide chassis
- Extends fully, yet keeps chassis perfectly straight
- Supplied with all necessary hardware
- Positive mechanical stop prevents possibility of chassis extending too far.

Cat. No.	Slide Length	Slide Travel	Will fit Racks	Net Price
SNR-100-14	14"	14"	15¼" deep POR (DCR, SDR, DRK, SDRK)*	$11.27
SNR-100-16	16"	16"	18" deep PRXA, POR (R, RS, RMA, FD, DCR, SDR)*	11.45
SNR-100-20	20"	20"	FS, 22" deep CPF & FA	11.82
SNR-100-22	22"	22"	24" deep PRXA (RMA, FD)*	12.03
SNR-100-24	24"	24"	25½" deep FA & FS	12.33

*Slide Adapter Kit (Cat. No. SAK-35) required for rear mounting on all models in parenthesis. (See page 26).

FULL EXTENSION
Slide moves the chassis fully, placing components within easy reach.

½" SIDE SPACE
Takes the minimum side space required by any slide.

NO DEFLECTION
Slide extends the chassis fully, yet keeps chassis perfectly straight without any deflection.

100 LB. LOADS
Slide operates smoothly and efficiently, even when carrying loads up to 100 lbs./pair.

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PREM-Ō-RAK® Standard CHASSIS SLIDES

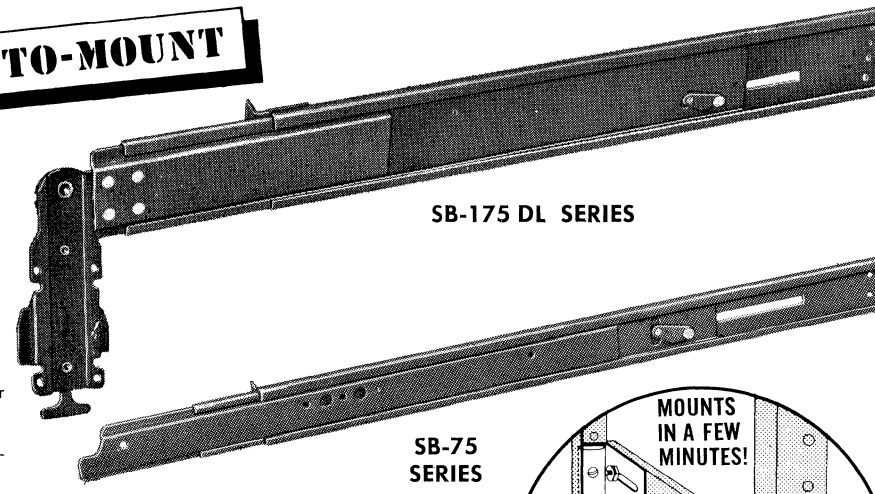
READY-TO-MOUNT

SOLID BEARING SLIDES

CARRY 75 lb. and 175 lb. LOADS

- **TILT and NON-TILT MODELS.**
- EXCLUSIVE "QUICK DISCONNECT" allows for immediate removal of chassis.
- SB-75 Series carry 75 lbs. fully extended. SB-175 Series carry 175 lbs. fully extended.
- Made of high strength cold rolled steel.
- Withstands 100 hours salt spray.
- Slide mounts standard 17" wide chassis.
- 3 telescoping members allow full accessibility for instant servicing.
- SB-75 Series—.386 horizontal side space adjustable ± 1/32.

  SB-175 Series—.398 horizontal side space adjustable ± 1/32.
- Finish: Electro zinc plated, chromate treated and completely coated with Molybedenum Disulphide lubricant.
- SB-175-DL Series have detent locks which allow chassis to be tilted either up or down and locked at 90° for easy servicing.

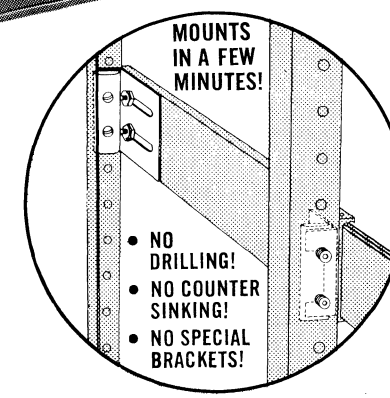


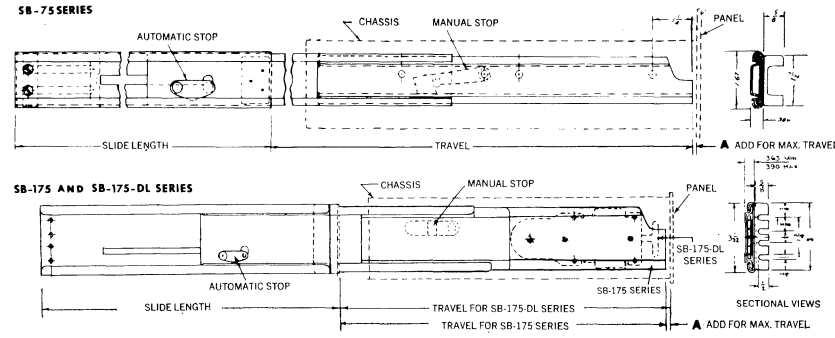
SB-175 DL SERIES

SB-75 SERIES

★ MOUNTS TO TAPPED HOLES OF FRONT AND REAR PANEL MOUNTING ANGLES

★ SIMPLE ADJUSTABILITY OF CHASSIS SLIDE ASSEMBLY FROM OUTSIDE OF FRAME



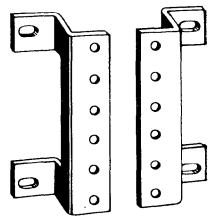


SLIDE ADAPTER KIT

Required for rear mounting on RM, RMA, FD, RS, R, DCR, DRK, SDR and SDRK models.

- Mounts to inside rear flange by drilling 4 holes.
- Made of No. 12 gauge steel and tapped 10-32 on E.I.A. spacings (5/8-5/8-1/2).
- Finished in Gray Hammertone.

Kit includes 2 brackets, four 10-32 screws and keps.



Cat. No. SAK-35 **$3.00 Net Price**

SLIDE TILTING KIT

For tilting one pair of slides. Consists of 4 special screws, lock washers and nuts.

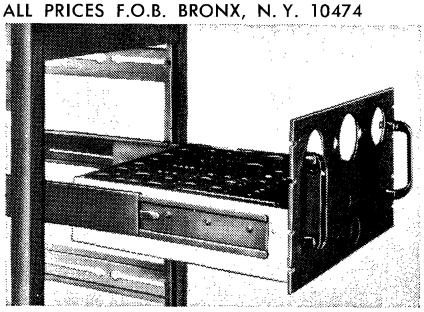
STK-75 (For SB-75 series) ..... **$1.50** Net Price

STK-175 (For SB-175 series) ..... **1.75** Net Price

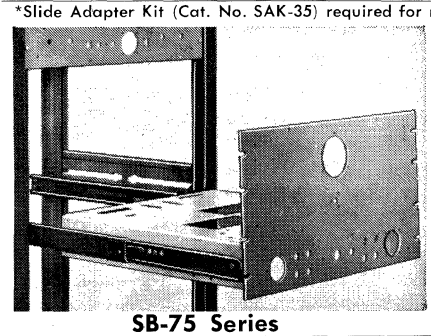
ALL PRICES F.O.B. BRONX, N. Y. 10474

Catalog No.	Load Rating lbs.	Slide Length	Travel Length	(A) Add for Max. Travel	Will Fit Racks	Net Price per-Pair
SB-75-14	75	14"	14½"	1"	15¼" deep POR (DCR, SDR, DRK)*	$17.50
SB-75-16	75	16	14½	3	18" deep PRXA, POR (R, RS, RMA, FD, DCR, SDR)*	17.50
SB-75-20	75	20	18½	3	FS, 22" deep CPF, MSF & FA	17.50
SB-75-22	75	22	22½	1	24" deep PRXA (RMA, FD)*	18.75
SB-75-24	75	24	22½	3	25½" deep FA, MSF & FS	19.75
SB-175-14	175	14"	14½"	1"	15¼" deep POR (DCR, SDR, DRK)*	$37.25
SB-175-16	175	16	18½	1	18" deep PRXA, POR (R, RS, RMA, FD, DCR, SDR)*	37.25
SB-175-20	175	20	22½	1	FS, 22" deep CPF, MSF & FA	37.25
SB-175-22	175	22	24	1	24" deep PRXA (RMA, FD)*	39.50
SB-175-24	175	24	26½	1	25½" deep FA, MSF & FS	40.25
SB-75-DL-14	75	14"	15"	—	15¼" deep POR (DCR, SDR, DRK)*	$40.00
SB-75-DL-16	75	16	17	—	18"d. PRXA, POR (R, RS, RMA, FD, DCR, SDR)*	$40.00
SB-75-DL-20	75	20	21	—	FS, 22" deep CPF, MSF & FA	40.00
SB-75-DL-22	75	22	23	—	24" deep PRXA (RMA, FD)*	42.50
SB-75-DL-24	75	24	25	—	25½" deep FA, MSF & FS	44.00
SB-175-DL-14	175	14"	14½"	—	15¼" deep POR, (DCR, SDR, DRK)*	$59.00
SB-175-DL-16	175	16	18¼	—	18" deep PRXA, POR (R, RS, RMA, FD, DCR, SDR)*	59.00
SB-175-DL-20	175	20	22¼	—	FS, 22" deep CPF, MSF & FA	59.00
SB-175-DL-22	175	22	26¼	—	24" deep PRXA (RMA, FD)*	61.50
SB-175-DL-24	175	24	26¼	—	25½" deep FA, MSF & FS	63.50

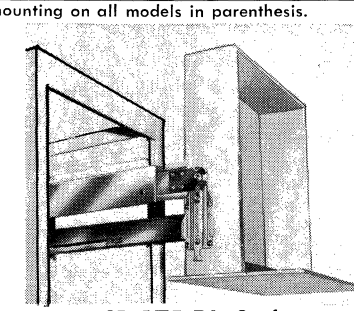
*Slide Adapter Kit (Cat. No. SAK-35) required for rear mounting on all models in parenthesis.



SB-175 Series



SB-75 Series

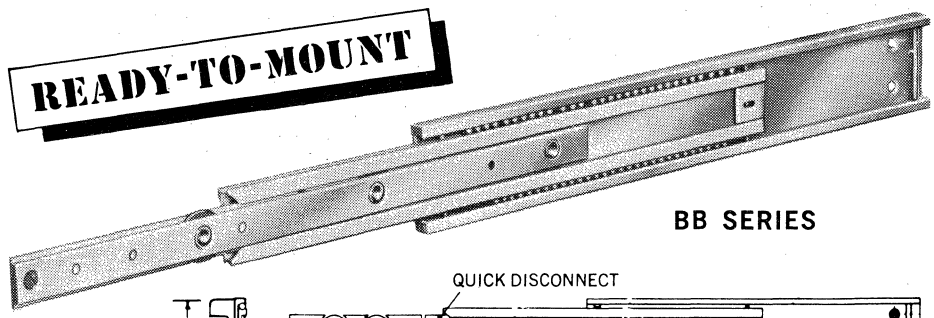


SB-175-DL Series

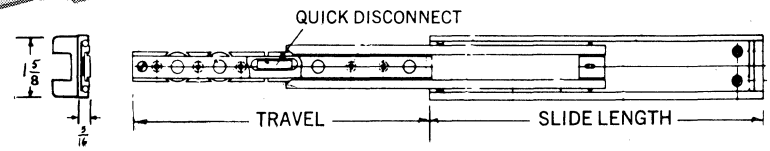
PREM-Ō-RAK® Standard CHASSIS SLIDES

READY-TO-MOUNT

100 lb. BALL BEARING SLIDES



BB SERIES



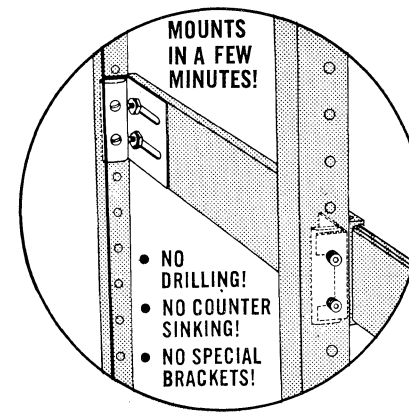
- EXCLUSIVE "QUICK DISCONNECT" allows for immediate removal of chassis.
- Carries load of 100 lbs. when fully extended.
- Glides smoothly on stainless steel ball bearings.
- 5/16" horizontal side space adjustable ± 1/16.
- 1⅝" vertical side space.
- 3 telescoping anodized aluminum members.
- Allows full accessibility for instantaneous servicing.
- Slide mounts standard 17" wide chassis.
- Slide locks in open position.
- Supplied with all necessary hardware for immediate installation.

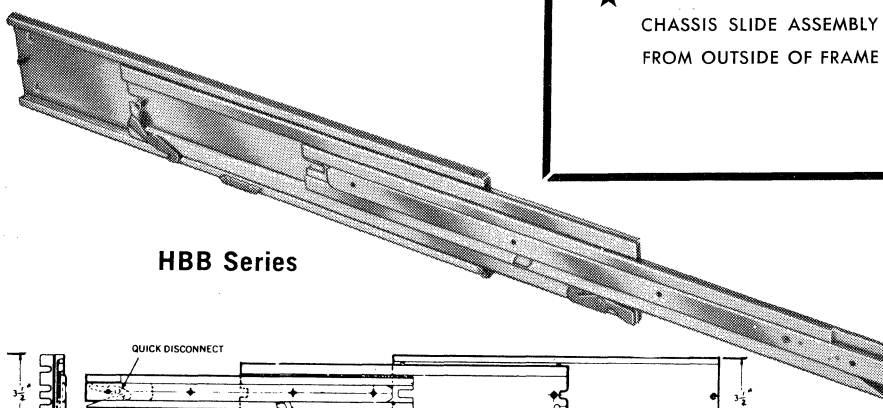
Catalog No.	Load Rating Lbs.	Slide Length	Travel Length	Will Fit Racks	Net Price per Pair
BB-100-14	100	14"	13"	15¼" deep POR (DCR, SDR, DRK)*	$63.25
BB-100-16	100	16	15	18" deep PRXA, POR (R, RS, RMA, FD, DCR, SDR*)	63.25
BB-100-20	100	20	19	FS, 22" deep CPF, MSF & FA	68.50
BB-100-22	100	22	21	24" deep PRXA (RMA, FD)*	69.75
BB-100-24	100	24	23	25½" deep FA, MSF & FS	71.50

*Slide Adapter Kit (Cat. No. SAK-35) required for rear mounting on all models in parenthesis (See page 27).

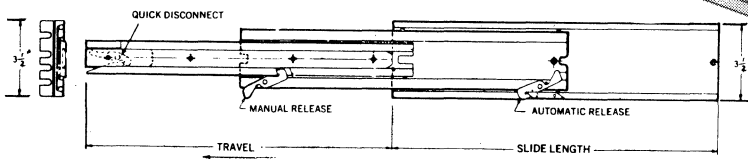
★ MOUNTS TO TAPPED HOLES OF FRONT AND REAR PANEL MOUNTING ANGLES

★ SIMPLE ADJUSTABILITY OF CHASSIS SLIDE ASSEMBLY FROM OUTSIDE OF FRAME





HBB Series



200 lb. HEAVY BALL BEARING SLIDES

Catalog No.	Load Rating Lbs.	Slide Length	Travel Length	Will Fit Racks	Net Price per Pair
HBB-200-14	200	14"	13"	15¼" deep POR (DCR, SDR, DRK)*	$81.50
HBB-200-16	200	16	15	18" deep PRXA, POR, (R, RS, RMA, FD, DCR, SDR)*	81.50
HBB-200-20	200	20	19	FS, 22" deep CPF & FA	88.75
HBB-200-22	200	22	21	FS, 22" deep CPF, MSF & FA FD)*	92.00
HBB-200-24	200	24	23	25½" deep FA, MSF & FS	94.00

*Slide Adapter Kit (Cat. No. SAK-35) required for rear mounting on all models in parenthesis (See page 26)

- EXCLUSIVE "QUICK DISCONNECT" allows for immediate removal of chassis.
- Chassis may be removed from side by depressing quick release lever.
- Slide locks in open position.
- ½" horizontal side space adjustable ± 3/32.
- Carries loads of 200 lbs. when fully extended.
- 3½" vertical side space.
- 4 telescoping anodized aluminum members.
- Allows full accessibility for instantaneous servicing.
- Glides smoothly on stainless steel ball bearings.
- Slide mounts standard 17" wide chassis.
- Supplied with all necessary hardware for immediate installation.

PREMIER PAGE 27

ALL PRICES F.O.B. BRONX, N. Y. 10474

Net

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PREMIER STEEL & ALUMINUM RACK PANELS

BLANK RACK PANELS
9½" - 19" - 24" - 30" WIDTHS

REVERSIBLE

MATERIAL

Steel.....#12 Ga. (.104) Cold Rolled
Aluminum.....⅛" thick — 5005-H36 Alloy
Aluminum.....3/16" thick — 6061-T6 Alloy

FINISH

19" wide painted panels are finished in 2 types of Reversible colors.

Reversible Wrinkle

One side is Black Wrinkle — the other side is Blue-Gray Wrinkle

— or —

Reversible Hammertone

One side is Gray Hammertone — the other side is Brown Hammertone

9½", 24" and 30" wide panels are finished on both sides in **either** Black or Blue-Gray Wrinkle, Gray or Brown Hammertone.

MASKED ALUMINUM PANELS

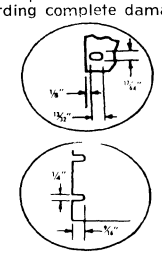
Made of bright natural aluminum covered on both sides with special self-adhesive paper. Drilling or milling can be done on paper in place, affording complete damage protection. Paper is removed simply by peeling.

NOTCHING

All panels are notched according to E.I.A. Standards and will fit any rack having multiple 5/8 - 5/8 - ½ or 1¼ - ½ spacings.

All panels have open slots except the 1¾" & 3½" high, which have closed slots for rigidity.

***NOTE: All panels are cut 1/32" less than nominal height.**



ALUMINUM

Made of ⅛" Thick Aluminum

9½" Wide

Cat. No.	Ship. Wt.	*Nominal Height	Net Price
ARP-195	¼	1¾"	$0.95
ARP-395	½	3½"	1.25
ARP-595	¾	5¼"	1.85
ARP-795	1	7"	2.25
ARP-895	1¼	8¾"	2.65
ARP-1095	1½	10½"	3.30
ARP-1295	1¾	12¼"	4.85
ARP-1495	2	14"	4.40

Modifications Available

- Panels can be notched to meet MIL-Std-189.
- ⅛" thick Aluminum Panels available in 6061T6 alloy.
- 19" wide panels can be finished in same color on both sides.
- Special Finishes.
- Special Heights.

19" WIDE

*Nominal Height	Masked Aluminum — ⅛" Thick Cat. No.	Shipping Wt. Lbs.	Net Price	Painted Aluminum — ⅛" Thick Cat. No.	Shipping Wt. Lbs.	Net Price	Painted Aluminum — 3/16" Thick Cat. No.	Shipping Wt. Lbs.	Net Price	Painted Steel — No. 12 Gauge Cat. No.	Shipping Wt. Lbs.	Net Price
1¾"	MAP-119	½	$ 1.06	ARP-119	½	$ 1.12	ARP-119-36	¾	$ 1.80	RP-119	1	$ .85
3½"	MAP-319	1	1.45	ARP-319	1	1.50	ARP-319-36	1½	2.35	RP-319	2	1.00
5¼"	MAP-519	1½	1.95	ARP-519	1½	2.05	ARP-519-36	2½	3.30	RP-519	3	1.20
7"	MAP-719	2	2.35	ARP-719	2	2.46	ARP-719-36	3	4.00	RP-719	4	1.40
8¾"	MAP-819	2½	2.85	ARP-819	2½	2.95	ARP-819-36	3¾	4.75	RP-819	5¼	1.70
10½"	MAP-1019	3	3.55	ARP-1019	3	3.75	ARP-1019-36	4½	6.00	RP-1019	6¼	2.05
12¼"	MAP-1219	3½	4.15	ARP-1219	3½	4.15	ARP-1219-36	5	6.95	RP-1219	7¼	2.45
14"	MAP-1419	4	4.75	ARP-1419	4	5.00	ARP-1419-36	6	8.00	RP-1419	8¼	2.82
15¾"	MAP-1519	4	5.30	ARP-1519	4	5.50	ARP-1519-36	6	8.90	RP-1519	9	3.16
17½"	MAP-1719	4¾	5.85	ARP-1719	4¾	6.10	ARP-1719-36	7	9.80	RP-1719	10½	3.50
19¼"	MAP-1919	5	6.40	ARP-1919	5	6.70	ARP-1919-36	7½	10.75	RP-1919	12	3.85
21"	MAP-2119	6	6.95	ARP-2119	6	7.50	ARP-2119-36	9	11.65	RP-2119	12½	4.25
26¼"	MAP-2619	7½	9.00	ARP-2619	7½	10.20	ARP-2619-36	11½	15.00	RP-2619	15½	6.00
31½"	MAP-3119	8½	10.50	ARP-3119	8½	13.70	ARP-3119-36	13½	17.60	RP-3119	19	7.70
35"	MAP-3519	10	12.50	ARP-3519	10	14.85	ARP-3519-36	15	20.50	RP-3519	22	9.00

24" WIDE

Aluminum — 1/8" Thick Cat. No.	Ship. Wt. Lbs.	Net Price	*Nominal Height	Steel — No. 12 Gauge Cat. No.	Ship. Wt. Lbs.	Net Price
ARP-324	1¼	$2.30	3½"	RP-324	2¼	$1.50
ARP-524	2	3.40	5¼"	RP-524	3½	1.85
ARP-724	2½	4.10	7"	RP-724	4½	2.10
ARP-824	3	4.90	8¾"	RP-824	6	2.60
ARP-1024	3½	6.15	10½"	RP-1024	7	3.10
ARP-1224	4	7.20	12¼"	RP-1224	8	3.66
ARP-1424	4½	8.25	14"	RP-1424	9	4.20
ARP-1524	5	9.15	15¾"	RP-1524	10	4.75
ARP-1724	5½	10.10	17½"	RP-1724	11	5.25
ARP-1924	6	11.05	19¼"	RP-1924	12	5.80
ARP-2124	6½	12.05	21"	RP-2124	13	6.40

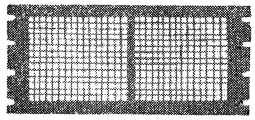
30" WIDE

Aluminum — 1/8" Thick Cat. No.	Ship. Wt. Lbs.	Net Price	*Nominal Height	Steel — No. 12 Gauge Cat. No.	Ship. Wt. Lbs.	Net Price
ARP-330	1½	$3.05	3½"	RP-330	3	$1.95
ARP-530	2¼	4.55	5¼"	RP-530	4½	2.45
ARP-730	3	5.50	7"	RP-730	6	2.80
ARP-830	3¾	6.50	8¾"	RP-830	8	3.40
ARP-1030	4½	8.20	10½"	RP-1030	9¼	3.45
ARP-1230	5	9.55	12¼"	RP-1230	10¼	4.85
ARP-1430	6	10.95	14"	RP-1430	12	5.60
ARP-1530	6½	12.25	15¾"	RP-1530	13½	6.35
ARP-1730	7	13.50	17½"	RP-1730	15	6.95
ARP-1930	7½	14.75	19¼"	RP-1930	18	7.66
ARP-2130	9	16.05	21"	RP-2130	19	8.50

PANELS — 19" WIDE FINISHED IN EITHER BLACK OR BLUE GRAY WRINKLE, GRAY OR BROWN HAMMERTONE

Made of No. 12 Gauge Steel

IF COLOR IS NOT SPECIFIED, BLACK WRINKLE IS FURNISHED.



⅜" Sq. Perforated

GRILLE PANELS

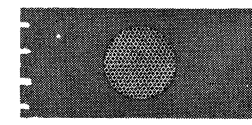
Cat. No.	Grill Size	*Nominal Height	Ship. Wt. Lbs.	Net Price
GRP-601	3⅞"x13⅜"	5¼"	2	$3.40
GRP-602	3⅞"x13⅜"	7"	2	3.64
GRP-603	5⅞"x13⅜"	8¾"	2½	4.40
GRP-604	*3⅞"x13⅜"	8¾"	2½	4.05
GRP-605	7⅞"x13⅜"	10½"	2½	4.82
GRP-606	*5⅞"x13⅜"	10½"	2½	4.40
GRP-607	*7⅞"x13⅜"	12¼"	3	5.00

* Allows 3½" space at bottom for chassis mounting.

SIDE HINGED DOOR PANELS

Can be used for left or right hand opening. Supplied with a quick turn fastener. Full height piano hinge welded to panel.

Cat. No.	Height	Net Price
SHP-319	3½"	$3.30
SHP-519	5¼"	3.44
SHP-719	7"	3.76
SHP-819	8¾"	4.04
SHP-1019	10½"	4.36
SHP-1219	12¼"	4.66
SHP-1419	14"	5.05
SHP-2119	21"	8.00



SPEAKER PANELS

A piece of perforated metal is spot-welded behind the opening.

Cat. No.	Height	Spkr. Size	Hole Size	Ship. Wt. Lbs.	Net Price
SRP-819	8¾"	6"	4⅝"	6	$3.2
SRP-1019	10½"	8"	6½"	8	4.0
SRP-1219	12¼"	10"	8½"	9	4.8
SRP-1419	14"	12"	11"	10	5.5

ALL PRICES F.O.B. BRONX, N. Y. 10474

PREMIER PAGE 28

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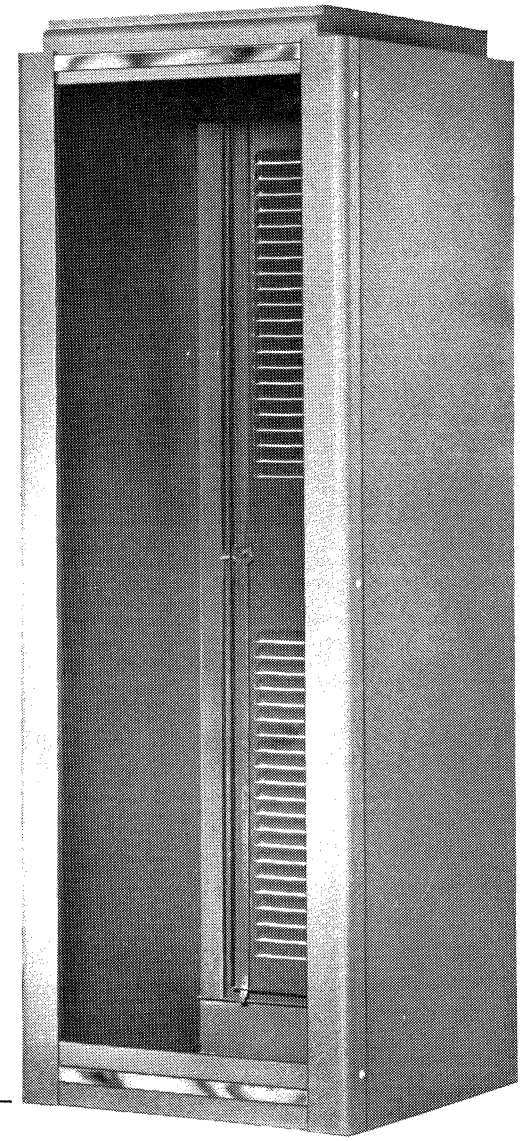
Net

WYCO METAL PRODUCTS ALL-WELDED DELUXE CABINET RACKS



DELUXE "D" SERIES
AN ALL-WELDED UNIT FOR 19" RACK PANELS

SPECIFICATIONS:

A. Rack is constructed throughout from 16 gauge high-quality steel and is completely welded together.

B. Panel mounting angles constructed of 1½ x 1½ x ⅛" angle iron.

C. Mounting holes are tapped 10/32 thread.

D. Mounting holes are at 1¼"-½" spacings. (WESTERN ELECTRIC SPACING.)

E. Double row of louvres in rear door provide ventilation.

F. Door is hung on loose-pin hinges; it may be easily removed.

G. Door is securely locked by means of an "automotive" type highly-polished handle and linkage rods.

H. Highly polished metal trim is on front of rack at top and bottom.

I. Panel mounting screws are concealed by detachable corner vertical trim (see Item "L").

J. Finished in black or grey wrinkle enamel and silver grey hammertone.

K. When it is desired to "gang" two or more of these cabinets together, order connecting trim, using the prefix "AD" plus the last two numbers of the catalog number of the cabinet.

L. Narrow vertical trim, allowing for removal of 19" panels, without removing vertical trim, is available, upon request, at no additional charge.

RACKS — 18½" DEEP

Catalog Number	Overall Dimensions	Panel Space	Clear Inside Width (Front)	Clear Inside width (Rear)	Clear Inside Depth	Approx. Shipping Weight
D 1869	69⅝ x 23⅝ x 18½	61¼ x 19	17⅞	19⅝	16¾	155 lbs.
D 1878	78⅜ x 23⅝ x 18½	70 x 19	17⅞	19⅝	16¾	167 lbs.
D 1885	85⅜ x 23⅝ x 18½	77 x 19	17⅞	19⅝	16¾	180 lbs.

RACKS — 24" DEEP

D 2469	69⅝ x 23⅝ x 24	61¼ x 19	17⅞	19⅝	22¼	176 lbs.
D 2478	78⅜ x 23⅝ x 24	70 x 19	17⅞	19⅝	22¼	192 lbs.
D 2485	85⅜ x 23⅝ x 24	77 x 19	17⅞	19⅝	22¼	205 lbs.

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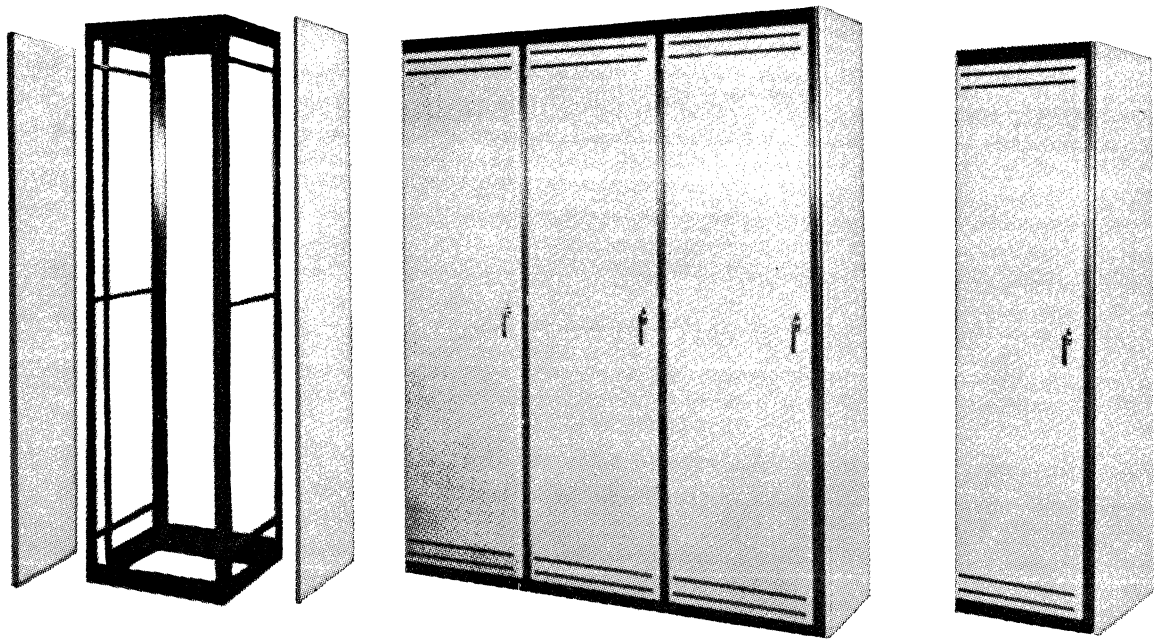
WYCO METAL PRODUCTS

MULTIPLE RACK INSTALLATIONS

ALL-WELDED FRAME—FOR 19" MODELS
REMOVABLE SIDES—ADJUSTABLE MOUNTING ANGLES

18" DEEP AND 24" DEEP



SPECIFICATIONS:

A. Sides are removable for MULTIPLE RACK installations of two or more units.
B. This series consists of one frame and rear door, or one frame, rear and front door.
C. Removable sides sold separately, in pairs only.
D. Fabricated of high-quality, heavy gauge steel and electronically welded together.
E. Panel mounting angles are 3/16" structural steel with mounting holes tapped 10-32 thread on 1¼"-½" spacing.
F. Panel mounting angles are adjustable from front to back.
G. Highly-polished trim on doors.
H. "Automotive" type, highly-polished handles on doors.
I. Door can be mounted left or right hand.
J. Bottom has cut-out for cables, leads, etc.
K. Louvres in doors, sides and cabinet top can be added at no additional cost.
L. A rectangular or round opening can be put into cabinet top at no additional cost.
M. Available in primer coat, two-tone grey enamel (frame in dark grey; doors and ends in silver-grey hammertone), black or grey wrinkle.
N. Heavy-duty Caster #RC7773 may be used with this series.

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18" DEEP RACK

REAR DOOR ONLY				FRONT AND REAR DOOR			
Cat. No.	Height	Panel Space	Approx. Shp. Wt.	Cat. No.	Height	Panel Space	Approx. Shp. Wt.
RW861	67 3/8"	61 1/4"	123	FW618	67 3/8"	61 1/4"	143
RW870	76 1/8"	70"	129	FW708	76 1/8"	70"	152
RW877	83 1/8"	77"	143	FW778	83 1/8"	77"	168

24" DEEP RACK

REAR DOOR ONLY				FRONT AND REAR DOOR			
Cat. No.	Height	Panel Space	Approx. Shp. Wt.	Cat. No.	Height	Panel Space	Approx. Shp. Wt.
RW461	67 3/8"	61 1/4"	144	FW614	67 3/8"	61 1/4"	169
RW470	76 1/8"	70"	153	FW704	76 1/8"	70"	183
RW477	83 1/8"	77"	169	FW774	83 1/8"	77"	202

18" DEEP REMOVABLE SIDES

Catalog No.	Approx. Shp. Wt. Pairs
RS 1861	45 lbs.
RS 1870	50 lbs.
RS 1877	55 lbs.

24" DEEP REMOVABLE SIDES

Catalog No.	Approx. Shp. Wt. Pairs
RS 2461	56 lbs.
RS 2470	64 lbs.
RS 2477	70 lbs.

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WYCO METAL PRODUCTS

ALL-WELDED CABINET RACKS

DELUXE SERIES "G" AND "DF" — STANDARD SERIES "SL" AND "S"

DESCRIPTION:

A. 16 ga. high quality steel.
B. Welded together.
C. Panel mounting angles 1/8" steel.
D. Western Electric spacing.
E. Tapped 10/32.
F. Louvres rear door.
G. Rear door hung on loose-pin hinges.
H. Rear door has flush-type latch.
I. Highly-polished trim at front, top and bottom.
J. Front corners rounded.
K. Available grey or black wrinkle and silver grey hammertone.
L. "SL" and "S" series have detachable vertical trim.
M. "G" and "DF" series panel mounting angles adjustable front to back.
N. "DF" series has front door with automotive type handle and three point catch.
O. "SL" series has louvres at sides.
P. Narrow vertical trim can be ordered for "SL" and "S" series.

SPECIFICATIONS:

Cat. No.	Overall Dim.	Panel Space	Approx. Ship. Wt. Lbs.
G 6119	67 3/8" x 22" x 18"	61 1/4" x 19"	165
G 7019	76 1/8" x 22" x 18"	70" x 19"	185
G 7719	83 1/8" x 22" x 18"	77" x 19"	195
DF 1961	67 3/8" x 22" x 18"	61 1/4" x 19"	185
DF 1970	76 1/8" x 22" x 18"	70" x 19"	200
DF 1977	83 1/8" x 22" x 18"	77" x 19"	210
SL 1842	42 7/8" x 21 1/8" x 18"	36 3/4" x 19"	107
SL 1867	67 3/8" x 21 1/8" x 18"	61 1/4" x 19"	145
SL 1883	83 1/8" x 21 1/8" x 18"	77" x 19"	177

STANDARD "S" SERIES

FOR 19" RACK PANELS

SPECIFICATIONS:

A. ALL SPECIFICATIONS AND DIMENSIONS OF "SL" SERIES APPLY, EXCEPT FOR FOLLOWING:
(1) LOUVRES AT SIDE ARE OMITTED to facilitate use of racks in rows or "gangs."
(2) When it is desirable to set up these cabinets in rows or "gangs," we can supply a connecting trim for a small additional charge. Order connecting trim, using prefix "AS" plus the last two numbers of the catalog number of the cabinet.
(3) Catalog Numbers are prefaced with "S" instead of "SL."

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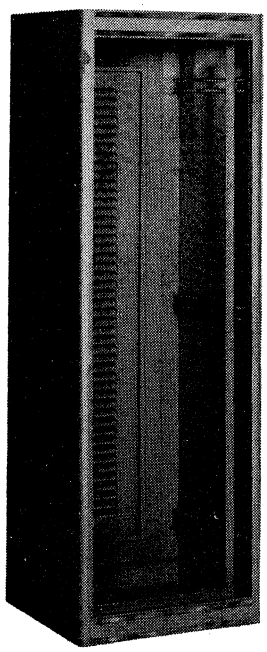
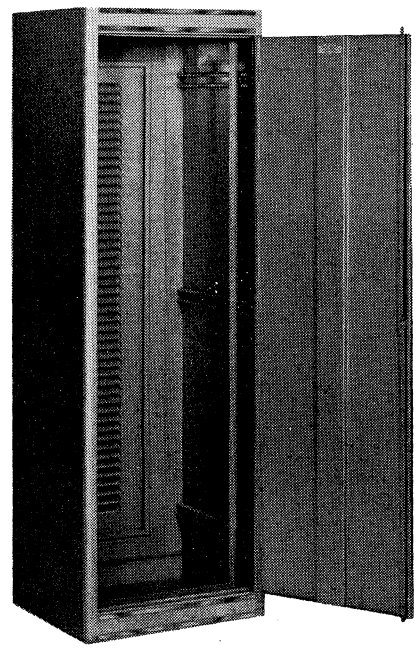
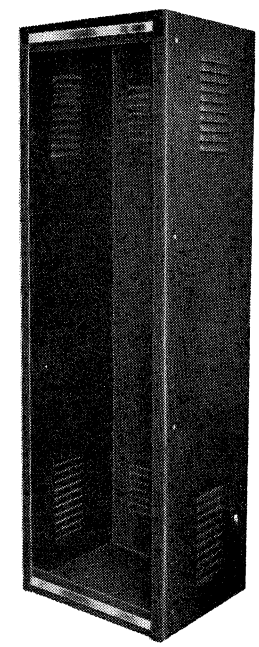


"G" SERIES
ADJUSTABLE MOUNTING ANGLE



"DF" SERIES
ADJUSTABLE MOUNTING ANGLE



"SL" SERIES
DETACHABLE VERTICAL TRIM AT FRONT CORNERS

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WYCO METAL PRODUCTS

CABINET RACKS - RELAY RACKS
EXPAND-A-RACKS

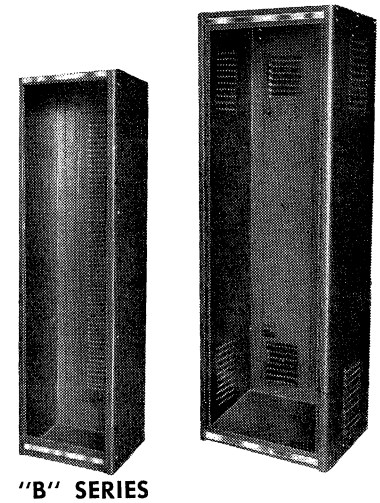
MODEL "W" AND BANNER "B" SERIES

DESCRIPTION: "W" SERIES

A. 16 gauge high-quality steel.
B. Front corners are rounded.
C. Panel mounting angles 1/8" steel.
D. Mounting holes tapped 10/32 thread.
E. Mounting holes are UNIVERSAL CENTERS.
F. Louvres in rear door and sides.
G. Door hung on loose pin hinges.
H. Door closed by two flush-type latches.
I. Highly-polished trim on front.
J. RACK IS SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for assembly.
K. Finished in black or grey wrinkle and silver grey hammertone.
L. There are four brackets spot welded to the bottom of the cabinet. Our casters (catalog No. RC100) can be attached to these brackets. This offers instant mobility, if required.

DESCRIPTION: "B" SERIES

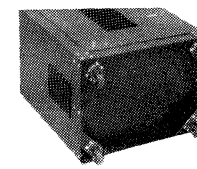
A. 16 gauge high-quality steel and is welded together.
B. Panel mounting angles 1½x1½x1/8" angle iron.
C. Mounting holes are 10/32 thread.
D. (WESTERN ELECTRIC SPACING.)
E. Louvres in rear doors.
F. Rear corners re-inforced.
G. Door hung on loose pin hinges.
H. Door closed by two flush-type latches.
I. Highly-polished trim on front.
J. Panel mounting screws concealed by vertical trim.
K. Finished in black or grey wrinkle enamel and silver grey hammertone.
L. When it is desirable to set up racks in rows or "gangs," order connecting trim, using the prefix "AB" plus the last two numbers of the catalog number of the cabinet.



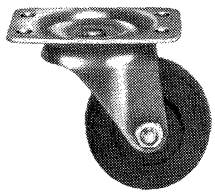
"B" SERIES

SPECIFICATIONS:

Catalog Number	Overall Dimensions	Panel Space	Clear Inside Width (Front)	Clear Inside Width (Rear)	Clear Inside Depth	Approx. Shipping Weight
W 1036	42 x22x17¼	36¾x19	17⅞	17¼	15⅞	88 lbs.
W 1042	47¼x22x17¼	42 x19	17⅞	17¼	15⅞	95 lbs.
W 1061	66½x22x17¼	61¼x19	17⅞	17¼	15⅞	122 lbs.
W 1077	82¼x22x17¼	77 x19	17⅞	17¼	15⅞	148 lbs.
B 1876	76⅛x21⅛x18	70 x19	17⅞	17¼	16½	178 lbs.



"W" SERIES



CASTERS

DESCRIPTION:

A. Can be used with our "W" series and Expand-A-Rack series.
B. Load capacity of a set of four is 520 lbs.
C. The swivel bearing wheels are made of a hard fibrous compound.

CATALOG NO. RC-100 APPROX. SHIP. WT. EACH 8 oz.

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EXPAND-A-RACK SERIES

DESCRIPTION:

A. When it is necessary to join two or more racks together, WYCO METAL PRODUCTS offers the "EXPAND-A-RACK" series.
B. Figure "A" shows two Expand-A-Racks joined together.
C. Figure "B" illustrates the method of expanding your present rack space. In place of purchasing an additional rack, a unit, consisting of the following items, would be bought: (a) the door; (b) the top; (c) the bottom; (d) an Expand-A-Rack joining unit. The right or left side of your existing relay cabinet rack is dis-assembled and replaced with an Expand-A-Rack joining unit. Following this step, the top and bottom are assembled. The cabinet side removed from the original rack is then fastened onto the second rack. Upon hanging the additional door, two complete racks are now joined together.
D. Wyco's Expand-A-Rack series may be purchased by one of two methods. One method consists of buying one complete rack (the "W" series) plus one Expand-A-Rack unit. If you already have one of our basic "W" series cabinets, then order an Expand-A-Rack unit.
E. Supports are electronically welded to the bottom to receive our casters (#RC-100).
F. There is an ample amount of compound knockouts in the Expand-A-Rack joining unit center partition. This allows cables and leads to be taken from one cabinet to the other.
G. Available in Grey or Black Wrinkle and Silver Grey Hammertone.

SPECIFICATIONS:

Cat. No.	Used to Expand-A-Rack With	Approx. Ship Wt. Lbs.
E-400	W-1036	74
E-401	W-1042	78
E-402	W-1061	99
E-403	W-1077	126

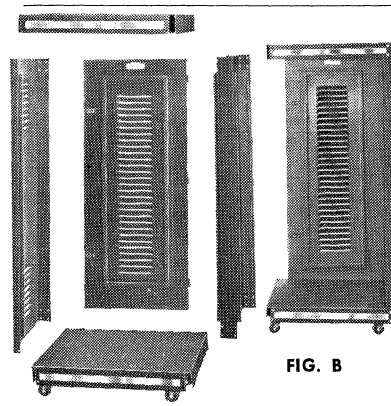

FIG. B

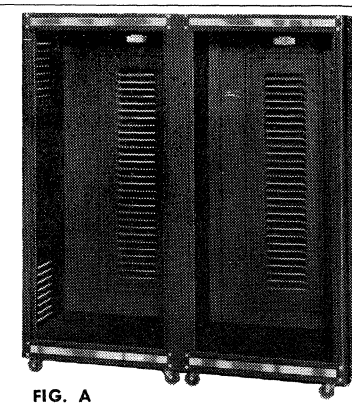

FIG. A

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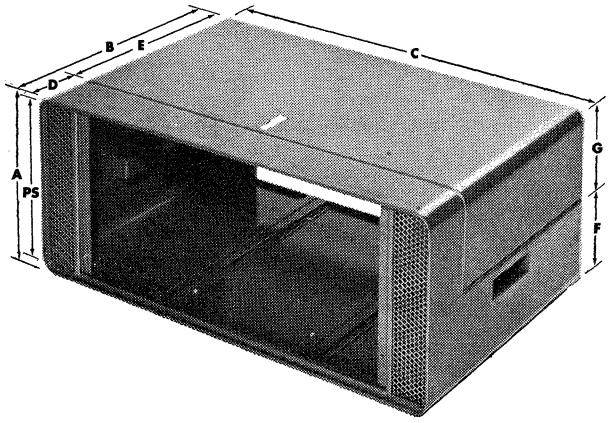
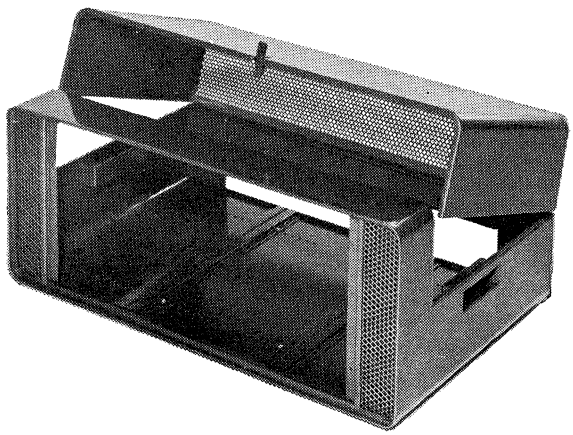
WYCO METAL PRODUCTS — THE "SUPREME LINE" CABINET SERIES AND PORTABLE SCOPE DOLLY



FRONT VIEW



FRONT VIEW — TOP DOOR OPEN

DESCRIPTION:

A. Fabricated of 16 ga. steel.

B. Mounting holes tapped 10-32.

C. Mounting holes: Universal spacing.

D. Ventilated by perforated metal front and back and rear opening.

E. Top door has continuous piano hinge.

F. Top door has flush-type latch.

G. Embossed feet with rubber bumpers at bottom.

H. Adjustable Hat-section type rails, furnished to support chassis, have holes for bolting to cabinet bottom and chassis.

I. Recessed carrying handles are in sides of cabinet.

J. Finished in dark grey hammertone.

K. Utilization of our standard aluminum or steel panels in silver grey hammertone finish with this series creates an attractive contrast.

SPECIFICATIONS

CAT #	PANEL SPACE	A	B	C	D	E	F	G	H	I	Approx. Ship. Wt. Lbs.
SL 7760	7x19	7¾	15	24	3	12	3⅞	3⅞	3⅛	3⅞	25
SL 7761	8¾x19	9½	15	24	3	12	4¾	4¾	3⅛	4¾	23
SL 7762	10½x19	11¼	15	24	3	12	5⅝	5⅝	3⅛	5⅝	27
SL 7763	12¼x19	13	15	24	3	12	6½	6½	3⅛	6½	29
SL 7764	14x19	14¾	15	24	3	12	7⅜	7⅜	3⅛	7⅜	31

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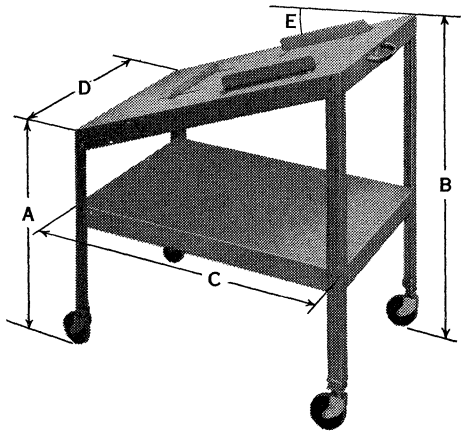

PORTABLE SCOPE DOLLY

DESCRIPTION

A. Shelves fabricated of high-quality steel.

B. Legs fabricated of structural steel for strength.

C. Highly - polished functional handle included.

D. By adjusting brackets on the top shelf, almost any popular type of laboratory scope may be carried.

E. Full - swivel 3" rubber casters included.

F. Painted in smooth silver-grey hammertone.

G. Shipped knocked-down with all necessary hardware for easy assembly.

CAT. #	Type	"A"	"B"	"C"	"D"	"E"	Approx. Ship. Wt.
SD 7783	sloping	21¾"	32½"	28"	19"	20°	30±

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WYCO METAL PRODUCTS

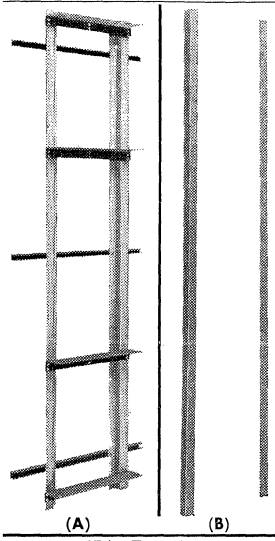
SLIDES — SLIDE ASSEMBLIES

SLIDING DRAWERS
VERTICAL SLIDE SUPPORTS — EXTRA MOUNTING ANGLES
HEAVY DUTY CASTERS

(A) VERTICAL SIDE SUPPORTS

Description: (A) Bolts to Unistrut members in following series cabinets: RW/FW/G/DF. (B) 12 ga. steel; painted hammertone. (C) 10-32 holes; Universal spacing. (D) Supports shelves, mounting brackets and slide units. (E) Support brackets not included; order separately. (F) Mounting hardware included.

Cat. #	Panel Space	Ship Wt.
ZA-7757	61¼"	30
ZA-7758	70"	34
ZA-7759	77"	38



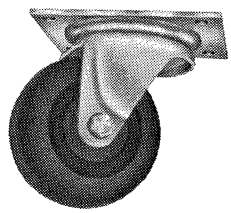
(A) (B)

(B) EXTRA MOUNTING ANGLES

Description: (A) Order when additional pair mounting angles required for following cabinet series: RW/FW/DF/G. (B) 12 ga. steel; painted grey hammertone. (C) 10-32 holes; WE spacing.

Cat. #	Panel Space	Ship Wt.
MA-7774	61¼"	22
MA-7775	70"	26
MA-7776	77"	30

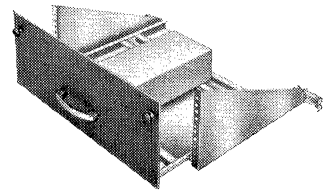
HEAVY DUTY CASTER



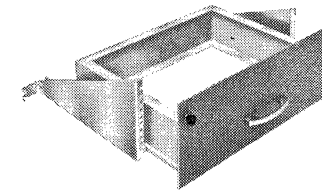
Description: (A) Capacity: 200# per caster. (B) 4" x 1⅝" full-swivel wheel. (C) All rubber cushion tread, hard fibrous center. (D) Used on RW/FW cabinet series.
Catalog #RC-7773

PHOTOGRAPHS A, B, C, D, ARE EXAMPLES OF SLIDE ASSEMBLIES FOR 19" RACKS

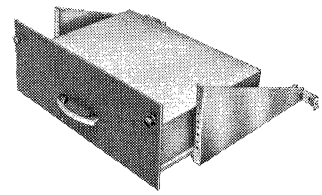
(A) Example: Slide Assembly Using Chassis LESS Than 17" Width



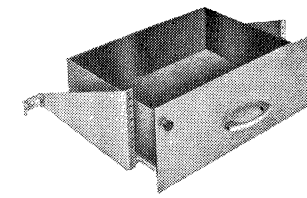
(B) Example: Slide Assembly Using Chassis Frame



(C) Example: Slide Assembly Using 17" Wide Chassis

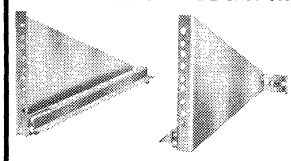


(D) Example: Slide Assembly Using Drawer



ORDER COMBINATION OF PARTS, DESCRIBED BELOW, TO BUILD ASSEMBLIES, AS REQUIRED, FOR 19" RACK MOUNTING

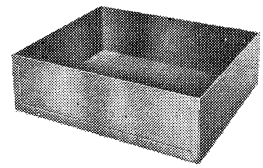
SLIDES FOR 17" WIDE CHASSIS



Catalog #BS-7777

Description: (A) Supports 17" wide chassis. (B) Supports 75 lbs. in extended position. (C) Travels on roller bearings. (D) 14" deep in closed position. (E) Extends 10" to front when pulled out. (F) Attaches to rear side of mounting angle. (G) Fabricated of heavy-gauge, plated steel.

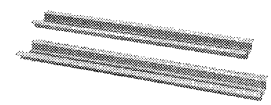
DRAWER



Catalog #BS-7780

Description: (A) Size: 17" wide x 14" deep x 5" high. (B) Heavy-gauge steel. (C) Painted black enamel. (D) Includes hardware for attaching to basic slides.

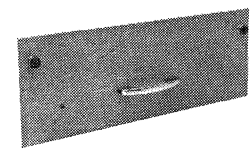
SUPPORTS FOR CHASSIS LESS THAN 17" WIDE



Catalog #BS-7778

Description: (A) Used with BS-7777 to support any chassis less than 17" wide. (B) Heavy-gauge, plated steel. (C) Includes hardware for attaching to basic slides.

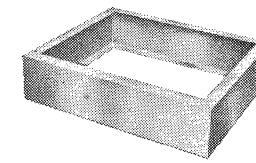
FRONT SLIDE PANEL



Cat. #	Size
BS-7781	7"x19"
BS-7782	10½"x19"

Description: (A) Used as front panel; attaches to slide assembly. (B) 12 gauge steel. (C) Handle and quick-turn latches included. (D) Colors: Grey and Black wrinkle or grey hammertone.

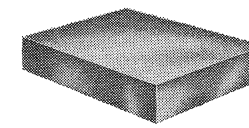
CHASSIS FRAMES



Catalog #BS-7779

Description: (A) Size 17" x 14" x 3" x 1" flange. (B) 1" flange supports plywood for record changer. (C) Heavy-gauge, plated steel. (D) Includes hardware for attaching to basic slides.

STANDARD CHASSIS



Description: (A) Standard aluminum or steel chassis may be used with our slide unit. (B) See list of sizes described in this catalog.

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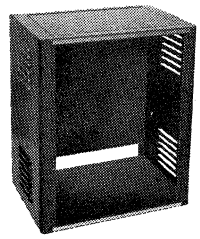
WYCO METAL PRODUCTS

CABINET RACKS - RELAY RACKS CHASSIS - CASES

MODEL "C" SERIES



DESCRIPTION:

A. Constructed of heavy gauge high-quality steel and is completely welded together.
B. Front vertical corners rounded.
C. Mounting holes tapped 10/32 thread.
D. Mounting holes spaced on UNIVERSAL CENTERS.
E. Louvres in side provide ample ventilation.
F. Highly-polished trim at top and bottom of front.
G. Top door has piano hinge and flush-type latch.
H. Finished in black or grey wrinkle and silver grey hammertone.
I. Embossed feet on bottom minimize marring of table tops.

SPECIFICATIONS:

(DOOR IN TOP ONLY)

Catalog Number	Dimensions	Panel Space	Approx. Shipping Weight
C719	8¾x22x15 Deep	7 x19	25 lbs.
C819	10½x22x15 Deep	8¾x19	27 lbs.
C1019	12¼x22x15 Deep	10½x19	28 lbs.
C1219	14 x22x15 Deep	12¼x19	30 lbs.
C1419	15¾x22x15 Deep	14 x19	32 lbs.
	(DOOR IN TOP AND REAR)		
C1719	19¼x22x15 Deep	17½x19	36 lbs.
C2119	22¾x22x15 Deep	21 x19	40 lbs.
C2619	28 x22x15 Deep	26¼x19	43 lbs.
C3119	33¼x22x15 Deep	31½x19	47 lbs.
C3519	36¾x22x15 Deep	35 x19	50 lbs.

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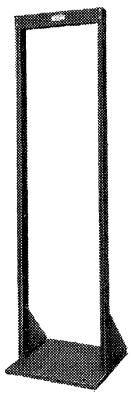
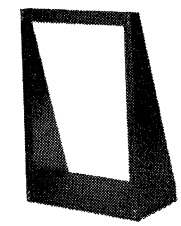


"RC" SERIES

A. Rack constructed of 1/8" high-quality steel.
B. Mounting holes are tapped 10/32 thread.
C. Mounting holes are spaced on UNIVERSAL CENTERS.
D. Base is 20" x 20".
E. Finished in black wrinkle only.
F. SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for assembly.

"RT" SERIES

A. Rack constructed of heavy gauge high-quality steel.
B. Mounting holes are tapped 10/32 thread.
C. Mounting holes are spaced on UNIVERSAL CENTERS.
D. Finished in black wrinkle only.
E. SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for assembly.



SPECIFICATIONS:

Catalog Number	Panel Space	Approx. Shipping Weight
RC36	36¾x19	28 lbs
RC71	71¾x19	41 lbs.

Catalog Number	Panel Space	Height	Width	Depth	Approx. Shipping Weight
RT21	21x19	25"	21"	12"	16 lbs.
RT28	28x19	32"	21"	12"	18 lbs.

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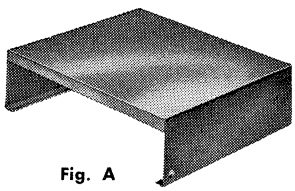


Fig. A

OPEN END CHASSIS

DESCRIPTION: Fig. A

A. Can be utilized on all types of small built-up units such as record amplifier, code oscillator, etc.
B. Electro-Zinc plated.

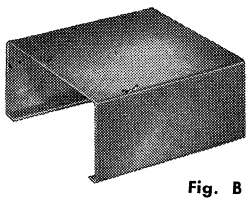


Fig. B

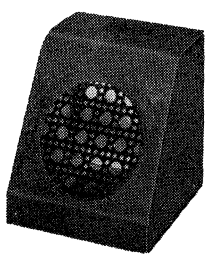
Catalog Number	Depth	Width	Height	Approx. Shipping Wt.-Lbs.
E-570	7"	6"	2"	1
E-571	5"	7"	1½"	¾
E-572	7"	7"	1½"	¾
E-573	7"	8"	2"	1
E-574	5½"	9"	1½"	¾
E-575	7½"	9"	1½"	1
E-576	7"	10"	2"	1¼
E-577	7"	11"	1½"	1¼
E-578	7"	13"	1½"	1½
E-579	10¾"	14"	2"	2½
E-580	7¾"	15"	2"	2

MINIATURE ALUMINUM CHASSIS

DESCRIPTION: Fig. B

A. Ideal for miniature tube applications, sub-assemblies, small receivers, narrow band FM adaptors.
B. Has 1/4" flanges on bottom.
C. Etched aluminum finish.

Catalog Number	Depth	Width	Height	Approx. Shipping Wt.-Lbs.
MA-700	2⅝"	2¾"	1/4"	1/4
MA-701	1¾"	3⅛"	"	1/4
MA-702	3¼"	4½"	2 '	1/4
MA-703	2¾"	4⅛"	½"	1/4
MA-704	3¾"	4⅛"	1"	1/4
MA-705	3"	6⅛"	1¼"	1/4
MA-706	5¾"	4⅞"	1¼"	1/4
MA-707	4"	3⅛"	1"	½
MA-708	4"	4⅛"	1"	½
MA-709	4"	5⅛"	1"	½
MA-710	4"	6⅛"	1"	½



MINIATURE SPEAKER CASE

DESCRIPTION:

A. Houses midget 2" or 3" speaker.
B. Silver Grey Hammertone Finish.

SPECIFICATIONS:

Catalog Number	Hole Diameter	Fits Speaker Size	Approx. Ship. Wt. Lbs.
MS-80	2¼"	2"	¾
MS-81	2 13/16"	3"	¾

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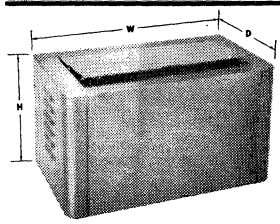
WYCO METAL PRODUCTS — RECEIVER CABINETS - SLOPING PANEL/TOP OPENING - MULTI-USE CABINETS - CHASSIS DECK



MODEL "CS" RECEIVER CABINET (Description)

(A.) Front vertical corners are rounded. (B.) Has recessed, hinged, top door. (C.) Top door opened by finger lift. (D.) Removable front panel, included, is attached with self-tapping screws. (E.) Louvers in side provide ventilation. (F.) Silver grey hammertone only.

Cat. #	H	W	D	Panel Size	Approx. Ship. Wt. Lbs.
CS 7727	8"	10½"	8¼"	8"x 8"	6¼
CS 7728	8"	12½"	8¼"	8"x10"	6½
CS 7729	8"	14½"	8¼"	8"x12"	7
CS 7730	8"	16½"	8¼"	8"x14"	7½
CS 7731	8"	18½"	8¼"	8"x16"	8¼
CS 7732	12"	20⅝"	12"	12"x18"	15½

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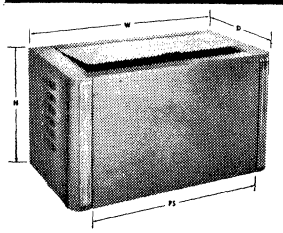

MODEL "DC" RECEIVER CABINET (Description)

(A.) Description of Model "DC" Receiver Cabinet is same as Model "CS" Cabinet except for following: There are two vertical, highly-polished trim strips on face of cabinet.

Cat. #	H	W	D	Panel Size	Approx. Ship. Wt. Lbs.
DC 7733	8"	10½"	8¼"	8"x 8"	6¼
DC 7734	8"	12½"	8¼"	8"x10"	6½
DC 7735	8"	14½"	8¼"	8"x12"	7
DC 7736	8"	16½"	8¼"	8"x14"	7½
DC 7737	8"	18½"	8¼"	8"x16"	8¼
DC 7738	12"	20⅝"	12"	12"x18"	15½

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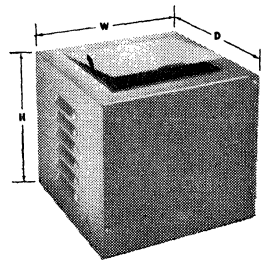

MODEL "CR" RECEIVER CABINET (Description)

(A.) Front vertical corners are square. (B.) Top door is recessed and hinged. (C.) Top door has finger lift. (D.) Removable front panel, included, is attached with self-tapping screws. (E.) Ventilation is supplied by louvers. (F.) Finished in silver grey hammertone only.

Cat. #	H	W	D	Approx. Ship. Wt. Lbs.
CR 7720	7"	8"	8"	5½
CR 7721	7"	10"	8"	6
CR 7722	7"	12"	8"	6¼
CR 7723	7"	14"	8"	6½
CR 7724	8"	16"	8"	7½
CR 7725	9"	15"	11"	8½
CR 7726	12"	18"	12"	15½

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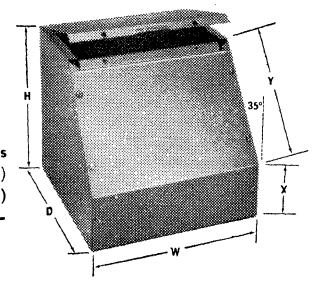
SLOPING PANEL/TOP OPENING CABINET (Description)

(A.) Sloping front panel, included, is attached with self-tapping screws. (B.) Hinged, top door has finger lift. (C.) Opening at back for leads and ventilation. (D.) Silver grey hammertone only



Cat. #	H	W	D	X	Y	Approx. Ship. Wt. Lbs.
SC 7739	6½"	7 1/16"	7 5/16"	2¼"	5 1/16"	3
SC 7740	8"	8 1/16"	8"	2¼"	6 7/16"	3¼
SC 7741	6½"	9 1/16"	7 5/16"	2¼"	5 1/16"	3½
SC 7742	8"	10 1/16"	8"	2¼"	6 7/8"	3¾
SC 7743	6½"	11 1/16"	7 5/16"	2¼"	5 1/16"	4
SC 7744	8"	14 1/16"	8"	2¼"	6 7/8"	4½
SC 7745	8"	13 1/16"	8½"	2¾"	6 5/16"	4¾
SC 7746	9"	18 1/16"	8⅛"	2¼"	6 15/16"	7½
SC 7747	10"	18 1/16"	10½"	3¼"	8⅛"	8¾

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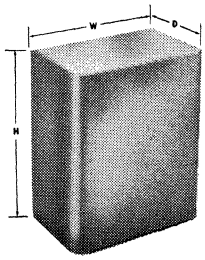


MULTI-USE CABINET (Description)

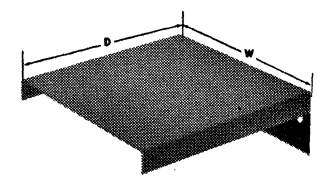
(A.) Ventilated by open back. (B.) Streamlined by rounded corners. (C.) Silver grey hammertone only.

Cat. #	H	W	D	Approx. Ship. Wt. Lbs.
MC 7748	4½"	5½"	3½"	1¼
MC 7749	6½"	5½"	3½"	1¾

CHASSIS DECK (Description)

(A.) Can be used for interstage shielding. (B.) Made of steel. (C.) Painted black enamel.

Cat. #	W	D	Approx. Ship. Wt. Lbs.
CD 7754	4¾"	5½"	1
CD 7755	4¾"	4½"	1
CD 7756	5¾"	5½"	1½



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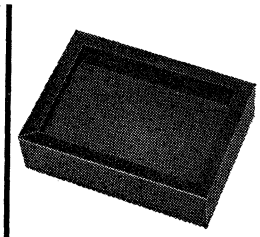
WYCO METAL PRODUCTS

CHASSIS

Cad Plated Cat. No.	STEEL Depth	Width	Ht.	Ga.	Approx. Ship. Wt.-Lbs.
CP-1300	5"	7"	2"	22	1
CP-1301	5"	9½"	2½"	22	1¼
CP-1302	5"	9½"	1½"	22	1
CP-1303	5"	10"	3"	22	1¼
CP-1304	6"	14"	3"	20	1¾
CP-1305	7"	7"	2"	22	1½
CP-1306	7"	9"	2"	22	1½
CP-1307	7"	11"	2"	20	1½
CP-1308	7"	12"	3"	20	1¾
CP-1309	7"	13"	2"	20	2
CP-1310	5"	13½"	2½"	20	1¾
CP-1311	7"	15"	3"	20	2
CP-1312	8½"	15"	3"	20	2½
CP-1313	4"	17"	3"	20	2¼
CP-1314	7"	17"	2½"	20	2½
CP-1315	7"	17"	3"	20	1¾
CP-1316	8"	10"	2½"	20	2
CP-1317	8"	12"	2½"	20	2½
CP-1318	8"	12"	3"	20	1¾
CP-1319	8"	17"	2"	20	2½
CP-1320	8"	17"	3"	20	3¼
CP-1321	10"	12"	3"	20	3
CP-1322	10"	14"	3"	20	4
*CP-1323	10"	17"	2"	20	3¼
*CP-1324	10"	17"	3"	20	4
*CP-1325	10"	17"	3"	18	5
CP-1326	10"	23"	3"	18	5½
*CP-1327	11"	17"	2"	18	4½
*CP-1328	11"	17"	3"	18	4½
*CP-1329	12"	17"	2"	18	4½
*CP-1330	12"	17"	3"	18	5¼
*CP-1331	13"	17"	2"	18	5
*CP-1332	13"	17"	3"	18	5½
*CP-1333	10"	17"	4"	18	6½
*CP-1334	13"	17"	4"	18	7½
CP-1335	10"	17"	5"	18	7½
CP-1336	13"	17"	5"	18	8

Cat. No.	ALUMINUM Depth	Width	Ht.	Gauge	Approx. Shipping Wt.-Lbs.
CA-2001	4"	6"	3"	18	½
CA-2002	4"	6"	2"	18	½
CA-2003	4"	17"	3"	16	1¼
CA-2004	5"	7"	2"	18	½
CA-2005	5"	7"	3"	16	¾
CA-2006	5"	9½"	2"	18	½
CA-2007	5"	9½"	3"	18	¾
CA-2008	5"	10"	3"	18	¾
CA-2009	5"	13"	3"	18	¾
CA-2010	6"	17"	3"	16	1¼
CA-2011	7"	7"	2"	18	½
CA-2012	7"	9"	2"	18	½
CA-2013	7"	11"	2"	18	¾
CA-2014	7"	12"	3"	18	1
CA-2015	7"	13"	2"	18	¾
CA-2016	7"	15"	3"	16	1½
CA-2017	7"	17"	3"	16	1¾
CA-2018	8"	12"	3"	16	1½
CA-2019	8"	17"	2"	16	1½
CA-2020	8"	17"	3"	16	1¾
CA-2021	10"	12"	3"	16	1½
CA-2022	10"	14"	3"	16	1¾
CA-2023	10"	17"	2"	16	1¼
CA-2024	10"	17"	3"	16	2
CA-2025	11"	17"	2"	14	2¼
CA-2026	11"	17"	3"	14	2¾
CA-2027	12"	17"	3"	14	2¾
CA-2028	13"	17"	2"	14	2½
CA-2029	13"	17"	3"	14	2¾
CA-2030	10"	17"	4"	14	3½
CA-2031	13"	17"	4"	14	3¾



STEEL CHASSIS

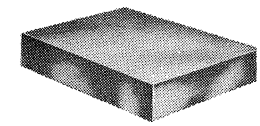
DESCRIPTION:

A. Fabricated from one piece of steel.
B. All corners electronically spot welded.
C. Flanges on bottom formed and punched to allow bottom plate to be attached if desired.
D. Finished in Cad. Plate.
E. Asterisk indicates holes punched to receive chassis mounting brackets.

ALUMINUM CHASSIS

DESCRIPTION:

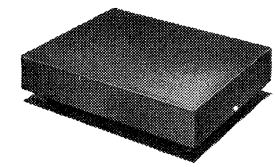
A. Fabricated of one piece of aluminum, 3003-H14.
B. All corners are electronically spot welded.
C. Flanges on bottom formed and punched to allow bottom plate to be attached, if desired.
D. Etched aluminum finish, MIL-C-5541.
E. Gauges indicated are aluminum gauges.



HEAVY DUTY AND PANEL CHASSIS

DESCRIPTION:

A. Made of cold Rolled steel.
B. Bottom plate included at no additional charge.
C. Available in Cad. Plate.

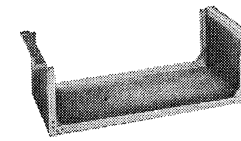


Cad. Plated Cat No.	Steel Guage	Depth	Width	Height	Approx. Shipping Wt. - Lbs.
C-627	20	8"	17"	2"	6
C-628	20	8"	17"	3"	7½
C-629	18	11"	17"	2"	8½
C-630	18	11"	17"	3"	9
C-631	18	13"	17"	2"	9½
C-632	18	13"	17"	3"	10
C-633	18	13"	17"	4"	11

PANEL CHASSIS ALUMINUM OR STEEL

DESCRIPTION:

A. .062 aluminum (3003-H14).
B. Aluminum etched finish.
C. Flange notched for mounting to rack mounting angles.



Alum. Cat. #	W.	H.	D.	Alum. Wt.
PC-505	19"	1¾	5⁹⁄₃₂	¾
PC-506	19"	3½	5⁹⁄₃₂	1¼
PC-507	19"	5¼	5⁹⁄₃₂	1½
PC-508	19"	7	5⁹⁄₃₂	2
PC-509	19"	8¾	5⁹⁄₃₂	2¼
PC-510	19"	10½	5⁹⁄₃₂	2¾
PC-511	19"	12¼	5⁹⁄₃₂	3
PC-512	19"	14	5⁹⁄₃₂	3¼

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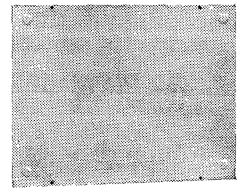
WYCO METAL PRODUCTS

ROLLER TRUCKS - BOTTOM PLATES - SHELVES SUPPORTING ANGLES - MOUNTING BRACKETS

CHASSIS BOTTOM PLATES

STEEL AND ALUMINUM



DESCRIPTION:

A. Protects component parts and wiring from dust.

B. Four embossed feet protect table top or other surfaces from being marred.

C. Catalog number R6023 to R6045 are Cad plated steel.

D. Catalog numbers R6046 to R6055 are Aluminum etched finish.

Cad. Plated Cat. No.	Aluminum Etched Cat. No.	W.	L.	Steel Ship Wt.	Alum. Ship Wt.
R-6023	R-6046	5"	7"	1/2	1/8
R-6024	R-6047	5"	9 1/2"	3/4	1/4
R-6025	R-6048	5"	10"	3/4	1/4
R-6026	R-6049	7"	7"	1	1/3
R-6027	R-6050	7"	9"	1	1/3
R-6028	R-6051	7"	11"	1	1/3
R-6029	R-6052	7"	12"	1 1/4	1/2
R-6030	R-6053	7"	13"	1 1/4	1/2
R-6031		5"	13 1/2"	1	
R-6032		7"	15"	1 1/4	
R-6033		8 1/2"	15"	1 1/2	
R-6034		4"	17"	1 1/2	
R-6035		6"	17"	1 1/2	
R-6036		8"	10"	1 1/4	
R-6037		8"	12"	1 1/2	
R-6038		8"	17"	1 3/4	
R-6039		10"	12"	1 1/2	
R-6040		10"	14"	1 1/2	
R-6041	R-6054	10"	17"	1 3/4	3/4
R-6042		11"	17"	1 1/2	
R-6043		12"	17"	2	
R-6044	R-6055	13"	17"	2 1/2	3/4
R-6045		10"	23"	2 1/4	

RACK SHELVES

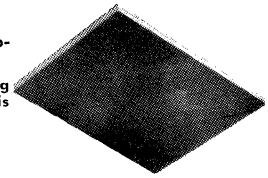
DESCRIPTION:

A. Used to mount heavy power supplies, modulator units, etc.

B. Supported by chassis supporting angles which are described on this page.

C. Made of heavy gauge steel.

D. Finished in black enamel only.



Cat. No.	Size	Wt. Lbs.
S195	19"x15"	6 1/2
S196	19"x12"	5 1/2
S197	17 5/8"x14 1/4"	5
S198	17 5/8"x20 1/4"	5 1/2

CHASSIS SUPPORTING ANGLES

DESCRIPTION:

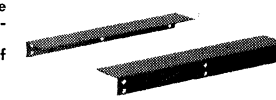
A. Used when heavy weights are encountered in chassis construction.

B. Distributes weight on sides of rack to relieve panel.

C. Made of 1/8" steel.

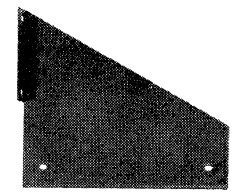
D. Finished in black enamel only.

E. Sold in pairs only.



Cat. No.	Length	Wt. Lbs.
A143	14 1/2"	4
A144	12"	3
A145	20"	7

CHASSIS MOUNTING BRACKETS



DESCRIPTION:

A. Used to insure proper support of chassis.

B. Made of heavy gauge steel.

C. Cut away at bottom to provide clearance so that chassis can mount flush against panel.

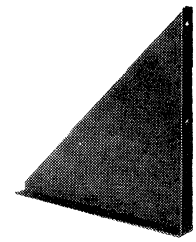
D. Finished in black enamel only.

E. Cat. # CB-565 and CB-566 designed for 4" chassis height.

F. Sold in pairs only.

Cat. No.	H.	D.	Wt. Lbs.
CB-560	6 1/2"	8"	1 1/4
CB-561	6 1/2"	10"	1 3/4
CB-562	6 1/2"	11"	2
CB-563	6 1/2"	12"	2
CB-564	6 1/2"	13"	2 1/2
CB-565	8 1/2"	10"	2 1/4
CB-566	8 1/2"	13"	3

TRIANGULAR MOUNTING BRACKETS



DESCRIPTION:

A. When large weights are involved in panel and chassis assemblies, triangular mounting brackets are used as supports.

B. Fabricated of heavy gauge steel; finished in Black enamel only.

C. Sold only in pairs.

Cat. No.	Size	Approx. Shipping Wt. - Lbs.
TB-410	5"x5"	1
TB-411	7"x7"	1
TB-412	9"x9"	1 1/2

ROLLER TRUCKS

SPECIFICATIONS:

A. Roller Truck constructed from heavy gauge high-quality steel.

B. Casters have 2" rubber wheels and are ball-bearing swivel type.

C. Finished in grey only.

Catalog No.	Constr. for Rack Series	Description of Rack	Inside Clearance	Approx. Ship. Weight
T 18	SL	Page #4	21 1/2x18 1/2	16 lbs.
	S	Page #4		
	B	Page #5		
T 19	D (18 1/2" Deep)	Page #2	23 7/8x18 3/4	18 lbs.
	W	Page #5		
T 24	D (24" Deep)	Page #2	23 7/8x24 1/4	22 lbs.

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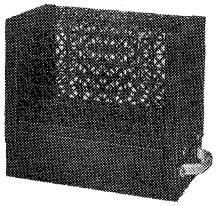
WYCO METAL PRODUCTS

AMPLIFIER FOUNDATIONS - RACK PANELS SLOPING PANEL SUPPORTS - CABINETS

AMPLIFIER FOUNDATIONS



DESCRIPTION:

A. Consists of standard chassis and perforated metal cover.
B. Includes handles.
C. Available in Black Wrinkle only.

Cat. No.	Height	Width	Depth	Height Chassis	Approx. Shipping Wt. - Lbs.
AF-680	8 5/16"	9 5/8"	5 1/8"	2 1/2"	3
AF-681	8 5/16"	13 5/8"	5 1/8"	2 1/2"	4 3/4
AF-682	8 5/16"	17 1/8"	7 1/8"	2 1/2"	6
AF-683	8 13/16"	17 1/8"	10 1/8"	3"	8
AF-684	8 13/16"	12 1/8"	10 1/8"	3"	7

STANDARD RELAY RACK PANELS

DESCRIPTION:

A. 11 ga. STEEL or 1/8" ALUMINUM.
B. 19" wide.
C. Western Electric notching.
D. Available in black or grey wrinkle, silver grey hammertone and unpainted finish.

STEEL

Cat. No.	Height	Wt. Lbs.	Cat. No.	Height	Wt. Lbs.
SP-210	1 3/4"	1 1/4	SP-216	12 1/4"	8 1/4
SP-211	3 1/2"	2 1/4	SP-217	14"	9 1/2
SP-212	5 1/4"	3 1/4	SP-218	15 3/4"	10 3/4
SP-213	7"	4 1/2	SP-219	17 1/2"	11 3/4
SP-214	8 3/4"	6	SP-220	19 1/4"	13
SP-215	10 1/2"	7	SP-221	21"	14 1/4

ALUMINUM

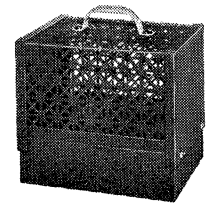
Cat. No.	Height	Wt. Lbs.	Cat. No.	Height	Wt. Lbs.
AP-320	1 3/4"	1/4	AP-326	12 1/4"	2 3/4
AP-321	3 1/2"	3/4	AP-327	14"	3
AP-322	5 1/4"	1	AP-328	15 3/4"	3 1/2
AP-323	7"	1 3/4	AP-329	17 1/2"	4
AP-324	8 3/4"	2	AP-330	19 1/4"	4 1/4
AP-325	10 1/2"	2 1/2	AP-331	21"	5

SLOPING PANEL SUPPORT

In answer to many requests from engineers within the industry, WYCO METAL PRODUCTS presents the all-new SLOPING PANEL SUPPORT, The SLOPING PANEL SUPPORT allows for mounting of the standard 19" panel in sloping position. This enables the engineer or equipment user to more easily view the rack mounted instrument panel. From this illustration, it is easy to see that the SLOPING PANEL SUPPORT offers a variety of positions in which a standard 19" panel may be supported in sloping position. The SLOPING PANEL SUPPORT is fabricated of heavy gauge steel and is finished in Grey only.

Prefix "G" Cat. No.	Supports Panel Size	Requires Panel Space	Prefix "G" Ship. Wt.
G-350	5 1/4" x 19"	7"	2
G-531	7" x 19"	10 1/2"	4
G-532	8 3/4" x 19"	12 1/4"	4 1/2
G-353	10 1/2" x 19"	15 3/4"	6 1/2
G-354	12 1/4" x 19"	17 1/2"	7
G-355	14" x 19"	21"	9

MINIATURE AMPLIFIER FOUNDATION

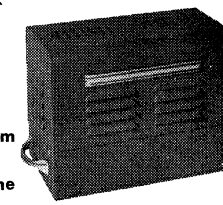


DESCRIPTION:

A. Chassis size 5" x 7" x 2".
B. Perforated metal cover.
C. Includes handle.
D. Black Wrinkle finish only.

Catalog No.	Approx. Shipping Weight - Lbs.
MA-1000	2

STREAMLINED AMPLIFIER FOUNDATIONS



DESCRIPTION:

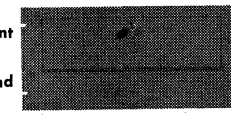
A. Consists of standard chassis and streamlined removable top cover.
B. Includes attractive stainless steel trim and handles.
C. Available in Silver Grey Hammertone only.

Catalog No.	Width	Depth	Approx. Shipping Wt. - Lbs.
SA-670	10 1/16"	5"	4 3/4
SA-671	12 1/16"	7"	5
SA-672	17 1/16"	7"	8
SA-673	17 1/16"	10"	9

METAL DOOR RACK PANELS

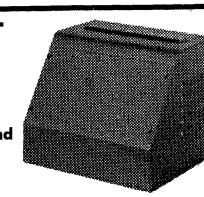
DESCRIPTION:

A. Used when accessability to component parts on chassis is necessary.
B. Made of 1/8" steel.
C. Available in black or grey wrinkle and silver grey hammertone.
D. 19" wide.



Cat. No.	Height	Door Opening	Wt. Lbs.
RP-310	10 1/2"	15 3/8" x 5 7/8"	7 1/4
RP-311	12 1/4"	15 3/8" x 7 5/8"	8 1/4

SLOPING FRONT CABINET



DESCRIPTION:

A. Top corner rounded.
B. Attractive high-polish moulding at top.
C. Front panel is removable.
D. Chassis may be mounted to front panel and removed as unit.
E. Louvres at both sides; vented at rear.
F. Available in silver grey hammertone only.

Cat. No.	Height	Width	Depth
K810	8"	8"	8"
K811	8"	10"	8"
K812	8"	14"	8"
K813	12"	18"	12"

NOTE: If desired, an attractive handle can be used with above "K" series cabinet. Holes to mount moulding are spaced for handle, also. Catalog # for handle is HK70.

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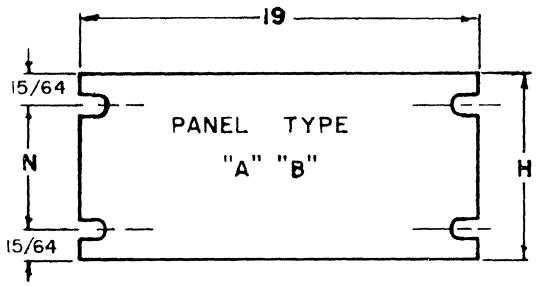
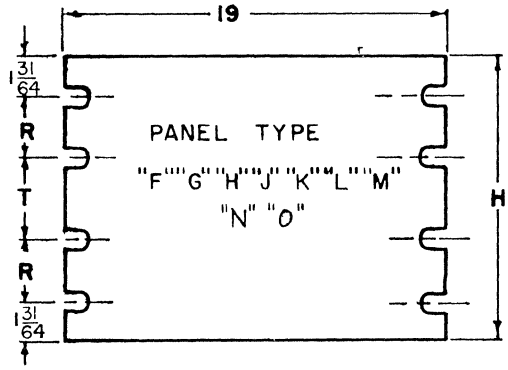
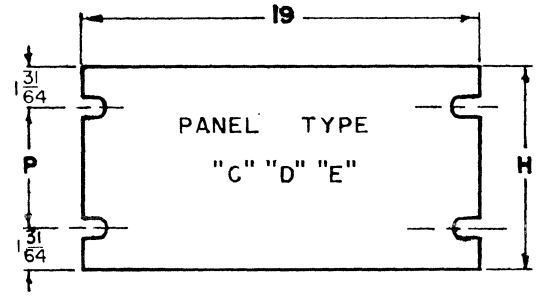
WYCO METAL PRODUCTS

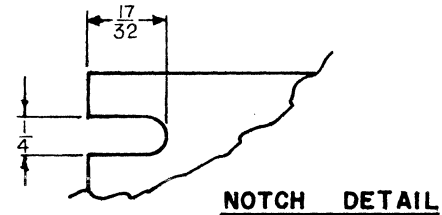
2024-T3
HARD ALUMINUM PANELS
1/8" (.125) AND 3/16" (.188) THICK

RELAY RACK PANEL NOTCHING









NOTE: (A) For 3-1/16" Thick Panels, Add (-316). EXAMPLE: HAP-175-316
(B) 24" Wide Panels are available. Add (-24). EXAMPLE: HAP-175-24

Panel Type	Catalog No. 1/8" Thick	H	N	P	R	T
"A"	HAP-175	1-23/32	1¼			
"B"	HAP-350	3-15/32	3			
"C"	HAP-525	5-7/32		2¼		
"D"	HAP-700	6-31/32		4		
"E"	HAP-875	8-23/32		5¾		
"F"	HAP-1050	10-15/32			2¼	3
"G"	HAP-1225	12-7/32			3½	2¼

Panel Type	Catalog No. 1/8" Thick	H	N	P	R	T
"H"	HAP-1400	13-31/32			4	3
"J"	HAP-1575	15-23/32			4	4¾
"K"	HAP-1750	17-15/32			4	6½
"L"	HAP-1925	19-7/32			5¼	5¾
"M"	HAP-2100	20-31/32			5¾	6½
"N"	HAP-2450	24-15/32			7	7½
"O"	HAP-2625	26-7/32			7	9¼

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Catalog No.	Catalog No.	Catalog No.	Catalog No.
HAP-175	HAP-700-316	HAP-1400	HAP-1925-316
HAP-175-316	HAP-875	HAP-1400-316	HAP-2100
HAP-350	HAP-875-316	HAP-1575	HAP-2100-316
HAP-350-316	HAP-1050	HAP-1575-316	HAP-2450
HAP-525	HAP-1050-316	HAP-1750	HAP-2450-316
HAP-525-316	HAP-1225	HAP-1750-316	HAP-2625
HAP-700	HAP-1225-316	HAP-1925	HAP-2625-316

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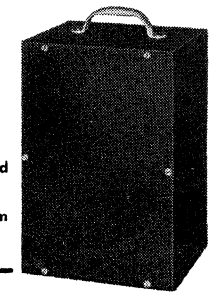
WYCO METAL PRODUCTS BOXES-CASES-CABINETS-DESK PANELS

CARRYING CASE

Steel Cat. No.	Alum. Cat. No.	Depth	Width	Height	Steel Approx. Ship. Wt.	Alum. Approx. Ship. Wt.
D-850	DA-857	5"	6"	9"	3¼	1⅛
D-851	DA-858	5"	9"	6"	3¼	1⅛
D-852	DA-859	6"	7"	12"	4	1⅓
D-853	DA-860	6"	12"	7"	4	1⅓
D-854	—	7"	7¾"	15"	5	
D-855	—	8"	10"	10"	5	
D-856	—	7"	15"	9"	5	

DESCRIPTION:

A. Front and rear panels are removable.
B. Includes handle.
C. Prefix "D" designates steel finished in Grey Hammertone.
D. Prefix "DA" designates aluminum etched finish (.051 alum.).

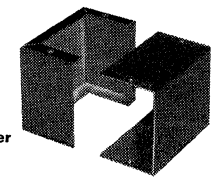


Silver Grey Cat. No.	Etched Cat. No.	Length	Width	Height	Approx. Shipping Wt.-Lbs.
E-900	E-918	2¾"	2⅛"	1⅝"	¼
E-901	E-919	3¼"	2⅛"	1⅝"	¼
E-902	E-920	4"	2⅛"	1⅝"	¼
E-903	E-921	4"	2¼"	2¼"	¼
E-904	E-922	5"	2¼"	2¼"	¼
E-905	E-923	5"	4"	3"	½
E-906	E-924	5¼"	3"	2⅛"	¼
E-907	E-925	6"	5"	4"	¾
E-908	E-926	7"	5"	3"	¾
E-909	E-927	8"	6"	3½"	1
E-910	E-928	10"	6"	3½"	1¼
E-911	E-929	12"	7"	4"	1¾
E-912	E-930	17"	5"	4"	2¼
E-913	E-931	10"	2"	1⅝"	½
E-914	E-932	12"	2½"	2¼"	¾
E-915	E-933	4"	2"	2¾"	¼
E-916	E-934	4¼"	2¼"	1½"	¼
E-917	E-935	3¼"	2⅛"	1⅛"	¼

MINITBOXES

DESCRIPTION:

A. Fabricated of aluminum (.051).
B. Design assures necessary shielding.
C. Available in etched finish or Silver Grey Hammertone.



EASY BOXES (SAME DESIGN AS MINITBOX)

DESCRIPTION:

A. Design allows a number of small components to be easily wired or serviced.
B. Fabricated of 22 gauge steel.
C. Black Wrinkle finish only.

Catalog No.	Height	Width	Depth	Approx. Shipping Wt.-Lbs.
H-105	2¼"	4¼"	1½"	½
H-106	2"	4"	2¾"	½

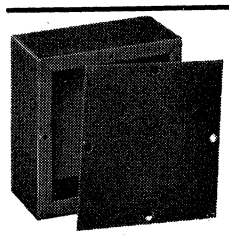
DESK PANELS

DESCRIPTION:

A. Table is constructed of heavy gauge high-quality steel and measures 21" x 16".
B. Panel, constructed of ⅛" steel, is 10½" x 19".
C. Front corners of table are rounded.
D. SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for easy assembly.
E. Finished in black or grey enamel and silver grey hammertone.

Catalog No.	Width	Depth	Approx. Shipping Weight
DP 16	21"	16"	14 lbs.

METAL UTILITY CABINETS



DESCRIPTION:

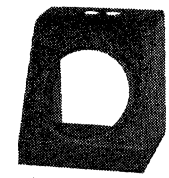
A. Cabinet has two removable covers.
B. Prefix MU designates steel finished in Silver Grey Hammertone only.
C. Prefix LU designates aluminum in an etched finish (.051 Alum.).
D. Used for amplifiers, monitors, input stages, meters, tranceivers, etc.

Steel Cat. No.	Alum. Cat. No.	Depth	Width	Ht.	Steel Approx. Ship. Wt. Lbs.	Alum. Approx. Ship. Wt. Lbs.
MU-750	LU-760	2"	4"	4"	¾	¼
MU-751	LU-761	3"	5"	4"	1	¼
MU-752	LU-762	4"	5"	6"	1¼	½
MU-753	LU-763	6"	6"	6"	2½	¾
MU-754	LU-764	5"	6"	9"	3	1
MU-755	—	7"	8"	10"	5	
MU-756	—	6"	7"	12"	4	
MU-757	—	8"	10"	10"	5½	
MU-758	—	8"	11"	12"	6	
MU-759	—	7"	9"	15"	7½	

METER CASES

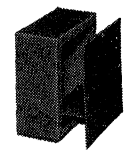
DESCRIPTION:

A. Sloping front with top corner rounded.
B. Prefix "MC" designates steel Grey Hammertone finish.
C. Prefix "AC" designates aluminum etched finish.



Catalog No.	Hole Diameter	Approx. Ship. Wt. - Lbs.
MC-73	2¼"	1
MC-74	2 13/16"	1
AC-86	2¼"	⅓
AC-87	2 13/16"	⅓

MINIATURE UTILITY CABINETS



DESCRIPTION:

A. Front and rear panels are removable.
B. Chassis attached to front panel.
C. Fabricated in steel; Silver Grey Hammertone only.

Cat. No.	Ht.	Width	Depth	Chassis Size	Approx. Shipping Wt.-Lbs.
A-780	4"	4"	2"	1" x3⅛"x1⅞"	¾
A-781	4"	5"	3"	1" x4⅛"x2⅞"	1
A-782	5"	4"	3"	1¼"x3⅛"x2⅞"	1
A-783	6"	5"	4"	1¾"x4⅛"x3⅞"	1¾
A-784	5"	6"	4"	1¼"x5⅛"x3⅞"	1¾
A-785	6"	6"	6"	1¾"x4⅞"x5⅞"	2¾

➤ CONTACT AUTHORIZED DISTRIBUTOR FOR QUANTITY DISCOUNTS ➤

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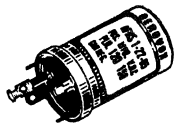
AEROVOX

CAPACITORS

ELECTROLYTICS



TYPE AFH (85°C) TWIST PRONG ELECTROLYTIC CAPACITOR

SINGLES • DUALS • TRIPLES • QUADS

The outstanding line of twist-prong mounting electrolytic capacitors with all the latest refinements — 85°C operation — high purity aluminum foil construction through out — improved moisture resistant seal. Types AFHS-PWHS are specially constructed for high ripple current circuits. PWH and PWHS are constructed for printed wiring board applications.

These units operate over a wide temperature range with a minimum change in capacitance.

While designed for filter audio bypass applications in Radio-TV and Amplifier equipment as exact replacements, many values are rapidly gaining acceptance in industrial applications.

They are manufactured to meet all requirements of EIA specification number RS-154. Capacity tolerances of this specification are listed below.

ELECTROLYTIC CAPACITY TOLERANCES

0-50 Volts	—	—10 +250%
51-350 Volts	—	—10 +100%
351 Volts & Up	—	—10 +50%

Aerovox Corporation is currently working on a size reduction program. Many sizes shown in the following listing reflect latest design figures. However Aerovox reserves the right to furnish previous catalog sizes until present stocks are depleted.

The AFH capacitors listed here include only those ratings which might find usage in industrial applications. A complete line of 1152 ratings may be found in the latest Aerovox Catalog, IDC 563, and may be requested from Aerovox Corporation, Distributor Division, or through your nearest authorized Aerovox Industrial Distributor.

SINGLES

Catalog Number	Capacity	Voltage	Dia. x Length	*Net
AFH 1-00-50	2000	6	1-3/8 x 2	$1.83
AFH 1-01-25	225	15	3/4 x 2	1.05
AFH 1-02	1000	15	1 x 1½	1.53
AFH 1-03	2000	15	1-3/8 x 2	2.07
AFH 1-04	3000	15	1-3/8 x 2	2.55
AFH 1-06	40	25	3/4 x 2	.81
AFH 1-08	500	25	1 x 2	1.53
AFH 1-10	1000	25	1-3/8 x 2	2.13
AFH 1-11	100	50	3/4 x 2	.99
AFH 1-12	150	50	3/4 x 2	1.08
AFH 1-13	500	50	1-3/8 x 2	1.59
AFH 1-13-05	500	50	1 x 3	1.59
AFH 1-14	1000	50	1-3/8 x 3½	2.25
AFH 1-14-50	1500	50	1-3/8 x 3	2.64
AFH 1-16	30	150	1 x 2	.93
AFH 1-18	50	150	1 x 2	.99
AFHS 1-20	80	150	1 x 2	1.11
AFH 1-21	100	150	1 x 2	1.20
AFHS 1-22	120	150	1 x 2	1.23
AFHS 1-22-05	120	150	1-3/8 x 2	1.29
AFHS 1-23	140	150	1 x 1¾	1.26
AFH 1-24	150	150	1 x 2½	1.29
AFH 1-24-01	150	150	1-3/8 x 2	1.29
AFHS 1-24-25	200	150	1-3/8 x 2	1.47
AFHS 1-24-75	300	150	1-3/8 x 2½	1.68
PWH 1-25-75	160	200	1-3/8 x 3	1.74
AFH 1-29	40	250	1 x 2	1.08
AFH 1-31-25	100	250	1 x 3	1.62
AFH 1-31-75	150	250	1-3/8 x 2	1.86
AFHS 1-31-85	200	250	1-3/8 x 2	2.19
AFH 1-35	80	300	1 x 1¾	1.53
AFH 1-36	100	300	1 x 2½	1.74
AFH 1-37	125	300	1-3/8 x 2	2.10
AFHS 1-37-25	150	300	1-3/8 x 2	2.10
AFH 1-37-35	250	300	1-3/8 x 4	3.33
AFH 1-39	30	350	1 x 1½	1.14
AFH 1-40	40	350	1 x 1½	1.20
AFH 1-41	50	350	1 x 2	1.26
AFH 1-42	80	350	1-3/8 x 2	1.71
AFHS 1-43	125	350	1-3/8 x 2	2.19
AFH 1-43-20	150	350	1-3/8 x 2	2.37
AFH 1-45	20	400	1 x 2	1.29
AFH 1-48	10	450	1 x 1½	.93
AFH 1-49	15	450	1 x 1½	1.26
AFH 1-50	20	450	1 x 1½	1.08
AFH 1-51	30	450	1 x 1½	1.17
AFH 1-52	40	450	1 x 1¾	1.23
AFH 1-53	50	450	1 x 2½	1.41

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249

SINGLES (Continued)

Catalog Number	Capacity	Voltage	Dia. x Length	*Net
AFH 1-54	60	450	1-3/8 x 2½	1.62
AFH 1-55	80	450	1-3/8 x 2½	1.83
AFH 1-55-20	100	450	1-3/8 x 2½	2.07
AFH 1-55-25	125	450	1-3/8 x 3	2.37
AFH 1-56-10	40	475	1-3/8 x 2	1.50
AFH 1-58	10	500	1 x 2	.96
AFH 1-59	20	500	1 x 2	1.11
AFH 1-60	30	500	1 x 2	1.23
AFH 1-61	40	500	1 x 2½	1.50
AFH 1-62	80	500	1-3/8 x 2½	2.16
AFH 1-63	90	500	1-3/8 x 3½	2.34

DUALS

AFH 2-08	20-20	150	1 x 1½	1.02
AFH 2-11	30-30	150	1 x 1½	1.11
AFH 2-12	40-20	150	1 x 1½	1.08
AFH 2-13	40-30	150	1 x 1½	1.11
AFH 2-14	40-40	150	1 x 1½	1.14
AFH 2-15	50-30	150	1 x 1½	1.20
AFH 2-16	50-50	150	1 x 1½	1.29
AFH 2-17	60-60	150	1 x 1½	1.41
PWH 2-17-50	70-30	150	1 x 1½	1.32
AFH 2-18	75-75	150	1 x 1¾	1.56
AFH 2-19-25	80-50	150	1 x 1½	1.44
AFH 2-20	80-80	150	1-3/8 x 2	1.59
AFH 2-20-50	125-100	150	1-3/8 x 2	2.10
AFH 2-20-61	150-100	150	1-3/8 x 2	2.01
AFHS 2-21	200-5	150	1-3/8 x 2	1.62
AFH 2-22	200-125	150	1-3/8 x 3	2.25
AFH 2-22-50	200-150	150	1-3/8 x 3	2.25
AFH 2-23	200-200	150	1-3/8 x 3	2.40
AFH 2-24	60-60	200	1-3/8 x 2	1.53
AFHS 2-24-20	100-100	200	1-3/8 x 3	2.10
AFHS 2-24-75	200-5	200	1-3/8 x 2½	1.83
AFH 2-26	20-20	250	1 x 1½	1.14
AFH 2-29	40-40	250	1 x 1½	1.50
AFHS 2-30	150-150	250	1-3/8 x 4	3.09
AFHS 2-30-75	200-200	250	1-3/8 x 4	3.66
AFH 2-34	80-80	300	1-3/8 x 3	2.43
AFH 2-35	120-20	300	1-3/8 x 3	2.40
AFH 2-36	15-15	350	1 x 2	1.35
AFH 2-39	30-30	350	1 x 2½	1.74
AFH 2-40	50-30	350	1-3/8 x 2	1.89
AFH 2-40-40	60-30	350	1-3/8 x 2	1.89
AFH 2-40-80	80 40	350	1-3/8 x 2½	2.37
AFH 2-41	80-80	350	1-3/8 x 3½	2.82
AFH 2-41-10	90-40	350	1-3/8 x 2½	2.58
AFH 2-41-40	100-60	350	1-3/8 x 3½	2.88

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Net

AEROVOX

CAPACITORS

ELECTROLYTICS – (Continued)

DUALS (Continued)

Catalog Number	Capacity	Voltage	Dia. x Length	*Net
AFHS 2-41-50	100-100	350	1-3/8 x 3	3.69
AFHS 2-41-80	160-10	350	1-3/8 x 3	2.58
AFH 2-45-10	80-20	400	1-3/8 x 2	2.73
AFH 2-45-40	80-60	400	1-3/8 x 4	2.91
AFH 2-45-60	120-40	400	1-3/8 x 4	3.15
AFH 2-46	5-5	450	1 x 2	1.05
AFH 2-47	10-10	450	1 x 2	1.14
AFH 2-49	15-15	450	1 x 2½	1.35
AFH 2-50	20-10	450	1 x 1¾	1.35
AFH 2-51	20-20	450	1 x 2½	1.53
AFH 2-52	30-10	450	1 x 3	1.50
AFH 2-54	30-30	450	1-3/8 x 2	1.83
AFH 2-55	40-10	450	1 x 2	1.59
AFH 2-56	40-20	450	1-3/8 x 2	1.80
AFH 2-57	40-40	450	1-3/8 x 2½	2.07
AFH 2-59	50-50	450	1-3/8 x 2½	2.31
AFH 2-60	60-20	450	1-3/8 x 3	2.13
AFH 2-61	60-40	450	1-3/8 x 3	2.37
AFH 2-61-50	60-60	450	1-3/8 x 3	3.36
AFH 2-62	80-10	450	1-3/8 x 2	2.16
AFH 2-63	80-20	450	1-3/8 x 2¼	2.34
AFH 2-64	80-40	450	1-3/8 x 2¼	2.61
AFH 2-64-25	100-40	450	1-3/8 x 3½	2.91
AFH 2-64-50	15-15	475	1 x 2½	1.41
AFH 2-66	40-10	475	1-3/8 x 2	1.86
AFH 2-66-60	80-50	475	1-3/8 x 3	3.12
AFH 2-67	10-10	500	1 x 1¾	1.23
AFH 2-69	20-20	500	1-3/8 x 2	1.71
AFH 2-71	30-10	500	1-3/8 x 2	1.71
AFH 2-71-01	30-10	500	1 x 3	1.56
AFH 2-71-75	30-30	500	1-3/8 x 2	1.95
AFH 2-72	40-40	500	1-3/8 x 2½	2.64
AFH 2-73	60-40	500	1-3/8 x 3½	2.76
AFH 2-86-70	100/30	400/50	1-3/8 x 2½	2.34
AFH 2-86-72	80/80	400/200	1-3/8 x 2½	2.37
AFH 2-94-30	30/200	450/150	1-3/8 x 3	2.10

TRIPLES

AFH 3-05	20-20-20	150	1 x 2	1.38
AFH 3-06	30-30-10	150	1 x 2	2.10
AFH 3-07	40-20-10	150	1 x 2	1.41
AFH 3-08	40-20-20	150	1 x 2	1.44
AFH 3-09	40-30-20	150	1 x 2	1.50
AFH 3-10	40-40-40	150	1 x 2	1.56
AFH 3-11-20	50-40-10	150	1 x 1½	1.53
AFH 3-11-50	50-50-50	150	1 x 1¾	1.80
AFH 3-12	60-40-20	150	1 x 2	1.65
PWH 3-12-10	70-15-15	150	1 x 2	1.62
AFH 3-12-20	70-40-40	150	1 x 1¾	1.77
AFH 3-13	80-40-20	150	1 x 2½	1.74
AFH 3-13-08	100-30-10	150	1 x 2	1.83
AFH 3-13-15	120-80-40	150	1-3/8 x 2	2.28
AFH 3-13-30	120-120-40	150	1-3/8 x 2	2.43
AFH 3-13-50	200-100-60	150	1-3/8 x 2	2.73
AFH 3-13-75	200-150-150	200	1-3/8 x 4	4.50
AFH 3-17-10	20-20-20	250	1 x 2½	1.56
AFH 3-20	40-20-20	250	1 x 3	1.74
AFH 3-21	80-80-60	250	1-3/8 x 3	2.94
AFH 3-22	10-10-10	300	1 x 2	1.44
AFH 3-25	60-20-10	300	1-3/8 x 2	2.07
AFH 3-25-50	80-40-40	300	1-3/8 x 2½	2.85
AFH 3-26	120-50-40	300	1-3/8 x 4	3.39
AFH 3-28-30	30-20-10	350	1 x 2½	1.95
AFH 3-29	60-40-20	350	1-3/8 x 2	2.55
AFH 3-29-25	60-50-50	350	1-3/8 x 2¼	2.94
AFH 3-29-50	80-60-60	350	1-3/8 x 3½	3.33
AFH 3-29-75	90-40-20	350	1-3/8 x 3	3.15
AFH 3-30	10-10-10	400	1 x 1½	1.44
AFH 3-30-75	90-10-5	400	1-3/8 x 3	2.64
AFH 3-31	10-10-10	450	1 x 2	1.56

TRIPLES (Continued)

Catalog Number	Capacity	Voltage	Dia. x Length	*Net
AFH 3-34	15-15-15	450	1 x 3	1.86
AFH 3-35	20-10-10	450	1 x 2	1.77
AFH 3-36	20-20-20	450	1-3/8 x 2	2.16
AFH 3-37	30-20-20	450	1-3/8 x 2	2.31
AFH 3-39	30-30-30	450	1-3/8 x 2	2.61
AFH 3-41	40-10-10	450	1-3/8 x 2	2.01
AFH 3-42	40-30-20	450	1-3/8 x 2	2.58
AFH 3-43	40-40-10	450	1-3/8 x 2	2.52
AFH 3-43-50	40-40-20	450	1-3/8 x 2½	2.67
AFH 3-44	40-40-40	450	1-3/8 x 3	2.94
AFH 3-44-50	50-40-30	450	1-3/8 x 4	2.94
AFH 3-45	60-20-20	450	1-3/8 x 3½	2.76
AFH 3-45-10	60-30-10	450	1-3/8 x 3	2.70
AFH 3-45-25	60-40-20	450	1-3/8 x 3	3.00
AFH 3-45-35	80-10-10	450	1-3/8 x 2½	2.58
AFH 3-46	80-40-20	450	1-3/8 x 3	3.24
AFH 3-49-10	30-30-20	475	1-3/8 x 2	2.85
AFH 3-50-07	40-30-10	475	1-3/8 x 3	2.70
AFH 3-50-10	40-30-30	475	1-3/8 x 3	3.09
AFH 3-51	10-10-10	500	1 x 3	1.62
AFH 3-52	30-20-20	500	1-3/8 x 2¼	2.52
AFH 3-53	40-10-10	500	1-3/8 x 2	2.34
AFH 3-54	40-40-10	500	1-3/8 x 2½	3.03
AFH 3-72	40-20/20	150/25	1 x 1½	1.38
AFH 3-77	50-30/20	150/25	1 x 1½	1.50
AFH 3-79	50-50/20	150/25	1 x 3	1.59
AFH 3-82	80-40/20	150/25	1 x 2½	1.68
AFH 3-82-40	80-40/300	150/25	1-3/8 x 2½	2.22
AFH 3-84-75	80-10/20	200/50	1 x 1¾	1.68
AFH 3-120	20-20/20	400/25	1 x 3	1.71
AFH 3-124	10-10/10	450/25	1 x 1½	1.41
AFH 3-125	10-10/20	450/25	1 x 1½	1.44
AFH 3-132	40-20/20	450/25	1-3/8 x 2	2.10
AFH 3-187-05	20/100/140	450/400/300	1-3/8 x 4	4.17

QUADS

AFH 4-01	40-40-40-30	150	1-3/8 x 2	2.01
AFH 4-01-40	100-80-60-40	150	1-3/8 x 3	2.79
AFHS 4-01-55	200-200-60-30	175	1-3/8 x 3½	3.33
AFH 4-01-80	40-20-10-10	300	1-3/8 x 2	2.37
AFH 4-02	40-40-20-10	300	1-3/8 x 2½	2.73
AFH 4-02-10	40-40-30-20	300	1-3/8 x 3	2.91
AFH 4-02-30	60-40-10-10	300	1-3/8 x 2½	2.73
AFH 4-02-90	200-20-20-20	300	1-3/8 x 3½	3.69
AFH 4-04	40-20-20-10	350	1-3/8 x 2	2.61
AFH 4-04-50	40-40-40-40	350	1-3/8 x 2¼	3.60
AFH 4-05-55	80-60-40-20	350	1-3/8 x 3½	3.84
AFH 4-06-40	50-40-30-20	400	1-3/8 x 4	3.30
AFH 4-07	80-20-10-10	400	1-3/8 x 3½	3.03
AFH 4-10	10-10-10-10	450	1-3/8 x 2	2.01
AFH 4-14	20-20-20-20	450	1-3/8 x 2½	2.82
AFH 4-15-30	30-30-20-20	450	1-3/8 x 3	4.23
AFH 4-16	35-35-10-5	450	1-3/8 x 2	2.79
AFH 4-17	40-10-10-10	450	1-3/8 x 2	2.49
AFH 4-18-10	40-35-10-10	450	1-3/8 x 2	2.88
AFH 4-18-30	40-40-20-20	450	1-3/8 x 3	3.33
AFH 4-18-40	40-40-30-30	450	1-3/8 x 3	3.63
AFH 4-18-45	40-40-40-40	450	1-3/8 x 3½	3.87
AFH 4-18-50	60-20-20-20	450	1-3/8 x 3	3.39
AFH 4-18-60	60-30-10-2	450	1-3/8 x 3	3.06
AFH 4-18-80	80-10-10-10	450	1-3/8 x 3	3.03
AFH 4-19-10	20-20-10-10	475	1-3/8 x 2½	2.61
AFH 4-19-20	20-20-20-20	475	1-3/8 x 2½	3.12
AFH 4-19-50	40-20-10-10	475	1-3/8 x 2½	3.06
AFH 4-20	10-10-10-10	500	1-3/8 x 2	2.10
AFH 4-20-50	40-40-8-8	500	1-3/8 x 4	3.42
AFH 4-46	60-40-20/50	300/25	1-3/8 x 3	2.79
AFH 4-58-75	80-40/40-20	400/350	1-3/8 x 4	3.87
AFH 4-59	10-10-10/20	450/25	1-3/8 x 2	1.89

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249

Net

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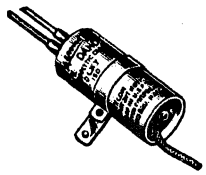
AEROVOX

CAPACITORS



ELECTROLYTICS — (Continued)

TYPE PRS "DANDEE" (85°C)

SINGLES • DUALS • TRIPLES • MULTIPLES

Metal Can Tubular Electrolytic Capacitors TYPE PRS-AC (AC rated units) NP-PRS (non-polarized units)

Compact, electrolytic tubular capacitors furnished in aluminum cans with cardboard insulating sleeves. Designed for use in television and radio applications where space is at a premium.
Included in this listing are the AC rated units (PRS-AC) and non-polarized units (NP PRS) for replacement use in cross-over networks and color TV receivers.
Single section capacitors are furnished with bare tinned copper leads 3 inches long. Negative grounded to case. Multiple units are furnished with insulated, stranded copper leads 5 inches long. Negative is common and grounded to case. Multiple units have common cathode.
Sizes listed are diameters over cardboard insulating sleeve. For actual can size deduct 1/16" from diameter and 1/4" from length. Multiple units are supplied with mounting strap. If mounting strap is required on single units, specify on order.
Tolerance and surge voltage are in accordance with EIA Specification RS-154.
The factory is currently in the process of reducing sizes of this type. Aerovox reserves the right to ship sizes listed below until present stock is depleted and smaller sizes as they become available.

TYPE PRS – SINGLES

Prs No.	Cap. Mfd.	Size	Net Price*
		3V	
1010	25	7/16 x 1¼	$ .51
1015	50	7/16 x 1¼	.57
1020	100	7/16 x 1¼	.66
1025	200	7/16 x 1-7/8	.69
1030	300	9/16 x 1-3/8	.78
1040	500	9/16 x 1-7/8	.84
		4V	
1050	2000	13/16 x 2	1.38
		6V	
1075	5	7/16 x 1¼	.48
1080	25	7/16 x 1¼	.51
1090	50	7/16 x 1¼	.57
1100	100	7/16 x 1¼	.72
1110	250	9/16 x 1-3/8	.81
1120	500	11/16 x 1½	.93
1130	1000	11/16 x 2-1/8	1.14
1140	1500	13/16 x 2	1.26
1145	2000	13/16 x 2-3/8	1.38
		10V	
1147	2000	15/16 x 2½	1.47
		12V	
1149	50	7/16 x 1-3/8	.60
1150	100	7/16 x 1-3/8	.72
1155	200	9/16 x 1-7/8	.81
1160	250	9/16 x 1¾	.87
1170	500	11/16 x 1-7/8	1.02
1180	1000	13/16 x 2-1/8	1.35
		15V	
1200	100	9/16 x 1-3/8	.75
1210	250	11/16 x 1-5/8	.93
1220	500	13/16 x 1¾	1.05
1230	1000	15/16 x 1-7/8	1.38
1240	2000	15/16 x 3-3/8	1.92
		25V	
1245	5	7/16 x 1¼	.60
1250	10	7/16 x 1¼	.60
1255	16	7/16 x 1¼	.60
1257	20	7/16 x 1¼	.60
1260	25	7/16 x 1¼	.60
1265	50	7/16 x 1-3/8	.66
1270	100	9/16 x 1-5/8	.81
1280	250	13/16 x 1¾	1.02
1290	500	13/16 x 2¼	1.38
1295	1000	1-1/16 x 2-1/8	1.98
		50V	
1297	1	7/16 x 1¼	.54
1300	2	7/16 x 1¼	.54
1310	5	7/16 x 1¼	.60
1320	10	7/16 x 1¼	.60
1325	15	7/16 x 1-3/8	.60
1330	20	7/16 x 1¼	.60
1340	25	7/16 x 1-3/8	.63
1350	50	11/16 x 1½	.72
1360	100	11/16 x 1¾	.84
1370	150	13/16 x 1¾	.93
1380	250	15/16 x 1¾	1.05
1390	500	1-1/16 x 2¼	1.44
		150V	
1400	4	7/16 x 1¼	.60
1401	5	7/16 x 1¼	.60
1405	8	9/16 x 1¼	.63
1410	10	9/16 x 1-3/8	.63
1420	12	9/16 x 1-3/8	.66
1425	15	9/16 x 1-3/8	.69
1430	16	9/16 x 1½	.69
1440	20	9/16 x 1-5/8	.72
1450	24	9/16 x 1-7/8	.75
1451	25	9/16 x 1-7/8	.75
1460	30	11/16 x 1½	.78
1470	40	11/16 x 1¾	.81
1480	50	13/16 x 1¾	.84

TYPE PRS–SINGLES (Cont)

Prs No.	Cap. Mfd.	Size	Net Price*
1490	60	13/16 x 1¾	.90
1500	80	13/16 x 2	.96
1510	100	13/16 x 2¼	1.05
1520	150	15/16 x 2-3/8	1.14
1530	200	15/16 x 2-7/8	1.32
1540	300	1-1/16 x 3	1.53
		250V	
1550	4	7/16 x 1¼	.60
1555	8	9/16 x 1-3/8	.69
1560	12	9/16 x 1-5/8	.75
1565	16	11/16 x 1-3/8	.78
1570	20	11/16 x 1-5/8	.81
1575	30	11/16 x 2	.87
1580	40	13/16 x 1¾	.93
1585	50	13/16 x 2	1.02
1590	60	13/16 x 2-1/8	1.08
1595	100	15/16 x 2½	1.47
		350V	
1600	4	9/16 x 1¼	.63
1610	8	9/16 x 1-7/8	.72
1620	10	11/16 x 1½	.75
1630	12	11/16 x 1½	.78
1640	16	11/16 x 1¾	.84
1650	24	13/16 x 1-5/8	.93
1660	30	13/16 x 1-7/8	.99
1670	40	13/16 x 1¾	1.05
1680	50	15/16 x 2-1/8	1.11
1690	60	15/16 x 2-3/8	1.17
		450V	
1700	1	7/16 x 1¼	.66
1705	2	9/16 x 1¼	.69
1710	4	9/16 x 1½	.69
1715	8	11/16 x 1-5/8	.75
1720	10	11/16 x 1-7/8	.78
1725	12	13/16 x 1½	.81
1730	16	13/16 x 1¾	.84
1735	20	13/16 x 2	.93
1740	30	15/16 x 2-1/8	1.02
1750	40	15/16 x 2½	1.08
1760	50	15/16 x 3¼	1.26
1770	60	1-1/16 x 3	1.41
1780	80	1-1/16 x 3¼	1.68
1790	100	1-1/16 x 4	1.92
		500V	
1800	4	9/16 x 1¾	.72
1805	8	13/16 x 1½	.78
1810	10	13/16 x 1-5/8	.81
1815	12	13/16 x 1¾	.84
1820	16	13/16 x 2-1/8	.90
1830	20	15/16 x 2	.96
1840	30	15/16 x 2-5/8	1.05
		600V	
1845	4	11/16 x 2½	1.44
1850	8	13/16 x 2¾	1.71
1860	10	15/16 x 2¾	1.77
1870	12	15/16 x 2¾	1.89
1880	16	15/16 x 3¼	2.07
1890	20	1-16 x 3	2.13
		700V	
1900	8	15/16 x 2¾	1.74
1905	10	15/16 x 3	1.83
1910	12	15/16 x 3¼	1.95
1915	16	1-1/16 x 3-3/8	2.10

TYPE PRS – DUALS

Prs No.	Cap. Mfd.	Size	Net Price*
		15V	
2020	500-150	15/16 x 1¾	1.62
		25V	
2050	10-10	11/16 x 1¼	.84
2075	20-20	11/16 x 1¼	.84
		150V	
2150	8-8	11/16 x 1¼	.90

TYPE PRS–DUALS (Cont)

Prs No.	Cap. Mfd.	Size	Net Price*
2155	16-8	11/16 x 1-3/8	.93
2160	20-10	11/16 x 1½	.93
2165	20-20	11/16 x 1¾	.99
2170	30-20	13/16 x 1½	1.02
2175	30-30	13/16 x 1-5/8	1.08
2180	40-20	13/16 x 1-5/8	1.05
2190	40-30	13/16 x 1¾	1.08
2195	40-40	13/16 x 2	1.08
2200	50-30	13/16 x 2	1.17
2210	50-50	13/16 x 2¼	1.26
2220	80-20	13/16 x 2¼	1.29
2230	80-40	13/16 x 2½	1.32
2240	80-50	15/16 x 2-1/8	1.41
2245	100-100	15/16 x 2-7/8	1.92
		200V	
2250	8-8	11/16 x 1¼	.90
2260	16-8	11/16 x 1½	.96
2280	16-16	11/16 x 1¾	1.02
2290	30-30	13/16 x 1-7/8	1.29
		250V	
2300	10-10	11/16 x 1-5/8	.99
2320	16-16	11/16 x 2-1/8	1.07
2330	20-20	13/16 x 1¾	1.11
2340	30-30	13/16 x 2-1/8	1.35
		300V	
2345	50-10	1-1/16 x 2¼	1.50
		350V	
2348	30-5	15/16 x 2¼	1.29
		450V	
2350	8-8	13/16 x 1¾	1.02
2360	10-10	13/16 x 2	1.11
2370	16-8	13/16 x 2¼	1.20
2380	16-16	15/16 x 2¼	1.35
2390	20-20	15/16 x 2½	1.50
2400	30-30	1-1/16 x 3	1.80
2410	40-20	1-1/16 x 3	1.77
2420	40-40	1-1/16 x 3¾	2.01
2430	50-30	1-1/16 x 3¾	2.04

TYPE PRS – TRIPLES

Prs No.	Cap. Mfd.	Size	Net Price*
		15V	
3200	500-100-100	15/16 x 1-13/16	1.80
		150V	
3500	20-20-20	15/16 x 1¾	1.51
3550	30-20-10	15/16 x 1¾	1.51
3555	30-25-20	15/16 x 1¾	1.51
3560	30-30-20	15/16 x 1¾	1.58
3570	30-30-30	15/16 x 1¾	1.58
3600	40-20-20	15/16 x 1¾	1.58
3625	40-30-20	15/16 x 1¾	1.58
3650	40-30-20	15/16 x 1-7/8	1.63
3675	40-40-40	15/16 x 2¼	1.67
3700	50-30-10	15/16 x 1¾	1.58
3750	50-30-20	15/16 x 1-7/8	1.63
3800	80-40-20	15/16 x 2¼	1.74
3825	80-50-20	15/16 x 2-3/8	1.74
		450V	
3900	10-10-10	15-16 x 2-1/8	1.67

TYPE PRS – MULTIPLE VOLTAGES

Prs No.	Cap Mfd.	VDCW	Size	Net Price*
4150	40-40/250	150/10	15/16 x 2¼	1.71
4200	20-20/20	150/25	15/16 x 1¾	1.48
4300	30-20/20	150/25	15/16 x 1¾	1.50
4350	30-20/100	150/25	15/16 x 1¾	1.58
4400	40-20/20	150/25	15/16 x 1¾	1.53
4425	40-30/20	150/25	15/16 x 1¾	1.55
4450	40-40/20	150/25	15/16 x 1¾	1.59
4475	40-40/100	150/25	15/16 x 2	1.67

TYPE PRS - MULTIPLE VOLTAGES (Cont)

Prs No.	Cap Mfd.	VDCW	Size	Net Price*
4500	50-30/20	150/25	15/16 x 1¾	1.59
4525	50-30/100	150/25	15/16 x 2	1.67
4550	50-30/250	150/25	15/16 x 2½	1.81
4575	50-50/20	150/25	15/16 x 1-7/8	1.66
4600	80-20/100	150/25	15/16 x 2¼	1.69
4650	80-40/20	150/25	15/16 x 2-1/8	1.69
4700	20-20/20	450/25	1-1/16 x 2/3/8	1.86
*4800	20/100	475/50	15/16 x 2-7/8	1.56
4805	20/100	500/25	15/16 x 2-5/8	1.56

*No Tube

TYPE PRS – AC Rated

Prs No.	Cap. Mfd.	Size	Net Price*
		10VAC	
6200	8	11/16 x 1½	$ .75
		25VAC	
6400	20	13/16 x 1½	.75
		50VAC	
6500	30	15/16 x 1¾	.84
6550	60	13/16 x 2¾	.93

NP-PRS–NON-POLARIZED

Prs No.	Cap. Mfd.	Size	Net Price*
		3 VNP	
7050	1000	13/16 x 2	1.29
		6 VNP	
7100	500	15/16 x 2¼	1.17
		10 VNP	
7200	25	7/16 x 1¼	.69
7220	50	7/16 x 1-3/8	.72
7230	170	11/16 x 1-5/8	.96
7240	450	1-1/16 x 2¼	1.20
7245	500	1-1/16 x 1¾	1.20
		15 VNP	
7250	500	1-1/16 x 2¼	1.3
7275	1000	1-1/16 x 2¼	1.7
		25 VNP	
7300	2	7/16 x 1¼	.6
7315	10	7/16 x 1¼	.7
7330	50	15/16 x 1½	.8
7340	100	11/16 x 1-5/8	1.0
		30 VNP	
7350	20	9/16 x 1¼	.7
		50 VNP	
7400	2	7/16 x 1-1/8	.6
7405	4	7/16 x 1¼	.7
		150 VNP	
7450	40	1-1/16 x 2	1.0
		200 VNP	
7500	2	11/16 x 1¼	.
		300 VNP	
7525	1	7/16 x 1¼	.
		350 VNP	
7550	5	15/16 x 1¾	.
7555	10	13/16 x 2	.
7560	20	1-1/16 x 2¼	1.
		400 VNP	
7650	10	13/16 x 2	.
		450 VNP	
7750	4	11/16 x 1-5/8	.

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249, 250-499.

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Net

AEROVOX CAPACITORS

ELECTROLYTICS–(Continued)
TYPE CRE ULTRA-MINIATURE 85°C ALUMINUM CASED ELECTROLYTICS

Temperature Range: —30°C to +85°C
Capacitance Tolerance: —10%, +100%
Nominal lead length: 1½"

Ultra-miniature, tubular, aluminum cased electrolytics with tinned copper leads. Furnished with insulating sleeves of heat shrinkable mylar tubing which adds only 1/32" to can diameter and 1/16" to length.

Ideal for use in bypass, filter, and coupling applications in low-voltage, compact, miniaturized equipments such as personal radios, hearing aids, microphones, wire receivers, etc.

Elimination of variable or high resistance connections, freedom from corrosion and extremely low leakage characteristics have been attained through the use of a combination of all-welded construction, high purity ingredients and extreme care in manufacture and test procedures.

Packaging: Packaged in new, patented, straight-lead, 5-pack container. Keeps leads straight. Holds five units. The 5-pack is adaptable to packaging in bulk or in single inside cartons. For full technical information request Bulletin NPJ-124

STOCK LISTING

Mfd.	Size	Catalog Number *	Net **Price
		3 VDCW	
1	B	CRE200A	$ .75
2	B	CRE201A	.75
3	B	CRE202A	.75
4	B	CRE203A	.75
5	B	CRE204A	.75
6	B	CRE205A	.75
8	B	CRE206A	.75
10	B	CRE207A	.75
15	B	CRE209A	.75
20	B	CRE211A	.75
25	B	CRE212A	.75
30	C	CRE213A	.75
35	C	CRE214A	.75
40	C	CRE215A	.75
50	C	CRE217A	.75
60	D	CRE218A	.84
75	D	CRE220A	.84
100	D	CRE223A	.84
125	E	CRE226A	.87
150	E	CRE228A	.87
175	F	CRE230A	.90
200	F	CRE231A	.90
225	G	CRE232A	.96
250	G	CRE233A	.96
300	G	CRE235A	.99
350	H	CRE237A	1.02
400	H	CRE239A	1.02
450	J	CRE241A	1.05
500	J	CRE243A	1.05
		6 VDCW	
1	B	CRE300A	.81
2	B	CRE301A	.81
3	B	CRE302A	.81
4	B	CRE303A	.81
5	B	CRE304A	.81
6	B	CRE305A	.81
8	B	CRE306A	.81
10	B	CRE307A	.81
15	B	CRE309A	.81
20	C	CRE311A	.81
25	C	CRE312A	.81
30	C	CRE313A	.84
35	C	CRE314A	.84
40	D	CRE315A	.84
50	D	CRE317A	.84
60	D	CRE318A	.84
75	E	CRE320A	.87
100	E	CRE323A	.90
125	F	CRE326A	.93
150	G	CRE328A	.93
175	H	CRE330A	.96
200	H	CRE331A	.96
225	H	CRE332A	.99
250	H	CRE333A	1.02
300	J	CRE335A	1.08
350	J	CRE337A	1.08

Mfd.	Size	Catalog Number *	Net **Price
		12 VDCW	
1	B	CRE400A	$ .84
2	B	CRE401A	.84
3	B	CRE402A	.84
4	B	CRE403A	.84
5	B	CRE404A	.84
6	B	CRE405A	.84
8	B	CRE406A	.84
10	B	CRE407A	.84
12	B	CRE408A	.84
15	C	CRE409A	.84
20	C	CRE411A	.84
25	C	CRE412A	.84
30	D	CRE413A	.87
35	D	CRE414A	.87
40	E	CRE415A	.93
50	E	CRE417A	.93
60	E	CRE418A	.93
75	F	CRE420A	.99
100	F	CRE423A	1.05
125	G	CRE426A	1.08
150	H	CRE428A	1.14
175	H	CRE430A	1.17
200	H	CRE431A	1.23
225	J	CRE432A	1.32
250	J	CRE433A	1.32
		15 VDCW	
1	B	CRE450A	.84
2	B	CRE451A	.84
3	B	CRE452A	.84
4	B	CRE453A	.84
5	B	CRE454A	.84
6	B	CRE455A	.84
8	B	CRE456A	.84
10	B	CRE457A	.84
15	C	CRE459A	.87
20	C	CRE461A	.87
25	D	CRE462A	.87
30	D	CRE463A	.90
35	E	CRE464A	.93
40	E	CRE465A	.96
50	E	CRE467A	.96
60	F	CRE468A	1.02
75	F	CRE470A	1.02
100	G	CRE473A	1.08
125	H	CRE476A	1.17
150	H	CRE478A	1.17
175	J	CRE480A	1.26
200	J	CRE481A	1.26
		25 VDCW	
1	B	CRE600A	.84
2	B	CRE601A	.84
3	B	CRE602A	.84
4	B	CRE603A	.84
5	B	CRE604A	.84
6	C	CRE605A	.84
8	C	CRE606A	.87
10	C	CRE607A	.87

Mfd.	Size	Catalog Number *	Net **Price
		25 VDCW (Cont.)	
15	D	CRE609A	$ .87
20	E	CRE611A	.90
25	E	CRE612A	.93
30	E	CRE613A	.96
35	F	CRE614A	.99
40	F	CRE615A	1.02
50	G	CRE617A	1.08
60	G	CRE618A	1.08
75	H	CRE620A	1.17
100	J	CRE623A	1.26
125	J	CRE626A	1.26
		50 VDCW	
1	B	CRE750A	.84
2	B	CRE751A	.84
3	C	CRE752A	.84
4	C	CRE753A	.84
5	C	CRE754A	.87
6	D	CRE755A	.87
8	D	CRE756A	.90
10	D	CRE757A	.90
15	E	CRE759A	.90
20	F	CRE761A	.90
25	G	CRE762A	.93
30	G	CRE763A	.96
35	H	CRE764A	1.02
40	H	CRE765A	1.05
50	J	CRE767A	1.11
		100 VDCW	
1	D	CRE900A	.84
2	D	CRE901A	.84
3	D	CRE902A	.84
4	E	CRE903A	.84
5	E	CRE904A	.90
6	E	CRE905A	.90
8	F	CRE906A	.93
10	G	CRE907A	.93
12	G	CRE908A	.93
15	H	CRE909A	.93
20	J	CRE911A	.96
25	J	CRE912A	.96
		150 VDCW	
1	D	CRE950A	.84
2	E	CRE951A	.87
3	E	CRE952A	.87
4	E	CRE953A	.87
5	E	CRE954A	.93
6	F	CRE955A	.93
8	G	CRE956A	.96
10	H	CRE957A	.96
15	H	CRE959A	.96
20	J	CRE961A	.96

SIZE CHART			
B	¼ x ½	F	3/8 x 13/16
C	¼ x 11/16	G	3/8 x 15/16
D	5/16 x 11/16	H	3/8 x 1¼
E	3/8 x 11/16	J	3/8 x 1½

*When ordering units without insulating sleeve delete suffix letter 'A' from Catalog No.
**Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249, 250-499.

Net
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AEROVOX

CAPACITORS

ELECTROLYTICS — (Continued)

TYPE PTT TUBULAR PLASTIC-CASED ELECTROLYTICS

Small in size big in performance, designed especially for wide applications in transistorized circuitry and cramped electronic assemblies, here is a truly MINIATURE electrolytic tubular that will handle full sized loads. Aerovox Type PTT units feature "Polycap" cases that are the next best thing to metal cans for maximum protection against humidity. Advanced construction techniques assure long capacitor life. Units are rated for operation at temperatures from —30°C to +65°C.

This type was formerly designated as PTT-PWE.

For full technical information request Bulletin NPJ-111.

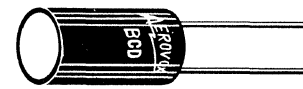
Cap.	PTT #	Size	Net Price*
	3 VDCW		
1	PTT 1	A	.42
2	PTT 2	A	.42
3	PTT 3	A	.42
5	PTT 4	A	.42
8	PTT 5	A	.42
10	PTT 6	A	.42
15	PTT 7	A	.42
20	PTT 8	B	.42
25	PTT 9	B	.42
30	PTT 10	B	.42
40	PTT 11	B	.42
50	PTT 12	C	.42
100	PTT 13	H	.45
200	PTT 14	K	.45
250	PTT 15	K	.48
300	PTT 16	L	.54
500	PTT 17	O	.75
	6 VDCW		
1	PTT 18	A	.42
2	PTT 19	A	.42
3	PTT 20	A	.42
5	PTT 21	A	.42
8	PTT 22	A	.42
10	PTT 23	A	.42
15	PTT 24	B	.42
20	PTT 25	B	.42
25	PTT 26	B	.42
30	PTT 27	C	.42
40	PTT 28	C	.45
50	PTT 29	E	.45
100	PTT 30	G	.45
200	PTT 31	K	.48
250	PTT 32	M	.60
300	PTT 33	N	.75
	10 VDCW		
1	PTT 34	A	.42
2	PTT 35	A	.42
3	PTT 36	A	.42
5	PTT 37	A	.42
8	PTT 38	A	.42
10	PTT 39	A	.42
15	PTT 40	B	.42
20	PTT 41	B	.42
25	PTT 42	E	.45
30	PTT 43	E	.45
40	PTT 44	E	.45
50	PTT 45	F	.45
100	PTT 46	J	.45
200	PTT 47	L	.75
	12 VDCW		
1	PTT 48	A	.42
2	PTT 49	A	.42
3	PTT 50	A	.42
5	PTT 51	A	.42
8	PTT 52	A	.42
10	PTT 53	B	.42
15	PTT 54	B	.42
20	PTT 55	E	.45
25	PTT 56	E	.45
30	PTT 57	E	.45
	12VDCW (Continued)		
40	PTT 58	H	.45
50	PTT 59	H	.45
100	PTT 60	K	.60
	15 VDCW		
1	PTT 61	A	.42
2	PTT 62	A	.42
3	PTT 63	A	.42
5	PTT 64	A	.42
8	PTT 65	B	.42
10	PTT 66	B	.42
15	PTT 67	B	.42
20	PTT 68	E	.45
25	PTT 69	E	.45
30	PTT 70	E	.45
40	PTT 71	H	.45
50	PTT 72	H	.45
100	PTT 73	K	.60
	25 VDCW		
1	PTT 74	A	.42
2	PTT 75	A	.42
3	PTT 76	A	.42
5	PTT 77	B	.42
8	PTT 78	B	.42
10	PTT 79	E	.42
15	PTT 80	E	.45
20	PTT 81	H	.45
25	PTT 82	H	.45
30	PTT 83	H	.45
40	PTT 84	J	.45
50	PTT 85	K	.45
100	PTT 86	N	.66
	50 VDCW		
1	PTT 87	A	.42
2	PTT 88	A	.42
3	PTT 89	B	.42
5	PTT 90	C	.42
8	PTT 91	E	.45
10	PTT 92	H	.45
15	PTT 93	H	.45
20	PTT 94	I	.45
25	PTT 95	K	.48
30	PTT 96	K	.60
40	PTT 97	M	.75
50	PTT 98	N	.75

SIZE CHART

A	¼ x 5/8
B	¼ x ¾
C	¼ x 7/8
E	5/16 x ¾
F	5/16 x 7/8
G	5/16 x 1
H	3/8 x ¾
J	3/8 x 7/8
K	3/8 x 1
L	3/8 x 1-1/8
M	3/8 x 1¼
N	3/8 x 1 3/8
O	3/8 x 1½

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249

TYPE B C D UPRIGHT MOUNTING PLASTIC CASED ELECTROLYTICS



"Polycap" cased, epoxy end filled electrolytic capacitors. Upright mounting for replacement in printed wiring, transistorized personal radios and car radios.

Small size and type of mounting make these units ideal for use in any printed wiring circuit.

Plastic case and epoxy end seal offer good moisture barrier which protects against drying out or leakage of electrolyte.

High purity foil insures long life and low leakage.

Minimum 1" lead length assists in threading connections into printed wiring boards even in tightest spaces.

Positive lead is identified by a + (plus) mark on case.

For full technical information request Bulletin NPJ-108.

Cap. Mfds.	BCD No.	Size	Net Price*
	3 VDCW		
1	3001	A	.87
2	3002	A	.87
3	3003	A	.87
4	3004	A	.87
5	3005	A	.87
6	3006	A	.87
8	3008	A	.87
10	3010	A	.87
15	3015	A	.87
20	3020	A	.87
25	3025	A	.87
35	3035	A	.90
50	3050	A	.93
75	3075	A	1.02
100	3100	B	1.05
150	3150	C	1.05
200	3200	C	1.08
250	3250	D	1.17
300	3300	D	1.20
500-50	3X50050	P	1.38
	4 VDCW		
100-100	4X100100	D	1.17
	5 VNP		
5	5005	B	1.08
	6VDCW		
1	6001	A	.87
2	6002	A	.87
3	6003	A	.87
4	6004	A	.87
5	6005	A	.87
6	6006	A	.87
8	6008	A	.87
10	6010	A	.87
15	6015	A	.87
20	6020	A	.87
25	6025	A	.90
35	6035	A	.93
50	6050	A	1.02
75	6075	B	1.05
100	6100	C	1.14
150	6150	D	1.17
200	6200	D	1.17
100-30	6X10030	E	.87
	10 VNP		
5	10005	G	1.11
	10 VDCW		
10	10010	A	1.08
25	10025	A	1.17
50	10050	B	1.05
80	10080	C	1.11
100	10100	C	1.17
190	10190	E	1.20
50-30	10X5030	D	.87
50-50	10X5050	D	.90
80-50	10X8050	D	.96
80-80	10X8080	D	1.02
	12 VDCW		
1	12001	A	.87
2	12002	A	.87
3	12003	A	.87
4	12004	A	.87
5	12005	A	.90
6	12006	A	.90
8	12008	A	.90
10	12010	A	.90
15	12015	A	.93
20	12020	A	.93
25	12025	A	.93
	12 VDCW (Cont.)		
35	12035	A	.93
50	12050	B	.99
75	12075	C	1.05
100	12100	D	1.14
150	12150	E	1.17
250	12250	K	1.26
500	12500	F	1.32
	15 VDCW		
1	15001	A	.87
2	15002	A	.87
3	15003	A	.87
4	15004	A	.87
5	15005	A	.90
6	15006	A	.90
8	15008	A	.90
10	15010	A	.90
15	15015	A	.93
20	15020	A	.93
25	15025	A	.93
35	15035	B	.93
50	15050	C	.99
75	15075	D	1.08
100	15100	D	1.17
100-100	*15X100100	N	1.26
300-100	15X300100	M	1.32
	18 VDCW		
100	18100	H	1.17
	20 VDCW		
200	20200	J	1.26
100-100	* 20X100100	R	1.26
	25 VDCW		
1	25001	A	.90
2	25002	A	.90
3	25003	A	.93
4	25004	A	.99
5	25005	A	.99
6	25006	A	.99
8	25008	A	.99
10	25010	B	.99
15	25015	B	.99
20	25020	B	.99
25	25025	B	.99
35	25035	C	1.05
50	25050	D	1.05
75	25075	D	1.17
	50 VDCW		
1	50001	A	.90
2	50002	A	.90
3	50003	A	.93
4	50004	A	.99
5	50005	A	.99
6	50006	A	.99
8	50008	A	.99
10	50010	B	.99
15	50015	C	.99
20	50020	C	.99
25	50025	D	.99

* Common Positive

SIZE CODE

A-3/8 x 5/8	M-9/16 x 1½
B-3/8 x ¾	N-5/8 x 1¼
C-7/16 x ¾	P-5/8 x 1½
D-½ x ⅜	R-5/8 x 1 7/8
E-½ x 7/8	
F-5/8 x 1-3/8	**LEAD SPACING**
G-½ x 1-1/8	Diameter — Spacing
H-5/8 x ¾	3/8 — .187
J-5/8 x 1-1/8	7/16 — .250
K-½ x 1¼	1/2 — .312

AEROVOX CAPACITORS

ELECTROLYTICS — (Continued)

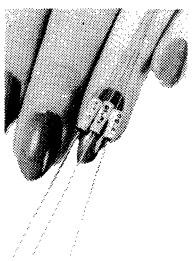
TYPE AEP
Plug-in Electrolytic Capacitors

Hermetically sealed, dry electrolytic capacitor furnished in round, aluminum can and 4-pin, octal-base mounting. For quick changes, readily removed and replaced in a standard octal-base tube socket.

For use where continuous service is important. They are ideally suited for experimental testing, juke boxes and communication receiver uses. These units are the commercial equivalents of Type CE51's, 2's and 3's, as listed in MIL Specification C62A.

Operating temperature to +65°C. Quadruple element units furnished with ground lug for cathode connection.

Type	Capacity Mfd.	VDCW	Diam. x Hght.	Net Price*
	SINGLE ELEMENT UNITS			
AEP400P	2000	15	1-3/8 x 2½	$3.43
AEP5A	25	25	1-5/32 x 2½	2.29
AEP4D	20	150	1-5/32 x 2½	2.29
AEP8D	40	150	1-5/32 x 2½	2.33
AEP80D	400	150	1-3/8 x 3½	3.45
AEP2J	10	450	1-5/32 x 2½	2.34
AEP3J	15	450	1-5/32 x 2½	2.39
AEP4J	20	450	1-5/32 x 2½	2.44
AEP6J	30	450	1-5/32 x 2½	2.53
AEP8J	40	450	1-5/32 x 2½	2.77
AEP16J	80	450	1-3/8 x 3½	3.25
AEP2L	10	600	1-3/8 x 4¼	2.84
	DUAL ELEMENT UNITS			
AEP44D	20-20	150	1-5/32 x 2½	2.46
AEP88D	40-40	150	1-5/32 x 2½	2.54
AEP22J	10-10	450	1-5/32 x 2	2.57
AEP44J	20-20	450	1-3/8 x 2½	2.90
AEP62J	30-10	450	1-5/32 x 2½	2.97
AEP88J	40-40	450	1-3/8 x 3	3.31
	TRIPLE ELEMENT UNITS			
AEP444D	20-20-20	150	1-5/32 x 2½	2.61
AEP88D4A	40-40/20	150/25	1-5/32 x 2½	2.67
AEP222J	10-10-10	450	1-5/32 x 2½	2.78
AEP22J4A	10-10/20	450/25	1-5/32 x 2½	2.69
AEP44J4A	20-20/20	450/25	1-3/8 x 2½	3.03
AEP444J	20-20-20	450	1-3/8 x 3	3.29
AEP822J	40-10-10	450	1-3/8 x 3	3.23
	QUADRUPLE ELEMENT UNITS			
AEPG444D4A	20-20-20/20	150/25	1-3/8 x 2½	2.87
AEPG2222J	10-10-10-10	450	1-3/8 x 2½	3.11
AEPG444J4A	20-20-20/20	450/25	1-3/8 x 3	3.34



TYPE TTC
Ultra-Miniature
Special Electrolytic Capacitors

These small size units offer low leakage, low equivalent series resistance and good reliability all packaged in a micro-miniature case. Units are marked with capacity and voltage only in whole numbers, capacity listed first. Red end fill denotes positive end.

Operating temperature range −30°C to + 65°C.

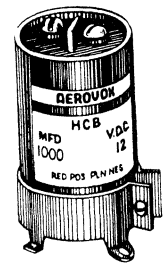
For full technical information request bulletin NPJ-131.

SIZE CHART

A − 1/8 x 5/16 B − 1/8 x 3/8 C − 1/8 x ½

Cat. No.	Cap.	Net Price*	Size
	6 VDCW		
TTC 60	15	.39	A
TTC 70	25	.48	B
TTC 80	50	.54	C
TTC 90	60	.54	C
	10 VDCW		
TTC 100	10	.39	A
TTC 110	15	.48	B
TTC 120	20	.48	B
TTC 130	30	.54	C
TTC 140	40	.54	C
	15 VDCW		
TTC 150	5	.39	A
TTC 160	10	.48	B
TTC 170	20	.54	C
TTC 180	25	.54	C
	25 VDCW		
TTC 190	3	.39	A
TTC 200	4	.39	A
TTC 210	5	.48	B
TTC 220	8	.48	B
TTC 230	10	.54	C
TTC 240	15	.54	C
	50 VDCW		
TTC 250	1	.39	A
TTC 260	2	.39	A
TTC 270	3	.48	B
TTC 280	4	.48	B
TTC 290	5	.54	C
TTC 300	8	.54	C

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249



TYPES HCB and NPB
High Capacity Low Voltage
Bakelite Cased Electrolytics

Type HCB units are polarized electrolytic capacitors designed for use in industrial applications such as battery eliminators, power supplies, electric fence controls and sound movie projectors. For non-polarized applications in welding and control equipment Type NPB units are available.

Both types feature heavy-duty, moisture resistant bakelite cases which eliminate the need for outer cardboard insulating tubes. Operating temperature range from —40°C to +85°C. Capacitance tolerance up to 150 VDCW —10% +100%, over 150 VDCW —10% +50%. High capacity etched plate construction assures long trouble-free operation. Units supplied with wrap around—footed brackets for vertical mtg.—horizontal mtg. available on Special Order.

For full technical information request bulletin NPJ-117.

TYPE HCB			HCB (Continued)		
Capacity MFD	Size	Net Price**	Capacity MFD	Size	Net Price**
	6 VDCW–8V Surge			**50 VDCW–75V Surge**	
12000	1-13/16 x 4-3/8	$8.16	500	1-7/16 x 3-3/8	$3.33
			1000	1-7/16 x 3-3/8	4.25
			2000	1-13/16 x 3-3/8	5.06
	12 VDCW–18V Surge		3000	1-13/16 x 4-3/8	7.00
500	1-7/16 x 2¾	2.70	4000	2-1/16 x 4-3/8	7.32
1000	1-7/16 x 2¾	2.94			
2000	1-7/16 x 2¾	3.36		**150 VDCW–185V Surge**	
3000	1-7/16 x 3-3/8	3.96	1000	1-13/16 x 4-3/8	6.44
4000	1-7/16 x 3-3/8	4.60			
6000	1-13/16 x 3-3/8	5.20			
10000	1-13/16 x 4-3/8	7.82			
	18 VDCW–25V Surge				
500	1-7/16 x 2¾	2.89			
1000	1-7/16 x 2¾	3.31			
1500	1-7/16 x 2¾	3.39			
2000	1-7/16 x 2¾	3.47			
4000	1-13/16 x 3-3/8	5.37			
6000	1-13/16 x 3-3/8	5.62			
	25 VDCW–40V Surge				
500	1-7/16 x 2¾	2.89			
1000	1-7/16 x 2¾	3.19			
1250	1-7/16 x 3-3/8	3.43			
2000	1-7/16 x 3-3/8	4.15			
3000	1-13/16 x 3-3/8	4.88			
4000	1-13/16 x 3-3/8	5.58			
6000	1-13/16 x 4-3/8	7.12			

TYPE NPB		
	125 VNP–175V Surge	
200	1-7/16 x 3-3/8	4.04
300	1-13/16 x 3-3/8	4.87
500	1-13/16 x 4-3/8	6.30
	300 VNP–375V Surge	
15	1-7/16 x 2¾	2.87
100	1-13/16 x 3-3/8	6.13
200	2-1/16 x 4-3/8	7.00
	450 VNP–525V Surge	
50	1-13/16 x 3-3/8	6.30
100	2-1/16 x 4-3/8	7.70

**Request O.E.M. Prices in the following quantities: 10-24, 25-49, 50-99, 100-249

Net

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AEROVOX CAPACITORS

ELECTROLYTICS – (Continued)

TYPE QE61 — QE71

Type QE capacitors are aluminum electrolytics designed for applications requiring high reliability and long life. Typical applications are in computor equipment, power supplies, telephone networks, industrial electronic equipment and high grade commercial and laboratory test instruments.

These units are manufactured with special high purity materials and processed under controlled conditions of cleanliness with the most modern equipment available. The aluminum container is hermetically sealed and furnished with low screw inserts with a pressure type safety vent provided in the cover.

Operating temperatures for QE61 is —20°C to +65°C. For the QE71 it is —20°C to +85°C. Standard capacity tolerance 2.5 Volts to 150 Volts is —10% +100%. For 151 Volts to 450 Volts —10% +50%. QE61 will be furnished with heat shrinkable mylar tubing which adds only .010 to the diameter and .020 to the length of the can size as shown.

For complete engineering details including ripple currents, dissipation factor, etc., request our latest bulletin NPJ-125.

AVAILABLE CAN SIZES AND DESIGNATION

Can Size	Desig-nation	Can Size	Desig-nation	Can Size	Desig-nation	Can Size	Desig-nation	Can Size	Desig-nation
1⅜ x 1⅜	A1	1¾ x 2⅛	B1	2 x 3⅛	C1	2½ x 3⅛	D1	3 x 4⅛	E1
1⅜ x 2⅛	A2	1¾ x 3⅛	B2	2 x 4⅛	C2	2½ x 4⅛	D2	3 x 4⅝	E2
1⅜ x 3⅛	A3	1¾ x 4⅛	B3	2 x 4⅝	C3	2½ x 4⅝	D3	3 x 5⅛	E3
1⅜ x 4⅛	A4	1¾ x 4⅝	B4	2 x 5⅛	C4	2½ x 5⅛	D4	3 x 5⅝	E4
1⅜ x 4⅝	A5	1¾ x 5⅛	B5	2 x 5⅝	C5	2½ x 5⅝	D5		

MAXIMUM RATINGS IN MFD. FOR QE61

Can Size	3 VDCW 5 VDC Surge	5 VDCW 8 VDC Surge	10 VDCW 15 VDC Surge	15 VDCW 20 VDC Surge	20 VDCW 30 VDC Surge	25 VDCW 40 VDC Surge	35 VDCW 50 VDC Surge	40 VDCW 60 VDC Surge	50 VDCW 75 VDC Surge	60 VDCW 85 VDC Surge	75 VDCW 100 VDC Surge	100 VDCW 135 VDC Surge	150 VDCW 190 VDC Surge	200 VDCW 250 VDC Surge	250 VDCW 300 VDC Surge	300 VDCW 350 VDC Surge	350 VDCW 400 VDC Surge	400 VDCW 475 VDC Surge	450 VDCW 525 VDC Surge
A1	3600	2800	1800	1500	1200	950	650	600	470	430	240	160	130	100	80	65	45	30	25
A2	7300	5600	3600	3100	2400	1900	1350	1200	940	870	480	330	260	200	155	125	95	65	45
A3	14000	11000	7300	6100	4900	3800	2700	2400	1850	1700	950	650	520	400	310	250	185	125	95
A4	22000	16000	11000	9200	7400	5800	4100	3650	2830	2600	1450	1000	785	600	460	385	280	190	140
A5	25000	19000	12000	10000	8600	6800	4800	4250	3300	2700	1650	1170	900	700	540	450	330	225	165
B1	13000	9000	6500	5400	4300	3400	2400	2100	1650	1300	890	600	480	370	280	235	165	115	85
B2	26000	19900	13000	10000	8700	6800	4800	4300	3300	2700	1750	1200	950	740	570	470	330	230	170
B3	39000	29000	19000	16000	13000	10000	7300	6400	5000	4100	2600	1800	1400	1100	850	700	490	345	250
B4	45000	34000	22000	19000	15000	12000	8500	7500	5800	4800	3100	2100	1650	1300	1000	830	575	400	300
B5	52000	39000	26000	21000	17000	13000	9700	8600	6600	5500	3500	2450	1900	1450	1150	940	660	460	345
C1	33000	25000	16000	14000	11000	8900	6300	5600	4300	3600	2300	1600	1200	960	750	600	435	290	225
C2	50000	38000	25000	21000	17000	13000	9500	8300	6500	5400	3400	2400	1800	1450	1100	920	655	445	340
C3	59000	45000	29000	24000	19000	15000	11000	9700	7600	6300	4000	2800	2200	1600	1300	1050	760	520	395
C4	67000	51000	34000	28000	22000	17000	12000	11200	8700	7200	4600	3200	2400	1900	1500	1200	870	590	450
C5	76000	58000	38000	31000	25000	20000	14000	12600	9700	8100	5200	3600	2800	2100	1650	1350	990	665	510
D1	57000	43000	28000	23000	19000	14000	10000	9300	7200	6000	3800	2600	2050	1600	1250	975	740	500	375
D2	85000	65000	42000	35000	28000	22000	15000	14000	10900	9100	5800	4000	3100	2400	1850	1500	1100	745	570
D3	99000	75000	49000	39000	33000	26000	18000	16300	12700	10600	6800	4600	3600	2800	2150	1800			
D4	112000	86000	56000	46000	37000	29000	21000	18600	14400	12000	7600	5200	4100	3100	2475	2000			
D5	126000	96000	63000	52000	42000	33000	23000	20900	16200	13500	8600	5900	4600	3500	2700	2250			
E1	127000	97000	63000	52000	42000	33000	23000	21000	16300	13600	8700	6000	4700	3600	2800	2300	1650	1100	850
E2	148000	113000	74000	61000	49000	39000	27000	24400	19000	15900	10100	7000	5400	4200	3200	2700			
E3	166000	127000	83000	69000	55000	44000	31000	27500	21400	17800	11300	7800	6100	4700	3600	3000			
E4	194000	143000	94000	78000	62000	49000	35000	30900	24000	20000	12800	8800	6900	5300	4100	3400			

STOCK LISTING FOR QE61

Cat. No.	Size	Capacity	Net Price*
	10 VDCW		
61QE2048M	A1	1800	$2.97
61QE2049M	A2	3600	3.45
61QE2051M	A3	7300	4.71
61QE2052M	A4	11000	5.61
61QE2058M	C2	25000	8.79
	15 VDCW		
61QE2072M	A1	1500	2.97
61QE2073M	A2	3100	3.54
61QE2075M	A3	6100	4.38
61QE2076M	A4	9200	5.61
61QE2079M	C1	14000	7.41
61QE2083M	C2	21000	8.94
61QE2086M	C4	28000	11.16
61QE2088M	D2	35000	12.00
	25 VDCW		
61QE2120M	A1	950	2.97
61QE2121M	A2	1900	3.60
61QE2123M	A3	3800	4.62
61QE2124M	A4	5800	5.70
61QE2127M	C1	8900	6.72
61QE2131M	C2	13000	9.60

Cat. No.	Size	Capacity	Net Price*
	25 VDCW Cont.		
61QE2134M	C4	17000	$10.20
61QE2136M	D2	22000	11.52
61QE2140M	E1	33000	13.56
	35 VDCW		
61QE2164M	E1	23000	13.50
61QE2165M	E2	27000	14.10
	40 VDCW		
61QE2171M	A3	2400	4.86
61QE2175M	C1	5600	7.05
61QE2178M	C2	8300	9.27
61QE2184M	D2	14000	13.50
61QE2185M	D3	16300	13.80
	50 VDCW		
61QE2192M	A1	470	2.97
61QE2193M	A2	940	3.75
61QE2195M	A3	1850	4.23
61QE2196M	A4	2830	5.79
61QE2199M	C1	4300	7.20
61QE2202M	C2	6500	8.19
61QE2206M	C4	8700	10.20
61QE2208M	D2	10900	12.90

Cat. No.	Size	Capacity	Net Price*
	75 VDCW		
61QE2243M	A3	950	$ 4.05
61QE2247M	C1	2300	5.43
61QE2256M	D2	5800	10.41
	100 VDCW		
61QE2268M	A4	1000	4.62
61QE2271M	C1	1600	5.22
61QE2274M	C2	2400	6.30
61QE2278M	C4	3200	8.64
61QE2280M	D2	4000	10.26
	150 VDCW		
61QE2291M	A3	520	3.30
61QE2292M	A4	785	4.05
61QE2295M	C1	1200	5.55
61QE2298M	C2	1800	6.72
61QE2304M	D2	3100	9.06
61QE2308M	E1	4700	13.17
61QE2309M	E2	5400	14.10
	200 VDCW		
61QE2315M	A3	400	3.27
61QE2319M	C1	960	6.90
61QE2323M	C2	1450	9.00

Cat. No.	Size	Capacity	Net Price
	200 VDCW Cont.		
61QE2325M	D1	1600	$ 9.7
	250 VDCW		
61QE2340M	A4	460	3.9
61QE2343M	C1	750	5.4
61QE2346M	C2	1100	9.0
	300 VDCW		
61QE2363M	A3	250	3.7
	350 VDCW		
61QE2387M	A3	185	3.(
61QE2400M	D2	1100	11.2
	450 VDCW		
61QE2430M	C2	340	5.
61QE2436M	D2	570	7.
61QE2437M	E1	850	10.

*Request O.E.M. Prices in the following quantities: 25-49, 50-99

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Net

AEROVOX CAPACITORS

ADDITIONAL STYLES

For complete information on any Types shown on this page request Catalog or Brochure from Aerovox Corporation, Distributor Division, or your nearest authorized Aerovox Industrial Distributor.

Type SRE "Bantam" Metal Tubular Electrolytics

Although smaller than the PRS the SRE handles full size loads at operating temperature range of 0°C to 85°C at rated voltage. Sealed in aluminum cans and furnished with a cardboard insulating sleeve. Negative grounded to can. If required without tube specify type SREN.

33 Stock Values – 8 Voltages

TYPE G
Insulated Screw-Mounting Capacitors

Hermetically-sealed aluminum can unit, threaded cover size ⅞—16 with hex nut and washer for convenient mounting on chassis. Washer can be used to insulate can from chassis. Terminals molded in cover. Cathode connection thru terminal in cover. These units are the commercial equivalent of case style CE41 and 42 of specification MIL C62A.

7 Stock Values – 3 Voltages

TYPE FF
Photo-Flash Capacitors

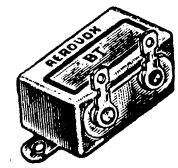
Selective choice of highest purity materials makes these units ideal for rugged photoflash application calling for lowest leakage requirements. Type FF-1 furnished in molded black plastic container, type FF-2 in aluminum can with black glazed tubing; both units furnished with screw lug terminals. Highly resistant to moisture and oil. Surge voltages and time duty cycles as listed in EIA specification No. RS-154.

2 Stock Values

TYPE E
Hermetically-Sealed, Aluminum, Round Metal-Cased Capacitors

Can be mounted with terminals upright or inverted by use of a ring-type clamp provided with unit. Can is floating, thus having two terminals on single-section capacitors, three on duals, and four on triples.
These units are the commercial equivalent of case style CE31, 2 and 3 of MIL Specification C62A.

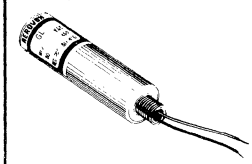
16 Stock Values – 10 Voltages



TYPE BT
Drawn-Case "Bathtub" Electrolytic Capacitors

Hermetically-sealed units designed for rigid mounting in minimum space. Of sturdy construction, these high-quality units are commercial equivalent to the case style CE63 of MIL Specification C62A.

21 Stock Values – 6 Voltages



TYPE GL

These ever-popular inverted-mounting, aluminum can units, are furnished with the same high purity materials as the more expensive type E and G. Two separate color-coded leads 4" long for each section. Inverted chassis mounting can be made, using palnut and threaded neck. Threaded neck size ⅝—18.

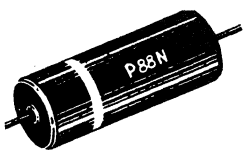
24 Stock Values – 6 Voltages

PAPER CAPACITORS

TYPE P84CM DURAMIC® Ceramic-Cased Tubular Capacitors

New ceramic (dense steatite) encased paper tubular for performance above that of conventional paper tubulars. New thermosetting end-seals for exceptional humidity protection—250 hour humidity test as per REC-118. Firmly imbedded terminals will not work loose or pull out. Operating temps are —55°C to +85°C. Meets all requirements of EIA Spec. REC-118, hi-temp range, class M.

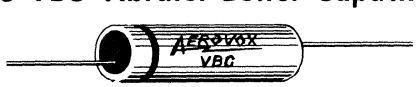
34 Stock Values – 5 Voltages



TYPE P88N
†DURANITE
Duranite Blue Molded Tubular Capacitors

Toughest capacitors ever offered for radio-electronic equipment, DURANITE capacitors. Design, impregnant, processing, and casing insure glove-fitting contact and seal throughout. DURANITE provides a permanent, non-varying, rock-hard casing, does not dry out, does not develop cracks or fissures. Pig-tail leads firmly imbedded, won't pull out, won't work loose. Moisture-proof; operate from sub-zero to over 212°F. Exposure to temperatures of 250°F. will not impair life or performance, no deterioration on the shelf. A white band around one end of the capacitor identifies the outside foil.

Type VBC Vibrator Buffer Capacitors



These units are heavy-duty, Hyvol M impregnated, vibrator buffer capacitors in ceramic tubes, specifically designed for severe-service auto-radio applications.

AUTOPASS® Vertical Mounting Plastic-Cased Paper Capacitors

Aerovox Autopass capacitors were specifically designed and developed for use in conjunction with printed-wiring assemblies where it is highly desirable to mount capacitors at right angles to the mounting surface thereby conserving valuable space

Net

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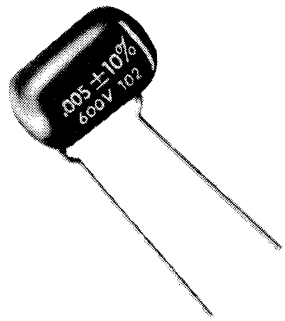
AEROVOX

CAPACITORS

PAPER CAPACITORS



DIPPED BI-ELECTRIC® 10% TYPE DBE
MYLAR*-PAPER BY-PASS TUBULARS

Now the "better by-pass" Bi-Electric® is presented in a dipped radial lead style. Better characteristics with all the advantages of a combination dielectric. Combines the best features of Mylar* and high quality kraft tissue with a solid impregnant resulting in a unit that affords excellent protection against moisture, mechanical damage and damage from soldering iron contact.

The solid thermo setting impregnant will not crack, soften or flow assuring very stable units.

Standard capacitance tolerance is ±10%

Other features of this capacitor include 125°C maximum operating temperature, low power factor, high insulation resistance. All units are furnished with crimped style leads.

Cat. No.	Size	Net Price**
	200 VDCW	
DBE2S22	.370 x .855	.15
DBE2S47	.450 x .855	.18
DBE2P1	.470 x 1.180	.21
DBE2P15	.540 x 1.180	.24
DBE2P22	.590 x 1.300	.27
DBE2P47	.730 x 1.600	.36
	400 VDCW	
DBE4S1	.390 x .690	.15
DBE4S15	.430 x .690	.15
DBE4S22	.400 x .855	.18
DBE4S33	.440 x .855	.18
DBE4S47	.415 x 1.150	.21
DBE4S68	.440 x 1.180	.24
DBE4P1	.520 x 1.180	.24
DBE4P15	.560 x 1.300	.30
DBE4P22	.620 x 1.560	.36
	600 VDCW	
DBE6D1	.340 x .690	.15
DBE6D12	.340 x .690	.15
DBE6D15	.340 x .690	.15
DBE6D18	.340 x .690	.15
DBE6D2	.340 x .690	.15
DBE6D22	.340 x .690	.15
DBE6D27	.370 x .690	.15
DBE6D3	.370 x .690	.15
DBE6D33	.370 x .690	.15
DBE6D39	.370 x .690	.15
DBE6D47	.400 x .690	.15
DBE6D5	.415 x .690	.15
DBE6D56	.415 x .690	.15
DBE6D68	.430 x .690	.18
DBE6D75	.370 x .870	.18
DBE6D82	.370 x .870	.18
DBE6S1	.390 x .870	.18
DBE6S12	.400 x .870	.18
DBE6S15	.415 x .870	.18
DBE6S18	.470 x .870	.18
DBE6S2	.470 x .870	.18
DBE6S22	.470 x .870	.18
DBE6S27	.415 x 1.150	.21
DBE6S3	.430 x 1.150	.21
DBE6S33	.430 x 1.150	.21
DBE6S39	.470 x 1.150	.21
DBE6S47	.490 x 1.150	.21
DBE6S5	.520 x 1.180	.21
DBE6S56	.520 x 1.180	.24
DBE6S68	.540 x 1.300	.27
DBE6S75	.570 x 1.300	.27
DBE6S82	.590 x 1.300	.27
DBE6P1	.640 x 1.300	.27
DBE6P15	.650 x 1.560	.33
DBE6P22	.750 x 1.560	.42

**Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499, 500-999.

®*Dupont Registered Trade Mark

BI-ELECTRIC® MYLAR* PAPER BYPASS TUBULARS
Radial Lead Mounting

Two famous dielectrics . . . quality kraft tissue and Mylar* film . . . are combined with Aerolene impregnant and exclusive "Polycap"® plastic case to bring you a truly superior bypass capacitor. The advanced construction techniques presented in "Bi-Electric" capacitors offer distinct advantages over other radial lead types. "Polycap"® case provides a solid uniform coating from end-to-end. Controlled end-fills provide sealed protection, and leads cannot crack end-fill or pull-out when leads are extended for axial mounting. Standard capacitance tolerance is ±10%. Operating temperature range is —30°C to +100°C.

For full technical information request bulletin NPJ-118 Rev.

* DuPont Trademark

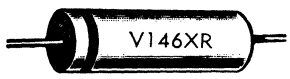
Cap. Mfd.	Cat. #	Size	Net Price*
	200 VDCW		
.01	BE2S1	11/32 x 11/16	$.15
.015	BE2S15	3/8 x 11/16	.15
.02	BE2S2	7/16 x 27/32	.15
.022	BE2S22	7/16 x 27/32	.15
.047	BE2S47	7/16 x 27/32	.18
.05	BE2S5	15/32 x 1-1/8	.18
.1	BE2P1	17/32 x 1-5/32	.21
.15	BE2P15	9/16 x 1-5/32	.24
.2	BE2P2	5/8 x 1-5/16	.27
.22	BE2P22	5/8 x 1-5/16	.27
.25	BE2P25	11/16 x 1-9/16	.27
.33	BE2P33	11/16 x 1-9/16	.30
.47	BE2P47	¾ x 1-9/16	.36
.5	BE2P5	¾ x 1-9/16	.36
	400 VDCW		
.01	BE4S1	3/8 x 11/16	.15
.015	BE4S15	7/16 x 27/32	.15
.02	BE4S2	7/16 x 27/32	.18
.022	BE4S22	7/16 x 27/32	.18
.025	BE4S25	7/16 x 27/32	.18
.03	BE4S3	7/16 x 27/32	.18
.033	BE4S33	7/16 x 27/32	.18
.04	BE4S4	15/32 x 1-1/8	$.21
.047	BE4S47	15/32 x 1-1/8	.21
.05	BE4S5	15/32 x 1-1/8	.21
.068	BE4S68	½ x 1-1/8	.24
.1	BE4P1	9/16 x 1-5/32	.24
.15	BE4P15	5/8 x 1-5/16	.30
.2	BE4P2	11/16 x 1-9/16	.33
.22	BE4P22	11/16 x 1-9/16	.36
.25	BE4P25	11/16 x 1-9/16	.36
.33	BE4P33	¾ x 1-9/16	.42
	600 VDCW		
.001	BE6D1	11/32 x 11/16	.15
.0012	BE6D12	11/32 x 11/16	.15
.0015	BE6D15	11/32 x 11/16	.15
.0018	BE6D18	11/32 x 11/16	.15
.002	BE6D2	11/32 x 11/16	.15
.0022	BE6D22	11/32 x 11/16	.15
.0025	BE6D25	3/8 x 11/16	.15
.0027	BE6D27	3/8 x 11/16	.15
.003	BE6D3	3/8 x 11/16	.15
.0033	BE6D33	3/8 x 11/16	.15
.0039	BE6D39	3/8 x 11/16	.15
.004	BE6D4	13/32 x 11/16	.15
.0047	BE6D47	13/32 x 11/16	.15
.005	BE6D5	13/32 x 21/32	.15
.0056	BE6D56	13/32 x 27/32	$.15
.006	BE6D6	13/32 x 27/32	.15
.0068	BE6D68	13/32 x 27/32	.18
.007	BE6D7	13/32 x 27/32	.18
.0075	BE6D75	13/32 x 27/32	.18
.008	BE6D8	13/32 x 27/32	.18
.0082	BE6D82	13/32 x 27/32	.18
.01	BE6S1	13/32 x 27/32	.18
.015	BE6S15	15/32 x 13/16	.18
.018	BE6S18	17/32 x 7/8	.18
.02	BE6S2	17/32 x 7/8	.18
.022	BE6S22	17/32 x 7/8	.18
.025	BE6S25	15/32 x 1-5/32	.21
.027	BE6S27	15/32 x 1-5/32	.21
.03	BE6S3	15/32 x 1-5/32	.21
.033	BE6S33	15/32 x 1-5/32	.21
.039	BE6S39	15/32 x 1-5/32	.21
.04	BE6S4	17/32 x 1-5/32	.21
.047	BE6S47	17/32 x 1-5/32	.24
.05	BE6S5	17/32 x 1-5/32	.24
.056	BE6S56	17/32 x 1-5/32	.24
.06	BE6S6	5/8 x 1-5/16	.24
.068	BE6S68	5/8 x 1-5/16	.27
.075	BE6S75	5/8 x 1-5/16	.27
.1	BE6P1	5/8 x 1-5/16	.27
.15	BE6P15	11/16 x 1-9/16	$.33
.2	BE6P2	¾ x 1-9/16	.36
.22	BE6P22	¾ x 1-9/16	.36
	1000 VDCW		
.001	BE10D1	11/32 x 11/16	.18
.0012	BE10D12	11/32 x 11/16	.18
.0015	BE10D15	11/32 x 11/16	.18
.0018	BE10D18	11/32 x 11/16	.18
.002	BE10D2	3/8 x 11/16	.18
.0022	BE10D22	3/8 x 11/16	.18
.0033	BE10D33	13/32 x 27/32	.18
.0039	BE10D39	3/8 x 53/64	.21
.0047	BE10D47	13/32 x 27/32	.21
.0068	BE10D68	15/32 x 13/16	.21
.01	BE10S1	17/32 x 7/8	.21
.018	BE10S18	15/32 x 1-5/32	.21
.025	BE10S25	17/32 x 1-5/32	.21
.027	BE10S27	17/32 x 1-5/32	.21
.033	BE10S33	5/8 x 1-5/16	.24
.039	BE10S39	5/8 x 1-5/16	.24
.047	BE10S47	5/8 x 1-5/16	.24
.056	BE10S56	11/16 x 1-9/16	.24
.068	BE10S68	11/16 x 1-9/16	.24
.075	BE10S75	11/16 x 1-9/16	.24
.1	BE10P1	¾ x 1-9/16	.27
.15	BE10P15	15/16 x 1	.27

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249

AEROVOX CAPACITORS

PAPER CAPACITORS (cont.)

TYPE V146XR AEROFILM® "WRAP AND FILL" MYLAR CAPACITORS



Miniature, mylar, tubular capacitor sections, extended foil construction, wrapped with a synthetic film and end-sealed with a plastic resin.

These units offer high insulation resistance, high operating temperature, low power factor and outstanding resistance to moisture.

Ideal for use in miniaturized circuits where size and weight are important factors.

Operating Temperature Range: Capable of operation in a temperature range of —65°C to +85°C at full voltage rating and to 125°C with voltage derating as follows:

DC Rated Voltage at 85°C	Maximum DC Working Voltage at 125°C
150	100
200	125
400	200
600	300

Leads: solder-coated "copper-weld" wire, 2" minimum length. Over .375 diameter #20AWG (.032) .375 and smaller #22AWG (.025).

Tolerance: Standard ±10%. Available in closer tolerances on special order.

For Full technical information request bulletin NPJ-121

STOCK LISTING

Capacity In Mfd.	150 VDC D	L	Cat. No.	Net Price*	200 VDC D	L	Cat. No.	Net Price*	400 VDC D	L	Cat. No.	Net Price*	600 VDC D	L	Cat. No.	Net Price*
.001	See Note 1				.156 x	1/2	V146XR-16	.21	156 x	5/8	V146XR-37	.21	156 x	3/4	V146XR-58	.24
.0015	See Note 1				.156 x	1/2	V146XR-17	.21	.156 x	5/8	V146XR-38	.21	.171 x	3/4	V146XR-59	.24
.0022	See Note 1				.156 x	1/2	V146XR-18	.21	.156 x	5/8	V146XR-39	.21	.187 x	3/4	V146XR-60	.24
.0033	See Note 1				.156 x	1/2	V146XR-19	.21	.156 x	5/8	V146XR-40	.24	.203 x	3/4	V146XR-61	.24
.0047	See Note 1				.156 x	1/2	V146XR-20	.21	.187 x	5/8	V146XR-41	.24	.234 x	3/4	V146XR-62	.27
.0068	See Note 1				.156 x	1/2	V146XR-21	.21	.218 x	5/8	V146XR-42	.24	.265 x	3/4	V146XR-63	.27
.01	.156 x	1/2	V146XR- 1	.21	.171 x	1/2	V146XR-22	.21	.250 x	5/8	V146XR-43	.27	.312 x	3/4	V146XR-64	.30
.015	.187 x	1/2	V146XR- 2	.21	.203 x	1/2	V146XR-23	.21	.296 x	5/8	V146XR-44	.27	.312 x	7/8	V146XR-65	.30
.022	.203 x	5/8	V146XR- 3	.24	.250 x	5/8	V146XR-24	.24	.312 x	3/4	V146XR-45	.27	.375 x	7/8	V146XR-66	.30
.033	.218 x	5/8	V146XR- 4	.24	.250 x	3/4	V146XR-25	.24	.312 x	7/8	V146XR-46	.27	.406 x	1	V146XR-67	.30
.047	.234 x	3/4	V146XR- 5	.27	.296 x	3/4	V146XR-26	.27	.343 x	7/8	V146XR-47	.30	.453 x	1	V146XR-68	.33
.068	.265 x	3/4	V146XR- 6	.27	.343 x	3/4	V146XR-27	.27	.375 x	1	V146XR-48	.33	.531 x	1	V146XR-69	.36
.1	.281 x	7/8	V146XR- 7	.36	.375 x	7/8	V146XR-28	.36	.421 x	1	V146XR-49	.33	.562 x	1-3/8	V146XR-70	.42
.15	.328 x	7/8	V146XR- 8	.36	.453 x	7/8	V146XR-29	.36	.468 x	1-1/4	V146XR-50	.36	.671 x	1-3/8	V146XR-71	.45
.22	.385 x	1	V146XR- 9	.39	.438 x	1-1/8	V146XR-30	.39	.546 x	1-3/8	V146XR-51	.42	.718 x	1-5/8	V146XR-72	.51
.33	.375 x	1-1/8	V146XR-10	.45	.484 x	1-1/8	V146XR-31	.45	.593 x	1-5/8	V146XR-52	.66	.765 x	2	V146XR-73	.90
.47	.468 x	1-1/4	V146XR-11	.51	.546 x	1-1/4	V146XR-32	.51	.671 x	1-5/8	V146XR-53	.78	.859 x	2	V146XR-74	1.14
.68	.562 x	1-1/4	V146XR-12	.57	.609 x	1-5/8	V146XR-33	.57	.796 x	1-3/4	V146XR-54	.96	1.016 x	2	V146XR-75	1.53
1.0	.593 x	1-1/2	V146XR-13	.87	.671 x	1-3/4	V146XR-34	.87	.812 x	2	V146XR-55	1.20	1.125 x	2-1/2	V146XR-76	2.55
1.5	.718 x	1-3/4	V146XR-14	1.23	.828 x	1-3/4	V146XR-35	1.23	.921 x	2-1/4	V146XR-56	1.56	1.234 x	3	V146XR-77	3.48
2.0	.812 x	1-3/4	V146XR-15	1.50	.875 x	1-7/8	V146XR-36	1.50	1.093 x	2-1/4	V146XR-57	2.04	1.421 x	3	V146XR-78	4.38

Note 1: These capacity values are only made at 200 VDC or higher.
The 200 VDC unit may be used for lower voltage requirements since sizes are as small as or smaller than competitive 100 VDC units.

*Request O.E.M. prices in the following quantities: 25-49, 50-99, 100-499

® Registered Trademark

TYPE V161

AEROFILM® (MYLAR*) CAPACITORS

V161 Aerofilm Tubular Capacitors are high quality units in Polycap® cases. These units have exceptionally high insulation resistance and low dielectric absorption and power factor. They are extremely stable having a relatively small capacitance change with temperature variations over a range of 0 to 85°C.
Their excellent resistance to humidity and moisture are due to the use of Aerofilm (Aerovox's trade name for Mylar* polyester film), finest quality casing material, and an epoxy end fill which will not flow, soften or melt at any operating temperature. Standard tolerance is ±20% but also available in ±5% and ±10%.

This type was formerly designated as V84C-V161.

Cap. Mfd.	Size	Net Price*
	200 VDCW	
.0047	9/32 x 15/16	$.15
.0068	9/32 x 15/16	.15
.01	9/32 x 15/16	.15
.015	9/32 x 15/16	.15
.022	5/16 x 1	.15
.033	5/16 x 1	.15
.047	5/16 x 1-1/16	.15
.05	5/16 x 1-1/16	.15
.068	11/32 x 1-1/16	.18
.1	3/8 x 1¼	.21
.15	13/32 x 1¼	.24
.22	½ x 1¼	.24
.25	½ x 1¼	.27
.33	½ x 1½	.33
.47	9/16 x 1½	.39
.68	19/32 x 1¾	.51
1.0	13/16 x 1-7/8	.57
	400 VDCW	
.0015	9/32 x 15/16	.15
.0022	9/32 x 15/16	.15
.0033	9/32 x 15/16	.15
.0047	9/32 x 15/16	$.15
.0068	9/32 x 15/16	.15
.01	5/16 x 1	.15
.015	5/16 x 1	.15
.02	5/16 x 1-1/16	.15
.022	11/32 x 1-1/16	.15
.03	3/8 x 1-1/16	.18
.033	3/8 x 1-1/16	.18
.047	3/8 x 1¼	.18
.05	3/8 x 1¼	.18
.068	7/16 x 1¼	.21
.1	½ x 1¼	.21
.15	9/16 x 1½	.36
.22	9/16 x 1½	.39
.25	9/16 x 1¾	.39
.33	5/8 x 1¾	.51
.47	11/16 x 2	.66
.5	11/16 x 2	.69
.68	25/32 x 2	.87
1.0	7/8 x 2-1/8	1.05
	600 VDCW	
.001	9/32 x 15/16	.15
.0015	9/32 x 15/16	.15
.002	9/32 x 15/16	.15
.0022	9/32 x 15/16	.15
.003	9/32 x 15/16	$.15
.0033	9/32 x 15/16	.15
.004	5/16 x 1	.15
.0047	5/16 x 1	.15
.005	5/16 x 1	.15
.0068	5/16 x 1	.18
.01	11/32 x 1-1/16	.18
.015	3/8 x 1-3/16	.18
.02	3/8 x 1-3/16	.18
.022	13/32 x 1-3/16	.18
.03	7/16 x 1-3/16	.21
.033	7/16 x 1-3/16	.21
.04	½ x 1¼	.24
.047	½ x 1¼	.24
.05	½ x 1¼	.24
.068	½ x 1½	.27
.075	½ x 1½	.27
.1	9/16 x 1½	.30
.15	5/8 x 1-5/8	.39
.2	23/32 x 1-5/8	.48
.22	¾ x 1-5/8	.51
.25	¾ x 1¾	.54
.33	13/16 x 1-7/8	.78
.47	7/8 x 2-1/8	.84
.5	7/8 x 2-1/8	.87

*Dupont trademark

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249

Net

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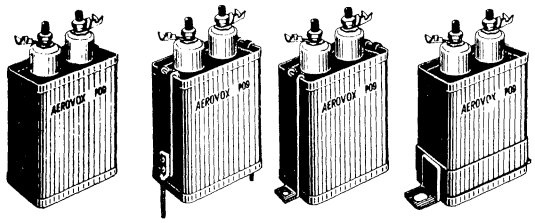
AEROVOX CAPACITORS

INDUSTRIAL SECTION — STANDARD TYPES

TYPE P09



P09 P09MSB P09MS P09MB

PAPER CAPACITORS

Immersion-proof units in sturdy, rectangular metal cans. High-voltage screw-type pillar terminals fitted with soldering lugs. Use of HYVOL M or J allows exceptionally compact size for capacity, working voltage and safety factor. Intended for heavy-duty, continuous service in transmitters, amplifiers, etc. Operating temperature —55 to +85°C.

Standard tolerance +20 —10%. Other tolerance on request.

Type MB bracket is supplied unless otherwise specified except on units with base sizes 3¾" x 3⁹⁄₁₆" and 3¾" x 4⁹⁄₁₆" where Type MS bracket is supplied. MSB bracket is available for all sizes on request.

Cap.	Size	Net Price*
	600V	
.5	1-1/16 x 1-13/16 x 2¼	$2.41
1.0	1-1/16 x 1-13/16 x 2¼	2.57
2.0	1-1/16 x 1-13/16 x 2-7/8	3.12
3.0	1-1/16 x 1-13/16 x 3-7/8	3.69
4.0	1-3/16 x 2½ x 3½	4.25
5.0	1-1/16 x 1-13/16 x 4¾	4.63
6.0	1-3/16 x 2½ x 4¾	5.00
8.0	1¼ x 3¾ x 3-7/8	6.16
10.0	1¼ x 3¾ x 4¾	6.63
12.0	1½ x 3¾ x 4¾	7.47
15.0	1¾ x 3¾ x 4¾	8.70
	1000V	
.1	1-1/16 x 1-13/16 x 1-5/8	2.15
.25	1-1/16 x 1-13/16 x 2¼	2.50
.5	1-1/16 x 1-13/16 x 2¼	2.56
1.0	1-1/16 x 1-13/16 x 2¼	2.79
2.0	1-1/16 x 1-13/16 x 3-7/8	3.53
3.0	1-3/16 x 2½ x 3½	4.16
4.0	1-3/16 x 2½ x 4¾	4.79
5.0	1¼ x 3¾ x 3-7/8	5.34
6.0	1¼ x 3¾ x 4¾	5.89
8.0	1¼ x 3¾ x 4¾	6.91
10.0	1¾ x 3¾ x 4¾	$7.94
12.0	2¼ x 3¾ x 3-7/8	8.71
15.0	2½ x 3¾ x 4¾	10.47
	1500V	
.5	1-1/16 x 1-13/16 x 2-7/8	3.12
1.0	1-1/16 x 1-13/16 x 3-7/8	3.34
2.0	1-3/16 x 2½ x 4¼	4.27
3.0	1-3/16 x 2½ x 4¾	5.24
4.0	1¼ x 3¾ x 4¾	6.21
5.0	1¾ x 3¾ x 4¾	7.07
6.0	1¾ x 3¾ x 4¾	7.94
8.0	2½ x 3¾ x 4¾	9.92
10.0	3-3/16 x 3¾ x 4¾	11.44
12.0	3-3/16 x 3¾ x 4¾	13.17
15.0	3¾ x 4-9/16 x 4¾	15.79
	2000V	
.1	1-1/16 x 1-13/16 x 2-1/8	3.63
.25	1-1/16 x 1-13/16 x 2-1/8	3.81
.5	1-1/16 x 1-13/16 x 2-7/8	4.06
1.0	1-3/16 x 2½ x 3½	4.58
2.0	1¼ x 3¾ x 4¼	5.70
3.0	1¼ x 3¾ x 4¾	6.80
4.0	2¼ x 3¾ x 3-7/8	$ 7.90
5.0	2¼ x 3¾ x 4¾	8.99
6.0	3-3/16 x 3¾ x 4½	10.09
8.0	3-3/16 x 3¾ x 4¾	11.77
10.0	3¾ x 4-9/16 x 4¾	13.77
12.0	3¾ x 4-9/16 x 5½	16.01
15.0	3¾ x 4-9/16 x 6½	19.36
	2500V	
.5	1-3/16 x 2½ x 3½	5.43
1.0	1¾ x 3¾ x 3¼	6.45
2.0	1¾ x 3¾ x 4¾	8.63
4.0	3¾ x 4-9/16 x 4	12.73
10.0	3¾ x 4-9/16 x 6-3/8	24.51
	3000V	
.1	1-3/16 x 2½ x 2	6.95
.25	1-3/16 x 2½ x 2½	7.39
.5	1-3/16 x 2½ x 3-7/8	8.09
1.0	2¼ x 3¾ x 3-7/8	9.56
2.0	3-3/16 x 3¾ x 4-1/8	12.45
4.0	3¾ x 4-9/16 x 4¾	17.62
	4000V	
.1	2¼ x 3¾ x 2¾	7.23
.25	2¼ x 3¾ x 2¾	$ 7.85
.5	2¼ x 3¾ x 3-7/8	9.04
1.0	2¼ x 3¾ x 5-1/8	11.34
2.0	3¾ x 4-9/16 x 5-1/8	12.55
4.0	3¾ x 4-9/16 x 8½	24.60
	5000V	
.1	2¼ x 3¾ x 2¾	7.44
.25	2¼ x 3¾ x 3-7/8	8.22
.5	2¼ x 3¾ x 4½	9.81
1.0	3¾ x 4-9/16 x 4-3/8	13.55
2.0	3¾ x 4-9/16 x 6	20.50
	6000V	
.1	2¼ x 3¾ x 3-3/8	10.76
.25	2¼ x 3¾ x 4½	13.16
1.0	3¾ x 4-9/16 x 7½	19.49
	7500V	
.1	2¼ x 3¾ x 3-7/8	13.45
.25	3¾ x 4-9/16 x 3-7/8	14.17
.5	3¾ x 4-9/16 x 5-1/8	15.99

*Request O.E.M. Prices in the following quantities: 10-24, 25-49, 50-99

TYPE P10

Cylindrical hermetically sealed can with screw-base folded cover for vertical mounting. These units are Hyvol M or J impregnated and filled for long life and safe operation at temperatures from —55 to +85°C.

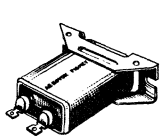
Standard units have two terminals, case floating.

Standard tolerance +20% —10%. Other tolerances available on request.

Capacity	600 V D C W Size	Net Price*	1000 V D C W Size	Net Price*	1500 V D C W Size	Net Price*
.5					1½ x 2-3/8	$3.77
1.0			1½ x 2-7/8	3.82	1½ x 3-7/8	4.12
2.0	1½ x 2-7/8	3.57	1½ x 4½	4.53		
4.0	1½ x 4½	4.82				

*Request O.E.M. Prices in the following quantities: 10-99

TYPE P16 and P16-CT



Small corrosion and immersion-proof unit for severe atmospheric and climatic conditions. P16-CT is standard; P16 is available in 400 and 600 volts. Operating temperature —55 to +85° C. Dual units have two terminals, case grounded. Standard tolerance +20 —10%. CP091S and CP091F brackets available for P16. Base Size 1⁵⁄₁₆ x ¹¹⁄₁₆. Impregnated with either Hyvol M or Hyvol J.

SINGLE CAPACITY	400 V D C W HEIGHT P16, P16-CT	400 V D C W HEIGHT Net Price*	600 V D C W HEIGHT P16, P16-CT	600 V D C W HEIGHT Net Price*	1000 V D C W HEIGHT P16-CT	1000 V D C W HEIGHT Net Price*	DUAL CAPACITY	600 V D C W HEIGHT P16, P16-CT	600 V D C W HEIGHT Net Price*
.05			1-1/16	$1.76	1-3/8	$1.83	2 x .05	1-3/8	$2.06
.1	1-1/16	$1.80	1-3/8	1.85	1-3/8	1.89	2 x .1	1-5/8	2.13
.25	1-3/8	1.87	1-5/8	1.91	2	1.94	2 x .25	2	2.30
.5	1-5/8	1.91	2	1.96	2¾	2.13	2 x .5	2¾	2.64
1.0	2	2.16	2¾	2.20					

*Request O.E.M. Prices in the following quantities: 10-24, 25-49, 50-99, 100-499

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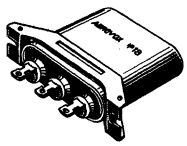
Net

AEROVOX CAPACITORS

INDUSTRIAL SECTION—STANDARD TYPES (Continued)

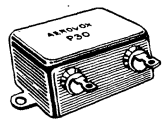
TYPE P18-CB



Similar to P16 in construction and electrical characteristics. Because of the difference in the base size type P18-CB can be supplied with three terminals. Dual units are case floating, triples are case grounded. The size difference also makes these units suitable for use in assemblies where P16's do not fit. Operating temperature range —55 to +85° C. Standard tolerance +20 — 10%. Impregnated with either Hyvol M or Hyvol J.

Capacity	400 VDCW P18-CB		600 VDCW P18-CB		1000 VDCW P18-CB		Capacity	400 VDCW P18-CB		600 VDCW P18-CB		1000 VDCW P18-CB		Capacity	400 VDCW P18-CB		600 VDCW P18-CB		1000 VDCW P18-CB	
	Height	Net* Price	Height	Net* Price	Height	Net* Price		Height	Net* Price	Height	Net* Price	Height	Net* Price		Height	Net* Price	Height	Net* Price	Height	Net* Price
.01					1-1/16	2.02	2 x .01					1-1/16	2.46	3 x .01					1-1/16	2.94
.02					1-1/16	2.06	2 x .02					1-1/16	2.49	3 x .02					1-1/16	3.05
.05	1	2.02	1-1/16	2.07	1-1/16	2.11	2 x .05	1	2.47	1-1/16	2.52	1-1/2	2.58	3 x .05	1-1/8	2.97	1-1/2	3.04	1-1/2	3.09
.1	1	2.09	1-1/16	2.14	1-1/2	2.18	2 x .1	1-1/4	2.54	1-1/2	2.59	2	2.68	3 x .1	1-5/8	3.04	1-1/2	3.11	2-1/2	3.21
.25	1-1/4	2.17	1-1/2	2.21	2	2.25	2 x .25	1-1/2	2.72	2	2.78	2-3/4	2.85	3 x .25	2	3.27	2-3/4	3.33		
.5	1-1/2	2.24	2	2.29	2-1/2	2.44	2 x .5	2-1/4	2.98	2-3/4	3.05									
1.0	2	2.48	2-3/4	2.53										BASE SIZE 1-3/4 x 9/16						

TYPE P30
Bathtub Case

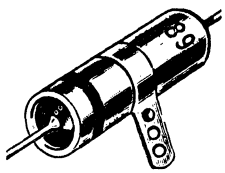


High-quality bypass capacitors furnished in drawn metal bathtub cases, hermetically sealed. These units are Hyvol M or J impregnated for operation at temperatures from —55 to +85°. C. They are especially recommended for applications where high reliability and superior performance are required. Typical applications for these rugged units would include marine, aircraft and tropical climates. Standard tolerance +20% —10%.

*Also available with top terminals, size 2 x 1¾ x ⅞, Type P30JT.

Capacity	400 VDCW P30		600 VDCW P30		1000 VDCW P30		Capacity	400 VDCW P30		600 VDCW P30		1000 VDCW P30	
	Size	Net* Price	Size	Net* Price	Size	Net* Price		Size	Net* Price	Size	Net* Price	Size	Net* Price
.05	1¾ x 1 x ¾	1.65	1¾ x 1 x ¾	1.73	1¾ x 1 x ¾	1.80	2 x .05	1¾ x 1 x ¾	2.29	1¾ x 1 x ¾	2.37	1¾ x 1 x ¾	2.47
.1	1¾ x 1 x ¾	1.72	1¾ x 1 x ¾	1.78	1¾ x 1 x ¾	1.89	2 x .1	1¾ x 1 x ¾	2.37	1¾ x 1 x ¾	2.44	1¾ x 1 x 7/8	2.51
.25	1¾ x 1 x ¾	1.82	1¾ x 1 x 13/16	1.85	1¾ x 1 x 7/8	1.93	2 x .25	1¾ x 1 x 15/16	2.42	1¾ x 1 x 1	2.51	2 x 1¾ x 7/8	2.76
.5	1¾ x 1 x 7/8	1.97	1¾ x 1 x 1	1.98	2 x 1¾ x 7/8	2.06	2 x .5	2 x 1¾ x 7/8	2.77	2 x 1¾ x 7/8	2.82	2 x 2 x 1-3/16	3.57
.75	2-1/16 x 1¼ x 7/8	2.13	2-1/16 x 1¼ x 7/8*	2.14	2 x 1¾ x 7/8	2.44	2 x 1.0	2 x 2 x 1-1/8	**3.42**	2 x 2 x 1-3/16	**3.44**		
1.0	2 x 1¾ x 7/8	**2.29**	2 x 1¾ x 1	2.30	2 x 2 x 1-1/8	2.82	3 x .05	1¾ x 1 x ¾	2.66	1¾ x 1 x 13/16	2.71	1¾ x 1 x 13/16	3.81
2.0	2 x 2 x 1-1/8	2.97	2 x 2 x 1-3/16	3.06			3 x .1	1¾ x 1 x 13/16	2.75	1¾ x 1 x 15/16	2.78	2 x 1¾ x 7/8	3.09
							3 x .25	2 x 1¾ x 7/8	3.01	2 x 1¾ x 7/8	3.09	2 x 2 x 1-1/8	3.85
							3 x .5	2 x 2 x 1	3.71	2 x 2 x 1-3/16	3.81		

TYPE P89M

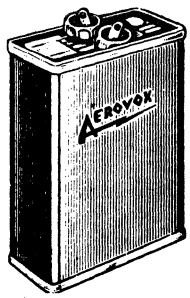


Immersion-proof, oil-impregnated, oil filled units in hermetically sealed metal tubes. Ideal for coupling and bypass functions in transmitters, high-voltage applications and for use in test equipment. Case is insulated, not connected to the capacitor section. Standard units are supplied with cardboard insulating sleeve and radial mounting bracket (Type P89M). All sizes shown are can sizes. For size over insulating sleeve add 1/16" to diameter and 3/16" to length. Standard tolerance +20%. Available in the following style variations:

P89M —with cardboard insulating sleeve, radial mtg. bracket.
P89MA —with cardboard insulating sleeve and tangential mounting bracket.
P89MAP—with plastic insulating sleeve and tangential mtg. bracket.
P89MAY—without insulating sleeve but with tangential mounting bracket.
P89MP —with plastic insulating sleeve, radial mtg. bracket.
P89MX —without mounting bracket but with cardboard insulating sleeve.
P89MXP—without mounting bracket but with plastic insulating sleeve.
P89MXY—without insulating sleeve or mtg. bracket.
P89MY —without insulating sleeve but with radial mounting bracket.

Voltage	Capacity	Can Size	Net** Price	Voltage	Capacity	Can Size	Net** Price	Voltage	Capacity	Can Size	Net** Price
2000V	.001	3/4 x 1-5/8	1.93	2500V	.005	3/4 x 1-5/8	2.13	3000V	.03	1 x 2-1/4	2.21
2000V	.005	3/4 x 1-5/8	1.97	2500V	.01	3/4 x 1-3/4	2.15	3000V	.05	1 x 2-1/2	2.27
2000V	.01	3/4 x 1-5/8	1.99	2500V	.02	3/4 x 2	2.18	3000V	.1	1-3/8 x 2-3/4	2.42
2000V	.015	3/4 x 1-3/4	2.00	2500V	.03	3/4 x 2-1/4	2.21	4000V	.05	1-3/8 x 3-1/4	4.10
2000V	.02	3/4 x 1-7/8	2.02	2500V	.05	7/8 x 2-1/2	2.27	4000V	.1	1-3/8 x 4-3/4	4.40
2000V	.03	3/4 x 1-7/8	2.05	2500V	.1	1 x 3	2.42	6000V	.005	1 x 2-1/2	4.15
2000V	.04	3/4 x 2-1/4	2.08	3000V	.005	7/8 x 1-5/8	2.13	6000V	.01	1 x 3-1/4	4.19
2000V	.05	7/8 x 2-1/4	2.12	3000V	.01	7/8 x 1-3/4	2.15	6000V	.05	1-3/8 x 5	4.43
2000V	.1	1 x 2-1/2	2.25	3000V	.02	7/8 x 2	2.18				

**Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499



For high-speed flash photography, flash signaling equipment, pulsing and other energy storage uses

TYPE PX—Energy Storage Capacitors

VDC Peak	Nominal Cap. Mfd.	Type No.
	22.5 Watt Seconds	
1500	20	PX10D1
	50.0 Watt Seconds	
2000	28	PX14D3
	75.0 Watt Seconds	
2500	24	PX14D2
3000	16	PX18D1
	100.0 Watt Seconds	
2500	30	PX15D1
4000	12.5	PX20D1

Size: Depth x Width x Height

PX10D1	2-1/2" x 3-3/4" x 4-5/8"
PX15D1	4-9/16" x 3-3/4" x 6-1/2"
ALL OTHERS	4-9/16" x 3-3/4" x 4-5/8"

*Request O.E.M. Prices in the following quantities: 10-24, 25-49, 50-99, 100-499

Net
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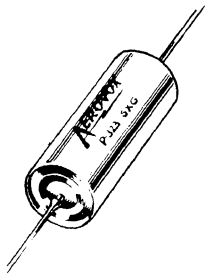
AEROVOX

CAPACITORS



INDUSTRIAL SECTION — STANDARD TYPES (Continued)

PAPER SUB-MINIATURES

Tubular, metal-cased capacitors, hermetically sealed with glass terminal end seals. Miniaturized, conventional, foil-paper construction. Especially developed to meet high temperature and minimum space requirements of present day electronic equipment. Designed for rugged long life operation, these units are preferred for many of those applications where reliability is a factor. Impregnated with Hyvol "S" a special, high-temperature-operating, stable, liquid impregnant for operation at elevated temperature. These units are capable of withstanding a voltage breakdown test of twice rated voltage between terminals or between terminals and case, for a one-minute period. Ambient temperature shall be plus 25°C. plus or minus 10° C. during this test. Power factor will be less than 1% when measured or referred to a frequency of 1000 cycles per second at 25°C. Type P323S and P323SX are rigidly processed to assure operation over the temperature range of —65°C. to +125°C. The capacitor sections on types P323S utilize an inserted tab construction to obtain minimum size. Type P323SX utilizes extended foil construction for those applications where operation is required at very low AC voltages.

For equivalent types rated —65°C. to +100°C. in the same case size as shown order as P123S, SX, etc. and request prices.
These subminiature units are widely used in many applications because of their high reliability and varied case styles. To order any of these style variations add the suffix letter shown to the basic designation listed.

Suffix	STYLE VARIATIONS	
	Description	Can size change
† S-SX	As listed	As listed
† G	One end grounded	Deduct 1/16" from length
† GP	Grounded with plastic insulating sleeve	Add 1/16" to diameter
† P	Both ends insulated with plastic sleeve	Add 1/16" to diameter and length
GT	One end grounded with threaded neck mounting	Deduct 1/16" from length
T	Both ends insulated with threaded neck mounting	As listed
GE	One end grounded with axial threaded stud	Deduct 1/16" from length
GR	One end grounded with two radial threaded studs	Deduct 1/16" from length

Suffix	STYLE VARIATIONS	
	Description	Can size change
GV	One end grounded with side vertical bracket	Deduct 1/16" from length
V	Both ends insulated with side vertical bracket	As listed
GB	One end grounded with soldered tangential bracket	Deduct 1/16" from length
B	Both ends insulated with soldered tangential bracket	As listed
GL	One end grounded with tab terminals	Deduct 1/16" from length
L	Both ends insulated with tab terminals	As listed
R	Both ends insulated with two radial threaded studs	As listed

†These style variations are available from stock. All others listed above are available on special order.

Cap.	P323S	Price*	P323SX	Price*
100 VOLTS				
.001	.175 x 3/4	1.47	.175 x 3/4	1.50
.0015	.175 x 3/4	1.47	.175 x 3/4	1.50
.0022	.175 x 3/4	1.49	.175 x 3/4	1.50
.0033	.175 x 3/4	1.49	.175 x 3/4	1.50
.0047	.175 x 3/4	1.49	.175 x 3/4	1.50
.0068	.175 x 3/4	1.49	.195 x 3/4	1.50
.01	.175 x 3/4	1.50	.235 x 3/4	1.50
.015	.175 x 3/4	1.50	.235 x 3/4	1.50
.022	.195 x 3/4	1.50	.312 x 7/8	1.55
.027	.235 x 3/4	1.50	.312 x 7/8	1.58
.033	.235 x 3/4	1.50	.312 x 7/8	1.58
.047	.312 x 7/8	1.50	.312 x 7/8	1.62
.068	.312 x 7/8	1.55	.400 x 7/8	1.62
.082	.312 x 7/8	1.58	.400 x 7/8	1.67
.1	.312 x 7/8	1.58	.400 x 7/8	1.67
.12	.400 x 7/8	1.67	.400 x 1-1/8	1.67
.15	.400 x 7/8	1.67	.400 x 1-1/8	1.67
.18	.400 x 1-1/8	1.67	.400 x 1-3/8	1.78
.22	.400 x 1-1/8	1.67	.400 x 1-3/8	1.78
.27	.400 x 1-3/8	1.90	.562 x 1-1/8	1.98
.33	.400 x 1-3/8	1.90	.562 x 1-1/8	1.98
.39	.562 x 1-1/8	2.02	.562 x 1-3/8	2.06
.47	.562 x 1-1/8	2.02	.562 x 1-3/8	2.06
.56	.562 x 1-3/8	2.10	.562 x 1-5/8	2.21
.68	.562 x 1-3/8	2.10	.562 x 1-5/8	2.21
.82	.562 x 1-7/8	2.14	.670 x 1-5/8	2.38
1.00	.562 x 1-7/8	2.14	.670 x 1-5/8	2.38
200 VOLTS				
.001	.235 x 3/4	1.47	.235 x 3/4	1.50
.0012	.235 x 3/4	1.47	.235 x 3/4	1.50
.0015	.235 x 3/4	1.47	.235 x 3/4	1.50
.0018	.235 x 3/4	1.49	.235 x 3/4	1.50
.0022	.235 x 3/4	1.49	.235 x 3/4	1.50
.0027	.235 x 3/4	1.49	.235 x 3/4	1.52
.0033	.235 x 3/4	1.49	.235 x 3/4	1.52
.0039	.235 x 3/4	1.49	.235 x 3/4	1.52
.0047	.235 x 3/4	1.49	.235 x 3/4	1.52
.0056	.235 x 3/4	1.49	.235 x 3/4	1.55
.0068	.235 x 3/4	1.49	.235 x 3/4	1.55
.0082	.235 x 3/4	1.50	.312 x 7/8	1.62
.01	.235 x 3/4	1.50	.312 x 7/8	1.62
.012	.235 x 3/4	1.50	.312 x 7/8	1.62
.015	.235 x 3/4	1.50	.312 x 7/8	1.62
.018	.235 x 3/4	1.50	.312 x 7/8	1.67
.022	.235 x 3/4	1.50	.312 x 7/8	1.67
.027	.312 x 7/8	1.50	.312 x 7/8	1.67
.033	.312 x 7/8	1.50	.312 x 7/8	1.67
.039	.312 x 7/8	1.55	.400 x 7/8	1.70
.047	.312 x 7/8	1.55	.400 x 7/8	1.70
.056	.312 x 7/8	1.58	.400 x 7/8	1.70
.068	.312 x 7/8	1.58	.400 x 7/8	1.70
.082	.312 x 7/8	1.58	.400 x 7/8	1.70
200 VOLTS (Cont.)				
.1	.400 x 7/8	1.62	.400 x 1-1/8	1.72
.12	.400 x 1-1/8	1.65	.400 x 1-3/8	1.78
.15	.400 x 1-1/8	1.65	.400 x 1-3/8	1.78
.18	.400 x 1-3/8	1.80	.562 x 1-1/8	1.90
.22	.400 x 1-3/8	1.80	.562 x 1-1/8	1.90
.27	.562 x 1-1/8	1.94	.562 x 1-3/8	2.02
.33	.562 x 1-1/8	1.94	.562 x 1-3/8	2.02
.39	.562 x 1-3/8	2.06	.562 x 1-5/8	2.10
.47	.562 x 1-3/8	2.06	.562 x 1-5/8	2.10
.56	.562 x 1-7/8	2.18	.670 x 1-5/8	2.38
.68	.562 x 1-7/8	2.18	.670 x 1-5/8	2.38
.82	.670 x 1-7/8	2.61	.750 x 2-1/8	2.67
1.00	.670 x 1-7/8	2.61	.750 x 2-1/8	2.67
300 VOLTS				
.001	.235 x 3/4	1.47	.235 x 3/4	1.55
.0015	.235 x 3/4	1.47	.235 x 3/4	1.55
.0022	.235 x 3/4	1.49	.235 x 3/4	1.55
.0033	.235 x 3/4	1.49	.235 x 3/4	1.55
.0047	.235 x 3/4	1.49	.235 x 3/4	1.55
.0068	.235 x 3/4	1.50	.312 x 7/8	1.62
.01	.235 x 3/4	1.50	.312 x 7/8	1.67
.015	.235 x 3/4	1.52	.312 x 7/8	1.68
.022	.312 x 7/8	1.58	.312 x 7/8	1.70
.033	.312 x 7/8	1.58	.400 x 7/8	1.72
.047	.312 x 7/8	1.62	.400 x 7/8	1.72
.068	.400 x 7/8	1.67	.400 x 1-1/8	1.72
.1	.400 x 1-1/8	1.67	.400 x 1-3/8	1.75
.15	.400 x 1-3/8	1.75	.562 x 1-1/8	1.90
.22	.562 x 1-1/8	1.86	.562 x 1-3/8	2.02
.33	.562 x 1-3/8	2.02	.562 x 1-5/8	2.14
.47	.562 x 1-7/8	2.46	.670 x 1-5/8	2.56
.68	.670 x 1-7/8	2.61	.750 x 2-1/8	2.66
1.00	.750 x 2-1/8	3.37	1.000 x 2-1/8	3.39
400 VOLTS				
.001	.235 x 3/4	1.49	.235 x 3/4	1.57
.0012	.235 x 3/4	1.49	.235 x 3/4	1.57
.0015	.235 x 3/4	1.49	.235 x 3/4	1.57
.0018	.235 x 3/4	1.49	.235 x 3/4	1.57
.0022	.235 x 3/4	1.49	.235 x 3/4	1.57
.0027	.235 x 3/4	1.52	.235 x 3/4	1.58
.0033	.235 x 3/4	1.52	.235 x 3/4	1.58
.0039	.235 x 3/4	1.52	.312 x 7/8	1.67
.0047	.235 x 3/4	1.52	.312 x 7/8	1.67
.0056	.235 x 3/4	1.52	.312 x 7/8	1.67
.0068	.235 x 3/4	1.52	.312 x 7/8	1.67
.0082	.235 x 3/4	1.55	.312 x 7/8	1.70
400 VOLTS (Cont.)				
.01	.235 x 3/4	1.55	.312 x 7/8	1.70
.012	.312 x 7/8	1.58	.312 x 7/8	1.70
.015	.312 x 7/8	1.58	.312 x 7/8	1.70
.018	.312 x 7/8	1.60	.400 x 7/8	1.75
.022	.312 x 7/8	1.60	.400 x 7/8	1.75
.027	.312 x 7/8	1.60	.400 x 7/8	1.75
.033	.312 x 7/8	1.60	.400 x 7/8	1.75
.039	.400 x 7/8	1.67	.400 x 1-1/8	1.78
.047	.400 x 7/8	1.67	.400 x 1-1/8	1.78
.056	.400 x 1-1/8	1.70	.400 x 1-3/8	1.78
.068	.400 x 1-1/8	1.70	.400 x 1-3/8	1.78
.082	.400 x 1-3/8	1.75	.562 x 1-1/8	1.90
.1	.400 x 1-3/8	1.75	.562 x 1-1/8	1.90
.12	.562 x 1-1/8	1.90	.562 x 1-3/8	1.98
.15	.562 x 1-1/8	1.90	.562 x 1-3/8	1.98
.18	.562 x 1-3/8	2.02	.562 x 1-5/8	2.10
.22	.562 x 1-3/8	2.02	.562 x 1-5/8	2.10
.27	.562 x 1-7/8	2.06	.670 x 1-5/8	2.30
.33	.562 x 1-7/8	2.06	.670 x 1-5/8	2.30
.39	.670 x 1-7/8	2.46	.750 x 2-1/8	2.66
.47	.670 x 1-7/8	2.46	.750 x 2-1/8	2.66
.56	.750 x 2-1/8	3.27	.750 x 2-3/8	3.51
.68	.750 x 2-1/8	3.27	.750 x 2-3/8	3.51
.82	1.000 x 1-7/8	3.38	1.000 x 2-5/8	3.64
1.00	1.000 x 1-7/8	3.38	1.000 x 2-5/8	3.64
600 VOLTS				
.001	.235 x 3/4	1.50	.235 x 3/4	1.58
.0012	.235 x 3/4	1.50	.235 x 3/4	1.58
.0015	.235 x 3/4	1.50	.235 x 3/4	1.58
.0018	.235 x 3/4	1.50	.235 x 3/4	1.58
.0022	.235 x 3/4	1.50	.235 x 3/4	1.58
.0027	.235 x 3/4	1.55	.312 x 7/8	1.62
.0033	.235 x 3/4	1.55	.312 x 7/8	1.62
.0039	.235 x 3/4	1.55	.312 x 7/8	1.68
.0047	.235 x 3/4	1.55	.312 x 7/8	1.68
.0056	.235 x 3/4	1.55	.312 x 7/8	1.70
.0068	.235 x 3/4	1.55	.312 x 7/8	1.70
.0082	.312 x 7/8	1.58	.312 x 7/8	1.72
.01	.312 x 7/8	1.58	.312 x 7/8	1.72
.012	.312 x 7/8	1.62	.400 x 7/8	1.75
.015	.312 x 7/8	1.62	.400 x 7/8	1.75
.018	.312 x 7/8	1.62	.400 x 7/8	1.76
.022	.312 x 7/8	1.62	.400 x 7/8	1.76
.027	.400 x 7/8	1.68	.400 x 1-1/8	1.76
.033	.400 x 7/8	1.68	.400 x 1-1/8	1.76
.039	.400 x 1-1/8	1.70	.400 x 1-3/8	1.82
.047	.400 x 1-1/8	1.70	.400 x 1-3/8	1.82
.056	.400 x 1-3/8	1.78	.562 x 1-1/8	1.94
.068	.400 x 1-3/8	1.78	.562 x 1-1/8	1.94
.082	.562 x 1-1/8	1.90	.562 x 1-3/8	1.98
600 VOLTS (Cont.)				
.1	.562 x 1-1/8	1.90	.562 x 1-3/8	1.98
.12	.562 x 1-3/8	1.98	.562 x 1-5/8	2.10
.15	.562 x 1-3/8	1.98	.562 x 1-5/8	2.10
.18	.562 x 1-7/8	2.14	.670 x 1-5/8	2.38
.22	.562 x 1-7/8	2.14	.670 x 1-5/8	2.38
.27	.670 x 1-7/8	2.38	.750 x 2-1/8	2.66
.33	.670 x 1-7/8	2.38	.750 x 2-1/8	2.66
.39	.750 x 2-1/8	2.67	.750 x 2-3/8	2.77
.47	.750 x 2-1/8	2.67	.750 x 2-3/8	2.77
.56	1.000 x 1-7/8	3.33	1.000 x 2-1/8	3.63
.68	1.000 x 1-7/8	3.33	1.000 x 2-1/8	3.63
.82	1.000 x 2-3/8	3.45	1.000 x 2-5/8	3.7
1.00	1.000 x 2-3/8	3.45	1.000 x 2-5/8	3.7
1000 VOLTS				
.001	.400 x 7/8	1.73	.400 x 7/8	1.8
.0012	.400 x 7/8	1.73	.400 x 7/8	1.8
.0015	.400 x 7/8	1.73	.400 x 7/8	1.8
.0018	.400 x 7/8	1.73	.400 x 7/8	1.8
.0022	.400 x 7/8	1.73	.400 x 7/8	1.8
.0027	.400 x 7/8	1.78	.400 x 7/8	1.8
.0033	.400 x 7/8	1.78	.400 x 7/8	1.8
.0039	.400 x 7/8	1.78	.400 x 7/8	1.8
.0047	.400 x 7/8	1.78	.400 x 7/8	1.8
.0056	.400 x 7/8	1.78	.400 x 7/8	1.8
.0068	.400 x 7/8	1.78	.400 x 7/8	1.8
.0082	.400 x 7/8	1.82	.400 x 7/8	1.8
.01	.400 x 7/8	1.82	.400 x 7/8	1.8
.012	.400 x 7/8	1.86	.400 x 1-1/8	2.
.015	.400 x 7/8	1.86	.400 x 1-1/8	2.
.018	.400 x 1-1/8	1.86	.400 x 1-3/8	2.
.022	.400 x 1-1/8	1.86	.400 x 1-3/8	2.
.027	.400 x 1-3/8	1.94	.562 x 1-1/8	2.
.033	.400 x 1-3/8	1.94	.562 x 1-1/8	2.
.039	.562 x 1-1/8	1.95	.562 x 1-3/8	2
.047	.562 x 1-1/8	1.95	.562 x 1-3/8	2
.056	.562 x 1-3/8	2.05	.562 x 1-5/8	2
.068	.562 x 1-3/8	2.05	.562 x 1-5/8	2
.082	.562 x 1-5/8	2.19	.670 x 1-5/8	2
.1	.562 x 1-5/8	2.19	.670 x 1-5/8	2
.12	.670 x 1-5/8	2.28	.670 x 1-7/8	2
.15	.670 x 1-5/8	2.28	.670 x 1-7/8	2
.18	.750 x 2-1/8	2.47	.750 x 2-1/8	2
.22	.750 x 2-1/8	2.47	.750 x 2-1/8	2
.27	.750 x 2-5/8	2.74	1.000 x 2-1/8	3
.33	.750 x 2-5/8	2.74	1.000 x 2-1/8	3
.39	1.000 x 2-1/8	3.08	1.000 x 2-3/8	3
.47	1.000 x 2-1/8	3.08	1.000 x 2-3/8	3

*Request O.E.M. Prices in the following quantities: 10-24, 25-49, 50-99, 100-499

AEROVOX CAPACITORS

INDUSTRIAL SECTION — STANDARD TYPES (Continued)

METALLIZED-PAPER CAPACITORS

TYPE P8292ZN PLASTIC-CASED, METALLIZED-PAPER TUBULARS

Featuring an exclusive "polycap" plastic-case construction, these capacitors offer outstanding resistance to humidity and improved insulation resistance. The high temperature impregnant permits operation over the temperature range of —30°C to +100°C at working voltage. Distinctive black cases are completely free of any wax coating to facilitate handling problems in automatic insertion and assembly equipment. Standard tolerance on these units is ±20%. Available in closer tolerances upon request at an additional charge. Mechanical Tolerances— ±1/16" on length and diameter.

For full technical information request Bulletin NPJ-113.

200 VDCW

Cap. Mfd.	D x L	Catalog Number	Net* Price
.01	1/4 x 19/32	P8292ZN6	$ .44
.02	1/4 x 21/32	P8292ZN7	.44
.03	5/16 x 23/32	P8292ZN8	.45
.05	5/16 x 23/32	P8292ZN9	.45
.1	3/8 x 23/32	P8292ZN10	.47
.25	1/2 x 23/32	P8292ZN11	.68
.5	7/16 x 1-5/32	P8292ZN12	.80
1.0	9/16 x 1-5/32	P8292ZN13	1.07
2.0	5/8 x 1-21/32	P8292ZN14	1.46

400 VDCW

Cap. Mfd.	D x L	Catalog Number	Net* Price
.01	5/16 x 23/32	P8292ZN15	.44
.02	3/8 x 23/32	P8292ZN16	.45
.03	3/8 x 23/32	P8292ZN17	.45
.05	7/16 x 23/32	P8292ZN18	.47
.1	7/16 x 1-5/32	P8292ZN19	.51
.25	9/16 x 1-5/32	P8292ZN20	.74
.5	5/8 x 1-15/32	P8292ZN21	.95
1.0	11/16 x 1-31/32	P8292ZN22	1.32
2.0	7/8 x 2-3/8	P8292ZN23	1.86

600 VDCW

Cap. Mfd.	D x L	Catalog Number	Net* Price
.01	3/8 x 23/32	P8292ZN24	.45
.02	3/8 x 23/32	P8292ZN25	.47
.03	7/16 x 23/32	P8292ZN26	.50
.05	1/2 x 23/32	P8292ZN27	.53
.1	7/16 x 1-5/32	P8292ZN28	.59
.25	5/8 x 1-5/32	P8292ZN29	.92
.5	11/16 x 1-19/32	P8292ZN30	1.15
1.0	13/16 x 2	P8292ZN31	1.43
2.0	1 x 2-3/8	P8292ZN32	2.03

TYPE P83Z Microminiatures

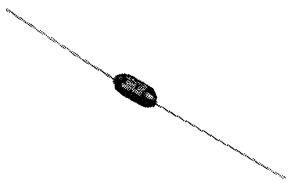
Ultra-small, new metallized paper dielectric capacitor particularly applicable in the electronic field to replace the low capacity paper units now being used. Hyvol K impregnated in humidity resistant molded thermo-plastic cases.
Standard Tolerance ±25%.

Cap. Mfd.	Voltage	Case Size (Inches) Dia. x Lgth.	Net* Price
.004	200 VDC	3/16 x 7/16	$.21
.005	200 VDC	3/16 x 7/16	.21
.01	200 VDC	3/16 x 7/16	.21
.02	200 VDC	1/4 x 9/16	.27
.04	200 VDC	1/4 x 9/16	.27
.002	400 VDC	3/16 x 7/16	.21
.003	400 VDC	1/4 x 9/16	.27
.008	400 VDC	1/4 x 9/16	.27
.01	400 VDC	1/4 x 9/16	.27
.0005	600 VDC	3/16 x 7/16	.21
.0008	600 VDC	3/16 x 7/16	.21
.001	600 VDC	3/16 x 7/16	.21
.002	600 VDC	1/4 x 9/16	.27
.0022	600 VDC	1/4 x 9/16	.27
.0047	600 VDC	1/4 x 9/16	.27
.005	600 VDC	1/4 x 9/16	.27

Operating temperature range —15°C to +85°C without derating.

TYPE P95ZN

Micro-Miniature Dipped Metallized Paper Capacitors



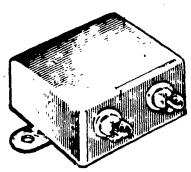
Aerovox Type P95ZN capacitors employ an entirely new internal construction concept and utilize a dipped resinous housing to produce remarkably small sizes. The dielectric is a distinct departure from conventional foil paper and previous metallized paper construction. This new and improved metallized dielectric provides both the dielectric and the electrodes. Since capacitance is predetermined mechanically in the initial processing, the human element is eliminated for capacitance control. In addition, the P95ZN offers unusually strong lead connections as the result of an exclusive Aerovox manufacturing process. Leads are hot tin-coated phosphor bronze.

These Aerovox micro-miniature capacitors are especially suited for applications where low capacity units are now being used.

Cat. No.	Capacity	Net Price*	Size	Cat. No.	Capacity	Net Price*	Size
	200 VDCW				600 VDCW		
P95ZN1	.004	.40	.217 x .473	P95ZN12	.00005	.40	.217 x .473
P95ZN2	.005	.40	.217 x .473	P95ZN13	.0001	.40	.217 x .473
P95ZN3	.01	.40	.217 x .473	P95ZN14	.0002	.40	.217 x .473
P95ZN4	.02	.50	.217 x .610	P95ZN15	.00025	.40	.217 x .473
P95ZN5	.03	.50	.256 x .610	P95ZN16	.0003	.40	.217 x .473
P95ZN6	.04	.50	.256 x .610	P95ZN17	.0005	.40	.217 x .473
P95ZN7	.05	.50	.256 x .610	P95ZN18	.001	.40	.217 x .473
	400 VDCW			P95ZN19	.002	.50	.256 x .610
P95ZN8	.002	.40	.217 x .473	P95ZN20	.003	.50	.256 x .610
P95ZN9	.003	.40	.217 x .473	P95ZN21	.004	.50	.256 x .610
P95ZN10	.005	.50	.217 x .610	P95ZN22	.005	.50	.256 x .610
P95ZN11	.01	.50	.256 x .610				

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499.

TYPE P30ZN High Temperature Bathtub Case



AEROVOX type P30ZN Aerolene impregnated metallized-paper capacitors housed in "bathtub" metal cases hermetically sealed. Operating temperature range —65°C. to +125°C. at full rating Standard Tolerance ±20%

Capacity	150 V	Net* Price	200 V	Net* Price	400 V	Net* Price	600 V	Net* Price
.1			1-3/4 x 1 x 3/4	2.15	1-3/4 x 1 x 3/4	2.30	1-3/4 x 1 x 3/4	2.37
.25			1-3/4 x 1 x 3/4	2.39	1-3/4 x 1 x 3/4	2.42	1-3/4 x 1 x 3/4	2.46
.5			1-3/4 x 1 x 3/4	2.44	1-3/4 x 1 x 3/4	2.58	1-3/4 x 1 x 3/4	2.60
1.0			1-3/4 x 1 x 3/4	2.86	1-3/4 x 1 x 7/8	2.96	1-3/4 x 1¼ x 7/8	3.26
2.0			1-3/4 x 1 x 3/4	3.53	2 x 1-3/4 x 13/16	3.74	2 x 2 x 7/8	3.85
3.0	1-3/4 x 1 x 3/4	3.29			2 x 1-3/4 x 15/16	4.21	2 x 2 x 1-1/8	5.45
4.0	1-3/4 x 1 x 3/4	3.95			2 x 2 x 1	4.97	2 x 2 x 1-1/4	6.53
5.0	1-3/4 x 1 x 3/4	4.39			2 x 2 x 1-1/4	5.99		
6.0	1-3/4 x 1¼ x 7/8	4.57						
8.0	2 x 1-3/4 x 3/4	5.29						
10.0	2 x 1-3/4 x 3/4	6.09						
12.0	2 x 2 x 7/8	6.82						
15.0	2 x 2 x 1	8.25						

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499

Net

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AEROVOX

CAPACITORS

INDUSTRIAL SECTION—STANDARD TYPES (Continued)
METALLIZED-PAPER

Metallized paper tubulars hermetically sealed in metal tubes with glass end seals soldered for positive moisture seal. Designed to meet critical operating temperatures and the need for increased reliability in the electronic field.
The P123ZN—Aerolene impregnated—is manufactured to meet operating temperature range of —55C to +100C at full voltage rating and +125C with voltage derating to 75%.
P123ZNG is case grounded. P123ZN is case insulated. Standard tolerance .01 mfd. and lower ±25%, .012 mfd. and up ±20%. Also available in ±10% and ±5% on special order. Units rated at 50 Volts are stocked at ±10%. These units are equivalent to characteristic M of MIL-C-18312. Suffix P denotes plastic tube; B denotes mtg. bracket (not available with plastic tube); T denotes threaded neck terminal.

TYPES P123ZN, P123ZNG
Metal-Cased Capacitors

MIL CONVERSION CHART

Type	
CH04A1M	P123ZN
CH04A3M	P123ZNG
CH05A1M	P123ZNP
CH05A3M	P123ZNGP

Voltage	
G	50V
C	200V
E	400V
F	600V

Capacity
First two figures are significant figures —third figure represents number of zeros to follow

Tolerance	
K	±10%
M	±20%

EXAMPLE

CH04A1M (P123ZN)	E (400V)	223 (.022)	K (±10%)

Capacity	P123ZN	Net Price*	P123ZNP	Net Price*	P123ZNG	Net Price*	P123ZNGP	Net Price*
50 Volts								
.047	.195 x 13/16	2.11	.257 x 7/8	2.19	.195 x 3/4	1.31	.257 x 13/16	1.39
.068	.195 x 13/16	2.13	.257 x 7/8	2.21	.195 x 3/4	1.33	.257 x 13/16	1.41
.1	.195 x 15/16	2.15	.257 x 1	2.23	.195 x 7/8	1.35	.257 x 15/16	1.43
.15	.235 x 15/16	2.18	.297 x 1	2.26	.235 x 7/8	1.38	.297 x 15/16	1.46
.22	.312 x 13/16	2.22	.374 x 7/8	2.30	.312 x 3/4	1.42	.374 x 13/16	1.50
.33	.312 x 1-1/8	2.27	.374 x 1-3/16	2.35	.312 x 1-1/16	1.47	.374 x 1-1/8	1.55
.47	.312 x 1-3/16	2.34	.374 x 1-1/4	2.42	.312 x 1-1/8	1.54	.374 x 1-3/16	1.62
.68	.400 x 1-1/8	2.54	.462 x 1-3/16	2.62	.400 x 1-1/16	1.73	.462 x 1-1/8	1.81
1.0	.400 x 1-5/16	2.75	.462 x 1-3/8	2.83	.400 x 1-1/4	1.95	.462 x 1-5/16	2.03
1.5	.500 x 1-1/8	3.08	.562 x 1-3/16	3.16	.500 x 1-1/16	2.28	.562 x 1-1/8	2.36
2.0	.562 x 1-5/16	3.41	.624 x 1-3/8	3.49	.562 x 1-1/4	2.61	.624 x 1-5/16	2.69
3.0	.562 x 1-7/16	3.86	.624 x 1-1/2	3.94	.562 x 1-3/8	3.06	.624 x 1-7/16	3.14
4.0	.670 x 1-7/16	4.31	.732 x 1-1/2	4.39	.670 x 1-3/8	3.51	.732 x 1-7/16	3.59
200 Volts								
.0005	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.001	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.002	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.003	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.005	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.01	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.012	.195 x 5/8	1.36	.257 x 11/16	1.39	.195 x 9/16	1.01	.257 x 5/8	1.04
.015	.195 x 5/8	1.36	.257 x 11/16	1.39	.195 x 9/16	1.01	.257 x 5/8	1.04
.018	.195 x 5/8	1.36	.257 x 11/16	1.39	.195 x 9/16	1.01	.257 x 5/8	1.04
.02	.195 x 5/8	1.36	.257 x 11/16	1.39	.195 x 9/16	1.01	.257 x 5/8	1.04
.022	.195 x 5/8	1.36	.257 x 11/16	1.39	.195 x 9/16	1.01	.257 x 5/8	1.04
.027	.235 x 5/8	1.37	.297 x 11/16	1.40	.235 x 9/16	1.02	.297 x 5/8	1.05
.033	.235 x 5/8	1.38	.297 x 11/16	1.41	.235 x 9/16	1.03	.297 x 5/8	1.06
.039	.235 x 11/16	1.40	.297 x 3/4	1.43	.235 x 5/8	1.05	.297 x 11/16	1.08
.04	.235 x 3/4	1.42	.297 x 13/16	1.45	.235 x 5/8	1.07	.297 x 11/16	1.10
.047	.235 x 3/4	1.42	.297 x 13/16	1.45	.235 x 5/8	1.07	.297 x 11/16	1.10
.05	.235 x 3/4	1.42	.297 x 13/16	1.45	.235 x 5/8	1.07	.297 x 11/16	1.10
.056	.235 x 13/16	1.43	.297 x 7/8	1.46	.235 x 3/4	1.08	.297 x 13/16	1.11
.068	.312 x 13/16	1.45	.374 x 7/8	1.48	.312 x 3/4	1.10	.374 x 13/16	1.13
.082	.312 x 13/16	1.46	.374 x 7/8	1.49	.312 x 3/4	1.11	.374 x 13/16	1.14
.1	.312 x 13/16	1.48	.374 x 7/8	1.51	.312 x 3/4	1.13	.374 x 13/16	1.16
.12	.312 x 1-1/8	1.49	.374 x 3/16	1.52	.312 x 1-1/16	1.14	.374 x 1-1/8	1.17
.15	.312 x 1-1/8	1.49	.374 x 1-3/16	1.52	.312 x 1-1/16	1.14	.374 x 1-1/8	1.17
.18	.312 x 1-1/8	1.50	.374 x 1-3/16	1.53	.312 x 1-1/16	1.15	.374 x 1-1/8	1.18
.2	.312 x 1-1/8	1.50	.374 x 1-3/16	1.53	.312 x 1-1/16	1.15	.374 x 1-1/8	1.18
.22	.312 x 1-1/8	1.50	.374 x 1-3/16	1.53	.312 x 1-1/16	1.15	.374 x 1-1/8	1.18
.25	.312 x 1-1/8	1.62	.374 x 1-3/16	1.65	.312 x 1-1/16	1.27	.374 x 1-1/8	1.30
.27	.400 x 1-1/8	1.62	.462 x 1-3/16	1.65	.400 x 1-1/16	1.27	.462 x 1-1/8	1.30
.33	.400 x 1-1/8	1.62	.462 x 1-3/16	1.65	.400 x 1-1/16	1.27	.462 x 1-1/8	1.30
.39	.400 x 1-1/8	1.70	.462 x 1-3/16	1.73	.400 x 1-1/16	1.35	.462 x 1-1/8	1.38
.47	.400 x 1-1/8	1.71	.462 x 1-3/16	1.74	.400 x 1-1/16	1.36	.462 x 1-1/8	1.39
.5	.400 x 1-1/8	1.73	.462 x 1-3/16	1.76	.400 x 1-1/16	1.38	.462 x 1-1/8	1.41
.56	.500 x 1-1/8	1.73	.562 x 1-3/16	1.77	.500 x 1-1/16	1.38	.562 x 1-1/8	1.41
.68	.500 x 1-1/8	1.78	.562 x 1-3/16	1.82	.500 x 1-1/16	1.43	.562 x 1-1/8	1.47
.82	.562 x 1-1/8	1.90	.624 x 1-3/16	1.94	.562 x 1-1/16	1.55	.624 x 1-1/8	1.59
1.0	.562 x 1-1/8	1.92	.624 x 1-3/16	1.96	.562 x 1-1/16	1.57	.624 x 1-1/8	1.61
1.5	.562 x 1-5/8	2.73	.624 x 1-11/16	2.77	.562 x 1-9/16	2.38	.624 x 1-5/8	2.42
2.0	.562 x 1-7/8	2.73	.624 x 1-15/16	2.77	.562 x 1-13/16	2.38	.624 x 1-7/8	2.42
3.0	.670 x 1-7/8	3.62	.732 x 1-15/16	3.66	.670 x 1-13/16	3.27	.732 x 1-7/8	3.31
4.0	.750 x 1-7/8	3.89	.812 x 1-15/16	3.95	.750 x 1-13/16	3.54	.812 x 1-7/8	3.60
5.0	1.000 x 1-7/8	4.10	1.062 x 1-15/16	4.16	1.000 x 1-13/16	3.75	1.062 x 1-7/8	3.81
6.0	1.000 x 1-7/8	4.31	1.062 x 1-15/16	4.37	1.000 x 1-13/16	3.96	1.062 x 1-7/8	4.02
400 Volts								
.0005	.235 x 1/2	1.36	.297 x 9/16	1.39	.235 x 7/16	1.01	.297 x 1/2	1.04
.001	.235 x 1/2	1.36	.297 x 9/16	1.39	.235 x 7/16	1.01	.297 x 1/2	1.04
.002	.235 x 1/2	1.36	.297 x 9/16	1.39	.235 x 7/16	1.01	.297 x 1/2	1.04
.003	.235 x 5/8	1.39	.297 x 11/16	1.42	.235 x 9/16	1.04	.297 x 5/8	1.07
.005	.235 x 5/8	1.42	.297 x 11/16	1.45	.235 x 9/16	1.07	.297 x 5/8	1.07
.01	.235 x 5/8	1.42	.297 x 11/16	1.45	.235 x 9/16	1.07	.297 x 5/8	1.10
.012	.235 x 13/16	1.42	.297 x 7/8	1.45	.235 x 3/4	1.07	.297 x 13/16	1.1
.015	.235 x 13/16	1.42	.297 x 7/8	1.45	.235 x 3/4	1.07	.297 x 13/16	1.1
.018	.235 x 13/16	1.42	.297 x 7/8	1.45	.235 x 3/4	1.07	.297 x 13/16	1.1
.02	.235 x 13/16	1.42	.297 x 7/8	1.45	.235 x 3/4	1.07	.297 x 13/16	1.1
.022	.235 x 13/16	1.43	.297 x 7/8	1.46	.235 x 3/4	1.08	.297 x 13/16	1.1
.027	.312 x 13/16	1.43	.374 x 7/8	1.46	.312 x 3/4	1.08	.374 x 13/16	1.1
.033	.312 x 13/16	1.43	.374 x 7/8	1.46	.312 x 3/4	1.08	.374 x 13/16	1.1
.039	.312 x 1-1/8	1.43	.374 x 1-3/16	1.46	.312 x 1-1/16	1.08	.374 x 1-1/8	1.1
.04	.312 x 1-1/8	1.43	.374 x 1-3/16	1.46	.312 x 1-1/16	1.08	.374 x 1-1/8	1.1
.047	.312 x 1-1/8	1.43	.374 x 1-3/16	1.46	.312 x 1-1/16	1.08	.374 x 1-1/8	1.1
.05	.312 x 1-1/8	1.43	.374 x 1-3/16	1.46	.312 x 1-1/16	1.08	.374 x 1-1/8	1.1
.056	.312 x 1-1/8	1.50	.374 x 1-3/16	1.53	.312 x 1-1/16	1.15	.374 x 1-1/8	1.1
.068	.312 x 1-1/8	1.53	.374 x 1-3/16	1.56	.312 x 1-1/16	1.18	.374 x 1-1/8	1.2
.082	.400 x 1-1/8	1.54	.462 x 1-3/16	1.57	.400 x 1-1/16	1.19	.462 x 1-1/8	1.2
.1	.400 x 1-1/8	1.55	.462 x 1-3/16	1.58	.400 x 1-1/16	1.20	.462 x 1-1/8	1.2
.12	.500 x 1-1/8	1.60	.562 x 1-3/16	1.64	.500 x 1-1/16	1.25	.562 x 1-1/8	1.2
.15	.500 x 1-1/8	1.63	.562 x 1-3/16	1.67	.500 x 1-1/16	1.28	.562 x 1-1/8	1.3
.18	.500 x 1-1/8	1.64	.562 x 1-3/16	1.68	.500 x 1-1/16	1.29	.562 x 1-1/8	1.3
.2	.500 x 1-1/8	1.64	.562 x 1-3/16	1.68	.500 x 1-1/16	1.29	.562 x 1-1/8	1.3
.22	.500 x 1-1/8	1.64	.562 x 1-3/16	1.68	.500 x 1-1/16	1.29	.562 x 1-1/8	1.3
.25	.500 x 1-1/8	1.81	.562 x 1-3/16	1.85	.500 x 1-1/16	1.46	.562 x 1-1/8	1.3
.27	.562 x 1-1/8	1.81	.624 x 1-3/16	1.85	.562 x 1-1/16	1.46	.624 x 1-1/8	1.3
.33	.562 x 1-3/8	1.81	.624 x 1-7/16	1.85	.562 x 1-5/16	1.46	.624 x 1-3/8	1.
.39	.562 x 1-5/8	1.90	.624 x 1-11/16	1.94	.562 x 1-9/16	1.55	.624 x 1-5/8	1.
.47	.562 x 1-5/8	1.94	.624 x 1-11/16	1.98	.562 x 1-9/16	1.59	.624 x 1-5/8	1.
.5	.562 x 1-5/8	2.14	.624 x 1-11/16	2.18	.562 x 1-9/16	1.79	.624 x 1-5/8	1.
.56	.670 x 1-5/8	2.14	.723 x 1-11/16	2.18	.670 x 1-9/16	1.82	.732 x 1-5/8	1.
.68	.670 x 1-5/8	2.17	.732 x 1-11/16	2.21	.670 x 1-9/16	1.82	.732 x 1-5/8	1.
.82	.670 x 1-7/8	2.30	.732 x 1-15/16	2.34	.670 x 1-13/16	1.95	.732 x 1-7/8	1.
1.0	.670 x 2-1/8	2.31	.732 x 2-3/16	2.35	.670 x 2-1/16	1.96	.732 x 2-1/8	2.
1.5	.750 x 2-3/8	3.00	.812 x 2-7/16	3.06	.750 x 2-5/16	2.65	.812 x 2-3/8	2.
2.0	1.000 x 1-7/8	3.51	1.062 x 1-15/16	3.57	1.000 x 1-13/16	3.16	1.062 x 1-7/8	3.
600 Volts								
.0005	.235 x 1/2	1.40	.297 x 9/16	1.43	.235 x 7/16	1.05	.297 x 1/2	1
.001	.235 x 5/8	1.40	.297 x 11/16	1.43	.235 x 9/16	1.05	.297 x 5/8	1
.002	.235 x 5/8	1.40	.297 x 11/16	1.43	.235 x 9/16	1.05	.297 x 5/8	1
.003	.235 x 5/8	1.43	.297 x 11/16	1.46	.235 x 9/16	1.08	.297 x 5/8	1
.005	.235 x 5/8	1.45	.297 x 11/16	1.48	.235 x 9/16	1.10	.297 x 5/8	1
.01	.235 x 13/16	1.45	.297 x 7/8	1.48	.235 x 3/4	1.10	.297 x 13/16	1
.012	.312 x 13/16	1.46	.374 x 7/8	1.49	.312 x 3/4	1.11	.374 x 13/16	1
.015	.312 x 13/16	1.46	.374 x 7/8	1.49	.312 x 3/4	1.11	.374 x 13/16	1
.018	.312 x 13/16	1.46	.374 x 7/8	1.49	.312 x 3/4	1.11	.374 x 13/16	1
.02	.312 x 13/16	1.46	.374 x 7/8	1.49	.312 x 3/4	1.11	.374 x 13/16	1
.022	.312 x 13/16	1.48	.374 x 7/8	1.51	.312 x 3/4	1.13	.374 x 13/16	1
.027	.400 x 13/16	1.48	.462 x 7/8	1.51	.400 x 3/4	1.13	.462 x 13/16	1
.033	.400 x 13/16	1.48	.462 x 7/8	1.51	.400 x 3/4	1.13	.462 x 13/16	1
.039	.400 x 13/16	1.49	.462 x 7/8	1.52	.400 x 3/4	1.14	.462 x 13/16	1
.04	.400 x 13/16	1.49	.462 x 7/8	1.52	.400 x 3/4	1.14	.462 x 13/16	1
.047	.400 x 13/16	1.50	.462 x 7/8	1.53	.400 x 3/4	1.15	.462 x 13/16	1
.05	.400 x 13/16	1.50	.462 x 7/8	1.53	.400 x 3/4	1.15	.462 x 13/16	1
.056	.400 x 1-1/8	1.55	.462 x 1-3/16	1.58	.400 x 1-1/16	1.20	.462 x 1-1/8	1
.068	.400 x 1-1/8	1.57	.462 x 1-3/16	1.60	.400 x 1-1/16	1.22	.462 x 1-1/8	1
.082	.400 x 1-1/8	1.60	.462 x 1-3/16	1.63	.400 x 1-1/16	1.25	.462 x 1-1/8	1
.1	.400 x 1-1/8	1.61	.462 x 1-3/16	1.64	.400 x 1-1/16	1.26	.462 x 1-1/8	1
.12	.500 x 1-1/8	1.70	.562 x 1-3/16	1.74	.500 x 1-1/16	1.35	.562 x 1-1/8	1
.15	.500 x 1-1/8	1.75	.562 x 1-3/16	1.79	.500 x 1-1/16	1.40	.562 x 1-1/8	1
.18	.562 x 1-1/8	1.81	.624 x 1-3/16	1.85	.562 x 1-1/16	1.46	.624 x 1-1/8	1
.2	.562 x 1-3/8	1.85	.624 x 1-7/16	1.89	.562 x 1-5/16	1.50	.624 x 1-3/8	1
.22	.562 x 1-3/8	1.88	.624 x 1-7/16	1.92	.562 x 1-5/16	1.53	.624 x 1-3/8	1
.25	.562 x 1-3/8	1.91	.624 x 1-7/16	1.95	.562 x 1-5/16	1.56	.624 x 1-3/8	1
.27	.670 x 1-5/8	1.91	.624 x 1-11/16	1.95	.562 x 1-9/16	1.56	.624 x 1-5/8	1
.33	.562 x 1-5/8	2.09	.624 x 1-11/16	2.13	.562 x 1-9/16	1.74	.624 x 1-5/8	1
.39	.670 x 1-5/8	2.18	.732 x 1-11/16	2.22	.670 x 1-9/16	1.83	.732 x 1-5/8	1
.47	.670 x 1-5/8	2.21	.732 x 1-11/16	2.25	.670 x 1-9/16	1.86	.732 x 1-5/8	1
.5	.670 x 1-7/8	2.33	.732 x 1-15/16	2.37	.670 x 1-13/16	1.98	.732 x 1-7/8	1
.56	.670 x 1-7/8	2.33	.732 x 1-15/16	2.37	.670 x 1-13/16	1.98	.732 x 1-7/8	1
.68	.670 x 1-7/8	2.35	.732 x 1-15/16	2.39	.670 x 1-13/16	2.00	.732 x 1-7/8	1
.82	.750 x 2-3/8	2.48	.812 x 2-7/16	2.54	.750 x 2-5/16	2.13	.812 x 2-3/8	1
1.0	.750 x 2-3/8	2.49	.812 x 2-7/16	2.55	.750 x 2-5/16	2.14	.812 x 2-3/8	1
1.5	1.000 x 1-7/8	3.01	1.062 x 1-15/16	3.07	1.000 x 1-13/16	2.66	1.062 x 1-7/8	1
2.0	1.000 x 2-3/8	3.54	1.062 x 2-7/16	3.60	1.000 x 2-5/16	3.19	1.062 x 2-3/8	1

*Request O.E.M. Prices in the following quantities: 25-99. 100-499

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AEROVOX CAPACITORS

INDUSTRIAL SECTION — STANDARD TYPES (cont.)
METALLIZED PAPER

TYPE P323ZN

125°C, No Derating

Metal-Cased, Metallized-Paper Tubulars Similar to CH04 and CH05 —

MIL-C-18312

Characteristic N

Refer to previous page for MIL conversion chart.

Miniature, hermetically-sealed in metal cases with glass terminal end-seal, Type P323ZN units are designed for operation at temperatures from —55°C to +125°C WITHOUT DERATING for voltage. They will meet all the requirements for minimum size, light weight and high temperature in present day electronic equipments. Designed for long life, rugged duty and high reliability operation in critical military and premium priced commercial electronic assemblies. Standard tolerance is ±20%. Closer tolerance available on special order.

200 VDCW

Capacity Mfd.	P323ZN Case Floating		P323ZNP Case Floating Plastic Insulating Sleeve		P323ZNG Case Grounded		P323ZNGP Case Grounded Plastic Insulating Sleeve	
	Size	Net Price*	Size	Net Price*	Size	Net Price*	Size	Net Price*
.01	.175 x 1/2	1.51	.237 x 5/8	1.59	.175 x 7/16	1.16	.237 x 1/2	1.24
.012	.195 x 5/8	1.51	.257 x 11/16	1.59	.195 x 9/16	1.16	.257 x 5/8	1.24
.015	.195 x 5/8	1.51	.257 x 11/16	1.59	.195 x 9/16	1.16	.257 x 5/8	1.24
.018	.235 x 5/8	1.51	.297 x 11/16	1.59	.235 x 9/16	1.16	.297 x 5/8	1.24
.022	.235 x 5/8	1.51	.297 x 11/16	1.59	.235 x 9/16	1.16	.297 x 5/8	1.24
.027	.235 x 5/8	1.51	.297 x 11/16	1.59	.235 x 9/16	1.16	.297 x 5/8	1.24
.033	.235 x 3/4	1.53	.297 x 13/16	1.61	.235 x 11/16	1.18	.297 x 3/4	1.26
.039	.235 x 13/16	1.53	.297 x 7/8	1.61	.235 x 3/4	1.18	.297 x 13/16	1.26
.047	.235 x 13/16	1.57	.297 x 7/8	1.65	.235 x 3/4	1.22	.297 x 13/16	1.30
.056	.235 x 13/16	1.57	.297 x 7/8	1.65	.235 x 3/4	1.22	.297 x 13/16	1.30
.068	.312 x 13/16	1.61	.374 x 7/8	1.69	.312 x 3/4	1.26	.374 x 13/16	1.34
.082	.312 x 13/16	1.61	.374 x 7/8	1.69	.312 x 3/4	1.26	.374 x 13/16	1.34
.1	.312 x 13/16	1.63	.374 x 7/8	1.71	.312 x 3/4	1.28	.374 x 13/16	1.36
.12	.312 x 1-1/8	1.63	.374 x 1-3/16	1.71	.312 x 1-1/16	1.28	.374 x 1-1/8	1.36
.15	.312 x 1-1/8	1.67	.374 x 1-3/16	1.75	.312 x 1-1/16	1.32	.374 x 1-1/8	1.40
.18	.400 x 7/8	1.67	.462 x 15/16	1.75	.400 x 13/16	1.32	.462 x 7/8	1.40
.22	.400 x 7/8	1.67	.462 x 15/16	1.75	.400 x 13/16	1.32	.462 x 7/8	1.40
.27	.400 x 1-1/8	1.67	.462 x 1-3/16	1.75	.400 x 1-1/16	1.32	.462 x 1-1/8	1.40
.33	.400 x 1-1/8	1.82	.462 x 1-3/16	1.90	.400 x 1-1/16	1.47	.462 x 1-1/8	1.55
.39	.400 x 1-1/8	1.82	.462 x 1-3/16	1.90	.400 x 1-1/16	1.47	.462 x 1-1/8	1.55
.47	.500 x 1-1/8	1.93	.562 x 1-3/16	2.01	.500 x 1-1/16	1.58	.562 x 1-1/8	1.66
.56	.500 x 1-1/8	1.93	.562 x 1-3/16	2.01	.500 x 1-1/16	1.58	.562 x 1-1/8	1.66
.68	.500 x 1-1/8	2.00	.562 x 1-3/16	2.08	.500 x 1-1/16	1.65	.562 x 1-1/8	1.73
.82	.562 x 1-1/8	2.00	.624 x 1-3/16	2.08	.562 x 1-1/16	1.65	.624 x 1-1/8	1.73
.0	.562 x 1-1/8	2.15	.624 x 1-3/16	2.23	.562 x 1-1/16	1.80	.624 x 1-1/8	1.88
.5	.562 x 1-5/8	3.22	.624 x 1-11/16	3.30	.562 x 1-9/16	2.87	.624 x 1-5/8	2.95
.0	.670 x 1-5/8	3.90	.732 x 1-11/16	3.98	.670 x 1-9/16	3.55	.732 x 1-5/8	3.63
.0	.670 x 1-7/8	4.26	.732 x 1-15/16	4.34	.670 x 1-13/16	3.91	.732 x 1-7/8	3.99
.0	.750 x 1-7/8	5.09	.812 x 1-15/16	5.17	.750 x 1-13/16	4.73	.812 x 1-7/8	4.81
0	1.000 x 1-7/8	5.61	1.062 x 1-15/16	5.69	1.000 x 1-13/16	5.26	1.062 x 1-7/8	5.34
0	1.000 x 1-7/8	6.03	1.062 x 1-15/16	6.11	1.000 x 1-13/16	5.68	1.062 x 1-7/8	5.76
0	1.000 x 1-7/8	6.23	1.062 x 1-15/16	6.31	1.000 x 1-13/16	5.87	1.062 x 1-7/8	5.95
0	1.000 x 2-3/8	7.97	1.062 x 2-7/16	8.05	1.000 x 2-5/16	7.62	1.062 x 2-3/8	7.70
0	1.000 x 2-5/8	8.87	1.062 x 2-11/16	8.95	1.000 x 2-9/16	8.52	1.062 x 2-5/8	8.60

*Request O.E.M. Prices in the following quantities: 25-99, 100-499

400 VDCW

Capacity Mfd.	P323ZN Case Floating		P323ZNP Case Floating Plastic Insulating Sleeve		P323ZNG Case Grounded		P323ZNGP Case Grounded Plastic Insulating Sleeve	
	Size	Net Price*	Size	Net Price*	Size	Net Price*	Size	Net Price*
.001	.235 x 3/4	1.56	.297 x 13/16	1.64	.235 x 11/16	1.21	.297 x 3/4	1.29
.0022	.235 x 3/4	1.56	.297 x 13/16	1.64	.235 x 11/16	1.21	.297 x 3/4	1.29
.0047	.235 x 3/4	1.56	.297 x 13/16	1.64	.235 x 11/16	1.21	.297 x 3/4	1.29
.01	.235 x 3/4	1.56	.297 x 13/16	1.64	.235 x 11/16	1.21	.297 x 3/4	1.29
.012	.235 x 13/16	1.56	.297 x 7/8	1.64	.235 x 3/4	1.21	.297 x 13/16	1.29
.015	.235 x 13/16	1.56	.297 x 7/8	1.64	.235 x 3/4	1.21	.297 x 13/16	1.29
.018	.312 x 13/16	1.60	.374 x 7/8	1.68	.312 x 3/4	1.25	.374 x 13/16	1.33
.022	.312 x 13/16	1.61	.374 x 7/8	1.69	.312 x 3/4	1.26	.374 x 13/16	1.34
.027	.312 x 13/16	1.61	.374 x 7/8	1.69	.312 x 3/4	1.26	.374 x 13/16	1.34
.033	.312 x 13/16	1.61	.374 x 7/8	1.69	.312 x 3/4	1.26	.374 x 13/16	1.34
.039	.312 x 1-1/8	1.61	.374 x 1-3/16	1.69	.312 x 1-1/16	1.26	.374 x 1-1/8	1.34
.047	.312 x 1-1/8	1.61	.374 x 1-3/16	1.69	.312 x 1-1/16	1.26	.374 x 1-1/8	1.34
.056	.312 x 1-1/8	1.64	.374 x 1-3/16	1.72	.312 x 1-1/16	1.29	.374 x 1-1/8	1.37
.068	.400 x 1-1/8	1.69	.462 x 1-3/16	1.77	.400 x 1-1/16	1.34	.462 x 1-1/8	1.42
.082	.400 x 1-1/8	1.70	.462 x 1-3/16	1.78	.400 x 1-1/16	1.35	.462 x 1-1/8	1.43
.1	.400 x 1-1/8	1.74	.462 x 1-3/16	1.82	.400 x 1-1/16	1.39	.462 x 1-1/8	1.47
.12	.500 x 1-1/8	1.79	.562 x 1-3/16	1.87	.500 x 1-1/16	1.44	.562 x 1-1/8	1.52
.15	.500 x 1-1/8	1.84	.562 x 1-3/16	1.92	.500 x 1-1/16	1.49	.562 x 1-1/8	1.57
.18	.500 x 1-1/8	1.88	.562 x 1-3/16	1.96	.500 x 1-1/16	1.53	.562 x 1-1/8	1.61
.22	.562 x 1-1/8	1.91	.624 x 1-3/16	1.99	.562 x 1-1/16	1.56	.624 x 1/1/8	1.64
.27	.562 x 1-1/8	1.97	.624 x 1-3/16	2.05	.562 x 1-1/16	1.62	.624 x 1-1/8	1.70
.33	.562 x 1-3/8	2.11	.624 x 1-7/16	2.19	.562 x 1-5/16	1.76	.624 x 1-3/8	1.84
.39	.562 x 1-5/8	2.19	.624 x 1-11/16	2.27	.562 x 1-9/16	1.84	.624 x 1-5/8	1.92
.47	.562 x 1-5/8	2.34	.624 x 1-11/16	2.42	.562 x 1-9/16	1.99	.624 x 1-5/8	2.07
.56	.670 x 1-5/8	2.49	.732 x 1-11/16	2.57	.670 x 1-9/16	2.14	.732 x 1-5/8	2.22
.68	.670 x 1-7/8	2.68	.732 x 1-15/16	2.76	.670 x 1-13/16	2.33	.732 x 1-7/8	2.41
.82	.750 x 1-7/8	2.85	.812 x 1-15/16	2.93	.750 x 1-13/16	2.50	.812 x 1-7/8	2.58
1.0	.750 x 1-7/8	2.94	.812 x 1-15/16	3.02	.750 x 1-13/16	2.59	.812 x 1-7/8	2.67
1.5	1.000 x 1-7/8	3.90	1.062 x 1-15/16	3.98	1.000 x 1-13/16	3.55	1.062 x 1-7/8	3.63
2.0	1.000 x 1-7/8	4.86	1.062 x 1-15/16	4.94	1.000 x 1-13/16	4.51	1.062 x 1-7/8	4.59

600 VDCW

.001	.235 x 3/4	1.62	.297 x 13/16	1.70	.235 x 11/16	1.27	.297 x 3/4	1.35
.0022	.235 x 3/4	1.62	.297 x 13/16	1.70	.235 x 11/16	1.27	.297 x 3/4	1.35
.0047	.235 x 3/4	1.62	.297 x 13/16	1.70	.235 x 11/16	1.27	.297 x 3/4	1.35
.01	.312 x 13/16	1.62	.374 x 7/8	1.70	.312 x 3/4	1.27	.374 x 13/16	1.35
.012	.312 x 13/16	1.63	.374 x 7/8	1.71	.312 x 3/4	1.28	.374 x 13/16	1.36
.015	.312 x 13/16	1.63	.374 x 7/8	1.71	.312 x 3/4	1.28	.374 x 13/16	1.36
.018	.312 x 13/16	1.64	.374 x 7/8	1.72	.312 x 3/4	1.29	.374 x 13/16	1.37
.022	.312 x 13/16	1.64	.374 x 7/8	1.72	.312 x 3/4	1.29	.374 x 13/16	1.37
.027	.312 x 1-1/8	1.64	.374 x 1-3/16	1.72	.312 x 1-1/16	1.29	.374 x 1-1/8	1.37
.033	.312 x 1-1/8	1.64	.374 x 1-3/16	1.72	.312 x 1-1/16	1.29	.374 x 1-1/8	1.37
.039	.400 x 1-1/8	1.64	.462 x 1-3/16	1.72	.400 x 1-1/16	1.29	.462 x 1-1/8	1.37
.047	.400 x 1-1/8	1.66	.462 x 1-3/16	1.74	.400 x 1-1/16	1.31	.462 x 1-1/8	1.39
.056	.400 x 1-1/8	1.70	.462 x 1-3/16	1.78	.400 x 1-1/16	1.35	.462 x 1-1/8	1.43
.068	.400 x 1-1/8	1.77	.462 x 1-3/16	1.85	.400 x 1-1/16	1.42	.462 x 1-1/8	1.50
.082	.500 x 1-1/8	1.79	.562 x 1-3/16	1.87	.500 x 1-1/16	1.43	.562 x 1-1/8	1.51
.1	.500 x 1-1/8	1.79	.562 x 1-3/16	1.87	.500 x 1-1/16	1.43	.562 x 1-1/8	1.51
.12	.500 x 1-1/8	1.90	.562 x 1-3/16	1.98	.500 x 1-1/16	1.55	.562 x 1-1/8	1.63
.15	.500 x 1-1/8	2.00	.562 x 1-3/16	2.08	.500 x 1-1/16	1.65	.562 x 1-1/8	1.73
.18	.562 x 1-1/8	2.09	.624 x 1-3/16	2.17	.562 x 1-1/16	1.74	.624 x 1-1/8	1.82
.22	.562 x 1-3/8	2.16	.624 x 1-7/16	2.24	.562 x 1-5/16	1.81	.624 x 1-3/8	1.89
.27	.562 x 1-5/8	2.34	.624 x 1-11/16	2.42	.562 x 1-9/16	1.99	.624 x 1-5/8	2.07
.33	.562 x 1-5/8	2.46	.624 x 1-11/16	2.54	.562 x 1-9/16	2.11	.624 x 1-5/8	2.19
.39	.670 x 1-5/8	2.57	.732 x 1-11/16	2.65	.670 x 1-9/16	2.22	.732 x 1-5/8	2.30
.47	.670 x 1-5/8	2.68	.732 x 1-11/16	2.76	.670 x 1-9/16	2.33	.732 x 1-5/8	2.41
.56	.670 x 1-7/8	2.79	.732 x 1-15/16	2.87	.670 x 1-13/16	2.44	.732 x 1-7/8	2.52
.68	.670 x 1-7/8	2.94	.732 x 1-15/16	3.02	.670 x 1-13/16	2.59	.732 x 1-7/8	2.67
.82	1.000 x 1-7/8	3.35	1.062 x 1-15/16	3.43	1.000 x 1-13/16	2.99	1.062 x 1-7/8	3.07
1.0	1.000 x 1-7/8	3.42	1.062 x 1-15/16	3.50	1.000 x 1-13/16	3.07	1.062 x 1-7/8	3.15
1.5	1.000 x 1-7/8	4.19	1.062 x 1-15/16	4.27	1.000 x 1-13/16	3.83	1.062 x 1-7/8	3.91
2.0	1.000 x 2-3/8	5.16	1.062 x 2-7/16	5.24	1.000 x 2-5/16	4.81	1.062 x 2-3/8	4.89

Net

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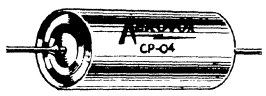
AEROVOX

CAPACITORS



INDUSTRIAL SECTION — MIL TYPES

MIL-C-25C

TYPES CP04 and CP05 — Characteristics K Vibration Grades 1 and 3

Hermetically sealed tubular capacitors with glass terminal seal and axial wire leads. CP04 and CP05 are inserted tab construction; CP08 and CP09 are extended foil construction. Standard tolerance is ±10% (K). Specify Vibration Grade when ordering.

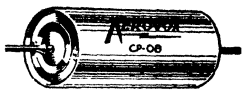
		CP04, CHAR. K				CP05, CHAR. K			
		P323S		P323SG		P323SP		P323SGP	
				NO TUBE				PLASTIC TUBE	
CAPACITY	VOLTAGE	Case Floating	Net Price*	Case Grounded	Net Price*	Case Floating	Net Price*	Case Grounded	Net Price*
.027	100V	CP04A1KB273K–	.78	CP04A3KB273K–	.66	CP05A1KB273K–	.84	CP05A3KB273K–	.72
.033	100V	CP04A1KB333K–	.78	C P04A3KB333K–	.66	CP05A1KB333K–	.84	CP05A3KB333K–	.72
.082	100V	CP04A1KB823K–	1.08	CP04A3KB823K–	.87	CP05A1KB823K–	1.14	CP05A3KB823K–	.93
.1	100V	CP04A1KB104K–	1.08	CP04A3KB104K–	.87	CP05A1KB104K–	1.14	CP05A3KB104K–	.93
.12	100V	CP04A1KB124K–	1.14	CP04A3KB124K–	.93	CP05A1KB124K–	1.20	CP05A3KB124K–	.99
.15	100V	CP04A1KB154K–	1.17	CP04A3KB154K–	.93	CP05A1KB154K–	1.23	CP05A3KB154K–	.99
.18	100V	CP04A1KB184K–	1.23	CP04A3KB184K–	1.02	CP05A1KB184K–	1.29	CP05A3KB184K–	1.08
.22	100V	CP04A1KB224K–	1.29	CP04A3KB224K–	1.08	CP05A1KB224K–	1.35	CP05A3KB224K–	1.14
.27	100V	CP04A1KB274K–	1.35	CP04A3KB274K–	1.14	CP05A1KB274K–	1.41	CP05A3KB274K–	1.20
.33	100V	CP04A1KB334K–	1.44	CP04A3KB334K–	1.23	CP05A1KB334K–	1.50	CP05A3KB334K–	1.29
.39	100V	CP04A1KB394K–	1.50	CP04A3KB394K–	1.29	CP05A1KB394K–	1.59	CP05A3KB394K–	1.38
.47	100V	CP04A1KB474K–	1.56	CP04A3KB474K–	1.35	CP05A1KB474K–	1.65	CP05A3KB474K–	1.44
.56	100V	CP04A1KB564K–	1.59	CP04A3KB564K–	1.38	CP05A1KB564K–	1.68	CP05A3KB564K–	1.47
.68	100V	CP04A1KB684K–	1.65	CP04A3KB684K–	1.44	CP05A1KB684K–	1.74	CP05A3KB684K–	1.53
.82	100V	CP04A1KB824K–	1.71	CP04A3KB824K–	1.50	CP05A1KB824K–	1.80	CP05A3KB824K–	1.59
1.0	100V	CP04A1KB105K–	1.77	CP04A3KB105K–	1.56	CP05A1KB105K–	1.86	CP05A3KB105K–	1.65
.012	200V	CP04A1K C123K–	.78	CP04A3KC123K–	.66	CP05A1KC123K–	.84	CP05A3KC123K–	.72
.015	200V	CP04A1KC153K–	.78	CP04A3KC153K–	.66	CP05A1KC153K–	.84	CP05A3KC153K–	.72
.018	200V	CP04A1KC183K–	.78	CP04A3KC183K–	.66	CP05A1KC183K–	.84	CP05A3KC183K–	.72
.022	200V	CP 04A1KC223K–	.84	CP04A3KC223K–	.72	CP05A1KC223K–	.90	CP05A3KC223K–	.78
.039	200V	CP04A1KC393K–	.84	CP04A3KC393K–	.72	CP05A1KC393K–	.90	CP05A3KC393K–	.78
.047	200V	CP04A1KC473K–	.84	CP04A3KC473K–	.72	CP05A1KC473K–	.90	CP05A3KC473K –	.78
.056	200V	CP04A1KC563K–	.87	CP04A3KC563K–	.75	CP05A1KC563K–	.93	CP05A3KC563K–	.81
.068	200V	CP04A1KC683K–	.93	CP04A3KC683K–	.81	CP05A1KC683K–	.99	CP05A3KC 683K–	.87
.082	200V	CP04A1KC823K–	.96	CP04A3KC823K–	.84	CP05A1KC823K–	1.02	CP05A3KC823K–	.90
.1	200V	CP04A1KC104K–	1.02	CP04A3KC104K–	.84	CP05A1KC104K–	1.08	CP05A3KC104K–	.90
.12	200V	CP04A1KC124K–	1.08	CP04A3KC124K–	.90	CP05A1KC124K–	1.14	CP05A3KC124K–	.96
.15	200V	CP04A1KC154K–	1.11	CP04A3KC154K–	.93	CP05A1KC154K–	1.17	CP05A3KC154K–	.99
.18	200V	CP04A1KC184K–	1.14	CP04A3KC184K–	.96	CP05A1KC184K–	1.20	CP05A3KC184K–	1.02
.22	200V	CP04A1KC224K–	1.17	CP04A3KC224K–	.96	CP05A1KC224K–	1.23	CP05A3KC224K–	1.02
.27	200V	CP04A1KC274K–	1.29	CP04A3KC274K–	1.08	CP05A1KC274K–	1.38	CP05A3KC274K–	1.17
.33	200V	CP04A1KC334K–	1.38	CP04A3KC334K–	1.17	CP05A1KC334K–	1.47	CP05A3KC334K–	1.26
.39	200V	CP04A1KC394K–	1.44	CP04A3KC394K–	1.23	CP05A1KC394K–	1.53	CP05A3KC394K–	1.32
.47	200V	CP04A1KC474K–	1.50	CP04A3KC474K–	1.29	CP05A1KC474K–	1.59	CP05A3KC474K–	1.38
.56	200V	CP04A1KC564K–	1.56	CP04A3KC564K–	1.35	CP05A1KC564K–	1.65	CP05A3KC564K–	1.44
.68	200V	CP04A1KC684K–	1.65	CP04A3KC684K–	1.44	CP05A1KC684K–	1.74	CP05A3KC684K–	1.53
.82	200V	CP04A1KC824K–	1.77	CP04A3KC824K–	1.56	CP05A1KC824K–	1.86	CP05A3KC824K–	1.65
1.0	200V	CP04A1KC105K–	1.86	CP04A3KC105K–	1.65	CP05A1KC105K–	1.95	CP05A3KC105K–	1.74
.0082	400V	CP04A1KE822K–	.87	CP04A3KE822K–	.75	CP05A1KE822K–	.93	CP05A3KE822K–	.81
.01	400V	CP04A1KE103K–	.87	CP04A3KE103K–	.75	CP05A1KE103K–	.93	CP05A3KE103K–	.81
.027	400V	CP04A1KE273K–	.93	CP04A3KE273K–	.81	CP05A1KE273K–	.99	CP05A3KE273K–	.87
.033	400V	CP04A1KE333K–	.93	CP04A3KE333K–	.81	CP05A1KE333K–	.99	CP05A3KE333K–	.87
.039	400V	CP04A1KE393K–	.96	CPC4A3KE393K–	.84	CP05A1KE393K–	1.02	CP05A3KE393K–	.90
.047	400V	CP 04A1KE473K–	1.02	CP04A3KE473K–	.84	CP05A1KE473K–	1.08	CP05A3KE473K–	.90
.056	400V	CP04A1KE563K–	1.08	CP04A3KE563K–	.90	CP05A1KE563K–	1.14	CP05A3KE563K–	.90
.068	400V	CP04A1KE683K–	1.11	CP04A3KE683K–	.90	C P05A1KE683K–	1.17	CP05A3KE683K–	.90
.082	400V	CP04A1KE823K–	1.17	CP04A3KE823K–	.96	CP05A1KE823K–	1.23	CP05A3KE823K–	1.02
.1	400V	CP04A1KE104K–	1.26	CP04A3KE104K–	1.05	CP05A1KE104K–	1.32	CP05A3KE104K–	1.11
.12	400V	CP04A1KE124K –	1.35	CP04A3KE124K–	1.14	CP05A1KE124K–	1.44	CP05A3KE124K–	1.21
.15	400V	CP04A1KE154K–	1.44	CP04A3KE154K–	1.23	CP05A1KE154K–	1.53	CP05A3KE154K–	1.31
.18	400V	CP04A1KE184K–	1.50	CP04A3KE184K–	1.29	CP05A1KE184K–	1.59	CP05A3KE184K –	1.31
.22	400V	CP04A1KE224K–	1.56	CP04A3KE224K–	1.35	CP05A1KE224K–	1.65	CP05A3KE224K–	1.41
.27	400V	CP04A1KE274K–	1.65	CP04A3KE274K–	1.44	CP05A1KE274K–	1.74	CP05A3KE274K–	1.51
.33	400V	CP04A1KE334K–	1.71	CP04A3KE334K–	1.50	CP05A1KE334K–	1.80	CP05A3KE334K–	1.51
.39	400V	CP04A1KE394K–	1.98	CP04A3KE394K–	1.77	CP05A1KE394K–	2.07	CP05A3KE394K–	1.81
.47	400V	CP 04A1KE474K–	1.98	CP04A3KE474K–	1.77	CP05A1KE474K–	2.07	CP05A3KE474K–	1.81
.56	400V	CP04A1KE564K–	2.13	CP04A3KE564K–	1.86	CP05A1KE564K–	2.22	CP05A3KE564K–	1.91
.68	400V	CP04A1KE684K–	2.13	CP04A3KE684K–	1.86	CP05A1KE684K–	2.22	CP05A3KE684K–	1.91
.82	400V	CP04A1KE824K–	2.58	CP04A3KE824K–	2.31	CP05A1KE824K–	2.67	CP05A3KE824K–	2.41
1.0	400V	CP04A1KE105K–	2.58	CP04A3KE105K –	2.31	CP05A1KE105K–	2.67	CP05A3KE105K–	2.41
.001	600V	CP04A1KF102K–	.75	CP04A3KF102K–	.63	CP05A1KF102K–	.81	CP05A3KF102K–	.61
.0012	600V	CP04A1KF122K–	.75	C P04A3KF122K–	.63	CP05A1KF122K–	.81	CP05A3KF122K–	.61
.0015	600V	CP04A1KF152K–	.75	CP04A3KF152K–	.63	CP05A1KF152K–	.81	CP05A3KF152K–	.61
.0018	600V	CP04A1KF182K–	.75	CP04A3KF182K–	.63	CP05A1KF182K–	.81	CP05A3KF182K–	.61
.0022	600V	CP04A1KF222K–	.75	CP04A3KF222K–	.63	CP05A1KF222K–	.81	CP05A3KF222K–	.61
.0027	600V	CP04A1KF272K–	.78	CP04A3KF272K–	.66	CP05A1KF272K–	.84	CP05A3KF272K–	.71
.0033	600V	CP04A1KF332K–	.78	CP04A3KF332K–	.66	CP05A1KF332K–	.84	GP05A3KF332K–	.71
.0039	600V	CP04A1KF392K–	.78	C P04A3KF392K–	.66	CP05A1KF392K–	.84	CP05A3KF392K–	.71
.0047	600V	CP04A1KF472K–	.78	CP04A3KF472K–	.66	CP05A1KF472K–	.84	CP05A3KF 472K–	.71
.0056	600V	CP04A1KF562K–	.84	CP04A3KF562K–	.72	CP05A1KF562K–	.90	CP05A3KF562K–	.71
.0068	600V	CP04A1KF682K–	.96	CP04A3KF682K–	.84	CP05A1KF682K–	1.02	CP05A3KF682K–	.91
.0082	600V	CP04A1KF822K–	.99	CP04A3KF822K–	.87	CP05A1KF822K–	1.05	CP05A3KF822K–	.91
.01	600V	CP04A1KF103K–	.99	CP04A3KF103K–	.87	CP05A1KF103K–	1.05	CP05A3KF103K–	.91
.012	600V	CP04A1KF123K–	1.05	CP04A3KF123K–	.93	CP05A1KF123K–	1.11	CP05A3KF123K–	.91
.015	600V	CP04A1KF153K–	1.08	CP04A3KF153K–	.96	CP05A1KF153K–	1.14	CP05A3KF153K–	1.01
.018	600V	CP04A1KF183K–	1.08	CP04A3KF183K–	.96	CP05A1KF183K–	1.14	CP05A3KF183K–	1.01
.022	600V	CP04A1KF223K–	1.08	CP04A3KF223K–	.96	CP05A1KF223K–	1.14	CP05A3KF223K–	1.01
.027	600V	CP04A1KF273K–	1.11	CP04A3KF273K–	.99	CP05A1KF273K–	1.17	CP05A3KF273K–	1.01
.033	600V	CP04A1KF333K–	1.11	CP04A3KF333K–	.99	CP05A1KF333K–	1.17	CP05A3KF333K–	1.01
.039	600V	CP04A1KF393K–	1.11	CP04A3KF393K–	.99	CP05A1KF393K–	1.17	CP05A3KF393K–	1.01
.047	600V	CP04A1KF473K–	1.11	CP04A3KF473K–	.99	CP05A1KF473K–	1.17	CP05A3KF473K–	1.01

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249

AEROVOX

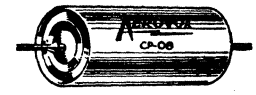
CAPACITORS

		CP04, CHAR. K				CP05, CHAR. K			
		P323S		P323SG		P323SP		P323SGP	
		NO TUBE				PLASTIC TUBE			
CAPACITY	VOLTAGE	Case Floating	Net Price*	Case Grounded	Net Price*	Case Floating	Net Price*	Case Grounded	Net Price*
.056	600V	CP04A1KF563K–	1.14	CP04A3KF563K–	1.02	CP05A1KF563K–	1.20	CP05A3KF563K–	1.08
.068	600V	CP04A1KF683K–	1.14	CP04A3KF683K–	1.02	CP05A1KF683K–	1.20	CP05A3KF683K–	1.08
.082	600V	CP04A1KF823K–	1.20	CP04A3KF823K–	1.05	CP05A1KF823K–	1.29	CP05A3KF823K–	1.14
.1	600V	CP04A1KF104K–	1.26	CP04A3KF104K–	1.05	CP05A1KF104K–	1.35	CP05A3KF104K–	1.14
.12	600V	CP04A1KF124K–	1.35	CP04A3KF124K–	1.14	CP05A1KF124K–	1.44	CP05A3KF124K–	1.23
.15	600V	CP04A1KF154K–	1.44	CP04A3KF154K–	1.23	CP05A1KF154K–	1.53	CP05A3KF154K–	1.32
.18	600V	CP04A1KF184K–	1.47	CP04A3KF184K–	1.26	CP05A1KF184K–	1.56	CP05A3KF184K–	1.35
.22	600V	CP04A1KF224K–	1.53	CP04A3KF224K–	1.32	CP05A1KF224K–	1.62	CP05A3KF224K–	1.41
.27	600V	CP04A1KF274K–	1.59	CP04A3KF274K–	1.38	CP05A1KF274K–	1.68	C P05A3KF 274K–	1.47
.33	600V	CP04A1KF334K–	1.62	CP04A3KF334K–	1.41	CP05A1KF334K–	1.71	CP05A3KF334K–	1.50
.39	600V	CP04A1KF394K–	1.74	CP04A3KF394K–	1.53	CP05A1KF394K–	1.83	CP05A3KF394K–	1.62
.47	600V	CP04A1KF474K–	1.86	CP04A3K F474K–	1.65	CP05A1KF474K–	1.95	CP05A3KF474K–	1.74
.56	600V	CP04A1KF564K–	2.37	CP04A3KF564K–	2.16	CP05A1KF564K–	2.46	CP05A3KF564K–	2.25
.68	600V	CP04A1KF684K–	2.37	CP04A3KF684K–	2.16	CP05A1KF684K–	2.46	CP05A3KF684K–	2.25
.015	1000V	CP04A1KG153K–	1.11	CP04A3KG153K–	.90	CP05A1KG153K–	1.17	CP05A3KG153K–	.96
.018	1000V	CP04A1KG183K–	1.11	CP04A3KG183K–	.90	CP05A1KG183K–	1.17	CP05A3KG183K–	.96
.022	1000V	CP04A1KG223K–	1.11	CP04A3KG223K–	.90	CP05A1KG223K–	1.17	CP05A3KG223K–	.96
.027	1000V	CP04A1KG273K–	1.17	CP04A3KG273K–	.96	CP05A1KG273K–	1.23	CP05A3KG273K–	1.02
.033	1000V	CP04A1KG333K–	1.17	CP04A3KG333K–	.96	CP05A1KG333K–	1.23	CP05A3KG333K–	1.02
.039	1000V	CP04A1KG393K–	1.17	CP04A3KG393K–	.96	CP05A1KG393K–	1.26	CP05A3KG393K–	1.05
.047	1000V	CP04A1KG473K–	1.17	CP04A3KG473K–	.96	CP05A1KG473K–	1.26	CP05A3KG473K–	1.05
.056	1000V	CP04A1KG563K–	1.23	CP04A3KG563K–	1.02	CP05A1KG563K–	1.32	CP05A3KG563K–	1.11
.068	1000V	CP04A1KG683K–	1.26	CP04A3KG683K–	1.05	CP05A1KG683K–	1.35	CP05A3KG683K–	1.14
.082	1000V	CP04A1KG823K–	1.32	CP04A3KG823K–	1.11	CP05A1KG823K–	1.41	CP05A3KG823K–	1.20
.1	1000V	CP04A1KG104K–	1.35	CP04A3KG104K–	1.14	CP05A1KG104K–	1.44	CP05A3KG104K–	1.23
.12	1000V	CP04A1KG124K–	1.41	CP04A3KG124K–	1.20	CP05A1KG124K–	1.50	CP05A3KG124K–	1.29
.15	1000V	CP04A1KG154K–	1.41	CP04A3KG154K–	1.20	CP05A1KG154K–	1.50	CP05A3KG154K–	1.29
.18	1000V	CP04A1KG184K–	1.50	CP04A3KG184K–	1.23	CP05A1KG184K–	1.59	CP05A3KG184K–	1.32
.22	1000V	CP04A1KG224K–	1.65	CP04A3KG224K–	1.38	CP05A1KG224K–	1.74	CP05A3KG224K–	1.47
.27	1000V	CP04A1KG274K–	2.04	CP04A3KG274K–	1.77	CP05A1KG274K–	2.13	CP05A3KG274K–	1.86
.33	1000V	CP04A1KG334K–	2.16	CP04A3KG334K–	1.89	CP05A1KG334K–	2.25	CP05A3KG334K–	1.98
.39	1000V	CP04A1KG394K–	2.37	CP04A3KG394K–	2.10	CP05A1KG394K–	2.46	CP05A3KG394K–	2.19
.47	1000V	CP04A1KG474K–	2.37	CP04A3KG474K–	2.10	CP05A1KG474K–	2.46	CP05A3KG474K–	2.19



INDUSTRIAL SECTION — MIL TYPES

MIL-C-25C



TYPES CPO8 and CPO9—Characteristics K Vibration Grades 1 and 3

Hermetically sealed tubular capacitors with glass terminal seal and axial wire leads. CP04 and CP05 are inserted tab construction; CP08 and CP09 are extended foil construction. Standard tolerance is ±10% (K). Specify Vibration Grade when ordering.

		CP08, CHAR. K				CP09, CHAR. K			
		P323SX		P323SXG		P323SXP		P323SXGP	
		NO TUBE				PLASTIC TUBE			
CAPACITY	VOLTAGE	Case Floating	Net Price*	Case Grounded	Net Price*	Case Floating	Net Price*	Case Grounded	Net Price*
.0082	100V	CP08A1KB822K–	.75	CP08A3KB822K–	.63	CP09A1KB822K–	.81	CP09A3KB822K–	.69
.01	100V	CP08A1KB103K–	.75	CP08A3KB103K–	.63	CP09A1KB103K–	.81	CP09A3KB103K–	.69
.012	100V	CP08A1KB123K–	.75	CP08A3KB123K–	.63	CP09A1KB123K–	.81	CP09A3KB123K–	.69
.015	100V	CP08A1KB153K–	.75	CP08A3KB153K–	.63	CP09A1KB153K–	.81	CP09A3KB153K–	.69
.039	100V	CP08A1KB393K–	.84	CP08A3KB393K–	.72	CP09A1KB393K–	.90	CP09A3KB393K–	.78
.047	100V	CP08A1KB473K–	.90	CP08A3KB473K–	.78	CP09A1KB473K–	.96	CP09A3KB473K–	.84
.082	100V	CP08A1KB823K–	.99	CP08A3KB823K–	.90	CP09A1KB823K–	1.05	CP09A3KB823K–	.96
.1	100V	CP08A1KB104K–	1.05	CP08A3KB104K–	.90	CP09A1KB104K–	1.11	CP09A3KB104K–	.96
.12	100V	CP08A1KB124K–	1.08	CP08A3KB124K–	.90	CP09A1KB124K–	1.14	CP09A3KB124K–	.96
.15	100V	CP08A1KB154K–	1.11	CP08A3KB154K–	.90	CP09A1KB154K–	1.17	CP09A3KB154K–	.96
.18	100V	CP08A1KB184K–	1.20	CP08A3KB184K–	.99	CP09A1KB184K–	1.26	CP09A3KB184K–	1.05
.22	100V	CP08A1KB224K–	1.26	CP08A3KB224K–	1.02	CP09A1KB224K–	1.32	CP09A3KB224K–	1.08
.27	100V	CP08A1KB274K–	1.32	CP08A3KB274K–	1.11	CP09A1KB274K–	1.41	CP09A3KB274K–	1.20
.33	100V	CP08A1KB334K–	1.38	CP08A3KB334K–	1.17	CP09A1KB334K–	1.47	CP09A3KB334K–	1.26
.39	100V	CP08A1KB394K–	1.44	CP08A3KB394K–	1.23	CP09A1KB394K–	1.53	CP09A3KB394K–	1.32
.47	100V	CP08A1KB474K–	1.47	CP08A3KB474K–	1.26	CP09A1KB474K–	1.56	CP09A3KB474K–	1.35
.56	100V	CP08A1KB564K–	1.56	CP08A3KB564K–	1.35	CP09A1KB564K–	1.65	CP09A3KB564K–	1.44
.68	100V	CP08A1KB684K–	1.62	CP08A3KB684K–	1.41	CP09A1KB684K–	1.71	CP09A3KB684K–	1.50
.82	100V	CP08A1KB824K–	1.71	CP08A3KB824K–	1.50	CP09A1KB824K–	1.80	CP09A3KB824K–	1.59
1.0	100V	CP08A1KB105K–	1.86	CP08A3KB105K–	1.65	CP09A1KB105K–	1.95	CP09A3KB105K–	1.74
.0039	200V	CP08A1KC392K–	.72	CP08A3KC392K–	.60	CP09A1KC392K–	.78	CP09A3KC392K–	.66
.0047	200V	CP08A1KC472K–	.72	CP08A3KC472K–	.60	CP09A1KC472K–	.78	CP09A3KC472K–	.66
.0056	200V	CP08A1KC562K–	.72	CP08A3KC562K–	.60	CP09A1KC562K–	.78	CP09A3KC562K–	.66
.0068	200V	CP08A1KC682K–	.72	CP08A3KC682K–	.60	CP09A1KC682K–	.78	CP09A3KC682K–	.66
.018	200V	CP08A1KC183K–	.84	CP08A3KC183K–	.72	CP09A1KC183K–	.90	CP09A3KC183K–	.78
.022	200V	CP08A1KC223K–	.84	CP08A3KC223K–	.72	CP09A1KC223K–	.90	CP09A3KC223K–	.78
.027	200V	CP08A1KC273K–	.87	CP08A3KC273K–	.75	CP09A1KC273K–	.93	CP09A3KC273K–	.81
.033	200V	CP08A1KC333K–	.87	CP08A3KC333K–	.75	CP09A1KC333K–	.93	CP09A3KC333K–	.81
.039	200V	CP 08A1KC393K–	.96	CP08A3KC393K–	.81	CP09A1KC393K–	1.02	CP09A3KC393K–	.87
.047	200V	CP08A1KC473K–	.96	CP08A3KC473K–	.81	CP09A1KC473K–	1.02	CP09A3KC473K–	.87
.056	200V	CP08A1KC563K–	1.02	CP08A3KC563K–	.84	CP09A1KC563K–	1.08	CP09A3KC563K–	.90
.068	200V	CP08A1KC683K–	1.08	CP08A3KC683K–	.87	CP09A1KC683K–	1.14	CP09A3KC683K–	.93
.082	200V	CP08A1KC823K–	1.17	CP08A3KC823K–	.96	CP09A1KC823K–	1.23	CP09A3KC823K–	1.02
.1	200V	CP08A1KC104K–	1.17	CP08A3KC104K	.96	CP09A1KC104K–	1.23	CP09A3KC104K–	1.02
.12	200V	CP08A1KC124K–	1.23	CP08A3KC124K–	1.02	CP09A1KC124K–	1.29	CP09A3KC124K–	1.08
.15	200V	CP08A1KC154K–	1.23	CP08A3KC154K–	1.02	CP09A1KC154K–	1.29	CP09A3KC154K–	1.08
.18	200V	CP08A1KC184K–	1.29	CP08A3KC184K–	1.08	CP09A1KC184K–	1.38	CP09A3KC184K–	1.17
.22	200V	CP08A1KC224K–	1.29	CP08A3KC224K–	1.08	CP09A1KC224K–	1.38	CP09A3KC224K–	1.17
.27	200V	CP08A1KC274K–	1.35	CP08A3KC274K–	1.14	CP09A1KC274K–	1.44	CP09A3KC274K–	1.23

Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499

Net

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CAPACITORS

		CP08, CHAR. K				CP09, CHAR. K			
		P323SX		P323SXG		P323SXP		P323SXGP	
		NO TUBE				PLASTIC TUBE			
CAPACITY	VOLTAGE	Case Floating	Net Price*	Case Grounded	Net Price*	Case Floating	Net Price*	Case Grounded	Net Price*
.33	200V	CP08A1KC334K–	1.35	CP08A3KC334K–	1.14	CP09A1KC334K–	1.44	CP09A3KC334K–	1.23
.39	200V	CP08A1KC394K–	1.41	CP08A3KC394K–	1.20	CP09A1KC394K–	1.50	CP09A3KC394K–	1.29
.47	200V	CP08A1KC474K–	1.41	CP08A3KC474K–	1.20	CP09A1KC474K–	1.50	CP09A3KC474K–	1.29
.56	200V	CP08A1KC564K–	1.56	CP08A3KC564K–	1.35	CP09A1KC564K–	1.65	CP09A3KC564K–	1.44
.68	200V	CP08A1KC684K–	1.68	CP08A3KC684K–	1.47	CP09A1KC684K–	1.77	CP09A3KC684K–	1.56
.82	200V	CP08A1KC824K–	1.86	CP08A3KC824K–	1.59	CP09A1KC824K–	1.95	CP09A3KC824K–	1.68
1.0	200V	CP08A1KC105K–	1.92	CP08A3KC105K–	1.65	CP09A1KC105K–	2.01	CP09A3KC105K–	1.74
.0027	400V	CP08A1KE272K–	.75	CP08A3KE272K–	.63	CP09A1KE272K–	.81	CP09A3KE272K–	.69
.0033	400V	CP08A1KE332K–	.75	CP08A3KE332K–	.63	CP09A1KE332K–	.81	CP09A3KE332K–	.69
.012	400V	CP08A1KE123K–	.81	CP08A3KE123K–	.69	CP09A1KE123K–	.87	CP09A3KE123K–	.75
.015	400V	CP08A1KE153K–	.84	CP08A3KE153K–	.72	CP09A1KE153K–	.90	CP09A3KE153K–	.78
.027	400V	CP08A1KE273K–	.96	CP08A3KE273K–	.78	CP09A1KE273K–	1.02	CP09A3KE273K–	.84
.033	400V	CP08A1KE333K–	1.08	CP08A3KE333K–	.87	CP09A1KE333K–	1.14	CP09A3KE333K–	.93
.039	400V	CP08A1KE393K–	1.08	CP08A3KE393K–	.87	CP09A1KE393K–	1.14	CP09A3KE393K–	.93
.047	400V	CP08A1KE473K–	1.11	CP08A3KE473K–	.90	CP09A1KE473K–	1.17	CP09A3KE473K–	.96
.056	400V	CP08A1KE563K–	1.11	CP08A3KE563K–	.90	CP09A1KE563K–	1.17	CP09A3KE563K–	.96
.068	400V	CP08A1KE683K–	1.11	CP08A3KE683K–	.90	CP09A1KE683K–	1.17	CP09A3KE683K–	.96
.082	400V	CP08A1KE823K–	1.17	CP08A3KE823K–	.96	CP09A1KE823K–	1.26	CP09A3KE823K–	1.05
.1	400V	CP08A1KE104K–	1.20	CP08A3KE104K–	.99	CP09A1KE104K–	1.29	CP09A3KE104K–	1.08
.12	400V	CP08A1KE124K–	1.26	CP08A3KE124K–	1.05	CP09A1KE124K–	1.35	CP09A3KE124K–	1.14
.15	400V	CP08A1KE154K–	1.32	CP08A3KE154K–	1.11	CP09A1KE154K–	1.41	CP09A3KE154K–	1.20
.18	400V	CP08A1KE184K–	1.47	CP08A3KE184K–	1.26	CP09A1KE184K–	1.56	CP09A3KE184K–	1.35
.22	400V	CP08A1KE224K–	1.59	CP08A3KE224K–	1.38	CP09A1KE224K–	1.68	CP09A3KE224K–	1.47
.27	400V	CP08A1KE274K–	1.71	CP08A3KE274K–	1.50	CP09A1KE274K–	1.80	CP09A3KE274K–	1.59
.33	400V	CP08A1KE334K–	1.83	CP08A3KE334K–	1.62	CP09A1KE334K–	1.92	CP09A3KE334K–	1.71
.39	400V	CP08A1KE394K–	1.89	CP08A3KE394K–	1.65	CP09A1KE394K–	1.98	CP09A3KE394K–	1.74
.47	400V	CP08A1KE474K–	1.95	CP08A3KE474K–	1.68	CP09A1KE474K–	2.04	CP09A3KE474K–	1.77
.001	600V	CP08A1KF102K–	.75	CP08A3KF102K–	.63	CP09A1KF102K–	.81	CP09A3KF102K–	.69
.0012	600V	CP08A1KF122K–	.75	CP08A3KF122K–	.63	CP09A1KF122K–	.81	CP09A3KF122K–	.69
.0015	600V	CP08A1KF152K–	.75	CP08A3KF152K–	.63	CP09A1KF152K–	.81	CP09A3KF152K–	.69
.0018	600V	CP08A1KF182K–	.75	CP08A3KF182K–	.63	CP09A1KF182K–	.81	CP09A3KF182K–	.69
.0022	600V	CP08A1KF222K–	.78	CP08A3KF222K–	.66	CP09A1KF222K–	.84	CP09A3KF222K–	.72
.0027	600V	CP08A1KF272K–	.78	CP08A3KF272K–	.66	CP09A1KF272K–	.84	CP09A3KF272K–	.72
.0033	600V	CP08A1KF332K–	.78	CP08A3KF332K–	.66	CP09A1KF332K–	.84	CP09A3KF332K–	.72
.0039	600V	CP08A1KF392K–	.81	CP08A3KF392K–	.69	CP09A1KF392K–	.87	CP09A3KF392K–	.75
.0047	600V	CP08A1KF472K–	.81	CP08A3KF472K–	.69	CP09A1KF472K–	.87	CP09A3KF472K–	.75
.0056	600V	CP08A1KF562K–	.87	CP08A3KF562K–	.75	CP09A1KF562K–	.93	CP09A3KF562K–	.81
.0068	600V	CP08A1KF682K–	.87	CP08A3KF682K–	.75	CP09A1KF682K–	.93	CP09A3KF682K–	.81
.0082	600V	CP08A1KF822K–	.87	CP08A3KF822K–	.75	CP09A1KF822K–	.93	CP09A3KF822K–	.81
.01	600V	CP08A1KF103K–	.87	CP08A3KF103K–	.75	CP09A1KF103K–	.93	CP09A3KF103K–	.81
.012	600V	CP08A1KF123K–	.93	CP08A3KF123K–	.78	CP09A1KF123K–	.99	CP09A3KF123K–	.84
.015	600V	CP08A1KF153K–	.93	CP08A3KF153K–	.78	CP09A1KF153K–	.99	CP09A3KF153K–	.84
.018	600V	CP08A1KF183K–	.99	CP08A3KF183K–	.81	CP09A1KF183K–	1.05	CP09A3KF183K–	.87
.022	600V	CP08A1KF223K–	.99	CP08A3KF223K–	.81	CP09A1KF223K–	1.05	CP09A3KF223K–	.87
.027	600V	CP08A1KF273K–	1.02	CP08A3KF273K–	.84	CP09A1KF273K–	1.08	CP09A3KF273K–	.90
.033	600V	CP08A1KF333K–	1.08	CP08A3KF333K–	.87	CP09A1KF333K–	1.14	CP09A3KF333K–	.93
.039	600V	CP08A1KF393K–	1.14	CP08A3KF393K–	.93	CP09A1KF393K–	1.20	CP09A3KF393K–	.99
.047	600V	CP08A1KF473K–	1.14	CP08A3KF473K–	.93	CP09A1KF473K–	1.20	CP09A3KF473K–	.99
.056	600V	CP08A1KF563K–	1.20	CP08A3KF563K–	.99	CP09A1KF563K–	1.29	CP09A3KF563K–	1.05
.068	600V	CP08A1KF683K–	1.23	CP08A3KF683K–	1.02	CP09A1KF683K–	1.32	CP09A3KF683K–	1.11
.082	600V	CP08A1KF823K–	1.26	CP08A3KF823K–	1.05	CP09A1KF823K–	1.35	CP09A3KF823K–	1.11
.1	600V	CP08A1KF104K–	1.26	CP08A3KF104K–	1.05	CP09A1KF104K–	1.35	CP09A3KF104K–	1.11
.12	600V	CP08A1KF124K–	1.29	CP08A3KF124K–	1.08	CP09A1KF124K–	1.38	CP09A3KF124K–	1.11
.15	600V	CP08A1KF154K–	1.29	CP08A3KF154K–	1.08	CP09A1KF154K–	1.38	CP09A3KF154K–	1.11
.18	600V	CP08A1KF184K–	1.47	CP08A3KF184K–	1.20	CP09A1KF184K–	1.56	CP09A3KF184K–	1.26
.22	600V	CP08A1KF224K–	1.59	CP08A3KF224K–	1.32	CP09A1KF224K–	1.68	CP09A3KF224K–	1.41
.27	600V	CP08A1KF274K–	1.77	CP08A3KF274K–	1.50	CP09A1KF274K–	1.86	CP09A3KF274K–	1.59
.33	600V	CP08A1KF334K–	1.89	CP08A3KF334K–	1.62	CP09A1KF334K–	1.98	CP09A3KF334K–	1.71
.39	600V	CP08A1KF394K–	1.89	CP08A3KF394K–	1.62	CP09A1KF394K–	1.98	CP09A3KF394K–	1.71
.47	600V	CP08A1KF474K–	1.95	CP08A3KF474K–	1.68	CP09A1KF474K–	2.04	CP09A3KF474K–	1.77
.001	1000V	CP08A1KG102K–	.93	CP08A3KG102K–	.72	CP09A1KG102K–	.99	CP09A3KG102K–	.77
.0012	1000V	CP08A1KG122K–	.93	CP08A3KG122K–	.72	CP09A1KG122K–	.99	CP09A3KG122K–	.77
.0015	1000V	CP08A1KG152K–	.93	CP08A3KG152K–	.72	CP09A1KG152K–	.99	CP09A3KG152K–	.77
.0018	1000V	CP08A1KG182K–	.93	CP08A3KG182K–	.72	CP09A1KG182K–	.99	CP09A3KG182K–	.77
.0022	1000V	CP08A1KG222K–	.93	CP08A3KG222K–	.72	CP09A1KG222K–	.99	CP09A3KG222K–	.77
.0027	1000V	CP08A1KG272K–	.96	CP08A3KG272K–	.75	CP09A1KG272K–	1.02	CP09A3KG272K–	.81
.0033	1000V	CP08A1KG332K–	.96	CP08A3KG332K–	.75	CP09A1KG332K–	1.02	CP09A3KG332K–	.81
.0039	1000V	CP08A1KG392K–	1.02	CP08A3KG392K–	.81	CP09A1KG392K–	1.08	CP09A3KG392K–	.81
.0047	1000V	CP08A1KG472K–	1.02	CP08A3KG472K–	.81	CP09A1KG472K–	1.08	CP09A3KG472K–	.81
.0056	1000V	CP08A1KG562K–	1.05	CP08A3KG562K–	.84	CP09A1KG562K–	1.11	CP09A3KG562K–	.87
.0068	1000V	CP08A1KG682K–	1.05	CP08A3KG682K–	.84	CP09A1KG682K–	1.11	CP09A3KG682K–	.87
.0082	1000V	CP08A1KG822K–	1.05	CP08A3KG822K–	.84	CP09A1KG822K–	1.11	CP09A3KG822K–	.87
.01	1000V	CP08A1KG103K–	1.05	CP08A3KG103K–	.84	CP09A1KG103K–	1.11	CP09A3KG103K–	.87
.012	1000V	CP08A1KG123K–	1.05	CP08A3KG123K–	.84	CP09A1KG123K–	1.11	CP09A3KG123K–	.87
.015	1000V	CP08A1KG153K–	1.05	CP08A3KG153K–	.84	CP09A1KG153K–	1.11	CP09A3KG153K–	.87
.018	1000V	CP08A1KG183K–	1.05	CP08A3KG183K–	.84	CP09A1KG183K–	1.11	CP09A3KG183K–	.87
.022	1000V	CP08A1KG223K–	1.05	CP08A3KG223K–	.84	CP09A1KG223K–	1.11	CP09A3KG223K–	.87
.027	1000V	CP08A1KG273K–	1.11	CP08A3KG273K–	.90	CP09A1KG273K–	1.20	CP09A3KG273K–	.93
.033	1000V	CP08A1KG333K–	1.17	CP08A3KG333K–	.96	CP09A1KG333K–	1.26	CP09A3KG333K–	1.01
.039	1000V	CP08A1KG393K–	1.23	CP08A3KG393K–	1.02	CP09A1KG393K–	1.32	CP09A3KG393K–	1.01
.047	1000V	CP08A1KG473K–	1.29	CP08A3KG473K–	1.08	CP09A1KG473K–	1.38	CP09A3KG473K–	1.01
.056	1000V	CP08A1KG563K–	1.35	CP08A3KG563K–	1.14	CP09A1KG563K–	1.44	CP09A3KG563K–	1.01
.068	1000V	CP08A1KG683K–	1.38	CP08A3KG683K–	1.17	CP09A1KG683K–	1.47	CP09A3KG683K–	1.01
.082	1000V	CP08A1KG823K–	1.44	CP08A3KG823K–	1.23	CP09A1KG823K–	1.53	CP09A3KG823K–	1.01
.1	1000V	CP08A1KG104K–	1.47	CP08A3KG104K–	1.26	CP09A1KG104K–	1.56	CP09A3KG104K–	1.01
.12	1000V	CP08A1KG124K–	1.56	CP08A3KG124K–	1.35	CP09A1KG124K–	1.65	CP09A3KG124K–	1.01
.15	1000V	CP08A1KG154K–	1.65	CP08A3KG154K–	1.44	CP09A1KG154K–	1.74	CP09A3KG154K–	1.01
.18	1000V	CP08A1KG184K–	1.74	CP08A3KG184K–	1.50	CP09A1KG184K–	1.83	CP09A3KG184K–	1.01
.22	1000V	CP08A1KG224K–	1.83	CP08A3KG224K–	1.56	CP09A1KG224K–	1.92	CP09A3KG224K–	1.01
.27	1000V	CP08A1KG274K–	1.95	CP08A3KG274K–	1.68	CP09A1KG274K–	2.04	CP09A3KG274K–	1.01
.33	1000V	CP08A1KG334K–	2.10	CP08A3KG334K–	1.83	CP09A1KG334K–	2.19	CP09A3KG334K–	1.01
.39	1000V	CP08A1KG394K–	2.28	CP08A3KG394K–	2.01	CP09A1KG394K–	2.37	CP09A3KG394K–	2.01
.47	1000V	CP08A1KG474K–	2.43	CP08A3KG474K–	2.16	CP09A1KG474K–	2.52	CP09A3KG474K–	2.01

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499

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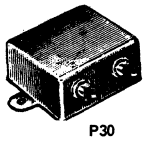
CAPACITORS

INDUSTRIAL SECTION — MIL TYPES MIL-C-25C



TYPES CP53, CP54, CP55

Hyvol J or H oil impregnated and filled, drawn-metal cased capacitors, immersion proof and hermetically sealed. This unusually compact "bathtub" type capacitor is the most popular of the small units for severe operating conditions. Available with terminals on side (CP53), top (CP54), or bottom (CP55). The standard tolerance on single section units is ±10% (K), on multiple section units +20 —10% (V).

CAP.	VOLT.	P30 SIDE TERM.	Net Price*	P30-T TOP TERM.	Net Price*	P30-B BOTTOM TERM.	Net Price*
2.0	100V	CP53B1EB205K	$2.64				
4.0	100V	CP53B1EB405K	3.26				
1.0	200V	CP53B1EC105K	2.27				
2.0	200V	CP53B1EC205K	2.90				
.5	400V	CP53B1KE504K	2.02	CP54B1KE504K	$2.02		
3X.5	400V	CP53B5EE504V	3.82				
.25	600V	CP53B1EF254K	1.91	CP54B1EF254K	1.91	CP55B1EF254K	1.91
.5	600V	CP53B1EF504K	2.06	CP54B1EF504K	2.06	CP55B1EF504K	2.06
1.0	600V	CP53B1EF105K	2.41	CP54B1EF105K	2.41	CP55B1EF105K	2.41
2.0	600V	CP53B1EF205K	3.22	CP54B1EF205K	3.22	CP55B1EF205K	3.22
2X.05	600V	CP53B4EF503V	2.47	CP54B4EF503V	2.47	CP55B4EF503V	2.47
2X.1	600V	CP53B4EF104V	2.51	CP54B4EF104V	2.51	CP55B4EF104V	2.51
2X.25	600V	CP53B4EF254V	2.59	CP54B4EF254V	2.59	CP55B4EF254V	2.59
2X.5	600V	CP53B4EF504V	2.95	CP54B4EF504V	2.95	CP55B4EF504V	2.95
2X1.0	600V	CP53B4EF105V	3.49	CP54B4EF105V	3.49	CP55B4EF105V	3.49
3X.1	600V	CP53B5EF104V	2.87				
3X.25	600V	CP53B5EF254V	3.17				
3X.5	600V	CP53B5EF504V	3.88				
.05	1000V	CP53B1EG503K	1.84				
.1	1000V	CP53B1EG104K	1.95				
.25	1000V	CP53B1EG254K	2.02				
.5	1000V	CP53B1EG504K	2.16				
1.0	1000V	CP53B1EG105K	2.90				
2X.05	1000V	CP53B4EG503V	2.53				
2X.1	1000V	CP53B4EG104V	2.53				
2X.25	1000V	CP53B4EG254V	2.83				
2X.5	1000V	CP53B4EG504V	3.71				
3X.05	1000V	CP53B5EG503V	2.94				
3X.1	1000V	CP53B5EG104V	3.21				
3X.25	1000V	CP53B5EG254V	3.92				

CP54B5EF104V	$2.87	CP55B5EF104V	$2.87
CP54B5EF254V	3.17	CP55B5EF254V	3.17
CP54B5EF504V	3.88	CP55B5EF504V	3.88

CHARACTERISTIC F

CAP.	VOLT.	P30J SIDE TERM.	Net Price*
8.0	100V	CP53B1FB805K	$4.86
10.0	100V	CP53B1FB106K	6.05

MIL-C-25C

CP63, CP65 — Characteristics E & K

Compact, Hyvol M or J oil impregnated and filled, rectangular units. Immersion proof and hermetically sealed. Dual secton has case grounded. Channel brackets attached. Standard tolerance on single section units, ±10% (K), on multiple section units +20 —10% (V).

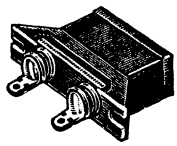
CAP.	VOLT.	P16-CT TOP TERM.	Net Price*	P16-CB BOTTOM TERM.	Net Price*
.1	400V	CP63B1KE104K	$1.90	CP65B1KE104K	$1.90
.25	400V	CP63B1KE254K	1.94		
1.0	400V	CP63B1EE105K	2.21		
.05	600V	CP63B1EF503K	1.83	CP65B1EF503K	1.83
.25	600V	CP63B1EF254K	2.00	CP65B1EF254K	2.00
.5	600V	CP63B1EF504K	2.07	CP65B1EF504K	2.07
1.0	600V	CP63B1EF105K	2.31	CP65B1EF105K	2.31
2X.1	600V	CP63B6EF104V	2.51	CP65B6EF104V	2.51
2X.25	600V	CP63B6EF254V	2.66	CP65B6EF254V	2.66
2X.5	600V	CP63B6EF504V	2.81	CP65B6EF504V	2.81
.01	1000V	CP63B1EG103K	1.87	CP65B1EG103K	1.87
.02	1000V	CP63B1EG203K	1.87	CP65B1EG203K	1.87
.05	1000V	CP63B1EG503K	1.90	CP65B1EG503K	1.90
.1	1000V	CP63B1EG104K	1.98		
.25	100V	CP63B1EG254K	1.99		
.5	1000V	CP63B1EG504K	2.20		

MIL-C-25C

CP91 — Characteristics E & K

Former issues of MIL-C-25 listed variations of this item as CP61 and CP90. CP91 base size 1¾ x ⅝. Brackets must be ordered separately. Specify CP091F (footed) or CP091S (spade).

CAP.	VOLT.	P16 NO. BRACKETS	Net Price*
.1	400V	CP91B1KE104K	$1.82
.25	400V	CP91B1KE254K	1.87
1.0	400V	CP91B1EE105K	2.13
.05	600V	CP91B1EF503K	1.75
.25	600V	CP91B1EF254K	1.92
.5	600V	CP91B1EF504K	1.99
1.0	600V	CP91B1EF105K	2.23
2X.05	600V	CP91B6EF503V	2.36
2X.1	600V	CP91B6EF104V	2.44
2X.25	600V	CP91B6EF254V	2.58
2X.5	600V	CP91B6EF504V	2.73
.01	1000V	CP91B1EG103K	1.79
.02	1000V	CP91B1EG203K	1.79
.05	1000V	CP91B1EG503K	1.82
.1	1000V	CP91B1EG104K	1.91
.25	1000V	CP91B1EG254K	1.92
.5	1000V	CP91B1EG504K	2.12



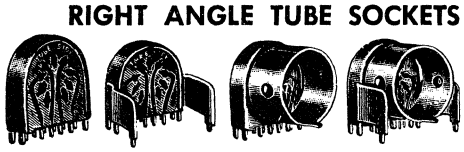
MIL-C-25C

TYPES CP67, CP69 — Characteristics E

Hyvol M or J oil impregnated and filled unit, rectangular cased. Similar to CP91 except additional length in base size of 1¾ x ⅝ permits 2 or 3 sections, case floating. Single units also can be used for special applications where type CP91 does not fit. Both CP67 and CP69 supplied with channel brackets attached. Standard tolerance on single section units ±10% (K), on multiple section units +20 —10% (V).

CAP.	VOLT.	P18-CT TOP TERM.	Net Price*	P18-CB BOTTOM TERM.	Net Price*
.05	600V	CP67B1EF503K	$2.13	CP69B1EF503K	$2.13
.1	600V	CP67B1EF104K	2.23	CP69B1EF104K	2.23
.25	600V	CP67B1EF254K	2.30	CP69B1EF254K	2.30
.5	600V	CP67B1EF504K	2.40	CP69B1EF504K	2.40
1.0	600V	CP67B1EF105K	2.63	CP69B1EF105K	2.63
2X.05	600V	CP67B4EF503V	2.64	CP69B4EF503V	2.64
2X.1	600V	CP67B4EF104V	2.69	CP69B4EF104V	2.69
2X.25	600V	CP67B4EF254V	2.90	CP69B4EF254V	2.90
2X.5	600V	CP67B4EF504V	3.25	CP69B4EF504V	3.25
3X.05	600V	CP67B5EF503V	3.15	CP69B5EF503V	3.15
3X.1	600V	CP67B5EF104V	3.24	CP69B5EF104V	3.24
3X.25	600V	CP67B5EF254V	3.52	CP69B5EF254V	3.52
.01	1000V	CP67B1EG103K	2.14	CP69B1EG103K	2.14
.02	1000V	CP67B1EG203K	2.16	CP69B1EG203K	2.16
.05	1000V	CP67B1EG503K	2.20	CP69B1EG503K	2.20
.1	1000V			CP69B1EG104K	$2.27
.25	1000V			CP69B1EG254K	2.36
.5	1000V			CP69B1EG504K	2.53
2X.01	1000V			CP69B4EG103V	2.54
2X.02	1000V			CP69B4EG203V	2.61
2X.05	1000V			CP69B4EG503V	2.69
2X.1	1000V			CP69B4EG104V	2.78
2X.25	1000V			CP69B4EG254V	2.96
3X.01	1000V			CP69B5EG103V	3.12
3X.02	1000V			CP69B5EG203V	3.15
3X.05	1000V			CP69B5EG503V	3.25
3X.1	1000V			CP69B5EG104V	3.37

RIGHT ANGLE TUBE SOCKETS



Type A Type AX Type B Type BX

Ordering Example: RA7A = (Type 7 Pin Socket)

Available in 7-pin and 9-pin types in four styles, these sockets are designed to meet existing MIL Specifications. Active contacts are silver plated and non-fatiguing contact pressure provides proper insertion and withdrawal pressure with a minimum of contact resistance. Ideal for hand or mechanical insertion into printed-wiring boards using simple in-line punched round holes. Templates are furnished with each socket. Long terminals permit use of sockets on wide range of board thickness.

Type A — for general purpose applications.
Type AX — for special applications (military and commercial) where extra strength and rigidity are required.
Type B — same as Type A except tube shield shell added.
Type BX — same as Type AX except tube shield shell added.

RA 7 — 7 pin right angle tube socket. RA 9 — 9 pin right angle tube socket

Cat. No.	Net Price**
RA7A	$ .83
RA7AX	.85
RA7B	.90
RA7BX	1.08
RA9A	.99
RA9AX	1.01
RA9B	1.06
RA9BX	1.24

*Request O.E.M. Prices in the following quantities: 10-24, 25-49, 50-99, 100-499
*Request O.E.M. Prices in the following quantities: 25-99, 100-499

Net

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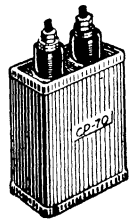
AEROVOX

CAPACITORS



INDUSTRIAL SECTION — MIL TYPES

TYPE CP70 MIL-C-25C

Characteristics E and F • Porcelain and Riveted Terminals

Hyvol M or J oil impregnated and filled, large, rectangular, metal-cased capacitor for heavy-duty, continuous-service applications such as power supplied for transmitters, amplifiers, etc. immersion proof and hermetically sealed. Available with either high-voltage screw-type porcelain-pillar terminals or the space-saving riveted terminal. Pillar terminals have soldering lugs.

Standard tolerance ±10% (K). MIL-C-25C mounting brackets are also available for all units.

Units meet Vibration Grade 1 of MIL-C-25C—Designated by addition of numeral 1 to part number.

Capacity	Voltage	CHAR. E P09 Porc. Term	Case Size and Brkt. Desig.	Net Price*	CHAR. F P09 Porc. Term	Case Size and Brkt. Desig.	Net Price*	CHAR. E P09-R Rivet Term	Case Size and Brkt. Desig.	Net Price*	CHAR. F P09-R Rivet Term	Case Size and Brkt. Desig.	Net Price*
1.0	600V	CP70E1EF105K	A2	3.62				CP70B1EF105K	A2	3.06			
2.0	600V	CP70E1EF205K	A4	4.29	CP70E1FF205K	A3	4.09	CP70B1EF205K	A4	3.96	CP70B1FF205K	A3	3.77
4.0	600V	CP70E1EF405K	B4	5.68	CP70E1FF405K	B3	5.58	CP70B1EF405K	B4	5.52	CP70B1FF405K	B3	5.26
6.0	600V	CP70E1EF605K	C2	6.86	CP70E1FF605K	B6	6.55	CP70B1EF605K	C2	6.54	CP70B1FF605K	B6	6.23
8.0	600V	CP70E1EF805K	C3	8.43	CP70E1FF805K	C2	8.07	CP70B1EF805K	C3	7.89	CP70B1FF805K	C2	7.75
10.0	600V	CP70E1EF106K	D3	9.11	CP70E1FF106K	C4	8.69	CP70B1EF106K	D3	8.78	CP70B1FF106K	C4	8.37
.1	1000V	CP70E1EG104K	A1	2.70									
.25	1000V	CP70E1EG254K	A2	3.06									
.5	1000V	CP70E1EG504K	A2	3.24									
1.0	1000V	CP70E1EG105K	A3	4.14	CP70E1FG105K	A2	3.84	CP70B1EG105K	A3	3.68			
2.0	1000V	CP70E1EG205K	A6	5.41	CP70E1FG205K	A5	4.87	CP70B1EG205K	A6	4.73	CP70B1FG205K	A5	4.51
4.0	1000V	CP70E1EG405K	C2	6.84	CP70E1FG405K	B6	6.56	CP70B1EG405K	C2	6.38	CP70B1FG405K	B6	6.22
6.0	1000V	CP70E1EG605K	D3	8.46	CP70E1FG605K	C4	8.09	CP70B1EG605K	D3	8.13	CP70B1FG605K	C4	7.75
8.0	1000V	CP70E1EG805K	D5	9.05				CP70B1EG805K	D5	8.93	CP70B1FG805K	D2	9.15
10.0	1000V	CP70E1EG106K	E5	10.99	CP70E1FG106K	D5	10.91	CP70B1EG106K	E5	10.82	CP70B1FG106K	D5	10.08
12.0	1000V	CP70E1EG126K	E6	11.89				CP70B1EG126K	E6	11.75	CP70B1FG126K	E4	11.69
15.0	1000V	CP70E1EG156K	G2	13.15	CP70E1FG156K	F1	13.09	CP70B1EG156K	G2	13.01	CP70B1FG156K	F1	12.95
.5	1500V	CP70E1EH504K	A3	3.95				CP70B1EH504K	A3	3.46			
1.0	1500V	CP70E1EH105K	A6	4.64	CP70E1FH105K	A5	4.37	CP70B1EH105K	A6	4.23			
2.0	1500V	CP70E1EH205K	B6	6.54	CP70E1FH205K	B5	5.57	CP70B1EH205K	B6	5.51	CP70B1FH205K	B5	5.25
4.0	1500V	CP70E1EH405K	D4	8.77	CP70E1FH405K	C4	8.14	CP70B1EH405K	D4	8.20	CP70B1FH405K	C4	7.82
6.0	1500V	CP70E1EH605K	E5	10.66	CP70E1FH605K	D5	10.40	CP70B1EH605K	E5	10.53	CP70B1FH605K	D5	10.09
8.0	1500V	CP70E1EH805K	F2	13.66	CP70E1FH805K	F1	12.99	CP70B1EH805K	F2	12.92	CP70B1FH805K	F1	12.66
10.0	1500V	CP70E1EH106K	G4	15.64	CP70E1FH106K	G2	15.06	CP70B1EH106K	G4	13.79	CP70B1FH106K	G2	14.66
12.0	1500V	CP70E1EH126K	J3	17.01	CP70E1FH126K	G2	16.97	CP70B1EH126K	J3	16.89	CP70B1FH126K	G2	16.84
15.0	1500V	CP70E1EH156K	J6	18.74	CP70E1FH156K	J3	18.68	CP70B1EH156K	J6	18.61	CP70B1FH156K	J3	18.56
.25	2000V	CP70E1EJ254K	B1	4.47									
.5	2000V	CP70E1EJ504K	B2	4.64									
1.0	2000V	CP70E1EJ105K	B6	5.67	CP70E1FJ105K	B3	5.62						
2.0	2000V	CP70E1EJ205K	C4	6.71	CP70E1FJ205K	C3	6.65						
4.0	2000V	CP70E1EJ405K	E6	9.45	CP70E1FJ405K	E3	9.40						
6.0	2000V				CP70E1FJ605K	G1	12.24						
10.0	2000V				CP70E1FJ106K	J3	17.64						
12.0	2000V				CP70E1FJ126K	J5	20.50						
15.0	2000V				CP70E1FJ156K	J7	22.04						
.1	2500V	CP70E1EK104K	B1	6.50									
.5	2500V	CP70E1EK504K	B4	6.99	CP70E1FK504K	B3	6.93						
1.0	2500V	CP70E1EK105K	D2	7.97	CP70E1FK105K	D1	7.90						
2.0	2500V	CP70E1EK205K	E5	12.88	CP70E1FK205K	D5	12.82						
4.0	2500V	CP70E1EK405K	J2	17.96									
10.0	2500V	CP70E1EK106K	J10	40.72									
.1	3000V	CP70E1EL104K	B2	8.30									
.25	3000V	CP70E1EL254K	B3	8.79									
.5	3000V	CP70E1EL504K	B6	9.76									
1.0	3000V	CP70E1EL105K	E4	12.06									
2.0	3000V	CP70E1EL205K	G2	15.01	CP70E1FL205K	G1	11.45						
4.0	3000V	CP70E1EL405K	J7	22.05	CP70E1FL405K	J3	21.99						
.1	4000V	CP70E1EM104K	E1	10.99									
.25	4000V				CP70E1FM254K	E1	11.08						
.5	4000V				CP70E1FM504K	E3	12.15						
1.0	4000V				CP70E1FM105K	E6	15.27						
2.0	4000V				CP70E1FM205K	J4	21.56						
4.0	4000V	CP70E1EM405K	J11	39.44	CP70E1FM405K	J10	35.62						
.1	5000V	CP70E1EN104K	E1	11.41									
.25	5000V	CP70E1EN254K	E3	12.72									
.5	5000V	CP70E1EN504K	E6	15.44	CP70E1FN504K	E4	13.38						
1.0	5000V				CP70E1FN105K	J2	17.95						
2.0	5000V				CP70E1FN205K	J6	28.86						
.1	6000V	CP70D1EP104K	E3	13.68	CP70D1FP104K	E2	12.65						
.25	6000V	CP70D1EP254K	E5	16.50	CP70D1FP254K	E4	14.22						
.5	6000V	CP70D1EP504K	J3	20.58									
1.0	6000V	CP70D1EP105K	J11	32.46	CP70D1FP105K	J9	29.51						
.1	7500V				CP70D1FR104K	E3	13.46						
.25	7500V				CP70D1FR254K	J1	16.80						
.5	7500V				CP70D1FR504K	J4	23.69						

A1	1 13/16 x 1 1/16 x 1 5/8	E2	3 3/4 x 2 1/4 x 3 3/8
A2	1 13/16 x 1 1/16 x 2 1/4	E3	3 3/4 x 2 1/4 x 3 7/8
A3	1 13/16 x 1 1/16 x 2 7/8	E4	3 3/4 x 2 1/4 x 4 1/2
A4	1 13/16 x 1 1/16 x 3 1/4	E5	3 3/4 x 2 1/4 x 4 3/4
A5	1 13/16 x 1 1/16 x 3 7/8	E6	3 3/4 x 2 1/4 x 5 1/8
A6	1 13/16 x 1 1/16 x 4 3/4	F1	3 3/4 x 2 1/2 x 4 3/4
B1	2 1/2 x 1 3/16 x 2 1/2	F2	3 3/4 x 2 1/2 x 5 3/4
B2	2 1/2 x 1 3/16 x 2 7/8	G1	3 3/4 x 3 1/16 x 4 1/2
B3	2 1/2 x 1 3/16 x 3 1/2	G2	3 3/4 x 3 1/16 x 4 3/4
B4	2 1/2 x 1 3/16 x 3 7/8	G4	3 3/4 x 3 1/16 x 5 1/2
B5	2 1/2 x 1 3/16 x 4 1/4	J1	4 1/16 x 3 3/4 x 3 7/8
B6	2 1/2 x 1 3/16 x 4 3/4	J2	4 1/16 x 3 3/4 x 4 3/8
C2	3 3/4 x 1 1/4 x 3 7/8	J3	4 1/16 x 3 3/4 x 4 3/4
C3	3 3/4 x 1 1/4 x 4 1/4	J4	4 1/16 x 3 3/4 x 5 1/8
C4	3 3/4 x 1 1/4 x 4 3/4	J5	4 1/16 x 3 3/4 x 5 1/2
D1	3 3/4 x 1 3/4 x 3 1/4	J6	4 1/16 x 3 3/4 x 6
D2	3 3/4 x 1 3/4 x 3 7/8	J7	4 1/16 x 3 3/4 x 6 1/2
D3	3 3/4 x 1 3/4 x 4	J9	4 1/16 x 3 3/4 x 7 1/2
D4	3 3/4 x 1 3/4 x 4 1/4	J10	4 1/16 x 3 3/4 x 8 1/2
D5	3 3/4 x 1 3/4 x 4 3/4	J11	4 1/16 x 3 3/4 x 9 3/8
E1	3 3/4 x 2 1/4 x 2 3/4		

If MIL brackets are required with units, specify CP07S (spade) or CP07F (footed) and add the bracket designation listed beside the unit.

Example: CP70E1EF504K with CP07SA2 brackets.

*Request O.E.M. Prices in the following quantities: 10-24, 25-49, 50-99

TYPE CP41 — Characteristics E and F

Cylindrical, hermetically sealed can with screwbase molded cover for vertical mounting. Operating temperature range —55 +85°C. Solder lug. nonremovable terminals MIL designation B). Supplied with mounting nut and lockwasher. Standard tolerance ±10% (K).

Units meet Vibration Grade 1 of MIL-C-25C Designated by addition of numeral 1 to part number.

Capacity	Voltage	Char. E P10M	Net Price*	Char. F P10M	Net Price*
2.0	600V	CP41B1EF205K	4.82	CP41B1FF205K	4.82
4.0	600V	CP41B1EF405K	5.67	CP41B1FF405K	5.67
1.0	1000V	CP41B1EG105K	5.27	CP41B1FG105K	5.27
2.0	1000V	CP41B1EG205K	5.27	CP41B1FG205K	5.57
.5	1500V			CP41B1FH504K	4.62
1.0	1500V			CP41B1FH105K	6.42

*Request O.E.M. Prices in the following quantities: 10-99

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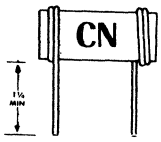
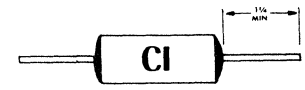
AEROVOX CAPACITORS

INDUSTRIAL CERAMIC CAPACITORS (cont.)

Temperature Compensating Tubulars





Popular values in accordance with the latest revisions of specification MIL-C-20 and EIA specification RS-198. Uninsulated units are furnished color coded, packaged in bulk. Insulated units—stamped with part number. Voltage rating 500 VDCW.

UNINSULATED TYPE CN NPO			INSULATED TYPE CI	
Cap.	MIL No.	Net Price*	MIL No.	Net Price*
.3	CC20CKOR3C	.33	CC21CKOR3C	.33
.5	CC20CKOR5C	.33	CC21CKOR5C	.33
.68	CC20CKR68C	.33	CC21CKR68C	.33
.75	CC20CKR75C	.33	CC21CKR75C	.33
1.0	CC20CK010C	.33	CC21CK010C	.33
1.2	CC20CK1R2C	.33	CC21CK1R2C	.33
1.5	CC20CK1R5C	.33	CC21CK1R5C	.33
2.0	CC20CK020C	.33	CC21CK020C	.33
2.2	CC20CK2R2C	.33	CC21CK2R2C	.33
3.0	CC20CJ030C	.33	CC21CJ030C	.33
4.0	CC20CH040C	.33	CC21CH040C	.33
5.0	CC20CH050C	.33	CC21CH050C	.33
6.0	CC20CH060C	.33	CC21CH060C	.33
6.2	CC20CH6R2C	.33	CC21CH6R2C	.33
7.0	CC20CH070C	.33	CC21CH070C	.33
8.0	CC20CH080C	.33	CC21CH080C	.33
9.0	CC20CH090C	.33	CC21CH090C	.33
10.0	CC20CH100C	.33	CC21CH100C	.33
12.0	CC20CH120G	.33	CC21CH120G	.33
15.0	CC20CH150G	.33	CC21CH150G	.33
18.0	CC20CH180G	.33	CC21CH180G	.33
20.0	CC20CH200G	.33	CC21CH200G	.33
22.0	CC20CH220G	.33	CC21CH220G	.33
24	CC25CH240G	.33	CC26CH240G	.33
27	CC25CH270G	.33	CC26CH270G	.33
30	CC25CH300G	.33	CC26CH300G	.33
33	CC25CH330G	.33	CC26CH330G	.33
36	CC25CH360J	.33	CC26CH360J	.33
39	CC25CH390J	.33	CC26CH390J	.33
43	CC25CH430J	.33	CC36CH430J	.33
47	CC25CH470J	.33	CC36CH470J	.33
51	CC25CH510J	.33	CC36CH510J	.33
56	CC32CG560J	.33	CC36CG560J	.33
62	CC32CG620J	.33	CC36CG620J	.33
68	CC32CG680J	.33	CC36CG680J	.33
75	CC32CG750J	.33	CC36CG750J	.33
82	CC32CG820J	.33	CC36CG820J	.33
91	CC32CG910J	.33	CC36CG910J	.33
100	CC32CG101G	.33	CC36CG101J	.33
110	CC32CG111G	.33	CC36CG111J	.66
120	CC35CG121G	.50	CC36CG121J	.66
130	CC35CG131G	.50	CC36CG131J	.66
150	CC35CG151G	.50	CC36CG151J	.66
160	CC45CG161G	.66		
180	CC45CG181G	.66		
200	CC45CG201G	.66		
220	CC45CG221G	.66		
240	CC45CG241G	.66		
270	CC45CG271F	.99		
300	CC45CG301F	.99		

UNINSULATED TYPE CN N750			INSULATED TYPE CI	
Cap.	MIL No.	Net Price*	MIL No.	Net Price*
.5	CC20UKOR5C	.33		
.75	CC20UKR75C	.33	CC21UKR75C	.33
1.0	CC20UK010C	.33	CC21UK010C	.33
1.5	CC20UK1R5C	.33	CC21UK1R5C	.33
2.0	CC20UK020C	.33	CC21UK020C	.33
5.0	CC20UJ050C	.33	CC21UJ050C	.33
10.0	CC20UJ100C	.33	CC21UJ100C	.33
12.0	CC20UJ120G	.33	CC20UJ120G	.33
15.0	CC20UJ150G	.33	CC21UJ150G	.33
18.0	CC20UJ180G	.33	CC21UJ180G	.33
20.0	CC20UJ200G	.33	CC21UJ200G	.33
22.0	CC20UJ220G	.33	CC21UJ220G	.33
24.0	CC20UJ240G	.33	CC21UJ240G	.33
27.0	CC20UJ270G	.33	CC21UJ270G	.33
30.0	CC20UJ300G	.33	CC21UJ300G	.33
33.0	CC20UJ330G	.33	CC21UJ330G	.33
36.0	CC20UJ360J	.33	CC21UJ360J	.33
39.0	CC20UJ390J	.33	CC21UJ390J	.33
43.0	CC20UJ430J	.33	CC21UJ430J	.33
47.0	CC20UJ470J	.33	CC21UJ470J	.33
51.0	CC20UJ510J	.33	CC21UJ510J	.33
56.0	CC20UJ560J	.33	CC21UJ560J	.33
62.0	CC20UJ620J	.33	CC21UJ620J	.33
68.0	CC25UJ680J	.33	CC26UJ680J	.33
75.0	CC25UJ750J	.33	CC26UJ750J	.33
82.0	CC25UJ820J	.33	CC26UJ820J	.33
91.0	CC25UJ910J	.33	CC26UJ910J	.33
100.0	CC25UJ101G	.33	CC26UJ101J	.33
110	CC25UJ111G	.33	CC26UJ111J	.33
120	CC25UJ121G	.33	CC26UJ121J	.33
130	CC25UJ131G	.33	CC36UJ131J	.33
150	CC25UJ151G	.33	CC36UJ151J	.33
160	CC32UJ161G	.33	CC36UJ161J	.33
180	CC32UJ181G	.33	CC36UJ181J	.66
200	CC32UJ201G	.33	CC36UJ201J	.66
220	CC32UJ221G	.33	CC36UJ221J	.66
240	CC32UJ241G	.33	CC36UJ241J	.66
270	CC35UJ271F	.99	CC36UJ271J	.66
300	CC35UJ301F	.99	CC36UJ301J	.66
330	CC35UJ331F	.99	CC36UJ331F	.66
360	CC35UJ361F	.99	CC36UJ361J	.66
390	CC45UJ391F	.99		
430	CC45UJ431F	.99		
470	CC45UJ471F	.99		

Type Designation MIL	Max. Size	TOLERANCE Letter Descrip.	Tolerance
CC20	.200 x .400	C	± .25 mmf.
CC21	.200 x .562		
CC25	.250 x .655	F	± 1%
CC26	.250 x .812		
CC32	.250 x .860	G	± 2%
CC35	.255 x 1.090		
CC36	.340 x 1.328	J	± 5%
CC45	.340 x 1.890		

*Request O.E.M. Prices in the following quantities: 25-99, 100-249, 250-499, 500-999

Net

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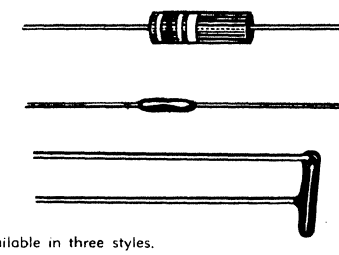
AEROVOX

CAPACITORS

CERAFIL®

INDUSTRIAL CERAMIC CAPACITORS
ULTRAMINIATURE CAPACITORS
DIPPED-RADIAL & AXIAL LEADS
MOLDED-AXIAL LEADS



Cerafil® capacitors are the smallest ceramic capacitors available anywhere. These remarkably ultra-miniature units are designed primarily for air-borne and space-borne equipments, having critical space and weight parameters. They are also designed for transistorized circuit applications in hearing aids and other critical requirements where space and weight are at an absolute premium. The unique design and construction features of Cerafil® capacitors make it possible to obtain extremely high capacities per unit volume. These tiny capacitors are the ideal answer to many problems created by the growing trend towards miniaturization of electronic assemblies and equipments.

When tested using Cerafil® ratings, these units will meet or surpass the requirements of MIL-C-11015C.

All 29 stock values are available in three styles.

1. C80V dipped axial leads (Also referred to as C80A or C80T)
2. Dipped radial lead units (Also referred to as C80R)
3. Completely new molded MC80V

The new molded unit features a rugged epoxy encapsulation which provides an even greater degree of reliability to the already missile proven Cerafil®. Increased mechanical strength and the uniform dimensions make the molded Cerafil® ideal for automated assembly operation.

For full technical information request Bulletins NPJ-119 REV. and NPJ-120 REV.

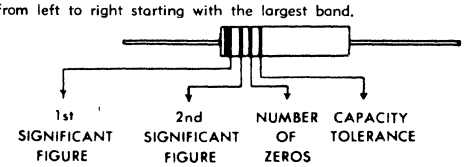
Capacity	†Dimensions		Dipped Axial Leads		Dipped Radial Leads		Mil-C-11015C	+.003 Dimensions -.005		Molded Axial Leads			
	Diameter	Length	Part No.	Net Price*	Part No.	Net Price*	Part No.	Diameter	Length	± 20% Part No.	Net Price*	± 10% Part No.	Net Price*
.00001	.090	.320	C80V100AM	.52	C80V100RM	.57	AXCK12AX100M	.087	.315	MC80V100AM	.47	MC80V100AK	.59
.000022	.090	.320	C80V220AM	.52	C80V220RM	.57	AXCK12AX220M	.087	.315	MC80V220AM	.47	MC80V220AK	.59
.000033	.090	.320	C80V330AM	.52	C80V330RM	.57	AXCK12AX330M	.087	.315	MC80V330AM	.47	MC80V330AK	.59
.000047	.090	.320	C80V470AM	.52	C80V470RM	.57	AXCK12AX470M	.087	.315	MC80V470AM	.47	MC80V470AK	.59
.000056	.090	.320	C80V560AM	.52	C80V560RM	.57		.087	.315	MC80V 560AM	.47	MC80V560AK	.59
.000068	.090	.320	C80V680AM	.52	C80V680 RM	.57		.087	.315	MC80V680AM	.47	MC80V680AK	.59
.000082	.090	.320	C80V820AM	.52	C80V820RM	.57		.087	.315	MC80V820AM	.47	MC80V820AK	.59
.0001	.090	.320	C80V101AM	.52	C80V101RM	.57	AXCK12A X101M	.087	.315	M C80V101AM	.47	MC80V101AK	.59
.00022	.090	.320	C80V221AM	.52	C80V221RM	.57	AXCK12AX221M	.087	.315	MC80V221AM	.47	MC80V221AK	.59
.00033	.090	.320	C80V331AM	.52	C80V331RM	.57	AXCK12AX331M	.087	.315	MC80V331AM	.47	MC80V331AK	.59
.00047	.090	.320	C80V471AM	.52	C80V471RM	.57	AXCK12AX471M	.087	.315	MC80V471AM	.47	MC80V471AK	.59
.00056	.090	.320	C80V561AM	.52	C80V561RM	.57		.087	.315	MC80V561AM	.47	MC80V561AK	.59
.00068	.090	.320	C80V681AM	.52	C80V681RM	.57		.087	.315	MC80V681AM	.47	MC80V681AK	.59
.00082	.090	.320	C80V821AM	.52	C80V821RM	.57		.087	.315	MC80V821AM	.47	MC80V821AK	.59
.001	.090	.320	C80V102AM	.46	C80V102RM	.51	AXCK12AX102M	.087	.315	MC80V102AM	.41	MC80V102AK	.51
.002	.120	.500	C80V202AM	.76	C80V202RM	.84		.117	.495	MC80V202AM	.68	MC80V202AK	.85
.0022	.120	.500	C80V222AM	.76	C80V222RM	.84	AXCK13AX222M	.117	.495	MC80V222AM	.68	MC80V222AK	.85
.0033	.120	.500	C80V332AM	.76	C80V332RM	.84	AXCK13AX332M	.117	.495	MC80V332AM	.68	MC80V332AK	.85
.0047	.120	.500	C80V472AM	.76	C80V472RM	.84	AXCK13AX472M	.117	.495	MC80V472AM	.68	MC80V472AK	.85
.005	.120	.500	C80V502AM	.76	C80V502RM	.84		.117	.495	MC80V502AM	.68	MC80V502AK	.85
.0068	.180	.500	C80V682AM	1.00	C80V682RM	1.19		.157	.495	MC80V682AM	.90	MC80V682AK	1.13
.01	.180	.500	C80V103AM	1.00	C80V103RM	1.19	AXCK14AX103M	.157	.495	MC80V103AM	.90	MC80V103AK	1.13
.02	.200	.500	C80V203AM	1.83	C80V203RM	2.03		.197	.495	MC80V203AM	1.65	MC80V203AK	2.06
.022	.200	.500	C80V223AM	3.05	C80V223RM	3.38	AXCK15AX223M	.197	.495	MC80V223AM	2.75	MC80V 223AK	3.44
.033	.240	.650	C80V333AM	3.05	C80V333RM	3.38		.237	.645	MC80V333AM	2.75	MC80V333AK	3.44
.047	.240	.650	C80V473AM	3.05	C80V473RM	3.38	AXCK16AX473M	.237	.645	MC80V473AM	2.75	MC80V473AK	3.44
.05	.240	.650	C80V503AM	3.05	C80V503RM	3.38		.237	.645	MC80V503AM	2.75	MC80V503AK	3.44
.068	.310	.750	C80V683AM	5.48	C80V683RM	6.08		.277	.745	MC80V683AM	4.93	MC80V683AK	6.16
.1	.310	.750	C80V104AM	5.48	C80V104RM	6.08	AXCK17AX104M	.277	.745	MC80V104AM	4.93	MC80V104AK	6.16

†Overall length may exceed dimensions shown by as much as 1/16" due to deposit of insulating material on leads.

MARKING

The following color code system is used to denote capacity in micromicrofarads and tolerance.

Read from left to right starting with the largest band.



CAPACITANCE		TOLERANCE
±20%		Black
±10%		Brown
CAPACITANCE		
0	Black	5 Green
1	Brown	6 Blue
2	Red	7 Violet
3	Orange	8 Gray
4	Yellow	9 White

ELECTRICAL SPECIFICATIONS

1. VOLTAGE — 100 VDCW; 300 VDCT
2. CAPACITY TOLERANCE — ±10% (K), ±20% (M) as listed above.
3. INSULATION RESISTANCE — 100 mfd.—megohms or 10,000 megohms whichever is smaller.
4. TEMPERATURE COEFFICIENT — (—55°C to +85°C.) No voltage +10% to —15%. 100 volts applied — +10% to —35%.
5. POWER FACTOR — 2.5% maximum.
6. OPERATING TEMPERATURE —55°C to 85°C at 100 volts —55°C to 125°C at 50 volts

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499

MECHANICAL SPECIFICATIONS

1. All dimensions in inches.
2. LEADS — Tinned Copper
   C80V—Below .01 mfd.—#26 gauge.
   .01 and above—#22 gauge..
   MC80V—.005 and below—#26 gauge.
   .0051 and above—#22 gauge.
3. LEAD LENGTHS — C80V—1½" Min.
   MC80V—1 15/32" Min.
4. MARKING — Color code. No code for temperature coefficient; no code for lead designation since it is obvious.

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AEROVOX

CAPACITORS

INDUSTRIAL CERAMIC CAPACITORS (cont.)

CEROL® HIGH CAPACITY, HIGH RELIABILITY, ROLLED CERAMIC CAPACITORS

Cerol® capacitors are rolled ceramic capacitors in the high capacitance range of paper and plastic film dielectrics but in much smaller physical sizes and with superior electrical characteristics. Designed for general applications in bypass-coupling, filtering and blocking circuits. Excellent electrical characteristics for critical applications in decoupling and pulse circuits where low series resistance at high frequencies together with miniature sizes are required. Low series resistance makes them ideal for use in all computer circuits. Operating temperature range at rated voltage —55°C to 85°C and at 50% rated voltage —55°C to 125°C. Capacitance tolerance is ±20%. Will meet or surpass all the requirements of MIL-C-11015B.

Cerol capacitors are available in three types; type CR89, CR90 and CR91 rated at 50V, 100V and 200V respectively at 85°C and derated by 50% at 125°C.

Units are stamped with the rated voltage for identification of type.

For full technical information request Bulletin NPJ-112 (Rev.)

Value	TYPE CR89 – 50 VDCW				TYPE CR90 – 100 VDCW				TYPE CR91 – 200 VDCW				
	Stock Items	D Max In.	L Max In.	Net Price*	Stock Items	D Max In.	L Max In.	Net Price*	Stock Items	D Max In.	L Max In.	Net Price*	
.1 MFD	CR89W104AM	.140	.400	3.65	CR90V104AM	.210	.690	4.05	CR91W104AM	.290	.495	4.86	Brown, Black, Yellow & Black
.25 MFD	CR89W254AM	.210	.495	4.86	CR90V254AM	.260	.690	5.40	CR91W254AM	.350	.690	6.48	Red Green, Yellow & Black
.5 MFD	CR89W504AM	.260	.495	7.90	CR90V504AM	.350	.690	8.77	CR91W504AM	.440	.690	10.54	Green, Black, Yellow & Black
1.0 MFD	CR89W105AM	.260	.690	12.15	CR90V105AM	.480	.690	13.50	CR91W105AM	.470	1.000	16.20	Brown, Black, Green, Black
2.0 MFD	CR89W205AM	.350	.690	18.23	CR90V205AM	.400	1.440	20.25	CR91W205AM	.520	1.440	24.30	Red, Black, Green, Black

SPECIFICATIONS

Axial gold plated dumet leads are standard. Tinned copper leads also available on special order. All values — #22 gauge except CR89W104AM has 26 gauge leads. For non-standard values, use dimensions of next higher standard value and order special.

Power Factor — 2% Maximum
Insulation Resistance = 100 Meg. — Mfd. minimum
Series Resistance < .20 ohms at 8 to 10 mc.
Test Voltage = 3 times Rated Voltage
Other requirements per MIL-C-11015C

T. C. —55° to +125°C	TYPE CR90	TYPES CR89 & CR91
0 Voltage	+15%, —25%	+10%, —30%
@ Rated Voltage	+15%, —35%	+10%, —40%

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499

MILITARY CERAMIC DISCS

MIL-C-11015B DISC CERAMICS

These general purpose capacitors are made in accordance with the requirements of the Military Specifications. Rated at 500 VDCW. Units identified by letter A as 5th digit are made to operate from —55°C to +85°C. Those with letter B as fifth digit operate from —55°C to +125°C. Tolerances as noted.

equest O.E.M. Prices in the following uantities: 50-99, 100-499, 500-999

CAP.	TOL.	MIL NO.	Net Price*	CAP.	TOL.	MIL NO.	Net Price*
2.2 mmf	10%	CK60BV2R2K	.202	220 mmf	10%	CK61BX221K	.172
3.3	10%	CK60BV3R3K	.202	220	20%	CK61BX221M	.158
4.7	10%	CK60BV4R7K	.202	330	10%	CK61BX331K	.172
6.8	10%	CK60BV6R8K	.202	330	20%	CK61BX331M	.158
10	10%	CK60BV100K	.202	470	10%	CK61BX471K	.172
15	10%	CK60BV150K	.202	470	20%	CK61BX471M	.158
22	10%	CK60BV220K	.202	680	10%	CK61BX681K	.172
33	10%	CK60BX330K	.172	680	20%	CK61BX681M	.158
33	20%	CK60BX330M	.158	2200	20%	CK61AW222M	.142
47	10%	CK60BX470K	.172	820	10%	CK62BX821K	.172
47	20%	CK60BX470M	.158	820	20%	CK62BX821M	.158
68	10%	CK60BX680K	.172	1000	10%	CK62BX102K	.172
68	20%	CK60BX680M	.158	1000	20%	CK62BX102M	.158
100	10%	CK60BX101K	.172	1500	10%	CK62BX152K	.176
100	20%	CK60BX101M	.158	1500	20%	CK62BX152M	.162
150	10%	CK60BX151K	.172	2200	10%	CK62AX222K	.154
150	20%	CK60BX151M	.158	2200	20%	CK62AX222M	.142
220	10%	CK60AX221K	.154	3300	20%	CK62AW332M	.142
220	20%	CK60AX221M	.142	4700	20%	CK62AW472M	.144
330	10%	CK60AX331K	.154	6800	20%	CK62AW682M	.144
330	20%	CK60AX331M	142	8200	20%	CK62AW822M	.144
470	10%	CK60AX471K	.154	2200	10%	CK63BX222K	.176
470	20%	CK60AX471M	.142	2200	20%	CK63BX222M	.162
680	20%	CK60AW681M	.142	3300	10%	CK63BX332K	.176
820	20%	CK60AW821M	.142	3300	20%	CK63BX332M	.162
1000	20%	CK60AW102M	.142	10000	20%	CK63AW103M	.166
1500	20%	CK60AW152M	.142				

Net

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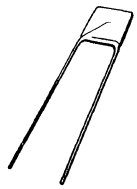
AEROVOX CAPACITORS

INDUSTRIAL CERAMIC CAPACITORS (cont.)

SUBMINIATURE THIN PLATE CAPACITORS
TYPES TPNPO, TP 25 & TP 89



Subminiature rectangular ceramic capacitors with a difference. Slim design allows close assembly, small size-maximum circuit density. Ideal for transistorized circuit and micro-module applications.

- Close temperature coefficients
- Operation to 125°C
- Closer standard tolerances
- Radial or axial lead
- Gold plate Dumet leads

For complete technical data request bulletin NPJ-122.

TYPICAL PROPERTIES

	TYPE TPNPO	TYPE TP25	TYPE TP89
Voltage, VDCW @ 85° C, (Derated 50% @ 125° C)	50	50	50
Power Factor, Maximum @ 1 KC.	.1%	.6%	2%
Temperature Coefficient with 0 Voltage, —55°C to +125°C.	0±30PPM/°C	+5%, —8%	+10%, —30%
Temperature Coefficient with rated Voltage applied, —55°C to +125°C.	0±30PPM/°C	+5%, —10%	+10%, —40%
Capacity Tolerance	±5%	±10%	±20%

TYPICAL CAPACITY RANGE—MMF

MAXIMUM SIZE (L x W x t)	TYPE TPNPO	TYPE TP25	TYPE TP89
.100 x .100 x .060"	5 - 20	25 - 140	360 - 1300
.150 x .150 x .060"	21 - 50	141 - 350	1301 - 3300
.200 x .200 x .060"	51 - 100	351 - 700	3301 - 6600
.250 x .250 x .060"	101 - 160	701 - 1200	6601 - 10500
.300 x .300 x .060"	161 - 220	1201 - 1500	10501 - 14500
.350 x .350 x .060"	221 - 305	1501 - 2100	14501 - 20000

Spacing between radial leads is .100" on the .100" and .150" case sizes; .200" on all other case sizes.

STOCK VALUES†

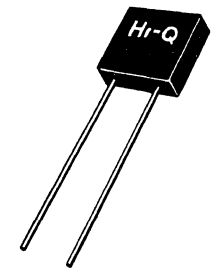
Capacitance In MMFD.	CAT. NO. TPNPO	*Net Price	CAT. NO. TP25	*Net Price	CAT. NO. TP89	*Net Price
4.7	TPNPO-4R7*J	.68				
6.8	TPNPO-6R8*J	.68				
10.0	TPNPO-100*J	.68				
15.0	TPNPO-150*J	.68				
22.0	TPNPO-220*J	.68				
33.0	TPNPO-330*J	.68	TP25-330*K	.60		
47.0	TPNPO-470*J	.68	TP25-470*K	.60		
68.0	TPNPO-680*J	.68	TP25-680*K	.60		
100	TPNPO-101*J	.68	TP25-101*K	.60		
150	TPNPO-151*J	.82	TP25-151*K	.60		
220	TPNPO-221*J	.82	TP25-221*K	.60		
330			TP25-331*K	.60		
470			TP25-471*K	.60	TP89-471*M	.48
680			TP25-681*K	.60	TP89-681*M	.48
1000			TP25-102*K	.72	TP89-102*M	.48
1500			TP25-152*K	.72	TP89-152*M	.48
2200			TP25-222*K	1.45	TP89-222*M	.48
3300					TP89-332*M	.48
4700					TP89-472*M	.48
6800					TP89-682*M	.58
10,000					TP89-103*M	.58
15,000					TP89-153*M	1.16
20,000					TP89-203*M	1.16

*Insert "A" for axial leads or "R" for radial leads
† Intermediate values and closer tolerances available on special order
*Request O.E.M. Prices in the following quantities: 50-99, 100-499

TYPE MC52-MC62
MIL TYPE CK05-CK06

Test and compare these new **reliable** types.

- Will meet MIL-C-11015/18/19
- Will operate without derating at 200VDC from —55°C to +150°C
- Life tested at 400 VDC, 150°C
- Manufactured in complete new automated facility
- Molded (not shell encased)
- Ceralam Process



DIMENSIONS
CK05—.195 x .195 x .095
CK06—.295 x .295 x .095

These units are marked with capacity, voltage and tolerance.

For complete technical data request bulletin NPJ-123

Cap. MMF.	Commercial Designation	MIL-C-11015C Designation ± 10%	*Net Price	± 20%	*Net Price
10	MC52CW100*	CK05CW100K	1.11	CK05CW100M	.75
12	MC52CW120*	CK05CW120K	1.11		
15	MC52CW150*	CK05CW150K	1.11	CK05CW150M	.75
18	MC52CW180*	CK05CW180K	1.11		
22	MC52CW220*	CK05CW220K	1.11	CK05CW220M	.75
27	MC52CW270*	CK05CW270K	1.11		
33	MC52CW330*	CK05CW330K	1.11	CK05CW330M	.75
39	MC52CW390*	CK05CW390K	1.11		
47	MC52CW470*	CK05CW470K	1.11	CK05CW470M	.75
56	MC52CW560*	CK05CW560K	1.11		
68	MC52CW680*	CK05CW680K	1.11	CK05CW680M	.75
82	MC52CW820*	CK05CW820K	1.11		
100	MC52CW101*	CK05CW101K	1.11	CK05CW101M	.75
120	MC52CW121*	CK05CW121K	.75		
150	MC52CW151*	CK05CW151K	.75	CK05CW151M	.63
180	MC52CW181*	CK05CW181K	.75		
220	MC52CW221*	CK05CW221K	.75	CK05CW221M	.63
270	MC52CW271*	CK05CW271K	.75		
330	MC52CW331*	CK05CW331K	.75	CK05CW331M	.63
390	MC52CW391*	CK05CW391K	.75		
470	MC52CW471*	CK05CW471K	.75	CK05CW471M	.63
560	MC52CW561*	CK05CW561K	.75		
680	MC52CW681*	CK05CW681K	.75	CK05CW681M	.63
820	MC52CW821*	CK05CW821K	.75		
1000	MC52CW102*	CK05CW102K	.75	CK05CW102M	.63
1200	MC62CW122*	CK06CW122K	1.05		
1500	MC62CW152*	CK06CW152K	1.05	CK06CW152M	.89
1800	MC62CW182*	CK06CW182K	1.05		
2200	MC62CW222*	CK06CW222K	1.05	CK06CW222M	.89
2700	MC62CW272*	CK06CW272K	1.05		
3300	MC62CW332*	CK06CW332K	1.05	CK06CW332M	.89
3900	MC62CW392*	CK06CW392K	1.05		
4700	MC62CW472*	CK06CW472K	1.05	CK06CW472M	.89
5600	MC62CW562*	CK06CW562K	1.95		
6800	MC62CW682*	CK06CW682K	1.95	CK06CW682M	1.75
8200	MC62CW822*	CK06CW822K	1.95		
10000	MC62CW103*	CK06CW103K	1.95	CK06CW103M	1.75

For price of Commercial Units deduct 5¢ from Military Prices.
*Add K for ± 10% tolerance or M for ± 20% tolerance
*Request O.E.M. Prices in the following quantities: 50-99, 100-249, 250-499, 500-999

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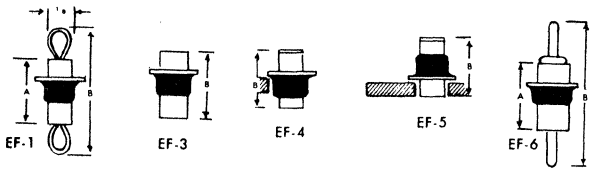
AEROVOX CAPACITORS

INDUSTRIAL CERAMIC CAPACITORS (cont.)



Eyelet Feed-Thru Capacitors

Hi-Q Feed-Thru Capacitors Eyelet Type are the ultimate in miniaturization because of unique design. This design is such that the capacitors can be soldered directly to a chassis and provide excellent bypass performance where space is critical. The low inductance characteristics brought about through the construction of the capacitors make the eyelet type ideal for high frequency bypass.

***Net Price .33**

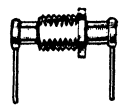
Style	Capacity in mmf						D.C. Working Voltage	Size A	Size B
EF-1	50	100	200	500	1000	1500	500	.375	.750
EF-3	50	100	200	500	1000	1500	500	—	.375
EF-4	50	100	200	500			250	—	.250
EF-5	50	100	200	500	1000		250	—	.250
EF-6	50	100	200	500	1000	1500	500	.375	.875

Tolerance ±20% up to and including 500 mmfd. GMV above 500 mmfd.

*Request O.E.M. prices in the following quantities: 25-99, 100-249, 250-499, 500-999.

Feed-Thru Capacitors

FEED-THRU TYPE CFC



FEED-THRU TYPE CF

Hi-Q Feed-Thru Capacitors provide means to transmit thru shields or ground potentials and simultaneously by-pass unwanted frequencies. A good mechanical connection is provided by the silver-plated bushing. These are excellent dependable units even under severe mechanical vibrations as in aircraft, missiles and automotive requirements. All units are flash tested at 1250 volts D.C.

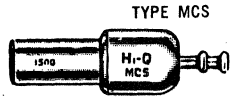
****Net Price .99**

Type	Cap. Mmfd.	Thread
CFC-1	500 mmf.	12-28
	1000 mmf.	12-28
	1500 mmf.	12-28
CF-1	1500 mmf.	¼-28
Tolerance ±20%		

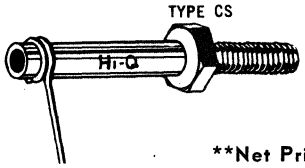
Type	Cap. Mmfd.	Thread
CF-2	1800 mmf.	⅜-24
	2300 mmf.	⅜-24
	3000 mmf.	⅜-24
CF-3	4000 mmf.	⅜-24
CF-4	7000 mmf.	⅜-24

Stand-Off Capacitors

TYPE MCS



TYPE CS



Hi-Q stand-off capacitors have a screw fixture for mounting to the chassis or common ground. All units are coated with a high temperature enamel, stamped with capacity and supplied with mounting nut, if desired.

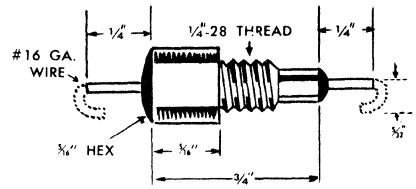
The MCS is a quick mounting type which permits high speed mechanical installation. The ceramic tube is enclosed in a cadmium-plated metal case with a specially developed end seal for protection against humidity and temperature changes. All units are flash tested at 1250 volts D.C. The power factor is under 3% and the insulation resistance is above 7500 megohms.

****Net Price .99**

500 VDCW

Type	Capacity Mmfd.	Type	Capacity Mmfd.
CS-1A	50	CS-4	7500
CS-1A	100	CIS-1	50
CS-1B	500	CIS-1	100
CS-1B	1000	CIS-1	500
CS-1B	1500	CIS-1	1000
CS-2	3000	CIS-2	1500
CS-3	4000	MCS	1500

Radial leads only
Tolerance ±10% up to and including 500 mmf.
±20% above 500 mmf.



BLF

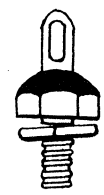
FRACTIONAL TOLERANCES ±1/32

Heavy Duty Feed-Thru Capacitors

Type BLF-ICC

These heavy-duty Feed-Thru capacitors are the same as listed in specification MIL-C-11015. Units through 100 mmf. are rated at 1000 VDCW, values above 100 mmf. are rated at 500 VDCW. Capacity tolerance is ±10% except on the 1000 mmf. and 1500 mmf. which have capacity tolerance of ±20%.

Capacity	Part Number	**Net Price
10	AXCK70AX100K	1.32
33	AXCK70AX330K	1.32
47	AXCK70AX470K	1.32
68	AXCK70AX680K	1.32
100	AXCK70AX101K	1.32
470	AXCK70AX471K	1.32
680	AXCK70AX681K	1.32
1000	AXCK70AW102M	1.32
1500	AXCK70AW152M	1.32



DS-C

Disk Stand-Off Capacitors

Type DS-C

These units are very popular in industrial applications having a critical space requirement but requiring a stand-off capacitor. These stock units are furnished with captive lock washers, are rated at 950 VDCW. Capacity tolerance GMV. Both units are furnished with threaded portion 5/16" long, #6-32 thread.

Capacity	**Net Price
470	.90
1000	.90

****Request O.E.M. Prices in the following quantities: 25-99, 100-249, 250-499, 500-999**

Net

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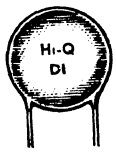
AEROVOX CAPACITORS

INDUSTRIAL CERAMIC CAPACITORS

General Purpose Bypass Coupling Disks Type IDI



These industrial ceramic disks capacitors offer small physical sizes with high capacity. Mainly used for by-pass coupling or filter applications these units contain maximum protection against humidity, voltage breakdown, vibration. Rated for 500 VDCW these units are flash tested at 1500 VDC. Units will be marked with capacity and tolerance except those units which have a CK number listed. Such units are equivalent to those listed in MIL-C-11015 and will be marked with the number shown in the listing.

*NET PRICE .15

Cap. mmf	Size	Tolerance	Cap. mmf	Size	Tolerance	Mil Equivalent MIL-C-11015A
2.2	DI-1	±.5 mmf.	470	DI-1	+100-20%	CK60Y471Z
3.3	DI-1	±.5 mmf.	500	DI-1	±10%	
4.7	DI-1	±.5 mmf.	510	DI-1	±10%	
5.0	DI-1	±10%	560	DI-1	±10%	
6.0	DI-1	±10%	600	DI-2	±10%	
6.5	DI-1	±10%	680	DI-2	±10%	
7.5	DI-1	±10%	680	DI-1	+100-20%	CK60Y681Z
8.0	DI-1	±10%	750	DI-2	±10%	
8.2	DI-1	±10%	800	DI-2	±10%	
10	DI-1	±10%	820	DI-2	±10%	
12	DI-1	±10%	820	DI-1	+100-20%	CK60Y821Z
15	DI-1	±10%	910	DI-2	±10%	
18	DI-1	±10%	1000	DI-2	±10%	
20	DI-1	±10%	1000	DI-2	+100-20%	CK61Y102Z
22	DI-1	±10%	1200	DI-3	±10%	
24	DI-1	±10%	1300	DI-3	±10%	
25	DI-1	±10%	1500	DI-3	±10%	
27	DI-1	±10%	1500	DI-3	+100-20%	CK61Y152Z
30	DI-1	±10%	1600	DI-4	±10%	
33	DI-1	±10%	1800	DI-4	±10%	
39	DI-1	±10%	2000	DI-4	±10%	
47	DI-1	±10%	2200	DI-4	±20%	
50	DI-1	±10%	2200	DI-4	+100-20%	CK62Y222Z
51	DI-1	±10%	2500	DI-4	±20%	
56	DI-1	±10%	2700	DI-4	±20%	
68	DI-1	±10%	3000	DI-4	±20%	
75	DI-1	±10%	3300	DI-4	±20%	
82	DI-1	±10%	3300	DI-4	+100-20%	CK62Y332Z
91	DI-1	±10%	3900	DI-2	GMV	
100	DI-1	±10%	4000	DI-2	GMV	
120	DI-1	±10%	4300	DI-2	GMV	
130	DI-1	±10%	4700	DI-4	±20%	
150	DI-1	±10%	4700	DI-4	+100-20%	CK62Y472Z
180	DI-1	±10%	5000	DI-3	GMV	
200	DI-1	±10%	5600	DI-3	GMV	
220	DI-1	±10%	6800	DI-3	GMV	
240	DI-1	±10%	7500	DI-4	GMV	
250	DI-1	±10%	8200	DI-4	GMV	
270	DI-1	±10%	10000	DI-5	±20%	
300	DI-1	±10%	10000	DI-5	+100-20%	CK63Y103Z
330	DI-1	±10%				
350	DI-1	±10%				
360	DI-1	±10%				
390	DI-1	±10%				
400	DI-1	±10%				
470	DI-1	±10%				

Type TTD Transistor Disks

These square miniature disks are ideally suited for all applications where size is a factor such as transistorized radios and industrial applications having critical space requirements.

Units are rated at 100 VDCW ±20% standard tolerance.

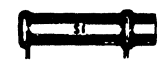
Capacity	Length & Width	Thickness	Net Price*
.005	.280	.125	.24
.01	.340	.125	.24
.02	.430	.125	.30
.025	.465	.125	.30
.03	.465	.125	.30
.05	.535	.125	.36
.1	.700	.125	.54

GENERAL PURPOSE TUBULARS

The items listed below fall into two type categories. The type SI or "Dog Bone" Durez coated tubular, and the CI which is an insulated tubular made in a ceramic tube.

*NET PRICE .17

500 VDCW



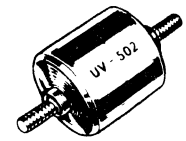
Cap. Mmfd.	Size		Cap. Mmfd.	Size		Cap. Mmfd.	Size	
5	SI-1	CI-1	120	SI-1	CI-1	1800	SI-2	CI-2
10	SI-1	CI-1	150	SI-1	CI-1	2000	SI-2	CI-2
12	SI-1	CI-1	180	SI-1	CI-1	2200	SI-7	CI-3
15	SI-1	CI-1	200	SI-1	CI-1	2400	SI-7	CI-3
18	SI-1	CI-1	220	SI-1	CI-1	2500	SI-7	CI-3
20	SI-1	CI-1	240	SI-1	CI-1	2700	SI-7	CI-3
22	SI-1	CI-1	250	SI-1	CI-1	3000	SI-19	CI-3
24	SI-1	CI-1	270	SI-1	CI-1	3300	SI-19	CI-3
25	SI-1	CI-1	300	SI-1	CI-1	4000	SI-19	CI-3
27	SI-1	CI-1	330	SI-1	CI-1	4700	SI-3	CI-3
30	SI-1	CI-1	360	SI-1	CI-1	5000	SI-3	CI-3
33	SI-1	CI-1	390	SI-1	CI-1	5100	SI-3	CI-3
39	SI-1	CI-1	470	SI-1	CI-1	5600	SI-3	CI-3
47	SI-1	CI-1	500	SI-1	CI-1	6000	SI-3	CI-3
50	SI-1	CI-1	510	SI-1	CI-1	6800	SI-4	
51	SI-1	CI-1	560	SI-1	CI-1	7500	SI-4	
56	SI-1	CI-1	680	SI-1	CI-1	10,000	SI-5	
68	SI-1	CI-1	750	SI-1	CI-1	15,000	SI-6	
75	SI-1	CI-1	820	SI-1	CI-2	17,500	SI-6	
82	SI-1	CI-1	910	SI-1	CI-2	20,000	SI-5 GMV	
91	SI-1	CI-1	1000	SI-1	CI-2	25,000	SI-5 GMV	
100	SI-1	CI-1	1200	SI-2	CI-2	30,000	SI-6 GMV	
110	SI-1	CI-1	1500	SI-2	CI-2	33,000	SI-6 GMV	

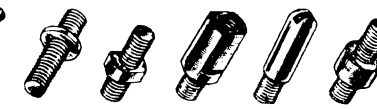
Standard Tolerance ±20%

HIGH VOLTAGE "CARTWHEELS"

Hi-Q high voltage "cartwheels" are thoroughly tested units capable of assuring dependable service while withstanding high voltages. This new universal type (UV) offers interchangeable terminals in 5 styles for use in filter and by-pass applications in TV high voltage power supplies.

Terminal Hardware





UV-1A UV-2A UV-3A UV-4A UV-6A

STOCK ITEMS				STOCK ITEMS–TERMINAL HARDWARE			
Type	Voltage	Cap. Mmfd.	Net Price*	Type	Net Price*	Type	Net Price*
UV-501	10,000 VDCW	500 mmf.	.84	UV-1A	.06	UV-4A	.06
UV-502	20,000 VDCW	500 mmf.	1.11	UV-2A	.06	UV-6A	.06
UV-503	30,000 VDCW	500 mmf.	2.70	UV-3A	.06		

*Request O.E.M. Prices in the following quantities: 50-up

TUBULAR and DISK CAPACITOR SIZES

Designation	Size	Designation	Size
SI-1	.234 x .437	CI-1	.250 x .562
SI-2	.234 x .687	CI-2	.250 x .812
SI-3	.312 x 1.250	CI-3	.340 x 1.320
SI-4	.375 x 1.093	DI-0	1/4
SI-5	.375 x 1.600	DI-1	5/16
SI-6	.375 x 1.968	DI-2	3/8
SI-7	.275 x .875	DI-3	7/16
SI-13	.234 x .468	DI-4	19/32
SI-19	.312 x .937	DI-5	11/16
SI-22	.280 x .750	DI-6	3/4
SI-27	.275 x .500	DI-7	29/32

*Request O.E.M. Prices in the following quantities: 25-99, 100-249, 250-499, 500-999

AEROVOX

CAPACITORS

DISK CAPACITORS
Bypass and Coupling

Hi-Q DISK CAPACITORS

BPD-GMV CAPACITOR
Stock Items 1000 VDCW

Type	Cap. Mfd.	Dia.	Net Price*	Type	Cap. Mfd.	Dia.	Net Price*
BPD	.00001	5/16	$.15	BPD	.0033	7/16	$.15
BPD	.000015	5/16	.15	BPD	.004	7/16	.15
BPD	.000022	5/16	.15	BPD	.0047	19/32	.15
BPD	.000025	5/16	.15	BPD	.005	19/32	.15
BPD	.000033	5/16	.15	BPD	.0068	19/32	.15
BPD	.000047	5/16	.15	BPD	.01	3/4	.18
BPD	.00005	5/16	.15				
BPD	.000068	5/16	.15	BPD	.015	29/32	.24
BPD	.0001	5/16	.15	BPD	.02	29/32	.36
BPD	.00012	5/16	.15	BPD	.03	29/32	.39
BPD	.00015	5/16	.15	BPD	.05	29/32	.42
BPD	.0002	5/16	.15	DUALS and TRIPLES			
BPD	.00027	5/16	.15	BPD2-2 x .001		7/16	.24
BPD	.00033	5/16	.15	BPD2-2 x .0015		19/32	.24
BPD	.00047	5/16	.15	BPD2-2 x .002		19/32	.24
BPD	.0005	5/16	.15	BPD2-2 x .0022		19/32	.24
BPD	.00068	5/16	.15	BPD2-2 x .003		3/4	.27
BPD	.0008	5/16	.15	BPD2-2 x .004		3/4	.27
BPD	.001	5/16	.15	BPD2-2 x .0047		3/4	.27
BPD	.0015	5/16	.15	BPD2-2 x .01		3/4	.30
BPD	.002	3/8	.15	BPD2-2 x .02		29/32	.42
BPD	.0022	3/8	.15	BPD3-3 x .0015		3/4	.30
BPD	.0025	3/8	.15	BPD3-3 x .002		3/4	.30

Hi-VOLTAGE DISK CAPACITORS
General Purpose

Hi-Q high voltage disk capacitors are available in many capacities and voltage ratings. These types offer many possible uses in TV circuits where voltages above 500 are necessary. They are the ideal units for dependable day-after-day service. Hi-Q has available numerous combinations of capacity, working voltages and physical sizes. These units are manufactured to specific tolerances as listed.

1500 VDCW

Type	Capacity Mmfd.	Net Price*	Dia.
HVD-15	4.7	$.21	7/16
HVD-15	6.8	.21	7/16
HVD-15	10	.21	7/16
HVD-15	15	.21	7/16
HVD-15	22	.21	7/16
HVD-15	33	.21	7/16
HVD-15	39	.21	7/16
HVD-15	47	.21	7/16
HVD-15	56	.21	7/16
HVD-15	68	.21	7/16
HVD-15	82	.21	7/16
HVD-15	100	.21	7/16
HVD-15	120	.21	7/16
HVD-15	150	.21	7/16
HVD-15	180	.21	7/16
HVD-15	220	.21	7/16
HVD-15	270	.21	7/16
HVD-15	330	.21	7/16
HVD-15	390	.21	9/16
HVD-15	470	.21	9/16
HVD-15	560	.21	9/16
HVD-15	680	.21	9/16
HVD-15	820	.21	9/16
HVD-15	1000	.21	9/16
HVD-15	1200	.21	9/16
HVD-15	1500	.21	11/16
HVD-15	2200	.21	11/16
HVD-15	3300	.21	11/16
HVD-15	4700	.24	15/16
HVD-15	5600	.24	15/16
3000 VDCW			
HVD-30	4.7	.24	9/16
HVD-30	6.8	.24	9/16
HVD-30	10	.24	9/16
HVD-30	15	.24	9/16
HVD-30	22	.24	9/16
HVD-30	33	.24	9/16
HVD-30	39	.24	9/16
HVD-30	47	.24	9/16
HVD-30	56	.24	9/16
HVD-30	68	.24	9/16
HVD-30	82	.24	9/16
HVD-30	100	.24	9/16
HVD-30	120	.24	9/16
HVD-30	150	.24	9/16
HVD-30	180	.24	9/16
HVD-30	220	.24	9/16
HVD-30	270	.24	9/16
HVD-30	330	.24	9/16

3000 VDCW (Continued)

Type	Capacity Mmfd.	Net Price*	Dia.
HVD-30	390	.24	9/16
HVD-30	470	.24	9/16
HVD-30	560	.24	9/16
HVD-30	680	.24	9/16
HVD-30	820	$.24	9/16
HVD-30	1000	.24	9/16
HVD-30	1200	.24	9/16
HVD-30	1500	.24	9/16
HVD-30	2200	.24	9/16
HVD-30	3300	.24	11/16
6000 VDCW			
HVD-60	4.7	.39	11/16
HVD-60	6.8	.39	11/16
HVD-60	10	.39	11/16
HVD-60	15	.39	11/16
HVD-60	18	.39	11/16
HVD-60	22	.39	11/16
HVD-60	30	.39	11/16
HVD-60	33	.39	11/16
HVD-60	39	.39	11/16
HVD-60	47	.39	11/16
HVD-60	56	.39	11/16
HVD-60	68	.39	11/16
HVD-60	82	.39	11/16
HVD-60	100	.39	11/16
HVD-60	120	.39	11/16
HVD-60	150	.39	11/16
HVD-60	180	.39	11/16
HVD-60	220	.39	11/16
HVD-60	270	.39	11/16
HVD-60	330	.39	11/16
HVD-60	390	.39	11/16
HVD-60	470	.39	11/16

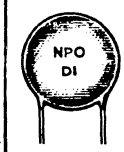
Tolerance ±20% up to .001 mfd.
+80% –20% over .001 mfd.

DI-DISK CAPACITORS
General Purpose

Stock Items 1000 VDCW

Type	Cap. Mmfd	Dia.	Net Price*	Type	Cap. Mmfd	Dia.	Net Price*
D1	3.3	5/16	$.15	D1	300	5/16	$.15
D1	5	5/16	.15	D1	330	5/16	.15
D1	6.8	5/16	.15	D1	390	5/16	.15
D1	8.2	5/16	.15	D1	470	5/16	.15
D1	10	5/16	.15	D1	500	5/16	.15
D1	12	5/16	.15	D1	560	5/16	.15
D1	15	5/16	.15	D1	680	5/16	.15
D1	18	5/16	.15	D1	750	3/8	.15
D1	20	5/16	.15	D1	820	3/8	.15
D1	22	5/16	.15	D1	1000	3/8	.15
D1	25	5/16	.15	D1	1200	7/16	.15
D1	27	5/16	.15	D1	1500	7/16	.15
D1	30	5/16	.15	D1	1800	19/32	.15
D1	33	5/16	.15	D1	2000	19/32	.15
D1	39	5/16	.15	D1	2200	19/32	.15
D1	47	5/16	.15	D1	2500	19/32	.15
D1	50	5/16	.15	D1	2700	19/32	.15
D1	56	5/16	.15	D1	3000	11/16	.15
D1	68	5/16	.15	D1	3300	11/16	.15
D1	82	5/16	.15	D1	4000	11/16	.15
D1	100	5/16	.15	D1	4700	3/4	.15
D1	120	5/16	.15	D1	5000	3/4	.15
D1	150	5/16	.15	D1	5600	3/4	.18
D1	180	5/16	.15	D1	6800	29/32	.18
D1	200	5/16	.15	D1	7500	29/32	.18
D1	220	5/16	.15	D1	10000	29/32	.18
D1	250	5/16	.15				
D1	270	5/16	.15				

Standard tolerance ± 10%.



TEMPERATURE COMPENSATING DISK CAPACITORS — 500 VDCW

Type	NPO Cap. Mmfd.	Dia.	Net Price*	Type	NPO Cap. Mmfd.	Dia.	Net Price*
NPO-D1	1.0	5/16	$.30	NPO-D1	22	7/16	$.30
NPO-D1	1.5	5/16	.30	NPO-D1	25	7/16	.30
NPO-D1	2.2	5/16	.30	NPO-D1	33	19/32	.30
NPO-D1	3.0	5/16	.30	NPO-D1	39	19/32	.30
NPO-D1	3.3	5/16	.30	NPO-D1	47	19/32	.30
NPO-D1	4.7	5/16	.30	NPO-D1	50	19/32	.30
NPO-D1	5.0	5/16	.30	NPO-D1	68	11/16	.30
NPO-D1	6.8	5/16	.30	NPO-D1	75	11/16	.30
NPO-D1	8.2	5/16	.30	NPO-D1	100	3/4	.30
NPO-D1	10	5/16	.30	NPO-D1	120	29/32	.45
NPO-D1	15	3/8	.30	NPO-D1	150	29/32	.45
NPO-D1	20	3/8	.30				

Type	N-750 Capacity Mmfd.	Size	Net Price*	Type	N-750 Capacity Mmfd.	Size	Net Price*
N750-D1	10	5/16	$.30	N750-D1	100	19/32	$.30
N750-D1	15	5/16	.30	N750-D1	150	19/32	.45
N750-D1	20	5/16	.30	N750-D1	200	11/16	.45
N750-D1	22	5/16	.30	N750-D1	220	11/16	.45
N750-D1	25	5/16	.30	N750-D1	330	29/32	.45
N750-D1	33	5/16	.30	N750-D1	360	29/32	.45
N750-D1	47	3/8	.30	N750-D1	390	29/32	.45
N750-D1	68	7/16	.30	N750-D1	430	29/32	.45
N750-D1	75	7/16	.30				

Standard Tolerance — up to 10 mmf. ±.5 mmf., above 10 mmf. ±10%

VIBRATOR BUFFER CAPACITORS — DAC 1600 VDCW — GMV

Vibrator Buffer Capacitors — ceramic disks for use as buffers in car radios and similar equipment, compact, easily assembled, ¼ the size of previous paper tubular types rated for 1600 VDCW GMV. For use as replacements only when original equipment uses ceramic buffer.

Type	Capacity Mfd.	Dia.	Net Price*	Type	Capacity Mfd.	Dia.	Net Price*
DAC-2	.001	11/16	$.30	DAC-9	.005	15/16	$.30
DAC-3	.002	11/16	.30	DAC-22	.006	15/16	.30
DAC-4	.0022	11/16	.30	DAC-23	.0068	1	.30
DAC-5	.003	11/16	.30	DAC-24	.007	1	.30
DAC-6	.0033	11/16	.30	DAC-25	.0075	1	.30
DAC-7	.004	15/16	.30	DAC-26	.008	1	.30
DAC-8	.0047	15/16	.30	DAC-27	.01	1	.30

*Request O.E.M. Prices in the following quantities: 25-99, 100-249, 250-499, 500-999

Net

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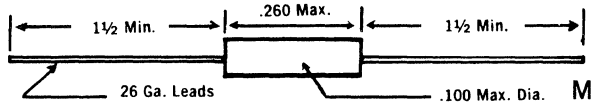
AEROVOX

CAPACITORS

MC-70 CERAMIC CAPACITOR

10 μμf to 20,000 μμf available in a uniform molded case



Another new development from one of the world's leading pioneers in the design and manufacture of ceramic capacitors, the MC-70 is ideally suited for automatic insertion in printed circuits. And it's sized right for Cordwood packaging compatibility. Check the specifications for yourself . . .

CAPACITY RANGES IN uuf	MINIMUM CAPACITY TOLERANCE	MAXIMUM POWER FACTOR	RATED VOLTAGE AT 125°C	*CAPACITY CHANGE FROM —55°C TO +125°C		*TEMPERATURE COEFFICIENT LETTER FOR PART # DESIGNATION
				*WITH ZERO VOLTAGE APPLIED	*WITH RATED VOLTAGE APPLIED	
10-35	±5%	.1%	100VDC	±1%	±1%	A
36-65	±5%	.1%	100VDC	±6%	±6%	B
66-300	±10%	.6%	100VDC	+5% — 8%	+5% —10%	C
301-600	±10%	2 %	100VDC	+5% —15%	+5% —17%	D
601-2000	±10%	2.5%	100VDC	+10% —15%	+10% —25%	E
2001-5000	±10%	2.5%	100VDC	+10% —20%	+10% —30%	F
5001-10,000	±20%	2.5%	100VDC	+10% —30%	+10% —40%	G
10,000-20,000	±20%	2.5%	50VDC	+10% —30%	+10% —40%	G

*TEMPERATURE COEFFICIENTS AVAILABLE ONLY AS LISTED

TYPICAL PART NUMBER CODE EXAMPLE FOR 10,000 μμf

MC	70	G	103	A	M
MOLDED CERAMIC	STYLE	TEMPERATURE COEFFICIENT (see last column above)	CAPACITY μμf First Two Figures Significant Third Figure Indicates Number of Zeros	AXIAL LEADS	CAPACITY TOLERANCE J=±5% X=+50% K=±10% —20% M=±20% Z=GMV

† STOCK LISTING

Cap.	Part No.	Net Price*	Cap.	Part No.	Net Price*
10	MC70A100AK	$.64	680	MC70E681AK	$.64
15	MC70A150AK	.64	820	MC70E821AK	.64
22	MC70A220AK	.64	1000	MC70E102AK	.64
33	MC70A330AK	.64	1500	MC70E152AK	1.46
47	MC70B470AK	.64	2200	MC70F222AK	3.38
56	MC70B560AK	.64	3300	MC70F332AK	3.38
68	MC70C680AK	.64	4700	MC70F472AK	3.38
82	MC70C820AK	.64	5600	MC70G562AM	3.09
100	MC70C101AK	.64	6800	MC70G682AM	3.09
150	MC70C151AK	.64	8200	MC70G822AM	3.09
220	MC70C221AK	.64	10000	MC70G103AM	3.09
330	MC70D331AK	.64	15000	MC70G153AM*	5.28
470	MC70D471AK	.64	20000	MC70G203AM*	5.28
560	MC70D561AK	.64	†100 VDCW *50 VDCW		

For full technical information request bulletin NPJ-129 Gold plated dumet leads are standard. *Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499

Hi-Q PLATE ASSEMBLIES

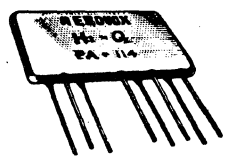
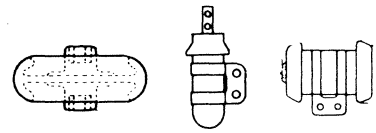


Plate assemblies are combinations of resistor-capacitor networks in one rugged miniature unit. Manufactured with high dielectric base plates and covered with a Durez moisture-proof coating and impregnated with low-loss microcrystalline wax. Simplifies assembly and gives dependable service. Widely used in radio and TV applications.
207 Stock items available. Request Catalog.

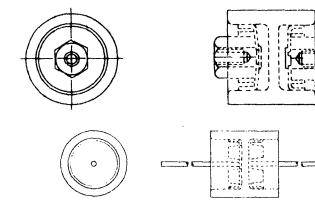
HP POWER & TRANSMITTING CERAMIC CAPACITORS

Exclusive with Aerovox these Power and Transmitting Capacitors are gaining increasing popularity as a replacement for higher priced Transmitting Mica Capacitors. Units may be operated to 105°C without derating and may be safely stored at temperatures of —80°C to +185°C. The dielectric used retains its properties at frequencies above 1000 megacycles to the degree that the inductance at the connections are major limitations in the determination of series resonance frequencies. The effective frequency limit in many cases depends on the method of mounting. Mainly used for By-Pass and Blocking applications these units are finding an increasing usage by manufacturers of transmitters and other allied equipment.



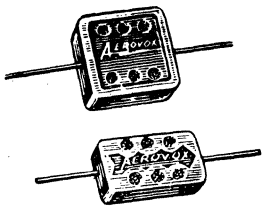
AEROCUP - POWER & TRANSMITTING TYPE AC0-AC8

Smaller version of the HPA - HPC etc. These Transmitting Ceramics find many applications due to standard mounting variations including Wire or Screw Terminals and Female inserts. Available in a wide range of capacities, tolerances, voltages and temperature coefficients. For full engineering details request Catalog from Aerovox Corporation, Distributor Division, or nearest authorized Aerovox Industrial Distributor.



AEROVOX

CAPACITORS



M I C A S

MIL Types CM15, CM20, CM30, CM35

AEROVOX Types 1459, 1468, 1469, 1467, 1464

Compact, precision-made mica dielectric capacitors made in accordance with specification MIL-C-5B. Units are furnished color coded and tested to meet all MIL requirements for "N" temperature rating and all vibration grades of this specification. Types 1467 and 1468 are stacked mica and foil units molded in yellow bakelite. Types 1459, 1464 and 1469 are silvered mica molded in red bakelite. TYPE 1459 MINATURE MICA IS THE LATEST EDITION TO THIS MOLDED MICA LINE.

Type CM-15 (500 VDCW)

1459		
Cap. Mmf.	Type Designation	Net Price*
1	CM-15C-010	.18
2	CM-15C-020	.18
3	CM-15C-030	.18
5	CM-15C-050	.18
10	CM-15C-100	.18
12	CM-15C-120	.18
15	CM-15C-150	.18
18	CM-15C-180	.18
20	CM-15C-200	.18
22	CM-15C-220	.18
24	CM-15E-240	.18
27	CM-15E-270	.18
30	CM-15E-300	.18
33	CM-15E-330	.18
36	CM-15E-360	.18
39	CM-15E-390	.18
43	CM-15E-430	.18
47	CM-15E-470	.18
50	CM-15E-500	.18
51	CM-15E-510	.18
56	CM-15E-560	.18
62	CM-15E-620	.18
68	CM-15E-680	.18
75	CM-15E-750	.18
82	CM-15E-820	.18
91	CM-15E-910	.18
100	CM-15E-101	.18
110	CM-15E-111	.21
120	CM-15E-121	.21
130	CM-15E-131	.21
150	CM-15E-151	.21
160	CM-15E-161	.24
180	CM-15E-181	.24
200	CM-15E-201	.24
220	CM-15E-221	.27
240	CM-15E-241	.27
250	CM-15E-251	.27
270	CM-15E-271	.30
300	CM-15E-301	.30
330	CM-15E-331	.33
360	CM-15E-361	.36
390	CM-15E-391	.39
430*	CM-15E-431	.42
470*	CM-15E-471	.45
500*	CM-15E-501	.48
510*	CM-15E-511	.48

Type CM-20 (500 VDCW)

1468LS		
Cap. Mmf.	Type Designation	Net Price**
1	CM-20B-010	.18
5	CM-20B-050	.18
10	CM-20B-100	.18
12	CM-20B-120	.18
15	CM-20B-150	.18
18	CM-20B-180	.18
20	CM-20B-200	.18
22	CM-20B-220	.18
24	CM-20B-240	.18
25	CM-20B-250	.18
27	CM-20B-270	.18
30	CM-20B-300	.18
33	CM-20B-330	.12
36	CM-20B-360	.12
39	CM-20B-390	.12
40	CM-20B-400	.12
43	CM-20B-430	.12
47	CM-20B-470	.12
50	CM-20B-500	.12
51	CM-20B-510	.12
56	CM-20B-560	.12
62	CM-20B-620	.12
68	CM-20B-680	.12
75	CM-20B-750	.12
82	CM-20B-820	.12
91	CM-20B-910	.12
100	CM-20B-101	.12
110	CM-20B-111	.12
120	CM-20B-121	.12
130	CM-20B-131	.15
150	CM-20B-151	.15
160	CM-20B-161	.15
180	CM-20B-181	.15
200	CM-20B-201	.15
220	CM-20B-221	.15
240	CM-20B-241	.18
250	CM-20B-251	.18
270	CM-20B-271	.18
300	CM-20B-301	.18
330	CM-20B-331	.18
350	CM-20B-351	.18
360	CM-20B-361	.18
390	CM-20B-391	.18
400	CM-20B-401	.18
430	CM-20B-431	.18
470	CM-20B-471	.18
500	CM-20B-501	.18
510	CM-20B-511	.18
560	CM-20B-561	.21
600	CM-20B-601	.21
620	CM-20B-621	.21
680	CM-20B-681	.21
750	CM-20B-751	.21
800	CM-20B-801	.24
820	CM-20B-821	.24
900	CM-20B-901	.27
910	CM-20B-911	.27
1000	CM-20B-102	.27

1469		
Cap. Mmf.	Type Designation	Net Price*
5	CM-20C-050	.18
10	CM-20C-100	.18
12	CM-20C-120	.18
15	CM-20C-150	.18
18	CM-20C-180	.18
20	CM-20C-200	.18
22	CM-20C-220	.18
24	CM-20C-240	.18
25	CM-20C-250	.18
27	CM-20C-270	.18
30	CM-20C-300	.18
33	CM-20C-330	.18
36	CM-20C-360	.18
39	CM-20C-390	.18
40	CM-20C-400	.18
43	CM-20C-430	.18
47	CM-20C-470	.18
50	CM-20C-500	.18
51	CM-20C-510	.18
56	CM-20C-560	.18
62	CM-20C-620	.18
68	CM-20C-680	.18
70	CM-20C-700	.18
75	CM-20C-750	.18
82	CM-20C-820	.18
91	CM-20C-910	.18
100	CM-20C-101	.18
110	CM-20C-111	.21
120	CM-20C-121	.21
130	CM-20C-131	.21
150	CM-20C-151	.21
160	CM-20C-161	.21
180	CM-20C-181	.21
200	CM-20D-201	.21
220	CM-20D-221	.21
240	CM-20D-241	.24
250	CM-20D-251	.24
270	CM-20D-271	.27
300	CM-20D-301	.27
330	CM-20D-331	.27
350	CM-20D-351	.30
360	CM-20D-361	.30
390	CM-20D-391	.30
400	CM-20D-401	.30
430	CM-20D-431	.30
470	CM-20D-471	.33
500	CM-20D-501	.33
510	CM-20D-511	.33
560	CM-20D-561	.33
620	CM-20D-621	.36
680	CM-20D-681	.36
750	CM-20D-751	.39
820	CM-20D-821	.42
910	CM-20D-911	.42
1000	CM-20D-102	.45

Type CM-30 (500 VDCW)

1467LS		
Cap. Mmf.	Type Designation	Net Price**
470	CM-30B-471	.18
500	CM-30B-501	.18
510	CM-30B-511	.18
560	CM-30B-561	.18
620	CM-30B-621	.18
680	CM-30B-681	.18
750	CM-30B-751	.18
820	CM-30B-821	.18
910	CM-30B-911	.18
1000	CM-30B-102	.21
1100	CM-30B-112	.21
1200	CM-30B-122	.21
1300	CM-30B-132	.21
1500	CM-30B-152	.24
1600	CM-30B-162	.24
1800	CM-30B-182	.27
2000	CM-30B-202	.27
2200	CM-30B-222	.27
2400	CM-30B-242	.30
2500	CM-30B-252	.30
2700	CM-30B-272	.30
3000	CM-30B-302	.36
3300	CM-30B-332	.36
3600	CM-30B-362	.36
3900	CM-30B-392	.39
4000	CM-30B-402	.39
4300	CM-30B-432	.39
4700	CM-30B-472	.39
5000	CM-30B-502	.42
5100	CM-30B-512	.42
5600	CM-30B-562	.42
6000	CM-30B-602	.54
6200	CM-30B-622	.54
6800	CM-30B-682	.54
7000	CM-30B-702	.54
7500	CM-30B-752	.60
8000	CM-30B-802	.60
8200	CM-30B-822	.60
9000	CM-30B-902	.66
9100	CM-30B-912	.66
10000	CM-30B-103	.72

1464		
Cap. Mmf.	Type Designation	Net Price*
470	CM-30D-471	.33
510	CM-30D-511	.33
560	CM-30D-561	.36
620	CM-30D-621	.36
680	CM-30D-681	.39
750	CM-30D-751	.39
800	CM-30D-801	.42
820	CM-30D-821	.42
900	CM-30D-901	.42
910	CM-30D-911	.42
1000	CM-30D-102	.45
1100	CM-30D-112	.45
1200	CM-30D-122	.45
1300	CM-30D-132	.48
1500	CM-30D-152	.51
1600	CM-30D-162	.51
1800	CM-30D-182	.54
2000	CM-30D-202	.60
2200	CM-30D-222	.66
2400	CM-30D-242	.72
2500	CM-30D-252	.72
2700	CM-30D-272	.78
3000	CM-30D-302	.84
3300	CM-30D-332	.90
3600	CM-30D-362	.96
3900	CM-30D-392	1.02
4000	CM-30D-402	1.02
4300	CM-30D-432	1.08
4700	CM-30D-472	1.14
5000	CM-30D-502	1.20
5100	CM-30D-512	1.20
5600	CM-30D-562	1.26
6200	CM-30D-622	1.32
6800	CM-30D-682	1.32
7500	CM-30D-752	1.44
8200	CM-30D-822	1.44
9100	CM-30D-912	1.44

Type CM-35 (500 VDCW)

1467LS		
Cap. Mmf.	Type Designation	Net Price**
3600	CM-35B-362	.36
3900	CM-35B-392	.39
4000	CM-35B-402	.39
4300	CM-35B-432	.39
4700	CM-35B-472	.39
5000	CM-35B-502	.42
5100	CM-35B-512	.42
5600	CM-35B-562	.42
6200	CM-35B-622	.54
6800*	CM-35B-682	.57
7000*	CM-35B-702	.57
7500*	CM-35B-752	.60
8000*	CM-35B-802	.69
8200*	CM-35B-822	.69
9100*	CM-35B-912	.69
10000*	CM-35B-103	.84
12000*	CM-35B-123	.96
13000*	CM-35B-133	1.02
14000*	CM-35B-143	1.08
15000*	CM-35B-153	1.20

1464		
Cap. Mmf.	Type Designation	Net Price*
3600	CM-35D-362	.96
3900	CM-35D-392	1.02
4000	CM-35D-402	1.02
4300	CM-35D-432	1.08
4700	CM-35D-472	1.14
5000	CM-35D-502	1.20
5100	CM-35D-512	1.20
5600	CM-35D-562	1.26
6000	CM-35D-602	1.32
6200	CM-35D-622	1.32
6800*	CM-35D-682	1.32
7000*	CM-35D-702	1.32
7500*	CM-35D-752	1.44
8000*	CM-35D-802	1.50
8200*	CM-35D-822	1.56
9100*	CM-35D-912	1.68
10000*	CM-35D-103	1.86

NOTES

In mica and foil construction the standard tolerance is +20%. Also available in ±10% and ±5%. Closest available tolerance up to and including 10 mmf. is ±1 mmf.; above 10 mmf. ±2% or ±2 mmf., whichever is greater.

In silver mica the standard tolerance is ±5%. Also available in ±2% and ±1%. Closest available tolerance up to 10 mmf. is ±½ mmf.; 10 mmf. and up ±1% or ± 1 mmf., whichever is greater.

Nominal Size All CM30 Units — 53/64 x 53/64 x 9/32
Nominal Size All CM35 Units — 53/64 x 53/64 x 21/64
Nominal Size All CM20 Units — 45/64 x 29/64 x 3/16
Nominal Size All CM15 Units — 1/2 x 9/32 x 5/16

*Capacities are 300 WV. Type Designation 1467XLS and 1464X.

*Request O.E.M. Prices in the following quantities: 25-99, 100-499, 500-999, 1000 and up
**Request O.E.M. Prices in the following quantities: 50-99, 100 and up

Net

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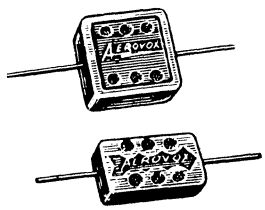
AEROVOX CAPACITORS

RECEIVING MICA CAPACITORS — (Continued)



Type 1469HV and 1464HV

Designed especially for television, low power transmitters and power amplifier applications, these capacitors feature the highest voltages ever before available in these case sizes. They are furnished in silvered mica molded in red Bakelite. Standard Tolerance is plus and minus 5% and they are tested to meet EIA standards. Units are marked with capacity and working voltage and are tested at double the rated voltage to insure long life.

Type 1469-HV **Type 1464-HV**

1000 VDCW 2000 VDCT Cap. Mmfd.	**Net Price	1500 VDCW 3000 VDCT Cap. MMfd.	**Net Price	1000 VDCW 2000 VDCT Cap. Mmfd.	**Net Price	1500 VDCW 3000 VDCT Cap. Mmfd.	**Net Price
5	.27	5	.30			430	.90
10	.27	10	.30			470	.90
12	.27	12	.30			500	.90
15	.27	15	.30			510	.90
18	.27	18	.30			560	.90
20	.27	20	.30			620	.90
22	.27	22	.30	680	.72	680	.90
24	.27	24	.30	750	.72	750	.90
25	.27	25	.30	820	.72	820	1.02
27	.27	27	.30	910	.72	910	1.08
30	.27	30	.30	1000	.72	1000	1.08
33	.27	33	.30	1100	.72	1100	1.14
36	.27	36	.30	1200	.78	1200	1.32
39	.27	39	.30	1300	.78	1300	1.38
43	.27	43	.30	1500	.90	1500	1.56
47	.27	47	.33	1600	.96	1600	1.56
50	.27	50	.33	1800	.96	1800	1.74
51	.27	51	.33	2000	1.02	2000	1.92
56	.27	56	.33	2200	1.14	2200	2.04
62	.27	62	.33	2400	1.26	2400	2.16
68	.27	68	.33	2500	1.26		
75	.27	75	.33	2700	1.26		
82	.27	82	.33	3000	1.38		
91	.30	91	.36	3300	1.44		
100	.30	100	.36	3600	1.62		
110	.30	110	.36	3900	1.68		
120	.30	120	.36	4000	1.68		
130	.30	130	.36	4300	1.80		
150	.30	150	.42	4700	1.98		
160	.33	160	.42	5000	2.04		
180	.33	180	.42	5100	2.04		
200	.33	200	.48				
220	.36	220	.48				
240	.36	240	.48				
250	.39	250	.60				
270	.39	270	.60				
300	.42	300	.66				
330	.42	330	.66				
350	.42	350	.69				
360	.42	360	.69				
390	.42	390	.69				
400	.42	400	.69				
430	.45						
470	.45						
500	.45						
510	.45						
560	.48						
620	.51						

**Request O.E.M. Prices in the following quantities: 25-99, 100-499, 500-999, 1000 and up

DIPPED, SILVERED MICA CAPACITORS
TYPES ADM-15, ADM-19, ADM-20 and ADM-30

Aerovox plastic-coated dipped-mica units exceed many of the advantages of molded mica units, and at the same time are smaller than conventional units. Meeting all the applicable MIL-C-5B Test Standards for molded mica capacitors, these unique dipped-mica units offer the following features:

• High operating temperatures —55° to +125°C • Excellent long-life characteristics • Improved temperature coefficient range • Radial leads for automatic insertion and plug-in assemblies • Ideal for printed-wiring assemblies • Unsurpassed performance and stability characteristics • Smaller physical size.

Humidity Resistance: these capacitors shall have an insulation resistance of not less than 2,000 megohms after being subjected to the Humidity Resistance Test as outlined in MIL-C-5B. Minimum Insulation Resistance: 25,000 megohms at 25°C; 1000 meghoms at 125°C.

Capacitors will be marked with capacity and tolerance. In addition voltage rating wil be marked on all units other than 500 volts rating.

For full technical information request Bulletin NPJ-104.

CHARACTERISTICS

ADM-15—from 5 to 20 mmf. Characteristic "C". from 22 to 150 mmf. Characteristic "E". from 160 mmf. and up Characteristic "F"
ADM-19—All capacities listed "F" Characteristic.
ADM-20—All capacities listed "F" Characteristic.
ADM-30—All capacities listed "F" Characteristic.

Standard Tolerance ±5%

Minimum tolerance for capacitances up to and including 10 mmf. is ± ½ mmf., for all other capacitances ± 1% or 1 mmf. whichever is greater.

Sizes	L	W	T
ADM-15	15/32	5/16	7/32 max.
ADM-19	21/32	15/32	7/32 max.
ADM-20	3/4	15/32	7/32 max.
ADM-30	25/32	27/32	5/16 max.

Cap. Mmf.	Type Designation	Net Price**
5	ADM-15-050	$.17
10	ADM-15-100	.17
12	ADM-15-120	.17
15	ADM-15-150	.17
18	ADM-15-180	.17
20	ADM-15-200	.17
22	ADM-15-220	.17
24	ADM-15-240	.17
27	ADM-15-270	.17
30	ADM-15-300	.17
33	ADM-15-330	.17
36	ADM-15-360	.17
39	ADM-15-390	.17
43	ADM-15-430	.17
47	ADM-15-470	.17
50	ADM-15-500	.17
51	ADM-15-510	.17
56	ADM-15-560	.17
62	ADM-15-620	.17
68	ADM-15-680	.17
75	ADM-15-750	.17
82	ADM-15-820	.17
91	ADM-15-910	.17
100	ADM-15-101	.17
110	ADM-15-111	.20
120	ADM-15-121	.20
130	ADM-15-131	.20
150	ADM-15-151	.20
160	ADM-15-161	.23
180	ADM-15-181	.23
200	ADM-15-201	.23
220	ADM-15-221	.26
240	ADM-15-241	.26
250	ADM-15-251	.26
270	ADM-15-271	.30
300	ADM-15-301	.30
330	ADM-15-331	.33
360	ADM-15-361	.33
390	ADM-15-391	.36
430	*ADM-15-431	.36
470	*ADM-15-471	.36
500	*ADM-15-501	.36
510	*ADM-15-511	.36
560		
620		
680		
750		
820		
910		
1000		
1100		
1200		
1300		
1500		
1600		
1800		
2000		
2200		
2400		
2500		
2700		
3000		
3300		
3600		
3900		
4300		
4700		
5000		
5100		
5600		
6200		
6800		
7500		
8200		
9100		
10000		
12000		
13000		
15000		

Type Designation	Net Price**
ADM-19-101	.17
ADM-19-111	.20
ADM-19-121	.20
ADM-19-131	.20
ADM-19-151	.20
ADM-19-161	.20
ADM-19-181	.20
ADM-19-201	.20
ADM-19-221	.20
ADM-19-241	.23
ADM-19-251	.23
ADM-19-271	.26
ADM-19-301	.26
ADM-19-331	.26
ADM-19-361	.30
ADM-19-391	.30
ADM-19-431	.30
ADM-19-471	.33
ADM-19-501	.33
ADM-19-511	.33
ADM-19-561	.37
ADM-19-621	.37
ADM-19-681	.40
ADM-19-751	.40
ADM-19-821	.40
ADM-19-911	.43
ADM-19-102	.46
ADM-19-112	.46
ADM-19-122	.50
ADM-19-132	.53
ADM-19-152	.56
ADM-19-162	.59
ADM-19-182	.66
ADM-10-202	.73
ADM-19-222	.79
*ADM-19-242	.86
*ADM-19-252	.89
*ADM-19-272	.92
*ADM-19-302	.99

Type Designation	Net Price**
ADM-20-681	$.33
ADM-20-751	.33
ADM-20-821	.33
ADM-20-911	.37
ADM-20-102	.40
ADM-20-112	.40
ADM-20-122	.43
ADM-20-132	.46
ADM-20-152	.50
ADM-20-162	.53
ADM-20-182	.59
ADM-20-202	.63
ADM-20-222	.69
ADM-20-242	.73
ADM-20-252	.73
ADM-20-272	.79
ADM-20-302	.86
ADM-20-332	.92
ADM-20-362	.99
ADM-20-392	1.06
*ADM-20-432	1.12
*ADM-20-472	1.19
*ADM-20-502	1.25
*ADM-20-512	1.29

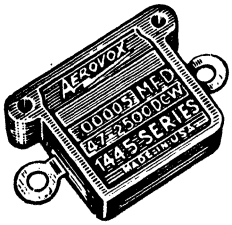
Type Designation	Net Price**
ADM-30-432	$1.06
ADM-30-472	1.12
ADM-30-502	1.16
ADM-30-512	1.16
ADM-30-562	1.19
ADM-30-622	1.25
ADM-30-682	1.39
ADM-30-752	1.52
ADM-30-822	1.65
ADM-30-912	1.78
ADM-30-103	1.98
*ADM-30-123	2.31
*ADM-30-133	2.48
*ADM-30-153	2.81

*All items asterisked are rated at 300 VDCW.

AEROVOX CAPACITORS

TRANSMITTING MICA CAPACITORS

TYPES 1445, 1446 and 1447

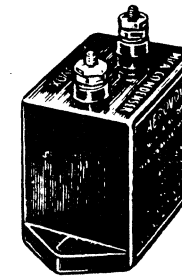


Designed with insulated mounting holes 1 3/4" apart independent of soldering lugs. Used to shunt meter windings.
Size: 1 1/8" x 1 5/8" x 1 11/32"
Standard Tolerance ±10%
±5% and ±2% tolerance are available on special order.
Meter Mounting Bracket E available. Specify when ordering.
These units are equivalent to case styles CM45 and CM50 of specification MIL-C5B.

TYPE 1445 600 VDCW 1000 VDCT		TYPE 1446 1200 VDCW 2500 VDCT		TYPE 1447 2500 VDCW 5000 VDCT	
Cap. Mfd.	Net* Price	Cap. Mfd.	Net* Price	Cap. Mfd.	Net* Price
.00005	.40	.00005	.48	.00005	.60
.0001	.40	.0001	.48	.000075	.60
.00015	.40	.00015	.48	.0001	.60
.0002	.40	.0002	.48	.00015	.60
.00025	.40	.00025	.48	.0002	.60
.0003	.40	.0003	.48	.00025	.60
.00035	.40	.00035	.48	.0003	.60
.0004	.40	.0004	.48	.00035	.60
.0005	.40	.0005	.48	.0004	.60
.001	.40	.001	.48	.0005	.66
.0015	.46	.0015	.58	.001	.90
.002	.48	.002	.66	.0015	1.14
.0025	.52	.0025	.72	.002*	1.42
.003	.54	.003	.82	.0025*	1.66
.004	.60	.004*	.96	.003*	1.90
.005	.66	.005*	1.14	.004*	2.40
.006	.76	.006*	1.30	.005*	2.88
.008	.84	.008*	1.62		
.01	1.00	.01*	2.40		
.015*	1.30	.015*	2.74		
.02*	1.62				
.025*	1.92				
.03*	2.26				
.04*	2.88	*Thickness 7/16"			

*Request O.E.M. Prices in the following quantities: 100-499

TYPES 1991 thru 1996
Porcelain-Cased Capacitors



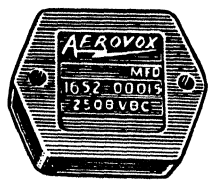
Ideal for high-frequency application. Glazed porcelain case, high temperature wax sealed. Heavy duty power terminals. Minimum power loss due to dielectric absorption. No heating at full load.
Size: 4" overall by 3" high; 2½" between mounting holes.
Standard Tolerance ±10%

Cap. Mfd.	DC Voltage Rating	Type	Maximum Current Capacity – Amperes 15 mc	7.5 mc	3750 kc	1875 kc	Net Price
.00005	12,500	1996	3	2.5	1.5	1	8.75
.0001	12,500	1996	5	4	3	2	8.75
.00025	12,500	1996	7	8	6	4	8.75
.0005	12,500	1996	8	9	8	7	8.75
	7,000	1994	7	8	6	4	7.00
.001	12,500	1996	9	10	11	12	10.50
	7,000	1994	8	9	10	8	7.88
	3,500	1992	8	9	8	5	7.88
.0015	12,500	1996	9	10	11	12	12.25
	7,000	1994	9	9	10	8	8.75
	5,000	1993	8	9	9	7	7.88
	3,500	1992	8	9	8	5	7.88
	2,000	1991	7	8	8	5	7.00
.002	12,500	1996	9	12	13	15	14.00
	10,000	1995	9	10	11	12	12.25
	7,000	1994	9	9	10	10	9.63
	5,000	1993	8	9	9	8	8.75
	3,500	1992	8	8	9	7	7.88
	2,000	1991	7	8	8	6	7.00
.003	12,500	1996	9	12	13	15	17.50
	10,000	1995	9	11	12	13	15.75
	7,000	1994	9	10	10	10	10.50
	5,000	1993	8	9	9	9	9.63
	3,500	1992	8	9	9	8	8.75
	2,000	1991	7	8	8	7	7.88
.005	10,000	1995	10	13	14	15	17.50
	7,000	1994	9	11	12	11	15.75
	5,000	1993	9	11	12	10	10.50
	3,500	1992	9	10	11	9	9.63
	2,000	1991	8	9	10	8	8.75
.01	7,000	1994	10	13	15	15	21.00
	5,000	1993	10	13	15	15	15.75
	3,500	1992	10	13	14	14	14.00
	2,000	1991	10	13	14	14	10.50
.02	3,500	1992	10	14	16	17	15.75
	2,000	1991	10	13	15	15	12.25
.05	3,500	1992	10	14	17	18	17.50
	2,000	1991	10	14	16	17	14.00
.1	2,000	1991	10	14	17	18	17.50

OTHER TRANSMITTING MICA CAPACITOR TYPES

TYPES 1650L, 1651L, 1652L, 1653L and 1654L

Heaviest-duty molded in bakelite mica capacitors of the AEROVOX line. Threaded mounting holes for roundhead screw terminals or plain holes available. Add suffix "A" for plain holes.



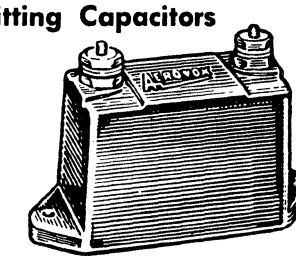
24 Stock Values at 600 WVDC
21 Stock Values at 1200 WVDC
20 Stock Values at 2500 WVDC
15 Stock Values at 3750 WVDC
11 Stock Values at 5000 WVDC

TYPES 1550L, 1570L and 1590L
Potted Transmitting Capacitors

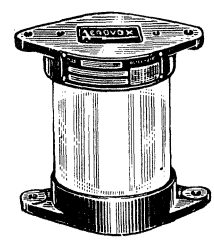
TYPE 1550L (Similar to CM70)

TYPE 1570L (Similar to CM65)

TYPE 1590L



TYPES 1940, 1950, 1960, 1970 and 1980
Stack-Mounting Transmitting Capacitors



TYPE 1940

TYPE 1950 (Similar to CM75)

TYPE 1960 (Similar to CM80)

TYPE 1970 (Similar to CM85)

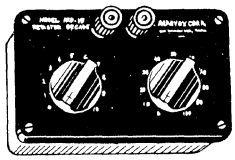
TYPE 1980 (Similar to CM90)

Net
© U.C.P., Inc.

AEROVOX CAPACITORS

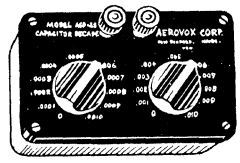
AEROVOX DECADE BOXES

RESISTANCE



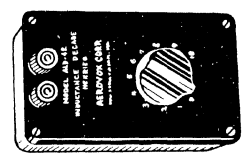
ARD

CAPACITANCE

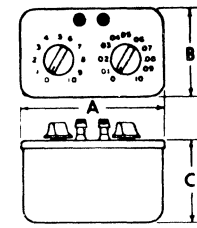


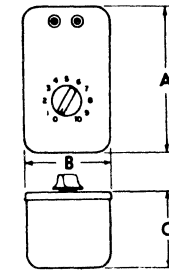
ACD

INDUCTANCE



ALD





SIZE CODE: A-5-1/8, B-3-5/32, C-2-27/32

Laboratory quality Standards in capacitance, resistance and inductance at a price far below that of equivalent quality Standards. Available in ten units: three resistance decades, three capacitance decades and four inductance decades. Housed in a seamless, drawn steel case coated with gray enamel. Panels are black with the markings engraved in white.

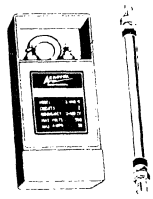
For full technical information request Bulletin NPJ-109.

All ratings are maximum and no guarantee can be enforced if ratings are exceeded in any way. Overload can change accuracy or cause actual burn-outs. Multiple dial units have the highest value multipliers on the left-hand side so that readings are in order exactly as they should be read.

PART NO.	TYPE	DIELECTRIC	DIALS	RANGE	STEPS	ACCURACY ± 1st Dial	ACCURACY ± 2nd Dial	RATING 1st Dial	RATING 2nd Dial	Net PRICE
RESISTANCE										
ARD-15	R	Wire-Wound	2	0 to 110 ohms	1.0 ohm	5%	3%	1.0 Amp	.5 Amp	15.15
ARD-23	R	Wire-Wound	2	0 to 11 K	100 ohm	3%	3%	100 Ma.	50 Ma.	15.15
ARD-31	R	Carbon Deposited	2	0 to 1.1 meg.	10 K ohms	1%	1%	5 Ma.	2 Ma.	15.15
CAPACITANCE										
ACD-13	C	Mica	2	0 to .011 mfd.	.0001 mfd.	3%	3%	600 VDC 220 VAC	600 VDC 220 VAC	14.50
ACD-23	C	Oil Paper	2	0 to 1.1 mfd.	.01 mfd.	3%	3%	600 VDC 220 VAC	600 VDC 220 VAC	16.50
ACD-33	C	Oil-Paper	1	0 to 10.0 mfd.	1.0 mfd.	3%	–	600 VDC 220 VAC	–	27.25
INDUCTANCE										
ALD-12	L	Toroidal	1	0 to 10 mh.	1.0 mh.	2%	–	250 MaDC	–	29.90
ALD-22	L	Toroidal	1	0 to 100 mh.	10.0 mh.	2%	–	79 MaDC	–	29.90
ALD-32	L	Toroidal	1	0 to 1.0 hy.	100.0 mh.	2%	–	25 MaDC	–	29.90
ALD-42	L	Toroidal	1	0 to 10.0 hy.	1.0 hy.	2%	–	8 MaDC	–	32.90

FILTERS

SCREEN ROOM FILTERS



Screen room filters comply with rigid specifications set up by the designers of the most advanced type screen rooms. All have attenuation equal to or exceeding that of the screen room. Easy mounting arrangements plus high attenuation assure you of the finest equipment specially designed for screen room use. These filters are hermetically sealed and terminals at both ends are shielded using knock-outs for ¾" and 1" conduit.

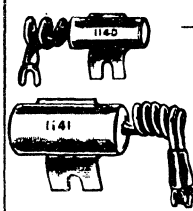
1¼" diameter mounting hole on all cases is countersunk to permit flush mounting of the filter on the screen room.

For full technical information request Bulletin NPJ-127.

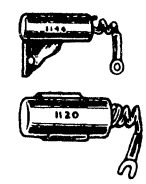
Part No.	Curr. (Amps.)	Circuits	CPS	Attenuation vs. Frequency	Size L x W x D	Net Price
*S-1076-1	50	1	0-60	100 db from 14 kc to 1000 mc	20" x 3-5/8" x 3-5/8"	95.00
*S-1076-2	50	2	0-60	100 db from 14 kc to 1000 mc	20" x 7-3/16" x 3-5/8"	190.00
*S-1076-3	50	3	0-60	100 db from 14 kc to 1000 mc	20-1/8" x 10-7/8" x 3-11/16	285.00
S-1142-1	30	1	0-400	100 db from 150 kc to 1000 mc	10-1/8" x 2-7/8" x 2-7/16"	36.50
S-1142-2	30	2	0-400	100 db from 150 kc to 1000 mc	10-1/8" x 4-3/4" x 2-7/16"	48.50
S-1142-3	30	3	0-400	100 db from 150 kc to 1000 mc	10-1/8" x 7" x 2-7/16"	62.50
S-1302-1	100	1	0-60	100 db from 200 kc to 1000 mc	14" x 4-3/8" x 4-3/8"	70.00
*S-1303-1	60	1	0-1000	100 db from 100 kc to 1000 mc	20" x 3-5/8" x 3-5/8"	100.00
S-1304-1	80	1	0-60	100 db from 14 kc to 1000 mc	22" x 4-3/8" x 4-3/8"	105.00
S-1305-1	100	1	0-1000	100 db from 100 kc to 1000 mc	22" x 4-3/8" x 4-3/8"	120.00
S-1361-1	100	1	0-60	100 db from 14 kc to 1000 mc	22" x 4-3/8" x 4-3/8"	130.00
S-1432-1	100	1	0-60	100 db from 100 kc to 1000 mc	22" x 4-3/8" x 4-3/8"	95.00
S-1455-1	100	1	0-60	100 db from 150 kc to 1000 mc	22" x 4-3/8" x 4-3/8"	90.00
					Overall L.	Overall D.	
S-1468-A	50	1	0-1000	60 db/1000 mc to 10000 mc	10-3/4"	7/8"	70.00
S-1468-B	100	1	0-1000	60 db/1000 mc to 10000 mc	10-3/4"	7/8"	80.00

*250 VAC/DC. All others 500VAC/DC.

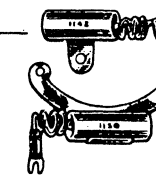
AUTO-RADIO CAPACITORS



Type	Net Price	Cap. Mfd.
		SINGLE ELEMENT
Car Generators		
Type 1120	.54	1.0
Type 1140	.39	0.5
		DUAL ELEMENT
Type 1141	.90	0.5-0.5
Ford Auto Radios		
Type 1144	.48	0.5
For 1936 Models		
Type 1150	.60	0.5



Type	Net Price	Cap. Mfd.
Oil Gage Filter Condenser		
Type 1142-0	.54	0.25



For complete Catalog listing and Engineering information on RF Noise Suppressors and Interference Filters request Catalog from Aerovox Corporation, Distributor Division, or your nearest authorized Aerovox Industrial Distributor.

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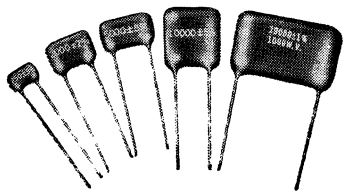
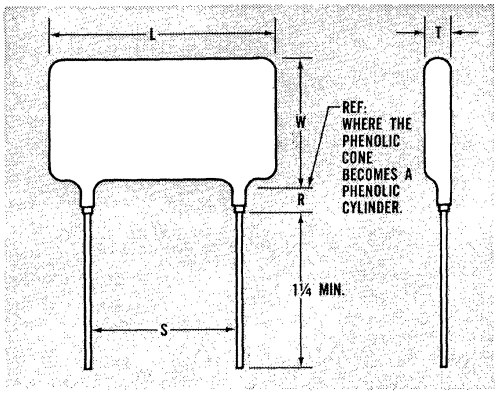
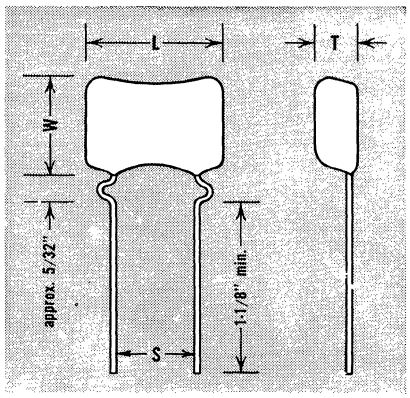
ELMENCO CAPACITORS

DUR-MICA CASE SIZES





	DM10	DM-15	DM-16	DM-19	DM-20	DM-30	DM-42	DM-43
S ± 1/32	9/64	15/64	1/2	11/32	7/16	7/16	1-1/16	1-11/16
"R" max.	1/8	1/8	9/64	9/64	9/64	11/64	11/64	11/64
LEAD WIRE GAGE	#26	#22	#22	#20	#20	#18	#18	#18



Crimped Leads

In addition to the straight lead design, DM capacitors are also available with crimped leads for printed circuit application. The crimp provides a positive stop when capacitors are mounted. This prevents interference of resin coat on the leads with dip-solder operation, provides greater mounting uniformity, and elevates the components slightly above the surface of the board. The crimp lead design is not a regularly stocked item, but it is available to special order at a small fixed handling charge.

Lead wire gage for crimped lead units is the same as for straight lead capacitors with the exception of DM15 and DM16. Crimped lead gage of DM15 and DM16 is #20.

Maximum Dimensions

The following is a tabulation of maximum dimensions of the various DM case sizes. They have been specified to anticipate variations in coat thickness and minor protrusions on the surface. As a result, average dimensions of a given lot may be appreciably smaller than those listed.

It is to be noted that the leads are not centered in the thickness dimension as can be seen on the end view dimensional drawing. Construction of Elmenco Dur-Mica capacitors provides for leads to project from one surface of the mica stack, causing them in turn to extend from one edge of the capacitor. Regardless of case size and overall thickness, leads will always be within 1/16 to 3/32 from one of the capacitor surfaces.

Not all dimensions of every capacitance value are listed below. It has been found that size varies almost linearly with capacitance value. As a result, dimensions of values between those specified below should be determined by interpolation.

CASE SIZES — DUR-MICA SERIES

CASE SIZE	Cap. mmf.	Volt. VDCW	L max.	W max.	T max.
DM10	10	500	.360	.330	.190
	50	500	.370	.340	.190
	100	500	.370	.350	.200
	150	500	.380	.360	.210
	250	500	.390	.380	.220
	300	300	.390	.380	.220
	390	100	.390	.380	.220
DM15 (CM05)	10	500	.450	.360	.170
	100	500	.460	.360	.180
	200	500	.460	.380	.190
	300	500	.470	.390	.210
	500	500	.490	.420	.240
	560	300	.470	.390	.210
	680	300	.470	.390	.210
	820	300	.470	.400	.230
	1000	100	.490	.420	.240
DM16	430	500	.730	.390	.210
	600	500	.740	.400	.220
	720	500	.740	.410	.230
	720	300	.730	.380	.200
	900	300	.740	.390	.220
	1300	300	.740	.390	.230
DM19 (CM06)	100	500	.640	.500	.190
	500	500	.650	.510	.200
	1000	500	.650	.520	.220
	2000	500	.670	.530	.240
	3000	500	.680	.550	.280
	5000	500	.710	.590	.360
	6200	300	.690	.570	.330
	8200	100	.700	.580	.350
DM20	680	500	.750	.510	.200
	1000	500	.750	.510	.200
	2000	500	.760	.520	.220
	3900	500	.780	.560	.300
	5600	500	.790	.570	.330
	6800	300	.790	.560	.320
	7500	100	.780	.560	.300
	10000	100	.790	.570	.340
DM30 (CM07)	4300	500	.780	.860	.270
	6800	500	.780	.870	.300
	10000	500	.800	.890	.340
	15000	500	.810	.900	.390
	20000	500	.830	.920	.450
	20000	300	.810	.890	.370
	25000	300	.820	.910	.420
	30000	300	.830	.920	.460
	36000	100	.830	.920	.450
DM42 (CM08)	20000	500	1.420	.870	.300
	30000	500	1.440	.890	.350
	50000	500	1.480	.920	.460
	62000	300	1.470	.920	.450
	82000	100	1.480	.920	.460
DM43	50000	500	2.060	.900	.380
	68000	500	2.070	.910	.440
	75000	300	2.060	.900	.380
	100000	300	2.070	.910	.440
	130000	100	2.090	.930	.490

TYPE SCDM SINGLE COAT

SCDM10	10	500	.310	.230	.120
	100	500	.320	.230	.130
	180	500	.330	.240	.150
	250	500	.340	.250	.160
	300	300	.340	.250	.160
	390	100	.340	.250	.160
SCDM15	10	500	.430	.280	.140
	100	500	.430	.280	.150
	270	500	.440	.300	.160
	510	500	.450	.310	.190
	560	300	.450	.310	.160
	820	300	.450	.310	.170
	1000	100	.450	.310	.170

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ELMENCO CAPACITORS

TYPES
DM-15, DM-16
DM-19, DM-20

DUR-MICA

TYPE DM-10 500VDCW

(SCDM 10 values and prices the same)

Cap. Mmf.	Type Designation	Net Price (1-24) Tolerance ±10% "K"	±5% "J"	±2% "G"	±1% "F"
1	DM-10-010†	$0.18			
2	DM-10-020†	.18			
3	DM-10-030†	.18			
5	DM-10-050	.18			
10	DM-10-100	.18	$0.20		
12	DM-10-120	.21	.23		
15	DM-10-150	.21	.23		
18	DM-10-180	.21	.23		
20	DM-10-200	.21	.23		
22	DM-10-220	.21	.23		
24	DM-10-240	.21	.23		
27	DM-10-270	.21	.23	$0.28	
30	DM-10-300	.21	.23	.28	
33	DM-10-330	.21	.23	.28	
36	DM-10-360	.21	.23	.28	
39	DM-10-390	.21	.23	.28	
43	DM-10-430	.21	.23	.28	
47	DM-10-470	.24	.26	.31	
50	DM-10-500	.24	.26	.31	$0.38
51	DM-10-510	.24	.26	.31	.38
56	DM-10-560	.24	.26	.31	.38
62	DM-10-620	.24	.26	.31	.38
68	DM-10-680	.24	.26	.31	.38
75	DM-10-750	.24	.26	.31	.38
82	DM-10-820	24	.26	.31	.38
91	DM-10-910	.24	.26	.31	.38
100	DM-10-101	.24	.26	.31	.38
110	DM-10-111	.24	.26	.31	.38
120	DM-10-121	.27	.30	.35	.43
130	DM-10-131	.27	.30	.35	.43
150	DM-10-151	.30	.33	.37	.48
160	DM-10-161	.33	.37	.43	.53
180	DM-10-181	.36	.40	.47	.58
200	DM-10-201	.36	.40	.47	.58
220	DM-10-221	.39	.43	.51	.62
240	DM-10-241	.42	.46	.55	.67
250	DM-10-251	.42	.46	.55	.67
270*	DM-10-271	.42	.46	.55	.67
300*	DM-10-301	.45	.50	.59	.72
330**	DM-10-331	.45	.50	.59	.72
360**	DM-10-361	.48	.53	.62	.77
390**	DM-10-391	.51	.56	.67	.82

TYPE DM-15 500VDCW

(CM05 and SCDM15 values and prices the same)

1	DM-15-010†	$0.15			
2	DM-15-020†	.15			
3	DM-15-030†	.15			
5	DM-15-050†	.15			
10	DM-15-100	.15	$0.17		
12	DM-15-120	.15	.17		
15	DM-15-150	.15	.17		
18	DM-15-180	.15	.17		
20	DM-15-200	.15	.17		
22	DM-15-220	.15	.17		
24	DM-15-240	.15	.17		
27	DM-15-270	.15	.17	$0.20	
30	DM-15-300	.15	.17	.20	
33	DM-15-330	.15	.17	.20	
36	DM-15-360	.15	.17	.20	
39	DM-15-390	.15	.17	.20	
43	DM-15-430	.15	.17	.20	
47	DM-15-470	.15	.17	.20	
50	DM-15-500	.15	.17	.20	$0.24
51	DM-15-510	.15	.17	.20	.24
56	DM-15-560	.15	.17	.20	.24
62	DM-15-620	.15	.17	.20	.24
68	DM-15-680	.15	.17	.20	.24
75	DM-15-820	.15	.17	.20	.24
82	DM-15-820	.15	.17	.20	.24
91	DM-15-910	.15	.17	.20	.24
100	DM-15-101	.15	.17	.20	.24
110	DM-15-111	.18	.20	.23	.29
120	DM-15-121	.18	.20	.23	.29
130	DM-15-131	.18	.20	.23	.29
150	DM-15-151	.18	.20	.23	.29
160	DM-15-161	.21	.23	.28	.34
180	DM-15-181	.21	.23	.28	.34
200	DM-15-201	.21	.23	.28	.34
220	DM-15-221	.24	.26	.31	.38
240	DM-15-241	.24	.26	.31	.38
250	DM-15-251	.24	.26	.31	.38
270	DM-15-271	.27	.30	.35	.43
300	DM-15-301	.27	.30	.35	.43
330	DM-15-331	.30	.33	.39	.48
360	DM-15-361	.30	.33	.39	.48
390	DM-15-391	.33	.37	.43	.53
430	DM-15-431	.33	.37	.43	.53
470	DM-15-471	.36	.40	.47	.58
500	DM-15-501	.36	.40	.47	.58
510	DM-15-511	.36	.40	.47	.58
560*	DM-15-561	.39	.43	.51	.62
620*	DM-15-621	.42	.46	.55	.67
680*	DM-15-681	.45	.50	.59	.72
750*	DM-15-751	.48	.53	.62	.77
820*	DM-15-821	.51	.56	.67	.82
910**	DM-15-911	.57	.63	.74	.86
1000**	DM-15-102	.60	.66	.78	.96

NOTE

Characteristics on above are as follows:
DM-15 "C" Characteristic from 1 to 20 Mmf.
DM-15 "E" Characteristic from 22 to 82 Mmf.
DM-15 "F" Characteristic from 91 and up.
†Minimum Tolerance ±0.5 Mmf

TYPE DM-19 500VDCW

(CM06 values and prices the same)

Cap. Mmf.	Type Designation	Net Price (1-24) Tolerance ±10% "K"	±5% "J"	±2% "G"	±1% "F"
100	DM-19-101	$0.15	$0.17	$0.18	$0.23
110	DM-19-111	.18	.20	.18	.27
120	DM-19-121	.18	.20	.18	.27
130	DM-19-131	.18	.20	.18	.27
150	DM-19-151	.18	.20	.18	.27
160	DM-19-161	.18	.20	.18	.27
180	DM-19-181	.18	.20	.18	.27
200	DM-19-201	.18	.20	.18	.27
220	DM-19-221	.18	.20	.18	.27
240	DM-19-241	.21	.23	.25	.32
250	DM-19-251	.21	.23	.25	.32
270	DM-19-271	.24	.26	.29	.36
300	DM-19-301	.24	.26	.29	.36
330	DM-19-331	.24	.26	.29	.36
360	DM-19-361	.27	.30	.32	.41
390	DM-19-391	.27	.30	.32	.41
430	DM-19-431	.27	.30	.32	.41
470	DM-19-471	.30	.33	.36	.45
500	DM-19-501	.30	.33	.36	.45
510	DM-19-511	.30	.33	.36	.45
560	DM-19-561	.33	.37	.40	.50
620	DM-19-621	.33	.37	.40	.50
680	DM-19-681	.36	.40	.43	.54
750	DM-19-751	.36	.40	.43	.54
820	DM-19-821	.36	.40	.43	.54
910	DM-19-911	.39	.43	.47	.59
1000	DM-19-102	.42	.46	.50	.63
1100	DM-19-112	.42	.46	.50	.63
1200	DM-19-122	.45	.50	.54	.68
1300	DM-19-132	.48	.53	.58	.72
1500	DM-19-152	.51	.56	.61	.77
1600	DM-19-162	.54	.59	.65	.81
1800	DM-19-182	.60	.66	.72	.90
2000	DM-19-202	.66	.73	.79	.99
2200	DM-19-222	.72	.79	.86	1.08
2400	DM-19-242	.78	.86	.94	1.17
2500	DM-19-252	.81	.89	.97	1.23
2700	DM-19-272	.84	.92	1.01	1.26
3000	DM-19-302	.90	.99	1.08	1.35
3300	DM-19-332	.96	1.06	1.15	1.44
3600	DM-19-362	1.02	1.12	1.22	1.53
3900	DM-19-392	1.08	1.19	1.30	1.62
4300	DM-19-432	1.14	1.25	1.37	1.71
4700	DM-19-472	1.20	1.32	1.44	1.80
5000	DM-19-502	1.26	1.39	1.51	1.89
5100	DM-19-512	1.26	1.39	1.51	1.89
5600*	DM-19-562	1.32	1.45	1.58	1.98
6200*	DM-19-622	1.38	1.52	1.66	2.07
6800**	DM-19-682	1.38	1.52	1.66	2.07
7500**	DM-19-752	1.44	1.58	1.73	2.16
8200**	DM-19-822	1.50	1.65	1.80	2.25

TYPE DM-20 500VDCW

680	DM-20-681	$0.30	$0.33	$0.36	$0.45
750	DM-20-751	.30	.33	.36	.45
820	DM-20-821	.30	.33	.36	.45
910	DM-20-911	.33	.37	.40	.50
1000	DM-20-102	.36	.40	.43	.54
1100	DM-20-112	.36	.40	.43	.54
1200	DM-20-122	.39	.43	.47	.59
1300	DM-20-132	.42	.46	.50	.63
1500	DM-20-152	.45	.50	.54	.68
1600	DM-20-162	.48	.53	.58	.72
1800	DM-20-182	.54	.59	.65	.81
2000	DM-20-202	.57	.63	.68	.86
2200	DM-20-222	.63	.70	.76	.75
2400	DM-20-242	.66	.73	.79	.99
2500	DM-20-252	.66	.73	.79	.99
2700	DM-20-272	.72	.79	.86	1.08
3000	DM-20-302	.78	.86	.94	1.17
3300	DM-20-332	.84	.92	1.01	1.26
3600	DM-20-362	.90	.99	1.08	1.35
3900	DM-20-392	.96	1.06	1.15	1.44
4300	DM-20-432	1.02	1.12	1.22	1.53
4700	DM-20-472	1.08	1.19	1.30	1.62
5000	DM-20-502	1.14	1.25	1.37	1.71
5100	DM-20-512	1.17	1.29	1.40	1.76
5600	DM-20-562	1.20	1.32	1.44	1.80
6200*	DM-20-622	1.20	1.32	1.44	1.80
6800*	DM-20-682	1.26	1.39	1.51	1.89
7500**	DM-20-752	1.32	1.45	1.58	1.98
8200**	DM-20-822	1.44	1.58	1.73	2.16
9100**	DM-20-912	1.62	1.78	1.94	2.43
10000**	DM-20-103	1.80	1.98	2.16	2.70

Notes: Higher DM-20 values are available on special order as follows:
up to 10,000 mmf. at 500VDCW
up to 12,000 mmf. at 300VDCW
up to 18,000 mmf. at 100VDCW
Characteristics of DM-19 and DM-20 are as follows:
C characteristics 1 to 160 mmf.
E characteristic 180 to 510 mmf.
F characteristic 560 and up.
For ±½% double the list price of the 5% units.
Lower values less than above listing use DM-15 prices.
All capacities marked with * are 300VDCW.
All capacities marked with ** are 100VDCW.

SCDM15 capacitors are units which have been given a single protective resin coat rather than the full series of dips to which standard units are subjected. There is a marked difference in size of these thin-coated capacitors, put there is a sacrifice in moisture resistance as a result. SCDM15 units are therefore recommended for applications requiring extreme miniaturization such as military and transistor filter, networks, and delay lines. However, for long term high reliability of operation, the capacitors should receive additional environmental protection such as encapsulation, circuit potting, or hermetic sealing.

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ELMENCO CAPACITORS

TYPES
DM-30, DM-40, DM-42
DM-43, SCDM-15

TYPE DM-30 500VDCW DUR-MICA

(CM07 values and prices the same)

Cap. Mmf.	Type Designation	Net Price Tolerance (1-24) ±10% "K"	±5% "J"	±2% "G"	±1% "F"
4300	DM-30-432	$0.96	$1.06	$1.15	$1.25
4700	DM-30-472	1.02	1.12	1.22	1.33
5000	DM-30-502	1.05	1.16	1.26	1.37
5100	DM-30-512	1.05	1.16	1.26	1.37
5600	DM-30-562	1.08	1.19	1.30	1.40
6200	DM-30-622	1.14	1.25	1.37	1.48
6800	DM-30-682	1.26	1.39	1.51	1.64
7500	DM-30-752	1.38	1.52	1.66	1.79
8200	DM-30-822	1.50	1.65	1.80	1.95
9100	DM-30-912	1.62	1.78	1.94	2.11
10000	DM-30-103	1.80	1.98	2.16	2.34
12000	DM-30-123	2.10	2.41	2.52	2.73
13000	DM-30-133	2.25	2.48	2.70	2.93
15000	DM-30-153	2.55	2.81	3.06	3.32
16000	DM-30-163	2.70	2.97	3.24	3.51
18000	DM-30-183	3.00	3.30	3.60	3.90
20000	DM-30-203	3.30	3.63	3.96	4.29
22000*	DM-30-223	3.42	3.76	4.10	4.45
24000"	DM-30-243	3.69	4.06	4.43	4.80
25000*	DM-30-253	3.84	4.22	4.61	4.99
27000*	DM-30-273	4.11	4.52	4.93	5.35
30000**	DM-30-303	4.50	4.95	5.40	5.85
33000**	DM-30-333	4.95	5.45	5.94	6.44
36000**	DM-30-363	5.40	5.94	6.48	7.02

TYPE DM-42

(CM08 values and prices the same)

500VDCW

CAP. MMF.	TYPE DESIGNATION	Net Price Tolerance (1-24) ±5% "J"	±2% "G"	±1% "F"
10000	DM-42-103	$ 3.30	$ 3.80	$ 4.30
12000	DM-42-123	3.95	4.55	5.15
13000	DM-42-133	4.20	4.85	5.45
15000	DM-42-153	4.80	5.50	6.25
16000	DM-42-163	5.10	5.85	6.65
18000	DM-42-183	5.70	6.55	7.40
20000	DM-42-203	6.25	7.20	8.10
22000	DM-42-223	6.90	7.95	9.00
24000	DM-42-243	7.50	8.60	9.75
25000	DM-42-253	7.80	9.00	10.10
27000	DM-42-273	8.40	9.65	10.90
30000	DM-42-303	9.30	10.70	12.10
33000	DM-42-333	10.20	11.70	13.30
36000	DM-42-363	11.10	12.80	14.40
39000	DM-42-393	12.00	13.80	15.60
43000	DM-42-433	13.00	15.00	17.00
47000	DM-42-473	14.00	16.10	18.20
50000	DM-42-503	14.70	16.90	19.10
51000	DM-42-513	15.00	17.30	19.50
56000*	DM-42-563	14.20	16.30	18.50
62000*	DM-42-623	15.60	18.00	20.30
68000**	DM-42-683	17.00	19.60	22.10
75000**	DM-42-753	18.70	21.50	24.30
82000**	DM-42-823	20.50	23.60	26.60

TYPE DM-43 500 VDCW

47000	DM-43-473	
50000	DM-43-503	
51000	DM-43-513	
56000	DM-43-563	
62000	DM-43-623	PRICING ON REQUEST
68000	DM-43-683	
75000*	DM-43-753	
82000*	DM-43-823	
91000*	DM-43-913	
100000*	DM-43-104	
110000**	DM-43-114	
120000**	DM-43-124	
130000**	DM-43-134	

All capacities marked with * are 300WV. ** are 100 WV.

HIGH-RELIABILITY DUR-MICA

Type HRDM

Missile, Computer, and other applications wherein entire system performance depends on reliable operation of thousands of components has prompted development of a High Reliability line of ELMENCO Dur-Mica dipped silvered mica capacitors. Selected DM units are subjected to a special "debugging" process to eliminate potential early failures. This process is particularly effective when the capacitors are to be subjected to operation near their maximum rated temperature. The HRDM capacitors are exposed to double rated voltage for 48 hours at 125°C.

TYPE HRDM

Capacitance Values (mmf.) DM10	DM-15	Net Price Tolerance (1-24) ±10%	±5%	±2%	±1%
	1-100	$ .30	$ .32	$ .35	$ .39
1-10	110-150	.33	.35	.39	.44
12-43	160-200	.38	.39	.43	.49
47-110	220-250	.39	.42	.47	.53
120-130	270-300	.42	.45	.51	.59
150	330-36	.45	.48	.54	.63
160	390-430	.48	.52	.59	.68
180-200	470-510	.51	.56	.63	.74
220	560	.56	.60	.68	.80
240-270	620	.61	.64	.72	.86
300-330	680	.62	.68	.77	.92
360	750	.66	.71	.81	.96
390	820	.69	.75	.86	1.02
	910	.75	.81	.94	1.06
	1000	.80	.95	.98	1.11
DM19	**DM20**				
100		.30	.32	.33	.38
110-220		.33	.35	.37	.42
240-250		.36	.39	.41	.47
270-330		.39	.42	.44	.51
360-430		.42	.45	.48	.56
470-510	680-820	.45	.48	.51	.60
560-620	910	.48	.52	.55	.65
680-820	1000-1100	.51	.56	.59	.70
910	1200	.54	.59	.62	.75
1000-1100	1300	.57	.62	.66	.79
1200	1500	.60	.65	.70	.84
1300	1600	.63	.68	.74	.88
1500		.70	.76	.81	.98
1600	1800	.70	.76	.81	.93
	2000	.73	.79	.84	1.02
1800		.76	.82	.88	1.09
	2200	.79	.86	.92	1.12
2000	2400-2500	.82	.89	.96	1.16
	2700	.88	.96	1.03	1.25
2200		.90	.98	1.06	1.29
	3000	.95	1.02	1.11	1.35
2400		.97	1.05	1.14	1.38
2500		1.00	1.09	1.17	1.43
2700	3300	1.04	1.13	1.22	1.49
3000	3600	1.10	1.20	1.29	1.58
3300	3900	1.17	1.27	1.37	1.68
3600	4300	1.23	1.34	1.45	1.78
3900	4700	1.30	1.41	1.53	1.88
4300	5000-5100	1.37	1.49	1.61	1.98
4700	5600-6200	1.48	1.55	1.69	2.08
5000-5100	6800	1.50	1.62	1.77	2.18
5600	7500	1.56	1.70	1.86	2.29
6200-6800		1.63	1.77	1.94	2.39
7500	8200	1.69	1.85	2.03	2.50
8200		1.76	1.92	2.11	2.61
	9100	1.85	2.04	2.21	2.85
	1000	2.07	2.25	2.45	3.04
	DM30				
	4300	1.13	1.23	1.33	1.43
	4700	1.19	1.30	1.41	1.51
	5000-5100	1.23	1.34	1.44	1.55
	5600	1.26	1.37	1.48	1.59
	6200	1.32	1.44	1.56	1.68
	6800	1.53	1.58	1.71	1.82
	7500	1.57	1.71	1.86	2.00
	8200	1.69	1.85	2.01	2.16
	9100	1.81	1.98	2.16	2.33
	10000	2.00	2.19	2.38	2.57
	12000	2.39	2.62	2.85	3.08
	13000	2.55	2.81	3.05	3.29
	15000	2.97	3.16	3.43	3.71
	16000	3.03	3.33	3.63	3.92
	18000	3.36	.69	4.01	4.34
	20000	3.68	4.04	4.39	4.74
	22000	3.80	4.17	4.53	4.90
	24000	4.09	4.48	4.87	5.27
	25000	4.25	4.66	5.07	5.48
	27000	4.53	4.98	5.42	5.86
	30000	4.88	5.37	5.84	6.32
	33000	5.36	5.90	6.42	6.94
	36000	5.83	6.41	6.98	7.55

NOTE: Voltage ratings of items listed correspond to those indicated for the standard line DM capacitors in equivalent values and cases sizes indicated on previous pages.

There is a set-up charge of $3.00 per item when the quantity of the item is less than 100. This charge is added to the unit prices indicated above.

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ARCO electronics inc.
GREAT NECK, NEW YORK
Branches: Los Angeles 35, Dallas 7

ELMENCO CAPACITORS

TYPES
VDM-20, VDM-30
VDM-42, VDM-43
HVDM-42, HVDM-43

HIGH VOLTAGE DUR-MICA

A new line of ELMENCO Silvered Hi-Voltage Dur-Mica capacitors is now available to complement the similar values in the molded configuration. These high voltage capacitors afford the same facility of use in low power applications by providing reliable operation in a small case size. Elmenco Dur-Mica capacitors may be substituted for similarly rated molded units normally supplied in the larger CM45, CM50, CM55, and CM60 case sizes.
The Dur-Mica design provides advantage of higher temperature operation (125° C. max.); radial leads for printed circuit application; higher capacitance in a given case size; and improved reliability. The dipped units, being solidly impregnated with corona resistant material, do not have the voids which make molded types susceptible to corona. As a result, the dipped capacitors can be supplied with voltage rating as high as 5000VDCW.
All Elmenco Dur-Mica capacitors are silvered mica construction. They conform to electrical and environmental specifications set forth in MIL-C-5 specifications.

VDM-20 HI-VOLTAGE
TOLERANCE ± 5%
Net Price (1-24)

CAP. MMF.	TYPE DESIGNATION	VDC 2000T 1000W	VDC 3000T 1500W	VDC 5000T 2500W
5	VDM-20-050K			.18
10	VDM-20-100J	**USE**	**USE**	.18
12	VDM-20-120J	**2500V**	**2500V**	.18
15	VDM-20-150J			.18
18	VDM-20-180J	↑	.18	.21
20	VDM-20-200J		.18	.21
22	VDM-20-220J		.18	.21
24	VDM-20-240J		.18	.21
27	VDM-20-270J	**USE**	.18	.21
30	VDM-20-300J	**1500V**	.18	.21
33	VDM-20-330J	↓	.18	.21
36	VDM-20-360J		.18	.21
39	VDM-20-390J		.18	.21
43	VDM-20-430J	.18	.21	.24
47	VDM-20-470J	.18	.21	.27
50	VDM-20-500J	.18	.21	.27
51	VDM-20-510J	.18	.21	.27
56	VDM-20-560J	.18	.21	.27
62	VDM-20-620J	.18	.21	.30
68	VDM-20-680J	.18	.21	.30
75	VDM-20-750J	.18	.21	.30
82	VDM-20-820J	.18	.24	.33
91	VDM-20-910J	.18	.24	.36
100	VDM-20-110J	.21	.24	.36
110	VDM-20-111J	.21	.24	.39
120	VDM-20-121J	.21	.24	.39
130	VDM-20-131J	.21	.27	.42
150	VDM-20-151J	.21	.27	.45
160	VDM-20-161J	.21	.27	.48
180	VDM-20-181J	.21	.30	.51
200	VDM-20-201J	.24	.30	.57
220	VDM-20-221J	.24	.33	.60
240	VDM-20-241J	.24	.33	.63
250	VDM-20-251J	.24	.36	.66
270	VDM-20-271J	.24	.36	.72
300	VDM-20-301J	.24	.36	.78
330	VDM-20-331J	.24	.39	.84
360	VDM-20-361J	.24	.39	.90
390	VDM-20-391J	.27	.42	
430	VDM-20-431J	.27	.45	
470	VDM-20-471J	.27	.48	
500	VDM-20-501J	.30	.51	
510	VDM-20-511J	.30	.51	
560	VDM-20-561J	.30	.54	
620	VDM-20-621J	.33	.60	
680	VDM-20-681J	.36	.66	
750	VDM-20-751J	.36	.72	
820	VDM-20-821J	.39	.78	
910	VDM-20-911J	.42	.84	
1000	VDM-20-102J	.42	.90	
1100	VDM-20-112J	.45	.96	
1200	VDM-20-122J	.48	1.02	
1300	VDM-20-132J	.51	1.08	
1500	VDM-20-152J	.54		
1600	VDM-20-162J	.57		
1800	VDM-20-182J	.60		
2000	VDM-20-202J	.66		
2200	VDM-20-222J	.72		
2400	VDM-20-242J	.78		
2700	VDM-20-272J	.87		
3000	VDM-20-302J	.96		

NOTE: All above units can be supplied in characteristic "C"-"D"-"E"-"F" at above net prices.

VDM-30 HI-VOLTAGE
TOLERANCE ± 5%
Net Price (1-24)

CAP. MMF.	TYPE DESIGNATION	VDC 2000T 1000W	VDC 3000T 1500W	VDC 5000T 2500W
390	VDM-30-391J	↑	↑	.72
430	VDM-30-431J			.78
470	VDM-30-471J			.84
500	VDM-30-501J			.90
510	VDM-30-511J			.90
560	VDM-30-561J			.96
620	VDM-30-621J		**USE**	1.02
680	VDM-30-681J		**CASE**	1.08
750	VDM-30-751J		**VDM20**	1.14
820	VDM-30-821J	**USE**	↓	1.20
910	VDM-30-911J	**CASE**		1.29
1000	VDM-30-102J	**VDM20**		1.38
1100	VDM-30-112J			1.50
1200	VDM-30-122J			1.65
1300	VDM-30-132J			1.80
1500	VDM-30-152J		1.20	2.10
1600	VDM-30-162J		1.32	2.25
1800	VDM-30-182J		1.44	2.58
2000	VDM-30-202J		1.56	2.94
2200	VDM-30-222J		1.68	3.30
2400	VDM-30-242J		1.89	3.66
2700	VDM-30-272J		1.98	4.20
3000	VDM-30-302J	↓	2.16	
3300	VDM-30-332J	1.20	2.34	
3600	VDM-30-362J	1.32	2.52	
3900	VDM-30-392J	1.38	2.70	
4300	VDM-30-432J	1.50	2.88	
4700	VDM-30-472J	1.62	3.06	
5000	VDM-30-502J	1.80	3.24	
5100	VDM-30-512J	1.80	3.30	
5600	VDM-30-562J	1.86	3.60	
6200	VDM-30-622J	2.10	3.90	
6800	VDM-30-682J	2.34	4.20	
7500	VDM-30-752J	2.64		
8200	VDM-30-822J	3.00		
9100	VDM-30-912J	3.36		
10000	VDM-30-103J	3.72		

VDM-42 HI-VOLTAGE

3000	VDM-42-302J	↑	↑	
3300	VDM-42-332J			
3600	VDM-42-362J			
3900	VDM-42-392J			
4300	VDM-42-432J		**USE**	
4700	VDM-42-472J	**USE**	**VDM30**	
5000	VDM-42-502J	**VDM30**	**CASE**	
5100	VDM-42-512J	**CASE**	↓	
5600	VDM-42-562J			
6200	VDM-42-622J			
6800	VDM-42-682J			
7500	VDM-42-752J			
8200	VDM-42-822J			
9100	VDM-42-912J			
10000	VDM-42-103J	↓		
12000	VDM-42-123J			
13000	VDM-42-133J			
15000	VDM-42-153J			
16000	VDM-42-163J		**PRICING**	
18000	VDM-42-183J		**ON**	
20000	VDM-42-203J		**REQUEST**	
22000	VDM-42-223J			
24000	VDM-42-243J			
25000	VDM-42-253J			
27000	VDM-42-273J			
30000	VDM-42-303J			

Above prices are for Standard 5% Tolerance. Add 15% for 2% Tolerance; Add 25% for 1% Tolerance; Add 100% for ½% Tolerance. Minimum Tolerance ± 0.5 mmf.

VDM-43 HI-VOLTAGE
TOLERANCE ± 5%
Net Price (1-24)

CAP. MMF.	TYPE DESIGNATION	VDC 2000T 1000W	VDC 3000T 1500W	VDC 5000T 2500W
12000	VDM-43-123J	↑	**USE**	
13000	VDM-43-133J		**VDM42**	
15000	VDM-43-153J		**CASE**	
20000	VDM-43-203J	**USE**		
22000	VDM-43-223J	**VDM42**		
24000	VDM-43-243J	**CASE**		
25000	VDM-43-253J			
27000	VDM-43-273J			
30000	VDM-43-303J	↓		
33000	VDM-43-333J			
36000	VDM-43-363J		**PRICING**	
39000	VDM-43-393J		**ON**	
43000	VDM-43-433J		**REQUEST**	
47000	VDM-43-473J			

SPECIAL HVDM-42 & HVDM-43 5000WV UNITS

CAP. MMF.	TYPE DESIGNATION	10000 VOLTS DC TEST 5000 VOLTS DC WKG.
5	HVDM-42-050K	
10	HVDM-42-100J	
12	HVDM-42-120J	
15	HVDM-42-150J	
18	HVDM-42-180J	
20	HVDM-42-200J	
22	HVDM-42-220J	
24	HVDM-42-240J	
27	HVDM-42-270J	
30	HVDM-42-300J	
33	HVDM-42-330J	
36	HVDM-42-360J	
39	HVDM-42-390J	
43	HVDM-42-430J	
47	HVDM-42-470J	
50	HVDM-42-500J	
51	HVDM-42-510J	
56	HVDM-42-560J	
62	HVDM-42-620J	
68	HVDM-42-680J	
75	HVDM-42-750J	
82	HVDM-42-820J	
91	HVDM-42-910J	
100	HVDM-42-101J	**PRICING**
110	HVDM-42-111J	**ON**
120	HVDM-42-121J	**REQUEST**
130	HVDM-42-131J	
150	HVDM-42-151J	
160	HVDM-42-161J	
180	HVDM-42-181J	
200	HVDM-42-201J	
220	HVDM-42-221J	
240	HVDM-42-241J	
250	HVDM-42-251J	
270	HVDM-42-271J	
300	HVDM-42-301J	
330	HVDM-42-331J	
360	HVDM-42-361J	
390	HVDM-42-391J	
430	HVDM-42-431J	
470	HVDM-42-471J	
500	HVDM-42-501J	
510	HVDM-42-511J	
560	HVDM-42-561J	
620	HVDM-42-621J	
680	HVDM-43-681J	
750	HVDM-43-751J	
820	HVDM-43-821J	
910	HVDM-43-911J	

PLEASE SPECIFY WORKING VOLTAGE RATING WHEN ORDERING

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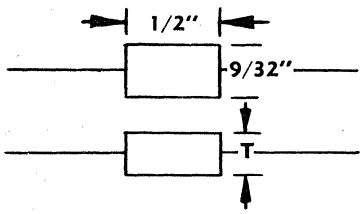
ELMENCO CAPACITORS

TYPES
CM-15
CM-19, CM-20

MOLDED SILVERED MICA

TYPE CM-15

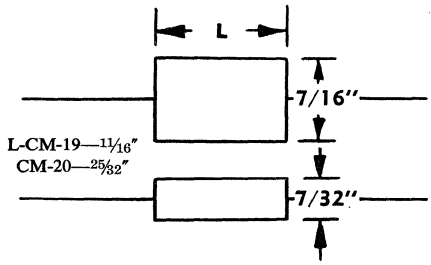


T—from 1-300 mmf. 3/16"
T—from 301-510 mmf. 7/32"

CM-15

CM-19

TYPE CM-19 & 20



500 VDCW

Cap. Mmf.	Type Designation	(1-24) Net Price Tolerance 5% "J"	2% "G"	1% "F"
1	CM-15-C-010†	$0.18		
2	CM-15-C-020†	.18		
3	CM-15-C-030†	.18		
5	CM-15-C-050†	.18		
10	CM-15-C-100	.18		
12	CM-15-C-120	.18		
15	CM-15-C-150	.18		
18	CM-15-C-180	.18		
20	CM-15-C-200	.18		
22	CM-15-C-220	.18		
24	CM-15-E-240	.18		
27	CM-15-E-270	.18	$0.22	
30	CM-15-E-300	.18	.22	
33	CM-15-E-330	.18	.22	
36	CM-15-E-360	.18	.22	
39	CM-15-E-390	.18	.22	
43	CM-15-E-430	.18	.22	
47	CM-15-E-470	.18	.22	
50	CM-15-E-500	.18	.22	$0.26
51	CM-15-E-510	.18	.22	.26
56	CM-15-E-560	.18	.22	.26
62	CM-15-E-620	.18	.22	.26
68	CM-15-E-680	.18	.22	.26
75	CM-15-E-750	.18	.22	.26
82	CM-15-E-820	.18	.22	.26
91	CM-15-E-910	.18	.22	.26
100	CM-15-E-101	.18	.22	.26
110	CM-15-E-111	.21	.25	.30
120	CM-15-E-121	.21	.25	.30
130	CM-15-E-131	.21	.25	.30
150	CM-15-E-151	.21	.25	.30
160	CM-15-E-161	.24	.29	.34
180	CM-15-E-181	.24	.29	.34
200	CM-15-E-201	.24	.29	.34
220	CM-15-E-221	.27	.32	.39
240	CM-15-E-241	.27	.32	.39
250	CM-15-E-251	.27	.32	.39
270	CM-15-E-271	.30	.36	.43
300	CM-15-E-301	.30	.36	.43
330	CM-15-E-331	.33	.40	.47
360	CM-15-E-361	.36	.43	.52
390	CM-15-E-391	.39	.47	.56
430	CM-15-E-431	.42	.50	.61
470	CM-15-E-471	.45	.54	.65
500	CM-15-E-501	.48	.58	.69
510	CM-15-E-511	.48	.58	.69
560**	CM-15-E-561	.48	.58	.69
620**	CM-15-E-621	.51	.61	.73
680**	CM-15-E-681	.54	.65	.78
750**	CM-15-E-751	.57	.68	.82
820**	CM-15-E-821	.60	.72	.86

NOTES—**100 VDCW.
†Closest Tolerance ±0.5 mmf.

SPECIFICATIONS NOTES:
±½% tolerance available above 100 mmf. at double ±5% list price.
CM15, available "F" characteristic above 30 mmf.
CM19, 20 available "E" characteristic above 110 mmf.
CM19, 20 available "F" characteristic above 200 mmf.
All CM30, 35, and 42 values listed are available in "F" characteristic.

500 VDCW

Cap. Mmf.	Type Designation	(1-24) Net Price Tolerance "J" ±5%	"G" ±2%	"F" ±1%
5	CM-20C-050	$0.18		
10	CM-20C-100	.18		
12	CM-20C-120	.18		
15	CM-20C-150	.18		
18	CM-20C-180	.18		
20	CM-20C-200	.18		
22	CM-20C-220	.18		
24	CM-20C-240	.18		
27	CM-20C-270	.18	$0.20	
30	CM-20C-300	.18	.20	
33	CM-20C-330	.18	.20	
36	CM-20C-360	.18	.20	
39	CM-20C-390	.18	.20	
43	CM-20C-430	.18	.20	
47	CM-20C-470	.18	.20	
50	CM-20C-500	.18	.20	$0.25
51	CM-20C-510	.18	.20	.25
56	CM-20C-560	.18	.20	.25
62	CM-20C-620	.18	.20	.25
68	CM-20C-680	.18	.20	.25
75	CM-20C-750	.18	.20	.25
82	CM-20C-820	.18	.20	.25
91	CM-20C-910	.18	.20	.25
100	CM-20C-101	.18	.20	.25
110	CM-20C-111	.21	.23	.29
120	CM-20C-121	.21	.23	.29
130	CM-20C-131	.21	.23	.29
150	CM-20C-151	.21	.23	.29
160	CM-20C-161	.21	.23	.29
180	CM-20C-181	.21	.23	.29
200	CM-20D-201	.21	.23	.29
220	CM-20D-221	.21	.23	.29
240	CM-20D-241	.24	.26	.34
250	CM-20D-251	.24	.26	.34
270	CM-20D-271	.27	.30	.38
300	CM-20D-301	.27	.30	.38
330	CM-20D-331	.27	.30	.38
360	CM-20D-361	.30	.33	.42
390	CM-20D-391	.30	.33	.42
430	CM-20D-431	.30	.33	.42
470	CM-20D-471	.33	.37	.46
500	CM-20D-501	.33	.37	.46
510	CM-20D-511	.33	.37	.46
560	CM-20D-561	.33	.37	.46
620	CM-20D-621	.36	.40	.50
680	CM-20D-681	.36	.40	.50
750	CM-20D-751	.39	.43	.55
820	CM-20D-821	.42	.46	.59
910	CM-20D-911	.42	.46	.59
1000	CM-20E-102	.45	.50	.63
1100	CM-20E-112	.45	.50	.63
1200	CM-20E-122	.48	.53	.67
1300	CM-20E-132	.48	.53	.67
1500	CM-20E-152	.51	.56	.71
1600	CM-20E-162	.54	.59	.76
1800	CM-20E-182	.60	.66	.84
2000	CM-20E-202	.66	.73	.92
2200	CM-20E-222	.72	.79	1.01
2400	CM-20E-242	.75	.83	1.05
2500	CM-20E-252	.78	.86	1.09
2700	CM-20E-272	.84	.92	1.18
3000	CM-20E-302	.90	.99	1.26
3300	CM-20E-332	.96	1.06	1.34
3600*	CM-20E-362	1.02	1.12	1.43
3900*	CM-20E-392	1.08	1.19	1.51
4300*	CM-20E-432	1.14	1.25	1.60
4700*	CM-20E-472	1.20	1.32	1.68
5000*	CM-20E-502	1.26	1.39	1.76
5100*	CM-20E-512	1.26	1.39	1.76

NOTE—*300 VDCW.
CM19 case size is available in values up to 2700 mmf. In values above 1000 mmf add 10% to the prices indicated.

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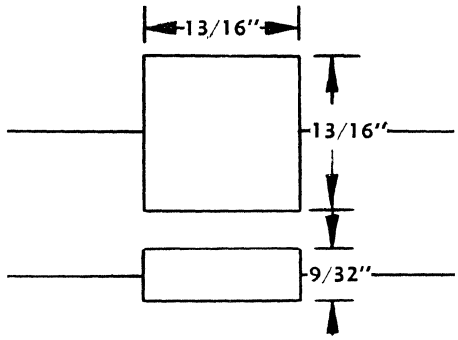
ELMENCO CAPACITORS

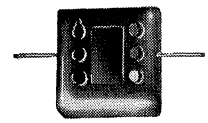
TYPES CM-19, CM-20, CM-30 CM-35, CM-42

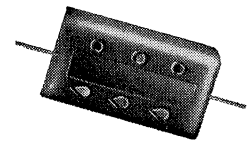
MOLDED SILVERED MICA

TYPE CM-30



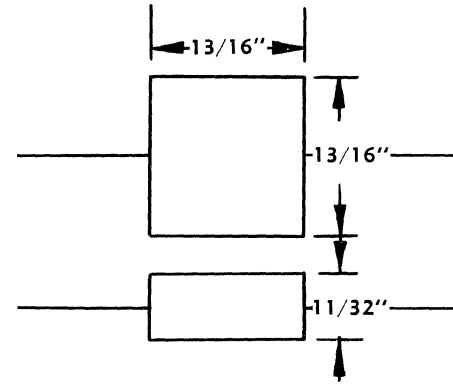
CM-30





CM-42

TYPE CM-35



500 VDCW

Cap. Mmf.	Type Designation	(1-24) Net Price Tolerance "J" ±5%	"G" ±2%	"F" ±1%
510	CM-30-E-511	$0.33	$0.37	$0.40
560	CM-30-E-561	.36	.40	.43
620	CM-30-E-621	.36	.40	.43
680	CM-30-E-681	.39	.43	.47
750	CM-30-E-751	.39	.43	.47
820	CM-30-E-821	.42	.46	.50
910	CM-30-E-911	.42	.46	.50
1000	CM-30-E-102	.45	.50	.54
1100	CM-30-E-112	.45	.50	.54
1200	CM-30-E-122	.45	.50	.54
1300	CM-30-E-132	.48	.53	.58
1500	CM-30-E-152	.51	.56	.61
1600	CM-30-E-162	.51	.56	.61
1800	CM-30-E-182	.54	.59	.65
2000	CM-30-E-202	.60	.66	.72
2200	CM-30-E-222	.66	.73	.79
2400	CM-30-E-242	.72	.79	.86
2500	CM-30-E-252	.72	.79	.86
2700	CM-30-E-272	.78	.86	.94
3000	CM-30-E-302	.84	.92	1.01
3300	CM-30-E-332	.90	.99	1.08
3600	CM-30-E-362	.96	1.06	1.15
3900	CM-30-E-392	1.02	1.12	1.22
4300	CM-30-E-432	1.08	1.19	1.30
4700	CM-30-E-472	1.14	1.25	1.37
5000	CM-30-E-502	1.20	1.32	1.44
5100	CM-30-E-512	1.20	1.32	1.44
5600	CM-30-E-562	1.26	1.39	1.51
6200	CM-30-E-622	1.32	1.45	1.58

NOTE:—All above "SILVERED MICA" units can be supplied in "F" Characteristic at no extra cost. For ±½% Tolerance double the 5% List prices.

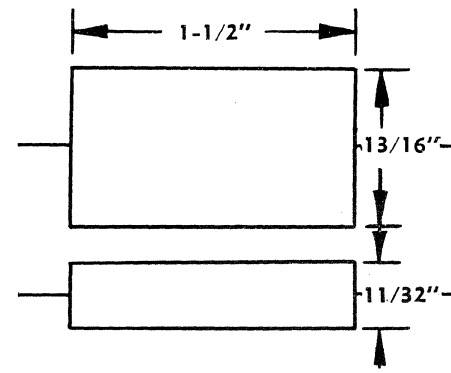
All Type CM-42 units can be supplied in "F" characteristic at no extra cost. For ±½% Tolerance double the 1% list price.

All CM30, 35, and 42 values listed are available in "F" characteristic.

500 VDCW

Cap. Mmf.	Type Designation	(1-24) Net Price Tolerance "J" ±5%	"G" ±2%	"F" ±1%
6800*	CM-35-E-682	1.32	1.45	1.58
7500*	CM-35-E-752	1.44	1.58	1.73
8200*	CM-35-E-822	1.56	1.72	1.87
9100*	CM-35-E-912	1.68	1.85	2.02
10000*	CM-35-E-103	1.86	2.05	2.23
12000*	CM-35-E-123	2.16	2.38	2.59
15000*	CM-35-E-153	2.58	2.84	3.10
6800	VCM-35-E-682	1.44	1.58	1.73
7500	VCM-35-E-752	1.56	1.72	1.87
8200	VCM-35-E-822	1.68	1.85	2.02
9100	VCM-35-E-912	1.86	2.05	2.23
10000	VCM-35-E-103	2.04	2.24	2.45

TYPE CM-42



500 VDCW

12000	CM-42-E-123	2.82	3.25	3.53
13000	CM-42-E-133	3.06	3.52	3.83
15000	CM-42-E-153	3.48	4.00	4.35
16000	CM-42-E-163	3.72	4.28	4.65
18000	CM-42-E-183	4.14	4.76	5.18
20000	CM-42-E-203	4.56	5.24	5.70
22000	CM-42-E-223	4.98	5.73	6.23
24000	CM-42-E-243	5.40	6.21	6.75
25000	CM-42-E-253	5.64	6.49	7.05
27000*	CM-42-E-273	5.40	6.21	6.75
30000*	CM-42-E-303	5.64	6.49	7.05
33000*	CM-42-E-333	6.12	7.04	7.65
36000*	CM-42-E-363	6.84	7.87	8.55
39000*	CM-42-E-393	7.56	8.69	9.45

All capacities marked with * are 300WV.

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ARCO CAPACITORS

HIGH TEMPERATURE MOLDED SILVERED MICA

The standard Elmenco molded mica capacitor is designed for use at a maximum of 85°C., the former industry and military standard prior to issuance of MIL-C-5B. Now, in some applications, these components are expected to operate without derating and with the same order of reliability at 150°C. The latter requirement is particularly difficult to cope with and obviously requires vast improvement over the standard design.

A specially designed Elmenco molded mica capacitor, designated Type HTCM, has been developed which will afford complete satisfaction at the higher levels of temperature stress. The resulting units have been carefully evaluated in millions of unit-hours of life and environmental testing to verify their performance excellence.

In order to retain proper characteristics at 150°C., the following steps are taken:

1. Every mica film is screened for high temperature characteristics. This is done 100%, not on a sampling basis.

2. A special high temperature molding resin is employed to preserve the strength and electrical characteristic of the mica at 150°C. This molding material was also selected for the lower molding pressure required. This reduced stress greatly enhances the reliability of the mica films.

3. A solid high temperature impregnant is used instead of wax for greater stability and retention of the moisture resistance characteristic. Wax will have a tendency to melt out at high temperature, causing possible change in capacitance value, loss of moisture seal, and possible fouling of adjacent circuitry. The HTCM capacitors will remain physically and electrically stable at 150°C.

With these design innovations, vast improvement is obtained in operating reliability at elevated temperature. The expected failure rate is reduced to a small fraction of what might otherwise be expected to standard design capacitors.

THESE HTCM CAPACITORS MEET MIL-C-5B TEMPERATURE RANGES "O" AND "P"

The Elmenco high temperature molded mica capacitor is designated simply by adding prefix letters "HT" to the standard part number. For example, a 100 mmf. ±5% CM15, standard part number CM15E101J, would be called an HTCM15E101J for high temperature operation.

The HTCM capacitors may be recognized by their gray-brown color as compared with the red molding resin of the standard 85°C. capacitors.

To conserve catalog space, part numbers for each individual HTCM capacitors are not listed as they are for the standard units. Capacitance values are shown for each case size with corresponding list price indicated for each tolerance. Voltage ratings are the same as for standard CM capacitors.

LIST PRICE			
Cap. mmf.	**±5%**	**±2%**	**±1%**
		HCTM15	
1-75	.65	.75	.82
82-150	.70	.81	.88
160-200	.75	.87	.95
220	.80	.92	1.01
240	.80	.92	1.01
250	.80	.92	1.01
270	.85	.98	1.07
300	.85	.98	1.07
330	.90	1.04	1.13
360	.95	1.10	1.20
390	.95	1.10	1.20
430	1.00	1.16	1.26
470	1.05	1.21	1.32
500	1.05	1.21	1.32
510	1.05	1.21	1.32
		HTCM19, HTCM20	
5-100	.65	.75	.82
110-220	.70	.81	.88
110-220	.80	.92	1.01
390-430	.90	1.04	1.13
470-510	.95	1.10	1.20
560	1.00	1.16	1.26
620	1.00	1.16	1.26
680	1.05	1.21	1.32
750	1.05	1.21	1.32
820	1.10	1.27	1.39
910	1.10	1.27	1.39
1000	1.15	1.33	1.45
1100	1.15	1.33	1.45
1200	1.25	1.44	1.57
1300	1.25	1.44	1.57

LIST PRICE			
Cap. mmf.	**±5%**	**±2%**	**±1%**
1500	1.40	1.61	1.76
1600	1.40	1.61	1.76
1800	1.50	1.73	1.88
2000	1.50	1.85	2.01
2200	1.70	1.96	2.13
2400	1.80	2.07	2.26
2500	1.85	2.13	2.32
2700	1.95	2.25	2.45
3000	2.15	2.48	2.70
3300	2.25	2.59	2.82
*3600	2.25	2.59	2.82
*3900	2.35	2.71	2.95
*4300	2.45	2.82	3.07
*4700	2.55	2.94	3.20
*5000	2.65	3.05	3.32
*5100	2.65	3.05	3.32
		HTCM30, HTCM35	
3600	2.35	2.71	2.95
3900	2.45	2.82	3.07
4300	2.55	2.94	3.20
4700	2.65	3.05	3.32
5000	2.80	3.22	3.51
5100	2.80	3.22	3.51
5600	3.20	3.68	4.01
6200	3.45	3.97	4.32
*6800	3.05	3.51	3.82
*7500	3.20	3.68	4.01
*8200	3.45	3.97	4.32
*9100	3.70	4.26	4.63
*100000	4.00	4.60	5.01

*300VDCW

Add 10% to indicated prices for HTCM19 in values above 1000 mmf. to a maximum of 2400 mmf.

HERE is a $5.00 PER ITEM SET-UP CHARGE FOR NON-STANDARD CAPACITANCE VALUES IN QUANTITIES LESS THAN 100 OF A SIZE. ALL ALUES LISTED ON PRIOR PAGES FOR THE STANDARD SILVERED MOLDED MICA ARE CONSIDERED STANDARD STOCK VALUES FOR /HICH THERE IS NO SET-UP CHARGE.

Trade Discount Applies To List Prices Only
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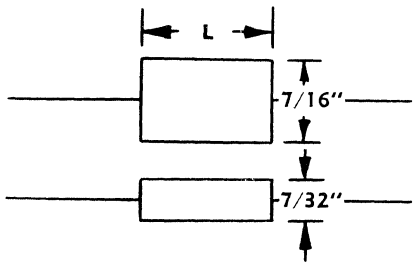
ELMENCO CAPACITORS

TYPES CM-19, CM-20 CM-30, CM-35

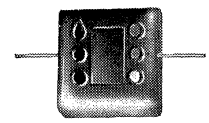
MOLDED FOIL MICA

TYPE CM-19 & 20



L—CM-19—11/16": CM-20—25/32"

CM-19



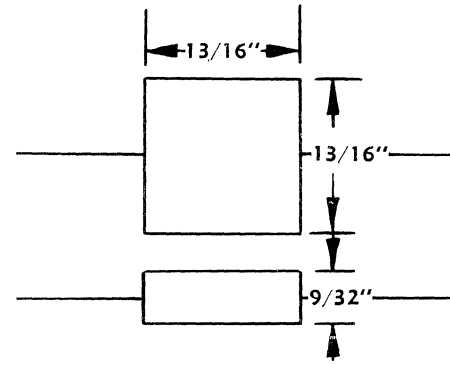
CM-30

500 VDCW

Cap. Mmf.	Type Designation	Net Price Tolerance (1-24) "M" ±20%	"K" ±10%	"J" ±5%
5	CM-20B-050	$0.18	$0.20	
10	CM-20B-100	.18	.20	$0.23
12	CM-20B-120	.18	.20	.23
15	CM-20B-150	.18	.20	.23
18	CM-20B-180	.18	.20	.23
20	CM-20B-200	.18	.20	.23
22	CM-20B-220	.18	.20	.23
24	CM-20B-240	.18	.20	.23
27	CM-20B-270	.18	.20	.23
30	CM-20B-300	.18	.20	.23
33	CM-20B-330	.12	.13	.15
36	CM-20B-360	.12	.13	.15
39	CM-20B-390	.12	.13	.15
43	CM-20B-430	.12	.13	.15
47	CM-20B-470	.12	.13	.15
50	CM-20B-500	.12	.13	.15
51	CM-20B-510	.12	.13	.15
56	CM-20B-560	.12	.13	.15
62	CM-20B-620	.12	.13	.15
68	CM-20B-680	.12	.13	.15
75	CM-20B-750	.12	.13	.15
82	CM-20B-820	.12	.13	.15
91	CM-20B-910	.12	.13	.15
100	CM-20B-101	.12	.13	.15
110	CM-20B-111	.12	.13	.15
120	CM-20B-121	.12	.13	.15
130	CM-20B-131	.15	.17	.19
150	CM-20B-151	.15	.17	.19
160	CM-20B-161	.15	.17	.19
180	CM-20B-181	.15	.17	.19
200	CM-20B-201	.15	.17	.19
220	CM-20B-221	.15	.17	.19
240	CM-20B-241	.18	.20	.23
250	CM-20B-251	.18	.20	.23
270	CM-20B-271	.18	.20	.23
300	CM-20B-301	.18	.20	.23
330	CM-20B-331	.18	.20	.23
360	CM-20B-361	.18	.20	.23
390	CM-20B-391	.18	.20	.23
430	CM-20B-431	.18	.20	.23
470	CM-20B-471	.18	.20	.23
500	CM-20B-501	.18	.20	.23
510	CM-20B-511	.18	.20	.23
560	CM-20B-561	.21	.23	.26
620	CM-20B-621	.21	.23	.26
680	CM-20B-681	.21	.23	.26
750	CM-20B-751	.21	.23	.26
820	CM-20B-821	.24	.26	.30
910	CM-20B-911	.27	.30	.34
1000	CM-20B-102	.27	.30	.34
1100	CM-20B-112	.30	.33	.38
1200	CM-20B-122	.30	.33	.38
1300	CM-20B-132	.30	.33	.38
1500	CM-20B-152	.36	.40	.45
1600	CM-20B-162	.36	.40	.45
1800	CM-20B-182	.42	.46	.53
2000	CM-20B-202	.45	.50	.56
2200	CM-20B-222	.48	.53	.60
2400	CM-20B-242	.51	.56	.64
2500	CM-20B-252	.54	.59	.68
2700	CM-20B-272	$0.57	$0.63	$0.71
3000	CM-20B-302	.60	.66	.75
3300	CM-20B-332	.63	.70	.79
3600*	CM-20B-362	.60	.66	.75
3900*	CM-20B-392	.63	.70	.79
4300*	CM-20B-432	.66	.73	.83
4700*	CM-20B-472	.72	.79	.90
5000*	CM-20B-502	.75	.83	.94
5100*	CM-20B-512	.75	.83	.94

Capacities from 5 mmf. to 2700 mmf. can be supplied in CM-19 cases.

TYPE CM-30



T—CM-30—9/32"; CM-35—11/32"

500 VDCW

Cap. Mmf.	Type Designation	Net Price Tolerance (1-24) "M" ±20%	"K" ±10%	"J" ±5%
510	CM-30-B-511	$0.18	$0.22	$0.23
560	CM-30-B-561	.18	.22	.23
620	CM-30-B-621	.18	.22	.23
680	CM-30-B-681	.18	.22	.23
750	CM-30-B-751	.18	.22	.23
820	CM-30-B-821	.18	.22	.23
910	CM-30-B-911	.18	.22	.23
1000	CM-30-B-102	.21	.23	.26
1100	CM-30-B-112	.21	.23	.26
1200	CM-30-B-122	.21	.23	.26
1300	CM-30-B-132	.21	.23	.26
1500	CM-30-B-152	.24	.26	.30
1600	CM-30-B-162	.24	.26	.30
1800	CM-30-B-182	.27	.30	.34
2000	CM-30-B-202	.27	.30	.34
2200	CM-30-B-222	.27	.30	.34
2400	CM-30-B-242	.30	.33	.38
2500	CM-30-B-252	.30	.33	.38
2700	CM-30-B-272	.30	.33	.38
3000	CM-30-B-302	.36	.40	.45
3300	CM-30-B-332	.36	.40	.45
3600	CM-30-B-362	.36	.40	.45
3900	CM-30-B-392	.39	.45	.51
4300	CM-30-B-432	.39	.45	.51
4700	CM-30-B-472	.39	.45	.51
5000	CM-30-B-502	.42	.49	.55
5100	CM-30-B-512	.42	.49	.55
5600	CM-30-B-562	.42	.49	.55
6200	CM-30-B-622	.54	.62	.70

TYPE CM-35

6800*	CM-35-B-682	$0.57	$0.63	$0.71
7500*	CM-35-B-752	.60	.66	.75
8200*	CM-35-B-822	.69	.76	.86
9100*	CM-35-B-912	.69	.76	.86
10000*	CM-35-B-103	.84	.92	1.05
12000*	CM-35-B-123	.96	1.06	1.20
15000*	CM-35-B-153	1.20	1.32	1.50
6800	VCM-35-B-682	.63	.70	.79
7500	VCM-35-B-752	.69	.76	.86
8200	VCM-35-B-822	.78	.86	.97
9100	VCM-35-B-912	.78	.86	.97
10000	VCM-35-B-103	.93	1.03	1.16

All capacities marked with * are 300WV.

CM19 case size is available in values up to 2700 MMF. In values above 1000 MMF add 10% to the prices indicated.

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ELMENCO CAPACITORS

Type
VCM-20
VCM-35
VCM-42

Demand for smaller units in higher voltages designed to meet the requirements for TELEVISION, POWER AMPLIFIERS, LOW POWER TRANSMITTERS, and various INDUSTRIAL USES has increased. EL-MENCO designed and produced units listed below are especially adaptable to compact circuits where space is an important factor. Their acceptance has been overwhelming by the various manufacturers of TELEVISION RECEIVERS.

In many cases, these units will do the work of capacitors molded in CM-45, CM-50, and CM-55 cases without breaking down. NO SPECIAL MOUNTINGS ARE NECESSARY; just wire right into the circuit.

The capacitors are molded in low-loss Phenolic Resin in CM-20, CM-35, CM-42 cases and tested at double the branded voltage. They are tested for dielectric strength, insulation resistance, temperature coefficient capacitance drift, susceptibility to humidity, and length of life, according to RMA Standards. All units are wax-dipped for protection against salt water immersion.

Net Prices (1-24)

VCM-20 HI-VOLTAGE MOLDED SILVERED MICA

CAP. MMF.	TYPE DESIGNATION	2000VDCT 1000VDCW ±20% (M)	2000VDCT 1000VDCW ±5% (J)	3000VDCT 1500VDCW ±20% (M)	3000VDCT 1500VDCW ±5% (J)	5000VDCT 2500VDCW ±20% (M)	5000VDCT 2500VDCW ±5% (J)
5	VCM-20-050	USE 2500WV		USE 2500WV		.15	.18
10	VCM-20-100					.15	.18
12	VCM-20-120					.15	.18
15	VCM-20-150					.15	.18
18	VCM-20-180			.15	.18	.18	.21
20	VCM-30-200			.15	.18	.18	.21
22	VCM-20-220			.15	.18	.18	.21
24	VCM-20-240			.15	.18	.18	.21
27	VCM-20-270			.15	.18	.18	.21
30	VCM-20-300	USE 1500WV		.15	.18	.18	.21
33	VCM-20-330			.15	.18	.21	.24
36	VCM-20-360			.15	.18	.21	.24
39	VCM-20-390			.15	.18	.21	.24
43	VCM-20-430	.15	.18	.18	.21	.21	.24
47	VCM-20-470	.15	.18	.18	.21	.24	.27
50	VCM-20-500	.15	.18	.18	.21	.24	.27
51	VCM-20-510	.15	.18	.18	.21	.24	.27
56	VCM-20-560	.15	.18	.18	.21	.24	.27
62	VCM-20-620	.15	.18	.18	.21	.27	.30
68	VCM-20-680	.15	.18	.18	.21	.27	.30
75	VCM-20-750	.15	.18	.18	.21	.27	.30
82	VCM-20-820	.15	.18	.21	.24	.30	.33
91	VCM-20-910	.15	.18	.21	.24	.30	.36
100	VCM-20-101	.18	.21	.21	.24	.30	.36
110	VCM-20-111	.18	.21	.21	.24	.33	.39
120	VCM-20-121	.18	.21	.21	.24	.33	.39
130	VCM-20-131	.18	.21	.24	.27	.36	.42
150	VCM-20-151	.18	.21	.24	.27	.39	.45
160	VCM-20-161	.18	.21	.24	.27	.42	.48
180	VCM-20-181	.18	.21	.27	.30	.42	.51
200	VCM-20-201	.21	.24	.27	.30	.48	.57
220	VCM-20-221	.21	.24	.30	.33	.51	.60
240	VCM-20-241	.21	.24	.30	.33		
250	VCM-20-251	.21	.24	.30	.36		
270	VCM-20-271	.21	.24	.30	.36		
300	VCM-20-301	.21	.24	.30	.36		
330	VCM-20-331	.21	.24	.33	.39		
360	VCM-20-361	.21	.24	.33	.39		
390	VCM-20-391	.24	.27	.36	.42		
430	VCM-20-431	.24	.27	.39	.48		
470	VCM-20-471	.24	.27	.39	.48		
500	VCM-20-501	.27	.30	.42	.51		
510	VCM-20-511	.27	.30	.42	.51		
560	VCM-20-561	.27	.30	.45	.54		
620	VCM-20-621	.30	.33				
680	VCM-20-681	.30	.36				
750	VCM-20-751	.30	.36				
820	VCM-20-821	.33	.39				
910	VCM-20-911	.36	.42				
000	VCM-20-102	.36	.42				
100	VCM-20-112	.39	.45				
200	VCM-20-122	.42	.48				
300	VCM-20-132	.45	.51				

Net Prices (1-24)

VCM-35 & 42 HI-VOLTAGE MOLDED SILVERED MICA

CAP. MMF.	TYPE DESIGNATION	2000VDCT 1000VDCW ±5%	3000VDCT 1500VDCW ±5%	5000VDCT 2500VDCW ±5%
240	VCM-35-241			.54
250	VCM-35-251			.54
270	VCM-35-271			.54
300	VCM-35-301			.66
330	VCM-35-331		USE VCM20	.66
360	VCM-35-361			.66
390	VCM-35-391			.72
430	VCM-35-431			.78
470	VCM-35-471			.84
500	VCM-35-501	USE VCM20	.48	.90
510	VCM-35-511		.48	.90
560	VCM-35-561		.54	.96
620	VCM-35-621		.57	1.02
680	VCM-35-681		.60	1.08
750	VCM-35-751		.63	1.14
820	VCM-35-821		.69	
910	VCM-35-911		.75	
1000	VCM-35-102		.81	
1100	VCM-35-112		.90	
1200	VCM-35-122		.99	
1300	VCM-35-132	.60	1.08	
1500	VCM-35-152	.66	1.20	
1600	VCM-35-162	.72	1.32	
1800	VCM-35-182	.78	1.44	
2000	VCM-35-202	.84	1.56	
2200	VCM-35-222	.90	1.68	
2400	VCM-35-242	.96	1.80	
2700	VCM-35-272	1.02	1.98	
3000	VCM-35-302	1.14	2.16	
3300	VCM-35-332	1.20	2.34	
3600	VCM-35-362	1.32		
3900	VCM-35-392	1.38		
4300	VCM-35-432	1.50		
4700	VCM-35-472	1.62		
5000	VCM-35-502	1.80		
5100	VCM-35-512	1.80		
5600	VCM-35-562	1.86		
6200	VCM-42-622	1.92		
6800	VCM-42-682	2.10		
7500	VCM-42-752	2.22		
8200	VCM-42-822	2.40		
9100	VCM-42-912	2.70		
10000	VCM-42-103	2.88		
12000	VCM-42-123	3.16		
13000	VCM-42-133	3.60		
15000	VCM-42-153	4.20		
16000	VCM-42-163	4.50		

PLEASE SPECIFY WORKING VOLTAGE RATING WHEN ORDERING

NOTES:

VCM-20: For ±10% tolerance, add 10% to ±20% price.
For ± 2% tolerance, add 25% to ± 5% price.
For ± 1% tolerance, add 50% to ± 5% price.

VCM-35 and VCM-42: For ± 2% tolerance, add 25% to ± 5% price.
For ± 1% tolerance, add 50% to ± 5% price.

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Industrial Distributor)

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ELMENCO CAPACITORS

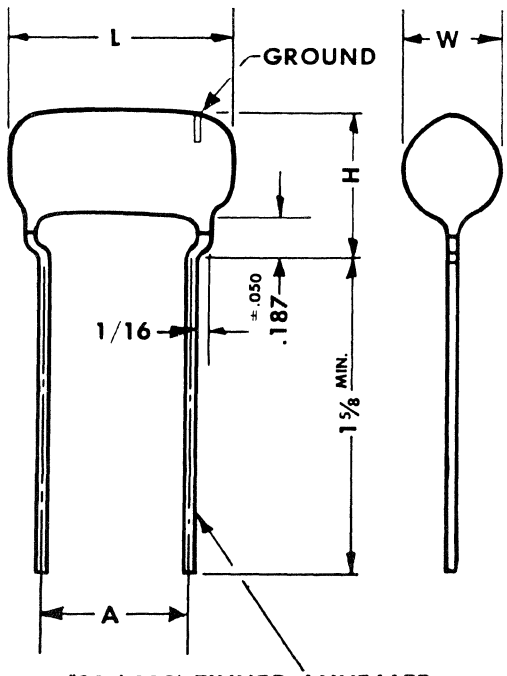
TYPE MPD

DIPPED MYLAR*—PAPER (Elmenco type MPD)

The new Elmenco Type MPD (ARCO dp) capacitors are dip-coated tubular Mylar*-paper dielectric capacitors. They represent a double breakthrough in capacitor design by combining missile and computer quality with commercial radio-TV cost. The "dp" series is designed for near universal use from TV by-pass to critical industrial applications requiring stringent electrical and environmental characteristics. New high levels of ruggedness, stability, and reliability have been achieved, yet these new Elmenco capacitors are miniaturized for transistor circuitry.

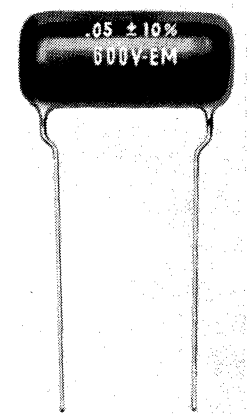
Elmenco Type MPD capacitors are non-inductively wound and vacuum dipped to obtain solid impregnation and a rugged, moisture-proof coat. New fabricating techniques realize the full potential of the dielectric materials utilizing most of the low-cost procedures of the exclusive Elmenco dip-coat process. The result is a product of electrical excellence with high reliability in operation at 125°C. without derating. The specifications listed on this and following pages well-illustrate the inherent quality of these capacitors.

NOTE: The 100VDCW rated dp units are pure mylar* dielectric capacitors.



#20 (.032) TINNED ANNEALED COPPERWELD WIRE

CASE SIZE	1	2	3	4	5	6
DIM. "A" ± 1/32	1/4	7/16	23/32	27/32	1 3/32	1 27/32



dp

ACTUAL SIZE

SPECIFICATIONS

Tolerance ± 10%.

VOLTAGE RATINGS:	100VDCW, 200VDCW, 400VDCW, 600VDCW, 1600VDCW, (1000VDCW upon request).
INSULATION RESISTANCE:	@ 25°C.: 5000 megohm-microfarads or 100,000 megohms minimum, whichever is the lesser. @ 125°C.: 70 megohm-microfarads or 1400 megohms minimum, whichever is the lesser.
POWER FACTOR:	1.0% maximum at 1kc.
TEMPERATURE RANGE:	—55°C. to +125°C. with no voltage derating.
CAPACITANCE CHANGE VS. TEMPERATURE:	From 25°C. to —55° (—9.0% max.) From 25°C. to +125°C. (+12.0% max.)

LONG TERM OPERATING STABILITY AT FULL RATED VOLTAGE AND RATED TEMPERATURE EXTREMES IS ± 2% MAXIMUM.

Part Numbers:

The part numbers indicated in the table of values on page 385 are constructed as follows:

6 DP - 2 - 103

- 6 — Voltage Rating (in 100's of volts DCW)
- DP — Type Designation
- 2 — Case Size
- 103 — Cap. Value (2 sig. figs. & dec. mult.)

The above example calls for a .01 mfd. capacitor with a 600VDCW voltage rating. Case dimensions are shown in the table of values listing on page 376.

* Reg. Du Pont Trademark

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ELMENCO CAPACITORS

TYPE MPD

DIPPED MYLAR*—PAPER (Elmenco type MPD)

100VDCW

Cap Mfd.	Part No.	L	W	H	Net Price (1-24)
.005	1DP-1-502	11/16	5/16	1/2	$0.18
.006	1DP-1-602	11/16	5/16	1/2	.18
.0068	1DP-1-682	11/16	5/16	1/2	.18
.0075	1DP-1-752	11/16	5/16	1/2	.18
.01	1DP-1-103	11/16	5/16	1/2	.18
.015	1DP-1-153	23/32	11/32	17/32	.18
.02	1DP-1-203	23/32	11/32	19/32	.18
.022	1DP-1-223	23/32	11/32	19/32	.18
.025	1DP-1-253	23/32	11/32	19/32	.18
.03	1DP-1-303	23/32	3/8	5/8	.18
.033	1DP-1-333	23/32	3/8	5/8	.18
.04	1DP-1-403	23/32	3/8	5/8	.18
.047	1DP-2-473	7/8	11/32	19/32	.21
.05	1DP-2-503	7/8	11/32	19/32	.21
.056	1DP-2-563	7/8	3/8	5/8	.21
.068	1DP-2-683	7/8	13/32	5/8	.21
.075	1DP-2-753	7/8	13/32	5/8	.21
.1	1DP-2-104	29/32	7/16	11/16	.21
.15	1DP-3-154	1-1/4	7/16	11/16	.24
.2	1DP-3-204	1-9/32	1/2	23/32	.27
.22	1DP-3-224	1-9/32	1/2	23/32	.27
.25	1DP-3-254	1-9/32	17/32	3/4	.30
.33	1DP-4-334	1-3/8	9/16	13/16	.36
.47	1DP-4-474	1-3/8	21/32	29/32	.45
.5	1DP-4-504	1-3/8	21/32	29/32	.45
.68	1DP-5-684	1-9/16	11/16	15/16	.66
1.0	1DP-5-105	1-9/16	3/4	1	.96

200VDCW

Cap Mfd.	Part No.	L	W	H	Net Price (1-24)
.1	2DP-3-104	1-7/32	1/2	23/32	$0.21
.15	2DP-3-154	1-1/4	9/16	25/32	.24
.2	2DP-4-204	1-11/32	5/8	7/8	.27
.22	2DP-4-224	1-11/32	5/8	7/8	.27
.25	2DP-4-254	1-11/32	21/32	7/8	.30
.33	2DP-5-334	1-9/16	21/32	7/8	.36
.47	2DP-5-474	1-9/16	3/4	1	.45
.5	2DP-5-504	1-9/16	25/32	1	.45

400VDCW

Cap. Mfd.	Part No.	L	W	H	Net Price (1-24)
.01	4DP-1-103	23/32	3/8	5/8	$0.15
.015	4DP-1-153	23/32	7/16	21/32	.15
.02	4DP-2-203	7/8	13/32	5/8	.15
.022	4DP-2-223	7/8	13/32	5/8	.18
.025	4DP-2-253	7/8	7/16	21/32	.18
.03	4DP-2-303	7/8	15/32	21/32	.18
.033	4DP-2-333	7/8	15/32	21/32	.18
.04	4DP-3-403	1-3/16	7/16	21/32	.18
.047	4DP-3-473	1-3/16	7/16	21/32	.21
.05	4DP-3-503	1-3/16	7/16	21/32	21
.056	4DP-3-563	1-3/16	15/32	11/16	21
.068	4DP-3-683	1-3/16	1/2	23/32	.24
.075	4DP-3-753	1-1/4	17/32	3/4	.24
.1	4DP-3-104	1-1/4	19/32	27/32	.24
.15	4DP-4-154	1-11/32	5/8	7/8	.27
.2	4DP-5-204	1-9/16	5/8	7/8	.33
.22	4DP-5-224	1-9/16	21/32	7/8	.33
.25	4DP-5-254	1-9/16	11/16	15/16	.36
.27	4DP-5-274	1-9/16	11/16	15/16	.36
.33	4DP-5-334	1-9/16	3/4	15/16	.54
.47	4DP-6-474	2-3/8	13/16	1-1/16	.78
.5	4DP-6-504	2-3/8	13/16	1-1/16	.78

*Reg. Du Pont Trademark

600VDCW

Cap. Mfd.	Part No.	L	W	H	Net Price (1-24)
.001	6DP-1-102	11/16	11/32	17/32	$0.15
.0012	6DP-1-122	11/16	11/32	17/32	.15
.0015	6DP-1-152	11/16	11/32	17/32	.15
.002	6DP-1-202	11/16	11/32	17/32	.15
.0022	6DP-1-222	11/16	11/32	17/32	.15
.0025	6DP-1-252	11/16	11/32	17/32	.15
.0027	6DP-1-272	11/16	11/32	17/32	.15
.003	6DP-1-302	11/16	11/32	17/32	.15
.0033	6DP-1-332	11/16	11/32	17/32	.15
.0039	6DP-1-392	11/16	11/32	9/16	.15
.004	6DP-1-402	11/16	11/32	9/16	.15
.0047	6DP-1-472	23/32	3/8	19/32	.15
.005	6DP-1-562	23/32	3/8	19/32	.15
.0056	6DP-1-562	23/32	3/8	19/32	.15
.006	6DP-1-602	23/32	3/8	5/8	.15
.0068	6DP-1-682	23/32	13/32	21/32	.18
.0075	6DP-2-752	7/8	11/32	9/16	.18
.008	6DP-2-802	7/8	11/32	9/16	.18
.0082	6DP-2-822	7/8	11/32	9/16	.18
.01	6DP-2-103	7/8	3/8	19/32	.18
.012	6DP-2-123	7/8	3/8	19/32	.18
.015	6DP-2-153	7/8	13/32	5/8	.18
.018	6DP-2-183	7/8	5/8	7/8	.18
.02	6DP-2-203	7/8	7/16	21/32	.18
.022	6DP-2-223	7/8	15/32	21/32	.18
.025	6DP-2-253	7/8	1/2	11/16	.21
.027	6DP-3-273	1-3/16	7/16	21/32	.21
.03	6DP-3-303	1-3/16	7/16	21/32	.21
.033	6DP-3-333	1-3/16	7/16	21/32	.21
.039	6DP-3-393	1-3/16	15/32	11/16	.21
.04	6DP-3-403	1-3/16	15/32	11/16	.21
.047	6DP-3-473	1-3/16	1/2	23/32	.24
.05	6DP-3-503	1-3/16	1/2	23/32	.24
.056	6DP-3-563	1-3/16	17/32	3/4	.24
.06	6DP-3-603	1-3/16	17/32	3/4	.27
.068	6DP-4-683	1-11/32	17/32	13/16	.27
.075	6DP-4-753	1-11/32	17/32	13/16	.27
.082	6DP-4-823	1-11/32	9/16	27/32	.27
.1	6DP-4-104	1-11/32	5/8	7/8	.27
.15	6DP-5-154	1-9/16	21/32	7/8	.36
.2	6DP-5-204	1-9/16	23/32	15/16	.42
.22	6DP-5-224	1-9/16	25/32	1	.42
.25	6DP-5-254	1-9/16	13/16	1-1/6	.45
.33	6DP-6-334	2-3/8	3/4	1	.63
.47	6DP-6-474	2-3/8	7/8	1-1/8	.90
.5	6DP-6-504	2-3/8	7/8	1-1/8	.90

1600VDCW

Cap. Mfd.	Part No.	L	W	H	Net Price (1-24)
.001	16DP-2-102	7/8	11/32	9/16	$0.24
.0015	16DP-2-152	7/8	11/32	9/16	.24
.0018	16DP-2-182	7/8	3/8	19/32	.24
.002	16DP-2-202	7/8	3/8	19/32	.24
.0022	16DP-2-222	7/8	3/8	19/32	.24
.0025	16DP-2-252	7/8	13/32	5/8	.27
.003	16DP-2-302	7/8	7/16	21/32	.27
.0033	16DP-2-332	7/8	7/16	21/32	.27
.004	16DP-2-402	7/8	15/32	21/32	.27
.0047	16DP-2-472	7/8	1/2	23/32	.27
.005	16DP-2-502	7/8	17/32	3/4	.27
.006	16DP-3-602	1-3/16	7/16	21/32	.30
.007	16DP-3-702	1-3/16	15/32	11/16	.30
.0075	16DP-3-752	1-3/16	1/2	23/32	.30
.008	16DP-3-802	1-3/16	17/32	3/4	.30
.01	16DP-3-103	1-3/16	17/32	3/4	.30
.015	16DP-4-153	1-11/32	9/16	27/32	.33
.018	16DP-4-183	1-11/32	7/16	21/32	.36
.02	16DP-4-203	1-11/32	21/32	7/8	.36
.022	16DP-4-223	1-9/16	5/8	7/8	.42
.025	16DP-5-253	1-9/16	21/32	7/8	.42
.03	16DP-5-303	1-9/16	11/16	15/16	.42
.033	16DP-5-333	1-9/16	23/32	15/16	.42
.04	16DP-5-403	1-9/16	3/4	1	.45
.047	16DP-5-473	1-9/16	13/16	1-1/16	.48
.05	16DP-5-503	1-9/16	13/16	1-1/16	.48

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ARCO CAPACITORS

TYPES CCD, 3CCD 6CCD, CCS

CERAMIC DISC

MINIATURE GENERAL PURPOSE

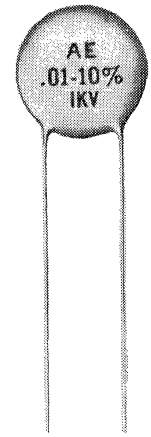
ARCO Type CCD ceramic disc capacitors have improved ceramic bodies which impart longer life and greater stability to any application. The standard CCD line has a ±10% tolerance and 1000VDCW rating, making possible a single ceramic disc stock for universal use. Whether a broad coupling or by-pass application, or a critical close tolerance use, ARCO CCD units fill the bill with dependability and economy. The 'space-saving' size of ARCO discs is another feature designed to offer greater service convenience with complete safety of operation. In addition to the 1000VDCW line, higher voltage ratings are available in Type CCD units. 3000VDCW (Type 3CCD) and 6000VDCW (Type 6CCD) disc ceramics are supplied in tolerance of ±20%.

TYPE CCD

± 10% Tolerance — 1000 VDCW

Cap. mmf.	Part Number	Net Price	Cap. mmf.	Part Number	Net Price (1-24)
5	CCD-050	$0.15	390	CCD-391	$0.15
10	CCD-100	0.15	400	CCD-401	0.15
12	CCD-120	0.15	470	CCD-471	0.15
15	CCD-150	0.15	500	CCD-501	0.15
18	CCD-180	0.15	560	CCD-561	0.15
20	CCD-200	0.15	680	CCD-681	0.15
22	CCD-220	0.15	750	CCD-751	0.15
25	CCD-250	0.15	800	CCD-801	0.15
27	CCD-270	0.15	820	CCD-821	0.15
30	CCD-300	0.15	1000	CCD-102	0.15
33	CCD-330	0.15	1200	CCD-122	0.15
39	CCD-390	0.15	1500	CCD-152	0.15
47	CCD-470	0.15	2000	CCD-202	0.15
50	CCD-500	0.15	2200	CCD-222	0.15
56	CCD-560	0.15	2500	CCD-252	0.15
68	CCD-680	0.15	2700	CCD-272	0.15
75	CCD-750	0.15	3000	CCD-302	0.15
82	CCD-820	0.15	3300	CCD-332	0.15
91	CCD-910	0.15	3900	CCD-392	0.15
100	CCD-101	0.15	4700	CCD-472	0.15
120	CCD-121	0.15	5000	CCD-502	0.18
150	CCD-151	0.15	5600	CCD-562	0.18
180	CCD-181	0.15	6800	CCD-682	0.18
200	CCD-201	0.15	8200	CCD-822	0.18
220	CCD-221	0.15	10000	CCD-103	0.18
250	CCD-251	0.15	*15000	CCD-153	0.18
270	CCD-271	0.15	*20000	CCD-203	0.18
300	CCD-301	0.15	††30000	CCD-303	0.30
330	CCD-331	0.15	†40000	CCD-403	0.36
			†50000	CCD-503	0.42

*±20% tolerance
†500VDCW, +80, −20% tolerance
††500VDCW, ±20% tolerance



TYPE 3CCD

High Voltage — ± 20% Tolerance

3000 VDCW

Cap. mmf.	Part Number	Net Price	Cap. mmf.	Part Number	Net Price (1-24)
4.7	3CCD-4R7	$0.24	150	3CCD-151	$0.24
6.8	3CCD-6R8	0.24	180	3CCD-181	0.24
10	3CCD-100	0.24	220	3CCD-221	0.24
15	3CCD-150	0.24	270	3CCD-271	0.24
22	3CCD-220	0.24	330	3CCD-331	0.24
27	3CCD-270	0.24	390	3CCD-391	0.24
33	3CCD-330	0.24	470	3CCD-471	0.24
39	3CCD-390	0.24	560	3CCD-561	0.24
47	3CCD-470	0.24	680	3CCD-681	0.24
56	3CCD-560	0.24	820	3CCD-821	0.24
68	3CCD-680	0.24	1000	3CCD-102	0.24
82	3CCD-820	0.24	2000	3CCD-202	0.24
100	3CCD-101	0.24	5000	3CCD-502	0.24
120	3CCD-121	0.24			

TYPE 6CCD

High Voltage — ± 20% Tolerance

6000 VDCW

Cap. mmf.	Part Number	Net Price	Cap. mmf.	Part Number	Net Price (1-24)
4.7	6CCD-4R7	$0.36	100	6CCD-101	$0.36
6.8	6CCD-6R8	0.36	120	6CCD-121	0.42
10	6CCD-100	0.36	150	6CCD-151	0.36
15	6CCD-150	0.36	220	6CCD-221	0.36
22	6CCD-220	0.36	330	6CCD-331	0.36
27	6CCD-270	0.36	470	6CCD-471	0.36
33	6CCD-330	0.36	560	6CCD-561	0.42
47	6CCD-470	0.36	680	6CCD-681	0.42
56	6CCD-560	0.36	820	6CCD-821	0.42
68	6CCD-680	0.36	1000	6CCD-102	0.42
82	6CCD-820	0.36	2000	6CCD-202	0.42

TEMPERATURE STABLE

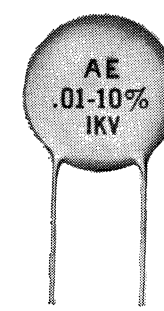
This new ARCO ceramic capacitor maintains excellent capacitance stability with wide temperature variation. The graph illustrates typical percentage variation of capacity value with temperature. The operating temperature range has been extended to −55°C. to +125°C. without derating of the 1000VDCW specification. Standard tolerance is ±10%. The combined small size, low cost, and high stability represents another significant advance in the quality line ARCO capacitors. All units are marked "TS" for identification.

TYPE CCS

± 10% Tolerance — 1000 VDCW

Cap. mmf.	Part Number	Net Price	Cap. mmf.	Part Number	Net Price (1-24)
150	CCS-151	$0.18	820	CCS-821	$0.21
180	CCS-181	0.18	1000	CCS-102	0.21
200	CCS-201	0.18	1200	CCS-122	0.21
220	CCS-221	0.18	1500	CCS-152	0.21
250	CCS-251	0.18	1800	CCS-182	0.21
270	CCS-271	0.18	2000	CCS-202	0.21
300	CCS-301	0.18	2200	CCS-222	0.21
330	CCS-331	0.18	2500	CCS-252	0.21
390	CCS-391	0.18	2700	CCS-272	0.21
470	CCS-471	0.18	3000	CCS-302	0.21
500	CCS-501	0.18	3300	CCS-332	0.21
560	CCS-561	0.18	3900	CCS-392	0.21
620	CCS-621	0.18	4700	CCS-472	0.21
680	CCS-681	0.18			
750	CCS-751	0.18			

LOOK FOR THE "AE" brand on all ARCO disc ceramic capacitors



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ARCO CAPACITORS

TYPE CCTO, CCTN
NPO - TYPE CCTO
N750 - TYPE CCTN
VARIABLE CERAMIC
TRIMMER - FEED
THRU CERAMICS

TEMPERATURE COMPENSATING

TYPE CCTO

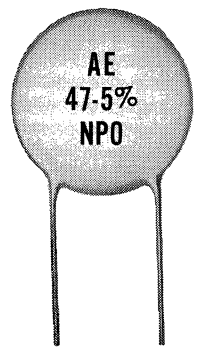
ARCO Type CCTO ceramic disc capacitors are zero temperature coefficient units specifically suited for high stability, high Q application. In addition to extreme temperature stability, Type CCTO capacitors have very high insulation resistance and low aging rate. These special characteristics are added to the high 1000VDCW rating and close tolerance of the entire ARCO ceramic line to provide a superior capacitor for the special purpose intended. Type CCTO capacitors are identified by "NPO" printed on each unit.

NPO-TYPE CCTO

±5% TOLERANCE
1000 VDCW

Cap. mmf.	Part Number	Net Price (1-24)
*2.2	CCTO-2R2	$0.30
*3.3	CCTO-3R3	0.30
*4.7	CCTO-4R7	0.30
5.0	CCTO-050	0.30
6.8	CCTO-6R8	0.30
10	CCTO-100	0.30
12	CCTO-120	0.30
15	CCTO-150	0.30
18	CCTO-180	0.30
20	CCTO-200	0.30
22	CCTO-220	0.30
24	CCTO-240	0.30
27	CCTO-270	0.30
30	CCTO-300	0.30
33	CCTO-330	0.30
36	CCTO-360	0.30
39	CCTO-390	0.30
47	CCTO-470	0.30
51	CCTO-510	0.33
56	CCTO-560	0.33
68	CCTO-680	0.33
75	CCTO-750	0.33
82	CCTO-820	0.33
100	CCTO-101	
120	CCTO-121	0.33
150	CCTO-151	0.33

* ±.5 mmf. tolerance



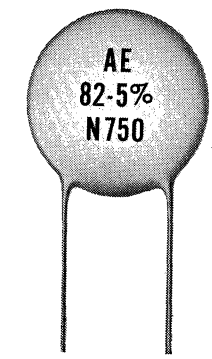
TYPE CCTN

Another member of the ARCO temperature compensating disc ceramic line is the Type CCTN unit which has a negative temperature coefficient of —750 ppm/°C. (N750). These units are used to counterbalance shifts in other circuit components with change in temperature. The result is a more stable circuit essential to many frequency control applications. Improved ceramic bodies in the temperature compensating line provide greater long term stability in addition to accurate temperature compensation. Type CCTN capacitors are identified by "N750" imprinted on each unit except the smallest size. On the small units the E.I.A. temperature coefficient designation "U2" is imprinted.

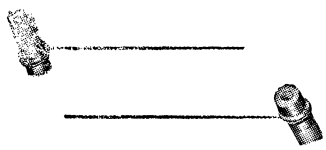
N750-TYPE CCTN

±5% TOLERANCE
1000 VDCW

Cap. mmf.	Part Number	Net Price (1-24)
5	CCTN-050	$0.30
10	CCTN-100	0.30
15	CCTN-150	0.30
22	CCTN-220	0.30
27	CCTN-270	0.30
33	CCTN-330	0.30
39	CCTN-390	0.30
47	CCTN-470	0.30
56	CCTN-560	0.30
62	CCTN-620	0.30
68	CCTN-680	0.30
75	CCTN-750	0.30
82	CCTN-820	0.30
100	CCTN-101	0.30
120	CCTN-121	0.30
150	CCTN-151	0.30
200	CCTN-201	0.30
220	CCTN-221	0.30
270	CCTN-271	0.30
300	CCTN-301	0.30
330	CCTN-331	0.30
390	CCTN-391	0.30
470	CCTN-471	0.30



VARIABLE CERAMIC TRIMMER

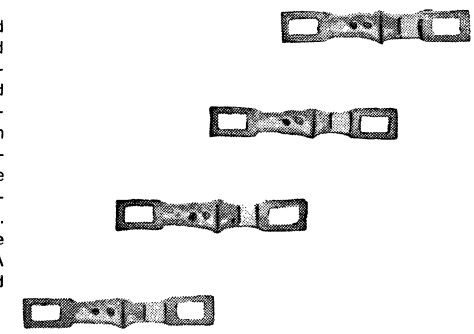


Adjustable ceramic trimmer capacitor for high frequency applications. Silvered Steatite tubes 5/8" in length provide capacity ranges listed below upon insertion of 6-32 screw.

PART No.	CAP. RANGE MMF.	NET PRICE 1-24
CV-1	0.5 - 3	$0.21
CV-2	1 - 4	.21
CV-3	2 - 6	.21

FEED THRU CERAMICS

Compact rugged ceramic feed through capacitors are designed for high frequency coupling with a minimum of inductive reactance through elimination of wire leads. These units are three dot RMA coded and rated at 500VDCW.



PART No.	CAP. (MMF) (Guar. Min. Val.)	NET PRICE 1-24
CCF-501	500	$0.24
CCF-102	1000	.24
CCF-152	1500	.24
CCF-202	2000	

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ELMENCO CAPACITORS

TYPES
46, 40, PC46
42

TRIMMERS

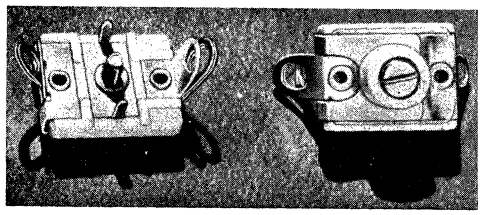
El-Menco Trimming Condensers are treated for resistance to humidity and for permanence of capacity setting.

The base is made of the lowest dielectric loss ceramic material available and the mica is clear India Ruby.

The soldering lugs may be bent in any position without affecting capacity setting due to the rigid construction of adjusting plates.

Trimmers shown here are standard sizes and capacities.

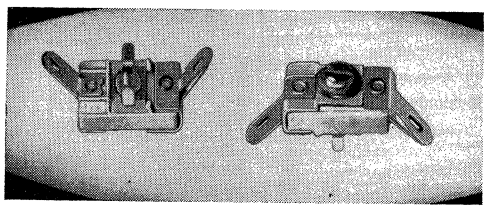
Voltage 350 VDCT — 175 VDCW.



TYPE 46 STANDARD TRIMMER 3/4" x 5/8"

TYPE 46—STANDARD TRIMMER

TYPE 46W NUMBER PART	PLATES NUMBER OF	GUARANTEED RANGE At Tight Cap. Will Be More Than MMF.	GUARANTEED RANGE At 3 Turns Open Cap. Will Be Less Than MMF.	NET PRICE (1-24)
460	1¼ Pl.	15	1.5	$0.30
461	1¾ Pl.	30	2.7	.30
462	2 Pl.	80	5	.30
463	3 Pl.	180	9	.33
464	4 Pl.	280	25	.39
465	5 Pl.	380	50	.42
466	6 Pl.	480	80	.48
467	7 Pl.	580	110	.54
468	8 Pl.	680	140	.57
469	9 Pl.	780	170	.63
4610	10 Pl.	900	190	.72
4611	11 Pl.	1000	210	.78
4612	12 Pl.	1100	240	.84
4613	13 Pl.	1200	300	.93
4614	14 Pl.	1300	340	1.02
4615	15 Pl.	1400	390	1.11

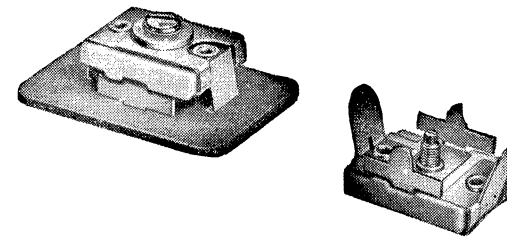


TYPE 40 MINIATURE TRIMMER 3/8" x 9/16"

TYPE 40—MINIATURE TRIMMER

TYPE 40 NUMBER PART	PLATES NUMBER OF	GUARANTEED RANGE At Tight Cap. Will Be More Than MMF.	GUARANTEED RANGE At 3 Turns Open Cap. Will Be Less Than MMF.	NET PRICE (1-24)
400	1⅛ Pl.	7	0.9	$0.30
402	2 Pl.	20	1.5	.30
403	3 Pl.	85	8	.36
404	4 Pl.	60	8	.39

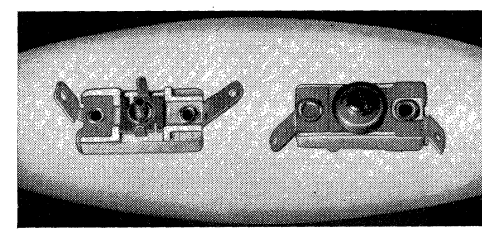
TYPE PC
PRINTED CIRCUIT TRIMMERS



The Elmenco trimmer capacitors, Types 40, 42, and 46, have been adapted for printed circuit techniques through alteration of terminals and mounting configuration. The holes in the terminal lugs are removed since necessity for hook-up is eliminated. The resulting solid terminals have greatly increased spring action, allowing the trimmer to be "snapped in" the printed circuit board and firmly held until soldered. The mounting lug portion of the trimmer has also been modified to facilitate positioning and support of the unit. Drawings of the trimmers and mounting lay-out are available upon request at no charge.

This printed circuit style is identified by the prefix letters "PC" preceding the regular part number. All listed values are available in the PC style.

For net price add $0.03 to the net price of the standard trimmer.



TYPE 42 MIDGET TRIMMER 3/8" x 3/4"

TYPE 42—MIDGET TRIMMER

TYPE 42 NUMBER PART	PLATES NUMBER OF	GUARANTEED RANGE At Tight Cap. Will Be More Than MMF.	GUARANTEED RANGE At 3 Turns Open Cap. Will Be Less Than MMF.	NET PRIC (1-24
420	1⅛ Pl.	12	1	$0.3
421	1¾ Pl.	25	2	.3
422	2 Pl.	25	4	.3
423	3 Pl.	100	7	.3
424	4 Pl.	150	14	.3
425	5 Pl.	200	24	.4
426	6 Pl.	250	37	.4
427	7 Pl.	300	55	.5
428	8 Pl.	250	70	.5
429	9 Pl.	400	90	.6
4210	10 Pl.	450	110	.7
4211	11 Pl.	500	130	.8
4212	12 Pl.	550	150	.9
4213	13 Pl.	600	170	.9
4214	14 Pl.	650	190	1.0
4215	15 Pl.	700	210	1.1

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ELMENCO CAPACITORS

TYPES 30, 30M

Single and Dual PADDERS

EL-MENCO PADDING CONDENSERS have been acclaimed by engineers as the finest development in adjustable mica condensers.

The construction is such as to completely enclose and protect the delicate edges of the mica films, made of the finest quality clear India ruby mica.

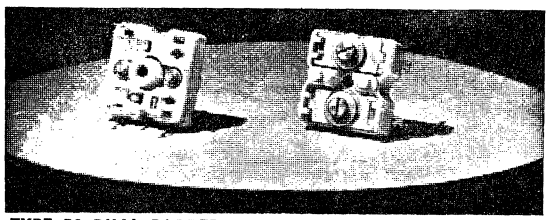
The phosphor bronze adjusting plates assure permanent resilience and freedom from mechanical fatigue. All parts are heavily plated to resist corrosion.

TYPE 30

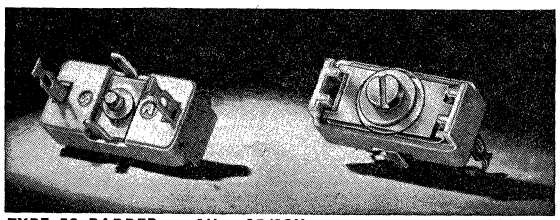
500 Volts DC Flash-Test — 250 WVDC

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE: At 1½ Inch Pounds Cap. Will Be More Than MMF.	GUARANTEED RANGE: At 2½ Turns Open Cap. Will Be Less Than MMF.	NET PRICE (1-24)
302	2 Pl.	130	15	$0.54
303	3 Pl.	340	65	.57
304	4 Pl.	550	100	.63
305	5 Pl.	760	190	.69
306	6 Pl.	970	275	.72
307	7 Pl.	1180	350	.78
308	8 Pl.	1390	450	.84
309	9 Pl.	1600	550	.87
310	10 Pl.	1890	650	.93
311	11 Pl.	2110	780	.99
312	12 Pl.	2330	880	1.05
313	13 Pl.	2605	1150	1.14
314	14 Pl.	2830	1300	1.20
315	15 Pl.	3055	1400	1.26

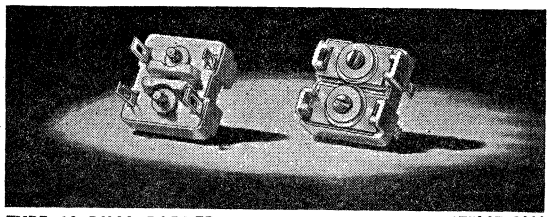
Screw is insulated from top plate my mica washer. Above maximum capacity values are based on using 1½ to 1¾ Mil Mica films.



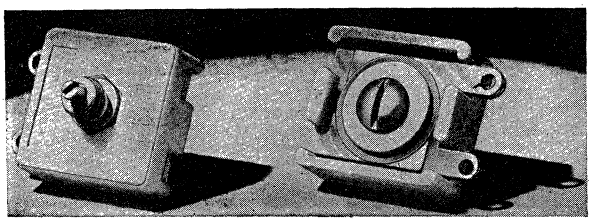
TYPE 50 DUAL PADDER 175VDCW
(will fit any size shield having dimensions exceeding 1-1/16" x 1-1/16")



TYPE 58 PADDER 1" x 15/32" 175VDCW



TYPE 60 DUAL PADDER 175VDCW
(will fit any size shield having dimensions exceeding ¾" x ¾")



TYPE 30 AND TYPE 30-M PADDER 7/8" x 15/16"

TYPE 30-M

1000 Volts DC Flash-Test — 500 Working Volts DC

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE: At 1¾ Inch Pounds Cap. Will Be More Than MMF.	GUARANTEED RANGE: At 3 Turns Open Cap. Will Be Less Than MMF.	NET PRICE (1-24)
302-M	2 Pl.	120	15	$0.54
303-M	3 Pl.	320	65	.60
304-M	4 Pl.	500	100	.66
305-M	5 Pl.	690	180	.72
306-M	6 Pl.	880	265	.78
307-M	7 Pl.	1070	34[illegible]	.84
308-M	8 Pl.	1260	425	.90
309-M	9 Pl.	1415	525	.96
310-M	10 Pl.	1600	615	1.02
311-M	11 Pl.	1785	730	1.08
312-M	12 Pl.	1970	800	1.14
313-M	13 Pl.	2155	1000	1.20
314-M	14 Pl.	2340	1100	1.29
315-M	15 Pl.	2525	1200	1.35

Screw is insulated from top plate by mica washer. Above maximum capacity values are based on using 2 to 2¼ Mil Mica.

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE: At Tight Cap. Will Be More Than MMF.	GUARANTEED RANGE: At 2 Turns Open Cap. Will Be Less Than MMF.	NET PRICE (1-24)
502	2 Pl.	80	7.5	$0.60
503	3 Pl.	160	19	.69
504	4 Pl.	240	50	.78

◀TYPE 50 Dual Padders provide two variable trimmers mounted on a single base. This unit is designed as a tuning component for I.F. transformers; and as such, may be snap-in mounted along with the transformer coil in any size shield having dimensions exceeding 1 1/16" x 1 1/16".

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE: At Tight Cap. Will Be More Than MMF.	GUARANTEED RANGE: At 2 Turns Open Cap. Will Be Less Than MMF.	NET PRICE (1-24)
582	2 Pl.	80	7.5	$0.39
583	3 Pl.	160	19	.42
584	4 Pl.	240	50	.45

◀TYPE 58 Padder is a single variable trimmer section provided with a two-pronged staple mounting for attachment to bracket or chassis. Base is made of lowest loss steatite and the mica is India Ruby.

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE: At Tight Cap. Will Be More Than MMF.	GUARANTEED RANGE: At 2 Turns Open Cap. Will Be Less Than MMF.	NET PRICE (1-24)
602	2 Pl.	55	7	$0.54
603	3 Pl.	100	15	.63
604	4 Pl.	160	35	.72
605	5 Pl.	220	60	.81

◀TYPE 60 Dual Padders provide two variable trimmers mounted on a single base. This unit is designed as a tuning component for I.F. transformers; and as such, may be snap-in mounted along with the transformer coil in any size shield having dimensions exceeding ¾" x ¾".

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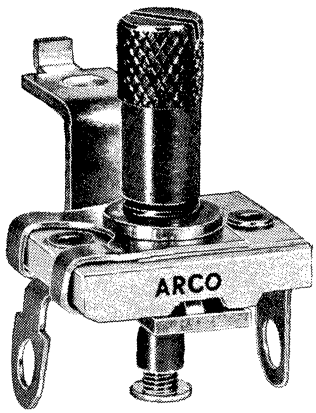
ELMENCO CAPACITORS

TYPES S46, L30

VARIABLE COMPRESSION MICA CAPACITORS



TYPE S46

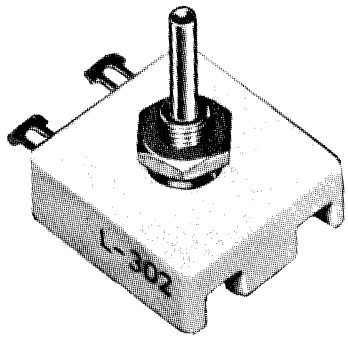
Net Price:
Add 27¢ to the Net price of trimmer alone

A complete Type 46 trimmer assembly with mounting bracket and adjusting shaft for ease of tuning. Can be supplied as pictured from stock or with construction variations to order.

To specify precede trimmer part number with the letter "S".

For example:

Type 460 trimmer will be ordered as S-460.



TYPE - L30

Net Price:
Add .06¢ to the Net price of padder alone

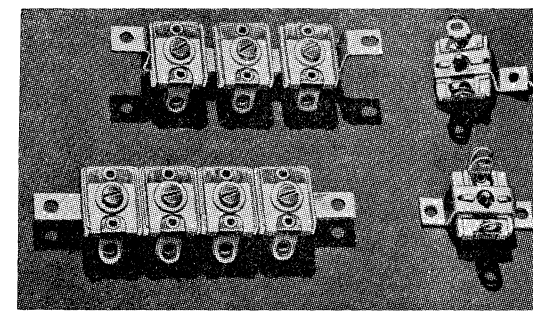
The Type 30 or Type 30M padder can now be obtained with a special adjusting screw which has been lengthened to accommodate a tuning knob. To obtain a padder with the special screw, precede the regular padder part number with the letter "L". For example, a 302 padder with the special screw would be specified as "L-302".

●

NOTE: Knobs may also be obtained if desired at a cost of 30¢ each net.

The two new assemblies shown at left have been developed due to increasing demands for miniaturized tuning devices. However, certain precautions must be taken in design so that these variable mica capacitors are not used in circuits for which they are not adapted. These assemblies are highly stable for components of their design, but they do not match the stability of the air dielectric tuners. Short term drift of the mica trimmers and padders after tuning is negligible. Long term drift at one setting due to changes in atmospheric conditions and physical motion should be well within ± 2%.

It should also be remembered that variable compression type mica capacitors do not have linear variation with adjustment. Rate of change of capacity decreases per turn as the screw is withdrawn. For example, a 306 padder will reduce to half the nominal maximum value within one opening turn. Those with a greater number of plates require further screw disengagement for a similar percentage reduction in capacity value. On the other hand, a 302 padder will reach one-half the nominal maximum in less than one-half turn open. Type 46 trimmers operate in much the same way. Detailed information on specific sizes is available upon request.



Mounting brackets as illustrated above can be supplied for all types of trimmers in flat "Z" (single mounting hole with or without non-rotational stop), and "U" (dual mounting hole) configurations.

	Net Price (1-24)
Bracket for mounting 1 Trimmer	$0.09
Bracket for mounting 2 Trimmers	.11
Bracket for mounting 3 Trimmers	.13
Bracket for mounting 4 Trimmers	.14
Bracket for mounting 5 Trimmers	.16
Bracket for mounting 6 Trimmers	.18

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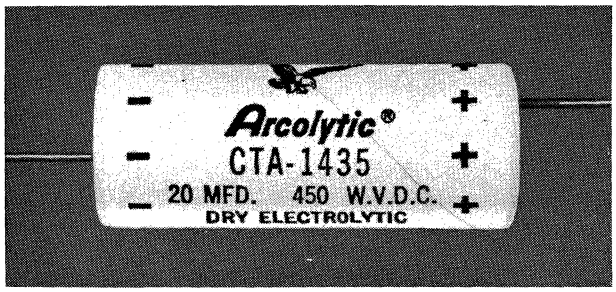
ARCO electronics inc. — Arcolytic — TUBULAR ELECTROLYTIC CAPACITORS



ARCOLYTIC TUBULARS

- Made with 99.99% high purity aluminum foil.
- Higher reliability because of practically no impurities in the foil.
- Maximum operating temperature: 85°C. (Type CTW: 75°C.)
- Perfect replacement electrolytic for all types entertainment units.
- Extended shelf and and operating life at both normal and eleveated tempertaures.
- Built and tested to meet EIA specification RS-154.

Type CTA Single and multiple section tubular electrolytics in drawn aluminum cans with cardboard sleeves. Single section units have bare wire leads with negative grounded to can. Multiple units have a common negative grounded to can, and all leads have vari-colored insulated wire for ease of identification.

Type CTW Same as type CTA except that these are multiple section electrolytics in wax-filled cardboard tubes.

SINGLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTA-1050	50	6	½ x 1¼	.57
CTA-1055	100	6	½ x 1¼	.72
CTA-1060	250	6	⅝ x 1¾	.81
CTA-1065	500	6	¾ x 1¾	.93
CTA-1070	1000	6	¾ x 2¼	1.14
CTA-1075	1500	6	1 x 2¼	1.26
CTA-1080	2000	6	1 x 2¾	1.38
CTA-1085	100	15	⅝ x 1¼	.75
CTA-1090	250	15	⅝ x 1¾	.93
CTA-1095	500	15	¾ x 2¼	1.05
CTA-1100	1000	15	⅞ x 2¼	1.38
CTA-1105	2	25	½ x 1¼	.54
CTA-1110	5	25	½ x 1¼	.60
CTA-1115	10	25	½ x 1¼	.60
CTA-1125	50	25	½ x 1¼	.60
CTA-1120	25	25	⅝ x 1¼	.66
CTA-1130	100	25	⅝ x 1¾	.81
CTA-1135	250	25	⅞ x 2¼	1.02
CTA-1140	500	25	1 x 2¼	1.38
CTA-1145	1	50	½ x 1¼	.54
CTA-1150	2	50	½ x 1¼	.54
CTA-1155	5	50	½ x 1¼	.60
CTA-1160	10	50	½ x 1¼	.60
CTA-1165	20	50	⅝ x 1¼	.60
CTA-1170	25	50	⅝ x 1¼	.63
CTA-1175	50	50	⅝ x 1¾	.72
CTA-1180	100	50	¾ x 1¾	.84
CTA-1185	150	50	¾ x 1¾	.93
CTA-1190	250	50	⅞ x 1¾	1.05
CTA-1195	500	50	1 x 2¼	1.44
CTA-1200	4	150	½ x 1¼	.60
CTA-1205	5	150	½ x 1¼	.60
CTA-1210	8	150	⅝ x 1¼	.63
CTA-1215	10	150	⅝ x 1¼	.63
CTA-1220	12	150	⅝ x 1¼	.66
CTA-1225	16	150	⅝ x 1¾	.69
CTA-1230	20	150	⅝ x 1¾	.72
CTA-1235	25	150	⅝ x 1¾	.75
CTA-1240	30	150	¾ x 1¾	.78
CTA-1245	40	150	¾ x 1¾	.81
CTA-1250	50	150	⅞ x 1¾	.84
CTA-1255	60	150	⅞ x 1¾	.90
CTA-1260	80	150	¾ x 2¼	.96
CTA-1265	100	150	1 x 2¼	1.05
CTA-1270	150	150	1¼ x 2¼	1.14
CTW-1275	200	150	1¼ x 2¾	1.32
CTW-1280	250	150	1¼ x 3¼	1.53
CTW-1285	300	150	1¼ x 3¾	1.53
CTW-1290	150	200	1 x 3¾	1.53
CTW-1295	200	200	1¼ x 3¾	1.74
CTA-1300	4	250	⅝ x 1¼	.60
CTA-1305	8	250	⅝ x 1¼	.69
CTA-1310	10	250	⅝ x 1¾	.72
CTA-1315	12	250	⅝ x 1¾	.75
CTA-1320	16	250	⅝ x 1¾	.78
CTA-1325	20	250	¾ x 1¾	.81
CTA-1330	30	250	¾ x 2¼	.87
CTA-1335	40	250	¾ x 2¼	.93
CTA-1340	50	250	⅞ x 2¼	1.02
CTA-1345	60	250	⅞ x 2¼	1.08
CTA-1350	100	250	1 x 2¾	1.47
CTW-1355	140	300	1 x 3¾	1.89
CTA-1357	200	300	1⅛ x 4¼	2.22
CTA-1360	4	350	⅝ x 1¼	.63
CTA-1365	8	350	⅝ x 1¾	.72
CTA-1370	10	350	⅝ x 1¾	.75
CTA-1375	12	350	¾ x 1¾	.78
CTA-1380	16	350	¾ x 1¾	.84
CTA-1385	20	350	⅞ x 1¾	.87
CTA-1390	30	350	⅞ x 2¼	.99
CTA-1395	40	350	1 x 2¼	1.05
CTA-1398	60	350	1 x 2¾	1.17
CTA-1400	1	450	½ x 1¼	.66
CTA-1405	2	450	½ x 1¼	.66
CTA-1410	4	450	⅝ x 1¼	.69
CTA-1415	8	450	⅝ x 1¾	.75
CTA-1420	10	450	¾ x 1¾	.78
CTA-1425	12	450	¾ x 1¾	.81
CTA-1430	16	450	⅞ x 1¾	.84
CTA-1435	20	450	⅞ x 2¼	.93
CTA-1440	30	450	1 x 2¼	1.02
CTA-1445	40	450	1 x 2¾	1.08
CTA-1450	50	450	1 x 3¼	1.26
CTA-1455	60	450	1 x 3¼	1.41
CTA-1460	80	450	1 x 3¾	1.68
CTA-1465	100	450	1¼ x 3¾	1.92
CTA-1470	8	500	¾ x 1¾	.78
CTA-1475	10	500	⅞ x 1¾	.81
CTA-1480	16	500	⅞ x 2¼	.90
CTA-1485	20	500	1 x 2¼	.96
CTA-1490	30	500	1 x 2¾	1.05
CTA-1500	8	600	1 x 2¾	1.71
CTA-1505	10	600	1 x 2¾	1.77
CTA-1510	16	600	1 x 3¾	2.07
CTA-1515	20	600	1 x 3¾	1.05
CTA-1520	8	700	1 x 2¾	2.13
CTA-1525	10	700	1 x 2¾	2.07
CTA-1530	16	700	1 x 3¾	2.13

DOUBLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTA-2030	10-10	50-50	⅝ x 1¾	.84
CTA-2035	8-8	150-150	⅝ x 1¾	.90
CTA-2040	16-16	150-150	¾ x 1¾	1.08
CTA-2045	20-12	150-150	¾ x 1¾	.96
CTA-2050	20-20	150-150	¾ x 1¾	.98
CTA-2055	30-20	150-150	⅞ x 1¾	1.02
CTA-2060	30-30	150-150	⅞ x 1¾	1.08
CTA-2065	40-20	150-150	⅞ x 1¾	1.05
CTA-2070	40-30	150-150	⅞ x 2¼	1.08
CTA-2075	40-40	150-150	⅞ x 2¼	1.11
CTA-2080	50-30	150-150	⅞ x 2¼	1.17
CTA-2085	50-50	150-150	⅞ x 2¼	1.26
CTA-2090	80-30	150-150	1 x 2¼	1.32
CTA-2100	80-40	150-150	1 x 2¾	1.32
CTA-2105	80-50	150-150	1 x 2¾	1.41
CTW-2110	100-100	150-150	1 x 3¾	1.92
CTW-2115	250-50	150-150	1¼ x 3¾	2.22
CTW-2120	200-5	150-150	1 x 3¾	1.59
CTW-2125	250-200	150-150	1¼ x 4¾	2.52
CTA-2130	20-20	250-250	⅞ x 2¼	1.11
CTA-2135	40-10	250-250	⅞ x 2¼	1.23
CTA-2140	80-10	250-250	1 x 3¼	1.53
CTW-2145	120-80	250-250	1¼ x 3¾	2.40
CTW-2150	140-5	350-350	1¼ x 4¼	2.49
CTW-2155	80-100	450-50	1¼ x 4¼	2.22

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Net

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ARCO electronics inc. — Arcolytic — TUBULAR ELECTROLYTIC CAPACITORS

DOUBLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTA-2160	8-8	450-450	7/8 x 2 1/4	1.02
CTA-2165	10-10	450-450	1 x 2 1/4	1.11
CTA-2170	16-8	450-450	1 x 2 1/4	1.20
CTA-2175	20-20	450-450	1 x 2 3/4	1.50
CTA-2180	30-30	450-450	1 x 3 1/4	1.80
CTA-2185	40-40	450-450	1 x 3 3/4	2.04
CTA-2190	50-30	450-450	1 x 3 3/4	2.04

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTA-3050	20-20-20	150-150-150	7/8 x 1 3/4	1.50
CTA-3055	30-30-30	150-150-150	7/8 x 2 1/4	1.56
CTA-3060	40-30-20	150-150-150	7/8 x 2 1/4	1.56
CTA-3063	40-40-20	150-150-150	1 x 2 1/4	1.41
CTA-3065	40-40-40	150-150-150	1 x 2 1/4	1.68
CTA-3070	50-30-20	150-150-150	1 x 2 1/4	1.62
CTA-3075	80-40-20	150-150-150	1 x 2 3/4	1.74
CTW-3078	150-150-150	150-150-150	1 3/8 x 4 1/4	2.91
CTW-3080	250-200-10	150-150-150	1 1/4 x 4 1/4	2.76
CTA-3085	60-40-250	150-150-15	1 x 3 1/4	1.56
CTA-3090	80-30-300	150-150-15	1 x 3 3/4	1.74
CTA-3095	20-20-20	150-150-25	7/8 x 1 3/4	1.47
CTA-3100	40-20-20	150-150-25	1 x 1 3/4	1.53
CTA-3105	40-30-20	150-150-25	7/8 x 2 1/4	1.56
CTA-3110	40-40-20	150-150-25	1 x 2 1/4	1.59
CTA-3115	40-40-100	150-150-25	1 x 2 1/4	1.68
CTA-3120	50-30-20	150-150-25	1 x 2 1/4	1.59
CTA-3125	50-30-100	150-150-25	1 x 2 1/4	1.68
CTA-3130	50-30-250	150-150-25	1 x 3	1.86
CTA-3135	50-50-20	150-150-25	1 x 2 1/4	1.65
CTA-3140	80-20-100	150-150-25	1 x 2 3/4	1.68
CTA-3145	80-40-20	150-150-25	1 x 2 3/4	1.68
CTW-3150	250-120-50	150-150-25	1 3/8 x 4	2.61
CTW-3153	120-40-100	300-250-50	1 3/8 x 4 1/4	2.97
CTW-3155	60-60-60	300-300-300	1 3/8 x 3 1/2	2.82
CTW-3160	80-40-100	300-300-50	1 3/8 x 3 1/2	2.55
CTW-3165	100-60-100	300-300-50	1 3/8 x 4 1/4	2.97
CTW-3168	120-40-10	300-300-250	1 3/8 x 3 1/2	2.91
CTW-3170	60-60-4	350-350-350	1 3/8 x 3 1/4	2.31
CTW-3175	140-5-200	350-350-200	1 1/2 x 4 3/4	4.02

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTW-3178	10-20-100	400-150-150	1 1/4 x 4 3/4	2.46
CTW-3180	5-80-40	450-400-400	1 3/4 x 4 1/4	2.73
CTA-3185	20-20-20	450-450-25	1 1/4 x 3	1.86
CTA-3190	40-40-20	450-450-25	1 x 3 3/4	2.28

QUADRUPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTW-4050	40-20-20-100	150-150-150-25	1 x 3 1/4	1.86
CTW-4055	150-100-20-100	300-300-300-50	1 1/2 x 4 3/4	4.17
CTW-4060	120-40-40-10	300-300-300-250	1 1/4 x 4 3/4	3.72
CTW-4065	140-5-200-100	350-300-200-150	1 1/2 x 4 3/4	4.92
CTW-4070	140-5-200-30	350-300-200-200	1 1/2 x 4 3/4	4.59
CTW-4075	80-60-40-20	350-350-300-150	1 1/4 x 4 3/4	3.54
CTW-4085	80-10-40-100	400-400-300-50	1 3/8 x 4 1/4	3.27
CTW-4090	10-80-40-100	450-300-250-50	1 3/8 x 4 1/4	2.88
CTW-4095	20-120-40-100	450-300-250-50	1 1/4 x 4 3/4	3.69
CTW-4100	10-80-40-40	450-300-300-250	1 3/8 x 4 1/4	2.97
CTW-4105	20-20-20-10	450-450-450-450	1 3/8 x 3 3/4	2.55
CTW-4110	40-20-20-10	450-450-450-450	1 1/4 x 4 1/4	2.82
CTW-4115	40-40-20-20	450-450-450-450	1 1/2 x 4 1/4	3.27

FIVE LEADS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTW-5050	40-20-20-20-50	300-300-300-300-75	1 3/8 x 4 1/4	3.03

PRINTED CIRCUIT

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
APC-2100	50-30	150-150	1 x 2 1/2	1.56
APC-2105	50-50	150-150	1 x 2 1/2	1.62
APC-2110	80-30	150-150	1 x 3	1.65
APC-2115	100-50	150-150	1 x 3 1/2	1.77

ANTENNA ROTOR CAPACITOR

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CRA-1000	70	50 VAC	7/8 x 3	.75
CRA-1050	120	50 VAC	1 x 2 3/4	.99
CRA-1200	210-240	50 VAC	1 x 3 3/4	1.62
CRA-1220	210-290	50 VAC	1 x 3 3/4	1.50

PRINTED CIRCUIT TWIST MOUNTS

SINGLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTP-1250	140	150	1 x 2 1/2	1.29
CTP-1350	375	165	1 3/8 x 3 1/2	1.80
CTP-1450	160	200	1 3/8 x 3	1.74
CTP-1550	50	350	1 x 2	1.26
CTP-1650	20	450	1 x 2	1.08

DUAL UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTP-2150	250-250	16-16	1 x 2	1.65
CTP-2275	500-100	16-16	1 x 2	1.86
CTP-2350	800-250	16-16	1 x 2 1/2	2.01
CTP-2360	500-200	18-18	1 x 2	2.01
CTP-2475	50-30	150-150	1 x 2	1.20
CTP-2550	80-30	150-150	1 x 2	1.35
CTP-2625	80-40	150-150	1 x 3	1.38
CTP-2700	200-5	150-150	1 3/8 x 2 1/2	1.62
CTP-2775	2-20	300-25	1 x 2	.87
CTP-2850	10-10	300-50	1 x 2	.96
CTP-2875	150-100	300-150	1 3/8 x 4	2.70
CTP-2890	10-10	300-300	1 3/8 x 2	1.05

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTP-3130	250-250-50	16-16-16	1 x 2	1.95
CTP-3160	500-250-50	16-16-16	1 x 2	2.10
CTP-3190	500-250-250	16-16-16	1 x 2	2.46
CTP-3220	70-30-100	150-150-10	1 x 2	1.68
CTP-3250	40-30-250	150-150-10	1 x 2 1/2	1.86

PRINTED CIRCUIT TWIST MOUNTS

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTP-3280	80-60-250	150-150-10	1 x 2 1/2	2.0
CTP-3310	80-60-400	150-150-10	1 x 3	2.1
CTP-3340	90-40-400	150-150-10	1 x 3	2.1
CTP-3370	40-20-20	150-150-25	1 x 2 1/2	1.3
CTP-3400	80-20-20	150-150-25	1 x 2	1.6
CTP-3430	70-30-20	150-150-25	1 x 2 1/2	1.6
CTP-3460	30-30-30	150-150-150	1 x 2	1.5
CTP-3490	40-40-20	150-150-150	1 x 2 1/2	1.5
CTP-3510	40-40-30	150-150-150	1 x 2 1/2	1.6
CTP-3540	50-30-20	150-150-150	1 x 2	1.5
CTP-3570	50-40-30	150-150-150	1 x 2 1/2	1.6
CTP-3600	60-60-40	150-150-150	1 3/8 x 2	1.8
CTP-3630	70-15-15	150-150-150	1 x 2	1.6
CTP-3660	80-60-10	150-150-150	1 x 3	1.7
CTP-3670	100-80-40	175-175-175	1 x 3	2.4
CTP-3690	10-10-20	300-50-25	1 x 2	1.2
CTP-3720	150-60-200	300-200-150	1 3/8 x 4	3.5
CTP-3750	60-10-25	300-300-25	1 3/8 x 2	1.8
CTP-3780	150-100-30	300-300-300	1 3/8 x 4	3.5
CTP-3810	125-5-100	350-150-10	1 3/8 x 3 1/2	2.1
CTP-3830	40-30-20	400-350-300	1 3/8 x 2 1/2	2.1

QUADRUPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTP-4100	290-30-10-100	150-150-150-10	1 3/8 x 3 1/2	2.
CTP-4200	50-40-10-50	150-150-150-25	1 3/8 x 2	1.
CTP-4300	100-40-10-50	150-150-150-25	1 3/8 x 2	2.
CTP-4400	60-60-40-10	150-150-150-150	1 3/8 x 2	2.
CTP-4500	100-60-60-40	350-350-200-75	1 3/8 x 4	3.
CTP-4600	40-20-10-100	350-350-350-50	1 3/8 x 2 1/2	2.
CTP-4700	40-30-20-20	400-350-350-350	1 3/8 x 2 1/2	2.

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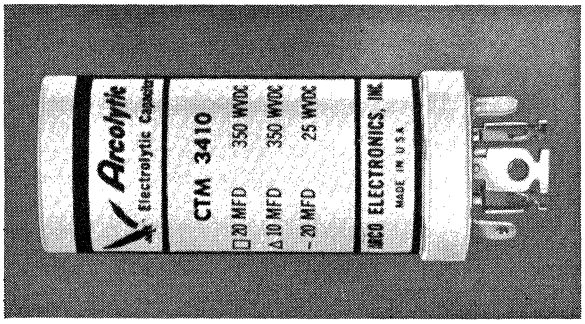
ARCO electronics inc. — Arcolytic — TWIST MOUNT ELECTROLYTIC CAPACITORS



ARCOLYTIC TWIST MOUNTS

- Made with 99.99% pure aluminum foil.
- Hermetically sealed in aluminum cans.
- Designed for high temperature operation: 85°C.
- Made to withstand high surge voltages and high ripple currents.
- Greater shelf and operating life because only premium grade ingredients are used.
- Built and tested to meet EIA specification RS-154.
- Complete with phenolic and metal mounting plates.

SINGLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
†CTM-1050	.5 @ 15.75 KC	3 N.P.	1 x 2	1.59
CTM-1059	1 OHM @ 60 CPS	3 N.P.	1⅜ x 2½	2.40
†CTM-1068	10 OHM @ 30 CPS	3 N.P.	1⅜ x 2	1.65
CTM-1077	1000	6	1⅜ x 2	1.44
*CTM-1086	2000	6	1⅜ x 2	1.83
CTM-1095	1000	10	1 x 2½	1.92
CTM-1104	3000	10	1⅜ x 3	2.19
*CTM-1113	225	15	¾ x 2	1.05
*CTM-1122	1000	15	1 x 2½	1.53
CTM-1131	1500	15	1 x 3	2.07
*CTM-1140	2000	15	1⅜ x 2	2.07
*CTM-1149	3000	15	1⅜ x 3	2.55
CTM-1158	4000	15	1⅜ x 3½	2.25
CTM-1167	25	25	¾ x 2	.93
CTM-1176	40	25	¾ x 2	.81
†CTM-1185	50	25	1 x 2	1.02
CTM-1194	100	25	¾ x 2	1.20
*CTM-1203	500	25	1 x 2	1.53
*CTM-1212	1000	25	1⅜ x 2	2.13
CTM-1221	4	50	¾ x 2	.93
CTM-1230	25	50	¾ x 2	.78
*CTM-1239	100	50	¾ x 2	.99
*CTM-1248	150	50	¾ x 2½	1.08
*CTM-1257	250	50	1 x 2½	1.20
*CTM-1266	500	50	1⅜ x 2½	1.59
*CTM-1275	1000	50	1⅜ x 3½	2.25
*CTM-1284	1500	50	1⅜ x 4	2.64
CTM-1293	10	150	1 x 2	.99
CTM-1302	20	150	1 x 2	1.08
CTM-1311	25	150	1 x 2	1.14
*CTM-1320	30	150	1 x 2	.93
CTM-1329	40	150	1 x 2	1.20
*CTM-1338	50	150	1 x 2	.99
CTM-1347	60	150	1 x 2	1.32
*CTM-1356	80	150	1 x 2½	1.11
CTM-1365	80	150	1⅜ x 2	1.38
*CTM-1374	100	150	1 x 2½	1.20
CTM-1383	110	150	1 x 3	1.62
*CTM-1392	120	150	1 x 2½	1.29
CTM-1400T	120 / 150 with Insulated Black Sleeve		1⅜ x 2	1.41
*CTM-1401	120	150	1⅜ x 2½	1.29
*CTM-1410	140	150	1 x 3	1.29
*CTM-1419	150	150	1 x 3	1.29
*CTM-1428	150	150	1⅜ x 3	1.29
CTM-1436	200	150	1 x 3	1.86
*CTM-1437	200	150	1⅜ x 3½	1.47
*CTM-1446	300	150	1⅜ x 3½	1.68
*CTM-1455	375	165	1⅜ x 3½	2.79
CTM-1464	40	200	1 x 2	1.29
*CTM-1472	125	200	1 x 3	1.74
CTM-1471T	120 / 200 with Insulated Black Sleeve		1⅜ x 2	1.68
*CTM-1473	125	200	1⅜ x 2½	1.68
CTM-1481	160	200	1 x 3½	1.98
*CTM-1482	160	200	1⅜ x 3	1.89
CTM-1491	500	200	1⅜ x 4	3.96
*CTM-1500	15	250	1 x 2	1.17
CTM-1509	20	250	1 x 2	.96
CTM-1518	30	250	1 x 2	1.29
*CTM-1527	40	250	1 x 2	1.08
CTM-1536	50	250	1 x 2½	1.47
CTM-1545	60	250	1 x 3	1.23
CTM-1554	80	250	1 x 3½	1.62
*CTM-1563	100	250	1 x 3	1.62
*CTM-1572	150	250	1⅜ x 2½	1.86
*CTM-1574	160	250	1⅜ x 2½	1.89
*CTM-1581	200	250	1⅜ x 3½	2.19
CTM-1590	15	300	1 x 2	1.20
CTM-1599	30	300	1 x 2	1.32
CTM-1608	50	300	1 x 2½	1.53
CTM-1617	60	300	1 x 3	1.26
*CTM-1626	80	300	1 x 3½	1.53
*CTM-1635	100	300	1 x 4	1.74
*CTM-1644	125	300	1⅜ x 3½	2.10
*CTM-1653	150	300	1⅜ x 3½	2.10
*CTM-1662	250	300	1⅜ x 4	2.10
CTM-1651	10	350	1 x 2	1.14
CTM-1660	15	350	1 x 2	1.23
CTM-1669	20	350	1 x 2	1.32
*CTM-1678	30	350	1 x 2	1.14
*CTM-1687	40	350	1 x 2	1.20
*CTM-1696	50	350	1 x 2	1.26
*CTM-1705	60	350	1 x 3	1.32
*CTM-1714	80	350	1⅜ x 2	1.71
*CTM-1723	125	350	1⅜ x 3½	2.37
CTM-1732	140	350	1⅜ x 4	2.97
*CTM-1741	150	350	1⅜ x 4	2.37
CTM-1750	320	350	1⅜ x 4	4.05
CTM-1759	10	400	1 x 2	1.14
CTM-1768	20	400	1 x 2	1.32
CTM-1777	40	400	1⅜ x 2	1.82
CTM-1786	50	400	1⅜ x 2½	1.65
CTM-1795	80	400	1⅜ x 3	2.22
CTM-1804	100	400	1⅜ x 3	2.55
*CTM-1813	4	450	1 x 2	.84
*CTM-1822	10	450	1 x 2	.93
*CTM-1831	15	450	1 x 2	1.02
*CTM-1840	20	450	1 x 2	1.08
CTM-1849	25	450	1 x 2½	1.14
*CTM-1858	30	450	1 x 2½	1.17
*CTM-1867	40	450	1 x 3	1.23
*CTM-1876	50	450	1 x 3	1.41
*CTM-1885	60	450	1⅜ x 2½	1.56
*CTM-1894	80	450	1⅜ x 2½	1.83
*CTM-1903	100	450	1⅜ x 3	2.07
*CTM-1912	125	450	1⅜ x 4	2.31
CTM-1921	20	475	1 x 2½	1.38
CTM-1930	30	475	1 x 3	1.50
*CTM-1939	40	475	1⅜ x 2	1.50
CTM-1948	90	475	1⅜ x 3½	2.64
*CTM-1957	10	500	1 x 2	1.02
*CTM-1966	20	500	1 x 2½	1.11
*CTM-1975	30	500	1 x 3	1.20
*CTM-1984	40	500	1 x 3½	1.50
*CTM-1993	80	500	1⅜ x 3	2.16
CTM-1995	90	500	1⅜ x 3½	2.10
CTM-1997	15	525	1⅜ x 3	1.11

*Preferred Type †Discontinued

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Industrial Distributor)

DUAL UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTM-2050	(.5 OHM @ 15.75 K 2.5 OHM) @ 60 CPS		1⅜ x 2	2.70
†CTM-2054	1000-500	6 N.P.-6 N.P.	1⅜ x 2	2.94
*CTM-2058	250-1000	10-6	1⅜ x 2	1.71
†CTM-2062	200-40	10-10	1 x 2	1.20
*CTM-2066	1000-1000	15-15	1 x 3½	2.64
*CTM-2070	1000-1000	15-15	1⅜ x 2½	2.64
CTM-2074	250-250	16-16	1 x 2	2.07
*CTM-2079	500-200	16-16	1 x 2	1.62
*CTM-2080	1000-50	16-16	1 x 2½	2.34
*CTM-2078	500-100	16-16	1 x 2	1.50
CTM-2082	20-20	25-25	1 x 2	1.08
CTM-2086	40-40	25-25	1 x 2	1.20
*CTM-2090	100-70	25-25	1 x 2	1.08
CTM-2094	150-50	25-25	1 x 2	1.44
*CTM-2098	500-500	25-25	1⅜ x 2	2.64
*CTM-2101	1000-500	25-25	1⅜ x 2	3.30
*CTM-2106	50-50	50-50	1 x 2	1.02
*CTM-2110	100-25	50-50	1 x 2	1.14
*CTM-2114	100-100	50-50	1 x 2	1.26
*CTM-2118	50-500	150-5	1 x 3	1.47
CTM-2122	40-20	150-25	1 x 2	1.29
CTM-2126	40-150	150-25	1 x 2	1.52

Net

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ARCO electronics inc. — Arcolytic — TWIST MOUNT ELECTROLYTIC CAPACITORS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTM-2130	50-150	150-25	1 x 2½	1.65
*CTM-2134	150-100	150-25	1⅜ x 2½	1.62
CTM-2138	40-20	150-50	1 x 2	1.53
*CTM-2142	150-50	150-50	1 x 3	1.68
*CTM-2146	150-100	150-50	1⅜ x 2½	1.95
CTM-2150	20-10	150-150	1 x 2	1.20
*CTM-2154	20-20	150-150	1 x 2	1.02
CTM-2158	30-15	150-150	1 x 2	1.32
CTM-2162	30-20	150-150	1 x 2	1.32
*CTM-2166	30-30	150-150	1 x 2	1.11
*CTM-2170	40-20	150-150	1 x 2	1.11
*CTM-2174	40-30	150-150	1 x 2	1.11
*CTM-2178	40-40	150-150	1 x 2½	1.14
*CTM-2182	50-30	150-150	1 x 2½	1.20
*CTM-2186	50-50	150-150	1 x 2½	1.29
*CTM-2190	60-20	150-150	1 x 2	1.23
*CTM-2194	60-60	150-150	1 x 3½	1.41
*CTM-2198	70-30	150-150	1 x 2½	1.32
*CTM-2202	75-75	150-150	1 x 3	1.56
*CTM-2206	80-40	150-150	1⅜ x 2½	1.38
*CTM-2210	80-50	150-150	1 x 2½	1.44
*CTM-2214	80-60	150-150	1 x 3	1.50
*CTM-2218	80-80	150-150	1⅜ x 2	1.59
*CTM-2222	100-30	150-150	1 x 2½	1.68
CTM-2226	100-100	150-150	1⅜ x 2½	2.43
*CTM-2230	125-100	150-150	1⅜ x 2½	2.01
*CTM-2234	150-80	150-150	1⅜ x 2½	1.83
CTM-2238	150-150	150-150	1⅜ x 3	2.64
*CTM-2242	200-5	150-150	1⅜ x 2½	1.62
*CTM-2246	200-125	150-150	1⅜ x 3½	2.25
*CTM-2250	200-150	150-150	1⅜ x 4	2.25
*CTM-2254	200-200	150-150	1⅜ x 4	2.40
*CTM-2258	60-125	200-25	1 x 3	1.44
CTM-2262	30-10	200-50	1 x 2	1.38
CTM-2266	100-100	200-50	1⅜ x 2½	2.13
CTM-2270	40-40	200-200	1 x 3	1.74
*CTM-2274	60-60	200-200	1 x 3	2.04
*CTM-2278	60-60	200-200	1⅜ x 2	2.04
*CTM-2282	100-100	200-200	1⅜ x 3	2.10
*CTM-2286	200-5	200-200	1⅜ x 2½	1.83
CTM-2290	40-350	250-15	1⅜ x 2	2.07
CTM-2294	40-25	250-25	1 x 2½	1.50
CTM-2298	50-100	250-50	1⅜ x 2	1.95
CTM-2302	80-100	250-50	1⅜ x 2½	2.13
*CTM-2306	100-150	250-50	1⅜ x 3	2.19
CTM-2310	40-25	250-150	1 x 2½	2.07
CTM-2314	10-10	250-250	1 x 2	1.29
*CTM-2318	20-20	250-250	1 x 2	1.14
CTM-2322	30-30	250-250	1 x 2½	1.65
CTM-2326	40-20	250-250	1 x 3	1.65
*CTM-2330	40-40	250-250	1 x 2	1.50
CTM-2334	150-40	250-250	1⅜ x 3	2.88
*CTM-2338	150-150	250-250	1⅜ x 4	3.09
*CTM-2342	200-200	250-250	1⅜ x 4	3.63
*CTM-2346	35-500	300-6	1 x 2½	2.13
CTM-2350	20-20	300-25	1 x 2	1.38
CTM-2354	20-100	300-25	1 x 2½	2.04
*CTM-2358	10-40	300-50	1 x 2	1.02
CTM-2362	80-100	300-50	1⅜ x 3	2.37
CTM-2366	60-200	300-150	1⅜ x 3	2.79
CTM-2370	80-100	300-150	1⅜ x 2½	2.73
CTM-2374	60-10	300-200	1 x 3½	1.89
*CTM-2378	100-100	300-200	1 x 4	2.58
CTM-2382	20-60	300-250	1 x 3½	2.07
CTM-2386	10-10	300-300	1 x 2	1.32
CTM-2390	15-15	300-300	1 x 2	1.44
*CTM-2394	40-30	300-300	1 x 3	1.59
CTM-2398	40-40	300-300	1⅜ x 2½	2.25
CTM-2402	50-50	300-300	1⅜ x 2½	2.52
CTM-2406	60-20	300-300	1⅜ x 2½	2.10
CTM-2410	60-60	300-300	1⅜ x 2½	2.55
CTM-2414	75-75	300-300	1⅜ x 3	2.85
CTM-2418	80-40	300-300	1⅜ x 2½	2.67
CTM-2422	80-60	300-300	1⅜ x 3½	2.79
*CTM-2426	80-80	300-300	1⅜ x 3	2.43
*CTM-2430	120-20	300-300	1⅜ x 3½	2.40
*CTM-2434	120-40	300-300	1⅜ x 3½	2.61
CTM-2438	150-100	300-300	1⅜ x 3½	4.05
*CTM-2442	200-80	300-300	1⅜ x 4	3.15
CTM-2446	20-20	350-25	1 x 2	1.44
CTM-2450	40-20	350-25	1 x 2½	1.77
CTM-2454	80-100	350-50	1⅜ x 3	3.39
CTM-2458	20-100	350-75	1 x 2½	1.68
CTM-2462	5-75	350-150	1 x 2½	1.59
CTM-2466	40-10	350-200	1⅜ x 2	1.83
CTM-2470	20-30	350-250	1 x 3	1.74
CTM-2474	40-10	350-250	1 x 3	1.83
CTM-2478	60-80	350-250	1⅜ x 3½	2.58
CTM-2482	20-10	350-300	1 x 2	1.53
CTM-2486	30-30	350-300	1 x 3½	1.98
CTM-2490	60-20	350-300	1⅜ x 2½	2.13
*CTM-2494	15-15	350-350	1 x 2	1.35
CTM-2498	20-20	350-350	1 x 3	1.74
CTM-2502	30-20	350-350	1 x 3½	1.95
*CTM-2506	30-30	350-350	1 x 3	1.74
*CTM-2510	50-30	350-350	1⅜ x 2½	1.89
*CTM-2514	60-30	350-350	1⅜ x 3	1.89
CTM-2518	80-4	350-350	1⅜ x 2½	2.40
*CTM-2522	80-20	350-350	1⅜ x 3	2.10
*CTM-2526	80-40	350-350	1⅜ x 3	2.46
*CTM-2530	80-80	350-350	1⅜ x 4	2.82
*CTM-2534	90-40	350-350	1⅜ x 3	2.58
CTM-2538	100-40	350-350	1⅜ x 3	3.45
*CTM-2542	100-60	350-350	1⅜ x 3½	2.88
*CTM-2546	100-100	350-350	1⅜ x 4	3.69
*CTM-2550	160-10	350-350	1⅜ x 3	2.58
CTM-2554	50-50	385-385	1⅜ x 3	2.73
*CTM-2558	35-100	400-50	1 x 3	1.56
CTM-2562	40-100	400-50	1⅜ x 2	2.04
*CTM-2566	100-30	400-50	1⅜ x 3	2.34
*CTM-2570	80-80	400-200	1⅜ x 3½	2.37
CTM-2574	60-80	400-250	1⅜ x 4	2.94
CTM-2578	4-140	400-300	1⅜ x 3	2.16
CTM-2582	100-80	400-350	1⅜ x 4	4.08
CTM-2586	15-15	400-400	1 x 2½	1.68
CTM-2590	30-10	400-400	1 x 3	1.77
CTM-2594	60-60	400-400	1⅜ x 4	3.30
CTM-2598	75-75	400-400	1⅜ x 4	3.63
CTM-2602	80-10	400-400	1⅜ x 3½	2.55
CTM-2606	80-20	400-400	1⅜ x 3	2.73
CTM-2610	80-40	400-400	1⅜ x 4	3.09
*CTM-2614	80-60	400-400	1⅜ x 3	2.82
*CTM-2618	120-40	400-400	1⅜ x 4	3.15
*CTM-2622	10-20	450-25	1 x 2	1.02
CTM-2626	10-50	450-25	1 x 2½	1.29
CTM-2630	20-20	450-25	1 x 2	1.50
CTM-2634	20-100	450-25	1 x 2½	1.65
†CTM-2638	40-20	450-25	1 x 3	1.83
CTM-2642	80-10	450-25	1⅜ x 3	2.55
CTM-2646	80-20	450-25	1⅜ x 3	2.55
CTM-2650	10-100	450-50	1 x 2½	1.53
CTM-2654	30-25	450-50	1 x 2½	1.74
CTM-2658	40-50	450-50	1 x 3½	2.25
*CTM-2662	40-100	450-50	1 x 3½	1.68
*CTM-2666	50-100	450-50	1⅜ x 2½	1.80
*CTM-2668	80-50	450-50	1⅜ x 3	2.10
*CTM-2670	80-100	450-50	1⅜ x 3	2.25
CTM-2674	10-50	450-100	1⅜ x 2	1.53
CTM-2678	20-100	450-100	1⅜ x 2	2.19
CTM-2682	30-40	450-150	1⅜ x 2	2.19
*CTM-2686	30-200	450-150	1⅜ x 3	2.10
CTM-2690	40-150	450-150	1⅜ x 3	2.50
CTM-2694	80-50	450-150	1⅜ x 3	2.80
CTM-2698	80-60	450-150	1⅜ x 3½	3.11
CTM-2702	80-40	450-200	1⅜ x 3	2.80
*CTM-2706	20-50	450-250	1 x 3	1.60
CTM-2710	20-150	450-250	1⅜ x 3	2.80
*CTM-2714	40-10	450-300	1 x 3	1.50
CTM-2718	10-100	450-350	1⅜ x 3½	3.00
CTM-2722	20-80	450-350	1⅜ x 3½	2.70
CTM-2726	25-15	450-350	1 x 3	1.90
*CTM-2730	40-10	450-350	1⅜ x 2	1.50
CTM-2734	40-20	450-350	1⅜ x 2½	2.10
CTM-2738	40-40	450-350	1⅜ x 3	2.40
CTM-2740	80-2	450-350	1⅜ x 3	2.50
CTM-2742	30-20	450-400	1 x 3	2.40
*CTM-2746	5-5	450-450	1 x 2	1.60
*CTM-2750	10-10	450-450	1 x 2	1.10
CTM-2754	15-10	450-450	1 x 2½	1.60
*CTM-2758	15-15	450-450	1 x 2½	1.10
*CTM-2762	20-10	450-450	1 x 2½	1.10
*CTM-2766	20-20	450-450	1 x 3	1.10
*CTM-2770	30-10	450-450	1 x 3	1.10
CTM-2774	30-10	450-450	1⅜ x 2	1.10
CTM-2778	30-15	450-450	1⅜ x 2	1.10
*CTM-2782	30-30	450-450	1⅜ x 2½	1.10
CTM-2786	40-5	450-450	1 x 3	1.10
CTM-2790	40-15	450-450	1⅜ x 2½	2.10
*CTM-2794	40-20	450-450	1⅜ x 2½	1.10
*CTM-2798	40-40	450-450	1⅜ x 3	2.10
CTM-2802	50-40	450-450	1⅜ x 3	2.10
*CTM-2806	50-50	450-450	1⅜ x 3	2.10
*CTM-2810	60-20	450-450	1⅜ x 3	2.10
*CTM-2814	60-40	450-450	1⅜ x 3½	2.10
*CTM-2818	60-60	450-450	1⅜ x 3½	2.10
*CTM-2822	80-10	450-450	1⅜ x 3	2.10
*CTM-2826	80-20	450-450	1⅜ x 3	2.10
*CTM-2830	80-30	450-450	1⅜ x 4	2.10
*CTM-2834	80-40	450-450	1⅜ x 3½	3.10
*CTM-2838	80-80	450-450	1⅜ x 4½	3.10
*CTM-2842	100-40	450-450	1⅜ x 4	2.10

*Preferred Type
†Discontinued

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Industrial Distributor)

ARCO electronics inc. — Arcolytic — TWIST MOUNT ELECTROLYTIC CAPACITORS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTM-2846	10-20	475-25	1 x 2	1.29
*CTM-2850	30-100	475-50	1⅜ x 3½	1.65
CTM-2854	75-50	475-50	1⅜ x 3	2.73
CTM-2858	40-80	475-200	1⅜ x 2½	2.73
CTM-2862	80-80	475-250	1⅜ x 4	2.79
CTM-2866	20-100	475-300	1⅜ x 3½	2.97
*CTM-2870	20-100	475-400	1⅜ x 4	2.70
CTM-2874	40-40	475-400	1⅜ x 3	2.82
*CTM-2878	15-15	475-475	1 x 2½	1.41
*CTM-2882	30-10	475-475	1 x 3	1.56
*CTM-2886	40-10	475-475	1⅜ x 2½	1.86
CTM-2890	40-40	475-475	1⅜ x 3	3.24
CTM-2894	60-40	475-475	1⅜ x 4	3.42
CTM-2898	80-40	475-475	1⅜ x 4	3.78
*CTM-2902	80-50	475-475	1⅜ x 4	3.12
CTM-2906	80-50	500-50	1⅜ x 3½	2.85
CTM-2910	60-80	500-150	1⅜ x 3	2.82
CTM-2914	40-50	500-200	1⅜ x 3	2.52
CTM-2918	15-20	500-300	1 x 2½	1.74
CTM-2922	20-100	500-300	1⅜ x 3	2.94
CTM-2926	40-40	500-400	1⅜ x 3	2.82
CTM-2930	4-4	500-500	1 x 2½	1.29
*CTM-2934	10-10	500-500	1 x 2½	1.17
*CTM-2938	20-20	500-500	1⅜ x 2½	1.71
*CTM-2942	30-10	500-500	1⅜ x 3	1.56
*CTM-2946	30-30	500-500	1⅜ x 3	1.95
CTM-2950	40-25	500-500	1⅜ x 3	2.73
*CTM-2954	40-40	500-500	1⅜ x 3	2.58
*CTM-2958	60-40	500-500	1⅜ x 3½	2.76

TRIPLE UNITS

CTM-3020	1500-1500-1500	3-3-3	1 x 3½	5.40
CTM-3022	200-200-30	10-10-10	1 x 2	2.04
CTM-3022.7	850-400-4	16-16-11.5RMS	1 x 2½	3.00
CTM-3022.9	1000-500-4	16-16-11.5RMS	1 x 2½	3.12
*CTM-3023	1000-500-4	16-16-11.5RMS	1⅜ x 2	2.46
*CTM-3024	400-100-100	16-16-16	1 x 2	1.80
CTM-3026	500-100-100	16-16-16	1 x 2	2.10
CTM-3028	500-500-100	16-16-16	1 x 2	2.34
*CTM-3029	1000-500-20	16-16-16	1⅜ x 2	2.58
CTM-3030	40-500-500	25-10-10	1 x 2½	3.03
*CTM-3032	20-20-20	25-25-25	1 x 2	1.17
CTM-3034	40-40-40	25-25-25	1 x 2	1.92
CTM-3036	30-30-30	50-50-50	1 x 2	1.91
CTM-3038	20-250-100	150-15-15	1⅜ x 2	2.61
CTM-3040	40-25-130	150-25-15	1 x 3	2.97
CTM-3042	50-100-20	150-50-25	1 x 3	2.58
CTM-3044	100-50-25	150-50-25	1 x 3	2.70
*CTM-3046	15-15-1200	150-150-2	1 x 2	1.89
CTM-3048	30-20-100	150-150-6	1 x 2	2.16
CTM-3050	20-20-100	150-150-10	1 x 2	2.13
CTM-3052	20-20-250	150-150-10	1 x 2	2.34
†CTM-3054	30-30-200	150-150-10	1 x 2	2.25
*CTM-3056	40-20-150	150-150-10	1 x 2	1.44
CTM-3058	40-20-200	150-150-10	1 x 2½	2.25
CTM-3060	40-20-250	150-150-10	1 x 2½	2.43
CTM-3062	40-40-100	150-150-10	1 x 2½	2.25
CTM-3064	40-40-250	150-150-10	1 x 2½	3.39
CTM-3066	50-30-100	150-150-10	1 x 2½	2.43
CTM-3068	80-20-200	150-150-10	1⅜ x 2	2.58
CTM-3070	80-30-300	150-150-10	1⅜ x 2	1.69
CTM-3072	80-60-250	150-150-10	1 x 2½	2.88
CTM-3074	90-40-400	150-150-10	1⅜ x 2½	2.10
CTM-3076	100-20-200	150-150-10	1⅜ x 2½	2.97
CTM-3078	100-80-200	150-150-10	1⅜ x 2½	2.16
CTM-3080	60-40-400	150-150-15	1⅜ x 2	2.88
CTM-3082	80-20-100	150-150-15	1⅜ x 2	2.52
CTM-3084	20-20-20	150-150-25	1 x 2	1.98
CTM-3086	20-20-200	150-150-25	1 x 3	2.34
CTM-3088	30-20-20	150-150-25	1 x 2	2.04
CTM-3090	30-30-20	150-150-25	1 x 2	2.07
CTM-3092	40-20-20	150-150-25	1 x 2½	1.38
CTM-3094	40-20-100	150-150-25	1 x 2½	1.50
CTM-3096	40-20-200	150-150-25	1 x 2	1.62
CTM-3098	40-40-20	150-150-25	1 x 2	1.44
CTM-3100	40-40-200	150-150-25	1 x 3	1.68
CTM-3102	40-40-250	150-150-25	1 x 3	1.89
CTM-3104	50-30-20	150-150-25	1 x 2½	1.50
CTM-3106	50-30-100	150-150-25	1 x 3	1.62
CTM-3108	50-30-200	150-150-25	1⅜ x 2	2.61
CTM-3110	50-30-300	150-150-25	1 x 3	3.06
CTM-3112	50-50-20	150-150-25	1 x 3	1.59
CTM-3114	50-50-200	150-150-25	1 x 3	2.76
CTM-3116	60-20-20	150-150-25	1 x 2	2.31
CTM-3118	60-40-200	150-150-25	1 x 3	1.83
CTM-3120	60-60-100	150-150-25	1⅜ x 2	2.76
CTM-3122	80-20-20	150-150-25	1 x 3	2.40
CTM-3124	80-30-300	150-150-25	1⅜ x 2	3.30
CTM-3126	80-40-20	150-150-25	1 x 2½	1.68
CTM-3128	80-40-300	150-150-25	1⅜ x 2½	2.22
CTM-3130	120-60-20	150-150-25	1⅜ x 2½	3.03
†CTM-3132	300-80-200	150-150-50	1⅜ x 4	2.97
CTM-3134	10-10-10	150-150-150	1 x 2	1.86
*CTM-3136	20-20-20	150-150-150	1 x 2	1.38
*CTM-3138	30-30-10	150-150-150	1 x 2	1.71
*CTM-3140	40-20-10	150-150-150	1 x 2	1.41
*CTM-3142	40-20-20	150-150-150	1 x 2	1.44
*CTM-3144	40-30-20	150-150-150	1 x 2	1.50
*CTM-3146	40-40-40	150-150-150	1 x 3½	1.56
†CTM-3148	50-20-20	150-150-150	1 x 2½	2.31
*CTM-3150	50-40-10	150-150-150	1 x 2½	1.53
CTM-3152	50-50-10	150-150-150	1⅜ x 2	2.43
*CTM-3154	50-50-50	150-150-150	1 x 3	1.80
CTM-3156	50-50-50	150-150-150	1⅜ x 3	2.70
*CTM-3158	60-40-20	150-150-150	1 x 3	1.65
CTM-3160	60-40-30	150-150-150	1⅜ x 2	2.52
CTM-3162	60-50-50	150-150-150	1⅜ x 2	2.79
*CTM-3164	70-15-15	150-150-150	1 x 2½	1.62
*CTM-3166	70-40-40	150-150-150	1 x 3	2.43
CTM-3168	80-20-20	150-150-150	1 x 3½	2.52
*CTM-3170	80-30-10	150-150-150	1 x 3	1.65
*CTM-3172	80-40-20	150-150-150	1 x 3	1.74
CTM-3174	80-50-50	150-150-150	1 x 3	2.94
CTM-3176	80-80-80	150-150-150	1⅜ x 3	3.39
*CTM-3178	100-30-10	150-150-150	1 x 3	1.83
*CTM-3180	120-80-40	150-150-150	1⅜ x 3½	2.28
*CTM-3182	120-120-40	150-150-150	1⅜ x 3	2.43
CTM-3184	150-50-25	150-150-150	1⅜ x 3	3.24
*CTM-3186	200-100-60	150-150-150	1⅜ x 3½	2.73
†CTM-3188	200-140-60	150-150-150	1⅜ x 4	4.02
*CTM-3190	200-150-150	150-150-150	1⅜ x 4	4.50
*CTM-3192	300-100-80	150-150-150	1⅜ x 4	4.65
CTM-3194	80-40-50	200-100-50	1⅜ x 2½	2.76
CTM-3196	40-40-20	200-150-25	1 x 3	2.34
*CTM-3198	60-200-140	200-150-150	1⅜ x 4	2.88
CTM-3200	20-20-20	200-200-25	1 x 2	2.07
CTM-3202	30-20-20	200-200-25	1 x 2	2.31
CTM-3204	30-20-40	200-200-25	1 x 2	2.31
*CTM-3206	60-5-20	200-200-50	1 x 2½	1.50
*CTM-3208	60-5-100	200-200-50	1 x 2½	1.74
*CTM-3209	60-5-200	200-200-50	1 x 2½	1.92
*CTM-3210	80-10-20	200-200-50	1 x 3	1.68
CTM-3212	80-40-100	200-200-50	1⅜ x 3	3.15
CTM-3214	90-90-20	200-200-50	1⅜ x 3	3.42
CTM-3216	100-10-40	200-200-50	1⅜ x 2	2.85
*CTM-3218	30-20-40	200-200-150	1 x 2½	1.62
CTM-3220	20-20-20	200-200-200	1 x 2½	2.25
CTM-3222	30-20-20	200-200-200	1 x 2½	2.43
CTM-3224	40-40-20	200-200-200	1 x 2½	2.73
CTM-3226	50-30-30	200-200-200	1⅜ x 2	2.85
*CTM-3228	250-200-10	200-200-200	1⅜ x 4	4.02
CTM-3230	40-40-20	250-150-25	1⅜ x 2	2.43
*CTM-3232	80-40-50	250-150-50	1⅜ x 2½	1.41
CTM-3234	15-20-20	250-150-150	1 x 2	2.16
*CTM-3236	60-40-20	250-200-25	1⅜ x 2	1.98
*CTM-3238	15-15-20	250-250-25	1 x 2	1.41
CTM-3240	20-15-20	250-250-25	1 x 2½	2.13
*CTM-3242	30-30-20	250-250-25	1 x 3	1.68
CTM-3244	60-60-25	250-250-25	1 x 3½	3.42
CTM-3246	70-70-20	250-250-50	1⅜ x 3	3.51
*CTM-3248	90-90-20	250-250-50	1⅜ x 3	2.76
CTM-3250	40-20-10	250-250-150	1⅜ x 2	2.49
CTM-3252	40-40-10	250-250-200	1⅜ x 2	2.67
CTM-3254	80-80-60	250-250-200	1⅜ x 3½	4.05
CTM-3256	15-15-10	250-250-250	1 x 2	2.22
CTM-3258	20-20-10	250-250-250	1 x 2	2.25
*CTM-3260	20-20-20	250-250-250	1 x 2	1.56
CTM-3262	30-15-10	250-250-250	1 x 2½	2.43
CTM-3264	30-15-15	250-250-250	1 x 2	2.49
CTM-3266	30-20-10	250-250-250	1 x 2	2.43
†CTM-3268	40-20-10	250-250-250	1 x 2½	2.58
*CTM-3270	40-20-20	250-250-250	1 x 3½	1.74
*CTM-3272	80-10-10	250-250-250	1 x 3	1.92
*CTM-3274	80-80-60	250-250-250	1⅜ x 3	2.94
*CTM-3276	10-500-500	300-15-15	1⅜ x 2½	3.51
CTM-3278	20-10-10	300-75-25	1⅜ x 3	2.13
*CTM-3280	100-60-20	300-150-25	1⅜ x 3	2.52
CTM-3282	140-200-100	300-150-50	1⅜ x 4	5.16
*CTM-3284	20-150-80	300-150-150	1⅜ x 3	2.37
*CTM-3286	60-200-30	300-150-150	1⅜ x 4	3.90
CTM-3288	100-150-30	300-150-150	1⅜ x 4	4.47
*CTM-3290	100-200-30	300-150-150	1⅜ x 4	3.12
*CTM-3292	100-200-60	300-150-150	1⅜ x 4	3.00
CTM-3294	20-80-10	300-250-200	1⅜ x 2½	3.12
CTM-3296	16-20-20	300-250-250	1 x 3	2.34
CTM-3298	40-80-40	300-250-250	1⅜ x 3	3.78
†CTM-3300	60-30-30	300-250-250	1⅜ x 2½	3.39
*CTM-3302	100-60-20	300-250-250	1⅜ x 4	2.94
*CTM-3304	200-60-20	300-250-250	1⅜ x 4	3.30
CTM-3306	20-20-20	300-300-25	1 x 2½	2.49
CTM-3308	40-15-20	300-300-25	1 x 3	2.67

*Preferred Type †Discontinued **NET (For quantities of 25 or more, please contact your local Arco-Elmenco Industrial Distributor)**

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ARCO electronics inc. — Arcolytic — TWIST MOUNT ELECTROLYTIC CAPACITORS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTM-3310	40-20-20	300-300-25	1⅜ x 2	2.79
CTM-3312	140-10-100	300-300-25	1⅜ x 3½	4.02
*CTM-3313	20-20-50	300-300-50	1 x 2½	1.80
CTM-3314	30-30-25	300-300-50	1 x 3	2.61
*CTM-3316	100-10-60	300-300-50	1⅜ x 2½	2.43
CTM-3318	125-20-20	300-300-50	1⅜ x 3	4.02
CTM-3320	125-20-100	300-300-50	1⅜ x 3	4.41
*CTM-3322	125-60-40	300-300-50	1⅜ x 4	3.12
*CTM-3324	140-100-60	300-300-50	1⅜ x 4	3.63
*CTM-3326	140-100-100	300-300-50	1⅜ x 4	5.04
*CTM-3328	200-20-10	300-300-100	1⅜ x 4	2.94
CTM-3330	40-40-20	300-300-150	1⅜ x 2	3.24
CTM-3332	140-10-200	300-300-150	1⅜ x 4	3.30
†CTM-3334	10-10-15	300-300-250	1 x 2	2.22
*CTM-3336	10-10-10	300-300-300	1 x 2	1.44
*CTM-3338	60-20-10	300-300-300	1⅜ x 2	2.07
CTM-3340	80-20-10	300-300-300	1⅜ x 2½	3.42
*CTM-3342	80-40-40	300-300-300	1⅜ x 2½	3.15
CTM-3344	100-40-20	300-300-300	1⅜ x 3½	3.30
*CTM-3346	120-50-40	300-300-300	1⅜ x 4	3.51
*CTM-3348	150-100-10	300-300-300	1⅜ x 4	3.81
†CTM-3350	160-60-20	300-300-300	1⅜ x 4	4.92
CTM-3352	200-140-20	300-300-300	1⅜ x 4	6.36
†CTM-3354	30-25-100	350-25-6	1 x 2½	1.68
CTM-3356	5-100-40	350-25-25	1 x 2	2.13
CTM-3358	40-100-25	350-50-25	1⅜ x 2	2.88
CTM-3360	10-50-100	350-100-75	1 x 3	2.58
*CTM-3362	20-50-100	350-100-75	1 x 3	1.86
CTM-3364	10-10-250	350-150-15	1 x 2½	2.49
*CTM-3366	10-50-100	350-150-50	1 x 3½	1.71
CTM-3367	40-200-100	350-150-150	1⅜ x 3½	3.00
CTM-3368	60-200-30	350-150-150	1⅜ x 4	3.00
CTM-3370	40-80-500	350-200-25	1⅜ x 3½	4.56
*CTM-3372	125-5-100	350-200-75	1⅜ x 3½	3.18
CTM-3374	50-10-500	350-250-5	1⅜ x 2½	3.33
CTM-3376	50-10-1000	350-250-5	1⅜ x 2½	3.66
CTM-3378	20-30-20	350-250-25	1 x 3	2.52
CTM-3380	30-20-100	350-250-50	1 x 3	2.94
CTM-3382	100-40-5	350-250-50	1⅜ x 2½	2.91
CTM-3384	30-20-10	350-250-250	1 x 3½	2.70
CTM-3386	10-80-25	350-300-25	1⅜ x 3	3.06
*CTM-3388	30-30-20	350-300-25	1 x 3	1.89
†CTM-3390	30-50-20	350-300-25	1⅜ x 2½	3.24
CTM-3392	10-40-5	350-300-150	1 x 2½	2.58
†CTM-3394	20-40-10	350-300-150	1 x 3½	2.85
CTM-3396	40-20-10	350-300-200	1⅜ x 2	2.97
CTM-3398	100-40-40	350-300-250	1⅜ x 3½	2.91
CTM-3400	10-10-1400	350-350-3	1⅜ x 3	2.94
*CTM-3402	15-10-20	350-350-25	1 x 2½	1.50
CTM-3404	15-15-20	350-350-25	1 x 2½	2.43
CTM-3406	20-5-30	350-350-25	1 x 2	2.22
*CTM-3408	20-5-100	350-350-25	1 x 3	1.56
*CTM-3410	20-10-20	350-350-25	1 x 2½	1.53
*CTM-3412	20-20-20	350-350-25	1 x 2½	1.74
CTM-3414	30-10-20	350-350-25	1 x 2½	2.76
*CTM-3416	30-20-20	350-350-25	1 x 2½	1.86
CTM-3418	30-20-40	350-350-25	1 x 3	2.85
*CTM-3420	30-30-20	350-350-25	1⅜ x 2	2.04
CTM-3422	40-5-30	350-350-25	1⅜ x 2	2.61
CTM-3424	40-40-50	350-350-25	1⅜ x 2½	3.39
CTM-3426	60-10-25	350-350-25	1⅜ x 2½	2.70
CTM-3428	90-40-50	350-350-25	1⅜ x 3½	4.41
CTM-3430	100-20-20	350-350-25	1⅜ x 3½	4.26
*CTM-3432	200-10-50	350-350-50	1⅜ x 4	3.15
CTM-3434	10-5-30	350-350-50	1 x 2	1.98
CTM-3436	10-5-150	350-350-50	1 x 3	2.43
*CTM-3438	20-5-150	350-350-50	1 x 3	1.77
*CTM-3440	20-10-100	350-350-50	1⅜ x 2½	1.74
CTM-3442	70-40-50	350-350-50	1⅜ x 3½	3.90
CTM-3444	80-10-40	350-350-50	1⅜ x 3	3.42
CTM-3446	80-10-100	350-350-50	1⅜ x 3	3.69
CTM-3448	100-20-50	350-350-50	1⅜ x 3	4.17
CTM-3450	80-40-400	350-350-50	1⅜ x 4	3.39
*CTM-3452	150-4-30	350-350-50	1⅜ x 3½	2.85
CTM-3453	150-5-100	350-350-50	1⅜ x 3½	3.06
CTM-3454	30-20-100	350-350-75	1⅜ x 2½	3.60
†CTM-3456	40-20-10	350-350-100	1⅜ x 2	2.58
*CTM-3458	30-20-100	350-350-150	1⅜ x 2½	2.40
CTM-3460	40-20-10	350-350-150	1 x 3	2.88
CTM-3462	40-40-100	350-350-200	1⅜ x 4	4.32
*CTM-3464	80-40-100	350-350-200	1⅜ x 4	3.27
*CTM-3466	100-60-20	350-350-200	1⅜ x 4	3.20
*CTM-3468	20-10-5	350-350-250	1 x 2½	1.53
CTM-3470	30-10-20	350-350-250	1 x 3	2.76
CTM-3472	20-20-10	350-350-350	1 x 3	2.67
*CTM-3474	30-20-10	350-350-350	1 x 2½	1.95
CTM-3476	50-50-50	350-350-350	1⅜ x 3½	4.38
CTM-3478	60-20-10	350-350-350	1⅜ x 4	2.40
*CTM-3480	60-40-20	350-350-350	1⅜ x 4	2.55
CTM-3482	60-40-40	350-350-350	1⅜ x 4	4.23
*CTM-3484	60-50-50	350-350-350	1⅜ x 4	2.94
CTM-3486	80-40-40	350-350-350	1⅜ x 4	4.77
*CTM-3488	80-60-60	350-350-350	1⅜ x 4	3.33
*CTM-3490	90-40-20	350-350-350	1⅜ x 4	3.15
CTM-3492	100-20-20	350-350-350	1⅜ x 4	3.09
CTM-3494	100-40-10	350-350-350	1⅜ x 4	3.15
CTM-3496	100-100-10	350-350-350	1⅜ x 4	4.08
CTM-3497	100-100-40	350-350-350	1⅜ x 4½	4.50
CTM-3498	120-40-40	350-350-350	1⅜ x 4	5.58
*CTM-3500	140-140-20	350-350-350	1⅜ x 4	4.59
CTM-3502	20-50-50	400-10-10	1 x 2	2.13
*CTM-3504	40-200-60	400-200-200	1⅜ x 4	3.33
CTM-3506	10-5-40	400-300-25	1 x 2	1.98
CTM-3508	60-40-20	400-300-25	1⅜ x 3½	3.78
CTM-3510	80-20-10	400-300-300	1⅜ x 3½	3.84
CTM-3512	10-50-30	400-350-25	1 x 3½	2.79
CTM-3514	100-10-200	400-350-25	1⅜ x 3	2.94
CTM-3516	80-20-100	400-350-50	1⅜ x 3½	4.05
CTM-3518	100-10-20	400-350-50	1⅜ x 3½	4.05
CTM-3520	20-15-10	400-350-350	1 x 3	2.67
CTM-3522	10-20-20	400-350-350	1 x 3	2.40
CTM-3524	15-15-40	400-400-25	1 x 3	2.52
*CTM-3526	20-20-20	400-400-25	1 x 3	1.71
CTM-3528	30-10-20	400-400-25	1 x 3	2.55
CTM-3530	20-10-40	400-400-50	1 x 3	2.40
CTM-3532	30-10-150	400-400-50	1⅜ x 2½	3.06
CTM-3534	80-40-100	400-400-50	1⅜ x 4	4.50
*CTM-3536	80-40-150	400-400-50	1⅜ x 4	3.15
*CTM-3538	100-10-20	400-400-50	1⅜ x 3½	2.70
CTM-3540	20-20-20	400-400-100	1 x 3	2.67
CTM-3542	20-10-10	400-400-350	1 x 3	2.43
CTM-3544	20-10-40	400-400-350	1 x 3	3.06
*CTM-3546	20-20-10	400-400-350	1 x 3	1.80
*CTM-3548	60-30-20	400-400-350	1⅜ x 3	2.73
*CTM-3550	80-20-10	400-400-350	1⅜ x 3	2.58
*CTM-3552	100-10-80	400-400-350	1⅜ x 4	3.66
*CTM-3554	10-10-10	400-400-400	1 x 2½	1.44
CTM-3556	40-10-10	400-400-400	1 x 3	1.89
*CTM-3558	90-10-5	400-400-400	1⅜ x 3	2.64
CTM-3560	100-30-20	400-400-400	1⅜ x 4	4.95
CTM-3562	10-20-10	450-25-25	1 x 2	1.95
CTM-3564	30-20-20	450-25-25	1 x 3	2.49
†CTM-3566	30-100-25	450-25-25	1⅜ x 2	2.67
CTM-3568	10-100-20	450-50-25	1 x 3	2.31
CTM-3570	80-100-20	350-50-50	1⅜ x 3	3.84
CTM-3572	10-50-100	450-150-25	1 x 3	2.49
*CTM-3574	40-40-130	450-150-50	1⅜ x 3	2.22
CTM-3576	40-50-100	450-150-50	1⅜ x 2½	3.30
*CTM-3578	10-50-100	450-150-75	1 x 3	1.95
CTM-3580	20-50-100	450-150-75	1⅜ x 2	3.0
*CTM-3582	40-90-50	450-150-150	1⅜ x 3	2.4
CTM-3584	20-80-50	450-200-50	1⅜ x 2½	3.0
*CTM-3586	10-100-200	450-200-25	1 x 3½	2.1
*CTM-3588	10-100-100	450-200-50	1 x 3½	2.1
*CTM-3590	20-60-100	450-250-25	1⅜ x 2½	2.1
CTM-3592	10-60-60	450-250-250	1⅜ x 4	3.6
*CTM-3594	10-80-80	450-250-250	1⅜ x 4	2.4
CTM-3596	20-40-10	450-250-250	1⅜ x 2	2.8
CTM-3598	20-60-40	450-250-250	1⅜ x 3	3.5
*CTM-3600	80-40-40	450-250-250	1⅜ x 4	2.8
*CTM-3602	10-40-10	450-300-150	1⅜ x 2	1.8
CTM-3604	30-10-10	450-300-150	1⅜ x 2	2.6
*CTM-3606	5-80-40	450-300-300	1⅜ x 3	2.4
CTM-3608	10-100-20	450-300-300	1⅜ x 3	3.9
CTM-3610	20-15-10	450-300-300	1⅜ x 3	2.5
CTM-3612	10-10-20	450-350-25	1 x 2½	2.0
CTM-3614	10-10-50	450-350-25	1 x 3	2.1
*CTM-3616	30-15-40	450-350-25	1⅜ x 2	1.9
*CTM-3618	30-40-50	450-350-25	1 x 4	2.2
CTM-3620	20-80-100	450-350-50	1⅜ x 3½	4.0
*CTM-3622	80-50-100	450-360-200	1⅜ x 4	3.5
CTM-3624	15-20-20	450-350-250	1⅜ x 2	2.6
CTM-3625	50-10-160	450-350-250	1⅜ x 4	3.7
CTM-3626	20-15-10	450-350-300	1 x 3	2.7
CTM-3628	40-50-50	450-350-300	1⅜ x 4	4.3
CTM-3630	20-15-15	450-350-350	1 x 3	2.9
*CTM-3632	20-40-10	450-350-350	1⅜ x 2½	2.1
*CTM-3634	20-80-10	450-350-350	1⅜ x 3	2.5
*CTM-3636	40-80-40	450-350-350	1⅜ x 3½	3.2
CTM-3638	50-80-10	450-350-350	1⅜ x 3½	4.4
CTM-3640	60-20-20	450-350-350	1⅜ x 3½	3.8
CTM-3642	60-40-20	450-350-350	1⅜ x 3½	4.3
CTM-3644	10-30-150	450-400-5	1 x 3	2.3
CTM-3646	30-50-40	450-400-25	1⅜ x 3	3.5
*CTM-3648	60-80-20	450-400-250	1⅜ x 4	3.3
CTM-3650	10-30-30	450-400-300	1⅜ x 2½	3.1
CTM-3652	10-30-40	450-400-300	1⅜ x 2½	3.3
CTM-3654	4-40-40	450-400-300	1⅜ x 2½	4.
*CTM-3656	10-10-10	450-450-25	1 x 2½	1.
*CTM-3658	10-10-20	450-450-25	1 x 2½	1.
CTM-3660	15-15-20	450-450-25	1 x 3	2.
*CTM-3662	15-15-40	450-450-25	1 x 2½	1.
*CTM-3664	20-10-20	450-450-25	1 x 3	1.
CTM-3666	20-15-20	450-450-25	1 x 3½	2.
*CTM-3668	20-20-20	450-450-25	1 x 3	1.

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*Preferred Typ
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ARCO electronics inc. — Arcolytic — TWIST MOUNT ELECTROLYTIC CAPACITORS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
*CTM-3670	30-30-20	450-450-25	1⅜ x 2½	2.13
*CTM-3672	30-30-125	450-450-25	1⅜ x 3	2.37
*CTM-3674	40-20-20	450-450-25	1⅜ x 2½	2.10
*CTM-3676	40-40-20	450-450-25	1⅜ x 3	2.34
*CTM-3678	40-40-40	450-450-25	1⅜ x 3	2.37
*CTM-3680	80-10-125	450-450-25	1⅜ x 3½	2.67
*CTM-3682	80-40-100	450-450-25	1⅜ x 4	3.03
*CTM-3684	10-10-40	450-450-50	1 x 2½	1.50
*CTM-3686	20-10-50	450-450-50	1 x 3	1.71
CTM-3688	20-20-100	450-450-50	1⅜ x 2½	3.15
*CTM-3690	30-10-150	450-450-50	1⅜ x 2½	2.10
*CTM-3692	30-15-150	450-450-50	1⅜ x 3	2.22
CTM-3694	30-30-40	450-450-50	1⅜ x 3	3.30
*CTM-3696	35-25-150	450-450-50	1⅜ x 3	2.37
CTM-3698	40-10-40	450-450-50	1⅜ x 2½	2.99
*CTM-3700	40-10-100	450-450-50	1⅜ x 3	2.58
CTM-3702	40-30-25	450-450-50	1⅜ x 2½	3.39
*CTM-3704	40-40-100	450-450-50	1⅜ x 3½	2.58
*CTM-3706	60-40-75	450-450-50	1⅜ x 4	2.79
*CTM-3708	80-20-100	450-450-50	1⅜ x 4	2.88
CTM-3710	80-50-50	450-450-50	1⅜ x 4	4.68
CTM-3712	30-30-125	450-450-75	1⅜ x 3	4.05
†CTM-3714	10-10-50	450-450-100	1⅜ x 2	2.40
CTM-3716	30-20-30	450-450-150	1⅜ x 2½	3.15
*CTM-3718	40-40-40	450-450-150	1⅜ x 3½	2.49
*CTM-3720	40-10-80	450-450-200	1⅜ x 3	2.34
*CTM-3722	40-10-100	450-450-200	1⅜ x 3½	2.49
*CTM-3724	40-40-60	450-450-200	1⅜ x 3½	2.67
*CTM-3726	40-40-100	450-450-200	1⅜ x 4	2.97
CTM-3728	15-10-120	450-450-300	1⅜ x 3½	4.23
CTM-3730	15-15-10	450-450-300	1 x 3½	2.58
†CTM-3732	15-5-15	450-450-350	1 x 3	2.58
CTM-3734	20-20-60	450-450-350	1⅜ x 3½	4.56
CTM-3736	40-10-10	450-450-350	1⅜ x 3	2.97
CTM-3738	40-40-60	450-450-350	1⅜ x 4	4.11
*CTM-3740	40-40-80	450-450-350	1⅜ x 4	3.33
*CTM-3742	50-5-50	450-450-350	1⅜ x 3½	2.55
†CTM-3744	60-20-40	450-450-350	1⅜ x 4	4.41
CTM -3745	80-80-10	450-450-400	1⅜ x 4½	4.32
*CTM-3746	10-10-10	450-450-450	1 x 3	1.56
CTM-3748	15-15-10	450-450-450	1 x 3½	2.67
*CTM-3750	15-15-15	450-450-450	1 x 3	1.86
*CTM-3752	20-10-10	450-450-450	1 x 3	1.74
*CTM-3754	20-20-20	450-450-450	1⅜ x 2½	2.16
*CTM-3756	30-10-10	450-450-450	1⅜ x 2	1.89
*CTM-3758	30-20-20	450-450-450	1⅜ x 3	2.31
CTM-3760	30-30-10	450-450-450	1⅜ x 3	3.39
*CTM-3762	30-30-30	450-450-450	1⅜ x 3½	2.61
*CTM-3764	40-10-10	450-450-450	1⅜ x 3	2.01
*CTM-3766	40-30-20	450-450-450	1⅜ x 3	2.58
*CTM-3768	40-40-10	450-450-450	1⅜ x 2½	2.49
*CTM-3770	40-40-20	450-450-450	1⅜ x 3	2.57
*CTM-3772	40-40-40	450-450-450	1⅜ x 3½	2.94
CTM-3774	50-30-30	450-450-450	1⅜ x 3½	4.29
*CTM-3776	50-40-30	450-450-450	1⅜ x 3½	2.94
CTM-3778	60-10-10	450-450-450	1⅜ x 3	3.51
*CTM-3780	60-20-20	450-450-450	1⅜ x 3	2.76
*CTM-3782	60-30-10	450-450-450	1⅜ x 3	2.70
*CTM-3784	60-40-20	450-450-450	1⅜ x 3½	3.00
CTM-3786	80-40-10	450-450-450	1⅜ x 4	4.56
*CTM-3788	80-40-20	450-450-450	1⅜ x 4	3.24
*CTM-3790	20-50-20	475-50-25	1 x 3	1.65
*CTM-3792	80-80-50	475-150-50	1⅜ x 4	2.91
CTM-3794	10-100-40	475-200-50	1⅜ x 2½	3.03
CTM-3796	40-40-100	475-250-50	1⅜ x 3	3.87
CTM-3798	40-40-100	475-250-100	1⅜ x 3	3.69
CTM-3800	40-40-10	475-250-250	1⅜ x 3½	3.00
CTM-3802	20-20-40	475-300-25	1⅜ x 2	2.79
CTM-3804	40-40-100	475-300-50	1⅜ x 3½	4.05
*CTM-3806	40-80-10	475-300-300	1⅜ x 3½	2.91
CTM-3808	10-100-25	475-350-25	1⅜ x 3	2.73
*CTM-3810	10-4-100	475-350-50	1 x 2½	1.59
*CTM-3812	20-10-5	475-350-150	1 x 2½	1.68
*CTM-3814	10-4-40	475-350-250	1⅜ x 2	1.65
CTM-3816	20-20-10	475-350-350	1 x 3	2.88
CTM-3818	40-40-25	475-400-50	1⅜ x 3	3.87
CTM-3820	10-45-100	475-450-50	1⅜ x 3	3.30
CTM-3822	40-40-20	475-450-50	1⅜ x 3	3.96
*CTM-3824	10-40-100	475-450-200	1⅜ x 3	2.52
CTM-3826	40-20-20	475-450-450	1⅜ x 3	4.05
*CTM-3828	40-80-10	475-450-450	1⅜ x 4	3.30
CTM-3830	40-40-500	475-475-10	1⅜ x 3½	4.92
CTM-3832	10-10-5	475-475-25	1 x 2½	2.22
CTM-3834	10-10-100	475-475-25	1 x 3	2.40
CTM-3836	20-10-20	475-475-25	1 x 3	2.61
CTM-3838	10-10-150	475-475-50	1 x 3	2.70
CTM-3840	20-10-20	475-475-50	1 x 3	2.67
*CTM-3842	20-10-100	475-475-50	1⅜ x 2	1.95
CTM-3844	25-10-20	475-475-50	1 x 3	2.67
*CTM-3846	20-10-100	475-475-400	1⅜ x 4	3.15
CTM-3848	20-20-60	475-475-400	1⅜ x 3½	4.32
*CTM-3850	20-20-60	475-475-450	1⅜ x 4	2.91
CTM-3852	10-10-10	475-475-475	1 x 3	2.43
CTM-3854	30-30-10	475-475-475	1⅜ x 3	3.60
*CTM-3856	30-30-20	475-475-475	1⅜ x 3	2.67
CTM-3858	40-10-10	475-475-475	1⅜ x 3	3.48
*CTM-3860	40-20-20	475-475-475	1⅜ x 3	2.85
*CTM-3862	40-30-10	475-475-475	1⅜ x 3	2.20
*CTM-3864	40-30-30	475-475-475	1⅜ x 4	3.09
CTM-3866	40-35-10	475-475-475	1⅜ x 3	4.11
CTM-3868	10-80-10	500-150-150	1 x 3½	2.58
CTM-3870	10-100-40	500-200-50	1⅜ x 2½	3.03
CTM-3872	40-40-100	500-250-50	1⅜ x 3	3.87
CTM-3874	20-20-40	500-300-25	1⅜ x 2	2.79
CTM-3876	20-40-100	500-300-25	1⅜ x 2½	3.24
CTM-3878	5-100-200	500-300-150	1⅜ x 4	4.65
CTM-3880	40-40-25	500-400-50	1⅜ x 3	3.87
CTM-3882	20-40-100	500-450-25	1⅜ x 3	3.42
CTM-3884	80-20-100	500-450-50	1⅜ x 4	4.59
CTM-3886	10-40-40	500-450-450	1⅜ x 3½	3.75
CTM-3888	30-20-20	500-500-25	1⅜ x 2½	3.21
CTM-3890	10-10-100	500-500-50	1 x 3½	2.58
*CTM-3892	20-10-100	500-500-50	1 x 4	1.98
CTM-3894	30-10-20	500-500-50	1⅜ x 2½	2.79
*CTM-3896	40-40-100	500-500-200	1⅜ x 4	3.48
CTM-3898	10-10-5	500-500-350	1 x 2½	2.25
*CTM-3900	20-20-60	500-500-400	1⅜ x 3½	2.88
*CTM-3902	10-10-10	500-500-500	1 x 3	1.02
CTM-3904	30-20-20	500-500-500	1⅜ x 3	2.52
*CTM-3906	40-10-10	500-500-500	1⅜ x 3	2.34
*CTM-3908	40-40-10	500-500-500	1⅜ x 3½	3.03

QUADRUPLE UNITS

*CTM-4010	750-600-350-4	16-16-16-11.5RMS	1⅜ x 2	3.12
*CTM-4011	750-750-350-4	16-16-16-11.5RMS	1⅜ x 2	3.30
CTM-4020	40-40-40-40	25-25-25-25	1⅜ x 2	2.49
CTM-4022	5-5-25-100	75-75-25-15	1⅜ x 2	2.40
*CTM-4025	50-20-150-30	150-150-15-15	1⅜ x 2	1.89
CTM-4028	40-40-50-200	150-150-25-10	1⅜ x 2	2.85
*CTM-4031	20-20-160-40	150-150-25-25	1⅜ x 2	1.92
CTM-4034	40-40-100-100	150-150-25-25	1⅜ x 2	3.03
CTM-4037	40-40-200-100	150-150-25-25	1⅜ x 2	3.21
*CTM-4040	50-40-160-40	150-150-25-25	1⅜ x 2	2.13
CTM-4043	80-20-160-40	150-150-25-25	1⅜ x 2	3.33
CTM-4047	80-30-100-40	150-150-25-25	1⅜ x 2	3.12
CTM-4050	40-40-100-100	150-150-50-50	1⅜ x 2	3.33
CTM-4052	30-20-20-200	150-150-150-10	1⅜ x 2	2.79
*CTM-4055	40-40-20-200	150-150-150-10	1⅜ x 2	1.92
CTM-4058	50-30-25-200	150-150-150-10	1⅜ x 2	3.03
*CTM-4061	60-40-20-200	150-150-150-10	1⅜ x 2	2.07
CTM-4064	80-80-10-200	150-150-150-10	1⅜ x 2½	3.51
*CTM-4067	200-30-10-100	150-150-150-10	1⅜ x 3½	2.46
*CTM-4070	290-30-10-100	150-150-150-10	1⅜ x 3½	2.70
CTM-4073	60-20-20-1000	150-150-150-15	1⅜ x 2½	4.20
CTM-4076	20-20-20-20	150-150-150-25	1⅜ x 2	2.61
CTM-4079	30-20-20-100	150-150-150-25	1⅜ x 2	2.85
*CTM-4082	30-30-30-40	150-150-150-25	1⅜ x 2	1.86
*CTM-4085	40-20-20-20	150-150-150-25	1⅜ x 2	1.77
CTM-4088	40-30-20-100	150-150-150-25	1⅜ x 2	2.88
*CTM-4092	40-40-30-20	150-150-150-25	1⅜ x 2	1.86
CTM-4095	40-40-30-120	150-150-150-25	1⅜ x 2	3.15
*CTM-4098	40-40-40-20	150-150-150-25	1⅜ x 2	1.89
†CTM-4101	40-40-40-100	150-150-150-25	1⅜ x 2	3.03
*CTM-4104	40-40-40-160	150-150-150-25	1⅜ x 2	2.13
*CTM-4107	50-20-20-200	150-150-150-25	1⅜ x 2	2.10
*CTM-4110	50-30-30-100	150-150-150-25	1⅜ x 2	2.04
*CTM-4113	50-50-50-20	150-150-150-25	1⅜ x 2	2.13
CTM-4116	50-50-50-100	150-150-150-25	1⅜ x 2	3.39
CTM-4118	60-30-10-60	150-150-150-25	1⅜ x 2	2.76
CTM-4120	60-40-20-20	150-150-150-25	1⅜ x 2	2.97
CTM-4122	60-60-10-60	150-150-150-25	1⅜ x 2	3.15
CTM-4124	70-40-40-25	150-150-150-25	1⅜ x 2½	3.12
CTM-4126	80-40-30-100	150-150-150-25	1⅜ x 2½	3.33
*CTM-4128	80-40-40-20	150-150-150-25	1⅜ x 2	2.13
*CTM-4130	80-40-40-40	150-150-150-25	1⅜ x 2½	2.16
*CTM-4132	80-40-40-100	150-150-150-25	1⅜ x 2½	2.25
CTM-4134	80-50-50-25	150-150-150-25	1⅜ x 2½	3.42
CTM-4136	80-60-40-100	150-150-150-25	1⅜ x 2½	3.57
*CTM-4138	100-90-60-200	150-150-150-25	1⅜ x 3	2.97
CTM-4140	125-125-40-100	150-150-150-25	1⅜ x 3	4.47
*CTM-4143	250-200-10-25	150-150-150-50	1⅜ x 4	3.21
*CTM-4146	200-200-100-10	150-150-150-75	1⅜ x 4	3.57
*CTM-4148	40-40-40-30	150-150-150-150	1⅜ x 2	1.98
CTM-4150	50-40-30-30	150-150-150-150	1⅜ x 2	3.06
CTM-4152	50-50-50-50	150-150-150-150	1⅜ x 2½	3.51
CTM-4154	80-50-20-20	150-150-150-150	1⅜ x 2½	3.33
*CTM-4156	100-80-60-40	150-150-150-150	1⅜ x 3	2.79
*CTM-4159	200-200-60-30	175-175-175-175	1⅜ x 4	3.33
*CTM-4163	250-200-10-10	175-175-150-150	1⅜ x 4	3.30
CTM-4165	40-20-10-20	200-200-200-25	1⅜ x 2	2.88

*Preferred Type †Discontinued

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ARCO electronics inc. — Arcolytic — TWIST MOUNT ELECTROLYTIC CAPACITORS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTM-4167	60-20-5-50	200-200-200-50	1⅜ x 3	3.15
CTM-4170	40-40-50-80	250-250-150-150	1⅜ x 2½	3.69
*CTM-4173	100-40-10-100	250-250-250-50	1⅜ x 3½	3.09
CTM-4176	80-60-40-20	250-250-250-150	1⅜ x 4	4.59
CTM-4178	40-40-20-20	250-250-250-250	1⅜ x 2½	3.60
CTM-4180	100-40-80-20	300-50-25-25	1⅜ x 3	4.11
*CTM-4183	20-150-150-100	300-150-150-30	1⅜ x 4	3.18
*CTM-4185	10-200-140-30	300-150-150-150	1⅜ x 3½	3.06
*CTM-4188	10-200-200-30	300-150-150-150	1⅜ x 4	3.21
*CTM-4190	100-60-10-20	300-200-150-50	1⅜ x 3½	2.91
CTM-4193	120-20-20-100	300-250-25-30	1⅜ x 3½	4.77
*CTM-4195	200-20-100-20	300-250-50-25	1⅜ x 4	3.48
CTM-4198	40-40-40-40	300-250-250-25	1⅜ x 2½	3.96
CTM-4200	80-5-60-20	300-300-150-25	1⅜ x 3	2.61
CTM-4203	100-40-125-50	300-300-150-50	1⅜ x 4	5.58
*CTM-4205	140-10-10-100	300-300-150-50	1⅜ x 3½	3.03
*CTM-4208	100-10-200-30	300-300-150-150	1⅜ x 4	3.54
*CTM-4210	140-10-200-30	300-300-150-150	1⅜ x 4	3.75
*CTM-4213	140-10-200-60	300-300-150-150	1⅜ x 4½	3.84
*CTM-4215	150-20-10-250	300-300-250-50	1⅜ x 4	3.63
CTM-4218	10-10-10-20	300-300-300-25	1⅜ x 2	2.67
CTM-4220	40-30-20-50	300-300-300-25	1⅜ x 2½	3.75
*CTM-4223	60-40-20-50	300-300-300-25	1⅜ x 3½	2.82
CTM-4225	30-30-15-30	300-300-300-50	1⅜ x 3	3.30
CTM-4228	60-30-10-60	300-300-300-50	1⅜ x 2½	3.78
*CTM-4230	150-30-30-150	300-300-300-50	1⅜ x 4	3.66
*CTM-4233	40-40-40-20	300-300-300-150	1⅜ x 3	2.94
*CTM-4235	120-40-40-10	300-300-300-250	1⅜ x 4	3.78
*CTM-4238	40-20-10-10	300-300-300-300	1⅜ x 2	2.37
*CTM-4240	40-40-20-10	300-300-300-300	1⅜ x 3½	2.73
*CTM-4243	40-40-30-20	300-300-300-300	1⅜ x 3	2.91
*CTM-4245	60-40-10-10	300-300-300-300	1⅜ x 2½	2.73
*CTM-4248	100-40-20-20	300-300-300-300	1⅜ x 4	5.22
CTM-4250	100-50-10-5	300-300-300-300	1⅜ x 4	4.65
*CTM-4253	140-100-20-20	300-300-300-300	1⅜ x 4½	4.26
*CTM-4255	150-100-10-10	300-300-300-300	1⅜ x 4	3.99
CTM-4258	150-150-30-30	300-300-300-300	1⅜ x 4½	4.62
*CTM-4260	200-20-20-20	300-300-300-300	1⅜ x 4	3.75
CTM-4263	20-150-80-20	350-150-150-25	1⅜ x 3	4.11
CTM-4265	60-60-30-160	350-150-150-25	1⅜ x 3	4.11
CTM-4268	40-50-20-80	350-150-150-50	1⅜ x 3	3.66
CTM-4270	20-60-160-40	350-200-25-25	1⅜ x 2	3.60
CTM-4273	15-80-40-200	350-200-200-25	1⅜ x 3	4.05
CTM-4275	20-100-100-10	350-200-200-100	1⅜ x 4	4.50
CTM-4278	20-100-100-20	350-200-200-200	1⅜ x 4	4.65
†CTM-4280	20-40-10-250	350-300-150-50	1⅜ x 3	4.14
CTM-4283	140-10-10-100	350-300-150-50	1⅜ x 4	3.45
*CTM-4285	20-150-10-250	350-300-150-50	1⅜ x 4	3.66
CTM-4288	40-40-20-20	350-300-300-25	1⅜ x 3½	4.05
*CTM-4290	160-30-30-20	350-300-300-50	1⅜ x 4	3.48
*CTM-4293	30-30-50-100	350-300-300-75	1⅜ x 3	3.15
CTM-4295	40-80-10-10	350-300-300-300	1⅜ x 3	3.21
*CTM-4298	140-100-20-20	350-300-300-300	1⅜ x 4½	4.62
*CTM-4300	160-30-10-4	350-300-300-300	1⅜ x 3½	3.63
*CTM-4303	160-60-10-4	350-300-300-300	1⅜ x 4	3.78
*CTM-4305	40-10-100-25	350-350-25-25	1⅜ x 2	2.25
*CTM-4308	60-4-100-40	350-350-25-25	1⅜ x 2½	2.28
CTM-4310	100-4-50-50	350-350-50-25	1⅜ x 3½	4.50
CTM-4313	200-10-4-20	350-350-50-25	1⅜ x 4	5.22
CTM-4315	60-5-50-20	350-350-50-50	1⅜ x 2½	2.19
CTM-4318	100-20-50-30	350-350-50-50	1⅜ x 3½	4.89
*CTM-4320	60-20-80-100	350-350-150-50	1⅜ x 4	2.94
CTM-4323	60-10-100-100	350-350-150-10	1⅜ x 4	3.60
*CTM-4325	100-60-100-100	350-350-150-10	1⅜ x 4½	4.08
CTM-4328	15-15-150-150	350-350-150-150	1⅜ x 3½	4.17
CTM-4330	40-20-10-20	350-350-200-25	1⅜ x 2	3.51
CTM-4333	40-20-100-10	350-350-200-50	1⅜ x 3	4.29
CTM-4335	80-20-20-100	350-350-200-50	1⅜ x 3½	4.50
CTM-4338	80-20-20-200	350-350-200-50	1⅜ x 3½	4.86
*CTM-4340	60-40-60-20	350-350-200-150	1⅜ x 3½	3.03
CTM-4343	80-60-60-10	350-350-200-150	1⅜ x 4	5.04
CTM-4344	100-60-10-100	350-350-200-150	1⅜ x 4½	3.90
CTM-4345	50-30-8-20	350-350-250-200	1⅜ x 2½	4.05
CTM-4348	15-15-15-15	350-350-300-25	1⅜ x 2	3.12
CTM-4350	35-35-10-20	350-350-300-25	1⅜ x 2½	3.75
CTM-4353	100-80-10-20	350-350-300-50	1⅜ x 4	3.96
CTM-4355	100-60-40-40	350-350-300-75	1⅜ x 4	4.08
CTM-4358	10-10-10-10	350-350-300-300	1⅜ x 2	2.79
CTM-4360	10-10-10-20	350-350-350-25	1⅜ x 2	2.67
*CTM-4363	20-10-5-10	350-350-350-25	1⅜ x 2	1.86
*CTM-4365	30-10-5-200	350-350-350-25	1⅜ x 2	2.28
CTM-4368	30-20-20-20	350-350-350-25	1⅜ x 2½	3.69
CTM-4370	40-20-5-10	350-350-350-25	1⅜ x 2½	3.42
CTM-4373	40-20-20-25	350-350-350-25	1⅜ x 2½	3.84
CTM-4375	40-25-25-20	350-350-350-25	1⅜ x 3	4.20
*CTM-4378	40-40-20-20	350-350-350-25	1⅜ x 3	2.79
*CTM-4380	40-40-30-10	350-350-350-25	1⅜ x 3	2.97
*CTM-4383	40-40-40-40	350-350-350-25	1⅜ x 3	3.12
*CTM-4385	120-20-10-50	350-350-350-25	1⅜ x 3	3.36
CTM-4388	15-15-15-50	350-350-350-50	1⅜ x 2	3.39
CTM-4390	40-30-10-50	350-350-350-50	1⅜ x 3	3.96

†Discontinued * Preferred Type

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
*CTM-4393	40-40-40-150	350-350-350-50	1⅜ x 4	3.39
CTM-4395	50-40-20-100	350-350-350-50	1⅜ x 3	4.65
CTM-4398	50-40-40-160	350-350-350-50	1⅜ x 4	5.19
CTM-4400	60-25-25-100	350-350-350-50	1⅜ x 3½	4.65
*CTM-4403	60-30-30-150	350-350-350-50	1⅜ x 3	3.30
*CTM-4405	70-40-10-50	350-350-350-50	1⅜ x 3	3.15
*CTM-4408	100-10-10-20	350-350-350-50	1⅜ x 3½	3.09
*CTM-4410	100-20-10-20	350-350-350-50	1⅜ x 3½	3.24
*CTM-4413	100-40-30-50	350-350-350-50	1⅜ x 4	3.93
CTM-4415	140-20-10-100	350-350-350-50	1⅜ x 4	5.55
*CTM-4418	90-30-5-100	350-350-350-75	1⅜ x 3½	3.69
CTM-4420	80-60-40-20	350-350-350-150	1⅜ x 4	5.49
CTM-4424	20-10-5-60	350-350-350-200	1⅜ x 2½	3.30
*CTM-4428	30-10-5-100	350-350-350-200	1⅜ x 2½	2.73
CTM-4432	30-20-5-100	350-350-350-200	1⅜ x 3	2.82
CTM-4439	80-40-10-100	350-350-350-200	1⅜ x 3½	4.47
CTM-4443	130-20-10-40	350-350-350-300	1⅜ x 4	5.88
CTM-4446	35-30-20-10	350-350-350-350	1⅜ x 3	4.17
*CTM-4449	40-20-20-10	350-350-350-350	1⅜ x 2½	2.61
CTM-4453	40-25-25-10	350-350-350-350	1⅜ x 2½	3.57
*CTM-4456	40-40-40-40	350-350-350-350	1⅜ x 4	3.60
*CTM-4459	80-60-40-20	350-350-350-350	1⅜ x 4	3.84
*CTM-4461	90-40-30-30	350-350-350-350	1⅜ x 4	4.08
CTM-4464	100-20-10-5	350-350-350-350	1⅜ x 3½	4.77
*CTM-4467	100-40-10-10	350-350-350-350	1⅜ x 3½	3.60
*CTM-4469	100-40-25-25	350-350-350-350	1⅜ x 4	3.93
CTM-4471	50-20-100-25	400-200-150-25	1⅜ x 2½	4.20
CTM-4473	20-20-10-40	400-250-250-25	1⅜ x 2½	3.03
*CTM-4475	40-120-10-150	400-250-250-50	1⅜ x 4	3.54
CTM-4477	10-100-10-100	400-300-75-25	1⅜ x 2½	4.23
CTM-4479	30-40-50-200	400-300-250-150	1⅜ x 4	5.40
CTM-4481	20-30-20-20	400-300-300-25	1⅜ x 2½	3.42
CTM-4483	80-40-20-10	400-300-300-300	1⅜ x 4	5.01
CTM-4485	20-40-100-10	400-350-50-50	1⅜ x 3	3.78
CTM-4486	40-100-5-100	400-350-150-50	1⅜ x 4	3.66
*CTM-4487	20-10-10-20	400-350-200-25	1⅜ x 2	1.92
*CTM-4489	40-80-100-25	400-350-200-50	1⅜ x 3½	3.57
CTM-4491	40-10-80-10	400-350-250-250	1⅜ x 4	4.20
CTM-4493	80-40-20-20	400-350-300-300	1⅜ x 3½	3.84
CTM-4495	10-50-30-30	400-350-350-25	1⅜ x 3	3.96
†CTM-4497	35-25-25-20	400-350-350-25	1⅜ x 2½	4.11
CTM-4499	80-40-10-10	400-350-350-25	1⅜ x 4	4.77
*CTM-4501	20-50-40-80	400-350-350-50	1⅜ x 3	3.00
†CTM-4503	30-60-20-100	400-350-350-50	1⅜ x 4	4.50
*CTM-4505	40-80-10-100	400-350-350-200	1⅜ x 4	3.72
CTM-4507	40-100-20-10	400-350-350-350	1⅜ x 4	3.90
CTM-4509	10-10-25-25	400-400-25-25	1⅜ x 2	2.52
CTM-4511	20-5-20-20	400-400-25-25	1⅜ x 2	2.76
CTM-4513	20-20-40-10	400-400-25-25	1⅜ x 2½	4.56
CTM-4515	50-25-100-20	400-400-50-25	1⅜ x 3	4.20
*CTM-4517	50-40-100-100	400-400-50-25	1⅜ x 4	3.06
CTM-4519	80-40-100-20	400-400-50-25	1⅜ x 4	5.04
*CTM-4521	100-10-30-20	400-400-50-50	1⅜ x 3½	3.00
CTM-4523	20-10-10-25	400-400-100-25	1⅜ x 2	2.79
*CTM-4525	20-20-100-100	400-400-100-100	1⅜ x 3	3.12
*CTM-4527	20-10-20-25	400-400-200-25	1⅜ x 2	1.98
CTM-4529	10-10-40-10	400-400-200-50	1⅜ x 2	2.88
CTM-4530	80-40-100-100	400-400-200-50	1⅜ x 4	3.9
CTM-4531	40-30-80-10	400-400-200-200	1⅜ x 3½	4.4
CTM-4533	80-10-80-100	400-400-250-50	1⅜ x 4	3.4
CTM-4535	40-10-80-10	400-400-250-250	1⅜ x 3½	4.2
CTM-4537	5-5-50-80	400-400-300-250	1⅜ x 3	4.2
*CTM-4539	50-20-20-25	400-400-350-25	1⅜ x 3	2.6
†CTM-4541	60-40-40-10	400-400-350-50	1⅜ x 3½	5.1
*CTM-4543	100-10-20-20	400-400-350-50	1⅜ x 4	4.9
CTM-4544	20-20-20-20	400-400-400-25	1⅜ x 2½	3.4
CTM-4545	60-30-30-150	400-400-400-25	1⅜ x 4	5.2
*CTM-4547	80-40-10-20	400-400-400-25	1⅜ x 4	3.1
*CTM-4549	80-40-30-40	400-400-400-25	1⅜ x 4	3.5
CTM-4551	90-40-10-40	400-400-400-25	1⅜ x 4	5.2
CTM-4553	40-40-40-150	400-400-400-50	1⅜ x 4	5.1
*CTM-4555	90-20-10-50	400-400-400-50	1⅜ x 4	3.2
CTM-4557	80-20-10-100	400-400-400-50	1⅜ x 4	4.7
*CTM-4558	80-40-10-100	400-400-400-200	1⅜ x 4	3.7
*CTM-4559	80-40-30-4	400-400-400-350	1⅜ x 4	3.5
CTM-4561	30-30-20-20	400-400-400-400	1⅜ x 3	4.3
CTM-4563	40-35-10-10	400-400-400-400	1⅜ x 3	4.0
†CTM-4565	50-40-30-20	400-400-400-400	1⅜ x 4	3.3
CTM-4567	80-10-10-10	400-400-400-400	1⅜ x 3½	4.2
*CTM-4569	80-25-10-10	400-400-400-400	1⅜ x 4	3.7
*CTM-4571	100-40-10-10	400-400-400-400	1⅜ x 4	3.0
CTM-4574	40-40-30-10	450-150-50-50	1⅜ x 3	3.2
CTM-4577	10-80-40-100	450-200-200-50	1⅜ x 3	3.8
*CTM-4579	20-80-20-50	450-200-200-50	1⅜ x 3	2.4
CTM-4581	20-160-50-50	450-250-75-50	1⅜ x 4	3.
CTM-4582	60-40-10-80	450-250-150-50	1⅜ x 3½	4.
CTM-4585	40-40-40-20	450-250-250-25	1⅜ x 3	4.0
*CTM-4588	60-80-40-20	450-250-250-150	1⅜ x 4	3.
*CTM-4591	10-100-10-100	450-300-75-25	1⅜ x 3	2.
CTM-4594	10-10-60-100	450-300-200-50	1⅜ x 3	3.
CTM-4597	10-40-40-100	450-300-250-50	1⅜ x 3½	3.
CTM-4600	30-40-50-200	450-300-250-150	1⅜ x 4	5.
*CTM-4603	25-100-10-60	450-300-300-50	1⅜ x 3	3.
*CTM-4606	40-40-40-20	450-300-300-150	1⅜ x 3	2.

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Industrial Distributor)

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ARCO electronics inc. — Arcolytic — TWIST MOUNT ELECTROLYTIC CAPACITORS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
*CTM-4609	10-100-20-20	450-300-300-200	1⅜ x 3	3.03
CTM-4612	10-100-20-20	450-300-300-300	1⅜ x 3	4.74
CTM-4615	10-40-80-10	450-350-200-200	1⅜ x 3½	4.23
*CTM-4618	10-40-100-100	450-350-250-50	1⅜ x 3	3.33
CTM-4621	40-30-15-50	450-350-300-50	1⅜ x 3	3.93
CTM-4624	10-140-20-10	450-350-300-300	1⅜ x 4	5.37
*CTM-4625	10-140-100-20	450-350-300-300	1⅜ x 4	4.50
†CTM-4627	10-100-10-20	450-350-350-25	1⅜ x 3	4.68
*CTM-4630	10-60-40-25	450-350-350-25	1⅜ x 4	2.76
CTM-4633	20-15-15-20	450-350-350-25	1⅜ x 2½	3.42
*CTM-4636	20-80-50-100	450-350-350-50	1⅜ x 4	3.60
CTM-4639	30-40-40-10	450-350-350-200	1⅜ x 3½	4.65
CTM-4642	80-10-30-40	450-400-300-150	1⅜ x 4	4.74
*CTM-4645	80-10-40-30	450-400-300-300	1⅜ x 4	5.48
CTM-4648	5-60-50-20	450-400-350-25	1⅜ x 3½	4.56
CTM-4651	10-40-30-40	450-400-400-25	1⅜ x 3	3.96
CTM-4654	80-40-10-150	450-400-400-50	1⅜ x 4	5.40
CTM-4657	10-40-40-100	450-400-400-50	1⅜ x 3½	4.38
CTM-4660	60-40-20-20	450-400-400-100	1⅜ x 4	5.22
CTM-4664	10-10-20-20	450-450-25-25	1⅜ x 2	2.67
CTM-4666	20-10-100-50	450-450-25-25	1⅜ x 2	3.21
*CTM-4669	20-15-20-20	450-450-25-25	1⅜ x 2	2.07
*CTM-4672	30-30-125-125	450-450-25-25	1⅜ x 3	2.91
CTM-4675	30-10-150-30	450-450-50-50	1⅜ x 3	3.69
*CTM-4678	20-20-60-100	450-450-150-25	1⅜ x 2½	3.84
*CTM-4681	40-40-125-125	450-450-150-25	1⅜ x 4	3.42
CTM-4682	50-20-4-40	450-450-150-25	1⅜ x 2	2.70
*CTM-4684	10-10-60-100	450-450-200-50	1⅜ x 3	2.31
*CTM-4687	35-25-20-100	450-450-200-50	1⅜ x 3	2.79
CTM-4690	40-40-100-60	450-450-200-200	1⅜ x 4	3.63
CTM-4691	80-50-20-50	450-450-250-50	1⅜ x 4	3.57
CTM-4692	80-50-100-250	450-450-250-50	1⅜ x 4	4.44
CTM-4692.4	30-20-160-40	450-450-250-150	1⅜ x 3	3.39
CTM-4693	10-10-10-50	450-450-300-25	1⅜ x 2	2.85
CTM-4696	40-40-10-50	450-450-300-50	1⅜ x 3½	4.23
CTM-4699	20-20-30-30	450-450-300-300	1⅜ x 3½	4.05
CTM-4702	20-5-50-20	450-450-350-25	1⅜ x 2½	4.11
CTM-4705	20-20-30-30	450-450-350-350	1⅜ x 3	4.56
CTM-4708	40-10-35-10	450-450-350-350	1⅜ x 3½	4.14
CTM-4710	40-20-80-10	450-450-350-350	1⅜ x 4	5.22
*CTM-4712	40-40-30-30	450-450-350-350	1⅜ x 4	3.54
*CTM-4714	10-10-10-20	450-450-450-25	1⅜ x 2	1.89
CTM-4716	10-10-10-100	450-450-450-25	1⅜ x 2	2.94
CTM-4718	15-10-10-20	450-450-450-25	1⅜ x 3	2.97
CTM-4720	20-10-10-100	450-450-450-25	1⅜ x 2	3.33
*CTM-4722	20-20-20-20	450-450-450-25	1⅜ x 2½	2.49
CTM-4724	30-15-15-40	450-450-450-25	1⅜ x 2½	3.75
CTM-4726	30-20-20-20	450-450-450-25	1⅜ x 3	3.96
CTM-4728	30-30-10-20	450-450-450-25	1⅜ x 3	3.93
*CTM-4730	30-30-10-125	450-450-450-25	1⅜ x 3	2.82
CTM-4732	30-30-20-20	450-450-450-25	1⅜ x 3	4.20
CTM-4734	40-10-10-250	450-450-450-25	1⅜ x 3	4.23
CTM-4736	40-15-10-25	450-450-450-25	1⅜ x 3	3.69
CTM-4738	40-20-10-20	450-450-450-25	1⅜ x 3	3.84
*CTM-4740	40-20-20-20	450-450-450-25	1⅜ x 3	2.76
*CTM-4742	40-20-20-40	450-450-450-25	1⅜ x 3	2.79
*CTM-4744	40-30-10-20	450-450-450-25	1⅜ x 3½	2.70
*CTM-4746	40-40-10-20	450-450-450-25	1⅜ x 3½	2.82
*CTM-4748	40-40-20-20	450-450-450-25	1⅜ x 3½	3.00
*CTM-4750	40-40-40-40	450-450-450-25	1⅜ x 3	3.30
CTM-4752	50-40-5-20	450-450-450-25	1⅜ x 3	4.32
*CTM-4754	60-40-40-10	450-450-450-25	1⅜ x 4	3.60
*CTM-4756	60-50-5-20	450-450-450-25	1⅜ x 4	3.21
*CTM-4758	80-40-40-40	450-450-450-25	1⅜ x 4	3.87
CTM-4759	80-50-10-20	450-450-450-25	1⅜ x 4	3.57
CTM-4760	10-10-10-150	450-450-450-25	1⅜ x 2½	3.3
*CTM-4762	20-20-20-100	450-450-450-25	1⅜ x 2½	2.73
*CTM-4764	30-30-15-30	450-450-450-25	1⅜ x 3	2.73
CTM-4766	30-30-15-100	450-450-450-25	1⅜ x 3½	4.41
*CTM-4768	40-20-10-100	450-450-450-25	1⅜ x 3½	2.76
*CTM-4770	40-40-10-25	450-450-450-25	1⅜ x 3	2.82
*CTM-4772	40-40-10-50	450-450-450-25	1⅜ x 4	2.88
*CTM-4774	60-40-10-25	450-450-450-25	1⅜ x 4	3.15
*CTM-4776	40-40-10-100	450-450-450-100	1⅜ x 3½	3.33
CTM-4778	10-10-10-10	450-450-450-150	1⅜ x 2	2.85
*CTM-4780	60-10-10-20	450-450-450-150	1⅜ x 3	2.73
CTM-4782	35-35-10-10	450-450-450-200	1⅜ x 3½	4.14
CTM-4785	40-10-10-100	450-450-450-200	1⅜ x 4	4.41
CTM-4788	40-40-30-10	450-450-450-200	1⅜ x 4	4.83
CTM-4790	30-10-10-10	450-450-450-250	1⅜ x 2½	3.48
†CTM-4792	40-10-10-40	450-450-450-250	1⅜ x 3½	4.02
*CTM-4794	40-20-10-100	450-450-450-250	1⅜ x 4	3.51
†CTM-4796	60-10-10-40	450-450-450-250	1⅜ x 3½	4.38
*CTM-4798	40-10-10-40	450-450-450-350	1⅜ x 3	2.85
CTM-4800	40-20-20-20	450-450-450-350	1⅜ x 3	4.50
CTM-4802	40-40-10-10	450-450-450-350	1⅜ x 3½	4.32
*CTM-4804	5-5-5-5	450-450-450-450	1⅜ x 2	1.80
*CTM-4806	10-10-10-10	450-450-450-450	1⅜ x 2	2.01
*CTM-4808	20-10-10-10	450-450-450-450	1⅜ x 2½	2.22
*CTM-4810	20-20-20-20	450-450-450-450	1⅜ x 3	2.82
CTM-4812	25-20-20-20	450-450-450-450	1⅜ x 3½	4.38
*CTM-4814	30-15-15-15	450-450-450-450	1⅜ x 3	2.67
CTM-4816	30-20-20-10	450-450-450-450	1⅜ x 3	4.14
CTM-4818	30-30-15-10	450-450-450-450	1⅜ x 3½	4.23
*CTM-4820	30-30-20-20	450-450-450-450	1⅜ x 3	3.12
CTM-4822	30-30-30-15	450-450-450-450	1⅜ x 4	4.77

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
*CTM-4824	35-35-10-5	450-450-450-450	1⅜ x 3½	2.76
*CTM-4826	40-10-10-10	450-450-450-450	1⅜ x 3	2.46
CTM-4828	40-20-20-10	450-450-450-450	1⅜ x 3	4.32
*CTM-4830	40-35-10-10	450-450-450-450	1⅜ x 3	2.88
*CTM-4832	40-40-4-4	450-450-450-450	1⅜ x 3½	2.79
*CTM-4834	40-40-20-20	450-450-450-450	1⅜ x 4	3.33
*CTM-4836	40-40-30-30	450-450-450-450	1⅜ x 4	3.63
*CTM-4838	40-40-40-40	450-450-450-450	1⅜ x 4	3.87
*CTM-4840	60-20-20-20	450-450-450-450	1⅜ x 4	3.39
*CTM-4842	60-30-10-2	450-450-450-450	1⅜ x 3	3.06
CTM-4844	70-10-10-5	450-450-450-450	1⅜ x 3	4.29
*CTM-4846	80-10-10-10	450-450-450-450	1⅜ x 4	3.03
*CTM-4848	40-40-50-80	475-250-150-50	1⅜ x 3½	3.00
*CTM-4850	20-40-100-80	475-300-50-25	1⅜ x 3	2.67
*CTM-4852	10-100-10-100	475-300-300-25	1⅜ x 3½	2.94
*CTM-4854	20-80-20-10	475-300-300-300	1⅜ x 3½	3.00
*CTM-4856	20-140-20-10	475-300-300-300	1⅜ x 4	3.60
CTM-4858	10-20-100-25	475-350-25-25	1⅜ x 2	2.07
†CTM-4860	10-40-80-100	475-350-200-100	1⅜ x 3½	4.32
*CTM-4862	20-40-80-100	475-350-200-100	1⅜ x 4	3.27
*CTM-4864	10-40-80-100	475-350-300-100	1⅜ x 4	3.33
*CTM-4866	10-30-5-80	475-350-350-50	1⅜ x 2½	3.33
*CTM-4868	10-140-4-100	475-350-350-50	1⅜ x 4	3.51
*CTM-4870	10-130-20-10	475-350-350-350	1⅜ x 4	3.60
CTM-4872	20-60-40-10	475-350-350-350	1⅜ x 3½	4.68
*CTM-4874	30-130-10-10	475-350-350-350	1⅜ x 4	3.84
*CTM-4876	10-40-100-10	475-400-50-25	1⅜ x 2½	2.43
*CTM-4878	10-40-4-100	475-400-350-50	1⅜ x 2½	2.43
*CTM-4880	10-80-40-100	475-400-400-50	1⅜ x 4	3.48
*CTM-4882	5-70-25-5	475-400-400-400	1⅜ x 3½	3.03
CTM-4884	10-10-80-50	475-450-200-60	1⅜ x 3	3.48
CTM-4886	25-20-20-100	475-450-300-50	1⅜ x 3	4.14
CTM-4888	25-20-40-100	475-450-300-50	1⅜ x 3½	4.47
*CTM-4890	10-60-30-125	475-450-400-50	1⅜ x 4	3.33
*CTM-4892	10-50-30-30	475-450-450-25	1⅜ x 3	2.85
*CTM-4894	10-40-10-100	475-450-450-50	1⅜ x 2½	2.58
CTM-4895	80-4-4-4	475-450-450-450	1⅜ x 3	3.12
*CTM-4896	15-15-80-40	475-475-300-50	1⅜ x 3	2.88
CTM-4898	50-30-20-20	475-475-300-300	1⅜ x 4	5.13
*CTM-4900	40-10-4-40	475-475-350-300	1⅜ x 3	2.97
CTM-4902	40-10-40-10	475-475-350-350	1⅜ x 3	3.30
*CTM-4904	20-10-20-100	475-475-450-25	1⅜ x 2½	2.52
CTM-4906	10-5-80-40	475-475-450-50	1⅜ x 3½	4.41
CTM-4907	80-80-4-4	475-475-450-450	1⅜ x 4	4.50
CTM-4908	30-30-10-20	475-475-475-25	1⅜ x 3	4.11
CTM-4910	40-20-10-10	475-475-475-25	1⅜ x 3	4.38
CTM-4912	80-30-10-20	475-475-475-25	1⅜ x 4	5.19
*CTM-4914	20-20-10-10	475-475-475-300	1⅜ x 2½	2.58
*CTM-4916	50-30-10-20	475-475-475-300	1⅜ x 3½	3.36
CTM-4918	10-10-10-10	475-475-475-475	1⅜ x 2	3.15
*CTM-4920	20-20-10-10	475-475-475-475	1⅜ x 2½	2.61
*CTM-4922	20-20-20-20	475-475-475-475	1⅜ x 3	3.06
CTM-4924	40-10-10-10	475-475-475-475	1⅜ x 3	4.20
*CTM-4926	40-20-10-10	475-475-475-475	1⅜ x 3	3.06
CTM-4928	10-10-4-20	500-300-300-25	1⅜ x 2	1.74
CTM-4930	10-100-30-100	500-300-300-25	1⅜ x 3½	4.68
CTM-4932	5-100-10-200	500-300-300-150	1⅜ x 4	5.28
CTM-4934	20-80-20-10	500-300-300-300	1⅜ x 3½	4.50
*CTM-4936	30-10-150-30	500-450-50-50	1⅜ x 3	2.52
*CTM-4938	10-10-10-10	500-500-500-500	1⅜ x 2	2.10
*CTM-4940	40-40-8-8	500-500-500-500	1⅜ x 4	3.42

INSULATING TUBES FOR TWIST MOUNT CAPACITORS

Cat. No.	CTM Dimensions	Net Price
TMT-1	1 x 2	.06
TMT-2	1 x 2½	.06
TMT-3	1 x 3	.06
TMT-4	1 x 3½	.06
TMT-5	1 x 4	.06
TMT-6	1⅜ x 2	.06
TMT-7	1⅜ x 2½	.06
TMT-8	1⅜ x 3	.06
TMT-9	1⅜ x 3½	.06
TMT-10	1⅜ x 4	.06

BAKELITE MOUNTING PLATES FOR CTM CAPACITORS

BMP-1	1	.06
BMP-2	1⅜	.06

METAL MOUNTING PLATES FOR CTM CAPACITORS

MMP-1	1	.06
MMP-2	1⅜	.06

*Preferred Type †Discontinued

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Industrial Distributor)

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GREAT NECK, NEW YORK
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PLASTIC FILM CAPACITORS

TYPES PT, PJ

Type PT capacitors are polystyrene dielectric enclosed in non-ferrous metallic tubes with compression glass end seals. The principle features of this type are high stability, high insulation resistance, low dielectric absorption, and low dissipation factor. Their principle uses include precision filter and tuned circuits, analog computer circuits, pulse networks, servo systems, reference capacitors, and high Q applications.

SPECIFICATIONS:

DISSIPATION FACTOR:
.01% max. at 25°C.
.02% max. at 85°C.

INSULATION RESISTANCE: 10^5 megohm-microfarads min. for 100VDCW and 200VDCW units; 10^6 megohm-microfarads for 400-VDCW and higher ratings (at 25°C.)

TEMPERATURE RANGE: —55°C. to +85°C.

TEMPERATURE COEFFICIENT: —120 ± 15 ppm/°C. This specification may be tightened if required for specific values.

DIELECTRIC ABSORPTION: .05% max. at 25°C.

STABILITY: ±0.1% maximum capacitance drift long term under maximum operating conditions.

TOLERANCES: standard tolerance ±5%. Also available, ±10% ±3% ±2% ±1% ±½ ±¼%.

TYPE PT

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
	100 VDCW		
*1PT-102J	.001	7/8 x .312	6.34
*1PT-202J	.002	7/8 x .312	3.17
1PT-222J	.0022	7/8 x .312	3.17
1PT-272J	.0027	7/8 x .312	3.17
*1PT-332J	.0033	7/8 x .312	3.17
1PT-392J	.0039	7/8 x .312	3.17
*1PT-472J	.0047	7/8 x .312	3.17
*1PT-502J	.005	7/8 x .312	3.17
*1PT-682J	.0068	7/8 x .312	3.17
1PT-822J	.0082	7/8 x .312	3.17
*1PT-103J	.01	7/8 x .312	3.17
1PT-123J	.012	7/8 x .312	3.19
*1PT-153J	.015	7/8 x .312	3.20
*1PT-203J	.02	7/8 x .312	3.22
*1PT-223J	.022	7/8 x .312	3.24
1PT-273J	.027	1 x .312	3.27
*1PT-333J	.033	1 x .312	3.30
1PT-393J	.039	1 x .400	3.34
*1PT-473J	.047	1 x .400	3.38
*1PT-503J	.05	1 x .400	3.40
*1PT-683J	.068	1 x .400	3.57
1PT-823J	.082	1 1/8 x .400	3.71
*1PT-104J	.1	1 1/8 x .500	3.89
*1PT-124J	.12	1 1/8 x .500	4.10
*1PT-154J	.15	1 1/16 x .500	4.38
*1PT-204J	.2	1 1/16 x .500	4.90
*1PT-224J	.22	1 1/16 x .500	5.04
1PT-274J	.27	1 1/16 x .562	5.43
*1PT-334J	.33	1 13/16 x .562	5.85
1PT-394J	.39	1 13/16 x .562	6.30
*1PT-474J	.47	1 7/8 x .670	6.86
*1PT-504J	.5	1 7/8 x .670	7.18
	200 VDCW		
*2PT-102J	.001	7/8 x .312	6.34
*2PT-202J	.002	7/8 x .312	3.17
2PT-222J	.0022	7/8 x .312	3.17
2PT-272J	.0027	7/8 x .312	3.17
*2PT-332J	.0033	7/8 x .312	3.17
2PT-392J	.0039	7/8 x .312	3.17
*2PT-472J	.0047	7/8 x .312	3.17
*2PT-502J	.005	7/8 x .312	3.17
*2PT-682J	.0068	7/8 x .312	3.17
2PT-822J	.0082	7/8 x .312	3.17
*2PT-103J	.01	7/8 x .312	3.17
2PT-123J	.012	1 x .312	3.20
2PT-153J	.015	1 x .312	3.24
2PT-203J	.02	1 x .400	3.31
2PT-223J	.022	1 x .400	3.32
2PT-273J	.027	1 x .400	3.35
2PT-333J	.033	1 1/8 x .400	3.40
2PT-393J	.039	1 1/8 x .400	3.44
2PT-473J	.047	1 1/8 x .400	3.50
2PT-503J	.05	1 1/8 x .500	3.64
2PT-683J	.068	1 1/16 x .500	3.99
2PT-823J	.082	1 1/16 x .500	4.31
2PT-104J	.1	1 1/16 x .500	4.66
2PT-124J	.12	1 1/16 x .562	4.97
2PT-154J	.15	1 1/16 x .562	5.43
2PT-204J	.2	1 13/16 x .562	6.16
2PT-224J	.22	1 7/8 x .670	6.44
2PT-274J	.27	1 7/8 x .670	7.11
2PT-334J	.33	1 7/8 x .750	7.88
2PT-394J	.39	1 15/16 x 1.00	8.65
2PT-474J	.47	1 15/16 x 1.00	9.70
2PT-504J	.5	1 15/16 x 1.00	10.22
	400 VDCW		
*4PT-102J	.001	7/8 x .312	6.34
*4PT-202J	.002	7/8 x .312	3.17
4PT-222J	.0022	7/8 x .312	3.17
*4PT-272J	.0027	7/8 x .312	3.11
*4PT-332J	.0033	7/8 x .312	3.17
4PT-392J	.0039	7/8 x .312	3.17
*4PT-472J	.0047	7/8 x .312	3.17
*4PT-502J	.005	7/8 x .312	3.17
*4PT-682J	.0068	7/8 x .312	3.22
4PT-822J	.0082	7/8 x .312	3.26
*4PT-103J	.01	1 x .312	3.31
*4PT-153J	.015	1 x .400	3.39
*4PT-203J	.02	1 x .400	3.48
*4PT-223J	.022	1 x .400	3.50
4PT-273J	.027	1 1/8 x .400	3.57
*4PT-333J	.033	1 1/8 x .400	3.68
4PT-393J	.039	1 1/8 x .500	3.75
*4PT-473J	.047	1 1/16 x .500	3.89
*4PT-503J	.05	1 1/16 x .500	3.96
*4PT-683J	.068	1 1/16 x .500	4.34
4PT-823J	.082	1 1/16 x .562	4.65
*4PT-104J	.1	1 13/16 x .562	5.04
4PT-124J	.12	1 13/16 x .562	5.46
*4PT-154J	.15	1 7/8 x .670	6.06
*4PT-204J	.2	1 7/8 x .750	7.07
*4PT-224J	.22	1 7/8 x .750	7.42
4PT-274J	.27	1 15/16 x 1.00	8.30
*4PT-334J	.33	1 15/16 x 1.00	9.38
4PT-394J	.39	1 15/16 x 1.00	10.43
	600 VDCW		
*6PT-102J	.001	7/8 x .312	6.34
*6PT-202J	.002	7/8 x .312	3.17
6PT-222J	.0022	7/8 x .312	3.17
6PT-272J	.0027	7/8 x .312	3.17
*6PT-332J	.0033	7/8 x .312	3.19
6PT-392J	.0039	7/8 x .312	3.22
*6PT-472J	.0047	7/8 x .312	3.27
*6PT-502J	.005	7/8 x .312	3.28
6PT-682J	.0068	7/8 x .312	3.33
6PT-822J	.0082	1 x .312	3.37
*6PT-103J	.01	1 x .400	3.41
6PT-153J	.015	1 x .400	3.54
*6PT-203J	.02	1 1/8 x .400	3.68
6PT-223J	.022	1 1/8 x .400	3.75
6PT-273J	.027	1 1/8 x .500	3.89
6PT-333J	.033	1 1/16 x .500	4.06
6PT-393J	.039	1 1/16 x .500	4.17
6PT-473J	.047	1 1/16 x .562	4.31
*6PT-503J	.05	1 1/16 x .562	4.38
6PT-683J	.068	1 13/16 x .562	5.22
6PT-823J	.082	1 7/8 x .670	5.60
*6PT-104J	.1	1 7/8 x .750	6.09
6PT-124J	.12	1 7/8 x .750	6.65
6PT-154J	.15	1 15/16 x .100	7.49
*6PT-204J	.2	1 15/16 x .100	8.58
6PT-224J	.22	1 15/16 x .100	10.19

NOTE: Non-standard capacitance values between those listed are also available at no additional cost.

* The starred items are stock items available for immediate delivery.

NOTE: The suffix letter "J" refers to the standard tolerance of ±5%. This letter is changed for different tolerances.

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
	1000 VDCW		
*10PT-102J	.001	7/8 x .312	6.34
10PT-152J	.0015	7/8 x .312	6.34
*10PT-202J	.002	7/8 x .312	3.17
10PT-222J	.0022	7/8 x .312	3.19
10PT-272J	.0027	7/8 x .312	3.21
*10PT-332J	.0033	7/8 x .312	3.24
10PT-392J	.0039	7/8 x .312	3.27
*10PT-472J	.0047	7/8 x .312	3.31
*10PT-502J	.005	7/8 x .312	3.34
10PT-682J	.0068	1 x .312	3.40
10PT-822J	.0082	1 x .400	3.44
10PT-103J	.01	1 x .400	3.50
10PT-153J	.015	1 1/8 x .400	3.68
10PT-203J	.02	1 1/8 x .500	3.85
10PT-223J	.022	1 1/16 x .500	3.92
10PT-273J	.027	1 1/16 x .500	4.10
10PT-333J	.033	1 1/16 x .500	4.27
10PT-393J	.039	1 1/16 x .562	4.41
10PT-473J	.047	1 13/16 x .562	4.62
10PT-503J	.05	1 7/8 x .670	4.69
10PT-683J	.068	1 7/8 x .750	5.64
10PT-823J	.082	1 15/16 x 1.00	6.23
10PT-104J	.1	1 15/16 x 1.00	6.97

Type PJ capacitors are polystyrene dielectric enclosed in silicone treated fused polystyrene jackets. The same superior quality of the Type PT hermetically sealed units is preserved in Type PJ units while effecting a marked saving in both size and price. Extensive evaluation has confirmed the excellent moisture resistance of this design as well as extreme ruggedness. The Type PJ will meet MIL tests for vibration, shock, moisture resistance and immersion as well as providing the excellent electrical characteristics specified.

SPECIFICATIONS:

DISSIPATION FACTOR: .01% max. at 25°C.
.02% max. at 85°C.

INSULATION RESISTANCE: 10^5 megohm-microfarads at 25°C.

TEMPERATURE RANGE: —55°C. to +85°C.

TEMPERATURE COEFFICIENT: —120 ± 15 ppm/°C.

DIELECTRIC ABSORPTION: .05% max. at 25°C.

STABILITY: ±0.1% maximum capacitance drift long term under maximum operating conditions.

TOLERANCES: standard tolerance ±5%. ±10% ±3% ±2% ±1% ±½% also available.

TYPE PJ

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
	100 VDCW		
*1PJ-102J	.001	11/16 x 3/32	2.98
*1PJ-202J	.002	11/16 x 3/32	1.49
1PJ-222J	.0022	11/16 x 3/32	1.49
1PJ-272J	.0027	11/16 x 3/32	1.49
*1PJ-332J	.0033	11/16 x 3/32	1.49
1PJ-392J	.0039	11/16 x 3/32	1.49
*1PJ-472J	.0047	11/16 x 3/32	1.49
*1PJ-502J	.005	11/16 x 3/32	1.49
*1PJ-682J	.0068	11/16 x 3/32	1.49
1PJ-822J	.0082	11/16 x 3/32	1.49
*1PJ-103J	.01	11/16 x 3/32	1.49
1PJ-123J	.012	11/16 x 5/16	1.51
*1PJ-153J	.015	11/16 x 5/16	1.51
*1PJ-203J	.02	11/16 x 5/16	1.53
*1PJ-223J	.022	11/16 x 5/16	1.54
1PJ-273J	.027	7/8 x 5/16	1.56
*1PJ-333J	.033	7/8 x 5/16	1.60
1PJ-393J	.039	7/8 x 3/8	1.63
*1PJ-473J	.047	7/8 x 3/8	1.67
*1PJ-503J	.05	7/8 x 3/8	1.69
*1PJ-683J	.068	7/8 x 13/32	1.83
1PJ-823J	.082	1 x 3/8	1.94
*1PJ-104J	.1	1 x 7/16	2.09
*1PJ-124J	.12	1 x 15/32	2.28
*1PJ-154J	.15	1 1/4 x 7/16	2.54
*1PJ-204J	.2	1 1/4 x 1/2	2.99
*1PJ-224J	.22	1 1/4 x 1/2	3.12
1PJ-274J	.27	1 1/4 x 9/16	3.43
*1PJ-334J	.33	1 5/8 x 17/32	3.82
1PJ-394J	.39	1 5/8 x 9/16	4.20
*1PJ-474J	.47	1 5/8 x 5/8	4.69
*1PJ-504J	.5	1 5/8 x 5/8	4.97

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GREAT NECK, NEW YORK
Branches: Los Angeles 35, Dallas 7

PLASTIC FILM CAPACITORS

TYPES PJ, MT

TYPE PJ

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
200 VDCW			
*2PJ-102J	.001	11/16 x 3/32	2.98
*2PJ-202J	.002	11/16 x 3/32	1.49
2PJ-222J	.0022	11/16 x 3/32	1.49
2PJ-272J	.0027	11/16 x 3/32	1.49
*2PJ-332J	.0033	11/16 x 3/32	1.49
2PJ-392J	.0039	11/16 x 3/32	1.49
2PJ-472J	.0047	11/16 x 3/32	1.49
*2PJ-502J	.005	11/16 x 3/32	1.49
*2PJ-682J	.0068	11/16 x 3/32	1.49
2PJ-822J	.0082	11/16 x 5/16	1.49
*2PJ-103J	.01	11/16 x 5/16	1.49
2PJ-123J	.012	7/8 x 5/16	1.54
2PJ-153J	.015	7/8 x 5/16	1.54
2PJ-203J	.02	7/8 x 3/8	1.60
2PJ-223J	.022	7/8 x 3/8	1.61
2PJ-273J	.027	7/8 x 3/8	1.65
2PJ-333J	.033	1 x 3/8	1.68
2PJ-393J	.039	1 x 3/8	1.72
2PJ-473J	.047	1 x 7/16	1.77
2PJ-503J	.05	1 x 7/16	1.88
2PJ-683J	.068	1 1/4 x 7/16	2.21
2PJ-823J	.082	1 1/4 x 1/2	2.52
2PJ-104J	.1	1 1/4 x 1/2	2.78
2PJ-124J	.12	1 1/4 x 17/32	3.05
2PJ-154J	.15	1 1/4 x 9/16	3.44
2PJ-204J	.2	1 5/8 x 9/16	4.09
2PJ-224J	.22	1 5/8 x 5/8	4.34
2PJ-274J	.27	1 3/4 x 11/16	4.90
2PJ-334J	.33	1 3/4 x 3/4	5.56
400 VDCW			
*4PJ-102J	.001	11/16 x 3/32	2.98
*4PJ-202J	.002	11/16 x 3/32	1.49
4PJ-222J	.0022	11/16 x 3/32	1.49
4PJ-272J	.0027	11/16 x 3/32	1.49
*4PJ-332J	.0033	11/16 x 3/32	1.49
4PJ-392J	.0039	11/16 x 3/32	1.49
*4PJ-472J	.0047	11/16 x 3/32	1.49
*4PJ-502J	.005	11/16 x 3/32	1.49
*4PJ-682J	.0068	11/16 x 5/16	1.53
4PJ-822J	.0082	11/16 x 5/16	1.56
*4PJ-103J	.01	7/8 x 5/16	1.60
*4PJ-153J	.015	7/8 x 11/32	1.68
*4PJ-203J	.02	7/8 x 3/8	1.75
*4PJ-223J	.022	7/8 x 3/8	1.77
4PJ-273J	.027	1 x 3/8	1.84
*4PJ-333J	.033	1 x 13/32	1.92
4PJ-393J	.039	1 x 7/16	2.00
*4PJ-473J	.047	1 1/4 x 7/16	2.10
*4PJ-503J	.05	1 1/4 x 7/16	2.16
4PJ-683J	.068	1 1/4 x 1/2	2.49
4PJ-823J	.082	1 1/4 x 9/16	2.77
*4PJ-104J	.1	1 5/8 x 17/32	3.12
4PJ-124J	.12	1 5/8 x 9/16	3.47
*4PJ-154J	.15	1 5/8 x 5/8	3.99
*4PJ-204J	.2	1 3/4 x 11/16	4.90
4PJ-224J	.22	1 3/4 x 11/16	5.18
4PJ-274J	.27	1 3/4 x 3/4	5.95
600 VDCW			
*6PJ-102J	.001	11/16 x 3/32	2.98
*6PJ-202J	.002	11/16 x 3/32	1.49
6PJ-222J	.0022	11/16 x 3/32	1.49
6PJ-272J	.0027	11/16 x 3/32	1.49
*6PJ-332J	.0033	11/16 x 3/32	1.50
6PJ-392J	.0039	11/16 x 3/32	1.53
6PJ-472J	.0047	11/16 x 5/16	1.56
*6PJ-502J	.005	11/16 x 5/16	1.59
6PJ-682J	.0068	11/16 x 5/16	1.62
6PJ-822J	.0082	7/8 x 5/16	1.66
*6PJ-103J	.01	7/8 x 11/32	1.70
6PJ-153J	.015	7/8 x 3/8	1.81
*6PJ-203J	.02	1 x 3/8	1.92
6PJ-223J	.022	1 x 13/32	1.97
6PJ-273J	.027	1 x 7/16	2.11
6PJ-333J	.033	1 1/4 x 7/16	2.25
6PJ-393J	.039	1 1/4 x 1/2	2.35
6PJ-473J	.047	1 1/4 x 9/16	2.48
*6PJ-503J	.05	1 1/4 x 9/16	2.55
6PJ-683J	.068	1 5/8 x 9/16	3.26
6PJ-823J	.082	1 5/8 x 5/8	3.57
*6PJ-104J	.1	1 3/4 x 11/16	4.03
6PJ-124J	.12	1 3/4 x 3/4	4.52

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
1000 VDCW			
*10PJ-102J	.001	11/16 x 3/32	2.98
10PJ-152J	.0015	11/16 x 3/32	2.98
*10PJ-202J	.002	11/16 x 3/32	1.49
10PJ-222J	.0022	11/16 x 3/32	1.50
10PJ-272J	.0027	11/16 x 3/32	1.52
*10PJ-332J	.0033	11/16 x 5/16	1.55
10PJ-392J	.0039	11/16 x 5/16	1.58
*10PJ-472J	.0047	11/16 x 5/16	1.61
*10PJ-502J	.005	11/16 x 5/16	1.63
10PJ-682J	.0068	7/8 x 5/16	1.68
10PJ-822J	.0082	7/8 x 11/32	1.72
10PJ-103J	.01	7/8 x 3/8	1.78
10PJ-153J	.015	1 x 3/8	1.93
10PJ-203J	.02	1 x 7/16	2.08
10PJ-223J	.022	1 1/4 x 13/32	2.14
10PJ-273J	.027	1 1/4 x 7/16	2.30
10PJ-333J	.033	1 1/4 x 1/2	2.45
10PJ-393J	.039	1 1/4 x 9/16	2.57
10PJ-473J	.047	1 5/8 x 9/16	2.74
10PJ-503J	.05	1 5/8 x 5/8	2.82
10PJ-683J	.068	1 3/4 x 3/4	3.64

HERMETICALLY SEALED MYLAR* DIELECTRIC TYPE MT

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
200 VDCW			
2MT-102J	.001	1 x .235	7.00
2MT-202J	.002	1 x .235	7.00
2MT-222J	.0022	1 x .235	7.00
2MT-272J	.0027	1 x .235	4.66
2MT-332J	.0033	1 x .235	4.66
2MT-392J	.0039	1 x .235	4.66
2MT-472J	.0047	1 x .235	4.66
2MT-502J	.005	1 x .235	4.66
2MT-822J	.0082	1 x .235	3.50
2MT-682J	.0068	1 x .235	3.50
2MT-103J	.01	1 x .235	3.50
2MT-123J	.012	1 x .235	3.50
2MT-153J	.015	1 x .235	3.50
2MT-183J	.018	1 x .235	3.50
2MT-223J	.022	1 x .235	3.50
2MT-273J	.027	1 x .235	3.57
2MT-333J	.033	1 x .312	3.57
2MT-393J	.039	1 x .312	3.64
2MT-473J	.047	1 x .312	3.64
2MT-563J	.056	1 x .312	3.64
2MT-683J	.068	1 x .312	3.71
2MT-823J	.082	1 x .312	3.71
2MT-104J	.1	1 x .400	3.78
2MT-124J	.12	1 x .400	3.85
2MT-154J	.15	1 x .400	3.92
2MT-184J	.18	1 1/8 x .500	3.99
2MT-224J	.22	1 1/8 x .500	4.10
2MT-274J	.27	1 1/8 x .562	4.20
2MT-334J	.33	1 1/8 x .562	4.31
2MT-394J	.39	1 1/16 x .500	4.41
2MT-474J	.47	1 7/16 x .500	4.59
2MT-564J	.56	1 7/16 x .562	4.69
2MT-684J	.68	1 7/16 x .670	4.80
2MT-824J	.82	1 7/16 x .670	4.90
2MT-105J	1.0	1 7/8 x .670	5.04
2MT-125J	1.2	1 7/8 x .750	5.32
2MT-155J	1.5	1 7/8 x .750	5.67
2MT-185J	1.8	1 15/16 x 1.000	6.09
2MT-225J	2.2	1 15/16 x 1.000	6.93

*DuPont Trademark

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
400 VDCW			
4MT-102J	.001	1 x .235	7.00
4MT-202J	.002	1 x .235	7.00
4MT-222J	.0022	1 x .235	7.00
4MT-272J	.0027	1 x .235	4.66
4MT-332J	.0033	1 x .235	4.66
4MT-392J	.0039	1 x .235	4.66
4MT-472J	.0047	1 x .235	4.66
4MT-502J	.005	1 x .235	3.85
4MT-682J	.0068	1 x .235	3.85
4MT-822J	.0082	1 x .235	3.85
4MT-103J	.01	1 x .235	3.85
4MT-123J	.012	1 x .235	3.89
4MT-153J	.015	1 x .312	3.89
4MT-183J	.018	1 x .312	3.92
4MT-223J	.022	1 x .312	3.96
4MT-273J	.027	1 x .312	3.99
4MT-333J	.033	1 x .312	4.03
4MT-393J	.039	1 x .400	4.06
4MT-473J	.047	1 x .400	4.10
4MT-563J	.056	1 x .400	4.13
4MT-683J	.068	1 1/8 x .500	4.17
4MT-823J	.082	1 1/8 x .500	4.20
4MT-104J	.1	1 1/8 x .562	4.27
4MT-124J	.12	1 1/8 x .562	4.34
4MT-154J	.15	1 1/16 x .500	4.41
4MT-184J	.18	1 1/16 x .562	4.48
4MT-224J	.22	1 1/16 x .562	4.62
4MT-274J	.27	1 1/16 x .670	4.73
4MT-334J	.33	1 7/8 x .670	4.83
4MT-394J	.39	1 7/8 x .670	4.97
4MT-474J	.47	1 7/8 x .670	5.14
4MT-564J	.56	1 7/8 x .750	5.39
4MT-684J	.68	1 15/16 x 1.000	5.39
4MT-824J	.82	1 15/16 x 1.000	5.53
4MT-105J	1.0	1 15/16 x 1.000	5.67
600 VDCW			
6MT-102J	.001	1 x .312	7.00
6MT-202J	.002	1 x .312	7.00
6MT-222J	.0022	1 x .312	7.00
6MT-272J	.0027	1 x .312	4.66
6MT-332J	.0033	1 x .312	4.66
6MT-392J	.0039	1 x .312	4.66
6MT-472J	.0047	1 x .312	4.66
6MT-502J	.005	1 x .312	4.31
6MT-682J	.0068	1 x .312	4.31
6MT-822J	.0082	1 x .312	4.31
6MT-103J	.01	1 x .312	4.31
6MT-123J	.012	1 x .312	4.34
6MT-153J	.015	1 x .312	4.38
6MT-183J	.018	1 x .400	4.41
6MT-223J	.022	1 x .400	4.45
6MT-273J	.027	1 x .400	4.48
6MT-333J	.033	1 x .400	4.55
6MT-393J	.039	1 1/8 x .500	4.59
6MT-473J	.047	1 1/8 x .562	4.62
6MT-563J	.056	1 1/8 x .562	4.66
6MT-683J	.068	1 1/8 x .562	4.69
6MT-823J	.082	1 1/16 x .500	4.73
6MT-104J	.1	1 1/16 x .562	4.80
6MT-124J	.12	1 13/16 x .562	4.90
6MT-154J	.15	1 13/16 x .562	4.97
6MT-184J	.18	1 1/16 x .670	5.04
6MT-224J	.22	1 1/8 x .670	5.22
6MT-274J	.27	1 1/16 x .750	5.32
6MT-334J	.33	1 1/8 x .750	5.46
6MT-394J	.39	1 15/16 x 1.000	5.60
6MT-474J	.47	1 15/16 x 1.000	5.81
6MT-564J	.56	1 15/16 x 1.000	5.95

NOTE: Non-standard capacitance values between those listed are also available at no additional cost.

The suffix letter "J" refers to the standard tolerance of ±5%. This letter is changes for different tolerances.

* The starred items are stock items available for immediate delivery.

SIZE REDUCTIONS: If a particular application has critical space limitations, the standard dimensions tabulated above may be reduced appreciably through special monitoring of film thickness.

Net

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ELMENCO CAPACITORS

CM-15, CM-20, CM-30 Mica Capacitor Kits

ARCO CM-15 MINIATURE MICA CAPACITOR KIT #1

THESE MINIATURES FIT INTO THE SMALLEST AREA CAPACITOR SIZE (9/32" x ½" x 3/16")

SPECIAL KIT LIST PRICE

ONLY **$75.00**

FOR EXPERIMENTAL WORK

DON'T GET CAUGHT SHORT!

ALWAYS HAVE THE CORRECT CAPACITY ON HAND!

This Handy Kit consists of 46 most commonly use Capacitors . . . per MIL-C-5 specifications . . . five of eac capacity as listed on page 367 packed in individual tuc boxes, of 5 each properly identified for permanent use.

•

The complete set of capacitors amounts to $89.50 at list prices. You get the entire set *for only* $75.00.

COMPARE THE COST!

THESE KITS CONTAIN FIVE EACH OF THE FOLLOWING ELMENCO MICA CAPACITORS (500 V D C W)

CM20 Cap. mmf.	CM20 Cap. mmf.	CM20 Cap. mmf.	CM20 Cap. mmf.	CM30 Cap. mmf.	CM30 Cap. mmf.
5	39	120	390	1100	3600
10	43	130	430	1200	3900
12	47	150	470	1300	4300
15	51	160	510	1500	4700
18	56	180	560	1600	5100
20	62	200	620	1800	5600
22	68	220	680	2000	6200
24	75	240	750	2200	CM35
27	82	270	820	2400	6800*
30	91	300	910	2700	7500*
33	100	330	1000	3000	8200*
36	110	360		3300	9100*
*300VDCW		*PER MIL-C-5 SPECIFICATIONS*			10000*

MIL-C-5
ARCO SILVERED MICA KIT #3

SPECIAL KIT LIST PRICE

$260

Purchased individually the total list price value of the capacitors contained in this kit would be . . . **$291**

This kit contains the complete range of ELMENCO silvered molded mica capacitors from 5 mmf. to 10,000 mmf. manufactured in accordance with MIL-C-5 specifications. All units are of letters "C", "D" or "E" characteristics as specified and letter "J" (5%) tolerance and are MIL color coded.

MIL-C-5
ARCO REG. FOIL MICA KIT #2

SPECIAL KIT LIST PRICE

$140

Purchased individually the total list price value of the capacitors contained in this kit would be . . . **$158.40**

This kit contains the complete range of EL-MENCO regular foil molded mica capacitors from 5 mmf. to 10,000 mmf. manufactured in accordance with MIL-C-5 specifications. All units are of the letter "B" characteristics and letter "K" (10%) tolerance and are MIL color coded.

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ELMENCO CAPACITORS

DM-15 KIT #10 & 11
DM-15
STOCK PACKAGE

FOR: ENGINEERING LABS • GOVERNMENTAL AGENCIES • EXPERIMENTAL LABS SCHOOLS, ETC.

DUR-MICA the silvered mica capacitor coated with a specially developed plastic coating for extra durability... provides maximum protection at environmental extremes of moisture and temperature.

ARCO DM-15 KIT #10

This handy kit consists of five of each DM-15 capacity as listed. All are 500 VDCW and ±5% tolerance...packed in individual transparent plastic snap boxes, properly identified for ease of handling.

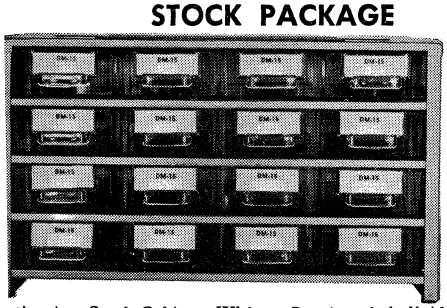
SPECIAL KIT LIST PRICE $95.00

Purchased individually the total list price value of the capacitors contained in this kit would be — **$103.31**

CAP. MMF.	TYPE DESIGNATION	CAP. MMF.	TYPE DESIGNATION
1	DM-15-010†	91	DM-15-910
2	DM-15-020†	100	DM-15-101
3	DM-15-030†	110	DM-15-111
5	DM-15-050†	120	DM-15-121
10	DM-15-100	130	DM-15-131
12	DM-15-120	150	DM-15-151
15	DM-15-150	160	DM-15-161
18	DM-15-180	180	DM-15-181
20	DM-15-200	200	DM-15-201
22	DM-15-220	220	DM-15-221
24	DM-15-240	240	DM-15-241
27	DM-15-270	250	DM-15-251
30	DM-15-300	270	DM-15-271
33	DM-15-330	300	DM-15-301
36	DM-15-360	330	DM-15-331
39	DM-15-390	360	DM-15-361
43	DM-15-430	390	DM-15-391
47	DM-15-470	430*	DM-15-431
50	DM-15-500	470*	DM-15-471
51	DM-15-510	500*	DM-15-501
56	DM-15-560	510*	DM-15-511
62	DM-15-620	560*	DM-15-561
68	DM-15-680	620*	DM-15-621
75	DM-15-750	680*	DM-15-681
82	DM-15-820	750*	DM-15-751
		820*	DM-15-821

* All capacitors marked with * are 300WV.
† Minimum tolerance ±0.5 mmf.

ARCO MINIATURE DM-15 CAPACITOR STOCK PACKAGE



SPECIAL LIST PRICE $596

stinctive Steel Cabinet With
astic Pull-Out Drawers Sup-
ed FREE With DM-15 Pack-
e.

Purchased individually the total list price value of the capacitors contained in this package would be — **$715**

complete stock of DM-15 capacitors (fifty-one items) totaling
0 capacitors; fifty each of the most used values and 25 each
the others. Capacity range is 1-820 mmf., tolerance ±5% or
.5 mmf., whichever is greater.

ARCO DUR-MICA KIT #11

This Kit contains five each of the following listed DUR-MICA capacitors, all 500 VDCW and ±5% tolerance; or ±0.5 mmf., whichever is greater. Packed in individual transparent plastic snap boxes, properly identified for ease of handling.

SPECIAL KIT LIST PRICE $250.00

Purchased individually the total list price value of the capacitors contained in this kit would be — **$286.35**

CAP. MMF.	TYPE DESIGNATION	CAP. MMF.	TYPE DESIGNATION
2	DM15-020M	360	DM19-361J
5	DM15-050K	390	DM19-391J
10	DM15-100J	430	DM19-431J
12	DM15-120J	470	DM19-471J
15	DM15-150J	510	DM19-511J
18	DM15-180J	560	DM19-561J
20	DM15-200J	620	DM19-621J
22	DM15-220J	680	DM20-681J
24	DM15-240J	750	DM20-751J
27	DM15-270J	820	DM20-821J
30	DM15-300J	910	DM20-911J
33	DM15-330J	1000	DM20-102J
36	DM15-360J	1100	DM20-112J
39	DM15-390J	1200	DM20-122J
43	DM15-430J	1300	DM20-132J
47	DM15-470J	1500	DM20-152J
51	DM15-510J	1600	DM20-162J
56	DM15-560J	1800	DM20-182J
62	DM15-620J	2000	DM20-202J
68	DM15-680J	2200	DM20-222J
75	DM15-750J	2400	DM20-242J
82	DM15-820J	2700	DM20-272J
91	DM15-910J	3000	DM20-302J
100	DM15-101J	3300	DM20-332J
110	DM15-111J	3600	DM20-362J
120	DM15-121J	3900	DM20-392J
130	DM15-131J	4300	DM20-432J
150	DM15-151J	4700	DM30-472J
160	DM19-161J	5100	DM30-512J
180	DM19-181J	5600	DM30-562J
200	DM19-201J	6200	DM30-622J
220	DM19-221J	6800	DM30-682J
240	DM19-241J	7500	DM30-752J
270	DM19-271J	8200	DM30-822J
300	DM19-301J	9100	DM30-912J
330	DM19-331J	10000	DM30-103J

Trade Discount Applies To List Prices Only
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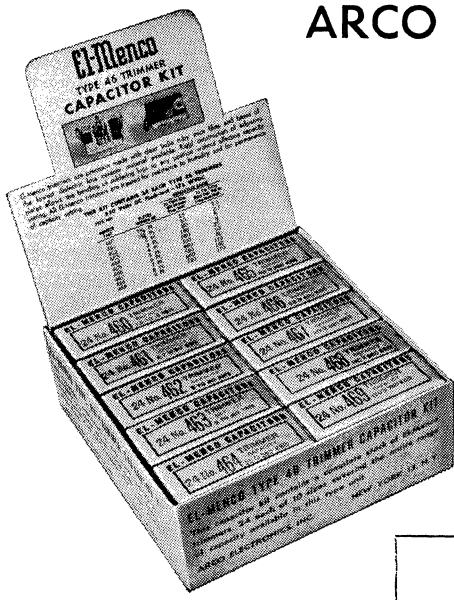
ELMENCO CAPACITORS

TYPES 46 TRIMMER 30 & 30M PADDER KITS

ARCO TYPE 46 TRIMMER KIT #5



This Kit Contains 24 of Each Trimmer Listed Below

TYPE 46W

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE At Tight Cap. Will Be More Than MMF.	GUARANTEED RANGE At A Turns Open Cap. Will Be Less Than MMF.
460	1¼ Pl.	15	1.5
461	1¾ Pl.	30	2.7
462	2 Pl.	80	5
463	3 Pl.	180	9
464	4 Pl.	280	25
465	5 Pl.	380	50
466	6 Pl.	480	80
467	7 Pl.	580	110
468	8 Pl.	680	140
469	9 Pl.	780	170

The total list price for all units included in the kit is $170.40

Yet you may have this complete kit for only

SPECIAL KIT LIST PRICE

$150.00

A complete stock of trimmers and padders is provided in these compact, easily handled, and readily accessible kits. Always have a full line of El-Menco trimmers and padders available for immediate use.

ARCO TYPE 30 PADDER KIT #6

This Kit Contains 12 Each of Padders Listed Below

The total list price for all units included in the kit is $244.20

Yet you may have this complete kit for only

SPECIAL KIT LIST PRICE

$210.00

ARCO TYPE 30M PADDER KIT #6M

This Kit Contains 12 Eac of Padders Listed Below

The total list price for all uni included in the kit is $261.6

Yet you may have this comple kit for only

SPECIAL KIT LIST PRICE

$225.00

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE At 1½ Inch Pounds Cap. Will Be More Than MMF.	GUARANTEED RANGE At 2½ Turns Open Cap. Will Be Less Than MMF.
302	2 Pl.	130	15
303	3 Pl.	340	65
304	4 Pl.	550	100
305	5 Pl.	760	190
306	6 Pl.	970	275
307	7 Pl.	1180	350
308	8 Pl.	1390	450
309	9 Pl.	1600	550
310	10 Pl.	1890	650
311	11 Pl.	2110	780
312	12 Pl.	2330	880
313	13 Pl.	2605	1150
314	14 Pl.	2830	1300
315	15 Pl.	3055	1400

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE At 1½ Inch Pounds Cap. Will Be More Than MMF.	GUARANTEED RANGE At 2½ Turn Open Cap. Will Less Than MM
302-M	2 Pl.	120	15
303-M	3 Pl.	320	65
304-M	4 Pl.	500	100
305-M	5 Pl.	690	180
306-M	6 Pl.	880	265
307-M	7 Pl.	1070	340
308-M	8 Pl.	1260	425
309-M	9 Pl.	1415	525
310-M	10 Pl.	1600	615
311-M	11 Pl.	1785	730
312-M	12 Pl.	1970	800
313-M	13 Pl.	2155	1000
314-M	14 Pl.	2340	1100
315-M	15 Pl.	2525	1200

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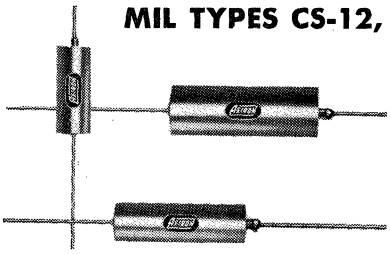
ASTRON
DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

Capacitors

SPECIALISTS IN CAPACITOR MINIATURIZATION

MIL TYPES CS-12, CS-13



ASTRON TYPE TES
SOLID ELECTROLYTE TANTALUM CAPACITORS

The Astron Type TES solid electrolyte tantalum capacitors are sub-miniature metal cased, hermetically sealed, containing only solid materials. The tantalum oxide dielectric endows these capacitors with long shelf life and flat characteristics even at extremes of rated temperatures.

ASTRON TES CAPACITORS ARE RUGGED, RELIABLE UNITS FOR USE IN THE FOLLOWING APPLICATIONS: TRANSISTORIZED EQUIPMENT, COMPUTERS, AIR CRAFT AND MISSILES, NETWORKS AND GENERAL POWER SUPPLIES, PORTABLE EQUIPMENT, AND HEARING AIDS.

TEMPERATURE RANGE:
−80°C to +125°C
With Voltage Derating

NOTES TO STANDARD RATINGS:

1. Standard ratings and tolerances are as shown on the table. Non-standard ratings and tolerances are available on request.
2. For insulating sleeve add M for Mylar* or R for rigid after the TES designation. Example (1) TESM-47-35 for 0.47 mfd 35 volt ±20% tolerance capacitor with Mylar* sleeve. (2) TESR-1M-35-10 for 1 mfd ±10% 35 volt capacitor with rigid sleeve.

CASE CODE	CASE DIMENSIONS — INCHES						WIRE SIZE	
Mil-C-26655 and Astron Size Designations	UNINSULATED D (±.010) x L (±.031)		*MYLAR INSULATING SLEEVE D (±.015) x L (±.031)		RIGID INSULATING SLEEVE D (±.016) x L (±.010)		WIRE LEAD GAUGE	WIRE LEAD DIA.
A	.125	.250	.135	.286	.157	.375	24	.020
B	.175	.438	.185	.474	.204	.562	24	.020
C	.279	.650	.289	.686	.312	.790	22	.025
D	.341	.750	.351	.786	.375	.890	22	.025

6 VDC WORKING, 8 VD SURGE at 85°C

CAP. MFD.	MAX. Rs ‡(ohms)	Case	20% Tolerance	10% Tolerance	MIL Number
.1	798	A	TES-1-6	TES-1-6-10	
.12	664	A		TES-12-6-10	
.15	533	A	TES-15-6	TES-15-6-10	
.18	443	A		TES-18-6-10	
.22	363	A	TES-22-6	TES-22-6-10	
.27	297	A		TES-27-6-10	
.33	242	A	TES-33-6	TES-33-6-10	
.39	205	A		TES-39-6-10	
.47	170	A	TES-47-6	TES-47-6-10	
.56	142	A		TES-56-6-10	
.68	118	A	TES-68-6	TES-68-6-10	
.82	97.3	A		TES-82-6-10	
1.	79.8	A	TES-1M-6	TES-1M-6-10	
1.2	66.4	A		TES-1.2M-6-10	
1.5	53.3	A	TES-1.5M-6	TES-1.5M-6-10	
1.8	44.3	A		TES-1.8M-6-10	
2.2	36.3	A	TES-2.2M-6	TES-2.2M-6-10	
2.7	29.7	A		TES-2.7M-6-10	
3.3	24.2	A	TES-3.3M-6	TES-3.3M-6-10	
3.9	20.5	A		TES-3.9M-6-10	
4.7	17.0	A	TES-4.7M-6	TES-4.7M-6-10	
5.6	14.2	A		TES-5.6M-6-10	CS12AB5R6
6.8	11.8	A	TES-6.8M-6	TES-6.8M-6-10	CS12AB6R8
8.2	9.7	B		TES-8.2M-6-10	
10.	8.0	B	TES-10M-6	TES-10M-6-10	
12.	6.6	B		TES-12M-6-10	
15.	5.3	B	TES-15M-6	TES-15M-6-10	
18.	4.4	B		TES-18M-6-10	
22.	3.6	B	TES-22M-6	TES-22M-6-10	
27.	3.0	B		TES-27M-6-10	
33.	2.4	B	TES-33M-6	TES-33M-6-10	
39.	2.1	B		TES-39M-6-10	
47.	1.7	B	TES-47M-6	TES-47M-6-10	CS12AB470
56.	1.4	B		TES-56M-6-10	CS12AB560
60.	1.3	B	TES-60M-6		
68.	1.2	C	TES-68M-6	TES-68M-6-10	
82.	.97	C		TES-82M-6-10	
100.	.80	C	TES-100M-6	TES-100M-6-10	
120.	.66	C		TES-120M-6-10	
150.	.53	D	TES-150M-6	TES-150M-6-10	CS12AB151
180.	.44	C	TES-180M-6	TES-180M-6-10	CS12AB181
220.	.36	D	TES-220M-6	TES-220M-6-10	
270.	.30	D		TES-270M-6-10	CS12AB271
330.	.24	D	TES-330M-6	TES-330M-6-10	CS12AB331

'o specify ±5%, replace -10 in Astron Catalog number with -5
's is equivalent series resistance at 6% dissipation factor
Trade Mark

10 VDC WORKING, 13 VDC SURGE at 85°C

CAP. MFD.	MAX. Rs ‡(ohms)	Case	20% Tolerance	10% Tolerance	MIL Number
.1	798	A	TES-1-10	TES-1-10-10	
.12	664	A		TES-12-10-10	
.15	533	A	TES-15-10	TES-15-10-10	
.18	443	A		TES-18-10-10	
.22	363	A	TES-22-10	TES-22-10-10	
.27	297	A		TES-27-10-10	
.33	242	A	TES-33-10	TES-33-10-10	
.39	205	A		TES-39-10-10	
.47	170	A	TES-47-10	TES-47-10-10	
.56	142	A		TES-56-10-10	
.68	118	A	TES-68-10	TES-68-10-10	
.82	97.3	A		TES-82-10-10	
1.	79.8	A	TES-1M-10	TES-1M-10-10	
1.2	66.4	A		TES-1.2M-10-10	
1.5	53.3	A	TES-1.5M-10	TES-1.5M-10-10	
1.8	44.3	A		TES-1.8M-10-10	
2.2	36.3	A	TES-2.2M-10	TES-2.2M-10-10	
2.7	29.7	A		TES-2.7M-10-10	
3.3	24.2	A	TES-3.3M-10	TES-3.3M-10-10	
3.9	20.5	A		TES-3.9M-10-10	CS12AC3R9
4.7	17.0	A	TES-4.7M-10	TES-4.7M-10-10	CS12AC4R7
5.6	14.2	B		TES-5.6M-10-10	
6.8	11.8	B	TES-6.8M-10	TES-6.8M-10-10	
8.2	9.7	B		TES-8.2M-10-10	
10.	8.0	B	TES-10M-10	TES-10M-10-10	
12.	6.6	B		TES-12M-10-10	
15.	5.3	B	TES-15M-10	TES-15M-10-10	
18.	4.4	B		TES-18M-10-10	
22.	3.6	B	TES-22M-10	TES-22M-10-10	
27.	3.0	B		TES-27M-10-10	CS12AC270
33.	2.4	B	TES-33M-10	TES-33M-10-10	CS12AC330
39.	2.1	B		TES-39M-10-10	CS12AC390
40.	2.0	B	TES-40M-10		
47.	1.7	C	TES-47M-10	TES-47M-10-10	
56.	1.4	C		TES-56M-10-10	
68.	1.2	C	TES-68M-10	TES-68M-10-10	
82.	.97	C		TES-82M-10-10	CS12AC820
100.	.80	C	TES-100M-10	TES-100M-10-10	CS12AC101
120.	.66	C	TES-120M-10	TES-120M-10-10	CS12AC121
150.	.53	D	TES-150M-10	TES-150M-10-10	
180.	.44	D		TES-180M-10-10	CS12AC181
220.	.36	D	TES-220M-10	TES-220M-10-10	CS12AC221

Also available in "B" temperature characteristic. Example: CS12BB5R6

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ASTRON

DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

Capacitors

SPECIALISTS IN CAPACITOR MINIATURIZATION

ASTRON TYPE TES

MIL TYPES CS-12, CS-13

SOLID ELECTROLYTE TANTALUM CAPACITORS

TEMPERATURE RANGE
−80°C to +125°C

With Voltage Derating

15 VDC WORKING
20 VDC SURGE at 85°C

Cap. Mfd.	Max. Rs ‡(ohms)	CASE	CATALOG NUMBER† 20% Tolerance	10% Tolerance	MIL Number
.1	798	A	TES-1-15	TES-1-15-10	
.12	664	A		TES-12-15-10	
.15	533	A	TES-15-15	TES-15-15-10	
.18	443	A		TES-18-15-10	
.22	363	A	TES-22-15	TES-22-15-10	
.27	297	A		TES-27-15-10	
.33	242	A	TES-33-15	TES-33-15-10	
.39	205	A		TES-39-15-10	
.47	170	A	TES-47-15	TES-47-15-10	
.56	142	A		TES-56-15-10	
.68	118	A	TES-68-15	TES-68-15-10	
.82	97.3	A		TES-82-15-10	
1.	79.8	A	TES-1M-15	TES-1M-15-10	
1.2	66.4	A		TES-1.2M-15-10	
1.5	53.3	A	TES-1.5M-15	TES-1.5M-15-10	
1.8	44.3	A		TES-1.8M-15-10	
2.2	36.3	A	TES-2.2M-15	TES-2.2M-15-10	
2.7	29.7	A		TES-2.7M-15-10	CS12AD2R7
3.3	24.2	A	TES-3.3M-15	TES-3.3M-15-10	CS12AD3R3
3.9	20.5	B		TES-3.9M-15-10	
4.7	17.0	B	TES-4.7M-15	TES-4.7M-15-10	
5.6	14.2	B		TES-5.6M-15-10	
6.8	11.8	B	TES-6.8M-15	TES-6.8M-15-10	
8.2	9.7	B		TES-8.2M-15-10	
10.	8.0	B	TES-10M-15	TES-10M-15-10	
12.	6.6	B		TES-12M-15-10	
15.	5.3	B	TES-15M-15	TES-15M-15-10	
18.	4.4	B		TES-18M-15-10	CS12AD180
22.	3.6	B	TES-22M-15	TES-22M-15-10	CS12AD220
27.	3.0	C		TES-27M-15-10	
33.	2.4	C	TES-33M-15	TES-33M-15-10	
39.	2.1	C		TES-39M-15-10	
47.	1.7	C	TES-47M-15	TES-47M-15-10	
56.	1.4	C		TES-56M-15-10	CS12AD560
68.	1.2	C	TES-68M-15	TES-68M-15-10	CS12AD680
82.	.97	D		TES-82M-15-10	
100.	.80	D	TES-100M-15	TES-100M-15-10	
120.	.66	D		TES-120M-15-10	CS12AD121
150.	.53	D	TES-150M-15	TES-150M-15-10	CS12AD151

20 VDC WORKING
26 VDC SURGE at 85°C

Cap. Mfd.	Max. Rs ‡(ohms)	CASE	CATALOG NUMBER† 20% Tolerance	10% Tolerance	MIL Number
.0022	36,300	A	TES-0022-20	TES-0022-20-10	
.0027	29,700	A		TES-0027-20-10	
.0033	24,200	A	TES-0033-20	TES-0033-20-10	
.0039	20,500	A		TES-0039-20-10	
.0047	17,000	A	TES-0047-20	TES-0047-20-10	
.0056	14,200	A		TES-0056-20-10	
.0068	11,800	A	TES-0068-20	TES-0068-20-10	
.0082	9,730	A		TES-0082-20-10	
.01	7,980	A	TES-01-20	TES-01-20-10	
.012	6,640	A		TES-012-20-10	
.015	5,330	A	TES-015-20	TES-015-20-10	
.018	4,430	A		TES-018-20-10	
.022	3,630	A	TES-022-20	TES-022-20-10	
.027	2,970	A		TES-027-20-10	
.033	2,420	A	TES-033-20	TES-033-20-10	
.039	2,050	A		TES-039-20-10	
.047	1,700	A	TES-047-20	TES-047-20-10	
.056	1,420	A		TES-056-20-10	
.068	1,180	A	TES-068-20	TES-068-20-10	
.082	973	A		TES-082-20-10	
.1	798	A	TES-1-20	TES-1-20-10	
.12	664	A		TES-12-20-10	
.15	533	A	TES-15-20	TES-15-20-10	
.18	443	A		TES-18-20-10	
.22	363	A	TES-22-20	TES-22-20-10	
.27	297	A		TES-27-20-10	
.33	242	A	TES-33-20	TES-33-20-10	
.39	205	A		TES-39-20-10	
.47	170	A	TES-47-20	TES-47-20-10	
.56	142	A		TES-56-20-10	
.68	118	A	TES-68-20	TES-68-20-10	
.82	97.3	A		TES-82-20-10	
1.	79.8	A	TES-1M-20	TES-1M-20-10	
1.2	66.4	A		TES-1.2M-20-10	CS12AE1R2
1.5	53.3	A	TES-1.5M-20	TES-1.5M-20-10	CS12AE1R5
1.8	44.3	A		TES-1.8M-20-10	CS12AE1R8
2.2	36.3	A	TES-2.2M-20	TES-2.2M-20-10	CS12AE2R2
2.7	29.7	B		TES-2.7M-20-10	
3.3	24.2	B	TES-3.3M-20	TES-3.3M-20-10	
3.9	20.5	B		TES-3.9M-20-10	
4.7	17.0	B	TES-4.7M-20	TES-4.7M-20-10	
5.6	14.2	B		TES-5.6M-20-10	
6.8	11.8	B	TES-6.8M-20	TES-6.8M-20-10	
8.2	9.7	B		TES-8.2M-20-10	CS12AE8R2
10.	8.0	B	TES-10M-20	TES-10M-20-10	CS12AE100
12.	6.6	B		TES-12M-20-10	CS12AE120
15.	5.3	B	TES-15M-20	TES-15M-20-10	CS12AE150
18.	4.4	C		TES-18M-20-10	
22.	3.6	C	TES-22M-20	TES-22M-20-10	
27.	3.0	C		TES-27M-20-10	CS12AE270
33.	2.4	C	TES-33M-20	TES-33M-20-10	CS12AE330
39.	2.1	C		TES-39M-20-10	CS12AE390
47.	1.7	C	TES-47M-20	TES-47M-20-10	CS12AE470
56.	1.4	D		TES-56M-20-10	CS12AE560
68.	1.2	D	TES-68M-20	TES-68M-20-10	CS12AE680
82.	.97	D		TES-82M-20-10	CS12AE820
100.	.80	D	TES-100M-20	TES-100M-20-10	CS12AE101

35 VDC WORKING
46 VDC SURGE at 85°C

Cap. Mfd.	Max. Rs ‡(ohms)	CASE	CATALOG NUMBER† 20% Tolerance	10% Tolerance	MIL Number
.0022	36,300	A	TES-0022-35	TES-0022-35-10	
.0027	29,700	A		TES-0027-35-10	
.0033	24,200	A	TES-0033-35	TES-0033-35-10	
.0039	20,500	A		TES-0039-35-10	
.0047	17,000	A	TES-0047-35	TES-0047-35-10	
.0056	14,200	A		TES-0056-35-10	
.0068	11,800	A	TES-0068-35	TES-0068-35-10	
.0082	9,730	A		TES-0082-35-10	
.01	7,980	A	TES-01-35	TES-01-35-10	
.012	6,640	A		TES-012-35-10	
.015	5,330	A	TES-015-35	TES-015-35-10	
.018	4,430	A		TES-018-35-10	
.022	3,630	A	TES-022-35	TES-022-35-10	
.027	2,970	A		TES-027-35-10	
.033	2,420	A	TES-033-35	TES-033-35-10	
.039	2,050	A		TES-039-35-10	
.047	1,700	A	TES-047-35	TES-047-35-10	
.056	1,420	A		TES-056-35-10	
.068	1,180	A	TES-068-35	TES-068-35-10	
.082	973	A		TES-082-35-10	
.1	798	A	TES-1-35	TES-1-35-10	
.12	664	A		TES-12-35-10	
.15	533	A	TES-15-35	TES-15-35-10	
.18	443	A		TES-18-35-10	
.22	363	A	TES-22-35	TES-22-35-10	
.27	297	A		TES-27-35-10	
.33	242	A	TES-33-35	TES-33-35-10	CS12AFR3
.39	205	A		TES-39-35-10	CS12AFR3
.47	170	A	TES-47-35	TES-47-35-10	CS12AFR4
.56	142	A		TES-56-35-10	CS12AFR5
.68	118	A	TES-68-35	TES-68-35-10	CS12AFR6
.82	97.3	A		TES-82-35-10	CS12AFR8
1.	79.8	A	TES-1M-35	TES-1M-35-10	CS12AF01
1.2	66.4	B		TES-1.2M-35-10	CS12AF1R
1.5	53.3	B	TES-1.5M-35	TES-1.5M-35-10	CS12AF1R
1.8	44.3	B		TES-1.8M-35-10	CS12AF1R
2.2	36.3	B	TES-2.2M-35	TES-2.2M-35-10	CS12AF2R
2.7	29.7	B		TES-2.7M-35-10	CS12AF2R
3.3	24.2	B	TES-3.3M-35	TES-3.3M-35-10	CS12AF3R
3.9	20.5	B		TES-3.9M-35-10	CS12AF3R
4.7	17.0	B	TES-4.7M-35	TES-4.7M-35-10	CS12AR4R
5.6	14.2	B		TES-5.6M-35-10	CS12AF5R
6.8	11.8	B	TES-6.8M-35	TES-6.8M-35-10	CS12AF6R
8.2	9.7	C		TES-8.2M-35-10	CS12AF8R
10.	8.0	C	TES-10M-35	TES-10M-35-10	CS12AF1C
12.	6.6	C		TES-12M-35-10	CS12AF12
15.	5.3	C	TES-15M-35	TES-15M-35-10	CS12AF15
18.	4.4	C		TES-18M-35-10	CS12AF18
22.	3.6	C	TES-22M-35	TES-22M-35-10	CS12AF22
27.	3.0	D		TES-27M-35-10	CS12AF27
33.	2.4	D	TES-33M-35	TES-33M-35-10	CS12AF33
39.	2.1	D		TES-39M-35-10	CS12AF39
47.	1.7	D	TES-47M-35	TES-47M-35-10	CS12AF47

† To Specify ±5%, replace -10 in Astron Catalog number with -5.
‡ Rs is equivalent series resistance at 6% dissipation factor.
* Trade Mark
Also available in "B" temperature characteristic. Example: CS12BD2R7.

© U.C.P., Inc.

ASTRON

DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

Capacitors

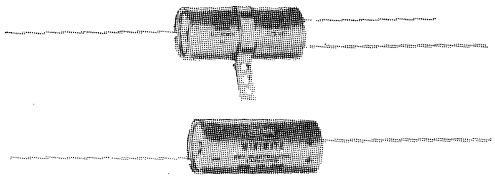
SPECIALISTS IN CAPACITOR MINIATURIZATION

ASTRON MINIMITE® TYPE MM

Miniature Metal-Cased Tubular ELECTROLYTIC CAPACITORS

Temperature Range −30°C to +85°C

ASTRON "SM"* Safety Margin Construction



- Hermetically sealed aluminum-cased tubulars. Small and light. Ideal for under-chassis mounting in compact, tight assemblies.
- Designed to withstand high surge voltages and high ripple currents. Stable capacitance characteristics. Long service life.
- Exceptionally low leakage. Terminal tab connections provide permanent low-resistance contact for life of the unit.
- Outer insulating tube. Duals have centered mounting strap, and 3 leads insulated (common negative).

SINGLE MINIMITE (2 Leads)

Cat. No.	Cap. Mf.	WVDC	†Dia. x L.	Net Price
MM-50-3	50	3	½ x 1 1/16	.57
MM-500-3	500	3	⅝ x 1 1/16	.93
MM-50-6	50	6	½ x 1 1/16	.57
MM-100-6	100	6	½ x 1 1/16	.72
MM-500-6	500	6	⅝ x 1⅜	.93
MM-1000-6	1000	6	¾ x 1⅝	1.14
MM-100-10	100	10	½ x 1 1/16	.75
MM-100-15	100	15	½ x 1 1/16	.75
MM-250-15	250	15	⅝ x 1⅜	.75
MM-500-15	500	15	⅝ x 1⅝	1.05
MM-1000-15	1000	15	⅞ x 1⅝	1.38
MM-10-25	10	25	½ x 1 1/16	.60
MM-25-25	25	25	½ x 1 1/16	.60
MM-50-25	50	25	½ x 1 1/16	.66
MM-100-25	100	25	⅝ x 1 1/16	.81
MM-250-25	250	25	¾ x 1⅝	1.02
MM-500-25	500	25	⅞ x 1⅝	1.44
MM-2-50	2	50	½ x 1 1/16	.54
MM-4-50	4	50	½ x 1 1/16	.57
MM-10-50	10	50	½ x 1 1/16	.60
MM-25-50	25	50	½ x 1 1/16	.60
MM-50-50	50	50	⅝ x 1 1/16	.72
MM-100-50	100	50	⅝ x 1⅝	.84
MM-4-150	4	150	½ x 1 1/16	.60
MM-8-150	8	150	½ x 1 1/16	.63
MM-10-150	10	150	⅝ x 1 1/16	.69
MM-16-150	16	150	⅝ x 1 1/16	.69
MM-20-150	20	150	⅝ x 1⅜	.72
MM-30-150	30	150	⅝ x 1⅝	.78
MM-40-150	40	150	¾ x 1⅜	.81
MM-50-150	50	150	¾ x 1⅝	.84
MM-80-150	80	150	⅞ x 1⅝	.96
MM-100-150	100	150	⅞ x 1¾	1.05
MM-150-150	150	150	1 x 2 1/16	1.14
MM-200-150	200	150	1 x 3	1.23
MM-8-250	8	250	⅝ x 1 1/16	.69
MM-16-250	16	250	⅝ x 1⅝	.78
MM-20-250	20	250	¾ x 1⅜	.81

(Cont.) SINGLE MINIMITE (2 Leads)

Cat. No.	Cap. Mf.	WVDC	†Dia. x L.	Net Price
MM-40-250	40	250	⅞ x 1⅝	.93
MM-8-350	8	350	⅝ x 1⅜	.72
MM-10-350	10	350	⅝ x 1⅝	.75
MM-20-350	20	350	¾ x 1⅝	.87
MM-4-450	4	450	⅝ x 1 1/16	.69
MM-8-450	8	450	⅝ x 1⅝	.75
MM-10-450	10	450	¾ x 1⅜	.78
MM-12-450	12	450	¾ x 1⅝	.81
MM-16-450	16	450	⅞ x 1⅝	.84
MM-20-450	20	450	⅞ x 1⅝	.93
MM-30-450	30	450	1 x 1⅝	1.02
MM-40-450	40	450	1 x 2 1/16	1.08
MM-50-450	50	450	1 x 2⅜	1.23
MM-60-450	60	450	1 x 3	1.38
MM-80-450	80	450	1⅛ x 3	1.68
MM-8-500	8	500	¾ x 1⅝	.78
MM-16-500	16	500	⅞ x 2 1/16	.90
MM-20-500	20	500	⅞ x 2 1/16	.96

‡DUAL MINIMITE (3 Leads, Common Negative)

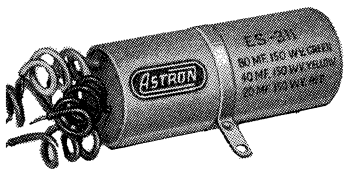
MM-2x20-150	20+20	150	¾ x 1⅜	.93
MM-2x30-150	30+30	150	⅞ x 1⅝	1.08
MM-2x40-150	40+40	150	⅞ x 1⅝	1.11
MM-5030-150	50+30	150	⅞ x 1⅝	1.17
MM-2x50-150	50+50	150	⅞ x 2 1/16	1.06
MM-8040-150	80+40	150	⅞ x 2 1/16	1.32
MM-2x8-450	8+8	450	⅞ x 1⅝	1.02
MM-2x10-450	10+10	450	⅞ x 1¾	1.11
MM-168-450	16+8	450	1 x 1⅝	1.17
MM-2x16-450	16+16	450	1 x 2 1/16	1.35
MM-2x20-450	20+20	450	1 x 2⅜	1.50
MM-2x40-450	40+40	450	1⅛ x 3	2.04

†Dimensions are for metal tubes. Add 1/16" to diameter and ⅛" to length for dimensions over cardboard insulating tubes.
‡Supplied with radial mounting strap.
*TRADE MARK

ASTRON TYPE ES

Cardboard-Cased ELECTROLYTICS IN NEW Miniaturized SIZES

Temperature Range −30°C to +85°C



- **Introducing the smallest sizes available in standard cardboard-cased Electrolytic ratings**

REAL SPACE SAVERS

- Dual and triple-section units. Can be used in place of costlier metal-can types of equal rating in television, radio, radio-phonos and other equipment. 85°C operation.
- Sections wrapped in plastic film. Lasting protection from moisture, humidity, severest climatic conditions. High-melting-point wax fill.
- Centered radial mounting strap. Plastic insulated wire leads, 6" long. Color coding on tubes.
- Overall wax coating for added protection against moisture and humidity.

DUAL UNITS (Common Negative)

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Net Price
ESD-9901	10+10/50	⅝ x 1½	.84
ESD-9902	18+ 8/150	⅝ x 1½	.87
ESD-9510	20+20/150	¾ x 1½	.99
ESD-9903	30+20/150	¾ x 1¾	1.02
ESD-9666	30+30/150	¾ x 1¾	1.08
ESD-9904	40+20/150	¾ x 1¾	1.05
ESD-9905	40+40/150	¾ x 2	1.11
ESD-8935	50+30/150	¾ x 2	1.17
ESD-9511	50+50/150	⅞ x 2	1.26
ESD-9906	80+40/150	⅞ x 2	1.35

TRIPLE UNITS (Common Negative)

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Net Price
EST-9862	20+20+20/150	¾ x 2	1.32
EST-9907	40+20+20/150	⅞ x 2	1.35
EST-9512	40+30+20/150	⅞ x 2	1.41
EST-9851	40+40+20/150	⅞ x 2	1.41
EST-9816	40+40+40/150	⅞ x 2	1.47
EST-9521	60+40+20/150	⅞ x 2	1.44
EST-9528	80+40+20/150	1 x 2	1.50
EST-9908	40+10/150+20/25	¾ x 2	1.17
EST-9795	40+30/150+20/25	⅞ x 2	1.38
EST-9909	40+40/150+40/25	⅞ x 2	1.44
EST-9910	50+30/150+100/25	⅞ x 2	1.50
EST-9911	50+30/150+200/10	⅞ x 2	1.53

Net

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ASTRON
DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

Capacitors

SPECIALISTS IN CAPACITOR MINIATURIZATION

ASTRON TYPE EY

TWIST-PRONG ELECTROLYTICS

"SM"* Safety Margin Construction

TEMPERATURE RANGE
−30°C to +85°C

- Widest choice of singles, and dual, triple and quadruple capacitance voltage combinations in smallest practical aluminum can sizes.
- Ideal for replacement in television, radio and other high quality electronic equipment where high ripple and high surge voltages are encountered.
- Hermetically sealed. Designed for 85°C. operation.
- Quick, easy, firm mounting through chassis slots or slotted plates for insulated or grounded connection. Mounting prong ring serves as common negative terminal.
- Terminal coding clearly stamped on container.
- Individually packaged for the service trade, including metal and phenolic mounting plates.

SINGLE UNITS

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Net Price
EYS-90	2000/6	1⅜x2	1.53
EYS-100	1000/15	1 x3	1.53
EYS-105	2000/15	1⅜x3	2.07
EYS-108	3000/15	1⅜x3	2.09
EYS-115	100/25	1 x2	.96
EYS-120	500/25	1 x3	1.53
EYS-125	1000/25	1⅜x3	2.13
EYS-130	500/50	1⅜x2½	1.59
EYS-131	1000/50	1⅜x3	2.25
EYS-133	1500/50	1⅜x4	2.25
EYS-135	50/150	1 x2	.99
EYS-140	80/150	1 x2	1.11
EYS-145	100/150	1 x2	1.20
EYS-150	120/150	1 x2½	1.26
EYS-151	120/150	1⅜x2	1.26
EYS-155	140/150	1 x3	1.29
EYS-160	150/150	1 x3	1.29
EYS-161	200/150	1⅜x2½	1.47
EYS-162	300/150	1⅜x3	1.68
EYS-165	15/250	1 x2	.93
EYS-170	30/250	1 x2	1.02
EYS-175	40/250	1 x2	1.08
EYS-180	60/250	1 x2½	1.23
EYS-185	80/250	1 x3	1.29
EYS-186	100/250	1 x2½	1.61
EYS-190	150/250	1⅜x2½	1.86
EYS-1901	200/250	1⅜x3	2.38
EYS-1902	80/300	1 x3	1.53
EYS-191	100/300	1⅜x2½	1.73
EYS-193	150/300	1⅜x3	2.10
EYS-195	30/350	1 x2	1.14
EYS-200	40/350	1 x2½	1.20
EYS-205	50/350	1 x3	1.26
EYS-215	80/350	1⅜x2½	1.71
EYS-220	125/350	1⅜x3	2.19
EYS-222	150/350	1⅜x3½	2.37
EYS-225	80/400	1⅜x2½	1.77
EYS-230	10/450	1 x2	.93
EYS-235	20/450	1 x2	1.05
EYS-240	30/450	1 x2½	1.17
EYS-245	40/450	1 x3	1.23
EYS-246	50/450	1 x3½	1.41
EYS-247	60/450	1⅜x2½	1.55
EYS-250	80/450	1⅜x3	1.83
EYS-251	100/450	1⅜x3	2.07
EYS-253	125/450	1⅜x4	2.55
EYS-255	30/475	1 x3	1.20
EYS-260	40/475	1⅜x2	1.50
EYS-266	10/500	1 x2	.95
EYS-267	20/500	1 x2½	1.11
EYS-268	30/500	1 x3	1.20

*Trade Mark

SINGLE UNITS (Cont.)

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Net Price
EYS-269	40/500	1 x3½	1.50
EYS-270	80/500	1⅜x3½	1.91
EYS-271	90/500	1⅜x3½	.96

DUAL UNITS

EYD-500	1000-1000/15	1⅜x3	2.64
EYD-505	150-50/25	1 x2	1.05
EYD-506	50-50/50	1 x2	1.02
EYD-507	100-25/50	1 x2	1.11
EYD-508	20-20/150	1 x2	1.02
EYD-510	30-30/150	1 x2	1.05
EYD-511	40-20/150	1 x2	1.08
EYD-512	40-30/150	1 x2	1.12
EYD-513	40-40/150	1 x2	1.14
EYD-514	50-30/150	1 x2	1.20
EYD-515	50-50/150	1 x2½	1.17
EYD-5151	60-60/150	1 x2½	1.42
EYD-5152	75-75/150	1 x3	1.56
EYD-5153	80-40/150	1 x2½	1.38
EYD-5154	80-80/150	1⅜x2	1.60
EYD-516	125-100/150	1⅜x2½	2.10
EYD-517	200-5/150	1⅜x2½	1.65
EYD-520	200-200/150	1⅜x3½	2.40
EYD-525	20-20/250	1 x2	1.14
EYD-530	40-40/250	1 x2½	1.50
EYD-532	150-150/250	1⅜x4	3.10
EYD-533	200-200/250	1⅜x4½	3.66
EYD-540	80-80/300	1⅜x3½	2.43
EYD-545	120-20/300	1⅜x3	2.28
EYD-547	120-40/300	1⅜x3½	2.61
EYD-550	15-15/350	1 x2	1.35
EYD-555	20-20/350	1 x2½	1.41
EYD-556	30-30/350	1 x3	1.74
EYD-557	50-30/350	1⅜x2½	1.90
EYD-558	80-20/350	1⅜x2½	2.10
EYD-559	80-40/350	1⅜x3	2.38
EYD-560	80-80/350	1⅜x3½	2.82
EYD-5601	90-40/350	1⅜x3	2.58
EYD-561	100-100/350	1⅜x4	3.70
EYD-562	160-10/350	1⅜x3½	2.58
EYD-563	40-10/400	1⅜x2½	1.50
EYD-5631	80-60/400	1⅜x3½	2.92
EYD-564	5-5/450	1 x2	.96
EYD-565	10-10/450	1 x2	1.14
EYD-575	20-20/450	1 x3	1.53
EYD-576	30-10/450	1 x3	1.50
EYD-580	30-30/450	1⅜x2½	1.83
EYD-581	40-20/450	1⅜x2½	1.80
EYD-585	40-40/450	1⅜x3	2.07
EYD-586	50-50/450	1⅜x3	2.32
EYD-587	60-20/450	1⅜x3	2.14
EYD-588	60-40/450	1⅜x3	2.37

DUAL UNITS (Cont.)

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Net Price
EYD-590	80-10/450	1⅜x3	2.16
EYD-592	80-20/450	1⅜x3	2.34
EYD-600	80-40/450	1⅜x4	2.61
EYD-601	100-40/450	1⅜x4	2.92
EYD-602	15-15/475	1 x2½	1.42
EYD-603	30-10/475	1⅜x2	1.56
EYD-604	40-10/475	1⅜x2½	1.86
EYD-605	40-40/475	1⅜x3½	2.58
EYD-6051	80-50/475	1⅜x4	3.12
EYD-606	10-10/500	1 x2½	1.17
EYD-610	20-20/500	1⅜x2½	1.77
EYD-611	30-10/500	1⅜x2½	1.58
EYD-615	40-40/500	1⅜x4	2.64
EYD-616	60-40/500	1⅜x3½	2.70
EYD-617	100/400 30/50	1⅜x2½	1.88
EYD-620	250/10 1000/6	1⅜x2	1.72
EYD-621	50/150 500/5	1 x2½	1.44
EYD-622	150/150 100/25	1⅜x2½	1.66
EYD-623	100/250 150/50	1⅜x3	2.12
EYD-624	35/300 500/6	1 x2½	1.66
EYD-625	20/350 30/250	1 x2½	1.32
EYD-630	60/350 80/250	1⅜x3	2.08
EYD-633	80/350 100/50	1⅜x3	2.32
EYD-6331	35/400 100/50	1 x3	1.56
EYD-634	10/450 20/25	1 x2	1.08
EYD-635	20/450 20/25	1 x2½	1.26
EYD-640	20/450 100/100	1⅜x2½	1.56
EYD-644	20/450 50/250	1 x3	1.68
EYD-645	20/450 80/350	1⅜x3	2.16
EYD-650	30/450 40/150	1⅜x2	1.56
EYD-651	30/450 200/150	1⅜x3	2.16
EYD-655	40/450 20/25	1 x3½	1.44
EYD-660	40/450 10/350	1⅜x2½	1.56
EYD-661	50/450 100/50	1⅜x2½	1.80
EYD-665	80/450 50/50	1⅜x3	2.16
EYD-666	80/450 100/50	1⅜x3½	2.16
EYD-670	20/475 100/300	1⅜x3½	2.16
EYD-671	20/475 100/400	1⅜x4	2.64
EYD-675	40/500 50/200	1⅜x3½	2.16

TRIPLE UNITS

EYT-999	20-20-20/25	1 x2	1.68
EYT-1000	40-40-40/25	1 x2	1.68
EYT-1001	20-20-20/150	1 x2	1.68
EYT-1005	40-20-20/150	1 x2	1.68
EYT-1007	40-30-20/150	1 x2	1.68
EYT-1010	40-40-40/150	1 x2½	1.68
EYT-1012	50-40-10/150	1 x2½	1.68
EYT-1015	50-50-50/150	1 x3	1.68
EYT-1017	70-15-15/150	1 x2½	1.68
EYT-1018	80-40-20/150	1 x3	1.68
EYT-1019	120-80-40/150	1⅜x2½	2.16
EYT-10191	120-120-40/150	1⅜x3	2.16
EYT-10192	200-100-60/150	1⅜x3½	2.16
EYT-10193	200-150-150/150	1⅜x4	4.32
EYT-10194	20-20-20/250	1 x2	1.68
EYT-1020	40-20-10/250	1 x2½	1.68
EYT-1021	40-20-20/250	1 x2½	1.68
EYT-1022	80-80-60/250	1⅜x3½	2.16
EYT-1023	60-20-10/300	1⅜x2	2.16
EYT-1024	80-40-40/300	1⅜x3	2.16
EYT-10241	120-50-40/300	1⅜x4	3.24
EYT-10242	20-20-10/350	1 x2½	1.68
EYT-10243	30-20-10/350	1 x3	1.68
EYT-1025	60-40-20/350	1⅜x3	2.16
EYT-1026	60-50-50/350	1⅜x3½	2.16
EYT-10261	80-60-60/350	1⅜x4	2.64
EYT-10262	90-40-20/350	1⅜x3½	2.16

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Net

ASTRON

DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

Capacitors

SPECIALISTS IN CAPACITOR MINIATURIZATION

ASTRON TYPE EY Twist-Prong Electrolytics *(Con't.)*

TRIPLE UNITS (Cont.)

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Net Price
EYT-10263	100-100-10/350	1⅜x4	3.30
EYT-1027	40-40-20/400	1⅜x3	2.25
EYT-1028	30-50-4/400	1⅜x2½	2.31
EYT-1029	80-20-10/400	1⅜x3	2.58
EYT-10291	90-10-5/400	1⅜x3	2.64
EYT-1030	10-10-10/450	1 x3	1.56
EYT-10301	15-15-15/450	1 x3	1.86
EYT-1035	20-10-10/450	1 x3	1.77
EYT-1040	20-20-20/450	1⅜x3	2.16
EYT-1041	30-20-20/450	1⅜x3	2.31
EYT-1045	30-30-30/450	1⅜x3½	2.61
EYT-1046	40-10-10/450	1⅜x2½	2.16
EYT-1047	40-30-20/450	1⅜x3	2.58
EYT-1050	40-40-10/450	1⅜x3½	2.49
EYT-1051	40-40-20/450	1⅜x3½	2.68
EYT-1055	40-40-40/450	1⅜x4	2.94
EYT-1056	50-40-30/450	1⅜x3½	2.94
EYT-1057	60-20-20/450	1⅜x3½	2.76
EYT-1058	60-40-20/450	1⅜x3½	3.00
EYT-1060	60-30-10/450	1⅜x3½	2.70
EYT-1065	80-40-20/450	1⅜x4½	3.24
EYT-1070	10-10-10/475	1 x3	1.62
EYT-1075	30-30-20/475	1⅜x3½	2.64
EYT-1078	40-10-10/475	1⅜x3½	2.34
EYT-10781	40-30-10/475	1⅜x3	2.70
EYT-1079	40-30-30/475	1⅜x3½	3.10
EYT-1080	10-10-10/500	1 x3½	1.62
EYT-1081	30-20-20/500	1⅜x3	2.52
EYT-1082	40-10-10/500	1⅜x3	2.34
EYT-1083	40-40-10/500	1⅜x3½	3.04
EYT-1085	40-20/150 20/25	1 x2	1.38
EYT-1087	40-20/150 100/25	1 x2½	1.50
EYT-1088	40-20/150 200/25	1 x2½	1.62
EYT-10882	40-40/150 20/25	1 x2	1.44
EYT-10883	40-40/150 250/25	1 x3	1.89
EYT-10884	50-30/150 20/25	1 x2	1.50
EYT-1089	50-30/150 30/25	1 x2	1.56
EYT-10891	50-30/150 100/25	1 x2½	1.62
EYT-1090	50-50/150 20/25	1 x2½	1.62
EYT-10901	80-30/150 300/10	1⅜x2	1.89
EYT-10902	80-40/150 20/25	1 x2½	1.68
EYT-1091	80-40/150 300/25	1⅜x2½	2.22
EYT-1093	100-80/150 200/10	1⅜x2½	2.16
EYT-1095	120-60/150 20/25	1⅜x2½	1.98
EYT-1097	30-20/200 40/25	1 x2	1.68
EYT-10971	30-20/200 40/150	1 x2½	1.62
EYT-1098	60-5/200 20/50	1 x2½	1.50
EYT-1100	100-10/200 40/50	1⅜x2	1.86
EYT-1101	15-15/250 20/25	1 x2	1.41
EYT-1102	30-30/250 20/25	1 x2½	1.68
EYT-1105	40-20/250 10/150	1 x2½	1.65
EYT-1110	70-70/250 20/50	1⅜x2½	2.34
EYT-1112	90-90/250 20/50	1⅜x3	2.76
EYT-1113	10-10/300 10/15	1 x2	1.41
EYT-1115	10-10/300 15/250	1 x2	1.47
EYT-1117	100-10/300 60/50	1⅜x2½	2.43
EYT-11191	200-20/300 10/100	1⅜x4	2.94
EYT-1120	10-5/350 150/50	1 x3	1.62
EYT-1121	15-10/350 20/25	1 x2	1.50
EYT-1122	20-5/350 100/25	1 x2½	1.56
EYT-1123	20-5/350 150/50	1 x3	1.78
EYT-1124	20-10/350 20/25	1 x2	1.53
EYT-1125	15-15/350 20/25	1 x2½	1.50
YT-11251	20-10/350 5/250	1 x2	1.53
YT-1126	20-20/350 20/25	1 x2½	1.68
YT-1130	30-20/350 20/25	1 x3	1.86
YT-1131	30-20/350 100/150	1⅜x2½	2.40
YT-1135	30-30/350 20/25	1⅜x2	2.04
YT-1140	30-30/350 50/50	1⅜x2½	2.10
YT-1145	40-20/350 10/100	1⅜x2	1.68
YT-1150	40-40/350 50/25	1⅜x2½	2.22

TRIPLE UNITS (Cont.)

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Net Price
EYT-1151	20-20/400 10/350	1 x3	1.80
EYT-1153	40-10/400 200/50	1⅜x3½	2.22
EYT-11531	60-30/400 20/350	1⅜x3	2.74
EYT-11532	80-40/400 150/50	1⅜x3½	3.10
EYT-11533	100-10/400 20/50	1⅜x3½	2.70
EYT-1154	100-10/400 80/350	1⅜x4	3.66
EYT-1155	10-10/450 20/25	1 x2½	1.44
EYT-1160	10-10/450 40/50	1 x2½	1.65
EYT-1162	15-15/450 40/25	1 x2½	1.65
EYT-1163	20-10/450 20/25	1 x2½	1.62
EYT-1165	20-10/450 50/50	1 x3	1.71
EYT-1170	20-20/450 20/25	1 x3½	1.86
EYT-1175	20-20/450 60/350	1⅜x3½	2.40
EYT-1177	30-10/450 150/50	1⅜x2½	1.50
EYT-1180	30-30/450 20/25	1⅜x2½	2.10
EYT-1185	30-30/450 40/50	1⅜x3	2.19
EYT-1186	30-30/450 125/25	1⅜x3	2.38
EYT-1188	40-10/450 100/50	1⅜x3	2.58
EYT-1190	40-10/450 80/200	1⅜x3	2.34
EYT-1195	40-10/450 100/200	1⅜x3½	2.46
EYT-1200	40-10/450 10/350	1⅜x2½	1.98
EYT-1201	40-20/450 20/25	1⅜x2½	2.10
EYT-1205	40-20/450 25/50	1⅜x3	2.04
EYT-1210	40-40/450 20/25	1⅜x3½	2.37
EYT-1215	40-40/450 40/25	1⅜x3½	2.40
EYT-1217	40-40/450 100/50	1⅜x3½	2.58
EYT-1220	40-40/450 40/150	1⅜x3½	2.49
EYT-1221	40-40/450 60/200	1⅜x3½	2.68
EYT-1225	40-40/450 100/200	1⅜x4	2.97
EYT-12251	40-40/450 80/350	1⅜x4	3.34
EYT-12252	60-40/450 75/50	1⅜x3½	2.76
EYT-12253	80-10/450 125/25	1⅜x3½	2.64
EYT-1226	80-20/450 100/50	1⅜x4	2.88
EYT-1240	80-40/450 100/25	1⅜x4½	3.06
EYT-1241	20-10/475 100/400	1⅜x4	3.16
EYT-1245	20-20/475 60/400	1⅜x4	2.88
EYT-1250	10-10/500 4/350	1 x3	1.50
EYT-1251	20-10/500 100/50	1 x3½	1.98
EYT-1255	10-10/500 100/50	1 x3½	1.71
EYT-1260	30-10/500 20/50	1⅜x2½	1.86
EYT-1261	40-40/500 100/200	1⅜x4	3.52
EYT-1262	60/200 200-140/150	1⅜x4	2.88
EYT-1263	10/300 500-500/15	1⅜x2	2.34
EYT-1264	20/300 150-80/150	1⅜x3	2.37
EYT-1265	40/300 80/40/250	1⅜x3	2.61
EYT-1266	100/300 200-60/150	1⅜x4	3.34
EYT-12661	200/300 60-20/250	1⅜x4½	3.48
EYT-1267	60/400 20-20/350	1⅜x3	2.55
EYT-1270	80/400 20-10/300	1⅜x3½	2.55
EYT-12701	5/450 80-40/300	1⅜x3	2.49
EYT-1273	10/450 20-10/25	1 x2	1.29
EYT-12731	10/450 80-80/250	1⅜x3	2.52
EYT-1275	20/450 40-10/250	1⅜x2	1.89
EYT-1276	20/450 40-10/350	1⅜x2½	2.10
EYT-1277	20/450 80-10/350	1⅜x3	2.55
EYT-1280	30/450 100-25/25	1⅜x2	1.80
EYT-1281	40/450 90-50/150	1⅜x3	2.37
EYT-1282	80/450 40-40/250	1⅜x4	2.98
EYT-1290	40/450 90-50/150	1⅜x3½	2.40
EYT-1291	40/475 80-10/450	1⅜x3½	3.30
EYT-1292	80/250 40/150 50/50	1⅜x2½	1.41
EYT-1295	20/350 30/250 20/25	1 x2½	1.68
EYT-1300	100/300 60/150 20/25	1⅜x2½	1.71
EYT-1301	20/350 50/100 100/75	1 x3	1.86
EYT-1310	10/350 50/150 100/50	1 x3	1.71
EYT-1313	20/350 10/300 20/25	1 x2½	1.50
EYT-1315	20/350 40/300 10/150	1 x3	1.89
EYT-1320	30/350 30/300 20/25	1 x3	1.89
EYT-1321	125/350 5/200 100/75	1⅜x3½	3.18
EYT-1325	40/350 20/300 10/200	1⅜x2	1.98
EYT-1327	60/400 40/300 20/25	1⅜x3	2.52

TRIPLE UNITS (Cont.)

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Net Price
EYT-1328	10/450 50/150 100/75	1 x3	1.96
EYT-1329	10/450 40/300 10/150	1⅜x2	1.86
EYT-1330	10/450 30/400 30/300	1⅜x2½	2.01
EYT-1335	20/450 60/250 100/25	1⅜x2½	2.19
EYT-1340	20/450 80/350 100/50	1⅜x3½	2.70
EYT-1341	30/450 15/350 40/25	1⅜x2	1.44
EYT-1342	30/450 40/350 50/25	1 x4	2.22
EYT-1345	40/450 40/150 130/50	1⅜x3	2.19
EYT-13451	10/475 4/350 40/250	1⅜x2	1.80
EYT-1346	10/475 40/450 100/200	1⅜x3	2.52
EYT-1350	10/475 100/200 40/50	1⅜x2½	2.01
EYT-1351	20/475 50/50 20/25	1 x3	1.65
EYT-1352	80/475 80/150 50/50	1⅜x4	2.92
EYT-1360	20/500 20/300 40/25	1⅜x2½	1.86
EYT-1365	40/500 40/250 100/50	1⅜x3½	2.25

QUADRUPLE UNITS

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Net Price
EYQ-1998	100-80-60-40/150	1⅜x3	2.79
EYQ-1999	40-20-10-10/300	1⅜x2	2.37
EYQ-2000	40-40-20-10/300	1⅜x2½	2.73
EYQ-20004	40-40-30-20/300	1⅜x3	2.91
EYQ-20005	60-40-10-10/300	1⅜x2½	2.73
EYQ-2002	200-20-20-20/300	1⅜x4½	3.70
EYQ-2003	80-40-20-10/350	1⅜x3½	3.12
EYQ-2004	40-40-40-40/350	1⅜x3½	3.60
EYQ-2005	30-30-20-20/400	1⅜x3½	2.91
EYQ-2007	50-40-30-20/400	1⅜x4	3.39
EYQ-2010	80-10-10-10/400	1⅜x3½	2.82
EYQ-2011	80-25-10-10/400	1⅜x3½	3.03
EYQ-2012	5-5-5-5/450	1⅜x2	1.80
EYQ-2020	20-10-10-10/450	1⅜x2½	2.22
EYQ-2025	20-20-20-20/450	1⅜x3	2.82
EYQ-2027	20-60-20-20/450	1⅜x3½	3.39
EYQ-2030	30-15-15-15/450	1⅜x3	2.67
EYQ-2035	30-30-15-10/450	1⅜x3½	2.82
EYQ-2036	30-30-20-20/450	1⅜x3½	3.12
EYQ-2037	35-35-10- 5/450	1⅜x3	2.79
EYQ-2038	40-10-10-10/450	1⅜x3	2.49
EYQ-2040	40-20-10-10/450	1⅜x3	2.67
EYQ-2041	40-35-10-10/450	1⅜x3	2.88
EYQ-2042	40-40- 4- 4/450	1⅜x3½	2.79
EYQ-20431	40-40-30-30/450	1⅜x4	3.64
EYQ-2044	40-40-40-40/450	1⅜x4½	3.87
EYQ-20441	60-20-20-20/450	1⅜x4	3.40
EYQ-20442	60-30-10- 2/450	1⅜x3½	3.06
EYQ-20443	80-10-10-10/450	1⅜x3½	3.03
EYQ-2045	10-10-10-10/475	1⅜x2	2.10
EYQ-2048	20-20-10-10/475	1⅜x2½	2.62
EYQ-2049	20-20-20-20/475	1⅜x3	3.12
EYQ-2050	40-20-10-10/475	1⅜x3½	3.06
EYQ-2051	10-10-10-10/500	1⅜x2	2.10
EYQ-2052	40-40- 8- 8/500	1⅜x3½	3.42
EYQ-2053	30-30-30/150 40/25	1⅜x2	1.86
EYQ-2054	40-20-20/150 20/25	1⅜x2	1.77
EYQ-20541	40-40-20/150 200/10	1⅜x2	1.96
EYQ-20542	40-40-30/150 20/25	1⅜x2	1.86
EYQ-2055	40-40-40/150 20/25	1⅜x2	1.89
EYQ-2056	40-40-40/150 160/25	1⅜x2	2.13
EYQ-20561	50-20-20/150 200/25	1⅜x2	2.10
EYQ-20562	50-30-30/150 100/25	1⅜x2	2.07
EYQ-2057	50-50-50/150 20/25	1⅜x2	2.13
EYQ-2058	60-40-20/150 200/10	1⅜x2	2.10
EYQ-20581	80-40-40/150 40/25	1⅜x2	2.16
EYQ-20582	80-40-40/150 100/25	1⅜x2½	2.25
EYQ-20583	100-90-60/150 200/25	1⅜x3	2.97
EYQ-2059	200-200-100/150 10/75	1⅜x4	3.58
EYQ-2060	80-60-40/250 20/150	1⅜x3	3.06
EYQ-2065	100-40-10/250 100/50	1⅜x3	3.09
EYQ-2066	40-20-20/300 25/25	1⅜x2	2.40

*Trade Mark

Net

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ASTRON

DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

Capacitors

SPECIALISTS IN CAPACITOR MINIATURIZATION

ASTRON TYPE EY Twist-Prong Electrolytics *(Con't.)*

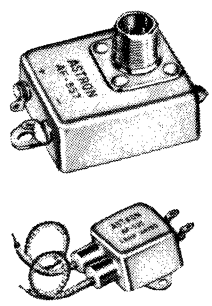
QUADRUPLE UNITS (Cont.)

CAT. NO.	CAP. MF/WVDC	DIA. x LENGTH	NET PRICE
EYQ-2074	40-40-10/300 20/15	1⅜ x 2½	2.55
EYQ-2075	40-40-40/300 20/150	1⅜ x 2½	2.94
EYQ-2076	60-40-20/300 50/25	1⅜ x 2½	2.82
EYQ-20761	120-40-40/300 10/250	1⅜ x 4	3.70
EYQ-20762	150-20-10/300 250/50	1⅜ x 4	3.64
EYQ-2077	150-40-10/300 100/50	1⅜ x 4	3.54
EYQ-20771	20-10- 5/350 20/25	1⅜ x 2	1.86
EYQ-20772	30-10- 5/350 200/25	1⅜ x 2	2.28
EYQ-20773	30-10- 5/350 100/200	1⅜ x 2½	2.64
EYQ-20774	30-20- 5/350 100/200	1⅜ x 3	2.82
EYQ-2080	40-20-20/350 25/25	1⅜ x 2½	2.55
EYQ-2081	40-40-30/350 10/25	1⅜ x 3	2.97
EYQ-2085	40-40-40/350 40/25	1⅜ x 3	3.12
EYQ-2090	40-40-40/350 150/50	1⅜ x 3½	3.42
EYQ-2091	90-30- 5/350 100/75	1⅜ x 3½	3.70
EYQ-2092	100-10-10/350 20/50	1⅜ x 3	3.09
EYQ-2094	100-40-30/350 50/50	1⅜ x 4	3.94
EYQ-20941	100-80-10/350 20/50	1⅜ x 4	3.96
EYQ-2095	20-20-20/400 20/25	1⅜ x 2½	2.31
EYQ-2096	80-40-10/400 20/25	1⅜ x 3½	3.18
EYQ-20961	80-40-10/400 100/200	1⅜ x 4	3.78
EYQ-20962	80-40-30/400 40/25	1⅜ x 4	3.58
EYQ-2097	80-60-15/400 60/50	1⅜ x 4	3.75
EYQ-2110	10-10-10/450 10/150	1⅜ x 2	1.89
EYQ-2115	20-10-10/450 100/25	1⅜ x 2½	2.22
EYQ-2120	20-20-20/450 20/25	1⅜ x 2½	2.49
EYQ-2125	20-20-20/450 100/50	1⅜ x 3	2.73
EYQ-2126	30-30-10/450 125/25	1⅜ x 3	2.70
EYQ-2130	30-30-15/450 30/50	1⅜ x 3	2.49
EYQ-2135	30-30-20/450 20/25	1⅜ x 3½	2.79
EYQ-2140	40-10-10/450 250/25	1⅜ x 3½	2.55
EYQ-2145	40-10-10/450 10/350	1⅜ x 3	2.34
EYQ-2146	40-10-10/450 40/350	1⅜ x 3	2.86
EYQ-2150	40-15-10/450 20/25	1⅜ x 3	2.46
EYQ-2151	40-20-10/450 100/50	1⅜ x 3½	2.76
EYQ-2152	40-20-10/450 100/250	1⅜ x 4	2.52
EYQ-2153	40-20-20/450 20/25	1⅜ x 3½	2.76
EYQ-2155	40-20-20/450 40/25	1⅜ x 3½	2.79
EYQ-2160	40-30-10/450 20/25	1⅜ x 3	2.76
EYQ-2162	40-40-10/450 50/50	1⅜ x 3½	2.88
EYQ-2163	40-40-10/450 100/100	1⅜ x 4	3.21
EYQ-2164	40-40-20/450 20/25	1⅜ x 3½	3.00
EYQ-21641	40-40-40/450 40/25	1⅜ x 3½	3.30
EYQ-2165	40-40-40/450 25/50	1⅜ x 4	2.82
EYQ-2170	60-10-10/450 20/150	1⅜ x 3½	2.76
EYQ-2171	60-40-10/450 25/50	1⅜ x 3½	3.15
EYQ-2172	60-40-40/450 10/25	1⅜ x 4	3.60
EYQ-2173	60-50- 5/450 20/25	1⅜ x 3½	3.21
EYQ-2175	20-20-10/475 10/300	1⅜ x 3	2.58
EYQ-2180	40-20-10/475 10/25	1⅜ x 3½	2.91
EYQ-2181	20-20/150 160-40/25	1⅜ x 2	1.92
EYQ-2182	50-20/150 150-30/15	1⅜ x 2	1.92
EYQ-2183	100-10/300 200-30/150	1⅜ x 4½	3.54
EYQ-2184	60- 4/350 100-40/25	1⅜ x 2½	2.28
EYQ-2185	40-10/400 80-10/250	1⅜ x 3½	2.82
EYQ-2190	10-10/450 20-20/25	1⅜ x 2	1.77
EYQ-2195	20-20/450 20-20/25	1⅜ x 2	2.16
EYQ-2197	40-10/450 35-10/350	1⅜ x 4	3.30
EYQ-2198	40-40/450 100-60/200	1⅜ x 4	3.64
EYQ-2200	40-40/450 30-30/350	1⅜ x 4½	3.54
EYQ-2202	60-10/300 10/75 10/25	1⅜ x 2	2.18
EYQ-22021	80- 5/300 60/150 20/25	1⅜ x 2½	2.58
EYQ-2203	60-40/350 60/200 20/150	1⅜ x 3½	3.00
EYQ-22031	10-10/450 60/200 100/50	1⅜ x 3	2.31
EYQ-22032	20-20/450 60/150 100/25	1⅜ x 2½	2.55
EYQ-22033	35-25/450 20/200 100/50	1⅜ x 3	2.79

*Trade Mark

QUADRUPLE UNITS (Cont.)

CAT. NO.	CAP. MF/WVDC	DIA. x LENGTH	NET PRICE
EYQ-22034	40-40/450 125/150 125/25	1⅜ x 4	3.42
EYQ-2205	10- 5/475 80/450 40/50	1⅜ x 4	2.97
EYQ-2210	15-15/475 80/300 40/50	1⅜ x 3½	2.88
EYQ-2211	20-10/475 20/450 100/25	1⅜ x 2½	2.52
EYQ-2212	40-10/475 4/350 40/300	1⅜ x 3	2.97
EYQ-2213	20/400 50-40/350 80/50	1⅜ x 3	3.00
EYQ-2215	10/450 120-40/300 25/25	1⅜ x 4	3.15
EYQ-2220	10/450 60-40/350 25/25	1⅜ x 3½	2.76
EYQ-2222	10/450 100-10/350 20/25	1⅜ x 3½	3.15
EYQ-2225	20/450 80-20/200 50/50	1⅜ x 3	2.49
EYQ-2227	25/450 100-10/300 50/50	1⅜ x 3	3.15
EYQ-22271	40/450 40-40/300 20/150	1⅜ x 3	2.94
EYQ-22272	60/450 80-40/250 20/150	1⅜ x 4	3.39
EYQ-2228	10/475 140-40/350 100/50	1⅜ x 4	3.18
EYQ-2229	10/475 40-10/450 100/50	1⅜ x 3	2.58
EYQ-2230	25/500 80-10/350 10/50	1⅜ x 4½	2.70
EYQ-2235	100/300 40/50 80-20/25	1⅜ x 3	2.70
EYQ-2236	80/450 10/400 40-30/300	1⅜ x 4	3.48
EYQ-2237	30/500 10/450 150-30/50	1⅜ x 3	2.52
EYQ-2238	10/300 200-140-30/150	1⅜ x 4½	3.06
EYQ-22381	10/300 200-200-30/150	1⅜ x 4½	3.21
EYQ-22391	160/350 60-10-4/300	1⅜ x 4	3.84
EYQ-22392	30/475 130-10-10/350	1⅜ x 4	3.84
EYQ-22393	20/300 150-150/150 100/30	1⅜ x 3½	3.18
EYQ-2240	120/300 20/250 100/50 20/25	1⅜ x 3½	3.03
EYQ-2245	200/300 20/250 100/50 20/25	1⅜ x 4½	3.27
EYQ-2246	20/350 150/300 10/250 250/50	1⅜ x 4	3.66
EYQ-2250	10/450 10/300 60/200 100/50	1⅜ x 2½	2.28
EYQ-2255	20/450 20/400 20/350 20/25	1⅜ x 3	2.28
EYQ-2260	80/450 10/400 30/300 40/150	1⅜ x 4½	3.15
EYQ-2261	10/475 40/350 80/300 100/100	1⅜ x 4	3.34
EYQ-2262	10/475 40/400 4/350 100/50	1⅜ x 2½	2.44
EYQ-2263	20/300 20-8-4/250	1⅜ x 2	1.86
EYQ-2265	10/475 10/450 80/200 50/60	1⅜ x 3	2.31
EYQ-2270	10/475 60/450 30/400 125/50	1⅜ x 4	3.27
EYQ-2275	20/475 40/300 100/50 80/25	1⅜ x 3	2.70
EYQ-2276	20/475 40/350 80/200 100/100	1⅜ x 4	3.27
EYQ-2280	25/475 20/450 40/300 100/50	1⅜ x 3½	2.97
EYQ-2281	40/475 40/250 50/150 80/50	1⅜ x 3½	3.00



RF INTERFERENCE FILTERS & FEED-THRU CAPACITORS

Completely equipped RFI laboratory and experienced engineering staff for RFI test and analysis. Efficient and economical solution to meet the most exacting military requirements. As specialists in miniaturization, Astron qualifies as a major supplier of RFI filters to aircraft, electronic and electrical industries. Types FT and FTZT (Mil types CZ23 and CZ24) feed-thru capacitors conform completely to MIL-C-11693 and are available for use in RF interference problems for both AC and DC applications.

ASTRON also manufactures the following military electrolytics to MIL C-62B:

CE31	CE42	CE61
CE32	CE51	CE62
CE33	CE52	CE63
CE41	CE53	CE64

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Net

ASTRON

DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

Capacitors

SPECIALISTS IN CAPACITOR MINIATURIZATION

SUBMINIATURE PAPER CAPACITORS

Glass-to-Metal Sealed Tubulars

TEMPERATURE RANGE
−65°C to +125°C

For Commercial and Military Applications

- Amazingly small sizes, compact and light-weight units.
- Highly dependable operation at temperatures up to 125°C. without voltage derating.
- Exceptional capacitance stability over entire temperature range of −65°C to +125°C.
- High insulation resistance, low power factor, unusually low resonance loss. High test voltage indicates extra margin of safety in operation.
- Built to exceed stringent requirements of Specification MIL-C-25.
- Positive hermetic closure of the metal cases is assured by glass-to-metal solder seal terminals.
- Tubulars supplied in a variety of construction and mounting styles to meet your specific needs: extended foil or inserted tab; capacitor section grounded to case or insulated from case; plastic outer sleeve; with soldered-on tangential or L-type bracket; screw neck mounting style; or stud-base mounting style.

ASTRON CROSS-REFERENCE TABLE TO MIL-C-25

ASTRON TYPE	MIL TYPE	DESCRIPTION	
TQF	CP04	Uninsulated Body	**INSERTED TAB CONSTRUCTION** Capacitors with inserted tab construction are ideal for minimum size consideration. They are the smallest paper-foil capacitors available, the most compact units for operation over a wide temperature range to 125°C. without derating and can be used in AC as well as DC applications. Where smallest possible capacitor sizes are required, coupled with maximum capacitance stability and high insulation resistance over a wide temperature range, inserted tab construction is best suited for the application.
TQFP	CP05	Insulated Body	
AQF	CP08	Uninsulated Body	**EXTENDED FOIL CONSTRUCTION** Capacitors with extended foil construction are ideal where long life, excellent capacitance-temperature stability, high insulation resistance and small size, coupled with outstanding electrical characteristics over a wide temperature range, are required. They can be used in AC as well as DC applications. The extended foil non-inductive construction offers the lowest possible resonant losses in both low and high voltage applications.
AQFP	CP09	Insulated Body	

EXPLANATION or DESIGNATIONS and CATALOG NUMBERING SYSTEM

ASTRON CATALOG NUMBER

TQ FP 2 33 10 A T

CAPACITOR TYPE

Internal Construction:
T = Inserted Tab Construction
A = Extended Foil Construction

Case Style
Q = Metal Tubular, glass seals

GENERAL CONSTRUCTION

Circuit: F = Floating, Circuit 1 2 leads
G = Grounded, Circuit 2 1 leads
— = Grounded, Circuit 3 2 leads
P = Plastic sleeve
C = Threaded Neck with flats
S = Threaded Neck less flats
W = Radial Mounting Stud
V = Axial Mounting Stud

VOLTAGE RATINGS
Expressed in hundreds of volts

CAPACITANCE
Expressed in Micro-Microfarads x 100. Over .99 mfd, add M to Capacitance.

CAPACITANCE TOLERANCE
±20% = omitted, ±10% = 10, ±5% = 5, ±2% = 2

BRACKET STYLE
A = Tangential type bracket
B = Vertical Mounting bracket
Y = Radial bracket

LUG TERMINAL
Available on all AQ + TQ Type Capacitors.
Add suffix "T" to complete Type designation.

MILITARY TYPE NUMBER

PER MIL-C-25 = CP 09 A I K C 33 4 K 3

CAPACITOR TYPE
Paper Capacitor
Per MIL-C-25

STYLE
04 — Inserted Tab
05 — Inserted Tab with Insulating Sleeve
08 — Extended Foil
09 — Extended Foil with Insulating Sleeve
10 — Inserted Tab with Tangential Bracket
11 — Inserted Tab with Threaded Neck
12 — Extended Foil with Tangential Bracket
13 — Extended Foil with Threaded Neck

TERMINAL TYPE
A = Axial Wire Leads

CIRCUIT
1 = Insulated from Case — 2 Leads
3 = Grounded to Case — 2 Leads

TEMPERATURE CHARACTERISTIC
K = −55°C to +125°C
E = −55°C to +85°C

VOLTAGE RATING
B = 100 VDC F = 600 VDC
C = 200 VDC G = 1000 VDC
E = 400 VDC

CAPACITANCE IN pf

DECIMAL MULTIPLIER (Number in Zeros)

CAPACITANCE TOLERANCE
J = ±5% K = ±10% M = ±20%

VIBRATION GRADE
1 = 10-55 C.P.S. 3 = 10-2000 C.P.S.

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ASTRON

DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

Capacitors

SPECIALISTS IN CAPACITOR MINIATURIZATION

Subminiature Paper Capacitors *(Con't.)*

TYPES TQF (CP04) and TQFP (CP05)

Inserted Tab Construction

(Capacitor Section Insulated From Case)

100 VOLTS DC WORKING

Mil Number	ASTRON Number	Cap. μF	Size D. x L.
	TQF-1-001-10	.001	.235 x ¾
	TQF-1-0015-10	.0015	.235 x ¾
	TQF-1-0022-10	.0022	.235 x ¾
	TQF-1-0033-10	.0033	.235 x ¾
	TQF 1-0047-10	.0047	.235 x ¾
	TQF-1-0068-10	.0068	.235 x ¾
	TQF-1-01-10	.01	.235 x ¾
	TQF-1-015-10	.015	.235 x ¾
	TQF 1-022-10	.022	.235 x ¾
	TQF-1-027-10	.027	.235 x ¾
CP04A1K-B333K3	TQF-1-033-10	.033	.235 x ¾
	TQF 1-047-10	.047	.312 x ⅞
	TQF-1-068-10	.068	.312 x ⅞
CP04A1K-B104K3	TQF-1-1-10	.1	.312 x ⅞
CP04A1K-B154K3	TQF-1-15-10	.15	.400 x ⅞
CP04A1K-B224K3	TQF 1-22-10	.22	.400 x 1⅛
	TQF-1-27-10	.27	.400 x 1⅜
CP04A1K-B334K3	TQF-1-33-10	.33	.400 x 1⅜
CP04A1K-B474K3	TQF 1-47-10	.47	.562 x 1⅛
CP04A1K-B684K3	TQF-1-68-10	.68	.562 x 1⅜
CP04A1K-B105K3	TQF-1-1M-10	1.0	.562 x 1⅞

200 VOLTS DC WORKING

Mil Number	ASTRON Number	Cap. μF	Size D. x L.
	TQF-2-001-10	.001	.235 x ¾
	TQF-2-0015-10	.0015	.235 x ¾
	TQF-2-0022-10	.0022	.235 x ¾
	TQF-2-0033-10	.0033	.235 x ¾
	TQF-2-0047-10	.0047	.235 x ¾
	TQF-2-0068-1	.0068	.235 x ¾
	TQF-2-01-10	.01	.235 x ¾
CP04A1K-C153K3	TQF-2-015-10	.15	.235 x ¾
CP04A1K-C223K3	TQF-2-022-10	.022	.235 x ¾
	TQF-2-027-10	.027	.312 x ⅞
	TQF-2-033-10	.033	.312 x ⅞
CP04A1K-C473K3	TQF-2-047-10	.047	.312 x ⅞
CP04A1K-C683K3	TQF-2-068-10	.068	.312 x ⅞
CP04A1K-C104K3	TQF-2-1-10	.1	.400 x ⅞
CP04A1K-C224K3	TQF-2-15-10	.15	.400 x 1⅛
CP04A1K-C154K3	TQF-2-22-10	.22	.400 x 1⅜
	TQF-2-27-10	.27	.562 x 1⅛
CP04A1K-C334K3	TQF-2-33-10	.33	.562 x 1⅛
CP04A1K-C474K3	TQF-2-47-10	.47	.562 x 1⅜
CP04A1K-C684K3	TQF-2-68-10	.68	.562 x 1⅞
CP04A1K-C105K3	TQF-2-1M-10	1.0	.670 x 1⅞

300 VOLTS DC WORKING

Mil Number	ASTRON Number	Cap. μF	Size D. x L.
	TQF-3-001-10	.001	.235 x ¾
	TQF-3-0015-10	.0015	.235 x ¾
	TQF-3-0022-10	.0022	.235 x ¾
	TQF-3-0033-10	.0033	.235 x ¾
	TQF-3-0047-10	.0047	.235 x ¾
300 volt units available in commercial stamping only.	TQF-3-0068-10	.0068	.235 x ¾
	TQF-3-01-10	.01	.235 x ¾
	TQF-3-015-10	.015	.235 x ¾
	TQF-3-022-10	.022	.312 x ⅞
	TQF-3-027-10	.027	.312 x ⅞
	TQF-3-033-10	.033	.312 x ⅞
300 volt ratings not listed in specificaion MIL-C-25C.	TQF-3-047-10	.047	.312 x ⅞
	TQF-3-068-10	.068	.400 x ⅞
	TQF-3-1-10	.1	.400 x 1⅛
	TQF-3-15-10	.15	.400 x 1⅜
	TQF-3-22-10	.22	.562 x 1⅛
	TQF-3-27-10	.27	.562 x 1⅜
	TQF-3-33-10	.33	.562 x 1⅜
	TQF-3-47-10	.47	.562 x 1⅞
	TQF-3-68-10	.68	.670 x 1⅞
	TQF-3-1M-10	1.0	.750 x 2⅛

400 VOLTS DC WORKING

Mil Number	ASTRON Number	Cap. μF	Size D. x L.
	TQF-4-001-10	.001	.235 x ¾
	TQF-4-0015-10	.0015	.235 x ¾
	TQF-4-0022-10	.0022	.235 x ¾
	TQF-4-0033-10	.0033	.235 x ¾
	TQF-4-0047-10	.0047	.235 x ¾
	TQF-4-0068-10	.0068	.235 x ¾
CP04A1K-E103K3	TQF-4-01-10	.01	.235 x ¾
	TQF-4-015-10	.015	.312 x ⅞
	TQF-4-022-10	.022	.312 x ⅞
	TQF-4-027-10	.027	.312 x ⅞
CP04A1K-E333K3	TQF-4-033-10	.033	.312 x ⅞
CP04A1K-E473K3	TQF-4-047-10	.047	.400 x ⅞
CP04A1K-E683K3	TQF-4-068-10	.068	.400 x 1⅛
CP04A1K-E104K3	TQF-4-1-10	.1	.400 x 1⅜
CP04A1K-E154K3	TQF-4-15-10	.15	.562 x 1⅛
CP04A1K-E224K3	TQF-4-22-10	.22	.562 x 1⅜
	TQF-4-27-10	.27	.562 x 1⅞
CP04A1K-E334K3	TQF-4-33-10	.33	.562 x 1⅞
CP04A1K-E474K3	TQF-4-47-10	.47	.670 x 1⅞
	TQF-4-56-10	.56	.750 x 2⅛
CP04A1K-E684K3	TQF-4-68-10	.68	.750 x 2⅛
CP04A1K-E105K3	TQF-4-1M-10	1.0	1.000 x 1⅞

600 VOLTS DC WORKING

Mil Number	ASTRON Number	Cap. μF	Size D. x L.
CP04A1K-F102K3	TQF-6-001-10	.001	.235 x ¾
CP04A1K-F152K3	TQF-6-0015-10	.0015	.235 x ¾
CP04A1K-F222K3	TQF-6-0022-10	.0022	.235 x ¾
CP04A1K-F332K3	TQF-6-0033-10	.0033	.235 x ¾
CP04A1K-F472K3	TQF-6-0047-10	.0047	.235 x ¾
CP04A1K-F682K3	TQF-6-0068-10	.0068	.235 x ¾
CP04A1K-F103K3	TQF-6-01-10	.01	.312 x ⅞
CP04A1K-F153K3	TQF-6-015-10	.015	.312 x ⅞
CP04A1K-F223K3	TQF-6-022-10	.022	.312 x ⅞
	TQF-6-027-10	.027	.400 x ⅞
CP04A1K-F333K3	TQF-6-033-10	.033	.400 x ⅞
CP04A1K-F473K3	TQF-6-047-10	.047	.400 x 1⅛
CP04A1K-F683K3	TQF-6-068-10	.068	.400 x 1⅜
CP04A1K-F104K3	TQF-6-1-10	.1	.562 x 1⅛
CP04A1K-F154K3	TQF-6-15-10	.15	.562 x 1⅜
CP04A1K-F224K3	TQF-6-22-10	.22	.562 x 1⅞
	TQF-6-27-10	.27	.670 x 1⅞
CP04A1K-F334K3	TQF-6-33-10	.33	.670 x 1⅞
CP04A1K-F474K3	TQF-6-47-10	.47	.750 x 2⅛
CP04A1K-F684K3	TQF-6-68-10	.68	1.000 x 1⅞

1000 VOLTS DC WORKING

Mil Number	ASTRON Number	Cap. μF	Size D. x L.
	TQF-10-001-10	.001	.400 x ⅞
	TQF-10-0015-10	.0015	.400 x ⅞
	TQF-10-0022-10	.0022	.400 x ⅞
	TQF-10-0033-10	.0033	.400 x ⅞
	TQF-10-0047-10	.0047	.400 x ⅞
	TQF-10-0068-10	.0068	.400 x ⅞
	TQF-10-01-10	.01	.400 x ⅞
CP04A1K-G153K3	TQF-10-015-10	.015	.400 x ⅞
CP04A1K-G223K3	TQF-10-022-10	.022	.400 x 1⅛
	TQF-10-027-10	.027	.400 x 1⅜
CP04A1K-G333K3	TQF-10-033-10	.033	.400 x 1⅜
CP04A1K-G473K3	TQF-10-047-10	.047	.562 x 1⅛
CP04A1K-G683K3	TQF-10-068-10	.068	.562 x 1⅜
CP04A1K-G104K3	TQF-10-1-10	.1	.562 x 1⅝
CP04A1K-G154K3	TQF-10-15-10	.15	.670 x 1⅝
CP04A1K-G224K3	TQF-10-22-10	.22	.750 x 2⅛
	TQF-10-27-10	.27	.750 x 2⅝
CP04A1K-G334K3	TQF-10-33-10	.33	.750 x 2⅝
CP04A1K-G474K3	TQF-10-47-10	.47	1.000 x 2⅛

TYPES AQF (CP08) and AQFP (CP09)

Extended Foil Construction

(Capacitor Section Insulated From Cas

100 VOLTS DC WORKING

Mil Number	ASTRON Number	Cap. μF	Size D. x L.
	AQF-1-001-10	.001	.235 x ¾
	AQF-1-0015-10	.0015	.235 x ¾
	AQF-1-0022-10	.0022	.235 x ¾
	AQF-1-0047-10	.0047	.235 x ¾
	AQF-1-047-10	.0047	.235 x ¾
CP08A1K-B103K3	AQF-1-01-10	.01	.235 x ¾
CP08A1K-B153K3	AQF-1-015-10	.015	.235 x ¾
	AQF-1-022-10	.022	.312 x ⅞
	AQF-1-033-10	.033	.312 x ⅞
CP08A1K-B473K3	AQF-1-047-10	.047	.312 x ⅞
	AQF-1-068-10	.068	.400 x ⅞
CP08A1K-B104K3	AQF-1-1-10	.1	.400 x ⅞
CP08A1K-B154K3	AQF-1-15-10	.15	.400 x 1⅛
CP08A1K-B224K3	AQF-1-22-1	.22	.400 x 1⅜
	AQF-1-27-10	.27	.562 x 1⅛
CP08A1K-B334K3	AQF-1-33-10	.33	.562 x 1⅛
CP08A1K-B474K3	AQF-1-47-10	.47	.562 x 1⅜
	AQF-1-56-10	.56	.562 x 1⅝
CP08A1K-B684K3	AQF-1-68-10	.68	.562 x 1⅝
CP08A1K-B105K3	AQF-1-1M-10	1.0	.670 x 1⅝

200 VOLTS DC WORKING

Mil Number	ASTRON Number	Cap. μF	Size D. x L.
	AQF-2-001-10	.001	.235 x ¾
	AQF-2-0015-10	.0015	.235 x ¾
	AQF-2-0022-10	.0022	.235 x ¾
	AQF-2-0033-10	.0033	.235 x ¾
CP08A1K-C472K3	AQF-2-0047-10	.0047	.235 x ¾
CP08A1K-C682K3	AQF-2-0068-10	.0068	.235 x ¾
	AQF-2-01-10	.01	.312 x ⅞
	AQF-2-015-10	.015	.312 x ⅞
CP08A1K-C223K3	AQF-2-022-10	.022	.312 x ⅞
CP08A1K-C333K3	AQF-2-033-10	.033	.312 x ⅞
CP08A1K-C473K3	AQF-2-047-10	.047	.400 x ⅞
	AQF-2-056-10	.056	.400 x ⅞
CP08A1K-C683K3	AQF-2-068-10	.068	.400 x ⅞
CP08A1K-C104K3	AQF-2-1-10	.1	.400 x 1⅛
CP08A1K-C154K3	AQF-2-15-10	.15	.400 x 1⅜
CP08A1K-C224K3	AQF-2-22-10	.22	.562 x 1⅛
	AQF-2-27-10	.27	.562 x 1⅜
CP08A1K-C334K3	AQF-2-33-10	.33	.562 x 1⅜
CP08A1K-C474K3	AQF-2-47-10	.47	.562 x 1⅝
	AQF-2-56-10	.56	.670 x 1⅝
CP08A1K-C684K3	AQF-2-68-10	.68	.670 x 1⅝
CP08A1K-C105K3	AQF-2-1M-10	1.0	.750 x 2⅛

*Trade Mark

300 VOLTS DC WORKING

Mil Number	ASTRON Number	Cap. μF	Size D. x L.
	AQF-3-001-10	.001	.235 x ¾
	AQF-3-0015-10	.0015	.235 x ¾
	AQF-3-0022-10	.0022	.235 x ¾
	AQF-3-0033-10	.0033	.235 x ¾
	AQF-3-0047-10	.0047	.235 x ¾
300 volt units available in commercial stamping only.	AQF-3-01-10	.01	.312 x ⅞
	AQF-3-015-10	.015	.312 x ⅞
	AQF-3-022-10	.022	.312 x ⅞
	AQF-3-033-10	.033	.400 x ⅞
	AQF-3-047-10	.047	.400 x ⅞
	AQF-3-068-10	.068	.400 x 1⅛
300 volt ratings not listed in specification MIL-C-25C.	AQF-3-1-10	.1	.400 x 1⅜
	AQF-3-15-10	.15	.562 x 1⅛
	AQF-3-22-1	.22	.562 x 1⅜
	AQF-3-27-19	.27	.562 x 1⅝
	AQF-3-33-10	.33	.562 x 1⅝
	AQF-3-47-10	.47	.670 x 1⅝
	AQF-3-56-10	.56	.750 x 2⅛
	AQF-3-68-10	.68	.750 x 2⅛
	AQF-3-1M-10	1.0	.750 x 2⅜

400 VOLTS DC WORKING

Mil Number	ASTRON Number	Cap. μF	Size D. x L.
	AQF-4-001-10	.001	.235 x ¾
	AQF-4-0015-10	.0015	.235 x ¾
	AQF-4-0022-10	.0022	.235 x ¾
CP08A1K-E332K3	AQF-4-0033-10	.0033	.235 x ¾
	AQF-4-0047-10	.0047	.312 x ⅞
	AQF-4-0068-10	.0068	.312 x ⅞
	AQF-4-01-10	.01	.312 x ⅞
CP08A1K-E153K3	AQF-4-015-10	.015	.312 x ⅞
	AQF-4-022-10	.022	.400 x ⅞
CP08A1K-E333K3	AQF-4-033-10	.033	.400 x ⅞
CP08A1K-E473K3	AQF-4-047-10	.047	.400 x 1⅛
CP08A1K-E683K3	AQF-4-068-10	.068	.400 x 1⅜
CP08A1K-E104K3	AQF-4-1-10	.1	.562 x 1⅛
CP08A1K-E154K3	AQF-4-15-10	.15	.562 x 1⅜
CP08A1K-E224K3	AQF-4-22-10	.22	.562 x 1⅝
	AQF-4-27-10	.27	.670 x 1⅝
CP08A1K-E334K3	AQF-4-33-10	.33	.670 x 1⅝
CP08A1K-E474K3	AQF-4-47-10	.47	.750 x 2⅛

600 VOLTS DC WORKING

Mil Number	ASTRON Number	Cap. μF	Size D. x L
CP08A1K-F102K3	AQF-6-001-10	.001	.235 x
CP08A1K-F152K3	AQF-6-0015-10	.0015	.235 x
CP08A1K-F222K3	AQF-6-0022-10	.0022	.235 x
CP08A1K-F332K3	AQF-6-0033-10	.0033	.312 x
CP08A1K-F472K3	AQF-6-0047-10	.0047	.312 x
CP08A1K-F682K3	AQF-6-0068-10	.0068	.312 x
CP08A1K-F103K3	AQF-6-01-10	.01	.312 x
CP08A1K-F153K3	AQF-6-015-10	.015	.400 x
CP08A1K-F223K3	AQF-6-022-10	.022	.400 x
CP08A1K-F333K3	AQF-6-033-10	.033	.400 x 1
CP08A1K-F473K3	AQF-6-047-10	.047	.400 x 1
CP08A1K-F683K3	AQF-6-068-10	.068	.562 x 1
CP08A1K-F104K3	AQF-6-1-10	.1	.562 x 1
CP08A1K-F154K3	AQF-6-15-10	.15	.562 x 1
CP08A1K-F224K3	AQF-6-22-10	.22	.670 x 1
	AQF-6-27-10	.27	.750 x 2
CP08A1K-F334K3	AQF-6-33-10	.33	.750 x 2
CP08A1K-F474K3	AQF-6-47-10	.47	.750 x 2

1000 VOLTS DC WORKING

Mil Number	ASTRON Number	Cap. μF	Size D. x L
CP08A1K-G102K3	AQF-10-001-10	.001	.400 x
CP08A1K-G152K3	AQF-10-0015-10	.0015	.400 x
CP08A1K-G222K3	AQF-10-0022-10	.0022	.400 x
CP08A1K-G332K3	AQF-10-0033-10	.0033	.400 x
CP08A1K-G472K3	AQF-10-0047-10	.0047	.400 x
CP08A1K-G682K3	AQF-10-0068-10	.0068	.400 x
CP08A1K-G103K3	AQF-10-01-10	.01	.400 x
CP08A1K-G153K3	AQF-10-015-10	.015	.400 x 1
CP08A1K-G223K3	AQF-10-022-10	.022	.400 x 1
CP08A1K-G333K3	AQF-10-033-10	.033	.562 x 1
CP08A1K-G473K3	AQF-10-047-10	.047	.562 x 1
CP08A1K-G683K3	AQF-10-068-10	.068	.562 x 1
CP08A1K-G104K3	AQF-10-1-10	.1	.670 x 1
CP08A1K-G154K3	AQF-10-15-10	.15	.670 x 1
CP08A1K-G224K3	AQF-10-22-10	.22	.750 x 2
CP08A1K-G334K3	AQF-10-33-10	.33	1.000 x 2
CP08A1K-G474K3	AQF-10-47-10	.47	1.000 x 2

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ASTRON

DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

Capacitors

SPECIALISTS IN CAPACITOR MINIATURIZATION

Bathtub PAPER Capacitors

ASTRON TYPE ADM

MIL TYPES CP53 thru CP55 of MIL C-25C

TEMP. RANGE −55°C to +85°C

- Non-inductively wound. Mineral oil impregnated and filled. Hermetically sealed.
- Operating temperature range −55°C. to +85°C.
- Built to comply with strict requirements of MIL-C-25C. Silicone rubber compression seal lug terminals. Completely immersion-proof.
- Single units have two terminals; duals have three terminals (one common); triple units have three terminals (case common).
- Standard position of Type ADM terminals is on side (MIL-C-25C Style CP53). Available also with terminals on top (ASTRON Type ADMT or MIL Style CP54) and bottom terminals. (ASTRON Type ADMB or MIL Style CP55).
- Cap. Tolerance: ±20% (M).
- Cap. Tolerance: ±10% (K).

Military Number	Astron Type	L. x W. x H.
100 VOLTS DC WORKING		
CP53B1EB105M	ADM-1-1M	1 13/16 x 1 x 7/8
CP53B1EB205M	ADM-1-2M	2 x 1 3/4 x 7/8
CP53B1EB405M	ADM-1-4M	2 x 2 x 1 1/8
200 VOLTS DC WORKING		
CP53B1EC504M	ADM-2-5	1 13/16 x 1 x 7/8
CP53B1EC105M	ADM-2-1M	2 x 1 3/4 x 7/8
CP53B1EC205M	ADM-2-2M	2 x 2 x 1
400 VOLTS DC WORKING		
CP53B1EE504M	ADM-4-5	1 13/16 x 1 x 7/8
CP53B1EE105M	ADM-4-1M	2 x 1 3/4 x 7/8
CP53B5EE504M	ADM-4-3x5	2 x 2 x 1 1/8
600 VOLTS DC WORKING		
CP53B1EF503M	ADM-6-05	1 13/16 x 1 x 3/4
CP53B1EF104M	ADM-6-1	1 13/16 x 1 x 3/4
CP53B1EF254M	ADM-6-25	1 13/16 x 1 x 3/4
CP53B1EF504M	ADM-6-5	1 13/16 x 1 x 1
CP53B1EF105M	ADM-6-1M	2 x 1 3/4 x 1
CP53B1EF205M	ADM-6-2M	2 x 2 x 1 1/8
CP53B4EF503M	ADM-6-2x05	1 13/16 x 1 x 3/4
CP53B4EF254M	ADM-6-2x25	1 13/16 x 1 x 1
CP53B4EF504M	ADM-6-2x5	2 x 1 3/4 x 1
CP53B4EF105M	ADM-6-2x1M	2 x 2 x 1 1/8
CP53B5EF503M	ADM-6-3x05	1 13/16 x 1 x 3/4
CP53B5EF104M	ADM-6-3x1	1 13/16 x 1 x 7/8
CP53B5EF254M	ADM-6-3x25	2 x 1 3/4 x 7/8
CP53B5EF504M	ADM-6-3x5	2 x 2 x 1 1/8
1000 VOLTS DC WORKING		
CP53B1EG503M	ADM-10-05	1 13/16 x 1 x 3/4
CP53B1EG104M	ADM-10-1	1 13/16 x 1 x 3/4
CP53B1EG254M	ADM-10-25	1 13/16 x 1 x 7/8
CP53B1EG504M	ADM-10-5	2 x 1 3/4 x 7/8
CP53B1EG105M	ADM-10-1M	2 x 2 x 1 1/8
CP53B4EG503M	ADM-10-2x05	1 13/16 x 1 x 7/8
CP53B4EG104M	ADM-10-2x1	1 13/16 x 1 x 3/4
CP53B4EG254M	ADM-10-2x25	2 x 1 3/4 x 7/8
CP53B4EG504M	ADM-10-2x5	2 x 2 x 1 1/8
CP53B5EG503M	ADM-10-3x05	1 13/16 x 1 x 3/4
CP53B5EG104M	ADM-10-3x1	2 x 1 3/4 x 7/8
CP53B5EG254M	ADM-10-3x25	2 x 2 x 1 1/8

*Trade Mark

ASTRON TYPE ARMF

OIL-FILLED METAL TUBULARS

TEMP. RANGE −55° to +85°C

MIL TYPES CP25 thru CP29 of MIL C-25C

- Non-inductively wound. Mineral oil impregnated and filled. Hermetically sealed.
- Excellent capacitance stability and low power factor over entire temperature range −55°C. to +85°C.
- Units listed are internally insulated from case. Also available with capacitor section grounded to case (Type ARMG) and in accordance with all Specifications MIL-C-25C styles CP25-26-27-28-29.
- Wire leads 1½" long. Standard capacitance tolerance ±20%.

CAPACITOR SECTION INSULATED FROM CASE: CIRCUIT 1

ARMF (MIL Style CP-25): Sizes as shown.

MIL Style CP-26 ARMFP: Basic ARMF with plastic outer sleeve (P) for insulated body. Add 3/16" to length and 1/16" to diameter.

MIL Style CP-27 ARMF-Y: Basic ARMF with riveted radial mounting strap "Y" on uninsulated body. Case sizes as listed.

MIL Style CP-28 ARMFP-Y: Basic ARMF with plastic outer sleeve (P) and riveted radial mounting strap "Y". Add 3/16" to length, 1/16" to diameter.

MIL Style CP-29 ARMF-A: Basic ARMF with tangential soldered-on mounting bracket "A". Case sizes as listed.

CAPACITOR SECTION GROUNDED TO CASE: CIRCUIT 3

MIL Style CP-25 ARMG: Deduct 1/8" from length of ARMF sizes listed. Uninsulated body.

MIL Style CP-26 ARMGP: Basic ARMG with plastic outer sleeve (P) for insulated body. Add 1/16" to length and diameter of ARMF sizes listed.

MIL Style CP-27 ARMG-Y: Basic ARMG with riveted radial mounting strap "Y" on uninsulated body. Deduct 1/8" from length of ARMF sizes listed.

MIL Style CP-28 ARMGP-Y: Basic ARMG with plastic outer sleeve (P) and riveted radial mounting strap "Y". Add 1/16" to diameter and length of ARMF sizes listed.

MIL Style CP-29 ARMG-A: Basic ARMG with tangential soldered-on mounting bracket "A". Deduct 1/8" from length of ARMF sizes listed.

Military Number	Astron Type	Cap. Mf.	Dia. x Length
200 VOLTS DC WORKING			
CP25A1EC104M	ARMF-2-1	.1	5/8 x 1 5/8
CP25A1EC254M	ARMF-2-25	.25	3/4 x 2 1/8
CP25A1EC504M	ARMF-2-5	.5	1 x 2 1/8
600 VOLTS DC WORKING			
CP25A1EF302M	ARMF-6-003	.003	7/16 x 1 1/8
CP25A1EF602M	ARMF-6-006	.006	7/16 x 1 1/8
CP25A1EF103M	ARMF-6-01	.01	7/16 x 1 1/8
CP25A1EF203M	ARMF-6-02	.02	7/16 x 1 5/8
CP25A1EF503M	ARMF-6-05	.05	5/8 x 1 1/2
CP25A1EF104M	ARMF-6-1	.1	5/8 x 1 7/8
CP25A1EF254M	ARMF-6-25	.25	1 x 2 1/8
CP25A1EF504M	ARMF-6-5	.5	1 x 2 5/8
1000 VOLTS DC WORKING			
CP25A1EG302M	ARMF-10-003	.003	5/8 x 1 1/8
CP25A1EG602M	ARMF-10-006	.006	5/8 x 1 1/8
CP25A1EG103M	ARMF-10-01	.01	5/8 x 1 1/8
CP25A1EG203M	ARMF-10-02	.02	5/8 x 1 1/2
CP25A1EG503M	ARMF-10-05	.05	3/4 x 1 5/8
CP25A1EG104M	ARMF-10-1	.1	1 x 1 7/8
CP25A1EG254M	ARMF-10-25	.25	1 x 2 5/8
1500 VOLTS DC WORKING			
CP25A1EH302M	ARMF-15-003	.003	1 x 1 1/4
CP25A1EH602M	ARMF-15-006	.006	1 x 1 1/4
CP25A1EH103M	ARMF-15-01	.01	1 x 1 1/4
CP25A1EH203M	ARMF-15-02	.02	1 x 1 5/8
CP25A1EH503M	ARMF-15-05	.05	1 x 1 7/8
CP25A1EH104M	ARMF-15-1	.1	1 x 2 1/8

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EAST NEWARK, NEW JERSEY

Capacitors

SPECIALISTS IN CAPACITOR MINIATURIZATION

ASTRON METALITE® HY-MET TYPE MVL

FEATURING 50 VDC RATINGS

PLASTIC CASED TUBULAR METALLIZED PAPER CAPACITORS

ASTRON Type MVL are axial lead, tubular type metallized paper capacitors contained in plastic tubes with an epoxy end fill to provide maximum moisture resistance. They are free of the usual wax coating and therefore are ideal for potting in plastic resins. The capacitor sections are impregnated in a solid thermosetting plastic which allows operation at temperatures up to 100°C.

Type MVL Capacitors replace ASTRON discontinued types ML and MLL Metallized Paper Tubulars.

TEMPERATURE RANGE —30°C to +100°C

Catalog Number	Cap. Mfd.	Diameter (Inches) D	Length (Inches) L
50 VOLTS			
MVL-.5-1	.1	9/32	11/16
MVL-.5-22	.22	9/32	1
MVL-.5-33	.33	5/16	1
MVL-.5-47	.47	3/8	1
MVL-.5-1M	1.0	7/16	1
MVL-.5-2M	2.0	9/16	1 1/8
MVL-.5-4M	4.0	11/16	1 5/16
MVL-.5-6M	6.0	11/16	1 7/8
MVL-.5-8M	8.0	13/16	1 7/8
200 VOLTS			
MVL-2-01	.01	1/4	1 9/32
MVL-2-02	.02	1/4	2 1/32
MVL-2-03	.03	1/4	2 3/32
MVL-2-05	.05	1/4	2 3/32
MVL-2-1	.1	5/16	2 3/32
MVL-2-25	.25	7/16	2 3/32
MVL-2-5	.5	7/16	1 5/32
MVL-2-1M	1.0	9/16	1 5/32
MVL-2-2M	2.0	5/8	1 21/32
MVL-2-3M	3.0	3/4	1 25/32

Catalog Number	Cap. Mfd.	Diameter (Inches) D	Length (Inches) L
400 VOLTS			
MVL-4-01	.01	1/4	2 3/32
MVL-4-02	.02	5/16	2 3/32
MVL-4-03	.03	5/16	2 3/32
MVL-4-05	.05	3/8	2 3/32
MVL-4-1	.1	7/16	1 5/32
MVL-4-25	.25	1/2	1 5/32
MVL-4-5	.5	5/8	1 15/32
MVL-4-1M	1.0	11/16	1 31/32
MVL-4-2M	2.0	7/8	2 3/8
600 VOLTS			
MVL-6-01	.01	1/4	2 3/32
MVL-6-02	.02	5/16	2 3/32
MVL-6-03	.03	3/8	2 3/32
MVL-6-05	.05	7/16	2 3/32
MVL-6-1	.1	7/16	1 5/32
MVL-6-25	.25	5/8	1 5/32
MVL-6-5	.5	11/16	1 19/32
MVL-6-1M	1.0	13/16	2
MVL-6-2M	2.0	1	2 3/8

NOTE: (1) Wire Size: Up to and including 11/16" — #22awg. Above 11/16" — #20 awg.
(2) Standard capacity tolerance is ±20%. Special tolerances of ±10% or ±5% are available upon request. Specify by adding tolerance numerals to the part number. Example: MVL-2-1M-10.

ASTRON METALITE® TYPE MQCF

- Smallest paper capacitor type available for the given ratings.
- Mineral wax impregnated and filled.
- Tinned, non-ferrous metal cases. Hermetically sealed.

Non-inductively wound. Capacitor section insulated from case with glass-to-metal terminal at each end. Available also with section grounded to case, glass-to-metal seal terminal at one end (TYPE MQC).

TEMPERATURE RANGE —65°C to +85°C

Cat. No.	Cap. Mf.	Dia. x Lgth.
150 VOLTS DC WORKING		
MQCF-1.5-4M	4.0	1 x 1 13/16
MQCF-1.5-6M	6.0	1 x 1 13/16
MQCF-1.5-8M	8.0	1 x 2 5/16
200 VOLTS DC WORKING		
MQCF-2-01	.01	.235 x 13/16
MQCF-2-02	.02	.235 x 13/16
MQCF-2-033	.033	.235 x 13/16
MQCF-2-04	.04	.235 x 13/16
MQCF-2-05	.05	.235 x 13/16
MQCF-2-1	.1	.312 x 13/16
MQCF-2-15	.15	.400 x 13/16
MQCF-2-2	.2	.400 x 13/16
MQCF-2-25	.25	.400 x 13/16
MQCF-2-33	.33	.400 x 1 1/8
MQCF-2-5	.5	.400 x 1 1/8
MQCF-2-68	.68	.562 x 1 5/16
MQCF-2-1M	1.0	.562 x 1 5/16
MQCF-2-1.5M	1.5	.562 x 1 13/16
MQCF-2-2M	2.0	.562 x 1 13/16
400 VOLTS DC WORKING		
MQCF-4-01	.01	.235 x 13/16
MQCF-4-02	.02	.235 x 13/16
MQCF-4-03	.03	.312 x 13/16
MQCF-4-04	.04	.312 x 1 1/8
MQCF-4-05	.05	.312 x 1 1/8
MQCF-4-1	.1	.400 x 1 1/8
MQCF-3-15	.15	.562 x 1 1/8
MQCF-4-2	.2	.562 x 1 1/8
MQCF-4-25	.25	.562 x 1 1/8
MQCF-4-33	.33	.562 x 1 5/16
MQCF-4-5	.5	.562 x 1 13/16
MQCF-4-68	.68	.670 x 1 13/16
MQCF-4-1M	1.0	.670 x 2 5/16
MQCF-4-1.5M	1.5	1 x 2 5/16
MQCF-4-2M	2.0	1 x 2 5/16
MQCF-4-4M	4.0	1 1/8 x 2 5/16
600 VOLTS DC WORKING		
MQCF-6-01	.01	.235 x 13/16
MQCF-6-015	.015	.312 x 13/16
MQCF-6-02	.02	.312 x 13/16
MQCF-6-03	.03	.312 x 13/16
MQCF-6-04	.04	.312 x 1 1/8
MQCF-6-05	.05	.312 x 1 1/8
MQCF-6-1	.1	.400 x 1 1/8
MQCF-6-15	.15	.562 x 1 1/8
MQCF-6-22	.22	.562 x 1 5/16
MQCF-6-25	.25	.562 x 1 5/16
MQCF-6-33	.33	.670 x 1 5/16
MQCF-6-5	.5	.670 x 1 13/16
MQCF-6-68	.68	.670 x 2 5/16
MQCF-6-1M	1.0	.750 x 2 5/16
MQCF-6-2M	2.0	1 x 2 5/16

STANDARD CAPACITANCE TOLERANCE: ±20%.

ASTRON METALITE® HY-MET TYPE MQLF

SUBMINIATURE TUBULAR METALLIZED PAPER CAPACITORS

With Voltage Derating

- Smallest paper capacitors available for the given ratings.
- Solid thermosetting impregnant.
- Tinned, non-ferrous metal cases. Hermetically sealed.

Non-inductively wound. Capacitor section insulated from case with glass-to-metal terminal at each end. Available also with section grounded to case, glass-to-metal seal terminal at one end (TYPE MQL).

TEMPERATURE RANGE —55°C to +125°C

Cat. No.	Cap Mf.	Dia. x Length
150 VOLTS DC WORKING		
MQLF-1.5-4M	4.0	1 x 1 13/16
MQLF-1.5-6M	6.0	1 x 1 13/16
MQLF-1.5-8M	8.0	1 x 2 5/16
200 VOLTS DC WORKING		
MQLF-2-01	.01	.235 x 13/16
MQLF-2-022	.022	.235 x 13/16
MQLF-2-033	.033	.235 x 13/16
MQLF-2-047	.047	.235 x 13/16
MQLF-2-05	.05	.235 x 13/16
MQLF-2-068	.068	.312 x 13/16
MQLF-2-1	.1	.312 x 13/16
MQLF-2-15	.15	.312 x 1 1/8
MQLF-2-22	.22	.312 x 1 1/8
MQLF-2-25	.25	.312 x 1 1/8
MQLF-2-33	.33	.400 x 1 1/8
MQLF-2-47	.47	.400 x 1 1/8
MQLF-2-5	.5	.400 x 1 1/8
MQLF-2-68	.68	.500 x 1 1/8
MQLF-2-1M	1.0	.562 x 1 1/8
MQLF-2-2M	2.0	.562 x 1 13/16
400 VOLTS DC WORKING		
MQLF-4-01	.01	.235 x 13/16
MQLF-4-022	.022	.235 x 13/16
MQLF-4-033	.033	.312 x 13/16
MQLF-4-047	.047	.312 x 1 1/8
MQLF-4-05	.05	.312 x 1 1/8

Cat. No.	Cap Mf.	Dia. x Length
400 VOLTS DC WORKING		
MQLF-4-068	.068	.400 x 1 1/8
MQLF-4-1	.1	.400 x 1 1/8
MQLF-4-22	.22	.500 x 1 1/8
MQLF-4-25	.25	.500 x 1 1/8
MQLF-4-33	.33	.562 x 1 5/16
MQLF-4-47	.47	.562 x 1 13/16
MQLF-4-5	.5	.562 x 1 13/16
MQLF-4-68	.68	.670 x 1 13/16
MQLF-4-1M	1.0	.670 x 2 5/16
MQLF-4-2M	2.0	1 x 2 5/16
600 VOLTS DC WORKING		
MQLF-6-01	.01	.235 x 13/16
MQLF-6-022	.022	.312 x 13/16
MQLF-6-033	.033	.400 x 13/16
MQLF-6-047	.047	.400 x 13/16
MQLF-6-05	.05	.400 x 13/16
MQLF-6-068	.068	.400 x 1 1/8
MQLF-6-1	.1	.400 x 1 1/8
MQLF-6-15	.15	.500 x 1 1/8
MQLF-6-22	.22	.562 x 1 5/16
MQLF-6-25	.25	.562 x 1 5/16
MQLF-6-33	.33	.562 x 1 13/16
MQLF-6-47	.47	.670 x 1 13/16
MQLF-6-5	.5	.670 x 1 13/16
MQLF-6-68	.68	.670 x 2 5/16
MQLF-6-1M	1.0	.750 x 2 5/16
MQLF-6-2M	2.0	1 x 2 5/16

STANDARD CAPACITANCE TOLERANCE: ±20%. Other tolerances are available.

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EAST NEWARK, NEW JERSEY

Capacitors

SPECIALISTS IN CAPACITOR MINIATURIZATION

"TRANSISTORIZED" SUBMINIATURE
METALLIZED PAPER CAPACITORS 50 WVDC

ASTRON TYPE MQZF

TEMPERATURE RANGE
−55°C to +125°C

NOTE:

1. Standard MQZF is supplied in "floating"construction.
2. Grounded construction is available upon request. Specify Type MQZ. Subtract 1/16" from length for sizes listed.
3. For plastic insulating outer sleeve (P) specify MQZFP or MQZP.
   (A) For floating type add 1/16" to diameter and length of sizes listed.
   (B) For grounded units add 1/16" to diameter to sizes listed.
4. Standard tolerance of Type MQZF is ±20%; special tolerances of ±10% and ±5% available upon request. Specify by adding tolerance numerals to part number. Example: MQZF-.5-1M-10.

Catalog Number	WVDC	Cap. Mfd.	Dia. ±1/64" (Inches) D	Length ±1/32" (Inches) L
MQZ-F .5-047	50	.047	.195	1 1/16
MQZ-F .5-068	50	.068	.195	1 3/16
MQZ-F .5-1	50	.1	.235	1 1/16
MQZ-F .5-15	50	.15	.235	1 3/16
MQZ-F .5-22	50	.22	.235	1
MQZ-F .5-33	50	.33	.312	1
MQZ-F .5-47	50	.47	.312	1
MQZ-F .5-68	50	.68	.400	1
MQZ-F .5-1M	50	1.0	.400	1
MQZ-F .5-1.5M	50	1.5	.500	1 1/8
MQZ-F .5-2M	50	2.0	.562	1 1/8
MQZ-F .5-4M	50	4.0	.670	1 11/32
MQZ-F .5-6M	50	6.0	.670	1 15/16
MQZ-F .5-8M	50	8.0	.750	1 15/16

Metal-Cased Tubulars

ASTRON METALITE® TYPE MRF

- Type MRF supplied with capacitor section insulated from case. Also available with section grounded to case (Type MRG).
- Lead length 1¾" minimum.
- Standard capacitance tolerance: ±20%.

TEMPERATURE RANGE
−65°C to +85°C

Cat. No.	Cap. Mf.	Dia. x Length
150 VOLTS DC WORKING		
MRF-1.5-4M	4.0	1 x 1 13/16
MRF-1.5-6M	6.0	1 x 1 13/16
MRF-1.5-8M	8.0	1 1/8 x 1 13/16
MRF-1.5-10M	10.0	1 1/4 x 1 13/16
200 VOLTS DC WORKING		
MRF-2-05	.05	3/8 x 7/8
MRF-2-1	.1	3/8 x 7/8
MRF-2-25	.25	1/2 x 7/8
MRF-2-5	.5	1/2 x 1 3/8
MRF-2-1M	1.0	.670 x 1 3/8
MRF-2-2M	2.0	.670 x 1 7/8
400 VOLTS DC WORKING		
MRF-4-03	.03	3/8 x 7/8
MRF-4-05	.05	1/2 x 7/8
MRF-4-1	.1	1/2 x 1 3/8
MRF-4-25	.25	.670 x 1 3/8
MRF-4-5	.5	.670 x 1 7/8
MRF-4-1M	1.0	3/4 x 2 3/8
MRF-4-2M	2.0	1 x 2 1/16
MRF-4-3M	3.0	1 1/8 x 2 1/16
MRF-4-4M	4.0	1 1/4 x 2 1/16
600 VOLTS DC WORKING		
MRF-6-01	.01	3/8 x 7/8
MRF-6-02	.02	3/8 x 7/8
MRF-6-03	.03	3/8 x 7/8
MRF-6-05	.05	1/2 x 7/8
MRF-6-1	.1	1/2 x 1 3/8
MRF-6-2	.2	.670 x 1 3/8
MRF-6-25	.25	.670 x 1 3/8
MRF-6-5	.5	.670 x 1 7/8
MRF-6-1M	1.0	3/4 x 2 3/8
MRF-6-2M	2.0	1 1/8 x 2 1/16
MRF-6-3M	3.0	1 1/4 x 2 1/16

Standard capacitance tolerance: ±20% Other tolerances are available.

VARIATIONS AVAILABLE

CAPACITOR SECTION INSULATED FROM CASE CIRCUIT 1

TYPE AND DESCRIPTION		
UNINSULATED BODY Sizes shown in listings	MRF	— Basic type as listed.
	MRF-Y	— with radial (Y) bracket.
	MRF-A	— with tangential (A) soldered-on bracket.
INSULATED BODY Add 3/16" to length and 1/16" to dia.	MRFP	— Basic type, with plastic sleeve (P).
	MRFP-Y	— with plastic sleeve (P) and radial (Y) bracket.

CAPACITOR SECTION GROUNDED TO CASE CIRCUIT 3

TYPE AND DESCRIPTION		
UNINSULATED BODY deduct 3/32" from length shown in listings	MRG	— Basic grounded section unit.
	MRG-Y	— with radial (Y) bracket.
	MRG-A	— with tangential (A) soldered-on bracket.
INSULATED BODY Add 3/32" to length and 1/16" to dia. shown in listings	MRGP	— Basic grounded section type with plastic sleeve (P).
	MRGP-Y	— with plastic sleeve (P) and radial (Y) bracket.

MYLAR* Metallized Capacitors

ASTRON METALITE® TYPE RQLF

TEMPERATURE RANGE
−55°C to +125°C

ASTRON TYPE RQLF combines in a miniature hermetically sealed case, the outstanding attributes of reliability at high temperatures up to +125°C without derating — with significant savings of space. They find their main applications in military reliability equipment and in critical industrial circuits.
Type RQLF Mylar* metallized capacitors are available in various military case and mounting styles.

WVDC	Catalog Number	Cap. Mfd.	Dia. x Length in inches
200	RQLF2-01	.010	.235 x 3/4
	RQLF-2-012	.012	.235 x 3/4
	RQLF2-015	.015	.235 x 3/4
	RQLF2-018	.018	.235 x 3/4
	RQLF2-022	.022	.235 x 3/4
	RQLF2-027	.027	.235 x 3/4
	RQLF2-033	.033	.235 x 3/4
	RQLF2-039	.039	.312 x 7/8
	RQLF2-047	.047	.312 x 7/8
	RQLF2-056	.056	.312 x 7/8
	RQLF2-068	.068	.312 x 7/8
	RQLF2-082	.082	.312 x 7/8
	RQLF2-1	.1	.312 x 7/8
	RQLF2-12	.12	.312 x 1 1/8
	RQLF2-15	.15	.312 x 1 1/8
	RQLF2-18	.18	.400 x 7/8
	RQLF2-22	.22	.400 x 7/8
	RQLF2-27	.27	.400 x 1 1/8
	RQLF2-33	.33	.400 x 1 1/8
	RQLF2-39	.39	.500 x 1 1/8
	RQLF2-47	.47	.500 x 1 1/8
	RQLF2-56	.56	.500 x 1 1/8
	RQLF2-68	.68	.500 x 1 1/8
	RQLF2-82	.82	.562 x 1 1/8
	RQLF2-1.M	1.0	.562 x 1 1/8
	RQLF2-1.5M	1.5	.562 x 1 5/8
	RQLF2-2.M	2.0	.670 x 1 5/8
	RQLF2-3.M	3.0	.670 x 1 7/8
	RQLF2-4.M	4.0	.750 x 1 7/8
	RQLF2-5.M	5.0	1.00 x 1 7/8
	RQLF2-6.M	6.0	1.00 x 1 7/8
	RQLF2-8.M	8.0	1.00 x 1 7/8
	RQLF2-10.M	10.0	1.00 x 2 3/8
	RQLF2-12.M	12.0	1.00 x 2 3/8
400	RQLF4-01	.010	.312 x 7/8
	RQLF4-012	.012	.312 x 7/8
	RQLF4-015	.015	.312 x 7/8
	RQLF4-018	.018	.312 x 7/8
	RQLF4-022	.022	.312 x 7/8
	RQLF4-027	.027	.312 x 1 1/8
	RQLF4-033	.033	.312 x 1 1/8
	RQLF4-039	.039	.400 x 1 1/8
	RQLF4-047	.047	.400 x 1 1/8
	RQLF4-056	.056	.400 x 1 1/8
	RQLF4-068	.068	.400 x 1 1/8
	RQLF4-082	.082	.500 x 1 1/8
	RQLF4-1	.1	.500 x 1 1/8
	RQLF4-12	.12	.500 x 1 1/8
	RQLF4-15	.15	.500 x 1 1/8
	RQLF4-18	.18	.562 x 1 3/8
	RQLF4-22	.22	.562 x 1 3/8
	RQLF4-27	.27	.562 x 1 5/8
	RQLF4-33	.33	.562 x 1 5/8
	RQLF4-39	.39	.670 x 1 5/8
	RQLF4-47	.47	.670 x 1 5/8
	RQLF4-56	.56	.670 x 1 7/8
	RQLF4-68	.68	.670 x 1 7/8
	RQLF4-82	.82	.750 x 1 7/8
	RQLF4-1.M	1.0	.750 x 1 7/8
	RQLF4-1.5M	1.5	1.00 x 1 7/8
	RQLF4-2.M	2.0	1.00 x 1 7/8
	RQLF4-3.M	3.0	1.00 x 2 5/8
600	RQLF6-01	.010	.312 x 7/8
	RQLF6-012	.012	.312 x 7/8
	RQLF6-015	.015	.312 x 7/8
	RQLF6-018	.018	.312 x 1 1/8
	RQLF6-022	.022	.312 x 1 1/8
	RQLF6-027	.027	.312 x 1 1/8
	RQLF6-033	.033	.312 x 1 1/8
	RQLF6-039	.039	.400 x 1 1/8
	RQLF6-047	.047	.400 x 1 1/8
	RQLF6-056	.056	.400 x 1 1/8
	RQLF6-068	.068	.400 x 1 1/8
	RQLF6-082	.082	.500 x 1 1/8
	RQLF6-1	.1	.500 x 1 1/8
	RQLF6-12	.12	.562 x 1 1/8
	RQLF6-15	.15	.562 x 1 1/8
	RQLF6-18	.18	.562 x 1 3/8
	RQLF6-22	.22	.562 x 1 3/8
	RQLF6-27	.27	.562 x 1 5/8
	RQLF6-33	.33	.562 x 1 5/8
	RQLF6-39	.39	.670 x 1 5/8
	RQLF6-47	.47	.670 x 1 5/8
	RQLF6-56	.56	.670 x 1 7/8
	RQLF6-68	.68	.670 x 1 7/8
	RQLF6-82	.82	1.00 x 1 7/8
	RQLF6-1.M	1.0	1.00 x 1 7/8
	RQLF6-1.5M	1.5	1.00 x 2 1/8
	RQLF6-2.M	2.0	1.00 x 2 1/8
	RQLF6-2.5M	2.5	1.00 x 2 5/8

*Reg. DuPont Trade Mark

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ASTRON

DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

Capacitors

SPECIALISTS IN CAPACITOR MINIATURIZATION

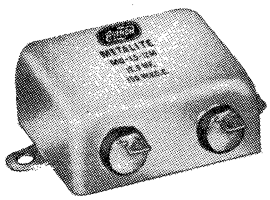
ASTRON METALITE® TYPES MD and MDL

MIL TYPES CH53, CH54, CH55 of MIL C-18312

TYPE MD AND MDL

- Units meet MIL tests for moisture resistance, thermal cycle immersion and vibration.
- Single units have two terminals; dual units have three terminals, one terminal common negative.
- Up to 75% reduction in sizes over conventional paper — foil capacitors with higher capacitance ratings than ever offered before in same size.
- Standard capacitance tolerance plus or minus 20%. OTHER TOLERANCES ARE AVAILABLE.

TYPE MD



OPERATING TEMPERATURE RANGE −65°C to +85°C

- Standard position of terminals on side. Also available with terminals on top (Type MDT) or bottom (Type MDB).
- Hermetically sealed. Silicone rubber compression seal lug terminals.

TYPE MDL

OPERATING TEMPERATURE RANGE −65°C to +125°C

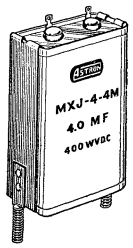
- Standard position of terminals is on side. Can be supplied with top terminals (Type MDLT) or bottom terminals (Type MDLB).
- Hermetically sealed. Lug type glass to metal sealed terminals.

BATHTUB METALLIZED PAPER CAPACITORS

WVDC	Cat. No.	Cap. Mf.	L	x	W	x	H	Mfg. Ctr.
150	MD or MDL-1.5-3M	3.0	1¾		1		⅞	21⁄8
	MD or MDL-1.5-4M	4.0	1¾		1		⅞	21⁄8
	MD or MDL-1.5-5M	5.0	1¾		1		⅞	21⁄8
	MD or MDL-1.5-6M	6.0	1¾		1¼		⅞	21⁄8
	MD or MDL-1.5-8M	8.0	2		1¾		¾	23⁄8
	MD or MDL-1.5-10M	10.0	2		1¾		⅜	23⁄8
	MD or MDL-1.5-12M	12.0	2		2		⅞	23⁄8
	MD or MDL-1.5-15M	15.0	2		2		1	23⁄8
	MD or MDL-1.5-16M	16.0	2		2		1⅛	23⁄8
	MD or MDL-1.5-18M	18.0	2		2		1¼	23⁄8
	MD or MDL-1.5-20M	20.0	2		2		1½	23⁄8
	MD 1.5-2x4M	4.0-4.0	2		1¾		⅜	23⁄8
	MD 1.5-2x6M	6.0-6.0	2		2		⅞	23⁄8
200	MD or MDL-2-1	.1	1¾		1		¾	21⁄8
	MD or MDL-2-25	.25	1¾		1		¾	21⁄8
	MD or MDL-2-5	.5	1¾		1		¾	21⁄8
	MD or MDL-2-1M	1.0	1¾		1		¾	21⁄8
	MD or MDL-2-2M	2.0	1¾		1		¾	21⁄8
	MD 2-2x1M	1.0-1.0	1¾		1		¾	21⁄8
	MD 2-2x2M	20.-2.0	1¾		1		⅞	21⁄8
400	MD or MDL-4-1	.1	1¾		1		¾	21⁄8
	MD or MDL-4-25	.25	1¾		1		¾	21⁄8
	MD or MDL-4-5	.5	1¾		1		¾	21⁄8
	MD or MDL-4-1M	1.0	1¾		1		⅞	21⁄8
	MD or MDL-4-2M	2.0	2		1¾		13⁄16	23⁄8
	MD or MDL-4-3M	3.0	2		1¾		15⁄16	23⁄8
	MD or MDL-4-4M	4.0	2		2		1	23⁄8
	MD or MDL-4-5M	5.0	2		2		1¼	23⁄8
	MD or MDL-4-6M	6.0	2		2		1½	23⁄8
	MD 4-2x5	.5- .5	1¾		1		⅞	21⁄8
	MD 4-2x1M	1.0-1.0	2		1¾		⅞	23⁄8
	MD 4-2x2M	2.0-2.0	2		2		1⅛	23⁄8
600	MD or MDL-6-1	.1	1¾		1		¾	21⁄8
	MD or MDL-6-25	.25	1¾		1		¾	21⁄8
	MD or MDL-6-5	.5	1¾		1		¾	21⁄8
	MD or MDL-6-1M	1.0	1¾		1¼		⅞	21⁄8
	MD or MDL-6-2M	2.0	2		2		⅞	23⁄8
	MD or MDL-6-3M	3.0	2		2		1⅛	23⁄8
	MD or MDL-6-4M	4.0	2		2		1⅜	23⁄8
	MD 6-2x25	.25-.25	1¾		1		¾	21⁄8
	MD 6-2x5	.5- .5	1¾		1¼		⅞	21⁄8
	MD 6-2x1M	1.0-1.0	2		2		1	23⁄8

ASTRON HY-MET* METALITE® TYPES MXJ and MXLJ

MIL TYPES CH 70 of MIL C-18312

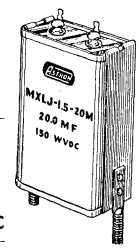


Type MXJ

OPERATING TEMPERATURE RANGE −60°C to +85°C

Type MXLJ

OPERATING TEMPERATURE RANGE −65°C to +125°C



TYPE MXJ & MXLJ

- Higher capacitance than ever before achieved in MIL Style CP70 cases, due to use of metallized paper sections.
- MXJ — Hermetically sealed. Silicone rubber compression seal lug terminals. Units meet MIL tests for moisture resistance, thermal cycle immersion and vibration.
- MXJ and MXLJ — Spade bolt "J" brackets supplied with each unit for convenient, rigid mounting.
- MXJ and MXLJ — Standard capacitance tolerance: 20%.
- MXLJ — Hermetically sealed. Glass-to-metal sealed lug terminals.

* Trade Mark

RECTANGULAR CASED METALLIZED PAPER CAPACITORS

IN TERNEPLATE CASES STYLE CP70

Cat. No.	Cap. Mf.	L	x	W	x	H	Mfg. Ctr.
100 VOLTS DC WORKING							
MXJ or MXLJ-1-100M	100.0	3¾		2¾		4 13⁄16	4
150 VOLTS DC WORKING							
MXJ or MXLJ-1.5-4M	4.0	1¾		1		1⅝	2
MXJ or MXLJ-1.5-10M	10.0	1¾		1		2⅝	2
MXJ or MXLJ-1.5-12M	12.0	1¾		1		2⅞	2
MXJ or MXLJ-1.5-15M	15.0	1¾		1		3⅜	2
MXJ or MXLJ-1.5-20	20.0	1¾		1		4⅜	2
MXJ or MXLJ-1.5-25M	25.0	2½		1		3	2¾
MXJ or MXLJ-1.5-30M	30.0	2½		1 3⁄16		3⅞	2¾
MXJ or MXLJ-1.5-50M	50.0	2½		1 3⁄16		4¾	2¾
400 VOLTS DC WORKING							
MXJ or MXLJ-4-2M	2.0	1¾		1		2⅛	2
MXJ or MXLJ-4-4M	4.0	1¾		1		2⅞	2
MXJ or MXLJ-4-6M	6.0	1¾		1		3⅞	2
MXJ or MXLJ-4/8m	8.0	1¾		1		4¾	2
MXJ or MXLJ-4-10M	10.0	2½		1 3⁄16		3⅞	2¾
MXJ or MXLJ-4-20M	20.0	2½		1 3⁄16		4¾	2¾
MXJ or MXLJ-4-30M	30.0	3¾		1¼		4¾	4
600 VOLTS DC WORKING							
MXJ or MXLJ-6-1M	1.0	1¾		1		1⅝	2
MXJ or MXLJ-6-2M	2.0	1¾		1		2⅜	2
MXJ or MXLJ-6-4M	4.0	1¾		1		3⅞	2
MXJ or MXLJ-6-6M	6.0	1¾		1		4¾	2
MXJ or MXLJ-6-8M	8.0	2½		1 3⁄16		3⅞	2¾
MXJ or MXLJ-6-10M	10.0	2½		1 3⁄16		4¾	2¾
MXJ or MXLJ-6-15M	15.0	3¾		1¼		4¾	4
MXJ or MXLJ-6-20M	20.0	3¾		1¾		4¼	4

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ASTRON

DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

Capacitors

SPECIALISTS IN CAPACITOR MINIATURIZATION

ASTRON TYPE XPR

ROUND MINIATURE MYLAR* DIELECTRIC CAPACITORS

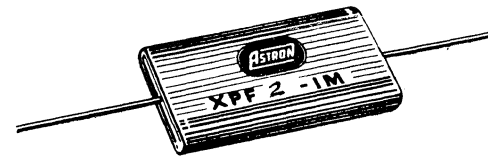
TEMPERATURE RANGE
−55°C to +125°C
With Voltage Derating

ASTRON Type XPR Tubular Capacitors use Mylar* Polyester film as a dielectric. Units are encased in a Mylar* Polyester tape wrap and ends sealed with a plastic thermosetting resin. This affords an excellent protection against moisture. Type XPR Capacitors are extremely small in size with high insulation resistance and exceptional capacitance stability.

* Reg. Dupont Trade Mark

Cat. No.	Cap. MFD	Dia.	x Length
	200 WVDC		
XPR-2-001	.001	.156	1/2
XPR-2-0015	.0015	.156	1/2
XPR-2-0022	.0022	.156	1/2
XPR-2-0033	.0033	.160	1/2
XPR-2-0047	.0047	.170	1/2
XPR-2-0068	.0068	.200	1/2
XPR-2-01	.01	.230	1/2
XPR-2-015	.015	.290	1/2
XPR-2-022	.022	.275	5/8
XPR-2-033	.033	.270	5/8
XPR-2-047	.047	.320	3/4
XPR-2-068	.068	.350	3/4
XPR-2-1	.1	.410	7/8
XPR-2-15	.15	.500	7/8
XPR-2-22	.22	.500	1 1/8
XPR-2-33	.33	.550	1 1/8
XPR-2-47	.47	.600	1 1/4
XPR-2-68	.68	.650	1 5/8
XPR-2-1M	1.0	.750	1 3/4
XPR-2-1.5M	1.5	.900	1 3/4
XPR-2-2M	2.0	.980	1 7/8
XPR-2-3M	3.0	1.07	2 5/16
	400 WVDC		
XPR-4-001	.001	.156	5/8
XPR-4-0015	.0015	.156	5/8
XPR-4-0022	.0022	.156	5/8
XPR-4-0033	.0033	.190	5/8
XPR-4-0047	.0047	.200	5/8
XPR-4-0068	.0068	.250	5/8
XPR-4-01	.01	.300	5/8
XPR-4-015	.015	.360	5/8
XPR-4-022	.022	.320	3/4
XPR-4-033	.033	.350	7/8
XPR-4-047	.047	.400	7/8
XPR-4-068	.068	.390	1
XPR-4-1	.1	.465	1
XPR-4-15	.15	.515	1 1/4
XPR-4-22	.22	.565	1 3/8
XPR-4-33	.33	.600	1 5/8
XPR-4-47	.47	.700	1 5/8
XPR-4-68	.68	.790	1 3/4
XPR-4-1M	1.0	.875	2
XPR-4-1.5M	1.5	.975	2 1/4
XPR-4-2M	2.0	1.250	2 1/4
	600 WVDC		
XPR-6-001	.001	.170	3/4
XPR-6-0015	.0015	.170	3/4
XPR-6-0022	.0022	.187	3/4
XPR-6-0033	.0033	.203	3/4
XPR-6-0047	.0047	.234	3/4
XPR-6-0068	.0068	.265	3/4
XPR-6-01	.01	.290	3/4
XPR-6-015	.015	.312	7/8
XPR-6-022	.022	.187	3/4
XPR-6-033	.033	.350	1
XPR-6-047	.047	.415	1
XPR-6-068	.068	.500	1
XPR-6-1	.1	.520	1 3/8
XPR-6-15	.15	.625	1 3/8
XPR-6-22	.22	.660	1 5/8
XPR-6-33	.33	.687	2
XPR-6-47	.47	.855	2
XPR-6-68	.68	.970	2
XPR-6-1M	1.0	1.165	2 1/2
XPR-6-1.5M	1.5	1.275	3
XPR-6-2M	2.0	1.460	3

ASTRON TYPE XPF



FLAT MINIATURE MYLAR* DIELECTRIC CAPACITORS

TEMPERATURE RANGE
−55°C to +125°C
With Voltage Derating

ASTRON Type XPF Capacitors use Mylar* Polyester film as a dielectric. This series of non-metallic cased units employ an outer Mylar* Polyester tape wrap and ends sealed with a plastic thermosetting resin. This affords an excellent protection against moisture. Ideally suited for use in applications requiring minimum size, high insulation resistance and exceptional capacitance stability.

* Reg. Dupont Trade Mark

Cat. No.	Cap. MFD	T	W	L
	200 WVDC			
XPF-2-01	.01	1/8	1/4	3/4
XPF-2-015	.015	5/32	9/32	3/4
XPF-2-022	.022	3/16	5/16	3/4
XPF-2-033	.033	7/32	11/32	3/4
XPF-2-047	.047	1/4	3/8	3/4
XPF-2-068	.068	7/32	3/8	7/8
XPF-2-082	.082	1/4	13/32	7/8
XPF-2-1	.1	1/4	7/16	7/8
XPF-2-15	.15	9/32	15/32	1
XPF-2-22	.22	9/32	15/32	1 1/4
XPF-2-33	.33	3/8	17/32	1 1/4
XPF-2-47	.47	13/32	9/16	1 3/8
XPF-2-68	.68	7/16	19/32	1 5/8
XPF-2-82	.82	15/32	5/8	1 5/8
XPF-2-1M	1.0	15/32	5/8	1 7/8

METALLIZED MYLAR® CAPACITORS

ASTRON METALITE® TYPE RLR

ASTRON TYPE RLR metallized Mylar* capacitors provide reliable operation even under adverse conditions in spite of their smaller size and lower cost.

Type RLR is an uncased unit, with a tough, protective Mylar* wrap and epoxy end seal . . . ideal for potted assembly, military and commercial applications.

TEMPERATURE RANGE
−55°C to +125°C

Cat. No.	Cap. MFD	Dia.	x Length
	200 WVDC		
RLR 2-01	.01	.155	5/8
RLR 2-012	.012	.165	5/8
RLR 2-015	.015	.180	5/8
RLR 2-018	.018	.190	5/8
RLR 2-022	.022	.205	5/8
RLR 2-027	.027	.220	5/8
RLR 2-047	.047	.200	3/4
RLR 2-068	.068	.220	3/4
RLR 2-1	.1	.255	3/4
RLR 2-15	.15	.227	1 1/8
RLR 2-22	.22	.262	1 1/8
RLR 2-33	.33	.305	1 1/8
RLR 2-47	.47	.355	1 1/8
RLR 2-56	.56	.380	1 1/8
RLR 2-68	.68	.415	1 1/8
RLR 2-1M	1.0	.490	1 1/8
RLR 2-1.5M	1.5	.470	1 5/8
RLR 2-2M	2.0	.535	1 5/8
RLR 2-3M	3.0	.595	1 7/8
RLR 2-6M	6.0	.825	1 7/8

Cap. Tolerance ±20%. * Reg. DuPont Trade Mark

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SKOTTIE ELECTRONICS, INC.

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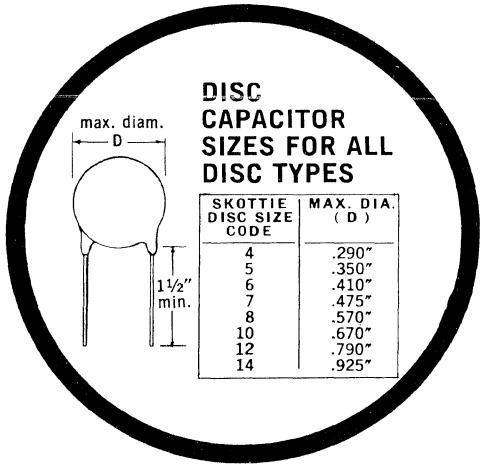
ASTRON®

Quality DISC & TUBULAR CERAMIC CAPACITORS



DISC CAPACITOR SIZES FOR ALL DISC TYPES

SKOTTIE DISC SIZE CODE	MAX. DIA. (D)
4	.290"
5	.350"
6	.410"
7	.475"
8	.570"
10	.670"
12	.790"
14	.925"

SPECIFICATIONS

WORKING VOLTAGE: 600 W.V.D.C.

TEST VOLTAGE (Flash): 1500 W.V.D.C.

POWER FACTOR: 1.5% Maximum at 1 kc (initial).

CAPACITANCE: Measured at 25°C, an RMS voltage between 0.5 and 5.0 and a frequency of 1 kc.

INITIAL INSULATION RESISTANCE: Over 10,000 megohms.

INSULATION: Phenolic vacuum-impregnated.

LEADS: No. 22 (.026" dia.) or No. 20 gauge (.032" dia.) tinned copper.

MARKING: Manufacturer's identification, capacitance and tolerance.

CAPACITANCE TOLERANCES:
K = ±10% M = ±20% X = +80%−20%
Y = GMV (+100%−0%) Z = +100%−20%

SKOTTIE STYLE TXD-
HIGH K GENERAL PURPOSE DISC CAPACITORS

SKOTTIE STYLE TXD all purpose disc ceramics provide the highest available capacitances at 25°C in the smallest possible size. These capacitors exhibit less capacitance change with temperature than the limits specified in the EIA RS-198 specification for Z5U ceramics. This specification allows a maximum capacitance change of +22% and −56% along a temperature range of +10°C to +85°C.

CAPACITANCE (pf) VS. SIZE

SKOTTIE STYLE and SIZE CODE	CAPACITANCE RANGE (pf)
TXD-4	1000 to 2000
TXD-5	2000 to 3000
TXD-6	3000 to 5000
TXD-8	5000 to 10,000
TXD-10	10,000 to 20,000
TXD-12	20,000 to 30,000

Specify desired Capacitance.

ORDERING INFORMATION

Example: Style *Size *Capacitance *Tolerance
TXD — 8 — 502 — M

***SIZE:** As shown above.

***CAPACITANCE (mmf):** The capacitance is indicated by a three digit number. The first two numbers are significant; the third specifies the number of zeros to follow.

***TOLERANCE:**
The letter (K) designates ±10%.
The letter (M) designates ±20%.
The letter (X) designates +80% −20%.
The letter (Y) designates GMV (+100%−0%).
The letter (Z) designates +100% −20%.

SKOTTIE STYLE TYD- MINIATURE LOW VOLTAGE 50-100 V.D.C. DISC CAPACITORS

SKOTTIE STYLE TYD all purpose ceramics provide the highest available capacitances at 25°C in the smallest possible size. These capacitors exhibit capacity change with temperature as specified in the EIA RS-198 specification for Z5V. This specification allows a max. cap. change of +22% to −82% for a temperature range of +10°C to +85°C.

CAPACITANCES VS. SIZE

SKOTTIE STYLE and SIZE CODE	STANDARD VALUES OTHERS AVAILABLE
TYD-4	.001, .002, .003, .005 MF
TYD-6	.01 MF
TYD-7	.02 MF, .03 MF
TYD-10	.04 MF, .05 MF, .01 MF
TYD-14	*.05 MF, *.1 MF

Specify desired Capacitance.
*Rated at 500 Volt D.C.

ORDERING INFORMATION

EXAMPLE: Style TYD — *Size 8 — *Capacitance 502 — *Tolerance M

***SIZE** As shown in table.

***CAPACITANCE (pf):** The capacitance is indicated by a three digit number. The first two numbers are significant; the third specifies the number of zeros to follow.

***TOLERANCE:**
The letter (K) designates ±10%.
The letter (M) designates ±20%.
The letter (X) designates +80% −20%.
The letter (Y) designates GMV (+100%−0%)
The letter (Z) designates +100% −20%.

SKOTTIE STYLE TSD- TEMPERATURE "STABLE" DISC CAPACITORS

SKOTTIE STYLE TSD Stable Capacitance Ceramics afford the best available linearity of capacitance with temperature range. These units are notable for extremely low aging rate and excellent dielectric strength. The standard 1000 V.D.C. working voltage rating is ultra conservative. Meet Y5D characteristics in specifications RS-198.

MAX. CAPACITANCES (pf) VS. SIZE

SKOTTIE STYLE and SIZE CODE	CAPACITANCE RANGE (pf)
TSD-4	600
TSD-5	900
TSD-6	1500
TSD-8	2400
TSD-10	3600
TSD-12	6500

Specify desired Capacitance.

ORDERING INFORMATION

EXAMPLE: Style TSD — *Size 5 — **Capacitance 101 — ***Tolerance J

***SIZE:** As shown in table.

****CAPACITANCE (mmf):** The capacitance is indicated by a three digit number. The first two numbers are significant; the third digit specifies the number of zeros to follow.

*****TOLERANCE:** The letter (M) designates ±20%.
The letter (K) designates ±10%.
The letter (J) designates ±5%.

SPECIFICATIONS:
TYD & TSD

WORKING VOLTAGE: 600 W.V.D.C.

TEST VOLTAGE (FLASH): 1500 W.V.D.C.

POWER FACTOR: 1.5% Maximum at 1 kc (initial).

CAPACITANCE: Measured at 25°C, an RMS voltage between 0.5 and 5.0 and a frequency of 1 kc.

INITIAL INSULATION RESISTANCE: Over 10,000 megohms.

INSULATION: Phenolic vacuum-wax impregnated.

LEADS: No. 22 (.026" diameter) or No. 20 gauge (.032" dia.) tinned copper.

MARKING: Manufacturer's identification, capacitance and tolerance.

CAPACITANCE TOLERANCES:
K = ±10%
M = ±20%
Y = GMV (+100%−0%)
X = +80%−20%
Z = +100%−20%

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Quality DISC & TUBULAR

CERAMIC CAPACITORS

SKOTTIE STYLE TCD- TEMPERATURE COMPENSATING DISC CAPACITORS

SPECIFICATIONS

WORKING VOLTAGE: 600 V.D.C. (Higher voltages available).

TEST VOLTAGE (Flash): 1500 V.D.C.

"Q": Over 1000 at 1 megacycle, for capacitances over 30 pf.

INITIAL LEAKAGE RESISTANCE: Over 10,000 megohms.

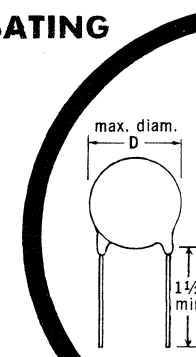
CAPACITANCE TOLERANCE: At 25°C: ±5% ±10% ±20%. Special tolerances available.

INSULATION: Phenolic vacuum wax impregnated.

LEADS: No. 22 (.026" diameter) or No. 20 gauge (.032") tinned copper.

MARKING: Capacitance, tolerance, and temperature coefficient.

SKOTTIE temperature compensating disc ceramic capacitors have a characteristically high "Q", high dielectric strength, excellent insulation resistance, low frequency coefficient of capacitance and very low aging rates They are manufactured in the various disc styles established, MIL-C-11015, and E.I.A. RS-198 specification.



DISC CAPACITOR SIZES FOR ALL DISC TYPES

SKOTTIE DISC SIZE CODE	MAX. DIA. (D)
4	.290"
5	.350"
6	.410"
7	.475"
8	.570"
10	.670"
12	.790"
14	.925"

ORDERING INFORMATION

EXAMPLE:

Style	*Size	*Capacitance	*Tolerance	*Temp. Coef.
TCD —	4 —	100 —	K —	NPO

***SIZE:** Size as shown in table.

***TEMP. COEF.:** Temperature coefficients as listed above or EIA characteristic.

***CAPACITANCE:** The capacitance is indicated by a three digit number. The first two numbers are significant; the third digit specifies the number of zeros to follow.

***TOLERANCE:** The letter (M) designates ±20%. The letter (K) designates ±10%. The letter (J) designates ±5% or ±.5 pf for 10 pf or less.

MAXIMUM CAPACITANCES (pf) VS. SIZE

Skottie Style: / Max. Dia.	TCD-4 .290"	TCD-5 .350"	TCD-6 .410"	TCD-8 .570"	TCD-10 .670"	TCD-12 .790"
TEMP. COEFF.	Min. & Max.	Max.	Max.	Max.	Max.	Max.
P100	1 to 6 pf	— pf	9 pf	28 pf	— pf	— pf
NP0	1 to 15	22	34	56	105	135
N030	1 to 16	23	35	56	106	140
N080	3 to 17	24	36	70	113	150
N150	3 to 18	33	40	85	123	190
N220	3 to 23	38	52	90	130	226
N330	3 to 25	40	56	100	148	248
N470	3 to 30	44	60	124	205	276
N750	3 to 45	65	90	164	300	356
N1500	20 to 65	120	150	300	375	550
N2200	20 to 100	125	180	370	600	850
N3300	20 to 175	250	275	710	1000	1300
N4700	30 to 275	325	350	1300	1500	2200
N5600	40 to 350	375	390	1500	2400	3500

SKOTTIE STYLE TFD- "FREQUENCY STABLE" DISC CAPACITORS

STYLE TFD FREQUENCY Stable Capacitance Ceramics exceed the standard specified in the EIA RS-198 specification for Z5F temperature characteristics. This specification allows a maximum capacitance change of ±7.5% for a temperature range of +10°C to +85°C. These capacitors exhibit excellent capacitance stability with voltage and frequency and afford relatively high capacitance vs. size.

MAX. CAPACITANCES (pf) VS. SIZE

SKOTTIE STYLE and SIZE CODE	MAX. CAPACITANCE RANGE (pf)
TFD-4	1000
TFD-5	1500
TFD-6	2000
TFD-8	4000
TFD-10	5000
TFD-12	10,000

Specify desired Capacitance.

ORDERING INFORMATION

EXAMPLE:

Style	*Size	*Capacitance	*Tolerance
TFD —	8 —	272 —	M

***SIZE:** As shown in table.

***CAPACITANCE (pf):** The capacitance is indicated by a three digit number. The first two numbers are significant; the third specifies the number of zeros to follow.

***TOLERANCE:** The letter (K) designates ±10%. The letter (M) designates ±20%. The letter (X) designates +80%—20%. The letter (Y) designates GMV (+100%—0%). The letter (Z) designates +100% —20%.

SPECIFICATIONS: TFD & TED

WORKING VOLTAGE: 600 W.V.D.C.

TEST VOLTAGE (Flash): 1500 W.V.D.C.

POWER FACTOR: 1.5% Maximum at 1 kc (initial).

CAPACITANCE: Measured at 25°C, an RMS voltage between 0.5 and 5.0 and a frequency of 1 kc.

INITIAL INSULATION RESISTANCE: Over 10,000 megohms.

INSULATION: Phenolic vacuum-wax impregnated.

LEADS: No. 22 (.026" dia.) or No. 20 gauge (.032" dia.) tinned copper.

MARKING: Manufacturer's identification, capacitance and tolerance.

CAPACITANCE TOLERANCES:

K = ±10%
M = ±20%
X = +80%—20%
Y = GMV (+100%—0%)
Z = +100%—20%

SKOTTIE STYLE TED- "SEMI-STABLE" DISC CAPACITORS

SKOTTIE STYLE TED Semi-stable Capacitance Ceramics exceed the standard specified in the EIA RS-198 specification for X5S temperature characteristics. This specification allows a maximum capacitance change of ±22% for a temperature range of −55°C to +85°C. These capacitors exhibit excellent capacitance stability with voltage and frequency and afford relatively high capacitance vs. size.

MAX. CAPACITANCES (pf) VS. SIZE

SKOTTIE STYLE and SIZE CODE	MAX. CAPACITANCE RANGE (pf)
TED-4	1000
TED-5	1500
TED-6	2000
TED-8	4000
TED-10	5000
TED-12	10,000

Specify desired Capacitance.

ORDERING INFORMATION

EXAMPLE:

Style	*Size	*Capacitance	*Tolerance
TED —	8 —	272 —	M

***SIZE:** As shown in table.

***CAPACITANCE (pf):** The capacitance is indicated by a three digit number. The first two numbers are significant; the third specifies the number of zeros to follow.

***TOLERANCE:** The letter (K) designates ±10%. The letter (M) designates ±20%. The letter (X) designates +80%—20%. The letter (Y) designates GMV (+100%—0%). The letter (Z) designates +100% —20%.

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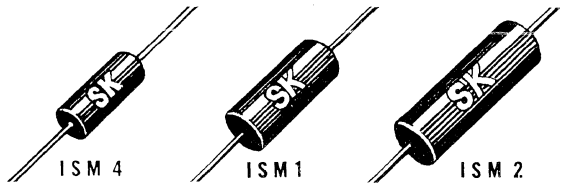
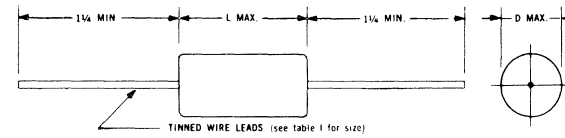
SKOTTIE STYLE ISM MOLDED TUBULAR CERAMIC CAPACITORS





SKOTTIE STYLE	ISM-4	ISM-1	ISM-2
EIA STYLE		CC21	CC26
D MAX. DIAM.	.180	.250	.250
L MAX. LENGTH	.450	.562	.812
WIRE LEAD SIZE	#22 (.025) AWG	#20 (.032) AWG	#20 (.032) AWG

IDEAL FOR COMPUTERS, COMMUNICATION AND TEST EQUIPMENT, INSTRUMENTS, ETC.

- The latest development using encapsulating materials and advanced manufacturing techniques to insure "proven" high reliability and uniformity for mechanized and automatic assembly under severe conditions.
- Utilizing a single ceramic dielectric element with 'fired on' electrodes and soldered connections, the Skottie ISM is extremely stable, eliminating any capacitor changing due solely to shifts of mechanical structure.
- Completely encased in pressure molded epoxy casing, binding all parts intimately, including leads.
- Meets MIL-Standard-202; MIL-C-20; MIL-C-11105; EIA Standards RS165 and EIA Standards 198.
- Ideal for automatic insertion into printed wiring boards, cord wood packages and other special miniature assemblies.
- Supplied on tape rolls with lead or body taping in loose, magazine or any other type packing.

TYPE ISM TEMPERATURE COMPENSATING TUBULAR CERAMIC CAPACITORS — Class I

TEMPERATURE COEFFICIENTS			MAXIMUM CAPACITANCE (pf) VS. SIZE STYLE AND SIZE CODE		
			ISM 4	ISM 1 (EIA Type) CC 21	ISM 2 (EIA Type) CC 26
PPM/°C	TOLERANCE PPM	E.I.A. TEMP. CHAR.	VOLTAGE RATING 200 VDCW	500 VDCW	500 VDCW
P 120	±30	M7G	12pf	12pf	23pf
P 030	±30	B6G	14pf	15pf	25pf
NPO	±30	C0G	25pf	25pf	47pf
N 030	±30	B1G	26pf	25pf	68pf
N 080	±30	U1G	29pf	29pf	45pf
N 150	±30	P2G	33pf	35pf	60pf
N 220	±30	R2G	36pf	38pf	66pf
N 330	±60	S2H	40pf	43pf	73pf
N 470	±60	T2H	45pf	46pf	88pf
N 750	±120	U2J	67pf	70pf	120pf
N 1400	±250	P3K	82pf	100pf	120pf
N 2200	±400	R3A	131pf	165pf	180pf
N 3300	±650	S3B	213pf	300pf	330pf
N 4200	±850	G3C	327pf	560pf	600pf
N 4700	±900	T3D	425pf	850pf	930pf
N 5600	±1000	H3M	573pf	1000pf	1100pf

ORDERING INFORMATION

EXAMPLE:	*Style	*Size	*Capacitance	*Tolerance	*Temp. Coeff.
	ISM	4	250	K	NPO

*STYLE: ISM — Molded Epoxy Tubular
*SIZE: Sizes as shown in Table 1.
*TEMP. COEF.: Temperature coefficient as listed above.
*CAPACITANCE: The capacitance is indicated by a three digit number. The first two numbers are significant; the third digit specifies the number of zeroes to follow.
*TOLERANCE: The letter (M) designates ±20%. The letter (K) designates ±10%. The letter (J) designates ±5%.

TYPE ISM HIGH K TUBULAR CERAMIC CAPACITORS — Class II

TEMPERATURE CHARACTERISTICS			MAXIMUM CAPACITANCE (pf) VS. SIZE STYLE AND SIZE CODE		
			ISM 4	ISM 1 (EIA Type) CC 21	ISM 2 (EIA Type) CC 26
TEMP. RANGE FOR CHARACTERISTIC DETERMINATION	CAPACITANCE CHANGE WITH TEMPERATURE	E.I.A. TEMP. CHARAC-TERISTIC	VOLTAGE RATING 200 VDCW	500 VDCW	500 VDCW
−10°C to +85°C	+22% −56%	Z5U	3500pf	3000pf	3300pf
−55°C to +85°C	±22%	X5S	1500pf	2000pf	2200pf
−30°C to +85°C	±3.3%	Y5D	1000pf	750pf	850pf
−10°C to +85°C	±7½%	Z5F	1400pf	1200pf	1350pf
−10°C to +85°C	+22% −82%	Z5V	5600pf	5000pf	6700pf
−55°C to +85°C	±7½%	X5F	1400pf	215pf	250pf
−55°C to +85°C	±10%	X5P	1400pf	575pf	750pf

ORDERING INFORMATION

EXAMPLE:	*Style	*Size	*Capacitance	*Tolerance	*EIA Char.
	ISM	4	352	K	Z5U

*STYLE: ISM — Molded Epoxy Tubular
*SIZE: Sizes as shown in Table 1.
*EIA CHARACTERISTIC: As listed above.
*CAPACITANCE: The capacitance is indicated by a three digit number. The first two numbers are significant; the third digit specifies the number of zeroes to follow.
*TOLERANCE: The letter (M) designates ±20%. The letter (K) designates ±10%. The letter (J) designates ±5%.

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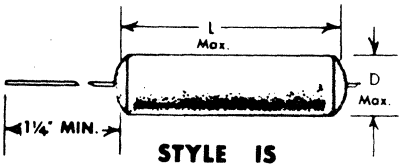
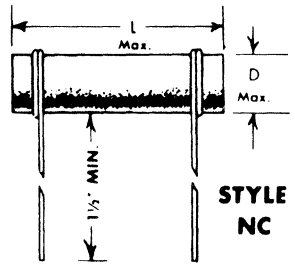
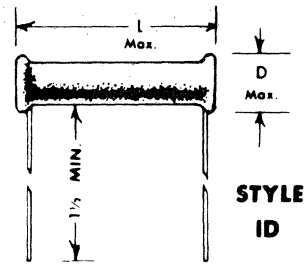
SKOTTIE TUBULAR CERAMIC CAPACITORS



STYLE IS



STYLE NC



STYLE ID

TUBULAR SIZE CHART

SKOTTIE STYLE & SIZE CODE	STEATITE CASE INSULATED TUBULAR — TYPE IS			LACQUER COATED UNINSULATED TUBULARS — TYPE NC							DUREZ INSULATED TUBULARS — TYPE ID						
	1	2	3	1	2	27	7	19	3	5	1	2	27	7	19	3	5
MAX. LENGTH (L)	.562	.812	1.320	.400	.655	.470	.825	.860	1.090	1.875	.468	.750	.540	.875	.937	1.250	.375
MAX. DIAM. (D)	.250	.250	.340	.200	.200	.240	.250	.250	.255	.340	.250	.250	.290	.312	.312	.312	.200
MIL-C-20 STYLE	CC21	CC26	CC36	CC20	CC25	CC30	CC32	——	CC35	CC45	CC22	CC27	CC31	CC33	——	CC37	CC47

SKOTTIE STYLE IS, NC, ID
Hi-K TUBULAR CAPACITORS

SKOTTIE Hi-K Tubular Ceramic Capacitors are general purpose high dielectric constant ceramic capacitors that conform to MIL-C-20, MIL-C-11015 and the EIA RS-198 specification for Z5U ceramics. This specification allows a maximum capacitance change of ±3.3% of room temperature capacitance from −30°C to +85°C with a maximum capacitance of 1800 pf to the high dielectric constant bodies with a maximum capacitance of 10,000 pf in the same case.

TEMPERATURE CHARACTERISTIC			MINIMUM-MAXIMUM CAPACITANCE (pf) for SKOTTIE HI-K TUBULARS	
MAXIMUM CAPACITANCE CHANGE	TEMP. RANGE FOR MAXIMUM CAPACITANCE CHANGE	E.I.A. SYMBOL FOR TEMP. CHAR.	Size Code (1)	Size Code (2)
±3.3%	−30 +85C	Y5D	750	1800
±7.5%	−55 +85C	X5F	215	650
±10%	−55 +85C	X5P	575	1500
±22%	−55 +85C	X5S	2000	3500
±7.5%	+10 +85C	Z5F	1200	2500
+22% −56%	+10 +85C	Z5U	3000	7500
+22% −82%	+10 +85C	Z5V	5000	10,000

NOTE: Specifications Same as for Styles TFD and TED.

ORDERING INFORMATION

EXAMPLE	*Style	*Size	*EIA Char.	*Capacitance	*Tolerance
	ID	27	Z5U	50	K

*STYLE: ID — Insulated Durez tubular
NC — Non-Insulated tubular
IS — Insulated Steatite tubular

*SIZE: Sizes as shown above.

*EIA CHARACTERISTIC: As listed above.

*CAPACITANCE: The capacitance is indicated by a three digit number. The first two numbers are significant; the third digit specifies the number of zeroes to follow.

*TOLERANCE: The letter (M) designates ±20%.
The letter (K) designates ±10%.
The letter (J) designates ±5%.

SKOTTIE STYLE IS, NC, ID
TEMPERATURE COMPENSATING TUBULAR CAPACITORS

SKOTTIE Temperature Compensating Tubular ceramic capacitors are available in the widest ranges of temperature coefficients having any predetermined value from P120 to a negative coefficient of N5600. (See chart).

SKOTTIE Tubulars are available in three different styles in accordance with MIL-C-20, MIL-C-11015 and the EIA RS-198 specification. They are capable of operating over a temperature range with proper derating from −55°C to +125°C.

MAXIMUM CAPACITANCES (mmfd) VS. SIZE							
SIZE CODE:	(1)	(13)	(2)	(27)	(7)	(19)	(3)
TEMPERATURE COEFFICIENT							
P120	.3 to 12 pf	— pf	15 pf	— pf	40 pf	— pf	60 pf
NP0	.3 to 25	33	45	50	100	120	160
N030	.3 to 25	34	46	52	103	125	165
N080	.3 to 29	39	48	59	120	140	182
N150	.3 to 32	44	56	68	137	160	202
N220	.3 to 36	48	65	74	150	175	220
N330	.3 to 39	54	80	81	169	192	242
N470	.3 to 46	64	90	110	205	230	282
N750	.3 to 65	90	120	150	290	320	387
N1400	1 to 100	140	225	300	465	500	595
N2200	1 to 165	—	265	—	—	—	—
N3300	1 to 300	—	380	—	—	—	—
N4700	1 to 560	—	825	—	—	—	—
N5600	1 to 850	—	1200	—	—	—	—

NOTE: Specifications Same as for Style TCD.

ORDERING INFORMATION

EXAMPLE:	*Style	*Size	*Capacitance	*Tolerance	*Temp. Coeff.
	ID	27	500	K	NPO

*STYLE: ID — Insulated Durez tubular
NC — Non-insulated tubular
IS — Insulated Steatite tubular

*SIZE: Sizes as shown above.

*TEMP. COEF.: Temperature coefficient as listed above.

*CAPACITANCE: The capacitance is indicated by a three digit number. The first two numbers are significant; the third digit specifies the number of zeroes to follow.

*TOLERANCE: The letter (M) designates ±20%.
The letter (K) designates ±10%.
The letter (J) designates ±5%.

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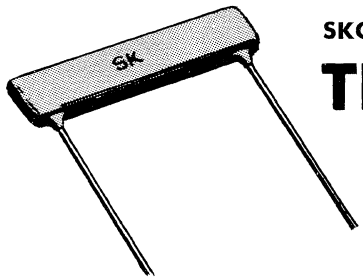
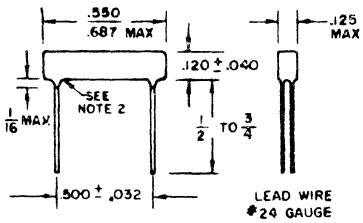
Quality DISC & TUBULAR
CERAMIC CAPACITORS

RECTANGULAR PLATE & SQUARE CERAMIC CAPACITORS

- Specifically developed for use in printed wiring assemblies for minimum use of space.
- Made to utilize latest development in ceramic dielectrics, covering the complete range of temperature characteristics from plus 100 parts per million to high "K" material including all negative temperature coefficients.
- TP Capacitors designed for using a fixed distance between leads for minimum all-over heights, no higher than transistors or other equivalent components.
- SPD Capacitors designed to utilize a square plate, increasing overall capacitance by approx. 25% within same overall geometry.
- For both types, all dielectrics are available; sealed against moisture and effects of atmospheric conditions by a porous phenolic case, impregnated in microcrystaline wax.
- MEET ALL PERFORMANCE AND ENVIRONMENTAL REQUIREMENTS OF MIL-C-11015.



SKOTTIE STYLE TP-1 RECTANGULAR PLATE TYPE General Purpose

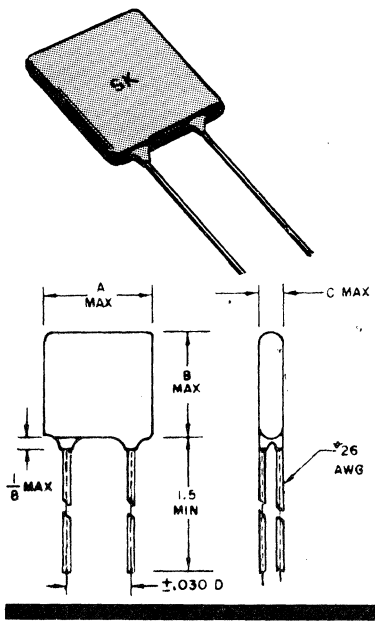


- Stable bodies available for a variety of temperature coefficients.
- Working Voltage 100 VDC.
- Test Voltage (Flash 300 VDC)
- Initial leakage resistance — over 10,000 megohms.
- Temperature range −55°C to +85°C (EIA characteristics Z5, Y5, X5).
- Insulation: Phenolic, Wax impregnated.
- Leads: No. 24 AWG tinned copper.
- Minimum marking: Capacitance, Tolerance, and Temperature coefficient or EIA characteristics.
- Insulating coating does not extend more than 1/16" along lead wires, measured from a tangent to the coating surfaces drawn perpendicular to the lead wire.
- Capacitance tolerance: M ±20% K ±10% J ±5% — Special Tolerances Available.

SKOTTIE TYPE DESIGNATION	DC WORKING VOLTAGE	TC OR K FACTOR	CAPACITANCE CHANGE vs. TEMP	CAP. pF	CAP. TOL.
TP-1-220-J	100	N220	± 1.5%	22	J, K
TP-1-330-J	100	N330	± 2.0%	33	J, K
TP-1-470-J	100	N470	± 3.0%	47	J, K
TP-1-600-J	100	N750	± 5.0%	68	J, K
TP-1-101-J	100	N1500	±10.0%	100	J, K
TP-1-151-J	100	N1500	±10.0%	150	J, K
TP-1-221-K	100	K300	± 6.0%	220	K
TP-1-271-K	100	K300	± 6.0%	270	K
TP-1-331-K	100	K300	± 6.0%	330	K
TP-1-421-K	100	K825	±10.0%	420	K
TP-1-471-K	100	K825	±10.0%	470	K
TP-1-681-K	100	K825	±10.0%	680	K
TP-1-801-K	100	K1200	± 3.3%	800	K
TP-1-102-K	100	K1200	± 3.3%	1000	K
TP-1-122-K	100	K1200	± 3.3%	1200	K
TP-1-152-K	100	K1200	± 3.3%	1500	K
TP-1-202-K	100	K1200	± 3.3%	2000	K
TP-1-272-K	100	K1200	± 3.3%	2700	K
TP-1-472-M	100	K1900	±22.0%	4700	M
TP-1-682-M	100	K1900	±22.0%	6800	M

SKOTTIE STYLE SPD SQUARE PLATE TYPE GENERAL PURPOSE

- Stable bodies available for a variety of temperature coefficients.
- Working Voltage 200 VDC.
- Test Voltage (Flash 600 VDC).
- Initial leakage resistance — over 10,000 megohms.
- Temperature range −55°C to +85°C (EIA characteristics Z5, Y5, X5).
- Insulation: Phenolic, Wax impregnated.
- Leads: Radial No. 26 AWG tinned copper or No. 24 AWG.
- Minimum marking Capacitance, Tolerance, and Temperature coefficient or EIA characteristics.
- Insulating coating does not extend more than 1/16" along lead wires, measured from a tangent to the coating surfaces drawn perpendicular to the lead wire.
- Capacitance tolerance: M ±20% K ±10% J ±5%. Special Tolerances Available.



DIMENSIONS				
Style	A-Dim.	B-Dim.	C-Dim.	D-Dim.
SPD-150	.150	.150	.100	.100
SPD-200	.200	.200	.100	.100
SPD-300	.300	.300	.100	.200
SPD-400	.400	.400	.100	.200
SPD-550	.550	.550	.150	.375
SPD-600	.600	.575	.150	.375

Capacitance Tolerance ±5% ±10% ±20% +80−20%

T.C.	Max. Capacitance pF (SPD)					
SKOTTIE STYLES	SPD 150	SPD 200	SPD 300	SPD 400	SPD 550	SPD 600
P100	6pF	11pF	25pF	48pF	76pF	90pF
NPO	10	19	42	80	127	155
N030	12	23	51	96	150	185
N080	15	28	61	115	180	220
N150	17	32	69	130	210	250
N220	19	35	76	144	230	270
N330	21	39	85	160	255	310
N470	25	46	100	190	300	370
N750	35	64	138	260	410	510
N1500	42	78	170	320	510	620
N2200	62	125	270	510	810	980
N3300	100	180	400	760	1200	1480
N4700	250	460	1000	1900	3000	3700
N5600	370	700	1500	2800	4500	5500
Z5D, X5F	500	920	2000	3800	6000	7000
Z5F	700	1300	2800	5400	8600	10,500
Z5R, X5R	820	1500	3000	6000	10,000	12,000
Z5T	1600	3100	6800	12,500	20,000	24,000
Z5U, X5V	2500	4500	10,000	19,000	30,000	37,000
Z5V, X5V	3000	6000	13,000	25,000	40,000	49,000

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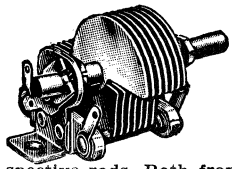
Variable Condensers

MIDGET CONDENSERS DOUBLE BEARING



Small, sturdy, high mechanical and electrical efficiency. Alsimag insulation. Rotor and stator plates are cadmium-plated brass and are electro soldered to their respective rods. Both front and rear bearings. Furnished in either mid-line (straight line wave length), or semi-circular (straight line capacity) plates.

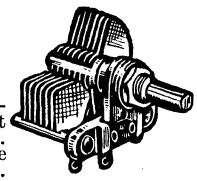
SEMI-CIRCULAR TYPE

Bud No.	Cap., μμf Max.	Cap., μμf Min.	Air Gap	Net Each
MC-1850	15	3	.024″	$1.82
MC-1852	33	4	.024″	1.88
MC-1853	50	5	.024″	2.48
MC-1855	100	7	.024″	2.70
MC-1856	140	7	.024″	2.78
MC-1858	190	9	.024″	3.00
MC-1859	235	10	.024″	3.45
MC-1860	300	12	.024″	3.75
MC-1861	15	4	.060″	2.40
MC-1862	35	5	.060″	2.48
MC-1865	100	12	.060″	3.24

MID-LINE TYPE

MC-900	25	4	.024″	$2.29
MC-902	35	5	.024″	2.31
MC-903	50	6	.024″	2.43
MC-904	75	7	.024″	2.54
MC-905	100	7	.024″	2.76
MC-906	140	7	.024″	3.00
MC-909	250	11	.024″	3.36
MC-910	300	13	.024″	3.66

SINGLE BEARING MIDGET CONDENSERS

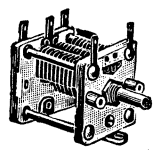


Construction is identical to the Midget condensers described. These condensers have a front bearing only.

SEMI-CIRCULAR TYPE

Bud No.	Cap., μμf Max.	Cap., μμf Min.	Air Gap	Net Each
MC-1870	15	3	.024″	$1.80
MC-1872	33	4	.024″	1.88
MC-1873	50	5	.024″	1.95
MC-1875	100	7	.024″	2.10
MC-1876	140	8	.024″	2.40
MC-1881	50	7	.060″	2.40

"CE" MIDGET CONDENSERS SINGLE SECT'N DOUBLE BEARING



To meet UHF and laboratory equipment use. Brass rotor and stator stacks electro soldered. End plates of Alsimag insulate mounting bushings and angles from rotor and stator assembly. Special wiper contact for noise-free tuning. All metal cadmium plated. Either panel or base mounting.

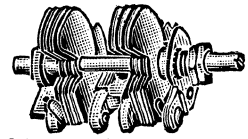
Bud No.	Cap., μμf. Max.	Cap., μμf. Min.	Air Gap	Over. Lg.	Net Ea.
CE-2001	35	6	.030″	$2\frac{23}{32}$″	$3.00
CE-2002	50	7	.030″	$2\frac{27}{32}$″	3.42
CE-2004	100	9	.030″	$3\frac{11}{32}$″	4.05
CE-2005	150	10	.030″	$3\frac{13}{32}$″	4.13
CE-2006	200	11	.030″	$4\frac{1}{4}$″	4.80
CE-2007	250	12	.030″	$4\frac{3}{4}$″	5.40
CE-2008	300	15	.030″	$5\frac{3}{16}$″	5.48
CE-2015	100	13	.060″	$4\frac{9}{16}$″	4.65

"CE" TYPE DUAL MIDGETS

Similar to "CE", but double bearing. Feature rotor wiping contact at assembly center for maximum high frequency efficiency. Opposed rotor construction.

CE-2033	50	7	.030″	$3\frac{15}{32}$″	$4.50
CE-2035	100	9	.030″	$4\frac{25}{32}$″	5.36
CE-2036	150	10	.030″	$5\frac{7}{8}$″	6.45

DOUBLE GANG MIDGET CONDENSERS



Designed for chassis and panel mounting. Construction identical with other midgets.

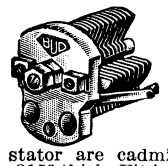
MID-LINE PLATE TYPE (STRAIGHT LINE WAVE LENGTH)

Bud No.	Cap. Per Sec. μμf Max.	Cap. Per Sec. μμf Min.	Air Gap	Over. Lg.	Net Ea.
MC-911A	100	6	.024″	$4\frac{3}{16}$″	$4.46
MC-912A	140	7	.024″	$4\frac{9}{16}$″	4.83

SEMI-CIRCULAR PLATE TYPE (STRAIGHT LINE CAPACITY)

MC-1882A	100	7	.024″	$4\frac{3}{16}$″	$4.35

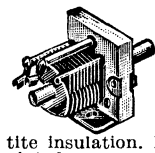
TINY-MITE PADDERS



Maintain constant capacity under all temperature and humidity conditions. For IF applications, fixed tuned circuits for exciters, ganged condenser air trimmers, and plug-in coil padding. Rotor and stator are cadmium-plated brass plates, .015″ thick. Fit inside standard $1\frac{1}{2}$″ diameter coil forms. Insulation is Steatite. May be adjusted in capacity by either a screwdriver or a $\frac{1}{4}$″ hex. wrench.

Bud No.	Cap., μμf Max.	Cap., μμf Min.	Air Gap	Net Each
LC-2076	15	2	.017″	$1.65
LC-2077	25	2.5	.017″	1.73
LC-2078	35	3	.017″	1.80
LC-2079	50	3.9	.017″	1.95
LC-2080	75	4.5	.017″	2.10
LC-2081	100	5.5	.017″	2.25
LC-2082	140	6.5	.017″	2.40

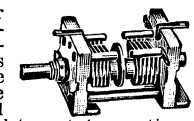
TINY-MITE SINGLE SECTION TUNING CONDENSERS



Designed for applications where space or weight are limiting factors and for tuning of UHF circuits. Rigid construction, close fitting bearing, positive rotor contact and Steatite insulation. Brass parts are cadmium plated.

Bud No.	Cap., μμf Max.	Cap., μμf Min.	Air Gap	Net Each
LC-1640	8	2.5	.017″	$1.71
LC-1641	15	3	.017″	1.82
LC-1642	25	4	.017″	1.95
LC-1643	35	5	.017″	1.95
LC-1644	50	6	.017″	2.10
LC-1645	75	7	.017″	2.33
LC-1646	100	9	.017″	2.40
LC-1650	25	5.5	.037″	2.01

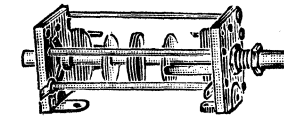
TINY-MITE DUAL CONDENSERS



Construction similar to the regular Tiny-Mite Tuning Condensers. End pieces held firmly with three tie-rods. Separate round plate soldered on rotor rod to shield two stator sections. Large surface front and rear bearings for smooth rotation.

Bud No.	Cap. per Sec. Max. μμf	Cap. per Sec. Min. μμf	Air Gap	Over. Lgth.	Net Each
LC-1659	8	2.5	.017″	$2\frac{17}{32}$″	$2.90
LC-1660	15	3	.017″	$2\frac{21}{32}$″	3.30
LC-1661	25	4	.017″	$2\frac{15}{16}$″	3.93
LC-1662	50	6	.017″	$3\frac{5}{8}$″	4.35
LC-1663	100	9	.017″	$4\frac{27}{32}$″	5.33
LC-1664	10	4	.037″	$3\frac{1}{16}$″	3.51
LC-1665	15	5	.037″	$3\frac{17}{32}$″	4.26

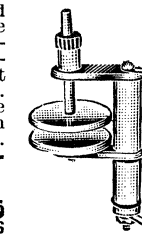
THREE-GANG TINY-MITE



Bud No.	Cap. Per Sec. μμf Max.	Cap. Per Sec. μμf Min.	Plates Per Section	Net Each
LC-1845	11	5	5	$5.25
LC-1846	17	5	7	5.85
LC-1847	25	6	9	6.23

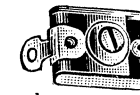
FEED-THRU NEUTRALIZING CONDENSERS

Particularly suited for circuits using tubes with grid lead terminated in the base. Single hole mounting, feed-thru design. Aluminum plates rounded at edge to cut down losses. After tuning, movable plate may be locked with knurled nut. Wt., $\frac{1}{4}$ lb.



Bud No.	Cap., μμf Max.	Cap., μμf Min.	Net Ea.
NC-852	6	.5	$2.49
NC-853	11	1	3.36

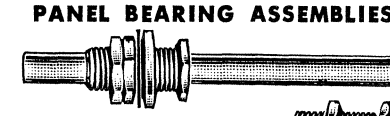
MIDGET TRIMMER CONDENSERS



Primarily intended for antenna coupling, interstage coupling and tracking applications. Ceramic base.

Bud No.	Cap., μμf Max.	Cap., μμf Min.	Wt., Lb.	Net Each
MT-833	36	3	$\frac{1}{4}$	$0.15
MT-828	420	94	$\frac{1}{4}$	.30

PANEL BEARING ASSEMBLIES



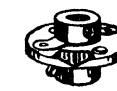
Consists of a regular $\frac{1}{4}$″ shaft bearing with 6″ and 3″ lengths of $\frac{1}{4}$″ brass rod inserted and held by washers to prevent the shaft from shifting. Facilitate the panel control of condensers, potentiometers, etc., which must be mounted away from the panel. Bearing fits in $\frac{13}{32}$″ hole on panels to $\frac{5}{16}$″ thick.

Bud No.	Overall Lgth., In.	Depth Behind Panel	Wt., Lbs.	Net Each
PB-530	6″	$4\frac{3}{4}$″	$1\frac{1}{4}$	$0.66
PB-531	3″	$1\frac{3}{4}$″	$\frac{3}{4}$	.54
PB-532	Bearing only		$\frac{1}{4}$*	.18

*Pkg. of 15; others, pkg. of 10.

INSULATED FLEXIBLE COUPLINGS

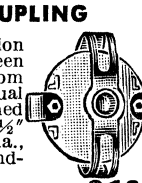
Tandem operation of two or more units is readily accomplished through the use of these couplers. Direct shaft alignment is not essential, and all couplers are made to fit $\frac{1}{4}$″ shafts.



Bud No.	Diam. In.	Hgt. In.	Insulation	Net Each
FC-795	$1\frac{1}{16}$	$\frac{11}{16}$	Ceramic	$0.78
FC-845	$1\frac{1}{16}$	$\frac{5}{8}$	Bakelite	.60
FC-855	$1\frac{1}{2}$	$\frac{11}{16}$	Bakelite	.54

HIGH VOLTAGE FLEXIBLE COUPLING

Special spring construction permits wide gap between shaft connections, freedom from back-lash and unusual flexibility. Springs attached to glazed steatite discs $\frac{1}{2}$″ dia. x $\frac{3}{16}$″ th. Overall dia., $1\frac{15}{16}$″. Accommodates standard $\frac{1}{4}$″ shaft.



Bud No. FC-614—Net Each..... **$1.20**

102X-62A

Net

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Centralab. Ceramic Capacitors

DD, ID CERAMIC DISC HI-KAPS®

Ideal for bypass coupling or filter service where high capacity is required and control stability is secondary. Operate for long periods of time under extreme moisture, temperature and vibration. **DD Types:** Rated 1000 WVDC except: DD6-103, DD-153, DD-203, DD-303, DD-403 and DD-503, which are 600 WVDC. **ID Types:** Rated 500 WVDC. **Tolerance:** ±10% unless otherwise noted.

Cap., μμf	CRL Number DD-	CRL Number ID-	Dia., In.	Cap., μμf	CRL Number DD-	CRL Number ID-	Dia., In.	Cap., μμf	CRL Number DD-	CRL Number ID-	Dia., In.	Cap., μμf	CRL Number DD-	CRL Number ID-	Dia., In.
3.3*	3R3	3R3	¼	68	680	680	¼	500	501	501	¼	3000‡	302	.003	⅜
5	050	050	¼	75	750	750	¼	510	511	511	¼	3300‡	332	.0033	⅜
6	060	060	¼	82	820	820	¼	560	561	561	¼	3900‡	392	.0039	⅜
6.8	6R8	6R8	¼	91	910	910	¼	600	601	601	¼	4000‡	402	.004	⅜
7.5	7R5	7R5	¼	100	101	101	¼	680	681	681	¼	4300‡	432	.0043	⅜
8	080	080	¼	120	121	121	¼	750	751	751	¼	4700‡	472	.4722	⅜
10	100	100	¼	130	131	131	¼	800‡	801	.0008	¼	4700‡	4726	.0047	⅜
12	120	120	¼	150	151	151	¼	820	821	821	¼	5000‡	5022	.....	⅜
15	150	150	¼	180	181	181	¼	910	911	911	¼	5000‡	502	.005	⅜
18	180	180	¼	200	201	201	¼	1000	102	102	⅜	5600‡	562	.0056	⅜
20	200	200	¼	220	221	221	¼	1000‡	102G	.001	½	6800‡	682	.0068	⅜
22	220	220	¼	240	241	241	¼	1200	122	122	⅜	7500‡	752	.0075	⅜
24	240	240	¼	250	251	251	¼	1200‡	122G	.0012	½	8200‡	822	.0082	⅜
25	250	250	¼	270	271	271	¼	1300	132	132	⅜	10,000‡	103	.....	#13/16
27	270	270	¼	300	301	301	¼	1500	152	152	⅜	10,000‡	1032	1032	13/16
30	300	300	¼	330	331	331	½	1500‡	152G	.0015	½	10,000‡	6-103	.01	⅞
33	330	330	¼	350	351	351	¼	1600	162	162	⅜	15,000§	153	.015	13/16
39	390	390	¼	360	361	361	¼	1800	182	182	½	20,000‡	.....	203	⅜
47	470	470	¼	390	391	391	¼	2000‡	202	.002	⅜	20,000§	203	.02	13/16
50	500	500	¼	400	401	401	½	2200‡	222	.0022	⅜	30,000§	303	.03	⅞
51	510	510	¼	470	471	471	¼	2500‡	252	.0025	⅜	40,000§	403	.04	⅞
56	560	560	¼	470‡	471G	.00047	¼	2700‡	272	.0027	⅜	50,000§	503	.05	⅞

Tolerance: *±0.5 μμf. †GMV. ‡±20%. §+80, —20%. #⅜" dia.

DD, ID INDUSTRIAL NET PRICES

Values, μμf	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
DD Types					
3.3 thru 8,200	15c	11.9c	10c	7.5c	5.6c
10,000 thru 20,000	24c	19c	16c	12c	9c
30,000 thru 50,000	45c	35.6c	30c	22.5c	16.9c
ID Types					
3.3 thru 10,000	15c	11.9c	10c	7.5c	5.6c
15,000 and ID-.02	18c	14.3c	12c	9c	6.8c
ID-203, -.03, -.04, -.05	36c	28.5c	24c	18c	13.5c

MIL-C-11015B GENERAL PURPOSE CERAMIC DISC HI-KAPS® (500 WVDC)

Cap., μμf (PF)	CRL No. & MIL-C-11015B Designation	Cap., μμf (PF)	CRL No. & MIL-C-11015B Designation	Cap., μμf (PF)	CRL No. & MIL-C-11015B Designation
2.2*	CK60BV2R2K	220*	CK60AX221K	820‡	CK62BX821M
3.3*	CK60BV3R3K	220‡	CK60AX221M	1000*	CK62BX102K
4.7*	CK60BV4R7K	330*	CK60AX331K	1000‡	CK62BX102M
6.8*	CK60BV6R8K	330‡	CK60AX331M	1500*	CK62BX152K
10*	CK60BV100K	330*	CK61BX331K	1500‡	CK62BX152M
15*	CK60BV150K	330‡	CK61BX331M	2200*	CK62AX222K
22*	CK60BV220K	470*	CK60AX471K	2200‡	CK62AX222M
33*	CK60BX330K	470‡	CK60AX471M	2200*	CK63BX222K
33‡	CK60BX330M	470*	CK61BX471K	2200‡	CK63BX222M
47*	CK60BX470K	470‡	CK61BX471M	3300*	CK63BX332K
47‡	CK60BX470M	680*	CK61BX681K	3300‡	CK63BX332M
150*	CK60BX151K	680‡	CK61BX681M		
150‡	CK60BX151M	820*	CK62BX821K		

Tolerances: *±10%; ‡±20%.

MIL-C-11015B INDUSTRIAL NET PRICES

Values, μμf	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
2.2 thru 680	21c	16.6c	14c	10.5c	7.9c
820 thru 1500	27c	21.4c	18c	13.5c	10c
2200 (—AX—)	27c	21.4c	18c	13.5c	10c
2200 (—BX—), 3300	30c	23.7c	20c	15c	11.3c

TYPES CE TEMPERATURE STABLE AND CF SEMI-STABLE DISC HI-KAPS®

Offer exceptional stability through an extended temperature range; for applications requiring low capacity change between —55°C and +85°C temperatures. Rated 500 WVDC. Life test, 1000 hours at 1000 v. DC at +85°C. Leakage resistance, 10,000 megs, min. initial; 1000 megs, after humidity. Phenolic insulation vacuum impregnated with high temperature wax. Power factor, 2% max. at 1 kc. Leads #22 tinned copper, 1½" lg. minimum. Tolerance, ±10%. Only .156" thick. **Dia.:** 150—560 μμf, .290" 680—1800 μμf, .385"; 2000—3900 μμf, .590"; 4700—6200 μμf, .690"; 8200 and 10K μμf, .920".

Temperature Stable "K" Cap. μμf	No. CE-	Cap. μμf	No. CE-	Cap. μμf	No. CE-	Temp. Semi-Stable "K" Cap. μμf	No. CF-	Cap. μμf	No. CF-	Cap. μμf	No. CF-
150	151	500	501	800	801	1200	122	2200	222	5000	502
220	221	560	561	1000	102	1500	152	3300	332	6200	622
330	331	680	681			1800	182	3900	392	8200	822
470	471	750	751			2000	202	4700	472	10K	103

SEE NEXT COLUMN

3000-6000 VOLT HI-VO-DISC® CAPACITORS

All these units are highly efficient for bypass-coupling in high frequency circuits under conditions of extreme humidity or temperature. Special phenolic insulation with triple, high temperature wax impregnation. Maintain high capacity and performance at 85°C. Tolerance: ±20%.

INDUSTRIAL NET PRICES

TYPE DD30 (3000 WVDC)

Values, μμf	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
4.7 thru 120	$0.24	$0.19	$0.16	$0.12	$0.09
150	.24	.19	.16	.12	.09
180 thru 270	.24	.19	.16	.12	.09
300 thru 470	.24	.19	.16	.12	.09
500 and 560	.24	.19	.16	.12	.09
680 thru 820	.24	.19	.16	.12	.09
1000 thru 5000	.30	.237	.20	.15	.113

TYPE DD60 (6000 WVDC)

4.7 thru 820	$0.36	$0.285	$0.24	$0.18	$0.135
1000 thru 2200	.60	.475	.40	.30	.225

Capacity, μμf	3000 Volt, DC Working CRL No.	Dia.	6000 Volt, DC Working CRL No.	Dia.
4.7	DD30-4R7	¼"	DD60-4R7	9/16"
10	DD30-100	¼"	DD60-100	9/16"
15	DD30-150	¼"	DD60-150	9/16"
22	DD30-220	¼"		
25	DD30-250	¼"		
30	DD30-300	¼"	DD60-300	9/16"
33	DD30-330	¼"	DD60-330	9/16"
39	DD30-390	¼"	DD60-390	9/16"
47	DD30-470	¼"	DD60-470	9/16"
50	DD30-500	¼"	DD60-500	9/16"

SEE NEXT COLUMN

CE, CF INDUSTRIAL NET PRICES

Values, μμf	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
150 thru 1800	18c	14.3c	12c	9c	6.8c
2000 thru 6200	21c	16.6c	14c	10.5c	7.9c
8200 and 10K	24c	19c	16c	12c	9c

TYPE DD2 DUO-KAPS®

Single disc, dual capacity. Double Durez Insulation. Rated 600 v. DC, working; 1200 v. DC, test. Tolerance: GMV. Dia A—.390"; B—.594"; C—.719"

Cap., μμf	CRL No.	Dia.	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
2 x .001	DD2-102	A	$0.24	$0.19	$0.16	$0.12	$0.09
2 x .0015	DD2-152	B	.24	.19	.16	.12	.09
2 x .005	DD2-502*	C	.36	.285	.24	.18	.135

*Tolerance: —20, +80%.

TYPE DD3 SHIELDED DUO-KAPS®

Three leads—two capacitors in the space formerly needed for one. Shielded to minimize stray capacities between discs. Rated 600 v. DC, working; 1200 v. DC, test. Tolerance: GMV. Dia.: A—.391"; B—.593"; C—.719".

2 x .001	DD3-102	A	$0.30	$0.238	$0.20	$0.15	$0.113
2 x .0015	DD3-152	A	.30	.238	.20	.15	.113
2 x .002	DD3-202	B	.30	.238	.20	.15	.113
2 x .005	DD3-502	B	.30	.238	.20	.15	.113
2 x .01	DD3-103	C	.30	.238	.20	.15	.113

D6 TUBULAR BC HI-KAPS®

Rated 600 v. DC working; 1200 v., test. Tropicalized. Operating temp.: —55° to +85°C. Tolerance: ±0.5 μμf D6-030; ±10%, 5 μμf thru 680 μμf, ±20%, 750 μμf thru 2200 μμf; GMV, 2500 μμf and up.

Cap., μμf	CRL No.	Size *	Cap., μμf	CRL No.	Size *	Cap., μμf	CRL No.	Size *
3	D6-030	A	100	D6-101	A	820	D6-821	A
5	D6-050	A	120	D6-121	A	1000	D6-102	A
10	D6-100	A	150	D6-151	A	1200	D6-122	A
12	D6-120	A	180	D6-181	A	1500	D6-152	A
15	D6-150	A	200	D6-201	A	1800	D6-182	A
20	D6-200	A	220	D6-221	A	2000	D6-202	B
22	D6-220	A	250	D6-251	A	2200	D6-222	B
25	D6-250	A	270	D6-271	A	2500	D6-252	B
27	D6-270	A	300	D6-301	A	2700	D6-272	B
33	D6-330	A	330	D6-331	A	3000	D6-302	B
39	D6-390	A	390	D6-391	A	3300	D6-332	B
40	D6-400	A	400	D6-401	A	4000	D6-402	B
47	D6-470	A	470	D6-471	A	4700	D6-472	C
50	D6-500	A	500	D6-501	A	5000	D6-502	C
56	D6-560	A	560	D6-561	B	5600	D6-562	C
68	D6-680	A	600	D6-601	B	10000	D6-103	D
75	D6-750	A	680	D6-681	B			
82	D6-820	A	750	D6-751	A			

*Size: A—.260" x .460". B—.260" x .790". C—.280" x .900". D—.330" x 1.21".

D6 INDUSTRIAL NET PRICES

Values, μμf	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
3 thru 5000	$0.15	$0.119	$0.10	$0.075	$0.056
5600 & 10,000	.18	.143	.12	.09	.068

TYPE CPR POLYSTRENE CAPACITORS (500 WVDC)

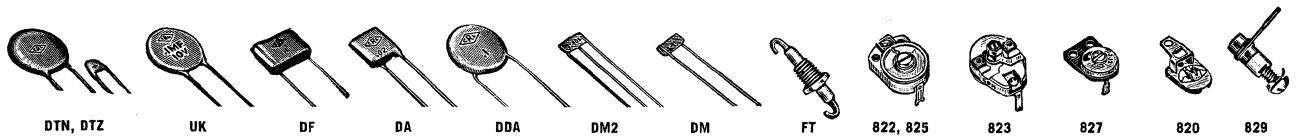
Highly reliable sealed polystyrene foil capacitors. Ideal direct replacements for micas and mylars in TV and radio. **Tol.,** ±5%. **Size:** 20—250 μμf, .394" l. x .157-.276" dia.; 251—3000 μμf, .591" l. x .197-.413" dia.; 3001—10,000 μμf, .787" l. x .335-.531" dia. **Number indicates capacitance in μμf (PF).**

CRL No.	CRL No.	CRL No.	CRL No.	CRL No.	CRL No.
CPR-20J	CPR-68J	CPR-220J	CPR-680J	CPR-2200J	CPR-5600J
CPR-22J	CPR-75J	CPR-240J	CPR-750J	CPR-2400J	CPR-6200J
CPR-24J	CPR-82J	CPR-270J	CPR-820J	CPR-2500J	CPR-6800J
CPR-27J	CPR-91J	CPR-300J	CPR-910J	CPR-2700J	CPR-7500J
CPR-30J	CPR-100J	CPR-330J	CPR-1000J	CPR-3000J	CPR-8200J
CPR-33J	CPR-110J	CPR-350J	CPR-1100J	CPR-3300J	CPR-9100J
CPR-36J	CPR-120J	CPR-390J	CPR-1200J	CPR-3600J	CPR-10000J
CPR-39J	CPR-130J	CPR-430J	CPR-1300J	CPR-3900J	
CPR-43J	CPR-150J	CPR-470J	CPR-1500J	CPR-4300J	
CPR-47J	CPR-160J	CPR-510J	CPR-1600J	CPR-4700J	
CPR-56J	CPR-180J	CPR-560J	CPR-1800J	CPR-5000J	
CPR-62J	CPR-200J	CPR-620J	CPR-2000J	CPR-5100J	

TYPE CPR INDUSTRIAL NET PRICES

Values, μμf (PF)	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
20 thru 1000	15c	11.9c	10c	7.5c	5.6c
1100 thru 3000	18c	14.3c	12c	9c	6.8c
3300 thru 10,000	21c	16.6c	14c	10.5c	7.9c

Centralab. Special Capacitors



LOW VOLTAGE CAPACITORS

Miniature ceramic capacitors designed to meet the demands for high capacity, low voltage applications in transistor circuits. Double durez insulation with high vacuum wax impregnation to withstand extreme temperature, humidity and vibration. Where size permits, capacitors are stamped with capacity and voltage.

TYPE UK ULTRA-KAPS* (3 WVDC)

Cap., μf	CRL No.	Tol.	Max. Dia.	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
.005	UK-502	GMV	.120″	75c	59.4c	50c	37.5c	28.1c
.01	UK-103	GMV	.120″	75c	59.4c	50c	37.5c	28.1c
.02	UK-203	GMV	.120″	75c	59.4c	50c	37.5c	28.1c
.1	UK-104	GMV	.220″	54c	42.8c	36c	27c	20.3c
.22	UK-224	GMV	.290″	33c	26.2c	22c	16.5c	12.4c
.47	UK-474	GMV	.408″	33c	26.2c	22c	16.5c	12.4c
1.0	UK-105	GMV	.590″	54c	42.8c	36c	27c	20.3c
2.2	UK-225	GMV	.840″	54c	42.8c	36c	27c	20.3c

TYPE UK10 ULTRA-KAPS* (10 WVDC)

.05	UK10-503	+80 —20%	.290″	33c	26.2c	22c	16.5c	12.4c
.1	UK10-104	+80 —20%	.408″	33c	26.2c	22c	16.5c	12.4c
.2	UK10-204	+80 —20%	.590″	33c	26.2c	22c	16.5c	12.4c
.47	UK10-474	+80 —20%	.840″	54c	42.8c	36c	27c	20.3c

TYPE UK20 ULTRA-KAPS* (20 WVDC)

.05	UK20-503	+80 —20%	.408″	33c	26.2c	22c	16.5c	12.4c
.1	UK20-104	+80 —20%	.590″	33c	26.2c	22c	16.5c	12.4c
.2	UK20-204	+80 —20%	.840″	33c	26.2c	22c	16.5c	12.4c

*Trademark.

TYPE DA PLATE CAPACITOR (30 WVDC)

Cap., μf	CRL No.	Tolerance	Size In.	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
.02	DA-203	+100 —20%	½x½	$0.36	$0.285	$0.24	$0.18	$0.135
.05	DA-503	+100 —20%	½x½	.81	.641	.54	.405	.304
.1	DA-104	+100 —20%	½x½	1.35	1.070	.90	.675	.506

TYPE CK DISC CAPACITORS (50 WVDC)

Cap., μf	CRL No.	Tolerance	Max. Dia.	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
.005	CK-502	+80 —20%	.385″	21c	16.6c	14c	10.5c	7.9c
.01	CK-103	+80 —20%	.385″	21c	16.6c	14c	10.5c	7.9c
.02	CK-203	+80 —20%	.590″	21c	16.6c	14c	10.5c	7.9c
.025	CK-253	+80 —20%	.590″	21c	16.6c	14c	10.5c	7.9c
.03	CK-303	+80 —20%	.590″	21c	16.6c	14c	10.5c	7.9c
.05	CK-503	+80 —20%	.690″	21c	16.6c	14c	10.5c	7.9c
.1	CK-104	+80 —20%	.719″	60c	47.5c	40c	30c	22.5c

TYPE DDA DISC CAPACITORS (75 WVDC)

Cap., μf	CRL No.	Tolerance	Max. Dia.	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
.05	DDA-503	+80 —30%	.690″	30c	23.8c	20c	15c	11.3c
.1	DDA-104	+80 —30%	.719″	60c	47.5c	40c	30c	22.5c

TYPE DDM DISC CAPACITORS (150 WVDC)

.005	DDM-502	+60 —40%	.385″	30c	23.8c	20c	15c	11.3c
.01	DDM-103	+60 —40%	.385″	30c	23.8c	20c	15c	11.3c
.02	DDM-203	+60 —40%	.406″	54c	42.8c	36c	27c	20.3c
2x.01	DDM2-103	+60 —40%	.390″	54c	42.8c	36c	27c	20.3c

TYPE DM FLAT-PLATE MIN-KAPS®

150 VDCW, 300 v. DC test. Size: 7/32″ x 17/32″ x 7/64″. Tolerance: +50%, —20%, except (*) +80%, —20%.

Cap., μf	CRL No.	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
.0001	DM-101	$0.30	$0.238	$0.20	$0.15	$0.113
.0002	DM-201	.30	.238	.20	.15	.113
.0003	DM-301	.30	.238	.20	.15	.113
.0005	DM-501	.30	.238	.20	.15	.113
.001	DM-102	.30	.238	.20	.15	.113
.002*	DM-202	.30	.238	.20	.15	.113
.003*	DM-302	.30	.238	.20	.15	.113
.005*	DM-502	.30	.238	.20	.15	.113
.01*	DM-103	.60	.475	.40	.30	.225
2 x .005*	DM2-502	.60	.475	.40	.30	.225

TYPE DF FLAT-PLATE HI-KAPS®

A dependable 600 volt ceramic capacitor recommended for general replacement applications where their unusual thinness makes them useful. Types listed below are 1 1/16″ l. x 1 1/16″ h. 600 v. DC, working: 1200 v. DC, test. Tolerance: GMV except DF-104, +80, —20%.

Cap., μf	CRL No.	Thickness	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
.05	DF-503	7/32″	$0.75	$0.594	$0.50	$0.375	$0.281
.1	DF-104	19/64″	1.05	.831	.70	.525	.394

FT AND MFT FEED-THRU HI-KAPS®

Rated 500 v. DC, working: 1000 v. DC, test. **Type FT:** Hooked end terminals; mounting nut supplied. **Type MFT:** 1/4″ (max.) flange eyelet inserts in .160″ hole; solders direct to chassis.

Type FT Hi-Kaps® μμf	No.	Tolerance	Type MFT Hi-Kaps® μμf	No.	Tolerance
500	FT-500	±20%	50	MFT-50	±10%
1000	FT-1000	±20%	100	MFT-100	±10%
1500	FT-1500	−20, +50%	500	MFT-500	±20%
1800	FT-1800	−20, +50%	1000	MFT-1000	GMV
2300	FT-2300	−20, +50%			

FT, MFT INDUSTRIAL NET PRICES

All Values, CRL Type	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
FT	$0.75	$0.594	$0.50	$0.375	$0.281
MFT	.30	.238	.20	.15	.113

CERAMIC TRIMMER CAPACITORS

Highly stable, small lightweight design. Power factor less than 0.2% at 1 mc. All units rated 500 v. DC, working; 1,000 v. DC, test. **Suffix Z:** Indicates zero temperature coefficient. **Suffix N:** Indicates negative coefficient. Shpg. Wt., 3 oz. max.

CRL Type 820—High dielectric ceramic base impervious to moisture. Flat rotor and stator. Mounting holes take No. 4 machine screws; 5/8″ x 27/32″.

CRL Type 822—Steatite body; silver rotor and stator plates; 41/64″ x 27/32″. Mtg. holes take No. 4 screw.

CRL Type 823—Steatite body; 1 3/16″ x 1 3/32″.

CRL Type 827—Ceramic molded phenolic body has high stability under vibration. Insulation resistance 10,000 megs. minimum. Size: 17/32″ x 3/4″.

CRL Types 829-3, -4, -6, -7, -10—Tiny, tubular, high voltage types for TV or FM. Ceramic bodies .215″ dia. Full capacity in 180° rotation.

Range, μμf	CRL No.	Range, μμf	CRL No.	Range, μμf	CRL No.	Range, μμf	CRL No.
1.0-3.5	820D	2.0-7.5	822-CZ	5.-12	823-EZ	2.5-7	827A
2.5-6.0	820A	2.5-13.0	822-BZ	6.-25	823-DZ	3.5-12	827B
5.0-20	820B	3.0-12	822-FZ	10.-50	823-BZ	6.0-30	827C
7.0-35	820C	4.5-25	822-AZ	12-62	823-AZ	7.0-35	827D
35-55	820E*	2.0-6.0	822-DN	5.-15	823-FN	.5-3	829-3
55-75	820F*	4.0-30	822-EN	8.-25	823-EN	1.-4	829-4
70-90	820G*	4.5-25	822-CN	8.-50	823-DN	1.-6	829-6
1.5-3	822-DZ	7.0-45	822-BN	10.-100	823-BN	1.-7.5	829-7
1.5-7	822-EZ	8.0-50	822-AN	20.-125	823-AN	1.5-10	829-10

*Less brackets

CRL TYPE 825 (MIL-C81A) TRIMMER CAPACITORS

Ceramic design meets MIL-C-81A specifications. Strong, low loss steatite base with pure silver fired on top surface to form stator plate. Rated 500 WVDC: 1500 v. DC test. Power Factor, less than 0.2% at 1 mc. Drift ±0.75% or ±0.5 μμf, whichever is greater. Insulation resistance, 10,000 megs. initial; 1000 megs. after humidity. Silver-plated brass terminals bent at 90° angle from plane of stator, 19/64″ lg. Mtg. holes clear #4 machine screws. Body, 27/32″ lg. x 41/64″ W. Shipping Weight, 2 oz.

Zero Temp. Coefficient Cap., μμf	CRL No.	MIL Spec.	N650 Temp. Coefficient Cap., μμf	CRL No.	MIL Spec.
1.5-7	825-EZ	CV11A070	2.0-6	825-DN	CV11D060
3.0-12	825-FZ	CV11A120	4.0-30	825-EN	CV11D300
4.5-25	825-AZ	CV11A250	7.0-45	825-BN	CV11D450

TRIMMER INDUSTRIAL NET PRICES

All Values, CRL Series	Net Each, Lots of 1-9	10-24	25-99	100-249
820	$0.78	$0.65	$0.618	$0.52
822	1.14	.95	.90	.76
823	3.60	3.00	2.85	2.40
825	1.05	.875	.83	.70
827	.75	.625	.594	.50

All Values, CRL Series	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
829-3, 829-4	$0.30	$0.238	$0.20	$0.15	$0.113
829-6	.30	.238	.20	.15	.113
829-7, 829-10	.30	.238	.20	.15	.113

NOTE: Items requiring certified test data and government source inspection are special. Prices and information supplied upon request.

TEMPERATURE COMPENSATING DISC HI-KAPS®

Very popular unit that replaces mica types in all applications. High stability and small size, using TC ceramic dielectric material. Type DTZ is NPO or zero TC disc type. Type DTN is an N750TC type. Thickness: 5/32″ and 7/32″. Tolerance: ±5%.

TYPE DTN (N750)

Cap., μμf	CRL No.	Dia., In.	Cap., μμf	CRL No.	CRL No.	Dia., In.	Cap. μμf	Dia., In.
5	DTN-5*	1/4	25	DTN-25	1/4	100	DTN-100	3/8
10	DTN-10*	1/4	33	DTN-33	1/4	150	DTN-150	5/16
15	DTN-15	1/4	47	DTN-47	1/4	200	DTN-200	5/16
20	DTN-20	1/4	68	DTN-68	3/8	220	DTN-220	5/16
22	DTN-22	1/4	75	DTN-75	3/8	330	DTN-330	5/8

TYPE DTZ (NPO)

1.5	DTZ-1R5*	1/4	22	DTZ-22	3/8	100	DTZ-100	5/16
2.2	DTZ-2R2*	1/4	25	DTZ-25	3/8	120	DTZ-120	5/8
3.3	DTZ-3R3*	1/4	33	DTZ-33	3/8	150	DTZ-150	3/4
4.7	DTZ-4R7*	1/4	47	DTZ-47	5/16	180	DTZ-180	5/16
6.8	DTZ-6R8*	1/4	50	DTZ-50	5/16	200	DTZ-200	5/16
10	DTZ-10	1/4	68	DTZ-68	5/16	220	DTZ-220	5/8
15	DTZ-15	1/4	75	DTZ-75	5/16	270	DTZ-270	5/8
20	DTZ-20	1/4	82	DTZ-82	5/16			

Tolerance, ±0.5 μμf.

TYPE DTN & DTZ INDUSTRIAL NET PRICES

CRL No.	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
DTN-5 thru 100	$0.30	$0.238	$0.20	$0.15	$0.113
DTN-150 thru 330	.45	.356	.30	.225	.169
DTZ-1R5 thru 100	.30	.238	.20	.15	.113
DTZ-120 thru 270	.45	.356	.30	.225	.169

Net

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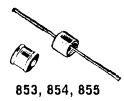
Centralab®

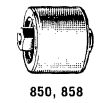
Special Capacitors

TCA, TCL

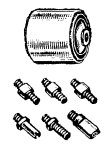
Type TC



853, 854, 855



850, 858



Type TV-20

TEMPERATURE COMPENSATING TUBULARS

Limit frequency drift in RF circuits where temperature variations are prevalent. Ceramic body construction changes capacities as the temperature varies; complies with JAN-C-20A specifications. Rated 1,200 volts DC, test: 600 volts DC, working. Extremely compact. Weight, 2 oz. **Type TCZ:** NPO or zero units, superior to micas for all uses. Show zero capacitance changeover temperature range —20°C to +85°C. Left end coded black. **Type TCN:** N750 units show negative capacity of —750 parts per million per degree C rise in temperature. Left end coded violet. Size: A—.400" x .200". B—.690" x .200". C—.860" x .225". D—1.165" x .285". E—1.625" x .285".

Cap. μμf	Type TCN Units CRL Number	Size	Tol. ±	Type TCZ Units CRL Number	Size	Tol. ±
0.5				TCZ-R5	A	.25 μμf
0.68				TCZ-R68	A	.25 μμf
1.0				TCZ-1	A	.25 μμf
1.5				TCZ-1R5	A	.25 μμf
2.2				TCZ-2R2	A	.25 μμf
3.3	TCN-3R3	A	.5 μμf	TCZ-3R3	A	.25 μμf
4.7				TCZ-4R7	A	.5 μμf
5.0	TCN-5	A	.5 μμf			
6.8				TCZ-6R8	A	.5 μμf
10	TCN-10	A	.5μμf	TCZ-10	A	.5 μμf
12	TCN-12	A	2%	TCZ-12	A	2%
15	TCN-15	A	2%	TCZ-15	A	2%
18	TCN-18	A	2%	TCZ-18	A	2%
20	TCN-20	A	2%	TCZ-20	A	2%
22	TCN-22	A	2%	TCZ-22	A	2%
24	TCN-24	A	2%	TCZ-24	A	2%
25	TCN-25	A	2%	TCZ-25	A	2%
27	TCN-27	A	2%	TCZ-27	A	2%
30	TCN-30	A	2%	TCZ-30	A	2%
33	TCN-33	A	2%	TCZ-33	A	2%
36	TCN-36	A	2%	TCZ-36	A	2%
39	TCN-39	A	2%	TCZ-39	A	2%
43	TCN-43	A	2%	TCZ-43	B	2%
47	TCN-47	A	2%	TCZ-47	B	2%
50	TCN-50	A	2%	TCZ-50	B	2%
51	TCN-51	A	2%	TCZ-51	B	2%
56	TCN-56	A	2%	TCZ-56	B	2%
62	TCN-62	A	2%	TCZ-62	B	2%
68	TCN-68	A	2%	TCZ-68	B	2%
75	TCN-75	A	2%	TCZ-75	B	2%
82	TCN-82	A	2%	TCZ-82	B	2%
91	TCN-91	A	2%	TCZ-91	C	2%
100	TCN-100	A	2%	TCZ-100	C	2%
110	TCN-110	B	5%	TCZ-110	D	5%
120	TCN-120	B	5%	TCZ-120	D	5%
130	TCN-130	B	5%	TCZ-130	D	5%
150	TCN-150	B	5%	TCZ-150	D	5%
160	TCN-160	B	5%	TCZ-160	D	5%
180	TCN-180	B	5%	TCZ-180	D	5%
200	TCN-200	B	5%	TCZ-200	D	5%
220	TCN-220	C	5%	TCZ-220	D	5%
240	TCN-240	C	5%	TCZ-240	E	5%
270	TCN-270	C	5%	TCZ-270	E	5%
300	TCN-300	D	5%	TCZ-300	E	5%
330	TSN-330	D	5%			
360	TCN-360	D	5%			
390	TCN-390	D	5%			
430	TCN-430	D	5%			
470	TCN-470	D	5%			
510	TCN-510	D	5%			
560	TCN-560	E	5%			
620	TCN-620	E	5%			
680	TCN-680	E	5%			
750	TCN-750	E	5%			

INDUSTRIAL NET PRICES
TYPE TCN (N750 UNITS)

Values, μμf	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
3.3 and 5.0	$0.30	$0.238	$0.20	$0.15	$0.113
10	.30	.238	.20	.15	.113
12 and 15	.30	.238	.20	.15	.113
18	.30	.238	.20	.15	.113
20	.30	.238	.20	.15	.113
22 thru 62	.30	.238	.20	.15	.113
68 thru 100	.30	.238	.20	.15	.113
110 thru 270	.30	.238	.20	.15	.113
300 thru 510	.45	.356	.30	.225	.169
560 thru 750	.60	.475	.40	.30	.225

TYPE TCZ (NPO UNITS)

0.5 thru 3.3	$0.30	$.238	$0.20	$0.15	$0.113
4.7	.30	.238	.20	.15	.113
6.8	.30	.238	.20	.15	.113
10	.30	.238	.20	.15	.113
12 and 15	.30	.238	.20	.15	.113
18	.30	.238	.20	.15	.113
20	.30	.238	.20	.15	.113
22 and 24	.30	.238	.20	.15	.113
25 thru 56	.30	.238	.20	.15	.113
62 thru 100	.30	.238	.20	.15	.113
110 thru 220	.45	.356	.30	.225	.169
240 thru 300	.60	.475	.40	.30	.225

TYPE TCA AND TCL TUBULAR HI-KAPS®

Intermediate stock values. This group changes negatively capacity-wise with temperature increases. **Type TCA:** Changes 330 parts per million per degree C. **Type TCL:** Changes minus 1500 parts per million per degree C. **Size:** .400" x .200", except TCA-100, .690" x .200".

Cap. μμf	CRL Number	Tol. ±	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
10	TCA-10	.5 μμf	$0.30	$0.238	$0.20	$0.15	$0.113
15	TCA-15	2%	.30	.238	.20	.15	.113
22	TCA-22	2%	.30	.238	.20	.15	.113
33	TCA-33	2%	.30	.238	.20	.15	.113
47	TCA-47	2%	.30	.238	.20	.15	.113
68	TCA-68	2%	.30	.238	.20	.15	.113
100	TCA-100	2%	.30	.238	.20	.15	.113
10	TCL-10	.5 μμf	.30	.238	.20	.15	.113
15	TCL-15	2%	.30	.238	.20	.15	.113
22	TCL-22	2%	.30	.238	.20	.15	.113
33	TCL-33	2%	.30	.238	.20	.15	.113
47	TCL-47	2%	.30	.238	.20	.15	.113
68	TCL-68	2%	.30	.238	.20	.15	.113
100	TCL-100	2%	.30	.238	.20	.15	.113

TRANSMITTING CAPACITORS

Designed for high voltage, high frequency circuits requiring very low power factor and stable retrace characteristics. Double cup design for long leakage paths and rugged construction.

TYPE 850 AND 858—5 AND 7.5 KV

Stud type has ⅛" long hex studs 6-32 thread. Lug type 9/16" long solder lugs with tapped 6-32 threaded hole. Size: 1 5/16" dia. x 3/8". Tolerance: ±10% 850 type; ±20% 858 type.

Cap. μμf	CRL No. Stud Type	Lug Type	KV DCW	Temp. Coeff.	RF Load at 30 MC†
25	850S-25Z	850SL-25Z	7.5	NPO	7 amps
50	850S-50Z	850SL-50Z	7.5	NPO	10 amps
50	850S-50N	850SL-50N	7.5	N750	8.8 amps
75	850S-75N	850SL-75N	7.5	N750	10 amps
100	850S-100N	850SL-100N	5	N750	9.8 amps
500	858S-500		5	Hi-K	
1K	858S-1000		5	Hi-K	

TYPE 853, 854, 855—5 KV

Lead type has 1½" axial leads. Tap type has axial screw terminals tapped 2-56. Size: 853, ½" dia. x 7/16". 854, 3/8" dia. x 3/8". 855, ¼" dia. x 1 1/32"; A Series Add 1/16" to dia. and 3/64" to length. Tolerance: ±10%.

Cap. μμf	CRL No. Lead Type	Tap Type	KV DCW	Temp. Coeff.	RF Load at 30 MC†
3	855-3Z	855A-3Z	5	NPO	1.8 amps
5	855-5Z	855A-5Z	5	NPO	1.8 amps
10	854-10Z	854A-10Z	5	NPO	1.8 amps
10	855-10N	855A-10N	5	N750	3.2 amps
20	853-20Z	853A-20Z	5	NPO	2.8 amps
20	854-20N	854A-20N	5	N750	3.2 amps
40	853-40N	853A-40N	5	N750	5.6 amps

TYPE 857—7.5 AND 15 KV

Axial screw terminals at both ends; ¼" deep, 10-32 NF-2 thread. Size: 1 3/32" dia. x 1 57/64". Tolerance: ±10%.

Cap., μμf	CRL No.	Temp. Coeff.	RF Load at 30 MC†	KV DCW
25	857-25Z	NPO	12 amps	15
50	857-50Z	NPO	12 amps	15
100	857-100N	N750	14.4 amps	15
200	857-200N	N750	18.2 amps	7.5

TYPE 859—15 AND 20 KV

Terminals 7/16" deep both ends, tapped 10-32. Size: 2" dia. x 2 7/8" overall. Tolerance: ±10%.

Cap. μμf	CRL No.	Temp. Coeff.	RF Load at 30 MC†	KV DCW
50	859S-50Z	NPO	30 amps	20
100	859S-100Z	NPO	30 amps	20
250	859S-250N	N750	30 amps	20
500	859S-500N	N3300	30 amps	15

†RF Load Rating based on 30°C rise in temperature.

TRANSMITTING CAPACITOR INDUSTRIAL NET PRICES

All Values, CRL Type	Net Each, Lots of 1-9	10-24	25-99	100-249
850	$2.70	$2.43	$2.14	$1.92
853, 854, or 855	1.80	1.62	1.43	1.28
857 With suffix N	7.20	6.48	5.70	5.13
857 with suffix Z	8.40	7.56	6.65	5.99
858	2.70	2.43	2.14	1.92

All Values, CRL Type	Net Each, Lots of 1-4	5-9	10-99	100-249
859	$54.00	$48.60	$45.00	$40.50

TERMINAL HI-VO-KAPS®

ATTACHABLE TERMINAL TYPE

Type TV-20—20,000 v. DC working ceramic capacitors; 35,000 v. DC test. Capacity 500 μμf. Terminals will not pull out or break off. Five different type terminals available as listed below.

ATTACHABLE TERMINALS

CRL No.	Type	Thread	CRL No.	Type	Thread
TX-1	Slotted Rod		TX-4	Short Male	8-32
TX-2	Female Tap	6-32	TX-5	Long Male	8-32
TX-3	Male Thread	6-32			

FIXED TERMINAL HI-VO-KAPS®

Type TV1-503, TV8-503—Similar to TV-20, with fixed terminals. Rated 30 kv working, 45 kv test. TV1-503: 2-rod type. TV8-503: Two 8-32 male terminals.

HI-VO-KAPS® INDUSTRIAL NET PRICES

CRL Number	Net Each, Lots of 1-24	25-99
TV-20	$1.11	$0.878
TX-Terminals	.06	.048
TV1-503	1.98	1.568
TV8-503	1.98	1.568

TYPE DD16 HI-KAP® BUFFERS

Compact, easy to install. Long life, low cost. Able to withstand high heat, moisture, and vibration. Size: 7/8" dia., 1/64" thick. Tolerance: GMV. Rated 1600 WVDC.

Cap. μf	CRL Number	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
.003	DD16-302	$0.27	$0.20	$0.18	$0.14	$0.10
.004	DD16-402	.27	.20	.18	.14	.10
.005	DD16-502	.27	.20	.18	.14	.10
.006	DD16-602	.27	.20	.18	.14	.10
.007	DD16-702	.27	.20	.18	.14	.10
.0075	DD16-752	.27	.20	.18	.14	.10
.008	DD16-802	.27	.20	.18	.14	.10
.01	DD16-103	.27	.20	.18	.14	.10
.015	DD16-153*	.48	.38	.32	.24	.18

*¼" thick; tolerance, —20, +80%.

TYPE CI AC LINE DISC HI-KAPS® (1000 WVDC)

U/L Approved per Underwriters Laboratories' Examination Service #E32296, dated 12-6-60. Suitable for continuous operation at 220 v. AC, rms, 60 cycles. Recommended for AC by-pass application or where a steady or intermittent higher voltage may occur. Tol., ±20%.

Cap., μμf	CRL No.	Max. Dia.	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
470	CI-471	.400"	18c	14.3c	12c	9c	6.8c
680	CI-681	.400"	18c	14.3c	12c	9c	6.8c
1,000	CI-102	.600"	21c	16.6c	14c	10.5c	7.9c
2,200	CI-222	.600"	18c	14.3c	12c	9c	6.8c
5,000	CI-502	.850"	18c	14.3c	12c	9c	6.8c
10,000	CI-103	.850"	24c	19c	16c	12c	9c

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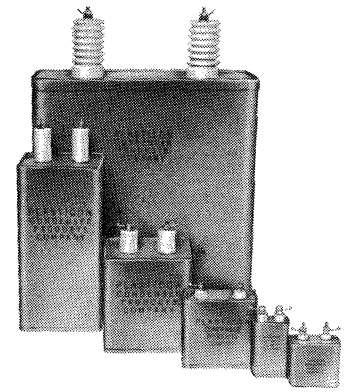
PLASTICON DC RECTANGULARS

Mineral oil impregnated and filled. Hermetically sealed. Can be operated in any position, continuously at 10% over rated voltage up to +40° C. Tolerance 10%. Ambient temperature range —40° C. to 105° C. Insulators: Two ceramic type bushings for standard temperature range. Two soldered-in metallized ceramic insulators for extended temperature range. All DC rectangulars have 8-32 screw and hex nut terminals with removable hot-tinned solder lugs. Case: Rectangular base, lead coated steel with heavy finish of grey organic lacquer.



Mfr's. No.	Cap. Mfd.	Volts DC	Dimensions - Inches Height	Width	Depth	Term. Height	Dist. Bet. Ter.	Net 1-9 Pcs.
AOC6C1	1.0	600	2 1/8	1 3/4	1	5/8	13/16	$ 4.00
AOC6C2	2.0	600	2 3/4	1 3/4	1	5/8	13/16	5.00
AOC6C4	4.0	600	3 1/2	2 1/2	1 3/16	5/8	1 1/8	6.00
AOC6C8	8.0	600	4	3 3/4	1 1/4	5/8	2	8.95
AOC6C10	10.0	600	4	3 3/4	1 3/4	5/8	2	10.00
AOC1M1	1.0	1000	2 3/8	1 3/4	1	5/8	13/16	4.20
AOC1M2	2.0	1000	3	2 1/2	1 13/16	3/4	1 1/8	5.35
AOC1M4	4.0	1000	4 5/8	2 1/2	1 3/16	3/4	1 1/8	6.50
AOC1M8	8.0	1000	4 5/8	3 3/4	1 3/4	5/8	2	9.50
AOC1M10	10.0	1000	4 5/8	3 3/4	2 1/4	5/8	2	11.95
AOC2M05	0.5	2000	2 3/4	1 3/4	1	5/8	13/16	4.74
AOC2M1	1.0	2000	4 1/2	1 3/4	1	5/8	13/16	5.29
AOC2M2	2.0	2000	3 1/4	3 3/4	1 1/4	3/4	2	6.56
AOC2M4	4.0	2000	4 1/4	3 3/4	2 1/4	3/4	2	9.06
AOC3M1	1.0	3000	4	2 1/2	1 3/16	1 1/8	1 1/8	6.34
AOC3M2	2.0	3000	4 5/8	3 3/4	1 1/4	1 1/8	2	8.61
AOC3M4	4.0	3000	4 5/8	3 3/4	2 1/4	1	2	13.00
AOC4M1	1.0	4000	4	3 3/4	1 1/4	1 1/4	2	7.56
AOC4M2	2.0	4000	4	3 3/4	1 3/4	1 1/4	2	11.50
AOC4M4	4.0	4000	4	3 3/4	4 3/16	1 1/8	2	20.30
AOC5M1	1.0	5000	4	3 3/4	1 3/4	2 1/4	2	9.89
AOC5M2	2.0	5000	3 1/2	3 3/4	4 3/16	1 1/8	2	14.64
AOC10M1	1.0	10000	4 5/8	3 3/4	4 3/16	2 1/4	2	27.94

PLASTICON TEFLON CAPACITORS

POWER FACTOR ..... @ 25°C ..... .05%
@ 165°C ..... .07%

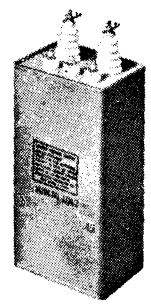
TEMPERATURE COEFFICIENT .... —70°C to 165°C .... —200 ppm/°C.

INSULATION RESISTANCE ..... @25°C ..... 500,000 meg x mfd.
But need not exceed ..... 10,000,000 megohms

@ 165°C ..... 7,000 meg. x mfd.
But need not exceed ..... 50,000 megohms

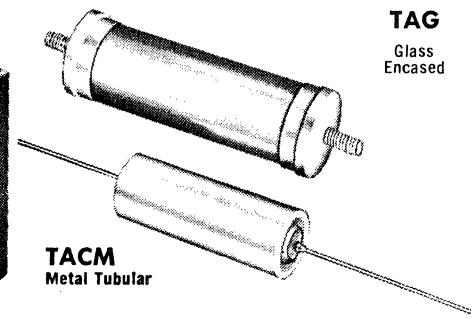
DIELECTRIC ABSORPTION ..... @25°C ..... .02%

TAC
CP-70 Type Can



TAG
Glass Encased

TACM
Metal Tubular



VOLTAGE RANGE ..... 200 to 1,000 vdc.

CAPACITANCE RANGE .... TAG, TACM — .001 to 1.0 mfd
TAC — 1 mfd and above.

Condenser Products Company

MANUFACTURERS: Glassmikes • Plasticon Capacitors • HiVolt Power Supplies • Pulse Forming Networks

See Sect. 4000 for Plasticon Power Supplies

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"Glassmike" Plasticon Capacitors

Type LSG

Type ASG

Type ASG are Plasticon A dielectric-silicone fluid impregnated capacitor elements in hermetically sealed glass tubes. Standard range −60°C to +85°C, extended range −60°C to +125°C with proper derating. The smallest and lightest high voltage capacitors made. Type ASG are ideal for DC and low frequency AC applications.

LSG type capacitors have Plasticon L film-silicone fluid impregnant. Designed to compete with mica capacitors, the LSG capacitors are more applicable for Radio Frequency. Special beneficial features include greater safety factor, lower RF loss, more conveniently mounted, utilizes less chassis space, impervious to moisture, and smaller in overall volume.

All 19/32 diameter Glassmikes are supplied with pigtail leads.

Cat. No.	Cap. Mfd.	Volts D.C.	Dimensions Dia. & Length	Net 1-9 Pcs.
ASG502-1M	.005	1000	19/32x1 3/16	$ 1.86
ASG103-1M	.01	1000	19/32x1 3/16	1.86
ASG203-1M	.02	1000	19/32x1 3/16	1.86
ASG503-1M	.05	1000	¾ x1 ¾	1.92
ASG104-1M	.1	1000	¾ x2 ¼	2.06
ASG254-1M	.25	1000	29/32x2 ¾	2.25
ASG504-1M	.5	1000	1 ⅛ x2 ¼	2.49
ASG102-3M	.001	3000	19/32x1 3/16	2.12
ASG202-3M	.002	3000	19/32x1 3/16	2.15
ASG502-3M	.005	3000	19/32x1 3/16	2.24
ASG103-3M	.01	3000	19/32x1 9/16	2.40
ASG203-3M	.02	3000	¾ x1 ¾	2.55
ASG503-3M	.05	3000	29/32x2 ¼	2.64
ASG104-3M	.1	3000	29/32x2 ¼	3.10
ASG254-3M	.25	3000	1 ¾ x2	3.69
ASG102-5M	.001	5000	19/32x1 3/16	3.18
ASG202-5M	.002	5000	19/32x1 3/16	3.20
ASG502-5M	.005	5000	19/32x1 ⅝	3.21
ASG103-5M	.01	5000	¾ x1 ¾	3.45
ASG203-5M	.02	5000	¾ x2 ¼	3.54
ASG503-5M	.05	5000	29/32x2 ¼	3.97
ASG104-5M	.1	5000	1 ¾ x2 ¼	4.71
ASG501-8M	.0005	8000	19/32x1 9/16	3.57
ASG102-8M	.001	8000	19/32x1 9/16	3.60
ASG202-8M	.002	8000	19/32x1 9/16	3.63
ASG502-8M	.005	8000	¾ x1 ¾	3.93
ASG103-8M	.01	8000	¾ x2 ¼	4.02
ASG203-8M	.02	8000	29/32x2 ¾	4.74
ASG503-8M	.05	8000	1 ⅜ x2 ¾	6.18
ASG501-10M	.0005	10,000	19/32x1 ⅝	4.11
ASG102-10M	.001	10,000	19/32x1 ⅝	4.14
ASG202-10M	.002	10,000	19/32x1 ⅝	4.20
ASG502-10M	.005	10,000	13/16x1 ¾	4.50
ASG103-10M	.01	10,000	29/32x2 ¼	5.04
ASG203-10M	.02	10,000	1 ⅛ x2 ¾	5.55
ASG303-10M	.03	10,000	1 ⅜ x2 ¾	6.93
ASG603-10M	.06	10,000	1 ⅜ x4 ¼	8.55
ASG501-15M	.0005	15,000	19/32x2 ¼	6.00
ASG102-15M	.001	15,000	¾ x2 ¼	6.15
ASG202-15M	.002	15,000	¾ x2 ¼	6.15
ASG502-15M	.005	15,000	1 ⅛ x2 ¾	7.56
ASG103-15M	.01	15,000	1 ⅛ x3 ¾	7.62
ASG203-15M	.02	15,000	1 ⅜ x4 ½	10.56
ASG501-20M	.0005	20,000	19/32x3 ½	7.80
ASG102-20M	.001	20,000	¾ x3 ½	8.40
ASG202-20M	.002	20,000	13/16x3 ½	8.94
ASG502-20M	.005	20,000	1 ⅛ x3 ½	10.68
ASG103-20M	.01	20,000	1 ¾ x4 ½	10.92
ASG501-30M	.0005	30,000	19/32x4 9/16	10.02
ASG102-30M	.001	30,000	¾ x5	10.92
ASG202-30M	.002	30,000	1 ⅜ x4 ¼	12.48
ASG502-30M	.005	30,000	1 ⅜ x5	14.76
ASG501-40M	.0005	40,000	¾ x6 ½	11.10
ASG102-40M	.001	40,000	13/16x6 ½	12.75
ASG202-40M	.002	40,000	1 ⅛ x6 ½	14.70
ASG501-50M	.0005	50,000	¾ x8 ¼	12.15
ASG102-50M	.001	50,000	13/16x8 ¼	13.20
ASG202-50M	.002	50,000	1 ⅛ x8 ¼	15.75
ASG502-50M	.005	50,000	1 ⅝ x10 ¼	20.40
ASG501-60M	.0005	60,000	¾ x11	14.80
ASG102-60M	.001	60,000	29/32x11	15.75

Part No.	Size	Cap	Volts D.C.	Net 1-9 Pcs.
LSG303-1M	13/16x1 ½	.03	1000	$ 3.58
LSG403-1M	29/32x1 ½	.04	1000	3.98
LSG503-1M	1 ⅛ x1 ½	.05	1000	4.19
LSG603-1M	1 ⅛ x1 ½	.06	1000	4.25
LSG753-1M	1 ⅛ x1 ½	.075	1000	4.27
LSG104-1M	1 ⅛ x2	0.1	1000	4.66
LSG154-1M	1 ⅜ x2	0.15	1000	5.55
LSG204-1M	1 ⅜ x2 ½	0.2	1000	6.31
LSG254-1M	1 ⅝ x2 ½	0.25	1000	6.43
LSG304-1M	1 ⅝ x3	0.3	1000	6.84
LSG404-1M	1 ⅝ x3 ½	0.4	1000	7.38
LSG752-25C	29/32x1	.0075	2500	3.54
LSG103-25C	1 ⅛ x1	.01	2500	3.78
LSG203-25C	1 ⅛ x1 ½	.02	2500	4.07
LSG253-25C	1 ⅛ x1 ½	.025	2500	4.13
LSG303-25C	1 ⅛ x1 ½	.03	2500	4.18
LSG403-25C	1 ⅛ x2	.04	2500	4.72
LSG503-25C	1 ⅜ x2	.05	2500	5.00
LSG603-25C	1 ⅜ x2	.06	2500	5.12
LSG753-25C	1 ⅜ x2	.075	2500	6.08
LSG104-25C	1 ⅜ x2 ½	0.1	2500	6.61
LSG154-25C	1 ⅜ x3 ½	0.15	2500	7.43
LSG402-35C	29/32x1	.004	3500	4.07
LSG502-35C	1 ⅛ x1	.005	3500	4.31
LSG602-35C	1 ⅛ x1	.006	3500	4.37
LSG752-35C	1 ⅜ x1	.0075	3500	4.54
LSG103-35C	1 ⅜ x1	.01	3500	4.72
LSG203-35C	1 ⅜ x1 ½	.02	3500	4.96
LSG253-35C	1 ⅜ x1 ½	.025	3500	5.02
LSG303-35C	1 ⅜ x2	.03	3500	6.20
LSG403-35C	1 ⅜ x2	.04	3500	6.31
LSG503-35C	1 ⅜ x2 ½	.05	3500	6.79
LSG603-35C	1 ⅜ x3	.06	3500	7.08
LSG753-35C	1 ⅜ x3	.075	3500	7.38
LSG104-35C	1 ⅜ x4	0.1	3500	7.97
LSG252-5M	13/16x2	.0025	5000	5.58
LSG302-5M	13/16x2	.003	5000	5.64
LSG402-5M	1 ⅛ x2	.004	5000	6.02
LSG502-5M	1 ⅛ x2	.005	5000	6.08
LSG602-5M	1 ⅛ x2	.006	5000	6.14
LSG752-5M	1 ⅜ x2	.0075	5000	6.67
LSG103-5M	1 ⅜ x2	.01	5000	6.73
LSG203-5M	1 ⅜ x3	.02	5000	7.32
LSG253-5M	1 ⅜ x3	.025	5000	8.08
LSG303-5M	1 ⅜ x4	.03	5000	8.79
LSG403-5M	1 ⅜ x4	.04	5000	9.74
LSG503-5M	1 ⅜ x6	.05	5000	10.62
LSG603-5M	1 ⅜ x6	.06	5000	12.10
LSG753-5M	1 ⅜ x8	.075	5000	12.68
LSG104-5M	1 ⅜ x8	0.1	5000	13.86
LSG751-7M	¾ x2	.00075	7000	5.19
LSG102-7M	¾ x2	.001	7000	5.25
LSG202-7M	29/32x2	.002	7000	5.84
LSG252-7M	1 ⅛ x2	.0025	7000	6.14
LSG302-7M	1 ⅛ x2	.003	7000	6.20
LSG402-7M	1 ⅜ x2	.004	7000	7.08
LSG502-7M	1 ⅜ x2	.005	7000	8.26
LSG602-7M	1 ⅜ x2	.006	7000	8.32
LSG752-7M	1 ⅛ x4	.0075	7000	9.91
LSG103-7M	1 ⅛ x4	.01	7000	9.97
LSG203-7M	1 ⅜ x4	.02	7000	10.76
LSG253-7M	1 ⅜ x6	.025	7000	11.21
LSG303-7M	1 ⅜ x6	.03	7000	11.26
LSG403-7M	1 ⅜ x8	.04	7000	12.03
LSG503-7M	1 ⅜ x8	.05	7000	12.09
LSG102-10M	29/32x3	.001	16 KV	7.02
LSG202-10M	1 ⅛ x3	.002	10 KV	7.84
LSG252-10M	1 ⅜ x3	.0025	10 KV	8.90
LSG302-10M	1 ⅜ x3	.003	10 KV	8.96
LSG402-10M	1 ⅜ x3	.004	10 KV	10.32
LSG502-10M	1 ⅛ x6	.005	10 KV	11.80
LSG602-10M	1 ⅛ x6	.006	10 KV	12.39
LSG752-10M	1 ¾ x6	.0075	10 KV	12.98
LSG103-10M	1 ¾ x6	.01	10 KV	13.57
LSG203-10M	1 ⅜ x9	.02	10 KV	15.16
LSG253-10M	1 ⅜ x9	.025	10 KV	15.75
LSG101-14M	19/32x4	.0001	14 KV	6.96
LSG201-14M	¾ x4	.0002	14 KV	7.20
LSG251-14M	¾ x4	.00025	14 KV	7.25

OTHER VALUES READILY AVAILABLE

See Sect. 4000 for Plasticon Power Supplies

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Net

CORNING FIXED GLASS CAPACITORS

For coupling, decoupling, filtering, timing, switching or computer circuits, CORNING® Capacitors provide ultra-stable electrical performance. This stability is inherent in their fused glass and aluminum foil capacitive elements. These inorganic materials and continuous process and quality monitoring are responsible for the well known CORNING CYFR capacitor made for the Minuteman. Many of the basic advantages of the CYFR have found their way into the standard CYFM, TYO and LO-CAP units. The properties of these capacitors are entirely those of the closely controlled dielectric, and can't be changed by assembly methods or subsequent treatment. At 1 Kc and 25°C, dissipation factor is less than 0.001; at any given temperature, TC will not deviate from the curve by more than 5 ppm.

Corning manufactures highly stable fixed glass capacitors to meet your demanding circuit requirements. Their performance and economic advantages will add value to your equipment.

	TYPE AND MIL SPEC	MODEL	CAPACITANCE RANGE (pf)	VOLTAGE	NOMINAL DIMENSIONS Size in Inches	WEIGHT IN GRAMS
CYFM	Fusion-sealed environment-proof performance at cost savings. Monolithic construction provides outstanding electrical performance. MIL-C-11272.	CYFM10	0.5 to 200 220 to 300	500 300	11/32 x 11/64 x 5/64	0.25 - 0.50
		CYFM15	220 to 510 560 to 1200	500 300	15/32 x 17/64 x 7/64	0.75 - 1.25
		CYFM20	560 to 3500 3600 to 5100	500 300	47/64 x 27/64 x 9/64	2.50 - 4.00
		CYFM30	3600 to 6200 6800 to 10000	500 300	49/64 x 3/4 x 9/64	5.00 - 7.00
CYFR	High reliability. Homogeneous, controlled production process yields capacitor reliability "second to none." Exceed requirements of Mil-C-11272.	CYFR10	0.5 to 150 160 to 240	500 300	11/32 x 11/64 x 5/64	0.25 - 0.50
		CYFR15	160 to 510 560 to 1200	500 300	15/32 x 17/64 x 7/64	0.75 - 1.25
		CYFR20	560 to 3300 3600 to 5100	500 300	47/64 x 27/64 x 9/64	2.50 - 4.00
		CYFR30	3600 to 6200 6200 to 10000	500 300	49/64 x 3/4 x 9/64	5.00 - 7.00
TYO	New printed circuit capacitor provides glass stability in a uniformly symmetric case. Eliminates shorting. Lead spacing: TYO-6—0.2", TYO-7—0.2", TYO-8—0.4",	TYO-6	1 to 560	300	.300 x .200 x .115	.3 - .4
		TYO-7	561 to 1000	300	.300 x .300 x .115	.4 - .5
		TYO-8	1001 to 2700	300	.500 x .300 x .115	.7 - .8
LO-CAP	New. Simple, low cost, rugged glass dielectric capacitor designed especially for high frequency applications requiring very low capacitances without sacrificing stability. Conforms to Mil-C-11272.	LoC1	.10 to 10.0	500	.380 x .200 x .090	.2 to .25

STANDARD CAPACITOR VALUES, CYFM, CYFR, TYO

CAP. (pf)	MIL EQUIV.	CAP (pf)	MIL EQUIV.	CAP. (pf)	MIL EQUIV.	CAP (pf)	MIL EQUIV.	CAP. (pf)	MIL EQUIV.	CAP (pf)	MIL EQUIV.
0.5†	0R5C	7.5	7R5C	33	330J	130	131J	560	561J	2400	242J
1.0	1R0C	8.2	8R2C	36	360J	150	151J	620	621J	2700	272J
1.5	1R5C	9.1	9R1C	39	390J	160	161J	680	681J	3000	302J
2.2	2R2C	10	100C	43	430J	180	181J	750	751J	3300	332J
2.7	2R7C	11	110C	47	470J	200	201J	820	821J	3600	362J
3.0	3R0C	12	120J*	51	510J	220	221J	910	911J	3900	392J
3.3	3R3C	13	130J	56	560J	240	241J	1000	102J	4300	432J
3.6	3R6C	15	150J	62	620J	270	271J	1100	112J	4700	472J
3.9	3R9C	16	160J	68	680J	300	301J	1200	122J	5100	512J
4.3	4R3C	18	180J	75	750J	330	331J	1300	132J	5600	562J
4.7	4R7C	20	200J	82	820J	360	361J	1500	152J	6200	622J
5.1	5R1C	22	220J	91	910J	390	391J	1600	162J	6800	682J
5.6	5R6C	24	240J	100	101J	430	431J	1800	182J	7500	752J
6.2	6R2C	27	270J	110	111J	470	471J	2000	202J	8200	822J
6.8	6R8C	30	300J	120	121J	510	511J	2200	222J	9100	912J
										10000	103J

*Standard Tolerances As Shown: C = ±25 pf J = ±5%.
*Other Tolerances Available On Request: D = ±.50 pf F = ±1% G = ±2% K = ±10% M = ±20% (TYO only)
†0.5 pf does not apply to TYO capacitors

STANDARD CAPACITOR VALUES — LO-CAP

CAP. (pf)	MIL EQUIV.	STD. TOL.	CAP (pf)	MIL EQUIV.	STD. TOL.	CAP (pf)	MIL EQUIV.	STD. TOL.	CAP (pf)	MIL EQUIV.	STD. TOL.
R10	.10	KM*	R43	.43	KJ	1R3	1.3	KJ	4.3	4R3	KJ
R12	.12	K	R47	.47	KJM	1R5	1.5	KJM	4.7	4R7	KJM
R15	.15	KM	R51	.51	KJ	1R6	1.6	KJ	5.1	5R1	KJ
R18	.18	K	R56	.56	KJ	1R8	1.8	KJ	5.6	5R6	KJ
R20	.20	KJ	R62	.62	KJ	2R0	2.0	KJ	6.2	6R2	KJ
R22	.22	KJM	R68	.68	KJM	2R2	2.2	KJM	6.8	6R8	KJM
R24	.24	KJ	R75	.75	KJ	2R4	2.4	KJ	7.5	7R5	KJ
R27	.27	KJ	R82	.82	KJ	2R7	2.7	KJ	8.2	8R2	KJ
R30	.30	KJ	R91	.91	KJ	3R0	3.0	KJ	9.1	9R1	KJ
R33	.33	KJM	1R0	1.0	KJM	3R3	3.3	KJM	10.0	100	KJM
R36	.36	KJ	1R1	1.1	KJ	3R6	3.6	KJ			
R39	.39	KJ	1R2	1.2	KJ	3R9	3.9	KJ			

*Std. Tolerances: K = ±10% M = ±20% J = ±5% On Request

See our complete line of glass/tin oxide film resistors in Section 4700. For more technical data or for fast delivery on top-reliability CORNING fixed capacitors, call your CORNING distributor, or contact us directly.

CORNING ELECTRONICS
A DIVISION OF CORNING GLASS WORKS
RALEIGH, N.C.

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CDE CORNELL-DUBILIER

REPLACEMENT COMPONENT SELECTOR

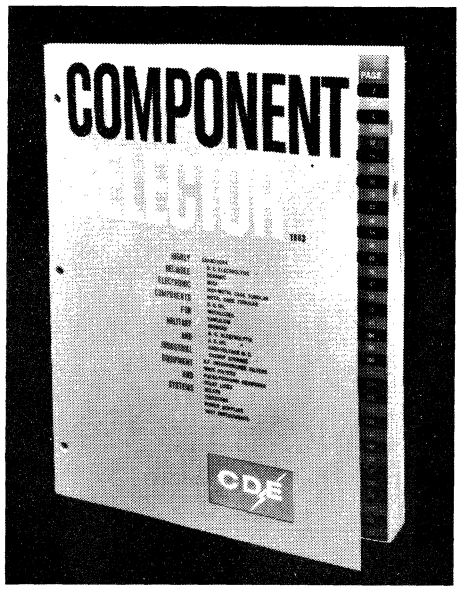
The capacitors listed on the following pages and the other Cornell-Dubilier products listed in this edition of the Radio-Master are intended for replacement applications in electronic equipment. Their primary use is by the professional electronic service technician and the industrial electronic maintenance technician.

The items listed have been selected by Cornell-Dubilier from the thousands of types produced by CDE for original equipment manufacturers. CDE's over 50 years experience as a leader in electronic components assures you of a balanced replacement component line — broad enough to meet your needs and selective enough to be immediately available.

All of the products catalogued are stocked in depth by a world-wide network of CDE Authorized Distributors. These CDE Authorized Distributors are carefully selected for their knowledge of electronic requirements and their ability to properly serve this market. The CDE Distributor is dedicated to serving you with name-brand products, stocked in depth to meet your needs.

The local stocks of the CDE Distributor are backed by substantial inventories maintained at CDE's modern Redistribution Center located a few minutes from Chicago's O'Hare International Airport. Further support of the Distributor in serving you is assured by six modern CDE plants with over 1,000,00 square feet of manufacturing area and over 3,000 employees dedicated to producing the highest quality components to protect your reputation and profits.

COMPONENTS FOR MILITARY AND INDUSTRIAL EQUIPMENT AND SYSTEMS



Information is also readily available on the extensive Cornell-Dubilie electronic component line designed for use in military and industria equipment and systems. The 144 page Cornell Dubilier COMPO PONENT SELECTOR contains detailed information on the complet CDE line.

In addition to the complete listing of ratings, specifications, an dimensions of CDE capacitors, RFI filters, wave filters, delay lines pulse forming networks, electro-magnetic relays, vibrators, powe supplies and instruments, the CDE COMPONENT SELECTOI contains over 25 pages of reference material. The CDE Capacito Application Chart, RFI Filter Guideline Application Chart, and eigh other capacitor selection charts included simplify selection an application of components.

Copies of the CDE COMPONENT SELECTOR are available fro your local CDE AUTHORIZED INDUSTRIAL DISTRIBUTO or from your local CDE field engineering office.

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Tips for Added Value

CDE CORNELL-DUBILIER

STANDARD RATINGS

In selecting ratings of the "Preferred Replacement" capacitor line, Cornell-Dubilier has adhered to accepted industry standards whenever possible. This standardization does not limit the technician or result in field problems.

In the case of by-pass and coupling capacitors, ratings listed follow EIA standards for "Preferred Values." Standard decade values and associated tolerances are reproduced in the table at the right.

It will be noted from the table that ratings in frequent use prior to the adoption of the standard are not included. For example, .05 mfd. at ±10% tolerance is not a standard value—standards are .047 and .056. Considering the overlapping tolerance bands of these ratings, selection of the next higher or lower standard rating should give perfectly satisfactory service in the application.

The use of standard ratings results in benefits through lower prices and greater availability of stock through your CDE General Line Distributor.

±20% Tolerance	±10% Tolerance	±5% Tolerance
1.0	1.0	1.0
		1.1
	1.2	1.2
		1.3
1.5	1.5	1.5
		1.6
	1.8	1.8
		2.0
2.2	2.2	2.2
		2.4
	2.7	2.7
		3.0
3.3	3.3	3.3
		3.6
	3.9	3.9
		4.3
4.7	4.7	4.7
		5.1
	5.6	5.6
		6.2
6.8	6.8	6.8
		7.5
	8.2	8.2
		9.1

PARENT CASE SIZES

CDE's careful selection of listed values to incorporate only "Parent Case Sizes" results in obtaining a higher quality unit without sacrifice of size or low cost. The "Parent Case Size" means that for a given capacitance rating, one or more voltage ratings have the same case size and price. In this case, the higher voltage unit is regarded as the "Parent Case Size."

In using the "Preferred Replacement" capacitor listings, always check the next higher voltage if the capacitance rating required is not listed at the specific voltage desired. For example, in the case of by-pass and coupling capacitors, if the rating is not listed under 200 volts, check the 400 and 600 volt listings. Selection of the higher voltage unit may be made in the knowledge that it has the same case size as the lower voltage unit and that no price penalty is being paid.

In addition, selection of the higher voltage unit provides an added measure of safety in the replacement through the higher dielectric strength.

In the case of electrolytic capacitors, listings are also based on "Parent Case Sizes." If the capacitance required is not listed at the voltage desired, always check the next higher voltages until the capacitance is listed. Use of the higher voltage unit again does not result in a price or size disadvantage. The higher voltage unit will perform better in the application since it will have a lower leakage current than the lower rated unit.

The use of "Parent Case Sizes" is another advantage offered by Cornell-Dubilier in its "Preferred Replacement" capacitor line.

WIDE APPLICATION RANGES

With the publication of this "REPLACEMENT COMPONENT SELECTOR," CDE introduces a completely new line of wide application range Twist-Prong electrolytic capacitors listed in Class 201.40 & 201.42. These wide application range Twist-Prongs provide a proper replacement for any electrolytic marked with a capacitance within the range on the wide application label and provided the voltage does not exceed the voltage on the wide application range label. The line is broad enough to cover replacement requirements but selective enough to be stocked **complete** by all CDE General Line Distributors—a proper replacement instantly available.

The wide application range Twist-Prong line takes into consideration the broad tolerances inherent in electrolytic manufacture and widely recognized throughout the industry. The standard tolerance table for electrolytics is shown at the right. By designing a completely new Twist-Prong line utilizing the latest materials and processes and recognizing the broad overlapping tolerance bands, CDE offers a Twist-Prong electrolytic line unsurpassed in quality or availability.

EIA RS-154-B REVISED SPECIFICATION

RATED DC WORKING VOLTAGE	CAPACITANCE TOLERANCE
From 3 to 50 volts, incl.	—10% to +150%
From 51 to 350 volts, incl.	—10% to +100%
351 volts and above	—10% to +50%

Recommended replacements for all replacement Twist-Prongs in current use are detailed in the 96 page Cornell-Dubilier Twist-Prong Replacement Guide. Your Cornell-Dubilier General Line Distributor will be happy to give you a copy today.

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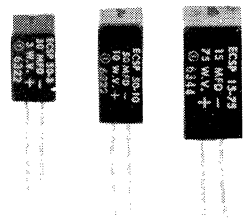
CDE CORNELL-DUBILIER

D. C. Aluminum Electrolytics

Type	Class
ECSP	201 • 11



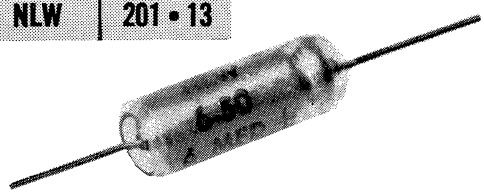
RECTANGULAR PRINTED CIRCUIT ELECTROLYTIC

The rectangular form factor and miniature size of the type ECSP electrolyti make it the ideal replacement for printed circuit applications. The unit is en capsulated in a pre-formed phenolic case effecting a true hermetic seal. Operatin temperature range is from −20C to +65C. Lead spacing of ⅜" square case i .125" and for ½" square case, is .185". Standard tolerance is −10% to +150% through 50 VDCW and to +100% for 75 VDCW.

Cap. Mfd.	Type	Size (Inches) W x D x H	List Price	Net Price
3V DCW				
50	ECSP 50-3	⅜ x ⅜ x ⅝	$1.15	$.69
100	ECSP 100-3	⅜ x ⅜ x ⅞	1.15	.69
250	ECSP 250-3	½ x ½ x 1	1.25	.75
10V DCW				
35	ECSP 35-10	⅜ x ⅜ x ⅝	1.15	.69
50	ECSP 50-10	⅜ x ⅜ x ⅞	1.15	.69
150	ECSP 150-10	½ x ½ x 1	1.20	.72
15V DCW				
5	ECSP 5-15	⅜ x ⅜ x ⅝	1.10	.66
10	ECSP 10-15	⅜ x ⅜ x ⅝	1.10	.66
25	ECSP 25-15	⅜ x ⅜ x ⅝	1.15	.69
30	ECSP 30-15	⅜ x ⅜ x ⅝	1.15	.69
35	ECSP 35-15	⅜ x ⅜ x ⅞	1.15	.69
50	ECSP 50-15	⅜ x ⅜ x ⅞	1.15	.69
100	ECSP 100-15	½ x ½ x 1	1.20	.72
125	ECSP 125-15	½ x ½ x 1	1.20	.72

Cap. Mfd.	Type	Size (Inches) W x D x H	List Price	Net Price
25V DCW				
10	ECSP 10-25	⅜ x ⅜ x ⅝	$1.15	$.69
15	ECSP 15-25	⅜ x ⅜ x ⅝	1.15	.69
25	ECSP 25-25	⅜ x ⅜ x ⅞	1.15	.69
75	ECSP 75-25	½ x ½ x 1	1.20	.72
50V DCW				
10	ECSP 10-50	⅜ x ⅜ x ⅝	1.15	.69
15	ECSP 15-50	⅜ x ⅜ x ⅞	1.15	.69
20	ECSP 20-50	½ x ½ x 1	1.15	.69
30	ECSP 30-50	½ x ½ x 1	1.15	.69
50	ECSP 50-50	½ x ½ x 1	1.20	.72
75V DCW				
3	ECSP 3-75	⅜ x ⅜ x ⅝	1.10	.66
5	ECSP 5-75	⅜ x ⅜ x ⅞	1.15	.69
15	ECSP 15-75	½ x ½ x 1	1.15	.69

Type	Class
NLW	201 • 13



SUB-MINIATURE METAL CASED ELECTROLYTIC

The 3/16" diameter case is the smallest case size available in subminiature elec trolytics. The subminiature type NLW is of all welded construction, hermetically sealed in an aluminum case, and provided with plastic insulating sleeve. Operatin temperature range is −40C to +85C. Tolerance is −10% to +150% throug 50 VDCW and to +100% through 150 VDCW. Dimensions listed are fo uninsulated units; for insulated dimensions, add 1/16" to diameter and ⅛" t length.

Cap. Mfd.	Type	Size (Inches—D x L)	List Price	Net Price
3V DCW				
10	NLW 10-3	3/16 x ½	$1.25	$ .75
25	NLW 25-3	¼ x ½	1.25	.75
35	NLW 35-3	¼ x ⅝	1.25	.75
40	NLW 40-3	¼ x ⅝	1.25	.75
50	NLW 50-3	¼ x ¾	1.25	.75
75	NLW 75-3	5/16 x ¾	1.40	.84
100	NLW 100-3	⅜ x ⅝	1.40	.84
125	NLW 125-3	⅜ x ⅝	1.40	.84
150	NLW 150-3	⅜ x ¾	1.45	.87
175	NLW 175-3	⅜ x ¾	1.50	.90
200	NLW 200-3	⅜ x ⅞	1.50	.90
250	NLW 250-3	⅜ x 1	1.60	.96
300	NLW 300-3	⅜ x 1	1.65	.99
350	NLW 350-3	⅜ x 1	1.65	.99
400	NLW 400-3	⅜ x 1¼	1.70	1.02
450	NLW 450-3	⅜ x 1½	1.75	1.05
6V DCW				
1	NLW 1-6	3/16 x ½	1.25	.75
10	NLW 10-6	3/16 x ½	1.35	.81
15	NLW 15-6	¼ x ½	1.35	.81
20	NLW 20-6	¼ x ½	1.35	.81
30	NLW 30-6	¼ x ⅝	1.40	.84

Cap. Mfd.	Type	Size (Inches—D x L)	List Price	Net Price
6V DCW (cont'd)				
35	NLW 35-6	5/16 x ⅝	$1.40	$ .84
40	NLW 40-6	5/16 x ⅝	1.40	.84
50	NLW 50-6	5/16 x ¾	1.40	.84
125	NLW 125-6	⅜ x ¾	1.50	.90
150	NLW 150-6	⅜ x ⅞	1.55	.93
175	NLW 175-6	⅜ x 1	1.55	.93
250	NLW 250-6	⅜ x 1¼	1.70	1.02
300	NLW 300-6	⅜ x 1½	1.80	1.08
10V DCW				
8	NLW 8-10	3/16 x ½	1.35	.81
25	NLW 25-10	¼ x ⅝	1.45	.87
40	NLW 40-10	5/16 x ¾	1.45	.87
50	NLW 50-10	5/16 x ¾	1.55	.93
75	NLW 75-10	⅜ x ⅝	1.65	.99
125	NLW 125-10	⅜ x ⅞	1.85	1.11
150	NLW 150-10	⅜ x 1	1.90	1.14
225	NLW 225-10	⅜ x 1¼	2.10	1.26
12V DCW				
15	NLW 15-12	¼ x ½	1.40	.84
35	NLW 35-12	5/16 x ⅝	1.45	.87
100	NLW 100-12	⅜ x ¾	1.75	1.05
200	NLW 200-12	⅜ x 1¼	2.05	1.23
250	NLW 250-12	⅜ x 1½	2.20	1.32

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D. C. Aluminum Electrolytics

CDE CORNELL-DUBILIER

SUB-MINIATURE ELECTROLYTICS (Continued)

Class 201 • 13 | Type NLW

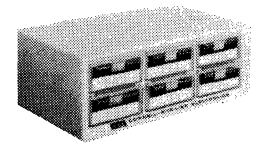
Cap. Mfd.	Type	Size (Inches—D x L)	List Price	Net Price
	15V DCW			
3	NLW 3-15	3/16 x 1/2	$1.25	$ .75
4	NLW 4-15	3/16 x 1/2	1.30	.78
5	NLW 5-15	3/16 x 1/2	1.40	.84
6	NLW 6-15	3/16 x 1/2	1.40	.84
10	NLW 10-15	1/4 x 1/2	1.40	.84
15	NLW 15-15	1/4 x 5/8	1.45	.87
20	NLW 20-15	1/4 x 5/8	1.45	.87
25	NLW 25-15	5/16 x 5/8	1.45	.87
30	NLW 30-15	5/16 x 5/8	1.50	.90
35	NLW 35-15	3/8 x 5/8	1.55	.93
40	NLW 40-15	3/8 x 5/8	1.55	.93
50	NLW 50-15	3/8 x 5/8	1.60	.96
75	NLW 75-15	3/8 x 3/4	1.70	1.02
100	NLW 100-15	3/8 x 7/8	1.80	1.08
125	NLW 125-15	3/8 x 1	1.85	1.11
150	NLW 150-15	3/8 x 1 1/4	1.95	1.17
175	NLW 175-15	3/8 x 1 1/4	2.00	1.20
200	NLW 200-15	3/8 x 1 1/2	2.10	1.26
	25V DCW			
3	NLW 3-25	3/16 x 1/2	1.30	.78
6	NLW 6-25	1/4 x 1/2	1.40	.84
8	NLW 8-25	1/4 x 1/2	1.45	.87
10	NLW 10-25	1/4 x 5/8	1.45	.87
15	NLW 15-25	5/16 x 5/8	1.45	.87
20	NLW 20-25	3/8 x 5/8	1.50	.90
25	NLW 25-25	3/8 x 5/8	1.55	.93
30	NLW 30-25	3/8 x 5/8	1.60	.96
35	NLW 35-25	3/8 x 3/4	1.60	.96
40	NLW 40-25	3/8 x 3/4	1.70	1.02
50	NLW 50-25	3/8 x 7/8	1.80	1.08
75	NLW 75-25	3/8 x 1 1/4	1.95	1.17
100	NLW 100-25	3/8 x 1 1/2	2.10	1.26
	50V DCW			
1	NLW 1-50	3/16 x 1/2	1.30	.78
2	NLW 2-50	3/16 x 1/2	1.35	.81

Cap. Mfd.	Type	Size (Inches—D x L)	List Price	Net Price
	50V DCW (cont'd)			
3	NLW 3-50	1/4 x 1/2	$1.35	$ .81
4	NLW 4-50	1/4 x 1/2	1.35	.81
5	NLW 5-50	1/4 x 1/2	1.45	.87
6	NLW 6-50	1/4 x 5/8	1.45	.87
8	NLW 8-50	5/16 x 1/2	1.50	.90
10	NLW 10-50	5/16 x 5/8	1.50	.90
15	NLW 15-50	3/8 x 5/8	1.50	.90
20	NLW 20-50	3/8 x 5/8	1.50	.90
25	NLW 25-50	3/8 x 3/4	1.55	.93
30	NLW 30-50	3/8 x 3/4	1.60	.96
35	NLW 35-50	3/8 x 7/8	1.70	1.02
40	NLW 40-50	3/8 x 1	1.75	1.05
50	NLW 50-50	3/8 x 1 1/4	1.85	1.11
75	NLW 75-50	3/8 x 1 1/2	2.00	1.20
	100V DCW			
2	NLW 2-100	1/4 x 5/8	1.40	.84
3	NLW 3-100	5/16 x 5/8	1.40	.84
6	NLW 6-100	3/8 x 5/8	1.50	.90
8	NLW 8-100	3/8 x 3/4	1.55	.93
10	NLW 10-100	3/8 x 7/8	1.55	.93
15	NLW 15-100	3/8 x 1 1/4	1.55	.93
20	NLW 20-100	3/8 x 1 1/2	1.60	.96
	150V DCW			
1	NLW 1-150	1/4 x 1/2	1.40	.84
2	NLW 2-150	5/16 x 5/8	1.45	.87
3	NLW 3-150	3/8 x 5/8	1.45	.87
4	NLW 4-150	3/8 x 5/8	1.45	.87
5	NLW 5-150	3/8 x 5/8	1.55	.93
6	NLW 6-150	3/8 x 3/4	1.55	.93
8	NLW 8-150	3/8 x 7/8	1.60	.96
10	NLW 10-150	3/8 x 1	1.60	.96
12	NLW 12-150	3/8 x 1 1/4	1.60	.96
15	NLW 15-150	3/8 x 1 1/4	1.60	.96
18	NLW 18-150	3/8 x 1 1/2	1.60	.96

MINIATURE ELECTROLYTIC ASSORTMENT

Type NLW, ECSP

CDE's miniature electrolytic capacitor assortment contains the most popular values of the type NLW and ECSP. Units are packaged in a stackable six drawer plastic cabinet matching other CDE capacitor assortments. The assortment contains *two each* of 25 volt NLW's rated 10mfd. and 25mfd. and *one each* NLW rated 1 mfd., 50 v.; 4mfd., 50 v.; 8mfd., 10v.; 20 mfd., 50v; 40mfd., 15v.; 50 mfd., 25v.; 75mfd., 15v., and 100mfd., 15v. Also included are *one each* ECSP rated 5 mfd., 15v.; 10mfd., 50v.; and 150mfd., 10v.

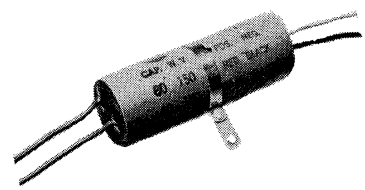


LIST PRICE $21.85 NET PRICE $13.11 (Cabinet Free)

CARDBOARD TUBULAR, DUAL SECTION

Class 201 • 21 | Type EDL

Cap. Mfd.	Type	Size (Inches—D x L)	List Price	Net Price
20-20	EDL2215SS	15/16 x 2 5/8	$1.65	$ .99
30-30	EDL3315SS	1 x 2 5/8	1.80	1.08
40-20	EDL4215SS	1 x 2 5/8	1.75	1.05
40-40	EDL4415SS	1 1/16 x 2 7/8	1.85	1.11
50-30	EDL5315SS	1 1/16 x 2 7/8	1.95	1.17
50-50	EDL5515SS	1 1/8 x 3 1/8	2.10	1.26
80-40	EDL8415SS	1 3/16 x 3 3/8	2.25	1.35



The type EDL is a dual separate section unit encased in an impregnated cardboard tube with wax end seals. Section terminations are brought out to color coded flexible leads. The unit is supplied with mounting strap. Ratings and polarity of the sections are clearly marked on the unit. Working voltage is 150 volts DC and the unit may be operated to 65C.

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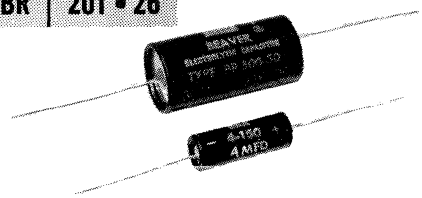
CDE CORNELL-DUBILIER

D. C. Aluminum Electrolytics

Type BR, BBR | **Class** 201 • 26



SINGLE SECTION, TUBULAR ELECTROLYTICS

These famous BLUE-BEAVER® tubular electrolytics are ideally suited for us in a wide variety of electronic equipment. Both types BR and BBR are hermet ically sealed in aluminum cases with cardboard insulating sleeves. Negative i grounded to can. Cathodes of all units up to and including 150 volts are etched Rubber-bakelite hermetic seal is used on all units and, over ⅜" diameter, th seal is provided with a rubber safety vent. Maximum operating temperature i 85C below 500VDCW and 65C, 500VDCW and above. For tolerance see page 2

Cap. Mfd.	Type	Size * (Inches—D x L)	List Price	Net Price
3V DCW				
25	BBR 25-3	⅜ x 1 1/16	$ .85	$ .51
50	BBR 50-3	⅜ x 1 1/16	.95	.57
6V DCW				
5	BBR 5-6	⅜ x 1 1/16	.80	.48
25	BBR 25-6	⅜ x 1 1/16	.85	.51
50	BBR 50-6	⅜ x 1 1/16	.95	.57
100	BR 100-6	½ x 1 1/16	1.20	.72
250	BR 250-6	½ x 1 1/16	1.35	.81
500	BR 500-6	½ x 1 7/16	1.55	.93
1000	BR 1000-6	⅝ x 1 11/16	1.90	1.14
2000	BR 2000-6	¾ x 2	2.30	1.38
3000	BR 3000-6	⅞ x 2	2.85	1.71
4000	BR 4000-6	1 x 2 3/16	3.25	1.95
12V DCW				
100	BR 100-12	½ x 1 1/16	1.20	.72
250	BR 250-12	½ x 1 1/16	1.45	.87
500	BR 500-12	½ x 1 7/16	1.70	1.02
1000	BR 1000-12	⅝ x 1 11/16	2.25	1.35
2000	BR 2000	¾ x 2	2.65	1.59
15V DCW				
100	BR 100-15	½ x 1 1/16	1.25	.75
250	BR 250-15	½ x 1 1/16	1.55	.93
500	BR 500-15	½ x 1 7/16	1.75	1.05
1000	BR 1000-15	⅝ x 1 11/16	2.30	1.38
2000	BR 2000-15	¾ x 2	3.20	1.92
3000	BR 3000-15	⅞ x 2 3/16	3.95	2.37
4000	BR 4000-15	⅞ x 2 3/4	4.85	2.91
5000	BR 5000-15	1 x 3	5.25	3.15
25V DCW				
10	BBR 10-25	⅜ x 1 1/16	1.00	.60
20	BBR 20-25	⅜ x 1 1/16	1.00	.60
25	BBR 25-25	⅜ x 1 1/16	1.00	.60
50	BR 50-25	½ x 1 1/16	1.10	.66
100	BR 100-25	½ x 1 1/16	1.35	.81
250	BR 250-25	½ x 1 7/16	1.70	1.02
500	BR 500-25	⅝ x 1 11/16	2.30	1.38
1000	BR 1000-25	¾ x 2	3.95	2.37
2000	BR 2000-25	⅞ x 2½	4.85	2.91
50V DCW				
1	BBR 1-50	⅜ x 1 1/16	.90	.54
2	BBR 2-50	⅜ x 1 1/16	.90	.54
4	BBR 4-50	⅜ x 1 1/16	1.00	.60
5	BBR 5-50	⅜ x 1 1/16	1.00	.60
10	BBR 10-50	⅜ x 1 1/16	1.00	.60
25	BBR 25-50	½ x 1 1/16	1.05	.63
50	BR 50-50	½ x 1 1/16	1.20	.72
100	BR 100-50	½ x 1 7/16	1.40	.84
150	BR 150-50	⅝ x 1 7/16	1.55	.93
250	BR 250-50	¾ x 1 7/16	1.75	1.05
500	BR 500-50	⅞ x 1 11/16	2.40	1.44
1000	BR 1000-50	1 x 2 11/16	4.20	2.52
90V DCW				
10	BBR 10-90	½ x 1 1/16	1.10	.66
16	BBR 16-90	½ x 1 7/16	1.10	.66
150V DCW				
4	BBR 4-150	⅜ x 1 1/16	1.00	.60
8	BBR 8-150	½ x 1 1/16	1.05	.63
10	BBR 10-150	½ x 1 1/16	1.05	.63
12	BBR 12-150	½ x 1 1/16	1.10	.66
16	BBR 16-150	½ x 1 7/16	1.15	.69
20	BBR 20-150	½ x 1 7/16	1.20	.72

Cap. Mfd.	Type	Size * (Inches—D x L)	List Price	Net Price
150V DCW (cont'd)				
25	BR 25-150	¾ x 1 7/16	$1.25	$.75
30	BR 30-150	¾ x 1 7/16	1.30	.78
40	BR 40-150	¾ x 1 11/16	1.35	.81
50	BR 50-150	¾ x 1 11/16	1.40	.84
60	BR 60-150	⅞ x 1 11/16	1.50	.90
80	BR 80-150	⅞ x 1 11/16	1.60	.96
100	BR 100-150	⅞ x 2	1.75	1.05
150	BR 150-150	1 x 2 3/16	1.90	1.14
200	BR 200-150	1 x 3	2.20	1.32
250	BR 250-150	1 x 3 3/16	2.55	1.53
300	BR 300-150	1 x 3 13/16	2.95	1.77
250V DCW				
4	BBR 4-250	½ x 1 1/16	1.00	.60
8	BBR 8-250	½ x 1 7/16	1.15	.69
12	BBR 12-250	½ x 1 7/16	1.25	.75
16	BR 16-250	¾ x 1 7/16	1.30	.78
20	BR 20-250	¾ x 1 7/16	1.35	.81
30	BR 30-250	¾ x 1 11/16	1.45	.87
40	BR 40-250	¾ x 2	1.55	.93
50	BR 50-250	⅞ x 1 11/16	1.70	1.02
60	BR 60-250	1 x 1 11/16	1.80	1.08
100	BR 100-250	1 x 2 3/16	2.45	1.47
150	BR 150-250	1⅛ x 3	3.15	1.89
200	BR 200-250	1⅜ x 3⅛	3.50	2.10
350V DCW				
4	BR 4-350	⅝ x 1 1/16	1.05	.63
8	BR 8-350	⅝ x 1 7/16	1.20	.72
12	BR 12-350	¾ x 1 7/16	1.30	.78
16	BR 16-350	¾ x 1 7/16	1.40	.84
20	BR 20-350	¾ x 1 7/16	1.45	.87
30	BR 30-350	¾ x 2	1.65	.99
40	BR 40-350	⅞ x 2	1.75	1.05
50	BR 50-350	1 x 2	1.85	1.11
60	BR 60-350	1 x 2	1.95	1.17
80	BR 80-350	1 x 3	2.10	1.26
100	BR 100-350	1 x 3	2.55	1.53
150	BR 150-350	1⅜ x 3	3.95	2.37
200	BR 200-350	1⅜ x 4 1/8	4.50	2.70
450V DCW				
1	BR 1-450	⅝ x 1 1/16	1.10	.66
2	BR 2-450	⅝ x 1 1/16	1.10	.66
4	BR 4-450	⅝ x 1 1/16	1.15	.69
8	BR 8-450	¾ x 1 7/16	1.25	.75
10	BR 10-450	¾ x 1 7/16	1.30	.78
12	BR 12-450	¾ x 1 7/16	1.35	.81
16	BR 16-450	¾ x 1 11/16	1.40	.84
20	BR 20-450	⅞ x 1 11/16	1.55	.93
30	BR 30-450	1 x 2	1.70	1.02
40	BR 40-450	1 x 2 3/16	1.80	1.08
50	BR 50-450	1 x 2 11/16	2.10	1.26
60	BR 60-450	1 x 3	2.35	1.41
80	BR 80-450	1 x 3 9/16	2.80	1.68
100	BR 100-450	1 x 3 13/16	3.20	1.92
150	BR 150-450	1⅜ x 3⅝	4.75	2.85
200	BR 200-450	1⅜ x 4⅛	5.00	3.00
500V DCW				
4	BR 4-500	⅝ x 1 7/16	1.20	.72
8	BR 8-500	¾ x 1 7/16	1.30	.78
12	BR 12-500	¾ x 1 11/16	1.40	.84
16	BR 16-500	⅞ x 1 11/16	1.50	.90
20	BR 20-500	⅞ x 2	1.60	.96
30	BR 30-500	1 x 2	1.75	1.05

*For Overall BBR Size add 1/16" to Diam. and 3/32" to Length. For Overall BR Size add 1/16" to Diam. and 3/16" Length.

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D. C. Aluminum Electrolytics

CDE CORNELL-DUBILIER

SINGLE SECTION TUBULARS (Continued)

Type	Class
BR, BBR	201 • 26

Cap. Mfd.	Type	Size (Inches—D x L)	List Price	Net Price
	600V DCW			
4	**BR 4-600**	13/16 x 2 7/16	$2.25	**$1.35**
8	**BR 8-600**	13/16 x 3 3/16	2.30	**1.38**
10	**BR 10-600**	15/16 x 3 3/16	2.45	**1.47**
12	**BR 12-600**	1 1/16 x 3 3/16	2.75	**1.65**
16	**BR 16-600**	1 1/16 x 3 3/16	3.15	**1.89**
20	**BR 20-600**	1 1/16 x 3 11/16	3.50	**2.10**

Cap. Mfd.	Type	Size (Inches—D x L)	List Price	Net Price
	700V DCW			
8	**BR 8-700**	15/16 x 3 3/16	$2.45	**$1.47**
10	**BR 10-700**	1 1/16 x 3 3/16	2.55	**1.53**
12	**BR 12-700**	1 1/16 x 3 11/16	2.85	**1.71**
16	**BR 16-700**	1 1/16 x 4 5/16	3.15	**1.89**

For Overall BR Size add 1/16" to Diam. and 3/16" to Length.

NON-POLARIZED TUBULARS

Type	Class
BRNP	201 • 26

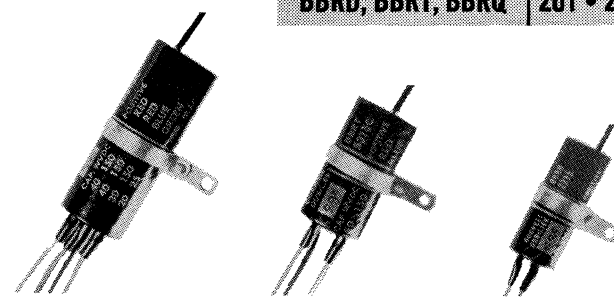
Cap. Mfd.	Volts (VNP)	Type	Size (In.—D x L)	List Price	Net Price
1000	3	**BRNP 1000-3**	15/16 x 2 3/16	$2.15	**$1.29**
500	10	**BRNP 500-10**	13/16 x 1 5/8	2.00	**1.20**
20	30	**BRNP 20-30**	11/16 x 1 1/4	1.25	**.75**
4	50	**BRNP 4-50**	11/16 x 1 1/4	1.25	**.75**
5	400	**BRNP 5-400**	13/16 x 1 5/8	1.40	**.84**
20	400	**BRNP 20-400**	1 1/16 x 2 3/8	1.90	**1.14**
10	400	**BRNP 10-400**	13/16 x 1 5/8	1.55	**.93**

The type BRNP is a true non-polarized electrolytic suitable for use when no DC polarizing voltage is present. Processing and construction are essentially the same as that employed in AC motor starting capacitors to insure true non-polarized operation. Units are physically similar to the type BR—axial lead, hermetically sealed in aluminum cases with cardboard insulating sleeves. BRNP units are designed for use in cross-over networks and in boot-strap filtering applications.

MULTIPLE SECTION TUBULARS

Type	Class
BBRD, BBRT, BBRQ	201 • 26

These multiple section units feature construction similar to the type BBR. The aluminum case is cardboard insulated and equipped with combination vent and hermetic seal. Seven inch flexible leads are vinyl insulated. Mounting strap is standard. Maximum operating temperature is 85C; tolerance per EIA standards (see page 2). Dimensions are uninsulated; add 1/16" to diameter and 3/16" to length for over-all size.



BBRD - DUAL SECTIONS

Cap. Mfd.	Volts DCW	Type	Size (In.—D x L)	List Price	Net Price
20-20	25	**BBRD 2202**	3/4 x 1 1/16	$1.40	**$ .84**
10-10	50	**BBRD 115**	3/4 x 1 1/16	1.40	**.84**
20-10	150	**BBRD 2115**	3/4 x 1 7/16	1.55	**.93**
20-20	150	**BBRD 2215**	3/4 x 1 11/16	1.65	**.99**
30-20	150	**BBRD 3215**	7/8 x 1 11/16	1.70	**1.02**
30-30	150	**BBRD 3315**	7/8 x 1 11/16	1.80	**1.08**
40-20	150	**BBRD 4215**	7/8 x 1 11/16	1.75	**1.05**
40-30	150	**BBRD 4315**	7/8 x 2	1.80	**1.08**
40-40	150	**BBRD 4415**	7/8 x 2	1.85	**1.11**
50-30	150	**BBRD 5315**	7/8 x 2	1.95	**1.17**
50-50	150	**BBRD 5515**	1 x 2	2.10	**1.26**
80-40	150	**BBRD 8415**	1 x 2 3/16	2.25	**1.35**
80-50	150	**BBRD 8515**	1 x 2 1/2	2.30	**1.38**
100-50	150	**BBRD 0183.7**	1 x 3	3.00	**1.80**
100-100	150	**BBRD 101015**	1 x 3	3.20	**1.92**
200-5	200	**BBRD 0196**	1 x 4 1/16	3.50	**2.10**
8-8	250	**BBRD 8D25**	3/4 x 1 7/16	1.60	**.96**
16-8	250	**BBRD 16825**	3/4 x 2	1.70	**1.02**
16-16	250	**BBRD 16D25**	7/8 x 2	1.80	**1.08**

Cap. Mfd.	Volts DCW	Type	Size (Inches—D x L)	List Price	Net Price
20-20	250	**BBRD 2225**	1 x 1 11/16	$1.85	**$1.11**
30-30	250	**BBRD 3325**	1 x 2 3/16	2.25	**1.35**
75-20	250	**BBRD 7V225**	1 x 3	2.60	**1.56**
80-10	250	**BBRD 0242**	1 x 3	2.55	**1.53**
120-80	250	**BBRD 0246**	1 3/8 x 3 1/16	4.00	**2.40**
150-100	300	**BBRD 0286**	1 3/8 x 4 3/16	5.25	**3.15**
140-5	350	**BBRD 0334**	1 1/8 x 4 1/16	4.15	**2.49**
8-8	450	**BBRD 8D45**	7/8 x 1 11/16	1.70	**1.02**
10-10	450	**BBRD 1145**	7/8 x 2	1.95	**1.17**
16-8	450	**BBRD 16845**	1 x 2 3/16	2.00	**1.20**
16-16	450	**BBRD 16D45**	1 x 2 1/2	2.25	**1.35**
20-20	450	**BBRD 2245**	1 x 3	2.50	**1.50**
30-30	450	**BBRD 3345**	1 1/8 x 3 3/16	3.00	**1.80**
40-40	450	**BBRD 4445**	1 x 4 1/16	3.40	**2.04**
60,125	200,50	**BBRD 0576**	1 x 3	3.25	**1.95**
20,100	450,25	**BBRD 0646**	1 x 2 1/2	2.20	**1.32**
40,50	450,50	**BBRD 0652**	1 x 3 3/16	3.00	**1.80**
80,100	450,50	**BBRD 0722**	1 3/8 x 3 3/16	3.75	**2.25**
30,50	450,200	**BBRD 0707**	1 1/8 x 2 1/2	2.85	**1.71**

Trade Discount Applies To List Prices Only

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CDE CORNELL-DUBILIER

D. C. Aluminum Electrolytics

Type	Class
BBRD, BBRT, BBRQ	201 • 26

MULTIPLE SECTION TUBULARS

BBRT - TRIPLE SECTIONS

Cap. Mfd.	Volts DCW	Type	Size (In. - DxL)	List Price	Net Price
20-20-20	150	**BBRT 22215**	⅞ x 1 11/16	$2.20	**$1.32**
30-25-20	150	**BBRT 32V215**	⅞ x 2	2.25	**2.35**
30-30-30	150	**BBRT 33315**	1 x 2	2.35	**1.41**
40-20-20	150	**BBRT 42215**	1 x 1 11/16	2.25	**1.35**
40-30-20	150	**BBRT 43215**	1 x 2	2.35	**1.41**
40-40-20	150	**BBRT 44215**	1 x 2	2.35	**1.41**
40-40-40	150	**BBRT 44415**	1 x 2 3/16	2.45	**1.47**
50-30-20	150	**BBRT 53215**	1 x 2	2.45	**1.47**
80-40-20	150	**BBRT 84215**	1 x 3	2.75	**1.65**
150-150-150	150	**BBRT 0126.5**	1 3/8 x 4 3/16	4.75	**2.85**
250-200-10	150	**BBRT 0129**	1 3/8 x 4 3/16	5.65	**3.39**
75-40-10	250	**BBRT 7V4125**	1 1/8 x 3	3.45	**2.07**
40-40-40	300	**BBRT 0185**	1 1/8 x 3	4.60	**2.76**
120-40-10	300	**BBRT 0196**	1 3/8 x 3 1/16	4.85	**2.91**
60-60-5	350	**BBRT 0235**	1 3/8 x 3 1/16	4.25	**2.55**
10-10-10	450	**BBRT 11145**	1 x 2½	2.45	**1.47**
16-16-16	450	**BBRT 16T45**	1 1/8 x 3	3.10	**1.86**
40-40,250	150,10	**BBRT 4415X25**	1 x 2 3/16	2.60	**1.56**
50-30,200	150,10	**BBRT 5315X20**	1 x 2 3/16	2.55	**1.53**
50-30,20	150,25	**BBRT 5315C**	1 x 1 11/16	2.35	**1.41**

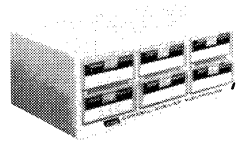
Cap. Mfd.	Volts DCW	Type	Size (In. - DxL)	List Price	Net Price
50-50,20	150,25	**BBRT 5515C**	1 x 2 3/16	$2.50	**$1.5**
80-40,20	150,25	**BBRT 8415C**	1 x 2½	2.65	**1.5**
30-20,100	150,25	**BBRT 3215C10**	1 x 2	2.35	**1.41**
20-20,20	150,25	**BBRT 2215C**	⅞ x 1 11/16	2.05	**1.2**
30-30,20	150,25	**BBRT 3315C**	⅞ x 2	2.20	**1.3**
40-20,20	150,25	**BBRT 4215C**	1 x 1 11/16	2.15	**1.2**
40-30,20	150,25	**BBRT 4315C**	1 x 1 11/16	2.20	**1.3**
40-40,20	150,25	**BBRT 4415C**	1 x 1 11/16	2.25	**1.3**
50-30,100	150,25	**BBRT 5315C10**	1 x 2 3/16	2.45	**1.4**
50-30,250	150,25	**BBRT 5315C25**	1 x 3	3.10	**1.8**
80-20,100	150,25	**BBRT 8215C10**	1 x 2½	2.75	**1.6**
20-20,20	250-25	**BBRT 2225C**	1 x 2	2.25	**1.3**
40-20,20	250,25	**BBRT 4225C**	1 x 2 3/16	2.55	**1.5**
40-40,20	250,25	**BBRT 4425C**	1 x 2 11/16	2.90	**1.7**
80-10,100	300-50	**BBRT 0733**	1 3/8 x 3 1/16	4.05	**2.4**
140-5,200	350,200	**BBRT 0878**	1½ x 4 3/16	6.70	**4.0**
20-20,20	450,25	**BBRT 2245C**	1 x 3	2.90	**1.7**
10-10,100	450,50	**BBRT 0925**	1 x 3	3.30	**1.9**
5,80-40	450,400	**BBRT 1238**	1 3/8 x 3 3/16	4.55	**2.7**
30,50,100	450,150,25	**BBRT 1411**	1 1/8 x 3	3.70	**2.2**

BBRQ - QUADRUPLE SECTIONS

Cap. Mfd.	Volts DCW	Type	Size (In. - DxL)	List Price	Net Price
10-10-10-10	450	**BBRQ 111145**	1 x 3	$3.20	**$1.92**
20-20-20-20	450	**BBRQ 222245**	1 1/8 x 4 1/16	4.50	**2.70**
20-20-20-10	450	**BBRQ 0125**	1 3/8 x 3 1/16	4.25	**2.55**
40-20-20-10	450	**BBRQ 0170.5**	1 3/8 x 3 3/16	4.70	**2.82**
40-40-20-20	450	**BBRQ 0174**	1 3/8 x 4 3/16	5.45	**3.27**
30-30-20,20	150,25	**BBRQ 33215C**	1 x 2	2.90	**1.74**
40-20-20,20	150,25	**BBRQ 42215C**	1 x 2	2.85	**1.71**
40-40-30,20	150,25	**BBRQ 44315C**	1 x 2½	3.00	**1.80**
50-30-20,20	150,25	**BBRQ 53215C**	1 x 2½	3.05	**1.83**
50-50-50,20	150,25	**BBRQ 55515C**	1 x 3	3.45	**2.07**
140-5,200-30	300,150	**BBRQ 0789.4**	1½ x 4 3/16	5.15	**3.09**

Cap. Mfd.	Volts DCW	Type	Size (In. - DxL)	List Price	Net Price
120-40-40,10	300,250	**BBRQ 0385**	1 3/8 x 3 3/16	$6.20	**$3.72**
20-20-20,20	450,25	**BBRQ 22245C**	1 1/8 x 3 3/16	4.05	**2.43**
10-10-10,150	450,50	**BBRQ 0500**	1 1/8 x 3	4.60	**2.76**
10,20-20-10	450,350	**BBRQ 0695.3**	1 1/8 x 3	3.50	**2.10**
80-60,40,20	350,300,150	**BBRQ 0789.5**	1 3/8 x 3 3/16	5.90	**3.54**
140,5,200-30	350,300,200	**BBRQ 0925**	1½ x 4 3/16	7.65	**4.59**
80-10,40,100	400,300,50	**BBRQ 0805**	1 3/8 x 3 3/16	5.45	**3.27**
10,80,40-40	450,300,250	**BBRQ 0926.5**	1 3/8 x 3 3/16	4.95	**2.97**
10,80,40,100	450,300,250,50	**BBRQ 0954**	1 3/8 x 3 3/16	4.80	**2.88**
20,120,40,100	450,300,250,50	**BBRQ 0954.5**	1 3/8 x 4 3/16	6.15	**3.69**

Type	Class
BR	201 • 26

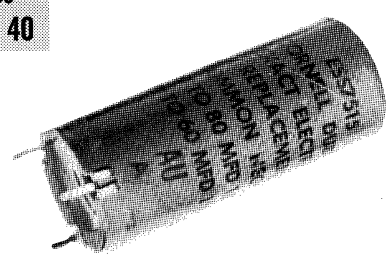


TUBULAR ELECTROLYTIC ASSORTMENT

The type BR tubular electrolytic capacitor assortment contain 13 of the most commonly used tubulars in entertainment equip ment repair. Units included are types BBR, BR, BBRD and ES rated (mfd./volts): 10/50; 25/50; 50/50; 100/50; two 10/45(20/450; two 40/450; 80/450; dual 50-30/150; dual 80-50/15(and one ESS wide range printed circuit replacement.

LIST PRICE $21.45 NET PRICE $12.87 (Cabinet Free)

Type	Class
ESS	201 • 40



WIDE-RANGE ELECTROLYTI

The type ESS wide range printed circuit electrolytic is an exac replacement for eight original standard electrolytics used prir cipally in home receivers. It is a replacement for units rated a 150 volts: 50-30 mfd.; 70-30 mfd.; 75-30 mfd.; 60-40 mfd.; 80-4 mfd.; 50-50 mfd.; 70-50 mfd.; and 80-50 mfd. In addition, th ESS is a good replacement for many single and dual units withi the ratings indicated. Order type ESS-7515, 1" diameter x 2½ length.

LIST PRICE $2.00 NET PRICE $1.20

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D. C. Aluminum Electrolytics

CDE CORNELL-DUBILIER

PRINTED CIRCUIT WIDE-APPLICATION-RANGE TWIST-PRONGS™

Class	Type
201 • 40	APC, BPC, CPC, DPC

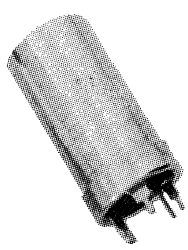
This line of wide-application range printed circuit Twist-Prong electrolytics is a completely new CDE product. Dimensions and mountings have been selected to fill the vast majority of replacement requirements. The rating selection also fits most replacement applications. Ratings are based on a wide application range. This recognizes the wide tolerances inherent in electrolytic manufacture and widely recognized as standard throughout the electronics industry (see page 2 for further details). The wide tolerances permitted by electrolytic applications make possible a wide application range unit.

CDE guarantees that the wide application range unit is a proper electrical replacement for any unit marked with a capacitance within that on the wide-range label provided the service voltage is within that on the wide-range label.

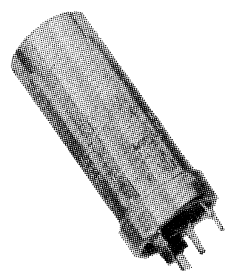
Recommended replacements for all Twist-Prongs in current applications are contained in the new 96 page CDE Twist-Prong Replacement Guide. Your CDE General Line Distributor will be happy to give you a copy.

Cap. Mfd.	Volts DCW	Type	Size (In. - DxL)	List Price	Net Price
SINGLES					
80-150	10-150	**APC 010**	1 x 3	$1.85	**$1.11**
80-160	10-200	**APC 020**	1⅜ x 2½	2.35	**1.41**
15-20	10-450	**APC 030**	1 x 2	1.65	**.99**
DUALS					
250-500 50-100	10-20 10-20	**BPC 005**	1 x 2	2.40	**1.44**
500-1000 500-1000	10-16 6-10	**BPC 010**	1 x 2½	3.25	**1.95**
400-800 100-250	10-20 10-20	**BPC 015**	1 x 2½	3.00	**1.80**
300-700 150-300	10-25 10-25	**BPC 020**	1 x 2	2.55	**1.53**
100-250 100-250	10-25 10-25	**BPC 030**	1 x 2	2.25	**1.35**
30-50 20-30	10-150 10-150	**BPC 040**	1 x 2	1.90	**1.14**
100-200 4-8	10-200 10-200	**BPC 045**	1⅜ x 2½	2.85	**1.71**
8-10 8-10	10-300 10-300	**BPC 050**	1⅜ x 2	2.00	**1.20**
TRIPLES					
100-250 100-250 20-50	10-16 10-16 10-16	**CPC 005**	1 x 2	2.50	**1.50**
250-500 100-250 100-250	10-16 10-16 10-16	**CPC 010**	1 x 2½	2.95	**1.77**
20-40 10-20 10-20	10-150 10-150 10-25	**CPC 015**	1 x 2	2.20	**1.32**
30-50 20-40 15-30	10-150 10-150 10-150	**CPC 020**	1 x 2	2.45	**1.47**
30-60 30-60 20-40	10-150 10-150 10-150	**CPC 025**	1⅜ x 2	2.95	**1.77**
40-70 20-30 50-100	10-150 10-150 6-10	**CPC 030**	1 x 2	2.45	**1.47**

Cap. Mfd.	Volts DCW	Type	Size (In. - DxL)	List Price	Net Price
TRIPLES (Cont'd)					
40-70 15-30 10-20	10-150 10-150 10-150	**CPC 035**	1 x 2	$2.35	**$1.41**
40-80 30-60 100-250	10-150 10-150 6-10	**CPC 040**	1 x 3	2.70	**1.62**
50-90 20-40 200-400	10-150 10-150 6-15	**CPC 045**	1 x 3	2.85	**1.71**
7-10 7-10 7-10	10-300 10-150 10-150	**CPC 047**	1 x 2	2.15	**1.29**
100-150 40-60 100-200	10-300 10-200 10-150	**CPC 048**	1⅜ x 4	5.10	**3.06**
100-150 80-100 20-30	10-300 10-300 10-300	**CPC 050**	1⅜ x 4	5.20	**3.12**
30-40 20-30 15-20	10-400 10-350 10-300	**CPC 060**	1⅜ x 2½	3.50	**2.10**
QUADRUPLES					
30-60 30-60 20-40 8-10	10-150 10-150 10-150 10-150	**DPC 020**	1⅜ x 2	3.30	**1.98**
20-40 10-20 8-10 50-100	10-150 10-150 10-150 10-50	**DPC 040**	1⅜ x 2½	3.15	**1.89**
30-40 20-30 15-20 15-20	10-400 10-350 10-350 10-350	**DPC 060**	1⅜ x 2½	4.20	**2.52**



Type APC



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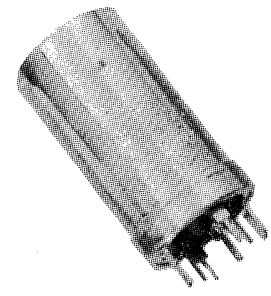
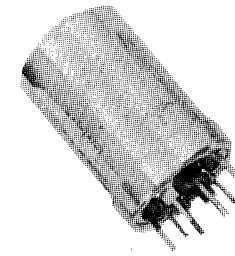


Type CPC



Type DPC

Trade Discount Applies To List Prices Only

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CDE CORNELL-DUBILIER

D. C. Aluminum Electrolytics

Type	Class
AA-, BB-, CC-, DD-	201 • 42

WIDE-APPLICATION-RANGE TWIST-PRONG™ ELECTROLYTICS

The CDE wide application range Twist-Prong is further described on page 2 of this Selector. The unit is guaranteed to be a proper electrical replacement for any Twist-Prong marked with a capacity and voltage within that on the wide application range label. The wide application range unit permits replacement of any current Twist-Prong direct from the stock of your local CDE General Line Distributor. No waiting or alternates are needed when you use the CDE wide application range units.

Complete recommended replacements for all current Twist-Prongs in replacement usage are contained in the new 96 page CDE Twist-Prong Replacement Guide. Ask your CDE General Line Distributor for your copy today.

AA SINGLES

Cap. Mfd.	Volts DCW	Type	Size (Inches—D x L)	List Price	Net Price
500-1000	10-16	**AA 0060**	1 x 1½	$2.10	**$1.26**
1000-2000	10-16	**AA 0070**	1⅜ x 2	3.20	**1.92**
1500-3000	10-16	**AA 0080**	1⅜ x 2	4.00	**2.40**
250-500	10-25	**AA 0120**	1 x 1½	1.95	**1.17**
500-1000	10-25	**AA 0130**	1⅜ x 2	2.90	**1.74**
250-500	10-50	**AA 0160**	1⅜ x 2	2.40	**1.44**
750-1500	10-50	**AA 0174**	1⅜ x 3	4.10	**2.46**
30-50	10-150	**AA 0200**	1 x 1½	1.50	**.90**
60-100	10-150	**AA 0241**	1 x 1½	1.65	**.99**
100-150	10-150	**AA 0252**	1⅜ x 2	2.15	**1.29**
100-150	10-150	**AA 0261**	1 x 2	1.85	**1.11**
200-300	10-150	**AA 0263**	1⅜ x 2	2.65	**1.59**
120-200	10-150	**AA 0264**	1 x 3	2.05	**1.23**
80-125	10-250	**AA 0267**	1 x 3	2.15	**1.29**
100-150	10-250	**AA 0315**	1⅜ x 2½	2.60	**1.56**
60-100	10-300	**AA 0340**	1⅜ x 2½	$2.50	**$1.50**
60-100	10-300	**AA 0350**	1 x 2½	2.15	**1.29**
120-200	10-300	**AA 0357**	1⅜ x 2½	3.35	**2.01**
30-50	10-350	**AA 0390**	1 x 2	1.85	**1.11**
60-80	10-350	**AA 0401**	1⅜ x 2	2.45	**1.47**
100-150	10-350	**AA 0415**	1⅜ x 2½	3.25	**1.95**
250-300	10-350	**AA 0417**	1⅜ x 4	4.95	**2.97**
35-50	10-450	**AA 0490**	1 x 2½	2.10	**1.26**
60-80	10-450	**AA 0510**	1⅜ x 2½	2.90	**1.74**
70-100	10-450	**AA 0512**	1⅜ x 3	3.30	**1.98**
100-125	10-450	**AA 0514**	1⅜ x 3½	3.70	**2.22**
7-10	10-500	**AA 0520**	1 x 1½	1.50	**.90**
15-20	10-500	**AA 0530**	1 x 2	1.75	**1.05**
30-40	10-500	**AA 0550**	1 x 2½	2.20	**1.32**
60-80	10-500	**AA 0560**	1⅜ x 3	3.45	**2.07**

BB- DUALS

Cap. Mfd.	Volts DCW	Type	Size (Inches—D x L)	List Price	Net Price
250-500 100-200	10-16 10-16	**BB 0015**	1 x 2	$2.15	**$1.29**
500-1000 500-1000	10-16 10-16	**BB 0040**	1⅜ x 2	3.55	**2.13**
250-500 60-100	10-20 10-20	**BB 0045**	1 x 2	2.40	**1.44**
60-100 60-100	10-50 10-50	**BB 0085**	1 x 1½	1.90	**1.14**
20-40 20-40	10-150 10-150	**BB 0141**	1 x 1½	1.85	**1.11**
30-50 15-30	10-150 10-150	**BB 0150**	1 x 1½	1.85	**1.11**
50-80 50-80	10-150 10-150	**BB 0171**	1 x 2	2.15	**1.29**
50-80 20-40	10-150 10-150	**BB 0181**	1 x 1¾	2.00	**1.20**
100-200 100-200	10-150 10-150	**BB 0189**	1⅜ x 2½	3.45	**2.07**
40-60 40-60	10-200 10-200	**BB 0190**	1⅜ x 2	3.55	**2.13**
100-200 4-8	10-200 10-200	**BB 0196**	1⅜ x 2	3.00	**1.80**
30-40 30-40	10-250 10-250	**BB 0241**	1 x 1¾	2.10	**1.26**
50-80 30-40	10-250 10-250	**BB 0243**	1⅜ x 2½	2.80	**1.68**
120-200 120-200	10-250 10-250	**BB 0252**	1⅜ x 4⅛	4.85	**2.91**
50-80 50-80	10-300 10-300	**BB 0270**	1⅜ x 2½	3.40	**2.04**
120-200 50-80	10-300 10-300	**BB 0286**	1⅜ x 3½	4.55	**2.73**
15-20 15-20	10-350 10-350	**BB 0300**	1 x 2	$2.00	**$1.20**
20-30 20-30	10-350 10-350	**BB 0310**	1 x 2½	2.30	**1.38**
50-80 30-40	10-350 10-350	**BB 0326**	1⅜ x 2½	3.30	**1.98**
70-100 70-100	10-350 10-350	**BB 0332**	1⅜ x 3½	4.90	**2.94**
100-160 7-10	10-350 10-350	**BB 0334**	1⅜ x 3	3.90	**2.34**
60-80 60-80	10-400 10-400	**BB 0356**	1⅜ x 3½	4.45	**2.67**
15-20 7-10	10-450 10-450	**BB 0390**	1 x 2½	2.10	**1.26**
15-20 15-20	10-450 10-450	**BB 0400**	1 x 2½	2.30	**1.38**
20-30 7-10	10-450 10-450	**BB 0410**	1 x 3	2.30	**1.38**
20-30 20-30	10-450 10-450	**BB 0430**	1⅜ x 2	2.95	**1.77**
30-40 15-20	10-450 10-450	**BB 0440**	1⅜ x 2	2.95	**1.77**
30-50 30-50	10-450 10-450	**BB 0455**	1⅜ x 3	3.70	**2.22**
60-80 7-10	10-450 10-450	**BB 0470**	1⅜ x 3	3.50	**2.10**
60-80 15-20	10-450 10-450	**BB 0473**	1⅜ x 2½	3.65	**2.19**
60-80 30-40	10-450 10-450	**BB 0480**	1⅜ x 3⅝	4.05	**2.43**
70-100 30-40	10-450 10-450	**BB 0483**	1⅜ x 3½	4.40	**2.64**

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D. C. Aluminum Electrolytics

CDE CORNELL-DUBILIER

WIDE-APPLICATION-RANGE TWIST-PRONG™ ELECTROLYTICS (Continued)

Class	Type
201 • 42	AA-, BB-, CC-, DD-

BB- DUALS (Continued)

Cap. Mfd.	Volts DCW	Type	Size (Inches—D x L)	List Price	Net Price
60-80 30-50	10-475 10-475	**BB 0489**	1⅜ x 3½	$4.60	**$2.76**
60-80 60-80	10-475 10-475	**BB 0489.5**	1⅜ x 4	5.20	**3.12**
7-10 7-10	10-500 10-500	**BB 0490**	1 x 2	1.95	**1.17**
15-20 15-20	10-500 10-500	**BB 0500**	1⅜ x 2	2.85	**1.71**
30-40 30-40	10-500 10-500	**BB 0530**	1⅜ x 2½	3.80	**2.28**
50-60 30-40	10-500 10-500	**BB 0540**	1⅜ x 3⅝	$4.35	**$2.61**
100-150 60-100	10-300 10-150	**BB 0608**	1⅜ x 3½	3.75	**2.25**
70-100 15-30	10-400 10-50	**BB 0626**	1⅜ x 2½	3.50	**2.10**
60-80 50-100	10-450 10-50	**BB 0722**	1⅜ x 3	3.50	**2.10**

CC- TRIPLES

Cap. Mfd.	Volts DCW	Type	Size (Inches—D x L)	List Price	Net Price
400-850 200-400 2	10-16 10-16 11.5 RMS	**CC 0002**	1 x 2	$3.25	**$1.95**
500-1000 250-500 4	10-16 10-16 11.5 RMS	**CC 0004**	1⅜ x 2	3.45	**2.07**
500-1000 250-500 4	10-16 10-16 11.5 RMS	**CC 0006**	1 x 2½	3.50	**2.10**
200-400 50-100 50-100	10-16 10-16 10-16	**CC 0008***	1 x 2	2.55	**1.53**
20-40 20-40 20-40	10-150 10-150 10-150	**CC 0090**	1 x 1¾	2.45	**1.47**
30-50 30-50 30-50	10-150 10-150 10-150	**CC 0105**	1 x 2	2.55	**1.53**
40-60 20-40 10-20	10-150 10-150 10-150	**CC 0110**	1 x 1½	2.45	**1.47**
50-80 20-40 10-20	10-150 10-150 10-150	**CC 0120**	1 x 2	2.50	**1.50**
120-200 60-100 40-60	10-150 10-150 10-150	**CC 0127**	1⅜ x 2½	3.80	**2.28**
120-200 100-150 100-150	10-150 10-150 10-150	**CC 0128**	1⅜ x 4⅛	4.50	**2.70**
200-250 120-200 7-10	10-200 10-200 10-200	**CC 0129.5**	1⅜ x 4	4.80	**2.88**
15-20 15-20 15-20	10-250 10-250 10-250	**CC 0132**	1 x 1¾	2.35	**1.41**
30-40 15-20 15-20	10-250 10-250 10-250	**CC 0160**	1 x 2	2.55	**1.53**
90-120 35-50 30-40	10-300 10-300 10-300	**CC 0200**	1⅜ x 3	4.45	**2.67**
7-10 7-10 7-10	10-350 10-350 10-350	**CC 0210**	1 x 1¾	2.30	**1.38**
20-30 15-20 7-10	10-350 10-350 10-350	**CC 0225**	1 x 2½	2.65	**1.59**
40-60 30-40 15-20	10-350 10-350 10-350	**CC 0230**	1⅜ x 2½	3.80	**2.28**
50-80 40-60 40-60	10-350 10-350 10-350	**CC 0236**	1⅜ x 3½	$4.85	**$2.91**
60-90 30-40 15-20	10-350 10-350 10-350	**CC 0237**	1⅜ x 2½	4.20	**2.52**
60-100 60-100 7-10	10-350 10-350 10-350	**CC 0238**	1⅜ x 3½	5.00	**3.00**
100-140 100-140 15-20	10-350 10-350 10-350	**CC 0238.5**	1⅜ x 4	6.10	**3.66**
10-15 10-15 10-15	10-450 10-450 10-450	**CC 0254**	1 x 2½	2.80	**1.68**
15-20 7-10 7-10	10-450 10-450 10-450	**CC 0260**	1 x 3	2.70	**1.62**
30-40 7-10 7-10	10-450 10-450 10-450	**CC 0320**	1⅜ x 2½	3.35	**2.01**
30-40 20-30 15-20	10-450 10-450 10-450	**CC 0330**	1⅜ x 2½	4.05	**2.43**
30-40 30-40 15-20	10-450 10-450 10-450	**CC 0344**	1⅜ x 3	4.20	**2.52**
30-40 30-40 30-40	10-450 10-450 10-450	**CC 0350**	1⅜ x 3	4.60	**2.76**
35-50 30-40 20-30	10-450 10-450 10-450	**CC 0355**	1⅜ x 3	4.60	**2.76**
40-60 15-20 15-20	10-450 10-450 10-450	**CC 0360**	1⅜ x 3	4.20	**2.52**
40-60 30-40 15-20	10-450 10-450 10-450	**CC 0365**	1⅜ x 3	4.60	**2.76**
50-80 30-40 15-20	10-450 10-450 10-450	**CC 0370**	1⅜ x 3	4.95	**2.97**
30-40 20-30 20-30	10-475 10-475 10-475	**CC 0374**	1⅜ x 3⅝	4.60	**2.76**
7-10 7-10 7-10	10-500 10-500 10-500	**CC 0380**	1 x 3	2.70	**1.62**
20-30 15-20 15-20	10-500 10-500 10-500	**CC 0390**	1⅜ x 3	4.15	**2.43**

See next page for additional 10-16 volt items.

(Continued on next page)

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CDE CORNELL-DUBILIER

D. C. Aluminum Electrolytics

Type	Class
AA-, BB-, CC-, DD-	201 • 42

WIDE-APPLICATION-RANGE TWIST-PRONG™ ELECTROLYTICS (Continued)

CC- TRIPLES (Continued)

Cap. Mfd.	Volts DCW	Type	Size (Inches—D x L)	List Price	Net Price
30-40 30-40 7-10	10-500 10-500 10-500	**CC 0410**	1⅜ x 2½	$4.60	**$2.76**
30-40 30-40 15-20	10-150 10-150 10-25	**CC 0551**	1 x 1½	2.25	**1.35**
30-40 30-40 150-250	10-150 10-150 10-25	**CC 0555**	1 x 3	2.65	**1.59**
50-80 40-60 150-250	10-150 10-150 10-25	**CC 0558**	1 x 2½	2.90	**1.74**
30-50 20-30 10-20	10-150 10-150 10-25	**CC 0560**	1 x 2	2.25	**1.35**
50-80 30-40 10-20	10-150 10-150 10-25	**CC 0610**	1 x 2½	2.50	**1.50**
40-60 4-8 10-20	10-200 10-200 10-50	**CC 0636**	1 x 2½	2.35	**1.41**
100-140 7-10 120-200	10-300 10-300 10-150	**CC 0734**	1⅜ x 3½	4.70	**2.82**
100-140 50-100 30-60	10-300 10-300 10-50	**CC 0734.3**	•1⅜ x 3½	4.90	**2.94**
15-20 15-20 10-20	10-350 10-350 10-25	**CC 0800**	1 x 2	2.45	**1.47**
20-30 15-20 15-20	10-350 10-350 10-25	**CC 0830**	1 x 2½	2.60	**1.56**
60-100 40-60 15-20	10-350 10-350 10-250	**CC 0875**	1⅜ x 3	4.50	**2.70**
60-100 7-10 15-20	10-400 10-400 10-50	**CC 0894**	1⅜ x 2½	4.20	**2.52**
60-100 7-10 50-80	10-400 10-400 10-350	**CC 0896**	1⅜ x 3½	$5.20	**$3.12**
7-10 7-10 10-20	10-450 10-450 10-25	**CC 0910**	1 x 2	2.30	**1.38**
15-20 7-10 10-20	10-450 10-450 10-25	**CC 0960**	1 x 2	2.55	**1.53**
15-20 15-20 10-20	10-450 10-450 10-25	**CC 0990**	1 x 2	2.70	**1.62**
30-40 30-40 10-20	10-450 10-450 10-25	**CC 1070**	1⅜ x 2½	3.90	**2.34**
30-40 30-40 60-100	10-450 10-450 10-50	**CC 1090**	1⅜ x 3	4.05	**2.43**
30-40 30-40 50-80	10-450 10-450 10-350	**CC 1103**	1⅜ x 4⅛	4.90	**2.94**
50-80 15-20 60-100	10-450 10-450 10-50	**CC 1108**	1⅜ x 3½	4.45	**2.67**
30-40 30-40 60-100	10-500 10-500 10-200	**CC 1180**	1⅜ x 4⅛	5.10	**3.06**
40-60 120-200 80-140	10-200 10-150 10-150	**CC 1202**	1⅜ x 4	4.20	**2.52**
60-100 120-200 40-60	10-300 10-150 10-150	**CC 1208**	1⅜ x 4⅛	4.50	**2.70**
40-60 120-200 20-30	10-350 10-150 10-150	**CC 1226**	1⅜ x 3	4.05	**2.43**
250-500 250-500 50-100	10-16 10-16 10-16	**CC 0012**	1 x 2	3.25	**1.95**

DD- QUADRUPLE

Cap. Mfd.	Volts DCW	Type	Size (Inches—D x L)	List Price	Net Price
400-750 400-750 150-300 4	10-16 10-16 10-16 11.5 RMS	**DD 0005**	1⅜ x 2	$4.60	**$2.76**
120-200 120-200 40-60 20-30	10-175 10-175 10-175 10-175	**DD 0015**	1⅜ x 4⅛	5.30	**3.18**
30-40 30-40 15-20 7-10	10-300 10-300 10-300 10-300	**DD 0020**	1⅜ x 2	3.75	**2.25**
30-40 30-40 20-30 15-20	10-300 10-300 10-300 10-300	**DD 0022**	1⅜ x 2½	4.00	**2.40**
100-150 60-100 7-10 4-8	10-300 10-300 10-300 10-300	**DD 0025**	1⅜ x 4	5.45	**3.27**
30-40 15-20 15-20 7-10	10-350 10-350 10-350 10-350	**DD 0032**	1⅜ x 2	$3.75	**$2.25**
60-80 40-60 30-40 15-20	10-350 10-350 10-350 10-350	**DD 0042**	1⅜ x 4⅛	5.35	**3.21**
60-100 30-40 7-10 7-10	10-350 10-350 10-350 10-350	**DD 0044**	1⅜ x 3	4.75	**2.85**
60-80 15-20 7-10 7-10	10-400 10-400 10-400 10-400	**DD 0060**	1⅜ x 3⅝	4.75	**2.85**
60-80 30-40 20-30 4-8	10-400 10-400 10-400 10-400	**DD 0065**	1⅜ x 4⅛	5.40	**3.2**

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D. C. Aluminum Electrolytics

CDE CORNELL-DUBILIER

WIDE-APPLICATION-RANGE TWIST-PRONG™ ELECTROLYTICS (Continued)

Type	Class
AA, BB, CC, DD-	201 • 42

DD- QUADRUPLES (Continued)

Cap. Mfd.	Volts DCW	Type	Size (In.—D x L)	List Price	Net Price
25-35	10-450	DD 0150	1⅜ x 2½	$4.25	$2.55
25-35	10-450				
7-10	10-450				
4-8	10-450				
30-40	10-450	DD 0174	1⅜ x 4⅛	5.10	3.06
30-40	10-450				
15-20	10-450				
15-20	10-450				
30-40	10-450	DD 0177	1⅜ x 4	5.90	3.54
30-40	10-450				
30-40	10-450				
30-40	10-450				
40-60	10-450	DD 0178.8	1⅜ x 4	5.65	3.39
30-40	10-450				
20-30	10-450				
15-20	10-450				
60-80	10-450	DD 0179	1⅜ x 3½	4.85	2.91
7-10	10-450				
7-10	10-450				
7-10	10-450				
15-20	10-475	DD 0179.3	1⅜ x 2½	4.05	2.43
15-20	10-475				
7-10	10-475				
7-10	10-475				
15-20	10-475	DD 0179.5	1⅜ x 2½	4.45	2.67
15-20	10-475				
15-20	10-475				
15-20	10-475				
7-10	10-500	DD 0180	1⅜ x 2	3.50	2.10
7-10	10-500				
7-10	10-500				
7-10	10-500				
40-60	10-150	DD 0300	1⅜ x 2	3.30	1.98
30-40	10-150				
15-20	10-150				
120-200	6-10				
60-80	10-150	DD 0325	1⅜ x 2	3.40	2.04
30-40	10-150				
30-40	10-150				
30-40	10-25				
60-80	10-150	DD 0330	1⅜ x 2	3.45	2.07
30-40	10-150				
30-40	10-150				
60-100	10-25				
120-200	10-150	DD 0338	1⅜ x 4⅛	4.95	2.97
120-200	10-150				
60-100	10-150				
7-10	10-75				
20-30	10-350	DD 0418	1⅜ x 3	4.00	2.40
15-20	10-350				
4-8	10-350				
60-100	10-200				
30-40	10-350	DD 0460	1⅜ x 2½	4.20	2.52
30-40	10-350				
30-40	10-350				
30-40	10-25				
40-70	10-350	DD 0471	1⅜ x 3	4.35	2.61
30-40	10-350				
7-10	10-350				
30-50	10-50				
60-90	10-350	DD 0473	1⅜ x 3	4.50	2.70
20-30	10-350				
4-8	10-350				
60-100	10-75				
60-100	10-350	DD 0473.3	1⅜ x 3	$4.25	$2.55
7-10	10-350				
7-10	10-350				
15-20	10-50				
60-100	10-350	DD 0473.5	1⅜ x 3	5.20	3.12
40-80	10-350				
7-10	10-350				
15-20	10-50				
60-80	10-400	DD 0477	1⅜ x 3½	5.00	3.00
30-40	10-400				
7-10	10-400				
15-20	10-25				
60-80	10-400	DD 0477.5	1⅜ x 4	5.60	3.36
30-40	10-400				
7-10	10-400				
60-100	10-200				
60-80	10-400	DD 0478	1⅜ x 3½	5.35	3.21
30-40	10-400				
20-30	10-400				
30-40	10-25				
7-10	10-450	DD 0480	1⅜ x 2	3.15	1.89
7-10	10-450				
7-10	10-450				
15-20	10-25				
15-20	10-450	DD 0520	1⅜ x 2	3.80	2.28
15-20	10-450				
15-20	10-450				
15-20	10-25				
15-20	10-450	DD 0530	1⅜ x 3	4.05	2.43
15-20	10-450				
15-20	10-450				
60-100	10-50				
30-40	10-450	DD 0624	1⅜ x 3	4.25	2.55
15-20	10-450				
15-20	10-450				
15-20	10-25				
30-40	10-450	DD 0640	1⅜ x 3	4.25	2.55
20-30	10-450				
7-10	10-450				
15-20	10-25				
30-40	10-450	DD 0650	1⅜ x 3⅝	4.50	2.70
30-40	10-450				
7-10	10-450				
20-30	10-50				
30-40	10-450	DD 0660	1⅜ x 3⅝	4.80	2.88
30-40	10-450				
7-10	10-450				
60-100	10-100				
7-10	10-300	DD 0694	1⅜ x 3½	4.40	2.64
120-200	10-150				
100-140	10-150				
20-30	10-150				
100-160	10-350	DD 0695	1⅜ x 3½	5.55	3.33
40-60	10-300				
7-10	10-300				
4-5	10-300				
7-10	10-450	DD 0695.5	1⅜ x 3	4.35	2.61
60-100	10-300				
15-20	10-300				
15-20	10-300				
20-30	10-475	DD 0697	1⅜ x 3½	5.35	3.21
80-130	10-350				
7-10	10-350				
7-10	10-350				

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CDE CORNELL-DUBILIER

D. C. Aluminum Electrolytics

Type	Class
AA, BB, CC, DD-	201 • 42

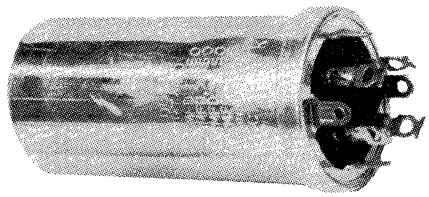
WIDE-RANGE-APPLICATION TWIST-PRONG™ ELECTROLYTICS (Continued)

DD- QUADRUPLES (Continued)

Cap. Mfd.	Volts DCW	Type	Size (Inches—D x L)	List Price	Net Price
15-20 60-80 15-20 7-10	10-500 10-300 10-300 10-300	**DD 0698**	1⅜ x 3⅝	4.40	**$2.64**
30-40 50-80 7-10 60-100	10-400 10-350 10-350 10-200	**DD 0731.2**	1⅜ x 4	5.20	**3.12**
7-10 60-80 30-40 50-100	10-475 10-400 10-400 10-50	**DD 0783.5**	1⅜ x 4	5.25	**3.15**
7-10 60-100 7-10 60-100	10-500 10-300 10-300 10-25	**DD 0785**	1⅜ x 3⅝	4.25	**2.55**
40-60 60-100 40-60 30-40	10-350 10-350 10-200 10-75	**DD 0789.4**	1⅜ x 4	5.30	**3.18**
60-100 7-10 15-20 15-20	10-400 10-400 10-350 10-50	**DD 0805**	1⅜ x 3	4.85	**2.91**
20-30 15-20 100-160 20-40	10-450 10-450 10-250 10-150	**DD 0818**	1⅜ x 3½	5.10	**3.06**

Cap. Mfd.	Volts DCW	Type	Size (Inches—D x L)	List Price	Net Price
60-80 30-50 15-20 20-50	10-450 10-450 10-250 10-50	**DD 0825.5**	1⅜ x 4	$5.55	**$3.33**
60-100 7-10 120-200 20-30	10-300 10-300 10-150 10-150	**DD 0866**	1⅜ x 3½	4.80	**2.88**
60-100 7-10 20-30 15-20	10-400 10-400 10-50 10-50	**DD 0875**	1⅜ x 2½	4.65	**2.79**
20-30 7-10 100-150 20-30	10-500 10-450 10-50 10-50	**DD 0928**	1⅜ x 2½	4.00	**2.40**
60-100 40-60 7-10 15-20	10-300 10-200 10-150 10-50	**DD 0929**	1⅜ x 3	4.15	**2.49**
7-10 30-40 4-6 60-100	10-475 10-400 10-350 10-50	**DD 0966**	1⅜ x 2½	3.80	**2.28**
15-20 30-40 60-100 40-80	10-475 10-300 10-50 10-25	**DD 0990**	1⅜ x 3	3.85	**2.31**

Type	Class
AO, BO, CO, DO	201 • 43

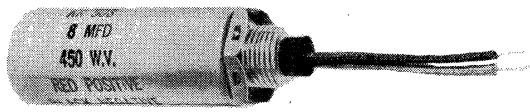


SPECIFIC VALUE TWIST-PRONG

The types AO, BO, CO and DO specific value Twist-Prong electrolytics hav been superceded by the wide application range electrolytics listed previously

For some time CDE Authorized Distributors may have stocks of thes specific value Twist-Prongs. Complete information on the specific value unit is contained in the 56 page CDE Replacement Component Selector and th 96 page CDE Twist-Prong Replacement Guide available from your CD distributor.

Type	Class
KR	201.46



THREADED NECK ELECTROLYTI

SINGLE SECTION

Cap. Mfd.	Volts DCW	Type	Size (Inches-DxL)	List Price	Net Price
8	450	**KR 508**	1 x 2½	$2.20	**$1.32**
20	450	**KR 520**	1⅜ x 2½	2.75	**1.65**
40	450	**KR 540**	1⅜ x 4⅜	3.15	**1.89**
4	600	**KR 604C**	1⅜ x 3½	2.95	**1.77**
8	600	**KR 608C**	1⅜ x 4⅜	3.15	**1.89**
16	600	**KR 616C**	1⅜ x 4⅜	3.75	**2.25**

DUAL AND TRIPLE SEPARATE SECTION UNITS

Cap. Mfd.	Volts DCW	Type	Size (Inches-DxL)	List Price	Net Price
8-8	450	**KR 588A**	1⅜ x 3	3.75	**2.25**
8-8-8	450	**KR 5888A**	1⅜ x 4½	6.25	**2.75**

The type KR electrolytic is designed for top of chassis mounting through a single hole with a nut and lock-washer supplied with the unit. Available in single and dual section units, the KR is supplied with 8" long color coded flexible leads. Mounting hole is ⅝" for 1" diameter units and ¾" for larger diameter units. Tolerance conforms to EIA standards (see page 2). Operating temperature range is from —20C to +65C.

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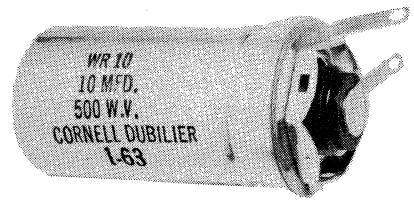
D. C. Aluminum Electrolytics

CDE CORNELL-DUBILIER

REPLACEMENT FOR WET ELECTROLYTICS



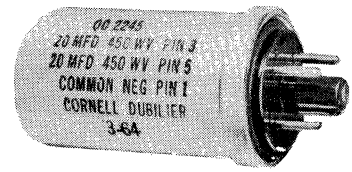
Class	Type
201 • 47	WR

The popular type WR is a wide application range replacement unit designed to replace the majority of the obsolete wet electrolytic types used in prior years. Dimensions and mountings have been selected to permit ready replacement of most wet electrolytics. Units are designed for top of chassis mounting through a single ¾" diameter hole with nut and mounting washer included with the unit. Riveted solder terminal lugs are supplied. Units are rated 500 VDCW with a maximum operating temperature of +65C.

Cap. Mfd.	Replacement for	Type	Size (Inches DxL)	List Price	Net Price
10	4 to 12 mfd.	**WR 10**	1⅜ x 2½	$2.30	**$1.38**
20	16 to 20 mfd.	**WR 20**	1⅜ x 2½	2.70	**1.62**
30	20 to 30 mfd.	**WR 30**	1⅜ x 3¼	2.95	**1.77**
40	30 to 40 mfd.	**WR 40**	1⅜ x 3¼	3.15	**1.89**

PLUG-IN ELECTROLYTICS

Class	Type
201 • 51	QC



The type QC is designed for applications such as juke boxes and communication receivers where quick capacitor changes are necessary. Units are equipped with a 4 pin plug to fit a medium, octal base socket. Duals and triples are common negative. Quads are can negative with grounding strap supplied for cathode connection. Tolerance is per EIA standards (see page 2). Operating temperature range is to +85C for units rated 450 VDCW and below and +65C for units rated 500 VDCW.

SINGLES

Cap. Mfd.	Volts DCW	Type	Size (Inches-DxL)	List Price	Net Price
10	450	**QC 1045**	1$\frac{5}{32}$ x 2½	$4.05	**$2.43**
20	450	**QC 2045**	1$\frac{5}{32}$ x 2½	4.30	**2.58**
40	450	**QC 4045**	1⅜ x 2½	4.80	**2.88**
80	450	**QC 8045**	1⅜ x 3½	5.55	**3.33**
40	500	**QC 4050**	1⅜ x 2½	5.00	**3.00**

DUALS

Cap. Mfd.	Volts DCW	Type	Size (Inches-DxL)	List Price	Net Price
20-20	150	**QC 2215**	1$\frac{5}{32}$ x 2½	4.30	**2.58**
40-40	150	**QC 4415**	1$\frac{5}{32}$ x 2½	4.40	**2.64**
50-50	150	**QC 5515**	1$\frac{5}{32}$ x 2½	4.65	**2.79**
80-80	150	**QC 8815**	1⅜ x 2½	5.15	**3.09**
10-10	450	**QC 1145**	1$\frac{5}{32}$ x 2½	4.50	**2.70**
20-20	450	**QC 2245**	1⅜ x 2½	5.05	**3.03**
30-30	450	**QC 3345**	1⅜ x 3	5.55	**3.33**
40-40	450	**QC 4445**	1⅜ x 3½	5.90	**3.54**
20-20	500	**QC 2250**	1⅜ x 2½	5.30	**3.18**

TRIPLES

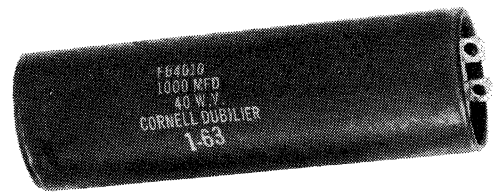
Cap. Mfd.	Volts DCW	Type	Size (Inches DxL)	List Price	Net Price
20-20-20	150	**QC 22215**	1$\frac{5}{32}$ x 2½	$4.85	**$2.91**
40-40-40	150	**QC 44415**	1⅜ x 2½	5.10	**3.06**
10-10-10	450	**QC 11145**	1$\frac{5}{32}$ x 2½	5.10	**3.06**
20-20-20	450	**QC 22245**	1⅜ x 3	6.10	**3.66**
40-20/20	450/25	**QC 4245C**	1⅜ x 3	6.00	**3.60**
10-10-10	500	**QC 11150**	1⅜ x 2½	5.30	**3.18**

QUADRUPLES

Cap. Mfd.	Volts DCW	Type	Size (Inches DxL)	List Price	Net Price
10-10-10/20	450/25	**QC 11145C**	1⅜ x 2½	5.65	**3.39**
30-30-10/20	450/50	**QC 33145C**	1⅜ x 4¼	6.85	**4.11**

IIGH CAPACITY, LOW VOLTAGE ELECTROLYTICS

Class	Type
201 • 70	FB



'he type FB is a high capacitance, low voltage unit ıtended for replacement applications in sound pro-ːctors and other low voltage circuits. Units are card-oard insulated with hermetic seal and solder type ːrminal lugs. Tolerance is per EIA standards (see age 2). The FB may be operated to +85C. For over-1 size, add 1/16" to diameter and ⅜" to length.

(Continued on next page)

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CDE CORNELL-DUBILIER

D. C. Aluminum Electrolytics

Type FB | Class 201 • 70

HIGH CAPACITY, LOW VOLTAGE ELECTROLYTICS

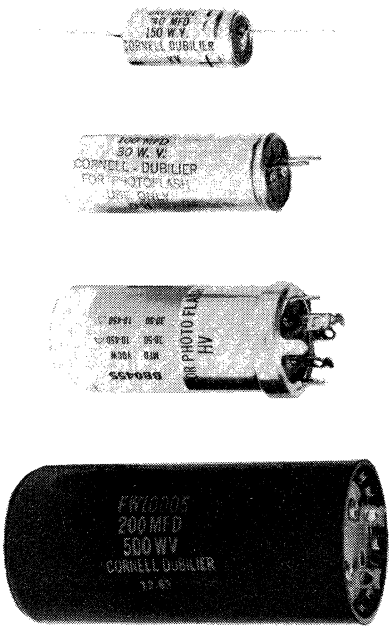
(Continued from previous page)

Cap. Mfd.	Volts DCW	Type	Size (Inches DxL)	List Price	Net Price
500	10	FB 1005	1⅜ x 2⅜	$3.10	$1.86
1000	10	FB 1010	1⅜ x 2⅜	3.55	2.13
1500	10	FB 1015	1⅜ x 2⅜	3.75	2.25
2000	10	FB 1020	1⅜ x 2⅝	3.95	2.37
3000	10	FB 1030	1⅜ x 3⅛	4.35	2.61
4000	10	FB 1040	1⅜ x 4⅛	4.75	2.85
5000	10	FB 1050	1½ x 4⅛	5.15	3.09
6000	10	FB 1060	1¾ x 4⅛	7.50	4.50
500	12	FB 1205	1⅜ x 2⅜	3.20	1.92
1000	12	FB 1210	1⅜ x 2⅜	3.75	2.25
1500	12	FB 1215	1⅜ x 2⅝	3.95	2.37
2000	12	FB 1220	1⅜ x 3⅛	4.15	2.49
2500	12	FB 1225	1⅜ x 3⅛	4.85	2.91
3000	12	FB 1230	1⅜ x 4⅛	5.05	3.03
4000	12	FB 1240	1½ x 4⅛	5.25	3.15
6000	12	FB 1260	2 x 4⅛	9.35	5.61
500	15	FB 1505	1⅜ x 2⅜	3.25	1.95
1000	15	FB 1510	1⅜ x 2⅜	3.80	2.28
1500	15	FB 1515	1⅜ x 2⅝	4.00	2.40
2000	15	FB 1520	1⅜ x 3⅛	4.70	2.82
3000	15	FB 1530	1⅜ x 4⅛	5.15	3.09
4000	15	FB 1540	1½ x 4⅛	8.10	4.86
6000	15	FB 1560	2 x 4⅛	10.00	6.00
500	18	FB 1805	1⅜ x 2⅜	3.00	1.80
1000	18	FB 1810	1⅜ x 2⅜	3.90	2.34
2000	18	FB 1820	1⅜ x 3⅛	4.90	2.94
4000	18	FB 1840	1½ x 4⅛	8.45	5.07
500	20	FB 2005	1⅜ x 2⅜	3.40	2.04
1000	20	FB 2010	1⅜ x 3⅛	4.10	2.46
2000	20	FB 2020	1⅜ x 4⅛	$5.20	$3.12
4000	20	FB 2040	2 x 4⅛	8.75	5.25
500	25	FB 2505	1⅜ x 2⅜	3.55	2.13
1000	25	FB 2510	1⅜ x 3⅛	4.80	2.88
2000	25	FB 2520	1⅜ x 4⅛	5.75	3.45
3000	25	FB 2530	1¾ x 4⅛	8.00	4.80
4000	25	FB 2540	2 x 4⅛	9.50	5.70
5000	25	FB 2550	2½ x 4⅛	11.00	6.60
500	30	FB 3005	1⅜ x 3⅛	3.60	2.16
1000	30	FB 3010	1⅜ x 4⅛	4.90	2.94
2000	30	FB 3020	1¾ x 4⅛	7.40	4.44
3000	30	FB 3030	2 x 4⅛	8.95	5.37
4000	30	FB 3040	2½ x 4⅛	10.50	6.30
500	35	FB 3505	1⅜ x 3⅛	3.70	2.22
1000	35	FB 3510	1⅜ x 4⅛	5.00	3.00
2000	35	FB 3520	1¾ x 4⅛	8.00	4.80
3000	35	FB 3530	2 x 4⅛	9.50	5.70
4000	35	FB 3540	2½ x 4⅛	11.00	6.60
500	40	FB 4005	1⅜ x 3⅛	3.80	2.28
1000	40	FB 4010	1⅜ x 4⅛	6.50	3.90
2000	40	FB 4020	1¾ x 4⅛	9.00	5.40
3000	40	FB 4030	2 x 4⅛	10.50	6.30
4000	40	FB 4040	2½ x 4⅛	11.50	6.90
500	50	FB 5005	1⅜ x 3⅛	3.90	2.34
1000	50	FB 5010	1⅜ x 4⅛	7.00	4.20
2000	50	FB 5020	1¾ x 4⅛	9.10	5.46
3000	50	FB 5030	2 x 4⅛	11.50	6.90
4000	50	FB 5040	2½ x 4⅛	12.50	7.50

Misc. TYPES | Class 201 • 00

PHOTOFLASH ELECTROLYTIC

These photoflash replacement capacitors have been selected to fill most replac ment needs. Energy storage capabilities and characteristics of units listed a ideal for photoflash applications.



Cap. Mfd.	Volts DCW	Type	Size (Inches DxL)	Watt Seconds	List Price	Net Price
100	450	XBO 455■	1⅜ x 3	10	$3.85	$2.31
200	450	FB 10063*	2 1/16 x 4½	20	6.85	4.11
200	500	FW 10005‡	2 1/16 x 4⅜	25	10.50	6.30
300	450	FW 10007‡	2 1/16 x 4⅜	30	10.50	6.30
300	450	FWS 10005†	2 1/16 x 4⅜	30	11.50	6.90
400	450	FA 1Q300*	2 1/16 x 4½	40	17.95	10.77
525	450	FWSN 10001†	2 1/16 x 4⅜	53	22.60	13.56
40	150	BRE 10001■	¾ x 1 1/16	—	1.35	.81
100	30	FB 10077■	1 x 2 11/16	—	3.35	2.01
125	25	BRH 10062■	⅝ x 1 15/16	—	1.35	.81
150	50	BRH 10067■	¾ x 1 11/16	—	1.35	.81
250	25	BR 250-25S	15/16 x 1⅞	—	1.70	1.02

* Aluminum can with cardboard sleeve.

■ Aluminum can — no sleeve.

† Bakelite Case — Screw Terminals.

‡ Bakelite Case — Solder Lug Terminals.

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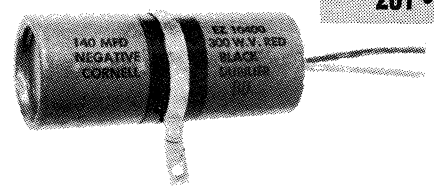
D. C. Aluminum Electrolytics

CDE CORNELL-DUBILIER

SINGLE-ENDED CARDBOARD CASE

Class 201 • 22 | Type EZ

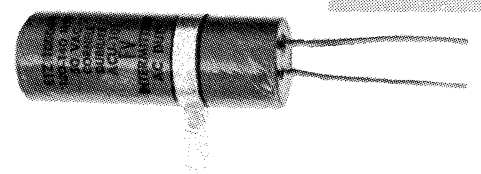


The type EZ is a popular replacement in radio and phonograph applications. The low cost, commercial grade EZ is encased in a wax impregnated cardboard case with high temperature wax end fills. Five inch color coded flexible leads are supplied with coding and polarity clearly marked on the units. Operating temperature range is −20C to +65C with operation for short periods to +85C. Tolerance is −10% to +100%. Unit is supplied with mounting strap.

Cap. Mfd.	Volts DCW	Type	Size (Inches—DxL)	List Price	Net Price
140	300	**EZ10400**	1⅜ x 3⅞₁₆	$2.05	**$1.23**
200	200	**EZ10408**	1⅜ x 3⅞₁₆	2.15	**1.29**

ANTENNA ROTOR CAPACITOR

Class 201 • 22 | Type ETZ



The type ETZ is an **intermittent** AC voltage rated electrolytic ideally suited for replacement in all types of antenna rotors. The unit is supplied in an impregnated cardboard case with wax end fills. Unit has mounting strap and color coded flexible leads. The ETZ is wide range marked to permit coverage of all rotor capacitor replacement requirements.

Cap. Mfd.	Volts AC	Type	Size (Inches—DxL)	List Price	Net Price
100-130	50	**ETZ 10001**	1 x 2⅞	$1.80	**$1.08**
66-92	50	**ETZ 10002-1**	⅞ x 2¾	1.20	**.72**
130-140	50	**ETZ 10004-1**	1 x 2⅞	2.05	**1.23**
75-91	50	**ETZ 10247**	⅞ x 2¾	1.95	**1.17**

CAPACITOR MOUNTING HARDWARE

Class 200 • 90 | Misc. TYPES

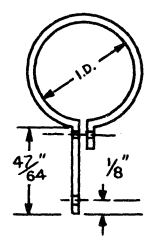
ornell-Dubilier Electronics has available a variety of mounting ardware recommended for capacitors subjected to conditions moderate or acute vibration. The tubular straps, C-clamps, ree and four footed mounting rings, clips, mounting plates id adapters for TWIST-PRONG® capacitors are designed to hold the capacitor securely in position, positively eliminating any chance of capacitor wobble or damaging strain on capacitor terminals or body. CDE mounting hardware is cadmium-plated to resist corrosion. Non-conductive insulating sleeves of 5-ply Kraft are also listed.

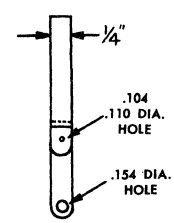
Part No.	Strap I.D.* (inches)	List Price	Net Price
16279	7/16	$.15	**$.09**
16280	½	.15	**.09**
17203	9/16	.15	**.09**
17516	⅝	.15	**.09**
16285	11/16	.15	**.09**
17517	¾	.15	**.09**
28207	13/16	.15	**.09**
27886	⅞	.20	**.12**
20440	15/16	.20	**.12**
27950	1	.20	**.12**
21187	1 1/16	.20	**.12**
21068-1	1 ⅛	.20	**.12**
28401	1 3/16	.20	**.12**
19033-1	1 ¼	.20	**.12**
17673-1	1 3/8	.20	**.12**
17606	1 ½	.20	**.12**

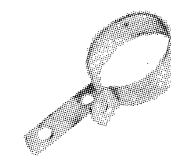
or tubular with same O.D.

TUBULAR STRAPS

Tubular straps are narrow bands of tinned steel .020" in thickness designed to hold capacitors securely in place under severe vibration. They are available for tubular capacitors ranging from 7/16" to 1½" O.D. as listed.







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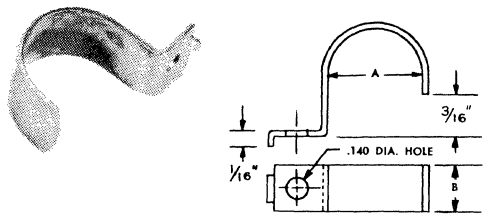
CDE CORNELL-DUBILIER

Capacitor Hardware

Misc. TYPES **Class 200 • 90**

RECOMMENDED MOUNTING HARDWARE (Continued)

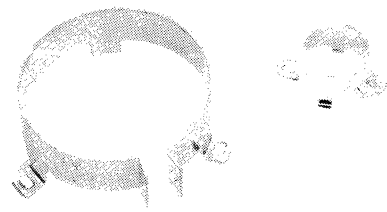
"C" CLAMPS

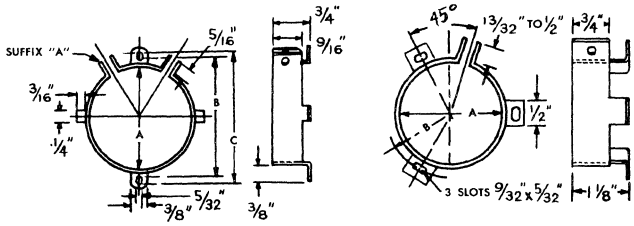


For conditions of moderate vibration "C" Clamps are adequate for tubular capacitors less than 1" in diameter. "C" Clamps are cold-rolled steel .020"-.030" thick, finished with cadmium plate to resist corrosion. Standard catalog items range from 5/8" to 1".

Part No.	Dimensions (Inches) A	Dimensions (Inches) B	List Price	Net Price
17920	5/8 - 3/4	1/2	$.20	**$.12**
17921	7/8 - 1	1/2	.20	**.12**

MOUNTING RINGS

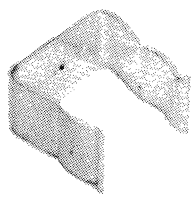


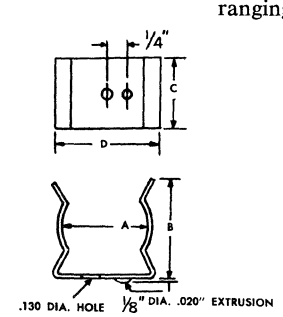


For capacitors of large O.D. three-footed or four-footed mounting rings are offered. Four-footed styles are fabricated of .035" cold-rolled steel and fit ca diameters of 1" to 1¾". Three-footed styles are .032" cold-rolled steel for ca diameters 2" to 3". Mounting holes are elongated to allow minor adjustments i capacitor positioning. Both styles are cadmium plated to resist corrosion.

Part No.	Dimensions (Inches) A	B	C	List Price	Net Price
FOUR-FOOTED					
17842A	1	1⅜	1½	$.25	**$.15**
19213	1⅛	1 17/32	1 21/32	.30	**.18**
18573	1¼	1⅝	1¾	.30	**.18**
17843	1⅜	1 11/16	1⅞	.30	**.18**
17843A	1⅜	1 11/16	1⅞	.30	**.18**
17844	1½	1⅞	2	.30	**.18**
17844A	1½	1⅞	2	.30	**.18**
55274A	1¾	2⅛	2¼	.40	**.24**
THREE-FOOTED					
34775-2	2	1¼	—	.30	**.18**
34775	2½	1½	—	.35	**.21**
34775-3	3	1¾	—	.65	**.39**

MOUNTING CLIPS





Mounting clips of cold-rolled steel finished in cadmimum plate to resist corrosi are available for tubular capacitors that may be subjected to conditions acute vibration. Standard catalog items include sizes for capacitor diamet ranging from ¾" to 1⅜". Spring-steel clips are listed on the following pa

For Case Size	Part No.	Dimensions (Inches) A	B	C	D	List Price	Ne Pric
¾	**21368-1**	11/16	25/32	½	25/32	$.20	**$.1**
1	**21368-2**	29/32	1 3/64	19/32	1 1/16	.20	**.1**
1⅜	**21368-3**	1 1/32	1½	⅞	1 1/16	.30	**.1**

(Continued on next pa

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Capacitor Hardware

CDE CORNELL-DUBILIER

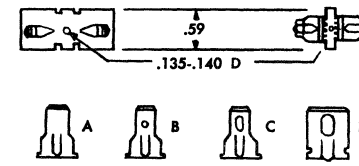
RECOMMENDED MOUNTING HARDWARE (Continued)

Class 200 • 90 | Misc. TYPES

UNIVERSAL CLIPS

Universal mounting clips of .018"-.023" spring steel, cadmium-plated to resist corrosion are also available for tubular capacitors which may encounter conditions of severe vibration. Spring steel mounting clips are available in four styles as illustrated at right, depending on tubular capacitor O.D. These mounting clips will receive tubulars with O.D.'s ranging from 3/8" to 1 7/16".

For Case Size (In.)	Style	Part No.	List Price	Net Price
3/8 — 7/16	A	**30010-1**	$.20	**$.12**
1/2 — 9/16	B	**30010-2**	.20	**.12**
5/8 — 11/16	C	**30010-3**	.20	**.12**
3/4 — 13/16	C	**30010-4**	.25	**.15**
7/8 — 15/16	C	**30010-5**	.25	**.15**
1 — 1 1/16	C	**30010-6**	.25	**.15**
1 3/8 — 1 7/16	D	**30010-7**	.25	**.15**



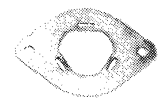
SPRING STEEL STYLES

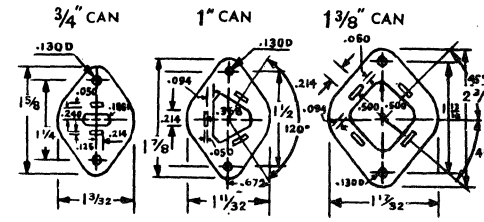
MOUNTING PLATE & WRENCH

Standard mounting plates are available in three styles as illustrated for TWIST-PRONG® capacitors with O.D. ranging from 3/4" to 1 3/8". Plates are offered in either 1/16" thick phenolic or .025" cold-rolled steel (Commercial Grade), cadmium-plated to resist corrosion.

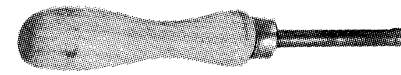
For Case Size (Inches)	Figure No.	Material	Part No.	List Price	Net Price
3/4	1	Metal	**19890**	$.15	**$.09**
3/4	1	Phenolic	**19891**	.15	**.09**
1	2	Metal	**19883**	.15	**.09**
1	2	Phenolic	**19884**	.15	**.09**
1 3/8	3	Metal	**19887**	.15	**.09**
1 3/8	3	Phenolic	**19888**	.15	**.09**
**	**	Metal	**30035**	.15	**.09**
**	**	Phenolic	**30036**	.15	**.09**

* For mounting a 1" dia. can over a 1 3/8" dia. hole.





TWIST-PRONG® mounting wrench is available for securely locking TWIST-PRONG capacitors in position.



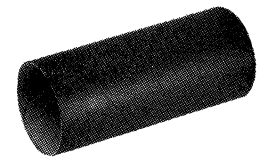
Part No.	List Price	Net Price
22272	$2.48	$1.49

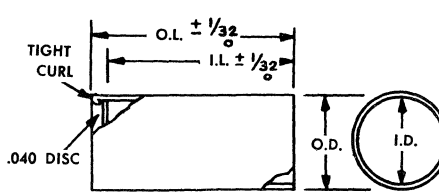
INSULATING SLEEVES

Insulating sleeves of 5-ply Kraft, Insulating Grade, non-conductive and wax impregnated are available for case sizes ranging from 3/4" x 2" to 1 3/8" x 5". Finish is black electrical Kraft. Larger sizes are available on request.

For Case Size Inches—DxL)	Part No.	Sleeve Dimensions (Inches) O.L.	I.L.	O.D.	I.D.	List Price	Net Price
3/4 x 2	**28521-1**	2 1/4	2 1/16	.930	.868	$.15	**$.09**
1 x 2	**28521-4**	2 1/4	2 1/16	1.188	1.128	.15	**.09**
1 x 2 1/2	**28521-5**	2 3/4	2 9/16	1.188	1.128	.15	**.09**
1 x 3	**28521-6**	3 1/4	3 1/16	1.188	1.128	.15	**.09**
1 x 3 1/2	**28521-10**	3 25/32	3 9/16	1.188	1.128	.15	**.09**
1 x 4	***61005-9**	4 3/16	4	1.155	1.095	.15	**.09**
1 x 4 1/8	**28521-22**	4 1/4	4 1/16	1.188	1.128	.15	**.09**
1 3/8 x 2	**28521-7**	2 1/4	2 1/16	1.540	1.475	.15	**.09**
1 3/8 x 2 1/2	**28521-23**	2 3/4	2 9/16	1.540	1.475	.15	**.09**
1 3/8 x 3	**28521-9**	3 1/4	3 1/16	1.540	1.475	.15	**.09**
1 3/8 x 3 1/2	**28521-11**	3 3/4	3 9/16	1.540	1.475	.15	**.09**
1 3/8 x 4	**28521-21**	4 1/4	4 1/16	1.540	1.475	.15	**.09**
1 3/8 x 4 1/8	**28521-15**	4 3/8	4 3/16	1.540	1.475	.15	**.09**
1 3/8 x 4 1/8	***61005-21**	4 5/16	4 1/8	1.520	1.455	.15	**.09**
1 3/8 x 5	**28521-17**	5 1/4	5 1/16	1.540	1.475	.15	**.09**

Recommended units for use with all wide application range Twist-Prongs. Stock two diameters cut to desired length to fit all can heights.





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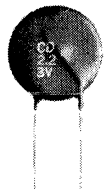
CDE CORNELL-DUBILIER

Ceramic Capacitors

Type	Class
HCC	202 • 05



The 3 volt HCC is designed for replacement in transistor circuitry. Tolerance is GMV. Temp. range is to 85C.

3V HIGH CAPACITANCE GENERAL PURPOSE DISC

Cap. Mfd.	Volts DCW	Type	Size (Inches) Dia.	Size (Inches) Thick	List Price	Net Price
.22	3	HCC3224P	.290	.156	$.55	$.33
.47	3	HCC3474P	.437	.156	.55	.33
1.0	3	HCC3105P	.593	.156	.75	.45
2.2	3	HCC3225P	.840	.156	.90	.54

Type	Class
H	202 • 11

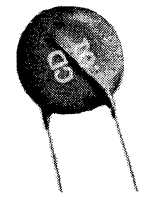
The 50V DCW type H is a miniature disc. Tolerance is −0%, +100% except as noted. Temp. range is +10C to +85C.

50V MINIATURE GENERAL PURPOSE DISC

Cap. Mfd.	Type	Size (Max. Inches) Dia.	Size (Max. Inches) Thick	List Price	Net Price
.005	H1	.350	⅛	$.45	$.27
.01	H2	.350	⅛	.65	.39
.02	H3	.500	⅛	.65	.39
.025	H4	.500	⅛	.65	.39
*.05	H5	.625	⅛	.70	.42
*.10	H6	.625	3/16	.90	.54

* Tolerance +80%, −20%

Type	Class
BYA	202-14



1000V GENERAL PURPOSE DISC

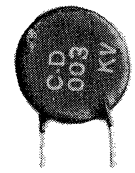
The 1000 volt type BYA is the most popular ceramic disc. The high-K unit is guaranteed minimum value (GMV). Temperature range is −55 to +85C.

Cap. pf.	Type	Size (Inches Max.) Dia.	Size (Inches Max.) Thick	List Price	Net Price
470	BYA10T47	.290	.156	$.25	$.15
500	BYA10T5	.290	.156	.25	.15
680	BYA10T68	.290	.156	.25	.15
820	BYA10T82	.290	.156	.25	.15
1000	BYA10D1	.290	.156	.25	.15
†1000	BYA10D1M	.290	.156	.25	.15
1500	BYA10D15	.290	.156	.25	.15
2000	BYA10D2	.390	.156	.25	.15
2200	BYA10D22	.390	.156	.25	.15
2500	BYA10D25	.437	.156	.25	.15
2700	BYA10D27	.437	.156	.25	.15
3000	BYA10D3	.437	.156	.25	.15

† Tolerance ±20%
* Rated at 600 VDCW

Cap. pf.	Type	Size (Inches Max.) Dia.	Size (Inches Max.) Thick	List Price	Net Price
3300	BYA10D33	.437	.156	$.25	$.15
4000	BYA10D4	.593	.156	.25	.15
†4700	BYA10D47M	.593	.156	.25	.15
5000	BYA10D5	.593	.156	.25	.15
†5000	BYA10D5M	.593	.156	.25	.15
6800	BYA10D68	.593	.156	.25	.15
*10000	BYA6S1	.660	.156	.25	.15
10000	BYA10S1	.750	.156	.30	.18
†10000	BYA10S1M	.750	.156	.30	.18
15000	BYA10S15	.840	.156	.30	.18
*20000	BYA6S2	.840	.156	.30	.18

Type	Class
HV—	202 • 32



HVA HVB HVC HVE

HIGH VOLTAGE GENERAL PURPOSE DIS

The type HVE is designed for buffer applicatic and other units for general purpose high volta applications. Tolerance is GMV except 200 to 1(pf, ±20%. Temp. range is −55C to +85C.

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Ceramic Capacitors

CDE CORNELL-DUBILIER

(Continued) HIGH VOLTAGE GENERAL PURPOSE DISC

Class 202 • 32 | Type HV

HVA, HVB, HVC

Cap. pf.	Volts DCW	Type	Size (Inches) Max. Dia.	Thick	List Price	Net Price
220	1600	**HVB16T22**	.390	.218	$.35	**$.21**
390	1600	**HVB16T39**	.390	.218	.35	**.21**
1000	1600	**HVB16D1**	.593	.218	.35	**.21**
3300	1600	**HVC16D33**	.593	.218	.35	**.21**
4700	1600	**HVC16D47**	.750	.218	.35	**.21**
15	2000	**HVA20Q15**	.390	.218	.35	**.21**
68	2000	**HVB20Q68**	.593	.218	.35	**.21**
470	2000	**HVB20T47**	.593	.218	.35	**.21**
1000	2000	**HVB20D1**	.750	.218	.50	**.30**
2000	2000	**HVC20D2**	.593	.218	.35	**.21**
5000	2000	**HVC20D5**	.750	.218	.50	**.30**

HVE BUFFER TYPES

Cap. pf.	Type	Size (Inches) Max. Dia.	Thick	List Price	Net Price
3000	**HVE16D3**	.750	.218	$.35	**$.21**
4000	**HVE16D4**	.750	.218	.35	**.21**
5000	**HVE16D5**	.750	.218	.35	**.21**
6000	**HVE16D6**	.840	.218	.35	**.21**
7000	**HVE16D7**	.840	.218	.35	**.21**
7500	**HVE16D75**	.840	.218	.35	**.21**
8000	**HVE16D8**	.840	.218	.35	**.21**
10000	**HVE16S1**	.840	.218	.35	**.21**
†15000	**HVE16S15**	.840	.250	.60	**.36**

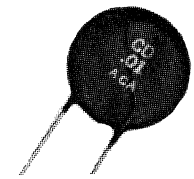
† Tolerance +80%, −20%

AC LINE BY PASS GENERAL PURPOSE DISC

Class 202 • 36 | Type ACA

Cap. pf.	Type	Dia. (Max.)	List Price	Net Price
1000	**ACA14D1**	.390	$.35	**$.21**
2000	**ACA14D2**	.593	.40	**.24**
5000	**ACA14D5**	.685	.45	**.27**
10,000	**ACA14S1**	.875	.50	**.30**

These AC line by-pass units are rated 250 VAC rms, 60 cps. Maximum disc thickness is .218". Tolerance is GMV. Operating temperature range is −55C to +85C.



HIGH VOLTAGE GENERAL PURPOSE SLUG

Class 202 • 56 | Type 105TM

Type 105TM200T5

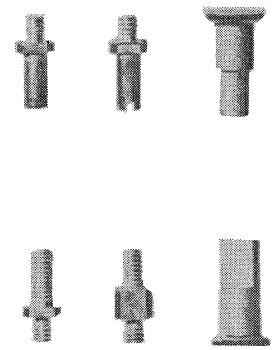
00 pf.; 20,000 VDCW; 30,000 DC flash test. Overall height ss terminals is 1.068"; diam- er is .950". Tolerance is -20%, +50%. Unit is packed ith a selection of terminals to eet all TV replacement as- mbly requirements.

st Price $2.50; Net Price **$1.50**

Type 105TM300T5

500 pf.; 30,000 VDCW; 40,000 VDC flash test. Overall height less terminals is 1.381". Diameter is 1.375". Tolerance is −20%, +50%. Unit is packed with a selection of terminals to meet all TV replacement assembly requirements.

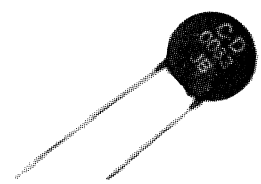
List Price $4.00; Net Price **$2.40**



EMPERATURE STABLE DISC CERAMIC

Class 202 • 61 | Type JB

ıe type JB close tolerance, mperature stable disc is rated)0 VDCW. Capacitance toler- ıce is ±10%. Capacitance change with temperature will not exceed ±10% over the range −55C to +125C.



Cap. pf.	Type	Size (Inches) Max. Dia.	Thick	List Price	Net Price
220	**JB6T22**	.290	.156	$.25	**$.15**
330	**JB6T33**	.290	.156	.25	**.15**
470	**JB6T47**	.290	.156	.25	**.15**
500	**JB6T5**	.290	.156	.25	**.15**

Cap. pf.	Type	Size (Inches) Max. Dia.	Thick	List Price	Net Price
560	**JB6T56**	.390	.156	$.25	**$.15**
680	**JB6T68**	.390	.156	.25	**.15**
800	**JB6T8**	.390	.156	.25	**.15**
1000	**JB6D1**	.437	.156	.25	**.15**

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CDE CORNELL-DUBILIER

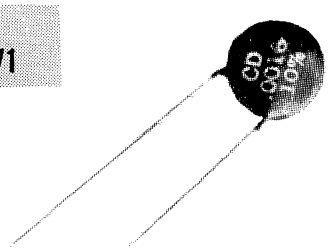
Ceramic Capacitors

Type	Class
JB	202 • 61

TEMPERATURE STABLE DISC (Continued)

Cap. pf.	Type	Size (Inches) Max. Dia.	Size (Inches) Max. Thick	List Price	Net Price
1200	JB6D12	.437	.156	$.25	$.15
1800	JB6D18	.593	.156	.25	.15
2000	JB6D2	.593	.156	.25	.15
2200	JB6D22	.593	.156	.25	.15
3300	JB6D33	.660	.156	$.25	$.15
3900	JB6D39	.750	.156	.30	.18
4700	JB6D47	.840	.156	.30	.18
5000	JB6D5	.840	.156	.30	.18

Type	Class
LA	202 • 71



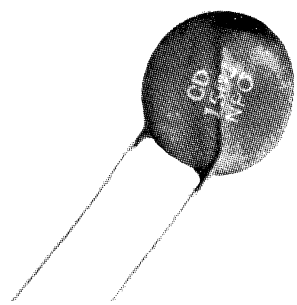
STABLE CLOSE TOLERANCE DISC

The type LA is rated 1000V DCW. Maximum disc thickness is .156". Except as noted, tolerance is ±10% thru 390 pf. and ±20%, 400 pf. and above. Suffix indicates characteristic. SL is within range P100 to N750; S3, N900 to N4700 and C4, stability of ±15% over the rated temp. range of −55C to +85C.

Cap. pf.	Type	Max. Dia. (Inches)	List Price	Net Price
†3.3	LA10V33-SL	.290	$.25	$.15
†5.0	LA10V5-SL	.290	.25	.15
†6.8	LA10V68-SL	.290	.25	.15
7.0	LA10V7-SL	.290	.25	.15
8.0	LA10V8-SL	.290	.25	.15
10	LA10Q1-SL	.290	.25	.15
12	LA10Q12-SL	.290	.25	.15
15	LA10Q15-SL	.290	.25	.15
18	LA10Q18-SL	.290	.25	.15
20	LA10Q2-SL	.290	.25	.15
22	LA10Q22-SL	.290	.25	.15
25	LA10Q25-SL	.290	.25	.15
27	LA10Q27-SL	.290	.25	.15
30	LA10Q3-SL	.290	.25	.15
33	LA10Q33-SL	.290	.25	.15
39	LA10Q39-S3	.290	.25	.15
47	LA10Q47-S3	.290	.25	.15
50	LA10Q5-S3	.290	.25	.15
56	LA10Q56-S3	.290	.25	.15
68	LA10Q68-S3	.290	.25	.15
75	LA10Q75-S3	.290	.25	.15
82	LA10Q82-S3	.290	.25	.15
91	LA10Q91-S3	.290	.25	.15
100	LA10T1-S3	.290	.25	.15
120	LA10T12-S3	.290	.25	.15
130	LA10T13-S3	.290	.25	.15
150	LA10T15-S3	.290	.25	.15
180	LA10T18-S3	.290	.25	.15
200	LA10T2-S3	.290	.25	.15
220	LA10T22-S3	.290	.25	.15
250	LA10T25-C4	.290	.25	.15
270	LA10T27-C4	.290	$.25	$.15
300	LA10T3-C4	.290	.25	.15
330	LA10T33-C4	.290	.25	.15
350	LA10T35-C4	.290	.25	.15
360	LA10T36-C4	.290	.25	.15
390	LA10T39-C4	.290	.25	.15
400	LA10T4-C4	.290	.25	.15
470	LA10T47-C4	.290	.25	.15
500	LA10T5-C4	.290	.25	.15
560	LA10T56-C4	.390	.25	.15
600	LA10T6-C4	.390	.25	.15
680	LA10T68-C4	.390	.25	.15
750	LA10T75-C4	.390	.25	.15
800	LA10T8-C4	.390	.25	.15
820	LA10T82-C4	.390	.25	.15
1000	LA10D1-C4	.437	.25	.15
1200	LA10D12-C4	.437	.25	.15
1500	LA10D15-C4	.593	.25	.15
1600	LA10D16-C4	.593	.25	.15
1800	LA10D18-C4	.593	.25	.15
2000	LA10D2-C4	.593	.25	.15
2200	LA10D22-C4	.593	.25	.15
2500	LA10D25-C4	.660	.25	.15
2700	LA10D27-C4	.660	.25	.15
3000	LA10D3-C4	.660	.25	.15
3300	LA10D33-C4	.660	.25	.15
3900	LA10D39-C4	.750	.25	.15
4000	LA10D4-C4	.750	.25	.15
4300	LA10D43-C4	.840	.25	.15
4700	LA10D47-C4	.840	.25	.15
5000	LA10D5-C4	.840	.25	.15

† Tolerance ±.5 pf

Type	Class
C	202 • 73



TEMPERATURE COMPENSATING DI

The type C temperature compensating disc is designed to pr vide a linear capacitance change with temperature. Two ba types are available. The NPO characteristic has a nominal ze capacitance change with temperature. The N750 has a nor nal negative capacitance change of 750 parts per million p degree C. Units are rated 1000V DCW with an operating te perature range of −55C to +85C. Except as noted, toleran is ±5%.

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Ceramic & Mica Capacitors

CDE CORNELL-DUBILIER

(Continued) TEMPERATURE COMPENSATING DISC

Class 202 • 73 | Type C

CHARACTERISTIC NPO

Cap. pf.	Type	Size (Inches) Maximum Dia.	Thick.	List Price	Net Price
†1.5	C10V15C	.290	.156	$.50	$.30
†2.2	C10V22C	.290	.156	.50	.30
†3.3	C10V33C	.290	.156	.50	.30
†4.7	C10V47C	.290	.156	.50	.30
6.8	C10V68C	.290	.156	.50	.30
10	C10Q1C	.290	.156	.50	.30
15	C10Q15C	.290	.156	.50	.30
20	C10Q2C	.390	.156	.50	.30
22	C10Q22C	.390	.156	.50	.30
25	C10Q25C	.437	.156	.50	.30
33	C10Q33C	.437	.156	$.50	$.30
39	C10Q39C	.593	.156	.50	.30
47	C10Q47C	.593	.156	.50	.30
50	C10Q5C	.593	.156	.50	.30
68	C10Q68C	.593	.156	.50	.30
75	C10Q75C	.660	.156	.50	.30
100	C10T1C	.660	.156	.50	.30
120	C10T12C	.750	.156	.75	.45
150	C10T15C	.840	.156	.75	.45

† Tolerance ±.5 pf

CHARACTERISTIC N750

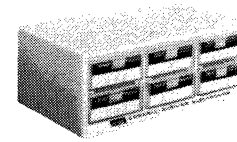
Cap. pf.	Type	Size (Inches) Maximum Dia.	Thick.	List Price	Net Price
5.0	C10V5U	.290	.156	$.50	$.30
6.8	C10V68U	.290	.156	.50	.30
10	C10Q1U	.290	.156	.50	.30
15	C10Q15U	.290	.156	.50	.30
20	C10Q2U	.290	.156	.50	.30
22	C10Q22U	.290	.156	.50	.30
25	C10Q25U	.290	.156	.50	.30
33	C10Q33U	.290	.156	.50	.30
39	C10Q39U	.390	.156	.50	.30
47	C10Q47U	.390	.156	.50	.30
50	C10Q5U	.390	.156	.50	.30
68	C10Q68U	.390	.156	.50	.30
75	C10Q75U	.437	.156	$.50	$.30
100	C10T1U	.593	.156	.75	.45
130	C10T13U	.593	.156	.75	.45
150	C10T15U	.593	.156	.75	.45
180	C10T18U	.660	.156	.75	.45
200	C10T2U	.660	.156	.75	.45
220	C10T22U	.660	.156	.75	.45
270	C10T27U	.750	.156	.75	.45
300	C10T3U	.840	.156	.75	.45
330	C10T33U	.840	.156	.75	.45
370	C10T37U	.840	.156	.75	.45

CERAMIC CAPACITOR ASSORTMENT

CDE's ceramic capacitor assortment contains 95 pieces of the most popular ceramics encountered in replacement applications. It includes 15 type H low-voltage discs; 45 type LA stable close tolerance discs; and 35 type BYA general purpose discs. Type H includes 5 of each rated .01, .05, and .1 mfd. Type LA includes 5 - 390 pf. and 10 each 50, 100, 470 and 1000 pf. Type BYA contains 5 - 2500 pf. and 10 each 1000, 5000 and 10000 pf. units. All of the units are attractively packaged in a six drawer plastic cabinet included without charge.

LIST PRICE $31.50 **NET PRICE $18.90 (Cabinet Free)**

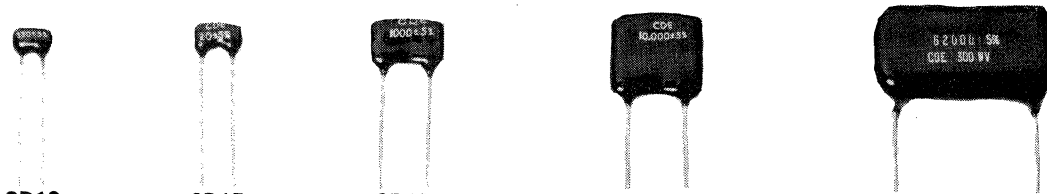
CERAMICS



DIPPED MICA CAPACITORS

Class 203 • 01 | Type CD

Types CD10 through CD42 dipped silvered mica dielectric capacitors provide a wide selection of ratings, tolerances, and sizes to meet replacement requirements. Except as noted, units are rated 500V DCW, 1000V DC Test. Maximum dimensions of units and tolerances are included in the listings. Letter after type indicates temperature characteristic in PPM/degrees C. C is −200 to +200; D is −100 to +100; E is −20 to +100 and F is 0 to +70. Capacitance drift of characteristics C, D, E and F is ±.5%; ±.3%; ±(.1% +.1 pf.); and ±(.05% +.1 pf.) respectively. Operating temperature range of all units is −55C + 125C.



CD10 CD15 CD19 CD30 CD42

(Continued on next page)

Trade Discount Applies To List Prices Only

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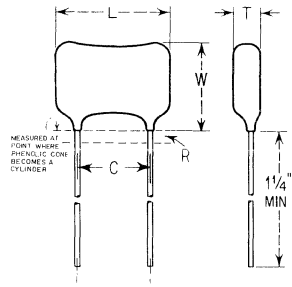
CDE CORNELL-DUBILIER

Mica Capacitors

Type	Class
CD	203 • 01

DIPPED MICA CAPACITORS (Continued)



MAXIMUM CASE SIZE

Detailed dimensions for each rating in listing

Type	Dimensions (Inches) L	W	T	C
CD 10	.390	.380	.220	9/64
CD 15	.490	.420	.240	15/64
CD 19	.700	.580	.350	11/32
CD 30	.840	.920	.470	7/16
CD 42	1.50	.940	.500	1 1/16

TYPE CD10

Cap. pf.	Cap. Tol.	Type	Size (Inches) L x W x T	List Price	Net Price
2	±20%	**CD10C020M**	.360 x .330 x .190	$.30	**$.18**
5	±10%	**CD10C050K**	.360 x .330 x .190	.30	**.18**
10	± 5%	**CD10C100J**	.360 x .330 x .190	.35	**.21**
12	± 5%	**CD10C120J**	.360 x .330 x .190	.40	**.24**
15	± 5%	**CD10C150J**	.360 x .330 x .190	.40	**.24**
18	± 5%	**CD10C180J**	.360 x .330 x .190	.40	**.24**
20	± 5%	**CD10C200J**	.360 x .330 x .190	.40	**.24**
22	± 5%	**CD10C220J**	.360 x .330 x .190	.40	**.24**
24	± 5%	**CD10E240J**	.360 x .330 x .190	.40	**.24**
27	± 5%	**CD10E270J**	.370 x .330 x .190	.40	**.24**
30	± 5%	**CD10E300J**	.370 x .340 x .190	.40	**.24**
33	± 5%	**CD10E330J**	.370 x .340 x .190	.40	**.24**
36	± 5%	**CD10E360J**	.370 x .340 x .190	.40	**.24**
39	± 5%	**CD10E390J**	.370 x .340 x .190	.40	**.24**
43	± 5%	**CD10E430J**	.370 x .340 x .190	.40	**.24**
47	± 5%	**CD10E470J**	.370 x .340 x .190	.45	**.27**
51	± 5%	**CD10F510J**	.370 x .340 x .190	.45	**.27**
56	± 5%	**CD10F560J**	.370 x .340 x .190	.45	**.27**
62	± 5%	**CD10F620J**	.370 x .340 x .190	.45	**.27**
68	± 5%	**CD10F680J**	.370 x .340 x .190	$.45	**$.27**
75	± 5%	**CD10F750J**	.370 x .340 x .200	.45	**.27**
82	± 5%	**CD10F820J**	.370 x .350 x .200	.45	**.27**
91	± 5%	**CD10F910J**	.370 x .350 x .200	.45	**.27**
100	± 5%	**CD10F101J**	.370 x .350 x .200	.45	**.27**
110	± 5%	**CD10F111J**	.380 x .350 x .200	.45	**.27**
120	± 5%	**CD10F120J**	.380 x .350 x .200	.50	**.30**
130	± 5%	**CD10F131J**	.380 x .360 x .200	.50	**.30**
150	± 5%	**CD10F151J**	.380 x .360 x .210	.55	**.33**
160	± 5%	**CD10F161J**	.380 x .360 x .210	.60	**.36**
180	± 5%	**CD10F181J**	.390 x .370 x .210	.65	**.39**
200	± 5%	**CD10F201J**	.390 x .370 x .220	.65	**.39**
220	± 5%	**CD10E221J**	.390 x .370 x .220	.70	**.42**
240	± 5%	**CD10F241J**	.390 x .380 x .220	.75	**.45**
270	± 5%	**CD10F271J†**	.390 x .380 x .220†	.75	**.45**
300	± 5%	**CD10F301J†**	.390 x .380 x .220†	.80	**.48**
330	± 5%	**CD10F331J***	.390 x .370 x .220*	.80	**.48**
360	± 5%	**CD10F361J***	.390 x .380 x .220*	.85	**.51**
390	± 5%	**CD10F391J***	.390 x .380 x .220*	1.35	**.81**

† 300 volts DCW * 100 volts DCW

TYPE CD15

Cap. pf.	Cap. Tol.	Type	Size (Inches) L x W x T	List Price	Net Price
2	±20%	**CD15C020M**	.450 x .360 x .170	$.25	**$.15**
5	±10%	**CD15C050K**	.450 x .360 x .170	.25	**.15**
6	±10%	**CD15C060K**	.450 x .360 x .170	.25	**.15**
7	±10%	**CD15C070K**	.450 x .360 x .170	.25	**.15**
8	±10%	**CD15C080K**	.450 x .360 x .170	.25	**.15**
10	±10%	**CD15C100K**	.450 x .360 x .170	.25	**.15**
12	±10%	**CD15C120K**	.450 x .360 x .170	.25	**.15**
18	±10%	**CD15C180K**	.450 x .360 x .170	.25	**.15**
20	± 5%	**CD15E200J**	.450 x .360 x .170	.30	**.18**
22	±10%	**CD15E220K**	.450 x .360 x .170	.25	**.15**
22	± 5%	**CD15E220J**	.450 x .360 x .170	.30	**.18**
24	± 5%	**CD15E240J**	.450 x .360 x .170	.30	**.18**
27	±10%	**CD15E270K**	.450 x .360 x .170	.25	**.15**
27	± 5%	**CD15E270J**	.450 x .360 x .170	.30	**.18**
27	± 2%	**CD15E270G**	.450 x .360 x .170	.35	**.21**
30	± 5%	**CD15E300J**	.450 x .360 x .170	.30	**.18**
30	± 2%	**CD15E300G**	.450 x .360 x .170	.35	**.21**
33	±10%	**CD15E330K**	.450 x .360 x .170	.25	**.15**
33	± 5%	**CD15E330J**	.450 x .360 x .170	.30	**.18**
33	± 2%	**CD15E330G**	.450 x .360 x .170	.35	**.21**
36	± 5%	**CD15E360J**	.450 x .360 x .170	.30	**.18**
36	± 2%	**CD15E360G**	.450 x .360 x .170	.35	**.21**
39	±10%	**CD15E390K**	.450 x .360 x .170	.25	**.15**
39	± 5%	**CD15E390J**	.450 x .360 x .170	.30	**.18**
39	± 2%	**CD15E390G**	.450 x .360 x .170	.35	**.21**
43	± 5%	**CD15E430J**	.450 x .360 x .170	.30	**.18**
43	± 2%	**CD15E430G**	.450 x .360 x .170	.35	**.21**
47	±10%	**CD15E470K**	.450 x .360 x .170	.25	**.15**
47	± 5%	**CD15E470J**	.450 x .360 x .170	.30	**.18**
47	± 2%	**CD15E470G**	.450 x .360 x .170	.35	**.21**
51	± 5%	**CD15F510J**	.450 x .360 x .170	.30	**.18**
51	± 2%	**CD15F510G**	.450 x .360 x .170	$.35	**$.21**
56	±10%	**CD15F560K**	.450 x .360 x .170	.25	**.15**
56	± 5%	**CD15F560J**	.450 x .360 x .170	.30	**.18**
56	± 2%	**CD15F560G**	.450 x .360 x .170	.35	**.21**
62	± 5%	**CD15F620J**	.450 x .360 x .170	.30	**.18**
62	± 2%	**CD15F620G**	.450 x .360 x .170	.35	**.21**
68	±10%	**CD15F680K**	.450 x .360 x .180	.25	**.15**
68	± 5%	**CD15F680J**	.450 x .360 x .180	.30	**.18**
68	± 2%	**CD15F680G**	.450 x .360 x .180	.35	**.21**
75	± 5%	**CD15F750J**	.450 x .360 x .180	.30	**.18**
75	± 2%	**CD15F750G**	.450 x .360 x .180	.35	**.21**
82	±10%	**CD15F820K**	.450 x .360 x .180	.25	**.15**
82	± 5%	**CD15F820J**	.450 x .360 x .180	.30	**.18**
82	± 2%	**CD15F820G**	.450 x .360 x .180	.35	**.21**
91	± 5%	**CD15F910J**	.460 x .360 x .180	.30	**.18**
91	± 2%	**CD15F910G**	.460 x .360 x .180	.35	**.21**
100	±10%	**CD15F101K**	.460 x .360 x .180	.25	**.15**
100	± 5%	**CD15F101J**	.460 x .360 x .180	.30	**.18**
100	± 2%	**CD15F101G**	.460 x .360 x .180	.35	**.21**
110	± 5%	**CD15F111J**	.460 x .370 x .180	.35	**.21**
110	± 2%	**CD15F111G**	.460 x .370 x .180	.40	**.24**
120	±10%	**CD15F121K**	.460 x .370 x .180	.30	**.18**
120	± 5%	**CD15F121J**	.460 x .370 x .180	.35	**.21**
120	± 2%	**CD15F121G**	.460 x .370 x .180	.40	**.24**
130	± 5%	**CD15F131J**	.460 x .370 x .180	.35	**.21**
130	± 2%	**CD15F131G**	.460 x .370 x .180	.40	**.24**
150	±10%	**CD15F151K**	.460 x .370 x .190	.30	**.18**
150	± 5%	**CD15F151J**	.460 x .370 x .190	.35	**.21**
150	± 2%	**CD15F151G**	.460 x .370 x .190	.40	**.24**
160	± 5%	**CD15F161J**	.460 x .370 x .190	.40	**.24**
160	± 2%	**CD15F161G**	.460 x .370 x .190	.45	**.27**

(Continued on next page)

Mica Capacitors

CDE CORNELL-DUBILIER

(Continued) DIPPED MICA DIELECTRIC CAPACITOR

Class	Type
203 • 01	CD

TYPE CD15 (Continued)

Cap. pf.	Cap. Tol.	Type	Size (Inches) L x W x T	List Price	Net Price
180	±10%	CD15F181K	.460 x .370 x .190	$.35	$.21
180	± 5%	CD15F181J	.460 x .370 x .190	.40	.24
180	± 2%	CD15F181G	.460 x .370 x .190	.45	.27
200	± 5%	CD15F201J	.460 x .380 x .190	.40	.24
200	± 2%	CD15F201G	.460 x .380 x .190	.45	.27
220	±10%	CD15F221K	.460 x .380 x .200	.40	.24
220	± 5%	CD15F221J	.460 x .380 x .200	.45	.27
220	± 2%	CD15F221G	.460 x .380 x .200	.50	.30
240	± 5%	CD15F241J	.460 x .380 x .200	.45	.27
240	± 2%	CD15F241G	.460 x .380 x .200	.50	.30
270	±10%	CD15F271K	.470 x .390 x .210	.45	.27
270	± 5%	CD15F271J	.470 x .390 x .210	.50	.30
270	± 2%	CD15F271G	.470 x .390 x .210	$.55	$.33
300	± 5%	CD15F301J	.470 x .390 x .210	.50	.30
300	± 2%	CD15F301G	.470 x .390 x .210	.55	.33
330	±10%	CD15F331K	.470 x .390 x .210	.50	.30
330	± 5%	CD15F331J	.470 x .390 x .210	.55	.33
330	± 2%	CD15F331G	.470 x .390 x .210	.65	.39
360	± 5%	CD15F361J	.470 x .400 x .220	.55	.33
360	± 2%	CD15F361G	.470 x .400 x .220	.65	.39
390	±10%	CD15F391K	.470 x .400 x .220	.55	.33
390	± 5%	CD15F391J	.470 x .400 x .220	.60	.36
390	± 2%	CD15F391G	.470 x .400 x .220	.70	.42

TYPE CD19

Cap. pf.	Cap. Tol.	Type	Size (Inches) L x W x T	List Price	Net Price
430	± 5%	CD19E431J	.640 x .510 x .200	$.50	$.30
430	± 2%	CD19F431G	.640 x .510 x .200	.55	.33
470	±10%	CD19E471K	.640 x .510 x .200	.50	.30
470	± 5%	CD19F471J	.640 x .510 x .200	.55	.33
470	± 2%	CD19F471G	.640 x .510 x .200	.60	.36
510	± 5%	CD19F511J	.650 x .510 x .200	.55	.33
510	± 2%	CD19F511G	.650 x .510 x .200	.60	.36
560	±10%	CD19F561K	.650 x .510 x .200	.55	.33
560	± 5%	CD19F561J	.650 x .510 x .200	.60	.36
560	± 2%	CD19E561G	.650 x .510 x .200	.65	.39
620	± 5%	CD19F621J	.650 x .510 x .200	.60	.36
620	± 2%	CD19F621G	.650 x .510 x .200	.65	.39
680	±10%	CD19F681K	.650 x .510 x .210	.60	.36
680	± 5%	CD19F681J	.650 x .510 x .210	.65	.39
680	± 2%	CD19F681G	.650 x .510 x .210	.70	.42
750	± 5%	CD19F751J	.650 x .510 x .210	.65	.39
750	± 2%	CD19F751G	.650 x .510 x .210	.70	.42
820	±10%	CD19F821K	.650 x .510 x .210	.60	.36
820	± 5%	CD19F821J	.650 x .510 x .210	.65	.39
820	± 2%	CD19F821G	.650 x .510 x .210	.70	.42
910	± 5%	CD19F911J	.650 x .510 x .210	.70	.42
910	± 2%	CD19F911G	.650 x .510 x .210	.75	.45
1000	±10%	CD19F102K	.650 x .520 x .220	.70	.42
1000	± 5%	CD19F102J	.650 x .520 x .220	.75	.45
1000	± 2%	CD19F102G	.650 x .520 x .220	.80	.48
1100	± 5%	CD19F112J	.650 x .520 x .220	.75	.45
1100	± 2%	CD19F112G	.650 x .520 x .220	.80	.48
1200	± 5%	CD19F122J	.660 x .520 x .220	.80	.48
1200	± 2%	CD19F122G	.660 x .520 x .220	.90	.54
1300	± 5%	CD19F132J	.660 x .520 x .220	$.85	$.51
1300	± 2%	CD19F132G	.660 x .520 x .220	.95	.57
1500	± 5%	CD19F152J	.660 x .520 x .230	.90	.54
1500	± 2%	CD19F152G	.660 x .520 x .230	1.00	.60
1600	± 5%	CD19F162J	.660 x .530 x .230	.95	.57
1600	± 2%	CD19F162G	.660 x .530 x .230	1.05	.63
1800	± 5%	CD19F182J	.670 x .530 x .240	1.10	.66
1800	± 2%	CD19F182G	.670 x .530 x .240	1.20	.72
2000	± 5%	CD19F202J	.670 x .530 x .240	1.20	.72
2000	± 2%	CD19F202G	.670 x .530 x .240	1.30	.78
2200	± 5%	CD19F222J	.670 x .530 x .250	1.30	.78
2200	± 2%	CD19F222G	.670 x .530 x .250	1.40	.84
2400	± 5%	CD19F242J	.670 x .540 x .260	1.40	.84
2400	± 2%	CD19F242G	.670 x .540 x .260	1.55	.93
2700	± 5%	CD19F272J	.680 x .540 x .270	1.50	.90
2700	± 2%	CD19F272G	.680 x .540 x .270	1.65	.99
3000	± 5%	CD19F302J	.680 x .550 x .280	1.65	.99
3000	± 2%	CD19F302G	.680 x .550 x .280	1.80	1.08
3300	± 5%	CD19F332J	.680 x .550 x .290	1.75	1.05
3300	± 2%	CD19F332G	.680 x .550 x .290	1.90	1.14
3600	± 5%	CD19F362J	.680 x .560 x .300	1.85	1.11
3600	± 2%	CD19F362G	.680 x .560 x .300	2.00	1.20
3900	± 5%	CD19F392J	.690 x .560 x .310	1.95	1.17
3900	± 2%	CD19F392G	.690 x .560 x .310	2.15	1.29
4300	± 5%	CD19F432J	.690 x .570 x .330	2.05	1.23
4300	± 2%	CD19F432G	.690 x .570 x .330	2.25	1.35
4700	± 5%	CD19F472J	.700 x .580 x .350	2.20	1.32
4700	± 2%	CD19F472G	.700 x .580 x .350	2.40	1.44

TYPE CD30

Cap. pf.	Cap. Tol.	Type	Size (Inches) L x W x T	List Price	Net Price
5100	±5%	CD30F512J	.780 x .860 x .280	$1.90	$1.14
5100	±2%	CD30F512G	.780 x .860 x .280	2.10	1.75
5600	±5%	CD30F562J	.780 x .870 x .290	1.95	1.17
5600	±2%	CD30F562G	.780 x .870 x .290	2.15	1.29
6200	±5%	CD30F622J	.780 x .870 x .290	2.05	1.23
6200	±2%	CD30F622G	.780 x .870 x .290	2.25	1.35
6800	±5%	CD30F682J	.780 x .870 x .300	2.30	1.38
6800	±2%	CD30F682G	.780 x .870 x .300	2.50	1.50
7500	±5%	CD30F752J	.790 x .880 x .310	2.50	1.50
7500	±2%	CD30F752G	.790 x .880 x .310	2.75	1.65
8200	±5%	CD30F822J	.790 x .880 x .320	2.75	1.65
8200	±2%	CD30F822G	.790 x .880 x .320	3.00	1.80
9100	±5%	CD30F912J	.790 x .880 x .330	2.95	1.77
9100	±2%	CD30F912G	.790 x .880 x .330	3.20	1.92
10,000	±5%	CD30F103J	.800 x .890 x .340	3.30	1.98
10,000	±2%	CD30F103G	.800 x .890 x .340	$3.60	$2.16
11,000	±5%	CD30F113J	.800 x .890 x .350	3.60	2.16
11,000	±2%	CD30F113G	.800 x .890 x .350	3.90	2.34
12,000	±5%	CD30F123J	.800 x .890 x .360	3.85	2.31
12,000	±2%	CD30F123G	.800 x .890 x .360	4.20	2.52
13,000	±5%	CD30F133J	.810 x .890 x .370	4.10	2.46
13,000	±2%	CD30F133G	.810 x .890 x .370	4.50	2.70
15,000	±5%	CD30F153J	.810 x .900 x .390	4.65	2.79
15,000	±2%	CD30F153G	.810 x .900 x .390	5.10	3.06
16,000	±5%	CD30F163J	.820 x .900 x .410	4.95	2.97
16,000	±2%	CD30F163G	.820 x .900 x .410	5.40	3.24
18,000	±5%	CD30F183J	.820 x .910 x .430	5.50	3.30
18,000	±2%	CD30F183G	.820 x .910 x .430	6.00	3.60
20,000	±5%	CD30F203J	.830 x .920 x .450	6.05	3.63
20,000	±2%	CD30F203G	.830 x .920 x .450	6.60	3.96

(Continued on next page)

Trade Discount Applies To List Prices Only

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CDE CORNELL-DUBILIER

Mica Capacitors

Type	Class
CD	203 • 01

DIPPED MICA CAPACITORS (Continued)

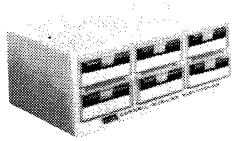
CD-42

Cap. pf.	Cap. Tol.	Type	Size (Inches) L x W x T	List Price	Net Price
22,000	±5%	CD42F223J	1.420 x .880 x .310	$6.90	$4.14
22,000	±2%	CD42F223G	1.420 x .880 x .310	6.90	4.14
24,000	±5%	CD42F243J	1.430 x .880 x .320	7.50	4.50
24,000	±2%	CD42F243G	1.430 x .880 x .320	8.60	5.16
27,000	±5%	CD42F273J	1.430 x .880 x .330	8.40	5.04
27,000	±2%	CD42F273G	1.430 x .880 x .330	9.65	5.79
30,000	±5%	CD42F303J	1.440 x .890 x .350	9.30	5.58
30,000	±2%	CD42F303G	1.440 x .890 x .350	10.70	6.42
33,000	±5%	CD42F333J	1.440 x .890 x .360	10.20	6.12
33,000	±2%	CD42F333G	1.440 x .890 x .360	11.70	7.02
36,000	±5%	CD42F363J	1.450 x .900 x .380	11.10	6.66
36,000	±2%	CD42F363G	1.450 x .900 x .380	12.75	7.65
39,000	±5%	CD42F393J	1.450 x .900 x .400	$12.00	$7.20
39,000	±2%	CD42F393G	1.450 x .900 x .400	13.80	8.28
43,000	±5%	CD42F433J	1.460 x .910 x .420	13.00	7.80
43,000	±2%	CD42F433G	1.460 x .910 x .420	14.95	8.97
47,000	±5%	CD42F473J	1.470 x .910 x .450	14.00	8.40
47,000	±2%	CD42F473G	1.470 x .910 x .450	16.10	9.66
51,000	±5%	CD42F513J	1.480 x .920 x .470	15.00	9.00
51,000	±2%	CD42F513G	1.480 x .920 x .470	17.25	10.35
56,000	±5%	CD42F563J*	1.460 x .910 x .420	14.20	8.52
56,000	±2%	CD42F563G*	1.460 x .910 x .420	16.30	9.78
62,000	±5%	CD42F623J*	1.470 x .920 x .450	15.60	9.36
62,000	±2%	CD42F623G*	1.470 x .920 x .450	17.90	10.74

* 300 V DCW

Type	Class
CD	203 • 01

DIPPED MICA CAPACITOR ASSORTMENT

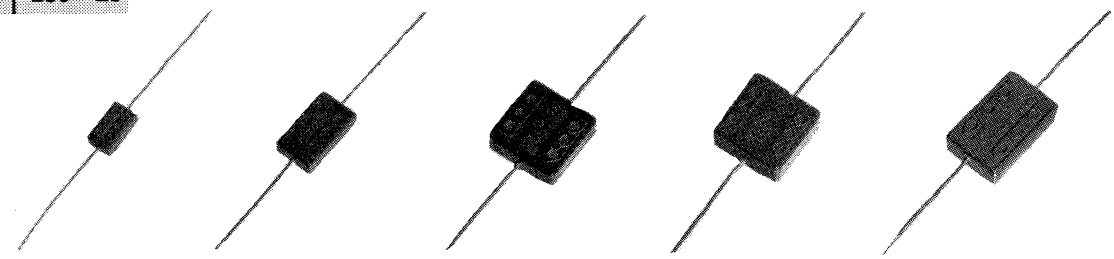


The dipped mica capacitor assortment contains 60 pieces . . . five each of 12 ratings most frequently used in color TV and other critical circuitry. The small case size of the dipped units insures a fit in the most crowded component assemblies. All tolerances are ±10%. The capacitor assortment contains five each of units rated 10 pf.; 33 pf.; 47 pf.; 100 pf.; 120 p.f.; 150 pf.; 180 pf.; 200 pf.; 220 pf.; 270 pf.; 300 pf.; and 390 pf. All units are 500 VDCW with an operating temperature range of −55C to +125C.

LIST PRICE $23.75 **NET PRICE $14.25 (Cabinet Free)**

Type	Class
22R, 5R, 1R, 1DR, 3R	203 • 23

MOLDED MICA CAPACITORS



22R 5R 1R 1DR 3R

Five types of molded, silvered-mica dielectric capacitors provide a wide choice of ratings and form factors to fill replacement needs. Units are rated 500 VDCW and 1000 VDC test.

Operating temperature range is −55C to +85C. Tolerances of individual stock units are listed in the tabulation. The CDI molded unit makes an ideal mica capacitor replacement wher the small size and radial lead construction of the dipped uni is not required.

22R

Cap. pf.	Cap. Tol.	Type	List Price	Net Price
2	±20	22R5V2M	$.30	$.18
5	±10	22R5V5K	.30	.18
10	±10	22R5Q1K	.30	.18
12	±10	22R5Q12K	.30	.18
15	±10	22R5Q15K	.30	.18
18	±10	22R5Q18K	$.30	$.18
20	±5	22R5Q2J	.30	.18
22	±10	22R5Q22K	.30	.18
22	±5	22R5Q22J	.30	.18
24	±5	22R5Q24J	.30	.18

L 33/64 W 1/64 T 3/16

Cap. pf.	Cap. Tol.	Type	List Price	Net Price
27	±10	22R5Q27K	$.30	$.18
27	±5	22R5Q27J	.30	.18
30	±5	22R5Q3J	.30	.18
33	±10	22R5Q33K	.30	.18
33	±5	22R5Q33J	.30	.18

(Continued on next pag

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Mica Capacitors

CDE CORNELL-DUBILIER

(Continued) MOLDED MICA CAPACITORS

Class 203 • 23 | **Type 22R, 5R, 1R, 1DR, 3R**

22R (Continued)

L 33/64 W 1/64 T 3/16

Cap. pf.	Cap. Tol.	Type	List Price	Net Price
36	±5	22R5Q36J	$ .30	$ .18
39	±10	22R5Q39K	.30	.18
39	±5	22R5Q39J	.30	.18
43	±5	22R5Q43J	.30	.18
47	±10	22R5Q47K	.30	.18
47	±5	22R5Q47J	.30	.18
51	±5	22R5Q51J	.30	.18
51	±2	22R5Q51G	.35	.21
56	±10	22R5Q56K	.30	.18
56	±5	22R5Q56J	.30	.18
56	±2	22R5Q56G	.35	.21
62	±5	22R5Q62J	.30	.18
62	±2	22R5Q62G	.35	.21
68	±10	22R5Q68K	.30	.18
68	±5	22R5Q68J	.30	.18
68	±2	22R5Q68G	.35	.21
75	±5	22R5Q75J	.30	.18
75	±2	22R5Q75G	.35	.21
82	±10	22R5Q82K	.30	.18
82	±5	22R5Q82J	.30	.18
82	±2	22R5Q82G	.35	.21
91	±5	22R5Q91J	.30	.18
91	±2	22R5Q91G	.35	.21
100	±10	22R5T1K	$ .30	$ .18
100	±5	22R5T1J	.30	.18
100	±2	22R5T1G	.35	.21
110	±5	22R5T11J	.35	.21
110	±2	22R5T11G	.40	.24
120	±10	22R5T12K	.35	.21
120	±5	22R5T12J	.35	.21
120	±2	22R5T12G	.40	.24
130	±5	22R5T13J	.35	.21
130	±2	22R5T13G	.40	.24
150	±10	22R5T15K	.35	.21
150	±5	22R5T15J	.35	.21
150	±2	22R5T15G	.40	.24
160	±5	22R5T16J	.40	.24
160	±2	22R5T16G	.50	.30
180	±10	22R5T18K	.40	.24
180	±5	22R5T18J	.40	.24
180	±2	22R5T18G	.50	.30
200	±5	22R5T2J	.40	.24
200	±2	22R5T16G	.50	.30
220	±10	22R5T22K	.45	.27
220	±5	22R5T22J	.45	.27
220	±2	22R5T22G	.55	.33
240	±5	22R5T24J	$ .45	$ .27
240	±2	22R5T24G	.55	.33
270	±10	22R5T27K	.50	.30
270	±5	22R5T27J	.50	.30
270	±2	22R5T27G	.60	.36
300	±5	22R5T3J	.50	.30
300	±2	22R5T3G	.60	.36
330	±10	22R5T33K	.55	.33
330	±5	22R5T33J	.55	.33
330	±2	22R5T33G	.65	.39
360	±5	22R5T36J	.60	.36
360	±2	22R5T36G	.70	.42
390	±10	22R5T39K	.65	.39
390	±5	22R5T39J	.65	.39
390	±2	22R5T39G	.80	.48
430	±5	22R5T43J	.70	.42
430	±2	22R5T43G	.85	.51
470	±10	22R5T47K	.75	.45
470	±5	22R5T47J	.75	.45
470	±2	22R5T47G	.90	.54
510	±5	22R5T51J	.80	.48
510	±2	22R5T51G	.95	.57

5R

L 47/64 W 7/16 T 3/16

Cap. pf.	Cap. Tol.	Type	List Price	Net Price
560	±10	5R5T56K	$ .55	$ .33
560	±5	5R5T56J	.55	.33
560	±2	5R5T56G	.60	.36
620	±5	5R5T62J	.60	.36
620	±2	5R5T62G	.65	.39
680	±10	5R5T68K	.60	.36
680	±5	5R5T68J	.60	.36
680	±2	5R5T68G	.65	.39
750	±5	5R5T75J	.65	.39
750	±2	5R5T75G	.70	.42
820	±10	5R5T82K	.70	.42
820	±5	5R5T82J	.70	.42
820	±2	5R5T82G	$ .75	$ .45
910	±5	5R5T91J	.70	.42
910	±2	5R5T91G	.75	.45
1000	±10	5RD1K	.75	.45
1000	±5	5R5D1J	.75	.45
1000	±2	5R5D1G	.85	.51

1R

L 51/64 W 7/16 T 3/16

Cap. pf.	Cap. Tol.	Type	List Price	Net Price
560	±5	1R5T56J	$ .60	$ .36
560	±2	1R5T56G	.65	.39
620	±5	1R5T62J	60	.36
620	±2	1R5T62G	.65	.39
680	±5	1R5T68J	.65	.39
680	±2	1R5T68G	.70	.42
750	±5	1R5T75J	.65	.39
750	±2	1R5T75G	.70	.42
820	±5	1R5T82J	.70	.42
820	±2	1R5T82G	.75	.45
910	±5	1R5T91J	.70	.42
910	±2	1R5T91G	.75	.45
1000	±5	1R5D1J	.75	.45
1000	±2	1R5D1G	$ .85	$ .51
1100	±5	1R5D11J	.75	.45
1100	±2	1R5D11G	.85	.51
1200	±5	1R5D12J	.75	.45
1200	±2	1R5D12G	.85	.51
1300	±5	1R5D13J	.80	.48
1300	±2	1R5D13G	.90	.54
1500	±5	1R5D15J	.85	.51
1500	±2	1R5D15G	.95	.57
1600	±5	1R5D16J	.85	.51
1600	±2	1R5D16G	.95	.57
1800	±5	1R5D18J	.90	.54
1800	±2	1R5D18G	1.00	.60
2000	±5	1R5D2J	$1.00	$ .60
2000	±2	1R5D2G	1.10	.66
2200	±5	1R5D22J	1.10	.66
2200	±2	1R5D22G	1.20	.72
2400	±5	1R5D24J	1.20	.72
2400	±2	1R5D24G	1.30	.78
2700	±5	1R5D27J	1.30	.78
2700	±2	1R5D27G	1.45	.87
3000	±5	1R5D3J	1.40	.84
3000	±2	1R5D3G	1.55	.93
3300	±5	1R5D33J	1.50	.90
3300	±2	1R5D33G	1.65	.99

DR

L 51/64 W 51/64 T 5/16

Cap. pf.	Cap. Tol.	Type	List Price	Net Price
3600	±5	1DR5D36J	$1.60	$ .96
3600	±2	1DR5D36G	1.75	1.05
3900	±5	1DR5D39J	1.70	1.02
3900	±2	1DR5D39G	1.85	1.11
4300	±5	1DR5D43J	1.80	1.08
4300	±2	1DR5D43G	2.00	1.20
4700	±5	1DR5D47J	1.90	1.14
4700	±2	1DR5D47G	2.10	1.26
5100	±5	1DR5D51J	$2.00	$1.20
5100	±2	1DR5D51G	2.20	1.32
5600	±5	1DR5D56J	2.10	1.26
5600	±2	1DR5D56G	2.30	1.38
6200	±5	1DR5D62J	2.20	1.32
6200	±2	1DR5D62G	2.40	1.44
6800	±5	1DR5D68J	2.20	1.32
6800	±2	1DR5D68G	2.40	1.44
7500	±5	1DR5D75J	$2.40	$1.44
7500	±2	1DR5D75G	2.65	1.59
8200	±5	1DR5D82J	2.60	1.56
8200	±2	1DR5D82G	2.80	1.68
9100	±5	1DR5D91J	2.80	1.68
9100	±2	1DR5D91G	3.05	1.83
10000	±5	1DR5S1J	3.05	1.83
10000	±2	1DR5S1G	3.45	2.07

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Mica Capacitors

Type	Class
22R, 5R, 1R, 1DR, 3R	203 • 23

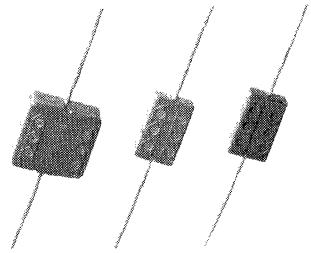
MOLDED MICA CAPACITORS (Continued)

3R

L 3/4 W 1/4 T 3/16

Cap. pf.	Cap. Tol.	Type	List Price	Net Price
6800	±5	3R5D68J	$2.90	$1.74
6800	±2	3R5D68G	3.35	2.01
7500	±5	3R5D75J	$3.05	$1.83
7500	±2	3R5D75G	3.50	2.10
8200	±5	3R5D82J	$3.30	$1.98
8200	±2	3R5D82G	3.80	2.28

Type	Class
5RP, 1DRP	203 • 24



1DRP20 5RP20 5RP10

HIGH VOLTAGE MOLDED MICA

These high voltage molded, silvered mica dielectric capacitors are the ideal replacement where high voltage spikes or pulses are encountered and stable, low loss operation is required. The type 5RP10 is rated 1000 VDCW and 2000 VDC Test. Type 5RP20 and 1DRP20 are rated 2000 VDCW and 4000 VDC Test. Tolerance is ±5%. Operating temperature range is —55C to +85C.

5RP10

L 47/64 W 7/16 T 3/16

Cap. pf.	Type	List Price	Net Price
10	5RP10Q1J	$.30	$.18
12	5RP10Q12J	.30	.18
15	5RP10Q15J	.30	.18
18	5RP10Q18J	.30	.18
20	5RP10Q2J	.30	.18
22	5RP10Q22J	.30	.18
24	5RP10Q24J	.30	.18
27	5RP10Q27J	.30	.18
30	5RP10Q3J	.30	.18
33	5RP10Q33J	.30	.18
36	5RP10Q36J	.30	.18
39	5RP10Q39J	.30	.18
43	5RP10Q43J	.30	.18
47	5RP10Q47J	.30	.18
51	5RP10Q51J	.30	.18
56	5RP10Q56J	.30	.18
62	5RP10Q62J	$.30	$.18
68	5RP10Q68J	.30	.18
75	5RP10Q75J	.30	.18
82	5RP10Q82J	.30	.18
91	5RP10Q91J	.30	.18
100	5RP10T1J	.35	.21
110	5RP10T11J	.35	.21
120	5RP10T12J	.35	.21
130	5RP10T13J	.35	.21
150	5RP10T15J	.35	.21
160	5RP10T16J	.35	.21
180	5RP10T18J	.35	.21
200	5RP10T2J	.40	.24
220	5RP10T22J	.40	.24
240	5RP10T24J	.40	.24
270	5RP10T27J	.40	.24
300	5RP10T3J	$.40	$.24
330	5RP10T33J	.40	.24
360	5RP10T36J	.40	.24
390	5RP10T39J	.45	.27
430	5RP10T43J	.45	.27
470	5RP10T47J	.45	.27
510	5RP10T51J	.50	.30
560	5RP10T56J	.50	.30
620	5RP10T62J	.55	.33
680	5RP10T68J	.60	.36
750	5RP10T75J	.60	.36
820	5RP10T82J	.65	.39
910	5RP10T91J	.70	.42
1000	5RP10D1J	.70	.42
1100	5RP10D11J	.75	.45
1200	5RP10D12J	.80	.48

5RP20

L 47/64 W 7/16 T 3/16

Cap. pf.	Type	List Price	Net Price
10	5RP20Q1J	$.30	$.18
12	5RP20Q12J	.30	.18
15	5RP20Q15J	.30	.18
18	5RP20Q18J	.30	.18
20	5RP20Q2J	.30	.18
22	5RP20Q22J	.30	.18
27	5RP20Q27J	.35	.21
30	5RP20Q3J	.35	.21
33	5RP20Q33J	.35	.21
36	5RP20Q36J	.35	.21
39	5RP20Q39J	.35	.21
43	5RP20Q43J	.35	.21
47	5RP20Q47J	$.35	$.21
51	5RP20Q51J	.40	.24
56	5RP20Q56J	.40	.24
62	5RP20Q62J	.40	.24
68	5RP20Q68J	.40	.24
75	5RP20Q75J	.40	.24
82	5RP20Q82J	.45	.27
91	5RP20Q91J	.45	.27
100	5RP20T1J	.45	.27
110	5RP20T11J	.50	.30
120	5RP20T12J	.50	.30
130	5RP20T13J	$.55	$.33
150	5RP20T15J	.55	.33
180	5RP20T18J	.65	.39
200	5RP20T2J	.65	.39
220	5RP20T22J	.65	.39
240	5RP20T24J	.70	.42
270	5RP20T27J	.75	.45
300	5RP20T3J	.80	.48
330	5RP20T33J	.90	.54
360	5RP20T36J	.95	.57
390	5RP20T39J	1.00	.60

1DRP20

L 51/64 W 51/64 T 5/16

Cap. pf.	Type	List Price	Net Price
430	1DRP20T43J	$.90	$.54
510	1DRP20T51J	.95	.57
560	1DRP20T56J	1.05	.63
620	1DRP20T62J	1.15	.69
680	1DRP20T68J	1.25	.75
750	1DRP20T75J	$1.30	$ .78
820	1DRP20T82J	1.40	.84
910	1DRP20T91J	1.60	.96
1000	1DRP20D1J	1.65	.99
1200	1DRP20D12J	$1.95	$1.17
1500	1DRP20D15J	2.40	1.44
1800	1DRP20D18J	2.85	1.71
2000	1DRP20D2J	3.10	1.86

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Mica Capacitors

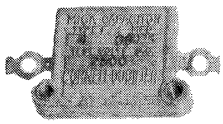
CDE CORNELL-DUBILIER

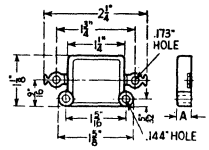
LOW-POWER MOLDED MICA

Class	Type
203 • 40-42	4, 9

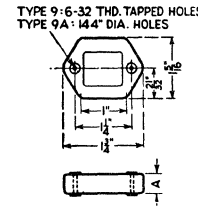
Type 4
The type 4 low power molded mica capacitor is provided with solder lugs and separate mounting holes. Standard tolerance is ±10%. Frequently used in meter by-passing.

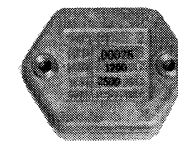
Type 9
The type 9 low power molded mica capacitor is provided with tapped terminal holes which also serve as a means of mounting the unit. Standard tolerance is ±10%.





Type 4





Type 9

TYPE 4 — Depth (dim. A) 11/32" except units indicated * 7/16" deep.

Cap. Mfd.	Type	List Price	Net Price
1200 V D.C. Test — 600 V D.C. Working			
.00005	4-14050	$1.20	$ .72
.0001	4-13010	1.20	.72
.0002	4-13020	1.20	.72
.00025	4-13025	1.20	.72
.0003	4-13030	1.20	.72
.0004	4-13040	1.20	.72
.0005	4-13050	1.20	.72
.001	4-12010	1.20	.72
.0015	4-12015	1.20	.72
.002	4-12020	1.30	.78
.0025	4-12025	1.30	.78
.003	4-12030	1.45	.87
.004	4-12040	1.50	.90
.005	4-12050	1.55	.93
.006	4-12060	1.80	1.08
.007	4-12070	1.85	1.11
.008	4-12080	1.90	1.14
.01	4-11010	2.15	1.29
.015	4-11015*	2.65	1.59
.02	4-11020*	3.05	1.83

Cap. Mfd.	Type	List Price	Net Price
1200 V D.C. Test — 600 V D.C. Working			
.025	4-11025*	$3.60	$2.16
.03	4-11030*	4.45	2.67
2500 V D.C. Test — 1200 V D.C. Working			
.00005	4-24050	$1.60	$ .96
.0001	4-23010	1.60	.96
.0002	4-23020	1.60	.96
.00025	4-23025	1.60	.96
.0003	4-23030	1.60	.96
.0005	4-23050	1.60	.96
.001	4-22010	1.80	1.08
.0015	4-22015	2.30	1.38
.002	4-22020	2.40	1.44
.0025	4-22025	2.80	1.68
.003	4-22030	3.05	1.83
.004	4-22040*	3.05	1.83
.005	4-22050*	3.30	1.98
.006	4-22060*	3.30	1.98

Cap. Mfd.	Type	List Price	Net Price
2500 V D.C. Test — 1200 V D.C. Working			
.008	4-22080*	$3.85	$2.31
.01	4-21010*	5.10	3.06
5000 V D.C. Test — 2500 V D.C.Working			
.00005	4-54050	$1.90	$1.14
.0001	4-53010	1.90	1.14
.0002	4-53020	1.90	1.14
.00025	4-53025	2.20	1.32
.0003	4-53030	2.25	1.35
.0005	4-53050	2.50	1.50
.001	4-52010	2.80	1.68
.0015	4-52015	3.55	2.13
.002	4-52020*	4.15	2.49
.0025	4-52025*	4.50	2.70
.003	4-52030*	4.90	2.94
.004	4-52040*	5.65	3.39
.005	4-52050*	6.40	3.84

TYPE 9 — Depth (dim. A) 7/16" except units indicated * 47/64" deep.

Cap. Mfd.	Type	List Price	Net Price
1200 V D.C. Test — 600 V D.C. Working			
.00005	9-14050	$1.45	$ .87
.0001	9-13010	1.45	.87
.00025	9-13025	1.45	.87
.0005	9-13050	1.45	.87
.001	9-12010	1.45	.87
.002	9-12020	1.65	.99
.0025	9-12025	1.70	1.02
.003	9-12030	1.85	1.11
.004	9-12040	2.00	1.20
.005	9-12050	2.10	1.26
.006	9-12060	2.20	1.32
.008	9-12080	2.45	1.47
.01	9-11010	2.80	1.68
.015	9-11015	3.05	1.83
.02	9-11020	3.55	2.13
.025	9-11025	4.35	2.61
.03	9-11030	4.55	2.73
.04	9-11040*	5.85	3.51
.05	9-11050*	7.10	4.26
.06	9-11060*	8.05	4.83

Cap. Mfd.	Type	List Price	Net Price
2500 V D.C. Test — 1200 V D.C. Working			
.00005	9-24050	$1.60	$ .96
.0001	9-23010	1.60	.96
.00025	9-23025	1.60	.96
.0005	9-23050	1.60	.96
.001	9-22010	1.90	1.14
.002	9-22020	2.50	1.50
.0025	9-22025	2.80	1.68
.003	9-22030	2.95	1.77
.004	9-22040	3.10	1.86
.005	9-22050	3.30	1.98
.006	9-22060	3.45	2.07
.008	9-22080	4.10	2.46
.01	9-21010	4.70	2.82
.015	9-21015*	5.80	3.48
.02	9-21020*	7.05	4.23
.025	9-21025*	7.90	4.74
.03	9-21030*	8.10	4.86

Cap. Mfd.	Type	List Price	Net Price
5000 V D.C. Test — 2500 V D.C. Working			
.00005	9-54050	$1.90	$1.14
.0001	9-53010	1.90	1.14
.00025	9-53025	2.15	1.29
.0005	9-53050	2.55	1.53
.001	9-52010	2.90	1.74
.002	9-52020	4.25	2.55
.0025	9-52025	4.60	2.76
.003	9-52030	5.10	3.06
.004	9-52040	5.65	3.39
.005	9-52050*	6.20	3.72
.006	9-52060*	6.35	3.81
.008	9-52080*	6.85	4.11
.01	9-51010*	7.30	4.38
.015	9-51015*	8.05	4.83

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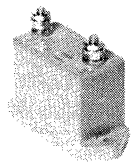
CDE CORNELL-DUBILIER

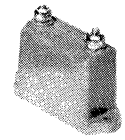
Mica Capacitors

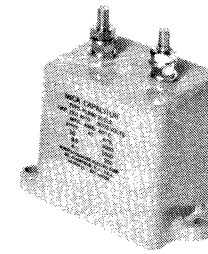
Type	Class
6, 15, 30B	203 • 50

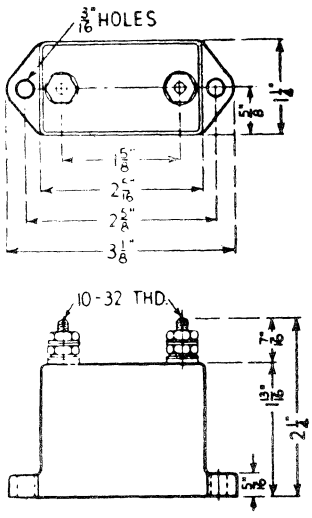
MEDIUM POWER PLASTIC CASED MICA

These medium power plastic cased mica capacitors are frequently used as replacements in airborne and portable electronic equipment because of their small size and weight and their relatively high RF power handling capabilities. Units are encapsulated in low loss plastic cases. Voltages and operating currents at various RF frequencies are given in the tabulation. Tolerance is ±5%. Current ratings are based on 30C ambient. For higher temperatures, use the following percentages of currents shown — to 50C, 95%; up to 60C, 85%; up to 70C, 70%. Maximum operating temperature is 70C.

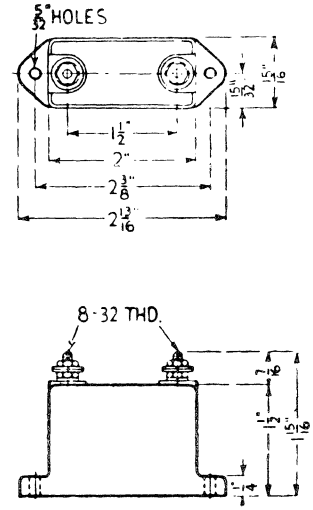








Type 6



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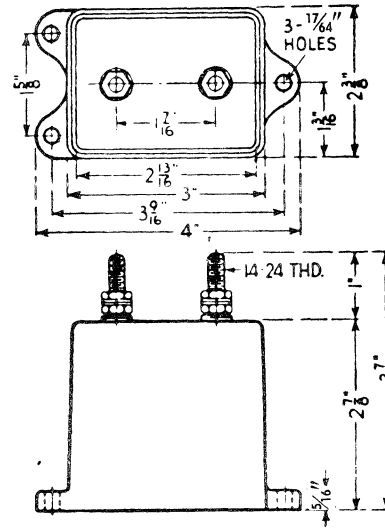

Type 30B

TYPE 6

Cap. Mfd.	Test Volt Effective	Type	Max. Oper. Cur. in Amps. 3000 kc	1000 kc	300 kc	100 kc	List Price	Net Price
.00005	5,000	**390-6**	1.5	.8	.2	.7	$17.30	**$10.38**
.0000625	5,000	**362-6**	1.8	.85	.3	.075	17.30	**10.38**
.0001	5,000	**321-6**	2.4	1.2	.47	.1	17.30	**10.38**
.00015	5,000	**395-6**	3.7	1.8	.68	.24	17.30	**10.38**
.0002	5,000	**307-6**	3.6	2.0	.82	.33	17.30	**10.38**
.00025	5,000	**364-6**	5.0	2.5	1.0	.45	17.30	**10.38**
.0003	5,000	**294A-6**	3.9	2.7	1.1	.51	17.30	**10.38**
.0004	5,000	**283-6**	4.3	2.7	1.3	.62	17.30	**10.38**
.0005	5,000	**272-6**	4.7	3.3	1.7	.8	17.30	**10.38**
.0006	5,000	**266-6**	5.1	3.6	1.8	.8	17.30	**10.38**
.00075	5,000	**654-6**	5.6	3.9	2.2	.91	17.30	**10.38**
.0008	5,000	**599-6**	6.0	4.0	2.3	1.0	17.30	**10.38**
.001	5,000	**246-6**	6.2	4.3	2.4	1.2	17.30	**10.38**
.0015	5,000	**234-6**	6.8	5.1	3.3	1.5	17.30	**10.38**
.002	3,000	**215-6**	6.0	3.0	1.5	.8	17.30	**10.38**
.002	6,000	**217-6**	9.0	6.2	4.0	2.0	17.30	**10.38**
.0025	5,000	**473-6**	9.0	6.2	4.3	2.0	17.30	**10.38**
.003	3,000	**197-6**	8.2	6.8	4.7	2.2	17.30	**10.38**

Cap. Mfd.	Test Volt Effective	Type	Max. Oper. Cur. in Amps. 3000 kc	1000 kc	300 kc	100 kc	List Price	Net Price
.004	3,000	**184-6**	9.1	7.5	5.6	2.7	$17.30	**$10.38**
.005	2,000	**173-6**	8.0	5.0	3.0	1.5	17.30	**10.38**
.005	3,000	**474-6**	9.1	8.2	6.2	3.0	17.30	**10.38**
.0075	2,000	**565-6**	10.0	9.1	6.8	3.9	17.30	**10.38**
.008	2,000	**476-6**	11.0	9.0	7.0	3.0	17.30	**10.38**
.008	3,000	**162-6**	10.0	10.0	7.5	3.9	17.30	**10.38**
.01	2,000	**151-6**	11.0	11.0	8.2	4.3	17.30	**10.38**
.015	1,500	**140-6**	12.0	10.0	7.0	4.0	17.30	**10.38**
.015	2,000	**784-6**	12.0	12.0	10.0	5.1	17.30	**10.38**
.02	2,000	**131-6**	13.0	13.0	11.0	6.2	17.30	**10.38**
.03	2,000	**479-6**	14.0	20.0	15.0	7.0	17.30	**10.38**
.04	1,500	**480-6**	15.0	16.0	13.0	7.5	17.30	**10.38**
.05	1,500	**118-6**	15.0	16.0	15.0	7.5	17.30	**10.38**
.1	500	**111-6**	15.0	18.0	15.0	8.2	19.20	**11.52**
.1	1,000	**406-6**	18.0	20.0	15.0	8.0	24.20	**14.52**
.1 x .1	250	**110-6**	20.0	20.0	15.0	10.0	24.20	**14.52**
.2	250	**105-6**	18.0	20.0	16.0	12.0	25.25	**15.15**
.25	250	**885-6**	18.0	20.0	16.0	12.0	27.90	**16.74**

(Continued on next page

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Mica & Tubular Capacitors

CDE CORNELL-DUBILIER

(Continued) MEDIUM POWER PLASTIC CASED MICA

Class	Type
203 • 50	6, 15, 30B

TYPE 15

Cap. Mfd.	Test Volt Effective	Type	Max. Oper. Cur. in Amps 3000 kc	1000 kc	300 kc	100 kc	List Price	Net Price
.00005	3,000	**639-15**	1.3	.6	.18	.06	$12.60	**$ 7.56**
.0001	3,000	**583A-15**	1.8	.75	.33	.1	12.60	**7.56**
.00015	3,000	**657-15**	2.2	1.0	.47	.18	12.60	**7.56**
.0002	3,000	**582A-15**	2.4	1.2	.62	.24	12.60	**7.56**
.00025	3,000	**805-15**	3.0	2.0	.8	.3	12.60	**7.56**
.0003	3,000	**640A-15**	3.0	1.5	.75	.36	12.60	**7.56**
.0004	3,000	**641-15**	4.0	2.0	.9	.45	12.60	**7.56**
.0005	3,000	**642-15**	4.0	2.0	1.1	.55	12.60	**7.56**
.0006	3,000	**643-15**	4.5	2.4	1.2	.6	12.60	**7.56**
.0008	3,000	**727-15**	4.5	2.7	1.5	.7	12.60	**7.56**
.001	3,000	**581B-15**	4.7	3.0	1.6	.75	12.60	**7.56**

Cap. Mfd.	Test Volt Effective	Type	Max. Oper. Cur. in Amps 3000 kc	1000 kc	300 kc	100 kc	List Price	Net Price
.0015	3,000	**679-15**	5.6	3.9	2.0	.91	$12.60	**$ 7.56**
.002	3,000	**726-15**	6.2	4.3	2.4	1.1	12.60	**7.56**
.003	3,000	**645-15**	7.5	5.0	3.0	1.5	12.60	**7.56**
.004	3,000	**699-15**	8.2	6.2	3.5	1.6	12.60	**7.56**
.005	3,000	**725-15**	8.5	6.8	4.0	2.0	12.60	**7.56**
.006	2,000	**580-15**	9.1	7.5	4.5	2.2	12.60	**7.56**
.008	1,500	**724-15**	10.0	8.2	5.0	2.3	12.60	**7.56**
.01	1,000	**677-15**	10.0	9.1	5.1	2.4	12.60	**7.56**
.02	1,000	**723-15**	11.0	11.0	7.5	3.6	14.30	**8.58**
.05	500	**722-15**	11.0	11.0	9.1	5.0	14.30	**8.58**
.1	250	**721-15**	11.0	11.0	9.1	5.6	15.10	**9.06**

TYPE 30B

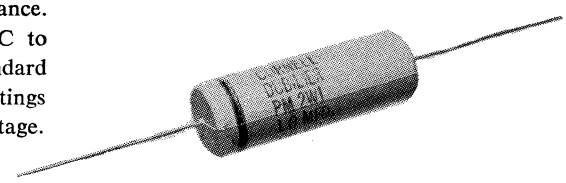
Cap. Mfd.	Test Volt Effective	Type	Max. Oper. Cur. in Amps 3000 kc	1000 kc	300 kc	100 kc	List Price	Net Price
.0001	4,000	**533-30B**	(20 Amps. at 60 mc.)		(3 Amps. at 4 mc.)		$23.50	**$14.10**
.0005	8,000	**959-30B**	8.5	6	3	1	35.25	**21.15**
.001	8,000	**960-30B**	10	8.5	4.5	1.5	32.85	**19.71**
.002	8,000	**960-30B**	11	11	7.5	2.5	38.00	**22.80**
.003	8,000	**759-30B**	12	14	10	5	40.85	**24.51**
.004	8,000	**757-30B**	12	14	10	6	41.35	**24.81**
.005	8,000	**758-30B**	13	15	11	7	48.60	**29.16**
.006	6,000	**756-30B**	15	15	11	7	48.60	**29.16**

Cap. Mfd.	Test Volt Effective	Type	Max. Oper. Cur. in Amps 3000 kc	1000 kc	300 kc	100 kc	List Price	Net Price
.01	6,000	**962-30B**	16	20	15	8	$58.35	**$35.01**
.01	8,000	**915-30B**	17	21	15	9	68.35	**41.01**
.02	5,000	**963-30B**	18	22	18	12	68.25	**41.01**
.03	4,000	**741-30B**	18	23	20	13	81.65	**48.99**
.1	2,000	**113-30B**	18	25	22	12	53.35	**32.01**
.2	600	**603-30B**	18	28	23	15	39.25	**23.55**
.25	600	**750-30B**	18	28	23	15	44.60	**26.76**
.3	600	**933-30B**	18	28	23	15	48.10	**28.86**
1.0	600	**898-30B**	18	28	23	15	108.35	**65.01**

MOLDED MYLAR* TUBULAR

Class	Type
204 • 13	PM

The type PM utilizes an all MYLAR* dielectric; has axial leads; and is molded in a low loss material which exhibits excellent moisture and humidity resistance. The case is wax-free and leakproof. Operating temperature range is —55C to 125C. Above 85C derate voltage by 10% at 100C and by 50% at 125C. Standard tolerance is ±10%. Listings are based on Parent Case Sizes and standard ratings (see page 2); check higher voltages if rating required is not shown at desired voltage.
*MYLAR is a DuPont™.



Cap. Mfd.	Type	Size (Inches D x L)	List Price	Net Price
200V DCW				
.022	**PM 2S22**	3/8 x 1 1/4	$.25	**$.15**
.047	**PM 2S47**	3/8 x 1 1/4	.25	**.15**
.05	**PM 2S5**	3/8 x 1 1/4	.25	**.15**
.1	**PM 2P1**	7/16 x 1 1/4	.35	**.21**
.15	**PM 2P15**	1/2 x 1 1/2	.35	**.21**
.22	**PM 2P22**	1/2 x 1 1/2	.40	**.24**
.25	**PM 2P25**	9/16 x 1 9/16	.40	**.24**
.47	**PM 2P47**	5/8 x 1 7/8	.60	**.36**
.50	**PM 2P5**	5/8 x 1 7/8	.60	**.36**
1.00	**PM 2W1**	3/4 x 2 1/4	1.05	**.63**
400V DCW				
.01	**PM 4S1**	5/16 x 1	.25	**.15**
.012	**PM 4S12**	3/8 x 1 1/4	.25	**.15**
.015	**PM 4S15**	3/8 x 1 1/4	.25	**.15**
.018	**PM 4S18**	3/8 x 1 1/4	.30	**.18**
.022	**PM 4S22**	3/8 x 1 1/4	.30	**.18**
.025	**PM 4S25**	3/8 x 1 1/4	.30	**.18**

Cap. Mfd.	Type	Size (Inches D x L)	List Price	Net Price
400V DCW (Continued)				
.027	**PM 4S27**	3/8 x 1 1/4	$.30	**$.18**
.033	**PM 4S33**	7/16 x 1 1/4	.30	**.18**
.039	**PM 4S39**	7/16 x 1 1/4	.30	**.18**
.047	**PM 4S47**	7/16 x 1 1/4	.30	**.18**
.05	**PM 4S5**	7/16 x 1 1/4	.30	**.18**
.056	**PM 4S56**	1/2 x 1 1/2	.30	**.18**
.068	**PM 4S68**	1/2 x 1 1/2	.35	**.21**
.082	**PM 4S82**	1/2 x 1 1/2	.35	**.21**
.1	**PM 4P1**	1/2 x 1 1/2	.35	**.21**
.12	**PM 4P12**	1/2 x 1 1/2	.40	**.24**
.15	**PM 4P15**	9/16 x 1 9/16	.40	**.24**
.18	**PM 4P18**	9/16 x 1 9/16	.40	**.24**
.22	**PM 4P22**	5/8 x 1 7/8	.45	**.27**
.25	**PM 4P25**	5/8 x 1 7/8	.50	**.30**
.27	**PM 4P27**	5/8 x 1 7/8	.55	**.33**
.33	**PM 4P33**	11/16 x 1 15/16	.60	**.36**
.39	**PM 4P39**	11/16 x 1 15/16	.65	**.39**
.47	**PM 4P47**	3/4 x 2 1/4	.75	**.45**

(Continued on next page)

Trade Discount Applies To List Prices Only
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Type PM | **Class 204 • 13**

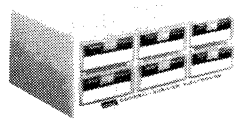
MOLDED MYLAR* TUBULAR (Continued)

Cap. Mfd.	Type	Size (Inches) D x L	List Price	Net Price
400V DCW (Continued)				
.5	**PM4P5**	¾ x 2¼	$ .75	**$.45**
.56	**PM4P56**	¾ x 2¼	.80	**.48**
.68	**PM4P68**	1 x 2⅛	.90	**.54**
.82	**PM4P82**	1 x 2⅛	1.00	**.60**
1.00	**PM4W1**	1 x 2⅛	1.25	**.75**
600V DCW				
.001	**PM6D1**	5/16 x 1	.25	**.15**
.0012	**PM6D12**	5/16 x 1	.25	**.15**
.0015	**PM6D15**	5/16 x 1	.25	**.15**
.0018	**PM6D18**	5/16 x 1	.25	**.15**
.0022	**PM6D22**	5/16 x 1	.25	**.15**
.0025	**PM6D25**	5/16 x 1	.25	**.15**
.0027	**PM6D27**	5/16 x 1	.25	**.15**
.0033	**PM6D33**	5/16 x 1	.25	**.15**
.0039	**PM6D39**	5/16 x 1	.25	**.15**
.0047	**PM6D47**	5/16 x 1	.25	**.15**
.005	**PM6D5**	5/16 x 1	.25	**.15**
.0056	**PM6D56**	5/16 x 1	.25	**.15**
.0068	**PM6D68**	5/16 x 1	.30	**.18**
.0082	**PM6D82**	⅜ x 1¼	.30	**.18**
.01	**PM6S1**	⅜ x 1¼	.30	**.18**

Cap. Mfd.	Type	Size (Inches) D x L	List Price	Net Price
600V DCW (Continued)				
.012	**PM6S12**	⅜ x 1¼	$ .30	**$.18**
.015	**PM6S15**	⅜ x 1¼	.30	**.18**
.018	**PM6S18**	⅜ x 1¼	.30	**.18**
.022	**PM6S22**	7/16 x 1¼	.30	**.18**
.025	**PM6S25**	7/16 x 1¼	.30	**.18**
.027	**PM6S27**	7/16 x 1¼	.30	**.18**
.033	**PM6S33**	7/16 x 1¼	.35	**.21**
.039	**PM6S39**	7/16 x 1¼	.35	**.21**
.047	**PM6S47**	½ x 1½	.40	**.24**
.05	**PM6S5**	½ x 1½	.40	**.24**
.056	**PM6S56**	½ x 1½	.40	**.24**
.068	**PM6S68**	½ x 1½	.45	**.27**
.082	**PM6S82**	½ x 1½	.45	**.27**
.1	**PM6P1**	9/16 x 1 9/16	.45	**.27**
.12	**PM6P12**	9/16 x 1 9/16	.45	**.27**
.15	**PM6P15**	⅝ x 1⅞	.50	**.30**
.18	**PM6P18**	⅝ x 1⅞	.60	**.36**
.22	**PM6P22**	⅝ x 1⅞	.70	**.42**
.25	**PM6P25**	11/16 x 1 15/16	.75	**.45**
.27	**PM6P27**	11/16 x 1 15/16	.80	**.48**
.33	**PM6P33**	¾ x 2¼	.90	**.54**
.39	**PM6P39**	¾ x 2¼	1.00	**.60**
.47	**PM6P47**	¾ x 2¼	1.25	**.75**
.5	**PM6P5**	¾ x 2¼	1.25	**.75**
.56	**PM6P56**	1 x 2⅛	1.30	**.78**

Type PM | **Class 204 • 13**

MOLDED MYLAR* CAPACITOR ASSORTMENT

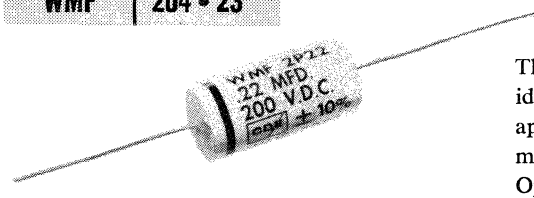


The PM molded MYLAR (DuPont™) tubular assortment contains 95 pieces of the most popular by-pass and coupling capacitor ratings. All Mylar dielectric and molded construction add up to the highest quality unit available. Units are axial lead — 600 VDCW and ±10% tolerance. Assortment includes 10 each units rated: .001 mfd; .0022 mfd; .0047 mfd; .01 mfd; .022 mfd; .047 mfd; and .1 mfd. Also five each .0033 mfd; .0068 mfd; .027 mfd; .033 mfd; and .22 mfd.

LIST PRICE $31.50 NET PRICE **$18.90** (Cabinet Free)

Type WMF | **Class 204 • 23**

WRAPPED MYLAR* TUBULAR



The type WMF axial lead, all MYLAR (DuPont™) tubular capacitor is an ideal replacement for any tubular where space is limited and requirements of the application are demanding. The WMF is a MYLAR-wrapped unit insuring minimum size and maximum moisture and humidity resistance. Tolerance is ±10%. Operating temperature range is −55C to +125C. For temperature above 85C, derate voltage 10% at 100C, and 50% at 125C.

Cap. Mfd.	Type	Size (Inches) D x L	List Price	Net Price
100V DCW				
.001	**WMF1D1**	.156 x ½	$.35	**$.21**
.0015	**WMF1D15**	.156 x ½	.35	**.21**
.0022	**WMF1D22**	.156 x ½	.35	**.21**
.0033	**WMF1D33**	.156 x ½	.35	**.21**
.0047	**WMF1D47**	.156 x ½	.35	**.21**

Cap. Mfd.	Type	Size (Inches) D x L	List Price	Net Price
100V DCW (Continued)				
.0068	**WMF1D68**	.175 x ½	$.35	**$.21**
.01	**WMF1S1**	.200 x ½	.35	**.21**
.015	**WMF1S15**	.235 x ½	.35	**.21**
.022	**WMF1S22**	.275 x ⅝	.40	**.24**
.033	**WMF1S33**	.300 x ⅝	.40	**.24**

(Continued on next page

Paper & Film Tubulars

CORNELL-DUBILIER

(Continued) WRAPPED MYLAR* TUBULAR

Class 204 • 23 | Type WMF

Cap. Mfd.	Type	Size (Inches D x L)	List Price	Net Price
100V DCW (Continued)				
.047	WMF1S47	.265 x ¾	$.45	$.27
.068	WMF1S68	.280 x ¾	.45	.27
.1	WMF1P1	.290 x ⅞	.60	.36
.15	WMF1P15	.335 x ⅞	.60	.36
.22	WMF1P22	.385 x 1	.65	.39
.33	WMF1P33	.415 x 1⅛	.75	.45
.47	WMF1P47	.475 x 1¼	.85	.51
.68	WMF1P68	.570 x 1¼	.95	.57
1.0	WMF1W1	.625 x 1½	1.45	.87
1.25	WMF1W1P25	.690 x 1½	1.75	1.05
1.5	WMF1W1P5	.770 x 1¾	2.05	1.23
2.0	WMF1W2	.955 x 1¾	2.50	1.50
200V DCW				
.001	WMF2D1	.156 x ½	.35	.21
.0015	WMF2D15	.156 x ½	.35	.21
.0022	WMF2D22	.156 x ½	.35	.21
.0033	WMF2D33	.160 x ½	.35	.21
.0047	WMF2D47	.170 x ½	.35	.21
.0068	WMF2D68	.200 x ½	.35	.21
.01	WMF2S1	.230 x ½	.35	.21
.015	WMF2S15	.290 x ½	.35	.21
.022	WMF2S22	.275 x ⅝	.40	.24
.033	WMF2S33	.270 x ¾	.40	.24
.047	WMF2S47	.320 x ¾	.45	.27
.068	WMF2S68	.350 x ¾	.45	.27
.1	WMF2P1	.410 x ⅞	.60	.36
.15	WMF2P15	.500 x ⅞	.60	.36
.22	WMF2P22	.500 x 1⅛	.65	.39
.33	WMF2P33	.550 x 1⅛	.75	.45
.47	WMF2P47	.600 x 1¼	.85	.51
.68	WMF2P68	.650 x 1⅝	.95	.57
1.0	WMF2W1	.750 x 1¾	1.45	.87
1.25	WMF2W1P25	.825 x 1¾	1.75	1.05
1.5	WMF2W1P5	.900 x 1¾	2.05	1.23
2.0	WMF2W2	.980 x 1⅞	2.50	1.50
400V DCW				
.001	WMF4D1	.156 x ⅝	.35	.21
.0015	WMF4D15	.156 x ⅝	.35	.21
.0022	WMF4D22	.156 x ⅝	.35	.21
.0033	WMF4D33	.190 x ⅝	.40	.24

Cap. Mfd.	Type	Size (Inches D x L)	List Price	Net Price
400V DCW (Continued)				
.0047	WMF4D47	.200 x ⅝	$.40	$.24
.0068	WMF4D68	.250 x ⅝	.40	.24
.01	WMF4S1	.300 x ⅝	.45	.27
.015	WMF4S15	.360 x ⅝	.45	.27
.022	WMF4S22	.320 x ¾	.45	.27
.033	WMF4S33	.350 x ⅞	.45	.27
.047	WMF4S47	.400 x ⅞	.50	.30
.068	WMF4S68	.390 x 1	.55	.33
.1	WMF4P1	.465 x 1	.55	.33
.15	WMF4P15	.515 x 1¼	.60	.36
.22	WMF4P22	.565 x 1⅜	.70	.42
.33	WMF4P33	.600 x 1⅝	1.10	.66
.47	WMF4P47	.700 x 1⅝	1.30	.78
.68	WMF4P68	.790 x 1¾	1.60	.96
1.0	WMF4W1	.875 x 2	2.00	1.20
1.25	WMF4W1P25	.950 x 2	2.30	1.38
1.5	WMF4W1P5	.975 x 2¼	2.60	1.56
2.0	WMF4W2	1.250 x 2¼	3.40	2.04
600V DCW				
.001	WMF6D1	.170 x ¾	.40	.24
.0015	WMF6D15	.170 x ¾	.40	.24
.0022	WMF6D22	.187 x ¾	.40	.24
.0033	WMF6D33	.203 x ¾	.40	.24
.0047	WMF6D47	.234 x ¾	.45	.27
.0068	WMF6D68	.265 x ¾	.45	.27
.01	WMF6S1	.290 x ¾	.50	.30
.015	WMF6S15	.312 x ⅞	.50	.30
.022	WMF6S22	.325 x ⅞	.50	.30
.033	WMF6S33	.350 x 1	.50	.30
.047	WMF6S47	.415 x 1	.55	.33
.068	WMF6S68	.500 x 1	.60	.36
.1	WMF6P1	.520 x 1⅜	.70	.42
.15	WMF6P15	.625 x 1⅜	.75	.45
.22	WMF6P22	.660 x 1⅝	.85	.51
.33	WMF6P33	.687 x 2	1.50	.90
.47	WMF6P47	.855 x 2	1.90	1.14
.68	WMF6P68	.970 x 2	2.55	1.53
1.0	WMF6W1	1.165 x 2½	4.25	2.55
1.25	WMF6W1P25	1.340 x 2½	4.80	2.88
1.5	WMF6W1P5	1.275 x 3	5.80	3.48
2.0	WMF6W2	1.460 x 3	7.30	4.38

WRAPPED MYLAR* CAPACITOR ASSORTMENTS

Class 204 • 23 | Type WMF

100V ASSORTMENT

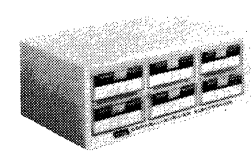
The 100 volt WMF assortment contains 5 each of the 11 most popular values of film-wrapped tubular capacitors. The film-wrapped unit insures minimum size compatible with demanding requirements. Units featured in the assortment include 5 each of WMF's rated .001 mfd; .0022 mfd; .0047 mfd; .01 mfd; .015 mfd; .022 mfd; .033 mfd; .047 mfd; .1 mfd; .22 mfd; and .47 mfd. All units are rated 100 VDCW.

List Price $22.50 Net Price **$15.30** (Cabinet Free)

600V ASSORTMENT

The 600 volt WMF assortment also contains 55 pieces of the most popular replacement units. The units are an ultra-compact capacitor with a tough film wrap and non-porous end seals. The assortment contains 5 each of 600 VDCW WMF's rated .001 mfd; .0022 mfd; .0047 mfd; .01 mfd; .015 mfd; .022 mfd; .047 mfd; .1 mfd; .22 mfd; .33 mfd; and .47 mfd.

List Price $41.25 Net Price **$24.75** (Cabinet Free)



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CDE CORNELL-DUBILIER

Paper & Film Tubulars

Type	Class
PKM	204 • 33

MOLDED PAPER-MYLAR* TUBULAR

The type PKM is a molded tubular capacitor of the highest quality. It features a high dielectric strength Kraft paper coupled with a MYLAR (DuPont™) dielectric for the highest dielectric strength possible. The axial lead unit is molded in a high impact resistant case which is also highly moisture and humidity resistant. Ratings listed below are based on EIA Standard Ratings and on Parent Case Sizes (see page 2). Check the higher voltages if the rating listed is not available in the voltage desired. Also check the nearest standard rating. Tolerance is ±10% and operating temperature range to 125C without derating.

Cap. Mfd.	Type	Size (Inches D x L)	List Price	Net Price
		400V DCW		
.0039	PKM4D39	5/16 x 1	$.30	$.17
.0047	PKM4D47	5/16 x 1	.30	.17
.0056	PKM4D56	5/16 x 1	.30	.17
.0068	PKM4D68	5/16 x 1	.30	.17
.0082	PKM4D82	5/16 x 1	.30	.17
.01	PKM4S1	5/16 x 1	.25	.15
.012	PKM4S12	5/16 x 1	.25	.15
.015	PKM4S15	3/8 x 1 1/4	.25	.15
.018	PKM4S18	3/8 x 1 1/4	.30	.18
.022	PKM4S22	3/8 x 1 1/4	.30	.18
.027	PKM4S27	3/8 x 1 1/4	.30	.18
.033	PKM4S33	3/8 x 1 1/4	.30	.18
.039	PKM4S39	3/8 x 1 1/4	.30	.18
.047	PKM4S47	7/16 x 1 1/4	.30	.18
.056	PKM4S56	7/16 x 1 1/4	.30	.18
.068	PKM4S68	7/16 x 1 1/4	.35	.21
.082	PKM4S82	1/2 x 1 1/2	.35	.21
.1	PKM4P1	1/2 x 1 1/2	.35	.21
.12	PKM4P12	1/2 x 1 1/2	.40	.24
.15	PKM4P15	1/2 x 1 1/2	.40	.24
.18	PKM4P18	9/16 x 1 9/16	.40	.24
.22	PKM4P22	5/8 x 1 7/8	.45	.27
.27	PKM4P27	5/8 x 1 7/8	.55	.33
.33	PKM4P33	11/16 x 1 15/16	.60	.36
.39	PKM4P39	11/16 x 1 15/16	.65	.39
.47	PKM4P47	11/16 x 1 15/16	.75	.45
.56	PKM4P56	3/4 x 2 1/4	.80	.48
.68	PKM4P68	3/4 x 2 1/4	.90	.54
.82	PKM4P82	1 x 2 1/8	1.00	.60
1.0	PKM4W1	1 x 2 1/8	1.25	.75
		600V DCW		
.001	PKM6D1	5/16 x 1	.25	.15
.0012	PKM6D12	5/16 x 1	.25	.15
.0015	PKM6D15	5/16 x 1	.25	.15
.0018	PKM6D18	5/16 x 1	.25	.15
.0022	PKM6D22	5/16 x 1	.25	.15
.0027	PKM6D27	5/16 x 1	.25	.15
.0033	PKM6D33	5/16 x 1	.25	.15
.0039	PKM6D39	3/8 x 1 1/4	.25	.15
.0047	PKM6D47	3/8 x 1 1/4	.25	.15
.0056	PKM6D56	3/8 x 1 1/4	.25	.15
.0068	PKM6D68	3/8 x 1 1/4	.25	.15
.0082	PKM6D82	3/8 x 1 1/4	.30	.18
.01	PKM6S1	3/8 x 1 1/4	.30	.18
.012	PKM6S12	3/8 x 1 1/4	.30	.18
.015	PKM6S15	3/8 x 1 1/4	.30	.18

Cap. Mfd.	Type	Size (Inches D x L)	List Price	Net Price
		600V DCW (Continued)		
.018	PKM6S18	3/8 x 1 1/4	$.30	$.18
.022	PKM6S22	3/8 x 1 1/4	.30	.18
.027	PKM6S27	7/16 x 1 1/4	.30	.18
.033	PKM6S33	7/16 x 1 1/4	.35	.21
.039	PKM6S39	1/2 x 1 1/2	.35	.21
.047	PKM6S47	1/2 x 1 1/2	.40	.24
.056	PKM6S56	1/2 x 1 1/2	.40	.24
.068	PKM6S68	1/2 x 1 1/2	.45	.27
.082	PKM6S82	9/16 x 1 9/16	.45	.27
.1	PKM6P1	9/16 x 1 9/16	.45	.27
.12	PKM6P12	5/8 x 1 7/8	.45	.27
.15	PKM6P15	5/8 x 1 7/8	.50	.30
.18	PKM6P18	11/16 x 1 15/16	.60	.36
.22	PKM6P22	11/16 x 1 15/16	.70	.42
.27	PKM6P27	11/16 x 1 15/16	.80	.48
.33	PKM6P33	3/4 x 2 1/4	.90	.54
.39	PKM6P39	3/4 x 2 1/4	1.00	.60
.47	PKM6P47	1 x 2 1/8	1.25	.75
.56	PKM6P56	1 x 2 1/8	1.30	.78
.68	PKM6P68	1 x 2 1/8	1.45	.86
		1000V DCW		
.001	PKM10D1	5/16 x 1	.50	.30
.005	PKM10D5	3/8 x 1 1/4	.50	.30
.0068	PKM10D68	7/16 x 1 1/4	.50	.30
.01	PKM10S1	7/16 x 1 1/4	.50	.30
.015	PKM10S15	1/2 x 1 1/2	.50	.30
.022	PKM10S22	1/2 x 1 1/2	.50	.30
.033	PKM10S33	1/2 x 1 1/2	.50	.30
.047	PKM10S47	9/16 x 1 9/16	.60	.36
.05	PKM10S5	9/16 x 1 9/16	.60	.36
.068	PKM10S68	5/8 x 1 7/8	.70	.42
.1	PKM10P1	11/16 x 1 15/16	.75	.45
		1600V DCW		
.001	PKM16D1	3/8 x 1 1/4	.65	.39
.0015	PKM16D15	3/8 x 1 1/4	.65	.39
.0022	PKM16D22	3/8 x 1 1/4	.65	.39
.0033	PKM16D33	3/8 x 1 1/4	.65	.39
.0047	PKM16D47	3/8 x 1 1/4	.65	.39
.005	PKM16D5	3/8 x 1 1/4	.65	.39
.0068	PKM16D68	7/16 x 1 1/4	.65	.39
.0082	PKM16D82	7/16 x 1 1/4	.65	.39
.01	PKM16S1	1/2 x 1 1/2	.70	.42
.015	PKM16S15	1/2 x 1 1/2	.70	.42
.022	PKM16S22	5/8 x 1 7/8	.70	.42
.033	PKM16S33	5/8 x 1 7/8	.70	.42
.047	PKM16S47	5/8 x 1 7/8	.90	.54
.05	PKM16S5	5/8 x 1 7/8	.90	.54

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Paper & Film Tubulars

CDE CORNELL-DUBILIER

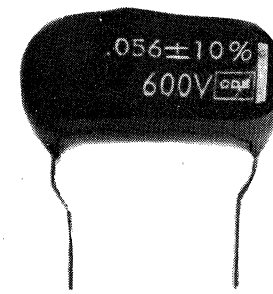
DIPPED PAPER-MYLAR* TUBULAR CAPACITORS

Class 204 • 37 | Type DPMS

The radial lead DPMS capacitor is also suitable for point to point assembly when desired. The multiple dipped unit has a dielectric of high strength Kraft paper and MYLAR (DuPont™). Ratings listed are based on Standard Ratings and on Parent Case Sizes (see page 2). Always check the nearest standard rating and next highest voltage ratings to obtain maximum value. Tolerance is ±10% and maximum temp., 125C at full rated voltage.

LEAD SPACING

Case Length	Lead Spacing	Case Length	Lead Spacing
.690	.250	1.180	.719
.855	.438	1.300	.844
.870	.438	1.560	1.094
1.150	.719	1.600	1.094
1.160	.719		



Cap. Mfd.	Type	Size (Inches D x L)	List Price	Net Price
200V DCW				
.022	DPMS 2S22	.350 x .855	$.25	$.15
.047	DPMS 2S47	.450 x .855	.30	.18
.10	DPMS 2P1	.470 x 1.180	.35	.21
.15	DPMS 2P15	.540 x 1.180	.40	.24
.22	DPMS 2P22	.590 x 1.300	.45	.27
.47	DPMS 2P47	.730 x 1.600	.60	.36
400V DCW				
.01	DPMS 4S1	.390 x .690	.25	.15
.015	DPMS 4S15	.430 x .690	.25	.15
.02	DPMS 4S2	.390 x .855	.30	.18
.022	DPMS 4S22	.400 x .855	.30	.18
.033	DPMS 4S33	.440 x .855	.30	.18
.047	DPMS 4S47	.415 x 1.150	.35	.21
.05	DPMS 4S5	.415 x 1.150	.35	.21
.068	DPMS 4S68	.440 x 1.180	.40	.24
.1	DPMS 4P1	.520 x 1.180	.40	.24
.15	DPMS 4P15	.560 x 1.300	.50	.30
.22	DPMS 4P22	.620 x 1.560	.60	.36
.25	DPMS 4P25	.650 x 1.560	.60	.36
600V DCW				
.001	DPMS 6D1	.340 x .690	.25	.15
.0012	DPMS 6D12	.340 x .690	.25	.15
.0015	DPMS 6D15	.340 x .690	.25	.15
.002	DPMS 6D2	.340 x .690	.25	.15
.0022	DPMS 6D22	.340 x .690	.25	.15
.0025	DPMS 6D25	.350 x .690	.25	.15
.0027	DPMS 6D27	.370 x .690	.25	.15
.0033	DPMS 6D33	.370 x .690	.25	.15
.0039	DPMS 6D39	.370 x .690	.25	.15
.0047	DPMS 6D47	.400 x .690	.25	.15
.005	DPMS 6D5	.400 x .690	.25	.15
.0056	DPMS 6D56	.415 x .690	.25	.15
.0068	DPMS 6D68	.430 x .690	.30	.18
.0075	DPMS 6D75	.370 x .870	.30	.18
.0082	DPMS 6D82	.370 x .870	.30	.18

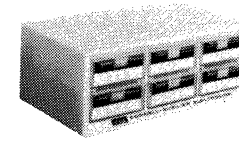
Cap. Mfd.	Type	Size (Inches D x L)	List Price	Net Price
600V DCW (Continued)				
.01	DPMS 6S1	.390 x .870	$.30	$.18
.012	DPMS 6S12	.400 x .870	.30	.18
.015	DPMS 6S15	.415 x .870	.30	.18
.02	DPMS 6S2	.445 x .870	.30	.18
.022	DPMS 6S22	.470 x .870	.30	.18
.025	DPMS 6S25	.400 x 1.150	.35	.21
.027	DPMS 6S27	.415 x 1.150	.35	.21
.03	DPMS 6S3	.415 x 1.150	.35	.21
.033	DPMS 6S33	.430 x 1.150	.35	.21
.039	DPMS 6S39	.470 x 1.150	.35	.21
.047	DPMS 6S47	.490 x 1.150	.35	.21
.05	DPMS 6S5	.490 x 1.150	.40	.24
.056	DPMS 6S56	.520 x 1.180	.40	.24
.068	DPMS 6S68	.540 x 1.300	.45	.27
.075	DPMS 6S75	.570 x 1.300	.45	.27
.082	DPMS 6S82	.590 x 1.300	.45	.27
.1	DPMS 6P1	.640 x 1.300	.45	.27
.15	DPMS 6P15	.650 x 1.560	.55	.33
.22	DPMS 6P22	.750 x 1.560	.70	.42
.25	DPMS 6P25	.830 x 1.560	.70	.42
1600V DCW				
.001	DPMS 16D1	.350 x .870	.35	.21
.0015	DPMS 16D15	.375 x .870	.35	.21
.0018	DPMS 16D18	.400 x .870	.35	.21
.0022	DPMS 16D22	.420 x .870	.35	.21
.0033	DPMS 16D33	.480 x .870	.40	.24
.0047	DPMS 16D47	.540 x .870	.40	.24
.0068	DPMS 16D68	.460 x 1.180	.45	.27
.0075	DPMS 16D75	.495 x 1.180	.45	.27
.01	DPMS 16S1	.525 x 1.180	.50	.30
.015	DPMS 16S15	.560 x 1.300	.55	.33
.022	DPMS 16S22	.585 x 1.600	.70	.42
.033	DPMS 16S33	.695 x 1.600	.80	.48
.04	DPMS 16S4	.735 x 1.600	.80	.48

DIPPED PAPER-MYLAR* ASSORTMENT

Class 204 • 37 | Type DPMS

The DPMS capacitor assortment contains 95 of the most popular paper-MYLAR (DuPont™) units currently used in color TV and other demanding applications. All units are rated 600 VDCW with a tolerance of ±10% and a maximum temperature of 125C at full rated voltage. The assortment includes 10 each of DPMS units rated .001 mfd; .0022 mfd; .0047 mfd; .01 mfd; .022 mfd; .047 mfd; and .1 mfd. It also includes 5 each of DPMS units rated .0033 mfd; .0068 mfd; .027 mfd; .033 mfd; and .22 mfd.

List Price $31.25 **Net Price $18.75 (Cabinet Free)**



* DuPont TM

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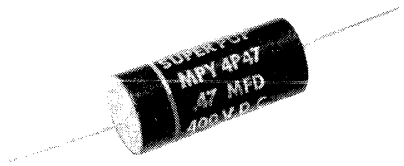
CDE CORNELL-DUBILIER

Metallized & AC Capacitors

Type	Class
MPY	207 • 04

METALLIZED PAPER CAPACITORS



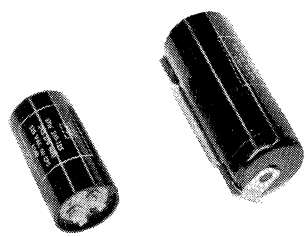
The type MPY is a high quality metallized paper dielectric capacitor enclosed in CDE's Tri-Clad case . . . cardboard backed with film and aluminum foil. The case insures maximum moisture and humidity resistance and the construction, minimum size. The MPY is an ideal replacement for metal or non-metal case tubular metallized capacitors. The wax free, non-leaking capacitor has a maximum operating temperature of 125C without derating. Standard tolerance is ±20%.

Cap. Mfd.	Type	Size (Inches D x L)	List Price	Net Price
200V DCW				
.022	**MPY2S22**	¼ x ⅝	$.75	**$.45**
.033	**MPY2S33**	¼ x ⅝	.75	**.45**
.047	**MPY2S47**	¼ x ⅝	.75	**.45**
.068	**MPY2S68**	5/16 x ⅝	.80	**.48**
.1	**MPY2P1**	⅜ x ⅝	.85	**.51**
.15	**MPY2P15**	⅜ x ⅝	.95	**.57**
.22	**MPY2P22**	15/32 x ⅝	1.05	**.63**
.33	**MPY2P33**	⅜ x 1⅛	1.15	**.69**
.47	**MPY2P47**	7/16 x 1⅛	1.25	**.75**
.68	**MPY2P68**	15/32 x 1⅛	1.50	**.90**
1.0	**MPY2W1**	9/16 x 1⅛	1.80	**1.08**
1.5	**MPY2W1P5**	9/16 x 1 7/16	2.10	**1.26**
2.0	**MPY2W2**	⅝ x 1 7/16	2.45	**1.47**
400V DCW				
.015	**MPY4S15**	¼ x ⅝	.75	**.45**
.022	**MPY4S22**	5/16 x ⅝	.75	**.45**
.033	**MPY4S33**	⅜ x ⅝	.75	**.45**
.047	**MPY4S47**	7/16 x ⅝	.80	**.48**
.068	**MPY4S68**	15/32 x ⅝	.85	**.51**
.1	**MPY4P1**	⅜ x 1⅛	.95	**.57**
.15	**MPY4P15**	7/16 x 1⅛	1.05	**.63**
.22	**MPY4P22**	½ x 1⅛	1.20	**.72**
.33	**MPY4P33**	⅝ x 1⅛	1.40	**.84**

Cap. Mfd.	Type	Size (Inches D x L)	List Price	Net Price
400V DCW (Continued)				
.47	**MPY4P47**	⅝ x 1 7/16	$1.60	**$.96**
.68	**MPY4P68**	⅝ x 1 13/16	1.90	**1.14**
1.0	**MPY4W1**	1 1/16 x 1 13/16	2.20	**1.32**
1.5	**MPY4W1P5**	23/32 x 2⅜	2.55	**1.53**
2.0	**MPY4W2**	13/16 x 2⅜	2.90	**1.74**
600V DCW				
.01	**MPY6S1**	¼ x ⅝	.75	**.45**
.015	**MPY6S15**	5/16 x ⅝	.80	**.48**
.022	**MPY6S22**	⅜ x ⅝	.80	**.48**
.033	**MPY6S33**	⅜ x ⅝	.85	**.51**
.047	**MPY6S47**	15/32 x ⅝	.90	**.54**
.068	**MPY6S68**	⅜ x 1⅛	.95	**.57**
.1	**MPY6P1**	⅜ x 1⅛	1.00	**.60**
.15	**MPY6P15**	15/32 x 1⅛	1.25	**.75**
.22	**MPY6P22**	9/16 x 1⅛	1.35	**.81**
.33	**MPY6P33**	⅝ x 1⅛	1.75	**1.05**
.47	**MPY6P47**	⅝ x 1 7/16	1.90	**1.14**
.68	**MPY6P68**	⅝ x 1 13/16	2.10	**1.26**
1.0	**MPY6W1**	23/32 x 1 13/16	2.40	**1.44**
1.5	**MPY6W1P5**	13/16 x 2⅜	3.00	**1.80**
2.0	**MPY6W2**	29/32 x 2⅜	3.50	**2.10**

Type	Class
ETW	209 • 01

AC ELECTROLYTIC (MOTOR START) CAPACITORS



Although not designed for electronic applications, these units have been included at the request of many service technicians who also service major appliances and air conditioners. The type ETW is widely used in original equipment and as replacements in motor starting applications. The AC voltage rating is an intermittent rating based on a duty cycle not exceeding twenty 3 second periods per hour. Maximum operating temperature at the recommended duty cycle is 65C. Operation to 85C is permissible at reduced duty cycle or voltage. The ETW is a plastic cased unit with 3 way terminals. End caps and brackets are available as accessories.

Cap. Mfd.	Type	Size (Inches D x L)	List Price	Net Price
110V 50-60 cps.				
72-88	**ETW 72-110**	1 1/16 x 2¾	$2.30	**$1.38**
88-106	**ETW 88-110**	1 1/16 x 2¾	2.60	**1.56**
107-129	**ETW107-110**	1 1/16 x 2¾	2.85	**1.72**
130-156	**ETW130-110**	1 1/16 x 2¾	2.95	**1.78**
145-162	**ETW145-110**	1 1/16 x 2¾	3.20	**1.92**
161-193	**ETW161-110**	1 1/16 x 3⅜	3.25	**1.96**
189-227	**ETW189-110**	1 1/16 x 3⅜	3.75	**2.26**
243-270	**ETW243-110**	1 1/16 x 3⅜	4.70	**2.82**
270-324	**ETW270-110**	1 13/16 x 3⅜	4.75	**2.86**
324-360	**ETW324-110**	1 13/16 x 3⅜	5.40	**3.24**

Cap. Mfd.	Type	Size (Inches D x L)	List Price	Net Price
110V 50-60 cps. (Continued)				
340-408	**ETW340-110**	1 13/16 x 3⅜	$5.55	**$3.34**
400-480	**ETW400-110**	1 13/16 x 3⅜	6.05	**3.64**
460-540	**ETW460-110**	1 13/16 x 4⅜	7.60	**4.56**
125V 50-60 cps.				
72-88	**ETW 72-125**	1 1/16 x 2¾	2.60	**1.56**
88-106	**ETW 88-125**	1 1/16 x 2¾	2.75	**1.66**
124-138	**ETW124-125**	1 1/16 x 2¾	3.25	**1.96**
145-162	**ETW145-125**	1 1/16 x 2¾	3.65	**2.20**
189-227	**ETW189-125**	1 1/16 x 3⅜	4.30	**2.58**

(Continued on next page)

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AC Capacitors

CDE CORNELL-DUBILIER

(Continued) AC ELECTROLYTIC (MOTOR START)

Class 209 • 01 | Type ETW

Cap. Mfd.	Type	Size (Inches D x L)	List Price	Net Price
125V 50-60 cps. (Continued)				
243-270	**ETW243-125**	1 13/16 x 3 3/8	$5.20	**$3.12**
270-324	**ETW270-125**	1 13/16 x 3 3/8	5.40	**3.24**
340-408	**ETW340-125**	1 13/16 x 3 3/8	6.50	**3.90**
378-420	**ETW378-125**	1 13/16 x 3 3/8	6.75	**4.06**
400-480	**ETW400-125**	1 13/16 x 3 3/8	6.85	**4.12**
540-600	**ETW540-125**	1 13/16 x 4 3/8	8.15	**4.90**
590-700	**ETW590-125**	1 13/16 x 4 3/8	8.55	**5.13**
220V 50-60 cps.				
25-30	**ETW 25-220**	1 7/16 x 3 3/8	4.60	**2.76**
43-53	**ETW 43-220**	1 7/16 x 3 3/8	5.55	**3.33**
64-77	**ETW 64-220**	1 13/16 x 3 3/8	6.75	**4.05**
88-108	**ETW 88-220**	1 13/16 x 4 3/8	7.65	**4.59**

Cap. Mfd.	Type	Size (Inches D x L)	List Price	Net Price
220V 50-60 cps. (Continued)				
108-130	**ETW108-220**	1 13/16 x 4 3/8	$7.75	**$4.65**
130-156	**ETW130-220**	2 1/16 x 4 3/8	8.55	**5.13**
145-175	**ETW145-220**	2 1/16 x 4 3/8	10.00	**6.00**
161-193	**ETW161-220**	2 1/16 x 4 3/8	10.90	**6.54**
189-227	**ETW189-220**	2 9/16 x 4 3/8	12.75	**7.63**
330V 50-60 cps.				
25-30	**ETW 25-330**	1 13/16 x 3 3/8	5.10	**3.06**
72-88	**ETW 72-330**	2 1/16 x 4 3/8	8.15	**4.89**
88-108	**ETW 88-330**	2 1/16 x 4 3/8	10.25	**6.15**
108-130	**ETW108-330**	2 1/16 x 4 3/8	12.50	**7.50**
124-149	**ETW124-330**	2 9/16 x 4 3/8	13.90	**8.34**

ACCESSORIES

ETW END CAPS

Part No.	Case Dia. (Inches)	List Price	Net Price
30066	1 7/16	$.10	**$.06**
34618-3	1 13/16	.15	**.09**
34618-2	2 1/16	.17	**.10**
34618-4	2 9/16	.37	**.22**

MOUNTING BRACKETS FOR ETW WITH END CAPS

Part No.	Length (Inches)	List Price	Net Price
34946-2	2 3/4	$.20	**$.12**
34946	3 3/8	.25	**.15**
34946-1	4 3/8	.25	**.15**

AC OIL (MOTOR RUN) CAPACITORS

Class 209 • 50 | Type KB, KK, KN, KT, KV

These AC capacitors for motor run applications are also widely used in appliances and air conditioners. They are included for those service technicians also servicing these items. Units are oval construction except KNL is rectangular. Units feature double blade, quick connect terminals and cup insulators. Maximum operating temperatures is 70C. Wrap-around mounting brackets and terminal boots are available as accessories.

Cap. Mfd.	Type	Size (Inches L x W x Ht.)	List Price	Net Price
236 VOLTS A.C.				
2.0	**KKA23P205Q**	2 3/16 x 1 5/16 x 2 1/16	$5.20	**$2.40**
3.0	**KKA23P305Q**	2 3/16 x 1 5/16 x 2 1/16	5.35	**2.50**
4.0	**KKA23P405Q**	2 3/16 x 1 5/16 x 2 1/16	6.00	**2.61**
5.0	**KKA23P505Q**	2 3/16 x 1 5/16 x 2 5/16	7.00	**2.90**
6.0	**KKA23P605Q**	2 3/16 x 1 5/16 x 2 3/4	8.00	**3.52**
7.5	**KKA23P755Q**	2 3/16 x 1 5/16 x 3 1/8	10.00	**4.70**
10.0	**KVL23P106Q**	2 5/16 x 2 1/4 x 2 1/4	13.00	**5.70**
15.0	**KVL23P156Q**	2 5/16 x 2 1/4 x 3 1/8	14.70	**6.62**
20.0	**KTL23P206Q**	2 29/32 x 1 29/32 x 4 1/4	21.40	**9.11**
25.0	**KTL23P256Q**	2 29/32 x 1 29/32 x 5 1/4	25.75	**11.29**
30.0	**KTL23P306Q**	2 29/32 x 1 29/32 x 6 1/4	27.40	**13.04**
35.0	**KBL23P356Q**	3 31/32 x 1 31/32 x 5 3/4	36.50	**13.62**
370 VOLTS A.C.				
2.0	**KKA37P205Q**	2 3/16 x 1 5/16 x 2 1/16	5.45	**2.50**
3.0	**KKA37P305Q**	2 3/16 x 1 5/16 x 2 1/16	5.55	**2.53**
4.0	**KKA37P405Q**	2 3/16 x 1 5/16 x 2 5/16	6.40	**2.68**
5.0	**KKL37P505Q**	2 3/16 x 1 5/16 x 2 3/4	8.60	**3.20**
6.0	**KKL37P605Q**	2 3/16 x 1 5/16 x 3 3/8	9.70	**3.82**
7.5	**KKL37P755Q**	2 3/16 x 1 5/16 x 3 3/4	12.75	**4.70**
7.5	**KVL37P755Q**	2 5/16 x 2 1/4 x 2 1/2	12.75	**4.70**
10.0	**KTL37P106Q**	2 29/32 x 1 29/32 x 3 1/2	13.70	**6.13**
15.0	**KTL37P156Q**	2 29/32 x 1 29/32 x 4 3/4	14.70	**7.01**

Cap. Mfd.	Type	Size (Inches L x W x Ht.)	List Price	Net Price
370 VOLTS A.C. (Continued)				
20.0	**KTL37P206Q**	2 29/32 x 1 29/32 x 5 3/4	$21.70	**$10.02**
25.0	**KBL37P256Q**	3 31/32 x 1 31/32 x 5 3/4	26.50	**12.23**
30.0	**KBL37P306Q**	3 31/32 x 1 31/32 x 6 3/4	29.40	**13.98**
40.0	***KNL37P406Q**	4 5/16 x 2 7/8 x 5 5/16	47.60	**21.62**
50.0	***KNL37P506Q**	4 5/16 x 2 7/8 x 6 1/4	55.75	**28.04**
440 VOLTS A.C.				
2.0	**KKA44P205Q**	2 3/16 x 1 5/16 x 2 1/16	7.10	**3.34**
3.0	**KKA44P305Q**	2 3/16 x 1 5/16 x 2 3/4	7.50	**3.53**
4.0	**KKA44P405Q**	2 3/16 x 1 5/16 x 3 1/8	10.25	**3.71**
5.0	**KKA44P505Q**	2 3/16 x 1 5/16 x 3 3/4	10.10	**3.86**
10.0	**KTL44P106Q**	2 29/32 x 1 29/32 x 4 1/4	14.40	**6.99**
20.0	**KBL44P206Q**	3 31/32 x 1 31/32 x 6 1/4	24.35	**11.74**
30.0	***KNL44P306Q**	4 5/16 x 2 7/8 x 5 5/16	42.05	**17.34**
660 VOLTS A.C.				
1.0	**KKA66P105Q**	2 3/16 x 1 5/16 x 2 1/16	6.40	**3.05**
2.0	**KKA66P205Q**	2 3/16 x 1 5/16 x 3 3/4	9.05	**3.38**
3.0	**KVA66P305Q**	2 15/16 x 2 1/4 x 2 1/2	10.75	**3.67**
5.0	**KVA66P505Q**	2 15/16 x 2 1/4 x 4	15.00	**5.54**
8.0	**KVL66P805Q**	2 15/16 x 2 1/4 x 6 1/2	22.10	**9.10**
10.0	**KVL66P106Q**	2 15/16 x 2 1/4 x 7 3/4	25.90	**10.79**
15.0	***KNL66P156Q**	4 1/8 x 2 7/8 x 5 3/4	38.10	**16.90**

* Rectangular construction. All others oval construction.

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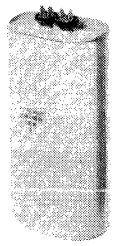
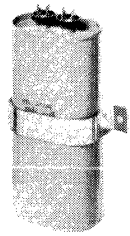
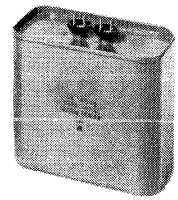
CDE CORNELL-DUBILIER

AC Capacitors


KB

KK with terminal boot


KT with bracket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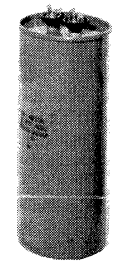
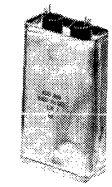
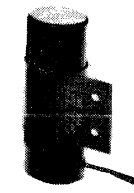

KV


KGNT (Sec. 209.60)

CRX


CMX (Sec. 209.70)

ACCESSORIES | 209 • 50

AC OIL CAPACITOR ACCESSORIES

Description	For Capacitor Types	CDE Part No.	List Price	Net Price
Wrap-Around Mounting Bracket	**KK**	30393-5	$.10	**$.06**
	KT	30393-9	.10	**.06**
	KB	30393-10	.15	**.09**
	KV	30393-4	.15	**.09**
	KN	30393-11	.20	**.12**
Terminal Boot	**A11**	30397	.13	**.08**

Type KGNT | Class 209 • 60

RECTANGULAR AC OIL (MOTOR RUN) CAPACITORS

The type KGNT motor run capacitor is commonly used in major appliances and air conditioners. The unit is of rectangular design with painted finish. Three prong terminals and cup type insulators are provided. Maximum operating temperature of the unit is 70C. All capacitance ratings of the KGNT are rated 330/370 volts AC, 60 cycles. The KGNT is illustrated along with other AC motor run capacitors at the top of this page.

Cap. Mfd.	Volts AC	Type	Size (Inches) L x W x H	List Price	Net Price
1	330/370	**KGNT 3010**	1 1/16 x 1 3/16 x 2	$3.83	**$2.30**
2	330/370	**KGNT 3020**	1 1/16 x 1 13/16 x 2 3/4	4.17	**2.50**
3	330/370	**KGNT 3030**	1 1/16 x 1 13/16 x 3 7/8	4.22	**2.53**
4	330/370	**KGNT 3040**	1 3/16 x 2 1/2 x 2 7/8	4.50	**2.70**
5	330/370	**KGNT 3050**	1 3/16 x 2 1/2 x 3 1/2	5.33	**3.20**

Cap. Mfd.	Volts AC	Type	Size (Inches) L x W x H	List Price	Net Price
6	330/370	**KGNT 3060**	1 3/16 x 2 1/2 x 4 1/8	$6.37	**$3.82**
8	330/370	**KGNT 3080**	1 1/4 x 3 3/4 x 3 1/4	8.63	**5.18**
10	330/370	**KGNT 3100**	1 1/4 x 3 3/4 x 3 7/8	10.22	**6.13**
12	330/370	**KGNT 3120**	1 3/4 x 3 3/4 x 4 3/4	10.95	**6.57**

Type CRX | Class 209 • 70

ROUND AC OIL (MOTOR RUN) CAPACITORS

The type CRX and CMX are 330/370 volts AC, 70C, motor run capacitors supplied in a round configuration. The CRX is unfinished steel with solder type terminal lugs. The CMX is a modification of the CRX. It is supplied painted black, with end cap, flexible leads and wrap-around mounting bracket. To order CMX, change type number to CMX and add CMX price addition shown in table to CRX price.

Cap. Mfd.	Volts AC	Type	Size Dia.	Size Height	List Price	Net Price
2	330/370	**CRX 3020**	1 3/8	3 3/8	$4.17	**$2.50**
3	330/370	**CRX 3030**	1 3/8	4 1/2	4.22	**2.53**
4	330/370	**CRX 3040**	1 3/4	3 3/8	4.47	**2.68**
5	330/370	**CRX 3050**	1 3/4	3 7/8	5.33	**3.20**

Cap. Mfd.	Volts AC	Type	Size Dia.	Size Height	List Price	Net Price
6	330/370	**CRX 3060**	1 3/4	4 1/2	$6.37	**$3.82**
6.6	330/370	**CRX 3066**	2	3 7/8	6.92	**4.15**
8	330/370	**CRX 3080**	2	4 1/2	7.83	**4.70**
10	330/370	**CRX 3100**	2 1/2	4 1/2	10.22	**6.13**

PRICE ADDITIONS TO CRX PRICE TO CONVERT TO CMX

Case Diameter (Inches)	1 3/8	1 3/4	2	2 1/2
List Price	$1.30	$1.35	$1.45	$1.55
Net Price	**.78**	**.81**	**.87**	**.93**

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Radio Interference Filters

CDE CORNELL-DUBILIER

VEHICULAR FILTERS

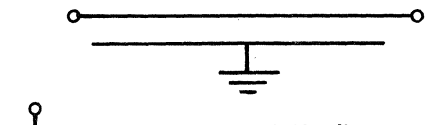
Class 220 • 00

The most frequent Radio Interference problem encountered by the service technician is the improvement in signal to noise ratio in mobile applications of Citizen's Band, commercial, and amateur high frequency communications equipment. The vehicular filters listed will solve the problems encountered provided good grounding and bonding practices are followed and use made of suppressors.

The prime source of noise from a gasoline engine is ignition noise from the high tension spark system. Use of special ignition wire, spark plug and distributor suppressors, resistor plugs, or combinations of these as recommended by the engine manufacturer will reduce this noise to reasonable value. After this step, other noises will probably be apparent.

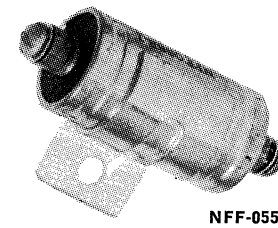
A frequently overlooked source of a sharp "popping" noise is the low tension side of the ignition coil. After bonding the coil bracket to the engine, a CDE coaxial feedthrough capacitor should be installed in the lead between the battery and coil. The capacitor bracket should be bonded to the coil bracket. The feedthrough will completely isolate the coil from its wire as far as noise is concerned. The generator is probably the second most frequent cause of noise — in this case a grinding whine. To reduce this noise, a CDE coaxial feedthrough capacitor should replace the normal capacitor in the lead to the armature terminal on the voltage regulator. In addition, the noise can be reduced by shielding the lead to the regulator field terminal. In many cases, there may be buzzing caused by the action of the regulator. This may be reduced by enclosing the regulator in a metal case, bringing the shielded lead through with coaxial fittings and installing two feedthrough capacitors on the low voltage leads from the regulator.

Other popping or clicking noises from various accessories can be reduced by installing CDE by-pass capacitors directly on the offending devices.

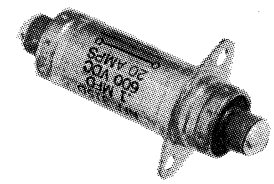


Feed-Through Circuit

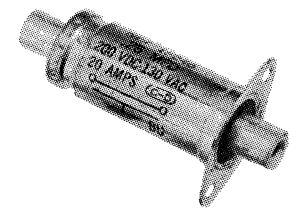
By-Pass Circuit



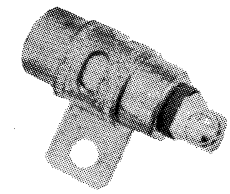
NFF-055B-1 •



NFF-315D

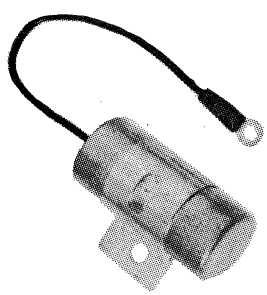


NFT-1F246

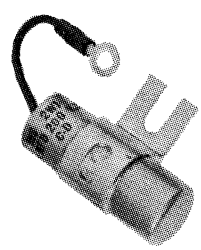


MC-8D98

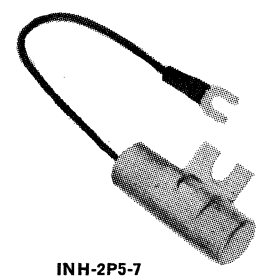
CDE Type	Voltage	Capacitance	Amperes	List Price	Net Price
FEED-THROUGH TYPES					
NFF-055B-1	50v DC	.5 mfd.	40	$3.50	**$2.10**
NFF-315D	600v DC	.1 mfd.	20	2.95	**1.77**
NFT-1F246	115v AC				
	200v DC	.25 mfd.	20	4.50	**2.70**
BY-PASS TYPES					
MC-8D98	100v DC	.1 mfd.	—	2.40	**1.44**
IC-2P5C	200v DC	.5 mfd.	—	.90	**.54**
INH-2P5-7	200v DC	.5 mfd.	—	1.10	**.66**
INS-2W1	200v DC	1.0 mfd.	—	2.10	**1.26**
ICH-2W1	200v DC	1.0 mfd.	—	2.10	**1.26**



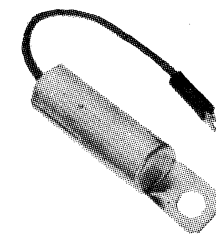
IC-2P5C



INS-2W1



INH-2P5-7



ICH-2W1

Trade Discount Applies To List Prices Only

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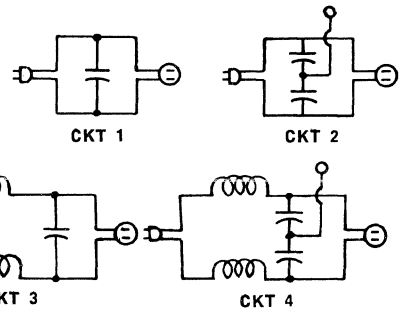
CDE CORNELL-DUBILIER

Radio Interference Filters

Class 220 • 00

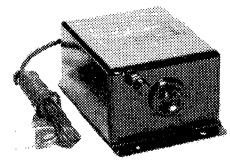


RESIDENTIAL RADIO INTERFERENCE FILTERS

These QUIETONE® Radio Interference filters are designed for residential and light commercial applications on appliances and office machines. Noise from small portable electrical appliances can usually be reduced through use of a circuit 1 filter such as the IF-20, IF-4, or IF-5. The circuit 2 filter, IF-6, will provide slightly more reduction. The IF-21, circuit 3, will provide additional attenuation. The greatest attenuation will be achieved through the use of circuit 4 filters — IF-18 and 19.

1F5

1F6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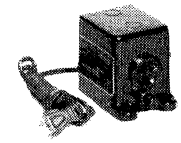
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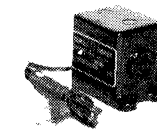
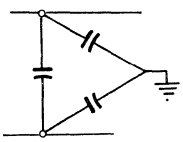
1F20

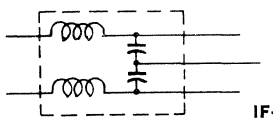

1F21

CDE Type	Circuit Diagram	Voltage	Cap. Mfd.	Current	Description	List Price	Net Price
IF-4	1	110 AC/DC	.1	5	Plastic cylindrical filter with plug and receptacle	$1.50	**$ .90**
IF-5	1	110 AC/DC	.1	5	Plastic cylindrical filter with plug and receptacle	1.50	**.90**
IF-6	2	110 AC/DC	2 x .1	5	Plastic cylindrical filter with plug, receptacle and side ground terminal	2.35	**1.41**
IF-18	4	115 AC/DC	2 x .25	5	Rectangular plastic cased filter with line cord and plug, receptacle and ground terminal.	11.00	**6.60**
IF-19	4	115 AC/DC	2 x .1	5	Smaller rectangular plastic cased filter with line cord and plug, receptacle and ground terminal.	9.25	**5.55**
IF-20	1	110 AC/DC	.06	5	Small cylindrical plastic cased filter with plug and receptacle.	1.00	**.60**
IF-21	3	110 AC/DC	.5	1.6	Rectangular plastic cased filter with line cord and receptacle.	5.20	**3.12**

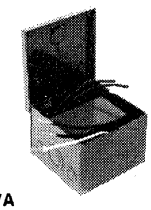
Class 220 • 00

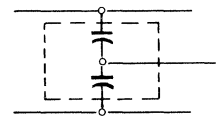
INDUSTRIAL RADIO INTERFERENCE FILTERS

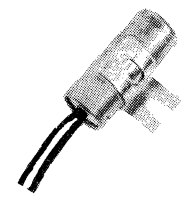

NF-1C230

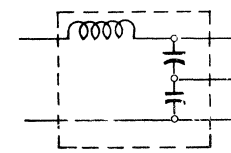

IF-7A

The metal cased IF-7A is designed for the reduction of severe interference. The NF-1C230 is designed for installation in vacuum cleaners, floor polishers, etc. Other filters listed are UL listed for fluorescent fixtures but are frequently applied to other equipment. The vehicular filters listed on the previous page also find wide industrial applications.

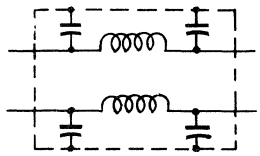


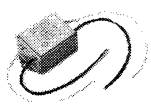

IF-24

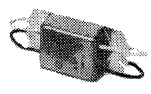



IF-54

CDE Type	Voltage	Cap. (Mfd.)	Current	Description	List Price	Net Price
IF-7A	110-220 AC/DC	2 x .5	5	Rectangular filter housed in cutout box for BX connection	$16.50	**$9.90**
IF-24	110 AC/DC	2 x .1	—	Cylindrical metal cased with flexible leads and bracket	1.50	**.90**
IF-54	110-220 AC/DC	2 x .25	2	Rectangular metal cased filter with flexible leads	3.00	**1.80**
NF-10431	280 AC/DC	2 x .02 each line	3.5	Fluorescent light filter rectangular metal case with flexible leads	5.05	**3.30**
NF-10431-1	280 AC/DC	2 x .02 each line	3.5	Same as NF10431, but with mounting for direct replacement of GE Catalog 89G365	6.25	**3.75**
NF-1C230	125 AC/DC	.09 line to line 2 x .005 line to grd.	—	Cardboard cased filter	1.25	**.75**




NF-10431


NF-10431-1

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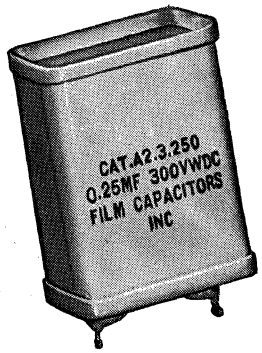


FILM CAPACITORS, INC.

F-C-I POLYSTYRENE CAPACITORS

F-C-I polystyrene capacitors are ideally suited for use in all types of computers, precision filters, integrating circuits, servo systems, timing circuits and laboratory standards.

F-C-I polystyrene capacitors are furnished as standard units in hermetically sealed metal shells, in bathtube cases and in style CP70 metal cases. Special capacitors are available in various configurations to meet application needs. Multi-section blocks are made to order to any tolerance specified. Where space is at a premium Mylar wrapped units can be made. Tolerances to .1% available.

METAL SHELL POLYSTYRENE CAPACITORS

Part Number	Volts DC	Cap. MFD.	Case Size—Ins. L	D
A4-1-10	100	.01	1	.235
A4-1-22	100	.022	1	.312
A4-1-33	100	.033	1	.312
A4-1-47	100	.047	1	.400
A4-1-68	100	.068	1	.400
A4-1-100	100	.10	1⅜	.400
A4-1-220	100	.22	1⅜	.562
A4-1-330	100	.33	1⅜	.670
A4-1-470	100	.47	1⅞	.670
A4-2-10	200	.01	1	.312
A4-2-22	200	.022	1	.400
A4-2-33	200	.033	1	.400
A4-2-47	200	.047	1⅜	.400
A4-2-68	200	.068	1⅜	.400
A4-2-100	200	.10	1⅜	.562
A4-2-220	200	.22	1⅞	.562
A4-2-330	200	.33	1⅞	.750
A4-2-470	200	.47	1⅞	1.00
A4-4-10	400	.01	1	.312
A4-4-22	400	.022	1	.400
A4-4-33	400	.033	1⅜	.400
A4-4-47	400	.047	1⅜	.400
A4-4-68	400	.068	1⅜	.562
A4-4-100	400	.10	1⅞	.562
A4-4-220	400	.22	1⅞	.750
A4-4-330	400	.33	1⅞	.750
A4-4-470	400	.47	1⅞	1.00
A4-6-10	600	.01	1	.400
A4-6-22	600	.022	1⅜	.562
A4-6-33	600	.033	1⅜	.562
A4-6-47	600	.047	1⅜	.670
A4-6-68	600	.068	1⅞	.562
A4-6-100	600	.10	1⅞	.670
A4-6-220	600	.22	1⅞	.750
A4-6-330	600	.33	2⅜	1.00
A4-6-470	600	.47	2⅜	1.00

STYLE CP70 CASED POLYSTYRENE CAPACITORS

Part Number	Volts DC	Cap. MFD.	Case Size—Ins. L	W	H
A2-1-500	100	0.5	1¾	1	1⅝
A2-1-1000	100	1.0	1¾	1	2¼
A2-1-2000	100	2.0	2½	1⅜₁₆	2¼
A2-1-4000	100	4.0	3¾	1¼	2½
A2-1-6000	100	6.0	3¾	1¾	2½
A2-1-8000	100	8.0	3¾	2¼	2½
A2-1-10M	100	10.0	3¾	2¼	3
A2-1-20M	100	20.0	3¾	3⅜₁₆	3½
A2-2-250	200	0.25	1¾	1	2¼
A2-2-500	200	0.5	1¾	1	2¼
A2-2-1000	200	1.0	1¾	1	3
A2-2-2000	200	2.0	2½	1⅜₁₆	3
A2-2-4000	200	4.0	3¾	1¼	3½
A2-2-6000	200	6.0	3¾	1¾	3½
A2-2-8000	200	8.0	3¾	2¼	3½
A2-2-10M	200	10.0	3¾	3⅜₁₆	3½
A2-2-20M	200	20.0	4⅜₁₆	3¾	4
A2-4-250	400	0.25	1¾	1	2¼
A2-4-500	400	0.5	1¾	1	2½
A2-4-1000	400	1.0	2½	1⅜₁₆	2⅞
A2-4-2000	400	2.0	3¾	1¼	3
A2-4-4000	400	4.0	3¾	1¾	3½
A2-4-6000	400	6.0	3¾	3⅜₁₆	3
A2-4-8000	400	8.0	3¾	3⅜₁₆	5⅛
A2-4-10M	400	10.0	4⅜₁₆	3¾	3½
A2-6-250	600	0.25	1¾	1	2¼
A2-6-500	600	0.5	1¾	1	3½
A2-6-1000	600	1.0	2½	1¼	3½
A2-6-2000	600	2.0	3¾	1¾	3
A2-6-4000	600	4.0	3¾	3⅜₁₆	4
A2-6-5000	600	5.0	4⅜₁₆	3¾	3½

BATHTUB CASED POLYSTYRENE CAPACITORS

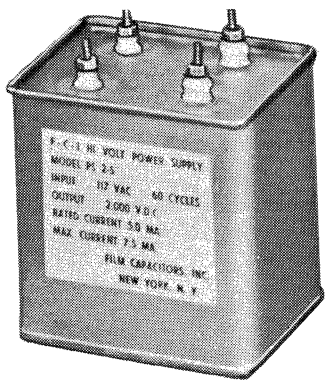
Part Number	Volts DC	Cap. MFD.	Case Size—Ins. L	W	H
A3-1-50	100	.05	1⅛	1	½
A3-1-100	100	.10	1⅛	1	½
A3-1-250	100	.25	1⅛	1	1
A3-1-500	100	.50	1¾	1	¾
A3-1-1000	100	1.0	1¾	1	1
A3-2-50	200	.05	1¾	1	¾
A3-2-100	200	.10	1¾	1	¾
A3-2-250	200	.25	2	1¾	⅞
A3-2-500	200	.50	2	1¾	⅞
A3-2-1000	200	1.0	2	2	1¼
A3-4-10	400	.01	1¾	1	¾
A3-4-20	400	.02	1¾	1	¾
A3-4-50	400	.05	1¾	1	¾
A3-4-100	400	.10	1¾	1	¾
A3-4-250	400	.25	2	1¾	⅞
A3-4-500	400	.50	2	1¾	⅞
A3-4-1000	400	1.0	2	2	1¼
A3-6-10	600	.01	1¾	1	¾
A3-6-20	600	.02	1¾	1	¾
A3-6-50	600	.05	1¾	1	¾
A3-6-100	600	.10	1¾	1	1
A3-6-250	600	.25	2	1¾	⅞
A3-6-500	600	.50	2	2	1¼

"WRAP AND FILL POLYSTYRENE CAPACITORS ALSO AVAILABLE"

SOLID STATE HIGH VOLTAGE PACKAGED POWER SUPPLIES

Completely enclosed and hermetically sealed power supplies operating on 115 volt, 50 or 400 cycle, AC input. Output ranges from 2,000 vdc to 50,000 vdc. Standard sizes as follows: Non-standard supplies available upon request.

PART No.	OUTPUT VOLTAGE	RATED CURRENT OUTPUT	MAX. CURRENT OUTPUT
PS—2S	2 KVDC	5 MA	7.5 MA
PS—5S	5 KVDC	5 MA	7.5 MA
PS—10S	10 KVDC	1 MA	1.75 MA
PS—15S	15 KVDC	1 MA	1.75 MA
PS—20S	20 KVDC	1 MA	1.75 MA
PS—30S	30 KVDC	1 MA	1.75 MA
PS—50S	50 KVDC	1 MA	1.75 MA



® Du Pont Trade Mark

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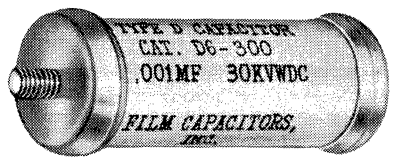
FILM CAPACITORS, INC.

F-C-I HIGH VOLTAGE CAPACITORS

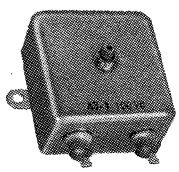
F-C-I Type D6 high voltage capacitors are designed to assure reliable operation where space is at a premium. These capacitors utilize a combination of polyester film and high quality capacitor tissue. The impregnation in a highly purified mineral oil provides for extremely high insulation resistance and low power factor. The hermetic housing, which may be steatite or pyrex glass, allows for operation under extreme humidity.

All capacitors are constructed with extended foil windings, and all internal wiring is kept to a minimum. This eliminates most of the series inductance and produces a very high ringing frequency, an extremely desirable condition for energy storage and pulsing capacitors. D6 for 85°C; D6H for 125°C operation.



Cat. No.	Cap. Mfd.	Working Volts DC	Dimensions L	Dia.
D6-10-10	.01	1000	1 3/16 x	17/32
D6-10-20	.02	1000	1 3/16 x	17/32
D6-10-50	.05	1000	1 3/16 x	17/32
D6-10-100	.10	1000	2 3/8 x	1 1/16
D6-10-250	.25	1000	2 3/8 x	7/8
D6-10-500	.50	1000	2 3/8 x	1
D6-20-2	.002	2000	1 3/16 x	17/32
D6-20-5	.005	2000	1 3/16 x	17/32
D6-20-10	.01	2000	1 3/16 x	17/32
D6-20-20	.02	2000	1 3/16 x	17/32
D6-20-50	.05	2000	1 3/8 x	1 1/16
D6-20-100	.10	2000	2 3/8 x	1 1/16
D6-20-250	.25	2000	2 3/8 x	1
D6-20-500	.50	2000	2 3/8 x	1 1/4
D6-30-2	.002	3000	1 3/16 x	17/32
D6-30-5	.005	3000	1 3/16 x	17/32
D6-30-10	.01	3000	1 3/16 x	17/32
D6-30-20	.02	3000	1 3/8 x	1 1/16
D6-30-50	.05	3000	2 3/8 x	1 1/16
D6-30-100	.10	3000	2 3/8 x	7/8
D6-30-250	.25	3000	2 3/8 x	1 1/4
D6-30-500	.50	3000	2 3/4 x	1 1/2
D6-50-5	.005	5 KV	1 3/8 x	1 1/16
D6-50-10	.01	5 KV	1 3/8 x	1 1/16
D6-50-20	.02	5 KV	2 3/8 x	3/4
D6-50-50	.05	5 KV	2 3/8 x	7/8
D6-50-100	.10	5 KV	2 3/8 x	1 1/4
D6-50-250	.25	5 KV	3 x	1 1/2
D6-75-1	.001	7 1/2 KV	1 3/16 x	17/32
D6-75-2	.002	7 1/2 KV	1 3/8 x	1 1/16
D6-75-5	.005	7 1/2 KV	1 3/8 x	1 1/16
D6-75-10	.01	7 1/2 KV	2 3/8 x	3/4
D6-75-20	.02	7 1/2 KV	2 3/8 x	7/8
D6-75-50	.05	7 1/2 KV	2 3/8 x	1 1/4
D6-75-100	.10	7 1/2 KV	2 3/8 x	1 1/2

Cat. No.	Cap. Mfd.	Working Volts DC	Dimensions L	Dia.
D6-100-1	.001	10 KV	1 3/8 x	1 1/16
D6-100-2	.002	10 KV	1 3/8 x	1 1/16
D6-100-5	.005	10 KV	2 3/8 x	1 1/16
D6-100-10	.01	10 KV	2 3/8 x	7/8
D6-100-20	.02	10 KV	2 3/8 x	1
D6-100-50	.05	10 KV	2 3/8 x	1 1/2
D6-100-60	.06	10 KV	3 x	1 1/2
D6-100-100	.10	10 KV	4 5/8 x	1 1/2
D6-150-1	.001	15 KV	2 3/8 x	1 1/16
D6-150-2	.002	15 KV	2 3/8 x	3/4
D6-150-5	.005	15 KV	2 3/8 x	7/8
D6-150-10	.01	15 KV	2 3/8 x	1 1/4
D6-150-20	.02	15 KV	4 5/8 x	1 1/4
D6-150-50	.05	15 KV	4 5/8 x	1 1/2
D6-200-05	.0005	20 KV	2 3/8 x	1 1/16
D6-200-1	.001	20 KV	2 3/8 x	1 1/16
D6-200-2	.002	20 KV	2 3/8 x	3/4
D6-200-5	.005	20 KV	2 3/8 x	1
D6-200-10	.01	20 KV	2 3/8 x	1 1/2
D6-200-20	.02	20 KV	4 5/8 x	1 1/2
D6-300-02	.0002	30 KV	4 5/8 x	17/32
D6-300-05	.0005	30 KV	4 5/8 x	17/32
D6-300-1	.001	30 KV	5 x	3/4
D6-300-2	.002	30 KV	5 x	3/4
D6-300-5	.005	30 KV	4 5/8 x	1 1/4
D6-300-10	.01	30 KV	6 5/8 x	1 1/2
D6-400-01	.0001	40 KV	5 3/4 x	1 1/16
D6-400-02	.0002	40 KV	5 3/4 x	1 1/16
D6-400-05	.0005	40 KV	5 3/4 x	1 1/16
D6-400-1	.001	40 KV	6 1/2 x	3/4
D6-400-2	.002	40 KV	6 1/2 x	1
D6-400-5	.005	40 KV	6 1/2 x	1 1/2
D6-400-6	.006	40 KV	8 x	1 1/2
D6-500-01	.0001	50 KV	8 1/4 x	1 1/16
D6-500-02	.0002	50 KV	8 1/4 x	1 1/16
D6-500-05	.0005	50 KV	8 1/4 x	1 1/16
D6-500-1	.001	50 KV	8 1/4 x	3/4
D6-500-2	.002	50 KV	8 1/4 x	1 1/8
D6-500-5	.005	50 KV	10 3/4 x	1 1/4
D6-500-6	.006	50 KV	10 3/4 x	1 3/8
D6-600-01	.0001	60 KV	10 x	3/4
D6-600-02	.0002	60 KV	10 x	3/4
D6-600-05	.0005	60 KV	10 x	3/4
D6-600-1	.001	60 KV	10 x	7/8
D6-600-2	.002	60 KV	10 x	1
D6-600-5	.005	60 KV	11 1/2 x	1 1/2



ADJUSTABLE, SEALED POLYSTYRENE CAPACITORS

F-C-I adjustable capacitors are designed for use in ultra-precise circuits where a large capacitance of an extremely close tolerance is required, and yet cannot be predicted in advance due to second order effects in the circuitry. In order to attain the exact value of capacitance needed in such circuits, F-C-I has designed a series of polystyrene capacitors whose capacitance value may be adjusted over a range of plus or minus 1½% of nominal value. (Plus or minus 2% for values of 0.1 Mf or lower can be attained.) The windings are completely non-inductive, thus minimizing power factor and soakage.

100 V.D.C. Cat. No.	Cap. Mfd.	Case Size
A3V-1-1M	1.0	2 x 2 x 1
A3V-1-680	.68	2 x 1 3/4 x 7/8
A3V-1-470	.47	1 3/4 x 1 1/4 x 1
A3V-1-330	.33	1 3/4 x 1 1/4 x 7/8
A3V-1-220	.22	1 3/4 x 1 x 3/4
A3V-1-100	.1	1 3/4 x 1 x 3/4

200 V.D.C. Cat. No.	Cap. Mfd.	Case Size
A3V-2-1M	1.0	2 x 2 x 1 1/8
A3V-2-680	.68	2 x 2 x 1
A3V-2-470	.47	2 x 1 3/4 x 1
A3V-2-330	.33	2 x 1 3/4 x 7/8
A3V-2-220	.22	1 3/4 x 1 1/4 x 1
A3V-2-100	.1	1 3/4 x 1 x 3/4

400 V.D.C. Cat. No.	Cap. Mfd.	Case Size
A3V-4-470	.47	2 x 2 x 1 1/
A3V-4-330	.33	2 x 1 3/4 x 1
A3V-4-220	.22	2 x 1 3/4 x 7/8
A3V-4-100	.1	1 3/4 x 1 1/4 x 1
A3V-4- 47	.047	1 3/4 x 1 x 3/4
A3V-4- 33	.033	1 3/4 x 1 x 3/4
A3V-4- 10	.01	1 1/8 x 1 x 1/2

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FILM CAPACITORS, INC.

HERMETICALLY SEALED TYPE D MYLAR* CAPACITORS

● *Tolerance to 1%* ● *Hermetically Sealed* ● *High Insulation Resistance* ● *Operation up to 125° C*

F-C-I type D capacitors employ Mylar* Film as the dielectric which offers advantages not obtainable with standard materials. Type D capacitors are ideal where space saving and extremely high insulation is required. Other electrical characteristics are low dielectric absorption, good retrace and stability. Designed to operate in the temperature range of —55°C to 85°C type D capacitors can be used where optimum performance is required. Type D capacitors may be operated up to 125°C with a 50% derating.

*Trade Mark for Dupont Polyester Film

STYLE CP 70 CASED MYLAR CAPACITORS

Part No.	Cap.	L	W	H
		100V		
D2-1-2M	2.0	1¾	1	1⅝
D2-1-4M	4.0	1¾	1	2¼
D2-1-5M	5.0	1¾	1	2¾
D2-1-6M	6.0	1¾	1	2¾
D2-1-8M	8.0	1¾	1	3¼
D2-1-10M	10.0	2½	1 3/16	2⅞
D2-1-12M	12.0	2½	1 3/16	3½
D2-1-15M	15.0	2½	1 3/16	4
D2-1-20M	20.0	3¾	1¾	2½
D2-1-25M	25.0	3¾	1¾	3¼
D2-1-30M	30.0	3¾	1¾	3½
D2-1-40M	40.0	3¾	1¾	4
D2-1-50M	50.0	3¾	2¼	4
D2-1-100M	100.0	3¾	3 3/16	4¾
		200V		
D2-2-1M	1.0	1¾	1	1⅝
D2-2-2M	2.0	1¾	1	1⅝
D2-2-4M	4.0	1¾	1	2⅞
D2-2-5M	5.0	1¾	1	3¼
D2-2-6M	6.0	1¾	1	4
D2-2-8M	8.0	2½	1 3/16	2⅞
D2-2-10M	10.0	2½	1 3/16	3½
D2-2-12M	12.0	2½	1 3/16	4
D2-2-15M	15.0	3¾	1¼	3½
D2-2-20M	20.0	3¾	1¾	3¼
D2-2-25M	25.0	3¾	1¾	4
D2-2-30M	30.0	3¾	1¾	4½
D2-2-40M	40.0	3¾	2¼	4
D2-2-50M	50.0	3¾	3 3/16	3½
		400V		
D2-4-500	0.5	1¾	1	1⅝
D2-4-1M	1.0	1¾	1	2¼
D2-4-2M	2.0	1¾	1	2⅞
D2-4-4M	4.0	2½	1 3/16	3½
D2-4-5M	5.0	2½	1 3/16	4
D2-4-6M	6.0	3¾	1¼	3½
D2-4-8M	8.0	3¾	1¼	4
D2-4-10M	10.0	3¾	1¾	3½
D2-4-12M	12.0	3¾	1¾	4
D2-4-15M	15.0	3¾	2¼	4
D2-4-20M	20.0	3¾	3 3/16	4
D2-4-25M	25.0	4 3/16	3¾	3½
D2-4-30M	30.0	4 3/16	3¾	4
D2-4-40M	40.0	4 3/16	3¾	4½
D2-4-50M	50.0	4 3/16	3¾	5⅛

MOUNTING BRACKETS AVAILABLE

STYLE CP 70 CASED MYLAR CAPACITORS—Continued

Part No.	Cap.	L	W	H
		600V		
D2-6-500	0.5	1¾	1	1⅝
D2-6-1M	1.0	1¾	1	2¾
D2-6-2M	2.0	1¾	1	4
D2-6-4M	4.0	2½	1 3/16	4
D2-6-5M	5.0	3¾	1¼	3½
D2-6-6M	6.0	3¾	1¼	4
D2-6-8M	8.0	3¾	1¾	4
D2-6-10M	10.0	3¾	1¾	4½
D2-6-20M	20.0	4 3/16	3¾	4½
D2-6-25M	25.0	4 3/16	3¾	4½

BATHTUB CASED MYLAR CAPACITORS

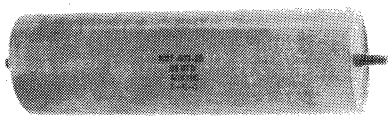
Part No.	Cap.	L	W	H
		100V		
D3-1-500	0.5	1⅛	1	13/16
D3-1-1M	1.0	1⅛	1	13/16
D3-1-2M	2.0	1¾	1	1
D3-1-4M	4.0	2	1¾	⅞
D3-1-6M	6.0	2	1¾	⅞
D3-1-8M	8.0	2	2	1⅛
D3-1-10M	10.0	2	2	1¼
D3-1-12M	12.0	2	2	1½
		200V		
D3-2-500	0.5	1⅛	1	13/16
D3-2-1M	1.0	1¾	1	¾
D3-2-2M	2.0	1¾	1¼	1
D3-2-4M	4.0	2	1¾	⅞
D3-2-5M	5.0	2	2	1
D3-2-6M	6.0	2	2	1⅛
D3-2-8M	8.0	2	2	1½
		400V		
D3-4-250	0.25	1⅛	1	13/16
D3-4-500	0.5	1¾	1	¾
D3-4-1M	1.0	1¾	1¼	1
D3-4-2M	2.0	2	1¾	⅞
D3-4-4M	4.0	2	2	1⅛
D3-4-5M	5.0	2	2	1½
		600V		
D3-6-100	0.1	1⅛	1	13/16
D3-6-250	0.25	1¾	1	¾
D3-6-500	0.5	1¾	1	1
D3-6-1M	1.0	2	1¾	⅞
D3-6-2M	2.0	2	2	1⅛

METAL SHELL MYLAR CAPACITORS

Part No.	Cap.	L	D
	200V		
D4-2-10	.01	⅞	.235
D4-2-15	.015	⅞	.235
D4-2-22	.022	⅞	.235
D4-2-33	.033	1	.235
D4-2-47	.047	1	.235
D4-2-68	.068	1	.312
D4-2-100	.10	1	.312
D4-2-150	.15	1	.400
D4-2-220	.22	1⅜	.400
D4-2-330	.33	1⅜	.400
D4-2-470	.47	1⅜	.500
D4-2-680	.68	1⅜	.562
D4-2-820	.82	1⅜	.670
D4-2-2000	2.00	1⅞	.750
	400V		
D4-4-10	.01	⅞	.235
D4-4-15	.015	⅞	.235
D4-4-22	.022	1	.312
D4-4-33	.033	1	.312
D4-4-47	.047	1	.400
D4-4-68	.068	1	.400
D4-4-100	.10	1⅜	.400
D4-4-150	.15	1⅜	.500
D4-4-220	.22	1⅜	.562
D4-4-330	.33	1⅜	.670
D4-4-470	.47	1⅞	.670
D4-4-680	.68	1⅞	.750
D4-4-820	.82	2⅜	.750
D4-4-1000	1.00	2⅜	1.00
	600V		
D4-6-10	.01	1	.235
D4-6-15	.015	1	.312
D4-6-22	.022	1	.400
D4-6-33	.033	1	.400
D4-6-47	.047	1⅜	.400
D4-6-68	.068	1⅜	.400
D4-6-100	.10	1⅜	.500
D4-6-150	.15	1⅜	.670
D4-6-220	.22	1⅞	.670
D4-6-330	.33	1⅞	.750
D4-6-470	.47	1⅞	1.00
D4-6-680	.68	2⅜	1.00
D4-6-820	.82	2⅜	1.00

Less 1/16 in length for Type D4G, one side grounded

"WRAP AND FILL MYLAR CAPACITORS ALSO AVAILABLE"



TYPE KM-7
HIGH VOLTAGE BAKELITE CASED CAPACITORS

F-C-I Type KM-7 capacitors are designed for high voltage applications where space is at a premium. Capacitors are housed in cylindrical electrical grade Bakelite cases and are filled with a purified mineral oil. The dielectric employed is a combination of polyester film and the finest grade capacitor tissue. Easy mounting is accomplished with the ¼-20 x ⅞ bolts. Corona is held to minimum because of the elimination of all metal. These capacitors are ideal for use in high voltage power supplies, test equipment, X-Ray equipment, energy storage, etc. Suitable for operation up to 85° C.

All capacitors are constructed with extended foil windings, and all internal wiring is kept to a minimum. This eliminates most of the series inductance and produces a very high ringing frequency, an extremely desirable condition for energy storage and pulsing capacitors.

Cat. No.	Cap. Mfd.	Dimensions L	D
	40 KVDC		
KM-7-400-10	.01	9⅛ x	1½
KM-7-400-20	.02	9⅛ x	2
KM-7-400-50	.05	11¾ x	2
KM-7-400-100	.10	17½ x	3
	50 KVDC		
KM-7-500-10	.01	11¾ x	1½
KM-7-500-20	.02	11¾ x	2
KM-7-500-50	.05	17½ x	2½
KM-7-500-100	.10	20¾ x	2½
	60 KVDC		
KM-7-600-10	.01	14⅜ x	2
KM-7-600-20	.02	14⅜ x	2½
KM-7-600-50	.05	22¼ x	2½
KM-7-600-100	.10	27¼ x	3

Cat. No.	Cap. Mfd.	Dimensions L	D
	80 KVDC		
KM-7-800-1	.001	12½ x	1½
KM-7-800-2	.002	12½ x	1½
KM-7-800-5	.005	12½ x	2
KM-7-800-10	.01	17½ x	2
KM-7-800-20	.02	17½ x	2½
KM-7-800-50	.05	27¼ x	3
	100 KDVC		
KM-7-100-05	.0005	18 x	1½
KM-7-1000-1	.001	18 x	1½
KM-7-1000-2	.002	18 x	2
KM-7-1000-5	.005	19⅝ x	2
KM-7-1000-10	.01	19⅝ x	3
KM-7-1000-20	.02	23¾ x	3

Cat. No.	Cap. Mfd.	Dimensions L	D
	120 KVDC		
KM-7-1200-05	.0005	19¼ x	1½
KM-7-1200-1	.001	19¼ x	2
KM-7-1200-2	.002	19¼ x	2
KM-7-1200-5	.005	22¼ x	2
KM-7-1200-10	.01	27¼ x	2½
KM-7-1200-20	.02	28¼ x	3
	150 KVDC		
KM-7-1500-05	.0005	23¾ x	1½
KM-7-1500-1	.001	23¾ x	2
KM-7-1500-2	.002	23¾ x	2
KM-7-1500-5	.005	27½ x	2½
KM-7-1500-10	.01	35 x	2½
KM-7-1500-20	.02	35 x	3

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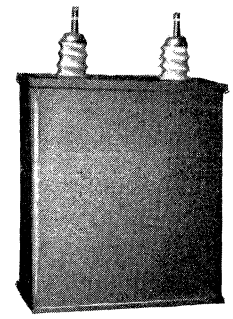
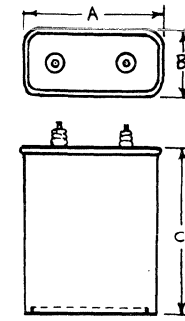
FILM CAPACITORS, INC.

HIGH VOLTAGE
TYPE KM-2 CAPACITORS—85 C OPERATION
WITH SOLDER-SEAL CERAMIC BUSHINGS

F-C-I type KM-2 capacitors have been designed specifically to meet the need for smaller, more reliable capacitors that will withstand the severe operating conditions encountered in military and industrial electronic equipment. The dielectric employed is a combination of synthetic Polyester film and the finest grade capacitor tissue. Capacitor cases are of CP70 rectangular construction. Units will meet the requirements of proposed specification MIL-C-19978. Terminals are of the solder seal ceramic type with screw bolt terminations for easy connections and true hermetic sealing. Capacity tolerance is plus or minus 10% with an insulation resistance of 20,000 megohm microfarads. Specify type KMH-2 for operating temperatures up to 125°C. Case sizes for the KMH-2 and engineering data for both series are available upon request. CP07 mounting brackets are available for all sizes.





Cat. No.	μf	A	B	C
	400 W. V. D. C.			
KM-2-4-500	0.5	1 13/16	1 1/16	1 5/8
KM-2-4-1M	1.0	1 13/16	1 1/16	1 5/8
KM-2-4-2M	2.0	1 13/16	1 1/16	2 1/4
KM-2-4-4M	4.0	2 1/2	1 3/16	2 7/8
KM-2-4-6M	6.0	2 1/2	1 3/16	4 3/4
KM-2-4-8M	8.0	3 3/4	1 1/4	4 1/4
KM-2-4-10M	10.0	3 3/4	1 1/4	4 3/4
KM-2-4-12M	12.0	3 3/4	1 3/4	3 7/8
KM-2-4-15M	15.0	3 3/4	1 3/4	4 3/4
	600 W. V. D. C.			
KM-2-6-500	0.5	1 13/16	1 1/16	1 5/8
KM-2-6-1M	1.0	1 13/16	1 1/16	2 1/4
KM-2-6-2M	2.0	1 13/16	1 1/16	2 7/8
KM-2-6-4M	4.0	2 1/2	1 3/16	3 1/2
KM-2-6-6M	6.0	2 1/2	1 3/16	4 3/4
KM-2-6-8M	8.0	3 3/4	1 1/4	3 7/8
KM-2-6-10M	10.0	3 3/4	1 1/4	4 3/4
KM-2-6-12M	12.0	3 3/4	2 1/4	3 3/8
KM-2-6-15M	15.0	3 3/4	2 1/4	4 3/4
	1000 W. V. D. C.			
KM-2-10-500	0.5	1 13/16	1 1/16	1 5/8
KM-2-10-1M	1.0	1 13/16	1 1/16	2 1/4
KM-2-10-2M	2.0	1 13/16	1 1/16	3 7/8
KM-2-10-4M	4.0	2 1/2	1 3/16	4 3/4
KM-2-10-6M	6.0	3 3/4	1 1/4	4 3/4
KM-2-10-8M	8.0	3 3/4	1 3/4	3 7/8
KM-2-10-10M	10.0	3 3/4	1 3/4	4 3/4
KM-2-10-12M	12.0	3 3/4	2 1/4	4 1/2
KM-2-10-15M	15.0	3 3/4	2 1/2	4 3/4
	1500 W. V. D. C.			
KM-2-15-100	0.1	1 13/16	1 1/16	1 5/8
KM-2-15-250	0.25	1 13/16	1 1/16	1 5/8
KM-2-15-500	0.5	1 13/16	1 1/16	2 1/4
KM-2-15-1M	1.0	1 13/16	1 1/16	3 7/8
KM-2-15-2M	2.0	2 1/2	1 3/16	4 3/4
KM-2-15-4M	4.0	3 3/4	1 3/4	4 3/4
KM-2-15-6M	6.0	3 3/4	3 3/16	4 1/2
KM-2-15-8M	8.0	4 9/16	3 3/4	4 3/8
KM-2-15-10M	10.0	4 9/16	3 3/4	5 1/8
KM-2-15-12M	12.0	4 9/16	3 3/4	6
KM-2-15-15M	15.0	4 9/16	3 3/4	8 1/2
	2000 W. V. D. C.			
KM-2-20-2M	2.0	3 3/4	1 1/4	4 3/4
KM-2-20-4M	4.0	3 3/4	2 1/2	4 3/4
KM-2-20-6M	6.0	3 3/4	3 3/16	5 1/8
KM-2-20-8M	8.0	4 9/16	3 3/4	4 3/8
KM-2-20-10M	10.0	4 9/16	3 3/4	5 1/2
KM-2-20-12M	12.0	4 9/16	3 3/4	6
KM-2-20-15M	15.0	4 9/16	3 3/4	9 5/8

Cat. No.	μf	A	B	C
	2500 W. V. D. C.			
KM-2-25-2M	2.0	3 3/4	1 1/4	4 3/4
KM-2-25-4M	4.0	3 3/4	2 1/4	5 1/8
KM-2-25-6M	6.0	4 9/16	3 3/4	4 3/8
KM-2-25-8M	8.0	4 9/16	3 3/4	5 1/2
KM-2-25-10M	10.0	4 9/16	3 3/4	6 1/2
KM-2-25-12M	12.0	4 9/16	3 3/4	9 5/8
	3000 W. V. D. C.			
KM-2-30-1M	1.0	3 3/4	1 3/4	3 1/4
KM-2-30-2M	2.0	3 3/4	2 1/4	3 7/8
KM-2-30-4M	4.0	3 3/4	3 3/16	5 1/2
KM-2-30-6M	6.0	4 9/16	3 3/4	5 1/2
	4000 W. V. D. C.			
KM-2-40-1M	1.0	3 3/4	1 1/4	3 1/4
KM-2-40-2M	2.0	3 3/4	2 1/4	5 1/8
KM-2-40-4M	4.0	4 9/16	3 3/4	5 1/2
	5000 W. V. D. C.			
KM-2-50-100	0.1	3 3/4	1 1/4	3 1/2
KM-2-50-250	0.25	3 3/4	1 1/4	3 1/2
KM-2-50-500	0.5	3 3/4	1 1/4	3 1/2
KM-2-50-1M	1.0	3 3/4	1 3/4	3 7/8
KM-2-50-2M	2.0	3 3/4	2 1/2	5 3/8
	6000 W. V. D. C.			
KM-2-60-100	0.1	3 3/4	1 1/4	3 1/2
KM-2-60-250	0.25	3 3/4	1 1/4	3 1/2
KM-2-60-500	0.5	3 3/4	1 1/4	3 1/2
KM-2-60-1M	1.0	3 3/4	2 1/4	4 3/8
KM-2-60-2M	2.0	3 3/4	3 3/16	5 1/8
	7500 W. V. D. C.			
KM-2-75-100	0.1	3 3/4	1 1/4	3 1/2
KM-2-75-250	0.25	3 3/4	1 1/4	3 7/8
KM-2-75-500	0.5	3 3/4	2 1/4	4 1/2
KM-2-75-1M	1.0	3 3/4	3 3/16	5 1/2
KM-2-75-2M	2.0	4 9/16	3 3/4	8 1/2
	10,000 W. V. D. C.			
KM-2-100-100	0.1	3 3/4	1 1/4	3 1/2
KM-2-100-250	0.25	3 3/4	2 1/4	3 7/8
KM-2-100-500	0.5	3 3/4	2 1/2	5 3/8
KM-2-100-1M	1.0	4 9/16	3 3/4	6
	12,500 W. V. D. C.			
KM-2-125-100	0.1	3 3/4	2 1/4	3 3/8
KM-2-125-250	0.25	3 3/4	2 1/4	4 1/2
KM-2-125-500	0.5	4 9/16	3 3/4	5 1/2
KM-2-125-1M	1.0	4 9/16	3 3/4	8 1/2

SEND FOR COMPLETE LISTING

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SERVICE-DESIGNED CAPACITORS

HOW TO SELECT THE RIGHT REPLACEMENT

It is easy to select the right G-E replacement for any aluminum electrolytic capacitor used in the past ten years.

IF YOU KNOW RATING ONLY: Refer to correct type of capacitor and locate the G-E capacitor with desired characteristics. For example if you need single-section tubular with capacitance of 55 mfd at 450 V, refer to QT TUBULAR ELECTROLYTICS, Single-Section. Look for the capacitance range in which 55 mfd falls (QT1-17: 40-**60** mfd; QT1-18: 50-**60** mfd; QT1-19: 50-**60** mfd). The rating in bold-face type (60 mfd in the above rating) is the absolute or maximum rating. Check voltage required. Since QT1-19 is the only one rated for 450V, it is the correct replacement.

If rating needed were 55 mfd at 250 volts you could correctly use either QT1-18 (up to 350V) or QT1-19 (up to 450V), since G-E capacitors will work properly at any voltage up to their maximum rating. You would then choose between QT1-18 and QT1-19 on the basis of the size (¼" difference in length) or price and probably choose QT1-18.

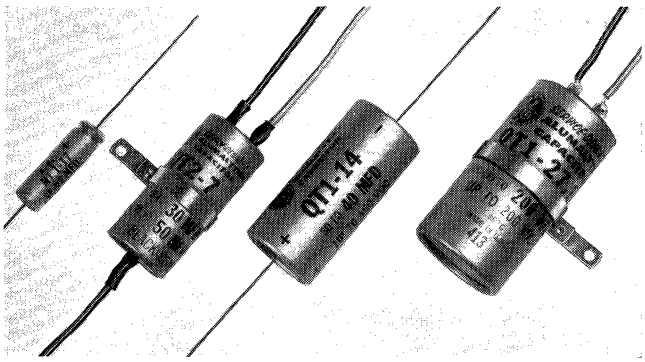
TO SELECT MULTI-SECTION UNITS (either tubular or can-type,) follow this same process for each section. Here's a quick way to do it:

1. List values of original capacitor sections in ascending order of value.
2. Match values with their voltage ratings.
3. Find G-E units that most closely match capacitance values starting from the lowest value. Use next higher value if first unit value does not match exactly.
4. Be sure that G-E voltage ratings equal or exceed original voltage ratings. Proper replacement will usually fall within two or three catalog numbers of the first unit checked.

EXPLANATION OF RATINGS

Cat. No.	Capacitance, Mfd	Voltage
SINGLE-SECTION QT1-19 (Single-section tubular)	50-**60** (a 60 mfd unit that can be used at any capacitance between 50 and 60 mfd; 50, 55 or 60 mfd)	(a 450V unit that can be used for any voltage up to and including 450V: 450, 350, 250, 175, 150 or 50 volts)
MULTI-SECTION XC4-16 (Quad-section can)	8-8-50-50 **10-10-60-100** (The two 10 mfd units can be used at any capacitance between 8 and 10 mfd; the 60 mfd between 50 and 60; the 100 mfd between 50 and 100)	450-450-200-50 (the two 450V units can be used for any voltage up to and including 450V; the 200V and the 50V units can also be used for any voltage up to and including 200V and 50V respectively)

QT TUBULAR ELECTROLYTICS



- Designed for 85°C operation in voltages to 600 WVDC.
- Long shelf and operating life.
- Superior capacitance, resistance and leakage current characteristics.
- Hermetically sealed in aluminum cans — with insulating sleeve.
- Insulated leads on multiple section units.

SINGLE-SECTION TUBULARS

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
QT1-1	**2**	Up to 450V	½ x 1⅜	$1.15
QT1-2	3-**4**	Up to 300V	½ x 1⅜	1.25
QT1-2.1	3-**4**	Up to 450V	9/16 x 1⅝	1.15
QT1-3	3-**5**	Up to 150V	½ x 1⅜	1.00
QT1-4	5-**8**	Up to 450V	⅝ x 1⅝	1.25
QT1-5	8-**10**	Up to 150V	½ x 1⅜	1.05
QT1-6	8-**10**	Up to 450V	¾ x 1⅝	1.30
QT1-7	8-**10**	Up to 600V	1 x 2 13/16	2.25
QT1-8	12-**16**	Up to 450V	⅞ x 1⅝	1.40
QT1-8.1	12-**20**	Up to 150V	9/16 x 1 11/16	1.20
QT1-9	16-**20**	Up to 350V	⅞ x 1⅝	1.45
QT1-10	15-**20**	Up to 475V	⅞ x 1⅝	1.60
QT1-11	16-**25**	Up to 50V	9/16 x 1⅝	1.05
QT1-12	25-**30**	Up to 450V	1 x 1 13/16	1.70
QT1-13	30-**40**	Up to 150V	¾ x 1⅝	1.35
QT1-14	30-**40**	Up to 450V	1 x 2⅛	1.80
QT1-15	25-**50**	Up to 50V	⅝ x 1⅝	1.20
QT1-16	40-**50**	Up to 450V	1 x 2⅜	2.10
QT1-17	40-**60**	Up to 150V	⅞ x 1⅝	1.50
QT1-18	50-**60**	Up to 350V	1 x 2⅜	1.95
QT1-19	50-**60**	Up to 450V	1 x 2⅝	2.35
QT1-20	60-**80**	Up to 150V	1 x 1⅝	1.60
QT1-21	60-**80**	Up to 450V	1 x 3⅛	2.80
QT1-22	50-**100**	Up to 15V	9/16 x 1⅜	1.25
QT1-23	50-**100**	Up to 50V	¾ x 1⅝	1.40
QT1-24	80-**100**	Up to 450V	1¼ x 2 13/16	3.20
QT1-24.1†	75-**140**	Up to 300V	1¼ x 2⅜	3.15
QT1-25	100-**150**	Up to 150V	1 x 2⅛	1.90
QT1-26	100-**150**	Up to 300V	1¼ x 2⅜	$3.15
QT1-27	150-**200**	Up to 200V	1¼ x 2⅜	2.90
QT1-27.1†	110-**200**	Up to 200V	1¼ x 2⅜	2.90
QT1-28	150-**250**	Up to 25V	¾ x 1⅝	1.70
QT1-29	200-**300**	Up to 150V	1 x 3⅝	2.55
QT1-30	250-**500**	Up to 15V	¾ x 1 13/16	1.75
QT1-31	250-**500**	Up to 50V	1 x 2⅜	2.40
QT1-32	500-**1000**	Up to 15V	1 x 1 13/16	2.30
QT1-33	1500-**2000**	Up to 15V	1 x 2 13/16	3.20

* Add 1/16" to diameter and ⅛" to length to all for insulating sleeve.
† Single ended with 5" insulated leads and mounting bracket.

DUAL-SECTION TUBULARS§

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
QT2-1	4-150-**5-200**	150-150	1 x 2⅞	$2.65
QT2-1.2	3-100-**5-200**	250-250	1⅜ x 2 3/16	4.40
QT2-2	5-5-**8-8**	450-450	⅞ x 1⅞	1.70
QT2-3	8-8-**10-10**	450-450	⅞ x 1⅞	1.85

* Add 1/16" to diameter and ⅛" to length to allow for insulating sleeve.
§ All designs have mounting bracket and insulated leads.

Trade Discount Applies To List Prices Only
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QT TUBULAR ELECTROLYTICS (cont'd)

Dual-Section Tubulars (cont'd)

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
QT2-3.1	7-14-**10-20**	450-450	7/8 x 1 15/16	$2.25
QT2-4	8-30-**10-40**	350-350	7/8 x 2 5/8	2.35
QT2-5	16-16-**20-20**	150-150	7/8 x 1 5/8	1.65
QT2-6	16-16-**20-20**	450-450	7/8 x 2 5/8	2.50
QT2-6.1‡	14-14-**20-20**	450-450	1 x 3 1/2	3.70
QT2-6.2	10-75-**20-150**	150-150	1 x 2 3/16	3.05
QT2-7	20-40-**30-50**	150-150	7/8 x 1 7/8	1.95
QT2-8	30-30-**40-40**	450-450	1 x 3 3/8	3.40
QT2-9	40-40-**50-50**	150-150	7/8 x 1 7/8	2.10
QT2-10	40-60-**50-80**	150-150	7/8 x 2 5/8	2.35
QT2-10.1	40-70-**80-125**	250-250	1 x 3 7/16	4.30
QT2-10.2	50-75-**100-125**	300-350	1 3/8 x 2 11/16	6.40
QT2-11‡	60-60-**120-120**	150-150	1 1/4 x 3 3/4	3.45

TRIPLE-SECTION TUBULARS

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
QT3-0.1	2-30-30 **4-60-60**	350-350-350	1 x 3 7/16	$5.20
QT3-0.2	3-70-100 **5-150-200**	350-350-200	1 3/8 x 3 11/16	6.70
QT3-1	8-8-8- **10-10-10**	450-450-450	1 x 1 5/8	2.80
QT3-1.1	7-7-75 **10-10-150**	450-450-150	1 x 1 11/16	3.85
QT3-1.2	5-100-125 **10-200-250**	150-150-150	1 3/8 x 2 11/16	4.50
QT3-2	16-16-16 **20-20-20**	450-450-450	1 x 2 7/8	3.80
QT3-2.1	10-10-10 **20-20-20**	150-150-150	1 x 1 11/16	2.80
QT3-3	16-25-30 **20-30-40**	150-150-150	1 x 1 7/8	2.65
QT3-4	16-25-50 **20-30-60**	150-150-150	1 x 2 3/8	2.60
QT3-5	16-30-30 **20-40-40**	150-150-150	1 x 1 7/8	2.70
QT3-5.1	10-30-30 **20-40-40**	350-450-450	1 x 3 11/16	5.40
QT3-6	16-30-60 **20-40-80**	150-150-150	1 x 2 3/8	2.90
QT3-7	16-40-40 **20-50-50**	150-150-150	1 x 2 3/8	2.70
QT3-7.1	25-40-50 **50-80-100**	150-150-150	1 x 2 7/16	3.60
QT3-8	30-30-30 **50-50-50**	150-150-150	1 x 2 3/8	3.15
QT3-9	25-30-125 **50-60-250**	150-150-25	1 x 2 7/16	3.65
QT3-10	25-60-125 **50-120-250**	25-150-150	1 3/8 x 2 7/16	4.35
QT3-11	30-50-60 **60-100-120**	300-300-300	1 3/8 x 2 15/16	6.50
QT3-12	35-50-70 **70-75-100**	25-400-400	1 3/8 x 3 3/16	6.40
QT3-13	75-75-75 **150-150-150**	150-150-150	1 3/8 x 2 11/16	5.05

* Add 1/16" to diameter and 1/8" to length to allow for insulating sleeve.
§ All designs have mounting bracket and insulated leads.
¶ Replacement for antenna rotator capacitors.

QUAD-SECTION TUBULARS

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
QT4-1	4-20-100-150 **5-30-140-200**	300-200-350-200	1 3/8 x 3 5/8	$6.85
QT4-1.1	7-15-15-15 **10-20-20-20**	450-450-450-450	1 3/8 x 1 15/16	5.25
QT4-2	8-30-30-60 **10-40-40-80**	450-250-250-300	1 3/8 x 2 5/8	4.95
QT4-2.1	7-20-40-50 **10-40-80-100**	450-300-400-300	1 3/8 x 3 7/16	6.90
QT4-3	16-16-30-30 **20-20-40-40**	450-450-450-450	1 3/8 x 3 1/8	5.45
QT4-4	16-20-30-40 **20-30-40-50**	25-150-150-150	1 3/8 x 2	5.50
QT4-5	15-50-50-50 **20-100-100-100**	400-200-50-300	1 3/8 x 3 15/16	6.80
QT4-6	15-20-50-100 **20-40-100-200**	150-150-150-150	1 3/8 x 2 7/16	4.85

NONPOLARIZED TUBULARS

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
NPQT-1	3-**5**	30	1/2 x 1 3/8	$1.50
NPQT-2	4-**5**	350	3/4 x 1 5/8	1.70
NPQT-3	8-**10**	400	1 x 1 5/8	2.00
NPQT-4	15-**20**	350	1 x 1 5/8	2.50
NPQT-5	15-**20**	30	5/8 x 1 5/8	1.55
NPQT-5.1¶	66.5-**90**	50	7/8 x 2 7/8	1.50
NPQT-5.2¶	100-**120**	50	1 x 2 7/8	2.00
NPQT-6	250-**500**	10	1 3/8 x 1 5/8	2.00
NPQT-7	500-**1000**	3	1 3/8 x 1 5/8	2.10

MT1 MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS IN ALUMINUM CASES

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
MT1-1	1-**2**	50	3/16 x 1/2	$1.35
MT1-2	1-**2**	150	5/16 x 5/8	1.45
MT1-3	3-**5**	50	1/4 x 1/2	1.45
MT1-4	3-**5**	150	3/8 x 5/8	1.55
MT1-5	6-**10**	25	1/4 x 5/8	1.45
MT1-6	6-**10**	50	5/16 x 5/8	1.50
MT1-7	6-**10**	100	3/8 x 7/8	1.55
MT1-8	6-**10**	150	3/8 x 1	1.60
MT1-9	12-**20**	100	3/8 x 1 1/2	1.60
MT1-10	15-**25**	15	5/16 x 5/8	1.45
MT1-11	15-**25**	25	3/8 x 5/8	1.55
MT1-12	15-**25**	50	3/8 x 3/4	1.60
MT1-13	20-**35**	6	5/16 x 5/8	1.40
MT1-14	20-**25**	50	3/8 x 7/8	1.70
MT1-15	25-**50**	6	5/16 x 3/4	1.40
MT1-16	25-**50**	15	3/8 x 5/8	1.60
MT1-17	**25-50**	50	3/8 x 1 1/4	1.85
MT1-18	50-**100**	6	3/8 x 3/4	1.50
MT1-19	50-**100**	15	3/8 x 7/8	1.80
MT1-20	50-**100**	25	3/8 x 1 1/2	1.80
MT1-21	75-**150**	6	3/8 x 7/8	1.55
MT1-22	**100-200**	3	3/8 x 7/8	1.50
MT1-23	100-**200**	15	3/8 x 1 1/2	2.10
MT1-24	150-**300**	6	3/8 x 1	1.80
MT1-25	125-**250**	12	3/8 x 1 1/2	2.10
MT1-26	250-**500**	3	3/8 x 1 1/2	1.75

For explanation of ratings, see first page of G-E capacitors

All prices are subject to change without notice.

GENERAL ELECTRIC

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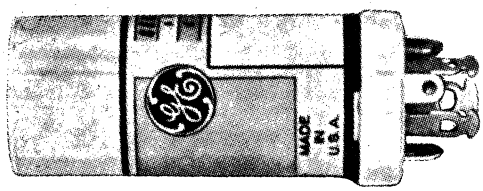
SERVICE-DESIGNED CAPACITORS

XC TWIST-PRONG ELECTROLYTICS



- Designed for 85°C operation.
- Withstand high surge voltages.
- Ideal for high Ripple Selenium Rectifier Circuits.
- Furnished complete with Phenolic Mounting Plate.

SINGLE-SECTION CANS

Cat. No.	Capacitance, Mfd	Voltage	Size	List Price
XC1-1	7-**10**	Up to 500V	1 x 2	$1.70
XC1-2	15-**20**	Up to 500V	1 x 2	1.85
XC1-3	30-**40**	Up to 500V	1 x 2½	2.50
XC1-4	25-**50**	Up to 150V	1 x 2	1.65
XC1-5	30-**50**	Up to 350V	1 x 2	2.10
XC1-6	35-**50**	Up to 450V	1 x 2½	2.35
XC1-7	50-**80**	Up to 350V	1⅜ x 2	2.85
XC1-8	60-**80**	Up to 450V	1⅜ x 2½	3.05
XC1-9	60-**80**	Up to 500V	1⅜ x 2½	3.35
XC1-10	60-**100**	Up to 150V	1 x 2	2.00
XC1-11	60-**100**	Up to 300V	1 x 3	2.90
XC1-12	60-**100**	Up to 300V	1⅜ x 2	2.90
XC1-13	70-**100**	Up to 450V	1⅜ x 2½	3.45
XC1-14	70-**125**	Up to 200V	1 x 3	2.50
XC1-15	100-**125**	Up to 450V	1⅜ x 3	3.85
XC1-16	80-**140**	Up to 150V	1 x 2½	2.15
XC1-16.1*	80-**150**	Up to 150V	1 x 2½	2.20
XC1-17	100-**150**	Up to 150V	1⅜ x 2	2.15
XC1-18	100-**150**	Up to 350V	1⅜ x 3½	3.60
XC1-19	100-**160**	Up to 250V	1⅜ x 2½	3.40
XC1-20	120-**200**	Up to 150V	1 x 3	2.70
XC1-21	120-**200**	Up to 300V	1⅜ x2 ½	4.05
XC1-22	200-**300**	Up to 150V	1⅜ x 2½	2.80
XC1-23	250-**300**	Up to 350V	1⅜ x 4	5.55
XC1-24	250-**500**	Up to 25V	1 x 2	2.40
XC1-25	250-**500**	Up to 50V	1⅜ x 2	2.65
XC1-26	500-**1000**	Up to 16V	1 x 2	2.55
XC1-27	750-**1500**	Up to 50V	1⅜ x 3	4.40
XC1-28	1000-**2000**	Up to 16V	1⅜ x 2	3.45
XC1-29	1500-**3000**	Up to 16V	1⅜ x 2½	4.25

*Can insulated

DUAL-SECTION CANS

Cat. No.	Capacitance, Mfd	Voltage	Size	List Price
XC2-1	3-60 **4-80**	350V-450V	1 x 3½	$3.40
XC2-2	4-4 **5-5**	450V-450V	1 x 2	1.90
XC2-3	4-15 **5-20**	350V-350V	1 x 2	2.05
XC2-4	4-120 **5-200**	200V-200V	1⅜ x 2½	2.80
XC2-5	8-8 **10-10**	500V-500V	1 x 2	2.00
XC2-6	8-16 **10-20**	350V-475V	1 x 2½	2.35
XC2-7	5-20 **10-30**	50V-200V	1 x 2	2.00
XC2-8	8-25 **10-30**	500V-500V	1 x 3	2.60
XC2-9	8-30 **10-40**	300V-300V	1 x 2	2.50
XC2-10	8-30 **10-40**	450V-450V	1 x 2	2.75
XC2-11	8-40 **10-50**	300V-350V	1⅜ x 2	$2.90
XC2-12	8-100 **10-160**	350V-350V	1⅜ x 3	4.30
XC2-13	15-15 **20-20**	250V-250V	1 x 2	1.90
XC2-14	15-15 **20-20**	450V-450V	1 x 2½	2.55
XC2-15	15-15 **20-20**	500V-500V	1⅜ x 2	2.85
XC2-16	15-30 **20-40**	350V-350V	1 x 2½	2.75
XC2-17	15-30 **20-40**	450V-450V	1⅜ x 2	3.25
XC2-18	15-60 **20-80**	350V-350V	1⅜ x 2½	3.50
XC2-18.1	15-40 **20-80**	450V-350V	1 x 3	3.25
XC2-19	15-60 **20-80**	450V-450V	1⅜ x 2½	3.90
XC2-20	15-75 **20-100**	475V-400V	1⅜ x 3	4.50
XC2-21	20-30 **20-50**	150V-150V	1 x 2	2.00
XC2-22	20-40 **30-60**	350V-350V	1⅜ x 2	3.15
XC2-23	20-75 **30-100**	50V-400V	1⅜ x 2½	3.90
XC2-24	30-30 **40-40**	250V-250V	1 x 2½	2.50
XC2-25	30-30 **40-40**	450V-450V	1⅜ x 2½	3.45
XC2-26	30-35 **40-45**	500V-500V	1⅜ x 2½	4.40
XC2-27	30-60 **40-80**	350V-350V	1⅜ x 2½	4.10
XC2-28	30-75 **40-100**	450V-450V	1⅜ x 3½	4.85
XC2-28.1	30-50 **40-100**	450V-50V	1 x 2½	2.80
XC2-29	30-30 **50-50**	150V-150V	1 x 2	2.15
XC2-30	30-60 **50-80**	150V-150V	1 x 2½	2.40
XC2-31	30-60 **50-80**	475V-475V	1⅜ x 3½	5.20
XC2-32	30-100 **50-150**	50V-150V	1 x 3	2.50
XC2-32.1	25-250 **50-500**	150V-5V	1 x 2	2.45
XC2-33	40-40 **60-60**	450V-450V	1⅜ x 3	4.50
XC2-34	60-60 **80-80**	200V-400V	1⅜ x 2½	3.95
XC2-35	60-60 **80-80**	450V-450V	1⅜ x 3½	5.40
XC2-36	60-75 **80-100**	450V-50V	1⅜ x 3	3.75
XC2-37	50-50 **100-100**	50V-50V	1 x 2	2.10
XC2-38	75-75 **100-100**	200V-300V	1⅜ x 3	3.45
XC2-39	75-75 **100-100**	400V-400V	1⅜ x 4	5.75
XC2-40	75-100 **100-150**	150V-150V	1 x 3½	3.10
XC2-41	75-100 **100-150**	150V-150V	1⅜ x 2	3.25
XC2-42	75-90 **100-120**	400V-400V	1⅜ x 4	6.20
XC2-43	100-120 **200-200**	250V-250V	1⅜ x 4	5.50
XC2-43.1	300-100 **800-250**	16V-16V	1 x 2	2.75
XC2-44	500-500 **1000-1000**	16V-16V	1 x 3½	3.80
XC2-45	500-500 **1000-1000**	30V-30V	1⅜ x 2½	5.35

Trade Discount Applies To List Prices Only
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XC TWIST-PRONG ELECTROLYTICS (cont'd)

TRIPLE-SECTION CANS

Cat. No.	Capacitance, Mfd	Voltage	Size	List Price
XC3-1	4-18-15 **5-10-20**	350-400-400	1 x 2	$2.55
XC3-2	4-15-30 **5-20-40**	350-475-400	1 x 3	3.70
XC3-3	4-15-50 **56-20-40**	350-350-400	1 x 3½	3.70
XC3-4	4-30-100 **5-40-250**	350-350-350	1⅜ x 3½	5.05
XC3-5	4-40-75 **5-50-100**	450-350-350	1⅜ x 3	4.55
XC3-5.1	3-30-100 **5-60-200**	200-200-50	1 x 2½	2.90
XC3-6	4-50-75 **5-100-125**	200-75-350	1⅜ x 3	4.80
XC3-6.1	2-250-500 **5-500-1000**	32-16-16	1 x 2½	4.10
XC3-7	8-8-8 **10-10-10**	450-450-450	1 x 2	2.60
XC3-8	8-8-30 **10-10-40**	400-400-400	1 x 3	3.35
XC3-9	8-8-60 **10-10-80**	450-450-450	1⅜ x 2½	4.80
XC3-10	8-15-10 **10-20-20**	350-350-25	1 x 2	2.55
XC3-11	8-15-20 **10-20-30**	475-475-350	1 x 3	3.40
XC3-12	8-15-60 **10-20-80**	350-450-350	1⅜ x 2½	4.25
XC3-13	8-15-75 **10-20-100**	450-350-350	1⅜ x 2½	4.55
XC3-13.1	7-15-50 **10-20-100**	450-450-50	1 x 2½	2.95
XC3-14	8-20-75 **10-30-100**	150-150-150	1 x 2½	2.85
XC3-15	8-30-30 **10-40-40**	500-500-500	1⅜ x 2½	5.05
XC3-16	8-30-75 **10-40-100**	400-400-350	1⅜ x 3	5.05
XC3-17	8-35-75 **10-45-100**	450-450-200	1⅜ x 2½	4.15
XC3-17.1	7-40-75 **10-50-100**	500-475-450	1⅜ x 3	5.45
XC3-18	8-60-75 **10-80-100**	400-350-400	1⅜ x 3½	5.55
XC3-19	8-75-110 **10-100-150**	450-300-300	1⅜ x 3½	5.75
XC3-20	8-150-200 **10-200-250**	450-300-200	1⅜ x 4	6.85
XC3-21	12-12-15 **15-15-20**	450-450-450	1 x 3	3.25
XC3-22	12-12-20 **15-15-40**	450-450-25	1 x 2½	2.75
XC3-22.1	10-20-75 **15-30-150**	500-500-50	1⅜ x 2½	3.70
XC3-23	15-15-15 **20-20-20**	350-350-350	1 x 2½	2.90
XC3-23.1	15-15-10 **20-20-20**	450-450-25	1 x 2	2.95
XC3-24	15-15-15 **20-20-20**	450-450-450	1⅜ x 2	3.60
XC3-25	15-10-20 **20-20-30**	350-25-350	1 x 2½	2.95
XC3-26	15-15-30 **20-20-40**	450-450-450	1⅜ x 2½	4.40
XC3-27	15-15-75 **20-20-100**	450-450-350	1⅜ x 3	4.95
XC3-28	15-20-30 **20-30-40**	150-150-150	1 x 2	2.60
XC3-28.1	10-15-20 **20-30-40**	350-350-350	1 x 3	3.00
XC3-29	15-30-30 **20-40-40**	450-450-450	1⅜ x 2½	4.45
XC3-30	15-30-50 **20-40-60**	450-450-450	1⅜ x 3	5.00
XC3-31	15-30-60 **20-40-80**	150-150-150	1 x 2½	2.90
XC3-32	15-30-60 **20-40-80**	450-450-450	1⅜ x 3	$5.40
XC3-33	15-30-60 **20-40-90**	350-350-350	1⅜ x 3	4.85
XC3-34	15-60-75 **20-80-100**	450-450-350	1⅜ x 3½	5.85
XC3-35	15-75-90 **20-100-240**	450-400-300	1⅜ x 4	6.70
XC3-35.1	10-75-75 **20-140-140**	350-350-350	1⅜ x 4	6.00
XC3-36	20-20-30 **30-30-40**	475-475-475	1⅜ x 3	5.15
XC3-36.1	20-40-75 **30-60-100**	500-450-450	1⅜ x 3½	6.00
XC3-37	20-15-150 **30-60-200**	400-350-150	1⅜ x 3	5.00
XC3-38	30-30-30 **40-40-40**	150-150-150	1 x 2½	2.60
XC3-39	30-30-20 **40-40-40**	450-450-25	1⅜ x 2½	3.95
XC3-40	30-30-30 **40-40-40**	450-450-450	1⅜ x 3	4.90
XC3-41	30-60-80 **40-80-125**	450-400-350	1⅜ x 4	6.30
XC3-41.1	20-20-100 **40-40-250**	150-150-25	1 x 2½	3.15
XC3-41.2	30-40-50 **40-60-100**	500-500-350	1⅜ x 3½	6.10
XC3-42	30-60-300 **40-80-500**	400-400-50	1⅜ x 3½	5.80
XC3-43	30-70-70 **40-120-120**	150-150-150	1⅜ x 2½	4.05
XC3-44	30-30-30 **50-50-50**	150-150-150	1 x 2½	3.05
XC3-45	40-40-50 **60-60-80**	350-350-350	1⅜ x 3½	5.55
XC3-45.1	30-40-50 **60-80-100**	175-175-175	1 x 3	3.60
XC3-45.2	30-50-100 **60-100-200**	100-350-350	1⅜ x 4	6.25
XC3-46	40-80-125 **60-140-200**	200-150-150	1⅜ x 3	4.40
XC3-47	60-125-175 **80-200-300**	150-150-150	1⅜ x 3½	5.00
XC3-47.1	30-75-250 **100-200-700**	16-16-16	1 x 1¾	3.35
XC3-48	50-250-250 **100-500-500**	16-16-16	1 x 2	3.35
XC3-48.1	80-80-150 **250-250-500**	16-16-16	1 x 1¾	3.35

Quad-Section Cans on Next Page

ACCESSORIES

Cat. No.	Description	List Price
W53	Mounting wafer (phenolic) for 1 inch can	$0.10
WL4	Mounting wafer (phenolic) for 1⅜ inch can	.10
WM3	Mounting wafer (metal) for 1 inch can	.10
WM4	Mounting wafer (metal) for 1⅜ inch can	.10
PMA1	*Printed board mounting adapter kit	.45
1T9	†Insulating sleeves for 1 x 4 inch can	.10
1T14	†Insulating sleeves for 1⅜ x 4 inch can	.10

* Half-moon terminal ends must be removed from capacitors before installing printed-circuit adapters.

† Can be easily cut to fit 2, 2½, 3 and 3½-inch cans.

For explanation of ratings, see first page of G-E capacitors

All prices are subject to change without notice.

GENERAL ELECTRIC

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SERVICE-DESIGNED CAPACITORS

XC TWIST-PRONG ELECTROLYTICS (cont'd)

QUAD-SECTION CANS

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
XC4-1	3-8-8-8-10 **4-10-10-20**	300-500-300-25	2	$3.35
XC4-2	3-8-30-100 **5-10-40-160**	350-475-400-350	4	6.30
XC4-3	3-8-40-100 **5-10-60-160**	300-300-300-350	3½	6.20
XC4-4	3-8-75-100 **4-10-100-160**	350-475-300-350	4	6.70
XC4-4.1	2-100-250-250 **4-350-750-750**	32-16-16-16	2	4.80
XC4-5	4-4-4-4 **5-5-5-5**	450-450-450-450	2	3.00
XC4-6	4-4-20-60 **5-5-25-70**	450-450-450-450	2½	5.10
XC4-7	4-8-8-60 **5-10-10-70**	450-450-450-450	2½	5.00
XC4-8	4-8-30-30 **5-10-35-40**	450-475-450-475	2½	5.00
XC4-9	4-15-40-50 **5-20-50-60**	450-350-350-400	3	5.15
XC4-10	4-25-30-60 **5-30-40-80**	400-400-400-400	3½	5.85
XC4-11	4-30-75-80 **5-40-100-110**	350-350-75-350	3	5.50
XC4-12	8-8-8-8 **10-10-10-10**	450-450-450-450	2	3.35
XC4-13	8-8-15-30 **10-10-20-40**	475-475-475-475	2½	4.85
XC4-14	8-8-15-90 **10-10-20-130**	475-350-350-350	3	5.60
XC4-15	8-8-30-30 **10-10-35-40**	450-450-450-450	2½	4.80
XC4-16	8-8-50-50 **10-10-60-100**	450-450-200-50	2	3.85
XC4-17	8-8-75-100 **10-10-100-150**	475-400-300-300	3½	6.20
XC4-18	8-15-15-100 **10-20-20-140**	475-300-300-300	2½	5.05
XC4-19	8-10-20-75 **10-20-30-100**	400-50-50-400	2½	5.10
XC4-20	8-15-30-30 **10-20-40-40**	350-350-350-350	2½	4.40
XC4-21	8-15-30-30 **10-20-40-40**	450-25-450-450	2½	4.70
XC4-22	8-15-30-50 **10-20-40-60**	350-475-350-350	2½	4.95
XC4-23	8-15-30-90 **10-20-40-125**	475-450-450-300	3	5.80
XC4-24	8-15-30-90 **10-20-40-130**	350-350-475-350	3½	6.35
XC4-25	8-15-30-90 **10-20-50-120**	350-350-50-350	3	5.10
XC4-26	8-10-30-90 **10-20-50-120**	475-400-50-400	3	5.90
XC4-27	8-10-50-75 **10-20-60-100**	150-50-200-300	2½	4.55
XC4-28	8-15-60-75 **10-20-80-100**	300-50-350-350	3½	5.35
XC4-29	8-15-75-100 **10-20-100-140**	450-300-300-350	4	6.60
XC4-30	8-15-100-100 **10-20-140-150**	450-300-350-300	4	6.70
XC4-31	8-15-100-150 **10-20-150-250**	250-350-300-50	3	5.55
XC4-32	8-15-30-50 **10-25-40-60**	450-25-350-350	2½	4.60
XC4-33	8-15-30-50 **10-25-40-100**	350-25-350-25	2	3.75
XC4-34	8-25-30-60 **10-30-40-80**	450-450-450-475	3½	6.65
XC4-35	8-25-30-60 **10-30-40-80**	450-300-400-400	3	$5.75
XC4-36	8-25-25-75 **10-30-50-150**	475-500-50-50	2½	4.45
XC4-37	8-25-75-150 **10-30-100-200**	300-300-300-300	4	6.80
XC4-38	8-25-100-150 **10-30-140-200**	300-150-300-150	3½	5.70
XC4-39	8-25-150-150 **10-30-200-200**	300-150-200-150	3½	5.50
XC4-40	8-30-30-60 **10-40-40-80**	250-300-300-300	3	4.85
XC4-41	8-30-25-75 **10-40-50-100**	350-350-50-350	3	5.15
XC4-42	8-30-60-75 **10-40-80-100**	475-400-400-400	4	6.95
XC4-43	8-30-90-110 **10-40-120-150**	250-400-250-50	3	5.20
XC4-44	8-50-50-60 **10-60-60-80**	150-200-350-350	3	5.40
XC4-44.1	5-30-50-50 **10-60-100-100**	200-350-350-150	3	4.90
XC4-45	12-12-12-30 **15-15-15-40**	450-350-450-350	2½	4.00
XC4-46	12-15-10-10 **15-20-20-20**	450-450-25-25	2	3.45
XC4-47	12-30-30-20 **15-40-40-40**	450-450-450-50	3	5.20
XC4-48	15-15-15-10 **20-20-20-20**	450-450-450-25	2	4.15
XC4-49	15-15-15-10 **20-20-20-20**	450-450-450-450	2½	4.55
XC4-50	15-15-15-15 **20-20-20-20**	475-475-475-475	2½	4.85
XC4-51	15-15-15-50 **20-20-20-60**	450-450-450-450	3	5.50
XC4-52	15-15-15-75 **20-20-20-100**	450-450-450-300	3	5.30
XC4-53	15-15-15-150 **20-20-20-200**	300-300-300-300	3½	5.95
XC4-54	15-15-30-20 **20-20-40-40**	450-450-450-25	2½	4.65
XC4-55	15-15-30-30 **20-20-40-40**	450-450-450-450	3	5.55
XC4-56	15-15-30-75 **20-20-40-100**	350-350-350-400	3½	6.00
XC4-57	15-15-60-150 **20-20-80-200**	350-300-350-150	3½	5.50
XC4-58	15-15-75-75 **20-20-100-100**	400-400-350-100	3½	5.50
XC4-59	15-15-75-100 **20-20-100-140**	300-300-300-350	4	5.00
XC4-60	15-20-30-75 **20-25-35-100**	200-450-450-50	2½	4.65
XC4-61	15-20-30-30 **20-25-35-100**	450-50-450-450	2½	5.05
XC4-62	10-25-30-30 **20-30-40-40**	25-350-350-350	2½	4.20
XC4-63	15-25-30-25 **20-30-40-50**	300-300-300-25	2	4.00
XC4-64	15-25-25-150 **20-30-50-200**	350-400-50-350	4	6.75
XC4-65	15-30-50-50 **20-40-60-60**	150-350-350-200	3	4.80
XC4-66	15-30-50-60 **20-40-60-80**	400-300-450-350	3½	6.15
XC4-67	15-30-50-65 **20-40-60-90**	350-350-350-350	3½	5.90
XC4-68	15-30-50-150 **20-40-60-200**	150-150-150-10	2	3.60
XC4-69	15-50-60-50 **20-60-80-100**	350-350-150-50	2½	4.65

* All Dia. are 1⅜".

Trade Discount Applies To List Prices Only

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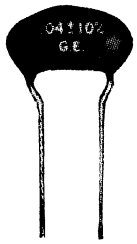
XC TWIST-PRONG ELECTROLYTICS (cont'd)

Quad-Section Cans (cont'd)

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
XC4-70	15-75-75-170 **20-100-100-240**	350-150-150-150	3½	$5.95
XC4-70.1	15-60-50-80 **20-100-100-150**	450-350-50-350	4	6.75
XC4-71	15-30-60-75 **25-40-80-100**	50-400-350-200	3½	5.55
XC4-72	25-25-30-30 **30-30-40-40**	450-350-450-350	3	5.35
XC4-73	25-25-30-30 **30-30-150-150**	450-450-300-300	4	6.95
XC4-74	25-30-20-60 **30-40-40-80**	400-400-25-400	3½	5.90
XC4-75	25-30-25-100 **30-40-50-140**	350-350-50-350	3½	5.90
XC4-76	25-30-40-150 **30-40-50-200**	400-300-250-150	3	5.45
XC4-77	25-45-150-150 **30-60-200-100**	175-175-175-175	3½	6.15
XC4-78	30-30-30-30 **40-40-40-40**	150-150-150-150	2	$3.60
XC4-79	30-30-30-20 **40-40-40-40**	450-450-450-25	3	5.50
XC4-80	30-30-30-30 **40-40-40-40**	450-450-450-450	3½	6.25
XC4-81	30-30-20-60 **40-40-40-80**	150-150-25-150	2	3.65
XC4-82	30-30-20-60 **40-40-40-80**	450-450-25-450	3½	6.45
XC4-83	30-30-50-100 **40-40-60-150**	350-350-350-75	3	5.25
XC4-84	30-50-50-75 **40-60-60-100**	400-400-300-400	4	6.85
XC4-85	50-60-75-50 **60-80-100-100**	400-350-200-50	3½	5.90

* All Dia. are 1⅜".

PAPER MYLAR‡ CAPACITORS



MPC SIDE-LEAD TUBULARS

- ±10% capacitance tolerance
- 85° OPERATION: for 125°C derate working voltage by 25%
- Dual DIELECTRIC (Mylar-Paper) solidly impregnated with rock-type casing with high humidity resistance.

Cat. No.	Capacitance, Mfd.	Size	List Price
200 W.V.D.C			
MPC-2S2	.02	.350 x .855	$0.25
MPC-2S47	.047	.450 x .855	.30
MPC-2S5	.05	.450 x .855	.30
MPC-2P1	.1	.470 x 1.180	.35
MPC-2P15	.15	.540 x 1.180	.40
MPC2P25	.25	.620 x 1.300	.45
MPC-2P47	.47	.730 x 1.600	.60
MPC-2P5	.5	.730 x 1.600	.60
400 W.V.D.C.			
MPC-4S1	.01	.390 x .690	.25
MPC-4S15	.015	.430 x .690	.25
MPC-4S2	.02	.390 x .855	.30
MPC-4S22	.022	.400 x .855	.30
MPC-4S33	.033	.440 x .855	.30
MPC-4S47	.047	.415 x 1.150	.35
MPC-4S5	.05	.415 x 1.150	.35
MPC-4S68	.068	.440 x 1.180	.35
MPC-4P1	.10	.520 x 1.180	.40
MPC-4P15	.15	.560 x 1.300	.50
MPC-4P22	.22	.620 x 1.560	.60
MPC-4P25	.25	.650 x 1.560	.60
MPC-4P47	.47	.850 x 1.600	.70
MPC-4P5	.50	.850 x 1.600	.75
600 W.V.D.C.			
MPC-6D1	.001	.340 x .690	.25
MPC-6D15	.0015	.340 x .690	.25
MPC-6D2	.002	.340 x .690	.25
MPC-6D22	.0022	.340 x .690	.25
MPC-6D25	.0025	.350 x .690	.25
MPC-6D27	.0027	.370 x .690	.25
MPC-6D3	.003	.370 x .690	.25
MPC-6D33	.0033	.370 x .690	.25
MPC-6D39	.0039	.370 x .690	.25
MPC-6D4	.004	.400 x .690	.25
MPC-6D47	.0047	.400 x .690	.25
MPC-6D5	.005	.415 x .690	.25
MPC-6D56	.0056	.415 x .690	.25
MPC-6D6	.006	.430 x .690	.25
MPC-6D68	.0068	.370 x .870	.25
MPC-6D75	.0075	.370 x .870	.30
MPC-6D8	.008	.390 x .870	.30
MPC-6S1	.01	.400 x .870	.30
MPC-6S12	.012	.415 x .870	.30
MPC-6S15	.015	.445 x .870	.30
MPC-6S2	.02	.470 x .870	.30
MPC-6S22	.022	.400 x 1.150	.30
MPC-6S25	.025	.415 x 1.150	.35
MPC-6S27	.027	.370 x .690	.35
MPC-6S3	.03	.415 x 1.150	$0.35
MPC-6S33	.033	.430 x 1.150	.35
MPC-6S39	.039	.470 x 1.150	.35
MPC-6S4	.04	.470 x 1.150	.35
MPC-6S47	.047	.490 x 1.150	.40
MPC-6S5	.05	.490 x 1.150	.40
MPC-6S56	.056	.520 x 1.100	.40
MPC-6S6	.06	.520 x 1.180	.45
MPC-6S68	.068	.540 x 1.300	.45
MPC-6S75	.075	.570 x 1.300	.45
MPC-6S82	.082	.590 x 1.300	.45
MPC-6P1	.10	.640 x 1.300	.45
MPC-6P15	.15	.650 x 1.560	
MPC-6P2	.20	.730 x 1.560	.65
MPC-6P22	.22	.750 x 1.560	.65
1600 W.V.D.C.			
MPC-16D1	.001	.350 x 8.70	.35
MPC-16D15	.0015	.375 x .870	.35
MPC-16D18	.0018	.400 x .870	.35
MPC-16D2	.002	.405 x .870	.35
MPC-16D22	.0022	.420 x .870	.35
MPC-16D3	.003	.475 x .870	.40
MPC-16D33	.0033	.480 x .870	.40
MPC-16D4	.004	.520 x .870	.40
MPC-16D47	.0047	.540 x .870	.40
MPC-16D5	.005	.565 x .870	.45
MPC-16D6	.006	.460 x 1.180	.45
MPC-16D7	.007	.485 x 1.180	.45
MPC-16D75	.0075	.495 x 1.180	.45
MPC-16D8	.008	.510 x 1.180	.50
MPC-16S1	.01	.525 x 1.180	.50
MPC-16S15	.015	.560 x 1.300	.50
MPC-16S2	.02	.570 x 1.600	.60
MPC-16S3	.03	.665 x 1.600	.70
MPC-16S33	.033	.695 x 1.600	.80
MPC-16S47	.047	.785 x 1.600	.85
MPC-16S5	.05	.815 x 1.600	.85

MAL AXIAL-LEAD TUBULARS

- ±10% capacitance tolerance
- 85°C operation
- Dual DIELECTRIC (Mylar-Paper) encased in solid thermosetting compound which will not crack, soften or flow at maximum temperature.

Cat. No.	Capacitance, Mfd.	Size	List Price
200 W.V.D.C			
MAL-2S2	.02	⅜ x 1¼	$0.25
MAL-2S47	.047	⅜ x 1¼	.25
MAL-2S5	.05	⅜ x 1¼	.25
MAL-2P1	.10	7/16 x 1¼	.35
MAL-2P15	.15	½ x 1½	.35
MAL-2P25	.25	9/16 x 1 9/16	.45
MAL-2P47	.47	⅝ x 1⅞	.60
MAL-2P5	.50	⅝ x 1⅞	.60
400 W.V.D.C.			
MAL-4S1	.01	5/16 x 1	$0.25
MAL-4S15	.015	⅜ x 1¼	.25
MAL-4S2	.02	⅜ x 1¼	.25
MAL-4S22	.022	⅜ x 1¼	.30
MAL-4S33	.033	7/16 x 1¼	.30
MAL-4S47	.047	7/16 x 1¼	.30
MAL-4S5	.05	7/16 x 1¼	.30
MAL-4S68	.068	½ x 1½	.35
MAL-4P1	.10	½ x 1½	.35
MAL-4P15	.15	9/16 x 1 9/16	.40
MAL-4P22	.22	⅝ x 1⅞	.45
MAL-4P25	.25	⅝ x 1⅞	.50
MAL-4P47	.47	¾ x 2¼	.75
MAL-4P50	.50	¾ x 2¼	.80
600 W.V.D.C.			
MAL-6D1	.001	5/16 x 1	.25
MAL-6D15	.0015	5/16 x 1	.25
MAL-6D2	.002	5/16 x 1	.25
MAL-6D22	.0022	5/16 x 1	.25
MAL-6D3	.003	5/16 x 1	.25
MAL-6D33	.0033	5/16 x 1	.25
MAL-6D4	.004	5/16 x 1	.25
MAL-6D47	.0047	5/16 x 1	.25
MAL-6D5	.005	5/16 x 1	.25
MAL-6D6	.006	5/16 x 1	.25
MAL-6D68	.0068	5/16 x 1	.30
MAL-6S1	.01	⅜ x 1¼	.30
MAL-6S15	.015	⅜ x 1¼	.30
MAL-6S2	.02	7/16 x 1¼	.30
MAL-6S22	.022	7/16 x 1¼	.30
MAL-6S3	.03	7/16 x 1¼	.35
MAL-6S33	.033	7/16 x 1¼	.35
MAL-6S4	.04	7/16 x 1¼	.35
MAL-6S47	.047	½ x 1½	.40
MAL-6S5	.05	½ x 1½	.40
MAL-6S6	.06	½ x 1½	.40
MAL-6S68	.068	½ x 1½	.45
MAL-6P1	.10	9/16 x 1 9/16	.45
MAL-6P15	.15	⅝ x 1⅞	.55
MAL-6P2	.20	⅝ x 1⅞	.65
MAL-6P22	.22	⅝ x 1⅞	.70
MAL-6P25	.25	11/16 x 1 13/16	.75
MAL-6P33	.33	¾ x 2¼	.90
MAL-6P47	.47	¾ x 2¼	1.25
MAL-6P50	.50	¾ x 2¼	1.25
1600 W.V.D.C.			
MAL-16D1	.001	⅜ x 1¼	.65
MAL-16D15	.0015	⅜ x 1¼	.65
MAL-16D22	.0022	⅜ x 1¼	.65
MAL-16D33	.0033	⅜ x 1¼	.65
MAL-16D47	.0047	⅜ x 1¼	.65
MAL-16D5	.005	⅜ x 1¼	.65
MAL-16D68	.0068	7/16 x 1¼	.65
MAL-16D82	.0082	7/16 x 1¼	.65
MAL-16S1	.01	½ x 1½	.70
MAL-16S15	.015	½ x 1½	.70
MAL-16S22	.022	⅝ x 1⅞	.70
MAL-16S33	.033	⅝ x 1⅞	.70
MAL-16S47	.047	⅝ x 1⅞	.90
MAL-16S5	.05	⅝ x 1⅞	.90
6000 W.V.D.C.			
MAL-60T5	.0005	½ x 1½	1.35
MAL-60D1	.001	9/16 x 1 9/16	1.35
MAL-60D5	.005	11/16 x 1 13/16	1.35
10,000 W.V.D.C			
MAL-100T5	.0005	½ x 1½	1.50
12,500 W.V.D.C.			
MAL-125T5	.00025	½ x 1½	1.70

‡ Trade-mark of DuPont Co.

For explanation of ratings, see first page of G-E capacitors

All prices are subject to change without notice.

GENERAL ELECTRIC

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GLP ENGINEERING BULLETIN

ELECTRONICS INCORPORATED, BRISTOL, CONN.

SOLID ELECTROLYTE SD AND MICRO-MINIATURE TANTALUM CAPACITORS

SOLID ELECTROLYTE SD TANTALUM CAPACITORS

GLP Electronics Series SD Solid Tantalum Capacitors provide unsurpassed performance for circuits demanding reliable components. They are the result of long research and development projects aimed at producing in production quantities, reliable solid tantalum capacitors.

All Series SD capacitors are designed with a porous tantalum or wire tantalum anode formed by electrochemical means to produce an extremely stable oxide dielectric. The anode is then coated with a solid semi-conductor type of electrolyte, thus preparing it for a conductive coating that is used for the cathode. The entire assembly is then hermetically sealed in a hot-tinned brass can with a time tested glass-to-metal seal, thus giving full protection against all adverse outside environmental conditions for long term operation over a temperature range from −80°C to +125°C, and under proper conditions can be operated to temperatures approaching 150°C.

GLP Series SD Capacitors are designed to meet or exceed the requirements of style CS 12 and CS 13 of MIL C 26655A.

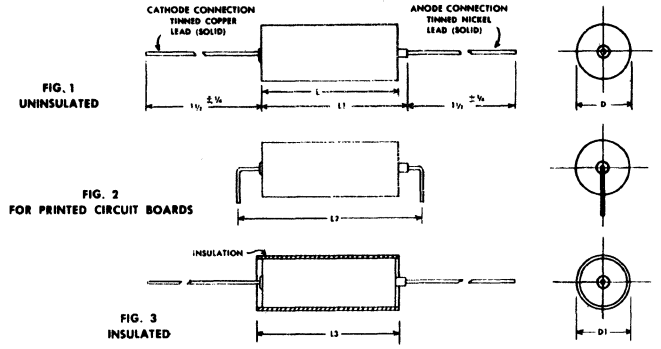
AVAILABLE RATINGS

.0047UF to 330UF 6VDC to 50VDC −80°C to +125°C

	6 VDC 8 VDC Surge	10 VDC 13 VDC Surge	15 VDC 18 VDC Surge	20 VDC 24 VDC Surge	35 VDC 42 VDC Surge	50 VDC 60 VDC Surge
uf	Part No.*	Part No.*	Part No.*	Part No.*	Part No.*	Part No.*
.0047				SD 472-20A-	SD 472-35A-	SD 472-50A-
.0056				SD 562-20A-	SD 562-35A-	SD 562-50A-
.0068				SD 682-20A-	SD 682-35A-	SD 682-50A-
.0082				SD 822-20A-	SD 822-35A-	SD 822-50A-
.01				SD 103-20A-	SD 103-35A-	SD 103-50A-
.012				SD 123-20A-	SD 123-35A-	SD 123-50A-
.015				SD 153-20A-	SD 153-35A-	SD 153-50A-
.018				SD 183-20A-	SD 183-35A-	SD 183-50A-
.022				SD 223-20A-	SD 223-35A-	SD 223-50A-
.027				SD 273-20A-	SD 273-35A-	SD 273-50A-
.033				SD 333-20A-	SD 333-35A-	SD 333-50A-
.039				SD 393-20A-	SD 393-35A-	SD 393-50A-
.047				SD 473-20A-	SD 473-35A-	SD 473-50A-
.056				SD 563-20A-	SD 563-35A-	SD 563-50A-
.068				SD 683-20A-	SD 683-35A-	SD 683-50A-
.082				SD 823-20A-	SD 823-35A-	SD 823-50A-
.1				SD 104-20A-	SD 104-35A-	SD 104-50A-
.12				SD 124-20A-	SD 124-35A-	SD 124-50A-
.15				SD 154-20A-	SD 154-35A-	SD 154-50A-
.18				SD 184-20A-	SD 184-35A-	SD 184-50A-
.22	SD 224-6A-	SD 224-10A-	SD 224-15A-	SD 224-20A-	SD 224-35A-	SD 224-50A-
.27	SD 274-6A	SD 274-10A	SD 274-15A-	SD 274-20A-	SD 274-35A-	SD 274-50A-
.33	SD 334-6A-	SD 334-10A-	SD 334-15A-	SD 334-20A-	SD 334-35A-	SD 334-50A-
.39	SD 394-6A-	SD 394-10A-	SD 394-15A-	SD 394-20A-	SD 394-35A-	SD 394-50A-
.47	SD 474-6A-	SD 474-10A-	SD 474-15A-	SD 474-20A-	SD 474-35A-	SD 474-50A-
.56	SD 564-6A-	SD 564-10A-	SD 564-15A-	SD 564-20A-	SD 564-35A-	SD 564-50A-
.68	SD 684-6A-	SD 684-10A-	SD 684-15A-	SD 684-20A-	SD 684-35A-	SD 684-50A-
.82	SD 824-6A	SD 824-10A-	SD 824-15A-	SD 824-20A-	SD 824-35A-	SD 824-50A-
1.0	SD 105-6A-	SD 105-10A-	SD 105-15A-	SD 105-20A-	SD 105-35A-	SD 105-50A-
1.2	SD 125-6A-	SD 125-10A-	SD 125-15A-	SD 125-20A-	SD 125-35A-	SD 125-50B-
1.5	SD 156-6A-	SD 155-10A-	SD 155-15A-	SD 155-20A-	SD 155-35A-	SD 155-50B-
1.8	SD 185-6A-	SD 185-10A-	SD 185-15A-	SD 185-20A-	SD 185-35B-	SD 185-50B-
2.2	SD 225-6A-	SD 225-10A-	SD 225-15A-	SD 225-20A-	SD 225-35B-	SD 225-50B-
2.7	SD 275-6A-	SD 275-10A-	SD 275-15A-	SD 275-20B-	SD 275-35B-	SD 275-50B-
3.3	SD 335-6A-	SD 335-10A-	SD 335-15A-	SD 335-20B-	SD 335-35B-	SD 335-50B-
3.9	SD 395-6A-	SD 395-10A-	SD 395-15B-	SD 395-20B-	SD 395-35B-	SD 395-50B-
4.7	SD 475-6A-	SD 475-10A-	SD 475-15B-	SD 475-20B-	SD 475-35B-	SD 475-50B-
5.6	SD 565-6A-	SD 565-10B-	SD 565-15B-	SD 565-20B-	SD 565-35B-	SD 565-50C-
6.8	SD 685-6A-	SD 685-10B-	SD 685-15B-	SD 685-20B-	SD 685-35B-	SD 685-50C-
8.2	SD 825-6B-	SD 825-10B-	SD 825-15B-	SD 825-20B-	SD 825-35C-	SD 825-50C-
10	SD 106-6B-	SD 106-10B-	SD 106-15B-	SD 106-20B-	SD 106-35C-	SD 106-50C-
12	SD 126-6B-	SD 126-10B-	SD 126-15B-	SD 126-20B-	SD 126-35C-	SD 126-50C-
15	SD 156-6B-	SD 156-10B-	SD 156-15B-	SD 156-20B-	SD 156-35C-	SD 156-50C-
18	SD 186-6B-	SD 186-10B-	SD 186-15B-	SD 186-20B-	SD 186-35C-	SD 186-50C-
22	SD 226-6B-	SD 226-10B-	SD 226-15B-	SD 226-20C-	SD 226-35C-	SD 226-50D-
27	SD 276-6B-	SD 276-10B-	SD 276-15C-	SD 276-20C-	SD 276-35D-	
33	SD 336-6B-	SD 336-10B-	SD 336-15C-	SD 336-20C-	SD 336-35D-	
39	SD 396-6B-	SD 396-10B-	SD 396-15C-	SD 396-20C-	SD 396-35D-	
47	SD 476-6B-	SD 476-10C-	SD 476-15C-	SD 476-20C-	SD 476-35D-	
56	SD 566-6B-	SD 566-10C-	SD 566-15C-	SD 566-20D-	— —	
60	SD 606-6B-	— —	— —	— —	— —	
68	SD 686-6C-	SD 686-10C-	SD 686-15C-	SD 686-20D-	— —	
82	SD 826-6C-	SD 826-10C-	SD 826-15D-	SD 826-20D-		
100	SD 107-6C-	SD 107-10C-	SD 107-15D-	SD 107-20D-	— —	
120	SD 127-6C-	SD 127-10C-	SD 127-15D-	SD 127-20D-	— —	
150	SD 157-6C-	SD 157-10D-	SD 157-15D-	— —	— —	
180	SD 187-6C-	SD 187-10D-	— —	— —	— —	
220	SD 227-6D-	SD 227-10D-	— —	— —	— —	
330	SD 337-6D-	— —	— —	— —	— —	

*Part No. shall be completed by adding capacitance tolerance letter (K, M, or F) after capacitance and type of insulation (2 or 3) after case size.

NOTE: Non-polar units available on request



DIMENSIONS IN INCHES

CASE SIZE CODE	LEADS: WIRE DIA. ±0.005 −0.001	LEADS: WIRE SIZE AWG	BARE CASE — FIG. 1: DIA. D ±0.016 −0.005	BARE CASE — FIG. 1: LENGTH L ±0.031	BARE CASE — FIG. 1: LENGTH L1 ±0.031	FIG. 2: LENGTH L2 ±0.031	PLASTIC FILM INSULATION — FIG. 3: DIA. D1 ±0.010	PLASTIC FILM INSULATION — FIG. 3: LENGTH L3 +0.000 −0.062	RIGID INSULATION — FIG. 3: DIA. D1 ±0.015	RIGID INSULATION — FIG. 3: LENGTH L3 ±0.015
A	0.020	24	0.125	0.250	0.325	0.45	0.135	0.312	0.159	0.345
B	0.020	24	0.175	0.438	0.515	0.62	0.183	0.500	0.207	0.562
C	0.025	22	0.279	0.650	0.745	0.89	0.289	0.722	0.312	0.775
D	0.025	22	0.341	0.750	0.845	1.02	0.351	0.822	0.375	0.875

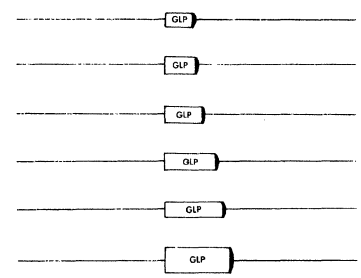
MICRO-MINIATURE TANTALUM CAPACITATORS

GLP Type MM Solid Tantalum Capacitors are designed to provide the ultimate in micro-miniaturization. They are the first of their kind to be offered which are applicable to both the military and commercial fields. They feature wider temperature ranges, lower leakage characteristics, longer shelf life, and smaller physical sizes than most conventional miniature solid tantalum capacitors.

Micro-Miniature Solid Tantalum Capacitors are designed to operate from −55°C to +125°C where reliability and performance are prime factors.

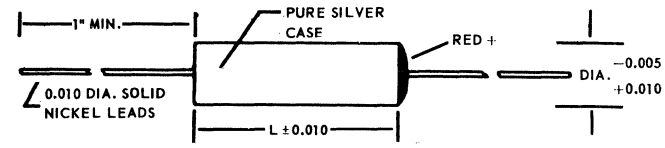
AVAILABLE RATINGS

.001UF to 10UF 1VDC to 30VDC −55°C to +125°C



TYPE	SIZE D x L
AA	.054 x .110
A	.065 x .125
B	.065 x .150
C	.065 x .200
D	.065 x .225
E	.093 x .250

TYPE MM — DIMENSIONS & RATINGS



CASE SIZES

	AA	A	B	C	D	E
Diameter (in.)	.054	.065	.065	.065	.065	.093
Length (in.)	.110	.125	.150	.200	.225	.250
Rated Voltage	MAXIMUM MICROFARADS (MIN. = 0.001 MFD)					
30		.10	.25	.50	1.0	1.5
20		.15	.3	.75	1.5	2.0
15		.25	.5	1.0	2.0	3.0
10	.20	.50	1.0	1.50	3.0	4.0
8	.30	.60	1.2	2.0	5.0	6.0
6	.50	.68	1.5	3.25	6.5	7.0
4	.70	.75	2.0	5.0	8.0	8.0
3.	.90	1.0	2.5	6.50	8.75	8.75
2.	1.0	1.5	3.0	8.0	10.0	10.0
1.	1.125	2.0	4.0	8.75	9.5	12.0

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GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

Page

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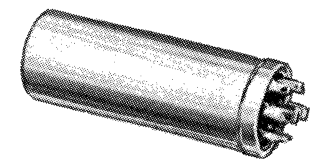
PRICING AVAILABLE UPON REQUEST

TYPE TM TWIST-MOUNT ELECTROLYTICS

Designed for 85° C operation. Available in single, dual, triple and quadruple capacitor units. Assembled in aluminum containers providing protection against moisture. Easy to mount, low leakage, long shelf life. Highly dependable. For use in applications where high temperatures, voltage, surges, and ripple currents are encountered; as in radio and television receivers, amplifiers and similar equipment. Packaged in new Vu-Pak especially designed for the new General Instrument Capac-O-Mat.



Stock No. TMS	Capacity	Voltage	Diameter	Length
1020	2000	6	1⅜	2
1040	1000	15	1	2½
1050	2000	15	1⅛	2½
1060	3000	15	1⅜	3
1070	4000	15	1⅜	3½
1110	500	25	1	2
1120	1000	25	1⅜	2
1150	250	50	1	2½
1160	500	50	1⅜	2
1170	1000	50	1⅜	3½
1180	1500	50	1⅛	4
1200	30	150	1	2
1220	50	150	1	2
1230	80	150	1	2
1240	100	150	1	2
1250	120	150	1	2½
1260	120	150	1⅜	2
1270	140	150	1	3
1280	150	150	1	3
1285	150	150	1⅜	2
1290	200	150	1⅛	2½
1300	300	150	1⅜	3
1400	160	200	1⅜	2½
1430	20	250	1	2
1450	40	250	1	2
1480	150	250	1⅛	2½
1490	200	250	1⅜	3½
1540	80	300	1	3

Stock No. TMS	Capacity	Voltage	Diameter	Length
1550	100	300	1	3
1560	125	300	1⅜	3
1570	150	300	1⅛	3
1590	250	300	1⅜	4
1610	30	350	1	2½
1620	40	350	1	2½
1630	50	350	1	3
1640	60	350	1	3
1650	80	350	1⅜	2½
1660	125	350	1⅜	3
1720	4	450	1	2
1730	10	450	1	2
1740	15	450	1	2
1750	20	450	1	2
1760	30	450	1	2½
1770	40	450	1	3
1780	50	450	1	3
1790	60	450	1⅜	2½
1800	80	450	1⅜	3
1810	100	450	1⅛	3
1820	125	450	1⅜	3½
1860	10	500	1	2
1870	20	500	1	2½
1880	30	500	1	3
1890	40	500	1	3½
1900	80	500	1⅜	3½
1910	90	500	1⅛	3½

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GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

TYPE TM TWIST-MOUNT ELECTROLYTICS (Con't.)

Stock No. TMD	Capacity	Voltage	Diameter	Length
2075	20-20	150-150	1	2
2085	30-30	150-150	1	2
2090	40-20	150-150	1	2
2095	40-30	150-150	1	2
2100	40-40	150-150	1	2
2105	50-30	150-150	1	2
2110	50-50	150-150	1	2
2120	60-60	150-150	1	2½
2125	70-30	150-150	1	2½
2130	75-75	150-150	1	2½
2135	80-40	150-150	1	2½
2140	80-50	150-150	1	2½
2145	80-80	150-150	1	3
2160	125-100	150-150	1⅜	2½
2165	200-5	150-150	1⅜	2½
2170	200-125	150-150	1¾	3
2180	200-150	150-150	1⅜	3½
2185	200-200	150-150	1⅜	3
2200	60-60	200-200	1	3
2205	60-60	200-200	1⅜	2
2210	100-100	200-200	1⅞	3
2235	20-20	250-250	1	2
2250	40-40	250-250	1	3
2255	150-150	250-250	1⅜	4
2260	200-200	250-250	1⅞	4
2310	40-30	300-300	1	3
2330	80-80	300-300	1⅜	3
2350	120-20	300-300	1¾	3
2355	120-40	300-300	1⅜	3
2370	15-15	350-350	1	2
2385	30-30	350-350	1	3
2395	50-30	350-350	1⅜	2½
2400	60-30	350-350	1⅞	2½
2405	80-20	350-350	1⅜	2½
2410	80-40	350-350	1⅜	3
2415	80-80	350-350	1⅜	3
2420	90-40	350-350	1¾	3
2425	100-60	350-350	1⅜	4
2435	100-100	350-350	1⅜	4
2440	160-10	350-350	1⅞	3½
2455	100-30	400-50	1⅜	3
2460	80-80	400-200	1⅜	3½
2495	80-60	400-400	1⅜	3
2500	120-40	400-400	1⅜	4
2570	30-200	450-150	1⅞	3
2585	40-10	450-300	1	3
2605	5-5	450-450	1	2
2610	10-10	450-450	1	2
2615	15-15	450-450	1	2½
2620	20-10	450-450	1	2½
2630	30-10	450-450	1	3
2640	30-30	450-450	1⅜	2½
2645	40-20	450-450	1⅜	2½
2650	40-40	450-450	1¾	3
2655	50-50	450-450	1⅜	3
2660	60-20	450-450	1⅜	3
2665	60-40	450-450	1¾	3
2670	60-60	450-450	1⅜	3½
2675	80-10	450-450	1⅜	3
2680	80-20	450-450	1⅞	3
2685	80-30	450-450	1⅜	3½
2690	80-40	450-450	1⅜	3½
2700	100-40	450-450	1⅜	4
2710	15-15	475-475	1	2½
2715	30-10	475-475	1	3
2720	40-10	475-475	1⅜	2½
2730	80-50	500-50	1⅜	3½
2755	10-10	500-500	1	2½
2760	20-20	500-500	1¾	2½
2765	30-10	500-500	1⅜	2½
2770	30-30	500-500	1⅜	3
2780	40-40	500-500	1¾	3½
2785	60-40	500-500	1⅜	3½

Stock No. TMT	Capacity	Voltage	Diameter	Length
3057	40-20-20	150-150-25	1	2
3078	50-30-20	150-150-25	1	2
3084	50-50-20	150-150-25	1	2½
3097	80-40-20	150-150-25	1	2½
3100	80-40-300	150-150-25	1⅜	2½
3112	20-20-20	150-150-150	1	2
3115	30-30-10	150-150150	1	2
3118	40-20-10	150-150-150	1	2
3121	40-20-20	150-150-150	1	2
3124	40-30-20	150-150-150	1	2

Stock No. TMT	Capacity	Voltage	Diameter	Length
3127	40-40-40	150-150-150	1	2½
3130	50-40-10	150-150-150	1	2
3133	50-50-50	150-150-150	1	3
3136	60-40-20	150-150-150	1	2½
3142	70-40-40	150-150-150	1	3
3145	80-30-10	150-150-150	1	2½
3148	80-40-20	150-150-150	1	2½
3154	100-30-10	150-150-150	1	2½
3160	120-80-40	150-150-150	1⅜	3
3163	120-120-40	150-150-150	1⅜	3½
3166	200-100-60	150-150-150	1⅜	3
3169	200-150-150	150-150-150	1¾	3½
3184	80-10-20	200-200-50	1	3
3217	20-20-10	250-250-250	1	2
3229	40-20-20	250-250-250	1	3
3232	80-10-10	250-250-250	1	3
3235	80-80-60	250-250-250	1⅞	3½
3289	10-10-15	300-300-250	1	2
3298	60-20-10	300-300-300	1⅜	2½
3304	80-40-40	300-300-300	1⅜	2½
3307	120-50-40	300-300-300	1⅜	4
3429	30-20-10	350-350-350	1⅜	2½
3435	60-40-20	350-350-350	1	3
3438	60-50-50	350-350-350	1⅜	3½
3441	80-60-60	350-350-350	1⅜	4
3444	90-40-20	350-350-350	1⅜	4
3468	20-20-20	400-400-25	1	3
3498	10-10-10	400-400-400	1	2½
3501	90-10-5	400-400-400	1⅜	3
3592	10-10-10	450-450-25	1	2
3595	10-10-20	450-450-25	1	2
3622	40-20-20	450-450-25	1⅜	2½
3712	10-10-10	450-450-450	1	2½
3718	15-15-15	450-450-450	1	3
3721	20-10-10	450-450-450	1	3
3724	20-20-20	450-450-450	1⅜	2½
3727	30-10-10	450-450-450	1⅜	2
3730	30-20-20	450-450-450	1⅜	2½
3733	30-30-30	450-450-450	1⅜	3½
3736	40-10-10	450-450-450	1⅜	3
3739	40-30-20	450-450-450	1⅜	3
3742	40-40-10	450-450-450	1⅜	3
3745	40-40-20	450-450-450	1⅜	3
3748	40-40-40	450-450-450	1⅜	3½
3751	50-40-30	450-450-450	1⅜	3½
3754	60-20-20	450-450-450	1⅜	3½
3757	60-30-10	450-450-450	1⅜	3
3760	60-40-20	450-450-450	1⅜	3½
3763	80-40-20	450-450-450	1⅜	4
3811	30-30-20	475-475-475	1⅜	3
3814	40-30-10	475-475-475	1⅜	3
3817	40-30-30	500-200-50	1⅜	2½
3856	10-10-10	500-500-500	1	3
3859	30-20-20	500-500-500	1⅜	3
3865	40-10-10	500-500-500	1⅜	3
3868	40-40-10	500-500-500	1⅜	4

Stock No. TMQ	Capacity	Voltage	Diameter	Length
4089	40-40-40-30	150-150-150-150	1⅜	2
4092	100-80-60-40	150-150-150-150	1⅜	3
4140	60-40-20-50	300-300-300-25	1⅜	3½
4155	40-20-10-10	300-300-300-300	1⅜	2
4158	40-40-20-10	300-300-300-300	1⅜	2½
4161	40-40-30-20	300-300-300-300	1⅜	3
4164	60-40-10-10	300-300-300-300	1⅜	3½
4173	200-20-20-20	300-300-300-300	1⅜	4
4295	40-20-20-10	350-350-350-350	1⅜	2½
4298	40-40-40-40	350-350-350-350	1⅜	4
4304	80-60-40-20	350-350-350-350	1⅜	4
4307	90-40-30-30	350-350-350-350	1⅜	4
4394	50-40-30-20	400-400-400-400	1⅜	4
4397	80-25-10-10	400-400-400-400	1⅜	3½
4625	30-30-20-20	450-450-450-450	1⅜	3½
4631	35-35-10-5	450-450-450-450	1⅜	3½
4634	40-10-10-10	450-450-450-450	1⅜	3
4640	40-35-10-10	450-450-450-450	1⅜	3
4646	40-40-20-20	450-450-450-450	1⅜	4
4649	40-40-30-30	450-450-450-450	1⅜	4
4652	40-40-40-40	450-450-450-450	1⅜	4
4655	60-20-20-20	450-450-450-450	1⅜	3½
4658	60-30-10-2	450-450-450-450	1⅜	3
4661	80-10-10-10	450-450-450-450	1⅜	3½
4752	20-20-10-10	475-475-475-475	1⅜	2
4755	20-20-20-20	475-475-475-475	1⅜	3
4758	40-20-10-10	475-475-475-475	1⅜	3
4776	10-10-10-10	500-500-500-500	1⅜	2
4782	40-40-8-8	500-500-500-500	1⅜	4

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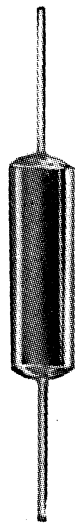
GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

TYPE BL SUBMINIATURE ELECTROLYTICS *(Bulletin EL9)*

Small, inexpensive and reliable, best describe this versatile new series of Subminiature Electrolytics. For compact transistorized circuits in conventional or printed board construction. New non-conductive plastic case. End seal compound, offer true moisture resistance. Low leakage. Long shelf life. Operating temp. −20°C to +65°C.

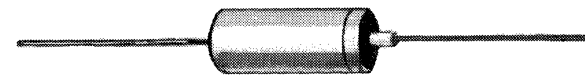


Cap. Mfd.	Part No.	Cap. Mfd.	Part No.	Cap. Mfd.	Part No.	Cap. Mfd.	Part No.	Cap. Mfd.	Part No.	Cap. Mfd.	Part No.
3 V. D-C. W.V 4 V. Surge		6 V. D-C. W.V. 8 V. Surge		10 V. D-C. W.V. 12 V. Surge		15 V. D-C. W.V. 18 V. Surge		25 V. D-C. W.V. 30 V. Surge		50 V. D-C. W.V. 60 V. Surge	
				5.	BL1130	5.	BL1141	5.	BL1261	2.	BL1270
										4.	BL1370
10.	BL1111	10.	BL1220	10.	BL1231	10.	BL1241	10.	BL1460	5.	BL1470
20.	BL1211	20.	BL1223	20.	BL1330	20.	BL1440	20.	BL1561	10.	BL1670
30.	BL1213	30.	BL1321	30.	BL1430	30.	BL1540	30.	BL1760	20.	BL1870
40.	BL1310	40.	BL1420	40.	BL1530	40.	BL1541	40.	BL1860	30.	BL2070
50.	BL1410	50.	BL1520	50.	BL1531	50.	BL1640	50.	BL1861	40.	BL2170
100.	BL1610	100.	BL1720	100.	BL1731	100.	BL1940	100.	BL2160	50.	BL2171
150.	BL1710	150.	BL1820	150.	BL2030	150.	BL2040	150.	BL2260	100.	BL2371
200.	BL1910	200.	BL1921	200.	BL2030	200.	BL2140	200.	BL2360		
400.	BL2011	400.	BL2121	400.	BL2230	400.	BL2340	400.	BL2461		
500.	BL2111	500.	BL2221	500.	BL2232	500.	BL2342				
600.	BL2210	600.	BL2222	600.	BL2330						
1,000.	BL2310	1,000.	BL2321	1,000.	BL2430						
1,500.	BL2410										

Case Code	Dia. ±.010	Max. Lgth.	Case Code	Dia. ±.010	Max. Lgth.
BL11	.187	13/16	BL18	.375	1 1/8
BL12	.250	11/16	BL19	.437	1 1/8
BL13	.250	13/16	BL20	.437	1 1/4
BL14	.312	11/16	BL21	.500	1 1/4
BL15	.312	13/16	BL22	.500	1 1/2
BL16	.375	7/8	BL23	.625	1 1/2
BL17	.375	1	BL24	.625	1 3/4

TYPE MLV HERMETICALLY-SEALED MINIATURIZED ELECTROLYTICS *(Bulletin EL5A)*

Designed for −30°C to +85°C operation. Features unit hermetically sealed with specially processed rubber. Low Leakage Current. All Welded Construction. Long Shelf and Operating Life. Units supplied with plastic insulating sleeve.



FOR −40° TO +85°C EXTENDED LIFE CAPACITORS — GI TYPE MLEV (Mil Type CE 10, 11) WRITE FOR BULLETIN EL6A.

Cat. No.	Cap. in mfd.	Dia.*	Length*
	3 Volts Working D.C.		
MLV5-3	3	3/16	11/16
MLV10-3	10	1/4	11/16
MLV15-3	15	1/4	11/16
MLV25-3	25	1/4	11/16
MLV40-3	40	1/4	11/16
MLV50-3	50	1/4	11/16
MLV100-3	100	5/16	11/16
MLV150-3	150	3/8	11/16
MLV200-3	200	3/8	13/16
MLV250-3	250	3/8	15/16
MLV300-3	300	3/8	15/16
	10 Volts Working D.C.		
MLV10-10	10	1/4	11/16
MLV15-10	15	1/4	11/16
MLV25-10	25	1/4	11/16
MLV50-10	50	3/8	11/16
MLV100-10	100	3/8	13/16
MLV200-10	200	3/8	1 1/4
	12 Volts Working D.C.		
MLV2-12	2	3/16	11/16
MLV5-12	5	1/4	11/16
MLV10-12	10	1/4	11/16
MLV15-12	15	1/4	11/16
MLV20-12	20	1/4	11/16
MLV25-12	25	1/4	11/16
MLV40-12	40	5/16	11/16
MLV50-12	50	3/8	11/16
MLV100-12	100	3/8	13/16
MLV150-12	150	3/8	1 1/4
MLV200-12	200	3/8	1 1/4
	15 Volts Working D.C.		
MLV5-15	5	1/4	11/16
MLV10-15	10	1/4	11/16
MLV15-15	15	1/4	11/16
MLV25-15	25	5/16	11/16
MLV40-15	40	5/16	11/16
MLV50-15	50	3/8	11/16
MLV100-15	100	3/8	15/16
MLV150-15	150	3/8	1 1/4
	6 Volts Working D.C.		
MLV2-6	2	3/16	11/16
MLV5-6	5	1/4	11/16
MLV10-6	10	1/4	11/16
MLV15-6	15	1/4	11/16
MLV25-6	25	1/4	11/16
MLV30-6	30	1/4	11/16
MLV40-6	40	5/16	11/16
MLV50-6	50	5/16	11/16
MLV100-6	100	3/8	11/16
MLV150-6	150	3/8	13/16
MLV200-6	200	3/8	1 1/4
	25 Volts Working D.C.		
MLV5-25	5	1/4	11/16
MLV10-25	10	1/4	11/16
MLV15-25	15	5/16	11/16
MLV25-25	25	3/8	11/16
MLV50-25	50	3/8	13/16
MLV100-25	100	3/8	1 1/2
	50 Volts Working D.C.		
MLV2-50	2	1/4	11/16
MLV5-50	5	1/4	11/16
MLV10-50	10	5/16	11/16
MLV15-50	15	3/8	11/16
MLV25-50	25	3/8	13/16
MLV50-50	50	3/8	1 1/2
	100 Volts Working D.C.		
MLV2-100	2	3/8	11/16
MLV5-100	5	3/8	13/16
MLV10-100	10	3/8	15/16
MLV15-100	15	3/8	1 1/4
MLV25-100	25	3/8	1 1/2
	150 Volts Working D.C.		
MLV1-150	1	3/8	15/16
MLV2-150	2	3/8	15/16
MLV5-150	5	3/8	15/16
MLV10-150	10	3/8	1 1/4
MLV15-150	15	3/8	1 1/2

Sizes shown are for uninsulated cans. For plastic insulating sleeving add 1/32" to diameter and 1/16" to length.

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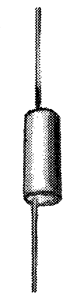
GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

TYPE TD TYNEE-DRY ELECTROLYTICS

Tynee-Dry single capacitor units with 3-inch bare-wire leads. Designed for 85° C operation. Each unit sealed in metal tubular case. Supplied with insulating cardboard sleeve. Low leakage. Long shelf life. Top quality in minimum space.

Catalogue No.	Capacity in UF	Dia.*	Length*
6 Volts DC Working			
TD-50-6	50	½	1⅛
TD-100-6	100	½	1⅛
TD-250-6	250	⅝	1⅝
15 Volts DC Working			
TD-100-15	100	⅝	1¼
TD-250-15	200	⅝	1⅝
TD-500-15	500	¾	2
TD-1000-15	1000	⅞	2
25 Volts DC Working			
TD-2-25	2	7/16	1⅛
TD-4-25	4	7/16	1⅛
TD-5-25	5	7/16	1⅛
TD-10-25	10	7/16	1⅛
TD-25-25	25	½	1⅛
TD-50-25	50	⅝	1¼
TD-100-25	100	⅝	1⅝
TD-250-25	250	⅞	2
TD-500-25	500	⅞	2
50 Volts DC Working			
TD-1-50	1	7/16	1⅛
TD-2-250	2	7/16	1⅛
TD-4-50	4	7/16	1⅛
TD-5-50	5	7/16	1⅛
TD-10-50	10	7/16	1⅛
TD-25-50	25	⅝	1¼
TD-50-50	50	⅝	1¼
TD-100-50	100	¾	1⅝
TD-150-50	150	¾	1⅝
TD-250-50	250	⅞	1⅝
TD-500-50	500	1	2½
150 Volts DC Working			
TD-4-150	4	7/16	1⅛
TD-8-150	8	⅝	1¼
TD-10-150	10	⅝	1¼
TD-12-150	12	⅝	1¼
TD-16-150	16	⅝	1¼
TD-20-150	20	⅝	1¼
TD-30-150	30	⅝	1⅝
TD-40-150	40	¾	1⅝
TD-50-150	50	¾	1⅝
TD-80-150	80	⅞	1⅝
TD-100-150	100	⅞	2
TD-150-150	150	1	2½
TD-200-150	200	1	3
TD-250-150	250	1	3
TD-300-150	300	1	3¾
200 Volts DC Working			
TD-100-200	100	1	3
TD-150-200	150	1	3½
TD-200-200	200	1	4
TD-300-200	300	1	4
250 Volts DC Working			
TD-4-250	4	½	1⅛
TD-8-250	8	⅝	1¼
TD-10-250	10	⅝	1¼
TD-500-6	500	⅝	1⅝
TD-1000-6	1000	¾	2
TD-1500-6	1500	¾	2
TD-2000-6	2000	1	2
TD-12-250	12	⅝	1¼
TD-16-250	16	⅝	1⅝
TD-20-250	20	⅝	1⅝
TD-30-250	30	¾	1⅝
TD-40-250	40	⅞	1⅝
TD-60-250	60	⅞	2
TD-100-250	100	1⅜	3
300 Volts DC Working			
TD-150-300	150	1	4¼
TD-200-300	200	1	4¼
350 Volts DC Working			
TD-8-350	8	⅝	1⅝
TD-12-350	12	⅝	1⅝
TD-16-350	16	¾	1⅝
TD-20-350	20	¾	1⅝
TD-30-350	30	⅞	2
TD-40-350	40	1	2
TD-60-350	60	1	2½
TD-80-350	80	1	2½
400 Volts DC Working			
TD-200-400	200	1	3½
450 Volts DC Working			
TD-2-450	2	⅝	1¼
TD-4-450	4	⅝	1¼
TD-8-450	8	⅝	1⅝
TD-10-450	10	¾	1⅝
TD-12-450	12	¾	1⅝
TD-16-450	16	¾	2
TD-20-450	20	⅞	2
TD-30-450	30	1	2
TD-40-450	40	1	2½
TD-50-450	50	1	3
TD-80-450	80	1	3½
TD-100-450	100	1	4
500 Volts DC Working			
TD-8-500	8	⅞	1⅝
TD-10-500	10	⅞	1⅝
TD-12-500	12	⅞	1⅝
TD-20-500	20	1	2
TD-30-500	30	1	2½
600 Volts DC Working			
TD-8-600	8	⅞	2¾
TD-10-600	10	⅞	2¾
TD-12-600	12	1	2¾
TD-16-600	16	1	3⅜
TD-20-600	20	1	3⅜
700 Volts DC Working			
TD-8-700	8	⅞	2¾
TD-10-700	10	1	2¾
TD-12-700	12	1	3⅜
TD-16-700	16	1	3⅜

* For sleeve add 1/16" to diameter, 3/16" to length.



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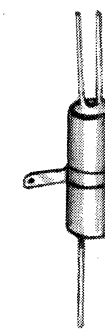
DUAL & TRIPLE CAPACITY TYPE TDL ELECTROLYTICS

Stock Number	Catalogue Number	Cap. in UF	Size in Inches Dia.	Length
	150 Volts DC Working			
TDLD-1A	TDL-D10-150	10-10	¾	1⅝
TDLD-3	TDL-D20-150	20-20	¾	1⅝
TDLD-4	TDL-D30-150	30-30	¾	2
TDLD-5	TDL-4020-150	40-20	¾	2
TDLD-6	TDL-4030-150	40-30	¾	2
TDLD-7	TDL-D40-150	40-40	¾	2
	Dual 150 Volts DC Working			
TDLD-8	TDL-5030-150	50-30	¾	2
TDLD-9	TDL-D50-150	50-50	⅞	2
TDLD-10	TDL-8030-150	80-30	⅞	2
TDLD-11	TDL-8040-150	80-40	1	2
TDLD-12	TDL-8050-150	80-50	1	2
TDLD-13	TDL-D80-150	80-80	1	2½
TDLD-14	TDL-10050-150	100-50	1	3
TDLD-15	TDL-D100-150	100-100	1	3
TDLD-16	TDL-2005-150	200-5	1	3½
	Triple 150 Volts DC Working			
TDLT-1	TDL-T20-150	20-20-20	1	2
TDLT-2	TDL-T30-150	30-30-30	1	2
TDLT-3	TDL-403020-150	40-30-20	1	2
TDLT-4	TDL-404020-150	40-40-20	1	2
TDLT-5	TDL-T40-150	40-40-40	1	2
TDLT-6	TDL-503020-150	50-30-20	1	2
TDLT-7	TDL-804020-150	80-40-20	1	2
	Triple 250 Volts DC Working			
TDLT-8	TDL-754010-250	75-40-10	1	3
	Triple 450 Volts DS Working			
TDLT-9	TDL-T16-450	16-16-16	1	3

Stock Number	Catalogue Number	Cap. in UF	Size in Inches Dia.	Length
	Dual 250 Volts DC Working			
TDLD-17	TDL-D8-250	8-8	¾	1⅝
TDLD-18	TDL-D16-250	16-16	¾	1⅝
TDLD-19	TDL-D20-250	20-20	¾	2
TDLD-20	TDL-D30-250	30-30	⅞	2
TDLD-21	TDL-4020-250	40-20	⅞	2
TDLD-22	TDL-D40-250	40-40	1	2
TDLD-23	TDL-8010-250	80-10	1	2
	Dual 450 Volts DC Working			
TDLD-24	TDL-D8-450	8-8	⅞	1⅝
TDLD-25	TDL-816-450	8-16	⅞	2
TDLD-26	TDL-D10-450	10-10	⅞	2
TDLD-27	TDL-D16-450	16-16	1	2
TDLD-28	TDL-D20-450	20-20	1	2½
TDLD-29	TDL-D30-450	30-30	1	3
TDLD-30	TDL-4020-450	40-20	1	3½
TDLD-31	TDL-D40-450	40-40	1	3½
	Triple Mixed Sections Diameter 1"			
TDLT-10	TDL-8332	80-30-300	150-150-10	3
TDLT-11	TDL-222	20-20-20	150-150-20	2
TDLT-12	TDL-432	40-30-20	150-150-25	2
TDLT-13	TDL-442	40-40-20	150-150-25	2
TDLT-14	TDL-4412	40-40-100	150-150-25	3½
TDLT-15	TDL-532	50-30-20	150-150-25	2
TDLT-16	TDL-5312	50-30-100	150-150-25	2½
TDLT-17	TDL-5322	50-30-200	150-150-25	2½
TDLT-18	TDL-8212	80-20-100	150-150-25	2½
TDLT-19	TDL-552	50-50-20	150-150-25	2½
TDLT-20	TDL-44225	40-40-20	250-250-25	2½
TDLT-21	TDL-22245	20-20-20	450-450-25	2½



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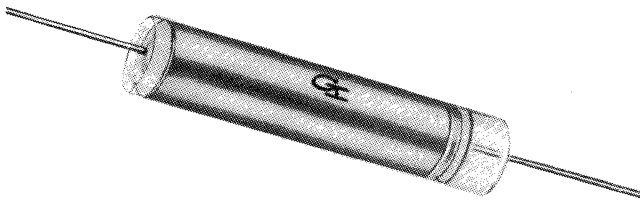
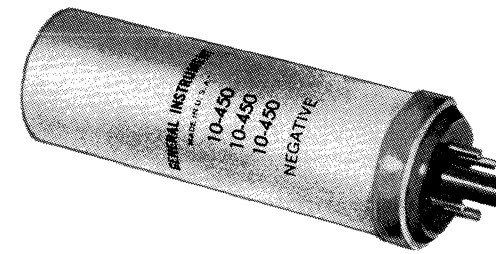
GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

POLARIZED DRY ELECTROLYTIC CAPACITORS to Mil-C-62 (latest revision)



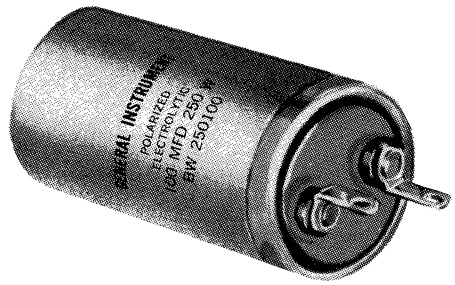
CE 10, 11 (TYPE MLE)
CE 12, 13 (TYPE TD)

Type MLE are small, axial lead units in round aluminum containers, available in capacitances from 1 mf through 250 mf and voltages of 5 V.D.C. through 150 V.D.C. Type TD is available in capacitances up to 1600 mf and voltages from 5 V.D.C. through 450 V.D.C.



CE 51, 52, 53 (TYPE DO)

Type DO Electrolytics are available in plug mounting round aluminum containers. Have standard nickel-plated four-pin octal base. Maximum leakage seal provided by famous General Instrument design. Order CE 51 for Type DO's in single capacity, CE 52 for dual and CE 53 for triple capacity units. Available in capacitances from 10 mf through 2000 mf and voltages of 15 V.D.C. through 450 V.D.C.

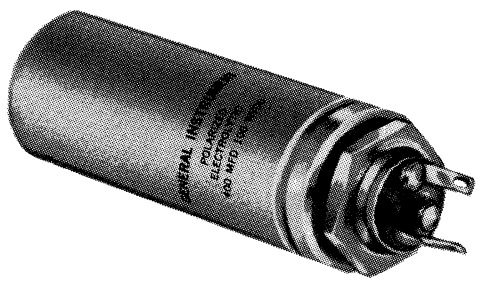


CE 31, 32, 33 (TYPE PFB)

Type PFB General Instrument Polarized Electrolytics are available in standard round aluminum containers with convenient solder lugs. Special gasket provides maximum seal. Mounting ring optional. Available in capacitances from 7 mf thru 2000 mf and voltages of 15 V.D.C. thru 450 V.D.C. Order CE 31 in single capacity, CE 32 for dual, and CE 33 for triple capacity units.

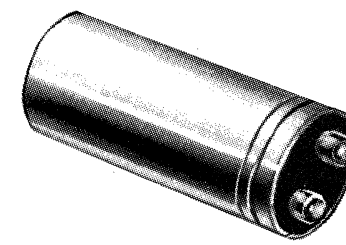
CE 63, 64 (TYPE DPD)

Type DPD's are hermetically sealed in drawn, hot-tinned steel bathtub containers. Solder lug terminals are anchored to case with silicone rubber grommets. Type DPD's are single capacity units available in capacitances from 4 mf through 100 mf and voltages 15 V.D.C. through 450 V.D.C.



CE 41, 42 (TYPE DI)

Type DI Electrolytics are provided in chassis mounting aluminum cans. Have standard 7/8-16N-2A thread neck with lock nut. Solder lugs solidly anchored in special leak-proof gasket. Available as CE 41 in single and CE 42 in dual capacity units. Available in capacitances from 10 mf through 2000 mf and voltages of 15 V.D.C. through 450 V.D.C.



CE 70, 71 (TYPE CQM)

Type CQM (uninsulated case) and type CQMS (insulated case are designd for high reliability and utilize highest purity foil i round aluminum cans with tapped terminal inserts or solder lug May be mounted with wrap around, footed brackets. Available i capacitances up to 65000 mfd and voltages thru 450 V.D.C.

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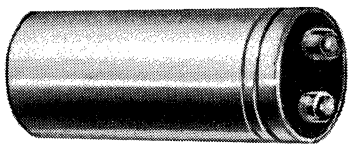
GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

TYPE PQM *(Bulletin EL-10)*



To meet the growing demands of greater capacitance for use in the new power supplies in today's equipment, General Instrument has perfected the highly reliable aluminum electrolytic capacitor type PQM for superior operation from −20°C to +65°C.

Cases are of heavy gauge aluminum with leakproof seals and a new precision safety vent.

Available with tapped terminal inserts or solder lugs and with or without plastic sleeve.

Capacitance in Mfd.	Catalog Number	Dia. Length Case Size
22,000	PQM 100	1⅜ x 4⅛
38,000	PQM 101	1¾ x 4⅛
50,000	PQM 102	2 x 4⅛
70,000	PQM 103	2 x 5⅝
80,000	PQM 104	2½ x 4⅛
125,000	PQM 105	3 x 4⅛
180,000	PQM 106	3 x 5⅝
15,000	PQM 200	1⅜ x 4⅛
25,000	PQM 201	1¾ x 4⅛
33,000	PQM 202*	2 x 4⅛
50,000	PQM 203	2 x 5⅝
50,000	PQM 204	2½ x 4⅛
80,000	PQM 205	3 x 4⅛
125,000	PQM 206*	3 x 5⅝
10,000	PQM 300*	1⅜ x 4⅛
15,000	PQM 301*	1¾ x 4⅛
20,000	PQM 302*	2 x 4⅛
35,000	PQM 303*	2 x 5⅝
40,000	PQM 304	2½ x 4⅛
50,000	PQM 305	2½ x 4⅝
60,000	PQM 306*	3 x 4⅛
90,000	PQM 307*	3 x 5⅝
5,000	PQM 400*	1⅜ x 3⅛
6,000	PQM 401*	1⅜ x 4⅛
8,000	PQM 402	1⅜ x 4⅛
10,000	PQM 403*	1¾ x 4⅛
14,000	PQM 404*	1¾ x 4⅛
18,000	PQM 405*	2 x 4⅛
25,000	PQM 406*	2 x 5⅝
33,000	PQM 407*	2½ x 4⅛
40,000	PQM 408*	3 x 4⅛
45,000	PQM 409	3 x 4⅛
50,000	PQM 410*	3 x 4⅝
60,000	PQM 411	3 x 5⅝
3,000	PQM 500	1⅜ x 3⅛
5,000	PQM 501*	1⅜ x 4⅛
8,000	PQM 502	1¾ x 4⅛
10,000	PQM 503*	2 x 4⅛
15,000	PQM 504*	2 x 5⅝
20,000	PQM 505*	2½ x 4⅛
25,000	PQM 506	3 x 4⅛
40,000	PQM 507*	3 x 5⅝
1,500	PQM 600*	1⅜ x 2⅛
2,500	PQM 601*	1⅜ x 3⅛
4,000	PQM 602*	1⅜ x 4⅛
5,000	PQM 603*	1¾ x 4⅛
6,000	PQM 604	1¾ x 4⅛
8,000	PQM 605*	2 x 4⅛
9,000	PQM 606	2 x 4⅛
10,000	PQM 607*	2 x 5⅝
13,500	PQM 608	2 x 5⅝
15,000	PQM 609*	2½ x 4⅛
20,000	PQM 610*	3 x 4⅛
30,000	PQM 611*	3 x 5⅝
750	PQM 700*	1⅜ x 2⅛
1,500	PQM 701*	1⅜ x 3⅛
2,500	PQM 702*	1⅜ x 4⅛
4,000	PQM 703*	1¾ x 4⅛
5,000	PQM 704*	2 x 4⅛
8,000	PQM 705*	2 x 5⅝
10,000	PQM 706*	2½ x 4⅛
15,000	PQM 707*	3 x 4⅛
20,000	PQM 708*	3 x 5⅝
450	PQM 800	1⅜ x 2⅛
900	PQM 801	1⅜x 3⅛
1,000	PQM 802*	1⅜ x 4⅛
1,500	PQM 803	1⅜ x 4⅛
2,400	PQM 804	1¾ x 4⅛
3,000	PQM 805*	2 x 4⅛
4,500	PQM 806	2 x 5⅝
5,000	PQM 807*	2½ x 4⅛
8,000	PQM 808	3 x 4⅛
10,000	PQM 809*	3 x 5⅝
350	PQM 900	1⅜ x 2⅛
700	PQM 901	1⅜ x 3⅛
1,000	PQM 902*	1⅜ x 4⅛
1,500	PQM 903*	1¾ x 4⅛
2,300	PQM 904	2 x 4⅛
3,000	PQM 905*	2 x 5⅝
4,000	PQM 906*	2½ x 4⅛
5,000	PQM 907*	3 x 4⅛
8,500	PQM 908	3 x 5⅝
250	PQM 1000	1⅜ x 2⅛
500	PQM 1001*	1⅜ x 3⅛
750	PQM 1002*	1⅜ x 4⅛
1,000	PQM 1003*	1¾ x 4⅛
1,250	PQM 1004*	1¾ x 4⅛
1,850	PQM 1005	2 x 4⅛
2,000	PQM 1006*	2 x 4⅝
2,500	PQM 1007*	2½ x 4⅛
3,000	PQM 1008	2½ x 4⅛
4,000	PQM 1009*	3 x 4⅛
5,000	PQM 1010	3 x 4⅝
6,000	PQM 1011*	3 x 5⅝
200	PQM 1100	1⅜ x 2⅛
350	PQM 1101	1⅜ x 3⅛
500	PQM 1102*	1⅜ x 4⅛
750	PQM 1103*	1¾ x 4⅛
900	PQM 1104	1¾ x 4⅛
1,400	PQM 1105	2 x 4⅛
1,500	PQM 1106*	2 x 4⅝
2,000	PQM 1107*	2 x 5⅝
2,000	PQM 1108	2½ x 4⅛
2,500	PQM 1109*	3 x 4⅛
3,000	PQM 1110	3 x 4⅝
4,500	PQM 1111	3 x 5⅝
150	PQM 1200	1⅜ x 2⅛
250	PQM 1201	1⅜ x 3⅛
400	PQM 1202	1⅜ x 4⅛
500	PQM 1203*	1¾ x 4⅛
700	PQM 1204	1¾ x 4⅛
1,000	PQM 1205*	2 x 4⅛
1,500	PQM 1206*	2½ x 4⅛
2,500	PQM 1207	3 x 4⅛
2,800	PQM 1208	3 x 4⅝
100	PQM 1300	1⅜ x 2⅛
200	PQM 1301	1⅜ x 3⅛
275	PQM 1302*	1⅜ x 4⅛
450	PQM 1303*	1¾ x 4⅛
500	PQM 1304	1¾ x 4⅛
700	PQM 1305	2 x 4⅛
1,000	PQM 1306*	2½ x 4⅛
1,500	PQM 1307	3 x 4⅝
2,000	PQM 1308	3 x 4⅝
75	PQM 1400	1⅜ x 2⅛
150	PQM 1401*	1⅜ x 3⅛
200	PQM 1402	1⅜ x 4⅛
350	PQM 1403*	1¾ x 4⅛
500	PQM 1404	2 x 5⅝
850	PQM 1406	2½ x 4⅛
1,000	PQM 1407*	3 x 4⅛
1,250	PQM 1408	3 x 4⅛
1,500	PQM 1409	3 x 4⅝
50	PQM 1500	1⅜ x 2⅛
100	PQM 1501	1⅜ x 3⅛
150	PQM 1502	1⅜ x 4⅛
300	PQM 1503	1¾ x 4⅛
350	PQM 1504	2 x 4⅛
500	PQM 1505	2 x 5⅝
650	PQM 1506	2½ x 4⅛
1,000	PQM 1507	3 x 4⅛
1,200	PQM 1508	3 x 4⅝
50	PQM 1600	1⅜ x 2⅛
100	PQM 1601	1⅜ x 3⅛
150	PQM 1602	1⅜ x 4⅛
250	PQM 1603*	1¾ x 4⅛
300	PQM 1604*	2 x 4⅛
500	PQM 1605*	2 x 5⅝
600	PQM 1606*	2½ x 4⅛
800	PQM 1607*	3 x 4⅛
850	PQM 1608	3 x 4⅛
1,000	PQM 1609	3 x 4⅝

Designates Preferred Values normally carried in Distributor Stock.

For units with rigid vinyl sleeving, order part number PQMS and add 1/16" to diameter and 3/8" to length.

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GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

TYPE CQM *(Bulletin EL-8A)*

Exacting performance of digital computers and related equipment demands components of the highest grade. Improved internal construction provides for low impedance at high frequencies, assures superior operation through the operating range at −20°C to +85°C.

Cases are of heavy guage aluminum. A leak proof seal is obtained by rolling the top of the case into a pliable synthetic rubber gasket. Terminals are available in two styles: tapped terminal inserts, for bus bar connections and solder lug terminals for permanent connections. The capacitors are furnished with bare case, one piece vinyl sleeve, or clear rigid plastic sleeve.

Capacitance Mfd.	Catalog Number	Dia. Length
2.5 WVDC 3V Surge		
14,000	CQMS 100	1⅜ x 3⅛
20,000	CQMS 101	1⅜ x 4⅛
24,000	CQMS 102	1⅜ x 4⅝
33,000	CQMS 103	1¾ x 4⅛
50,000	CQMS 104	2 x 4⅛
58,000	CQMS 105	2 x 4⅝
75,000	CQMS 106	2 x 5⅝
85,000	CQMS 107	2½ x 4⅛
100,000	CQMS 108	2½ x 4⅝
125,000	CQMS 109	3 x 4⅛
145,000	CQMS 110	3 x 4⅝
185,000	CQMS 111	3 x 5⅝
5.0 WVDC 7V Surge		
10,700	CQMS 200	1⅜ x 3⅛
16,000	CQMS 201	1⅜ x 4⅛
19,000	CQMS 202	1⅜ x 4⅝
25,000	CQMS 203	1¾ x 4⅛
37,000	CQMS 204	2 x 4⅛
43,000	CQMS 205	2 x 4⅝
55,000	CQMS 206	2 x 5⅝
65,000	CQMS 207	2½ x 4⅛
76,000	CQMS 208	2½ x 4⅝
96,000	CQMS 211	3 x 4⅛
110,000	CQMS 210	3 x 4⅝
145,000	CQMS 211	3 x 5⅝
7.5 WVDC 10V Surge		
6,200	CQMS 300	1⅜ x 3⅛
9,300	CQMS 301	1⅜ x 4⅛
10,500	CQMS 302	1⅜ x 4⅝
15,000	CQMS 303	1¾ x 4⅛
23,000	CQMS 304	2 x 4⅛
26,000	CQMS 305	2 x 4⅝
35,000	CQMS 306	2 x 5⅝
39,000	CQMS 307	2½ x 4⅛
45,000	CQMS 308	2½ x 4⅝
58,000	CQMS 309	3 x 4⅛
67,000	CQMS 310	3 x 4⅝
87,000	CQMS 311	3 x 5⅝
10 WVDC 15V Surge		
5,300	CQMS 400	1⅜ x 3⅛
8,000	CQMS 401	1⅜ x 4⅛
9,200	CQMS 402	1⅜ x 4⅝
13,000	CQMS 403*	1¾ x 4⅛
18,000	CQMS 404	2 x 4⅛
20,000	CQMS 405*	2 x 4⅝
25,000	CQMS 406	2 x 5⅝
33,000	CQMS 407*	2½ x 4⅛
38,000	CQMS 408	2½ x 4⅝
48,000	CQMS 409	3 x 4⅛
56,000	CQMS 410*	3 x 4⅝
79,000	CQMS 411*	3 x 5⅝
15 WVDC 20V Surge		
4,400	CQMS 500	1⅜ x 3⅛
6,600	CQMS 501*	1⅜ x 4⅛
7,700	CQMS 502	1⅜ x 4⅝
10,700	CQMS 503*	1¾ x 4⅛
15,500	CQMS 504*	2 x 4⅛
18,000	CQMS 505	2 x 4⅝
25,000	CQMS 506*	2 x 5⅝
28,000	CQMS 507	2½ x 4⅛
33,000	CQMS 508*	2½ x 4⅝
41,500	CQMS 509	3 x 4⅛
47,500	CQMS 510*	3 x 4⅝
62,000	CQMS 511	3 x 5⅝
20 WVDC 30V Surge		
2,900	CQMS 600	1⅜ x 3⅛
4,400	CQMS 601	1⅜ x 4⅛
5,100	CQMS 602	1⅜ x 4⅝
7,100	CQMS 603	1¾ x 4⅛
10,500	CQMS 604	2 x 4⅛
12,200	CQMS 605	2 x 4⅝
17,000	CQMS 606	2 x 5⅝
19,200	CQMS 607	2½ x 4⅛
22,400	CQMS 608	2½ x 4⅝
27,500	CQMS 609	3 x 4⅛
32,000	CQMS 610	3 x 4⅝
42,000	CQMS 611	3 x 5⅝

Supplied with plastic sleeve and tapped terminal inserts.

Capacitance Mfd.	Catalog Number	Dia. Length
25 WVDC 35V Surge		
2,750	CQMS 700*	1⅜ x 3⅛
4,200	CQMS 701*	1⅜ x 4⅛
4,800	CQMS 702*	1⅜ x 4⅝
6,600	CQMS 703	1¾ x 4⅛
9,200	CQMS 704	2 x 4⅛
10,700	CQMS 705*	2 x 4⅝
15,700	CQMS 706*	2 x 5⅝
17,000	CQMS 707	2½ x 4⅛
19,300	CQMS 708	2½ x 4⅝
25,000	CQMS 709*	3 x 4⅛
29,000	CQMS 710	3 x 4⅝
37,000	CQMS 711*	3 x 5⅝
30 WVDC 45V Surge		
1,850	CQMS 800	1⅜ x 3⅛
2,750	CQMS 801	1⅜ x 4⅛
3,200	CQMS 802	1⅜ x 4⅝
4,500	CQMS 803	1¾ x 4⅛
6,500	CQMS 804	2 x 4⅛
7,500	CQMS 805	2 x 4⅝
10,500	CQMS 806*	2 x 5⅝
11,500	CQMS 807	2½ x 4⅛
13,300	CQMS 808	2½ x 4⅝
16,500	CQMS 809	3 x 4⅛
19,000	CQMS 810*	3 x 4⅝
25,000	CQMS 811*	3 x 5⅝
40 WVDC 55V Surge		
1,500	CQMS 900*	1⅜ x 3⅛
2,300	CQMS 901	1⅜ x 4⅛
2,700	CQMS 902	1⅜ x 4⅝
3,700	CQMS 903	1¾ x 4⅛
5,300	CQMS 904*	2 x 4⅛
6,200	CQMS 905	2 x 4⅝
8,700	CQMS 906	2 x 5⅝
9,500	CQMS 907	2½ x 4⅛
11,000	CQMS 908	2½ x 4⅝
13,700	CQMS 909	3 x 4⅛
16,000	CQMS 910	3 x 4⅝
21,000	CQMS 911*	3 x 5⅝
50 WVDC 75V Surge		
1,050	CQMS 1000*	1⅜ x 3⅛
1,650	CQMS 1001	1⅜ x 4⅛
1,850	CQMS 1002*	1⅜ x 4⅝
2,600	CQMS 1003*	1¾ x 4⅛
4,000	CQMS 1004*	2 x 4⅛
4,400	CQMS 1005	2 x 4⅝
6,100	CQMS 1006*	2 x 5⅝
6,700	CQMS 1007	2½ x 4⅛
7,800	CQMS 1008*	2½ x 4⅝
10,000	CQMS 1009*	3 x 4⅛
11,000	CQMS 1010	3 x 4⅝
16,000	CQMS 1011	3 x 5⅝
75 WVDC 100V Surge		
700	CQMS 1100	1⅜ x 3⅛
1,100	CQMS 1101*	1⅜ x 4⅛
1,300	CQMS 1102	1⅜ x 4⅝
1,700	CQMS 1103	1¾ x 4⅛
2,500	CQMS 1104	2 x 4⅛
2,900	CQMS 1105	2 x 4⅝
3,750	CQMS 1106	2 x 5⅝
4,300	CQMS 1107	2½ x 4⅛
5,000	CQMS 1108*	2½ x 4⅝
6,500	CQMS 1109	3 x 4⅛
7,600	CQMS 1110	3 x 4⅝
9,800	CQMS 1111*	3 x 5⅝
100 WVDC 150 Surge		
550	CQMS 1200	1⅜ x 3⅛
850	CQMS 1201	1⅜ x 4⅛
950	CQMS 1202*	1⅜ x 4⅝
1,350	CQMS 1203*	1¾ x 4⅛
1,800	CQMS 1204*	2 x 4⅛
2,100	CQMS 1205	2 x 4⅝
3,000	CQMS 1206*	2 x 5⅝
3,100	CQMS 1207	2½ x 4⅛
3,600	CQMS 1208	2½ x 4⅝
4,800	CQMS 1209*	3 x 4⅛
5,600	CQMS 1210	3 x 4⅝
8,000	CQMS 1211	3 x 5⅝

Capacitance Mfd.	Catalog Number	Dia. Length
150 WVDC 200V Surge		
375	CQMS 1300	1⅜ x 3⅛
550	CQMS 1301*	1⅜ x 4⅛
650	CQMS 1302*	1⅜ x 4⅝
900	CQMS 1303*	1¾ x 4⅛
1,300	CQMS 1304	2 x 4⅛
1,500	CQMS 1305	2 x 4⅝
2,100	CQMS 1306*	2 x 5⅝
2,100	CQMS 1307	2½ x 4⅛
2,500	CQMS 1308*	2½ x 4⅝
3,200	CQMS 1309	3 x 4⅛
3,800	CQMS 1310*	3 x 4⅝
4,800	CQMS 1311*	3 x 5⅝
200 WVDC 250V Surge		
300	CQMS 1400	1⅜ x 3⅛
425	CQMS 1401	1⅜ x 4⅛
500	CQMS 1402*	1⅜ x 4⅝
670	CQMS 1403	1¾ x 4⅛
1,000	CQMS 1404*	2 x 4⅛
1,150	CQMS 1405	2 x 4⅝
1,500	CQMS 1406	2 x 5⅝
1,600	CQMS 1407	2½ x 4⅛
1,850	CQMS 1408*	2½ x 4⅝
2,500	CQMS 1409*	3 x 4⅛
2,800	CQMS 1410	3 x 4⅝
250 WVDC 300V Surge		
200	CQMS 1500	1⅜ x 3⅛
300	CQMS 1501	1⅜ x 4⅛
350	CQMS 1502	1⅜ x 4⅝
450	CQMS 1503	1¾ x 4⅛
700	CQMS 1504	2 x 4⅛
800	CQMS 1505	2 x 4⅝
1,000	CQMS 1506*	2 x 5⅝
1,200	CQMS 1507	2½ x 4⅛
1,400	CQMS 1508*	2½ x 4⅝
1,850	CQMS 1509	3 x 4⅛
2,150	CQMS 1510*	3 x 4⅝
300 WVDC 350V Surge		
160	CQMS 1600	1⅜ x 3⅛
250	CQMS 1601	1⅜ x 4⅛
290	CQMS 1602	1⅜ x 4⅝
400	CQMS 1603	1¾ x 4⅛
575	CQMS 1604	2 x 4⅛
675	CQMS 1605	2 x 4⅝
800	CQMS 1606	2 x 5⅝
975	CQMS 1607*	2½ x 4⅛
1,150	CQMS 1608	2½ x 4⅝
1,500	CQMS 1609*	3 x 4⅛
1,750	CQMS 1610	3 x 4⅝
350 WVDC 400V Surge		
130	CQMS 1700	1⅜ x 3⅛
200	CQMS 1701	1⅜ x 4⅛
235	CQMS 1702	1⅜ x 4⅝
300	CQMS 1703	1¾ x 4⅛
475	CQMS 1704	2 x 4⅛
550	CQMS 1705	2 x 4⅝
600	CQMS 1706	2 x 5⅝
800	CQMS 1707	2½ x 4⅛
925	CQMS 1708	2½ x 4⅝
1,200	CQMS 1709*	3 x 4⅛
1,350	CQMS 1710	3 x 4⅝
400 WVDC 475V Surge		
100	CQMS 1800	1⅜ x 3⅛
150	CQMS 1801	1⅜ x 4⅛
200	CQMS 1802	1⅜ x 4⅝
250	CQMS 1803	1¾ x 4⅛
350	CQMS 1804	2 x 4⅛
400	CQMS 1805	2 x 4⅝
525	CQMS 1806	2 x 5⅝
600	CQMS 1807	2½ x 4⅛
700	CQMS 1808	2½ x 4⅝
900	CQMS 1809	3 x 4⅛
1,000	CQMS 1810	3 x 4⅝
450 WVDC 525V Surge		
90	CQMS 1900	1⅜ x 3⅛
125	CQMS 1901	1⅜ x 4⅛
160	CQMS 1902	1⅜ x 4⅝
200	CQMS 1903	1¾ x 4⅛
300	CQMS 1904*	2 x 4⅛
350	CQMS 1905	2 x 4⅝
500	CQMS 1906*	2 x 5⅝
500	CQMS 1907	2½ x 4⅛
600	CQMS 1908*	2½ x 4⅝
700	CQMS 1909	3 x 4⅛
800	CQMS 1910*	3 x 4⅝

For +65°C Capacitors Order Type PQMS

*Designates Preferred Values normally carried in Distributor Stock.

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GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

TYPE MCS (MIL TYPES CS12 & CS13)
MINIATURIZED SOLID ELECTROLYTE TANTALUMS *(Bulletin ET-7)*

True Subminiature Sizes
Solid Tantalum Electrolyte
Hermetically Sealed Metal Cases

No Electrolyte Leakage
Tolerance ±20%
Closer Tolerances on Request.

SUPPLIED WITH PLASTIC INSULATED SLEEVE

Type Designation	Capacity in MFD	Case Size
6 VOLTS		
MCS14B565*	5.6	A
MCS14B685*	6.8	A
MCS14B825	8.2	B
MCS14B106	10.0	B
MCS14B476*	47.0	B
MCS14B566*	56.0	B
MCS14B107	100.0	C
MCS14B127	120.0	C
MCS14B157*	150.0	C
MCS14B187*	180.0	C
MCS14B227	220.0	D
MCS14B337*	330.0	D
10 VOLTS		
MCS14C395*	3.9	A
MCS14C475*	4.7	A
MCS14C565	5.6	B
MCS14C685	6.8	B
MCS14C276*	27.0	B
MCS14C336*	33.0	B
MCS14C396*	39.0	B
MCS14C686	68.0	C
MCS14C107*	100.0	C
MCS14C227*	220.0	D
15 VOLTS		
MCS14D275*	2.7	A
MCS14D335*	3.3	A
MCS14D395	3.9	B
MCS14D475	4.7	B
MCS14D186*	18.0	B
MCS14D226*	22.0	B
MCS14D566*	56.0	C
MCS14D826	82.0	D
20 VOLTS		
MCS14E125*	1.2	A
MCS14E155*	1.5	A
20 VOLTS (Continued)		
MCS14E185*	1.8	A
MCS14E225*	2.2	A
MCS14E275	2.7	B
MCS14E335	3.3	B
MCS14E106*	10.0	B
MCS14E126*	12.0	B
MCS14E156*	15.0	B
MCS14E336*	33.0	C
MCS14E396*	39.0	C
MCS14E476*	47.0	C
35 VOLTS		
MCS14F472	0.0047	A
MCS14F562	0.0056	A
MCS14F682	0.0068	A
MCS14F882	0.0082	A
MCS14F103	0.01	A
MCS14F123	0.012	A
MCS14F153	0.015	A
MCS14F183	0.018	A
MCS14F223	0.022	A
MCS14F273	0.027	A
MCS14F333	0.033	A
MCS14F393	0.039	A
MCS14F473	0.047	A
MCS14F683	0.068	A
MCS14F823	0.082	A
MCS14F104	0.1	A
MCS14F124	0.12	A
MCS14F154	0.15	A
MCS14F184	0.18	A
MCS14F224	0.22	A
MCS14F274	0.27	A
MCS14F334*	0.33	A
MCS14F394*	0.39	A
MCS14F474*	0.47	A
MCS14F564*	0.56	A
MCS14F684*	0.68	A
35 VOLTS (continued)		
MCS14F824*	0.82	A
MCS14F105*	1.0	A
MCS14F125*	1.2	B
MCS14F155*	1.5	B
MCS14F185*	1.8	B
MCS14F225*	2.2	B
MCS14F275*	2.7	B
MCS14F335*	3.3	B
MCS14F395*	3.9	B
MCS14F475*	4.7	B
MCS14F565*	5.6	B
MCS14F685*	6.8	B
MCS14F825*	8.2	C
MCS14F106*	10.0	C
MCS14F126*	12.0	C
MCS14F156*	15.0	C
MCS14F186*	18.0	C
MCS14F226*	22.0	C
MCS14F276*	27.0	C
MCS14F336*	33.0	D
MCS14F476*	47.0	D
50 VDC-60 VDC SURGE		
MCS-G472-	.0047	A
MCS-G562-	.0056	A
MCS-G682-	.0068	A
MCS-G822-	.0082	A
MCS-G103-	.01	A
MCS-G123	.012	A
MCS-G153-	.015	A
MCS-G183	.018	A
MCS-G223-	.022	A
MCS-G273-	.027	A
MCS-G333-	.033	A
MCS-G393-	.039	A
MCS-G473-	.047	A
MCS-G563-	.056	A
MCS-G683-	.068	A
MCS-G823-	.082	A
50 VDC-60 VDC (Continued)		
MCS-G104-	.1	A
MCS-G124-	.12	A
MCS-G154-	.15	A
MCS-G184-	.18	A
MCS-G224-	.22	A
MCS-G274-	.27	A
MQS-G334-	.33	A
MCS-G394-	.39	A
MCS-G474-	.47	A
MCS-G564-	.56	A
MCS-G684-	.68	A
MCS-G824-	.82	A
MCS-G105-*	1.0	A
MCS-G125-*	1.2	B
MCS-G155-*	1.5	B
MCS-G185-*	1.8	B
MCS-G225-*	2.2	B
MCS-G275-*	2.7	B
MCS-G335-*	3.3	B
MCS-G395-*	3.9	B
MCS-G475-*	4.7	B
MCS-G565-*	5.6	C
MCS-G685-*	6.8	C
MCS-G825-*	8.2	C
MCS-G106-*	10	C
MCS-G126-*	12	C
MCS-G156-*	15	C
MCS-G186-*	18	C
MCS-G226-*	22	D

Diameter	Length
Case Size A	.125 x .250
Case Size B	.175 x .438
Case Size C	.279 x .650
Case Size D	.341 x .750

GENERAL INSTRUMENT manufactures a wide range of capacity and voltages. Write for engineering bulletin for full information.

*These values are available as MIL types CS12 (uninsulated case), and CS13 (insulated case). Refer to MIL spec. for type designation.

TYPE TAK, TAK-H (MIL TYPES CL64 & CL65)
MINIATURE SINTERED ANODE TANTALUMS *(Bulletin ET-8)*

Afford maximum space economy. Conventional cylindrical cases allow for various methods of mounting. Sealing method and materials used in manufacturing this capacitor assure protection against seepage and defect due to vibration. Manufactured to meet MIL-C-3965 specification, style CL-64 and CL-65 (insulated sleeve). For full details write for Engr. Bulletin ET-8.

TEMPERATURE OPERATING RANGES

TAK −55°C to 85°C

TAK-H −55°C to 125°C

STANDARD LISTING TO −15, +20% TOLERANCE

Mfd.	6 VOLTS Cat. No.	Case Size
30	TAK-30T6B	B
50	TAK-30T6B	B
68	TAK-68T6B	B
140	TAK-140T6E	E
200	TAK-200T6E	E
270	TAK-270T6F	E
330	TAK-330T6F	F
450	TAK-450T6F	F
560	TAK-560T6F	F

Mfd.	10 VOLTS Cat. No.	Case Size
20	TAK-20T10B	B
35	TAK-35T10B	B
47	TAK-47T10B	B
100	TAK-100T10E	E
150	TAK-150T10E	E
180	TAK-180T10E	E
250	TAK-250T10F	F
320	TAK-320T10F	F
390	TAK-390T10F	F

Mfd.	15 VOLTS Cat. No.	Case Size
15	TAK-15T15B	B
33	TAK-33T15B	B
40	TAK-40T15D	D
70	TAK-70T15E	E
100	TAK-100T15E	E
120	TAK-120T15E	E
170	TAK-170T15F	F
225	TAK-225T15F	F
270	TAK-270T15F	F

Mfd.	25 VOLTS Cat. No.	Case Size
10	TAK-10T25B	B
22	TAK-22T25B	B
30	TAK-30T25D	D
70	TAK-70T25E	E
100	TAK-100T25E	E
150	TAK-150T25F	F
180	TAK-180T25F	F

Mfd.	30 VOLTS Cat. No.	Case Size
8	TAK-8T30B	B
15	TAK-15T30B	B
20	TAK-25730D	D
40	TAK-40T30E	E
68	TAK-68T30E	E
100	TAK-100T30F	F
150	TAK-150T30F	F

Mfd.	50 VOLTS Cat. No.	Case Size
5	TAK-5T50B	B
10	TAK-10T50B	B
20	TAK-20T50D	D
25	TAK-25T50E	E
40	TAK-40T50E	E
47	TAK-47T50E	E
60	TAK-60T50F	F
82	TAK-82T50F	F
100	TAK-100T50F	F

Mfd.	75 VOLTS Cat. No.	Case Size
3.5	TAK-3.5T75B	B
6.8	TAK-6.8T75B	B
12	TAK-12T75D	D
15	TAK-15T75E	E
33	TAK-33T75E	E
40	TAK-40T75F	F
56	TAK-56T75F	F
70	TAK-70T75F	F

Mfd.	100 VOLTS Cat. No.	Case Size
2.5	TAK-2.5T100B	B
4.7	TAK-4.7T100B	B
8	TAK-8T100D	D
11	TAK-11T100E	E
22	TAK-22T100F	F
30	TAK-30T100F	F
43	TAK-43T100F	F

CASE SIZES

	Uninsulated Case		Insulated Case		
A.	Dia. ±0.010	Length ±0.016	Dia. ±0.031	Length ±0.031	Lead Length ±¼
A.	0.212	0.375	0.234	0.437	1½
B.	0.187	0.453	0.203	0.515	1½
C.	0.212	0.468	0.234	0.531	1½
D.	0.212	0.531	0.234	0.593	1½
E.	0.275	0.640	0.296	0.703	2¼
F.	0.375	0.765	0.390	0.828	2¼

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GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

Hi-VolTan® CAPACITORS

(Actual Sizes)

- **SMALLEST SIZE**
  (World's Smallest Hermetically Sealed Capacitor)
- **BEST STABILITY**
- **VOLTAGES TO 125 VOLTS**
- The tiny size and excellent stability of the Hi-VolTan® suggest its use in applications where size, weight, stability and reliability are prime factors.
- The unique construction with no electrolyte eliminates the major causes for instability and high dissipation factor.
- The leakage currents experienced are so low as to defy measurement. Accordingly the leakage current is expressed as insulation resistance.
- Voltage ratings up to 125 volts are available.
- Completely distortion free coupling can be accomplished into the megacycle range with Hi-VolTan®.

STANDARD RATINGS
HERMETICALY SEALED HiVolTan® CAPACITORS

	25 VDC 30 VDC SURGE		50 VDC 60 VDC SURGE		75 VDC 90 VDC SURGE		100 VDC 120 VDC SURGE		125 VDC 150 VDC SURGE	
pf	Case Size	Part No.	Case Size	Part No.	Case Size	Part No.	Case Size	Part No.	Case Size	Part. No.
400					W	HVT1_ 401_	W	HVT1_ 401_	W	HVT1_ 401_
470					W	HVT1_ 471_	W	HVT1_ 471_	W	HVT1_ 471_
560					W	HVT1_ 561_	W	HVT1_ 561_	W	HVT1_ 561_
680					W	HVT1_ 681_	W	HVT1_ 681_	W	HVT1_ 681_
820					W	HVT1_ 821_	W	HVT1_ 821_	W	HVT1_ 821_
1000					W	HVT1_ 102_	W	HVT1_ 102_	W	HVT1_ 102_
1200					W	HVT1_ 122_	W	HVT1_ 122_	W	HVT1_ 122_
1500					W	HVT1_ 152_	W	HVT1_ 152_	W	HVT1_ 152_
1800					W	HVT1_ 182_	W	HVT1_ 182_	W	HVT1_ 182_
2200					W	HVT1_ 222_	W	HVT1_ 222_	W	HVT1_ 222_
2700					X	HVT1_ 272_	X	HVT1_ 272_	X	HVT1_ 272_
3300			X	HVT1_ 332_	Y	HVT1_ 332_	Y	HVT1_ 332_		
3900			X	HVT1_ 392_	Y	HVT1_ 392_	Y	HVT1_ 392_		
4700			X	HVT1_ 472_	Y	HVT1_ 472_	Y	HVT1_ 472_		
5600	X	HVT1_ 562_	Y	HVT1_ 562_	Y	HVT1_ 562_	Z	HVT1_ 562_		
6800	X	HVT1_ 682_	Y	HVT1_ 682_	Y	HVT1_ 682_	Z	HVT1_ 682_		
7500	X	HVT1_ 752_	Y	HVT1_ 752_	Z	HVT1_ 752_	Z	HVT1_ 752_		
8200	X	HVT1_ 822_	Y	HVT1_ 822_	Z	HVT1_ 822_	Z	HVT1_ 822_		
10000	X	HVT1_ 103_	Y	HVT1_ 103_	Z	HVT1_ 103_	Z	HVT1_ 103_		
12000	Y	HVT1_ 123_	Z	HVT1_ 123_	Z	HVT1_ 123_				
15000	Y	HVT1_ 153_	Z	HVT1_ 153_						
18000	Y	HVT1_ 183_								
22000	Z	HVT1_ 223_								
27000	Z	HVT1_ 273_								
33000	Z	HVT1_ 333_								

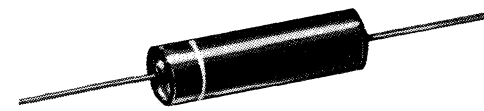
Same Ratings Available in Epoxy End Sealed HiVolTan® Capacitors.

TYPE IMP MOLDED TUBULAR PAPER CAPACITORS

Noninductive extended-foil section molded in noninflammable thermosetting plastic. High insulation resistance. Excellent power factor. Withstands standard RETMA Humidity-resistance Test. Extremely rugged. Very long life.

Temperature Rating:
—40°C to + 100°C

Standard Tolerance:
.0001- .001 UF: —25% to + 60%
.0011- .009 UF: —20% to + 40%
.01 -1.0 UF: —20% to + 20%



Catalogue Number	Cap. in UF	Diameter	Length
200 Volts DC Working			
IMP2-S2	.02	3/8	1 1/4
IMP2-S47	.047	3/8	1 1/4
IMP2-S5	.05	3/8	1 1/4
IMP2-P1	.1	7/16	1 1/4
IMP2-P15	.15	1/2	1 1/2
IMP2-P25	.25	5/8	1 7/8
IMP2-P47	.47	5/8	1 7/8
IMP2-P5	.5	5/8	1 7/8
IMP2-1	1.	3/4	2 1/4
400 Volts DC Working			
IMP4-S1	.01	5/16	1
IMP4-S2	.02	3/8	1 1/4
IMP4-S22	.022	3/8	1 1/4
IMP4-S25	.025	3/8	1 1/4
IMP4-S3	.03	3/8	1 1/4
IMP4-S4	.04	7/16	1 1/4
IMP4-S47	.047	7/16	1 1/4
IMP4-S5	.05	7/16	1 1/4
IMP4-S68	.068	1/2	1 1/2
IMP4-P1	.1	1/2	1 1/2
IMP4-P15	.15	5/8	1 7/8
IMP4-P22	.22	5/8	1 7/8
IMP4-P25	.25	5/8	1 7/8
IMP4-P47	.47	3/4	2 1/4
IMP4-P5	.5	3/4	2 1/4
600 Volts DC Working			
IMP6-T1	.0001	5/16	1
IMP6-T25	.00025	5/16	1
IMP6-T4	.0004	5/16	1
IMP6-T5	.0005	5/16	1
IMP6-D1	.001	5/16	1
IMP6-D15	.0015	5/16	1
IMP6-D2	.002	5/16	1
IMP6-D22	.0022	5/16	1
IMP6-D3	.003	5/16	1
IMP6-D33	.0033	5/16	1
IMP6-D4	.004	5/16	1
IMP6-D47	.0047	5/16	1
IMP6-D5	.005	5/16	1
600 Volts DC Working (Continued)			
IMP6-D6	.006	3/8	1 1/4
IMP6-D68	.0068	3/8	1 1/4
IMP6-D8	.008	3/8	1 1/4
IMP6-S1	.01	3/8	1 1/4
IMP6-S15	.015	3/8	1 1/4
IMP6-S2	.02	7/16	1 1/4
IMP6-S22	.022	7/16	1 1/4
IMP6-S33	.03	7/16	1 1/4
IMP6-S4	.033	1/2	1 1/2
IMP6-S47	.04	1/2	1 1/2
IMP6-S5	.047	1/2	1 1/2
IMP6-S6	.05	1/2	1 1/2
IMP6-S3	.06	5/8	1 7/8
IMP6-S68	.068	5/8	1 7/8
IMP6-P1	.1	5/8	1 7/8
IMP6-P2	.2	3/4	2 1/4
IMP6-P22	.22	3/4	2 1/4
IMP6-P25	.25	3/4	2 1/4
CT6P5*	.5	15/16	2 3/4
1000 Volts DC Working			
IMP10-T5	.0005	5/16	1
IMP10-D1	.001	5/16	1
IMP10-D15	.0015	5/16	1
IMP10-D2	.002	3/8	1 1/4
IMP10-D22	.0022	3/8	1 1/4
IMP10-D3	.003	3/8	1 1/4
IMP10-D4	.004	3/8	1 1/4
IMP10-D47	.0047	3/8	1 1/4
IMP10-D5	.005	3/8	1 1/4
IMP10-D68	.0068	3/8	1 1/4
IMP10-S1	.01	7/16	1 1/4
IMP10-S15	.015	1/2	1 1/2
IMP10-S2	.02	1/2	1 1/2
IMP10-S22	.022	1/2	1 1/2
IMP10-S3	.03	5/8	1 7/8
IMP10-S35	.035	5/8	1 7/8
IMP10-S47	.047	5/8	1 7/8
IMP10-S5	.05	5/8	1 7/8
IMP10-S68	.068	5/8	1 7/8
IMP10-P1	.1	3/4	2 1/4
1,600 Volts DC Working			
IMP16-T5	.0005	3/8	1 1/4
IMP16-D1	.001	3/8	1 1/4
IMP16-D15	.0015	3/8	1 1/4
IMP16-D2	.002	3/8	1 1/4
IMP16-D22	.0022	3/8	1 1/4
IMP16-D3	.003	7/16	1 1/4
IMP16-D33	.0033	7/16	1 1/4
IMP16-D4	.004	7/16	1 1/4
IMP16-D47	.0047	7/16	1 1/4
IMP16-D5	.005	7/16	1 1/4
IMP16-D6	.006	1/2	1 1/2
IMP16-D68	.0068	1/2	1 1/2
IMP16-D7	.007	1/2	1 1/2
IMP16-D75	.0075	1/2	1 1/2
IMP16-D8	.008	1/2	1 1/2
IMP16-S1	.01	1/2	1 1/2
IMP16-S15	.015	5/8	1 7/8
IMP16-S2	.02	5/8	1 7/8
IMP16-S22	.022	5/8	1 7/8
IMP16-S3	.03	5/8	1 7/8
IMP16-S4	.04	5/8	1 7/8
IMP16-S5	.05	3/4	2 1/4
*CT16-S68	.068	15/16	2 7/8
*CT16-P1	.1	15/16	2 7/8
6,000 Volts DC Working			
*CT60-T5	.0005	5/8	2
*CT60-D1	.001	5/8	2
*CT60-D5	.005	15/16	2 1/4
10,000 Volts DC Working			
*CT100-D1	.001	3/4	2 5/8
*CT100-T5	.0005	5/8	2
12,500 Volts DC Working			
*CT125-T25	.00025	3/4	2 5/8
*CT125-T5	.0005	3/4	2 5/8

* Supplied in ceramic-case units.

CONTACT YOUR AUTHORIZED GI INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

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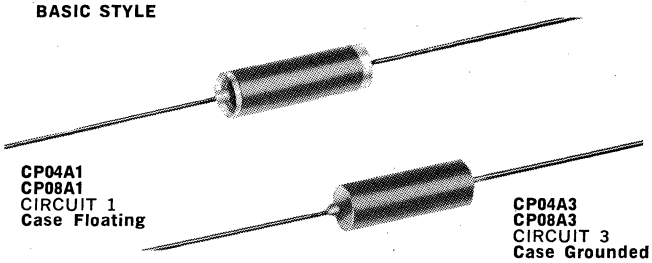
GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

SUBMINIATURE GLASSEAL PAPER CAPACITORS
MIL-C-25 LATEST REVISION

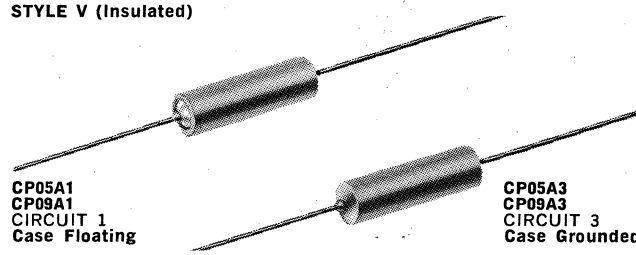
BASIC STYLE



CP04A1
CP08A1
CIRCUIT 1
Case Floating

CP04A3
CP08A3
CIRCUIT 3
Case Grounded

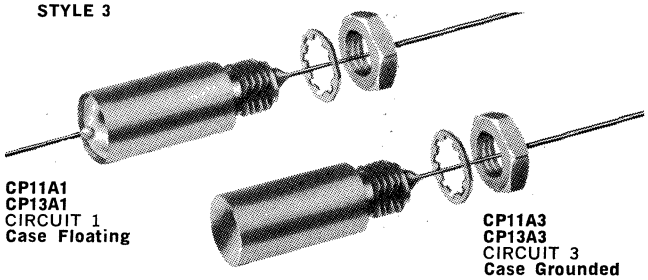
STYLE V (Insulated)



CP05A1
CP09A1
CIRCUIT 1
Case Floating

CP05A3
CP09A3
CIRCUIT 3
Case Grounded

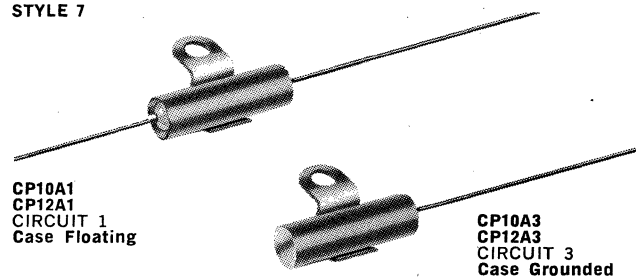
STYLE 3



CP11A1
CP13A1
CIRCUIT 1
Case Floating

CP11A3
CP13A3
CIRCUIT 3
Case Grounded

STYLE 7

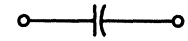


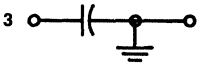
CP10A1
CP12A1
CIRCUIT 1
Case Floating

CP10A3
CP12A3
CIRCUIT 3
Case Grounded

MILITARY DESIGNATION BREAKDOWN

CP	04	A	1	E	B	333	K/3
Style	Case	Terminal (Axial wire lead)	Circuit	Characteristic	Voltage	Capacitance	Tolerance

Circuit 1 

Circuit 3 

Characteristic
E = −55°C. to + 85°C.
K = −55°C. to + 125°C.

Voltage
B = 100 V.
C = 200 V.
E = 400 V.
F = 600 V.
G = 1000 V.

Tolerance
K = ± 10%
M = ± 20%

Vibration Grade*
1 10-55 cps
3 10-2000 cps

INSERTED TABS { CP04 — Uninsulated / CP05 — Insulated

Capacity	100V-	200V-	400V-	600V-	1000V-
.001				F102	
.0012				F122K/3	
.0015				F152	
.0018				F182K/3	
.0022				F222	
.0027				F272K/3	
.0033				F332	
.0039				F392K/3	
.0047				F472	
.0056				F562K/3	
.0068				F682	
.0082			E822K/3	F822K/3	
.01			E103	F103	
.012		C123K/3		F123K/3	
.015		C153		F153	G153
.018		C183K/3		F183K/3	G183K/3
.022		C223		F223	G223
.027	B273K/3		E273K/3	F273K/3	G273K/3
.033	B333		E333	F333	G333
.039		C393K/3	E393K/3	F393K/3	G393K/3
.047		C473	E473	F473	G473
.056		C563K/3	E563K/3	F563K/3	G563K/3
.068		C683	E683	F683	G683
.082	B823K/3	C823K/3	E823K/3	F823K/3	G823K/3
.1	B104	C104	E104	F104	G104
.12	B124K/3	C124K/3	E124K/3	F124K/3	G124K/3
.15	B154	C154	E154	F154	G154
.18	B184K/3	C184K/3	E184K/3	F184K/3	G184K/3
.22	B224	C224	E224	F224	G224
.27	B274K/3	C274K/3	E274K/3	F274K/3	G274K/3
.33	B334	C334	E334	F334	G334
.39	B394K/3	C394K/3	E394K/3	F394K/3	G394K/3
.47	B474	C474	E474	F474	G474
.56	B564K/3	C564K/3	E564K/3	F564K/3	
.68	B684	C684	E684	F684	
.82	B824K/3	C824K/3	E824K/3		
1.0	B105	C105	E105		

EXTENDED TABS { CP08 — Uninsulated / CP09 — Insulated

Capacity	100V-	200-	400-	600-	1000-
.001				F102	G102
.0012				F122K/3	G122K/3
.0015				F152	G152
.0018				F182K/3	G182K/3
.0022				F222	G222
.0027			E272K/3	F272K/3	G272K/3
.0033			E332	F332	G332
.0039		C392K/3		F392K/3	G392K/3
.0047		C472		F472	G472
.0056		C562K/3		F562K/3	G562K/3
.0068		C682		F682	G682
.0082	B822K/3			F822K/3	G822K/3
.04	B103			F103	G103
.012	B123K/3		E123K/3	F123K/3	G123K/3
.015	B153		E153	F153	G153
.018		C183K/3		F183K/3	G183K/3
.022		C223		F223	G223
.027		C273K/3	E273K/3	F273K/3	G273K/3
.033		C333	E333	F333	G333
.039	B393K/3	C393K/3	E393K/3	F393K/3	G393K/3
.047	B473	C473	E473	F473	G473
.056		C563K/3	E563K/3	F563K/3	G563K/3
.068		C683	E683	F683	G683
.082	B823K/3	C823K/3	E823K/3	F823K/3	G823K/3
.1	B104	C104	E104	F104	G104
.12	B124K/3	C124K/3	E124K/3	F124K/3	G124K/3
.15	B154	C154	E154	F154	G154
.18	B184K/3	C184K/3	E184K/3	F184K/3	G184K/3
.22	B224	C224	E224	F224	G224
.27	B274K/3	C274K/3	E274K/3	E274K/3	G274K/3
.33	B334	C334	E334	F334	G334
.39	B394K/3	C394K/3	E394K/3	F394K/3	G394K/3
.47	B474	C474	E474	F474	G474
.56	B564K/3	C564K/3			
.68	B684	C684			
.82	B824K/3	C824K/3			
1.0	B105	C105			

/3 designates available per MIL-C-25C, which specifies K characteristic, K tolerance, and vibration grades 1 or 3 only.

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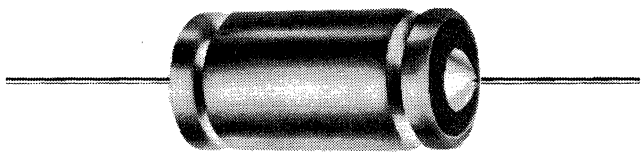
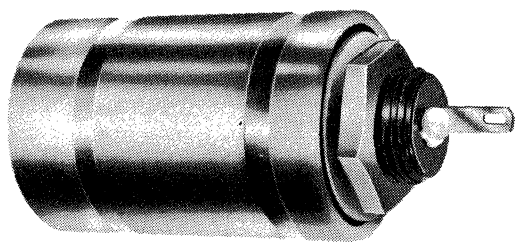
GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

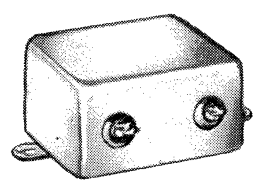
HERMETICALLY SEALED CAPACITORS
to Mil-C-25 *(latest revision)*



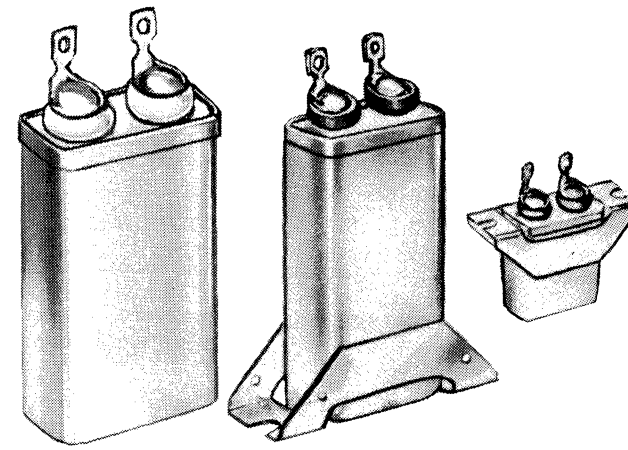
CP 25 to CP 29 (TYPE PTM)
Available in capacitances from .003 thru 0.1 mf and voltages of 1500 V.D.C.



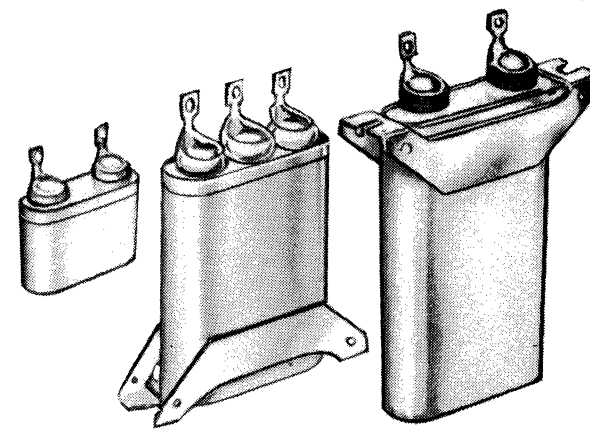
CP 40, CP 41 (TYPES PCM, PCIM)
Available in capacitances from .25 mf thru 4.0 mf and voltages of 600 V.D.C. thru 1500 V.D.C.



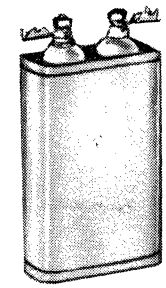
CP 53, 54, 55 (TYPE PDM)
Available in capacitances from .05 mf thru 10 mf and voltages of 100 V.D.C. thru 1000 V.D.C.



CP 63, 65 AND 90, 91 (TYPE PKM)
Available in capacitances from .01 mf thru 1.0 mf and voltages of 400 V.D.C. thru 1500 V.D.C.



CP 67, 69 (TYPE PEM)
Available in capacitances from .01 mf thru 1.0 mf and voltages c 600 V.D.C. thru 1000 V.D.C.



CP 70 SERIES (TYPE PLM)
Available in capacitances from mf thru 15 mf and voltages 400 V.D.C. thru 25,000 V.D.C. (Type PJ in higher values).

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GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

TYPE 155 HI-TEMP METALLIZED PAPER CAPACITORS

Assembled in a plastic tube with plastic end-seals. Self-healing. Low R-F impedance. Excellent P-F over wide temperature range.

Replaces M T R Product Line

Temperature Rating: —40°C. to +100°C.
Standard Tolerance: —20% to +30%.

Catalog Number	Cap/Mfd	Size in inches ±1/16" Diameter	Length
	200 VOLTS		
155C103M	.01	1/4	11/16
155C203M	.02	1/4	11/16
155C303M	.03	5/16	11/16
155C503M	.05	5/16	11/16
155C104M	.1	3/8	11/16
155C254M	.25	1/2	11/16
155C504M	.5	7/16	1 1/8
155C105M	1.0	9/16	1 1/8
155C205M	2.0	5/8	1 9/16
	400 VOLTS		
155E103M	.01	1/4	11/16
155E203M	.02	3/8	11/16
155E303M	.03	3/8	11/16
155E503M	.05	7/16	11/16
155E104M	.1	7/16	1 1/8
155E254M	.25	9/16	1 1/8
155E504M	.5	5/8	1 7/16
155E105M	1.0	3/4	1 13/16
155E205M	2.0	7/8	2 3/8
	600 VOLTS		
155F103M	.01	5/16	11/16
155F203M	.02	3/8	11/16
155F303M	.03	3/8	11/16
155F503M	.05	1/2	11/16
155F104M	.1	7/16	1 1/8
155F254M	.25	5/8	1 1/8
155F504M	.5	3/4	1 7/16
155F105M	1.0	7/8	1 13/16
155F205M	2.0	1	2 3/8

TYPE 227 METALLIZED-PAPER/MYLAR® GLASS-SEALED METAL TUBULARS

MADE TO MEET MIL C-18312A CHAR. N

For operation at +125°C without derating. The finest capacitor of its type available. Encased in hermetic, glass-sealed metal tubes. For complete listing write for Engineering Bulletin.

Part No.	Cap. Mfd.	Dia.	Length
	100 Volts D-C. W.V.		
227A1V305M	3	.670	1 13/16
227A1V405M	4	.750	1 13/16
227A1V605M	6	1.000	1 13/16
	200 V. D-C. W.V.		
227A1C103M	.01	.175	3/4
227A1C123M	.012	.195	3/4
227A1C153M	.015	.195	3/4
227A1C183M	.018	.235	3/4
227A1C223M	.022	.235	3/4
227A1C273M	.027	.235	3/4
227A1C333M	.033	.235	3/4
227A1C393M	.039	.312	7/8
227A1C473M	.047	.312	7/8
227A1C563M	.056	.312	7/8
227A1C683M	.068	.312	7/8
227A1C823M	.082	.312	7/8
227A1C104M	.1	.312	7/8
227A1C124M	.12	.312	1 1/8
227A1C154M	.15	.312	1 1/8
227A1C184M	.18	.400	7/8
227A1C224M	.22	.400	7/8
227A1C274M	.27	.400	1 1/8
227A1C334M	.33	.400	1 1/8
227A1C394M	.39	.500	1 1/8
227A1C474M	.47	.500	1 1/8
227A1C564M	.56	.500	1 1/8
227A1C684M	.68	.500	1 1/8
227A1C824M	.82	.562	1 1/8
227A1C105M	1.0	.562	1 1/8
227A1C155M	1.5	.562	1 5/8
227A1C205M	2.0	.670	1 5/8
227A1C305M	3.0	.670	1 7/8
227A1C405M	4.0	.750	1 7/8
227A1C505M	5.0	1.000	1 7/8
227A1C605M	6.0	1.000	1 7/8
227A1C805M	8.0	1.000	1 7/8
227A1C106M	10.0	1.000	2 3/8
227A1C126M	12.0	1.000	2 5/8
	400 V. D-C. W.V.		
227A1E103M	.01	.312	7/8
227A1E123M	.012	.312	7/8
227A1E153M	.015	.312	7/8
227A1E183M	.018	.312	7/8
227A1E223M	.022	.312	7/8
227A1E273M	.027	.312	1 1/8
227A1E333M	.033	.312	1 1/8
227A1E393M	.039	.400	1 1/8
227A1E473M	.047	.400	1 1/8
227A1E563M	.056	.400	1 1/8
227A1E683M	.068	.400	1 1/8
227A1E823M	.082	.500	1 1/8
227A1E104M	.1	.500	1 1/8
227A1E124M	.12	.500	1 1/8
227A1E154M	.15	.500	1 1/8
227A1E184M	.18	.562	1 3/8
227A1E224M	.22	.562	1 3/8
227A1E274M	.27	.562	1 5/8
227A1E334M	.33	.562	1 5/8
227A1E394M	.39	.670	1 5/8
227A1E474M	.47	.670	1 5/8
227A1E564M	.56	.670	1 7/8
227A1E684M	.68	.670	1 7/8
227A1E824M	.82	.750	1 7/8
227A1E105M	1.0	.750	1 7/8
227A1E155M	1.5	1.000	1 7/8
227A1E205M	2.0	1.000	1 7/8
227A1E305M	3.0	1.000	2 5/8
	600 V. D-C. W.V.		
227A1F103M	.01	.312	7/8
227A1F123M	.012	.312	7/8
227A1F153M	.015	.312	7/8
227A1F183M	.018	.312	1 1/8
227A1F223M	022	.312	1 1/8
227A1F273M	.027	.312	1 1/8
227A1F333M	.033	.312	1 1/8
227A1F393M	.039	.400	1 1/8
227A1F473M	.047	.400	1 1/8
227A1F563M	.056	.400	1 1/8
227A1F683M	.068	.400	1 1/8
227A1F823M	.082	.500	1 1/8
227A1F104M	.1	.500	1 1/8
227A1F124M	.12	.562	1 1/8
227A1F154M	.15	.562	1 1/8
227A1F184M	.18	.562	1 3/8
227A1F224M	.22	.562	1 3/8
227A1F274M	.27	.562	1 5/8
227A1F334M	.33	.562	1 5/8
227A1F394M	.39	.670	1 5/8
227A1F474M	.47	.670	1 5/8
227A1F564M	.56	.670	1 7/8
227A1F684M	.68	.670	1 7/8
227A1F824M	.82	1.000	1 7/8
227A1F105M	1.0	1.000	1 7/8
227A1F155M	1.5	1.000	1 7/8
227A1F205M	2.0	1.000	2 1/8
227A1F255M	2.5	1.000	2 5/8

NOTE: Type 227's Are Available in All Mil Styles, Mylar and Plastic Insulating Sleeves, Tolerances, and Ratings.

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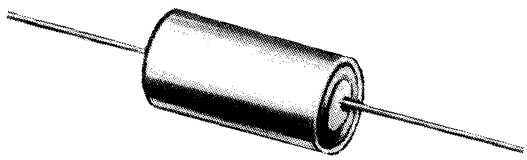
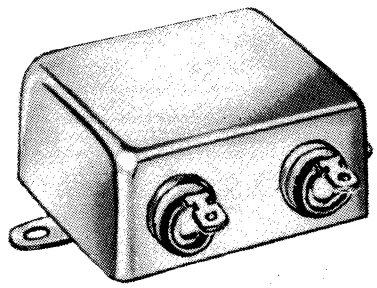
GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

METALLIZED PAPER CAPACITORS
to Mil-C-18312 — latest revisions



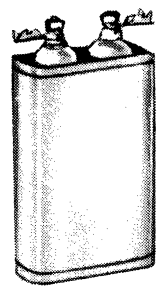
CH04, CH05, CH10 (TYPE MPG)

Available in capacitances from .01 mfd thru 6 mfd and voltages of
150 thru 600 V.D.C.



CH53, CH54, CH55 (TYPE MPD)

Available in capacitances from .1 mfd thru 12 mfd and voltages c
150 thru 600 V.D.C.



CH70 (TYPE MPLM)

Available in capacitances from 6 mfd thru 15 mfd and voltages fr
150 thru 600 V.D.C.

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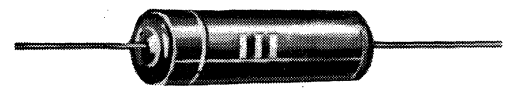
GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

TYPE III "GOLD STANDARD" MOLDED MYLAR* CAPACITORS

Noninductive polyester film extended foil section, molded in a noninflammable thermosetting plastic case. Very high insulation resistance. Excellent power factor. Greatly reduced sizes. Dielectric impervious to moisture. Extremely rugged with a very long life.

Temperature Rating: —40°C to + 100°C
Standard Tolerance: ± 20%

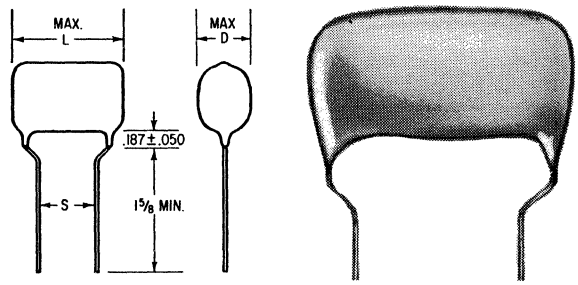


Catalog Number	Cap. in Mfd.	Size in Inches Dia.	Length	Dealer Net
	200 Volts DC Working			
111-2S2	.02	5/16	1	.15
111-2S47	.047	3/8	1 1/4	.15
111-2S5	.05	3/8	1 1/4	.15
111-2P1	.1	3/8	1 1/4	.21
111-2P15	.15	7/16	1 1/4	.21
111-2P22	.22	1/2	1 1/2	.24
111-2P25	.25	1/2	1 1/2	.27
111-2P47	.47	5/8	1 7/8	.36
111-2P5	.5	5/8	1 7/8	.36
111-2-1	1.0	3/4	2 1/4	.57
	400 Volts DC Working			
111-4S1	.01	5/16	1	.15
111-4S15	.015	5/16	1	.15
111-4S2	.02	3/8	1 1/4	.15
111-4S22	.022	3/8	1 1/4	.18
111-4S333	.033	3/8	1 1/4	.18
111-4S47	.047	3/8	1 1/4	.18
111-4S5	.05	3/8	1 1/4	.18
111-4S68	.068	7/16	1 1/4	.21
111-4P1	.1	1/2	1 1/2	.21
111-4P15	.15	1/2	1 1/2	.24
111-4P22	.22	5/8	1 7/8	.30
111-4P25	.25	5/8	1 7/8	.33
111-4P33	.33	5/8	1 7/8	.39
111-4P47	.47	3/4	2 1/4	.48
111-4P5	.5	3/4	2 1/4	.51
111-4P68	.68	3/4	2 1/4	.69
111-6T1	.0001	5/16	1	.15
111-6T25	.00025	5/16	1	.15
111-6T4	.0004	5/16	1	.15
111-6T5	.0005	5/16	1	.15
111-6D1	.001	5/16	1	.15
111-6D15	.0015	5/16	1	.15
111-6D2	.002	5/16	1	.15
111-6D22	.0022	5/16	1	.15
111-6D3	.003	5/16	1	.15
111-6D33	.0033	5/16	1	.15
111-6D4	.004	5/16	1	.15
111-6D47	.0047	5/16	1	.15
111-6D5	.005	5/16	1	.15
111-6D6	.006	5/16	1	.15
111-6D68	.0068	5/16	1	.18
111-6S1	.01	5/16	1	.18
111-6S15	.015	3/8	1 1/4	.18
111-6S2	.02	3/8	1 1/4	.18
111-6S22	.022	3/8	1 1/4	.18
111-6S3	.03	7/16	1 1/4	.21
111-6S33	.033	7/16	1 1/4	.21
111-6S4	.04	7/16	1 1/4	.21
111-6S47	.047	7/16	1 1/4	.24
111-6S5	.05	7/16	1 1/4	.24
111-6S6	.06	7/16	1 1/4	.24
111-6S68	.068	17/32	1 1/4	.24
111-6P1	.1	5/8	1 7/8	.27
111-6P15	.15	5/8	1 7/8	.33
111-6P2	.2	3/4	2 1/4	.39
111-6P22	.22	3/4	2 1/4	.39
111-6P25	.25	3/4	2 1/4	.45
111-6P33	.33	3/4	2 1/4	.54

TYPE 151 GOLD-DIP MYLAR* CAPACITORS

A new Mylar Plastic Dipped Capacitor engineered for highest reliability and especially designed for printed board circuitry as well as conventional application. General Instrument Gold-Dip Capacitors Type 151 feature:

- ▲ New reliable Dipped Plastic Coating
- ▲ New Moisture Resistance
- ▲ −55°C to +100°C operation
- ▲ High insulation resistance
- ▲ 10% capacity tolerance



Catalog Number	Capacity in Mfds.	D	L	S	Dealer Net
	200 Volts DC Working				
151-2P1	.1	5/8	1 1/4	23/32	.21
151-2P15	.15	5/8	1 1/4	23/32	.21
151-2P22	.22	11/16	1 11/32	27/32	.24
151-2P25	.25	11/16	1 11/32	27/32	.27
151-2P47	.47	7/8	1 13/16	1 3/32	.36
151-2P5	.5	7/8	1 13/16	1 3/32	.36
	400 Volts DC Working				
151-4S1	.01	7/16	3/4	1/4	.15
151-4S15	.015	7/16	3/4	1/4	.15
151-4S2	.02	1/2	7/8	7/16	.15
151-4S22	.022	1/2	7/8	7/16	.18
151-2P5	.5	7/8	1 13/16	1 3/32	.36
151-4S33	.033	1/2	7/8	7/16	.18
151-4S47	.047	5/8	1 1/4	23/32	.18
151-4S5	.05	5/8	1 1/4	23/32	.18
151-4S68	.068	5/8	1 1/4	23/32	.21
151-4P1	.1	5/8	1 1/4	23/32	.21
151-4P15	.15	11/16	1 11/32	27/32	.24
151-4P22	.22	7/8	1 13/16	1 3/32	.30
151-4P25	.25	7/8	1 13/16	1 3/32	.33
	600 Volts DC Working				
151-6D1‡	.001	7/16	3/4	1/4	.15
151-6D15‡	.0015	7/16	3/4	1/4	.15
151-6D2‡	.002	7/16	3/4	1/4	.15
151-6D22‡	.0022	7/16	3/4	1/4	.15
151-6D3‡	.003	7/16	3/4	1/4	.15
151-6D33‡	.0033	7/16	3/4	1/4	.15
151-6D4‡	.004	7/16	3/4	1/4	.15
151-6D47‡	.0047	7/16	3/4	1/4	.15
151-6D5‡	.005	7/16	3/4	1/4	.15
151-6D6	.006	7/16	3/4	1/4	.18
151-6D68	.0068	7/16	3/4	1/4	.18
151-6S1	.01	1/2	7/8	7/16	.18
151-6S15	.015	1/2	7/8	7/16	.18
151-6S2	.02	1/2	7/8	7/16	.18
151-6S22	.022	1/2	7/8	7/16	.18
151-6S3	.03	5/8	1 1/4	23/32	.21
151-6S33	.033	5/8	1 1/4	23/32	.21
151-6S4	.04	5/8	1 1/4	23/32	.21
151-6S47	.047	5/8	1 1/4	23/32	.24
151-6S5	.05	5/8	1 1/4	23/32	.24
151-6S6	.06	11/16	1 11/32	27/32	.24
151-6S68	.068	11/16	1 11/32	27/32	.24
151-6P1	.1	11/16	1 11/32	27/32	.27
151-6P15	.15	7/8	1 13/16	1 3/32	.33
151-6P2	.2	7/8	1 13/16	1 3/32	.39
151-6P22	.22	7/8	1 13/16	1 3/32	.39
151-6P25	.25	7/8	1 13/16	1 3/32	.45

‡Indicates Tolerance of +20%

* DuPont Reg.

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GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

TYPE 107 WRAPPED MYLAR® CAPACITORS

Noninductive polyester film extended foil section, assembled in Mylar wrapper case. Ends filled with thermosetting Pyroset resin. Tinned leads firmly embedded in the resin and will not pull out. Sizes are greatly reduced. Very high insulation resistance, dielectric impervious to moisture.

Temperature Range:
−55°C. to +110°C.

Standard Tolerance.
.001 to .0047 Mfd. ±30%
.005 to 1.0 Mfd. ±20%

Catalog No.	Capacity	Diameter	Length
	150 VDC Working		
107V103	.01	.156	½
107V153	.015	.187	½
107V223	.022	.203	5/8
107V333	.033	.218	5/8
107V473	.047	.234	¾
107V683	.068	.265	¾
107V104	.1	.281	⅞
107V154	.15	.328	⅞
107V224	.22	.328	1
107V334	.33	.375	1⅛
107V474	.47	.468	1¼
107V684	.68	.562	1¼
107V105	1.00	.593	1½
107V155	1.5	.718	1¾
107V205	2.00	.812	1¾
	200 VDC Working		
107C102	.001	.156	½
107C152	.0015	.156	½
107C222	.0022	.156	½
107C332	.0033	.156	½
107C472	.0047	.156	½
107C682	.0068	.156	½
107C103	.01	.171	½
107C153	.015	.203	½
107C223	.022	.250	5/8
107C333	.033	.250	¾
107C473	.047	.296	¾
107C683	.068	.343	¾
107C104	.1	.375	⅞
107C154	.15	.453	⅞
107C224	.22	.438	1⅛
107C334	.33	.484	1⅛
107C474	.47	.546	1¼
107C684	.68	.609	1⅝
107C105	1.	.671	1¾
107C155	1.5	.828	1¾
107C205	2.	.875	1⅞
	400 VDC Working		
107E102	.001	.156	5/8
107E152	.0015	.156	5/8
107E222	.0022	.156	5/8
107E332	.0033	.156	5/8
107E472	.0047	.187	5/8
107E682	.0068	.218	5/8
107E103	.01	.250	¾
107E153	.015	.296	¾
107E223	.022	.312	¾
107E333	.033	.312	⅞
107E473	.047	.343	⅞
107E683	.068	.375	1
107E104	.1	.421	1
107E154	.15	.468	1¼
107E224	.22	.546	1⅜
107E334	.33	.593	1⅝
107E474	.47	.671	1⅝
107E684	.68	.796	1⅜
107E105	1.	.812	2
107E155	1.5	.921	2¼
107E205	2.	1.093	2¼
	600 VDC Working		
107F102	.001	.156	¾
107F152	.0052	.171	¾
107F222	.0022	.187	¾
107E332	.0033	.203	¾
107F472	.0047	.234	¾
107F682	.0068	.265	¾
107F103	.01	.312	¾
107F153	.015	.312	⅞
107F223	.022	.375	⅞
107F333	.033	.406	1
107F473	.047	.453	1
107F683	.068	.531	1
107F104	.1	.562	1⅛
107F154	.15	.671	1⅜
107F224	.22	.718	1⅝
107F334	.33	.756	2
107F474	.47	.859	2
107F684	.68	1.016	2
107F105	1.	1.125	2½
107F155	1.5	1.234	3
107F205	2.	1.421	3

Available ±10% tolerance (K) 107F205K 2.0 mfd. 600V ±10 ±20% tolerance (M) 107F205M 2.0 mfd. 600V ±20

TYPE 152 MICROMINIATURE MYLAR® CAPACITORS

Encased in mylar tube with epoxy end seals. Will operate at full 200 V.D.C. rating at 85°C. For 125°C operation derate 50%. Extremely high insulation resistance.

Catalog No.	Capacity	Dia. (±.015″)	Length (+.063″ −.031″)
152C102	.001	.081	⅜
152C152	.0015	.088	⅜
152C222	.0022	.095	⅜
152C332	.0033	.102	⅜
152C472	.0047	.109	⅜
152C682	.0068	.121	⅜
152C822	.0082	.128	⅜
152C103	.01	.139	⅜
152C153	.015	.165	⅜
152C223	.022	.198	⅜
152C333	.033	.237	⅜
152C473	.047	.278	⅜
152C563	.056	.278	½
152C683	.068	.294	½
152C823	.082	.319	½
152C104	.1	.319	9/16
152C124	.12	.342	9/16
152C154	.15	.381	9/16

Available ±20% (M), ±10% (K), ±5% (J). Specify tolerance by adding appropriate suffix.

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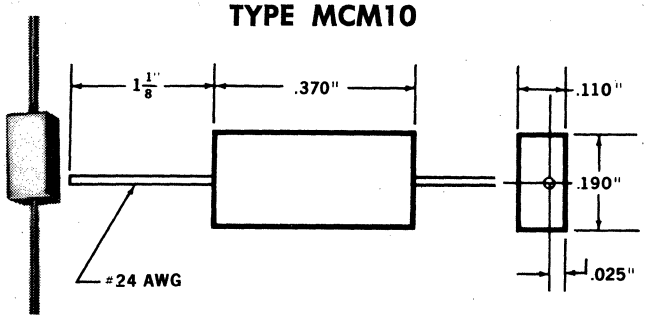
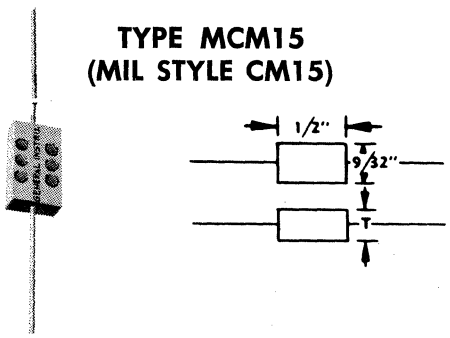
GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

TYPE MCM10



TYPE DESIGNATION	CAP. PF	Characteristics available at capacitance tolerance G ±2%	J ±5%	K ±10%	M ±20%
MCM10-050	5	.....			B
MCM10-100	10	.....	.....	.....	B
MCM10-120	12	.....	.....	B	B
MCM10-150	15	.....		B	B
MCM10-180	18	.....	.....	B	B
MCM10-200	20	.....	BC	BC	BC
MCM10-220	22	.....	BCD	BCD	BCD
MCM10-240	24	.....	BCD	BCD	BCD
MCM10-270	27	.....	BCD	BCD	BCD
MCM10-300	30	.....	BCD	BCD	BCD
MCM10-330	33	.....	BCD	BCD	BCD
MCM10-360	36	.....	BCD	BCD	BCD
MCM10-390	39	.....	BCD	BCD	BCD
MCM10-430	43	.....	BCD	BCD	BCD
MCM10-470	47	.....	BCD	BCD	BCD
MCM10-510	51	CDE	BCDE	BCDE	BCDE
MCM10-560	56	CDE	BCDE	BCDE	BCDE
MCM10-620	62	CDE	BCDE	BCDE	BCDE
MCM10-680	68	CDE	BCDE	BCDE	BCDE
MCM10-750	75	CDE	BCDE	BCDE	BCDE
MCM10-820	82	CDE	BCDE	BCDE	BCDE
MCM10-910	91	CDE	BCDE	BCDE	BCDE
MCM10-101	100	CDEF	BCDEF	BCDEF	BCDEF
MCM10-111	110	CDEF	BCDEF	BCDEF	BCDEF
MCM10-121	120	CDEF	BCDEF	BCDEF	BCDEF
MCM10-131	130	CDEF	BCDEF	BCDEF	BCDEF
MCM10-151	150	CDEF	BCDEF	BCDEF	BCDEF
MCM10-161	160	CDEF	BCDEF	BCDEF	BCDEF
MCM10-181	180	CDEF	BCDEF	BCDEF	BCDEF
MCM10-201	200	CDEF	BCDEF	BCDEF	BCDEF
MCM10-221	220	CDEF	BCDEF	BCDEF	BCDEF
MCM10-241	240	CDEF	BCDEF	BCDEF	BCDEF

TYPE MCM15 (MIL STYLE CM15)

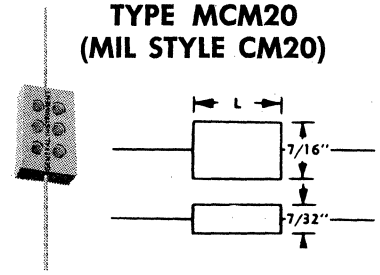


TYPE DESIGNATION 1* 2* 3* 4*	CAP. PF	Characteristics available at capacitance tolerance G ±2%	J ±5%	K ±10%
MCM15 — 100 — — —	10	.....	.....	B
MCM15 — 120 — — —	12	.....	.....	B
MCM15 — 150 — — —	15	.....	.....	B
MCM15 — 180 — — —	18	.....	.....	B
MCM15 — 200 — — —	20	BCDE	BCDE	BCDE
MCM15 — 220 — — —	22	BCDE	BCDE	BCDE
MCM15 — 240 — — —	24	BCDE	BCDE	BCDE
MCM15 — 270 — — —	27	BCDE	BCDE	BCDE
MCM15 — 300 — — —	30	BCDE	BCDE	BCDE

TYPE MCM15 (Continued)

TYPE DESIGNATION 1* 2* 3* 4*	CAP. PF	Characteristics available at capacitance tolerance G ±2%	J ±5%	K ±10%
MCM15 — 330 — — —	33	BCDEF	BCDEF	BCDEF
MCM15 — 360 — — —	36	BCDEF	BCDEF	BCDEF
MCM15 — 390 — — —	39	BCDEF	BCDEF	BCDEF
MCM15 — 430 — — —	43	BCDEF	BCDEF	BCDEF
MCM15 — 470 — — —	47	BCDEF	BCDEF	BCDEF
MCM15 — 510 — — —	51	BCDEF	BCDEF	BCDEF
MCM15 — 560 — — —	56	BCDEF	BCDEF	BCDEF
MCM15 — 620 — — —	62	BCDEF	BCDEF	BCDEF
MCM15 — 680 — — —	68	BCDEF	BCDEF	BCDEF
MCM15 — 750 — — —	75	BCDEF	BCDEF	BCDEF
MCM15 — 820 — — —	82	BCDEF	BCDEF	BCDEF
MCM15 — 910 — — —	91	BCDEF	BCDEF	BCDEF
MCM15 — 101 — — —	100	BCDEF	BCDEF	BCDEF
MCM15 — 111 — — —	110	BCDEF	BCDEF	BCDEF
MCM15 — 121 — — —	120	BCDEF	BCDEF	BCDEF
MCM15 — 131 — — —	130	BCDEF	BCDEF	BCDEF
MCM15 — 151 — — —	150	BCDEF	BCDEF	BCDEF
MCM15 — 161 — — —	160	BCDEF	BCDEF	BCDEF
MCM15 — 181 — — —	180	BCDEF	BCDEF	BCDEF
MCM15 — 201 — — —	200	BCDEF	BCDEF	BCDEF
MCM15 — 221 — — —	220	BCDEF	BCDEF	BCDEF
MCM15 — 241 — — —	240	BCDEF	BCDEF	BCDEF
MCM15 — 271 — — —	270	BCDEF	BCDEF	BCDEF
MCM15 — 301 — — —	300	BCDEF	BCDEF	BCDEF
MCM15 — 331 — — —	330	BCDEF	BCDEF	BCDEF
MCM15 — 361 — — —	360	BCDEF	BCDEF	BCDEF
MCM15 — 391 — — —	390	BCDEF	BCDEF	BCDEF
MCM15 — 431 — — —	430	BCDEF	BCDEF	BCDEF
MCM15 — 471 — — —	470	BCDEF	BCDEF	BCDEF
MCM15 — 511 — — —	510	BCDEF	BCDEF	BCDEF

TYPE MCM20 (MIL STYLE CM20)



TYPE DESIGNATION 1* 2* 3* 4*	CAP. PF	Characteristics available at capacitance tolerance G ±2%	J ±5%	K ±10%
MCM20 — 050 — — —	5	.....	B	BC
MCM20 — 100 — — —	10	.....	B	BC
MCM20 — 120 — — —	12	.....	B	BC
MCM20 — 150 — — —	15	.....	B	BC
MCM20 — 180 — — —	18	.....	B	BC
MCM20 — 200 — — —	20	.....	B	BC
MCM20 — 220 — — —	22	.....	B	BC
MCM20 — 240 — — —	24	.....	B	BC
MCM20 — 270 — — —	27	.....	B	BC
MCM20 — 300 — — —	30	.....	B	BC
MCM20 — 330 — — —	33	BCDE	BCDE	BCDE
MCM20 — 360 — — —	36	BCDE	BCDE	BCDE
MCM20 — 390 — — —	39	BCDE	BCDE	BCDE
MCM20 — 430 — — —	43	BCDE	BCDE	BCDE
MCM20 — 470 — — —	47	BCDE	BCDE	BCDE
MCM20 — 500 — — —	40	BCDE	BCDE	BCDE
MCM20 — 510 — — —	51	BCDE	BCDE	BCDE
MCM20 — 560 — — —	56	BCDEF	BCDEF	BCDEF
MCM20 — 620 — — —	62	BCDEF	BCDEF	BCDEF
MCM20 — 680 — — —	68	BCDEF	BCDEF	BCDEF
MCM20 — 750 — — —	75	BCDEF	BCDEF	BCDEF
MCM20 — 820 — — —	82	BCDEF	BCDEF	BCDEF
MCM20 — 910 — — —	91	BCDEF	BCDEF	BCDEF
MCM20 — 101 — — —	100	BCDEF	BCDEF	BCDEF
MCM20 — 111 — — —	110	BCDEF	BCDEF	BCDEF
MCM20 — 121 — — —	120	BCDEF	BCDEF	BCDEF
MCM20 — 131 — — —	130	BCDEF	BCDEF	BCDEF

NOTE: *1 Include applicable characteristic, (B, C, D, E, F).
*2 Include applicable tolerance letter, (K, J, G, F).
*3 Include applicable code letter for operating temperature (N;85°C: O;125°C: P;150°C).
*4 Include applicable vibration grade.

All characteristics above are for GI Capacitors. MIL-C-5 Specifications fall within these characteristics.

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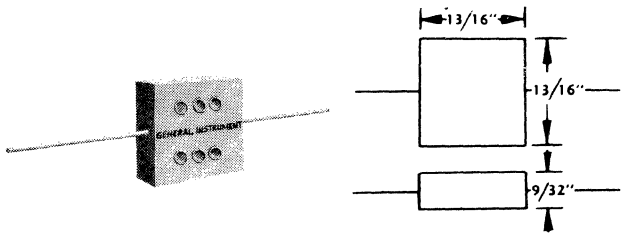
GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

TYPE MCM20 (Continued)

TYPE DESIGNATION	CAP. PF	Characteristics available at capacitance tolerance G ±2%	J ±5%	K ±10%
1* 2* 3* 4*				
MCM20 — 151 — — —	150	BCDEF	BCDEF	BCDEF
MCM20 — 161 — — —	160	BCDEF	BCDEF	BCDEF
MCM20 — 181 — — —	180	BCDEF	BCDEF	BCDEF
MCM20 — 201 — — —	200	BCDEF	BCDEF	BCDEF
MCM20 — 221 — — —	220	BCDEF	BCDEF	BCDEF
MCM20 — 241 — — —	240	BCDEF	BCDEF	BCDEF
MCM20 — 251 — — —	250	BCDEF	BCDEF	BCDEF
MCM20 — 271 — — —	270	BCDEF	BCDEF	BCDEF
MCM29 — 301 — — —	300	BCDEF	BCDEF	BCDEF
MCM20 — 331 — — —	330	BCDEF	BCDEF	BCDEF
MCM20 — 361 — — —	360	BCDEF	BCDEF	BCDEF
MCM20 — 391 — — —	390	BCDEF	BCDEF	BCDEF
MCM20 — 431 — — —	430	BCDEF	BCDEF	BCDEF
MCM20 — 471 — — —	470	BCDEF	BCDEF	BCDEF
MCM20 — 501 — — —	500	BCDEF	BCDEF	BCDEF
MCM20 — 511 — — —	510	BCDEF	BCDEF	BCDEF
MCM20 — 561 — — —	560	BCDEF	BCDEF	BCDEF
MCM20 — 621 — — —	620	BCDEF	BCDEF	BCDEF
MCM20 — 681 — — —	680	BCDEF	BCDEF	BCDEF
MCM20 — 751 — — —	750	BCDEF	BCDEF	BCDEF
MCM20 — 821 — — —	820	BCDEF	BCDEF	BCDEF
MCM20 — 911 — — —	910	BCDEF	BCDEF	BCDEF
MCM20 — 102 — — —	1000	BCDEF	BCDEF	BCDEF
MCM20 — 112 — — —	1100	BCDEF	BCDEF	BCDEF
MCM20 — 122 — — —	1200	BCDEF	BCDEF	BCDEF
MCM20 — 132 — — —	1300	BCDEF	BCDEF	BCDEF
MCM20 — 152 — — —	1500	BCDEF	BCDEF	BCDEF
MCM20 — 162 — — —	1600	BCDEF	BCDEF	BCDEF
MCM20 — 182 — — —	1800	BCDEF	BCDEF	BCDEF
MCM20 — 202 — — —	2000	BCDEF	BCDEF	BCDEF
MCM20 — 222 — — —	2200	BCDEF	BCDEF	BCDEF
MCM20 — 242 — — —	2400	BCDEF	BCDEF	BCDEF
MCM20 — 252 — — —	2500	BCDEF	BCDEF	BCDEF
MCM20 — 272 — — —	2700	BCDEF	BCDEF	BCDEF
MCM20 — 302 — — —	3000	BCDEF	BCDEF	BCDEF
MCM20 — 332 — — —	3300	BCDEF	BCDEF	BCDEF
MCM20 — 362 — — —	3600	BCDEF	BCDEF	BCDEF
MCM20 — 392 — — —	3900	BCDEF	BCDEF	BCDEF
MCM20 — 432 — — —	4300	BCDEF	BCDEF	BCDEF
MCM20 — 472 — — —	4700	BCDEF	BCDEF	BCDEF
MCM20 — 502 — — —	5000	BCDEF	BCDEF	BCDEF
MCM20 — 512 — — —	5100	BCDEF	BCDEF	BCDEF

TYPE MCM30 (MIL STYLE CM30)

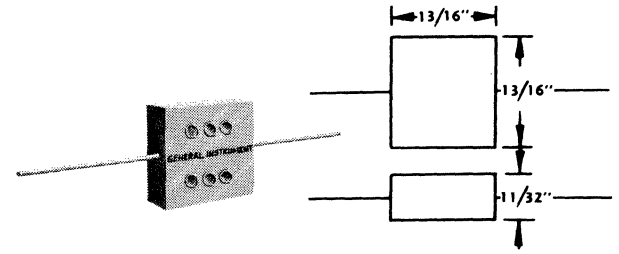


TYPE DESIGNATION	CAP. PF	Characteristics available at capacitance tolerance G ±2%	J ±5%	K ±10%
1* 2* 3* 4*				
MCM30 — 561 — — —	560	BCDEF	BCDEF	BCDEF
MCM30 — 621 — — —	620	BCDEF	BCDEF	BCDEF
MCM30 — 681 — — —	680	BCDEF	BCDEF	BCDEF
MCM30 — 751 — — —	750	BCDEF	BCDEF	BCDEF
MCM30 — 821 — — —	820	BCDEF	BCDEF	BCDEF
MCM30 — 911 — — —	910	BCDEF	BCDEF	BCDEF
MCM30 — 102 — — —	1000	BCDEF	BCDEF	BCDEF
MCM30 — 112 — — —	1100	BCDEF	BCDEF	BCDEF
MCM30 — 122 — — —	1200	BCDEF	BCDEF	BCDEF
MCM30 — 132 — — —	1300	BCDEF	BCDEF	BCDEF
MCM30 — 152 — — —	1500	BCDEF	BCDEF	BCDEF
MCM30 — 162 — — —	1600	BCDEF	BCDEF	BCDEF
MCM30 — 182 — — —	1800	BCDEF	BCDEF	BCDEF
MCM30 — 202 — — —	2000	BCDEF	BCDEF	BCDEF
MCM30 — 222 — — —	2200	BCDEF	BCDEF	BCDEF
MCM30 — 242 — — —	2400	BCDEF	BCDEF	BCDEF

TYPE MCM30 (Continued)

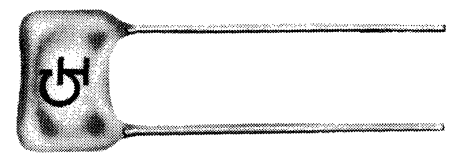
TYPE DESIGNATION	CAP. PF	Characteristics available at capacitance tolerance G ±2%	J ±5%	K ±10%
1* 2* 3* 4*				
MCM30 — 252 — — —	2500	BCDEF	BCDEF	BCDEF
MCM30 — 272 — — —	2700	BCDEF	BCDEF	BCDEF
MCM30 — 302 — — —	3000	BCDEF	BCDEF	BCDEF
MCM30 — 332 — — —	3300	BCDEF	BCDEF	BCDEF
MCM30 — 362 — — —	3600	BCDEF	BCDEF	BCDEF
MCM30 — 392 — — —	3900	BCDEF	BCDEF	BCDEF
MCM30 — 432 — — —	4300	BCDEF	BCDEF	BCDEF
MCM30 — 472 — — —	4700	BCDEF	BCDEF	BCDEF
MCM30 — 502 — — —	5000	BCDEF	BCDEF	BCDEF
MCM30 — 512 — — —	5100	BCDEF	BCDEF	BCDEF
MCM30 — 562 — — —	5600	BCDEF	BCDEF	BCDEF
MCM30 — 622 — — —	6200	BCDEF	BCDEF	BCDEF

TYPE MCM35 (MIL STYLE CM35)



TYPE DESIGNATION	CAP. PF.	Characteristics available at capacitance tolerance G ±2%	J ±5%	K ±10%
1* 2* 3* 4*				
MCM35 — 362 — — —	3600	BCDEF	BCDEF	BCDEF
MCM35 — 392 — — —	3900	BCDEF	BCDEF	BCDEF
MCM35 — 432 — — —	4300	BCDEF	BCDEF	BCDEF
MCM35 — 472 — — —	4700	BCDEF	BCDEF	BCDEF
MCM35 — 512 — — —	5100	BCDEF	BCDEF	BCDEF
MCM35 — 562 — — —	5600	BCDEF	BCDEF	BCDEF
MCM35 — 622 — — —	6200	BCDEF	BCDEF	BCDEF
MCM35 — 682 — — —	6800	BCDEF	BCDEF	BCDEF
MCM35 — 752 — — —	7500	BCDEF	BCDEF	BCDEF
MCM35 — 822 — — —	8200	BCDEF	BCDEF	BCDEF
MCM35 — 912 — — —	9100	BCDEF	BCDEF	BCDEF
MCM35 — 103 — — —	10000	BCDEF	BCDEF	BCDEF

DIPPED SILVERED MICA CAPACITORS TO THE LATEST REVISION OF SPECIFICATION MIL-C-5.



TYPE RDM15 (MIL STYLE CM05)

TYPE DESIGNATION	CAP. PF.	Characteristics available at capacitance tolerance G ±2%	J ±5%	K ±10%
1* 2* 3* 4*				
CM05 — 050K — — 3	5	....	....	C
CM05 — 060K — — 3	6	....	....	C
CM05 — 070K — — 3	7	....	....	C
CM05 — 080K — — 3	8	....	....	C
CM05 — 100K — — 3	10	....	....	C

NOTE: *1 Include applicable characteristic, (B, C, D, E, F).
*2 Include applicable tolerance letter, (K, J, G, F).
*3 Include applicable code letter for operating temperature (N;85°C: O;125°C: P;150°C).
*4 Include applicable vibration grade.

All characteristics above are for GI Capacitors. MIL-C-5 Specifications fall within these characteristics.

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CAPACITOR DIVISION

TYPE CM05 (Continued)

TYPE DESIGNATION	CAP. PF.	Characteristics available at capacitance tolerance G ±2%	J ±5%	K ±10%
1* 2* 3*				
CM05 — 120 — — 3	12	....	....	C
CM05 — 180 — — 3	18	....	....	C
CM05 — 200 — — 3	20	....	DE	....
CM05 — 220 — — 3	22	....	DE	CD
CM05 — 240 — — 3	24	....	DE	....
CM05 — 270 — — 3	27	E	DE	CD
CM05 — 300 — — 3	30	E	DE	....
CM05 — 330 — — 3	33	E	DE	CD
CM05 — 360 — — 3	36	E	DE	....
CM05 — 390 — — 3	39	E	DE	CD
CM05 — 430 — — 3	43	E	DE	....
CM05 — 470 — — 3	47	E	DE	CD
CM05 — 510 — — 3	51	E	DE	....
CM05 — 560 — — 3	56	E	DE	CD
CM05 — 620 — — 3	62	E	DE	....
CM05 — 680 — — 3	68	E	DE	CD
CM05 — 750 — — 3	75	E	DE	....
CM05 — 820 — — 3	82	E	DE	CD
CM05 — 910 — — 3	91	F	DF	....
CM05 — 101 — — 3	100	F	DF	CD
CM05 — 111 — — 3	110	F	DF	....
CM05 — 121 — — 3	120	F	DF	CD
CM05 — 131 — — 3	130	F	DF	....
CM05 — 151 — — 3	150	F	DF	CD
CM05 — 161 — — 3	160	F	DF	....
CM05 — 181 — — 3	180	F	DF	CD
CM05 — 201 — — 3	200	F	DF	....
CM05 — 221 — — 3	220	F	DF	CD
CM05 — 241 — — 3	240	F	DF	....
CM05 — 271 — — 3	270	F	DF	CD
CM05 — 301 — — 3	300	F	DF	....
CM05 — 331 — — 3	330	F	DF	CD
CM05 — 361 — — 3	360	F	DF	....
CM05 — 391 — — 3	390	F	DF	CD

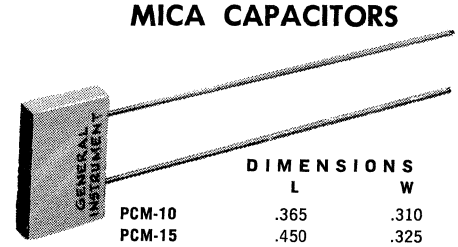
TYPE RDM20 (MIL STYLE CM06)

TYPE DESIGNATION	CAP. PF.	Characteristics available at capacitance tolerance G ±2%	J ±5%	K ±10%
1* 2* 3*				
CM06 — 431 — — 3	430	F	DF	....
CM06 — 471 — — 3	470	F	DF	CD
CM06 — 511 — — 3	510	F	DF	....
CM06 — 561 — — 3	560	F	DF	CD
CM06 — 621 — — 3	620	F	DF	....
CM06 — 681 — — 3	680	F	DF	CD
CM06 — 751 — — 3	750	F	DF	....
CM06 — 821 — — 3	820	F	DF	CD
CM06 — 911 — — 3	910	F	DF	....
CM06 — 102 — — 3	1000	F	DF	CD
CM06 — 112 — — 3	1100	F	DF	....
CM06 — 122 — — 3	1200	F	DF	....
CM06 — 132 — — 3	1300	F	DF	....
CM06 — 152 — — 3	1500	F	DF	....
CM06 — 162 — — 3	1600	F	DF	....
CM06 — 182 — — 3	1800	F	DF	....
CM06 — 202 — — 3	2000	F	DF	....
CM06 — 222 — — 3	2200	F	DF	....
CM06 — 242 — — 3	2400	F	DF	....
CM06 — 272 — — 3	2700	F	DF	....
CM06 — 302 — — 3	3000	F	DF	....
CM06 — 332 — — 3	3300	F	DF	....
CM06 — 362 — — 3	3600	F	DF	....
CM06 — 392 — — 3	3900	F	DF	....
CM06 — 432 — — 3	4300	F	DF	....
CM06 — 472 — — 3	4700	F	DF	....

TYPE RDM30 (MIL STYLE CM07)

TYPE DESIGNATION	CAP. PF.	Characteristics available at capacitance tolerance G ±2%	J ±5%	K ±10%
1* 2* 3*				
CM07 — 512 — — 3	5100	F	F	....
CM07 — 562 — — 3	5600	F	F	....
CM07 — 622 — — 3	6200	F	F	....
CM07 — 682 — — 3	6800	F	F	....
CM07 — 752 — — 3	7500	F	F	....
CM07 — 822 — — 3	8200	F	F	....
CM07 — 912 — — 3	9100	F	F	....
CM07 — 103 — — 3	10000	F	F	....
CM07 — 113 — — 3	11000	F	F	....
CM07 — 123 — — 3	12000	F	F	....
CM07 — 133 — — 3	13000	F	F	....
CM07 — 153 — — 3	15000	F	F	....
CM07 — 163 — — 3	16000	F	F	....
CM07 — 183 — — 3	18000	F	F	....
CM07 — 203 — — 3	20000	F	F	....

MOLDED RADIAL LEAD SILVERED MICA CAPACITORS



	DIMENSIONS L	W	T
PCM-10	.365	.310	.121
PCM-15	.450	.325	.150
PCM-20	.615	.469	.205

TYPE PCM10

TYPE DESIGNATION	CAP. PF	Characteristics available at capacitance tolerance G ±2%	J ±5%	K ±10%	M ±20%
1* 2* 3* 4*					
PCM10 — 050 — — —	5	.....	.....	.....	BC
PCM10 — 010 — — —	10	.....	.....	BC	BC
PCM10 — 120 — — —	12	.....	.....	BC	BCD
PCM10 — 150 — — —	15	.....	.....	BCD	BCD
PCM10 — 180 — — —	18	.....	.....	BCD	BCD
PCM10 — 200 — — —	20	.....	BCD	BCD	BCD
PCM10 — 220 — — —	22	.....	BCD	BCD	BCD
PCM10 — 240 — — —	24	.....	BCD	BCD	BCD
PCM10 — 270 — — —	27	.....	BCD	BCD	BCD
PCM10 — 300 — — —	30	.....	BCD	BCD	BCD
PCM10 — 330 — — —	33	.....	BCD	BCD	BCD
PCM10 — 360 — — —	36	.....	BCD	BCD	BCD
PCM10 — 390 — — —	39	.....	BCD	BCD	BCD
PCM10 — 430 — — —	43	.....	BCD	BCD	BCD
PCM10 — 470 — — —	47	.....	BCD	BCD	BCD
PCM10 — 510 — — —	51	CDE	BCDE	BCDE	BCDE
PCM10 — 560 — — —	56	CDE	BCDE	BCDE	BCDE
PCM10 — 620 — — —	62	CDE	BCDE	BCDE	BCDE
PCM10 — 680 — — —	68	CDE	BCDE	BCDE	BCDE
PCM10 — 750 — — —	75	CDE	BCDE	BCDE	BCDE
PCM10 — 820 — — —	82	CDE	BCDE	BCDE	BCDE
PCM10 — 910 — — —	91	CDE	BCDE	BCDE	BCDE
PCM10 — 101 — — —	100	CDEF	BCDEF	BCDEF	BCDEF
PCM10 — 111 — — —	110	CDEF	BCDEF	BCDEF	BCDEF
PCM10 — 121 — — —	120	CDEF	BCDEF	BCDEF	BCDEF
PCM10 — 131 — — —	130	CDEF	BCDEF	BCDEF	BCDEF
PCM10 — 151 — — —	150	CDEF	BCDEF	BCDEF	BCDEF
PCM10 — 161 — — —	160	CDEF	BCDEF	BCDEF	BCDEF
PCM10 — 181 — — —	180	CDEF	BCDEF	BCDEF	BCDEF
PCM10 — 201 — — —	200	CDEF	BCDEF	BCDEF	BCDEF
PCM10 — 221 — — —	220	CDEF	BCDEF	BCDEF	BCDEF
PCM10 — 241 — — —	240	CDEF	BCDEF	BCDEF	BCDEF

NOTE: *1 Include applicable characteristic, (B, C, D, E, F).
*2 Include applicable tolerance letter, (K, J, G, F).
*3 Include applicable code letter for operating temperature (N;85°C: O;125°C: P;150°C).
*4 Include applicable vibration grade.
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GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

TYPE PCM15

TYPE DESIGNATION	CAPACITANCE (μμf)	DC WORKING VOLTAGE	Characteristics available at capacitance tolerance G ±2%	J ±5%	K ±10%	M ±20%
1* 2* 3* 4*						
PCM15 — 050 — — —	5	500	.....	.....	.....	BC
PCM15 — 100 — — —	10	500	.....	.....	BC	BC
PCM15 — 120 — — —	12	500	.....	.....	BC	BCD
PCM15 — 150 — — —	15	500	.....	.....	BCD	BCD
PCM15 — 180 — — —	18	500	.....	.....	BCD	BCD
PCM15 — 200 — — —	20	500	.....	BCD	BCD	BCD
PCM15 — 220 — — —	22	500	.....	BCD	BCD	BCD
PCM15 — 240 — — —	24	500	.....	BCD	BCD	BCD
PCM15 — 270 — — —	27	500	.....	BCD	BCD	BCD
PCM15 — 300 — — —	30	500	.....	BCD	BCD	BCD
PCM15 — 330 — — —	33	500	.....	BCD	BCD	BCD
PCM15 — 360 — — —	36	500	.....	BCD	BCD	BCD
PCM15 — 390 — — —	39	500	.....	BCD	BCD	BCD
PCM15 — 430 — — —	43	500	.....	BCD	BCD	BCD
PCM15 — 470 — — —	47	500	.....	BCD	BCD	BCD
PCM15 — 510 — — —	51	500	CDE	BCDE	BCDE	BCDE
PCM15 — 560 — — —	56	500	CDE	BCDE	BCDE	BCDE
PCM15 — 620 — — —	62	500	CDE	BCDE	BCDE	BCDE
PCM15 — 680 — — —	68	500	CDE	BCDE	BCDE	BCDE
PCM15 — 750 — — —	75	500	CDE	BCDE	BCDE	BCDE
PCM15 — 820 — — —	82	500	CDE	BCDE	BCDE	BCDE
PCM15 — 910 — — —	91	500	CDE	BCDE	BCDE	BCDE
PCM15 — 101 — — —	100	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 111 — — —	110	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 121 — — —	120	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 131 — — —	130	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 151 — — —	150	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 161 — — —	160	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 181 — — —	180	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 201 — — —	200	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 221 — — —	220	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 241 — — —	240	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 271 — — —	270	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 301 — — —	300	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 331 — — —	330	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 361 — — —	360	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 391 — — —	390	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 431 — — —	430	300	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 471 — — —	470	300	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 511 — — —	510	300	CDEF	BCDEF	BCDEF	BCDEF

TYPE PCM20

TYPE DESIGNATION	CAPACITANCE (μμf)	DC WORKING VOLTAGE	Characteristics available at capacitance tolerance G ±2%	J ±5%	K ±10%	M ±20%
1* 2* 3* 4*						
PCM20 — 510 — — —	51	500	CDE	BCDE	BCDE	BCDE
PCM20 — 560 — — —	56	500	CDE	BCDE	BCDE	BCDE
PCM20 — 620 — — —	62	500	CDE	BCDE	BCDE	BCDE
PCM20 — 680 — — —	68	500	CDE	BCDE	BCDE	BCDE
PCM20 — 750 — — —	75	500	CDE	BCDE	BCDE	BCDE
PCM20 — 820 — — —	82	500	CDE	BCDE	BCDE	BCDE
PCM20 — 910 — — —	91	500	CDE	BCDE	BCDE	BCDE
PCM20 — 101 — — —	100	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 111 — — —	110	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 121 — — —	120	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 131 — — —	130	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 151 — — —	150	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 161 — — —	160	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 181 — — —	180	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 201 — — —	200	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 221 — — —	220	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 241 — — —	240	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 271 — — —	270	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 301 — — —	300	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 331 — — —	330	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 361 — — —	360	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 391 — — —	390	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 431 — — —	430	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 471 — — —	470	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 511 — — —	510	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 561 — — —	560	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 621 — — —	620	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 681 — — —	680	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 751 — — —	750	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 821 — — —	820	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 911 — — —	910	500	CDEF	BCDEF	BCDEF	BCDE
PCM20 — 102 — — —	1000	500	CDEF	BCDEF	BCDEF	BCDE
PCM20 — 112 — — —	1100	500	CDEF	BCDEF	BCDEF	BCDE
PCM20 — 122 — — —	1200	500	CDEF	BCDEF	BCDEF	BCDE
PCM20 — 132 — — —	1300	500	CDEF	BCDEF	BCDEF	BCDE
PCM20 — 152 — — —	1500	500	CDEF	BCDEF	BCDEF	BCDE
PCM20 — 162 — — —	1600	500	CDEF	BCDEF	BCDEF	BCDE
PCM15 — 182 — — —	1800	500	CDEF	BCDEF	BCDEF	BCDE
PCM20 — 202 — — —	2000	500	CDEF	BCDEF	BCDEF	BCDE
PCM20 — 222 — — —	2200	300	CDEF	BCDEF	BCDEF	BCDE
PCM20 — 242 — — —	2400	300	CDEF	BCDEF	BCDEF	BCDE
PCM20 — 272 — — —	2700	300	CDEF	BCDEF	BCDEF	BCDE
PCM20 — 302 — — —	3000	300	CDEF	BCDEF	BCDEF	BCDE
PCM20 — 332 — — —	3300	300	CDEF	BCDEF	BCDEF	BCDE

NOTE: *1 Include applicable characteristic, (B, C, D, E, F).
*2 Include applicable tolerance letter, (K, J, G, F).
*3 Include applicable code letter for operating temperature (N;85°C: O;125°C: P;150°C).
*4 Include applicable vibration grade.

ABOUT GENERAL INSTRUMENT CORPORATION

A pioneer (founded 1928) in the electronics industry, General Instrument is a broadly diversifiec producer of devices and equipment for industrial, military and space and entertainment end use

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18 plants and research centers in the United States and Canada (1,800,000 square feet), mor than 9,000 employees.

PRODUCTS:

● Semiconductors (transistors, diodes, rectifiers) ● microcircuits ● capacitors ● resistors ● thin filr devices ● sonar and other underseas instrumentation ● industrial ultrasonic equipment ● thermc electric generators ● I.F. transformers ● piezo-electric ceramics ● hermetic glass-to-metal seals R-F chokes and coils ● delay lines ● magnetic components ● TV tuners ● deflection component ● automobile radio tuners ● electronic fuzes ● radar, telemetry, communications, beaconry an air traffic control equipment ● IFF equipment and systems ● navigation and control systems ● tel phone and telegraph terminals

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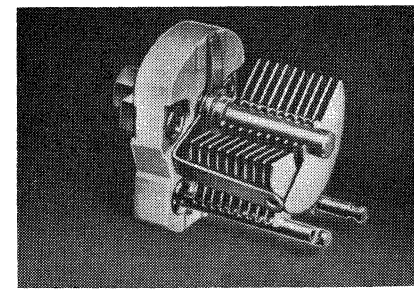
HAMMARLUND

STANDARD VARIABLE CAPACITORS

"APC" CAPACITORS



FEATURES—The "APC" trimmer capacitor originated by Hammarlund over twenty years ago is still widely recognized as the standard capacitor of its type. Its use is indicated in all classes of equipment where a compact, high quality air dielectric trimmer is required. It was designed to resist effects of temperature, moisture and vibration. Silicone treated steatite insulation is used to insure high leakage resistance.

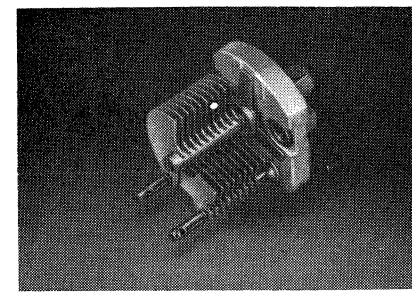
CONSTRUCTION—Brass rotor and stator plates are soldered to brass supports. Nickel-plated phosphor bronze wiper assures positive rotor contact. All metal parts are nickel-plated. Terminals are hot-tin dipped. Tapped brass mounting studs fastened to silicone treated steatite base permit mounting capacitor without grounding the rotor.

SPECIFICATIONS—Straight line capacity characteristic. Available either with hexagonal collar on slotted shaft to permit rotor adjustments to be made with wrench or screwdriver or with ½" extended shaft for knob control or shaft coupling. (Type "B") "APC-C" Lock Type now also available through distributors. Air Gap is 0.015" nominal. Tested at 600 V. R.M.S., 60 cycles.

Code	Capacity		Plates	Net Price
	Max.	Min.		
APC-15	17.	2.8	5	$1.25
APC-25	25.	3.0	7	1.35
APC-50	50.	3.9	14	1.55
APC-75	75.	4.6	20	1.70
APC-100	100.	5.5	27	1.85
APC-140	140.	6.7	37	2.15

"B" and "C" types slightly higher

"MAPC" CAPACITORS



FEATURES—The "MAPC" capacitor is representative of Hammarlund's efforts to meet the demand for smaller dependable components. It is a scaled-down version of the popular "APC" with everything reduced except the quality and performance characteristics. For example, an "MAPC" is about half the size and weight of an "APC". Lower minimum capacities and low inductance make the "MAPC" suitable for VHF use.

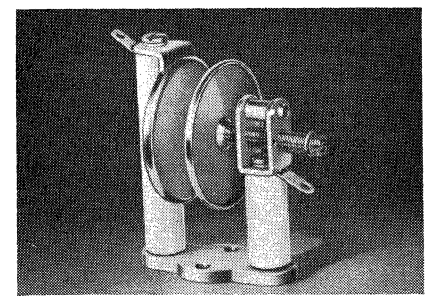
CONSTRUCTION—The standard "APC" construction is used in this capacitor. Rotors and stators are fabricated by soldering brass plates to supporting members and nickel-plating the assemblies. Nickel-plated phosphor bronze wiper assures positive rotor contact. Tapped brass mounting studs fastened to silicone treated steatite base permit mounting capacitor without grounding rotor.

SPECIFICATIONS—Straight line capacity. Available either with screwdriver or socket wrench adjustment or with 7/16" extended shaft for knob control or shaft coupling. (Type "B") "MAPC-C" Lock Type now also available through distributors. Air Gap is 0.0135" nominal. Tested at 600 V. R.M.S., 60 cycles.

Code	Capacity		Plates	Net Price
	Max.	Min.		
MAPC-15	15.	2.3	6	$1.01
MAPC-25	25.	2.6	10	1.10
MAPC-35	35.	2.9	14	1.10
MAPC-50	50.	3.2	19	1.19
MAPC-75	75.	3.9	29	1.28
MAPC-100	100.	4.5	38	1.44

"B" and "C" types slightly higher

NZ-10" CAPACITORS

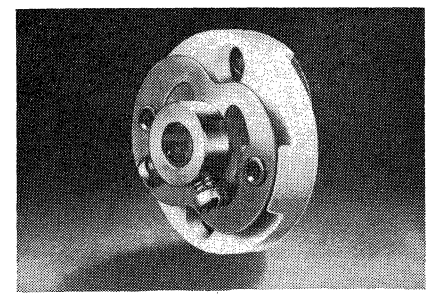


EATURES—The "NZ-10" is a compact transmitter neutralizing capacitor designed for easy nd accurate adjustment. The rotor is attached to a fine-thread lead screw which may be djusted with smooth and precise action by a screwdriver and locked securely by a readily ccessible clamping screw. A stop prevents shorting of plates at maximum capacity. Long akage paths to ground from both rotor and stator are provided. Glazed steatite insulators nd smoothly rounded aluminum plates minimize flashover.

SPECIFICATIONS—Capacity is adjustable from 2.3 to 10 mmf. Peak voltage rating is 3000 V. at maximum capacity (minimum gap) position.

Net Price $4.77

FC" and "FNC" COUPLINGS



EATURES—The "FC-46-S" is an insulated flexible coupling designed to provide for mechanical ganging of shafts even though angularly misaligned. The smallest dimensions have been incorporated consistent with the rugged construction necessary for general service. A high degree of electrical isolation is achieved through the use of silicone treated steatite insulation. Flashover voltage is approximately 5000 V. R.M.S. Brass hubs and spring copper phosphor bronze flexible arms are nickel plated. An exclusive and important feature of this coupling is its characteristic of uniform side-thrust through 360° of rotation. This eliminates tendency to vibrate at high speeds, minimizes bearing wear and assures accurate locking.

The "FNC-46-S" is a non-insulated coupling for use where electrical continuity between shafts is required. The flexible arms are soldered securely to a nickel plated brass ring instead of an insulator.

Standard Stock Types		Net Price
CODE FC-46-S	Insulated flexible coupling	$1.10
CODE FNC-46-S	Non-insulated flexible coupling	.93

Net

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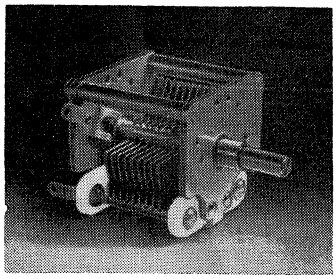
STANDARD VARIABLE CAPACITORS

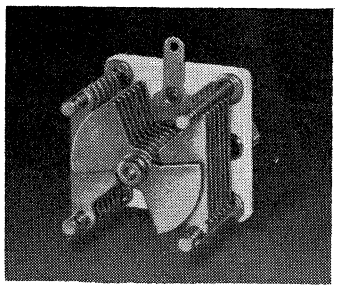


Code	Capacity Max.	Capacity Min.	Plates	Net Price
RMC-50-S	50.	7.3	7	$4.14
RMC-100-S	105.	9.5	14	4.40
RMC-140-S	143.5	11.0	19	4.56
RMC-325-S	327.	17.5	43	5.15

SPECIFICATIONS—Straight line capacity. Air gap is 0.0245" nominal. Tested at 1000 V. R.M.S., 60 cycles.

"RMC" CAPACITORS

FEATURES—The "RMC" was designed specifically for applications requiring an "MC" type tuning capacitor with very rigid construction. Its sturdy frame consists of heavy gauge aluminum end panels held together by three aluminum tie rods. It has a brass sleeve front bearing and a single ball thrust rear bearing for smooth tuning and a high degree of resetability. The rotor contact is a forked silver plated phosphor bronze spring wiping against a wide disc on the rotor. The plate shape and other constructional features are the same as on the "MC". Tapped holes in front panel and in mounting feet, as well as additional brackets for inverted mounting permit a wide variety of assembly methods. "M" type plates and ball-bearing construction can also be made available as specials.



"BFC" CAPACITORS

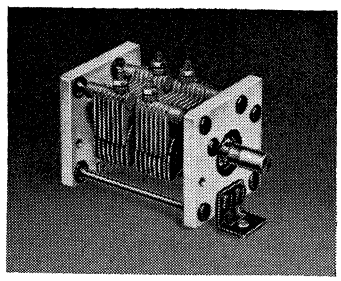
FEATURES – The "BFC" "butterfly" type capacitor has very low minimum capacity, low in inductance and isolated rotor for use in VHF applications as a series capacitor with no rotor connection. For dual split-stator capacitor use, it has a low-loss positive rotor contact. Mechanical and electrical symmetry and stator terminal locations minimize circuit inductance.

CONSTRUCTION – Brass rotors and stators are soldered and nickel-plated. The contact wiper is heavily silver plated phosphor bronze. Tapped studs on the silicone treated steatite front panel permit mounting the capacitor without grounding the rotor. The sleeve type bearing is nickel-plated brass.

SPECIFICATIONS—Straight line capacity. 90° rotation from minimum to maximum capacity position. Air gap is 0.030" nominal. Tested at 1200 V. R.M.S., 60 cycles between rotor and each stator.

High Speed Ball-Bearing Models Also Are Available

Code	Capacity/Section Max.	Capacity/Section Min.	Series Capacity Max.	Series Capacity Min.	Plates Rotor	Plates Ea. Stator	Net Price
BFC-12	14.5	3.4	7.6	2.2	4	3	$1.95
BFC-25	27.3	4.8	14.1	2.9	7	6	2.25
BFC-38	40.1	6.2	20.6	3.6	10	9	2.60
BFC-50	52.4	7.6	27.1	4.3	13	12	2.75



SPECIAL CALIBRATED CAPACITORS —The "VU" type capacitors can be supplied in quantity lots specially calibrated to the nominal curve with a tolerance of ±0.15 mmf or 1¼%, whichever is greater.

Dial % Rotation	Effective Series Capacity VU-20	VU-30	VU-45
0	0.	0.	0.
10	.55	.8	1.15
20	1.55	2.2	3.15
30	2.75	3.85	5.45
40	4.2	5.85	8.35
50	6.0	8.4	12.0
60	8.35	11.65	16.65
70	11.2	15.7	22.4
80	14.65	20.55	29.35
90	18.6	26.05	37.2
100	22.5	31.5	45.0

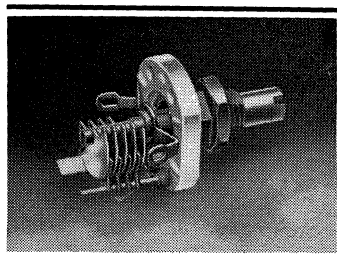
Code	Series Capacity Eff.	Series Capacity Min.	Plates/ Section	Net Price
VU-20	22.5	3.35	11	8.30
VU-30	31.5	3.5	15	8.58
VU-45	45.0	3.8	21	9.37

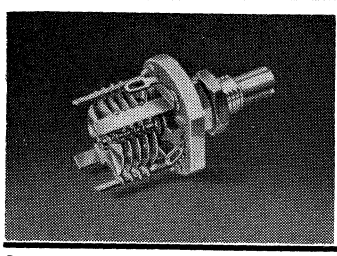
"VU" CAPACITORS

FEATURES – The "VU" is a uniquely designed UHF tuning capacitor using completely original concepts. With it, conventional "lumped constant" circuits, rather than tuned cavity techniques, can be efficiently used up to 500 megacycles. In addition to employing the capacitor sections in series to eliminate the rotor wiper, the design also utilizes Pyrex balls to form precision bearings and to completely isolate the rotor. Thus, noise generated by rubbing metal-to-metal contacts and variable resistance paths in the bearings have been totally eliminated. Circuit connections are made to threaded studs on each stator. This permits vacuum tube and inductor to be mounted adjacent to and on opposite sides of the capacitor to minimize circuit inductance. The symmetrical design is ideal for tuned circuits operating up to 500 megacycles.

CONSTRUCTION—Rotors and stators are of brass with plates soldered in precisely located grooves and then silver plated to increase the "Q" of the capacitor. The insulation is silicone treated steatite. A lengthwise frame members are of brass to minimize temperature effects. Base mounting brackets are provided.

SPECIFICATIONS—The capacity characteristic approaches a straight line frequency curve as indicated by nominal values in table at left. Air gap is .016" nominal. Tested at 700 V. R.M.S., 60 cycles, between rotor and each stator.





Code	Capacity Max.	Capacity Min.	Plates	Net Price
MAC-5	5.4	1.3	5	$1.00
MAC-10	9.6	1.5	9	1.05
MAC-15	15.8	1.9	15	1.20
MAC-20	21.5	2.2	21	1.35
MAC-30	32.0	2.5	27	1.40

Code	Capacity/Sect. Max.	Capacity/Sect. Min.	Plates Rotor	Plates Ea. Stator	Net Price
Butterfly					
MACBF-3	3.1	1.3	3	2	$1.40
MACBF-5	5.0	1.6	5	4	1.60
MACBF-8	7.9	2.0	8	7	1.80
MACBF-11	10.8	2.4	11	10	2.00
Differential					
MAC-5-5	5.4	1.3	3	2	1.38
MAC-10-10	9.6	1.5	5	4	1.52
MAC-15-15	15.8	1.9	8	7	1.68
MAC-20-20	21.5	2.2	11	10	1.77

"MAC" and "MACBF" CAPACITORS

FEATURES—The "MAC" provides the low minimum capacity essential for use as a trimmer in the VHF range. It was engineered and designed to produce a rugged, stable, highly reliable miniature component for today's equipment.

CONSTRUCTION – Its silicone treated steatite base is only ¾" x ⅝". Rotor and stator are soldered assemblies and are of brass, nickel-plated. Rotor and stator terminals are positioned to permit short leads. The threaded bearing is provided with flat sides to permit single hole mounting.

SPECIFICATIONS—Straight line capacity. Screwdriver adjustment. Air gap is 0.017" nominal and tested at 880 V. R.M.S., 60 cycles, except the MAC-30 which has an air gap of 0.0135" nominal and tested at 600 V. R.M.S., 60 cycles. "MACBF" is butterfly version of the "MAC." It is designed for dual split-stator capacitor use.

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STANDARD VARIABLE CAPACITORS

"MC", "MCA" and "MCD" CAPACITORS

FEATURES—The "MC" is a versatile single section tuning capacitor designed to give the equipment engineer a choice of mountings, connections and capacity characteristics. The threaded brass front bearing and tapped aluminum end brackets permit panel or base mounting. "MC-S" capacitors have a straight line capacity characteristic. "MC-M" units have offset plates resulting in a "Midline" characteristic which more equally spaces frequencies. "MC-X" units are wide-spaced for high voltages. Hammarlund "MC" capacitors, except for "MCA" types, have silver plated phosphor bronze wiping contact, silicone-treated steatite insulation, soldered nickel-plated brass rotors and stators, rotor shaft supported on bearings at both front and rear of capacitor.

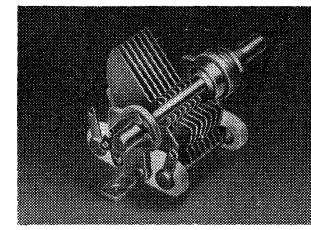
The "MCD" is a split-stator panel-mounted capacitor with all the "MC" features. Stators have terminals on both sides. Stators on single-spaced capacitors are separated by a shield. Wide-spaced units have no shield. Multi-section capacitors can be designed for special applications.

A rotor stop is available on "MC" capacitors on special order.

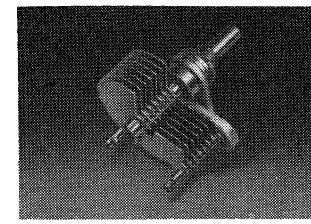
SPECIFICATIONS—Straight line or "Midline" capacity characteristic. Single-spaced types have 0.0245" nominal air gap and are tested at 1000 V. R.M.S., 60 cycles. Wide-spaced ("X") types have 0.0715" nominal air gap and are tested at 1750 V. R.M.S., 60 cycles.

Code	Capacity Max.	Capacity Min.	Plates/ Section	Net Price
MC-20-S	20.	5.5	3	$2.27
MC-35-S	35.	6.0	5	2.31
MC-50-M	50.	6.3	7	2.46
MC-50-S	50.	6.5	7	2.48
MC-75-M	80.	7.3	11	2.57
MC-75-S	80.	8.0	11	2.55
MC-100-M	100.	7.7	14	2.72
MC-100-S	100.	8.3	14	2.69
MC-140-M	140.	9.0	19	2.88
MC-140-S	140.	10.0	19	2.85
MC-200-M	200.	10.3	27	3.27
MC-250-M	250.	12.0	34	3.41
MC-325-M	320.	13.5	43	3.90
MC-20-SX	20.	6.8	7	2.63
MC-35-MX	32.	7.8	11	2.69
MC-35-SX	32.	8.5	11	2.79
MC-50-MX	53.	10.5	19	3.02
MC-50-SX	53.	11.5	19	3.05
MC-100-SX	100.	16.5	35	3.87
MCA-20-S	17.5	3.5	3	1.70
MCA-35-S	33.0	3.9	5	1.79
MCA-50-S	47.8	4.4	7	1.91
MCA-75-S	78.0	5.2	11	2.08
MCA-100-S	99.6	5.8	14	2.16
MCA-140-S	137.5	7.0	19	2.30
MCD-50-M	50.	5.5	7	7.25
MCD-100-M	100.	6.3	14	7.74
MCD-100-S	100.	7.0	14	6.74
MCD-140-M	140.	7.8	19	8.16
MCD-35-MX	31.	6.0	11	7.44
MCD-35-SX	31.	6.8	11	6.51

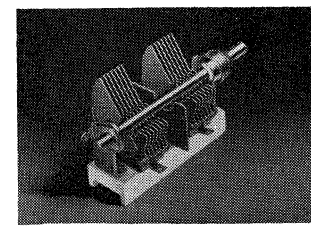
M-Midline plates **S-Straightline plates**
X-Wide-Spaced



MC



MCA



MCD

"HF" and "HFD" CAPACITORS

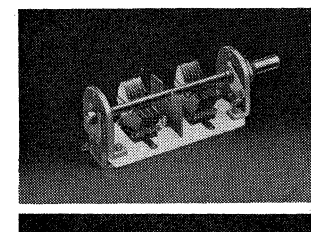
SINGLE SECTION CAPACITOR—The "HF" is a single section tuning capacitor employing "APC" rotor and stator design. Extra long sleeve bearing and positive contact nickel-plated phosphor bronze wiper make this unit ideally suited to high frequency applications. Silicone treated steatite insulation. Single hole or base mounting. Special spacing, capacity values, finishes and other modifications are available to manufacturers on special order.

DOUBLE SECTION CAPACITOR — The "HFD" dual capacitors, like the "HF" singles, incorporate advanced features providing for maximum efficiency at high frequency. Soldered brass plates are nickel-plated. Aluminum front and rear end panels are mounted on a heavy silicone treated steatite base. Front and rear bearings with wide individual silver plated phosphor bronze wipers for each section assure long life and maximum contact efficiency. Single hole panel mount or base mounting. Electrostatic shield between sections. Terminals are provided on both sides of each stator to permit mounting tube and inductor on opposite sides. Multi-section capacitors can also be made available to customer specifications.

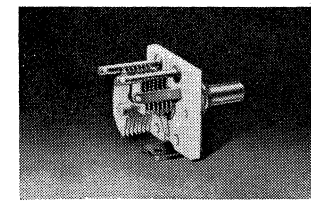
SPECIFICATIONS—Straight line capacity. Single spaced types (HF and HFD) have 0.015" air gap and are tested at 600 V. R.M.S., 60 cycles. Wide spaced types (HF-X and HFD-X) have 0.045" air gap and are tested at 1400 V. R.M.S., 60 cycles.

Code	Capacity Max.	Capacity Min.	Plates/ Section	Net Price
HF-15	17.5	2.8	5	$1.14
HF-35	36.	3.2	10	1.25
HF-50	52	3.7	14	1.31
HF-100	102.	5.3	27	1.49
HF-140	142.	6.3	37	1.74
HF-15-X	15.	3.6	10	1.29
HF-30-X	30.	5.2	20	1.43
HFD-25	25.	2.9	7	4.37
HFD-50	52.	3.6	14	4.55
HFD-100	102.	5.0	27	4.98
HFD-140	142.	6.0	37	5.15
HFD-15-X	16.	3.8	11	4.55
HFD-30-X	28.5	5.0	19	4.65

D—Split stator (Duals) X—Wide-Spaced



HFD



HF

"HFA", "HFA DIFFERENTIAL", "HFA DUAL", and "HFBD" CAPACITORS

SINGLE SECTION CAPCITORS—The "HFA" is a single section tuning capacitor similar to the "HF" except that larger plates permit wider air-gaps for the same capacitance values. Resultant higher breakdown ratings extend the use of the capacitor into the high frequency low-power transmitter field. A threaded sleeve bearing permits single hole mounting and the bracket supplied may be used for base mounting. A lug type terminal mounted with the bearing provides an efficient rotor connection.

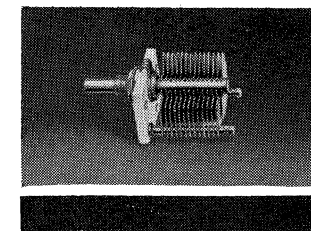
DIFFERENTIAL TYPE CAPACITORS — The "HFA" type units are now available as standard items in the differential type construction. The unit is mounted with an ungrounded rotor making it suitable for a wide field of application. In addition to the features of the "HFA" the design also incorporates the use of a spring bronze silver plated wiping contact on the rotor.

DOUBLE SECTION CAPACITORS—The "HFAD" and the "HFBD" are dual balanced rotor capacitors employing front and rear panels plus a single ball bear thrust. Both units are applicable to transmitter design. The construction features are similar to the "HFA" and the "HFA Differential" type capacitors. Additional special feature employed on the "HFBD" type incorporates the use of an insulated shaft extension on the rotor to safeguard against shock hazards with the application of high voltages.

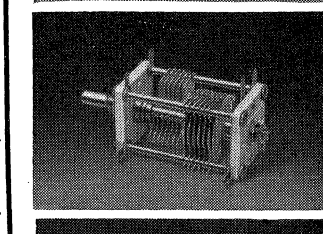
SPECIFICATIONS—Straight line capacity. Air gaps and test voltages are as indicated in table. However, "HFBD" breakdown voltages are doubled and capacitance values approximately halved when stator sections are connected in series.

Code	Capacity Max.	Capacity Min.	Spacing	Plates/ Section	Net Price
HFA-100-A	102	4.5	0.020	19	$2.13
HFA-140-A	145	6.0	0.020	27	2.39
HFA-200-A	200	8.0	0.020	38	2.76
HFA-10-B	9	2,3	0.030	3	1.62
HFA-15-B	16	2.8	0.030	5	1.71
HFA-25-B	25	3.0	0.030	7	1.74
HFA-50-B	50	4.3	0.030	14	1.92
HFA-100-B†	100	7.5	0.030	27	3.05
HFA-15-E	16	4.0	0.070	9	1.85
Differentials					
HFA-10-10B	9	2.3	0.030	3	2.00
HFA-25-25B	25	3.0	0.030	7	2.20
HFA-50-50B	50	4.3	0.030	14	2.50
HFA-Duals					
HFAD-25B	27	5.0	0.030	7	3.59
HFAD-50B	52	6.8	0.030	14	4.04
HFAD-100B	100	8.0	0.030	27	4.94
HFBD-50-C	50	9.0	0.050	11	7.85
HFBD-100-C	105	14.0	0.050	23	9.24
HFBD-35-E*	37	9.5	0.070	11	7.86
HYBD-65-E*	63	12.5	0.070	19	8.69

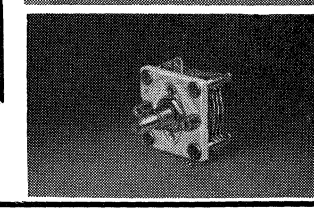
60 cycle test voltage:
"HFA", "A" 800 V. R.M.S. "B" 1200 V. R.M.S.
"E" 1750 V. R.M.S. "HFBD", "C" 1500 V. R.M.S.
"E*" 3000 V. R.M.S.; plates have rounded edges.
†Has front and rear supporting panels.



HFA



HFA DUAL



HFA DIFFERENTIAL

Net

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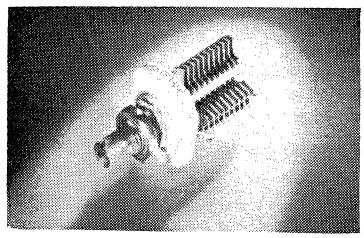
HAMMARLUND

"CT" CAPACITORS MIL TYPES

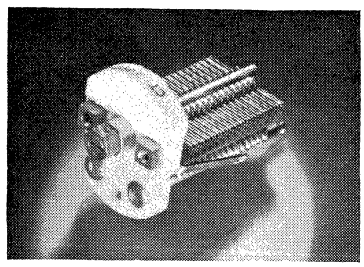
FEATURES—Compact, high quality air dielectric trimmer types designed to resist the effects of temperature, moisture and vibration. Silicone treated steatite insulation insures high leakage resistance.
CONSTRUCTION—All brass parts nickel-plated. Brass rotor and stator plates soldered to brass supports. Terminals hot-tin dipped. Tapped brass mounting studs fastened to silicone treated steatite base eliminates grounding the rotor when mounting capacitor. CT06 types are bushing mounted for grounded rotor operation.
SPECIFICATIONS—CT types designed to meet military specification MIL-C-92.

TYPE CT06



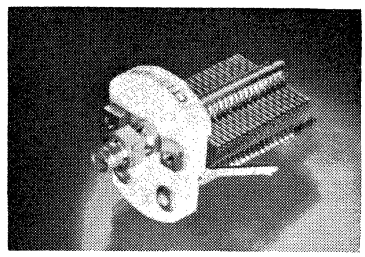
Type designation	DC working voltage volts	Capacitance minimum μμf	Capacitance maximum μμf	*Rotational life	†Length from mounting surface to end of stator rod
CT06E004	500	1.3	4.0	J, M	5/8
CT06E013	500	2.1	12.9	J, M	59/64
CT06E017	500	2.4	16.8	J, M	1 3/64
CT06E019	500	3.0	19.0	J, M	1 3/16

TYPE CT12



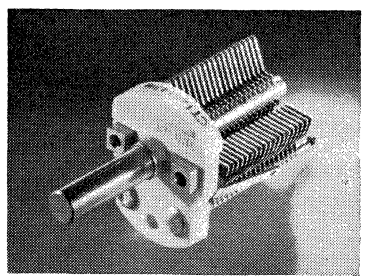
Type designation	DC working voltage volts	Capacitance minimum μμf	Capacitance maximum μμf	*Rotational life	†Length from mounting surface to end of stator rod
CT12E042	500	5.0	42	J, M	1 3/16
CT12E075	500	6.0	75	J, M	1 1/2
CT12E099	500	7.5	99	J, M	1 11/16
CT12E135	500	9.0	135	J, M	1 15/16
CT12E143	500	9.0	143	J, M	1 31/32
CT12F010	600	3.0	10	J, M	15/16
CT12F025	600	4.0	25	J, M	1 3/32
CT12F042	600	5.0	42	J, M	1 3/8
CT12F075	600	6.0	75	J, M	1 5/8
CT12F099	600	7.5	99	J, M	1 29/32
CT12G009	700	4.0	9	J, M	1
CT12G023	700	4.5	23	J, M	1 1/4
CT12G042	700	5.5	42	J, M	1 3/4
CT12G075	700	6.5	75	J, M	2

TYPE CT13



Type designation	DC working voltage volts	Capacitance minimum μμf	Capacitance maximum μμf	*Rotational life	†Length from mounting surface to end of stator rod
CT13E042	500	5.0	42	J, M	1 3/16
CT13E075	500	6.0	75	J, M	1 1/2
CT13E099	500	7.5	99	J, M	1 11/16
CT13E135	500	9.0	135	J, M	1 15/16
CT13E143	500	9.0	143	J, M	1 31/32
CT13F010	600	3.0	10	J, M	15/16
CT13F025	600	4.0	25	J, M	1 3/32
CT13F042	600	5.0	42	J, M	1 3/8
CT13F075	600	6.0	75	J, M	1 5/8
CT13F099	600	7.5	99	J, M	1 29/32
CT13G009	700	4.0	9	J, M	1
CT13G023	700	4.5	23	J, M	1 1/4
CT13G042	700	5.5	42	J, M	1 3/4
CT13G075	700	6.5	75	J, M	2

TYPES CT14 CT15



Type designation	Dc working voltage volts	Capacitance minimum μμf	Capacitance maximum μμf	*Rotational life	†Length from mounting surface to end of stator rod
CT1-E042	500	5.0	42	J, M	1 3/16
CT1-E075	500	6.0	75	J, M	1 1/2
CT1-E090	500	7.5	99	J, M	1 11/16
CT1-E135	500	9.0	135	J, M	1 15/16
CT1-E143	500	9.0	143	J, M	1 31/32
CT1-F010	600	3.0	10	J, M	15/16
CT1-F025	600	4.0	25	J, M	1 3/32
CT1-F042	600	5.0	42	J, M	1 3/8
CT1-F075	600	6.0	75	J, M	1 5/8
CT1-F099	600	7.5	99	J, M	1 29/32
CT1-G009	700	4.0	9	J, M	1
CT1-G023	700	4.5	23	J, M	1 1/4
CT1-G042	700	5.5	42	J, M	1 3/4
CT1-G075	700	6.5	75	J, M	2

*J=250 cycle rotational life—M=10,000 cycle rotational life
†For dimensional drawings refer to military specifications MIL-C-92
Suffix "J" or "M" to be added to type designation.
CT14 1" shaft, CT15 1½" shaft

PRICES ON REQUEST

SPECIAL VARIABLE CAPACITORS FOR ALL NEEDS

AVAILABLE MODIFICATIONS

Hammarlund's more than 50 years experience in the development and manufacture of capacitors has resulted in an endless knowledge of techniques. Such "know-how" includes the making of special capacitors using standard techniques and/or components, or giving birth to a completely new custom product—from concept through to production.
An example of this extended knowledge is the fact that Hammarlund has manufactured over 1000 different types of APC capacitors.

These capacitors came into being as a result of the many modifications required by our customers for their specific applications. Any standard capacitor listed in this catalog can be modified to customer requirements. Such variations include end-panels, shaft diameter and lengths, bearings, special materials and finishes, special air gaps on most units, etc.
Custom made precision units to suit all electrcial and environmental specifications can be fabricated on special order. The combinations are endless.

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Thank you!

The
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RELY ON JFD THE TRIMMER PISTON CAPACITORS AMERICA KNOWS BEST!

The most reliable in the industry . . .
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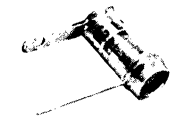
. . . the largest selection (over 300 models) . . .



the finest research and development facilities . . . a sales and service organization that spans the globe—are a few of the factors why JFD is **first** in trimmer piston capacitors. Shown here is a short-form representation of the trimmers now available from JFD for prompt delivery. JFD 'N' series utilize Hi-Life mechanisms, greatly increasing adjustment life. 'N' series (except for quartz units) also use 0483 green glass which affords much higher Q and 25% greater capacitance. 'Y' series also use Hi-Life adjustment mechanism. For complete listings write for JFD Trimmer Catalog No. C-64.

JFD also manufactures LC tuners, metallized inductors, ceramic fixed capacitors, and delay lines fully described in individual catalogs and bulletins.

Model Description	Model	No. of Models	Capacitance Range of Series
'N' series miniature panel mount	NVC20G-NVC24G	5	Min. Max. Min. Max.
'N' series miniature printed circuit lug and lead	NVC9G-NVC43G	5	0.8 – 5.5 thru 1.0 – 38.0
'N' series miniature printed circuit wire lead	NVC9GW-NVC43GW	5	
Miniature panel mount	VC20G-VC24G	5	
Miniature printed circuit lug and lead	VC9G-VC43G	6	
Miniature printed circuit wire leads	VC9GW-VC43GW	6	
'Y' series miniature panel mount	VC20GY-VC24GY	5	0.8 – 4.5 thru 1.0 – 30.0
'Y' series miniature printed circuit lug and lead	VC9GY-VC43GY	5	
'Y' series miniature printed circuit wire lead	VC9GWY-VC43WY	5	
'N' series standard panel mount	NVC25G-NVC28G	4	0.5 – 4.5 thru 1.0 – 40.0
Standard panel mount	VC25G-VC30G	14	0.5 – 3.0 thru 0.8 – 30.0
Standard panel mount	VC2-VC99	5	0.7 – 4.5 thru 9.0 – 21.0
Low cost direct traverse (with standard panel mount construction)	VC54G-VC58G	5	0.8 – 13.0 thru 5.0 – 50.0
'N' series subminiature standard panel mount	NVC74		0.5 – 8.5
'N' series subminiature 4 wire printed circuit	NVC75		0.5 – 8.5
Subminiature standard panel mount	VC74		0.5 – 7.0
Subminiature 4 wire printed circuit	VC75		0.5 – 7.0
'N' series panel mount pin trim	NPT901-NPT904	4	
'N' series lug and lead printed circuit pin trim	NPT911-NPT914	4	0.5 – 30.0 thru 0.5 – 10.5
Panel mount pin trim	PT901-PT904	4	
Printed circuit pin trim	PT911-PT914	4	0.5 – 2.0 thru 0.5 – 7.0
'N' series miniature panel mount quartz trimmer	NMQ101-NMQ109	4	
'N' series miniature printed circuit quartz trimmer, lug and lead	NMQ111-NMQ119	4	
'N' series miniature printed circuit quartz trimmer, wire leads	NMQ121-NMQ129	4	
Miniature panel mount quartz trimmer	MQ101-MQ109	4	0.6 – 1.8 thru 0.8 – 16.0
Miniature printed circuit quartz trimmer, lug and lead	MQ111-MQ119	4	
Miniature printed circuit quartz trimmer, wire lead	MQ121-MQ129	4	
'N' series panel mount 'Sealcap' trimmer	NSC131-NSC139	5	
'N' series printed circuit lug and lead 'Sealcap' trimmer	NSC141-NSC149	5	0.8 – 5.5 thru 1.0 – 38.0
'N' Series printed circuit 4-wire 'Sealcap' trimmer	NSC151-NSC159	5	
Panel mount 'Sealcap' trimmer	SC131-SC139	5	
Printed circuit lug and lead 'Sealcap' trimmer	SC141-SC149	5	
Printed circuit 4-wire 'Sealcap' trimmer	SC151-SC159	5	
'Y' series panel mount 'Sealcap' trimmer	SC131Y-SC13Y	5	0.8 – 4.5 thru 1.0 – 30.0
'Y' series printed circuit lug and lead 'Sealcap' trimmer	SC141Y-SC149Y	5	
'Y' series printed circuit 4-wire 'Sealcap' trimmer	SC151Y-SC159Y	5	
'N' series panel mount quartz 'Sealcap' trimmer	NQS171-NQS179	4	0.6 – 1.8 thru 0.8 – 16.0
'N' series lug and lead quartz 'Sealcap' trimmer	NQS181-NQS189	4	
'N' series printed circuit 4-wire quartz 'Sealcap' trimmer	NQS191-NQS199	4	
Panel mount quartz 'Sealcap' trimmer	QS171-QS179	4	0.6 – 1.8 thru 0.8 – 16.0
Printed circuit lug and lead quartz 'Sealcap' trimmer	QS181-QS189	4	
Printed circuit 4-wire quartz 'Sealcap' trimmer	QS191-QS199	4	
'N' series panel mount 'Max-C Sealcap' trimmer	NMC601-NMC609	5	
'N' series printed circuit lug and lead 'Max-C Sealcap' trimmer	NMC611-NMC619	5	1.0 – 16.0 thru 1.0 – 120.0
'N' series printed circuit 4-wire 'Max-C Sealcap' trimmer	NMC621-NMC629	5	
Panel mount 'Max-C Sealcap' trimmer	MC601-MC609	5	
Printed circuit lug and lead 'Max-C Sealcap' trimmer	MC611-MC619	5	
Printed circuit 4-wire 'Max-C Sealcap' trimmer	MC621-MC629	5	
'Y' series panel mount 'Max-C Sealcap' trimmer	MC601Y-MC609Y	5	
'Y' series printed circuit lug and lead 'Max-C Sealcap' trimmer	MC611Y-MC619Y	5	1.0 – 14.0 thru 1.0 – 90.0
'Y' series printed circuit 4-wire 'Max-C Sealcap' trimmer	MC621Y-MC629Y	5	1.0 – 16.0 thru 1.0 – 120.0
Panel mount 'Super Max-C Sealcap' trimmer (available as NMCD)	MCD641-MCD649	5	NMCD Series
Extended shaft panel 'Super Max-C Sealcap' trimmer	MCD671-MCD679	5	
Printed circuit 4-wire 'Super Max-C Sealcap' trimmer (available as NMCD)	MCD661-MCD669	5	
Standard panel mount split stator trimmer glass	VC16G-VC18G	3	Plate to Bushing 0.5 – 5.0 thru 0.7 – 14.0 Plate to Plate 0.8 – 2.5 thru 1.8 – 7.5
Standard panel mount split stator trimmer quartz	VC80A-VC83A	4	Plate to Bushing 0.4 – 1.5 thru 5.3 – 10.5 Plate to Plate 0.5 – 0.8 thru 3.5 – 5.5
Panel mount miniature split stator trimmer	SP86G-SP88G	3	
Printed circuit lug and lead miniature split stator trimmer	SP206G-SP208G	3	
Printed circuit 4-wire miniature split stator trimmer	SP216G-SP218G	3	Plate to Bushing
'Y' series panel mount miniature split stator trimmer	SP86GY-SP88GY	3	0.8 – 4.2 thru 1.0 – 14.0
'Y' series printed circuit lug and lead miniature split stator trimmer	SP206GY-SP208GY	3	
'Y' series printed circuit 4-wire miniature split stator trimmer	SP216GY-SP218GY	3	Plate to Plate
Miniature panel mount split stator Sealcap trimmer	SPS226G-SPS228G	3	0.8 – 2.0 thru 2.0 – 7.0
Miniature printed circuit lug and lead split stator Sealcap Trimmer	SPS236G-SPS238G	3	
Miniature printed circuit 4-wire split stator Sealcap trimmer	SPS246G-SPS248G	3	
Standard panel mount differential trimmer	DC401-DC409	5	Typical Capacitance Cross Over (pf.)
Miniature panel mount differential trimmer	DC411-DC419	5	
Printed circuit lug and lead differential trimmer	DC421-DC429	5	
Printed circuit 4-wire differential trimmer	DC431-DC439	5	Min. Max.
'Y' series miniature panel mount differential trimmer	DC411Y-DC419Y	5	Sec. 1 0.7 3.0 2.3
'Y' series miniature printed circuit lug and lead differential trimmer	DC421Y-DC429Y	5	Sec. 2 2.0 3.0
'Y' series miniature printed circuit 4-wire differential trimmer	DC431Y-DC439Y	5	Sec. 1 0.8 8.0 5.0
Standard panel mount miniature differential 'Sealcap' trimmer	DS441-DS449	5	Sec. 2 2.5 8.0
Printed circuit lug and lead miniature differential 'Sealcap' trimmer	DS451-DS459	5	Sec. 1 0.8 12.0 6.8
Printed circuit 4-wire miniature differential 'Sealcap' trimmer	DS461-DS469	5	Sec. 2 2.5 12.0
'Y' series standard panel mount miniature differential 'Sealcap' trimmer	DS441Y-DS449Y	5	Sec. 1 0.9 16.0 9.2
'Y' series printed circuit lug and lead miniature differential 'Sealcap' trimmer	DS451Y-DS459Y	5	Sec. 2 3.5 16.0
'Y' series printed circuit 4-wire miniature differential 'Sealcap' trimmer	DS461Y-DS469Y	5	Sec. 1 1.5 26.0 15.2
Temperature variation compensating trimmer	TVCO5008-TVCO6005	2	Sec. 2 5.0 26.0

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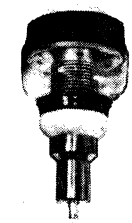
Jennings® VACUUM

Glass Vacuum Variable Capacitors

	TYPE		CAPACITY	PEAK MOMENTARY RF AND 60 CYCLE VOLTAGE③	CONTINUOUS RMS AMPERES①③		NOMINAL DIMENSIONS②	
	NICKEL	COPPER	PF	KILOVOLTS	NICKEL	COPPER	LENGTH	DIAMETER
2 to 5 KV		UCSL	4-250	3, 5		30	4 1/8	2 1/4
		USL	5-250, 5-500	3, 5		40	5 1/2	2 3/8
		USLS	5-465 shorting	3, 5		40	5 5/8	2 3/8
		USL	10-1000	3, 5		40	5	3 1/8
		UCSL	5-750, 7-1000	3, 5		42	7 5/8	3 1/8
		UCSL	20-2000, 50-3000	2, 3		42	8 3/8	3 9/16
		UCSL	60-5000	2, 3		42	8 3/4	4 1/8
7.5 to 15 KV		UCSB	5-100	7.5, 10, 15		40	4 7/8	2 3/8
		UCSV	8-110, 125-250	7.5, 10, 15		40	5 1/4	2 7/8
		ATCS	15-200	7.5, 10, 15		20	7	3 1/8
		UCS	5-200, 10-300	7.5, 10, 15		42	8 3/4	2 5/8
		UCS	10-400, 25-500	7.5, 10, 15		42	9	3 1/8
		UCSF	5-250, 12-500	7.5, 10, 15		45	7 3/4	3 5/8
		UCSX	25-700, 25-1000	7.5, 10, 15		45	9 7/8	3 3/4
		UCSXF	12-1000, 15-1200	7.5, 10, 15		45	10	4 3/8
		UCSXF	20-1500, 50-2000	7.5, 10, 12		45	10	5 1/8
10 to 20 KV		ECS	2-8, 3-30	10, 15		20	4	1 3/8
	T	TC	5-25	20	10.5	20	6 5/8	2 1/4
		ATC	10-50, 15-75	20, 30		20	6 7/8	3 1/8
	U	UC	50-250	10, 15, 20	21	60	11 1/2	5
	UX	UXC	25-500	10, 15, 20	21	60	14	5
		UXCF	10-250, 20-500	10, 15, 20		45	9 7/8	4 3/8
		VMMC	50-1000, 100-2000	10, 15		125	15 7/8	6 1/8
		VMMC	100-5000	7.5, 10, 15		125	19	9 1/4
35 to 60 KV		UCSVH	8-35	25, 35		40	4 3/4	3
		UHC	10-75, 75-150	35, 45, 55, 60		60	12	5
		UXHC	25-150	35, 45, 55	21	60	14 5/8	5
		UCSXH	10-200	35, 45		45	10	4 1/2
		UCSXHF	25-450	35, 40		60	10 1/2	5 1/8
120 KV		VMMHC	10-250, 25-450, 30-650	35, 45, 55		125	17	10
		VMMHCW	25-250, 50-400	35, 45, 55		500	17	9 5/8
		VMMHC	60-1000	35, 40, 45		125	19 3/8	9 1/4
		VMMHHC	25-200	120		125	20 1/4	9 1/4

Type GCS
5-100 PF
15 kv

Type UCSL
7-1000 PF
5 kv



Type UCSXF
50-2000 PF
12 kv

Ceramic Vacuum Variable Capacitors

	TYPE	CAPACITY	PEAK MOMENTARY RF AND 60 CYCLE VOLTAGE③	CONTINUOUS RMS AMPERES①③	NOMINAL DIMENSIONS②	
	COPPER	PF	KILOVOLTS	COPPER	LENGTH	DIAMETER
2 to 5 kv	CVCB	10-750	3, 5	50	5 11/16	2 3/8
	CVCA	10-1000	3, 5	50	5 3/8	3 3/8
	CVCA	10-1500	3, 5	50	5 3/8	3 3/8
	CVCA	20-2000	3, 5	50	5 7/8	3 3/8
7.5 to 20 kv	CVDA	10-100	7.5, 10, 15	45	5 9/32	2 3/8
	CVDA	20-400	7.5, 10, 15	50	6 1/8	3 3/8
	CVDA	25-1000	7.5, 10, 15	65	8	4 1/2
	CVDB	25-1500	7.5, 10, 15	75	8 3/4	5 1/2
	CVDB	50-2300	7.5, 10, 15	75	9 3/8	5 1/2
	CVEA	25-500	10, 15, 20	125	9 3/8	5 1/2
	CVEA	50-1000	10, 15, 20	135	8 15/16	7
	CVEA	100-2000	10, 15	150	10 1/32	7
30 to 55 kv	CVFA	25-450	30, 35, 40	100	9 3/8	5 1/2
	CVFB	20-750	30, 35, 40	125	10 13/16	7
	CVFA	35-1000	30, 35, 40	125	10 13/16	7
	CVFB	100-1500	30, 35	150	13	7
	CVHA	10-250	35, 45, 55	150	9 25/32	7
	CVHA	25-450	35, 45, 55	150	10 9/32	7
	CVHA	30-650	35, 45, 55	150	10 25/32	7

Type CVDA
20-400 PF
15 kv

Type CVFA
35-1000 PF
40 kv

① Current ratings can usually be increased by 50% with proper forced air cooling, and up to 400% with water cooling.
② Nominal dimensions are for the largest unit of each type.
③ Voltage and current limitations are dependent upon capacity and frequency. Specific voltage and current information at all frequencies is available upon request.
NOTE: A series of adjustable capacitors is available to cover the range of 8 to 1000 pf at 10 kv.

Jennings application engineers are available to discuss special application problems. If necessary we will run special tests in the Jennings Radio Frequency Testing Laboratory, where equipment is available with frequencies up to 600 mc, and power ratings up to 100 kw.

JENNINGS RADIO MANUFACTURING CORPORATION • SAN JOSE, CALIF.

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CAPACITORS

Glass Vacuum Fixed Capacitors

	TYPE		CAPACITY	PEAK MOMENTARY RF AND 60 CYCLE VOLTAGE③	CONTINUOUS RMS AMPERES①③		NOMINAL DIMENSIONS②	
	NICKEL	COPPER	PF	KILOVOLTS	NICKEL	COPPER	LENGTH	DIAMETER
2 to 5 KV		JSLF	250, 450	3, 5		30	1 3/4	1 7/8
		JSLF	1500, 2000	3, 5		30	1 5/8	3 1/8
		JSLF	5000	3, 5		100	3	4 1/8
		JCSL	500, 750, 1000	3, 5		42	4	2 7/8
		JCSL	1500, 2000	3, 5		42	4	2 7/8
7.5 to 15 KV		JCSF	25, 40, 80, 120, 150	7.5, 10, 15		30	1 5/8	1 5/8
		JCS2	25, 50, 100	7.5, 10, 15		20	3 1/8	1 7/8
		JCS1	25, 50, 75, 100, 150	7.5, 10, 15		50	3 3/4	2 1/8
		JCS	250, 400, 500	7.5, 10, 15		42	4	3 1/8
		JCS	1000	7.5, 10, 12		42	4 5/8	3 5/8
		MC1	500, 750, 1000	10, 15		75	4 1/8	4 1/8
	M	MC	500, 750, 1000	10, 15, 20	21	120	8 3/8	5
		MMC	1500, 2000	10, 15		125	9 1/4	6 1/8
		MMC1	2000	10, 15		125	5	6 1/8
		MMC	3000, 4000, 5000	10, 15		125	13	9 1/4
17 to 30 KV	Y		1, 2, 3, 4, 5	17	7		3 1/4	3/4
	X		5, 10, 15, 20, 25	17	7		3 1/4	1 1/8
	W		6, 12, 100	20, 25	10.5		4 5/8	2 1/4
		VCCA	12, 25, 50, 100, 150	20, 30		60	4 1/2	2 3/8
	VC	VCCE	6, 12, 25, 50, 75, 100, 150	20, 30, 35	14	60	6 1/2	2 5/8
	VC	VCCE	200, 250	20, 30, 35	14	60	6 1/2	2 5/8
		JMF	50, 75, 100	20, 30		40	2 3/4	2 1/8
		JC2	25, 50, 75, 100	20, 30		42	4	3 1/4
		MLC	500, 750, 1000	25, 30		125	9 1/4	5
35 to 60 KV		JHC	75	50, 60		42	4	3 1/2
		JC3	20, 50	35, 45, 55, 60		④140	8 1/4	3 1/2
		JC4	100, 125	35, 45, 55, 60		④175	9 1/4	5
		JC5	200	35, 45, 55, 60		④225	11 1/4	7
		MMHC	450	35, 45, 55		125	9 1/4	6 1/8
		MMHC	1000	35, 40, 45		150	13	9 1/4

Type JCSF 150 mmfd 15 kv

Type JCSL 1500 mmfd 5 kv

Type MMC 2000 mmfd 15 kv

Ceramic Vacuum Fixed Capacitors

	TYPE	CAPACITY	PEAK MOMENTARY RF AND 60 CYCLE VOLTAGE③	CONTINUOUS RMS AMPERES①③	NOMINAL DIMENSIONS②	
	COPPER	PF	KILOVOLTS	COPPER	LENGTH	DIAMETER
3 to 5 KV	CFCA	1000	3, 5	45	1 7/8	3 3/8
	CFCA	2000	3, 5	50	1 7/8	3 3/8
20 to 30 KV	CFEA	150	20, 25, 30	75	3 5/16	2 3/8
	CFEA	500	10, 15, 20, 25	125	3 13/16	4 1/2
	CFEA	750	10, 15, 20, 25	125	3 13/16	4 1/2
	CFEA	1000	10, 15, 20, 25	135	3 7/16	4 1/2
35 to 60 KV	CFHA	50	45, 50, 60	60	4 1/8	2 3/8
	CFHA	450	35, 45, 55	150	5 1/16	5 1/2
	CFHA	1000	35, 45, 50	200	6 1/2	7

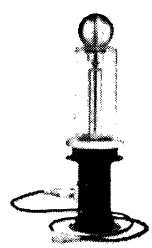
Type CFCA 250

Type CFHA 450

① Current ratings can usually be increased by 50% with proper forced air cooling, and up to 400% with water cooling.
② Nominal dimensions are for the largest unit of each type.
③ Voltage and current limitations are dependent upon capacity and frequency. Specific voltage and current information at all frequencies is available upon request.
④ Forced air cooling.

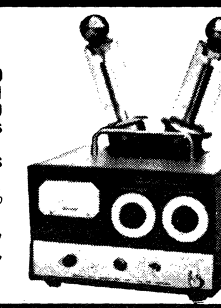
High Voltage Measuring Equipment

MODEL JP 325 HIGH VOLTAGE PROBE
VOLTAGE RATINGS: 40, 50, or 60 KV peak.
VOLTAGE DIVISION RATIO: 325 to 1 to termination of 3 ft. of RG-58 A U cable.
INPUT IMPEDANCE:
Resistance: above 10^{12} ohms.
Capacitance: 4 mmfd.
FREQUENCY RESPONSE: High frequency limited by that of measuring instrument. (Internal resonances are above 200 mc.) Low frequency response is 100 cps if operating into 10 megohm shunt resistance; 1000 cps if operating into 1 megohm shunt resistance.



MODEL J-1003 HIGH VOLTAGE VACUUM TUBE VOLTMETER for use in pulse, rf and 60 cycle circuits at voltages up to 100 KV.
VOLTAGE RANGES (peak volts full Scale):
Single Ended: 2.5, 5, 10, 25, 50 KV.
Double Ended: 2.5, 5, 10, 25, 50, 100 KV.
(By using Type JCD Series capacitor, these ranges can be more than doubled.)

OSCILLOSCOPE CONNECTION: 300 to 1 division ratio.
FREQUENCY RESPONSE: 10 cycles to 20 megacycles at full rated voltage and up to 50 megacycles for lower voltages with low harmonic content.
INPUT IMPEDANCE: 10^{12} ohms and 4 mmfd.
CALIBRATION ACCURACY: — 3% of full scale.
POWER SUPPLY: 117 volt, 50, 60 cy.
DIMENSIONS: 16¼" v 11" x 9"



JENNINGS RADIO MANUFACTURING CORPORATION • SAN JOSE, CALIF.

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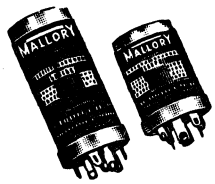
MALLORY CAPACITORS



FP-WP AND PFP-PWP METAL CAN ELECTROLYTIC CAPACITORS

FP-WP capacitors are manufactured to the most rigid quality standards. They are designed for extremely long-life service at 85° C. All are designed with "etched cathodes" for hum-free operation and feature exclusive vent and seal construction. FP-WP types have standard twist-prongs, PFP-PWP fit exactly into EIA standard printed circuit boards. FPS is special mounting used in Delco auto radios.

"A" suffix indicates new reduced can size. All PFP-PWP types may be used in standard twist-prong mounting while FP-WP types may be quickly adapted to printed circuit mounting by using the FPA Adapter Kit (Net Each, **27c**). All cases are at negative potential. See complete capacitor hardware listing on another page. ***SIZES are shown at end of listing.**

FP-WP AND PFP-PWP—SINGLES

Mallory No.	Cap., µf	WV DC	*	Net Each
WP510	.5Z/15750†	3NP	b	$1.32
WP540	1.0Z/60†	3NP	h	2.40
WP505	10Z/30†	3NP	a	1.20
PWP030A	750	6	o	1.29
PWP031A	2500	10	c	2.84
WP035	225	15	a	1.05
PWP036A	400	15	o	1.16
WP039A	1000	15	l	1.53
WP041A	2000	15	f	2.07
WP042A	3000	15	f	2.10
WP052	40	25	a	.81
WP055A	100	25	l	.96
PWP056	400	25	b	1.44
WP057A	500	25	l	1.53
WP059	1000	25	f	2.13
PWP060	1500	25	d	2.57
WP063	4	50	a	$0.75
WP064A	100	50	l	.99
PWP 063.9A	100	50	o	1.04
WP064.2A	150	50	l	1.08
WP065	500	50	f	1.59
WP066A	500	50	c	1.59
FP066.5	1000	50	f	2.50
PWP067A	1250	50	g	2.90
WP068	1500	50	h	2.31
FP113	30	150	a	.93
FP115A	50	150	l	.99
FP116A	100	150	l	1.20
FP116.5A	120	150	b	1.23
FP116.6	120	150	f	1.23
PFP116.8A	140	150	b	1.44
FP117A	150	150	b	1.29
FP117.5	150	150	f	1.29
FP118A	200	150	f	1.47
FP119A	300	150	f	$1.68
FP121	120	200	f	1.41
FP122A	125	200	b	1.47
PFP122	160	200	g	1.91
WP123A	500	200	h	2.19
FP125	15	250	a	.93
WP125.5A	140	250	c	1.74
WP125.9A	150	250	c	1.71
FP128A	80	300	c	1.53
FP129.1A	100	300	c	1.74
WP131.5	160	300	g	2.31
WP132	200	300	g	2.58
FP135A	30	350	l	1.14
FP137A	50	350	b	1.26
FP137.2A	60	350	c	1.32
FP138A	80	350	f	1.71
FP140A	125	350	g	2.37
FP140.5A	140	350	g	2.34
FP140.6A	150	350	g	2.55
FP141	320	350	l	$4.05
FP142	10	450	a	.93
FP143A	15	450	l	1.02
FP144	20	450	b	1.08
PFP144	20	450	b	1.29
FP145	30	450	c	1.17
FP146	40	450	c	1.23
FP148	60	450	g	1.68
FP149	80	450	g	1.83
FP150	100	450	h	2.07
FP155	125	450	j	2.76
FP171A	10	500	l	.96
FP173	20	500	b	1.11
FP175	30	500	c	1.20
FP176	40	500	f	1.50
FP177	40	500	d	1.50
PFP176.5	40	500	d	1.74
FP187	90	500	h	2.10

FP-WP AND PFP-PWP—DUALS

Mallory No.	Capacity, µf	WVDC	*	Net Each
WP204	250-1000	10-6	f	$1.71
WP205	.5Z-2.5Z/15750†-60†	12-6	i	2.16
WP200	1000-1000	15-15	f	2.64
WP200.1A	1000-1000	15-15	c	2.64
PWP200.13	1000-1000	16-10	c	2.77
WP200.23	1500-1000	16-10	f	2.55
WP200.6	500-500	16-16	b	1.95
PFP200.65	500-500	16-16	l	1.83
PFP200.45	700-200	16-16	b	2.09
WP200.18	800-200	16-16	b	1.68
WP200.21A	1000-500	16-16	b	2.28
PWP200.3A	250-250	20-20	l	1.69
WP200.5A	500-100	20-20	l	1.65
PWP200.6	500-100	20-20	b	1.79
PFP200.7	500-100	20-20	b	1.80
WP200.7A	500-200	20-20	l	1.80
PWP200.4	800-250	20-20	c	2.25
WP200.2A	1000-2000	25-15	g	3.87
WP201.1A	40-40	25-25	l	.93
PWP201.13	400-200	25-25	b	1.79
PWP201.15	1000-1000	25-25	g	3.48
PWP201.3	1500-1500	25-25	h	4.52
WP201.5	1000-1000	35-35	g	3.93
WP202.1A	50-50	50-50	l	1.02
WP202.5A	100-100	50-50	l	1.26
WP205.6A	50-500	150-5	l	1.41
WP205.8	50-1000	150-8	b	1.71
WP206A	50-150	150-25	l	1.32
FP208A	20-20	150-150	l	1.02
FP211A	30-30	150-150	l	1.11
FP210A	40-20	150-150	l	1.08
FP212A	40-40	150-150	l	1.14
FP213A	50-30	150-150	l	1.29
PFP213.1A	50-30	150-150	l	1.40
FP214A	50-50	150-150	c	1.56
PFP214.3	70-30	150-150	b	1.46
FP214.5	75-75	150-150	f	1.56
FP214.6A	75-75	150-150	b	1.38
FP216.2A	80-40	150-150	m	1.38
PWP214.4A	80-40	150-150	b	1.52
WP216.24	80-50	150-150	b	1.50
PFP214.7A	100-50	150-150	b	1.62
FP215A	125-100	150-150	f	2.04
FP216.3A	200-150	150-150	f	2.25
FP216.4A	200-200	150-150	g	2.40
PFP216.4A	200-200	150-150	g	$2.59
PFP216.45	50-100	200-150	f	1.91
PFP216.5A	40-20	200-200	l	1.42
FP216.6A	60-60	200-200	b	1.53
FP216.1A	200-5	200-200	f	1.65
PFP216.1A	200-5	200-200	f	2.26
FP217.865	100-100	200-300	k	2.23
FP216.8A	40-25	250-150	l	1.29
FP217A	20-20	250-250	l	1.14
FP221A	40-40	250-250	m	1.50
FP217.7A	150-150	250-250	g	3.09
FP217.74A	200-200	250-250	h	3.60
WP217.85A	35-500	300-6	m	1.68
FP217.86A	30-20	300-50	l	1.14
FP217.8A	20-60	300-250	b	1.65
PFP217.86	10-10	300-300	f	1.57
FP217.87	40-40	300-300	f	1.77
FP217.88	50-10	300-300	f	1.53
FP217.9A	75-75	300-300	g	2.28
FP218A	120-20	300-300	g	2.40
WP219	125-60	300-300	g	2.70
FP219.7	150-100	300-300	h	3.11
FP223A	5-75	350-150	m	1.26
FP225A	15-15	350-350	m	1.35
FP227A	20-20	350-350	b	1.38
FP227.3A	30-30	350-350	c	1.74
WP227.35	80-20	350-350	d	2.10
FP227.4A	80-20	350-350	f	2.10
FP227.5A	80-40	350-350	g	2.16
FP227.6A	80-80	350-350	h	2.82
FP227.7A	100-100	350-350	j	3.69
FP228.3	150-20	350-350	h	2.73
FP229A	35-100	400-50	c	1.56
FP229.2	40-4	400-350	d	1.41
FP229.25	80-4	400-350	e	2.10
FP229.3	75-75	400-400	i	2.91
FP229.4	80-60	400-400	i	2.82
FP229.5	120-40	400-400	i	3.15
WP229.52	120-120	400-400	i	4.17
FP229.53	40-50	450-50	d	1.73
FP229.55A	40-100	450-50	d	1.68
FP229.6	50-100	450-50	g	1.80
FP244	80-50	450-50	h	2.10
FP229.8	80-100	450-50	h	2.25
FP229.9A	30-200	450-150	g	2.10
FP230A	20-50	450-250	c	1.68
WP230.2	20-200	450-250	f	$2.73
FP230.3	40-10	450-300	d	1.56
FP230.5	10-50	450-350	d	1.71
FP230.6	10-100	450-350	h	2.40
FP235	20-80	450-350	g	2.19
PFP217.11	2-20	450-400	b	1.43
WP230.9A	5-5	450-450	l	1.02
FP231	10-10	450-450	b	1.14
FP231.2	20-5	450-450	b	1.46
FP231.3	20-10	450-450	c	1.32
FP234A	20-20	450-450	c	1.53
FP237	30-30	450-450	g	1.83
FP238A	40-40	450-450	g	2.07
FP239	50-40	450-450	h	2.19
FP240‡	50-50	450-450	h	2.31
FP242A	60-20	450-450	g	2.10
FP242.5A	60-60	450-450	j	2.70
FP245	80-10	450-450	h	2.16
FP245.2	80-20	450-450	h	2.34
FP245.3A	80-30	450-450	j	2.49
FP247	100-40	450-450	i	2.91
FP248	100-60	450-450	i	3.51
FP250	40-80	475-200	g	2.19
FP252A	80-80	475-250	j	2.79
FP255A	20-100	475-300	g	2.37
FP256A	20-100	475-400	j	2.70
FP258	15-15	475-475	c	1.41
FP259	30-10	475-475	d	1.56
FP260A	40-10	475-475	g	1.86
FP262	40-40	475-475	h	2.58
FP263A	60-40	475-475	j	2.73
FP264.5	80-40	475-475	i	3.03
FP266	80-50	475-475	i	3.12
WP272	10-100	500-50	b	1.38
FP277	60-80	500-150	h	2.25
FP280	40-50	500-200	g	1.98
FP282A	10-10	500-500	b	1.17
FP282.5	20-20	500-500	f	2.09
FP283	30-10	500-500	f	1.56
FP284	30-30	500-500	g	1.95
PFP284.1A	30-30	500-500	g	2.52
FP288	40-40	500-500	h	2.58
FP290	60-40	500-500	j	2.73

‡Recommended for photoflash applications. Can is ungrounded. †Cycles.

FP-WP AND PFP-PWP—TRIPLES

Mallory No.	Capacity, µf	Working Volts DC	*	Net Each
WP300.15A	200-200-30	10-10-10	l	$1.35
WP300.6A	850-400-2.2	16-16-11.5 rms	b	2.97
WP300.7A	850-400-4	16-16-11.5 rms	b	2.97
FPS300.75	850-400-4	16-16-11.5 rms	c	3.00
FP300.76	850-400-8	16-16-11.5 rms	c	2.57
FP300.77	850-400-12	16-16-11.5 rms	c	2.57
FPS300.78	850-400-12	16-16-11.5 rms	c	2.74
WP300.88	1000-400-4	16-16-11.5 rms	c	2.16
WP300.89	1000-400-4	16-16-11.5 rms	f	2.58
WP300.9	1000-500-4	16-16-11.5 rms	c	3.12
FPS300.91	1000-500-4	16-16-11.5 rms	q	2.50
PWP300.3A	250-250-50	16-16-16	l	$1.87
PWP300.4A	250-250-500	16-16-16	b	2.34
WP300.5	400-100-100	16-16-16	b	1.80
PFP300.65	400-300-100	16-16-16	m	1.81
WP300.8A	500-100-100	16-16-16	m	2.64
PFP300.18	500-450-100	16-16-16	l	2.00
WP300.85	500-500-100	16-16-16	b	2.40
WP300.87	700-200-100	16-16-16	b	1.89
WP300	1000-500-20	16-16-16	f	2.52
WP300.17A	500-200-5	16-16-25	m	1.92
WP520A	40-40-40	25-25-25	l	1.29
WP300.95	1000-200-200	25-25-25	f	2.96
WP301A	30-30-30	50-50-50	l	$1.29
FP312A	100-50-25	150-50-25	b	1.80
WP302.1A	15-15-1200	150-150-2	m	1.80
PFP302.38A	70-30-100	150-150-10	b	1.67
FP302.4	80-20-200	150-150-10	f	1.71
FP302.5A	80-60-250	150-150-10	c	2.04
PWP302.55A	80-60-250	150-150-10	c	1.87
FP302.7	80-30-300	150-150-10	f	1.89
PFP302.75A	90-40-400	150-150-10	c	1.93
FP302.8A	100-80-200	150-150-10	f	2.16
FP302.9	80-20-100	150-150-15	f	1.68
FP306A	40-20-20	150-150-25	l	1.38
PFP311.1A	40-20-20	150-150-25	l	1.50
FP307A	40-20-100	150-150-25	l	1.50
FP304A	40-20-200	150-150-25	m	1.62
FP310A	40-40-20	150-150-25	l	1.44

*See table of sizes on another page.

FP-WP and PFP-PWP Triples continued on next page.

Net

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MALLORY CAPACITORS

FP-WP AND PFP-PWP—TRIPLES (CONTINUED)

Mallory No.	Capacity, µf	Working Volts DC	*	Net Each
FP314A	40-40-200	150-150-25	m	$1.68
WP308.1A	40-40-250	150-150-25	b	1.89
FP309A	50-30-100	150-150-25	m	1.62
FP311A	50-50-20	150-150-25	m	1.59
PFP-311.12A	70-30-20	150-150-25	b	1.63
FP311.05	80-20-200	150-150-25	b	1.76
FP311.1A	80-40-25	150-150-25	b	1.65
FP311.15A	80-40-300	150-150-25	f	2.22
FP311.2A	20-20-20	150-150-150	l	1.38
PFP311.3	30-25-20	150-150-150	b	1.52
PFP-311.63A	30-50-40	150-150-150	b	1.67
FP311.4A	40-20-20	150-150-150	l	1.44
FP311.5A	40-40-40	150-150-150	m	1.56
PFP311.51	40-60-40	150-150-150	b	1.70
FP311.55A	50-20-20	150-150-150	m	1.53
PFP311.62	50-30-20	150-150-150	b	1.59
FP311.6A	50-40-10	150-150-150	m	1.53
FP311.65A	50-50-50	150-150-150	b	1.80
PFP311.53	60-60-40	150-150-150	f	2.03
FP326.45	60-60-60	150-150-150	c	1.79
FP311.66A	70-15-15	150-150-150	m	1.62
FP311.8A	70-40-40	150-150-150	b	1.74
FP311.67A	80-30-10	150-150-150	m	1.65
FP311.7	80-40-20	150-150-150	f	1.74
FP311.71	80-40-20	150-150-150	b	1.67
PWP-311.75A	80-60-20	150-150-150	c	1.78
FP311.84	120-80-20	150-150-150	c	1.90
FP311.85A	120-80-40	150-150-150	f	2.22
FP311.9A	120-120-40	150-150-150	f	2.43
FP311.95A	150-50-50	150-150-150	f	2.22
FP312.5A	200-100-60	150-150-150	g	2.73
FP312.6A	300-100-80	150-150-150	g	2.97
PWP315	80-100-40	160-160-160	d	1.42
FP312.8A	60-200-140	200-150-150	g	2.85
FP314.7	150-150-60	200-150-150	e	2.49
FP315.1	60-5-200	200-200-50	d	1.80
FP318.3A	30-20-40	200-200-150	m	1.62
FP318.5A	20-20-20	200-200-200	l	1.50
FP318.7A	30-20-20	200-200-200	m	1.62
FP318.74	40-40-20	200-200-200	f	1.77
WP318.77	60-60-40	200-200-200	f	2.16
FP318.8A	250-200-10	200-200-200	h	4.02
FP319A	80-40-50	250-150-50	f	1.98
FP360	15-20-20	250-150-150	b	1.50
WP319.6A	60-5-100	250-250-50	b	1.80
FP319.5A	90-90-20	250-250-50	f	2.76
WP319.7	60-5-50	250-250-200	f	2.13
FP319.8A	20-20-20	250-250-250	m	1.56
FP320	40-20-20	250-250-250	f	1.74
FP321A	40-20-20	250-250-250	b	1.74
FP321.5	40-40-40	250-250-250	c	1.92
FP323A	80-80-60	250-250-250	f	2.94
FP326A	100-60-20	300-150-25	f	2.52
PWP-326.16A	10-20-10	300-150-150	l	1.47
FP326.2A	20-150-80	300-150-150	f	2.37
FP326.3A	100-200-60	300-150-150	h	3.27
WP326.35A	20-100-100	300-200-50	d	1.95
FP326.4A	60-30-30	300-250-250	f	2.25
FP335A	100-60-20	300-250-250	g	2.94
FP336A	200-60-20	300-250-250	h	3.48
PFP326.4	60-10-25	300-300-25	f	2.07
FP326.5A	150-10-25	300-300-25	g	2.37
FP326.54	20-20-50	300-300-50	c	1.62
FP326.6A	100-10-60	300-300-50	f	2.43
FP326.7A	140-100-60	300-300-50	h	3.57
WP326.71A	140-100-100	300-300-50	h	3.36
FP326.74A	140-10-200	300-300-150	h	3.30
WP326.63A	30-10-20	300-300-250	b	1.71
WP326.64	60-5-20	300-300-250	c	1.83
FP326.62A	80-40-40	300-300-300	g	2.64
FP326.65A	100-60-4	300-300-300	g	2.82
FP326.67A	120-50-40	300-300-300	h	3.33
FP326.78A	140-100-20	300-300-300	j	3.45
FP326.75A	150-30-30	300-300-300	h	3.00
PWP-326.77A	150-30-100	300-300-300	j	3.55
WP326.8A	4-100-40	350-25-25	l	$1.35
FP327	40-100-25	350-50-25	f	1.92
WP327.2A	20-50-100	350-100-75	c	1.98
FP327.3A	60-200-30	350-150-150	g	2.82
FP327.35	10-150-200	350-200-75	f	2.52
FP327.4A	125-5-100	350-200-75	g	3.18
FP327.5A	10-40-40	350-200-200	b	2.58
FP327.6A	30-20-100	350-250-50	c	1.95
FP331A	30-30-20	350-300-25	c	1.89
FP327.8A	30-50-20	350-300-25	f	2.16
FP327.89A	40-40-40	350-300-300	f	2.61
WP327.896	160-120-30	350-300-300	i	3.99
PWP-327.95A	20-20-1000	350-350-15	f	2.57
FP328A	15-10-20	350-350-25	m	1.50
FP329.1A	20-4-100	350-350-25	m	1.56
FP329.5	20-20-20	350-350-25	b	1.68
FP330A	30-20-20	350-350-25	c	1.86
FP330.13A	200-10-50	350-350-25	j	3.06
FP330.15A	10-5-30	350-350-50	l	1.32
FP330.2A	10-5-150	350-350-50	m	1.62
FP330.21A	20-5-150	350-350-50	b	1.77
FP330.23	80-40-400	350-350-50	h	3.39
FP330.22A	100-20-50	350-350-50	g	2.91
FP330.244	150-4-30	350-350-50	g	2.90
FP330.25A	30-20-100	350-350-150	f	2.40
FP330.248A	70-40-50	350-350-150	g	2.64
FP330.24	125-20-20	350-350-150	h	2.85
FP330.29A	30-5-100	350-350-200	f	2.25
FP330.26A	100-60-20	350-350-200	h	3.30
FP330.27A	125-60-40	350-350-200	j	3.54
FP330.28A	100-60-100	350-350-200	j	3.36
FP330.3A	20-10-5	350-350-250	m	1.53
PFP330.4	10-10-60	350-350-300	f	2.15
FP330.5A	10-10-10	350-350-350	m	1.44
PFP300.6A	20-20-20	350-350-350	c	1.84
FP330.7A	30-20-10	350-350-350	c	1.95
PFP330.8A	40-40-40	350-350-350	g	2.64
FP330.9A	60-50-50	350-350-350	h	2.94
FP331.2	80-20-20	350-350-350	g	2.57
FP331.3A	80-60-60	350-350-350	j	3.33
FP331.6A	90-40-20	350-350-350	g	3.15
WP331.7A	100-40-5	350-350-350	g	2.82
FP331.76A	100-40-40	350-350-350	h	3.15
FP331.8A	100-60-40	350-350-350	j	3.39
FP332.4A	100-100-10	350-350-350	j	4.08
WP332.44	140-140-20	350-350-350	i	4.16
FP332.5A	40-200-60	400-200-200	j	3.33
FP332.7A	10-4-40	400-350-25	l	1.32
FP333	10-50-30	400-350-25	f	1.86
FP333.05	100-10-200	400-350-25	h	2.99
FP333.1	40-4-4	400-350-150	d	1.71
PFP333.16	40-30-20	400-350-300	g	2.44
FP333.2A	80-40-100	400-400-50	j	3.00
FP333.3A	80-40-150	400-400-50	j	3.09
FP333.15	100-20-20	400-400-50	h	2.88
FP333.5A	20-10-40	400-400-350	k	2.04
FP333.6	20-20-10	400-400-350	d	1.80
FP333.7	60-30-20	400-400-350	h	2.73
FP333.8	80-20-10	400-400-350	h	2.58
FP333.85	100-10-80	400-400-350	i	3.66
FP333.86	100-40-100	400-400-350	i	4.04
FP333.88	50-30-4	400-400-400	g	2.31
FP333.89	80-60-40	400-400-400	j	3.63
FP333.9	90-10-5	400-400-400	h	2.64
FP333.95	100-30-20	400-400-400	i	3.30
WP334.6A	20-500-500	450-25-25	g	3.21
FP342	40-40-130	450-150-50	g	2.22
FP343A	40-100-50	450-150-50	g	2.37
WP339.5A	10-50-100	450-150-75	c	1.95
FP340	20-50-100	450-150-75	f	2.04
FP341A	40-90-50	450-150-150	g	2.40
FP341.2A	10-100-200	450-200-25	k	2.04
FP341.24	10-100-100	450-200-50	d	1.94
FP341.28	10-150-100	450-200-150	g	2.55
FP341.3A	20-80-50	450-200-150	f	2.16
FP341.5A	20-60-100	450-250-25	f	2.19
FP341.6A	50-160-50	450-250-50	j	3.09
FP341.8A	10-80-80	450-250-250	g	2.61
FP342.2A	5-80-40	450-300-300	g	2.49
FP342.5	30-15-40	450-350-25	f	1.92
FP342.7	30-40-50	450-350-25	e	$2.22
FP342.8	80-50-100	450-350-200	i	3.51
FP343.1A	15-20-20	450-350-250	c	1.77
FP343.4	20-15-15	450-350-350	d	1.95
FP343.6A	20-40-10	450-350-350	f	2.10
FP343.9	10-30-150	450-400-5	d	1.80
FP344.2	60-80-20	450-400-250	i	3.27
FP344.4	4-40-40	450-400-300	g	2.22
FP344.5	10-30-40	450-400-300	g	2.19
FP345.2	10-10-20	450-450-25	b	1.44
FP345.5	15-15-40	450-450-25	c	1.65
FP345.8	20-20-20	450-450-25	c	1.83
FP345.3	40-20-20	450-450-25	g	2.10
FP346	40-40-20	450-450-25	h	2.37
FP345.4	80-10-125	450-450-25	h	2.64
FP364A	80-40-100	450-450-25	j	3.06
FP365A	10-10-40	450-450-50	b	1.47
FP366A	20-10-50	450-450-50	c	1.71
FP366.5A	30-10-150	450-450-50	f	2.10
FP367A	35-25-100	450-450-50	g	2.37
FP367.5	40-30-25	450-450-50	g	2.25
FP368A	60-40-75	450-450-50	j	2.76
FP368.3A	80-20-100	450-450-50	j	2.88
FP368.5	80-50-50	450-450-50	i	3.12
FP368.6A	30-30-125	450-450-75	g	2.70
FP368.68A	10-4-20	450-450-150	m	1.50
PFP368.9	40-30-8	450-450-150	g	2.51
FP369.1	40-40-40	450-450-150	h	2.49
FP370A	40-10-80	450-450-200	g	2.34
FP375	40-40-100	450-450-200	i	2.97
FP375.2A	15-10-120	450-450-300	h	2.70
FP375.6A	60-20-40	450-450-350	j	2.94
FP375.7	20-10-15	450-450-400	d	1.86
FP375.8	10-10-10	450-450-450	c	1.56
FP376.1	15-15-10	450-450-450	d	1.77
FP376.3	20-10-10	450-450-450	d	1.74
FP376.5	20-20-20	450-450-450	g	2.16
FP376.6	30-10-10	450-450-450	f	1.89
FP376.7	30-30-30	450-450-450	h	2.67
FP376.8	40-40-10	450-450-450	h	2.49
FP376.9	40-40-20	450-450-450	h	2.67
FP377.1	40-40-40	450-450-450	j	3.12
FP377.2A	50-40-30	450-450-450	j	2.94
FP377.4A	60-10-10	450-450-450	g	2.34
FP377.6	60-30-10	450-450-450	h	2.70
FP377.7	60-40-40	450-450-450	i	3.41
FP378	80-40-20	450-450-450	i	3.24
FP378.1	80-40-30	450-450-450	i	3.53
FP378.4	80-40-40	450-450-450	i	3.66
FP379.1A	20-50-20	475-50-25	c	1.65
FP381.1A	80-80-50	475-150-50	j	2.91
FP382.1A	40-40-100	475-250-100	g	2.46
FP384	20-20-40	475-300-25	f	1.86
FP384.12	30-100-50	475-300-50	h	2.46
FP384.14A	5-100-200	475-300-150	j	3.09
FP384.16	10-4-100	475-350-50	b	2.37
FP384.2	10-4-40	475-350-300	f	1.80
FP384.35	20-10-5	475-350-350	c	1.71
FP384.5	10-45-100	475-450-50	g	2.19
FP384.7	40-40-25	475-450-50	h	2.64
FP385A	10-40-100	475-450-200	g	2.52
FP385.5	40-80-10	475-450-450	i	3.30
FP386	10-10-5	475-475-25	c	1.47
FP387.1	10-10-150	475-475-50	d	1.80
FP388.1	25-10-20	475-475-50	d	1.77
FP389.1A	20-10-100	475-475-400	j	3.15
FP391.1A	20-20-60	475-475-450	j	2.91
FP394	10-10-10	475-475-475	d	1.62
FP396	30-30-20	475-475-475	h	2.67
FP396.2	40-10-10	475-475-475	g	2.31
FP396.1	40-20-20	475-475-475	h	2.85
FP396.12	40-30-10	475-475-475	h	2.70
FP396.14A	40-30-30	475-475-475	j	3.09
FP397	40-35-10	475-475-475	h	2.73
PFP397.5	40-40-60	500-200-50	g	2.53
PFP397.7	40-40-20	500-350-250	h	2.76
FP398	10-40-40	500-450-450	h	2.49
FP399A	20-10-100	500-500-50	d	1.95
FP399.5	40-20-20	500-500-500	h	2.85
FP399.55	40-40-20	500-500-500	j	3.42

FP-WP AND PFP-PWP—QUADS

Mallory No.	Capacity, µf	Working Volts DC	*	Net Each
WP401.5	750-600-350-4	16-16-16-11.5 rms	f	$3.24
WP401.8	750-750-350-4	16-16-16-11.5 rms	f	3.87
FP403	50-20-150-30	150-150-15-15	f	1.92
FP405	20-20-160-40	150-150-25-25	f	1.92
WP405.5	50-40-160-40	150-150-25-25	f	2.01
WP406	40-40-200-100	150-150-25-25	f	2.13
FP407	30-20-20-200	150-150-150-10	f	1.86
FP407.5	40-40-20-200	150-150-150-10	f	1.92
FP408	60-40-20-200	150-150-150-10	f	2.07
FP408.5A	80-80-10-200	150-150-150-10	f	2.34
FP408.7A	300-30-10-100	150-150-150-10	g	2.73
FP408.9	30-30-30-40	150-150-150-25	f	1.86
FP409	40-40-30-20	150-150-150-25	f	1.86
FP409.4	50-20-20-200	150-150-150-25	f	2.10
FP409.6	50-40-10-50	150-150-150-25	f	1.89
FP410A	50-50-50-20	150-150-150-25	f	2.13
FP410.3	60-40-20-20	150-150-150-25	f	1.98
FP410.7A	60-60-10-60	150-150-150-25	f	2.10
FP411A	80-40-30-100	150-150-150-25	f	2.22
FP411.3A	80-40-40-20	150-150-150-25	f	2.10
FP411.32A	80-40-40-40	150-150-150-25	f	2.16
FP411.4A	80-50-50-25	150-150-150-25	f	$2.28
FP411.5A	100-90-60-200	150-150-150-25	f	2.97
FP411.7A	125-125-40-100	150-150-150-25	f	2.91
PFP411.9A	60-60-40-10	150-150-150-150	f	2.21
FP412A	100-80-60-40	150-150-150-150	f	2.73
WP412.1A	200-200-60-30	175-175-175-175	h	3.12
WP412.15	200-200-100-10	200-200-200-200	i	3.75
FP412.2A	40-40-50-80	250-250-150-150	f	2.46
WP412.8	40-40-40-40	250-250-250-250	f	2.49
PFP427.69	160-30-20-40	250-450-450-150	i	3.39
FP417A	100-40-80-20	300-50-25-25	f	2.73
FP417.2A	20-150-150-100	300-150-150-30	g	3.09
FP417.3A	10-200-140-30	300-150-150-150	g	3.06
FP417.8A	10-200-200-30	300-150-150-150	h	3.21
FP417.9A	100-60-10-20	300-200-150-50	g	2.91
FP419A	200-20-100-20	300-250-50-25	h	3.48
FP423A	40-40-40-40	300-250-250-25	f	2.64
FP419.11	60-5-50-20	300-300-50-50	f	2.16
FP418.7A	140-10-10-100	300-300-150-50	g	2.97

*See table of sizes on following page.

FP-WP and PFP-PWP Quads continued on next page.

MALLORY CAPACITORS

FP-WP AND PFP-PWP—QUADS (CONTINUED)

Mallory No.	Capacity, μf	WVDC	*	Net Each
FP419.4A	100-10-200-30	300-300-150-150	h	$3.54
FP419.1A	150-20-10-250	300-300-250-50	h	3.63
FP419.2A	40-30-20-50	300-300-300-25	f	2.49
FP419.7A	60-40-20-50	300-300-300-25	f	2.73
FP419.35A	60-30-10-60	300-300-300-50	f	2.52
FP419.37A	150-30-30-150	300-300-300-50	h	3.66
PFP419.42A	20-20-20-100	300-300-300-150	f	2.41
WP419.39A	80-20-20-200	300-300-300-150	h	3.12
FP419.45A	120-40-40-10	300-300-300-250	h	3.63
FP419.53A	60-40-10-10	300-300-300-300	f	2.73
FP419.55A	150-100-10-10	300-300-300-300	g	3.96
WP419.554	150-100-30-10	300-300-300-300	j	3.69
WP419.52	150-150-30-30	300-300-300-300	i	4.17
FP419.54A	200-20-20-20	300-300-300-300	j	3.87
FP419.56A	60-60-30-160	350-150-150-25	f	2.76
FP419.58A	20-60-160-40	350-200-25-25	f	2.40
FP414A	15-80-40-200	350-200-200-25	f	2.70
FP418.3A	120-20-100-20	350-250-50-25	h	3.03
WP419.585A	50-60-5-100	350-250-250-50	f	2.58
FP419.59A	160-30-30-20	350-300-300-50	j	3.54
WP419.51A	40-80-10-10	350-300-300-300	g	2.72
FP419.514	140-100-20-20	350-300-300-300	n	3.88
FP419.65A	160-60-10-4	350-300-300-300	j	3.84
FP419.6	40-10-100-25	350-350-25-25	f	2.25
FP419.62A	60-4-100-40	350-350-25-25	f	2.28
FP419.61A	100-4-50-50	350-350-50-25	g	3.03
FP419.63A	200-10-4-20	350-350-50-25	j	3.36
FP419.635A	40-40-50-50	350-350-50-50	f	2.52
FP419.64A	40-20-50-25	350-350-150-25	f	2.49
FP419.649A	40-20-100-100	350-350-200-50	f	2.70
FP419.67A	100-60-60-40	350-350-200-75	j	3.93
FP419.661	100-60-10-100	350-350-200-150	i	3.43
FP419.66A	60-40-60-20	350-350-250-150	g	3.24
FP419.68	15-15-15-15	350-350-300-25	f	2.07
FP419.8A	35-35-10-20	350-350-300-25	f	2.49
FP419.82	20-10-5-10	350-350-350-25	f	1.86
FP419.84	30-10-5-200	350-350-350-25	f	2.28
FP419.86A	40-20-5-10	350-350-350-25	f	2.28
FP419.87A	40-20-20-50	350-350-350-25	f	2.55
FP419.88A	40-30-15-30	350-350-350-25	f	2.70
FP419.3A	40-40-20-20	350-350-350-25	g	2.79
FP419.89A	100-30-10-40	350-350-350-25	g	2.94
FP419.9	15-15-15-50	350-350-350-50	f	2.25
PFP420.17A	40-20-10-100	350-350-350-50	f	2.45
FP420.15A	70-40-10-50	350-350-350-50	g	3.15
FP420.2A	50-40-40-160	350-350-350-50	h	3.45
FP420.23	100-10-10-20	350-350-350-50	h	3.09
WP420.25A	100-40-4-100	350-350-350-50	h	3.09
FP420.26A	100-40-30-50	350-350-350-50	h	3.93
FP420.273	100-100-60-100	350-350-350-50	i	4.08
FP420.276A	120-20-10-50	350-350-350-50	h	3.00
FP420.28A	140-20-10-100	350-350-350-50	h	3.63
FP420.29A	90-30-5-100	350-350-350-75	h	3.54
FP420.31A	100-80-10-20	350-350-350-150	j	3.42
FP420.32A	20-10-5-60	350-350-350-200	f	2.13
FP420.33A	30-10-5-100	350-350-350-200	f	2.64
WP420.34	40-40-40-40	350-350-350-300	h	3.00
FP420.35A	40-20-20-10	350-350-350-350	f	2.61
FP420.36A	40-40-30-20	350-350-350-350	g	2.82
FP420.38A	40-40-40-40	350-350-350-350	h	3.60
FP420.4A	80-60-40-20	350-350-350-350	j	3.84
FP420.405A	100-20-10-5	350-350-350-350	g	2.85
FP420.39A	100-40-25-25	350-350-350-350	j	4.20
FP420.41A	40-120-10-150	400-250-250-50	j	3.48
FP420.44A	30-40-50-200	400-300-250-150	j	3.60
FP420.43	80-80-100-100	400-350-25-25	i	3.78
FP420.438	10-4-4-20	400-350-150-25	p	2.26
FP420.45A	40-80-100-25	400-350-200-50	j	3.63
FP420.46A	80-40-20-20	400-350-300-300	j	3.48
FP420.47	20-50-40-80	400-350-350-50	h	3.00
FP420.5A	30-60-20-100	400-350-350-50	j	3.00
PFP420.52	40-30-20-20	400-350-350-350	h	2.80
FP420.51	20-20-50-50	400-400-15-15	f	2.04
FP420.53	20-5-20-20	400-400-25-25	f	1.83
FP420.54	80-50-25-25	400-400-25-25	h	3.21
FP420.56A	50-25-100-20	400-400-50-25	g	2.79
FP420.6A	80-40-100-20	400-400-50-25	j	3.36
FP420.7	100-10-30-20	400-400-50-50	h	3.06
FP420.8	20-10-10-25	400-400-100-25	f	1.86
WP420.9A	20-20-100-100	400-400-100-100	g	3.15
FP420.95	80-40-100-100	400-400-200-50	i	3.63
FP420.97	80-40-40-100	400-400-300-50	j	3.48
FP421A	5-5-50-80	400-400-300-250	g	2.79
FP421.2A	60-40-40-10	400-400-350-50	j	3.45
FP421.3A	100-10-20-20	400-400-350-50	j	3.27
FP421.4	30-30-15-20	400-400-400-25	h	2.58
FP421.6	80-40-30-40	400-400-400-25	i	3.57
FP421.8A	40-40-40-150	400-400-400-50	j	3.42
WP421.85	40-80-10-100	400-400-400-200	i	3.36
FP421.87	80-40-30-4	400-400-400-350	i	3.49
FP421.9A	50-40-30-20	400-400-400-400	j	3.39
WP422	60-40-40-40	400-400-400-400	i	3.78
FP422.1A	20-80-20-50	450-200-200-50	f	2.46
FP422.11	20-160-50-50	450-250-75-50	j	2.97
FP422.7A	60-80-40-20	450-250-250-150	i	3.39
FP422.8	25-100-10-60	450-300-300-50	h	3.18
FP413X	40-40-40-20	450-300-300-150	h	2.94
FP422.9	10-100-20-20	450-300-300-300	h	3.15
FP423.4	10-40-100-100	450-350-250-50	h	3.33
WP423.5	10-140-100-20	450-350-300-300	i	3.87
FP424.1	10-100-10-20	450-350-350-25	h	3.12
FP424.3A	20-80-50-100	450-350-350-50	j	3.60
FP425	30-40-40-10	450-350-350-200	h	3.09
FP425.6	40-100-20-10	450-350-350-350	i	3.84
FP425.1A	80-10-40-30	450-400-300-300	j	3.48

Mallory No.	Capacity, μf	WVDC	*	Net Each
FP426	20-15-20-20	450-450-25-25	f	$2.07
FP426.2	80-40-100-100	450-450-25-25	i	3.48
FP426.5	20-20-60-100	450-450-150-25	g	2.55
FP426.9A	40-40-125-125	450-450-150-25	j	3.42
FP427.5A	10-10-60-100	450-450-200-50	f	2.31
FP427.6A	35-25-20-100	450-450-200-50	g	2.79
FP427.65A	40-40-100-60	450-450-200-200	j	3.63
FP427.67	80-50-20-50	450-450-250-50	i	3.58
FP427.7	10-10-10-50	450-450-300-25	f	1.89
FP427.9A	20-20-20-10	450-450-350-350	g	2.49
FP428	40-10-35-10	450-450-350-350	h	2.76
FP428.4A	40-40-30-30	450-450-350-350	j	3.54
FP424	15-15-10-20	450-450-450-25	f	2.10
FP428.9A	30-30-10-125	450-450-450-25	g	2.58
FP432A	40-10-10-250	450-450-450-25	g	2.82
FP431	40-15-10-25	450-450-450-25	g	2.46
FP430.2	40-20-20-25	450-450-450-25	h	2.76
FP436	40-20-20-40	450-450-450-25	h	2.79
FP429	40-30-10-20	450-450-450-25	h	2.70
FP429.2	40-40-30-100	450-450-450-25	j	3.21
FP430.6A	40-40-40-40	450-450-450-25	j	3.30
FP430.9	60-40-40-10	450-450-450-25	i	3.60
FP430.95A	60-50-5-20	450-450-450-25	j	3.21
FP430.97	20-20-20-20	450-450-450-50	g	2.49
FP437	20-20-20-100	450-450-450-50	g	2.73
FP431.2	40-40-10-25	450-450-450-50	h	2.82
FP431.3A	40-40-10-50	450-450-450-50	h	2.13
FP431.35	40-40-20-40	450-450-450-50	h	3.03
FP431.4A	60-40-10-25	450-450-450-50	j	3.15
FP431.7A	40-40-10-100	450-450-450-100	j	3.18
FP433	60-10-10-20	450-450-450-150	h	2.76
FP432.4A	40-40-30-10	450-450-450-200	j	3.21
FP432.8	35-35-15-25	450-450-450-250	h	2.91
FP432.9A	40-20-10-100	450-450-450-250	j	3.51
FP450.2	80-50-10-20	450-450-450-300	i	3.67
FP433.2	40-10-10-40	450-450-450-350	h	2.85
FP433.4	40-20-20-20	450-450-450-350	h	3.00
WP433.6	5-5-5-5	450-450-450-450	f	1.80
FP434	10-10-10-10	450-450-450-450	f	2.01
FP434.5	20-10-10-10	450-450-450-450	f	2.22
FP444	20-20-20-20	450-450-450-450	h	2.82
FP444.4A	30-15-15-15	450-450-450-450	g	2.67
FP444.5	30-20-20-10	450-450-450-450	h	2.76
FP444.6	30-30-15-10	450-450-450-450	h	2.82
FP444.8	30-30-20-20	450-450-450-450	h	3.12
FP444.9	30-30-30-15	450-450-450-450	i	3.18
FP444.54	40-20-20-4	450-450-450-450	h	2.79
FP444.95	40-20-20-20	450-450-450-450	h	3.06
FP445	35-35-10-5	450-450-450-450	h	2.76
FP446	40-35-10-10	450-450-450-450	h	2.88
FP447A	40-40-20-20	450-450-450-450	j	3.33
FP447.5	40-40-30-30	450-450-450-450	i	3.63
WP447.7	40-40-40-40	450-450-450-450	i	3.78
FP448A	60-20-20-20	450-450-450-450	j	3.39
FP448.5	60-30-10-2	450-450-450-450	h	3.06
FP449	70-10-10-5	450-450-450-450	h	2.85
FP450A	80-10-10-10	450-450-450-450	j	3.03
FP450.08	80-40-20-10	450-450-450-450	i	3.66
FP450.16	80-40-20-20	450-450-450-450	i	3.79
FP450.5	40-40-50-80	475-250-150-50	h	3.00
FP451A	10-100-10-100	475-300-300-25	g	2.94
FP451.3A	10-140-4-100	475-300-300-50	j	3.18
FP452	20-80-20-10	475-300-300-300	h	3.00
FP452.5	10-20-100-50	475-350-25-25	f	2.07
FP453A	20-40-80-100	475-350-200-100	h	3.27
FP453.4A	10-40-80-100	475-350-300-100	h	3.33
FP453.8A	10-30-5-80	475-350-350-50	f	2.22
FP454.4A	10-130-20-10	475-350-350-350	j	3.54
FP454.2	20-60-40-10	475-350-350-350	h	3.12
FP454.6	10-40-4-100	475-400-350-50	g	2.43
FP454.8A	10-80-40-100	475-400-400-50	j	3.48
FP455.5	25-20-20-100	475-450-300-50	g	2.73
FP456	25-20-40-100	475-450-300-50	h	2.97
FP456.5A	10-60-30-125	475-450-400-50	j	3.33
FP455	10-50-30-30	475-450-450-25	h	2.85
FP457	10-40-10-20	475-450-450-50	g	2.37
FP459	10-40-10-100	475-450-450-50	g	2.58
FP460	80-4-4-4	475-450-450-450	j	3.09
FP461A	15-15-80-40	475-475-300-50	g	2.88
FP463A	50-30-20-20	475-475-300-300	j	3.42
FP464.9	40-10-4-40	475-475-350-300	h	2.97
FP467	20-10-20-100	475-475-450-25	g	2.52
FP474	10-10-10-10	475-475-475-475	f	2.10
FP474.5	20-20-10-10	475-475-475-475	g	2.61
FP475	20-20-20-20	475-475-475-475	h	3.12
FP475.5	40-10-10-10	475-475-475-475	h	2.79
FP476	40-20-10-10	475-475-475-475	h	3.06
FP485	10-20-10-4	500-300-300-300	f	1.98
FP490	30-10-150-30	500-450-50-50	g	2.52
FP495A	40-40-8-8	500-500-500-500	j	3.42

*SIZES

Key	Diameter	Length	Key	Diameter	Length
a	¾″	2″	j	1⅛″	3½″
b	1″	2″	k	1″	3½″
c	1″	2½″	l	1″	1½″
d	1″	3″	m	1″	1¾″
e	1″	4″	n	1⅜″	4½″
f	1⅜″	2″	o	¾″	1½″
g	1⅜″	2½″	p	1⅜″	1½″
h	1⅜″	3″	q	1″	2⅜″
i	1⅜″	4″			

Net

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MALLORY CAPACITORS

TC-TCD-TCS AND TCT TUBULAR DRY ELECTROLYTICS

Metal tubulars with insul. sleeve. TC, TCN (non-polar) are single section, 3″ bare tinned leads. TCD is dual common negative with 7″ insul. leads. TCS, dual separate section, solder lugs. TCT, triple common neg., 7″ insul. leads. With mtg. strap, except TC below 13/16″ dia. Rated +85° C except (*), rated +65° C, EIA tolerances.

TC AND TCN SINGLE SECTION

Mallory No.	Cap., µf	WV DC	Size, In. Dia. x Lg.	Net Each
TC304	200	3	11/16 x 1 1/4	$0.69
TC305	500	3	11/16 x 1 1/2	.84
TC310	1000	3	15/16 x 1 3/4	1.02
TC605	500	6	13/16 x 1 3/4	.93
TC610	1000	6	15/16 x 2	1.14
TC1502	200	15	13/16 x 1 1/2	.84
TC1505	500	15	15/16 x 2	1.05
TC1501	1000	15	1 1/16 x 2 1/4	1.38
TC22	10	25	7/16 x 3/4	.60
TC26	25	25	7/16 x 3/4	.60
TC29	50	25	9/16 x 1 1/2	.66
TC2501	100	25	11/16 x 1 3/4	.81
TC25015	150	25	11/16 x 1 3/4	.87
TC2505	500	25	13/16 x 2 1/4	1.38
TC31	1	50	1/4 x 11/16	.54
TC302	2	50	5/16 x 3/4	.54
TC30	5	50	5/16 x 7/8	.60
TC32	10	50	7/16 x 3/4	.60
TC36	25	50	11/16 x 1 1/4	.63
TC39	50	50	13/16 x 1 1/4	.72
TC3501	100	50	11/16 x 1 3/4	.84
TC50015	150	50	13/16 x 1 3/4	1.12
TC50025	250	50	15/16 x 1 3/4	1.05
TC50050	500	50	1 1/16 x 2 1/4	1.92
TC50100	1000	50	1 1/16 x 4	2.91
TC40	5	150	7/16 x 7/8	.60
TC41	8	150	7/16 x 1	.63
TC42	10	150	7/16 x 1 1/4	.63
TC43	12	150	7/16 x 1 1/4	.66
TC44	16	150	11/16 x 1 1/2	.69
TC45	20	150	13/16 x 1 1/2	.72
TC47	30	150	13/16 x 1 1/2	.78
TC48	40	150	15/16 x 1 3/4	.81
TC49	50	150	15/16 x 1 3/4	.84
TC492	80	150	15/16 x 2	.96
TC493	100	150	1 1/16 x 2 1/4	1.05
TC495	150	150	1 1/16 x 2 1/4	1.14
TC496	200	150	1 1/16 x 2 7/8	1.58
TC499	300	150	1 7/16 x 3	1.53
TC50X	5	250	11/16 x 1 1/4	.63
TC51	8	250	11/16 x 1 3/4	.69
TC52	10	250	11/16 x 1 3/4	.72
TC53	12	250	13/16 x 1 3/4	.75
TC54	16	250	13/16 x 1 3/4	.78
TC55	20	250	13/16 x 1 3/4	.81
TC58	40	250	1 1/16 x 1 3/4	.93
TC59	50	250	1 1/16 x 1 3/4	1.02
TC1265	100	250	1 1/16 x 2 7/8	1.47
TC595	2	350	7/16 x 1 1/2	1.26
TC60	5	350	11/16 x 1 3/4	.63
TC61	8	350	13/16 x 1 3/4	.72
TC62	10	350	13/16 x 1 3/4	.75
TC63	12	350	13/16 x 1 3/4	.78
TC64	16	350	13/16 x 1 3/4	.84
TC65	20	350	13/16 x 1 3/4	.87
TC67	40	350	15/16 x 2 1/4	1.44
TC68	60	350	1 1/16 x 2 1/4	1.17
TC69	100	350	1 1/16 x 4	1.86
TC692	150	350	1 7/16 x 3 7/8	3.16
TC695	2	450	11/16 x 1 1/2	.66
TC697	4	450	11/16 x 1 3/4	.97
TC70	5	450	11/16 x 1 3/4	.72
TC71	8	450	13/16 x 1 3/4	.75
TC72	10	450	13/16 x 1 3/4	.78
TC73	12	450	15/16 x 1 3/4	.81
TC74	16	450	15/16 x 1 3/4	.84
TC75	20	450	1 1/16 x 1 3/4	.93
TC77	30	450	1 1/16 x 2 1/4	1.02
TC78	40	450	1 1/16 x 2 1/4	1.08
TC79	50	450	1 1/16 x 2 7/8	1.26
TC795	60	450	1 1/16 x 2 7/8	1.38
TC80	80	450	1 1/16 x 4	1.68
TC805	100	450	1 7/16 x 3	1.92
TC81*	10	500	15/16 x 1 3/4	.81
TC82	10	500	1 1/16 x 3	1.62
TC83*	20	500	1 1/16 x 1 3/4	.96
TC84*	30	500	1 1/16 x 2 1/4	1.05
TC90	4	600	3/4 x 2 1/2	2.30
TC92	10	600	15/16 x 2 15/16	1.77
TCN308	.5Z‡	3	1 1/16 x 2	1.32
TC420†	1.5Z§	4	1 1/16 x 2 7/8	2.10
TC421†	1.5Z#	6	1 1/16 x 2	1.80
TCN105	5	10	11/16 x 1 1/4	.69
TCN106	6	10	9/16 x 1 1/4	.69
TCN108	8	10	11/16 x 1 1/2	.69
TCN1025	25	10	7/16 x 7/8	.84
TCN412	500	10	1 1/16 x 2	1.20
TCN1550	500	15	15/16 x 2 1/4	1.32
TCN415	1000	15	1 1/16 x 3 1/2	1.71
TCN2516	16	25	9/16 x 1 1/2	.60
TCN425	100	25	13/16 x 1 1/2	1.02
TCN501	1	50	9/16 x 1 1/4	.69
TCN502	2	50	9/16 x 1 1/4	.69
TCN503	3	50	9/16 x 1 1/4	.72
TCN504	4	50	9/16 x 1 1/4	.75

†Non-polar. ‡15750 cps. §60 cps. #120 cps.

No.	µf	VNP	D. x L., In.	Net
TCN505	5	50	9/16 x 1 1/4	$0.90
TCN5010	10	50	9/16 x 1 1/4	.75
TCN5099	100	50	15/16 x 1 3/4	1.29
TCN510	4	150	9/16 x 1 1/4	.75
TCN1512	12	150	5/8 x 1 3/4	1.01
TCN1540	40	150	15/16 x 1 3/4	1.30
TCN1551	50	150	7/8 x 2 1/4	1.34
TCN2550	4	200	1 x 1 3/4	1.02
TCN3520	20	350	1 1/16 x 2 7/8	1.08
TCN511	10	450	1 1/16 x 2 1/4	.99

TCD DUAL COMMON NEGATIVE

No. TCD-	Cap., µf	WVDC	Size, In. Dia. x Lg.	Net Each
204	250-1000	10-6	1 1/16x2 1/4	$1.68
16	500-100	16-16	15/16x2	.78
26	25-25	25-25	15/16x1 1/4	.84
N201†	130-130	25-25	1 1/16x2 1/4	2.15
40	10-10	100-100	13/16x1 1/4	.87
43	10-30	150-150	13/16x1 3/4	1.62
45	20-20	150-150	13/16x1 3/4	.99
508	130-20	150-150	1 1/16x2 7/8	2.07
47	30-30	150-150	15/16x1 3/4	1.08
485	40-20	150-150	15/16x1 1/4	1.05
475	40-30	150-150	15/16x2	1.08
48	40-40	150-150	1 1/16x2	1.11
497	50-30	150-150	15/16x2	1.17
49	50-50	150-150	1 1/16x2 1/4	1.26
50	60-20	150-150	15/16x1 7/8	1.53
4975	80-40	150-150	1 1/16x2 1/4	1.32
498	80-50	150-150	1 1/16x2 1/4	1.41
2155	100-100	150-150	1 1/16x4	1.92
46	30-20	200-200	15/16x2	1.17
2165	30-30	200-200	1 1/16x2 1/4	1.32
2169	50-75	250-50	1 1/16x2 1/4	1.44
2174	100-150	250-50	1 1/16x4	2.16
2173	8-8	250-250	15/16x1 3/4	.96
52	10-10	250-250	15/16x2	.99
55	20-20	250-250	1 1/16x2	1.11
2274	40-40	300-300	1 1/16x3 1/8	1.77
58	80-40	300-300	1 1/16x4	2.07
62	10-10	350-350	15/16x2	1.02
65	20-20	350-350	1 1/16x2 3/8	1.35
2297	40-50	450-50	1 1/16x3 1/8	1.50
2302	30-60	450-300	1 1/16x4	1.92
71	8-8	450-450	15/16x2	1.02
72	10-10	450-450	1 1/16x2	1.11
74	15-15	450-450	1 1/16x3 1/8	1.32
745	20-8	450-450	1 1/16x2 1/4	1.26
75	20-20	450-450	1 1/16x3 1/8	1.50
77	30-30	450-450	1 1/16x4	1.80
78	40-40	450-450	1 1/16x4	2.04

TCS DUAL SEPARATE SECTION

No. TCS-	Cap., µf	WV DC*	Size, In. Dia. x Lg.	Net Each
44	15-15	150	13/16 x 2 3/8	$1.20
45	20-20	150	15/16 x 2 3/8	1.26
47	30-30	150	1 1/16 x 2 3/8	1.35
48	40-40	150	1 1/16 x 2 7/8	1.41
49	120-120	150	1 1/16 x 3 7/8	1.98
505	70-70	175	1 1/16 x 3 7/8	2.16
52	10-10	250	15/16 x 2 3/8	1.26
55	20-20	250	1 1/16 x 2 7/8	1.41
61	8-8	350	15/16 x 2 3/8	1.26
64	15-15	350	1 1/16 x 2 7/8	1.65
71	8-8	450	1 1/16 x 2 3/8	1.29
74	15-15	450	1 1/16 x 2 7/8	1.65
75	20-20	450	1 1/16 x 3 1/2	1.89

*Each section.

TCT TRIPLE COMMON NEGATIVE

No. TCT-	Cap., µf	Volts	Size, In. Dia. x L.	Net Each
3053	20-20-20	150-150-25	15/16x2 1/4	$1.23
3055	30-30-20	150-150-25	1 1/16x2 1/4	1.32
3094	50-30-200	150-150-25	1 1/16x2 7/8	1.65
3109	20-10-10	150-150-150	15/16x1 3/4	1.20
3112	20-20-20	150-150-150	1 1/16x1 3/4	1.29
3113	30-30-30	150-150-150	1 1/16x2 1/4	1.41
3114	40-20-20	150-150-150	1 1/16x2 1/4	1.35
3105	40-30-20	150-150-150	1 1/16x1 3/4	1.38
3116	40-40-20	150-150-150	1 1/16x2 1/4	1.41
3115	40-40-40	150-150-150	1 1/16x2 1/4	1.47
3107	50-30-20	150-150-150	1 1/16x2 1/4	1.41
3110	60-30-10	150-150-150	1 1/16x2	2.22
3119	60-50-20	150-150-150	1 1/16x2 7/8	1.62
3117	80-40-20	150-150-150	1 1/16x2 7/8	1.65
3118	80-50-50	150-150-150	1 1/16x4	1.86
3120	80-80-20	150-150-150	15/16x3	2.47
3285	40-30-40	350-250-150	1 1/16x4	1.98
3405	30-50-100	450-150-25	1 1/16x4	1.92
3432	30-30-30	450-350-250	1 1/16x4	2.25
3764	40-20-10	450-450-450	1 1/16x4	2.25

CLIPS FOR TC CAPACITORS

Mallory No.	Spring Clip for	Size, In.	Net Each
TH13	TC	3/8	3c
TH15	TC	1/2-9/16	3c
TH17	TC	5/8-11/16	3c
TH19	TC and FP	3/4-13/16	3c
TH21	TC	7/8-15/16	3c
TH23	TC and FP	1 -1 1/16	3c
TH25	TC and FP	1 3/8-1 7/16	6c

TT TINY TUBULAR ELECTROLYTIC CAPACITORS

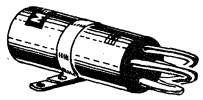
High purity, etched aluminum plate for low leakage current limits; high ratings and small size. Conforms to EIA standards RS-154-A. Axial leads 1 3/4″ long.
Temperature Range: −20°, +85° C.
Tolerance: Up to 50 WVDC, −10%, +150%; above 50 WVDC, −10%, +100%.

Mallory No.	Cap., µf	WV DC	Size, In.* Dia.xLgth.	Net Each
TT1X5	5	1	1/4 x 11/16	$0.80
TT2X150	150	2	3/8 x 13/16	.90
TT3X10	10	3	1/4 x 11/16	.75
TT3X25	25	3	1/4 x 11/16	.75
TT3X40	40	3	1/4 x 11/16	.75
TT3X50	50	3	1/4 x 13/16	.75
TT3X110	110	3	3/8 x 13/16	.84
TT3X200	200	3	3/8 x 15/16	.90
TT3X250	250	3	3/8 x 1 1/16	.96
TT3X300	300	3	3/8 x 1 3/16	.99
TT3X400	400	3	3/8 x 1 7/16	1.21
TT6X2	2	6	1/4 x 11/16	.75
TT6X3	3	6	1/4 x 11/16	.75
TT6X4	4	6	1/4 x 11/16	.75
TT6X5	5	6	1/4 x 11/16	.81
TT6X8	8	6	1/4 x 11/16	.81
TT6X10	10	6	1/4 x 11/16	.81
TT6X15	15	6	1/4 x 11/16	.84
TT6X25	25	6	1/4 x 11/16	.84
TT6X30	30	6	1/4 x 11/16	.84
TT6X40	40	6	5/16 x 11/16	.84
TT6X50	50	6	5/16 x 11/16	.84
TT5X60	60	6	3/8 x 11/16	.84
TT6X80	80	6	5/16 x 13/16	.90
TT6X100	100	6	3/8 x 13/16	.90
TT6X150	150	6	3/8 x 15/16	.93
TT6X200	200	6	3/8 x 1 1/16	.96
TT6X250	250	6	3/8 x 1 3/16	1.02
TT6X300	300	6	3/8 x 1 7/16	1.08
TT10X6	6	10	1/4 x 11/16	.81
TT10X15	15	10	1/4 x 11/16	.81
TT10X25	25	10	5/16 x 11/16	.81
TT10X30	30	10	5/16 x 11/16	.90
TT10X40	40	10	5/16 x 13/16	.90
TT10X50	50	10	3/8 x 13/16	.90
TT10X60	60	10	3/8 x 13/16	.90
TT12X1	1	12	1/4 x 11/16	.75
TT12X2	2	12	1/4 x 11/16	.75
TT12X3	3	12	1/4 x 11/16	.75
TT12X5	5	12	1/4 x 11/16	.81
TT12X10	10	12	1/4 x 11/16	.81
TT12X20	20	12	1/4 x 11/16	.84
TT12X35	35	12	5/16 x 11/16	.87
TT12X100	100	12	3/8 x 13/16	1.05
TT12X150	150	12	3/8 x 1 1/16	1.11
TT12X250	250	12	3/8 x 1 7/16	1.26
TT15X8	8	15	1/4 x 11/16	.84
TT15X10	10	15	1/4 x 11/16	.84
TT15X15	15	15	1/4 x 11/16	.87
TT15X20	20	15	5/16 x 11/16	.87
TT15X25	25	15	1/4 x 13/16	.87
TT15X30	30	15	5/16 x 11/16	.90
TT15X35	35	15	3/8 x 11/16	.93
TT15X40	40	15	3/8 x 11/16	.96
TT15X50	50	15	5/16 x 13/16	.96
TT15X100	100	15	3/8 x 13/16	1.05
TT15X150	150	15	3/8 x 15/16	1.14
TT15X200	200	15	3/8 x 1 7/16	1.20
TT25X5	5	25	1/4 x 11/16	.84
TT25X6	6	25	1/4 x 11/16	.84
TT25X8	8	25	1/4 x 11/16	.87
TT25X10	10	25	1/4 x 11/16	.87
TT25X15	15	25	5/16 x 11/16	.87
TT25X20	20	25	5/16 x 11/16	.90
TT25X25	25	25	3/8 x 11/16	.93
TT25X50	50	25	3/8 x 15/16	1.05
TT25X100	100	25	3/8 x 1 7/16	1.17
TT50X2	2	50	1/4 x 11/16	.81
TT50X3	3	50	1/4 x 11/16	.81
TT50X4	4	50	1/4 x 11/16	.81
TT50X5	5	50	1/4 x 13/16	.87
TT50X8	8	50	1/4 x 13/16	.90
TT50X10	10	50	3/8 x 11/16	.90
TT50X15	15	50	5/16 x 13/16	.90
TT50X20	20	50	3/8 x 13/16	.90
TT50X25	25	50	5/8 x 15/16	1.01
TT50X35	35	50	3/8 x 1 1/16	1.02
TT50X50	50	50	3/8 x 1 3/16	1.11
TT80X4	4	80	1/4 x 13/16	.84
TT100X6	6	100	5/16 x 13/16	.90
TT100X10	10	100	3/8 x 13/16	.93
TT100X15	15	100	3/8 x 15/16	.93
TT100X20	20	100	3/8 x 1 1/16	.96
TT150X1	1	150	1/4 x 13/16	.84
TT150X2	2	150	1/4 x 13/16	.87
TT150X3	3	150	5/16 x 11/16	.87
TT150X4	4	150	3/8 x 11/16	.87
TT150X5	5	150	3/8 x 13/16	.93
TT150X6	6	150	3/8 x 13/16	.93
TT150X8	8	150	3/8 x 15/16	.96
TT150X10	10	150	3/8 x 15/16	.96
TT150X12	12	150	3/8 x 1 1/16	.96
TT250X1	1	250	1/4 x 11/16	1.02
TT350X2	2	350	3/8 x 1 7/16	1.05

*With DuPont Mylar insulating sleeves.

MALLORY CAPACITORS

HIGH TEMPERATURE WAX TUBULARS



Single-ended, wax-dipped cardboard sleeve for high capacity at high voltages and temperatures. 5″ flexible leads. **Tolerance:** Up to 50 WVDC, −10% to +250%; 51 to 350 WVDC, −10% to +100%; over 351 WVDC, −10% to +50%. WQ240 is double-ended.

Mall. No.	Cap., μf at WVDC	Size, In. D. x L.	Net Each
WS342	200 at 200	1 1/8x3 3/8	**$1.84**
WS427	140 at 300	1 1/4x2 7/8	**2.05**
WS560	150 at 400	1 1/4x4 3/8	**2.64**
WS730	100 at 450	1 5/16x3 3/8	**2.63**
WD210	50-30 at 150	3/4x2 3/8	**1.24**
WD215	50-50 at 150	7/8x2 3/8	**1.30**
WD220	70-30 at 150	7/8x2 3/8	**1.30**
WD235	100-50 at 150	1 x2 3/8	**1.56**
WD270	120-120 at 150	1 x2 7/8	**1.87**
WD251	250-50 at 160	1 3/8x2 5/8	**2.18**
WD340	60-125 at 200-50	1 1/16x2 3/8	**1.54**
WD345	5-200 at 200-200	1 1/8x3 1/8	**2.05**
WD355	250-120 at 200-200	1 3/8x3 1/8	**2.92**
WD410	200-100 at 300-50	1 1/8x4 3/8	**2.93**
WD448	150-100 at 350-300	1 3/8x4 3/8	**3.49**
WD446	100-150 at 350-300	1 3/8x3 5/8	**3.40**
WD450	5-140 at 350-350	1 1/8x4 3/8	**2.54**
WT201	60-40-250 at 150-150-15	1 x2 3/8	**1.72**
WT240	60-60-100 at 150-150-25	1 1/16x2 3/8	**1.72**
WT312	250-120-50 at 160-160-100	1 3/8x3 5/8	**2.31**
WT217	40-40-20 at 150	1 x2 7/8	**1.58**
WT316	150-150-150 at 150	1 1/4x3 3/8	**2.81**
WT350	150-150-20 at 200	1 1/8x4 3/8	**2.78**
WT360	200-250-10 at 200	1 3/8x3 3/8	**3.20**
WT430	100-60-100 at 300-300-50	1 1/4x3 5/8	**2.74**
WT434	120-40-100 at 300-300-50	1 1/4x3 5/8	**2.74**
WT407	70-50-30 at 300-300-250	1 1/4x3 3/8	**2.41**
WT447	10-100-200 at 350-150-150	1 3/8x2 3/8	**2.47**
WT449	140-5-200 at 350-300-200	1 3/8x4 3/8	**3.60**
WT455	100-40-40 at 350-350-250	1 1/8x4 3/8	**2.90**
WT458	60-60-60 at 350-350-300	1 1/4x4 3/8	**2.93**
WT460	60-60-4 at 350	1 1/4x3 3/8	**2.49**
WT565	100-75-70 at 400-400-25	1 1/2x4 3/8	**3.41**
WT630	5-40-80 at 450-400-400	1 3/16x4 3/8	**2.72**
WT700	10-10-150 at 450-450-50	1 1/8x2 5/8	**1.85**
WQ209	60-40-20-200 at 150-150-150-10	1 x2 3/8	**1.93**
WQ215	40-20-20-100 at 150-150-150-25	1 x2	**1.77**
WQ230	40-40-20-20 at 150-150-150-25	1 5/16x2 7/8	**1.70**
WQ250	60-40-40-20 at 150-150-150-25	1 x2 3/8	**1.91**
WQ240	10-10-40-200 at 150-150-150-35	1 1/8x2	**1.74**
WQ290	60-50-40-20 at 150	7/8x2 7/8	**1.90**
WQ401	140-4-50-4 at 300-300-150-150	1 3/8x3 1/2	**2.88**
WQ405	120-40-40-10 at 300-300-300-250	1 3/8x3 3/8	**3.18**
WQ511	140-5-200-100 at 350-300-200-150	1 3/8x4 3/8	**4.27**
WQ505	140-5-200-30 at 350-300-200-200	1 1/2x4 3/8	**4.06**
WQ515	40-20-20-100 at 350-300-250-50	1 1/4x2 5/8	**2.34**
WQ525	50-40-20-50 at 350-350-350-50	1 1/4x3 3/8	**2.59**
WQ520	150-100-20-100 at 350-350-350-50	1 1/2x4 3/8	**4.33**
WQ635	25-100-10-50 at 450-300-300-50	1 3/8x3 3/8	**2.98**
WQ640	10-80-40-40 at 450-300-300-300	1 1/4x4 3/8	**2.94**
WQ650	10-40-80-100 at 450-300-400-50	1 1/4x4 3/8	**3.47**
WQ775	10-20-20-40 at 450	1 1/4x3 3/8	**3.02**
WQ795	20-20-40-40 at 450	1 1/4x4 3/8	**3.53**
WV404	40-20-20-20-50 at 300-300-300-300-50	1 1/4x3 3/8	**2.58**

PRINTED CIRCUIT HIGH TEMPERATURE WAX TUBULARS

Same as W Series, except designed for printed circuit applications.

DUAL

Mallory No.	Cap., μf	WV DC*	Size, In. Dia. x L.	Net Each
PWD211	50-30	150	1 x 2	**$1.26**
PWD221	50-50	200	1 x 2 3/8	**1.44**
PWD231	75-30	150	1 x 2 3/8	**1.34**
PWD240	80-30	150	1 x 2 3/8	**1.35**
PWD252	80-50	150	1 x 2 3/8	**1.42**
PWD253	80-50	200	1 x 2 5/8	**1.58**
PWD263	100-50	150	1 x 2 3/8	**1.50**

TRIPLE

PWT205	30-25-20	150*	1	x1 3/4	**$1.44**
PWT225	50-30-20	150*	1	x2	**1.52**
PWT245	60-20-5	150*	1	x3	**1.47**
PWT260	60-80-20	150*	1	x2 3/8	**1.71**
PWT275	80-40-150	150-150-50	1	x2 3/8	**1.69**
PWT285	80-60-250	150-150-25	1	1 1/8x2 3/8	**1.83**
PWT360	60-120-20	200*	1	1 1/8x2 7/8	**2.12**

*WVDC each section.

ANTENNA ROTATOR

Exact replacement for capacitors used in popular antenna rotators.

Mall. No.	Cap., μf at VAC	Size, In. Dia. x L.	Net Each
ST75	70 at 50 VAC	7/8 x 2 5/8	**$0.75**
ST76	66.2 to 76 at 50 VAC	7/8 x 2 5/8	**.75**
ST80	75 at 65 WVDC	3/4 x 2 3/8	**.90**
ST100	100-120 at 50 VAC	1 x 2 3/4	**1.02**
ST240	210 to 240 at 50 VAC	1 x 3 5/8	**1.29**
ST290	210 to 290 at 50 VAC	1 x 3 5/8	**1.29**

MINIATURE PHENOLIC CASE ELECTROLYTICS

Miniature electrolytics for portable radios and TV enclosed in phenolic case with epoxy end seals. PET series are single ended with 1″ leads for printed circuits. PETA have 1½″ axial leads. **Temperature range:** −30° to +85° C. **Tolerance:** −10% to +150%.

Mallory No. PET-	Cap., μf	WV DC	Size, In.	Net Each
118	8	3	3/8x 5/8	**$0.82**
122	15	3	3/8x 5/8	**.83**
130	30	3	3/8x 3/4	**.83**
140	40	3	3/8x 3/4	**.83**
180	150	3	7/16x15/16	**.89**
1210	5	6	3/8x 5/8	**.82**
1260	60	6	7/16x 3/4	**.85**
1300	750	6	5/8x1 1/4	**1.18**
1340	10	10	3/8x 5/8	**.83**
1400	100	10	1/2x 7/8	**.88**
1500	100	12	7/16x1 1/8	**.88**
1535	6	15	3/8x 5/8	**.83**
1570	20	15	3/8x 3/4	**.83**
1575	50	15	7/16x 7/8	**.85**
1760	10	25	3/8x 3/4	**.83**
1930	2	50	3/8x 5/8	**.82**
1935	4	50	3/8x 3/4	**.83**
1960	25	50	7/16x1	**.85**
1980	50	50	1/2x1 1/8	**.88**
290	500-50	3-3	1 1/2x1 1/4	**1.31**
2290	100-40	6-3	1/2x 7/8	**1.14**
2320	400-200	6-6	1/2x1 1/2	**1.37**
2312	200-20	8-8	1/2x1 1/2	**1.18**
2365C*	50-25	10-10	1/2x 3/4	**1.12**
2370	50-50	10-10	1/2x1	**1.13**
3310	100-100-65	8-8-8	5/8x1	**1.20**
A120	1000	1	5/8x1 7/8	**1.16**
A190	750	3	5/8x1 3/8	**1.06**
A1675	65	16	7/16x1 1/8	**.72**
A2300	250-100	7-3	1/2x1 3/8	**1.27**
A2385	80-50	10-10	1/2x1 1/4	**1.08**
A2395	100-40	10-3	1/2x1 1/8	**1.58**

*Uses common positive construction.

INDUSTRIAL ELECTROLYTICS

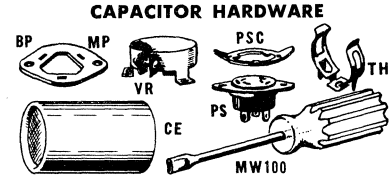
Heavy duty industrial aluminum electrolytics which also meet detail specifications of MIL-C-62. PB series plugs into standard octal tube socket. BS series are bathtub style hermetically sealed in hot-tinned steel case with two solder lugs and mounting flanges. Standard EIA tolerances apply to BS series and operating temperature is −55° C to +65° C. RS, HS, and RM series are metal cased with threaded necks and insulated stranded wires.

Mallory No.	Cap., μf	WV DC	Size, In. Dia. x L.	Net Each
PB110	20	150	1 5/32x2 1/2	**$2.37**
PB114	40	150	1 5/32x2 1/2	**2.46**
PB139	100	350	1 3/8x3 1/2	**3.51**
PB142	10	450	1 5/32x2 1/2	**2.43**
PB144	20	450	1 5/32x2 1/2	**2.53**
PB146	40	450	1 3/8x2 1/2	**2.73**
PB149	80	450	1 3/8x4 1/4	**3.33**
PB208	20-20	150	1 5/32x2 1/2	**2.52**
PB212	40-40	150	1 5/32x2 1/2	**2.61**
PB234	20-20	450	1 3/8x2 1/2	**3.03**
PB238	40-40	450	1 3/8x4 1/4	**3.57**
PB311.2	20-20-20	150	1 5/32x2 1/2	**2.88**
PB345.8	20-20-20	450-450-25	1 3/8x2 1/2	**3.33**
PB375.8	10-10-10	450	1 5/32x2 1/2	**3.06**
RS207	30	250	1 x3 1/2	**$1.23**
RS212	8	450	1 3/8x3	**1.32**
RS213	8	450	1 x2 3/4	**1.32**
RS214	12	450	1 3/8x3	**1.44**
RS215	12	450	1 x2 3/4	**1.44**
RS216	16	450	1 x3 1/2	**1.47**
RS217	16	450	1 3/8x3	**1.47**
RS219	20	450	1 3/8x3	**1.62**
RS223	30	450	1 3/8x3	**1.80**
RS224	40	450	1 3/8x3	**1.89**
HS691	4	600	1 3/8x4	**1.77**
HS693	8	600	1 3/8x3 3/4	**1.89**
HS696	20	600	1 3/8x4 1/4	**2.31**
RM262	8-8	450	1 3/8x3	**1.80**
RM265	8-8-8	450	1 3/8x4 1/4	**3.00**

Mall. No.	Cap., μf	WV DC	Size, Inches H. x W. x L.	Net Each
BS26	25	25	3/4x1 x1 3/4	**$2.70**
BS29	50	25	3/4x1 x1 3/4	**2.76**
BS36	25	50	3/4x1 x1 3/4	**2.73**
BS39	50	50	7/8x1 x1 3/4	**2.82**
BS45	20	150	7/8x1 x1 3/4	**2.82**
BS48	40	150	1 x1 1/4x1 3/4	**2.91**
BS62	10	300	7/8x1 x1 3/4	**2.85**
BS65	20	300	1 1/8x1 1/4x1 3/4	**2.94**
BS81*	8	500	1 x1 3/4x2	**3.45**
BS91*	8	600	1 x1 3/4x2	**3.51**

*Mtg. centers 2 3/8″; all others 2 1/8″.

CAPACITOR HARDWARE



BP (Phenolic) and MP (Metal) mounting plates for FP-WP. PS plug-in sockets for FPWP. VR Clamps fit all can types. TH clips for tubular and can types. CE cardboard insulating tubes for FP etc. MW 100 is FP mounting wrench.

Mallory No.	Size, Inches	Net Each	Mallory No.	Size, Inches	Net Each
BP2	3/4	**3c**	**TH13**	3/8	**3c**
BP4	1	**3c**	**TH15**	1/2	**3c**
BP4A	1	**3c**	**TH17**	5/8	**3c**
BP6	1 3/8	**3c**	**TH19**	3/4	**3c**
MP2	3/4	**3c**	**TH21**	7/8	**3c**
MP4	1	**3c**	**TH23**	1	**3c**
MP6	1 3/8	**3c**	**TH25**	1 3/8	**6c**
PS4	1	**42c**	**CE1**	3/4x2	**6c**
PSC4	Ret'r	**6c**	**CE2**	1 x1 1/2	**6c**
PS6	1 3/8	**54c**	**CE3**	1 x2	**6c**
VR1	1	**11c**	**CE4**	1 x3	**6c**
VR3	1 3/8	**12c**	**CE5**	1 3/8x2	**6c**
VR4	1 1/2	**14c**	**CE6**	1 3/8x3	**6c**
VR6	1 3/4	**14c**	**CE7**	1 x2 1/2	**6c**
VR8	2	**14c**	**CE8**	1 x4	**9c**
VR10	2 1/2	**20c**	**CE9**	1 3/8x2 1/2	**6c**
VR12	3	**30c**	**CE10**	1 3/8x4	**9c**
			CE11	1 x3 1/2	**9c**
			CE12	1 3/8x3 1/2	**9c**
			CE13	1 x1 3/4	**6c**
			CE14	3/4x1 1/2	**6c**

Mallory MW100 Mounting Wrench, Net each **$1.05**

Net

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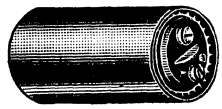
MALLORY CAPACITORS

HIGH CAPACITY DRY ELECTROLYTICS



HC and NP capacitors are furnished in heavy-duty molded phenolic cases with integral safety vent. HC types are polarized; NP types are non-polarized. **Temp. Range:** −20° C to +85° C. **Tolerance:** Type HC—0–50 WVDC, −10%, +150%; 51–350 WVDC, −10%, +100%; 351 WVDC up, −10%, +50%. Type NP—±25%, all units.

POLARIZED TYPE HC

Mallory No.	Cap., µf	WV DC	* Size	Net Each
HC1020A	2,000	10	1	$ 3.36
HC1040A	4,000	10	2	4.60
HC1060A	6,000	10	8	5.20
HC1080	8,000	10	5	6.00
HC10100	10,000	10	7	7.82
HC10120	12,000	10	7	7.14
HC10150	15,000	10	7	7.67
HC1520A	2,000	15	1	3.47
HC1540A	4,000	15	3	5.37
HC1560A	6,000	15	4	5.62
HC1580	8,000	15	7	6.62
HC15100	10,000	15	7	7.14
HC2050-50	2x5,000	20	7	8.00
HC2060	6,000	20	7	6.60
HC2060A	6,000	20	5	6.11
HC20250	25,000	20	9	12.88
HC2510A	1,000	25	1	3.19
HC2520A	2,000	25	2	4.15
HC2530	3,000	25	4	4.88
HC2540A	4,000	25	4	5.58
HC2550	5,000	25	7	6.30
HC4040	4,000	40	7	7.54
HC4040A	4,000	40	5	6.98
HC4060	6,000	40	7	7.91
HC5005	500	50	2	3.60
HC5005A	500	50	1	3.33
HC5010A	1,000	50	2	4.25
HC5020A	2,000	50	4	5.06
HC5030	3,000	50	7	7.00
HC5040	4,000	50	7	7.32
HC8005	500	80	2	3.85
HC8010	1,000	80	4	5.34
HC8020	2,000	80	7	6.62
HC10005	500	100	2	4.20
HC10010	1,000	100	5	5.86
HC10015	1,500	100	7	6.44
HC15005	500	150	4	5.09
HC15010	1,000	150	7	6.89
HC15010A	1,000	150	5	6.44
HC20002	200	200	4	4.08
HC20005	500	200	7	5.97
HC20005A	500	200	4	5.53
HC25001	100	250	2	4.59
HC25002	200	250	4	4.88
HC25003	300	250	5	5.37
HC25004	400	250	7	5.64
HC35001	100	350	4	4.88
HC35002	200	350	5	5.93
HC35003	300	350	7	6.97
HC45001	100	450	4	5.97
HC45002	200	450	7	7.47
HC45003	300	450	7	8.47

NON-POLARIZED TYPE NP

NP0340	2,000	25	7	$ 5.43
NP0555	500	50	5	4.38
NP1225A	200	125	2	4.04
NP1235A	300	125	4	4.87
NP1245	400	125	7	5.69
NP1255A	500	125	5	6.30
NP2514	100	250	5	5.95
NP2520	150	250	5	6.15
NP2525	200	250	7	6.34
NP3003A	15	300	1	2.87
NP3006	30	300	2	3.85
NP3008	50	300	2	5.25
NP3014A	100	300	4	6.13
NP3020	150	300	7	6.56
NP3025	200	300	7	7.00
NP4503	30	450	2	4.90
NP4505	50	450	4	6.30
NP4510	100	450	7	7.70

*HC AND NP CASE SIZES

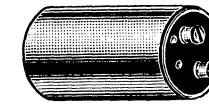
Code	Size, In. Dia. x Lg.	Use Hardware No. for Cap	Brkt.	Clamp
1	1 1/16 x 2 3/4	PL3, PLA3	HB2	VR3
2	1 1/16 x 3 3/8	PL3, PLA3	HB4	VR3
3	1 1/16 x 4 3/8	PL3, PLA3	HB8	VR3
4	1 13/16 x 3 3/8	PL6, PLA6	HB4	VR6
5	1 13/16 x 4 3/8	PL6, PLA6	HB8	VR6
6	2 1/16 x 3 3/8	PL8, PLA8	HB4	VR8
7	2 1/16 x 4 3/8	PL8, PLA8	HB8	VR8
8	1 1/2 x 4 1/8	.....	.....	VR4
9	3 x 4 1/8	.....	.....	VR12

COMPUTER GRADE CAPACITORS

Ultra-reliable, high capacity aluminum electrolytic capacitors. Exclusive safety vent provides positive protection. Furnished with Mylar† insulating sleeve. **Temp. Range:** −20° C to +85° C. **Tolerance:** 0–150 WVDC, −10, +75% (U); 151 WVDC up, −10, +50% (T).

†DuPont trademark.

Mallory No.	Cap., µf	WV DC	* Size	Net Each
CG552U3A1	5,500	3	A	$1.44
CG1052U3B1	10,500	3	B	1.58
CG143U3C1	14,000	3	C	2.05
CG1752U3H1	17,500	3	H	2.38
CG233U3K1	23,000	3	K	2.75
CG243U3J1	24,000	3	J	2.85
CG363U3D1	36,000	3	D	3.40
CG54U3E1	50,000	3	E	4.36
CG753U3F1	75,000	3	F	5.44
CG1153U3G1	115,000	3	G	6.52
CG442U5A1	4,400	5	A	1.31
CG852U5B1	8,500	5	B	1.82
CG1252U5C1	12,500	5	C	2.43
CG143U5H1	14,000	5	H	2.50
CG1852U5K1	18,500	5	K	2.74
CG24U5J1	20,000	5	J	2.86
CG2752U5D1	27,500	5	D	3.32
CG453U5E1	45,000	5	E	4.31
CG653U5F1	65,000	5	F	5.40
CG15U5G1	100,000	5	G	6.83
CG322U10A1	3,200	10	A	1.50
CG63U10B1	6,000	10	B	1.88
CG822U10C1	8,200	10	C	2.19
CG14U10H1	10,000	10	H	2.43
CG1352U10K1	13,500	10	K	2.67
CG143U10J1	14,000	10	J	2.70
CG183U10D1	18,000	10	D	3.32
CG34U10E1	30,000	10	E	5.09
CG4352U10F1	43,500	10	F	6.21
CG683U10G1	68,000	10	G	6.74
CG252U15A1	2,500	15	A	1.40
CG452U15B1	4,500	15	B	2.01
CG642U15C1	6,400	15	C	2.07
CG83U15H1	8,000	15	H	2.38
CG1052U15K1	10,500	15	K	2.62
CG113U15J1	11,000	15	J	2.67
CG143U15D1	14,000	15	D	3.47
CG233U15E1	23,000	15	E	4.87
CG343U15F1	34,000	15	F	5.39
CG533U15G1	53,000	15	G	6.64
CG152U25A1	1,500	25	A	1.36
CG282U25B1	2,800	25	B	1.71
CG382U25C1	3,800	25	C	1.96
CG452U25H1	4,500	25	H	2.13
CG63U25K1	6,000	25	K	2.50
CG652U25J1	6,500	25	J	2.62
CG852U25D1	8,500	25	D	3.01
CG1352U25E1	13,500	25	E	4.66
CG24U25F1	20,000	25	F	5.05
CG3152U25G1	31,500	25	G	6.33
CG82U50A1	800	50	A	1.40
CG152U50B1	1,500	50	B	1.77
CG23U50C1	2,000	50	C	1.82
CG252U50H1	2,500	50	H	1.94
CG332U50K1	3,300	50	K	2.51
CG352U50J1	3,500	50	J	2.47
CG452U50D1	4,500	50	D	2.67
CG732U50E1	7,300	50	E	4.14
CG14U50F1	10,000	50	F	5.17
CG1652U50G1	16,500	50	G	6.36
CG62U75A1	600	75	A	1.47
CG13U75B1	1,000	75	B	1.92
CG152U75C1	1,500	75	C	2.19
CG23U75H1	2,000	75	H	2.38
CG252U75K1	2,500	75	K	2.85
CG262U75J1	2,600	75	J	2.86
CG3451U75D1	3,450	75	D	3.11
CG552U75E1	5,500	75	E	4.87
CG822U75F1	8,200	75	F	5.75
CG1252U75G1	12,500	75	G	6.89
CG42U100A1	400	100	A	1.46
CG751U100B1	750	100	B	1.82
CG13U100C1	1,000	100	C	2.11
CG132U100H1	1,300	100	H	2.30
CG1651U100K1	1,650	100	K	2.38
CG172U100J1	1,700	100	J	2.42
CG2251U100D1	2,250	100	D	3.15
CG362U100E1	3,600	100	E	4.64
CG532U100F1	5,300	100	F	5.32
CG832U100G1	8,300	100	G	7.01
CG2750U150A1	275	150	A	1.31
CG52U150B1	500	150	B	1.84
CG72U150C1	700	150	C	2.05
CG8750U150H1	875	150	H	2.20
CG112U150K1	1,100	150	K	2.36
CG1151U150J1	1,150	150	J	2.42
CG1551U150D1	1,550	150	D	3.13
CG252U150E1	2,500	150	E	4.56
CG362U150F1	3,600	150	F	5.41
CG562U150G1	5,600	150	G	7.01
CG181T200A1	180	200	A	1.46
CG341T200B1	340	200	B	1.74
CG451T200C1	450	200	C	1.93
CG551T200H1	550	200	H	2.09
CG751T200K1	750	200	K	2.57
CG82T200J1	800	200	J	2.65
CG13T200D1	1,000	200	D	3.48

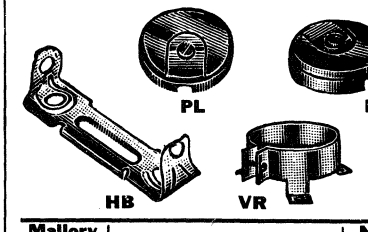


Mallory No.	Cap., µf	WV DC	* Size	Net Each
CG1651T200E1	1,650	200	E	$3.86
CG2451T200F1	2,450	200	F	5.25
CG382T200G1	3,800	200	G	7.26
CG141T250A1	140	250	A	1.70
CG2750T250B1	275	250	B	1.88
CG3750T250C1	375	250	C	2.01
CG451T250H1	450	250	H	2.08
CG62T250K1	600	250	K	2.23
CG6250T250J1	625	250	J	2.43
CG82T250D1	800	250	D	3.65
CG132T250E1	1,300	250	E	4.87
CG192T250F1	1,900	250	F	5.85
CG33T250G1	3,000	250	G	7.40
CG121T300A1	120	300	A	1.76
CG2250T300B1	225	300	B	2.01
CG3250T300C1	325	300	C	2.25
CG42T300H1	400	300	H	2.38
CG5250T300K1	525	300	K	2.52
CG551T300J1	550	300	J	2.55
CG72T300D1	700	300	D	3.66
CG1151T300E1	1,150	300	E	5.60
CG1651T300F1	1,650	300	F	6.45
CG262T300G1	2,600	300	G	7.57
CG12T350A1	100	350	A	1.77
CG181T350B1	180	350	B	2.38
CG251T350C1	250	350	C	2.28
CG32T350H1	300	350	H	2.43
CG42T350K1	400	350	K	2.75
CG4250T350J1	425	350	J	2.94
CG551T350D1	550	350	D	3.87
CG92T350E1	900	350	E	4.98
CG132T350F1	1,300	350	F	6.26
CG23T350G1	2,000	350	G	7.75
CG550T400A1	55	400	A	1.16
CG111T400B1	110	400	B	2.05
CG151T400C1	150	400	C	2.23
CG181T400H1	180	400	H	2.38
CG241T400K1	240	400	K	2.63
CG251T400J1	250	400	J	2.69
CG3250T400D1	325	400	D	2.92
CG531T400E1	530	400	E	3.86
CG41T450A1	40	450	A	1.12
CG81T450B1	80	450	B	1.32
CG111T450C1	110	450	C	2.19
CG141T450H1	140	450	H	2.34
CG181T450K1	180	450	K	2.57
CG191T450J1	190	450	J	2.58
CG241T450D1	240	450	D	2.81

*CG CASE SIZES

Code	Dia. x L., Inches	Mtg. Clamp
A	1 3/8 x 2 1/4	VR3
B	1 3/8 x 3 1/4	VR3
C	1 3/8 x 4 1/8	VR3
D	2 x 4 1/8	VR8
E	2 1/2 x 4 1/8	VR10
F	3 x 4 1/8	VR12
G	3 x 5 5/8	VR12
H	1 3/4 x 3 1/8	VR6
J	1 3/4 x 4 1/8	VR6
K	2 x 3 1/8	VR8

HC, NP AND CG HARDWARE



Mallory No.	Description	Net Each
PL3	1 1/16" end cap—In	$0.08
PLA3	1 1/16" end cap—Out	.08
PL6	1 13/16" end cap—In	.10
PLA6	1 13/16" end cap—Out	.10
PL8	2 1/16" end cap—In	.12
PLA8	2 1/16" end cap—Out	.12
HB2	3 1/4" horiz. bracket	.13
HB4	3 21/32" horiz. bracket	.13
HB8	4 21/32" horiz. bracket	.15
VR3	1 3/8–1 7/16" vert. clamp	.12
VR4	1 1/2–1 9/16" vert. clamp	.14
VR6	1 3/4–1 13/16" vert. clamp	.14
VR8	2–2 1/4 vert. clamp	.14
VR10	2 1/2–2 3/4 vert. clamp	.20
VR12	3–3 1/4 vert. clamp	.48

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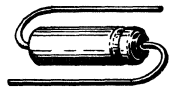
Net

MALLORY CAPACITORS

TPG HIGH-RELIABILITY TUBULAR ELECTROLYTICS



TPG capacitors are engineered for use in circuits requiring the utmost in stability, reliability, and long-life. They feature all-welded internal construction, a positive end seal, and a special safety vent. **Temperature Range:** —40° to +85° C and standard tolerance is —10% to +50%. Case diameter is ⅜" and includes a shrink fit insulating sleeve.

Cap. μf	WVDC	Mallory Number	Size	Net Each, Lots of: 1-9	10-24	25-49	50-99	100-249
120	3	TPG120T3	A	$1.81	$1.55	$ .91	$ .70	$.622
180	3	TPG180T3	B	1.82	1.56	.91	.70	.625
330	3	TPG330T3	C	1.83	1.57	.92	.71	.628
385	3	TPG385T3	D	1.85	1.58	.92	.71	.634
450	3	TPG450T3	E	1.86	1.59	.93	.72	.637
80	6	TPG80T6	A	1.81	1.55	.91	.70	.622
120	6	TPG120T6	B	1.82	1.56	.91	.70	.625
220	6	TPG220T6	C	1.83	1.57	.92	.71	.628
260	6	TPG260T6	D	1.85	1.58	.92	.71	.634
300	6	TPG300T6	E	1.86	1.59	.93	.72	.637
65	10	TPG65T10	A	1.81	1.55	.91	.70	.622
100	10	TPG100T10	B	1.82	1.56	.91	.70	.625
175	10	TPG175T10	C	1.83	1.57	.92	.71	.628
210	10	TPG210T10	D	1.85	1.58	.92	.71	.634
240	10	TPG240T10	E	1.86	1.59	.93	.72	.637
45	15	TPG45T15	A	1.81	1.55	.91	.70	.622
70	15	TPG70T15	B	1.82	1.56	.91	.70	.625
125	15	TPG125T15	C	1.83	1.57	.92	.71	.628
150	15	TPG150T15	D	1.85	1.58	.92	.71	.634
175	15	TPG175T15	E	1.86	1.59	.93	.72	.637
30	25	TPG30T25	A	1.81	1.55	.91	.70	.622
45	25	TPG45T25	B	1.82	1.56	.91	.70	.625
85	25	TPG85T25	C	1.83	1.57	.92	.71	.628
100	25	TPG100T25	D	1.85	1.58	.92	.71	.634
115	25	TPG115T25	E	1.86	1.59	.93	.72	.637
25	30	TPG25T30	A	1.81	1.55	.91	.70	.622
35	30	TPG35T30	B	1.82	1.56	.91	.70	.625
65	30	TPG65T30	C	1.83	1.57	.92	.71	.628
75	30	TPG75T30	D	1.85	1.58	.92	.71	.634
90	30	TPG90T30	E	1.86	1.59	.93	.72	.637
12	50	TPG12T50	A	1.81	1.55	.91	.70	.622
18	50	TPG18T50	B	1.82	1.56	.91	.70	.625
35	50	TPG35T50	C	1.83	1.57	.92	.71	.628
40	50	TPG40T50	D	1.85	1.58	.92	.71	.634
50	50	TPG50T50	E	1.86	1.59	.93	.72	.637
10	75	TPG10T75	A	1.81	1.55	.91	.70	.622
15	75	TPG15T75	B	1.82	1.56	.91	.70	.625
25	75	TPG25T75	C	1.83	1.57	.92	.71	.628
30	75	TPG30T75	D	1.85	1.58	.92	.71	.634
40	75	TPG40T75	E	1.86	1.59	.93	.72	.637
7	100	TPG7T100	A	1.81	1.55	.91	.70	.622
10	100	TPG10T100	B	1.82	1.56	.91	.70	.625
15	100	TPG15T100	C	1.83	1.57	.92	.71	.628
20	100	TPG20T100	D	1.85	1.58	.92	.71	.634
30	100	TPG30T100	E	1.86	1.59	.93	.72	.637
1	150	TPG1T150	A	1.81	1.55	.91	.70	.622
2	150	TPG2T150	A	1.81	1.55	.91	.70	.622
3	150	TPG3T150	A	1.81	1.55	.91	.70	.622
4	150	TPG4T150	A	1.81	1.55	.91	.70	.622
5	150	TPG5T150	A	1.81	1.55	.91	.70	.622
7	150	TPG7T150	B	1.82	1.56	.91	.70	.625
10	150	TPG10T150	C	1.83	1.57	.92	.71	.628
15	150	TPG15T150	D	1.85	1.58	.92	.71	.634
20	150	TPG20T150	E	1.86	1.59	.93	.72	.637

TPG CASE SIZES: ⅜" DIA. X

Code	A	B	C	D	E
LENGTH	13/16"	15/16"	1⅛"	1⅜"	1⅝"

PHOTOFLASH CAPACITORS

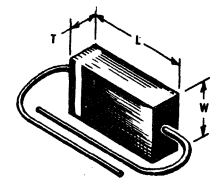
Mallory photoflash capacitors are especially engineered to meet the requirements of electronic flash circuits. All three types offer exceptionally low leakage and minimum charging resistance to provide maximum battery life.

Model HC45003—Plastic case, 2 1/16" dia. x 4⅜", 300 μf at 450 v. DC. Maximum Series Resistance: 0.8 ohm. Maximum DC Leakage (at 5 minutes): 5.5 ma. May be used with VR clamps, or HB bracket and PL caps for mounting (not included). Net Each..... **$8.47**

Model FF45052—Plastic case, 2 1/16" dia. x 4⅜", 525 μf at 450 v. DC. Maximum Series Resistance: 0.35 ohm. Maximum DC Leakage (at 5 minutes): 2.0 ma. May be used with VR clamps, or HB bracket and PL cap for mounting (not included). Net Each..... **$13.50**

Model FP240—Metal can, 1⅜" x 3", dual section, 50 μf each section at 450 v. DC. May be paralled for 100 μf or used with switch to provide high and low outputs. Maximum Series Resistance: 4.8 ohms. Maximum DC Leakage (at 5 minutes): 1.29 ma per section. May be used with TH-25 clip and CE-6 insulating tube (not included). Uses standard FP twist-prong terminals. Net Each. **$2.31**

ELECTRON® METALLIZED MYLAR* CAPACITORS



Ultra-miniature high reliability metallized Mylar capacitors in rectangular molded epoxy cases with axial leads. **Temperature Range:** —55° to +85° C (no derating), +125° C (50% voltage derating). **Tolerance:** ±10%. Thin film Mylar used in 100 WVDC types, standard Mylar used in 200 WVDC types.

ELECTRON CAPACITORS

Cap. μf	Mallory No.	Size, Inches L	W	T	Net Each
100 WVDC—THIN FILM					
.022	2DE1223E	.42	.29	.17	$1.68
.027	2DE1273E	.42	.29	.17	1.68
.033	2DE1333E	.42	.29	.17	1.68
.039	2DE1393E	.42	.29	.17	1.68
.047	2DE1473E	.42	.29	.17	1.68
.056	2DE1563E	.57	.29	.17	1.68
.068	2DE1683E	.57	.29	.17	1.68
.082	2DE1823E	.57	.29	.17	1.68
.10	2DE1104E	.57	.29	.17	2.04
.12	2DE1124E	.57	.29	.17	2.04
.15	2DE1154E	.55	.36	.23	2.04
.18	2DE1184E	.55	.36	.23	2.04
.22	2DE1224E	.55	.36	.23	2.04
.25	2DE1254E	.55	.36	.23	2.04
.27	2DE1274E	.55	.36	.23	2.04
.33	2DE1334E	.57	.42	.29	2.04
.39	2DE1394E	.57	.42	.29	2.04
.47	2DE1474E	.67	.42	.29	2.04
.50	2DE1504E	.67	.42	.29	2.70
.56	2DE1564E	.67	.42	.24	2.70
.68	2DE1648E	.67	.42	.29	2.70
.75	2DE1754E	.82	.42	.29	2.75
.82	2DE1824E	.82	.42	.29	2.70
1.0	2DE1105E	.82	.54	.39	3.60
1.5	2DE1155E	.82	.54	.39	3.60
2.0	2DE1205E	1.04	.54	.39	4.62
3.0	2DE1305E	1.24	.54	.39	5.94
5.0	2DE1505E	1.75	.72	.56	8.40
8.0	2DE1805E	1.75	.72	.56	11.76
10.0	2DE1106E	1.75	.72	.56	13.50
200 WVDC					
.001	DE2102E	.42	.29	.17	$1.74
.0012	DE2122E	.42	.29	.17	1.74
.0015	DE2152E	.42	.29	.17	1.74
.0018	DE2182E	.42	.29	.17	1.74
.0022	DE2222E	.42	.29	.17	1.74
.0027	DE2272E	.42	.29	.17	1.74
.0033	DE2332E	.42	.29	.17	1.74
.0039	DE2392E	.42	.29	.17	1.74
.0047	DE2472E	.42	.29	.17	1.74
.0056	DE2562E	.42	.29	.17	1.74
.0068	DE2682E	.42	.29	.17	1.74
.0082	DE2822E	.42	.29	.17	1.74
.01	DE2103E	.42	.29	.17	1.68
.012	DE2123E	.42	.29	.17	1.68
.015	DE2153E	.42	.29	.17	1.68
.018	DE2183E	.42	.29	.17	1.68
.022	DE2223E	.42	.29	.17	1.68
.027	DE2273E	.57	.29	.17	1.68
.033	DE2333E	.57	.29	.17	1.68
.039	DE2393E	.57	.29	.17	1.68
.047	DE2473E	.55	.36	.23	1.68
.056	DE2563E	.55	.36	.23	1.68
.068	DE2683E	.55	.36	.23	1.68
.082	DE2823E	.55	.36	.23	1.68
.10	DE2104E	.57	.42	.29	1.74
.12	DE2124E	.57	.42	.29	1.74
.15	DE2154E	.67	.42	.29	1.74
.18	DE2184E	.67	.42	.29	1.74
.22	DE2224E	.67	.42	.29	1.74
.25	DE2254E	.82	.42	.29	1.74
.27	DE2274E	.82	.42	.29	1.74
.33	DE2334E	.82	.54	.39	1.74
.39	DE2394E	.82	.54	.39	1.74
.47	DE2474E	.82	.54	.39	1.74
.50	DE2504E	.82	.54	.39	1.80
.56	DE2564E	1.04	.54	.39	1.80
.68	DE2684E	1.04	.54	.39	1.80
.75	DE2754E	1.04	.54	.39	1.80
.82	DE2824E	1.24	.54	.39	1.80
1.0	DE2105E	1.24	.54	.39	2.10
1.5	DE2155E	1.75	.72	.56	2.10
2.0	DE2205E	1.75	.72	.56	2.52
3.0	DE2305E	1.75	.72	.56	3.24

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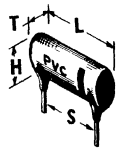
MALLORY CAPACITORS

PVC® DIPPED MYLAR CAPACITORS



Tough, flexible, polyvinylchloride coating provides moistureproof seal at leads with no cracking during installation. 100% Mylar dialectric. Radial leads. **Tolerance:** ±10%. **Temperature Range:** —40° C to +105° C.

Cap., µf	Mallory No.	Size, Inches L	H	T	S	Net Each, Lots of: 1-24	25-49	50-99	100 up
100 WVDC									
.018	PVC1118	.88	.38	.25	.63	$.15	$.11	$.10	$.09
.022	PVC1122	.88	.38	.25	.63	.15	.11	.10	.09
.033	PVC1133	.88	.38	.22	.63	.15	.11	.10	.09
.04	PVC114	.88	.38	.22	.66	.15	.11	.10	.09
.047	PVC1147	1.03	.38	.22	.78	.16	.12	.10	.09
.056	PVC1156	1.03	.32	.22	.78	.16	.12	.10	.09
.068	PVC1168	1.03	.41	.25	.78	.17	.13	.11	.10
.10	PVC101	.81	.44	.31	.63	.18	.14	.12	.11
.15	PVC1015	.94	.46	.34	.75	.21	.16	.14	.12
.22	PVC1022	1.10	.50	.34	.88	.24	.18	.16	.14
.25	PVC1025	1.22	.50	.34	1.00	.25	.19	.17	.15
.27	PVC1027	1.22	.53	.38	1.00	.26	.20	.17	.15
.33	PVC1033	1.22	.56	.41	1.00	.28	.21	.19	.16
.40	PVC104	1.34	.56	.41	1.13	.30	.23	.20	.17
.47	PVC1047	1.34	.59	.44	1.13	.31	.24	.21	.18
.5	PVC105	1.34	.63	.44	1.13	.33	.25	.22	.19
.56	PVC1056	1.46	.63	.46	1.25	.34	.26	.23	.20
.68	PVC1068	1.46	.69	.50	1.25	.38	.29	.25	.22
1.0	PVC11	1.75	.72	.53	1.50	.46	.35	.31	.27
1.5	PVC11P5	1.75	.88	.63	1.50	.58	.45	.39	.34
2.0	PVC12	1.78	1.00	.78	1.50	.72	.56	.49	.43
200 WVDC									
.01	PVC211	.84	.31	.18	.63	.15	.11	.09	.08
.015	PVC2115	.88	.34	.22	.63	.15	.11	.09	.08
.02	PVC212	.88	.38	.25	.63	.16	.12	.10	.08
.022	PVC2122	.88	.44	.25	.63	.16	.12	.10	.08
.033	PVC2133	1.03	.42	.22	.78	.16	.12	.10	.09
.04	PVC214	1.03	.42	.25	.78	.16	.12	.10	.09
.047	PVC2147	1.03	.44	.28	.78	.16	.12	.10	.09
.05	PVC215	1.03	.44	.28	.78	.16	.12	.10	.09
.056	PVC2156	.94	.44	.25	.75	.17	.13	.11	.10
.068	PVC2168	.94	.46	.28	.75	.18	.14	.12	.10
.1	PVC201	1.10	.50	.31	.88	.22	.16	.13	.10
.15	PVC2015	1.22	.53	.34	1.00	.22	.18	.14	.12
.22	PVC2022	1.22	.56	.41	1.00	.25	.21	.17	.14
.25	PVC2025	1.34	.56	.41	1.13	.25	.21	.17	.14
.33	PVC2033	1.46	.63	.44	1.25	.31	.24	.19	.16
.4	PVC204	1.46	.66	.46	1.25	.35	.27	.22	.18
.47	PVC2047	1.63	.66	.46	1.38	.37	.27	.22	.18
.5	PVC205	1.63	.69	.50	1.38	.37	.27	.22	.18
.56	PVC2056	1.75	.69	.50	1.50	.41	.32	.28	.24
.68	PVC2068	1.75	.72	.53	1.50	.45	.35	.30	.27
1.0	PVC21	1.75	.88	.63	1.50	.56	.43	.37	.33
2.0	PVC22	1.75	1.15	.94	1.50	.95	.75	.65	.57
400 WVDC									
.0022	PVC4222	.81	.31	.22	.63	.15	.11	.09	.08
.003	PVC423	.81	.31	.22	.63	.15	.11	.09	.08
.0033	PVC4233	.81	.31	.22	.63	.15	.11	.09	.08
.0047	PVC4247	.84	.34	.19	.63	.15	.11	.09	.08
.0056	PVC4256	.84	.34	.31	.63	.15	.11	.09	.08
.0068	PVC4268	.84	.34	.22	.63	.15	.11	.09	.08
.01	PVC411	.88	.38	.22	.63	.16	.11	.09	.08
.015	PVC4115	1.03	.38	.22	.66	.16	.11	.09	.08
.02	PVC412	1.03	.41	.25	.66	.16	.11	.09	.08
.04	PVC414	.94	.46	.28	.75	.19	.15	.12	.10
.047	PVC4147	.94	.46	.28	.75	.19	.15	.12	.10
.05	PVC415	.94	.46	.31	.75	.19	.15	.12	.10
.056	PVC4156	1.03	.46	.31	.88	.22	.16	.13	.11
.068	PVC4168	1.22	.46	.31	1.00	.22	.16	.13	.11
.1	PVC401	1.22	.53	.38	1.00	.22	.18	.14	.12
.15	PVC4015	1.34	.59	.41	1.13	.25	.22	.17	.14
.22	PVC4022	1.46	.66	.46	1.25	.28	.26	.21	.17
.25	PVC4025	1.63	.66	.46	1.38	.31	.27	.21	.17
.4	PVC404	1.75	.75	.56	1.50	.41	.32	.28	.24
.47	PVC4047	1.75	.78	.59	1.50	.45	.35	.31	.27
.5	PVC405	1.75	.81	.63	1.50	.47	.36	.32	.28
.56	PVC4056	2.15	.84	.66	1.50	.50	.39	.33	.29
.68	PVC4068	2.15	.94	.72	1.50	.56	.44	.38	.33
600 WVDC									
.001	PVC621	.81	.31	.19	.63	.16	.11	.09	.08
.0012	PVC6212	.81	.31	.19	.63	.16	.11	.09	.08
.0015	PVC6215	.81	.31	.19	.63	.16	.11	.09	.08
.002	PVC622	.81	.31	.19	.63	.16	.11	.09	.08
.0022	PVC6222	.81	.31	.19	.63	.16	.11	.09	.08
.0025	PVC6225	.81	.31	.19	.63	.16	.11	.09	.08
.003	PVC623	.81	.31	.19	.63	.16	.11	.09	.08
.0033	PVC6233	.81	.31	.19	.63	.16	.11	.09	.08
.0039	PVC6239	.84	.34	.19	.63	.16	.11	.09	.08
.004	PVC624	.84	.34	.19	.63	.16	.11	.09	.08
.0047	PVC6247	.84	.34	.19	.63	.16	.11	.09	.08
.005	PVC625	.84	.34	.19	.63	.16	.11	.09	.08
.0056	PVC6256	.84	.34	.22	.63	.16	.11	.09	.08
.006	PVC626	.84	.34	.22	.63	.16	.11	.09	.08
.0068	PVC6268	.88	.38	.22	.66	.19	.12	.09	.08
.0075	PVC6275	.88	.38	.22	.66	.19	.12	.10	.08
.008	PVC628	1.03	.38	.22	.78	.19	.12	.10	.08
.01	PVC611	1.03	.38	.25	.78	.19	.12	.10	.08
.012	PVC6112	1.03	.38	.25	.78	.19	.12	.10	.08
.015	PVC6115	1.03	.41	.28	.78	.19	.12	.10	.08
600 WVDC									
.02	PVC612	1.16	.41	.28	.88	$.19	$.14	$.11	$.09
.022	PVC6122	.94	.41	.28	.75	.19	.14	.11	.09
.025	PVC6125	.94	.41	.28	.75	.22	.14	.12	.10
.03	PVC613	1.10	.50	.31	.88	.22	.15	.12	.10
.033	PVC6133	1.10	.50	.31	.88	.22	.15	.12	.10
.039	PVC6139	1.22	.50	.31	1.00	.22	.15	.12	.10
.04	PVC614	1.22	.50	.31	1.00	.22	.15	.12	.10
.047	PVC6147	1.22	.50	.34	1.00	.25	.16	.13	.11
.05	PVC615	1.22	.53	.34	1.00	.25	.16	.13	.11
.056	PVC6156	1.22	.53	.38	1.00	.25	.16	.13	.11
.06	PVC616	1.22	.56	.38	1.00	.25	.19	.15	.12
.068	PVC6168	1.22	.59	.41	1.00	.28	.19	.15	.12
.1	PVC601	1.34	.63	.44	1.13	.28	.20	.16	.13
.15	PVC6015	1.63	.66	.46	1.38	.31	.24	.19	.16
.2	PVC602	1.75	.69	.50	1.50	.40	.28	.22	.18
.22	PVC6022	1.75	.72	.53	1.50	.43	.28	.22	.18
.25	PVC6025	1.75	.75	.56	1.50	.46	.28	.22	.18
.27	PVC6027	1.75	.78	.59	1.50	.46	.33	.29	.25
.33	PVC6033	1.78	.84	.66	1.50	.48	.37	.32	.28
.4	PVC604	1.78	.88	.69	1.50	.55	.43	.37	.33
.47	PVC6047	1.78	1.00	.78	1.50	.62	.48	.42	.37

GEM® MOLDED MYLAR TUBULAR CAPACITORS

Molded tubular construction for positive humidity protection. 100% Mylar dielectric, axial leads, ±10% tolerance. **Temperature Range:** —55° C to +85° C (no derating), +125° C (with 50% derating).

Cap., µf	Mallory No.	Size	Net Each, Lots of: 1-24	25-49	50-99	100 up
400 WVDC						
.01	GEM411	A	$.15	$.11	$.09	$.075
.02	GEM412	B	.15	.12	.09	.078
.022	GEM4122	B	.15	.12	.10	.082
.047	GEM4147	B	.17	.14	.11	.090
.05	GEM415	B	.17	.14	.11	.091
.1	GEM401	C	.20	.16	.13	.109
.25	GEM4025	D	.29	.27	.21	.178
.5	GEM405	E	.47	.44	.36	.292
600 WVDC						
.001	GEM621	A	.15	.11	.09	.075
.0015	GEM6215	A	.15	.11	.09	.075
.002	GEM622	A	.15	.11	.09	.075
.0022	GEM6222	A	.15	.11	.09	.075
.003	GEM623	A	.15	.11	.09	.077
.0033	GEM6233	A	.15	.11	.09	.077
.004	GEM624	B	.15	.12	.09	.078
.0047	GEM6247	B	.15	.12	.09	.078
.005	GEM625	B	.15	.12	.10	.078
.0068	GEM6268	B	.16	.12	.10	.080
.01	GEM611	B	.17	.12	.10	.083
.015	GEM6115	B	.18	.13	.11	.088
.02	GEM612	C	.18	.13	.11	.088
.022	GEM6122	C	.18	.14	.11	.092
.03	GEM613	C	.20	.15	.12	.097
.033	GEM6133	C	.20	.15	.12	.097
.04	GEM614	C	.20	.16	.13	.105
.047	GEM6147	C	.22	.16	.13	.105
.05	GEM615	C	.24	.16	.13	.107
.068	GEM6168	D	.24	.18	.14	.120
.1	GEM601	D	.27	.22	.17	.145
.15	GEM6015	D	.34	.30	.24	.200
.2	GEM602	E	.42	.37	.30	.250
.22	GEM6022	E	.42	.37	.30	.250
.25	GEM6025	E	.45	.40	.32	.266
.47	GEM6047	F	.83	.78	.62	.515
.5	GEM605	F	.88	.80	.64	.535
1.0	GEM61	F	1.20	1.14	.91	.765
1600 WVDC						
.001	GEM1621	A	.34	.28	.22	.185
.0022	GEM16222	B	.34	.28	.22	.185
.003	GEM1623	B	.34	.28	.22	.186
.0033	GEM16233	B	.34	.28	.23	.188
.004	GEM1624	C	.34	.28	.23	.188
.0047	GEM16247	C	.34	.28	.23	.188
.005	GEM1625	C	.34	.29	.23	.194
.006	GEM1626	C	.34	.30	.24	.200
.0068	GEM16268	C	.35	.30	.24	.200
.007	GEM1627	C	.35	.30	.24	.200
.008	GEM1628	C	.35	.30	.24	.200
.01	GEM1611	C	.36	.30	.24	.200
.015	GEM16115	D	.41	.34	.27	.222
.02	GEM1612	D	.45	.38	.31	.258
.022	GEM16122	D	.45	.38	.31	.258
.033	GEM16133	D	.45	.41	.33	.277
.047	GEM16147	E	.50	.45	.36	.300
.05	GEM1615	E	.53	.48	.38	.314
.068	GEM16168	E	.59	.51	.41	.343

GEM CASE SIZES

Code	Diam. x L.	Code	Diam. x L.
A	.312″ x 15/16″	D	.625″ x 1 9/16″
B	.375″ x 1 3/16″	E	.750″ x 1 7/8″
C	.500″ x 1 3/8″	F	1 ″ x 2 1/2″

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MALLORY CERAMIC CAPACITORS

RMC Discaps® for radio, TV and industrial applications. Each Discap is custom-created for a specific purpose: By-pass, temperature compensation, high voltage, etc. Coated with Durez phenolic insulating vacuum wax for positive humidity protection. Available in handy five-pack boxes.

MINIATURE 100 VOLT

Tolerance, +80%, −20%.

Cap. μf	Mallory Number	Net Each	Cap. μf	Mallory Number	Net Each
.005	TA250*	24c	.025	TA125†	24c
.01	TA110*	24c	.05	TA150‡	39c
.02	TA120†	24c	.1	TA010‡	57c

Dia.: *11/32"; †1/2"; ‡5/8".

TYPE SM

Rated 500 WVDC. Tol., −20%, +80% except SM210 and SM215, GMV*.

Mallory Number	Cap., μf	Dia., In.	Net Each
SM210	.001	1/4	12c
SM215	.0015	9/32	12c
SM250	.005	13/32	12c
SM110	.01	1/2	12c
SM120	.02	11/16	18c

GENERAL PURPOSE

Rated 1000 WVDC except, 20K-50K values rated 500 WVDC. Tol., ±0.25 μμf, 3.3 and 5.0 μμf; ±5%, 6.8 and 8.0 μμf; ±10%, 10-2200 μμf; ±20%, 2500-50K μμf.

Mall. No. GP-	Cap., μμf	Net Ea.	Mall. No. GP-	Cap., μμf	Net Ea.
533*	3.3	15c	336*	360	15c
550*	5.0	15c	339*	390	15c
568*	6.8	15c	340*	400	15c
580*	8.0	15c	347*	470	15c
410*	10	15c	350*	500	15c
412*	12	15c	356*	560	15c
415*	15	15c	360*	600	15c
418*	18	15c	368*	680	15c
420*	20	15c	375§	750	15c
422*	22	15c	382§	820	15c
425*	25	15c	210§	1000	15c
427*	27	15c	212‡	1200	15c
430*	30	15c	215‡	1500	15c
433*	33	15c	216‡	1600	15c
439*	39	15c	218‡	1800	15c
447*	47	15c	220‡	2000	15c
450*	50	15c	222‡	2200	15c
456*	56	15c	225‡	2500	15c
468*	68	15c	227‡	2700	15c
475†	75	15c	230‡	3000	15c
482†	82	15c	233‡	3300	15c
491†	91	15c	239‡	3900	15c
310†	100	15c	240‡	4000	15c
312†	120	15c	243‡	4300	15c
313†	130	15c	247#	4700	15c
315*	150	15c	250#	5000	18c
318*	180	15c	256▲	5600	18c
320*	200	15c	268●	6800	18c
322*	220	15c	275●	7500	18c
324*	240	15c	110●	10K	18c
325*	250	15c	115●	15K	18c
327*	270	15c	120●	20K	18c
330*	300	15c	130●	30K	36c
333*	330	15c	140■	40K	39c
335*	350	15c	150♦	50K	42c

Dia. (max.): *0.29"; †0.40"; ‡0.54"; #0.62"; §0.38"; ●15/16"; ▲0.65"; ■0.95"; ♦0.83".

BYPASS, GENERAL PURPOSE

Heavy duty, rated 1000 WVDC. Tol.; GMV* to 10K; +80%, −20%, 15K, 20K.

Mall. No.	Cap., μμf	Net Ea.	Mall. No.	Cap., μμf	Net Ea.
B315*	150	15c	B2X220	2x2K	30c
B318*	180	15c	B222†	2200	15c
B322*	220	15c	B227†	2700	15c
B327*	270	15c	B2X230	2x3K	30c
B333*	330	15c	B233‡	3300	15c
B339*	390	15c	B240‡	4000	15c
B347*	470	15c	B247§	4700	18c
B350*	500	15c	B250§	5000	18c
B356*	560	15c	B2X250	2x5K	30c
B368*	680	15c	B256§	5600	18c
B382*	820	15c	B260§	6000	18c
B210*	1000	15c	B268#	6800	18c
B2X210	2x1K	30c	B282#	8200	18c
B212*	1200	15c	B110●	10K	18c
B215†	1500	15c	B2X110	2x10K	30c
B2X215	2x1.5K	30c	B115■	15K	18c
B218†	1800	15c	B120■	20K	18c
B220†	2000	15c			

Dia.: *9/32"; †3/8"; ‡9/16"; §13/32"; #5/8"; ●3/4"; ■29/32".

★Guaranteed Minimum Value.

TEMPERATURE COMPENSATING

Rated 1000 WVDC. Tolerance, ±5%.

Cap., μμf	"O" Temp. Comp. Mallory No.	"O" Temp. Comp. Net Ea.	N750 Negative Temp. Comp. Mallory No.	N750 Negative Temp. Comp. Net Ea.
1	CNO-510*	30c	.....	.....
1.5	CNO-515*	30c	.....	.....
2.2	CNO-522*	30c	CN7-522*	30c
3.3	CNO-533*	30c	CN7-533*	30c
4.7	CNO-547*	30c	CN7-547*	30c
5	.....	.....	CN7-550*	30c
6.8	CNO-568*	30c	CN7-568*	30c
10	CNO-410*	30c	CN7-410*	30c
12	CNO-412*	30c	CN7-412*	30c
15	CNO-415*	30c	CN7-415*	30c
18	CNO-418†	30c	CN7-418*	30c
20	CNO-420†	30c	CN7-420*	30c
22	CNO-422†	30c	CN7-422*	30c
25	CNO-425†	30c	.....	.....
27	CNO-427†	30c	CN7-427*	30c
33	CNO-433‡	30c	CN7-433*	30c
39	CNO-439‡	30c	CN7-439*	30c
47	CNO-447‡	30c	CN7-447*	30c
50	CNO-450‡	30c	.....	.....
56	CNO-456‡	30c	CN7-456*	30c
68	CNO-468‡	30c	CN7-468*	30c
75	CNO-475§	30c	CN7-475‡	30c
82	CNO-482§	30c	CN7-482‡	30c
100	CNO-310#	30c	CN7-310‡	30c
120	CNO-312●	30c	CN7-312‡	30c
150	CNO-315●	33c	CN7-315‡	30c
180	CNO-318#	33c	CN7-318§	33c
200	CNO-320#	33c	CN7-320#	33c
220	CNO-322▲	33c	CN7-322#	33c
270	CNO-327▲	33c	CN7-327●	33c
330	.....	.....	CN7-333●	33c

Dia.: *1/4"; †5/16"; ‡1/2"; §5/8"; #3/4"; ●1/8"; ▲13/16".

TEMPERATURE STABILIZING

Rated 1000 WVDC. Tolerance, ±10%.

Mall. No. JL-	Cap., μμf	Net Ea.	Mall. No. JL-	Cap., μμf	Net Ea.
310†	100	30c	212#	1200	30c
315†	150	30c	215#	1500	30c
322†	220	30c	218#	1800	30c
333†	330	30c	220●	2000	30c
347‡	470	30c	222●	2200	30c
356‡	560	30c	233■	3300	30c
368‡	680	30c	239■	3900	30c
375‡	750	30c	247▲	4700	33c
382#	820	30c	250▲	5000	33c
210#	1000	30c			

Dia.: †9/32"; ‡23/64"; #17/32"; ●5/8"; ■47/64"; ▲7/8".

FREQUENCY STABLE 1000 WVDC

For use in oscillators and other closely controlled circuits where it is desirable to have superior frequency and temperature stability. Tolerance, ±10%.

Cap., μμf	Mallory No. JF-	Net Each	Cap., μμf	Mallory No. JF-	Net Each
150	315*	24c	1500	215‡	24c
220	322*	24c	1800	218‡	24c
330	333*	24c	2000	220‡	24c
470	347*	24c	2200	222‡	24c
500	350*	24c	3300	233§	24c
560	356*	24c	3900	239#	24c
680	368*	24c	4700	247#	24c
750	375†	24c	5000	250#	24c
820	382†	24c	6800	268●	24c
1000	210†	24c	10K	110●	24c
1200	212‡	24c			

Dia.: *19/64"; †3/8"; ‡35/64"; §41/64"; #25/32"; ●59/64".

AC LINE AND BUFFER

Rated 1400 WVDC. Tol., GMV*.

Mall. No. UAC-	Cap., μf	Net. Ea.	Mall. No. UAC-	Cap., μf	Net Ea.
210*	.001	21c	260‡	.006	21c
220†	.002	21c	270‡	.007	21c
222†	.0022	21c	275‡	.0075	21c
230†	.003	21c	280‡	.008	21c
233†	.0033	21c	110§	.01	21c
240†	.004	21c	120§	.02	24c
247‡	.0047	21c	2X110§	2x.01	27c
250‡	.005	21c			

Dia.: *3/8"; †9/16"; ‡13/16"; §29/32".

FEED-THRU CAPACITORS

For TV bypass. Wire terminals as tie points. Body solders to chassis or mounted by hex nut. Silvered steatite trimmer.

Mallory Number	Cap., μμf	WV DC	Size, In.	Net Ea.
CT565*	.5 to 3	500	7/32x1/2	30c
CT551*	1 to 4	500	7/32x1/2	30c
CT552*	2 to 6	500	7/32x5/8	30c
CT250A†	1000	600	7/64x3/4	30c
CT254A†	1000	600	17/64x13/16	30c
CT280A†	1000	600	5/16x15/16	45c
CT282A‡	1000	600	7/32x1 1/2	60c

Tol.: *±0.5 μμf. †GMV*. ‡±20%.

HIGH VOLTAGE

Tolerance, GMV* (100–470 μμf, ±20%).

2000 AND 3000 WVDC

Cap., μμf	2000 WVDC Mall. No. 2HV-	2000 WVDC Net Ea.	3000 WVDC Mall. No. 3HV-	3000 WVDC Net Ea.
100	310*	21c	.....	.....
120	312*	21c	.....	.....
150	315*	21c	.....	.....
220	322†	21c	322†	24c
270	327§	21c	327†	24c
330	333‡	21c	333†	24c
470	347‡	21c	347†	24c
560	356*	21c	356†	24c
680	368*	21c	368†	24c
750	375*	21c	375†	24c
820	382*	21c	382†	24c
1000	210*	33c	210†	24c
1200	212‡	33c	212§	24c
1500	215‡	33c	215§	24c
1800	218‡	33c	218§	24c
2200	222‡	33c	222§	24c
3300	233§	33c	233§	24c
3900	239§	33c	239§	24c
4700	247§	33c	247§	24c
6800	268§	42c	.....	.....
10K	110§	42c	.....	.....

6000 WVDC

Mall. No. 6HV-	Cap., μμf	Net Ea.	Mall. No. 6HV-	Cap., μμf	Net Ea.
310†	100	35c	347§	470	35c
312†	120	35c	356§	560	35c
315†	150	35c	368§	680	35c
322†	220	35c	375§	750	35c
327§	270	35c	382§	820	35c
333§	330	35c	210§	1K	35c

Dia.: *5/8"; †3/4"; ‡9/16"; §7/8".

DEFLECTION YOKE

Tolerance, ±10%.

2000 AND 3000 WVDC

Cap., μμf	2000 WVDC Mall. No. 2DY-	2000 WVDC Net Ea.	3000 WVDC Mall. No. 3DY-	3000 WVDC Net Ea.
4.7	547*	21c	547†	24c
6.8	568*	21c	568†	24c
10	410*	21c	410†	24c
12	412*	21c	412†	24c
15	415*	21c	415†	24c
22	422†	21c	422‡	24c
27	427†	21c	427‡	24c
33	433†	21c	433§	24c
39	439†	21c	439§	24c
47	447†	21c	447§	24c
56	456‡	21c	456§	24c
68	468‡	21c	468§	24c
82	482‡	21c	482§	24c
100	310§	21c	310§	24c
120	.....	.....	312#	24c
135	.....	.....	3135#	24c
150	.....	.....	315#	24c
180	.....	.....	318#	24c

6000 WVDC

Mall. No. 6DY-	Cap., μμf	Net Ea.	Mall. No. 6DY-	Cap., μμf	Net Ea.
547#	4.7	33c	433●	33	33c
568#	6.8	33c	439●	39	33c
410#	10	33c	447●	47	33c
412#	12	33c	456●	56	33c
415#	15	33c	468●	68	33c
422#	22	33c	482●	82	33c
427#	27	33c			

Dia.: *1/4"; †5/16"; ‡1/2"; §5/8"; #3/4"; ●1/8".

CERAMIC TRIMMERS

Small and stable for high frequency FM and TV uses. Fired silver electrodes; ceramic rotator and base. Sealed against dust. Solder lug terminals. Two-hole screw mounting. Single or dual units available. Constant capacity change on 360° rotator. Size. 21/32" x 27/32" x 3/8". Rated 600 v. DC.

Mallory Number	Cap. Range, μμf	Temp. Coef.	Net Each
ST5515-Z	1.5 to 7	Zero	$1.05
ST553-Z	3 to 12	Zero	.90
ST554-N	4 to 30	Neg. 500*	1.05
ST557-N	7 to 45	Neg. 500*	1.05

*Parts/Million/°C.

UNIVERSAL HIGH VOLTAGE CERAMIC CAPACITORS

Filter high voltage power supplies in TV sets, etc. Hi-voltage, high insulation resistant ceramic. Four univ. screw-in terminals. Cap., 500 μμf. Tol., −20% +50%.

Mallory Number	WV DC	Flash Volts	Size, In. H. x Dia.	Net Ea.
HV20035U	20K	30K	1.068x.950	$1.11
HV30035U	30K	40K	1.381x1.375	1.80

Net

© U.C.P., Inc.

MALLORY TANTALUM CAPACITORS

TAS AND CS12/13 SOLID ELECTROLYTE TANTALUM CAPACITORS

Meet or exceed all requirements of MIL-C-26655A. Furnished in hermetically-sealed metal cases. **Temperature Range:** −80° C to +85° C; to +125° C with derating. **ORDERING INFORMATION: TAS TYPES** are specified by a 13-digit catalog number. Select capacity and voltage as shown in chart. **Specify Tolerance:** Where asterisk (*) is shown, insert letter **"K"** for ±10% or **"M"** for ±20% tolerance, (i.e., TAS472**K**006P0A) when ordering. **Size:** Final letter in number indicates case size (A, C, F or G); see pricing table for dimensions and price. **Case:** All units shown have bare metal cases; for shrink-fit insulating sleeve, change 12th digit of number from **"0"** to **"1"** (i.e., TAS564K035F**1**A) when ordering. Items indicated by star (*) are so-called "parent" sizes, representing the highest available voltage for a given case size and price. **CS12 AND CS13 TYPES** are listed by voltage and capacity. **Specify Tolerance:** Where asterisk (*) is shown, insert **"K"** for ±10% or **"M"** for ±20% tolerance (i.e., CS12AG010**K**) when ordering. **Size:** As indicated in separate column (A, C, F or G); see pricing table for dimensions and price. **Case:** Specify CS12 type for bare metal case, CS13 for shrink-fit insulating sleeve. **SEE BULLETIN 4-40 FOR TECHNICAL DATA.**

TAS AND CS12/13 INDUSTRIAL NET PRICES

Prices shown are for bare metal case types. Add **2c** for types with insulating sleeve.

FOR 6, 10, 15, 20 AND 35 WVDC

Case Code †	Case Size, Inches Dia. x L.‡	WVDC	Capacity Range, µf	For ±10% Tol. (K), Net Each 1-24	25-49	50-99	100-499	500-999	For ±20% Tol. (M), Net Each 1-24	25-49	50-99	100-499	500-999
A	.125 x .250	6, 10, 15, 20, 35	.0047–6.8	$1.32	$1.05	$0.73	$0.60	$0.51	$1.29	$1.03	$0.70	$0.57	$0.48
C	.175 x .438	6, 10, 15, 20, 35	1.2–56	1.53	1.23	.75	.62	.52	1.50	1.20	.72	.59	.49
F	.279 x .650	6, 10, 15, 20	18–180	2.21	1.77	1.33	1.10	.92	2.18	1.74	1.30	1.07	.89
		35	8.2–22	2.53	2.03	1.40	1.14	.95	2.50	2.00	1.37	1.11	.93
G	.341 x .750	6, 10, 15, 20	56–330	4.48	3.53	2.32	1.89	1.58	4.45	3.50	2.29	1.86	1.55
		35	27–33	4.53	3.63	2.51	2.03	1.79	4.50	3.60	2.48	2.00	1.68
		35	39–47	4.73	3.78	2.78	2.27	1.89	4.70	3.75	2.75	2.24	1.86
		35	68	.....	.....	.....	.....	.....	5.30	4.25	3.14	2.45	2.34

FOR 50 WVDC

A	.125 x .250	50	0.47–1.0	$2.45	$1.97	$1.66	$1.43	$1.29	$1.90	$1.50	$1.28	$1.09	$1.00
C	.175 x .438	50	1.2–4.7	2.60	2.08	1.75	1.50	1.37	2.00	1.60	1.35	1.15	1.05
F	.279 x .650	50	5.6–18	4.25	3.40	2.88	2.45	2.24	3.25	2.60	2.20	1.89	1.72
G	.341 x .750	50	22	7.95	6.35	5.35	4.58	4.18	6.10	4.90	4.15	3.50	3.22

STOCK VALUES—TAS TYPES

Cap., µf	6 WVDC Mallory No.†	10 WVDC Mallory No.†	15 WVDC Mallory No.†	20 WVDC Mallory No.†	35 WVDC Mallory No.†	50 WVDC Mallory No.†
.0047	TAS472*006P0A	TAS472*010P0A	TAS472*015P0A	TAS472*020P0A	TAS472*035P0A*	.....
.0056	TAS562K006P0A	TAS562K010P0A	TAS562K015P0A	TAS562K020P0A	TAS562K035P0A*	.....
.0068	TAS682*006P0A	TAS682*010P0A	TAS682*015P0A	TAS682*020P0A	TAS682*035P0A*	.....
.0082	TAS822K006P0A	TAS822K010P0A	TAS822K015P0A	TAS822K020P0A	TAS822K035P0A*	.....
.010	TAS103*006P0A	TAS103*010P0A	TAS103*015P0A	TAS103*020P0A	TAS103*035P0A*	.....
.012	TAS123K006P0A	TAS123K010P0A	TAS123K015P0A	TAS123K020P0A	TAS123K035P0A*	.....
.015	TAS153*006P0A	TAS153*010P0A	TAS153*015P0A	TAS153*020P0A	TAS153*035P0A*	.....
.018	TAS183K006P0A	TAS183K010P0A	TAS183K015P0A	TAS183K020P0A	TAS183K035P0A*	.....
.022	TAS223*006P0A	TAS223*010P0A	TAS223*015P0A	TAS223*020P0A	TAS223*035P0A*	.....
.027	TAS273K006P0A	TAS273K010P0A	TAS273K015P0A	TAS273K020P0A	TAS273K035P0A*	.....
.033	TAS333*006P0A	TAS333*010P0A	TAS333*015P0A	TAS333*020P0A	TAS333*035P0A*	.....
.039	TAS393K006P0A	TAS393K010P0A	TAS393K015P0A	TAS393K020P0A	TAS393K035P0A*	.....
.047	TAS473*006P0A	TAS473*010P0A	TAS473*015P0A	TAS473*020P0A	TAS473*035P0A*	.....
.056	TAS563K006P0A	TAS563K010P0A	TAS563K015P0A	TAS563K020P0A	TAS563K035P0A*	.....
.068	TAS683*006P0A	TAS683*010P0A	TAS683*015P0A	TAS683*020P0A	TAS683*035P0A*	.....
.082	TAS823K006P0A	TAS823K010P0A	TAS823K015P0A	TAS823K020P0A	TAS823K035P0A*	.....
.10	TAS104*006P0A	TAS104*010P0A	TAS104*015P0A	TAS104*020P0A	TAS104*035P0A*	.....
.12	TAS124K006P0A	TAS124K010P0A	TAS124K015P0A	TAS124K020P0A	TAS124K035P0A*	.....
.15	TAS154*006P0A	TAS154*010P0A	TAS154*015P0A	TAS154*020P0A	TAS154*035P0A*	.....
.18	TAS184K006P0A	TAS184K010P0A	TAS184K015P0A	TAS184K020P0A	TAS184K035P0A*	.....
.22	TAS224*006P0A	TAS224*010P0A	TAS224*015P0A	TAS224*020P0A	TAS224*035P0A*	.....
.27	TAS274K006P0A	TAS274K010P0A	TAS274K015P0A	TAS274K020P0A	TAS274K035P0A*	.....
.33	TAS334*006P0A	TAS334*010P0A	TAS334*015P0A	TAS334*020P0A	TAS334*035P0A*	.....
.39	TAS394K006P0A	TAS394K010P0A	TAS394K015P0A	TAS394K020P0A	TAS394K035P0A*	.....
.47	TAS474*006P0A	TAS474*010P0A	TAS474*015P0A	TAS474*020P0A	TAS474*035P0A*	TAS474*050P0A
.56	TAS564K006P0A	TAS564K010P0A	TAS564K015P0A	TAS564K020P0A	TAS564K035P0A*	TAS564K050P0A
.68	TAS684*006P0A	TAS684*010P0A	TAS684*015P0A	TAS684*020P0A	TAS684*035P0A*	TAS684*050P0A
.82	TAS824K006P0A	TAS824K010P0A	TAS824K015P0A	TAS824K020P0A	TAS824K035P0A*	TAS824K050P0A
1.0	TAS105*006P0A	TAS105*010P0A	TAS105*015P0A	TAS105*020P0A	TAS105*035P0A*	TAS105*050P0A
1.2	TAS125K006P0A	TAS125K010P0A	TAS125K015P0A	TAS125K020P0A*	TAS125K035P0C*	TAS125K050P0C
1.5	TAS155*006P0A	TAS155*010P0A	TAS155*015P0A	TAS155*020P0A*	TAS155*035P0C*	TAS155*050P0C
1.8	TAS185K006P0A	TAS185K010P0A	TAS185K015P0A	TAS185K020P0A*	TAS185K035P0C*	TAS185K050P0C
2.2	TAS225*006P0A	TAS225*010P0A	TAS225*015P0A	TAS225*020P0A*	TAS225*035P0C*	TAS225*050P0C
2.7	TAS275K006P0A	TAS275K010P0A	TAS275K015P0A*	TAS275K020P0C	TAS275K035P0C*	TAS275K050P0C
3.3	TAS335*006P0A	TAS335*010P0A	TAS335*015P0A*	TAS335*020P0C	TAS335*035P0C*	TAS335*050P0C
3.9	TAS395K006P0A	TAS395K010P0A*	TAS395K015P0C	TAS395K020P0C	TAS395K035P0C*	TAS395K050P0C
4.7	TAS475*006P0A	TAS475*010P0A*	TAS475*015P0C	TAS475*020P0C	TAS475*035P0C*	TAS475*050P0C
5.6	TAS565K006P0A*	TAS565K010P0C	TAS565K015P0C	TAS565K020P0C	TAS565K035P0C*	TAS565K050P0F
6.8	TAS685*006P0A*	TAS685*010P0C	TAS685*015P0C	TAS685*020P0C	TAS685*035P0C*	TAS685*050P0F
8.2	TAS825K006P0C	TAS825K010P0C	TAS825K015P0C	TAS825K020P0C*	TAS825K035P0F*	TAS825K050P0F
10	TAS106*006P0C	TAS106*010P0C	TAS106*015P0C	TAS106*020P0C*	TAS106*035P0F*	TAS106*050P0F
12	TAS126K006P0C	TAS126K010P0C	TAS126K015P0C	TAS126K020P0C*	TAS126K035P0F*	TAS126K050P0F
15	TAS156*006P0C	TAS156*010P0C	TAS156*015P0C	TAS156*020P0C*	TAS156*035P0F*	TAS156*050P0F
18	TAS186K006P0C	TAS186K010P0C	TAS186K015P0C*	TAS186K020P0F	TAS186K035P0F*	TAS186K050P0F
22	TAS226*006P0C	TAS226*010P0C	TAS226*015P0C*	TAS226*020P0F	TAS226*035P0F*	TAS226*050P0G
27	TAS276K006P0C	TAS276K010P0C*	TAS276K015P0F	TAS276K020P0F*	TAS276K035P0G*	.....
33	TAS336*006P0C	TAS336*010P0C*	TAS336*015P0F	TAS336*020P0F*	TAS336*035P0G*	.....
39	TAS396K006P0C	TAS396K010P0C*	TAS396K015P0F	TAS396K020P0F*	TAS396K035P0G*	.....
47	TAS476*006P0C*	TAS476*010P0F	TAS476*015P0F	TAS476*020P0F*	TAS476*035P0G	.....
56	TAS566K006P0C*	TAS566K010P0F	TAS566K015P0F*	TAS566K020P0G*	.....	.....
68	TAS686*006P0F	TAS686*010P0F	TAS686*015P0F*	TAS686*020P0G*	TAS686M035P0G	.....
82	TAS826K006P0F	TAS826K010P0F*	TAS826K015P0G	TAS826K020P0G*	.....	.....
100	TAS107*006P0F	TAS107*010P0F*	TAS107*015P0G	TAS107*020P0G*	.....	.....
120	TAS127K006P0F	TAS127K010P0F*	TAS127K015P0G*	.....	.....	.....
150	TAS157*006P0F*	TAS157*010P0G	TAS157*015P0G*	.....	.....	.....
180	TAS187K006P0F*	TAS187K010P0G*	.....	.....	.....	.....
220	TAS227*006P0G	TAS227*010P0G*	.....	.....	.....	.....
270	TAS277K006P0G*	.....	.....	.....	.....	.....
330	TAS337*006P0G*	.....	.....	.....	.....	.....

*Available at ±10% (insert **"K"** to order) or ±20% (insert **"M"** to order). *Parent value: Max. WVDC vs. capacity, size and price. †Last letter indicates size; see pricing table. ‡Add .010" dia. for insulating sleeve.

MALLORY TANTALUM CAPACITORS

For bare metal case, order CS12 as listed. For insulating sleeve, specify CS13.

STOCK VALUES—CS12/13 TYPES

6 WVDC

Cap., μf	Mallory No.	†
5.6	CS12AB5R6K	A
6.8	CS12AB6R8*	A
47	CS12AB470*	C
56	CS12AB560K	C
150	CS12AB151*	F
180	CS12AB181K	F
270	CS12AB271K	G
330	CS12AB331*	G

10 WVDC

Cap., μf	Mallory No.	†
3.9	CS12AC3R9K	A
4.7	CS12AC4R7*	A
27	CS12AC270K	C
33	CS12AC330*	C
39	CS12AC390K	C
82	CS12AC820K	F
100	CS12AC101*	F
120	CS12AC121K	F
180	CS12AC181K	G
220	CS12AC221*	G

15 WVDC

Cap., μf	Mallory No.	†
2.7	CS12AD2R7K	A
3.3	CS12AD3R3*	A
18	CS12AD180K	C
22	CS12AD220*	C
56	CS12AD560K	F
68	CS12AD680*	F
120	CS12AD121K	G
150	CS12AD151*	G

20 WVDC

Cap., μf	Mallory No.	†
1.2	CS12AE1R2K	A
1.5	CS12AE1R5*	A
1.8	CS12AE1R8K	A
2.2	CS12AE2R2*	A
8.2	CS12AE8R2K	C
10	CS12AE100*	C
12	CS12AE120K	C
15	CS12AE150*	C
27	CS12AE270K	F
33	CS12AE330*	F
39	CS12AE390K	F
47	CS12AE470*	F
56	CS12AE560K	G
68	CS12AE680*	G
82	CS12AE820K	G
100	CS12AE101*	G

35 WVDC

Cap., μf	Mallory No.	†
.33	CS12AFR33*	A
.39	CS12AFR39K	A
.47	CS12AFR47*	A
.56	CS12AFR56K	A
.68	CS12AFR68*	A
.82	CS12AFR82K	A
1.0	CS12AF010*	A
1.2	CS12AF1R2K	C
1.5	CS12AF1R5*	C
1.8	CS12AF1R8K	C
2.2	CS12AF2R2*	C
2.7	CS12AF2R7K	C
3.3	CS12AF3R3*	C
3.9	CS12AF3R9K	C
4.7	CS12AF4R7*	C
5.6	CS12AF5R6K	C
6.8	CS12AF6R8*	C
8.2	CS12AF8R2K	F
10	CS12AF100*	F
12	CS12AF120K	F
15	CS12AF150*	F
18	CS12AF180K	F
22	CS12AF220*	F
27	CS12AF270K	G
33	CS12AF330*	G
39	CS12AF390K	G
47	CS12AF470*	G

50 WVDC

Cap., μf	Mallory No.	†
1.0	CS12AG010*	A
1.2	CS12AG1R2K	C
1.5	CS12AG1R5*	C
1.8	CS12AG1R8K	C
2.2	CS12AG2R2*	C
2.7	CS12AG2R7K	C
3.3	CS12AG3R3*	C
3.9	CS12AG3R9K	C
4.7	CS12AG4R7*	C
5.6	CS12AG5R6K	F
6.8	CS12AG6R8*	F
8.2	CS12AG8R2K	F
10	CS12AG100*	F
12	CS12AG120K	F
15	CS12AG150*	F
18	CS12AG180K	F
22	CS12AG220*	G

*Available at ±10% (insert "K" to order) or ±20% (insert "M" to order). †Case size: See pricing table.

SEE PREVIOUS PAGE FOR PRICING, CASE SIZE AND ORDERING INFORMATION

STOCK VALUES AND PRICING—TAS 75 WVDC AND 100 WVDC

Higher voltage ratings of TAS types on previous page. **Case:** Types listed have bare metal case. For shrink-fit insulating sleeve, change 12th digit "0" to "1" (i.e., TAS474K075P1A), and add **2c** to prices shown.

75 WVDC ±10% TOLERANCE

Cap., μf	Mallory No.	Net Each, Lots of 1-24	25-49	50-99	100-499	500-999
.47	TAS474K075P0A*	$6.10	$3.50	$2.65	$2.10	$1.93
.56	TAS564K075P0A*	6.10	3.50	2.65	2.10	1.93
.68	TAS684K075P0A*	6.10	3.50	2.65	2.10	1.93
.82	TAS824K075P0C	6.45	3.70	2.75	2.20	2.02
1.0	TAS105K075P0C	6.45	3.70	2.75	2.20	2.02
1.2	TAS125K075P0C	6.45	3.70	2.75	2.20	2.02
1.5	TAS155K075P0C	6.45	3.70	2.75	2.20	2.02
1.8	TAS185K075P0C	6.45	3.70	2.75	2.20	2.02
2.2	TAS225K075P0C	6.45	3.70	2.75	2.20	2.02
2.7	TAS275K075P0C	6.45	3.70	2.75	2.20	2.02
3.3	TAS335K075P0C	6.45	3.70	2.75	2.20	2.02

75 WVDC ±20% TOLERANCE

.47	TAS474M075P0A*	$4.70	$2.70	$2.05	$1.60	$1.48
.68	TAS684M075P0A*	4.70	2.70	2.05	1.60	1.48
1.0	TAS105M075P0C	4.95	2.85	2.15	1.70	1.55
1.5	TAS155M075P0C	4.95	2.85	2.15	1.70	1.55
2.2	TAS225M075P0C	4.95	2.85	2.15	1.70	1.55
3.3	TAS335M075P0C	4.95	2.85	2.15	1.70	1.55

100 WVDC ±10% TOLERANCE

Cap., μf	Mallory No.	Net Each, Lots of 1-24	25-49	50-99	100-499	500-999
.47	TAS474K100P0A*	$7.95	$4.55	$3.40	$2.70	$2.50
.56	TAS564K100P0A*	7.95	4.55	3.40	2.70	2.50
.68	TAS684K100P0C	8.40	4.80	3.60	2.85	2.63
.82	TAS824K100P0C	8.40	4.80	3.60	2.85	2.63
1.0	TAS105K100P0C	8.40	4.80	3.60	2.85	2.63
1.2	TAS125K100P0C	8.40	4.80	3.60	2.85	2.63
1.5	TAS155K100P0C	8.40	4.80	3.60	2.85	2.63
1.8	TAS185K100P0C	8.40	4.80	3.60	2.85	2.63
2.2	TAS225K100P0C	8.40	4.80	3.60	2.85	2.63
2.7	TAS275K100P0C	8.40	4.80	3.60	2.85	2.63

100 WVDC ±20% TOLERANCE

.47	TAS474M100P0A*	$6.10	$3.50	$2.65	$2.10	$1.93
.68	TAS684M100P0C	6.45	3.70	2.75	2.20	2.02
1.0	TAS105M100P0C	6.45	3.70	2.75	2.20	2.02
1.5	TAS155M100P0C	6.45	3.70	2.75	2.20	2.02
2.2	TAS225M100P0C	6.45	3.70	2.75	2.20	2.02

Size: *.125″ dia. x .250″ l.; all others .175″ dia. x .438″ l. Add .010″ dia. x .036″ l. for insulating sleeve.

TAM

TAP-TNT-TAH

TAM SOLID ELECTROLYTE

Printed circuit solid electrolyte types with parallel leads (0.200″ spacing) and plastic encapsulation. Tolerance: ±20%. Temperature Range: −55° to +85° C.

Cap., μf	WVDC +85° C	Mallory Catalog No.	Case Size†
4.7	35	TAM475M035P5C	C
6.8	25	TAM685M025P5C	C
10	25	TAM106M025P5C	C
15	25	TAM156M025P5C	C
22	15	TAM226M015P5C	C
33	10	TAM336M010P5C	C
39	10	TAM396M010P5C	C
56	6	TAM566M006P5C	C

†.325″ w. x .175″ d. x .425″ h.

Case Size	Net Each, Lots of 1-24	25-49	50-99	100-499	500-999
C	$1.20	$0.96	$0.82	$0.69	$0.63

TAP-TNT-TAH MINIATURE PELLET TYPES

Metal case types with axial leads and epoxy end seals. Available with Mylar* sleeve; change 12th digit to "1" and add **5c** to all prices shown. *DuPont T.M.

CASE SIZES

Add .010″ dia. x .093″ l. for sleeve.

Case Key	Size, In. (Dia. x L.) Type TNT	TAP, TAH
A	.165 x .350	.238 x .500
B	.165 x .500	.238 x .660
C	.....	.238 x .875

TAP PRICES

Case Size	Net Each, Lots of 1-24	25-49	50-99	100-499	500-999
A	$1.46	$1.17	$0.99	$0.84	$0.766
B	2.46	1.97	1.66	1.415	1.29
C	4.28	3.42	2.89	2.46	2.25

TNT PRICES

Case Size	Net Each, Lots of 1-24	25-49	50-99	100-499	500-999
A	$1.24	$0.99	$0.84	$0.714	$0.651
B	1.46	1.17	.99	.84	.766

TAH PRICES

Case Size	Net Each, Lots of 1-24	25-49	50-99	100-499	500-999
A	$2.20	$1.75	$1.48	$1.26	$1.15
B	3.68	2.94	2.49	2.12	1.935
C	7.05	5.65	4.76	4.50	3.72

TAP +85° C

Cap., μf	WVDC +85° C	Mallory Catalog No.	Case Size
2	90	TAP205U090P0A	A
3.5	75	TAP355U075P0A	A
4	60	TAP405U060P0A	A
5	50	TAP505U050P0A	A
6	40	TAP605U040P0A	A
7	35	TAP705U035P0A	A
8	30	TAP805U030P0A	A
10	25	TAP106U025P0A	A
11	90	TAP116U090P0B	B
12	20	TAP126U020P0A	A
15	15	TAP156U015P0A	A
15	75	TAP156U075P0B	B
20	10	TAP206U010P0A	A
20	60	TAP206U060P0B	B
25	50	TAP256U050P0B	B
30	6	TAP306U006P0A	A
30	40	TAP306U040P0B	B
30	90	TAP306U090P0C	C
40	30	TAP406U030P0B	B
40	75	TAP406U075P0C	C
50	60	TAP506U060P0C	C
60	50	TAP606U050P0C	C
70	15	TAP706U015P0B	B
100	10	TAP107U010P0B	B
100	30	TAP107U030P0C	C
140	6	TAP147U006P0B	B
170	15	TAP177U015P0C	C
250	10	TAP257U010P0C	C
330	6	TAP337U006P0C	C

TNT +85° C

Cap., μf	WVDC +85° C	Mallory Catalog No.	Case Size
2	50	TNT205U050P0A	A
4	50	TNT405U050P0A	A
6	35	TNT605U035P0A	A
8	50	TNT805U050P0B	B
12	15	TNT126U015P0A	A
12	35	TNT126U035P0B	B
15	30	TNT156U030P0B	B
25	6	TNT256U006P0A	A
25	15	TNT256U015P0B	B
35	12	TNT356U012P0B	B
40	3	TNT406U003P0A	A
50	6	TNT506U006P0B	B
80	3	TNT806U003P0B	B

TAH +125° C

Cap., μf	WVDC +125°C	Mallory Catalog No.	Case Size
2	60	TAH205R060P0A	A
3.5	50	TAH355R050P0A	A
4	40	TAH405R040P0A	A
5	30	TAH505R030P0A	A
6	25	TAH605R025P0A	A
7	23	TAH705R023P0A	A
8	20	TAH805R020P0A	A
10	15	TAH106R015P0A	A
11	60	TAH116R060P0B	B
12	13	TAH126R013P0A	A
15	10	TAH156R010P0A	A
15	50	TAH156R050P0B	B
20	7	TAH206R007P0A	A
20	40	TAH206R040P0B	B
25	30	TAH256R030P0B	B
30	4	TAH306R004P0A	A
30	25	TAH306R025P0B	B
30	60	TAH306R060P0C	C
40	20	TAH406R020P0B	B
40	50	TAH406R050P0C	C
50	40	TAH506R040P0C	C
60	30	TAH606R030P0C	C
70	10	TAH706R010P0B	B
100	7	TAH107R007P0B	B
100	20	TAH107R020P0C	C
140	4	TAH147R004P0B	B
170	10	TAH177R010P0C	C
250	7	TAH257R007P0C	C
330	4	TAH337R004P0C	C

Net

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MALLORY TANTALUM CAPACITORS

TANTALUM FOIL CAPACITORS (MIL-C-3965)

Mallory tantalum foil capacitors are furnished in two temperature ranges (+85° C and +125° C) and in two types of construction (plain foil or etched foil). Both temperature ranges and both types of construction are available in either polarized or non-polarized ratings.

All Model Numbers and Prices listed are for bare metal cases. For Mylar* insulating sleeve, add one number to MIL type (i.e., CL34+1=CL35, etc.) or change 12th digit in Mallory number from **"0"** to **"1"** (i.e., TAF505M006N1A). Add **10c** to all prices shown.

FOR COMPLETE TECHNICAL DATA, ASK FOR BULLETIN 4-65

PLAIN FOIL TANTALUMS +85° C

(Use CL35 instead of CL34, or change 12th digit to "1" in TAF number for Mylar sleeve)

CL34/35 AND TAF—POLARIZED

Cap., µf	WVDC +85° C	Mallory Catalog No.	Case Size
10	3	CL34BA100MP3	A
50	3	CL34BA500MP3	B
160	3	TAF167M003P0C	C
350	3	TAF357M003P0D	D
440	3	TAF447M003P0E	E
8	6	CL34BB080MP3	A
30	6	CL34BB300MP3	B
35	6	TAF356M006P0B	B
100	6	CL34BB101MP3	C
200	6	CL34BB201MP3	D
300	6	CL34BB301MP3	E
6	10	CL34BD060MP3	A
25	10	CL34BD250MP3	B
80	10	CL34BD800MP3	C
160	10	CL34BD161MP3	D
220	10	CL34BD221MP3	E
4.5	15	CL34BE4R5MP3	A
10	15	CL34BE100MP3	B
18	15	CL34BE180MP3	B
55	15	CL34BE550MP3	C
110	15	CL34BE111MP3	D
160	15	CL34BE161MP3	E
3	25	TAF305M025P0A	A
12	25	TAF126M025P0B	B
35	25	TAF356M025P0C	C
70	25	TAF706M025P0D	D
100	25	TAF107M025P0E	E
2.5	30	CL34BH2R5MP3	A
10	30	TAF106M030P0B	B
30	30	CL34BH300MP3	C
60	30	CL34BH600MP3	D
85	30	CL34BH850MP3	E
1.5	50	CL34BJ1R5MP3	A
6	50	CL34BJ060MP3	B
20	50	CL34BJ200MP3	C
40	50	CL34BJ400MP3	D
55	50	CL34BJ550MP3	E
1.2	60	TAF125M060P0A	A
5	60	TAF505M060P0B	B
17	60	TAF176M060P0C	C
34	60	TAF346M060P0D	D
48	60	TAF486M060P0E	E
1	75	CL34BL010MP3	A
4	75	CL34BL040MP3	B
14	75	CL34BL140MP3	C
28	75	CL34BL280MP3	D
40	75	CL34BL400MP3	E
.8	100	CL34BN0R8MP3	A
3	100	CL34BN030MP3	B
10	100	CL34BN100MP3	C
20	100	CL34BN200MP3	D
30	100	CL34BN300MP3	E
.5	150	CL34BQ0R5MP3	A
1	150	TAF105M150P0B	B
2	150	CL34BQ020MP3	B
4	150	CL34BQ040MP3	C
7	150	CL34BQ070MP3	C
8	150	CL34BQ080MP3	D
12	150	CL34BQ120MP3	D
14	150	CL34BQ140MP3	D
20	150	CL34BQ200MP3	E

TAF—NON-POLARIZED

5	6	TAF505M006N0A	A
25	6	TAF256M006N0B	B
85	6	TAF856M006N0C	C
170	6	TAF177M006N0D	D
250	6	TAF257M006N0E	E
3	10	TAF305M010N0A	A
16	10	TAF166M010N0B	B
55	10	TAF556M010N0C	C
110	10	TAF117M010N0D	D
150	10	TAF157M010N0E	E
2.5	15	TAF255M015N0A	A
10	15	TAF106M015N0B	B
35	15	TAF356M015N0C	C
70	15	TAF706M015N0D	D
100	15	TAF107M015N0E	E
1.5	25	TAF155M025N0A	A
6	25	TAF605M025N0B	B
20	25	TAF206M025N0C	C
40	25	TAF406M025N0D	D
60	25	TAF606M025N0E	E
1.4	30	TAF145M030N0A	A
5.5	30	TAF555M030N0B	B
18	30	TAF186M030N0C	C
36	30	TAF366M030N0D	D
45	30	TAF456M030N0E	E
.8	50	TAF804M050N0A	A
3	50	TAF305M050N0B	B
10	50	TAF106M050N0C	C
20	50	TAF206M050N0D	D
30	50	TAF306M050N0E	E

TAF (CONT'D)

Cap., µf	+85° C WVDC	Mallory Catalog No.	Case Size
.6	60	TAF604M060N0A	A
2.5	60	TAF255M060N0B	B
8.5	60	TAF855M060N0C	C
17	60	TAF176M060N0D	D
24	60	TAF246M060N0E	E
.5	75	TAF504M075N0A	A
2	75	TAF205M075N0B	B
7	75	TAF705M075N0C	C
14	75	TAF146M075N0D	D
20	75	TAF206M075N0E	E
.4	100	TAF404M100N0A	A
1.5	100	TAF155M100N0B	B
5	100	TAF505M100N0C	C
10	100	TAF106M100N0D	D
15	100	TAF156M100N0E	E
.25	150	TAF254M150N0A	A
1	150	TAF105M150N0B	B
3.5	150	TAF355M150N0C	C
7	150	TAF705M150N0D	D
10	150	TAF106M150N0E	E

INDUSTRIAL NET PRICES
CL34 AND TAF PLAIN FOIL

Case*	Net Each, Lots of 1-9	10-24	25-49	50-99	100-499	500-999
A	$ 4.20	$ 3.33	$ 2.42	$ 1.70	$1.19	$1.03
B	6.60	4.51	3.47	2.47	1.70	1.56
C	10.40	7.17	5.51	3.92	2.68	2.47
D	14.60	10.03	7.70	5.49	3.78	3.46
E	19.60	13.44	10.30	7.34	5.06	4.63

PLAIN FOIL TANTALUMS +125° C

(Use CL31 instead of CL30; or, CL33 instead of CL32 for Mylar sleeve)

CL30/31—POLARIZED

Cap., µf	WVDC +125°C	Mallory Catalog No.	Case Size
4.5	10	CL30CD4R5MP3	A
18	10	CL30CD180MP3	B
55	10	CL30CD550MP3	C
110	10	CL30CD111MP3	D
160	10	CL30CD161MP3	E
3	15	CL30CE030MP3	A
12	15	CL30CE120MP3	B
35	15	CL30CE350MP3	C
70	15	CL30CE700MP3	D
100	15	CL30CE101MP3	E
1.5	30	CL30CH1R5MP3	A
6	30	CL30CH060MP3	B
20	30	CL30CH200MP3	C
40	30	CL30CH400MP3	D
55	30	CL30CH550MP3	E
1	50	CL30CJ010MP3	A
4	50	CL30CJ040MP3	B
14	50	CL30CJ140MP3	C
28	50	CL30CJ280MP3	D
40	50	CL30CJ400MP3	E
.8	60	CL30CK0R8MP3	A
3	60	CL30CK030MP3	B
10	60	CL30CK100MP3	C
20	60	CL30CK200MP3	D
30	60	CL30CK300MP3	E
.5	100	CL30CN0R5MP3	A
2	100	CL30CN020MP3	B
7	100	CL30CN070MP3	C
14	100	CL30CN140MP3	D
20	100	CL30CN200MP3	E
.35	150	CL30CQR35MP3	A
1.5	150	CL30CQ1R5MP3	B
5	150	CL30CQ050MP3	C
10	150	CL30CQ100MP3	D
15	150	CL30CQ150MP3	E

CL32/33—NON-POLARIZED

2.5	10	CL32CD2R5MN3	A
10	10	CL32CD100MN3	B
35	10	CL32CD350MN3	C
70	10	CL32CD700MN3	D
100	10	CL32CD101MN3	E
1.5	15	CL32CE1R5MN3	A
6	15	CL32CE060MN3	B
20	15	CL32CE200MN3	C
40	15	CL32CE400MN3	D
60	15	CL32CE600MN3	E
.8	30	CL32CH0R8MN3	A
3	30	CL32CH030MN3	B
10	30	CL32CH100MN3	C
20	30	CL32CH200MN3	D
30	30	CL32CH300MN3	E
.5	50	CL32CJ0R5MN3	A
2	50	CL32CJ020MN3	B
7	50	CL32CJ070MN3	C

CL32/33 (CONT'D)

Cap., µf	WVDC +125°C	Mallory Catalog No.	Case Size
14	50	CL32CJ140MN3	D
20	50	CL32CJ200MN3	E
.4	60	CL32CK0R4MN3	A
1.5	60	CL32CK1R5MN3	B
5	60	CL32CK050MN3	C
10	60	CL32CK100MN3	D
15	60	CL32CK150MN3	E
.25	100	CL32CNR25MN3	A
1	100	CL32CN010MN3	B
3.5	100	CL32CN3R5MN3	C
7	100	CL32CN070MN3	D
10	100	CL32CN100MN3	E
.15	150	CL32CQR15MN3	A
.75	150	CL32CQR75MN3	B
2.5	150	CL32CQ2R5MN3	C
5	150	CL32CQ050MN3	D
7.5	150	CL32CQ7R5MN3	E

INDUSTRIAL NET PRICES
CL30 AND CL32 PLAIN FOIL

Case*	Net Each, Lots of 1-9	10-24	25-49	50-99	100-499	500-999
A	$ 7.35	$ 5.18	$ 3.99	$ 2.84	$1.96	$1.79
B	9.80	6.89	5.32	3.78	2.59	2.38
C	14.20	9.98	7.70	5.47	3.78	3.44
D	18.30	12.87	9.93	7.07	4.85	4.45
E	23.55	16.57	12.78	9.08	6.25	5.71

ETCHED FOIL TANTALUMS +85° C

CL24/25—POLARIZED

(Use CL25 for Mylar sleeve)

Cap., µf	WVDC +85° C	Mallory Catalog No.	Case Size
15	15	CL24BE150UP3	A
60	15	CL24BE600UP3	B
200	15	CL24BE201UP3	C
400	15	CL24BE401UP3	D
580	15	CL24BE581UP3	E
10	25	CL24BG100UP3	A
40	25	CL24BG400UP3	B
120	25	CL24BG121UP3	C
250	25	CL24BG251UP3	D
350	25	CL24BG351UP3	E
8	30	CL24BH080UP3	A
32	30	CL24BH320UP3	B
110	30	CL24BH111UP3	C
220	30	CL24BH221UP3	D
300	30	CL24BH301UP3	E
4.5	50	CL24BJ4R5UP3	A
18	50	CL24BJ180UP3	B
60	50	CL24BJ600UP3	C
100	50	CL24BJ101UP3	D
150	50	CL24BJ151UP3	E
3	75	CL24BL030UP3	A
12	75	CL24BL120UP3	B
30	75	CL24BL300UP3	C
70	75	CL24BL700UP3	D
100	75	CL24BL101UP3	E
2	100	CL24BN020UP3	A
8	100	CL24BN080UP3	B
25	100	CL24BN250UP3	C
50	100	CL24BN500UP3	D
70	100	CL24BN700UP3	E
1	150	CL24BQ010UP3	A
4	150	CL24BQ040UP3	B
13	150	CL24BQ130UP3	C
25	150	CL24BQ250UP3	D
36	150	CL24BQ360UP3	E

INDUSTRIAL NET PRICES
CL24 ETCHED FOIL

Case*	Net Each, Lots of 1-9	10-24	25-49	50-99	100-499	500-999
A	$ 4.20	$ 3.33	$ 2.42	$ 1.71	$1.19	$1.03
B	7.55	4.94	3.80	2.70	1.87	1.72
C	12.60	8.65	6.65	4.73	3.27	2.98
D	20.55	14.11	10.83	7.70	5.31	4.86
E	27.35	18.76	14.44	10.26	7.10	6.47

*DuPont trademark.

NON-POLARIZED ETCHED FOIL TYPES TBF(N) AVAILABLE ON SPECIAL ORDER

TANTALUM FOIL CONT'D NEXT PAGE

MALLORY TANTALUM CAPACITORS

TANTALUM FOIL CAPACITORS (MIL-C-3965) (CONT'D)

ETCHED FOIL TANTALUMS +125° C

CL20/21—POLARIZED

(Use CL21 for Mylar* sleeve)

Cap., µf	WVDC +125°C	Mallory Catalog No.*	Case Size
15	10	CL20CD150UP3	A
60	10	CL20CD600UP3	B
200	10	CL20CD201UP3	C
400	10	CL20CD401UP3	D
580	10	CL20CD581UP3	E
10	15	CL20CE100UP3	A
40	15	CL20CE400UP3	B
120	15	CL20CE121UP3	C
250	15	CL20CE251UP3	D
350	15	CL20CE351UP3	E
4.5	30	CL20CH4R5TP3	A
18	30	CL20CH180TP3	B
60	30	CL20CH600TP3	C
100	30	CL20CH101TP3	D
150	30	CL20CH151TP3	E
3	50	CL20CJ030TP3	A
12	50	CL20CJ120TP3	B
30	50	CL20CJ300TP3	C
70	50	CL20CJ700TP3	D
100	50	CL20CJ101TP3	E
2	60	CL20CK020TP3	A
8	60	CL20CK080TP3	B
25	60	CL20CK250TP3	C
50	60	CL20CK500TP3	D
70	60	CL20CK700TP3	E
1	100	CL20CN010SP3	A
4	100	CL20CN040SP3	B
13	100	CL20CN130SP3	C
25	100	CL20CN250SP3	D
36	100	CL20CN360SP3	E

CL22/23—NON-POLARIZED

(Use CL23 for Mylar sleeve)

Cap., µf	WVDC +125°C	Mallory Catalog No.*	Case Size
10	10	CL22CD100UN3	A
40	10	CL22CD400UN3	B
120	10	CL22CD121UN3	C
250	10	CL22CD251UN3	D
350	10	CL22CD351UN3	E
5	15	CL22CE052UN3	A
20	15	CL22CE200UN3	B
70	15	CL22CE700UN3	C
140	15	CL22CE141UN3	D
200	15	CL22CE201UN3	E
2.5	30	CL22CH2R5TN3	A
10	30	CL22CH100TN3	B
30	30	CL22CH300TN3	C
60	30	CL22CH600TN3	D
80	30	CL22CH800TN3	E
1.5	50	CL22CJ1R5TN3	A
6	50	CL22CJ060TN3	B
15	50	CL22CJ150TN3	C
35	50	CL22CJ350TN3	D
50	50	CL22CJ500TN3	E
1	60	CL22CK010TN3	A
4	60	CL22CK040TN3	B
12	60	CL22CK120TN3	C
25	60	CL22CK250TN3	D
35	60	CL22CK350TN3	E
.5	100	CL22CN0R5SN3	A
2	100	CL22CN020SN3	B
6	100	CL22CN060SN3	C
12	100	CL22CN120SN3	D
18	100	CL22CN180SN3	E

INDUSTRIAL NET PRICES

Add **10c** for Mylar sleeve versions.

CL20 AND CL22 ETCHED FOIL

Case*	Net Each, Lots of 1-9	10-24	25-49	50-99	100-499	500-999
A	$ 7.35	$ 5.18	$ 3.99	$ 2.84	$1.96	$1.79
B	10.50	7.36	5.70	4.05	2.79	2.55
C	16.15	11.40	8.79	6.26	4.29	3.93
D	24.55	17.29	13.30	9.45	6.55	5.96
E	31.75	22.37	17.24	12.24	8.46	7.71

★FOIL CASE SIZE

Key	Size, In. (Dia. x L.) Uninsulated	Insulated
A	3/16 x 11/16	13/64 x 23/32
B	9/32 x 7/8	19/64 x 19/16
C	3/8 x 1 7/16	25/64 x 1 1/2
D	3/8 x 2 1/8	25/64 x 2 3/16
E	3/8 x 2 3/4	25/64 x 2 13/16

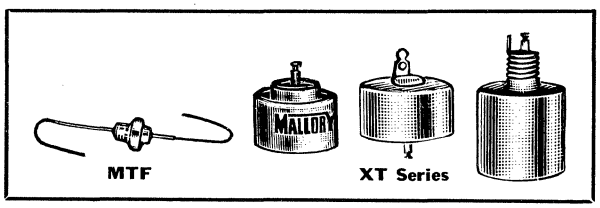
TOLERANCES

Tenth digit of MIL-C-3965 number (i.e., CL20CD150**U**P3) and 7th digit of Mallory number (i.e., TAF504**M**075N0A) indicates tolerance.

Key	Tolerance	Key	Tolerance
K	±10%	T	−15, +50%
M	±20%	U	−15, +75%
S	−15, +30%		

*DuPont trademark.

HERMETICALLY SEALED—HIGH TEMPERATURE



MTF −55° TO +150° C

Axial leads, commercial equivalent to MIL-C-3965 Style CL44.

Cap. µf	WVDC +85°C	Mallory Catalog No.	Cap. µf	WVDC +85°C	Mallory Catalog No.
11	90	MTF116T090P0H	40	30	MTF406T030P0H
15	75	MTF156T075P0H	70	15	MTF706T015P0H
20	60	MTF206T060P0H	100	10	MTF107T010P0H
25	50	MTF256T050P0H	140	6	MTF147T006P0H
30	40	MTF306T040P0H			

Any Model listed above—Net Each, Lots of 1-24, **$6.76**; 25-49, **$5.41**; 50-99, **$4.56**; 100-499, **$3.89**.

XTM −55° TO +175° C

Cap., µf	WVDC +85° C	Mallory Catalog No.*	Net Each, Lots of 1-24	25-49	50-99
4	340	XTM405T340P0A	$16.20	$15.12	$14.04
5	255	XTM505T255P0A	12.96	12.10	11.23
8	170	XTM805T170P0A	9.90	9.24	8.56
16	90	XTM166T090P0A	6.56	6.12	5.68
25	60	XTM256T060P0A	6.56	6.12	5.68
40	35	XTM406T035P0A	6.56	6.12	5.68

*Suffix letter **A** indicates MIL-C-3965/20A, style CL10. Also available in Style CL13; change suffix letter to **D**, add **5c** to prices shown.

XTH-XTL-XTV HIGH TEMP.—HIGH CAPACITY

XTH, XTL, and XTV types are available in twelve case configurations. Only those cases which are normally stocked are shown here. All others are available on special order. Cases listed conform fully to MIL-C-3965B Styles CL10, 13, 14, 16, 17, and 18.

XTH −55° TO +200° C

Cap., µf	WVDC +85° C	Mallory Catalog No.†	Net Each, Lots of 1-24	25-49	50-99
7	630	XTH705U630P0C	$42.62	$39.78	$36.94
8	540	XTH805U540P0C	37.13	34.66	32.19
12	360	XTH126U360P0C	26.06	24.33	22.59
12	360	XTH126U360P0L	26.41	24.68	22.94
16	270	XTH166U270P0C	20.48	19.12	17.76
16	270	XTH166U270P0L	20.83	19.47	18.11
25	180	XTH256U180P0C	14.80	13.81	12.83
25	180	XTH256U180P0L	15.15	14.16	13.18
50	90	XTH506U090P0C	9.30	8.69	8.07
80	60	XTH806U060P0C	9.30	8.69	8.07
80	60	XTH806U060P0L	9.65	9.04	8.42
120	35	XTH127U035P0C	9.30	8.69	8.07
150	30	XTH157U030P0C	9.30	8.69	8.07
150	30	XTH157U030P0L	9.65	9.04	8.42
240	18	XTH247U018P0L	9.65	9.04	8.42

†**C**, MIL-C-3965/1D, CL14; **L**, MIL-C-3965/1D, CL16.

XTL −55° TO +200° C

Cap., µf	WVDC +85° C	Mallory Catalog No.	Net Each, Lots of 1-24	25-49	50-99
3.5	630	XTL355U630P0C*	$34.30	$32.01	$29.73
4	540	XTL405U540P0C*	29.89	27.90	25.91
5	450	XTL505U450P0C*	25.70	23.99	22.28
6	360	XTL605U360P0C*	21.16	19.75	18.34
6	360	XTL605U360P0L‡	21.50	20.10	18.69
8	270	XTL805U270P0C*	16.70	15.59	14.48
12	180	XTL126U180P0C*	12.38	11.56	10.64
12	180	XTL126U180P0L‡	12.73	11.91	11.09
25	90	XTL256U090P0C*	8.24	7.69	7.15
40	60	XTL406U060P0C*	8.24	7.69	7.15
40	60	XTL406U060P0L‡	8.59	8.04	7.50
75	30	XTL756U030P0C*	8.24	7.69	7.15
75	30	XTL756U030P0L‡	8.59	8.04	7.50
120	18	XTL127U018P0C*	8.24	7.69	7.15

*Stock Items (MIL-C-3965/1D, Style CL14). ‡Stock Items (MIL-C-3965/1D, Style CL16).

XTV −55° TO +200° C

XTV listed by MIL-C-3965/19A Style CL17 ("C") and CL18 ("B") are stocked. Ten other case configurations available on special order.

Cap., µf	WVDC +85° C	Mallory Catalog No.	Net Each, Lots of 1-24	25-49	50-99
25	450	XTV256T450P0B	$79.55	$74.25	$68.95
40	270	XTV406T270P0B	49.55	46.25	42.95
60	180	XTV606T180P0B	35.00	32.67	30.34
120	90	XTV127T090P0B	19.55	18.25	16.95
190	40	XTV197T040P0B	13.55	12.65	11.75
200	60	XTV207T060P0B	19.55	18.25	16.95
220	75	XTV227T075P0B	30.05	28.05	26.05
290	40	XTV297T040P0B	19.55	18.25	16.95
350	60	XTV357T060P0B	30.05	28.05	26.05
450	75	XTV457T075P0B	43.55	40.65	37.75
500	40	XTV507T040P0B	30.05	28.05	26.05
700	60	XTV707T060P0B	43.55	40.65	37.75
750	60	XTV757T060P0B	43.55	40.65	37.75
1000	40	XTV108T040P0B	43.55	40.65	37.75
1300	30	XTV138T030P0B	43.55	40.65	37.75
25	450	XTV256T450P0C	79.55	74.25	68.95
40	270	XTV406T270P0C	49.55	46.25	42.95
60	180	XTV606T180P0C	35.00	32.67	30.34
120	90	XTV127T090P0C	19.55	18.25	16.95
200	60	XTV207T060P0C	19.55	18.25	16.95
220	75	XTV227T075P0C	30.05	28.05	26.05
350	60	XTV357T060P0C	30.05	28.05	26.05
290	40	XTV297T040P0C	19.55	18.25	16.95
370	30	XTV377T030P0C	19.55	18.25	16.95
450	75	XTV457T075P0C	43.55	40.65	37.75
500	40	XTV507T040P0C	30.05	28.05	26.05
650	30	XTV657T030P0C	30.05	28.05	26.05
700	60	XTV707T060P0C	43.55	40.65	37.75
750	60	XTV757T060P0C	43.55	40.65	37.75
1000	40	XTV108T040P0C	43.55	40.65	37.75
1300	30	XTV138T030P0C	43.55	40.65	37.75

Net

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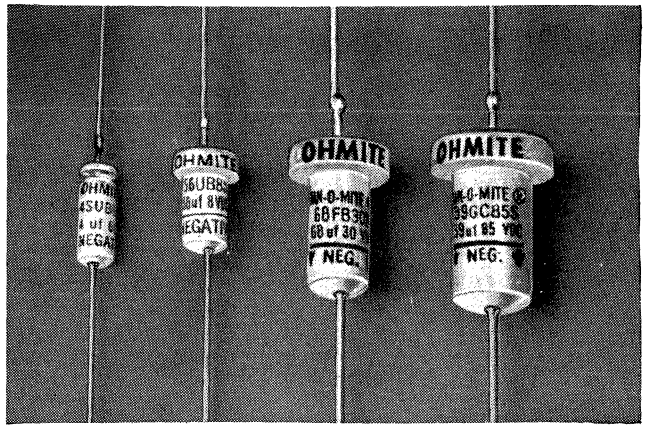
TANTALUM SLUG CAPACITORS — TAN-O-MITE® SERIES TS



1½" Leads Com'l Size SU, MIL Size T1 | 1½" Leads Com'l Size U, MIL Size T1 | 2¼" Leads Com'l Size F, MIL Size T2 | 2¼" Leads Com'l Size G, MIL Size T3

The "slug" type of tantalum capacitor utilizes a porous anode of sintered tantalum. Intended for polar applications, these capacitors offer the best characteristics of all the types described in this catalog. They exceed the vibration test of MIL-C-3965C, Grade 3.

Available from stock in two physical types—the "hat-shaped" type, 4 sizes (Y, U, F, G) and the "straight-cylindrical" type, 3 sizes (SU, SF, SG) which have the same range of capacitance and voltage as the equivalent hat-shape sizes. Hat-shape types are offered in two operating temperature ranges, −55°C to +85°C and −55°C to +125°C; the straight-cylindrical type is offered only in the 85°C range. Tolerances: See footnotes under price and stock tables. Units insulated with plastic sleeve are available at slight extra cost.

DIMENSIONS — UNINSULATED

HAT SHAPE				STRAIGHT-CYL.				
Com'l.	MIL	Dia.	Lgth.	Com'l.	MIL	Dia.	Lgth.	Leads
Y	—	13/64	19/64	—	—	—	—	1½
U	T1	5/16	15/32	SU	T1	3/16	29/64	1½
F	T2	15/32	11/16	SF	T2	9/32	41/64	2¼
G	T3	37/64	49/64	SG	T3	3/8	49/64	2¼

COMMERCIAL SLUG CAPACITOR 1-24 QTY. NET PRICES

HAT-SHAPE AND STRAIGHT-CYLINDRICAL—UNINSULATED*

Case Size		85°C Tolerance†		125°C§ Tolerance†	
Hat	Straight	M	K	M	K
U	SU	$1.98	$2.22	$2.06	$2.30
F	SF	3.02	3.38	3.16	3.52
G	SG	4.72	5.32	4.96	5.56
Y	—	1.78	2.00	—	—

*For plastic insulating sleeve add 10c for case sizes U, F, G, Y; Add 5c for sizes SU, SF, SG.
†Standard Tolerances — M = ±20%; K = ±10%. (T = —15+50%, S = —15+20% — available at same price as M tol.)
§Straight-cyl. not available 125°C temp. rating.

MIL-C-3965C SLUG CAPACITORS 1-24 QTY. NET PRICES

HAT SHAPE (CL44) AND STRAIGHT-CYLINDRICAL (CL64) UNINSULATED*

Case Size CL44*, 64*	85C° Tolerance†		125°C§ Tolerance†	
	M	K	M	K
T1	$1.98	$2.22	$2.06	$2.30
T2	3.02	3.38	3.16	3.52
T3	4.72	5.32	4.96	5.56

*For plastic insulating sleeve (MIL STYLES CL45, CL65) add 10c each.
†Standard Tolerances — M = ±20%; K = ±10%. (T = —15+50%, S = —15+20% — available at same price as M tol.)
§Straight-cyl. not available 125°C temp. rating.

STOCK HAT-SHAPE & STRAIGHT-CYLINDRICAL SLUG CAPACITORS
COMM'L CASES U, F, G, Y, SU, SF, SG — MIL STYLES CL44, CL45, CL64, CL65 — CASES T1, T2, T3

	D.C. Volts		Commercial		MIL-C-3965C			D.C. Volts		Commercial		MIL-C-3965C	
Mfd.	85°C	125°C	Case Size▶	Stock No. (Incomplete†)	Case Size	Type Designation (Incomplete*)	Mfd.	85°C	125°C	Case Size▶	Stock No. (Incomplete†)	Case Size	Type Designation (Incomplete*)
15	6		Y	**15YB6_**			10	10		Y	**10YB10_**		
30	6		U	**30_UB6_**	T1	**CL__BB300_P3**	20	10		U	**20_UB10_**	T1	**CL__BD200_P3**
30	6	4	U	**30UC4_**	T1	**CL__CB300_P3§**	20	10	7	U	**20UC7_**	T1	**CL__CD200_P3§**
68‡	6		U	**68_UB6_**	T1	**CL__BB680_P3**	47‡	10		U	**47_UB10_**	T1	**CL__BD470_P3**
68‡	6	4	U	**68UC4_**	T1	**CL__CB680_P3§**	47‡	10	7	U	**47UC7_**	T1	**CL__CD470_P3§**
140	6		F	**140_FB6_**	T2	**CL__BB141_P3**	100	10		F	**100_FB10_**	T2	**CL__BD101_P3**
140	6	4	F	**140FC4_**	T2	**CL__CB141_P3§**	100	10	7	F	**100FC7_**	T2	**CL__CD101_P3§**
270‡	6		F	**270_FB6_**	T2	**CL__BB271_P3**	180‡	10		F	**180_FB10_**	T2	**CL__BD181_P3**
270‡	6	4	F	**270FC4_**	T2	**CL__CB271_P3§**	180‡	10	7	F	**180FC7_**	T2	**CL__CD181_P3§**
330	6		G	**330_GB6_**	T3	**CL__BB331_P3**	250	10		G	**250_GB10_**	T3	**CL__BD251_P3**
330	6	4	G	**330GC4_**	T3	**CL__CB331_P3§**	250	10	7	G	**250GC7_**	T3	**CL__CD251_P3§**
560‡	6		G	**560_GB6_**	T3	**CL__BB561_P3**	390‡	10		G	**390_GB10_**	T3	**CL__BD391_P3**
560‡	6	4	G	**560GC4_**	T3	**CL__CB561_P3§**	390‡	10	7	G	**390GC7_**	T3	**CL__CD391_P3§**
12	8		Y	**12YB8_**			6.2	15		Y	**6R2YB15_**		
25	8		U	**25_UB8_**	T1	**CL__BC250_P3**	15	15		U	**15_UB15_**	T1	**CL__BE150_P3**
25	8	5	U	**25UC5_**	T1	**CL__CC250_P3§**	15	15	10	U	**15UC10_**	T1	**CL__CE150_P3§**
56‡	8		U	**56_UB8_**	T1	**CL__BC560_P3**	33‡	15		U	**33_UB15_**	T1	**CL__BE330_P3**
56‡	8	5	U	**56UC5_**	T1	**CL__CC560_P3§**	33‡	15	10	U	**33UC10_**	T1	**CL__CE330_P3§**
220‡	8		F	**220_FB8_**	T2	**CL__BC221_P3**	70	15		F	**70_FB15_**	T2	**CL__BE700_P3**
220‡	8	5	F	**220FC5_**	T2	**CL__CC221_P3§**	70	15	10	F	**70FC10_**	T2	**CL__CE700_P3§**
430‡	8		G	**430_GB8_**	T3	**CL__BC431_P3**	120‡	15		F	**120_FB15_**	T2	**CL__BE121_P3**
430‡	8	5	G	**430GC5_**	T3	**CL__CC431_P3§**	120‡	15	10	F	**120FC10_**	T2	**CL__CE121_P3§**

†Complete commercial stock no. as follows: If straight-cylindrical capacitor is desired, insert an "S" in the middle of the number where the underlined space is provided as in "30SUB6_." (Where a space is not provided, the capacitor is **NOT** available as a straight-cylindrical type.) If a hat-shape capacitor is desired, write this number without the space as in "30UB6_." Add K, or M at end of number to indicate tolerance. Add "A" after tolerance letter if insulating sleeve is desired.

*Complete MIL type designation as follows: For hat-shape, uninsulated type, insert "44" after "CL__"; for insulated type insert "45" instead. For straight-cylindrical shape, uninsulated, insert "64" after "CL__"; for insulated type insert "65" instead. Note: CL64, CL65 not available at 125°C ratings ("C" char.). Insert M, or K before "P" to indicate tolerance. Previous MIL tolerances S and T, can be supplied.

‡High capacitance units.

§Not available as CL64, CL65 straight-cylindrical capacitors.

Tolerances: T = —15+50%; S = —15+20%; M = ±20%; K = ±10%.

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TANTALUM SLUG AND WIRE CAPACITORS

HAT-SHAPE CONTINUED

170	15		G	170_GB15_	T3	CL__BE171_P3
170	15	10	G	170GC10_	T3	CL__CE171_P3§
270‡	15		G	270_GB15_	T3	CL__BE271_P3
270‡	15	10	G	270GC10_	T3	CL__CE271_P3§
4.3	25		Y	4R3YB25_		
10	25		U	10_UB25_	T1	CL__BG100_P3
10	25	17	U	10UC17_	T1	CL__CG100_P3§
22‡	25		U	22_UB25_	T1	CL__BG220_P3
22‡	25	17	U	22UC17_	T1	CL__CG220_P3§
100‡	25		F	100_FB25_	T2	CL__BG101_P3
100‡	25	17	F	100FC17_	T2	CL__CG101_P3§
180‡	25		G	180_GB25_	T3	CL__BG181_P3
180‡	25	17	G	180GC17_	T3	CL__CG181_P3§
3.6	30		Y	3R6YB30_		
8	30		U	8_UB30_	T1	CL__BH080_P3
8	30	20	U	8UC20_	T1	CL__CH080_P3§
15‡	30		U	15_UB30_	T1	CL__BH150_P3
15‡	30	20	U	15UC20_	T1	CL__CH150_P3§
40	30		F	40_FB30_	T2	CL__BH400_P3
40	30	20	F	40FC20_	T2	CL__CH400_P3§
68‡	30		F	68_FB30_	T2	CL__BH680_P3
68‡	30	20	F	68FC20_	T2	CL__CH680_P3§
100	30		G	100_GB30_	T3	CL__BH101_P3
100	30	20	G	100GC20_	T3	CL__CH101_P3§
150‡	30		G	150_GB30_	T3	CL__BH151_P3
150‡	30	20	G	150GC20_	T3	CL__CH151_P3§
2.2	50		Y	2R2YB50_		
5	50		U	5_UB50_	T1	CL__BJ050_P3
5	50	33	U	5UC33_	T1	CL__CJ050_P3§
10‡	50		U	10_UB50_	T1	CL__BJ100_P3
10‡	50	33	U	10UC33_	T1	CL__CJ100_P3§
25	50		F	25_FB50_	T2	CL__BJ250_P3
25	50	33	F	25FC33_	T2	CL__CJ250_P3§
47‡	50		F	47_FB50_	T2	CL__BJ470_P3
47‡	50	33	F	47FC33_	T2	CL__CJ470_P3§
60	50		G	60_GB50_	T3	CL__BJ600_P3
60	50	33	G	60GC33_	T3	CL__CJ600_P3§
82‡	50		G	82_GB50_	T3	CL__BJ820_P3
82‡	50	33	G	82GC33_	T3	CL__CJ820_P3§
1.8	60		Y	1R8YB60_		
4	60		U	4_UB60_	T1	CL__BK040_P3
4	60	40	U	4UC40_	T1	CL__CK040_P3§
8.2‡	60		U	8R2_UB60_	T1	CL__BK8R2_P3
8.2‡	60	40	U	8R2UC40_	T1	CL__CK8R2_P3§
20	60		F	20_FB60_	T2	CL__BK200_P3
20	60	40	F	20FC40_	T2	CL__CK200_P3§
39‡	60		F	39_FB60_	T2	CL__BK390_P3
39‡	60	40	F	39FC40_	T2	CL__CK390_P3§
50	60		G	50_GB60_	T3	CL__BK500_P3
50	60	40	G	50GC40_	T3	CL__CK500_P3§
68‡	60		G	68_GB60_	T3	CL__BK680_P3
68‡	60	40	G	68GC40_	T3	CL__CK680_P3§
1.5	75		Y	1R5YB75_		
3.5	75		U	3R5_UB75_	T1	CL__BL3R5_P3
3.5	75	50	U	3R5UC50_	T1	CL__CL3R5_P3§
6.8‡	75		U	6R8_UB75_	T1	CL__BL6R8_P3
6.8‡	75	50	U	6R8UC50_	T1	CL__CL6R8_P3§
15	75		F	15_FB75_	T2	CL__BL150_P3
15	75	50	F	15FC50_	T2	CL__CL150_P3§
33‡	75		F	33_FB75_	T2	CL__BL330_P3
33‡	75	50	F	33FC50_	T2	CL__CL330_P3§
40	75		G	40_GB75_	T3	CL__BL400_P3
40	75	50	G	40GC50_	T3	CL__CL400_P3§
56‡	75		G	56_GB75_	T3	CL__BL560_P3
56‡	75	50	G	56GC5_	T3	CL__CL560_P3§
1.1	100		Y	1R1YB100_		
2.5	100		U	2R5_UB100_	T1	CL__BN2R5_P3
2.5	100	70	U	2R5UC70_	T1	CL__CN2R5_P3§
4.7‡	100		U	4R7_UB100_	T1	CL__BN4R7_P3
4.7‡	100	70	U	4R7UC70_	T1	CL__CN4R7_P3§
11	100		F	11_FB100_	T2	CL__BN110_P3
11	100	70	F	11FC70_	T2	CL__CN110_P3§
22‡	100		F	22_FB100_	T2	CL__BN220_P3
22‡	100	70	F	22FC70_	T2	CL__CN220_P3§
30	100		G	30_GB100_	T3	CL__BN300_P3
30	100	70	G	30GC70_	T3	CL__CN300_P3§
43‡	100		G	43_GB100_	T3	CL__BN430_P3
43‡	100	70	G	43GC70_	T3	CL__CN430_P3§
0.91	125		Y	R91YB125_		
1.7	125		U	1R7_UB125_	T1	CL__BP1R7_P3
1.7	125	85	U	1R7UC85_	T1	CL__CP1R7_P3§
3.6‡	125		U	3R6_UB125_	T1	CL__BP3R6_P3
3.6‡	125	85	U	3R6UC85_	T1	CL__CP3R6_P3§
9	125		F	9_FB125_	T2	CL__BP090_P3
9	125	85	F	9FC85_	T2	CL__CP090_P3§
22‡	125		F	22_FB125_		
22‡	125	85	F	22FC85_		
25	125		G	25_GB125_	T3	CL__BP250_P3
25	125	85	G	25GC85_	T3	CL__CP250_P3§
39‡	125		G	39_GB125_		
39‡	125	85	G	39GC85_		

†Complete commercial stock no. as follows: If straight-cylindrical capacitor is desired, insert an "S" in the middle of the number where the underlined space is provided as in "30SUB6_." (Where a space is not provided, the capacitor is **NOT** available as a straight-cylindrical type.) If a hat-shape capacitor is desired, write this number without the space as in "30UB6_." Add K, or M at end of number to indicate tolerance. Add "A" after tolerance letter if insulating sleeve is desired.

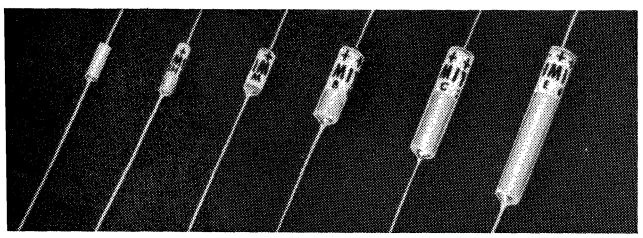
'Complete MIL type designation as follows: For hat-shape, uninsulated type, insert "44" after "CL__"; for insulated type insert "45" instead. For straight-cylindrical shape, uninsulated, insert "64" after "CL__"; for insulated type insert "65" instead. Note: CL64, CL65 not available in 125°C ratings ("C" char.). Insert M, or K before "P" to indicate tolerance. Previous MIL tolerances S and T, can be supplied.

‡High capacitance units.

§Not available as CL64, CL65 straight-cylindrical capacitors.

Tolerances: T = —15+50%; S = —15+20%; M = ±20%; K = ±10%.

TANTALUM WIRE CAPACITORS — SERIES TW



Size	Dia.	Lgth.	Size	Dia.	Lgth.
TK	.060	.150	M	.100	.218
TJ	.060	.190	B	.134	.375
HK	.075	.150	C	.134	.562
HJ	.075	.190	E	.134	.812
S	.080	.234			

Smallest subminiature electrolytic capacitors available. The anode is specially processed tantalum wire sealed into a silver case. Axial leads are 2" long. Units are insulated with Mylar plastic sleeve. These polar type units are used in DC circuits where capacitance can exceed nominal circuit values (standard tolerance, —0 + 100%). Wide use in hearing aids and other subminiature apparatus. Operating temperature range: —55°C to +85°C. Nine of thirteen available case sizes stocked.

Mfd.	DCWV	Stock No.*	Net 1-24
0.1	20	R1T[illegible]0	$1.65
	60	R1M60	1.65
0.2	20	R2TK20	1.65
	150	R2E150	3.44
0.5	10	R5TK10	1.65
	16	R5TJ16	1.65
	20	R5S20	1.65
	80	R5B80	2.19
1.0	4	1TK4	1.65
	8	1HK8	1.65
	10	1HJ10	1.65
	20	1M20	1.65
	60	1B60	2.19
	80	1C80	2.56
2	1.25	2TK1R25	1.65
	4	2HJ4	1.65
	8	2S8	1.65
	40	2B40	2.19
3	1.25	3HK1R25	1.65
	80	3E80	3 44
	4	3HJ4	1.65
4	3	4HJ3	$1.65
	4	4S4	1.65
	20	4B20	1.78
5	30	5C30	2.56
	60	5E60	3.44
6	1.25	6HJ1R25	1.65
8	1.25	8S1R25	1.65
	4	8M4	1.65
10	8	10B8	1.78
	16	10C16	1.78
	30	10E30	3.44
15	1.25	15M1R25	1.65
20	2	20B2	1.78
25	6	25C6	1.78
30	10	30E10	2.89
50	2	50C2	1.78
60	4	60E4	2.89
75	2	75E2	2.89

*MIDDLE LETTERS IN STOCK NO. INDICATE PHYSICAL SIZE.

Net

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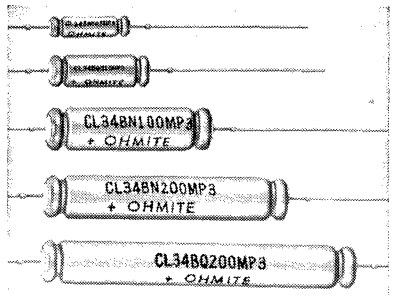
OHMITE

resistors · rheostats · tap switches · relays
variable transformers · tantalum capacitors
semiconductor diodes · r.f. chokes

TAN-O-MITE® SERIES TF TANTALUM FOIL CAPACITORS



Plain and etched tantalum foil units stocked in polar and non-polar types. The polar unit is intended for applications in which reversals of potential do not occur but will withstand reversals up to 3.75 VDC except where the voltage rating is less. Foil types offer closer tolerance, also leakage and power factor characteristics superior to wire types. The etched foil units afford higher maximum capacitances for a given case size and have somewhat lower leakage current than the plain foil units. Operating temperature range: −55°C to +85°C. Tolerances: Plain foil, ±20% (MIL code "M"). Etched foil, less than 50 volts, −15 +75% (MIL code U); 50-99 volts, −15 +50% (T); 100-150 volts, −15 +30% (S). 1½" axial leads. Designed to meet MIL-C-3965C, Styles CL24, CL25, CL26, CL27, CL34, CL35, CL36, CL37. 5 MIL case sizes. All units meet MIL vibration rating Grade 3. Units can be furnished with plastic sleeve.

PRICES, DIMENSIONS

Com'l.	Case Size MIL Styles* CL34, CL24 CL36, CL26	Uninsulated* Dia.	Lgth.	Net 1-9 Qty. Plain Foil	Etched Foil
J	C1	3/16"	11/16"	$ 4.18	$ 4.18
K	C2	9/32"	7/8"	6.58	7.23
L	C3	3/8"	1 7/16"	10.43	12.58
N	C4	3/8"	2 1/8"	14.58	20.53
P	C5	3/8"	2 3/4"	19.58	27.33

*For plastic insulating sleeve commercial "S" suffix or MIL Styles CL35, 37; CL25, 27—add 10c extra.

STOCK — PLAIN FOIL
UNINSULATED‡

DC Volts	Mfd.	Case	Commercial Stock No.‡	Case	MIL-C-3965C Type Designation‡
3	10	J	10J3*	C1	CL34BA100MP3
	50	K	50K3*	C2	CL34BA500MP3
3.75	10	J	10J3R75N	C1	CL36BA100MN3†
	45	K	45K3R75N	C2	CL36BA450MN3†
	140	L	140L3R75N	C3	CL36BA141MN3†
	280	N	280N3R75N	C4	CL36BA281MN3†
	400	P	400P3R75N	C5	CL36BA401MN3†
6	8	J	8J6	C1	CL34BB080MP3
	30	K	30K6	C2	CL34BB300MP3
	35	K	35K6		
	100	L	100L6	C3	CL34BB101MP3
	200	N	200N6	C4	CL34BB201MP3
	300	P	300P6	C5	CL34BB301MP3
	7	J	7J6N	C1	CL36BB070MN3
	25	K	25K6N	C2	CL36BB250MN3
	85	L	85L6N	C3	CL36BB850MN3
	170	N	175N6N	C4	CL36BB171MN3
	250	P	250P6N	C5	CL36BB251MN3
10	6	J	6J10	C1	CL34BD060MP3
	25	K	25K10	C2	CL34BD250MP3
	80	L	80L10	C3	CL34BD800MP3
	160	N	160N10	C4	CL34BD161MP3
	220	P	220P10	C5	CL34BD221MP3
	4	J	4J10N	C1	CL36BD040MN3
	16	K	16K10N	C2	CL36BD160MN3
	55	L	55L10N	C3	CL36BD550MN3
	110	N	110N10N	C4	CL36BD111MN3
	150	P	150P10N	C5	CL36BD151MN3

Numbers in "3" are non-polar units. Non-polar units may be used as polar units.

‡For insulating sleeve add "S" to commercial stock number; on MIL designations, change "CL24" to "CL25," "CL26" to "CL27", "CL34" to "CL35" or "CL36" to "CL37".

*Regardless of polarity indicated, these low voltage units can be used as either polar or non-polar units.

†MIL-C-3965C requires only 3 volt rating—Ohmite units are rated 3.75 v.

STOCK — PLAIN FOIL (cont.)
UNINSULATED‡

DC Volts	Mfd.	Case	Commercial Stock No.‡	Case	MIL-C-3965C Type Designation‡
15	4.5	J	4R5J15	C1	CL34BE4R5MP3
	10	K	10K15	C2	CL34BE100MP3
	18	K	18K15	C2	CL34BE180MP3
	55	L	55L15	C3	CL34BE550MP3
	110	N	110N15	C4	CL34BE111MP3
	160	P	160P15	C5	CL34BE161MP3
	2.5	J	2R5J15N	C1	CL36BE2R5MN3
	10	K	10K15N	C2	CL36BE100MN3
	35	L	35L15N	C3	CL36BE350MN3
	70	N	70N15N	C4	CL36BE700MN3
	100	P	100P15N	C5	CL36BE101MN3
25	3	J	3J25		
	12	K	12K25		
	35	L	35L25		
	70	N	70N25		
	100	P	100P25		
	1.5	J	1R5J25N	C1	CL36BG1R5MN3
	6	K	6K25N	C2	CL36BG060MN3
	20	L	20L25N	C3	CL36BG200MN3
	40	N	40N25N	C4	CL36BG400MN3
	60	P	60P25N	C5	CL36BG600MN3
30	2.5	J	2R5J30	C1	CL34BH2R5MP3
	10	K	10K30		
	30	L	30L30	C3	CL34BH300MP3
	60	N	60N30	C4	CL34BH600MP3
	85	P	85P30	C5	CL34BH850MP3
	1.4	J	1R4J30N	C1	CL36BH1R4MN3
	5.5	K	5R5K30N	C2	CL36BH5R5MN3
	18	L	18L30N	C3	CL36BH180MN3
	36	N	36N30N	C4	CL36BH360MN3
	45	P	45P30N	C5	CL36BH450MN3
50	1.5	J	1R5J50	C1	CL34BJ1R5MP3
	6	K	6K50	C2	CL34BJ060MP3
	20	L	20L50	C3	CL34BJ200MP3
	40	N	40N50	C4	CL34BJ400MP3
	55	P	55P50	C5	CL34BJ550MP3
	0.8	J	R8J50N	C1	CL36BJ0R8MN3
	3	K	3K50N	C2	CL36BJ030MN3
	10	L	10L50N	C3	CL36BJ100MN3
	20	N	20N50N	C4	CL36BJ200MN3
	30	P	30P50N	C5	CL36BJ300MN3
60	1.25	J	1R25J60		
	5	K	5K60		
	17	L	17L60		
	34	N	34N60		
	48	P	48P60		
	0.6	J	R6J60N		
	2.5	K	2R5K60N		
	8.5	L	8R5L60N		
	17	N	17N60N		
	24	P	24P60N		
75	1	J	1J75	C1	CL34BL010MP3
	4	K	4K75	C2	CL34BL040MP3
	14	L	14L75	C3	CL34BL140MP3
	28	N	28N75	C4	CL34BL280MP3
	40	P	40P75	C5	CL34BL400MP3
	0.5	J	R5J75N	C1	CL36BL0R5MN3
	2	K	2K75N	C2	CL36BL020MN3
	7	L	7L75N	C3	CL36BL070MN3
	14	N	14N75N	C4	CL36BL140MN3
	20	P	20P75N	C5	CL36BL200MN3
100	0.8	J	R8J100	C1	CL34BN0R8MP3
	3	K	3K100	C2	CL34BN030MP3
	10	L	10L100	C3	CL34BN100MP3
	20	N	20N100	C4	CL34BN200MP3
	30	P	30P100	C5	CL34BN300MP3
	0.4	J	R4J100N	C1	CL36BN0R4MN3
	1.5	K	1R5K100N	C2	CL36BN1R5MN3
	5	L	5L100N	C3	CL36BN050MN3
	10	N	10N100N	C4	CL36BN100MN3
	15	P	15P100N	C5	CL36BN150MN3
150	0.5	J	R5J150	C1	CL34BQ0R5MP3
	2	K	2K150	C2	CL34BQ020MP3
	4	L	4L150	C3	CL34BQ040MP3
	7	L	7L150	C3	CL34BQ070MP3
	8	N	8N150	C4	CL34BQ080MP3
	12	N	12N150	C4	CL34BQ120MP3
	14	N	14N150	C4	CL34BQ140MP3
	20	P	20P150	C5	CL34BQ200MP3
	0.25	J	R25J150N	C1	CL36BQR25MN3
	1	K	1K150N	C2	CL36BQ010MN3
	3.5	L	3R5L150N	C3	CL36BQ3R5MN3
	7	N	7N150N	C4	CL36BQ070MN3
	10	P	10P150N	C5	CL36BQ100MN3

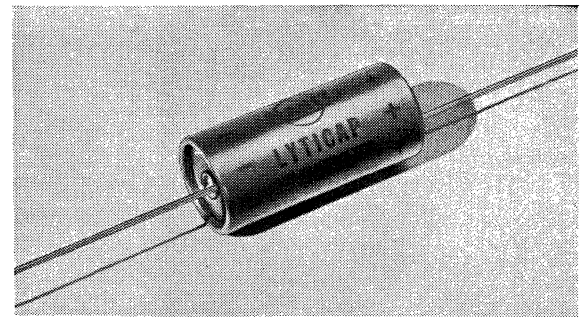
STOCK — ETCHED FOIL
UNINSULATED‡

Mfd.	Case	Commercial Stock No.‡	Case	MIL-C-3965C Type Designation‡
15	J	15JE15	C1	CL24BE150UP3
60	K	60KE15	C2	CL24BE600UP3
200	L	200LE15	C3	CL24BE201UP3
400	N	400NE15	C4	CL24BE401UP3
580	P	580PE15	C5	CL24BE581UP3
10	J	10JE15N	C1	CL26BE100UN3
40	K	40KE15N	C2	CL26BE400UN3
120	L	120LE15N	C3	CL26BE121UN3
125	L	125LE15N		
250	N	250NE15N	C4	CL26BE251UN3
350	P	350PE15N	C5	CL26BE351UN3
10	J	10JE25	C1	CL24BG100UP3
40	K	40KE25	C2	CL24BG400UP3
120	L	120LE25	C3	CL24BG121UP3
125	L	125LE25		
250	N	250NE25	C4	CL24BG251UP3
350	P	350PE25	C5	CL24BG351UP3
5	J	5JE25N	C1	CL26BG050UN3
20	K	20KE25N	C2	CL26BG200UN3
70	L	70LE25N	C3	CL26BG700UN3
140	N	140NE25N	C4	CL26BG141UN3
200	P	200PE25N	C5	CL26BG201UN3
8	J	8JE30	C1	CL24BH080UP3
32	K	32KE30	C2	CL24BH320UP3
110	L	110LE30	C3	CL24BH111UP3
220	N	220NE30	C4	CL24BH221UP3
300	P	300PE30	C5	CL24BH301UP3
4.5	J	4R5JE30N	C1	CL26BH4R5UN3
18	K	18KE30N	C2	CL26BH180UN3
60	L	60LE30N	C3	CL26BH600UN3
120	N	120NE30N	C4	CL26BH121UN3
170	P	170PE30N	C5	CL26BH171UN3
4.5	J	4R5JE50	C1	CL24BJ4R5TP3
18	K	18KE50	C2	CL24BJ180TP3
60	L	60LE50	C3	CL24BJ600TP3
100	N	100NE50	C4	CL24BJ101TP3
150	P	150PE50	C5	CL24BJ151TP3
2.5	J	2R5JE50N	C1	CL26BJ2R5TN3
10	K	10KE50N	C2	CL26BJ100TN3
30	L	30LE50N	C3	CL26BJ300TN3
60	N	60NE50N	C4	CL26BJ600TN3
80	P	80PE50N	C5	CL26BJ800TN3
4	J	4JE60		
15	K	15KE60		
50	L	50LE60		
88	N	88NE60		
125	P	125PE60		
2	J	2JE60N		
7.5	K	7R5KE60N		
25	L	25LE60N		
50	N	50NE60N		
67	P	67PE60N		
3	J	3JE75	C1	CL24BL030TP3
12	K	12KE75	C2	CL24BL120TP3
30	L	30LE75	C3	CL24BL300TP3
70	N	70NE75	C4	CL24BL700TP3
100	P	100PE75	C5	CL24BL101TP3
1.5	J	1R5JE75N	C1	CL26BL1R5TN3
6	K	6KE75N	C2	CL26BL060TN3
15	L	15LE75N	C3	CL26BL150TN3
35	N	35NE75N	C4	CL26BL350TN3
50	P	50PE75N	C5	CL26BL500TN3
2	J	2JE100	C1	CL24BN020SP3
8	K	8KE100	C2	CL24BN080SP3
25	L	25LE100	C3	CL24BN250SP3
50	N	50NE100	C4	CL24BN500SP3
70	P	70PE100	C5	CL24BN700SP3
1	J	1JE100N	C1	CL26BN010SN3
4	K	4KE100N	C2	CL26BN040SN3
12	L	12LE100N	C3	CL26BN120SN3
25	N	25NE100N	C4	CL26BN250SN3
35	P	35PE100N	C5	CL26BN350SN3
1	J	1JE150	C1	CL24BQ010SP3
4	K	4KE150	C2	CL24BQ040SP3
13	L	13LE150	C3	CL24BQ130SP3
25	N	25NE150	C4	CL24BQ250SP3
36	P	36PE150	C5	CL24BQ360SP3
0.5	J	R5JE150N	C1	CL26BQ0R5SN3
2	K	2KE150N	C2	CL26BQ020SN3
6	L	6LE150N	C3	CL26BQ060SN3
12	N	12NE150N	C4	CL26BQ120SN3
18	P	18PE150N	C5	CL26BQ180SN3

PLANET SALES CORPORATION
BLOOMFIELD, NEW JERSEY

Universal Replacement Type Capacitors
"LYTICAP"
Single Section Electrolytics — Type "L"

Hermetically sealed in aluminum tubes, covered with red Kraftboard insulating jackets — tinned brass leads, guaranteed for one year.

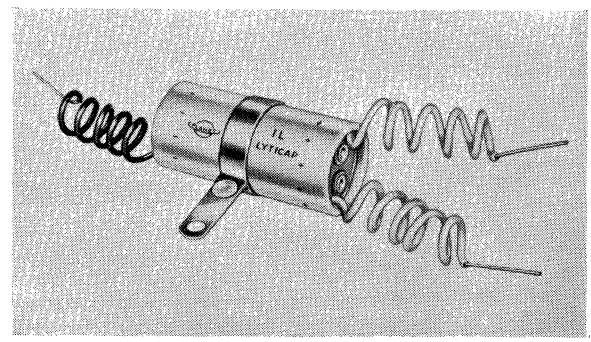


CAT. NO.	MFD.	SIZE*	LIST PRICE
		500 WVDC	
L-5-500	5	3/4 x 1 5/8	$1.25
L-10-500	10	7/8 x 2 1/16	1.35
L-20-500	20	1 x 2 3/8	1.60
L-30-500	30	1 x 2 11/16	1.75
		450 WVDC	
L-1-450	1	5/8 x 1 1/8	1.10
L-2-450	2	5/8 x 1 1/8	1.10
L-4-450	4	5/8 x 1 5/8	1.15
L-8-450	8	5/8 x 1 5/8	1.25
L-10-450	10	3/4 x 1 5/8	1.30
L-12-450	12	7/8 x 1 5/8	1.35
L-16-450	16	3/4 x 2 1/16	1.40
L-20-450	20	3/4 x 2 1/16	1.55
L-30-450	30	7/8 x 2 11/16	1.70
L-40-450	40	7/8 x 2 11/16	1.80
L-50-450	50	1 1/4 x 2 11/16	2.10
L-60-450	60	1 1/4 x 2 11/16	2.40
L-80-450	80	1 x 3	2.80
L-100-450	100	1 x 3	3.20
		350 WVDC	
L-8-350	8	5/8 x 1 5/8	1.20
L-16-350	16	7/8 x 1 5/8	1.40
L-20-350	20	7/8 x 1 5/8	1.45
L-30-350	30	7/8 x 2 1/16	1.65
L-40-350	40	1 x 2 1/16	1.75
		250 WVDC	
L-5-250	5	5/8 x 1 5/8	1.00
L-10-250	10	5/8 x 1 5/8	1.20
L-20-250	20	3/4 x 1 5/8	1.35
L-24-250	24	3/4 x 1 5/8	1.35
L-30-250	30	3/4 x 1 5/8	1.45
L-40-250	40	7/8 x 1 3/4	1.55
		200 WVDC	
L-150-200	150	1 x 2 11/16	2.55
L-200-200	200	1 x 2 11/16	2.90
		150 WVDC	
L-5-150	5	1/2 x 1 1/8	$1.00
L-8-150	8	1/2 x 1 5/8	1.05
L-10-150	10	1/2 x 1 5/8	1.05
L-16-150	16	1/2 x 1 5/8	1.15
L-20-150	20	1/2 x 1 5/8	1.20
L-30-150	30	3/4 x 1 5/8	1.30
L-40-150	40	3/4 x 1 5/8	1.35

CAT. NO.	MFD.	SIZE*	LIST PRICE
		150 WVDC (Cont'd)	
L-50-150	50	3/4 x 1 5/8	1.40
L-60-150	60	3/4 x 1 5/8	1.50
L-80-150	80	7/8 x 1 5/8	1.60
L-100-150	100	7/8 x 2 3/8	1.75
L-150-150	150	1 x 2 1/16	1.90
L-200-150	200	1 x 2 11/16	2.20
		50 WVDC	
L-1-50	1	1/2 x 1 1/8	.90
L-2-50	2	1/2 x 1 1/8	.90
L-3-50	3	1/2 x 1 1/8	.90
L-5-50	5	1/2 x 1 1/8	1.00
L-10-50	10	1/2 x 1 1/8	1.00
L-25-50	25	1/2 x 1 1/8	1.05
L-50-50	50	5/8 x 1 5/8	1.20
L-100-50	100	5/8 x 1 5/8	1.40
L-150-50	150	7/8 x 1 5/8	1.55
L-250-50	250	1 x 2 1/16	1.75
L-500-50	500	1 x 3	2.75
		25 WVDC	
L-10-25	10	1/2 x 1 1/8	1.00
L-25-25	25	1/2 x 1 1/8	1.00
L-50-25	50	5/8 x 1 5/8	1.10
L-100-25	100	5/8 x 1 5/8	1.35
L-250-25	250	7/8 x 2 1/16	1.70
L-500-25	500	1 x 2 3/8	2.30
		15 WVDC	
L-1000-15	1000	1 x 3	2.30
		12 WVDC	
L-100-12	100	5/8 x 1 13/16	1.20
L-250-12	250	3/4 x 2 1/16	1.45
L-500-12	500	7/8 x 2 3/8	1.70
		6 WVDC	
L-500-6	500	3/4 x 1 5/8	1.55
L-1000-6	1000	7/8 x 2 1/16	1.90
L-1500-6	1500	7/8 x 2 3/8	2.10
L-2000-6	2000	1 x 2 3/8	2.30
		3 WVDC	
L-500-3	500	5/8 x 1 5/8	1.55
L-1000-3	1000	7/8 x 2 1/16	1.80
L-1500-3	1500	7/8 x 2 1/16	2.10
L-2000-3	2000	1 x 2 3/8	2.30

Dual Section Electrolytics — Type "IL"

Hermetically sealed in aluminum tubes with completely flexible leads. U/L Approved, plastic coated leads are rivetted directly to the condenser end disc, eliminating the use of rigid terminal risers, allowing capacitor to fit into smaller space and eliminating lead breakage. IL capacitors have wrap around mounting strap and are common negative, guaranteed for one year.



CAT. NO.	MFD.	SIZE*	LIST PRICE
		450 WVDC	
IL-2x8-450	8+ 8	7/8 x 2 1/16	$1.70
IL-2x20-450	20+20	1 x 2 11/16	2.50
IL-2x30-450	30+30	1 1/4 x 2 11/16	3.00
IL-2x40-450	40+40	1 3/8 x 2 11/16	3.40
IL-2x50-450	50+50	1 3/8 x 2 11/16	3.80

* Dimensions are for metal tubes. Add 1/16" to diameter and 1/8" to length for over-all dimensions over cardboard insulating tube.

CAT. NO.	MFD.	SIZE*	LIST PRICE
		150 WVDC	
IL-2x20-150	20+20	3/4 x 1 5/8	1.65
IL-2x30-150	30+30	7/8 x 1 5/8	1.80
IL-4020-150	40+20	7/8 x 1 5/8	1.75
IL-2x40-150	40+40	7/8 x 2 1/16	1.85
IL-5030-150	50+30	7/8 x 2 1/16	1.95
IL-2x50-150	50+50	1 x 2 1/16	2.10
IL-8040-150	80+40	1 x 2 3/8	2.25
IL-2x120-150-SS	120+120	1 x 4 1/4	5.20

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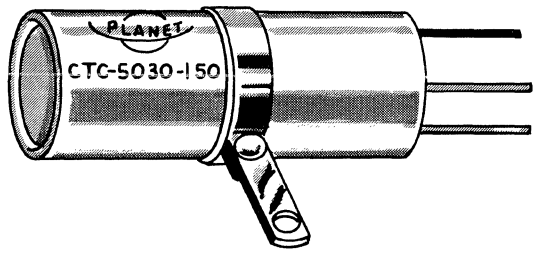

Universal Replacement Type Capacitors

Cardboard Tube Electrolytics — Type "CT"

Constructed in strong red cardboard tubes, wax impregnated — long insulated stranded leads of U/L approved wire — high temperature wax end-fill — wrap around mounting strap. Guaranteed for one year.

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
DUAL UNITS — COMMON NEGATIVE				
CT-2x20-150	20+20	150	3/4 x 2 1/4	$1.65
CT-2x30-150	30+30	150	13/16 x 2 1/4	1.80
CT-4020-150	40+20	150	13/16 x 2 1/4	1.75
CT-2x40-150	40+40	150	7/8 x 2 1/4	1.85
CT-5030-150	50+30	150	7/8 x 2 1/4	1.95
CT-2x50-150	50+50	150	1 x 2 1/4	2.10
CT-8040-150	80+40	150	1 x 2 3/4	2.25
CTC-100+50-150	100+50	150	1 x 3 3/8	2.50
CT-2x100-150	100+100	150	1 3/8 x 3 3/8	3.20

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
TRIPLE UNITS — COMMON NEGATIVE				
CT-3x20-150	20+20+20	150	1 x 2 1/4	$2.20
CT-302520-150	30+25+30	150	1 x 2 1/4	2.25
CT-3x30-150	30+30+30	150	1 x 2 1/4	2.35
CT-402020-150	40+20+20	150	1 x 2 1/4	2.25
CT-403020-150	40+30+20	150	1 x 2 1/4	2.35
CT-404020-150	40+40+20	150	1 x 2 1/4	2.40
CT-3x40-150	40+40+40	150	1 x 2 3/4	2.45
CT-503020-150	50+30+20	150	1 x 2 1/4	2.45
CT-804020-150	80+40+20	150	1 x 3	2.75
CT-302	30+20/20	150/25	1 x 2 1/4	2.10
CT-303	40+30/20	150/25	1 x 2 1/4	2.20
CT-304	50+50/20	150/25	1 x 2 3/4	2.50
CT-305	50+30/20	150/25	1 x 2 1/4	2.35
CTC-306	100+50/30	150/25	1 1/8 x 3 1/2	2.85
CT-307	200+100/30	150/25	1 1/4 x 3 1/4	3.75

ROCKETTE 600 VOLT

*Mylar-Kraft Paper capacitors, encased in plastic tubes with epoxy resin end-fill . . . excellent moisture resistant characteristics . . . high insulation resistance . . . small in size . . . 85°C operation . . . . used by top name original equipment manufacturers.

Cat. No.	Mfd.	Size	List Price
R-001-6	.001	5/16 x 15/16	$.25
R-0015-6	.0015	5/16 x 15/16	.25
R-002-6	.002	5/16 x 15/16	.25
R-0022	.0022	5/16 x 15/16	.25
R-0033	.0033	5/16 x 15/16	.25
R-004-6	.004	5/16 x 15/16	.25
R-0047-6	.0047	5/16 x 15/16	.25
R-005-6	.005	5/16 x 15/16	.25
R-006-6	.006	5/16 x 15/16	.25
R-0068-6	.0068	5/16 x 15/16	.25
R-01-6	.01	5/16 x 15/16	.30
R-015-6	.015	5/16 x 15/16	.30
R-02-6	.02	11/32 x 1 1/8	.30
R-022-6	.022	11/32 x 1 1/8	.30
R-03-6	.03	13/32 x 1 1/8	.35
R-033-6	.033	13/32 x 1 1/8	.35
R-04-6	.04	13/32 x 1 1/8	.35
R-047-6	.047	13/32 x 1 1/8	.40
R-05-6	.05	13/32 x 1 1/8	.40
R-068-6	.068	15/32 x 1 1/16	.45
R-1-6	.1	1/2 x 1 7/16	.45
R-15-6	.15	1/2 x 1 9/16	.50
R-2-6	.2	5/8 x 1 9/16	.55
R-22-6	.22	5/8 x 1 9/16	.55
R-25-6	.25	5/8 x 1 9/16	.55
R-33-6	.33	5/8 x 1 7/8	.65
R-47-6	.47	3/4 x 1 7/8	.80
R-5-6	.5	7/8 x 1 7/8	.80
R-68-6	.68	7/8 x 1 7/8	1.25
R-1.0-6	1.0	1 x 2 1/8	1.75

* Dupont Polyester Film

NON-POLARIZED ELECTROLYTICS

for Cross-over Networks — insulated leads — center mounting straps. Cardboard tube-wax end-filled.

Cat. No.	Mfd.	VAC	Size	List Price
CT-2-10NP	2	10	5/8 x 2	$1.50
CT-4-10NP	4	10	5/8 x 2	1.50
CT-2-25NP	2	25	5/8 x 2	1.50
CT-5-25NP	5	25	5/8 x 2	1.65
CT-90-25NP	90	25	7/8 x 2 1/4	2.10
CT-25-50NP	25	50	1 x 2 1/2	1.90

TV ROTOR CAPACITORS

Three most popular TV Antenna Rotor capacitors, cardboard tubes, wax end-filled, insulated leads out one end.

Cat. No.	Mfd.	VAC	Size	List Price
PX-4098A	66.5-92	50	7/8 x 2 7/8	$1.25
PX-100	100-120	50	1 x 2 1/4	2.00
PX-210	210-290	50	1 x 3 5/8	2.15

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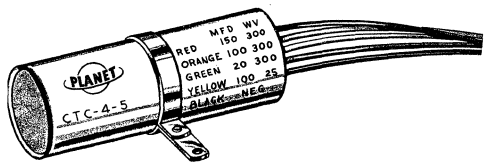
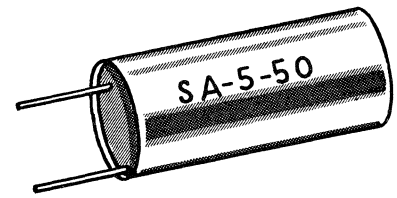


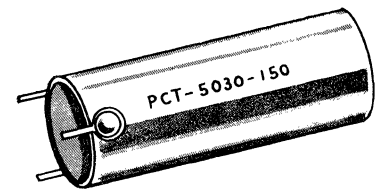
Type "CTC" . . . cardboard tube electrolytics especially designed for exact replacement in television sets . . . one end closed . . . long insulated leads out other end . . . sealed with high melting point wax . . . guaranteed for one year . . . individually packaged.

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
CTC-1-5	300	150	1⅜ x 3⅞	$2.55
CTC-1-10	150	200	1½ x 3¾	3.95
CTC-1-15	200	200	1⅜ x 3⅜	2.90
CTC-1-20	140	300	1⅜ x 3½	3.15
CTC-1-25	200	300	1½ x 4	3.95
CTC-2-1	10/100	100/3	¾ x 1¾	1.90
CTC-2-5	200+5	150	1 x 3⅞	2.65
CTC-2-6	200+5	200	1⅜ x 3⅜	3.55
CTC-2-15	250+50	150	1⅜ x 3	3.25
CTC-2-20	80+120	200	1⅜ x 3⅜	3.85
CTC-2-24	200+100	300/50	1½ x 4½	4.30
CTC-2-25	150+100	300	1½ x 5	5.35
CTC-2-30	140+5	350	1¼ x 3⅞	4.15
CTC-3-1	30/1000+1000	100/15	1⅜ x 3½	3.60
CTC-3-1.5	60+40/250	150/15	1 x 2⅞	3.25
CTC-3-2	60+60+60	300	1⅜ x 3½	4.70
CTC-3-3	250+120/50	150/25	1⅜ x 3⅞	4.40
CTC-3-4	250+200+10	150	1⅜ x 3⅝	4.60
CTC-3-5	5/80+40	450/400	1⅜ x 4⅛	4.55
CTC-3-7	50+30/250	150/10	1 x 2¾	2.75
CTC-3-22	60+60+4	350	1⅜ x 3⅜	3.85
CTC-4-1	40+20+20/100	150/25	1⅛ x 3	3.05
CTC-4-5	150+100+20/100	300/25	1⅝ x 5¼	7.65
CTC-4-10	120+40+40/10	300/250	1⅜ x 4⅝	6.20
CTC-4-11	80+40/40/10	300/250/300	1⅜ x 3¼	5.15
CTC-4-15	140/5/200+30	350/300/200	1⅝ x 4⅜	7.65
CTC-4-20	80+60/40/20	350/300/150	1⅝ x 4½	5.90
CTC-4-21	140/5/200/100	350/300/200/150	1⅝ x 4⅜	8.20
CTC-4-23	40/20/20/100	350/300/250/50	1⅜ x 2⅞	4.50
CTC-4-24	80/40/100/10	400/300/50/400	1⅜ x 4	5.45
CTC-4-25	10/80/40/100	450/300/250/50	1⅜ x 4⅛	4.80
CTC-4-26	10/80+40/100	450/400/50	1⅜ x 4⅜	5.25
CTC-4-30	20/120/40/100	450/300/250/50	1½ x 4⅜	6.15
CTC-4-35	10/80/40+40	450/300/250	1⅜ x 4⅜	4.95
CTC-4-36	10/80/40+40	450/300/350	1½x 4⅜	5.25
CTC-4-40	40+40+20+20	450	1½ x 4⅜	5.45
CTC-5-5	40+20+20+20/50	300/75	1⅜ x 3	5.00



Type "SA" . . . small single section electrolytics for printed circuit boards . . . hermetically sealed in aluminum tubes covered with red kraftboard insulating jackets . . . extra heavy tinned terminals anchored for proper spacing by a high melting point wax . . . for 85°C operation . . . individually packaged. Recommended for TV, radio and industrial applications . . . guaranteed for one year.

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
		SINGLES		
SA-8-3	8	3	5/16 x 1 1/16	$1.05
SA-50-6	50	6	1 1/16 x 1¾	1.05
SA-100-6	100	6	5/16 x 1 1/16	1.30
SA-5-10	5	10	5/16 x 1 1/16	1.05
SA-25-10	25	10	5/16 x 1 1/16	1.10
SA-10-25	10	25	5/16 x 1 1/16	1.10
SA-50-25	50	25	1 1/16 x 2⅛	1.20
SA-100-25	100	25	23/32 x 2	1.45
SA-1-50	1	50	5/16 x 1 1/16	1.00
SA-4-50	4	50	5/16 x 1 1/16	1.10
SA-10-50	10	50	5/16 x 1 1/16	1.10
SA-25-50	25	50	19/32 x 2	1.15
SA-50-50	50	50	1 1/16 x 2⅛	1.30
SA-100-50	100	50	27/32 x 2	1.50



Type "PCT" . . . constructed in strong red cardboard tubes, wax impregnated, one end closed, printed circuit board terminals.

Type "PCTL" . . . has insulated lead out top providing for low voltage section.

For 65°C operation . . . recommended for table and clock radios . . . individually packaged . . . guaranteed for one year.

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
		DUALS		
PCT-2-5	50+30	150	1 x 2¼	1.95
PCT-2-10	50+50	150	1 x 2¼	2.10
PCT-2-15	75+30	150	1 x 3	2.20
PCT-2-17	80+60	150	1 x 3	2.40
PCT-2-20	100+50	150	1 x 3⅝	2.50
		TRIPLES		
PCTL-3-5	40+20/5	150/25	1 x 2¾	2.20
PCTL-3-10	60+20/5	150/25	1 x 3	2.40

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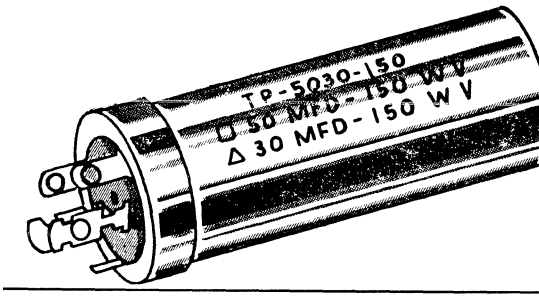
Type "TP" . . . twist-prong can electrolytics with mounting ring and solder lug terminals. The mounting ring is grounded by two spot welded connections to the negative tab . . . for 85°C operation . . . complete with metal grounding plate . . . individually packaged. Guaranteed for one year.

Type "PTP" . . . same as Type "TP" except made with printed circuit board terminals.

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
		SINGLES		
TP-1-5	2000	12	1 x 3½	$3.25
PTP-1-10	1000	15	1 x 2½	2.55
PTP-1-15	50	150	1 x 2½	1.65
TP-1-20	80	150	1 x 2	1.85
PTP-1-25	100	150	1 x 2½	2.00
TP-1-30	120	150	1 x 3	2.15
TP-1-31	120	150	1⅜ x 2½	2.15
PTP-1-35	140	150	1 x 3½	2.15
TP-1-40	150	150	1⅜ x 2½	2.15
TP-1-45	150	150	1 x 3	2.15
TP-1-50	200	150	1⅜ x 2½	2.45
TP-1-55	300	150	1⅜ x 4	2.80
PTP-1-60	150	165	1 x 3½	2.35
PTP-1-65	375	165	1⅜ x 3½	4.25
PTP-1-70	80	175	1 x 2½	1.95
TP-1-72	160	250	1⅜ x 3	5.50
TP-1-75	125	350	1⅜ x 3½	3.90
TP-1-80	10	450	1 x 2	1.55
TP-1-85	20	450	1 x 2	1.80
TP-1-90	40	450	1 x 3	2.05
TP-1-95	80	450	1⅜ x 3	3.05
		DUALS		
PTP-2-5	500+150	15	1 x 2	$3.25
PTP-2-10	250+250	16	1 x 2	2.50
TP-2-13	60+20	150	1 x 2½	2.15
PTP-2-15	70+30	150	1 x 2⅛	2.20
TP-2-20	50+50	150	1 x 2½	2.15
PTP-2-25	50+30	150	1 x 2	2.00
TP-2-30	50+30	150	1 x 2	2.00
TP-2-35	40+40	150	1 x 2	1.90
TP-2-40	20+20	150	1 x 2	1.70
TP-2-45	100+80	200	1⅜ x 2½	3.35
TP-2-50	200+5	200	1⅜ x 2½	3.40
TP-2-55	30+30	250	1 x 2½	2.75
TP-2-60	200+15	250	1⅜ x 2½	4.00
TP-2-65	30+10	300	1 x 3	2.40
TP-2-70	60/10	300/200	1 x 3	3.15
TP-2-75	125/100	350/10	1⅜ x 3½	5.20
TP-2-80	5/100	350/50	1 x 2	1.90
PTP-2-85	10/10	350/50	1 x 2	2.00



CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
TP-2-90	100/80	350/175	1⅜ x 3½	$4.60
TP-2-95	100+50	350	1⅜ x 3½	5.80
TP-2-100	100+100	350	1⅜ x 4	6.15
TP-2-105	140+20	350	1⅜ x 4	4.30
TP-2-110	30+10	400	1 x 3	2.95
TP-2-115	10+10	450	1 x 2	1.90
TP-2-120	20+20	450	1 x 3	2.55
TP-2-125	40+40	450	1⅜ x 3	3.45
		TRIPLES		
TP-3-5	90+40/400	150/10	1 x 3½	$5.25
PTP-3-10	70+30/10	150/25	1 x 2½	2.55
TP-3-15	40+40+40	150	1 x 2½	2.60
PTP-3-20	50+25+150	150	1⅜ x 2½	3.75
TP-3-25	50+50+50	150	1 x 3	3.00
TP-3-30	40+20+20	250	1 x 3	2.90
TP-3-35	30+10/20	300/25	1 x 3	4.15
PTP-3-40	60+10/25	300/25	1⅜ x 2	4.85
PTP-3-45	30/25/100	350/25/6	1 x 2½	4.65
PTP-3-50	125/5/100	350/150/10	1⅜ x 3½	6.60
PTP-3-51	60/200+30	350/150	1⅜ x 4	5.00
TP-3-55	20+20/20	350/25	1 x 2	2.90
TP-3-60	100+100/25	350/25	1⅜ x 4	7.00
TP-3-65	80+40/100	350/50	1⅜ x 4	6.50
TP-3-70	10/40+40	350/200	1 x 3	3.25
TP-3-75	80+40+40	350	1⅜ x 4	7.95
TP-3-80	30+10/20	400/25	1 x 3	2.85
TP-3-82	10+10+10	450	1 x 3	2.60
TP-3-85	40+40+40	450	1⅜ x 4	4.90
		QUADS		
PTP-4-5	250+30+20/100	150/10	1⅜ x 3½	$5.30
TP-4-6	100+10/200+30	300/150	1⅜ x 4	5.90
PTP-4-9	60+100/100/100	350/150/10	1⅜ x 5	8.50
PTP-4-10	100+60/60/40	350/200/75	1⅜ x 4½	8.50
TP-4-10.5	100+40+4/100	350/50	1⅜ x 4	6.00
TP-4-12	80+40+30/40	400/25	1⅜ x 4	5.95
TP-4-13	40+40/100+60	450/200	1⅜ x 4	6.05
TP-4-14	40+20+20/40	450/25	1⅜ x 3	4.65
TP-4-15	40+40+10/100	450/50	1⅜ x 3½	5.45
TP-4-20	20+20+20+20	450	1⅜ x 3	4.50
TP-4-25	30+30+30+30	450	1⅜ x 4	5.65
TP-4-30	40+40+40+40	450	1⅜ x 4	6.45

All Prices Subject to Change Without Notice

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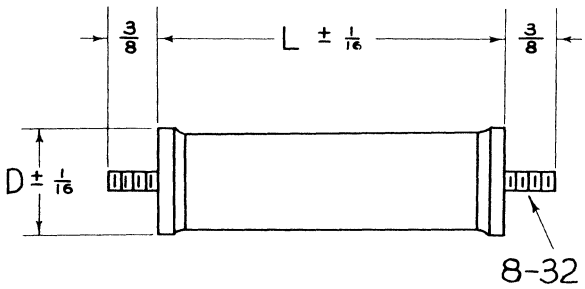
HIGH VOLTAGE CAPACITORS
TYPE OF

85°C GLASS CAP — PLASTIC FILM DC FILTER

TYPE OF Capacitors are housed in glass tubes with metal-to-glass soldered ferrules. Capacitor element is an improved plastic dielectric type, impregnated with a highly purified and inhibited mineral oil.



All glass containers with 'D' dimensions of 19/32 have 2-1/2 inch long 18 tinned copper pigtail leads.

PART NUMBER	CAP MFD	VOLTS DC	DIMENSIONS L	D
OF20-102	.001	2000	1 3/16	19/32
OF20-202	.002	2000	1 3/16	19/32
OF20-502	.005	2000	1 3/36	19/32
OF20-103	.01	2000	1 3/16	19/32
OF20-203	.02	2000	1 9/16	19/32
OF20-503	.05	2000	1 3/4	3/4
OF20-104	0.1	2000	2 1/4	3/4
OF20-254	0.25	2000	2 3/4	29/32
OF20-504	0.5	2000	2	1 3/8
OF30-102	.001	3000	1 3/16	19/32
OF30-202	.002	3000	1 3/16	19/32
OF30-502	.005	3000	1 3/16	19/32
OF30-103	.01	3000	1 9/16	19/32
OF30-203	.02	3000	1 3/4	3/4
OF30-503	.05	3000	2 1/4	3/4
OF30-104	0.1	3000	1 3/4	1 1/8
OF30-254	0.25	3000	2	1 3/8
OF30-504	0.5	3000	2 3/4	1 5/8
OF40-102	.001	4000	1 3/16	19/32
OF40-202	.002	4000	1 3/16	19/32
OF40-502	.005	4000	1 3/16	19/32
OF40-103	.01	4000	1 3/16	3/4
OF40-203	.02	4000	1 3/4	3/4
OF40-503	.05	4000	2	13/16
OF40-104	0.1	4000	2	1 1/8
OF40-254	0.25	4000	2 1/4	1 5/8
OF40-504	0.5	4000	3 3/4	1 5/8

PART NUMBER	CAP MFD	VOLTS DC	DIMENSIONS L	D
OF50-202	.002	5000	1 3/16	19/32
OF50-502	.005	5000	1 5/8	19/32
OF50-103	.01	5000	1 3/4	3/4
OF50-203	.02	5000	2 1/4	3/4
OF50-503	.05	5000	2 1/4	29/32
OF50-104	0.1	5000	2 1/4	1 3/8
OF50-254	0.25	5000	3	1 5/8
OF50-504	0.5	5000	6	1 5/8
OF80-101	.0001	8000	1 9/16	19/32
OF80-201	.0002	8000	1 9/16	19/32
OF80-501	.0005	8000	1 9/16	19/32
OF80-102	.001	8000	1 9/16	19/32
OF80-202	.002	8000	1 3/4	19/32
OF80-502	.005	8000	1 3/4	3/4
OF80-103	.01	8000	2 1/4	3/4
OF80-203	.02	8000	2 3/4	29/32
OF80-503	.05	8000	2 3/4	1 3/8
OF80-104	0.1	8000	3 5/8	1 5/8
OF80-204	0.2	8000	7	1 5/8
OF100-101	.0001	10 KV	1 5/8	19/32
OF100-201	.0002	10 KV	1 5/8	19/32
OF100-501	.0005	10 KV	1 5 8	19/32
OF100-102	.001	10 KV	1 5/8	19/32
OF100-202	.002	10 KV	1 5/8	3/4
OF100-502	.005	10 KV	1 3/4	13/16
OF100-103	.01	10 KV	2 1/4	29/32
OF100-203	.02	10 KV	2 3/4	1 1/8
OF100-503	.05	10 KV	2 3/4	1 5/8
OF100-603	.06	10 KV	3	1 5/8
OF100-104	0.1	10 KV	5	1 5/8
OF150-101	.0001	15 KV	2 1/4	19/32
OF150-201	.0002	15 KV	2 1/4	19/32
OF150-501	.0005	15 KV	2 1/4	19/32
OF150-102	.001	15 KV	2 1/4	3/4
OF150-202	.002	15 KV	2 1/4	3/4
OF150-502	.005	15 KV	2 3/4	1 1/8
OF150-103	.01	15 KV	3 3/4	1 1/8
OF150-203	.02	15 KV	4 1/4	1 3/8
OF150-503	.05	15 KV	7	1 5/8
OF150-603	.06	15 KV	8	1 5/8
OF200-101	.0001	20 KV	3 1/2	19/32
OF200-201	.0002	20 KV	3 1/2	19/32
OF200-501	.0005	20 KV	3 1/2	19/32
OF200-102	.001	20 KV	3 1/2	3/4
OF200-202	.002	20 KV	3 1/2	13/16
OF200-502	.005	20 KV	3 1/2	1 1/8
OF200-103	.01	20 KV	4 1/2	1 1/8
OF200-203	.02	20 KV	4 1/2	1 5/8
OF200-403	.04	20 KV	7 1/4	1 5/8
OF300-101	.0001	30 KV	4 9/16	19/32
OF300-201	.0002	30 KV	4 9/16	19/32
OF300-501	.0005	30 KV	4 9/16	19/32
OF300-102	.001	30 KV	5	3/4
OF300-202	.002	30 KV	5	29/32
OF300-502	.005	30 KV	5	1 3/8
OF300-103	.01	30 KV	6 1/2	1 5/8
OF300-203	.02	30 KV	9	1 5/8

The above is a partial listing. Additional capacitance and voltage values are available. Send for complete listing.

HIGH VOLTAGE POWER PACKS
COMPACT "M" SERIES 2 TO 75 KVDC

SEE SECTION 4000, PAGE 1063

Plastic Capacitors, Inc.

CHICAGO 14, ILLINOIS
Cable Address: PLASCAPINC, Chicago

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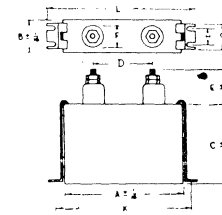
HIGH VOLTAGE CAPACITORS
TYPE LK

MYLAR★ PAPER FILTER CAPACITORS

TYPE LK Capacitors are specifically designed for filter, bypass and coupling applications in the low audio frequency range. The CP70 style container and internal construction permit operation in any position. Glazed steatite bushings are used, and in the voltage ranges of 2000 and greater, steatite is the electrical insulation in the terminal assembly. The threaded stud terminal is supplied with nut, lockwasher and/or solder lug. The whole assembly is hermetically sealed.



2000 VDCW

PART NUMBER	CAP. MFD.	A	B	C
LK20-105	1.0	1 3/4	1	3 1/4
LK20-205	2	2 1/2	1 3/16	3 1/2
LK20-205Y	2	1 3/4	1	5
LK20-405	4	2 1/2	1 3/16	5 1/2
LK20-405Y	4	3 3/4	1 1/4	3 3/4
LK20-605	6	3 3/4	1 1/4	5
LK20-605Y	6	3 3/4	1 3/4	3 3/4
LK20-805	8	3 3/4	1 1/4	6 1/4
LK20-805Y	8	3 3/4	1 3/4	4 1/2
LK20-106	10	3 3/4	1 3/4	5 1/4
LK20-106Y	10	3 3/4	2 1/4	4 1/2
LK20-126	12	3 3/4	1 3/4	6 1/4
LK20-126Y	12	3 3/4	2 1/4	5
LK20-126Z	12	3 3/4	3 3/16	4
LK20-156	15	3 3/4	2 1/4	6
LK20-156Y	15	3 3/4	3 3/16	5
LK20-156Z	15	4 9/16	3 3/4	3 3/4
LK20-206	20	3 3/4	3 3/16	6
LK20-206Y	20	4 9/16	3 3/4	4 1/4
LK20-256	25	3 3/4	3 3/16	6 3/4
LK20-306	30	4 9/16	3 3/4	5 3/4

3000 VDCW

PART NUMBER	CAP. MFD.	A	B	C
LK30-504	.5	1 3/4	1	3 1/4
LK30-105	1.0	1 3/4	1	5 1/4
LK30-105Y	1.0	2 1/2	1 3/16	3 1/2
LK30-205	2	2 1/2	1 3/16	5 1/2
LK30-205Y	2	3 3/4	1 1/4	3 3/4
LK30-405	4	3 3/4	1 1/4	6 1/4
LK30-405Y	4	3 3/4	1 3/4	4 3/4
LK30-405Z	4	3 3/4	2 1/4	4
LK30-605	6	3 3/4	1 3/4	6 1/4
LK30-605Y	6	3 3/4	2 1/4	5 1/4
LK30-605Z	6	3 3/4	3 3/16	4
LK30-805	8	3 3/4	2 1/4	5 1/2
LK30-805Y	8	3 3/4	3 3/16	5
LK30-805Z	8	4 9/16	3 3/4	3 3/4
LK30-106	10	3 3/4	3 3/16	5 3/4
LK30-106Y	10	4 9/16	3 3/4	4 1/2
LK30-126	12	3 3/4	3 3/16	6 3/4
LK30-126Y	12	4 9/16	3 3/4	5
LK30-156	15	4 9/16	3 3/4	6
LK30-206Y	20	4 9/16	3 3/4	7
LK30-256Y	25	4 9/16	3 3/4	10
LK30-306Z	30	4 9/16	3 3/4	11 1/2

4000 VDCW

PART NUMBER	CAP. MFD.	A	B	C
LK40-254	.25	1 3/4	1	2 3/4
LK40-504	.5	1 3/4	1	4
LK40-105	1.0	2 1/2	1 3/16	4
LK40-205	2	2 1/2	1 3/16	6 3/4
LK40-205Y	2	3 3/4	1 3/4	3 3/4
LK40-405	4	3 3/4	1 3/4	6
LK40-405Y	4	3 3/4	2 1/4	4 3/4
LK40-605	6	3 3/4	2 1/4	6 1/2
LK40-605Y	6	3 3/4	3 3/16	5
LK40-605Z	6	4 9/16	3 3/4	3 3/4
LK40-805	8	3 3/4	3 3/16	6
LK40-805Y	8	4 9/16	3 3/4	4 3/4
LK40-106	10	4 9/16	3 3/4	5 1/2
LK40-126	12	4 9/16	3 3/4	6 1/2
LK40-156	15	4 9/16	3 3/4	8 1/2
LK40-206Y	20	4 9/16	3 3/4	10 1/2

5000 VDCW

PART NUMBER	CAP. MFD.	A	B	C
LK50-104	.1	1 3/4	1	2 1/8
LK50-254	.25	1 3/4	1	3
LK50-504	.5	1 3/4	1	4 3/4
LK50-504Y	.5	2 1/2	1 3/16	3 1/4
LK50-105	1.0	2 1/2	1 3/16	5
LK50-105Y	1.0	3 3/4	1 1/4	3 3/4
LK50-205	2	3 3/4	1 1/4	6
LK50-205Y	2	3 3/4	1 3/4	4 1/2
LK50-205Z	2	3 3/4	2 1/4	3 3/4
LK50-405	4	3 3/4	2 1/4	4 3/4
LK50-405Y	4	3 3/4	3 3/16	4 3/4
LK50-405Z	4	4 9/16	3 3/4	3 3/4
LK50-605	6	3 3/4	3 3/16	6 1/2
LK50-605Y	6	4 9/16	3 3/4	4 3/4
LK50-805	8	4 9/16	3 3/4	6 1/4
LK50-106	10	4 9/16	3 3/4	7 1/2
LK50-126	12	4 9/16	3 3/4	9 1/2
LK50-156	15	8	4	9 1/4
LK50-206	20	8	4	11
LK50-256	25	13 1/2	4 1/8	9 1/4
LK50-306	30	13 1/2	4 1/8	9 1/4

6000 VDCW

PART NUMBER	CAP. MFD.	A	B	C
LK60-104	.1	3 3/4	1 1/4	2 1/4
LK60-254	.25	3 3/4	1 1/4	2 1/2
LK60-504	.5	3 3/4	1 1/4	3 3/4
LK60-105	1.0	3 3/4	1 1/4	6 1/2
LK60-105Y	1.0	3 3/4	1 3/4	4 1/2
LK60-205	2	3 3/4	2 1/4	6 1/4
LK60-205Y	2	3 3/4	3 3/16	4 3/4
LK60-405	4	4 9/16	3 3/4	6
LK60-605	6	4 9/16	3 3/4	8 1/4
LK60-605Y	6	8	4	7
LK60-805	8	4 9/16	3 3/4	10 1/4
LK60-805Y	8	8	4	9 1/4
LK60-106	10	8	4	9 1/4
LK60-126	12	8	4	11
LK60-156	15	13 1/2	4 1/8	7
LK60-206	20	13 1/2	4 1/8	9 1/4
LK60-256	25	13 1/2	4 1/8	11
LK60-306	30	13 1/2	5 1/8	12 7/8

8000 VDCW

PART NUMBER	CAP. MFD.	A	B	C
LK80-104Y	.1	2 1/2	1 3/16	3
LK80-104	.1	3 3/4	1 1/4	2 1/2
LK80-254Y	.25	2 1/2	1 3/16	5 1/4
LK80-254	.25	3 3/4	1 1/4	3 3/4
LK80-504	.5	3 3/4	1 1/4	5 3/4
LK80-504Y	.5	3 3/4	1 3/4	4 1/4
LK80-105	1.0	3 3/4	1 3/4	7
LK80-105Y	1.0	3 3/4	2 1/4	5 3/4
LK80-105Z	1.0	3 3/4	3 3/16	4 1/2
LK80-205	2	3 3/4	3 3/16	7
LK80-205Y	2	4 9/16	3 3/4	5 1/4
LK80-405	4	4 9/16	3 3/4	10
LK80-605	6	8	4	9 1/4
LK80-805	8	13 1/2	4 1/8	7
LK80-106	10	13 1/2	4 1/8	9 1/4
LK80-126	12	13 1/2	4 1/8	9 1/4
LK80-156	15	13 1/2	4 1/8	13 1/8
LK80-206	20	13 1/2	5 1/8	12 7/8

10 KVDC

PART NUMBER	CAP. MFD.	A	B	C
LK100-104	.1	3 3/4	1 3/4	3 1/4
LK100-254	.25	3 3/4	1 3/4	3 3/4
LK100-254Y	.25	3 3/4	2 1/4	3 1/4
LK100-504	.5	3 3/4	1 3/4	5 3/4
LK100-504Y	.5	3 3/4	2 1/4	4 1/2
LK100-504Z	.5	3 3/4	3 3/16	3 3/4
LK100-105	1.0	3 3/4	2 1/4	7 1/4
LK100-105Y	1.0	3 3/4	3 3/16	5 1/4
LK100-105Z	1.0	4 9/16	3 3/4	4 1/2
LK100-205	2	4 9/16	3 3/4	6 3/4
LK100-405	4	8	4	9 1/4
LK100-605	6	13 1/2	4 1/8	7
LK100-805	8	13 1/2	4 1/8	9 1/4
LK100-106	10	13 1/2	4 1/8	11

12.5 KVDC

PART NUMBER	CAP. MFD.	A	B	C
LK125-503	.05	3 3/4	1 3/4	3
LK125-104	.1	3 3/4	1 3/4	3 5/8
LK125-254	.25	3 3/4	1 3/4	5 7/8
LK125-504	.5	3 3/4	3 3/16	5 5/8
LK125-504Y	.5	4 9/16	3 3/4	4 3/8
LK125-105	1.0	4 9/16	3 3/4	6 5/8
LK125-205	2	4 9/16	3 3/4	11
LK125-205Y	2	8	4	9 1/4
LK125-405	4	13 1/2	4 1/8	9 1/4
LK125-605	6	13 1/2	4 1/8	11
LK125-805	8	13 1/2	5 1/8	12 7/8
LK125-106	10	13 1/2	5 1/8	13 3/4

15 KVDC

PART NUMBER	CAP. MFD.	A	B	C
LK150-104	.1	3 3/4	1 3/4	3 3/4
LK150-254	.25	3 3/4	1 3/4	7
LK150-254Y	.25	3 3/4	2 1/4	5
LK150-504	.5	3 3/4	3 3/16	6 1/2
LK150-504Y	.5	4 9/16	3 3/4	5
LK150-105	1.0	4 9/16	3 3/4	8 1/2
LK150-205	2	8	4	11
LK150-405	4	13 1/2	4 1/8	11

20 KVDC

PART NUMBER	CAP. MFD.	A	B	C
LK200-104	.1	3 3/4	2 1/4	4 3/4
LK200-254	.25	3 3/4	3 3/16	6
LK200-254Y	.25	4 9/16	3 3/4	4 3/4
LK200-504	.5	4 9/16	3 3/4	7 1/2
LK200-105	1.0	8	4	9 1/4
LK200-205	2	13 1/2	4 1/8	9 1/4

25 KVDC

PART NUMBER	CAP. MFD.	A	B	C
LK250-503	.05	3 3/4	3 3/16	4
LK250-104	.1	3 3/4	3 3/16	4 3/4
LK200-254	.25	4 9/16	3 3/4	6 1/2
LK250-504	.5	4 9/16	3 3/4	11 1/2
LK250-504Y	.5	8	4	9 1/4
LK250-105	1.0	13 1/2	4 1/8	9 1/4

30 KVDC

PART NUMBER	CAP. MFD.	A	B	C
LK300-503	.05	3 3/4	3 3/16	5 1/2
LK300-104	.1	3 3/4	3 3/16	8 3/4
LK300-254Y	.25	4 9/16	3 3/4	8 3/4
LK300-504	.5	13 1/2	4 1/8	7
LK300-105	1.0	13 1/2	4 1/8	13 1/8

★ DUPONT POLYESTER FILM

The above is a partial listing. Additional capacitance and voltage values are available. Send for complete listing.

Plastic Capacitors, Inc.

CHICAGO 14, ILLINOIS
Cable Address: PLASCAPINC, Chicago

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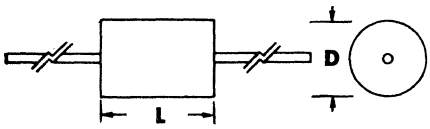
LOW VOLTAGE CAPACITORS

TYPE AZ
EPOXY DIP



TYPE AZ Capacitors are finished with a dip finish assuring operation in severe environmental conditions. **TYPE AZ** Capacitors are also available in flat oval shape.

Cap MFD	Cap Code	AZ2 D Max.	AZ2 L Max.	AZ3 D Max.	AZ3 L Max.
.01	103	.23	.38	.26	.38
.012	123	.24	.38	.23	.51
.015	153	.25	.38	.24	.51
.018	183	.23	.51	.25	.51
.022	223	.24	.51	.26	.51
.027	273	.25	.51	.28	.51
.033	333	.26	.51	.29	.51
.039	393	.27	.51	.26	.70
.047	473	.29	.51	.28	.70
.056	563	.26	.70	.29	.70
.068	683	.27	.70	.31	.70
.082	823	.29	.70	.33	.70
.1	104	.30	.70	.35	.70
.12	124	.32	.70	.37	.70
.15	154	.39	.70	.40	.70
.18	184	.39	.70	.43	.70
.22	224	.39	.70	.39	.95
.27	274	.44	.70	.42	.95
.33	334	.44	.70	.45	.95
.39	394	.47	.70	.48	.95
.47	474	.44	.95	.52	.95
.56	564	.47	.95	.55	.95
.68	684	.50	.95	.60	.95
.82	824	.50	.95	.65	.95
1.0	105	.57	.95	.64	1.13
1.5	155	.66	1.13	.75	1.13
2.0	205	.75	1.13	.85	1.13
3.0	305	.75	1.38	.84	1.63
4.0	405	.87	1.63	1.09	1.26
5.0	505	.87	1.63	1.05	1.63
8.0	805	1.07	1.63		
10.0	106	1.19	1.63		

Cap MFD	Cap Code	AZ4 D Max.	AZ4 L Max.	AZ6 D Max.	AZ6 L Max.
.001	102			.22	.38
.0022	222			.27	.38
.0033	332			.29	.38
.0047	472			.27	.51
.01	103	.23	.70	.29	.70
.012	123	.24	.70	.30	.70
.015	153	.26	.70	.28	.95
.018	183	.27	.70	.30	.95
.022	223	.28	.70	.36	.70
.027	273	.29	.70	.34	.95
.033	333	.32	.70	.36	.95
.039	393	.34	.70	.38	.95
.047	473	.37	.70	.40	.95
.056	563	.38	.70	.43	.95
.068	683	.41	.70	.47	.95
.082	823	.44	.70	.49	.95
.1	104	.37	1.13	.54	.95
.12	124	.39	1.13	.58	.95
.15	154	.42	1.13	.57	1.13
.18	184	.45	1.13	.59	1.26
.22	224	.53	1.13	.68	1.13
.27	274	.56	.95	.69	1.26
.33	334	.62	.95	.75	1.26
.39	394	.61	1.13	.71	1.63
.47	474	.67	1.13	.76	1.63
.56	564	.72	1.13	.83	1.63
.68	684	.78	1.13	.89	1.63
.82	824	.84	1.13	.97	1.63
1.0	105	.86	1.26	1.06	1.63
1.5	155	.93	1.51		
2.0	205	1.01	1.63		

★ DUPONT POLYESTER FILM

TYPE AM
METALLIZED MYLAR★

TYPE AM Capacitors are hermetically sealed in brass containers with compression glass seals for a "floating" case add 1/16" to dimension L (See drawing in **TYPE AZ** column).

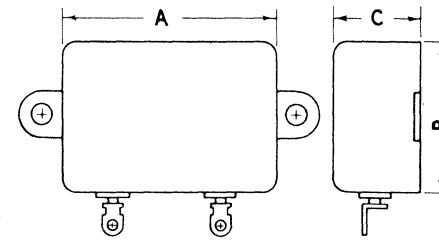
200 VOLTS D.C.

BASIC PART NO.	CAP MFD	SIZE CIRCUIT A OR F D	SIZE CIRCUIT A OR F L
AM2-103	0.01	0.174	9/16
AM2-123	.012	.174	9/16
AM2-153	.015	.174	9/16
AM2-183	.018	.174	9/16
AM2-223	.022	.187	9/16
AM2-273	.027	.187	9/16
AM2-333	.033	.235	9/16
AM2-393	.039	.235	9/16
AM2-473	.047	.235	9/16
AM2-563	.056	.235	3/4
AM2-683	.068	.235	3/4
AM2-823	.082	.235	3/4
AM2-104	0.1	.235	3/4
AM2-124	.12	.312	3/4
AM2-154	.15	.312	3/4
AM2-184	.18	.312	3/4
AM2-224	.22	.312	3/4
AM2-274	.27	.400	3/4
AM2-334	.33	.400	3/4
AM2-394	.39	.400	3/4
AM2-474	.47	.400	1 1/16
AM2-564	.56	.400	1 1/16
AM2-684	.68	.400	1 1/16
AM2-824	.82	.562	1 1/16
AM2-105	1.0	.562	1 1/16
AM2-155	1.5	.562	1 1/4
AM2-205	2.0	.670	1 1/4
AM2-305	3.0	.670	1 1/2
AM2-405	4.0	.670	1 3/4
AM2-505	5.0	.750	1 3/4
AM2-805	8.0	1.0	1 3/4
AM2-106	10.0	1.0	2 1/4

300 VOLTS D.C.

AM3-393	.039	.235	3/4
AM3-473	.047	.235	3/4
AM3-563	.056	.235	3/4
AM3-683	.068	.312	3/4
AM3-823	.082	.312	3/4
AM3-104	0.10	.312	3/4
AM3-124	.12	.400	3/4
AM3-154	.15	.400	3/4
AM3-184	.18	.400	3/4
AM3-224	.22	.400	1 1/16
AM3-274	.27	.400	1 1/16
AM3-334	.33	.400	1 1/16
AM3-394	.39	.400	1 1/4
AM3-474	.47	.562	1 1/16
AM3-564	.56	.562	1 1/16
AM3-684	.68	.562	1 1/16
AM3-824	.82	.562	1 1/16
AM3-105	1.0	.562	1 1/2
AM3-155	1.5	.670	1 1/2
AM3-205	2.0	.670	1 3/4
AM3-305	3.0	1.0	1 1/4
AM3-405	4.0	1.0	1 1/2
AM3-505	5.0	1.0	2 1/4
AM3-605	6.0	1.0	2 1/4

TYPE AB
METALLIZED MYLAR★



TYPE AB Capacitors are housed in standard bathtub containers using compression type solder-seal glass insulators. **TYPE AB** provides large values of capacitance with the fine characteristics of Metallized Mylar.*

200 VOLTS D.C.

PART NUMBER	CAP. MFD.	CASE SIZE A	CASE SIZE B	CASE SIZE C
AB2-504	0.5	1 1/8	1	13/16
AB2-105	1.0	1 1/8	1	13/16
AB2-205	2.0	1 1/8	1	13/16
AB2-405	4.0	1 3/4	1	3/4
AB2-505	5.0	1 3/4	1	3/4
AB2-605	6.0	1 3/4	1 1/4	7/8
AB2-805	8.0	1 3/4	1 1/4	7/8
AB2-106	10.0	2	1 3/4	7/8
AB2-126	12.0	2	1 3/4	7/8
AB2-156	15.0	2	1 3/4	7/8
AB2-206	20.0	2	2	1 1/8
AB2-306	30.0	2	2	1 1/4

300 VOLTS D.C.

AB3-504	0.5	1 1/8	1	13/16
AB3-105	1.0	1 1/8	1	13/16
AB3-205	2.0	1 3/4	1	3/4
AB3-405	4.0	1 3/4	1 1/4	7/8
AB3-505	5.0	2	1 3/4	7/8
AB3-605	6.0	2	1 3/4	7/8
AB3-805	8.0	2	1 3/4	7/8
AB3-106	10.0	2	2	1 1/8
AB3-126	12.0	2	2	1 1/8
AB3-156	15.0	2	2	1 1/4

400 VOLTS D.C.

AB4-104	0.1	1 1/8	1	13/16
AB4-254	0.25	1 1/8	1	13/16
AB4-504	0.5	1 1/8	1	13/16
AB4-105	1.0	1 3/4	1	3/4
AB4-205	2.0	1 3/4	1 1/4	7/8
AB4-405	4.0	2	1 3/4	7/8
AB4-505	5.0	2	2	1 1/8
AB4-605	6.0	2	2	1 1/8
AB4-805	8.0	2	2	1 1/4

600 VOLTS D.C.

AB6-503	0.05	1 1/8	1	13/16
AB6-104	0.10	1 1/8	1	13/16
AB6-254	0.25	1 1/8	1	13/16
AB6-504	0.50	1 3/4	1 1/4	7/8
AB6-105	1.0	2	1 3/4	7/8
AB6-205	2.0	2	2	1 1/8

The listing comprises a small portion of capacitors and voltage available. Send for complete information.

Plastic Capacitors, Inc.

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SANGAMO ELECTRIC COMPANY

capacitors

ELECTRONIC COMPONENTS

Type 500 Computer Electrolytic

FOR HIGH RIPPLE AND HIGH TEMPERATURE APPLICATIONS

The Sangamo Type 500 capacitor represents the optimum design in electrolytic capacitors for storage and filter requirements in high reliability circuits requiring 85°C operation. An exceptional anode surface gain and better production control have been achieved in perfecting the Type 500. These advanced techniques, plus the use of the best electrolytes, result in capacitors having lower ESR which may be operated at higher ripple currents and in case sizes smaller than conventional capacitors. All units are supplied with screw terminals. Mounting brackets are furnished at extra cost. ***For more complete information write for Bulletin 2236.***

Type	Capacitor Diameter	Net Price
500 Mounting Bracket	1-3/8"	$0.24
	2"	0.36
	2-1/2"	0.48
	3"	0.60

Note: 1-3/8" bracket available with 2 feet only. Other sizes are available with 2 or 3 feet. Specify accordingly.

Catalog Number	Cap. (Mfd)	Rated Volts d-c	Case Sizes* Diameter	Case Sizes* Length	Term.* Ctr. to Ctr.	Net Price 1-24†
500-1001-01	10,000	3	1-3/8	2-1/8	.500	$ 3.63
500-1002-01	20,000	3	1-3/8	3-1/8	.500	6.21
500-1003-01	28,000	3	1-3/8	4-1/8	.500	7.26
500-1004-01	60,000	3	2	4-1/8	.875	11.25
500-1005-01	87,000	3	2	5-1/2	.875	14.43
500-1006-01	100,000	3	2-1/2	4-1/8	1.125	16.02
500-1007-01	150,000	3	3	4-1/8	1.250	23.85
500-1008-01	210,000	3	3	5-1/2	1.250	36.81
500-1009-01	7,500	5	1-3/8	2-1/8	.500	4.02
500-1010-01	13,000	5	1-3/8	3-1/8	.500	5.73
500-1011-01	20,000	5	1-3/8	4-1/8	.500	6.90
500-1012-01	40,000	5	2	4-1/8	.875	9.63
500-1013-01	55,000	5	2	5-1/2	.875	11.82
500-1014-01	70,000	5	2-1/2	4-1/8	1.125	13.86
500-1015-01	100,000	5	3	4-1/8	1.250	17.10
500-1016-01	150,000	5	3	5-1/2	1.250	25.08
500-1017-01	5,000	10	1-3/8	2-1/8	.500	4.23
500-1018-01	10,000	10	1-3/8	3-1/8	.500	5.88
500-1019-01	15,000	10	1-3/8	4-1/8	.500	6.60
500-1020-01	30,000	10	2	4-1/8	.875	12.27
500-1021-01	40,000	10	2	5-1/2	.875	13.95
500-1022-01	50,000	10	2-1/2	4-1/8	1.125	16.11
500-1023-01	80,000	10	3	4-1/8	1.250	20.97
500-1024-01	110,000	10	3	5-1/2	1.250	26.34
500-1025-01	4,500	15	1-3/8	2-1/8	.500	4.71
500-1026-01	8,000	15	1-3/8	3-1/8	.500	5.73
500-1027-01	12,000	15	1-3/8	4-1/8	.500	6.72
500-1028-01	24,000	15	2	4-1/8	.875	12.18
500-1029-01	35,000	15	2	5-1/2	.875	13.05
500-1030-01	40,000	15	2-1/2	4-1/8	1.125	14.34
500-1031-01	65,000	15	3	4-1/8	1.250	21.78
500-1032-01	90,000	15	3	5-1/2	1.250	29.04
500-1033-01	3,300	20	1-3/8	2-1/8	.500	4.08
500-1034-01	6,000	20	1-3/8	3-1/8	.500	5.28
500-1035-01	9,000	20	1-3/8	4-1/8	.500	6.24
500-1036-01	19,000	20	2	4-1/8	.875	11.49
500-1037-01	25,000	20	2	5-1/2	.875	12.78
500-1038-01	30,000	20	2-1/2	4-1/8	1.125	13.50
500-1039-01	48,000	20	3	4-1/8	1.250	18.99
500-1040-01	68,000	20	3	5-1/2	1.250	24.30
500-1041-01	2,400	25	1-3/8	2-1/8	.500	3.30
500-1042-01	4,600	25	1-3/8	3-1/8	.500	5.19
500-1043-01	6,500	25	1-3/8	4-1/8	.500	6.36
500-1044-01	14,000	25	2	4-1/8	.875	11.25
500-1045-01	19,000	25	2	5-1/2	.875	12.09
500-1046-01	24,000	25	2-1/2	4-1/8	1.125	12.75
500-1047-01	35,000	25	3	4-1/8	1.250	18.03
500-1048-01	50,000	25	3	5-1/2	1.250	24.24
500-1049-01	1,600	35	1-3/8	2-1/8	.500	3.54
500-1050-01	3,000	35	1-3/8	3-1/8	.500	4.68
500-1051-01	4,500	35	1-3/8	4-1/8	.500	5.40
500-1052-01	9,500	35	2	4-1/8	.875	9.24
500-1053-01	15,000	35	2	5-1/2	.875	12.72
500-1054-01	17,000	35	2-1/2	4-1/8	1.125	13.23
500-1055-01	25,000	35	3	4-1/8	1.250	14.97
500-1056-01	36,000	35	3	5-1/2	1.250	17.28
500-1057-01	1,000	50	1-3/8	2-1/8	.500	3.72
500-1058-01	1,900	50	1-3/8	3-1/8	.500	4.35
500-1059-01	2,900	50	1-3/8	4-1/8	.500	5.82
500-1060-01	6,200	50	2	4-1/8	.875	9.36
500-1061-01	10,000	50	2	5-1/2	.875	13.17
500-1062-01	11,000	50	2-1/2	4-1/8	1.125	14.16
500-1063-01	16,000	50	3	4-1/8	1.250	16.41
500-1064-01	24,000	50	3	5-1/2	1.250	20.49
500-1065-01	510	75	1-3/8	2-1/8	.500	4.35
500-1066-01	950	75	1-3/8	3-1/8	.500	4.56
500-1067-01	1,400	75	1-3/8	4-1/8	.500	$ 5.04
500-1068-01	3,100	75	2	4-1/8	.875	7.35
500-1069-01	4,500	75	2	5-1/2	.875	9.51
500-1070-01	5,300	75	2-1/2	4-1/8	1.125	10.74
500-1071-01	8,000	75	3	4-1/8	1.250	15.39
500-1072-01	11,200	75	3	5-1/2	1.250	19.92
500-1073-01	400	100	1-3/8	2-1/8	.500	3.51
500-1074-01	725	100	1-3/8	3-1/8	.500	4.29
500-1075-01	1,100	100	1-3/8	4-1/8	.500	5.25
500-1076-01	2,400	100	2	4-1/8	.875	8.43
500-1077-01	3,500	100	2	5-1/2	.875	11.13
500-1078-01	4,100	100	2-1/2	4-1/8	1.125	11.46
500-1079-01	6,200	100	3	4-1/8	1.250	14.55
500-1080-01	9,000	100	3	5-1/2	1.250	19.26
500-1081-01	290	150	1-3/8	2-1/8	.500	3.36
500-1082-01	550	150	1-3/8	3-1/8	.500	4.56
500-1083-01	800	150	1-3/8	4-1/8	.500	5.19
500-1084-01	1,850	150	2	4-1/8	.875	8.88
500-1085-01	2,500	150	2	5-1/2	.875	11.01
500-1086-01	3,000	150	2-1/2	4-1/8	1.125	12.00
500-1087-01	4,600	150	3	4-1/8	1.250	15.27
500-1088-01	6,750	150	3	5-1/2	1.250	19.98
500-1089-01	200	200	1-3/8	2-1/8	.500	3.60
500-1090-01	400	200	1-3/8	3-1/8	.500	4.53
500-1091-01	575	200	1-3/8	4-1/8	.500	5.25
500-1092-01	1,300	200	2	4-1/8	.875	8.79
500-1093-01	1,800	200	2	5-1/2	.875	9.93
500-1094-01	2,200	200	2-1/2	4-1/8	1.125	11.28
500-1095-01	3,250	200	3	4-1/8	1.250	14.28
500-1096-01	4,800	200	3	5-1/2	1.250	16.77
500-1097-01	160	250	1-3/8	2-1/8	.500	4.14
500-1098-01	300	250	1-3/8	3-1/8	.500	4.65
500-1099-01	430	250	1-3/8	4-1/8	.500	4.98
500-1100-01	1,000	250	2	4-1/8	.875	11.28
500-1101-01	1,400	250	2	5-1/2	.875	12.12
500-1102-01	1,700	250	2-1/2	4-1/8	1.125	12.81
500-1103-01	2,500	250	3	4-1/8	1.250	18.09
500-1104-01	110	300	1-3/8	2-1/8	.500	4.14
500-1105-01	210	300	1-3/8	3-1/8	.500	4.74
500-1106-01	310	300	1-3/8	4-1/8	.500	5.40
500-1107-01	700	300	2	4-1/8	.875	8.82
500-1108-01	1,000	300	2	5-1/2	.875	12.90
500-1109-01	1,200	300	2-1/2	4-1/8	1.125	15.30
500-1110-01	1,750	300	3	4-1/8	1.250	20.88
500-1111-01	80	350	1-3/8	2-1/8	.500	3.93
500-1112-01	150	350	1-3/8	3-1/8	.500	4.68
500-1113-01	220	350	1-3/8	4-1/8	.500	5.28
500-1114-01	500	350	2	4-1/8	.875	8.49
500-1115-01	750	350	2	5-1/2	.875	10.77
500-1116-01	850	350	2-1/2	4-1/8	1.125	11.73
500-1117-01	1,250	350	3	4-1/8	1.250	19.41
500-1118-01	60	400	1-3/8	2-1/8	.500	4.17
500-1119-01	115	400	1-3/8	3-1/8	.500	4.89
500-1120-01	165	400	1-3/8	4-1/8	.500	5.49
500-1121-01	390	400	2	5-1/2	.875	7.14
500-1122-01	560	400	2	4-1/8	.875	9.84
500-1123-01	650	400	2-1/2	4-1/8	1.125	10.71
500-1124-01	975	400	3	5-1/2	1.250	16.80
500-1125-01	55	450	1-3/8	2-1/8	.500	4.65
500-1126-01	100	450	1-3/8	3-1/8	.500	5.19
500-1127-01	150	450	1-3/8	4-1/8	.500	5.79
500-1128-01	330	450	2	4-1/8	.875	7.41
500-1129-01	500	450	2	5-1/2	.875	9.24
500-1130-01	600	450	2-1/2	4-1/8	1.125	11.40
500-1131-01	850	450	3	4-1/8	1.250	14.07

(S) STANDARD STOCK ITEMS

*All dimensions are in inches.

† Prices for larger quantities are available on request.

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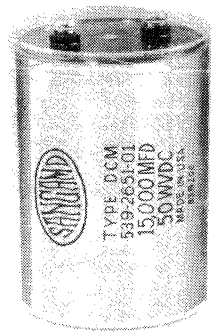
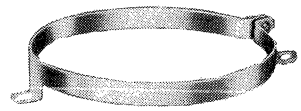
SANGAMO ELECTRIC COMPANY

capacitors

SANGAMO ELECTRONIC COMPONENTS

Type DCM Computer Grade FILTER AND ENERGY STORAGE ELECTROLYTIC CAPACITOR





Type DCM Mounting Bracket	Capacitor Diameter (Inches)	Net Price
	1-7/16	$0.24
	1-13/16	0.33
	2-1/16	0.36
	2-9/16	0.48
	3-1/16	0.60

Note: 1-7/16" bracket available with 2 feet only. Two or 3 feet are available in other sizes.

The SANGAMO Type DCM is a high quality, long life, electrolytic capacitor, specially designed for use as an energy storage or filter capacitor at 65°C. The Type DCM is enclosed in an aluminum can and is normally furnished with a clear plastic insulating sleeve. Aluminum terminals, which are permanently molded into the top, include #10-32 machine screws. A pressure-sensivent is provided as a safety mechanism in each top. A footed, wrap-around mounting bracket is available at extra cost. ***For more complete information write for Bulletin 2231.***

Catalog Number	Cap. (Mfd)	Rated Volts d-c	Case Sizes * Diameter	Case Sizes * Length	Term. * Ctr. to Ctr.	Net Price 1-24†
539-2619-01	33,000	5	2-1/16	4-1/2	.875	$ 7.62
539-2621-01	125,000	5	3-1/16	6	1.250	16.71
Ⓢ 539-2530-01	3,750	10	1-7/16	2-1/2	.500	3.36
Ⓢ 539-2531-01	7,000	10	1-7/16	3-1/2	.500	4.20
539-2622-01	10,000	10	1-7/16	4-1/2	.500	5.10
539-2736-01	15,000	10	1-13/16	4-1/2	.750	5.73
539-2623-01	20,000	10	2-1/16	4-1/2	.875	8.07
539-2624-01	35,000	10	2-1/16	6	.875	10.92
Ⓢ 539-2625-01	40,000	10	2-9/16	4-1/2	1.125	12.12
539-2626-01	60,000	10	3-1/16	4-1/2	1.250	15.39
539-2627-01	90,000	10	3-1/16	6	1.250	19.77
Ⓢ 539-2532-01	2,500	15	1-7/16	2-1/2	.500	2.94
Ⓢ 539-2533-01	5,000	15	1-7/16	3-1/2	.500	4.17
539-2628-01	6,000	15	1-7/16	4-1/2	.500	4.23
Ⓢ 539-2534-01	8,000	15	1-7/16	4-1/2	.500	4.98
539-2737-01	10,000	15	1-13/16	4-1/2	.750	5.34
539-2738-01	14,000	15	1-13/16	4-1/2	.750	6.94
539-2629-01	18,000	15	2-1/16	4-1/2	.875	8.49
539-2630-01	25,000	15	2-1/16	6	.875	10.95
539-2631-01	33,000	15	2-9/16	4-1/2	1.125	11.28
Ⓢ 539-1246-02	35,000	15	3-1/16	4-1/2	1.250	11.34
539-2632-01	40,000	15	3-1/16	4-1/2	1.250	12.48
Ⓢ 539-2598-01	45,000	15	3-1/16	4-1/2	1.250	13.77
539-2673-01	50,000	15	3-1/16	6	1.250	15.12
Ⓢ 539-2633-01	60,000	15	3-1/16	6	1.250	17.67
Ⓢ 539-2535-01	2,250	20	1-7/16	2-1/2	.500	2.97
Ⓢ 539-2536-01	4,500	20	1-7/16	3-1/2	.500	4.32
Ⓢ 539-2537-01	6,500	20	1-7/16	4-1/2	.500	4.77
Ⓢ 539-2538-01	10,000	20	1-13/16	4-1/2	.750	5.85
Ⓢ 539-2539-01	14,750	20	2-1/16	4-1/2	.875	8.04
Ⓢ 539-2540-01	22,000	20	2-1/16	6	.875	10.56
Ⓢ 539-2541-01	25,000	20	2-9/16	4-1/2	1.125	11.10
Ⓢ 539-2542-01	35,000	20	3-1/16	4-1/2	1.250	13.50
Ⓢ 539-2543-01	50,000	20	3-1/16	6	1.250	16.92
Ⓢ 539-2544-01	1,500	25	1-7/16	2-1/2	.500	2.79
Ⓢ 539-2545-01	3,000	25	1-7/16	3-1/2	.500	3.69
539-2634-01	5,000	25	1-7/16	4-1/2	.500	4.74
Ⓢ 539-2739-01	8,000	25	1-13/16	4-1/2	.750	6.12
539-2635-01	10,000	25	2-1/16	4-1/2	.875	7.26
539-2636-01	15,000	25	2-1/16	6	.875	10.20
539-2637-01	20,000	25	2-9/16	4-1/2	1.125	10.59
Ⓢ 539-2638-01	25,000	25	3-1/16	4-1/2	1.250	11.22
539-2639-01	40,000	25	3-1/16	6	1.250	17.55
539-2640-01	1,500	35	1-7/16	3-1/2	.500	3.03
Ⓢ 539-2547-01	2,500	35	1-7/16	3-1/2	.500	3.60
539-2641-01	4,000	35	1-7/16	4-1/2	.500	4.50
539-2740-01	5,000	35	1-13/16	4-1/2	.750	5.31
Ⓢ 539-2548-01	7,000	35	1-13/16	4-1/2	.750	6.69
539-2642-01	8,000	35	2-1/16	4-1/2	.875	6.78
Ⓢ 539-2549-01	9,000	35	2-1/16	4-1/2	.875	7.71
539-2643-01	10,000	35	2-1/16	6	.875	8.31
Ⓢ 539-2550-01	13,500	35	2-1/16	6	.875	10.53
539-2644-01	15,000	35	2-9/16	4-1/2	1.125	11.07
539-2645-01	20,000	35	3-1/16	4-1/2	1.250	12.12
539-2646-01	30,000	35	3-1/16	6	1.250	13.92
Ⓢ 539-2551-01	750	50	1-7/16	2-1/2	.500	2.88
Ⓢ 539-1615-03	1,000	50	1-7/16	3-1/2	.500	3.24
Ⓢ 539-2552-01	1,500	50	1-7/16	3-1/2	.500	3.69
Ⓢ 539-1463-03	2,000	50	1-7/16	4-1/2	.500	3.81
539-2647-01	2,500	50	1-7/16	4-1/2	.500	4.08
539-2741-01	4,000	50	1-13/16	4-1/2	.750	5.49
539-2648-01	5,000	50	2-1/16	4-1/2	.875	7.11
539-2649-01	8,000	50	2-1/16	6	.875	8.79
539-2650-01	10,000	50	2-9/16	4-1/2	1.125	11.46
539-2651-01	15,000	50	3-1/16	4-1/2	1.250	13.65
539-2652-01	20,000	50	3-1/16	6	1.250	16.71
Ⓢ 539-2553-01	450	75	1-7/16	2-1/2	.500	$ 2.85
Ⓢ 539-2554-01	900	75	1-7/16	3-1/2	.500	3.78
539-2653-01	1,000	75	1-7/16	4-1/2	.500	4.02
Ⓢ 539-2555-01	1,350	75	1-7/16	4-1/2	.500	4.29
539-2654-01	3,000	75	2-1/16	4-1/2	.875	6.27
539-2656-01	5,000	75	2-9/16	4-1/2	1.125	10.23
Ⓢ 539-2557-01	7,750	75	3-1/16	4-1/2	1.250	12.84
539-2657-01	10,000	75	3-1/16	6	1.250	16.20
Ⓢ 539-2558-01	350	100	1-7/16	2-1/2	.500	3.00
Ⓢ 539-2559-01	500	100	1-7/16	3-1/2	.500	3.18
539-2658-01	1,000	100	1-7/16	4-1/2	.500	4.41
539-2742-01	1,500	100	1-13/16	4-1/2	.750	4.86
539-2597-01	3,000	100	2-1/16	6	.875	9.42
539-2660-01	4,000	100	2-9/16	4-1/2	1.125	9.96
539-2661-01	5,000	100	3-1/16	4-1/2	1.250	10.71
Ⓢ 539-2662-01	8,500	100	3-1/16	6	1.250	16.35
Ⓢ 539-2560-01	250	150	1-7/16	2-1/2	.500	2.64
539-2663-01	500	150	1-7/16	3-1/2	.500	3.84
539-2664-01	700	150	1-7/16	4-1/2	.500	4.32
Ⓢ 539-2561-01	750	150	1-7/16	4-1/2	.500	4.41
539-2743-01	1,000	150	1-13/16	4-1/2	.750	4.83
539-2744-01	1,250	150	1-13/16	4-1/2	.750	5.22
Ⓢ 539-2562-01	1,450	150	1-13/16	4-1/2	.750	6.12
Ⓢ 539-2861-01	1,850	150	2-1/16	4-1/2	.875	7.71
539-2665-01	2,000	150	2-1/16	6	.875	8.37
539-2666-01	2,500	150	2-9/16	4-1/2	1.125	9.57
Ⓢ 539-2654-01	3,000	150	2-9/16	4-1/2	1.125	10.44
539-2667-01	4,000	150	3-1/16	4-1/2	1.250	12.63
Ⓢ 539-2565-01	4,500	150	3-1/16	4-1/2	1.250	13.29
539-2668-01	6,000	150	3-1/16	6	1.250	15.18
Ⓢ 539-2566-01	200	200	1-7/16	2-1/2	.500	3.12
539-2669-01	500	200	1-7/16	4-1/2	.500	4.17
539-2745-01	750	200	1-13/16	4-1/2	.750	5.37
539-2670-01	1,500	200	2-1/16	6	.875	7.65
539-2671-01	2,000	200	2-9/16	4-1/2	1.125	9.18
539-2672-01	2,500	200	3-1/16	4-1/2	1.250	10.80
Ⓢ 539-2570-01	4,500	200	3-1/16	6	1.250	14.13
539-2746-01	500	250	1-13/16	4-1/2	.750	4.50
539-2575-01	1,000	250	2-1/16	4-1/2	.875	9.81
539-2874-01	1,500	250	2-9/16	4-1/2	1.125	10.83
539-2675-01	275	300	1-7/16	4-1/2	.500	4.50
539-2747-01	450	300	1-13/16	4-1/2	.750	5.10
539-2676-01	1,000	300	2-9/16	4-1/2	1.125	11.22
539-2677-01	1,500	300	3-1/16	4-1/2	1.250	17.73
539-2584-01	150	350	1-7/16	3-1/2	.500	4.08
539-2748-01	350	350	1-13/16	4-1/2	.750	5.49
539-2678-01	1,000	350	3-1/16	4-1/2	1.250	11.73
Ⓢ 539-2590-01	50	400	1-7/16	2-1/2	.500	3.00
Ⓢ 539-2595-01	50	450	1-7/16	2-1/2	.500	3.60
Ⓢ 539-2682-01	100	450	1-7/16	3-1/2	.500	4.50
Ⓢ 539-2596-01	150	450	1-7/16	4-1/2	.500	5.04
539-2749-01	250	450	1-13/16	4-1/2	.750	5.94
539-2683-01	300	450	2-1/16	4-1/2	.875	6.33
539-2684-01	500	450	2-1/16	6	.875	8.04
539-2685-01	600	450	2-9/16	4-1/2	1.125	9.90
539-2686-01	800	450	3-1/16	4-1/2	1.250	11.46
539-2687-01	850	450	3-1/16	4-1/2	1.250	12.24

Ⓢ **STANDARD STOCK ITEMS**

*All dimensions are in inches.
†Prices for larger quantities are available on reques

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Net

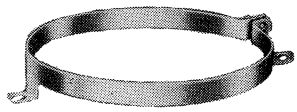
SANGAMO ELECTRIC COMPANY

capacitors

SANGAMO ELECTRONIC COMPONENTS

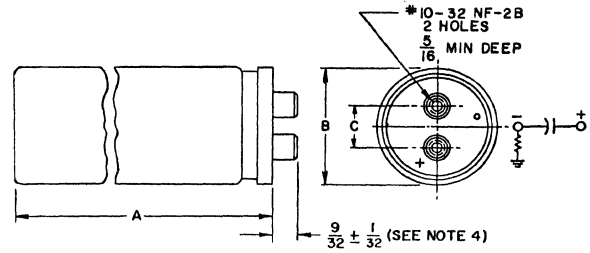
Type CE70 and CE71 MILITARY GRADE CAPACITORS

The Sangamo Types CE70 and CE71 are aluminum electrolytic capacitors designed and manufactured in accordance with Mil-C-62B. They are recommended for operation up to +85°C and are available in voltage ratings from 5 to 450 d-c volts. The Type CE70 is supplied with a plastic insulating sleeve. Commercial equivalents can be supplied which meet or exceed the applicable military requirements. ***FOR MORE COMPLETE INFORMATION WRITE FOR BULLETIN 2236.***



Type	Capacitor Diameter (Inches)	Net Price
CE70 & CE71 Mounting Bracket	1-7/16	$.24
	2-1/16	.36
	2-9/16	.48
	3-1/16	.60

Note: 1-7/16" bracket available with 2 feet only. Other sizes are available with 2 or 3 feet.



1. All dimensions in inches.
2. Capacitors are mounted by means of a wraparound, footed-type bracket.
3. There is an indeterminate resistance between the metal case and the negative terminal.
4. This dimension shall be measured from the base of the container.

Type Designation*	Cap. (Mfd)	Rated Volts d-c	Case Sizes* Diam.	Case Sizes* Length	Term. * Ctr. to Ctr.	Net Price 1-24†	Type Designation*	Cap. (Mfd)	Rated Volts d-c	Case Sizes* Diam.	Case Sizes* Length	Term. * Ctr. to Ctr.	Net Price 1-24†
CE71C103C	10,000	5	1-7/16	4-1/2	.500	$ 4.98	Ⓢ CE71C501J	500	150	1-7/16	4-1/2	.500	4.41
CE71C253C	25,000	5	2-1/16	4-1/2	.875	7.62	Ⓢ CE71C122J	1,200	150	2-1/16	4-1/2	.875	5.94
CE71C453C	45,000	5	2-9/16	4-1/2	1.125	10.38	Ⓢ CE71C202J	2,000	150	2-9/16	4-1/2	1.125	9.63
CE71C653C	65,000	5	3-1/16	4-1/2	1.250	13.56	Ⓢ CE71C322J	3,200	150	3-1/16	4-1/2	1.250	12.63
CE71C652D	6,500	10	1-7/16	4-1/2	.500	4.68	Ⓢ CE71C351K	350	200	1-7/16	4-1/2	.500	4.23
CE71C163D	16,000	10	2-1/16	4-1/2	.875	6.93	Ⓢ CE71C901K	900	200	2-1/16	4-1/2	.875	7.56
CE71C283D	28,000	10	2-9/16	4-1/2	1.125	11.76	Ⓢ CE71C152K	1,500	200	2-9/16	4-1/2	1.125	8.79
CE71C403D	40,000	10	3-1/16	4-1/2	1.250	13.95	Ⓢ CE71C222K	2,200	200	3-1/16	4-1/2	1.250	11.22
Ⓢ CE71C562E	5,600	15	1-7/16	4-1/2	.500	4.83	Ⓢ CE71C301M	300	250	1-7/16	4-1/2	.500	4.65
Ⓢ CE71C132E	12,000	15	2-1/16	4-1/2	.875	6.72	Ⓢ CE71C701M	700	250	2-1/16	4-1/2	.875	7.41
Ⓢ CE71C223E	22,000	15	2-9/16	4-1/2	1.125	11.34	Ⓢ CE71C122M	1,200	250	2-9/16	4-1/2	1.125	11.46
Ⓢ CE71C333E	33,000	15	3-1/16	4-1/2	1.250	12.96	Ⓢ CE71C192M	1,900	250	3-1/16	4-1/2	1.250	13.26
Ⓢ CE71C302F	3,000	25	1-7/16	4-1/2	.500	4.26	Ⓢ CE71C251N	250	300	1-7/16	4-1/2	.500	5.01
Ⓢ CE71C702F	7,000	25	2-1/16	4-1/2	.875	6.93	Ⓢ CE71C551N	550	300	2-1/16	4-1/2	.875	6.18
Ⓢ CE71C113F	11,000	25	2-9/16	4-1/2	1.125	8.97	Ⓢ CE71C971N	970	300	2-9/16	4-1/2	1.125	12.03
Ⓢ CE71C173F	17,000	25	3-1/16	4-1/2	1.250	12.09	Ⓢ CE71C152N	1,500	300	3-1/16	4-1/2	1.250	20.40
Ⓢ CE71C142G	1,400	50	1-7/16	4-1/2	.500	4.14	CE71C201P	200	350	1-7/16	4-1/2	.500	5.13
Ⓢ CE71C332G	3,300	50	2-1/16	4-1/2	.875	6.12	CE71C451P	450	350	2-1/16	4-1/2	.875	7.56
Ⓢ CE71C562G	5,600	50	2-9/16	4-1/2	1.125	8.88	CE71C751P	750	350	2-9/16	4-1/2	1.125	10.62
Ⓢ CE71C902G	9,000	50	3-1/16	4-1/2	1.250	11.73	CE71C122P	1,200	350	3-1/16	4-1/2	1.250	15.30
Ⓢ CE71C701H	700	100	1-7/16	4-1/2	.500	4.17	CE71C151Q	150	400	1-7/16	4-1/2	.500	5.34
Ⓢ CE71C182H	1,800	100	2-1/16	4-1/2	.875	5.94	CE71C351Q	350	400	2-1/16	4-1/2	.875	7.08
Ⓢ CE71C312H	3,100	100	2-9/16	4-1/2	1.125	10.89	CE71C601Q	600	400	2-9/16	4-1/2	1.125	10.56
Ⓢ CE71C452H	4,500	100	3-1/16	4-1/2	1.250	11.88	Ⓢ CE71C101R	100	450	1-7/16	4-1/2	.500	5.19

Ⓢ **STANDARD STOCK ITEMS**

*All dimensions are in inches.
**For Type CE70 (CE71 without sleeve), deduct 3/8" from length, 1/16" from diameter and $0.05 from net price
†Prices for larger quantities are available on request.

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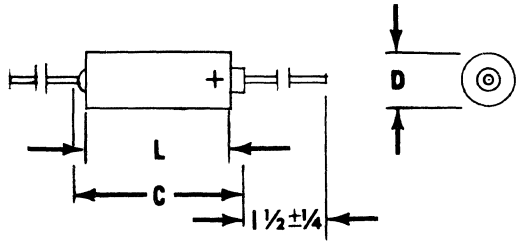
SANGAMO ELECTRIC COMPANY

capacitors

SANGAMO ELECTRONIC COMPONENTS

Type CS12 and CS13 SOLID TANTALUM CAPACITORS



The Sangamo Types CS12 and CS13 are soli electrolyte tantalum capacitors designed fo filter, by-pass, coupling, blocking and other lo voltage d-c applications found in telemeterin devices, airborne systems, computers and mis siles. They provide highest capacitance pe cubic inch in an extremely small hermeticall sealed container. All units are suitable fo operation at full rated voltages over the temp erature range of -80°C to +85°C and whe properly derated will operate up to +125°C pe MIL-C-26655 specification.

FOR MORE COMPLETE INFORMATION WRITE FO BULLETIN 2234.

Type Designation*	Cap. (Mfd)	Rated Volts d-c	Case Dimensions (inches) L	C	D	Net Price 1-24†
Ⓢ CS13AB5R6K	5.6	6	.286	.422	.135	$1.34
Ⓢ CS13AB6R8K	6.8	6	.286	.422	.135	1.34
Ⓢ CS13AB470K	47.0	6	.474	.610	.185	1.56
Ⓢ CS13AB560K	56.0	6	.474	.610	.185	1.56
Ⓢ CS13AB151K	150.0	6	.686	.822	.289	2.23
Ⓢ CS13AB181K	180.0	6	.686	.822	.289	2.23
Ⓢ CS13AB271K	270.0	6	.786	.922	.351	4.50
Ⓢ CS13AB331K	330.0	6	.786	.922	.351	4.50
Ⓢ CS13AC3R9K	3.9	10	.286	.422	.135	1.34
Ⓢ CS13AC4R7K	4.7	10	.286	.422	.135	1.34
Ⓢ CS13AC270K	27.0	10	.474	.610	.185	1.56
Ⓢ CS13AC330K	33.0	10	.474	.610	.185	1.56
Ⓢ CS13AC390K	39.0	10	.474	.610	.185	1.56
Ⓢ CS13AC820K	82.0	10	.686	.822	.289	2.23
Ⓢ CS13AC101K	100.0	10	.686	.822	.289	2.23
Ⓢ CS13AC121K	120.0	10	.686	.822	.289	2.23
Ⓢ CS13AC181K	180.0	10	.786	.922	.351	4.50
Ⓢ CS13AC221K	220.0	10	.786	.922	.351	4.50
Ⓢ CS13AD2R7K	2.7	15	.286	.422	.135	1.34
Ⓢ CS13AD3R3K	3.3	15	.286	.422	.135	1.34
Ⓢ CS13AD180K	18.0	15	.474	.610	.185	1.56
Ⓢ CS13AD220K	22.0	15	.474	.610	.185	1.56
Ⓢ CS13AD560K	56.0	15	.686	.822	.289	2.23
Ⓢ CS13AD680K	68.0	15	.686	.822	.289	2.23
Ⓢ CS13AD121K	120.0	15	.786	.922	.351	4.50
Ⓢ CS13AD151K	150.0	15	.786	.922	.351	4.50
Ⓢ CS13AE1R2K	1.2	20	.286	.422	.135	1.34
Ⓢ CS13AE1R5K	1.5	20	.286	.422	.135	1.34
Ⓢ CS13AE1R8K	1.8	20	.286	.422	.135	1.34
Ⓢ CS13AE2R2K	2.2	20	.286	.422	.135	1.34
Ⓢ CS13AE8R2K	8.2	20	.474	.610	.185	1.56
Ⓢ CS13AE100K	10.0	20	.474	.610	.185	1.56
Ⓢ CS13AE120K	12.0	20	.474	.610	.185	1.56
Ⓢ CS13AE150K	15.0	20	.474	.610	.185	1.56
Ⓢ CS13AE270K	27.0	20	.686	.822	.289	2.23
Ⓢ CS13AE330K	33.0	20	.686	.822	.289	2.23
Ⓢ CS13AE390K	39.0	20	.686	.822	.289	2.23

Type Designation*	Cap. (Mfd)	Rated Volts d-c	Case Dimensions (inches) L	C	D	Net Price 1-24†
Ⓢ CS13AE470K	47.0	20	.686	.822	.289	$2.23
Ⓢ CS13AE560K	56.0	20	.786	.922	.351	4.50
Ⓢ CS13AE680K	68.0	20	.786	.922	.351	4.50
Ⓢ CS13AE820K	82.0	20	.786	.922	.351	4.50
Ⓢ CS13AE101K	100.0	20	.786	.922	.351	4.50
Ⓢ CS13AFR33K	0.33	35	.286	.422	.135	1.34
Ⓢ CS13AFR39K	0.39	35	.286	.422	.135	1.34
Ⓢ CS13AFR47K	0.47	35	.286	.422	.135	1.34
Ⓢ CS13AFR56K	0.56	35	.286	.422	.135	1.34
Ⓢ CS13AFR68K	0.68	35	.286	.422	.135	1.34
Ⓢ CS13AFR82K	0.82	35	.286	.422	.135	1.34
Ⓢ CS13AF010K	1.0	35	.286	.422	.135	1.34
Ⓢ CS13AF1R2K	1.2	35	.474	.610	.185	1.56
Ⓢ CS13AF1R5K	1.5	35	.474	.610	.185	1.56
Ⓢ CS13AF1R8K	1.8	35	.474	.610	.185	1.56
Ⓢ CS13AF2R2K	2.2	35	.474	.610	.185	1.56
Ⓢ CS13AF2R7K	2.7	35	.474	.610	.185	1.56
Ⓢ CS13AF3R3K	3.3	35	.474	.610	.185	1.56
Ⓢ CS13AF3R9K	3.9	35	.474	.610	.185	1.56
Ⓢ CS13AF4R7K	4.7	35	.474	.610	.185	1.56
Ⓢ CS13AF5R6K	5.6	35	.474	.610	.185	1.56
Ⓢ CS13AF6R8K	6.8	35	.474	.610	.185	1.56
Ⓢ CS13AF8R2K	8.2	35	.686	.822	.289	2.57
Ⓢ CS13AF100K	10.0	35	.686	.822	.289	2.57
Ⓢ CS13AF120K	12.0	35	.686	.822	.289	2.57
Ⓢ CS13AF150K	15.0	35	.686	.822	.289	2.57
Ⓢ CS13AF180K	18.0	35	.686	.822	.289	2.57
Ⓢ CS13AF220K	22.0	35	.686	.822	.289	2.57
Ⓢ CS13AF270K	27.0	35	.786	.922	.351	4.60
Ⓢ CS13AF330K	33.0	35	.786	.922	.351	4.60
Ⓢ CS13AF390K	39.0	35	.786	.922	.351	4.75
Ⓢ CS13AF470K	47.0	35	.786	.922	.351	4.75

*When ordering capacitors without sleeves, change type designation to CS12 and deduct .01" from diameter, .036" from length and $.02 from net price.

†Prices for larger quantities are available on request.

Note: Standard Tolerance is ±10%.

Ⓢ STANDARD STOCK ITEMS

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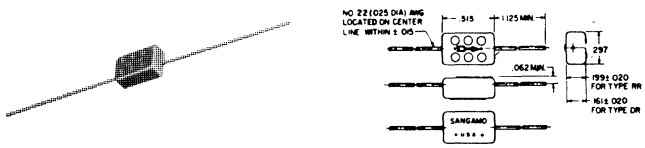
SANGAMO ELECTRONIC COMPONENTS

Type DR and RR

SILVER MICA, 500W.V.D.C. (MILITARY CM15)

Type DR and RR capacitors are molded in red Humiditite and are normally supplied to ±5% tolerance, "C" characteristic up to 20 mmf. Characteristic "E" is supplied on units above 20 mmf. unless specified otherwise. ***FOR MORE COMPLETE INFORMATION WRITE FOR BULLETIN 2320.***



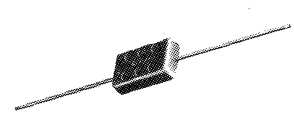
Catalog Number	Military Designation	CAP. (mmf)	5% (J)	2% (G)	1% (F)
DR5C010	CM15C010 ‡	1	$ 0.30		
DR5C020	CM15C020 ‡	2	0.30		
DR5C030	CM15C030 ‡	3	0.30		
DR5C050	CM15C050 ‡	5	0.30		
DR5C100	CM15C100	10	0.30		
DR5C120	CM15C120	12	0.30		
DR5C150	CM15C150	15	0.30		
DR5C180	CM15C180	18	0.30		
DR5C200	CM15C200	20	0.30		
DR5C220	CM15C220	22	0.30		
DR5E240	CM15E240	24	0.30		
DR5E270	CM15E270	27	0.30	$ 0.36	
DR5E300	CM15E300	30	0.30	0.36	
DR5E330	CM15E330	33	0.30	0.36	
DR5E360	CM15E360	36	0.30	0.36	
DR5E390	CM15E390	39	0.30	0.36	
DR5E430	CM15E430	43	0.30	0.36	
DR5E470	CM15E470	47	0.30	0.36	
DR5E500	CM15E500	50	0.30	0.36	$ 0.43
DR5E510	CM15E510	51	0.30	0.36	0.43
DR5E560	CM15E560	56	0.30	0.36	0.43
DR5E620	CM15E620	62	0.30	0.36	0.43
DR5E680	CM15E680	68	0.30	0.36	0.43
DR5E750	CM15E750	75	0.30	0.36	0.43
DR5E820	CM15E820	82	0.30	0.36	0.43
DR5E910	CM15E910	91	0.30	0.36	0.43
DR5E101	CM15E101	100	0.30	0.36	0.43
DR5E111	CM15E111	110	0.35	0.42	0.50
DR5E121	CM15E121	120	0.35	0.42	0.50
DR5E131	CM15E131	130	0.35	0.42	0.50
DR5E151	CM15E151	150	0.35	0.42	0.50
DR5E161	CM15E161	160	0.40	0.48	0.57
DR5E181	CM15E181	180	0.40	0.48	0.57
DR5E201	CM15E201	200	0.40	0.48	0.57
DR5E221	CM15E221	220	0.45	0.54	0.65
DR5E241	CM15E241	240	0.45	0.54	0.65
DR5E251	CM15E251	250	0.45	0.54	0.65
DR5E271	CM15E271	270	0.50	0.60	0.72
DR5E301	CM15E301	300	0.50	0.60	0.72
DR5E331	CM15E331	330	0.55	0.66	0.79
DR5E361	CM15E361	360	0.60	0.72	0.86
DR5E391	CM15E391	390	0.65	0.78	0.94
DR5E431	CM15E431	430	0.70	0.84	1.01
DR5E471	CM15E471	470	0.75	0.90	1.08
DR5E501		500	0.80	0.96	1.15
DR5E511		510	0.80	0.96	1.15
DR3E561		560*	0.80	0.96	1.15
DR1E621		620**	0.85	1.02	1.22
DR1E681		680**	0.90	1.08	1.30
DR1E751		750**	0.95	1.14	1.37
DR1E821		820**	1.00	1.20	1.44

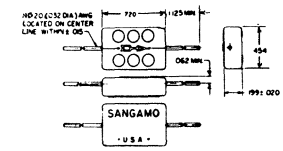
Minimum tolerance ± 1/2 mmf.
For ± 1/2% tolerance (above 100 mmf, double 5% list price.

TY Type KR

SILVER MICA, 500 W.V.D.C. (MILITARY CM20)

Type KR capacitors are molded in red Humiditite and and are normally supplied to ±5% tolerance "C" characteristic up to 20 mmf. Characteristic "E" is supplied on units above 20 mmf. unless specified otherwise. ***FOR MORE COMPLETE INFORMATION WRITE FOR BULLETIN 2320.***





Catalog Number	Military Designation	CAP. (mmf)	5% (J)	2% (G)	1% (F)
KR5C050	CM20C050 ‡	5	$ 0.30		
KR5C100	CM20C100	10	0.30		
KR5C120	CM20C120	12	0.30		
KR5C150	CM20C150	15	0.30		
KR5C180	CM20C180	18	0.30		
KR5C200	CM20C200	20	0.30		
KR5C220	CM20C220	22	0.30		
KR5C240	CM20C240	24	0.30		
KR5C270	CM20C270	27	0.30	$ 0.33	
KR5C300	CM20C300	30	0.30	0.33	
KR5C330	CM20C330	33	0.30	0.33	
KR5C360	CM20C360	36	0.30	0.33	
KR5C390	CM20C390	39	0.30	0.33	
KR5C430	CM20C430	43	0.30	0.33	
KR5C470	CM20C470	47	0.30	0.33	
KR5C500	CM20C500	50	0.30	0.33	$ 0.42
KR5C510	CM20C510	51	0.30	0.33	0.42
KR5C560	CM20C560	56	0.30	0.33	0.42
KR5C620	CM20C620	62	0.30	0.33	0.42
KR5C680	CM20C680	68	0.30	0.33	0.42
KR5C750	CM20C750	75	0.30	0.33	0.42
KR5C820	CM20C820	82	0.30	0.33	0.42
KR5C910	CM20C910	91	0.30	0.33	0.42
KR5C101	CM20C101	100	0.30	0.33	0.42
KR5C111	CM20C111	110	0.35	0.39	0.49
KR5C121	CM20C121	120	0.35	0.39	0.49
KR5C131	CM20C131	130	0.35	0.39	0.49
KR5C151	CM20C151	150	0.35	0.39	0.49
KR5C161	CM20C161	160	0.35	0.39	0.49
KR5C181	CM20C181	180	0.35	0.39	0.49
KR5D201	CM20C201	200	0.35	0.39	0.49
KR5D221	CM20C221	220	0.35	0.39	0.49
KR5D241	CM20C241	240	0.40	0.44	0.56
KR5D251	CM20C251	250	0.40	0.44	0.56
KR5D271	CM20C271	270	0.45	0.50	0.63
KR5D301	CM20C301	300	0.45	0.50	0.63
KR5D331	CM20C331	330	0.45	0.50	0.63
KR5D361	CM20C361	360	0.50	0.55	0.70
KR5D391	CM20C391	390	0.50	0.55	0.70
KR5D431	CM20C431	430	0.50	0.55	0.70
KR5D471	CM20C471	470	0.55	0.61	0.77
KR5D501	CM20C501	500	0.55	0.61	0.77
KR5D511	CM20C511	510	0.55	0.61	0.77
KR5D561	CM20C561	560	0.55	0.61	0.77
KR5D621	CM20C621	620	0.60	0.66	0.84
KR5D681	CM20C681	680	0.60	0.66	0.84
KR5D751	CM20C751	750	0.65	0.72	0.91
KR5D821	CM20C821	820	0.70	0.77	0.98
KR5D911	CM20C911	910	0.70	0.77	0.98
KR5E102	CM20C102	1000	0.75	0.83	1.05
KR5E112	CM20C112	1100	0.75	0.83	1.05
KR5E122	CM20C122	1200	0.80	0.88	1.12
KR5E132	CM20C132	1300	0.80	0.88	1.12
KR5E152	CM20C152	1500	0.85	0.94	1.19

* Rated voltage 300 W.V.D.C. **Rated voltage 100 W.V.D.C.

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SANGAMO ELECTRONIC COMPONENTS

TYPE KR CONTINUED

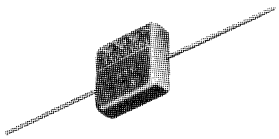
Catalog Number	Military Designation	CAP. (mmf)	5% (J)	2% (G)	1% (F)
KR5E162	CM20C162	1600	$ 0.85	$0.94	$1.19
KR5E182	CM20C182	1800	1.00	1.10	1.40
KR3E202	CM20C202	2000	1.10	1.21	1.54
KR3E222	CM20C222	2200	1.20	1.32	1.68
KR3E242	CM20C242	2400	1.25	1.38	1.75
KR3E252	CM20C252	2500	1.30	1.43	1.82
KR3E272	CM20C272	2700	1.40	1.54	1.96
KR3E302	CM20C302	3000*	1.50	1.65	2.10
KR1E332	CM20C332	3300**	1.60	1.75	2.24
KR1E352	CM20C352	3500**	1.75	1.92	2.45

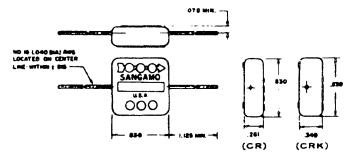
‡ Minimum tolerance ± 1/2 mmf.
For ± 1/2% tolerance (above 100 mmf) double 5% list price.
* Rated voltage 300 W.V.D.C.
** Rated voltage 100 W.V.D.C.

Type CR

SILVER MICA
(MILITARY CM30)

Types CR and CRK silvered mica capacitors are molded in red Humiditite and are normally supplied to ±5% capacitive tolerance and characteristic "E". Characteristics C, D and F are also available on request. When the thicker case size is required in higher capacitive values, the type designation changes to CRK (example: CRK5E362). ***FOR MORE COMPLETE INFORMATION WRITE FOR BULLETIN 2320.***





Catalog Number	Military Designation	CAP. (mmf)	5% (J)	2% (G)	1% (F)
CR5E511	CM30E511	510	$0.70	$0.81	$0.88
CR5E561	CM30E561	560	0.75	0.86	0.95
CR5E621	CM30E621	620	0.75	0.86	0.94
CR5E681	CM30E681	680	0.80	0.92	1.00
CR5E751	CM30E751	750	0.80	0.92	1.00
CR5E821	CM30E821	820	0.85	0.98	1.06
CR5E911	CM30E911	910	0.90	1.04	1.13
CR5E102	CM30E102	1,000	1.00	1.15	1.25
CR5E112	CM30E112	1,100	1.00	1.15	1.25
CR5E122	CM30E122	1,200	1.15	1.32	1.44
CR5E132	CM30E132	1,300	1.15	1.32	1.44
CR5E152	CM30E152	1,500	1.25	1.44	1.56
CR5E162	CM30E162	1,600	1.25	1.44	1.56
CR5E182	CM30E182	1,800	1.25	1.44	1.56
CR5E202	CM30E202	2,000	1.35	1.55	1.69
CR5E222	CM30E222	2,200	1.35	1.55	1.69
CR5E242	CM30E242	2,400	1.60	1.84	2.00
CR5E252	CM30E252	2,500	1.60	1.84	2.00
CR5E272	CM30E272	2,700	1.80	2.07	2.25
CR5E302	CM30E302	3,000	1.90	2.19	2.38
CR5E332	CM30E332	3,300	1.90	2.19	2.38
CR5E362		3,600	2.00	2.30	2.50
CR5E392		3,900	2.00	2.30	2.50
CR5E432		4,300	2.10	2.42	2.63

TYPE CR CONTINUED

Catalog Number	Military Designation	Cap. (mmf)	5% (J)	2% (G)	1% (F)
CR5E472		4,700	2.10	2.42	2.63
CR5E502		5,000	2.15	2.47	2.69
CR5E512		5,100	2.15	2.47	2.69
CR5E562		5,600	2.25	2.59	2.81
CR5E622		6,200	2.40	2.76	3.00
CR3E682		6,800*	2.65	3.05	3.31
CR3E752		7,500*	2.80	3.22	3.50
CR3E802		8,000*	2.95	3.38	3.68
CR3E822		8,200*	3.00	3.45	3.75
CR3E902	CM30E902	9,000*	3.20	3.68	4.00
CR3E103		10,000*	3.50	4.03	4.38

*Rated Voltage 300 W.V.D.C.

Type CRK

SILVER MICA
(MILITARY CM35)

Catalog Number	Military Designation	CAP. (mmf)	5% (J)	2% (G)	1% (F)
CRK5E362	CM35E362	3,600	$ 2.00	$2.30	$ 2.50
CRK5E392	CM35E392	3,900	2.00	2.30	2.50
CRK5E432	CM35E432	4,300	2.10	2.42	2.63
CRK5E472	CM35E472	4,700	2.10	2.42	2.63
CRK5E502	CM35E502	5,000	2.15	2.47	2.69
CRK5E512	CM35E512	5,100	2.15	2.47	2.69
CRK5E562	CM35E562	5,600	2.25	2.59	2.81
CRK5E622	CM35E622	6,200	2.40	2.76	3.00
CRK5E682	CM35E682	6,800	2.90	3.34	3.62
CRK5E752	CM35E752	7,500	3.05	3.51	3.81
CRK5E822	CM35E822	8,200	3.30	3.80	4.13
CRK5E912	CM35E912	9,100	3.50	4.03	4.38
CRK5E103	CM35E103	10,000	3.85	4.43	4.81
CRK5E123		12,000	3.90	4.49	4.88
CRK3E153		15,000*	4.80	5.52	6.00
CRK3E163		16,000*	5.10	5.87	6.38

Note: For ± 1/2% tolerance, double 5% list price.
* Rated voltage 300 W.V.D.C.

Type D15, D19, D20, D30, and D42

DIPPED SILVER MICA CAPACITORS

Sangamo Type D dipped Mica capacitors are available in five case sizes: D15, D19, D20, D30 and D42. With the exception of the Type D20 they correspond to the MIL-C-5B sizes CM05, CM06, CM07 and CM08 respectively. These units utilize silvered mica sections encased in several coatings of electrical grade phenolic and epoxy resins. All commercial units meet or exceed the applicable requirements of MIL-C-5 and are normally furnished to a capacitive tolerance of ±5% and characteristic F. ***FOR MORE COMPLETE INFORMATION WRITE FOR BULLETIN 2323.***

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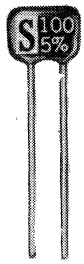
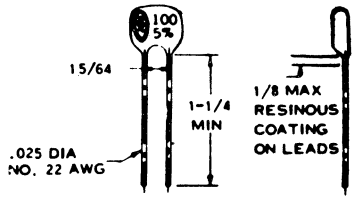
SANGAMO ELECTRONIC COMPONENTS

Type D15
(MILITARY CM05)

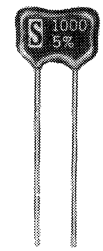


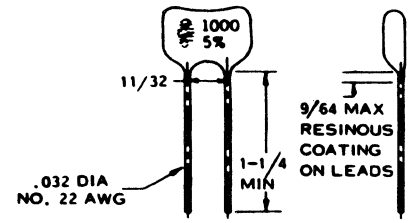


Catalog Number	Military Designation	CAP (mmf)	5% (J)	2% (G)	1% (F)
D155C010		1 ‡	$ 0.28		
D155C020		2 ‡	0.28		
D155C030		3 ‡	0.28		
D155C050	CM04C050	5 ‡	0.28		
D155C060	CM05C060	6 ‡	0.28		
D155C070	CM05C070	7 ‡	0.28		
D155C080	CM05C080	8 ‡	0.28		
D155C100	CM05C100	10	0.28		
D155C120	CM05C120	12	0.28		
D155C150		15	0.28		
D155C180	CM05C180	18	0.28		
D155E200	CM05C200	20	0.28		
D155E220	CM05-220	22	0.28		
D155E240	CM05-240	24	0.28		
D155E270	CM05-270	27	0.28	$ 0.33	
D155E300	CM05-300	30	0.28	0.33	
D155E330	CM05-330	33	0.28	0.33	
D155E360	CM05-360	36	0.28	0.33	
D155E390	CM05-390	39	0.28	0.33	
D155E430	CM05-430	43	0.28	0.33	
D155E470	CM05-470	47	0.28	0.33	
D155E500		50	0.28	0.33	$ 0.40
D155F510	CM05-510	51	0.28	0.33	0.40
D155F560	CM05-560	56	0.28	0.33	0.40
D155F620	CM05-620	62	0.28	0.33	0.40
D155F680	CM05-680	68	0.28	0.33	0.40
D155F750	CM05-750	75	0.28	0.33	0.40
D155F820	CM05-820	82	0.28	0.33	0.40
D155F910	CM05-910	91	0.28	0.33	0.40
D155F101	CM05-101	100	0.28	0.33	0.40
D155D111	CM05-111	110	0.33	0.39	0.48
D155F121	CM05-121	120	0.33	0.39	0.48
D155F131	CM05-131	130	0.33	0.39	0.48
D155F151	CM05-151	150	0.33	0.39	0.48
D155F161	CM05-161	160	0.39	0.46	0.56
D155F181	CM05-181	180	0.39	0.46	0.56
D155F201	CM05-201	200	0.39	0.46	0.56
D155F221	CM05-221	220	0.44	0.52	0.64
D155F241	CM05-241	240	0.44	0.52	0.64
D155F251		250	0.44	0.52	0.64
D155F271	CM05-271	270	0.50	0.59	0.72
D155F301	CM05-301	300	0.50	0.59	0.72
D155F331	CM05-331	330	0.55	0.65	0.80
D155F361	CM05-361	360	0.55	0.65	0.80
D155F391	CM05-391	390	0.61	0.72	0.88
D155F431		430	0.61	0.72	0.88
D155F471		470	0.66	0.78	0.96
D155F501		500	0.66	0.78	0.96
D155F511		510	0.66	0.78	0.96
D153F561		560*	0.72	0.85	1.04
D153F621		620*	0.77	0.91	1.12
D153F681		680*	0.83	0.98	1.20
D153F751		750*	0.88	1.04	1.28
D153F821		820*	0.94	1.11	1.36
D151F911		910**	1.05	1.24	1.43
D151F102		1,000**	1.10	1.30	1.60

‡ Minimum tolerance ± 1/2 mmf.
For ± 1/2% tolerance, double 5% list price.
*Rated voltage 300 W.V.D.C. ** Rated voltage 100 W.V.D.C.

Type D19
(MILITARY CM06)





Catalog Number	Military Designation	CAP. (mmf)	5% (J)	2% (G)	1% (F)
D195F101		100	$ 0.28	$ 0.30	$ 0.38
D195F111		110	0.33	0.36	0.45
D195F121		120	0.33	0.36	0.45
D195F131		130	0.33	0.36	0.45
D195F151		150	0.33	0.36	0.45
D195F161		160	0.33	0.36	0.45
D195F181		180	0.33	0.36	0.45
D195F201		200	0.33	0.36	0.45
D195F221		220	0.33	0.36	0.45
D195F241		240	0.39	0.42	0.53
D195F251		250	0.39	0.42	0.53
D195F271		270	0.44	0.48	0.60
D195F301		300	0.44	0.48	0.60
D195F331		330	0.44	0.48	0.60
D195F361		360	0.50	0.54	0.68
D195F391		390	0.50	0.54	0.68
D195F431	CM06-431	430	0.50	0.54	0.68
D195F471	CM06-471	470	0.55	0.60	0.75
D195F501		500	0.55	0.60	0.75
D195F511	CM06-511	510	0.55	0.60	0.75
D195F561	CM06-561	560	0.61	0.66	0.83
D195F621	CM06-621	620	0.61	0.66	0.83
D195F681	CM06-681	680	0.66	0.72	0.90
D195F751	CM06-751	750	0.66	0.72	0.90
D195F821	CM06-821	820	0.66	0.72	0.90
D195F911	CM06-911	910	0.72	0.78	0.98
D195F102	CM06-102	1,000	0.77	0.84	1.05
D195F112	CM06-112	1,100	0.77	0.84	1.05
D195F122	CM06-122	1,200	0.83	0.90	1.13
D195F132	CM06-132	1,300	0.88	0.96	1.20
D195F152	CM06-152	1,500	0.94	1.02	1.28
D195F162	CM06-162	1,600	0.99	1.08	1.35
D195F182	CM06-182	1,800	1.10	1.20	1.50
D195F202	CM06-202	2,000	1.21	1.32	1.65
D195F222	CM06-222	2,200	1.32	1.44	1.80
D195F242	CM06-242	2,400	1.43	1.56	1.95
D195F252		2,500	1.49	1.62	2.03
D195F272	CM06-272	2,700	1.54	1.68	2.10
D195F302		3,000	1.65	1.80	2.25
D195F332	CM06-332	3,300	1.76	1.92	2.40
D195F362	CM06-362	3,600	1.87	2.04	2.55
D195F392	CM06-392	3,900	1.98	2.16	2.70
D195F432	CM06-432	4,300	1.98	2.16	2.70
D195F472	CM06-472	4,700	2.09	2.28	2.85
D195F502		5,000	2.20	2.40	3.00
D195F512		5,100	2.20	2.40	3.00
D193F562		5,600*	2.31	2.52	3.15
D193F622		6,200*	2.42	2.64	3.30
D193F682		6,800*	2.53	2.76	3.45
D191F752		7,500**	2.42	2.64	3.30
D191F822		8,200**	2.75	3.00	3.75

Note: Minimum tolerance ± 1/2 mmf.
For ± 1/2% tolerance, double 5% list price.
*Rated voltage 300 W.V.D.C.
** Rated voltage 100 W.V.D.C.

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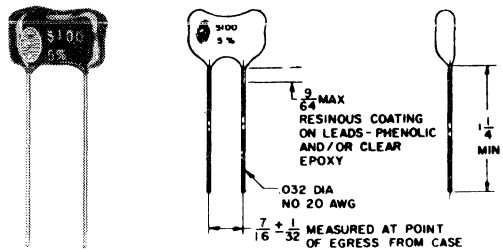
SANGAMO ELECTRONIC COMPONENTS

Type D20

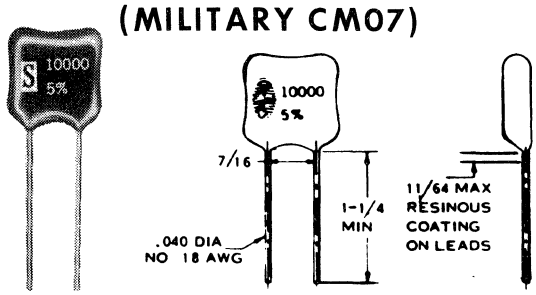
(NON MILITARY)



Catalog Number	CAP. (mmf)	5% (J)	2% (G)	1% (F)
D205F681	680	$0.55	$0.60	$0.75
D205F751	750	0.55	0.60	0.75
D205F821	820	0.55	0.60	0.75
D205F911	910	0.61	0.66	0.83
D205F102	1,000	0.66	0.72	0.90
D205F112	1,100	0.66	0.72	0.90
D205F122	1,200	0.72	0.88	0.98
D205F132	1,300	0.77	0.84	1.05
D205F152	1,500	0.83	0.90	1.13
D205F162	1,600	0.88	0.96	1.20
D205F182	1,800	0.99	1.08	1.35
D205F202	2,000	1.05	1.14	1.43
D205F222	2,200	1.16	1.26	1.58
D205F242	2,400	1.21	1.32	1.65
D205F252	2,500	1.21	1.32	1.65
D205F272	2,700	1.32	1.44	1.80
D205F302	3,000	1.43	1.56	1.95
D205F332	3,300	1.54	1.68	2.10
D205F362	3,600	1.65	1.80	2.25
D205F392	3,900	1.76	1.92	2.40
D205F432	4,300	1.87	2.04	2.55
D205F472	4,700	1.78	2.16	2.70
D205F502	5,000	2.09	2.28	2.85
D205F512	5,100	2.15	2.34	2.93
D205F562	5,600	2.20	2.40	3.00
D205F622	6,200	2.20	2.40	3.00
D205F682	6,800	2.31	2.52	3.15
D205F752	7,500	2.42	2.64	3.30
D205F822	8,200	2.64	2.88	3.60
D205F912	9,100	2.97	3.24	4.05
D205F103	10,000	3.30	3.60	4.50

Type D30

(MILITARY CM07)



Catalog Number	Military Designation	CAP. (mmf)	5% (J)	2% (G)	1% (F)
D305F432		4,300	$ 1.76	$ 1.92	$ 2.08
D305F472		4,700	1.87	2.04	2.21
D305F502		5,000	1.93	2.10	2.28
D305F512	CM07-512	5,100	1.93	2.10	2.28
D305F562	CM07-562	5,600	1.98	2.16	2.34
D305F622	CM07-622	6,200	2.09	2.28	2.47

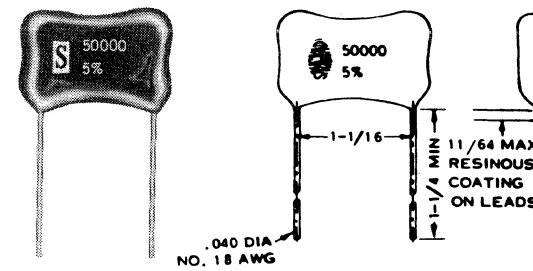
TYPE D30 CONTINUED

Catalog Number	Military Designation	CAP (mmf)	5% (J)	2% (G)	1% (F)
D305F682	CM07-682	6,800	$2.31	$2.52	$2.73
D305F752	CM07-752	7,500	2.53	2.76	2.99
D305F822	CM07-822	8,200	2.75	3.00	3.25
D305F912	CM07-912	9,100	2.97	3.24	3.51
D305F103	CM07-103	10,000	3.30	3.60	3.90
D305F113	CM07-113	11,000	3.58	3.90	4.23
D305F123	CM07-123	12,000	3.85	4.20	4.55
D305F133	CM07-133	13,000	4.13	4.50	4.88
D305F153	CM07-153	15,000	4.68	5.10	5.53
D305F163	CM07-163	16,000	4.95	5.40	5.85
D305F183	CM07-183	18,000	5.50	6.00	6.50
D305F203	CM07-203	20,000	6.05	6.60	7.15
D305F223		22,000	6.27	6.84	7.41
D303F243		24,000*	6.77	7.38	8.00
D303F253		25,000*	7.04	7.68	8.32
D303F273		27,000*	7.54	8.22	8.91
D303F303		30,000*	8.25	9.00	9.75
D301F333		33,000**	9.08	9.90	10.73
D301F363		36,000**	9.90	10.80	11.70
D301F403		40,000**	10.98	12.11	13.05

Note: For ± 1/2% tolerance, double 5% list price.
*Rated voltage 300 WVDC. ** Rated voltage 100 WVDC

Type D42

(MILITARY CM08)



Catalog Number	Military Designation	CAP. (mmf)	5% (J)	2% (G)	1% (F)
D425F103		10,000	$3.30	$ 3.80	$4.13
D425F123		12,000	3.90	4.49	4.85
D425F133		13,000	4.20	4.83	5.25
D425F153		15,000	4.80	5.52	6.00
D425F163		16,000	5.10	5.87	6.38
D425F183		18,000	5.70	6.56	7.13
D425F203		20,000	6.30	7.25	7.88
D425F223	CM08-223	22,000	6.90	7.94	8.63
D425F243	CM08-243	24,000	7.50	8.63	9.38
D425F253		25,000	7.80	8.97	9.75
D425F273	CM08-273	27,000	$8.40	$ 9.66	10.50
D425F303	CM08-303	30,000	9.30	10.70	11.63
D425F333	CM08-333	33,000	10.20	11.73	12.75
D425F363	CM08-363	36,000	11.10	12.77	13.88
D425F393	CM08-393	39,000	12.00	13.80	15.00
D425F433	CM08-433	43,000	13.00	14.95	16.25
D425F473	CM08-473	47,000	14.01	16.10	17.50
D423F473		47,000*	11.00	12.65	13.75
D425F503		50,000	14.70	17.02	18.55
D423F503		50,000*	12.80	14.72	16.00
D425F513		51,000	15.10	17.30	18.88
D423F513	CM08-423	51,000*	13.10	15.07	16.38
D423F563	CM08-563	56,000*	14.20	16.33	17.75
D423F623	CM08-623	62,000*	15.60	17.94	19.50
D423F683		68,000*	17.00	19.55	21.25
D421F753		75,000**	18.70	21.51	23.38
D421F823		82,000**	20.40	23.46	25.50
D421F913		91,000**	22.44	25.81	28.05

Note: For ± 1/2% tolerance, double 5% list price.
*Rated voltage 300 W.V.D.C.
**Rated voltage 100 W.V.D.C.

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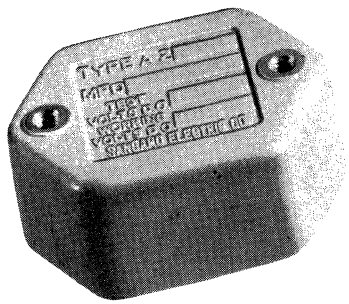
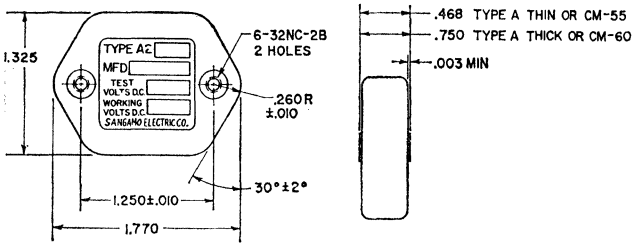
SANGAMO ELECTRONIC COMPONENTS

Type A MICA CAPACITORS

The Type A mica dielectric capacitor is molded in Thermosetting Plastic case with threaded insert terminals. Unless otherwise specified, units are supplied in ±10% capacitive tolerance and "B" characteristic per MIL-C-5. ***For more complete information write for Bulletin 2321.***





Catalog Number	Military Type Designation	Cap. (Mfd)	Rated Volts d-c	Net Price 1-9*
A-1450	- - - - -	.00005	600	$0.63
A-1310	- - - - -	.0001	600	0.63
A-1315	- - - - -	.00015	600	0.63
A-1320	- - - - -	.0002	600	0.63
A-1325	- - - - -	.00025	600	0.63
A-1350	- - - - -	.0005	600	0.63
A-1210	- - - - -	.001	600	0.63
A-1220	- - - - -	.002	600	0.71
A-1240	- - - - -	.004	600	0.86
A-1250	- - - - -	.005	600	0.917
A-1260	- - - - -	.006	600	0.96
A-1280	- - - - -	.008	600	1.08
A-1110	- - - - -	.01	600	1.22
A-1115	- - - - -	.015	600	1.32
A-1118	CM55B183K	.018	600	1.47
A-1120	CM55B203K	.02	600	1.55
A-1122	CM55B223K	.022	600	1.68
A-1125	- - - - -	.025	600	1.89
A-1127	CM55B273K	.027	600	1.93
A-1130	CM55B303K	.03	600	1.97
A-1133	CM55B333K	.033	600	2.13
A-1140	- - - - -	.04	600	2.54
A-1143	CM60B433K	.043	600	2.73
A-1147	CM60B473K	.047	600	2.93
A-1150	- - - - -	.05	600	3.09
A-1160	- - - - -	.06	600	3.51
A-1170	- - - - -	.07	600	4.00
A-2450	- - - - -	.00005	1200	0.675
A-2310	- - - - -	.0001	1200	0.705
A-2315	- - - - -	.00015	1200	0.705
A-2320	- - - - -	.0002	1200	0.705
A-2325	- - - - -	.00025	1200	0.705
A-2350	- - - - -	.0005	1200	0.705
A-2210	- - - - -	.001	1200	0.834
A-2215	- - - - -	.0015	1200	0.938
A-2220	- - - - -	.002	1200	1.10
A-2225	- - - - -	.0025	1200	1.22
A-2240	- - - - -	.004	1200	$1.34
A-2250	- - - - -	.005	1200	1.43
A-2256	CM55B562K	.0056	1200	1.47
A-2260	- - - - -	.006	1200	1.50
A-2268	CM55B682K	.0068	1200	1.61
A-2280	- - - - -	.008	1200	1.79
A-2291	CM55B912K	.0091	1200	1.90
A-2110	CM55B103K	.01	1200	2.05
A-2113	CM55B133K	.013	1200	2.32
A-2115	- - - - -	.015	1200	2.53
A-2118	CM60B183K	.018	1200	2.86
A-2120	CM60B203K	.02	1200	3.07
A-2122	CM60B223K	.022	1200	3.25
A-2125	- - - - -	.025	1200	3.43
A-2127	CM60B273K	.027	1200	3.47
A-2130	CM60B303K	.03	1200	3.52
A-2133	CM60B333K	.033	1200	3.57
A-5427	CM55B270K	.000027	2500	0.834
A-5443	CM55B430K	.000043	2500	0.834
A-5447	CM55B470K	.000047	2500	0.834
A-5450	- - - - -	.000050	2500	0.834
A-5451	CM55B510K	.000051	2500	0.834
A-5456	CM55B560K	.000056	2500	0.834
A-5475	CM55B750K	.000075	2500	0.834
A-5482	CM55B820K	.000082	2500	0.834
A-5310	CM55B101K	.0001	2500	0.834
A-5315	CM55B151B	.00015	2500	0.834
A-5318	CM55B181K	.00018	2500	0.834
A-5320	CM55B201K	.0002	2500	0.834
A-5324	CM55B241K	.00024	2500	0.914
A-5330	CM55B301K	.0003	2500	0.973
A-5347	CM55B471K	.00047	2500	1.08
A-5350	- - - - -	.0005	2500	1.11
A-5351	CM55B511K	.00051	2500	1.12
A-5368	CM55B681K	.00068	2500	1.18
A-5375	CM55B751K	.00075	2500	1.20
A-5382	CM55B821K	.00082	2500	1.22
A-5210	CM55B102K	.001	2500	1.28
A-5215	CM55B152K	.0015	2500	1.44
A-5218	CM55B182K	.0018	2500	1.62
A-5220	CM55B202K	.002	2500	1.74
A-5222	CM55B222K	.0022	2500	1.85
A-5225	- - - - -	.0025	2500	2.01
A-5230	CM55B302K	.003	2500	2.21
A-5233	CM55B332K	.0033	2500	2.28
A-5240	- - - - -	.004	2500	2.46
A-5247	CM60B472K	.0047	2500	2.60
A-5250	- - - - -	.005	2500	2.70
A-5268	CM60B682K	.0068	2500	2.85
A-5280	- - - - -	.008	2500	2.98
A-5282	CM60B822K	.0082	2500	3.00
A-5110	CM60B103K	.01	2500	3.16
A-5115	CM60B153K	.015	2500	3.51
A-5116	CM60B163K	.016	2500	3.59

*Prices for larger quantities are available on request.

Note: Prices for closer tolerances and other characteristics are available on request.

(S) STANDARD STOCK ITEMS

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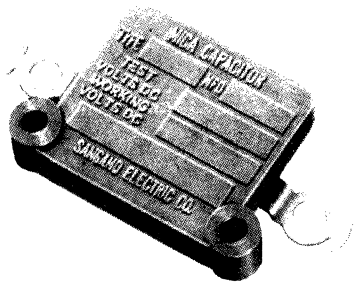
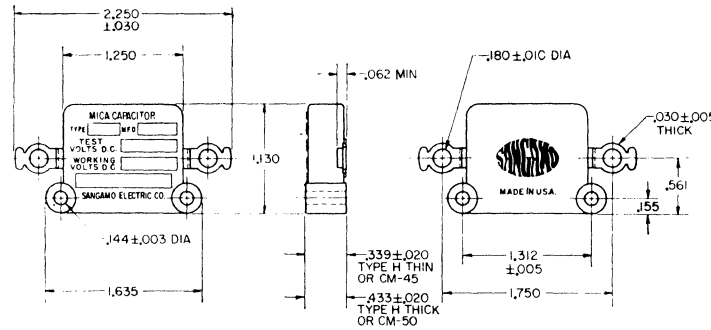
SANGAMO ELECTRONIC COMPONENTS

Type H MICA CAPACITORS

The Type H mica dielectric capacitor is molded in a Thermosetting Plastic case with lug terminals. It can be screw mounted through untapped holes in the case. Unless otherwise specified, units are supplied in ±10% capacitive tolerance and "B" characteristic per MIL-C-5. ***FOR MORE COMPLETE INFORMATION WRITE FOR BULLETIN 2321.***





Catalog Number	Military Type Designation	Cap. (Mfd)	Rated Volts d-c	Net Price 1-9*
H-1450	- - - - -	.00005	600	$ 0.52
H-1310	- - - - -	.0001	600	0.52
H-1320	- - - - -	.0002	600	0.52
H-1325	- - - - -	.00025	600	0.52
H-1330	- - - - -	.0003	600	0.52
H-1340	- - - - -	.0004	600	0.52
H-1350	- - - - -	.0005	600	0.52
H-1210	- - - - -	.001	600	0.52
H-1215	- - - - -	.0015	600	0.52
H-1220	- - - - -	.002	600	0.56
H-1225	- - - - -	.0025	600	0.58
H-1230	- - - - -	.003	600	0.63
H-1240	- - - - -	.004	600	0.66
H-1247	- - - - -	.0047	600	0.67
H-1250	- - - - -	.005	600	0.67
H-1260	- - - - -	.006	600	0.77
H-1268	- - - - -	.0068	600	0.79
H-1280	- - - - -	.008	600	0.83
H-1110	- - - - -	.01	600	0.94
H-1112	CM50B123K	.012	600	1.03
H-1115	CM50B153K	.015	600	1.16
H-1116	CM50B163K	.016	600	1.19
H-1120	CM50B203K	.02	600	1.33
H-1122	CM50B223K	.022	600	1.45
H-1124	CM50B243K	.024	600	1.53
H-1125	- - - - -	.025	600	1.57
H-1127	CM50B273K	.027	600	1.72
H-1130	- - - - -	.03	600	1.95
H-2450	- - - - -	.00005	1200	0.69
H-2310	- - - - -	.0001	1200	0.69
H-2315	- - - - -	.00015	1200	0.69
H-2320	- - - - -	.0002	1200	0.69
H-2325	- - - - -	.00025	1200	0.69
H-2350	- - - - -	.0005	1200	0.69
H-2210	- - - - -	.001	1200	0.77
H-2215	- - - - -	.0015	1200	1.00
H-2220	- - - - -	.002	1200	1.05
H-2225	- - - - -	.0025	1200	1.22
H-2230	- - - - -	.003	1200	1.33
H-2240	- - - - -	.004	1200	1.33
H-2247	- - - - -	.0047	1200	1.41
H-2250	- - - - -	.005	1200	1.44
H-2256	CM50B562K	.0056	1200	1.47
H-2260	- - - - -	.006	1200	1.49
H-2262	CM50B622K	.0062	1200	1.50
H-2268	CM50B682K	.0068	1200	1.53

Catalog Number	Military Type Designation	Cap. (Mfd)	Rated Volts d-c	Net Price 1-9*
H-2280	- - - - -	.008	1200	$1.67
H-2282	CM50B822K	.0082	1200	1.74
H-2291	CM50B912K	.0091	1200	1.82
H-2210	CM50B103K	.01	1200	2.22
H-5447	CM45B470K	.000047	2500	0.83
H-5450	- - - - -	.00005	2500	0.83
H-5451	CM45B510K	.000051	2500	0.83
H-5468	CM45B680K	.000068	2500	0.83
H-5475	CM45B750K	.000075	2500	0.83
H-5491	CM45B910K	.000091	2500	0.83
H-5310	CM45B101K	.0001	2500	0.83
H-5315	CM45B151K	.00015	2500	0.83
H-5318	CM45B181K	.00018	2500	0.83
H-5320	CM45B201K	.0002	2500	0.83
H-5324	CM45B241K	.00024	2500	0.84
H-5327	CM45B271K	.00027	2500	0.87
H-5330	CM45B301K	.0003	2500	0.89
H-5347	CM45B471K	.00047	2500	0.98
H-5350	- - - - -	.0005	2500	1.05
H-5351	CM45B511K	.00051	2500	1.06
H-5368	CM45B681K	.00068	2500	1.12
H-5391	CM45B911K	.00091	2500	1.19
H-5210	CM45B102K	.001	2500	1.22
H-5215	CM45B152K	.0015	2500	1.55
H-5216	CM45B162K	.0016	2500	1.60
H-5218	CM45B182K	.0018	2500	1.70
H-5220	CM50B202K	.002	2500	1.80
H-5225	- - - - -	.0025	2500	2.00
H-5227	CM50B272K	.0027	2500	2.05
H-5230	CM50B302K	.003	2500	2.13
H-5233	CM50B332K	.0033	2500	2.22
H-5239	CM50B392K	.0039	2500	2.40
H-5240	- - - - -	.004	2500	2.45
H-5243	CM50B432K	.0043	2500	2.54
H-5247	CM50B472K	.0047	2500	2.66
H-5250	- - - - -	.005	2500	2.78
H-5251	CM50B510K	.0051	2500	2.82

*Price for larger quantities are available on request.

Note: For meter mounting bracket add letter "E" to type designation. (Example HE-1450) Also add $0.12 net ea. to above prices.

Note: Prices for closer tolerances and other characteristics are available on request.

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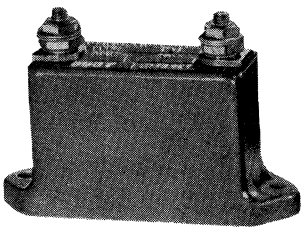
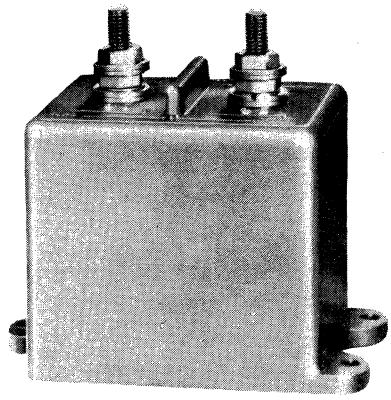
SANGAMO ELECTRONIC COMPONENTS

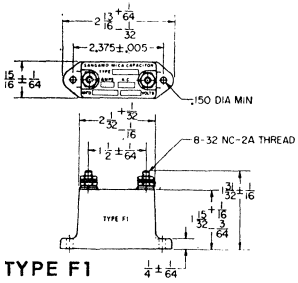
Types F1-F2-F3 MICA CAPACITORS



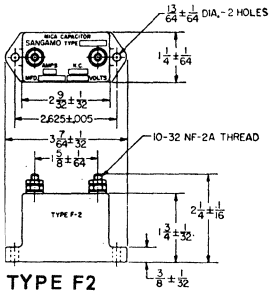
Type F1–F2



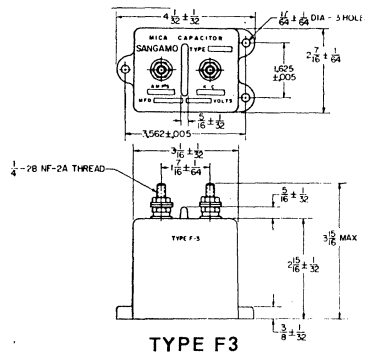
Type F3



TYPE F1



TYPE F2



TYPE F3

The Types F1, F2 and F3 are the smallest of the Sangamo line of transmitting capacitors. They are encapsulated in low loss molded phenolic cases and possess a wide range of voltage and current ratings. The mica and foil sections are pressure clamped, vacuum impregnated and encapsulated in the case in such a manner as to provide stable characteristics and adequate resistance to moisture. All Type F1 and F2 capacitors meet or exceed the applicable requirements of the MIL-C-5 specification.

For more complete information write for Bulletin 2322.

Catalog Number	Military Type Designation	Cap. (Mfd)	Peak Volts d-c	Net Price 1-9*
Type F1				
F1-341	----------	.00001	3000	$ 4.99
F1-345	----------	.00005	3000	4.99
F1-3475	CM65B750J	.000075	3000	4.99
Ⓢ F1-331	CM65B101J	.0001	3000	4.99
Ⓢ F1-3315	CM65B151J	.00015	3000	4.99
Ⓢ F1-332	CM65B201J	.0002	3000	4.99
Ⓢ F1-3325	----------	.00025	3000	4.99
Ⓢ F1-333	CM65B301J	.0003	3000	4.99
F1-334	----------	.0004	3000	4.99
Ⓢ F1-335	----------	.0005	3000	4.99
F1-336	----------	.0006	3000	4.99
F1-338	----------	.0008	3000	4.99
Ⓢ F1-321	CM65B102J	.001	3000	4.99
Ⓢ F1-3215	CM65B152J	.0015	3000	4.99
Ⓢ F1-322	CM65B202J	.002	3000	4.99
F1-3225	----------	.0025	3000	4.99
Ⓢ F1-223	CM65B302J	.003	2000	4.99
F1-224	----------	.004	2000	4.99
Ⓢ F1-225	----------	.005	2000	4.99
F1-2256	CM65B562J	.0056	2000	4.99
F1-15282	CM65B822J	.0082	1500	4.99
Ⓢ F1-111	CM65B103J	.01	1000	4.99
F1-115	CM65B153J	.015	1000	4.99
F1-112	CM65B203J	.02	1000	5.67
F1-0513	CM65B303J	.03	500	5.67
F1-05139	CM65B393J	.039	500	5.67
F1-02151	CM65B513J	.051	250	5.67
F1-0201	----------	.1	200	6.10

Catalog Number	Military Type Designation	Cap. (Mfd)	Peak Volts d-c	Net Price 1-9*
Type F2				
F2-5451	CM70B510J	.000051	5000	$6.86
F2-5475	CM70B750J	.000075	5000	6.86
Ⓢ F2-531	CM70B101J	.0001	5000	6.86
Ⓢ F2-5315	CM70B151J	.00015	5000	6.86
Ⓢ F2-532	CM70B201J	.0002	5000	6.86
Ⓢ F2-5322	CM70B221J	.00022	5000	6.86
Ⓢ F2-5325	----------	.00025	5000	6.86
Ⓢ F2-533	CM70B301J	.0003	5000	6.86
Ⓢ F2-5333	CM70B331J	.00033	5000	6.86
Ⓢ F2-534	----------	.0004	5000	6.86
F2-5347	CM70B471J	.00047	5000	6.86
Ⓢ F2-535	----------	.0005	5000	6.86
F2-5375	CM70B751J	.00075	5000	6.86
Ⓢ F2-538	----------	.0008	5000	6.86
Ⓢ F2-521	CM70B102J	.001	5000	6.86
Ⓢ F2-5215	CM70B152J	.0015	5000	6.86
Ⓢ F2-522	CM70B202J	.002	5000	6.86
F2-5225	----------	.0025	5000	6.86
Ⓢ F2-523	----------	.003	5000	6.86
F2-324	----------	.004	3000	6.86
Ⓢ F2-325	----------	.005	3000	6.86
F2-328	----------	.008	3000	6.86
Ⓢ F2-211	CM70B103J	.01	2000	6.86
Ⓢ F2-2115	CM70B153J	.015	2000	6.86
Ⓢ F2-212	CM70B203J	.02	2000	6.86
Ⓢ F2-213	----------	.03	2000	6.86
F2-1514	----------	.04	1500	6.86
Ⓢ F2-1515	----------	.05	1500	6.86
F2-10175	CM70B753J	.075	1000	7.23
Ⓢ F2-0501	CM70B104J	.1	500	7.61
F2-1001	----------	.1	1000	9.58
Ⓢ F2-0202	----------	.2	250	10.00
Ⓢ F2-02025	----------	.25	250	11.06
Type F3				
Ⓢ F3-8325	Not Military Capacitors	.00025	8000	$14.65
Ⓢ F3-835		.0005	8000	14.65
Ⓢ F3-821		.001	8000	16.34
Ⓢ F3-822		.002	8000	16.34
Ⓢ F3-823		.003	8000	17.41
F3-824		.004	8000	18.55
Ⓢ F3-825		.005	8000	20.22
F3-826		.006	8000	20.22
F3-828		.008	8000	21.57
Ⓢ F3-811		.01	8000	22.96
Ⓢ F3-512		.02	5000	22.96
F3-413		.03	4000	22.96
F3-414		.04	4000	25.73
Ⓢ F3-415		.05	4000	25.73
Ⓢ F3-201		.1	2000	20.20
F3-0602		.2	600	16.34
F3-06025		.25	600	18.55
F3-0603		.3	600	20.06
F3-0604		.4	600	20.06
Ⓢ F3-0605		.5	600	21.85
F3-0606		.6	600	25.73
F3-06075		.75	600	29.59
F3-0410		1.0	400	34.03

*Prices for larger quantities are available on request.
Note: Standard tolerance ±5%, "B" characteristic.
Note: Prices for closer tolerances and other characteristics are available on request.

Ⓢ **STANDARD STOCK ITEMS**

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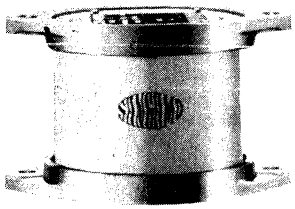
SANGAMO ELECTRONIC COMPONENTS

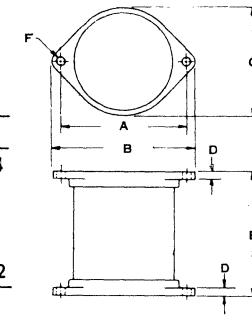
Types G1-G2-G3-G4-G5 *MICA*



Type G ceramic cased capacitors are intended for service where high voltage and R.F. current ratings are required, such as in commercial transmitting or induction heating applications. All possible steps are taken in design and manufacturing operations to insure permanence of quality. Terminal plates are designed to permit any usual connecting or mounting practices. Case sizes are in accordance with Mil-C-5C specification covering type CM75, 80, 85, 90 and 95. ***For more complete information write for Bulletin 2322.***

TYPE G MICA CAPACITOR DIMENSIONS - INCHES

Type	A	B	C	D	E	F
G1	3¼	3-13/16	2-13/16	¼	2½	17/64
G2	4¼	5	3½	¼	3	.272
G3	5¾	6½	5	3/8	4	.377
G4	5¾	6½	5	3/8	5¾	.377
G5	8	9	6¾	½	10	13/32



TYPES G1, G2, G3, G4 and G5

Catalog Number	Military Type Designation	Cap. (Mfd)	Peak Volts d-c	Net Price 1-9*
Type G1				
G1-641	----------	.00001	6000	$16.07
G1-631	CM75B101J	.0001	6000	16.07
Ⓢ G1-63125	----------	.000125	6000	16.07
Ⓢ G1-6315	CM75B151J	.00015	6000	16.07
Ⓢ G1-632	CM75B201J	.0002	6000	16.07
Ⓢ G1-6325	----------	.00025	6000	16.07
Ⓢ G1-633	CM75B301J	.0003	6000	17.68
Ⓢ G1-634	----------	.0004	6000	17.68
Ⓢ G1-635	----------	.0005	6000	18.47
Ⓢ G1-621	CM75B102J	.001	6000	18.47
Ⓢ G1-6215	CM75B152J	.0015	6000	19.37
Ⓢ G1-622	CM75B202J	.002	6000	19.37
Ⓢ G1-623	CM75B302J	.003	6000	20.04
Ⓢ G1-624	----------	.004	6000	20.04
Ⓢ G1-625	----------	.005	6000	20.04
Ⓢ G1-511	----------	.01	5000	20.37
Ⓢ G1-411	CM75B103J	.01	4000	20.37
G1-312	----------	.02	3000	20.37
Type G2				
Ⓢ G2-10451	CM80B510J	.000051	10,000	25.08
Ⓢ G2-1031	CM80B101J	.0001	10,000	25.96
Ⓢ G2-10315	CM80B151J	.00015	10,000	25.96
Ⓢ G2-1032	CM80B201J	.0002	10,000	25.96
Ⓢ G2-10325	----------	.00025	10,000	25.96
Ⓢ G2-1033	CM80B301J	.0003	10,000	25.96
Ⓢ G2-1035	----------	.0005	10,000	25.96
Ⓢ G2-1021	CM80B102J	.001	10,000	25.96
Ⓢ G2-10215	CM80B152J	.0015	10,000	25.96
Ⓢ G2-1022	CM80B202J	.002	10,000	25.96
Ⓢ G2-823	CM80B302J	.003	8,000	25.96
Ⓢ G2-824	----------	.004	8,000	25.96
Ⓢ G2-525	----------	.005	5,000	25.96
G2-526	----------	.006	5,000	27.38
G2-528	----------	.008	5,000	27.38
Ⓢ G2-511	CM80B103J	.01	5,000	27.38
G2-213	CM80B303J	.03	2,000	27.38
G2-1511	CM80B104J	.01	1,500	27.38
Type G3				
G3-2045	----------	.00005	20,000	43.92
Ⓢ G3-2031	CM85B101J	.0001	20,000	47.92
Ⓢ G3-20315	CM85B151J	.00015	20,000	51.91
Ⓢ G3-2032	CM85B201J	.0002	20,000	51.91
Ⓢ G3-20325	----------	.00025	20,000	51.91
Ⓢ G3-2033	CM85B301J	.0003	20,000	51.91
Ⓢ G3-2034	----------	.0004	20,000	54.30
Ⓢ G3-2035	----------	.0005	20,000	54.30
G3-2036	----------	.0006	20,000	54.30
G3-2038	----------	.0008	20,000	54.30
Ⓢ G3-2021	CM85B102J	.001	20,000	55.90

Catalog Number	Military Type Designation	Cap. (Mfd)	Peak Volts d-c	Net Price 1-9*
Type G3 (Continued)				
Ⓢ G3-20215	----------	.0015	20,000	56.71
Ⓢ G3-1522	CM85B202J	.002	15,000	56.71
Ⓢ G3-1523	----------	.003	15,000	59.90
Ⓢ G3-1524	----------	.004	15,000	59.90
Ⓢ G3-1025	----------	.005	10,000	59.90
G3-1026	----------	.006	10,000	59.90
Ⓢ G3-1011	----------	.01	10,000	59.90
G3-512	CM85B203J	.02	5,000	59.90
G3-313	CM85B303J	.03	3,000	59.90
G3-3143	CM85B433J	.043	3,000	59.90
G3-201	CM85B104J	.1	2,000	59.90
Type G4				
G4-3043	----------	.00003	30,000	69.81
Ⓢ G4-3031	CM90B101J	.0001	30,000	87.45
Ⓢ G4-30315	CM90B151J	.00015	30,000	87.45
Ⓢ G4-3032	CM90B201J	.0002	30,000	89.70
G4-30325	----------	.00025	30,000	91.95
G4-3033	CM90B301J	.0003	30,000	91.95
Ⓢ G4-3034	----------	.0004	30,000	91.95
Ⓢ G4-3035	----------	.0005	30,000	91.95
G4-3036	----------	.0006	30,000	91.95
Ⓢ G4-3038	----------	.0008	30,000	91.95
Ⓢ G4-3021	CM90B102J	.001	30,000	95.25
Ⓢ G4-25215	CM90B152J	.0015	25,000	95.25
Ⓢ G4-2022	CM90B202J	.002	20,000	95.25
Ⓢ G4-2023	CM90B302J	.003	20,000	95.25
Ⓢ G4-2024	----------	.004	20,000	97.43
Ⓢ G4-1525	----------	.005	15,000	100.51
Ⓢ G4-1011	CM90B103J	.01	10,000	113.28
G4-514	----------	.04	5,000	113.28
G4-301	CM90B104J	.1	3,000	113.28
Type G5				
G5-5045	----------	.00005	50,000	175.69
G5-3531	CM95B101J	.0001	35,000	183.68
G5-35315	CM95B151J	.00015	35,000	199.65
G5-3532	CM95B201J	.0002	35,000	199.65
G5-35325	----------	.00025	35,000	199.65
G5-3535	----------	.0005	35,000	215.62
G5-3536	----------	.0006	35,000	215.62
G5-3521	CM95B102J	.001	35,000	222.28
G5-3022	CM95B202J	.002	30,000	212.96
G5-30225	----------	.0025	30,000	216.95
G5-3023	CM95B302J	.003	30,000	224.94
G5-2524	----------	.004	25,000	235.59
G5-2026	----------	.006	20,000	235.59
G5-1528	----------	.008	15,000	235.59
G5-1511	CM95B103J	.01	15,000	235.59

*Prices for larger quantities are available on request.
Note: Standard capacitive tolerance is ±5%, "B" characteristic
Note: Prices for closer tolerance and better characteristics available on request.

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SANGAMO ELECTRONIC COMPONENTS

Type S Subminiature Hermetically Sealed Metal Tubular Capacitors

Sangamo Type S capacitors are designed to meet the demands for a high quality, hermetically sealed paper tubular capacitor. They are encapsulated in brass tubular cases finished with a high tin content alloy. Hermetic sealing is accomplished by using glass-to-metal solder seal terminals. The impregnant used in these units is Etherm, an oil of high thermal stability and superior electrical characteristics over the temperature range of -55°C to +125°C. Sangamo Type S capacitors meet the case sizes and performance requirements of military specification MIL-C-25. The limited number of popular listings below are furnished with insulated sections. They are also available with grounded case if equipment requirements so dictate. The adjacent cross reference table will assist in the interpretation of Sangamo catalog nomenclatures with the various military types and case constructions.

For more complete information on other ratings, tolerances and voltages, write for Bulletin 2421.

Sangamo Type	Military Type	Description
SBA	CP04	Tab construction (without sleeve)
SBB	CP05	Tab construction (with sleeve)
SDA	CP08	Extended foil (without sleeve)
SDB	CP09	Extended foil (with sleeve)
SBC	CP10	Tab construction (with bracket)
SBE	CP11	Tab construction (with threaded mtg)
SDC	CP12	Extended foil (with bracket)
SDE	CP13	Extended foil (with threaded mtg)

Capacitance Tolerance ±10% †		Tab Construction		Tab Construction		Extended Foil		Extended Foil	
Cap. (Mfd)	Rated Volts d-c	Catalog Number	Net Price 1-9*	Catalog Number	Net Price 1-9*	Catalog Number	Net Price 1-9*	Catalog Number	Net Price 1-9*
.027	100	Ⓢ SBA1K01273K	$1.76	Ⓢ SBB1K01273K	$1.84	SDA1K01273K	$1.96	SDB1K01273K	$2.04
.033	100	Ⓢ SBA1K01333K	1.80	Ⓢ SBB1K01333K	1.84	Ⓢ SDA1K01333K	1.96	SDB1K01333K	2.04
.082	100	Ⓢ SBA1K01823K	1.92	Ⓢ SBB1K01823K	1.96	Ⓢ SDA1K01823K	2.00	Ⓢ SDB1K01823K	2.08
.1	100	Ⓢ SBA1K01104K	1.92	Ⓢ SBB1K01104K	2.00	Ⓢ SDA1K01104K	2.04	Ⓢ SDB1K01104K	2.08
.15	100	Ⓢ SBA1K01154K	1.92	Ⓢ SBB1K01154K	2.04	Ⓢ SDA1K01154K	2.04	Ⓢ SDB1K01154K	2.12
.22	100	Ⓢ SBA1K01224K	2.00	Ⓢ SBB1K01224K	2.16	Ⓢ SDA1K01224K	2.16	Ⓢ SDB1K01224K	2.20
.27	100	Ⓢ SBA1K01274K	2.04	Ⓢ SBB1K01274K	2.08	Ⓢ SDA1K01274K	2.24	Ⓢ SDB1K01274K	2.28
.33	100	Ⓢ SBA1K01334K	2.08	Ⓢ SBB1K01334K	2.16	Ⓢ SDA1K01334K	2.32	Ⓢ SDB1K01334K	2.40
.39	100	Ⓢ SBA1K01394K	2.16	Ⓢ SBB1K01394K	2.24	Ⓢ SDA1K01394K	2.36	Ⓢ SDB1K01394K	2.44
.47	100	Ⓢ SBA1K01474K	2.24	Ⓢ SBB1K01474K	2.32	Ⓢ SDA1K01474K	2.44	Ⓢ SDB1K01474K	2.52
.68	100	Ⓢ SBA1K01684K	2.36	Ⓢ SBB1K01684K	2.48	Ⓢ SDA1K01684K	2.56	Ⓢ SDB1K01684K	2.64
.82	100	Ⓢ SBA1K01824K	2.44	Ⓢ SBB1K01824K	2.52	Ⓢ SDA1K01824K	2.68	Ⓢ SDB1K01824K	2.80
1.0	100	Ⓢ SBA1K01105K	2.52	Ⓢ SBB1K01105K	2.64	Ⓢ SDA1K01105K	2.88	Ⓢ SDB1K01105K	2.96
.015	200	Ⓢ SBA1K02153K	1.84	Ⓢ SBB1K02153K	1.92	SDA1K02153K	2.00	SDB1K02153K	2.08
.022	200	Ⓢ SBA1K02223K	1.84	Ⓢ SBB1K02223K	1.92	Ⓢ SDA1K02223K	2.00	Ⓢ SDB1K02223K	2.08
.039	200	Ⓢ SBA1K02393K	1.92	Ⓢ SBB1K02393K	2.00	Ⓢ SDA1K02393K	2.04	Ⓢ SDB1K02393K	2.12
.047	200	Ⓢ SBA1K02473K	1.96	Ⓢ SBB1K02473K	2.00	Ⓢ SDA1K02473K	2.08	Ⓢ SDB1K02473K	2.12
.068	200	Ⓢ SBA1K02683K	1.96	Ⓢ SBB1K02683K	2.04	Ⓢ SDA1K02683K	2.08	Ⓢ SDB1K02683K	2.16
.1	200	Ⓢ SBA1K02104K	2.00	Ⓢ SBB1K02104K	2.08	Ⓢ SDA1K02104K	2.08	Ⓢ SDB1K02104K	2.16
.15	200	Ⓢ SBA1K02154K	2.04	Ⓢ SBB1K02154K	2.08	Ⓢ SDA1K02154K	2.20	Ⓢ SDB1K02154K	2.28
.22	200	Ⓢ SBA1K02224K	2.16	Ⓢ SBB1K02224K	2.20	Ⓢ SDA1K02224K	2.32	Ⓢ SDB1K02224K	2.40
.33	200	Ⓢ SBA1K02334K	2.28	Ⓢ SBB1K02334K	2.36	Ⓢ SDA1K02334K	2.48	Ⓢ SDB1K02334K	2.56
.39	200	Ⓢ SBA1K02394K	2.36	Ⓢ SBB1K02394K	2.44	Ⓢ SDA1K02394K	2.52	Ⓢ SDB1K02394K	2.64
.47	200	Ⓢ SBA1K02474K	2.44	Ⓢ SBB1K02474K	2.52	Ⓢ SDA1K02474K	2.64	Ⓢ SDB1K02474K	2.72
.68	200	Ⓢ SBA1K02684K	2.56	Ⓢ SBB1K02684K	2.64	Ⓢ SDA1K02684K	2.88	Ⓢ SDB1K02684K	2.96
.82	200	Ⓢ SBA1K02824K	2.56	Ⓢ SBB1K02824K	2.76	Ⓢ SDA1K02824K	2.92	Ⓢ SDB1K02824K	3.00
1.0	200	Ⓢ SBA1K02105K	2.80	Ⓢ SBB1K02105K	2.88	Ⓢ SDA1K02105K	3.00	Ⓢ SDB1K02105K	3.08
.0082	400	Ⓢ SBA1K04822K	1.88	Ⓢ SBB1K04822K	1.96	SDA1K04822K	2.04	SDB1K04822K	2.12
.01	400	Ⓢ SBA1K04103K	1.92	Ⓢ SBB1K04103K	1.96	SDA1K04103K	2.04	Ⓢ SDB1K04103K	2.12
.033	400	Ⓢ SBA1K04333K	2.00	Ⓢ SBB1K04333K	2.04	Ⓢ SDA1K04333K	2.12	Ⓢ SDB1K04333K	2.20
.047	400	Ⓢ SBA1K04473K	2.04	Ⓢ SBB1K04473K	2.12	Ⓢ SDA1K04473K	2.16	Ⓢ SDB1K04473K	2.24
.068	400	Ⓢ SBA1K04683K	2.08	Ⓢ SBB1K04683K	2.16	Ⓢ SDA1K04683K	2.24	Ⓢ SDB1K04683K	2.32
.082	400	Ⓢ SBA1K04823K	2.12	Ⓢ SBB1K04823K	2.16	Ⓢ SDA1K04823K	2.28	Ⓢ SDB1K04823K	2.36
.1	400	Ⓢ SBA1K04104K	2.16	Ⓢ SBB1K04104K	2.24	Ⓢ SDA1K04104K	2.32	Ⓢ SDB1K04104K	2.40
.15	400	Ⓢ SBA1K04154K	2.28	Ⓢ SBB1K04154K	2.36	Ⓢ SDA1K04154K	2.48	Ⓢ SDB1K04154K	2.56
.22	400	Ⓢ SBA1K04224K	2.44	Ⓢ SBB1K04224K	2.52	Ⓢ SDA1K04224K	2.60	Ⓢ SDB1K04224K	2.68
.33	400	Ⓢ SBA1K04334K	2.56	Ⓢ SBB1K04334K	2.64	Ⓢ SDA1K04334K	2.88	Ⓢ SDB1K04334K	2.96
.47	400	Ⓢ SBA1K04474K	2.80	Ⓢ SBB1K04474K	2.88	Ⓢ SDA1K04474K	3.00	Ⓢ SDB1K04474K	3.12
.68	400	Ⓢ SBA1K04684K	3.00	Ⓢ SBB1K04684K	3.08	SDA1K04684K	3.12	SDB1K04684K	3.24
.82	400	Ⓢ SBA1K04824K	3.16	Ⓢ SBB1K04824K	3.24	----------	-----	----------	-----
1.0	400	Ⓢ SBA1K04105K	3.36	Ⓢ SBB1K04105K	3.48	----------	-----	----------	-----
.0015	600	Ⓢ SBA1K06152K	1.88	Ⓢ SBB1K06152K	1.92	Ⓢ SDA1K06152K	1.96	Ⓢ SDB1K06152K	2.00
.0022	600	Ⓢ SBA1K06222K	1.88	Ⓢ SBB1K06222K	1.92	Ⓢ SDA1K06222K	1.96	Ⓢ SDB1K06222K	2.04
.0047	600	Ⓢ SBA1K06472K	1.92	Ⓢ SBB1K06472K	1.96	Ⓢ SDA1K06472K	2.04	Ⓢ SDB1K06472K	2.12
.0068	600	Ⓢ SBA1K06682K	1.92	Ⓢ SBB1K06682K	2.00	Ⓢ SDA1K06682K	2.04	Ⓢ SDB1K06682K	2.12
.0082	600	Ⓢ SBA1K06822K	1.92	Ⓢ SBB1K06822K	2.04	Ⓢ SDA1K06822K	2.08	Ⓢ SDB1K06822K	2.12
.01	600	Ⓢ SBA1K06103K	1.96	Ⓢ SBB1K06103K	2.04	Ⓢ SDA1K06103K	2.08	Ⓢ SDB1K06103K	2.12
.015	600	Ⓢ SBA1K06153K	2.00	Ⓢ SBB1K06153K	2.08	Ⓢ SDA1K06153K	2.16	Ⓢ SDB1K06153K	2.20
.022	600	Ⓢ SBA1K06223K	2.00	Ⓢ SBB1K06223K	2.12	Ⓢ SDA1K06223K	2.16	Ⓢ SDB1K06223K	2.24
.033	600	Ⓢ SBA1K06333K	2.08	Ⓢ SBB1K06333K	2.16	Ⓢ SDA1K06333K	2.16	Ⓢ SDB1K06333K	2.24
.047	600	Ⓢ SBA1K06473K	2.12	Ⓢ SBB1K06473K	2.20	Ⓢ SDA1K06473K	2.28	Ⓢ SDB1K06473K	2.32
.068	600	Ⓢ SBA1K06683K	2.20	Ⓢ SBB1K06683K	2.32	Ⓢ SDA1K06683K	2.40	Ⓢ SDB1K06683K	2.48
.1	600	Ⓢ SBA1K06104K	2.32	Ⓢ SBB1K06104K	2.44	Ⓢ SDA1K06104K	2.48	Ⓢ SDB1K06104K	2.56
.15	600	Ⓢ SBA1K06154K	2.40	Ⓢ SBB1K06154K	2.52	Ⓢ SDA1K06154K	2.64	Ⓢ SDB1K06154K	2.72
.22	600	Ⓢ SBA1K06224K	2.60	Ⓢ SBB1K06224K	2.80	Ⓢ SDA1K06224K	2.92	Ⓢ SDB1K06224K	3.00
.39	600	Ⓢ SBA1K06394K	2.96	Ⓢ SBB1K06394K	3.12	Ⓢ SDA1K06394K	3.16	Ⓢ SDB1K06394K	3.24
.47	600	Ⓢ SBA1K06474K	3.04	Ⓢ SBB1K06474K	3.20	Ⓢ SDA1K06474K	3.24	Ⓢ SDB1K06474K	3.36
.68	600	Ⓢ SBA1K06684K	3.20	Ⓢ SBB1K06684K	3.52	SDA1K06684K	3.40	----------	-----
.82	600	Ⓢ SBA1K06824K	3.32	SBB1K06824K	3.52	----------	-----	----------	-----
.0	600	Ⓢ SBA1K06105K	3.40	Ⓢ SBB1K06105K	3.72	----------	-----	----------	-----

Ⓢ **STANDARD STOCK ITEMS**

*Prices for larger quantities are available on request.
†For ±5% tolerance add 30% to above price.

Net

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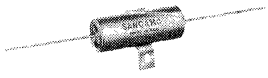
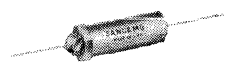
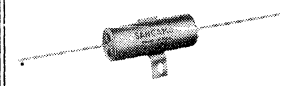
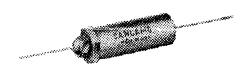
SANGAMO ELECTRIC COMPANY

capacitors

SANGAMO ELECTRONIC COMPONENTS

Type S CONTINUED

Capacitance Tolerance ±10% †		 Tab Construction		 Tab Construction		 Extended Foil		 Extended Foil	
Cap. (Mfd)	Rated Volts d-c	Catalog Number	Net Price 1-9*	Catalog Number	Net Price 1-9*	Catalog Number	Net Price 1-9*	Catalog Number	Net Price 1-9*
.027	100	Ⓢ SBC1K01273K	$1.96	Ⓢ SBE1K01273K	$2.28	----------	$----	----------	$----
.033	100	Ⓢ SBC1K01333K	1.96	Ⓢ SBE1K01333K	2.28	SDC1K01333K	2.12	Ⓢ SDE1K01333K	2.32
.082	100	Ⓢ SBC1K01823K	2.08	----------	-----	Ⓢ SDC1K01823K	2.20	Ⓢ SDE1K01823K	2.40
.1	100	Ⓢ SBC1K01104K	2.12	SBE1K01104K	2.28	Ⓢ SDC1K01104K	2.20	Ⓢ SDE1K01104K	2.40
.15	100	Ⓢ SBC1K01154K	2.12	Ⓢ SBE1K01154K	2.28	Ⓢ SDC1K01154K	2.24	Ⓢ SDE1K01154K	2.44
.22	100	Ⓢ SBC1K01224K	2.16	Ⓢ SBE1K01224K	2.36	Ⓢ SDC1K01224K	2.32	Ⓢ SDE1K01224K	2.52
.27	100	Ⓢ SBC1K01274K	2.20	Ⓢ SBE1K01274K	2.40	Ⓢ SDC1K01274K	2.40	Ⓢ SDE1K01274K	2.60
.33	100	Ⓢ SBC1K01334K	2.24	Ⓢ SBE1K01334K	2.44	Ⓢ SDC1K01334K	2.48	Ⓢ SDE1K01334K	2.68
.39	100	Ⓢ SBC1K01394K	2.32	Ⓢ SBE1K01394K	2.52	Ⓢ SDC1K01394K	2.56	Ⓢ SDE1K01394K	2.72
.47	100	Ⓢ SBC1K01474K	2.44	Ⓢ SBE1K01474K	2.60	Ⓢ SDC1K01474K	2.64	Ⓢ SDE1K01474K	2.80
.68	100	Ⓢ SBC1K01684K	2.56	Ⓢ SBE1K01684K	2.76	Ⓢ SDC1K01684K	2.76	Ⓢ SDE1K01684K	2.96
.82	100	Ⓢ SBC1K01824K	2.64	Ⓢ SBE1K01824K	2.80	Ⓢ SDC1K01824K	2.88	Ⓢ SDE1K01824K	3.08
1.0	100	Ⓢ SBC1K01105K	2.72	Ⓢ SBE1K01105K	2.92	Ⓢ SDC1K01105K	3.04	Ⓢ SDE1K01105K	3.24
.015	200	Ⓢ SBC1K02153K	2.04	Ⓢ SBE1K02153K	2.36	SDC1K02153K	2.16	SDE1K02153K	2.36
.022	200	Ⓢ SBC1K02223K	2.04	Ⓢ SBE1K02223K	2.36	Ⓢ SDC1K02223K	2.20	Ⓢ SDE1K02223K	2.36
.039	200	Ⓢ SBC1K02393K	2.12	----------	-----	Ⓢ SDC1K02393K	2.20	Ⓢ SDE1K02393K	2.40
.047	200	Ⓢ SBC1K02473K	2.12	SBE1K02473K	2.36	Ⓢ SDC1K02473K	2.24	Ⓢ SDE1K02473K	2.44
.068	200	Ⓢ SBC1K02683K	2.16	Ⓢ SBE1K02683K	2.36	Ⓢ SDC1K02683K	2.28	Ⓢ SDE1K02683K	2.44
.1	200	Ⓢ SBC1K02104K	2.16	Ⓢ SBE1K02104K	2.36	Ⓢ SDC1K02104K	2.28	Ⓢ SDE1K02104K	2.48
.15	200	Ⓢ SBC1K02154K	2.20	Ⓢ SBE1K02154K	2.40	Ⓢ SDC1K02154K	2.40	Ⓢ SDE1K02154K	2.56
.22	200	Ⓢ SBC1K02224K	2.32	Ⓢ SBE1K02224K	2.48	Ⓢ SDC1K02224K	2.52	Ⓢ SDE1K02224K	2.72
.33	200	Ⓢ SBE1K02334K	2.44	Ⓢ SBE1K02334K	2.64	Ⓢ SDC1K02334K	2.68	Ⓢ SDE1K02334K	2.88
.39	200	Ⓢ SBC1K02394K	2.52	Ⓢ SBE1K02394K	2.72	Ⓢ SDC1K02394K	2.72	Ⓢ SDE1K02394K	2.9
.47	200	Ⓢ SBC1K02474K	2.60	Ⓢ SBE1K02474K	2.80	Ⓢ SDC1K02474K	2.80	Ⓢ SDE1K02474K	3.0
.68	200	Ⓢ SBC1K02684K	2.72	Ⓢ SBE1K02684K	2.92	Ⓢ SDC1K02684K	3.04	Ⓢ SDE1K02684K	3.2
.82	200	Ⓢ SBC1K02824K	2.84	Ⓢ SBE1K02824K	3.00	Ⓢ SDC1K02824K	3.08	Ⓢ SDE1K02824K	3.2
1.0	200	Ⓢ SBC1K02105K	2.96	Ⓢ SBE1K02105K	3.12	Ⓢ SDC1K02105K	3.16	Ⓢ SDE1K02105K	3.3
.0082	400	Ⓢ SBC1K04822K	2.08	Ⓢ SBE1K04822K	2.40	----------	-----	----------	----
.01	400	Ⓢ SBC1K04103K	2.08	Ⓢ SBE1K04103K	2.40	SDC1K04103K	2.24	SDE1K04103K	2.4
.033	400	Ⓢ SBC1K04333K	2.16	Ⓢ SBE1K04333K	2.40	Ⓢ SDC1K04333K	2.32	Ⓢ SDE1K04333K	2.5
.047	400	Ⓢ SBC1K04473K	2.20	Ⓢ SBE1K04473K	2.40	Ⓢ SDC1K04473K	2.32	Ⓢ SDE1K04473K	2.5
.068	400	Ⓢ SBC1K04683K	2.28	Ⓢ SBE1K04683K	2.44	Ⓢ SDC1K04683K	2.40	Ⓢ SDE1K04683K	2.6
.082	400	Ⓢ SBC1K04823K	2.28	Ⓢ SBE1K04823K	2.48	Ⓢ SDC1K04823K	2.44	Ⓢ SDE1K04823K	2.6
.1	400	Ⓢ SBC1K04104K	2.32	Ⓢ SBE1K04104K	2.52	Ⓢ SDC1K04104K	2.56	Ⓢ SDE1K04104K	2.7
.15	400	Ⓢ SBC1K04154K	2.48	Ⓢ SBE1K04154K	2.64	Ⓢ SDC1K04154K	2.68	Ⓢ SDE1K04154K	2.8
.22	400	Ⓢ SBC1K04224K	2.60	Ⓢ SBE1K04224K	2.80	Ⓢ SCC1K04224K	2.76	Ⓢ SDE1K04224K	2.9
.33	400	Ⓢ SBC1K04334K	2.72	Ⓢ SBE1K04334K	2.92	Ⓢ SDC1K04334K	3.03	Ⓢ SDE1K04334K	3.2
.47	400	Ⓢ SBC1K04474K	2.96	Ⓢ SBE1K04474K	3.16	Ⓢ SDC1K04474K	3.20	Ⓢ SDE1K04474K	3.4
.68	400	Ⓢ SBC1K04684K	3.20	Ⓢ SBE1K04684K	3.36	SDC1K04684K	3.32	Ⓢ SDE1K04684K	3.4
.82	400	Ⓢ SBC1K04824K	3.32	Ⓢ SBE1K04824K	3.52	----------	-----	----------	---
1.0	400	Ⓢ SBC1K04105K	3.56	Ⓢ SBE1K04105K	3.72	----------	-----	----------	---
.0015	600	Ⓢ SBC1K06152K	2.04	Ⓢ SBE1K06152K	2.44	Ⓢ SDC1K06152K	2.12	Ⓢ SDE1K06152K	2.3
.0022	600	Ⓢ SBC1K06222K	2.04	Ⓢ SBE1K06222K	2.44	Ⓢ SDC1K06222K	2.12	Ⓢ SDE1K06222K	2.3
.0047	600	Ⓢ SBC1K06472K	2.08	Ⓢ SBE1K06472K	2.44	Ⓢ SDC1K06472K	2.24	Ⓢ SDE1K06472K	2.4
.0068	600	Ⓢ SBC1K06682K	2.08	Ⓢ SBE1K06682K	2.44	Ⓢ SDC1K06682K	2.24	Ⓢ SDE1K06682K	2.4
.0082	600	Ⓢ SBC1K06822K	2.12	Ⓢ SBE1K06822K	2.44	Ⓢ SDC1K06822K	2.24	Ⓢ SDE1K06822K	2.4
.01	600	Ⓢ SBC1K06103K	2.12	Ⓢ SBE1K06103K	2.44	Ⓢ SDC1K06103K	2.24	Ⓢ SDE1K06103K	2.4
.015	600	Ⓢ SBC1K06153K	2.16	Ⓢ SBE1K06153K	2.44	Ⓢ SDC1K06153K	2.32	Ⓢ SDE1K06153K	2.5
.022	600	Ⓢ SBC1K06223K	2.16	Ⓢ SBE1K06223K	2.44	Ⓢ SDC1K06223K	2.36	Ⓢ SDE1K06223K	2.5
.033	600	Ⓢ SBC1K06333K	2.24	Ⓢ SBE1K06333K	2.44	Ⓢ SDC1K06333K	2.36	Ⓢ SDE1K06333K	2.6
.047	600	Ⓢ SBC1K06473K	2.28	Ⓢ SBE1K06473K	2.48	Ⓢ SDC1K06473K	2.44	Ⓢ SDE1K06473K	2.6
.068	600	Ⓢ SBC1K06683K	2.36	Ⓢ SBE1K06683K	2.56	Ⓢ SDC1K06683K	2.56	Ⓢ SDE1K06683K	2.7
.1	600	Ⓢ SBC1K06104K	2.52	Ⓢ SBE1K06104K	2.68	Ⓢ SDC1K06104K	2.68	Ⓢ SDE1K06104K	2.8
.15	600	Ⓢ SBC1K06154K	2.60	Ⓢ SBE1K06154K	2.76	Ⓢ SDC1K06154K	2.84	Ⓢ SDE1K06154K	3.0
.22	600	Ⓢ SBC1K06224K	2.76	Ⓢ SBE1K06224K	2.96	Ⓢ SDC1K06224K	3.12	Ⓢ SDE1K06224K	3.2
.39	600	Ⓢ SBC1K06394K	3.12	Ⓢ SBE1K06394K	3.32	Ⓢ SDC1K06394K	3.32	Ⓢ SDE1K06394K	3.4
.47	600	Ⓢ SBC1K06474K	3.20	Ⓢ SBE1K06474K	3.40	Ⓢ SDC1K06474K	3.44	Ⓢ SDE1K06474K	3.6
.68	600	Ⓢ SBC1K06684K	3.40	Ⓢ SBE1K06684K	3.56	Ⓢ SDC1K06684K	3.56	Ⓢ SDE1K06684K	3.7

Ⓢ **STANDARD STOCK ITEMS**

*Prices for larger quantities are available on reque
†For ±5% tolerance add 30% to above price.

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SANGAMO ELECTRIC COMPANY

capacitors

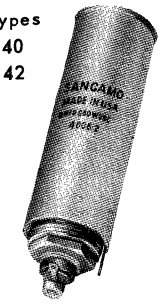
SANGAMO ELECTRONIC COMPONENTS

Types 40-41-42-43 PAPER

Sangamo Types 40, 41, 42 and 43 paper dielectric capacitors are ideal for use in high voltage filter applications. Enclosed in aluminum containers, they mount to the chassis by means of a 3/4-16 threaded neck. In the Types 40 and 42, one connection is provided by an insulated terminal and the other is provided by the case and washer with a solder lug. In the Types 41 and 43, both terminals are completely insulated from the case. Each of the 4 types is provided with mounting nut and lockwasher. The Types 40 and 41 are impregnated with Diaclor to provide an F characteristic. Types 42 and 43 are impregnated with mineral oil to provide an E characteristic. All units are designed in accordance with electrical characteristics of MIL-C-25.

For more complete information write for Bulletin 2423.

Types 40 42



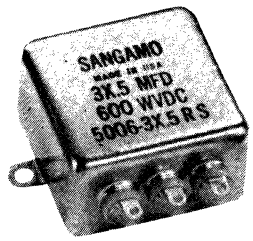
Types 41 43

Catalog Number	Military Type Designation	Cap. (Mfd)	Rated Volts d-c	Net Price 1-9*	Catalog Number	Military Type Designation	Cap. (Mfd)	Rated Volts d-c	Net Price 1-9*
(S) 4006-1	CP40B2FF105K	1.0	600	$3.81	(S) 4106-1	CP41B1FF105K	1.0	600	3.91
(S) 4206-1	CP40B2EF105K	1.0	600	3.81	(S) 4306-1	CP41B1EF105K	1.0	600	3.91
(S) 4006-2	CP40B2FF205K	2.0	600	3.95	(S) 4106-2	CP41B1FF205K	2.0	600	4.05
(S) 4206-2	CP40B2EF205K	2.0	600	3.95	(S) 4306-2	CP41B1EF205K	2.0	600	4.05
(S) 4006-3	----------	3.0	600	4.40	(S) 4106-3	----------	3.0	600	4.50
(S) 4206-3	----------	3.0	600	4.40	(S) 4306-3	----------	3.0	600	4.50
(S) 4006-4	CP40B2FF405K	4.0	600	5.13	(S) 4106-4	CP41B1FF405K	4.0	600	5.23
(S) 4206-4	CP40B2EF405K	4.0	600	5.13	(S) 4306-4	CP41B1EF405K	4.0	600	5.23
(S) 4010-1	CP40B2FG105K	1.0	1000	3.54	(S) 4110-1	CP41B1FG105K	1.0	1000	3.64
(S) 4210-1	CP40B2EG105K	1.0	1000	3.54	(S) 4310-1	CP41B1EG105K	1.0	1000	3.64
(S) 4010-2	CP40B2FG205K	2.0	1000	4.54	(S) 4110-2	CP41B1FG205K	2.0	1000	4.64
(S) 4210-2	CP40B2EG205K	2.0	1000	4.54	(S) 4310-2	CP41B1EG205K	2.0	1000	4.64
4015-.25	CP40B2FH254K	.25	1500	4.18	4115-.25	CP41B1FH254K	.25	1500	4.28
4215-.25	CP40B2EH254K	.25	1500	4.18	4315-.25	CP41B1EH254K	.25	1500	4.28
4015-.5	CP40B2FH504K	.5	1500	4.49	4115-.5	CP41B1FH504K	.5	1500	4.59
4215-.5	CP40B2EH504K	.5	1500	4.49	4315-.5	CP41B1EH504K	.5	1500	4.59
4015-1.0	CP40B2FH105K	1.0	1500	4.95	4115-1.0	CP41B1FH105K	1.0	1500	5.05
4215-1.0	CP40B2EH105K	1.0	1500	4.95	4315-1.0	CP41B1EH105K	1.0	1500	5.05

(S) STANDARD STOCK ITEMS

*Prices for larger quantities are available on request.
Note: Standard capacitive tolerance ±10%

Type 50 PAPER



Sangamo Type 50 paper dielectric capacitors are primarily intended for bypass applications. They are non-inductively wound, supplied in fractional capacitive values and will provide efficient and continuous operation in coupling and bypass circuits. These capacitors are impregnated with mineral oil and may be operated under severe humidity conditions at temperatures between -55° and 85°C. All units are designed in accordance with electrical characteristics of MIL-C-25.

For more complete information write for Bulletin 2423.

Catalog Number	Military Type Designation	Cap. (Mfd)	Dimensions (inches) Length	Width	Height	Net Price 1-9*
100 W.V.D.C.						
50V01-1RS	----------	1.0	1-13/16	1	7/8	$2.34
50V01-2RS	----------	2.0	2	1-3/4	1	2.83
50V01-4RS	CP53B1EB405K1	4.0	2	2	1-1/8	3.43
----------	CP53B1FB405K1	4.0	2	2	1	3.43
----------	CP53B1FB106K1	10.0	2	2	1-1/8	6.11
200 W.V.D.C.						
50V02-.25RS	----------	.25	1-13/16	1	3/4	1.98
50V02-.5RS	CP53B1FC504K1	.5	1-13/16	1	3/4	2.02
50V02-1RS	CP53B1EC105K1	1.0	2	1-3/4	7/8	2.43
50V02-2RS	CP53B1EC205K1	2.0	2	2	1	3.07
400 W.V.D.C.						
50V04-.05RS	----------	.05	1-13/16	1	3/4	1.81
50V04-.1RS	----------	.1	1-13/16	1	3/4	1.90
----------	CP53B1KE104K1	.1	1-13/16	1	3/4	2.09
50V04-.5RS	----------	.5	1-13/16	1	3/4	2.18
----------	CP53B1KE105K1	1.0	2	1-3/4	7/8	2.79
50V04-2RS	----------	2.0	2	2	1-1/8	3.25
50X04-2X.1RS	----------	2X.1	1-13/16	1	3/4	2.59
50X04-2X.25RS	----------	2X.25	2	1-3/4	7/8	3.03
50X04-2X1RS	----------	2X1.0	2	2	1-1/8	3.77
50Y04-3X.05RS	----------	3X.05	1-13/16	1	3/4	2.92
50Y04-3X.1RS	----------	3X.1	1-13/16	1	3/4	3.03
50Y04-3X.5RS	CP53B5EE504V1	3X.5	2	2	1-1/8	4.07

Catalog Number	Military Type Designation	Cap. (Mfd)	Dimensions (inches) Length	Width	Height	Net Price 1-9*
600 W.V.D.C.						
50V06-.05RS	----------	.05	1-13/16	1	3/4	$1.88
(S) 50V06-.1RS	----------	.1	1-13/16	1	3/4	1.98
(S) 50V06-.25RS	CP53B1EF254K1	.25	1-13/16	1	3/4	2.03
(S) 50V06-.5RS	CP53B1EF504K1	.5	1-13/16	1	1	2.17
50V06- 1RS	CP53B1EF105K1	1.0	2	1-3/4	7/8	2.53
(S) 50V06- 2RS	CP53B1EF205K1	2.0	2	2	1-1/8	3.36
(S) 50X06-2X.1RS	CP53B4EF104V1	2X.1	1-13/16	1	3/4	2.67
(S) ----------	CP53B4EF254V1	2X.25	1-13/16	1	1	2.75
(S) ----------	CP53B4EF504V1	2X.5	2	1-3/4	1	3.11
50X06-2X.5RS	CP53B4FF504V1	2X.5	2	1-3/4	7/8	3.11
(S) 50X06-2X1RS	CP53B4EF105V1	2X1.0	2	2	1-1/8	3.77
(S) ----------	CP53B5EF104V1	3X.1	1-13/16	1	7/8	3.05
50Y06-3X.25RS	CP53B5EF254V1	3X.25	2	1-3/4	7/8	3.41
50Y06-3X.5RS	CP53B5EF504V1	3X.5	2	2	1-1/8	4.20
1000 W.V.D.C.						
(S) 50V10-.1RS	CP53B1EG104K1	.1	1-13/16	1	3/4	2.07
(S) 50V10-.25RS	CP53B1EG254K1	.25	1-13/16	1	7/8	2.13
(S) 50V10-.5RS	CP53B1EG504K1	.5	2	1-3/4	7/8	2.28
(S) 50V10-1RS	CP53B1EG105K1	1.0	2	2	1-1/8	3.11
(S) 50X10-2X.1RS	CP53B4EG104V1	2X.1	1-13/16	1	3/4	2.77
(S) 50X10-2X.25RS	CP53B4EG254V1	2X.25	2	1-3/4	7/8	3.03
(S) 50X10-2X.5RS	CP53B4EG504V1	2X.5	2	2	1-1/8	3.94
(S) 50Y10-3X.1RS	CP53B5EG104V1	3X.1	2	1-3/4	7/8	3.41
(S) 50Y10-3X.25RS	CP53B5EG254V1	3X.25	2	2	1-1/8	4.23

(S) STANDARD STOCK ITEMS

*Prices for larger quantities are available on request.
Note: Standard capacitive tolerance ±10%.
Note: Capacitors are normally supplied with side terminals unless otherwise specified.

Net

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SANGAMO ELECTRIC COMPANY

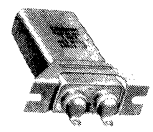
capacitors

SANGAMO ELECTRONIC COMPONENTS

Types 60- 62- 64- 66- 68 PAPER

TYPE 60

TYPE 62


TYPE 64

TYPE 66

TYPE 68

Sangamo Types 60, 62, 64, 66 and 68 are non-inductively wound paper capacitors, impregnated with mineral oil and hermetically sealed in drawn metal cans. The mineral oil assures dependable service between the temperature range of -55° to +85°C. All units are designed in accordance with the electrical characteristics of MIL-C-25 specification. Mounting brackets are supplied on units as shown.

For more complete information write for Bulletin 2423.

Catalog Number	Military Type Designation	Cap. (Mfd)	(Dimensions (inches) Length	Width	Height	Net Price 1-9*
400 W.V.D.C.						
60V04-.05	----------	.05	1-5/16	.625	1-1/16	$1.81
(S) 60V04-.1	CP91B1KE104K1	.1	1-5/16	.625	1-1/16	1.91
(S) 60V04-.5	----------	.5	1-5/16	.625	1-5/8	2.03
(S) 60V04-1	CP91B1EE105K1	1.0	1-5/16	.625	2-1/2	2.29
60X04-2X.05	CP91B6EE503V1	2X.05	1-5/16	.625	1-1/16	2.13
(S) 60X04-2X.1	CP91B6EE104V1	2X.1	1-5/16	.625	1-3/8	2.22
60X04-2X.25	----------	2X.25	1-5/16	.625	1-3/8	2.39
(S) ----------	CP91B6EE504V1	2X.5	1-5/16	.625	2-1/2	2.77
62V04-.05	----------	.05	2-5/16	.766	1-1/16	1.89
62V04-.5	----------	.5	2-5/16	.766	1-5/8	2.11
----------	CP63B1KE504K1	.5	2-5/16	.766	2	1.43
62V04-1	CP63B1EE105K1	1.0	2-5/16	.766	2-1/2	2.37
62X04-2X.05	CP63B6EE503K1	2X.05	2-5/16	.766	1-1/16	2.21
62X04-2X.1	CP63B6EE104K1	2X.1	2-5/16	.766	1-3/8	2.30
62X04-2X.25	----------	2X.25	2-5/16	.766	1-3/8	2.47
----------	CP63B6EE504K1	2X.5	2-5/16	.766	2-1/2	2.85
64V04-.05	----------	.05	2-5/16	.766	1-1/16	1.89
64V04-.1	CP65B1KE104K1	.1	2-5/16	.766	1-1/16	1.99
64V04-.25	CP65B1KE254K1	.25	2-5/16	.766	1-3/8	2.05
64V04-.5	----------	.5	2-5/16	.766	1-5/8	2.11
(S) 64V04-1	CP65B1EE105K1	1.0	2-5/16	.766	2-1/2	2.37
64X04-2X.05	CP65B6EE503K1	2X.05	2-5/16	.766	1-1/16	2.21
64X04-2X.1	CP65B6EE104K1	2X.1	2-5/16	.766	1-3/8	2.30
64X04.2X.25	----------	2X.25	2-5/16	.766	1-3/8	2.47
----------	CP65B6EE504K1	2X.5	2-5/16	.766	2-1/2	2.85
600 W.V.D.C.						
(S) 60V06-.01	----------	.01	1-5/16	.625	1-1/16	1.81
(S) 60V06-.05	CP91B1EF503K1	.05	1-5/16	.625	1-1/16	1.86
(S) 60V06-.1	----------	.1	1-5/16	.625	1-3/8	1.94
(S) 60V06-.25	CP91B1EF254K1	.25	1-5/16	.625	1-5/8	2.01
(S) 60V06-.5	CP91B1EF504K1	.5	1-5/16	.625	2	2.08
(S) 60V06-1.0	CP91B1EF105K1	1.0	1-5/16	.625	2-3/4	2.34
(S) 60V06-2.0	----------	2.0	2-1/4	1.188	1-3/16	4.22
(S) 60X06-2X.1	CP91B6EF104V1	2X.1	1-5/16	.625	1-5/8	2.26
(S) 60X06-2X.25	CP91B6EF254V1	2X.25	1-5/16	.625	2	2.44
(S) 60X06-2X.5	CP91B6EF504V1	2X.5	1-5/16	.625	2-3/4	2.83
(S) 62V06-.25	CP63B1EF254K1	.25	2-5/16	.766	1-5/8	2.09
(S) 62V06-.5	CP63B1EF504K1	.5	2-5/16	.766	2	2.16
(S) 62V06-1.0	CP63B1EF105K1	1.0	2-5/16	.766	2-3/4	2.42
(S) 64V06-.25	CP65B1EF254K1	.25	2-5/16	.766	1-5/8	2.09
(S) 64V06-.5	CP65B1EF504K1	.5	2-5/16	.766	2	2.16
(S) 64V06-1.0	CP65B1EF105K1	1.0	2-5/16	.766	2-3/4	2.42
(S) 64X06-2X.1	CP65B6EF104K1	2X.1	2-5/16	.766	1-5/8	2.34
(S) 64X06-2X.25	CP65B6EF254K1	2X.25	2-5/16	.766	2	2.52
(S) 64X06-2X.5	CP65B6EF504K1	2X.5	2-5/16	.766	2-3/4	2.91

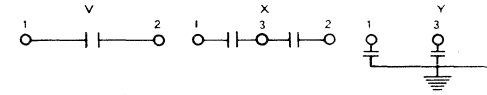
Catalog Number	Military Type Designation	Cap. (Mfd)	Dimensions (inches) Length	Width	Height	Net Price 1-9*
600 W.V.D.C. (Cont'd.)						
----------	CP67B1FF105K1	1.0	2-7/16	.640	1-1/16	$2.78
(S) 66X06-2X.1	CP67B1EF104V1	2X.1	2-7/16	.640	1-1/2	2.85
(S) 66X06-2X.25	CP67B4EF254V1	2X.25	2-7/16	.640	2	3.06
(S) 66X06-2X.5	CP67B4EF504V1	2X.5	2-7/16	.640	2-3/4	3.34
(S) 66Y06-3X.1	CP67B5EF104V1	3X.1	2-7/16	.640	1-1/2	3.42
(S) 66Y06-3X.25	CP67B5EF254V1	3X.25	2-7/16	.640	2-3/4	3.67
(S) 68V06-.1	CP69B1EF104K1	.1	2-7/16	.640	1-1/16	2.36
(S) 68V06-.25	CP69B1EF254K1	.25	2-7/16	.640	1-1/2	2.43
(S) 68V06-.5	CP69B1EF504K1	.5	2-7/16	.640	2	2.52
(S) 68V06-1.0	CP69B1EF105K1	1.0	2-7/16	.640	2-3/4	2.78
(S) 68X06-2X.1	CP69B4EF104V1	2X.1	2-7/16	.640	1-1/2	2.85
(S) 68X06-2X.25	CP69B4EF254V1	2X.25	2-7/16	.640	2	3.06
(S) 68X06-2X.5	CP69B4EF504V1	2X.5	2-7/16	.640	2-3/4	3.34
(S) 68Y06-3X.1	CP69B5EF104V1	3X.1	2-7/16	.640	1-1/2	3.42
(S) 68Y06-3X.25	CP69B5EF254V1	3X.25	2-7/16	.640	2-3/4	3.67
1000 W.V.D.C.						
60V10-.05	CP91B1EG503K1	.05	1-5/16	.625	1-3/8	1.93
60V10-.1	CP91B1EG104K1	.1	1-5/16	.625	1-3/8	2.00
60V10-.5	CP91B1EG504K1	.5	1-5/16	.625	2-3/4	2.25
60V10-1.0	----------	1.0	2-1/4	1.188	1-3/16	2.65
60X10-2X.05	CP91B6EG503V1	2X.05	1-5/16	.625	1-3/8	2.25
60X10-2X.25	CP91B6EG254V1	2X.25	1-5/16	.625	2-3/4	2.52
62V10-.25	CP63B1EG254K1	.25	2-5/16	.766	2	2.14
62V10-.5	CP63B1EG504K1	.5	2-5/16	.766	2-3/4	2.33
62X10-2X.05	CP63B6EG503K1	2X.05	2-5/16	.766	1-3/8	2.33
62X10-2X.01	CP63B6EG104K1	2X.1	2-5/16	.766	2	2.46
62X10-2X.25	CP63B6EG254K1	2X.25	2-5/16	.766	2-3/4	2.60
64V10-.25	CP65B1EG254K1	.25	2-5/16	.766	2	2.14
64V10-.5	CP65B1EG504K1	.5	2-5/16	.766	2-3/4	2.33
64X10-2X.05	CP65B6EG503K1	2X.05	2-5/16	.766	1-3/8	2.33
64X10-2X.25	CP65B6EG254K1	2X.25	2-5/16	.766	2-3/4	2.60
66V10-.1	CP67B1EG104K1	.1	2-7/16	.640	1-1/2	2.39
66V10-.5	CP67B1EG504K1	.5	2-7/16	.640	2-3/4	2.68
66X10-2X.1	CP67B4EG104V1	2X.1	2-7/16	.640	2	2.95
66X10-2X.25	CP67B4EG254V1	2X.25	2-7/16	.640	2-3/4	3.13
66Y10-3X.05	CP67B5EG503V1	3X.05	2-7/16	.640	1-1/2	3.40
66Y10-3X.1	CP67B5EG104V1	3X.1	2-7/16	.640	2-1/2	3.52
68V10-.1	CP69B1EG104K1	.1	2-7/16	.640	1-1/2	2.39
68V10-.25	CP69B1EG254K1	.25	2-7/16	.640	2	2.46
68X10-2X.05	CP69B4EG503V1	2X.05	2-7/16	.640	1-1/2	2.83
68X10-2X.25	CP69B4EG254V1	2X.25	2-7/16	.640	2-3/4	3.11
68Y10-3X.1	CP69B5EG104V1	3X.1	2-7/16	.640	2-1/2	3.51

*Prices on larger quantities are available on request.

Note: Standard tolerance on all single section capacitors is ±10% and +20, -10% c all multiple section capacitors.

Note: Type 60 can be furnished with spade or footed brackets. Add $0.20 to above prices when required.

Note: Letter V, X and Y denote electrical circuit as follows:



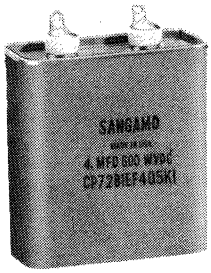
(S) STANDARD STOCK ITEMS

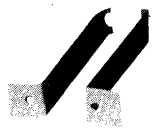
SANGAMO ELECTRIC COMPANY

capacitors

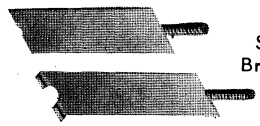
ELECTRONIC COMPONENTS

MIL Type CP72 PAPER





Footed Brackets



Spade Brackets

Type CP72 capacitors are furnished in drawn metal cases and are designed to comply with the requirements of specification MIL-C-25. They are impregnated with various dielectric oils to guarantee the desired electrical characteristics available. Capacitors rated at 3000 volts or less are normally supplied with solder lug (B) terminals capable of accomodating a #14AWG wire. Type D and E terminals may be substituted if desired. If brackets are required, specify a choice of spade, lug or footed type.

For more complete information write for Bulletin 2423.

Military Type Designation	Cap. (Mfd)	Dimensions (inches) L±1/16	W±1/16	H±1/16†	Net Price 1-9*	Bracket Price Per Pr.
600 WVDC						
Ⓢ CP72B1EF254K1	.25	1-13/16	1-1/16	1-5/8	$ 1.90	$0.15
Ⓢ CP72B1EF105K1	1.0	1-13/16	1-1/16	2-1/4	2.20	0.15
Ⓢ CP72B1EF405K1	4.0	1-13/16	1-1/16	3-1/4	4.00	0.16
Ⓢ CP72B1EF106K1	10.0	3- 3/4	1-3/4	4	6.80	0.26
1000 WVDC						
Ⓢ CP72B1EG504K1	.5	1-13/16	1-1/16	2-1/4	2.50	0.15
Ⓢ CP72B1EG205K1	2.0	1-13/16	1-1/16	2-7/8	2.74	0.16
Ⓢ CP72B1EG605K1	6.0	3- 3/4	1-3/4	4	5.90	0.26
Ⓢ CP72B1EG106K1	10.0	3- 3/4	2-1/4	4-3/4	8.10	0.27
1500 WVDC						
Ⓢ CP72B1EH105K1	1.0	1-13/16	1-1/16	4-3/4	3.00	0.16
Ⓢ CP72B1EH405K1	4.0	3- 3/4	1-3/4	4-1/4	6.15	0.26
Ⓢ CP72B1EH805K1	8.0	3- 3/4	2-1/2	5-3/4	10.60	0.27
Ⓢ CP72B1EH156K1	15.0	4- 9/16	3-3/4	6	17.00	0.54
2000 WVDC						
Ⓢ CP72E1EJ504K1	.5	2- 1/2	1-3/16	2-7/8	4.60	0.15
Ⓢ CP72E1EJ105K1	1.0	2- 1/2	1-3/16	4-3/4	5.40	0.16
Ⓢ CP72E1EJ605K1	6.0	3- 3/4	3-3/16	5-1/2	12.80	0.60
Ⓢ CP72E1EJ106K1	10.0	4- 9/16	3-3/4	6-1/2	18.80	0.57

Ⓢ **STANDARD STOCK ITEMS**

Catalog Number	Cap. (Mfd)	Dimensions (inches) L±1/16	W±1/16	H±1/16†	Net Price 1-9*	Bracket Price Per Pr.
2500 WVDC						
Ⓢ CP72E1EK104K1	.1	2- 1/2	1-3/16	2-1/2	6.00	0.15
Ⓢ CP72E1EK105K1	1.0	3- 3/4	1-3/4	3-7/8	8.80	0.16
Ⓢ CP72E1EK205K1	2.0	3- 3/4	2-1/4	4-3/4	12.00	0.27
Ⓢ CP72E1EK405K1	4.0	4- 9/16	3-3/4	4-3/8	17.40	0.57
4000 WVDC						
Ⓢ CP72E1EM104K1	.1	3- 3/4	2-1/4	2-3/4	10.20	0.27
Ⓢ CP72E1EM254K1	.25	3- 3/4	2-1/4	3-7/8	11.20	0.27
Ⓢ CP72E1EM504K1	.5	3- 3/4	2-1/4	4-3/4	13.40	0.27
Ⓢ CP72E1EM105K1	1.0	3- 3/4	3-3/16	4-3/4	16.50	0.27
6000 WVDC						
Ⓢ CP72D1EP254K1	.25	3- 3/4	2-1/4	4-3/4	15.00	0.27
Ⓢ CP72D1EP504K1	.5	4- 9/16	3-3/4	4-3/4	19.20	0.54
Ⓢ CP72D1EP105K1	1.0	4- 9/16	3-3/4	9-5/8	36.20	0.60
Ⓢ CP72D1EP205K1	2.0	13- 1/2	4-1/8	7	85.00	1.50
7500 WVDC						
Ⓢ CP72D1ER254K1	.25	4- 9/16	3-3/4	4-3/8	20.80	0.57
Ⓢ CP72D1ER504K1	.5	4- 9/16	3-3/4	6	28.50	0.54
Ⓢ CP72D1ER105K1	1.0	8	4	9-1/4	68.00	1.10
Ⓢ CP72D1ER205K1	2.0	13- 1/2	4-1/8	9-1/4	125.00	1.60
12,500 WVDC						
Ⓢ CP72D1ET104K1	.1	8	4	5-1/2	67.00	0.60
Ⓢ CP72D1ET504K1	.5	13- 1/2	4-1/8	7	85.50	1.50
Ⓢ CP72D1ET105K1	1.0	13- 1/2	5-1/8	12-7/8	147.00	1.80
Ⓢ CP72D1ET205K1	2.0	13- 1/2	5-1/8	13-3/4	153.00	1.80

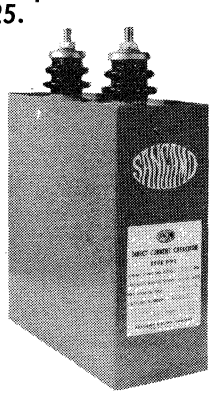
*Prices for larger quantities available on request.
†Height does not include terminals.
Note: Standard capacitive tolerance ±10%

Note: Currently stocked as CP70; CP72 stock added as orders dictate.

Type HVC HIGH VOLTAGE PAPER CAPACITORS

Sangamo Type HVC High Voltage capacitors are impregnated with a halogenated hydrocarbon called Diaclor B. This oil provides the desirable electrical performance characteristics for the most severe applications. They are sealed in shock and vibration resistant drawn rectangular or cold-rolled steel cases. The absence of solder seams eliminates oil leakage and contamination from solder flux. A wide variety of capacitance ranges are available in voltage ratings up to 50,000 volts d-c. Spade, footed or wrap-around brackets are optional at extra cost, but will not be furnished unless requested. When choice of brackets is not indicated, spade type will be supplied.

For more complete information write for Bulletin 2425.



Catalog Number	Cap. (Mfd)	Rated Volts d-c	Case Dimensions (inches) L±1/16	W±1/16	H±1/16	Net Price 1-9*	Bracket Price Per Pr.
702012-9401	100	600	4-9/16	3-3/4	9-1/2	$ 35.00	$0.55
Ⓢ 702012-7503	30	1000	4-9/16	3-3/4	4-3/8	18.40	0.55
702013-0708	100	1500	8	4	11	46.00	1.10
702013-3107	250	1500	13-1/2	5-1/8	12-7/8	105.00	1.80
Ⓢ 702012-7801	10	2000	4-9/16	3-3/4	4-3/4	14.30	0.55
702013-0207	30	2000	8	4	7	35.25	1.10
702013-3108	150	2000	13-1/2	5-1/8	12-7/8	106.00	1.80
702013-3109	100	2500	13-1/2	5-1/8	12-7/8	105.00	1.80
Ⓢ 702012-7403	4	3000	4-9/16	3-3/4	4-1/4	15.80	0.55
702012-9101	10	3000	4-9/16	3-3/4	8-1/2	28.60	0.55
702013-2213	50	3000	13-1/2	4-1/8	12-7/8	100.00	1.50
Ⓢ 702012-4203	1.0	4000	3-3/4	1-3/4	4-1/2	9.70	0.25
702013-0701	20	4000	8	4	11	37.50	1.10
702013-1901	30	4000	13-1/2	4-1/8	9-1/4	85.50	1.50
702013-3001	50	4000	13-1/2	5-1/8	11	109.00	1.80
702013-0502	10	5000	8	4	9-1/4	39.50	1.10
702013-1902	20	5000	13-1/2	4-1/8	9-1/4	81.00	1.50
702013-2201	30	5000	13-1/2	4-1/8	12-7/8	95.00	1.50
702013-3102	25	6000	13-1/2	4-1/8	9-1/4	105.00	1.80
702012-8904	1.0	10KV	4-9/16	3-3/4	7-1/2	27.00	0.55
702013-3103	10.	10KV	13-1/2	5-1/8	12-7/8	109.00	1.80
702013-2106	3.5	12.5KV	13-1/2	4-1/8	11	86.00	1.50
702013-2107	2.5	12.5KV	13-1/2	4-1/8	11	87.00	1.50
702013-2403	3.5	15KV	13-1/2	4-1/8	14-1/2	102.50	1.50
702013-3104	2.0	20KV	13-1/2	5-1/8	12-7/8	111.00	1.80
702013-3003	1.0	25KV	13-1/2	5-1/8	11	96.00	1.80
702013-3005	.75	30KV	13-1/2	5-1/8	11	105.50	1.80
702013-3006	.5	35KV	13-1/2	5-1/8	11	79.50	1.80
702013-3105	.25	50KV	13-1/2	5-1/8	12-7/8	121.00	1.80

Ⓢ **STANDARD STOCK ITEMS**

*Prices for larger quantities available on request.
Note: Standard capacitive tolerance ±10%

Net

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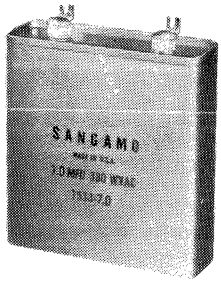
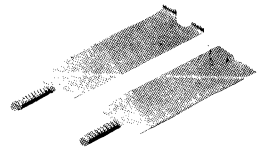
SANGAMO ELECTRIC COMPANY

capacitors

SANGAMO ELECTRONIC COMPONENTS

Type 75 MOTOR-RUN AND BALLAST CAPACITORS





SPADE BRACKET

The Sangamo Type 75 paper dielectric capacitors are designed for use in motor-run, ballast and light-duty power factor correction applications. These units are impregnated with Sangamo Diaclor A – a highly refined, electrically stable, non-inflammable dielectric oil that is recommended for use in continuous A.C. duty at ambient temperatures up to +70°C. ***For more complete information write for Bulletin 2424.***

Catalog Number	Cap. (Mfd)	Rated Volts A.C.	Base Dimensions L±1/16	Base Dimensions W±1/16	Height ±1/16	Net Price 1-9*
7522-1	1.0	220	1-13/16	1-1/16	1-5/8	$ 3.80
(S) 7522-2	2.0	220	1-13/16	1-1/16	2-1/4	4.55
(S) 7522-4	4.0	220	1-13/16	1-1/16	3-1/4	5.32
(S) 7522-5	5.0	220	2-1/2	1-3/16	2-7/8	5.61
7522-7.5	7.5	220	2-1/2	1-3/16	3-7/8	7.24
(S) 7522-10	10.0	220	2-1/2	1-3/16	4-3/4	8.56
7522-12	12.0	220	3-3/4	1-1/4	3-7/8	9.79
7522-20	20.0	220	3-3/4	1-3/4	4	16.01
7522-25	25.0	220	3-3/4	2-1/4	4-1/8	20.01
7522-30	30.0	220	3-3/4	2-1/2	4-3/4	25.10
7522-35	35.0	220	3-3/4	3-3/16	4-1/2	29.00
7522-40	40.0	220	3-3/4	3-3/16	4-3/4	33.57
7522-50	50.0	220	4-9/16	3-3/4	4-1/4	38.10
7522-60	60.0	220	4-9/16	3-3/4	4-3/4	46.85
(S) 7533-2	2.0	330	1-13/16	1-1/16	2-7/8	4.65
(S) 7533-4	4.0	330	1-13/16	1-1/16	4-3/4	6.01
7533-6	6.0	330	2-1/2	1-3/16	3-7/8	7.34
(S) 7533-10	10.0	330	3-3/4	1-1/4	3-7/8	10.01
7533-12	12.0	330	3-3/4	1-3/4	3-7/8	12.00
7533-15	15.0	330	3-3/4	1-3/4	4-1/4	13.33
7533-20	20.0	330	3-3/4	2-1/4	4-1/2	15.99
7533-25	25.0	330	3-3/4	2-1/2	4-3/4	20.01
7533-30	30.0	330	3-3/4	3-3/16	4-1/2	24.16
7533-40	40.0	330	3-3/4	3-3/16	5-1/2	29.90
7533-45	45.0	330	4-9/16	3-3/4	4-1/2	33.73
7533-55	55.0	330	4-9/16	3-3/4	5-1/8	38.65

(S) STANDARD STOCK ITEMS

Catalog Number	Cap. (Mfd)	Rated Volts A.C.	Base Dimensions L±1/16	Base Dimensions W±1/16	Height ±1/16	Net Price 1-9*
(S) 7544-2	2.0	440	1-13/16	1-1/16	3-1/4	$ 5.63
7544-3	3.0	440	1-13/16	1-1/16	4-3/4	6.55
7544-3.75	3.75	440	2-1/2	1-3/16	3-7/8	6.88
(S) 7544-4	4.0	440	2-1/2	1-3/16	3-7/8	6.88
7544-8	8.0	440	3-3/4	1-1/4	4-1/4	10.12
(S) 7544-10	10.0	440	3-3/4	2-1/4	3-3/8	11.30
7544-15	15.0	440	3-3/4	2-1/4	4-1/2	13.65
7544-20	20.0	440	3-3/4	3-3/16	4-1/8	16.51
7544-30	30.0	440	3-3/4	3-3/16	5-1/2	24.39
7544-35	35.0	440	4-9/16	3-3/4	4-1/2	26.13
7544-40	40.0	440	4-9/16	3-3/4	5-1/8	27.63
7544-50	50.0	440	4-9/16	3-3/4	6	30.50
7544-55	55.0	440	4-9/16	3-3/4	6-3/4	32.36
7566-1	1.0	660	1-13/16	1-1/16	3-7/8	4.83
7566-2	2.0	660	2-1/2	1-3/16	3-7/8	6.07
7566-8	8.0	660	3-3/4	2-1/4	3-7/8	11.30
7566-20	20.0	660	4-9/16	3-3/4	4-1/4	17.50
7566-30	30.0	660	4-9/16	3-3/4	6	21.80

*Price for larger quantities are available on request.
Note: Standard tolerance ±10%
Note: All dimensions in inches
Note: Spade Type, footed or universal wrap-around brackets can be furnished at additional cost.

Type 80 Ballast and Motor-Run Capacitors

The Sangamo Type 80 capacitors are impregnated with Sangamo Diaclor A and hermetically sealed in drawn oval metal containers. They are specifically used in flourescent-light ballast, heating, ventilating and air conditioning motor-run applications. They are designed for use in continuous A.C. duty.
For more complete information write for Bulletin 2424.

Catalog Number	Cap. (Mfd)	Rated Volts A.C.	Base Dimensions L±1/16	Base Dimensions W±1/16	Height ±1/16	Net Price 1-9*
8022-2	2.0	220	2-1/16	1-1/4	2-1/4	$ 2.86
8022-3	3.0	220	2-1/16	1-1/4	2-1/4	2.99
8022-4	4.0	220	2-1/16	1-1/4	2-7/8	3.26
8022-5	5.0	220	2-1/16	1-1/4	2-7/8	3.65
8022-6	6.0	220	2-1/16	1-1/4	3-3/4	4.40
8022-7.5	7.5	220	2-13/16	2-1/8	2-17/32	6.44
8022-10	10.0	220	2-13/16	2-1/8	3-1/32	7.46
8022-20	20.0	220	2-13/16	2-1/8	5	11.77
(S) 8033-2	2.0	330	2-1/16	1-1/4	2-1/4	3.10
(S) 8033-3	3.0	330	2-1/16	1-1/4	2-7/8	3.14
(S) 8033-4	4.0	330	2-1/16	1-1/4	3-1/8	3.26
(S) 8033-5	5.0	330	2-1/16	1-1/4	3-3/4	4.19
8033-6	6.0	330	2-1/16	1-1/4	3-3/4	5.34
(S) 8033-8	8.0	330	2-13/16	2-1/8	3-3/8	7.02
(S) 8033-10	10.0	330	2-13/16	2-1/8	3-3/8	7.54
(S) 8033-15	15.0	330	2-13/16	2-1/8	4-21/32	9.13
(S) 8033-20	20.0	330	2-13/16	2-1/8	5-3/16	11.94
(S) 8033-25	25.0	330	2-13/16	2-1/8	6-7/8	13.85
(S) 8033-30	30.0	330	2-13/16	2-1/8	8	15.80

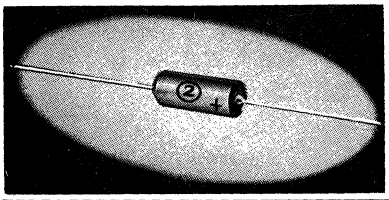
(S) STANDARD STOCK ITEMS

Catalog Number	Cap. (Mfd)	Rated Volts A.C.	Base Dimensions L±1/16	Base Dimensions W±1/16	Height ±1/16	Net Price 1-9*
(S) 8044-2	2.0	440	2-1/16	1-1/4	2-1/4	$ 3.8(
(S) 8044-3	3.0	440	2-1/16	1-1/4	3-1/8	4.0(
(S) 8044-4	4.0	440	2-1/16	1-1/4	3-3/4	4.4(
(S) 8044-5	5.0	440	2-13/16	2-1/8	2-17/32	5.6(
8044-6	6.0	440	2-13/16	2-1/8	2-25/32	6.6(
8044-8	8.0	440	2-13/16	2-1/8	3-25/32	7.8(
(S) 8044-10	10.0	440	2-13/16	2-1/8	4-5/32	7.9(
(S) 8044-15	15.0	440	2-13/16	2-1/8	6-1/4	11.0(
(S) 8044-20	20.0	440	2-13/16	2-1/8	7-3/8	12.4(
8066-1	1.0	660	2-1/16	1-1/4	2-1/4	3.5
8066-3	3.0	660	2-13/16	2-1/8	2-25/32	5.9
8066-5	5.0	660	2-13/16	2-1/8	4-5/32	8.2
8066-6	6.0	660	2-13/16	2-1/8	4-21/32	9.5
8066-8	8.0	660	2-13/16	2-1/8	5-3/16	10.5
8066-10	10.0	660	2-13/16	2-1/8	6-1/8	11.0

*Prices for larger quantities are available on request.
Note: Standard tolerance ±10%
Note: All dimensions in inches

SPRAGUE CAPACITORS

TYPE 150D SOLID-ELECTROLYTE TANTALEX® CAPACITORS



- Combine True Miniaturization with Characteristics Previously Unobtainable in Electrolytic Capacitors.
- Hermetically Sealed Metal Case.
- Solid Electrolyte Cannot Leak or Corrode, Even if Hermetic Seal is Accidentally Broken.
- Exhibit Stable Capacitance and Low Dissipation Factor over Temperature Range of —80°C to +85°C. With Appropriate Voltage Derating, May Be Operated to +125°C.
- Listed Units have Plastic Sleeves. For Bare Case, end Cat. No. in "0" instead of "2."
- For complete technical data, refer to latest issue of Engineering Bulletin 3520.
- Call your Sprague Industrial Distributor for Current Quantity Prices

μF	Size Code	Catalog Number ±20% Tol.	Catalog Number ±10% Tol.
6 WVDC — 8 VDC SURGE			
.22	A	150D224X0006A2	150D224X9006A2
.27	A	———	150D274X9006A2
.33	A	150D334X0006A2	150D334X9006A2
.39	A	———	150D394X9006A2
.47	A	150D474X0006A2	150D474X9006A2
.56	A	———	150D564X9006A2
.68	A	150D684X0006A2	150D684X9006A2
.82	A	———	150D824X9006A2
1.0	A	150D105X0006A2	150D105X9006A2
1.2	A	———	150D125X9006A2
1.5	A	150D155X0006A2	150D155X9006A2
1.8	A	———	150D185X9006A2
2.2	A	150D225X0006A2	150D225X9006A2
2.7	A	———	150D275X9006A2
3.3	A	150D335X0006A2	150D335X9006A2
3.9	A	———	150D395X9006A2
4.7	A	150D475X0006A2	150D475X9006A2
5.6	A	———	150D565X9006A2
6.8	A	150D685X0006A2	150D685X9006A2
8.2	B	———	150D825X9006B2
10	B	150D106X0006B2	150D106X9006B2
12	B	———	150D126X9006B2
15	B	150D156X0006B2	150D156X9006B2
18	B	———	150D186X9006B2
22	B	150D226X0006B2	150D226X9006B2
27	B	———	150D276X9006B2
33	B	150D336X0006B2	150D336X9006B2
39	B	———	150D396X9006B2
47	B	150D476X0006B2	150D476X9006B2
56	B	———	150D566X9006B2
60	B	150D606X0006B2	150D606X9006B2
68	R	150D686X0006R2	150D686X9006R2
82	R	———	150D826X9006R2
100	R	150D107X0006R2	150D107X9006R2
120	R	150D127X0006R2	150D127X9006R2
150	R	150D157X0006R2	150D157X9006R2
180	R	150D187X0006S2	150D187X9006R2
220	S	150D227X0006S2	150D227X9006S2
270	S	150D277X0006S2	150D227X9006S2
330	S	150D337X0006S2	150D337X9006S2
10 WVDC — 13 VDC SURGE			
.22	A	150D224X0010A2	150D224X9010A2
.27	A	———	150D274X9010A2
.33	A	150D334X0010A2	150D334X9010A2
.39	A	———	150D394X9010A2
.47	A	150D474X0010A2	150D474X9010A2
.56	A	———	150D564X9010A2
.68	A	150D684X0010A2	150D684X9010A2
.82	A	———	150D824X9010A2
.0	A	150D105X0010A2	150D105X9010A2
.2	A	———	150D125X9010A2
.5	A	150D155X0010A2	150D155X9010A2
.8	A	———	150D185X9010A2
.2	A	150D225X0010A2	150D225X9010A2
.7	A	———	150D275X9010A2
.3	A	150D335X0010A2	150D335X9010A2
.9	A	———	150D395X9010A2
.7	A	150D475X0010A2	150D475X9010A2
.6	B	———	150D565X9010B2
.8	B	150D685X0010B2	150D685X9010B2
2	B	———	150D825X9010B2
)	B	150D106X0010B2	150D106X9010B2
?	B	———	150D126X9010B2
5	B	150D156X0010B2	150D156X9010B2
	B	———	150D186X9010B2
?	B	150D226X0010B2	150D226X9010B2
	B	———	150D276X9010B2
	B	150D336X0010B2	150D336X9010B2
	B	———	150D396X9010B2
	B	150D406X0010B2	150D406X9010B2
	R	150D476X0010R2	150D476X9010R2
	R	———	150D566X9010R2
	R	150D686X0010R2	150D686X9010R2
	R	———	150D826X9010R2
0	R	150D107X0010R2	150D107X9010R2
120	R	150D127X0010R2	150D127X9010R2
150	S	150D157X0010S2	150D157X9010S2
180	S	———	150D187X9010S2
220	S	150D227X0010S2	150D227X9010S2
15 WVDC — 18 VDC SURGE			
.22	A	150D224X0015A2	150D224X9015A2
.27	A	———	150D274X9015A2
.33	A	150D334X0015A2	150D334X9015A2
.39	A	———	150D394X9015A2
.47	A	150D474X0015A2	150D474X9015A2
.56	A	———	150D564X9015A2
.68	A	150D684X0015A2	150D684X9015A2
.82	A	———	150D824X9015A2
1.0	A	150D105X0015A2	150D105X9015A2
1.2	A	———	150D125X9015A2
1.5	A	150D155X0015A2	150D155X9015A2
1.8	A	———	150D185X9015A2
2.2	A	150D225X0015A2	150D225X9015A2
2.7	A	———	150D275X9015A2
3.3	A	150D335X0015A2	150D335X9015A2
3.9	B	———	150D395X9015B2
4.7	B	150D475X0015B2	150D475X9015B2
5.6	B	———	150D565X9015B2
6.8	B	150D685X0015B2	150D685X9015B2
8.2	B	———	150D825X9015B2
10	B	150D106X0015B2	150D106X9015B2
12	B	———	150D126X9015B2
15	B	150D156X0015B2	150D156X9015B2
18	B	———	150D186X9015B2
22	B	150D226X0015B2	150D226X9015B2
27	R	———	150D276X9015R2
33	R	150D336X0015R2	150D336X9015R2
39	R	———	150D396X9015R2
47	R	150D476X0015R2	150D476X9015R2
56	R	———	150D566X9015R2
68	R	150D686X0015R2	150D686X9015R2
82	S	———	150D826X9015S2
100	S	150D107X0015S2	150D107X9015S2
120	S	———	150D127X9015S2
150	S	150D157X0015S2	150D157X9015S2
20 WVDC — 23 VDC SURGE			
.0047	A	150D472X0020A2	150D472X9020A2
.0056	A	———	150D562X9020A2
.0068	A	150D682X0020A2	150D682X9020A2
.0082	A	———	150D822X9020A2
.01	A	150D103X0020A2	150D103X9020A2
.012	A	———	150D123X9020A2
.015	A	150D153X0020A2	150D153X9020A2
.018	A	———	150D183X9020A2
.022	A	150D223X0020A2	150D223X9020A2
.027	A	———	150D273X9020A2
.033	A	150D333X0020A2	150D333X9020A2
.039	A	———	150D393X9020A2
.047	A	150D473X0020A2	150D473X9020A2
.056	A	———	150D563X9020A2
.068	A	150D683X0020A2	150D683X9020A2
.082	A	———	150D823X9020A2
.10	A	150D104X0020A2	150D104X9020A2
.12	A	———	150D124X9020A2
.15	A	150D154X0020A2	150D154X9020A2
.18	A	———	150D184X9020A2
.22	A	150D224X0020A2	150D224X9020A2
.27	A	———	150D274X9020A2
.33	A	150D334X0020A2	150D334X9020A2
.39	A	———	150D394X9020A2
.47	A	150D474X0020A2	150D474X9020A2
.56	A	———	150D564X9020A2
.68	A	150D684X0020A2	150D684X9020A2
.82	A	———	150D824X9020A2
1.0	A	150D105X0020A2	150D105X9020A2
1.2	A	———	150D125X9020A2
1.5	A	150D155X0020A2	150D155X9020A2
1.8	A	———	150D185X9020A2
2.2	A	150D225X0020A2	150D225X9020A2
2.7	B	———	150D275X9020B2
3.3	B	150D335X0020B2	150D335X9020B2
3.9	B	———	150D395X9020B2
4.7	B	150D475X0020B2	150D475X9020B2
5.6	B	———	150D565X9020B2
6.8	B	150D685X0020B2	150D685X9020B2
8.2	B	———	150D825X9020B2
10	B	150D106X0020B2	150D106X9020B2
12	B	———	150D126X9020B2
15	B	150D156X0020B2	150D156X9020B2
18	R	———	150D186X9020R2
22	R	150D226X0020R2	150D226X9020R2
27	R	———	150D276X9020R2
33	R	150D336X0020R2	150D336X9020R2
39	R	———	150D396X9020R2
47	R	150D476X0020R2	150D476X9020R2
56	S	———	150D566X9020S2
68	S	150D686X0020S2	150D686X9020S2
82	S	———	150D826X9020S2
100	S	150D107X0020S2	150D107X9020S2
35 WVDC — 40 VDC SURGE			
.0047	A	150D472X0035A2	150D472X9035A2
.0056	A	———	150D562X9035A2
.0068	A	150D682X0035A2	150D682X9035A2
.0082	A	———	150D822X9035A2
.01	A	150D103X0035A2	150D103X9035A2
.012	A	———	150D123X9035A2
.015	A	150D153X0035A2	150D153X9035A2
.018	A	———	150D183X9035A2
.022	A	150D223X0035A2	150D223X9035A2
.027	A	———	150D273X9035A2
.033	A	150D333X0035A2	150D333X9035A2
.039	A	———	150D393X9035A2
.047	A	150D473X0035A2	150D473X9035A2
.056	A	———	150D563X9035A2
.068	A	150D683X0035A2	150D683X9035A2
.082	A	———	150D823X9035A2
.10	A	150D104X0035A2	150D104X9035A2
.12	A	———	150D124X9035A2
.15	A	150D154X0035A2	150D154X9035A2
.18	A	———	150D184X9035A2
.22	A	150D224X0035A2	150D224X9035A2
.27	A	———	150D274X9035A2
.33	A	150D334X0035A2	150D334X9035A2
.39	A	———	150D394X9035A2
.47	A	150D474X0035A2	150D474X9035A2
.56	A	———	150D564X9035A2
.68	A	150D684X0035A2	150D684X9035A2
.82	A	———	150D824X9035A2
1.0	A	150D105X0035A2	150D105X9035A2
1.2	B	———	150D125X9035B2
1.5	B	150D155X0035B2	150D155X9035B2
1.8	B	———	150D185X9035B2
2.2	B	150D225X0035B2	150D225X9035B2
2.7	B	———	150D275X9035B2
3.3	B	150D335X0035B2	150D335X9035B2
3.9	B	———	150D395X9035B2
4.7	B	150D475X0035B2	150D475X9035B2
5.6	B	———	150D565X9035B2
6.8	B	150D685X0035B2	150D685X9035B2
8.2	R	———	150D825X9035R2
10	R	150D106X0035R2	150D106X9035R2
12	R	———	150D126X9035R2
15	R	150D156X0035R2	150D156X9035R2
18	R	———	150D186X9035R2
22	R	150D226X0035R2	150D226X9035R2
27	S	———	150D276X9035S2
33	S	150D336X0035S2	150D336X9035S2
39	S	———	150D396X9035S2
47	S	150D476X0035S2	150D476X9035S2

DIMENSIONS

Code	Bare Core D. x L.	With Sleeve D. x L.
A	.125" x .250"	.135" x .322"
B	.175" x .438"	.185" x .510"
R	.279" x .650"	.289" x .722"
S	.341" x .750"	.351" x .822"

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REM-1-6426

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SPRAGUE CAPACITORS

TYPE 150D SOLID-ELECTROLYTE TANTALEX® CAPACITORS (Cont.)

50 WVDC, 65 VDC SURGE

µF	Size Code	Catalog Number ±20% Tol.	±10% Tol.
.0047	A	150D472X0050A2	150D472X9050A2
.0056	A	—	150D562X9050A2
.0068	A	150D682X0050A2	150D682X9050A2
.0082	A	—	150D822X9050A2
.01	A	150D103X0050A2	150D103X9050A2
.012	A	—	150D123X9050A2
.015	A	150D153X0050A2	150D153X9050A2
.018	A	—	150D183X9050A2
.022	A	150D223X0050A2	150D223X9050A2
.027	A	—	150D273X9050A2
.033	A	150D333X0050A2	150D333X9050A2
.039	A	—	150D393X9050A2
.047	A	150D473X0050A2	150D473X9050A2
.056	A	—	150D563X9050A2
.068	A	150D683X0050A2	150D683X9050A2
.082	A	—	150D823X9050A2
.1	A	150D104X0050A2	150D104X9050A2
.12	A	—	150D124X9050A2
.15	A	150D154X0050A2	150D154X9050A2
.18	A	—	150D184X9050A2
.22	A	150D224X0050A2	150D224X9050A2
.27	A	—	150D274X9050A2
.33	A	150D334X0050A2	150D334X9050A2
.39	A	—	150D394X9050A2
.47	A	150D474X0050A2	150D474X9050A2
.56	A	—	150D564X9050A2
.68	A	150D684X0050A2	150D684X9050A2
.82	A	—	150D824X9050A2
1.0	A	150D105X0050A2	150D105X9050A2
1.2	B	—	150D125X9050B2
1.5	B	150D155X0050B2	150D155X9050B2
1.8	B	—	150D185X9050B2
2.2	B	150D225X0050B2	150D225X9050B2
2.7	B	—	150D275X9050B2
3.3	B	150D335X0050B2	150D335X9050B2
3.9	B	—	150D395X9050B2
4.7	B	150D475X0050B2	150D475X9050B2
5.6	R	—	150D565X9050R2
6.8	R	150D685X0050R2	150D685X9050R2
8.2	R	—	150D825X9050R2
10	R	150D106X0050R2	150D106X9050R2
12	R	—	150D126X9050R2
15	R	150D156X0050R2	150D156X9050R2
18	R	—	150D186X9050R2
22	S	150D226X0050S2	150D226X9050S2

60 WVDC, 78 VDC SURGE

µF	Size Code	Catalog Number ±20% Tol.	±10% Tol.
.0047	A	150D472X0060A2	150D472X9060A2
.0056	A	—	150D562X9060A2
.0068	A	150D682X0060A2	150D682X9060A2
.0082	A	—	150D822X9060A2
.01	A	150D103X0060A2	150D103X9060A2
.012	A	—	150D123X9060A2
.015	A	150D153X0060A2	150D153X9060A2
.018	A	—	150D183X9060A2
.022	A	150D223X0060A2	150D223X9060A2
.027	A	—	150D273X9060A2
.033	A	150D333X0060A2	150D333X9060A2
.039	A	—	150D393X9060A2
.047	A	150D473X0060A2	150D473X9060A2
.056	A	—	150D563X9060A2
.068	A	150D683X0060A2	150D683X9060A2
.082	A	—	150D823X9060A2
.1	A	150D104X0060A2	150D104X9060A2
.12	A	—	150D124X9060A2
.15	A	150D154X0060A2	150D154X9060A2
.18	A	—	150D184X9060A2
.22	A	150D224X0060A2	150D224X9060A2
.27	A	—	150D274X9060A2
.33	A	150D334X0060A2	150D334X9060A2
.39	A	—	150D394X9060A2
.47	A	150D474X0060A2	150D474X9060A2
.56	A	—	150D564X9060A2
.68	A	150D684X0060A2	150D684X9060A2
.82	B	—	150D824X9060B2
1.0	B	150D105X0060B2	150D105X9060B2
1.2	B	—	150D125X9060B2
1.5	B	150D155X0060B2	150D155X9060B2
1.8	B	—	150D185X9060B2
2.2	B	150D225X0060B2	150D225X9060B2
2.7	B	—	150D275X9060B2
3.3	B	150D335X0060B2	150D335X9060B2
3.9	B	—	150D395X9060B2
4.7	R	150D475X0060R2	150D475X9060R2
5.6	R	—	150D565X9060R2
6.8	R	150D685X0060R2	150D685X9060R2
8.2	R	—	150D825X9060R2
10	R	150D106X0060R2	150D106X9060R2
12	S	—	150D126X9060S2
15	S	150D156X0060S2	150D156X9060S2
18	S	—	150D186X9060S2
22	S	150D226X0060S2	150D226X9060S2

75 WVDC, 97 VDC SURGE

µF	Size Code	Catalog Number ±20% Tol.	±10% Tol.
.0047	A	150D472X0075A2	150D472X9075A2
.0056	A	—	150D562X9075A2
.0068	A	150D682X0075A2	150D682X9075A2
.0082	A	—	150D822X9075A2
.01	A	150D103X0075A2	150D103X9075A2
.012	A	—	150D123X9075A2
.015	A	150D153X0075A2	150D153X9075A2
.018	A	—	150D183X9075A2
.022	A	150D223X0075A2	150D223X9075A2
.027	A	—	150D273X9075A2
.033	A	150D333X0075A2	150D333X9075A2
.039	A	—	150D393X9075A2
.047	A	150D473X0075A2	150D473X9075A2
.056	A	—	150D563X9075A2
.068	A	150D683X0075A2	150D683X9075A2
.082	A	—	150D823X9075A2
.1	A	150D104X0075A2	150D104X9075A2
.12	A	—	150D124X9075A2
.15	A	150D154X0075A2	150D154X9075A2
.18	A	—	150D184X9075A2
.22	A	150D224X0075A2	150D224X9075A2
.27	A	—	150D274X9075A2
.33	A	150D334X0075A2	150D334X9075A2
.39	A	—	150D394X9075A2
.47	A	150D474X0075A2	150D474X9075A2
.56	A	—	150D564X9075A2
.68	A	150D684X0075A2	150D684X9075A2
.82	B	—	150D824X9075B2
1.0	B	150D105X0075B2	150D105X9075B2
1.2	B	—	150D125X9075B2
1.5	B	150D155X0075B2	150D155X9075B2
1.8	B	—	150D185X9075B2
2.2	B	150D225X0075B2	150D225X9075B2
2.7	B	—	150D275X9075B2
3.3	B	150D335X0075B2	150D335X9075B2
3.9	B	—	150D395X9075B2
4.7	R	150D475X0075R2	150D475X9075R2
5.6	R	—	150D565X9075R2
6.8	R	150D685X0075R2	150D685X9075R2
8.2	R	—	150D825X9075R2
10.0	R	150D106X0075R2	150D106X9075R2
12.0	S	—	150D126X9075S2
15.0	S	150D156X0075S2	150D156X9075S2

100 WVDC, 115 VDC SURGE

µF	Size Code	Catalog Number ±20% Tol.	±10% Tol.
.0047	A	150D472X0100A2	150D472X9100A2
.0056	A	—	150D562X9100A2
.0068	A	150D682X0100A2	150D682X9100A2
.0082	A	—	150D822X9100A2
.01	A	150D103X0100A2	150D103X9100A2
.012	A	—	150D123X9100A2
.015	A	150D153X0100A2	150D153X9100A2
.018	A	—	150D183X9100A2
.022	A	150D223X0100A2	150D223X9100A2
.027	A	—	150D273X9100A2
.033	A	150D333X0100A2	150D333X9100A2
.039	A	—	150D393X9100A2
.047	A	150D473X0100A2	150D473X9100A2
.056	A	—	150D563X9100A2
.068	A	150D683X0100A2	150D683X9100A2
.082	A	—	150D823X9100A2
.1	A	150D104X0100A2	150D104X9100A2
.12	A	—	150D124X9100A2
.15	A	150D154X0100A2	150D154X9100A2
.18	A	—	150D184X9100A2
.22	A	150D224X0100A2	150D224X9100A2
.27	A	—	150D274X9100A2
.33	A	150D334X0100A2	150D334X9100A2
.39	A	—	150D394X9100A2
.47	A	150D474X0100A2	150D474X9100A2
.56	A	—	150D564X9100A2
.68	B	150D684X0100B2	150D684X9100B2
.82	B	—	150D824X9100B2
1.0	B	150D105X0100B2	150D105X9100B2
1.2	B	—	150D125X9100B2
1.5	B	150D155X0100B2	150D155X9100B2
1.8	B	—	150D185X9100B2
2.2	B	150D225X0100B2	150D225X9100B2
2.7	B	—	150D275X9100B2
3.3	R	150D335X0100B2	150D335X9100R2
3.9	R	—	150D395X9100R2
4.7	R	150D475X0100R2	150D475X9100R2
5.6	R	—	150D565X9100R2
6.8	R	150D685X0100R2	150D685X9100R2

125 WVDC, 140 VDC SURGE

µF	Size Code	Catalog Number ±20% Tol.	±10% Tol.
.0047	A	150D472X0125A2	150D472X9125A2
.0056	A	—	150D562X9125A2
.0068	A	150D682X0125A2	150D682X9125A2
.0082	A	—	150D822X9125A2
.01	A	150D103X0125A2	150D103X9125A2
.012	A	—	150D123X9125A2
.015	A	150D153X0125A2	150D153X9125A2
.018	A	—	150D183X9125A2
.022	A	150D223X0125A2	150D223X9125A2
.027	A	—	150D273X9125A2
.033	A	150D333X0125A2	150D333X9125A2
.039	A	—	150D393X9125A2
.047	A	150D473X0125A2	150D473X9125A2
.056	A	—	150D563X9125A2
.068	A	150D683X0125A2	150D683X9125A2
.082	A	—	150D823X9125A2
.1	A	150D104X0125A2	150D104X9125A2
.12	A	—	150D124X9125A2
.15	A	150D154X0125A2	150D154X9125A2
.18	A	—	150D184X9125A2
.22	A	150D224X0125A2	150D224X9125A2
.27	A	—	150D274X9125A2
.33	A	150D334X0125A2	150D334X9125A2
.39	B	—	150D394X9125B2
.47	B	150D474X0125B2	150D474X9125B2
.56	B	—	150D564X9125B2
.68	B	150D684X0125B2	150D684X9125B2
.82	B	—	150D824X9125B2
1.0	B	150D105X0125B2	150D105X9125B2
1.2	B	—	150D125X9125B2
1.5	B	150D155X0125B2	150D155X9125B2
1.8	B	—	150D185X9125B2
2.2	B	150D225X0125B2	150D225X9125B2

DIMENSIONS

Code	D. x L.
A	.125″x.250″
B	.175″x.438″
R	.279″x.650″
S	.341″x.750″

Call your Sprague Industrial Distributor for Current Quantity Prices

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REM-1d-6426

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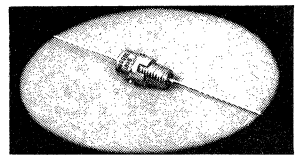
SPRAGUE CAPACITORS

TYPE 180D SOLID ELECTROLYTE TANTALEX® FEED-THRU CAPACITORS

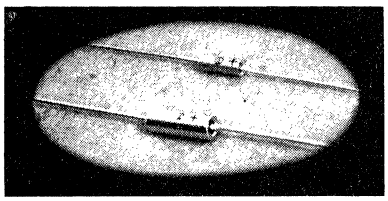
- Effectively bypasses r-f interference on low voltage d-c power circuits
- First of its kind available to designers. Positive mounting is assured with Sprague's new design.
- Large values of capacitance available in small physical size. Will carry 5 amperes d-c at 25C, 2 amperes d-c at 125C.
- Hermetically sealed in corrosion-resistant cases. Glass-to-metal solder seal terminals for maximum protection.
- Performance characteristics similar to Sprague Type 150D solid electrolyte Tantalex capacitors.
- Case measures .312 in. dia. x .689 in. long. Leads measure 1 ½ inches.

μF	WVDC	Surge VDC	Cat. No.
60	6	8	180D606X0006
39	10	13	180D396X0010
22	15	20	180D226X0015
15	20	26	180D156X0020
6.8	35	46	180D685X0035
4.7	50	65	180D475X0050
3.9	75	97	180D395X0075



- For complete technical data refer to latest issue Engineering Bulletin 3525.
- Prices available upon request.

TYPE 172D METAL-CLAD HERMETICALLY SEALED SOLID ELECTROLYTE TANTALEX® CAPACITORS



- Ultra-miniature Cordwood-size Tantalum Capacitors With Performance Characteristics Identical to Standard-size Sprague Type 150D Units.
- Superior High Frequency Performance, Lower Leakage Current Values and Dissipation Factor Limits.
- Glass-to-Metal Hermetic Seal, Solid Tinned Leads.
- Cordwood Size Allows Circuit Designer to Make Maximum Use of This Packaging Concept. Units Listed Have Plastic Insulating Sleeve. For Bare Case Units, Change Last Digit of Cat. No. to "O."

SIZE CODE	Bare Case	Plastic Sleeve
J	.085 D x .250 L	.090 D x .250 L
L	.127 D x .375 L	.138 D x .390 L

μF	Size Code	Catalog Number ±20% Tol.	Catalog Number 10±% Tol.
6 VOLTS D-C, 8 VDC SURGE			
.22	J	224X0006J2	224X9006J2
.27	J	—	274X9006J2
.33	J	334X0006J2	334X9006J2
.39	J	—	394X9006J2
.47	J	474X0006J2	474X9006J2
.56	J	—	564X9006J2
.68	J	684X0006J2	684X9006J2
.82	J	—	824X9006J2
1.0	J	105X0006J2	105X9006J2
1.2	J	—	125X9006J2
1.5	J	155X0006J2	155X9006J2
1.8	L	—	185X9006L2
2.2	L	225X0006L2	225X9006L2
2.7	L	—	275X9006L2
3.3	L	335X0006L2	335X9006L2
3.9	L	—	395X9006L2
4.7	L	475X0006L2	475X9006L2
5.6	L	—	565X9006L2
6.8	L	685X0006L2	685X9006L2
8.2	L	—	825X9006L2
10	L	106X0006L2	106X9006L2
12	L	—	126X9006L2
15	L	156X0006L2	156X9006L2
10 VOLTS D-C, 13 VDC SURGE			
.22	J	224X0010J2	224X9010J2
.27	J	—	274X9010J2
.33	J	334X0010J2	334X9010J2
.39	J	—	394X9010J2
.47	J	474X0010J2	474X9010J2
.56	J	—	564X9010J2
.68	J	684X0010J2	684X9010J2
.82	J	—	824X9010J2
1.0	L	105X0010L2	105X9010L2
1.2	L	—	125X9010L2
1.5	L	155X0010L2	155X9010L2
1.8	L	—	185X9010L2
2.2	L	225X0010L2	225X9010L2
2.7	L	—	275X9010L2
3.3	L	335X0010L2	335X9010L2
3.9	L	—	395X9010L2
4.7	L	475X0010L2	475X9010L2
5.6	L	—	565X9010L2
6.8	L	685X0010L2	685X9010L2
8.2	L	—	825X9010L2
15 VOLTS D-C, 20 VDC SURGE			
.22	J	224X0015J2	224X9015J2
.27	J	—	274X9015J2
.33	J	334X0015J2	334X9015J2
.39	J	—	394X9015J2
.47	J	474X0015J2	474X9015J2
.56	J	—	564X9015J2
.68	L	684X0015L2	684X9015L2
.82	L	—	824X9015L2
1.0	L	105X0015L2	105X9015L2
1.2	L	—	125X9015L2
1.5	L	155X0015L2	155X9015L2
1.8	L	—	185X9015L2
2.2	L	225X0015L2	225X9015L2
2.7	L	—	275X9015L2
3.3	L	335X0015L2	335X9015L2
3.9	L	—	395X9015L2
4.7	L	475X0015L2	475X9015L2
5.6	L	—	565X9015L2
20 VOLTS D-C, 26 VDC SURGE			
.047	J	473X0020J2	473X9020J2
.056	J	—	563X9020J2
.063	J	683X0020J2	633X9020J2
.082	J	—	823X9020J2
.1	J	104X0020J2	104X9020J2
.12	J	—	124X9020J2
.15	J	154X0020J2	154X9020J2
.18	J	—	184X9020J2
.22	J	224X0020J2	224X9020J2
.27	J	—	274X9020J2
.33	J	334X0020J2	334X9020J2
.39	J	—	394X9020J2
.47	L	474X0020L2	474X9020L2
.56	L	—	564X9020L2
.68	L	684X0020L2	684X9020L2
.82	L	—	824X9020L2
1.0	L	105X0020L2	105X9020L2
1.2	L	—	125X9020L2
1.5	L	155X0020L2	155X9020L2
1.8	L	—	185X9020L2
2.2	L	225X0020L2	225X9020L2
2.7	L	—	275X9020L2
3.3	L	335X0020L2	335X9020L2
35 VOLTS D-C, 46 VDC SURGE			
.047	J	473X0035J2	473X9035J2
.056	J	—	563X9035J2
.068	J	683X0035J2	683X9035J2
.082	J	—	823X9035J2
.1	J	104X0035J2	104X9035J2
.12	J	—	124X9035J2
.15	J	154XC035J2	154X9035J2
.18	L	—	184X9035L2
.22	L	224X0035L2	224X9035L2
.27	L	—	274X9035L2
.33	L	334X0035L2	334X9035L2
.39	L	—	394X9035L2
.47	L	474X0035L2	474X9035L2
.56	L	—	564X9035L2
.68	L	634X0035L2	684X9035L2
.82	L	—	824X9035L2
1.0	L	105X0035L2	105X9035L2
1.2	L	—	125X9035L2
1.5	L	155X0035L2	155X9035L2
50 VOLTS D-C, 65 VDC SURGE			
.047	J	473X0050J2	473X9050J2
.056	J	—	563X9050J2
.063	J	633X0050J2	633X9050J2
.082	J	—	823X9050J2
.1	J	104X0050J2	104X9050J2
.12	J	—	124X9050J2
.15	J	154X0050J2	154X9050J2
.18	L	—	184X9050L2
.22	L	224X0050L2	224X9050L2
.27	L	—	274X9050L2
.33	L	334X0050L2	334X9050L2
.39	L	—	394X9050L2
.47	L	474X0050L2	474X9050L2
.56	L	—	564X9050L2
.68	L	634X0050L2	684X9050L2
.82	L	—	824X9050L2
1.0	L	105X0050L2	105X9050L2
1.2	L	—	125X9050L2
75 VOLTS D-C, 97 VDC SURGE			
.047	J	473X0075J2	473X9075J2
.056	J	—	563X9075J2
.063	J	633X0075J2	683X9075J2
.082	J	—	823X9075J2
.1	J	104X0075J2	104X9075J2
.12	L	—	124X9075L2
.15	L	154X0075L2	154X9075L2
.18	L	—	184X9075L2
.22	L	224X0075L2	224X9075L2
.27	L	—	274X9075L2
.33	L	334X0075L2	334X9075L2
.39	L	—	394X9075L2
.47	L	474X0075L2	474X9075L2
.56	L	—	564X9075L2
.68	L	684X0075L2	684X9075L2
.82	L	—	824X9075L2

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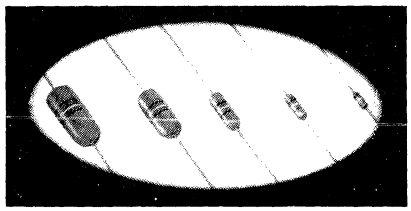
SPRAGUE CAPACITORS

TYPE 154D MOLDED SOLID-ELECTROLYTE TANTALEX® CAPACITORS



- Ultra-miniature Molded Solid Electrolyte Tantalum Capacitors in Cordwood Sized Cases. Same Performance Characteristics as Competitive Standard Metal-clad Solid Tantalum Capacitors.
- Cordwood Size Cases Permit Circuit Designer to Make Full Use of This New Packaging Concept.
- Also Suitable for Point-to-point Wiring, Printed Wiring Boards and May be Used in Automatic Insertion Machinery.
- Rounded End of Case Identifies Positive Terminal of Capacitor.
- For Complete Technical Data, See Latest Issue of Sprague Engineering Bulletin No. 3530.
- Call Your Sprague Industrial Distributor for Current Prices.

µF	Size Code	Catalog Number ±10% Tol.
6 VOLTS D-C, 8 VDC SURGE		
.22	J	*154D224X9006J
.27	J	154D274X9006J
.33	J	*154D334X9006J
.39	J	154D394X9006J
.47	J	*154D474X9006J
.56	J	154D564X9006J
.68	J	*154D684X9006J
.82	J	154D824X9006J
1.0	J	*154D105X9006J
1.2	J	154D125X9006J
1.5	J	*154D155X9006J
1.8	J	154D185X9006J
2.2	L	*154D225X9006L
2.7	L	154D275X9006L
3.3	L	*154D335X9006L
3.9	L	154D395X9006L
4.7	L	*154D475X9006L
5.6	L	154D565X9006L
6.8	L	*154D685X9006L
8.2	L	154D825X9006L
10	L	*154D106X9006L
12	L	154D126X9006L
15	L	*154D156X9006L
18	N	154D186X9006N
22	N	*154D226X9006N
27	N	154D276X9006N
33	N	*154D336X9006N
39	N	154D396X9006N
47	N	*154D476X9006N
56	N	154D566X9006N
68	P	*154D686X9006P
82	P	154D826X9006P
100	P	*154D107X9006P
120	P	154D127X9006P
150	P	*154D157X9006P
180	P	154D187X9006P
220	T	*154D220X9006T
270	T	154D227X9006T
330	T	*154D337X9006T
360	T	154D367X9006T
10 VOLTS D-C, 13 VDC SURGE		
.22	J	*154D224X9010J
.27	J	154D274X9010J
.33	J	*154D334X9010J
.39	J	154D394X9010J
.47	J	*154D474X9010J
.56	J	154D564X9010J
.68	J	*154D684X9010J
.82	J	154D824X9010J
1.0	J	*154D105X9010J
1.2	L	154D125X9010L
1.5	L	*154D155X9010L
1.8	L	154D185X9010L
2.2	L	*154D225X9010L
2.7	L	154D275X9010L
3.3	L	*154D335X9010L
3.9	L	154D395X9010L
4.7	L	*154D475X9010L
5.6	L	154D565X9010L
6.8	L	*154D685X9010L
8.2	L	154D825X9010L
10	N	*154D106X9010N
12	N	154D126X9010N
15	N	*154D156X9010N
18	N	154D186X9010N
22	P	*154D226X9010P
27	P	154D276X9010P
33	P	*154D336X9010P
39	P	154D396X9010P
47	P	*154D476X9010P
56	P	154D566X9010P
68	P	*154D686X9010P
82	P	154D826X9010P
100	P	*154D107X9010P
120	P	154D127X9010P
150	T	*154D157X9010T
180	T	154D187X9010T
220	T	*154D227X9010T
15 VOLTS D-C, 20 VDC SURGE		
.22	J	*154D224X9015J
.27	J	154D274X9015J
.33	J	*154D334X9015J
.39	J	154D394X9015J
.47	J	*154D474X9015J
.56	J	154D564X9015J
.68	J	*154D684X9015J
.82	L	154D824X9015L
1.0	L	*154D105X9015L
1.2	L	154D125X9015L
1.5	L	*154D155X9015L
1.8	L	154D185X9015L
2.2	L	*154D225X9015L
2.7	L	154D275X9015L
3.3	L	*154D335X9015L
3.9	L	154D395X9015L
4.7	L	*154D475X9015L
5.6	L	154D565X9015L
6.8	N	*154D685X9015N
8.2	N	154D825X9015N
10	N	*154D106X9015N
12	N	154D126X9015N
15	N	*154D156X9015N
18	N	154D186X9015N
22	N	*154D226X9015N
27	P	154D276X9015P
33	P	*154D336X9015P
39	P	154D396X9015P
47	P	*154D476X9015P
56	P	154D566X9015P
68	P	*154D686X9015P
82	T	154D826X9015T
100	T	*154D107X9015T
120	T	154D127X9015T
150	T	*154D157X9015T
20 VOLTS D-C, 26 VDC SURGE		
.1	J	*154D104X9020J
.12	J	154D124X9020J
.15	J	*154D154X9020J
.18	J	154D184X9020J
.22	J	*154D224X9020J
.27	J	154D274X9020J
.33	J	*154D334X9020J
.39	J	154D394X9020J
.47	J	*154D474X9020J
.56	L	154D564X9020L
.68	L	*154D684X9020L
.82	L	154D824X9020L
1.0	L	*154D105X9020L
1.2	L	154D125X9020L
1.5	L	*154D155X9020L
1.8	L	154D185X9020L
2.2	L	*154D225X9020L
2.7	L	154D275X9020L
3.3	L	*154D335X9020L
3.9	N	154D395X9020N
4.7	N	*154D475X9020N
5.6	N	154D565X9020N
6.8	N	*154D685X9020N
8.2	N	154D825X9020N
10	N	*154D106X9020N
12	N	154D126X9020N
15	N	*154D156X9020N
18	P	154D186X9020P
22	P	*154D226X9020P
27	P	154D276X9020P
33	P	*154D336X9020P
39	P	154D396X9020P
47	P	*154D476X9020P
56	T	154D566X9020T
68	T	*154D686X9020T
82	T	154D826X9020T
100	T	*154D107X9020T
35 VOLTS D-C, 46 VDC SURGE		
.1	J	*154D104X9035J
.12	J	154D124X9035J
.15	J	*154D154X9035J
.18	J	154D184X9035J
.22	L	*154D224X9035L
.27	L	154D274X9035L
.33	L	*154D334X9035L
.39	L	154D394X9035L
.47	L	*154D474X9035L
.56	L	154D564X9035L
.68	L	*154D684X9035L
.82	L	154D824X9035L
1.0	L	*154D105X9035L
1.2	L	154D125X9035L
1.5	L	*154D155X9035L
1.8	N	154D185X9035N
2.2	N	*154D225X9035N
2.7	N	154D275X9035N
3.3	N	*154D335X9035N
3.9	N	154D395X9035N
4.7	N	*154D475X9035N
5.6	N	154D565X9035N
6.8	N	*154D685X9035N
8.2	P	154D825X9035P
10	P	*154D106X9035P
12	P	154D126X9035P
15	P	*154D156X9035P
18	P	154D186X9035P
22	P	*154D226X9035P
27	T	154D276X9035T
33	T	*154D336X9035T
39	T	154D396X9035T
47	T	*154D476X9035T
50 VOLTS D-C, 65 VDC SURGE		
.1	J	*154D104X9050J
.12	J	154D124X9050J
.15	J	*154D154X9050J
.18	L	154D184X9050L
.22	L	*154D224X9050L
.27	L	154D274X9050L
.33	L	*154D334X9050L
.39	L	154D394X9050L
.47	L	*154D474X9050L
.56	L	154D564X9050L
.68	L	*154D684X9050L
.82	L	154D824X9050L
1.0	L	*154D105X9050L
1.2	L	154D125X9050L
1.5	N	*154D155X9050N
1.8	N	154D185X9050N
2.2	N	*154D225X9050N
2.7	N	154D275X9050N
3.3	N	*154D335X9050N
3.9	N	154D395X9050N
4.7	N	*154D475X9050N
5.6	P	154D565X9050P
6.8	P	*154D685X9050P
8.2	P	154D825X9050P
10	P	*154D106X9050P
12	P	154D126X9050P
15	P	*154D156X9050P
18	P	154D186X9050P
22	T	*154D226X9050T
75 VOLTS D-C, 97 VDC SURGE		
.1	J	*154D104X9075J
.12	L	154D124X9075L
.15	L	*154D154X9075L
.18	L	154D184X9075L
.22	L	*154D224X9075L
.27	L	154D274X9075L
.33	L	*154D334X9075L
.39	L	154D394X9075L
.47	L	*154D474X9075L
.56	L	154D564X9075L
.68	L	*154D684X9075L
.82	L	154D824X9075L
1.0	N	*154D105X9075N
1.2	N	154D125X9075N
1.5	N	*154D155X9075N
1.8	N	154D185X9075N
2.2	N	*154D225X9075N
2.7	N	154D275X9075N
3.3	N	*154D335X9075N

DIMENSIONS

Code	D. x L.
J	.090" x .250"
L	.138" x .390"
N	.200" x .562"
P	.312" x .714"
T	.375" x .875"

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT PRICES

*These ratings are also available in ±20% Tolerance. To order change the 9 following the X in the catalog number to 0.

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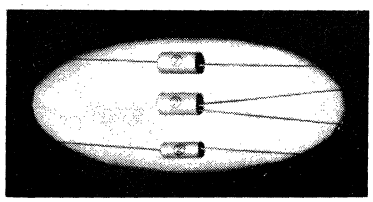
SPRAGUE CAPACITORS



DIMENSIONS

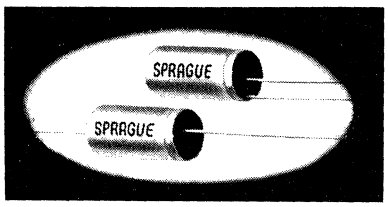
Case Code	D	x	L
AA	0.080	x	0.135
AB	0.080	x	0.185
BA	0.105	x	0.265
CA	0.145	x	0.265

TYPES 162D, 169D MINIATURE SOLID-ELECTROLYTE RED TOP* TANTALEX® CAPACITORS IN RESIN-SEALED CASES

- Miniature Polarized Tantalex Capacitors in Resin-sealed Case For Use in Compactly Designed Electronic Equipment.
- Two Lead Styles—Type 162D With Axial Leads, and "Single-Ended" Type 169D, Which is Especially Suited For Printed Wiring Board Applications.
- Red End Seal Indicates Positive End on Axial Lead Units. Center Lead is Positive on "Single-Ended" Type 169D Capacitors.
- Listed Units have Plastic-Film Insulation. Bare Metal Case Units Available.
- Ratings From 2 Through 100 WVDC Available.
- Capacitance Values From 0.033 μF to 68 μF.
- Temperature Range of —55 C to +85C.
- For Complete Technical Data, Refer to the Latest Issue of Sprague Engineering Bulletin No. 3536.
- Call Your Sprague Industrial Distributor For Prices.

μF	WVDC	Size Code	Catalog Number Axial-Lead	Catalog Number Single-Ended
47	4	CA	162D476X9004CA2	169D476X9004CA2
1.0	10	AA	162D105X9010AA2	169D105X9010AA2
10	10	BA	162D106X9010BA2	169D106X9010BA2
22	10	CA	162D226X9010CA2	169D226X9010CA2
.68	15	AA	162D684X9015AA2	169D684X9015AA2
2.2	15	AB	162D225X9015AB2	169D225X9015AB2
6.8	15	BA	162D685X9015BA2	169D685X9015BA2
15	15	CA	162D156X9015CA2	169D156X9015CA2
.47	20	AA	162D474X9020AA2	169D474X9020AA2
1.0	20	AB	162D105X9020AB2	169D105X9020AB2
4.7	20	BA	162D475X9020BA2	169D475X9020BA2
.15	35	AA	162D154X9035AA2	169D154X9035AA2
.1	50	AA	162D104X9050AA2	169D104X9050AA2
.033	100	AA	162D333X9100AA2	169D333X9100AA2
.068	100	AA	162D683X9100AA2	169D683X9100AA2

TYPES 164D, 167D SOLID-ELECTROLYTE RED TOP* TANTALEX® CAPACITORS



- Economically Priced Red Top Capacitors Are For Use in Commercial Digital Computers and All Types of Industrial Electronic Equipment.
- Metal Cases With Resin End Seals Afford Greater Moisture Protection Than Organic Housings Such as Moldings or Polyester Film.
- Case Sizes are the Same as those of the "Industrial Standard" Type 150D Hermetically-Sealed Design.
- Two Lead Styles—Type 164D With Axial Leads, and "Single-Ended" Type 167D, Which Is Especially Suited For Printed Wiring Board Applications.
- Red End Seal Indicates Positive End on Axial Lead Units. Center Lead is Positive on "Single-Ended" Type 167D Capacitors.
- Listed Units Have Plastic-Film Insulation. Bare Metal Case Units Available.
- Voltage Ratings From 6 Through 75 WVDC.
- Temperature Range of —55 C to +85 C.
- For Complete Technical Data, Refer to the Latest Issue of Sprague Engineering Bulletin No. 3537.
- Call Your Sprague Industrial Distributor for Prices.

DIMENSIONS **Case Code** A = .135 D. x .322 L. B = .185 D. x .510 L. R = .289 D. x .722 L. S = .351 D. x .822 L.

μF	WVDC	Size	Catalog Number Axial-Lead	Catalog Number Single-Ended
5.6	6	A	164D565X9006A2	167D565X9006A2
6.8	6	A	164D685X9006A2	167D685X9006A2
47	6	B	164D476X9006B2	167D476X9006B2
56	6	B	164D566X9006B2	167D566X9006B2
150	6	R	164D157X9006R2	167D157X9006R2
180	6	R	164D187X9006R2	167D187X9006R2
270	6	S	164D277X9006S2	167D277X9006S2
330	6	S	164D337X9006S2	167D337X9006S2
3.9	10	A	164D395X9010A2	167D395X9010A2
4.7	10	A	164D475X9010A2	167D475X9010A2
27	10	B	164D276X9010B2	167D276X9010B2
33	10	B	164D336X9010B2	167D336X9010B2
39	10	B	164D336X9010B2	167D386X9010B2
82	10	R	164D826X9010R2	167D826X9010R2
100	10	R	164D107X9010R2	167D107X9010R2
120	10	R	164D127X9010R2	167D127X9010R2
180	10	S	164D187X9010S2	167D187X9010S2
220	10	S	164D227X9010S2	167D227X9010S2
2.7	15	A	164D275X9015A2	167D275X9015A2
3.3	15	A	164D335X9015A2	167D335X9015A2
18	15	B	164D186X9015B2	167D186X9015B2
22	15	B	164D226X9015B2	167D226X9015B2
56	15	R	164D566X9015R2	167D566X9015R2
68	15	R	164D636X9015R2	167D686X9015R2
120	15	S	164D127X9015S2	167D127X9015S2
150	15	S	164D157X9015S2	167D157X9015S2
1.2	20	A	164D125X9020A2	167D125X9020A2
1.5	20	A	164D155X9020A2	167D155X9020A2
1.8	20	A	164D185X9020A2	167D185X9020A2
2.2	20	A	164D225X9020A2	167D225X9020A2
8.2	20	B	164D825X9020B2	167D825X9020B2
10	20	B	164D106X9020B2	167D106X9020B2
12	20	B	164D126X9020B2	167D126X9020B2
15	20	B	164D156X9020B2	167D156X9020B2
27	20	R	164D276X9020R2	167D276X9020R2
33	20	R	164D336X9020R2	167D336X9020R2
39	20	R	164D396X9020R2	167D396X9020R2
47	20	R	164D476X9020R2	167D476X9020R2
56	20	S	164D566X9020S2	167D566X9020S2
68	20	S	164D686X9020S2	167D686X9020S2
82	20	S	164D826X9020S2	167D826X9020S2
100	20	S	164D107X9020S2	167D107X9020S2
.0047	35	A	164D472X9035A2	167D472X9035A2
.0068	35	A	164D682X9035A2	167D682X9035A2
.01	35	A	164D103X9035A2	167D103X9035A2
.015	35	A	164D153X9035A2	167D153X9035A2
.022	35	A	164D223X9035A2	167D223X9035A2
.033	35	A	164D333X9035A2	167D333X9035A2
.047	35	A	164D473X9035A2	167D473X9035A2
.063	35	A	164D683X9035A2	167D683X9035A2
.1	35	A	164D104X9035A2	167D104X9035A2
.15	35	A	164D154X9035A2	167D154X9035A2
.22	35	A	164D224X9035A2	167D224X9035A2
.33	35	A	164D334X9035A2	167D334X9035A2
.47	35	A	164D474X9035A2	167D474X9035A2
.68	35	A	164D684X9035A2	167D684X9035A2
1.0	35	A	164D105X9035A2	167D105X9035A2
1.2	35	B	164D125X9035B2	167D125X9035B2
1.5	35	B	164D155X9035B2	167D155X9035B2
1.8	35	B	164D185X9035B2	167D185X9035B2
2.2	35	B	164D225X9035B2	167D225X9035B2
2.7	35	B	164D275X9035B2	167D275X9035B2
3.3	35	B	164D335X9035B2	167D335X9035B2
3.9	35	B	164D395X9035B2	167D395X9035B2
4.7	35	B	164D475X9035B2	167D475X9035B2
5.6	35	B	164D565X9035B2	167D565X9035B2
6.8	35	B	164D685X9035B2	167D685X9035B2
8.2	35	R	164D825X9035R2	167D825X9035R2
10	35	R	164D106X9035R2	167D106X9035R2
12	35	R	164D126X9035R2	167D126X9035R2
15	35	R	164D156X9035R2	167D156X9035R2
18	35	R	164D186X9035R2	167D186X9035R2
22	35	R	164D226X9035R2	167D226X9035R2
27	35	S	164D276X9035S2	167D276X9035S2
33	35	S	164D336X9035S2	167D336X9035S2
39	35	S	164D396X9035S2	167D396X9035S2
47	35	S	164D476X9035S2	167D476X9035S2
.0047	50	A	164D472X9050A2	167D472X9050A2
.0068	50	A	164D682X9050A2	167D682X9050A2
.01	50	A	164D103X9050A2	167D103X9050A2
.015	50	A	164D153X9050A2	167D153X9050A2
.022	50	A	164D223X9050A2	167D223X9050A2
.033	50	A	164D333X9050A2	167D333X9050A2
.047	50	A	164D473X9050A2	167D473X9050A2
.068	50	A	164D683X9050A2	167D683X9050A2
.1	50	A	164D104X9050A2	167D104X9050A2
.15	50	A	164D154X9050A2	167D154X9050A2
.22	50	A	164D224X9050A2	167D224X9050A2
.33	50	A	164D334X9050A2	167D334X9050A2
.47	50	A	164D474X9050A2	167D474X9050A2
.68	50	A	164D684X9050A2	167D684X9050A2
1.0	50	A	164D105X9050A2	167D105X9050A2
1.2	50	B	164D125X9050B2	167D125X9050B2
1.5	50	B	164D155X9050B2	167D155X9050B2
1.8	50	B	164D185X9050B2	167D185X9050B2
2.2	50	B	164D225X9050B2	167D225X9050B2
2.7	50	B	164D275X9050B2	167D275X9050B2
3.3	50	B	164D335X9050B2	167D335X9050B2
3.9	50	B	164D395X9050B2	167D395X9050B2
4.7	50	B	164D475X9050B2	167D475X9050B2
5.6	50	R	164D565X9050R2	167D565X9050R2
6.8	50	R	164D685X9050R2	167D685X9050R2
8.2	50	R	164D825X9050R2	167D825X9050R2
10	50	R	164D106X9050R2	167D106X9050R2
12	50	R	164D126X9050R2	167D126X9050R2
15	50	R	164D156X9050R2	167D156X9050R2
18	50	R	164D186X9050R2	167D186X9050R2
22	50	S	164D226X9050R2	167D226X9050R2
.0047	75	A	164D472X9075A2	167D472X9075A2
.0068	75	A	164D682X9075A2	167D682X9075A2
.01	75	A	164D103X9075A2	167D103X9075A2
.015	75	A	164D153X9075A2	167D153X9075A2
.022	75	A	164D223X9075A2	167D223X9075A2
.033	75	A	164D333X9075A2	167D333X9075A2
.047	75	A	164D473X9075A2	167D473X9075A2
.068	75	A	164D683X9075A2	167D683X9075A2
.1	75	A	164D104X9075A2	167D104X9075A2
.15	75	A	164D154X9075A2	167D154X9075A2
.22	75	A	164D224X9075A2	167D224X9075A2
.33	75	A	164D334X9075A2	167D334X9075A2
.47	75	A	164D474X9075A2	167D474X9075A2
.68	75	A	164D684X9075A2	167D684X9075A2
1.0	75	B	164D105X9075B2	167D105X9075B2
1.2	75	B	164D125X9075B2	167D125X9075B2
1.5	75	B	164D155X9075B2	167D155X9075B2
1.8	75	B	164D185X9075B2	167D185X9075B2
2.2	75	B	164D225X9075B2	167D225X9075B2
2.7	75	B	164D275X9075B2	167D275X9075B2
3.3	75	B	164D335X9075B2	167D335X9075B2
3.9	75	B	164D395X9075B2	167D395X9075B2

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REM-2-6427

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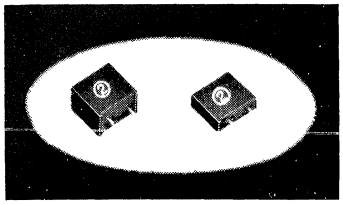
SPRAGUE CAPACITORS

TYPE 190D SOLID-ELECTROLYTE TANTALEX® CAPACITORS



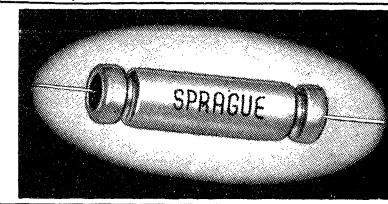
- Well Suited for Automatic Insertion Because Height and Width of all Units is Uniform—Only Thickness Varies From Case to Case.
- High Density Qualifies These Capacitors for Printed Circuits and Other Applications Where Space is At a Premium.
- Stand-off Feet on Bottom of Case Allow Complete Air Circulation, Preventing Trapped Moisture.
- Encapsulated in Tough Molded Cases with Excellent Dielectric Properties.
- Exceptionally Low Impedances at High Frequencies.
- Low Dissipation Factor Permits High Ripple Currents.
- For Complete Technical Data, Refer to the Latest Issue of Sprague Engineering Bulletin No. 3531.
- Call Your Sprague Industrial Distributor for Prices.

DIMENSIONS

Case Code	Size in Inches T
A	0.125
B	0.250
C	0.375
D	0.625

µF	WVDC	Size Code	Catalog Number ± 10% Tol.
27	6	A	190D276X9006A
33	6	A	190D336X9006A
100	6	B	190D107X9006B
120	6	B	190D127X9006B
150	6	C	190D157X9006C
180	6	C	190D187X9006C
270	6	D	190D277X9006D
330	6	D	190D337X9006D
15	10	A	190D156X9010A
18	10	A	190D186X9010A
22	10	A	190D226X9010A
56	10	B	190D566X9010B
68	10	B	190D686X9010B
82	10	B	190D826X9010B
100	10	C	190D107X9010C
120	10	C	190D127X9010C
180	10	D	190D187X9010D
220	10	D	190D227X9010D
8.2	15	A	190D825X9015A
10	15	A	190D106X9015A
12	15	A	190D126X9015A
39	15	B	190D396X9015A
47	15	B	190D476X9015A
68	15	C	190D686X9015C
120	15	D	190D127X9015D
150	15	D	190D157X9015D
3.9	20	A	190D395X9020A
4.7	20	A	190D475X9020A
5.6	20	A	190D565X9020A
6.8	20	A	190D685X9020A
18	20	B	190D186X9020B
22	20	B	190D226X9020B
27	20	B	190D276X9020B
33	20	B	190D336X9020B
39	20	C	190D396X9020C
47	20	C	190D476X9020C
56	20	C	190D566X9020C
68	20	D	190D686X9020D
82	20	D	190D826X9020D
100	20	D	190D107X9020D
2.7	35	A	190D275X9035A
3.3	35	A	190D335X9035A
8.2	35	B	190D825X9035B
10	35	B	190D106X9035B
12	35	B	190D126X9035B
15	35	B	190D156X9035B
18	35	C	190D186X9035C
22	35	C	190D226X9035C
27	35	C	190D276X9035C
33	35	D	190D336X9035D
39	35	D	190D396X9035D
47	35	D	190D476X9035D
.1	50	A	190D104X9050A
.15	50	A	190D154X9050A
.22	50	A	190D224X9050A
.33	50	A	190D334X9050A
.47	50	A	190D474X9050A
.68	50	A	190D684X9050A
1.0	50	A	190D105X9050A
1.2	50	A	190D125X9050A
1.5	50	A	190D155X9050A
1.8	50	A	190D185X9050A
2.2	50	A	190D225X9050A
2.7	50	B	190D275X9050B
3.3	50	B	190D335X9050B
3.9	50	B	190D395X9050B
4.7	50	B	190D475X9050B
5.6	50	B	190D565X9050B
6.8	50	B	190D685X9050B
8.2	50	B	190D825X9050B
10	50	B	190D106X9050B
12	50	C	190D126X9050C
15	50	C	190D156X9050C
18	50	D	190D186X9050D
22	50	D	190D226X9050D

125°C FOIL TANTALEX® CAPACITORS



- Small size, electrically stable, long life. For data, see latest Engineering Bulletin 3602.
- 120D, 122D available as MIL-C-3965 units.
- Tol., 120D, 121D, ±20%; 122D, 123D, --15, +75%.
- Listed units have plastic wrap. For bare metal case units, end Cat. No. in "0" instead of "1".

SIZE CODE (Diam. x Length)

E (13/64" x 23/32"), H (19/64" x 15/16"), K (25/64" x 1 15/32"), N (25/64" x 2 5/32"), Q (25/64" x 2 25/32").

TYPE 120D POLARIZED PLAIN-FOIL

µF	Code	Catalog Number
10 WORKING VOLTS D-C		
4.5	E	120D455X0010E1
18	H	120D186X0010H1
55	K	120D556X0010K1
110	N	120D117X0010N1
160	Q	120D167X0010Q1
15 WORKING VOLTS D-C		
3	E	120D305X0015E1
12	H	120D126X0015H1
35	K	120D356X0015K1
70	N	120D706X0015N1
100	Q	120D107X0015Q1
30 WORKING VOLTS D-C		
1.5	E	120D155X0030E1
6	H	120D605X0030H1
20	K	120D206X0030K1
40	N	120D406X0030N1
55	Q	120D556X0030Q1
50 WORKING VOLTS D-C		
1	E	120D105X0050E1
4	H	120D405X0050H1
14	K	120D146X0050K1
28	N	120D286X0050N1
40	Q	120D406X0050Q1
65 WORKING VOLTS D-C		
.8	E	120D804X0065E1
3	H	120D305X0065H1
10	K	120D106X0065K1
20	N	120D206X0065N1
30	Q	120D306X0065Q1
100 WORKING VOLTS D-C		
.5	E	120D504X0100E1
2	H	120D205X0100H1
7	K	120D705X0100K1
14	N	120D146X0100N1
20	Q	120D206X0100Q1

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES

µF	Code	Catalog Number
150 WORKING VOLTS D-C		
.35	E	120D354X0150E1
1.5	H	120D155X0150H1
5	K	120D505X0150K1
10	N	120D106X0150N1
15	Q	120D156X0150Q1
200 WORKING VOLTS D-C		
1.0	H	120D105X8200H1
3.0	K	120D305X8200K1
7.0	N	120D705X8200N1
10.0	Q	120D106X8200Q1
250 WORKING VOLTS D-C		
0.8	H	120D804X8250H1
2.5	K	120D255X8250K1
5	N	120D505X8250N1
8	Q	120D805X8250Q1
300 WORKING VOLTS D-C		
.15	E	120D154X8300E1
.65	H	120D654X8300H1
2	K	120D205X8300K1
4	N	120D405X8300N1
6	Q	120D605X8300Q1

TYPE 121D NON-POLARIZED PLAIN-FOIL

µF	Code	Catalog Number
10 WORKING VOLTS N.P.		
2.5	E	121D255X0010E1
10	H	121D106X0010H1
35	K	121D356X0010K1
70	N	121D706X0010N1
100	Q	121D107X0010Q1
15 WORKING VOLTS N.P.		
1.5	E	121D155X0015E1
6	H	121D605X0015H1
20	K	121D206X0015K1
40	N	121D406X0015N1
60	Q	121D606X0015Q1
30 WORKING VOLTS N.P.		
.8	E	121D804X0030E1

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES

µF	Code	Catalog Number
3	H	121D305X0030H1
10	K	121D106X0030K1
20	N	121D206X0030N1
30	Q	121D306X0030Q1
50 WORKING VOLTS N.P.		
.5	E	121D504X0050E1
2	H	121D205X0050H1
7	K	121D705X0050K1
14	N	121D146X0050N1
20	Q	121D206X0050Q1
65 WORKING VOLTS N.P.		
.4	E	121D404X0065E1
1.5	H	121D155X0065H1
5	K	121D505X0065K1
10	N	121D106X0065N1
15	Q	121D156X0065Q1
100 WORKING VOLTS N.P.		
.25	E	121D254X0100E1
1.0	H	121D105X0100H1
3.5	K	121D335X0100K1
7	N	121D705X0100N1
10	Q	121D106X0100Q1
150 WORKING VOLTS N.P.		
.15	E	121D154X0150E1
.75	H	121D754X0150H1
2.5	K	121D255X0150K1
5.0	N	121D505X0150N1
7.5	Q	121D755X0150Q1
200 WORKING VOLTS N.P.		
0.5	H	121D504X8200H1
1.5	K	121D155X8200K1
3.5	N	121D355X8200N1
5.0	Q	121D505X8200Q1
250 WORKING VOLTS N.P.		
.4	H	121D404X8250H1
1.2	K	121D125X8250K1
2.5	N	121D255X8250N1
4	Q	121D405X8250Q1

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES

TYPE 122D POLARIZED ETCHED-FOIL

µF	Code	Catalog Number
10 WORKING VOLTS D-C		
15	E	122D156C7010E1
60	H	122D606C7010H1
200	K	122D207C7010K1
400	N	122D407C7010N1
580	Q	122D587C7010Q1
15 WORKING VOLTS D-C		
10	E	122D106C7015E1
40	H	123D406C7015H1
120	K	122D257C7015N1
250	N	122D357C7015Q1
350	Q	122D905C7015E1
30 WORKING VOLTS D-C		
4.5	E	122D455C5030E1
18	H	122D186C5030H1
60	K	122D606C5030K1
100	N	122D107C5030N1
150	Q	122D157C5030Q1
50 WORKING VOLTS D-C		
3	E	122D305C5050E1
12	H	122D126C5050H1
30	K	122D306C5050K1
70	N	122D706C5050N1
100	Q	122D107C5050Q1
65 WORKING VOLTS D-C		
2	E	122D205C3065E1
8	H	122D805C3065H1
25	K	122D256C3065K1
50	N	122D506C3065N1
70	Q	122D706C3065Q1
100 WORKING VOLTS D-C		
1	E	122D105C3100E1
4	H	122D405C3100H1
13	K	122D136C3100K1
25	N	122D256C3100N1
36	Q	122D366C3100Q1

TYPE 123D NON-POLARIZED ETCHED-FOIL

µF	Code	Catalog Number
10 WORKING VOLTS N.P.		
10	E	123D106C7010E1
40	H	123D406C7010H1
120	K	123D127C7010K1
250	N	123D257C7010N1
350	Q	123D357C7010Q1
15 WORKING VOLTS N.P.		
5	E	123D505C7015E1
20	H	123D206C7015H1
70	K	123D706C7015K1
140	N	123D147C7015N1
200	Q	123D207C7015Q1
30 WORKING VOLTS N.P.		
2.5	E	123D255C5030E1
10	H	123D106C5030H1
30	K	123D306C5030K1
60	N	123D606C5030N1
80	Q	123D806C5030Q1
50 WORKING VOLTS N.P.		
1.5	E	123D155C5050E1
6	H	123D605C5050H1
15	K	123D156C5050K1
35	N	123D356C5050N1
50	Q	123D506C5050Q1
65 WORKING VOLTS N.P.		
1	E	123D105C3065E1
4	H	123D405C3065H1
12	K	123D126C3065K1
25	N	123D256C3065N1
35	Q	123D356C3065Q1
100 WORKING VOLTS N.P.		
0.5	E	123D504C3100E1
2	H	123D205C3100H1
6	K	123D605C3100K1
12	N	123D126C3100N1
18	Q	123D186C3100Q1

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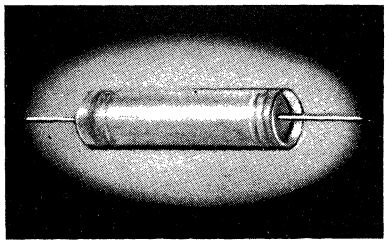
SPRAGUE CAPACITORS

85°C FOIL TANTALEX® CAPACITORS



- For applications where small physical size, stable electrical characteristics, and long service life are important.
- Type 110D and 112D also available marked to meet MIL-C-3965. Order by complete military type designation.
- High capacitance stability even at low operating temperatures, unlike aluminum-foil electrolytics.
- Extremely low leakage current.
- Capacitance tolerance: Types 110D and 111D. ±20% and ±15%; Type 112D and 113D +75, −15%. +50%, −15% and +30%, −15%.
- Plastic wrap. For bare case, end Cat. No. in "0" instead of "1".
- See latest Engineering Bulletin 3601.
- **Call Your Sprague Industrial Distributor for Quantity Prices**

TYPE 110D
POLARIZED PLAIN-FOIL

µF	Size Code	Catalog Number
3 WORKING VOLTS D-C		
10	D	110D106X0003D1
55	G	110D556X0003G1
160	J	110D167X0003J1
350	M	110D357X0003M1
440	P	110D447X0003P1
6 WORKING VOLTS D-C		
8	D	110D805X0006D1
30	G	110D306X0006G1
35	G	110D356X0006G1
100	J	110D107X0006J1
200	M	110D207X0006M1
300	P	110D307X0006P1
10 WORKING VOLTS D-C		
6	D	110D605X0010D1
25	G	110D256X0010G1
80	J	110D806X0010J1
160	M	110D167X0010M1
220	P	110D227X0010P1
15 WORKING VOLTS D-C		
4.5	D	110D455X0015D1
18	G	110D186X0015G1
55	J	110D556X0015J1
110	M	110D117X0015M1
160	P	110D167X0015P1
25 WORKING VOLTS D-C		
3	D	110D305X0025D1
12	G	110D126X0025G1
35	J	110D356X0025J1
70	M	110D706X0025M1
100	P	110D107X0025P1
30 WORKING VOLTS D-C		
2.5	D	110D255X0030D1
10	G	110D106X0030G1
30	J	110D306X0030J1
60	M	110D606X0030M1
85	P	110D856X0030P1
50 WORKING VOLTS D-C		
1.5	D	110D155X0050D1
6	G	110D605X0050G1
20	J	110D206X0050J1
40	M	110D406X0050M1
55	P	110D556X0050P1
60 WORKING VOLTS D-C		
1.2	D	110D125X0060D1
5	G	110D505X0060G1
17	J	110D176X0060J1
34	M	110D346X0060M1
48	P	110D486X0060P1
75 WORKING VOLTS D-C		
1	D	110D105X0075D1
4	G	110D405X0075G1
14	J	110D146X0075J1
28	M	110D286X0075M1
40	P	110D406X0075P1
100 WORKING VOLTS D-C		
.8	D	110D804X0100D1
3	G	110D305X0100G1
10	J	110D106X0100J1
20	M	110D206X0100M1
30	P	110D306X0100P1
150 WORKING VOLTS D-C		
.5	D	110D504X0150D1
1	G	110D105X0150G1
2	G	110D205X0150G1
7	J	110D705X0150J1
14	M	110D146X0150M1
20	P	110D206X0150P1
200 WORKING VOLTS D-C		
.35	D	110D354X8200D1
1.5	G	110D155X8200G1
5.0	J	110D505X8200J1
10.0	M	110D106X8200M1
15.0	P	110D156X8200P1
250 WORKING VOLTS D-C		
.3	D	110D304X8250D1
1.2	G	110D125X8250G1
4.0	J	110D405X8250J1
8.0	M	110D805X8250M1
12.0	P	110D126X8250P1
300 WORKING VOLTS D-C		
1	G	110D105X8300G1
3	J	110D305X8300J1
7	M	110D705X8300M1
10	P	110D106X8300P1
375 WORKING VOLTS D-C		
.2	D	110D204X8375D1
.8	G	110D804X8375G1
2.5	J	110D255X8375J1
5	M	110D505X8375M1
7	P	110D705X8375P1
450 WORKING VOLTS D-C		
.15	D	110D154X8450D1
.65	G	110D654X8450G1
2	J	110D205X8450J1
4	M	110D405X8450M1
6	P	110D605X8450P1

TYPE 111D
NON-POLARIZED PLAIN-FOIL

µF	Size Code	Catalog Number
6 WORKING VOLTS N.P.		
5	D	111D505X0006D1
25	G	111D256X0006G1
85	J	111D856X0006J1
170	M	111D177X0006M1
250	P	111D257X0006P1
10 WORKING VOLTS N.P.		
3	D	111D305X0010D1
16	G	111D166X0010G1
55	J	111D556X0010J1
110	M	111D117X0010M1
150	P	111D157X0010P1
15 WORKING VOLTS N.P.		
2.5	D	111D255X0015D1
10	G	111D106X0015G1
35	J	111D356X0015J1
70	M	111D706X0015M1
100	P	111D107X0015P1
25 WORKING VOLTS N.P.		
1.5	D	111D155X0025D1
6	G	111D605X0025G1
20	J	111D206X0025J1
40	M	111D406X0025M1
60	P	111D606X0025P1
30 WORKING VOLTS N.P.		
1.4	D	111D145X0030D1
5.5	G	111D555X0030G1
18	J	111D186X0030J1
36	M	111D366X0030M1
45	P	111D456X0030P1
50 WORKING VOLTS N.P.		
.8	D	111D804X0050D1
3	G	111D305X0050G1
10	J	111D106X0050J1
20	M	111D206X0050M1
30	P	111D306X0050P1
60 WORKING VOLTS N.P.		
.6	D	111D604X0060D1
2.5	G	111D255X0060G1
8.5	J	111D855X0060J1
17	M	111D176X0060M1
24	P	111D246X0060P1
75 WORKING VOLTS N.P.		
.5	D	111D504X0075D1
2	G	111D205X0075G1
7	J	111D705X0075J1
14	M	111D146X0075M1
20	P	111D206X0075P1
100 WORKING VOLTS N.P.		
.4	D	111D404X0100D1
1.5	G	111D155X0100G1
5	J	111D505X0100J1
10	M	111D106X0100M1
15	P	111D156X0100P1
150 WORKING VOLTS N.P.		
.25	D	111D254X0150D1
1	G	111D105X0150G1
3.5	J	111D355X0150J1
7	M	111D705X0150M1
10	P	111D106X0150P1
200 WORKING VOLTS N.P.		
.15	D	111D154X8200D1
.75	G	111D754X8200G1
2.5	J	111D255X8200J1
5.0	M	111D505X8200M1
7.5	P	111D755X8200P1
250 WORKING VOLTS N.P.		
.15	D	111D154X8250D1
.6	G	111D604X8250G1
2.0	J	111D205X8250J1
4.0	M	111D405X8250M1
6.0	P	111D605X8250P1
300 WORKING VOLTS D-C		
.5	G	111D504X8300G1
1.5	J	111D155X8300J1
3.5	M	111D355X8300M1
5	P	111D505X8300P1

TYPE 112D
POLARIZED ETCHED-FOIL

µF	Size Code	Catalog Number
15 WORKING VOLTS D-C		
15	D	112D156C7015D1
60	G	112D606C7015G1
200	J	112D207C7015J1
400	M	112D407C7015M1
580	P	112D587C7015P1
25 WORKING VOLTS D-C		
10	D	112D106C7025D1
40	G	112D406C7025G1
120	J	112D127C7025J1
250	M	112D257C7025M1
350	P	112D357C7025P1
30 WORKING VOLTS D-C		
8	D	112D805C7030D1
32	G	112D326C7030G1
110	J	112D117C7030J1
220	M	112D227C7030M1
300	P	112D307C7030P1
50 WORKING VOLTS D-C		
4.5	D	112D455C5050D1
18	G	112D186C5050G1
60	J	112D606C5050J1
100	M	112D107C5050M1
150	P	112D157C5050P1
60 WORKING VOLTS D-C		
4	D	112D405C5060D1
75 WORKING VOLTS D-C		
3	D	112D305C5075D1
12	G	112D126C5075G1
30	J	112D306C5075J1
70	M	112D706C5075M1
100	P	112D107C5075P1
100 WORKING VOLTS D-C		
2	D	112D205C3100D1
8	G	112D805C3100G1
25	J	112D256C3100J1
50	M	112D506C3100M1
70	P	112D706C3100P1
150 WORKING VOLTS D-C		
1	D	112D105C3150D1
4	G	112D405C3150G1
13	J	112D136C3150J1
25	M	112D256C3150M1
36	P	112D366C3150P1
200 WORKING VOLTS D-C		
3	G	112D305X0200G1
9	J	112D905X0200J1
19	M	112D196X0200M1
27	P	112D276X0200P1
250 WORKING VOLTS D-C		
2	G	112D205X0250G1
6	J	112D605X0250J1
13	M	112D136X0250M1
19	P	112D196X0250P1
300 WORKING VOLTS D-C		
1.8	G	112D185X0300G1
5	J	112D505X0300J1
11	M	112D116X0300M1
15	P	112D156X0300P1

TYPE 113D
NON-POLARIZED ETCHED-FOIL

µF	Size Code	Catalog Number
15 WORKING VOLTS N.P.		
10	D	113D106C7015D1
40	G	113D406C7015G1
120	J	113D127C7015J1
250	M	113D257C7015M1
350	P	113D357C7015P1
25 WORKING VOLTS N.P.		
5	D	113D505C7025D1
20	G	113D206C7025G1
70	J	113D706C7025J1
140	M	113D147C7025M1
200	P	113D207C7025P1
30 WORKING VOLTS N.P.		
4.5	D	113D455C7030D1
18	G	113D186C7030G1
60	J	113D606C7030J1
120	M	113D127C7030M1
170	P	113D177C7030P1
50 WORKING VOLTS N.P.		
2.5	D	113D255C5050D1
10	G	113D106C5050G1
30	J	113D306C5050J1
60	M	113D606C5050M1
80	P	113D806C5050P1
75 WORKING VOLTS N.P.		
1.5	D	113D155C5075D1
6	G	113D605C5075G1
15	J	113D156C5075J1
35	M	113D356C5075M1
50	P	113D506C5075P1
100 WORKING VOLTS N.P.		
1	D	113D105C3100D1
4	G	113D405C3100G1
12	J	113D126C3100J1
25	M	113D256C3100M1
35	P	113D356C3100P1
150 WORKING VOLTS N.P.		
.5	D	113D504C3150D1
2	G	113D205C3150G1
6	J	113D605C3150J1
12	M	113D126C3150M1
18	P	113D186C3150P1

DIMENSIONS

D=.187 diam. x .750 long G=.281 diam. x .937 long J=.375 diam. x 1.500 long M=.375 diam. x 2.187 long P=.375 diam. x 2.812 long

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REM-3-6426

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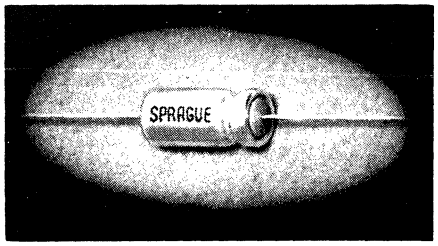
SPRAGUE CAPACITORS

TYPE 130D 125 C SINTERED-ANODE TANTALEX® CAPACITORS



DIMENSIONS

Code	D x L	Code	D x L	Code	D x L	Code	D x L
C	13/64 x 33/64	F	19/64 x 45/64	T	25/64 x 53/64	W	25/64 x 1 5/16

- Reliable, Superior Quality Capacitors With no Voltage Derating for 125C Operation.
- Especially Suited for Military Electronics.
- Meets 2000 Cycle MIL Missile Vibration Requirements.
- Clean, Shoulder-Less Design Simplifies Mounting on Printed Wiring Boards.
- Voltage Ratings From 4 WVDC Through 100 WVDC.
- Capacitances from 1.7 μF to 1200 μF.
- For Complete Technical Data, Refer to the Latest Issue of Sprague Engineering Bulletin No. 3701.
- Listed Units Have Plastic Film Insulation. For Bare Metal Cases, Change Last Digit of Cat. No. to "O".
- Call Your Sprague Industrial Distributor for Current Quantity Prices.

GROUP 1: +20%, −15% and ±10% Capacitance Tolerance with plastic insulation tube

μF	Size Code	Catalog Number +20, −15% Tol.	Catalog Number ±10% Tol.
		4 WORKING VOLTS D-C	
30	C	130D306C2004C2	130D306X9004C2
140	F	130D147C2004F2	130D147X9004F2
330	T	130D337C2004T2	130D337X9004T2
		5 WORKING VOLTS D-C	
25	C	130D256C2005C2	130D256X9005C2
120	F	130D127C2005F2	130D127X9005F2
290	T	130D297C2005T2	130D297X9005T2
		7 WORKING VOLTS D-C	
20	C	130D206C2007C2	130D206X9007C2
100	F	130D107C2007F2	130D107X9007F2
250	T	130D257C2007T2	130D257X9007T2
		10 WORKING VOLTS D-C	
15	C	130D156C2010C2	130D156X9010C2
70	F	130D706C2010F2	130D706X9010F2
170	T	130D177C2010T2	130D177X9010T2
		15 WORKING VOLTS D-C	
10	C	130D106C2015C2	130D106X9015C2
50	F	130D506C2015F2	130D506X9015F2
110	T	130D117C2015T2	130D117X9015T2
		20 WORKING VOLTS D-C	
8	C	130D805C2020C2	130D805X9020C2
40	F	130D406C2020F2	130D406X9020F2
100	T	130D107C2020T2	130D107X9020T2
		30 WORKING VOLTS D-C	
5	C	130D505C2030C2	130D505X9030C2
25	F	130D256C2030F2	130D256X9030F2
60	T	130D606C2030T2	130D606X9030T2
		40 WORKING VOLTS D-C	
4	C	130D405C2040C2	130D405X9040C2
20	F	130D206C2040F2	130D206X9040F2
50	T	130D506C2040T2	130D506X9040T2
		50 WORKING VOLTS D-C	
3.5	C	130D355C2050C2	130D355X9050C2
15	F	130D156C2050F2	130D156X9050F2
40	T	130D406C2050T2	130D406X9050T2
		70 WORKING VOLTS D-C	
2.5	C	130D255C2070C2	130D255X9070C2
11	F	130D116C2070F2	130D116X9070F2
30	T	130D306C2070T2	130D306X9070T2
		85 WORKING VOLTS D-C	
1.7	C	130D175C2085C2	130D175X9085C2
9	F	130D905C2085F2	130D905X9085F2
18	T	130D186C2085T2	130D186X9085T2
		100 WORKING VOLTS D-C	
1.7	C	130D175C2100C2	130D175X9100C2
6.8	F	130D685C2100F2	130D685X9100F2
14	T	130D146C2100T2	130D146X9100T2

GROUP 2: ±20% and ±10% Capacitance Tolerance with plastic insulation tube

μF	Size Code	Catalog Number ±20% Tol.	Catalog Number ±10% Tol.
		4 WORKING VOLTS D-C	
68	C	130D686X0004C2	130D686X9004C2
270	F	130D277X0004F2	130D277X9004F2
560	T	130D567X0004T2	130D567X9004T2
1200	W	130D128X0004W2	130D128X9004W2
		5 WORKING VOLTS D-C	
850	W	130D857X0005W2	130D857X9005W2
		7 WORKING VOLTS D-C	
47	C	130D476X0007C2	130D476X9007C2
180	F	130D187X0007F2	130D187X9007F2
390	T	130D397X0007C2	130D397X9007T2
750	W	130D757X0007W2	130D757X0007W2
		10 WORKING VOLTS D-C	
33	C	130D336X0010C2	130D336X9010C2
120	F	130D127X0010F2	130D127X9010F2
270	T	130D277X0010T2	130D277X9010T2
540	W	130D547X0010W2	130D547X9010W2
		15 WORKING VOLTS D-C	
22	C	130D226X0015C2	130D226X9015C2
100	F	130D107X0015F2	130D107X9015F2
180	T	130D187X0015T2	130D187X9015T2
350	W	130D357X0015W2	130D357X9015W2
		20 WORKING VOLTS D-C	
15	C	130D156X0020C2	130D156X9020C2
68	F	130D686X0020F2	130D686X9020F2
150	T	130D157X0020T2	130D157X9020T2
300	W	130D307X0020W2	130D307X9020W2
		30 WORKING VOLTS D-C	
10	C	130D106X0030C2	130D106X9030C2
47	F	130D476X0030F2	130D476X9030F2
82	T	130D826X0030T2	130D826X9030T2
160	W	130D167X0030W2	130D167X9030W2
		40 WORKING VOLTS D-C	
8.2	C	130D825X0040C2	130D825X9040C2
39	F	130D396X0040F2	130D396X9040F2
68	T	130D686X0040T2	130D686X9040T2
140	W	130D147X0040W2	130D147X9040W2
		50 WORKING VOLTS D-C	
6.8	C	130D685X0050C2	130D685X9050C2
33	F	130D336X0050F2	130D336X9050F2
56	T	130D566X0050T2	130D566X9050T2
110	W	130D117X0050W2	130D117X9050W2
		70 WORKING VOLTS D-C	
4.7	C	130D475X0070C2	130D475X9070C2
22	F	130D226X0070F2	130D226X9070F2
43	T	130D436X0070T2	130D436X9070T2
86	W	130D866X0070W2	130D866X9070W2
		85 WORKING VOLTS D-C	
3.6	C	130D365X0085C2	130D365X9085C2
14	F	130D146X0085F2	130D146X9085F2
25	T	130D256X0085T2	130D256X9085T2
56	W	130D566X0085W2	130D566X9085W2
		100 WORKING VOLTS D-C	
3	C	130D305X0100C2	130D305X9100C2
11	F	130D116X0100F2	130D116X9100F2
22	T	130D226X0100T2	130D226X9100T2

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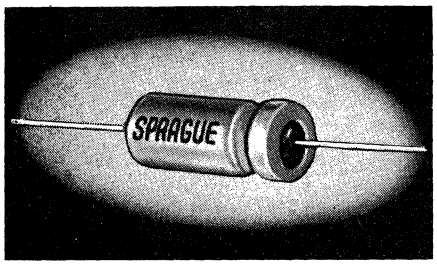
SPRAGUE CAPACITORS

TYPE 109D SINTERED-ANODE TANTALEX® CAPACITORS



DIMENSIONS

Code	D. x L.	Code	D. x L.	Code	D. x L.	Code	D. x L.
C	3/16 x 29/64	F	9/32 x 41/64	T	3/8 x 49/64	W	3/8 x 1 1/4

- Intended for Applications Where Reliable Design in Military Equipment is Required.
- Double Spun TFE-fluorocarbon Elastomer High Temp. End Seals.
- Large Values of Capacitance in Small Physical Size.
- Listed Units Have Plastic Sleeves.
- For Bare Case, End Catalog Number in "0" instead of "2".
- May Be Operated at 85°C at Rated Voltage and to 105°C With 15% Voltage Derating.
- Will Meet 2000 Cycle Missile Vibration Requirements.
- For Complete Technical Data, Refer to Latest Issue of Engineering Bulletin 3700.
- Call Your Sprague Industrial Distributor For Current Quantity Prices.

GROUP 1: Available in Capacitance Tolerances of ±10%, +20, −15%; +75, −15%

µF	WVDC	Size Code	Catalog Number ±10%	+20, −15%	+75, −15%
27	6	C	109D276X9006C2	109D276C2006C2	109D276C7006C2
30	6	C	109D306X9006C2	109D306C2006C2	109D306C7006C2
120	6	F	109D127X9006F2	109D127C2006F2	109D127C7006F2
140	6	F	109D147X9006F2	109D147C2006F2	109D147C7006F2
290	6	T	109D297X9006T2	109D297C2006T2	109D297C7006T2
330	6	T	109D337X9006T2	109D337C2006T2	109D337C7006T2
22	8	C	109D226X9008C2	109D226C2008C2	109D226C7008C2
25	8	C	109D256X9008C2	109D256C2008C2	109D256C7008C2
100	8	F	109D107X9008F2	109D107C2008F2	109D107C7008F2
120	8	F	109D127X9008F2	109D127C2008F2	109D127C7008F2
260	8	T	109D276X9008T2	109D267C2008T2	109D276C7008T2
290	8	T	109D297X9008T2	109D297C2008T2	109D297C7008T2
18	10	C	109D186X9010C2	109D186C2010C2	109D186C7010C2
20	10	C	109D206X9010C2	109D206C2010C2	109D206C7010C2
85	10	F	109D856X9010F2	109D856C2010F2	109D856C7010F2
100	10	F	109D107X9010F2	109D107C2010F2	109D107C7010F2
220	10	T	109D227X9010T2	109D227C2010T2	109D227C7010T2
250	10	T	109D257X9010T2	109D257C2010T2	109D257C7010T2
13	15	C	109D136X9015C2	109D136C2015C2	109D136C7015C2
15	15	C	109D156X9015C2	109D156C2015C2	109D156C7015C2
55	15	F	109D556X9015F2	109D556C2015F2	109D556C7015F2
70	15	F	109D706X9015F2	109D706C2015F2	109D706C7015F2
150	15	T	109D157X9015T2	109D157C2015T2	109D157C7015T2
170	15	T	109D177X9015T2	109D177C2015T2	109D177C7015T2
9	25	C	109D905X9025C2	109D905C2025C2	109D905C7025C2
10	25	C	109D106X9025C2	109D106C2025C2	109D106C7025C2
45	25	F	109D456X9025F2	109D456C2025F2	109D456C7025F2
50	25	F	109D506X9025F2	109D506C2025F2	109D506C7025F2
100	25	T	109D107X9025T2	109D107C2025T2	109D107C7025T2
110	25	T	109D117X9025T2	109D117C2025T2	109D117C7025T2
7	30	C	109D705X9030C2	109D705C2030C2	109D705C7030C2
8	30	C	109D805X9030C2	109D805C2030C2	109D805C7030C2
35	30	F	109D356X9030F2	109D356C2030F2	109D356C7030F2
40	30	F	109D406X9030F2	109D406C2030F2	109D406C7030F2
80	30	T	109D806X9030T2	109D806C2030T2	109D806C7030T2
100	30	T	109D107X9030T2	109D107C2030T2	109D107C7030T2
4.5	50	C	109D455X9050C2	109D455C2050C2	109D455C7050C2
5	50	C	109D505X9050C2	109D505C2050C2	109D505C7050C2
22	50	F	109D226X9050F2	109D226C2050F2	109D226C7050F2
25	50	F	109D256X9050F2	109D256C2050F2	109D256C7050F2
55	50	T	109D556X9050T2	109D556C2050T2	109D556C7050T2
60	50	T	109D606X9050T2	109D606C2050T2	109D606C7050T2
3.6	60	C	109D365X9060C2	109D365C2060C2	109D365C7060C2
4	60	C	109D405X9060C2	109D405C2060C2	109D405C7060C2
18	60	F	109D186X9060F2	109D186C2060F2	109D186C7060F2
20	60	F	109D206X9060F2	109D206C2060F2	109D206C7060F2
45	60	T	109D456X9060T2	109D456C2060T2	109D456C7060T2
50	60	T	109D506X9060T2	109D506C2060T2	109D506C7060T2
3	75	C	109D305X9075C2	109D305C2075C2	109D305C7075C2
3.5	75	C	109D355X9075C2	109D355C2075C2	109D355C7075C2
13	75	F	109D136X9075F2	109D136C2075F2	109D136C7075F2
15	75	F	109D156X9075F2	109D156C2075F2	109D156C7075F2
35	75	T	109D356X9075T2	109D356C2075T2	109D356C7075T2
40	75	T	109D406X9075T2	109D406C2075T2	109D406C7075T2
2.5	100	C	109D255X9100C2	109D255C2100C2	109D255C7100C2
10	100	F	109D106X9100F2	109D106C2100F2	109D106C7100F2
11	100	F	109D116X9100F2	109D116C2100F2	109D116C7100F2
27	100	T	109D276X9100T2	109D276C2100T2	109D276C7100T2
30	100	T	109D306X9100T2	109D306C2100T2	109D306C7100T2
1.7	125	C	109D175X9125C2	109D175C2125C2	109D175C7125C2
9	125	F	109D905X9125F2	109D905C2125F2	109D905C7125F2
18	125	T	109D186X9125T2	109D186C2125T2	109D186C7125T2
1.7	150	C	109D175X9150C2	109D175C2150C2	109D175C7150C2
6.8	150	F	109D685X9150F2	109D685C2150F2	109D685C7150F2
14	150	T	109D146X9150T2	109D146C2150T2	109D146C7150T2

GROUP 2. Available in Capacitance Tolerances of ±20% and ± 10%

These capacitors have approximately twice the capacitance of Group I Capacitors of the same physical size at a given voltage rating.

µF	WVDC	Size Code	Catalog Number ±20% Tol.	±10% Tol.
68	6	C	109D686X0006C2	109D686X9006C2
270	6	F	109D277X0006F2	109D277X9006F2
560	6	T	109D567X0006T2	109D567X9006T2
1200	6	W	109D128X0006W2	109D128X9006W2
56	8	C	109D566X0008C2	109D566X9008C2
220	8	F	109D227X0008F2	109D227X9008F2
430	8	T	109D437X0008T2	109D437X9008T2
850	8	W	109D857X0008W2	109D857X9008W2
47	10	C	109D476X0010C2	109D476X9010C2
180	10	F	109D187X0010F2	109D187X9010F2
390	10	T	109D397X0010T2	109D397X9010T2
750	10	W	109D757X0010W2	109D757X9010W2
33	15	C	109D336X0015C2	109D336X9015C2
120	15	F	109D127X0015F2	109D127X9015F2
270	15	T	109D277X0015T2	109D277X9015T2
540	15	W	109D547X0015W2	109D547X9015W2
22	25	C	109D226X0025C2	109D226X9025C2
100	25	F	109D107X0025F2	109D107X9025F2
180	25	T	109D187X0025T2	109D187X9025T2
350	25	W	109D357X0025W2	109D357X9025W2
15	30	C	109D156X0030C2	109D156X9030C2
68	30	F	109D686X0030F2	109D686X9030F2
150	30	T	109D157X0030T2	109D157X9030T2
300	30	W	109D307X0030W2	109D307X9030W2
10	50	C	109D106X0050C2	109D106X9050C2
47	50	F	109D476X0050F2	109D476X9050F2
82	50	T	109D826X0050T2	109D826X9050T2
160	50	W	109D167X0050W2	109D167X9050W2
8.2	60	C	109D825X0060C2	109D825X9060C2
39	60	F	109D396X0060F2	109D396X9060F2
68	60	T	109D686X0060T2	109D686X9060T2
140	60	W	109D147X0060W2	109D147X9060W2
6.8	75	C	109D685X0075C2	109D685X9075C2
33	75	F	109D336X0075F2	109D336X9075F2
56	75	T	109D566X0075T2	109D566X9075T2
110	75	W	109D117X0075W2	109D117X9075W2
4.7	100	C	109D475X0100C2	109D475X9100C2
22	100	F	109D226X0100F2	109D226X9100F2
43	100	T	109D436X0100T2	109D436X9100T2
86	100	W	109D866X0100W2	109D866X9100W2
3.6	125	C	109D365X0125C2	109D365X9125C2
14	125	F	109D146X0125F2	109D146X9125F2
25	125	T	109D256X0125T2	109D256X9125T2
56	125	W	109D566X0125W2	109D566X9125W2
3	150	C	109D305X0150C2	109D305X9150C2
11	150	F	109D116X0150F2	109D116X9150F2
22	150	T	109D226X0150T2	109D226X9150T2

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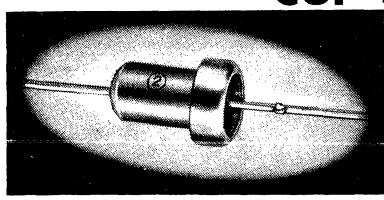
SPRAGUE CAPACITORS

"CUP STYLE" TANTALEX® CAPACITORS



Size Code	Dimensions Dia. x Length
U	7/32 x 15/32
V	9/32 x 11/16
T	3/8 x 49/64

CALL YOUR SPRAGUE DISTRIBUTOR FOR QUANTITY PRICES ON TYPES 132D AND 133D.

- −55°C to +85°C operation at full rating. 100°C operation with 15% derating.
- Stable in performance characteristics over entire temperature range.
- Large capacitance in small size.
- Extremely low leakage currents.
- 132D designed to withstand severe military vibration tests. Also available as CL44 and CL45 capacitors to meet MIL-C-3965. See MIL listings elsewhere in these pages.
- 131D for industrial electronics is similar to 132D but designed for static use in ground equipment.
- For plastic tube on units, change "0" to "4" at end of Cat. No.
- For complete technical data refer to latest issue of Engineering Bulletins 3710 and 3711.
- Call your Sprague Industrial Distributor for current prices on Type 131D Capacitors.

INDUSTRIAL TYPE 131D

µF	Size Code	Catalog Number −15, +75% Tol.
6 WVDC — 7 VDC SURGE		
27	U	131D276C7006U0
30	U	131D306C7006U0
120	V	131D127C7006V0
140	V	131D147C7006V0
290	T	131D297C7006T0
320	T	131D327C7006T0
8 WVDC — 10 VDC SURGE		
22	U	131D226C7008U0
25	U	131D256C7008U0
10 WVDC — 12 VDC SURGE		
18	U	131D186C7010U0
20	U	131D206C7010U0
85	V	131D856C7010V0
100	V	131D107C7010V0
220	T	131D227C7010T0
250	T	131D257C7010T0

µF	Size Code	Catalog Number −15, +75% Tol.
15 WVDC — 18 VDC SURGE		
13	U	131D136C7015U0
15	U	131D156C7015U0
55	V	131D556C7015V0
70	V	131D706C7015V0
150	T	131D157C7015T0
170	T	131D177C7015T0
25 WVDC — 30 VDC SURGE		
9	U	131D905C7025U0
10	U	131D106C7025U0
30 WVDC — 36 VDC SURGE		
7	U	131D705C7030U0
8	U	131D805C7030U0
35	V	131D356C7030V0
40	V	131D406C7030V0
80	T	131D806C7030T0
100	T	131D107C7030T0

µF	Size Code	Catalog Number −15, +75% Tol.
50 WVDC — 60 VDC SURGE		
4.5	U	131D455C7050U0
5	U	131D505C7050U0
22	V	131D226C7050V0
25	V	131D256C7050V0
55	T	131D556C7050T0
60	T	131D606C7050T0
60 WVDC — 72 VDC SURGE		
3.6	U	131D365C7060U0
4	U	131D405C7060U0
18	V	131D186C7060V0
20	V	131D206C7060V0
45	T	131D456C7060T0
50	T	131D506C7060T0
75 WVDC — 87 VDC SURGE		
3.0	U	131D305C7075U0
3.5	U	131D355C7075U0

µF	Size Code	Catalog Number −15, +75% Tol.
13	V	131D136C7075V0
15	V	131D156C7075V0
35	T	131D356C7075T0
40	T	131D406C7075T0
100 WVDC — 115 VDC SURGE		
1.8	U	131D185C7100U0
2	U	131D205C7100U0
10	V	131D106C7100V0
11	V	131D116C7100V0
27	T	131D276C7100T0
30	T	131D306C7100T0
125 WVDC — 140 VDC SURGE		
1.7	U	131D175C7125U0
8	V	131D805C7125V0
9	V	131D905C7125V0
20	T	131D206C7125T0
25	T	131D256C7125T0

VIBRATION-PROOF TYPE 132D

µF	Size Code	Catalog Number ±10%	Catalog Number −15, +20% Tol.
6 WVDC — 7 VDC SURGE			
30	U	132D306X9006U0	132D306C2006U0
140	V	132D147X9006V0	132D147C2006V0
320	T	132D327X9006T0	132D327C2006T0
8 WVDC — 10 VDC SURGE			
25	U	132D256X9008U0	132D256C2008U0
10 WVDC — 12 VDC SURGE			
20	U	132D206X9010U0	132D206C2010U0
100	V	132D107X9010V0	132D107C2010V0
250	T	132D257X9010T0	132D257C2010T0
15 WVDC — 18 VDC SURGE			
15	U	132D156X9015U0	132D156C2015U0
70	V	132D706X9015V0	132D706C2015V0
170	T	132D177X9015T0	132D177C2015T0

µF	Size Code	Catalog Number ±10%	Catalog Number −15, +20% Tol.
25 WVDC — 30 VDC SURGE			
10	U	132D106X9025U0	132D106C2025U0
30 WVDC — 36 VDC SURGE			
8	U	132D805X9030U0	132D805C2030U0
40	V	132D406X9030V0	132D406C2030V0
100	T	132D107X9030T0	132D107C2030T0
50 WVDC — 60 VDC SURGE			
5	U	132D505X9050U0	132D505C2050U0
25	V	132D256X9050V0	132D256C2050V0
60	T	132D606X9050T0	132D606C2050T0
60 WVDC — 72 VDC SURGE			
4	U	132D405X9060U0	132D405C2060U0
20	V	132D206X9060V0	132D206C2060V0
50	T	132D506X9060T0	132D506C2060T0

µF	Size Code	Catalog Number ±10%	Catalog Number −15, +20% Tol.
75 WVDC — 87 VDC SURGE			
3.5	U	132D355X9075U0	132D355C2075U0
15	V	132D156X9075V0	132D156C2075V0
40	T	132D406X9075T0	132D406C2075T0
100 WVDC — 115 VDC SURGE			
2	U	132D205X9100U0	132D205C2100U0
11	V	132D116X9100V0	132D116C2100V0
30	T	132D306X9100T0	132D306C2100T0
125 WVDC — 140 VDC SURGE			
1.7	U	132D175X9125U0	132D175C2125U0
9	V	132D905X9125V0	132D905C2125V0
25	T	132D256X9125T0	132D256C2125T0

VIBRATION-PROOF TYPE 133D

- −55°C to +125°C operation at full rating. May be up-rated 50% for operation at 85°C.
- Meet stringent requirements in military and missile applications.
- Sintered anode for unusual capacitance stability, large values of capacitance in small physical size.
- Non-tarnish finish to prevent discoloration during storage or use.
- For units with outer plastic insulating tube, substitute "4" for "0" at end of Catalog Number.
- Housed in miniature silver thimble.

µF	Size Code	Catalog Number −15, +20% Tol.	Catalog Number ±10%
4 WORKING VOLTS D-C			
30	U	133D306C2004U0	133D306X9004U0
140	V	133D147C2004V0	133D147X9004V0
320	T	133D327C2004T0	133D327X9004T0
5 WORKING VOLTS D-C			
25	U	133D256C2005U0	133D256X9005U0
7 WORKING VOLTS D-C			
20	U	133D206C2007U0	133D206X9007U0
100	V	133D107C2007V0	133D107X9007V0
250	T	133D257C2007T0	133D257X9007T0
10 WORKING VOLTS D-C			
15	U	133D156C2010U0	133D156X9010U0
70	V	133D706C2010V0	133D706X9010V0
170	T	133D177C2010T0	133D177X9010T0

µF	Size Code	Catalog Number −15, +20% Tol.	Catalog Number ±10%
15 WORKING VOLTS D-C			
10	U	133D106C2015U0	133D106X9015U0
20 WORKING VOLTS D-C			
8	U	133D805C2020U0	133D805X9020U0
40	V	133D406C2020V0	133D406X9020V0
100	T	133D107C2020T0	133D107X9020T0
30 WORKING VOLTS D-C			
5	U	133D505C2030U0	133D505X9030U0
25	V	133D256C2030V0	133D256X9030V0
60	T	133D606C2030T0	133D606X9030T0
40 WORKING VOLTS D-C			
4	U	133D405C2040U0	133D405X9040U0
20	V	133D206C2040V0	133D206X9040V0
50	T	133D506C2040T0	133D506X9040T0

µF	Size Code	Catalog Number −15, +20% Tol.	Catalog Number ±10%
50 WORKING VOLTS D-C			
3.5	U	133D355C2050U0	133D355X9050U0
15	V	133D156C2050V0	133D156X9050V0
40	T	133D406C2050T0	133D406X9050T0
70 WORKING VOLTS D-C			
2	U	133D205C2070U0	133D205X9070U0
11	V	133D116C2070V0	133D116X9070V0
30	T	133D306C2070T0	133D306X9070T0
85 WORKING VOLTS D-C			
1.7	U	133D175C2085U0	133D175X9085U0
9	V	133D905C2085V0	133D905X9085V0
25	T	133D256C2085T0	133D256X9085T0

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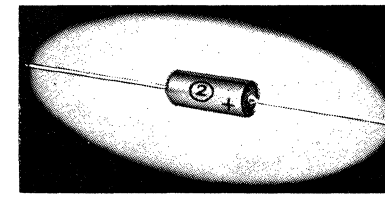
SPRAGUE CAPACITORS

MIL-C-26655 SOLID ELECTROLYTE TUBULAR TANTALUM CAPACITORS

- Military Version of Type 150D. Truly Miniature With Characteristics Previously Unobtainable in Electrolytics.
- Hermetically Sealed Case, CS12, Bare Tube; CS13, Insulating Sleeve
- Cannot Leak or Corrode—Solid Electrolyte Will Not Seep Even if Hermetic Seal is Accidentally Broken
- Temperature Range of −80C to +85C. May Be Operated to +125C With Appropriate Voltage Derating
- For Technical Data See Latest Issue of Bulletin 3522



µF	Size Code	MILITARY DESIGNATION ±20% Tol.	MILITARY DESIGNATION ±10% Tol.	MILITARY DESIGNATION ±20% Tol.	MILITARY DESIGNATION ±10% Tol.
		CS12, 6 WVDC		CS13, 6 WVDC	
5.6	A	.....	CS12AB5R6K	.....	CS13AB5R6K
6.8	A	.....	CS12AB6R8K	.....	CS13AB6R8K
6.8	A	CS12AB6R8M	.....	CS13AB6R8M	.....
47	B	.....	CS12AB470K	.....	CS13AB470K
47	B	CS12AB470M	.....	CS13AB470M	.....
56	B	.....	CS12AB560K	.....	CS13AB560K
150	R	.....	CS12AB151K	.....	CS13AB151K
150	R	CS12AB151M	.....	CS13AB151M	.....
180	R	.....	CS12AB181K	.....	CS13AB181K
270	S	.....	CS12AB271K	.....	CS13AB271K
330	S	.....	CS12AB331K	.....	CS13AB331K
330	S	CS12AB331M	.....	CS13AB331M	.....
		CS12, 10 WVDC		CS13, 10 WVDC	
3.9	A	.....	CS12AC3R9K	.....	CS13AC3R9K
4.7	A	.....	CS12AC4R7K	.....	CS13AC4R7K
4.7	A	CS12AC4R7M	.....	CS13AC4R7M	.....
27	B	.....	CS12AC270K	.....	CS13AC270K
33	B	.....	CS12AC330K	.....	CS13AC330K
33	B	CS12AC330M	.....	CS13AC330M	.....
39	B	.....	CS12AC390K	.....	CS13AC390K
82	R	.....	CS12AC820K	.....	CS13AC820K
100	R	.....	CS12AC101K	.....	CS13AC101K
100	R	CS12AC101M	.....	CS13AC101M	.....
120	R	.....	CS12AC121K	.....	CS13AC121K
180	S	.....	CS12AC181K	.....	CS13AC181K
220	S	.....	CS12AC221K	.....	CS13AC221K
220	S	CS12AC221M	.....	CS13AC221M	.....
		CS12, 15 WVDC		CS13, 15 WVDC	
2.7	A	.....	CS12AD2R7K	.....	CS13AD2R7K
3.3	A	.....	CS12AD3R3K	.....	CS13AD3R3K
3.3	A	CS12AD3R3M	.....	CS13AD3R3M	.....
18	B	.....	CS12AD180K	.....	CS13AD180K
22	B	.....	CS12AD220K	.....	CS13AD220K
22	B	CS12AD220M	.....	CS13AD220M	.....
56	R	CS12AD560M	.....	.....	CS13AD560K
68	R	.....	CS12AD680K	.....	CS13AD680K
68	R	CS12AD680M	.....	CS13AD680M	.....
120	S	.....	CS12AD121K	.....	CS13AD121K
150	S	.....	CS12AD151K	.....	CS13AD151K
150	S	CS12AD151M	.....	CS13AD151M	.....
		CS12, 20 WVDC		CS13, 20 WVDC	
1.2	A	.....	CS12AE1R2K	.....	CS13AE1R2K
1.5	A	.....	CS12AE1R5K	.....	CS13AE1R5K
1.5	A	CS12AE1R5M	.....	CS13AE1R5M	.....
1.8	A	.....	CS12AE1R8K	.....	CS13AE1R8K
2.2	A	.....	CS12AE2R2K	.....	CS13AE2R2K
2.2	A	CS12AE2R2M	.....	CS13AE2R2M	.....
8.2	B	.....	CS12AE8R2K	.....	CS13AE8R2K
10	B	.....	CS12AE100K	.....	CS13AE100K
10	B	CS12AE100M	.....	CS13AE100M	.....
12	B	.....	CS12AE120K	.....	CS13AE120K
15	B	.....	CS12AE150K	.....	CS13AE150K
15	B	CS12AE150M	.....	CS13AE150M	.....
27	R	.....	CS12AE270K	.....	CS13AE270K
33	R	.....	CS12AE330K	.....	CS13AE330K
33	R	CS12AE330M	.....	CS13AE330M	.....
39	R	.....	CS12AE390K	.....	CS13AE390K
47	R	.....	CS12AE470K	.....	CS13AE470K
47	R	CS12AE470M	.....	CS13AE470M	.....
56	S	.....	CS12AE560K	.....	CS13AE560K
68	S	.....	CS12AE680K	.....	CS13AE680K
68	S	CS12AE680M	.....	CS13AE680M	.....
82	S	.....	CS12AE820K	.....	CS13AE820K
100	S	.....	CS12AE101K	.....	CS13AE101K
100	S	CS12AE101M	.....	CS13AE101M	.....

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

µF	Size Code	MILITARY DESIGNATION ±20% Tol.	MILITARY DESIGNATION ±10% Tol.	MILITARY DESIGNATION ±20% Tol.	MILITARY DESIGNATION ±10% Tol.
		CS12, 35 WVDC		CS13, 35 WVDC	
.33	A	.....	CS12AFR33K	.....	CS13AFR33K
.33	A	CS12AFR33M	.....	CS13AFR33M	.....
.39	A	.....	CS12AFR39K	.....	CS13AFR39K
.47	A	.....	CS12AFR47K	.....	CS13AFR47K
.47	A	CS12AFR47M	.....	CS13AFR47M	.....
.56	A	.....	CS12AFR56K	.....	CS13AFR56K
.68	A	.....	CS12AFR68K	.....	CS13AFR68K
.68	A	CS12AFR68M	.....	CS13AFR68M	.....
.82	A	.....	CS12AFR82K	.....	CS13AFR82K
1.0	A	.....	CS12AF010K	.....	CS13AF010K
1.0	A	CS12AF010M	.....	CS13AF010M	.....
1.2	B	.....	CS12AF1R2K	.....	CS13AF1R2K
1.5	B	.....	CS12AF1R5K	.....	CS13AF1R5K
1.5	B	CS12AF1R5M	.....	CS13AF1R5M	.....
1.8	B	.....	CS12AF1R8K	.....	CS13AF1R8K
2.2	B	.....	CS12AF2R2K	.....	CS13AF2R2K
2.2	B	CS12AF2R2M	.....	CS13AF2R2M	.....
2.7	B	.....	CS12AF2R7K	.....	CS13AF2R7K
3.3	B	.....	CS12AF3R3K	.....	CS13AF3R3K
3.3	B	CS12AF3R3M	.....	CS13AF3R3M	.....
3.9	B	.....	CS12AF3R9K	.....	CS13AF3R9K
4.7	B	.....	CS12AF4R7K	.....	CS13AF4R7K
4.7	B	CS12AF4R7M	.....	CS13AF4R7M	.....
5.6	B	.....	CS12AF5R6K	.....	CS13AF5R6K
6.8	B	.....	CS12AF6R8K	.....	CS13AF6R8K
6.8	B	CS12AF6R8M	.....	CS13AF6R8M	.....
8.2	R	.....	CS12AF8R2K	.....	CS13AF8R2K
10	R	.....	CS12AF100K	.....	CS13AF100K
10	R	CS12AF100M	.....	CS13AF100M	.....
12	R	.....	CS12AF120K	.....	CS13AF120K
15	R	.....	CS12AF150K	.....	CS13AF150K
15	R	CS12AF150M	.....	CS13AF150M	.....
18	R	.....	CS12AF180K	.....	CS13AF180K
22	R	.....	CS12AF220K	.....	CS13AF220K
22	R	CS12AF220M	.....	CS13AF220M	.....
27	S	.....	CS12AF270K	.....	CS13AF270K
33	S	.....	CS12AF330K	.....	CS13AF330K
33	S	CS12AF330M	.....	CS13AF330M	.....
39	S	.....	CS12AF390K	.....	CS13AF390K
47	S	.....	CS12AF470K	.....	CS13AF470K
47	S	CS12AF470M	.....	CS13AF470M	.....
		CS12, 50 WVDC		CS13, 50 WVDC	
1.0	A	.....	CS12AG010K	.....	CS13AG010K
1.0	A	CS12AG010M	.....	CS13AG010M	.....
1.2	B	.....	CS12AG1R2K	.....	CS13AG1R2K
1.5	B	.....	CS12AG1R5K	.....	CS13AG1R5K
1.5	B	CS12AG1R5M	.....	CS13AG1R5M	.....
1.8	B	.....	CS12AG1R8K	.....	CS13AG1R8K
2.2	B	.....	CS12AG2R2K	.....	CS13AG2R2K
2.2	B	CS12AG2R2M	.....	CS13AG2R2M	.....
2.7	B	.....	CS12AG2R7K	.....	CS13AG2R7K
3.3	B	.....	CS12AG3R3K	.....	CS13AG3R3K
3.3	B	CS12AG3R3M	.....	CS13AG3R3M	.....
3.9	B	.....	CS12AG3R9K	.....	CS13AG3R9K
4.7	B	.....	CS12AG4R7K	.....	CS13AG4R7K
4.7	B	CS12AG4R7M	.....	CS13AG4R7M	.....
5.6	C	.....	CS12AG5R6K	.....	CS13AG5R6K
6.8	C	.....	CS12AG6R8K	.....	CS13AG6R8K
6.8	C	CS12AG6R8M	.....	CS13AG6R8M	.....
8.2	C	.....	CS12AG8R2K	.....	CS13AG8R2K
10	C	.....	CS12AG100K	.....	CS13AG100K
10	C	CS12AG100M	.....	CS13AG100M	.....
12	C	.....	CS12AG120K	.....	CS13AG120K
15	C	.....	CS12AG150K	.....	CS13AG150K
15	C	CS12AG150M	.....	CS13AG150M	.....
18	C	.....	CS12AG180K	.....	CS13AG180K
22	D	.....	CS12AG220K	.....	CS13AG220K
22	D	CS12AG220M	.....	CS13AG220M	.....

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

SIZE CODE

A = .125" dia. x .250" long
B = .175" dia. x .438" long
R = .279" dia. x .650" long
S = .341" dia. x .750" long

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REM-7A-6428

Sizes subject to change without notice.

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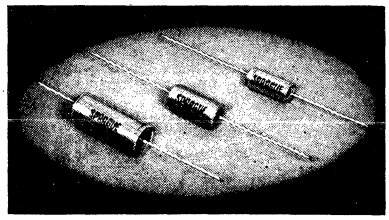
SPRAGUE CAPACITORS

MIL-C-3965 FOIL TANTALUM CAPACITORS TYPES CL24 & CL25



DIMENSIONS

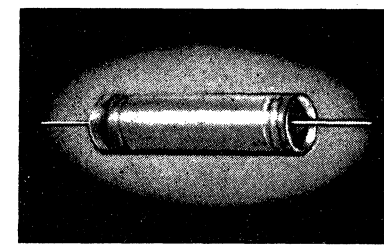
Code	D. x L.	Code	D. x L.
D	13/64 x 3/4	M	25/64 x 2 3/16
G	19/64 x 15/16	P	25/64 x 2 13/16
J	25/64 x 1 1/2		

- For −55C to +85C Operation up to 150 Volts in Military and Industrial Electronic Equipment.
- Low Leakage Current and Stable Temperature Coefficient Makes Possible Its Use in Many Circuits Where Aluminum Foil Designs Are Undesirable.
- The Electrolyte System Used Assures Long Operating and Shelf Life, excellent Low Temperature Performance, Chemical Stability and Inertness.
- Dimensions Listed Are For Bare Metal-Case. For Insulated Case Add 1/64" to Diameter and 1/8" to Length.
- MIL Version of Sprague Type 112D.
- Type CL24 Is a Bare Metal-Case Unit. If An Outer Insulating Sleeve Is Desired, Order Type CL25.
- For Quanity Prices See Your Sprague Industrial Distributor.

µF	WVDC	Size Code	Military Designation*	
15	15	D	CL24BE150UP3	CL25BE150UP3
60	15	G	CL24BE600UP3	CL25BE600UP3
200	15	J	CL24BE201UP3	CL25BE201UP3
400	15	M	CL24BE401UP3	CL25BE401UP3
580	15	P	CL24BE581UP3	CL25BE581UP3
10	25	D	CL24BG100UP3	CL25BG100UP3
40	25	G	CL24BG400UP3	CL25BG400UP3
120	25	J	CL24BG121UP3	CL25BG121UP3
250	25	M	CL24BG251UP3	CL25BG251UP3
350	25	P	CL24BG351UP3	CL25BG351UP3
8	30	D	CL24BH080UP3	CL25BH080UP3
32	30	G	CL24BH320UP3	CL25BH320UP3
110	30	J	CL24BH111UP3	CL25BH111UP3
220	30	M	CL24BH221UP3	CL25BH221UP3
300	30	P	CL24BH301UP3	CL25BH301UP3
4.5	50	D	CL24BJ4R5TP3	CL25BJ4R5TP3
18	50	G	CL24BJ180TP3	CL25BJ180TP3
60	50	J	CL24BJ600TP3	CL25BJ600TP3
100	50	M	CL24BJ101TP3	CL25BJ101TP3
150	50	P	CL24BJ151TP3	CL25BJ151TP3
3	75	D	CL24BL030TP3	CL25BL030TP3
12	75	G	CL24BL120TP3	CL25BL120TP3
30	75	J	CL24BL300TP3	CL25BL300TP3
70	75	M	CL24BL700TP3	CL25BL700TP3
100	75	P	CL24BL101TP3	CL25BL101TP3
2	100	D	CL24BN020SP3	CL25BN020SP3
8	100	G	CL24BN080SP3	CL25BN080SP3
25	100	J	CL24BN250SP3	CL25BN250SP3
50	100	M	BL24BN500SP3	CL25BN500SP3
70	100	P	CL24BN700SP3	CL25BN700SP3
1	150	D	CL24BQ010SP3	CL25BQ010SP3
4	150	G	CL24BQ040SP3	CL25BQ040SP3
13	150	J	CL24BQ130SP3	CL25BQ130SP3
25	150	M	CL24BQ250SP3	CL25BQ250SP3
36	150	P	CL24BQ360SP3	CL25BQ360SP3

*Note: For vibration grade 1 or 2, change last digit of military designation to 1 or 2.

MIL-C-3965 FOIL TANTALUM CAPACITORS TYPES CL34 and CL35



- For use in military and industrial electronic equipment. Designed to operate over the temperature range of −55C to +85C up to 150 volts.
- Long operation and shelf life, excellent low temperature performance, and optimum electrical characteristics.
- For use in circuits where aluminum foil units are unsatisfactory. Low leakage current and good temperature coefficient.
- Type CL34 is a bare metal case unit. If an outer insulating sleeve is desired, order Type CL35.
- MIL version of Sprague Type 110D.
- For quantity prices see your Sprague Industrial Distributor.

DIMENSIONS

Code	D. x L.	Code	D. x L.
D	3/16 x 11/16	M	3/8 x 2 1/8
G	9/32 x 7/8	P	3/8 x 2 3/4
J	3/8 x 1 7/16		

µF	WVDC	Size Code	Military Designation*	
10	3	D	CL34BA100MP3	CL35BA100MP3
50	3	G	CL34BA500MP3	CL35BA500MP3
8	6	D	CL34BB080MP3	CL35BB080MP3
30	6	G	CL34BB300MP3	CL35BB300MP3
100	6	J	CL34BB101MP3	CL35BB101MP3
200	6	M	CL34BB201MP3	CL35BB201MP3
300	6	P	CL34BB301MP3	CL35BB301MP3
6	10	D	CL34BD060MP3	CL35BD060MP3
25	10	G	CL34BD250MP3	CL35BD250MP3
80	10	J	CL34BD800MP3	CL35BD800MP3
160	10	M	CL34BD161MP3	CL35BD161MP3
220	10	P	CL34BD221MP3	CL35BD221MP3
4.5	15	D	CL34BE4R5MP3	CL35BE4R5MP3
10	15	G	CL34BE100MP3	CL35BE100MP3
18	15	G	CL34BE180MP3	CL35BE180MP3
55	15	J	CL34BE550MP3	CL35BE550MP3
110	15	M	CL34BE111MP3	CL35BE111MP3
160	15	P	CL34BE161MP3	CL35BE161MP3
2.5	30	D	CL34BH2R5MP3	CL35BH2R2MP3
30	30	J	CL34BH300MP3	CL35BH300MP3
60	30	M	CL34BH300MP3	CL35BH600MP3
85	30	P	CL34BH850MP3	CL35BH850MP3
1.5	50	D	CL34BJ1R5MP3	CL35BJ1R5MP3
6	50	G	CL34BJ060MP3	CL35BJ060MP3
20	50	J	CL34BJ200MP3	CL35BJ200MP3
40	50	M	CL34BJ400MP3	CL35BJ400MP3
55	50	P	CL34BJ550MP3	CL35BJ550MP3
1	75	D	CL34BL010MP3	CL35BL010MP3
4	75	G	CL34BL040MP3	CL35BL040MP3
14	75	J	CL34BL140MP3	CL35BL140MP3
28	75	M	CL34BL280MP3	CL35BL280MP3
40	75	P	CL34BL400MP3	CL35BL400MP3
0.8	100	D	CL34BN0R8MP3	CL35BN0R8MP3
3	100	G	CL34BN030MP3	CL35BN030MP3
10	100	J	CL34BN100MP3	CL35BN100MP3
20	100	M	CL34BN200MP3	CL35BN200MP3
30	100	P	CL34BN300MP3	CL35BN300MP3
0.5	150	D	CL34BQ0R5MP3	CL35BQ0R5MP3
2	150	G	CL34BQ020MP3	CL35BQ020MP3
4	150	G	CL34BQ040MP3	CL35BQ040MP3
7	150	J	CL34BQ070MP3	CL35BQ070MP3
8	150	J	CL34BQ080MP3	CL35BQ080MP3
12	150	M	CL34BQ120MP3	CL35BQ120MP3
14	150	M	CL34BQ140MP3	CL35BQ140MP3
20	150	P	CL34BQ200MP3	CL35BQ200MP3
.35	200	D	CL34BRR35LP3	CL35BRR35LP3
1.5	200	G	CL34BR1R5LP3	CL35BR1R5LP3
5	200	J	CL34BR050LP3	CL35BR050LP3
10	200	M	CL34BR100LP3	CL35BR100LP3
15	200	P	CL34BR150LP3	CL35BR150LP3
.30	250	D	CL34BSR30LP3	CL35BSR30LP3
1.2	250	G	CL34BS1R2LP3	CL35BS1R2LP3
4	250	J	CL34BS040LP3	CL35BS040LP3
8	250	M	CL34BS080LP3	CL35BS080LP3
12	250	P	CL34BS120LP3	CL35BS120LP3
1	300	G	CL34BX010LP3	CL35BX010LP3
3	300	J	CL34BX030LP3	CL35BX030LP3
7	300	M	CL34BX070LP3	CL35BX070LP3
10	300	P	CL34BX100LP3	CL35BX100LP3

*Note: For vibration grade 1 or 2, change last digit of military designation to 1 or 2.

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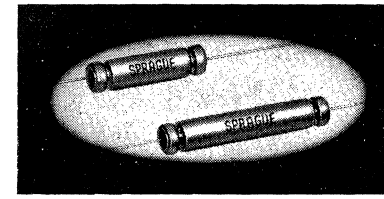
SPRAGUE CAPACITORS

MIL-C-3965 TUBULAR FOIL TANTALUM ELECTROLYTICS

- Meet Requirements of Military Specification MIL-C-3965
- Small Electrically Stable Foil Tantalums, Long, Reliable Life
- Available in Industrial Equivalents as Types 120D, 121D, 122D, 123D
- Temperature Rating 125C
- Types Marked (*) Have Insulating Sleeves All Others are Bare Case
- Capacitance Tolerance ±20%
- Call Your Sprague Industrial Distributor for Current Quantity Prices

SIZE CODE (Diam x Length)

E 13/64 x 3/4	N 25/64 x 2 1/4
H 19/64 x 1 1/32	Q 25/64 x 2 7/8
K 25/64 x 1 9/16	



TYPE CL20
POLARIZED ETCHED FOIL

µF	Size Code	MIL Type
10 WORKING VOLTS D-C		
15	E	CL20CD150UP3
60	H	CL20CD600UP3
200	K	CL20CD201UP3
400	N	CL20CD401UP3
580	Q	CL20CD581UP3
15 WORKING VOLTS D-C		
10	E	CL20CE100UP3
40	H	CL20CE400UP3
120	K	CL20CE121UP3
250	N	CL20CE251UP3
350	Q	CL20CE351UP3
30 WORKING VOLTS D-C		
4.5	E	CL20CH4R5TP3
18	H	CL20CH180TP3
60	K	CL20CH600TP3
100	N	CL20CH101TP3
150	Q	CL20CH151TP3
50 WORKING VOLTS D-C		
3	E	CL20CJ030TP3
12	H	CL20CJ120TP3
30	K	CL20CJ300TP3
70	N	CL20CJ700TP3
100	Q	CL20CJ101TP3
60 WORKING VOLTS D-C		
2	E	CL20CK020TP3
8	H	CL20CK080TP3
25	K	CL20CK250TP3
50	N	CL20CK500TP3
70	Q	CL20CK700TP3
100 WORKING VOLTS D-C		
1	E	CL20CN010SP3
4	H	CL20CN040SP3
13	K	CL20CN130SP3
25	N	CL20CN250SP3
36	Q	CL20CN360SP3

TYPE CL21*
POLARIZED ETCHED FOIL

µF	Size Code	MIL Type
10 WORKING VOLTS D-C		
15	E	CL21CD150UP3
60	H	CL21CD600UP3
200	K	CL21CD201UP3
400	N	CL21CD401UP3
590	Q	CL21CD581UP3
15 WORKING VOLTS D-C		
10	E	CL21CE100UP3
40	H	CL21CE400UP3
120	K	CL21CE121UP3
250	N	CL21CE251UP3
350	Q	CL21CE351UP3
30 WORKING VOLTS D-C		
4.5	E	CL21CH4R5TP3
18	H	CL21CH180TP3
60	K	CL21CH600TP3
100	N	CL21CH101TP3
150	Q	CL21CH151TP3
50 WORKING VOLTS D-C		
3	E	CL21CJ030TP3
12	H	CL21CJ120TP3
30	K	CL21CJ300TP3
70	N	CL21CJ700TP3
100	Q	CL21CJ101TP3
60 WORKING VOLTS D-C		
2	E	CL21CK020TP3
8	H	CL21CK080TP3
25	K	CL21CK250TP3
50	N	CL21CK500TP3
70	Q	CL21CK700TP3
100 WORKING VOLTS D-C		
1	E	CL21CN010SP3
4	H	CL21CN040SP3
13	K	CL21CN130SP3
25	N	CL21CN250SP3
36	Q	CL21CN360SP3

TYPE CL22
NON-POLARIZED ETCHED FOIL

µF	Size Code	MIL Type
10 WORKING VOLTS D-C		
10	E	CL22CD100UN3
40	H	CL22CD400UN3
120	K	CL22CD121UN3
250	N	CL22CD251UN3
350	Q	CL22CD351UN3
15 WORKING VOLTS D-C		
5	E	CL22CE050UN3
20	H	CL22CE200UN3
70	K	CL22CE700UN3
140	N	CL22CE141UN3
200	Q	CL22CE201UN3
30 WORKING VOLTS D-C		
2.5	E	CL22CH2R5TN3
10	H	CL22CH100TN3
30	K	CL22CH300TN3
60	N	CL22CH600TN3
80	Q	CL22CH800TN3
50 WORKING VOLTS D-C		
1.5	E	CL22CJ1R5TN3
6	H	CL22CJ060TN3
15	K	CL22CJ150TN3
35	N	CL22CJ350TN3
50	Q	CL22CJ500TN3
60 WORKING VOLTS D-C		
1	E	CL22CK010TN3
4	H	CL22CK040TN3
12	K	CL22CK120TN3
25	N	CL22CK250TN3
35	Q	CL22CK350TN3
100 WORKING VOLTS D-C		
0.5	E	CL22CN0R5SN3
2	H	CL22CN020SN3
6	K	CL22CN060SN3
12	N	CL22CN120SN3
18	Q	CL22CN180SN3

TYPE CL23*
NON-POLARIZED ETCHED FOIL

µF	Size Code	MIL Type
10 WORKING VOLTS D-C		
10	E	CL23CD100UN3
40	H	CL23CD400UN3
120	K	CL23CD121UN3
250	N	CL23CD251UN3
350	Q	CL23CD351UN3
15 WORKING VOLTS D-C		
5	E	CL23CE050UN3
20	H	CL23CE200UN3
70	K	CL23CE700UN3
140	N	CL23CE141UN3
200	Q	CL23CE201UN3
30 WORKING VOLTS D-C		
2.5	E	CL23CH2R5TN3
10	H	CL23CH100TN3
30	K	CL23CH300TN3
60	N	CL23CH600TN3
80	Q	CL23CH800TN3
50 WORKING VOLTS D-C		
1.5	E	CL23CJ1R5TN3
6	H	CL23CJ060TN3
15	K	CL23CJ150TN3
35	N	CL23CJ350TN3
50	Q	CL23CJ500TN3
60 WORKING VOLTS D-C		
1	E	CL23CK010TN3
4	H	CL23CK040TN3
12	K	CL23CK120TN3
25	N	CL23CK250TN3
35	Q	CL23CK350TN3
100 WORKING VOLTS D-C		
0.5	E	CL23CN0R5SN3
2	H	CL23CN020SN3
6	K	CL23CN060SN3
12	N	CL23CN120SN3
18	Q	CL23CN180SN3

TYPE CL30
POLARIZED PLAIN FOIL

µF	Size Code	MIL Type
10 WORKING VOLTS D-C		
4.5	E	CL30CD4R5MP3
18	H	CL30CD180MP3
55	K	CL30CD550MP3
110	N	CL30CD111MP3
160	Q	CL30CD161MP3
15 WORKING VOLTS D-C		
3	E	CL30CE030MP3
12	H	CL30CE120MP3
35	K	CL30CE350MP3
70	N	CL30CE700MP3
100	Q	CL30CE101MP3
30 WORKING VOLTS D-C		
1.5	E	CL30CH1R5MP3
6	H	CL30CH060MP3
20	K	CL30CH200MP3
40	N	CL30CH400MP3
55	Q	CL30CH550MP3
50 WORKING VOLTS D-C		
1	E	CL30CJ010MP3
4	H	CL30CJ040MP3
14	K	CL30CJ140MP3
28	N	CL30CJ280MP3
40	Q	CL30CJ400MP3
60 WORKING VOLTS D-C		
0.8	E	CL30CK0R8MP3
3	H	CL30CK030MP3
10	K	CL30CK100MP3
20	N	CL30CK200MP3
30	Q	CL30CK300MP3
100 WORKING VOLTS D-C		
0.5	E	CL30CN0R5MP3
2	H	CL30CN020MP3
7	K	CL30CN070MP3
14	N	CL30CN140MP3
20	Q	CL30CN200MP3
150 WORKING VOLTS D-C		
0.35	E	CL30CQR35MP3
1.5	H	CL30CQ1R5MP3
5	K	CL30CQ050MP3
10	N	CL30CQ100MP3
15	Q	CL30CQ150MP3

TYPE CL31*
POLARIZED PLAIN FOIL

µF	Size Code	MIL Type
10 WORKING VOLTS D-C		
4.5	E	CL31CD4R5MP3
18	H	CL31CD180MP3
55	K	CL31CD550MP3
110	N	CL31CD111MP3
160	Q	CL31CD161MP3
15 WORKING VOLTS D-C		
3	E	CL31CE030MP3
12	H	CL31CE120MP3
35	K	CL31CE350MP3
70	N	CL31CE700MP3
100	Q	CL31CE101MP3
30 WORKING VOLTS D-C		
1.5	E	CL31CH1R5MP3
6	H	CL31CH060MP3
20	K	CL31CH200MP3
40	N	CL31CH400MP3
55	Q	CL31CH550MP3
50 WORKING VOLTS D-C		
1	E	CL31CJ010MP3
4	H	CL31CJ040MP3
14	K	CL31CJ140MP3
28	N	CL31CJ280MP3
40	Q	CL31CJ400MP3
60 WORKING VOLTS D-C		
0.8	E	CL31CK0R8MP3
3	H	CL31CK030MP3
10	K	CL31CK100MP3
20	N	CL31CK200MP3
30	Q	CL31CK300MP3
100 WORKING VOLTS D-C		
0.5	E	CL31CN0R5MP3
2	H	CL31CN020MP3
7	K	CL31CN070MP3
14	N	CL31CN140MP3
20	Q	CL31CN200MP3
150 WORKING VOLTS D-C		
0.35	E	CL31CQR35MP3
1.5	H	CL31CQ1R5MP3
5	K	CL31CQ050MP3
10	N	CL31CQ100MP3
15	Q	CL31CQ150MP3

TYPE CL32
NON-POLARIZED PLAIN FOIL

µF	Size Code	MIL Type
10 WORKING VOLTS D-C		
2.5	E	CL32CD2R5MN3
10	H	CL32CD100MN3
35	K	CL32CD350MN3
70	N	CL32CD700MN3
100	Q	CL32CD101MN3
15 WORKING VOLTS D-C		
1.5	E	CL32CE1R5MN3
6	H	CL32CE060MN3
20	K	CL32CE200MN3
40	N	CL32CE400MN3
60	Q	CL32CE600MN3
30 WORKING VOLTS D-C		
0.8	E	CL32CH0R8MN3
3	H	CL32CH030MN3
10	K	CL32CH100MN3
20	N	CL32CH200MN3
30	Q	CL32CH300MN3
50 WORKING VOLTS D-C		
0.5	E	CL32CJ0R5MN3
2	H	CL32CJ020MN3
7	K	CL32CJ070MN3
14	N	CL32CJ140MN3
20	Q	CL32CJ200MN3
60 WORKING VOLTS D-C		
0.4	E	CL32CK0R4MN3
1.5	H	CL32CK1R5MN3
5	K	CL32CK050MN3
10	N	CL32CK100MN3
15	Q	CL32CK150MN3
100 WORKING VOLTS D-C		
0.25	E	CL32CNR25MN3
1	H	CL32CN010MN3
3.5	K	CL32CN3R5MN3
7	N	CL32CN070MN3
10	Q	CL32CN100MN3
150 WORKING VOLTS D-C		
0.15	E	CL32CQR15MN3
0.75	H	CL32CQR75MN3
2.5	K	CL32CQ2R5MN3
5	N	CL32CQ050MN3
7.5	Q	CL32CQ7R5MN3

TYPE CL33*
NON-POLARIZED PLAIN FOIL

µF	Size Code	MIL Type
10 WORKING VOLTS D-C		
2.5	E	CL33CD2R5MN3
10	H	CL33CD100MN3
35	K	CL33CD350MN3
70	N	CL33CD700MN3
100	Q	CL33CD101MN3
15 WORKING VOLTS D-C		
1.5	E	CL33CE1R5MN3
6	H	CL33CE060MN3
20	K	CL33CE200MN3
40	N	CL33CE400MN3
60	Q	CL33CE600MN3
30 WORKING VOLTS D-C		
0.8	E	CL33CH0R8MN3
3	H	CL33CH030MN3
10	K	CL33CH100MN3
20	N	CL33CH200MN3
30	Q	CL33CH300MN3
50 WORKING VOLTS D-C		
0.5	E	CL33CJ0R5MN3
2	H	CL33CJ020MN3
7	K	CL33CJ070MN3
14	N	CL33CJ140MN3
20	Q	CL33CJ200MN3
60 WORKING VOLTS D-C		
0.4	E	CL33CK0R4MN3
1.5	H	CL33CK1R5MN3
5	K	CL33CK050MN3
10	N	CL33CK100MN3
15	Q	CL33CK150MN3
100 WORKING VOLTS D-C		
0.25	E	CL33CNR25MN3
1	H	CL33CN010MN3
3.5	K	CL33CN3R5MN3
7	N	CL33CN070MN3
10	Q	CL33CN100MN3
150 WORKING VOLTS D-C		
0.15	E	CL33CQR15MN3
0.75	H	CL33CQR75MN3
2.5	K	CL33CQ2R5MN3
5	N	CL33CQ050MN3
7.5	Q	CL33CQ7R5MN3

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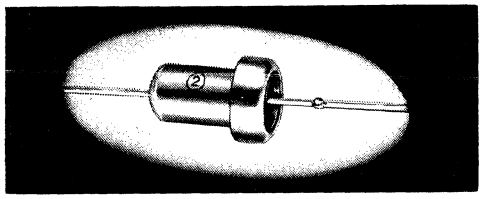
SPRAGUE CAPACITORS

MIL-C-3965 'CUP-TYPE' TANTALEX® CAPACITORS TYPES CL44 and CL45



DIMENSIONS

Code	D. x L.	Code	D. x L.	Code	D. x L.
U	7/32 x 15/32	V	9/32 x 11/16	T	3/8 x 49/64

- Type CL44 and CL45 Tantalex capacitors are manufactured to specification MIL-C-3965. Also available as Sprague Industrial Types 131D and 132D.
- Large capacitance values in small physical size.
- Intended for industrial, communication and ground military electronic equipment.
- Extremely low leakage currents and virtually no shelf aging.
- CL44 is a bare metal-case unit. CL45 has outer insulating sleeve.
- Capacitance tolerance: K = ±10%; M = +20, −20%; S = +30, −15%; T = +50, −15%.
- For quantity prices call your Sprague Industrial Distributor.

TYPES CL44, CL45 - 85C ALSO AVAILABLE IN CHARACTERISTIC C (125C)

µF	Size Code	CL44 Type Number*	CL45 Type Number*
6 WVDC			
30	U	CL44BB300KP3	CL45BB300KP3
30	U	CL44BB300MP3	CL45BB300MP3
30	U	CL44BB300SP3	CL45BB300SP3
30	U	CL44BB300TP3	CL45BB300TP3
140	V	CL44BB141KP3	CL45BB141KP3
140	V	CL44BB141MP3	CL45BB141MP3
140	V	CL44BB141SP3	CL45BB141SP3
140	V	CL44BB141TP3	CL45BB141TP3
330	T	CL44BB331KP3	CL45BB331KP3
330	T	CL44BB331MP3	CL45BB331MP3
330	T	CL44BB331SP3	CL45BB331SP3
330	T	CL44BB331TP3	CL45BB331TP3
8 WVDC			
25	U	CL44BC250KP3	CL45BC250KP3
25	U	CL44BC250MP3	CL45BC250MP3
25	U	CL44BC250SP3	CL45BC250SP3
25	U	CL44BC250TP3	CL45BC250TP3
10 WVDC			
20	U	CL44BD200KP3	CL45BD200KP3
20	U	CL44BD200MP3	CL45BD200MP3
20	U	CL44BD200SP3	CL45BD200SP3
20	U	CL44BD200TP3	CL45BD200TP3
100	V	CL44BD101KP3	CL45BD101KP3
100	V	CL44BD101MP3	CL45BD101MP3
100	V	CL44BD101SP3	CL45BD101SP3
100	V	CL44BD101TP3	CL45BD101TP3
250	T	CL44BD251KP3	CL45BD251KP3
250	T	CL44BD251MP3	CL45BD251MP3
250	T	CL44BD251SP3	CL45BD251SP3
250	T	CL44BD251TP3	CL45BD251TP3
15 WVDC			
15	U	CL44BE150KP3	CL45BE150KP3
15	U	CL44BE150MP3	CL45BE150MP3
15	U	CL44BE150SP3	CL45BE150SP3
15	U	CL44BE150TP3	CL45BE150TP3
70	V	CL44BE700KP3	CL45BE700KP3
70	V	CL44BE700MP3	CL45BE700MP3
70	V	CL44BE700SP3	CL45BE700SP3
70	V	CL44BE700TP3	CL45BE700TP3
170	T	CL44BE171KP3	CL45BE171KP3
170	T	CL44BE171MP3	CL45BE171MP3
170	T	CL44BE171SP3	CL45BE171SP3
170	T	CL44BE171TP3	CL45BE171TP3
25 WVDC			
10	U	CL44BG100KP3	CL45BG100KP3
10	U	CL44BG100MP3	CL45BG100MP3
10	U	CL44BG100SP3	CL45BG100SP3
10	U	CL44BG100TP3	CL45BG100TP3
30 WVDC			
8	U	CL44BH080KP3	CL45BH080KP3
8	U	CL44BH080MP3	CL45BH080MP3
8	U	CL44BH080SP3	CL45BH080SP3
8	U	CL44BH080TP3	CL45BH080TP3
40	V	CL44BH400KP3	CL45BH400KP3
40	V	CL44BH400MP3	CL45BH400MP3
40	V	CL44BH400SP3	CL45BH400SP3
40	V	CL44BH400TP3	CL45BH400TP3
100	T	CL44BH101KP3	CL45BH101KP3
100	T	CL44BH101MP3	CL45BH101MP3
100	T	CL44BH101SP3	CL45BH101SP3
100	T	CL44BH101TP3	CL45BH101TP3
50 WVDC			
5	U	CL44BJ050KP3	CL45BJ050KP3
5	U	CL44BJ050MP3	CL45BJ050MP3
5	U	CL44BJ050SP3	CL45BJ050SP3
5	U	CL44BJ050TP3	CL45BJ050TP3
25	V	CL44BJ250KP3	CL45BJ250KP3
25	V	CL44BJ250MP3	CL45BJ250MP3
25	V	CL44BJ250SP3	CL45BJ250SP3
25	V	CL44BJ250TP3	CL45BJ250TP3
60	T	CL44BJ600KP3	CL45BJ600KP3
60	T	CL44BJ600MP3	CL45BJ600MP3
60	T	CL44BJ600SP3	CL45BJ600SP3
60	T	CL44BJ600TP3	CL45BJ600TP3
60 WVDC			
4	U	CL44BK040KP3	CL45BK040KP3
4	U	CL44BK040MP3	CL45BK040MP3
4	U	CL44BK040SP3	CL45BK040SP3
4	U	CL44BK040TP3	CL45BK040TP3
20	V	CL44BK200KP3	CL45BK200KP3
20	V	CL44BK200MP3	CL45BK200MP3
20	V	CL44BK200SP3	CL45BK200SP3
20	V	CL44BK200TP3	CL45BK200TP3
50	T	CL44BK500KP3	CL45BK500KP3
50	T	CL44BK500MP3	CL45BK500MP3
50	T	CL44BK500SP3	CL45BK500SP3
50	T	CL44BK500TP3	CL45BK500TP3
75 WVDC			
3.5	U	CL44BL3R5KP3	CL45BL3R5KP3
3.5	U	CL44BL3R5MP3	CL45BL3R5MP3
3.5	U	CL44BL3R5SP3	CL45BL3R5SP3
3.5	U	CL44BL3R5TP3	CL45BL3R5TP3
15	V	CL44BL150KP3	CL45BL150KP3
15	V	CL44BL150MP3	CL45BL150MP3
15	V	CL44BL150SP3	CL45BL150SP3
15	V	CL44BL150TP3	CL45BL150TP3
40	T	CL44BL400KP3	CL45BL400KP3
40	T	CL44BL400MP3	CL45BL400MP3
40	T	CL44BL400SP3	CL45BL400SP3
40	T	CL45BL400TP3	CL45BL400TP3
100 WVDC			
2.5	U	CL44BN2R5KP3	CL45BN2R5KP3
2.5	U	CL44BN2R5MP3	CL45BN2R5MP3
2.5	U	CL44BN2R5SP3	CL45BN2R5SP3
2.5	U	CL44BN2R5TP3	CL45BN2R5TP3
11	V	CL44BN110KP3	CL45BN110KP3
11	V	CL44BN110MP3	CL45BN110MP3
11	V	CL44BN110SP3	CL45BN110SP3
11	V	CL44BN110TP3	CL45BN110TP3
30	T	CL44BN300KP3	CL45BN300KP3
30	T	CL44BN300MP3	CL45BN300MP3
30	T	CL44BN300SP3	CL45BN300SP3
30	T	CL44BN300TP3	CL45BN300TP3
125 WVDC			
1.7	U	CL44BP1R7KP3	CL45BP1R7KP3
1.7	U	CL44BP1R7MP3	CL45BP1R7MP3
1.7	U	CL44BP1R7SP3	CL45BP1R7SP3
1.7	U	CL44BP1R7TP3	CL45BP1R7TP3
9	V	CL44BP090KP3	CL45BP090KP3
9	V	CL44BP090MP3	CL45BP090MP3
9	V	CL44BP090SP3	CL45BP090SP3
9	V	CL44BP090TP3	CL45BP090TP3
18	T	CL44BP180KP3	CL45BP180KP3
25	T	CL44BP250MP3	CL45BP250MP3
25	T	CL44BP250SP3	CL45BP250SP3
25	T	CL44BP250TP3	CL45BP250TP3

*For Vibration Grade 1, 2, or 3, add 1, 2, or 3 at end of Type Number.

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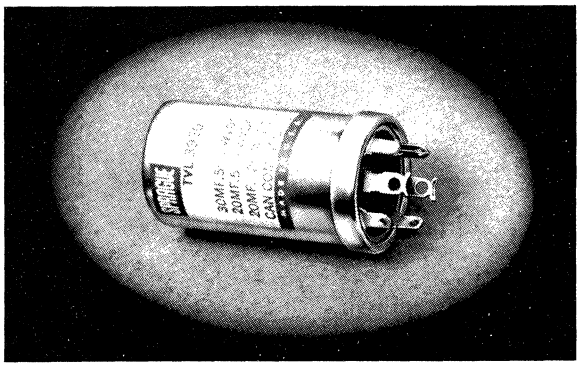
SPRAGUE CAPACITORS

TVL TWIST-LOK® ELECTROLYTICS



- Hermetically Sealed in Aluminum Cans for Long Life and Dependable Performance in TV, Radio and Hi-Fi
- Designed for 85°C (185°F) Operation
- Stand Up Under Extremely High Temperatures Often Encountered in TV, Hi-Fi, and Auto Radio Cabinets
- Withstand High Surge Voltages
- Ideal for High Ripple Selenium Rectifier Circuits
- Can Be Safely Mounted "Above Ground" Using Phenolic Mounting Plate and Insulating Tube
- Easy to Mount — Unit Locks Firmly in Place with a Twist of the Tabs
- Furnished Complete with Both Phenolic and Metal Mounting Plates

The Twist-lok Capacitors listed here include only popular ratings for industrial applications. For the complete line of more than 1700 Twist-lok Capacitors, please refer to Distributor's Guide to Replacement Electrolytic Capacitors, C-1001.

μF	WVDC	Dia. x Length	Cat. No.	Net
		SINGLE UNITS		
2000	6	1⅜ x 2	TVL-1115	$1.83
225	15	¾ x 2	TVL-1160	1.05
1000	15	1 x 2½	TVL-1165	1.53
2000	15	1⅜ x 2	TVL-1168	2.07
3000	15	1⅜ x 2	TVL-1170	2.55
4000	15	1⅜ x 3½	TVL-1173	2.25
40	25	¾ x 2	TVL-1210	.81
500	25	1 x 1½	TVL-1220	1.53
1000	25	1⅜ x 2	TVL-1230	2.13
100	50	¾ x 2	TVL-1317	.99
150	50	¾ x 2½	TVL-1320	1.08
250	50	1 x 2½	TVL-1324	1.20
500	50	1⅜ x 2	TVL-1330	1.59
1000	50	1⅜ x 2½	TVL-1338	2.25
1500	50	1⅜ x 3	TVL-1341	2.64
30	150	1 x 2	TVL-1408	.93
50	150	1 x 1½	TVL-1415	.99
80	150	1 x 2½	TVL-1420	1.11
100	150	1 x 2½	TVL-1423	1.20
120	150	1 x 2	TVL-1425	1.29
120	150	1⅜ x 2½	TVL-1426	1.29
140	150	1 x 2½	TVL-1428	1.29
150	150	1 x 3	TVL-1429	1.29
150	150	1⅜ x 3	TVL-1430	1.29
200	150	1⅜ x 2	TVL-1431	1.47
300	150	1⅜ x 2	TVL-1434	1.68
160	200	1⅜ x 3	TVL-1473	1.89
20	250	1 x 2	TVL-1509	.96
40	250	1 x 2	TVL-1519	1.08
100	250	1 x 3	TVL-1535	1.62
150	250	1⅜ x 2½	TVL-1540	1.86
200	250	1⅜ x 3½	TVL-1547	2.19
80	300	1 x 2½	TVL-1573	1.53
100	300	1 x 4	TVL-1578	1.74
125	300	1⅜ x 3½	TVL-1580	2.10
150	300	1⅜ x 3½	TVL-1584	2.10
250	300	1⅜ x 4	TVL-1590	3.33
30	350	1 x 2	TVL-1617	1.14
40	350	1 x 2	TVL-1621	1.20
50	350	1 x 2	TVL-1622	1.26
60	350	1 x 3	TVL-1624	1.32
80	350	1⅜ x 2	TVL-1630	1.71
125	350	1⅜ x 3½	TVL-1638	2.37
150	350	1⅜ x 2½	TVL-1642	2.37
4	450	1 x 2	TVL-1702	.84
10	450	1 x 2	TVL-1705	$ .93
15	450	1 x 2	TVL-1709	1.02
20	450	1 x 2	TVL-1714	1.08
30	450	1 x 2½	TVL-1720	1.17
40	450	1 x 3	TVL-1725	1.23
50	450	1 x 3	TVL-1728	1.41
60	450	1⅜ x 2½	TVL-1730	1.56
80	450	1⅜ x 2½	TVL-1735	1.83
100	450	1⅜ x 3	TVL-1750	2.07
125	450	1⅜ x 4	TVL-1760	2.31
40	475	1⅜ x 2	TVL-1820	1.50
10	500	1 x 1½	TVL-1940	1.02
20	500	1 x 2½	TVL-1943	1.11
30	500	1 x 2½	TVL-1947	1.20
40	500	1 x 3	TVL-1950	1.50
80	500	1⅜ x 3	TVL-1958	2.16
90	500	1⅜ x 3	TVL-1960	2.10
		DUAL UNITS		
20-20	150-150	1 x 2	TVL-2415	1.02
30-20	150-150	1 x 1½	TVL-2422	1.11
40-20	150-150	1 x 2	TVL-2425	1.11
40-30	150-150	1 x 2	TVL-2427	1.11
40-40	150-150	1 x 1½	TVL-2428	1.14
50-30	150-150	1 x 1½	TVL-2432	1.20
50-50	150-150	1 x 1½	TVL-2435	1.29
60-60	150-150	1 x 3½	TVL-2438	1.41
70-30	150-150	1 x 2	TVL-2439	1.32
75-75	150-150	1 x 3	TVL-2440	1.56
80-40	150-150	1⅜ x 2½	TVL-2442	1.38
80-50	150-150	1 x 2½	TVL-2442.1	1.44
80-80	150-150	1⅜ x 2	TVL-2442.4	1.59
125-100	150-150	1⅜ x 2½	TVL-2443.3	2.01
150-80	150-150	1⅜ x 2½	TVL-2443.5	1.83
200-5	150-150	1⅜ x 2	TVL-2444	1.62
200-125	150-150	1⅜ x 3½	TVL-2445	2.25
200-150	150-150	1⅜ x 4	TVL-2446	2.25
200-200	150-150	1⅜ x 2½	TVL-2447	2.40
60-60	200-200	1 x 3	TVL-2461	2.04
60-60	200-200	1⅜ x 2	TVL-2462	2.04
100-100	200-200	1⅜ x 3	TVL-2464	2.10
200-5	200-200	1⅜ x 2	TVL-2470	1.83
20-20	250-250	1 x 1½	TVL-2515	1.14
40-40	250-250	1 x 2	TVL-2520	1.50
150-150	250-250	1⅜ x 4	TVL-2535	3.09
200-200	250-250	1⅜ x 4	TVL-2538	3.63

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SPRAGUE CAPACITORS

TVL TWIST-LOK ELECTROLYTICS, continued

μF	WVDC	Dia. x Length	Cat. No.	Net
40-30	300-300	1 x 3	TVL-2574	$1.59
80-80	300-300	1⅜ x 3	TVL-2585	2.43
120-20	300-300	1⅜ x 3½	TVL-2588	2.40
120-40	300-300	1⅜ x 3½	TVL-2589	2.61
15-15	350-350	1 x 2	TVL-2625	1.35
30-30	350-350	1 x 2½	TVL-2628	1.74
50-30	350-350	1⅜ x 2½	TVL-2630	1.89
60-30	350-350	1⅜ x 3	TVL-2631	1.89
80-20	350-350	1⅜ x 3	TVL-2633	2.10
80-40	350-350	1⅜ x 3	TVL-2634	2.46
80-80	350-350	1⅜ x 4	TVL-2635	2.82
90-40	350-350	1⅜ x 3	TVL-2637	2.58
100-60	350-350	1⅜ x 3½	TVL-2639	2.88
100-100	350-350	1⅜ x 3	TVL-2641	3.69
160-10	350-350	1⅜ x 3	TVL-2643	2.58
100-30	400-50	1⅜ x 3	TVL-2655	2.34
80-80	400-200	1⅜ x 3½	TVL-2656	2.37
80-60	400-400	1⅜ x 3	TVL-2677	2.82
120-40	400-400	1⅜ x 4	TVL-2679	3.15
30-200	450-150	1⅜ x 3	TVL-2715	2.10
40-10	450-300	1 x 3	TVL-2724	1.56
5-5	450-450	1 x 2	TVL-2748	1.02
10-10	450-450	1 x 2	TVL-2750	1.14
15-15	450-450	1 x 2½	TVL-2753	1.35
20-10	450-450	1 x 2½	TVL-2754	1.35
30-10	450-450	1 x 3	TVL-2757	1.44
30-30	450-450	1⅜ x 2	TVL-2759	1.83
40-20	450-450	1⅜ x 2½	TVL-2762	1.95
40-40	450-450	1⅜ x 2½	TVL-2764	2.07
50-50	450-450	1⅜ x 3	TVL-2767	2.31
60-20	450-450	1⅜ x 3	TVL-2768	2.13
60-40	450-450	1⅜ x 3½	TVL-2770	2.37
60-60	450-450	1⅜ x 3½	TVL-2772	2.70
80-10	450-450	1⅜ x 3	TVL-2776	2.16
80-20	450-450	1⅜ x 3	TVL-2776.5	2.34
80-30	450-450	1⅜ x 4	TVL-2777	2.52
80-40	450-450	1⅜ x 3½	TVL-2778	3.03
100-40	450-450	1⅜ x 4	TVL-2780	2.91
15-15	475-475	1 x 2½	TVL-2820	2.01
30-10	475-475	1 x 3	TVL-2824	1.56
40-10	475-475	1⅜ x 2½	TVL-2827	1.86
80-50	475-475	1⅜ x 4	TVL-2851	3.12
10-10	500-500	1 x 2½	TVL-2933	1.17
20-20	500-500	1⅜ x 2½	TVL-2935	1.71
30-10	500-500	1⅜ x 3	TVL-2936	1.56
30-30	500-500	1⅜ x 2½	TVL-2937	1.95
40-40	500-500	1⅜ x 3	TVL-2940	2.58
60-40	500-500	1⅜ x 3½	TVL-2944	2.76

TRIPLE UNITS

40-20-20	150-150-25	1 x 2½	TVL-3422	$1.38
50-30-20	150-150-25	1 x 2½	TVL-3426.7	1.50
50-50-20	150-150-25	1 x 3	TVL-3430	1.59
80-40-20	150-150-25	1 x 2½	TVL-3432	1.68
80-40-300	150-150-25	1⅜ x 2½	TVL-3432.4	2.22
20-20-20	150-150-150	1 x 1½	TVL-3433	1.38
30-30-10	150-150-150	1 x 2	TVL-3435	1.71
40-20-10	150-150-150	1 x 2	TVL-3436	1.41
40-20-20	150-150-150	1 x 1½	TVL-3437	1.44
40-30-20	150-150-150	1 x 2	TVL-3438	1.50
40-40-40	150-150-150	1 x 2	TVL-3440	1.56
50-40-10	150-150-150	1 x 2½	TVL-3441	1.53
50-50-50	150-150-150	1 x 3	TVL-3442	1.80
60-40-20	150-150-150	1 x 3	TVL-3443	1.65
70-15-15	150-150-150	1 x 2½	TVL-3443.3	1.62
70-40-40	150-150-150	1 x 3	TVL-3443.4	2.43
80-30-10	150-150-150	1 x 3	TVL-3443.8	1.65
80-40-20	150-150-150	1 x 3	TVL-3444	1.74
100-30-10	150-150-150	1 x 3	TVL-3447	1.83
120-80-40	150-150-150	1⅜ x 3½	TVL-3448	2.28
120-120-40	150-150-150	1⅜ x 2	TVL-3448.2	2.43
200-100-60	150-150-150	1⅜ x 3½	TVL-3450	2.73
200-150-150	150-150-150	1⅜ x 4	TVL-3452	4.56
80-10-20	200-200-50	1 x 3	TVL-3471	1.68
20-20-20	250-250-250	1 x 2	TVL-3532	1.56
40-20-20	250-250-250	1 x 3½	TVL-3540	1.74
80-10-10	250-250-250	1 x 3	TVL-3543	$1.92
80-80-60	250-250-250	1⅜ x 3	TVL-3545	2.94
10-10-10	300-300-300	1 x 2	TVL-3580	1.44
60-20-10	300-300-300	1⅜ x 2	TVL-3581	2.07
80-40-40	300-300-300	1⅜ x 2½	TVL-3583	2.85
120-50-40	300-300-300	1⅜ x 4	TVL-3585	3.51
140-100-20	300-300-300	1⅜ x 4½	TVL-3585.5	3.72
20-10-10	350-350-350	1 x 2	TVL-3639.6	1.62
30-20-10	350-350-350	1 x 2½	TVL-3639.8	1.95
60-40-20	350-350-350	1⅜ x 4	TVL-3640	2.55
60-50-50	350-350-350	1⅜ x 2½	TVL-3641	2.94
80-60-60	350-350-350	1⅜ x 4	TVL-3642	3.33
90-40-20	350-350-350	1⅜ x 4	TVL-3645	3.15
20-20-20	400-400-25	1 x 3	TVL-3678	1.71
10-10-10	400-400-400	1 x 2½	TVL-3690	1.44
90-10-5	400-400-400	1⅜ x 3	TVL-3696	2.64
10-10-10	450-450-25	1 x 2½	TVL-3729	1.44
10-10-20	450-450-25	1 x 2	TVL-3731	1.44
40-20-20	450-450-25	1⅜ x 2½	TVL-3743.7	2.10
10-10-10	450-450-450	1 x 2½	TVL-3776	1.56
15-15-15	450-450-450	1 x 3	TVL-3778.2	1.86
20-10-10	450-450-450	1 x 3	TVL-3779	1.74
20-20-20	450-450-450	1⅜ x 2½	TVL-3780	2.16
30-10-10	450-450-450	1⅜ x 2	TVL-3780.5	1.89
30-20-20	450-450-450	1⅜ x 3	TVL-3781	2.31
30-30-30	450-450-450	1⅜ x 3½	TVL-3782	2.61
40-10-10	450-450-450	1⅜ x 3	TVL-3783	2.01
40-30-20	450-450-450	1⅜ x 3	TVL-3784	2.58
40-40-10	450-450-450	1⅜ x 2½	TVL-3785	2.49
40-40-20	450-450-450	1⅜ x 3	TVL-3786	2.67
40-40-40	450-450-450	1⅜ x 3	TVL-3787	2.94
50-40-30	450-450-450	1⅜ x 3½	TVL-3788	2.94
60-20-20	450-450-450	1⅜ x 3	TVL-3789	2.76
60-30-10	450-450-450	1⅜ x 3	TVL-3790	2.70
60-40-20	450-450-450	1⅜ x 3½	TVL-3791	3.00
80-40-20	450-450-450	1⅜ x 4	TVL-3793	3.24
30-30-20	475-475-475	1⅜ x 3	TVL-3840	2.67
40-30-10	475-475-475	1⅜ x 3	TVL-3842.6	2.70
40-30-30	475-475-475	1⅜ x 4	TVL-3843	3.09
10-10-10	500-500-500	1 x 3	TVL-3952	1.62
30-20-20	500-500-500	1⅜ x 3	TVL-3956	2.52
40-10-10	500-500-500	1⅜ x 3	TVL-3962	2.34
40-40-10	500-500-500	1⅜ x 3½	TVL-3965	3.03

QUADRUPLE UNITS

40-40-40-30	150-150-150-150	1⅜ x 2	TVL-4441	$1.98
100-80-60-40	150-150-150-150	1⅜ x 2	TVL-4445	2.79
200-200-60-30	175-175-175-175	1⅜ x 4	TVL-4450	3.33
60-40-20-50	300-300-300-25	1⅜ x 3½	TVL-4570	2.82
40-20-10-10	300-300-300-300	1⅜ x 2	TVL-4578	2.37
40-40-20-10	300-300-300-300	1⅜ x 3½	TVL-4579	2.73
40-40-30-20	300-300-300-300	1⅜ x 3	TVL-4580	2.91
60-40-10-10	300-300-300-300	1⅜ x 2½	TVL-4583	2.73
200-20-20-20	300-300-300-300	1⅜ x 4	TVL-4590	3.75
40-20-20-10	350-350-350-350	1⅜ x 2½	TVL-4635	2.61
40-40-40-40	350-350-350-350	1⅜ x 4	TVL-4635.3	3.60
80-60-40-20	350-350-350-350	1⅜ x 4	TVL-4635.7	3.84
90-40-30-30	350-350-350-350	1⅜ x 4	TVL-4635.8	4.08
50-40-30-20	400-400-400-400	1⅜ x 4	TVL-4674	3.39
80-25-10-10	400-400-400-400	1⅜ x 4	TVL-4680	3.15
30-30-20-20	450-450-450-450	1⅜ x 3	TVL-4769.4	3.12
35-35-10-5	450-450-450-450	1⅜ x 3	TVL-4771	2.76
40-10-10-10	450-450-450-450	1⅜ x 3	TVL-4771.3	2.46
40-35-10-10	450-450-450-450	1⅜ x 3	TVL-4771.8	2.88
40-40-20-20	450-450-450-450	1⅜ x 3½	TVL-4773	3.33
40-40-30-30	450-450-450-450	1⅜ x 4	TVL-4774	3.63
40-40-40-40	450-450-450-450	1⅜ x 4	TVL-4775	3.87
60-20-20-20	450-450 450-450	1⅜ x 4	TVL-4778	3.39
60-30-10-2	450-450-450-450	1⅜ x 3	TVL-4779	3.06
80-10-10-10	450-450-450-450	1⅜ x 4	TVL-4783	3.03
20-20-10-10	475-475-475-475	1⅜ x 2½	TVL-4832	2.61
20-20-20-20	475-475-475-475	1⅜ x 3	TVL-4834	3.06
40-20-10-10	475-475-475-475	1⅜ x 3	TVL-4840	3.06
10-10-10-10	500-500-500-500	1⅜ x 2	TVL-4940	2.10
40-40-8-8	500-500-500-500	1⅜ x 3½	TVL-4944	3.42

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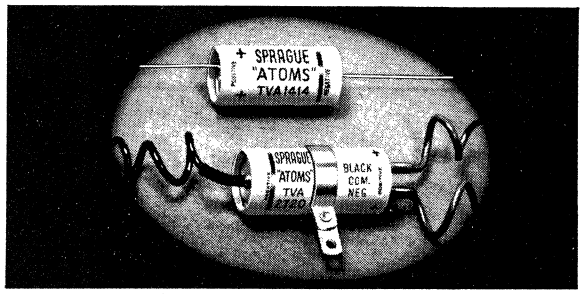
SPRAGUE CAPACITORS

ATOM® ELECTROLYTICS



- The Smallest Dependable Standard Tubular—Designed for 85°C (185°F) Operation in Voltages to 475 WVDC
- Whether For AC-DC Sets, Auto Radios, Home Radio-phono Combinations, Or TV Sets, The SPRAGUE Line Will Handle All Your Replacement Requirements—No Dual Inventory Problems
- Have Low Leakage And Long Shelf Life
- Will Withstand High Temperatures, High Ripple Currents, High Surge Voltages
- Metal Case Construction with Outer Kraftboard Insulating Case Except as Noted by † Sign

SINGLE UNITS

μF	WVDC	D. x L.*	Cat. No.	Net
750	3	9/16 x 2 9/16	TVA-1097	$ .93
50	6	3/8 x 1 1/4	TVA-1100	.57
100	6	1/2 x 1 1/8	TVA-1101	.72
250	6	5/8 x 1 7/16	TVA-1102	.81
500	6	5/8 x 2 3/16	TVA-1103	.93
1000	6	3/4 x 2 3/16	TVA-1104	1.14
1500	6	13/16 x 2 1/16	TVA-1105	1.26
2000	6	13/16 x 2 15/16	TVA-1106	1.38
100	12	9/16 x 1 3/16	TVA-1130	.72
250	12	5/8 x 1 1/16	TVA-1131	.87
500	12	3/4 x 1 1/16	TVA-1132	1.02
1000	12	13/16 x 2 3/16	TVA-1133	1.35
100	15	5/8 x 1 3/16	TVA-1160	.75
250	15	5/8 x 1 1/16	TVA-1161	.93
500	15	1 1/16 x 2 3/16	TVA-1162	1.05
1000	15	7/8 x 2 3/16	TVA-1163	1.38
2000	15	1 x 3 1/16	★TVA-1170	1.92
2	25	3/8 x 1 1/4	TVA-1201	.54
5	25	3/8 x 1 1/4	TVA-1203	.60
10	25	3/8 x 1 1/4	TVA-1204	.60
20	25	1/2 x 1 1/4	TVA-1204.5	.60
25	25	3/8 x 1 1/4	TVA-1205	.60
50	25	9/16 x 1 3/16	TVA-1206	.66
100	25	9/16 x 1 1/16	TVA-1207	.81
250	25	3/4 x 1 1/16	TVA-1208	1.02
500	25	7/8 x 2 3/16	TVA-1209	1.38
1000	25	1 x 2 1/16	TVA-1211	1.98
20	30	5/8 x 1 1/4	TVAN-1220	.60
1	50	3/8 x 1 1/4	TVA-1300	.54
2	50	3/8 x 1 1/4	TVA-1301	.54
3	50	13/16 x 1/2	TVA-1302	.60
4	50	5/8 x 1 5/16	★TVAN-1302.5	.60
5	50	3/8 x 1 1/4	TVA-1303	.60
10	50	3/8 x 1 1/4	TVA-1304	.60
15	50	3/4 x 1 1/4	TVA-1305	.60
20	50	7/16 x 1 3/8	TVA-1305.5	.60
25	50	7/16 x 1 3/8	TVA-1306	.63
50	50	9/16 x 1 1/16	TVA-1308	.72
100	50	11/16 x 1 1/16	TVA-1310	.84
150	50	3/4 x 1 1/16	TVA-1311	.93
250	50	15/16 x 1 1/16	TVA-1312	1.05
500	50	1 x 1 5/16	TVA-1315	1.44
10	90	3/8 x 1 3/4	TVA-1320	.63
1	150	3/8 x 1 1/4	TVA-1400	.57
4	150	3/8 x 1 1/4	TVA-1402	.60
5	150	3/8 x 1 1/4	TVA-1403	.60
8	150	3/8 x 1 3/4	TVA-1405	.63
10	150	3/8 x 1 3/4	TVA-1406	.63
12	150	1/2 x 1 5/8	TVA-1407	.66
16	150	9/16 x 1 1/16	TVA-1409	.69
20	150	9/16 x 1 1/16	TVA-1410	.72
25	150	5/8 x 1 1/16	TVA-1411	.75
30	150	5/8 x 1 1/16	TVA-1412	.78
40	150	3/4 x 1 1/16	TVA-1413	.81
50	150	13/16 x 1 1/16	TVA-1414	.84
60	150	7/8 x 1 1/16	TVA-1415	.90
80	150	7/8 x 1 15/16	TVA-1418	.96
100	150	7/8 x 2 3/16	TVA-1420	$1.05
150	150	1 x 2 3/16	TVA-1422	1.14
200	150	1 x 3 13/16	TVA-1423	1.32
250	150	1 1/4 x 4 3/8	★TVA-1424	1.41
300	150	1 3/8 x 3 3/16	TVA-1425	1.53
80	175	1 x 1 7/8	TVA-1430	.99
2	200	5/8 x 1 5/8	TVAN-1435.1	.66
150	200	1 3/8 x 3 3/8	★TVA-1447	1.53
100	200	1 x 2 3/16	TVA-1445	1.14
200	200	1 3/8 x 3 3/8	★TVA-1480†	1.74
4	250	7/16 x 1 5/8	TVA-1501	.60
8	250	1/2 x 1 5/8	TVA-1503	.69
10	250	9/16 x 1 11/16	TVA-1504	.72
12	250	9/16 x 1 11/16	TVA-1505	.75
16	250	5/8 x 1 11/16	TVA-1507	.78
20	250	11/16 x 1 11/16	TVA-1508	.81
30	250	11/16 x 2 3/16	TVA-1510	.87
40	250	3/4 x 2 3/16	TVA-1511	.93
50	250	3/4 x 2 3/16	TVA-1512	1.02
60	250	13/16 x 2 3/16	TVA-1513	1.08
100	250	1 x 2 7/16	TVA-1522	1.47
140	300	1 3/8 x 3 3/8	★TVA-1575†	1.89
150	300	1 1/4 x 3 3/4	TVA-1576	1.95
200	300	1 1/4 x 4 1/2	TVA-1578	2.70
4	350	1/2 x 1 5/8	TVA-1601	.63
5	350	3/4 x 1 11/16	TVAN-1602	.75
8	350	5/8 x 1 11/16	TVA-1603	.72
10	350	11/16 x 1 11/16	TVA-1604	.75
12	350	11/16 x 1 11/16	TVA-1605	.78
16	350	3/4 x 1 11/16	TVA-1607	.84
20	350	13/16 x 1 11/16	TVA-1608	.87
30	350	13/16 x 2 3/16	TVA-1610	.99
40	350	7/8 x 2 7/16	TVA-1611	1.05
60	350	1 x 2 7/16	TVA-1613	1.17
100	350	1 x 3 7/16	TVA-1620	1.86
200	350	1 3/8 x 4 1/8	TVA-1624	3.12
10	400NP	1 1/16 x 2 1/16	★TVAN-1650	.90
20	400NP	1 x 2 3/16	TVAN-1652	.90
1	450	7/16 x 1 1/8	TVA-1700	.66
2	450	7/16 x 1 5/8	TVA-1701	.66
4	450	9/16 x 1 11/16	TVA-1702	.69
5	450	5/8 x 1 11/16	TVA-1703	.72
8	450	11/16 x 1 11/16	TVA-1704	.75
10	450	11/16 x 1 11/16	TVA-1705	.78
12	450	3/4 x 1 11/16	TVA-1706	.81
16	450	3/4 x 2 3/16	TVA-1708	.84
20	450	3/4 x 2 3/16	TVA-1709	.93
30	450	7/8 x 2 3/16	TVA-1711	1.02
40	450	7/8 x 2 11/16	TVA-1712	1.08
50	450	7/8 x 3 3/16	TVA-1713	1.26
60	450	1 x 3 11/16	TVA-1714	1.41
80	450	1 x 3 11/16	TVA-1716	1.68
100	450	1 3/8 x 3 15/16	TVA-1718†	1.92
10	475	3/4 x 1 15/16	TVA-1802	.81
20	475	7/8 x 2 7/16	TVA-1804	.96
8	500	7/8 x 1 11/16	TVA-1902	$ .78
10	500	7/8 x 1 11/16	TVA-1903	.81
16	500	15/16 x 2 3/16	TVA-1905	.90
20	500	1 x 2 3/16	TVA-1906	.96
40	500	1 x 2 15/16	TVA-1908	1.35
8	600	1 x 3 1/16	TVA-1962	1.71
10	600	1 x 3 1/16	TVA-1963	1.77
16	600	1 x 4 1/16	TVA-1965	2.07
20	600	1 x 4 1/16	TVA-1966	2.13

DUAL UNITS (COMMON NEGATIVE—3 LEADS)

μF	μF	D. x L.*	Cat. No.	Net
10-10	25-25	7/8 x 1 7/16	★TVA-2210	.84
10-10	50-50	7/8 x 1 7/16	★TVA-2315	.84
8-8	150-150	7/8 x 1 7/16	★TVA-2415	.90
16-16	150-150	7/8 x 1 7/16	★TVA-2420	1.08
20-12	150-150	7/8 x 1 7/16	★TVA-2425	.96
20-20	150-150	7/8 x 1 7/16	★TVA-2428	.99
30-20	150-150	7/8 x 1 11/16	★TVA-2421	1.02
30-30	150-150	7/8 x 1 11/16	★TVA-2434	1.08
40-20	150-150	7/8 x 1 11/16	★TVA-2438	1.05
40-30	150-150	7/8 x 1 15/16	★TVA-2442	1.08
40-40	150-150	7/8 x 1 15/16	★TVA-2445	1.11
50-30	150-150	7/8 x 1 15/16	★TVA-2450	1.17
50-50	150-150	7/8 x 2 7/16	★TVA-2453	1.26
60-20	150-150	7/8 x 2 15/16	★TVA-2455	1.20
80-30	150-150	7/8 x 2 7/16	TVA-2460	1.32
80-40	150-150	7/8 x 2 7/16	★TVA-2461	1.32
80-50	150-150	7/8 x 2 15/16	★TVA-2462	1.41
100-50	150-150	1 x 1 11/16	★TVA-2463	1.59
100-100	150-150	1 3/8 x 3 3/8	TVA-2464†	1.92
150-150	150-150	1 1/4 x 4	★TVA-2466	2.07
200-5	150-150	1 x 3 7/8	★TVA-2467†	1.59
200-100	150-150	1 3/8 x 5 1/8	★TVA-2470	2.16
250-50	150-150	1 3/8 x 3 1/8	TVA-2473	1.86
250-200	150-150	1 1/4 x 4	TVA-2475	2.52
60-125	200-50	1 1/16 x 2 3/4	★TVA-2484	1.50
200-5	200-200	1 x 3 11/16	★TVA-2498	2.16
20-20	250-250	7/8 x 1 15/16	★TVA-2515	1.11
40-10	250-250	7/8 x 2 3/16	★TVA-2520	1.23
80-10	250-250	15/16 x 3 3/16	★TVA-2525	1.53
120-80	250-250	1 3/8 x 3 7/8	TVA-2535†	2.40
200-100	300-50	1 1/4 x 4 1/2	★TVA-2565	2.58
150-100	300-300	1 5/16 x 4 3/4	TVA-2590	3.21
140-5	350-350	1 1/4 x 3 7/8	★TVA-2640†	2.49
80-100	450-50	1 3/8 x 4 3/8	TVA-2711†	2.22
8-8	450-450	7/8 x 1 11/16	★TVA-2720	1.02
10-10	450-450	7/8 x 1 15/16	★TVA-2722	1.11
16-8	450-450	7/8 x 2 3/16	★TVA-2725	1.20
20-20	450-450	7/8 x 2 15/16	★TVA-2730	1.50
30-30	450-450	1 x 3 3/16	★TVA-2735	1.80
40-40	450-450	1 x 3 15/16	★TVA-2740	2.04
50-30	450-450	1 x 3 15/16	★TVA-2743	2.04
20-100	475-50	1 x 2 3/8	★TVA-2765	1.50

*Add 1/16" to diameter and 1/8" to length to allow for outer insulating tube on all units except those marked (†) which are of Kraftboard construction.
★Mounting straps attached

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Net

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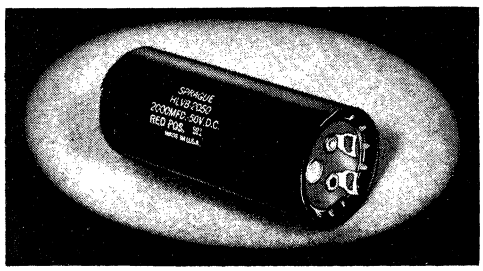
SPRAGUE CAPACITORS

ATOM ELECTROLYTICS, continued

μF	WVDC	Diam. x Length *	Cat. No.	Net
DUAL UNITS (SEPERATE SECTIONS—4 LEADS)				
20-20	150-150	1 x 2 3/8	★TU-220 †	$1.23
40-20	150-150	1 1/16 x 2 5/8	★TU-420 †	1.32
16-16	250-250	1 x 2 7/8	TU-216 †	1.32
8-8	450-450	1 1/16 x 3 3/8	★TU-88 †	1.29
16-16	450-450	1 3/8 x 3 1/8	★TU-1616†	1.68
120-120	150-150	1 1/8 x 5	TU-2120	2.07
TRIPLE UNITS				
40-40-250	150-150-10	15/16 x 2 1/4	★TVA-3406	1.56
30-30-100	150-150-12	7/8 x 1 15/16	★TVA-3419	1.38
60-40-250	150-150-25	1 x 1 15/16	★TVA-3421.5	1.86
20-20-20	150-150-25	7/8 x 1 7/16	★TVA-3415	1.47
40-20-20	150-150-25	7/8 x 1 11/16	★TVA-3422.9	1.53
40-30-20	150-150-25	7/8 x 1 11/16	★TVA-3423	1.56
40-40-20	150-150-25	7/8 x 2 3/16	★TVA-3425	1.59
40-40-100	150-150-25	7/8 x 2 7/16	★TVA-3427	1.68
50-30-20	150-150-25	7/8 x 2 3/16	★TVA-3430	1.59
50-30-100	150-150-25	7/8 x 2 7/16	★TVA-3432	1.68
50-30-200	150-150-25	1 x 2 3/16	★TVA-3433	1.65
50-50-20	150-150-25	15/16 x 2 3/16	★TVA-3436	1.65
80-20-100	150-150-25	1 1/4 x 2 7/8	TVA-3437†	1.68
80-40-20	150-150-25	1 x 1 15/16	★TVA-3437.1	1.68
250-120-50	150-150-25	1 3/8 x 3 7/8	TVA-3437.6	2.61
20-20-20	150-150-150	7/8 x 1 11/16	★TVA-3440	1.50
30-25-20	150-150-150	7/8 x 2 3/16	★TVA-3442	1.35
30-30-20	150-150-150	7/8 x 2 3/16	★TVA-3443	1.38
30-30-30	150-150-150	7/8 x 2 3/16	★TVA-3444	1.56
40-20-20	150-150-150	7/8 x 1 15/16	★TVA-3446	1.35
40-30-20	150-150-150	7/8 x 2 3/16	★TVA-3448	1.56
40-40-20	150-150-150	7/8 x 2 7/16	★TVA-3450	1.41
40-40-40	150-150-150	1 x 2 7/16	★TVA-3451	1.68
50-30-20	150-150-150	1 x 2 7/16	★TVA-3453	1.62
80-40-20	150-150-150	1 x 2 15/16	★TVA-3455	1.74
80-40-40	150-150-150	1 x 2 15/16	★TVA-3456	1.71
80-60-20	150-150-150	1 x 3 1/2	★TVA-3457	$1.80
250-200-10	150-150-150	1 3/8 x 3 3/8	★TVA-3460	2.76
80-10-100	300-250-50	1 3/8 x 3 3/8	★TVA-3556†	2.16
80-40-100	300-300-5	1 1/4 x 3 3/4	TVA-3558	2.40
100-60-100	300-300-50	1 1/4 x 3 3/4	TVA-3559	2.97
120-40-100	300-300-50	1 1/4 x 4 1/4	TVA-3560	3.06
120-40-10	300-300-250	1 1/4 x 3 1/8	TVA-3563†	2.91
80-40-40	300-300-300	1 1/4 x 3 1/2	TVA-3569	2.79
140-5-200	350-350-200	1 1/2 x 5 1/8	TVA-3620†	4.02
60-60-4	350-350-350	1 1/4 x 3 1/4	TVA-3630	2.31
10-80-60	400-250-150	1 3/8 x 3 3/8	TVA-3650	2.04
5-80-40	450-400-400	1 3/8 x 4 1/8	★TVA-3712†	2.73
12-12-20	450-450-25	1 x 1 15/16	★TVA-3716	1.38
20-20-20	450-450-25	1 x 2 7/16	★TVA-3718	1.86
40-40-20	450-450-25	1 x 3 15/16	★TVA-3720	2.28
QUADRUPLE UNITS				
40-20-20-100	150-150-150-25	1 1/4 x 2 7/8	TVA-4517	1.74
60-40-40-20	150-150-150-25	1 1/4 x 3	TVA-4929	1.98
150-100-20-100	300-300-300-25	1 1/4 x 4 1/2	TVA-4580	3.72
80-40-10-40	300-300-300-250	1 1/4 x 4	TVA-4582	3.09
120-40-40-10	300-300-300-250	1 3/8 x 4 5/8	TVA-4584†	3.72
140-5-200-30	350-300-200-150	1 1/2 x 4 7/8	TVA-4576†	3.63
140-5-200-30	350-300-200-200	1 1/2 x 5 1/8	TVA-4607†	4.59
80-60-40-20	350-350-300-150	1 1/2 x 4 5/8	TVA-4618†	3.54
80-10-40-100	400-400-300-50	1 3/8 x 4 1/8	TVA-4659†	3.27
10-80-40-100	450-300-250-50	1 3/8 x 4 1/8	TVA-4705†	2.88
20-120-40-100	450-300-250-50	1 3/8 x 4 3/8	TVA-4706†	3.69
10-80-40-40	450-300-250-250	1 3/8 x 4 3/8	TVA-4708†	2.97
10-20-20-10	450-300-300-300	1 3/8 x 3 1/8	TVA-4712†	2.10
20-20-20-10	450-450-450-450	1 3/8 x 3 5/8	TVA-4742†	2.55
40-20-20-10	450-450-450-450	1 3/8 x 4 3/8	TVA-4748†	2.82
40-40-20-20	450-450-450-450	1 1/2 x 4 1/4	TVA-4750†	3.27
QUINTUPLE UNITS				
40-20-20-20-50	300-300-300-300-50	1 3/8 x 4	TVA-5100†	3.03

*Add 1/16" to diameter and 1/8" to length to allow for outer insulating tube on all units except those marked (†) which are of cardboard construction.
★Mounting straps attached



TYPE HLVB HIGH-MF ELECTROLYTICS

- Designed for low-voltage filter circuits.
- Large values of capacitance in relatively small physical size.
- Molded phenolic case for physical protection and moisture resistance. Assures long and dependable service life.
- Easily and securely mounted with hardware listed below.

μF	WVDC	Diam. x Length	Cat. No.	Net
500	6	1 7/16 x 2 3/4	HLVB-56	$1.83
1000	6	1 7/16 x 2 3/4	HLVB-106	2.04
1500	6	1 7/16 x 2 3/4	HLVB-156	2.16
2000	6	1 7/16 x 2 3/4	HLVB-206	2.28
4000	10	1 7/16 x 3 3/8	HLVB-4010	2.85
6000	10	1 7/16 x 4 3/8	HLVB-6010	4.50
10000	10	1 13/16 x 4 3/8	HLVB-10010	4.95
500	12	1 7/16 x 2 3/4	HLVB-512	1.92
1000	12	1 7/16 x 2 3/4	HLVB-1012	2.25
1500	12	1 7/16 x 2 3/4	HLVB-1512	2.37
2000	12	1 7/16 x 2 3/4	HLVB-2012	2.49
500	15	1 7/16 x 2 3/4	HLVB-515	1.95
1000	15	1 7/16 x 2 3/4	HLVB-1015	2.28
1500	15	1 7/16 x 2 3/4	HLVB-1515	2.40
2000	15	1 7/16 x 2 3/4	HLVB-2015	2.82
4000	15	1 7/16 x 4 3/8	HLVB-4015	4.26
6000	15	1 13/16 x 4 3/8	HLVB-6015	4.83
6000	20	2 1/16 x 4 3/8	HLVB-6020	5.19
500	25	1 7/16 x 2 3/4	HLVB-525	2.28
1000	25	1 7/16 x 2 3/4	HLVB-1025	2.91
2000	25	1 7/16 x 4 3/8	HLVB-2025	3.45
4000	25	1 13/16 x 4 3/8	HLVB-4025	4.77
500	50	1 7/16 x 3 3/8	HLVB-550	2.55
1000	50	1 13/16 x 3 3/8	HLVB-1050	4.20
2000	50	1 13/16 x 4 3/8	HLVB-2050	5.46
3000	50	1 13/16 x 4 3/8	HLVB-3050	6.90
4000	50	2 1/16 x 4 3/8	HLVB-4050	$7.5(
1000	150	1 13/16 x 4 3/8	HLVB-10150	6.3(
500	200	1 13/16 x 4 3/8	HLVB-5200	5.8(

HLVB MOUNTING HARDWARE
HORIZONTAL "U" BRACKETS

Capacitor Size Dia. x Length	Cat. No.	Ne
1 7/16 x 2 3/4	ABB-1	.1
1 7/16 x 3 3/8 } 1 13/16 x 3 3/8 }	ABB-2	.2
1 13/16 x 4 3/8 } 2 1/16 x 4 3/8 }	ABB-3	.2

END CAPS

Cap. Diam.	Cat. No.	Ne
1 7/16	ABC-2	.1
1 13/16	ABC-4	.1
2 1/16	ABC-6	.2

VERTICAL MOUNTING CLAMPS

Cap. Diam.	Cat. No.	N
1 13/16	CMC-28A	.1
2 1/16	CMC-32	.3

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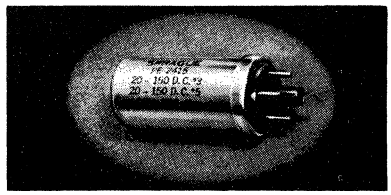
SPRAGUE CAPACITORS

PE OCTAL-BASE ELECTROLYTICS

- For Applications where Rapid Changing of Capacitors is Desired
- Will Fit Standard Octal-Base Tube Sockets
- Hermetically Sealed in Metal Cans for Long Life
- Will Stand Up Under High Temperatures, High Ripple Currents, High Surge Voltages



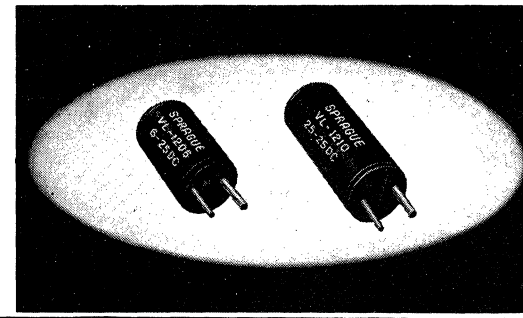
Terminal Code

Sections	−	+
Single	1	5
Dual	1	3,5
Triple	1	3,5,7
Quadruple	Gnd Lug	1,3,5,7

µF	WVDC	Diam. x Lgth.	Cat. No.	Net
100	350	1⅜ x 3	PE-1636	$3.51
10	450	1 5/32 x 2½	PE-1705	2.43
20	450	1 5/32 x 2½	PE-1714	2.58
40	450	1⅜ x 2½	PE-1725	2.73
80	450	1⅜ x 3½	PE-1730	3.33
20-20	150-150	1 5/32 x 2½	PE-2415	2.52
40-40	150-150	1 5/32 x 2½	PE-2428	2.64
10-10	450-450	1 5/32 x 2½	PE-2750	2.64
20-20	450-450	1⅜ x 2½	PE-2755	3.03
40-40	450-450	1⅜ x 3½	PE-2764	3.57
10-10-10	450-450-450	1 5/32 x 2½	PE-3776	3.06
20-20-20	450-450-450	1⅜ x 3	PE-3780	3.66
30-30-10-20	450-450-450-50	1⅜ x 3½	PE-4741	4.11

VL VERTI-LYTIC® ELECTROLYTICS

- For Replacement of Units of this Type Found on Printed Wiring Boards in Original Equipment
- Sections Housed in Sturdy, Pre-Molded Phenolic Cases
- Resin End Fill Will Not Contaminate Electrolyte — Protects Against Drying or Entrance of External Moisture
- Low Leakage Current and Long Shelf Life
- Polarity Easily Determined by Larger Diameter of Negative Lead
- For Complete Technical Data, See Latest Issue of Sprague Engineering Bulletin 3060



µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
3 WVDC				
1	⅜ x ¾	VL-1031	89D100	$ .87
2	⅜ x ¾	VL-1032	89D101	.87
3	⅜ x ¾	VL-1033	89D102	.87
4	⅜ x ¾	VL-1034	89D103	.87
5	⅜ x ¾	VL-1035	89D104	.87
6	⅜ x ¾	VL-1036	89D105	.87
8	⅜ x ¾	VL-1037	89D106	.87
10	⅜ x ¾	VL-1038	89D107	.87
15	⅜ x ¾	VL-1039	89D108	.87
20	⅜ x ¾	VL-1040	89D109	.87
25	⅜ x ¾	VL-1041	89D110	.87
35	⅜ x ¾	VL-1043	89D111	.90
50	⅜ x ¾	VL-1045	89D112	.93
75	⅜ x ¾	VL-1048	89D113	1.02
100	⅜ x ⅞	VL-1051	89D114	1.05
150	7/16 x ⅞	VL-1055	89D115	1.05
200	7/16 x ⅞	VL-1059	89D116	1.08
250	½ x ⅞	VL-1063	89D117	1.17
290	½ x ⅞	VL-1067	89D118	1.20
6 WVDC				
1	⅜ x ¾	VL-1080	89D119	.87
2	⅜ x ¾	VL-1081	89D120	.87
3	⅜ x ¾	VL-1082	89D121	.87
4	⅜ x ¾	VL-1083	89D122	.87
5	⅜ x ¾	VL-1084	89D123	.87
6	⅜ x ¾	VL-1085	89D124	.87
8	⅜ x ¾	VL-1086	89D125	.87
10	⅜ x ¾	VL-1087	89D126	.87
15	⅜ x ¾	VL-1088	89D127	.87
20	⅜ x ¾	VL-1089	89D128	.87
25	⅜ x ¾	VL-1090	89D129	.87
35	⅜ x ¾	VL-1092	89D130	.90
50	⅜ x ¾	VL-1094	89D131	.93
75	⅜ x ⅞	VL-1097	89D132	1.02
100	7/16 x ⅞	VL-1100	89D133	1.05
150	½ x ⅞	VL-1104	89D134	1.14
200	½ x ⅞	VL-1108	89D135	1.17

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
12 WVDC				
1	⅜ x ¾	VL-1120	89D136	$ .87
2	⅜ x ¾	VL-1121	89D137	.87
3	⅜ x ¾	VL-1122	89D138	.87
4	⅜ x ¾	VL-1123	89D139	.87
5	⅜ x ¾	VL-1124	89D140	.90
6	⅜ x ¾	VL-1125	89D141	.90
8	⅜ x ¾	VL-1126	89D142	.90
10	⅜ x ¾	VL-1127	89D143	.90
15	⅜ x ¾	VL-1128	89D144	.93
20	⅜ x ¾	VL-1129	89D145	.93
25	⅜ x ¾	VL-1130	89D146	.93
35	⅜ x ¾	VL-1132	89D147	.93
50	⅜ x ⅞	VL-1134	89D148	.99
75	7/16 x ⅞	VL-1137	89D149	1.05
100	½ x ⅞	VL-1140	89D150	1.14
140	½ x ⅞	VL-1144	89D151	1.17
15 WVDC				
1	⅜ x ¾	VL-1160	89D152	.87
2	⅜ x ¾	VL-1161	89D153	.87
3	⅜ x ¾	VL-1162	89D154	.87
4	⅜ x ¾	VL-1163	89D155	.87
5	⅜ x ¾	VL-1164	89D156	.90
6	⅜ x ¾	VL-1165	89D157	.90
8	⅜ x ¾	VL-1166	89D158	.90
10	⅜ x ¾	VL-1167	89D159	.93
15	⅜ x ¾	VL-1168	89D160	.93
20	⅜ x ¾	VL-1169	89D161	.93
25	⅜ x ¾	VL-1170	89D162	.93
35	⅜ x ⅞	VL-1172	89D163	.93
50	7/16 x ⅞	VL-1174	89D164	.99
75	½ x ⅞	VL-1177	89D165	1.08
90	½ x ⅞	VL-1180	89D166	1.17
25 WVDC				
1	⅜ x ¾	VL-1200	89D167	.90
2	⅜ x ¾	VL-1201	89D168	.90

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
25 WVDC ctd.				
3	⅜ x ¾	VL-1202	89D169	$ .93
4	⅜ x ¾	VL-1203	89D170	.99
5	⅜ x ¾	VL-1204	89D171	.99
6	⅜ x ¾	VL-1205	89D172	.99
8	⅜ x ¾	VL-1206	89D173	.99
10	⅜ x ¾	VL-1207	89D174	.99
15	⅜ x ¾	VL-1208	89D175	.99
20	⅜ x ⅞	VL-1209	89D176	.99
25	⅜ x ⅞	VL-1210	89D177	.99
35	7/16 x ⅞	VL-1212	89D178	1.05
50	½ x ⅞	VL-1215	89D179	1.05
70	½ x ⅞	VL-1218	89D180	1.17
50 WVDC				
1	⅜ x ¾	VL-1300	89D181	.90
2	⅜ x ¾	VL-1301	89D182	.90
3	⅜ x ¾	VL-1302	89D183	.93
4	⅜ x ¾	VL-1303	89D184	.99
5	⅜ x ¾	VL-1304	89D185	.99
6	⅜ x ¾	VL-1305	89D186	.99
8	⅜ x ¾	VL-1306	89D187	.99
10	⅜ x ⅞	VL-1307	89D188	.99
15	7/16 x ⅞	VL-1308	89D189	.99
20	7/16 x ⅞	VL-1309	89D190	.99
25	½ x ⅞	VL-1310	89D191	.99
6-6 WVDC				
100-30	7/16 x 1 3/16	VL-2150	.....	1.26
10-10 WVDC				
50-50	½ x ⅞	VL-2250	.....	1.17
80-80	½ x ⅞	VL-2350	.....	1.32
8-8-8 WVDC				
100-100-60	½ x 1 1/16	VL-3320	.....	2.07
10-10-3 WVDC				
50-50-15	½ x ⅞	VL-3350	.....	1.80

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Net

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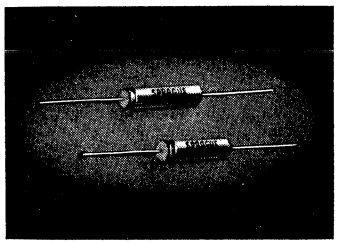
SPRAGUE CAPACITORS

TE LITTL-LYTIC® ELECTROLYTICS



- Ultra-Small — Excellent, Dependable Replacement Units for Transistorized Equipment Presently on the Market
- Reliability at Reasonable Prices
- All-Welded Construction — No Pressure Joints to Cause "Open" or Intermittent Circuits
- No Corrosion as with Competitive Units
- Extremely Low Leakage Current, Long Shelf Life
- Withstand Temperatures Up to 85°C (185°F)
- Furnished with Clear Plastic Outer Insulating Sleeves
- Packed 5 to a Handy Rigid Kleer Pak® Plastic Box

For Complete Technical Data, See Latest Sprague Engineering Bulletin 3110

μF	D. x L.*	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
1 WVDC				
5	3/16 x 1/2	TE-1010	.....	$ .75
3 WVDC				
1	3/16 x 1/2	TE-1050	30D105G003AA0	.75
2	3/16 x 1/2	TE-1051	30D205G003AA0	.75
3	3/16 x 1/2	TE-1052	30D305G003AA0	.75
4	3/16 x 1/2	TE-1052.1	30D405G003AA0	.75
5	3/16 x 1/2	TE-1052.2	30D505G003AA0	.75
6	3/16 x 1/2	TE-1052.3	30D605G003AA0	.75
8	3/16 x 1/2	TE-1052.5	30D805G003AA0	.75
10	3/16 x 1/2	TE-1053	30D106G003AA0	.75
15	1/4 x 1/2	TE-1053.5	30D156G003BA0	.75
20	1/4 x 1/2	TE-1054	30D206G003BA0	.75
25	1/4 x 1/2	TE-1055	30D256G003BA0	.75
35	1/4 x 11/16	TE-1056	30D356G003BB0	.75
40	1/4 x 11/16	TE-1057	.....	.75
50	1/4 x 11/16	TE-1058	30D506G003BB0	.75
75	5/16 x 11/16	TE-1059	30D756G003CB0	.84
100	5/16 x 11/16	TE-1059.5	30D107G003CB0	.84
110	3/8 x 11/16	TE-1060	.....	.84
150	3/8 x 11/16	TE-1061	30D157G003DB0	.87
200	3/8 x 13/16	TE-1064	30D207G003DC0	.90
250	3/8 x 15/16	TE-1065	30D257G003DD0	.96
300	3/8 x 15/16	TE-1066	30D307G003DD0	.99
400	3/8 x 1 1/4	TE-1067	30D407G003DF0	1.02
500	3/8 x 1 1/2	TE-1068	30D507G003DH0	1.05
6 WVDC				
1	3/16 x 1/2	TE-1080	30D105G006AA0	.75
2	3/16 x 1/2	TE-1081	30D205G006AA0	.75
3	3/16 x 1/2	TE-1082	30D305G006AA0	.75
4	3/16 x 1/2	TE-1083	30D405G006AA0	.75
5	3/16 x 1/2	TE-1084	30D505G006AA0	.75
6	3/16 x 1/2	TE-1085	30D605G006AA0	.75
8	3/16 x 1/2	TE-1086	30D805G006AA0	.81
10	1/4 x 1/2	TE-1087	30D106G006BA0	.81
15	1/4 x 1/2	TE-1089	30D156G006BA0	.81
20	1/4 x 11/16	TE-1090	30D206G006BB0	.81
25	1/4 x 11/16	TE-1091	30D256G006BB0	.81
30	1/4 x 11/16	TE-1092	.....	.84
35	1/4 x 11/16	TE-1093	30D356G006BB0	.84
40	1/4 x 11/16	TE-1095	.....	.84
50	5/16 x 11/16	TE-1100	30D506G006CB0	.84
60	5/16 x 11/16	TE-1101	.....	.84
75	3/8 x 11/16	TE-1101.5	30D756G006DB0	.87
100	3/8 x 11/16	TE-1102	30D107G006DB0	.90
150	3/8 x 15/16	TE-1103	30D157G006DD0	.93
200	3/8 x 1 1/4	TE-1104	30D207G006DF0	.96
250	3/8 x 1 1/4	TE-1105	30D257G006DF0	1.02
300	3/8 x 1 1/2	TE-1106	30D307G006DH0	1.08

μF	D. x L.*	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
10 WVDC				
10	1/4 x 1/2	TE-1114	.....	$ .81
15	1/4 x 1/2	TE-1116	.....	.81
25	1/4 x 11/16	TE-1118	.....	.81
50	3/8 x 11/16	TE-1119	.....	.90
100	3/8 x 13/16	TE-1119.3	.....	1.02
200	3/8 x 1 1/4	TE-1119.6	.....	1.20
12 WVDC				
1	3/16 x 1/2	TE-1120	30D105G012AA0	.75
2	3/16 x 1/2	TE-1121	30D205G012AA0	.75
3	3/16 x 1/2	TE-1122	30D305G012AA0	.75
4	3/16 x 1/2	TE-1123	30D405G012AA0	.75
5	3/16 x 1/2	TE-1127	30D505G012AA0	.81
6	1/4 x 1/2	TE-1127.1	30D605G012BA0	.81
8	1/4 x 1/2	TE-1127.3	30D805G012BA0	.81
10	1/4 x 1/2	TE-1128	30D106G012BA0	.81
15	1/4 x 11/16	TE-1129	30D156G012BB0	.84
20	1/4 x 11/16	TE-1130	30D206G012BB0	.84
25	1/4 x 11/16	TE-1131	30D256G012BB0	.84
35	5/16 x 11/16	TE-1132	30D356G012CB0	.87
50	3/8 x 11/16	TE-1133	30D506G012DB0	.93
75	3/8 x 13/16	TE-1134	30D756G012DC0	.99
100	3/8 x 13/16	TE-1135	30D107G012DC0	1.05
150	3/8 x 1 1/4	TE-1136	30D157G012DF0	1.14
200	3/8 x 1 1/4	TE-1137	30D207G012DF0	1.23
250	3/8 x 1 1/2	TE-1138	30D257G012DH0	1.32
15 WVDC				
1	3/16 x 1/2	TE-1148	30D105G015AA0	.75
2	3/16 x 1/2	TE-1149	30D205G015AA0	.75
3	3/16 x 1/2	TE-1150	30D305G015AA0	.75
4	3/16 x 1/2	TE-1151	30D405G015AA0	.78
5	1/4 x 1/2	TE-1152	30D505G015BA0	.84
6	1/4 x 1/2	TE-1153	30D605G015BA0	.84
8	1/4 x 1/2	TE-1154	30D805G015BA0	.84
10	1/4 x 1/2	TE-1155	30D106G015BA0	.84
15	1/4 x 11/16	TE-1156	30D156G015BB0	.87
20	1/4 x 11/16	TE-1157	30D206G015BB0	.87
25	5/16 x 11/16	TE-1157.1	30D256G015CB0	.87
30	5/16 x 11/16	TE-1158	.....	.90
35	3/8 x 11/16	TE-1159	30D356G015DB0	.93
50	3/8 x 11/16	TE-1160	30D506G015DB0	.96
75	3/8 x 13/16	TE-1161	30D706G015DC0	1.02
100	3/8 x 15/16	TE-1162	30D107G015DD0	1.08
150	3/8 x 1 1/4	TE-1163	30D157G015DF0	1:17
200	3/8 x 1 1/2	TE-1164	30D207G015DH0	1.26

μF	D. x L.*	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
25 WVDC				
1	3/16 x 1/2	TE-1200	30D105G025AA0	$ .75
2	3/16 x 1/2	TE-1201	30D205G025AA0	.78
3	3/16 x 1/2	TE-1201.1	30D305G025BA0	.78
4	3/16 x 1/2	TE-1201.2	30D405G025BA0	.78
5	3/16 x 1/2	TE-1202	30D505G025BA0	.84
6	1/4 x 11/16	TE-1203	30D605G025BB0	.84
8	1/4 x 11/16	TE-1203.5	30D805G025BB0	.87
10	1/4 x 11/16	TE-1204	30D105G025BB0	.87
15	5/16 x 11/16	TE-1205	30D156G025CB0	.87
20	3/8 x 11/16	TE-1206	.....	.90
25	3/8 x 11/16	TE-1207	30D256G025DB0	.93
35	3/8 x 13/16	TE-1208	30D356G025DC0	.99
50	3/8 x 15/16	TE-1209	30D506G025DD0	1.08
75	3/8 x 1 1/4	TE-1210	30D756G025DF0	1.17
100	3/8 x 1 1/2	TE-1211	30D107G025DH0	1.26
50 WVDC				
1	3/16 x 1/2	TE-1300	30D105G050AA0	.78
2	1/4 x 1/2	TE-1301	30D205G050BA0	.81
3	1/4 x 1/2	TE-1302	30D305G050BA0	.81
4	1/4 x 11/16	TE-1302.1	30D405G050BB0	.81
5	1/4 x 11/16	TE-1303	30D505G050BB0	.87
6	5/16 x 11/16	TE-1303.1	30D605G050CB0	.87
8	5/16 x 11/16	TE-1303.3	30D805G050CB0	.90
10	5/16 x 11/16	TE-1304	30D106G050CB0	.90
15	3/8 x 11/16	TE-1304.2	30D156G050DB0	.90
20	3/8 x 13/16	TE-1305	30D206G050DC0	.90
35	3/8 x 1 1/4	TE-1306	30D356G050DF0	1.02
50	3/8 x 1 1/2	TE-1307	30D506G050DH0	1.11
100 WVDC				
1	3/8 x 15/16	TE-1400	30D105G100CC0	.81
2	3/8 x 15/16	TE-1401	30D205G100CC0	.84
3	3/8 x 15/16	TE-1403	30D305G100CC0	.84
4	3/8 x 15/16	TE-1403	30D405G100DD0	.84
5	3/8 x 15/16	TE-1404	30D505G100DD0	.90
6	3/8 x 15/16	TE-1405	30D605G100DD0	.90
8	3/8 x 15/16	TE-1406	30D805G100DD0	.93
10	3/8 x 15/16	TE-1407	30D106G100DD0	.93
15	3/8 x 1 1/4	TE-1408	30D156G100DF0	.93
20	3/8 x 1 1/2	TE-1409	30D206G100DH0	.96
150 WVDC				
1	3/8 x 15/16	TE-1500	30D105G150CC0	.84
2	3/8 x 15/16	TE-1501	30D205G150CC0	.87
3	3/8 x 15/16	TE-1502	30D305G150CC0	.87
4	3/8 x 15/16	TE-1503	30D405G150DD0	.87
5	3/8 x 15/16	TE-1504	30D505G150DD0	.93
6	3/8 x 1 1/4	TE-1505	30D605G150DF0	.93
8	3/8 x 1 1/4	TE-1506	30D805G150DF0	.96
10	3/8 x 1 1/4	TE-1507	30D106G150DF0	.96
12	3/8 x 1 1/2	TE-1508	30D126G150DH0	.96

*Add 1/16" to dimensions to allow for insulating sleeve.

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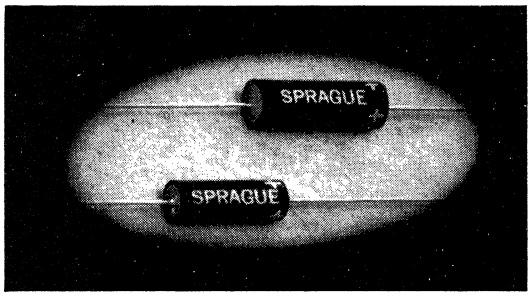
Net

SPRAGUE CAPACITORS

TL TRANSI-LYTIC® ELECTROLYTICS



- Miniature Low-Cost Capacitors For Use in Transistorized Pocket and "Personal Portable" Radios
- Special Low-Leakage Current Construction to Meet The Requirements of Transistor Circuitry
- Sturdy Plastic Case With Thermo-setting Resin End-Seals
- Excellent Resistance to High Humidity Conditions
- Polarity Stamped on Each Unit

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net.
3 WVDC				
1	3/16 x 37/64	TL-1050	31D1	$.42
2	3/16 x 37/64	TL-1051	31D2	.42
3	3/16 x 37/64	TL-1052	31D3	.42
4	3/16 x 37/64	TL-1052.1	31D4	.42
5	3/16 x 37/64	TL-1052.2	31D5	.42
6	3/16 x 37/64	TL-1052.3	31D6	.42
8	3/16 x 37/64	TL-1052.5	31D7	.42
10	3/16 x 37/64	TL-1053	31D8	.42
15	7/32 x 45/64	TL-1053.5	31D9	.42
20	7/32 x 45/64	TL-1054	31D10	.42
25	1/4 x 53/64	TL-1055	31D11	.42
35	1/4 x 53/64	TL-1056	31D12	.42
50	1/4 x 53/64	TL-1058	31D13	.42
75	5/16 x 53/64	TL-1059	31D14	.45
100	5/16 x 53/64	TL-1059.5	31D15	.45
150	3/8 x 1 5/64	TL-1061	31D16	.54
200	3/8 x 1 5/64	TL-1064	31D17	.54
250	3/8 x 1 5/64	TL-1065	31D18	.66
6 WVDC				
1	3/16 x 37/64	TL-1080	31D19	$.42
2	3/16 x 37/64	TL-1081	31D20	.42
3	3/16 x 37/64	TL-1082	31D21	.42
4	3/16 x 37/64	TL-1083	31D22	.42
5	3/16 x 37/64	TL-1084	31D23	.42
6	3/16 x 37/64	TL-1085	31D24	.42
8	3/16 x 37/64	TL-1086	31D25	.42
10	7/32 x 45/64	TL-1087	31D26	.42
15	7/32 x 45/64	TL-1089	31D27	.42
20	1/4 x 53/64	TL-1090	31D28	.42
25	1/4 x 53/64	TL-1091	31D29	.42
35	1/4 x 53/64	TL-1093	31D30	.42
50	5/16 x 53/64	TL-1100	31D31	.42
6 WVDC (cont.)				
75	3/8 x 1 5/64	TL-1101.5	31D32	$.45
100	3/8 x 1 5/64	TL-1102	31D33	.45
150	3/8 x 1 5/64	TL-1103	31D34	.60
175	3/8 x 1 5/64	TL-1103.5	31D35	.60
12 WVDC				
1	3/16 x 37/64	TL-1120	31D36	$.42
2	3/16 x 37/64	TL-1121	31D37	.42
3	3/16 x 37/64	TL-1122	31D38	.42
4	3/16 x 37/64	TL-1123	31D39	.42
5	3/16 x 37/64	TL-1127	31D40	.42
6	7/32 x 45/64	TL-1127.1	31D41	.42
8	7/32 x 45/64	TL-1127.3	31D42	.42
10	7/32 x 45/64	TL-1128	31D43	.42
15	1/4 x 53/64	TL-1129	31D44	.42
20	1/4 x 53/64	TL-1130	31D45	.42
25	1/4 x 53/64	TL-1131	31D46	.42
35	5/16 x 53/64	TL-1132	31D47	.42
50	5/16 x 53/64	TL-1133	31D48	.42
75	3/8 x 1 5/64	TL-1134	31D49	.45
100	3/8 x 1 5/64	TL-1135	31D50	.45
16 WVDC				
1	3/16 x 37/64	TL-1148	31D51	$.42
2	3/16 x 37/64	TL-1149	31D52	.42
3	3/16 x 37/64	TL-1150	31D53	.42
4	3/16 x 37/64	TL-1151	31D54	.42
5	7/32 x 45/64	TL-1152	31D55	.42
6	7/32 x 45/64	TL-1153	31D56	.42
8	7/32 x 45/64	TL-1154	31D57	.42
10	1/4 x 53/64	TL-1155	31D58	.45
15	1/4 x 53/64	TL-1156	31D59	.45
20	1/4 x 53/64	TL-1157	31D60	.45
25	1/4 x 53/64	TL-1157.1	31D61	.45
16 WVDC (cont.)				
35	5/16 x 53/64	TL-1159	31D62	$.45
50	3/8 x 1 5/64	TL-1160	31D63	.45
75	3/8 x 1 5/64	TL-1161	31D64	.48
100	3/8 x 1 5/64	TL-1162	31D65	.48
20 WVDC				
1	3/16 x 37/64	TL-1170	31D66	$.42
2	3/16 x 37/64	TL-1171	31D67	.42
3	3/16 x 37/64	TL-1172	31D68	.42
4	7/32 x 45/64	TL-1173	31D69	.42
5	7/32 x 45/64	TL-1174	31D70	.45
6	7/32 x 45/64	TL-1175	31D71	.45
8	1/4 x 53/64	TL-1176	31D72	.45
10	1/4 x 53/64	TL-1177	31D73	.45
15	1/4 x 53/64	TL-1178	31D74	.54
20	5/16 x 53/64	TL-1179	31D75	.54
25	5/16 x 53/64	TL-1180	31D76	.54
35	3/8 x 1 5/64	TL-1181	31D77	.54
50	3/8 x 1 5/64	TL-1182	31D78	.54
75	3/8 x 1 5/64	TL-1183	31D79	.54
25 WVDC				
1	3/16 x 37/64	TL-1200	31D80	$.42
2	3/16 x 37/64	TL-1201	31D81	.42
3	7/32 x 45/64	TL-1201.1	31D82	.42
4	7/32 x 45/64	TL-1201.2	31D83	.42
5	1/4 x 53/64	TL-1202	31D84	.45
6	1/4 x 53/64	TL-1203	31D85	.45
8	1/4 x 53/64	TL-1203.5	31D86	.45
10	1/4 x 53/64	TL-1204	31D87	.45
15	5/16 x 53/64	TL-1205	31D88	.54
20	5/16 x 53/64	TL-1206	31D89	.54
25	3/8 x 1 5/64	TL-1207	31D90	.54
35	3/8 x 1 5/64	TL-1208	31D91	.54
50	3/8 x 1 5/64	TL-1209	31D92	.54

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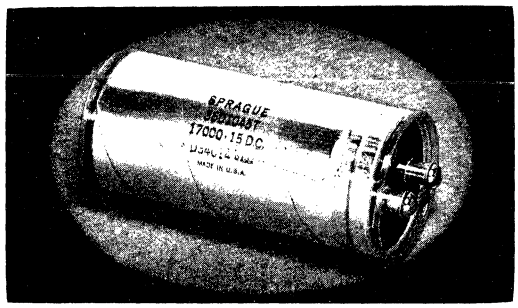
SPRAGUE CAPACITORS

TYPE 36D POWERLYTIC® ALUMINUM ELECTROLYTICS



- For Maximum Capacitance in a Given Case Size.
- Especially Suitable for Transistorized Circuitry where High Capacitance is Required.
- Maximum Space Economy at Operating Temperatures Up To 65 C.
- Low ESR and Leakage Currents. • Extremely Long Shelf Life.
- Uses Most Reliable Seal Developed by Sprague for Aluminum Electrolytic Capacitors. Pressure-type Safety Vents Employing Silicone Rubber Are Used On All Cases.
- High Screw Insert Terminal, 9/32" high. • Plastic Outer Tube.
- Superior Electrical and Life Characteristics Are Insured By Careful Raw Material Inspection, High Quality Control Standards and Close Manufacturing Supervision. For Complete Technical Data, Consult Sprague Engineering Bulletin 3431.

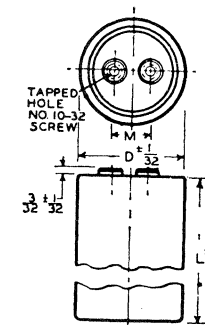
μF	Size Code	WVDC	Catalog No.
3600	A1	10	36D1026T
7300	A2	10	36D1027T
11000	A3	10	36D1029T
27000	D2	10	36D1033T
2600	A1	15	36D1039T
5300	A2	15	36D1040T
8000	A3	15	36D1042T
17000	C3	15	36D1045T
20000	D2	15	36D1046T
30000	D3	15	36D1048T
35000	D4	15	36D1049T
1500	A1	25	36D1065T
3100	A2	25	36D1066T
4700	A3	25	36D1068T
7000	C2	25	36D1070T
10000	C3	25	36D1071T
17000	D3	25	36D1074T
27000	E3	25	36D1076T
32000	E4	25	36D1077T
23000	E3	30	36D1089T
27000	E4	30	36D1090T
2000	A3	40	36D1094T
4000	C2	40	36D1096T
6000	C3	40	36D1097T
10000	D3	40	36D1100T
12000	D4	40	36D1101T
750	A1	50	36D1104T
1500	A2	50	36D1105T
2200	A3	50	36D1107T
3300	C2	50	36D1109T
5000	C3	50	36D1110T
8600	D3	50	36D1113T

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

μF	Size Code	WVDC	Catalog No.
2000	C2	75	36D1122T
6200	D4	75	36D1127T
1000	A3	100	36D1133T
4000	D3	100	36D1139T
900	A3	150	36D1146T
1300	C2	150	36D1147T
2000	C3	150	36D1148T
3400	D3	150	36D1150T
5300	E3	150	36D1151T
400	A2	200	36D1154T
600	A3	200	36D1156T
1600	D2	200	36D1159T
530	A3	250	36D1166T
1100	C3	250	36D1168T
240	A2	300	36D1174T
190	A2	350	36D1184T
1000	D3	350	36D1190T
330	C3	450	36D1208T
860	E3	450	36D1211T

CALL YOUR SPRAGUE DISTRIBUTOR FOR QUANTITY PRICES

Size Code	Diameter	Length
A1	1 7/16	2 1/2
A2	1 7/16	3 1/2
A3	1 7/16	4 1/2
C2	2 1/16	3 1/2
C3	2 1/16	4 1/2
D2	2 9/16	3 1/2
D3	2 9/16	4 1/2
D4	2 9/16	5
E3	3 1/16	4 1/2
E4	3 1/16	5



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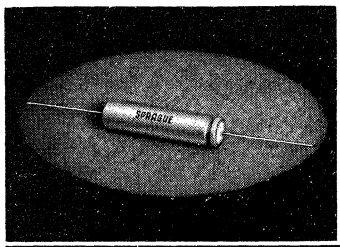
SPRAGUE CAPACITORS

TYPE 40D Miniature Extended-Life 85°C ELECTROLYTICS

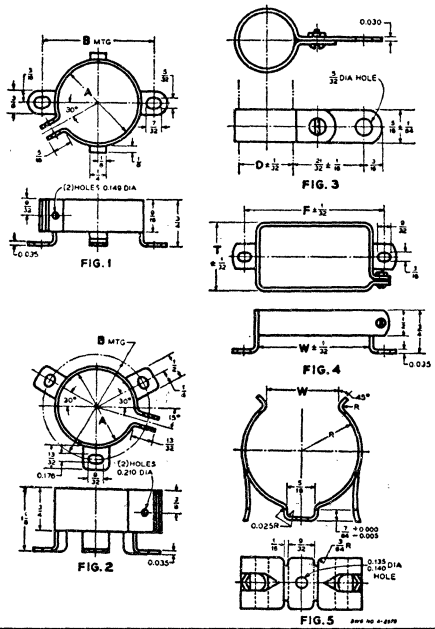


- THE MOST RELIABLE TUBULAR ALUMINUM ELECTROLYTIC MANUFACTURED
- Premium quality. Service life of 10 years in actual circuit applications under typical operating conditions
- Special design and processing techniques result in ultra low leakage currents and high stability
- All critical terminations are welded to prevent open circuits even after extended service in the millivolt range
- Operating Temperature: —40°C to +85°C
- Units listed here have thermoplastic insulating sleeves; for rigid phenolic sleeve, change end of catalog number from 4 to 3; for bare metal tubes, change end of catalog number to 0.
- Capacitance tolerance: —10, +50%
- Write for Engineering Bulletin No. 3205 to compare this outstanding capacitor with any other unit on the market.
- Prices available upon request.

µF	D. x L.	Catalog Number
3 WORKING VOLTS D-C		
1	5/16 x 3/4	40D105F003BB4
2	5/16 x 3/4	40D205F003BB4
3	5/16 x 3/4	40D305F003BB4
4	5/16 x 3/4	40D405F003BB4
5	5/16 x 3/4	40D505F003BB4
6	5/16 x 3/4	40D605F003BB4
8	5/16 x 3/4	40D805F003BB4
10	5/16 x 3/4	40D106F003BB4
15	5/16 x 3/4	40D156F003BB4
20	5/16 x 3/4	40D206F003BB4
25	5/16 x 3/4	40D256F003BB4
35	3/8 x 3/4	40D356F003CB4
50	7/16 x 3/4	40D506F003DB4
75	7/16 x 3/4	40D756F003DB4
100	7/16 x 7/8	40D107F003DC4
150	7/16 x 1	40D157F003DD4
200	7/16 x 1 5/16	40D207F003DF4
225	7/16 x 1 5/16	40D227F003DF4
250	7/16 x 1 9/16	40D257F003DH4
300	7/16 x 1 9/16	40D307F003DH4
6 WORKING VOLTS D-C		
1	5/16 x 3/4	40D105F006BB4
2	5/16 x 3/4	40D205F006BB4
3	5/16 x 3/4	40D305F006BB4
4	5/16 x 3/4	40D405F006BB4
5	5/16 x 3/4	40D505F006BB4
6	5/16 x 3/4	40D605F006BB4
8	5/16 x 3/4	40D805F006BB4
10	5/16 x 3/4	40D106F006BB4
15	5/16 x 3/4	40D156F006BB4
20	3/8 x 3/4	40D206F006CB4
25	3/8 x 3/4	40D256F006CB4
35	7/16 x 3/4	40D356F006DB4
50	7/16 x 3/4	40D506F006DB4
75	7/16 x 7/8	40D756F006DC4
100	7/16 x 1	40D107F006DD4
150	7/16 x 1 5/16	40D157F006DF4
175	7/16 x 1 5/16	40D177F006DF4
200	7/16 x 1 9/16	40D207F006DH4
250	7/16 x 1 9/16	40D257F006DH4
12 WORKING VOLTS D-C		
1	5/16 x 3/4	40D105F012BB4
2	5/16 x 3/4	40D205F012BB4
3	5/16 x 3/4	40D305F012BB4
4	5/16 x 3/4	40D405F012BB4
5	5/16 x 3/4	40D505F012BB4
6	5/16 x 3/4	40D605F012BB4
8	5/16 x 3/4	40D805F012BB4
10	5/16 x 3/4	40D106F012BB4
15	5/16 x 3/4	40D156F012BB4
20	3/8 x 3/4	40D206F012CB4
25	3/8 x 3/4	40D256F012CB4
35	7/16 x 3/4	40D356F012DB4
50	7/16 x 7/8	40D506F012DC4
75	7/16 x 1	40D756F012DD4
100	7/16 x 1	40D107F012DD4
150	7/16 x 1 5/16	40D157F012DF4
200	7/16 x 1 9/16	40D207F012DH4
15 WORKING VOLTS D-C		
1	5/16 x 3/4	40D105F015BB4
2	5/16 x 3/4	40D205F015BB4
3	5/16 x 3/4	40D305F015BB4
4	5/16 x 3/4	40D405F015BB4
5	5/16 x 3/4	40D505F015BB4
6	5/16 x 3/4	40D605F015BB4
8	5/16 x 3/4	40D805F015BB4
10	5/16 x 3/4	40D106F015BB4
15	3/8 x 3/4	40D156F015CB4
20	7/16 x 3/4	40D206F015DB4
25	7/16 x 3/4	40D256F015DB4
35	7/16 x 7/8	40D356F015DC4
50	7/16 x 7/8	40D506F015DC4
75	7/16 x 1	40D756F015DD4
100	7/16 x 1 5/16	40D107F015DF4
150	7/16 x 1 9/16	40D157F015DH4
25 WORKING VOLTS D-C		
1	5/16 x 3/4	40D105F025BB4
2	5/16 x 3/4	40D205F025BB4
3	5/16 x 3/4	40D305F025BB4
4	5/16 x 3/4	40D405F025BB4
5	5/16 x 3/4	40D505F025BB4
6	3/8 x 3/4	40D605F025CB4
8	3/8 x 3/4	40D805F025CB4
10	7/16 x 3/4	40D106F025DB4
15	7/16 x 3/4	40D156F025DB4
20	7/16 x 7/8	40D206F025DC4
25	7/16 x 1	40D256F025DD4
35	7/16 x 1	40D356F025DD4
50	7/16 x 1 5/16	40D506F025DF4
75	7/16 x 1 9/16	40D756F025DH4
50 WORKING VOLTS D-C		
1	5/16 x 3/4	40D105F050BB4
2	3/8 x 3/4	40D205F050CB4
3	3/8 x 3/4	40D305F050CB4
4	7/16 x 3/4	40D405F050DB4
5	7/16 x 3/4	40D505F050DB4
6	7/16 x 3/4	40D605F050DB4
8	7/16 x 7/8	40D805F050DC4
10	7/16 x 7/8	40D106F050DC4
15	7/16 x 1	40D156F050DD4
20	7/16 x 1 5/16	40D206F050DF4
25	7/16 x 1 9/16	40D256F050DH4
30	7/16 x 1 9/16	40D306F050DH4
100 WORKING VOLTS D-C		
1	7/16 x 1	40D105F100DD4
2	7/16 x 1	40D205F100DD4
3	7/16 x 1	40D305F100DD4
4	7/16 x 1	40D405F100DD4
5	7/16 x 1	40D505F100DD4
6	7/16 x 1	40D605F100DD4
8	7/16 x 1	40D805F100DD4
10	7/16 x 1 5/16	40D106F100DF4
15	7/16 x 1 9/16	40D156F100DH4
18	7/16 x 1 9/16	40D186F100DH4
150 WORKING VOLTS D-C		
1	7/16 x 1	40D105F150DD4
2	7/16 x 1	40D205F150DD4
3	7/16 x 1	40D305F150DD4
4	7/16 x 1	40D405F150DD4
5	7/16 x 1	40D505F150DD4
6	7/16 x 1 5/16	40D605F150DF4
8	7/16 x 1 5/16	40D805F150DF4
10	7/16 x 1 9/16	40D106F150DH4

CAPACITOR HARDWARE

- Sprague Mounting Clamps and Straps Provide Quick, Dependable Means for Securing a Wide Variety of Capacitors and Resistors to a Mounting Surface
- All Clamps and Straps are Made from Plated Steel



VERTICAL MOUNTING CLAMPS FOR CYLINDRICAL CAPACITORS

Cat. No.	A Dia.	B Mounting	Figure No.	Net Price
CMC-16	1	1 7/16	1	$.25
CMC-20	1 1/4	1 11/16	1	.25
CMC-22	1 3/8	1 25/32	1	.25
CMC-24	1 1/2	1 15/16	1	.30
CMC-28	1 3/4	2 3/16	1	.30
CMC-28A	1 3/4	2 3/16	2	.30
CMC-32	2	2 1/2	2	$.60
CMC-33	2 1/16	2 9/16	2	.60
CMC-40	2 1/2	3	2	.60
CMC-41	2 9/16	3 1/16	2	.60
CMC-48	3	3 1/2	2	.60
CMC-49	3 1/16	3 9/16	2	.60

WRAP AROUND CLAMPS FOR RECTANGULAR CAPACITORS

Cat. No.	Dimensions T	W	F	Fig. No.	Net Price
RMC-17	1 1/16	1 13/16	2 1/4	4	$.50
RMC-19	1 3/16	2 1/2	3	4	.50
RMC-20	1 1/4	3 3/4	4 3/8	4	.50
RMC-28	1 3/4	3 3/4	4 3/8	4	.50
RMC-36	2 1/4	3 3/4	4 3/8	4	$.55
RMC-40	2 1/2	3 3/4	4 3/8	4	.55
RMC-51	3 3/16	3 3/4	4 3/8	4	.60
RMC-73	4 9/16	3 3/4	4 3/8	4	.65

MOUNTING STRAPS FOR TUBULAR CAPACITORS

Cat. No.	Tube Dia.	Fig. No.	Net Price
TMS-4	1/4	3	$.06
TMS-5	5/16	3	.06
TMS-6	3/8	3	.06
TMS-7	7/16	3	.06
TMS-8	1/2	3	.06
TMS-9	9/16	3	.06
TMS-10	5/8	3	.06
TMS-11	11/16	3	$.06
TMS-12	3/4	3	.06
TMS-13	13/16	3	.06
TMS-14	7/8	3	.06
TMS-15	15/16	3	.06
TMS-16	1	3	.10
TMS-17	1 1/16	3	.10
TMS-18	1 1/8	3	$.10
TMS-19	1 3/16	3	.10
TMS-20	1 1/4	3	.15
TMS-21	1 5/16	3	.15
TMS-22	1 3/8	3	.15

HORIZONTAL MOUNTING CLIPS FOR CYLINDRICAL CAPACITORS

Catalog No.	Capacitor Diameter	Figure No.	Net Price
UMC-6	3/8	5	$.06
UMC-8	1/2	5	.06
UMC-10	5/8	5	.06
UMC-12	3/4	5	.06
UMC-14	7/8	5	$.06
UMC-16	1	5	.10
UMC-22	1 3/8	5	.15

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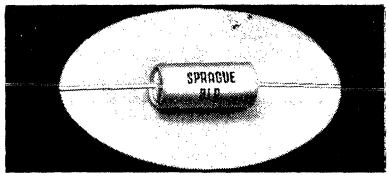
SPRAGUE CAPACITORS

VITAMIN Q® SUBMINIATURE PAPER CAPACITORS



These capacitors are the most widely used of all paper capacitors in commercial and military electronic equipment. Hermetically sealed in metal cases, they are electrically and mechanically designed to meet stringent operating requirements.

Impregnated with Vitamin Q, a substantially linear, controlled molecular weight, hydrocarbon polymer, which is exclusive with Sprague, these dependable capacitors are available for operation in two temperature ranges: −55°C to +85°C and −55°C to +125°C. Because of their Vitamin Q impregnation, these subminiature capacitors have a higher insulation resistance and longer life than comparable units with ordinary oils.

Sprague Subminiature paper capacitors exceed the performance requirements of military specification MIL-C-25A. A limited number of the ratings shown here are listed in the military specification and should be ordered by their MIL type designation where equipment specifications so require. (See page after next.)

Listed below are the most popular insulated section (ungrounded case) capacitors. For technical data on these and other types, ratings, and tolerances, as well as on wax-impregnated units for absolute minimum size, refer to the latest issue of Engineering Bulletin 2110.

Call your Sprague Industrial Distributor for Current Quantity Prices.

CHOICE OF INSERTED TAB OR EXTENDED FOIL CONSTRUCTION

In the past, inserted tab capacitors have not been recommended for low-voltage applications (e.g., below 10 volts) but recent improvements in design now make it possible to recommend them for operation at all voltages from 1 to rated, in nearly all applications.

From the application standpoint, the principal difference between the two construction types is that, at resonance, losses are likely to be lower in the extended foil type. This is because the resistive component of impedance is likely to be higher at resonance in the inserted tab type of construction. Unless unusual circuit requirements make the losses at resonance a critical factor, the inserted tab construction is recommended, primarily because of the smaller size of the capacitor roll.

TYPE 91P, INSERTED TAB CONSTRUCTION, 85°C OPERATION

			Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*		Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*	
μF	WVDC	Size D. x L.	Cat. No.		Cat. No.		Cat. No.		Cat. No.	
.001	100	.175 x ¾	91P10201S2	Call Your Sprague Industrial Distributor for Current Quantity Prices	91P10201S4	Call Your Sprague Industrial Distributor for Current Quantity Prices	91P10291S2	Call Your Sprague Industrial Distributor for Current Quantity Prices	91P10291S4	Call Your Sprague Industrial Distributor for Current Quantity Prices
	200	.235 x ¾	91P10202S2		91P10202S4		91P10292S2		91P10292S4	
	300	.235 x ¾	91P10203S2		91P10203S4		91P10293S2		91P10293S4	
	400	.235 x ¾	91P10204S2		91P10204S4		91P10294S2		91P10294S4	
	600	.235 x ¾	91P10206S2		91P10206S4		91P10296S2		91P10296S4	
.0015	100	.175 x ¾	91P15201S2		91P15201S4		91P15291S2		91P15291S4	
	200	.235 x ¾	91P15202S2		91P15202S4		91P15292S2		91P15292S4	
	300	.235 x ¾	91P15203S2		91P15203S4		91P15293S2		91P15293S4	
	400	.235 x ¾	91P15204S2		91P15204S4		91P15294S2		91P15294S4	
	600	.235 x ¾	91P15206S2		91P15206S4		91P15296S2		91P15296S4	
.0022	100	.175 x ¾	91P22201S2		91P22201S4		91P22291S2		91P22291S4	
	200	.235 x ¾	91P22202S2		91P22202S4		91P22292S2		91P22292S4	
	300	.235 x ¾	91P22203S2		91P22203S4		91P22293S2		91P22293S4	
	400	.235 x ¾	91P22204S2		91P22204S4		91P22294S2		91P22294S4	
	600	.235 x ¾	91P22206S2		91P22206S4		91P22296S2		91P22296S4	
.0033	100	.175 x ¾	91P33201S2		91P33201S4		91P33291S2		91P33291S4	
	200	.235 x ¾	91P33202S2		91P33202S4		91P33292S2		91P33292S4	
	300	.235 x ¾	91P33203S2		91P33203S4		91P33293S2		91P33293S4	
	400	.235 x ¾	91P33204S2		91P33204S4		91P33294S2		91P33294S4	
	600	.235 x ¾	91P33206S2		91P33206S4		91P33296S2		91P33296S4	
.0047	100	.175 x ¾	91P47201S2		91P47201S4		91P47291S2		91P47291S4	
	200	.235 x ¾	91P47202S2		91P47202S4		91P47292S2		91P47292S4	
	300	.235 x ¾	91P47203S2		91P47203S4		91P47293S2		91P47293S4	
	400	235 x ¾	91P47204S2		91P47204S4		91P47294S2		91P47294S4	
	600	.235 x ¾	91P47206S2		91P47206S4		91P47296S2		91P47296S4	
.0068	100	.175 x ¾	91P68201S2		91P68201S4		91P68291S2		91P68291S4	
	200	.235 x ¾	91P68202S2		91P68202S4		91P68292S2		91P68292S4	
	300	.235 x ¾	91P68203S2		91P68203S4		91P68293S2		91P68293S4	
	400	.235 x ¾	91P68204S2		91P68204S4		91P68294S2		91P68294S4	
	600	.235 x ¾	91P68206S2		91P68206S4		91P68296S2		91P68296S4	

*For Style 4 units add .0625" to diameter and 1/16" to length.

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SPRAGUE CAPACITORS

TYPE 91P, continued

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*		Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*	
			Cat. No.		Cat. No.		Cat. No.		Cat. No.	
	100	.175 x ¾	91P10301S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	91P10301S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	91P10391S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	91P10391S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
	200	.235 x ¾	91P10302S2		91P10302S4		91P10392S2		91P10392S4	
.01	300	.235 x ¾	91P10303S2		91P10303S4		91P10393S2		91P10393S4	
	400	.235 x ¾	91P10304S2		91P10304S4		91P10394S2		91P10394S4	
	600	.312 x ⅞	91P10306S2		91P10306S4		91P10396S2		91P10396S4	
	100	.175 x ¾	91P15301S2		91P15301S4		91P15391S2		91P15391S4	
	200	.235 x ¾	91P15302S2		91P15302S4		91P15392S2		91P15392S4	
.015	300	.235 x ¾	91P15303S2		91P15303S4		91P15393S2		91P15393S4	
	400	.312 x ⅞	91P15304S2		91P15304S4		91P15394S2		91P15394S4	
	600	.312 x ⅞	91P15306S2		91P15306S4		91P15396S2		91P15396S4	
	100	.195 x ¾	91P22301S2		91P22301S4		91P22391S2		91P22391S4	
	200	.235 x ¾	91P22302S2		91P22302S4		19P22392S2		91P22392S4	
.022	300	.312 x ⅞	91P22303S2		91P22303S4		91P22393S2		91P22393S4	
	400	.312 x ⅞	91P22304S2		91P22304S4		91P22394S2		91P22394S4	
	600	.312 x ⅞	91P22306S2		91P22306S4		91P22396S2		91P22396S4	
	100	.235 x ¾	91P33301S2		91P33301S4		91P33391S2		91P33391S4	
	200	.312 x ⅞	91P33302S2		91P33302S4		91P33392S2		91P33392S4	
.033	300	.312 x ⅞	91P33303S2		91P33303S4		91P33393S2		91P33393S4	
	400	.312 x ⅞	91P33304S2		91P33304S4		91P33394S2		91P33394S4	
	600	.400 x ⅞	91P33306S2		91P33306S4		91P33396S2		91P33396S4	
	100	.312 x ⅞	91P47301S2		91P47301S4		91P47391S2		91P47391S4	
	200	.312 x ⅞	91P47302S2		91P47302S4		91P47392S2		91P47392S4	
.047	300	.312 x ⅞	91P47303S2		91P47303S4		91P47393S2		91P47393S4	
	400	.400 x ⅞	91P47304S2		91P47304S4		91P47394S2		91P47394S4	
	600	.400 x 1⅜	91P47306S2		91P47306S4		91P47396S2		91P47396S4	
	100	.312 x ⅞	91P68301S2		91P68301S4		91P68391S2		91P68391S4	
	200	.312 x ⅞	91P68302S2		91P68302S4		91P68392S2		91P68392S4	
.068	300	.400 x ⅞	91P68303S2		91P68303S4		91P68393S2		91P68393S4	
	400	.400 x 1⅛	91P68304S2		91P68304S4		91P68394S4		91P68394S4	
	600	.400 x 1⅛	91P68306S2		91P68306S4		91P68396S2		91P68396S4	
	100	.312 x ⅞	91P10401S2		91P10401S4		91P10491S2		91P10491S4	
	200	.400 x ⅞	91P10402S2		91P10402S4		91P10492S2		91P10492S4	
.1	300	.400 x 1⅛	91P10403S2		91P10403S4		91P10493S2		91P10493S4	
	400	.400 x 1⅛	91P10404S2		91P10404S4		91P10494S2		91P10494S4	
	600	.562 x 1⅛	91P10406S2		91P10406S4		91P10496S2		91P10496S4	
	100	.400 x ⅞	91P15401S2		91P15401S4		91P15491S2		91P15491S4	
	200	.400 x 1⅛	91P15402S2		91P15402S4		91P15492S2		91P15492S4	
.15	300	.400 x 1⅜	91P15403S2		91P15403S4		91P15493S2		91P15493S4	
	400	.562 x 1⅛	91P15404S2		91P15404S4		91P15494S2		91P15494S4	
	600	.562 x 1⅜	91P15406S2		91P15406S4		91P15496S2		91P15496S4	
	100	.400 x 1⅛	91P22401S2		91P22401S4		91P22491S2		91P22491S4	
	200	.400 x 1⅜	91P22402S2		91P22402S4		91P22492S2		91P22492S4	
22	300	.562 x 1⅛	91P22403S2		91P22403S4		91P22493S2		91P22493S4	
	400	.562 x 1⅜	91P22404S2		91P22404S4		91P22494S2		91P22494S4	
	600	.562 x 1⅞	91P22406S2		91P22406S4		91P22496S2		91P22496S4	
	100	.400 x 1⅜	91P33401S2		91P33401S4		91P33491S2		91P33491S4	
	200	.562 x 1⅛	91P33402S2		91P33402S4		91P33492S2		91P33492S4	
.33	300	.562 x 1⅜	91P33403S2		91P33403S4		91P33493S2		91P33493S4	
	400	.562 x 1⅞	91P33404S2		91P33404S4		91P33494S2		91P33494S4	
	600	.670 x 1⅞	91P33406S2		91P33406S4		91P33496S2		91P33496S4	
	100	.562 x 1⅛	91P47401S2		91P47401S4		91P47491S2		91P47491S4	
	200	.562 x 1⅜	91P47402S2		91P47402S4		91P47492S2		91P47492S4	
.47	300	.562 x 1⅞	91P47403S2		91P47403S4		91P47493S2		91P47493S4	
	400	.670 x 1⅞	91P47404S2		91P47404S4		91P47494S2		91P47494S4	
	600	.750 x 2⅛	91P47406S2		91P47406S4		91P47496S2		91P47496S4	
	100	.562 x 1⅜	91P68401S2		91P68401S4		91P68491S2		91P68491S4	
	200	.562 x 1⅞	91P68402S2		91P68402S4		91P68492S2		91P68492S4	
68	300	.670 x 1⅞	91P68403S2		91P68403S4		91P68493S2		91P68493S4	
	400	.750 x 2 1/16	91P68404S2		91P68404S4		91P68494S2		91P68494S4	
	600	1.000 x 1 13/16	91P68406S2		91P68406S4		91P68496S2		91P68496S4	
	100	.562 x 1⅞	91P10501S2		91P10501S4		91P10591S2		91P10591S4	
1.0	200	.670 x 1⅞	91P10502S2		91P10502S4		91P10592S2		91P10592S4	
	300	.750 x 2 1/16	91P10503S2		91P10503S4		91P10593S2		91P10593S4	
	400	1.000 x 1 13/16	91P10504S2		91P10504S4		91P10594S2		91P10594S4	

*For Style 4 units add .0625" to diameter and 1/16" to length.

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SPRAGUE CAPACITORS

TYPE 96P, INSERTED TAB CONTRUCTION, 125°C OPERATION

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20% — Style 2 (bare metal case) Cat. No.		Capacitance Tolerance ±20% — Style 4 (w/plastic sleeve)* Cat. No.		Capacitance Tolerance ±10% — Style 2 (bare metal case) Cat. No.		Capacitance Tolerance ±10% — Style 4 (w/plastic sleeve)* Cat. No.	
	100	.175 x 3/4	96P10201S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	96P10201S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	96P10291S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	96P10201S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
	200	.235 x 3/4	96P10202S2		96P10202S4		96P10292S2		96P10202S4	
.001	300	.235 x 3/4	96P10203S2		96P10203S4		96P10293S2		96P10203S4	
	400	.235 x 3/4	96P10204S2		96P10204S4		96P10294S2		96P10204S4	
	600	.235 x 3/4	96P10206S2		96P10206S4		96P10296S2		96P10206S4	
.0012	600	.235 x 1 1/16	———		———		96P12296S2		96P12296S4	
	100	.175 x 3/4	96P15201S2		96P15201S4		96P15291S2		96P15291S4	
	200	.235 x 3/4	96P15202S2		96P15202S4		96P15292S2		96P15292S4	
.0015	300	.235 x 3/4	96P15203S2		96P15203S4		96P15293S2		96P15293S4	
	400	.235 x 3/4	96P15204S2		96P15204S4		96P15294S2		96P15294S4	
	600	.235 x 3/4	96P15206S2		96P15206S4		96P15296S2		96P15296S4	
.0018	600	.235 x 1 1/16	———		———		96P18296S2		96P18296S4	
	100	.175 x 3/4	96P22201S2		96P22201S4		96P22291S2		96P22201S4	
	200	.235 x 3/4	96P22202S2		96P22202S4		96P22292S2		96P22202S4	
.0022	300	.235 x 3/4	96P22203S2		96P22203S4		96P22293S2		96P22203S4	
	400	.235 x 3/4	96P22204S2		96P22204S4		96P22294S2		96P22204S4	
	600	.235 x 3/4	96P22206S2		96P22206S4		96P22296S2		96P22026S4	
.0027	600	.235 x 1 1/16	———		———		96P27296S2		96P27296S4	
	100	.175 x 3/4	96P33201S2		96P33201S4		96P33291S2		96P33291S4	
	200	.235 x 3/4	97P33202S2		96P33202S4		96P33292S2		96P33292S4	
.0033	300	.235 x 3/4	96P33203S2		96P33203S4		96P33293S2		96P33293S4	
	400	.235 x 3/4	96P33204S2		96P33204S4		96P33294S2		96P33294S4	
	600	.235 x 3/4	96P33206S2		96P33206S4		96P33296S2		96P33296S4	
.0039	600	.235 x 1 1/16	———		———		96P39296S2		96P33296S4	
	100	.175 x 3/4	96P47201S2		96P47201S4		96P47291S2		96P47291S4	
	200	.235 x 3/4	96P47202S2		96P47202S4		96P47292S2		96P47292S4	
.0047	300	.235 x 3/4	96P47203S2		96P47203S4		96P47293S2		96P47293S4	
	400	.235 x 3/4	96P47204S2		96P47204S4		96P47294S2		96P47294S4	
	600	.235 x 3/4	96P47206S2		96P47206S4		96P47296S2		96P47296S4	
.0056	600	.235 x 1 1/16	———		———		96P56296S2		96P56296S4	
	100	.175 x 3/4	96P68201S2		96P68201S4		96P68291S2		96P68391S4	
	200	.235 x 3/4	96P68202S2		96P68202S4		96P68292S2		96P68392S4	
.0068	300	.235 x 3/4	96P68203S2		96P68203S4		96P68293S2		96P68393S4	
	400	.235 x 3/4	96P68204S2		96P68204S4		96P68294S2		96P68394S4	
	600	.235 x 3/4	96P68206S2		96P68206S4		96P68296S2		96P68396S4	
.0082	400	.400 x 1 5/16	———		———		96P82294S2		96P82294S4	
	600	.562 x 1 1/16	———		———		96P82296S2		96P82296S4	
	100	.175 x 3/4	96P10301S2		96P10301S4		96P10391S2		96P10391S4	
	200	.235 x 3/4	96P10302S2		96P10302S4		96P10392S2		96P10392S4	
.01	300	.235 x 3/4	96P10303S2		96P10303S4		97P10393S2		96P10393S4	
	400	.235 x 3/4	96P10304S2		96P10304S4		96P10394S2		96P10394S4	
	600	.312 x 7/8	96P10306S2		96P10306S4		96P10396S2		96P10396S4	
.012	200	.235 x 1 1/16	———		———		96P12392S2		96P12392S4	
	600	.312 x 1 1/16	———		———		96P12396S2		96P12396S4	
	100	.175 x 3/4	96P15301S2		96P15301S4		96P15391S2		96P15391S4	
	200	.235 x 3/4	96P15302S2		96P15302S4		96P15392S2		96P15392S4	
.015	300	.235 x 3/4	96P15303S2		96P15303S4		96P15393S2		96P15393S4	
	400	.312 x 7/8	96P15304S2		96P15304S4		96P15394S2		96P15394S4	
	600	.312 x 7/8	96P15306S2		96P15306S4		96P15396S2		96P15396S4	
	1000	.400 x 1 1/16	———		———		96P153910S2		96P153910S4	
	200	.235 x 1 1/16	———		———		96P18392S2		96P18392S4	
.018	600	.312 x 1 3/16	———		———		96P18396S2		96P18396S4	
	1000	.400 x 1 1/16	———		———		96P183910S2		96P183910S4	
	100	.195 x 3/4	96P22301S2		96P22301S4		96P22391S2		96P22391S4	
	200	.235 x 3/4	96P22302S2		96P22302S4		96P22392S2		96P22392S4	
.022	300	.312 x 7/8	96P22303S2		96P22303S4		96P22393S2		96P22393S4	
	400	.312 x 7/8	96P22304S2		96P22304S4		96P22394S2		96P22394S4	
	600	.312 x 7/8	96P22306S2		96P22306S4		96P22396S2		96P22396S4	
	1000	.400 x 1 1/16	———		———		96P223910S2		96P223910S4	
	100	.235 x 1 11/16	———		———		96P27391S2		96P27391S4	
.027	400	.312 x 1 3/16	———		———		96P27394S2		96P27394S4	
	600	.312 x 1 3/16	———		———		96P27396S2		96P27396S4	
	1000	.400 x 1 1/16	———		———		96P273910S2		96P273910S4	
	100	.235 x 3/4	96P33301S2		96P33301S4		96P33391S2		96P33391S4	
	200	.312 x 7/8	96P33302S2		96P33302S4		96P33392S2		96P33392S4	
.033	300	.312 x 7/8	96P33303S2		96P33303S4		96P33393S2		96P33393S4	
	400	.312 x 7/8	96P33304S2		96P33304S4		96P33394S2		96P33394S4	
	600	.400 x 7/8	96P33306S2		96P33306S4		96P33396S2		96P33396S4	
	1000	.400 x 1 5/16	———		———		96P333910S2		96P333910S4	
	200	.312 x 1 3/16	———		———		96P39392S2		96P39392S4	
.039	400	.400 x 1 3/16	———		———		96P39394S2		96P39394S4	
	600	.400 x 1 1/16	———		———		96P39396S2		96P39396S4	
	1000	.562 x 1 1/16	———		———		96P393910S2		96P393910S4	
	100	.312 x 7/8	96P47301S2		96P47301S4		96P47391S2		96P47391S4	
	200	.312 x 7/8	96P47302S2		96P47302S4		96P47392S2		96P47392S4	
.047	300	.312 x 7/8	96P47303S2		96P47303S4		96P47393S2		96P47393S4	
	400	.400 x 7/8	96P47304S2		96P47304S4		96P47394S2		96P47394S4	
	600	.400 x 1 1/8	96P47306S2		96P47306S4		96P47396S2		96P47396S4	
	1000	.562 x 1 5/16	———		———		96P473910S2		96P473910S4	
	200	.312 x 1 3/16	———		———		96P56392S2		96P56392S4	
.056	400	.400 x 1 1/16	———		———		96P56394S2		96P56394S4	
	600	.400 x 1 5/16	———		———		96P56396S2		96P56396S4	
	1000	.562 x 1 5/16	———		———		96P563910S2		96P563910S4	

*For Style 4 units add .0625" to diameter and 1/16" to length.

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SPRAGUE CAPACITORS

TYPE 96P, continued

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*		Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*	
			Cat. No.		Cat. No.		Cat. No.		Cat. No.	
	100	.312 x 7/8	96P68301S2		96P68301S4		96P68391S2		96P68391S4	
	200	.312 x 7/8	96P68302S2		96P68302S4		96P68392S2		96P68392S4	
.068	300	.400 x 7/8	96P68303S2		96P68303S4		96P68393S2		96P68393S4	
	400	.400 x 1 1/8	96P68304S2		96P68304S4		96P68394S2		96P68394S4	
	600	.400 x 1 3/8	96P68306S2		96P68306S4		96P68396S2		96P68396S4	
	1000	.562 x 1 5/16	———		———		96P683910S2		96P683910S4	
	100	.312 x 13/16	———		———		96P82391S2		96P82391S4	
	200	.400 x 13/16	———		———		96P82392S2		96P82392S4	
.082	400	.400 x 1 5/16	———		———		96P82394S2		96P82394S4	
	600	.562 x 1 1/16	———		———		96P82396S2		96P82396S4	
	1000	.562 x 1 9/16	———		———		96P823910S2		96P823910S4	
	100	.312 x 7/8	96P10401S2		96P10401S4		96P10491S2		96P10491S4	
	200	.400 x 7/8	96P10402S2		96P10402S4		96P10492S2		96P10492S4	
.1	300	.400 x 1 1/8	96P10403S2		96P10403S4		96P10493S2		96P10493S4	
	400	.400 x 1 3/8	96P10404S2		96P10404S4		96P10494S2		96P10494S4	
	600	.562 x 1 1/8	96P10406S2		96P10406S4		96P10496S2		96P10496S4	
	1000	.562 x 1 9/16	———		———		96P104910S2		96P104910S4	
	100	.400 x 13/16	———		———		96P12491S2		96P12491S4	
	200	.400 x 1 1/16	———		———		96P12492S2		96P12492S4	
.12	400	.562 x 1 1/16	———		———		96P12494S2		96P12494S4	
	600	.562 x 1 5/16	———		———		96P12496S2		96P12496S4	
	1000	.670 x 1 9/16	———		———		96P124910S2		96P124910S4	
	100	.400 x 7/8	96P15491S2		96P15401S4		96P15491S2		96P15491S4	
	200	.400 x 1 1/8	96P15492S2		96P15402S4		96P15492S2		96P15492S4	
.15	300	.400 x 1 3/8	96P15493S2		96P15403S4		96P15493S2		96P15493S4	
	400	.562 x 1 1/8	96P15494S2		96P15404S4		96P15494S2		96P15494S4	
	600	.562 x 1 3/8	96P15496S2		96P15406S4		96P15496S2		96P15496S4	
	1000	.670 x 1 9/16	———		———		96P154910S2		96P154910S4	
	100	.400 x 1 1/16	———		———		96P18491S2		96P18491S4	
	200	.400 x 1 5/16	———		———		96P18492S2		96P18492S4	
.18	400	.562 x 1 5/16	———		———		96P18494S2		96P18494S4	
	600	.562 x 1 13/16	———		———		96P18496S2		96P18496S4	
	1000	.750 x 2 1/16	———		———		96P184910S2		96P184910S4	
	100	.400 x 1 1/8	96P22401S2		96P22401S4		96P22491S2		96P22491S4	
	200	.400 x 1 3/8	96P22402S2		96P22402S4		96P22492S2		96P22492S4	
.22	300	.562 x 1 1/8	96P22403S2		96P22403S4		96P22493S2		96P22493S4	
	400	.562 x 1 3/8	96P22404S2		96P22404S4		96P22494S2		96P22494S4	
	600	.562 x 1 7/8	96P22406S2		96P22406S4		96P22496S2		96P22496S4	
	1000	.750 x 2 1/16	———		———		96P224910S2		96P224910S4	
	100	.400 x 1 1/16	———		———		96P27491S2		96P27491S4	
	200	.562 x 1 5/16	———		———		96P27492S2		96P27492S4	
.27	400	.562 x 1 5/16	———		———		96P27494S2		96P27494S4	
	600	.562 x 1 13/16	———		———		96P27496S2		96P27496S4	
	1000	.750 x 2 1/16	———		———		96P274910S2		96P274910S4	
	100	.400 x 1 3/8	96P33401S2		96P33401S4		96P33491S2		96P33491S4	
	200	.562 x 1 1/8	96P33402S2		96P33402S4		96P33492S2		96P33492S4	
.33	300	.562 x 1 3/8	96P33403S2		96P33403S4		96P33493S2		96P33493S4	
	400	.562 x 1 7/8	96P33404S2		96P33404S4		96P33494S2		96P33494S4	
	600	.670 x 1 7/8	96P33406S2		96P33406S4		96P33496S2		96P33496S4	
	1000	.750 x 1 9/16	———		———		96P334910S2		96P334910S4	
	100	.562 x 1 1/16	———		———		96P39491S2		96P39491S4	
	200	.562 x 1 5/16	———		———		96P39492S2		96P39492S4	
.39	400	.670 x 1 13/16	———		———		96P39494S2		96P39494S4	
	600	.750 x 2 1/16	———		———		96P39496S2		96P39496S4	
	1000	1.000 x 2 1/16	———		———		96P394910S2		96P394910S4	
	100	.562 x 1 1/8	96P47401S2		96P47401S4		96P47491S2		96P47491S4	
	200	.562 x 1 3/8	96P47402S2		96P47402S4		96P47492S2		96P47492S4	
.47	300	.562 x 1 7/8	96P47403S2		96P47403S4		96P47493S2		96P47493S4	
	400	.670 x 1 7/8	96P47404S2		96P47404S4		96P47494S2		96P47494S4	
	600	.750 x 2 1/8	96P47406S2		96P47406S4		96P47496S2		96P47496S4	
	1000	1.000 x 2 1/16	———		———		96P474910S2		96P474910S4	
	100	.562 x 1 5/16	———		———		96P56491S2		96P56491S4	
.56	200	.562 x 1 13/16	———		———		96P56492S2		96P56492S4	
	400	.750 x 2 1/16	———		———		96P56494S2		96P56494S4	
	600	1.000 x 1 13/16	———		———		96P56496S2		96P56496S4	
	100	.562 x 1 3/8	96P68401S2		96P68401S4		96P68491S2		96P68491S4	
	200	.562 x 1 7/8	96P68402S2		96P68402S4		96P68492S2		96P68492S4	
.68	300	.670 x 1 7/8	96P68403S2		96P68403S4		96P68493S2		96P68493S4	
	400	.750 x 2 1/16	96P68404S2		96P68404S4		96P68494S2		96P68494S4	
	600	1.000 x 1 13/16	96P68406S2		96P68406S4		96P68496S2		96P68496S4	
	100	.562 x 1 13/16	———		———		96P82491S2		96P82491S4	
.82	200	.670 x 1 13/16	———		———		96P82492S2		96P82492S4	
	400	1.000 x 1 13/16	———		———		96P82494S2		96P82494S4	
	100	.562 x 1 7/8	96P10501S2		96P10501S4		96P10591S2		96P10591S4	
1.0	200	.670 x 1 7/8	96P10502S2		96P10502S4		96P10592S2		96P10592S4	
	300	.750 x 2 1/16	96P10503S2		96P10503S4		96P10593S2		96P10593S4	
	400	1.000 x 1 13/16	96P10504S2		96P10504S4		96P10594S2		96P10594S4	

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For Style 4 units add .0625" to diameter and 1/16" to length.

REM-21-6330

Sizes subject to change without notice.

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SPRAGUE CAPACITORS

TYPE 191P, EXTENDED FOIL CONSTRUCTION, 85°C OPERATION

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20% — Style 2 (bare metal case) Cat. No.	Capacitance Tolerance ±20% — Style 4 (w/plastic sleeve*) Cat. No.	Capacitance Tolerance ±10% — Style 2 (bare metal case) Cat. No.	Capacitance Tolerance ±10% — Style 4 (w/plastic sleeve*) Cat. No.
.001	100	.175 x ¾	191P10201S2	191P10201S4	191P10291S2	191P10291S4
	200	.235 x ¾	191P10202S2	191P10202S4	191P10292S2	191P10292S4
	300	.235 x ¾	191P10203S2	191P10203S4	191P10293S2	191P10293S4
	400	.235 x ¾	191P10204S2	191P10204S4	191P10294S2	191P10294S4
	600	.235 x ¾	191P10206S2	191P10206S4	191P10296S2	191P10296S4
.0015	100	.175 x ¾	191P15201S2	191P15201S4	191P15291S2	191P15291S4
	200	.235 x ¾	191P15202S2	191P15202S4	191P15292S2	191P15292S4
	300	.235 x ¾	191P15203S2	191P15203S4	191P15293S2	191P15293S4
	400	.235 x ¾	191P15204S2	191P15204S4	191P15294S2	191P15294S4
	600	.235 x ¾	191P15206S2	191P15206S4	191P15296S2	191P15296S4
.0022	100	.175 x ¾	191P22201S2	191P22201S4	191P22291S2	191P22291S4
	200	.235 x ¾	191P22202S2	191P22202S4	191P22292S2	191P22292S4
	300	.235 x ¾	191P22203S2	191P22203S4	191P22293S2	191P22293S4
	400	.235 x ¾	191P22204S2	191P22204S4	191P22294S2	191P22294S4
	600	.235 x ¾	191P22206S2	191P22206S4	191P22296S2	191P22296S4
.0033	100	.175 x ¾	191P33201S2	191P33201S4	191P33291S2	191P33291S4
	200	.235 x ¾	191P33202S2	191P33202S4	191P33292S2	191P33292S4
	300	.235 x ¾	191P33203S2	191P33203S4	191P33293S2	191P33293S4
	400	.235 x ¾	191P33204S2	191P33204S4	191P33294S2	191P33294S4
	600	.235 x ¾	191P33206S2	191P33206S4	191P33296S2	191P33296S4
.0047	100	.175 x ¾	191P47201S2	191P47201S4	191P47291S2	191P47291S4
	200	.235 x ¾	191P47202S2	191P47202S4	191P47292S2	191P47292S4
	300	.235 x ¾	191P47203S2	191P47203S4	191P47293S2	191P47293S4
	400	.235 x ¾	191P47204S2	191P47204S4	191P47294S2	191P47294S4
	600	.235 x ¾	191P47206S2	191P47206S4	191P47296S2	191P47296S4
.0068	100	.175 x ¾	191P68201S2	191P68201S4	191P68291S2	191P68291S4
	200	.235 x ¾	191P68202S2	191P68202S4	191P68292S2	191P68292S4
	300	.235 x ¾	191P68203S2	191P68203S4	191P68293S2	191P68293S4
	400	.235 x ¾	191P68204S2	191P68204S4	191P68294S2	191P68294S4
	600	.235 x ¾	191P68206S2	191P68206S4	191P68296S2	191P68296S4
.01	100	.175 x ¾	191P10301S2	191P10301S4	191P10391S2	191P10391S4
	200	.235 x ¾	191P10302S2	191P10302S4	191P10392S2	191P10392S4
	300	.235 x ¾	191P10303S2	191P10303S4	191P10393S2	191P10393S4
	400	.235 x ¾	191P10304S2	191P10304S4	191P10394S2	191P10394S4
	600	.312 x ⅞	191P10306S2	191P10306S4	191P10396S2	191P10396S4
.015	100	.175 x ¾	191P15301S2	191P15301S4	191P15391S2	191P15391S4
	200	.235 x ¾	191P15302S2	191P15302S4	191P15392S2	191P15392S4
	300	.235 x ¾	191P15303S2	191P15303S4	191P15393S2	191P15393S4
	400	.312 x ⅞	191P15304S2	191P15304S4	191P15394S2	191P15394S4
	600	.312 x ⅞	191P15306S2	191P15306S4	191P15396S2	191P15396S4
.022	100	.195 x ¾	191P22301S2	191P22301S4	191P22391S2	191P22391S4
	200	.235 x ¾	191P22302S2	191P22302S4	191P22392S2	191P22392S4
	300	.312 x ⅞	191P22303S2	191P22303S4	191P22393S2	191P22393S4
	400	.312 x ⅞	191P22304S2	191P22304S4	191P22394S2	191P22394S4
	600	.312 x ⅞	191P22306S2	191P22306S4	191P22396S2	191P22394S4

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*For Style 4 units add .0625" to diameter and 1/16" to length

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SPRAGUE CAPACITORS

TYPE 191P, continued

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20% — Style 2 (bare metal case) Cat. No.	Style 4 (w/plastic sleeve*) Cat. No.	Capacitance Tolerance ±10% — Style 2 (bare metal case) Cat. No.	Style 4 (w/plastic sleeve*) Cat. No.
.033	100	.235 x ¾	191P33301S2	191P33301S4	191P33391S2	191P33391S4
	200	.312 x ⅞	191P33302S2	191P33302S4	191P33392S2	191P33392S4
	300	.312 x ⅞	191P33303S2	191P33303S4	191P33393S2	191P33393S4
	400	.312 x ⅞	191P33304S2	191P33304S4	191P33394S2	191P33394S4
	600	.400 x ⅞	191P33306S2	191P33306S4	191P33396S2	191P33396S4
.047	100	.312 x ⅞	191P47301S2	191P47301S4	191P47391S2	191P47391S4
	200	.312 x ⅞	191P47302S2	191P47302S4	191P47392S2	191P47392S4
	300	.312 x ⅞	191P47303S2	191P47303S4	191P47393S2	191P47393S4
	400	.400 x ⅞	191P47304S2	191P47304S4	191P47394S2	191P47394S4
	600	.400 x 1⅛	191P47306S2	191P47306S4	191P47396S2	191P47396S4
.068	100	.312 x ⅞	191P68301S2	191P68301S4	191P68391S2	191P68391S4
	200	.312 x ⅞	191P68302S2	191P68302S4	191P68392S2	191P68392S4
	300	.400 x ⅞	191P68303S2	191P68303S4	191P68393S2	191P68393S4
	400	.400 x 1⅛	191P68304S2	191P68304S4	191P68394S2	191P68394S4
	600	.400 x 1⅜	191P68306S2	191P68306S4	191P68396S2	191P68396S4
.1	100	.312 x ⅞	191P10401S2	191P10401S4	191P10491S2	191P10491S4
	200	.400 x ⅞	191P10402S2	191P10402S4	191P10492S2	191P10492S4
	300	.400 x 1⅛	191P10403S2	191P10403S4	191P10493S2	191P10493S4
	400	.400 x 1⅜	191P10404S2	191P10404S4	191P10494S2	191P10494S4
	600	.562 x 1⅛	191P10406S2	191P10406S4	191P10496S2	191P10496S4
.15	100	.400 x ⅞	191P15401S2	191P15401S4	191P15491S2	191P15491S4
	200	.400 x 1⅛	191P15402S2	191P15402S4	191P15492S2	191P15492S4
	300	.400 x 1⅜	191P15403S2	191P15403S4	191P15493S2	191P15493S4
	400	.562 x 1⅛	191P15404S2	191P15404S4	191P15494S2	191P15494S4
	600	.562 x 1⅜	191P15406S2	191P15406S4	191P15496S2	191P15496S4
.22	100	.400 x 1⅛	191P22401S2	191P22401S4	191P22491S2	191P22491S4
	200	.400 x 1⅜	191P22402S2	191P22402S4	191P22492S2	191P22492S4
	300	.562 x 1⅛	191P22403S2	191P22403S4	191P22493S2	191P22493S4
	400	.562 x 1⅜	191P22404S2	191P22404S4	191P22494S2	191P22494S4
	600	.562 x 1⅞	191P22406S2	191P22406S4	191P22496S2	191P22496S4
.33	100	.400 x 1⅜	191P33401S2	191P33401S4	191P33491S2	191P33491S4
	200	.562 x 1⅛	191P33402S2	191P33402S4	191P33492S2	191P33492S4
	300	.562 x 1⅜	191P33403S2	191P33403S4	191P3349 3S2	191P33493S4
	400	.562 x 1⅞	191P33404S2	191P33404S4	191P3349 4S2	191P33494S4
	600	.670 x 1⅞	191P33406S2	191P33406S4	191P33496S2	191P33496S4
.47	100	.562 x 1⅛	191P47401S2	191P47401S4	191P47491S2	191P47491S4
	200	.562 x 1⅜	191P47402S2	191P47402S4	191P47492S2	191P47492S4
	300	.562 x 1⅞	191P47403S2	191P47403S4	191P47493S2	191P47493S4
	400	.670 x 1⅞	191P47404S2	191P47404S4	191P47494S2	191P47494S4
	600	.750 x 2⅛	191P47406S2	191P47406S4	191P47496S2	191P47496S4
.68	100	.562 x 1⅜	191P68401S2	191P68401S4	191P68491S2	191P68491S4
	200	.562 x 1⅞	191P68402S2	191P68402S4	191P68492S2	191P68492S4
	300	.670 x 1⅞	191P68403S2	191P68403S4	191P68493S2	191P68493S4
1.0	100	.562 x 1⅞	191P10501S2	191P10501S4	191P10591S2	191P10591S4
	200	.670 x 1⅞	191P10502S2	191P10502S4	191P10592S2	191P10592S4

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For Style 4 units add .0625" to diameter and 1/16" to length

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SPRAGUE CAPACITORS

TYPE 196P, EXTENDED FOIL CONSTRUCTION, 125°C OPERATION

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20% — Style 2 (bare metal case) Cat. No.	Capacitance Tolerance ±20% — Style 4 (w/plastic sleeve*) Cat. No.	Capacitance Tolerance ±10% — Style 2 (bare metal case) Cat. No.	Capacitance Tolerance ±10% — Style 4 (w/plastic sleeve*) Cat. No.
.001	100	.175 x 3/4	196P10201S2	196P10201S4	196P10291S2	196P10291S4
	200	.235 x 3/4	196P10202S2	196P10202S4	196P10292S2	196P10292S4
	300	.235 x 3/4	196P10203S2	196P10203S4	196P10293S2	196P10293S4
	400	.235 x 3/4	196P10204S2	196P10204S4	196P10294S2	196P10294S4
	600	.235 x 3/4	196P10206S2	196P10206S4	196P10296S2	196P10296S4
	1000	.400 x 13/16	———	———	196P102910S2	196P102910S4
.001	600	.235 x 11/16	———	———	196P12296S2	196P12296S4
	1000	.400 x 13/16	———	———	196P122910S2	196P122810S4
.0015	100	.175 x 3/4	196P15201S2	196P15201S4	196P15291S2	196P15291S4
	200	.235 x 3/4	196P15202S2	196P15202S4	196P15292S2	196P15292S4
	300	.235 x 3/4	196P15203S2	196P15203S4	196P15293S2	196P15293S4
	400	.235 x 3/4	196P15204S2	196P15204S4	196P15294S2	196P15294S4
	600	.235 x 3/4	196P15206S2	196P15206S4	196P15296S2	196P15296S4
	1000	.400 x 13/16	———	———	196P152910S2	196P152910S4
0018	600	.235 x 11/16	———	———	196P18296S2	196P18296S4
	1000	.400 x 13/16	———	———	196P182910S2	196P182910S4
.0022	100	.175 x 3/4	196P22201S2	196P22201S4	196P22291S2	196P22291S4
	200	.235 x 3/4	196P22202S2	196P22202S4	196P22292S2	196P22292S4
	300	.235 x 3/4	196P22203S2	196P22203S4	196P22292S2	196P22293S4
	400	.235 x 3/4	196P22204S2	196P22204S4	196P22294S2	196P22294S4
	600	.235 x 3/4	196P22206S2	196P22206S4	196P22296S2	196P22296S4
	1000	.400 x 13/16	———	———	196P222910S2	196P222910S4
.0027	400	.312 x 13/16	———	———	196P27294S2	196P27294S4
	600	.235 x 11/16	———	———	196P27296S2	196P27296S4
	1000	.400 x 13/16	———	———	196P272910S2	196P272910S4
.0033	100	.175 x 3/4	196P33201S2	196P33201S4	196P33291S2	196P33291S4
	200	.235 x 3/4	196P33202S2	196P33202S4	196P33292S2	196P33292S4
	300	.235 x 3/4	196P33203S2	196P33203S4	196P33293S2	196P33293S4
	400	.235 x 3/4	196P33204S2	196P33204S4	196P33294S2	196P33294S4
	600	.312 x 7/8	196P33206S2	196P33206S4	196P33296S2	196P33296S4
	1000	.400 x 13/16	———	———	196P332910S2	196P332910S4
.0039	200	.235 x 11/16	———	———	196P39292S2	196P39292S4
	600	.235 x 11/16	———	———	196P39296S2	196P39296S4
	1000	.400 x 13/16	———	———	196P392910S2	196P392910S4
.0047	100	.175 x 3/4	196P47201S2	196P47201S4	196P47291S2	196P47291S4
	200	.235 x 3/4	196P47202S2	196P47202S4	196P47292S2	196P47292S4
	300	.235 x 3/4	196P47203S2	196P47203S4	196P47293S2	196P47293S4
	400	.235 x 3/4	196P47204S2	196P47204S4	196P47294S2	196P47294S4
	600	.235 x 3/4	196P47206S2	196P47206S4	196P47296S2	196P47296S4
	1000	.400 x 13/16	———	———	196P472910S2	196P472910S4
.0056	200	.235 x 11/16	———	———	196P56292S2	196P56292S4
	600	.235 x 11/16	———	———	196P56296S2	196P56296S4
	1000	.400 x 13/16	———	———	196P562910S2	196P562910S4
.0068	100	.175 x 3/4	196P68201S2	196P68201S4	196P68291S2	196P68291S4
	200	.235 x 3/4	196P68202S2	196P68202S4	196P68292S2	196P68282S4
	300	.235 x 3/4	196P68203S2	196P68203S4	196P68293S2	196P68293S4
	400	.235 x 3/4	196P68204S2	196P68204S4	196P68294S2	196P68294S4
	600	.235 x 3/4	196P68206S2	196P68206S4	196P68296S2	196P68296S4
	1000	.400 x 13/16	———	———	196P682910S2	196P682910S4
.0082	100	.175 x 11/16	———	———	196P82291S2	196P82291S4
	600	.312 x 13/16	———	———	196P82296S2	196P82296S4
	1000	.400 x 13/16	———	———	196P822910S2	196P822910S4
.01	100	.175 x 3/4	196P10301S2	196P10301S4	196P10391S2	196P10391S4
	200	.235 x 3/4	196P10302S2	196P10302S4	196P10392S2	196P10392S4
	300	.235 x 3/4	196P10303S2	196P10303S4	196P10393S2	196P10393S4
	400	.235 x 3/4	196P10304S2	196P10304S4	196P10394S2	196P10394S4
	600	.312 x 7/8	196P10306S2	196P10306S4	196P10396S2	196P10396S4
	1000	.400 x 13/16	———	———	196P103910S2	196P103910S4
.012	100	.175 x 11/16	———	———	196P12391S2	196P12391S4
	400	.312 x 13/16	———	———	196P12394S2	196P12394S4
	600	.312 x 13/16	———	———	196P12396S2	196P12396S4
	1000	.400 x 13/16	———	———	196P123910S2	196P123910S4
.015	100	.175 x 3/4	196P15301S2	196P15301S4	196P15391S2	196P15391S4
	200	.235 x 3/4	196P15302S2	196P15302S4	196P15392S2	196P15392S4
	300	.235 x 3/4	196P15303S2	196P15303S4	196P15393S2	196P15393S4
	400	.312 x 7/8	196P15304S2	196P15304S4	196P15394S2	196P15394S4
	600	.312 x 7/8	196P15306S2	196P15306S4	196P15396S2	196P15396S4
	1000	.400 x 13/16	———	———	196P153910S2	196P153910S4
.018	200	.235 x 11/16	———	———	196P18392S2	196P18392S4
	600	.312 x 13/16	———	———	196P18396S2	196P18396S4
	1000	.400 x 1 1/16	———	———	196P183910S2	196P183910S4
.022	100	.195 x 3/4	196P22301S2	196P22301S4	196P22391S2	196P22391S4
	200	.235 x 3/4	196P22302S2	196P22302S4	196P22392S2	196P22392S4
	300	.312 x 7/8	196P22303S2	196P22303S4	196P22393S2	196P22393S4
	400	.312 x 7/8	196P22304S2	196P22304S4	196P22394S2	196P22394S4
	600	.312 x 7/8	196P22306S2	196P22306S4	196P22396S2	196P22396S4
	1000	.400 x 1 1/16	———	———	196P223910S2	196P223910S4
.027	200	.312 x 13/16	———	———	196P27392S2	196P27392S4
	400	.312 x 13/16	———	———	196P27294S2	196P27394S4
	600	.400 x 13/16	———	———	196P27396S2	196P27396S4
	1000	.400 x 1 5/16	———	———	196P273910S2	196P273910S4
.033	100	.400 x 1 3/8	196P33301S2	196P33301S4	196P33391S2	196P33391S4
	200	.562 x 1 1/8	196P33302S2	196P33302S4	196P33392S2	196P33392S4
	300	.562 x 1 3/8	196P33303S2	196P33303S4	196P33393S2	196P33393S4
	400	.562 x 1 7/8	196P33304S2	196P33304S4	196P33394S2	196P33394S4
	600	.670 x 1 7/8	196P33306S2	196P33306S4	196P33396S2	196P33396S4
	1000	.400 x 1 5/16	———	———	196P333910S2	196P333910S4

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*For Style 4 units add .0625" to diameter and 1/16" to length.

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SPRAGUE CAPACITORS

TYPE 196P, continued

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)		Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)	
			Cat. No.		Cat. No.		Cat. No.		Cat. No.	
	100	.312 x 13/16	———		———		196P39391S2		196P39391S4	
	200	.312 x 13/16	———		———		196P39392S2		196P39392S4	
.039	400	.400 x 13/16	———		———		196P39394S2		196P39394S4	
	600	.400 x 1 1/16	———		———		196P39396S2		196P39396S4	
	1000	.562 x 1 1/16	———		———		196P393910S2		196P393910S4	
	100	.312 x 7/8	196P47301S2		196P47301S4		196P47391S2		196P47391S4	
	200	.312 x 7/8	196P47302S2		196P47302S4		196P47392S2		196P47392S4	
.047	300	.312 x 7/8	196P47303S2		196P47303S4		196P47393S2		196P47393S4	
	400	.400 x 7/8	196P47304S2		196P47304S4		196P47394S2		196P47394S4	
	600	.400 x 1 1/8	196P47306S2		196P47306S4		196P47396S2		196P47396S4	
	1000	.562 x 1 1/16	———		———		196P473910S2		196P473910S4	
	200	.312 x 13/16	———		———		196P56392S2		196P56392S4	
.056	400	.400 x 1 1/16	———		———		196P56394S2		196P56394S4	
	600	.400 x 1 5/16	———		———		196P56396S2		196P56396S4	
	1000	.562 x 1 5/16	———		———		196P563910S2		196P563910S4	
	100	.312 x 7/8	196P68301S2		196P68301S4		196P68391S2		196P68391S4	
	200	.312 x 7/8	196P68302S2		196P68302S4		196P68392S2		196P68392S4	
.068	300	.400 x 7/8	196P68303S2		196P68303S4		196P68393S2		196P68393S4	
	400	.400 x 1 1/8	196P68304S2		196P68304S4		196P68394S2		196P68394S4	
	600	.400 x 1 3/8	196P68306S2		196P68306S4		196P68396S2		196P68396S4	
	1000	.562 x 1 5/16	———		———		196P683910S2		196P683910S4	
	100	.312 x 13/16	———		———		196P82391S2		196P82391S4	
	200	.400 x 13/16	———		———		196P82392S2		196P82392S4	
.082	400	.400 x 1 5/16	———		———		196P82394S2		196P82394S4	
	600	.562 x 1 1/16	———		———		196P82396S2		196P82396S4	
	1000	.562 x 1 5/16	———		———		196P823910S2		196P823910S4	
	100	.312 x 7/8	196P10401S2		196P10401S4		196P10491S2		196P10491S4	
	200	.400 x 7/8	196P10402S2		196P10402S4		196P10492S2		196P10492S4	
.1	300	.400 x 1 1/8	196P10403S2		196P10403S4		196P10493S2		196P10493S4	
	400	.400 x 1 3/8	196P10404S2		196P10404S4		196P10494S2		196P10494S4	
	600	.562 x 1 1/8	196P10406S2		196P10406S4		196P10496S2		196P10496S4	
	1000	.562 x 1 5/16	———		———		196P104910S2		196P104910S4	
	100	.400 x 13/16	———		———		196P12491S2		196P12491S4	
	200	.400 x 1 1/16	———		———		196P12492S2		196P12492S4	
.12	400	.562 x 1 1/16	———		———		196P12494S2		196P12494S4	
	600	.562 x 1 5/16	———		———		196P12496S2		196P12496S4	
	1000	.670 x 1 5/16	———		———		196P124910S2		196P124910S4	
	100	.400 x 7/8	196P15401S2		196P15401S4		196P15491S2		196P15491S4	
	200	.400 x 1 1/8	196P15402S2		196P15402S4		196P15492S2		196P15492S4	
.15	300	.400 x 1 3/8	196P15403S2		196P15403S4		196P15493S2		196P15493S4	
	400	.562 x 1 1/8	196P15404S2		196P15404S4		196P15494S2		196P15494S4	
	600	.562 x 1 3/8	196P15406S2		196P15406S4		196P15496S2		196P15496S4	
	1000	.670 x 1 5/16	———		———		196P154910S2		196P154910S4	
	100	.400 x 1 1/16	———		———		196P18491S2		196P18491S4	
	200	.400 x 1 5/16	———		———		196P18492S2		196P18492S4	
.18	400	.562 x 1 5/16	———		———		196P18494S2		196P18494S4	
	600	.562 x 1 13/16	———		———		196P18496S2		196P18496S4	
	1000	.750 x 2 1/16	———		———		196P184910S2		196P184910S4	
	100	.400 x 1 1/8	196P22401S2		196P22401S4		196P22491S2		196P22491S4	
	200	.400 x 1 3/8	196P22402S2		196P22402S4		196P22492S2		196P22492S4	
.22	300	.562 x 1 1/8	196P22403S2		196P22403S4		196P22493S2		196P22493S4	
	400	.562 x 1 3/8	196P22404S2		196P22404S4		196P22494S2		196P22494S4	
	600	.562 x 1 7/8	196P22406S2		196P22406S4		196P22496S2		196P22496S4	
	1000	.750 x 2 1/16	———		———		196P224910S2		196P224910S4	
	100	.400 x 1 5/16	———		———		196P27491S2		196P27491S4	
	200	.562 x 1 1/16	———		———		196P27492S2		196P27492S4	
.27	400	.562 x 1 13/16	———		———		196P27494S2		196P27494S4	
	600	.670 x 1 13/16	———		———		196P27496S2		196P27496S4	
	1000	.750 x 2 9/16	———		———		196P274910S2		196P274910S4	
	100	.400 x 1 3/8	196P33401S2		196P33401S4		196P33491S2		196P33491S4	
	200	.562 x 1 1/8	196P33402S2		196P33402S4		196P33492S2		196P33492S4	
.33	300	.562 x 1 3/8	196P33403S2		196P33403S4		196P33493S2		196P33493S4	
	400	.562 x 1 7/8	196P33404S2		196P33404S4		196P33494S2		196P33494S4	
	600	.670 x 1 7/8	196P33406S2		196P33406S4		196P33496S2		196P33496S4	
	1000	.750 x 2 9/16	———		———		196P334910S2		196P334910S4	
	100	.562 x 1 1/16	———		———		196P39491S2		196P39491S4	
	200	.562 x 1 5/16	———		———		196P39492S2		196P39492S4	
.39	400	.670 x 1 13/16	———		———		196P39494S2		196P39494S4	
	600	.750 x 2 1/16	———		———		196P39496S2		196P39496S4	
	1000	1.000 x 2 1/16	———		———		196P394910S2		196P394910S4	
	100	.562 x 1 1/8	196P47401S2		196P47401S4		196P47491S2		196P47491S4	
	200	.562 x 1 3/8	196P47402S2		196P47402S4		196P47492S2		196P47492S4	
.47	300	.562 x 1 7/8	196P47403S2		196P47403S4		196P47493S2		196P47493S4	
	400	.670 x 1 7/8	196P47404S2		196P47404S4		196P47494S2		196P47494S4	
	600	.750 x 2 1/8	196P47406S2		196P47406S4		196P47496S2		196P47496S4	
	1000	1.000 x 2 1/16	———		———		196P474910S2		196P474910S4	
.56	100	.562 x 1 9/16	———		———		196P56491S2		196P56491S4	
	200	.670 x 1 9/16	———		———		196P56492S2		196P56492S4	
	100	.562 x 1 3/8	196P68401S2		196P68401S4		196P68491S2		196P68491S4	
.68	200	.562 x 1 7/8	196P68402S2		196P68402S4		196P68492S2		196P68492S4	
	300	.670 x 1 7/8	196P68403S2		196P68403S4		196P68493S2		196P68493S4	
.82	100	.670 x 1 9/16	———		———		196P82491S2		196P82491S4	
	200	.750 x 2 1/16	———		———		196P82492S2		196P82492S4	
1.0	100	.562 x 1 7/8	196P10501S2		196P10501S4		196P10591S2		196P10591S4	
	200	.670 x 1 7/8	196P10502S2		196P10502S4		196P10592S2		196P10592S4	

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For Style 4 units add .0625" to diameter and 1/16" to length.

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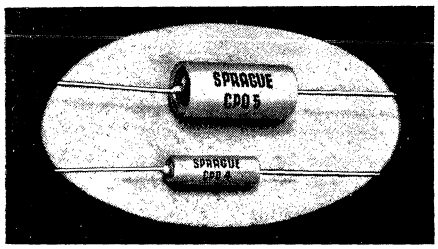
SPRAGUE CAPACITORS

TYPE CP04 CAPACITORS TO MIL-C-25A



- Impregnation wth Vitamin Q assures capacitors exceed MIL-C-25A performance requirements.
- Inserted tab construction for applications where minimum size is necessary.
- Positive hermetic closure of the metal cases assured by glass-to-metal solder-seal terminals.
- Type CP04 has plain metal case.
- Available in Characteristic E (−55°C to +85°C) or Characteristic K (−55°C to +125°C).
- Only popular insulated section (ungrounded case) capacitors are listed. For information on grounded case units, consult your Sprague Industrial Distributor.
- Call your Sprague Industrial Distributor for Quantity Prices.

			Characteristic E −55°C to +85°C				Characteristic K −55°C to +125°C			
			±20% Tol.		±10% Tol.		±20% Tol.		±10% Tol.	
µF	WVDC	Size D. x L.	Cat. No.		Cat. No.		Cat. No.		Cat. No.	
.001	600	.235 x ¾	CP04A1EF102M	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	CP04A1EF102K	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	CP04A1KF102M	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	CP04A1KF102K	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES
0015	600	.235 x ¾	CP04A1EF152M		CP04A1EF152K		CP04A1KF152M		CP04A1KF152K	
.0022	600	.235 x ¾	CP04A1EF222M		CP04A1EF222K		CP04A1KF222M		CP04A1KF222K	
.0033	600	.235 x ¾	CP04A1EF332M		CP04A1EF332K		CP04A1KF332M		CP04A1KF332K	
.0047	600	.235 x ¾	CP04A1EF472M		CP04A1EF472K		CP04A1KF472M		CP04A1KF472K	
.0068	600	.235 x ¾	CP04A1EF682M		CP04A1EF682K		CP04A1KF682M		CP04A1KF682K	
.01	400	.235 x ¾	CP04A1EE103M		CP04A1EE103K		CP04A1KE103M		CP04A1KE103K	
	600	.312 x ⅞	CP04A1EF103M		CP04A1EF103K		CP04A1KF103M		CP04A1KF103K	
.015	200	.235 x ¾	CP04A1EC153M		CP04A1EC153K		CP04A1KC153M		CP04A1KC153K	
	600	.312 x ⅞	CP04A1EF153M		CP04A1EF153K		CP04A1KF153M		CP04A1KF153K	
.022	200	.235 x ¾	CP04A1EC223M		CP04A1EC223K		CP04A1KC223M		CP04A1KC223K	
	600	.312 x ⅞	CP04A1EF223M		CP04A1EF223K		CP04A1KF223M		CP04A1KF223K	
.033	100	.235 x ¾	CP04A1EB333M		CP04A1EB333K		CP04A1KB333M		CP04A1KB333K	
	400	.312 x ⅞	CP04A1EE333M		CP04A1EE333K		CP04A1KE333M		CP04A1KE333K	
	600	.400 x ⅞	CP04A1EF333M		CP04A1EF333K		CP04A1KF333M		CP04A1KF333K	
.047	200	.312 x ⅞	CP04A1EC473M		CP04A1EC473K		CP04A1KC473M		CP04A1KC473K	
	400	.400 x ⅞	CP04A1EE473M		CP04A1EE473K		CP04A1KE473M		CP04A1KE473K	
	600	.400 x 1⅛	CP04A1EF473M		CP04A1EF473K		CP04A1KF473M		CP04A1KF473K	
.068	200	.312 x ⅞	CP04A1EC683M		CP04A1EC683K		CP04A1KC683M		CP04A1KC683K	
	400	.400 x 1⅛	CP04A1EE683M		CP04A1EE683K		CP04A1KE683M		CP04A1KE683K	
	600	.400 x 1⅜	CP04A1EF683M		CP04A1EF683K		CP04A1KF683M		CP04A1KF683K	
.1	100	.312 x ⅞	CP04A1EB104M		CP04A1EB104K		CP04A1KB104M		CP04A1KB104K	
	200	.400 x ⅞	CP04A1EC104M		CP04A1EC104K		CP04A1KC104M		CP04A1KC104K	
	400	.400 x 1⅜	CP04A1EE104M		CP04A1EE104K		CP04A1KE104M		CP04A1KE104K	
	600	.562 x 1⅛	CP04A1EF104M		CP04A1EF104K		CP04A1KF104M		CP04A1KF104K	
.15	100	.400 x ⅞	CP04A1EB154M		CP04A1EB154K		CP04A1KB154M		CP04A1KB154K	
	200	.400 x 1⅛	CP04A1EC154M		CP04A1EC154K		CP04A1KC154M		CP04A1KC154K	
	400	.562 x 1⅛	CP04A1EE154M		CP04A1EE154K		CP04A1KE154M		CP04A1KE154K	
	600	.562 x 1⅜	CP04A1EF154M		CP04A1EF154K		CP04A1KF154M		CP04A1KF154K	
.22	100	.400 x 1⅜	CP04A1EB224M		CP04A1EB224K		CP04A1KB224M		CP04A1KB224K	
	200	.400 x 1⅜	CP04A1EC224M		CP04A1EC224K		CP04A1KC224M		CP04A1KC224K	
	400	.562 x 1⅜	CP04A1EE224M		CP04A1EE224K		CP04A1KE224M		CP04A1KE224K	
	600	.562 x 1⅞	CP04A1EF224M		CP04A1EF224K		CP04A1KF224M		CP04A1KF224K	
.33	100	.400 x 1⅜	CP04A1EB334M		CP04A1EB334K		CP04A1KB334M		CP04A1KB334K	
	200	.562 x 1⅛	CP04A1EC334M		CP04A1EC334K		CP04A1KC334M		CP04A1KC334K	
	400	.562 x 1⅞	CP04A1EE334M		CP04A1EE334K		CP04A1KE334M		CP04A1KE334K	
	600	.670 x 1⅞	CP04A1EF334M		CP04A1EF334K		CP04A1KF334M		CP04A1KF334K	
.47	100	.562 x 1⅛	CP04A1EB474M		CP04A1EB474K		CP04A1KB474M		CP04A1KB474K	
	200	.562 x 1⅜	CP04A1EC474M		CP04A1EC474K		CP04A1KC474M		CP04A1KC474K	
	400	.670 x 1⅜	CP04A1EE474M		CP04A1EE474K		CP04A1KE474M		CP04A1KE474K	
	600	.750 x 2⅛	CP04A1EF474M		CP04A1EF474K		CP04A1KF474M		CP04A1KF474K	
.68	100	.562 x 1⅜	CP04A1EB684M		CP04A1EB684K		CP04A1KB684M		CP04A1KB684K	
	200	.562 x 1⅞	CP04A1EC684M		CP04A1EC684K		CP04A1KC684M		CP04A1KC684K	
	400	.750 x 2⅛	CP04A1EE684M		CP04A1EE684K		CP04A1KE684M		CP04A1KE684K	
	600	1.0 x 1⅞	CP04A1EF684M		CP04A1EF684K		CP04A1KF684M		CP04A1KF684K	
1.0	100	.562 x 1⅞	CP04A1EB105M		CP04A1EB105K		CP04A1KB105M		CP04A1KB105K	
	200	.670 x 1⅞	CP04A1EC105M		CP04A1EC105K		CP04A1KC105M		CP04A1KC105K	
	400	1.0 x 1⅞	CP04A1EE105M		CP04A1EE105K		CP04A1KE105M		CP04A1KE105K	

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SPRAGUE CAPACITORS

TYPE CP04 CAPACITORS TO MIL-C-25C

(±10% CAPACITANCE TOLERANCE, CHARACTERISTIC K)

μF	WVDC	D. x L.	Cat. No.*
.001	600	.235 x ¾	CP04A1KF102K3
.0012	600	.235 x ¾	CP04A1KF122K3
.0015	600	.235 x ¾	CP04A1KF152K3
.0018	600	.235 x ¾	CP04A1KF182K3
.0022	600	.235 x ¾	CP04A1KF222K3
.0027	600	.235 x ¾	CP04A1KF272K3
.0033	600	.235 x ¾	CP04A1KF332K3
.0039	600	.235 x ¾	CP04A1KF392K3
.0047	600	.235 x ¾	CP04A1KF472K3
.0056	600	.235 x ¾	CP04A1KF562K3
.0068	600	.235 x ¾	CP04A1KF682K3
.0082	400	.235 x ¾	CP04A1KE822K3
	600	.312 x ⅞	CP04A1KF822K3
.01	400	.235 x ¾	CP04A1KE103K3
	600	.312 x ⅞	CP04A1KF103K3
.012	200	.235 x ¾	CP04A1KC123K3
	600	.312 x ⅞	CP04A1KF123K3
.015	200	.235 x ¾	CP04A1KC153K3
	600	.312 x ⅞	CP041AKF153K3
	1000	.400 x ⅞	CP04A1KG153K3
.018	200	.235 x ¾	CP04A1KC183K3
	600	.312 x ⅞	CP04A1KF183K3
	1000	.400 x 1⅛	CP04A1KG183K3
.022	200	.235 x ¾	CP04A1KC223K3
	600	.312 x ⅞	CP04A1KF223K3
	1000	.400 x 1⅛	CP04A1KG223K3
.027	100	.235 x ¾	CP04A1KB273K3
	400	.312 x ⅞	CP04A1KE273K3
	600	.400 x ⅞	CP04A1KF273K3
	1000	.400 x 1⅜	CP04A1KG273K3
.033	100	.235 x ¾	CP04A1KB333K3
	400	.312 x ⅞	CP04A1KE333K3
	600	.400 x ⅞	CP04A1KF333K3
	1000	.400 x 1⅜	CP04A1KG333K3
.039	200	.312 x ⅞	CP04A1KC393K3
	400	.400 x ⅞	CP04A1KE393K3
	600	.400 x 1⅛	CP04A1KF393K3
	1000	.562 x 1⅛	CP04A1KG393K3
.047	200	.312 x ⅞	CP04A1KC473K3
	400	.400 x ⅞	CP04A1KE473K3
	600	.400 x 1⅛	CP041AKF473K3
	1000	.562 x 1⅛	CP04A1KG473K3
.056	200	.312 x ⅞	CP04A1KC563K3
	400	.400 x 1⅛	CP04A1KE563K3
	600	.400 x 1⅜	CP04A1KF563K3
	1000	.562 x 1⅜	CP04A1KG563K3
.068	200	.312 x ⅞	CP04A1KC683K3
	400	.400 x 1⅛	CP04A1KE683K3
	600	.400 x 1⅜	CP04A1KF683K3
	1000	.562 x 1⅜	CP04A1KG683K3
.082	100	.312 x ⅞	CP04A1KB823K3
	200	.400 x ⅞	CP04A1KC823K3
	400	.400 x 1⅜	CP04A1KE823K3
	600	.562 x 1⅛	CP04A1KF823K3
	1000	.562 x 1⅝	CP04A1KG823K3

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μF	WVDC	D. x L.	Cat. No.*
.1	100	.312 x ⅞	CP04A1KB104K3
	200	.400 x ⅞	CP04A1KC104K3
	400	.400 x 1⅜	CP04A1KE104K3
	600	.562 x 1⅛	CP04A1KF104K3
	1000	.562 x 1⅝	CP04A1KG104K3
.12	100	.400 x ⅞	CP04A1KB124K3
	200	.400 x 1⅛	CP04A1KC124K3
	400	.562 x 1⅛	CP04A1KE124K3
	600	.562 x 1⅜	CP04A1KF124K3
	1000	.670 x 1⅝	CP04A1KG124K3
.15	100	.400 x ⅞	CP04A1KB154K3
	200	.400 x 1⅛	CP04A1KC154K3
	400	.562 x 1⅛	CP04A1KE154K3
	600	.562 x 1⅜	CP04A1KF154K3
	1000	.670 x 1⅝	CP04A1KG154K3
.18	100	.400 x 1⅛	CP04A1KB184K3
	200	.400 x 1⅜	CP04A1KC184K3
	400	.562 x 1⅜	CP04A1KE184K3
	600	.562 x 1⅞	CP04A1KF184K3
	1000	.750 x 2⅛	CP04A1KG184K3
.22	100	.400 x 1⅛	CP04A1KB224K3
	200	.400 x 1⅜	CP04A1KC224K3
	400	.562 x 1⅜	CP04A1KE224K3
	600	.562 x 1⅞	CP04A1KF224K3
	1000	.750 x 2⅛	CP04A1KG224K3
.27	100	.400 x 1⅜	CP04A1KB274K3
	200	.562 x 1⅛	CP04A1KC274K3
	400	.562 x 1⅞	CP04A1KE274K3
	600	.670 x 1⅞	CP04A1KF274K3
	1000	.750 x 2⅝	CP04A1KG274K3
.33	100	.400 x 1⅜	CP04A1KB334K3
	200	.562 x 1⅛	CP04A1KC334K3
	400	.562 x 1⅞	CP04A1KE334K3
	600	.670 x 1⅞	CP04A1KF334K3
	1000	.750 x 2⅝	CP04A1KG334K3
.39	100	.562 x 1⅛	CP04A1KB394K3
	200	.562 x 1⅜	CP04A1KC394K3
	400	.670 x 1⅞	CP05A1KE394K3
	600	.750 x 2⅛	CP04A1KF394K3
	1000	1.000 x 2⅛	CP04A1KG394K3
.47	100	.562 x 1⅛	CP04A1KB474K3
	200	.562 x 1⅜	CP04A1KC474K3
	400	.670 x 1⅞	CP04A1KE474K3
	600	.750 x 2⅛	CP04A1KF474K3
	1000	1.000 x 2⅛	CP04A1KG474K3
.56	100	.562 x 1⅜	CP04A1K5B64K3
	200	.562 x 1⅞	CP04A1KC564K3
	400	.750 x 2⅛	CP04A1KE564K3
	600	1.000 x 1⅞	CP04A1KF564K3
.68	100	.562 x 1⅜	CP04A1KB684K3
	200	.562 x 1⅞	CP04A1KC684K3
	400	.750 x 2⅛	CP04A1KE684K3
	600	1.000 x 1⅞	CP04A1KF684K3
.82	100	.562 x 1⅞	CP04A1KB824K3
	200	.670 x 1⅞	CP04A1KC824K3
	400	1.000 x 1⅞	CP04A1KE824K3
1.0	100	.562 x 1⅞	CP05A1KB105K3
	200	.670 x 1⅞	CP05A1KC105K3
	400	1.000 x 1⅞	CP04A1KE105K3

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*For Vibration Grade 1, change last digit of cat. no. to 1

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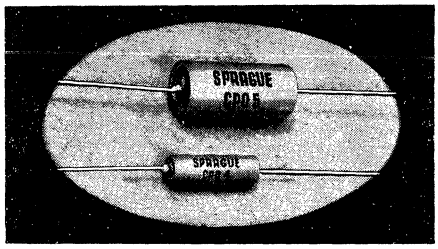
SPRAGUE CAPACITORS

TYPE CP05 CAPACITORS TO MIL-C-25C



- Vitamin Q impregnation assures performance above and beyond MIL-C-25C requirements.
- Inserted tab construction for applications where minimum size is necessary.
- Positive hermetic closure of the metal cases assured by glass-to-metal solder-seal terminals.
- Type CP05 has insulating sleeve.
- Capacitance Tolerance ±10%. Characteristic K Temperature Range (−55°C to +125°C).
- Only popular insulated section (ungrounded case) capacitors are listed. For information on grounded case units, consult you Sprague Industrial Distributor.
- Call your Sprague Industrial Distributor for Quantity Prices.

μF	WVDC	D. x L.	Cat. No.*
.001	600	.298 x 13/16	CP05A1KF102K3
.0012	600	.298 x 13/16	CP05A1KF122K3
.0015	600	.298 x 13/16	CP05A1KF152K3
.0018	600	.298 x 13/16	CP05A1KF182K3
.0022	600	.298 x 13/16	CP05A1KF222K3
.0027	600	.298 x 13/16	CP05A1KF272K3
.0033	600	.298 x 13/16	CP05A1KF332K3
.0039	600	.298 x 13/16	CP05A1KF392K3
.0047	600	.298 x 13/16	CP05A1KF472K3
.0056	600	.298 x 13/16	CP05A1KF562K3
.0068	600	.298 x 13/16	CP05A1KF682K3
.0082	400	.298 x 13/16	CP05A1KE822K3
	600	.375 x 15/16	CP05A1KF822K3
.01	400	.298 x 13/16	CP05A1KE103K3
	600	.375 x 15/16	CP05A1KF103K3
.012	200	.298 x 13/16	CP05A1KC123K3
	600	.375 x 15/16	CP05A1KF123K3
	200	.298 x 13/16	CP05A1KC153K3
.015	600	.375 x 15/16	CP05A1KF153K3
	1000	.463 x 15/16	CP05A1KG153K3
	200	.298 x 13/16	CP05A1KC183K3
.018	600	.375 x 15/16	CP05A1KF183K3
	1000	.463 x 13/16	CP05A1KG183K3
	200	.298 x 13/16	CP05A1KC223K3
.022	600	.375 x 15/16	CP05A1KF223K3
	1000	.463 x 13/16	CP05A1KG223K3
	100	.298 x 13/16	CP05A1KB273K3
.027	400	.375 x 15/16	CP05A1KE273K3
	600	.463 x 15/16	CP05A1KF273K3
	1000	1.463 x 17/16	CP05A1KG273K3
	100	.298 x 13/16	CP05A1KB333K3
.033	400	.375 x 15/16	CP05A1KE333K3
	600	.463 x 15/16	CP05A1KF333K3
	1000	1.463 x 17/16	CP05A1KG333K3
	200	.375 x 15/16	CP05A1KC393K3
.039	400	.463 x 15/16	CP05A1KE393K3
	600	.463 x 13/16	CP05A1KF393K3
	1000	.625 x 13/16	CP05A1KG393K3
	200	.375 x 15/16	CP05A1KC473K3
.047	400	.463 x 15/16	CP05A1KE473K3
	600	.463 x 13/16	CP05A1KF473K3
	1000	.625 x 13/16	CP05A1KG473K3
	200	.375 x 15/16	CP05A1KC563K3
.056	400	.463 x 13/16	CP05A1KE563K3
	600	.463 x 17/16	CP05A1KF563K3
	1000	.625 x 17/16	CP05A1KG563K3
	200	.375 x 15/16	CP05A1KC683K3
.068	400	.463 x 13/16	CP05A1KE683K3
	600	.463 x 17/16	CP05A1KF685K3
	1000	.625 x 17/16	CP05A1KG683K3
	100	.375 x 15/16	CP05A1KB823K3
	200	.463 x 15/16	CP05A1KC823K3
.082	400	.463 x 17/16	CP05A1KE823K3
	600	.625 x 13/16	CP05A1KF823K3
	1000	.625 x 111/16	CP05A1KG823K3
	100	.463 x 15/16	CP05A1KB104K3
	200	.463 x 15/16	CP05A1KC104K3
.1	400	.463 x 17/16	CP05A1KE104K3
	600	.625 x 13/16	CP05A1KF104K3
	1000	.625 x 111/16	CP05A1KG104K3
	100	.463 x 15/16	CP05A1KB124K3
	200	.463 x 13/16	CP05A1KC124K3
.12	400	.625 x 13/16	CP05A1KE124K3
	600	.625 x 17/16	CP05A1KF124K3
	1000	.733 x 111/16	CP05A1KG124K3
	100	.463 x 15/16	CP05A1KB154K3
	200	.463 x 1 1/8	CP05A1KC154K3
.15	400	.625 x 13/16	CP05A1KE154K3
	600	.625 x 17/16	CP05A1KF154K3
	1000	.733 x 111/16	CP05A1KG154K3
	100	.463 x 13/16	CP05A1KB184K3
	200	.463 x 17/16	CP05A1KC184K3
.18	400	.625 x 17/16	CP05A1KE184K3
	600	.625 x 115/16	CP05A1KF184K3
	1000	.813 x 23/16	CP05A1KG184K3
	100	.463 x 13/16	CP05A1KB224K3
	200	.463 x 17/16	CP05A1KC224K3
.22	400	.625 x 17/16	CP05A1KE224K3
	600	.625 x 115/16	CP05A1KF224K3
	1000	.813 x 23/16	CP05A1KG224K3
	100	.463 x 17/16	CP05A1KB274K3
	200	.625 x 13/16	CP05A1KC274K3
.27	400	.625 x 115/16	CP05A1KE274K3
	600	.733 x 115/16	CP05A1KF274K3
	1000	.813 x 211/16	CP05A1KG274K3
	100	.463 x 17/16	CP05A1KB334K3
	200	.625 x 13/16	CP05A1KC334K3
.33	400	.625 x 115/16	CP05A1KE334K3
	600	.733 x 115/16	CP05A1KF334K3
	1000	.813 x 211/16	CP05A1KG334K3
	100	.625 x 13/16	CP05A1KB394K3
	200	.625 x 17/16	CP05A1KC394K3
.39	400	.733 x 115/16	CP05A1KE394K3
	600	.813 x 23/16	CP05A1KF394K3
	1000	1.063 x 23/16	CP05A1KG394K3
	100	.625 x 13/16	CP05A1KB474K3
	200	.625 x 17/16	CP05A1KC474K3
.47	400	.733 x 115/16	CP05A1KE474K3
	600	.813 x 23/16	CP05A1KF474K3
	1000	1.063 x 23/16	CP05A1KG474K
	100	.625 x 17/16	CP05A1KB564K3
	200	.625 x 115/16	CP05A1KC564K3
.56	400	.813 x 23/16	CP05A1KE564K3
	600	1.063 x 115/16	CP05A1KF564K3
	100	.625 x 17/16	CP05A1KB684K3
.68	200	.625 x 115/16	CP05A1KC684K
	400	.813 x 23/16	CP05A1KE684K3
	600	1.063 x 115/16	CP05A1KF684K3
	100	.625 x 113/16	CP05A1KB824K
.82	200	.733 x 115/16	CP05A1KC824K
	400	1.063 x 115/16	CP05A1KE824K
	100	.625 x 115/16	CP05A1KB105K
1.0	200	.733 x 115/16	CP05A1KC105K
	400	1.063 x 115/16	CP05A1KE105K

*For Vibration Grade 1, change last digit of Catalog Number to "1."

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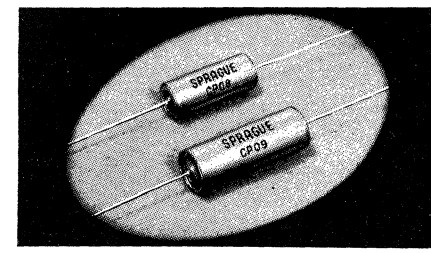
SPRAGUE CAPACITORS

TYPE CP08 CAPACITORS TO MIL-C-25C

- Vitamin Q impregnation assures performance above and beyond MIL-C-25C requirements.
- Positive hermetic closure of the metal cases with glass-to-metal solder-seal terminals.
- Capacitance Tolerance ±10%. Characteristic K Temperature Range (−55°C to +125°C).
- Type CP08 has plain metal case.
- Extended foil (so-called non-inductive section) construction.
- Listed below are popular insulated section (ungrounded case) capacitors. Consult you Sprague Industrial Distributor for information on grounded case units.
- Call your Sprague Industrial Distributor for Quantity Prices.



µF	WVDC	D. x L.	Cat. No.*
.001	600	.235 x 3/4	CP08A1KF102K3
	1000	.400 x 7/8	CP08A1KG102K3
.0012	600	.235 x 3/4	CP08A1KF122K3
	1000	.400 x 7/8	CP08A1KG122K3
.0015	600	.235 x 3/4	CP08A1KF152K3
	1000	.400 x 7/8	CP08A1KG152K3
.0018	600	.235 x 3/4	CP08A1KF182K3
	1000	.400 x 7/8	CP08A1KG182K3
.0022	600	.235 x 3/4	CP08A1KF222K3
	1000	.400 x 7/8	CP08A1KG222K3
	400	.235 x 3/4	CP08A1KE272K3
.0027	600	.312 x 7/8	CP08A1KF272K3
	1000	.400 x 7/8	CP08A1KG272K3
	400	.235 x 3/4	CP08A1KE332K3
.0033	600	.312 x 7/8	CP08A1KF332K3
	1000	.400 x 7/8	CP08A1KG332K3
	200	.235 x 3/4	CP08A1KC392K3
.0039	600	.312 x 7/8	CP08A1KF392K3
	1000	.400 x 7/8	CP08A1KG392K3
	200	.235 x 3/4	CP08A1KC472K3
.0047	600	.312 x 7/8	CP08A1KF472K3
	1000	.400 x 7/8	CP08A1KG472K3
	200	.235 x 3/4	CP08A1KC562K3
.0056	600	.312 x 7/8	CP08A1KF562K3
	1000	.400 x 7/8	CP08A1KG562K3
	200	.235 x 3/4	CP08A1KC682K3
.0068	600	.312 x 7/8	CP08A1KF682K3
	1000	.400 x 7/8	CP08A1KG682K3
	100	.235 x 3/4	CP08A1KB822K3
.0082	600	.312 x 7/8	CP08A1KF822K3
	1000	.400 x 7/8	CP08A1KG822K3
	100	.235 x 3/4	CP08A1KB103K3
.01	600	.312 x 7/8	CP08A1KF103K3
	1000	.400 x 7/8	CP08A1KG103K3
	100	.235 x 3/4	CP08A1KB123K3
.012	400	.312 x 7/8	CP08A1KE123K3
	600	.400 x 7/8	CP08A1KF123K3
	1000	.400 x 1 1/8	CP08A1KG123K3
	100	.235 x 3/4	CP08A1KB153K3
.015	400	.312 x 7/8	CP08A1KE153K3
	600	.400 x 7/8	CP08A1KF153K3
	1000	.400 x 1 1/8	CP08A1KG153K3
	200	.312 x 7/8	CP08A1KC183K3
0.18	600	.400 x 7/8	CP08A1KF183K3
	1000	.400 x 1 3/8	CP08A1KG183K3
	200	.312 x 7/8	CP08A1KC223K3
.022	600	.400 x 7/8	CP08A1KF223K3
	1000	.400 x 1 3/8	CP08A1KG223K3
	200	.312 x 7/8	CP08A1KC273K3
.027	400	.400 x 7/8	CP08A1KE273K3
	600	.400 x 1 1/8	CP08A1KF273K3
	1000	.562 x 1 1/8	CP08A1KG273K3
	200	.312 x 7/8	CP08A1KC333K3
.033	400	.400 x 7/8	CP08A1KE333K3
	600	.400 x 1 1/8	CP08A1KF333K3
	1000	.562 x 1 1/8	CP08A1KG333K3
	100	.312 x 7/8	CP08A1KB393K3
	200	.400 x 7/8	CP08A1KC393K3
.039	400	.400 x 1 1/8	CP08A1KE393K3
	600	.400 x 1 3/8	CP08A1KF393K3
	1000	.562 x 1 3/8	CP08A1KG393K3
	100	.312 x 7/8	CP08A1KB473K3
	200	.400 x 7/8	CP08A1KC473K3
.047	400	.400 x 1 1/8	CP08A1KE473K3
	600	.400 x 1 3/8	CP08A1KF473K3
	1000	.562 x 1 3/8	CP08A1KG473K3
	200	.400 x 7/8	CP08A1KC563K3
.056	400	.400 x 1 3/8	CP08A1KE563K3
	600	.562 x 1 1/8	CP08A1KF563K3
	1000	.562 x 1 5/8	CP08A1KG563K3
	200	.400 x 7/8	CP08A1KC683K3
.068	400	.400 x 1 3/8	CP08A1KE683K3
	600	.562 x 1 1/8	CP08A1KF683K3
	1000	.562 x 1 5/8	CP08A1KG683K3
	100	.400 x 7/8	CP08A1KB823K3
	200	.400 x 1 1/8	CP08A1KC823K3
.082	400	.562 x 1 1/8	CP08A1KE823K3
	600	.562 x 1 3/8	CP08A1KF823K3
	1000	.670 x 1 5/8	CP08A1KG823K3
	100	.400 x 7/8	CP08A1KB104K3
	200	.400 x 1 1/8	CP08A1KC104K3
.1	400	.562 x 1 1/8	CP08A1KE104K3
	600	.562 x 1 3/8	CP08A1KF104K3
	1000	.670 x 1 5/8	CP08A1KG104K3
	100	.400 x 1 1/8	CP08A1KB124K3
	200	.400 x 1 3/8	CP08A1KC124K3
.12	400	.562 x 1 3/8	CP08A1KE124K3
	600	.562 x 1 5/8	CP08A1KF124K3
	1000	.670 x 1 7/8	CP08A1KG124K3
	100	.400 x 1 1/8	CP08A1KB154K3
	200	.400 x 1 3/8	CP08A1KC154K3
.15	400	.562 x 1 3/8	CP08A1KE154K3
	600	.562 x 1 5/8	CP08A1KF154K3
	1000	.670 x 1 7/8	CP08A1KG154K3
	100	.400 x 1 3/8	CP08A1KB184K3
	200	.562 x 1 1/8	CP08A1KC184K3
.18	400	.562 x 1 5/8	CP08A1KE184K3
	600	.670 x 1 5/8	CP08A1KF184K3
	1000	.750 x 2 1/8	CP08A1KG184K3
	100	.400 x 1 3/8	CP08A1KB224K3
	200	.562 x 1 1/8	CP08A1KC224K3
.22	400	.562 x 1 5/8	CP08A1KE224K3
	600	.670 x 1 5/8	CP08A1KF224K3
	1000	.750 x 2 1/8	CP08A1KG224K3
	100	.562 x 1 1/8	CP08A1KB274K3
	200	.562 x 1 3/8	CP08A1KC274K3
.27	400	.670 x 1 5/8	CP08A1KE274K3
	600	.750 x 2 1/8	CP08A1KF274K3
	1000	1.000 x 2 1/8	CP08A1KG274K3

*For Vibration Grade 1, change last digit of Catalog Number to "1."

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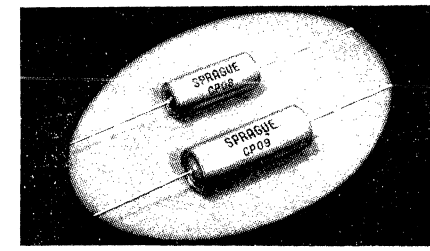
SPRAGUE CAPACITORS

TYPE CP09 CAPACITORS TO MIL-C-25A

- Vitamin Q impregnation assures performance above and beyond MIL-C-25A requirements.
- Positive hermetic closure of the metal cases with glass-to-metal solder-seal terminals.
- Available in Characteristic E (−55°C to +85°C) or Characteristic K (−55°C to +125°C).
- Type CP09 has insulating sleeve.
- Extended foil, non-inductive section construction.
- Listed below are popular insulated section (ungrounded case) capacitors. Consult your Sprague Industrial Distributor for information on grounded case units.
- Call your Sprague Industrial Distributor for Quantity Prices.



			Characteristic E −55°C to +85°C				Characteristic K −55°C to +125°C			
			±20% Tol.		±10% Tol.		±20% Tol.		±10% Tol.	
μF	WVDC	Size D. x L.	Cat. No.		Cat. No.		Cat. No.		Cat. No.	
.001	600	.298 x 13/16	CP09A1EF102M	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	CP09A1EF102K	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	CP09A1KF102M	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	CP09A1KF102K	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES
.0015	600	.298 x 13/16	CP09A1EF152M		CP09A1EF152K		CP09A1KF152M		CP09A1KF152K	
.0022	600	.298 x 13/16	CP09A1EF222M		CP09A1EF222K		CP09A1KF222M		CP09A1KF222K	
.0033	400	.298 x 13/16	CP09A1EE332M		CP09A1EE332K		CP09A1KE332M		CP09A1KE332K	
	600	.375 x 15/16	CP09A1EF332M		CP09A1EF332K		CP09A1KF332M		CP09A1KF332K	
.0047	200	.298 x 13/16	CP09A1EC472M		CP09A1EC472K		CP09A1KC472M		CP09A1KC472K	
	600	.375 x 15/16	CP09A1EF472M		CP09A1EF472K		CP09A1KF472M		CP09A1KF472K	
.0068	200	.298 x 13/16	CP09A1EC682M		CP09A1EC682K		CP09A1KC682M		CP09A1KC682K	
	600	.375 x 15/16	CP09A1EF682M		CP09A1EF682K		CP09A1KF682M		CP09A1KF682K	
.01	100	.298 x 13/16	CP09A1EB103M		CP09A1EB103K		CP09A1KB103M		CP09A1KB103K	
	600	.375 x 15/16	CP09A1EF103M		CP09A1EF103K		CP09A1KF103M		CP09A1KF103K	
.015	100	.298 x 13/16	CP09A1EB153M		CP09A1EB153K		CP09A1KB153M		CP09A1KB153K	
	400	.375 x 15/16	CP09A1EE153M		CP09A1EE153K		CP09A1KE153M		CP09A1KE153K	
	600	.463 x 15/16	CP09A1EF153M		CP09A1EF153K		CP09A1KF153M		CP09A1KF153K	
.022	200	.375 x 15/16	CP09A1EC223M		CP09A1EC223K		CP09A1KC223M		CP09A1KC223K	
	600	.463 x 15/16	CP09A1EF223M		CP09A1EF223K		CP09A1KF223M		CP09A1KF223K	
.033	200	.375 x 15/16	CP09A1EC333M		CP09A1E333K		CP09A1KC333M		CP09A1KC333K	
	400	.463 x 15/16	CP09A1EE333M		CP09A1EE333K		CP09A1KE333M		CP09A1KE333K	
	600	.463 x 13/16	CP09A1EF333M		CP09A1EF333K		CP09A1KF333M		CP09A1KF333K	
.047	100	.375 x 15/16	CP09A1EB473M		CP09A1EB473K		CP09A1KB473M		CP09A1KB473K	
	200	.463 x 15/16	CP09A1EC473M		CP09A1EC473K		CP09A1KC473M		CP09A1KC473K	
	400	.463 x 13/16	CP09A1EE473M		CP09A1EE473K		CP09A1KE473M		CP09A1KE473K	
	600	.463 x 17/16	CP09A1EF473M		CP09A1EF473K		CP09A1KF473M		CP09A1KF473K	
.068	200	.463 x 15/16	CP09A1EC683M		CP09A1EC683K		CP09A1KC683M		CP09A1KC683K	
	400	.463 x 17/16	CP09A1EE683M		CP09A1EE683K		CP09A1KE683M		CP09A1KE683K	
	600	.625 x 13/16	CP09A1EF683M		CP09A1EF683K		CP09A1KF683M		CP09A1KF683K	
.1	100	.463 x 15/16	CP09A1EB104M		CP09A1EB104K		CP09A1KB104M		CP09A1KB104K	
	200	.463 x 13/16	CP09A1EC104M		CP09A1EC104K		CP09A1KC104M		CP09A1KC104K	
	400	.625 x 13/16	CP09A1EE104M		CP09A1EE104K		CP09A1KE104M		CP09A1KE104K	
	600	.625 x 17/16	CP09A1EF104M		CP09A1EF104K		CP09A1KF104M		CP09A1KF104K	
.15	100	.463 x 13/16	CP09A1EB154M		CP09A1EB154K		CP09A1KB154M		CP09A1KB154K	
	200	.463 x 17/16	CP09A1EC154M		CP09A1EC154K		CP09A1KC154M		CP09A1KC154K	
	400	.625 x 17/16	CP09A1EE154M		CP09A1EE154K		CP09A1KE154M		CP09A1KE154K	
	600	.625 x 111/16	CP09A1EF154M		CP09A1EF154K		CP09A1KF154M		CP09A1KF154K	
.22	100	.463 x 17/16	CP09A1EB224M		CP09A1EB224K		CP09A1KB224M		CP09A1KB224K	
	200	.625 x 13/16	CP09A1EC224M		CP09A1EC224K		CP09A1KC224M		CP09A1KC224K	
	400	.625 x 111/16	CP09A1EE224M		CP09A1EE224K		CP09A1KE224M		CP09A1KE224K	
	600	.733 x 111/16	CP09A1EF224M		CP09A1EF224K		CP09A1KF224M		CP09A1KF224K	
.33	100	.625 x 13/16	CP09A1EB334M		CP09A1EB334K		CP09A1KB334M		CP09A1KB334K	
	200	.625 x 17/16	CP09A1EC334M		CP09A1EC334K		CP09A1KC334M		CP09A1KC334K	
	400	.733 x 111/16	CP09A1EE334M		CP09A1EE334K		CP09A1KE334M		CP09A1KE334K	
	600	.813 x 23/16	CP09A1EF334M		CP09A1EF334K		CP09A1KF334M		CP09A1KF334K	
.47	100	.625 x 17/16	CP09A1EB474M		CP09A1EB474K		CP09A1KB474M		CP09A1KB474K	
	200	.625 x 111/16	CP09A1EC474M		CP09A1EC474K		CP09A1KC474M		CP09A1KC474K	
	400	.813 x 23/16	CP09A1EE474M		CP09A1EE474K		CP09A1KE474M		CP09A1KE474K	
	600	.813 x 27/16	CP09A1EF474M		CP09A1EF474K		CP09A1KF474M		CP09A1KF474K	
.68	100	.625 x 111/16	CP09A1EB684M		CP09A1EB684K		CP09A1KB684M		CP09A1KB684K	
	200	.733 x 111/16	CP09A1EC684M		CP09A1EC684K		CP09A1KC684M		CP09A1KC684K	
1.0	100	.733 x 111/16	CP09A1EB105M		CP09A1EB105K		CP09A1KB105M		CP09A1KB105K	
	200	.813 x 23/16	CP09A1EC105M		CP09A1EC105K		CP09A1KC105M		CP09A1KC105K	

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SPRAGUE CAPACITORS

TYPE CP09 CAPACITORS TO MIL-C-25C

(±10% CAPACITANCE TOLERANCE, CHARACTERISTIC K)

μF	WVDC	D. x L.	Cat. No.
.001	600	.298 x 13/16	CP09A1KF102K3
	1000	.463 x 15/16	CP09A1KG102K3
.0012	600	.298 x 13/16	CP09A1KF122K3
	1000	.463 x 15/16	CP09A1KG122K3
.0015	600	.298 x 13/16	CP09A1KF152K3
	1000	.463 x 15/16	CP09A1KG152K3
.0018	600	.298 x 13/16	CP09A1KF182K3
	1000	.463 x 15/16	CP09A1KG182K3
.0022	600	.298 x 13/16	CP09A1KF222K3
	1000	.463 x 15/16	CP09A1KG222K3
	400	.298 x 13/16	CP09A1KE272K3
.0027	600	.375 x 15/16	CP09A1KF272K3
	1000	.463 x 15/16	CP09A1KG272K3
	400	.298 x 13/16	CP09A1KE332K3
.0033	600	.375 x 15/16	CP09A1KF332K3
	1000	.463 x 15/16	CP09A1KG332K3
	200	.298 x 13/16	CP09A1KC392K3
.0039	600	.375 x 15/16	CP09A1KF393K3
	1000	.463 x 15/16	CP09A1KG393K3
	200	.298 x 13/16	CP09A1KC472K3
.0047	600	.375 x 15/16	CP09A1KF472K3
	1000	.463 x 15/16	CP09A1KG472K3
	200	.298 x 13/16	CP09A1KC562K3
.0056	600	.375 x 15/16	CP09A1KF562K3
	1000	.463 x 15/16	CP09A1KG562K3
	200	.298 x 13/16	CP09A1KC682K3
.0068	600	.375 x 15/16	CP09A1KF682K3
	1000	.463 x 15/16	CP09A1KG682K3
	100	.298 x 13/16	CP09A1KB822K3
.0082	600	.375 x 15/16	CP09A1KF822K3
	1000	.463 x 15/16	CP09A1KG822K3
	100	.298 x 13/16	CP09A1KB103K3
.01	600	.375 x 15/16	CP09A1KF103K3
	1000	463 x 15/16	CP09A1KG103K3
	100	.298 x 13/16	CP09A1KB123K3
.012	400	.375 x 15/16	CP09A1KE123K3
	600	.463 x 15/16	CP09A1KF123K3
	1000	.463 x 13/16	CP09A1KG123K3
	100	.298 x 13/16	CP09A1KB153K3
.015	400	.375 x 15/16	CP09A1KE153K3
	600	.463 x 15/16	CP09A1KF153K3
	1000	.463 x 13/16	CP09A1KG153K3
	200	.375 x 15/16	CP09A1KC183K3
.018	600	.463 x 15/16	CP09A1KF183K3
	1000	.463 x 17/16	CP09A1KG183K3
	200	.375 x 15/16	CP09A1KC223K3
022	600	.463 x 15/16	CP09A1KF223K3
	1000	.463 x 17/16	CP09A1KG223K3

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μF	WVDC	D. x L.	Cat. No.
	200	.375 x 15/16	CP09A1KC273K3
	400	.463 x 15/16	CP09A1KE273K3
.027	600	.463 x 13/16	CP09A1KF273K3
	1000	.625 x 13/16	CP09A1KG273K3
	200	.375 x 15/16	CP09A1KC333K3
.033	400	.463 x 15/16	CP09A1KE333K3
	600	.463 x 13/16	CP09A1KF333K3
	1000	.625 x 13/16	CP09A1KG333K3
	100	.375 x 15/16	CP09A1KB393K3
	200	.463 x 15/16	CP09A1KC393K3
.039	400	.463 x 13/16	CP09A1KE393K3
	600	.463 x 17/16	CP09A1KF393K3
	1000	.625 x 17/16	CP09A1KG393K3
	100	.375 x 15/16	CP09A1KB473K3
	200	.463 x 15/16	CP09A1KC473K3
.047	400	.463 x 13/16	CP09A1KE473K3
	600	.463 x 17/16	CP09A1KF473K3
	1000	.625 x 17/16	CP09A1KG473K3
	200	.463 x 15/16	CP09A1KC563K3
	400	.463 x 17/16	CP09A1KE563K3
.056	600	.625 x 13/16	CP09A1KF563K3
	1000	.625 x 111/16	CP09A1KG563K3
	200	.463 x 15/16	CP09A1KC683K3
.068	400	.463 x 17/16	CP09A1KE683K3
	600	.625 x 13/16	CP09A1KF683K3
	1000	.625 x 111/16	CP09A1KG683K3
	100	.463 x 15/16	CP09A1KB823K3
	200	.463 x 13/16	CP09A1KC823K3
.082	400	.625 x 13/16	CP09A1KE823K3
	600	.625 x 17/16	CP09A1KF823K3
	1000	.733 x 111/16	CP09A1KG823K3
	100	.463 x 15/16	CP09A1KB104K3
	200	.463 x 13/16	CP09A1KC104K3
.1	400	.625 x 13/16	CP09A1KE104K3
	600	.625 x 17/16	CP09A1KF104K3
	1000	.733 x 111/16	CP09A1KG104K3
	100	.463 x 13/16	CP09A1KB124K3
	200	.463 x 17/16	CP09A1KC124K3
.12	400	.625 x 17/16	CP09A1KE124K3
	600	.625 x 111/16	CP09A1KF124K3
	1000	.733 x 115/16	CP09A1KG124K3
	100	.463 x 13/16	CP09A1KB154K3
	200	.463 x 17/16	CP09A1KC154K3
.15	400	.625 x 17/16	CP09A1KE154K3
	600	.625 x 111/16	CP09A1KF154K3
	1000	.733 x 115/16	CP09A1KG154K3
	100	.463 x 17/16	CP09A1KB184K3
	200	.625 x 13/16	CP09A1KC184K3
.18	400	.625 x 111/16	CP09A1KE184K3
	600	.733 x 111/16	CP09A1KF184K3
	1000	.813 x 23/16	CP09A1KG184K3
	100	.463 x 17/16	CP09A1KB224K3
	200	.625 x 13/16	CP09A1KC224K3
.22	400	.625 x 111/16	CP09A1KE224K3
	600	.733 x 111/16	CP09A1KF224K3
	1000	.813 x 23/16	CP09A1KG224K3

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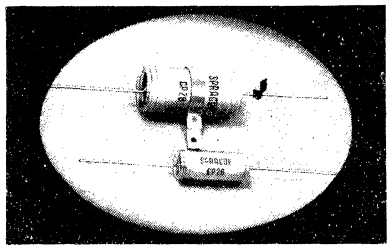
SPRAGUE CAPACITORS

MIL-C-25A CAPACITORS — TYPES CP26 and CP28



- Impregnated with specially processed mineral oil to exceed performance requirements of Specification MIL-C-25A
- Type CP26 has outer insulating sleeve — Type CP28 has insulating sleeve plus metal strap for radial mounting.
- Hermetically sealed for protection against leakage and contamination
- Meet temperature characteristic E (—55°C to +85°C operation)
- Capacitor sections are insulated from metal cases
- Call Your Sprague Distributor for Current Prices

NOTE: Capacitors listed below have a capacitance tolerance of ±10%. For ±20% units, change last letter in catalog number from K to M.

TYPE CP26 (without Mounting Bracket)

μF	Volts	Diam. x Length	Cat. No.
.006	600	½ x 1 5/16	CP26A1EF602K
.01	600	½ x 1 5/16	CP26A1EF103K
.02	600	½ x 1 13/16	CP26A1EF203K
.05	600	1 1/16 x 1 11/16	CP26A1EF503K
.5	200	1 1/16 x 2 5/16	CP26A1EC504K

Call Your Sprague Distributor for Current Prices

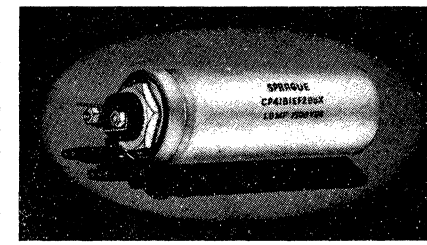
TYPE CP28 (Radial Mounting Bracket)

μF	Volts	Diam. x Length	Cat. No.
.1	600	1 1/16 x 2 1/16	CP28A1EF104K
.25	600	1 1/16 x 2 5/16	CP28A1EF254K
.5	600	1 1/16 x 2 13/16	CP28A1EF504K

Call Your Sprague Distributor for Current Prices

MIL-C-25A CAPACITORS — TYPES CP40 and CP41

- Designed and manufactured for service life and performance characteristics exceeding MIL requirements
- Type CP40 has screw and nut connection on positive terminal, can is negative — Type CP41 has two solder-lug terminals, with capacitor section insulated from metal case
- Impregnated with specially processed mineral oil for characteristic E operation — Will withstand wide temperature variations (—55°C to +85°C)
- Hermetically sealed in metal cases, with threaded screw necks for mounting purposes
- Call Your Sprague Distributor for Current Prices



NOTE: Capacitors listed below have a capacitance tolerance of ±10%. For ±20% units, change last letter in catalog number from K to M.

TYPE CP40 (One Terminal)

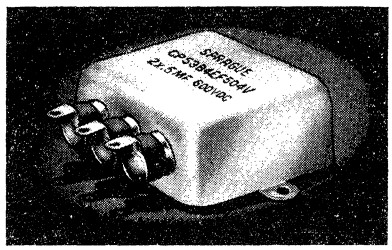
μF	Volts	Diam. x Length	Cat. No.
2.0	600	1½ x 3⅜	CP40C2EF205K
4.0	600	1½ x 5¼	CP40C2EF405K

Call Your Sprague Distributor for Prices

TYPE CP41 (Two Terminals)

μF	Volts	Diam. x Length	Cat. No.
2.0	600	1½ x 3⅜	CP41B1EF205K
4.0	600	1½ x 5¼	CP41B1EF405K

Call Your Sprague Distributor for Prices



MIL-C-25A CAPACITORS—TYPE CP53

- Impregnated with specially processed mineral oil to exceed performance requirements of MIL-C-25A
- Hermetically sealed, with silicone rubber compression terminals
- Rated for—55°C to +85°C operation
- Drawn metal cases have mounting flanges a integral part of containers
- Single and dual capacitance units have insulate sections — triple capacitance units have ground ed cases
- Call Your Sprague Distributor for Curren Prices

NOTE: Capacitors listed below have capacitance tolerances of +20%, —10% (V) or ±10% (K) For ±20% units, change last letter in catalog number from K to M or V to M.

μF	Volts	L. x W. x H.	Cat. No.
Single Capacitance			
.05	600	1 13/16 x 1 x ¾	CP53B1EF503K
.05	1000	1 13/16 x 1 x ¾	CP53B1EG503K
.1	600	1 13/16 x 1 x ¾	CP53B1EF104K
.1	1000	1 13/16 x 1 x ¾	CP53B1EG104K
.25	600	1 13/16 x 1 x ¾	CP53B1EF254K
.25	1000	1 13/16 x 1 x ⅞	CP53B1EG254K
.5	400	1 13/16 x 1 x ⅞	CP53B1EE504K
.5	600	1 13/16 x 1 x 1	CP53B1EF504K
.5	1000	2 x 1¾ x ⅞	CP53B1EG504K
1.0	600	2 x 1¾ x 1	CP53B1EF105K
1.0	1000	2 x 2 x 1⅛	CP53B1EG105K
2.0	100	2 x 1¾ x ⅞	CP53B1EB205K
2.0	200	2 x 2 x 1	CP53B1EC205K
2.0	600	2 x 2 x 1⅛	CP53B1EF205K
4.0	100	2 x 2 x 1⅛	CP53B1EB405K

Call Your Sprague Distributor for Prices

μF	Volts	L. x W. x H.	Cat. No.
Dual Capacitance			
.05 + .05	600	1 13/16 x 1 x ¾	CP53B4EF503V
.05 + .05	1000	1 13/16 x 1 x ¾	CP53B4EG503V
.1 + .1	600	1 13/16 x 1 x ¾	CP53B4EF104V
.1 + .1	1000	1 13/16 x 1 x ⅞	CP53B4EG104V
.25 + .25	600	1 13/16 x 1 x 1	CP53B4EF254V
.25 + .25	1000	2 x 1¾ x ⅞	CP53B4EG254V
.5 + .5	600	2 x 1¾ x 1	CP53B4EF504V
.5 + .5	1000	2 x 2 x 1⅛	CP53B4EG504V
1.0 + 1.0	600	2 x 2 x 1⅛	CP53B4EF105V
Triple Capacitance			
.05 + .05 + .05	600	1 13/16 x 1 x ¾	CP53B5EF503V
.1 + .1 + .1	600	1 13/16 x 1 x ⅞	CP53B5EF104V
.5 + .5 + .5	600	2 x 2 x 1⅛	CP53B5EF504V

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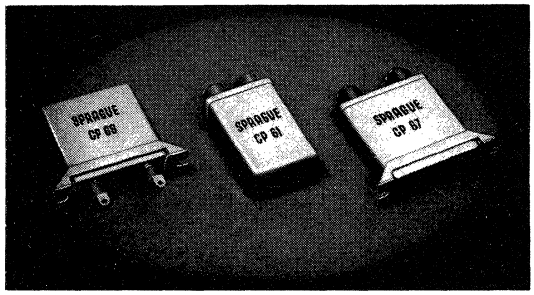
SPRAGUE CAPACITORS

TYPE CP61, CP67, CP69, CP91 CAPACITORS to MIL-C-25A



- Mineral Oil Impregnated for Minimum Capacitance Change with Temperature
- Hermetically Sealed in Drawn Metal Cases
- Have Silicone Rubber Compression Terminals for Positive Prevention Against Entrance of Moisture or Leakage of Impregnant
- Designed and Manufactured for Service Life Beyond Specification Requirements
- Units Listed are Most Popular Ratings. Complete Military Line Available from Sprague
- CP61 and CP91 require separate mounting brackets.
- CP67 and CP69 have integral channel brackets
- For quantity prices, see your Sprague Industrial Distributor.

NOTE: These units have capacitance tolerances of ±10% (K) or +20, −10% (V). For ±20% units, change the last letter in the catalog number from K to M or V to M.

µF	WVDC	CAT. NO.	SIZE	Mounting Brackets* CAT. NO.
		TYPE CP61		
.05	600	CP61B1EF503K	1 5/16 x 1 1/16 x 1 1/16	CP06-FA1
.1	600	CP61B1EF104K	1 5/16 x 1 1/16 x 1 3/8	CP06-FA2
.25	600	CP61B1EF254K	1 5/16 x 1 1/16 x 1 5/8	CP06-FA3
.5	600	CP61B1EF504K	1 5/16 x 1 1/16 x 2	CP06-FA4
1.0	600	CP61B1EF105K	1 5/16 x 1 1/16 x 2 1/2	CP06-FA5
.1 + .1	600	CP61B6EF104K	1 5/16 x 1 1/16 x 1 5/8	CP06-FA3
.25 + .25	600	CP61B6EF254V	1 5/16 x 1 1/16 x 2	CP06-FA4
.5 + .5	600	CP61B6EF504V	1 5/16 x 1 1/16 x 2 3/4	CP06-FA6
		TYPE CP91		
.05	600	CP91B1EF503K	1 5/16 x 5/8 x 1 1/16	CP091-FB1
.1	600	CP91B1EF104K	1 5/16 x 5/8 x 1 3/8	CP091-FB2
.25	600	CP91B1EF254K	1 5/16 x 5/8 x 1 5/8	CP091-FB3
.5	600	CP91B1EF504K	1 5/16 x 5/8 x 2	CP091-FB4
1.0	600	CP91B1EF105K	1 5/16 x 5/8 x 2 3/4	CP091-FB6
.1 + .1	600	CP91B6EF104V	1 5/16 x 5/8 x 1 5/8	CP091-FB3
.25 + .25	600	CP91B6EF254V	1 5/16 x 5/8 x 2	CP091-FB4
.5 + .5	600	CP91B6EF504V	1 5/16 x 5/8 x 2 3/4	CP091-FB6
		TYPE CP67 Terminals opposite channel bracket		
.1	600	CP67B1EF104K	1 3/4 x 4 1/64 x 1 1/16	Integral
.25	600	CP67B1EF254K	1 3/4 x 4 1/64 x 1 1/2	Channel
.5	600	CP67B1EF504K	1 3/4 x 4 1/64 x 2	Brackets
1.0	600	CP67B1EF105K	1 3/4 x 4 1/64 x 2 3/4	
		TYPE CP69 Terminals on same end as channel bracket		
.05	600	CP69B1EF503K	1 3/4 x 4 1/64 x 1 1/16	
.1	600	CP69B1EF104K	1 3/4 x 4 1/64 x 1 1/16	Integral
.25	600	CP69B1EF254K	1 3/4 x 4 1/64 x 1 1/2	Channel
.5	600	CP69B1EF504K	1 3/4 x 4 1/64 x 2	Brackets
1.0	600	CP69B1EF105K	1 3/4 x 4 1/64 x 2 3/4	

*Footed Brackets are listed: for spade type change F in Catalog No. to S

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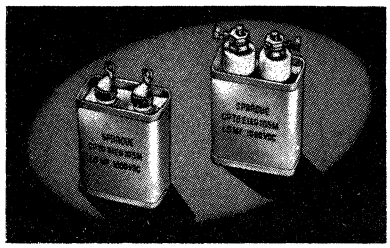

TYPE CP70 CAPACITORS to MIL-C-25A

- Ruggedly Constructed for Exacting Heavy-Duty Applications
- Long Life and Reliable Service under High Ambient Temperatures
- Terminals have Ceramic Pillar Insulators (E) or Rubber Compression Seals (B)
- Impregnated with a Specially Processed Mineral Oil to Withstand Severe Operating Conditions
- Char. F Units Recommended Primarily for Ground Equipment Where no Low Temperatures are Encountered
- For Quantity Prices, See Your Sprague Industrial Distributor.

NOTE: These units have a capacitance tolerance of ±10%. For ±20% tolerance, change the last letter in the catalog number from K to M.

		Char. E (E Term.)		Char. F (B Term.)		Char. E (B Term.)	
µF	WVDC	Cat. No.	W x T x H	Cat. No.	W x T x H	Cat. No.	W x T x H
.1	1000	CP70E1EG104K	1 13/16 x 1 1/16 x 1 5/8				
.1	2000	CP70E1EJ104K	2 1/2 x 1 3/16 x 2 1/2				
.25	1000	CP70E1EG254K	1 13/16 x 1 1/16 x 2 1/4				
.25	2000	CP70E1EJ254K	2 1/2 x 1 3/16 x 2 1/2				
.5	600	CP70E1EF504K	1 13/16 x 1 1/16 x 2 1/4				
.5	1000	CP70E1EG504K	1 13/16 x 1 1/16 x 2 1/4			CP70B1EG504K	1 13/16 x 1 1/16 x 2 1/4
.5	1500	CP70E1EH504K	1 13/16 x 1 1/16 x 2 7/8				
.5	2000	CP70E1EJ504K	2 1/2 x 1 3/16 x 2 7/8				
.5	2500	CP70E1EK504K	2 1/2 x 1 3/16 x 3 7/8				
1.0	600	CP70E1EF105K	1 13/16 x 1 1/16 x 2 1/4			CP70B1EF105K	1 13/16 x 1 1/16 x 2 1/4
1.0	1000	CP70E1EG105K	1 13/16 x 1 1/16 x 2 7/8			CP70B1EG105K	1 13/16 x 1 1/16 x 2 7/8
1.0	1500	CP70E1EH105K	1 13/16 x 1 1/16 x 4 3/4				
1.0	2000	CP70E1EJ105K	2 1/2 x 1 3/16 x 4 3/4				
1.0	2500	CP70E1EK105K	3 3/4 x 1 3/4 x 3 7/8				
2.0	600	CP70E1EF205K	1 13/16 x 1 1/16 x 3 1/4	CP70B1FF205K	1 13/16 x 1 1/16 x 2 7/8	CP70B1EF205K	1 13/16 x 1 1/16 x 3 1/4
2.0	1000	CP70E1EG205K	1 13/16 x 1 1/16 x 4 3/4	CP70B1FG205K	1 13/16 x 1 1/16 x 3 7/8	CP70B1EG205K	1 13/16 x 1 1/16 x 4 3/4
2.0	1500	CP70E1EH205K	2 1/2 x 1 3/16 x 4 3/4			CP70B1EH205K	2 1/2 x 1 3/16 x 4 3/4
2.0	2000	CP70E1EJ205K	3 3/4 x 1 1/4 x 4 3/4				
2.0	2500	CP70E1EK205K	3 3/4 x 2 1/4 x 4 3/4				
4.0	600	CP70E1EF405K	2 1/2 x 1 3/16 x 3 7/8	CP70B1FF405K	2 1/2 x 1 3/16 x 3 1/2	CP70B1EF405K	2 1/2 x 1 3/16 x 3 7/8
4.0	1000	CP70E1EG405K	3 3/4 x 1 1/4 x 3 7/8	CP70B1FG405K	2 1/2 x 1 3/16 x 4 3/4	CP70B1EG405K	3 3/4 x 1 1/4 x 3 7/8
4.0	1500	CP70E1EH405K	3 3/4 x 1 3/4 x 4 1/4			CP70B1EH405K	3 3/4 x 1 3/4 x 4 1/4
4.0	2000	CP70E1EJ405K	3 3/4 x 2 1/4 x 5 1/8				
4.0	2500	CP70E1EK405K	4 5/16 x 3 3/4 x 4 3/8				
6.0	600	CP70E1EF605K	3 3/4 x 1 1/4 x 3 7/8	CP70B1FF605K	2 1/2 x 1 3/16 x 4 3/4	CP70B1EF605K	3 3/4 x 1 1/4 x 3 7/8
6.0	1000	CP70E1EG605K	3 3/4 x 1 3/4 x 4	CP70B1FG605K	3 3/4 x 1 1/4 x 4 3/4	CP70B1EG605K	3 3/4 x 1 3/4 x 4
6.0	1500	CP70E1EH605K	3 3/4 x 2 1/4 x 4 3/4			CP70B1EH605K	3 3/4 x 2 1/4 x 4 3/4
8.0	600	CP70E1EF805K	3 3/4 x 1 1/4 x 4 1/4	CP70B1FF805K	3 3/4 x 1 1/4 x 3 7/8	CP70B1EF805K	3 3/4 x 1 1/4 x 4 1/4
8.0	1000	CP70E1EG805K	3 3/4 x 1 3/4 x 4 3/4	CP70B1FG805K	3 3/4 x 1 3/4 x 3 7/8	CP70B1EG805K	3 3/4 x 1 3/4 x 4 3/4
8.0	1500	CP70E1EH805K	3 3/4 x 2 1/2 x 5 3/4			CP70B1EH805K	3 3/4 x 2 1/2 x 5 3/4
10.0	600	CP70E1EF106K	3 3/4 x 1 3/4 x 4	CP70B1FF106K	3 3/4 x 1 1/4 x 4 3/4	CP70B1EF106K	3 3/4 x 1 3/4 x 4
10.0	1000	CP70E1EG106K	3 3/4 x 2 1/4 x 4 3/4	CP70B1FG106K	3 3/4 x 1 3/4 x 4 3/4	CP70B1EG106K	3 3/4 x 2 1/4 x 4 3/4
10.0	1500	CP70E1EH106K	3 3/4 x 3 3/16 x 5 1/2			CP70B1EH106K	3 3/4 x 3 3/16 x 5 1/2
12.0	1000	CP70E1EG126K	3 3/4 x 2 1/4 x 5 1/8			CP70B1EG126K	3 3/4 x 2 1/4 x 5 1/8
15.0	1000	CP70E1EG156K	3 3/4 x 3 3/16 x 4 3/4				

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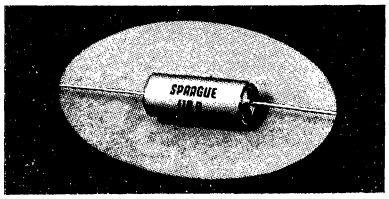
SPRAGUE CAPACITORS

118P DIFILM® METALLIZED CAPACITORS



- The Best of Their Type Possible to Produce at the Present State of the Art
- Rated for Operation at 125°C WITHOUT VOLTAGE DERATING
- Unique Dual Dielectric —a Combination of Metallized Paper and of Polyester Film, Impregnated With Special High-Temperature Mineral Wax
- Subjected to Stringent Quality Control During Manufacture
- Higher Insulation Resistance Than Any Other Metallized Paper Capacitors—at 125°C, Minimum Product of Insulation Resistance and Capacitance is 10 Megohm-microfarads for 200 V Units or 40 Megohm-microfarads for 400 and 600 V Units
- Capacitor Sections are Effectively of Non-inductive Construction, Resulting in Capacitors Unmatched in Performance Quality by any Other Metallized Capacitors
- Hermetically Sealed, with Glass-to-metal Solder-seal Terminals
- Have Unusual Self-healing Characteristics, in the Rare Event of Capacitor Dielectric Breakdown
- May be Used at Extremely Low Voltages Where Metallized Paper Construction has Previously Been Unsatisfactory
- For Complete Performance Characteristics, see Latest Issue of Engineering Bulletin 2211
- For Units With Outer Plastic Insulating Sleeves, Change Last Digit of Cat. No. From "2" to "4"
- Capacitors Listed Below Are Ungrounded Case (Insulating Section) Units Without Outer Insulating Sleeves. For Information on Other Styles Consult Your Sprague Industrial Distributor
- Call your Sprague Industrial Distributor for Quantity Prices.

200 WVDC

μF	D. x L.	±20% Tol. Catalog Number		±10% Tol. Catalog Number	
.01	.175 x 1 1/16	118P10302S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	118P10392S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES
.012	.195 x 1 1/16			118P12392S2	
.015	.195 x 1 1/16	118P15302S2		118P15392S2	
.018	.235 x 1 1/16			118P18392S2	
.022	.235 x 1 1/16	118P22302S2		118P22392S2	
.027	.235 x 1 1/16			118P27392S2	
.033	.235 x 1 1/16	118P33302S2		118P33392S2	
.039	.312 x 1 3/16			118P39392S2	
.047	.312 x 1 3/16	118P47302S2		118P47392S2	
.056	.312 x 1 3/16			118P56392S2	
.068	.312 x 1 3/16	118P68302S2		118P68392S2	
.082	.312 x 1 3/16			118P82392S2	
.1	.312 x 1 3/16	118P10402S2		118P10492S2	
.12	.312 x 1 1/16			118P12492S2	
.15	.312 x 1 1/16	118P15402S2		118P15492S2	
.18	.400 x 1 3/16			118P18492S2	
.22	.400 x 1 3/16	118P22402S2		118P22492S2	
.27	.400 x 1 1/16			118P27492S2	
.33	.400 x 1 1/16	118P33402S2		118P33492S2	
.39	.500 x 1 1/16			118P39492S2	
.47	.500 x 1 1/16	118P47402S2		118P47492S2	
.56	.500 x 1 1/16			118P56492S2	
.68	.500 x 1 1/16	118P68402S2		118P68492S2	
.82	.562 x 1 1/16			118P82492S2	
1.0	.562 x 1 1/16	118P10502S2		118P10592S2	
1.5	.562 x 1 9/16	118P15502S2		118P15592S2	
2.0	.670 x 1 9/16	118P20502S2		118P20592S2	
3.0	.670 x 1 13/16	118P30502S2		118P30592S2	
4.0	.750 x 1 13/16	118P40502S2		118P40592S2	
5.0	1.000 x 1 13/16	118P50502S2		118P50592S2	
6.0	1.000 x 1 13/16	118P60502S2		118P60592S2	
8.0	1.000 x 1 13/16	118P80502S2		118P80592S2	
10.0	1.000 x 2 5/16	118P10602S2		118P10692S2	
12.0	1.000 x 2 9/16	118P12602S2		118P12692S2	

400 WVDC

μF	D. x L.	±20% Tol. Catalog Number		±10% Tol. Catalog Number	
.01	.312 x 1 3/16	118P10304S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	118P10394S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES
.015	.312 x 1 3/16	118P15304S2		118P15394S2	
.022	.312 x 1 3/16	118P22304S2		118P22394S2	
.033	.312 x 1 1/16	118P33304S2		118P33394S2	
.047	.400 x 1 1/16	118P47304S2		118P47394S2	
.068	.400 x 1 1/16	118P68304S2		118P68394S2	
.1	.500 x 1 1/16	118P10404S2		118P10494S2	
.15	.500 x 1 1/16	118P15404S2		118P15494S2	
.22	.562 x 1 5/16	118P22404S2		118P22494S2	
.33	.562 x 1 9/16	118P33404S2		118P33494S2	
.47	.670 x 1 9/16	118P47404S2		118P47494S2	
.68	.670 x 1 13/16	118P68404S2		118P68494S2	
1.0	.750 x 1 13/16	118P10504S2		118P10594S2	
1.5	1.000 x 1 13/16	118P15504S2		118P15594S2	
2.0	1.000 x 1 13/16	118P20504S2		118P20594S2	
3.0	1.000 x 2 9/16	118P30504S2		118P30594S2	

600 WVDC

μF	D. x L.	±20% Tol. Catalog Number		±10% Tol. Catalog Number	
.01	.312 x 1 3/16	118P10306S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	118P10396S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES
.015	.312 x 1 3/16	118P15306S2		118P15396S2	
.022	.312 x 1 1/16	118P22306S2		118P22396S2	
.033	.312 x 1 1/16	118P33306S2		118P33396S2	
.047	.400 x 1 1/16	118P47306S2		118P47396S2	
.068	.400 x 1 1/16	118P68306S2		118P68396S2	
.1	.500 x 1 1/16	118P10406S2		118P10496S2	
.15	.562 x 1 1/16	118P15406S2		118P15496S2	
.22	.562 x 1 5/16	118P22406S2		118P22496S2	
.33	.562 x 1 9/16	118P33406S2		118P33496S2	
.47	.670 x 1 9/16	118P47406S2		118P47496S2	
.68	.670 x 1 13/16	118P68406S2		118P68496S2	
1.0	1.000 x 1 13/16	118P10506S2		118P10596S2	
1.5	1.000 x 1 13/16	118P15506S2		118P15596S2	
2.0	1.000 x 2 1/16	118P20506S2		118P20596S2	
2.5	1.000 x 2 9/16	118P25506S2		118P25596S2	

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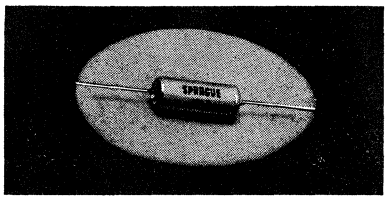
SPRAGUE CAPACITORS

121P METALLIZED PAPER CAPACITORS

- Designed to operate at 125°C WITHOUT VOLTAGE DERATING — extremely important in military and industrial equipment where higher temperatures are encountered.
- Quality of these capacitors is surpassed only by Type 118P units described on opposite page.
- High insulation resistance — at 85°C, minimum product of insulation resistance and capacitance is 20 megohm-microfarads. At 125°C, minimum product is 1.0 megohm-microfarads.
- Hermetically sealed with glass-to-metal solder-seal terminals — capacitor cases are of corrosion resistant materials — similar in appearance to Type 118P.
- May be operated at low voltages, unlike many other metallized capacitors.
- For complete performance data, see latest issue of Engineering Bulletin 2210.
- Capacitors listed below are ungrounded case (insulated section) units without outer insulating sleeves. For information on other styles consult your Sprague Industrial Distributor.
- For quantity prices call your Sprague Industrial Distributor.



- For units with outer plastic insulating sleeve, change last digit in cat. no. from 2 to 4.

µF	D. x L.	±20% Tol. Cat. No.		±10% Tol. Cat. No.	
150 WVDC					
1.5	.562 x 1⅛	121P15501R5S2	CALL YOUR SPRAGUE DISTRIBUTOR FOR PRICES	121P15591R5S2	CALL YOUR SPRAGUE DISTRIBUTOR FOR PRICES
2.0	.562 x 1⅜	121P20501R5S2		121P20591R5S2	
2.5	.562 x 1⅝	121P25501R5S2		121P25591R5S2	
3.0	.670 x 1⅜	121P30501R5S2		121P30591R5S2	
3.5	.670 x 1⅝	121P35501R5S2		121P35591R5S2	
4.0	.670 x 1⅝	121P40501R5S2		121P40591R5S2	
5.0	.670 x 1⅞	121P50501R5S2		121P50591R5S2	
6.0	.750 x 1⅞	121P60501R5S2		121P60591R5S2	
8.0	.750 x 2⅜	121P80501R5S2		121P80591R5S2	
10	.750 x 2⅝	121P10601R5S2		121P10691R5S2	
12	1.000 x 1⅞	121P12601R5S2		121P12691R5S2	
14	1.000 x 2⅛	121P14601R5S2		121P14691R5S2	
16	1.000 x 2⅜	121P16601R5S2		121P16691R5S2	
18	1.000 x 2⅝	121P18601R5S2		121P18691R5S2	
200 WVDC					
.047	.235 x ¾	121P47302S2	PRICES AVAILABLE UPON REQUEST	121P47392S2	PRICES AVAILABLE UPON REQUEST
.056	.312 x ⅞			121P56392S2	
.068	.312 x ⅞	121P68302S2		121P68392S2	
.082	.312 x ⅞			121P82392S2	
.1	.312 x ⅞	121P10402S2		121P10492S2	
.12	.312 x ⅞			121P12492S2	
.15	.312 x ⅞	121P15402S2		121P15492S2	
.18	.312 x 1⅛			121P18492S2	
.22	.312 x 1⅛	121P22402S2		121P22492S2	
.27	.400 x 1⅛			121P27492S2	
.33	.400 x 1⅛	121P33402S2		121P33492S2	
.39	.400 x 1⅛			121P39492S2	
.47	.400 x 1⅛	121P47402S2		121P47492S2	
.56	.500 x 1⅛			121P56492S2	
.68	.500 x 1⅛	121P68402S2		121P68492S2	
.82	.562 x 1⅛			121P82492S2	
1.0	.562 x 1⅛	121P10502S2		121P10592S2	
1.5	.562 x 1⅜	121P15502S2		121P15592S2	
2.0	.562 x 1⅞	121P20502S2		121P20592S2	
2.5	.670 x 1⅝	121P25502S2		121P25592S2	
3.0	.670 x 1⅞	121P30502S2		121P30592S2	
3.5	.750 x 1⅞	121P35502S2		121P35592S2	
4.0	.750 x 1⅞	121P40502S2		121P40592S2	
5.0	.750 x 2⅛	121P50502S2		121P50592S2	
6.0	.750 x 2⅜	121P60502S2		121P60592S2	
8.0	1.000 x 1⅞	121P80502S2		121P80592S2	
10	1.000 x 2⅛	121P10602S2		121P10692S2	
12	1.000 x 2⅝	121P12602S2		121P12692S2	
400 WVDC					
.01	.235 x ¾	121P10304S2	PRICES AVAILABLE UPON REQUEST	121P10394S2	PRICES AVAILABLE UPON REQUEST
.012	.312 x ⅞			121P12394S2	
.015	.312 x ⅞	121P15304S2		121P15394S2	
.018	.312 x ⅞			121P18394S2	
.022	.312 x ⅞	121P22304S2		121P22394S2	
.027	.312 x ⅞			121P27394S2	
.033	.312 x ⅞	121P33304S2		121P33394S2	
.039	.312 x 1⅛			121P39394S2	
.047	.312 x 1⅛	121P47304S2		121P47394S2	
.056	.312 x 1⅛			121P56394S2	
.068	.312 x 1⅛	121P68304S2		121P68394S2	
.082	.400 x 1⅛			121P82394S2	
.1	.400 x 1⅛	121P10404S2	PRICES AVAILABLE UPON REQUEST	121P10494S2	PRICES AVAILABLE UPON REQUEST
.12	.400 x 1⅜			121P12494S2	
.15	.400 x 1⅜	121P15404S2		121P15494S2	
.18	.500 x 1⅛			121P18494S2	
.22	.500 x 1⅛	121P22404S2		121P22494S2	
.27	.562 x 1⅜			121P27494S2	
.33	.562 x 1⅜	121P33404S2		121P33494S2	
.39	.562 x 1⅝			121P39494S2	
.47	.562 x 1⅝	121P47404S2		121P47494S2	
.56	.670 x 1⅝			121P56494S2	
.68	.670 x 1⅝	121P68404S2		121P68494S2	
.82	.670 x 1⅞			121P82494S2	
1.0	.670 x 1⅞	121P10504S2		121P10594S2	
1.5	.750 x 2⅜	121P15504S2		121P15594S2	
2.0	1.000 x 1⅞	121P20504S2		121P20594S2	
2.5	1.000 x 2⅛	121P25504S2		121P25594S2	
3.0	1.000 x 2⅜	121P30504S2		121P30594S2	
3.5	1.000 x 2⅝	121P35504S2		121P35594S2	
600 WVDC					
.001	.235 x ¾	121P10206S2	PRICES AVAILABLE UPON REQUEST	121P10296S2	PRICES AVAILABLE UPON REQUEST
.0012	.235 x ¾			121P12296S2	
.0015	.235 x ¾	121P15206S2		121P15296S2	
.0018	.235 x ¾			121P18296S2	
.0022	.235 x ¾	121P22206S2		121P22296S2	
.0027	.235 x ¾			121P27296S2	
.0033	.235 x ¾	121P33206S2		121P33296S2	
.0039	.235 x ¾			121P39296S2	
.0047	.235 x ¾	121P47206S2		121P47296S2	
.0056	.312 x ⅞			121P56296S2	
.0068	.312 x ⅞	121P68206S2		121P68296S2	
.0082	.312 x ⅞			121P82296S2	
.01	.312 x ⅞	121P10306S2		121P10396S2	
.012	.312 x ⅞			121P12396S2	
.015	.312 x ⅞	121P15306S2		121P15396S2	
.018	.312 x 1⅛			121P18396S2	
.022	.312 x 1⅛	121P22306S2		121P22396S2	
.027	.312 x 1⅛			121P27396S2	
.033	.312 x 1⅛	121P33306S2		121P33396S2	
.039	.400 x 1⅛			121P39396S2	
.047	.400 x 1⅛	121P47306S2		121P47396S2	
.056	.400 x 1⅛			121P56396S2	
.068	.400 x 1⅛	121P68306S2		121P68396S2	
.082	.500 x 1⅛			121P82396S2	
.1	.500 x 1⅛	121P10406S2		121P10496S2	
.12	.562 x 1⅛			121P12496S2	
.15	.562 x 1⅛	121P15406S2		121P15496S2	
.18	.562 x 1⅜			121P18496S2	
.22	.562 x 1⅜	121P22406S2		121P22496S2	
.27	.562 x 1⅞			121P27496S2	
.33	.562 x 1⅞	121P33406S2		121P33496S2	
.39	.670 x 1⅞			121P39496S2	
.47	.670 x 1⅞	121P47406S2		121P47496S2	
.56	.670 x 1⅞			121P56496S2	
.68	.670 x 1⅞	121P68406S2		121P68496S2	
.82	.750 x 2⅜			121P82496S2	
1.0	.750 x 2⅜	121P10506S2		121P10596S2	
1.5	1.000 x 2⅛	121P15506S2		121P15596S2	
2.0	1.000 x 2⅜	121P20506S2		121P20596S2	

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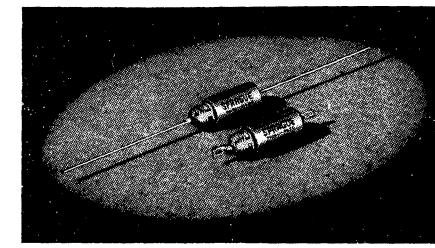
SPRAGUE CAPACITORS

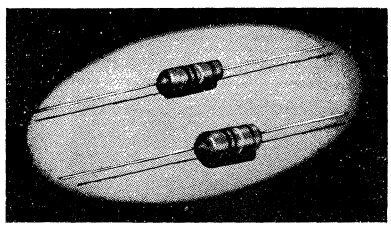
TYPE 102P, 103P 'THRU-PASS'® CAPACITORS

- Designed for Radio Interference Reduction in Radar and Communication Equipment
- Performance Closer to That of Theoretically Ideal Capacitor than Any Other Paper Capacitor Ever Made
- Three-Terminal Feed-Thru Design — Connect in a Circuit in Same Manner as Low-Pass Filter
- Hermetically Sealed, with Glass-to-Metal Solder-Seal Terminals
- Impregnated with Vitamin Q, for High Insulation Resistance and Minimum Capacitance Change with Temperature
- Type 102P is Designed for Operation from −55°C to +85°C; Type 103P for −55°C to +125°C
- Capacitors listed below have wire leads. For tab terminals, which are also available, see your Sprague Industrial Distributor.
- For complete technical data, refer to latest issue of Engineering Bulletin 8015
- Prices available upon request



μF	Size Diam. x Length	Catalog Number 85°C	125°C
100 WVDC			
.001	.400 x 3/4	102P101	103P101
.0047	.400 x 3/4	102P106	103P106
.01	.400 x 3/4	102P111	103P111
.047	.400 x 3/4	102P116	103P116
.1	.400 x 7/8	102P121	103P121
.22	.400 x 1 3/8	102P126	103P126
.33	.562 x 1 1/8	102P131	103P131
.47	.562 x 1 3/8	102P136	103P136
.68	.562 x 1 7/8	102P141	103P141
1.0	.670 x 1 7/8	102P145	103P145
200 WVDC			
.001	.400 x 3/4	102P102	103P102
.0047	.400 x 3/4	102P107	103P107
.01	.400 x 3/4	102P112	103P112
.047	.400 x 7/8	102P117	103P117
.1	.400 x 1 1/8	102P122	103P122
.22	.562 x 1 1/8	102P127	103P127
.33	.562 x 1 5/8	102P132	103P132
.47	.562 x 1 7/8	102P137	103P137
.68	.670 x 1 7/8	102P142	103P142
1.0	.750 x 2 1/8	102P146	103P146
300 WVDC			
.001	.400 x 3/4	102P103	103P103
.0047	.400 x 3/4	102P108	103P108
.01	.400 x 3/4	102P113	103P113
.047	.400 x 1 1/8	102P118	103P118
.1	.400 x 1 3/8	102P123	103P123
.22	.562 x 1 3/8	102P128	103P128
.33	.562 x 1 7/8	102P133	103P133
.47	.670 x 1 7/8	102P138	103P138
.68	.750 x 2 1/8	102P143	103P143
400 WVDC			
.001	.400 x 3/4	102P104	103P104
.0047	.400 x 3/4	102P109	103P109
.01	.400 x 3/4	102P114	103P114
.047	.400 x 1 3/8	102P119	103P119
.1	.562 x 1 1/8	102P124	103P124
.22	.562 x 1 7/8	102P129	103P129
.33	.670 x 1 7/8	102P134	103P134
.47	.750 x 2 1/8	102P139	103P139
.68	.750 x 2 3/8	102P144	103P144
600 WVDC			
.001	.400 x 3/4	102P105	103P10
.0047	.400 x 3/4	102P110	103P11
.01	.400 x 3/4	102P115	103P11
.047	.400 x 1 3/8	102P120	103P12
.1	.562 x 1 3/8	102P125	103P12
.22	.670 x 1 7/8	102P130	103P13
.33	.750 x 2 1/8	102P135	103P13
.47	.750 x 2 3/8	102P140	103P14

TYPE 65P PROKAR® MOLDED TUBULARS



- For Applications Requiring Small Paper Capacitors for Continuous Operation at High Temperatures
- No Voltage Derating Required for 125°C Operation
- Impregnated with an Exclusive Sprague Organic Material which Polymerizes to Form a Solid Capacitor Section
- Sections Molded in Mineral-Filled High-Temperature Plastic — All cases ar 1 1/16" long
- Capacitance Tolerance of these Capac itors is ±5%
- For complete technical data, refer t latest issue of Engineering Bulletin 210
- Call Your Sprague Industrial Distribu tor for Quantity Prices.

μF	WVDC	Diam.	Cat. No.
.01	200	.175	65P10352
.015	200	.195	65P15352
.02	200	.250	65P20352
.022	200	.250	65P22352
.03	200	.250	65P30352
.033	200	.250	65P33352
.039	200	.375	65P39352
.047	200	.375	65P47352
.051	200	.375	65P51352
.056	200	.375	65P56352
.062	200	.375	65P62352
.082	200	.375	65P82352

Call Your Sprague Industrial Distributor for Quantity Prices

μF	WVDC	Diam.	Cat. No.
.091	200	.375	65P91352
.1	200	.375	65P10452
.001	300	.175	65P10253
.0015	300	.175	65P15253
.002	300	.175	65P20253
.0039	300	.175	65P39253
.0047	300	.175	65P47253
.0051	300	.175	65P51253
.0056	300	.175	65P56253
.0068	300	.175	65P68253
.0082	300	.195	65P82253
.0091	300	.195	65P91253

Call Your Sprague Industrial Distributor for Quantity Prices

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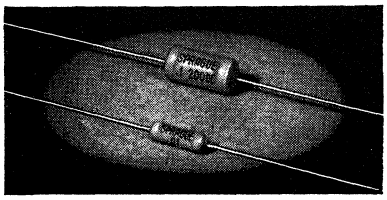
SPRAGUE CAPACITORS



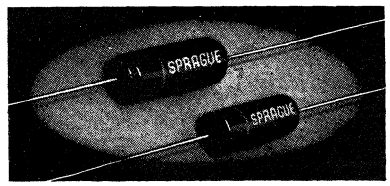
TYPE 192P PACER® FILMITE® 'E' CAPACITORS

- **Completely New Construction for Minimum Size. Extended Foil Film Sections Terminate in End Caps. Best Possible Non-Inductive Section. Rated for —55C to +85C.**
- **Controlled Dimensions—May Be Used With Automatic Insertion Equipment.**
- **Wound With Polyester Film Dielectric and Thin Gage Foil Under Controlled Atmospheric Conditions. Protected by Hard Durable Orange Epoxy Coating ● Also Available in Kleer-Pak® Boxes.**

● For Quantity Prices Call Your Sprague Industrial Distributor ● Rated at 200 VDC ● See Latest Issue of Sprague Engineering Bulletin 2066.

μF	D.	x	L.	Cat. No.	Net. (1-24)
.00047	.138		5/16	192P47192	$.33
.00056	.138		5/16	192P56192	.30
.00068	.138		5/16	192P68192	.30
.00082	.138		5/16	192P82192	.30
.001	.138		5/16	192P10292	.27
.0012	.138		5/16	192P12292	.27
.0015	.138		5/16	192P15292	.27
.0018	.170		5/16	192P18292	.27
.0022	.170		5/16	192P22292	$.27
.0027	.170		5/16	192P27292	.27
.0033	.170		5/16	192P33292	.27
.0039	.170		7/16	192P39292	.27
.0047	.170		7/16	192P47292	.27
.0056	.170		7/16	192P56292	.27
.0068	.170		7/16	192P68292	.27
.0082	.170		1/2	192P82292	.30
.01	.170		1/2	192P10392	$.30
.012	.204		7/16	192P12392	.30
.015	.204		7/16	192P15392	.30
.018	.204		9/16	192P18392	.30
.022	.204		9/16	192P22392	.30
.027	.225		9/16	192P27392	.33
.033	.225		9/16	192P33392	.33
.039	.290		1/2	192P39392	.36
.047	.290		1/2	192P47392	$.39
.056	.290		5/8	192P56392	.39
.068	.290		5/8	192P68392	.42
.082	.318		5/8	192P82392	.45
.1	.318		5/8	192P10492	.45
.12	.318		7/8	192P12492	.48
.15	.318		7/8	192P15492	.48
.22	.318		13/16	192P22492	.51

TYPE 155P & 156P MOLDED METALLIZED PAPER CAPACITORS



- **Superior to Most Competitive Units—Withstand Twice Rated Voltage Tests Giving Extra Design Safety Factor. Stand up Under High Humidity Condition.**
- **Self-generated Noise Practically Non-Existent. ● Sealed With Epoxy.**
- **Type 155P—Molded in Case. Type 156P in Premolded Case. Available in Kleer-Pak® Boxes. Complete Technical Data in Latest Issue of Sprague Bulletin 2030.**
- **For Current Quantity Prices Call Your Sprague Industrial Distributor.**

μF	D.	x	L.	Ordering Information	Net. Ea. (1-24)
200 VOLTS D-C					
.01	5/16		1	155P10302	$ .42
.015	5/16		1	155P15302	.42
.02	5/16		1	155P-.02-200	.42
.022	5/16		1	155P22302	.42
.03	5/16		1	155P-.03-200	.45
.033	5/16		1	155P33302	.45
.047	5/16		1	155P47302	.45
.05	5/16		1	155P-.05-200	.45
.068	5/16		1	155P68302	.45
.1	5/16		1	155P10402	.45
.15	3/8		1 1/4	155P15402	.45
.22	3/8		1 1/4	155P22402	.45
.25	7/16		1 1/4	155P-.25-200	.66
.33	7/16		1 1/4	155P33402	.66
.47	7/16		1 1/4	155P47402	.66
.5	1/2		1 1/2	155P-.5-200	.78
.68	1/2		1 1/2	155P68402	.78
1.0	1/2		1 1/2	155P10502	1.05
1.5	5/8		1 7/8	155P15502	1.20
2.0	5/8		1 7/8	155P20502	1.41
2.5	3/4		2 1/4	156P25502	1.65
3.0	3/4		2 1/4	156P30502	1.80
3.5	3/4		2 1/4	156P35502	2.10
4.0	3/4		2 1/4	156P40502	2.22
4.5	7/8		2 1/2	156P45502	2.40
5.0	7/8		2 1/2	156P50502	2.55
5.5	7/8		2 1/2	156P55502	2.70
6.0	7/8		2 1/2	156P60502	3.00
6.5	7/8		2 1/2	156P65502	3.15
7.0	7/8		2 1/2	156P70502	$3.33
7.5	7/8		2 1/2	156P75502	3.15
8.0	1		2 1/2	156P80502	3.75
8.5	1		2 1/2	156P85502	3.90
9.0	1		2 1/2	156P90502	4.05
9.5	1		2 1/2	156P95502	4.20
400 VOLTS D-C					
.01	5/16		1	155P10304	.42
.015	5/16		1	155P15304	.42
.02	5/16		1	155P-.02-400	.42
.022	5/16		1	155P22304	.42
.025	3/8		1 1/4	155P-.025-400	.42
.03	3/8		1 1/4	155P-.03-400	.42
.033	3/8		1 1/4	155P33304	.42
.04	3/8		1 1/4	155P-.04-400	.42
.047	3/8		1 1/4	155P47304	.42
.05	3/8		1 1/4	155P-.05-400	.45
.068	3/8		1 1/4	155P68304	.45
.1	7/16		1 1/4	155P10404	.51
.15	1/2		1 1/2	155P15404	.66
.2	1/2		1 1/2	155P-.2-400	.69
.22	1/2		1 1/2	155P22404	.69
.25	5/8		1 7/8	155P-.25-400	.72
.33	5/8		1 7/8	155P33404	.72
.47	5/8		1 7/8	155P47404	.90
.5	5/8		1 7/8	155P-.5-400	.93
.68	3/4		2 1/4	156P68404	1.05
400 VOLTS D-C (Cont.)					
1.0	3/4		2 1/4	156P10504	$1.29
1.5	7/8		2 1/2	156P15504	1.59
2.0	7/8		2 1/2	156P20504	1.80
2.5	1		2 1/2	156P25504	2.25
600 VOLTS D-C					
.01	5/16		1	155P10306	.45
.015	3/8		1 1/4	155P15306	.45
.02	3/8		1 1/4	155P-.02-600	.45
.022	3/8		1 1/4	155P22306	.45
.03	3/8		1 1/4	155P-.03-600	.48
.033	3/8		1 1/4	155P33306	.48
.04	3/8		1 1/4	155P-.04-600	.51
.047	3/8		1 1/4	155P47306	.51
.05	7/16		1 1/4	155P-.05-600	.51
.06	7/16		1 1/4	155P-.06-600	.51
.068	7/16		1 1/4	155P68306	.51
.1	1/2		1 1/2	155P10406	.57
.15	1/2		1 1/2	155P15406	.72
.2	5/8		1 7/8	155P-.2-600	.90
.22	5/8		1 7/8	155P22406	.90
.25	5/8		1 7/8	155P-.25-600	.90
.33	5/8		1 7/8	155P33406	.93
.47	3/4		2 1/4	156P47406	1.14
.5	3/4		2 1/4	156P-.5-600	1.14
.68	3/4		2 1/4	156P68406	1.14
1.0	7/8		2 1/2	156P10506	1.38
1.5	1		2 1/2	156P15506	1.89

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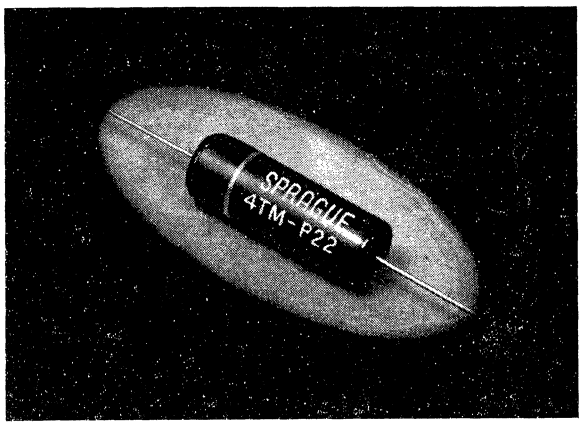
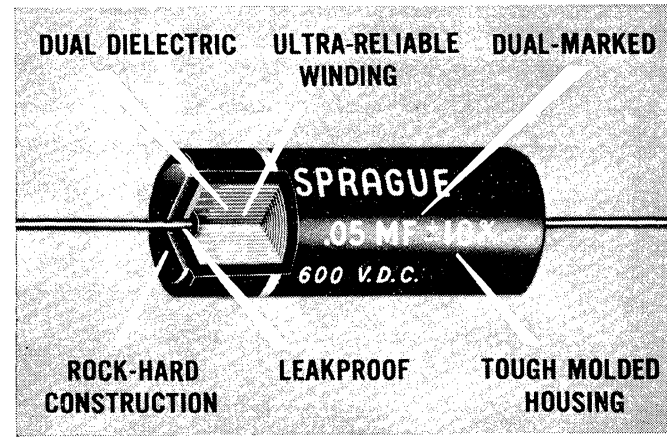
SPRAGUE CAPACITORS

DIFILM® BLACK BEAUTY® MOLDED TUBULARS





- Developed Especially for Long Life Under High Humidity and Temperature Operating Conditions
- Dual Dielectric (film and paper) Combines Best Features of Both Polyester Film and Paper Capacitors
- Exclusive HCX® Solid Impregnant Construction Results in Rock-hard Capacitor Section
- Won't Leak or Drip

LOOK FOR THE RED MARKINGS ON THE BLACK CASE

- No Derating for 105°C Operation
- Mica-filled, Non-flammable Molded Case. Won't Crack when Dropped; Soldering won't Harm it
- Every Capacitor Marked Twice. No Twisting the Case to Read Ratings
- Also Available in Handy Sprague Kleer-Pak®
- **Capacitance Tolerance:** ±10% from .001 μF up
  Except 2TM-M1 ±20%

For Complete Technical Data, See Latest Sprague Engineering Bulletin 2025

The World's Best Molded Tubular at No Extra Cost!

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
200 WVDC				
.01	5/16 x 1	2TM-S10	160P10392	$.15
.02	3/8 x 1 1/4	2TM-S20	.....	.15
.022	3/8 x 1 1/4	2TM-S22	160P22392	.15
.047	7/16 x 1 1/4	2TM-S47	160P47392	.15
.05	7/16 x 1 1/4	2TM-S50	.....	.15
.1	1/2 x 1 1/2	2TM-P10	160P10492	.21
.15	1/2 x 1 1/2	2TM-P15	160P15492	.21
.22	5/8 x 1 7/8	2TM-P22	160P22492	.24
.25	5/8 x 1 7/8	2TM-P25	.....	.24
.47	3/4 x 2 1/4	2TM-P47	160P47492	.36
.5	3/4 x 2 1/4	2TM-P50	.....	.36
1.0	3/4 x 2 1/4	2TM-M1	160P10502	.63
400 WVDC				
.001	5/16 x 1	4TM-D10	160P10294	.15
.005	5/16 x 1	4TM-D50	.....	.15
.01	3/8 x 1 1/4	4TM-S10	160P10394	.15
.015	3/8 x 1 1/4	4TM-S15	160P15394	.15
.02	3/8 x 1 1/4	4TM-S20	.....	.15
.022	3/8 x 1 1/4	4TM-S22	160P22394	.18
.025	7/16 x 1 1/4	4TM-S25	.....	.18
.03	7/16 x 1 1/4	4TM-S30	.....	.18
.04	7/16 x 1 1/4	4TM-S40	.....	$.18
.047	7/16 x 1 1/4	4TM-S47	160P47394	.18
.05	7/16 x 1 1/4	4TM-S50	.....	.18
.068	1/2 x 1 1/2	4TM-S68	160P68394	.21
.1	1/2 x 1 1/2	4TM-P10	160P10494	.21
.15	5/8 x 1 7/8	4TM-P15	160P15494	.24
.2	5/8 x 1 7/8	4TM-P20	.....	.27
.22	5/8 x 1 7/8	4TM-P22	160P22494	.27
.25	3/4 x 2 1/4	4TM-P25	.....	.30
.47	3/4 x 2 1/4	4TM-P47	160P47494	.45
.5	3/4 x 2 1/4	4TM-P50	.....	.45
1.0	1 x 2 1/2	4TM-M1	160P10594	.75
600 WVDC				
.0001	5/16 x 1	6TM-T10	.....	.15
.00025	5/16 x 1	6TM-T25	.....	.15
.0004	5/16 x 1	6TM-T40	.....	.15
.0005	5/16 x 1	6TM-T50	.....	.15
.001	5/16 x 1	6TM-D10	160P10296	.15
.0015	5/16 x 1	6TM-D15	160P15296	.15
.002	5/16 x 1	6TM-D20	.....	.15
.0022	5/16 x 1	6TM-D22	160P22296	$.1
.0025	5/16 x 1	6TM-D25	.....	.1
.003	5/16 x 1	6TM-D30	.....	.1
.0033	5/16 x 1	6TM-D33	160P33296	.1
.004	3/8 x 1 1/4	6TM-D40	.....	.1
.0047	3/8 x 1 1/4	6TM-D47	160P47296	.1
.005	3/8 x 1 1/4	6TM-D50	.....	.1
.006	3/8 x 1 1/4	6TM-D60	.....	.1
.0068	3/8 x 1 1/4	6TM-D68	160P68296	.1
.008	3/8 x 1 1/4	6TM-D80	.....	.1
.01	3/8 x 1 1/4	6TM-S10	160P10396	.1
.015	3/8 x 1 1/4	6TM-S15	160P15396	.1
.02	7/16 x 1 1/4	6TM-S20	.....	.1
.022	7/16 x 1 1/4	6TM-S22	160P22396	.1
.025	7/16 x 1 1/2	6TM-S25	.....	.1
.03	7/16 x 1 1/4	6TM-S30	.....	.1
.033	7/16 x 1 1/4	6TM-S33	160P33396	.1
.035	7/16 x 1 1/4	6TM-S35	.....	.1
.04	1/2 x 1 1/2	6TM-S40	.....	.1
.047	1/2 x 1 1/2	6TM-S47	160P47396	.1

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SPRAGUE CAPACITORS

DIFILM® BLACK BEAUTY® MOLDED TUBULARS, continued

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
600 WVDC (Cont.)				
.05	½ x 1½	6TM-S50	.....	$ .24
.06	½ x 1½	6TM-S60	.....	.24
.068	½ x 1½	6TM-S68	160P68396	.27
.1	⅝ x 1⅞	6TM-P10	160P10496	.27
.15	⅝ x 1⅞	6TM-P15	160P15496	.30
.2	¾ x 2¼	6TM-P20	.....	.39
.22	¾ x 2¼	6TM-P22	160P22496	.42
.25	¾ x 2¼	6TM-P25	.....	.45
.47	1 x 2½	6TM-P47	160P47496	.75
.5	1 x 2½	6TM-P50	.....	.75
1.0	1 x 2½	6TM-M1	.....	1.05
1000 WVDC				
.0005	5/16 x 1	10TM-T50	.....	$.30
.001	5/16 x 1	10TM-D10	160P102910	.30
.0015	5/16 x 1	10TM-D15	160P152910	.30
.002	⅜ x 1¼	10TM-D20	.....	.30
.0022	⅜ x 1¼	10TM-D22	160P222910	.30
.003	⅜ x 1¼	10TM-D30	.....	.30
.004	⅜ x 1¼	10TM-D40	.....	.30
.0047	⅜ x 1¼	10TM-D47	160P472910	.30
.005	⅜ x 1¼	10TM-D50	.....	.30
.0068	⅜ x 1¼	10TM-D68	160P682910	.30
1000 WVDC (cont.)				
.01	7/16 x 1¼	10TM-S10	160P103910	$.30
.015	½ x 1½	10TM-S15	160P153910	.30
.02	½ x 1½	10TM-S20	.....	.30
.022	½ x 1½	10TM-S22	160P223910	.30
.03	⅝ x 1⅞	10TM-S30	.....	.30
.035	⅝ x 1⅞	10TM-S35	.....	.30
.047	⅝ x 1⅞	10TM-S47	160P473910	.36
.05	⅝ x 1⅞	10TM-S50	.....	.36
.068	⅝ x 1⅞	10TM-S68	160P683910	.42
.1	¾ x 2¼	10TM-P10	160P104910	.45
.15	¾ x 2¼	10TM-P15	160P154910	.57

1600 WVDC BUFFER CAPACITORS

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
.0005	⅜ x 1¼	MB-75	.....	$.39
.001	⅜ x 1¼	MB-D1	190P102916	.39
.0015	⅜ x 1¼	MB-D15	190P152916	.39
.002	⅜ x 1¼	MB-D2	.....	.39
.0022	⅜ x 1¼	MB-D22	190P222916	.39
.003	7/16 x 1¼	MB-D3	.....	.39
.0033	7/16 x 1¼	MB-D13	190P332916	.39
.004	½ x 1½	MB-D4	.....	$.39
.0047	½ x 1½	MB-D47	190P472916	.39
.005	½ x 1½	MB-D5	.....	.39
.006	½ x 1½	MB-D6	.....	.39
.0068	½ x 1½	MB-D68	190P682916	.39
.007	½ x 1½	MB-D7	.....	.39
.0075	½ x 1½	MB-D75	.....	.39
.008	⅝ x 1⅞	MB-D8	.....	.39
.01	⅝ x 1⅞	MB-S1	190P103916	$.42
.015	⅝ x 1⅞	MB-S15	190P153916	.42
.02	⅝ x 1⅞	MB-S2	.....	.42
.022	⅝ x 1⅞	MB-S22	190P223916	.42
.03	¾ x 2¼	MB-S3	.....	.42
.04	¾ x 2¼	MB-S4	.....	.42
.05	¾ x 2⅛	TR-15*	.....	.42

*Waxed paper construction

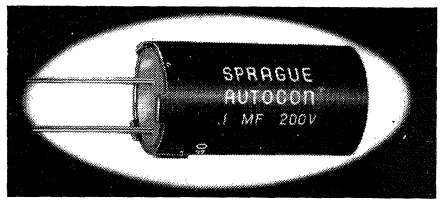
MINERAL-OIL BLACK BEAUTY® MOLDED TUBULARS

● Kraftboard Sleeve and Epoxy End-Seal Gives Added Circuit Protection ● All Paper Dielectric, Impregnated With Mineral Oil For Best High Voltage Performance ● Maximum Operating Temperature: 85°C

µF	D. x L.	Cat. No.	Part No.	Net
6000 WVDC BUFFER				
.0005	9/16 x 1⅞	TVM-356	.....	$.81
.001	9/16 x 1⅞	TVM-216	184P102060	.81
.005	11/16 x 2¼	TVM-256	.....	.81
10,000 WVDC BUFFER				
.0005	11/16 x 2¼	TVM-351	.....	$.90
12,500 WVDC BUFFER				
.00025	11/16 x 2¼	12TVM-325	.....	$1.02

AUTOCON® MOLDED TUBULAR CAPACITORS

- Generous 1″ Lead Lengths Make Autocons Universal Replacements For All Single Ended Original Equipment Types Used on Printed Wiring Boards
- Pre-molded Thermosetting Plastic Shell with Plastic Resin Endseal for Humidity Protection, Outside Foil Identified by Index Key
- Autocons Have High Insulation Resistance, Low Power Factor, and a Flat Temperature-Capacitance Curve
- Impregnated with HCX®, an Exclusive Solid Dielectric Material
- "Standoff" Feet Prevent Dust and Moisture Traps. Also Prevent Printed Wiring Board Shorts



µF	WVDC	Diam.	Length	Cat. No.	Net
.001	200	⅜	1⅜	2SE-D10	$.18
.0015	200	⅜	1⅜	2SE-D15	.18
.0022	200	⅜	1⅜	2SE-D22	.18
.0033	200	⅜	1⅜	2SE-D33	.18
.0047	200	⅜	1⅜	2SE-D47	.18
.0068	200	⅜	1⅜	2SE-D68	.18
.01	200	⅜	1⅜	2SE-S10	.18
.015	200	⅜	1⅜	2SE-S15	.18
.022	200	⅜	1⅜	2SE-S22	.21
.033	200	⅜	1⅜	2SE-S33	.21
.047	200	7/16	1⅜	2SE-S47	.21
.068	200	7/16	1⅜	2SE-S68	.21
.1	200	½	1½	2SE-P10	.24
.15	200	⅝	1⅞	2SE-P15	.27
.22	200	⅝	1⅞	2SE-P22	.30
.33	200	⅝	1⅞	2SE-P33	.33
.47	200	¾	1⅞	2SE-P47	.39
.001	400	⅜	1⅜	4SE-D10	.18
.0015	400	⅜	1⅜	4SE-D15	.18
.0022	400	⅜	1⅜	4SE-D22	.18
.0033	400	⅜	1⅜	4SE-D33	.18
.0047	400	⅜	1⅜	4SE-D47	.18
.0068	400	⅜	1⅜	4SE-D68	.18
.01	400	⅜	1⅜	4SE-S10	.18
.015	400	⅜	1⅜	4SE-S15	$.18
.022	400	7/16	1⅜	4SE-S22	.21
.033	400	7/16	1⅜	4SE-S33	.21
.047	400	½	1½	4SE-S47	.21
.068	400	½	1½	4SE-S68	.24
.1	400	⅝	1⅞	4SE-P10	.27
.15	400	⅝	1⅞	4SE-P15	.30
.22	400	⅝	1⅞	4SE-P22	.33
.33	400	¾	1⅞	4SE-P33	.39
.001	600	⅜	1⅜	6SE-D10	.18
.0015	600	⅜	1⅜	6SE-D15	.18
.0022	600	⅜	1⅜	6SE-D22	.18
.0033	600	⅜	1⅜	6SE-D33	.18
.0047	600	⅜	1⅜	6SE-D47	.18
.0068	600	⅜	1⅜	6SE-D68	.18
.01	600	⅜	1⅜	6SE-S10	.21
.015	600	7/16	1⅜	6SE-S15	.21
.022	600	7/16	1⅜	6SE-S22	.24
.033	600	½	1½	6SE-S33	.24
.047	600	½	1½	6SE-S47	.27
.068	600	⅝	1⅞	6SE-S68	.30
.1	600	⅝	1⅞	6SE-P10	.33
.15	600	¾	1⅞	6SE-P15	.36

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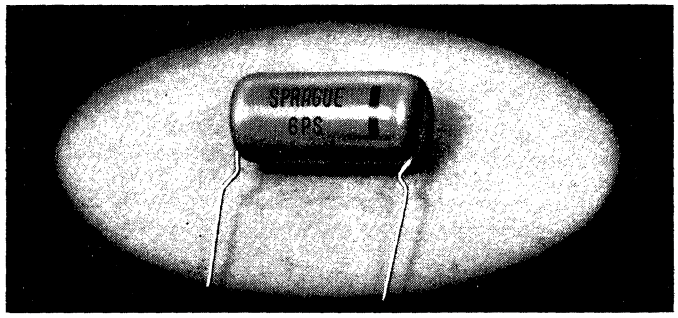
SPRAGUE CAPACITORS

DIFILM® ORANGE DROP® DIPPED TUBULARS



- Especially Made for Exact, Original Replacement
- Dual Dielectric (Film-paper) Solidly Impregnated With Exclusive HCX®—Produces Rock-Hard Capacitor Section
- Outperforms Any Other Dipped Tubular Capacitor
- Crimped Wire Leads for Correct Spacing When Mounted On Printed Wiring Boards.
- Voltage Ratings From 200 VDC to 1000 VDC
- Outside Foil on All Units Identified by Black Striping
- Double Dipped in Bright Orange Epoxy Resin—Beat Heat and Humidity
- Won't Leak or Drip
- Also Available in Handy Sprague Kleer-Pak® Boxes
- Write for Engineering Bulletin No. 2004

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
200 VOLTS D-C				
.02	3/8 x 7/8	2PS-S20	.....	$.15
.022	25/64 x 7/8	2PS-S22	220P22392	.15
.047	29/64 x 7/8	2PS-S47	220P47392	.15
.05	15/32 x 7/8	2PS-S50	.....	.15
.1	31/64 x 1 3/16	2PS-P10	220P10492	.21
.15	9/16 x 1 3/16	2PS-P15	220P15492	.21
.2	17/32 x 1 5/16	2PS-P20	.....	.24
.22	39/64 x 1 5/16	2PS-P22	220P22492	.24
.25	5/8 x 1 5/16	2PS-P25	.....	.24
.33	5/8 x 1 5/8	2PS-P33	220P33492	.30
.47	45/64 x 1 5/8	2PS-P47	220P47492	.36
.5	1/2 x 1 5/8	2PS-P50	.....	.36
400 VOLTS D-C				
.01	13/32 x 11/16	4PS-S10	220P10394	.15
.015	29/64 x 11/16	4PS-S15	220P15394	.15
.02	13/32 x 7/8	4PS-S20	.....	.15
.022	27/64 x 7/8	4PS-S22	220P22394	.18
.025	7/16 x 7/8	4PS-S25	.....	.18
.03	29/64 x 7/8	4PS-S30	.....	.18
.033	15/32 x 7/8	4PS-S33	220P33394	.18
.04	27/64 x 1 3/16	4PS-S40	.....	.18
.047	29/64 x 1 3/16	4PS-S47	220P47394	.18
.05	29/64 x 1 3/16	4PS-S50	.....	.18
.056	31/64 x 1 3/16	4PS-S56	220P56394	.21
.068	33/64 x 1 3/16	4PS-S68	220P68394	.21
.075	33/64 x 1 3/16	4PS-S75	.....	.21
.1	37/64 x 1 3/16	4PS-P10	220P10494	.21
.15	39/64 x 1 5/16	4PS-P15	220P15494	.24
.2	17/32 x 1 5/8	4PS-P20	.....	.27
.22	39/64 x 1 5/8	4PS-P22	220P22494	.27
.25	41/64 x 1 5/8	4PS-P25	.....	.30
600 VOLTS D-C				
.001	21/64 x 11/16	6PS-D10	220P10296	.15
.0012	21/64 x 11/16	6PS-D12	220P12296	.15
.0015	21/64 x 11/16	6PS-D15	220P15296	.15
.0018	21/64 x 11/16	6PS-D18	220P18296	.15
.002	21/64 x 11/16	6PS-D20	.....	.15
.0022	21/64 x 11/16	6PS-D22	220P22296	.15
.0025	21/64 x 11/16	6PS-D25	.....	.15
.0027	11/32 x 11/16	6PS-D27	220P27296	.15
.003	11/32 x 11/16	6PS-D30	.....	.15
.0033	23/64 x 11/16	6PS-D33	220P33296	.15

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	N
600 VOLTS D-C (cont.)				
.0039	3/8 x 11/16	6PS-D39	220P39296	$.
.004	3/8 x 11/16	6PS-D40	.....	.
.0047	25/64 x 11/16	6PS-D47	220P47296	.
.005	25/64 x 11/16	6PS-D50	.....	.
.0056	25/64 x 11/16	6PS-D56	220P56296	.
.006	13/32 x 11/16	6PS-D60	.....	.
.0068	13/32 x 11/16	6PS-D68	220P68296	.
.0075	23/64 x 7/8	6PS-D75	.....	.
.008	23/64 x 7/8	6PS-D80	.....	.
.0082	3/8 x 7/8	6PS-D82	220P82296	.
.01	25/64 x 7/8	6PS-S10	220P10396	.
.012	25/64 x 7/8	6PS-S12	220P12396	.
.015	27/64 x 7/8	6PS-S15	220P15396	.
.02	31/64 x 7/8	6PS-S20	.....	.
.022	31/64 x 7/8	6PS-S22	220P22396	.
.025	17/32 x 7/8	6PS-S25	.....	.
.027	7/16 x 1 3/16	6PS-S27	220P27396	.
.03	7/16 x 1 3/16	6PS-S30	.....	.
.033	15/32 x 1 3/16	6PS-S33	220P33396	.
.035	15/32 x 1 3/16	6PS-S35	.....	.
.039	31/64 x 1 3/16	6PS-S39	220P39396	.
.04	1/2 x 1 3/16	6PS-S40	.....	.
.047	17/32 x 1 3/16	6PS-S47	220P47396	.
.05	17/32 x 1 3/16	6PS-S50	.....	.
.056	35/64 x 1 3/16	6PS-S56	220P56396	.
.06	9/16 x 1 3/16	6PS-S60	.....	.
.068	37/64 x 1 3/16	6PS-S68	220P68396	.
.075	9/16 x 1 5/16	6PS-S75	.....	.
.082	37/64 x 1 5/16	6PS-S82	220P82396	.
.1	5/8 x 1 5/16	6PS-P10	220P10496	.
.15	43/64 x 1 5/8	6PS-P15	220P15496	.
.2	3/4 x 1 5/8	6PS-P20	.....	.
.22	25/32 x 1 5/8	6PS-P22	220P22496	.
.25	13/16 x 1 5/8	6PS-P25	.....	.
1000 VOLTS D-C				
.001	21/64 x 11/16	10PS-D10	220P102910	
.0015	11/32 x 11/16	10PS-D15	220P152910	
.002	3/8 x 11/16	10PS-D20	.....	
.0022	3/8 x 11/16	10PS-D22	220P222910	
.003	11/32 x 7/8	10PS-D30	.....	
.004	3/8 x 7/8	10PS-D40	.....	
.0047	13/32 x 7/8	10PS-D47	220P472910	
.005	13/32 x 7/8	10PS-D50	.....	

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SPRAGUE CAPACITORS

BF ISOFARAD® PLASTIC FILM CAPACITORS

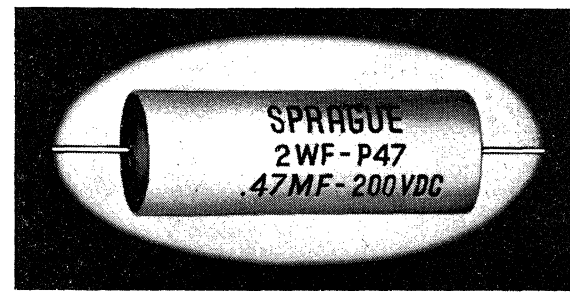
For Applications Where the Best in Tubulars is None Too Good

- Isofarad Quality is a Must in Color TV Synchroguide Circuits, Horizontal and Vertical Oscillators, Bridge and Parallel T Circuits and Other Tuned Circuit Applications Requiring Close Tolerance and Zero Temperature Coefficient of Capacitance
- Superior to Silvered Mica Capacitors, Yet Far Less Expensive
- Constant Capacitance—Will Not Change More Than ±0.2% from Room Temperature to +80°C at Maximum Rated Voltage Will Withstand Operating Temperatures to 85°C (185°F)
- **Capacitance Tolerance:** ±5%
- Also Available in Handy Sprague Kleer-Pak® Boxes
- For Complete Technical Data, See Latest Issue of Sprague Engineering Bulletin 2073

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
		500 WVDC		
.001	3/8 x 1	5BF-D10	145P10255	$.45
.0012	3/8 x 1	5BF-D12	145P12255	.45
.0015	3/8 x 1	5BF-D15	145P15255	.45
.0018	3/8 x 1	5BF-D18	145P18255	.45
.0022	3/8 x 1	5BF-D22	145P22255	.45
.0027	3/8 x 1	5BF-D27	145P27255	.45
.0033	3/8 x 1	5BF-D33	145P33255	.45
.0039	3/8 x 1	5BF-D39	145P39255	.48
.0047	3/8 x 1	5BF-D47	145P47255	.48
.0056	3/8 x 1 1/4	5BF-D56	145P56255	.48
.0068	3/8 x 1 1/4	5BF-D68	145P68255	.48
.0082	7/16 x 1 1/4	5BF-D82	145P82255	.48
.01	7/16 x 1 1/4	5BF-S10	145P10355	.54
.012	1/2 x 1 1/4	5BF-S12	145P12355	.54
.015	1/2 x 1 1/4	5BF-S15	145P15355	.75
.018	1/2 x 1 1/2	5BF-S18	145P18355	.75
.022	1/2 x 1 1/2	5BF-S22	145P22355	$.90
.027	5/8 x 1 7/8	5BF-S27	145P27355	.90
.033	5/8 x 1 7/8	5BF-S33	145P33355	1.08
.039	5/8 x 1 7/8	5BF-S39	145P39355	1.08
.047	5/8 x 1 7/8	5BF-S47	145P47355	1.26
.056	5/8 x 1 7/8	5BF-S56	145P56355	1.26
.068	5/8 x 1 7/8	5BF-S68	145P68355	1.59
.082	3/4 x 1 1/4	5BF-S82	145P82355	2.16
.1	3/4 x 2 1/4	5BF-P10	145P10455	2.16
.12	7/8 x 2 1/2	5BF-P12	145P12455	2.94
.15	7/8 x 2 1/2	5BF-P15	145P15455	2.94
.18	7/8 x 2 1/2	5BF-P18	145P18455	4.05
.22	7/8 x 2 1/2	5BF-P22	145P22455	4.05
.27	1 x 2 1/2	5BF-P27	145P27455	4.95
.33	1 x 2 1/2	5BF-P33	145P33455	4.95

WF YELLOW-JACKET® FILMITE® 'E' CAPACITORS

- Excellent for Use in Transistorized Circuits and Low-Voltage Electron Tube Circuits
- Extended Foil Type Sections, Wound from Selected, Ultra-Thin Polyester Film and Thin Gage Foil
- Outer Plastic Film Wrap and Resin End Seals Protect Against Moisture and Humidity
- "Smaller Than Small" — These Capacitors Will Fit Anywhere
- Rated to **200 WVDC** — Capacitance Tolerance: ±10%
- Designed for Operation to 85°C (185°F)
- Available in Kleer-Pak® Boxes.
- For Technical Data See Latest Issue of Sprague Bulletin 2063



μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
		200 WVDC		
.01	13/64 x 11/16	2WF-S10	148P10392	$.57
.012	13/64 x 11/16	2WF-S12	148P12392	.57
.015	13/64 x 11/16	2WF-S15	148P15392	.57
.018	13/64 x 11/16	2WF-S18	148P18392	.57
.022	13/64 x 11/16	2WF-S22	148P22392	.57
.027	13/64 x 11/16	2WF-S27	148P27392	.57
.033	13/64 x 11/16	2WF-S33	148P33392	.60
.039	15/64 x 11/16	2WF-S39	148P39392	.60
.047	15/64 x 11/16	2WF-S47	148P47392	.60
.056	1/4 x 13/16	2WF-S56	148P56392	.60
.068	1/4 x 13/16	2WF-S68	148P68392	.60
.082	19/64 x 13/16	2WF-S82	148P82392	.60
.1	19/64 x 13/16	2WF-P10	148P10492	.63
.12	11/32 x 13/16	2WF-P12	148P12492	$.63
.15	11/32 x 13/16	2WF-P15	148P15492	.63
.18	11/32 x 1 1/16	2WF-P18	148P18492	.66
.22	11/32 x 1 1/16	2WF-P22	148P22492	.66
.27	15/32 x 13/16	2WF-P27	148P27492	.66
.33	15/32 x 13/16	2WF-P33	148P33492	.66
.39	35/64 x 13/16	2WF-P39	148P39492	.72
.47	35/64 x 13/16	2WF-P47	148P47492	.72
.56	35/64 x 1 1/16	2WF-P56	148P56492	.90
.68	35/64 x 1 1/16	2WF-P68	148P68492	.90
.82	19/32 x 1 13/16	2WF-P82	148P82492	.90
1.0	19/32 x 1 13/16	2WF-M1	148P10592	.90

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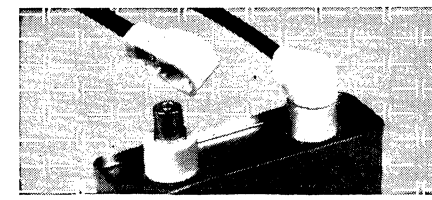
SPRAGUE CAPACITORS

TYPE CR RECTANGULAR OILS

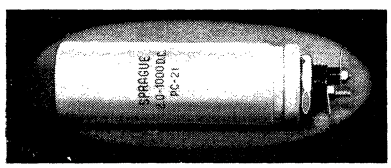
- Hermetically sealed in Rugged Rectangular Metal Cans
- Oil-Impregnated and Oil-Filled
- Extremely High Insulation Resistance
- Will Withstand High Surge Voltages and High Ambient Temperatures
- Widely Used in Transmitter Power Supplies and Other High-Voltage Applications
- Furnished With Adapters (as shown below) to Fi Standard Transmitting Tube Plate Caps



μF	WVDC	T. x W. x L.	Cat. No.	Net
.5	600	1 1/16 x 1 13/16 x 2 1/4	CR-056	$2.82
1.0	600	1 1/16 x 1 13/16 x 2 1/4	CR-16	3.48
2.0	600	1 1/16 x 1 13/16 x 2 7/8	CR-26	4.29
3.0	600	1 1/16 x 1 13/16 x 3 1/4	CR-36	4.95
4.0	600	1 3/16 x 2 1/2 x 3 1/2	CR-46	5.46
6.0	600	1 3/16 x 2 1/2 x 4 3/4	CR-66	6.78
8.0	600	1 1/4 x 3 3/4 x 3 7/8	CR-86	8.10
10.0	600	1 1/4 x 3 3/4 x 4 3/4	CR-106	9.09
.1	1000	1 1/16 x 1 13/16 x 1 5/8	CR-011	2.49
.25	1000	1 1/16 x 1 13/16 x 2 1/4	CR-0251	2.82
.5	1000	1 1/16 x 1 13/16 x 2 1/4	CR-051	2.97
1.0	1000	1 1/16 x 1 13/16 x 2 1/4	CR-11	3.81
2.0	1000	1 1/16 x 1 13/16 x 3 7/8	CR-21	4.95
4.0	1000	1 3/16 x 2 1/2 x 3 5/8	CR-41	6.27
8.0	1000	1 1/4 x 3 3/4 x 4 3/4	CR-81	9.09
10.0	1000	1 3/4 x 3 3/4 x 4 3/4	CR-101	10.08
12.0	1000	2 1/4 x 3 3/4 x 4 1/2	CR-121	10.89
15.0	1000	2 1/2 x 3 3/4 x 4 3/4	CR-151	12.06
.5	1500	1 1/16 x 1 13/16 x 2 7/8	CR-0515	3.81
1.0	1500	1 1/16 x 1 13/16 x 3 7/8	CR-115	4.47
2.0	1500	1 3/16 x 2 1/2 x 4 1/4	CR-215	6.12
4.0	1500	1 1/4 x 3 3/4 x 4 3/4	CR-415	8.43
5.0	1500	1 1/4 x 3 3/4 x 4 3/4	CR-515	9.09
8.0	1500	2 1/2 x 3 3/4 x 4 3/4	CR-815	12.54
10.0	1500	3 3/16 x 3 3/4 x 4 3/4	CR-1015	15.03
.1	2000	1 3/16 x 2 1/2 x 2 1/2	CR-012	3.96
.25	2000	1 3/16 x 2 1/2 x 2 1/2	CR-0252	4.29
.5	2000	1 3/16 x 2 1/2 x 2 7/8	CR-052	4.47
1.0	2000	1 3/16 x 2 1/2 x 3 1/2	CR-12	5.46
2.0	2000	1 1/4 x 3 3/4 x 4 1/4	CR-22	6.45

μF	WVDC	T. x W. x L.	Cat. No.	Ne
3.0	2000	1 1/4 x 3 3/4 x 4 3/4	CR-32	$ 7.9
4.0	2000	2 1/4 x 3 3/4 x 3 7/8	CR-42	9.0
6.0	2000	3 3/16 x 3 3/4 x 4 1/2	CR-62	12.0
10.0	2000	4 9/16 x 3 3/4 x 4 3/4	CR-102	18.3
.1	2500	1 3/16 x 2 1/2 x 2 1/2	CR-0125	6.0
.5	2500	1 1/4 x 3 3/4 x 3 1/4	CR-0525	6.9
1.0	2500	1 3/4 x 3 3/4 x 3 1/4	CR-125	7.9
2.0	2500	1 3/4 x 3 3/4 x 4 3/4	CR-225	12.8
4.0	2500	4 9/16 x 3 3/4 x 4 3/8	CR-425	18.0
.1	3000	1 3/16 x 2 1/2 x 2 1/2	CR-013	8.4
.25	3000	1 3/16 x 2 1/2 x 2 7/8	CR-0253	8.9
.5	3000	1 3/16 x 2 1/2 x 4 1/4	CR-053	10.0
1.0	3000	2 1/4 x 3 3/4 x 3 7/8	CR-13	12.0
2.0	3000	3 3/16 x 3 3/4 x 4 1/2	CR-23	15.0
4.0	3000	4 9/16 x 3 3/4 x 4 3/4	CR-43	22.1
.1	4000	2 1/4 x 3 3/4 x 2 3/4	CR-014	10.8
.25	4000	2 1/4 x 3 3/4 x 2 3/4	CR-0254	12.(
.5	4000	2 1/4 x 3 3/4 x 3 7/8	CR-054	13.8
1.0	4000	2 1/4 x 3 3/4 x 5 1/8	CR-14	17.4
2.0	4000	4 9/16 x 3 3/4 x 5 1/8	CR-24	23.4
.2	5000	1 3/4 x 3 3/4 x 3 7/8	CR-025	12.(
.5	5000	2 1/4 x 3 3/4 x 4 1/2	CR-055	15.(
1.0	5000	4 9/16 x 3 3/4 x 4 3/8	CR-15	20.4
2.0	5000	4 9/16 x 3 3/4 x 6	CR-25	31.2
.1	6000	2 1/4 x 3 3/4 x 3 3/8	CR-0160	16.2
.2	6000	1 3/4 x 3 3/4 x 4 1/4	CR-0260	18.(
1.0	6000	4 9/16 x 3 3/4 x 7 1/2	CR-160	29.4
.1	7500	2 1/4 x 3 3/4 x 3 7/8	CR-0175	17.4
.2	7500	1 3/4 x 3 3/4 x 4 3/4	CR-0275	19.(

SCREWBASE PC OILS

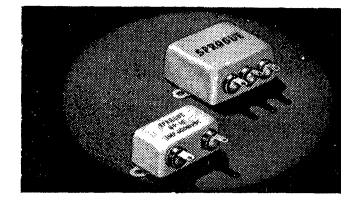


- Oil-Impregnated
- Oil-Filled
- Screwbase Can For Easy Single Hole Mounting
- Small Size — Will Fit Tight Spaces

μF	WVDC	Diam. x Lgth.	Cat. No.	Net
2	600	1 1/2 x 2 7/8	PC-26	$3.24
3	600	1 1/2 x 3 1/2	PC-36	3.69
4	600	1 1/2 x 5 1/4	PC-46	4.26
1	1000	1 1/2 x 2 7/8	PC-11	3.00
2	1000	1 1/2 x 4 1/2	PC-21	3.78
0.5	1500	1 1/2 x 2 3/8	PC-515	3.51
1	1500	1 1/2 x 3 7/8	PC-115	3.78

TYPE BP BATHTUB CAPACITORS

- For Applications Where Severe Operating Conditions Are Encountered
- Hermetically Sealed for Extra Protection
- Seamless Drawn Metal Can
- Oil-Filled and Oil-impregnated for Long, Dependable Service Life
- Convenient Mounting Ears are Integral Part of Metal Container



μF	L. x W. x H.	Cat. No.	Net
400 WVDC			
.1	1 13/16 x 1 x 3/4	BP-1	$1.32
.25	1 13/16 x 1 x 3/4	BP-25	1.50
.5	1 13/16 x 1 x 7/8	BP-50	1.59
1.0	2 x 1 3/4 x 7/8	BP-10	1.89
.1 + .1	1 13/16 x 1 x 3/4	BP-21	1.98
.25 + .25	1 13/16 x 1 x 7/8	BP-225	2.16
.5 + .5	2 x 1 3/4 x 7/8	BP-250	2.49
.1 + .1 + .1	1 13/16 x 1 x 3/4	BP-31	2.40
600 WVDC			
.05	1 13/16 x 1 x 3/4	BP-56	1.74
.1	1 13/16 x 1 x 3/4	BP-16	1.77
.25	1 13/16 x 1 x 3/4	BP-256	1.86
.5	1 13/16 x 1 x 7/8	BP-506	1.98
1.0	2 x 1 3/4 x 7/8	BP-106	2.25
2.0	2 x 2 x 1 1/8	BP-206	3.00
.05 + .05	1 13/16 x 1 x 3/4	BP-2056	2.19

μF	L. x W. x H.	Cat. No.	N
.1 + .1	1 13/16 x 1 x 3/4	BP-216	$2
.25 + .25	1 13/16 x 1 x 7/8	BP-2256	2
.5 + .5	2 x 1 3/4 x 7/8	BP-2506	2
1.0 + 1.0	2 x 2 x 1 1/8	BP-116	3
.1 + .1 + .1	1 13/16 x 1 x 3/4	BP-316	2
.25 + .25 + .25	2 x 1 3/4 x 7/8	B2-3256	2
.5 + .5 + .5	2 x 2 x 1 1/8	BP-356	3
1000 WVDC			
.05	1 13/16 x 1 x 3/4	BP-51	1
.1	1 13/16 x 1 x 3/4	BP-11	1
.25	1 13/16 x 1 x 3/4	BP-251	1
.5	2 x 1 3/4 x 7/8	BP-501	2
1.0	2 x 2 x 1 1/8	BP-101	2
.05 + .05	1 13/16 x 1 x 3/4	BP-2051	2
.1 + .1	1 13/16 x 1 x 3/4	BP-211	2
.25 + .25	2 x 1 3/4 x 7/8	BP-2251	2
.5 + .5	2 x 2 x 1 1/8	BP-2501	3
.1 + .1 + .1	1 13/16 x 1 x 7/8	BP-311	2
.25 + .25 + .25	2 x 2 x 1 1/8	BP-3251	3

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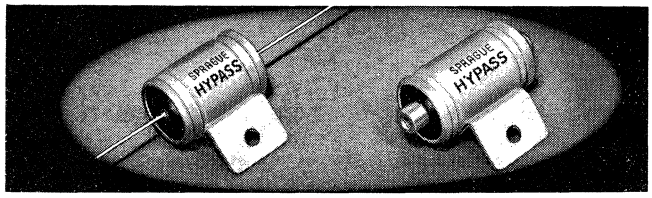
Net

SPRAGUE FILTERS

HYPASS® CAPACITORS

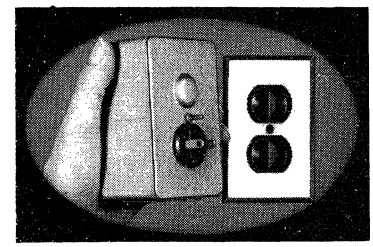


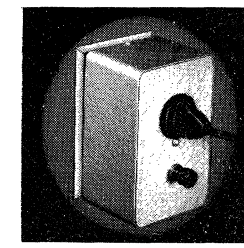
- Exclusive Sprague 3-terminal Network Feed-thru Capacitors
- Bypass V-H-F Currents Where Ordinary Capacitors are Ineffective
- Suppress TVI from Short-wave Transmitters, Diathermy Machines, Electronic Heating Apparatus, etc.
- Eliminate Interference caused by Line-conducted Radiation Between Neighboring TV Sets
- Install Leads in Series with Circuit Being Filtered and Ground the Case

μF	Amps.	WVDC	Dia. x Length	Cat. No.	Net
.5	40	50	1 x 1 13/16	*48P18	$2.28
.5	60	50	1 x 1 13/16	48P100	3.75
.25	20	200	3/4 x 1 13/16	*48P10	1.56
.5	20	200	1 x 1 13/16	*48P14	1.89
.1	20	250(VAC)	1 1/16 x 1 13/16	*48P9	1.56
.1	20	400	1 1/16 x 1 13/16	*48P6	1.53
1	20	400	1 1/16 x 1 13/16	†80P1	1.74
.002	15	600	1/4 x 1 3/8	46P12	1.29
.005	15	600	1/4 x 1 5/8	46P8	1.29
.01	20	600	7/16 x 1 1/4	47P6	1.41
.02	20	600	7/16 x 1 1/2	47P8	1.44
1	20	600	1 1/16 x 1 13/16	*48P8	1.56
1	20	600	1 1/16 x 1 13/16	*†80P3	1.77
.25	20	600	1 x 1 13/16	*48P12	1.65
.5	20	600	1 x 2 1/4	*48P16	2.10
.005	20	1000	7/16 x 1 1/4	47P12	1.44
.01	20	1000	7/16 x 1 1/2	47P13	1.56
.005	20	2500	1 x 1 9/16	47P14	1.74
.01	20	2500	1 x 1 9/16	47P15	1.86
.002	20	5000	1 x 1 9/16	47P16	1.92

*Has female screw terminals †Bulkhead mounting.

TYPE F-400 MIRACLE FILTEROL®



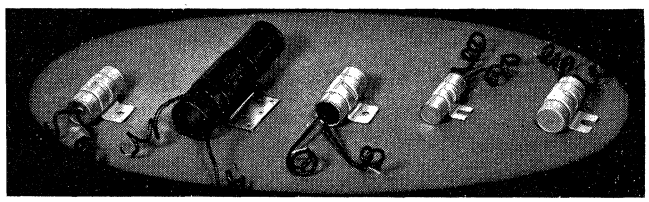


A LINE FILTER THAT REALLY WORKS

- Effectively Suppresses Radio Interference by Filtering Power Lines of Receivers and Appliances
- Maximum Noise Eliminating Efficiency because of Practically Zero Length of Ground Lead
- Plugs into Standard Duplex Wall Outlet — Captive Screw Fastens Filterol F-400 to Outlet for Safe, Secure Mounting
- Direct Wall-Mounting Provides Neat Installation — No Unsightly Cord — Receiver or Appliance Plugs into Standard Outlet on Face of F-400
- Will Also Operate at Slightly Reduced Efficiency in Older Homes where Wiring is of Knob and Tube or 2-Conductor Non-Metallic Sheathed Cable Type by Using the External Grounding Post Provided for this Purpose
- Handsomely Finished in Tan Hammerloid Baked Enamel
- Rated at 5 Amperes, 125 Volts AC or DC

TYPE F-400 FILTEROL..... $7.45 net

TYPE IF FILTERS



IF-15 IF-11 IF-21 IF-S1 IF-37

F-15 — TRIPLE-SECTION FILTER for small motor-operated devices such as ans, drills, etc. designed to prevent shocks from discharge of filter capacitors.

F-11 — DUAL HIGH-CAPACITY FILTER designed for use on motors over 1 hp p to 220 volts ac-dc. Also used on high-current arcing devices.

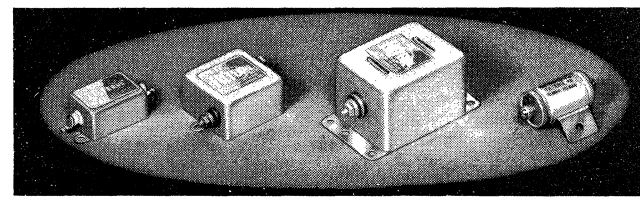
F-21 — COMPACT DUAL FILTER for use on fractional horsepower motors ith case grounded to motor frame. Also used across line terminals of motors.

F-S1 — SINGLE SECTION 2-LEAD FILTER for use across make-and-break ntacts, such as thermostats, circuit breakers, etc.

F-37 — 3-SECTION DELTA-CONNECTED FILTER especially designed for uorescent fixtures. Also used on governor-type motors. *UL Approved.*

at. No.	Volts AC or DC	Dia. x Length	Net
-15	220	1 x 2 3/16	$1.56
-11	220	1 3/8 x 5 1/4	4.68
-21	220	1 x 2 3/16	1.05
-S1	220	3/4 x 2 1/16	.69
-37	220	1 x 2"	1.35

FILTEROL® FILTERS



FILTEROL 1 FILTEROL 2 FILTEROL 3 FILTEROL 4

Filterol Types 1, 2, and 3 — Designed for connection in series with power supply lines to interference-producing devices . . . A 3-terminal network with the case as one terminal . . . The selected filter should have a rating higher than the continuous operating current of the offending device . . . A single Filterol connected to the high side of the line is usually sufficient . . . In severe cases a Filterol in each leg of the power line may be necessary . . . For three or four-wire systems, a Filterol in each wire is necessary.

Filterol Type 4 — A new, exclusive Sprague development incorporating a Sprague HYPASS® Capacitor . . . Provides exceptionally high attenuation at frequencies above 5 megacycles . . . Intended for small devices with continuous current ratings up to 20 amperes.

Cat. No.	Amps.	Volts AC or DC	Size	Net
Filterol 1	1	115	7/8 x 1 1/4 x 1 3/4	$ 8.10
Filterol 2	10	115	1 1/8 x 2 x 2	8.88
Filterol 3	35	115	1 7/8 x 2 7/8 x 3 1/8	16.44
Filterol 4	20	115	1" dia. x 1 13/16" long	1.83

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All prices and sizes subject to change without notice.

Net
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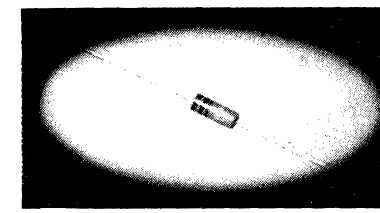
SPRAGUE CAPACITORS

TYPES 252C, 262C, 263C MOLDED CERAMIC CORDWOOD CAPACITORS

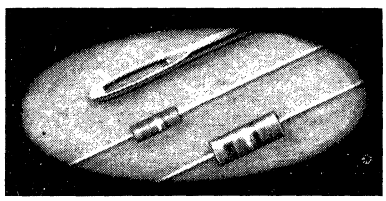
TYPE 252C MOLDED CERAMITE® CORDWOOD CAPACITORS

- Type 252C Capacitors Meet Basic Requirements for Modern Electronic Packaging.
- Fully Molded Construction is Rugged and Offers Excellent Humidity Protection.
- Ceramic Dielectric is Mechanically Strong and Electrically Stable.
- Cordwood Size Permits Circuit Designer to Use These Capacitors in This New Packaging Concept.
- Diameter, .094", Length, .250"
- For Complete Technical Data See Latest Issue of Sprague Engineering Bulletin 6151.



μμF	WVDC	Catalog Number ±5% Tol.	±10% Tol.	±20% Tol.
5	100	—	252C0555R0X9101B	252C0555R0X0101B
8	100		252C0558R0X9101B	—
10	100	252C055100X5101B	252C055100X9101B	252C055100X0101B
15	100	252C027150X5101B	252C027150X9101B	—
18	100	252C027180X5101B	—	—
22	100	252C027220X5101B	252C027220X9101B	252C027220X0101B
27	100	252C027270X5101B	—	—
33	100	252C028330X5101B	252C028330X9101B	—
39	100	252C028390X5101B	—	—
47	100	252C028470X5101B	252C028470X9101B	252C028470X0101B
56	100	252C028560X5101B	—	—
68	100	252C028680X5101B	252C028680X9101B	—
82	100	252C016820X5101B	—	—
100	100	252C016101X5101B	252C016101X9101B	252C016101X0101I
120	100	252C064121X5101B	—	—
150	100	252C064151X5101B	252C064151X9101B	—
220	100	—	—	252C040221X0101I
330	100	—	—	252C040331X0101I
360	100	—	—	252C040361X0101I

Call Your Sprague Industrial Distributor For Prices



TYPES 262C, 263C MOLDED MONOLYTHIC® CORDWOOD CAPACITORS

- Cerod® Capacitors—Tiny, Molded Cylindrical Ceramics Now in Monolythic® Construction. True Miniaturization Without Compromise.
- Two Cordwood Sizes Available. Designers Can Make Full Use of This New Packaging Concept,
- Ceramic Elements Fully Molded in Thermosetting Resin—Assures Good Mechanical an Electrical Properties Plus Precise Dimension
- Two Ceramic Formulations Available In cluding a New Temperature-Stable Body.
- Call Your Sprague Industrial Distributor fc Prices.
- For Complete Technical Data, See Late Issue of Sprague Engineering Bulletin 625(

TYPE 262C—STANDARD RATINGS—100 VDC

μμF	Catalog Number ±5% Tol.	±10% Tol.	±20% Tol.
FORMULATION N030			
6.8	—	262C0256R8X9101B	262C0256R8X0101B
8.2	—	262C0258R2X9101B	262C0258R2X0101B
10	262C025100X5101B	262C025100X9100B	262C025100X0101B
12	262C025120X5101B	262C025120X9101B	262C025120X0101B
15	262C025150X5101B	262C025150X9100B	262C025150X0101B
18	262C025180X5101B	262C025180X9101B	262C025180X0101B
22	262C025220X5101B	262C025220X9101B	262C025220X0101B
27	262C025270X5101B	262C025270X9101B	262C025270X0101B
33	262C025330X5101B	262C025330X9101B	262C025330X0101B
39	262C025390X5101B	262C025390X9101B	262C025390X0101B
47	262C025470X5101B	262C025470X9101B	262C025470X0101B
56	262C025560X5101B	262C025560X9101B	262C025560X0101B
68	262C025680X5101B	262C025680X9101B	262C025680X0101B
82	262C025820X5101B	262C025820X9101B	262C025820X0101B
100	262C025101X5101B	262C025101X9101B	262C025101X0101B

μμF	Catalog Number ±5% Tol.	±10% Tol.	±20% Tol.
FORMULATION N030 (Cont.)			
120	262C025121X5101B	262C025121X9101B	262C025121X0101
150	262C025151X5101B	262C025151X9101B	262C025151X0101
FORMULATION X5R			
470	262C067471X9101B	262C067471X0101B	262C067471D810
680	262C067681X9101B	262C067681X0101B	262C067681D810
1000	262C067102X9101B	262C067102X0101B	262C067102D810
1500	262C067152X9101B	262C067152X0101B	262C067152D810
2200	262C067222X9101B	262C067222X0101B	262C067222D810
3300	262C067332X9101B	262C067332X0101B	262C067332D810
4700	262C067472X9101B	262C067472X0101B	262C067472D810
6800	262C067682X9101B	262C067682X0101B	262C067682D810
10000	262C067103X9101B	262C067103X0101B	262C067103D810

TYPE 263C—STANDARD RATINGS—100 VDC

μμF	Catalog Number ±5% Tol.	±10% Tol.	±20% Tol.
FORMULATION N030			
180	263C025181X5101B	263C025181X9101B	263C025181X0101B
220	263C025221X5101B	263C025221X9101B	263C025221X0101B
270	263C025271X5101B	263C025271X9101B	263C025271X0101B
330	263C025331X5101B	263C025331X9101B	263C025331X0101B
390	263C025391X5101B	263C025391X9101B	263C025391X0101B
470	263C025471X5101B	263C025471X9101B	263C025471X0101B
560	263C025561X5101B	263C025561X9101B	263C025561X0101B
680	263C025681X5101B	263C025681X9101B	263C025681X0101B

μμF	Catalog Number ±5% Tol.	±10% Tol.	±20% Tol.
FORMULATION X5R			
15000	263C067153X9101B	263C067153X0101B	263C067153D810
22000	263C067223X9101B	263C067223X0101B	263C067223D810
33000	263C067333X9101B	263C067333X0101B	263C067333D810

DIMENSIONS

Type	Diameter	Length
262C	.090"±.009"	.250"±.015"
263C	.138"±.010"	.390"±.015"

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REM-46A-6428

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SPRAGUE CAPACITORS

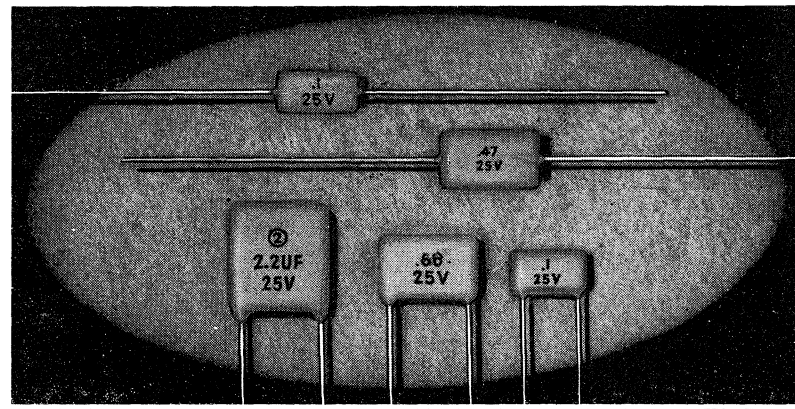
MONOLYTHIC® LAYER-BUILT CERAMIC CAPACITORS

Types 3C and 4C—Formulation N030

- Temperature Compensating Units, N030 Dielectric Offers Greater Capacitance Per Unit Volume and Greater Stability Than Previously Available.
- Highly Reliable, Small in Size, Axial or Radial Leads.
- Temperature Coefficient Guaranteed Less Than ±.6% Between —55C and +125C.

Types 3C, 4C, 5C—Formulation C23

- High-K General Application—High Capacitances in Small Physical Size, Axial or Radial Leads.
- Well Suited for By-pass and Filtering Applications
- For Complete Technical Data, See Latest Sprague Engineering Bulletin 6212 (N030) or 6201 (C23)



Type 3C, 4C Monolythic Ceramic Capacitors—Formulation N030—Temperature Compensating—200 V

μF	Tol.	Cat. No.
TYPE 3C AXIAL LEADS		
51	5%	3C5105BH1
51	2%	3C5102BH1
56	10%	3C5609BH1
56	5%	3C5605BH1
56	2%	3C5602BH1
62	5%	3C6205BH1
62	2%	3C6202BH1
68	10%	3C6809BH1
68	5%	3C6805BH1
68	2%	3C6802BH1
75	5%	3C7505BH1
75	2%	3C7502BH1
82	10%	3C8209BH1
82	5%	3C8205BH1
82	2%	3C8202BH1
91	5%	3C9105BH1
91	2%	3C9102BH1
100	10%	3C1019BH1
100	5%	3C1015BH1
100	2%	3C1012BH1
110	5%	3C1115BH1
110	2%	3C1112BH1
120	10%	3C1219BH1
120	5%	3C1215BH1
120	2%	3C1212BH1
130	5%	3C1315BH1
130	2%	3C1312BH1
150	10%	3C1519BH1
150	5%	3C1515BH1
150	2%	3C1512BH1
160	5%	3C1615BH1
160	2%	3C1612BH1
180	10%	3C1819BH1
180	5%	3C1815BH1
180	2%	3C1812BH1
200	5%	3C2015BH1
200	2%	3C2012BH1
220	10%	3C2219BH1
220	5%	3C2215BH1
220	2%	3C2212BH1
240	5%	3C2415BH1
240	2%	3C2412BH1
270	10%	3C2719BH1
270	5%	3C2715BH1
270	2%	3C2712BH1
300	5%	3C3015BH1
300	2%	3C3012BH1
330	10%	3C3319BH1
330	5%	3C3315BH1
330	2%	3C3312BH1
360	5%	3C3615BH1
360	2%	3C3612BH1
390	10%	3C3919BH1
390	5%	3C3915BH1
390	2%	3C3912BH1
430	5%	3C4315BH1
430	2%	3C4312BH1
470	10%	3C4719BH1
470	5%	3C4715BH1
470	2%	3C4712BH1
510	5%	3C5115BH1
510	2%	3C5112BH1
560	10%	3C5619BH1
560	5%	3C5615BH1
560	2%	3C5612BH1
620	5%	3C6215BH1
620	2%	3C6212BH1
680	10%	3C6819BH1
680	5%	3C6815BH1
680	2%	3C6812BH1
TYPE 4C AXIAL LEADS		
750	5%	4C7515BH1
750	2%	4C7512BH1
820	10%	4C8219BH1
820	5%	4C8215BH1
820	2%	4C8212BH1
910	5%	4C9115BH1
910	2%	4C9112BH1
1000	10%	4C1029BH1
1000	5%	4C1025BH1
1000	2%	4C1022BH1
1100	5%	4C1125BH1
1100	2%	4C1122BH1
1200	10%	4C1229BH1
1200	5%	4C1225BH1
1200	2%	4C1222BH1
1300	5%	4C1325BH1
1300	2%	4C1322BH1
1500	10%	4C1529BH1
1500	5%	4C1525BH1
1500	2%	4C1522BH1
1600	5%	4C1625BH1
1600	2%	4C1622BH1
1800	10%	4C1829BH1
1800	5%	4C1825BH1
1800	2%	4C1822BH1
TYPE 3C RADIAL LEADS		
51	5%	3C5105BH3
51	2%	3C5102BH3
56	10%	3C5609BH3
56	5%	3C5605BH3
56	2%	3C5602BH3
62	5%	3C6205BH3
62	2%	3C6202BH3
68	10%	3C6809BH3
68	5%	3C6805BH3
68	2%	3C6802BH3
75	5%	3C7505BH3
75	2%	3C7502BH3
82	10%	3C8209BH3
82	5%	3C8205BH3
82	2%	3C8202BH3
91	5%	3C9105BH3
91	2%	3C9102BH3
100	10%	3C1019BH3
100	5%	3C1015BH3
100	2%	3C1012BH3
110	5%	3C1115BH3
110	2%	3C1112BH3
120	10%	3C1219BH3
120	5%	3C1215BH3
120	2%	3C1212BH3
130	5%	3C1315BH3
130	2%	3C1312BH3
150	10%	3C1519BH3
150	5%	3C1515BH3
150	2%	3C1512BH3
160	5%	3C1615BH3
160	2%	3C1612BH3
180	10%	3C1819BH3
180	5%	3C1815BH3
180	2%	3C1812BH3
200	5%	3C2015BH3
200	2%	3C2012BH3
220	10%	3C2219BH3
220	5%	3C2215BH3
220	2%	3C2212BH3
240	5%	3C2415BH3
240	2%	3C2412BH3
270	10%	3C2719BH3
270	5%	3C2715BH3
270	2%	3C2712BH3
300	5%	3C3015BH3
300	2%	3C3012BH3
330	10%	3C3319BH3
330	5%	3C3315BH3
330	2%	3C3312BH3
360	5%	3C3615BH3
360	2%	3C3612BH3
390	10%	3C3919BH3
390	5%	3C3915BH3
390	2%	3C3912BH3
430	5%	3C4315BH3
430	2%	3C4312BH3
470	10%	3C4719BH3
470	5%	3C4715BH3
470	2%	3C4712BH3
510	5%	3C5115BH3
510	2%	3C5112BH3
560	10%	3C5619BH3
560	5%	3C5615BH3
560	2%	3C5612BH3
620	5%	3C6215BH3
620	2%	3C6212BH3
680	10%	3C6819BH3
680	5%	3C6815BH3
680	2%	3C6812BH3
TYPE 4C RADIAL LEADS		
750	5%	4C7515BH3
750	2%	4C7512BH3
820	10%	4C8219BH3

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SPRAGUE CAPACITORS

MONOLYTHIC® CERAMIC CAPACITORS, TYPE 4C RADIAL LEADS (Cont.)

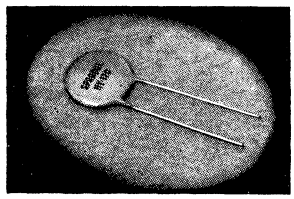
μμF	Tol.	Cat. No.
820	5%	4C8215BH3
820	2%	4C8212BH3
910	5%	4C9115BH3
910	2%	4C9112BH3
1000	10%	4C1029BH3
1000	5%	4C1025BH3
1000	2%	4C1022BH3
1100	5%	4C1125BH3
1100	2%	4C1122BH3
1200	10%	4C1229BH3
1200	5%	4C1225BH3
1200	2%	4C1222BH3
1300	5%	4C1325BH3
1300	2%	4C1322BH3
1500	10%	4C1529BH3
1500	5%	4C1525BH3
1500	2%	4C1522BH3
1600	5%	4C1625BH3
1600	2%	4C1622BH3
1800	10%	4C1829BH3
1800	5%	4C1825BH3
1800	2%	4C1822BH3
2000	5%	4C2025BH3
2000	2%	4C2022BH3
2200	10%	4C2229BH3
2200	5%	4C2225BH3
2200	2%	4C2222BH3
2400	5%	4C2425BH3
2400	2%	4C2422BH3
2700	10%	4C2729BH3
2700	5%	4C2725BH3
2700	2%	4C2722BH3
3000	5%	4C3025BH3
3000	2%	4C3022BH3
3300	10%	4C3329BH3
3300	5%	4C3325BH3
3300	2%	4C3322BH3
3600	5%	4C3625BH3
3600	2%	4C3622BH3
3900	10%	4C3929BH3
3900	5%	4C3925BH3
3900	2%	4C3922BH3
4300	5%	4C4325BH3
4300	2%	4C4322BH3
4700	10%	4C4729BH3
4700	5%	4C4725BH3
4700	2%	4C4722BH3
5100	5%	4C5125BH3
5100	2%	4C5122BH3

Call Your Sprague Industrial Distributor for Current Prices

TYPE 3C, 4C, 5C Monolythic Ceramic Capacitors—High-K Formulation C23 ±20% Cap. Tol

μF	VDC	Cat. No.
	RADIAL LEADS	
.01	25	3C3
.015	25	3C6
.022	25	3C9
.033	25	3C12
.047	25	3C15
.068	25	3C18
.1	25	3C21
.15	25	4C38
.22	25	4C41
.33	25	4C44
.47	25	4C47
.68	25	4C50
.1	25	5C7
.15	25	5C8
.22	25	5C9
.33	25	5C10
.47	25	5C11
.68	25	5C12
1.0	25	5C13
1.5	25	5C14
2.2	25	5C15
.1	50	5C50
.15	50	5C51
.22	50	5C52
.33	50	5C53
.47	50	5C54
	AXIAL LEADS	
.01	25	3C1
.015	25	3C4
.022	25	3C7
.033	25	3C10
.047	25	3C13
.068	25	3C16
.1	25	3C19
.15	25	4C36
.22	25	4C39
.33	25	4C42

Call Your Sprague Industrial Distributor for Current Prices



- Superior to Electrolytic Capacitors of Similar Capacitance Values because of the Very Low Power Factor of Hypercons

HYPERCON® CERAMIC DISCS

- Ultra-miniature Ceramic Discs Ideal for use in Transistorized Circuitry
- Designed for By-pass and Coupling Applications but Particularly Well-suited for any Low Voltage use Where High Capacitance and Low Power Factor are Important Considerations
- Tolerance: +80—20%
- Call Your Sprague Industrial Distributor for Current Prices

μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	D. x T.
	3 VOLTS D-C		
.1	HY-120	54C23	1/4 x 5/32
.22	HY-125	40C322	9/32 x 5/32
.47	HY-130	20C201	22/32 x 5/32
1.0	HY-135	44C69	1 9/32 x 5/32
2.2	HY-150	41C171	2 7/32 x 5/32

μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	D. x T
	12 VOLTS D-C		
.047	HY-310	40C235	9/32 x 5/
.1	HY-320	20C202	1 3/32 x 5/
.22	HY-325	29C365	9/16 x 5/
.33	HY-327	33C151	2 1/32 x 5/
.47	HY-330	41C172	2 7/32 x 5/
	25 VOLTS D-C		
.01	HY-520	40C387	9/32 x 5/
.022	HY-525	19C383	1 1/32 x 5/
.033	HY-530	20C233	1 3/32 x 5/
.047	HY-535	55C60	1/2 x 5/
.1	HY-550	33C158	2 1/32 x 5/

SPECIAL APPLICATION CERA-MITE® DISC CAPACITORS

DISC CERAMICS FOR AC APPLICATIONS

- Rated at 125 VAC
- Standard Tolerance ±20%
- For AC Line Bypass Application—Unlike Standard DC Rated Discs. Type 125L Meets 1500 Volt AC Flash Test— Type 125M Meets UL 10KV Discharge Test.
- Call Your Sprague Industrial Distributor for Current Prices

μF	Sprague Products Catalog No.	Sprague O.E.M. Part No.	D. x L.
.001	125L-D10	19C251	3/8 x 7/32
.0015	125L-D15	19C252	3/8 x 7/32
.002	125L-D20	19C253	3/8 x 7/32
.0047	125L-D47	29C145	9/16 x 7/32
.005	125L-D50	29C145A	9/16 x 7/32
.01	125L-S10	36C218	3/4 x 7/32
.02	125L-S20	36C220	3/4 x 1/4
2 x .005	125L-2D50	29C147	9/16 x 1/4
2 x .01	125L-2S10	36C219	3/4 x 1/4
470μμF	125M-T47	20C235	7/16 x 1/4
.001	125M-D10	20C186	7/16 x 1/4
.0015	125M-D15	55C45	1/2 x 1/4
.002	125M-D20	29C304	9/16 x 1/4
.0047	125M-D47	33C114	1 1/16 x 1/4
.005	125M-D50	33C115	1 1/16 x 1/4
.01	125M-S10	41C157	7/8 x 1/4
.02	125M-S20	41C160	7/8 x 1/4

MINIATURIZED DISC CERAMIC CAPACITORS FOR TRANSISTORIZED CIRCUITRY

- For Coupling and By-Pass Applications

Type TG Standard Tolerance ±20%

μF	Volts	Sprague Products Catalog Number	Sprague O.E.M. Part Number	T x D
.005	50	TG-D50	40C172A5	1/8 x 9/32
.01	50	TG-S10	19C214A6	1/8 x 1 1/32
.02	50	TG-S20	55C21A2	1/8 x 1 5/32
.025	50	TG-S25	55C22A2	1/8 x 1 5/32
.03	50	TG-S30	29C229A	1/8 x 9/16
.05	50	TG-S50	55C23A1	1/8 x 1/2
.1	50	TG-P10	33C41A3	1/8 x 1 1/16
		HIGH K TYPE		
.005	200	TH-D50	19C384	5/32 x 3/8
.01	200	TH-S10	19C385	5/32 x 3/8
.02	200	TH-S20	29C371	5/32 x 9/16
.025	200	TH-S25	44C85	5/32 x 5/8
.03	200	TH-S30	33C159	5/32 x 1 1/16
.05	200	TH-S50	33C160	5/32 x 1 1/16
.1	200	TH-P10	41C208	5/32 x 7/8

Call Your Sprague Industrial Distributor for Current Prices

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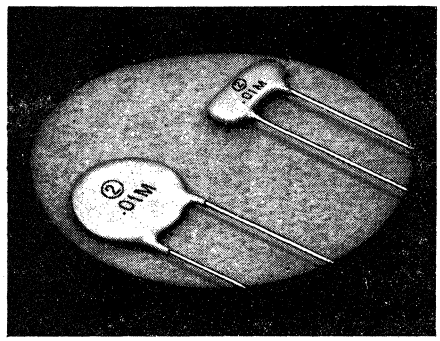
SPRAGUE CAPACITORS

CERA-MITE® CERAMIC CAPACITORS



- Tiny, Tough, Dependable In Every Application
- Low Self-Inductance Of Silvered Flat-plate Design Means Very High By-pass Efficiency In All TV Circuits
- Flat-plate Construction Permits Higher Self-resonant Frequency Than Tubular Ceramic Or Molded Mica Capacitors
- Tough Moisture-proof Coating Protects Against Short-circuiting And Assures Good Performance Under Severe Conditions Of Humidity And Vibration
- Cera-mite Capacitors Easily Fit Into Tight Spaces, Even Across Subminiature Tube Sockets
- Designed For 85°C (185°F) Continuous Operation
- **Call your Sprague Industrial Distributor for Current Quantity Prices**
- **NOTE: For a Complete Selection of Sprague PRINTED CIRCUITS, see Catalog C-616.**

GENERAL APPLICATION TYPES

- Excellent Where Temperature Coefficient Is Not Important, Such As By-pass and Coupling Applications
- Ideal For Replacing Older Types Of General Application Capacitors Such as Molded Micas, Tubular Ceramics, etc.

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No	Size T. x W. x L.
500 WVDC (plates) ±20% Tol.			
470	5GAB-T47*	35C11A1	5/32 x 9/32 x 11/32
.001μF	5GAB-D10*	35C35	5/32 x 9/32 x 11/32
.0022	5GAB-D22*	35C34	5/32 x 9/32 x 11/32
.0047	5GAB-D47*	25C166	5/32 x 9/32 x 9/16
.01	5GAB-S10	25C167	7/32 x 9/32 x 9/16
.022	5GAB-S22	38C32	5/32 x 9/16 x 13/16
.047	5GAB-S47	42C8A	5/32 x 27/32 x 1 1/8
.1	5GAB-P10	42C9A	7/32 x 27/32 x 1 1/8
.15	5GAB-P15	112C9	7/32 x 1 1/32 x 1 5/8
*Axial Leads			

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
1000 WVDC (discs) ±20% Tol.			
5	5GA-V50	40C32A4	5/16 x 5/32
6	5GA-V60	40C103	5/16 x 5/32
7.5	5GA-V75	40C155	5/16 x 5/32
8	5GA-V80	40C38A	5/16 x 5/32
10	5GA-Q10	40C67A	5/16 x 5/32
12	5GA-Q12	40C138	5/16 x 5/32
15	5GA-Q15	40C65A	5/16 x 5/32
18	5GA-Q18	40C132A	5/16 x 5/32
20	5GA-Q20	40C114	5/16 x 5/32
22	5GA-Q22	40C16A2	5/16 x 5/32
25	5GA-Q25	40C113A1	5/16 x 5/32
27	5GA-Q27	40C153	5/16 x 5/32
30	5GA-Q30	40C111A	5/16 x 5/32
33	5GA-Q33	40C42A	5/16 x 5/32
39	5GA-Q39	40C43A	5/16 x 5/32
47	5GA-Q47	40C44A	5/16 x 5/32
50	5GA-Q50	40C89	5/16 x 5/32
56	5GA-Q56	40C130A3	5/16 x 5/32
68	5GA-Q68	40C45A	5/16 x 5/32
75	5GA-Q75	40C46A	5/16 x 5/32
82	5GA-Q82	40C47A	5/16 x 5/32
91	5GA-Q91	40C112	5/16 x 5/32
100	5GA-T10	40C200	5/16 x 5/32
120	5GA-T12	40C91	5/16 x 5/32
130	5GA-T13	40C147	5/16 x 5/32
150	5GA-T15	40C202	5/16 x 5/32
180	5GA-T18	40C99	5/16 x 5/32
200	5GA-T20	40C102	5/16 x 5/32
220	5GA-T22	40C204	5/16 x 5/32
240	5GA-T24	40C167	5/16 x 5/32
250	5GA-T25	40C101	5/16 x 5/32
270	5GA-T27	40C93	5/16 x 5/32
300	5GA-T30	40C100	5/16 x 5/32
330	5GA-T33	40C207	5/16 x 5/32
350	5GA-T35	40C146	5/16 x 5/32
360	5GA-T36	40C154	5/16 x 5/32
390	5GA-T39	40C95	5/16 x 5/32
400	5GA-T40	40C104	5/16 x 5/32
470	5GA-T47	40C209A	5/16 x 5/32
500	5GA-T50	40C232A	5/16 x 5/32
560	5GA-T56	40C233A	5/16 x 5/32
600	5GA-T60	40C305	5/16 x 5/32
680	5GA-T68	40C212A	5/16 x 5/32
750	5GA-T75	40C235A	5/16 x 5/32
800	5GA-T80	40C213A	5/16 x 5/32
820	5GA-T82	40C237A	5/16 x 5/32
.001μF	5GA-D10	40C214A	5/16 x 5/32
.0012	5GA-D12	40C239A	5/16 x 5/32
.0013	5GA-D13	40C261	5/16 x 5/32
.0015	5GA-D15	40C215A	5/16 x 5/32
.0016	5GA-D16	19C301	3/8 x 5/32
.0018	5GA-D18	19C217A	3/8 x 5/32
.002	5GA-D20	19C203A	3/8 x 5/32
.0022	5GA-D22	19C219A	3/8 x 5/32
.0025	5GA-D25	20C179	7/16 x 5/32
.0027	5GA-D27	20C143A	7/16 x 5/32
.003	5GA-D30	20C101A1	7/16 x 5/32
.0033	5GA-D33	20C124A	7/16 x 5/32
.0039	5GA-D39	20C126A	7/16 x 5/32
.004	5GA-D40	29C192A	9/16 x 5/32
.0043	5GA-D43	29C292	9/16 x 5/32
.0047	5GA-D47	29C203A	9/16 x 5/32
.005	5GA-D50	29C204A	9/16 x 5/32
.01	5GA-S10	33C29A	11/16 x 5/32
.015	5GA-S15	36C263	3/4 x 5/32
.02	5GA-S20	41C135A1	7/8 x 5/32

μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
500 WVDC (discs) ±20% Tol.			
.025	5GA-S25	33C57A	11/16 x 7/32
.04	5GA-S40	33C24A	11/16 x 7/32
.05	5GA-S50	33C17A	11/16 x 7/32
.1	5GA-P10	41C92A10	7/8 x 7/32
3000 WVDC (discs) ±20% Tol.			
1.5μμF	30GA-V15	19C306	3/8 x 1/4
3.3	30GA-V33	19C307	3/8 x 1/4
4.7	30GA-V47	19C308	3/8 x 1/4
5.0	30GA-V50	19C309	3/8 x 1/4
6.0	30GA-V60	19C310	3/8 x 1/4
6.8	30GA-V68	19C311	3/8 x 1/4
7.5	30GA-V75	19C291	3/8 x 1/4
8.2	30GA-V82	19C290	3/8 x 1/4
10	30GA-Q10	19C312	3/8 x 1/4
12	30GA-Q12	19C313	3/8 x 1/4
15	30GA-Q15	19C314	3/8 x 1/4
18	30GA-Q18	19C292	3/8 x 1/4
20	30GA-Q20	19C315	3/8 x 1/4
22	30GA-Q22	19C316	3/8 x 1/4
25	30GA-Q25	19C317	3/8 x 1/4
27	30GA-Q27	19C318	3/8 x 1/4
30	30GA-Q30	19C319	3/8 x 1/4
33	30GA-Q33	19C320	3/8 x 1/4
39	30GA-Q39	19C321	3/8 x 1/4
47	30GA-Q47	19C322	3/8 x 1/4
50	30GA-Q50	19C323	3/8 x 1/4
56	30GA-Q56	19C324	3/8 x 1/4
60	30GA-Q60	19C325	3/8 x 1/4
62	30GA-Q62	19C326	3/8 x 1/4
68	30GA-Q68	19C327	3/8 x 1/4
75	30GA-Q75	19C328	3/8 x 1/4
82	30GA-Q82	20C184	7/16 x 1/4
100	30GA-T10	20C43	7/16 x 1/4
120	30GA-T12	20C44	7/16 x 1/4
150	30GA-T15	20C45	7/16 x 1/4
180	30GA-T18	20C46	7/16 x 1/4
200	30GA-T20	20C47	7/16 x 1/4

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SPRAGUE CAPACITORS

CERA-MITE CERAMIC CAPACITORS, continued

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
3000 WVDC (cont.)			
220	30GA-T22	20C48	7/16 x 1/4
250	30GA-T25	20C49	7/16 x 1/4
270	30GA-T27	20C50	7/16 x 1/4
300	30GA-T30	20C51	7/16 x 1/4
330	30GA-T33	20C28A	7/16 x 1/4
390	30GA-T39	20C176	7/16 x 1/4
400	30GA-T40	20C175	7/16 x 1/4
470	30GA-T47	29C289	19/32 x 1/4
500	30GA-T50	29C90	19/32 x 1/4
560	30GA-T56	29C290	19/32 x 1/4
680	30GA-T68	29C288	19/32 x 1/4
750	30GA-T75	29C298	19/32 x 1/4
820	30GA-T82	29C299	19/32 x 1/4
.001μF	30GA-D10	29C300	19/32 x 1/4
.0012	30GA-D12	29C301	19/32 x 1/4
.0015	30GA-D15	29C302	19/32 x 1/4
.002	30GA-D20	29C303	19/32 x 1/4
.0022	30GA-D22	29C255A	19/32 x 1/4
.0025	30GA-D25	44C63	21/32 x 1/4
.0027	30GA-D27	44C65	21/32 x 1/4
.003	30GA-D30	33C31A1	11/16 x 1/4
.0033	30GA-D33	33C32A2	11/16 x 1/4
.0039	30GA-D39	36C155A	25/32 x 1/4
.004	30GA-D40	36C78A	25/32 x 1/4
.0047	30GA-D47	36C339	25/32 x 1/4
.005	30GA-D50	36C124A	25/32 x 1/4
.006	30GA-D60	41C34A	29/32 x 1/4
.0068	30GA-D68	41C153	29/32 x 1/4
.008	30GA-D80	41C151	29/32 x 1/4
.0082	30GA-D82	41C150	29/32 x 1/4
.01	30GA-S10	41C121A2	29/32 x 1/4
6000 WVDC (discs) ±20% Tol.			
1.5	60GA-V15	29C406	9/16 x 5/16
4.7	60GA-V47	29C407	9/16 x 5/16
6.8	60GA-V68	29C408	9/16 x 5/16
8.2	60GA-V82	29C409	9/16 x 5/16
10	60GA-Q10	29C410	9/16 x 5/16
12	60GA-Q12	29C411	9/16 x 5/16
15	60GA-Q15	29C412	9/16 x 5/16
18	60GA-Q18	29C413	9/16 x 5/16
20	60GA-Q20	29C414	9/16 x 5/16
22	60GA-Q22	29C415	9/16 x 5/16
25	60GA-Q25	29C416	9/16 x 5/16
27	60GA-Q27	29C417	9/16 x 5/16
30	60GA-Q30	29C418	9/16 x 5/16
33	60GA-Q33	29C419	9/16 x 5/16
39	60GA-Q39	29C420	9/16 x 5/16
47	60GA-Q47	29C421	9/16 x 5/16
50	60GA-Q50	29C422	9/16 x 5/16
56	60GA-Q56	29C423	9/16 x 5/16
60	60GA-Q60	29C424	9/16 x 5/16
68	60GA-Q68	29C425	9/16 x 5/16
75	60GA-Q75	29C426	9/16 x 5/16
82	60GA-Q82	29C427	9/16 x 5/16
100	60GA-T10	29C428	9/16 x 5/16
120	60GA-T12	29C429	9/16 x 5/16
150	60GA-T15	33C187	11/16 x 5/16
180	60GA-T18	33C188	11/16 x 5/16
200	60GA-T20	33C189	11/16 x 5/16
220	60GA-T22	33C190	11/16 x 5/16

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
6000 WVDC (cont.)			
250	60GA-T25	33C191	11/16 x 5/16
270	60GA-T27	33C192	11/16 x 5/16
300	60GA-T30	36C265	3/4 x 5/16
330	60GA-T33	36C266	3/4 x 5/16
390	60GA-T39	41C9A1	7/8 x 5/16
400	60GA-T40	41C142	7/8 x 5/16
470	60GA-T47	41C80A1	7/8 x 5/16
500	60GA-T50	33C185	11/16 x 5/16
560	60GA-T56	33C186	11/16 x 5/16
680	60GA-T68	33C107	11/16 x 5/16
750	60GA-T75	33C108	11/16 x 5/16
820	60GA-T82	33C109	11/16 x 5/16
.001μF	60GA-D10	33C90A	11/16 x 5/16
.0012	60GA-D12	33C101	11/16 x 5/16
.0015	60GA-D15	36C253A	3/4 x 5/16
.0022	60GA-D22	41C152	7/8 x 5/16
.0025	60GA-D25	41C250	7/8 x 5/16
.0027	60GA-D27	41C251	7/8 x 5/16
.003	60GA-D30	41C252	7/8 x 5/16
.0033	60GA-D33	41C253	7/8 x 5/16
.0039	60GA-D39	41C254	7/8 x 5/16
.0047	60GA-D47	41C255	7/8 x 5/16

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
7500 WVDC (discs ±20% Tol.			
4.7	75GA-V47	29C387	9/16 x 5/
8.2	75GA-V82	29C380	9/16 x 5/
10	75GA-Q10	29C382	9/16 x 5/
12	75GA-Q12	29C383	9/16 x 5/
15	75GA-Q15	29C378	9/16 x 5/
18	75GA-Q18	29C379	9/16 x 5/
20	75GA-Q20	29C405	9/16 x 5/
22	75GA-Q22	29C118A	9/16 x 5/
30	75GA-Q30	29C418A	9/16 x 5/
33	75GA-Q33	29C419A	9/16 x 5/
47	75GA-Q47	29C381	9/16 x 5/
56	75GA-Q56	29C30A	9/16 x 5/
100	75GA-T10	33C56A2	11/16 x 5/
220	75GA-T22	33C224	11/16 x 5/
470	75GA-T47	33C169	11/16 x 5/
500	75GA-T50	44C89	21/32 x 5/
560	75GA-T56	44C90	21/32 x 5/
680	75GA-T68	44C92	21/32 x 5/
750	75GA-T75	33C175	11/16 x 5/
820	75GA-T82	33C177	11/16 x 5/
.001μF	75GA-D10	33C178	11/16 x 5/
.0012	75GA-D12	36C334	3/4 x 5/
.0015	75GA-D15	41C221	7/8 x 5/
.0018	75GA-D18	41C223	7/8 x 5/
.002	75GA-D20	41C224	7/8 x 5/
.0022	75GA-D22	41C225	7/8 x 5/
.0025	75GA-D25	41C226	7/8 x 5/

NPO TYPES

- Zero Temperature-coefficient Capacitors Used Where Capacitance Chang with Temperature is Undesirable
- Superior to Silvered-mica Types in Stability, High "Q," and Insulatio Resistance
- Rated at **1000 WVDC**
- Standard Capacitance Tolerance of ±5%
- Units listed below are discs

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
1.0	10TCC-V10	40C436	5/16 x 5/32
1.2	10TCC-V12	40C437	5/16 x 5/32
1.5	10TCC-V15	40C438	5/16 x 5/32
1.8	10TCC-V18	40C439	5/16 x 5/32
2.2	10TCC-V22	40C311	5/16 x 5/32
2.7	10TCC-V27	40C309	5/16 x 5/32
3.0	10TCC-V30	40C460	5/16 x 5/32
3.3	10TCC-V33	40C478	5/16 x 5/32
3.9	10TCC-V39	40C310	5/16 x 5/32
4.7	10TCC-V47	40C298	5/16 x 5/32
5.0	10TCC-V50	40C479	5/16 x 5/32
5.6	10TCC-V56	40C297	5/16 x 5/32
6.8	10TCC-V68	40C487	5/16 x 5/32
8.2	10TCC-V82	40C492	5/16 x 5/32
10	10TCC-Q10	40C497	5/16 x 5/32
12	10TCC-Q12	40C502	5/16 x 5/32
15	10TCC-Q15	40C507	5/16 x 5/32
18	10TCC-Q18	19C407	3/8 x 5/32
20	10TCC-Q20	19C57	3/8 x 5/32
22	10TCC-Q22	19C411	3/8 x 5/32
25	10TCC-Q25	19C412	3/8 x 5/32
27	10TCC-Q27	20C257	7/16 x 5/32

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T
30	10TCC-Q30	20C258	7/16 x 5/
33	10TCC-Q33	20C263	7/16 x 5/
39	10TCC-Q39	20C265	7/16 x 5/
47	10TCC-Q47	29C14	9/16 x 5/
50	10TCC-Q50	29C47	9/16 x 5/
56	10TCC-Q56	29C437	9/16 x 5/
68	10TCC-Q68	29C439	9/16 x 5/
75	10TCC-Q75	29C469	9/16 x 5/
82	10TCC-Q82	33C94	11/16 x 5/
100	10TCC-T10	33C208	11/16 x 5/
120	10TCC-T12	33C194	11/16 x 5/
150	10TCC-T15	36C336	3/4 x 5/
175	10TCC-T175	41C258	7/8 x 7/
180	10TCC-T18	41C259	7/8 x 7/
200	10TCC-T20	41C260	7/8 x 7/
220	10TCC-T22	33C182	11/16 x 5/
270	10TCC-T27	36C27A2	3/4 x 5/
300	10TCC-T30	36C337	3/4 x 5/
330	10TCC-T33	41C145	7/8 x 7/
390	10TCC-T39	41C272	7/8 x 7/

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SPRAGUE CAPACITORS

CERA-MITE CERAMIC CAPACITORS, continued

TEMPERATURE-COMPENSATING TYPES

- Eliminate oscillator drift in TV, f-m, v-h-f, and a-m receivers
- Negative Temperature Coefficient is 30 ppm/°C for N030 types, 80 ppm/°C for N080 types, 150 ppm/°C for N150 types, 220 ppm/°C for N220 types, 330 ppm/°C for N330 types, 470 ppm/°C for N470 types, and 750 ppm/°C for N750 types
- Rated at **1000 WVDC**
- Standard Capacitance Tolerance ±5%

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
N030			
1.0	10TCM-V10	40C440	5/16 x 5/32
1.2	10TCM-V12	40C441	5/16 x 5/32
1.5	10TCM-V15	40C442	5/16 x 5/32
1.8	10TCM-V18	40C443	5/16 x 5/32
2.2	10TCM-V22	40C444	5/16 x 5/32
2.7	10TCM-V27	40C445	5/16 x 5/32
3.0	10TCM-V30	40C446	5/16 x 5/32
3.3	10TCM-V33	40C447	5/16 x 5/32
3.9	10TCM-V39	40C448	5/16 x 5/32
4.7	10TCM-V47	40C412	5/16 x 5/32
5.0	10TCM-V50	40C413	5/16 x 5/32
5.6	10TCM-V56	40C414	5/16 x 5/32
6.8	10TCM-V68	40C415	5/16 x 5/32
8.2	10TCM-V82	40C416	5/16 x 5/32
10	10TCM-Q10	40C417	5/16 x 5/32
12	10TCM-Q12	40C418	5/16 x 5/32
15	10TCM-Q15	40C508	5/16 x 5/32
18	10TCM-Q18	19C394	3/8 x 5/32
20	10TCM-Q20	19C408	3/8 x 5/32
22	10TCM-Q22	19C395	3/8 x 5/32
25	10TCM-Q25	19C413	3/8 x 5/32
27	10TCM-Q27	20C240	7/16 x 5/32
30	10TCM-Q30	20C259	7/16 x 5/32
33	10TCM-Q33	20C241	7/16 x 5/32
39	10TCM-Q39	20C266	7/16 x 5/32
47	10TCM-Q47	29C395	9/16 x 5/32
50	10TCM-Q50	29C456	9/16 x 5/32
56	10TCM-Q56	29C396	9/16 x 5/32
68	10TCM-Q68	29C397	9/16 x 5/32
75	10TCM-Q75	29C444	9/16 x 5/32
82	10TCM-Q82	33C180	11/16 x 5/32
100	10TCM-T10	33C181	11/16 x 5/32
120	10TCM-T12	33C211	11/16 x 5/32
150	10TCM-T15	36C327	3/4 x 5/32
175	10TCM-T175	41C247	3/4 x 5/32
180	10TCM-T18	41C263	3/4 x 5/32
200	10TCM-T20	41C264	3/4 x 5/32
220	10TCM-T22	41C243	3/4 x 5/32
270	10TCM-T27	33C196	11/16 x 5/32
300	10TCM-T30	36C308	3/4 x 5/32
330	10TCM-T33	41C244	7/8 x 7/32
390	10TCM-T39	41C273	7/8 x 7/32
N080			
2.2	10TCN-V22	40C457	5/16 x 5/32
2.7	10TCN-V27	40C459	5/16 x 5/32
3.0	10TCN-V30	40C461	5/16 x 5/32
3.3	10TCN-V33	40C464	5/16 x 5/32
3.9	10TCN-V39	40C468	5/16 x 5/32
4.7	10TCN-V47	40C404	5/16 x 5/32
5.0	10TCN-V50	40C405	5/16 x 5/32
5.6	10TCN-V56	40C406	5/16 x 5/32
6.8	10TCN-V68	40C407	5/16 x 5/32
8.2	10TCN-V82	40C408	5/16 x 5/32
10	10TCN-Q10	40C409	5/16 x 5/32
12	10TCN-Q12	40C411	5/16 x 5/32
15	10TCN-Q15	40C509	5/16 x 5/32
18	10TCN-Q18	19C391	3/8 x 5/32
20	10TCN-Q20	19C409	3/8 x 5/32
22	10TCN-Q22	19C392	3/8 x 5/32
25	10TCN-Q25	19C390	3/8 x 5/32
27	10TCN-Q27	19C416	3/8 x 5/32
30	10TCN-Q30	20C261	7/16 x 5/32
33	10TCN-Q33	20C239	7/16 x 5/32
39	10TCN-Q39	20C267	7/16 x 5/32
47	10TCN-Q47	29C390	9/16 x 5/32
50	10TCN-Q50	29C457	9/16 x 5/32
56	10TCN-Q56	29C391	9/16 x 5/32
68	10TCN-Q68	29C392	9/16 x 5/32
75	10TCN-Q75	29C445	9/16 x 5/32
82	10TCN-Q82	29C393	9/16 x 5/32
100	10TCN-T10	33C179	11/16 x 5/32
120	10TCN-T12	33C212	11/16 x 5/32
150	10TCN-T15	33C195	11/16 x 5/32
175	10TCN-T175	41C242	7/8 x 7/32
180	10TCN-T18	41C239	7/8 x 7/32
200	10TCN-T20	41C265	7/8 x 7/32
220	10TCN-T22	41C240	7/8 x 7/32
270	10TCN-T27	33C219	11/16 x 5/32
300	10TCN-T30	33C197	11/16 x 5/32
330	10TCN-T33	36C325	3/4 x 5/32
390	10TCN-T39	41C274	7/8 x 7/32
470	10TCN-T47	41C222	7/8 x 7/32
N150			
2.2	10TCP-V22	40C458	5/16 x 5/32
2.7	10TCP-V27	40C450	5/16 x 5/32
3.0	10TCP-V30	40C451	5/16 x 5/32
3.3	10TCP-V33	40C452	5/16 x 5/32
3.9	10TCP-V39	40C453	5/16 x 5/32
4.7	10TCP-V47	40C454	5/16 x 5/32
5.0	10TCP-V50	40C480	5/16 x 5/32
5.6	10TCP-V56	40C483	5/16 x 5/32
6.8	10TCP-V68	40C488	5/16 x 5/32
8.2	10TCP-V82	40C493	5/16 x 5/32
10	10TCP-Q10	40C498	5/16 x 5/32
12	10TCP-Q12	40C503	5/16 x 5/32
15	10TCP-Q15	40C510	5/16 x 5/32
18	10TCP-Q18	40C514	5/16 x 5/32
20	10TCP-Q20	19C410	3/8 x 5/32
22	10TCP-Q22	19C245A	3/8 x 5/32
25	10TCP-Q25	19C414	3/8 x 5/32
27	10TCP-Q27	19C417	3/8 x 5/32
30	10TCP-Q30	19C345	3/8 x 5/32
33	10TCP-Q33	20C264	7/16 x 5/32
39	10TCP-Q39	20C268	7/16 x 5/32
47	10TCP-Q47	20C271	7/16 x 5/32
50	10TCP-Q50	20C273	7/16 x 5/32
56	10TCP-Q56	29C438	9/16 x 5/32
68	10TCP-Q68	29C440	9/16 x 5/32
75	10TCP-Q75	29C446	9/16 x 5/32
82	10TCP-Q82	29C449	9/16 x 5/32
100	10TCP-T10	33C59A	11/16 x 5/32
120	10TCP-T12	33C213	11/16 x 5/32
150	10TCP-T15	33C215	11/16 x 5/32
175	10TCP-T175	36C322	3/4 x 5/32
180	10TCP-T18	36C314	3/4 x 5/32
200	10TCP-T20	41C266	7/8 x 7/32
220	10TCP-T22	41C229	7/8 x 7/32
270	10TCP-T27	33C220	11/16 x 5/32
300	10TCP-T30	33C221	11/16 x 5/32
330	10TCP-T33	36C315	3/4 x 5/32
390	10TCP-T39	41C231	7/8 x 7/32
470	10TCP-T47	41C275	7/8 x 7/32
N220			
3	10TCR-V30	40C462	5/16 x 5/32
3.3	10TCR-V33	40C465	5/16 x 5/32
3.9	10TCR-V39	40C469	5/16 x 5/32
4.7	10TCR-V47	40C475	5/16 x 5/32
5	10TCR-V50	40C455	5/16 x 5/32
5.6	10TCR-V56	40C484	5/16 x 5/32
6.8	10TCR-V68	40C489	5/16 x 5/32
8.2	10TCR-V82	40C494	5/16 x 5/32
10	10TCR-Q10	40C499	5/16 x 5/32
12	10TCR-Q12	40C504	5/16 x 5/32
15	10TCR-Q15	40C511	5/16 x 5/32
18	10TCR-Q18	40C515	5/16 x 5/32
20	10TCR-Q20	40C449	5/16 x 5/32
22	10TCR-Q22	19C256A1	3/8 x 5/32
25	10TCR-Q25	19C393	3/8 x 5/32
27	10TCR-Q27	19C418	3/8 x 5/32
30	10TCR-Q30	19C421	3/8 x 5/32
33	10TCR-Q33	19C424	3/8 x 5/32
39	10TCR-Q39	20C269	7/16 x 5/32
47	10TCR-Q47	20C249	7/16 x 5/32
50	10TCR-Q50	20C251	7/16 x 5/32
56	10TCR-Q56	20C279	7/16 x 5/32
68	10TCR-Q68	29C441	9/16 x 5/32
75	10TCR-Q75	29C394	9/16 x 5/32
82	10TCR-Q82	29C398	9/16 x 5/32
100	10TCR-T10	29C401	9/16 x 5/32
120	10TCR-T12	33C214	11/16 x 5/32
150	10TCR-T15	33C198	11/16 x 5/32
175	10TCR-T175	36C324	3/4 x 5/32
180	10TCR-T18	36C319	3/4 x 5/32
200	10TCR-T20	36C323	3/4 x 5/32
220	10TCR-T22	41C236	7/8 x 7/32
270	10TCR-T27	41C237	7/8 x 7/32
300	10TCR-T30	41C230	7/8 x 7/32
330	10TCR-T33	33C199	11/16 x 5/32
390	10TCR-T39	36C321	3/4 x 5/32
470	10TCR-T47	41C235	7/8 x 7/32
560	10TCR-T56	41C277	7/8 x 7/32
N330			
3.0	10TCS-V30	40C456	5/16 x 5/32
3.3	10TCS-V33	40C466	5/16 x 5/32
3.9	10TCS-V39	40C470	5/16 x 5/32
4.7	10TCS-V47	40C476	5/16 x 5/32
5.0	10TCS-V50	40C481	5/16 x 5/32
5.6	10TCS-V56	40C485	5/16 x 5/32
6.8	10TCS-V68	40C490	5/16 x 5/32
8.2	10TCS-V82	40C495	5/16 x 5/32
10	10TCS-Q10	40C500	5/16 x 5/32
12	10TCS-Q12	40C505	5/16 x 5/32
15	10TCS-Q15	40C512	5/16 x 5/32
18	10TCS-Q18	40C516	5/16 x 5/32
20	10TCS-Q20	40C518	5/16 x 5/32
22	10TCS-Q22	40C522	5/16 x 5/32
25	10TCS-Q25	19C415	3/8 x 5/32
27	10TCS-Q27	19C419	3/8 x 5/32
30	10TCS-Q30	19C422	3/8 x 5/32
33	10TCS-Q33	19C425	3/8 x 5/32
39	10TCS-Q39	20C270	7/16 x 5/32
47	10TCS-Q47	20C252	7/16 x 5/32
50	10TCS-Q50	20C274	7/16 x 5/32
56	10TCS-Q56	20C277	7/16 x 5/32
68	10TCS-Q68	29C442	9/16 x 5/32
75	10TCS-Q75	29C447	9/16 x 5/32
82	10TCS-Q82	29C450	9/16 x 5/32
100	10TCS-T10	29C451	9/16 x 5/32
120	10TCS-T12	33C92	11/16 x 5/32
150	10TCS-T15	33C201	11/16 x 5/32
175	10TCS-T175	33C217	11/16 x 5/32
180	10TCS-T18	36C316	3/4 x 5/32
200	10TCS-T20	36C326	3/4 x 5/32
220	10TCS-T22	41C233	7/8 x 7/32
270	10TCS-T27	41C234	7/8 x 7/32

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SPRAGUE CAPACITORS

CERA-MITE CERAMIC CAPACITORS, continued

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
N330 (cont.)			
300	10TCS-T30	41C261	7/8 x 7/32
330	10TCS-T33	33C241	11/16 x 5/32
390	10TCS-T39	36C318	3/4 x 5/32
470	10TCS-T47	41C276	7/8 x 7/32
560	10TCS-T56	41C278	7/8 x 7/32
N470			
3.0	10TCT-V30	40C463	5/16 x 5/32
3.3	10TCT-V33	40C467	5/16 x 5/32
3.9	10TCT-V39	40C474	5/16 x 5/32
4.7	10TCT-V47	40C419	5/16 x 5/32
5.0	10TCT-V50	40C420	5/16 x 5/32
5.6	10TCT-V56	40C421	5/16 x 5/32
6.8	10TCT-V68	40C422	5/16 x 5/32
8.2	10TCT-V82	40C423	5/16 x 5/32
10	10TCT-Q10	40C424	5/16 x 5/32
12	10TCT-Q12	40C425	5/16 x 5/32
15	10TCT-Q15	40C426	5/16 x 5/32
18	10TCT-Q18	40C427	5/16 x 5/32
20	10TCT-Q20	40C519	5/16 x 5/32
22	10TCT-Q22	40C428	5/16 x 5/32
25	10TCT-Q25	40C352	5/16 x 5/32
27	10TCT-Q27	19C420	3/8 x 5/32
30	10TCT-Q30	19C423	3/8 x 5/32
33	10TCT-Q33	19C397	3/8 x 5/32
39	10TCT-Q39	19C436	3/8 x 5/32
47	10TCT-Q47	19C437	3/8 x 5/32
50	10TCT-Q50	20C275	7/16 x 5/32
56	10TCT-Q56	20C286	7/16 x 5/32
68	10TCT-Q68	20C287	7/16 x 5/32
75	10TCT-Q75	20C288	7/16 x 5/32
82	10TCT-Q82	29C399	9/16 x 5/32
100	10TCT-T10	29C463	9/16 x 5/32
120	10TCT-T12	29C464	9/16 x 5/32
150	10TCT-T15	33C183	11/16 x 5/32
175	10TCT-T175	33C232	11/16 x 5/32
180	10TCT-T18	33C233	11/16 x 5/32
200	10TCT-T20	33C234	11/16 x 5/32
220	10TCT-T22	33C335	11/16 x 5/32
270	10TCT-T27	36C343	3/4 x 5/32
300	10TCT-T30	41C286	7/8 x 7/32
330	10TCT-T33	41C287	7/8 x 7/32
390	10TCT-T39	41C288	7/8 x 7/32
470	10TCT-T47	36C344	3/4 x 5/32
560	10TCT-T56	41C248	7/8 x 7/32
N750			
4.7	10TCU-V47	40C477	5/16 x 5/32
5.0	10TCU-V50	40C482	5/16 x 5/32
5.6	10TCU-V56	40C486	5/16 x 5/32
6.8	10TCU-V68	40C491	5/16 x 5/32
8.2	10TCU-V82	40C496	5/16 x 5/32
10	10TCU-Q10	40C501	5/16 x 5/32
12	10TCU-Q12	40C506	5/16 x 5/32
15	10TCU-Q15	40C513	5/16 x 5/32
18	10TCU-Q18	40C517	5/16 x 5/32
20	10TCU-Q20	40C520	5/16 x 5/32
22	10TCU-Q22	40C523	5/16 x 5/32
25	10TCU-Q25	40C524	5/16 x 5/32
27	10TCU-Q27	40C287	5/16 x 5/32
30	10TCU-Q30	40C533	5/16 x 5/32
33	10TCU-Q33	40C534	5/16 x 5/32
39	10TCU-Q39	19C427	3/8 x 5/32
47	10TCU-Q47	19C438	3/8 x 5/32
50	10TCU-Q50	19C39	3/8 x 5/32
56	10TCU-Q56	19C40	3/8 x 5/32
68	10TCU-Q68	20C289	7/16 x 5/32
75	10TCU-Q75	20C290	7/16 x 5/32
82	10TCU-Q82	20C291	7/16 x 5/32
100	10TCU-T10	29C454	9/16 x 5/32
120	10TCU-T12	29C455	9/16 x 5/32
150	10TCU-T15	29C465	9/16 x 5/32
175	10TCU-T175	29C466	9/16 x 5/32
180	10TCU-T18	33C88	11/16 x 5/32
200	10TCU-T20	33C105	11/16 x 5/32
220	10TCU-T22	33C236	11/16 x 5/32
270	10TCU-T27	33C237	11/16 x 5/32
300	10TCU-T30	33C346	11/16 x 5/32
330	10TCU-T33	33C347	11/16 x 5/32
390	10TCU-T39	41C289	7/8 x 7/32
470	10TCU-T47	41C290	7/8 x 7/32
560	10TCU-T56	33C238	11/16 x 5/32
680	10TCU-T68	36C348	3/4 x 5/32

TEMPERATURE-STABLE TYPES

- Used where minimum capacitance change with temperature is an important consideration
- Standard capacitance tolerance: ±10% except 10TS-S15 10TS-S20, 10TS-S30 ±15%
- Rated at **1000 WVDC**

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
3.3	10TS-V33	40C300A	5/16 x 5/16
5.0	10TS-V50	40C49A1	5/16 x 5/16
6.0	10TS-V60	40C299A	5/16 x 5/16
6.8	10TS-V68	40C97A2	5/16 x 5/16
7.5	10TS-V75	40C133A	5/16 x 5/16
8.0	10TS-V80	40C38A2	5/16 x 5/16
10	10TS-Q10	40C219A3	5/16 x 5/16
12	10TS-Q12	40C252A	5/16 x 5/16
15	10TS-Q15	40C65A2	5/16 x 5/16
18	10TS-Q18	40C139A3	5/16 x 5/16
20	10TS-Q20	40C265A	5/16 x 5/16
22	10TS-Q22	40C56A	5/16 x 5/16
25	10TS-Q25	40C113A	5/16 x 5/16
27	10TS-Q27	40C287A	5/16 x 5/16
30	10TS-Q30	40C303	5/16 x 5/16
33	10TS-Q33	40C57A	5/16 x 5/16
39	10TS-Q39	40C58A	5/16 x 5/16
47	10TS-Q47	40C135A	5/16 x 5/16
50	10TS-Q50	40C157A	5/16 x 5/16
56	10TS-Q56	40C130A2	5/16 x 5/16
68	10TS-Q68	40C270A	5/16 x 5/16
75	10TS-Q75	40C46A1	5/16 x 5/16
82	10TS-Q82	40C281A	5/16 x 5/16
91	10TS-Q91	40C302	5/16 x 5/16
100	10TS-T10	40C200A	5/16 x 5/16
120	10TS-T12	40C60A	5/16 x 5/16
130	10TS-T13	40C147A	5/16 x 5/16
150	10TS-T15	40C202A	5/16 x 5/16
180	10TS-T18	40C99A1	5/16 x 5/16
200	10TS-T20	40C81A	5/16 x 5/16
220	10TS-T22	40C204A	5/16 x 5/16
240	10TS-T24	40C167A	5/16 x 5/16
250	10TS-T25	40C101A2	5/16 x 5/16
270	10TS-T27	40C301	5/16 x 5/16
300	10TS-T30	40C106A	5/16 x 5/16
330	10TS-T35	40C207A	5/16 x 5/16
350	10TS-T35	19C105A	3/8 x 5/16
360	10TS-T36	19C106A	3/8 x 5/16
390	10TS-T39	19C131A1	3/8 x 5/16
400	10TS-T40	19C294	3/8 x 5/16
470	10TS-T47	19C160A1	3/8 x 5/16
500	10TS-T50	19C161A	3/8 x 5/16
560	10TS-T56	19C231A	3/8 x 5/16
600	10TS-T60	19C108A	3/8 x 5/16
680	10TS-T68	20C133A	7/16 x 5/16
750	10TS-T75	20C135A	7/16 x 5/16
800	10TS-T80	20C137A	7/16 x 5/16
820	10TS-T82	20C139A	7/16 x 5/16
.001 μF	10TS-D10	29C151A1	9/16 x 5/16
.0012	10TS-D12	29C239A	9/16 x 5/16
.0013	10TS-D13	29C84A	9/16 x 5/16
.0015	10TS-D15	29C155A3	9/16 x 5/16
.0016	10TS-D16	29C85A	9/16 x 5/16
.0018	10TS-D18	33C45A	11/16 x 5/16
.0020	10TS-D20	33C12A2	11/16 x 5/16
.0022	10TS-D22	33C12A1	11/16 x 5/16
.0025	10TS-D25	33C98	11/16 x 5/16
.0027	10TS-D27	33C99	11/16 x 5/16
.0030	10TS-D30	36C246A	3/4 x 5/16
.0033	10TS-D33	36C143A	3/4 x 5/16
.0039	10TS-D39	41C91A	7/8 x 5/16
.0040	10TS-D40	41C56A	7/8 x 5/16
.0043	10TS-D43	41C146	7/8 x 5/16
.0047	10TS-D47	41C72A1	7/8 x 5/16
.0050	10TS-D50	41C89A1	7/8 x 5/16
.0056	10TS-D56	33C100	11/16 x 7/16
.0068	10TS-D68	36C108A	3/4 x 7/16
.0075	10TS-D75	41C148	7/8 x 7/16
.01	10TS-S10	41C121A1	7/8 x 7/16
.015	10TS-S15	41C123A1	7/8 x 5/16
.02	10TS-S20	36C340A	3/4 x 7/16
.03	10TS-S30	41C284A	7/8 x 7/16

HIGH-K TYPES

- Designed for By-Pass and Coupling Applications Where Additional Capacitance Will Not Affec Circuit Operaton
- Smallest Physical Size
- 5HK-S15 thru 5HK-P10, **500 WVDC,** Capacitance Tolerance: +80 —20%
- All Other 5HK are **1000 WVDC,** Capacitance Tolerance: GMV

μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
SINGLE UNITS			
.001	5HK-D10	40C214	5/16 x 5/32
.0015	5HK-D15	19C237	3/8 x 5/32
.002	5HK-D20	19C203	3/8 x 5/32
.0022	5HK-D22*	20C254	7/16 x 5/32
.0025	5HK-D25	20C179A	7/16 x 5/32
.0033	5HK-D33	20C124	7/16 x 5/32
.004	5HK-D40	29C192	9/16 x 5/32
.0047	5HK-D47	29C203	9/16 x 5/32
.005	5HK-D50	29C204	9/16 x 5/32
.0068	5HK-D68	33C49	11/16 x 5/32
.01	5HK-S10	33C29	11/16 x 5/32
.015	5HK-S15	29C388A	9/16 x 5/32
.02	5HK-S20	33C60A	11/16 x 5/32
.025	5HK-S25	33C57	11/16 x 5/32
.04	5HK-S40	33C24	11/16 x 7/
.05	5HK-S50	33C58	11/16 x 7/
.1	5HK-P10	41C92	7/8 x 7/
DUAL UNITS			
2 x 470μμF	5HK-2T47	19C166	3/8 x 5/
2 x 800	5HK-2T80	19C167	3/8 x 5/
2 x .001 μF	5HK-2D10	20C253	7/16 x 5/
2 x .0015	5HK-2D15	55C67	1/2 x 5/
2 x .002	5HK-2D20	29C175	9/16 x 5/
2 x .0022	5HK-2D22	29C27	9/16 x 5/
2 x .004	5HK-2D40	33C111	11/16 x 5/
2 x .0047	5HK-2D47	36C330	3/4 x 5/
2 x .01	5HK-2S10	41C238	7/8 x 5/
2 x .02	5HK-2S20	41C219	7/8 x 7/

*Available until present stock is exhausted

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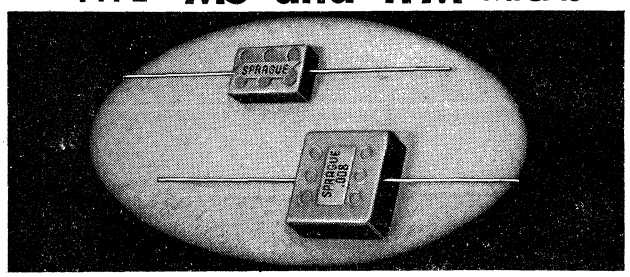
SPRAGUE CAPACITORS

MICA CAPACITORS

TYPE MS and 1FM MICAS



- Each Mica Capacitor Section Receives a Radio Frequency Test Before Molding
- Careful Selection and Electrical Grading of Raw Mica Assures Maximum Quality
- Section Foils on Foil Micas are Connected to Terminals through Special Low-resistance R-F Bonds
- R-F Current Tested for Peak Ratings After Impregnation and Molding

TYPE MS — SILVERED MICA
(Standard Capacitance Tolerance ±5%)

MF	Cat. No.	Net Ea.
500WVDC, 1000 V Test		
.000005	MS-55	$.27
.000010	MS-41	.24
.000012	MS-412	.24
.000015	MS-415	.24
.000018	MS-418	.24
.000020	MS-42	.24
.000022	MS-422	.24
.000024	MS-424	.24
.000025	MS-425	.24
.000027	MS-427	.24
.000030	MS-43	.24
.000033	MS-433	.24
.000036	MS-436	.24
.000039	MS-439	.24
.000040	MS-44	.24
.000043	MS-443	.24
.000047	MS-447	.24
.000050	MS-45	.24
.000051	MS-451	.24
.000056	MS-456	.24
.000060	MS-46	.24
.000062	MS-462	.24
.000068	MS-468	.24
.000070	MS-47	.24
.000075	MS-475	.24
.000082	MS-482	.24
.000091	MS-491	.24
.000100	MS-31	.24
.000110	MS-311	.27
.000120	MS-312	$.27
.000130	MS-313	.27
.000150	MS-315	.27
.000160	MS-316	.27
.000180	MS-318	.27
.000200	MS-32	.27
.000220	MS-322	.27
.000240	MS-324	.33
.000250	MS-325	.33
.000270	MS-327	.33
.000300	MS-33	.33
.000330	MS-333	.33
.000360	MS-336	.33
.000390	MS-339	.39
.000400	MS-34	.39
.000430	MS-343	.39
.000470	MS 347	.42
.000500	MS-35	.42
.000510	MS-351	.42
.000560	MS-356	.45
.000600	MS-36	.48
.000620	MS-362	.48
.000680	MS-368	.51
.000700	MS-37	.51
.000750	MS-375	.54
.000800	MS-38	.57
.000820	MS-382	.57
.000900	MS-39	.60
.000910	MS-391	.60
.001000	MS-21	.66
.001100	MS-211	.72
.001200	MS-212	.78
.001300	MS-213	$.75
.001500	MS-215	.81
.001600	MS-216	.81
.001800	MS-218	.81
.002000	MS-22	.81
.002200	MS-222	.90
.002400	MS-224	1.08
.002500	MS-225	1.08
.002700	MS-227	1.14
.003000	MS-23	1.23
.003300	MS-233	1.23
.003600	MS-236	1.26
.003900	MS-239	1.29
.004000	MS-24	1.29
.004300	MS-243	1.29
.004700	MS-247	1.29
.005000	MS-25	1.35
.005100	MS-251	1.35
.005600	MS-256	1.50
.006000	MS-26	1.44
.006200	MS-262	1.56
300 WVDC, 600 V Test		
.006800	MS-268	1.56
.007000	MS 27	1.56
.007500	MS-275	1.68
.008000	MS-28	1.68
.008200	MS-282	1.68
.009000	MS-29	1.86
.009100	MS-291	1.86
.010000	MS-11	2.04

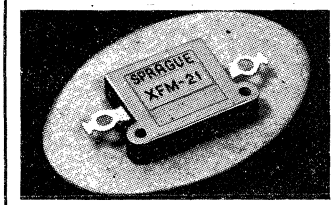
TYPE 1FM
(Standard Capacitance Tolerance ±20%)

MF	Cat. No.	Net Ea.
500 WVDC, 1000 V Test		
.000010	1FM-41	$.15
.000012	1FM-412	.15
.000015	1FM-415	.15
.000018	1FM-418	.15
.000020	1FM-42	.15
.000022	1FM-422	.15
.000024	1FM-424	.15
.000027	1FM-427	.15
.000030	1FM-43	.15
.000033	1FM-433	.15
.000036	1FM-436	.15
.000039	1FM 439	.15
.000040	1FM-44	.15
.000043	1FM-443	.12
.000047	1FM-447	.12
.000050	1FM-45	.12
.000051	1FM-451	.12
.000056	1FM-456	.12
.000062	1FM 462	.12
.000068	1FM-468	.12
.000075	1FM-475	.12
.000082	1FM-482	.12
.000091	1FM-491	.12
.000100	1FM-31	.12
.000110	1FM-311	.12
.000120	1FM-312	.12
.000130	1FM-313	.12
.000150	1FM-315	$.12
.000160	1FM-316	.12
.000180	1FM-318	.12
.000200	1FM-32	.12
.000220	1FM-322	.15
.000240	1FM-324	.15
.000250	1FM-325	.15
.000270	1FM-327	.15
.000300	1FM-33	.15
.000330	1FM-333	.15
.000350	1FM-335	.15
.000360	1FM-336	.15
.000390	1FM-339	.15
.000400	1FM-34	.15
.000430	1FM-343	.15
.000470	1FM-347	.15
.000500	1FM-35	.15
.000510	1FM-351	.15
.000560	1FM-356	.15
.000620	1FM-362	.15
.000680	1FM-368	.15
.000700	1FM-37	.15
.000750	1FM-375	.18
.000820	1FM-382	.18
.000910	1FM-391	.18
.001000	1FM-21	.18
.001100	1FM 211	.18
.001200	1FM-212	.18
.001300	1FM-213	.18
.001500	1FM-215	$.18
.001600	1FM-216	.18
.001800	1FM-218	.24
.002000	1FM-22	.24
.002200	1FM-222	.24
.002400	1FM-224	.30
.002500	1FM-225	.30
.002700	1FM-227	.30
.003000	1FM-23	.30
.003300	1FM-233	.36
.003600	1FM-236	.36
.003900	1FM-239	.36
.004000	1FM-24	.33
.004300	1FM-243	.36
.004700	1FM-247	.36
.005000	1FM-25	.36
.005100	1FM-251	.36
.005600	1FM-256	.39
.006000	1FM-26	.39
.006200	1FM-262	.39
300 WVDC, 600 V Test		
.006800	1FM-268	.51
.007000	1FM-27	.51
.007500	1FM-275	.51
.008000	1FM-28	.60
.008200	1FM-282	.60
.009000	1FM-29	.60
.009100	1FM-291	.60
.010000	1FM-11	.72

MS and 1FM Dimensions

Catalog Nos.	L x W x T	Catalog Nos.	L x W x T
MS-55 thru MS-35	51/64 x 15/32 x 7/32	MS-29 thru MS-11	1 x 5/8 x 5/16
MS-351 thru MS-222	53/64 x 53/64 x 9/32	1FM-41 thru 1FM-462	51/64 x 15/32 x 7/32
MS-224	53/64 x 53/64 x 11/32	1FM-468 thru 1FM-475	53/64 x 53/64 x 9/32
MS-225 thru MS-227	53/64 x 53/64 x 9/32	1FM-482 thru 1FM-356	51/64 x 15/32 x 7/32
MS-23	53/64 x 53/64 x 11/32	1FM-362 thru 1FM-233	53/64 x 53/64 x 9/32
MS-233	53/64 x 53/64 x 9/32	1FM-236 thru 1FM-282	53/64 x 53/64 x 11/32
MS-236 thru MS-282	53/64 x 53/64 x 11/32	1FM-29 thru 1FM-11	1 x 5/8 x 5/16

TYPES XFM, YFM and ZFM



(Standard Capacitance Tolerance ±10%)

MF	Cat. No.	Net Ea.
XFM — 600 WVDC, 1200 V TEST		
.00005	XFM-45	$ .72
.0001	XFM-31	.72
.0002	XFM-32	.72
.00025	XFM-325	.72
.0003	XFM-33	.72
.0004	XFM-34	.72
.0005	XFM-35	.72
.001	XFM-21	.72
.0015	XFM-215	.72
.002	XFM-22	.78
.0025	XFM-225	.78
.003	XFM-23	.87
.004	XFM-24	.90
.005	XFM-25	.93
.006	XFM-26	1.08
.007	XFM-27	1.11
.008	XFM-28	1.14
.01	XFM-11	1.29
.02	XFM-12	1.83
.03	XFM-13	2.67

Catalog Numbers	L x W x T
XFM-45 thru XFM-11	1 5/8 x 1 1/8 x 11/32
XFM-12 thru XFM-13	1 5/8 x 1 1/8 x 7/16

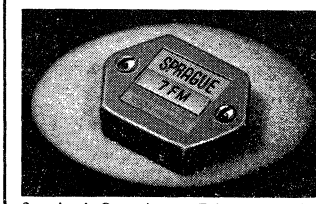
YFM — 1200 WVDC, 2500 V TEST	
.00005	YFM-45 .96
.0001	YFM-31 .96
.0002	YFM-32 .96
.00025	YFM-325 .96
.0003	YFM-33 .96
.0004	YFM-34 .96
.0005	YFM-35 .96
.001	YFM-21 1.08
.0015	YFM-215 1.38
.002	YFM-22 1.44
.0025	YFM-225 1.68
.003	YFM-23 1.83
.004	YFM-24 1.83
.005	YFM-25 1.98
.006	YFM-26 1.98
.007	YFM-27 2.07
.008	YFM-28 2.31
.01	YFM-11 3.06

Catalog Numbers	L x W x T
YFM-45 thru YFM-24	1 5/8 x 1 1/8 x 11/32
YFM-25 thru YFM-11	1 5/8 x 1 1/8 x 7/16

ZFM — 2500 WDVC, 5000 V TEST	
.00005	ZFM-45 1.14
.0001	ZFM-31 1.14
.0002	ZFM-32 1.14
.00025	ZFM-325 1.32
.0003	ZFM-33 1.35
.0004	ZFM-34 1.38
.0005	ZFM-35 1.44
.001	ZFM-21 1.68
.0015	ZFM-215 2.13
.002	ZFM-22 2.49
.003	ZFM-23 2.94
.004	ZFM-24 3.39
.005	ZFM-25 3.84

Catalog Numbers	L x W x T
ZFM-45 thru ZFM-22	1 5/8 x 1 1/8 x 11/32
ZFM-23 thru ZFM-25	1 5/8 x 1 1/8 x 7/16

TYPES 7FM, 8FM and 9FM



(Standard Capacitance Tolerance ±10%

MF	Cat. No.	Net Ea.
7FM — 600 WVDC, 1200 V TEST		
.00005	7FM-45	$ .87
.0001	7FM-31	.87
.00015	7FM-315	.87
.0002	7FM-32	.87
.00025	7FM-325	.87
.0005	7FM-35	.87
.001	7FM-21	.87
.002	7FM-22	.99
.0025	7FM-225	1.02
.003	7FM-23	1.11
.004	7FM-24	1.20
.005	7FM-25	1.26
.006	7FM-26	1.32
.008	7FM-28	1.47
.01	7FM-11	1.68
.015	7FM-115	1.83
.02	7FM-12	2.13
.03	7FM-13	2.73
.04	7FM-14	3.51
.05	7FM-15	4.26
.06	7FM-16	4.83

Catalog Numbers	L x W x T
7FM-45 thru 7FM-13	1 3/4 x 1 3/16 x 7/16
7FM-14 thru 7FM-16	1 3/4 x 1 3/16 x 3/4

8FM — 1200 WVDC, 2500 V TEST	
.00005	8FM-45 .96
.0001	8FM-31 .96
.00015	8FM-315 .96
.0002	8FM-32 .96
.00025	8FM-325 .96
.0005	8FM-35 .96
.001	8FM-21 1.14
.002	8FM-22 1.50
.0025	8FM-225 1.68
.003	8FM-23 1.77
.004	8FM-24 1.86
.005	8FM-25 1.98
.006	8FM-26 2.07
.008	8FM-28 2.46
.01	8FM-11 2.82
.015	8FM-115 3.48
.02	8FM-12 4.23
.025	8FM-125 4.74
.03	8FM-13 4.86

Catalog Numbers	L x W x T
8FM-45 thru 8FM-115	1 3/4 x 1 3/16 x 7/16
8FM-12 thru 8FM-13	1 3/4 x 1 3/16 x 3/4

9FM — 2500 WVDC, 5000 V TEST	
.00005	9FM-45 1.14
.0001	9FM-31 1.14
.00025	9FM-325 1.29
.0005	9FM-35 1.53
.001	9FM-21 1.74
.002	9FM-22 2.55
.0025	9FM-225 2.76
.003	9FM-23 3.06
.004	9FM-24 3.39
.005	9FM-25 3.72
.006	9FM-26 3.81
.008	9FM-28 4.11
.01	9FM-11 4.28
.015	9FM-115 4.83

Catalog Numbers	L x W x T
9FM-45 thru 9FM-26	1 3/4 x 1 3/16 x 7/16
9FM-28 thru 9FM-115	1 3/4 x 1 3/16 x 3/4

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REM-54-6330

All prices and sizes subject to change without notice.

Net

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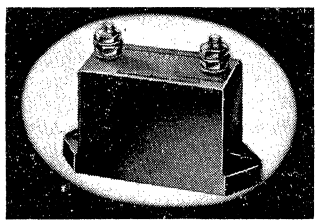
SPRAGUE CAPACITORS

MICA CAPACITORS, continued

TYPES 1MC & 2MC



(Standard Capacity Tolerance ±5%)

TYPE 1MC

Dimensions — 2" L. x 15/16" W. x 1 19/32" H.

MF	VAC Peak	Cat. No.	Net
.00005	3000	1MC-45	$ 7.56
.0001	3000	1MC-31	7.56
.00015	3000	1MC-315	7.56
.0002	3000	1MC-32	7.56
.00025	3000	1MC-325	7.56
.0003	3000	1MC-33	7.56
.0004	3000	1MC-34	7.56
.0005	3000	1MC-35	7.56
.0006	3000	1MC-36	7.56
.0007	3000	1MC-37	7.56
.0008	3000	1MC-38	7.56
.001	3000	1MC-21	7.56
.0015	3000	1MC-215	7.56
.002	3000	1MC-22	7.56
.003	2000	1MC-23	7.56
.004	2000	1MC-24	7.56
.005	2000	1MC-25	7.56
.006	2000	1MC-26	7.56
.007	2000	1MC-27	7.56
.01	1500	1MC-28	7.56
.01	1000	1MC-11	7.56
.015	1000	1MC-115	7.56
.02	1000	1MC-12	8.58
.03	500	1MC-13	8.58
.04	500	1MC-14	8.58
.05	250	1MC-15	8.58
.1	250	1MC-1	9.06

TYPE 2MC

Dimensions — 2¼" L. x 1¼" W. x 1 13/16" H.

.00005	5000	2MC-45	$10.38
.0001	5000	2MC-31	10.38
.00015	5000	2MC-315	10.38
.0002	5000	2MC-32	10.38
.00025	5000	2MC-325	10.38
.0003	5000	2MC-33	10.38
.0004	5000	2MC-34	10.38
.0005	5000	2MC-35	10.38
.0006	5000	2MC-36	10.38
.0007	5000	2MC-37	10.38
.0008	5000	2MC-38	10.38
.001	5000	2MC-21	10.38
.0015	5000	2MC-215	10.38
.002	5000	2MC-22	10.38
.003	3000	2MC-23	10.38
.004	3000	2MC-24	10.38
.005	3000	2MC-25	10.38
.006	3000	2MC-26	10.38
.007	3000	2MC-27	10.38
.008	2000	2MC-28	10.38
.01	2000	2MC-11	10.38
.015	2000	2MC-115	10.38
.02	2000	2MC-12	10.38
.03	1500	2MC-13	10.38
.04	1500	2MC-14	10.38
.05	1500	2MC-15	10.38
.06	1000	2MC-16	11.16
.07	1000	2MC-17	11.16
.08	500	2MC-18	11.52
.1	500	2MC-1	11.52

TYPES 1CC, 2CC, 3CC & 4CC

(Standard Capacity Tolerance ±5%)

TYPE 1CC

Dimensions — 2 13/16" D. x 2½" H.

MF	Cat. No.	Net
6000 VAC Peak		
.00005	1CC-45	$22.92
.000075	1CC-475	24.00
.0001	1CC-31	24.36
.00015	1CC-315	24.36
.0002	1CC-32	24.36
.00025	1CC-325	24.36
.0003	1CC-33	26.61
.0004	1CC-34	26.61
.0005	1CC-35	27.99
.0006	1CC-36	27.99
.0007	1CC-37	27.99
.0008	1CC-38	27.99
.001	1CC-21	27.99
.0015	1CC-215	29.34
.002	1CC-22	29.34
.003	1CC-23	30.36
.004	1CC-24	30.36
4000 VAC Peak		
.005	1CC-25	30.36
.006	1CC-26	30.87
.007	1CC-27	30.37
.008	1CC-28	30.87
.01	1CC-11	30.87
3000 VAC Peak		
.015	1CC-115	30.87
2000 VAC Peak		
.02	1CC-12	30.87
.025	1CC-125	31.08
1500 VAC Peak		
.03	1CC-13	33.45
.04	1CC-14	35.10
.05	1CC-15	36.45
.06	1CC-16	37.68
1000 VAC Peak		
.07	1CC-17	38.55
.08	1CC-18	39.45
.1	1CC-1	41.10

TYPE 2CC

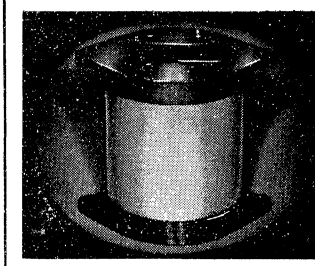
Dimensions — 3½" D. x 3" H.

10,000 VAC Peak		
.00005	2CC-45	39.33
.000075	2CC-475	39.33
.0001	2CC-31	39.33
.00015	2CC-315	39.33
.0002	2CC-32	39.33
.0003	2CC-33	39.33
.0004	2CC-34	39.33
.0005	2CC-35	39.33
.0006	2CC-36	39.33
.0007	2CC-37	29.33
.0008	2CC-38	39.33
.001	2CC-21	39.33
.0015	2CC-215	39.33
.002	2CC-22	39.33
8000 VAC Peak		
.003	2CC-23	39.33
.004	2CC-24	39.33
6000 VAC Peak		
.005	2CC-25	39.33
5000 VAC Peak		
.006	2CC-26	41.49
.007	2CC-27	41.49
.008	2CC-28	41.49
.01	2CC-11	41.49
4000 VAC Peak		
.015	2CC-115	41.49
3000 VAC Peak		
.02	2CC-12	41.49
.025	2CC-125	43.20
2000 VAC Peak		
.03	2CC-13	44.10
.04	2CC-14	46.68
.05	2CC-15	48.45
.06	2CC-16	49.80
1500 VAC Peak		
.07	2CC-17	51.00
.08	2CC-18	51.90
.1	2CC-1	54.00

TYPE 3CC

Dimensions — 5" D. x 4" H.

20,000 VAC Peak		
.00005	3CC-45	66.54
.000075	3CC-475	72.60
.0001	3CC-31	72.60
.00015	3CC-315	78.66
.0002	3CC-32	78.66
.0003	3CC-33	78.66
.0004	3CC-34	82.29
.0005	3CC-35	82.29
.0006	3CC-36	82.29
.0007	3CC-37	82.29
.0008	3CC-38	82.29
.001	3CC-21	84.69
15,000 VAC Peak		
.0015	3CC-215	85.92
.002	3CC-22	85.92
12,000 VAC Peak		
.003	3CC-23	90.75
.004	3CC-24	90.75
10,000 VAC Peak		
.005	3CC-25	90.75
.006	3CC-26	90.75
.007	3CC-27	90.75
.008	3CC-28	90.75
8000 VAC Peak		
.01	3CC-11	90.75
5000 VAC Peak		
.015	3CC-115	90.75
.02	3CC-12	90.75
3000 VAC Peak		
.025	3CC-125	90.75
.03	3CC-13	90.75
.04	3CC-14	90.75
.05	3CC-15	90.75
.06	3CC-16	95.10
2000 VAC Peak		
.07	3CC-17	98.40
.08	3CC-18	103.20
.1	3CC-1	109.20



TYPE 4CC

Dimensions — 5" D. x 5¾" H.

MF	Cat. No.	Ne
30,000 VAC Peak		
.0001	4CC-31	$126.1
.00015	4CC-315	126.1
.0002	4CC-32	132.7
.0003	4CC-33	132.7
.0004	4CC-34	132.7
.0005	4CC-35	132.7
.0006	4CC-36	132.7
.0007	4CC-37	132.7
.0008	4CC-38	132.7
.001	4CC-21	132.7
25,000 VAC Peak		
.0015	4CC-215	137.4
20,000 VAC Peak		
.002	4CC-22	137.4
.003	4CC-23	137.4
15,000 VAC Peak		
.004	4CC-24	140.6
.005	4CC-25	145.2
.006	4CC-26	151.3
.007	4CC-27	156.0
12,000 VAC Peak		
.008	4CC-28	156.0
.009	4CC-29	156.0
10,000 VAC Peak		
.01	4CC-11	163.4
8000 VAC Peak		
.015	4CC-115	163.4
6000 VAC Peak		
.02	4CC-12	163.4
.03	4CC-13	163.4
5000 VAC Peak		
.04	4CC-14	163.4
.05	4CC-15	163.4
.06	4CC-16	174.0
4000 VAC Peak		
.07	4CC-17	180.0
3000 VAC Peak		
.08	4CC-18	184.8
.1	4CC-1	195.6

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All prices and sizes subject to change without notice

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Net

CAIG LABORATORIES INC.

New Hyde Park, L. I., N. Y.

Cramolin® products

FEATURES

- CLEANER
- LUBRICANT
- PRESERVATIVE
- ANTI-CORROSIVE

PRICES

DESCRIPTION	CRAMOLIN (Red Color)	CRAMOLIN-SPECIAL (Blue Color)	CRAMOLIN-PASTE	CAEON SOLVENT #27
2 oz. Glass Bottle	$1.95	$2.25		
4 oz. Glass Bottle				$1.60
½ pint, Glass Bottle	6.75	7.50		2.85
1 pint, Glass Bottle	13.00	14.50		4.00
1 quart, Glass Bottle	25.50	28.00		6.00
¼ Kg Can (½ lb.)			$2.90	
6 oz. Spray	3.00	3.50		
Engineers Kit	6.75			

CRAMOLIN fluid is a combination protection and cleaning preparation. It is preferably applied on contacts already in use, or on apparatus where contact deficiency has occurred and where these contacts should be protected against oxidation. May be used on old and new contacts, and with other CRAMOLIN products.

CRAMOLIN-SPECIAL fluid is not a cleaning preparation, however, it does provide the essential protection needed. It is mainly used in the manufacture of new instruments or apparatus where the improvement of performance is desired as well as to preserve and increase the life of the apparatus. Should be used on new contacts or those contacts that have been previously cleaned with CRAMOLIN.

CRAMOLIN-PASTE is a semi-solid form and is also a combination protection and cleaning preparation. Usually used for high amperage and/or high voltage use. Can be used after applications of CRAMOLIN for good results.

Ask or write for Bulletin C-200 for complete Technical Data.

THE *BREAK-THRU* FOR HIGHER PERFORMING ELECTRIC CONTACTS

Reduces contact resistance and sparking by dissolving oxide film formations. Temp. operating range —34°C. to 150°C. Effective on all metals and their alloys including gold, silver, copper, etc. Stays on moving contacts. Free of acids. Safe to use. Lasts for years.

TYPICAL USES

Switches, Relays, Commutators, Brushes, High-frequency Generators, High Speed Slip-rings, Plug-in Connectors, Radio & TV Tuners, Dialing Units, Transmitters, Tubes, Timers, Electric Rails, Slide Wires, Computors. Extensively used in Standards Laboratories, Military, Naval, Airborne, Missiles & all Industrial Electric & Electronic Apparatus.

CAEON SOLVENT #27

Repackaged Freon® TF Solvent
(Trichlorotrifluorethane)

A cleaning agent for removal of oil, grease, and dirt from objects without harm to metal, plastic, or elastomeric parts.

- NON-FLAMMABLE
- VIRTUALLY NON-TOXIC
- CHEMICALLY AND PHYSICALLY PURE
- CHEMICALLY AND THERMALLY INERT
- STABLE

The solvent exhibits a washing and penetrating action which aids its cleaning ability. High density and low surface tension enables Caeon #27 to wet the surface of most materials and wash away dirt and sludge.

The solvent is useful in ultrasonic and vapor degreasing equipment. Soils which are normally insoluable in any solvent can often be removed by this solvent with cavitation in ultrasonic units. Vapor rinsing is more easily accomplished without exposing object to high temperatures.

The solvent is compatible with most organic systems. It will remove soils or contaminants and leave the surface 'Residue-Free'. All standard methods of using a solvent may be employed.

NEW

Cramolin Spray R

$3.00
6 oz. can

6" Extension Spray Tube — FREE!

Now — for those who prefer the spray can method of application. CRAMOLIN SPRAY R has same properties as CRAMOLIN FLUID. Packaged in neat spray can with automatic valve. Equipped with a whirl spray head, which will apply CRAMOLIN — breath thin — to most remote areas. The Hygrade propellant and speedy evaporating solvent leaves only a microfilm of actual CRAMOLIN on contact area.

EACH KIT CONTAINS:

- 2 OZ. CRAMOLIN
- 2 OZ. CRAMOLIN-SPECIAL
- ½ LB. CRAMOLIN-PASTE
- TECHNICAL GUIDE TO PROPERTIES & APPLICATIONS

$6.75
complete plus postage

NEW *Cramolin*
ENGINEERS PRODUCT KIT

The Engineers Kit provides the experimenter the opportunity to evaluate the best combination of CRAMOLIN product preservatives for his own particular contact problems.

Net

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NEW SUPER HUSH

MIRACLE T. V. TUNER CLEANER

ENGINEERED FOR TUNERS MADE WITH PLASTIC PARTS

CHEMICALLY ENGINEERED

From the purest chemicals available for cleaning plastic boards with printed circuits. HUSH lubricates with Electro-Silicone for longest possible protection.

8 oz. Spray Can $2.50
16 oz. Economy Spray Can.. $3.50

FREE 6" Plastic Extender With Every Can

YOU CAN BE SURE WITH NEW SUPER HUSH

STOPS

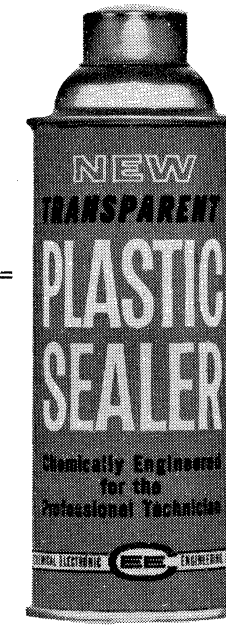
Corrosion

Corona Loss

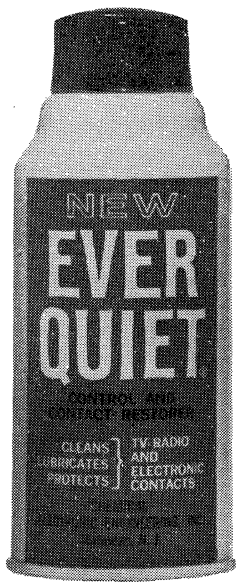
Short Circuits

NEW TRANSPARENT PLASTIC SEALER

INSULATES and WATER PROOFS with HIGH DIELECTRIC STRENGTH



16 ounces $1.95 Net



A FEW DROPS DOES THE JOB

2 oz. Net 79c
(32 oz. sizes available)

SINCE 1949 THE ORIGINAL SUPER EVER-QUIET®

VOLUME CONTROL and CONTACT RESTORER

EVER-QUIET is a free-flowing liquid that leaves no power residue. Scientifically designed to seep around the shaft and penetrate the control or potentiometer, cleaning the contacts and leaving a safe protecting film.

EVER-QUIET is harmless to metals, wire or carbon.

FREE 6" Plastic Extender With Every Can

6 oz. SPRAY CAN $1.59 Net

EVER-KLEER T.V. Picture Tubes, Protecting Glass Cleaner

WRITE FOR CONFIDENTIAL COST PRICE LIST

CHEMICAL ELECTRONIC ENGINEERING, INC.

MATAWAN, NEW JERSEY

© U.C.P., Inc.

Net

GC CHEMICALS AND KITS

GC ELECTRONICS

GC Chemicals (Cements, Thinners, Paints, Oils, Varnishes, etc.), are available in handy 2 oz. bottles with brush-in-cap. Also supplied in larger sizes.

G-C RADIO-TELEVISION SERVICE CEMENT—This high grade cement is specially prepared for Radio, Television and Speaker Work. Unexcelled for cementing and replacing cones on dynamic speakers, repairing rattling or torn cones, cementing voice coils, spiders, etc.
Cat. No. 30-2 2-oz. Net $ .48

G-C PLASTIC CEMENT—Excellent for cementing broken plastic cabinets, cementing grille cloth in place, cementing dial and glass crystal assemblies, cementing knots in dial, cords, etc.
Cat. No. 32-2A 2-oz. Net $ .48

G-C "BAKELITE" CEMENT—This cement is especially made for cementing "BAKELITE" to "BAKELITE" and to other materials.
Cat. No. 32-2 2-oz. Net $ .80

G-C "VINYLITE" CEMENT—This new G-C Cement based upon "VINYLITE" vinyl resins, has great adhesion, high tackiness and extreme flexibility.
Cat. No. 58-2 2-oz. Net $ .48

G-C HOUSEHOLD and MODEL CEMENT—Fast-drying cement, suitable for many uses. Excellent "Household Cement"; will cement wood, paper, plastics, metal, china, crockery, ceramics, etc.
Cat. No. 45-2 2-oz. Net $ .55

G-C FABRIC AND GRILLE CLOTH CEMENT—For cementing grille cloth and fabrics to either metal, plastic or wood cabinets.
Cat. No. 22-2 2-oz. Net $ .63

G-C WOOD CABINET GLUE—This is the ordinary well-known wood glue that is used in repair of furniture, chairs, radio cabinets, etc.
Cat. No. 39-2 2-oz. Net $ .48

G-C No. 28 CEMENT THINNER— This thinner is made of same solvents as G-C Service Cement and makes the best thinner for G-C Service Cement.
Cat. No. 28-2 2-oz. Net $ .45

G-C RADIO SERVICE SOLVENT—The best solvent for loosening cement on speaker cones, frames, etc., made to dissolve all types of cements. Can also be used as a thinner for G-C Cement and other cements.
Cat. No. 31-2 2-oz. Net $ .45

G-C No. 29 LACQUER THINNER—Solvent for thinning all lacquers, lacquer enamels, telephone black and gray, touch-up lacquers.
Cat. No. 29-2 2-oz. Net $ .45

G-C No. 67 PAINT THINNER—Excellent for Ruf-Koat, Krome-Koat, B-K Cement, Insulating Varnish and Rubber Cements.
Cat. No. 67-2 2-oz. Net $ .45

G-C No. 41 Q-DOPE THINNER—Excellent solvent for Polystyrene, Q-Dope and any other Polystyrene Coil Dopes and Cements. Will soften and disolve polystyrene rods, sheets, etc. Clear water-white solvent will not change characteristics of original materials.
Cat. No. 41-2 2-oz. Net $ .45

G-C RUBBER-TO-METAL & PHONO DRIVE CEMENT Specially prepared for cementing ruber phono and dial drives to shafts and pulleys.
Cat. No. 35-2 2-oz. Net $ .53

G-C PLIOBOND CEMENT—Bonds anything to anything—iron, steel, plastic, glass, aluminum, cotton, vinyl sheets, stainless steel, etc. A truly universal cement.
Cat. No. 43-2 2-oz. Net $ .53

G-C ACRYLIC-PLEXIGLASS CEMENT — Specially prepared for cementing Lucite, Plexiglass and other arcylic materials.
Cat. No. 40-2 2-oz. Net $ .53

G-C NE-O-PRENE CEMENT—For cementing neoprene rubber to neoprene or neoprene to other products, such as metal, wood, paper, etc.
Cat. No. 52-2 2-oz. Net $ .67

G-C LABEL CEMENT—Here's a label cement that will make labels stick to anything—metal, glass, wood, tin, etc.
Cat. No. 46-2 2-oz. Net $ .55

G-C TV HIGH VOLTAGE CORONA DOPE—Prevents corona shorts on high voltage circuits in Television sets.
Cat. No. 47-2 2-oz. Net $ .72

G-C RED-X TV CORONA DOPE—Prevents corona shorts in high voltage circuits in TV sets. Coat surfaces and sharp corners to stop corona effect.
Cat. No. 50-2 2-oz. Net $ .72

G-C TV TUBE KOAT—For recoating the outside of TV picture tubes that have become scratched or the surface is peeling.
Cat. No. 49-2 2-oz. Net $ .72

G-C TV LINE SEAL FOR UHF AND VHF—Outdoor special acrylic sealer for sealing TV wires, terminals, screws, antennas, junction boxes.
Cat. No. 17-2 2-oz. Net $ .53

G-C PHONO NON-SLIP COMPOUND—Prevents slippage of phono drives on changers, tape recorders, and all types of recorder drives.
Cat. No. 86-2-S 2-oz. NET $ .96

G-C RED GLYPTAL INSULATING VARNISH—Most common of all protective insulating coatings, used on all solder connections, high voltage points, anti-corona.
Cat. No. 90-2 2-oz. Net $ .57

NON-SLIP COMPOUND FOR RADIO DIALS—Powder Compound for treating friction type dial drives such as cords, cabels and belts.
Cat. No. 1210 Non-Slip, 2-oz. Net $ .45

LIQUID NON-SLIP—Penetrating and fast-drying liquid dressing. Shrinks fibres, prolongs life of cables and belts and prevents slipping.
Cat. No. 1211 ½-oz. Net $ .33

G-C DE-OX-ID—Cleans and prevents oxidation on sensitive circuit contacts. Use in Television, Radio, Telephone, Relays, Instruments, etc.
Cat. No. 19-1 1-oz. Net $ .67
19-2 2-oz. Net $ .97

G-C CONTACT AND CRYSTAL CLEANER—A fast-evaporating cleaner specially prepared for cleaning contacts and crystals. Cleans easily and will not injure delicate parts, crystals, etc.
Cat. No. 127-2 2-oz. Net $ .45

NEW G-C ELECTRONIC CONTACT CLEANER—Most popular all-purpose contact cleaner on the market. Fast drying and fast acting. Leaves a non-corrosive film on the contacts that insures long, trouble-free action.
Cat. No. 210-2 2-oz. Net $ .53

G-C DE-NOIZ ELECTRONIC TV CONTACT AND DETENT CLEANER—Stops Noise on all types of contacts, volume controls, tuners, detents, switches, relays, etc.
Cat. No. 51-2 2-oz. Net $ .97

G-C CARBON CONTROL CLEANER—Makes it easy to repair most noisy volume controls, tone controls, switches, band switches, push-buttons—in fact, most all types of moving contacts. A special chemical that both removes oxidation and minimizes future trouble by coating the contacts.
Cat. No. 212-2 2-oz. Net $ .45

G-C CARBON TETRA-CHLORIDE—100% pure Carbon Tetra-Chloride, non-explosive and non-inflammable. For cleaning electrical controls and contacts.
Cat. No. 211-2 2-oz. Net $ .45

G-C GRAFOLINE—Insures proper and lasting repairs for all air-exposed contacts, switches, and wire-wound volume controls—wherever dust and dirt affect the quiet action of adjustable radio parts or controls.
Cat. No. 120-2 2-oz. Net $ .53

G-C CARBON-X—A practical method to touch up those worn and noisy spots on carbon volume controls.
Cat. No. 1205 2-oz. Net $ .80

G-C CONTACT DOPE—Ideal contact cleaner for electronic switches, controls and contacts. Specially prepared to resist corrosion and oxidation on contacts.
Cat. No. 1214 2-oz. Net $ .48

G-C NON-CORROSIVE LIQUID SOLDERING FLUX—Best quality non-corrosive flux for all types of radio and electrical soldering, for copper, brass, steel, nickel, etc.
Cat. No. 42-2 2-oz. Net $ .48

G-C Q-DOPE (COIL DOPE)—Specially prepared for coating, doping, sealing, cementing and impregnating coils and paints in "Very High" and "Ultra High" frequency ranges.
Cat. No. 37-2 2-oz. Net $ .55

G-C LIQUIDOPE—Gives coils a tough protective film that insures firmness and prevents characteristic changes due to weather.
Cat. No. 36-2 2-oz. Net $ .58

G-C INSULATING & DIPPING VARNISH—Produces a smooth, tough film that is water-proof, oil-proof and non-corrosive. Recommended for treating field coils, noisy or buzzing transformers and choke coils.
Cat. No. 56-2 2-oz. Net $ .60

G-C FUNGUS VARNISH—Used on all types of Radio, Electronics and Communication equipment to prevent moisture absorption and fungus growth, when equipment is used in hot and humid climates.
Cat. No. 57-2 2-oz. Net $ .67

G-C STRIP-X—Removes insulating enamel from wires for easy soldering. Use on magnet wire, etc.
Cat. No. 26-2 2-oz. Net $ .73

G-C RECO-STATIC CHASER—Minimize dust accumulation on records and picture tube. Reduces dust attracting static electricity.
Cat. No. 48-2 2-oz. Net $ .45

G-C MAG-NETIK RECORDING HEAD CLEANER—Cleans without injury to the recording head that gradually lose their sensitivity if oxide accumulates.
Cat. No. 53-1 1-oz. Net $ .57
53-2 2-oz. $ .97

G-C RUF-KOAT—The only finish that will air dry and give you a professional wrinkle job without baking. Colors: Black, Gray and Brown (Specify Color)).
Cat. No. 60-2 2-oz. Net $ .67

G-C No. 14-2 PRINT-KOTE SILICONE RESIN—After repairing or replacing parts in printed circuits, protect the panel joints and parts. Fast air drying.
Cat. No. 14-2 2-oz. Net $1.30

G-C No. 13-2 PRINT-KOTE SOLVENT FOR SILICONE RESIN—The only solvent for G-C 14-2 Silicone Resin. Will dissolve and remove silicone resin from printed circuits.
Cat. No. 13-2 2-oz. Net $ .37

G-C PRINT-KOTE SOLDERING FLUX—Non-corrosive liquid flux for easy soldering and repairing of printed circuits.
Cat. No. 12-2 2-oz. Net $ .50

G-C CEMENT KIT — A kit containing a complete selection for every application. Kit includes 2-oz. samples of Service, Pli-O-Bond, Acrylic, Plastic, Bakelite, Vinylite, Grille Cloth, Model, Wood, Rubber-to-Metal, Electrical and Resistor, Neoprene, Label and Vinyl Cements. Ideal for research and development.
Cat. No. 345 Net $5.97

G-C RADIO AND TELEVISION CEMENT—High grade speaker cement in a handy tube for those who prefer to use a tube. Cement can be applied directly from tube on the parts to be cemented without the use of a brush. Also used for television work, sealing nuts, bolts, etc., on antennas, rotators, etc.
Cat. No. 34-2
2-oz. tube Net $ .55

Net
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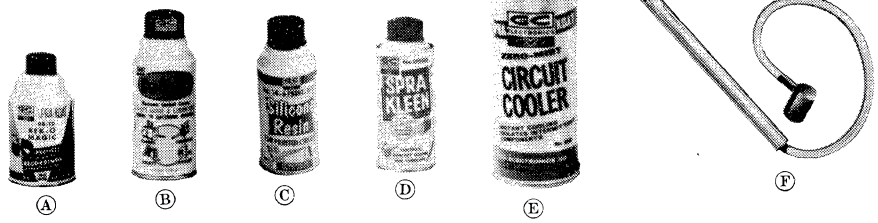
GC CHEMICALS AND KITS

GC ELECTRONICS



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(A) NEW REK-O-MAGIC ANTI-STATIC SPRAY—Eliminates abrasive dust that ruins records. Cleans and keeps clean. Easy to use.

Cat. No. 98-12 12 oz. Net **$1.88**

(B) DE-OX-ID—Electrical contact cleaner for silver, detent and radar contacts. Use in television, radio, telephone, relays, instruments, etc., the greatest development in electronic contact fluids.

Cat. No. 19-6 6 oz. Net **$2.33**

(C) K-27 PRINT-KOTE—T-V Silicone resin for printed circuits. This is the original clear silicone resin as used by manufacturers on all printed circuit sets. It insulates, protects and prevents shorts.

Cat. No. 14-6 6 oz. Net **$2.42**

(D) SPRA-KLEEN—Eliminates noise due to dust, dirt and corrosion on electrical contacts the easy way. Just spray onto contacts or controls.

No. 8666 6 oz. Spray Can Net $ **.99**

NEW 16 OUNCE KING SIZE THAT SPRAYS UP-SIDE DOWN. A full 16 ounces that works equally well right side up or upside down for those hard to reach places.

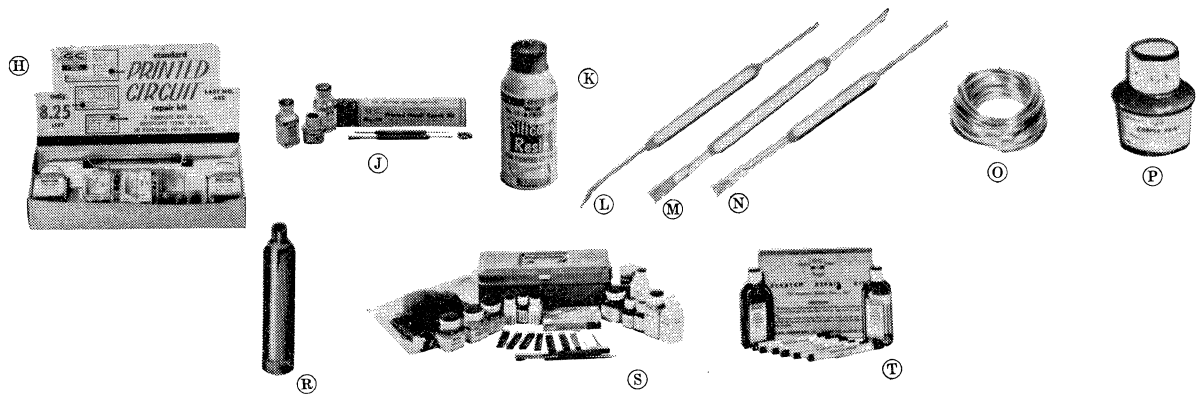
No. 8666-16 16 oz. Spray Can Net **$1.95**

(E) ZERO-MIST SPRA KOAT—Instantly locates defective circuit components of an intermittent nature due to temperature change. Circuits cooled instantly . . . intermittent components isolated.

Cat. No. 8667 16-oz. Net **$2.42**

(F) G-C FLEX-SOL SPRA-CAN EXTENSION—The device that adapts Spra-Cans to ANY use. Now you can reach and clean controls and tuners without removing them from the chassis. Speeds up and simplifies bench work.

Cat. No. 9344-1 Net $ **.83**



Ⓗ Ⓙ Ⓚ Ⓛ Ⓜ Ⓝ Ⓞ Ⓟ Ⓡ Ⓢ Ⓣ

(H) NEW G-C STANDARD PRINTED CIRCUIT KIT—Includes one box each of foil, solder washers, solder wire, one solder probe tool and brush, silicone resin lacquer and solvent, tweezers and complete instructions.

Cat. No. 682 Net $ **5.33**

(I) G-C MASTER PRINTED CIRCUIT KIT—Includes all items in G-C standard kit plus one Ungar Soldering iron with one special tip and a 6-oz. spray can G-C No. 14-6 Print-Kote Silicone Resin Spray and complete instructions.

Cat. No. 683 Net $**10.58**

(J) G-C No. 680—PRINTED CIRCUIT SILICONE RESIN SERVICE KIT—Here's a complete kit with the materials you need to repair any Printed Circuits in radio and TV sets using Printed Circuits. Used by leading set manufacturers.

Cat. No. 680 Net $ **6.06**

G-C No. 681—TV PRINTED CIRCUIT SILICONE RESIN SERVICE KIT—No. 681 kit is the same kit as No. 680, except the 21-1 Pure Silver Print is not included in kit.

Cat. No. 681 Net **$3.48**

(K) G-C PRINT-KOTE SILICONE RESIN SPRAY—Genuine Silicone Resin as used by leading TV set manufacturers to protect printed circuits. After repairing or replacing parts in printed circuit sets.

Cat. No. 14-6 6-oz. Net **$2.42**

(L) G-C No. 9093 PRINT-KOTE SOLDER AID PROBE—Handy, fine point probe specially designed to aid in probing and soldering printed circuits.

Cat. No. 9093 Net **$1.00**

(M) G-C No. 9094 PRINT-KOTE BRUSH AND SCRAPER—Fine stainless steel brush and hardened steel scraper are required to scrape and clean the Silicone Resin from printed circuits before any repair can be made.

Cat. No. 9094 Net $ **.98**

(N) G-C HEAVY DUTY SOLDERING AID TOOL—One end has a stiff wire brush for cleaning wire and terminal strip before soldering, and the other end is machined to hold the wires while being soldered.

Cat. No. 9088 Net **$1.00**

(O) G-C PRINT-KOTE SOLDER—Special non-corrosive flux and low-melting solder combined with Pure Silver.

Cat. No. 9131 11-foot Coil Net $ **.52**

(P) G-C SILVER PRINT—Same Pure Silver compounded as used by manufacturers in printed circuit design. Repair those printed circuits, touch up circuit around eyelets, rivets, parts, etc.

Cat. No. 21-1 ½ Troy oz. Net **$3.30**
21-2 1 Troy oz. **5.75**

NEW G-C COPPERPRINT—Excellent for repairing printed circuits. A high conductive, fast drying compound to touch up printed circuits.

Cat. No. 20-2 2-oz. Net $ **2.17**

(R) G-C SKRATCH STIKS—Available for Walnut, Mahogany and Light Wood. Removes scratches on all shades and colors of woods—makes them vanish like magic.

Cat. No. 909-W Net $ **.48**

(S) G-C No. 900 MASTER DELUXE CABINET REPAIR KIT—With this Master Repair Kit all repairs can be made even for the most exacting customer. All of the essentials for a really satisfactory repair job are included in this Kit. Our new spirit stains, varnishes and enamels are included in this kit (all spirit solvent).

Cat. No. 900 Master Deluxe Kit Net **$9.10**

G-C No. 901 CABINET REPAIR KIT—Here's a kit that is second to none. It is a complete kit that will meet any emergency or do any repair job. With this kit you can repair wood cabinets, as well as plastic and bakelite cabinets, knobs, etc. On dents or nicks you can use the shellac sticks and melt them in with the spatula and alcohol lamp.

Cat. No. 901 Net $ **7.16**

No. 907 MASTER CABINET TOUCH-UP KIT—A high-grade, complete fast Touch-Up Kit for repairing scratches and dents on radio cabinets and furniture.

Cat. No. 907 Touch-Up Kit Net **$4.78**

(T) G-C MAGIC SCRATCH REMOVER KIT—This kit is a combination of 6 shades of Scratch Crayon fillers and Light and Dark Scratch Fluid.

Cat. No. 915 Net **$2.25**

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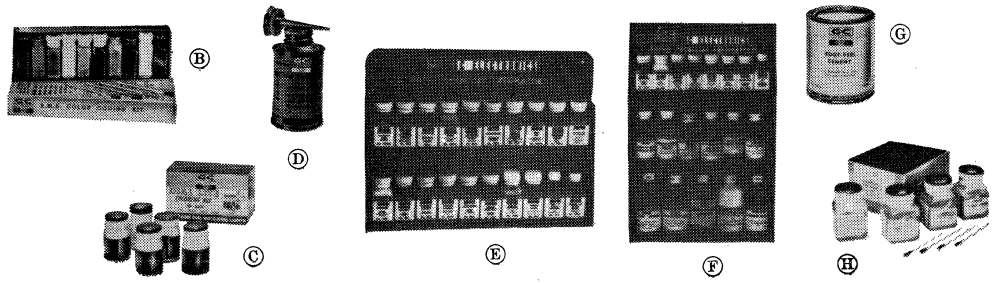
GC ELECTRONICS CHEMICALS AND KITS



(B) G-C E.I.A. COLOR CODING KIT—Complete kit of all standard E.I.A. colors: Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Grey and White. Brushes furnished and E.I.A. color chart is on box.

Cat. No. 677 Color Coding Kit Net **$1.75**

(C) G-C DIAL AND SIGNAL LIGHT COLORING—Long-lasting coloring for signal systems, radio dials, decorative lighting, etc. Instant drying. Bright, durable colors of Red, Green, Blue, Amber, Purple and solvent.

Cat. No. 66-5 Kit of 5, no purple Net **$1.33**
66-6 Kit of 6 Net **$1.53**

(D) G-C DIAL AND APPLIANCE OIL—A fine free-running oil for lubricating dial mechanisms, loosening and freeing controls, shafts, etc. Also use on small motors, appliances, etc.

Cat. No. 1245 4-oz. Net **$ .67**

(E) G-C RADIO-TV CHEMICAL LAB—Twenty 2-oz. bottles in permanent rack that can be placed on your bench or hung on the wall. Every needed chemical and cement is included for all kinds of repairs, speakers, coils, contacts, dials, controls. etc.

Cat. No. 997 Net **$12.75**

(F) G-C DELUXE RADIO-TV CHEMICAL LAB—For service shop and industrial plant. Complete practical laboratory designed to the needs of all service men in their everyday work. Ideal for the service man, engineer, experimenter, etc.

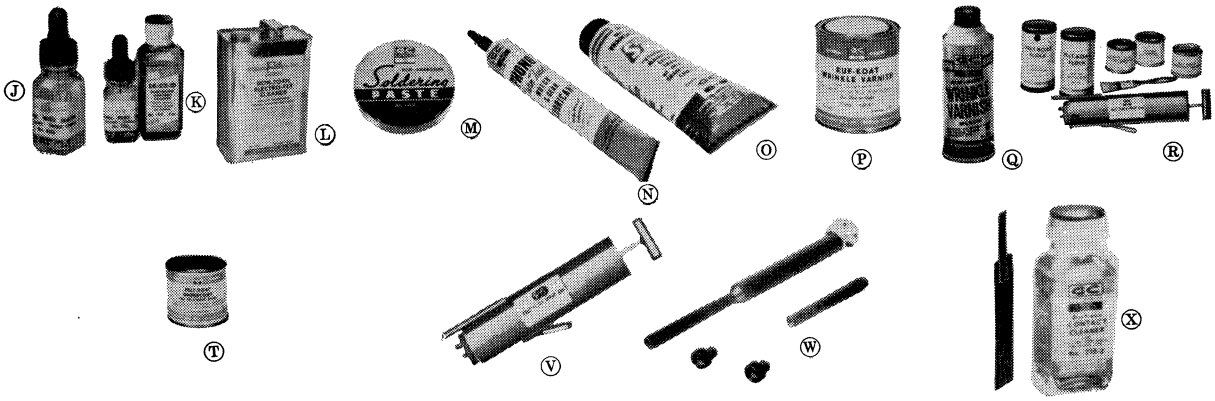
Cat. No. 998 Net **$16.17**

(G) G-C ROOF-SEEL COMPOUND—Eliminate callbacks on roof antenna installations by sealing all contacts or fastenings; to the roof.

Cat. No. 18-16 Pint Net **$ .92**

(H) G-C LUMINOUS LITE-KOAT KIT—Long-life, non-poisonous luminous coating that absorbs light in daytime and glows in the dark. Coat or stripe dials, knobs, switch plates, meter boxes, key holes, panels, instruments, hallways, staircases, etc.

Cat. No. 184-0 Net **$3.23**



(J) G-C ELECTRONIC CONTACT CLEANER HYPODERMIC NEEDLE INJECTOR—Here's a handy applicator made on the hypodermic principle to inject cleaners and oils into shafts, controls and tight places.

Cat. No. 8393 Net **$ .48**

(K) G-C DE-OX-ID KIT WITH NEEDLE INJECTOR—Kit contains 2 oz. bottle of De-Ox-Id and a hypodermic needle type injector for making it easy to apply.

Cat. No. 8460 Net **$1.42**

G-C CONTROL KLEENER—Cleans and lubricates Volume, Brightness, Tone and other controls. Also good for push buttons, switches, contacts and tuners.

Cat. No. 65-16 16-oz. Net **$1.95**

(L) G-C NON-TOXIC ELECTRO-TET CLEANER—Chlorothene, one of the least toxic of the Chlorinated Solvents. Closely parallels Carbon Tetrachloride, but much safer. Non-inflammable and fast drying.

Cat. No. 10-G 1 Gallon Net **$7.08**

G-C KLEEN-TEX CLEANER—A safe, slow-burning, high flash, inexpensive cleaner for motors, chassis, vacuum cleaners, etc. Removes grease, oil, wax and tars.

Cat. No. 11-G 1-Gallon Net **$3.27**

(M) G-C SOLDERING PASTE—New high quality, non-corrosive soldering paste for radio and electrical work.

Cat. No. 1207 2-oz. Net **$ .42**

(N) G-C PHONO-TURNTABLE MOTOR & GEAR LUBRICANT—A new special lubricant for phonographs. Formulated so that the lubricant clings to the surface of the parts. Eliminate trouble on phono repairs by using the best.

Cat. No. 1223 2-oz. Net **$ .53**

(O) TRANSISTOR Z5 SILICONE COMPOUND—G-C Silicone Compound is applied to transistor and chassis at the factory. IT MUST BE RE-APPLIED to transistor and chassis when replacing transistors.

Cat. No. 8101 1-oz. Net **$2.10**

(P) G-C RUF-KOAT WRINKLE VARNISH—The only finish that will air dry and give you a professional wrinkle job without baking. Colors: Black, Gray and Brown (Specify Color).

Cat. No. 60-2 2-oz. Net **$ .67**

(Q) RUF-KOAT SPRA-KOAT—In power spray cans.

Cat. No. 60-12 12-oz. Black Net **$2.25**
60-13 12-oz. Gray **$2.25**

(R) G-C FELT-KOAT FLOCK FINISH SPRAY KITS—The new G-C method of applying flock with the G-C patented gun. It distributes flock evenly and blows each fibre into the undercoat vertically with great power. The flock in reality "flocks to the undercoat in a heavy velvet coat."

Cat. No. 180-2 Deluxe Kit Complete Net **$12.50**

(T) G-C FLOCK SIZING UNDERCOAT—A neutral base undercoat. This is first applied to the surface being flocked and then the flock spread over the wet surface.

Cat. No. 180-4 4-oz. Net **$ .72**

(V) G-C FELT-KOAT SPECIAL FLOCK PATENTED BLOWER GUN—This gun distributes the flock evenly and blows each fibre into the undercoat vertically with great force, thereby giving a smooth, velvet finish.

Cat. No. 180-3 Flock Blower Gun Net **$6.75**

(W) G-C CONTROL GUN KIT—Cleans and lubricates noisy volume controls. Constructed of solid aluminum—will not rust.

Cat. No. 9285 Net **$4.50**

(X) CONTACT BURNISHING TOOL KIT—A complete kit for the servicing of relays, switches, etc. where critical contact points must be kept clean for ideal operating conditions.

Cat. No. 9339 Complete Kit Net **$ .75**

FREE 400-PAGE CATALOG

shows all GC products. Ask your distributor or write direct.

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INJECTORALL ELECTRONICS CORPORATION • BROOKLYN, N. Y.

AIR CONDITIONER

Aero-Kleen

Oil spray for air-conditioner filters, dripless and scented.

495	16 oz. spray can	net $1.29

CEMENTS & GLUES

Grip-Well

Non-slip compound for dial cords, and slipping phono turntables.

68	2 oz. glass bottle	net $ .48

Speaker Cement

Vibration proof, fast drying, forms flexible bond; brush in cap.

201	2 oz. glass bottle	net $ .48

Stik-It

All purpose glue in squeeze bottle, spreads white, dries clear.

39	2 oz. squeeze bottle	net $ .24

CHEMICAL SERVICE AIDS

E-Z Off Yoke Remover

Loosens frozen yokes on picture tubes; with plastic needle.

40	3 oz. spray can	net $1.19

CIRCUIT COOLERS

Chill-It

A refrigerant spray, to pin-point defective electronic components.

179-6	6 oz. spray can	net $1.29
179-16	16 oz. spray can	net $1.79

COATINGS & INSULATORS

Clear Spray

A transparent plastic spray, waterproofs, insulates, prevents rust.

399	16 oz. spray can	net $1.29

Hi-Volt

Red insulator, prevents arcing and corona in high voltage circuits.

129-6	6 oz. spray can	net $1.29
129-16	16 oz. spray can	net $2.28

FURNITURE POLISH

Renew

Scratch cover polish for dark finishes; with cloth.

30WC	6 oz. aerosol can	net $ .90

OILS & LUBRICANTS

Spot Oil

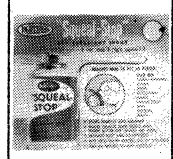
Non-gumming, for tape-recorders and record players; with plastic needle.

10-3	3 oz. spray can	net $ .90
10-16	16 oz. spray can	net $1.79

Squeal-Stop

Dry lubricant, leaves no oily film, won't affect wires; with plastic needle.

50	3 oz. spray can	net $ .90



CLEANERS

Contact Cleaner

Superior non-toxic spray solvent, dries quickly; with 4" steel needle.

999WN	6 oz. spray can	net $1.79

Degreaser No. 3

Air drying cleaning compound, excellent for ultrasonic application.

3	1 gal. can	net $6.90

Lens Kleen

Plastic cleaner, antistatic, for plastic TV windows and meters; with cleaning cloth.

20	6 oz. aerosol can	net $ .99

Fidelity Record Cleaner

Antistatic spray, cleans and protects records; with record cleaning cloth.

70WC	3 oz. spray can	net $ .90

Hi-Fi Control Cleaner

Cleaner and lubricant for volume controls; with plastic needle.

799-3	3 oz. spray can	net $ .90

Tape Head Cleaner

Cleans tape recorder heads, removes squeal; with needle and wire cleaner.

250	3 oz. spray can	net $1.19

Super 100

Tuner cleaner and lubricant, will not affect plastics; with 6" steel needle.

100-8	8 oz. spray can	net $2.25

Tuner Cleaner

Cleaner and lubricant for TV tuners and controls, non-toxic, non-flammable.

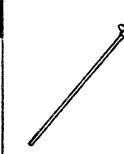
899-3WN	3 oz. spray can with plastic needle	net $ .89
899-6	6 oz. spray can only	net $1.79
899WN	6 oz. spray can with 6" steel needle	net $1.95
899-16	16 oz. spray can with 6" steel needle	net $2.99

NEEDLES ONLY

Injectorall Steel Needle

Stainless steel tube with special fitting for INJECTORALL spray cans.

6N	6 inch needle	net $ .66



PAINTS & VARNISHES

Siliconized Spray Paints

211—Transformer Black—15 oz.	net $1.29
212—Appliance White—15 oz.	net $1.29
213—Antenna Aluminum—15 oz.	net $1.29
214—Metallic Gold—15 oz.	net $1.29
215—Ham Shack Grey—15 oz.	net $1.29

Anti-Fungus Varnish

Conforms to MIL 173A specifications, natural color; prevents fungus growth.

15-16	16 oz. spray can	net $2.40
15G	1 gal. can	net $14.95

INJECTORALL
REG. U.S. PAT. OFF.

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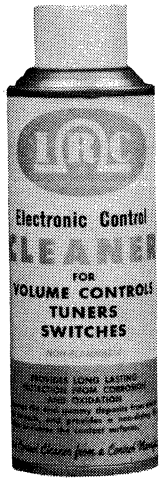
Net

Service Accessories

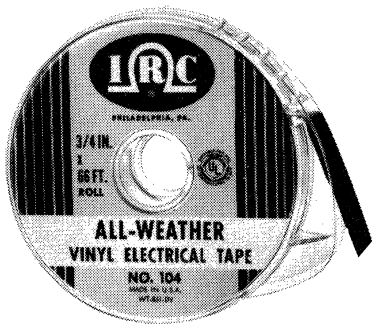
INTERNATIONAL RESISTANCE COMPANY



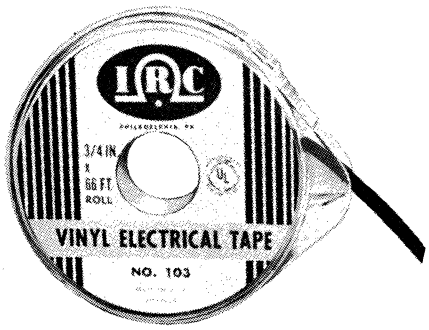
ELECTRONIC CONTROL CLEANER. IRC's Electronic Control Cleaner provides positive, long-lasting protection against damaging corrosion and oxidation. Sprayed on volume controls, tuners, switches and other sensitive components, it quickly removes dirt and clogging gum . . . deposits a non-drying film that lubricates contact surfaces.

VINYL ELECTRICAL TAPES for fast, safe, one-hand insulating. Has everything technicians, servicemen and hobbyists want.

- Meets MIL-I-7789A
- 2 to 18 times stronger than any other tapes
- UL approved for a single wrap
- Provides a tight insulated plastic seal that resists abrasion, water, acids and alkalies
- Adheres readily to all shapes
- Excellent for insulating tools



NEW ALL-WEATHER TAPE — TYPE 104 for heavy duty outside or inside service when applying at temperatures below 40°F. Ideal for telephone and electric utilities, TV antenna installation and other applications requiring dependable service at extreme temperatures.



GENERAL PURPOSE TAPE — TYPE 103 for use under less adverse conditions for TV servicing, routine maintenance, insulation and wire splicing, and industrial plant maintenance of electrical equipment.

SIZES — TYPE 104 and TYPE 103

3/8" wide by 20 feet long*	3/4" wide by 20 feet long*
3/8" wide by 36 yards long*	3/4" wide by 66 feet long**

TAPE-AND-TEAR DISPENSER. Seal and insulate in one fast movement. Save tape and time. Sturdy dispenser keeps tape clean and prevents stretch. Cutting blade is shielded. Holds 66 feet of 3/4" tape.

* Type 103 only
** Types 103 and 104

INTERNATIONAL RESISTANCE COMPANY
Distributor Division
Philadelphia, Pa. 19108

© U.C.P., Inc.

12 KRYLON SPRAY WAYS TO SAVE YOU TIME...LABOR...MONEY!

CLEANER-LUBRICANT—For tuners, volume controls, switches. Provides lasting protection from corrosion and oxidation. Removes dirt, gummy deposits. Leaves non-toxic lubricating film. No carbon tetrachloride. 16 oz., $1.95; 6 oz. 98¢.

CRYSTAL CLEAR—Acrylic spray coating for TV, radio, electronic use. Humidity and dust protection. Prevents rusting and pitting. High dielectric strength. Pint size, $1.95; 5 oz., 98¢.

RUST RELEASE—Penetrating oil spray, instantly and easily frees rusted bolts and nuts that a wrench can't budge. Lubricates, too. 15 oz., $1.69; 6 oz., 98¢.

CLEANER AND DEGREASER—Dissolves grease and oil deposits so that they can be rinsed away with water. Excellent for cleaning inaccessible places. 15 oz., $1.39.

ELECTRIC MOTOR CLEANER—No washing, wiping or flushing! Removes grease, oil and dirt by mechanical and chemical solvent action. No carbon tetrachloride! 16 oz., $1.69.

RED INSULATING VARNISH—Tough, lasting protective film for motor windings, armatures, etc. Won't crack, char, deteriorate. Fast drying! Pint size, $1.95.

SILICONE LUBRICANT—Stops sticking and squeaking o doors, windows, drawers, hinges. Lubricates and protects a same time. Retards rust on metals. Repels water. 16 oz., $1.95

DULLING SPRAY—A "must" in TV and photographic stu dios. Reduces glare and reflections from shiny surfaces Simplifies lighting. Use for both black & white and color work Semi-drying, removable. 16 oz., $1.95.

BEAUTIFUL COLORS—Choice of 26 regular enamel color and 7 glowing fluorescent paints. Use for repainting, colo coding, touch-up or safety. Indoors or outdoors. Enamels Pint size, $1.79; 5 oz., 98¢. Fluorescents: Pint size, $2.79 5 oz., $1.19.

HIGH-HEAT ALUMINUM—Withstands temperatures up t 500° for long periods... up to 1000° for intermittent periods Exceptional film thickness. Pint size, $2.49.

RUST MAGIC—Tough, penetrating primer. Stops rust, pro tects metal. Dry in 20 minutes... top coat in 2 hours. Com patible with lacquers, enamels, vinyls, acrylic latex finishes etc. Pint size, $1.79.

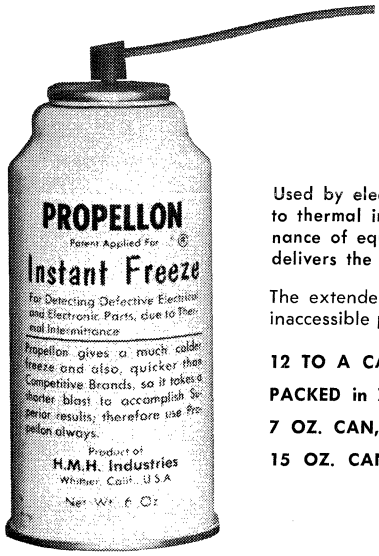
If you prize it... KRYLON-ize it!

Contact your radio-TV jobber or write for Krylon's new industrial products catalog

KRYLON INC., NORRISTOWN, PA.

© U.C.P., Inc.

Heeger, Inc., Los Angeles, California, as national sales administrators, present the following chemicals that have found favor with engineers, laboratory technicians and production in industry, to assist them in procuring the best proven material to enable them to arrive at the best results.



From the laboratories of

H. M. H. INDUSTRIES

PROPELLON INSTANT FREEZE

Used by electronic engineers and technicians for detecting defective electronic and electrical parts, due to thermal intermittance. Valuable in the laboratory, field testing, service bench or field work, maintenance of equipment and in the electronic and electrical analysis of trouble. Propellon "Instant Freeze" delivers the lowest temperature practical for above uses. Odorless, non-toxic and non-flammable.

The extender facilitates in directing the spray directly onto the area tested. Also aids in getting into inaccessible places.

12 TO A CASE

PACKED in 7 OZ. CANS AND 15 OZ. CANS — 12" EXTENDER FREE WITH EACH CAN

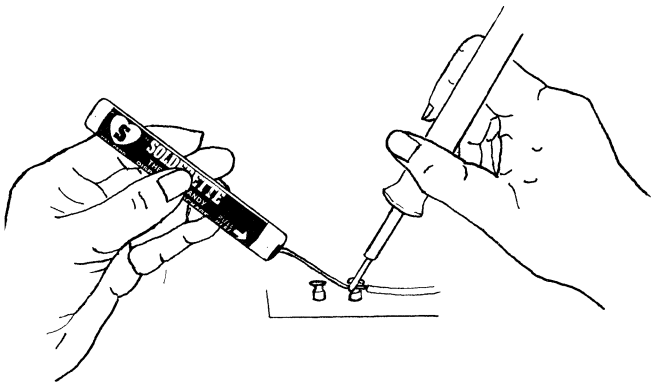
7 OZ. CAN, with 12" extender ..... **ea. $1.45**

15 OZ. CAN, with 12" extender ..... **ea. $2.25**

From the laboratories of

V. SMOOT

SOLDERETTE



NEAT • HANDY • SAVING

- **ALWAYS READY**
- **NO FUSS**
- **NO TANGLE**
- **NO DECEPTION**
- **MORE SOLDER**
- **LESS PACKAGE**

Contents - weight • size • composition - ALWAYS GIVEN

THE HANDIEST AID TO SOLDERING

THE PACKAGE IS A HANDLE THAT HOLDS
THE SOLDER FIRMLY AS IT IS APPLIED.
PULLS OUT EASILY AS NEEDED.
FOLD BACK ALONG SIDE FOR STORAGE.

TAKES VERY LITTLE SPACE IN TUBE CADDY, TOOL BOX OR WORK BENCH.

— THE BEST MIL - SPEC SOLDER —

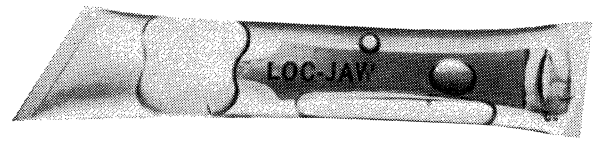
Dispenser ..... **ea. .39**

50 TO A DISPLAY CARTON

From the laboratories of

HASCOL ENTERPRISES

LOC-JAW



A SCIENTIFICALLY COMPOUNDED ADHERENT FORMULA

"Loc-Jaw" is an "Epoxy" base compound for bonding metal to metal, glass to metal, glass to glass, glass to wood, wood to wood, metal to wood, etc. Properly proportioned, it hermetically seals small parts and connections. After setting, it actively resists salt water and salt air, gasoline, chemicals and solvents of all types and withstands temperatures up to 300° F. Applicable to many industrial uses. Packed in its own plastic container and applicator. Indispensable where an adherent or sealer is needed.

INDIVIDUAL PLASTIC CONTAINER ..... **ea. 50c**

BAG OF 10 ..... **per bag 4.50**

From HASCOL LABORATORIES

SAL-MET

NON-CORROSIVE FLUX

- **SOLDERS COPPER TO ALUMINUM**
- **ALUMINUM TO ALUMINUM**
- **SOLDERS ALL METALS**

A scientific laboratory non-corrosive flux for soldering all metals. By using "SAL-MET," copper can be soldered to aluminum, aluminum to aluminum, copper to steel, copper to copper; in fact, any metal to metal is possible. No special preparation on material to be soldered. Use conventional solder, applied with quick heat, regular soldering iron, torch or pot.

1 oz. Tubes ..... **ea. .95**

1 lb. Can ..... **ea. $7.88**

WRITE FOR COMPLETE CATALOG — PRICES SUBJECT TO CHANGE

L M B • LOS ANGELES, CALIF.

 © U.C.P., Inc.

"QUIETROLE"... the original LUBRICANT CLEANER

TRADE MARK REG. U.S. PAT. OFF.

SPRAY IT or DROP IT...

the New QUIETROLE SPRAY-PACK

or the

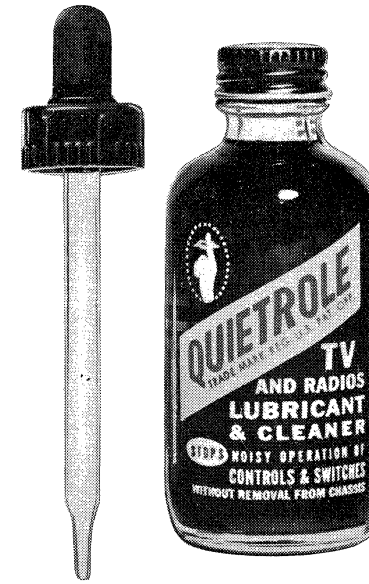
QUIETROLE

BOTTLE with the Eye Dropper

"QUIETROLE" is the preferred, standard product of the industry! Your guarantee for quieting noisy television and radio controls, switches and other moving parts is QUIETROLE. Here is the original, non-inflammable, most reliable lubricant-cleaner on the market today—developed through years of factual and authentic research.

There is no substitute for QUALITY . . . get QUIETROLE TODAY

A First of the Industry . . . A Sixteen Year Plus Record of Proven Superiority. Built to Meet a Demand, Not a Price



QUIETROLE BOTTLE

CAT. NO.	SIZE	MIN. ORDER	MIN. RE-ORDER	DISTR. NET RESALE PRICE
10-2	2 oz.	24	24	$1.49
10-3	4 oz.	16	8	2.54
10-4	8 oz.	8	6	5.07

QUIETROLE BOTTLE with BRUSH-N-CAP

10-3A	4 oz.	16	8	$2.64

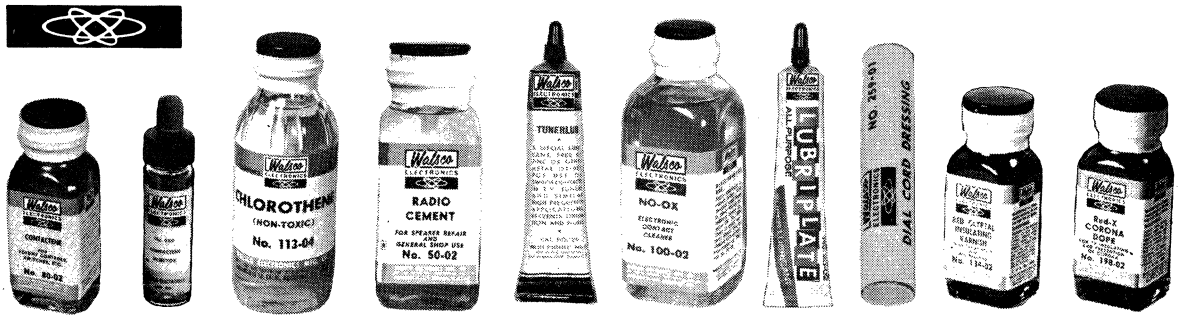
QUIETROLE SPRAY-PACK (CAN)

10-5	6 oz.	12	12	$2.79
10-6	3 oz.	12	12	1.79

Mfd. by

QUIETROLE COMPANY, SPARTANBURG, S. C.

Walsco ELECTRONICS CHEMICALS



Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ Ⓖ Ⓗ Ⓙ Ⓚ

(A) WALSCO CONTACTENE

Lubricates as it cleans; fast acting, quick drying. Eliminate volume control noise with this specially compounded electronic contact cleaner. Absolutely anti-oxidant.

Cat. No.			Net $
	80-02	2-oz. bottle	.53
	80-04	4-oz. bottle	.67
	80-08	8-oz. bottle	1.13
	80-16	16-oz. can	1.50
	80-06	6-oz. spray can	.98
	80-12	16-oz. spray can	1.55

(B) CONTACTENE INJECTOR

A fine surgical-grade steel needle. Designed to be inserted into places where ordinary applicators cannot reach. Makes lubrication of most volume controls and other parts possible without unsoldering or dismantling.

Cat. No. 989 Net $ .45

(C) CHLOROTHENE (NON-TOXIC)

An amazing, new powerful solvent for all-purpose cleaning of any electronic component, switch, chassis, etc. Quickly dissolves grease, dirt, oils, tar, and waxes. Safe even indoors, under normal conditions.

Cat. No.			Net $
	113-04	4-oz. bottle	.57
	113-16	16-oz. bottle	Net 1.32

(D) WALSCO RADIO CEMENT

A fast drying, elastic adhesive that will not become brittle with age. Compounded especially for speaker repair. Not affected by cold or high temperature, moisture or oil.

Cat. No.			Net $
	50-01	1¾ oz. tube	.48
	50-02	2 oz. bottle	.48
	50-04	4 oz. bottle	.72
	50-08	8 oz. bottle	1.27
	50-16	1 pt. bottle	2.18

(E) WALSCOLUB-B

Electrically neutral lubricant that prevents corrosion. Walscolub-B makes for smooth, noise-free operation of electrical contacts, band switches, attenuators, push button tuners, remote control switches and other contacts.

Cat. No. 22-01 1¾ oz. tube Net $ .48

(F) WALSCO "NO-OX"

A liquid, non-gumming chemical that dissolves corrosion with amazing speed without the use of drastic solvents. Lubricates and protects slide contacts long after application.

Cat. No.			Net $
	100-01	1 oz. bottle	.67
	100-02	2 oz. bottle	.97
	100-16	1 pt. bottle	7.50
	100-33	1 gal. can	38.17
	100-34	5 gal. can	177.99
	100-06	6 oz. spray can	2.33

(G) WALSCO "LUBRIPLATE"

Super lubricant, grease type, protective. Lubriplate reduces friction loss, prevents rust and corrosion. Extends bearing life 50% . . . increases mechanical efficiency 20% over ordinary lubricant.

Cat. No. 23-02-S 2 oz. tube Net $ .75

(H) DIAL CORD FRICTION STICK

To prevent slipping, simply rub Walsco Friction Stick on dial cord or belt. Increase grip, lengthens life of cord.

Cat. No. 259-01 Net $ .25

(J) WALSCO GLYPTAL

An outstanding insulating varnish. Resists heat, oils and acid. High arc resistance makes it essential in electrical and electronic application.

Cat. No.			Net $
	134-02	2 oz. bottle	.57
	134-08	8 oz. bottle	1.65

(K) WALSCO RED CORONA DOPE

Positively stops high voltage "Corona". Protects against "shorts" in high voltage circuits of TV sets. Completely coat surfaces and sharp corners to stop dangerous corona effect.

Cat. No. 198-02 2 oz. bottle Net $ .72

AIR-DRY WRINKLE VARNISH

Factory like finish without baking. Can be used on wood or metal. Gives a hard tough, durable finish. Covers in one, easy to apply coat.

Cat. No.			Net $
	145-02	Black, 2 oz. jar	.67
	145-06	Black, 6 oz. jar.	1.87
	145-12	Black, 16 oz. Spray can	2.25
	145-33	Black, 1 Gallon Can	15.91
	146-02	Gray, 2 oz. jar	.67
	146-12	Gray, 16 oz. Spray can	2.25
	146-33	Gray, 1 Gallon Can	16.49

WALSCO SOLVENT AND THINNERS

TYPE CEMENT	USE SOLVENT	CAT. NO.	QTY.	NET
Plastic Cement	*Cement	201-02	2 oz.	$ .45
Radio Cement	Solvent	201-04	4 oz.	.72
		201-08	8 oz.	.82
		201-16	16 oz.	1.32
		201-33	1 gal.	4.80
Polystyrene Cement	Polystyrene	202-02	2 oz.	.45
	Solvent	202-04	4 oz.	.67
		202-33	1 gal.	3.68
Vinylite Cement	Lacquer	203-02	2 oz.	.48
Radio Cement		203-33	1 gal.	4.95
Crystallizing Lacquer		203-34	5 gal.	21.30
Fungus Lacquer				
Telephone Black & Grey				
Light Bulb Coloring				
Anti-Corona Lacquer				
CR-Tubecoat				
Rubber Cement		204-04	4 oz.	.67
Wrinkle Varnish	Thinner	204-33	1 gal.	3.68
Flock Undercoat				
Elec. & Resistor Cement				
Wood Glue	Water			
Aluma-Flux				

* Cement Solvent should be used to loosen hardened cement on speaker cones, voice coils, etc., Solvent will discolor Plastic and Radio Cements if used as a thinner; Lacquer Thinner is recommended for this purpose.

Net
© U.C.P., Inc.

Walsco ELECTRONICS SPRAY CHEMICALS

KLEEN-TUNE

TUNER CLEANER

Completely cleans and lubricates all tuners. Kleen-Tune is a non-flammable, non-toxic cleaner . . . formulated to clean, lubricate and renew all styles of TV tuners in one simple operation.

Kleen-Tune provides a protective film against noise and oxidation and is not harmful to other components. Just apply Kleen-Tune, then work the control a few times. Kleen-Tune does the rest. Saves time and money.

Kleen-Tune is easy to apply, dries quickly and gives complete satisfaction to the serviceman and customer.

Cat. No. 40-800 Net **$1.98**
Std. Pkg.: 12

TUBE CADDY SIZE

KLEEN-TUBE
TUNER CLEANER

Same High Quality Tuner cleaner in a 3 oz. spray can that fits in tube caddies.

Cat. No. 40-300 Net **$ .98**

INSUL-VOLT

HI-VOLTAGE INSULATOR WITH SURE SHOT CONFINED STREAM

Insul-Volt is specifically designed to meet the requirements of Military Specification MIL-V-1137-A, Grade BA, Types M & N.

Insul-Volt is positive insulation against Hi-Voltage leaks, arcing and corona shorts such as Hi-Voltage sections of TV sets, or any electrical apparatus requiring this superior protection.

Insul-Volt is formulated and recommended for application and use on transformers, electrical motors, generators and other types of electrical windings, operating at a maximum temperature of 275°F.

Insul-Volt is flexible, heat and acid resistant and impervious to oil, grease and moisture. Insul-Volt is an excellent protection for any exposed wiring or open connection requiring positive lasting insulation. Insul-Volt when applied properly will provide better than 20,000 volts and up of dielectrical strength. Follow directions carefully to insure maximum Hi-Voltage dielectric strength.

Cat. No. 40-804 8 Oz. Spray Can Net **$2.79**
Std. Pkg.: 12

FREEZE-MIST

CIRCUIT COOLER

Saves hours locating defective intermittent circuit components caused by temperature changes. Walsco Freeze-Mist cools instantly pinpointing faulty capacitors, resistors, transistors, cold solder and oxidized junctions, etc. due to temperature variances. Plus thousands of other uses in electronic field.

Cat. No. 40-808 8 oz. Spray Can Net **$1.98**
Std. Pkg.: 12

PEN-A-LUBE

VERY FINE PENETRATING & LUBRICATING OIL FROZEN YOKE REMOVER

Pen-A-Lube is a formulation of very fine penetrates and lubricants formulated for those hard to get at spots.

Pen-A-Lube is highly recommended as a lubricant for use on delicate instruments, record changes, tape recorders and stereo controls.

Pen-A-Lube's exacting formulation gives you positive action against rust and corrosion. Pen-A-Lubrication as a liquid wrench for loosening badly rusted or frozen parts such as frozen yokes or rusty control nuts and screws has been found to be highly effective.

Pen-A-Lube provides the answers to questions concerning rust, penetration, lubrication and is a very fine all purpose light machine oil.

Cat. No. 40-812 8 oz. Spray Can Net **$1.79**
Std. Pkg.: 12

OX-NOX

VOLUME CONTROL & CONTACT CLEANER

Ox-Nox is the answer for removing oxidation and noise from volume controls and electrical contacts. Ox-Nox cleans, lubricates and restores controls and tuning condensers back to like new operating condition.

Ox-Nox is a non-inflammable and non-toxic cleaner and lubricant. Ox-Nox is blended to provide against oxidation and noise.

Cat. No. 40-802 8 Oz. Spray Can Net **$1.98**
Std. Pkg.: 12

TUBE CADDY SIZE OX-NOX

VOLUME CONTROL & CONTACT CLEANER

Same High Quality cleaner in handy 3 oz. tube caddy sized spray can.

Cat. No. 40-302 Net **$ .98**

KLEEN-UP

WATERLESS HAND CLEANER

Walsco's own waterless hand cleaner Kleen-Up is so simple to use — just press the button. Using a handful of suds, wash hands and wipe off with clean towel.

Kleen-Up is ideal for every type of hand cleaning problem whether it's grease, grime, cement or ink. Kleen-Up does not contain harsh abrasives or strong irritating chemicals.

Kleen-Up is formulated from high grade liquid detergents fortified with lanolin and germ killing trichlorphenate with an aromatic additive. Kleen-Up is considered a very fine hand and skin conditioner and regular use is not harmful.

Cat. No. 40-810 8 Oz. Spray Can Net **$1.49**
Std. Pkg.: 12

UNI-SOL

UNIVERSAL SOLVENT & THINNER FOR CEMENTS, LACQUERS AND LIQUID INSULATORS

Uni-Sol is the all purpose fast acting solvent to loosen and remove most cements, liquid insulators and thinners and all commercial lacquers.

Uni-Sol is a specially engineered safe solvent and thinner prepared as a loosening agent in speaker repair to remove old cones, frames, spiders and voice coils.

Walsco's Uni-Sol is highly recommended for use as a general purpose all around loosening and thinning agent.

Cat. No. 40-814 8 Oz. Can Net **$ .98**
Std. Pkg.: 12

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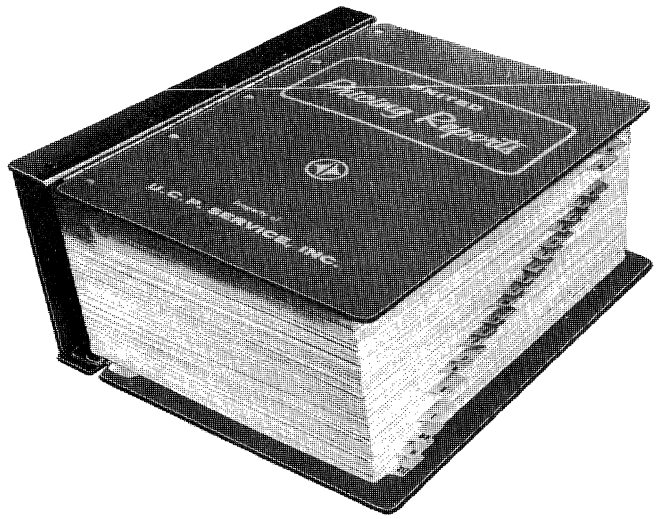

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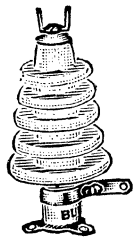
DELIVERY

Delivery is often dependent on availability of raw materials. Check with your distributor for delivery information at the time you place your order.

Chokes and Hardware

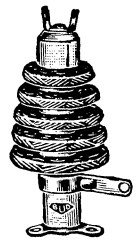
TRANSMITTING CHOKES



CERAMIC-COATED TYPE

Consists of five graduated pies continuously wound. Pies are not resonant on an amateur band. Distributed capacity kept at a minimum. Each choke is wound on 9/16" diameter steatite rod, has connection lugs and a mounting foot.
All chokes have a heavy ceramic coating which prevents moisture absorption and enables them to withstand momentary overloads without collapsing between the individual pies.

Bud No.	Ind. Mh	Amp	DC Ohms	Net Each
CH-568	2.2	1.	5	$3.15
CH-569	4.3	.6	12	3.45



OPEN TYPE

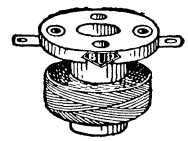
Same as above, but enamel-covered wire is used without overall ceramic coating.

CH-578	2.2	1200*	4.8	$2.25
CH-579	4.3	1000*	7	2.25

*In milliamperes.

LATTICE WOUND RF CHOKES

SILK-COVERED WIRE TYPE



Wound from silk covered enameled copper wire on a white ceramic bobbin. Leads terminated with two convenient soldering lugs. Will take a 6-32 screw through the center of the form. Thoroughly impregnated against moisture. Base diameter, 1 1/16"; 1 5/8" between ends of leads.

Bud No.	Induct. Mh	DC Ohms	Current Ma	Height In.	Net Each
CH-1212	2.5	28	125	15/16	$0.63
CH-1214	5.5	46	125	15/16	.83
CH-1215	8	60	125	15/16	.83
CH-1217	16	84	125	15/16	.83
CH-1218	30	190	100	15/16	.85
CH-1219	60	279	90	15/16	1.01
CH-1220	80	332	80	15/16	1.08

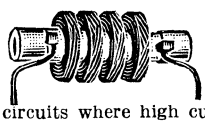
ENAMEL-COVERED WIRE TYPE

Same as above, but wire is enamel-covered type.

CH-1222	2.5	22	200	15/16	$0.60
CH-1224	5.5	33	200	15/16	.60
CH-1225	8	40	200	15/16	.60
CH-1227	16	59	200	15/16	.60
CH-1228	30	88	190	15/16	.68
CH-1229	60	130	180	15/16	.75
CH-1230	80	160	175	15/16	.83

PIE WOUND RF CHOKES

SILK-COVERED WIRE TYPE



Continuous winding of silk covered enameled copper wire. The pies constituting this winding are wound on a 1/4" diameter ceramic core. Available with strap (**S**) and wire (**W**) leads. CH-876 is a heavy duty choke for circuits such as transmitter plate circuits where high currents are present. All are 1 1/2" long.

Bud Number	Induct. Mh	DC Ohms	Current Ma	Weight Lbs.	Net Each
CH-920S	2.5	45	125	1/4	$0.63
CH-922S	5.5	60	125	1/4	.75
CH-924S	10.0	78	100	1/4	1.08
CH-876S	2.5	16	250	1/4	.93
CH-920W	2.5	45	125	1/4	.63
CH-922W	5.5	60	125	1/4	.75
CH-924W	10.0	78	100	1/4	1.08
CH-876W	2.5	16	250	1/4	.93

ENAMEL-COVERED WIRE TYPE

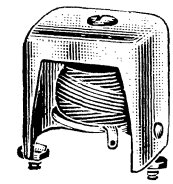
Same as above, but wire is enamel-covered type.

CH-926S	2.5	25	200	1/4	$0.60
CH-927S	5.5	32	200	1/4	.60
CH-928S*	10	49	200	1/4	.60
CH-929S	2.5	11	400	1/4	.60
CH-926W	2.5	25	200	1/4	.60
CH-927W	5.5	32	200	1/4	.60
CH-928W*	10	49	200	1/4	.60
CH-929W	2.5	11	400	1/4	.60

*Wound with one pie only.

IRON CORE RF CHOKES

SILK-COVERED WIRE TYPE



Improves the efficiency of any circuit requiring an RF choke. Finely divided molded metallic core improves "Q"; results from DC resistance being 40–50% less for a given inductance than regular air-core types. DC voltage drop through the choke is considerably less, yet the choking action is equally as good. Windings are silk-covered enamel wire terminated on handy soldering lugs. Chokes mounted in small round shield can, 1 3/8" x 1 3/8" x 1 7/16".

Bud Number	Induct. Mh	DC Resis. Ohms	Current Ma	Wt., Lbs.	Net Each
CH-1283	16	57	125	1/4	$1.46
CH-1284	30	90	100	1/4	1.50
CH-1285	60	150	100	1/4	1.71
CH-1286	80	190	90	1/4	1.83
CH-1287	125	340	90	1/4	2.03

ENAMEL-COVERED WIRE TYPE

Same as above, but wire is enamel covered only.

CH-1293	16	38	200	1/4	$1.20
CH-1294	30	62	190	1/4	1.20
CH-1295	60	105	175	1/4	1.20
CH-1296	90	162	150	1/4	1.28
CH-1297	125	220	150	1/4	1.35

Bud No. CH-294 Shield Can—For all RF chokes, above. Net Each..... 30c

HEAT RADIATING PLATE AND GRID TUBE CONNECTORS

Fit all sizes of industrial and transmitting vacuum tubes. Dual purpose design permits use in making connections to plate or grid terminals, plus provide large heat radiating surface for heat dissipation from glass seal and tube element. Eight sizes fit all grid and plate leads; provide sufficient heat radiation for any tube in 50–2000 watt range. Machined from special aluminum rods. Edges rounded to minimize corona.

Bud No. TC-	Lead Hole	For Tube Types	Size L. x O.D.	Net Each
488	.052"	3C24, 24, 24G, 25T, 27	.900" x .615"	$0.68
487	.062"	UH50, HK24, 304B, 829B, 832A, 834	.900" x .615"	.68
489	.072"	35T, 35GB, 75TH, HK-257B, HK254, 484, 8001, 4E27	.900" x .615"	.68
1923	.110"	.....	1.0" x .738"	.75
1924	.125"	HK57, 152TH	1.0" x .738"	.72
1920	.375"	4-125A, 150TH, 2-150D, 240R, 250TH, 250TL, 420A, 802, 803, 804, 807, 808 grid, 814, 815, 828, 2E24, 2E26, 3E22, 4-65A, 4-250A, 816, 6146, 1625, 4D32, 807W, 1B3GT, 6BG6G, 6CD6G	1.0" x .738"	.68
1925	.125"	304TH, 304TL	1.0" x .924"	.74
1921	.570"	ZB60, HF60, HF100, 111H, 211H, 230H, HF175, HF300 grid, 100R, HK375C, 450TH, 454, 750TH, 805, 806, 808, 809, 810, 811, 812, 813, 828, 833, 866, 854, 1500T, 2000T, 1054, 5331, 5332, 8000, 8003, 2005	1.0" x .924"	.80
1926	.810"	WL468, WL463, WL460, HF200, HF201, MF300	1.0" x 1.115"	1.05

MOUNTING BRACKETS

Permit mounting of midget condensers, controls and other components in any position. Made of 3/4" wide, cadmium plated steel. Right-angle design with short side have two mounting holes; long side with 3/8" slot. No. AB-549 has additional 1/2" dia. hole centered on 3/8" slot.

Bud No.	Size	Wt. Per 100, Lbs.	Net Each, Lots of 1-99	100-199	200-299
AB-549	1 3/8" x 2"	2 1/4	9c	8c	7c
AB-550	1 3/8" x 2"	2	9c	8c	7c

ANGLES AND BRACKETS

Similar to above; made of 3/4" wide, nickel-plated brass. Right-angle design; Type 1 has single hole at end of each angle; Type 2 has two holes on long side; single hole on short side.

Bud No.	Size, Inches	Type	Wt. Per 100. Lbs.	Net Per 100, Lots of 1-99	100-199	200-299
AB-444	1/2 x 1/2	1	1/2	$ 3.63	$3.27	$2.90
AB-445	3/4 x 3/4	1	1 1/4	4.20	3.78	3.36
AB-446	1 x 1	1	2	5.55	5.00	4.44
AB-447	1 1/2 x 1 1/2	1	2 1/2	6.75	6.48	5.76
AB-631	1 x 1/2	1	1 1/4	4.65	4.19	3.72
AB-632	1 1/2 x 3/8	1	1 1/2	5.70	5.13	4.56
AB-633	2 x 5/8	2	1 3/4	7.50	6.75	6.00
AB-634	3 x 3/4	2	2 1/2	9.25	8.33	7.40
AB-635	4 x 3/4	2	3 3/4	10.95	9.86	8.76

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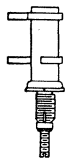
CAMBRIDGE THERMIONIC CORPORATION

CAMBION® COIL FORMS — CERAMIC AND PHENOLIC



I-a
PERMA-TORQ
Compression spring (preassembled) provides permanent locking action.

I-c
COMPRESSION LOCK
Locknut (unassembled) securely clamps split mounting stud.

I-b
SPRING LOCK
Locking spring (unassembled) maintains tension against slug screw.

I-d
LOCKNUT
Conventional locknut (jam nut) (unassembled) tightens against mounting stud.

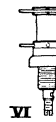
II

TWO-COLLAR TYPE
Available with a, b, c or d slug-locking devices. (see Fig. I)

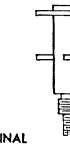
III
ONE-COLLAR TYPE
Available with either top or bottom collar.

IV
Available with b or d slug-locking devices (See Fig. I) and with collars (see Fig. II)

V



VI
CLIP-TERMINAL TYPE
Available with a or b slug-locking devices (see Fig. I)



VII

VIII
Available with a slug-locking device only (see Fig. I).

Standard Numbers: Have silicone fiberglas collars, silver-plated solder terminals, cadmium-plated studs and ceramic body unless otherwise noted. Powdered iron core except 100 mc up (Suffix One, -5), which is brass. **To Order:** Use Model number followed by Suffix One (for frequency range) and Suffix Two (for terminal and collar types). Example: 1465-1-1 for 0.2–1.5 mc with two ring terminals. Types 1996 and 2151 come with clip terminals only, and require no final suffix (Two). **Alternate Numbers:** Identical coil form to standard numbers but have tin-plated terminals, nickel-plated studs and related hardware except for brass tuning slug with rhodium flash over silver-plate. Types 1465 and 1544 employ same slug but with brass load to increase range; no alternate finish available. All units available in same variations (suffixes) at same respective prices for adjacent standard number.

SUFFIX CHART

Suffix One	Freq. Range Mc	Suffix Two	Description
-1	0.2–1.5	-1	2 ring terminals
-2	1–20	-2	2 collars, 4 terminals
-3	20–50	-3	2 collars, 2 terminals
-4	50–200	-4	1 top collar, 2 terminals
-5	100 and up	-5	1 bottom collar, 2 terminals
-6	2–40		
-7	40–300		

Cambion Number & (Alt. No.)	Fig.	Mounting Stud L. x Thread x Base Dia., Inches	Hgt. In. Above Panel	Body O.D. In.	‡	Tuning Tool Req'd.	Net Each, Lots of 1-49	50-249	250-499	500-999	1000-2499
1530-(*)-1 (3607-)	I-b	1/4 x 8-32 x 1/4 hex	19/32	.205	.....	2033-1	$0.54	$0.44	$0.38	$0.35	$0.33
1530-(*)-2, -3 (3607-)	II-b	1/4 x 8-32 x 1/4 hex	19/32	.205	9/32	2033-1	.68	.56	.50	.47	.43
1530-(*)-4, -5 (3607-)	III-b	1/4 x 8-32 x 1/4 hex	19/32	.205	.....	2033-1	.61	.50	.44	.41	.38
1531-(*)-1 (3605-)	I-c	21/64 x 8-32 x 1/4 hex	19/32	.205	.....	2033-1	.56	.46	.40	.37	.35
1531-(*)-2, -3 (3605-)	II-c	21/64 x 8-32 x 1/4 hex	19/32	.205	9/32	2033-1	.70	.58	.52	.49	.45
1531-(*)-4, -5 (3605-)	III-c	21/64 x 8-32 x 1/4 hex	19/32	.205	.....	2033-1	.63	.52	.46	.43	.40
1532-(*)-1 (3606-)	I-a	1/4 x 8-32 x 1/4 hex	19/32	.205	.....	2033-1	.54	.44	.38	.35	.33
1532-(*)-2, -3 (3606-)	II-a	1/4 x 8-32 x 1/4 hex	19/32	.205	9/32	2033-1	.68	.56	.50	.47	.43
1532-(*)-4, -5 (3606-)	III-a	1/4 x 8-32 x 1/4 hex	19/32	.205	.....	2033-1	.61	.50	.44	.41	.38
2020-(*)-1 (3608-)	I-d	1/4 x 8-32 x 1/4 hex	19/32	.205	.....	2033-1	.54	.44	.38	.35	.33
2020-(*)-2, -3 (3608-)	II-d	1/4 x 8-32 x 1/4 hex	19/32	.205	9/32	2033-1	.68	.56	.50	.47	.43
2020-(*)-4, -5 (3608-)	III-d	1/4 x 8-32 x 1/4 hex	19/32	.205	.....	2033-1	.61	.50	.44	.41	.38
1533-(*)-1 (3610-)	I-c	27/64 x 1/4-28 x 1/2 hex	1 1/16	.375	.....	1970-1	.66	.56	.49	.45	.42
1533-(*)-2, -3 (3610-)	II-c	27/64 x 1/4-28 x 1/2 hex	1 1/16	.375	5/8	1970-1	.86	.72	.65	.61	.56
1533-(*)-4, -5 (3610-)	III-c	27/64 x 1/4-28 x 1/2 hex	1 1/16	.375	.....	1970-1	.76	.64	.57	.53	.49
1534-(*)-1 (3611-)	I-a	5/16 x 1/4-28 x 1/2 hex	1 1/16	.375	.....	1970-1	.64	.54	.47	.43	.40
1534-(*)-2, -3 (3611-)	II-a	5/16 x 1/4-28 x 1/2 hex	1 1/16	.375	5/8	1970-1	.84	.70	.63	.59	.54
1534-(*)-4, -5 (3611-)	III-a	5/16 x 1/4-28 x 1/2 hex	1 1/16	.375	.....	1970-1	.74	.62	.55	.51	.47
2024-(*)-1 (3612-)	I-b	9/32 x 1/4-28 x 1/2 hex	1 1/16	.375	.....	1970-1	.64	.54	.47	.43	.40
2024-(*)-2, -3 (3612-)	II-b	9/32 x 1/4-28 x 1/2 hex	1 1/16	.375	5/8	1970-1	.84	.70	.63	.59	.54
2024-(*)-4, -5 (3612-)	III-b	9/32 x 1/4-28 x 1/2 hex	1 1/16	.375	.....	1970-1	.74	.62	.55	.51	.47
1535-(*)-1 (3615-)	I-c	13/32 x 10-32 x 3/8 hex	55/64	.260	.....	1971-1	.61	.48	.42	.39	.37
1535-(*)-2, -3 (3615-)	II-c	13/32 x 10-32 x 3/8 hex	55/64	.260	15/32	1971-1	.77	.62	.56	.53	.49
1535-(*)-4, -5 (3615-)	III-c	13/32 x 10-32 x 3/8 hex	55/64	.260	.....	1971-1	.69	.55	.49	.46	.43
1536-(*)-1 (3616-)	I-a	5/16 x 10-32 x 3/8 hex	55/64	.260	.....	1971-1	.59	.46	.40	.37	.35
1536-(*)-2, -3 (3616-)	II-a	5/16 x 10-32 x 3/8 hex	55/64	.260	15/32	1971-1	.75	.60	.54	.51	.47
1536-(*)-4, -5 (3616-)	III-a	5/16 x 10-32 x 3/8 hex	55/64	.260	.....	1971-1	.67	.53	.47	.44	.41
2022-(*)-1 (3617-)	I-b	9/32 x 10-32 x 3/8 hex	55/64	.260	.....	1971-1	.59	.46	.40	.37	.35
2022-(*)-2, -3 (3617-)	II-b	9/32 x 10-32 x 3/8 hex	55/64	.260	15/32	1971-1	.75	.60	.54	.51	.47
2022-(*)-4, -5 (3617-)	III-b	9/32 x 10-32 x 3/8 hex	55/64	.260	.....	1971-1	.67	.53	.47	.44	.41
1537-(*)-1 (3620-)	I-c	29/64 x 1/4-28 x 5/8 hex	1 45/64	.500	.....	1970-1	.71	.60	.52	.48	.46
1537-(*)-2, -3 (3620-)	II-c	29/64 x 1/4-28 x 5/8 hex	1 45/64	.500	1 1/32	1970-1	.93	.78	.70	.66	.62
1537-(*)-4, -5 (3620-)	III-c	29/64 x 1/4-28 x 5/8 hex	1 45/64	.500	.....	1970-1	.82	.69	.61	.57	.54
1538-(*)-1 (3621-)	I-a	5/16 x 1/4-28 x 5/8 hex	1 45/64	.500	.....	1970-1	.69	.58	.50	.46	.44
1538-(*)-2, -3 (3621-)	II-a	5/16 x 1/4-28 x 5/8 hex	1 45/64	.500	1 1/32	1970-1	.91	.76	.68	.64	.60
1538-(*)-4, -5 (3621-)	III-a	5/16 x 1/4-28 x 5/8 hex	1 45/64	.500	.....	1970-1	.80	.67	.59	.55	.52
2048-(*)-1 (3622-)	I-b	5/16 x 1/4-28 x 5/8 hex	1 45/64	.500	.....	1970-1	.69	.58	.50	.46	.44
2048-(*)-2, -3 (3622-)	II-b	5/16 x 1/4-28 x 5/8 hex	1 45/64	.500	1 1/32	1970-1	.91	.76	.68	.64	.60
2048-(*)-4, -5 (3622-)	III-b	5/16 x 1/4-28 x 5/8 hex	1 45/64	.500	.....	1970-1	.80	.67	.59	.55	.52
3352-(*)-1 (3632-)	I-b	5/16 x 1/4-28 x 5/8 hex	1 1/4	.500	.....	1970-1	.69	.58	.50	.46	.44
3352-(*)-2, -3 (3632-)	II-b	5/16 x 1/4-28 x 5/8 hex	1 1/4	.500	45/64	1970-1	.91	.76	.68	.64	.60
3352-(*)-4, -5 (3632-)	III-b	5/16 x 1/4-28 x 5/8 hex	1 1/4	.500	.....	1970-1	.80	.67	.59	.55	.52
3353-(*)-1 (3630-)	I-c	5/16 x 1/4-28 x 5/8 hex	1 1/4	.500	.....	1970-1	.71	.60	.52	.48	.46
3353-(*)-2, -3 (3630-)	II-c	5/16 x 1/4-28 x 5/8 hex	1 1/4	.500	45/64	1970-1	.93	.78	.70	.66	.62
3353-(*)-4, -5 (3630-)	III-c	5/16 x 1/4-28 x 5/8 hex	1 1/4	.500	.....	1970-1	.82	.69	.61	.57	.54
3354-(*)-1 (3631-)	I-a	5/16 x 1/4-28 x 5/8 hex	1 1/4	.500	.....	1970-1	.69	.58	.50	.46	.44
3354-(*)-2, -3 (3631-)	II-a	5/16 x 1/4-28 x 5/8 hex	1 1/4	.500	45/64	1970-1	.91	.76	.68	.64	.60
3354-(*)-4, -5 (3631-)	III-a	5/16 x 1/4-28 x 5/8 hex	1 1/4	.500	.....	1970-1	.80	.67	.59	.55	.52
2770-(*)-1•	VIII-a	13/32 x 10-32 x 1/4 hex	25/32	.205	.....	2780-1	.80	.68	.59	.54	.52
2770-(*)-2, -3•	VIII-a, II-a	13/32 x 10-32 x 1/4 hex	25/32	.205	9/32	2780-1	.94	.80	.71	.66	.62
2770-(*)-4, -5•	VIII-a, III-a	13/32 x 10-32 x 1/4 hex	25/32	.205	.....	2780-1	.87	.74	.65	.60	.57
2771-(*)-1•	VIII-a	35/64 x 12-28 x 3/8 hex	1 3/32	.260	.....	2780-1	1.23	1.05	.91	.84	.81
2771-(*)-2, -3•	VIII-a, II-a	35/64 x 12-28 x 3/8 hex	1 3/32	.260	15/32	2780-1	1.39	1.19	1.05	1.02	.93
2771-(*)-4, -5•	VIII-a, III-a	35/64 x 12-28 x 3/8 hex	1 3/32	.260	.....	2780-1	1.31	1.12	.98	.91	.87
2689-(*)-1	▲	.140 x 4-40 x 5/32 hex	17/32	.122	§	2375-1	.62	.52	.46	.42	.39
1996-(*) (3627-)	VI-b	9/32 x 1/4-28 x 1/2	23/32	.290	#	1971-1	.85	.73	.63	.58	.55
2151-(*) (3626-)	VI-a	9/32 x 1/4-28 x 1/2	23/32	.290	#	1971-1	.85	.73	.63	.58	.55
1540-(*)-1†	IV-b	1/4 x 10-32 x 5/16	27/32	.250	.....	1971-1	.46	.40	.36	.32	.30
1540-(*)-2, -3†	IV-b, II-b	1/4 x 10-32 x 5/16	27/32	.250	15/32	1971-1	.62	.54	.50	.46	.42
1540-(*)-4, -5†	IV-b, III-b	1/4 x 10-32 x 5/16	27/32	.250	.....	1971-1	.54	.47	.43	.39	.36
1542-(*)-1†	IV-a	.314 x 10-32 x 5/16	27/32	.250	.....	1971-1	.46	.40	.36	.32	.30
1542-(*)-2, -3†	IV-a, II-a	.314 x 10-32 x 5/16	27/32	.250	15/32	1971-1	.62	.54	.50	.46	.42
1542-(*)-4, -5†	IV-a, III-a	.314 x 10-32 x 5/16	27/32	.250	.....	1971-1	.54	.47	.43	.39	.36
1605-(*)-1†	IV-d	1/4 x 8-32 x 5/16	27/32	.250	.....	1971-1	.46	.40	.36	.32	.30
1605-(*)-2, -3†	IV-d, II-d	1/4 x 8-32 x 5/16	27/32	.250	15/32	1971-1	.62	.54	.50	.46	.42
1605-(*)-4, -5†	IV-d, III-d	1/4 x 8-32 x 5/16	27/32	.250	.....	1971-1	.54	.47	.43	.39	.36
1465-(*)-1† (1546-)	VII	1/4 x 1/4-28 x none	1 1/8	.375	.....	1970-1	.46	.40	.36	.32	.30
1465-(*)-2, -3† (1546-)	VII-, II-	1/4 x 1/4-28 x none	1 1/8	.375	.....	1970-1	.66	.56	.52	.48	.44
1465-(*)-4, -5† (1546-)	VII-, III-	1/4 x 1/4-28 x none	1 1/8	.375	.....	1970-1	.56	.48	.44	.40	.37
1544-(*)-1† (3639-)	VII-a	1/4 x 1/4-28 x none	1 1/8	.375	.....	1970-1	.46	.40	.36	.32	.30
1544-(*)-2, -3† (3639-)	VII-a, II-a	1/4 x 1/4-28 x none	1 1/8	.375	.....	1970-1	.66	.56	.52	.48	.44
1544-(*)-4, -5† (3639-)	VII-a, III-a	1/4 x 1/4-28 x none	1 1/8	.375	.....	1970-1	.56	.48	.44	.40	.37
1885-(*)	V	3/8 x 1/4-28 x 9/16	2	.500	§	1970-1	.70	.61	.55	.49	.46

*Insert proper Suffix One, from chart above, to indicate frequency. †Phenolic body. ‡Space between collars, inches. §Ring terminals only. #Clip terminals only. •Gold plated. ▲Friction-lock type, similar to IV-d illustration(s).

261-64A

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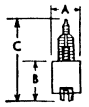
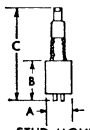
CAMBRIDGE THERMIONIC CORPORATION

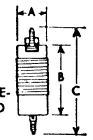
CAMBION® COIL FORMS—SHIELDED AND PRINTED CIRCUIT



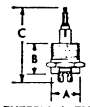
STUD-MOUNT
IX



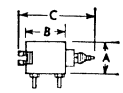
STUD-MOUNT
X



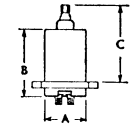
XI



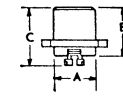
EXTERNAL THREAD
XII



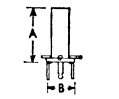
SQUARE, HORIZONTAL
Also available without pins.
XIII



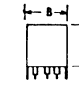
FLANGE-MOUNT
XIV



FIXED
XV



VERTICAL
XVI

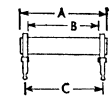


SHIELDED
XVII

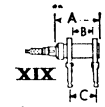
Supplied with tuning slug assembled; other parts in bulk. Mounting hardware included. **To Order:** Add suffix for frequency followed by suffix for terminals desired to basic number, below. Example: 1150-7-2 specifies model 1150 in 40–300 mc range with 3 terminals. (†) Indicates frequency not available in Shielded types.

ORDERING CHART

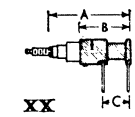
Suffix One	Freq. Mc	Suffix Two	No. of Term.
-1	0.2–1.5	-1	2
-2	1–20	-2	3
-3	20–50	-3	4
-4	50–200	-4	5
-5	100 and up†	-5	6
-6	2–40		
-7	40–300		



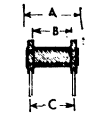
HORIZONTAL
XVIII



HORIZONTAL WITH PERMA-TORQ®
XIX



COMPRESSION LOCK OR PERMA-TORQ
XX



CORE LOCK
XXI

RIGHT-END VIEW FIGS.
XVIII-XXI

SHIELDED COIL FORMS

Powdered iron slug, silicone-fiberglas terminal board. Aluminum housing with Alodine 600 finish except as otherwise noted.

Cambion No.*	Fig.	Body Material	Size, Inches A x B x C	Max. Wdg. Area, In. L. x O.D.	Terminals*	Notes	Tuning Tool	Net Each, Lots of 1-49	50-249	250-499	500-999
1150•	IX	PBG paper phenolic	.438 x .621 x 1.497	.147 x .247	2–6	¼-28 mtg. stud	2033-1	$0.97	$0.84	$0.78	$0.67
1151•	IX	Copolymer styrene	.438 x .621 x 1.497	.147 x .247	2–6	¼-28 mtg. stud	2033-1	1.07	.92	.86	.74
1152•	IX	Kel-F♦	.438 x .621 x 1.497	.147 x .247	2–6	¼-28 mtg. stud	2033-1	1.17	1.01	.94	.81
1165•★	IX	PBG paper phenolic	.438 x .621 x 1.497	.147 x .247	2–6	¼-28 mtg. stud	2033-1	1.03	.89	.83	.71
1166•★	IX	Copolymer styrene	.438 x .621 x 1.497	.147 x .247	2–6	¼-28 mtg. stud	2033-1	1.11	.96	.89	.77
1167•★	IX	Kel-F	.438 x .621 x 1.497	.147 x .247	2–6	¼-28 mtg. stud	2033-1	1.23	1.06	.99	.85
1176•	X	Copolymer styrene	.406 x .641 x 1.500	.147 x .247	4	Immersion proof; ¼-28	3096-1	3.15	2.70	2.50	2.15
2455•★	XII	PBG paper phenolic	.438 x .475 x 1.383	.147 x .247	2–6	7/16-40 external thd.	2033-1	1.09	.94	.87	.75
2456•★	XII	Copolymer styrene	.438 x .475 x 1.383	.147 x .247	2–6	7/16-40 external thd.	2033-1	1.17	1.01	.94	.81
2457•★	XII	Kel-F	.438 x .475 x 1.383	.147 x .247	2–6	7/16-40 external thd.	2033-1	1.27	1.09	1.02	.88
2560	XIII	PBG paper phenolic	.500 sq. x .625 x 1.459	.147 x .247	2–6	8-32 thd.; less pins	2033-1	1.58	1.36	1.27	1.10
2561	XIII	Copolymer styrene	.500 sq. x .625 x 1.459	.147 x .247	2–6	8-32 thd.; less pins	2033-1	1.66	1.44	1.34	1.15
2562	XIII	Kel-F	.500 sq. x .625 x 1.459	.147 x .247	2–6	8-32 thd.; less pins	2033-1	1.76	1.52	1.42	1.22
2565	XIII	PBG paper phenolic	.500 sq. x .625 x 1.459	.147 x .247	2–6	8-32 thd.; with pins	2033-1	1.88	1.62	1.51	1.30
2566	XIII	Copolymer styrene	.500 sq. x .625 x 1.459	.147 x .247	2–6	8-32 thd.; with pins	2033-1	1.96	1.69	1.57	1.36
2567	XIII	Kel-F	.500 sq. x .625 x 1.459	.147 x .247	2–6	8-32 thd.; with pins	2033-1	2.05	1.78	1.65	1.42
2685	XV	PBG paper phenolic	.438 x .500 x .621	.147 x .247	2–6	Fixed; .640″ mtg. ctr.†	.....	.95	.82	.76	.66
2686	XV	Copolymer styrene	.438 x .500 x .621	.147 x .247	2–6	Fixed; .640″ mtg. ctr.†	.....	1.03	.89	.83	.71
2687	XV	Kel-F	.438 x .500 x .621	.147 x .247	2–6	Fixed; .640″ mtg. ctr.†	.....	1.11	.96	.89	.77
2688	XV	Powdered iron	.438 x .500 x .621	.147 x .247	2–6	Fixed; .640″ mtg. ctr.†	.....	1.03	.89	.83	.71
2690	XV	PBG paper phenolic	.625 x .890 x 1.022	.396 x .439	2–6	Fixed; .828″ mtg. ctr.‡	.....	1.07	.92	.86	.74
2691	XV	Copolymer styrene	.625 x .890 x 1.022	.396 x .439	2–6	Fixed; .828″ mtg. ctr.‡	.....	1.27	1.09	1.02	.88
2692	XV	Kel-F	.625 x .890 x 1.022	.396 x .439	2–6	Fixed; .828″ mtg. ctr.‡	.....	1.35	1.16	1.08	.93
2693	XV	Powdered iron	.625 x .890 x 1.022	.396 x .439	2–6	Fixed; .828″ mtg. ctr.‡	.....	1.17	1.01	.94	.81
1155•	IX	PBG paper phenolic	.625 x .899 x 2.146	.399 x .439	2–6	3/8-32 mtg. stud	1971-1	1.11	.96	.89	.77
1156•	IX	Copolymer styrene	.625 x .899 x 2.146	.399 x .439	2–6	3/8-32 mtg. stud	1971-1	1.31	1.13	1.05	.90
1157•	IX	Kel-F	.625 x .899 x 2.146	.399 x .439	2–6	3/8-32 mtg. stud	1971-1	1.39	1.20	1.11	.96
1160■	IX	PBG paper phenolic	.344 x .531 x 1.148	.145 x .189	2–4	12-28 mtg. stud	2375-1	.95	.82	.76	.66
1161■	IX	Copolymer styrene	.344 x .531 x 1.148	.145 x .189	2–4	12-28 mtg. stud	2375-1	1.11	.96	.89	.77
1162■	IX	Kel-F	.344 x .531 x 1.148	.145 x .189	2–4	12-28 mtg. stud	2375-1	1.23	1.06	.99	.85
2665	XIII	PBG paper phenolic	.375 sq. x .515 x 1.155	.137 x .189	2–4	6-32 thd.; less pins	2375-1	1.58	1.37	1.27	1.10
2666	XIII	Copolymer styrene	.375 sq. x .515 x 1.155	.137 x .189	2–4	6-32 thd.; less pins	2375-1	1.76	1.52	1.42	1.22
2667	XIII	Kel-F	.375 sq. x .515 x 1.155	.137 x .189	2–4	6-32 thd.; less pins	2375-1	1.86	1.61	1.49	1.29
2670	XIII	PBG paper phenolic	.375 sq. x .515 x 1.155	.137 x .189	2–4	6-32 thd.; with pins	2375-1	1.88	1.62	1.51	1.30
2671	XIII	Copolymer styrene	.375 sq. x .515 x 1.155	.137 x .189	2–4	6-32 thd.; with pins	2375-1	2.05	1.78	1.65	1.42
2672	XIII	Kel-F	.375 sq. x .515 x 1.155	.137 x .189	2–4	6-32 thd.; with pins	2375-1	2.15	1.86	1.73	1.50
2695	XV	PBG paper phenolic	.344 x .500 x .621	.143 x .189	2–4	Fixed; .546″ mtg. ctr.	.....	.95	.82	.76	.66
2696	XV	Copolymer styrene	.344 x .500 x .621	.143 x .189	2–4	Fixed; .546″ mtg. ctr.	.....	1.11	.96	.89	.77
2697	XV	Kel-F	.344 x .500 x .621	.143 x .189	2–4	Fixed; .546″ mtg. ctr.	.....	1.23	1.06	.99	.85
2698	XV	Powdered iron	.344 x .500 x .621	.143 x .189	2–4	Fixed; .546″ mtg. ctr.	.....	1.03	.89	.83	.71
2191■‡	XVII	PBG paper phenolic	.585 x .500 sq. x .136⧫	.300 x .359	2–6	Printed circuit type	2375-1	.83	.72	.67	.58
2400#•	XI	Copolymer styrene	.455 x 1.074 x 1.844	.698 x .292	4–6	½-32 thread on body	2375-1	2.65	2.25	2.10	1.82
1181•▲	XVII	Powdered iron	.500 x .375 x .100⧫	.091 x .155	4, 5	Printed circuit type	2033-1	1.25	1.08	1.00	.86
1189•▲	XVII	Copolymer styrene	.500 x .375 x .100⧫	.091 x .158	4, 5	Printed circuit type	2033-1	1.45	1.25	1.16	1.00
2450#•★	XI	Copolymer styrene	.570 x 1.273 x 2.474	.876 x .369	4–6	⅝-28 thread on body	2033-1	2.80	2.40	2.25	1.92
1170	XIV	PBG paper phenolic	.438 x .500 x 1.114	.147 x .247	2–6	.640″ mtg. ctrs.†	2033-1	2.25	1.95	1.81	1.56
1171	XIV	Copolymer styrene	.438 x .500 x 1.114	.147 x .247	2–6	.640″ mtg. ctrs.†	2033-1	2.35	2.05	1.89	1.63
1190	XIV	PBG paper phenolic	.625 x .778 x 1.778	.402 x .439	2–6	.828″ mtg. ctrs.‡	1971-1	2.60	2.25	2.08	1.79
1191	XIV	Copolymer styrene	.625 x .778 x 1.778	.402 x .439	2–6	.828″ mtg. ctrs.‡	1971-1	2.65	2.30	2.15	1.85

*Specify frequency (-1 through -4, -6 and -7 available only) and terminal arrangement per Chart above. †On flange .844″ l. x .516″ w. ‡On flange 1.00″ l. x .704″ w. §On flange .750″ l. x .422″ w. #-4 (50–200 mc) frequency not available. •Nickel-plated brass housing. ■Cadmium-plated brass housing. ▲-8 (.1–4.5 mc) and -9 (4.5–15.0 mc) frequencies also available; (No. 1181 with ferrite bobbin and cup core). ⧫Max. terminal circle radius. ‡-4 (50–200 mc) frequency not available. ★Perma-Torq® slug locking device. ♦Reg. M.W. Kellog TM.

PRINTED CIRCUIT COIL FORMS

Powdered iron core (except -5, brass; -8 and -9, ferrite) and silicone impregnated ceramic coil forms except as noted.

Cambion Number*	Fig.	Dimensions, Inches A	B	C	D†	Body O.D., In.	Terminals	Powdered Iron Core No.	Tuning Tool	Net Each, Lots of 1-49	50-249	250-499	500-999
2170‡	XVI	¾	.356	.....	.....	.219	2–4*	3226, 2250	1970-1	$0.27	$0.21	$0.18	$0.17
2173‡	XVI	¾	.426	.....	.....	.285	2–4*	3227, 2250	2588-1	.27	.21	.18	.17
2175	XVI	⅝	.404	.....	.....	.260	2, 3* 4–6*	3226, 2250	2230-1	.29 .33	.22 .26	.19 .22	.18 .21
2206	XVI	13/16	.404	.....	.....	.260	2, 3* 4–6*	3226, 2250	2230-1	.29 .33	.22 .26	.19 .22	.18 .21
2501	XVI	.625	.404	.....	.....	.260	5	3226, 2250	2230-1	.33	.26	.22	.21
2270	XVIII	.625	.426	.500	.200	.260	4	3226, 2250	2230-1	.68	.53	.45	.43
2271	XVIII	.813	.626	.700	.200	.260	4	3226, 2250	2230-1	.74	.57	.48	.45
2500	XVIII	1.328	1.126	1.200	.200	.260	4	3226, 2250	2230-1	.98	.74	.62	.58
2533	XVIII	.625	.425	.500	.300	.260	4	3226, 2250	2230-1	.74	.57	.48	.45
2534	XVIII	.813	.625	.700	.300	.260	4	3226, 2250	2230-1	.74	.57	.48	.45
2535	XVIII	1.328	1.125	1.200	.300	.260	4	3226, 2250	2230-1	.98	.74	.62	.58
2526	XIX	.888	.326	.400	.300	.205	4	20063, 2018, 2932	2033-1	.99	.80	.70	.64
2531	XIX	1.111	.526	.600	.300	.260	4	20063, 2018, 2931	1971-1	1.12	.90	.80	.73
2541	XIX	1.332	.626	.700	.400	.375	4	20063, 2018, 2930	1970-1	1.19	.96	.87	.81
2551	XIX	1.958	1.226	1.300	.400	.500	4	20063, 2018, 2934	1970-1	1.38	1.12	1.02	.93
3136§#	XX	1.531	.589	.300	.200	.179	4	2943, 2944, 3842	2033-1	1.00	.75	.63	.59
3137§#	XX	1.425	.589	.300	.200	.179	4	2943, 2944, 3842	2033-1	1.02	.77	.65	.61
3104§	XXI	.592	.438	.500	.250	.214	4	3225, 3058	2375-1	.86	.67	.57	.54

*Specify frequency (-1 thru -7) and terminals per Chart. †Width between centers of terminals. ‡Phenolic coil form. §Molded diallyl coil form. #-8 (.1–4.5 mc) and -9 (4.5–15.0 mc) frequencies also available.

261X-64A

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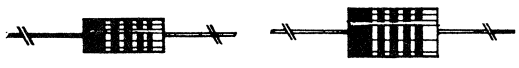
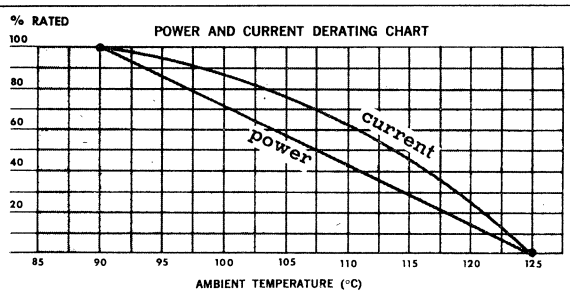
Miller

MIL-SPEC MOLDED CHOKES

MILLER MOLDED COILS CONFORM TO MIL-C-15305



This group of molded chokes affords the design engineer a wide range of inductance values, current ratings, and sizes which will fulfill most normal design requirements. Manufactured under strict Quality Control supervision and tested in accordance with MIL Standard 105 the user is guaranteed uniformity and reliability in every coil. This series conforms to MIL-C-15305, Grade and Class 7.



Tabulated currents in milliamperes are maximum values based on a temperature rise not to exceed 35° C., nor wattage dissipation in excess of listed values.

"MICRO MITE" SERIES 9210

MOLDED R. F. CHOKES

Mold Size: .155 ±.010 diameter; .375 ±.010 length. Leads: AWG #22 TCW; 1.44 ±.125 length. Power Rating: .22 Watt Max. at 90° C. *Current based on (1) Temperature rise not to exceed 35° C at 90° ambient. (2) Overload not to exceed 1½ times rated current.

PART No.	L uh.	Q MIN.	TEST FREQ. (Mc.)	Fo. MIN. (Mc.)	Rdc. MAX.	*Ma. MAX.	CORE MTL.	NET PRICE
9210-54	36 ± 5%	60	2.5	16.0	2.50	250	IRON	$ .90
9210-56	39 ± 5%	60	2.5	15.0	2.60	245	IRON	.90
9210-58	43 ± 5%	60	2.5	13.7	2.70	242	IRON	.90
9210-60	47 ± 5%	55	2.5	13.0	2.75	240	IRON	.90
9210-62	51 ± 5%	55	2.5	12.7	2.85	235	IRON	.90
9210-64	56 ± 5%	55	2.5	12.0	3.00	230	IRON	.90
9210-66	62 ± 5%	55	2.5	11.0	3.15	225	IRON	.90
9210-68	68 ± 5%	55	2.5	11.0	3.30	220	IRON	.90
9210-70	75 ± 5%	55	2.5	10.5	3.70	205	IRON	.90
9210-72	82 ± 5%	50	2.5	10.3	3.90	200	IRON	.90
9210-74	91 ± 5%	50	2.5	10.0	4.30	190	IRON	.90
9210-76	100 ± 5%	50	2.5	9.5	4.50	185	IRON	.96
9210-78	110 ± 5%	60	.790	8.5	4.90	180	IRON	.96
9210-80	120 ± 5%	65	.790	8.5	5.20	175	IRON	.96
9210-82	130 ± 5%	65	.790	8.5	5.45	170	IRON	.96
9210-84	150 ± 5%	65	.790	8.0	6.05	165	IRON	.96
9210-86	160 ± 5%	65	.790	8.0	6.40	160	IRON	.99
9210-88	180 ± 5%	65	.790	7.0	6.50	155	IRON	.99
9210-90	200 ± 5%	65	.790	6.5	6.90	150	IRON	.99
9210-92	220 ± 5%	65	.790	6.0	7.20	145	IRON	.99
9210-94	240 ± 5%	65	.790	6.0	7.40	140	IRON	.99

"MICRO MITE" SERIES 9220

MOLDED R. F. CHOKES

*Current based on (1) Temperature rise not to exceed 35° C at 90° ambient. (2) Overload not to exceed 1½ times rated current.

MOLD SIZE	MOLD DIAMETER	MOLD LENGTH	LEAD SIZE	LEAD LENGTH	MAX. WATT AT 90° C.
A	.190 ± .010	.440 ± .010	AWG #22	1.44 ± .125	.25
B	.215 ± .010	.560 ± .010	AWG #21	1.44 ± .125	.40
C	.240 ± .010	.740 ± .010	AWG #20	1.44 ± .125	.45

PART No.	L uh	Q MIN.	TEST FREQ. (Mc.)	Fo. MIN. (Mc.)	Rdc. MAX.	*Ma. MAX.	MOLD SIZE	CORE MTL.	NET PRICE
9220-00	270 ± 5%	65	.790	5.3	8.0	150	A	IRON	$1.05
9220-02	300 ± 5%	65	.790	5.0	8.6	145	A	IRON	1.05
9220-04	330 ± 5%	65	.790	5.0	8.9	142	A	IRON	1.05
9220-06	360 ± 5%	65	.790	4.7	9.6	137	A	IRON	1.14
9220-08	390 ± 5%	65	.790	4.5	9.9	135	A	IRON	1.14
9220-10	430 ± 5%	65	.790	4.3	10.4	131	A	IRON	1.14
9220-12	470 ± 5%	65	.790	4.0	10.9	128	A	IRON	1.14
9220-14	500 ± 5%	65	.790	3.7	11.3	126	A	IRON	1.20
9220-16	560 ± 5%	65	.790	3.5	11.8	123	A	IRON	1.20
9220-18	620 ± 5%	60	.790	3.5	12.5	120	A	IRON	1.20
9220-20	680 ± 5%	60	.790	3.3	13.5	115	A	IRON	1.20
9220-22	750 ± 5%	60	.790	3.3	14.0	113	A	IRON	1.20
9220-24	820 ± 5%	60	.790	3.0	15.0	110	A	IRON	1.26
9220-26	910 ± 5%	60	.790	3.0	15.5	107	A	IRON	1.26
9220-28	1000 ± 5%	60	.790	2.8	16.5	104	A	IRON	1.26
9220-30	1100 ± 5%	60	.250	2.7	21.0	117	B	IRON	1.35
9220-32	1200 ± 5%	60	.250	2.7	22.0	114	B	IRON	1.35
9220-34	1300 ± 5%	60	.250	2.6	22.5	113	B	IRON	1.35
9220-36	1500 ± 5%	65	.250	2.3	24.5	108	B	IRON	1.35
9220-38	1600 ± 5%	65	.250	2.2	25.7	106	B	IRON	1.35
9220-40	1800 ± 5%	65	.250	2.2	27.3	102	B	IRON	1.35
9220-42	2000 ± 5%	65	.250	2.0	29.0	99	B	IRON	1.35
9220-44	2200 ± 5%	70	.250	2.0	30.0	98	B	IRON	1.35
9220-46	2400 ± 5%	70	.250	1.9	31.5	96	B	IRON	1.35
9220-48	2700 ± 5%	70	.250	1.9	33.0	93	B	IRON	1.35
9220-50	3000 ± 5%	70	.250	1.8	35.0	91	B	IRON	1.35
9220-52	3300 ± 5%	70	.250	1.6	37.8	87	B	IRON	1.35
9220-54	3600 ± 5%	70	.250	1.5	39.3	85	B	IRON	1.35
9220-56	3900 ± 5%	80	.250	1.5	43.0	86	C	IRON	1.41
9220-58	4300 ± 5%	80	.250	1.5	45.0	85	C	IRON	1.41
9220-60	4700 ± 5%	80	.250	1.4	47.0	83	C	IRON	1.41
9220-62	5000 ± 5%	80	.250	1.3	48.3	82	C	IRON	1.41
9220-64	5600 ± 5%	80	.250	1.3	52.0	79	C	IRON	1.50
9220-66	6200 ± 5%	80	.250	1.2	54.0	77	C	IRON	1.50
9220-68	6800 ± 5%	80	.250	1.2	56.5	75	C	IRON	1.50
9220-70	7500 ± 5%	80	.250	1.2	59.5	73	C	IRON	1.50
9220-72	8200 ± 5%	80	.250	1.1	62.5	72	C	IRON	1.59
9220-74	9100 ± 5%	80	.250	1.0	66.5	69	C	IRON	1.59
9220-76	10000 ± 5%	80	.250	1.0	70.0	68	C	IRON	1.59

MILLER SERIES 9230

Mold Size: .095 ±.010 Diameter; .250 ±.010 Length. Leads AWG #24 TCW; 1.500 ±.125 Length. Power Rating: .17 Watt Max. at 90° C. For −00 thru −70 .15 Watt Max. at 90° C. For −72 thru −92. *Current based on (1) Temperature rise not to exceed 35° C at 90° C ambient. (2) Overload not to exceed 1½ times rated current.

PART No.	L uh.	Q MIN.	TEST FREQ. L&Q (Mc.)	Fo. MIN. (Mc.)	Rdc. MAX.	*Ma. MAX.	CORE MTL.	NET PRICE
9230-00	.15 ± 10%	38	25.0	600	.10	1100	PHENOLIC	$1.02
9230-02	.18 ± 10%	35	25.0	550	.12	1010	PHENOLIC	1.02
9230-04	.22 ± 10%	33	25.0	510	.14	935	PHENOLIC	1.02
9230-06	.27 ± 10%	33	25.0	430	.16	875	PHENOLIC	1.02
9230-08	.33 ± 10%	30	25.0	410	.20	780	PHENOLIC	1.02
9230-10	.39 ± 10%	30	25.0	380	.30	640	PHENOLIC	1.02
9230-12	.47 ± 10%	30	25.0	340	.35	590	PHENOLIC	1.02
9230-14	.56 ± 10%	30	25.0	300	.50	495	PHENOLIC	1.02
9230-16	.68 ± 10%	28	25.0	275	.60	450	PHENOLIC	1.02
9230-18	.82 ± 10%	28	25.0	250	.85	380	PHENOLIC	1.02
9230-20	1.00 ± 10%	25	25.0	230	1.00	350	PHENOLIC	1.02
9230-22	1.20 ± 10%	25	7.9	150	.18	825	IRON	1.08
9230-24	1.50 ± 10%	28	7.9	140	.22	745	IRON	1.08
9230-26	1.80 ± 10%	30	7.9	125	.30	640	IRON	1.08
9230-28	2.20 ± 10%	30	7.9	120	.40	550	IRON	1.08
9230-30	2.70 ± 10%	37	7.9	100	.50	495	IRON	1.08
9230-32	3.30 ± 10%	45	7.9	90	.85	380	IRON	1.08
9230-34	3.90 ± 10%	45	7.9	85	1.00	350	IRON	1.08
9230-36	4.70 ± 10%	45	7.9	75	1.20	320	IRON	1.08
9230-38	5.60 ± 10%	50	7.9	70	1.80	260	IRON	1.23
9230-40	6.80 ± 10%	50	7.9	60	2.00	245	IRON	1.23
9230-42	8.20 ± 10%	55	7.9	60	2.70	210	IRON	1.23
9230-44	10.0 ± 10%	55	7.9	50	3.70	180	IRON	1.23
9230-46	12.0 ± 10%	45	2.5	40	2.70	210	IRON	1.23
9230-48	15.0 ± 10%	45	2.5	40	2.80	205	IRON	1.23
9230-50	18.0 ± 10%	50	2.5	32	3.10	195	IRON	1.23
9230-52	22.0 ± 10%	50	2.5	25	3.30	190	IRON	1.23
9230-54	27.0 ± 10%	50	2.5	22	3.50	185	IRON	1.23
9230-56	33.0 ± 10%	45	2.5	28	3.40	187	FERRITE	1.35
9230-58	39.0 ± 10%	45	2.5	25	3.60	180	FERRITE	1.35
9230-60	47.0 ± 10%	45	2.5	20	4.50	165	FERRITE	1.35
9230-62	56.0 ± 10%	45	2.5	18	5.70	145	FERRITE	1.35
9230-64	68.0 ± 10%	50	2.5	15	6.70	135	FERRITE	1.35
9230-66	82.0 ± 10%	50	2.5	14	7.30	130	FERRITE	1.35
9230-68	100.0 ± 10%	50	2.5	13	8.00	125	FERRITE	1.35
9230-70	120.0 ± 10%	30	.79	12	13.00	97	FERRITE	2.25
9230-72	150.0 ± 10%	30	.79	11	15.00	85	FERRITE	2.25
9230-74	180.0 ± 10%	30	.79	10	17.00	79	FERRITE	2.25
9230-76	220.0 ± 10%	30	.79	9	21.00	73	FERRITE	2.25
9230-78	270.0 ± 10%	30	.79	8	25.00	65	FERRITE	2.25
9230-80	330.0 ± 10%	30	.79	7	28.00	62	FERRITE	2.25
9230-82	390.0 ± 10%	30	.79	6.5	35.00	55	FERRITE	2.25
9230-84	470.0 ± 10%	30	.79	6	42.00	50	FERRITE	2.25
9230-86	560.0 ± 10%	30	.79	5	46.00	48	FERRITE	2.25
9230-88	680.0 ± 10%	30	.79	4.2	60.00	42	FERRITE	2.25
9230-90	820.0 ± 10%	30	.79	3.8	65.00	40	FERRITE	2.25
9230-92	1000.0 ± 10%	30	.79	3.4	72.00	38	FERRITE	2.25

MILLER SERIES 9240

Size: 0.157" Diameter, 0.375" Length. Inductance: 0.1 uh thru 10,000 uh (61) values.
Shielding: Less than 2% coupling. Environment: Grade 1, Class B, MIL-C-15305.
Power Rating: .20 watts @ 90° ambient and rated current flow.
*Current Based on (1) Temperature rise not to exceed 35° C at 90° C ambient.
(2) Overload not to exceed 1½ times rated current.
**Current required to decrease inductance 5%.

PART No.	L ±10%	Q MIN.	TEST FREQ. (Mc.)	Fo. MIN. (Mc.)	Rdc. MAX.	*Ma. MAX.	**Ma. APPROX.	NET PRICE
9240-770	.10 uh.	50	25	250	.015	3100	3100	$1.65
9240-771	.12 uh.	50	25	250	.020	2650	2650	1.65
9240-701	.15 uh.	50	25	250	.025	2400	2400	1.65
9240-772	.18 uh.	50	25	250	.030	2190	2190	1.65
9240-702	.22 uh.	50	25	250	.035	2030	2030	1.65
9240-773	.27 uh.	50	25	250	.045	1790	1790	1.65
9240-703	.33 uh.	45	25	250	.075	1380	1380	1.65
9240-774	.39 uh.	45	25	250	.085	1300	1300	1.65
9240-704	.47 uh.	45	25	235	.100	1200	1200	1.65
9240-705	.56 uh.	45	25	210	.180	890	890	1.65
9240-706	.68 uh.	45	25	190	.200	850	850	1.65
9240-707	.82 uh.	45	25	180	.280	710	710	1.65
9240-708	1.0 uh.	45	25	150	.070	1430	1430	1.77
9240-709	1.2 uh.	45	7.9	145	.080	1340	1340	1.77
9240-710	1.5 uh.	45	7.9	130	.100	1200	1200	1.77
9240-711	1.8 uh.	50	7.9	120	.120	1090	1090	1.77
9240-712	2.2 uh.	50	7.9	110	.150	980	980	1.77
9240-713	2.7 uh.	50	7.9	105	.220	800	800	1.77
9240-714	3.3 uh.	50	7.9	90	.270	730	730	1.77
9240-715	3.9 uh.	50	7.9	85	.290	700	700	1.77
9240-716	4.7 uh.	55	7.9	82	.320	670	670	1.77
9240-717	5.6 uh.	55	7.9	80	.560	500	500	1.77
9240-718	6.8 uh.	55	7.9	75	.700	450	450	1.77
9240-719	8.2 uh.	55	7.9	70	.820	410	410	1.77
9240-720	10.0 uh.	50	7.9	60	.900	400	400	1.77
9240-721	12 uh.	55	2.5	50	.950	380	380	1.77
9240-722	15 uh.	45	2.5	45	.750	430	225	1.77
9240-723	18 uh.	45	2.5	42	.850	410	190	1.77
9240-724	22 uh.	50	2.5	40	.950	380	170	1.77
9240-725	27 uh.	50	2.5	35	1.10	360	150	1.77
9240-726	33 uh.	45	2.5	33	1.30	330	130	1.77
9240-727	39 uh.	50	2.5	29	1.80	280	115	1.77
9240-728	47 uh.	50	2.5	27	2.00	260	110	1.77
9240-729	56 uh.	50	2.5	25	2.20	250	100	1.77
9240-730	68 uh.	50	2.5	20	2.50	240	87	1.77
9240-731	82 uh.	50	2.5	15	3.50	215	85	1.77
9240-732	100 uh.	50	2.5	11	2.20	200	80	1.77
9240-733	120 uh.	60	.79	10	2.50	265	74	1.77
9240-734	150 uh.	60	.79	9	2.80	240	68	2.25
9240-735	180 uh.	60	.79	9	3.20	215	50	2.25
9240-736	220 uh.	60	.79	8	3.70	205	46	2.25
9240-737	270 uh.	60	.79	7	4.60	200	40	2.25
9240-738	330 uh.	60	.79	7	5.00	195	37	2.25
9240-739	390 uh.	60	.79	6	5.50	190	34	2.25
9240-740	470 uh.	60	.79	5.8	6.00	180	32	2.25
9240-741	560 uh.	60	.79	5.5	7.50	160	32	2.25
9240-742	680 uh.	60	.79	5	8.50	145	30	2.37
9240-743	820 uh.	60	.79	4.3	12.00	135	26	2.37
9240-744	1000 uh.	65	.79	4.2	13.00	105	24	2.37
9240-745	1.2 mh.	50	.25	4	16.50	100	22	2.37
9240-746	1.5 mh.	50	.25	3.8	20	90	20	2.37
9240-747	1.8 mh.	50	.25	3.2	25	80	18	2.37
9240-748	2.2 mh.	50	.25	2.6	27	75	15	2.37
9240-749	2.7 mh.	50	.25	2.1	35	65	13	2.85
9240-750	3.3 mh.	45	.25	2	40	60	13	2.85
9240-751	3.9 mh.	45	.25	1.8	44	55	12	2.85
9240-752	4.7 mh.	45	.25	1.4	58	50	11	2.85
9240-753	5.6 mh.	45	.25	2.1	72	45	10	2.85
9240-754	6.8 mh.	45	.25	1.5	80	42	8.0	2.85
9240-755	8.2 mh.	40	.25	1.4	107	40	7.0	2.85
9240-756	10.0 mh.	40	.25	1.3	137	38	6.5	2.85

J. W. MILLER COMPANY Los Angeles, California

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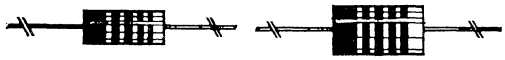
MIL-SPEC MOLDED CHOKES

MILLER MOLDED COILS CONFORM TO MIL-C-15305



MILLER SERIES 9310

(MS 16225)

Mold Size: .155 ±.010 diameter; .375 ±.010 length. Leads: AWG #22 TCW; 1.437 ±.125 length. Power Rating: ¼ Watt Max. at 90° C. *Current based on (1) Temperature rise not to exceed 35°C at 90° ambient. (2) Overload not to exceed 1½ times rated current.

PART No.	MS TYPE	L uh	Q MIN.	TEST FREQ. (Mc.)	Fo. MIN. (Mc.)	Rdc. MAX.	*Ma. MAX.	CORE MTL.	NET PRICE
9310-00	16225- 1	.15 ± 20%	50	25	525	.03	2450	PHENOLIC	$ .60
9310-02	16225- 2	.22 ± 20%	50	25	450	.05	1900	PHENOLIC	.60
9310-04	16225- 3	.33 ± 20%	45	25	370	.09	1400	PHENOLIC	.60
9310-06	16225- 4	.47 ± 20%	45	25	310	.12	1225	PHENOLIC	.60
9310-08	16225- 5	.68 ± 10%	50	25	250	.15	1100	PHENOLIC	.60
9310-10	16225- 6	.82 ± 10%	50	25	220	.22	900	PHENOLIC	.60
9310-12	16225- 7	1.00 ± 10%	50	25	200	.26	830	PHENOLIC	.60
9310-14	16225- 8	1.20 ± 10%	33	7.9	180	.42	650	PHENOLIC	.60
9310-16	16225- 9	1.50 ± 10%	33	7.9	160	.50	600	PHENOLIC	.60
9310-18	16225-10	1.80 ± 10%	33	7.9	150	.65	525	PHENOLIC	.60
9310-20	16225-11	2.20 ± 10%	33	7.9	135	.95	435	PHENOLIC	.60
9310-22	16225-12	2.70 ± 10%	33	7.9	120	1.20	385	PHENOLIC	.60
9310-24	16225-13	3.30 ± 10%	33	7.9	110	2.00	300	PHENOLIC	.66
9310-26	16225-14	3.90 ± 10%	33	7.9	100	2.30	280	PHENOLIC	.66
9310-28	16225-15	4.70 ± 10%	33	7.9	90	2.60	260	PHENOLIC	.66
9310-30	16225-16	5.60 ± 10%	45	7.9	60	.32	750	IRON	.66
9310-32	16225-17	6.80 ± 10%	50	7.9	55	.50	600	IRON	.66
9310-34	16225-18	8.20 ± 10%	50	7.9	50	.60	545	IRON	.66
9310-36	16225-19	10.0 ± 10%	55	7.9	45	.90	445	IRON	.66
9310-38	16225-20	12.0 ± 10%	65	2.5	42	1.10	404	IRON	.66
9310-40	16225-21	15.0 ± 10%	65	2.5	40	1.30	370	IRON	.66
9310-42	16225-22	18.0 ± 10%	75	2.5	34	2.25	280	IRON	.66
9310-44	16225-23	22.0 ± 10%	75	2.5	30	2.50	265	IRON	.66
9310-46	16225-24	24.0 ± 5%	60	2.5	26	2.50	265	IRON	.75
9310-48	16225-25	27.0 ± 5%	60	2.5	25	2.60	260	IRON	.75
9310-50	16225-26	30.0 ± 5%	65	2.5	19	2.80	255	IRON	.75
9310-52	16225-27	33.0 ± 5%	65	2.5	19	2.90	250	IRON	.75

MILLER SERIES 9320

Mold Size: 0.185 ±.010 diameter; 0.437 ±.010 length. Leads: AWG #22 TCW; 1.437 ±.125 length. Power Rating: .25 Watt Max. at 90° C. *Current based on (1) Temperature rise not to exceed 35° C. at 90° ambient. (2) Overload not to exceed 1½ times rated current.

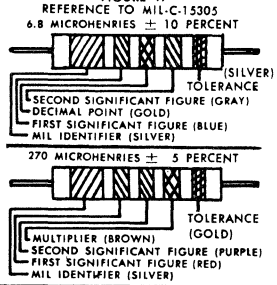
PART No.	MS TYPE	L uh	Q MIN.	TEST FREQ. (Mc.)	Fo. MIN. (Mc.)	Rdc. MAX.	*Ma. MAX.	CORE MTL.	NET PRICE
9320-00	75008-21	.15 ± 20%	55	25	510	.03	3000	PHENOLIC	$ .60
9320-02	75008-22	.22 ± 20%	55	25	415	.035	2800	PHENOLIC	.60
9320-04	75008-23	.33 ± 20%	55	25	350	.05	2000	PHENOLIC	.60
9320-06	75008-24	.47 ± 20%	55	25	300	.08	1700	PHENOLIC	.60
9320-07	75008-25	.56 ± 10%	55	25	270	.100	1450	PHENOLIC	.60
9320-08	75008-26	.68 ± 10%	55	25	250	.12	1300	PHENOLIC	.60
9320-09	75008-27	.82 ± 10%	55	25	220	.180	1100	PHENOLIC	.60
9320-10	75008-28	1.00 ± 10%	55	25	200	.25	930	PHENOLIC	.60
9320-11	75008-29	1.20 ± 10%	35	7.9	180	.400	785	PHENOLIC	.60
9320-12	75008-30	1.50 ± 10%	35	7.9	170	.485	700	PHENOLIC	.60
9320-13	75008-31	1.80 ± 10%	35	7.9	150	.740	580	PHENOLIC	.60
9320-14	75008-32	2.20 ± 10%	35	7.9	140	.90	505	PHENOLIC	.60
9320-16	75008-33	2.70 ± 10%	35	7.9	120	1.10	460	PHENOLIC	.60
9320-18	75008-34	3.30 ± 10%	35	7.9	70	.12	1350	IRON	.66
9320-20	75008-35	3.90 ± 10%	35	7.9	65	.155	1250	IRON	.66
9320-22	75008-36	4.70 ± 10%	35	7.9	60	.210	1100	IRON	.66
9320-24	75008-37	5.60 ± 10%	35	7.9	50	.280	935	IRON	.66
9320-26	75008-38	6.80 ± 10%	35	7.9	50	.375	810	IRON	.66
9320-28	75008-39	8.20 ± 10%	35	7.9	48	.400	750	IRON	.66
9320-30	75008-40	10.0 ± 10%	35	7.9	42	.60	640	IRON	.66
9320-32	75008-41	12.0 ± 10%	50	2.5	36	.85	490	IRON	.66
9320-34	75008-42	15.0 ± 10%	55	2.5	30	1.20	460	IRON	.66
9320-35	75008-43	18.0 ± 10%	60	2.5	30	1.80	360	IRON	.66
9320-36	75008-44	22.0 ± 10%	60	2.5	24	2.00	335	IRON	.66
9320-38	75008-45	27.0 ± 10%	65	2.5	22	2.750	300	IRON	.66

MILLER SERIES 9330

Mold Size: 0.215 ±.010 diameter; 0.560 ±.010 length. Leads: AWG #22 TCW; 1.437 ±.125 length. Power Rating: .33 Watt max. at 90° C. *Current based on (1) Temperature rise not to exceed 35° C at 90° ambient. (2) Overload not to exceed 1½ times rated current.

PART No.	MS TYPE	L uh	Q MIN.	TEST FREQ. (Mc.)	Fo. MIN. (Mc.)	Rdc. MAX.	*Ma. MAX.	CORE MTL.	NET PRICE
9330-00	16222- 1	.47 ± 20%	65	25	300	.06	1970	PHENOLIC	$ .66
9330-02	16222- 2	.68 ± 20%	65	25	240	.08	1700	PHENOLIC	.66
9330-04	16222- 3	1.00 ± 10%	65	25	200	.14	1290	PHENOLIC	.66
9330-06	16222- 4	1.50 ± 10%	40	7.9	160	.28	925	PHENOLIC	.66
9330-08	16222- 5	2.20 ± 10%	40	7.9	135	.50	680	PHENOLIC	.66
9330-10	16222- 6	2.70 ± 10%	40	7.9	120	.65	600	PHENOLIC	.66
9330-12	16222- 7	3.30 ± 10%	40	7.9	105	1.00	480	PHENOLIC	.66
9330-14	16222- 8	3.90 ± 10%	40	7.9	100	1.20	440	PHENOLIC	.66
9330-16	16222- 9	4.70 ± 10%	40	7.9	90	1.80	360	PHENOLIC	.66
9330-18	16222-10	5.60 ± 10%	35	7.9	55	.13	1340	IRON	.75
9330-20	16222-11	6.80 ± 10%	35	7.9	50	.20	1080	IRON	.75
9330-22	16222-12	8.20 ± 10%	35	7.9	44	.22	1030	IRON	.75
9330-24	16222-13	10.0 ± 10%	35	7.9	42	.26	950	IRON	.75
9330-26	16222-14	12.0 ± 10%	45	2.5	34	.45	720	IRON	.75
9330-28	16222-15	15.0 ± 10%	45	2.5	32	.52	670	IRON	.75
9330-30	16222-16	18.0 ± 10%	50	2.5	28	.70	580	IRON	.75
9330-32	16222-17	22.0 ± 10%	60	2.5	24	1.00	480	IRON	.75
9330-34	16222-18	27.0 ± 10%	60	2.5	22	1.30	420	IRON	.75
9330-36	16222-19	33.0 ± 10%	60	2.5	20	1.50	390	IRON	.75
9330-38	16222-20	39.0 ± 10%	70	2.5	18	2.00	340	IRON	.75

FIGURE 1.
REFERENCE TO MIL-C-15305



Color	Significant Figure	(1) Multiplier	Inductance Tolerance (Percent)
BLACK	0	1	
BROWN	1	10	
RED	2	100	
ORANGE	3	1,000	
YELLOW	4		
GREEN	5		
BLUE	6		
VIOLET	7		
GRAY	8		
WHITE	9		
NONE (2)			± 20
SILVER			± 10
GOLD	DECIMAL POINT		± 5

(1) The multiplier is the factor by which the two significant figures are multiplied to yield the nominal inductance value.
(2) Indicates body color.

MILLER SERIES 9340

Mold Size: 0.280 ±.010 diameter; 0.900 ±.010 length. Leads: AWG #21 TCW; 1.437 ±.125 length. Power rating: ⅜ Watt Max. at 90° C. *Current based on (1) Temperature rise not to exceed 25° C at 90° ambient. (2) Overload not to exceed 1½ times rated current.

PART No.	MS TYPE	L uh	Q MIN.	TEST FREQ. (Mc.)	Fo. MIN. (Mc.)	Rdc. MAX.	*Ma. MAX.	CORE MTL.	NET PRICE
9340-00	91189-14	1.2 ± 10%	60	7.9	170	.075	2400	PHENOLIC	$ .78
9340-02	91189-15	1.5 ± 10%	60	7.9	160	.090	2150	PHENOLIC	.78
9340-03	91189-16	1.8 ± 10%	60	7.9	140	.135	1750	PHENOLIC	.78
9340-04	91189-17	2.2 ± 10%	60	7.9	125	.160	1600	PHENOLIC	.78
9340-06	91189-18	2.7 ± 10%	60	7.9	115	.220	1350	PHENOLIC	.78
9340-08	91189-19	3.3 ± 10%	60	7.9	100	.305	1150	PHENOLIC	.75
9340-10	91189-20	3.9 ± 10%	60	7.9	95	.45	955	PHENOLIC	.75
9340-12	91189-21	4.7 ± 10%	60	7.9	90	.560	860	PHENOLIC	.75
9340-14	91189-22	5.6 ± 10%	60	7.9	80	.745	745	PHENOLIC	.75
9340-16	91189-23	6.8 ± 10%	60	7.9	75	1.05	635	PHENOLIC	.75
9340-18	91189-24	8.2 ± 10%	60	7.9	68	1.4	550	PHENOLIC	.75
9340-20	91189-25	10.0 ± 10%	60	7.9	60	1.9	460	PHENOLIC	.75
9340-22	91189-26	12.0 ± 10%	40	2.5	53	2.65	395	PHENOLIC	.75
9340-24	91189-27	15.0 ± 10%	40	2.5	50	3.25	355	PHENOLIC	.75
9340-26	91189-28	18.0 ± 10%	40	2.5	45	4.15	315	PHENOLIC	.75
9340-28	91189-29	22.0 ± 10%	50	2.5	25	.295	1150	IRON	.84
9340-30	91189-30	27.0 ± 10%	45	2.5	22	.350	1050	IRON	.84
9340-32	91189-31	33.0 ± 10%	60	2.5	20	.550	865	IRON	.84
9340-34	91189-32	39.0 ± 10%	55	2.5	18	.65	810	IRON	.84
9340-36	91189-33	47.0 ± 10%	65	2.5	16	1.0	640	IRON	.84
9340-38	91189-34	56.0 ± 10%	65	2.5	14	1.15	620	IRON	.84
9340-39	91189-35	68.0 ± 10%	75	2.5	13	1.85	470	IRON	.84
9340-40	91189-36	82.0 ± 10%	75	2.5	13	2.10	440	IRON	.84
9340-42	91189-37	100.0 ± 10%	75	2.5	12	2.50	405	IRON	.84
9340-44	91189-38	120.0 ± 10%	95	.790	10	4.00	315	IRON	.84

MILLER SERIES 9350

*Current based on (1) Temperature rise not to exceed 35° C at 90° ambient. (2) Overload not to exceed 1½ times rated current.

COIL DIMENSIONS	A	B	C	D	LEAD DIMENSIONS
DIAMETER ± .010	.250	.310	.375	.468	AWG 20, 21, 22 TCW
LENGTH ± .010	.560	.560	.625	.687	1.437 ± .125
MAX. WATT. AT 90° C	.30	.40	.45	.55	

PART No.	MS TYPE	L uh	Q MIN.	TEST FREQ. (Mc.)	Fo. MIN. (Mc.)	Rdc. MAX.	*Ma. MAX.	MOLD SIZE	CORE MTL.	NET PRICE
9350-00	16223- 1	47 ± 10%	18	2.5	13.5	5.9	195	A	PHENOLIC	$1.02
9350-02	16223- 2	56 ± 10%	18	2.5	13	6.4	185	A	PHENOLIC	1.02
9350-04	16223- 3	68 ± 10%	70	2.5	13	3.3	255	A	IRON	1.08
9350-06	16223- 4	82 ± 10%	65	2.5	11.7	3.5	245	A	IRON	1.08
9350-08	16223- 5	100 ± 10%	65	2.5	10.7	3.8	235	A	IRON	1.08
9350-10	16223- 6	120 ± 10%	75	.790	9.3	4.7	215	A	IRON	1.08
9350-12	16223- 7	150 ± 10%	75	.790	8.3	5.3	200	A	IRON	1.08
9350-14	16223- 8	180 ± 10%	80	.790	6.0	5.5	225	B	IRON	1.11
9350-16	16223- 9	220 ± 10%	80	.790	5.5	5.9	220	B	IRON	1.11
9350-18	16223-10	270 ± 10%	80	.790	5.1	6.6	210	B	IRON	1.11
9350-20	16223-11	330 ± 10%	75	.790	4.2	7.8	185	B	IRON	1.11
9350-22	16223-12	390 ± 10%	75	.790	3.9	8.7	180	B	IRON	1.11
9350-24	16223-13	470 ± 10%	80	.790	3.7	9.0	190	C	IRON	1.11
9350-26	16223-14	560 ± 10%	80	.790	3.5	10.0	180	C	IRON	1.11
9350-28	16223-15	680 ± 10%	75	.790	3.2	11.2	170	C	IRON	1.11
9350-30	16223-16	820 ± 10%	75	.790	3.0	13.0	155	C	IRON	1.11
9350-32	16223-17	1000 ± 10%	70	.790	2.7	14.5	145	C	IRON	1.11
9350-34	16223-18	1500 ± 10%	85	.250	2.2	22.0	135	D	IRON	1.14
9350-36	16223-19	2000 ± 10%	85	.250	1.9	26.0	125	D	IRON	1.14
9350-38	16223-20	2500 ± 10%	85	.250	1.7	30.0	115	D	IRON	1.14
9350-40	16223-21	5000 ± 10%	70	.250	1.2	65.0	78	D	IRON	1.20
9350-42	16223-22	10000 ± 10%	70	.250	.8	70.0	75	D	FERRITE	1.50

MILLER SERIES 9360

This series of molded chokes conforms to the requirements of Mil type LT8K.
Mold Size: 0.300 ±.010 Diameter; .968 ±.010 Length.
Leads: 1.400 ±.125.

PART No.	MS TYPE	L uh	Q MIN.	TEST FREQ. (Mc.)	Fo. ± 10% (Mc.)	Rdc. MAX.	Ma. MAX.	CORE MTL.	NET PRICE
9360-01	91189- 1	1.1 ± 20%	60	10.0	200	0.09	2800	PHENOLIC	1.26
9360-02	91189- 2	2.2 ± 20%	65	10.0	165	.20	1800	PHENOLIC	1.26
9360-03	91189- 3	3.3 ± 10%	50	6.0	130	.32	1500	PHENOLIC	1.26
9360-04	91189- 4	4.7 ± 10%	45	5.0	100	.60	1100	PHENOLIC	1.26
9360-05	91189- 5	6.8 ± 10%	40	4.0	90	1.10	800	PHENOLIC	1.26
9360-06	91189- 6	10.0 ± 10%	40	3.5	70	1.80	600	PHENOLIC	1.26
9360-07	91189- 7	15.0 ± 10%	40	3.0	55	3.00	500	PHENOLIC	1.26
9360-08	91189- 8	22.0 ± 10%	30	2.5	27	.30	1500	IRON	1.35
9360-09	91189- 9	33.0 ± 10%	45	2.0	21	.60	1100	IRON	1.35
9360-10	91189-10	47.0 ± 10%	70	1.5	16	1.20	700	IRON	1.35
9360-11	91189-11	82.0 ± 10%	85	1.2	14	2.20	600	IRON	1.35
9360-12	91189-12	100.0 ± 10%	85	1.0	14	2.80	500	IRON	1.35
9360-13	91189-13	120.0 ± 10%	85	1.0	13	4.00	400	IRON	1.35

For a Complete Listing of MILLER PRODUCTS ask for a copy of our Latest General Catalog at your Local Parts Distributor.

MOLDED CHOKE COILS COLOR CODING

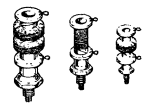
For cylindrical choke coils. Cylindrical choke coils shall be marked with five colored bands. A silver band MIL identifier of double the width of the other four bands, located near one end of the coil, identifies military radio-frequency coils; four other bands of equal width, three indicating the inductance in microhenries and the fourth band indicating the tolerance in percent. Color coding shall be in accordance with the color code of table. When either the first or second band of the three bands is gold, this band shall represent the decimal point for inductance values less than 10, and the other two bands shall represent significant figures. For inductance values of 10 or more, the first two bands shall represent significant figures, and the third band shall represent the multiplier. For small units, dots may be used instead of bands, when specified. The diameter of the MIL-identifier dot shall be larger than the other dots. The colors used shall be in accordance with MIL-STD-174. Typical color coding for units with inductance values less than 10 and for 10 or greater is shown on figure 1.

J. W. MILLER COMPANY Los Angeles, California

Miller

Industrial Adjustable R.F. Coils

Ceramic Adjustable R.F. Coils



The forms used in this series feature terminal rings machined from the ceramic form material. Coils wound on these forms exhibit high Q and good stability. The adjusting core is held rigidly at any setting through the use of a newly designed tension device on the bushing.

Sub Miniature Adjustable R.F. Coils

Dimensions (form) 7/32" dia. x 19/32" long

Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
40A000CBI	Coil Form w/hdw. and Core		$1.14
40A107CBI	.125 uh	.091 uh	1.68
40A157CBI	.188 uh	.124 uh	1.68
40A227CBI	.275 uh	.184 uh	1.68
40A337CBI	.413 uh	.265 uh	1.68
40A477CBI	.587 uh	.327 uh	1.71
40A687CBI	.850 uh	.482 uh	1.71
40A827CBI	1.02 uh	.630 uh	1.80
40A106CBI	1.25 uh	.730 uh	1.80
40A156CBI	1.88 uh	1.06 uh	1.80
40A226CBI	2.75 uh	1.50 uh	1.83
40A336CBI	4.13 uh	2.15 uh	1.83
40A476CBI	5.87 uh	3.00 uh	1.92
40A686CBI	8.50 uh	4.40 uh	1.92
40A826CBI	10.2 uh	5.25 uh	1.92
40A105CBI	12.5 uh	8.06 uh	1.98
40A155CBI	18.8 uh	11.9 uh	1.98
40A225CBI	27.5 uh	17.1 uh	2.04
40A335CBI	41.3 uh	26.6 uh	2.04
40A475CBI	58.7 uh	39.0 uh	2.13
40A685CBI	85.0 uh	58.0 uh	2.13
40A825CBI	102 uh	69.0 uh	2.31
40A104CBI	125 uh	84.0 uh	2.31
40A000CBI	Bulk pack per 100		99.00

Miniature Adjustable R.F. Coils

Dimensions (form)¼" dia. x 13/16" long

Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
41A000CBI	Coil Form w/hdw. and Core		$1.20
41A106CBI	1.25 uh	.69 uh	1.80
41A156CBI	1.87 uh	1.20 uh	1.80
41A226CBI	2.75 uh	1.42 uh	1.80
41A336CBI	4.10 uh	2.00 uh	1.83
41A476CBI	5.80 uh	2.80 uh	1.83
41A686CBI	8.50 uh	4.00 uh	1.83
41A826CBI	10.0 uh	4.50 uh	1.86
41A105CBI	12.5 uh	6.50 uh	1.86
41A155CBI	18.7 uh	10.8 uh	1.86
41A225CBI	27.5 uh	15.2 uh	1.86
41A335CBI	41.0 uh	26.0 uh	1.92
41A475CBI	58.0 uh	32.5 uh	1.92
41A685CBI	85.0 uh	48.5 uh	1.98
41A825CBI	100 uh	61.0 uh	1.98
41A104CBI	125 uh	65.0 uh	2.04
41A154CBI	187 uh	110 uh	2.04
41A224CBI	275 uh	160 uh	2.13
41A334CBI	410 uh	253 uh	2.13
41A474CBI	580 uh	390 uh	2.25
41A684CBI	850 uh	560 uh	2.31
41A824CBI	1.00 mh	670 uh	2.37
41A103CBI	1.25 mh	700 uh	2.46
41A000CBI	Bulk pack per 100		108.60

Standard Adjustable R.F. Coils

Dimensions (form) ⅜" dia. x 1" long

Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
42A000CBI	Coil Form w/hdw. and Core		$1.26
42A106CBI	1.25 uh	.68 uh	1.80
42A156CBI	1.87 uh	1.00 uh	1.80
42A226CBI	2.75 uh	1.35 uh	1.80
42A336CBI	4.10 uh	2.12 uh	1.83
42A476CBI	5.80 uh	2.40 uh	1.83
42A686CBI	8.50 uh	3.60 uh	1.86
42A826CBI	10.0 uh	4.45 uh	1.86
42A105CBI	12.5 uh	6.05 uh	1.98
42A155CBI	18.7 uh	9.40 uh	1.98
42A225CBI	27.5 uh	12.9 uh	2.01
42A335CBI	41.0 uh	18.8 uh	2.01
42A475CBI	58.0 uh	27.5 uh	2.16
42A685CBI	85.0 uh	37.5 uh	2.19
42A825CBI	100 uh	45.0 uh	2.25
42A104CBI	125 uh	54.0 uh	2.34
42A154CBI	187 uh	92.0 uh	2.34
42A224CBI	275 uh	123 uh	2.34
42A334CBI	410 uh	200 uh	2.37
42A474CBI	580 uh	300 uh	2.37
42A684CBI	850 uh	430 uh	2.37
42A824CBI	1.00 mh	510 uh	2.43
42A103CBI	1.25 mh	780 uh	2.43
42A153CBI	1.87 mh	1.10 mh	2.46
42A223CBI	2.90 mh	1.66 mh	2.46
42A333CBI	4.10 mh	2.40 mh	2.46
42A473CBI	5.80 mh	3.46 mh	2.52
42A683CBI	8.50 mh	5.25 mh	2.52
42A823CBI	10.0 mh	6.00 mh	2.61
42A102CBI	12.5 mh	9.20 mh	2.61
42A000CBI	Bulk pack per 100		112.20

Jumbo Adjustable R.F. Coils

Dimensions (form) ½" dia. x 1-7/16" long

Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
43A000CBI	Coil Form w/hdw. and Core		$1.32
43A105CBI	12.5 uh	5.70 uh	1.95
43A155CBI	18.7 uh	9.00 uh	1.95
43A225CBI	27.5 uh	12.0 uh	1.95
43A335CBI	41.0 uh	17.0 uh	1.98
43A475CBI	58.0 uh	25.0 uh	1.98
43A685CBI	85.0 uh	38.0 uh	2.25
43A825CBI	100 uh	42.0 uh	2.25
43A104CBI	125 uh	65.0 uh	2.25
43A154CBI	187 uh	95.0 uh	2.37
43A224CBI	275 uh	138 uh	2.37
43A334CBI	410 uh	205 uh	2.37
43A474CBI	580 uh	240 uh	2.40
43A684CBI	850 uh	370 uh	2.40
43A824CBI	1.00 mh	450 uh	2.40
43A103CBI	1.25 mh	600 uh	2.40
43A153CBI	1.87 mh	900 uh	2.46
43A223CBI	2.75 mh	1.30 mh	2.46
43A333CBI	4.10 mh	1.95 mh	2.49
43A473CBI	5.80 mh	2.90 mh	2.49
43A683CBI	8.50 mh	4.30 mh	2.55
43A823CBI	10.0 mh	5.10 mh	2.55
43A102CBI	12.5 mh	6.50 mh	2.58
43A152CBI	18.7 mh	9.80 mh	2.58
43A222CBI	27.5 mh	13.0 mh	2.61
43A332CBI	41.0 mh	20.0 mh	2.61
43A472CBI	58.0 mh	29.0 mh	2.64
43A682CBI	85.0 mh	42.0 mh	2.70
43A822CBI	100 mh	50.0 mh	2.76
43A101CBI	125 mh	66.0 mh	2.97
43A000CBI	Bulk pack per 100		118.80

Ceramic Adjustable Printed Circuit R.F. Coils

The following adjustable printed circuit coils are constructed with three soldering terminals. To hold the core stationary is a locking insert that can be tightened against the core.

Form Dimensions: .260 x .625 long.

Part No.	L Min. uh.	L Max. uh.	Net Price
46A000CPC	Coil Form w/core and Locking Insert		$1.05
46A107CPC	.095	105	1.59
46A127CPC	.114	.126	1.59
46A157CPC	.142	.158	1.59
46A187CPC	.171	.189	1.59
46A227CPC	.209	.231	1.62
46A277CPC	.256	.284	1.62
46A337CPC	.314	.347	1.62
46A397CPC	.370	.410	1.62
46A477CPC	.446	.495	1.62
46A567CPC	.532	.590	1.62
46A687CPC	.645	.715	1.62
46A827CPC	.770	.850	1.62
46A106CPC	.950	1.05	1.62
46A126CPC	1.14	1.26	1.62
46A156CPC	1.42	1.58	1.65
46A186CPC	1.62	1.98	1.65
46A226CPC	1.99	2.42	1.65
46A276CPC	2.42	2.96	1.65
46A336CPC	2.96	3.64	1.65
46A396CPC	3.50	4.27	1.65
46A476CPC	4.24	5.20	1.68
46A566CPC	5.00	6.30	1.68
46A686CPC	6.10	7.50	1.68
46A826CPC	7.30	8.90	1.68
46A105CPC	8.50	11.5	1.68
46A125CPC	10.8	13.2	1.68
46A155CPC	13.2	16.5	1.68
46A185CPC	16.2	19.5	1.68
46A225CPC	19.5	24.3	1.68
46A275CPC	24.2	29.5	1.71
46A335CPC	29.5	36.5	1.71
46A395CPC	35.0	43.0	1.71
46A475CPC	42.0	51.5	1.71
46A565CPC	50.0	62.0	1.71
46A685CPC	61.0	75.0	1.71
46A825CPC	74.0	90.0	1.71
46A104CPC	90.0	110.0	1.74
46A124CPC	108.0	132.0	1.74
46A154CPC	132.0	165.0	1.74
46A184CPC	162.0	198.0	1.74
46A224CPC	197.0	243.0	1.74
46A274CPC	242.0	295.0	1.74
46A334CPC	295.0	365.0	1.77
46A394CPC	350.0	430.0	1.77
46A474CPC	420.0	515.0	1.77
46A564CPC	500.0	620.0	1.77
46A684CPC	610.0	750.0	1.80
46A824CPC	740.0	900.0	1.80
46A103CPC	900.0	1100.0	1.80

Ceramic Adjustable Printed Circuit R.F. Coils

These adjustable printed circuit coils are constructed with four soldering terminals in which two of them may be used for auxiliary impedance windings. To hold the core stationary is a locking insert that can be tightened against the core. Form Dimensions: .430 x .563 x .625 long.

Part No.	L Min. uh.	L Max. uh.	Net Price
47A000CPC	Coil Form w/Core and Locking Insert		1.77
47A107CPC	.095	.105	2.37
47A127CPC	.114	.126	2.37
47A157CPC	.142	.158	2.37
47A187CPC	.171	.189	2.37
47A227CPC	.209	.231	2.40
47A277CPC	.256	.284	2.40
47A337CPC	.314	.347	2.40
47A397CPC	.370	.410	2.40
47A477CPC	.446	.495	2.40
47A567CPC	.532	.590	2.40
47A687CPC	.645	.715	2.40
47A827CPC	.770	.850	2.40
47A106CPC	.950	1.05	2.40
47A126CPC	1.14	1.26	2.40
47A156CPC	1.42	1.58	2.43
47A186CPC	1.62	1.98	2.43
47A226CPC	1.99	2.42	2.43
47A276CPC	2.42	2.96	2.43
47A336CPC	2.96	3.64	2.43
47A396CPC	3.50	4.27	2.43
47A476CPC	4.24	5.20	2.46
47A566CPC	5.00	6.30	2.46
47A686CPC	6.10	7.50	2.46
47A826CPC	7.30	8.90	2.46
47A105CPC	8.50	11.5	2.46
47A125CPC	10.8	13.2	2.46
47A155CPC	13.2	16.5	2.46
47A185CPC	16.2	19.5	2.46
47A225CPC	19.5	24.3	2.46
47A275CPC	24.2	29.5	2.49
47A335CPC	29.5	36.5	2.49
47A395CPC	35.0	43.0	2.49
47A475CPC	42.0	51.5	2.49
47A565CPC	50.0	62.0	2.49
47A685CPC	61.0	75.0	2.49
47A825CPC	74.0	90.0	2.49
47A104CPC	90.0	110.0	2.55
47A124CPC	108.0	132.0	2.55
47A154CPC	132.0	165.0	2.55
47A184CPC	162.0	198.0	2.55
47A224CPC	197.0	243.0	2.55
47A274CPC	242.0	295.0	2.55
47A334CPC	295.0	365.0	2.61
47A394CPC	350.0	430.0	2.61
47A474CPC	420.0	515.0	2.61
47A564CPC	500.0	620.0	2.61
47A684CPC	610.0	750.0	2.64
47A824CPC	740.0	900.0	2.64
47A103CPC	900.0	1100.0	2.64

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J. W. MILLER COMPANY Los Angeles, California

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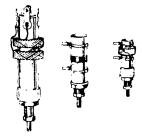
Industrial Adjustable R.F. Coils

Resinite Adjustable R.F. Coils



Resinite is a phenolic impregnated tubing which can be certified to MIL-P-79B type PBG. This material combines good mechanical and electrical characteristics along with the noncorrosive properties of cellulose acetate.

Miniature Adjustable R.F. Coils

Dimensions (form) 1/4" dia. x 13/16" long

Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
20A000RBI	Coil Form w/hdw. and Core		$ .63
20A107RBI	.125 uh	.079 uh	.87
20A157RBI	.187 uh	.119 uh	.87
20A227RBI	.275 uh	.170 uh	.87
20A337RBI	.410 uh	.240 uh	.90
20A477RBI	.580 uh	.310 uh	.90
20A687RBI	.850 uh	.430 uh	.90
20A827RBI	1.00 uh	.580 uh	.90
20A106RBI	1.25 uh	.670 uh	.90
20A156RBI	1.87 uh	.900 uh	.90
20A226RBI	2.75 uh	1.60 uh	.90
20A336RBI	4.10 uh	2.00 uh	.90
20A476RBI	5.80 uh	2.80 uh	.93
20A686RBI	8.50 uh	3.80 uh	.93
20A826RBI	10.0 uh	4.70 uh	.93
20A105RBI	12.5 uh	6.40 uh	.93
20A155RBI	18.7 uh	9.20 uh	.93
20A225RBI	27.5 uh	12.0 uh	.93
20A335RBI	41.0 uh	19.0 uh	.93
20A475RBI	58.0 uh	27.0 uh	.93
20A685RBI	85.0 uh	37.0 uh	.93
20A825RBI	100 uh	53.0 uh	.93
20A104RBI	125 uh	65.0 uh	.93
20A154RBI	187 uh	92.0 uh	.93
20A224RBI	275 uh	140 uh	.96
20A334RBI	410 uh	215 uh	.96
20A474RBI	580 uh	310 uh	.96
20A684RBI	850 uh	450 uh	.96
20A824RBI	1.00 mh	620 uh	.96
.96 20A103RBI	1.25 mh	830 uh	

Standard Adjustable R.F. Coils

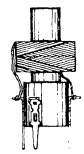
Dimensions (form) 3/8" dia. x 1 1/8" long

Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
21A000RBI	Coil Form w/hdw. and Core		$ .66
21A106RBI	1.25 uh	0.68 uh	.90
21A156RBI	1.87 uh	1.00 uh	.90
21A226RBI	2.75 uh	1.35 uh	.90
21A336RBI	4.10 uh	2.12 uh	.90
21A476RBI	5.80 uh	2.40 uh	.90
21A686RBI	8.50 uh	3.60 uh	.93
21A826RBI	10.0 uh	4.45 uh	.93
21A105RBI	12.5 uh	6.05 uh	.93
21A155RBI	18.7 uh	9.40 uh	.93
21A225RBI	27.5 uh	12.9 uh	.93
21A335RBI	41.0 uh	18.8 uh	.93
21A475RBI	58.0 uh	27.5 uh	.96
21A685RBI	85.0 uh	37.5 uh	.96
21A825RBI	100 uh	45.0 uh	.96
21A104RBI	125 uh	54.0 uh	.96
21A154RBI	187 uh	92.0 uh	.99
21A224RBI	275 uh	123 uh	.99
21A334RBI	410 uh	200 uh	1.02
21A474RBI	580 uh	300 uh	1.02
21A684RBI	850 uh	430 uh	1.05
21A824RBI	1.00 mh	510 uh	1.05
21A103RBI	1.25 mh	780 uh	1.08
21A153RBI	1.87 mh	1.10 mh	1.08
21A223RBI	2.75 mh	1.66 mh	1.11
21A333RBI	4.10 mh	2.40 mh	1.11
21A473RBI	5.80 mh	3.46 mh	1.23
21A683RBI	8.50 mh	5.25 mh	1.32
21A823RBI	10.0 mh	6.00 mh	1.41
21A102RBI	12.5 mh	9.20 mh	1.50

Jumbo Adjustable R.F. Coils

Dimensions (form) 1/2" dia. x 1 7/8" long

Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
22A000RBI	Coil Form w/hdw. and Core		$ .81
22A105RBI	12.5 uh	5.70 uh	1.23
22A155RBI	18.7 uh	9.0 uh	1.23
22A225RBI	27.5 uh	12.0 uh	1.26
22A335RBI	41.0 uh	17.0 uh	1.26
22A475RBI	58.0 uh	24.5 uh	1.29
22A685RBI	85.0 uh	38.0 uh	1.29
22A825RBI	100 uh	41.0 uh	1.32
22A104RBI	125 uh	65.0 uh	1.32
22A154RBI	187 uh	94.0 uh	1.35
22A224RBI	275 uh	138 uh	1.35
22A334RBI	410 uh	205 uh	1.38
22A474RBI	580 uh	290 uh	1.38
22A684RBI	850 uh	430 uh	1.41
22A824RBI	1.00 mh	595 uh	1.41
22A103RBI	1.25 mh	760 uh	1.44
22A153RBI	1.87 mh	1.04 mh	1.44
22A223RBI	2.75 mh	1.56 mh	1.44
22A333RBI	4.10 mh	2.30 mh	1.47
22A473RBI	5.80 mh	3.40 mh	1.47
22A683RBI	8.50 mh	5.00 mh	1.47
22A823RBI	10.0 mh	4.20 mh	1.50
22A102RBI	12.5 mh	5.30 mh	1.50
22A152RBI	18.7 mh	8.20 mh	1.62
22A222RBI	27.5 mh	12.7 mh	1.62
22A332RBI	41.0 mh	17.8 mh	1.65
22A472RBI	58.0 mh	27.5 mh	1.68
22A682RBI	85.0 mh	42.0 mh	1.71
22A822RBI	100 mh	51.0 mh	1.80
22A101RBI	125 mh	64.0 mh	1.95

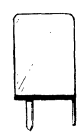


Resinite Adjustable Printed Circuit R.F. Coils

This series of printed circuit coils are wound on a phenolic impregnated tubing which combines the mechanical and dielectric advantages. Dimensions: Form length 1", Collar 3/8" Dia.

Part No.	L Min.	L Max.	Net Price
23A107RPC	.095 uh	.125 uh	.99
23A157RPC	.130 uh	.170 uh	.99
23A227RPC	.185 uh	.265 uh	.99
23A337RPC	.285 uh	.410 uh	.99
23A477RPC	.380 uh	.580 uh	.99
23A687RPC	.490 uh	.850 uh	.99
23A827RPC	.580 uh	1.00 uh	.99
23A106RPC	.690 uh	1.25 uh	.99
23A156RPC	1.10 uh	1.87 uh	.99
23A226RPC	1.50 uh	2.75 uh	.99
23A336RPC	2.20 uh	4.10 uh	.99
23A476RPC	3.10 uh	5.80 uh	.99
23A686RPC	4.20 uh	8.50 uh	.99
23A826RPC	5.10 uh	10.0 uh	.99
23A105RPC	6.50 uh	12.5 uh	.99
23A155RPC	9.00 uh	18.7 uh	1.17
23A225RPC	13.5 uh	27.5 uh	1.17
23A335RPC	20.0 uh	41.0 uh	1.17
23A475RPC	28.5 uh	58.0 uh	1.17
23A685RPC	39.5 uh	85.0 uh	1.17
23A825RPC	56.0 uh	100 uh	1.17
23A104RPC	69.0 uh	125 uh	1.17
23A154RPC	95.0 uh	187 uh	1.17
23A224RPC	145 uh	275 uh	1.17
23A334RPC	220 uh	410 uh	1.17
23A474RPC	330 uh	580 uh	1.17
23A684RPC	480 uh	850 uh	1.17
23A824RPC	640 uh	1.00 mh	1.26
23A103RPC	830 uh	1.25 mh	1.26
23A153RPC	900 uh	1.87 mh	1.26
23A223RPC	1.45 mh	2.75 mh	1.26
23A333RPC	2.20 mh	4.10 mh	1.26
23A473RPC	3.10 mh	5.80 mh	1.26
23A683RPC	4.70 mh	8.50 mh	1.26
23A823RPC	6.70 mh	10.0 mh	1.26
23A102RPC	8.90 mh	12.5 mh	1.26
23A152RPC	12.2 mh	18.7 mh	1.26
23A222RPC	11.0 mh	27.5 mh	1.32
23A332RPC	16.5 mh	41.0 mh	1.32
23A472RPC	25.0 mh	58.0 mh	1.32
23A682RPC	36.5 mh	85.0 mh	1.32
23A822RPC	45.0 mh	100 mh	1.32
23A101RPC	56.0 mh	125 mh	1.32

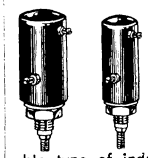
Shielded Subminiature Adjustable R.F. Coils



These compact adjustable coils offer a minimum two-to-one inductance range with relatively small changes in Q. The tuning adjustment is accessible from either the top or bottom of the coil assembly. Magnetic shielding is achieved through the use of cup cores while the metal shield offers effective electrostatic shielding. Printed circuit terminals on base and shield.

Dimensions: 1/2" sq. x 5/8" high.

Part No.	L Min.	L. Max.	Typical Dist. C (pf)	Net Price
9050	1.5 uh	3.0 uh	3.5	$1.80
9051	3.0 uh	7.0 uh	4.3	1.80
9052	7.0 uh	14.0 uh	7.6	1.85
9053	14.0 uh	28.0 uh	10.3	1.85
9054	28.0 uh	60.0 uh	11.0	1.90
9055	60.0 uh	120.0 uh	10.3	1.90
9056	120.0 uh	280.0 uh	9.0	1.90
9057	280.0 uh	650.0 uh	8.0	1.95
9058	650.0 uh	1.3 Mh	8.0	1.95
9059	1.3 Mh	3.0 Mh	16.0	1.95
9060	3.0 Mh	10.0 Mh	7.0	2.10
9061	8.0 Mh	20.0 Mh	7.0	2.10
9062	15.0 Mh	40.0 Mh	7.0	2.10
9063	20.0 Mh	60.0 Mh	10.0	2.20

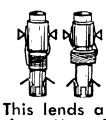


Encapsulated Adjustable R.F. Coils

This series of encapsulated coils offer the maximum possible performance from an adjustable type of inductor. The coil is wound on an epoxy form which is placed inside an epoxy cup and this area filled with epoxy resin. In this manner a complete seal against moisture is achieved and good mechanical stability is assured.

Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
50A106EBI	1.25 uh	0.62 uh	$3.60
50A156EBI	1.87 uh	0.98 uh	3.60
50A226EBI	2.75 uh	1.26 uh	3.60
50A336EBI	4.10 uh	1.82 uh	3.63
50A476EBI	5.87 uh	2.56 uh	3.63
50A686EBI	8.50 uh	3.80 uh	3.63
50A826EBI	10.2 uh	4.40 uh	3.63
50A105EBI	12.5 uh	5.40 uh	3.69
50A155EBI	18.8 uh	7.80 uh	3.69
50A225EBI	27.5 uh	11.7 uh	3.78
50A335EBI	41.3 uh	18.8 uh	3.78
50A475EBI	58.7 uh	26.5 uh	3.81
50A685EBI	85.0 uh	36.0 uh	3.81
50A825EBI	102 uh	44.0 uh	3.84
50A104EBI	125 uh	63.0 uh	4.23
50A154EBI	187 uh	92.0 uh	4.26
50A224EBI	275 uh	130 uh	4.26
50A334EBI	410 uh	200 uh	4.29
50A474EBI	580 uh	280 uh	4.29
50A684EBI	850 uh	400 uh	4.32
50A824EBI	1.00 mh	540 uh	4.32
50A103EBI	1.25 mh	770 uh	4.35
50A153EBI	1.87 mh	950 uh	4.35
50A223EBI	2.75 mh	1.58 mh	4.38
50A333EBI	4.13 mh	2.40 mh	4.38
50A473EBI	5.80 mh	3.35 mh	4.44
50A683EBI	8.50 mh	5.20 mh	4.44
50A823EBI	10.00 mh	6.20 mh	4.44

Economy Adjustable R.F. Chokes



Through the use of a recently developed Nylon molding process we are able to offer an inexpensive line of adjustable chokes. They can be adjusted from either the top or bottom. This lends a degree of flexibility to your design. Mounting is achieved by means of a metal clip in a 5/16" hole.

Dimensions: 3/8" x 1 3/8" long.

Cat. No.	Microhenries	Net Price
4200	Form only	$ .60
4201	.3 - .58	.96
4201A	.55- 1.1	.96
4202	1- 2.5	.96
4203	2- 5.5	.99
4204	5- 12	1.02
4205	10- 25	1.05
4206	20- 55	1.14
4207	50-140	1.17
4208	120-330	1.20
4209	310-860	1.23

#4200 complete with hardware and core

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Industrial R.F. Chokes and Filters

Sub-Miniature R.F. Chokes

An extremely versatile series of iron core R.F. chokes designed to meet the industries' demand for high reliability, ultra-miniature components. The coils are ideally suited to network and filter design, delay lines, and computer applications. Rated at 50 milliamperes.

Part No	L*	Min. Q @ F	Net Pr.
70F106AI	1 uh	41 @ 7.9 Mc.	$ .57
70F126AI	1.2 uh	44 @ 7.9 Mc.	.57
70F156AI	1.5 uh	48 @ 7.9 Mc.	.57
70F186AI	1.8 uh	39 @ 7.9 Mc.	.57
70F226AI	2.2 uh	48 @ 7.9 Mc.	.57
70F276AI	2.7 uh	39 @ 7.9 Mc.	.57
70F336AI	3.3 uh	48 @ 7.9 Mc.	.57
70F396AI	3.9 uh	44 @ 7.9 Mc.	.57
70F476AI	4.7 uh	46 @ 7.9 Mc.	.57
70F566AI	5.6 uh	44 @ 7.9 Mc.	.57
70F686AI	6.8 uh	44 @ 7.9 Mc.	.57
70F756AI	7.5 uh	40 @ 7.9 Mc.	.57
70F826AI	8.2 uh	40 @ 7.9 Mc.	.57
70F916AI	9.1 uh	40 @ 7.9 Mc.	.57
70F105AI	10 uh	48 @ 2.5 Mc.	.66
70F125AI	12 uh	52 @ 2.5 Mc.	.66
70F155AI	15 uh	52 @ 2.5 Mc.	.66
70F185AI	18 uh	52 @ 2.5 Mc.	.66
70F225AI	22 uh	51 @ 2.5 Mc.	.66
70F255AI	25 uh	48 @ 2.5 Mc.	.66
70F275AI	27 uh	49 @ 2.5 Mc.	.66
70F335AI	33 uh	50 @ 2.5 Mc.	.66
70F395AI	39 uh	48 @ 2.5 Mc.	.66
70F475AI	47 uh	48 @ 2.5 Mc.	.66
70F565AI	56 uh	45 @ 2.5 Mc.	.66
70F685AI	68 uh	45 @ 2.5 Mc.	.66
70F755AI	75 uh	40 @ 2.5 Mc.	.66
70F825AI	82 uh	44 @ 2.5 Mc.	.66
70F915AI	91 uh	39 @ 2.5 Mc.	.66
70F104AI	100 uh	40 @ 790 Kc.	.66
70F124AI	120 uh	44 @ 790 Kc.	.66
70F154AI	150 uh	44 @ 790 Kc.	.66
70F184AI	180 uh	45 @ 790 Kc.	.66
70F204AI	200 uh	45 @ 790 Kc.	.66
70F224AI	220 uh	45 @ 790 Kc.	.66
70F254AI	250 uh	46 @ 790 Kc.	.66
70F274AI	270 uh	45 @ 790 Kc.	.66
70F304AI	300 uh	42 @ 790 Kc.	.66
70F334AI	330 uh	47 @ 790 Kc.	.66
70F354AI	350 uh	44 @ 790 Kc.	.66
70F394AI	390 uh	42 @ 790 Kc.	.75
70F474AI	470 uh	47 @ 790 Kc.	.75
70F504AI	500 uh	42 @ 790 Kc.	.75
70F564AI	560 uh	39 @ 790 Kc.	.75
70F684AI	680 uh	44 @ 790 Kc.	.75
70F754AI	750 uh	35 @ 790 Kc.	.75
70F824AI	820 uh	42 @ 790 Kc.	.75
70F914AI	910 uh	35 @ 790 Kc.	.75
70F103AI	1.00 mh	40 @ 790 Kc.	.75
70F123AI	1.20 mh	37 @ 250 Kc.	.75
70F153AI	1.50 mh	40 @ 250 Kc.	.75
70F183AI	1.80 mh	40 @ 250 Kc.	.75
70F223AI	2.20 mh	40 @ 250 Kc.	.81
70F253AI	2.50 mh	48 @ 250 Kc.	.84
70F273AI	2.70 mh	50 @ 250 Kc.	.84
70F333AI	3.30 mh	56 @ 250 Kc.	.84
70F393AI	3.90 mh	47 @ 250 Kc.	.84
70F473AI	4.70 mh	54 @ 250 Kc.	.84
70F563AI	5.60 mh	46 @ 250 Kc.	.84
70F683AI	6.80 mh	51 @ 250 Kc.	.84
70F753AI	7.50 mh	44 @ 250 Kc.	.84
70F823AI	8.20 mh	48 @ 250 Kc.	.99
70F913AI	9.10 mh	37 @ 250 Kc.	.99
70F102AI	10.0 mh	48 @ 250 Kc.	.99
70F122AI	12 mh	39 @ 79 Kc.	1.08
70F152AI	15 mh	40 @ 79 Kc.	1.08
70F182AI	18 mh	41 @ 79 Kc.	1.08
70F222AI	22 mh	42 @ 79 Kc.	1.17

Single Pi Ferrite Core R.F. Chokes

This series of R.F. chokes affords maximum Q with minimum resistance through the use of ferrite core material. The coils are impregnated in a fungus resistant lacquer. Form Dim: .187 x 5/8" long.

Part No.	L*	Min. Q @ F	Net Pr.
73F104AF	100 uh	140 @ 790 kc.	$ .75
73F124AF	120 uh	140 @ 790 kc.	.75
73F154AF	150 uh	160 @ 790 kc.	.75
73F184AF	180 uh	160 @ 790 kc.	.75
73F224AF	220 uh	160 @ 790 kc.	.75
73F274AF	270 uh	160 @ 790 kc.	.75
73F334AF	330 uh	160 @ 790 kc.	.75
73F394AF	390 uh	160 @ 790 kc.	.75
73F474AF	470 uh	160 @ 790 kc.	.75
73F564AF	560 uh	160 @ 790 kc.	.75
73F684AF	680 uh	160 @ 790 kc.	.81
73F824AF	820 uh	150 @ 790 kc.	.81
73F103AF	1.0 mh	140 @ 790 kc.	.81
73F123AF	1.2 mh	140 @ 250 kc.	.81
73F153AF	1.5 mh	140 @ 250 kc.	.81
73F183AF	1.8 mh	140 @ 250 kc.	.81
73F223AF	2.2 mh	100 @ 250 kc.	.81
73F273AF	2.7 mh	100 @ 250 kc.	.81
73F333AF	3.3 mh	100 @ 250 kc.	.90
73F393AF	3.9 mh	95 @ 250 kc.	.90
73F473AF	4.7 mh	95 @ 250 kc.	.90
73F563AF	5.6 mh	95 @ 250 kc.	.99
73F683AF	6.8 mh	95 @ 250 kc.	.99
73F823AF	8.2 mh	70 @ 250 kc.	1.05
73F102AF	10.0 mh	65 @ 250 kc.	1.05

Single Layer Color Coded R.F. Chokes

The following solenoid wound R.F. Chokes are impregnated with a thermosetting varnish and are color coded to EIA standards. Form Dimensions: .156 x 1/2" long.

Part No.	L	Min. Q @ F	Net Pr.
74F106AP	1.0 uh	45 @ 7.9 Mc.	$ .75
74F126AP	1.2 uh	45 @ 7.9 Mc.	.75
74F156AP	1.5 uh	45 @ 7.9 Mc.	.75
74F186AP	1.8 uh	45 @ 7.9 Mc.	.75
74F226AP	2.2 uh	45 @ 7.9 Mc.	.75
74F276AP	2.7 uh	45 @ 7.9 Mc.	.75
74F336AP	3.3 uh	45 @ 7.9 Mc.	.75
74F396AP	3.9 uh	45 @ 7.9 Mc.	.75
74F476AP	4.7 uh	50 @ 7.9 Mc.	.75
74F566AP	5.6 uh	50 @ 7.9 Mc.	.75
74F686AP	6.8 uh	50 @ 7.9 Mc.	.75
74F826AP	8.2 uh	50 @ 7.9 Mc.	.75
74F105AP	10 uh	50 @ 7.9 Mc	.80
74F125AP	12 uh	30 @ 2.5 Mc.	.80
74F155AP	15 uh	30 @ 2.5 Mc.	.80
74F185AP	18 uh	30 @ 2.5 Mc.	.85
74F225AI	22 uh	85 @ 2.5 Mc.	.85
74F275AI	27 uh	80 @ 2.5 Mc.	.90
74F335AI	33 uh	80 @ 2.5 Mc.	.90
74F395AI	39 uh	90 @ 2.5 Mc.	.95
74F475AI	47 uh	90 @ 2.5 Mc.	1.00
74F565AI	56 uh	90 @ 2.5 Mc.	1.00
74F685AI	68 uh	90 @ 2.5 Mc.	1.00
74F825AI	82 uh	100 @ 2.5 Mc.	1.00
74F104AI	100 uh	100 @ 2.5 Mc.	1.00

L Tolerances: 1.0 to 2.2 uh ±20%, 2.7 to 100 uh ±10%.

Light Duty Duo-Lateral Line Filter Chokes

Single Line Filter Chokes

Part No.	Dim: 1 7/8" x 1 3/4" uh.	Rdc.	Amps.	Net Price
7825	600	.7	2	$1.80
7825-3	250	.25	3	1.80
7825-5	100	.1	5	1.80
7825-8	50	.05	8	1.80

Dual Line Filter Chokes

Part No.	Dim: 3 1/4" x 2 1/8" uh.	Rdc.	Amps.	Net Price
D-7825	600	.7	2	$3.00
D-7825-3	250	.25	3	3.00
D-7825-5	100	.1	5	3.00
D-7825-8	50	.05	8	3.00

Frequency Selective R.F. Chokes

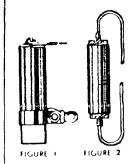


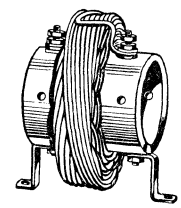
FIGURE 1 FIGURE 2

Designed for maximum efficiency and highest impedance at specific operating frequencies this group of R.F. chokes eliminates the designers task of attempting to choose the best coil for a particular application from miscellaneous and often insufficient design data. Designed to cover the major Amateur, Industrial, and Citizens bands the coils will also operate efficiently at frequencies approximating the recommended frequencies.

The RFC-3.5, RFC-7, and RFC-14 are the standoff type, mounted by a single 6-32 screw. All other coils are mounted with axial leads.

Part No.	L*	Freq. Mc.	Fig.	Net Pr.
RFC-3.5	266 uh	1.8-5	1	$1.20
RFC-7	208 uh	3-13	1	1.04
RFC-14	84 uh	7-20	1	.69
RFC-21	38.5 uh	15-30	2	.60
RFC-28	24 uh	25-40	2	.60
RFC-50	8.2 uh	30-90	2	.60
RFC-144	1.72 uh	75-180	2	.51
RFC-220	.82 uh	160-340	2	.51
RFC-420	.22 uh	325-500	2	.51

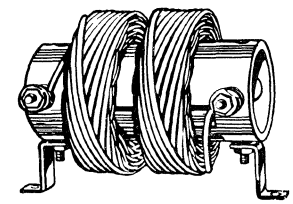
Medium Duty Duo-Lateral Line Filter Chokes



These chokes combine small physical size with low distributed capacity. They are used essentially for radio interference filtering. The chokes are wound on ceramic forms with suitable brass terminals. Dim: 2 1/2" x 4"

Part No.	uh.	Rdc.	Amps.	Net Price
7826	570	.28	5	$4.20
7827	370	.15	10	4.56
7828	200	.085	20	4.95
7829	135	.050	30	5.40

Dual Line Filter Chokes



The following Dual Duo-Lateral Line Filter Chokes are wound with two coils on the one ceramic form. They are identical in electrical specifications.

Dim: 4 1/2" x 4"

Part No.	uh.	Rdc.	Amps.	Net Price
D-7826	570	.28	5	$6.42
D-7827	370	.15	10	7.20
D-7828	200	.085	20	7.92
D-7829	135	.050	30	8.85

*TOLERANCE 0.1 TO 1.0 UH ± 20%, 1.1 TO 10 UH ± 10%, OVER 10 UH ± 5%

For a Complete Listing of MILLER PRODUCTS ask for a copy of our Latest General Catalog.

J. W. MILLER COMPANY Los Angeles, California

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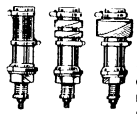
Adjustable R. F. Coils & Chokes



Adjustable Ceramic Forms and R.F. Coils

Permeability tuned coils wound on silicone impregnated ceramic forms. Hardware necessary for assembly is supplied.

Standard Adjustable Ceramic Form and R.F. Coils

Dimensions (form): 3/8" diameter x 1 1/16" long.

Cat. No.	Microhenries	Net Price
4400	Form only	$1.14
4403	0.9- 1.6	1.62
4404	1.5- 3.2	1.65
4405	3.1- 6.8	1.68
4406	6.7- 15	1.74
4407	14.8- 31	1.80
4408	30 - 69	1.83
4409	68 - 130	1.89
4410	126 - 250	1.92
4411	245 - 475	1.95
4412	450 - 800	1.98
4413	750 -1400	2.01
4414	1300 -2100	2.01

#4400 comes complete with hardware and core*

#4400 Bulk packed per 100 Net Price 99.00

Miniature Adjustable R.F. Coils

Dimensions (form): 1/4" diameter x 7/8" long.

Cat No.	Microhenries	Net Price
4500	Form only	$1.05
4501	.4- .8	1.50
4502	1.0- 1.6	1.50
4503	1.6- 2.8	1.56
4504	2.8- 5	1.59
4505	5 - 9	1.65
4506	9 - 16	1.71
4507	16 - 24	1.77
4508	24 - 35	1.80
4509	35 - 60	1.83
4511	60 -120	1.86
4512	110 -200	1.89
4513	190 -330	1.92
4514	320 -500	1.95
4514-1	480 -800	2.01

#4500 comes complete with hardware and core*

#4500 Bulk packed per 100 Net Price 81.00

Sub-Miniature Adjustable R.F. Coils

Dimensions (form): 3/16" diameter x 5/8" long.

Cat No.	Microhenries	Net Price
4300	Form only	$1.05
4301	0.17- 0.27	1.50
4302	0.27- 0.41	1.50
4303	0.40- 0.65	1.56
4304	0.64- 0.95	1.59
4305	0.94- 1.55	1.65
4306	1.5 - 2.57	1.71
4307	2.5 - 4.40	1.77
4308	4.3 - 7.15	1.80
4309	7.1 - 12.5	1.83
4310	12.4 - 20.3	1.86
4311	20.1 - 32.8	1.89
4312	32.5 - 51.5	1.92
4313	51. -102.	1.95
4314	101. -180.	1.95
4315	178. -300.	1.95

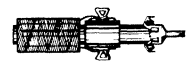
#4300 comes complete with hardware and core*

#4300 Bulk packed per 100 Net Price 81.00

Quantity orders can be wound to your specific requirements with extended inductances and Q values other than those shown. Your inquiries invited.

*When ordering forms alone, the type of core should be specified by the addition of a suffix taken from the following.

Suffix	Frequency Range of Core Material
Y	50-1000 kc.
R	1- 30 Mc.
W	30- 300 Mc.



Wide Range Adjustable Inductors

Due to the wide range of these coils they will find immediate application in many prototype designs where the exact value of the required inductance is not known.

Dimensions: Max. Dia. 3/4"x2 1/4" long both types Inductance measured at 1000 cycles

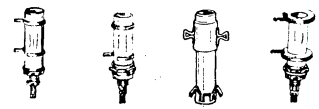
Untapped Inductors

Cat. No.	L Min.	L Max.	Net Price
9001	35 uh	.300 mh	$1.11
9002	.150 mh	1.00 mh	1.44
9003	.500 mh	3.50 mh	1.65
9004	1.75 mh	10.0 mh	1.65
9005	5.00 mh	20.0 mh	1.77
9006	10.0 mh	50.0 mh	1.89
9007	25.0 mh	130 mh	1.95
9008	65.0 mh	300 mh	2.07

Tapped Osc. Inductors

9011	35 uh	.300 mh	$1.29
9012	.150 mh	1.00 mh	1.59
9013	.500 mh	3.50 mh	1.80
9014	1.75 mh	10.0 mh	1.80
9015	5.00 mh	20.0 mh	1.89
9016	10.0 mh	50.0 mh	2.07
9017	25.0 mh	130 mh	2.07
9018	65.0 mh	300 mh	2.25

Coil Forms



We have compiled a separate listing of our coil forms that have appeared for years in our catalogs as part of the R.F. Coil listings. Resinite material is a phenolic impregnated tubing that can be certified to Mil-P-79B type PBG. The ceramic material meets Jan 1-10, Grade L5 and is Silicone Impregnated to reduce moisture absorption. When ordering forms the type of core should be specified by the addition of a suffix taken from the following:

Suffix	Frequency Range of Core Material
Y	50-1 000 kc.
R	1-30 Mc.
W	30-300 Mc.

*Core for this item is available only in Ferrite material.

R is supplied unless specified. All hardware is supplied.

Part No.	Dia.	Lgth.	Mtg. Hole	Material	Net Price
20A000RBI	1/4	13/16	13/64	Resinite	$ .63
20A000RBI		Bulk Pkd. per 100 pcs			54.00
21A000RBI	3/8	1 1/8	1/4	Resinite	.66
21A000RBI		Bulk Pkd. Per 100 pcs			57.00
22A000RBI	1/2	1 7/8	1/4	Resinite	.81
22A000RBI		Bulk Pkd. per 100 pcs			69.00
40A000CBI	7/32	19/32	11/64	Ceramic	1.44
40A000CBI		Bulk Pkd. per 100 pcs			129.00
41A000CBI	1/4	13/16	3/16	Ceramic	1.50
41A000CBI		Bulk Pkd. per 100 pcs			135.00
42A999CBI	3/8	1	1/4	Ceramic	1.56
42A000CBI		Bulk Pkd. per 100 pcs			140.40
43A000CBI	1/2	1 7/16	1/4	Ceramic	1.62
43A000CBI		Bulk Pkd. per 100 pcs			145.80
4200*	.289	1 3/8	5/16	Nylon	.60
4200*		Bulk Pkd. per 100 pcs			51.00
4300	3/16	5/8	11/64	Ceramic	1.05
4300		Bulk Pkd. per 100 pcs			81.00
4400	3/8	1 1/16	1/4	Ceramic	1.14
4400		Bulk Pkd. per 100 pcs			99.00
4500	1/4	7/8	3/16	Ceramic	1.05
4500		Bulk Pkd. per 100 pcs			81.00

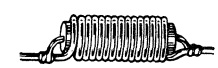
190 Iron Core Assortment
Two each of 6 different cores
Cores color coded for easy identification 1.40

Encapsulated R.F. Chokes

The following series of R.F. chokes range in value from 0.1 uh to 50 mh. Basically identical to our standard series of axial lead R.F. chokes bearing the equivalent number, these coils are encapsulated in epoxy resin and conform to MIL-C-15305.

Part No.	L*	R Max.	Current MA	Net Price
4580-E	0.1 uh.	.012	300	$1.26
4582-E	0.15 uh.	.015	300	1.26
4584-E	0.22 uh.	.021	300	1.26
4586-E	0.33 uh.	.023	300	1.26
4588-E	0.47 uh.	.026	300	1.26
4590-E	0.68 uh.	.036	300	1.26
4592-E	0.75 uh.	.040	300	1.26
4594-E	0.82 uh.	.042	300	1.26
4602-E	1.0 uh.	.06	300	1.26
4604-E	1.5 uh.	.096	300	1.26
4606-E	2.4 uh.	.192	300	1.26
4608-E	3.9 uh.	.6	300	1.26
4609-E	5.5 uh.	.83	300	1.29
4610-E	6.2 uh.	.90	300	1.29
4611-E	8.2 uh.	1.34	300	1.29
4612-E	10.0 uh.	1.8	200	1.29
4622-E	10.0 uh.	.122	300	1.32
4624-E	15.0 uh.	.170	300	1.32
4626-E	24.0 uh.	.336	300	1.35
4628-E	39.0 uh.	.78	300	1.35
4629-E	55.0 uh.	1.10	300	1.35
4630-E	62.0 uh.	1.2	300	1.35
4631-E	82.0 uh.	1.92	300	1.35
4632-E	100.0 uh.	2.4	200	1.35
4642-E	0.10 mh.	4.92	125	1.50
4644-E	0.15 mh.	6.84	125	1.50
4646-E	0.24 mh.	8.16	125	1.50
4648-E	0.39 mh.	12.0	125	1.56
4649-E	0.55 mh.	13.2	125	1.98
4650-E	0.62 mh.	15.1	125	1.98
4651-E	0.75 mh.	16.4	125	1.98
4652-E	1.0 mh.	19.8	125	1.98
4662-E	1.0 mh.	8.4	125	2.01
4664-E	1.5 mh.	10.8	125	2.04
4666-E	2.4 mh.	14.4	125	2.13
4668-E	3.9 mh.	20.4	125	2.19
4669-E	5.5 mh.	26.4	125	2.31
4670-E	6.2 mh.	39.6	100	2.31
4671-E	8.2 mh.	54.0	100	2.37
4672-E	10.0 mh.	56.4	50	2.70
6302-E	2.5 mh.	9.36	200	2.28
6304-E	5.0 mh.	14.9	200	2.37
6306-E	10.0 mh.	36.0	125	2.52
6308-E	25.0 mh.	83.4	75	2.70
6310-E	50.0 mh.	133	75	2.94

Heavy Duty Hash Chokes



Through the use of a molded powdered iron form we are able to offer a series of relatively high inductance, high current hash filter chokes.

Dim. 9/16" Diameter x 1 1/4" long.

Part No.	uh. ±20%	Rdc. Max.	Amps.	Net Price
5218	3.35	.010	13	$1.17
5219	4.9	.016	8	1.17
5220	8.8	.021	5	1.17
5230	4.0	.012	2	.90
5240	40.0	.082	2	1.05
5248	68.0	.054	2	1.05
5250	100.0	.216	2	1.17

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J. W. MILLER COMPANY Los Angeles, California

Miller

Radio Frequency Chokes

R.F. Chokes with Axial Leads

These chokes cover an inductance range from .1 microhenry to 10 millihenries in 5 decades with 8 coils per decade. Inductance values increase in steps of approximately 50%. Either single layer or 3-pi universal windings are used to insure low distributed capacity. Chokes are wound on low-loss molded phenolic or powdered iron core forms and are impregnated with a moisture- and fungus-resistant varnish. The type of powdered iron used allows the chokes to operate at all frequencies up into the ultra-high frequency region.

Dimensions: Phenolic form 1/8" diameter x 3/4" long. Iron core form 3/32" diameter x 7/8" long. Leads are 1 1/2" long.

Phenolic Form
Single Layer Windings

Cat. No.	uh.*	Ohms Max.	Ma.	Net Pr.
4580	0.1	.012	3000	$ .45
4582	0.15	.014	2900	.45
4584	0.22	.024	2800	.45
4586	0.33	.023	2600	.45
4588	0.47	.026	2500	.45
4590	0.68	.036	2400	.45
4592	0.75	.039	2200	.45
4594	0.82	.042	2100	.45
4602	1.	.060	2000	.45
4604	1.5	.096	1800	.45
4606	2.4	.192	1500	.45
4608	3.9	.600	1000	.45
4609	5.5	.828	850	.48
4610	6.2	.900	700	.48
4611	8.2	1.34	600	.48
4612	10	1.80	500	.48

Iron Core Form
Single Layer Windings

Cat. No.	uh.*	Ohms Max.	Ma.	Net Pr.
4622	10	.072	1500	$ .51
4624	15	.170	1000	.51
4626	24	.336	800	.54
4628	39	.780	600	.54
4629	55	1.10	500	.57
4630	62	1.20	475	.57
4631	82	1.92	450	.57
4632	100	2.40	400	.57

Phenolic Form
3-Section Windings

Cat. No.	mh*	Ohms Max.	ma	Net Pr.
4642	0.1	4.92	125	$ .57
4644	0.15	6.84	125	.57
4646	0.24	8.16	125	.57
4648	0.39	12.0	125	.63
4649	0.55	13.2	125	.63
4650	0.62	15.1	125	.63
4651	0.75	16.4	125	.63
4652	1.0	19.8	125	.63

Iron Core Form
3-Section Windings

Cat. No.	mh*	Ohms Max.	ma	Net Pr.
4662	1	8.4	125	$ .66
4664	1.5	10.8	125	.69
4666	2.4	14.4	125	.75
4668	3.9	20.4	125	.81
4669	5.5	26.4	125	.93
4670	6.2	39.6	125	.93
4671	8.2	54.0	125	1.11
4672	10	56.4	50	1.29

Ferrite Core R.F. Chokes

A new series of R.F. Chokes taking advantage of the high permeability of ferrite cores. These chokes combine high inductance and low D.C. resistance with a small physical size.

Dimensions of core: 1/4" diameter x 7/8" long. 1 1/2" long axial leads.

Cat. No.	mh*	Ohms Max.	ma	Net Pr.
6302	2.5	9.36	200	$ .81
6304	5	14.9	200	.93
6306	10	36.0	125	1.08
6308	25	83.4	75	1.26
6310	50	133	75	1.44

Multiple Pi Chokes

These Multiple Pi duo-lateral chokes have a low distributed capacity of 1.2-1.3 mmf. The current carrying capacity is comparatively high for this type of choke.

Inductance tol. ±5%.

Cat. No.	Mh.	Ohms Max.	MA	Net Price
4531-0	.25	9.6	200	$ .75
4531	.5	14.4	200	.75
4531-1	1	20.4	200	.75
4532	1.5	25.2	200	.78
4537	2.5	33.6	200	.81
4538	5	50.4	125	.96
4539	7.5	98.4	125	1.08
4540	10	114	125	1.20
4541	25	192	125	1.41
#4537 Bulk packed per 100 — Net Pr.				66.00

R.F. Chokes wound to closer tolerances if required in lots of 100 pieces or more at slightly higher prices.

Unshielded Chokes

These single section R.F. Chokes are ideally suited for general purpose applications in receiver and filter circuit. Solder lug terminals and single hole mounting. Inductance tol. ±5%.

Air Core Type

Dimensions: 1 1/8" diameter x 5/8".

Cat. No.	Mh.	Ohms Max.	MA	Net Price
610	.25	9.6	125	$ .60
615	.5	14.4	125	.60
620	.75	19.2	125	.60
622	1.0	21.6	125	.60
630	1.5	25.2	125	.66
640	2.5	34.8	125	.75
650	5.0	52.8	125	.75
660	7.5	66.0	125	.78
670	10	81.0	125	.81
680	12.5	92.5	125	.84
690	15	102	125	.87
691	20	120	125	.96
692	30	156	100	.99
693	60	240	100	1.14
694	80	264	100	1.23

Center Tapped Types

Cat. No.	Mh.	Ohms Max.	MA	Net Price
670-T	10	80.4	125	.87
691-T	20	120	125	.99
693-T	60	240	100	1.32

Iron Core Type

These chokes are similar in construction to the No. 600 series except that they are wound on powdered iron cores. Inductance tol. ±5%.

Cat. No.	Mh.	Ohms Max.	MA	Net Price
951	.5	8.40	125	$ .78
952	1.0	13.2	125	.84
953	2.5	22.8	125	.93
954	5.0	34.8	125	1.05
955	7.5	44.4	125	1.14
956	10.0	56.4	125	1.20
957	25.0	99.5	100	1.32
958	50.0	156	100	1.50
959	75.0	204	100	1.65
960	100.0	240	100	1.86
961	150.0	312	100	1.98

Shielded Chokes

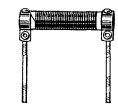
Single section wound R.F. Chokes assembled in round aluminum shield with two spade bolts for mounting. Solder lug terminals.

Iron Core Type

Dimensions: 1 1/4" dia. x 1 1/8" high

Cat. No.	Mh.	Ohms Max.	MA	Net Price
851	.5	9.60	125	$1.17
852	1.0	13.2	125	1.23
853	2.5	24.0	125	1.26
854	5.0	37.2	125	1.32
855	7.5	50.4	125	1.38
856	10.0	56.4	125	1.50
857	25.0	112	125	1.65
Dimensions: 1 5/8" dia. x 1 1/8" high				
858	50.0	192	100	1.71
859	75.0	228	100	1.89
860	100.0	384	100	2.04
861	150.0	576	100	2.31

Ceramic Core R.F. Chokes



Miller ceramic core radio frequency chokes are the result of careful research and design, and present advantages found in no other comparable chokes. These chokes have extremely low distributed capacity.

All chokes are impregnated with a moisture- and fungus-resistant varnish.

Dimensions: (form) 1/4" diameter by 1 1/2" long.

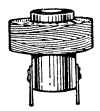
Single Layer Wound Chokes

Part No.	uh.*	Ohms Max.	ma	Net Price
4528-1	1	.036	300	$ .54
4528	2.5	.108	300	.54
4529	5	.300	300	.54
4529-10	10	1.14	300	.54

Progressive Wound Chokes

Part No.	uh.*	Ohms Max.	ma	Net Price
4515	25	1.92	300	$ .60
4517	50	2.52	300	.60
4519	100	3.60	300	.60

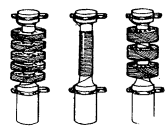
PC Air Core R.F. Chokes



The following R.F. Chokes have been designed to offer a wide range of inductance values for use in printed circuit applications. Our standard stock of these coils is impregnated with a high grade coil varnish to prevent moisture absorption. On special orders we can supply these items treated with fungus resistant material, or encapsulated in epoxy resin to meet MIL-C-15305

Part No.	L*	DC R Max.	Current	Net Price
970	1.0 mh.	20.6 ohms	125 ma.	$ .57
971	1.2 mh.	23.8 ohms	125 ma.	.57
972	1.5 mh.	26.4 ohms	125 ma.	.57
973	1.8 mh.	29.6 ohms	125 ma.	.60
974	2.2 mh.	32.9 ohms	125 ma.	.60
975	2.7 mh.	37.4 ohms	125 ma.	.60
976	3.3 mh.	41.8 ohms	125 ma.	.63
977	3.9 mh.	46.7 ohms	125 ma.	.63
978	4.7 mh.	51.8 ohms	125 ma.	.63
979	5.6 mh.	57.6 ohms	125 ma.	.63
980	6.8 mh.	64.4 ohms	125 ma.	.66
981	8.2 mh.	73.0 ohms	100 ma.	.66
982	10.0 mh.	81.6 ohms	100 ma.	.72
983	12.0 mh.	92.4 ohms	100 ma.	.75
984	15.0 mh.	105 ohms	100 ma.	.78
985	18.0 mh.	117 ohms	100 ma.	.81
986	22.0 mh.	130 ohms	75 ma.	.93
987	27.0 mh.	145 ohms	75 ma.	.96
988	33.0 mh.	251 ohms	75 ma.	1.02
989	39.0 mh.	277 ohms	75 ma.	1.05
990	47.0 mh.	316 ohms	50 ma.	1.08
991	56.0 mh.	351 ohms	50 ma.	1.14
992	68.0 mh.	391 ohms	50 ma.	1.20
993	82.0 mh.	442 ohms	50 ma.	1.26
994	100.0 mh.	473 ohms	50 ma.	1.32

Ceramic Form R.F. Chokes



A series of high quality fixed coils wound on a silicone impregnated steatite form. The coils are the standoff type and are mounted by a single 6-32 screw. They find primary application in low power transmitters and associated equipment where relatively high current capacity and low distributed capacitance are important.

Part Number	L*	Rated Current	Net Price
4552	0.25 mh.	150 ma.	$ .75
4553	0.50 mh.	150 ma.	.75
4554	1.0 mh.	150 ma.	.81
4555	2.5 mh.	150 ma.	.93
4556	5.0 mh.	150 ma.	.96
4557	0.25 mh.	300 ma.	.81
4558	0.50 mh.	300 ma.	.81
4559	1.0 mh.	300 ma.	.99
4560	2.5 mh.	300 ma.	1.08
4561	5.0 mh.	300 ma.	1.14

*TOLERANCE 0.1 TO 1.0 UH ± 20%, 1.1 TO 10 UH ± 10%, OVER 10 UH ± 5%

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J. W. MILLER COMPANY Los Angeles, California

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Miller

Transistor Components and I.F. Transformers

Adjustable Padder Condensers

Used as adjustable oscillator padding condenser in super-het receivers to insure proper three-point tracking. They also find application as the horizontal drive control in television receivers. 1/4" single hole mounting.

Dimensions: 7/8" x 1" x 3/8" thick.

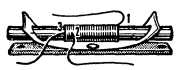
Cat. No.	Capacity Range	Net Price
160-A	360-1000 mmfd.	$ .84
160-B	50-400 mmfd.	.75
160-C	200-600 mmfd.	.84
160-D	10-160 mmfd.	.66
160-E	25-280 mmfd.	.72

Standard Transistor Antenna Rod

Dimensions: 3/4" x 9".

Cat. No.	Q @ 790 KC	Freq. Range	Tuning Cond. Max. Capacity	Net Price
2000	450	540-1650 KC	365 mmf.	$1.95

Miniature Transistor Antenna Rods



Dimensions: 3/4" x 3 3/4".

Cat. No.	Q @ 790 KC	Freq. Range	Tuning Cond. Max. Capacity	Net Price
2001	550	540-1650 KC	365 mmf.	$1.80
2003	500	540-1650 KC	130 mmf.	1.80

Ferrite-Strip Transistor Antenna Rods

Dimensions: 1/4" x 3/4" x 3 3/4" Tuning

Cat. No.	Q @ 790 KC	Freq. Range	Cond. Max. Capacity	Net Price
2004	500	540-1650 KC	365 mmf.	$1.80
2005	450	540-1650 KC	130 mmf.	1.80

Sub-Miniature Transistor Antenna Rods

Dimensions: 1/2"x2 1/2". Tuning

Cat. No.	Q @ 790 KC	Freq. Range	Cond. Max. Capacity	Net Price
2002	250	540-1650 KC	250-450 mmf.	$1.11
2007	220	540-1650 KC	100-250 mmf.	1.44

High-Q Ferrite Antenna Coil

Supplied with mounting bracket

Dimensions: 3/8" diameter x 2 1/4" long.

Cat. No.	Use	Freq. Range	Net Price
6300	Antenna Stage	540-1700 KC	$ .90

Unshielded Miniature Transistor Oscillators

The 2020 oscillator coil (Revised 5-lug) is designed for use in a converter oscillator circuit. The 2023 oscillator coil (6-lug) is for use where a separate transistor is used for the oscillator and another transistor for the mixer.

Dimensions: 3/8" x 1" high.

Cat. No.	Cond. Max. Capacity	I.F. Freq.	Net Price
2020	365 mmf.	455 KC	$1.65
2022	78-100 mmf.	455 KC	1.65
2023	365 mmf.	455 KC	1.65

Sub-Miniature Transistor I.F. Transformers & Matching Osc.

A high impedance, tapped primary winding coupled to a low impedance secondary provides optimum energy transfer.

Dimensions: 3/8" sq. x 5/8" high.

Cat. No.	Freq.	Impedance	Use	Net Price
9-C1	455 KC	25K— 600 Ohms	Input	$2.40
9-C2	455 KC	25K—1000 Ohms	Output	2.40
2021	Oscillator (Tuning Cap. 78 mmfd)			2.10

Miniature Transistor I.F. Transformers

Designed to have the proper impedance match when used with the transistors on our data sheets.

Dimensions: 1/2" sq. x 3/4" high.

Cat. No.	Freq.	Impedance	Use	Net Price
2031	455 KC	10K— 600 Ohms	Input	$2.10
2032	455 KC	10K—1000 Ohms	Output	2.10
2041	455 KC	25K— 600 Ohms	Input	2.10
2042	455 KC	25K—1000 Ohms	Output	2.10
2043	455 KC	70K—1000 Ohms	Input	2.10
2044	455 KC	30K—4000 Ohms	Output	2.10
2045	455 KC	70K— 500 Ohms	Input	2.10
2051	455 KC	100K—1000 Ohms	Input	2.10

Sub-Miniature I.F. Trans.

Through the use of a Ferrite shell core material these Sub-Miniature I.F. Transformers offer the gain and bandwidth characteristics previously obtained in only larger I.F. assemblies. (For Battery or AC-DC Radios.)

Dimensions: 1/2" sq. x 1 1/2" high.

Cat. No.	Item	Net Price
10-C1	455 KC Input I.F. Trans.	$2.85
10-C2	455 KC Output I.F. Trans.	2.85

Micro Miniature Transistor I.F. Trans. & Matching Oscillator

Construction is ultra small, rugged and mechanically stable. Tuning being effected by means of a sturdy threaded cup core which engages a threaded coil support. Dimensions: 9/32" sq. x 15/32" high

Cat. No.	Freq.	Impedance	Use	Net Price
2061	455 kc	50k - 800 ohms	Input	$2.10
2062	455 kc	30k - 500 ohms	Instage	2.10
2063	455 kc	20k - 5k ohms	Output	2.10
2060	Oscillator (Tuning cap. 78 to 100 mmfd, max.)			2.10

Mini Miniature Transistor I.F. Trans. & Matching Oscillator

Similar in style to the Micro Miniature, these transformers are a little larger in size, with built-in capacitors for higher available Q.

Dimensions 13/32" sq. x 1/2" high

Cat. No.	Freq.	Impedance	Use	Net Price
2066	455 kc	50k - 800 ohms	Input	$2.10
2067	455 kc	30k - 500 ohms	Instage	2.10
2068	455 kc	20k - 5k ohms	Output	2.10
2065	Oscillator (Tuning cap. 78 to 110 mmfd, max.)			2.10

F.M. Transistor I.F. Transformers

This series of high quality I.F., Discriminator, and Ratio Detector transformers makes it possible for the first time to construct a completely self-contained battery operated F.M. receiver which compares favorably with its vacuum tube counterpart.

Dimensions: 3/4" sq. x 2" high.

Cat. No.	Freq.	Use	Net Price
1601	10.7 Mc	First I.F. Input	$2.28
1602	10.7 Mc	Second I.F. Instage	2.37
1603	10.7 Mc	Third I.F. Output	2.37
1604	10.7 Mc	Discriminator	2.55
1605	10.7 Mc	Ratio Det. w/Diodes	4.80
1606	10.7 Mc	Ratio Detector	2.25

Printed Circuit Style

Dimensions: 3/4" sq. x 2 1/8" high.

Cat No.	Freq.	Use	Net Price
1601-PC	10.7 Mc	Transistor First I.F.	$2.85
1602-PC	10.7 Mc	Transistor Second I.F.	2.97
1603-PC	10.7 Mc	Transistor Third I.F.	2.37
1605-PC	10.7 Mc	Ratio Detector with Diodes	5.70

Sub-Miniature Style

This series of transformers have single tuned I.F.'s and double tuned Ratio Detectors.

I.F. Trans. Dimensions: 13/32" sq. x 1/2" high
Ratio Det. Dimensions: 13/32" x 3/4" x 1/2" high

2070	10.7 Mc	First I.F.	Input	$2.25
2071	10.7 Mc	Second I.F.	Instage	2.25
2072	10.7 Mc	Third I.F.	Output	2.25
2073	10.7 Mc	Ratio Detector		2.70

Sub-Miniature Style

These imported transformers are designed for transistor operation with excellent impedance matching.

*** To be used as a pair**

Dimensions: 8850, 8851, 8805, 8806 & 8807
25/32" x 7/16" x 1/2" high.
8852, 8853, & 8854
13/32" sq. x 3/8" high.
8808 & 8809
1/4" sq. x 7/16" high.
8810, 8811, 8812 & 8813
9/32" sq. x 15/32" high.

10.7 Mc. Transistor Transformers

Cat. No.	Specs.	Use	Net Price
8850	300 kc. P/P	Discriminator	$2.10
8851	6 db.300 kc.	Double Tuned I.F.	2.10
8852	100K—300	Single Tuned I.F.	1.80
8853	20K—500	Single Tuned I.F.	1.80
8854	25K—500	Single Tuned I.F.	1.80

455 Kc. Transistor Transformers

Cat. No.	Specs.	Use	Net Price
8805	20 kc. P/P	Ratio Detector	$2.10
8806	20 kc. P/P	Discriminator	2.10
8807	6 db 15 kc.	Double Tuned I.F.	2.10
8808	100K Input	Discriminator Pri.*	1.50
8809	20 kc. P/P	Discriminator Sec.*	1.50
8810	50K—800	Single Tuned I.F.	1.50
8811	30K—500	Single Tuned I.F.	1.50
8812	20K—5K	Single Tuned I.F.	1.50
8813	Oscillator (455 kc. I.F.) (Tuning Cap. 78 to 110 pf. Max.)		1.50

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J. W. MILLER COMPANY Los Angeles, California

Miller

R. F. and I. F. Transformers

Miniature Adjustable R.F. Coils

These high Q adjustable iron core coils are for general replacement use.

Dimensions:

70-A and 70-RF — ½" dia x 1½" long
69-Osc and 70-Osc — ½" dia x 1⅛" long
67-Osc — ⅜" dia x 1⅝" long
71-RF — ¾" dia x 1¾" long

Cat No.	Item		Net Price
67-OSC	Oscillator Stage Autodyne type Oscillator	540-1600 kc	$1.29
69-OSC	Oscillator Stage Capacity coupled type	540-1600 kc	1.14
70-A	Antenna Stage	540-1600 kc	1.14
70-RF	R.F. Stage	540-1600 kc	1.14
70-OSC	Oscillator Stage	540-1600 kc	1.14
71-RF	R.F. Coil	540-1600 kc	1.80

Universal Adjustable Oscillator Coil

These adjustable iron core oscillator coils are for general replacement use.

Dimensions: ⅝" x 1½" high.

Cat. No.	Use	Freq. Range	Net Price
71-OSC	Oscillator Stage (I.F. 100-550 KC)	R.F. 500-1800 KC	$1.65

Adjustable FM R.F. Coils

Dimensions: ½" O.D. x 1⅝" long.

		Net. Pr.
1447	88-108 MC Antenna Coil	$1.20
1448	88-108 MC R.F. Coil	1.20
1449	88-108 MC Osc. Coil (10.7 MC I.F.)	1.20

Unshielded High-Q R.F. Coils

A complete line of Unshielded Permeability tuned coils for replacement use or as the front end components in new receiver design. These #5495 series coils can be shielded in our #S-33 shields (1⅛" sq.) with very little loss in Q. Mounting is by means of a single ¼" hole. **Dimensions (form):** ⅜" x 2".

Ranges shown are for use with a 365 mmfd. variable tuning condenser.

Long Wave Coils (140-420 KC)

Cat. No.	Use	Net Price
X-5495-A	Antenna Stage	$1.65
X-5495-RF	RF Stage	1.65
X-5495-C	Standard Osc. 455 KC	1.65
X-5496-C	Tapped Osc. 455 KC	1.65

Broadcast Band Coils (540-1700 KC)

A-5495-A	Antenna Stage	1.65
A-5495-RF	RF Stage	1.65
A-5495-C	Standard Osc. 455 KC	1.65
A-5496-C	Tapped Osc. 455 KC	1.65

Medium Wave Coils (1.7-5.5 MC)

B-5495-A	Antenna Stage	1.65
B-5495-RF	RF Stage	1.65
B-5495-C	Standard Osc. 455 KC	1.65
B-5496-C	Tapped Osc. 455 KC	1.65

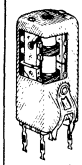
Short Wave Broadcast Coils (5-18 MC)

C-5495-A	Antenna Stage	1.65
C-5495-RF	RF Stage	1.65
C-5495-C	Standard Osc. 455 KC	1.65
C-5496-C	Tapped Osc. 455 KC	1.65

High Frequency Coils (12-36 MC)

D-5495-A	Antenna Stage	1.65
D-5495-RF	RF Stage	1.65
D-5495-C	Standard Osc. 455 KC	1.65
D-5496-C	Tapped Osc. 455 KC	1.65

Miniature J-Tran Top Tuned I.F. Transformers

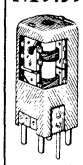


The standard J-TRAN series of miniature I.F. transformers has hollow hexagonal-hole cores and thereby, with the aid of a suitable tuning tool (#182), permits either double or single ended tuning. The transformer is mounted with a unique snap fastener which is permanently attached to the shield.

Dimensions: ¾" by ¾" by 2" high. *(With diode filter capacitors)

Cat. No.	Item	Net Price
14-H1	262 kc Input I.F.	$1.80
14-H2	262 kc Output I.F.	1.74
14-H6	262 kc Output I.F.*	1.89
14-C1	455 kc Input I.F.	1.62
14-C2	455 kc Output I.F.	1.62
14-C6	455 kc Output I.F.*	1.80
14-C7	455 kc Input I.F. Battery Radios	1.62
14-C8	455 kc Output I.F. Battery Radios	1.62
14-C9	455 kc Input I.F. AC-DC Radios	1.62
14-C10	455 kc Output I.F. AC-DC Radios	1.62
6270	4.5 Mc Input or Interstage	1.80
6271	4.5 Mc Ratio Detector	2.97
1457	10.7 MC Input or Interstage	1.95
1458	10.7 MC Discriminator	2.25
1459	10.7 MC Ratio Detector	2.34
1464-WB	10.7 MC Disc. 900 KC. P/P	2.25
1465-WB	10.7 MC Ratio Det. 800 KC. P/P	2.34
6230	TV Converter I.F.	1.80
6231	TV 44 MC First i.F. Trap	1.80
6232	TV 42.5 MC Second I.F. 41.25 MC	1.59
6233	TV 45.5 MC Third I.F. 47.25 MC	1.92
6234	TV 44 MC Fourth I.F.	1.50

Miniature Printed Circuit Top Tuned I.F. Transformers

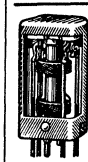


The printed circuit series of miniature J-TRAN I.F. transformers is similar to the standard J-TRAN shown in that both cores may be tuned from either end of the shield.

Dimensions: ¾" by ¾" by 2" high. *(With diode filter capacitors)

Cat. No.	Item	Net Price
16-PH1	262 kc Input I.F.	$1.71
16-PH2	262 kc Output I.F.	1.71
16-PH6	262 kc Output I.F.*	1.89
16-PC1	455 kc Input I.F.	1.65
16-PC2	455 kc Output I.F.	1.65
16-PC6	455 kc Output I.F.*	1.80
16-PC7	455 kc Input I.F. Battery Radios	1.65
16-PC8	455 kc Output I.F. Battery Radios	1.65
16-PC9	455 kc Input I.F. AC-DC Radios	1.65
16-PC10	455 kc Output I.F. AC-DC Radios	1.65
6270-PC	4.5 Mc Input or Interstage	1.80
6271-PC	4.5 Mc Ratio Detector	2.97
6230-PC	TV 44 MC Converter I.F. Trans.	1.95
6231-PC	TV 44 MC First I.F. Trans. Trap	1.86
6232-PC	TV 42.5 MC Second I.F. 41.25 MC	1.68
6233-PC	TV 45.5 MC Third I.F. 47.25 MC	1.86
6234-PC	TV 44 MC Fourth I.F. Trans.	1.65

Universal I.F. Transformers



For general replacement purposes in auto receivers and many types of household and portable receivers.

Dimensions: 1¼" square x 2½" high.

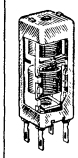
Cat. No.	Freq.	KC Range	Use	Net Price
312-H1	262	250-275	Input	$1.89
312-H2	262	250-275	Interstage	1.89
312-H4	262	250-275	Output	1.89
312-H6	262	250-275	Output & Filter	2.13
312-C1	455	440-470	Input	1.89
312-C2	455	440-470	Interstage	1.89
312-C4	455	440-475	Output	1.89
312-C6	455	440-470	Output & Filter	2.13

Type No. 412 Iron Core Transformers

Dimensions: 1¼" square x 2½" high.

Cat. No.	Freq.	KC Range	Use	Net Price
412-H1	262	250-275	Input	$1.89
412-H2	262	250-275	Interstage	1.89
412-H4	262	250-275	Output	1.89
412-C1	455	440-470	Input	1.89
412-C2	455	440-470	Interstage	1.89
412-C4	455	440-470	Output	1.89

Miniature I.F. Trans.



Designed for experimental use and for general replacement in "personal" radio receivers, this series of shell core permeability tuned transformers are becoming increasingly popular. Tuning from top and bottom of the shield. Transformers are available for all standard I.F.

*(With diode filter capacitors)

Dimensions: ¾" by ¾" by 2" high.

Cat. No.	Item	Net Price
12-H1	262 KC Input I.F. Trans	$1.74
12-H2	262 KC Output I.F. Trans.	1.74
12-H6	262 KC Output I.F. Trans.*	1.80
12-C1	455 KC Input 16 KC @ 6db	1.62
12-C2	455 KC Output 21 KC @ 6db	1.62
12-C6	455 KC Output I.F. Trans.	1.71
12-C7	455 KC Input I.F. Battery	1.62
12-C8	455 KC Output I.F. Battery	1.62
12-C9	455 KC Input I.F. AC-DC	1.62
12-C10	455 KC Output I.F. AC-DC	1.62
12-C12	455 KC Tapped Pri. I.F. Trans.	1.95
12-C30	455 KC Input 11.4 KC @ 6db	1.62
12-C31	455 KC Output 13.6 KC @ 6db	1.62
12-C45	455 KC Discriminator	2.70
13-W1	1500 KC Input or Interstage	1.65
13-W2	1500 KC Output I.F. Trans.	1.65
1463	10.7 MC Input or Interstage	1.95
1464	10.7 MC Discriminator	2.25
1465	10.7 MC Ratio Detector	2.34
1725	455 kc Xtal Filter I.F. Input	1.95
1726	455 kc Xtal Filter I.F. Output	1.95
6203	4.5 MC Input or Interstage	1.98
6204	4.5 MC Discriminator	2.25
6205	4.5 MC Ratio Detector	2.25
6260	21.25 MC I.F. Trans.	2.55
6261	21.25 MC Discriminator	2.70
6262	21.25 MC Radio Detector	2.70

Miniature Printed Circuit I.F. Trans.

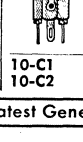
Same as our regular miniature I.F. transformers shown above, except for terminals and mounting. Supplied in all standard frequencies.

*(With diode filter capacitors)

Dimensions: ¾" sq. x 2" high.

		Net Price
13-PH1	262 KC Input I.F. Trans.	$1.71
13-PH2	262 KC Output I.F. Trans.	1.71
13-PH6	262 KC Output I.F. Trans. *	1.80
13-PC1	455 KC Input I.F. Trans.	1.65
13-PC2	455 KC Output I.F. Trans.	1.65
13-PC6	455 KC Output I.F. Trans. *	1.74
13-PC7	455 KC Input I.F. Trans. Battery	1.65
13-PC8	455 KC Output I.F. Trans. Battery	1.65
13-PC9	455 KC Input I.F. Trans. AC-DC	1.65
13-PC10	455 KC Output I.F. Trans. AC-DC	1.65
1463-PC	10.7 MC Input or Interstage	1.95
1464-PC	10.7 MC Discriminator Trans.	2.25
1465-PC	10.7 MC Ratio Detector Trans.	2.34
6203-PC	4.5 MC Input or Interstage	2.07
6204-PC	4.5 MC Discriminator Trans.	2.25
6205-PC	4.5 MC Ratio Detector Trans.	2.25

Sub-Miniature I.F. Trans.



Through the use of a Ferrite shell core material these Sub-Miniature I.F. Transformers offer the gain and bandwidth characteristics previously obtained in only larger I.F. assemblies. (For Battery or AC-DC Radios.)

Dimensions: ½" sq. x 1½" high.

Item	Net Price
10-C1 455 KC Input I.F. Trans.	$2.85
10-C2 455 KC Output I.F. Trans.	2.85

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J. W. MILLER COMPANY Los Angeles, California

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Miller

Television Components

Single Pi R.F. Coils

These fixed inductors are wound on a mineral filled phenolic form which has axial leads. The coils are impregnated with an R.F. varnish to assure against moisture absorption.

Part No.	L*	Q Min.	Min. Fo. Mc	Net Price
72F105AP	10 uh	23	13	$ .60
72F125AP	12 uh	21	12	.60
72F155AP	15 uh	20	11	.60
72F185AP	18 uh	20	9.8	.60
72F225AP	22 uh	18	9.6	.60
72F275AP	27 uh	17	8.9	.60
72F335AP	33 uh	16	8.1	.60
72F395AP	39 uh	15	7.5	.60
72F475AP	47 uh	14	7.2	.60
72F565AP	56 uh	13	6.5	.60
72F685AP	68 uh	12	6.1	.60
72F825AP	82 uh	12	5.8	.60
72F104AP	100 uh	20	5.3	.69
72F124AP	120 uh	19	5.0	.69
72F154AP	150 uh	18	4.6	.69
72F184AP	180 uh	17	4.3	.69
72F224AP	220 uh	17	4.0	.75
72F274AP	270 uh	16	3.5	.75
72F334AP	330 uh	16	3.3	.81
72F394AP	390 uh	16	3.1	.81
72F474AP	470 uh	15	2.9	.84
72F564AP	560 uh	14	2.6	.84
72F684AP	680 uh	14	2.4	.84
72F824AP	820 uh	13	2.2	.84
72F103AP	1000 uh	28	1.9	.84

Video Peaking Coils, Filament Choke

No. 6175 Filament Choke—$\frac{3}{32}$" dia. x 7/8" long; Video Peaking Coils—3/16" dia. x 3/8" long.

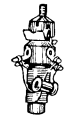
Cat. No.	Use	uh	Resistor	Net Price
6175	Filament	0.8	None	$ .57
6152	Peaking	20	None	.57
6176	Peaking	36	None	.57
6110	Peaking	60	None	.57
6172	Peaking	73	None	.57
6177	Peaking	93	None	.57
6112	Peaking	100	None	.57
6178	Peaking	120	22K	.57
6153	Peaking	120	None	.57
6120	Peaking	155	None	.57
6179	Peaking	180	39K	.57
6180	Peaking	180	None	.57
6154	Peaking	200	None	.57
6173	Peaking	250	22K	.57
6181	Peaking	250	None	.57
6130	Peaking	275	None	.57
6155	Peaking	300	None	.57
6132	Peaking	330	None	.57
6134	Peaking	375	None	.57
6136	Peaking	420	None	.57
6138	Peaking	470	None	.57
6174	Peaking	500	None	.57
6144	Peaking	550	None	.57
6146	Peaking	600	None	.57
6148	Peaking	700	None	.57
6156	Peaking	800	None	.57
6157	Peaking	950	None	.57

21.25 MC Television I.F. Transformers

Dimensions:
6185-6186-6187 7/8" Sq. x 2 1/4" high
6170, 6190 and 6191 7/8" sq. x 2 1/4" hi
6184 and 6192 1 1/8"x1 1/8"x2 1/2" high.
6261 and 6262 3/4" sq. x 2" high clip mtg.

Item		Freq.	Net Pr.
6185	21.8 MC Conv. I.F. Trans.	21.25 MC	$2.04
6186	25.3 MC 1st Pix I.F. Trans.	27.25 MC	2.04
6187	22.3 MC 2nd Pix I.F. Trans.	19.75 MC	1.65
6190	1st Sound I.F. Trans.	21.25 MC	1.80
6191	2nd Sound I.F. Trans.	21.25 MC	1.80
6192	Sound Disc. Trans.	21.25 MC	2.16
6184	Sound Ratio Det. Trans.	21.25 MC	2.52
6170	Sound Disc. Trans.	21.25 MC	2.46
6261	Sound Disc. Trans.	21.25 MC	2.70
6262	Sound Ratio Det. Trans.	21.25 MC	2.70

Picture I.F. Inductors Unshielded



Dimensions: 1/2" max. o.d. x 1 1/2" long.

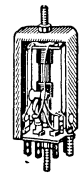
Cat. No.	Description	Freq.	Net Pr.
6188	3rd Pix I.F. Trans.	25.2 MC	$ .99
6189	Video Detector I.F. Trans.	23.4 MC	.99
6193	Cathode Sound Trap	21.25 MC	1.50
6171	Tunable Choke	21-25 MC	.96
6171A	Tunable Choke	25-29 MC	.96

24 MC Unshielded Picture I.F. Transformers

For use as replacemen units in television receivers where unshielded coils are called for and standard circuitry is employed. Mounting clip to fit 5/16" hole in chassis.
Shielded I.F. trans. are 3/4" sq. x. 1 3/8" high.
Maximum Dimensions: 2 1/2" long.

Cat. No.	Description	Trap	Price
6245	25.5 MC First I.F.	27.25 MC	$1.86
6246	22 MC Second I.F.	21.2 MC	1.86
6247	21.25 MC Cathode Trap		1.86
6248	24.5 MC Video Det. I.F.		1.17
6249	21-25 MC Bifilar Wound I.F.		1.17
6250	25-29 MC Bifilar Wound I.F.		1.17
6251	21-25 MC Bifilar I.F. Shielded		1.65
6252	25-29 MC Bifilar I.F. Shielded		1.65
6253	21-30 MC Bifilar I.F.	20-30 MC	2.13
6254	22-32 MC Bifilar I.F.	24-29 MC	2.13

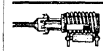
"40 MC" TV Picture I.F. Transformers



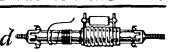
Converter transformer and 1st pix I.F. grid transformer have 75-ohm link winding.

Dimensions
6215-16-17-18 7/8" Sq. x 2 1/4" high
6240 1 1/8" Sq. x 2 3/8" high

Description		Trap	Net Pr.
6215	Converter I.F. Trans.		$1.80
6216	1st Pix I.F. Grid Trans.	39.25 MC	2.16
6217	1st Pix I.F. Plate Trans.	41.25 MC	2.16
6218	2nd Pix I.F. Grid Trans.	47.25 MC	2.04
6240	Video Detector with Diode	43.7 MC	4.80



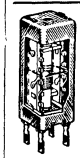
Unshielded



Max. Dim: 3/4" O.D. x 2 1/2" long. Mtg. hole 5/16". Hardware supplied for 7/16" Mounting.

6219	41-47 Mc. 3rd, 4th, 5th I.F.		$ .99
6220	41-47 Mc. Converter I.F.		.99
6221	41-47 Mc. First I.F.	41.25 Mc.	1.92
6222	42-48 Mc. Second I.F.	47.25 Mc.	1.92
6223	41-47 Mc. Third I.F.	39.25 Mc.	1.92
6224	41-47 Mc. Fourth I.F.		1.02
6225	39-49 Mc. Single winding I.F.		1.14
6226	High Q Trap	39-47 Mc.	1.02
6227	41-47 Mc. Dbl. Tuned I.F. (1 5/8" long)		1.65

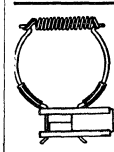
Miniature 44 MC Picture Trans.



Converter and 1st pix I.F. Grid transformer have 75 ohm link winding.
Dimensions: 3/4" Square x 2" high.

Description		Trap	Net Price
6230	Converter I.F.		1.80
6231	44 MC First I.F.		1.80
6232	42.5 MC Second I.F.	41.25 MC	1.59
6233	45.5 MC Third I.F.	47.25 MC	1.92
6234	44 MC Fourth I.F.		1.50

Adjustable Ion Trap



Due to its adjustable feature, which allows the magnetic field to be varied between 32-55 gausses, this trap will, in most instances, replace the older style ion traps having a specific magnetic field.

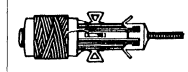
6295	Adjustable Ion Trap	$ .90

4.5 MC Intercarrier Sound Components

Dimensions 1466-67-68: 1 1/8"x1 1/8" x2 1/8" high.
#1469, 1470 and 1480 Unshielded, Mounting hole 5/16"
1470-A and 1481 3/4" x 3/4" x 2" hi
#1498 1 3/8" x 1 3/8" x 2 1/2"high
1483-84-95-86-87 7/8" Sq. x 2 1/4" high

Cat. No.	Item	Freq.	Net Pr.
1466	Input or Inter. I.F. Trans.	4.5 MC	$1.98
1467	Sound Discrim. Trans.	4.5 MC	2.31
1468	Sound Ratio Det. Trans.	4.5 MC	2.46
1469	Sound Pick Off Coil	4.5 MC	.99
1470	Sound Trap Unshielded	4.5 MC	.99
1470-A	Sound Trap Shielded	4.5 MC	1.26
1480	Quadrature Coil	4.5 MC	.99
1481	Quadrature Coil Sh'l'd.	4.5 MC	1.29
1482IFT	Sound I.F. Trap	4.5 MC	1.35
1483IF	Sound I.F.	4.5 MC	1.80
1484RD	Sound Ratio Det	4.5 MC	2.10
1485RD	Sound Ratio Det	4.5 MC	2.10
1486RD	Sound Ratio Det	4.5 MC	2.10
1487RD	Sound Ratio Det	4.5 MC	2.10
1488RD	Sound Ratio Det	4.5 MC	2.25
1489RD	Sound Ratio Det	4.5 MC	2.25
1498	Sound Ratio Det. Trans.	4.5 MC	2.43

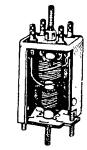
Linearity & Width Controls



Dimensions: 3/4" x 2 1/2" Max.
The coils will mount in either a 5/16" or 7/16" hole with adapter supplied.
*7/16" Mounting hole only.

Cat. No.	Inductance Range Millihenries	Net Price
6313	.5-5	$1.32
6314	2-18	1.23
6315	4-30	1.32
6316	4-30 (2.8-6.5 AGC)	1.80
6317	3.2-9 (.17-1.31 AGC)	1.65
6318	.3-3	1.11
6319	8-60	1.65
6320	.3-3 Tapped	1.14
6321	1-5 Tapped	1.32
6322	1.5-10	1.23
6323	.5-5 Tapped	1.14
6324	60-130 Tapped*	1.65
6325	4.2-30 (.78-1.37 AGC)	1.65
6326	2.5-19 Parallel (.18-1.7 Series)	2.25
6327	4-30 Parallel (.225-2.4 Series)	2.25
6328	9-24 (.19-1.1 AGC)	1.65
6329	2.2-10 Tapped	1.50
6330	45-215	1.80
6331	4-30 Parallel (.080-.7 Series)	2.10
6195	.185-1	.99
6196	.054-.245	.84
6196-A	.054-.5 Tapped	.96
6197	.55-2.3 Tapped	.96
6198	.17-.61	.84
6199-A	1.3-4.1 Tapped	1.02
6199-B	.5-1.7	.99

Horizontal Oscillator & Sync. Control Coils



Dimensions: 1 7/16"x1 7/16"x2 1/2" high.
6212 Unshielded, Mounting hole 5/16"
6211 and 6324 Unshielded, Mounting hole 7/16"—6183 may be reversed in shield for top or bottom mounting. 6183-A coils reversed on form to tune Horiz. Osc. through chassis.

Cat. No.	Item	Net Price
6194	Osc. & A.F.C. Discrim. Trans.	$2.04
6182	Osc. and Sync. Control Coil	1.65
6183	Osc. and Sync. Stabilizer Coil	2.10
6210	Sync. Stabilizer Coil 16-42 mh	1.65
6211	Sync. Stabilizer tapped 16-42 mh	1.65
6212	Horiz. Osc. tapped 12-35 mh	1.65
6324	Horiz. Osc. tapped 60-130 mh	1.65
6183-A	Horiz. Osc. coil position reversed	2.10

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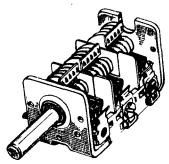
J. W. MILLER COMPANY Los Angeles, California

Miller

Variable Cap. & Replacement Items

Sub-Miniature Three Gang Variable Capacitor

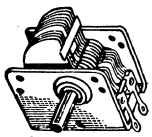


An extremely small but stable air dielectric variable capacitor. Each section is composed of 4 stator and 5 rotor plates. Trimmer capacitors are mounted on the antenna and R.F. sections only. Capacitor range: 5-20 mmfd.; Trimmer range: 1.5-8 mmfd. Shaft .250" diameter and ¾" long.

Dimensions: 1 1/16" wide x 1 3/16" high x 2" deep.

Cat No.	Item	Net Price
1460	3-Gang Variable Capacitor	$3.96

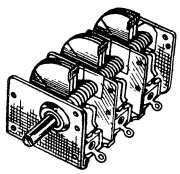
Midget Variable Condensers



Shaft dia. ¼" x 1" long. The #2110, 2-gang variable condenser antenna section has a range of 10-130 mmf. The oscillator section has a range of 10-78 mmf. The #2111, #2112 and #2113 are the standard size condensers having a range of 10-365 mmf. Mounting is provided by tapped holes in the frame of the condensers. Counter-clock rotation for capacity increase.

Cat. No.	Sections	Dimensions	Net Price
2110	2	15/16"x1 3/8"x1 15/16"	$2.10
2111	1	1 3/16"x1 3/8"x1 5/16"	2.10
2112	2	2 3/16"x1 13/16"x1 5/8"	2.55
2113	3	3 3/16"x1 13/16"x1 5/8"	3.45

F.M. Variable Capacitor



This 3-gang 7-plate variable capacitor is rigidly constructed with widely spaced (.042 Air Gap) plates to assure highest stability. The plate contour results in an almost linear frequency versus rotation characteristics. Although the capacitor is supplied with 3 trimmer capacitors attached, it is recommended that the oscillator trimmer be replaced with a small NPO adjustable ceramic. The tuning capacitor has a 1/4" diameter shaft 15/16" long. Capacitor range is 6.6-23 mmfd. Trimmer capacitor will add to these values.

Dimensions: 3 3/16"x1 13/16"x1 5/8"

Cat. No.	Item	Net Price
1461-BS	3-Gang FM Tuning Capacitor	$4.05

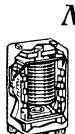
Sub-Miniature Variable Condenser

Shaft Dia. ¼" x ½" Long

It was necessary to use a four point suspension for the capacitor frame to insure against the frame becoming distorted and resultant shorting of plates. R.F. Cap. (11 Plates) 5.3 mmf—122.4 mmf
Os. Cap. (9 Plates) 4.2 mmf—78.6 mmf
Effective trimmer range: 1.8—8 mmf

Cat.	Sections	Dimensions	Net
2109	2	1 1/8"x1 1/8"x¾"	$2.19

New F.M. Stereo Multiplex Inductors

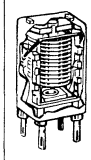


For use in a newly designed circuit that eliminates the 19 kc Oscillator and resulting synchronizing problems. In conjunction with an improved low pass filter and detecting system improved separation can be achieved.

Dimensions: ¾" Sq. x 1 7/32" High

Cat. No.	Description	Net Price
1356	19 kc. Amplifier Coil	$2.31
1357	38 kc. Output Trans.	2.25
1358	67 kc. Low Pass Filter	2.40

F.M. Stereo Multiplex Inductors



Basically the system involves pick-up of sound by two microphones, the left (L) and right (R). Subsequently the two audio signals are combined in such a way that L plus R frequency modulates an F-M carrier in the conventional way while L minus R amplitude modulates a 38KC stereophonic subcarrier, and the resulting double side-band AM signal (23-53KC) with suppressed carrier, likewise frequency modulates the FM carrier. A 19KC pilot sub-carrier signal also frequency modulates the FM carrier and at the receiver provides a means of controlling the frequency and phase of the 38 KC carrier for re-insertion. When broadcasting Stereo Multiplex the region of 53 to 75KC is allotted to the station for SCA signals.

In the receiver the output of the F-M detector comprises the L+R audio signal, the 19KC pilot sub-carrier, and the 23-53KC A-M modulated (L-R), suppressed carrier signal. It is then required to separate the 23-53KC signal by means of a suitable filter, generate a 38KC signal under the control of the 19KC pilot sub-carrier, re-insert the sub-carrier, and detect the resulting signal. This yields L—R. This must then be combined in a suitable matrix with the L+R signal in such a manner that the L signal appears at one output terminal and the R signal at another.

Dimensions: ¾" Sq. x 1 7/32" High.

Cat. No.	Description	Net Price
1351	Low Pass Filter	$1.95
1352	BP Filter Series Element	1.80
1353	BP Filter Shunt Element	1.80
1354	Locked Osc. 19 kc.	2.55
1355	Output Trans.38 kc.	2.40

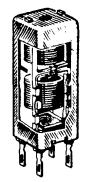
Printed Circuit Multiplex Inductors

The following coils are electrically the same as the regular point to point wiring type listed above. The printed circuit board PCM can be adapted for use with either the regular coils or the printed circuit type.

Dimensions: ¾" Sq. x 1 7/32" High.

Cat. No.	Description	Net Price
1351-PC	Low Pass Filter	$1.95
1352-PC	BP Filter Series Element	1.80
1353-PC	BP Filter Shunt Element	1.95
1354-PC	Locked Osc. 19 kc.	1.95
1355-PC	Output Trans. 38 kc.	2.25
PCM	Printed Circuit Board	5.55

Communications I.F. Transformers



Designed for experimental use in communications equipment where selectivity and stability are important. The 100 kc. I.F. transformer and BFO coil are intended for tube application, while the 455 kc. crystal filter I.F. transformers have taps on the winding to allow for use with both tubes and transistors. The 1800 kc. I.F. transformer offers the best possible "Q" with stability to give a degree of selectivity that compares with lower frequency I.F. transformers. This transformer is for use with tubes only. Part number 1770 is a double tunel I.F. transformer having taps on both Primary and Secondary winding.

Dimensions: ¾" by ¾" by 2" high.

Cat No.	Description	Net Price
1710	100 KC I.F.—3 KC Bandwidth	$2.10
1711	100 KC B.F.O.	1.95
1725	455 KC Crystal Filter I.F. Input	1.95
1726	455 KC Crystal Filter I.F. Output	1.95
1727	455 KC B.F.O.	1.80
1730	1800 KC I.F.—25 KC Bandwidth	2.10
1770	455 KC Double Tuned Transistor I.F.—30K:1K	2.34
1731	1610 KC Link Coupling Coil Unshielded	2.37
1732	1650 KC I.F. (C B Transceivers)	2.10
1740	9 Mc S.S.B. Input Trans.	1.95
1741	9 Mc S.S.B. Output Trans.	1.95

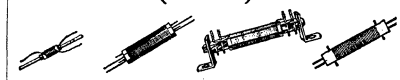
Replacement for Color T.V.

The following series of components are intended as exact replacements in the various models of color T.V. sets that R.C.A. has produced. With other manufacturers entering the field, but still depending on R.C.A. for a large number of basic components it is felt that these parts will be useful.

No.	Use	O.E.M. Part No.	Net Price
6021	Chroma BP Trans.	78887	$2.10
6022	Chroma BP Coil	78888	1.53
6023	Burst Trans.	78886	3.30
6024	3.58 Mc. Output	78889	2.64
6025	Sync. and Phase	78895	4.80
6026	Chroma Ref. Osc.	78891	3.30
6027	3.58 Mc. Trap *	78892	1.65
6028	3.58 Mc. Ch. Sync. *	78892	1.65
6029-R	First Chroma	105213	3.96
6030-R	Burst Amp.	105214	2.52
6031-R	Video I.F.	106385	1.17
6032-R	Video I.F.	106386	1.26
6033-R	Video I.F.	106387	1.26
6034-R	Video I.F.	105292	1.08
6035-R	Video I.F.	105293	1.08
6036-R	Video I.F. & Trap	105294	4.32
6337-R	Horiz. Waveform	102195	1.20
6338-R	Horiz. Linearity	105196	1.98
7105-R	4.5 Mc. Sound I.F.	105286	1.17
7106-R	4.5 Mc. Sound I.F.	105287	3.00
7107-R	4.5 Mc. Quadrature	105288	1.80
7108-R	4.5 Mc. Sound I.F.	106381	1.29
7109-R	4.5 Mc. Sound I.F.	106382	3.06
7110-R	4.5 Mc. Quadrature	106383	2.04

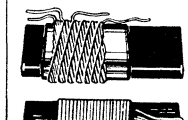
*Resistors and Capacitors are included.

Antenna Matching Coils (Balun)



Cat No.	O.E.M. Part No.	Net Price
7301	R.C.A. 1959 and 1960	$ .69
7302	Philco 32-4432-3	1.53
7303	Motorola 74420, Olympic, Silvertone	.60
7304	R.C.A. 1955, 1956, 1957	.69
7305	R.C.A. 1955, 1956, 1957	.69
7306	R.C.A. 1955, 1956, 1957	.69
7307	G.E. RLA-043, RLA-045, Hotpoint	1.53
7308	G.E. WT37X8, RLA-042	1.53
7309	G.E. WT37X10, RLA-044	1.56
7310	G.E. RLA-047, Hotpoint	1.53
7311	G.E. RLA-050, Hotpoint	1.29
7312	G.E. RLA-053, Hotpoint	1.59
7313	G.E. RLA-046, Westinghouse V-19024-7, -9, Truetone	.96
7314	Philco 32-4799, G.E., Standard Coil	2.16
7315	Philco 32-4725-1, -3	1.14
7316	Philco 76-11489-1, Silvertone, Sylvania, Westinghouse	1.23
6103	G.E. RLA-041	.93
6104	R.C.A. 73591, 78396, Motorola 24B720936	.69
6200	Philco 32-4725-3, -5, -6	1.35
6202	Philco 32-4432-1, -2, -3, Westinghouse V-8621-1, -2, -3, -4	1.35

Replacement Antennas



These replacement loops can be used in a large number of the imported Broadcast Band Portable Receivers.

Dimensions: #2008 1/4x3/4"x2 5/16"
#2009 3/16"x1/2"x2 1/8"

Cat No.	Freq. Range	Tuning Cap.	Net Price
2008	540-1650 kc	200-240 mmfd	1.77
2009	540-1650 kc	120-140 mmfd	1.77

For a Complete Listing of MILLER PRODUCTS ask for a copy of our Latest General Catalog.

J. W. MILLER COMPANY Los Angeles, California

Net

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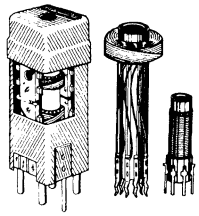
Miller

Exact Replacement Components

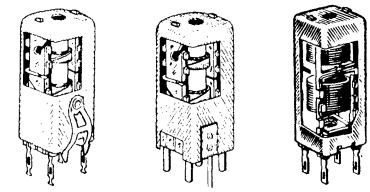
Replacement for Original T.V. and Home Radio Equipment



The following special parts have been manufactured as exact replacements for the set manufacturers shown, so as to assure top performance.

Cat. No.	O.E.M. Part No.	Net Price
Admiral		
1471-A	72B185-2	$1.95
1472-A	72C132-19	1.35
5248	73A31-1	1.05
6332	94C17-4	2.01
7701	72B50, 1, 2, 3, 4, 5, 6	2.37
7116-A	72B208-1	1.95
7117-A	72B132-37	1.95
7127	72C132-61, 72E132-61	2.10
7501-A	72C132-38	2.25
7502-A	72C132-39	2.25
7503-A	72C132-31	2.10
7504-A	72C132-41	2.10
7505-A	72C132-42	2.25
7506-A	72C132-43	2.10
7507-A	72B191-3	4.05
7751	69C243-4	1.20
Arvin		
7752	43644-1	$1.17
7753	43644-7	1.17
Crosley		
7101	157856-1	$1.80
Dumont		
7103-DE	20004441	$2.25
7104-DE	20004511	2.10
Emerson		
6339-E	708275	$1.50
6340-E	716102	1.65
7112-E	708276	2.25
7138	720337	2.28
7514-E	720318	1.65
7515-E	720315	1.50
7516-E	720317	1.50
7706	720415	2.10
General Electric and Hotpoint		
12-C11	RTL-143 and 163	$1.62
12-C13	RTL-172	2.10
6206-PC	RTD-026 (WT56X38)	3.30
6207-PC	RTD-025 (WT56X37)	2.49
6208-PC	RTD-020	2.97
6209-G1	RTD-024 (WT56X36)	2.85
6334-G	RLI-365	1.29
6335-G	WT36X402	1.29
6341	ET/WT36X349	1.65
7139	WT56X48	2.34
7707	EA56X2(671C205-3)	1.95
7754	EA35X5	1.35
7780	RS-2841	1.50
7781	RS-2167	1.50
7782	ET83X32	1.65
Hallicrafter		
1482 IFT	51B1996	$1.35
7101	51A1859	1.80
Motorola		
1901	24B637710	$2.97
1902	24B637486	2.97
7783	1V641198	1.65
Muntz		
7111-M	LO-0076	$2.25
Olympic		
7124	CL4021	$1.35
Packard-Bell		
7520	29779	$4.65
Philco		
6209-P1	32-4721	$5.70
6209-P2	32-4689-1, 2	2.85
6209-P3	32-4735-1, 2	2.85
6342	32-4754-3	1.35
7102-P	32-4688-10	2.10
7113-P	32-4631, 31A	2.97
7121-P	32-4644-13, 14, 19	1.50
7513-P	32-4686-2, -3, -25	1.65
7708	32-4825-1	2.10
7755	32-4756-1	1.17
RCA		
1483 IF	76437	$1.80
1484 RD	102692	2.10
1485 RD	102644	2.10
1486 RD	102253	2.10
1487 RD	100364	2.10
1488 RD	79141	2.25
1489 RD	101219	2.25
6333	103103	1.77
6336-R	107284	2.10
6343	109947	1.65
7133	107,201, 972168-2	2.10
7134	109951, 973961-1	1.65
7135	104136, 972172-1	1.20
7136	105795, 972178-3	1.68
Silvertone		
6344	10-20-5	$1.65
6345	10-34-5	1.17
7709	10-33-0	2.85
7128	10-57-5	1.35
7129	10-23-3	1.35
7130	10-31-3	1.50
7131	10-152-1	1.50
7756	10-55-4	1.17
Sylvania		
7132	99198-1	$2.10
Trav-Ler		
7122	L-167	$2.25
7123	L-154	2.10
7517	L-152	3.15
Wells Gardner		
7125	9A2526	$1.35
7126	9A2529	1.35
7140	9A2429	1.65
7518	9A2436	1.95
7519	9A2444	1.65
7521	9A2435	4.05
7710	9A2519	1.65
Westinghouse		
12-C14	235V025H-11, 2 (V157661)	$2.25
68 Osc	230V039H-01 (V15764-1)	1.65
6204-W3	V12128-1, 2, 3	4.05
6213	230V032H01	1.35
7118-W	230V030H02	1.65
7119-W	230V031H01	1.65
7120-W	235V046H01	1.62
7137	230V007H02	2.10
7508-W	230V030H01	1.50
7509-W	235V005H01	4.65
7510-W	235V020H01, 03	1.62
7511-W	235V048H01, 02	2.85
7512-W	235V049H01	1.65
Zenith		
7114-Z	S-41899	$2.10
7115-Z	S-50341	2.10
7702-Z	95-1101	3.57
7703-Z	95-1102	3.57
7704-Z	95-1149/95-1350	3.57
7711	95-1900	1.50
7712	95-1866	1.50
7757	S-54155	1.50
7851-Z	95-1153	3.57
7852-Z	95-1150	3.57

Exact Replacements for Original Auto Radio Equipment



In addition to our regular replacement line of I.F. transformers we are now offering the following special replacement items, as well as the exact replacement I.F. transformers for those parts which were supplied by the original manufacturer.

Cat No.	O.E.M. Part No.	Net Price
Automatic		
6570	14-2654	$2.10
6571	14-2655	2.10
Bendix		
6501	2090237-1	$2.25
6502	2090237-2	2.25
6503	2090237-3	2.40
6504	2090237-4	2.25
6505	2090237-5	2.25
6506	2090239-1	2.10
6507	2090239-2	2.10
6508	2090239-3	2.10
6509	2090907-2	2.10
6510	2090908-3	2.25
6511	2090907-3	2.10
6513	2090908-4	2.37
6514	2090907-5	2.10
6515	2090908-5	2.40
6516	2090907-1	2.25
6517	2090907-7	2.25
6518	2090876-7	1.80
6519	2090877-6	1.95
6520	2091217-8	2.10
6521	2091218-7	2.25
6522	2092202-5	2.10
6523	2092203-5	2.25
Delco		
6540	1221253	$2.10
6541	1221255	2.10
6542	1221856	2.25
6543	1221857	2.25
6544	1221858	2.10
6545	1221859	2.10
6546	1221860	2.40
6547	1221861	2.40
Motorola		
6550	24C485553	$2.10
6551	24C485554	1.95
6552	24C485555	1.95
6553	24D563300 (Mopar)	1.95
6554	24D40075A17	2.25
6555	24D40074A07	2.25
6556	24B64861A02	2.25
6557	24B64861A03	2.10
General Replacement		
6581	455 kc I.F. Output with Diode Filter	$1.89
6582	455 kc I.F. Input	1.80
6583	455 kc I.F. Output	1.80
6584	262 kc I.F. Input	1.92
6585	262 kc I.F. Output with Diode Filter	1.98

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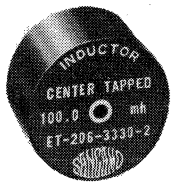
SANGAMO ELECTRIC COMPANY

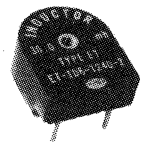
inductors

ELECTRONIC COMPONENTS

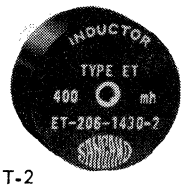
Type ET-1, 2 and 4 INDUCTORS



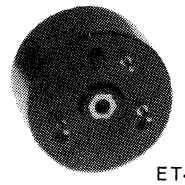
ET-2
(Center Tapped)



ET-1



ET-2



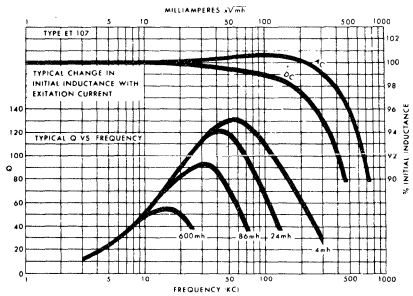
ET-2 (Rear View)

Sangamo Type ET encapsulated inductors conform with all printed circuit board applications. All units are vacuum encapsulated to assure surrounding the coil with a void-free envelope. Type ET's are also available as center tapped units. Seventy-two hour prototype delivery is available on any inductance value.

For complete listings write for the following literature:

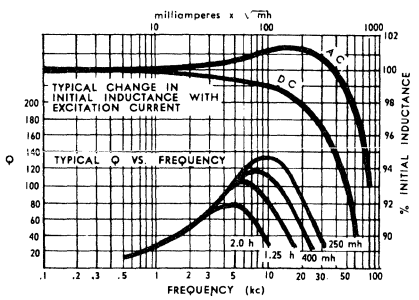
Bulletin 2721 – Type ET-2 and ET-4 Inductors
Supplement 2 – Type ET-1 Subminiature Inductors
Supplement 1 – Type ET-2 and ET-4 Center Tapped Inductors

ET-107



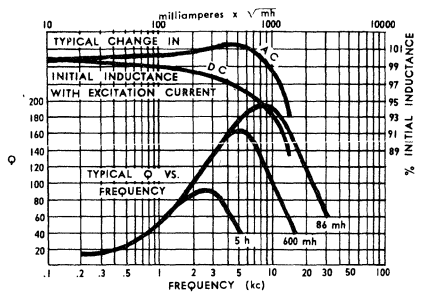
Specification Number (S)	Inductance	Net Price 1-4	Net Price 5-14*
ET-107-1050-2	2.40mh	$10.68	$ 7.12
ET-107-1060-2	2.50	10.68	7.12
ET-107-1080-2	3.60	10.68	7.12
ET-107-1090-2	4.00	10.68	7.12
ET-107-1110-2	5.00	10.68	7.12
ET-107-1120-2	6.00	10.68	7.12
ET-107-1140-2	7.50	10.68	7.12
ET-107-1150-2	8.60	10.68	7.12
ET-107-1170-2	12.00	10.68	7.12
ET-107-1180-2	12.50	10.68	7.12
ET-107-1200-2	17.50	10.68	7.12
ET-107-1210-2	20.0	10.68	7.12
ET-107-1230-2	25.0	10.68	7.12
ET-107-1240-2	30.0	10.68	7.12
ET-107-1250-2	36.0	10.68	7.12
ET-107-1260-2	40.0	10.68	7.12
ET-107-1270-2	43.0	10.68	7.12
ET-107-1280-2	50.0	10.68	7.12
ET-107-1290-2	60.0	10.68	7.12
ET-107-1300-2	72.0	11.37	7.58
ET-107-1310-2	75.0	11.37	7.58
ET-107-1320-2	86.0	11.37	7.58
ET-107-1330-2	100.0	11.37	7.58
ET-107-1340-2	120.0	11.37	7.58
ET-107-1350-2	125.0	11.37	7.58
ET-107-1360-2	150.0	11.91	7.94
ET-107-1370-2	175.0	11.91	7.94
ET-107-1380-2	200.0	11.91	7.94
ET-107-1390-2	240.0	11.91	7.94
ET-107-1400-2	250.	11.91	7.94
ET-107-1410-2	300.	12.42	8.28
ET-107-1420-2	360.	12.69	8.46
ET-107-1430-2	400.	12.69	8.46
ET-107-1440-2	430.	13.05	8.70
ET-107-1450-2	500.	13.05	8.70
ET-107-1460-2	600.	13.26	8.84
ET-107-1470-2	720.	13.56	9.04
ET-107-1480-2	750.	13.56	9.04
ET-107-1490-2	860.	13.92	9.28
ET-107-1496-2	960.	14.19	9.46

ET-206



Specification Number (S)	Inductance	Net Price 1-4	Net Price 5-14*
ET-206-1110-2	5.00mh	$ 7.83	$ 5.22
ET-206-1120-2	6.00	7.83	5.22
ET-206-1140-2	7.50	7.83	5.22
ET-206-1150-2	8.60	8.13	5.42
ET-206-1170-2	12.00	8.13	5.42
ET-206-1180-2	12.50	8.13	5.42
ET-206-1200-2	17.50	8.40	5.60
ET-206-1210-2	20.0	8.40	5.60
ET-206-1230-2	25.0	8.40	5.60
ET-206-1240-2	30.0	8.70	5.80
ET-206-1260-2	40.0	8.70	5.80
ET-206-1270-2	43.0	8.70	5.80
ET-206-1290-2	60.0	8.97	5.98
ET-206-1300-2	72.0	8.97	5.98
ET-206-1320-2	86.0	8.97	5.98
ET-206-1330-2	100.0	9.27	6.18
ET-206-1350-2	125.0	9.27	6.18
ET-206-1360-2	150.0	9.27	6.18
ET-206-1380-2	200.	9.54	6.36
ET-206-1390-2	240.	9.54	6.36
ET-206-1410-2	300.	9.54	6.36
ET-206-1420-2	360.	9.84	6.56
ET-206-1440-2	430.	9.84	6.56
ET-206-1450-2	500.	9.84	6.56
ET-206-1470-2	720.	10.11	6.74
ET-206-1480-2	750.	10.11	6.74
ET-206-1500-2	1.000h	10.11	6.74
ET-206-1510-2	1.200	10.11	6.74
ET-206-1530-2	1.500	10.41	6.94
ET-206-1540-2	1.750	10.41	6.94
ET-206-1560-2	2.40	10.41	6.94
ET-206-1564-2	2.44	10.41	6.94
ET-206-1570-2	2.50	10.98	7.12
ET-206-1580-2	3.00	10.98	7.12
ET-206-1590-2	3.60	10.98	7.12
ET-206-1600-2	4.00	10.98	7.12
ET-206-1610-2	4.30	10.98	7.12
ET-206-1620-2	5.00	10.98	7.12
ET-206-1630-2	6.00	10.98	7.12
ET-206-1634-2	6.40	10.98	7.12

ET-406



Specification Number (S)	Inductance	Net Price 1-4	Net Price 5-14*
ET-406-1130-2	7.20mh	$ 9.51	$ 6.34
ET-406-1140-2	7.50	9.51	6.34
ET-406-1160-2	10.00	9.51	6.34
ET-406-1170-2	12.00	9.51	6.34
ET-406-1190-2	15.00	9.51	6.34
ET-406-1200-2	17.50	9.51	6.34
ET-406-1220-2	24.0	9.51	6.34
ET-406-1230-2	25.0	9.51	6.34
ET-406-1250-2	36.0	9.51	6.34
ET-406-1260-2	40.0	9.51	6.34
ET-406-1280-2	50.0	9.51	6.34
ET-406-1290-2	60.0	9.93	6.62
ET-406-1310-2	75.0	9.93	6.62
ET-406-1320-2	86.0	9.93	6.62
ET-406-1340-2	120.0	9.93	6.62
ET-406-1350-2	125.0	9.93	6.62
ET-406-1370-2	175.0	10.32	6.88
ET-406-1380-2	200.	10.32	6.88
ET-406-1400-2	250.	10.32	6.88
ET-406-1410-2	300.	10.32	6.88
ET-406-1430-2	400.	10.74	7.16
ET-406-1440-2	430.	10.74	7.16
ET-406-1460-2	600.	10.74	7.16
ET-406-1470-2	720.	11.16	7.44
ET-406-1490-2	860.	11.16	7.44
ET-406-1500-2	1.000h	11.16	7.44
ET-406-1520-2	1.250	11.16	7.44
ET-406-1530-2	1.500	11.58	7.72
ET-406-1550-2	2.00	11.58	7.72
ET-406-1560-2	2.40	11.58	7.72
ET-406-1590-2	3.60	11.97	7.98
ET-406-1600-2	4.00	11.97	7.98
ET-406-1620-2	5.00	11.97	7.98
ET-406-1630-2	6.00	11.97	7.98
ET-406-1650-2	7.50	12.39	8.26
ET-406-1660-2	8.60	12.39	8.26
ET-406-1680-2	12.00	12.39	8.26
ET-406-1690-2	12.50	12.39	8.26
ET-406-1710-2	17.50	12.39	8.26
ET-406-1720-2	19.00	12.39	8.26

(S) **STANDARD STOCK ITEMS**

*Prices for larger quantities are available on request.

TYPE ET-1

Subminiature Inductors (.375"H x .690"W x .844"L)
4 Core Types–Frequency Range: to 500KC.

ET-104 – Inductance: 6.4 mh to 2.5 h
ET-106 – Inductance: 5.0 mh to 2.0 h
ET-107 – Inductance: 2.4 mh to 0.96 h
ET-108 – Inductance: 1.0 mh to 0.43 h

TYPE ET-2

Subminiature Inductors (.66"H x 1.08" Dia.)
4 Core Types–Frequency Range: to 100KC.

ET-203 – Inductance: 8.00 mh to 10.3 h
ET-204 – Inductance: 6.40 mh to 8.2 h
ET-206 – Inductance: 5.00 mh to 6.4 h
ET-207 – Inductance: 2.40 mh to 3.0 h

TYPE ET-4

Subminiature Inductors (.86"H x 1.34" Dia.)
4 Core Types–Frequency Range: to 60KC.

ET-403 – Inductance: 12.0 mh to 30.40 h
ET-404 – Inductance: 9.60 mh to 24.30h
ET-406 – Inductance: 7.20 mh to 19.00h
ET-407 – Inductance: 3.60 mh to 9.10 h

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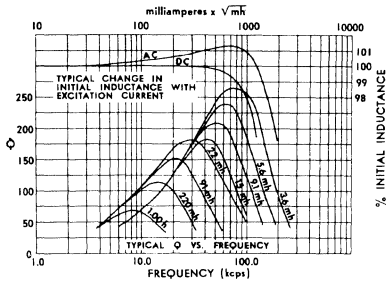
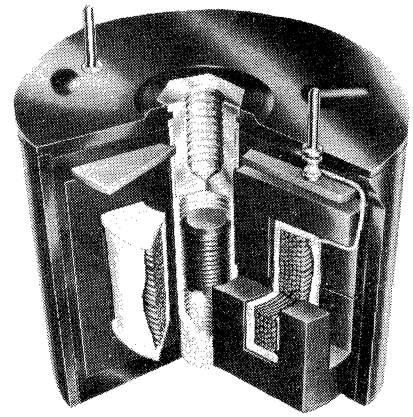
SANGAMO ELECTRIC COMPANY

inductors

SANGAMO ELECTRONIC COMPONENTS

Type EV-263 VARIABLE INDUCTORS





Sangamo Type EV encapsulated variable inductors are guaranteed adjustable ±10% from nominal inductance value, enabling the designer to tune circuit characteristics to exact requirements. Terminals are on a 0.10" grid. The maximum operating temperature of these units is 105°C. Header pads keep unit off the mounting surface for easy flux removal and prevention of moisture accumulation. ***For more complete information write for Bulletin 2720.***

Specification Number Ⓢ	Nominal Inductance	Guaranteed Tuning Range Low	Guaranteed Tuning Range High	Price
EV-263-1100-2	3.0 mh	2.70 mh	3.3 mh	
EV-263-1110-2	3.3	2.97	3.63	
EV-263-1120-2	3.6	3.24	3.96	
EV-263-1130-2	3.9	3.51	4.29	
EV-263-1140-2	4.3	3.87	4.73	
EV-263-1150-2	4.7	4.23	5.17	
EV-263-1160-2	5.1	4.59	5.61	
EV-263-1170-2	5.6	5.04	6.16	
EV-263-1180-2	6.2	5.58	6.82	
EV-263-1190-2	6.8	6.12	7.48	
EV-263-1200-2	7.5	6.75	8.25	
EV-263-1210-2	8.2	7.38	9.02	
EV-263-1220-2	9.1	8.90	10.0	
EV-263-1230-2	10.0	9.00	11.0	
EV-263-1240-2	11.0	9.90	12.1	
EV-263-1250-2	12.0	10.8	13.2	
EV-263-1260-2	13.0	11.7	14.3	
EV-263-1270-2	15.0	13.5	16.5	
EV-263-1280-2	16.0	14.4	17.6	
EV-263-1290-2	18.0	16.2	19.8	
EV-263-1300-2	20.0	18.0	22.0	
EV-263-1310-2	22.0	19.8	24.2	
EV-263-1320-2	24.0	21.6	26.4	
EV-263-1330-2	27.0	24.3	29.7	
EV-263-1340-2	30.0	27.0	33.0	
EV-263-1350-2	33.0	29.7	36.3	
EV-263-1360-2	36.0	32.4	39.6	
EV-263-1370-2	39.0	35.1	42.9	
EV-263-1380-2	43.0	38.7	47.3	
EV-263-1390-2	47.0	42.3	51.7	
EV-263-1400-2	51.0	45.9	56.1	

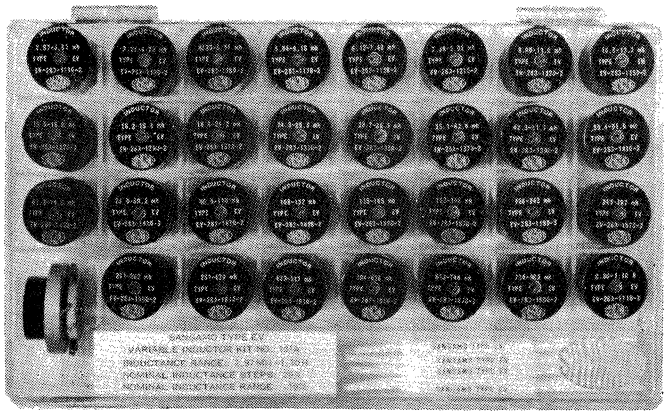
Specification Number Ⓢ	Nominal Inductance	Guaranteed Tuning Range Low	Guaranteed Tuning Range High	Price
EV-263-1410-2	56.0 mh	50.4 mh	61.6 mh	
EV-263-1420-2	62.0	55.8	68.2	
EV-263-1430-2	68.0	61.2	74.8	
EV-263-1440-2	75.0	67.5	82.5	
EV-263-1450-2	82.0	73.8	90.2	
EV-263-1460-2	91.0	81.9	100	
EV-263-1470-2	100	90.0	110	
EV-263-1480-2	110	99.0	121	
EV-263-1490-2	120	108	132	
EV-263-1500-2	130	117	143	
EV-263-1510-2	150	135	165	
EV-263-1520-2	160	144	176	
EV-263-1530-2	180	162	198	
EV-263-1540-2	200	180	220	
EV-263-1550-2	220	198	242	
EV-263-1560-2	240	216	264	
EV-263-1570-2	270	243	297	
EV-263-1580-2	300	270	330	
EV-263-1590-2	330	297	363	
EV-263-1600-2	360	324	396	
EV-263-1610-2	390	351	429	
EV-263-1620-2	430	387	473	
EV-263-1630-2	470	423	517	
EV-263-1640-2	510	459	561	
EV-263-1650-2	560	504	616	
EV-263-1660-2	620	558	682	
EV-263-1670-2	680	612	748	
EV-263-1680-2	750	675	825	
EV-263-1690-2	820	738	902	
EV-263-1700-2	0.910h	0.819h	1.00h	
EV-263-1710-2	1.0	0.900h	1.10	

REFER TO TABLE 1

TABLE 1

Unit prices for all inductance values listed	1-4	5-14	15-49	50-99	100-249
	$13.50	$9.00	$6.75	$5.18	$4.73

Ⓢ **STANDARD STOCK ITEMS**



Ⓢ **STANDARD STOCK ITEMS**

Ⓢ KIT 101A (includes: 31-variable inductors, 1-test socket, 6-tuning tools)
Nominal Inductance: 3.3 mh - 1.00 h
Nominal Inductance steps: 20%
Nominal Inductance range: ±10%
Frequency to 200 kc

Price per Kit
$195.00

Ⓢ KIT 101B (includes: 31-variable inductors, 1-test socket, 6-tuning tools)
Nominal Inductance: 3.0 mh - 0.910 h
Nominal Inductance steps: 20%
Nominal Inductance range: ±10%
Frequency to 200 kc

Price per Kit
$195.00

Ⓢ KIT 102 (includes: 62-variable inductors, 2-test sockets, 12-tuning tools)
Nominal Inductance: 3.0 mh - 1.00 h
Nominal Inductance steps: 10%
Nominal Inductance range: ±10%
Frequency to 200 kc

Price per Kit
$390.00

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Net

NORTH HILLS ELECTRONICS, INC.
GLEN COVE, LONG ISLAND, NEW YORK

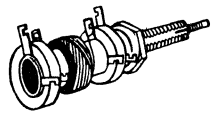
ADJUSTABLE COILS and COIL FORMS
Cover Every Frequency Range from Audio to 200mc

These high quality coils enable engineers and experimenters to save valuable development time by filling a vast number of requirements with standard components from stock. All coils have the following features:

- *All metal parts plated to MIL specifications.*
- *Built-in "perma-tune" tension for smooth "stay-put" tuning.*
- *Litz wound higher inductance ranges.*
- *Two extra terminals for tie points or additional winding.*
- *Moisture and fungus resistant impregnant per MIL-V-173-A.*
- *Color coded ranges.*

COILS ON CERAMIC FORM PER JAN-I-10

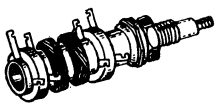
Subminiature 1100 Series



- 5/8" above mounting surface
- Mounting — 1/64" hole
- For R.F. and I.F. applications

Part No.	Nominal Microhenries	Average Q
1100-A	0.9- 1.4	45 @ 7.9 mc
1100-B	1.4- 1.9	50 @ 7.9 mc
1100-C	1.9- 2.6	55 @ 7.9 mc
1100-D	2.6- 3.7	65 @ 7.9 mc
1100-E	3.7- 5.5	65 @ 7.9 mc
1100-F	5.5- 7.4	70 @ 7.9 mc
1100-G	7.4-12.5	64 @ 5.0 mc
1100-H	12.5-18.0	72 @ 5.0 mc
1100-I	18.0-28.0	74 @ 5.0 mc
1100-J	28.0-38.0	72 @ 5.0 mc
1100-K	38.0-55.0	75 @ 2.5 mc

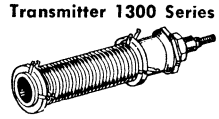
Miniature 1000 Series



- 7/8" above mounting surface
- Mounting — #10 hole
- For R.F. and I.F. applications

Part No.	Nominal Microhenries	Average Q
1000-A	1.0- 1.6	70 @ 7.9 mc
1000-B	1.6- 2.7	80 @ 7.9 mc
1000-C	2.7- 4.5	85 @ 7.9 mc
1000-D	4.5- 8.5	85 @ 7.9 mc
1000-E	8.5-14.5	75 @ 2.5 mc
1000-F	14.5-22	65 @ 2.5 mc
1000-G	22-29	65 @ 2.5 mc
1000-H	29-55	85 @ 2.5 mc
1000-I	55-110	80 @ 2.5 mc
1000-J	110-185	85 @ .79 mc
1000-K	185-305	85 @ .79 mc
1000-L	305-515	85 @ .79 mc
1000-M	515-820	85 @ .79 mc
1000-N	820-1100	75 @ .79 mc

Transmitter 1300 Series



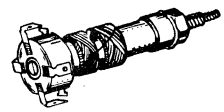
- 1 3/4" above mounting surface
- Mounting — 1/4" hole
- For low power tansmitters and high Q receiver circuits

Part No.	Nominal Microhenries	Average Q
1300-A		For use from 90-200 mc
1300-B		For use from 40-90 mc
1300-C		For use from 20-40 mc
1300-D	0.7- 1.1	130 @ 20 mc
1300-E	1.1- 1.7	150 @ 18 mc
1300-F	1.7- 2.7	150 @ 16 mc
1300-G	2.7- 4.5	150 @ 14 mc
1300-H	4.5- 6.8	150 @ 12 mc
1300-I	6.8-10.8	150 @ 10 mc
1300-J	10.8-17.0	150 @ 7 mc
1300-K	17.0-29.0	125 @ 5 mc
1300-L	29.0-45.0	125 @ 4 mc
1300-M	45.0-75.0	125 @ 3 mc

See Section 5600 for Wideband Transformers in this edition of The Radio-Electronic Master.

COILS ON MICA FILLED FORMS PER MIL-P-14-D

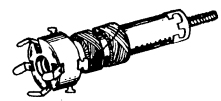
Standard 120 Series



- 1 1/4" above mounting surface
- Mounting #10 hole
- For R.F. and I.F. applications

Part No.	Nominal Microhenries	Average Q
120-A	2-3	75 @ 7.9 mc
120-B	3-5	85 @ 7.9 mc
120-C	5-9	90 @ 7.9 mc
120-D	9-18	75 @ 7.9 mc
120-E	18-36	75 @ 2.5 mc
120-F	36-64	75 @ 2.5 mc
120-G	64-105	90 @ 2.5 mc
120-H	105-200	90 @ 2.5 mc
120-I	200-500	90 @ .79 mc
120-J	500-1000	90 @ .79 mc
120-K	1000-2000	70 @ .79 mc

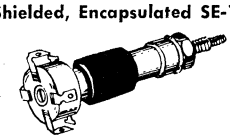
Printed Circuit P-120 Series



- Snaps into single 0.4" hole fo dip soldering
- 1 1/4" long

Part No.	Nominal Microhenries	Average Q
P-120-A	2-3	75 @ 7.9 mc
P-120-B	3-5	85 @ 7.9 mc
P-120-C	5-9	90 @ 7.9 mc
P-120-D	9-18	75 @ 7.9 mc
P-120-E	18-36	75 @ 2.5 mc
P-120-F	36-64	75 @ 2.5 mc
P-120-G	64-105	90 @ 2.5 mc
P-120-H	105-200	90 @ 2.5 mc
P-120-I	200-500	90 @ .79 mc
P-120-J	500-1000	90 @ .79 mc
P-120-K	1000-2000	70 @ .79 mc

Shielded, Encapsulated SE-120



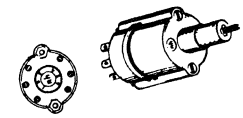
- Magnetic shielding cup
- Ruggedized construction
- 1 1/4" long

Part No.	Nominal Microhenries	Average Q
SE-120-A	2-3	75 @ 7.9 mc
SE-120-B	3-5	85 @ 7.9 mc
SE-120-C	5-9	90 @ 7.9 mc
SE-120-D	9-18	75 @ 7.9 mc
SE-120-E	18-36	75 @ 2.5 mc
SE-120-F	36-64	75 @ 2.5 mc
SE-120-G	64-105	90 @ 2.5 mc
SE-120-H	105-200	90 @ 2.5 mc
SE-120-I	200-500	90 @ .79 mc
SE-120-J	500-1000	90 @ .79 mc

See Section 4000 for Precision Power Sources AC & DC in current edition of Electronic Engineers Master.

ENCAPSULATED CUP-CORE COILS

Audio and Ultrasonic 700 Series

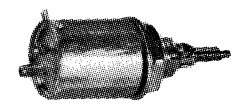


- 1 1/2" above mounting surface
- Mounting Centers — Two #6 holes spaced 1 1/4"
- Magnetically shielded — High Q
- For standard or printed circuits

Part No.	Nominal Millihenries	Average Q
700-A	1.5-3	120 @ 200 kc
700-B	3-7	120 @ 150 kc
700-C	7-13	110 @ 100 kc
700-D	13-25	110 @ 60 kc
700-E	25-50	110 @ 40 kc
700-F	50-100	125 @ 20 kc
700-G	100-250	125 @ 20 kc
700-H	250-500	125 @ 5 kc
700-I	500-1000	125 @ 5 kc

SHIELDED COILS

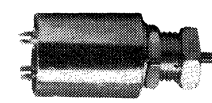
900 Series



- 7/16" Diameter
- Shielded and Encapsulated

Part No.	Nominal Microhenries	Average Q
900-A	0.5- 0.8	80 @ 25 mc
900-B	0.8- 1.3	70 @ 18 mc
900-C	1.3- 2.0	60 @ 15 mc
900-D	2.0- 4.0	70 @ 8 mc
900-E	4.0- 7.0	70 @ 5 mc
900-F	7.0- 12.0	70 @ 4 mc
900-G	12.0- 20.0	70 @ 3 mc
900-H	20.0- 35.0	70 @ 2.5 mc
900-I	35.0- 60.0	70 @ 2.0 mc
900-J	60.0-100.0	70 @ 1.0 mc

1500 Series



- 5/8" Diameter
- Shielded and Encapsulated

Part No.	Nominal Millihenries	Average Q
1500-A	.100- .175	80 @ 790 kc
1500-B	.175- .300	80 @ 790 kc
1500-C	.300- .500	80 @ 790 kc
1500-D	.500- .800	75 @ 790 kc
1500-E	.800-1.15	55 @ 500 kc
1500-F	1.15-1.50	55 @ 250 kc
1500-G	1.50-2.50	55 @ 250 kc
1500-H	2.50-3.50	50 @ 250 kc
1500-I	3.50-7.50	40 @ 250 kc

See SECTION 5600 for Wideband RF Transformers in this edition of The Radio-Electronic Master.

See Section 2900 for Precision Bridges, Potentiometers and Galvanometers in this edition of Electronic Engineers Master.

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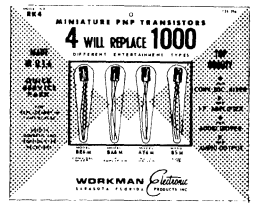
REPLACEMENT COMPONENTS

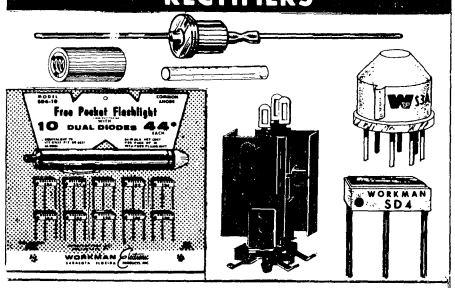
WORKMAN *Electronic* PRODUCTS, INC.
SARASOTA, FLORIDA

TRANSISTORS



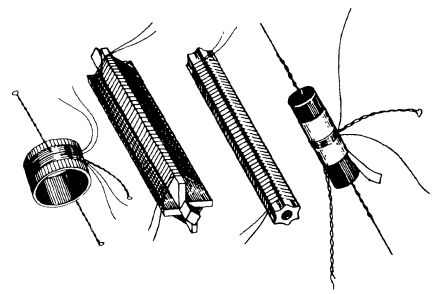
MODEL	DESCRIPTION	LIST	DLR.
99BE6	PNP conv. oscillator	1.65	.99
99BA6	PNP I. F. amplifier	1.65	.99
99AT6	PNP audio driver	1.65	.99
99B5	PNP audio output	1.65	.99
BE6	PNP conv. oscillator	2.70	1.62
BA6	PNP I. F. amplifier	2.50	1.50
AT6	PNP audio driver	2.50	1.50
B5	PNP audio output	2.50	1.50
BE6-M	PNP min. conv.,osc.,mixer	1.65	.99
BA6-M	PNP min. I. F. amplifier	1.65	.99
AT6-M	PNP min. audio driver	1.65	.99
B5-M	PNP min. audio output	1.65	.99
CK722	PNP output	1.33	.79
15V-MG	PNP 15V med. gain	1.05	.90
20V-LG	PNP 20V low gain	1.75	1.05
20V-MG	PNP 20V med. gain	2.00	1.20
20V-HG	PNP 20V high gain	2.25	1.35
30V-LG	PNP 30V low gain	2.50	1.50
30V-MG	PNP 30V med. gain	3.00	1.80
30V-HG	PNP 30V high gain	3.25	1.95
CB6	High freq., gen'l. purpose	3.00	1.80
J6	High freq., gen'l. purpose	3.00	1.80
SA7	NPN conv. oscillator	3.70	2.22
SK7	NPN I. F. amplifier	3.35	2.01
SQ7	NPN gen.purpose audio	3.35	2.01
L6	NPN audio output	3.35	2.01
99SA7	NPN conv. osc. mixer	1.65	.99
99SK7	NPN I. F. amplifier	1.65	.99
99SQ7	NPN gen. purpose audio	1.65	.99
99L6	NPN audio output	1.65	.99
RK4	PNP 4 pack	6.60	3.96
99RK6	PNP output 6 pack	—	4.45
99RK9	PNP and NPN 9 pack	—	9.95
TBX9	Replace. trans. for BX125	3.60	2.16
TBX10	Replace. trans. for BX15	4.20	2.52
TBX14	Replace. trans. for BX14	4.75	2.85

RECTIFIERS



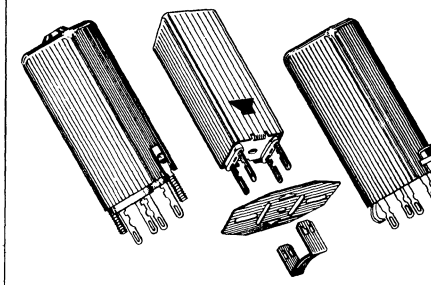
MODEL	DESCRIPTION	LIST	DLR.
S-500B	500 ma 450 PIV	1.85	1.11
S-500D	500 ma 400 PIV	2.00	1.20
S-750	750 ma 450 PIV	2.75	1.65
S-200	200-400 ma 1 pack	.45	.27
S-200A	200-400 ma 2 pack	.90	.54
S500C	500 ma 400 PIV	1.00	.60
S750C	750 ma 400 PIV rectifier	1.40	.84
S10	Halfwave assembly	3.25	1.95
S11	Silicon voltage doubler	4.95	2.97
S12	Silicon voltage doubler	4.95	2.97
SD4	Dual Diode	.75	.44
SD4-10	10 pk. with flashlight	—	4.40
SD5	Dual Diode	.75	.44
SD5-10	10 pk. with flashlight	—	4.40
SD6	Dual Diode	.75	.44
SD6-10	10 pk. with flashlight	—	4.40
S3AL5	Twin Diode	2.00	.80
S6AL5	Twin Diode	1.80	.72

ANTENNA COILS



MODEL	DESCRIPTION	LIST	DLR.
T400-2	2 pcs. Admiral, RCA	2.00	1.20
T401-2	2 pcs. Philco	3.20	1.92
T402-2	2 pcs. Bendix, Motorola, etc	1.50	.90
T403-2	2 pcs. Motorola, Philco, etc	2.00	1.20
T404-2	2 pcs. RCA	2.00	1.20
T405-2	2 pcs. RCA	2.00	1.20
T406-2	2 pcs. RCA	2.00	1.20
T407-1	Bendix, G. E., West'hse, etc	1.55	.93
T408-1	G. E., Hotpoint	2.25	1.35
T409-1	G. E., Hotpoint	2.25	1.35
T410-1	G. E., Hotpoint, Admiral	2.60	1.56
T411-1	G. E., Hotpoint	2.25	1.35
T412-1	G. E., Hotpoint	2.15	1.29
T413-1	G. E., Hotpoint	2.65	1.59
T414-1	G. E., Hallicrafters, etc	1.60	.96
T415-2	2 pcs. Philco, RCA, etc	3.65	2.19
T416-1	Matching Trans. 72/300Ω	3.00	1.80
T417-1	Matching Trans. 52/300Ω	3.00	1.80
T418-1	Admiral, Philco, G. E.	3.20	1.92
T419-2	2 pcs. Philco	3.40	2.04
T420-2	2 pcs. Philco	4.00	2.40
T421-2	2 pcs. Philco	3.70	2.22
T422-2	2 pcs. Philco	3.70	2.22
T423-2	2 pcs. Philco	3.70	2.22
T424-1	Admiral	1.85	1.11
T425-1	Motorola	2.70	1.62
T426-1	Westinghouse	1.60	.96
T427-1	General Electric	2.65	1.59
T428-1	General Electric	1.60	.96
T429-1	General Electric	2.65	1.59
T430-1	General Electrci	2.65	1.59
T431-1	General Electric	3.25	1.95
T432-1	General Electric	2.00	1.20
T433-1	General Electric	2.00	1.20
T434-1	General Electric	1.65	.99
T435-1	General Electric	2.15	1.29
T436-1	General Electric	2.20	1.32
T437-1	General Electric	2.20	1.32
T438-1	Admiral	2.25	1.35
T439-1	Admiral	2.20	1.32
T440-1	Admiral	2.70	1.62
T441-1	Admiral	2.70	1.62
T442-1	Zenith	2.70	1.62
T443-1	G. E.. Philco	2.70	1.62
T444-1	Philco	1.65	.99
T445-1	Philco	1.80	1.08
T446-1	Admiral	2.70	1.62
T447-1	Westinghouse	2.70	1.62
T448-1	Westinghouse	2.70	1.62
T450-1	Westinghouse	2.45	1.47
T451-1	Westinghouse	2.95	1.77
T453-1	RCA	3.00	1.80
T454-1	RCA	3.00	1.80
T455-1	General Electric	2.40	1.44
T457-1	Airline	1.55	.93
T460-1	General Electric	3.70	2.22
T461-1	Magnavox	3.20	1.92
T462-1	Motorola	2.10	1.26
T466-1	RCA	3.25	1.95
T467-1	Zenith	2.70	1.62
T468-1	Westinghouse	2.00	1.20
T469-1	Westinghouse	1.70	1.02
T470-1	Westinghouse	2.00	1.20
T471-1	2 pcs. CBS	3.70	2.22
T473-1	Dumont	2.70	1.62
T474-1	Silvertone	2.85	1.71
T476-1	Zenith	1.70	1.02
T477-1	Admiral	2.00	1.20
T478-2	2 pcs. Philco	3.70	2.22
T480	Sylvania	2.58	1.55
TB501-1	RCA	1.85	1.11

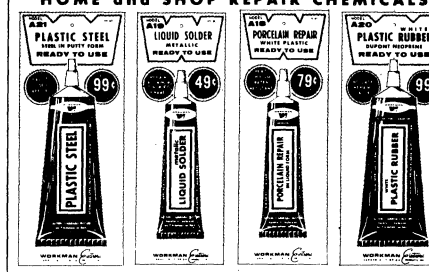
I. F. TRANSFORMERS



MODEL	DESCRIPTION	LIST	DLR.
TC601-1	2nd I.F. Zenith#95-1102	3.05	1.83
TC622-1	1st I.F. Zenith#95-1101	3.05	1.83
TC623-1	2nd I.F. Zenith#95-1150	3.05	1.83
TC624-1	Output I. F. Zenith#95-1350	3.05	1.83
TC625-1	Output I. F. Zenith#95-1149	3.05	1.83
TC626-1	Disc. Zenith#95-1153	3.05	1.83
T604-2	262 KC input I. F.	4.95	2.97
T605-2	455 KC output I. F.	5.80	3.48
T606-2	262 KC output I. F./filter	5.55	3.33
T607-2	455 KC input I. F.	4.35	2.61
T607A-2	455 KC input I. F.	4.35	2.61
T608-2	455 KC output I. F.	4.35	2.61
T609-2	455 KC output I. F./filter	4.35	2.61
T610-2	455 KC input I. F. for bat.	4.35	2.61
T611-2	455 KC output I. F. for bat.	4.35	2.61
T646-2	455 KC input for AC-DC	4.95	2.97
T647-2	455 KC output I. F. for PC	4.95	2.97
T655-2	262 KC input I. F.	5.00	3.00
T656-2	262 KC output I. F./filter	4.35	2.61
T657-2	455 KC output I. F./filter	4.35	2.61
T661-2	262 KC output I. F.	4.95	2.97
T664-2	455 KC input I. F. for bat.	4.35	2.61
T665-2	455 KC output I. F.	4.35	2.61

FIX 'n' PATCH

HOME and SHOP REPAIR CHEMICALS



MODEL NO.	DESCRIPTION	LIST	DLR.
A10	Plastic Aluminum	.99	.60
A11	Trim Cement	.79	.48
A12	Speaker Cement	.95	.57
A13	Plastic Lock Washer	.69	.42
A14	Window Sealer	.69	.42
A15	Rust Remover	.79	.48
A16	Plastic Rubber (black)	.99	.60
A17	Spot Putty	.99	.60
A18	Porcelain Repair	.79	.48
A19	Liquid Solder	.49	.30
A20	Plastic Rubber (white)	.99	.60
A21	Plastic Steel	.99	.60
A22	White Glue	.79	.48
A23	Plastic Mender	.69	.42
A24	Scratch Remover	.79	.48
A25	Matchwood	.99	.60
A26	3 oz. "Wissh" Cleaner	1.30	.78
A27	Fabric Mender	.69	.42
A28	Household Cement	.49	.30
A29	E-Pox-E Glue	.99	.60

COILS

Over 5000 Numbers IN STOCK

Exact Replacements
FOR OVER 200 MANUFACTURERS

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

FOR A COMPLETE LISTING OF EXACT REPLACEMENT COILS ASK YOUR JOBBER FOR OUR COIL CROSS REFERENCE.

WORKMAN PART NUMBERS FOR COILS, FUSING DEVICES, WIREWOUND AND SPECIAL PURPOSE RESISTORS ARE LISTED IN HOWARD SAM'S PHOTOFACTS AND COUNTER FACTS.

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Trade Discount Applies To List Prices Only

ATR® Karadio®

"the oldest name in auto radio"

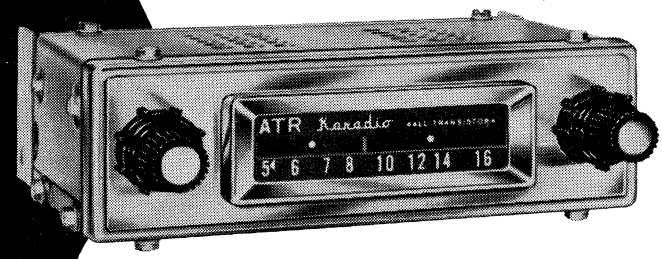
With Excellent Tone, Sensitivity, and Volume!

- **HAND WIRED—NO PRINTED CIRCUITRY**
- **EQUIVALENT 8 TUBE PERFORMANCE**
- **FINGER-TIP TONE CONTROL**
- **AUTOMATIC VOLUME CONTROL**

ALL-TRANSISTOR MODEL 707

ADDITIONAL FEATURES:

- All hand wired . . . no printed circuits
- Variable tone control . . . higher priced set feature
- 7 tuned circuits . . . including high gain R.F. stage
- 7 solid-state semi-conductors . . . 5 transistors, 2 diodes
- 3 section "Magna Wave" tuner . . . not 2 section tuner
- Instant play . . . no warmup needed
- Built-in powerful speaker 5" x 3" elliptical speaker
- Large easy to read illuminated dial
- Automatic Volume Control
- Super-Heterodyne circuit
- One piece self-contained chassis
- Size only 6½" wide x 5½" deep x 2" high
- Neutral silver-gray baked enamel finish
- Fits under dash or in dash with standard available trim plate kits
- Fits-all design for practically all American and imported cars and trucks
- External speaker jack
- Available in 12 volt positive or negative ground—please specify
- Low battery drain
- Net Wt. 4 pounds



MODEL 707N **List Price** **$29.95**

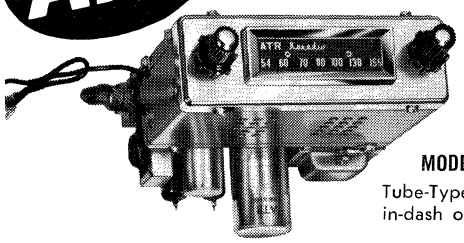
EXTERNAL SPEAKER MODELS 705N and 705P

are all-transistor types similar to Model 707 except that they have an external speaker instead of a built-in speaker.

KARADIO DESCRIPTION	Karadio Model	Shipping Weight	List Price
Universal 12-Volt Negative Grd. only	707N	5 lbs.	$29.95
Universal 12-Volt Positive Grd. only	707P	5 lbs.	32.95
Universal 12-Volt Negative Grd. only	705N	6 lbs.	34.95
Universal 12-Volt Positive Grd. only	705P	6 lbs.	37.95

ATR TUBE-OPERATED

$39.95 List Price



MODEL 600 Series

Tube-Type. Easily installed in-dash or under-dash.

ALL-TUBE MODEL 606 (6V) MODEL 612 (12V)

Large easy-to-read illuminated dial.

Finger-tip control to adjust tone as you desire.

Automatic volume control to keep signals strong and steady.

6-Tube Superheterodyne circuit (utilizes two dual purpose tubes) with 8-Tube performance . . . pulls in those distant stations, with good tone and volume.

Is ATR Vibrator-Operated!

Uses tube-type rectifier for best tone and maximum sensitivity. Provides longer un-interrupted service.

No battery polarity input problem.

3-Section Super "Magna-Wave" Tuner with RF stage.

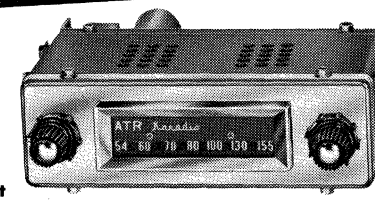
- Hand wired. No printed circuitry.
- Has two-piece chassis utilized as one unit for most installations — permitting maximum flexibility and easy servicing.
- Fits in-dash or under-dash.
- Furnished with external type speaker which is installed in original automobile speaker compartment for High Fidelity performance.

Neutral silver-gray baked enamel finish. Overall size, 4" deep x 6½" wide x 2" high, Tuner Chassis; with Amplifier Chassis, 2⅜" deep x 6½" wide x 3⅞" high.

KARADIO DESCRIPTION	Karadio Model	Shipping Weight	List Price
niversal 6-Volt Neg. or Pos. Grd.	606	7 lbs.	$39.95
niversal 12-Volt Neg. or Pos. Grd.	612	7 lbs.	39.95

ATR TRANSISTOR-POWERED

$39.95 List Price



MODEL 400 Series

Transistor-Powered. Easily installed in-dash or under-dash.

TRANSISTOR-POWERED MODEL 401 (12V Neg. Grd.)

- Large easy-to-read illuminated dial.
- Finger-tip control to adjust tone as you desire.
- Automatic volume control to keep signals strong and steady.
- Superheterodyne circuit utilizing 4 tubes (2 dual purpose tubes) together with two (2) transistors . . . pulls in those distant stations with good tone and volume.
- Uses no Vibrator or rectifier tube.
- 3-Section Super "Magna-Wave" Tuner with RF stage.
- Hand wired. No printed circuitry.
- Has one-piece self-contained chassis for easy installation.
- Fits in-dash or under-dash.
- Furnished with external type speaker which is installed in original automobile speaker compartment for High Fidelity performance.
- Available for 12-volt negative ground operation only.
- Low battery drain.

Neutral silver-gray baked enamel finish. Overall size 6⅛" deep x 6½" wide x 2" high.

KARADIO DESCRIPTION	Karadio Model	Shipping Weight	List Price
Universal 12-Volt Neg. Grd. only	401	6 lbs.	$39.95

Trade Discount Applies To List Prices Only

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1964 INSTALLATION GUIDE and PRICE SCHEDULE

ATR KITS *Finest in Form Fit and Finish*

Install ATR UNIVERSAL KARADIO *with Matching Dash Trimplate*

KARADIO DESCRIPTION	Karadio Model	Ship. Wt.	List Price
Universal 12-Volt Negative Ground Only	707N	5 lbs.	$29.95
Universal 12-Volt Positive Ground Only	707P	5 lbs.	32.95
Universal 12-Volt Negative Ground Only	705N	6 lbs.	34.95
Universal 12-Volt Positive Ground Only	705P	6 lbs.	37.95
Universal 6-Volt Negative or Positive Ground	606	7 lbs.	39.95
Universal 12-Volt Negative or Positive Ground	612	7 lbs.	39.95
Universal 12-Volt Negative Ground Only	401	6 lbs.	39.95

The Universal model KARADIOS at left, are equipped with tone control and are supplied with separate external 5" x 7" speaker and suppression kit ready for use. The Models 705N and 705P are all-transistor types similar to Model 707 except having external speaker instead of built-in speaker. The Model 401 is transistor-powered; whereas, the models 606 and 612 are all-tube type radios. The radio set cases are finished in neutral silver-grey baked enamel. The control centers are spaced 5/8". When used with trim plate kits for American cars, drilling or filing of mounting holes may be necessary to mount radio in dash.

AMERICAN CARS

	ATR Kit No.	Sugg. List Price
BUICK Special		
1964	64BK6	9.95
61/63	61BOP6	4.75
1A) (Note: 1963 Buick Special requires 4x10 speaker)		
CHEVROLET II		
62/64	62CT26	4.75
CHEVROLET		
63/64	63CT6	4.75
61/62	61CT6	6.45
59/60	9CT6	4.75
1958	8CT6	4.75
55/56	5CT6	4.75
CHEVROLET/GMC Truck		
1964	64CTR6	4.75
60/63	6CTR6	4.75
55/59	5CTR6	4.75
COMET		
1964	64FA6	4.75
60/63	60FA6	2.95
CORVAIR		
60/64	6COR6	4.75
CHRYSLER		
63/64	63CR6	5.95
DODGE 880		
62/64	6DDD5	4.75
DODGE POLARA SERIES 330/440		
1964	64PD6	4.95
DODGE		
62/63	62PD6	4.75
60/61	6DDD6	4.75
57/59	7DG6	4.75
DODGE Dart		
1964	64DT6	4.95
1963	63DV6	4.75
1962	62PD6	4.75
60/61	6DDD6	4.75
FALCON (Except '63 and '64 Futura)		
1964	64FA6	4.75
60/63	60FA6	2.95
FALCON Station Bus & Ranch Wagon		
63/64	63FDT6	4.75
FAIRLANE		
1964	64FL6	4.75
62/63	62FL6	3.50
FORD Galaxie		
1964	64GA6	4.75
1963	63GA6	4.75
FORD Econoline Truck		
63/64	63FDT6	4.75
61/62	61FDT6	4.75

	ATR Kit No.	Sugg. List Price
FORD Ranchero		
1963	60FA6	2.95
FORD		
60/62	60FD6	2.95
1959	59FD6	3.95
1958	58FD6	3.95
1957	57FD6	3.95
INTERNATIONAL "Light Duty" Truck Models 900 thru 1500		
63/64	63ITA6	5.95
INTERNATIONAL TRUCK Series "C" Models 1600 thru 2000		
61/64	61ITR6	4.75
INTERNATIONAL Scout		
61/64	61INT6	9.95
JEEP J200/J300		
63/64	63JP6	4.75
LANCER		
1962	C6VAL6	4.75
1961	6VAL6	4.95
MERCURY Meteor		
62/63	62FL6	3.50
MERCURY		
1961	60FD6**	2.95
**60FD6 will install into Mercury Meteor models 600 and 800 only.		
OLDSMOBILE F-85		
61/63	61BOP6	4.75
PLYMOUTH		
1964	64PD6	4.95
62/63	62PD6	4.75
60/61	6PLY6	4.75
Note: Set mounting bracket behind dash (if present) must be removed before sets can be installed in 1960/61 Plymouth.		
1959†	59PLY6	4.75
†Note: Some models require Finish Panel—FP324 without clock; FP324WC with clock, or cut original Finish Panel to accommodate radio opening. Finish Panel List $3.50.		
57/58	57PLY6	6.45
PONTIAC Tempest		
1964	64PT6	4.95
61/63	61BOP6	4.75
PONTIAC Catalina		
63/64	63PC6	4.75
1960	9PON6	4.75
PONTIAC (Except Catalina)		
1960	6PON6	4.75
PONTIAC (all models except Tempest)		
1961	61PON6	4.75

	ATR Kit No.	Sugg. List Price
PONTIAC		
1959	9PON6	4.75
Note: All models 1959 Pontiac require shallow pot speakers, 5 x 7 or 6 x 9.		
RAMBLER, Ambassador and Classic (Except 1964 Model 770)		
63/64	63RA6	4.95
1962†	6RAM6	4.75
†Note: Interfering bracket welded behind dash above radio cutout must be removed by filing before radio can be installed.		
60/61	6RAM6	4.75
58/59	59RAM6	4.75
RAMBLER American		
1964	64AM6	4.75
61/63	61NA6	4.95
55/60	6NA6	4.75
STUDEBAKER Lark		
63/64	63LA6	4.75
1963/64 models require 4 x 10 speaker.		
1962	62STL6	4.75
1961	61STL6	4.75
59/60	6STL6	4.75
VALIANT		
63/64	63DV6	4.75
1962	C6VAL6	4.75
60/61	6VAL6	4.95

IMPORTED CARS

Voltage Chart	Use Karadio
(A) 6 Volt Negative Ground	Model 606
(B) 12 Volt Negative Ground	Model 705N, 401 or 612
(C) 12 Volt Positive Ground	Model 705P or 612

Note: It is difficult to classify imported cars by year since most foreign makes do not have annual changes. Hence, parts may fit years not listed.

Many import cars require under-dash mounting only. No kits required.

(C) AUSTIN HEALEY Sprite		
62/64	63MGM6	4.75
(C) AUSTIN A-55		
60/62	9AUS6	4.75
(B) DATSUN 1200 (Ex. Conv.)		
1964	64DS6	4.75
(C) ENGLISH FORD (Consul-Zephyr-Zodiac)		
60/62	6EFD6	4.75
57/59	7EFD6	4.95
(C) HILLMAN MINX		
57/58	7HM6	4.75
(C) LANCIA APPIA		
1959	CUK600	4.75
(C) MG MIDGET		
63/64	63MGM6	4.75
(C) MG "B"		
63/64	6MGB6	3.95
(C) MG or MG(A) or MG(B)		
56/63	6MG6	4.75
(B) MERCEDES BENZ 220S and 190DC		
60/63	6MB6	4.75
(B) MERCEDES BENZ 190SL		
58/63	8MB6	4.75
(C) MORRIS MINOR		
57/62	7MOR6	4.75

	ATR Kit No.	Sugg. List Price
(A) OPEL		
1964	640P6	4.75
58/59	CUK600	4.75
(B) PEUGEOT 404		
61/63	CUK600	4.75
(B) PEUGEOT 403		
58/59	CUK600	4.75
(B) RENAULT R8		
1964	64RT6	5.95
1963	CUK600	4.75
(B) RENAULT Caravelle—Automatic—Dauphine		
1964	CUK600	4.75
(B) RENAULT		
59/63	CUK600	4.75
(A) RENAULT		
57/58	CUK600	4.75
(B) SAAB		
63/64	63SA6	4.95
(B) SAAB GRAND TURISMO 707		
59/62	CUK600	4.75
(B) SIMCA Elysee-Grand Large		
59/63	9ELY6	4.75
(B) SIMCA Aronde—Chatelaine—Deluxe—Super Deluxe		
58/63	8SIM6	4.75
(B) SIMCA Ocean-Plein Ceil-Vedette-Beaulieu		
59/60	CUK600	4.75
(C) SUNBEAM Alpine		
60/63	6ALP6	4.75
(C) SUNBEAM Rapier		
57/59	7HMX6	4.75
(A) TAUNUS		
58/60	CUK600	4.75
(C) TRIUMPH TR3		
55/62	6TR16	4.95
(C) TRIUMPH TR4		
62/64	62TR14-6	5.95
(C) TRIUMPH Spitfire		
63/64	63SP6	4.95
(C) TRIUMPH Sedan		
62/63	CUK600	4.75
(C) VAUXHALL		
58/60	9VHL6	4.75
(A) VOLKSWAGEN Microbus		
57/64	VKM6	4.75
(A) VOLKSWAGEN		
58/64	8VKS6	4.75
52/57	7VKS6	4.75
(A) KARMANN GHIA		
58/64	8KG6	4.75
(B) VOLVO 122-S		
63/64	CUK600	4.75
(A) VOLVO 122-S		
60/62	CUK600	4.75
(B) VOLVO 544		
63/64	CUK600	4.75
(A) VOLVO 544		
59/62	CUK600	4.75
(B) VOLVO Sport and P1800		
62/64	CUK600	4.75

All prices and specifications subject to change without notice.

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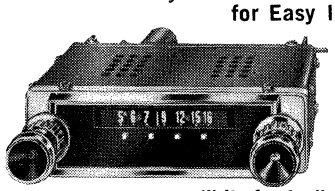
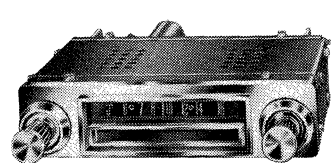
FULL CUSTOM KARADIO

Blends Perfectly With Dashboard Same as Original Equipment for Easy Installation





Write for Available Information

UNIVERSAL TRIMPLATES ONLY

Install into make & models for which no kits are made—or not in stock—or boats, etc. Simply cut for nosepiece & drill for shaft centers using trimplate as template.

Size	9 x 3	CUK219	List Price 1.75
Size	6½ x 2	CUK220	List Price 1.75

Note: CUK219 can be bent for curved dash.—Sets using separate speaker require also speaker mount as below—Complete kits listed above include speaker mounts.

		Sugg. List Pr
SK571B	Universal Speaker Housing for 5 x 7 speaker.	2
9RSK	Rear Deck Mount for 6 x 9 speaker.	3
RDG69	Rear Deck Mounting Grille Only for 6 x 9 Speaker.	1
6CTR-SK	Dash Mount to Install Speaker into '64 Chevrolet/GMC Trucks.	2

ANTENNA — Type 35 Telescopic chrome plated fender mounted antenna available. Extends to 35" complete with 48" cable. If antenna is desired, please so specify ; this will be shipped as a separate item. Pricing for the antenna is as follows: List price, $2.95. Side mounted antenna, Type 37, also available at similar pric

ATR® TRUCK Karadio®

with Excellent Tone, Sensitivity and Volume!

ALL-TRANSISTOR
MODEL TR-720

- Hand-wired . . . no printed circuits to warp or crack
- Seven tuned circuits with high gain RF stage
- Seven solid-state semi-conductors . . . five transistors, two diodes — gives seven-transistor or more performance
- Superheterodyne circuit
- Instant play . . . no warmup needed
- Variable tone control . . . to adjust tone as you desire
- Plug-in speaker jack for external speaker use if desired
- Automatic Volume Control
- Three-section "Magna-Wave" tuner
- Large easy-to-read illuminated dial
- Powerful 5″ x 3″ elliptical speaker
- The life of the radio has been increased considerably due to specially designed yoke-type flat-spring-mounting and excellent ventilation
- The ATR Karadio is simple to service — merely take off two easily accessible thumb nuts and remove the entire set
- The unit can be installed quickly and easily — drill ONE hole . . . connect ONE wire, and the set is ready for use
- Yoke-type tilt bracket mount permits radio to be adjusted to curvature of any cab or as desired by driver
- Sturdy lock-nut and washers hold radio set mount securely to cab top through 5⁄8″ hole drilled in roof
- 33″ stainless steel antenna bends in any direction
- Available in 12-volts only
- For either negative or positive ground . . . please specify
- Low battery drain
- Complete with antenna assembly and interference suppression kit
- Beautiful silver-grey baked enamel finish

ALL-TRANSITOR
MODEL TR-720

$49.95
LIST PRICE

FOR A COMPLETE LISTING OF ALL MODELS SEE PRICE LIST

ALL-TUBE
MODELS TR-1279-6A & TR 1279-12A

- Hand-wired . . . no printed circuitry
- Seven tuned circuits with high gain RF stage
- Six-tube superheterodyne circuit (utilizes two dual-purpose tubes) giving eight-tube performance
- Pulls in distant stations with good tone and volume
- Is ATR Vibrator-Operated
- Uses tube-type rectifier for best tone and maximum sensitivity
- Variable tone control . . . to adjust tone as you desire
- Plug-in speaker jack for external speaker use, if desired
- Automatic Volume Control
- Three-section "Magna-Wave" tuner
- Large easy-to-read illuminated dial
- Powerful extra large Alnico 5-Magnet PM 4-inch speaker
- The life of the radio has been increased considerably due to specially designed yoke-type flat-spring-mounting and excellent ventillation
- The ATR Karadio is simple to service — merely take off two easily accessible thumb units and remove the entire set
- The unit can be installed quickly and easily — drill ONE hole . . . connect ONE wire, and the set is ready for use
- Yoke-type tilt bracket mount permits radio to be adjusted to curvature of any cab or as desired by driver
- Sturdy lock-nut and washers hold radio set mount securely to cab top through 5⁄8″ hole drilled in roof.
- 33″ stainless steel antenna bends in any direction
- Six-volt (Model TR-1279-6A) or Twelve-volt (Model TR-1279-12A) . . . please specify
- For either negative or positive ground . . . no polarity requirement
- Low battery drain
- Complete with antenna assembly and intereference suppression kit
- Beautiful silver-grey baked enamel finish

ALL-TUBE
MODELS — (6 VOLT) TR-1279-6A and (12 VOLT) TR-1279-12A

$59.95
LIST PRICE

Featuring the ATR Patented Antenna-Yoke Assembly. U.S. Letter Patent Number 3,087,118; Canadian Patent Registration Number 575,567.

ROOF-MOUNTED AND IN-DASH MODELS

FITS ALL MAKES OF TRUCKS . . . RUGGED ALL-METAL CONSTRUCTION . . . SHOCK-MOUNTED

DESCRIPTION — ALL-TRANSISTOR	Weight Shipping	Sugg. Price Retail
Model TR-720N 12-volt **Negative ground only** complete with No. 79 Antenna. Net Weight, 6 lbs.	8½ lbs.	$49.95
Model TR-720N (L) 12-volt **Negative ground only. Radio Set Only,** as above, except **No Antenna.** Net Weight, 4½ lbs.	5 lbs.	36.95
Model TR-720P 12-volt **Positive ground only** complete with No. 79 Antenna. Net Weight, 6 lbs.	8½ lbs.	52.95
Model TR-720P (L) 12-volt **Positive ground only. Radio Set Only,** as above, except **No Antenna.** Net Weight, 4½ lbs.	5 lbs.	39.95
No. 79 TRUCK Karadio Patented Roof-Mount **Antenna-**Yoke assembly. Chrome plated.	3½ lbs.	13.50

DESCRIPTION — ALL-TUBE	Weight Shipping	Sugg. Price Retail
Model TR-1279-12A 12-volt with No. 79 Antenna. Net Weight, 7½ lbs.	10½ lbs.	$59.95
Model TR-1279-6A 6-volt with No. 79 Antenna. Net Weight, 7½ lbs.	10½ lbs.	59.95
Model TR-1279-12 12-volt, **radio set only,** no antenna. Net Weight, 6 lbs.	7 lbs.	47.95
Model TR-1279-6 6-volt, **radio set only,** no antenna. Net Weight, 6 lbs.	7 lbs.	47.95

IDEAL FOR TRUCKS, BOATS AND STATION WAGONS

Trade Discount Applies To List Prices Only

© U.C.P., Inc.

ATR® TRACTORadio

with Excellent Tone, Sensitivity and Volume!

ALL-TRANSISTOR
MODEL TT-727

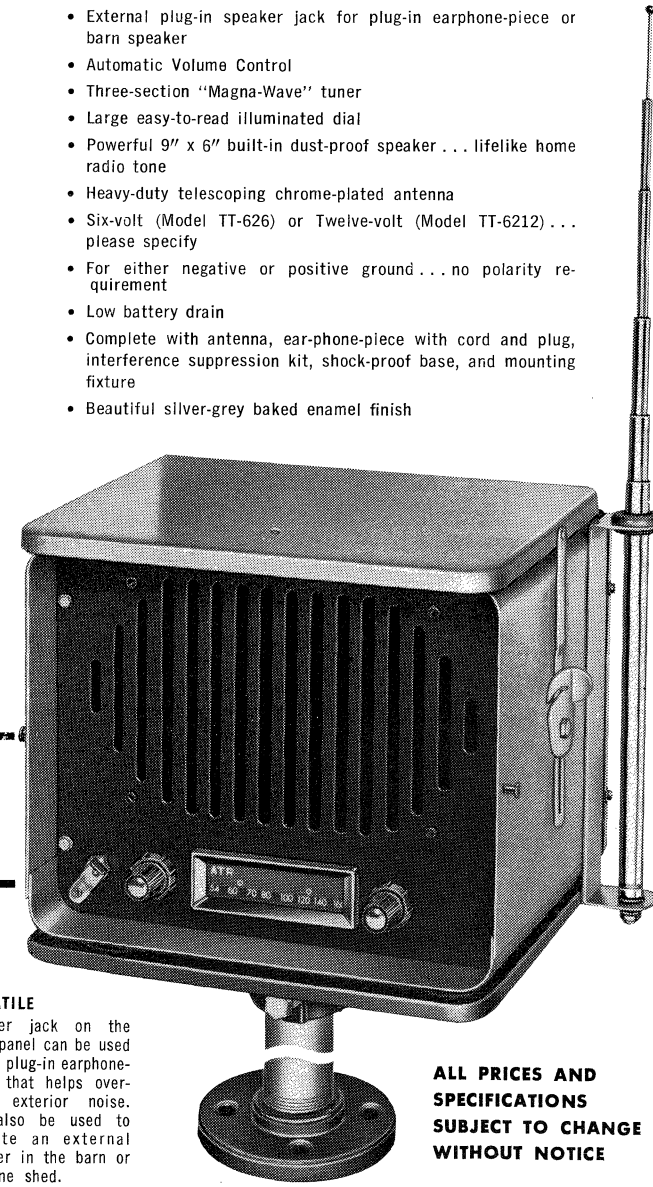
- Hand-wired . . . no printed circuits to warp or crack
- Seven tuned circuits with high gain RF stage
- Seven solid-state semi-conductors . . . five transistors, two diodes — gives seven transistor or more performance
- Superheterodyne circuit
- Instant play . . . no warmup needed
- Variable tone control . . . to adjust tone as you desire
- External plug-in speaker jack for plug-in ear-phone-piece or barn speaker
- Automatic Volume Control
- Three-section "Magna-Wave" tuner
- Large easy-to-read illuminated dial
- Powerful 9" x 6" built-in dust-proofed speaker . . . lifelike home radio tone
- Heavy-duty telescoping chrome-plated antenna
- Available in 12-volts only
- For either negative or positive ground . . . utilizing reversible polarity switch
- Low battery drain
- Complete with antenna, ear-phone-piece with cord and plug, interference suppression kit, shock-proof base and mounting fixture
- Beautiful silver-grey baked enamel finish

ALL-TUBE
MODELS TT-626 & TT-6212

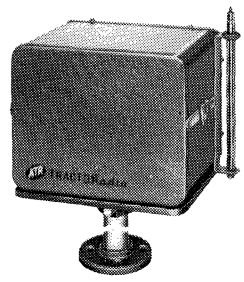
- Hand-wired . . . no printed circuitry
- Seven tuned circuits with high gain RF stage
- Six tube superheterodyne circuit (utilizes two dual purpose tubes) giving eight tube performance
- Pulls in distant stations with good tone and volume
- Is ATR Vibrator-Operated
- Uses tube-type rectifier for best tone and maximum sensitivity
- Variable tone control . . . to adjust tone as you desire
- External plug-in speaker jack for plug-in earphone-piece or barn speaker
- Automatic Volume Control
- Three-section "Magna-Wave" tuner
- Large easy-to-read illuminated dial
- Powerful 9" x 6" built-in dust-proof speaker . . . lifelike home radio tone
- Heavy-duty telescoping chrome-plated antenna
- Six-volt (Model TT-626) or Twelve-volt (Model TT-6212) . . . please specify
- For either negative or positive ground . . . no polarity requirement
- Low battery drain
- Complete with antenna, ear-phone-piece with cord and plug, interference suppression kit, shock-proof base, and mounting fixture
- Beautiful silver-grey baked enamel finish

THREE MODELS TO CHOOSE FROM — To PROVIDE BEST PERFORMANCE FROM YOUR TRACTOR BATTERY VOLTAGE!!

MODEL DESCRIPTION	Shipping Weight	Retail Price
MODEL TT-727 All-Transistor Type, Complete. Reversible Polarity. 12-volt operation.	18 lbs.	$69.95
MODEL TT-626 All-Tube Type, Complete. For negative or positive ground. 6-volt operation.	20 lbs.	79.95
MODEL TT-6212 All-Tube Type, Complete. For negative or positive ground. 12-volt operation.	20 lbs.	79.95



FITS ALL MAKES OF TRACTORS . . .
RUGGED — ALL METAL CONSTRUCTION . . .
WEATHER-PROOF . . . SHOCK-MOUNTED

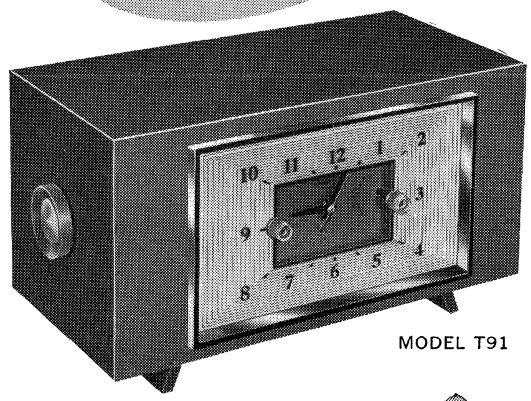


WEATHERPROOF
Unit is sealed in a heavy gauge metal case. Metal cover closes over the front when not in use. It protects against wind, rain, and dust. Cover locks tight—opened or closed.

VERSATILE
Speaker jack on the front panel can be used with a plug-in earphone-piece that helps overcome exterior noise. Can also be used to operate an external speaker in the barn or machine shed.

ALL PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

ATR Ultra Modern TABLE RADIOS



MODEL T91

CLOCK RADIO WITH BUILT-IN SALES APPEAL

Excitingly styled clock radio—trim, modern cabinet in ebony or ivory plastic . . . rich gold-color trim and clock numerals. Powerful 5-tubes AM radio chassis with built-in "Magna-Plate" antenna. Full-toned 4" PM speaker. Popular features include: *Musical Alarm*—radio turns on automatically at any pre-set time; *Sleep Selector*—lulls user to sleep, turns radio off automatically during 60 minute period after retiring; *Automatic Appliance Timer*—outlet on back of radio times any electric appliance automatically (up to 1100 watts). Cabinet 10½ in. wide, 5 in. high, 5⅛ in. deep. Wt. approx. 8 lbs. A WONDERFUL TONIC FOR NEW SALES . . . BIGGER PROFITS!

Model T-91 Clock Radio, Black ..... **Dealer Price $22.45**
Model T-91 Clock Radio, Ivory ..... **Dealer Price $23.15**

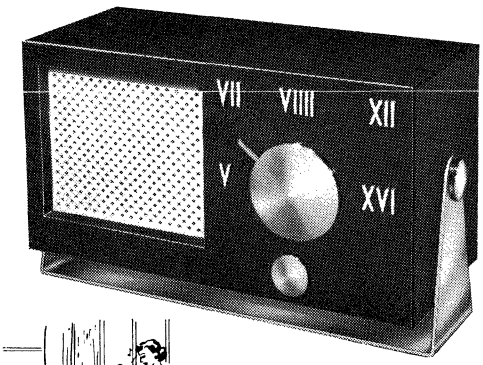
CLOCK SPECIFICATIONS ON MODEL T91 ONLY

- Genuine Telechron Movement . . . Accurate, Quiet, and Long-Lived.
- Self-Starting . . . Never Needs Winding, Oiling, or Regulating.
- Simplified Clock Controls for Radio and Sleep Switch.
- 1100 Watt Controlled Appliance Outlet.
- Automatic Buzzer Alarm Sounds Approximately 10 Minutes After Sleep-Switch Turns On Radio.
- Gold-Plated Bezel and Numerals on Large Bone-White Dial. Dial Size 4¼" x 7¼"
- UL Approved

GENERAL SPECIFICATIONS PERTAINING TO ALL ATR TABLE RADIOS

- **Advanced Super-heterodyne Circuit**—Increased selectivity and sensitivity with improved tube types . . . High audio output . . . Automatic volume control . . . two gang variable condenser.
- **Sealed Alnico 5 PM Dynamic Speaker**—Full range frequency . . . Power without distortion . . . Balanced tone quality.
- **Automatic Volume Control**—Maintains uniform volume on local and long distance reception.
- **Genuine Magna-Wand Ferrite Antenna**—Magna-Wand used in conjunction with Hi-Q Iron Core IF Coils for extreme sensitivity and selectivity . . . High signal-to-noise ratio.
- **Power Line Noise Filter**—Minimum interference from household appliances, motors, etc.
- **Wave Band:** 540 to 1600 KC
- **Tubes**—
  12BA6—456 KC IF Amplifier 12BE6—Mixer
  12AV6—2nd detector-1st Audio 35W4—Rectifier
  50C5—Audio Power Output
- **Power Supply:** 115 Volts, 60 Cycles AC
- **Cabinet**—Beautiful compression molded bakelite with shadow box effect dial and complementing golden knobs and trim. Resistant to heat.

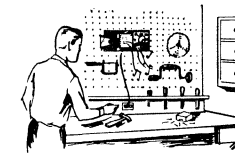
HAND WIRED — NO PRINTED CIRCUITRY ATR



MODEL T87

for Kitchen

for Den


for Workshop

ATR "TILT-A-STAND" RADIO MOUNT ON THE WALL—UNDER A SHELF—OR SET ON A TABLE PERFECT for every room in YOUR home

A NEW HIGH IN RADIO USEFULNESS . . . It rotates a full 360° on a beautiful golden pedestal. Pedestal is notched for screws, giving unlimited mounting possibilities. THE HANDIEST RADIO EVER! The gleaming molded bakelite cabinet is enhanced by a contrasting recessed grill and rich golden dial pointer and controls. Distinctive dial with large Roman numerals.

Excitingly new and different . . . radio is mounted on sturdy, gleaming brass-finished stand. Radio tilts up or down easily to any desired angle. Keyhole slot in stand makes this versatile performer easy to mount on wall out of way of small hands. Perfect for den, kitchen, or bedroom. Power-packed 5-tubes chassis. Built-in loop antenna. Automatic volume control. Full 4" Alnico 5 speaker Distinctive Roman numerals on dial. Size: 9½" W x 4" D x 5¾" H. AC/DC. U.L. approved. Weight 5½ lbs.

Model T-87 (Tilt-A-Stand), Black ..... **Dealer Price $17.47**
Model T-87 (Tilt-A-Stand), Red ..... **Dealer Price $18.10**

JOBBERS ATTENTION: See Page 1039 in Section 4000 for your Catalog Needs!

© U.C.P., Inc.

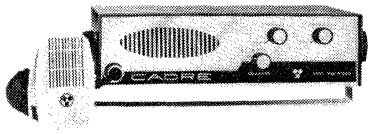
CADRE

solid state citizens band transceivers

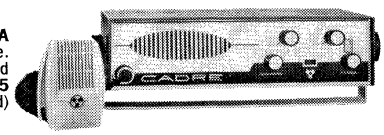
reliable • low cost • powerful 2-way radio communications

FOUR 5-WATT, 5-CHANNEL MODELS, ALL FEATURING:

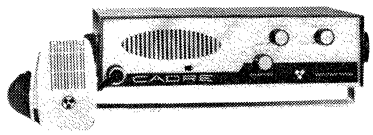
- 100% transistor reliability—no heat problems, no tubes to burn out—low current drain—withstands abuse of mobile application.
- Highest power possible—widest 27mc CB transmission range, up to 20 miles over land, 30 miles over water . . . speech clipping delivers maximum power without distortion.
- Bull's-eye tuning—with 5 crystal-controlled transmit and receive channels.
- Rugged press-to-talk mike with retractable cord
- Clearest reception . . . RF stage, four IF stages, ½ μv sensitivity captures weakest signals . . . dual-conversion superheterodyne receiver has both crystal and new ceramic filters . . . automatic noise limiter cuts ignition noises . . . adjustable squelch silences speaker for noise-free standby reception.
- Light weight . . . small size . . . fits any vehicle, even compacts—without stealing leg room.
- Universal mounting bracket for use in virtually any location.
- 90-day EIA warranty on all parts.
- All U.S. parts.
- Professional appearance . . . crisp, streamlined styling, enhanced by handsome brushed aluminum and charcoal finish.



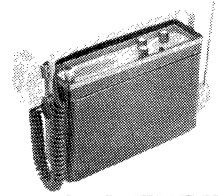
CADRE 515-A
AC/DC operation—for use anywhere. **$185.00** (DC cord & mounting kit included)



CADRE 510-A
AC/DC operation—for use anywhere. Also offers crystal correlated 23 channel manual tuning. **$199.95** (DC cord & mounting kit included)

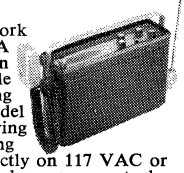


CADRE 520-A
DC operation only, with DC power cord and mounting kit. **$169.95**



CADRE 525-A
Model 520A in portable case for field use. Standard AC cord permits recharging of two built-in nickel-cadmium batteries . . . telescoping antenna . . . aluminum carrying handle. **$249.95**

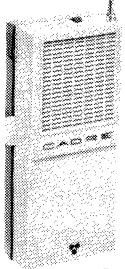
ACCESSORIES FOR 5 WATT TRANSCEIVERS



CADRE 500-1 PORTABLE PACK
Lightweight case with recharger network adapts Cadre 510-A, 515-A and 520-A for full field portability. Has high-gain 6-section antenna with adjustable angle connector. Provision for two operating and two extra standby batteries (Model 500-2, 6V batteries). Aluminum carrying handle. Built-in recharger for operating on standard 117 VAC. Operates directly on 117 VAC or 12V storage batteries through recessed power receptacle. Optional shoulder carrying strap (500-3). Only 9 lbs. with transceiver and batteries. $32.95.

500-2—6 volt 0.5 amp. nickel-cadmium batteries. Two required for 500-1 and for C-75. $9.90 each. **524 SELECTIVE CALLING UNIT**—Solid state throughout. 3 tones with switching provide 24 tone combinations. Designed to work with Cadre transceivers and any 12 VDC transceivers on the market. $69.95. **522 POWER S/METER**—Transistor battery-operated unit for use with 5-watt transceivers. $29.95. **523 BANDPASS FILTER**—(25-32 mc). $9.90. **XTAL SETS**—Extra crystal sets. $6.75. **AT-1**—Portable CB base loaded antenna. $5.25.

500-3—Shoulder Strap. $1.95. **500-6**—Shock mount. $9.50. **521**—AC supply for 520-A. $18.75.



HAND-HELD, 2-CHANNEL TRANSCEIVERS

CADRE C-75—Portable solid-state CB radio with 1.5 watts transmitter input power. Two crystal-controlled channels, rechargeable battery or penlite cells power supply. Employs all solid state design. Sensitive superhet receiver (1μv for 10 db S/N ratio). Powerful transmitter delivers one watt output to antenna. Modulation averages 90% from 500 to 2500 cycles. Adjustable squelch. AGC. Built-in telescoping antenna. Weighs less than 2 lbs. Earphone and antenna jacks. Jacks for earphone, external speaker, external antenna and base operation while unit is recharging. Supplied with leatherette carrying case and set of channel 11 crystals. **$99.95.**

CADRE C-75M – Same as C-75 with C-75-13 insulated antenna. Bureau of Mines approval. **$119.95.**

CADRE C-60—100 milliwatt hand-held solid state portable. American-made. Rugged, reliable low-priced unit with 1 microvolt sensitivity. Delivers up to 70 mw output to antenna. Works on penlite cells or rechargeable batteries. Comes in high impact plastic case. Includes earphone jack, telescoping antenna. Two crystal-controlled channels. Channel 11 crystals furnished. Carrying case extra. **$59.95.**

ACCESSORIES FOR C-75 & C-60

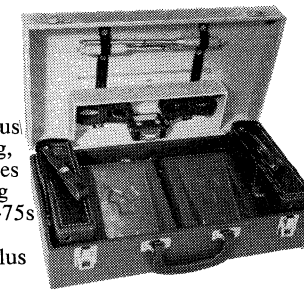
C-75-101 Recharger for C-75, $9.50. **C-75-102** Recharger for 220 V. $10.75. **C-75-103** Recharger adaptor for 500-2 batteries used with C-75-101. $4.75.

500-2 Six volt 0.5 amp nickel-cadmium battery. Two required in C-75. $9.90. **C-75-2** Battery holder for (9) 1.5 volt penlite cells. $3.95. **C-75-3** Shoulder carrying strap. $1.95. **C-75-7** Antenna cable adaptor. $6.75. **C-75-8** Battery charger indicator. $8.25. **C-75-9** Deluxe leather case. $8.25.

C-75-10 Flexible 12″ base-loaded antenna. $8.25. **C-75-13** 12″ insulated antenna. $8.25. **C-75-14** Earphone $8.25.

C-75-15 Carrying case. $15.00.

COMPLETE PORTABLE COMMUNICATIONS SYSTEMS



A pair of portable hand-held transceivers plus accessories for recharging, external antennas, batteries etc. in a compact carrying case. CADRE 780-(2) C-75s plus accessories. $295.00. CADRE 770-(2) C-60s plus accessories. $220.00.

CADRE CONSORT FM WIRELESS MICROPHONE

A complete, portable, wireless PA system when used with any FM radio. Features: • Unique tone signal zeroes in on any open FM channel in the 88 to 108 mc band. • Radio or receiver may be located up to 200 feet from transmitter. • Built-in dynamic microphone and built-in antenna. • 4 silicon transistors • Up to 300 hours use on mercury battery. $44.95.

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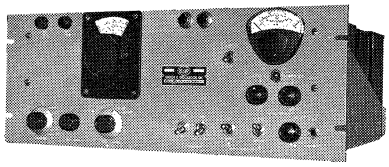
BARKER & WILLIAMSON, Inc.

A SUBSIDIARY OF RENWELL INDUSTRIES, INC.

RADIO COMMUNICATION EQUIPMENT

HF For Fixed Stations—Van Installations



H. F. RECEIVER
MODEL HFR-100A

Provides reliable reception of ISB, SSB, DSB (AM), CW and FSK. Frequency control is maintained by up to 10 precision crystals in a highly stable oven. Front end is continuously tunable from 2 to 30 MC, with the use of external variable frequency oscillator or frequency synthesizer. Ideal for multi-channel narrow frequency shift, data handling systems, and independent sideband operation.

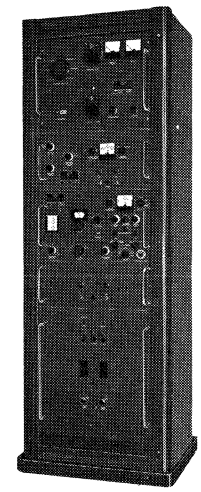
Price $1,950.00

INDEPENDENT SIDEBAND TRANSMITTER
MODEL IST-1K

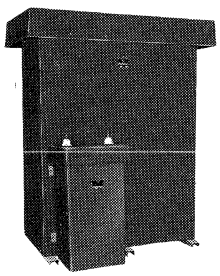
- 1000 Watts PEP or CW
- Low Distortion
- Bandswitched
- 10 Highly Stable Crystal Positions
- High Reliability
- Easily Serviced
- Solid State Power Supply
- Frequency 2 to 30 MC/s

The Model IST-1K has been designed to provide Military/Commercial users with a reliable and compact HF transmission system. The transmitter is capable of SSB, ISB, DSB (with any level of inserted carrier), CW and FSK modes of transmissions over the frequency range of 2 to 30 MC/s. Frequency control is maintained by up to 10 precision crystals in a highly stable oven providing a stability as high as 2 parts in 10 million per day. A separate Frequency Synthesizer can also be used to drive the transmitter if necessary.

Price $7,958.85



BAKER & WILLIAMSON ACCESSORIES FOR COMMERCIAL SYSTEMS

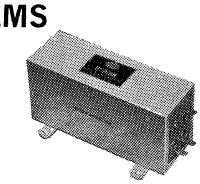


DUMMY LOAD ANTENNA TERMINATORS

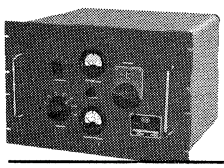
Frequency Range—D.C. to 30 MC
Impedance—600 ohms balanced
50-70-300 ohms unbalanced

MODEL	POWER RATING	PRICE
DL-6K	6 KW	$1,550.00
DL-2K	2 KW	525.00
DL-500	500 Watts	232.00
DL-100	100 Watts	82.50

RF FILAMENT CHOKES FOR GROUNDED GRID AMPLIFIERS



MODEL	FOR MAX. FILAMENT CURRENT TO:	PRICE
FC-15A	15 Amps	$8.65
FC-30A	30 Amps	10.45
FC-50	50 Amps	50.00



WHIP ANTENNA TUNING UNITS

For resonating Electrically Short Vertical Antennas
Range—2-30 MC—Input Impedance 50 ohms Unbalanced

MODEL	POWER RATING	PRICE
TU-100	100 Watts—CW or PEP	$572.35
TU-1K	1000 Watts—CW or PEP	825.00
TU-2.5K	2500 Watts—CW or PEP	1088.25

HIGH FREQUENCY MATCHING TRANSFORMERS

For matching unbalanced power source to balanced loads.
Input Impedance—50 or 70 Ohms unbalanced
Output Impedance—200, 300, 600, 700 ohms balanced

MODEL	POWER RATING	PRICE
HFT-1K	1 KW	$307.50
HFT-5K	5 KW	475.00

RF FILTERS

from
100 Watts
to
20 Kilowatts
for suppression of spurious frequencies radiated by HF Transmitters.

MODEL	IMP. OHMS	BANDS	POWER	ATTENUATION	USE	TYPE	FUNCTION	PRICE
423	52-72	6 Meters	100 Watts	50 DB	Amateur	Low Pass	Suppresses signals above 55 MC	$9.66
424	52-72	3.5-30 MC	100 Watts	50 DB	Citizens Amateurs	Low Pass	Suppresses signals above 44 MC	8.65
425	52	3.5-30 MC	1-KW	Min. 85 DB	Amateur	Low Pass	Suppresses signals above 34 MC	17.10
426	72	3.5-30 MC	1-KW	Min. 85 DB	Amateur	Low Pass	Suppresses signals above 34 MC	17.10
427	52-72	6 Meters	1-KW	Min. 85 DB	Amateur	Low Pass	Suppresses signals above 34 MC	19.86
FL-3K/50 U	50	2-3.6 MC	3-KW	Min. 60 DB	Commercial	Low Pass	Suppresses signals above 4.0 MC	on request
FL-3K/50 U	50	2-11.4 MC	3-KW	Min. 60 DB	Commercial	Low Pass	Suppresses signals above 14.3 MC	on request
FL-3K/50 U	50	2-30 MC	3-KW	Min. 50 DB	Commercial	Low Pass	Suppresses signals above 38.0 MC	on request
FL-5K/50 U	50	2-5.1 MC	5-KW	Min. 60 DB	Commercial	Low Pass	Suppresses signals above 6.0 MC	on request
FL-5K/50 U	50	2-16.0 MC	5-KW	Min. 50 DB	Commercial	Low Pass	Suppresses signals above 22.0 MC	on request
FL-5K/50 U	50	2-32.0 MC	5-KW	Min. 50 DB	Commercial	Low Pass	Suppresses signals above 44.0 MC	on request
FL-5K/50 U	50	2-30 MC	20-KW	Min. 50 DB	Commercial	Low Pass	Suppresses signals above 40.0 MC	on request

Other types and 70 ohm models are also available—Prices on Request—Inquiries invited.

Prices and specifications subject to change without notice.

BARKER & WILLIAMSON, Inc.

A SUBSIDIARY OF RENWELL INDUSTRIES, INC.

BRISTOL, PENNSYLVANIA 19007

Net

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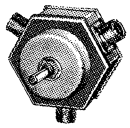
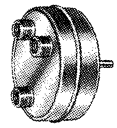
NEW B & W COAXIAL TYPE SWITCHES

Connectors Mounted on Side



Connectors Mounted on Back

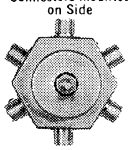


Models 550A-2 and 592 are single pole, 2 position switches with UHF-type connectors.

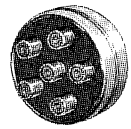
MODEL 550A-2
$7.35 ea.
(Less Dial Plate)

MODEL 592
$7.35 ea.
(Includes Dial Plate)

Connectors Mounted on Side



Connectors Mounted on Back

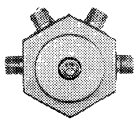


Models 550A and 590 are single pole, 5 position switches with UHF-type connectors.

MODEL 550A
$8.25 ea.
(Less Dial Plate)

MODEL 590
$8.25 ea.
(Includes Dial Plate)

Connectors Mounted on Side



Connectors Mounted on Back

Models 551A and 591 are 2 pole, 2 position special purpose switches with UHF-type connectors. Designed for switching any RF device in or out of series connection in coax line circuits.

MODEL 551A
$7.95 ea.
(Less Dial Plate)

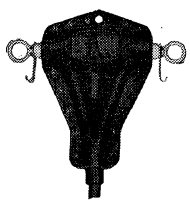
MODEL 591
$7.95 ea.
(Includes Dial Plate)

PLUS A FULL LINE of single and multiple-gang units with choice of "UHF", "BNC", "N" and Phono-Type connectors (write for literature).

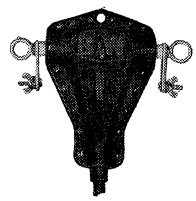
The New Switching Units shown above have the following specifications:

Power Rating: 1KW amplitude modulated, impedance 52-75 ohms—Frequency Range; Audio to 100 MC—Cross Talk; —45 db between adjacent outlets (at 30Mc) —60 db between alternate outlets.

COAX ANTENNA CONNECTORS



Model CC50



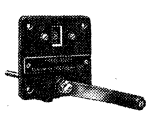
Model CC51 (Military Type)

Model CC50
Price $5.85

Model CC51
(Military Type)
Price $7.65

These connectors provide a weather proof, mechanically strong connection between a coaxial feed line and the center of a dipole antenna. It has an aluminum housing, rust proof eye-bolts and steatite insulation. Provision is made for internal soldered connections. Unit is furnished with rubber bushing for use with small coax cables and includes cement and instructions for installations. Size of both units 6½" x 5¾" x 1½". Shipping weight 2 lbs.

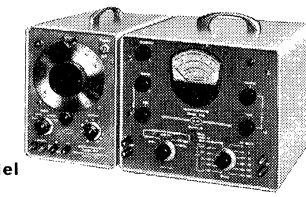
CYCLOMETER TYPE COUNTER



For units that must be rotated in excess of 360° and reset to the same point. Available for 10 or 100 turns to within one-tenth of a turn. Front plate is 3" x 3". Depth from front of panel is $1\frac{11}{16}$". Either type available with a positive stop to limit the number of shaft rotations and a positive shaft lock. Price is determined by the application. Standard finish is black crackle. Other finishes on special order.

10 Turn Cyclometer-Model No. 3901 .... **Price $16.00**
100 Turn Cyclometer-Model No. 3902.... **Price $16.00**
Numbers decrease with clockwise rotation
Model No. 3902-1 ..... **Price $16.00**
Numbers increase with clockwise rotation.

INSTRUMENTS FOR AUDIO MEASUREMENTS



Model 210
Price $165.00

Model 410
Price $189.50

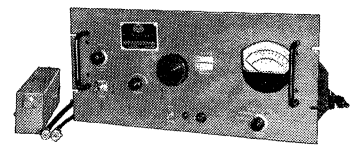
MODEL 210 AUDIO OSCILLATOR

The model 210 Audio Oscillator is a source for low distortion signals from 10 to 100,000 cycles.

MODEL 410 DISTORTION METER

The model 410 Distortion Meter measures audio distortion, noise level, audio gain or loss in DBs and AC voltages.

These two instruments used in conjunction are accepted for FCC proof-of-performance tests.

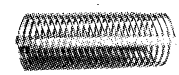


Price $609.50

MODEL HST-HARMONIC AND SPURIOUS TOTALIZER

The B & W Model HST, Harmonic and Spurious Totalizer, has been specifically designed to serve as an accurate laboratory and Factory Production instrument for the measurement of total harmonic and spurious radiation from high frequency transmitters.

MINIDUCTORS



Highly efficient coils for those who like to build their own. Available in the types listed below.

Cat. No.	Coil Dia.	Turns Per In.	Lgth.	Net Price
3001	½"	4	2"	$ .45
3002	½"	8	2"	.45
3003	½"	16	2"	.45
3004	½"	32	2"	.45
3005	⅝"	4	2"	.54
3006	⅝"	8	2"	.54
3007	⅝"	16	2"	.54
3008	⅝"	32	2"	.54
3009	¾"	4	3"	.63
3010	¾"	8	3"	.63
3011	¾"	16	3"	.63
3012	¾"	32	3"	.63
3013	1"	4	3"	.69
3014	1"	8	3"	.69
3015	1"	16	3"	.69
3016	1"	32	3"	.69
3017	1¼"	4	4"	.75
3018	1¼"	8	4"	.75
3019	1¼"	16	4"	.75
3020	1¼"	32	4"	.75
3021	1¾"	4	4"	.90
3022	1¾"	8	4"	.90
3023	1¾"	16	4"	.90
3024	1¾"	32	4"	.90
3900	2"	8 #14	10"	1.95
3905-1	2½"	6 #12	10"	2.35
3906-1	2½"	8 #14	10"	2.35
3907-1	2"	10 #16	10"	1.95

MODEL 600 GRID DIP METER

A highly sensitive, accurately calibrated instrument which can be used as an RF Signal Monitor, Auxiliary Signal Generator, and Absorbtion Wave-meter. It can also be used in measuring capacity, inductance, circuit "Q", and as a means of determining other factors in electrical circuits. The wedge shape makes it easy to handle. Plug-in coils are protected by colored vinyl plastic sleeves. Sensitivity control permits adjustment for distinctive dips throughout entire 1.75 to 260 mc range. Overall size 3" x 3" x 7". Wt. approx. 2 lbs. Operates from 105-125 v-ac 50-60 cycles.

Price $49.60

MODEL 6100 TRANSMITTER

Price $875.00

The Barker & Williamson Model 6100 Transmitter has been engineered and built to give the discriminating operator the ultimate in SSB and CW transmissions.

The 6100 uses the B&W crystal controlled frequency synthesizer, producing an order of stability which up to this time has been available only in costly communication systems.

SPECIFICATIONS

Type..... Crystal Lattice Filter Sideband Generator.

Operational Function..... SSB..Linear AM, CW.

Frequency Control..... Crystal Controlled Frequency Synthesizer. Providing continuous coverage on all bands indicated below. No free running oscillators. Frequency set on three digital dials for "hundreds", "tens" and "units" of kilocycles. The "units" dial is continuously variable.

Frequency Coverage..... 3.5—4.1, 7.0—8.0, 14.0—15.0, 21.0—22.0, 28.0—29.0 and 29.0—30.0 mc. With one additional crystal the frequency coverage is extended 100 KC on the low end of each band, allowing coverage of the following MARS frequencies: 3497.5 KC, 6997.5 KC, 13995.0 KC

Frequency Stability..... In normal operating environment (room temperature) drift during the first 15 minutes not in excess of 100 cycles. During any hour of operation thereafter within ±25 cycles.

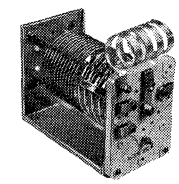
Power..... SSB..180 watts PEP Input Max. CW..180 watts DC Input Max. AM..90 watts Input Max.

Output Impedance..... Will match 30-100 ohm resistive loads.

Physical Characteristics Mounted in table-top cabinet. Panel size—18" W x 8¾" H. Overall cabinet dimensions—18⅜" W x 9½" H x 16" D.

Weight..... 60 lbs.

PI-NETWORK INDUCTORS



Ultra-compact highly efficient and intergrally bandswitched, these pi-network inductor assemblies incorporate novel design features. They are designed for single or parallel tube operation from 80 through 10 meters. Windings provide ample current carrying capacity. Maximum "Q" over the entire operating range.

Model 851 for 500 watt finals **Price $16.50**
Model 850A for 1 KW finals **Price $35.00**
Model 852 for 1 KW finals 1500 ohm plate load **Price $39.50**

FOR MORE COMPLETE INFORMATION OF ANY ITEMS LISTED ON THESE PAGES CALL OR WRITE TO THE FACTORY FOR SALES BULLETINS.

B&W

Barker & Williamson, Inc.
A subsidiary of Renwell Industries, Inc.
BRISTOL, PENNA. 19007

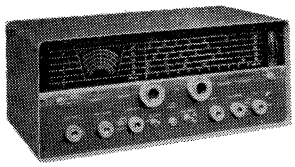
Prices and specifications subject to change without notic

hallicrafters

Precision Built Short Wave and Special Purpose Receivers

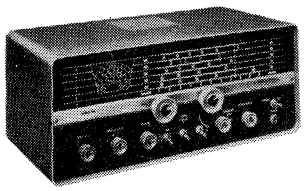
SX-62A (Less speaker)

Broadcast 550-1620 kc. three S/W bands 1.62-32 Mc, FM 27-109 Mc. Wide vision dial, one band lights at a time, temperature compensated, voltage regulated, six-position selectivity, phone jack. Fourteen tubes plus one rectifier and one voltage regulator—105/125V. 50/60 cycle AC. Satin black steel cabinet, gray and silver trim — 20″ x 10½″ x 16″. Shipping wt. 66 lbs. approx. Use R-48 speaker. (U/L approved.).....**$430.00**



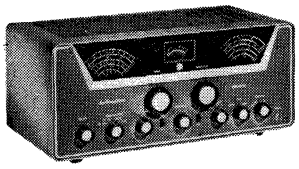
SX-110 (Less speaker)

Broadcast 538-1600 kc, three S/W bands 1550 kc-34 Mc. Slide rule bandspread dial calibrated on 10, 15, 20, 40 and 80 meter amateur bands. Antenna trimmer, "S" meter. Crystal filter. Seven tubes plus one rectifier —105/125V. 50/60 cycles AC. Gray steel cabinet, silver trim. Uses R-48 speaker, 8″ x 18¾″ x 10¼″. Shipping wt. 35 lbs. (U/L approved.).....**$169.95**



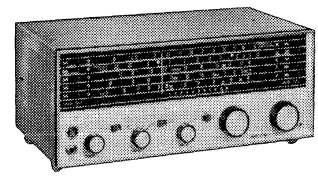
S-108

Broadcast 538-1600 kc, three S/W bands 1550 kc-34 Mc. Slide rule bandspread dial calibrated on 10, 15, 20, 40 and 80 meter amateur bands. Temp. compensated oscillator. Headphone jack. Seven tubes plus rectifier. 105/125V. 50/60 cycle. Gray steel cabinet, silver trim. 8″ x 18¾″ x 10¼″. Shipping wt. 35 lbs. (U/L approved.).....**$139.95**



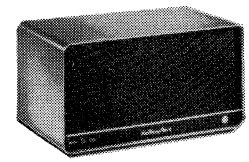
SX-122 (Less speaker)

Deluxe general coverage receiver. Broadcast (538-1580 kc.) plus three S/W bands (1720 kc. - 34 Mc.). Dual conversion, superhetrodyne over the entire frequency range. SSB reception. Product detector for SSB/CW. Envelope detector for AM. Series noise limiter. Heavy-duty tuning capacitor with copper plates in oscillator section for maximum electro-mechanical stability. Antenna trimmer, amplified AVC. 2nd conversion oscillator crystal-controlled. Removable top and bottom. Cabinet size: 18¾″ wide, 8″ high, 9¾″ deep. Shipping wt. approx. 31 lbs. Provisions for 100 kc. crystal calibrator accessory (HA-7). (UL approved.).....**$295.00**



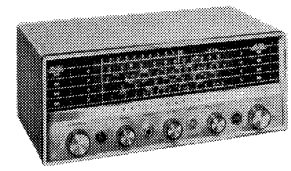
S-118

Broadcast 495-1620 kc, three S/W bands 1.7-31. Mc and low frequency band 185 to 420 kc. Slide rule dial and electrical bandspread. Ferrite loop on BC and low frequency band. Built-in speaker, B.F.O., A.N.L., head phone jack, phono input/tuner output socket, socket for external d.c. power. Five tubes plus two silicon diodes. Size 14½″ x 5¾″ x 8½″, 105-125 volts 50/60 AC. Shipping wt. 19 lbs.....**$99.95**



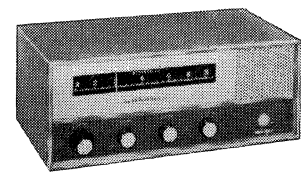
R-48A

Matching 5½″ x 7½″ speaker for Hallicrafters or other receiver having a 3.2 ohm output. 3.16 oz. magnet produces a fully saturated air gap and distortion-free reproduction. A fidelity switch permits selection of full fidelity response or voice frequency for communications reception. For use with SX-62A, SX-122, SX-110 or any speaker with 3.2 ohm output. Gray steel cabinet. 6¾″ x 13¼″ x 8¼″. Shipping wt. 9 lbs.....**$19.95**



S-120

Broadcast 540-1650 kc, three S/W bands 1650 kc.-31 Mc. Three antennas ferrite loop for broadcast, adjustable whip for S/W and wire antenna. Front panel headphone jack, disconnects built-in speaker when headphones are plugged in. Four tubes plus selenium rectifier. 105/125V AC/DC. Gray steel cabinet with silver trim. 13½″ x 5⅞″ x 8¾″. Shipping wt. 11¾ lbs. (U/L approved.) **$69.95**



CRX-1

CRX-1 30-50 Mc and CRX-2 151-174 Mc receivers for split channel, narrow band FM. Triple conversion. Manual tuning and 2 crystal positions (crystals not included). Adjustable squelch. Built-in speaker with provision for external speaker. High speed and vernier tuning controls. 105/125V. 50/60 cycle AC. Mobile operation possible with external power converter. 13½″ x 5⅞″ x 8¾″. Gray steel cabinet with silver trim. Shipping wt. 15 lbs.....**$99.95**

CRX-2

151-174 Mc Version of CRX-1.....**$109.95**

CRX-3

108-135 Mc high quality AM VHF receiver. 118V 50/60 cycle AC....**$94.95**

The new ideas in communications are born at... hallicrafters

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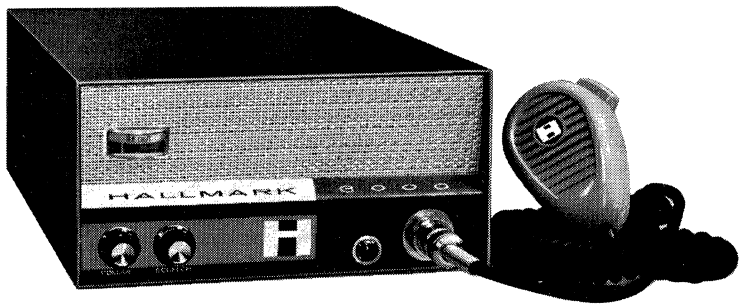
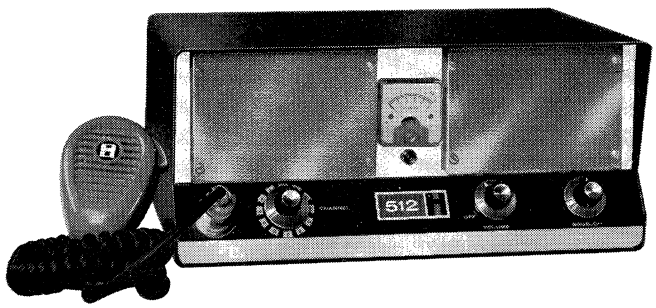
UNEXCELLED PERFORMANCE WITH HALLMARK'S COMPLETE LINE OF BUSINESS BAND AND CB TRANSCEIVERS AND TRANSCEIVER TESTERS



Hallmark 3000 — 30-watt transceiver for business and industrial service. FCC type accepted. Amplitude modulation. Operation in 25 to 50 MC band. Receiver sensitivity 0.3 μv for 10 db S+N/N ratio. Selectivity better than 30 db. Transistorized mobile power supply. Audio output 4 watts. Power output to antenna 20 watts. Rugged hand-wired construction. Suggested List: $269.50

Hallmark 1250 — 12 channel crystal-controlled CB. Hand-wired modular construction gives new small size to fit any vehicle. Designed like a 15-watt unit. Silicon rectifier full-wave bridge. Electronic switching. Ferrite speaker. Sensitivity 0.3 μv for 10 db S+N/N ratio. Selectivity better than 45 db. Audio output 3 watts. Ultrasensitive squelch. RF power output 3.4 W or better. Modulation 95% or better. Dual powered. Size 10" x 6¼" x 4". Shipping weight 12 lbs. Model 1250 Suggested List: $169.50

Model 1250-X with plug-in transistorized power supply to replace vibrator: Suggested List: $189.50



Hallmark 512 — 12 channel crystal-controlled CB. Hand-wired construction. Electronic switching. "S" meter and neon modulation indicator standard. Dual powered. Sensitivity 0.3 μv for 10 db S+N/N ratio. Selectivity: 30 db or better. Audio output 3 watts. Noise-immune adjustable level squelch. RF power out 3.2 watts or better. Modulation 85% or better. Size 12" x 7" x 5¾". Shipping weight 15 lbs. Suggested List: $149.50

Hallmark Transceiver Tester— Portable, battery-operated crystal controlled signal generator for checking low-power transceivers. Specifically designed to assist the technician in transceiver installation and servicing. Measures RF power (absolute) 0-5 w; 0-120% amplitude modulation; VSWR. Produces a 100 mw carrier (with or without amplitude modulation of a 1000 cps tone) for checking receivers. Use as a field strength meter. Suggested List: $49.50.

HALLMARK INSTRUMENTS

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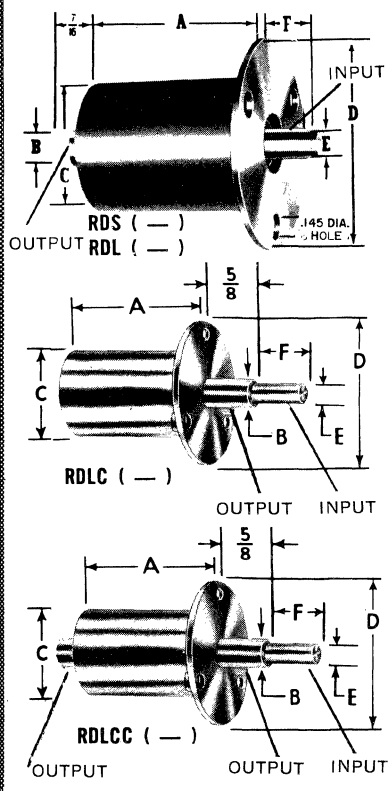
The
RADIO-ELECTRONIC
MASTER

JAN HARDWARE

MANUFACTURING COMPANY, INC.

LONG ISLAND CITY 1, NEW YORK



RATIO DRIVES

for FINE INSTRUMENT AND MACHINE CONTROLS

Ball Bearing Type **Compact, durable, exceptionally smooth action**

These unique ratio drives employ precision ball bearings. Used for rotary control of components in instruments, they provide unexcelled smooth motion. Ruggedly built, permanently sealed and lubricated, JAN Ratio Drives accommodate applications where miniaturization is essential.

Input and output shafts of these units operate in the SAME DIRECTION. Types "RDL" and "RDS" provide "in-line" input-output shafts. Type "RDLC" is supplied with **concentric** shafts whereby the output envelopes the input shaft. An added feature of type RDLCC is the output shaft in the rear.

CAT. No.	RATIO	A	B O.D.	B I.D.	C	D	Input Shaft E	F	Bolt-Mtg. Dia.
RDS-1	2.70-1	3/4	—		5/8	1 5/16	1/8	—	31/32
RDS-2	7.28-1	31/32	—		5/8	1 5/16	1/8	—	31/32
RDS-3	19.65-1	1 7/32	—		5/8	1 5/16	1/8	—	31/32
RDL-1	2.66-1	1	3/8	1/4	1 1/8	1 13/16	1/4	3/4	1 15/32
RDL-2	7.08-1	1 13/32	3/8	1/4	1 1/8	1 13/16	1/4	3/4	1 15/32
RDL-3	18.80-1	1 13/16	3/8	1/4	1 1/8	1 13/16	1/4	3/4	1 15/32
RDLC-1	2.66-1	1	3/8	1/4	1 1/8	1 13/16	1/4	1 1/2	1 15/32
RDLC-2	7.08-1	1 13/32	3/8	1/4	1 1/8	1 13/16	1/4	1 5/64	1 15/32
RDLC-3	18.80-1	1 13/16	3/8	1/4	1 1/8	1 13/16	1/4	23/32	1 15/32
RDLCC-1	2.66-1	1 13/32	3/8	1/4	1 1/8	1 13/16	1/4	1 5/64	1 15/32
RDLCC-3	17.00-1	2 43/64	3/8	1/4	1 3/16	1 55/64	1/4	11/16	1 15/32

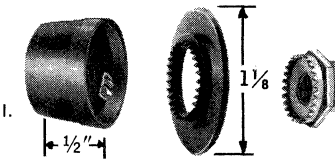
KNOB RATIO DRIVE
(9 to 1)

Cat. No. KRD-11
(plain gripping surface)

Cat. No. KRD-12
(knurled gripping surface)

Exploded view shows engineered miniature gear system, to permit precise, fine tuning of controls. As shown, 9 to 1 ratio. Other ratios designed to specifications.

Brass gears; black anodized aluminum knob and dial. Available with knurled or non-knurled outside knob.

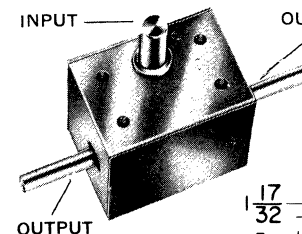


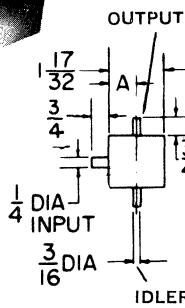
RIGHT ANGLE RATIO DRIVES

Versatile, miniaturized, right angle rotary controls.

Featuring dual output stainless steel shafts at right angles to input, these engineered drives provide an ideal type of instrument control. Available with matched bevel or worm gears covering a wide range of ratios.

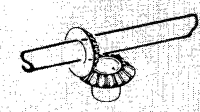
JAN'S RIGHT ANGLE DRIVES are especially useful for handling spring or gravity-loaded components since the output shaft automatically locks in any desired position yet remains free for smooth adjustment by the input shaft. Assembled in dust-proof housings, the gears are permanently pinned in place on stainless-steel shafts mounted in oilite bearings and held under constant pressure.





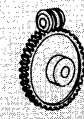
BEVEL GEAR
RIGHT ANGLE DRIVES

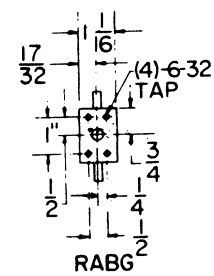
CAT. No.	RATIO	"A"
RABG-1	1:1	7/8
RABG-2	2:1	7/8
RABG-3	3:1	7/8

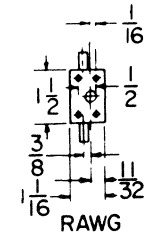


WORM GEAR
RIGHT ANGLE DRIVES

CAT. No.	RATIO	"A"
RAWG-1	5:1	3/4
RAWG-2	10:1	3/4
RAWG-22	12:1	3/4
RAWG-3	20:1	3/4







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JAN HARDWARE
MANUFACTURING COMPANY, INC.
LONG ISLAND CITY 1, NEW YORK

U.S. PATENT NO. 2,681,378

HI-VOLTAGE INSULATED COUPLINGS

MEETS MIL SPECS:
TEMPERATURE - HUMIDITY
SHOCK - VIBRATION - FUNGUS

HI-VOLTAGE INSULATED COUPLINGS

15 KV Breakdown 10 inch pounds torque
Series No. AK-5079 & No. AK-5164

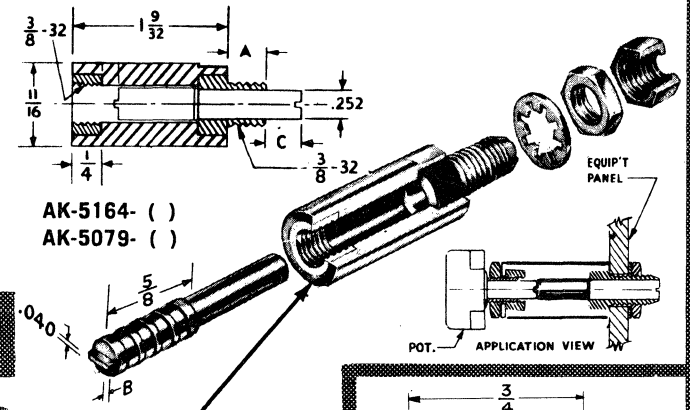
Engineered with stainless steel shaft and precision, screwdriver tip molded-integrally with Mineral-Filled-Melamine in accordance with Military Specifications. Completely shock, vibration and fungus proof, they operate with ease over an ambient temperature range of —75 to +175° C. Supplied complete with nickel plated mounting hardware.

Stainless steel screw driver tip fits all standard slotted shafts (potentiometer, etc.) without need for further machining. Ideally suited to adjust high voltage controls thus protecting operating personnel against danger. They are also used to reduce ground capacitance on other types of sensitive instrument controls.

***Cat. No. 5144** — **10 KV Breakdown 15 inch pounds torque**

This coupling is the same dimensionally as AK-5079, AK-5164 except that the body and insulated portion of shaft is molded in reinforced fiberglass (CYMEL) per MIL Spec. MIL-M-14E to withstand a minimum of 15 inch pounds torque. Can be used for switches, where greater torque is needed.

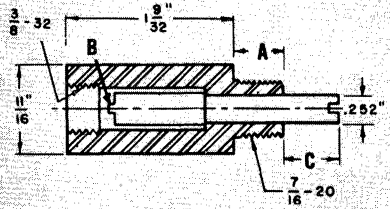
	CAT No.	"A"	"B"	SHAFT	"C"
STANDARD TYPE	AK-5144-X-2	3/8"	3/16"	Slotted	15/32"
	AK-5144-B-2	3/8"	1/16"	Slotted	15/32"
	AK-5164-X-1	3/8"	3/16"	Slotted	5/16"
	AK-5164-B-1	3/8"	1/16"	Slotted	5/16"
	AK-5164-X-2	3/8"	3/16"	Slotted	15/32"
	AK-5164-B-2	3/8"	1/16"	Slotted	15/32"
	AK-5164-X-3	3/8"	3/16"	No Slot	15/16"
	AK-5164-B-3	3/8"	1/16"	No Slot	15/16"
	AK-5164-X-4	3/8"	3/16"	No Slot	1 7/16"
	AK-5164-B-4	3/8"	1/16"	No Slot	1 7/16"
	AK-5164-X-5	3/8"	3/16"	Slotted	Minus 1/16"
	AK-5164-B-5	3/8"	1/16"	Slotted	Minus 1/16"
WITH LOCKING TYPE BUSHING	AK-5079-X-1	9/16"	3/16"	Slotted	1/8"
	AK-5079-B-1	9/16"	1/16"	Slotted	1/8"
	AK-5079-X-2	9/16"	3/16"	Slotted	9/32"
	AK-5079-B-2	9/16"	1/16"	Slotted	9/32"
	AK-5069-B-2 *	9/16"	1/16"	Slotted	9/32"



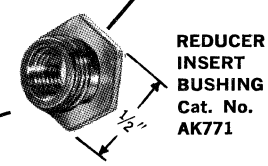
COMMERCIAL INSULATED COUPLINGS

30 KV Breakdown — **Series No. AK-4160**
10 inch pounds torque — **For TV and Industrial Applications**

These handy couplings, capable of withstanding 30 KV, are made of high grade Bakelite throughout except for the stainless steel screwdriver tip molded within the drive shaft. Mounting hardware suppiled.

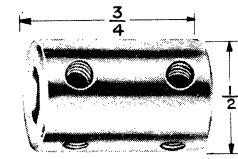


	CAT No.	"A"	"B"	SHAFT	"C"
STANDARD TYPE	AK-4160-X-1	3/8"	3/8"	Slotted	1/8"
	AK-4160-B-1	3/8"	3/16"	Slotted	
	AK-4160-X-2	3/8"	3/8"	No Slot	1/2"
	AK-4160-B-2	3/8"	3/16"	No Slot	



REDUCER INSERT BUSHING Cat. No. AK771

Used as an adapter with high voltage insulated couplings to accommodate miniature (1/8" shaft) potentiometers. External thread 3/8x32. Internal thread 1/4x32.



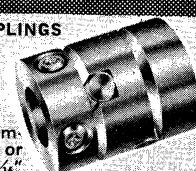
SHAFT COUPLING
Cat. No. AP-15150

A rugged, nickel plated brass coupling for joining two 1/4" shafts. Supplied with 4 set screws for firm attachment to shafts.

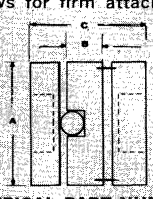
CAT. NO. AP-15151
Same as above, 2 set screws.

AUTOLINEAR (INSULATED) SHAFT COUPLINGS

2.5 - 5KV BREAKDOWN
Universal, miniature, self-aligning
Cat. No. AP-1530 & AP-1538



A unique series of shaft couplers that accommodate either similar or disimilar 1/8", 3/16" or 1/4" shafts. Permits offset misalignment to 1/16" and 5° angle. Operates free of backlash. Plastic insulator between precision cast aluminum hubs. Each hub has 2 set screws for firm attachment. Alodine finish.



PART NO.		DIA. HOLE "A"	"B"	"C"
AP-1530	-2	1/8"	1/2"	15/64" 27/32"
	-3	3/16"		
	-4	1/4"		
AP-1538	-2	1/8"	1/2"	27/64" 1 1/64"
	-3	3/16"		
	-4	1/4"		

TYPICAL PART NUMBERS:
AP-1530-34
AP-1538-22

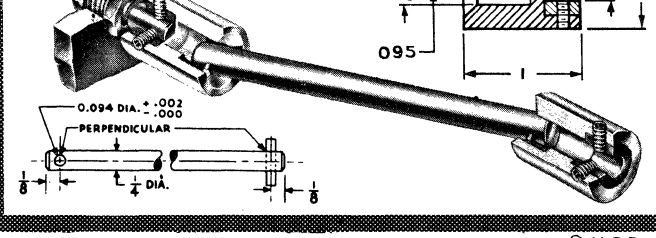
VOLTAGE RATING:
AP-1530 — 2500 VOLTS
AP-1538 — 5000 VOLTS

OFFSET-SHAFT (INSULATED) COUPLINGS

10 KV Breakdown—±30°Offset
Cat. No. AP-15299

Highly versatile, durable insulated couplings made with single-unit, molded Nylon-to-metal insert construction. Application requires two couplings—permits smooth control for two parallel shafts offset from each other up to 30 degrees at separations greater than 3 inches. Secured to component and control shafts by 2 set screws.

Note: Coupling is accomplished with a 1/4" shaft of any length (not furnished). Coupling shaft keyed to coupler by steel drive pins supplied.



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JAN HARDWARE MANUFACTURING COMPANY, INC.

LONG ISLAND CITY 1, NEW YORK

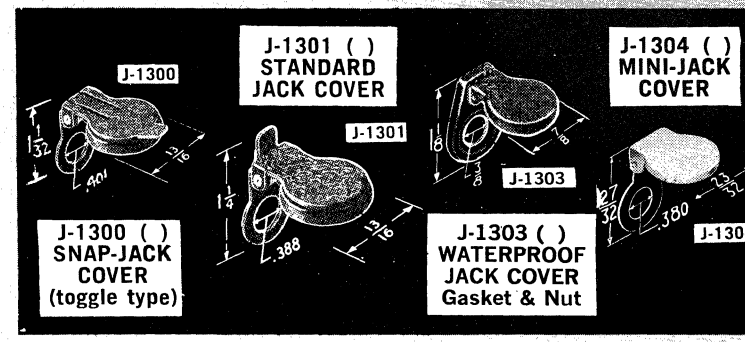
JACK COVERS (TRIMMER COVERS)

These sturdy Jack Covers fit jack or panel bushings and are used to keep out dust and moisture as well as to prevent inadvertent disturbance of control settings. Outer surfaces are finished in standard colors of baked enamel.

NOTE: No. J-1300 (SNAP-JACK) is made with toggle action. It snaps to open or shut position and will remain open until snapped shut. No. J-1304 is a miniaturized Jack Cover similar to a No. J-1301 but without thumb lift.

To Order Colors: Specify:
(-1) Black Wrinkle; (-2) Smooth Gray; (-3) Smooth Olive; (-4) Smooth Black. Other colors on request.

Example: Jack cover, color black wrinkle, order as J-1300(-1)



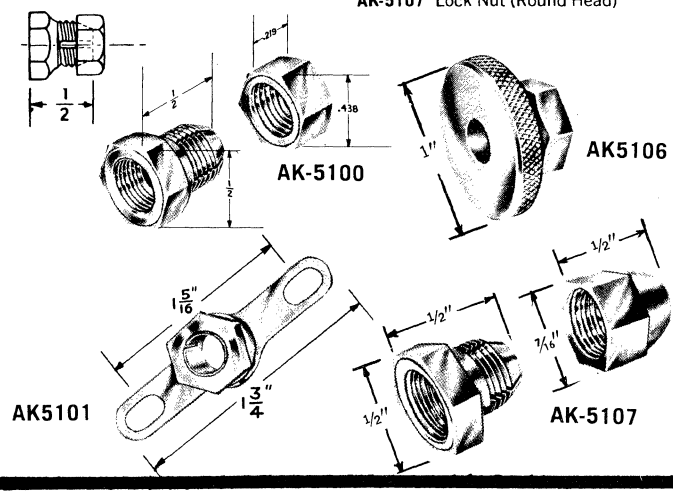
SHAFT LOCKS

Cat. No. AK-5100 thru No. AK-5107
Split-bushing, collet type locks.

Used to securely hold the shaft of volume controls, capacitors, switches, etc. in position. Body and lock nut are brass—nickel plated. Supplied with nickel plated internal tooth lock washers, upon request.

SPLIT BUSHING TYPE For ¼" shafts

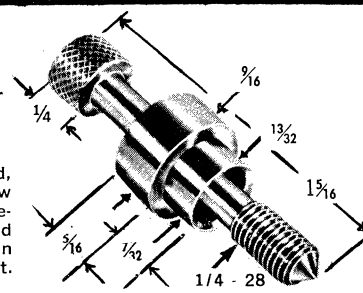
AK-5100 Standard Lock Nut
AK-5101 Panel Mount Type
AK-5106 Knurled Shaft Lock (1" O.D. Knurl)
AK-5107 Lock Nut (Round Head)



CAPTIVE SCREW & NUT ASSEMBLY

Cat. No. Ap-711

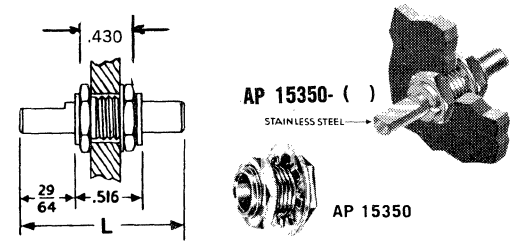
Consists of a slotted, knurled thumb screw made of corrosion resistant steel bar, and a nickle-plated (on brass) panel insert.



PANEL BEARING & SHAFT ASSEMBLIES

Cat. No. AP-15350 series

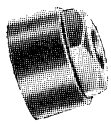
Used for rotary control of components. Passivated stainless steel shaft is ¼" dia. with one end flattened for attaching to knob control by set screws. Supplied completely assembled with two retaining rings, jam nut with lock washer and nickel plated, brass panel bearing. Fits panels up to 3/16" thick; mounts in 13/32" dia. hole.



Cat. No.	Item	"L" Shaft Length
AP 15350	Panel Bearing	—
AP 15350-1	Panel Bearing &	1¾"
AP 15350-2	Shaft Assembly	3"
AP 15350-3		6"

NYLON SHAFT LOCK

Cat. No. AK-1050

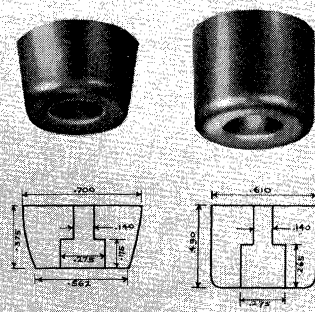


One-piece, black nylon; fits standard 3/8"-32 thread of shaft bushing. Friction grip holds ¼" shaft to prevent accidental or vibrational disturbance of control settings. Adjustment for semi-permanent locking, provided.

CHASSIS & CABINET BUMPERS

Cat. No. AK575 ( ) **Cat. No. AK574 ( )**

Durable, low-friction polyethylene. Guards against scuffing. Supplied in either black or russet brown, with recessed hole for screw or bolt usage.



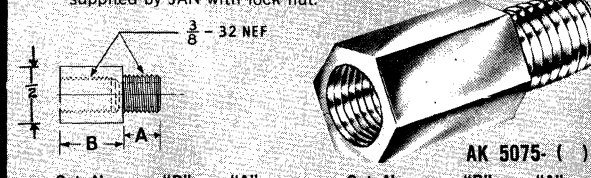
To Order Colors:
Black, specify (4);
Brown specify (7).
Other colors on request.

BUSHING EXTENDERS

Cat. No. AK-5075-1 thru No. AK-5075-11

Permit staggered mounting of components having ¼" shafts, behind a panel. Useful in meeting problems of space economy. Supplied in nickel plated brass.

Note: Extender No. AK-5075-9 is a locking (collet) type and is supplied by JAN with lock nut.



Cat. No.	"B"	"A"	Cat. No.	"B"	"A"
AK5075-1	5/8"	3/8"	AK5075-6	1 5/8"	¼"
AK5075-2	5/8"	¼"	AK5075-7	1 1/16"	3/16"
AK5075-3	5/8"	3/16"	AK5075-8	1 1/16"	¼"
AK5075-4	¾"	¼"	AK5075-9	1 1/16"	½"
AK5075-5	2¼"	¼"	AK5075-10	1 21/64"	7/16"
			AK5075-11	55/64"	7/16"

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JAN HARDWARE

MANUFACTURING COMPANY, INC.

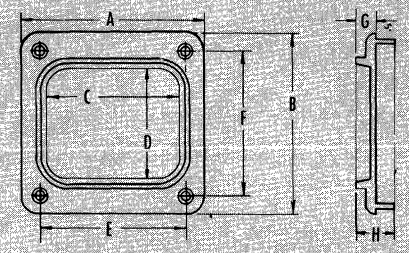
LONG ISLAND CITY 1, NEW YORK

JAN's Bezels enhance the appearance of the instruments on which they are used. These units are functionally designed to provide OPTIMUM UTILIZATION OF THE CRT SCREEN, as well as safety against tube breakage and danger to operating personnel.

JAN Bezel Assemblies are supplied with a **bezel, calibrated graticule,** (where applicable) **light filter** and **CRT cushion.** Bezels are finished in a smooth dull black non-reflecting surface. These units fit JAN Mu-Metal Shields.

Edge-lit Bezels (E.L.B.A.)** These Bezels are designed to provide edge lighting of the engraved scale-calibrated graticule by means of pilot lights.

Camera Mount Bezel These units provide an integral cast mounting flange that fits all standard 3", 5" and 7" CRT cameras.

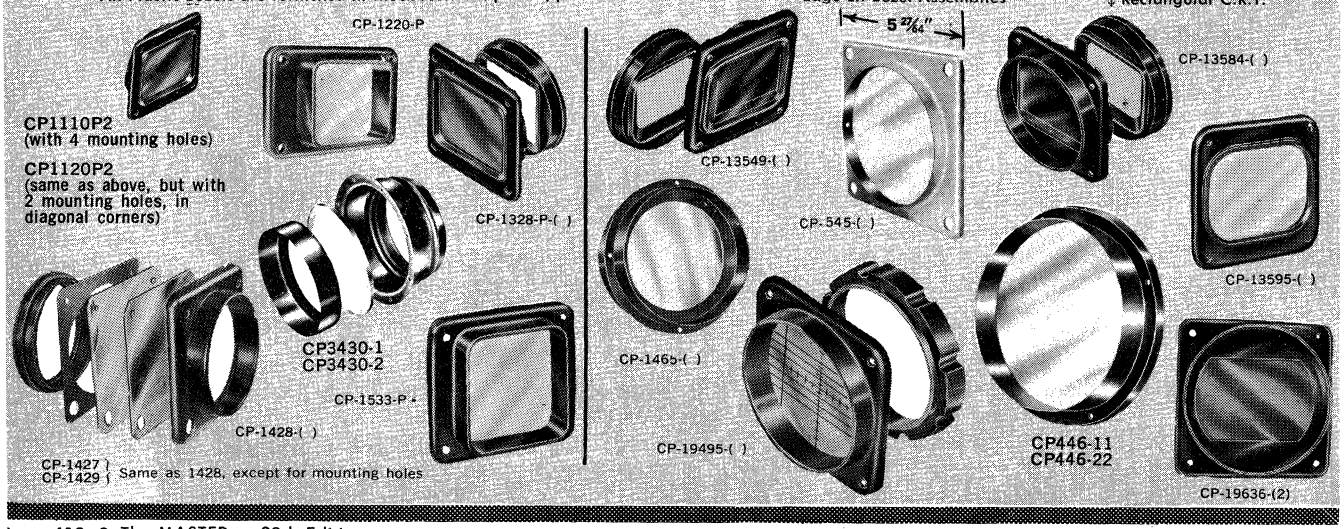


Catalog No.	CRT Face	Material	Type	Panel Opening	A Overall Width	B Overall Height	C - D Visible Area (Bezel) Width	C - D Visible Area (Bezel) Height	E Mounting Holes Width	F Mounting Holes Height	G- H- Thickness (Face Only)	G- H- Thickness (Incl. Flange)	Visible Area (Cushion) Height	Visible Area (Cushion) Width
BEZELS FOR 2" C.R.T.														
CP-1110-P-2	Flat	Plastic*	Standard	2 3/16"	2 5/8"	2 5/8"	1 3/4"	1 3/4"	2"	2"	5/16"	7/16"	1 3/4"	1 3/4"
BEZELS FOR 3" C.R.T.														
CP-1220-P‡	Curved or Flat	Plastic*	Camera Mount	—	4 7/8"	3 1/4"	2 3/4"	2 1/4"	4"	2 1/2"	5/16"	1 1/16"	—	
CP-1328-P-1 CP-1328-P-2	Curved Flat	Plastic*	Standard	3 33/64"	3 3/4"	3 3/4"	2 5/8"	2 3/16"	3"	3"	3/8"	45/64	2 1/2"	2 1/16"
CP-1427-1 CP-1427-2	Curved Flat	Aluminum	Camera Mount	3 17/64"	4"	4"	2 3/4" Dia.		3"	3"	5/16"	27/32"	2 25/32" Dia.	
CP-1428-1** CP-1428-2**	Curved Flat	Aluminum	Camera Mount E.L.B.A.**	3 17/64"	4"	4"	2 3/4" Dia.		3"	3"	5/16"	27/32"	2 25/32" Dia.	
CP-1429-1 CP-1429-2	Curved Flat	Aluminum	Camera Mount	3 17/64"	4"	4"	2 3/4" Dia.		3"	3"	5/16"	27/32"	2 25/32" Dia.	
CP-3430-1 CP-3430-2	Curved Flat	Steel	Standard	—	4 1/16" Dia.		3 3/8" Dia.		3 3/4"	3 3/4"	141/64"	141/64"	2 25/32" Dia.	
BEZELS FOR 4" C.R.T.														
CP-1533-P‡		Plastic*	Camera Mount	3 1/32"	4 5/16"	3 63/64"	3"	3"	4"		1 3/32"	1 3/32"	No Cushion	
BEZELS FOR 5" C.R.T.														
CP-13549-1 CP-13549-2	Curved Flat	Aluminum	Standard	6.0"	6 1/4"	6 1/4"	4 7/8"	3 3/4"	4 15/16"	4 15/16"	17/32"	1 3/32"	4 1/4"	3 3/16"
CP-13584-1 CP-13584-2	Curved Flat	Aluminum	Camera Mount	6.0"	6 1/4"	6 1/4"	4 7/8"	3 3/4"	4 15/16"	4 15/16"	1 3/32"	1 23/32"	4 1/4"	3 3/16"
CP-13595-1** CP-13595-2**	Curved Flat	Aluminum	Standard E.L.B.A.**	5 7/16"	6 1/4"	6 1/4"	4 7/8"	3 3/4"	4 15/16"	4 15/16"	17/32"	—	4 3/4" Dia.	
CP-1465 CP-1465-2	Curved or Flat Flat	Steel	Camera Mount	5 9/16" 5 17/32"	6 3/8" Dia.		5 35/64" Dia.		6"	6"	7/8"	7/8"	No Cushion 4 1/2" Dia.	
CP-19495-1** CP-19495-2**	Curved Flat	Aluminum	Camera Mount E.L.B.A.**	5 7/16"	6 1/4"	6 1/4"	5 1/4" Dia.		4 15/16"	4 15/16"	1 3/32"	—	4 3/4" Dia.	
CP-19636-2**	Flat	Aluminum	Camera Mount E.L.B.A.**	5 5/16"	5 7/8"	5 7/8"	4 1/2" Dia.	3"	4 7/8"	4 7/8"	1 1/4"	—	4 1/2" Dia.	
CP-446-11 CP-446-22	Flat	Steel	Camera Mount	—	6 9/16" Dia.		5 5/16" Dia.		6 3/32" 6 1/8"	6 3/32" 6 1/8"	1"	1 19/64" 1 3/16"	4 1/2" Dia.	

* All Plastic Bezels are furnished in shock resistant plastic, per MIL P-3414

** Edge Lit Bezel Assemblies

‡ Rectangular C.R.T.



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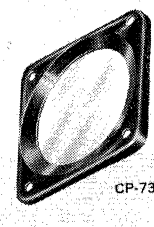
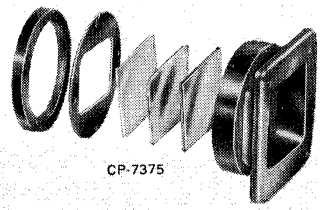
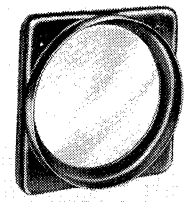
LONG ISLAND CITY 1, NEW YORK

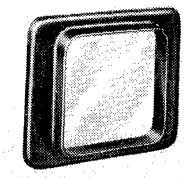
Catalog No.	CRT Face	Material	Type	Panel Opening	A Overall Width	B Overall Height	C D Visible Area (Bezel) Width	C D Visible Area (Bezel) Height	E F Mounting Holes Width	E F Mounting Holes Height	G- Thickness (Face Only)	H- Thickness (Incl. Flange)	Visible Area (Cushion) Height	Visible Area (Cushion) Width
BEZELS FOR 7" C.R.T.														
CP-7330-1 CP-7331-2**	Curved Flat	Aluminum	Standard E.L.B.A.**	7 13/32"	7 13/16"	7 13/16"	6 5/16" Dia.		6 3/16"	6 3/16"	3/4"	3/4"	6 3/8" Dia.	
CP-7375-1** -2**	Curved Flat	Aluminum	E.L.B.A.**	7 13/32"	8"	8"	4 1/2"	4 1/2"	6 3/16"	6 3/16"	1 17/32"	2 29/32"	4 1/2"	4 1/2"
CP-7420-1** -2**	Curved Flat	Aluminum	Camera Mount	7 13/32"	7 13/16"	7 13/16"	6 15/16" Dia.		6 3/16"	6 3/16"	3/4"	1 3/8"	6 3/8" Dia.	
CP-7550	Curved or Flat	Aluminum	Camera Mount	4 25/32"	7 3/8"	6 1/4"	4 3/4"	4 3/4"	6 1/4"	5 1/8"	1 3/16"	1 3/16"	No Cushion	
BEZEL FOR 10" C.R.T.														
CP-10860	Curved or Flat	Aluminum	Standard	11 1/32"	12 1/4" Dia.		8 1/16"	6 1/4"	11 1/2" B.C		1 1/16"	1 3/16"	No Cushion	

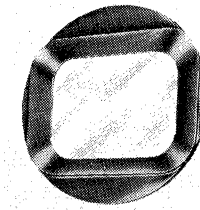
** Edge Lit Bezel Assemblies


CP-7330


CP-7375


CP-7420


CP-7550


CP-10860

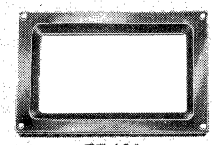
DISTINCTIVE FEATURES

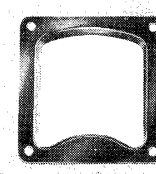
- Engineered for 2", 3", 4", 5", 7", 8" and 10" CRT
- Maximum display area
- Precision engraved, scale-calibrated graticules; standard or to customer's specifications
- Materials and finish to "Mil Spec"
- Heavy buna-S shock cushion
- Models for edge-lighting
- Phosphor-matched light filters
- Non-reflecting matte surfaces
- Rugged camera mounts
- Models for curved and flat-faced CRT

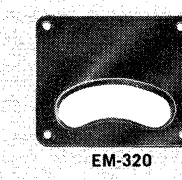
ESCUTCHEON PLATES For Elegant Framing of Panel Openings

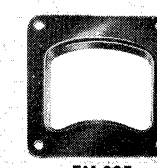
ET-120

ET-150

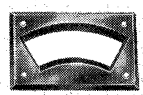

ET-160


EM-310


EM-320


EM-325

ET-125


ET-165

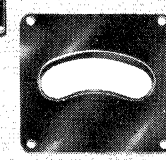
ET-140

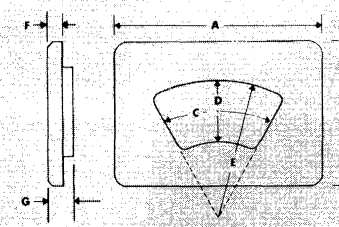
ET-155

ET-135

ET-130

ET-145


EM-315



SPECIFICATIONS — JAN ESCUTCHEONS

Escutcheon Cat. No.	A Overall Width	B Overall Height	C Window Width	D Window Height	E Effective Outer Dial Radius	Thickness F=Face Only	Thickness G=Incl. Flange	Panel Opening Width	Panel Opening Height	Mounting Holes Width	Mounting Holes Height	Type of Dial	Material
ET-120	2 27/32	1 7/8	1 3/4	1"	1 27/32	3/16	3/16	2 11/32	1 3/8	2 9/16 top 2 1/4 bottom	1 5/16		Injection
ET-125	3 7/8	2 15/16	2 7/8	1"	3 1/4	3/16	5/16	3 1/2	1 1/2	3 1/2	1 15/16		Molded
ET-135	2 3/4	1 7/8	1 1/2	7/8	1 7/8	3/16	1/4	1 31/32	1 7/32	2 1/4	1 3/8	Circular	Tenite II,
ET-150	3 7/8	2 5/16	2 7/8	3/4	3 1/8	3/16	5/16	3 7/32	1 7/32	3 1/2	1 15/16		Black Matte
ET-165	2 5/8	1 5/8	1 49/64	5/16	2 3/32	1/8	1/4	2 7/16	1 1/2	2 1/16	1 1/16		Finish
ET-130	4	1 13/16	2 1/4	13/16	—	3/16	1/4	2 13/32	1 11/32	3 1/2	1 5/16	Flexible Tape,	Injection
ET-140	2 1/2	1 1/2	1 1/4	5/8	—	1/8	5/16	1 17/32	1 1/32	2	1	Digital	Molded
ET-145	3 1/4	2 1/16	1 15/16	3/4	—	5/32	5/32	2 13/32	1 5/32	2 3/4	1 9/16	Counter,	Tenite II,
ET-155	2 1/2	1 3/16	1 1/16	1/2	—	5/32		2 1/32	2 3/32	2 1/4	15/16	Cylinder	Black Matte
ET-160	3 7/8	2 1/2	2 5/16	1 5/8	—	1/8	1/8	3	2 1/32	3 5/8	2 1/4	or Drum	Finish
EM-310	3	3	2 1/16	1 15/16	2 9/16	1/32	1/4	3 11/32	2 1/2	2 1/2	2 1/2	Helical	Soft Aluminum
EM-315	3 1/4	3	2 1/4	5/8	2 1/16	1/32	1/8	2 13/32	1 5/64	2 3/4	2 5/8	Circular	with Black
EM-320	3 1/4	2 3/4	2 1/4	5/8	2 1/16	1/32	1/8	2 29/64	1 3/64	2 3/4	2 1/4	Circular	Matte Enamel
EM-325	3	3	2 1/16	1 1/2	2 5/16	1/32	1/4	2 11/32	1 61/64	2 1/2	2 1/2	Helical	Finish

* **To Order** specify: (1) frame only; (2) frame with clear window; (3) frame with clear window scribed with a center line.

JAN'S molded, black, shock-resistant plastic escutcheons are available in an exceptionally wide variety of different types and sizes. They provide a pleasing window to frame dial plates mounted behind the panel.
Plastic escutcheons are available in the following ways: frame only; frame with clear windows; frame with clear window scribed with a center line.
For especially large working areas, stamped aluminum escutcheons, finished in dull black are available to meet the needs for space economy.
Withstands temperature shock —65° to +85° C.
NON INFLAMMABLE

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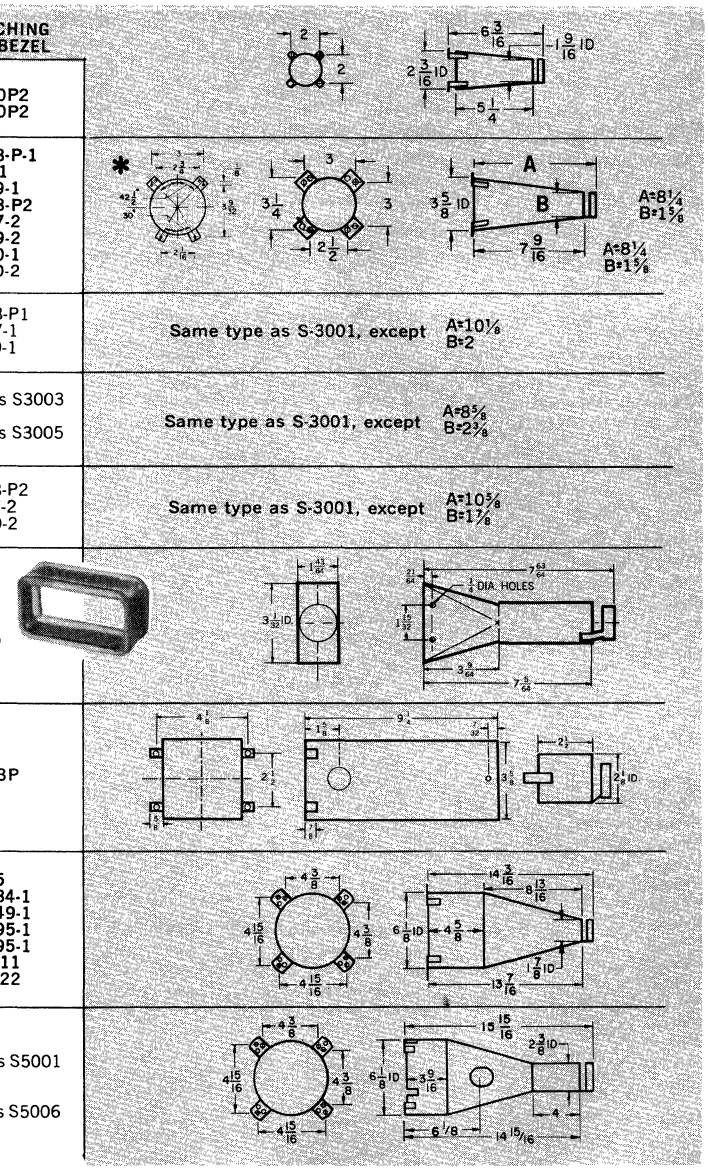
JAN HARDWARE
MANUFACTURING COMPANY, INC.
LONG ISLAND CITY 1, NEW YORK

JAN'S MAGNETIC SHIELDS are made of Mu-Metal and are hydrogen annealed by a special process to assure optimum orientation of the molecular structure of the alloy for best magnetic shielding. JAN'S MAGNETIC SHIELDS prevent distortion and intensity modulation of the electron beam due to stray magnetic fields.

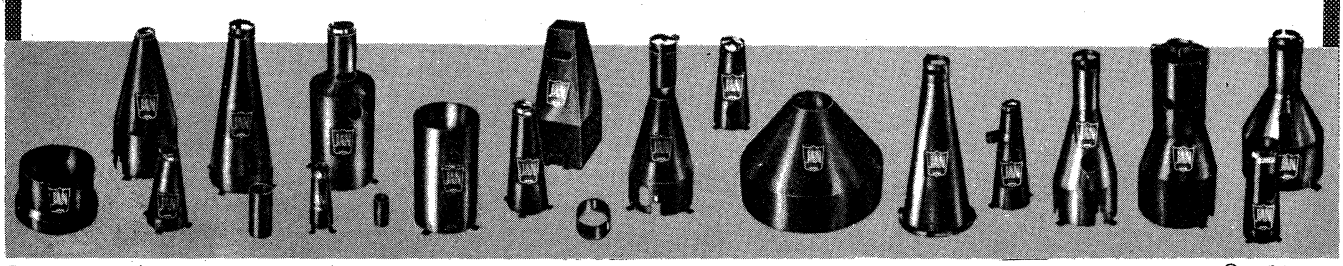
In addition, the use of these shields protect personnel against the dangers of accidental tube breakage. Mounting holes are tapped for No. 6-32 screws as shown. These shields are designed to fit JAN'S standard bezels as listed below. See following pages for specifications on JAN'S BEZEL ASSEMBLIES.

SHIELD CAT. NO.	FOR USE WITH C.R.T. NO.	MATCHING JAN BEZEL
S2001 S2001-1	902 2AP 2BP	CP1110P2 CP1120P2
S3001 adaptable for edge-lighting graticule using S3010 with Bezel CP1428✱	3RP 3RPA	CP1328-P-1 C1427-1 CP1429-1 CP1328-P2 CP1427-2 CP1429-2 CP3430-1 CP3430-2
S3003 S3003-1	3KP 908A 3AP	CP1328-P1 CP1427-1 CP1429-1
S3004 adaptable for edge-lighting graticule using S3012 with Bezel CP1428✱	3BP 3JP 3ACP	Same as S3003 Same as S3005
S3005 adaptable for edge-lighting graticule using S3008 with Bezel CP1428✱	3WP	CP1328-P2 CP1427-2 CP1429-2
S3019	3XP	CP-725
S4001	SC3511	CP-1533P
S5001	5UP	CP1465 CP13584-1 CP13549-1 CP13595-1 CP19495-1 CP446-11 CP446-22
S5002 adaptable for edge-lighting	5BP 5CP 5ABP 5ADP	Same as S5001 Same as S5006



ALL SHIELDS ARE FABRICATED WITH OVERLAPPED AND SPOT WELDED CONSTRUCTION

When ordering, be sure to specify CRT type number. Anode openings provided, where required.



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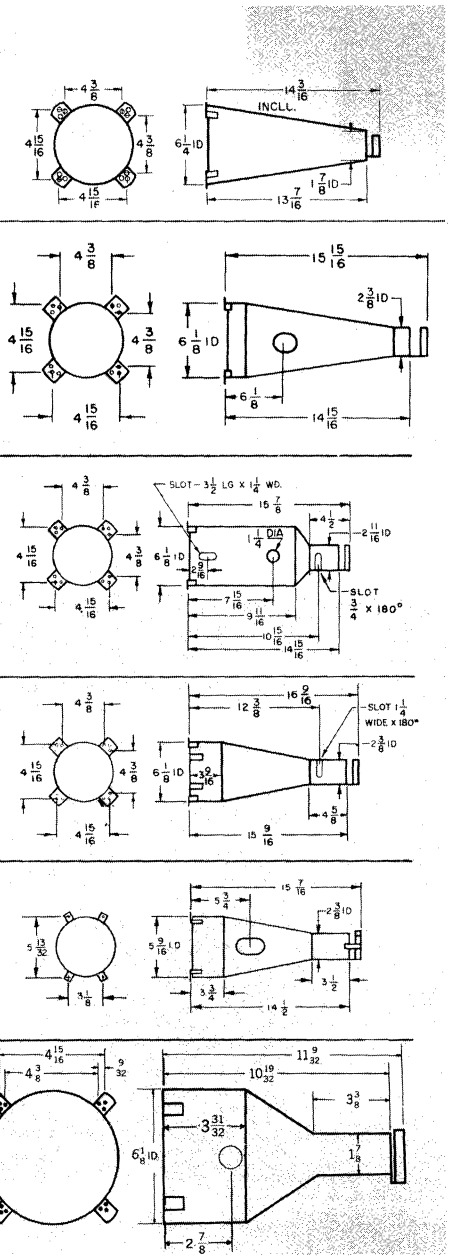
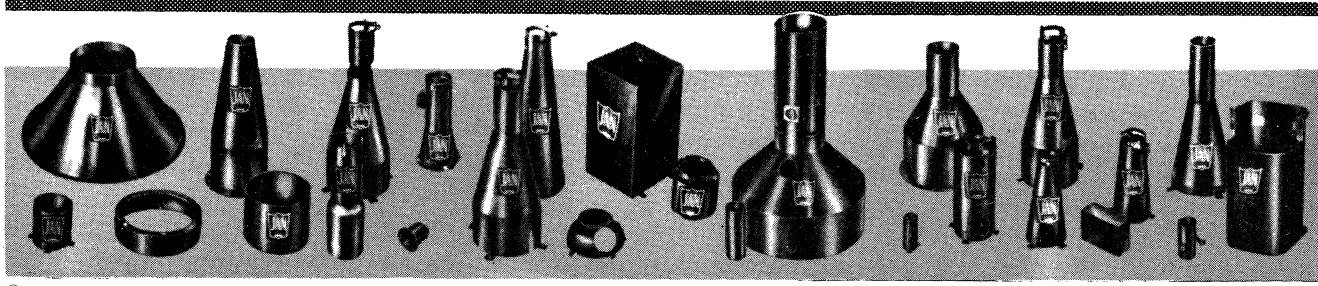
SHIELD CAT. NO.	FOR USE WITH C.R.T. NO.	MATCHING JAN BEZEL
S5003	5UP	CP1465 CP13584-1 CP13549-1 CP13595-1 CP19495-1
S5005 adaptable for edge-lighting	5AQP 5ABP 5ADP	**CP1465-2** **CP13549-2** **CP13584-2** **CP13595-2** **CP19495-2** **CP446-11** **CP446-22**
S5006 adaptable for edge-lighting	5RPA 5 AWP	CP1465-2 CP13549-2 CP13584-2 CP13595-2 CP19495-2
S5008 adaptable for edge-lighting	5AMP	CP1465-2 CP13549-2 CP13584-2 CP13595-2 CP19495-2
S5017 adaptable for edge-lighting	5ABP 5ADP	CP1465-2 CP19636-2
S5027	**5BTP**	CP19495-2



ALL SHIELDS ARE FABRICATED WITH OVERLAPPED AND SPOT WELDED CONSTRUCTION

All 5" Shields have mounting provisions for edge lighting, except #5021

The service of JAN's design engineers is available to assist you with your Shield & Bezel requirements. We will design and manufacture special Shields & Bezels to customers specifications. Complete facilities for prototype work.



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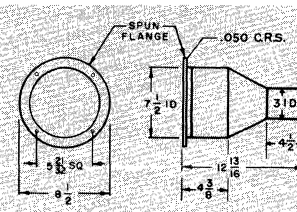
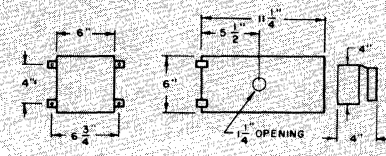
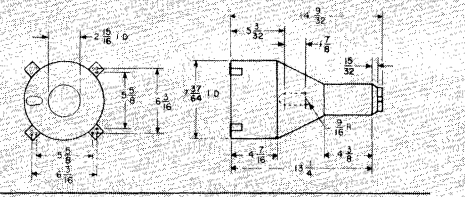
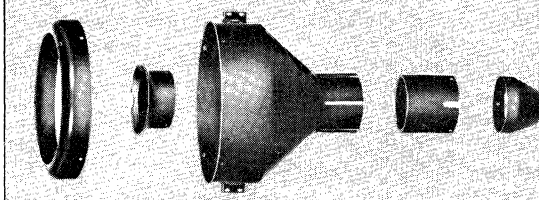
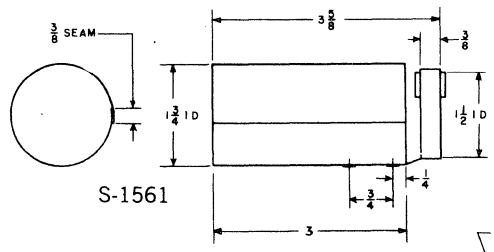
SHIELD CAT. NO.	FOR USE WITH C.R.T. NO.	MATCHING JAN BEZEL	
S7001	7GP 7JP 7VP	CP7330 CP7375 CP7331 CP7550 CP7420	
S7003 (Shield supplied as two separate sections)	7YP3	CP-7550	
S7006	7AEP	CP7330 CP7375 CP7331 CP7550 CP7420	
S10002	10KP 10WP		

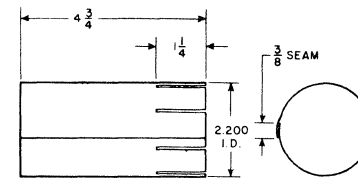
When ordering, be sure to specify CRT type number. Anode openings provided, where required.

MAGNETIC SHIELDS FOR PHOTO-MULTIPLIER & SPECIAL PURPOSE TUBES

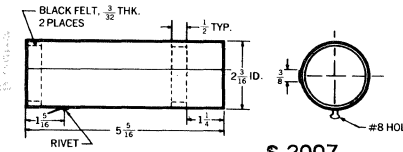
SHIELD	TUBE
S-1091	1CP1
S-1181	929 930 5581 5653 IP39 IP40
S-1500	6291
S-1561	6199 7102
S-1562	931 6323 6328 IP21 IP22 IP28
S-1563	1EP1
S-2002	6810 7264
S-2003	6903
S-2004	5819 6217 6292 6342 6571 6655
S-2005	6372
S-2007	7850
S-3015	1197 6363
S-5013	1112
S-5018	1198 6364
S-7009	1238 1287



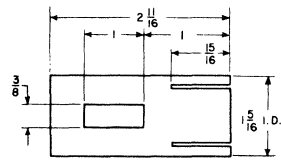
S-1561

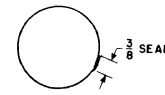


S-2004

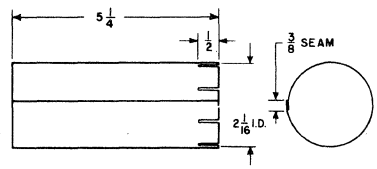


S-2007

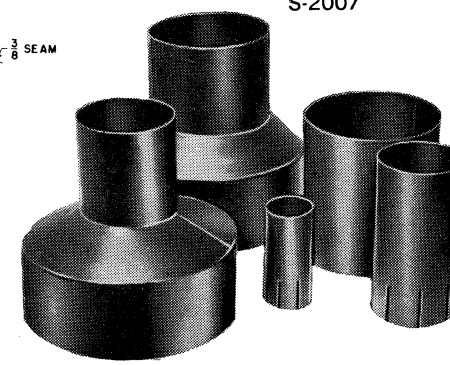




S-1562



S-2002



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JAN HARDWARE MANUFACTURING COMPANY, INC.

LONG ISLAND CITY 1, NEW YORK

JOLTA SHOCK TEST MACHINES

For reproducible impact-shock test pulses

Four models engineered to reproduce the entire spectrum of all significant impact shock waves.

Designed for laboratory and production testing of light to medium weight components as well as complete instrumentation. Produced to meet practically all requirements of common Mil. Spec. qualification tests. Each JOLTA is electronically calibrated to certify compliance with test specifications.

JOLTA – Bench Model No. 1001 – Produced to meet JAN-S-44 & Mil-Std. 202 (202A). Standard model range-30-120G. Accessory plate springs available for test pulses to 500 G.

JOLTA – Bench Model No. M-500 – Produced to meet Mil-T-12679A (Sig. C) and Mil. T-19500A. Standard model range –200 to 1000 G at 1.0 millisecs. Alternate anvil and pad kits available to order.

JOLTA—Floor Model Nos. F-3003-C1, C2, C-3—Designed for high impact shock testing for small and moderate-sized components. Precision-machined magnesium casting utilized for higher shock amplitudes. Typical tests with these units 50 to 5000 G at .2 to 11.0 millisecs. For high impact testing, accessory springs and twin anvil combinations yield impulses of 0.2 millisecs to 5000 G.

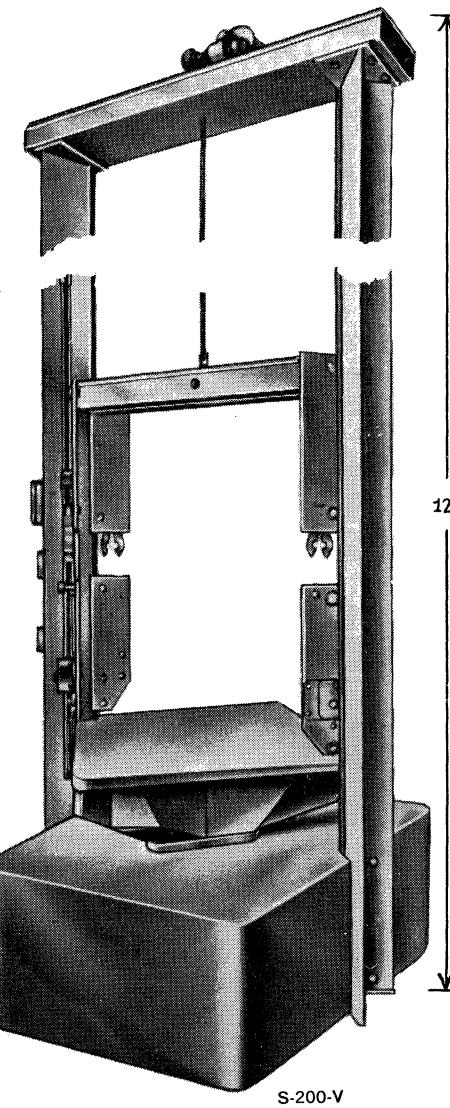
Note: New design allows for quick changeovers of accessories.

FEATURES

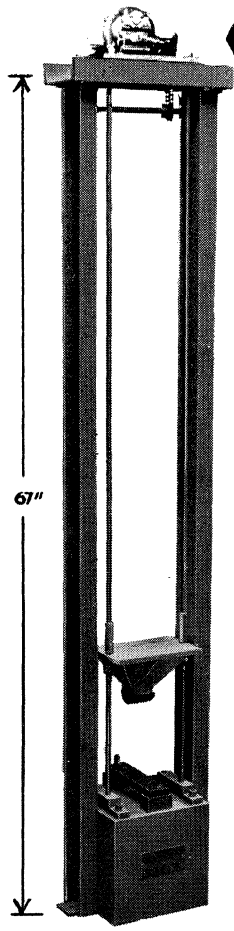
- Economical
- Simple to operate
- Rugged
- Uniformly accurate

JOLTA UNIVERSAL SHOCK TESTERS
No. S-200-V

A functionally engineered test machine for large components and complete instrumentation. Accepts specimens up to 200 lbs. and volume of 2 cubic feet. Standard model provides pulses of from 20 to 250 G at 3.0 to over 30.0 millisecs.



S-200-V

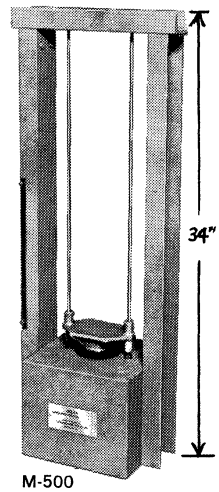


F-3003-C

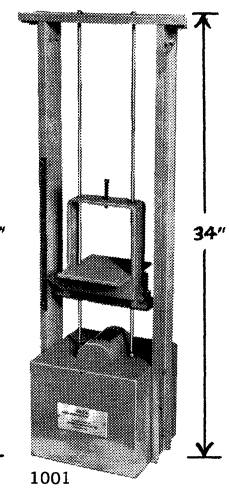
For Production Testing, JAN's Jolta Shock Test Machines can be automated for continuous operation.

SPECIFICATIONS – JOLTA SHOCK TESTERS

Model No.	Carriage Volume	Test Weight	"G" Ranges
1001	4" x 4" x 5"	0-12 lbs.	25-500
M-500	3" cube	0-2.0 lbs.	100-1000
F-3003-C-1	5" cube	0-12 lbs.	50-1500
F-3003-C-2	5" cube	0-4.0 lbs.	350-5000
S-200-V	2 Foot cube	0-200 lbs.	20-250



M-500



1001

Free engineering services available to customers where adaptation or conversion of standard machines are needed to meet Mil. Spec. changes or other special needs.

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JAN HARDWARE MANUFACTURING COMPANY, INC.

LONG ISLAND CITY 1, NEW YORK

SLIP-CLUTCH, SAFETY KNOBS

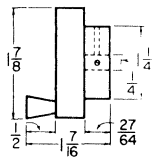
With Fixed or Retractable Spinners

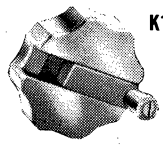
Cat. Nos. K-1375 & K-1376 (For ¼" shafts)

Designed for driving devices such as variable capacitors, inductors, potentiometers, etc., these knobs are based upon the principle of the "slip-clutch";* automatically disengaging and slipping when a pre-determined torque has been exceeded. JAN'S SLIP-CLUTCH SAFETY KNOBS are fluted to aid in sensitive adjustments and are equipped with either a fixed or retractable spinner for fast turning. Insert-molded-to-Bakelite construction provide durable, backlash-free units to safeguard delicate and costly instruments against careless or inadvertent cranking beyond their normal stops.

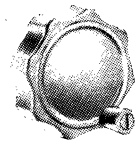
**Normally set for 2½ - 5" lbs. Can be modified for other requirements.*

Model No. K-1376 is identical with No. K-1375 but has the additional feature of a retractable spinner. Spring loading provides positive, toggle-type action to lock spinner in either open or closed position. Model No. K-1376 is designed for use where economy of space is essential.





K1376



K1375

SPINNER KNOBS

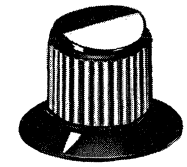
With Fixed or Retractable Spinners

Cat. Nos. K-1275 & K-1276 (For ¼" shafts)

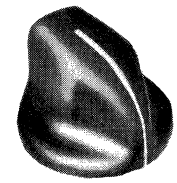
In appearance, these knobs are identical with No. K-1375 and No. K-1376 but without JAN'S Slip-Clutch mechanism. Made with single-unit, molded Bakelite-to-metal-insert construction, with two set screws for firm attachment to shafts.

TRANSILLUMINATED POINTER KNOBS

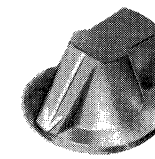
NEW



MS91528



NAS 539-1B

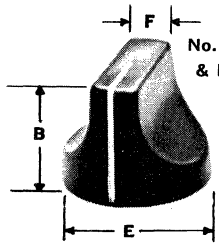


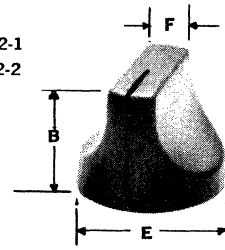
MS25165-1

Precision molded of JAN's transparent plastic material, to NAS specs, with dull finish. Transilluminated pointers permit easy reading under subdued lighting conditions. For use on instrument panels, switchboards, electrical and electronic apparatus.

SIGNAL CORPS DIE CAST ZINC ALLOY KNOBS

Manufactured in accordance with applicable military specifications.

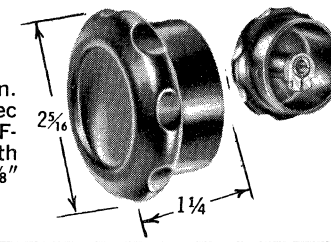




Cat. No.	B	E	F	Marking
242-1	¾"	15/16"	5/16"	White
242-2	⅞"	1⅛"	⅜"	White
242-3	¾"	15/16"	15/16"	None

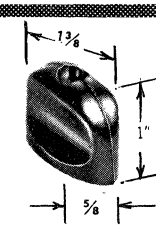
TUNING KNOB
Cat. No. K243

Die cast aluminum. Made to Fed. Spec QQ-A-591 and MIL-F-14072. Mounted with no-mar clamp for ⅜" shaft.



POINTER KNOB
Cat. No. K-706

Molded thermosetting phenolic. Type CFG per MIL-P-14. Designed for square shaft, providing positive action.

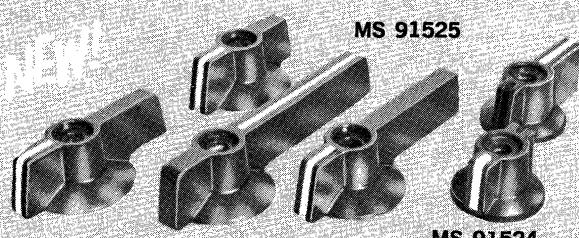


MS SIGNAL CORPS DIE-CAST ALUMINUM & ZINC ALLOY CONTROL KNOBS

Manufactured in accordance with applicable Military Specifications

Cat. No. 680

NEW



MS 91525

MS 91524

(Many sizes available. Lengths from 1 3/16" to 2 5/16").

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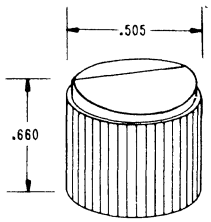
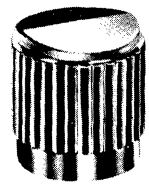
JAN HARDWARE MANUFACTURING COMPANY, INC.

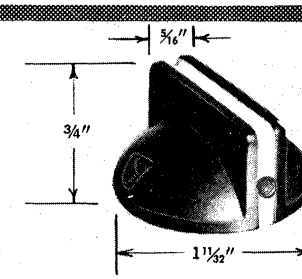
LONG ISLAND CITY 1, NEW YORK

INSTRUMENT KNOBS





Molded of polycarbonate plastic, these knobs will withstand the extreme environmental conditions of MIL-E-16400. Available in a variety of colors, in matte (M) or glossy (G) finish. Complete range of sizes.



CONTROL KNOBS

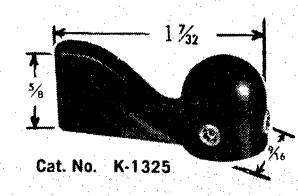
Cat. No. K-772

Positive action bar knob, furnished with protruding pin for setting of controls. Molded in Red, Yellow, Blue and Black, specify. Colors withstand MIL E-16400 environmental conditions.

BAR-KNOB

Cat. No. AK-1325

Precision cast aluminum for 1/4" shafts. Furnished with twin set screws for shaft attachment. Provides a 1.0" integrally cast lever arm for heavy-load switching. Finished to specifications.



Cat. No. K-1325

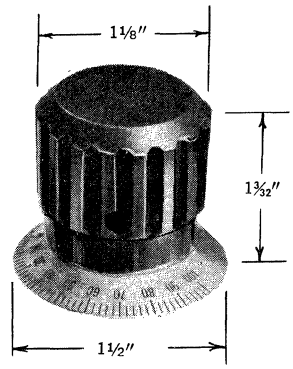
Cat. No. K936-1

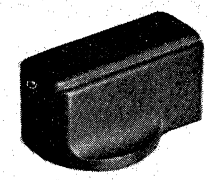
Black phenolic molded knob, with beveled satin aluminum skirt, anodized finish.

Deeply etched and filled contrasting markings.

Accurately centered brass insert, for 1/4" shafts.

Variations on shaft sizes and markings available in production quantities.

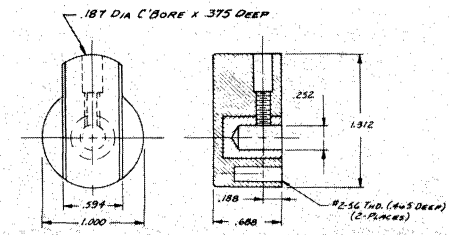




BAR KNOB

Cat. No. K783

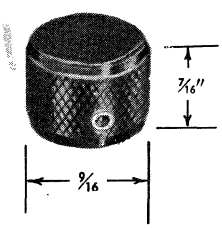
Phenolic molded knob, with metal insert. Set screw at back, for shaft attachment. Finished to specifications.



KNOB

Cat. No. K-897

Machined knurled edge for easy turning. Has set screw for firm attachment to 1/4" shafts. Height 7/16" x 9/16" diam.



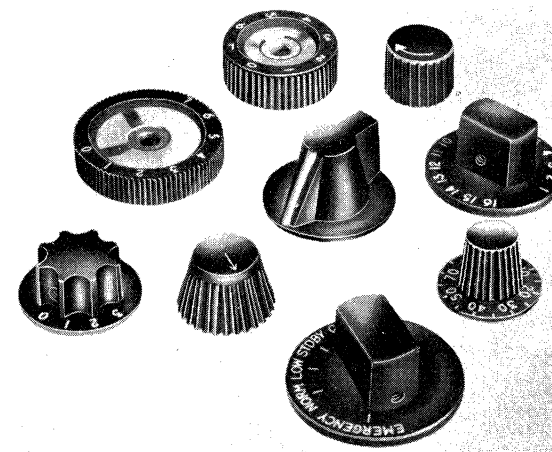
STANDARD PLASTIC KNOBS

Knobs to satisfy almost any design or demand. Can be produced in any color or finish, either illuminated or non-illuminated.

Knobs shown are only part of our stock.

Let us quote on your specifications.

Knobs Back Lighted on special request only



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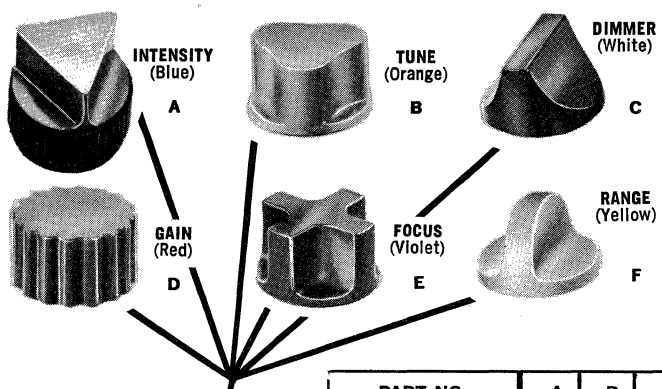
DELUXE INSTRUMENT KNOBS

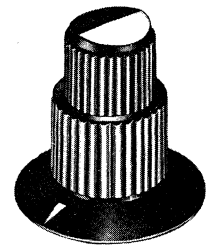
MEETS PERFORMANCE OF MIL-STD-242D (SHIPS) AND MS 91528C

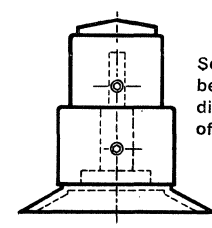
JAN's Standard Instrument Control Knobs for use with electronic equipment. Molded of polycarbonate, these knobs will withstand the extreme environmental conditions of MIL-E-16400. Either knob-cap or entire knob is available in a variety of colors, in MATTE (M) or GLOSSY (G) finish. Complete range of sizes . . . send for catalog.

TACTILE SHAPE CONTROL KNOBS

Expressly made for both visual and tactile function identification. Each Tactile knob is produced in the standard recognizable color identified with its configuration. Available in other colors on special order.
See column—below, for applicable tactile shape.







See diagrams below for dimensions of each knob.

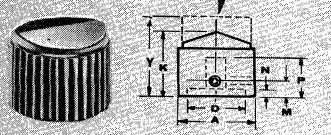
DUAL KNOBS FOR CONCENTRIC CONTROLS

APPROVED FOR USE
MIL STD 242D and MS 91528C

Molded of polycarbonate plastic, these "piggy-back" knobs are used with dual concentric potentiometers and in other similar applications. Meet performance of military specs above.

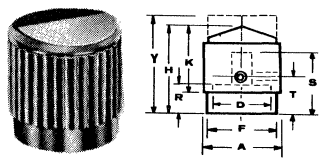
DIMENSIONS

PART NO.	A	D	F	G	H	K	M	N	P	R	S	T	Y
5 1 A †	.505	.302				.509	.158	.026	.408				
7 1 A	.708	.486				.626	.158	.026	.406				.915
9 1 A	.911	.645				.798	.255	.114	.521				1.171
12 1 A	1.255	.974				.703	.260	.115	.458				1.220
17 1 A	1.755	1.465				.854	.255	.114	.521				
22 1 A	2.255	1.870				.885	.255	.114	.521				



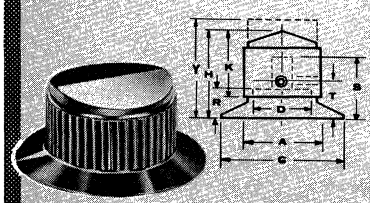
NO SKIRT

PART NO.	A	D	F	G	H	K	M	N	P	R	S	T	Y
5 1 B †	.505	.302	.450		.660	.509				.181	.563	.324	
7 1 B	.708	.486	.670		.805	.626				.188	.568	.340	1.100
9 1 B	.911	.654	.826		1.027	.798				.323	.730	.484	1.399
12 1 B	1.255	.974	1.155		.870	.703				.262	.605	.427	1.399
17 1 B	1.755	1.465	1.666		1.088	.854				.333	.740	.489	
22 1 B	2.255	1.870	2.153		1.114	.885				.333	.740	.489	



PLAIN SKIRT

PART NO.	A	D	F	G	H	K	M	N	P	R	S	T	Y
5 1 C †	.505	.302		.885	.660	.509				.181	.563	.324	
7 1 C	.708	.486		1.135	.805	.626				.188	.568	.340	1.100
9 1 C	.911	.645		1.510	1.027	.798				.323	.730	.484	1.399
12 1 C	1.255	.974		1.822	.870	.703				.262	.605	.427	1.399
17 1 C	1.755	1.465		2.453	1.088	.854				.333	.740	.489	
22 1 C	2.255	1.870		3.005	1.114	.885				.333	.740	.489	



DIAL SKIRT

SPECIFY AS REQUIRED

1 TOP (Color or Tactile)	2 BODY DIA.	3 BODY STYLE	4 SKIRT	5 SHAFT HOLE DIA.	6 FINISH	7 COLOR
0=NO TOP	7=.72	1=ROUND	A=NONE	2=128	M=MATTE	A=BLACK
*T=STANDARD	5=.51	2=POINTER	B=PLAIN	3=190	G=GLOSSY	B=RED
A=(INTENSITY—Blue)	7=.72		C=DIAL W/ POINTER	4=253		C=GREY
B=(TUNE—Orange)	9=.90					D=GREEN
C=(DIMMER-White)						E=YELLOW
D=(GAIN—Red)						F=PURPLE
E=(FOCUS—Violet)						G=BLUE
F=(RANGE—Yellow)						H=WHITE
						J=ORANGE

† Not suitable for ¼"

TYPICAL PART NUMBERS

91C4GA=.90 Dia./Round/Dial/¼"/Glossy/Black
A71B4MA=Triangle Top Blue/.72/Round/Plain/¼"/Matte/Black
BA71B4MA=Triangle Top Red/.72/Round/Plain/¼"/Matte/Black
BT71B4HA=Standard Top Red/.72/Round/Plain/¼"/Matte/Black
O71B4MA=No Top/.72/Round/Plain/¼"/Matte/Black

(Specify whether Hole is drilled thru for Dual Knob Mounting)**

***Specify if .127, .190, .250 hole is required for dual mounting*

*NOTE: *T—Preceded by color code (BT—would mean Standard RED top)*

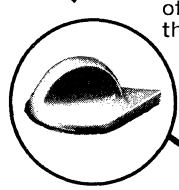
IF WHITE DOTS ARE REQUIRED—ADD SUFFIX WD TO CATALOG NO.
FOR SPECIAL KNOBS—GIVE FULL DESCRIPTION OR SKETCH WITH ORDER.

© U.C.P., Inc.

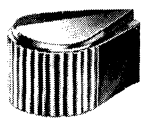
DELUXE INSTRUMENT KNOBS

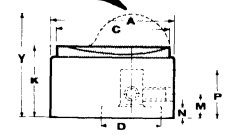
MEETS PERFORMANCE OF MIL-STD-242D (SHIPS) AND MS 91528C

JAN's Standard Instrument Control Knobs for use with electronic equipment. Molded of polycarbonate, these knobs will withstand the extreme environmental conditions of MIL-E-16400. Either knob-cap or entire knob is available in a variety of colors, in MATTE (M) or GLOSSY (G) finish. Complete range of sizes . . . send for catalog.

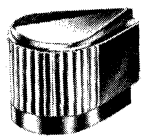


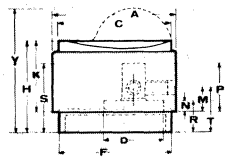
POINTER KNOBS





POINTER





POINTER WITH SKIRT

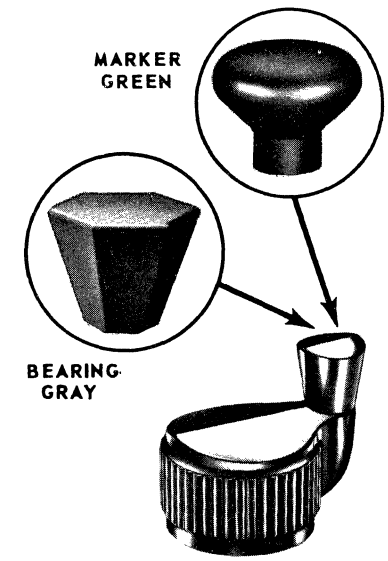
DIMENSIONS

PART NO.					A	D	F	H	K	M	N	P	R	S	T	Y
5	2	A	†	SPECIFY AS REQUIRED	.750	.406			.505	.158	.026	.402				
7	2	A			1.038	.486			.619	.187	.026	.406				.918
9	2	A			1.344	.645			.796	.255	.114	.555				1.171
5	2	B	†		.750	.406	.669	.655	.505			.402	.177	.563	.324	
7	2	B			1.038	.486	.940	.791	.619			.406	.193	.573	.364	1.100
9	2	B			1.344	.645	1.251	1.015	.796			.555	.328	.796	.479	1.400

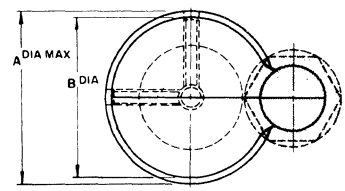
1 TOP (Color or Tactile)	2 BODY DIA.	3 BODY STYLE	4 SKIRT	5 SHAFT HOLE DIA.	6 FINISH	7 COLOR
G=(RANGE—Yellow)	5=.51 7=.72 9=.90	2=POINTER	A=NONE B=PLAIN C=DIAL W/ POINTER	2=128 3=190 4=253	M=MATTE G=GLOSSY	A=BLACK B=RED C=GREY D=GREEN E=YELLOW F=PURPLE G=BLUE H=WHITE J=ORANGE

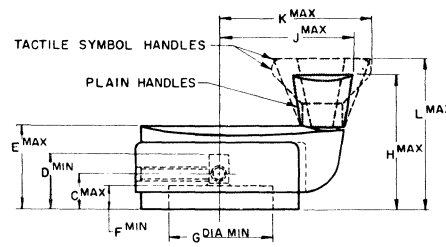
† Not suitable for ¼"

TYPICAL PART NUMBERS
72B4MA=Regular Top
G72A4MA=Tactile Top



CRANK KNOBS





DIM.	SERIES		
	12	17	22
A	1.269	1.775	2.255
B	1.156	1.594	2.094
C	.427	.489	.489
D	.605	.740	.740
E	.870	1.088	1.114
F	.267	.328	.327
G	.700	.894	.925
H	1.379	1.773	1.799
J	1.110	1.504	1.754
K	1.275	1.719	1.969
L	1.475	1.961	1.987

TOP (Color or Tactile)
H= GREEN
J= GREY

TYPICAL PART NUMBERS
J171B4MA=Grey Tactile Handle
121B4MA=Standard Handle

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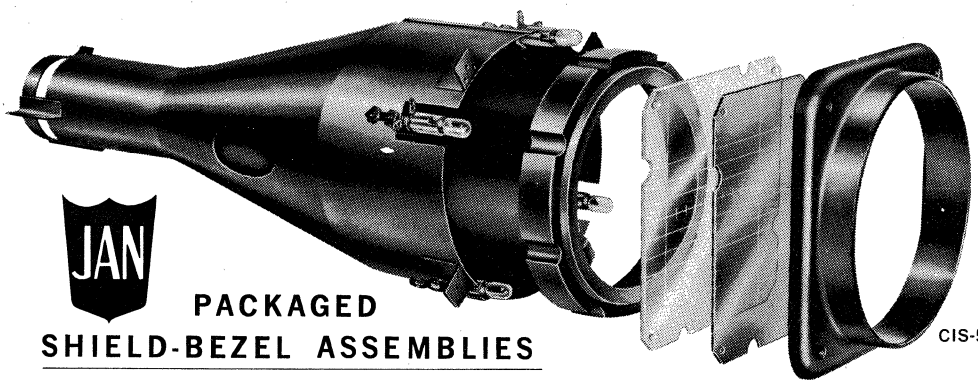
JAN HARDWARE

MANUFACTURING COMPANY, INC.

LONG ISLAND CITY 1, NEW YORK



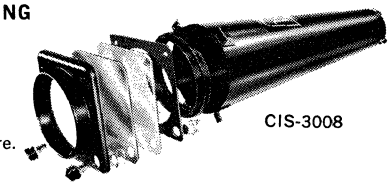
CIS-5002

PACKAGED SHIELD-BEZEL ASSEMBLIES

SAVES TIME / MONEY **ELIMINATES** MULTIPLE PURCHASING / COMPLEX ENGINEERING

All necessary items for CRT Magnetic Shield and Bezel applications are packaged in one unit.

EACH ASSEMBLY CONTAINS: Shield, JAN Bezel, CRT Rubber Cushion, Graticule, Filter, Light Sockets, Pilot Lamps (for edge-lit bezel-shield assemblies) plus Hardware.



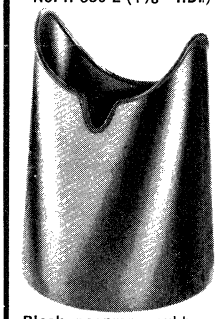
CIS-3008

When ordering specify:

"JAN PACKAGED UNIT" giving JAN shield No., JAN bezel No. and CRT tube type with which it is to be used.

VIEWING HOOD

No. H-689-1 (5⅝" I.D.)
No. H-689-2 (4⅞" I.D.)

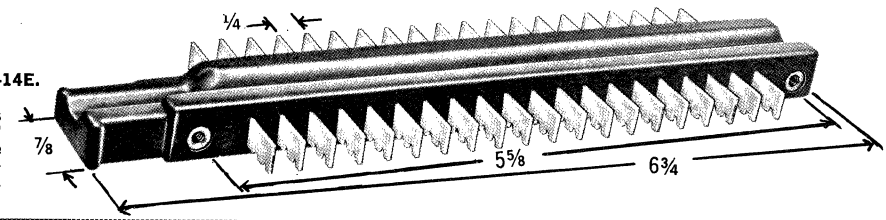


Black neoprene rubber, contour-molded, fits shape of face. Keeps out ambient light when viewing scope.

"FEED THROUGH" TERMINAL BOARDS

Cat. No. T-746
Molded of wood-filled melamine per MIL-M-14E.

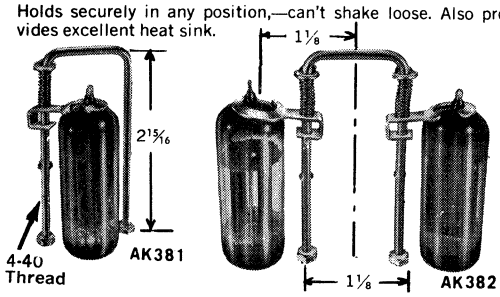
Avoid expensive tooling. Design around this integrally-molded 20 feed-through terminal board. Equally-spaced terminals can be used for wrap around and/or solder connections. Voltage Breakdown 4000 Volts.



TUBE BAIL ASSEMBLIES

Positive protection against vibration and shock. Spring-loaded tube holders give positive protection that is free of strain on tube. Available as single and twin tube hold-downs.

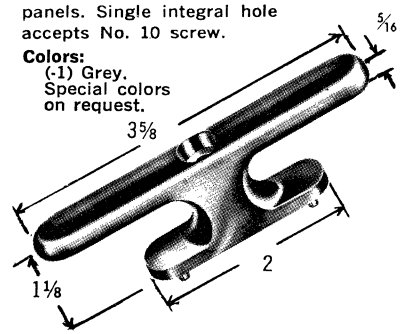
Holds securely in any position,—can't shake loose. Also provides excellent heat sink.



HANDLE, CORD **Cat. No. H-692-1**

This durable, die-cast aluminum handle is designed for use on small instrument panels. Single integral hole accepts No. 10 screw.

Colors:
(-1) Grey.
Special colors on request.



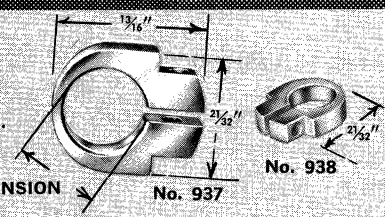
The service of JAN's design engineers is available to assist you with your Component requirements.

JAN will design and manufacture special Components to customers' specifications.

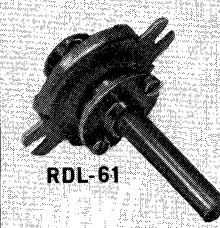
Complete facilities for prototype work.

"NO-MAR" CLAMPS

Set screw does not touch shaft.
Ideal for knob and gear applications.
Variety of sizes available.



Cat. No.	–2	–3	–4	–5	–6	–7	–8
937	⅛"	3/16"	¼"	5/16"	⅜"	13/32"	7/16"
938	⅛"	3/16"	¼"	5/16"	⅜"	13/32"	7/16"



RDL-61

IN-LINE RATIO DRIVE

6.3 : 1

For smooth rotary control of components requiring Vernier adjustments. Suitable for use where panel space is at a premium. Durable, ruggedized ball bearing mechanism.

Variations available to customers specifications.

© U.C.P., Inc.

AIR VARIABLE CAPACITORS

Whatever the choice . . . sub-miniature capacitors for printed circuit use—or large, heavy duty types . . . time and again engineers specify Johnson Air Variables!

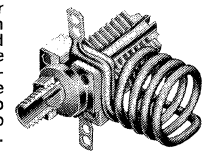
More than 11 basic capacitor types are readily available in a wide selection of single section, dual section, butterfly and differential models. Units range in size from the diminutive sub-miniature Type "U" capacitors, to large, rugged heavy duty "C" and "D" types. Standard stock capacitors in a wide range of plate spacings, capacity per section, breakdown ratings, and finishes will meet many military and commercial applications . . . specials to your specifications are also available in production quantities.

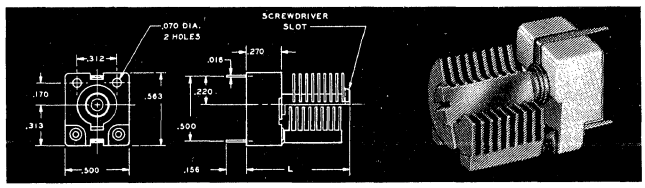
TYPE "U", "UA" AND "UB" CAPACITORS

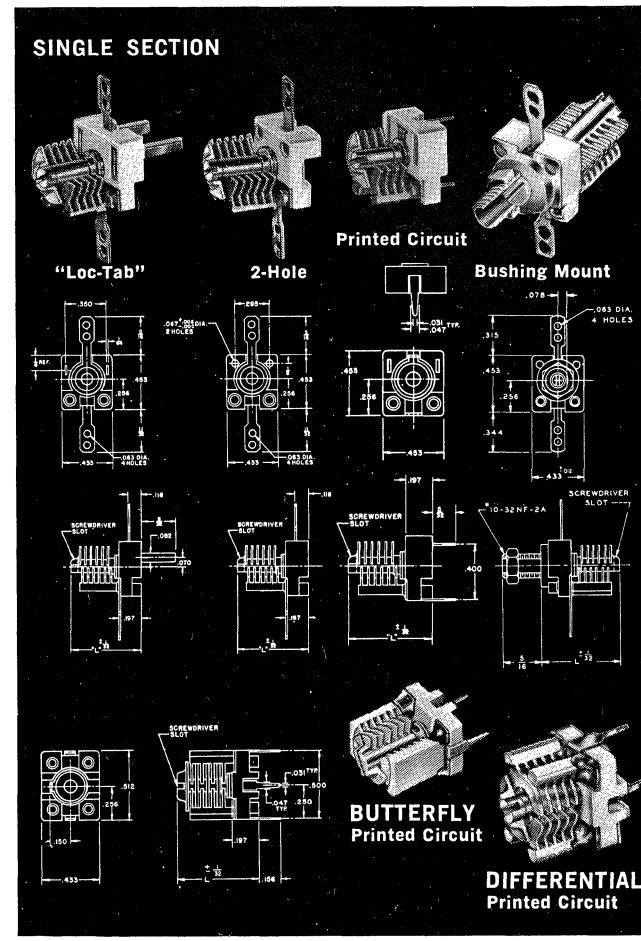
Cut costs, improve performance, and save valuable space in compact electronic equipment with these sub-miniature air variable capacitors. Available in single-section, differential and butterfly types, they occupy minimum mounting area – Type "U" requires less than 0.2 square-inch and Types "UA" and "UB" less than 0.23 square-inch area for chassis or printed board mounting. Rotors and stators are precision machined from one piece of solid brass, providing outstanding mechanical stability and uniformity. Units offer high "Q" (greater than 1500 at 1 mc.), high torque-to-mass ratio (2½ to 10 inch ounces), and exceptionally low temperature coefficient (plus 45 ± 15 PPM/°C) – provides absolute freedom from moisture entrapment found in trimmer capacitors of the enclosed or solid dielectric type. All metal parts silver-plated – ceramic is steatite, Grade L-4 or better. Exceptionally uniform delta C and voltage characteristics . . . breakdown ratings available to 1100 volts DC. No special tools required for installation – slotted and accommodates large screwdriver for quick adjustment. Choice of wide, double-pierced or printed circuit style terminals. Single-section models available in "Loc-Tab"; 2-Hole; Printed Circuit; and #10-32 Bushing Mount types—Differential and Butterfly models available in Printed Circuit types.

"U-LC" TUNERS

Combines precision machined Type "U" capacitor with an air wound, silver-plated inductor to form a compact, tuneable LC circuit. Excellent "Q" and temperature stability – capacitor end frame equipped with #10-32 threaded bushing for mounting. Recessed screwdriver slot contributes to ease of tuning – slot on opposite end of rotor shaft also may be used for adjustment. High torque (2½ to 10 inch ounces) holds rotor to adjusted position. Printed circuit types available on special order.







TYPE "V" CAPACITORS

Slightly larger than the Type "U" capacitors, these miniature air variables offer all of the design, construction and performance features of the Type "U", plus higher capacity, with very little increase in mounting area requirement. Requires less than 0.3 square inch for printed board mounting.

SPECIFICATIONS AND PRICES

TYPE "U", "UA" AND "UB" CAPACITORS

Cat. No.	Nominal Cap. per Sec. Max.	Nominal Cap. per Sec. Min.	Plates per Sec.	L	Volts Peak Bkdwn.	Air Gap	Net Price
SINGLE SECTION – "Loc-Tab"; 2-Hole; Printed Circuit Types							
NOTE: To order "LocTab" type, add -1 to Cat. No.; for 2-Hole type, add -4; and for Printed Circuit type, add -5 to Cat. No.							
189-1	3.5	1.2	4	29/64"	750	.010"	**$0.60**
189-2	5.4	1.3	6	½"	750	.010"	**.63**
189-3	7.3	1.4	8	35/64"	750	.010"	**.65**
189-4	9.1	1.5	10	19/32"	750	.010"	**.68**
189-5	11.0	1.7	12	5/8"	750	.010"	**.70**
189-6	13.0	1.8	14	43/64"	750	.010"	**.72**
189-7	15.0	2.0	16	47/64"	500	.010"	**.74**
189-8	17.0	2.2	18	25/32"	500	.010"	**.76**
189-26	4.1	1.3	6	½"	1100	.016"	**.72**
189-27	6.7	1.6	10	5/8"	1100	.016"	**.74**
189-28	8.9	1.8	14	¾"	1100	.016"	**.76**
SINGLE SECTION – #10-32 Bushing Mount Types							
189-3-54	7.3	1.4	8	19/32"	750	.010"	(Available on special order)
189-4-54	9.1	1.5	10	41/64"	750	.010"	
189-5-54	11.0	1.7	12	11/16"	750	.010"	
189-6-54	13.0	1.8	14	¾"	750	.010"	
189-7-54	15.0	2.0	16	51/64"	500	.010"	
189-8-54	17.0	2.2	18	27/32"	500	.010"	
BUTTERFLY – Printed Circuit Types							
189-251	4.5	1.7	12	17/32"	750	.010"	**$0.86**
189-252	6.5	1.8	18	5/8"	750	.010"	**.88**
189-253	8.5	1.9	24	47/64"	750	.010"	**.90**

TYPE "U", "UA" AND "UB" CAPACITORS

Cat. No.	Nominal Cap. per Sec. Max.	Nominal Cap. per Sec. Min.	Plates per Sec.	L	Volts Peak Bkdwn.	Air Gap	Net Price
DIFFERENTIAL – Printed Circuit Types							
189-351	3.5	1.2	6	7/16"	750	.010"	**$0.78**
189-352	5.4	1.3	9	31/64"	750	.010"	**.80**
189-353	7.3	1.5	12	17/32"	750	.010"	**.82**
189-354	9.1	1.6	15	37/64"	750	.010"	**.84**
189-355	11.0	1.7	18	5/8"	750	.010"	**.86**
189-356	13.0	1.9	21	11/16"	750	.010"	**.88**

TYPE "U-LC" TUNERS

Cat. No.	Resonant Freq. Mc Max.	Resonant Freq. Mc Min.	Plates per Sec.	L	Volts Peak Bkdwn.	Air Gap	Coil Turns	Net Price
#10-32 Bushing Mount Types								
250-101-4	230	100	18	27/32"	500	.010"	4¼	(Available on special order)
250-102-4	340	190	12	11/16"	750	.010"	2¼	
250-103-4	450	280	10	41/64"	750	.010"	1¼	
250-104-4	520	360	6	35/64"	750	.010"	1¼	
250-105-4	750	450	10	41/64"	750	.010"	½	

TYPE "V" CAPACITORS

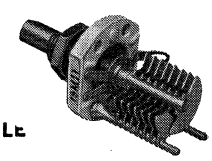
Cat. No.	Nominal Cap. per Sec. Max.	Nominal Cap. per Sec. Min.	Plates per Sec.	L	Volts Peak Bkdwn.	Air Gap	Net Price
SINGLE SECTION – Printed Circuit Types							
193-4-5	13	1.4	8	.581	650	.010"	**$0.70**
193-6-5	20	1.7	12	.683	650	.010"	**.72**
193-8-5	27	2.0	16	785	650	.010"	**.74**
193-10-5	34	2.2	20	.887	650	.010"	**.76**

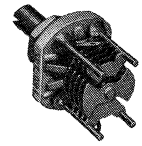
NOTE: For applications requiring capacity values other than those listed, specials may be furnished with 10, 14 or 18 plates.

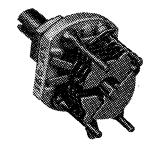
© U.C.P., Inc.

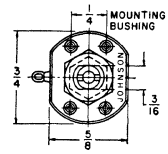
TYPE "M" CAPACITORS

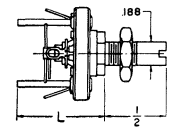
These small Type "M" miniature air variable capacitors are excellent for use in compact equipment. Bridge type stator terminal provides an extremely low inductance path to both stator supports. Soldered plate construction, oversize bearing, and heavily anchored stator supports insure extreme rigidity. Large beryllium copper compression rotor contact provides steady torque – and rotor stays "put" where set. Rotor contact and all other metal parts are nickel plated – steatite insulator is DC-200 treated. Mounting bushing threaded with ¼-32 flats to prevent turning – mounting nut furnished. Peak voltage 1250 volts on .017" spaced units; 850 volts on 160-130 which is spaced .013". 3/16" diameter shaft* slotted for screwdriver adjustment. Available in production quantities with the following features: locking bearings; 180° stop; various shaft extensions; high torque; silver or other platings.
*Instrument type tuning knob to fit 3/16" shaft available.

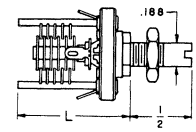

SINGLE

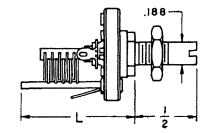

BUTTERFLY


DIFFERENTIAL



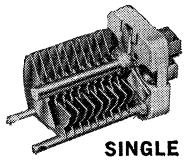






TYPE "S" CAPACITORS

Midway in physical size between the Type "M" and "K" capacitors, the Type "S" is compact in design–rugged in construction. Unit is equipped with DC-200 treated steatite insulator, and nickel-plated brass plates. The "S" capacitor has a plate spacing of .013" with a peak voltage rating of 850 volts. Other spacings; single hole mounting types; straight shaft; screwdriver shaft; or locking-type screwdriver shaft available on special order in production quantities. Available in Single Section, Butterfly, Differential and Dual Section Types.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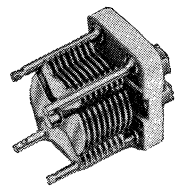
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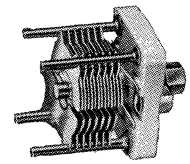
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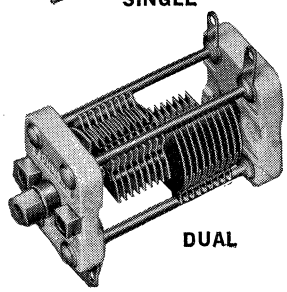
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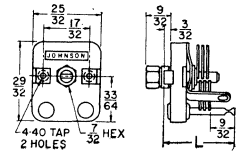

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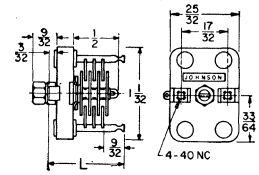
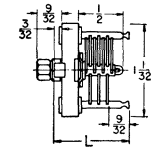


BUTTERFLY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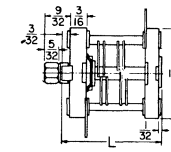
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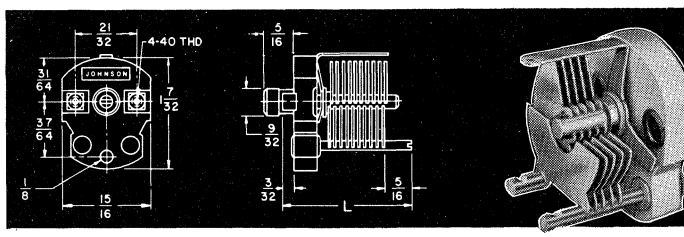
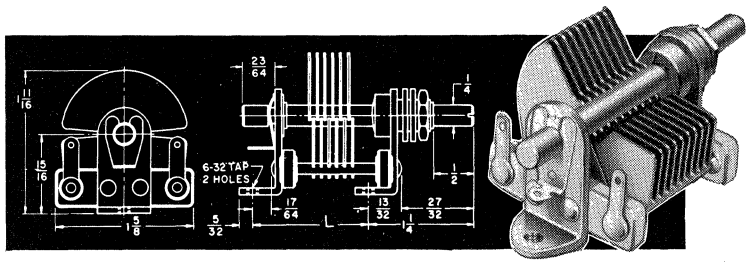


TYPE "K" CAPACITORS

Widely used for military and many commercial applications, the Type "K" capacitor has a DC-200 impregnated steatite insulator, slotted stator contacts, and extra-rigid soldered plate construction. Peak voltage rating is 1000 volts with a plate spacing of .015" – plates are nickel-plated brass. The Type "K" capacitor is available in production quantities to meet MIL-C-92A specifications – other capacities and variations for specialized military and commercial applications are also available in production quantities. Butterfly and Differential Types will soon be available.



TYPE "R" CAPACITORS

This rugged Johnson version of a popular standardized capacitor, has extra-heavy steatite stator support insulators and soldered .023" thick brass plates. All metal parts are heavily nickel-plated for resistance to corrosion. Sturdy brass end frames offer excellent rigidity. Double bearing construction and silver-plated beryllium copper wiping contacts provide smooth, reliable performance. Peak voltage rating is 1200 volts – available with .024", .036", .050", .071", or .095" plate spacings, as well as special platings and shaft lengths in production quantities. Bearing threaded ⅜"-32. Also available without mounting feet for panel mounting applications.

SPECIFICATIONS AND PRICES

TYPE "M" CAPACITORS

Cat. No.	Nom. Cap. Sec. Max.	Min.	Plates per Sec.	L	Net Price
SINGLE SECTION					
160-102	5	1.5	5	45/64"	**$0.90**
160-104	8.7	1.8	9	13/16"	**.95**
160-107	14.2	2.3	15	1"	**1.00**
160-110	19.6	2.7	21	1 11/64"	**1.10**
160-130	32	3	28	1 17/64"	**1.20**
BUTTERFLY					
160-203	3.1	1.5	5	45/64"	**$1.20**
160-205	5.1	1.8	9	13/16"	**1.30**
160-208	8	2.2	16	1"	**1.45**
160-211	10.8	2.7	22	1 11/64"	**1.60**
DIFFERENTIAL					
160-303	5.0	1.5	5	45/64"	**$1.25**
160-305	8.7	1.8	9	13/16"	**1.45**
160-308	14.2	2.3	15	1"	**1.65**
160-311	19.6	2.7	21	1 11/64"	**1.85**

TYPE "S" CAPACITORS

Cat. No.	Nom. Cap. Sec. Max.	Min.	Plates per Sec.	L	Net Price
SINGLE SECTION					
148-1	15	2.3	6	53/64"	**$1.00**
148-2	25	2.6	10	15/16"	**1.05**
148-3	35	2.9	14	1 1/32"	**1.10**
148-4	50	3.2	19	1 9/64"	**1.15**
148-5	75	3.9	29	1 13/32"	**1.20**
148-6	100	4.5	38	1 43/64"	**1.30**
BUTTERFLY					
148-201	9	1.8	6	53/64"	**$1.45**
148-202	14	2.1	10	15/16"	**1.60**
148-203	20	2.4	14	1 1/32"	**1.70**
148-204	27	2.8	19	1 9/64"	**1.95**
148-205	42	3.6	29	1 13/32"	**2.20**
148-206	54	4.4	38	1 43/64"	**2.45**

TYPE "K" CAPACITORS

158-1	10	2.9	3	7/8"	**$1.25**
158-2	25	3.7	7	1"	**1.35**
158-3	50	4.6	14	1 3/16"	**1.55**
158-4	75	5.5	20	1 3/8"	**1.70**
158-5	100	6.4	27	1 5/8"	**1.85**

TYPE "S" CAPACITORS

Cat. No.	Nom. Cap. Sec. Max.	Min.	Plates per Sec.	L	Net Price
DIFFERENTIAL					
148-301	15	2.3	6	53/64"	**$1.50**
148-302	25	2.6	10	15/16"	**1.60**
148-303	35	2.9	14	1 1/32"	**1.70**
148-304	50	3.2	19	1 9/64"	**1.80**
148-305	75	3.9	29	1 13/32"	**1.90**
148-306	100	4.5	38	1 43/64"	**2.10**
DUAL SECTION					
148-503	25	2.9	10	1 25/64"	**$2.25**
148-504	35	3.2	14	1 19/32"	**2.40**
148-505	50	3.5	19	1 51/64"	**2.55**
148-507	100	4.8	38	2 27/32"	**3.00**

TYPE "R" CAPACITORS

149-1	20	5	3	1 7/32"	**$2.50**
149-2	35	6	5	1 7/32"	**2.60**
149-3	50	6.5	7	1 7/32"	**2.70**
149-4	80	8	11	1 7/32"	**2.85**
149-5	102	8.5	14	1 13/32"	**3.00**
149-6	140	13.5	19	1 19/32"	**3.30**

E. F. JOHNSON COMPANY
WASECA, MINNESOTA, U.S.A.

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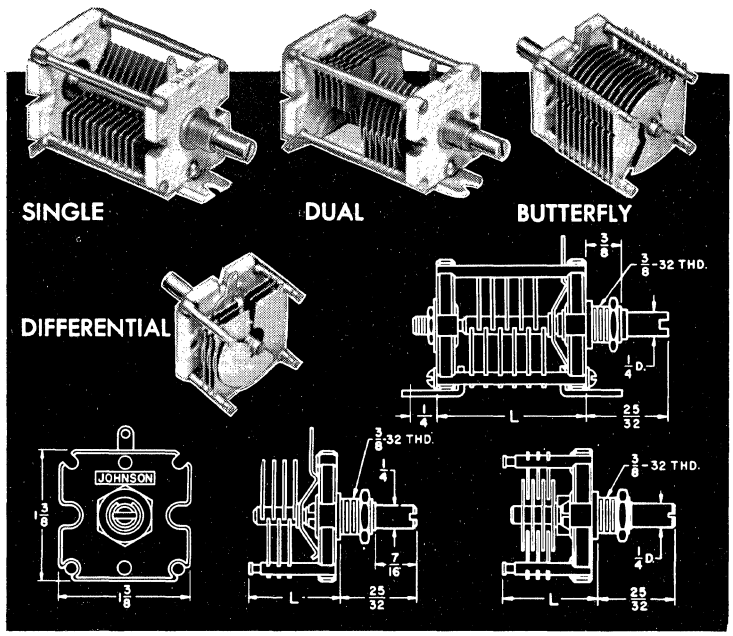


TYPE "L" CAPACITORS

Ideal choice for applications requiring extreme stability and strength practically impervious to shock and vibration. Rotor bearings and stator support rods soldered directly to heavy 3/16" thick steatite insulator. Special split-sleeve tension bearing and silver-plated beryllium copper contact provide constant torque and smooth capacity variation. Heavy brass soldered plates and large diameter tie rods provide excellent rigidity. Removable chassis mounting brackets can be used to mount auxiliary equipment. Plating is heavy nickel – plate spacing .030". Peak voltage rating is 1500 volts. Also available with .020", .060", and .080" spacing as well as special platings, shaft lengths and stator terminal locations in production quantities. Bearings threaded 3/8-32", mounting nut provided. Models with 6-32 tapped mounting posts soldered to end frame also available on special order.

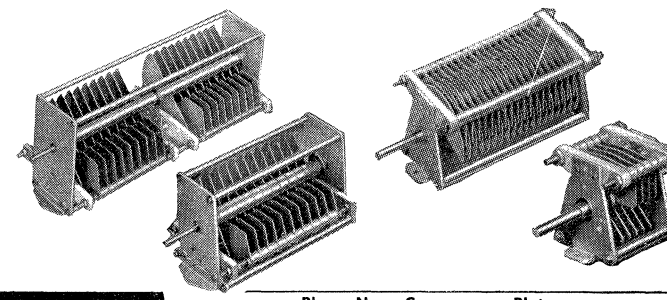
Cat. No.	Nom. Cap. per Sec. Max.	Nom. Cap. per Sec. Min.	Plates per Sec.	L	Net Price
SINGLE SECTION – Single End Plate					
167-1	11	2.8	3	3/4"	$1.85
167-2	27	3.5	7	61/64"	2.00
167-3	51	4.6	13	1 1/4"	2.20
167-4	75	5.7	19	1 9/16"	2.40
SINGLE SECTION – Double End Plate					
167-11	99	6.8	25	2 1/32"	3.90
167-12	202	11.6	51	3 21/64"	5.00
BUTTERFLY					
167-21	10.5	2.8	5	55/64"	2.25
167-22	26	4.3	12	1 1/4"	2.65
167-23	51	6.8	23	1 3/4"	3.25
DIFFERENTIAL					
167-31	11	2.8	3	3/4"	2.30
167-32	27	3.5	7	61/64"	2.50
167-33	51	4.6	13	1 1/4"	2.90
DUAL SECTION					
167-51	27	5.0	7	1 5/8"	4.00
167-52	51	6.5	13	2 15/64"	4.45
167-53	99	9.8	25	3 7/16"	5.30

TYPE "C" AND "D" CAPACITORS

Heavy .051" aluminum plates and 5/16" diameter aluminum tie rods; 1/4" cadmium-plated steel shafts; laminated phosphor bronze contact springs; and steatite insulation. Type "C" – overall width: 5 1/2" – height: 5 13/32" – height bottom to shaft center: 3 3/32". Type "D" – overall width: 4 1/4" – height: 4" – height bottom to shaft center: 2 5/32". Dual types have center rotor connection for better balance. End frames tapped 8-32, 3 holes, for panel mounting – brackets furnished for chassis mounting.

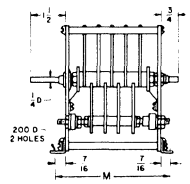
TYPE "E" AND "F" CAPACITORS

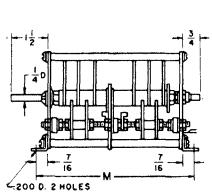
High capacity per cubic inch and extremely low capacity to chassis. Heavy aluminum plates .032" thick with rounded edges and large 1/4" tie rods; stainless steel shafts; sturdy phosphor bronze contact springs; and center rotor contact on dual types. End frames tapped 8-32, 3 holes for panel mounting – brackets furnished for chassis mounting.

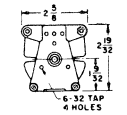


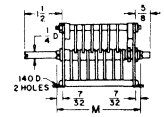
SPECIFICATIONS AND PRICES

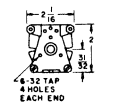
Cat. No.	Pkg. Volt-age	Nom. Cap. /Sec. Max.	Nom. Cap. /Sec. Min.	Air Gap	Plates per Sec.	M	Net Price
TYPE C SINGLE SECTION							
152-1	7000	252	34	.175"	24	7 11/16"	$17.95
152-2	7000	496	56	.175"	47	13 1/16"	24.50
152-6	11000	103	30	.350"	17	9 15/32"	15.90
152-8	13000	51	24	.500"	10	8 9/16"	14.10
152-9	13000	102	42	.500"	21	14 7/32"	18.35
TYPE C DUAL SECTION							
152-501	4500	204	21	.125"	15	9 15/32"	21.60
152-502	4500	290	26	.125"	21	11 3/16"	24.95
152-503	7000	198	27	.175"	19	13 1/16"	24.70
152-504	7000	305	37	.175"	29	17 21/32"	30.60
152-505	9000	147	30	.250"	19	15 23/32"	27.20
152-507	11000	50	18	.350"	8	11 3/16"	18.50
152-509	11000	103	32	.350"	17	17 21/32"	26.00
TYPE D SINGLE SECTION							
153-6	3500	496	36	.080"	39	7 11/16"	17.60
153-8	4500	146	23	.125"	17	5 21/32"	12.50
153-11	7000	98	23	.175"	15	5 21/32"	12.20
153-12	7000	151	31	.175"	23	7 11/16"	14.50
153-13	7000	244	45	.175"	37	11 3/16"	17.65
153-15	9000	53	20	.250"	10	5 21/32"	11.15
153-16	9000	73	25	.250"	14	6 11/16"	12.35
153-17	9000	99	30	.250"	19	8 9/16"	13.65
153-18	9000	149	43	.250"	29	11 3/16"	16.20
TYPE D DUAL SECTION							
153-501	3500	95	13	.080"	8	5 21/32"	14.70
153-502	3500	147	15	.080"	12	6 11/16"	16.00
153-503	3500	202	19	.080"	16	8 9/16"	19.00
153-504	3500	291	24	.080"	23	10 11/32"	21.80
153-505	3500	496	38	.080"	39	14 7/32"	30.15
153-506	4500	155	24	.125"	17	10 11/32"	19.60
153-507	4500	198	27	.125"	23	13 1/16"	22.00
153-508	7000	52	15	.175"	8	6 11/16"	14.50
153-509	7000	72	17	.175"	11	8 9/16"	16.15
153-510	7000	97	22	.175"	15	10 11/32"	18.30
153-511	7000	151	31	.175"	23	14 7/32"	23.80
153-513	9000	52	19	.250"	19	10 11/32"	16.45
153-514	9000	97	30	.250"	19	15 23/32"	22.75

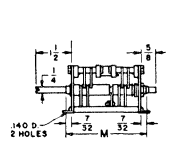












Cat. No.	Pkg. Volt-age	Nom. Cap. /Sec. Max.	Nom. Cap. /Sec. Min.	Air Gap	Plates per Sec.	M	Net Price
TYPE E SINGLE SECTION							
154-1	2000	244	12	.045"	23	3 7/32"	$ 7.90
154-2	2000	353	15	.045"	33	3 31/32"	8.90
154-3	2000	488	19	.045"	45	4 29/32"	10.45
154-7	3000	100	11	.075"	15	3"	7.00
154-8	3000	154	14	.075"	23	3 7/8"	8.00
154-9	3000	251	20	.075"	37	5 3/8"	9.80
154-10	3000	347	25	.075"	51	6 7/8"	11.55
154-11	4500	38	9	.125"	9	2 3/4"	6.40
154-12	4500	53	11	.125"	12	3 13/32"	7.05
154-13	4500	74	13	.125"	17	4 1/32"	7.50
154-14	4500	101	16	.125"	23	4 31/32"	8.10
154-15	4500	145	20	.125"	33	6 17/32"	9.40
154-16	4500	241	32	.125"	55	10"	12.25
TYPE E DUAL SECTION							
154-502	2000	312	13	.045"	29	7 3/32"	14.85
154-503	3000	52	8	.075"	8	4 17/32"	9.80
154-504	3000	72	8	.075"	11	4 31/32"	10.40
154-505	3000	99	10	.075"	15	5 13/16"	11.55
154-506	3000	153	13	.075"	23	7 1/2"	13.70
154-507	3000	196	15	.075"	29	8 13/32"	15.40
154-508	4500	52	10	.125"	12	6 19/32"	10.70
154-509	4500	74	12	.125"	17	7 7/8"	12.30
154-510	4500	100	15	.125"	23	9 23/32"	14.05
TYPE F SINGLE SECTION							
155-1	2000	35	7	.045"	6	1 29/32"	5.90
155-2	2000	54	8	.045"	9	2 1/16"	6.15
155-3	2000	66	8	.045"	11	2 7/32"	6.40
155-4	2000	106	10	.045"	17	2 11/16"	7.00
155-5	2000	154	12	.045"	25	3 5/16"	7.85
155-6	2000	252	17	.045"	41	4 17/32"	9.60
155-8	3000	52	9	.075"	13	2 3/4"	6.80
155-9	3000	67	11	.075"	17	3 5/32"	7.10
155-10	3000	99	14	.075"	25	4 1/32"	7.80
155-11	3000	148	18	.075"	37	5 5/16"	9.55
TYPE F DUAL SECTION							
155-501	2000	53	7	.045"	9	3 15/16"	10.10
155-502	2000	66	7	.045"	11	4 1/4"	10.70
155-503	2000	104	9	.045"	17	5 5/32"	12.30
155-504	2000	153	11	.045"	25	6 13/32"	13.65
155-505	2000	202	14	.045"	33	7 5/8"	15.20
155-506	3000	51	8	.075"	13	5 1/4"	10.95
155-507	3000	66	10	.075"	17	6 1/8"	12.20
155-508	3000	99	13	.075"	25	7 7/8"	14.30

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TUBE SOCKETS—GENERAL SPECIFICATIONS

To simplify selection of sockets and to provide complete specifications for standard, industrial and military requirements, wherever applicable, Johnson tube sockets have been categorized under a socket standardization program. General specifications are listed on the following pages — detailed specifications on the complete socket line are covered in Socket Standardization Booklet 536. Should you desire a copy for Engineering Department use, please make your request on company letterhead.

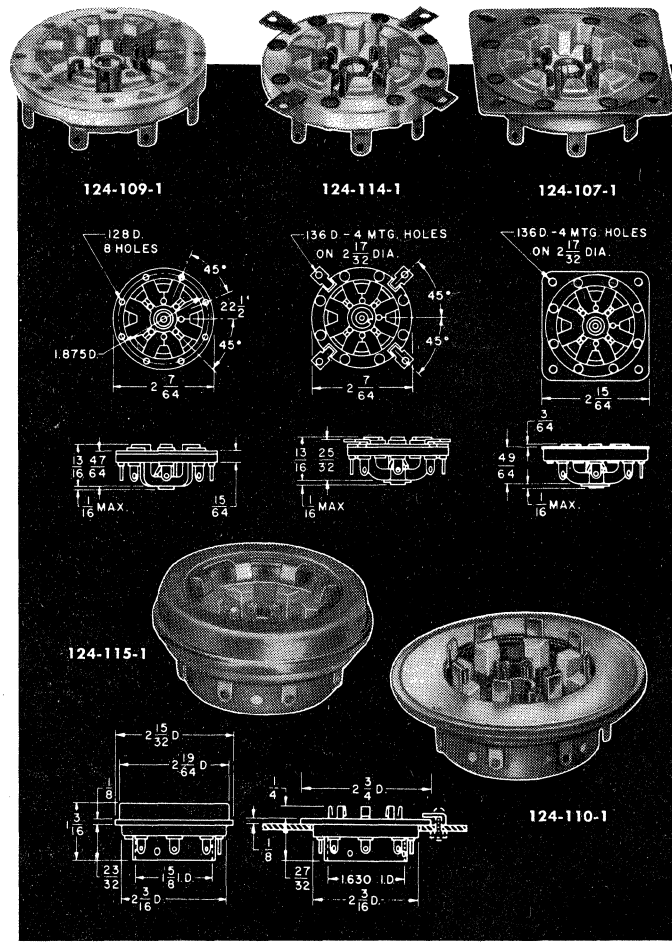
Standard — Commercial grade for general requirements. Bayonet sockets have porcelain bases, glazed top and sides with .0002 cadmium-plated phosphor bronze contacts. Wafer sockets have glazed steatite bases, DC-200 treated. Contacts are plated brass with steel springs. Shells and shields are etched aluminum.

Industrial — Higher quality than Standard types. Glazed steatite bases, DC-200 treated. Contacts: .0005 silver-plated beryllium copper on Bayonet Sockets — .0005 silver-plated phosphor bronze with beryllium copper springs on Wafer Sockets. Shells and shields are aluminum, iridite No. 14 treated. (Except 123-206-100.) Fungus resistant cushion washers under contacts.

Military — Top quality for military requirements. Glazed grade L-4 or better steatite bases, DC-200 treated. Phosphor bronze contacts and beryllium copper springs, .001 silver-plated on Wafers — Bayonet sockets have .0005 silver-plated beryllium copper contacts. Aluminum shields on shielded Wafers are iridite treated — bayonet shells are brass .0003 nickel-plated. Threaded hardware .0002 nickel-plated, unthreaded hardware .0003. Hot tin-dipped terminals. Fungus resistant cushion washers. (Glass base melamine on Wafers.) Wafer sockets protected for 200 hour salt spray test.

SOCKETS FOR 4X150A, 4X150D, 4X250B, 4CX250B, 4X250F, 7034, 7035

For use with high power transmitting tubes. Available in many designs — with or without, low inductance screen grid by-pass capacitors. Basic socket molded of low dielectric loss-factor Kel-F plastic. Control grid contact "guide" machined for accurate alignment, tapped for 6-32 machine screw. Contacts are low-resistance silver-plated beryllium copper. Tube pin contacts heat treated to provide positive contact pressure and extended life. Annealed soldering tabs may be easily bent or formed. **Additional specifications and information available on Data Sheet 755.**



Rugged light weight basic socket with silver-plated brass mounting saddle. Cathode terminals insulated. Four elongated .140" x .234" mounting holes to accommodate mounting circle diameters from 2 27/64" to 2 39/64". Mounts below chassis in 1 21/32" diameter hole.

Cat. No. 124-107-1 ..... **Net Price $6.25**

Same as 124-107-1 except cathode terminals grounded. Four mounting holes .136" diameter on circle of 2 17/32" diameter.

Cat. No. 124-108-1 ..... **Net Price $6.50**

Low cost, light weight basic socket without metal mounting ring. Cathode terminals insulated. Mounts below chassis in 1 21/32" diameter hole.

Cat. No. 124-109-1 ..... **Net Price $5.30**

Basic socket with mounting ring and low-inductance 2700 mmf. screen grid by-pass capacitor; cathode terminals insulated. Mounts above chassis through 2½" diameter hole with 3 clips drilled for 6-32 screws. Provision for mounting socket skirt directly to 1.625" O.D. outer conductor of coaxial-type line.

Cat. No. 124-110-1 ..... **Net Price $12.25**

Same as 124-110-1 except cathode terminals grounded.

Cat. No. 124-112-1 ..... **Net Price $12.50**

Same as 124-108-1, less metal mounting saddle. Low inductance grounding of cathode terminals No. 2, 4, 6, and 8 through integral combination grounding and mounting lugs. Mounts below chassis in 1 21/32" diameter hole.

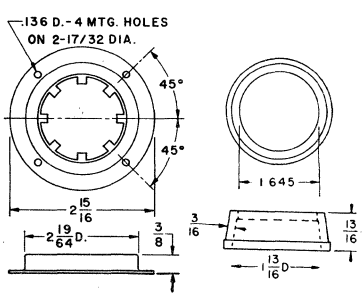
Cat. No. 124-114-1 ..... **Net Price $6.10**

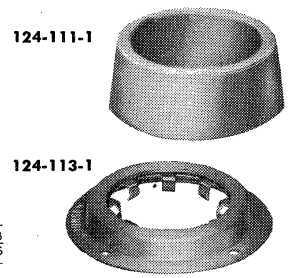
Basic socket with mounting ring and smaller low-inductance 1100 mmf. screen grid by-pass capacitor. Requires less mounting space than other screen grid by-pass type sockets. Withstands 1500 volts DC under applicable test specifications. Cathode terminals insulated. Recessed silver-plated beryllium copper screen grid contacts provide positive electrical contact and low inductance. Mounts above chassis through 2½" diameter hole with 3 clips drilled for 6-32 screws. Provision for mounting socket skirt directly to 1.625" O.D. outer conductor of coaxial-type line.

Cat. No. 124-115-1 ..... **Net Price $13.75**

Same as 124-115-1, except cathode terminals grounded.

Cat. No. 124-116-1 ..... **Net Price $13.50**





High quality heat resistant steatite chimney for use with 124-107-1, 124-108-1, 124-109-1, 124-110-1, 124-112-1, and 124-114-1 sockets. Tapered construction directs air flow through tube cooling fins. Maximum base diameter 2 9/32".

Cat. No. 124-111-1 ..... **Net Price $0.45**

1450 mmf. circular silvered-mica screen grid by-pass capacitor mounted within a low-loss silicone resin sealed silver-plated drawn brass housing. Low inductance silver-plated beryllium copper screen grid contact fingers are heat treated to provide positive contact pressure as well as extended life. Capacitor dielectric strength tested at 1000 volts DC. Unique design permits replacement of screen grid by-pass capacitor by merely removing 4 mounting screws; socket rewiring unnecessary. Fully complies with MIL-C-10950A. For use with 124-107-1, 124-108-1, 124-109-1, 124-114-1, and similar sockets.

Cat. No. 124-113-1 ..... **Net Price $5.00**

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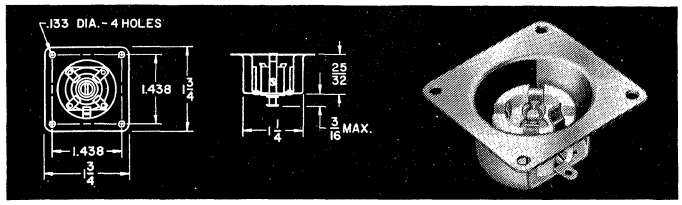


SOCKETS FOR RCA 6816, 6884, 7457, 7844, 7843, AND SIMILAR TUBES

For ultra high frequency tubes such as RCA 6816, 6884, 7457, 7844, 7843, 7842 and similar tube types. Socket molded low dielectric loss-factor teflon, electrical grade per MIL-P-19468A. Contacts are low resistance silver-plated beryllium copper per QQ-C-533. Socket shell is silver-plated brass. Mounts below chassis in 1⅜" diameter hole. Four mounting holes .133" diameter on circle of 2-1/32" diameter.

Cat. No. 124-152-1 ..... **Net Price $5.50**

SOCKETS FOR RCA 8072, 8121 AND SIMILAR TUBES

For ultra high frequency tubes such as RCA #8072, #8121, and #8122 types. Base materials have low dielectric constants which result in low pin-to-pin and shunt capacity. Elevation pads permit excellent base pin cooling. Raised boss provides indexing – aids in aligning tube pins and socket contacts when inserting tube. Socket contacts grip tube pins directly at base of tube – providing minimum inductance. Barriers between terminals for increased leakage path and higher voltage breakdown. Means for direct cathode ground provided by tabs located at mounting points adjacent to cathode contacts. Large center hole and base configuration results in low capacity; three point mounting provides stability. Terminals numbered. Teflon chimney offers increased leakage path and higher voltage breakdown. Low inductance screen by-pass capacitor for VHF and UHF operation.

Diallyl Phthalate base and mill hardened beryllium copper contacts, silver plated, provide superior electrical characteristics. Continuous heat resistance to 400°F.

Cat. No. 124-311-1 ...Standard..... **Net Price $1.10**

Same as 124-311-1, but with low-loss glass-filled silicone base and heat treated beryllium copper contacts, silver plated, offer continuous heat resistance to 500°F.

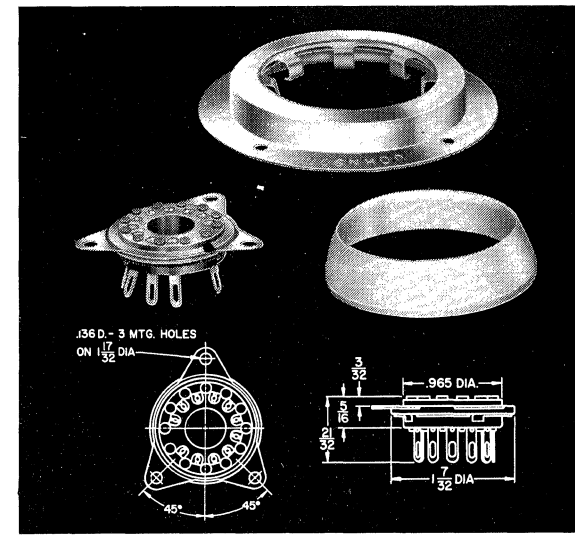
Cat. No. 124-311-100 ...Industrial..... **Net Price $1.35**

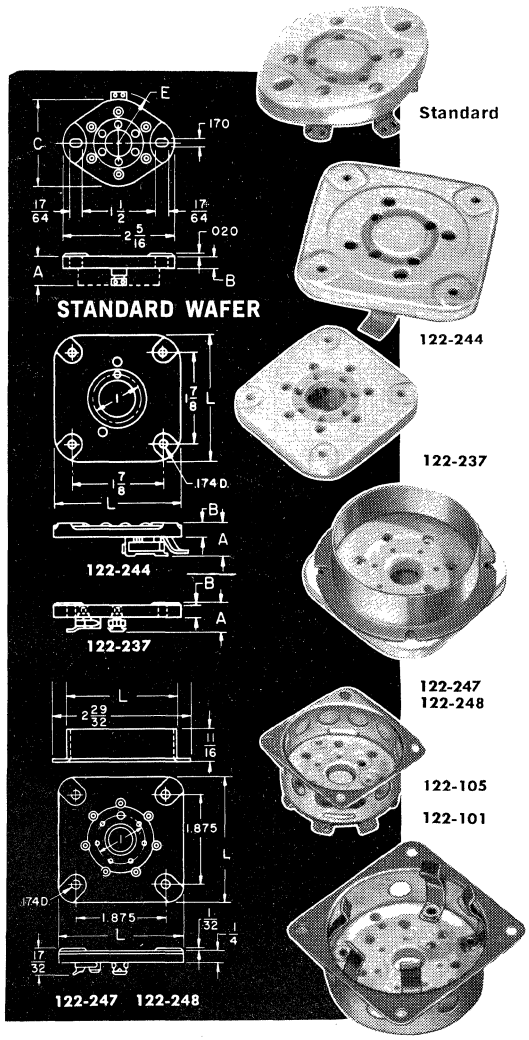
Teflon chimney for 124-311-100

Cat. No. 124-119-1 ..... **Net Price $0.66**

Screen by-pass capacitor for 124-311-100

Cat. No. 124-113-1 ..... **Net Price $5.00**





STANDARD WAFER SOCKETS

Insulated with Grade L-4 steatite, or better. Countersunk rivets and bossed mounting holes permit sub-panel mounting. Brass contacts with cadmium-plated steel springs. Locating grooves facilitate tube insertion.

Cat. No.	Type	A	B	C	E	For Tube	Net Price
122-224-1	Standard	9/16"	1/4"	1 11/16"	7/8"	4 Pin	$0.76
122-224-100	Industrial	9/16"	1/4"	1 11/16"	7/8"	4 Pin	.89
122-224-200	Military	9/16"	1/4"	1 11/16"	7/8"	4 Pin	1.07
122-225-1	Standard	9/16"	1/4"	1 11/16"	59/64"	5 Pin	.83
122-225-200	Military	9/16"	1/4"	1 11/16"	59/64"	5 Pin	1.20
122-226-1	Standard	9/16"	1/4"	1 11/16"	59/64"	6 Pin	.97
122-226-200	Military	9/16"	1/4"	1 11/16"	59/64"	6 Pin	1.35
122-227-1	Standard	9/16"	1/4"	1 13/16"	31/32"	7 Pin	1.05
122-227-200	Military	9/16"	1/4"	1 13/16"	31/32"	7 Pin	1.55
122-228-1	Standard	15/32"	3/16"	1 11/16"	57/64"	Octal	1.05
122-228-200	Military	15/32"	3/16"	1 11/16"	57/64"	Octal	1.65

SUPER JUMBO 4 PIN SOCKET

Heavy duty steatite insulated 4 pin wafer – for super jumbo base tubes such as the 8008, and many rectifier and thyratron types with E.I.A. Base Nos. A4-15, A4-16, and A4-18. Long, parallel contacts are designed to withstand high currents.

Cat. No.	Type	A	B	L	Net Price
122-244-1	Standard	11/16"	9/32"	2 5/8"	$1.75
122-244-100	Industrial	11/16"	9/32"	2 5/8"	2.00
122-244-200	Military	11/16"	9/32"	2 5/8"	2.45

GIANT 5 PIN SOCKET

Large steatite wafer socket designed for tubes such as the 4-125A, 4-250A, and RK-48 with E.I.A. Base No. A5-19. Tube seal ventilation is provided by one central and five ventilating holes located between contacts. Contacts designed to withstand heavy current.

Cat. No.	Type	Net Price
122-275-1	Standard	$2.35
122-275-100	Industrial	2.75
122-275-200	Military	3.25

GIANT 7 PIN SOCKET

A rugged wafer socket for tubes such as the 4E27, HK257, and 813 with E.I.A. Base No. A7-17. Contacts are designed with maximum surface area against tube prongs. ¾" ventilating hole in base provides tube seal cooling.

Cat. No.	Type	A	B	L	Net Price
122-237-1	Standard	9/16"	1/4"	2 5/8"	$1.40
122-237-100	Industrial	9/16"	1/4"	2 5/8"	1.65
122-237-200	Military	9/16"	1/4"	2 5/8"	1.90

SEPTAR SOCKETS

Designed for 7 pin tubes such as the 7094, with E.I.A. Base No. E7-2. Furnished with a separate aluminum shield ring.

Cat. No.	Type	L	Net Price
122-247-1	Standard	2 5/8"	$1.75
122-247-100	Industrial	2 5/8"	2.00
122-247-200	Military	2 5/8"	2.30
122-248-1	Standard	2 3/8"	1.55
122-248-100	Industrial	2 3/8"	1.85
122-248-200	Military	2 3/8"	2.15

VHF SEPTAR SOCKETS

Takes ⅓ less space than previously available types – permits compact design with medium button septar bases such as the 5894, 6524, and 6252 with E.I.A. Base No. E7-20. Molded contact recesses in base prevents turning. Aluminum shell submounts tube for maximum input and output shielding. ⅜" holes provide adequate ventilation.

Cat. No.	Type	Net Price
122-105-100	Industrial	$1.80
122-105-200	Military	2.10

For tubes with medium molded flare septar base such as the 826, 832, 4D32, PL6549, PL-177A, Y-65 with E.I.A. Base No. E7-2. Industrial type has 5 and military type has 7 retainer springs. With ventilated shield. Provision for mounting button mica capacitors directly to socket. Special terminals permit direct mounting of grid coils – two holes provided for mounting of bus bar neutralizing leads.

Cat. No.	Type	Net Price
122-101-100	Industrial	$2.85
122-101-200	Military	3.35

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CONNECTORS

NOTE: Connectors, unless otherwise specified, are available in 10 molded colors to Federal Standard 595. Catalog number for color desired is determined by adding color numbers on chart below to 5th and 6th digits of catalog number listed for series. Example: To order 105-800 in Violet, add color number for Violet (12) to 5th and 6th digits of series number, and order 105-812. To order 105-680-16 in Violet, add 12 to 5th and 6th digits of series number, and order 105-692-16.

Color	No.	Color	No.	Color	No.
White	01	Orange	06	Violet	12
Red	02	Yellow	07	Grey	13
Black	03	Brown	08		
Dark Green	04	Dark Blue	10		

DELUXE TIP JACK
(U.S. Pat. No. 2,704,357)

Molded body with recessed silver-plated machined beryllium copper contact. Hot tin-dipped solder terminal. Current rating: 10 amps. Voltage breakdown: 11,000 volts DC. Capacity to 1/8" panel: 2.0 mmf. 1/4"-32 nut furnished.

Cat. No. 105-600 (10 colors available—see above) **Net Price $0.20**

STANDARD TIP JACK

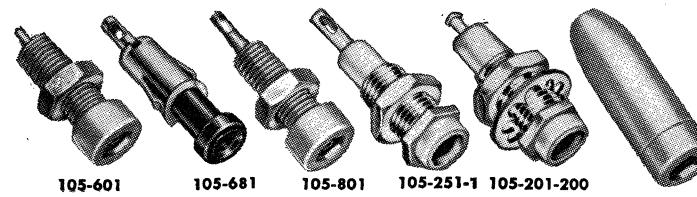
Molded body with recessed, cadmium-plated formed phosphor bronze contact. Current rating: 10 amps. Voltage breakdown: 9,000 volts DC. Capacity to 1/8" panel: 2.0 mmf. 1/4"-32 nut furnished.

Cat. No. 105-800 (10 colors available—see above) **Net Price $0.13**

RAPID-MOUNT TIP JACK

Low cost – fast mounting! Snap "speed clip" into hole in .061" to .069" thick panels and insert jack. Silver-plated phosphor bronze contact. Voltage breakdown: 7,000 volts DC. Capacity to 1/8" panel: 3.8 mmf. Current rating: 10 amps.

Cat. No. 105-680-16 (10 colors available—see above) **Net Price $0.11**



105-601 105-681 105-801 105-251-1 105-201-200

105-701

METAL-CLAD TIP JACKS – STANDARD

Molded body, nickel-plated machined brass jacket. Formed, silver-plated phosphor bronze contact. Current rating: 10 amps. Voltage breakdown: 7,000 volts DC. Capacity to 1/8" panel: 3.8 mmf. 1/4"-32 nut and lock washer furnished.

Cat. No. 105-250-1 (10 colors available—see above) **Net Price $0.18**

METAL-CLAD TIP JACKS – MILITARY
(U.S. Pat. No. 2,704,357)

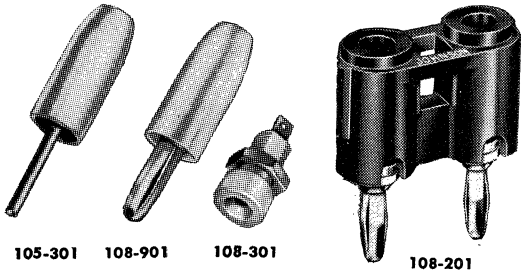
High reliability tip jack for military use or demanding industrial applications. Highest quality materials – withstands severe environmental temperature, vibration and salt spray conditions. Complies with MS-16108, Rev. F. of MIL-STD-242A. Closed entry contact design prohibits entry of tip plug .085" or larger – prevents accidental contact damage by careless probe insertion. Heavy nickel-plated brass jacket. Silver-plated, machined beryllium copper contact spring greatly exceeds minimum insertion/withdrawal cycle requirements of MS-16108. Current rating: 5 amps. Voltage breakdown: 8,000 volts DC. Capacity to 1/8" Panel: 3.8 PF. 1/4"-32 nut and lock washer furnished. Terminal style: "A". (Terminal Style "C" per MS-16108 available on special order in production quantities.)

Cat. No. 105-200-200 (10 colors available—see color chart) **Net Price $0.27**

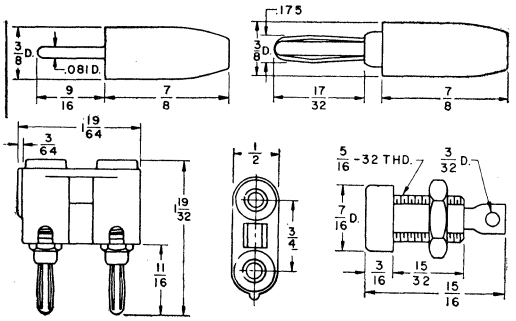
JACK AND SLEEVE ASSEMBLY
(U.S. Pat. No. 2,704,357)

Includes Deluxe Tip Jack (105-601 to 105-613), less mounting nut, with inside threaded molded sleeve. Ideal for patch cords, or insulated rear connection of panel mounted tip jack.

Cat. No. 105-700 (10 colors available—see above) **Net Price $0.20**



105-301 108-901 108-301 108-201



SOLDERLESS TIP PLUG (Patent Pending)

Completely insulated, molded sleeve. Recessed metal head prevents exposure of metal surfaces when engaged in any standard tip jack. All metal parts are nickel-plated brass. Designed for solderless connection of up to 16 gauge stranded wire. Fits all standard tip jacks. Current rating: 10 amps.

Cat. No. 105-300 (10 colors available—see above) **Net Price $0.15**

SOLDERLESS BANANA PLUGS

Compact, high voltage insulated plug for a wide variety of applications. Designed for fast, solderless connection of up to 16 gauge stranded wire. Body and pin are constructed of one-piece, nickel-plated brass with high grade nickel silver springs. Sleeve is molded. Current rating: 15 amps.

Cat. No. 108-300 (10 colors available—see above) **Net Price $0.19**

DUAL SOLDERLESS BANANA PLUG

Extremely versatile solderless dual banana plug. Molded body incorporates polarity indication and strain relief hole for wire leads. Springs are high quality nickel silver – bodies are nickel-plated. Accurately machined brass studs extend the full length of pins for extra strength. Voltage breakdown: 10,000 volts DC. Capacity plug to plug: 1.3 mmf. Current carrying capacity: 15 amps.

Cat. No. 108-200 (10 colors available—see above) **Net Price $0.60**

BANANA JACK

Completely insulated, molded body with cadmium-plated insert. Accommodates banana plugs of nominal .175" diameter. Voltage breakdown: 12,500 volts DC. Capacity to 1/16" panel: 2.4 mmf. nominal. Mounts in 21/64" diameter circular, "D," or double flat hole (1/4" across flats). Single nut furnished for mounting – no other mounting hardware needed.

Cat. No. 108-900 (10 colors available—see above) **Net Price $0.10**

BINDING POSTS (U.S. Pat. No. 2,806,999)

Compact, insulated, pre-assembled binding posts with molded body and silver-plated shank. Fluted thumb nut self-captivated. Connection made at solder stud, or lug may be slipped over threaded portion and secured with a nut. Single banana plug fits hole in top of binding post. Insulation resistance greater than 200 meg. after MIL-T-5422B humidity test.

Rated at 15 amps. current carrying capacity. Voltage Breakdown: 8,000 volts DC. Capacity to 1/8" Panel: 3.3 pf. Mounts in 21/64" diameter circular hole, "D", or double flat hole – 1/4" across flats. Single 5/16-32 mounting nut furnished – no other hardware required.

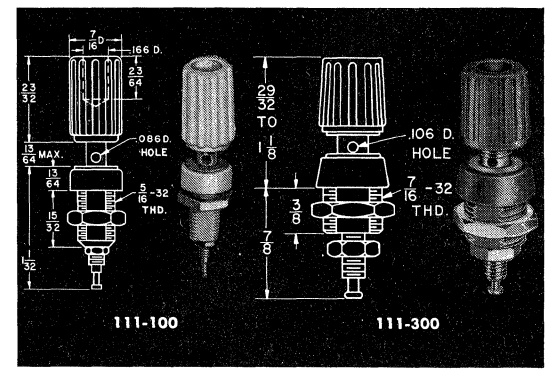
Cat. No. 111-100 (10 colors available—see color chart) ..... **Net Price $0.30**

Rated at 30 amps. current carrying capacity. Voltage Breakdown: 7,000 volts DC. Capacity to 1/8" panel: 3.5 pf. Mounts in 1/2" diameter circular hole, "D", or double flat hole – .422 across flats. Single 1/2-20 mounting nut furnished – no other hardware needed.

Cat. No. 111-300 (10 colors available—see color chart) ..... **Net Price $0.40**

MOUNTING PLATE – Pre-punched, etched aluminum mounting plate for accurate mounting of two 111-100 binding posts, or 108-900 banana jacks in 21/64" diameter holes on exact 3/4" centers.

Cat. No. 111-20 ..... **Net Price $0.02**



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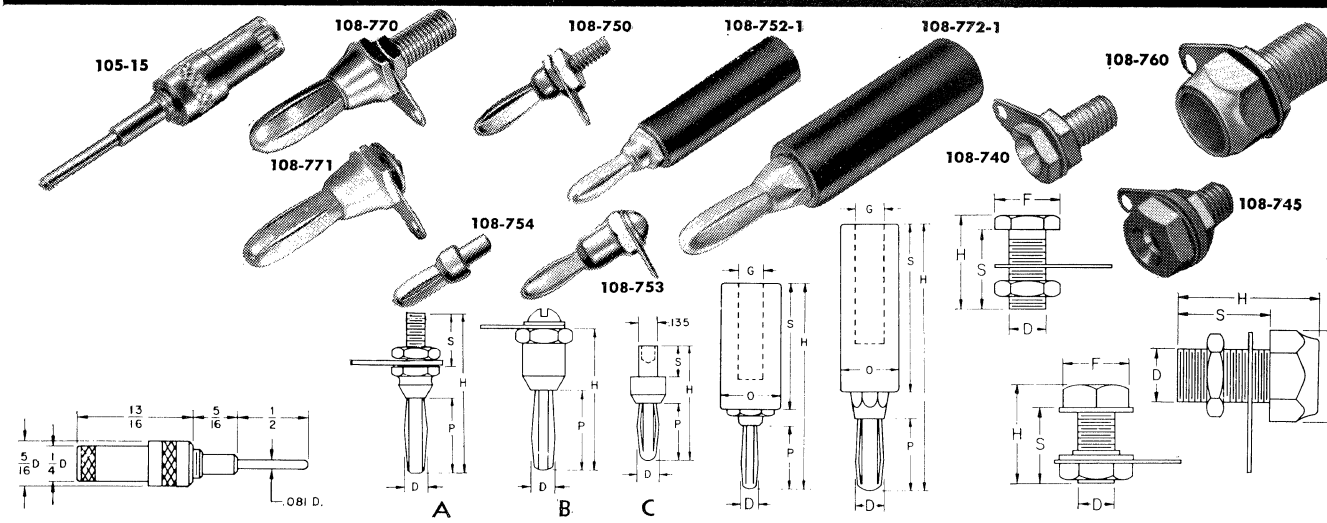
MISCELLANEOUS CONNECTORS



SOLDERLESS PHONE TIP PLUGS

Solderless phone tip plugs with knurled nickel-plated brass body and sleeve – construction permits leads to be firmly secured without soldering. 3/16" pin . . . last 1/2" of tip .081" diameter. For use with all standard tip jacks.

Cat. No. 105-15 ..... **Net Price $0.20**

STANDARD BANANA PLUGS

This group of standard banana plugs has accurately machined brass studs which extend the full length of the plugs, providing extra strength. Springs are nickel-silver—highly resistant to corrosion. Bodies and hardware .0001 nickel-plated. All banana plugs listed below, are available with beryllium copper springs and nickel, cadmium, or silver plating, when desired. A wide selection of miniature solder-type plugs is also available on special order – however quantities in special platings or plugs should be sufficiently large for economical production runs. Solder terminal and nut or screw furnished.

Cat. No.	Dwg.	S	P	D	H	Thread	Net Price
108-750	A	3/8"	17/32"	.175"	1 1/8"	6-32	$0.14
108-750-2	A	3/4"	17/32"	.175"	1 1/2"	6-32	.15
108-753	B	...	17/32"	.175"	15/16"	6-32	.15

This banana plug is similar to the standard types listed above, except that it is designed for riveting. Springs are beryllium copper, cadmium-plated.

108-754	C	7/32"	13/32"	.155"	13/16"	....	$0.10

Jumbo type banana plugs with accurately machined brass studs extending full length of the pins. Nickel-silver springs. Bodies and hardware .0001 nickel-plated. With solder lug and nut or screw.

108-770	A	5/8"	3/4"	.300"	1 25/32"	1/4"-28	$0.35
108-771	B	...	3/4"	.300"	1 1/8"	10-32	35

STANDARD INSULATED BANANA PLUGS

These standard size insulated banana plugs are equipped with plastic handles, brass nickel-plated bodies, and nickel-silver springs. The 108-752-1 has a black plastic handle—the 108-752-2 has a red plastic handle.

Cat. No.	S	P	D	H	G	O	Net Price
108-752-1	1 3/8"	17/32"	.175"	2 1/8"	7/32"	7/16"	$0.30
108-752-2	1 3/8"	17/32"	.175"	2 1/8"	7/32"	7/16"	.30

JUMBO INSULATED BANANA PLUGS

These jumbo size insulated banana plugs are similar in design to the standard types listed above, but are somewhat larger in size. With brass nickel-plated bodies, and nickel-silver springs. The 108-772-1 has a black plastic handle – the 108-772-2 has a red plastic handle.

Cat. No.	S	P	D	H	G	O	Net Price
108-772-1	1 3/4"	3/4"	.300"	2 25/32"	3/8"	5/8"	$0.55
108-772-2	1 3/4"	3/4"	.300"	2 25/32"	3/8"	5/8"	.55

STANDARD BANANA JACKS

High quality machined brass banana jack. Nickel-plated. Furnished complete with solder terminal and nut.

Cat. No.	F	D	S	H	Hole Dia.	Thread	Net Price
108-740	3/8"	1/4"	17/32"	5/8"	.166"	1/4"-28	$0.12

High quality machined brass banana jacks with plastic head molded to body. Nickel-plated. Furnished complete with solder terminal and nut. The 108-745-1 is equipped with red plastic head – the 108-745-2 is equipped with black plastic head.

108-745-1	7/16"	1/4"	31/64"	21/32"	.166"	1/4"-28	$0.22
108-745-2	7/16"	1/4"	31/64"	21/32"	.166"	1/4"-28	.22

This jumbo banana jack will accommodate plugs such as the 108-770 and the 108-771 listed above. Machined brass, nickel-plated. Furnished complete with solder terminal and nut.

108-760	9/16"	5/8"	21/32"	1"	.277"	5/8"-32	$0.35

PRINTED CIRCUIT PLUGS AND JACKS

Designed for use in printed circuits. Tough, low-loss plastic construction per MIL-P-17091. Horizontal and vertical tip jacks designed to accommodate .080" tip plug. **Choice of 10 molded colors for coded applications, see color ordering information on next page.**

HORIZONTAL JACK

Unique design accepts .080" dia. tip plug in either end, or from top or bottom! Silver-plated beryllium copper formed contact. Two terminals.

Cat. No.	Color	Net Price
105-750	(10 colors, see preceding page)	$0.08

VERTICAL JACK

Mounts through single .052" hole, requires minimum mounting area. Silver-plated, machined beryllium copper-contact.

Cat. No.	Color	Net Price
105-850	(10 colors, see preceding page)	$0.11

SUB-MINIATURE TIP PLUG

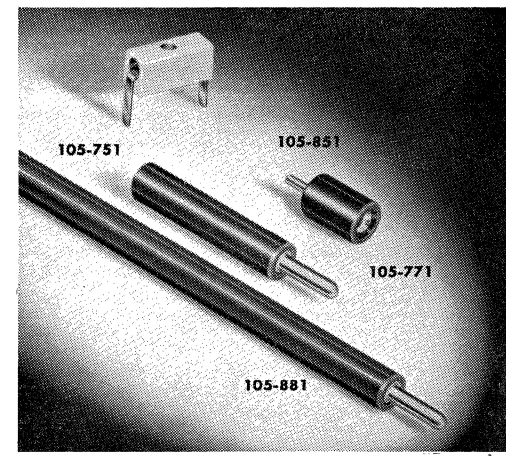
For use with miniature jack, .080" dia. tip. Nickel-plated machined brass body, solder type lead connection.

Cat. No.	Color	Net Price
105-770	(10 colors, see preceding page)	$0.14

LONG HANDLE TIP PLUG

For use with horizontal, vertical, or standard .080" diameter tip jacks. Four-inch nylon handle for ready access to "hard to reach" test points. Nickel-plated machined brass body, solder type lead connection.

Cat. No.	Color	Net Price
105-880	(10 colors, see preceding page)	$0.25



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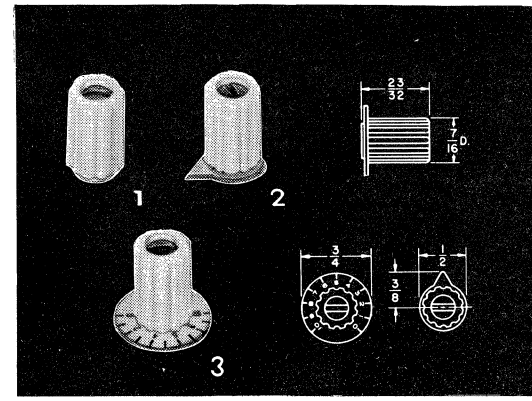
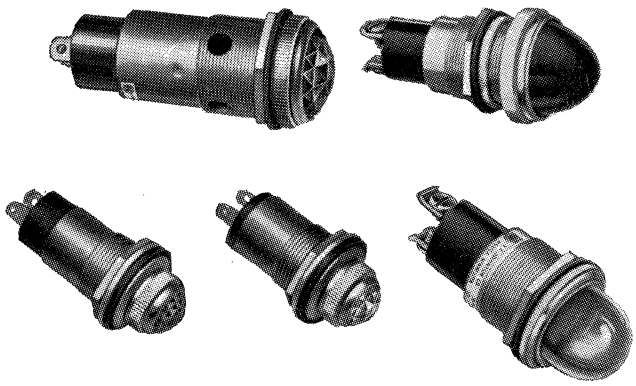
COLLET KNOBS



These molded knobs and dials for 1/8" shafts offer fresh, modern styling with a tough, shock-proof, high quality body. Ideal for laboratory and test instruments — collet and nickel-plated locking screw provide firm internal attachment. Available in 10 bright, molded colors to Federal Standard No. 595. Specify color desired by adding color number as indicated on chart below to the 5th and 6th digits of the series number listed in the price chart. Example: To order 116-550 in violet, request 116-562.

Color	No.	Color	No.	Color	No.
White	01	Orange	06	Violet	12
Red	02	Yellow	07	Grey	13
Black	03	Brown	08		
Dark Green	04	Dark Blue	10		

Cat. No.	Description	Illustration	Net Price
116-400	BASIC KNOB	1	**$0.20**
116-500	POINTER KNOB	2	**.25**
116-550	DIAL KNOB 10-0/180	3	**.42**
116-600	DIAL KNOB 10-0/270	3	**.42**

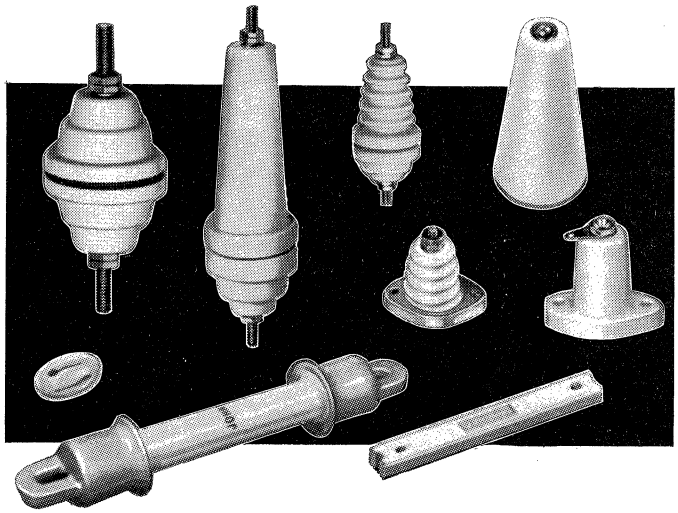


PILOT LIGHTS

Cut valuable specification time by selecting your panel indicators from Johnson's "preferred" line. This group contains more than 47 separate assemblies carefully selected from Johnson's standard line by many of the nation's top design and development personnel. Available in a wide variety of types, these "preferred" units are immediately available at parts distributors throughout the country, for original equipment or in-the-field replacement.

Available Types Include: Continuous Indication Neon Types; models for High and Low Voltage Incandescent bulbs; Standard or Wide Angle Glass and Lucite Jewels in Clear, Red, Green, Amber, Blue or Opal. Specials, including those meeting military specifications are also available in production quantities.

NOTE: For detailed specifications and prices on "preferred" types as well as the complete line of Johnson Pilot Lights, write for your copy of our newest Pilot Light Catalog. See how easy it is to select the "right" pilot light . . . fast!



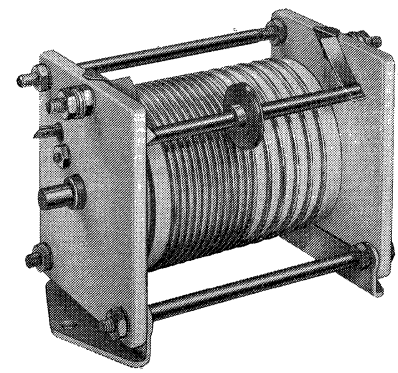
STEATITE AND PORCELAIN INSULATORS

Available in a wide line of standard types, Johnson low-loss steatite and porcelain insulators are readily available for almost any electronic application. Fracture resistant, dense molded and glazed for low moisture absorption, Johnson stand-off and feed-thru types are designed with extended creepage paths for maximum voltage breakdown ratings — heavy integral mounting bases withstand high compression loads and considerable lateral stress. Insulators are equipped with heavily nickel-plated brass hardware — excellent for exposed applications . . . feed-thru types are available with jacks to accommodate Johnson or other standard banana plugs.

Complete Line Includes the Following: Insulated Thru-Panel Bushings; Thru-Panel Insulators; Antenna Strain Insulators; Feeder Insulators; Steatite Cone Insulators; Steatite and Porcelain Stand-off Insulators; Lead-In Bushings; and Feed-Thru Bowl Assemblies.

NOTE: Our current Components Catalog lists detailed specifications and prices on the complete Johnson insulator line. Write today for your free copy.

"229" WIRE-WOUND VARIABLE INDUCTORS



Steatite insulated variable inductors for amateur transmitters or low power commercial equipment. Variable pitch, tinned copper wire windings on grooved steatite forms. 1/4" shafts extend 1/2" both ends. "L" dimension over mounting feet.

Cat. No.	Induct-ance	Current in Amps	Mounting Dimensions	Overall Dimensions L	W	H	Wire Size	Net Price
229-201	10 uh	3	3 15/16"	4 3/8"	2 1/2"	2 31/32"	No. 14	**$11.50**
229-202	18 uh	5	5 15/32"	5 29/32"	2 1/2"	2 31/32"	No. 12	**12.50**
229-203	28 uh	5	6 23/32"	7 5/32"	2 1/2"	2 31/32"	No. 12	**13.25**

E. F. JOHNSON COMPANY
WASECA, MINNESOTA, U.S.A.

Net
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Keys and Practice Sets

DELUXE SEMI-AUTOMATIC KEYS

Adjustable from lowest to highest speeds, this handsomely finished semi-automatic key has a smooth, easy action. Vibrator, posts, circuit closing switch, and all machine parts heavily chrome plated. Five adjustments with lock nuts—molded plastic paddles adjust separately to best height. Steel base 6¼" x 3½" x ½"—complete with adjustable weight and rubber feet.

Cat. No.		Amateur Net
114-500	⅛" contacts, black wrinkle base	$20.30
114-501	¼" contacts, polished chrome base	25.50

SPECIAL SEMI-AUTOMATIC KEY

Many operating features—attractively finished, black wrinkle enamel base. All hardware and vibrator heavily chrome plated. Same vibrator as on deluxe key. Easy action, adjustable from lowest to highest speeds. ⅛" coin silver contacts — circuit closing switch — rubber mounting feet.

Cat. No.		Amateur Net
114-520	Special Model, Semi-Automatic	$17.75

HEAVY DUTY KEYS

Heavy die cast base, chrome plated key arm. Well insulated for heavy duty service. Large ¼" coin silver contacts. Improved Navy-type knob. Adjustable steel bearings and spring design give light keying touch.

Cat. No.		Amateur Net
114-320	Black wrinkle enamel base	$4.95
114-321	Polished chrome plated base	5.85

STANDARD KEYS

Heavy die cast base. Smooth adjustable bearings. Provision for plugging in semi-automatic keys. ⅛" coin silver contacts. A high quality key at a low cost.

Cat. No.		Amateur Net
114-310	Black wrinkle, no switch	$3.50
114-310-3	Black wrinkle with switch	4.25
114-311	Chrome plated, no switch	5.50
114-311-3	Chrome plated with switch	6.50

HIGH SPEED STANDARD KEYS

Fully adjustable spring tension, contact spacing and bearings. Brass base and binding posts—instrument lacquer finish. .072" platinor contacts.

Cat. No.		Amateur Net
114-100	R48 Key, satin brass, no switch	$6.95
114-100-3	M100 Key, satin brass with switch	7.95

PRACTICE KEY

An inexpensive practice key—perfect in design for the average beginner. All the metal parts are nickel plated. Furnished with an adjustable key arm, spring and smooth action bearings. Contacts are of ⅛" coin silver.

Cat. No.		Amateur Net
114-300	Molded phenolic base	$2.40

PHENOLIC BASE KEYS

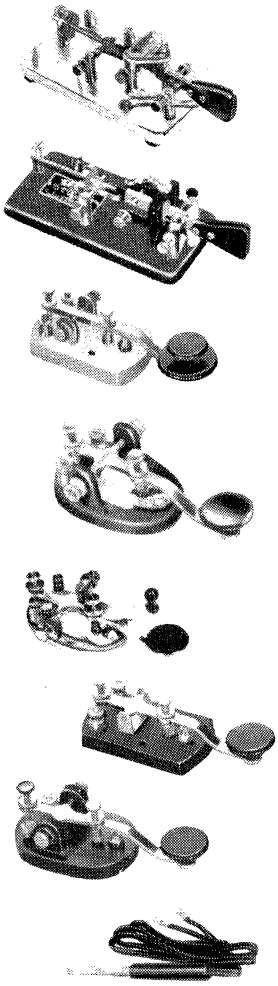
High quality key with adjustable bearings. Improved spring-pigtail connection. ⅛" coin silver contacts—nickel plated metal parts.

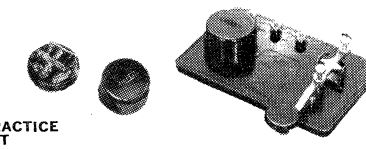
Cat. No.		Amateur Net
114-301	Molded phenolic base, no switch	$2.50

CORD AND WEDGE

Cord and wedge for easy attachment of semi-automatic key across circuit-closing switch of a standard hand key. Used almost universally by railroad telegraphers—ideal for amateur service where both hand key and semi-automatic are used.

Cat. No.		Amateur Net
114-380	Cord and wedge	$1.15





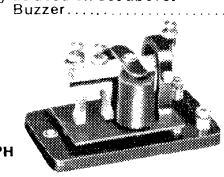
PRACTICE SET

Constant frequency buzzer and key on a 4" x 6" molded bakelite base. Buzzer tone is fully adjustable. Coin silver contacts. Uses two dry cells or "C" battery. Connect singly or in pairs for code practice.

Cat. No.		Amateur Net
114-450	Practice Set	$5.25

Buzzer only as used on set above.

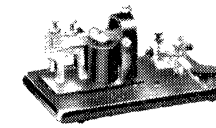
114-400	Buzzer	$1.85



TELEGRAPH SOUNDER

Designed for instant response, brass sounder provides clear, resonant tone. Steel bar frame, black enamel finish. Brass bridge and adjustment screws, instrument lacquer finish. Sounder plate is black lacquered steel. Mahogany finished wood base, brass binding posts and rubber mounting feet.

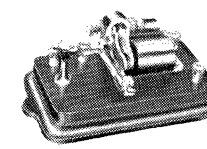
Cat. No.		Amateur Net
114-112	Sounder (4 ohms)	$11.50
114-113	Sounder (20 ohms)	11.95



LEARNER SET

Telegraph practice set. Bar frame steel, brass bridge and adjustment screws. Brass lacquer finish. Brass sounding bar—black lacquered steel sounder plate. Adjustable black nickel-plated key arm. High impact polystyrene base, black matte finish, brass binding posts, rubber feet.

Cat. No.		Amateur Net
114-110	(4 ohms)	$15.50
114-111	(20 ohms)	15.50

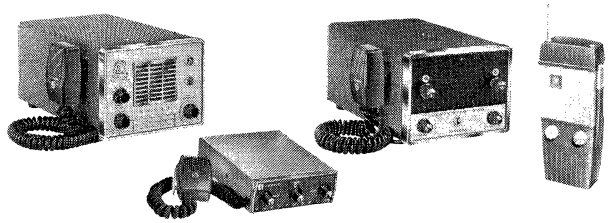


PONY RELAY

Polished, plated steel armature—all other metal parts, brass with lacquer finish. Heavy duty magnets. Mahogany finish wood sub-base—cast iron black enamel base.

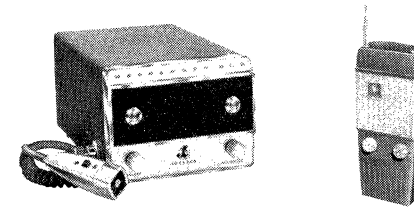
Cat. No.		Amateur Net
114-105	(20 ohms)	$17.50

Citizens Band Equipment



Hundreds of uses — ideal for builders, contractors or other "on the job" applications. Used by hunters, fishermen, or sportsmen. Anyone can operate . . . no examination necessary . . . license issued by the FCC on request.

Industrial Radio Equipment

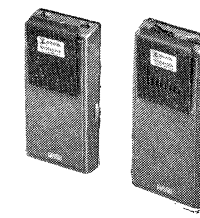


Every feature you could want for solid, low-cost 25 to 50 mc. Industrial Radio. Plenty of range for most industrial applications. Basic design and circuit performance-proved under thousands of exacting, mobile, marine, and field conditions with outstanding results!

Amateur Radio Equipment

Amateur Radio is "adventure" — and the fortunate amateur owning Viking equipment enjoys the maximum amount of operating pleasure and performance. Johnson offers a complete line of amateur transmitters and station accessories . . . a line that's "first choice of amateurs the world over!"

Radio Paging Equipment



"Messenger" Selective Radio Paging Systems . . . a valuable new management tool for men on the move! Reach key personnel instantly, privately. Built for day-in and day-out reliability. Tiny receiver slips into coat or jacket pocket, or fits into a leather belt pack. Saves hours and dollars — in seconds!

E. F. JOHNSON COMPANY

WASECA, MINNESOTA, U. S. A.

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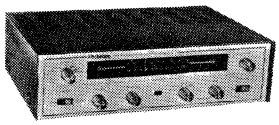
Net

Philmore Guaranteed ELECTRONIC COMPONENTS

COMPLETELY INTEGRATED 30 WATT* STEREO RECEIVER



No. ST4000
Net Price
$123.50

Latest in design and engineering, includes FM-AM - FM Multiplex, and Stereo Amplifier.
- Automatic locking of stereo broadcasts
- 30 Watts peak power*
- Drift free and static free reception
- Fly wheel tuning
- Clear view slide rule dial
- Just add speakers for a complete Stereo system
- AFC Control
- Special rocker-type switches

SPECIFICATIONS

FM Tuner Section

Antenna Impedance:	300 ohms
Frequency range:	88 to 108 MC
Sensitivity:	3UV
Selectivity:	250KC plus at 6db down
Multiplex channel separation:	30db
Maximum AFC Action:	7UV for 20db quieting

AM Tuner Section

Frequency range:	535 to 1620KC
Sensitivity:	600KC = 275UV 1000KC = 225UV 1400KC = 185UV
Selectivity:	at 3db down = 7KC
Antenna:	Built-in Ferrite loop

Amplifier Section

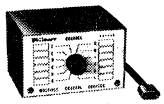
Maximum power:	10 Watts Music Power each channel 15 Watts Peak Power each channel
Distortion:	at 5% = 3.5 Watts each channel
Output terminals:	4, 8 and 16 ohms
Input terminals:	Phono, and auxiliary
Frequency Response:	±2db from 30 to 18,000 CPS
Tone Control Action:	±9db at 10KC
Tubes:	13 tubes plus 5 diodes
Power Source:	117 Volts AC, 50/60 CPS
Cabinet Size:	15¾" wide x 12" deep x 4¾" high

The cabinet is classic in design, will fit any decor. Charcoal Blue cabinet, Silvertone Gray panel with matching knobs of Silvertone Gray, trimmed in Charcoal Blue.
No. ST4000 ..... Net Price $123.50 ea.

MULTIPLE C/B CRYSTAL ADAPTERS

12 Channel Crystal Selector switch assemblies, housed in smartly styled cabinet.
- 12 position switch for exact frequency location.
- 20" coaxial cable is fitted with 2 prong plug, which eliminates all soldering.
- Etched front panel allows C/B'er to fill in desired channels.
- Will operate up to 12 different channels.
- Indicator knobs are supplied to pin point the exact channel desired.
- Compact cabinet. Size 4¼" x 3⅝" x 2⅝".
- Supplied with 12 Ceramic sockets.

Available in two models.



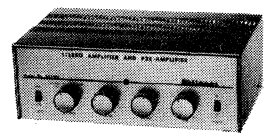
Model No. CB150, designed to operate on either the transmit or receive section of the C/B Transceivers.
No. CB150 ..... Net Price $9.95 ea.

Model No. CB155 has the same operating characteristics as the model CB150, but includes the additional outstanding feature, which enables the user to operate six transmit channels and six receive channels simultaneously. Supplied with two 20" coaxial cables fitted with 2-prong plugs.
No. CB155 ..... Net Price $12.95 ea.

HI-FI TURNOVER CRYSTAL CARTRIDGE WITH TONE ARM

Contains the CX401 cartridge with two Sapphire needles, 30 to 11,000 cps., 6 Volt output. Includes arm rest and hardware. Spring counter balanced aluminum arm. Needles are very easily replaceable. Individually boxed.
No. C401 ..... Net Price $2.65

14 WATT STEREO AMPLIFIER AND PRE-AMPLIFIER



Model No. SA1400
Net Price
$39.50

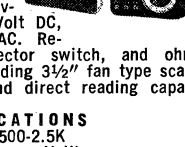
For the discriminating Hi-Fi enthusiast, who is also budget minded. Slim and compact (10½" x 6⅜" x 3¾") in appearance, features a built-in Pre-amplifier to accommodate a reluctance type cartridge. Also incorporates a separate switch selecting the type of cartridge to be used. Has four position mode selector, pilot light indicator, and convenient AC receptacle located on rear of chassis.

SPECIFICATIONS

Output Power:	14 Watts (7 Watts per channel)
Output Impedance:	4, 8 and 16 ohms
Frequency Response:	±1db, 40 to 16000 CPS.
Harmonic Distortion:	Less than 1%
Hum and Noise Level:	50db below rated output
Input for Full Output Phono:	5mV Magnetic 300mV Ceramic or Crystal
Tuner or Auxiliary:	300mV
Selector Switch:	Stereo-Phono, Tuner and Auxiliary Monaural-Phono, Tuner and Auxiliary
Tone Control:	More than — 11db at 10000 C/S
Power Supply:	117 Volts, 50/60 CPS. 85 Watts
Controls:	Input Selector, Selector, Volume Control, Balance Control, Tone Control and Power Switch
Cabinet:	Smart Hammertone Gray finish with Silver etched front panel.
Dimensions:	10½" x 6⅜" x 3¾"
Tube Compliment:	6BM8-2 12AX7-1 6CA4-1

No. SA1400 ..... Net Price $39.50 ea.

20,000 OHMS PER VOLT MULTITESTER



A ruggedly, compact, precision Multitester. Sensitivity is 20,000 ohms per Volt DC, 10,000 ohms per Volt AC. Recessed nylon range selector switch, and ohms adjustment knob. Easy reading 3½" fan type scale, positive locking jacks, and direct reading capacitance scale.

SPECIFICATIONS

DC Voltage:	5-25-50-250-500-2.5K (20,000 ohms per Volt)
AC Voltage:	10-50-100-500-1000 Volts (10,000 ohms per Volt)
DC Current:	0-50uA, 0-2.5MA, 0-250MA
Resistance:	0-6K, 0-6 mg (330 ohm and 30K at center scale)
Capacitance:	10uuF to .001uF .001uF to .1uF
Decibels:	−20 to +22 DB

Molded bakelite case 4½" high x 3¼" wide x 1⅛" deep. Supplied with smart leather carrying case, test leads, instructions and battery. Uses one standard penlite type battery.
No. M20K ..... Net Price $10.95 ea.

NEON PANEL LAMPS

Gives direct indication on 115 and 230 volt AC-DC lines. Totally enclosed with Jewel and lamp, 1" long. Mounts in 5/16" panel hole. Complete with mounting nut and washer. Uses external resistor 100K ohms for 115 volt, and 270K ohms for 230 volt. Available in Red, Clear or Yellow lens. Individually boxed. Specify color.
No. NL50 .....Net Price $.42 ea.

SHIELDED PHONE PLUG ADAPTER

Has RCA Type Phono Jack at one end, standard 2-way phone plug at other end. Grey molded thermo-plastic jacket for easy grip. Overall length 2½". Packed 5 to a clear plastic bag.
No. 114 ..... Net Price $.35 ea.

COMPACT TRANSISTORIZED CITIZENS BAND WALKIE-TALKIES

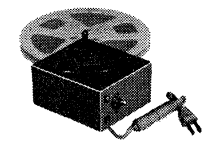
Completely wired, ready for instant use. Up to ½ mile communications. Fit any shirt pocket. (3⅞" x 2½" x 1⅜"). Furnished in attractive sturdy plastic cabinet, with handy leatherette carrying case. No license required. Simply flip on the switch, push the button on the push-to-talk switch, and the C/B'er is on the air.

SPECIFICATIONS

Transmitter:	Crystal Controlled (27.125MC)
Receiver:	Super-Regenerative Detector
Antenna:	5 Section
Range:	Up to ½ mile
Speaker-Microphone:	PM Type
Transistors:	3
Battery:	9 Volt (supplied with each unit)
Packaging:	Pair of Walkie-Talkies nested in attractive box

No. WT3 ..... Net Price $22.95 per pair

BULK TAPE ERASER



Place the reel on the spindle, and by rotating two or three times, completely erases recordings and noise from all size tapes up to 7" reels. Residual ratio: - 60db. Also demagnetizes metal parts and tools, by simply passing these items over the surface. Has on-off toggle switch and built-in pilot light. Operates on 105-125 Volts AC, 60 cycle. Enclosed in a durable Grey hammertone finished cabinet, with a non-magnetic top. Cabinet is fitted with four rubber feet. Cabinet size 4¾" long x 4⅛" wide x 2⅝" high.
No. BTE ..... Net Price $10.95 ea.

LAPEL TYPE CRYSTAL MICROPHONE

Supplied with sub-miniature plug attached to 5 foot gray plastic covered shielded cable. Suitable for Tape Recorders, P A Systems, etc. Specially designed for crisp speech reproduction. Supplied with lapel spring clip. Chrome plated finish on die cast case. Length of plug 1⅛".

Specifications:
- Size: 1½" diameter x ½". Net weight 1½ ounces.
- Frequency Response: 70 to 8000 CPS
- Sensitivity: −50 db
- High Impedance, non-directional.

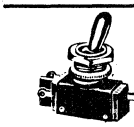
Skin packed on individual display card for peg-rack sales.
No. LM101 ..... Net Price $1.65 ea.

TELEPHONE PLUG & JACK

PLUG: 4 prong male plug for portable telephones. Ivory color. Provided with screw terminals and screws for quick convenient installation. Individually packaged for peg-rack sales.
No. TP1 ..... Net Price $.75 ea.

JACK: 4 prong jack for portable telephones. Ivory color. Provided with screw terminals and mounting screws. Mate for our No. TP1 telephone plug. Individually packaged for peg-rack sales.
No. TJ1 ..... Net Price $.87 ea.

TOGGLE SWITCHES



BAT HANDLE

Manufactured by H. & H. for Philmore. Rated at 3 Amps, 125 Volts, 1 Amp, 250 Volts. Laminated insulation. Serves many uses. Furnished nickel-plated, with two mounting nuts. UL Approved.

No.	Description	Net
2206	SPST 15/32" Shank	$ .68
2209	SPDT 15/32" Shank	.86
2212	DPST 15/32" Shank	1.26
2215	DPDT 15/32" Shank	1.43

PHILMORE MFG. CO. INC. • Richmond Hill 18, N. Y.

We will be pleased to send our latest Catalog upon request.

Net

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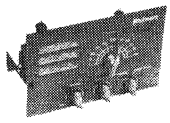
Philmore Guaranteed ELECTRONIC COMPONENTS

NEW IMPROVED THREE TUBE (Including Rectifier Tube) TWO-BAND AC-DC RADIO KIT



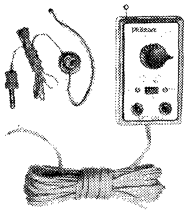
Provides signal strength sufficient to drive a 3½" PM speaker.

Simplified instructions, fully illustrated with pictorial and schematic diagrams, speed assembly. Chassis is completely punched and plated. Panel is attractive gray hammertone, with white silk-screened lettering and dial. Here is a professional radio kit that is perfect for the beginner in radio. When assembled, you have a TWO BAND set, covering the standard broadcast band (550-1650 KC) and SHORT WAVE band (3-13 MC).

No. 7001-CR.....Net $14.50

(Complete with PM speaker, less tubes)
Uses 1 each: 35W4, 50C5 and 12AU6 tubes.

PRIVATE RADIO-TV LISTENER WITH REMOTE VOLUME CONTROL



Housed in compact plastic cabinet (size 2⅞" x 1¾" x 1¾6") incorporating a speaker on-off switch, and built-in remote volume control for convenient listening.

Simple to attach on any make TV, Radio, FM, Phonograph, or HI-FI Sets. Does not interfere with the normal operation of the set. Supplied with 20 feet of Cable, and miniature earphone with plastic covered wire earholder. Has built-in extra jack for additional person to listen.

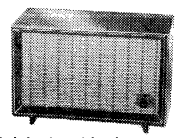
No. TVS ..... Net Price $3.25 ea.

MINIATURE PM SPEAKER

For Transistor and subminiature tube applications. 8-ohm impedance. Exact replacement for most Transistor Radios in use. Speakers are full round without flange. Individually boxed.

No.	Size	Net Price
TS20	2"	$1.10 ea.
TS21	2¼"	1.10 ea.
TS25	2½"	1.10 ea.
TS26	2¾"	1.10 e.a

4" PM SPEAKER IN WOOD CABINET WITH VOLUME CONTROL



Smartly designed walnut finished cabinet, measuring 7¾" x 5¼" x 4". Attractive matching grille cloth. Built-in Volume Control. Also suitable for intercoms and similar applications. Has 2 screw terminal strip on back of cabinet.

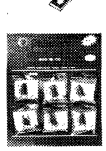
No. WC4 .....Net Price $4.85 ea.

SEESAW SWITCH

SPST with on-off plastic key. Provided with flush mounting bracket. Rated at 3 amp, 125 volts, 1.5 amps, 250 volts.

No. T125 ..... Net Price $ .53 ea.

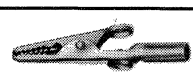
GENERATOR NOISE FILTER



Frequency range 3-30 MCS. (10-11-15 and 20 meters). Maximum current 25 Amps. Provides quiet receiver operation for citizens band, amateur and industrial frequencies. Eliminates electrical interference caused by generator brush noises. Easily installed on any 6, 12, or 24 Volt generator. Each unit individually packed in clear plastic bag, mounted 6 to a Master display card. Instructions included.

No. 9187 ..... Net Price $2.50 ea.

ALLIGATOR CLIP

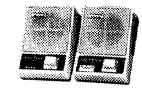


Nickel plated, with Screw connection. Strong spring with hard bite. 2" long. No soldering necessary.

No. 10120 ..... Net Price $.05 ea.

TWO STATION TRANSISTORIZED INTERCOM

No. TC2
Net Price $10.95 Per Set



Beautifully styled high-impact plastic cabinets, with sloping design for full maximum speaker performance. Consists of a master control, and listen-talk push button switch and a remote (sub). Both stations can call each other, even when master is in off position, by pressing either one of the push buttons, which sends a signal. Provides excellent communication between two locations in home, shop or office. Supplied complete with 66 feet connecting cable and plugs, 9 Volt battery, insulated staples, plastic tape and instructions. Size of cabinets 1¾" high x 4" deep x 3" wide. Eye appealing blister packed for quick sales.

ALL-PURPOSE COMMUNICATION DYNAMIC MICROPHONE

For Amateur or C/B use. Mobile or Fixed-Stations.

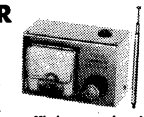
Push-to-talk switch, actuates both microphone and relay circuits. 16½" retracted, 6½ ft. extended 4 conductor (1 shielded) rubber covered coiled cord. Microphone has built-in hanger button. Supplied with standard hang-up bracket..

Sturdy heavy die cast case, 3¼" x 1½" x 2¼". Output Level Impedance Frequency Response
−56db 50K Ohms 200-10,000 CPS

No. DM50 ..... Net Price $9.95 ea.

R.F. STRENGTH METER

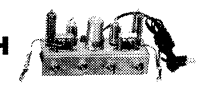
FACTORY WIRED



Single band 1 to 250MC. Includes telescoping antenna, housed in compact grey cabinet, size 3¾6" long x 1 1¼6" deep 2¾6" high. Sensitive indicator checks antenna efficiency, load matching etc. Has earphone jack for monitoring. No battery or power source required. R.F. is measured on an accurate clear plastic meter. Bottom of cabinet has powerful magnets, for attachment on any metal surface. Factory wired.

No. FS20 .....Net Price $7.65 ea.

STEREO PHONO AMPLIFIER WITH TRANSFORMERS



4-tube Stereo Amplifier plus Silicon Rectifier. Neat, compact, fully assembled, furnished with tubes. Two volume controls with on-off switch, two tone controls, standard RCA type input jacks for phono cartridge; features two 2500-ohm output transformers to match 3.2 ohm voice coil.

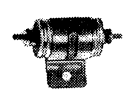
No. PA63D ..... Net Price $12.75 ea.

"L" PAD LEVEL CONTROLS

Adjust and match levels of two or more speakers in system. Brown plastic contour knob. Dial plate calibrated 0 thru 10, 2⅛" square, finished in matte silver and black. Mounts in ⅜" hole in panel. Bushing 1" long.

No.	Impedance	Net Price
LP8	8 ohms	$1.65
LP16	16 ohms	1.65

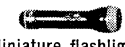
FEED-THRU CAPACITOR



.5mfd. 50WV, 40 amps 1 inch diameter, 1 1⅜6" length. Aluminum container with steel mounting brackets, ¼" mounting hole. Nonturnable, plated stud terminals with mounting nuts and lockwashers, completely insulated from case. Designed to suppress VHF radio interference currents, TVI from Short-Wave transmitters, diathermy machines, electric heating apparatus, generator and ignition coil interference, and line conducted radiation where standard capacitors are relatively ineffective.

No. 9185 ..... Net Price $1.72 ea.

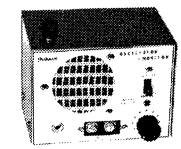
FLASHLIGHT



Miniature flashlight, only 3½" long. Removable end cap. Unbreakable lens. Uses one penlite battery, not included. Supplied in Red and Ivory color combination. Packed 12 to a standard box.

No. T1028 ..... Net Price $.25 ea.

TRANSISTORIZED KEYING MONITOR AND CODE PRACTICE OSCILLATOR



Monitor-Oscillator unit incorporates a slide switch separating the two functions. Equipped with the following features:

- Built-in speaker
- Transistor circuitry using 2 penlite batteries, makes this unit very efficient and economical to operate.
- Separate tone (pitch) control.
- Headphones, or external speaker can be plugged into built-in jack.
- Uses RF pickup link. When located near transmitter final tank coil, will monitor transmitted keying.

Attractively styled, and enclosed in a two color metal cabinet, 4½" wide x 3⅝" deep x 3¾" high. Batteries included.

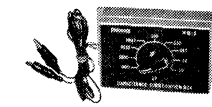
No. FB591 ..... Net Price $14.50 ea.

RESISTANCE SUBSTITUTION BOX

Fast accurate selection of 24 separate resistances, ranging from 15 ohms to 10 megohms, in two ranges, slide switch selected. All resistors are of the moisture proof carbon film deposited type in 1 watt rating. The selection of appropriate resistors is attained by the use of two rotary switches. Complete with 36" Red and Black test leads with plastic insulated alligator clips. Housed in attractive metal cabinet: 4¾" x 2⅝" x 1⅝".

No. RB10 ..... Net Price $3.95 ea.

CAPACITANCE SUBSTITUTION BOX



Fast accurate selection for any of 9 capacitor values is available ranging from .0001 to .22 Mfd. Ranges are .0001, .0010, .0022, .0047, .01, .022, .047, .1 and .22 Mfd. All capacitors are of the moisture proof tubular type, rated at 600 Volts. Complete with 36" Red and Black test leads with plastic insulated alligator clips. Housed in attractive metal cabinet, size: 4¾" x 2⅝" x 1⅝".

No. RB12 ..... Net Price $2.95 ea.

LIGHTWEIGHT DYNAMIC PHONES

For private listening on transistor sets, hearing aids, radio sets and TV sets. Equipped with slim plastic covered metal ear support. With either our No. 660 Ultra-Miniature plug, 15⁄16" length, or our No. 702 sub-miniature plug, 1⅛" length, and 38" flexible plastic cord. Individually packed in clear plastic bags.

No.	Description	Net Price Ea.
140 P-6	8 ohm with No. 660 Plug	$.33
140 P-7	8 ohm with No. 702 Plug	.33
140 P-6-15	15 ohm with No. 660 Plug	.33
140 P-7-15	15 ohm with No. 702 Plug	.33

SUBMINIATURE PUSHBUTTON SWITCH

S.P.S.T. normally open momentary switch. Completely enclosed housing. Mounts in ¼" hole, in panels up to ⅛" thick. Supplied with red plastic button and mounting nut.

No. 2289 ..... Net Price $.22

SUB MINIATURE VARIABLE CAPACITOR

1 Gang 365 mmfd. Overall 1" square. Depth ½", 1¼" diameter clear plastic dial with Calibrations and Knurled edges. For Transistor-RF Circuits, calibrated 530 to 1600kc.

No. 1950D ..... Net Price $.75 ea

PHILMORE MFG. CO. INC. • Richmond Hill 18, N. Y.

We will be pleased to send our latest Catalog upon request.

CITIZENS' BAND RADIO

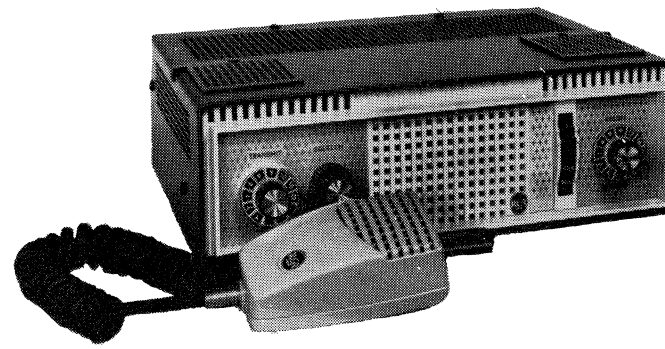
THE RCA MARK VIII Type 17704

The RCA Mark VIII Radio-Phone is a 27 megacycle citizens' band 2-Way Radio designed to provide business and industry with a dependable short-range communications facility. Its low cost and uncomplicated operating features also make it ideal for use by sportsmen.

The Mark VIII may be operated for business or personal use. Although no operator's license is required, a station license is necessary and may be obtained through application to the FCC using the form supplied with the unit. This station license is granted only to citizens of the United States 18 years of age or older, but persons other than licensees, including those under 18, may operate units under the supervision of the licensee.

In many respects, the Mark VIII represents a significant departure from ordinary citizens' band radio design. Its low, slim silhouette (only 3½ inches high) facilitates installation in extremely cramped locations permitting under-the-dash mounting even in today's small cars.

- 9 crystal controlled transmit and receive channels
- Tuneable receiver for reception of all 23 CB channels
- Excellent voice reproduction—high intelligibility
- Built-in ac power supply
- Separate 6 or 12-Volt dc power supply (optional) for mobile installation
- 5 Watt* transmitter—Nominal output 3 Watts or better
- Highly selective superheterodyne receiver with one rf and two if amplifiers
- Fully adjustable squelch circuit to quiet receiver
- Improved Automatic Noise Limiter to reduce effects of ignition and similar interference
- Automatic Volume Control: affords maximum gain of weak signals and limits strong ones
- Unique "message monitor" feature: Calls from nearby stations can be heard even with volume control turned all the way down
- TVI trap eliminates interference with television sets in area
- PI network output assures more efficient antenna coupling—insures peak output
- Electronic switching—no relay noise or chatter
- Audio Output—2½ watts
- Impact resistant plastic push-to-talk ceramic microphone with coil cord
- Rugged metal cabinet with plastic face plate—attractive midnight blue and gray scratch resistant vinyl finish
- Maximum plate input power to final radio frequency stage as defined by FCC Regulations



Mark III Transceiver
(RCA Type 17704, complete) $149.50*

6-Volt dc power supply
(RCA Type 17705A, complete) ..... $ 19.95*

12-Volt dc power supply
(RCA Type 17705, complete) ..... $ 19.95*

NEW RCA MARK NINE

NEW/COMBINATION "S" METER AND RELATIVE RF OUTPUT METER • NEW/SPOTTING SWITCH (READABLE ON METER) • NEW/EXTERNAL SPEAKER JACK • *Plus These Other Important MARK/NINE Features:*

- **9 crystal-controlled transmit and receive channels.**
- **Tuneable receiver for reception of all 23 CB channels**
- **Excellent voice reproduction—high intelligibility**
- **Built-in AC power supply**
- **Separate 6- or 12-Volt DC power supply (optional) for mobile installation**
- **5 Watt* transmitter**
- **Highly selective superheterodyne receiver with one RF and two IF amplifier stages**
- **Fully adjustable squelch circuit to quiet receiver**
- **Improved Automatic Noise Limiter to reduce effects of ignition and similar interference**
- **Automatic Volume Control—affords maximum gain of weak signals and limits strong ones**
- **Includes built in TVI trap**
- **PI network output assures more efficient antenna coupling—insures peak output**
- **Electronic switching—no relay noise or chatter**
- **Audio output—2½ Watts**
- **Impact-resistant push to talk ceramic microphone with coil cord**
- **Rugged metal cabinet with plastic face plate—attractive midnight blue and gray scratch-resistant vinyl finish**
- **Illuminated meter and working channel number**
- **Compact, lightweight—only 3½" high, 11¼" wide, 8" deep—weighs only 9 lbs.**
- **Meets all FCC requirements.**

Only $134.75† AC unit, optional DC power supply (6 or 12-volt)

*Maximum plate input power to final radio frequency stage as defined by FCC regulations.

† User Price (Optional)

One of the more unique features of the RCA MARK NINE is the combination "S" meter and relative RF output meter which provides the operator with a relative indication of the strength of the incoming signal ("S") and of the RF signal he himself is transmitting ("EO"—output voltage).

Another important new feature incorporated in the RCA MARK NINE is the Spotting switch. Use of the "spot" feature permits precise manual tuning of the receiver to any one of the transmit crystal frequencies. This feature has particular value in operations in which a number of vehicles are employed, each operating on a different frequency.

For applications where an additional speaker is required at some remote location, the RCA MARK NINE also incorporates an external speaker jack. Since use of the external speaker does not make the speaker in the unit inoperative, incoming calls can be heard at both locations.

$19.95†

Net

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THE TENNA MANUFACTURING CO. INC. • CLEVELAND, OHIO

RANGER® UNIVERSAL ALL TRANSISTOR AUTO RADIOS

QUALITY BRANDED — A WIDE RANGE OF SOUND

- Deluxe quality and performance
- Modern up-to-date design to complement today's car styling.
- PUSH-BUTTON and MANUALLY OPERATED MODELS BOATS and TRACTORS. 6 volt and 12 volt.
- COMPLETE LINE . . . for all CARS — TRUCKS —

ALL-TRANSISTOR CIRCUIT on etched printed board gives 5 watts of superb audio power. Advanced design assures greater reliability, efficiency of operation, constant uniformity of high quality sound and low current consumption. Makes possible maximum duty at a minimum rate of battery drain. Models TC-100M and TC-200-PB are negative ground only.

AUTOMATIC VOLUME CONTROL provides constant comfort-level listening regardless of the frequent and heretofore annoying changes in signal level.

CONTINUOUSLY VARIABLE TONE CONTROL allows precision and spacious adjustment of both high and low frequencies. (Models TC-300-M and TC-400-PB only.)

WIDE-RANGE SPEAKERS bring a new panorama of listening pleasure. Distortion is at a minimum, yet a greater dimension to the highs and a depth to the lows. Voice clarity is particularly evident.

BUILT-IN RELIABILITY — Tried and proven beyond the shadow of a doubt, the solid state circuit with five transistors successfully eliminates the vibrator, with its common hum and noise interference, and reduces battery drain to an absolute minimum. Repeated quality control checks on all components and circuits, these auto radios are engineered and manufactuured to the highest standards of quality.

FIVE QUICK-SET PUSH BUTTONS mean instantaneous, finger-tip station tuning. They are a snap to adjust to the exact frequencies of your five favorite stations. Extra sharp manual tuning is, of course, available at all times.

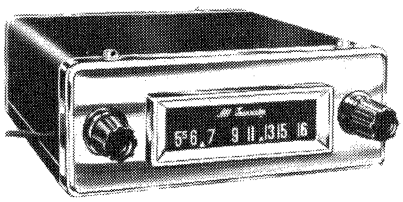
SIMPLIFIED INSTALLATION — Customed designed, each of these compact push button radios slips into the instrument panel in minutes. Conveniently located antenna trimmer, with which a front or rear custom antenna can be tuned with equal ease.

SEVEN TUNED CIRCUITS, including RF stage, give maximum sensitivity and selectivity in station choice. Local as well as certain distant stations, can therefore be brought in with utmost clarity.

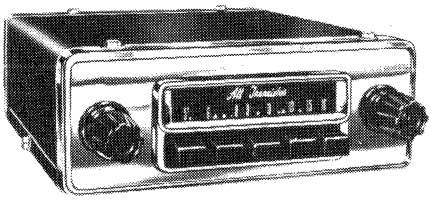
BEAUTIFUL CUSTOM APPEARANCE — Rich radiant chrome blends beautifully with the interior of any car. Full-view, precision calibrated dials are completely illuminated to give perfect dialing vision at all times.

SIMPLE TO SERVICE — All alignments can be made with the cover in place.

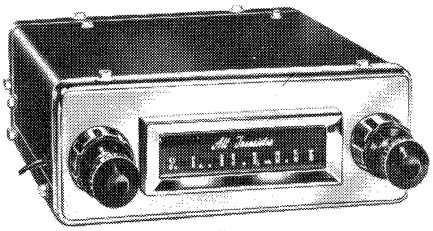
NOTE: CUSTOM INSTALLATION KITS AVAILABLE • WRITE FOR CATALOG



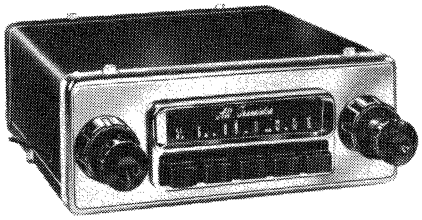
UNIVERSAL MANUAL
Model TC-100-M
12 Volt (Negative ground only) **List $29.98.** Shipping Wt. 5 lbs.



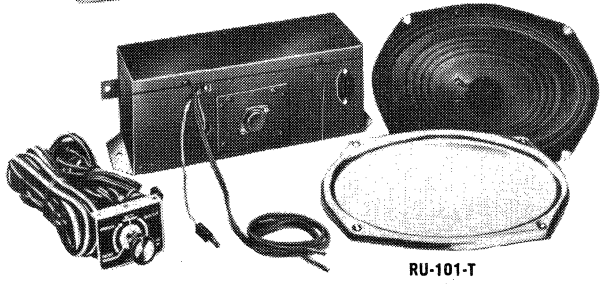
UNIVERSAL PUSH-BUTTON
Model TC-200-PB
12 Volt (Negative ground only) **List $49.95.** Shipping Wt. 6 lbs.



DELUXE MANUAL
Model TC-300-M
6 or 12 volt; negative/positive ground. **List $39.95.** Shipping Wt. 6 lbs.

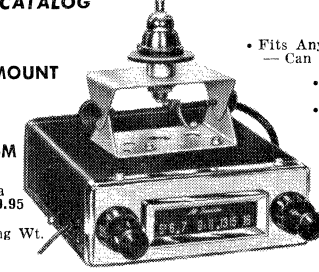


DELUXE PUSH-BUTTON
Model TC-400-PB
6 or 12 volt; negative/positive ground. **List $54.95.** Shipping Wt. 6 lbs.



RU-101-T

TRUCK ROOF MOUNT RADIO
Model TRM-64-M
With Antenna **List $9.95**
Shipping Wt. 8 lbs.



- Fits Any Truck — All Models — All Makes — Can Be Used on Boats and Tractors.
- Anyone Can Install in Minutes.
- Sharp, Modern Styling.
- Corrosion-Proof, Stainless Steel Antenna with Triple Chrome Base . . . Rotates a Full 360 degrees.
- Radio Can Be Transferred Between Vehicles by Addition of TRM Truck Mounting Kits.

RANGER *Play-mate*

The New IN and OUT INSTANTLY PORTABLE AM RECEIVER
FOR CAR — BOAT — TRUCK OR HOUSE TRAILER

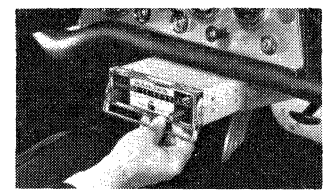
INSTALLED like any car radio . . . used like any portable radio.

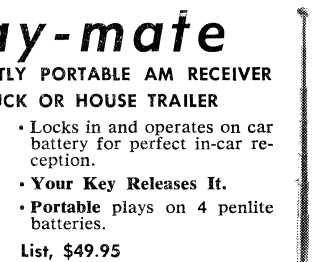
TWICE THE FUN — HALF THE COST

Ideal for — Beach Parties, Ball Games, Picnics, Vacations, Sporting Events.

- Locks in and operates on car battery for perfect in-car reception.
- **Your Key Releases It.**
- **Portable** plays on 4 penlite batteries.

List, $49.95





- Powerful audio.
- Eight ohm speaker.
- Lock-in "Theft-proof"
- Automatic power changeover between auto and portable.
- Easy to install.
- Full year warranty.
- 12 Volt Negative-Positive ground in car.
- 6 Volt on penlite batteries as Portable.
- 8 transistors.
- Size—6½" long, 2" high, 5" depth.
- Weight as Portable — 3 lbs. — shipping weight 6 lbs. each.

The Greatest Adventure In Sound On The Highway

RANGER-MAGIC

A NEW DIMENSION IN LISTENING

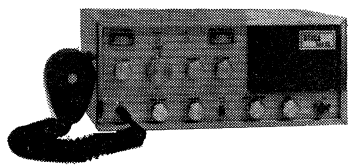
RANGER-MAGIC, when connected to your auto radio, is the nearest thing to stereo sound o the highway. Flick a single button, and instantly music sweeps throughout your car in a warr and wonderful way that is a joy forever. **RANGER-MAGIC** incorporates two electromechanica delay lines, a transistorized amplifier, and a rear deck speaker, to produce a genuine "tw source" musical reproduction. A unique control provides complete fader command, while a singl knob turns **RANGER-MAGIC** "on" and "off" and permits flawless regulation of balance. Mode RU-101-T. **List $32.98.** Shipping Wt. 6 lbs.

Model RU-103-T — Same as RU-101-T, except not equipped with fader command contro **List $29.98.** Shipping Wt. 6 lbs.

UTICA

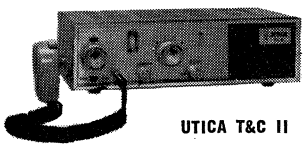
DESIGNERS and MANUFACTURERS OF FINE ELECTRONIC EQUIPMENT

COMMUNICATIONS CORPORATION CHICAGO, ILLINOIS

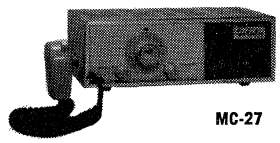


UTICA T&C III

UTICA T&C III—The ultimate in Citizens Band equip., 23 channel xtal controlled transmit & receive (not a synthesized circuit), push-pull modulation, power supply: 117VAC & transistorized 12VDC, 15 tubes & 6 diodes with 26 tube performance, built-in BFO, built-in PA, built-in distance expander, 2 dual purpose illuminated meters, adjustable RF Gain, volume, squelch, noise limiter & tone controls, receiver fine tune control, dual conversion superhet receiver. Comes complete with mic., & 117V power cable.
Model 91-03 ..... **$259.95**



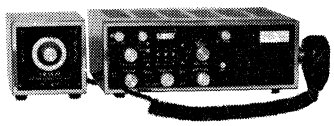
UTICA T&C II



MC-27

UTICA T&C II—Citizens Band Transceiver
6 channel xtal controlled transmit & receive, fully tunable receiver, S meter, output power indicator, external xtal socket, aux. speaker terminal, built-in dual power supply—117VAC & transistorized 12VDC, dual conversion superhet receiver.
Model 91-02 ..... **$162.50**
Model 91-12 VIB—Circuit for 6-12VDC and 117VAC operation **$162.50**

UTICA MC-27 Citizens Band Transceiver
6 channel xtal control, built-in dual power supply — 117VAC & transistorized 12VDC, dual conversion superhet receiver.
Model 91-01 ..... **$142.50**
Model 9-11 VIB circuit for 6-12VDC and 117VAC operation **$142.50**
Both units come complete with mic., 1 pr. of xtals & 1 power cord of your choice.

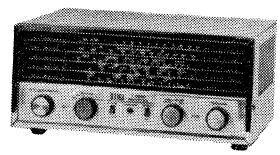


UTICA "650"

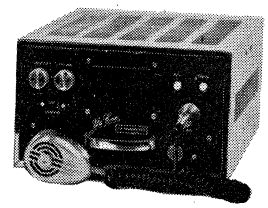
UTICA CD "652"

UTICA "650"—6 Meter Amateur Transceiver
Nominally rated at 22W input, 100% mod., built-in dual power supply for 117VAC or 12VDC operation, VFO in separate cab. included, built-in adj. BFO, dual conversion superhet receiver, series gated self adj. noise limiter, adj. R.F. gain control and squelch control.
Model 92-01 ..... **189.95**
UTICA CD "652"—6 Meter Civil Defense Transceiver for operation on 52-54 Mc. 15W input, receives AM, SSB, & CW, dual conversion superhet receiver, tunable BFO, adj. squelch control, automatic noise limiter, built-in dual power supply for 117VAC & 12VDC.
Model 92-04 ..... **$150.00**
Both units come complete with mic. & 117VAC power cable.

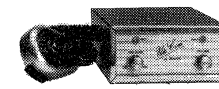
UTICA RECEPTOR



UTICA RECEPTOR—4 Band short wave receiver, 3 short wave bands plus standard AM broadcast, true electrical bandspread, major world-wide short wave stations on slide rule dial, beat frequency control, heavy 3x5 speaker, whip antenna, internal loopstick antenna, headphone jack with automatic speaker cutout, receiver controlled.
Model 92-05 ..... **$64.95**



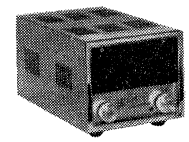
UTI-COM



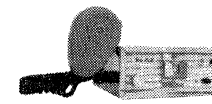
REMOTE HEAD

UTI-COM FM Transceiver for assigned frequencies in the 150-175 Mc FM commercial band. The power supply is available in 117VAC or transistorized 12VDC, modular construction, RF power input: 60W, RF power output: 30W minimum (50 ohm load), emission 20F3 (5.0Kc deviation).
117VAC Model 93-01 ..... **$359.95**
12VDC Model 93-02 ..... **$359.95**

REMOTE HEAD ACCESSORY for Uti-Com FM Transceiver includes speaker, volume control, squelch (channel selector switch for dual freq. models).
Model 93-05 ..... **$41.50**

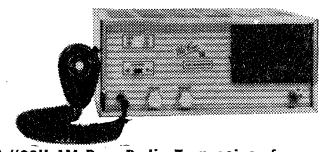


UTICA FMR-12



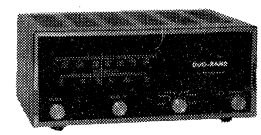
UTI-CALL TONE ALERT

UTI-COM FM RECEIVER—the 12VDC mobile monitor for any of the assigned frequencies on the 150-175Mc FM commercial band with a sensitivity of 3.5uv or better for 20db quieting.
Model 93-06 ..... **$149.95**
UTI-CALL Tone Signal Alert for selective calling of your operators, fully automatic.
For AM & FM Bus. Radio. Model 93-15 ..... **$89.95**
For Citizens Band Radio. Model 91-05 ..... **$59.95**
Also available in a model that will activate the horn in your vehicle for 1 sec.
For AM & FM Bus. Radio. Model 93-16 ..... **$92.50**
For Citizens Band Radio. Model 91-06 ..... **$62.50**



UTI-COM "30"

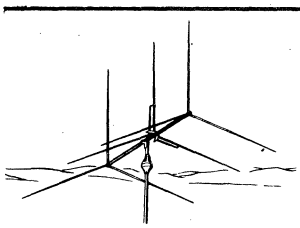
UTI-COM "30" AM Bus. Radio Transceiver for use on the 30-50Mc AM band, 30W input, dual power supply 117VAC & transistorized 12VDC, adj. squelch & volume control, built-in noise limiter, high level push-pull mod., dual conversion superhet receiver, key lock off-on switch, comes complete with 1 pr. of xtals & power cable of your choice.
Model 93-14 ..... **$234.95**



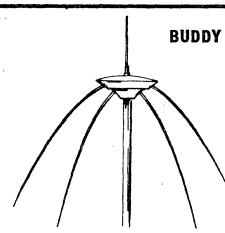
DUO-BAND

AUXILIARY SPEAKER

UTICA DUO-BAND FM RECEIVER, receives the low band (30-50Mc) and the hiband (152-174Mc) & has illuminated slide rule dial, 1 xtal controlled position on each band, dual conversion superhet receiver, squelch control, xtal controlled 2nd oscillator, temp. compensated for drift control.
Model 93-08 ..... **$164.95**
Aux. speaker 93-09 ..... **$ 12.95**



GIZMOTCHY 2 in 1 ANTENNA



GROUND PLANE ANTENNA

GIZMOTCHY 2 in 1
Vertical-horizontal beam antenna for hi-efficiency & greater distance base station performance.
Model 94-01 ..... **$55.95**

GROUND PLANE
Heavy duty grd. plane antenna, pre-matched for 52 ohm impedance.
Model 94-10 ..... **$24.50**

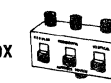
BUDDY WHIP ANTENNA

'HI-QER"
LONG DISTANCE ANTENNA

BUDDY WHIP
96" fibreglass mobile antenna with unique pivot base that permits immediate antenna adj.
Model 94-05
$24.50

"Hi-Qer" Long Distance Antenna
Sturdily constructed fiberglass, omnidirectional fixed station antenna with a VSWR below 1.5:1 across the band.
Model 94-08
$32.95

ANTENNA SELECTOR BOX



ANTENNA SELECTOR BOX
For fast switching from base station to horizontal or vertical beam.
Model 94-04 ..... **$7.50**

UTICA SIGNAL OPTIMIZER

UTICA SIGNAL OPTIMIZER
Single unit to test CB equipment for: antenna power in watts, mod., field strength, antenna output, SWR, station efficiency.
Model 91-07 ..... **$47.50**

Trade Discount Applies To List Prices Only

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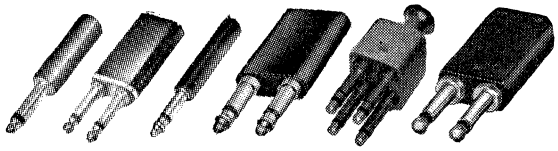
MINNEAPOLIS, MINNESOTA

PLUGS



PJ-5 PJ-1 PJ-3 PJ-6 D7200 PJ-327

PJ-5 **Equivalent, PJ-055, WE-47,** fits ¼" phone jacks. Black plastic shell. Screw terminals. Two conductor. **Net $.78**

PJ-1 **Equivalent WE-241,** heavy duty die cast frame. Black phenolic shell. Self aligning plug prongs on ⅝" center for use with all standard jack panels. Two tip conductors, plus sleeve connection common to both sleeves. **Net $2.55**

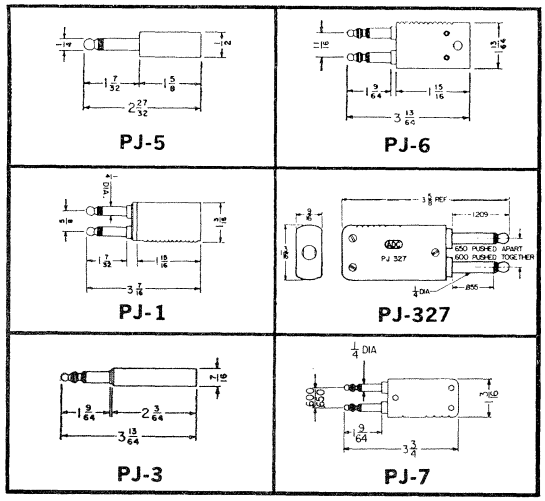
PJ-3 **Equivalent PJ-051, WE-310.** Designed for use with ¼" tip, ring and sleeve jacks. Molded insulation, red plastic shell. Three conductor. **Net $2.40**

PJ-6 **Equivalent WE-213.** Designed for applications requiring two separate 3 conductor circuits. Popularly used with operator's intercom/monitor headsets. Black shell notched for polarity identification. Self aligning plug prongs on 11/16" centers. **Net $9.78**

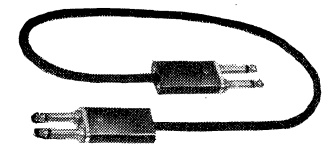
D7200 **Equivalent WE-315B.** Four prong, self aligning plug. Molded insulation. Brass shell notched for polarity is nickel plated and connected to plug stems to provide shielding for tip conductors. For use with four PJ-318 double jacks mounted on ⅝" centers. Five conductors. **Net $14.70**

PJ-327 **Equivalent WE-327.** The PJ-327 Twin Plugs provides two electrically independent, 2 conductor plugs in a black plastic shell which is notched to indicate polarity. Self aligning plug sleeves are on ⅝" centers. Designed and constructed in accordance with Specification MIL-P-642A. **Net $2.55**

PJ-7 Twin type plug with tip, ring and sleeve conductors on ⅝" centers for use with all standard jack panels. Designed to mate with three conductor jacks having ¼" diameter sleeves. Molded insulation. Black phenolic shell is notched to indicate polarity. **Net $7.20**



PATCH CORDS



Length	Cord With PJ-1 Plugs	Net Price	Cord With PJ-5 Plugs	Net Price	Replacement Cords Only	Net Price
6-inch	PJ-10½	$6.38	PJ-50½	$3.48	PJ-20½	$1.11
1-foot	PJ-11	6.60	PJ-51	3.63	PJ-21	1.50
2-feet	PJ-12	6.75	PJ-52	3.84	PJ-22	1.65
3-feet	PJ-13	6.90	PJ-53	4.11	PJ-23	1.74
4-feet	PJ-14	7.13	PJ-54	4.44	PJ-24	1.80
5-feet	PJ-15	7.28	PJ-55	4.77	PJ-25	1.89
6-feet	PJ-16	7.58	PJ-56	5.25	PJ-26	2.49
10-feet	PJ-10	8.10	PJ-50	5.82	PJ-20	3.15

Length	Cord With PJ-3 Plugs	Net Price	Replacement Cords Only	Net Price
2-feet	PJ-82	$8.70	PJ-62	$2.10
4-feet	PJ-84	9.30	PJ-64	2.40
6-feet	PJ-86	9.90	PJ-66	2.82

ADC patch cords have become standards in the communications industry. Unmatched in quality, these shielded cords are made of tinned copper conductor wire with a heavy braided cover reinforced at each end. These cords, as well as cord assemblies with PJ-1 double plugs, PJ-5 or PJ-3 single plugs and standard black patch cords with shields grounded both ends, are considered standard. Unshielded cords or assemblies with shields grounded one end only available on special order. Gray, red, other color cords available on special order.

Four tinsel wire conductors plus shield (shield grounded to both sleeves of PJ-7 plugs). Conductors are rubber insulated. Heavy black braided glazed cotton cover overall.

Length	Cord with PJ-7 Plugs
1 foot	PJ-171
2 feet	PJ-172
3 feet	PJ-173
4 feet	PJ-174
5 feet	PJ-175
6 feet	PJ-176

Four tinsel wire conductors, thermoplastic insulated. Slate colored Nylon braided cover overall resists wear.

Patch Cords Length	Nylon Cord With PJ-327 Plugs
1 foot	PJ-181
2 feet	PJ-182
3 feet	PJ-183
4 feet	PJ-184
5 feet	PJ-185
6 feet	PJ-186

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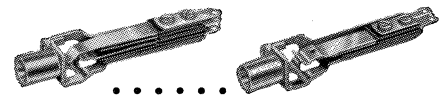
JACKS....



TELEPHONE TYPE

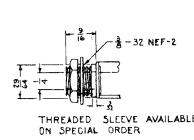
ADC is recognized as a leading supplier of long frame, telephone type jacks. As evidence of their outstanding quality, ADC jacks are used by the country's foremost manufacturers of communication equipment. The unique, ADC one piece frame is strong, dimensionally stable and readily interchangeable both mechanically and electrically with commonly used jacks. Plating withstands 50-hour salt spray tests. Coin silver contacts are welded to nickel silver springs. Lugs are hot tin dipped. Insulation is high grade phenolic.

Schematic Diagram	Jacks	W. E. Equiv.	Frame Style	Net Price
	PJ-115	215-A	A	$ .90
	PJ-116	216-A	A	.90
	PJ-117	217-A	A	.90
	PJ-123	223-A	A	.60
	PJ-125	225-A	A	1.02
	PJ-202	None	C	1.02
	PJ-203	303-A	A	.78
	PJ-204	None	A	1.02
	PJ-205	240-A	A	1.32
	PJ-206	242-A	A	1.32
	PJ-207	285-A	A	1.50
	PJ-208	284-A	A	1.50
	PJ-209	411-A	A	1.02
	PJ-226	226-A	A	1.02
	PJ-237	237-A	A	.87
	PJ-238	238-A	A	.66
	PJ-240	240-C	C	1.23
	PJ-241	241-A	A	1.02
	PJ-242	242-C	C	1.23
	PJ-318	218-A	A	.66
	PJ-336	236-C	C	1.14
	PJ-338	438-C	C	1.23
	PJ-339	239-A	A	.92
	PJ-418	218-C	C	.69

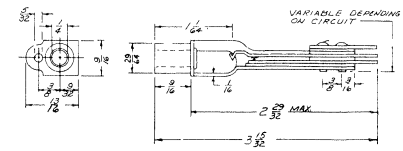
MILITARY JACKS

Designed to meet the rugged, exacting requirements of military applications. These ADC jacks are made in accordance with Mil-J-641B specifications. Highest quality materials and closely held tolerances on dimensions conform with military specifications.

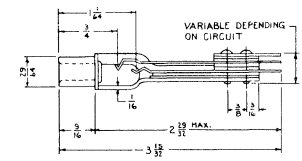
Schematic Diagram	Mil Jacks	Net Price	Schematic Diagram	Mil Jacks	Net Price
	JJ-015	1.17		JJ-073	1.50
	JJ-016	.90		JJ-074	1.17
	JJ-017	1.17		JJ-075	1.50
	JJ-019	1.41		JJ-077	1.71
	JJ-022	.75		JJ-078	1.71
	JJ-024	.75		JJ-084	1.05
	JJ-035	1.17		JJ-085	1.05
	JJ-042	1.02		JJ-086	.66
	JJ-072	1.05		JJ-087	1.17



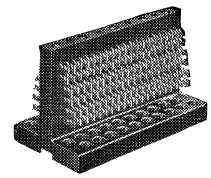
2 Conductor Jack



3 Conductor Jack



TERMINAL BLOCKS



Type	No. Rows	No. Terminals	Net Price
PJ-101	1	20	$3.45
PJ-102	2	40	4.65
PJ-103	3	60	5.85
PJ-104	4	80	7.05
PJ-105	5	100	8.25
PJ-106	6	120	9.45

Molded of durable black phenolic plastic material. Terminals are .040" plated brass. Rows of terminals are graduated in length for ease of wiring, and are identified by numbering along the top row. Base 3" x 6-1/16".

Net

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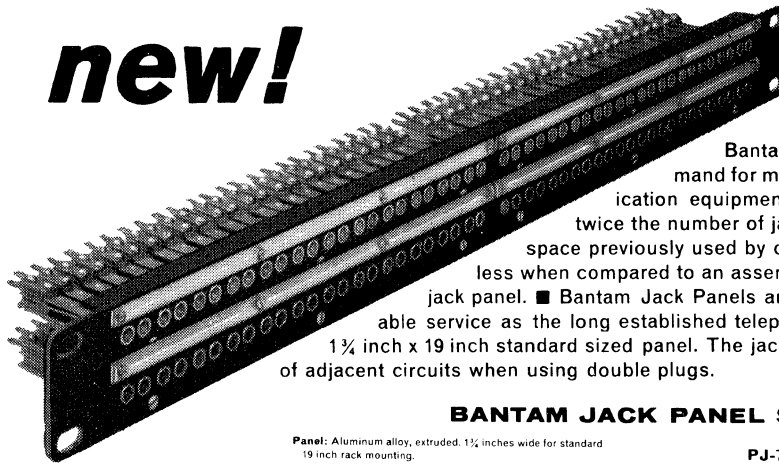
new!



BANTAM JACK PANELS

Bantam Jack Panels are designed to satisfy the increasing demand for more compact patchfields in modern electronic and communication equipment. Bantam Jack Panels, with miniaturized jacks, provide twice the number of jacks in a standard size panel. They require only ½ the rack space previously used by conventional panels. The new panel assemblies weigh 65% less when compared to an assembly using an equivalent number of jacks in a conventional jack panel. ■ Bantam Jack Panels are compact, lightweight, and yet provide the same depend able service as the long established telephone types. This new design offers 96 jacks (48 pairs) in a 1¾ inch x 19 inch standard sized panel. The jacks on this panel are spaced to prevent the cross patching of adjacent circuits when using double plugs.

BANTAM JACK PANEL SPECIFICATIONS

Panel: Aluminum alloy, extruded. 1¾ inches wide for standard 19 inch rack mounting.

Jack Mounting: Four molded plastic inserts, each provides for 24 jacks. Pairs of jacks on ¾ inch centers. Double row panel provides 96 jacks total. Blank inserts can be furnished where only single row of jacks is required.

Panel mounting: Mounting brackets are integral part of panel

Designation Strip: Extruded clear plastic.

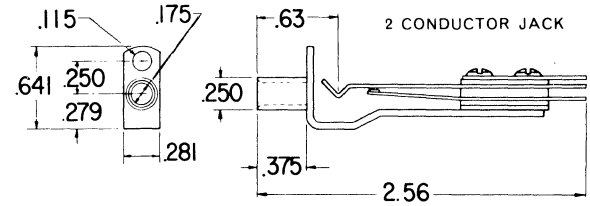
Panel Finish: Anodized, Black.

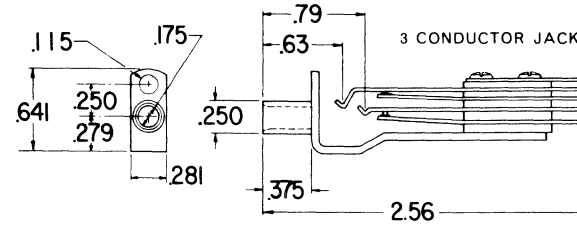
		NET
PJ-731	Double row panel, assembly less jacks, hold 96 jacks.	$ 19.20
PJ-737	Double row panel, with 48 pair (96 total) PJ-818 jacks.	92.40
PJ-739	Double row panel, with 48 pair (96 total) PJ-839 jacks.	116.40
PJ-724	Panel inserts, less jacks, 24 holes.	2.40
PJ-700	Panel inserts, blank (same as PJ-724 without holes).	1.20

Custom panel assemblies with up to 104 jacks are available on special order.

BANTAM JACKS

Bantam Jacks will meet the electrical, mechanical and environmental requirements of the military specification for long frame telephone jacks. Although reduced in size these jacks will provide the same reliable service equal to that expected from regular size telephone jacks. These jacks are available in a variety of two and three conductor types, with isolated circuit contacts as well as normalling contact.





SPECIFICATIONS:

Frame: Steel, Cadmium plate with chromate conversion coating to withstand 50 hours of salt spray.

Springs: Nickel silver.

Contacts: Palladium, cross-bar contacts are welded to springs.

Insulation: Spacers, Phenolic Type PBE-P per Mil-P-3115B.

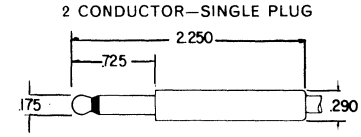
Bushing: Brass, silver soldered to frame. Finish same as frame.

2 conductor—tip and sleeve	PJ-803
2 conductor—tip and sleeve	PJ-818
2 conductor—tip and sleeve	PJ-823
3 conductor—tip, ring and sleeve	PJ-838
3 conductor—tip, ring and sleeve	PJ-839

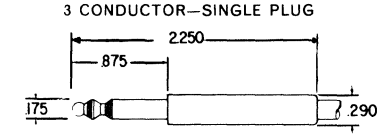
BANTAM PATCH CORDS

Bantam Patch Cords are plastic jacketed, shielded cords complete with molded-on plugs. The plugs are made with molded insulation between conductors. Bantam Patch Cords are available with single and double two conductor plugs and single three conductor plugs. A cord strain relief feature is included in the plug construction.

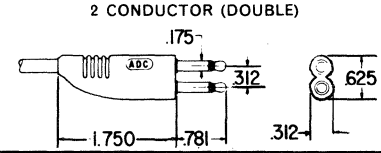
2 CONDUCTOR—SINGLE PLUG



3 CONDUCTOR—SINGLE PLUG



2 CONDUCTOR (DOUBLE)



SPECIFICATIONS:

Cord: Plastic jacketed, shielded tinned copper conductors. Jacket color, Gray.

Plugs: Conductor parts are precision machined of brass.

Plug Insulation: Molded polystyrene, black.

Internal connections: Soldered.

Plug shell: Plastic, molded to cord. Gray.

BANTAM PATCH CORDS

Length	Single (2) Conductor Plug	Net	Double (2) Conductor Plug	Net	Single (3) Conductor Plug	Net
6 inch	PJ-701	$3.30	PJ-751	$3.96	PJ-711	$3.90
12 inch	PJ-702	3.36	PJ-752	4.02	PJ-712	3.96
24 inch	PJ-704	3.42	PJ-754	4.08	PJ-714	4.02
36 inch	PJ-706	3.48	PJ-756	4.14	PJ-716	4.08
48 inch	PJ-708	3.54	PJ-758	4.20	PJ-718	4.20

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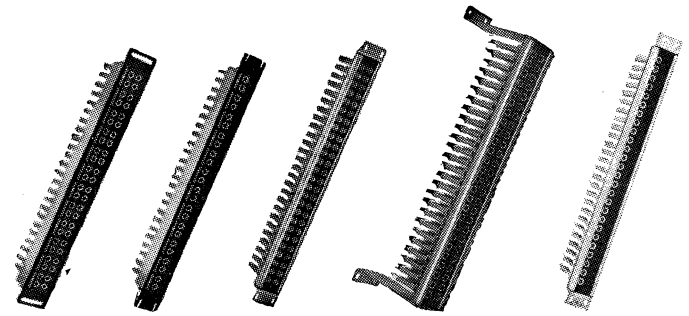
Net

ADC PRODUCTS, INC.

MINNEAPOLIS, MINNESOTA

JACK PANELS...

ADC offers the most complete assortment of jack panels available today. ADC panels are used in television and broadcasting stations, recording studios, industrial paging systems, and communication equipment of all kinds where there is a need to efficiently switch and distribute audio signals. Molded of solid phenolic, reinforced with steel to provide maximum rigidity and strength. Jacks are spaced to permit use of any standard double plug with ⅝" spacing. Mounting brackets and designation strips furnished with each panel. All panels designed to fit standard 19" relay rack. Consult ADC for your standard and special jack panel requirements.

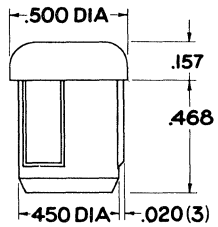


PJ-31 PJ-341 PJ-391 | PJ-33 PJ-343 PJ-393 | PJ-30 PJ-340 PJ-390 | PJ-35 PJ-350 PJ-395 | PJ-36 PJ-360 PJ-396

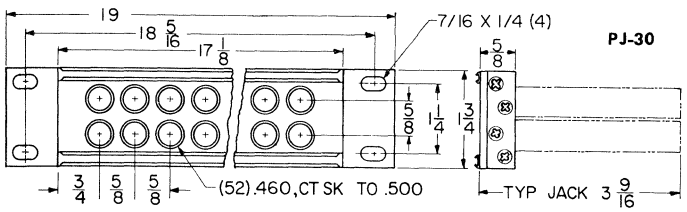
HOLE PLUG

Molded of black polyethylene plastic. Fits all ADC standard jack panels. Made to plug unused jack mounting holes in jack panels.

PJ-29 Net $.15



Panel less Jacks	Net Price	Panel with PJ-318 Jacks	Net Price	Panel with PJ-339 Jacks	Net Price
PJ-30	$12.90	PJ-340	$49.50	PJ-390	$64.80
PJ-31	9.45	PJ-341	42.75	PJ-391	57.30
PJ-33	8.52	PJ-343	25.14	PJ-393	32.40
PJ-35	15.60	PJ-350	52.50	PJ-395	67.50
PJ-36	8.70	PJ-360	27.90	PJ-396	35.10

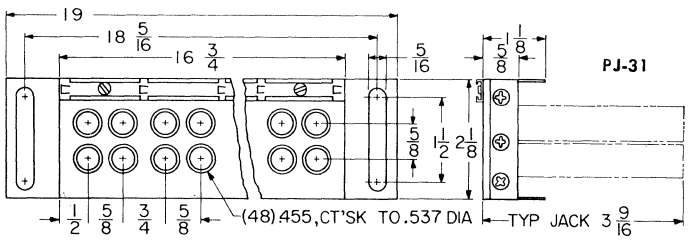


PJ-30

Double panel. Holds 52 jacks—requires 1¾" panel space. Double designation strip. Brackets for flush rack mounting. All jack mounting holes on ⅝" centers.

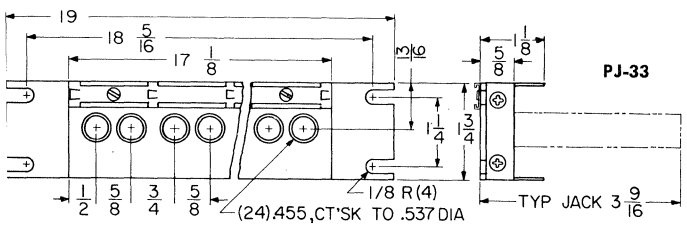
PJ-35

Double panel. Same as PJ-30 except with stand off brackets to hold panel 7" in front of mounting rack.



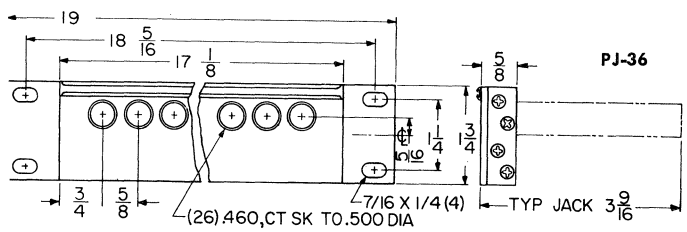
PJ-31

Double panel. Holds 48 jacks. Holes spaced to prevent patching adjacent circuits. Requires 2⅛" panel space.



PJ-33

Single panel. Holds 24 jacks. Holes spaced to prevent patching adjacent circuits. Requires 1¾" panel space.



PJ-36

Single panel. Holds 26 jacks—requires 1¾" panel space. Brackets for flush rack mounting. All jack mounting holes on ⅝" centers.

Panels with mil jacks and other telephone type jacks also available.

Net

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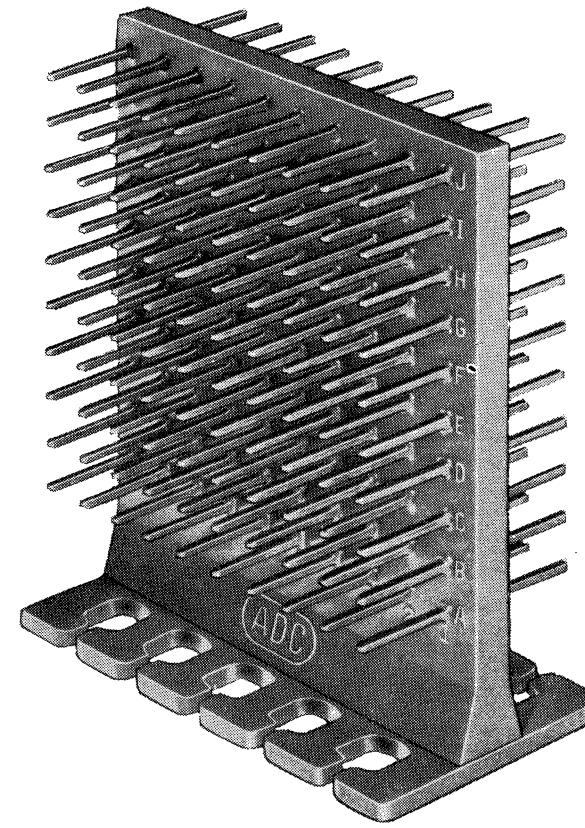
ADC PRODUCTS, INC.
MINNEAPOLIS, MINNESOTA

NEW "WRAPID" TERMINAL BLOCKS FOR SOLDERLESS, WRAPPED WIRE CONNECTIONS



Shown here in actual size is one of a new series of ADC terminal blocks. This model gives you a total of 100 solderless connections in a 2½ inch space.

It's only 3⅜ inches high, 2½ inches wide, and comes in one assembled piece that is mounted in seconds. Standard models available for 40, 60, 80 and 100 connections. Other configurations can be custom made in production quantities.

ONE CONNECTION EVERY FIVE SECONDS

These are solderless, wrapped wire connections. In less than 5 seconds the most inexperienced operator can spin-on a wire and make the most positive connection obtainable. He can make 100 connections in less than 8 minutes using any commercially available wrapping tool.

RUGGED, RELIABLE CONNECTIONS

Wrapped, solderless connections are mechanically stable and have less tendency to break due to handling and vibration than soldered connections. You get clean, metal-to-metal gas tight contact between wire and terminal with permanently low electrical resistance.

Both block and fanning strip are molded of durable, high-impact rubber modified acrylic plastic well known for its dimensional stability, strength and resistance to shock under adverse environmental conditions. Terminals are hard brass and plated for maximum conductivity.

Behind the development of these new terminal blocks is 25 years of experience in meeting rigid military specifications on a wide variety of devices. This is your assurance of top quality performance and long dependable service life.

Letters and numbers provide easy terminal identification.

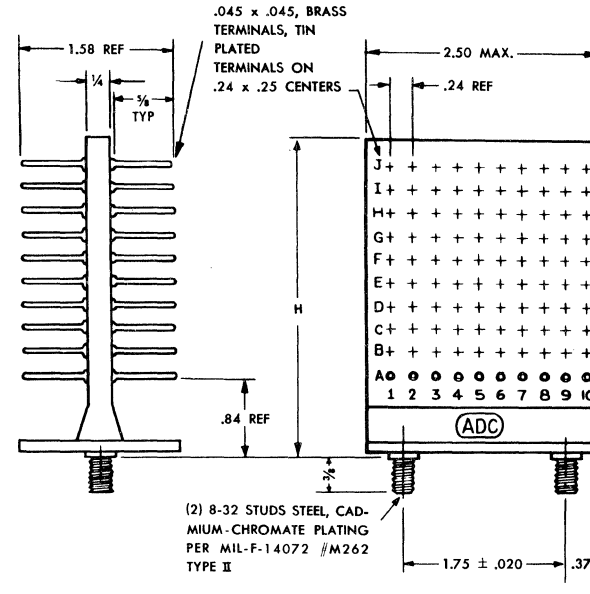
Mounting studs are steel cadmium-chromate plated to withstand 50 hours of salt-spray.

CUT COSTS MANY WAYS

Not only do these new terminal blocks save space and time, they cut production costs.

Wrapped connections depend more on the wrapping tool — less on the operator. The result: the most positive, most uniform connections obtainable — with less need for inspection. The operator makes more connections with far less fatigue.

And, you eliminate expensive solders, connectors, damaging solder splashes, clippings, and deceptive cold-soldered joints.



PJ NO.	NO. OF TERMINALS	H DIM.	NET
PJ 604	40	1.75	$2.64
PJ 606	60	2.25	3.24
PJ 608	80	2.75	3.84
PJ 610	100	3.25	4.44

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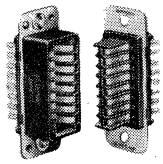
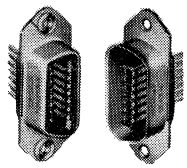
Net

Amphenol® RACK & PANEL CONNECTORS



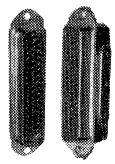
BLUE Ribbon® CONNECTORS

The Amphenol gold-plated ribbon connector provides more contact mating surface than any connector of its type. Applying the principle of the wedge, ribbon contacts exert a continuous flexing action against each other while mated, providing unusually low contact resistance. The Blue Ribbon® contact is self-wiping for reliability throughout its long life, and is available with 8 to 32 contacts. Cable to panel versions are also available.



Micro RIBBON® CONNECTORS

Amphenol's Micro Ribbon® connector is a miniature version of the Blue Ribbon. It features 14 to 50 contacts, low contact resistance, self-wiping action and miniature size.

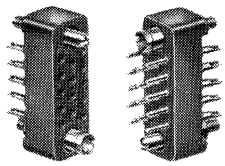


Min Rac 17 CONNECTORS

Amphenol's Min-Rac 17® connector is highly suited for saving needed space for proper ventilation, component mounting, or chassis size reduction. Mounting depth is less than most "shell-less" rack-and-panel connectors. It provides up to 50 Poke-Home® terminals in half the insert space required for standard rack-and-panel connectors. Poke-Home contacts are available in either crimp or solder versions.

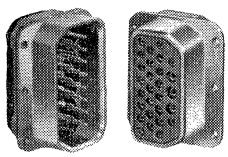
HEX-TYPE CONNECTORS

Amphenol provides a complete family of miniature rack-and-panel and cable-to-chassis connectors for interconnection in a wide range of applications. Hardware and contacts are interchangeable. Bodies are molded of diallylphthalate; gold-over-silver contacts will not tarnish or corrode and can be soldered without pre-tinning even after long storage. All hardware is nickle-plated solid brass.



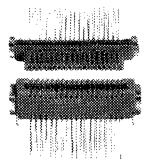
126 SERIES CONNECTORS

The 126 Series is a versatile group of connectors available in 11, 15, and 20 contacts —with or without protective can and cable clamp. Rated at 900 volts RMS, 60 CPS at sea level. Bodies are mica-filled phenolic; contacts are gold-plated.



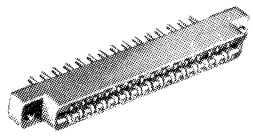
94 SERIES POKE-HOME® CONNECTORS

Amphenol's 94 Series rack-and-panel connectors feature Poke-Home contacts. Aluminum shells are cadmium plate, chromate treated. Useful for any rack-and-panel application, the 94 Series is especially valuable where circuits must be changed frequently within the connector. Poke-Home contacts can be wired and then inserted into the mounted or unmounted connectors in any desired position.



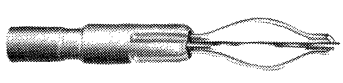
MICRO-MINIATURE CONNECTORS

Amphenol provides three additional complete series of subminiature connectors designed for modules, stick-circuitry, thin style printed circuit boards, and other micro-miniature applications. Use of the Micro-Mod®, Micro-Min® Series, and Micro-Edge® connectors is limited only by the imagination of the design engineer.



PRINTED CIRCUIT CONNECTORS

Amphenol's printed circuit connectors are available with ribbon or tuning fork contacts. The broad selection of contact tails represents the most complete line in the industry.



WIRE-FORM POKE-HOME® CONNECTORS

Unique contact design in Amphenol's Wire-Form connectors places the spring tension member in the pin contact. The Wire-Form connector combines Poke-Home contact versatility with center to center spacing as close as .075. Four complete styles are available:

Mighty-Mite®—cable-to-panel and cable-to-cable application; 7 to 61 contacts.
Tiny Tim®—module and rack-and-panel application; 5 to 33 contacts.
Micro-Rac®—rack-and-panel, cable, and module application; 52 to 104 contacts.
Wire-Form Strip—permits cutting and stacking in unlimited shapes.

AMPHENOL-BORG Distributor Division / Amphenol-Borg Electronics Corporation

BROADVIEW, ILLINOIS

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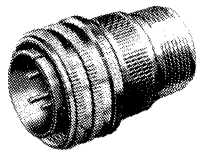
Amphenol® POWER CONNECTORS



MS CONNECTORS

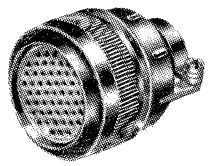
Amphenol builds MS connectors to the latest issue of MIL-C-5015 Specification. They are designed, manufactured, and approved under this specification for the armed forces, and are ideal for commercial and industrial applications which require the same versatility and dependability.

MS—E/R CONNECTORS

Amphenol's resilient dielectric MS connector meets all environmental requirements of the latest revision of MIL-C-5015. Its unitized grommet eliminates the use of bulky cable clamps, and results in a considerable reduction of length and weight in relation to standard MS connectors.

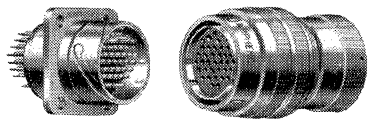
69 POKE-HOME® CONNECTORS

Amphenol Poke "R" solderless connectors provide all the lightweight environmental-resistant features of MIL-C-5015s "R" Class with two important additions: Poke-Home contacts and superior environmental performance. Incorporation of these two features make Poke "R" a highly preferred MIL-C-5015-type connector.



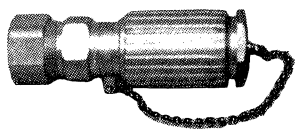
48 SERIES—MIL-C-26500 (USAF)

Meeting or exceeding all MIL-C-26500 requirements, Amphenol's 48 Series combines miniature environmentally-resistant construction and Poke-Home crimp type contacts. MIL-C-26500 connectors perform with utmost reliability in temperatures of −55° C to +260° C, with no de-rating up to 360,000 ft. Available with threaded and bayonet coupling.



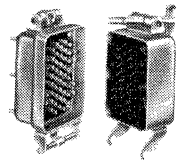
67 SERIES MINNIE® CONNECTORS

Amphenol 67 Series MinniE connectors are quick-disconnect, multi-contact, miniature bayonet types. MinniE connectors feature inclined stainless steel slots and spring loaded coupling rings. A bright orange visual indicator signals full coupling. The 67 Series has a wide variety of shell styles with environmental capability. Receptacles are available in hermetics.



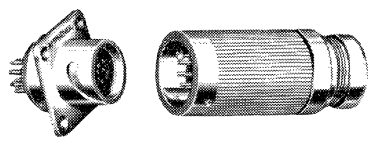
89 SERIES CONNECTORS

Rugged and completely leakproof, Amphenol 89 Series connectors provide efficient and dependable service even when entirely submerged in mud, ice, water, or mire. They are used extensively in missile ground-and-support systems, radar antenna installations, oil well and digging equipment, and other hard-service applications. Available in more than 70 insert configurations with 2 to 52 contacts.



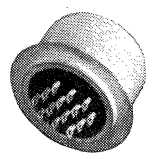
115 SERIES CONNECTORS

Amphenol 115 Series connectors accommodate 50 or 100 No. 16 contacts and are nominally rated at 750 volts RMS, 60 CPS at sea level. They provide maximum space efficiency for all applications where a large number of circuits must be broken quickly and conveniently. The vise-action of the screw lock permits a quick-make quick-break switching action of all contacts.



MINIATURE "AN" CONNECTORS

Compact, efficient Amphenol 165 Series connectors are miniature versions of standard AN/MS types. Because of their weight and space saving design they are widely used in aircraft and miniaturized electronic equipment. 165 Series connectors use bayonet couplings, and are both pressure-proof and completely waterproof—mated or apart. Hermetically sealed, 182 Series connectors mate with connectors of the 165 Series.



172 SERIES HERMETIC CONNECTORS

Amphenol 172 Series hermetic receptacles use an improved hard-glass compression seal with high visibility "Identoseal" contact identification. Both insert faces have ceramic white marking permanently fused to the dark brown glass. Receptacles mate with MIL-C-5015 MS plugs. The 172 Series is available in round flange, square flange, hex flange, and flangeless shells.

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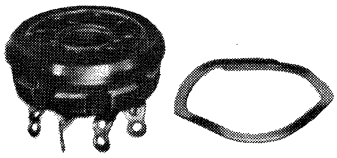
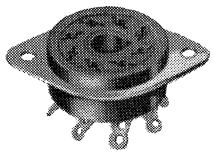
TUBE SOCKETS, AND MICROPHONE CONNECTORS



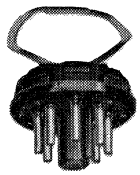
"S" TYPE TUBE SOCKETS

Amphenol "S" type tube sockets mount quickly and easily without screws or rivets by means of a patented "Retainer Ring Mounting." Sockets position to line up contacts for convenient wiring. The "S" type tube socket may be used with "Plug Caps" to make high-quality, low-cost cable connectors. Available also in mica-filled phenolic.



"MIP" SOCKETS

Amphenol's famous "MIP" socket (Molded-in-Plate) features Bakelite dielectric, and 4 to 20 contacts.

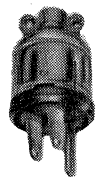


"CP" PLUGS

Amphenol "CP" plugs also mount simply through use of the patented "Retainer Ring Mounting." "CP" plugs are ideal as chassis connectors with plug-in units and are available optionally in mica-filled phenolic. They also adapt to cable applications when used with steel caps.

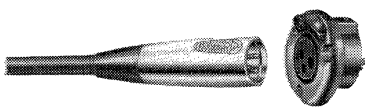
110/220 VOLT PLUGS & RECEPTACLES

Amphenol's 110/220 volt plugs and receptacles may be panel or cable mounted. Available with rubber grommeted or cable clamp type shields, recessed or raised mountings, two or three contacts.



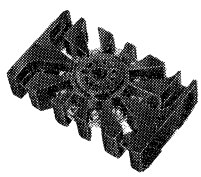
110 VOLT GROUND PLUGS & RECEPTACLES

Amphenol's 110 volt ground plugs and receptacles meet latest UL requirements. The 160 Series may be panel or cable mounted.



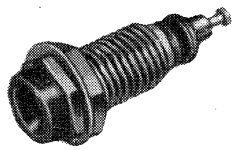
MIKE CONNECTORS

Designed for use with shielded microphone cables, Amphenol's family of microphone connectors are available in several series and include "Quik" Microphone Connectors with quick-button disconnect, 75 Series, single and double contact 80 Series, and its companion, 3 and 4 contact 91 Series.



RELAY SOCKETS

Amphenol relay sockets are available in a broad range of contact styles and sizes, with up to 20 contacts.



MILITARY TIP JACKS

Amphenol military tip jacks feature a recessed silver-plated contact for top durability and high performance. Tip jacks formerly were manufactured by the i.p.c. division.

AMPHENOL-BORG Distributor Division / Amphenol-Borg Electronics Corporation

BROADVIEW, ILLINOIS

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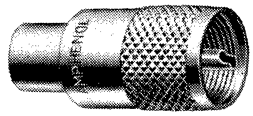
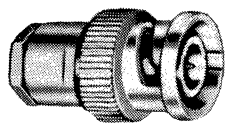
Amphenol® RF PRODUCTS



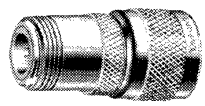
83 SERIES UHF CONNECTORS

Amphenol's UHF 83 Series consists of both small and large single and twin contact connectors. All are low-cost, general purpose connectors of non-constant impedance. They operate satisfactorily at frequencies up to 200 megacycles, can be used with caution up to 500 megacycles, and can be used at peak voltages up to 500 volts.



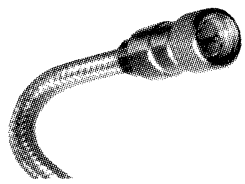
BNC SERIES CONNECTORS

Amphenol Series BNC connectors for small coaxial cables consist of non-constant impedance types and an improved constant 50 ohm impedance type. All incorporate quick-connect and disconnect bayonet-lock coupling and are weatherproof. BNC connectors are small, lightweight, and are recommended for quality, low-voltage applications, both indoors and out.



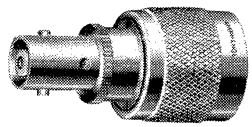
SERIES N CONNECTORS

Completely weatherproof Series N connectors are the most popular constant impedance connectors for medium size coaxial cables. They can be used throughout microwave frequencies with minimum line unbalance or increase in standing-wave ratio. Although Series N 50 ohm and 70 ohm connectors do not mate, 70 ohm cables may be used with 50 ohm Series N connectors where impedance matching is not critical.



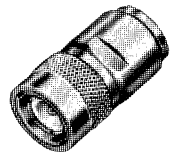
SUBMinax® RF CONNECTORS

Amphenol's SubMinax RF connector family provides the most complete subminiature line available from one source. The SubMinax 27 Series is gold-plated and uses a MIL-C-22557 screw-on and push-on coupling. The SubMinax 5116 is silver-plated and mates with competitive non-MIL-C-22557 screw-on, push-on coupling types. The 5116 contains only five components, saving as much as two-thirds assembly time.



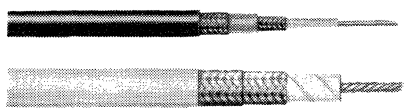
BETWEEN SERIES ADAPTERS

Amphenol can provide the most complete line available of between-series adapters.



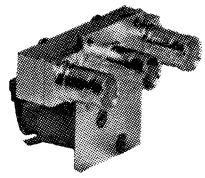
OTHER RF CONNECTORS

Types C, HN, LC, BN, TNC, LN, SKL, MB, MC, SM, TWINAX, MHV, and Terminations, as well as a variety of modifications, make up the complete Amphenol/i.p.c. line.



COAXIAL CABLE

Amphenol provides the broadest line of RG and non-RG coaxial cable available, and is generally accepted as the quality leader in this field. Dielectric includes Teflon, Polyethylene, and Polyfoam.



COAXIAL SWITCHES

Amphenol coaxial switches provide remote and manual switching up through 4000 mc. Single pole, single throw–through 12 pole. Available with a variety of terminating connectors and relay voltages.

AMPHENOL-BORG Distributor Division / Amphenol-Borg Electronics Corporation
BROADVIEW, ILLINOIS

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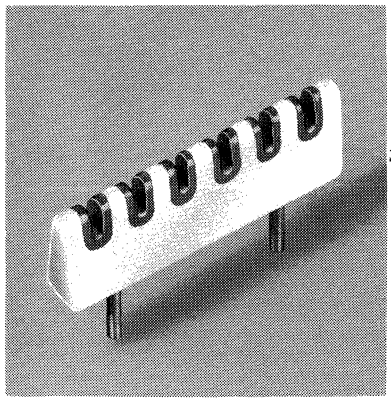
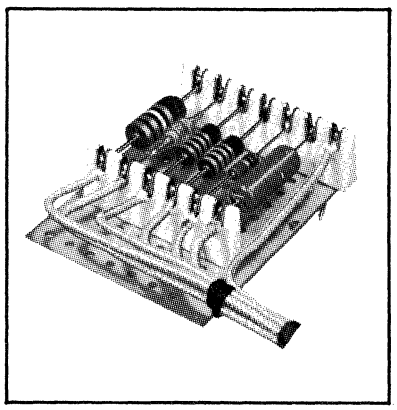
CERAMIC TERMINAL STRIPS

FOR INSTRUMENTS, COMPUTERS AND QUALITY ELECTRONIC EQUIPMENT

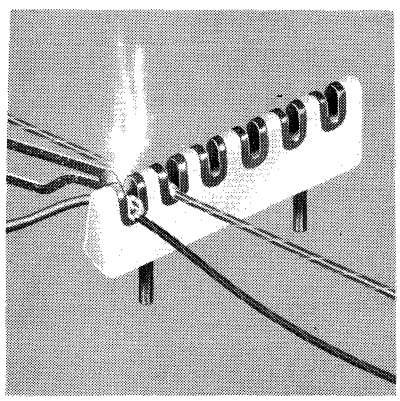


AVAILABLE

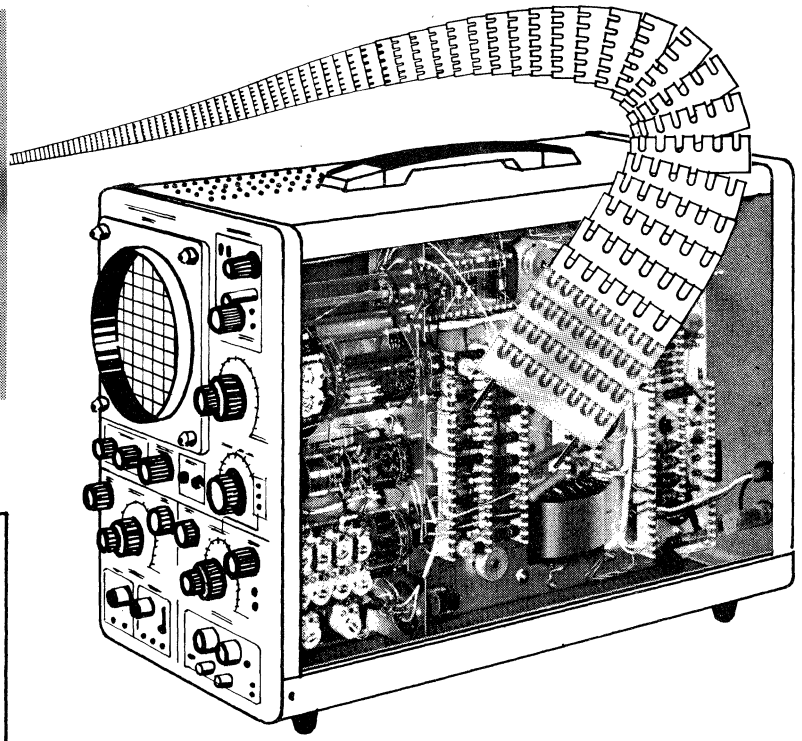
2-TERMINALS	8-TERMINALS
4-TERMINALS	10-TERMINALS
6-TERMINALS	12-TERMINALS



Designers can create functional chassis layouts.

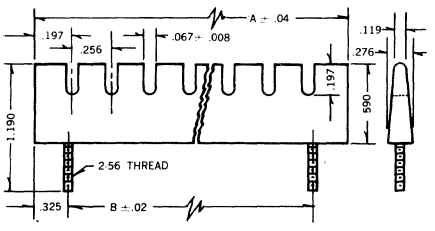


Simplifies repairing. Resolder over and over again. Allows picking up test points very easily.



FEATURES A PERMANENT BOND BETWEEN METAL AND CERAMIC, NOT JUST AN ADHESION, BUT "FIRED" TO PREVENT METAL FROM LOOSENING.

ELECTRONIC ENGINEERS who insist on high standards in manufactured products have found these new ceramic terminal strips as an answer to their "quality" problems. They are especially suitable for experimental design where components need to be resoldered and removed. Fired copperplate on ceramic is silverplated and tinned which facilitates soldering of components and leads. They are superior to the commonly used temperature afflicted plastics. The high temperature qualifications allow these ceramic strips to withstand excessive heat. The uniform manufacturing of the terminal strips gives the row after row assembly a neater appearance and adds a quality look overall. Standard 2-56 thread studs are made extra long to be cut off at any required dimension. Ideal for long life, low resistance. Recommended for prototypes and production uses.



MODEL	NO. SLOTS	"A"	"B"
MEP-2	2	.650	—
MEP-4	4	1.161	.512
MEP-6	6	1.673	1.024
MEP-8	8	2.185	1.535
MEP-10	10	2.697	2.047
MEP-12	12	3.209	2.560

MODEL	TERMINALS	One -9	10-99	100 Over
MEP-2	2	36¢	24¢	21¢
MEP-4	4	45¢	30¢	25¢
MEP-6	6	60¢	40¢	34¢
MEP-8	8	75¢	50¢	42¢
MEP-10	10	87¢	58¢	49¢
MEP-12	12	99¢	66¢	56¢

Lawrence, Mass. **ALCOSWITCH**

Net

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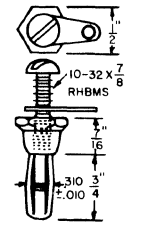
Birnbach

GIANT, STANDARD, MIDGET BANANA JACKS and PHONE TIPS

VARIATIONS OF STANDARD PLUGS AVAILABLE TO ORDER. PLATED TO GOV'T. SPECS.

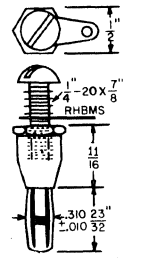
GIANT PLUG No. 396



Body is hexed brass, nickel plated. Fits all giant banana jacks. Complete with nickel plated screw and soldering lug. Rated at 25 amps.

Cat. No.	Spring	Std. Pkg.
396	Phos. Brz.	25
396B	Beryl. Cop.	25

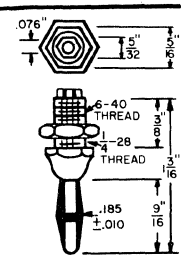
GIANT PLUG No. 397



Body is hexed brass, nickel plated. Fits all giant banana jacks. Complete with nickel plated screw and soldering lug. Heavy duty, 25 amp. rating.

Cat. No.	Spring	Std. Pkg.
397	Phos. Brz.	25
397B	Beryl. Cop.	25

BANANA PLUG No. 404S

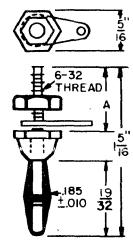


Hexed brass nickel pl. Complete with hex brass n.pl. nut. Has solderless Scrulok connection. Fits all standard banana plugs. Spring is four-leaved phosphor bronze nickel plated. Rated at 5 amps.

Cat. No.	Std. Pkg.
404S	100

Scrulok Banana Plug

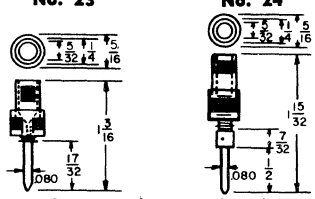
BANANA PLUG No. 400



Hexed brass nickel plated. Fits all standard banana plugs. Complete with hex brass n.pl. nut and tinned copper lug. Spring is four-leaved nickel plated. Rated at 5 amps. Stand. pkg. 100

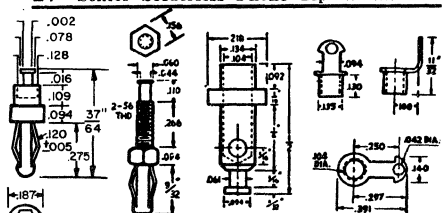
Cat. No.	Spring	Dim. "A"
400	Phos. Bronze	1/2"
400A	Phos. Bronze	3/4"
400B	Beryl. Copper	1/2"

SOLDERLESS PHONE TIPS No. 23 No. 24



Brass, nickel plated. Wire fits thru body of tip, tightened around screw with nickel plated knurled nut. Fits all standard phone tip jacks.

Cat. No.	Std. Pkg.
23—Junior Solderless Phone Tip	100
24—Senior Solderless Phone Tip	100



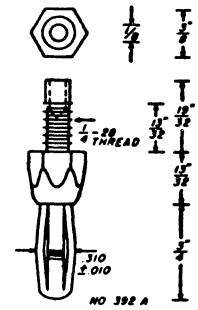
590 591 592 593

SUB MINIATURE BANANA PLUGS & JACKS

One piece beryllium copper springs insure positive and lasting contact. Silver plated overall.

Cat. No.	Description	Std. Pkg.
590	Rivet Type Plug	100
591	Screw Type Plug	100
592	Force Fit Jack	100
593	Rivet Type Jack	100

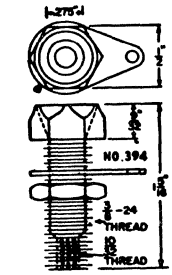
GIANT PLUG No. 392A



Body is hexed brass nickel plated. Rated at 25 amps. Has large soldering well in threaded shank. Fits all Giant Banana Jacks.

Cat. No.	Spring	Std. Pkg.
392A	Phos. Brz.	25

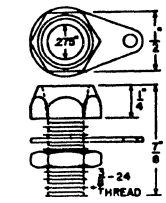
GIANT JACK No. 394



Hexed brass nickel plated. Fits all Giant Banana Plugs. Mounts in 3/8" hole in panels up to 7/8" thick. Complete with n.pl. nut and tinned copper lug.

Cat. No.	Std. Pkg.
394 Giant Jack	25

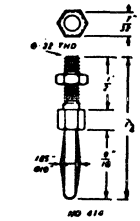
GIANT JACK No. 395



Fits all giant banana plugs. Hexed brass head nickel plated overall. Mounts in 3/8" hole. Complete with nut and tinned copper lug.

Cat. No.	Std. Pkg.
395 Giant Jack	25

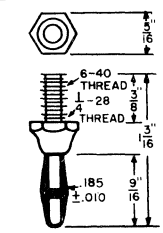
BANANA PLUG No. 414



Hexed brass, nickel plated. One-piece construction. Four-leaved phosphor bronze spring. Complete with brass hexed nut n.pl. Rated at 5 amps. Fits all standard banana jacks.

Cat. No.	Spring	Std. Pkg.
414	Phos. Brz.	100

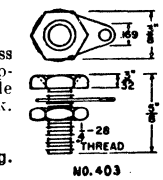
BANANA PLUG No. 404A



Hexed brass and four-leaved phosphor bronze spring all nickel plated. Rated at 5 amps. Fits all standard banana jacks.

Cat. No.	Std. Pkg.
404A Banana Plug	100

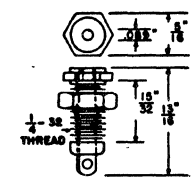
BANANA JACK No. 403



Hexed brass n.pl., with brass n.pl. hex nut and tinned copper lug. Mounts in 1/4" hole in panels up to 3/8" thick. Fits standard plugs.

Cat. No.	Std. Pkg.
403 Banana Jack	100

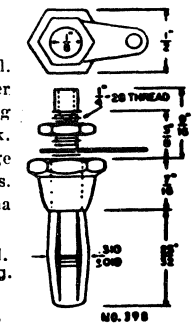
PHONE TIP JACK No. 26



Brass nickel pl. body. Double phosphor bronze springs, hot tinned. Fits standard phone tip plugs. Mounts in 1/4" hole in panels up to 3/8" thick. Complete with hex n.pl. brass nut.

Cat. No.	Std. Pkg.
26 Phone Tip Jack	100

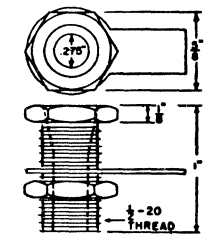
GIANT PLUG No. 398



Body is hexed brass, n.pl. nut and tinned copper lug. Has large soldering well in threaded shank. Used in high amperage circuits rated at 25 amps. Fits all giant banana jacks.

Cat. No.	Spring	Std. Pkg.
398	Phos. Brz.	25
398B	Beryl. Cop.	25

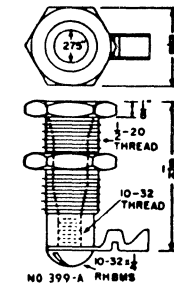
GIANT JACK No. 399



Hexed brass nickel plated. Complete with hex brass n.pl. nut and tinned copper lug. Fits all giant banana plugs. Mounts in 1/2" hole in panels up to 3/32" thick.

Cat. No.	Std. Pkg.
399 Gt. Jack	25

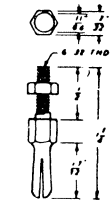
GIANT JACK No. 399A



Hexed brass nickel plated. Mounts in 1/2" hole. Fits panels up to 3/4" thick. Tapped at end with screw and lug connection. Complete with hex brass n.pl. nut, screw and hot tinned copper lug.

Cat. No.	Std. Pkg.
399A Gt. Jack	25

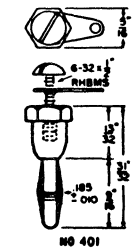
BANANA PLUG No. 416



Hexed brass nickel plated. Cross slotted for positive contact. One-piece construction. Fits all standard banana jacks. Complete with hexed brass n.pl. nut.

Cat. No.	Std. Pkg.
416 Banana Plug	100

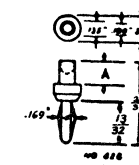
BANANA PLUG No. 401



Hexed brass nickel plated. One-piece four-leaved spring. Complete with brass n.pl. screw and tinned copper lug. Rated at 5 amps. Fits all standard banana jacks.

Cat. No.	Spring	Std. Pkg.
401	Phos. Brz.	100
401B	Beryl. Cop.	100

MIDGET BANANA PLUG RIVET TYPE—No. 426



Brass silver plated body. One-piece four-leaved phosphor bronze spring silver plated. Also made to Rigid Jan specs.

Cat. No.	"A"	St. Pkg.
426	3/32"	100
426A	5/32"	100

Midget Banana Plug Rivet Type

Additional Midget Plugs & Jacks Available. Also Sub-Miniature Plugs & Jacks.

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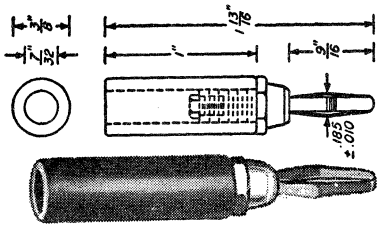
See Pages 1660-1665 for Birnbach Prices for Above Items

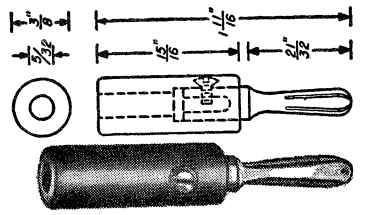
INSULATED BANANA — GIANT — PLUGS and JACKS



INSULATED BANANA PLUG

Hexed brass N. Pl. spring type. Fits standard banana jacks. Scrulok solderless connection. Molded handle.
Colors: Red, Black, Yellow, Blue, Green, White.

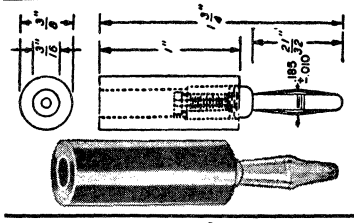
Cat. No.	Spring	Std. Pkg.
404	Phos. Brz.	50
404-CB	Beryl. Cop.	50



INSULATED BANANA PLUG

Split type plug brass n. pl. fits standard banana jacks. Set screw. Solderless connection. Molded handle.
Colors: Red, Black, Yellow, Blue, Green, White.

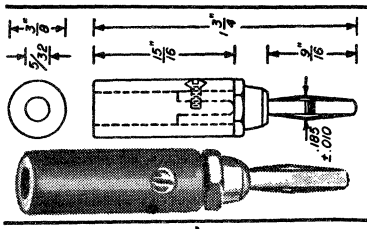
Cat. No.		Std. Pkg.
604	Banana Plug	50



INSULATED BANANA PLUG

Brass n.pl. plug. Fits standard banana jacks. Spring type. Scrulok solderless connection. Molded handle.
Colors: Red, Black, Yellow, Blue, Green, White.

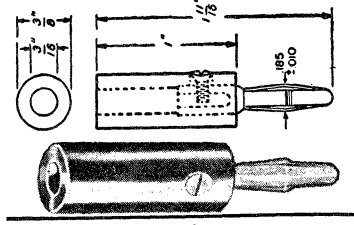
Cat. No.	Spring	Std. Pkg.
465	Phos. Brz.	50
465-B	Beryl. Cop.	50



SPRING BANANA PLUG

Hexed brass n.pl. plug. Set screw solderless connection. 404-BC Beryllium springs, highly resilient. Molded handle.
Colors: Red, Black, Yellow, Blue, Green, White.

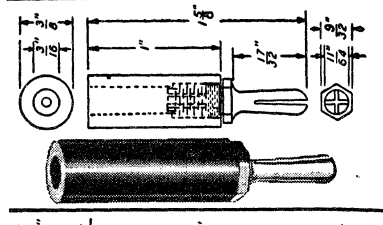
Cat. No.	Spring	Std. Pkg.
404-B	Phos. Brz.	50
404-BC	Beryl. Cop.	50



INSULATED BANANA PLUG

Plug brass n.pl. set screw solderless connection. Spring type. Fits standard banana jacks. Molded handle.
Colors: Red, Black, Yellow, Blue, Green, White.

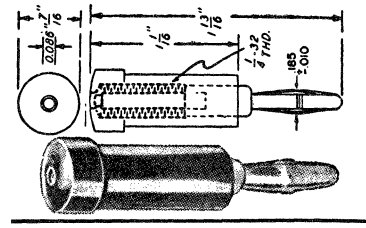
Cat. No.	Hdl.	Spring	Std. Pkg.
466	1"	Ph. Brz.	50
466A	1½"	Ph. Brz.	50



INSULATED BANANA PLUG

Split type, brass n.pl. Scrulok solderless connection. Fits standard jacks. Molded handle.
Colors: Red, Black, Yellow, Blue, Green, White.

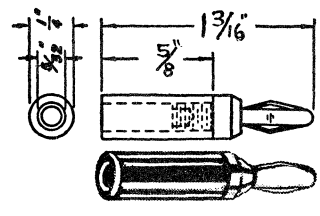
Cat. No.	Std. Pkg.
606 Banana Plug	50



TIP PLUG TO BANANA PLUG ADAPTER

Fits standard banana jacks. Adapter for phone tip to banana plug. Molded handle.
Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No.	Spring	Std. Pkg.
467	Phos. Brz.	50
467B	Beryl. Cop.	50

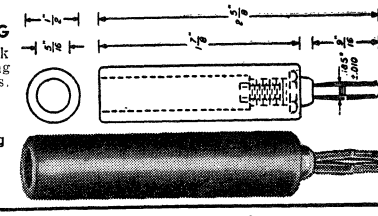


INSULATED MIDGET BANANA PLUG

Spring Type. Fits all standard Banana Jacks. Beryllium spring retains resiliency after thousands of insertions. Wire soldered directly into Plug.

Available in Red or Black only. Specify color. Std. pkg. 50.

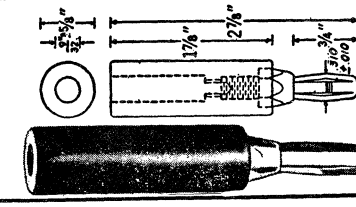
No.	Spring Material	Plating
455	Phosphor Bronze	Nickel
455BC	Beryllium Copper	Silver



INSUL. BANANA PLUG

Plug brass n.pl. Scrulok solderless connection. Spring type. Fits standard jacks. Plastic handle.
Colors: Red, Black.

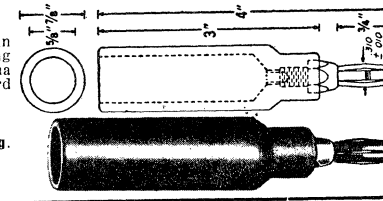
Cat. No.	Spring	Std. Pkg.
341	Phos. Brz.	50
341B	Beryl. Cop.	50



INSUL. GIANT PLUG

Plug brass n.pl. Wire can be soldered to plug. Spring type. Fits giant banana jacks. Plastic handle.
Colors: Red, Black.

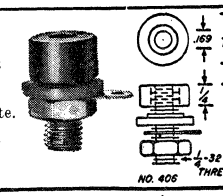
Cat. No.	Spring	Std. Pkg.
392	Phos. Brz.	50
392B	Beryl. Cop.	50



INSUL. GIANT PLUG

Plug brass n.pl. Wire can be soldered to plug. Spring type. Fits giant banana jacks. Polished giant hard rubber handle.
Colors: Red, Black.

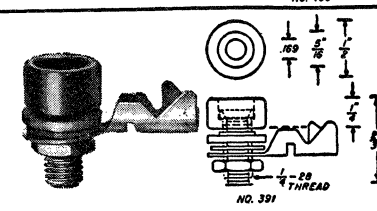
Cat. No.	Spring	Std. Pkg.
342	Phos. Brz.	50
342B	Beryl. Cop.	50



INSULATED BANANA JACK

Takes all standard banana plugs. Body is brass n.pl. Mounts in ⅞" hole in panels up to ⅜" thick. Molded head.
Colors: Red, Black, Yellow, Blue, Green, White.

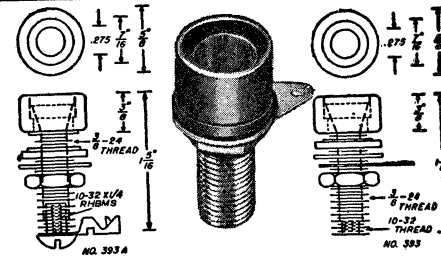
Cat. No.		Std. Pkg.
406	Insulated Jack	50



INSULATED BANANA JACK

Accommodates all standard banana plugs. Body is brass n.pl. Mounts in ⅝" hole in panels up to ⅜" thick. Complete with all hardware. Molded head.
Colors: Red, Black, Yellow, Blue, Green, White.

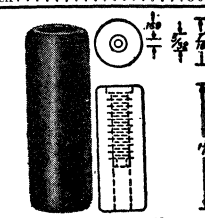
Cat. No.	Std. Pkg.
391 Insulated Jack	50



INSULATED GIANT JACK

Accommodates all giant plugs. Body is brass n.pl. Mounts in ⅜" hole in panels up to ⅝" thick. Molded plastic head.
Colors: Red, Black.

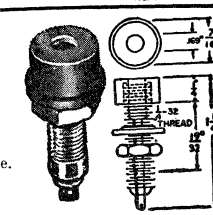
Cat. No.		Std. Pkg.
393	Insulated Giant Jack	50
393A	Insulated Giant Jack	50



INSULATED HANDLE JACK

Jack brass, n.pl. Fits all standard banana plugs. Plastic handle.
Colors: Red, Black, Yellow, Blue, Green.

Cat. No.		Std. Pkg.
605	Insulated Handle Jack	50



INSULATED COMBINATION JACK

Takes standard senior phone tip or banana plugs. Body is brass n.pl. Double Phosphor Bronze spring. Mounts in ⅝" hole in panels up to ½" thick. Molded head.
Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No.		Std. Pkg.
333	Insulated Combination Jack	50

See Pages 1660-1665 for Birnbach Prices for Above Items

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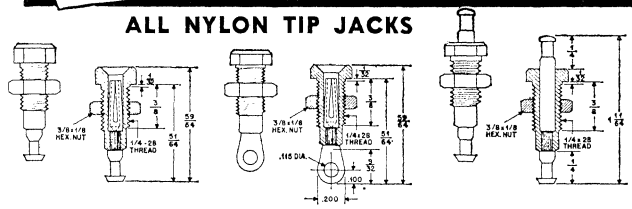
Birnbach — INSULATED PHONE TIPS, TIP JACKS TEST PRODS

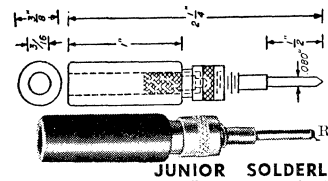
ALL NYLON TIP JACKS



No. 1180 No. 1182 No. 1184

Completely Molded Nylon Jack. Fits all standard phone tip plugs. Contact recessed in head for safe contact. Hexagon head for grip in tightening. Mounts in ¼" hole in panels up to ¼" thick. Meets following requirements: 1. Salt Spray Test—Withstands 100 hours. 2. Rated Voltage & Current—1000 volts peak at 5 amps. max. 3. Test Voltage—9000 volts DC peak. 4. Insulation Resistance—5000 megohms. 5. Operating Temperature—55 to +150 C. 6. Nominal Capacity—2.0 mmf. 7. Matrial Specifications—A. Body: Nylon Grade FM 10001; A. Center Contact: Numbers 1180 and 1182 Heat Treated Beryllium Copper Silver plated per Spec 72-53. Number 1184 Brass, Tin Pl.; C. Hex Nut: Brass Nickel Pl. 8. **Colors—Red, Black, Orange, Green, Blue, White, Brown, Yellow, Grey & Purple. Specify Color.**

No.	Type	Std. Pkg.
1180	Wrap Around	25
1182	Spade Terminal	25
1184	Feed Through	25



SENIOR SOLDERLESS PHONE TIP

Brass nickel plated. Fits standard phone tip jacks. Wire fastens under knurled nut. Molded handle.

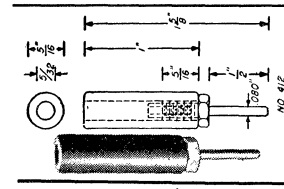
Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No. 409 Sr. . .Std. Pkg. 50

JUNIOR SOLDERLESS PHONE TIP

Same as above except 2" overall length. Specify colors.

Cat No. 415 Jr. .....**Std. Pkg.** 50

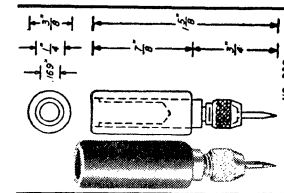


SCRULOK PHONE TIP

Brass nickel plated. Fits standard phone tip jacks. Scrulok solderless connection. Molded handle.

Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No. 412.....**Std. Pkg.** 50

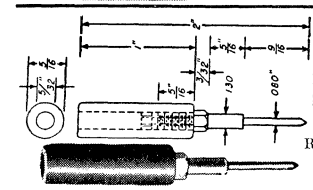


NEEDLE POINT PLUG

Brass nickel plated body. Needle point tip. Accommodates standard banana plug in molded plastic handle.

Colors: Red, Black.

Cat. No. 330.....**Std. Pkg.** 50

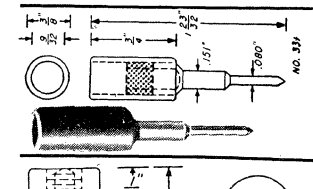


SCRULOK PHONE TIP

Fits standard phone tip jacks. Plug is brass, nickel plated. Has Scrulok solderless connection. Molded handle.

Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No. 419.....**Std. Pkg.** 50

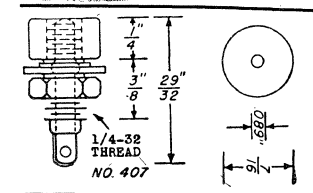


PHONE TIP

Plugs into standard phone tip jacks. Brass nickel plated plug. Accommodates standard banana plug in molded plastic handle.

Red, Black, Yellow, Blue, Green, White.

Cat. No. 331.....**Std. Pkg.** 50

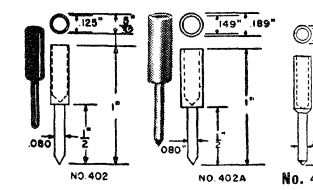


PHONE TIP JACK

Fits all standard phone tips. Body is brass, n.pl. Double Phosphor Bronze springs. Mounts in ⅝" hole in panels up to ⅜" thick. Molded head.

Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No. 407.....**Std. Pkg.** 50



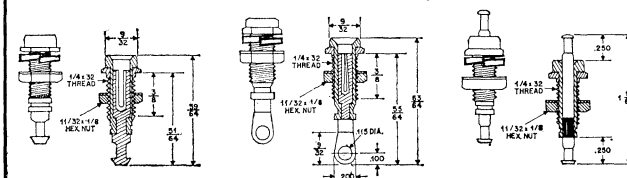
BRASS NICKEL PLATED TIPS

Fits all standard phone tip jacks.

Cat. No.		Std. Pkg.
402	—Standard Phone Tip	100
402A	— Phone Tip Larger Diam	100
402B	— Heavy Duty Phone Tip	100

NYLON TIP JACK WITH METAL SHELL

Made to Meet MS-16108 Spec.

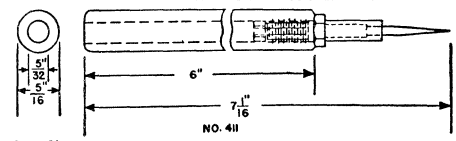


No. 1190 No. 1192 No. 1194

Molded Nylon Tip Jack. Metal shell eliminates possibility of stripping threads during assembly. Meets following requirements: 1. Salt Spray Test—Withstands 100 hours. 2. Rated Voltage & Current—1000 volt peak @ 5 amps. maximum. 3. Test Voltage—2500 peak. 4. Insulation Resistance—5000 megohms. 5. Operating Conditions—A. Continuous; 23 hours on, 1 hour off; B. Elevation: Up to 15,000 feet; C. Temperature: —55 to +85 C; D. Humidity: Up to 95%.
6. Material Specifications—A. Insulator: Nylon, Grade FM 10001; B. Shell & Nut: Brass Nickel Plated Per Spec 72-53; C. Lockwasher: Phosphor Bronze Nickel Plated Per Spec 72-53; D. Center Contact. Numbers 1190 and 1192 Heat Treated Bery. Copper Silver Plated per Spec 72-53. Number 1194 **Brass,** Tin Plated.
7. Non-Operating Conditions—A. Elevation: Up to 50,000 feet; B. Temperature: Continuous exposure for 72 hours @ +160 F and 240 hours @ —80 F; C. Humidity: Up to 100%.
8. **Colors—Red, Black, Orange, Green, Blue, White, Brown, Yellow, Grey & Purple. Specify Color.**

No.	Type	Std. Pkg.
1190	Wrap Around	25
1192	Spade Terminal	25
1194	Feed Through	25

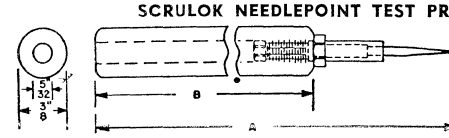
BAKELITE PENCIL TEST PROD



Body is brass nickel plated with steel n.pl. needle. Has Scrulok solderless connection. Bakelite handle. **Colors:** Red, Black.

Cat. No.		Std. Pkg.
411	Bakelite Pencil Test Prod	12

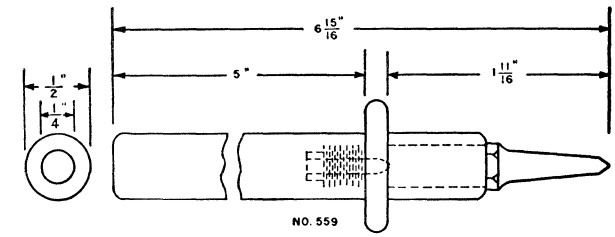
SCRULOK NEEDLEPOINT TEST PRODS



Phenolic insulated prod, has Scrulok solderless connection. Body is brass nickel plated with steel n.pl. needle. **Colors:** Red, Black.

Cat. No.	(A) Overall	(B) Handle Length	Std. Pkg.
417	5-3/32"	4"	50
418	6-3/32"	5"	50

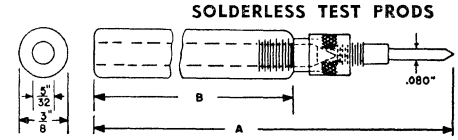
HEAVY DUTY HI-VOLTAGE TEST PROD HANDLE



Tip is heavy brass nickel plated. Bakelite finger guard. Accommodates IN-34 diode and condenser for use as RF Probe. **Colors,** Red, Black.

Cat. No.		Std. Pkg.
559	6" H.V. Test Prod. Handles	20

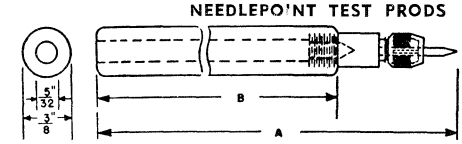
SOLDERLESS TEST PRODS



Body is brass nickel plated with solderless knurled nut connection. Heavy duty needlepoint, nickel plated. **Colors:** Red, Black.

Cat. No.	(A) Overall	(B) Handle Length	Std. Pkg.
410	5⅛"	4"	50
343	6¼"	5"	50

NEEDLEPO'NT TEST PRODS



Brass nickel plated body with steel nickel plated needle. Chuck threaded in end of handle is removable for replacing needles. Polished cast phenolic handle.

Cat. No.	(A) Overall	(B) Handle Length	Std. Pkg.
344	4-15/16"	4"	50
345	5-15/16"	5"	50

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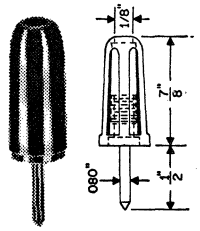
See Pages 1660-1665 for Birnbach Prices for Above Items

Birnbach — PHONE TIPS, TIP JACKS TEST PRODS

NEW NYLON INSULATED PLUG



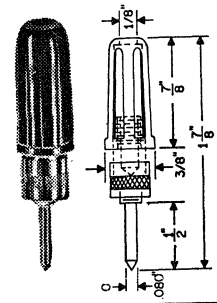
Molded of tough low-loss Nylon—provides high voltage insulation. Withstands extreme temperature changes without chipping or cracking. This series fits all standard Banana Jacks and standard Phone Tip Jacks.

Nylon Solderless Short Tip Plug. Molded nylon handle, recessed metal head provides flush contact without metal exposure in any standard tip jack brass nickel plated plug. Solderless wire fits thru handle.

Cat. No.	NYLON PER MIL-P-20693A	Std. Pkg.
1169		100

Specify color as indicated above.

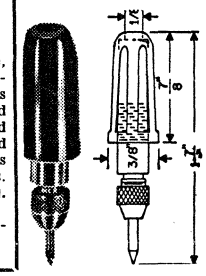
NYLON SOLDERLESS TIP PLUG



Molded Nylon handle, Brass N.Pl. Solderless plug. Wire fits thru body of tip and is wrapped around screw portion and then tightened. Fits all standard tip jacks.

Cat. No.	Std. Pkg.
1170	100

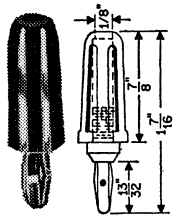
Specify color as indicated above.



NYLON BANANA PLUG—MIDGET

NYLON PER MIL-P-20693A

Molded Nylon Handle Brass N.Pl. Wire can be soldered directly into stud. Fits all Standard Banana Jacks.



Cat. No.	Spring Material	Plating	Std. Pkg.
1172	Phospor Bronze	Nickel	100
1173	Phospor Bronze	Silver	100
1174	Berylium Copper	Nickel	100
1175	Berylium	Silver	100

Specify color as indicated in Color Code at right.

Color Code For NYLON HANDLE PLUGS
Add to Catalog Numbers

—01 White	—08 Brown
—02 Red	—09 Lt. Green
—03 Black	—10 Dk. Blue
—04 Dk. Green	—11 Ivory
—05 Lt. Blue	—12 Violet (Purple)
—06 Orange	—13 Grey
—07 Yellow	

PHONE NEEDLE TIP PLUG

Molded Nylon Handle, Brass N.Pl. Plug. Has removable chuck for easy replacement of needles. Needle makes positive contact thru insulation or corrosion.

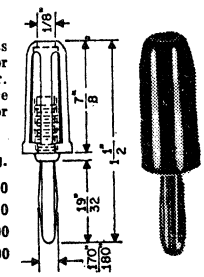
Cat. No.	NYLON PER MIL-P-20693A	Std. Pkg.
1171		100

Specify color as indicated above.

NYLON BANANA PLUG

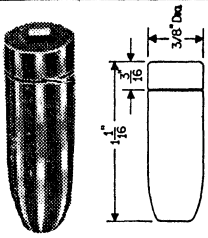
NYLON PER MIL-P-20693A

Molded Nylon handle, Brass N.Pl. plug. Springs Phosphor Bronze or Berylium Copper. Nickel or Silver plated. Wire can be soldered into plug or brass stud.



Cat. No.	Spring	Plating	Std. Pkg.
1160	Phos. Brz.	Nickel	100
1161	Phos. Brz.	Silver	100
1162	Beryl. Cop.	Nickel	100
1163	Beryl. Cop.	Silver	100

Specify color as indicated in color code above.



NYLON HANDLE JACK

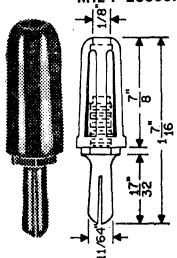
Made with our Nylon Tip Jack #1180 without mounting nut inside of threaded molded nylon insulated sleeve.

Cat. No.	Std. Pkg.
1179 Nylon Handle Jack	100

Specify color as indicated above. NYLON PER MIL-P-20693A

NYLON BANANA PLUG

NYLON PER MIL-P-20693A

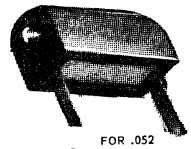


Molded Nylon handle, brass N.P. plug, split type with solderless scrulock connection.

Cat. No.	Std. Pkg.
1168	100

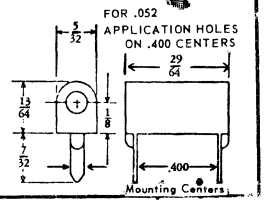
PRINTED CIRCUIT TEST JACKS

Designed for permanent, soldered assembly to printed circuit boards. Nylon bodies. Has gold over silver plated Berylium copper contacts which provide low resistance contact. Takes standard .080" diameter test probes. Colors: Red, Black, Green, Brown, Yellow, Blue, Purple, Grey, Orange, White.



Cat. No.	Std. Pkg.
1177 Printed Circuit Jack	25

PER MIL F-14072, M301

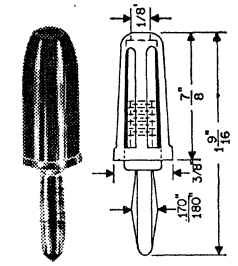


Same as above with Solderless Scrulock Connection.

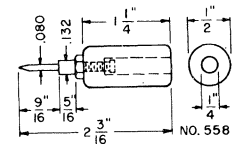
NYLON PER MIL-P-20693A

1164	Phosphor Bronze	Nickel	100
1165	Phosphor Bronze	Silver	100
1166	Berylium Copper	Nickel	100
1167	Berylium Copper	Silver	100

Specify color as indicated above.



HEAVY DUTY HIGH VOLTAGE TEST PROD HANDLES — No. 558



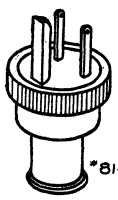
These bakelite prods are the same as used on the meter end of high voltage test leads Cat. No. 562. Tips are heavy brass with nickel plating.

Colors: Red, Black.

Cat. No.	Std. Pkge.
558—1¼" H.V. Test Prod Handles..	20

ADAPTER PLUGS

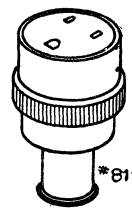
NEW TYPE 3 PRONG PLUG



NO.	LIST PRICE	STD. PKGE.
814T	.90	100

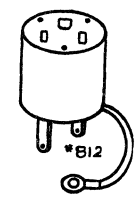
Two parallel blades plus ground pin for safe grounding of appliance.

FEMALE CONNECTOR



NO.	LIST EA.	STD. PKGE.
811	2.25	25

For new type 3 prong plug, Female mate to No. 814T.



ADAPTER FOR USING NEW TYPE 3 PRONG PLUG IN STANDARD OUTLET

NO.	LIST EA.	STD. PKGE.
812	.75	100

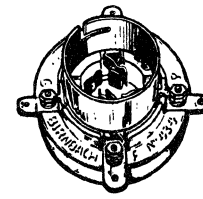
BIRNBACH TRANSMITTING SOCKETS

Medium 4 Pin Bayonet and Jumbo 4 Pin Bayonet

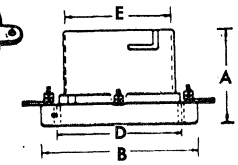
No. 434—"50 watt" socket for medium power bayonet based tubes such as 575A, 805, 810, 838, 845, 872A, 8000 and others with Retma Base No. A4-29. Has heavy phospher bronze cadmium plated double wiping filament contacts will handle heavy currents. Terminals designed for solder or screw connections. Two mounting holes. Has polished nickel plated brass shell; white glazed porcelain base.

No. 435—"10 watt" socket for economy, has heavy phospher bronze, cadmium plated side wiping contacts; white glazed porcelain base; heavy plated brass shell. Two mounting holes, for medium 4 pin bayonet based tubes such as 3B25, 3B28, 10Y, 801A, 808, 809, 811A, 812A, 834, 836, 860, 865, 866A, 1616, 8005 with Retma Base No. A4-10.

Cat. No.	Watt Socket	A	B	D	E	Mtg. Holes	Pin	Tube Base	Std. Pkg.
434	50	2-9/32"	3⅜"	2-13/16"	1.886"	2	4	Std. Jumbo	25
435	10	1⅞"	2½"	2-1/16"	1.386"	2	4	Med. Bay	25



Nos. 434-435



See Pages 1660-1665 for Birnbach Prices for Above Items

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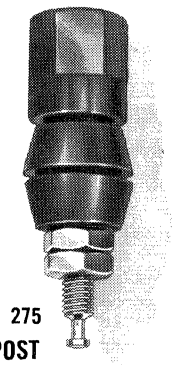
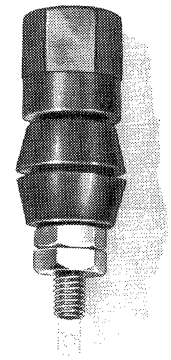
Birnbach

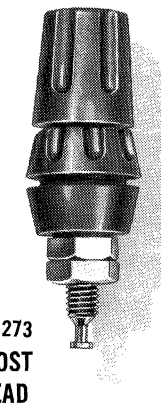
SPADE LUGS — BINDING POSTS



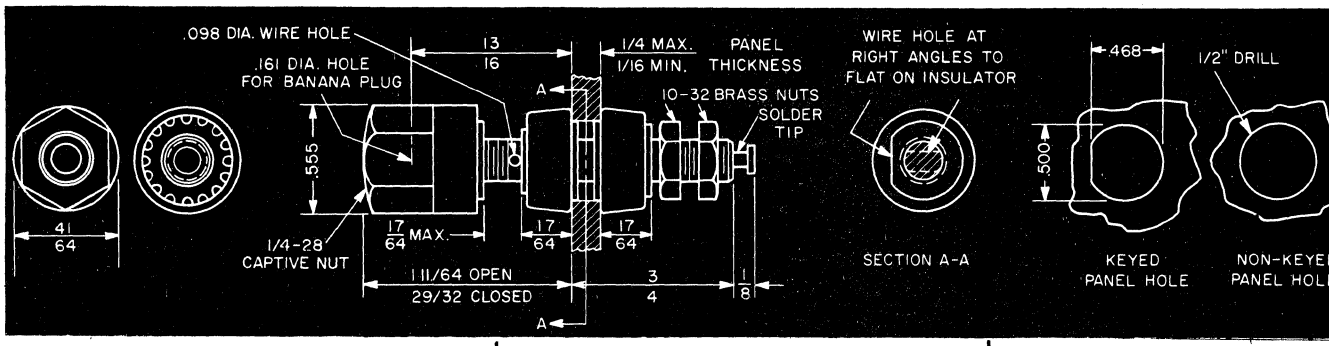
275
BINDING POST
WRAP AROUND TYPE



276
NEW! BIRNBACH
Safe-Positive-Heavy Duty
"Multi-Use" Binding Posts



273
BINDING POST
FLUTED HEAD



BINDING POST

30 Amp.
2000 VDC

Molded Nylon Body Banana Plug Receptacle, .161 I. D.; Head non-removable from Stud; Molded in Brass Bushing in Head; Molded in Brass Bushing in Washers; For Panels 1/16" to 1/4" thick; Drill 1/2" hole for mounting washers; Wire Hole is at right angle to Flat on Insulated Washers; Production Punch for keyed Slot for mounting Washers.

WRAP AROUND TYPE
COLORS

No.	Std. Pkg.
275—Stand. Nickel Plated Red, Black, Yellow, Green, White, Blue, Brown, Grey	100

BINDING POST

NEW! BIRNBACH "Multi-Use" Binding Posts
Safe-Positive-Heavy Duty

Rugged, versatile "Multi-Use" binding post made of molded nylon with molded-in brass inserts in head and washer for complete insulation from panel. For use on panels 1/16" to 1/4" thick. Mounting hole 1/2". Current Capacity: 30 Amps. Voltage: 2000 V.A.C. RMS Test. **No. 276 can be soldered directly to stud. Will permit six different methods of connection above panel and three below panel.**

Cat. No.	Std. Pkg.
276—Nickel Plated Red, Black, Yellow, Green, White, Blue, Brown, Grey	100

BINDING POST FLUTED HEAD

New fluted nut design is attractive and functional molded nylon body per Mil-P-20693A completely insulates panel from binding post. Makes ideal connection for electrical and electronic equipment. Brass nickel plated "Wrap Around Type" solder connection to stud rated 30 amp. 2000 VAC test capacitance 5.0 mmfd. Similar construction as our No. 275.

Cat. No.	Std. Pkg.
273—Nickel plated Specify Color: Red or Black	100

#278

STANDARD DUTY 5-WAY BINDING POST

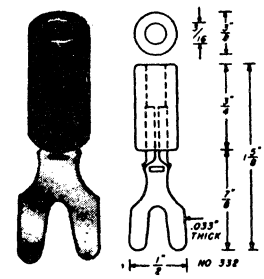
Molded-in brass bushings for complete insulation. Useful for standard duty work. Available in Red or Black. Specify color. Body is brass nickel plated.

6 AMPS

Cat. No.	Description	Std. Pkg.
278	Red or Black	100
279*	Red or Black	100

*Same as above, but normally grounded. (Without bottom insulating section.)

#279

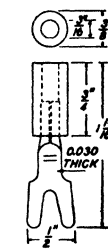


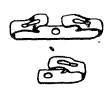
INSULATED SPADE LUG

Accommodates all standard banana plugs into the rear of lug enabling same to be adapted to a spade lug. Lug is Steel Hot Tinned.

Colors: Red or Black.

Cat. No. 332
Std. Pkg. 50

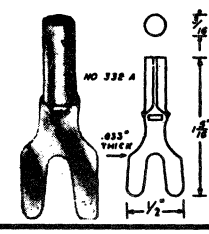




SPRING WIRE CLIPS

They will hold a wire up to No. 10 B&S Gauge in a secure contact. All clips are brass nickel plated.

Cat. No.	Length	Width	Mtg. Hole	Std. Pkg.
32A—Spring Clip	3/4"	5/16"	6	100
32 —Spring Clip	1"	3/8"	10	100
33 —Twin Clip	1 3/4"	3/8"	10	100



SPADE LUG

Barrel accommodates all standard banana type plugs. Lug is Steel Hot Tinned.

Cat. No.	Std. Pkg.
332A	50

Spade Lug

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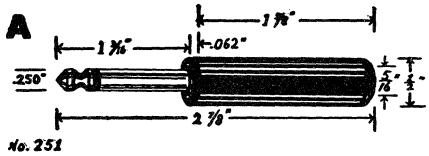
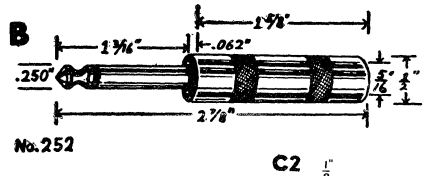
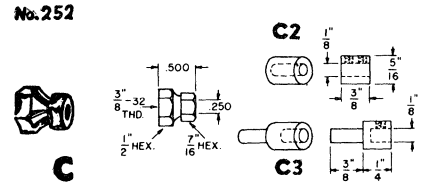
See Pages 1660-1665 for Birnbach Prices for Above Items

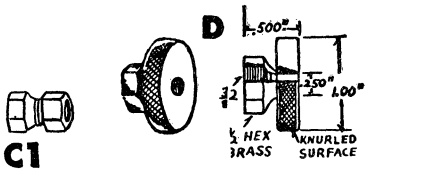
Birnbach

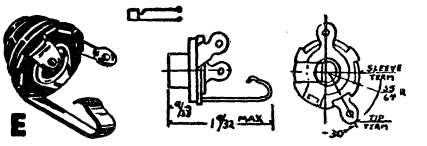
STANDARD AND MINIATURE TELEPHONE TYPE JACKS • PLUGS • SHAFT LOCKS • TEST LEADS

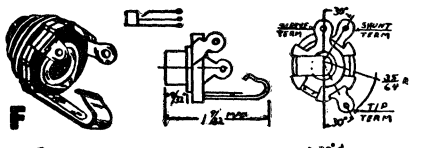


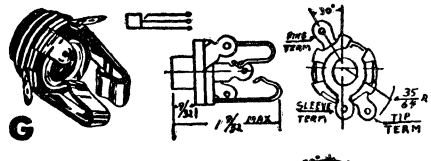


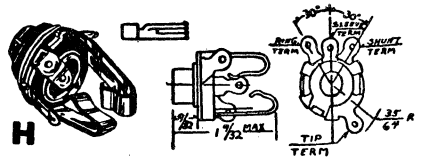


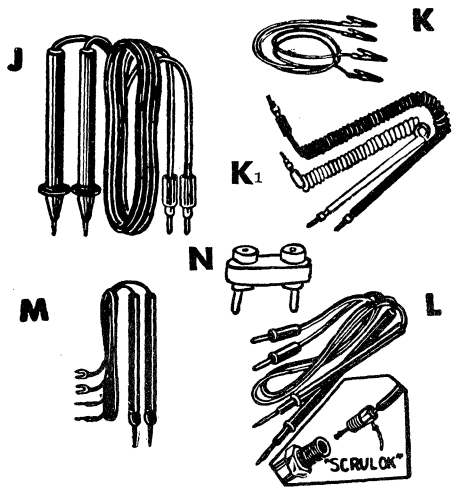












TELEPHONE TYPE PLUGS

This standard two conductor plug fits all standard jacks. All metal parts brass with nickel plating except for contact screw. Barrel is molded bakelite. Red or Black.

A — BAKELITE DOUBLE PHONE PLUG
Cat. No. 251 ..... Std. Pkg. 25

B — SHIELDED PHONE PLUG
Cat. No. 252 ..... Std. Pkg. 25

SHAFT LOCKS

C — WRENCH TYPE

Brass, nickel plated. ½" length overall. Rear: ½" hex brass with ⅜-32 thread. Front: 7/16" hex brass.

Cat. No.	Std. Pkg.
546 — For ¼" Shaft	25

D — THUMB TYPE

Brass, nickel plated. ½" length overall. Rear: ½" hex brass with ⅜-32 thread. Front: 1" diam. knurled nut.

Cat. No.	Std. Pkg.
547 — For ¼" Shaft	25

MINIATURE SHAFT ACCESSORIES

Brass Nickel plated for ⅛" shafts.

C1 — MINIATURE LOCK—WRENCH TYPE
Cat. No. 546A — Std. Pkg. 25

C2 — MINIATURE BRASS COUPLER
with allen head set screws
Cat. No. 531A — Std. Pkg. 25

C3 — MINIATURE SHAFT EXTENDER
with allen head set screws
Cat No. 538A — Std. Pkg. 25

TELEPHONE TYPE JACKS

The body is brass nickel plated. Small, rugged and they are designed for long life, with low contact resistance snap springs made specially from nickel silver alloy which is corrosion resistant. Mounts in ⅜" hole.

E — Cat. No. 257 — Open Circuit Two Conductor ..... Std. Pkg. 25
F — Cat. No. 258 — Single Closed Circuit Two Conductor ..... Std. Pkg. 25
G — Cat. No. 259 — Open Circuit Three Conductor ..... Std. Pkg. 25
H — Cat. No. 260 — Single Closed Circuit Three Conductor ..... Std. Pkg. 25

TEST LEADS

J — BIRNBACH HEAVY DUTY HIGH VOLTAGE TEST LEADS

Overall length 60". Tips are heavy solid brass nickel plated. Rugged, dependable heavy duty bakelite prods. Color coded Red and Black. Uses our Hi Volt kinkless test lead wire.

Cat. No.	Std. Pkg.
562 — Heavy Duty High Voltage Test Leads	10

L — DELUXE AND BAKELITE PENCIL TYPE TEST LEADS

No. 408 Bakelite pencil test leads, color coded, Red, Black, all with kinkless test lead wire. Overall length 60". #560 and #561 polished cast phenolic resin handles, solderless type tips. 50" long. Color coded Red, Black.

Cat. No.	Std. Pkg.
408 — Bakelite Pencil Type Test Leads, 6" handles	10
560 — DeLuxe Solderless Prod Test Leads, 5" handles	25
561 — DeLuxe Needlepoint Prod Test Leads, 5" handles	25

N — CRYSTAL SOCKET

Glazed ceramic base. Phosphor bronze silver plated contacts spaced .486". Pin diameter .051, mtg. hole .125. Std. Pkg. 25.

Cat No. 595 — Crystal Socket

K — ALLIGATOR CLIP TEST LEADS

Black and Red kinkless test lead wire with Alligator Clips at each end.

Cat. No.	Wire Length	Std. Pkg.
675	12"	25
676	24"	25
677	36"	25
678	48"	25

SPECIAL ASSEMBLIES AVAILABLE TO ORDER

K_1 — STRETCH LEADS

Kink-Proof Retracted 9" Coil

No tangling or knotting of wires. Lead coil only 9", extends to 6 feet.

Cat. No. 564 Solderless phone tip, retractile wire, solderless prod. Std. Pkg. 10.

L — PUSH BUTTON KINKLESS TEST LEADS

556 Solderless phone tip one end, push button tip other end. Std. Pkg. 12
557 Solderless phone tip one end, push button banana plug other end. Std. Pkg. 12

M — BIRNBACH NEEDLEPOINT TEST LEADS

Have Red and Black 4" fibre handles. Use kinkless lead wire. Overall length 50". Good, dependable low priced leads.

Cat. No.	Std. Pkg.
420 — Needlepoint Phone Tip Test Leads	25
421 — Needlepoint Spade Lug Test Leads	25
422 — Solderlss Phone Tip Test Leads	25
423 — Solderless Spade Lug Test Leads	25

See Pages 1660-1665 for Birnbach Prices for Above Items
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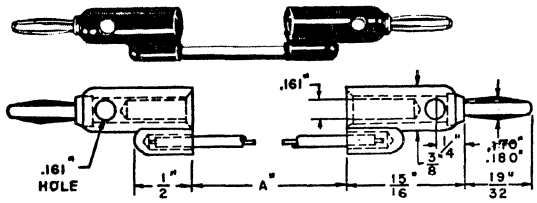
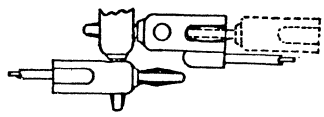
Birnbach

PATCH CORDS
PHONO JACK & PLUGS - PHONO SPLICE/TIP

MOLDED "STACKING TYPE" PATCH CORDS



1. Never ending banana plug receptacle.
2. Interconnects unlimited amount of multiple circuits.
3. Positive and lasting contact for all standard banana plugs.
4. Four leaved heat treated beryllium copper spring.
   a. 360 degrees spring contact
   b. maintains resiliency after thousands of insertions.
5. Supplied in Red, Black, Yellow or Green. (Specify Color)
   (Special colors on request)
6. Handle molded to body and to wire.
7. 10,000 volt rubber covered flexible wire.
   a. 65 strands #36 insulated to an O.D. of .140.



Cat. No.	("A") Wire	Std. Pkg.
655-8	8 inches	12
655-12	12 inches	12
655-24	24 inches	12
655-36	36 inches	12

PHONO-JACKS

Small, compact . . . where space is at a premium.

Cat. No.	Std. Pkg.
597	50

Space Saver . . . Rivets and grounds to chassis.

Cat. No.	Std. Pkg.
598	50

Provides a never-ending banana plug receptacle to interconnect an unlimited amount of multiple circuits. The cross hole is designed for positive contact of all standard banana plugs. Fits all standard banana jacks. Four-leaved phosphor bronze nickel plated spring. Red or Black assemblies. Specify color. Std. pkg. 10.

		Pkg.
Cat. No. 653-8	8" Wire Length	12
Cat. No. 653-12	12" Wire Length	12
Cat. No. 653-24	24" Wire Length	12
Cat. No. 653-36	36" Wire Length	12

PHONE TIP PLUG SPLICE

Takes all standard phone tip plugs excellent for quick connections or test, lead extensions.

Colors: Red, Black, Yellow, Green.

Cat. No. 619 — Insulated Banana Plug Splice ..... Std. pkg. 25

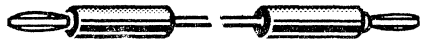
IN-LINE PHONE TIP JACK

Takes all standard phone tip plugs. Can be used as lead extension.

Colors: Red, Black, Yellow, Green.

Cat. No. 621 — Insulated-In-Line Tip Jack ..... Std. pkg. 25

BIRNBACH PATCH CORDS



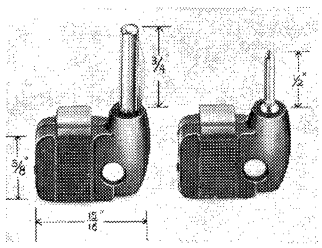
Birnbach No. 465 Banana Plugs connected to our kinkless test lead wire. Used to interconnect circuits. Fits all standard banana jacks. Specify red or black.

Cat. No.	Wire Length	Std. Pkg.
607	12"	25
608	24"	25
609	36"	25
610	48"	25

SHIELDED EXTENSION JACK

Cadmium plated brass shell with black bakelite insert. Length is 2-7/16". Insulates for solder grip contact. Mates with No. 248 Phono Plug.

Cat. No.	Std. Pkg.
246—Inline Extension Jack	100



122 # 121

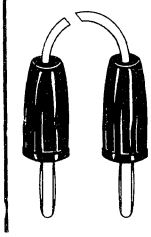
PUSH BUTTON PHONE TIP PLUGS AND BANANA PLUGS

Description: Wire is fastened easily, speedily, and securely without soldering. Simply by pressing the push buttons the bare wire can be inserted into the opening of the plug.

Cat. No.		Std. Pkg.
121	Push Button Phone Tip Plug, Red and Black	100
122	Push Button Banana Plug, Red, Black, Yellow, Green, White	100

No. 121 Phone Tip Plug will fit all Standard Phone Tip Jacks. No. 122 Banana Plug will fit all Standard Banana Jacks.

BIRNBACH NYLON HANDLE PATCH CORDS

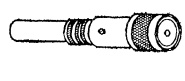


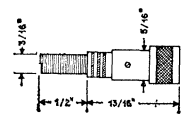
Birnbach #1162 Banana Plugs using molded nylon handle connected to our plastic kinkless test lead wire #18 65/3 TC. Suitable for 10 KV. Wire is same color as handle. Fo interconnecting circuits. Fits standard Banana Jacks.

Specify color: Red, Blk, Yellow, Green.

Cat No.	Wire Length	Std. Pkge.
657-8	8"	25
657-12	12"	25
657-24	24"	25
657-36	36"	25
657-48	48"	25

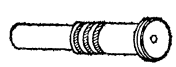
MINIATURE MICROPHONE CONNECTOR

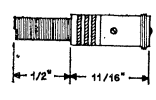




Single contact female.

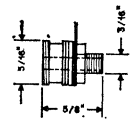
Std. pkg.
No. 134 Miniature Female Conn. 50





Single Contact Male
No. 135 Miniature Male Conn. 50

MINIATURE CHASSIS CONNECTOR



Single Contact Male

Complete with insulating washer and lug. Mounts in ¼" hole. Mates with No. 134.

Std. pkg.
No. 136 Miniature Chassis Conn. 50

BIRNBACH THREADED RODS

These brass nickel plated threaded rods are standard parts of of our insulator assemblies.

Cat. No.	Length	Thread	Std. Pkg.
16	4"	¼-20	100
17	5½"	¼-20	100
18	10"	¼-20	100
113	15"	¼-20	100
114	1⅜"	10-32	100
115	1⅝"	10-32	100
116	2¼"	10-32	100
117	8"	10-32	100
118	8"	8-32	100
119	8"	6-32	100
15	2"	6-32	100

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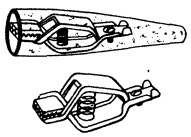
See Pages 1660-1665 for Birnbach Prices for Above Items

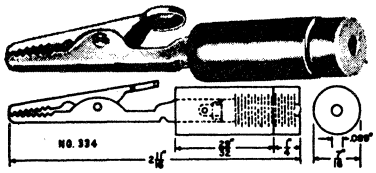
Birnbach — ALLIGATOR CLIPS — TEST CLIPS

BIRNBACH TEST CLIPS

The teeth mesh correctly permitting good contact to be made. The No. 27-C is a solid copper clip with a brass screw designed for high frequency work.



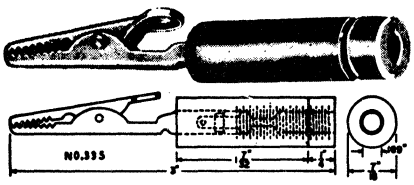
Cat. No.	Length	Jaw Spread	Capacity	Std. Pkg.
27—Pee Wee	1½"	⅜"	5 Amp.	50
28—Midget	2"	5/16"	10 Amp.	50
29—Medium	2⅞"	1"	25 Amp.	50
30—Large	4"	1¼"	50 Amp.	50
27C—Pee Wee Copper	1½"	⅜"	10 Amp.	50
27R— Vinyl Sleeve—Red or Black				50



ALLIGATOR CLIP WITH PHONE TIP JACK

Handle has our No. 31 clip and our No. 407 tip jack in rear for all standard phone tip plugs. Colors: Red, Black.

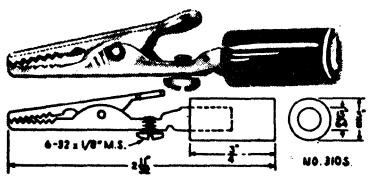
Cat. No.	Std. Pkg.
334—Alligator Clip with Phone Tip Jack	50
336—Same as above except with our #31C screw type Copper Alligator Clip	50



ALLIGATOR CLIP COMBINATION JACK

Insulated alligator clip is composed of our #31, steel, cadmium plated Alligator Clip with our #333 Combination Jack in rear allowing the adaption of both standard senior phone tip plugs and banana plugs to Alligator Clips. Colors: Red, Black.

Cat. No.	Std. Pkg.
335—Alligator Clip Combination Jack	50
337—Same as above except with our #31C screw type Copper Alligator Clip	50



INSULATED ALLIGATOR CLIP (Screw Type)

Made of steel, cadmium plated. Accurately matching jaws for tight grip. Has screw for solderless connection. Banana plug fits into rear of clip. Insulated handle. Colors: Red, Black.

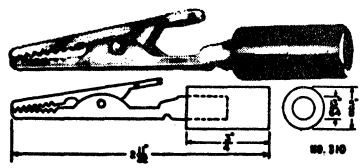
Cat. No.	Std. Pkg.
310S—Insulated Alligator Clip	50
310C—Insulated Copper Alligator Clip	50

MICRO-GATOR CLIPS

The Alligator Clip With the Microscopic Tip. Use it where no other clip can go—for tight spots, printed circuits, etc. Length 1 3/32". Jaw spread, 7/32". Tiny tip, 1/32" across. New extra strong "keyed in" type hinge. Solder connection with clinching ears to relieve strain on wire.

Cat. No.	Type	Std. Pkg.
31 MG/S	Steel, Cad. Plated	50
31 MG/C	Solid Copper	50
31 FB	Insulator Boots to Fit	50

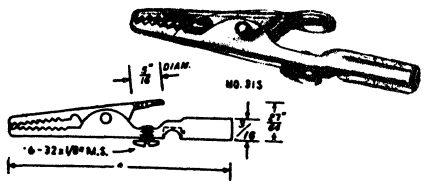
Specify color: Red, black, blue, yellow, white, green — 31 MG/S or 31 MG/C



INSULATED ALLIGATOR CLIP

Made of steel, cadmium plated. Insulated handle allows use of all banana plugs. Has small soldering lip. Colors: Red, Black.

Cat. No.	Std. Pkg.
310—Insulated Alligator Clip	50
310B—1½" Insulated handle Alligator Clip	50



ALLIGATOR CLIP (Screw Type)

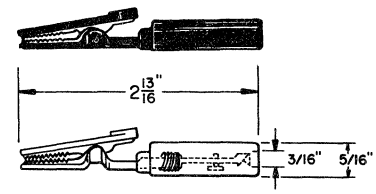
Made of cadmium plated steel. The jaws match accurately, permitting them to grip all kinds of wire securely. Has screw for solderless wire connection. Banana plug fits into rear of clip.

Cat. No.	Std. Pkg.
31—Alligator Clip (no screw)	50
31S—Alligator Clip with screw	50
31C—Alligator Clip (Copper) w/scr.	50

ALLIGATOR CLIP VINYL INSULATOR BOOT

Extremely flexible. Made to fit Nos. 31, 31S, 31C. Colors: White, Red, Black, Yellow, Blue, Green.

Cat. No.	Std. Pkg.
31R—Vinyl Insulator	50



ALL INSULATED ALLIGATOR CLIP

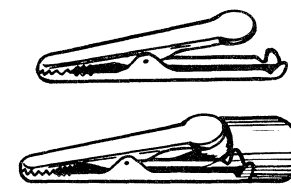
Steel Cadmium plated alligator clip. All metal parts covered with vinyl plastic insuring against shock. Solder Type connection. Red or Black. Specify color.

Cat. No. 123 Std. pkg. 50

PHONE TIP TO CLIP ADAPTER

Same as above with spring in rear of handle enabling the adapting of standard phone tip plugs to alligator clips. Red or Black. Specify color.

Cat. No. 124 Std. pkg. 50



MINIATURE ALLIGATOR CLIPS

Very small and compact. Useful where space is important. Accurately matching jaws for finger-tight grip. Length 1 3/32". Jaws open to 3/16". Has lip for soldering.

Cat. No.	Type	Std. Pkg.
31 MS	STEEL (Cad Plate)	50
31 MC	Solid Copper	50

31 MB INSULATOR BOOT to fit **31 MS** or **31 MC.** Specify Black, Red, Blue, Yellow, White, Green.

See Pages 1660-1665 for Birnbach Prices for Above Items

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Birnbach

SUB-MINIATURE TEFLON TERMINALS

BIRNBACH

NEW SUB-MINIATURE TEFLON TERMINALS

NEW SUB-MINIATURE TEFLON* terminals provide instant mounting without any extra hardware of any kind because of the exceptional properties of Virgin Teflon*.

Low dielectric constant, low power factor (60 cps to 30,000 mc), low capacitance, high volume, high surface resistivity, high dielectric strength (1500-2000 v/mil, s.t.), continuous service —450°F to plus 500°F, unaffected by soldering, chemically inert, damage resistant, water repellant.

Installed permanently in seconds, in metallic or non-metallic chassis in one, simple, corking motion into punched or drilled holes. Mounting Hole Data: 1. Punch or drill the hole to a diameter that is .012" less than the diameter of the Teflon insulator which passes thru the chassis. 2. Where the thickness of the chassis permits, the entrance edge of the mounting hole should be countersunk 30° to the diameter of the insulator. Where chassis thickness will not permit (.040" or smaller), countersink 45° to the diameter of the insulator.

Speeds up assembly — cut production costs, no nuts, washers, staking or solding necessary especially adapted in crowded assemblies.

As for HF, VHF, UHF, microwave, radar, telemetering, guided missile instrumentation and circuitry.

Your inquiries invited for sizes not shown here. *DuPont TM

MATERIALS

Teflon* (MIL-P-19468) ..... 100% Virgin Teflon*, produced from raw resin to insure maximum quality for terminal body.

Property	ASTM Test	Value
ELECTRICAL		
Dielectric Strength Short Time	D149-55T	500-2000 V/Mil dependent upon thickness
Dielectric Constant 60 to 10^6 cycles	D150-54T	2.0—2.1
Dielectric Constant 10^9 cycles	D150-54T	2.0—2.1
Dissipation Factor 60 to 10^6 cycles	D150-54T	Greater than 0.0003
Dissipation Factor 10^9 cycles	D150-54T	Greater than 0.0003
Surface Resistivity 100% R.H.	D257-57	Less than 10^{15} OHMS/sq.
Surface Arc Resistance	D495-56T	Does not track
MECHANICAL		
Specific Gravity	D792-50	2.14—2.19
Hardness Durometer	D676-49T	D50—D65
Service Temperature		—450° to +500°F
Flammability		Non-Flammable
Water Absorption		Does not absorb moisture
Coefficient of Friction		.04 against polished steel

CHEMICAL

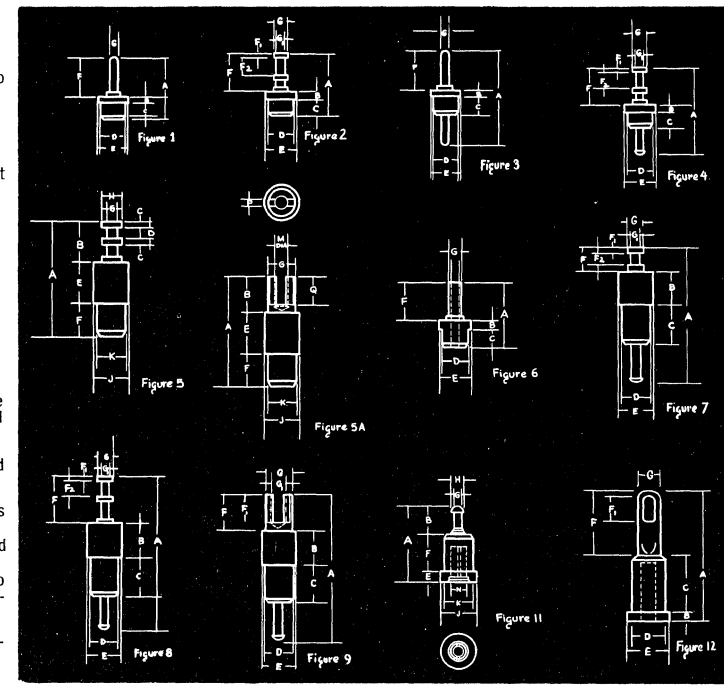
Inert to all known chemicals and solvents except Molten Alkali Metals and Fluorine at elevated temperatures and pressures.

Brass ..... The brass used in the terminal meets Mil. Spec. QQ-B-626 comp. ½H.

Test Jack Material ..... Beryllium Copper with .000030 min. Gold Flash over .0003 min. Silver Plate

Plating ..... Solder Finish Electro Solder Plate (40 to 70% tin content) min. .0003 Electro Solder Plate over .0001 Copper

Also available in Silver, Gold Flash or Gold Plate to Mil Specs or other special plating.



Cat. No.	Fig.	SUB-MINIATURE STAND-OFFS VOLTAGE FLASHOVER ° Sea Level	50	100	200	Cap. MMF	A	B	C	+.002" −.000 D diam.	STD. PKG. 100, 1000 E diam.	F	F_1	F_2	G diam.	G_1 diam.			
506	1	3800	1400			.41	.350	.040	.100	.148	.172	.210			.040				
507	1	3950	1400			.39	.410	.040	.160	.148	.172	.210			.040				
508	1	3500	1410			.32	.500	.040	.250	.148	.172	.210			.040				
510	2	3960	1330			.41	.350	.040	.100	.148	.172	.210	.020	.100	.040	.080			
511	2	4060	1275			.36	.375	.040	.125	.148	.172	.210	.020	.100	.040	.080			
512	2	4150	1383			.36	.350	.040	.100	.179	.200	.210	.020	.100	.040	.080			
510-01	2	5580	1800			.45	.428	.093	.125	.148	.172	.210	.020	.100	.040	.080			
510-02	2	3730	1350			.37	.500	.040	.250	.148	.172	.210	.020	.100	.040	.080			
511-01	5	6220	1980			.58	.522	.125	.150	.165	.187	.250	.020	.095	.040	.093			
511-02	5	5300	1550	325	290	.60	.487	.046	.287	.185	.218	.154	.020	.046	.046	.093			
512-01	5A	4930	1933			.50	.478	.125	.150	.171	.187	.203	.156		.148	.078			
		SUB-MINIATURE FEED-THRUS									STD. PKG. 100, 1000								
515	3	3960	1720			.55	.443	.040	.100	.148	.172	.210			.040				
514	3	4228	1135			.73	.515	.040	.100	.148	.172	.210			.045				
516	3	3984	1250			.71	.725	.040	.100	.148	.172	.210			.040				
518	4	3970	1340			.62	.500	.040	.100	.148	.172	.210	.020	.100	.040	.080			
519	4	4130	1190			.69	.500	.040	.165	.148	.172	.210	.020	.100	.040	.080			
517	6						.193	.025	.063	.125	.150	.105			.040	.030			
520	7	4000	1250	275	250	.80	.540	.063	.171	.171	.187	.133	.020	.093	.046	.093			
521	8	4230	1275			.72	.836	.187	.165	.148	.172	.250	.020	.093	.040	.093			
																	M	P	Q
522	9	5740	1775			.81	.821			.171	.187	.203			.148		.078	.046	.156
		CONNECTORS AND TEST JACKS									STD. PKG. 100, 1000						L	N[b]	
525-01	11	3500	725	275	250	.70	.637	.050	.400	.185*	.218	.187	.031	.104	.054	.074	.250	.080	
525-02	11	3500	1155			.80	.437	.046	.271	.185*	.218	.120	.037	.053	.054	.074	.195	.080	
525-03	11	3100				.50	.345	.046	.179	.148	.172	.120	.023	.077	.046	.050	.140	.040	
																			Q[a]
523	12	4300	975	300	275	.50	.687	.046	.287	.185*	.218	.354			.105		.263	.140	.042

NOTES:

Terminals may be ordered with Teflon insulators in reverse position of those shown making possible the entire assembly from one side. Add "R" to part number.

° Altitude — Thousands of feet. Capacitance measured when terminals installed in .062" thick aluminum chassis.

*Tolerance: ±.001". [a]—Width of wire hole. [b]—Diam. of probe received by contact.

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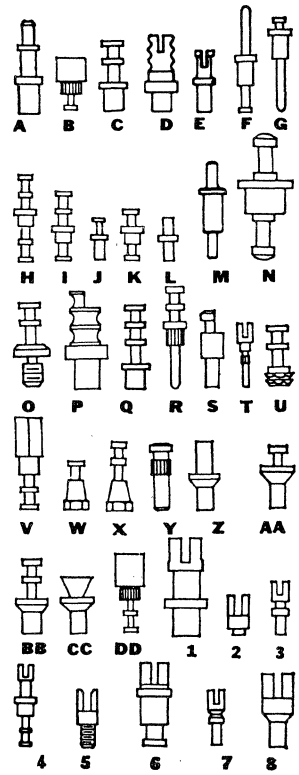
See Pages 1660-1665 for Birnbach Prices for Above Items

CAMBRIDGE THERMIONIC CORPORATION

CAMBION® SOLDER TERMINALS — TURRET, PIN & FORK TYPES

Cambion No.	Fig.	Diameter, Inches: Shank (Thd.)	Turret	Shoulder	Height, In. Ref.: Board: Above	Below	Board Thickness*	Notes	Net Pkg 100: 100-499	500-999	Net Per 1000, Lots of: 1000-4999	5000-9999	10000-24999	25000-49999
1011	A	.090	.093	.125	.290	.....	1—6	.....	$2.01	$1.83	$15.80	$14.50	$13.30	$12.90
1012	A	.090	.093	.125	.427	.....	1—6	.....	2.20	2.00	17.60	16.10	14.80	14.30
1013	A	.090	.109	.156	.343	.....	1—6	.....	2.42	2.20	19.30	17.70	16.30	15.70
1014	A	.090	.109	.156	.471	.....	1—6	.....	2.75	2.50	21.30	19.60	18.00	17.40
1021	B	.220	.125	.312‡	.218	.172	3	a, y	7.15	6.50	56.40	51.70	47.50	45.80
1022	B	.250	.141	.344‡	.250	.203	4	a, y	7.92	7.20	62.30	57.10	52.50	50.60
1023	B	.257	.156	.375‡	.312	.203	5	a, y	8.69	7.90	68.20	62.60	57.50	55.40
1026	C	.090	.094	.125	.237	.....	1—4	.....	1.36	1.24	10.70	9.80	9.10	8.80
1027	D	.112	.140	.188	.328	.070†	1—4	b	3.52	3.20	27.10	24.80	22.80	22.00
1028	E	.071	.096	.125	.188	.040†	1—4	b	2.83	2.57	22.20	20.30	18.80	18.20
1030	F	.072	.050	.094	.250	.125	1—6	.....	3.63	3.30	28.10	25.80	23.70	22.80
1031	G	.072	.050	.094	.078	.250	1—6	.....	2.81	2.55	22.00	20.20	18.70	18.10
1032	G	.062	.045	.078	.078	.140	1—4	.....	1.76	1.60	13.80	12.60	11.70	11.30
1035	H	.125	.093	.156	.237	.134	1—6	c	2.39	2.17	18.70	17.20	15.90	15.40
1036	I	.125	.093	.156	.237	.082	1—6	c	2.26	2.05	17.70	16.20	15.00	14.50
1040	J	.090	.109	.156	.159	.....	1—5	.....	1.93	1.75	14.80	13.60	12.50	12.00
1041	K	.090	.109	.156	.159	.082	1—5	d	2.01	1.83	15.80	14.50	13.40	13.00
1042	I	.090	.109	.156	.281	.082	1—5	d	2.55	2.32	20.00	18.40	17.00	16.40
1043	H	.090	.109	.156	.281	.164	1—5	d	2.53	2.30	19.90	18.20	16.90	16.30
1081	H	.201	.145	.250	.342	.315	2—6	.....	4.62	4.20	36.60	33.60	30.70	29.60
1091	C	.090	.093	.125	.219	.....	1—6	.....	3.20	2.91	25.10	23.00	21.30	20.60
1130•	L	.060	.050	.094	.125	.....	11—4	e, z	1.65	1.50	12.90	11.90	11.00	10.60
1131•	L	.060	.050	.094	.188	.....	11—6	e, z	1.76	1.60	14.10	12.90	11.90	11.50
1132•	L	.060	.050	.094	.250	.....	1—4	e, z	1.76	1.60	14.10	12.90	11.90	11.50
1133•	L	.060	.050	.094	.313	.....	1—4	e, z	2.04	1.85	16.10	14.80	13.70	13.20
1134•	L	.060	.050	.094	.375	.....	1—6	e, z	2.04	1.85	16.10	14.80	13.70	13.20
1135•	L	.060	.050	.094	.438	.....	2—4	e, z	2.26	2.05	17.70	16.20	15.00	14.50
1136•	L	.060	.050	.094	.500	.....	2—4	e, z	2.37	2.15	18.90	17.30	16.00	15.50
1140•	M	.108	.050	.156	.188	.156	1—6	f, z	2.42	2.20	19.10	17.00	16.20	15.70
1141•	M	.108	.050	.156	.375	.156	1—6	f, z	3.03	2.75	23.70	21.70	20.10	19.40
1142•	M	.108	.050	.156	.375	.344	1—6	f, z	3.69	3.35	29.10	26.70	24.70	23.90
1143	N	.181	.093	.250	.250	.219	1—6	.....	3.56	3.24	28.00	25.70	23.70	23.00
1245•	J	.112	.145	.188	.234	.....	1—6	h	1.90	1.73	14.90	13.70	12.70	12.30
1457•	J	.078	.075	.125	.187	.....	1—4	h	1.19	1.08	9.30	8.50	7.90	7.60
1459	L	.039	.039	.062	.080	.022†	2	g	1.65	1.50	12.90	11.80	10.90	10.60
1460	L	.046	.046	.078	.090	.028†	2	g	1.65	1.50	12.90	11.80	10.90	10.60
1461	L	.050	.050	.078	.090	.033†	2	g	1.65	1.50	12.90	11.80	10.90	10.60
1462	L	.059	.059	.094	.090	.040†	2	g	1.65	1.50	12.90	11.80	10.90	10.60
1463	N	.116	.070	.156	.156	.125	1—5	.....	1.71	1.55	13.30	12.20	11.30	10.90
1512	J	.062	.093	.125	.156	.043†	1—6	g	1.98	1.80	15.50	14.20	13.20	12.70
1513	C	.112	.145	.188	.328	.078†	1—6	g	2.66	2.42	20.80	19.20	17.70	17.10
1520	I	.114	.145	.188	.360	.109	1—6	g, i	2.88	2.62	22.60	20.70	19.20	18.60
1548	C	.112	.146	.188	.312	.078†	1—6	.....	1.65	1.50	12.90	11.80	10.90	10.60
1558•	C	.090	.093	.125	.219	.....	1—6	.....	1.11	1.01	8.70	8.00	7.40	7.25
1579	I	.202	.141	.250	.344	.110	1—5	.....	3.75	3.41	29.40	27.00	25.00	24.20
1582•	O	(4-40)	.145	.188	.357	.....	1, 2	j	3.70	3.36	29.00	26.60	24.60	23.80
1597	C	.090	.093	.125	.219	.....	1—6	.....	1.35	1.23	10.60	9.70	9.00	8.70
1604	J	.062	.062	.094	.093	.....	11—3	.....	1.36	1.24	10.70	9.80	9.10	8.80
1619	N	.242	.154	.312	.342	.280	6	.....	7.37	6.70	58.30	53.50	49.00	47.20
1620•	H	.262	.200	.312	.500	.436	2—6	.....	7.92	7.20	62.40	57.30	52.40	50.50
1724•	C	.112	.142	.188	.359	.....	1—6	h	1.83	1.66	14.40	13.20	12.20	11.80
1797	J	.110	.138	.188	.188	.067†	1—4	.....	1.87	1.70	14.60	13.40	12.40	12.00
1798	C	.135	.110	.188	.312	.043†	2—5	.....	2.83	2.57	22.20	20.30	18.80	18.20
1979	P	.112	.130	.188	.317	.060†	1—6	.....	2.86	2.60	22.50	20.60	19.10	18.40
2000•	I	.090	.063	.125	.219	.104	1—4	.....	1.85	1.68	14.50	13.30	12.30	11.90
2004•	H	.090	.063	.125	.219	.188	1—4	.....	1.82	1.65	14.20	13.00	12.10	11.70
2027	J	.071	.096	.125	.187	.043†	1—4	.....	1.61	1.46	12.60	11.60	10.60	10.20
2034	C	.090	.109	.156	.281	.....	1—6	.....	1.91	1.74	15.00	13.70	12.60	12.10
2040•	H	.072	.050	.094	.186	.164	1—6	.....	1.97	1.79	15.40	14.10	13.00	12.60
2041	J	.072	.050	.094	.104	.....	1—6	.....	1.22	1.11	9.60	8.80	8.10	7.90
2042•	K	.072	.050	.094	.104	.082	1—6	.....	1.33	1.21	10.40	9.60	8.90	8.60
2043	C	.072	.050	.094	.186	.....	1—6	.....	1.27	1.16	10.00	9.20	8.50	8.20
2044•	I	.072	.050	.094	.186	.082	1—6	.....	1.41	1.28	11.00	10.10	9.30	9.00
2051•	O	(4-40)	.145	.188	.357	.....	1, 2	j, k	4.16	3.78	32.60	29.90	27.70	26.80
2080•	Q	.090	.093	.125	.301	.....	1—5	.....	1.72	1.56	13.50	12.40	11.40	11.10
2081	R	.120	.093	.156	.219	.219	1—4	l	2.57	2.34	20.20	18.50	17.10	16.50
2084•	Q	.112	.145	.188	.484	.....	1—6	h	3.30	3.00	25.90	23.80	21.80	21.00
2085•	J	.047	.040	.062	.094	.....	11—4	.....	1.02	.93	8.10	7.40	6.80	6.50
2100	J	.062	.062	.094	.093	.022†	11—3	.....	1.63	1.48	12.80	11.70	10.80	10.50
2110•	C	.262	.200	.312	.500	.....	2—6	.....	6.30	5.73	49.40	45.40	41.90	40.60
2141	K	.116	.096	.156	.187	.187	1—4	m	5.39	4.90	42.20	38.70	35.50	34.40
2154	S	.047	.072	.072	.166	.026†	11—6	.....	3.48	3.16	27.30	25.00	23.00	22.20
2228	T	.062	.094	.047#	.156	.....	1, 2	g, n	2.75	2.50	21.40	19.60	18.00	17.40
2267	U	.125	.093	.120	.187	.....	1	o	2.31	2.10	18.10	16.60	15.20	14.70
2268	U	.156	.109	.150	.244	.....	1	o	2.97	2.70	23.40	21.40	19.70	19.00
2269	U	.188	.145	.185	.327	.....	1	o	3.74	3.40	29.00	26.60	24.40	23.50
2345	V	.125	.093	.156‡	.238	.187	3	p	5.52	5.02	43.40	39.80	36.80	35.60
2380	W	.250	.140	.234	.593	.....	1	g, p	7.13	6.48	56.00	51.30	47.50	45.90
2381	X	.250	.140	.234	.719	.....	1	g, p	7.02	6.38	55.10	50.50	46.70	45.20
2420	Y	.087	.114	.099	.047	.064†	1	g	2.88	2.62	22.60	20.70	19.20	18.60
2750	L	.060	.060	.125	.156	.....	1—4	g	1.67	1.52	13.20	12.10	11.10	10.80
2751	Z	.060	.060	.125	.188	.....	1—4	g	1.67	1.52	13.20	12.10	11.10	10.80
2753	AA	.060	.060	.125	.136	.....	1—4	g	1.67	1.52	13.20	12.10	11.10	10.80
2754	BB	.060	.060	.125	.188	.....	1—4	g	1.67	1.52	13.20	12.10	11.10	10.80
2755	CC	.060	.122	.125	.136	.042†	1—4	g	1.67	1.52	13.20	12.10	11.10	10.80
3495	DD	.140	.093	.188‡	.250	.187	2—6	a, y	7.92	7.20	61.30	56.20	53.40	50.70
3653•	C	.062	.062	.094	.156	.....	11—4	q	1.33	1.21	10.40	9.60	8.90	8.60
1010	1	.112	.146§	.040#	.312	.078†	1—6	r	5.01	4.55	39.30	36.00	33.30	32.30
1018	2	.047	.072§	.025#	.094	.026†	11—6	s	1.76	1.60	13.80	12.60	11.70	11.30
1019	3	.047	.072§	.025#	.156	.026†	11—6	s	1.93	1.75	15.10	13.80	12.80	12.40
1024	4	.090	.090§	.032#	.219	.172	1—4	.....	3.01	2.74	23.60	21.70	20.00	19.40
1025	3	.112	.145§	.063#	.391	.....	1—6	h	6.25	5.68	49.00	45.00	41.60	40.20
1578	3	.150	.142§	.064#	.375	.081†	2—5	t	3.37	3.06	26.40	24.20	22.40	21.70
1623	5	(6-32)	.188§	.053#	.207	.....	1	.....	7.48	6.80	53.20	50.70	49.60	48.00
1782•	3	.185	.250§	.090#	.688	.120†	3—6	u	8.04	7.31	63.10	57.90	53.50	51.80
1783•	3	.135	.219§	.062#	.500	.102†	2—4	u	5.40	4.91	42.30	38.80	35.90	34.70
1784•	7	.112	.156§	.040#	.344	.070†	2—4	u	3.05	2.77	23.90	21.90	20.30	19.60
1785	2	.062	.094§	.029#	.156	.043†	11—6	.....	1.61	1.46	12.60	11.60	10.60	10.20
1937	7	.112	.156§	.072#	.344	.070†	2—4	u	7.89	7.17	61.90	56.80	52.50	50.80
1969	2	.112	.188§	.053#	.328	.078†	1—5	v	2.44	2 22	19.10	17.60	16.20	15.70
2032	7	.156	.188§	.040#	.344	.070†	3	g, w	4.73	4.30	37.40	34.30	31.40	30.30
2086	6	.122	.156§	.032#	.156	.099	1—5	x	3.26	2.96	25.50	23.40	21.60	20.90
2089	3	.047	.062§	.025#	.156	.026†	11—6	s	2.08	1.89	16.20	14.90	13.70	13.20
2187	7	.032	.045§	.008#	.080	.....	11—4	g	1.98	1.80	15.50	14.20	13.20	12.70
2752	8	.060	.125§	.029#	.188	.042†	1—4	g	2.51	2.28	19.70	18.10	16.70	16.20
2926	8	.060	.125§	.029#	.188	.....	1—4	g	4.17	3.79	32.70	29.90	27.60	26.70

Silver-plated brass unless otherwise noted. Other platings available on special order. **See Chart and Notes for variations.**



*Suffixes available; see chart. †Thru-hole dia. ‡Base O.D.; hex on 2345. §Spade width. #Slot width. •Available in gold to MS Series 17000 and Western Electric specifications; add **-03** suffix to order (i.e., 2085-1-**03**); prices on request.

ORDERING CHART

Add suffix to indicate board thickness. Limitations are listed for each type in table, left, and notes below.

Suffix	Board Thckns.	Suffix	Board Thckns.
-11	1/64″	-4	1/8″
-1	1/32″	-5	5/16″
-2	1/16″	-6	1/4″
-3	3/32″		

Notes: a, Knurled mtg. shank tapped 4-40 for 3495; 6-32, 1021; 8-32, 1022; 10-32, 1023. **b,** Slotted type. **c,** Below-board turret .062″ dia. **d,** Below-board turret .070″ dia. **e,** Chamfers on top of shoulder and pin. **f,** Chamfers on top and bottom of shoulder and both pins; below-board pin .040″ dia. **g,** Electro-solder plate over copper flash. **h,** Chamfer on upper edge of shoulder. **i,** Below-board turret .082″ dia. **j,** Suffix -1 for .125″ and -2 for .188″ boards. **k,** Hex base. **l,** Straight knurl on shank. **m,** Below-board turret .088″ dia. **n,** Knurl .049″ l. with .297″ below-board lgth. for -1; .100″ lgth., -2. **o,** Hex-base, press mt. in .085″ min. depth hole. **p,** Grndg. type, hex base, 4-40 tap; 2345 also spacer. **q,** Add suffix -01 (silver plated); other finishes available. **r,** Castellated; two slots at right angles. **s,** Chamfer on upper edge of spade. **t,** Straight knurl on shank. **u,** Chamfer on bottom edge of spade, upper edge of shoulder; straight knurl on shank. **v,** Radial knurl on lower edge of shoulder. **w,** Chamfer on lower spade edge, upper shoulder edge. **x,** Thru-hole .047 dia. **y,** Copper-tin-zinc alloy plated. **z,** Electro-tin plate over copper plate.

1061-64A

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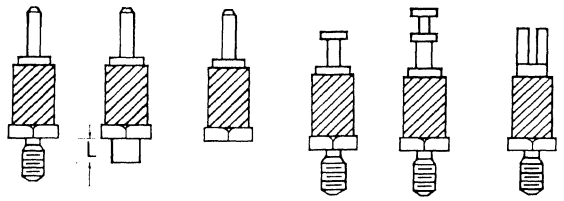
CAMBRIDGE THERMIONIC CORPORATION

CAMBION® INSULATED TERMINALS—DIALLYL AND MELAMINE



I-a Threaded Stud Type | I-b Rivet Type | I-c Threaded Hole Type | II-a | III-a | IV-a

Also available in -b and -c types (See Fig. I).

★QUANTITY DISCOUNTS

For quantity discount, read price from stock listing below. Find the same price in this table in the first column, and read across for best price in quantity desired.

Each	Net Each, Lots of					
1-49	50-99	100-249	250-499	500-999	1000-2499	2500-4999
19c	15c	13c	12c	11c	10c	9c
20c	16c	14c	13c	12c	11c	10c
21c	17c	15c	14c	13c	12c	11c
22c	18c	17c	15c	14c	13c	12c
23c	19c	17c	16c	14c	13c	12c
25c	19c	18c	16c	15c	14c	13c
26c	20c	18c	17c	15c	14c	13c
28c	22c	20c	18c	17c	16c	15c

DIALLYL-INSULATED TERMINALS

Brass mounting studs and terminals. **Stud Finish:** .0003″ cadmium plate, colored chromate. **Hex Base:** 5/32″ dia., types 4870-1 through 4893-1; 1/4″ dia. all others. **Breakdown Volts:** 6000 v. rms, types 4810-1 through 4869-1; 3000 v. rms, all others.

HOW TO ORDER

Order by complete catalog number, i.e., Basic Part No., Terminal Finish, and Insulator Color.

Example: **4810-1-0516**

Basic Part No. | **Terminal Finish (Electro Tin Lead)** | **Insulator Color (Blue)**

TERMINAL FINISHES

-05 Standard: Electro-tin lead. **-01:** Silver, available plated to order.

INSULATOR COLORS

Standard Color -16: Blue. All others, below, available manufactured to order.

Code	Color	Code	Color	Code	Color	Code	Color	Code	Color
10	Black	12	Red	14	Yellow	16	Blue	19	Natural
11	Brown	13	Orange	15	Green	18	Gray		

MELAMINE-INSULATED TERMINALS

All units listed here in diallyl are also available in melamine (-19 Natural color only), except Figure C types, threaded hole or internal thread configurations. Slightly lower prices for melamine units available upon request.

Camb. Basic Part No.	Fig.	Ht. Over Brd. In.	Pin, Tur. Dia., In.	Rivet Dia., or Thd. Size	Stud, "L" Lgth., or Tap Depth	Net Ea., 1-49*
4810-1	III-a	.719	.140	4-40	7/32	20c
4811-1	III-a	.719	.140	6-32	7/32	20c
4811-2	III-a	.719	.140	6-32	1/4	20c
4811-3	III-a	.719	.140	6-32	3/8	20c
4812-1	III-b	.719	.140	.098	.094*	20c
4812-2	III-b	.719	.140	.098	.125†	20c
4812-3	III-b	.719	.140	.098	.156‡	20c
4812-4	III-b	.719	.140	.098	.234§	20c
4813-1	III-b	.719	.140	.141	.094*	20c
4813-2	III-b	.719	.140	.141	.125†	20c
4813-3	III-b	.719	.140	.141	.156‡	20c
4813-4	III-b	.719	.140	.141	.234§	20c
4814-1	III-c	.719	.140	4-40	5/32	23c
4815-1	III-c	.719	.140	6-32	5/32	23c
4816-1	III-a	.938	.140	4-40	7/32	22c
4817-1	III-a	.938	.140	6-32	7/32	22c
4817-2	III-a	.938	.140	6-32	1/4	22c
4817-3	III-a	.938	.140	6-32	3/8	22c
4818-1	III-b	.938	.140	.098	.094*	22c
4818-2	III-b	.938	.140	.098	.125†	22c
4818-3	III-b	.938	.140	.098	.156‡	22c
4818-4	III-b	.938	.140	.098	.234§	22c
4819-1	III-b	.938	.140	.141	.094*	22c
4819-2	III-b	.938	.140	.141	.125†	22c
4819-3	III-b	.938	.140	.141	.156‡	22c
4819-4	III-b	.938	.140	.141	.234§	22c
4820-1	III-c	.938	.140	4-40	7/32	26c
4821-1	III-c	.938	.140	6-32	7/32	26c
4822-1	III-a	.594	.093	4-40	7/32	20c
4823-1	III-a	.594	.093	6-32	7/32	20c
4823-2	III-a	.594	.093	6-32	1/4	20c
4823-3	III-a	.594	.093	6-32	3/8	20c
4824-1	III-b	.594	.093	.098	.094*	20c
4824-2	III-b	.594	.093	.098	.125†	20c
4824-3	III-b	.594	.093	.098	.156‡	20c
4824-4	III-b	.594	.093	.098	.234§	20c
4825-1	III-b	.594	.093	.141	.094*	20c
4825-2	III-b	.594	.093	.141	.125†	20c
4825-3	III-b	.594	.093	.141	.156‡	20c
4825-4	III-b	.594	.093	.141	.234§	20c
4826-1	III-c	.594	.093	4-40	5/32	23c
4827-1	III-c	.594	.093	6-32	5/32	23c
4828-1	III-a	.813	.093	4-40	7/32	22c
4829-1	III-a	.813	.093	6-32	7/32	22c
4829-2	III-a	.813	.093	6-32	1/4	22c
4829-3	III-a	.813	.093	6-32	3/8	22c
4830-1	III-b	.813	.093	.098	.094*	22c
4830-2	III-b	.813	.093	.098	.125†	22c
4830-3	III-b	.813	.093	.098	.156‡	22c
4830-4	III-b	.813	.093	.098	.234§	22c
4831-1	III-b	.813	.093	.141	.094*	22c
4831-2	III-b	.813	.093	.141	.125†	22c
4831-3	III-b	.813	.093	.141	.156‡	22c
4831-4	III-b	.813	.093	.141	.234§	22c
4832-1	III-c	.813	.093	4-40	7/32	26c
4833-1	III-c	.813	.093	6-32	7/32	26c
4834-1	II-a	.594	.140	4-40	7/32	20c
4835-1	II-a	.594	.140	6-32	7/32	20c
4835-2	II-a	.594	.140	6-32	1/4	20c
4835-3	II-a	.594	.140	6-32	3/8	20c
4836-1	II-b	.594	.140	.098	.094*	20c
4836-2	II-b	.594	.140	.098	.125†	20c
4836-3	II-b	.594	.140	.098	.156‡	20c
4836-4	II-b	.594	.140	.098	.234§	20c
4837-1	II-b	.594	.140	.141	.094*	20c
4837-2	II-b	.594	.140	.141	.125†	20c
4837-3	II-b	.594	.140	.141	.156‡	20c
4837-4	II-b	.594	.140	.141	.234§	20c
4838-1	II-c	.594	.140	4-40	5/32	23c
4839-1	II-c	.594	.140	6-32	5/32	23c
4840-1	II-a	.813	.140	4-40	7/32	22c
4841-1	II-a	.813	.140	6-32	7/32	22c
4841-2	II-a	.813	.140	6-32	1/4	22c
4841-3	II-a	.813	.140	6-32	3/8	22c
4842-1	II-b	.813	.140	.098	.094*	22c
4842-2	II-b	.813	.140	.098	.125†	22c
4842-3	II-b	.813	.140	.098	.156‡	22c
4842-4	II-b	.813	.140	.098	.234§	22c
4843-1	II-b	.813	.140	.141	.094*	22c
4843-2	II-b	.813	.140	.141	.125†	22c
4843-3	II-b	.813	.140	.141	.156‡	22c
4843-4	II-b	.813	.140	.141	.234§	22c
4844-1	II-c	.813	.140	4-40	7/32	26c
4845-1	II-c	.813	.140	6-32	7/32	26c
4846-1	I-a	.665	.070	4-40	7/32	20c
4847-1	I-a	.665	.070	6-32	7/32	20c
4847-2	I-a	.665	.070	6-32	1/4	20c
4847-3	I-a	.665	.070	6-32	3/8	20c
4848-1	I-b	.665	.070	.098	.094*	20c
4848-2	I-b	.665	.070	.098	.125†	20c
4848-3	I-b	.665	.070	.098	.156‡	20c
4848-4	I-b	.665	.070	.098	.234§	20c
4849-1	I-b	.665	.070	.141	.094*	20c
4849-2	I-b	.665	.070	.141	.125†	20c
4849-3	I-b	.665	.070	.141	.156‡	20c
4849-4	I-b	.665	.070	.141	.234§	20c
4850-1	I-c	.665	.070	4-40	5/32	23c
4851-1	I-c	.665	.070	6-32	5/32	23c
4852-1	I-a	.884	.070	4-40	7/32	22c
4853-1	I-a	.884	.070	6-32	7/32	22c
4853-2	I-a	.884	.070	6-32	1/4	22c
4853-3	I-a	.884	.070	6-32	3/8	22c
4854-1	I-b	.884	.070	.098	.094*	22c
4854-2	I-b	.884	.070	.098	.125†	22c
4854-3	I-b	.884	.070	.098	.156‡	22c
4854-4	I-b	.884	.070	.098	.234§	22c
4855-1	I-b	.884	.070	.141	.094*	22c
4855-2	I-b	.884	.070	.141	.125†	22c
4855-3	I-b	.884	.070	.141	.156‡	22c
4855-4	I-b	.884	.070	.141	.234§	22c
4856-1	I-c	.884	.070	4-40	7/32	26c
4857-1	I-c	.884	.070	6-32	7/32	26c
4858-1	IV-a	.625	#	4-40	7/32	23c
4859-1	IV-a	.625	#	6-32	7/32	23c
4859-2	IV-a	.625	#	6-32	1/4	23c
4859-3	IV-a	.625	#	6-32	3/8	23c
4860-1	IV-b	.625	#	.098	.094*	23c
4860-2	IV-b	.625	#	.098	.125†	23c
4860-3	IV-b	.625	#	.098	.156‡	23c
4860-4	IV-b	.625	#	.098	.234§	23c
4861-1	IV-b	.625	#	.141	.094*	23c
4861-2	IV-b	.625	#	.141	.125†	23c
4861-3	IV-b	.625	#	.141	.156‡	23c
4861-4	IV-b	.625	#	.141	.234§	23c
4862-1	IV-c	.625	#	4-40	5/32	25c
4863-1	IV-c	.625	#	6-32	5/32	25c
4864-1	IV-a	.844	#	4-40	7/32	25c
4865-1	IV-a	.844	#	6-32	7/32	25c
4865-2	IV-a	.844	#	6-32	1/4	25c
4865-3	IV-a	.844	#	6-32	3/8	25c
4866-1	IV-b	.844	#	.098	.094*	25c
4866-2	IV-b	.844	#	.098	.125†	25c
4866-3	IV-b	.844	#	.098	.156‡	25c
4866-4	IV-b	.844	#	.098	.234§	25c
4867-1	IV-b	.844	#	.141	.094*	25c
4867-2	IV-b	.844	#	.141	.125†	25c
4867-3	IV-b	.844	#	.141	.156‡	25c
4867-4	IV-b	.844	#	.141	.234§	25c
4868-1	IV-c	.844	#	4-40	7/32	28c
4869-1	IV-c	.844	#	6-32	7/32	28c
4870-1	II-a	.390	.072	2-56	1/8	19c
4870-2	II-a	.390	.072	2-56	3/16	19c
4870-3	II-a	.390	.072	2-56	1/4	19c
4871-1	II-b	.390	.072	.078	.094*	19c
4871-2	II-b	.390	.072	.078	.125†	19c
4872-1	II-c	.390	.072	2-56	5/64	20c
4873-1	II-a	.547	.072	2-56	1/8	21c
4873-2	II-a	.547	.072	2-56	3/16	21c
4873-3	II-a	.547	.072	2-56	1/4	21c
4874-1	II-b	.547	.072	.078	.094*	21c
4874-2	II-b	.547	.072	.078	.125†	21c
4875-1	II-c	.547	.072	2-56	.117	22c
4876-1	II-a	.453	.072	2-56	1/8	19c
4876-2	II-a	.453	.072	2-56	3/16	19c
4876-3	II-a	.453	.072	2-56	1/4	19c
4877-1	II-b	.453	.072	.078	.094*	19c
4877-2	II-b	.453	.072	.078	.125†	19c
4878-1	II-c	.453	.072	2-56	5/64	20c
4879-1	II-a	.610	.072	2-56	1/8	21c
4879-2	II-a	.610	.072	2-56	3/16	21c
4879-3	II-a	.610	.072	2-56	1/4	21c
4880-1	II-b	.610	.072	.078	.094*	21c
4880-2	II-b	.610	.072	.078	.125†	21c
4881-1	II-c	.610	.072	2-56	.117	22c
4882-1	III-a	.390	.072	2-56	1/8	19c
4882-2	III-a	.390	.072	2-56	3/16	19c
4882-3	III-a	.390	.072	2-56	1/4	19c
4883-1	III-b	.390	.072	.078	.094*	19c
4883-2	III-b	.390	.072	.078	.125†	19c
4884-1	III-c	.390	.072	2-56	5/64	20c
4885-1	III-a	.547	.072	2-56	1/8	21c
4885-2	III-a	.547	.072	2-56	3/16	21c
4885-3	III-a	.547	.072	2-56	1/4	21c
4886-1	III-b	.547	.072	.078	.094*	21c
4886-2	III-b	.547	.072	.078	.125†	21c
4887-1	III-c	.547	.072	2-56	.117	22c
4888-1	I-a	.422	.060	2-56	1/8	19c
4888-2	I-a	.422	.060	2-56	3/16	19c
4888-3	I-a	.422	.060	2-56	1/4	19c
4889-1	I-b	.422	.060	.078	.094*	19c
4889-2	I-b	.422	.060	.078	.125†	19c
4890-1	I-c	.422	.060	2-56	5/64	20c
4891-1	I-a	.579	.060	2-56	1/8	21c
4891-2	I-a	.579	.060	2-56	3/16	21c
4891-3	I-a	.579	.060	2-56	1/4	21c
4892-1	I-b	.579	.060	.078	.094*	21c
4892-2	I-b	.579	.060	.078	.125†	21c
4893-1	I-c	.579	.060	2-56	.117	22c

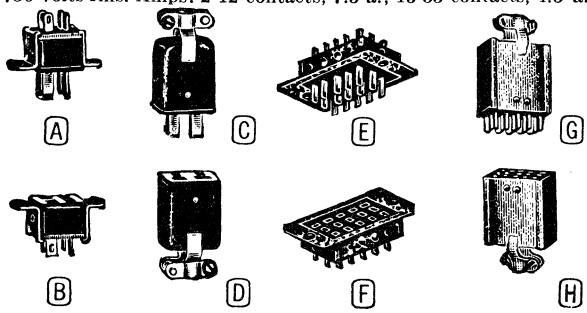
For panel thickness: *1/16″; †3/32″; ‡1/8″; §3/16″. #Spade slot .060″ x .062″.

FOR COMPLETE TECHNICAL INFORMATION ASK FOR CAMBION CATALOG 700 AVAILABLE UPON REQUEST

"Jones" Type Plugs, Sockets

300 SERIES CONNECTORS

Compact, polarized connectors. Insulating material is molded Bakelite. Fiber lined metal caps are black wrinkle finished. New "Monoblock" construction eliminates internal moisture traps. Snap-in contacts may be prewired or replaced. Rated Voltage: 730 volts rms. Amps: 2-12 contacts, 7.5 a.; 15-33 contacts, 4.5 a.



PLUGS WITH ANGLE BRACKETS (FIG. A)

Cinch No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
P-302-AB	2	$0.248	$0.198	$0.165	$0.132	$0.125
P-303-AB	3	.308	.246	.205	.164	.156
P-304-AB	4	.338	.27	.225	.18	.171
P-306-AB	6	.42	.336	.28	.224	.213
P-308-AB	8	.495	.396	.33	.264	.251
P-310-AB	10	.563	.45	.375	.30	.285
P-312-AB	12	.623	.498	.415	.332	.315

SOCKETS WITH ANGLE BRACKETS (FIG. B)

S-302-AB	2	$0.27	$0.216	$0.18	$0.144	$0.137
S-303-AB	3	.323	.258	.215	.172	.163
S-304-AB	4	.36	.288	.24	.192	.182
S-306-AB	6	.45	.36	.30	.24	.228
S-308-AB	8	.563	.45	.375	.30	.285
S-310-AB	10	.668	.534	.445	.356	.338
S-312-AB	12	.773	.618	.515	.412	.391

PLUGS WITH CABLE CLAMPS (FIG. C)

P-302-CCT	2	$0.57	$0.456	$0.38	$0.304	$0.289
P-303-CCT	3	.608	.486	.405	.324	.308
P-304-CCT	4	.668	.534	.445	.356	.338
P-306-CCT	6	.735	.588	.49	.392	.372
P-308-CCT	8	.81	.648	.54	.432	.41
P-310-CCT	10	.908	.726	.605	.484	.46
P-312-CCT	12	.99	.792	.66	.528	.502

SOCKETS WITH CABLE CLAMPS (FIG. D)

S-302-CCT	2	$0.578	$0.462	$0.385	$0.308	$0.293
S-303-CCT	3	.623	.498	.415	.332	.315
S-304-CCT	4	.675	.54	.45	.36	.342
S-306-CCT	6	.773	.618	.515	.412	.391
S-308-CCT	8	.90	.72	.60	.48	.456
S-310-CCT	10	1.005	.804	.67	.536	.509
S-312-CCT	12	1.155	.924	.77	.616	.585

PLUGS WITH SHALLOW BRACKETS (FIG. E)

P-315-SB	15	$1.223	$0.978	$0.815	$0.652	$0.619
P-318-SB	18	1.508	1.206	1.005	.804	.764
P-321-SB	21	1.778	1.422	1.185	.948	.901
P-324-SB	24	2.108	1.686	1.405	1.124	1.068
P-327-SB	27	2.37	1.896	1.58	1.264	1.201
P-330-SB	30	2.715	2.172	1.81	1.448	1.376
P-333-SB	33	2.993	2.394	1.995	1.596	1.516

SOCKETS WITH SHALLOW BRACKETS (FIG. F)

S-315-SB	15	$1.373	$1.098	$0.915	$0.732	$0.695
S-318-SB	18	1.635	1.308	1.09	.872	.828
S-321-SB	21	1.913	1.53	1.275	1.02	.969
S-324-SB	24	2.258	1.806	1.505	1.204	1.144
S-327-SB	27	2.52	2.016	1.68	1.344	1.277
S-330-SB	30	2.865	2.292	1.91	1.528	1.452
S-333-SB	33	3.135	2.508	2.09	1.672	1.588

PLUGS WITH CABLE CLAMPS (FIG. G)

P-315-CCT	15	$1.29	$1.032	$0.86	$0.688	$0.654
P-318-CCT	18	1.56	1.248	1.04	.832	.79
P-321-CCT	21	1.838	1.47	1.225	.98	.931
P-324-CCT	24	2.168	1.734	1.445	1.156	1.098
P-327-CCT	27	2.46	1.968	1.64	1.312	1.246
P-330-CCT	30	2.865	2.292	1.91	1.528	1.452
P-333-CCT	33	3.068	2.454	2.045	1.636	1.554

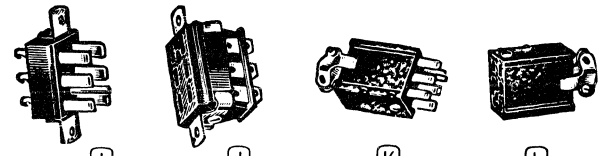
SOCKETS WITH CABLE CLAMPS (FIG. H)

S-315-CCT	15	$1.133	$0.906	$0.755	$0.604	$0.574
S-318-CCT	18	1.703	1.362	1.135	.908	.863
S-321-CCT	21	1.973	1.578	1.315	1.052	.999
S-324-CCT	24	2.325	1.86	1.55	1.24	1.178
S-327-CCT	27	2.595	2.076	1.73	1.384	1.315
S-330-CCT	30	3.00	2.40	2.00	1.60	1.52
S-333-CCT	33	3.21	2.568	2.14	1.712	1.626

400 AND 2400 SERIES CONNECTORS

400 Series are rated at 1200 volts rms at 15 amps. Polarized. Phosphor bronze "knifeswitch" socket contacts engage both sides of flat plug contacts.

2400 Series are rated at 1700 volts at 15 amps. New design provides greater contact surface, increased pressure and smoother action. Greater contact-to-contact and contact-to-ground distance. Interchangeable with the 400 Series.



400 SERIES PLUGS WITH ANGLE BRACKETS (FIG. I)

Cinch No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
P-402-AB	2	$0.623	$0.498	$0.415	$0.332	$0.315
P-404-AB	4	.758	.606	.505	.404	.384
P-406-AB	6	.915	.732	.61	.488	.464
P-408-AB	8	1.05	.84	.70	.56	.532
P-410-AB	10	1.193	.954	.795	.636	.604
P-412-AB	12	1.313	1.05	.875	.70	.665

2400 SERIES PLUGS WITH SHALLOW BRACKETS

P-2402-SB	2	$0.84	$0.672	$0.56	$0.448	$0.426
P-2404-SB	4	.99	.792	.66	.528	.502
P-2406-SB	6	1.155	.924	.77	.616	.585
P-2408-SB	8	1.305	1.044	.87	.696	.661
P-2410-SB	10	1.493	1.194	.995	.796	.756
P-2412-SB	12	1.635	1.308	1.09	.872	.828

400 SERIES SOCKETS WITH ANGLE BRACKETS (FIG. J)

S-402-AB	2	$0.705	$0.564	$0.47	$0.376	$0.357
S-404-AB	4	.915	.732	.61	.488	.464
S-406-AB	6	1.11	.888	.74	.592	.562
S-408-AB	8	1.313	1.05	.875	.70	.665
S-410-AB	10	1.538	1.23	1.025	.82	.779
S-412-AB	12	1.733	1.386	1.155	.924	.878

2400 SERIES SOCKETS WITH SHALLOW BRACKETS

S-2402-SB	2	$0.923	$0.738	$0.615	$0.492	$0.467
S-2404-SB	4	1.08	.864	.72	.576	.547
S-2406-SB	6	1.253	1.002	.835	.668	.635
S-2408-SB	8	1.425	1.14	.95	.76	.722
S-2410-SB	10	1.605	1.284	1.07	.856	.813
S-2412-SB	12	1.778	1.422	1.185	.948	.901

PLUGS WITH CABLE CLAMPS (FIG. K)

400 SERIES

P-402-CCT	2	$0.975	$0.78	$0.65	$0.52	$0.494
P-404-CCT	4	1.193	.954	.795	.636	.604
P-406-CCT	6	1.395	1.116	.93	.744	.707
P-408-CCT	8	1.59	1.272	1.06	.848	.806
P-410-CCT	10	1.793	1.434	1.195	.956	.908
P-412-CCT	12	2.003	1.602	1.335	1.068	1.015

2400 SERIES

P-2402-CCT	2	$1.185	$0.948	$0.79	$0.632	$0.60
P-2404-CCT	4	1.343	1.074	.895	.716	.68
P-2406-CCT	6	1.50	1.20	1.00	.80	.76
P-2408-CCT	8	1.643	1.314	1.095	.876	.832
P-2410-CCT	10	1.815	1.452	1.21	.968	.92
P-2412-CCT	12	2.003	1.602	1.335	1.068	1.015

SOCKETS WITH CABLE CLAMPS (FIG. L)

400 SERIES

S-402-CCT	2	$1.058	$0.846	$0.705	$0.564	$0.536
S-404-CCT	4	1.32	1.056	.88	.704	.669
S-406-CCT	6	1.605	1.284	1.07	.856	.813
S-408-CCT	8	1.883	1.506	1.255	1.004	.954
S-410-CCT	10	2.168	1.734	1.445	1.156	1.098
S-412-CCT	12	2.438	1.95	1.625	1.30	1.235

2400 SERIES

S-2402-CCT	2	$1.275	$1.02	$0.85	$0.68	$0.646
S-2404-CCT	4	1.425	1.14	.95	.76	.722
S-2406-CCT	6	1.583	1.266	1.055	.844	.802
S-2408-CCT	8	1.763	1.41	1.175	.94	.893
S-2410-CCT	10	1.943	1.554	1.295	1.036	.984
S-2412-CCT	12	2.123	1.698	1.415	1.132	1.075

NOTE: The above are the factory OEM prices, FOB factory, and are subject to change without notice.

Net

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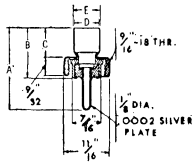
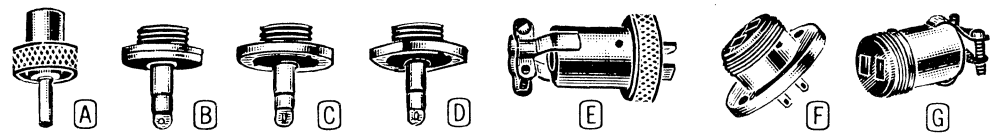
Cinch Plugs and Sockets

AUDIO PLUGS AND SOCKETS





SERIES 101 PLUGS (FIG. A)

All plugs are identical except the cable ferrule which is furnished in five sizes listed below. All metal parts are of brass. Fit 101 Series sockets. Ideal for high frequency connections.

Cinch No.	A	B	C	D	E
P-101-¼"	1¼"	¾"	7/16"	¼"	9/32"
P-101-.290	1¼"	¾"	7/16"	.290"	.319"
P-101-5/16"	1⅜"	⅞"	9/16"	5/16"	11/32"
P-101-⅜"	1 3/16"	11/16"	⅜"	⅜"	13/32"
P-101-½"	1⅞"	1⅜"	1 1/16"	½"	9/16"

QUANTITY PRICES FOR 101 SERIES PLUGS

Cinch No.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
P-101-¼"	$0.653	$0.522	$0.435	$0.348	$0.331
P-101-.290	.795	.636	.53	.424	.403
P-101-5/16"	.795	.636	.53	.424	.403
P-101-⅜"	.795	.636	.53	.424	.403
P-101-½"	.885	.708	.59	.472	.448

SERIES 101 SOCKETS

Brass base, bright nickel finish. Brass contact is silver plated. Insulation is of low loss natural color XXX Bakelite. Meets Navy specifications. Bakelite of No. S-101-D is recessed in the base. Two sides of base of No. S-101-D Mod are milled. Mounting Holes: No. S-101, #41 drill on 11/16" centers; all others, #30 drill on 13/16" centers.

Cinch No.	Fig.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
S-101	B	$0.578	$0.462	$0.385	$0.308	$0.293
S-101-D	C	.885	.708	.59	.472	.448
S-101-D Mod	D	.885	.708	.59	.472	.448

MODEL 201-⅜ PLUG

Same as Series 101 but is of heavier stock and larger. Made in one size only with ⅜" ferrule. All metal parts are of brass. Same finish as Series 101 and wax impregnated ceramic insulation. Length, 1 9/16", overall. Prong diameter, 5/32". Fits only Series 201 socket.

MODEL S-201 SOCKET (FIG. C)

Similar to No. S-101-D except larger. Brass base is bright nickel finish. Brass contact is silver plated. Insulation is low loss natural color XXX Bakelite. Mounting holes, #30 drill on 1" centers. Thread, ¾"-27.

QUANTITY PRICES FOR 201 SERIES PLUG AND SOCKET

Cinch No.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
P-201-⅜"	$1.02	$0.816	$0.68	$0.544	$0.517
S-201	1.095	.876	.73	.584	.555

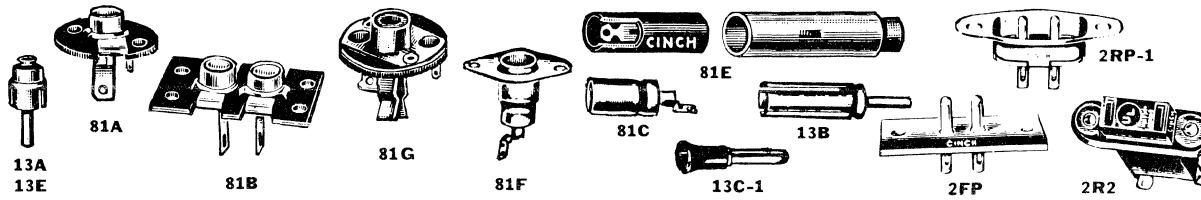
SERIES 202 PLUGS AND SOCKETS

Made in two contacts only. Brass metal parts with bright nickel finish. Molded Bakelite insulation. Phosphor bronze "knife switch" type socket contacts engage both sides of flat brass plug contacts—double contact area. Formed fiber linings in caps. Polarized. Knurled nut has ¾"-27 thread. Socket mounting holes, #30 drill on 1" centers. No. S-202-CCT-THR, when used with No. P-202-CCT, will make an ideal microphone connector.

Cinch No.	Fig.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
P-202-CCT	E	$0.81	$0.648	$0.54	$0.432	$0.41
S-202-CCT	E*	.825	.66	.55	.44	.418
P-202-FHT	E†	.653	.522	.435	.348	.331
S-202-FHT	E‡	.668	.534	.445	.356	.338
S-202-B	F	.96	.768	.64	.512	.486
P-202-B	F#	.923	.738	.615	.492	.467
S-202-CCT-THR	G	1.095	.876	.73	.584	.555

*Socket instead of plug. †Less cable clamp. ‡Socket instead of plug, less cable clamp. #Plug instead of socket.

JACKS AND PLUGS FOR RADIO, TV AND PHONOGRAPH APPLICATIONS



RCA TYPE PHONO CONNECTORS

Cinch No. 13A Plug—9/16" long pin. List Price.....**13c***
Cinch No. 13E Plug—11/16" long pin. List Price.....**13.2c***
Cinch No. 81A Jack—Single jack for No. 13A. Mtg. ctrs., 11/16". List Price....**21c***
Cinch No. 81B Jack—Double jack for No. 13A. Mtg. ctrs., 1 3/16". Jacks spaced on 7/16" ctrs. Size, 1½" x 1". List Price...**37.5c***
Cinch No. 81G Jack—Normally connected; this connection breaks when plug is inserted, making plug connection. Brass mtg. plate. Mtg. holes, .136". List **69.5c***

ANTENNA CONNECTORS

Cinch No. 81F Jack—Motorola type. Shielded. Sturdy steel flange, 15/16" mtg. ctrs. with .136" dia. mtg. holes. Mounts with screws or rivets. Mates 13B plug. List Price.....**36c***
Cinch No. 81C Jack—Same as 81F less flange. May be soldered in position. Mates No. 13B. List Price.....**24c***

MOTOROLA TYPE ANTENNA PLUG

Cinch No. 13B Plug—Has ⅛" pin extending 7/32" from shell whose eight cutting edges provide positive grounded connection when inserted in No. 81C or No. 81F. List Price.....**28.8c***

INSULATED PIN PLUG

Cinch No. 13C1 Plug—Pin, ⅛" brass tube, 9/16" lg. Fiber insulator, 13/32" lg. Mates Nos. 81A and 81B phono jacks. List Price.....**22.5c***

SHIELDED EXTENSION JACK

Cinch No. 81E Jack—Cadmium plated brass shell 2 7/16" lg. with black Bakelite insert providing insulation for heat treated steel, hot solder coated positive grip contact. Mates No. 13E plug.
Net Each, Lots of 1-99, **29.2c**; 100-999, **14.6c**

MODEL 2FP CONNECTOR PLUG

Consists of two prongs mounted on a Bakelite board. One piece contact. Mounting plate is of 1/16" natural XP Bakelite 1 5/8" lg. x ¾" w. The .135/.140" mounting holes are on 1¼" centers. An inexpensive current supply connector for TV sets.
Cinch No. 2FP—List Price.....**14.4c***

MODEL 2RP-1 RECESSED PLUG

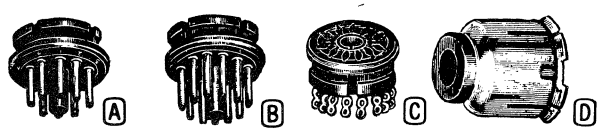
Recessed sub-panel mounting type plug. One piece contact. Perfect for current supply for TV sets. Rated at 125 v., 7 amps. Size: 5/8" w. x 1 5/8" lg., overall. Body Depth: 5/16". Mounting Centers: .140/.145". U/L Approved.
Cinch No. 2RP-1—List Price....**19.7c***

MODEL 2R2 110-250 VOLT SOCKET

Rated at 15 amps, 110 v., or 10 amps, 250 v. Accepts any standard 2-prong electric plug. Mounts in 25/64" x 25/32" hole. Ideal for radio and TV chassis. Underwriters Listed.
Cinch No. 2R2—
Net Each, Lots of 1-99, **18.9c**; 100-999, **9.5c**

*LIST PRICE ONLY. NO QUANTITY PRICING

MOLDED CONNECTOR PLUGS AND SOCKETS



MODEL 8PB 8 CONTACT PLUG (FIG. A)

Molded from high dielectric black Bakelite. Pins are nickel-plated and have tapered ends for easy insertion. Mounts on 1/16" chassis using No. 8RO retaining ring, or can be used with No. 16F cap. Will fit any standard octal socket.
Cinch No. 8PB—Net Each, Lots of 1-99, **19.5c**; 100-999, **9.8c**

MODEL 11PB 11 CONTACT PLUG (FIG. B)

Molded from high dielectric black Bakelite. Pins are nickel-plated and have tapered ends for easy insertion. Mounts on 1/16" chassis using No. 8RO retaining ring. Can be used with No. 16F cap. Will fit No. 11RB socket.
Cinch No. 11PB—Net Each, Lots of 1-99, **27c**; 100-999, **13.5c**

MODEL 11RB 11 CONTACT SOCKET (FIG. C)

Molded from high dielectric black Bakelite. Solder coated brass contacts. Mounts on 1/16" chassis using No. 8RO retaining ring. Can be used with No. 16F cap. Mates with No. 11PB plug.
Cinch No. 11RB—Net Each, Lots of 1-99, **31.8c**; 100-999, **15.9c**

MODEL 16F PLUG CAP (FIG. D)

Cadmium plated steel plug cap for snapping on 8 or 11 prong sockets grooved for 1/16" chassis. Screwdriver slot at bottom to facilitate removal. Rubber grommet has 25/64" dia. hole.
Cinch No. 16F—List Price Only.....**92.5c**

NOTE: The above are the factory OEM prices, FOB factory, and are subject to change without notice.

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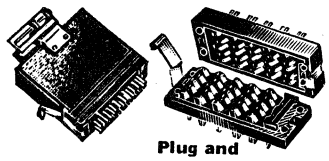
Cinch Hinge Connectors & Barriers

HINGE CONNECTORS



Plug and socket bodies showing contact arrangement.

No contact damage due to insertion and extraction. Maximum contact in minimum space; engaged with normal pressure. Simple locking device insures positive contact. Spring action contacts separate units after releasing the lock. Wiping contact action for clean contacts at all times. Castings are of black Bakelite, type CFG. Contacts are of phosphor bronze, cadmium plated (.0001). Current rating is 4,5 amps. **Alternate Lock:** For more secure locking, order Alternate Lock No. 37AL separately. It has a special device to prevent accidental unlocking. **Caps:** Formed fiber liners, nickel-plated cable clamps. Designed to take the alternate lock when required. Black wrinkle finish.

PLUG WITH LOCK

Cinch No. 37-	Contacts	Mtg. Ctrs. In.	Overall Size, In.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
M20L	20	1.375	1.750	$2.25	$1.80	$1.50	$1.20	$1.14
M30L	30	1.812	2.187	2.663	2.13	1.775	1.42	1.349
M40L	40	2.250	2.625	3.075	2.46	2.05	1.64	1.558
M50L	50	2.687	3.026	3.488	2.79	2.325	1.86	1.767
M60L	60	3.125	3.500	3.90	3.12	2.60	2.08	1.976
M70L	70	3.562	3.937	4.313	3.45	2.875	2.30	2.185
M80L	80	4.000	4.375	4.725	3.78	3.15	2.52	2.394
M90L	90	4.438	4.812	5.138	4.11	3.425	2.74	2.603
M100L	100	4.875	5.250	5.55	4.44	3.70	2.96	2.812

SOCKET WITH LOCK

F20L	20	1.375	1.750	$2.25	$1.80	$1.50	$1.20	$1.14
F30L	30	1.812	2.187	2.663	2.13	1.775	1.42	1.349
F40L	40	2.250	2.625	3.075	2.46	2.05	1.64	1.558
F50L	50	2.687	3.062	3.488	2.79	2.325	1.86	1.767
F60L	60	3.125	3.500	3.90	3.12	2.60	2.08	1.976
F70L	70	3.562	3.937	4.313	3.45	2.875	2.30	2.185
F80L	80	4.000	4.375	4.725	3.78	3.15	2.52	2.394
F90L	90	4.438	4.812	5.138	4.11	3.425	2.74	2.603
F100L	100	4.875	5.250	5.55	4.44	3.70	2.96	2.812

PLUG WITHOUT LOCK

M20	20	1.375	1.750	$2.025	$1.62	$1.35	$1.08	$1.026
M30	30	1.812	2.187	2.438	1.95	1.625	1.30	1.235
M40	40	2.250	2.625	2.85	2.28	1.90	1.52	1.444
M50	50	2.687	3.062	3.263	2.61	2.175	1.74	1.653
M60	60	3.125	3.500	3.675	2.94	2.45	1.96	1.862
M70	70	3.562	3.937	4.088	3.27	2.725	2.18	2.071
M80	80	4.000	4.375	4.50	3.60	3.00	2.40	2.28
M90	90	4.438	4.812	4.913	3.93	3.275	2.62	2.489
M100	100	4.875	5.250	5.325	4.26	3.55	2.84	2.698

SOCKET WITHOUT LOCK

F20	20	1.375	1.750	$2.025	$1.62	$1.35	$1.08	$1.026
F30	30	1.812	2.187	2.438	1.95	1.625	1.30	1.235
F40	40	2.250	2.625	2.85	2.28	1.90	1.52	1.444
F50	50	2.687	3.062	3.263	2.61	2.175	1.74	1.653
F60	60	3.125	3.500	3.675	2.94	2.45	1.96	1.862
F70	70	3.562	3.937	4.088	3.27	2.725	2.18	2.071
F80	80	4.000	4.375	4.50	3.60	3.00	2.40	2.28
F90	90	4.438	4.812	4.913	3.93	3.275	2.62	2.489
F100	100	4.875	5.250	5.325	4.26	3.55	2.84	2.698

Cinch No. 37AL Alternate Lock—For above series. Net Each, Lots of 1–24.....**45c**; 25–49.....**36c**; 50–99.....**30c**; 100–249.....**24c**; 250–499.....**22.8c**;

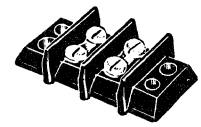
CAPS FOR PLUGS OR SOCKETS

Cinch No. 37-	For Casting with No. of Contacts	Hole Size, Inches	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
C20	20	¾	$3.15	$2.52	$2.10	$1.68	$1.596
C30	30	13/16 x 1	3.188	2.55	2.125	1.70	1.615
C40	40	13/16 x 1	3.225	2.58	2.15	1.72	1.634
C50	50	13/16 x 1	3.263	2.61	2.175	1.74	1.653
C60	60	13/16 x 1½	3.30	2.64	2.20	1.76	1.672
C70	70	13/16 x 1½	3.338	2.67	2.225	1.78	1.691
C80	80	13/16 x 1½	3.375	2.70	2.25	1.80	1.71
C90	90	13/16 x 1½	3.413	2.73	2.275	1.82	1.729
C100	100	13/16 x 1½	3.45	2.76	2.30	1.84	1.748

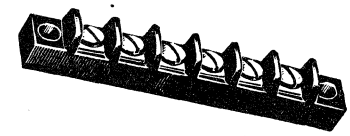
170 SERIES SOLDER TERMINAL STRIPS

Heavy solder terminals are made of .032" brass, hot solder coated; mounted on ⅜" centers. Black molded Bakelite. Size, 5/16" w. x ¼" thick. Mounting holes, ⅜" from center of end terminals.

Cinch No.	Terminals	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
1-170	1	19.5c	15.6c	13c	10.4c	9.9c
2-170	2	24.8c	19.8c	16.5c	13.2c	12.5c
3-170	3	28.5c	22.8c	19c	15.2c	14.4c
4-170	4	33.8c	27c	22.5c	18c	17.1c
5-170	5	39.8c	31.8c	26.5c	21.2c	20.1c
6-170	6	44.3c	35.4c	29.5c	23.6c	22.4c
7-170	7	48c	38.4c	32c	25.6c	24.3c
8-170	8	52.5c	42c	35c	28c	26.6c
9-170	9	58.5c	46.8c	39c	31.2c	29.6c
10-170	10	62.3c	49.8c	41.5c	33.2c	31.5c



140-141-142 Series (2-140, 2-141, 2-142)



171 Series (6-171)

"JONES" 140-141-142 SERIES BARRIER TERMINAL BLOCKS

Increased insulation is provided by having barriers placed between each terminal. These barriers follow around the edge of the strips and terminate at the base. They not only make a long leakage path but prevent direct shorts from frayed wires at terminals. **Size:** 140 Series—Base, ⅞" w. x 13/32" h.; term. centers, ⅜". 141 Series—Base, 1⅛" w. x ½" h.; term. centers, 7/16". 142 Series—Base, 1 5/16" w. x ⅝" h.; term. centers, 9/16".

140 SERIES

Cinch No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
1-140	1	$0.113	$0.09	$0.075	$0.06	$0.057
2-140	2	.18	.144	.12	.096	.091
3-140	3	.248	.198	.165	.132	.125
4-140	4	.315	.252	.21	.168	.16
5-140	5	.383	.306	.255	.204	.194
6-140	6	.443	.354	.295	.236	.224
7-140	7	.51	.408	.34	.272	.258
8-140	8	.578	.462	.385	.308	.293
9-140	9	.645	.516	.43	.344	.327
10-140	10	.713	.57	.475	.38	.361
11-140	11	.773	.618	.515	.412	.391
12-140	12	.84	.672	.56	.448	.426
13-140	13	.908	.726	.605	.484	.46
14-140	14	.983	.786	.655	.524	.498
15-140	15	1.05	.84	.70	.56	.532
16-140	16	1.118	.894	.745	.596	.566
17-140	17	1.178	.942	.785	.628	.597
18-140	18	1.245	.996	.83	.664	.631
19-140	19	1.313	1.05	.875	.70	.665
20-140	20	1.38	1.104	.92	.736	.699
21-140	21	1.448	1.158	.965	.772	.733

141 SERIES

1-141	1	$0.150	$0.120	$0.10	$0.08	$0.076
2-141	2	.233	.186	.155	.124	.118
3-141	3	.315	.252	.21	.168	.16
4-141	4	.405	.324	.27	.216	.205
5-141	5	.488	.39	.325	.26	.247
6-141	6	.563	.45	.375	.30	.285
7-141	7	.66	.528	.44	.352	.334
8-141	8	.743	.594	.495	.396	.376
9-141	9	.825	.66	.55	.44	.418
10-141	10	.915	.732	.61	.488	.464
11-141	11	.998	.798	.665	.532	.505
12-141	12	1.08	.864	.72	.576	.547
13-141	13	1.17	.936	.78	.624	.593
14-141	14	1.253	1.002	.835	.668	.635
15-141	15	1.335	1.068	.89	.712	.676
16-141	16	1.425	1.14	.95	.76	.722
17-141	17	1.508	1.206	1.005	.804	.764
18-141	18	1.59	1.272	1.06	.848	.806
19-141	19	1.68	1.344	1.12	.896	.851
20-141	20	1.763	1.41	1.175	.94	.893

142 SERIES

1-142	1	$0.173	$0.138	$0.115	$0.092	$0.087
2-142	2	.27	.216	.18	.144	.137
3-142	3	.383	.306	.255	.204	.194
4-142	4	.488	.39	.325	.26	.247
5-142	5	.585	.468	.39	.312	.296
6-142	6	.69	.552	.46	.368	.35
7-142	7	.803	.642	.535	.428	.407
8-142	8	.90	.72	.60	.48	.456
9-142	9	1.005	.804	.67	.536	.509
10-142	10	1.118	.894	.745	.596	.566
11-142	11	1.215	.972	.81	.648	.616
12-142	12	1.32	1.056	.88	.704	.669
13-142	13	1.425	1.14	.95	.76	.722
14-142	14	1.53	1.224	1.02	.816	.775
15-142	15	1.635	1.308	1.09	.872	.828
16-142	16	1.74	1.392	1.16	.928	.882
17-142	17	1.838	1.47	1.225	.98	.931

"JONES" 171 SERIES BARRIER TERMINAL BLOCKS

Miniature barrier type terminal blocks with single screw terminals. Size: 13/32" w. x 5/16" h., overall. Binder head screws, 2-56 x 3/16". Mounting holes, ⅛" dia.

Cinch No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
2-171	2	18c	14.4c	12c	9.6c	9.1c
3-171	3	24.8c	19.8c	16.5c	13.2c	12.5c
4-171	4	31.5c	25.2c	21c	16.8c	16c
5-171	5	38.3c	30.6c	25.5c	20.4c	19.4c
6-171	6	45c	36c	30c	24c	22.8c
7-171	7	51.8c	41.4c	34.5c	27.6c	26.2c
8-171	8	58.5c	46.8c	39c	31.2c	29.6c

NOTE: The above are the factory OEM prices, FOB factory, and are subject to change without notice.

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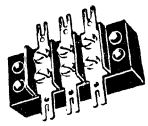
Barrier Terminal Blocks

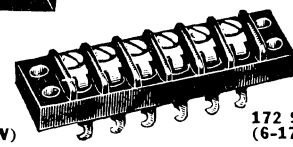
172 Series (6-172)

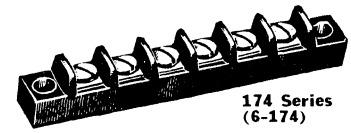
"Y" Solder Terminal

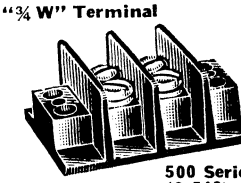
"W" Terminal

"¾ W" Terminal


172 Series (3-172-W)


172 Series (6-172-Y)


174 Series (6-174)


500 Series (2-540)

"JONES" 172 SERIES BARRIER TERMINAL BLOCKS

WITH CONVENTIONAL TERMINALS

Double screw terminals mounted on ¼" centers with 2-56 x 3/16" binder head screws. Mounting holes, ⅛" dia.

Cinch No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
2-172	2	$0.428	$0.342	$0.285	$0.228	$0.217
3-172	3	.548	.438	.365	.292	.277
4-172	4	.668	.534	.445	.356	.338
5-172	5	.788	.63	.525	.42	.399
6-172	6	.90	.72	.60	.48	.456
7-172	7	1.02	.816	.680	.544	.517
8-172	8	1.14	.912	.76	.608	.578
9-172	9	1.26	1.008	.84	.672	.638
10-172	10	1.38	1.104	.92	.736	.699
11-172	11	1.508	1.206	1.005	.804	.764
12-172	12	1.628	1.302	1.085	.868	.825
13-172	13	1.74	1.392	1.16	.928	.882
14-172	14	1.86	1.488	1.24	.992	.942

WITH "Y", "W" OR "¾W" TERMINALS

Series 172 barrier type terminal blocks also available with "Y", "W" or "¾ W" terminals. For blocks with "W" terminals, change suffix "Y" to "W", for blocks with "¾ W" terminals, change suffix "Y" to "¾ W" (2-172-**W**, 2-172-**¾ W**, etc.); same price.

Cinch No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
2-172-Y	2	$0.48	$0.384	$0.32	$0.256	$0.243
3-172-Y	3	.63	.504	.42	.336	.319
4-172-Y	4	.78	.624	.52	.416	.395
5-172-Y	5	.93	.744	.62	.496	.471
6-172-Y	6	1.08	.864	.72	.576	.547
7-172-Y	7	1.23	.984	.820	.656	.623
8-172-Y	8	1.38	1.104	.92	.736	.699
9-172-Y	9	1.53	1.224	1.02	.816	.775
10-172-Y	10	1.68	1.344	1.12	.896	.851
11-172-Y	11	1.83	1.464	1.22	.976	.927
12-172-Y	12	1.98	1.584	1.32	1.056	1.003
13-172-Y	13	2.13	1.704	1.42	1.136	1.079
14-172-Y	14	2.28	1.824	1.52	1.216	1.155

"JONES" 174 SERIES BARRIER TERMINAL BLOCKS

Single screw terminals mounted on ⅜" centers. Size, ⅜" w. x ½" h., overall. Brass binder head screws, 4-40 x 5/16". Mounting holes, 5/32" dia.

Cinch No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
2-174	2	$0.18	$0.144	$0.12	$0.096	$0.091
3-174	3	.248	.198	.165	.132	.125
4-174	4	.315	.252	.21	.168	.16
5-174	5	.383	.306	.255	.204	.194
6-174	6	.45	.36	.30	.24	.228
7-174	7	.518	.414	.345	.276	.262
8-174	8	.585	.468	.39	.312	.296
9-174	9	.653	.522	.435	.348	.331
10-174	10	.72	.576	.48	.384	.365

"JONES" 500 SERIES BARRIER TERMINAL BLOCKS

Barrier type terminal blocks designed for applications where electrical and mechanical performance requirements are especially critical. Closed bottoms eliminate additional insulating strips. Knockouts are molded into the base so that "Y" terminals can be accommodated if desired. Heavy construction adds strength to strip minimizing warpage and shrinkage. Top-mounted marker strip available.

540 TERMINAL BLOCKS

Terminals are mounted on ⅜" centers with 5-40 binder head screws. Size, 1⅛" w. x 39/64" h. Creepage distance, ½". Rating: 2300 v. rms, 15 amps.

Cinch No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
1-540	1	$0.128	$0.102	$0.085	$0.068	$0.065
2-540	2	.195	.156	.130	.104	.099
3-540	3	.270	.216	.180	.144	.137
4-540	4	.345	.276	.230	.184	.175
5-540	5	.420	.336	.280	.224	.213
6-540	6	.488	.390	.325	.260	.247
7-540	7	.563	.450	.375	.300	.285
8-540	8	.638	.510	.425	.340	.323
9-540	9	.713	.570	.475	.380	.361
10-540	10	.788	.630	.525	.420	.399
11-540	11	.848	.678	.565	.452	.429
12-540	12	.923	.738	.615	.492	.467
13-540	13	.998	.798	.665	.532	.505
14-540	14	1.080	.864	.720	.576	.547

540 TERMINAL BLOCKS (CONT'D)

Cinch No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
15-540	15	$1.155	$0.924	$0.770	$0.616	$0.585
16-540	16	1.230	.984	.820	.656	.623
17-540	17	1.298	1.038	.865	.692	.657
18-540	18	1.373	1.098	.915	.732	.695
19-540	19	1.448	1.158	.965	.772	.733
20-540	20	1.515	1.212	1.010	.808	.768
21-540	21	1.590	1.272	1.060	.848	.806
22-540	22	1.665	1.332	1.110	.888	.844
23-540	23	1.740	1.392	1.160	.928	.882
24-540	24	1.808	1.446	1.205	.964	.916
25-540	25	1.883	1.506	1.255	1.004	.954
26-540	26	1.958	1.566	1.305	1.044	.992
27-540	27	2.033	1.626	1.355	1.084	1.030
28-540	28	2.100	1.680	1.400	1.120	1.064
29-540	29	2.175	1.740	1.450	1.160	1.102
30-540	30	2.250	1.800	1.500	1.200	1.140
31-540	31	2.325	1.860	1.550	1.240	1.178

541 TERMINAL BLOCKS

Terminals are mounted on 7/16" centers with 6-32 binder head screws. Size, 1⅜" w. x 11/16" h. Creepage distance, ⅜". Rating: 2800 v. rms, 20 amps.

Cinch No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
1-541	1	$0.165	$0.132	$0.110	$0.088	$0.084
2-541	2	.255	.204	.170	.136	.129
3-541	3	.345	.276	.230	.184	.175
4-541	4	.443	.354	.295	.236	.224
5-541	5	.540	.432	.360	.288	.274
6-541	6	.623	.498	.415	.332	.315
7-541	7	.728	.582	.485	.388	.369
8-541	8	.818	.654	.545	.436	.414
9-541	9	.908	.726	.605	.484	.460
10-541	10	1.005	.804	.670	.536	.509
11-541	11	1.095	.876	.730	.584	.555
12-541	12	1.185	.948	.790	.632	.600
13-541	13	1.290	1.032	.860	.688	.654
14-541	14	1.380	1.104	.920	.736	.699
15-541	15	1.470	1.176	.980	.784	.745
16-541	16	1.568	1.254	1.045	.836	.794
17-541	17	1.658	1.326	1.105	.884	.840
18-541	18	1.748	1.398	1.165	.932	.885
19-541	19	1.845	1.476	1.230	.984	.935
20-541	20	1.943	1.554	1.295	1.036	.984
21-541	21	2.033	1.626	1.355	1.084	1.030
22-541	22	2.123	1.698	1.415	1.132	1.075
23-541	23	2.213	1.770	1.475	1.180	1.121
24-541	24	2.310	1.848	1.540	1.232	1.170
25-541	25	2.400	1.920	1.600	1.280	1.216
26-541	26	2.490	1.992	1.660	1.328	1.262
27-541	27	2.580	2.064	1.720	1.376	1.307
28-541	28	2.670	2.136	1.780	1.424	1.353
29-541	29	2.768	2.214	1.845	1.476	1.402
30-541	30	2.858	2.286	1.905	1.524	1.448

542 TERMINAL BLOCKS

Terminals are mounted on 9/16" centers with 8-32 binder head screws. Size, 1⅝" w. x ⅛" h. Creepage distance, ¾". Rating: 4000 v. rms, 30 amps.

Cinch No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
1-542	1	$0.188	$0.150	$0.125	$0.100	$0.095
2-542	2	.300	.240	.200	.160	.152
3-542	3	.420	.336	.280	.224	.213
4-542	4	.540	.432	.360	.288	.274
5-542	5	.645	.516	.430	.344	.327
6-542	6	.758	.606	.505	.404	.384
7-542	7	.885	.708	.590	.472	.448
8-542	8	.990	.792	.660	.528	.502
9-542	9	1.103	.882	.735	.588	.559
10-542	10	1.230	.984	.820	.656	.623
11-542	11	1.335	1.068	.890	.712	.676
12-542	12	1.455	1.164	.970	.776	.737
13-542	13	1.568	1.254	1.045	.836	.794
14-542	14	1.680	1.344	1.120	.896	.851
15-542	15	1.800	1.440	1.200	.960	.912
16-542	16	1.913	1.530	1.275	1.020	.969
17-542	17	2.025	1.620	1.350	1.080	1.026
18-542	18	2.145	1.716	1.430	1.144	1.087
19-542	19	2.258	1.806	1.505	1.204	1.144
20-542	20	2.370	1.896	1.580	1.264	1.201
21-542	21	2.490	1.992	1.660	1.328	1.262
22-542	22	2.603	2.082	1.735	1.388	1.319
23-542	23	2.715	2.172	1.810	1.448	1.376
24-542	24	2.835	2.268	1.890	1.512	1.436
25-542	25	2.948	2.358	1.965	1.572	1.493
26-542	26	3.060	2.448	2.040	1.632	1.550

NOTE: The above are the factory OEM prices, FOB factory, and are subject to change without notice.

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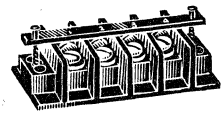
Net

Marker and Fanning Strips

MARKER STRIPS FOR BARRIER TERMINAL BLOCKS

MS-8-140



MSX-4-540 (Installed)

140 AND 160 SERIES MARKER STRIPS

For labelling terminal positions on barrier terminal blocks and insulating exposed portions of terminals from metallic mounting surface. Mounting holes correspond with those on appropriate barrier terminal block. Made of 1/32" vulcanized fiber and numbered sequentially from 1 with legible white numerals.

MARKER STRIPS FOR 140, 140W, 140-¾ W, 164, 164W and 164-¾ W

Cinch No.	Term.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
MS-2-140	2	6.6c	5.3c	4.4c	3.5c	3.3c
MS-3-140	3	7.3c	5.8c	4.9c	3.9c	3.7c
MS-4-140	4	8c	6.4c	5.4c	4.3c	4.1c
MS-5-140	5	8.7c	7c	5.8c	4.6c	4.4c
MS-6-140	6	9.5c	7.6c	6.3c	5c	4.8c
MS-7-140	7	10.1c	8.1c	6.8c	5.4c	5.1c
MS-8-140	8	10.9c	8.7c	7.3c	5.8c	5.5c
MS-9-140	9	11.6c	9.2c	7.7c	6.2c	5.9c
MS-10-140	10	16.1c	12.8c	10.7c	8.6c	8.1c
MS-11-140	11	16.7c	13.4c	11.2c	8.9c	8.5c
MS-12-140	12	17.5c	14c	11.7c	9.3c	8.9c
MS-13-140	13	18.2c	14.5c	12.1c	9.7c	9.2c
MS-14-140	14	18.9c	15.1c	12.6c	10.1c	9.6c
MS-15-140	15	19.6c	15.7c	13.1c	10.4c	9.9c
MS-16-140	16	24.1c	19.3c	16.1c	12.8c	12.2c
MS-17-140	17	24.8c	19.8c	16.5c	13.2c	12.5c
MS-18-140	18	25.5c	20.4c	17c	13.6c	12.9c
MS-19-140	19	26.2c	20.9c	17.5c	14c	13.3c
MS-20-140	20	30.7c	24.5c	20.5c	16.4c	15.5c
MS-21-140	21	31.4c	25.1c	20.9c	16.7c	15.9c

MARKER STRIPS FOR 141, 141W AND 141-¾ W

MS-2-141	2	7.1c	5.6c	4.7c	3.8c	3.6c
MS-3-141	3	8c	6.4c	5.4c	4.3c	4.1c
MS-4-141	4	9c	7.2c	6c	4.8c	4.6c
MS-5-141	5	9.9c	7.9c	6.6c	5.3c	5c
MS-6-141	6	10.9c	8.7c	7.3c	5.8c	5.5c
MS-7-141	7	11.9c	9.5c	7.9c	6.3c	6c
MS-8-141	8	12.8c	10.2c	8.5c	6.8c	6.5c
MS-9-141	9	13.7c	11c	9.2c	7.3c	7c
MS-10-141	10	18.4c	14.7c	12.3c	9.8c	9.3c
MS-11-141	11	19.4c	15.5c	12.9c	10.3c	9.8c
MS-12-141	12	20.3c	16.3c	13.6c	10.8c	10.3c
MS-13-141	13	21.2c	17c	14.2c	11.3c	10.8c
MS-14-141	14	22.2c	17.8c	14.8c	11.8c	11.3c
MS-15-141	15	26.9c	21.5c	18c	14.4c	13.6c
MS-16-141	16	27.8c	22.3c	18.6c	14.8c	14.1c
MS-17-141	17	28.8c	23c	19.2c	15.4c	14.6c
MS-18-141	18	29.8c	23.8c	19.9c	15.9c	15.1c
MS-19-141	19	34.4c	27.5c	23c	18.4c	17.4c
MS-20-141	20	35.4c	28.3c	23.6c	18.9c	17.9c

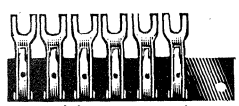
MARKER STRIPS FOR 142, 142W AND 142-¾ W

MS-2-142	2	7.6c	6.1c	5.1c	4c	3.8c
MS-3-142	3	8.7c	7c	5.8c	4.6c	4.4c
MS-4-142	4	48.8c	39c	32.5c	26c	24.7c
MS-5-142	5	11.1c	8.9c	7.4c	5.9c	5.6c
MS-6-142	6	12.3c	9.8c	8.2c	6.6c	6.2c
MS-7-142	7	13.5c	10.8c	9c	7.2c	6.8c
MS-8-142	8	14.6c	11.7c	9.8c	7.8c	7.4c
MS-9-142	9	15.8c	12.7c	10.6c	8.4c	8c
MS-10-142	10	20.8c	16.6c	13.9c	11.1c	10.5c
MS-11-142	11	22c	17.6c	14.7c	11.7c	11.1c
MS-12-142	12	23.2c	18.5c	15.5c	12.4c	11.7c
MS-13-142	13	24.4c	19.5c	16.3c	13c	12.4c
MS-14-142	14	25.5c	20.4c	17c	13.6c	12.9c
MS-15-142	15	30.5c	24.4c	20.3c	16.2c	15.4c
MS-16-142	16	31.7c	25.3c	21.1c	16.9c	16c
MS-17-142	17	32.9c	26.3c	21.9c	17.5c	16.6c

500 SERIES MARKER STRIPS

For labelling terminal positions on "500" series barrier terminal blocks. Made of 1/16" XP Bakelite, ¼" wide. Numbered sequentially from 1 with ⅛" legible white numerals. Mounted on top of terminal block as illustrated. Mounting screws furnished.

SERIES 162 FANNING STRIPS FOR CONNECTING TO SERIES 142 BARRIER BLOCKS



Terminals are of .032" brass, cadmium plated. Bakelite strips furnished with a hole in either the right or left end for fastening the cable with a clamp or lacing twine. Simplifies cable or harness wiring, assuring positive connections. Terminals mounted on 3/32" Bakelite, ⅜" w. and on 9/16" ctrs. **L**, cable clamp on left, **R**, right. Fanning strips for 140, 141 series barrier blocks available.

Cinch No.	Cinch No.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
2-162-L	2-162-R	$0.143	$0.114	$0.095	$0.076	$0.072
3-162-L	3-162-R	.188	.15	.125	.10	.095
4-162-L	4-162-R	.24	.192	.16	.128	.122
5-162-L	5-162-R	.293	.234	.195	.156	.148
6-162-L	6-162-R	.353	.282	.235	.188	.179

MARKER STRIPS FOR 540

Cinch No.	Term.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
MSX-2-540	2	11.3c	9c	7.5c	6c	5.7c
MSX-3-540	3	12c	9.6c	8c	6.4c	6.1c
MSX-4-540	4	12c	9.6c	8c	6.4c	6.1c
MSX-5-540	5	12c	9.6c	8c	6.4c	6.1c
MSX-6-540	6	12.8c	10.2c	8.5c	6.8c	6.5c
MSX-7-540	7	12.8c	10.2c	8.5c	6.8c	6.5c
MSX-8-540	8	12.8c	10.2c	8.5c	6.8c	6.5c
MSX-9-540	9	12.8c	10.2c	8.5c	6.8c	6.5c
MSX-10-540	10	16.5c	13.2c	11c	8.8c	8.4c
MSX-11-540	11	17.3c	13.8c	11.5c	9.2c	8.7c
MSX-12-540	12	17.3c	13.8c	11.5c	9.2c	8.7c
MSX-13-540	13	17.3c	13.8c	11.5c	9.2c	8.7c
MSX-14-540	14	18.8c	15c	12.5c	10c	9.5c
MSX-15-540	15	22.5c	18c	15c	12c	11.4c
MSX-16-540	16	22.5c	18c	15c	12c	11.4c
MSX-17-540	17	24.8c	19.8c	16.5c	13.2c	12.5c
MSX-18-540	18	26.3c	21c	17.5c	14c	13.3c
MSX-19-540	19	26.3c	21c	17.5c	14c	13.3c
MSX-20-540	20	30c	24c	20c	16c	15.2c
MSX-21-540	21	30c	24c	20c	16c	15.2c
MSX-22-540	22	31.5c	25.2c	21c	16.8c	16c
MSX-23-540	23	31.5c	25.2c	21c	16.8c	16c
MSX-24-540	24	31.5c	25.2c	21c	16.8c	16c
MSX-25-540	25	35.3c	28.2c	23.5c	18.8c	17.9c
MSX-26-540	26	35.3c	28.2c	23.5c	18.8c	17.9c
MSX-27-540	27	35.3c	28.2c	23.5c	18.8c	17.9c
MSX-28-540	28	35.3c	28.2c	23.5c	18.8c	17.9c
MSX-29-540	29	35.3c	28.2c	23.5c	18.8c	17.9c
MSX-30-540	30	42c	33.6c	28c	22.4c	21.3c
MSX-31-540	31	42c	33.6c	28c	22.4c	21.3c

MARKER STRIPS FOR 541

MSX-2-541	2	12c	9.6c	8c	6.4c	6.1c
MSX-3-541	3	12c	9.6c	8c	6.4c	6.1c
MSX-4-541	4	12.8c	10.2c	8.5c	6.8c	6.5c
MSX-5-541	5	12.8c	10.2c	8.5c	6.8c	6.5c
MSX-6-541	6	12.8c	10.2c	8.5c	6.8c	6.5c
MSX-7-541	7	12.8c	10.2c	8.5c	6.8c	6.5c
MSX-8-541	8	13.5c	10.8c	9c	7.2c	6.8c
MSX-9-541	9	13.5c	10.8c	9c	7.2c	6.8c
MSX-10-541	10	17.3c	13.8c	11.5c	9.2c	8.7c
MSX-11-541	11	17.3c	13.8c	11.5c	9.2c	8.7c
MSX-12-541	12	18.8c	15c	12.5c	10c	9.5c
MSX-13-541	13	18.8c	15c	12.5c	10c	9.5c
MSX-14-541	14	18.8c	15c	12.5c	10c	9.5c
MSX-15-541	15	26.3c	21c	17.5c	14c	13.3c
MSX-16-541	16	26.3c	21c	17.5c	14c	13.3c
MSX-17-541	17	26.3c	21c	17.5c	14c	13.3c
MSX-18-541	18	26.3c	21c	17.5c	14c	13.3c
MSX-19-541	19	27.8c	22.2c	18.5c	14.8c	14.1c
MSX-20-541	20	31.5c	25.2c	21c	16.8c	16c
MSX-21-541	21	31.5c	25.2c	21c	16.8c	16c
MSX-22-541	22	31.5c	25.2c	21c	16.8c	16c
MSX-23-541	23	31.5c	25.2c	21c	16.8c	16c
MSX-24-541	24	31.5c	25.2c	21c	16.8c	16c
MSX-25-541	25	35.3c	28.2c	23.5c	18.8c	17.9c
MSX-26-541	26	38.3c	30.6c	25.5c	20.4c	19.4c
MSX-27-541	27	38.3c	30.6c	25.5c	20.4c	19.4c
MSX-28-541	28	38.3c	30.6c	25.5c	20.4c	19.4c
MSX-29-541	29	38.3c	30.6c	25.5c	20.4c	19.4c
MSX-30-541	30	42c	33.6c	28c	22.4c	21.3c

MARKER STRIPS FOR 542

MSX-2-542	2	12c	9.6c	8c	6.4c	6.1c
MSX-3-542	3	12.8c	10.2c	8.5c	6.8c	6.1c
MSX-4-542	4	12.8c	10.2c	8.5c	6.8c	6.1c
MSX-5-542	5	12.8c	10.2c	8.5c	6.8c	6.1c
MSX-6-542	6	12.8c	10.2c	8.5c	6.8c	6.1c
MSX-7-542	7	13.5c	10.8c	9c	7.2c	6.8c
MSX-8-542	8	13.5c	10.8c	9c	7.2c	6.8c
MSX-9-542	9	15c	12c	10c	8c	7.6c
MSX-10-542	10	18.8c	15c	12.5c	10c	9.5c
MSX-11-542	11	18.8c	15c	12.5c	10c	9.5c
MSX-12-542	12	22.5c	18c	15c	12c	11.4c
MSX-13-542	13	22.5c	18c	15c	12c	11.4c
MSX-14-542	14	22.5c	18c	15c	12c	11.4c
MSX-15-542	15	27.8c	22.2c	18.5c	14.8c	14.1c
MSX-16-542	16	27.8c	22.2c	18.5c	14.8c	14.1c
MSX-17-542	17	27.8c	22.2c	18.5c	14.8c	14.1c
MSX-18-542	18	27.8c	22.2c	18.5c	14.8c	14.1c
MSX-19-542	19	27.8c	22.2c	18.5c	14.8c	14.1c
MSX-20-542	20	34.5c	27.6c	23c	18.4c	17.5c
MSX-21-542	21	34.5c	27.6c	23c	18.4c	17.5c
MSX-22-542	22	34.5c	27.6c	23c	18.4c	17.5c
MSX-23-542	23	34.5c	27.6c	23c	18.4c	17.5c
MSX-24-542	24	34.5c	27.6c	23c	18.4c	17.5c
MSX-25-542	25	38.3c	30.6c	25.5c	20.4c	19.4c
MSX-26-542	26	38.3c	30.6c	25.5c	20.4c	19.4c

Cinch No.	Cinch No.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
7-162-L	7-162-R	$0.398	$0.318	$0.265	$0.212	$0.201
8-162-L	8-162-R	.458	.366	.305	.244	.232
9-162-L	9-162-R	.503	.402	.335	.268	.255
10-162-L	10-162-R	.563	.45	.375	.30	.285
11-162-L	11-162-R	.608	.486	.405	.324	.308
12-162-L	12-162-R	.66	.528	.44	.352	.334
13-162-L	13-162-R	.713	.57	.475	.38	.361
14-162-L	14-162-R	.773	.618	.515	.412	.391
15-162-L	15-162-R	.818	.654	.545	.436	.414
16-162-L	16-162-R	.878	.702	.585	.468	.445
17-162-L	17-162-R	.915	.732	.61	.488	.464

NOTE: The above are the factory OEM prices, FOB factory, and are subject to change without notice.

Net

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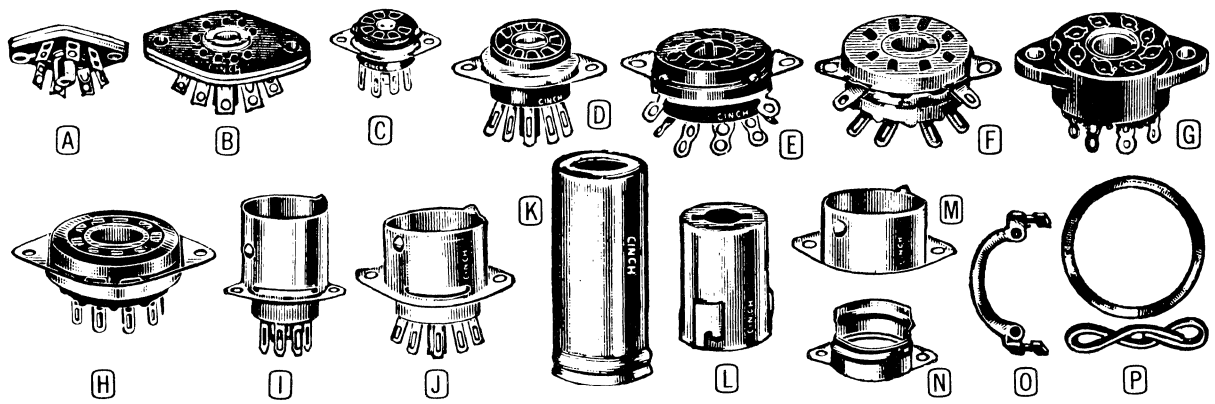
Cinch Tube Sockets, Accessories



WAFER TYPE SOCKETS

Cadmium-plated brass contacts; hot-solder-coated center shield.

Cinch No.	Fig.	Description	Mtg. Ctrs.	Net Ea., Lots 1-99	Net Ea., Lots 100-999
7W2A	A	7-pin miniature. Chocolate XP Bakelite laminations.	7/8"	6.8c	3.4c
7WL2	A		1"	6.8c	3.4c
7WL4	A		1 3/8"	8c	4c
9W1	B	9-pin miniature	1 1/8"	8.4c	4.2c
9W2	B	9-pin miniature	1 5/16"	9.3c	4.7c

SADDLE TYPE SOCKETS

Cinch No.	Fig.	Description	Mtg. Centers	Mounting	Net Each, Lots of 1-99	Net Each, Lots of 100-999
7EB	C	Black	7/8"	Bottom	9.4c	4.7c
7EM	C	Mica	7/8"	Bottom	11.3c	5.6c
7AB1	C	Black	7/8"	Top	9.4c	4.7c
7AM1	C	Mica	7/8"	Top	11.3c	5.6c
9EB	D	Black	1 1/8"	Bottom	12.5c	6.2c
9EM	D	Mica	1 1/8"	Bottom	14.5c	7.2c
9AB	D	Black	1 1/8"	Top	12.5c	6.2c
9AM	D	Mica	1 1/8"	Top	14.5c	7.2c
8AB	E	Black	1 5/16"	Bottom	9.9c	5c
8AM	E	Mica	1 5/16"	Bottom	12.6c	6.3c
8EB	E	Black	1 1/2"	Bottom	10.2c	5.1c
8EM	E	Mica	1 1/2"	Bottom	12.9c	6.5c

Cinch No. 8EC (Fig. E)—Ceramic. Mtg. ctrs., 1½". List...**75c***

MIL-S-12883A SADDLE TYPE SOCKETS

MIL Type: 7-pin, TS102P03 (MFE), TS102C03 (ceramic); 9-pin, TS103P03 (MFE), TS103C03 (ceramic). Bottom mounting.

Cinch No.	Fig.	Description	Mtg. Ctrs.	Mtg. Holes	Net Each, Lots of 1-99	Net Each, Lots of 100-999
7JM-3	C	MFE	7/8"	.125" dia.	20c	10c
7JC-3	C	Ceramic	7/8"	.125" dia.	32.7c	16.3c
9JM-3	D	MFE	1 1/8"	.125" dia.	21.3c	10.6c
9JC-3	D	Ceramic	1 1/8"	.125" dia.	34.5c	17.3c

MIL MOLDED OCTAL SOCKETS (FIG. F)

Ceramic casting material for 8JC-2 and 8JCN-2; 8JM-2 and 8JMN-2 material is MFE. Silver plated phosphor bronze contacts, with heavy tinned tails. Heavy brass saddle, hot-soldered-coated, with four hot tinned ground lugs. Mounting centers, 1½".

Cinch No.	MIL-S-12883A No.	Mtg. Hole, In.	Net Each, Lots of 1-99	Net Each, Lots of 100-999
8JC-2	TS101C01	.156 dia.	71.5c	35.8c
8JCN-2	TS101C02	6-32 tap	90c	45c
8JM-2	TS101P01	.156 dia.	35.4c	17.7c
8JMN-2	TS101P02	6-32 tap	54c	27c

ALL MOLDED OCTAL SOCKETS (FIG. G)

All-molded octal socket offers complete one-piece construction; the saddle and body are a single casting. The standard socket is molded of high dielectric black Bakelite. Contacts are brass, cadmium plated. No. 8XM mica filled phenolic insulation, prevents loss from leakage. The mounting hole centers for both sockets are 1 5/16".

Cinch No. 8XM Socket—Mica.
Net Each, Lots of 1-99.....**13.2c**; 100-999.....**6.6c**

Cinch No. 8XB Socket—Black.
Net Each, Lots of 1-99.....**8.7c**; 100-999.....**4.4c**

NOVAR SOCKETS (FIG. H)

BOTTOM-MOUNTED NOVAR SOCKETS

Cinch No. 9NS-B—Molded from high dielectric black Bakelite. Cadmium plated brass contacts. Mounting centers, 1½". List Price.....**15.2c***

Cinch No. 9NS-M—Same as above except molded from mica-filled low-loss Bakelite. List Price.....**18.4c***

TOP-MOUNTED NOVAR SOCKETS

Cinch No. 9NS-B1—Molded from high dielectric black Bakelite. Cadmium-plated brass contacts. Mounting centers, 1½". List Price.....**15.2c***

Cinch No. 9NS-M1—Same as above except molded from mica-filled low-loss Bakelite. List Price.....**18.4c***

***List Price Only; No Quantity Pricing.**

SHIELD BASE TYPE SOCKETS

MINIATURE AND NOVAL TYPES

Miniature (Fig. I): Mtg. holes, .125" dia. on 7/8" mtg. ctrs. **Noval (Fig. J):** Mtg. holes, .093" dia. on 1 1/8" mtg. ctrs.

Description	Cinch No.	Fig.	Net Ea., Lots of 1-99	Net Ea., Lots of 100-999	Cinch No.	Fig.	Net Ea., Lots of 1-99	Net Ea., Lots of 100-999
Black	7XB1	I	17c	8.5c	9XB	J	20.9c	10.4c
Mica	7XM1	I	19.3c	9.6c	9XM	J	*	*
Ceramic	7XC	I	33c	16.5c	9XC	J	35.7c	17.9c

***List Price 37.8c; No Quantity Pricing.**

MIL-S-12883A TYPE SOCKETS

Mtg. ctrs., 7-pin, 7/8"; 9-pin, 1 1/8".

Cinch No.	Fig.	MIL-S-12883A No.	Description	Net Each, Lots of 1-99	Net Each, Lots of 100-999
7JC-2	I	TS102C01	Ceramic	30.8c	15.4c
7JMN-1	C	TS102P02	MFE	25c	12.5c
7JM-2	I	TS102P01	MFE	22.8c	11.4c
7JCN-1	C	TS102C02	Ceramic	32.7c	16.3c
9JM-2	J	TS103P01	MFE	24.8c	12.4c
9JMN-1	D	TS103P02	MFE	21.3c	10.6c
9JC-2	J	TS103C01	Ceramic	34.3c	17.1c
9JCN-1	D	TS103C02	Ceramic	34.5c	17.3c

"J" SLOT TYPE TUBE SHIELDS (FIG. L)

Cinch No.	Description	Length, Inches	Net Each, Lots of 1-99	Net Each, Lots of 100-999
7S2	Steel	1 3/8	11c	5.5c
7S3	Steel	1 3/4	11.6c	5.8c
7S4	Steel	2 1/4	17.8c	8.9c
7SJ2-1	MIL*, brass	1 3/8	14.3c	7.2c
7SJ3-1	MIL*, brass	1 3/4	16.1c	8c
7SJ4-1	MIL*, brass	2 1/4	17.8c	8.9c
9S1	Steel	1 1/2	16.3c	8.2c
9S2	Steel	1 15/16	16.4c	8.2c
9S3	Steel	2 3/8	29.9c	15c
9SJ1-1	MIL*, brass	1 1/2	17.6c	8.8c
9SJ2-1	MIL*, brass	1 15/16	19.3c	9.7c
9SJ3-1	MIL*, brass	2 3/8	21.1c	10.5c

*JAN-S-28A.

SNAP ON TYPE TUBE SHIELD (FIG. K)

Cinch No. 7S1—Size: 1 53/64" h.
Net Each, Lots of 1-99.....**9c**; 100-999.....**4.5c**

SHIELD BASES

Cinch No.	Fig.	Dimensions, In. H.	Mtg. Hole	Mtg. Ctrs.	Material	Net Each, Lots of 1-99	Net Each, Lots of 100-999
7SB1	M	3/8	.125 dia.	7/8	Steel	5.4c	2.7c
7SB2	M	5/8	.125 dia.	7/8	Brass	7.2c	3.6c
7SB3	N	11/32	.098 dia.	7/8	Steel	3.5c	1.7c
9SB1	M	....	1/8 dia.	1 1/8	Steel	7.2c	3.6c

STRAP NUTS (FIG. O)

Cinch No. 7SN—Cadmium plated brass strap nuts for use in mounting sockets with saddles or shield bases. One strap nut takes the place of two conventional type nuts. Mounting centers: 7/8". For 7 contact sockets.
Net Each, Lots of 1-99.....**16.8c**; 100-999.....**8.4c**

Cinch No. 9SN—Same as Model 7SN except mounting centers are 1 1/8" and are for 9 contact sockets.
Net Each, Lots of 1-99.....**18.3c**; 100-999.....**9.2c**

MODEL 8RO RETAINER RING (FIG. P)

A crimped retaining ring formed of .020" spring steel. Will securely anchor sockets designed for ring mounting. Standard finish is cadmium.

Cinch No. 8RO—Net Each, Lots of 1-99..**3.5c**; 100-999....**1.7c**

NOTE: The above are the factory OEM prices, FOB factory, and are subject to change without notice.

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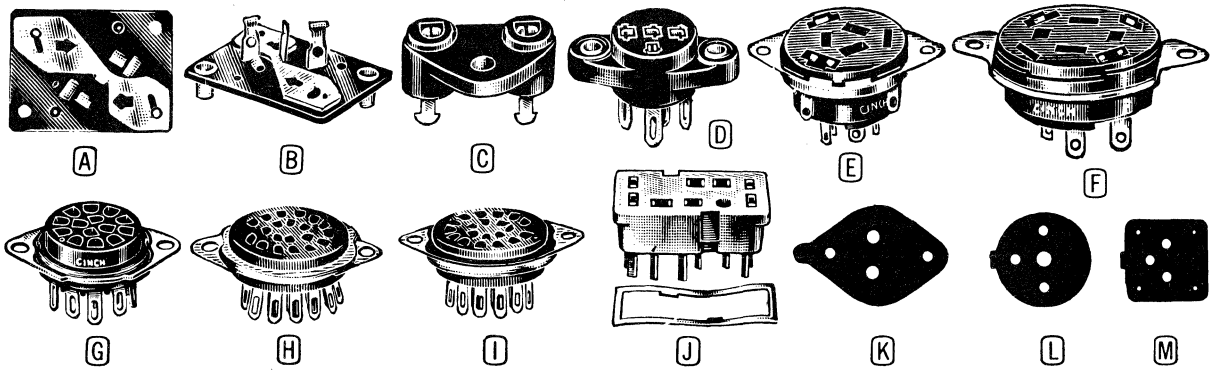
Sockets for All Purposes



POWER TRANSISTOR SOCKETS

LAMINATED TYPE

Cinch No. 2TS-1 (Fig. A)—Top and bottom plates are of natural XP Bakelite, vacuum wax impregnated. Contacts are of brass, cadmium plated. Formed thread for 6-20 screw. Has .104/.110″ dia. hole in CR steel plate. Provides easy attachment to a heat sink.
Net Each, Lots of 1–99.....**9.8c;** 100–999.....**4.9c**

Cinch No. 2TS-2 (Fig. B)—Identical with above except equipped with integral eyelets for easy assembly to chassis.
Net Each, Lots of 1–99.....**10.7c;** 100–999.....**5.4c**

MODEL 2TS-3 MOLDED TYPE (FIG. C)

Molded power transistor socket. Casting is molded of general purpose Bakelite. Contacts are phosphor bronze, cadmium plated. Mounting holes are .098″ dia.; mounting centers are .425/.435″.
Cinch No. 2TS-3—Net Each, Lots of 1–99, **9c;** 100–999, **4.5c**

MODEL 2TS-4 GENERAL PURPOSE (FIG. D)

This new transistor socket was originally designed for an all-transistor television set; however, its future applications are many. This socket may be used in industrial communications, test equipment, ham gear, etc. Socket has a triangular base layout with 0.2″ by 0.1″ (JETEC-30) contact centers, as well as three contacts in line (.048″ by .192″ contact centers). Casting is molded of general purpose Bakelite; contacts are phosphor bronze, cadmium plated. May be used with the following EIA base designations: E3-14, E3-15, E3-25, E3-32, E3-38, E3-39, E3-42, E3-43, E3-44, E3-51, E3-53, E4-13, E4-24, E4-31, E4-43, E4-52, ET-103-D.
Cinch No. 2TS-4—Net Each, Lots of 1–99, **16.9c;** 100–999, **8.5c**

CAPACITOR "PLUG-IN" SOCKETS

Cinch No. 2C5 (Fig. E)—Designed for use with Mallory and Magnavox 1″ FP type capacitors. Molded from high dielectric black Bakelite. Sturdy steel mounting saddle has four ground lugs. Mounting centers, 1½″. Three recessed center contacts for extended prongs of capacitor and two outer contacts flush with surface for short prongs of capacitor. All contacts are cadmium plated for fast, easy soldering.
Net Each, Lots of 1–99.....**43.5c;** 100–999.....**21.8c**

Cinch No. 2C7 (Fig. F)—Designed for use with Mallory and Magnavox 1⅜″ FP type capacitors. Molded from high dielectric black Bakelite. Sturdy cadmium plated steel saddle has 1 27/32″ mounting centers. Four recessed center contacts for extended prongs of capacitor and three outer contacts flush with surface for short prongs of capacitor. All contacts are cadmium plated.
Net Each, Lots of 1-99.....**67.8;** 100–999.....**33.9c**

RELAY SOCKETS

MODEL 14RS RELAY SOCKET (FIG. G)

A 14-contact relay socket with mica-filled low-loss Bakelite casting. Contacts are of beryllium copper, silver plated with hot tinned tails. Overall length of top mount saddle is 1 11/32″. Mounting centers: 1⅛″.
Cinch No. 14RS—Net Each, Lots of 1–99, **$0.738;** 100–999, **$0.369**

MODEL 20RS TOP MOUNTED RELAY SOCKET (FIG. H)

A 20-pin top-mounted relay socket. Contacts are of beryllium copper, silver-plated with hot tinned tails. Steel saddle, cadmium plated; 1 5/16″ mounting centers.
Cinch No. 20RS—Net Each, Lots of 1–99, **$1.68;** 100–999, **$0.84**

BOTTOM-MOUNTED RELAY SOCKETS (FIG. I)

Cinch No. 20RS-1—A 20-contact relay socket with mica-filled low-loss Bakelite casting. Contacts are of beryllium copper, silver-plated with hot-tinned tails. Mounting centers, 1 5/16″.
Net Each, Lots of 1–99.....**$1.68;** 100–999.....**$0.84**

Cinch No. 14RS-1—A 14-contact relay socket. Same as above except contacts 15 to 20 are omitted.
Net Each, Lots of 1–99.....**$1.32;** 100–999.....**$0.66**

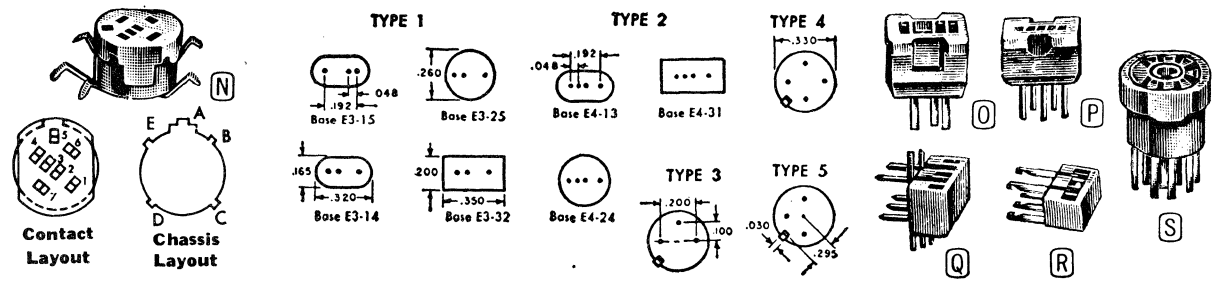
Cinch No. 16RS-1—A 16-contact relay socket. Same as Model 20RS-1 except contacts 15, 17, 18 and 20 are omitted.
Net Each, Lots of 1–99.....**$1.44;** 100–999.....**$0.72**

MODEL 8RS RELAY SOCKET (FIG. J)

This relay socket is molded of mica filled phenolic and is attached to the chassis with a cold rolled steel clip that is cadmium plated. The contacts are beryllium copper, silver plated. Mounting clip 20731 furnished with each socket. This socket fits the following relays: Advance MV-2C, AEMCO 95-3274, Brubaker K110A, Filtors P.26.A1.P.6A, G.E. D200A and G-203A, Potter & Brumfield SL and Ace Relay No. 50-6-A (single contact type).
Cinch No. 8RS—Net Each, Lots of 1–99, **45c;** 100–999, **22.5c**

POWER TRANSISTOR HEAT SINKS

Hard anodized aluminum insulator wafers for use with power transistors. Feature high thermal conductivity, high dielectric resistance, high abrasion resistance and high corrosion resistance.
Cinch No. 2W-1 (Fig. K)—For Motorola transistors 2N179, 2N176 and 2N554.
Cinch No. 2W-2 (Fig. L)—For Delco transistor 2N174.
Cinch No. 2W-3 (Fig. M)—For Texas Instruments transistor 2N389.
Any Model Listed Above—Net Each, Lots of 1–24, **31.5c;** 25–49, **25.2c;** 50–99, **21c;** 100–249, **16.8c;** 250–499, **16c;** 500–999, **15.1c**



UNIVERSAL TRANSISTOR SOCKETS (FIG. N)

Universal transistor socket that can be used with all transistor bases shown in illustration above. Casting is of mica-filled phenolic (MFE). Contacts are beryllium copper and are gold plated. Contacts may be used with either one or two-sided 1/16″ printed circuit boards.

Cinch No.	Base Types	Tabs Used (See Diag.)	Cont. Pos. Used	Net Ea., Lots of 1-99	Net Ea., Lots of 100-999
7UTS	All	A, B, C, D, E	1, 3, 4, 7	**67.5c**	**33.8c**
7UTS-1	1 and 3	C, D, E	1, 3, 4, 7	**45c**	**22.5c**
7UTS-3	3	C, D, E	1, 4, 7	**40.5c**	**20.25c**
7UTS-4	4	A, B, C, D, E	1, 4, 5, 6, 7	**54c**	**27c**
7UTS-5	5	B, D, E	1, 6, 7	**40.5c**	**20.25c**
7UTS-6	1 and 3	C, D, E	1, 3, 4, 7	**45c**	**22.5c**

SUBMINIATURE TUBE SOCKETS

Use extensively for hearing aids, radios and other electronic apparatus. Molded from mica-filled low loss Bakelite with silver plated beryllium copper contacts. No. 2H5 can be used for four prong tube or as a transistor socket. No. 5PC for printed circuits. No. 5WC for wired circuits.

Cinch No.	Pin	Fig.	Net Ea., Lots of 1-99	Net Ea., Lots of 100-999	Cinch No.	Pin	Fig.	Net Ea., Lots of 1-99	Net Ea., Lots of 100-999
2H3*	3	O	**20.8c**	**10.4c**	**5PC**	5	Q	**39.6c**	**19.8c**
2H5*	5	P	**22.4c**	**11.2c**	**5WC**	5	R	**37.6c**	**18.8c**
2H6*	6	...	**29.8c**	**14.9c**	**8SM***	8	S	**42c**	**21c**
2H7*	7	...	**31c**	**15.5c**	**8SM-P†**	8	...	**54c**	**27c**

*Mounting ring included. †No. 8SM with a mounting plate.

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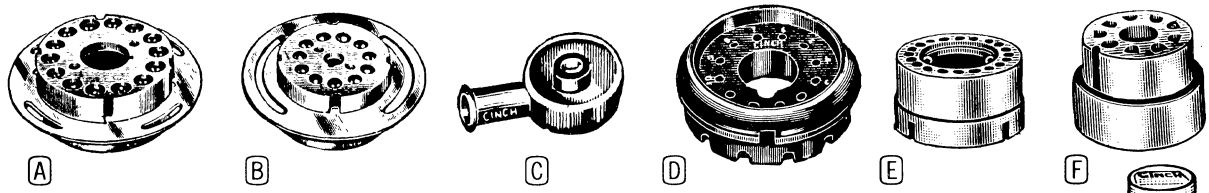
Sockets and Connectors

SOCKETS FOR SPECIAL PURPOSE TUBES



14-PRONG DIHEPTAL (FIG. A)

Molded from high dielectric black Bakelite or mica-filled low loss Bakelite. Same features as No. 3M11. Size: 2 7/32" w. x 1 1/8" h.

Cinch No. 3B14—Black Bakelite diheptal socket.

Cinch No. 3M14—Mica-filled Bakelite diheptal socket.

MODEL 3M11 11-PRONG MAGNAL (FIG. B)

Molded from mica-filled low loss Bakelite. Full floating silver plated beryllium copper contacts insure easy insertion of tubes and provide excellent electrical connections. For use with 5BP1 and 2AP1 cathode ray tubes. Size: 1 23/32" w. x 1 9/64" h.

MOUNTING RINGS

Cinch No. 3R11—Steel mounting ring for No. 3M11.

Cinch No. 3R14—Steel mounting ring for Nos. 3B14 and 3M14.

MODEL 3A1 SECOND ANODE CONNECTOR (FIG. C)

Snap over .096" dia. prong on side of diheptal tubes. Cadmium plated brass contact surrounded by rubber insulator. Size, 3/4" w. x 1 3/16" lg.

Cinch No. 3A1—List Price only.....**90c**

12-PRONG DUODECAL (FIG. D)

Slightly larger in diameter than the tube base and only slightly longer than the tube pin. Integral wire strain relief contact. For use with 10BP4, 2BP1, 5TP4, etc. type tubes. Also RCA 6199 tube.

Cinch No. 3B12—Bakelite duodecal socket.

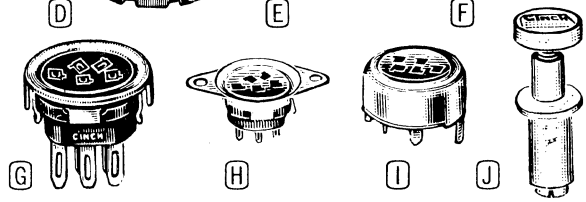
Cinch No. 3M12—Mica duodecal socket.

MODEL 20-PM PHOTO-MULTIPLIER (FIG. E)

Twenty-contact socket for RCA photo-multiplier tube Nos. 6810, C7187A, C7122 and 7265. Casting material is MAI-60 Alkyd Glass Fiber. JETEC No. is 20-102. Contacts are cadmium plated brass.

MODEL 7-VT VIDICON (FIG. F)

Seven-contact socket for RCA vidicon tube Nos. 6198 and 7038. Casting material is mica. Contacts are silver-plated phosphor bronze. JETEC No. is E8-11.



NUVISTOR SOCKETS

Five-contact sockets. Socket body is of low-loss phenolic insulation (MFE). Cadmium-plated cold-rolled steel saddle. Contacts are of copper alloy with cadmium plating.

Cinch No. 5NS (Fig. G)—Crimp-mounting type. Fastened to chassis by two tabs.

Cinch No. 5NS-1 (Fig. H)—Conventional-mounting type. Mounts with screws, eyelets, rivets or self-tapping screws. Any #2 screw or 3/32" dia. rivet with head dia. of up to .190" may be used.

Cinch No. 5NS-2 (Fig. I)—Standoff type. For printed circuit applications. Has two grounding terminals.

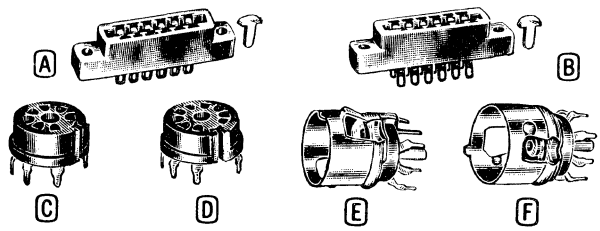
MODEL TP-1 NUVISTOR TUBE PULLER* (FIG. J)

Unique device for removing Nuvistor tubes from their sockets without scratching them. Size; Approximately 2 1/2" h. x 1" w. *Patent Pending.

Cinch No. TP-1—Net Each, any quantity.....**79c**

Cinch No.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
3B12	$0.60	$0.48	$0.40	$0.32	$0.304
3B14	1.05	.84	.70	.56	.532
3M11	4.50	3.60	3.00	2.40	2.280
3M12	1.80	1.44	1.20	.96	.912
3M14	1.35	1.08	.90	.72	.684
3R11	.30	.24	.20	.16	.152
3R14	.30	.24	.20	.16	.152
5NS	.138	.138	.138	.069	.069
5NS-1	.213	.213	.213	.1065	.1065
5NS-2	1.05	1.05	1.05	.525	.525
7-VT	2.10	1.68	1.40	1.12	1.064
20-PM	5.003	4.002	3.335	2.668	2.535

PRINTED CIRCUIT EDGE CONNECTORS AND SOCKETS



PRINTED CIRCUIT EDGE CONNECTORS

Designed for minimum printed circuit card wear, low insertion force and positive contact with the printed circuit board. Insulation is glass-filled diallyl phthalate, type SDG-F per MIL-M-14. Contacts are of phosphor bronze with .00003" minimum gold plated. Types 250, 251 and 252 utilize bifurcated contacts, permitting two flexing surfaces instead of one for positive contact. Bifurcated contacts are especially recommended for added contact reliability where vibration or printed circuit board irregularities would otherwise cause trouble. Connectors meet requirements of MIL-C-21097A (Ships) where applicable. One plastic polarizing key furnished unassembled. Rating: 830 v. AC rms.

TYPE 250 (Fig. A)

Bifurcated contacts, single row. Conventional wiring tails.

Cinch No.	Cont. Pos.	No. of Cont.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
50-6A-20	6	6	$1.125	$0.90	$0.75	$0.60	$0.57
50-10A-20	10	10	1.50	1.20	1.00	.80	.76
50-12A-20	12	12	1.688	1.35	1.125	.90	.855
50-15A-20	15	15	1.973	1.578	1.315	1.052	.999
50-18A-20	18	18	2.25	1.80	1.50	1.20	1.14
50-22A-20	22	22	2.625	2.10	1.75	1.40	1.33

TYPE 251 (Fig. B)

Bifurcated contacts, double row. Conventional wiring tails.

50-12A-30	6	12	$1.125	$0.90	$0.75	$0.60	$0.57
50-20A-30	10	20	1.50	1.20	1.00	.80	.76
50-24A-30	12	24	1.688	1.35	1.125	.90	.855
50-30A-30	15	30	1.973	1.578	1.315	1.052	.999
50-36A-30	18	36	2.25	1.80	1.50	1.20	1.14
50-44A-30	22	44	2.625	2.10	1.75	1.40	1.33

TYPE 252

Bifurcated contacts, double-row. Contact tails designed for dip soldering, and will fit into .051" diameter holes.

Cinch No.	Cont. Pos.	No. of Cont.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
50-12B-10	6	12	$1.26	$1.008	$0.84	$0.672	$0.638
50-20B-10	10	20	1.74	1.392	1.16	.928	.882
50-24B-10	12	24	1.98	1.584	1.32	1.056	1.003
50-30B-10	15	30	2.34	1.872	1.56	1.248	1.186
50-36B-10	18	36	2.70	2.160	1.80	1.440	1.368
50-44B-10	22	44	3.18	2.544	2.12	1.696	1.611

TYPE 253

Standard contacts, double-row. Contact tails are for wire-wrapping.

50-12B-20	6	12	$1.913	$1.530	$1.275	$1.020	$0.969
50-20B-20	10	20	2.483	1.986	1.655	1.324	1.258
50-24B-20	12	24	2.768	2.214	1.845	1.476	1.402
50-30B-20	15	30	3.195	2.556	2.130	1.704	1.619
50-36B-20	18	36	3.623	2.898	2.415	1.932	1.835
50-44B-20	22	44	4.193	3.354	2.795	2.236	2.124

PRINTED CIRCUIT MINIATURE SOCKETS

Cinch No. 7PC-B (Fig. C)—Seven-pin, brass contacts with hot-solder-coated finish. General purpose black phenolic casting. Special tabs prevent tube shields from contacting the printed wire chassis. Center shields provide mechanical retention of the socket in the chassis.
Net Each, Lots of 1-99.....**6.3c**; 100-999.....**3.15c**

Cinch No. 7PC-B1 (Fig. C)—Same as 7PC-B but without center shield or tabs.
Net Each, Lots of 1-99.....**7.1c**; 100-999.....**3.5c**

Cinch No. 9PC-B (Fig. D)—Same as 7PC-B but 9-pin noval.
Net Each, Lots of 1-99.....**8.58c**; 100-999.....**4.29c**

Cinch No. 9PC-B1 (Fig. D)—Same as 7PC-B1 but 9-pin noval.
Net Each, Lots of 1-99.....**9.5c**; 100-999.....**4.7c**

PRINTED CIRCUIT SOCKETS WITH SHIELD BASES

Cinch No. 7PC-M2 (Fig. E)—Seven-pin miniature standoff socket. Has an attached bayonet type shield base with ground tab. For use with 1/16" printed circuit boards. Castings are low-loss mica-filled phenolic (MFE). Contacts are phosphor bronze with a hot-tinned finish. Center shield and ground tab are brass, hot-tinned and base, nickel-plated brass.
Net Each, Lots of 1-99.....**$0.948**; 100-999.....**$0.474**

Cinch No. 9PC-M2 (Fig. F)—Same as 7PC-M2 but 9-pin noval.
Net Each, Lots of 1-99.....**$1.17**; 100-999.....**$0.585**

NOTE: The above are the factory OEM prices, FOB factory, and are subject to change without notice.

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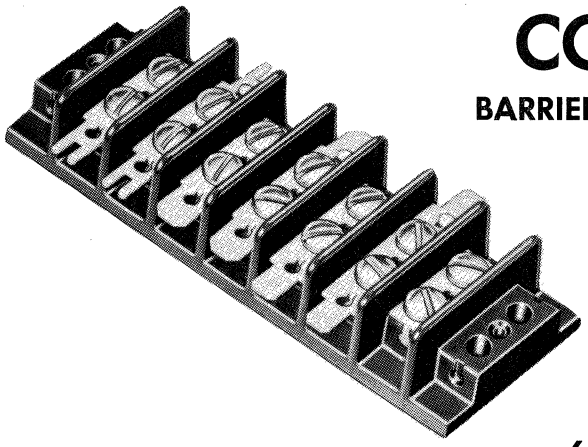
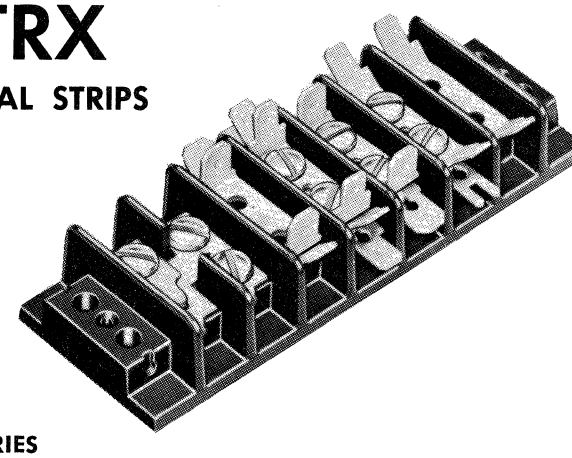
CONECTRIX Incorporated



CON-TRX

BARRIER TERMINAL STRIPS



6-33 TB SERIES

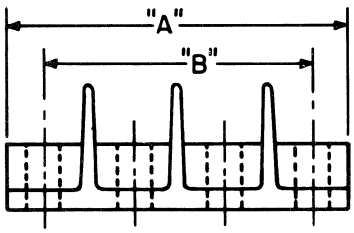
CONECTRIX BARRIER STRIPS are made of General Purpose Phenolics and also are available in military composition. The strips conform to standard terminal block specifications offering to you the consumer a completely interchangeable and compatible block. Heavier and higher barriers with webbing at the base strengthens the barriers and increases the creepage distance contact to contact and contact to ground.

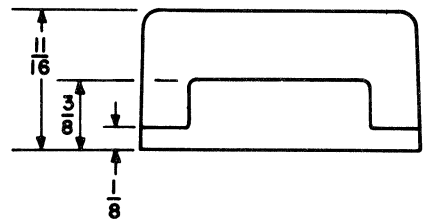
CODED TERMINAL STRIPS

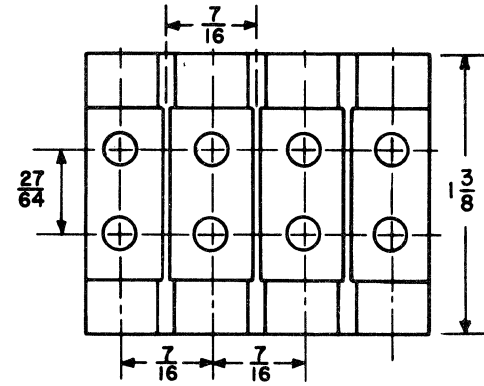
LETTER NUMERAL OR COLOR

The code characters are applied on the base webbing and may be applied in any desired combination. The code may also be hot or rubber stamped, whichever preferred.

BARRIER TERMINAL STRIPS
GENERAL SPECIFICATIONS







PHYSICAL DIMENSIONS

No. of Terminals	"A"	"B"
1	1 3/16	7/8
2	1 5/8	1 5/16
3	2 1/16	1 3/4
4	2 1/2	2 3/16
5	2 15/16	2 5/8
6	3 3/8	3 1/16
7	3 13/16	3 1/2
8	4 1/4	3 15/16
9	4 11/16	4 3/8

No. of Terminals	"A"	"B"
10	5 1/8	4 13/16
11	5 9/16	5 1/4
12	6	5 11/16
13	6 7/16	6 1/8
14	6 7/8	6 9/16
15	7 5/16	7
16	7 3/4	7 7/16
17	8 3/16	7 7/8
18	8 5/8	8 5/16
19	9 1/16	8 3/4
20	9 1/2	9 3/16

No. of Terminals	"A"	"B"
21	9 15/16	9 5/8
22	10 3/8	10 1/16
23	10 13/16	10 1/2
24	11 1/4	10 15/16
25	11 11/16	11 3/8
26	12 1/8	11 13/16
27	12 9/16	12 1/4
28	13	12 11/16
29	13 7/16	13 1/8
30	13 7/8	13 9/16
31	14 5/16	14

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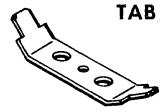
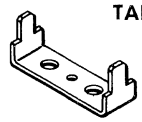
CONECTRIX Incorporated

TERMINAL VARIATIONS AVAILABLE Series 6-33



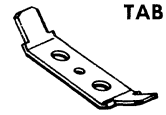
TAB 4

.187-45° DOUBLE TAB
The TAB 4 may be used singularly or as a multiple connection when used in junction with TAB 6 or 9.*



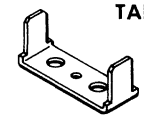
TAB 9

.187-90° DOUBLE TAB
The TAB 9 may be used singularly or as a multiple connection when used in junction with TAB 3 or 4.*



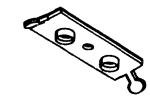
TAB 3

.250-45° DOUBLE TAB
The TAB 3 may be used singularly or as a multiple connection when used in junction with TAB 6 or 9.*



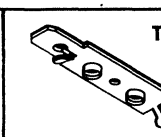
TAB 6

.250-90° DOUBLE TAB
The TAB 6 may be used singularly or as a multiple connection when used in junction with TAB 3 or 4.*



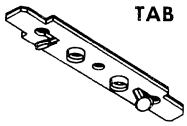
SB

SCREW BLANK
Terminal SB is the standard screw terminal. The SB may be applied singularly or in buss sections of 2, 3, 4, etc. for multiple screw connection applications. The terminal is supplied with two bright nickel 6-32 screws in bulk or prefastened form. PLEASE SPECIFY.**



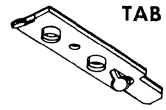
TAB 0

.250 SINGLE TAB
TAB 0 may be used where a screw terminal to tab connection is required. The tab is supplied with two 6-32 bright nickel screws in bulk or prefastened form. PLEASE SPECIFY.**



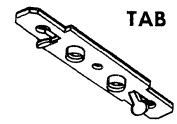
TAB 2

.250 TAB BLANK
TAB 2 is used where a double tab connection is required. The tab is supplied with two 6-32 bright nickel screws in bulk or prefastened form. PLEASE SPECIFY.**



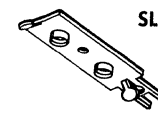
TAB 7

.187 SINGLE TAB
TAB 7 may be used where a screw terminal to tab connection is required. The tab is supplied with two 6-32 bright nickel screws in bulk or prefastened form. PLEASE SPECIFY.**



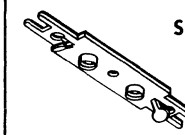
TAB 1

.187 TAB BLANK
TAB 1 is used where a double tab connection is required. The tab is supplied with two 6-32 bright nickel screws in bulk or prefastened form. PLEASE SPECIFY.**



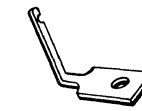
SLB 5

SINGLE SL BLANK
The SLB 5 Terminal is used when a solder lug to screw terminal connection is required. The terminal is supplied with two 6-32 bright nickel screws in bulk or prefastened form. PLEASE SPECIFY.**



SLB

SOLDER LUG BLANK
The SLB terminal is used where a double solder lug connection is required. The terminal is supplied with two 6-32 bright nickel screws in bulk or prefastened form. PLEASE SPECIFY.**



SLF

90° SOLDER LUG FEED
The SLF is used when a solder lug feed through is required. The SLF is fastened with a single 6-32 bright nickel screw. When fastened the solder lug tongue extends through the bottom of the block. This terminal may be purchased in bulk or fastened form.***

MATERIAL AND PLATING SPECIFICATIONS

All of the above terminals are made of .032 brass and are Electro Tin plated with the exception of the 6-33 SLF which is Hot Tin dipped.

*When these terminals are used singularly, they are fastened with a drive screw directly to the block. When used with the following terminals: SB, SLB, SLB 5, Tab 0, Tab 1, Tab 2, Tab 7.

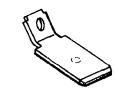
**This terminal may also be used as a base, upon which is placed Tabs 3 and 6 or 4 and 9 or any of the four singularly; when a multiple connection is required. In the case of multiple connections a drive screw may be substituted for the two 6-32 screws—PLEASE SPECIFY DRIVE SCREW WHEN PREFERRED.

***In the bulk form it is necessary for the consumer to punch out the break out plug in the bottom of the barrier strip where the tongue is to protrude.

SPECIAL TERMINALS AVAILABLE

T 1

.250-90° Brass tab with .093 clearance hole.

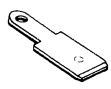


T 2

.250-45° Brass tab with .093 clearance hole.

T 3

.250-180° Brass tab with .093 clearance hole.

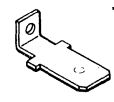


T 6

.250-flat Brass tab with .093 clearance hole.

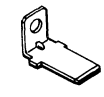
T 7

.250-90° Brass tab with .093 clearance hole.



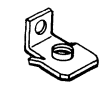
T 8

.250-90° Long tab with .093 clearance hole.



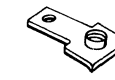
T 9

.187-90° Brass tab with .098 clearance hole.



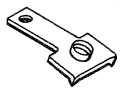
S 1

6-32-90° Brass screw terminal with .104 clearance hole.



S 2

6-32 Brass screw terminal with .093 clearance hole.



S 4

6-32 Brass screw terminal with .093 clearance hole. 1/8 inch longer than the S2 screw terminal.

L 1

90° Silver plated brass solder lug with .093 clearance hole.

L 2

Flat silver plated solder lug with .093 clearance hole.

L 3

Flat silver plated brass jumper with two .093 clearance holes set at .265 center to center.

L 4

Flat silver plated brass jumper with two .104 clearance holes set at .343 center to center.

L 6

90° Hot tin dipped brass solder lug with .093 clearance hole.

CONECTRIX, INC. FRANKLIN PARK, ILLINOIS

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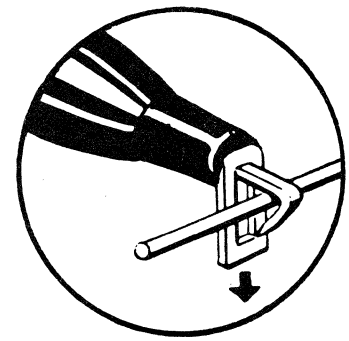
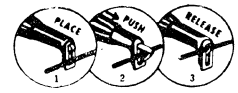
E-Z-HOOK

TEST AND PRODUCTION CONNECTORS

• CLIPS • ADAPTERS • TEST LEADS • PROBES



- **Instantly connects anywhere — Won't cut or nick.**
- **Won't short or jump off — Leaves your hands free.**
- **Saves time and temper — Money back guarantee.**

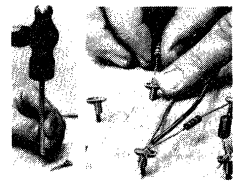


Patented hook tip connects anywhere. 1. Push to connect. 2. Push again to remove.

U.S. PATENT No. 2702892

HARNESS BOARD CLIPS

- **Save Up to 30% in Board Construction Time!**
- **Speeds wiring... Improves Quality**



E-Z-HOOK "Nail" Clips

No need to waste valuable time drilling holes, placing screws, nuts, & washers. The "Nail" Clip drives into wood like a nail! Pulls out as easy. Make Eng. Changes in seconds. Use them to speed Processing—Save Construction & Production time.

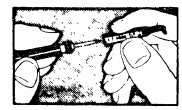
Easy finger-tip operation speeds wire placing — makes it easier. Patented E-Z-HOOK holds firmly —won't cut nick or damage wire ends. L. 1 3-16". Made of tough Stainless Steel and Durable Nylon.

... Over 62,000 used by Company X ...

No. 81-1	E-Z-HOOK "Nail" Clip (Use T-20 Tool) 24¢ ea.		10 for 1.98
No. K8150T-1	"Nail" Clip Kit (50 Clips, Tool & Instr.) Wt. 2 oz.		ea. 8.95
No. T-20	E-Z-HOOK "Nail" Clip Driving Tool Wt. 1-3 oz.		ea. .35

TEST PROD TIP ADAPTERS

- **For testing as you like it**
- **Sharp point to an E-Z-HOOK in seconds**

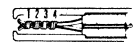


Slips Easily On—Off

Handiest, most trouble-free adapter you can get. Convenient E-Z-HOOK Tip slips easily on, or off, — in seconds! Doubles regular test prod utility, 1. as a sharp point for probing, 2. as an extra hand when needed.

Safer, too! ... remote connections made easily while your hand stays out in the clear — safe from shock.

A smart investment in trouble-free design. Exclusive spring chuck eliminates loose, wobbly fit on Prod ... insures pleasant, irritation-free performance.



Trouble Eliminator
4 springs insure firm grip

... Over 12,300 used by Company Y ...

Made of rust-proof Stainless Steel, Brass, and tough Zytel Nylon in Red, Black, Blue, Green, Orange, and Yellow. Lgth. 2 1-16", O.D. 19-64", Wt. 1-8 oz.

No. 55-0	E-Z-HOOK	Tip	(Needle—.060")	ea.	.69
No. 56-1	E-Z-HOOK	Tip	(Standard—.080")	ea.	.69
No. 57-10	E-Z-HOOK	Tip	(Tec—10-32 female thread)	ea.	.69
No. 59-4	E-Z-HOOK	Tip	(Banana—Standard.)	ea.	.69

PART SUBSTITUTION CLIPS

- **Eliminate Guessing**

Solderless Clips
Eliminate Broken Lugs

You can be sure! — when you substitute, and this E-Z-H Sub is just the thing to use ... quick, easy, temporary connections in seconds ... no lead twisting or solder tacking to damage parts or wiring. Speeds trouble-shooting, makes it easier ... saves hours and dollars in valuable production time and material.

Long-lasting Zytel Nylon and tough Stainless Steel. In colors for easy lead identification: Red, Black, Blue, Green, Orange, and Yellow. Length 2 1-2", O.D. 19-64", Weight 1-12th oz.

No. 71-1	E-Z-HOOK	Sub		ea.	.49

JUMPER - METER CLIPS

- **Convert needless delays ... to pleasant productive checks**

Let carefree E-Z-HOOK Clips help speed your checks ... make it easier. They quickly pay for themselves in savings.

Easy slip-on design saves in assembly and maintenance ... safe solder connection and strain relief assures longer trouble-free lead life.

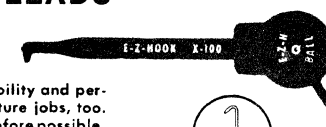
... Over 37,000 used by Company Z ...

Made of tough Stainless, durable Nylon in colors for easy lead identification: Red, Black, Blue, Green, Orange, Yellow. Lgth. 2 1-8", OD 5-8", Wt. 1-13 oz.

No. 61-1	E-Z-HOOK	Clip	(Standard)	ea.	.39
No. 61-2	E-Z-HOOK	Clip	(Gold Plated)	ea.	.59

Miniature CLIP & LEADS

- **Make Impossible Connections ... Easy**



FULL SIZE

Now enjoy famous E-Z-HOOK reliability and performance on your small, sub-miniature jobs, too. Easily make test connections never before possible.

Tiny E-Z-HOOK with the new "Hypo Action" gives you the small size and positive control needed to make such tedious work easier, more efficient, pleasant and profitable.

Use "Q" Balls two ways—1. as a versatile low voltage test connector, 2. as a tiny mechanical hand to handle small parts. Will save you hours of unnecessary delays and aggravation.

Durably constructed of the finest materials—Red Nylon insulation, Stainless Steel spring, & Beryllium Copper conductor to assure reliable performance.

Also available on 32" —Ready-to-Plug-In—Test Leads of flexible Red and Black striped, 24 AWG (19-36) thermoplastic wire—Standard or Banana Tip.

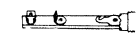
Over all length 2 1-4". Maximum width at hook only .079". Wt. 1-6th oz.

No. X-100	E-Z-HOOK 'Q' Ball Mini-HOOK	(No lead)		ea.	.49
No. AX-1	E-Z-HOOK 'Q' Ball Test Lead	(32" — Std. Tip)		ea.	.89
No. BX-1	E-Z-HOOK 'Q' Ball Test Lead	(32"—Ban. Tip)		ea.	.94

SCOPE - METER PROBES

- **Now—Special Probes assembled in minutes**

Custom PROBE



Built-In Terminals
For easy assembly

Never before such efficiency and convenience in a replacement probe ... SPECIAL TERMINALS speeds assembly, makes it easier ... E-Z-HOOK for easy time-saving care-free connections ... SCREW-ON COVER for ready access and repair ... STRAIN-RELIEF prolongs life of single or shielded leads.

For Professional or Production use. Finest streamlined feather-weight construction of rust proof Stainless, durable Zytel Nylon (slide), tough Tenite (body) in Red, Black, Blue, Green, Orange, & Silver. Lgth. 4 3-4", O.D. 15-32", Wt. 1-3 oz.

No. 54-1	E-Z-HOOK	Custom PROBE		ea.	.89
No. 54-2	E-Z-HOOK	Custom PROBE	(Gold Plated)	ea.	1.09

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Factory Delivery:- Usually shipped -via Parcel Post- within 10 days.
Terms:- Rated Firms -- 2% 10th E.O.M. - Net 30 Days E.O.M. F.O.B. Covington, Ky.
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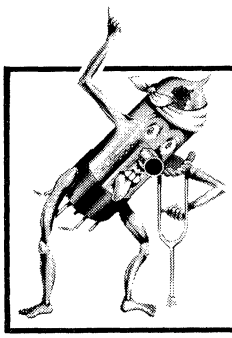
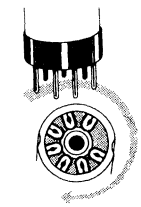
SOCKETS



TUBES OF THE WORLD UNITE! Revolt against outmoded, out-dated sockets that break our pins, damage our usefulness, relegate us to the scrap heap. Beseech your Engineers and P.A.'s to specify ELCO E-Z MATE* Sockets . . . exclusively!

ELCO'S PATENTED SOCKET FEATURE

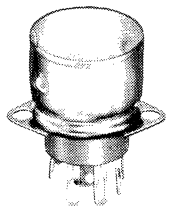
CONFORMING TO MIL-S-12883-A, our exclusive, patented SOCKET design will be found in all our 7-Pin and 9-Pin Base-Shield and Saddle Type Sockets (except Ceramic). This ingenious design provides a positioning-key at the top of the socket which permits the tube to "find" its correct insertion position without loss of time or pin damage. And by virtue of the E-Z MATE* feature, tube locations may now be designed into "blind" or formerly inaccessible positions.



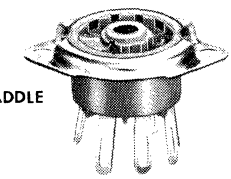
Military Sockets per MIL-S-12883-A

PHSPTD = Phosphor Bronze, Silver Plated, Tin Dipped CER = Ceramic BR = Brass, Cad. Plated BC=Beryllium Copper

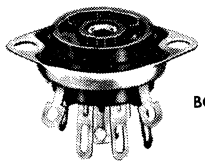
MIL SOCKETS
All 7-pin, 9-pin and octal sockets available per MIL-S-12883-A Specifications. All base shield sockets fit "J" slot shields. Contacts are phosphor bronze, silver plated, tin dipped. BOT — Bottom mounted saddle. TOP — Top mounted saddles.



BASE SHIELD



TOP MOUNTED SADDLE



BOTTOM MOUNTED SADDLE WITH GROUND LUGS

7-PIN BASE SHIELD TYPE

Military No.	Model No.	Contact Material	Insulator Material	Center Shield	Per 1000 1-499	500-1499	1500-4999
TS102C01	04-715-03	PHSPTD	Cer	Yes	227.20	143.45	126.25
TS102P01	04-715-01	PHSPTD	Mica	Yes	157.41	99.40	87.45

7-PIN SADDLE — TOP MOUNTED

Military No.	Model No.	Contact Material	Insulator Material	Center Shield	Per 1000 1-499	500-1499	1500-4999
TS102C02	04-711-04	PHSPTD	Cer	Yes	214.45	135.40	119.15
TS102P02	04-711-03	PHSPTD	Mica	Yes	138.10	87.20	76.75

7-PIN SADDLE — BOTTOM MOUNTED W/GROUND LUGS

Military No.	Model No.	Contact Material	Insulator Material	Center Shield	Per 1000 1-499	500-1499	1500-4999
TS102C03	04-703-07	PHSPTD	Cer	Yes	214.45	135.40	119.15
TS102P03	04-703-08	PHSPTD	Mica	Yes	138.10	87.20	76.75

9-PIN BASE SHIELD TYPE

Military No.	Model No.	Contact Material	Insulator Material	Center Shield	Per 1000 1-499	500-1499	1500-4999
TS103C01	04-915-04	PHSPTD	Cer	Yes	253.35	159.95	140.75
TS103P01	04-915-02	PHSPTD	Mica	Yes	177.21	110.65	97.35

9-PIN SADDLE TOP MOUNTED

Military No.	Model No.	Contact Material	Insulator Material	Center Shield	Per 1000 1-499	500-1499	1500-4999
TS103C02	04-911-05	PHSPTD	Cer	Yes	245.35	154.90	136.30
TS103P02	04-911-04	PHSPTD	Mica	Yes	150.10	94.75	83.40

9-PIN SADDLE — BOTTOM MOUNTED W/GROUND LUGS

Military No.	Model No.	Contact Material	Insulator Material	Center Shield	Per 1000 1-499	500-1499	1500-4999
TS103C03	04-903-06	PHSPTD	Cer	Yes	245.35	154.90	136.30
TS103P03	04-903-07	PHSPTD	Mica	Yes	150.10	94.75	83.40

WITHOUT TAPPED BUSHING

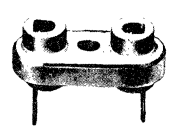
WITH TAPPED BUSHING

OCTAL SOCKETS BOTTOM MOUNTED W/GROUND LUGS

Military No.	Model No.	Contact Material	Insulator Material	Center Shield	Per 1000 1-499	500-1499	1500-4999
TS101C01	04-813-09	PHSPTD	Cer	No	389.75	246.05	216.55
TS101P01	04-813-06	PHSPTD	Mica	No	274.25	173.15	152.35

OCTAL SOCKETS BOTTOM MOUNTED W/GROUND LUGS AND TAPPED BUSHINGS

Military No.	Model No.	Contact Material	Insulator Material	Center Shield	Per 1000 1-499	500-1499	1500-4999
TS101C02	04-813-08	PHSPTD	Cer	No	454.40	286.90	252.45
TS101P02	04-813-07	PHSPTD	Mica	No	347.70	219.50	193.50



14-PIN MILITARY RELAY SOCKET — TOP MOUNTED

Military No.	Model No.	Contact Material	Insulator Material	Center Shield	Per 1000 1-499	500-1499	1500-4999
TS1405P01	05-0423-02	PHSPTD	Mica	No	327.70	206.90	182.05

2-PIN MILITARY CRYSTAL SOCKET

Military No.	Model No.	Contact Material	Insulator Material	Center Shield	Per 1000 1-499	500-1499	1500-4999
TS0205C01	04-210-01	PHSPTD	Cer	No	104.94	66.25	58.30
TS0205P01	04-210-04	BC	Cer	No	119.10	75.19	66.17

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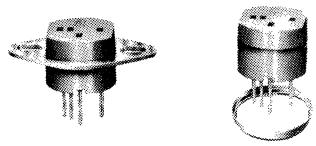
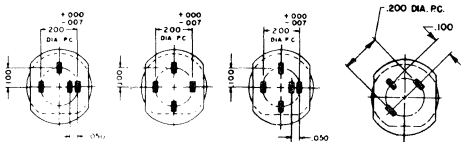
SERIES 3300 SUBMINIATURE TRANSISTOR SOCKETS



Multi-purpose for use with 3- or 4-pin inline, 3-pin circular, or 4-pin circular transistors. Low-loss mica-filled phenolic body; contacts gold flashed over silver-plated beryllium copper. Types 3324-3326 for .030" dia. pins. Others for .016" dia. pins.



PATTERN A PATTERN B PATTERN C PATTERN D

Model No.	Pin Pattern	Mtg. Type	Per 1000 1-499	500-1499	1500-4999
05-3301	A	Saddle	176.90	111.70	98.30
05-3304	A	Ring	143.55	90.65	79.75
05-3303	A	P.C.	144.54	91.25	80.30
05-3305	A	P.C.	144.13	91.00	80.10
05-3307	B	Ring	172.44	108.90	95.80
05-3308	B	P.C.	170.05	107.40	94.50
05-3313	C	Ring	201.90	127.45	112.15
05-3324	D	Ring	159.50	90.65	79.75
05-3326	D	Saddle	263.34	166.25	146.30
55-47202	Mtg. Ring		19.80	11.25	9.90

SPECIFICATIONS

Current Rating — 1 Ampere
Contact Resistance — .03 Ohm Maximum
Contact Materials — Beryllium Copper, Gold Flashed over Silver Plate
Saddle and Mounting Ring — Brass, Nickel Plated

"EL" SERIES AUDIO CONNECTORS

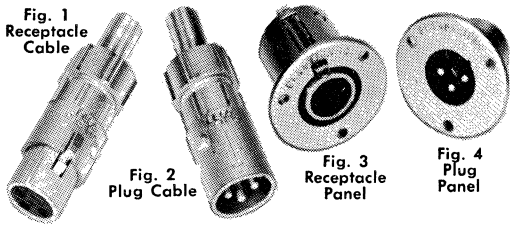


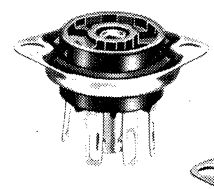
Fig. 1 Receptacle Cable
Fig. 2 Plug Cable
Fig. 3 Receptacle Panel
Fig. 4 Plug Panel

Rugged, high-quality, low-priced connectors for audio and general purpose applications. Satin-finished, nickel-plated, zinc shells feature positive key and groove polarization, and push-action latchlock. Silver-plated contacts rated for 300 v. AC; 3-contact type for #14 wire, rated 16 amps. Cable types accommodate up to 5/16" dia. wire.

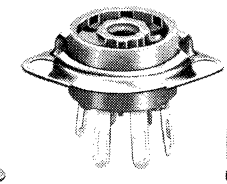
Model No.	No. of Contacts	Fig.	Net Ea., Lots of 1-9	10-24	25-29	100-249
00-2214-003	3	1	1.93	1.84	1.78	1.62
00-2216-003	3	2	.90	.81	.75	.60
00-2215-003	3	3	.93	.84	.78	.62
00-2213-003	3	4	.72	.65	.60	.48

MINIATURE SOCKETS

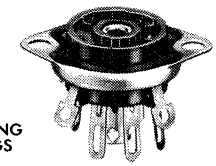
7- and 9-pin Sockets with saddles or shield-base. 7-pin have 7/8" mounting centers; 9-pin have 1 1/8" mounting centers. Contact Material: BR = Brass Cad. Plate; PH = Phosphor Bronze; SP = Silver Plate; TD = Tin Dipped; BC = Beryllium Copper; TL = Tin Lead. Insulator Materials: GP = General Purpose Phenolic; M = Mica.



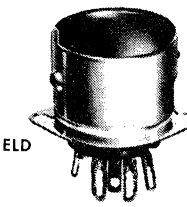
SADDLE TYPE BOTTOM MOUNTING



SADDLE TYPE TOP MOUNTING



SADDLE TYPE BOTTOM MOUNTING W/GROUND LUGS



BASE SHIELD TYPE

7-PIN RMA SADDLE TYPE — BOTTOM MOUNTING

Model No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1-499	500-1499	1500-4999
04-702-01	GP	BR	Yes	.125	81.77	51.63	45.43
04-702-02	GP	BR	No	.125	71.08	44.88	39.49

7-PIN JAN SADDLE TYPE — TOP MOUNTING

Model No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1-499	500-1499	1500-4999
04-711-01	Mica	PH	Yes	.093	107.91	68.13	59.95
04-711-02	Mica	BR	No	.093	68.31	43.13	37.95

7-PIN RMA SADDLE TYPE — TOP MOUNTING

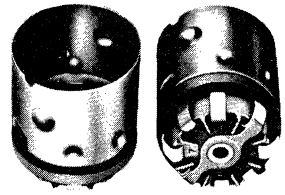
Model No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1-499	500-1499	1500-4999
04-701-02	Mica	PH	No	.125	81.87	51.69	45.48

7-PIN RMA SADDLE TYPE W/GROUND LUGS — BOTTOM MOUNTING

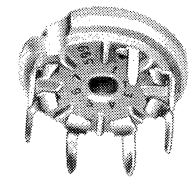
Model No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1-499	500-1499	1500-4999
04-703-13	GP	BR	Yes	.125	84.55	53.38	46.97
04-703-02	Mica	BR	Yes	.125	84.15	53.15	46.75
04-703-14	GP	BR	No	.125	71.87	45.38	39.93
04-703-04	Mica	BR	No	.125	74.75	47.20	41.55
04-703-05	Mica	PH	No	.125	82.70	52.20	45.95
04-703-06	Mica	BC	No	.125	124.05	78.30	68.90

7-PIN ELCO SHIELD BASE TYPE — TOP MOUNTING

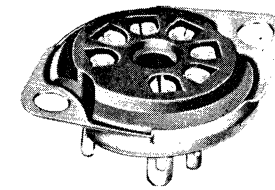
Model No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1-499	500-1499	1500-4999
04-705-01	Mica	PH	Yes	.125	128.40	81.05	71.35
04-705-02	Mica	PH	No	.125	122.30	77.20	67.95



PRINTED CIRCUIT W/SHIELD BASE



U.H.F. PRINTED CIRCUIT STAND-OFF



MINIATURE U.H.F. BOTTOM MOUNTED

7-PIN PRINTED CIRCUIT SNAP-IN W/SHIELD BASE FOR 1/16" CARD

Model No.	Insulator Material	Contact Material	Center Shield	Per 1000 1-499	500-1499	1500-4999
04-765-01	Mica	PHSP	No	585.00	400.00	350.00

7-PIN UHF PRINTED CIRCUIT STAND-OFF

Model No.	Insulator Material	Contact Material	Center Shield	Per 1000 1-499	500-1499	1500-4999
04-730-01	Mica	PHSPTD	No	138.50	87.44	76.95

7-PIN SOCKET UHF MINIATURE BOTTOM MOUNTING

Model No.	Insulator Material	Contact Material	Center Shield	Per 1000 1-499	500-1499	1500-4999
04-722-02	Mica	PHSPTD	No	151.50	95.65	84.15
04-722-01	Mica	PHSPTD	No	156.75	98.95	87.05

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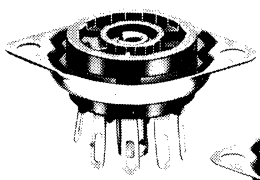
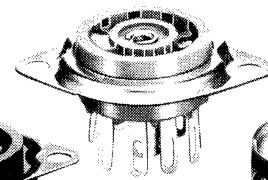
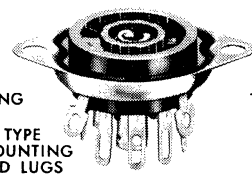
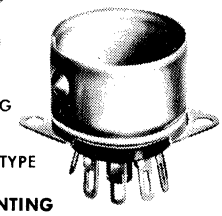
MINIATURE SOCKETS


SADDLE TYPE
BOTTOM MOUNTING


SADDLE TYPE
TOP MOUNTING


SADDLE TYPE
BOTTOM MOUNTING
W/GROUND LUGS


SHIELD BASE TYPE

9-PIN RMA SADDLE TYPE — BOTTOM MOUNTING

Model No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1- 499	500- 1499	1500- 4999
04-902-01	GP	BR	Yes	.125	88.50	55.90	49.20
04-902-02	Mica	PH	Yes	.125	109.40	69.05	60.80
04-902-03	GP	BR	No	.093	75.15	47.45	41.75
04-902-04	Mica	BR	No	.093	85.15	53.75	47.30

9-PIN RMA SADDLE TYPE — BOTTOM MOUNTED W/GROUND LUGS

Model No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1- 499	500- 1499	1500- 4999
04-903-01	GP	BR	Yes	.125	89.70	56.65	49.85
04-903-02	Mica	PH	Yes	.125	121.77	76.88	67.65
04-903-03	Cer	BR	Yes	.093	229.20	144.70	127.35
04-903-04	GP	BR	No	.125	81.00	51.15	45.00
04-903-05	†Cer	BR	No	.093	219.00	138.25	121.65

†Not E-Z MATE

9-PIN RMA SADDLE TYPE — TOP MOUNTING

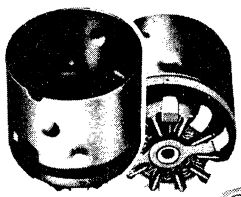
Model No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1- 499	500- 1499	1500- 4999
04-901-02	Mica	PH	Yes	.125	109.40	69.05	60.80
04-901-03	Mica	PH	No	.125	96.60	61.00	53.70

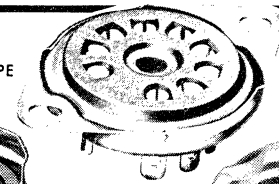
9-PIN JAN SADDLE TYPE — TOP MOUNTING

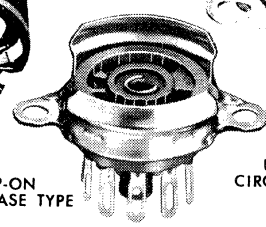
Model No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1- 499	500- 1499	1500- 4999
04-911-01	Mica	PH	Yes	.125	115.83	73.13	64.35
04-911-02	Mica	PH	Yes	.093	106.95	67.50	59.40
04-911-03	Mica	PH	No	.125	92.07	58.15	51.15

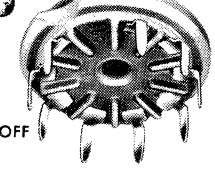
9-PIN RMA SHIELD BASE TYPE — TOP MOUNTING

Model No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1- 499	500- 1499	1500- 4999
04-905-01	GP	BR	Yes	.125	132.35	83.55	73.55
04-905-02	GP	BR	No	.125	118.65	74.90	65.90
04-905-03	Mica	PHSPTD	No	.125	188.75	107.25	94.40


PRINTED CIRCUIT
SNAP-IN


UHF
SADDLE TYPE


SNAP-ON
SHIELD BASE TYPE


UHF PRINTED
CIRCUIT STAND-OFF

9-PIN PRINTED CIRCUIT SNAP-IN W/SHIELD BASE FOR 1/16" CARD

Model No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1- 499	500- 1499	1500- 4999
04-965-01	Mica	BC	No	None	675.00	450.00	400.00

9-PIN RMA SNAP-ON SHIELD BASE TYPE

Model No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1- 499	500- 1499	1500- 4999
04-904-07	Mica	PHTL	Yes	.125	115.74	73.05	64.30
04-904-08	Mica	PHTL	No	.125	106.45	67.20	59.15

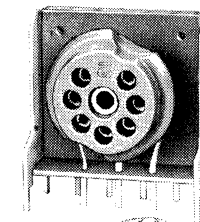
9-PIN UHF SADDLE TYPE — BOTTOM MOUNTED

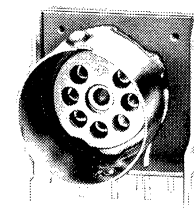
Model No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1- 499	500- 1499	1500- 4999
04-922-01	DAP	PHSPTD	No	.125	204.93	129.38	113.85
04-922-02	DAP	PHCP	No	.125	191.07	120.63	106.15

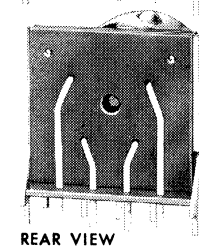
9-PIN UHF PRINTED CIRCUIT STAND-OFF

Model No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1- 499	500- 1499	1500- 4999
04-930-01	Mica	PHSPTD	No	None	180.87	114.19	100.49

RIGHT-ANGLE PRINTED CIRCUIT CONTINUOUS CONTACT SOCKETS






REAR VIEW

Units listed are for both 1/16" and 3/32" glass filled epoxy cards. Types listed have mica insulation. Beryllium copper gold flashed contacts standard.

Model No.	Description	Net Ea., Lots of 1- 99	100- 499	500- 999
05-4006	7-Pin Mica, w/o shield base	1.96	1.22	1.04
05-4007	7-Pin Mica, w/shield base	2.52	1.57	1.34
05-4008	9-Pin Mica, w/o shield base	2.00	1.25	1.07
05-4009	9-Pin Mica, w/shield base	2.72	1.69	1.45

SPECIFICATIONS

Voltage Rating—500 Volts
Current Rating—1 Ampere
Withstanding Voltage (Sea Level)—2,000 Volts RMS
Withstanding Voltage (3.4 inches/Hg.)—660 Volts RMS
Contact Resistance—.03 Ohm (Max.)
Insulation Resistance (Dry)—1,000 Megohms Min.

TRANSISTOR SOCKETS

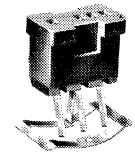


FIG. A
FLAT-IN-LINE

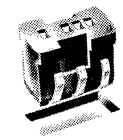


FIG. B
PRINTED CIRCUIT

FIG. C
ROUND

Model No.	No. of Contacts	Insulator Material	Type	Figure
05-0799	3	Mica	1	A
05-0803	4	Mica	2	A
05-0786	3	Mica	1	B
05-0805	4	Mica	2	B
05-0788	5	Mica		B
05-0731-01	8	Mica		C
05-0731-02†	8	Mica		C
55-47202	Retainer for 05-0731-01 and 05-0731-02			
55-47105	Retainer for 05-0799 and 05-0803			

TYPES: 1. For Point Type and Junction Transistors.
2. For Linotetrar Type.

Model No.	Per 1000 1-499	500- 1499	1500- 4999
05-0799	103.95	68.25	63.00
05-0803	109.90	72.15	66.60
05-0786	118.80	75.00	69.00
05-0805	119.80	78.65	72.60
05-0788	122.76	77.50	68.20
05-0731-01	259.38	163.75	144.10
05-0731-02†	277.20	175.00	154.00
55-47202	19.80	11.25	9.90
55-47105	12.60	10.00	8.80

†With Center Shield

*TRADE-MARK

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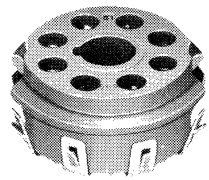
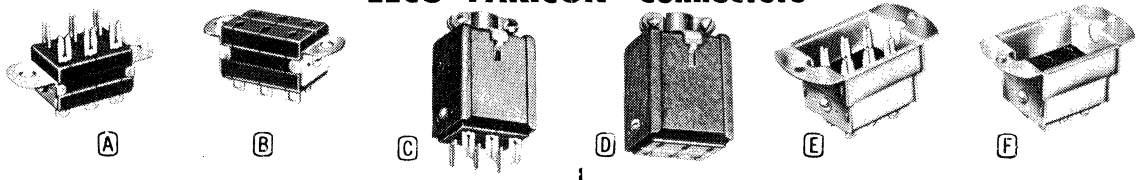


OCTAL SOCKETS

OCTAL PRINTED CIRCUIT SOCKET

Model No.	Insulator Material	Chassis Thickness	Contact Material	Center Shield	Per 1000 1-499	500-1499	1500-4999
04-860-01	Mica	1/16	PH	No	247.50	156.25	137.50
04-860-02	Mica	3/32	PH	No	247.50	156.25	137.50
04-860-03	Mica	1/4	PH	No	257.40	162.50	143.00

ELCO VARICON* Connectors



ELCO VARICON* Connectors provide the most positive contacts under all operating conditions. Contacts in use are always under pressure; cannot be over-stressed or over-strained. Contacts are silver-plated and cadium-plated. Covers are blue wrinkle finish. Current Rating: 20 amps, 115 v., 30°C temperature rise. Voltage Rating: 1500 volts at sea level. Contact Resistance: .002 ohm. Request VARICON* Catalog.

SINGLE TIER WITH STANDARD BRACKETS (FIGS. A, B)

Available in double tier for 20, 24, 28, 32 and 36 contacts. Plug type (Fig. A) mates with receptacle type (Fig. B) and Cover Type (Fig. D); (see other listings). Receptacle unit also mates with Cover Type (Fig. C).

PLUG

Fig. A	Number of Contacts	Per Ea. 1-49	50-99	100-249	250-499	500-999
01-1102-111	2	.20	.17	.14	.13	.12
01-1104-111	4	.27	.23	.18	.17	.16
01-1106-111	6	.34	.29	.23	.22	.21
01-1108-111	8	.41	.34	.27	.26	.24
01-1110-111	10	.50	.42	.34	.32	.30
01-2112-111	12	.61	.51	.40	.38	.36
01-2114-111	14	.71	.60	.48	.45	.43
01-2116-111	16	.82	.68	.54	.52	.49
01-2118-111	18	.93	.78	.62	.59	.56

RECEPTACLE

Fig. B		Per Each				
01-3102-111	2	.19	.16	.13	.12	.12
01-3104-111	4	.26	.22	.17	.16	.15
01-3106-111	6	.32	.27	.21	.20	.19
01-3108-111	8	.38	.32	.26	.24	.23
01-3110-111	10	.46	.39	.31	.29	.28
01-4112-111	12	.56	.47	.38	.36	.34
01-4114-111	14	.66	.55	.44	.42	.40
01-4116-111	16	.76	.64	.51	.48	.46
01-4118-111	18	.86	.72	.57	.54	.51

SINGLE TIER WITH COVERS AND CLAMPS (FIGS. C, D)

Plug unit (Fig. C) mates with receptacle unit (Fig. D), plus standard bracket type (Fig. B) and recessed housing type (Fig. F). Receptacle unit also mates with standard bracket type (Fig. A) and recessed housing type (Fig. E).

PLUG

Fig. C	Number of Contacts	Per Each 1-49	50-99	100-249	250-499	500-999
01-1104-105	4	.52	.43	.34	.33	.31
01-1106-104	6	.59	.49	.39	.37	.35
01-1108-104	8	.65	.55	.44	.41	.39
01-1110-104	10	.76	.64	.51	.48	.46
01-2112-104	12	.92	.77	.62	.59	.55
01-2114-104	14	1.07	.89	.71	.68	.64
01-2116-104	16	1.21	1.01	.80	.76	.72
01-2118-104	18	1.35	1.13	.90	.86	.81

RECEPTACLE

Fig. D		Per Each				
01-3104-105	4	.50	.42	.34	.32	.30
01-3106-104	6	.56	.47	.38	.36	.34
01-3108-104	8	.63	.53	.42	.40	.38
01-3110-104	10	.72	.60	.48	.46	.43
01-4112-104	12	.88	.74	.59	.56	.53
01-4114-104	14	1.01	.85	.68	.64	.61
01-4116-104	16	1.15	.96	.77	.73	.69
01-4118-104	18	1.28	1.07	.86	.81	.77

SINGLE TIER WITH RECESSED HOUSING (FIGS. E, F)

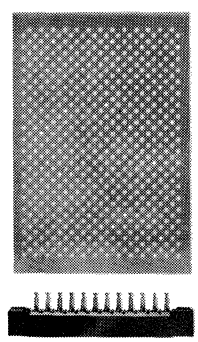
Units available in double tier for 20, 24, 28, 32 and 36 contacts. Plug unit (Fig. E) does not mate with receptacle unit (Fig. F); mates with cover and clamp type (Fig. D) only. Receptacle unit mates with cover and clamp type (Fig. C) only.

PLUG

Fig. E	Number of Contacts	Per Each 1-49	50-99	100-249	250-499	500-999
01-1104-106	4	.49	.41	.32	.31	.29
01-1106-106	6	.58	.48	.38	.36	.35
01-1108-106	8	.66	.55	.44	.42	.40
01-1110-106	10	.78	.65	.52	.49	.47
01-2112-106	12	.95	.79	.63	.60	.57
01-2114-106	14	1.09	.91	.73	.69	.66
01-2116-106	16	1.23	1.03	.82	.78	.74
01-2118-106	18	1.37	1.15	.92	.87	.82

RECEPTACLE

Fig. F		Per Each				
01-3104-106	4	.47	.40	.32	.30	.28
01-3106-106	6	.55	.46	.36	.35	.33
01-3108-106	8	.64	.53	.42	.40	.38
01-3110-106	10	.74	.62	.49	.47	.44
01-4112-106	12	.91	.76	.60	.57	.54
01-4114-106	14	1.04	.87	.69	.66	.62
01-4116-106	16	1.18	.98	.78	.74	.71
01-4118-106	18	1.31	1.09	.87	.83	.78



ELCO-VECTOR Plugbord and Receptacles

Ideal for printed circuit prototypes, plug-in test circuits and computer cards. Saves times and money. Permits circuit changes with simple hand tools. Several cards may be used in conjunction with each other by wiring connections between receptacles. CARD MATERIAL: Epoxy paper 1/16" thick, suffix WE (example: 837WE) indicates Epoxy glass card. Pattern "G," 0.062 holes on alternate 0.1" grid.

CONTACTS—ELCO VARICON* Contacts, phosphor bronze, .0002 nickel plated and gold flashed on both card and receptacle.

RECEPTACLE—One piece glass filled Diallyl Phthalate insulator with .078 base taper tab termination. Models R612-1 and R616-1 supplied without P. C. Card Guides, Model R635 with Guides.

USE: Graph paper 10 squares per inch, may be used for initial circuit layout. Push-in terminals are then positioned on card as designed in layout. Contacts are soldered to staked eyelets on bottom edge for terminations. Bare wire may be used for inter-component connections. REQUEST BULLETIN 02-5000.

*TRADE-MARK

PLUGBORD

ELCO/ Vector No.	No. of Contacts	Size, In Width x Length	Per Ea. 1-19	20-99	100-199
812	16	4½ x 6½	2.73	2.46	2.29
812WE	16	4½ x 6½	3.23	2.91	2.71
837	12	3 x 4½	2.13	1.92	1.79
837WE	12	3 x 4½	2.36	2.12	1.98
848WE	35	4½ x 6½	5.58	5.02	4.69

RECEPTACLES

ELCO/ Vector No.	No. of Contacts	ELCO No.	Per Ea. 1-99	100-249
R612-1	12	00-5009-012-146-001	1.64	1.12
R616-1	16	00-5009-016-146-001	2.04	1.58
R635	35	00-7008-035-146-001	4.46	2.97

ACCESSORY HARDWARE

Model No.	Description	
T28	Terminals	1.55 Per Bag (100)
P.91	Pusher Tool	.30 Ea.

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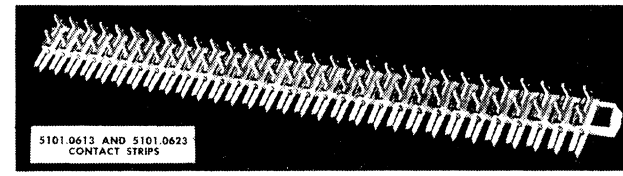
ELCO VARICON* Printed Circuit Contact Strips

ELCO Contacts, sold under the trade-mark VARICON, are supplied on disposable plastic strips at .200" spacing, except ELCO MICROCON* Contacts, which are at .100" spacing. One to 60 contacts to a strip. All ELCO Connector distributors will cut strips to your requirements. Staking of the contacts to printed circuit card is made in accordance with modern mass-production techniques with the special staking tools. Contacts: Phosphor Bronze. Finish: Gold flash over nickel plate. Contact Resistance: .002 ohm max. Insertion and withdrawal force: 8 oz. per contact, average. Contact Life: unchanged after 5000 insertions and withdrawals. Request Bulletin 02-5101, 02-5200.



	Model No.	Description	Pattern†	Price Per Ea. Contact**
	02-???-013-5200	Module Card 1/16"	5	.035
	02-???-014-5200	Module Card 3/32"	5	.035
	02-???-111-5200	45° for 1/16" Card	5	.035
	02-???-112-5200	45° for 3/32" Card	5	.035
	02-???-113-6200	Stand-off 1/16" Card	6	.035
	02-???-114-6200	Stand-off 3/32" Card	6	.035
	02-???-135-5200	Lower Card—1/16" Card	5	.035
	02-???-136-5200	Lower Card—3/32" Card	5	.035
	02-???-137-5200	Upper Card—1/16" Card	5	.04
	02-???-138-5200	Upper Card—3/32" Card	5	.04
	02-???-147-5200	Lower Card—1/16" Card	5	.035
	02-???-148-5200	Lower Card—3/32" Card	5	.035
	02-???-701-3100	MICROCON*—Stand-off 1/32" Card	3	.035
	02-???-702-5100	MICROCON*—1/32" Card	5	.035
	02-???-703-5100	MICROCON*—1/16" Card	5	.035

Indicate No. of Contacts required on Strip in place of ???, i.e., 02-**015**-013-5200

†PATTERN TYPES: Description: (Looking at Contact Legs, Plastic Down.)

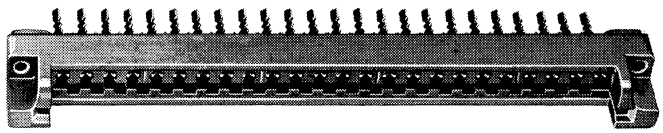
TYPE 3 — — — — — — — 1 Straight Row of Contacts.

TYPE 5 | | | | | | | — 1 Straight Row—Contacts Parallel to Each Other.

TYPE 6 / / / / / / / — 1 Row of Contacts Mounted at 45° Angle

**PRICE: Multiply No. of Contacts Required by Each Price.

Series 5006 and 5007
ELCO VARICON* Miniature Printed Circuit Connectors



- CONNECTOR BODY is constructed of a one-piece molding with guides integrally molded in the end sections of the connector.
- MOUNTING is accomplished in two ways:
  Series 5006 — End sections have projections for mounting in rectangular cutouts in metal panels as used in ELCO's VARIPAK* card cages. All connectors can be secured simultaneously by a common metal bar screwed to the connector panel.
  Series 5007 — End sections with guides and mounting holes similar to Series 7001 for direct mounting to chassis.
- CONTACT CONFIGURATION is a single row of contacts on .200 spacing.
- POLARIZATION is accomplished simply by insertion of a polyethylene insert. No loss of contact positions is incurred. Insert can be supplied loose or inserted in specified position at ELCO. No. 50-5006-3414.
- Request Bulletin 00-5006 for other variations.

SPECIFICATIONS

Current Rating: 10 Amperes

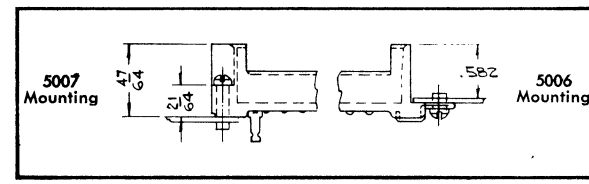
Contact Resistance (at rated current): 0.005 Ohm, Maximum

Insulator Material: Diallyl Phthalate

Contact Material and Finish: Phosphor Bronze Nickel Plated, Gold Flashed

Military Specifications: Applicable Portions of MIL-C-21097. Specified by MIL-E-19600 (WEP) Paragraph 3.5.5.

*TRADE-MARK



RECEPTACLE FOR 1/16" MODULE CARD

.098 Taper Tab W/Wire Hole	No. of Contacts	Conventional Solder Termination for 3 Wires	—Per Ea.— 1-99	100-249
00-5006-012-163-005	12	00-5006-012-189-005	1.68	1.30
00-5006-015-163-005	15	00-5006-015-189-005	2.02	1.56
00-5006-020-163-005	20	00-5006-020-189-005	2.59	2.00
00-5006-023-163-005	23	00-5006-023-189-005	2.93	2.28
00-5007-012-163-001	12	00-5007-012-189-001	1.61	1.24
00-5007-019-163-001	19	00-5007-019-189-001	2.36	1.84
00-5007-020-163-001	20	00-5007-020-189-001	2.48	1.92
00-5007-024-163-001	24	00-5007-024-189-001	2.92	2.26
50-5006-3414—Polarizing Tab			.015	.015

PLUG		1-249	PLUG		1-249
02-012-013-5200	12	.42	02-020-013-5200	20	.70
02-015-013-5200	15	.53	02-023-013-5200	23	.81
02-019-013-5200	19	.67	02-024-013-5200	24	.84

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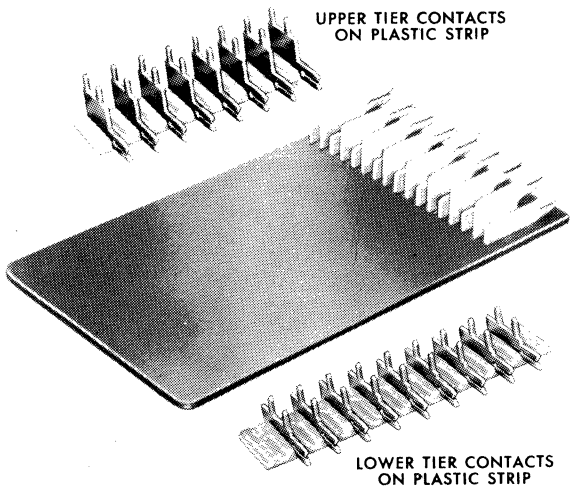
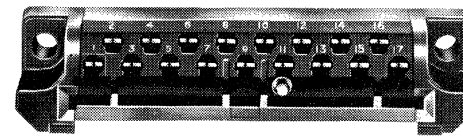
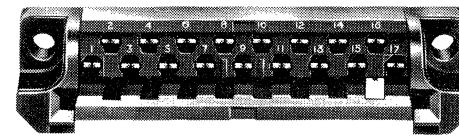
Series 7001 and 7008
ELCO VARICON* Miniature Printed Circuit Connectors




7001


7008

- CONNECTOR BODY consists of a one-piece molding with guides integrally molded at each end of the connector.
- MOUNTING of connector is accomplished with two .128" diameter holes.
- CONTACT CONFIGURATION is a double row of contacts, the center line of one row .125" from the other. Contacts are on .200" centers with each row. One row is offset .100" from the other.
- POLARIZATION:

  7001 SERIES — a tubular metal pin is used at odd contact numbers. Pins are factory assembled.

  7008 SERIES — a polyethylene insert is inserted into the card slot at even contact numbers. Can be factory assembled, or furnished loose for your own inserting. When ordering separately, specify part number 50-5006.3414 (1/16" card).
- NOTE: FOR NEW APPLICATIONS USE OF SERIES 7008 IS RECOMMENDED
- PRINTED CIRCUIT LOCATIONS should be held to plus or minus .003" of true positions. Overall dimensions of a given pattern must not accumulate individual tolerances and should also be held to plus or minus .003".
- SEE ELCO BULLETIN 00-7008 for other contact types and combinations available.

SPECIFICATIONS

Current Rating: 10 Amperes.

Contact Resistance: 0.005 Ohm, Maximum.

Insulator Material: Diallyl Phthalate, Glass Filled.

Withdrawal Force: 8 ounces per contact, average.

Military Specifications: MIL-C-21097 (Bu. Ships) — Applicable portions. MIL-E-19600 (Bu. Weps), Paragraph 3.5.5.

RECEPTACLES

SERIES 7001 WITH GUIDES FOR 1/16" MODULE CARDS

With .078" Taper Tab Contacts	No. of Contacts	.098" Taper Tab Contact	—Per Each— 1-99	100-249
00-7001-017-146-001	17	00-7001-017-163-001	3.12	2.09
00-7001-023-146-001	23	00-7001-023-163-001	3.60	2.40
00-7001-029-146-001	29	00-7001-029-163-001	3.94	2.63
00-7001-035-146-001	35	00-7001-035-163-001	4.46	2.97
00-7001-041-146-001	41	00-7001-041-163-001	4.95	3.30
00-7001-047-146-001	47	00-7001-047-163-001	5.51	3.68
50-7001-4012 Polarizing Tab			.03	.03

SERIES 7008 WITH GUIDES FOR 1/16" MODULE CARDS

With .078" Taper Tab Contacts	No. of Contacts	With .098" Taper Tab W/Wire Hole	— Per Each — 1-99	100-249
00-7008-017-146-001	17	00-7008-017-163-001	3.12	2.09
00-7008-023-146-001	23	00-7008-023-163-001	3.60	2.40
00-7008-029-146-001	29	00-7008-029-163-001	3.94	2.63
00-7008-035-146-001	35	00-7008-035-163-001	4.46	2.97
00-7008-041-146-001	41	00-7008-041-163-001	4.95	3.30
00-7008-047-146-001	47	00-7008-047-163-001	5.51	3.68
50-5006-3414 Polarizing Tab			.015	.015

NEW ORDERING CODES FOR 7001 AND 7008 MODULE CARD CONTACT STRIPS PLUGS

- NOTE: Two Contact Strips are required—one Lower Tier and One Upper Tier. The Lower Tier has two choices: with or without wire hole.

CONTACTS SUPPLIED ON DISPOSABLE PLASTIC STRIPS. SEE SERIES 7021-7022 FOR MOLDED PLUG.

NO. OF CONNECTOR CONTACTS	LOWER TIER 1/16" CARD			UPPER TIER 1/16" CARD	
		Per Ea. 1-249		Per Ea. 1-249	
17	02-009-135-5200	02-009-147-5200	.32	02-008-137-5200	.28
23	02-012-135-5200	02-012-147-5200	.42	02-011-137-5200	.39
29	02-015-135-5200	02-015-147-5200	.53	02-014-137-5200	.49
35	02-018-135-5200	02-018-147-5200	.63	02-017-137-5200	.60
41	02-021-135-5200	02-021-147-5200	.74	02-020-137-5200	.70
47	02-024-135-5200	02-024-147-5200	.84	02-023-137-5200	.81

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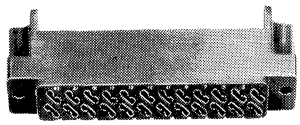
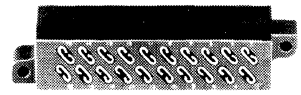
ELCO VARITWIN-PIN*
Printed Circuit Connector Receptacles



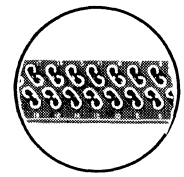
SERIES 7009



SERIES 7014 — BOTTOM VIEW

SERIES 5011 — TOP VIEW

Series 5011, 7009, 7012 and 7014 offer a new dimension in versatility through the use of ELCO contacts sold under the trade-mark VARITWIN-PIN. The bifurcated termination of this VARITWIN-PIN* contact accepts two Series 53 wired taper pins. The advantages of pre-assembled wiring and adaptability to alterations in circuitry provide significant flexibility in design applications. ELCO engineered ruggedness and reliability are standard features for all Series.



BACK VIEW OF VARITWIN-PIN* CONNECTOR

- SERIES 5011 — Supplied with molded card guides available in 16 contact size only. Contact configuration is one row of contacts at .200" spacing allowing .200" spacing of contacts on the module card.
- SERIES 7009 — Available with molded card guides in 24, 34, and 40 contact sizes; or without guides in 34 and 40 contact sizes.
- SERIES 7012 — Supplied with molded card guides in 23, 35 and 47 contacts. Similar in appearance to Series 7009.
- SERIES 7014 — Has straight through, open-end card slot. Has no card guides. Available with 20 contacts only. Contact configuration consists of two rows of contacts; one row spaced on .200" centers; rows are spaced .125" apart, and offset at .100" from each other.
- Connector body is one-piece, molded construction for 1/16" module cards. See ELCO Bulletins 5011 and 7009 for additional information.

SPECIFICATIONS

Current Rating: 10 Amps
Contact Resistance: 0.005 OHM, Maximum
Contact Material: Phosphor Bronze — nickel plated gold flashed
Insulator Material: Diallyl Phthalate
Withdrawal Force: 8 ounces per contact, average
Military Specifications:
MIL-C-21097 (BU-SHIPS) — Applicable Portions
MIL-E-19600 (BU-WEPS) — Paragraph 3.5.5.

RECEPTACLES WITH CARD GUIDES (UNLESS SPECIFIED)

Model No.	No. of Contacts	Per Each 1-99	Per Each 100-249
00-5011-016-193-001	16	4.28	2.85
00-7009-024-193-001	24	6.19	4.13
00-7009-034-193-001	34	6.75	4.50
00-7009-034-193-002†	34	6.75	4.50
00-7009-040-193-001	40	7.43	4.95
00-7009-040-193-002†	40	7.43	4.95
00-7012-023-193-001	23	6.19	4.13
00-7012-035-193-001	35	6.98	4.65
00-7012-047-193-001	47	7.88	5.25
00-7014-020-193-000†	20	5.96	3.98
†W/O Card Guides			
50-5006-3414	Polarizing Tab, Even Positions	.015	.015
50-7012-3224	Polarizing Tab, Odd Positions	.015	.015

PLUGS (CONTACT STRIPS)

Contacts supplied on disposable plastic strips. (See Series 7021-7022 for molded plugs).

SERIES 5011 — PLUG			
No. of Contacts	Model No.		Per Each 1-249
16	02-016-013-5200		.56

SERIES 7009, 7012, 7014 PLUGS

NOTE: Two Contact Strips are required — one Lower Tier and one Upper Tier. The Lower Tier has two choices; the Upper Tier, one choice.

	No. of Contacts	Description	LOWER TIER — Choice of One (Same Price)		Price Each 1-249	UPPER TIER	Per Each 1-249
SERIES 7009	24	12 Lower Tier 12 Upper Tier	02-012-135-5200	02-012-147-5200	.42	02-012-137-5200	.48
	34	17 Lower Tier 17 Upper Tier	02-017-135-5200	02-017-147-5200	.60	02-017-137-5200	.68
	40	20 Lower Tier 20 Upper Tier	02-020-135-5200	02-020-147-5200	.70	02-020-137-5200	.80
SERIES 7012	23	12 Lower Tier 11 Upper Tier	02-012-135-5200	02-012-147-5200	.42	02-011-137-5200	.44
	35	18 Lower Tier 17 Upper Tier	02-018-135-5200	02-018-147-5200	.63	02-017-137-5200	.68
	47	24 Lower Tier 23 Upper Tier	02-024-135-5200	02-024-147-5200	.84	02-023-137-5200	.92
SERIES 7014	20	10 Lower Tier 10 Upper Tier	02-010-135-5200	02-010-147-5200	.35	02-010-137-5200	.40

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ELCO VARILOK* Crimp-Type Printed Circuit and Rack-and-Panel Connectors

The ELCO VARILOK* contact is the most recent development in applying the reliability of ELCO VARICON* Contacts to advanced self-locking, crimped-wiring applications.

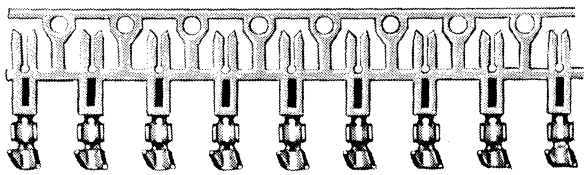
The ELCO VARILOK* contact may be crimped to the wire independently, stocked until needed, then inserted into the insulator. Insertion is accomplished by merely inserting contact into any insulator hole location. May be extracted with equal facility by the use of an extraction tool. The ELCO VARILOK* contact locks into position using a spring lance. It will not twist, turn, or bend out of alignment; and has passed many stringent commercial and military pull-out tests.

ELCO VARILOK* contacts are sold loose for usage where quantities are relatively low, and for repair and/or replacement if ever necessary.

ELCO VARILOK* contacts are also available in reels containing 1800 contacts for economical long-runs of larger quantities, where automatic crimping machines are used.

ELCO VARILOK* Self-Locking, Crimped Wiring Contacts

50-8017.0313 SUPPLIED LOOSE
FOR USE WITH HAND-CRIMPING TOOL



50-8017.0323 SUPPLIED IN CONTINUOUS STRIPS
FOR USE WITH VARIMATIC* AUTOMATIC CRIMPING MACHINE (1800 TO REEL)

ELCO VARILOK* Contacts

(PURCHASED SEPARATELY)

	—Per Ea.— 1-24.999
Loose—50-8017.0313	.06

Reel Form—1800 to a reel of 50-8017.0323, 117.00 Per Reel—1-24.999 Contacts

ELCO VARILOK* Tools

		Per Ea.
Hand-Crimping Tool	56-067515-01	37.50
Hand-Crimping Tool	56-061728-02	98.00
Withdrawal Tool	56-061877-02	2.75
Insertion Tool	56-061742-04	2.50

ELCO also supplies a bench crimping tool for mass production requirements.

Series 7015 ELCO VARILOK* Printed Circuit Connectors

RECEPTACLES

Miniature printed circuit connectors of ELCO's Series 7000 family. Series 7015 is available with basic dimensions and specifications of Series 7008 connector, in sizes 17, 23, 29, 35, 41 and 47. Receptacles will accommodate both 1/16" and 3/32" module cards. Request Bulletin 00-7015 for further information.

For 1/16" Module Cards	No. of Contacts	For 3/32" Module Cards	—Per ea.— 1-99	100-249
00-7015-017-000-001	17	00-7015-017-000-002	1.90	1.05
00-7015-023-000-001	23	00-7015-023-000-002	2.00	1.10
00-7015-029-000-001	29	00-7015-029-000-002	2.10	1.20
00-7015-035-000-001	35	00-7015-035-000-002	2.25	1.25
00-7015-041-000-001	41	00-7015-041-000-002	2.35	1.30
00-7015-047-000-001	47	00-7015-047-000-002	2.45	1.35

Polarization: May be field polarized

Even # Positions	50-5006.3414	.015	.015
Odd # Positions	50-7012.3224	.015	.015

Series 7015 ELCO Plug Contacts

Contacts are supplied on disposable plastic strips—See Series 7021-7022 for molded plugs.

NOTE: Two contact strips are required — one Lower Tier and one Upper Tier. The Lower Tier has two choices for either 1/16" card or 3/32" card sizes. The Upper Tier has only one contact for either card size.

NO. OF CONNECTOR CONTACTS	LOWER TIER				UPPER TIER	
	1/16" CARD		3/32" CARD		1/16" CARD	3/32" CARD
	Per Ea.	Per Ea.	Per Ea.	Per Ea.	Per Ea.	Per Ea.
17	02-009-135-5200 .32	02-009-147-5200 .32	02-009-136-5200 .32	02-009-148-5200 .32	02-008-137-5200 .32	02-008-138-5200 .32
23	02-012-135-5200 .42	02-012-147-5200 .42	02-012-136-5200 .42	02-012-148-5200 .42	02-011-137-5200 .44	02-011-138-5200 .44
29	02-015-135-5200 .53	02-015-147-5200 .53	02-015-136-5200 .53	02-015-148-5200 .53	02-014-137-5200 .56	02-014-138-5200 .56
35	02-018-135-5200 .63	02-018-147-5200 .63	02-018-136-5200 .63	02-018-148-5200 .63	02-017-137-5200 .68	02-017-138-5200 .68
41	02-021-135-5200 .74	02-021-147-5200 .74	02-021-136-5200 .74	02-021-148-5200 .74	02-020-137-5200 .80	02-020-138-5200 .80
47	02-024-135-5200 .84	02-024-147-5200 .84	02-024-136-5200 .84	02-024-148-5200 .84	02-023-137-5200 .92	02-023-138-5200 .92

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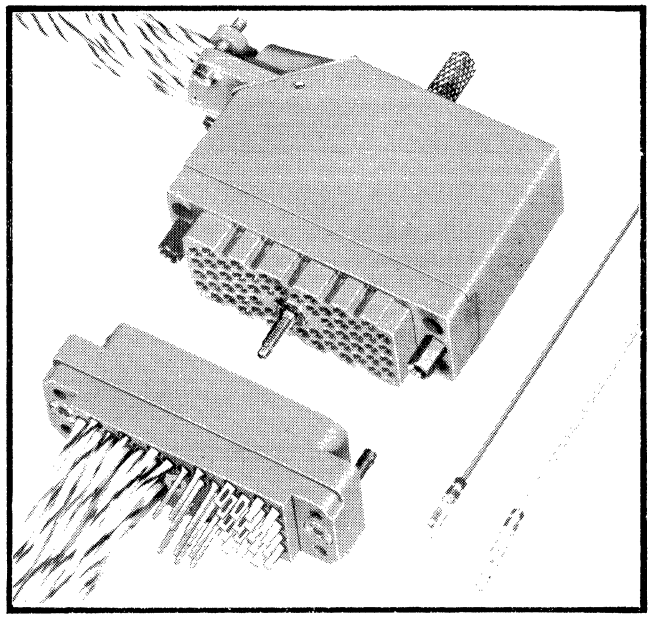
Series 8016



- High contact-density Rack and Panel Connector with 38 and 56 contacts. A die-cast cover is also usable with the plug or receptacle. The cable clamp can be riveted to the body of the cover for cable entry either from the side or the top. Both insulator halves are designed for VARILOK* contacts or factory installed contacts. Casting material available in polycarbonate (Lexan) only.

SERIES 8016 — FOR VARILOK* CONTACTS
(Cover Supplied Separately)

PLUG with Actuating Screw	Per Ea. 1-99	Per Ea. 100-249	No. of Contacts	RECEPTACLE with Fixed Nut	Per Ea. 1-99	Per Ea. 100-249
00-8016-038-000-001	1.95	1.69	38	00-8016-038-000-007	1.45	1.25
00-8016-056-000-001	2.09	1.81	56	00-8016-056-000-007	1.58	1.37

SERIES 8016 — FOR VARILOK* CONTACTS
(Cover Supplied Separately)

PLUG with Fixed Nut	Per Ea. 1-99	Per Ea. 100-249	No. of Contacts	RECEPTACLE with Actuating Screw	Per Ea. 1-99	Per Ea. 100-249
00-8016-038-000-002	1.45	1.25	38	00-8016-038-000-008	1.95	1.69
00-8016-056-000-002	1.58	1.37	56	00-8016-056-000-008	2.09	1.81

COVERS (Loose)

SIDE CABLE OPENING	Per Ea. 1-99	Per Ea. 100-249	No. of Contacts	TOP CABLE OPENING	Per Ea. 1-99	Per Ea. 100-249
00-8016-038-000-100	1.90	1.65	38	00-8016-038-000-101	1.90	1.65
00-8016-056-000-101	1.90	1.65	56	00-8016-056-000-100	1.90	1.65

SERIES 8016 — FACTORY INSTALLED CONTACTS
(.098 Base Taper Tab with Wire Hole)

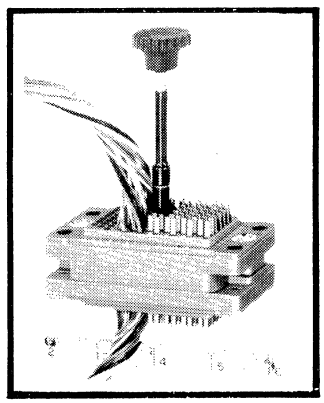
PLUG with Actuating Screw	Per Ea. 1-99	Per Ea. 100-249	No. of Contacts	RECEPTACLE with Fixed Nut	Per Ea. 1-99	Per Ea. 100-249
00-8016-038-217-001	3.85	3.29	38	00-8016-038-217-007	3.28	2.88
00-8016-056-217-001	4.69	4.19	56	00-8016-056-217-007	4.13	3.77

PLUG with Fixed Nut	Per Ea. 1-99	Per Ea. 100-249	No. of Contacts	RECEPTACLE with Actuating Screw	Per Ea. 1-99	Per Ea. 100-249
00-8016-038-217-002	3.28	2.88	38	00-8016-038-217-008	3.85	3.29
00-8016-056-217-002	4.13	3.77	56	00-8016-056-217-008	4.69	4.19

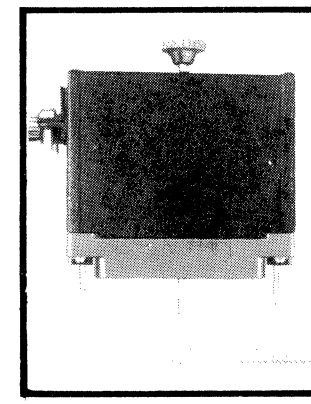
SPECIFICATIONS

Current Rating—
VARICON*—Contacts 5 Amps
VARILOK* Contacts—10 Amps
Contact Resistance—
0.005 OHM. Maximum
Contact Material: Phosphor Bronze
—Nickel Plated—Gold Flashed
VARILOK* Contacts and covers are ordered separately.
Withdrawal Force: 8 ounces per contact average
Military Specifications:
MIL-C-21097 (BU-SHIPS)—Applicable Portions
MIL-E-19600 (BU-WEPS)—Paragraph 3.5.5.

Series 8017-8018



- A high contact density in the Rack and Panel connector family with .150" between contacts and rows, alternate rows offset .075". Series 8017 with screw-down device is available in sizes having 75, 100 and 130 contacts. Series 8018, without the screw-down feature, is available in sizes having 80, 110 and 140 contacts. Both series, plug as well as receptacle, can be supplied with cover and cable clamp.
- The VARILOK* contact can be used in the plug and/or receptacle. Factory inserted contacts also available. Casting material Diallyl Phthalate only.
- Specifications identical to Series 8016.
- See Bulletin 8017 for other combinations available.



FOR VARILOK* CONTACTS
(Covers Have Side Cable Entrance)

PLUG with Actuating Screw and Cover	Per Ea. 1-99	Per Ea. 100-249	No. of Contacts	RECEPTACLE with Fixed Nut No Cover	Per Ea. 1-99	Per Ea. 100-249
00-8017-075-000-004	7.75	4.85	75	00-8017-075-000-007	5.90	3.30
00-8017-100-000-004	8.00	5.05	100	00-8017-100-000-007	6.15	3.45
00-8017-130-000-004	8.35	5.25	130	00-8017-130-000-007	6.25	3.50

PLUG with Fixed Nut No Cover	Per Ea. 1-99	Per Ea. 100-249	No. of Contacts	RECEPTACLE with Actuating Screw and Cover	Per Ea. 1-99	Per Ea. 100-249
00-8017-075-000-002	5.00	2.80	75	00-8017-075-000-012	10.15	6.20
00-8017-100-000-002	5.25	2.90	100	00-8017-100-000-012	10.50	6.45
00-8017-130-000-002	5.40	3.00	130	00-8017-130-000-012	10.85	6.65

FACTORY INSTALLED .098" BASE TAPER TAB WITH HOLE CONTACTS
(Covers Have Side Cable Entrance)

PLUG with Actuating Screw and Cover	Per Ea. 1-99	Per Ea. 100-249	No. of Contacts	RECEPTACLE with Fixed Nut No Cover	Per Ea. 1-99	Per Ea. 100-249
00-8017-075-217-004	12.15	8.90	75	00-8017-075-217-007	9.25	6.00
00-8017-100-217-004	14.45	10.45	100	00-8017-100-217-007	11.45	7.45
00-8017-130-217-004	17.00	12.15	130	00-8017-130-217-007	13.85	9.05

PLUG with Fixed Nut No Cover	Per Ea. 1-99	Per Ea. 100-249	No. of Contacts	RECEPTACLE with Actuating Screw and Cover	Per Ea. 1-99	Per Ea. 100-249
00-8017-075-217-002	9.25	6.00	75	00-8017-075-217-012	12.15	8.90
00-8017-100-217-002	11.45	7.45	100	00-8017-100-217-012	14.45	10.45
00-8017-130-217-002	13.85	9.05	130	00-8017-130-217-012	17.00	12.15

Other combinations and wire tails available. See Bulletin 8017.

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New Series 7021-7022 and 7023-7024
ELCO VARICON* All-Molded, Double Tier Miniature Connector Plugs

New, one-piece molded body provides full protection for lower and upper tier printed circuit module card contacts of the 7000 Series family.

One fully assembled unit replaces lower and upper card contacts supplied on removable plastic strips. High rigidity of the all-molded body minimizes card warpage at the point of connection for perfect mating with receptacle.

ELCO Contacts, sold under the trade-mark VARICON, are securely bonded into slots of the insulator, thereby maintaining precise spacing between contacts for perfect mating, resulting in low insertion and withdrawal values, low wear, low contact resistance and long life.

Lower and upper tier contacts are each equipped with only one leg, instead of double legs, thereby:

a. Reducing cost of producing module cards, because only two rows of holes must be drilled or punched instead of four.

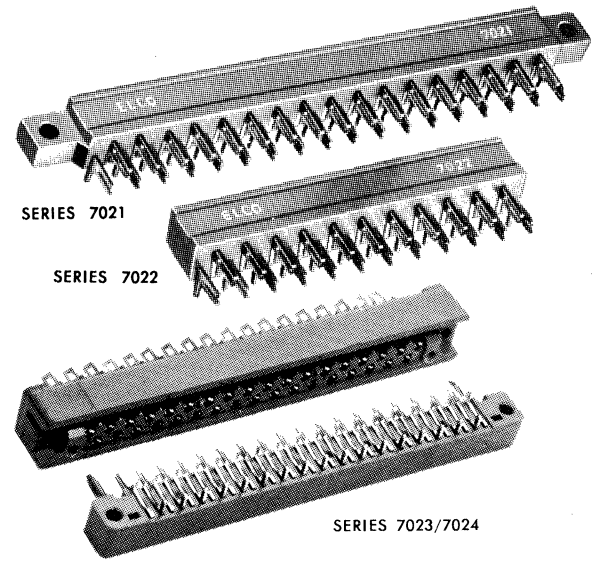
b. Simplifying the printed circuit layout with the result of larger distance between adjacent printed circuit pads.

c. Reducing cost of staking because lower and upper tier contacts can be staked simultaneously instead of each row individually.

One solid unit with lower and upper tier contacts bonded in position reduces assembly cost. Connector plug can be mounted directly to printed circuit module, and at customer's option staked and soldered in place or merely dip-soldered without staking. Assembly time to remove plastic strip is omitted.

Plugs are supplied two ways:

1. *Type 7021* with mounting ears to be used with connectors of the 7000 Series type *without* molded guides.
2. *Type 7022* for use with 7000 Series connectors *with* molded-on guides.



SPECIFICATIONS

Current Rating: 10 Amperes
Contact Resistance: .005 Ohm (Max.)
Contact Material: Phosphor Bronze - Nickel plated and gold flashed
Insulator Material: Diallyl Phthalate
Withdrawal Force: 8 ounces average per contact (approximate)
Military Specifications:
MIL-C-21097 (Bu. Ships) Applicable Portions
MIL-E-19600 (Bu. Weps) Paragraphs 3.5.5.

SERIES 7021 — WITH MOUNTING FLANGE

FOR 1/16" MODULE CARD		FOR 3/32" MODULE CARD		— Per Each —		
Model No.	No. of Contacts	Model No.	No. of Contacts	1-99	100-249	Size
00-7021-017-000-001	17	00-7021-017-000-002	17	1.44	1.15	17
00-7021-023-000-001	23	00-7021-023-000-002	23	1.74	1.40	23
00-7021-029-000-001	29	00-7021-029-000-002	29	2.04	1.65	29
00-7021-034-000-001	34	00-7021-035-000-002	35	2.34	1.89	34
00-7021-035-000-001	35	00-7021-041-000-002	41	2.34	1.89	35
00-7021-040-000-001	40	00-7021-047-000-002	47	2.64	2.10	40
00-7021-041-000-001	41			2.64	2.10	41
00-7021-047-000-001	47			2.94	2.38	47

SERIES 7022 — WITHOUT MOUNTING FLANGE

FOR 1/16" MODULE CARD		FOR 3/32" MODULE CARD	
Model No.	No. of Contacts	Model No.	No. of Contacts
00-7022-017-000-001	17	00-7022-017-000-002	17
00-7022-023-000-001	23	00-7022-023-000-002	23
00-7022-029-000-001	29	00-7022-029-000-002	29
00-7022-034-000-001	34	00-7022-035-000-002	35
00-7022-035-000-001	35	00-7022-041-000-002	41
00-7022-040-000-001	40	00-7022-047-000-002	47
00-7022-041-000-001	41		
00-7022-047-000-001	47		

SERIES 7023 PLUG

Series 7023 Plug for mounting to 1/16" and 3/32" thick printed circuit module cards used with Series 7024 Receptacle. Similar to Series 7021 and 7022, but provides stainless steel guide pins and holes. Double row of contacts spaced on .200" centers. Rows .125" apart; offset .100" from each other. Accommodates .050 modular grid pattern. Utilizes phosphor bronze ELCO VARICON* contacts nickel plated under gold flash. 10 Amp rating. Plug and receptacle, glass filled diallyl phthalate per MIL-M-18794 SDG.

PLUG

FOR 1/16" MODULE CARD		FOR 3/32" MODULE CARD	— Per Each —	
Model No.	No. of Contacts	Model No.	1-99	100-249
00-7023-023-000-001	23	00-7023-023-000-002	2.56	1.75
00-7023-029-000-001	29	00-7023-029-000-002	2.82	1.98
00-7023-035-000-001	35	00-7023-035-000-002	3.08	2.21
00-7023-041-000-001	41	00-7023-041-000-002	3.35	2.44

SERIES 7024 RECEPTACLE

Series 7024 Printed Circuit Receptacle for use with Series 7023 Plug. Double row of contacts spaced on .200" centers. Rows spaced .125" apart; offset .100" from each other. Accommodates .050 modular grid on 1/16" or 3/32" thick printed circuit cards. Polarization accomplished by inserting polyethylene inserts in receptacle card slot and notching printed circuit module card with no loss of contacts. Utilizes phosphor bronze ELCO VARICON* contacts, nickel plated under gold flash. 10 amp rating. Receptacle, glass filled diallyl phthalate per MIL-M-18794 SDG. Connectors shown below have .098" taper tap w/wire hole contacts. Other types available.

RECEPTACLE
.098" Taper Tab With Wire Hole Contacts

FOR 1/16" MODULE CARD		FOR 3/32" MODULE CARD	— Per Each —	
Model No.	No. of Contacts	Model No.	1-99	100-249
00-7023-023-163-001	23	00-7024-023-163-002	3.75	2.55
00-7023-029-163-001	29	00-7024-029-163-002	4.09	2.78
00-7023-035-163-001	35	00-7024-035-163-002	4.61	3.12
00-7023-041-163-001	41	00-7024-041-163-002	5.10	3.45
50-5006.3414	Pol. Tab 1/16"		.015	.015
50-5006.3424	Pol. Tab 3/32"		.015	.015

*TRADE-MARK

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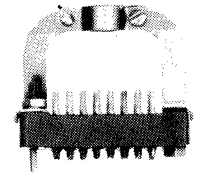
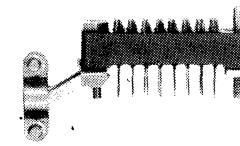
Series 8125
Sub-Miniature ELCO VARICON* Connector

SIDE VIEW

TOP VIEW



TOP CABLE CLAMP



SIDE CABLE CLAMP

- CONNECTOR BODY consists of two sections, a plug and a receptacle, each of one-piece molded construction.
- GUIDE PINS AND SOCKETS are factory assembled. Extra-thick guide pins prevent bending of the pins and damage to the contacts during disconnect.
- MOUNTING is by means of two studs, extending from the guide pin and guide socket respectively, which screw directly into the chassis.

Units Above Right Have ELCO Contacts, Sold Under the Trade-Mark VARICON, for .098" Base Taper Tab.

- CONTACT CONFIGURATION is 4 rows of 8 contacts each, with spacing between rows of .125".
- POLARIZATION is by means of a small locating pin which fits into a slot on one side of the guide socket. Six positions are possible for each guide pin and socket, resulting in 36 polarization possibilities.
- ACCESSORIES include top or side Cable Clamp, Potting Shell with or without flange, Locking Clips, and Honeycomb Insulator.
- REQUEST BULLETIN 8125.

SPECIFICATIONS

Current Rating: 3 Amperes.
Contact Resistance: 0.005 Ohm, Maximum.
Contact Material: Phosphor Bronze. +Nickel plated, gold flash.
Insulator Material: Diallyl Phthalate
Withdrawal Force: 8 ounces per contact, average.
Military Specifications:
MIL-C-21097 (Bu. Ships) — Applicable portions.
MIL-E-19600 (Bu. Weps), Paragraph 3.5.5.

.098" BASE TAPER TAB WITH WIRE HOLE CONTACT

NO HARDWARE

Plug	Receptacle	Per Each 1-99	Per Each 100-249
00-8125-032-605-001	00-8125-032-605-002	4.90	3.95

POTTING SHELL WITH FLANGE — TOP CABLE ENTRANCE HOLE

00-8125-032-605-005	00-8125-032-605-006	5.40	3.73

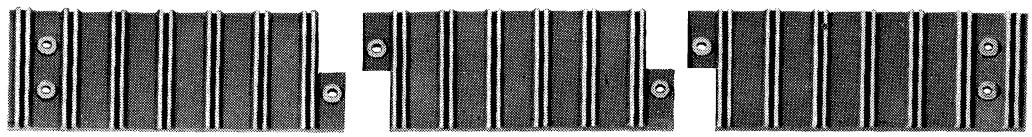
TOP CABLE CLAMP

00-8125-032-605-021	00-8125-032-605-027	5.40	3.73

SIDE CABLE CLAMP

00-8125-032-005-025	00-8125-032-605-026	5.40	3.73

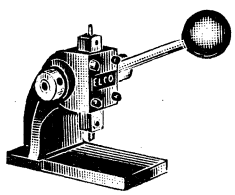
Series 9011, 9012 Guide Strips



Guide strips are ideal time and labor savers designed for use in printed circuit packaging. Reduce engineering and production costs. Printed circuit modules are guided smoothly and accurately when insertion is made into the unit. Guide strips are for 1/16" boards, at .750" spacing, and are made of glass filled Diallyl Phthalate. Series 9011 guide strips are assembled as "building blocks." Sectional arrangement allows the designer to include as many strips as the equipment may require, in increments of seven guide locations. Series 9012 guide strips are wider and longer than Series 9011, and can be utilized in a similar fashion. REQUEST BULLETIN 03-9011.

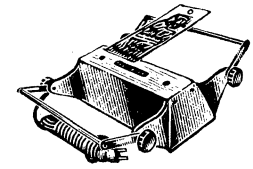
Model No.	Description	Per Ea. 1-24	Per Ea. 25-249
53-9011.3011	Right/Left Guide — 2" high	2.50	1.95
53-9011.3021	Center Guide — 2" high	2.50	1.95
53-9012.3029	Right Guide — 3⅞" high	3.50	2.95
53-9012.3019	Left Guide — 3⅞" high	3.50	2.95

HAND STAKER



Offers laboratory and prototype staking of ELCO printed circuit contacts, sold under the trademark VARICON. Accommodates staking of most types of contacts presently available on model shop or laboratory basis. Punches for microcon and miniature printed circuit contacts. Rating: ¼ ton. Ram Dimensions: ½" x ½" x 2½". Ram Stroke: 13/16". Height of Opening: 1⅛". Throat Depth from Center of Ram: 1". Working Surface: 2" x 2⅞".
ELCO No. 56-061856-01 (HS-1)
REQUEST BULLETIN 06-1856.

HEATING PLATEN



Designed for removal of plastic strips from ELCO printed circuit contacts, sold under the trademark VARICON. Supplied on plastic strips to facilitate handling and staking to printed circuit cards. Heating Platen T-1751 is designed for easy removal of the plastic strips after contact staking and soldering operations are completed. Platen is 10" long.
ELCO No. 06-1751 (T-1751)
REQUEST BULLETIN 06-1751.

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Series 9016
ELCO VARIPAK* Printed Circuit Card Enclosure

VARIPAK* is designed to be adapted to any packaging technique utilizing printed or etched circuitry, and to provide maximum density. It holds the printed circuit cards and printed circuit connectors in correct alignment; and its adaptability to any packaging program is universal.

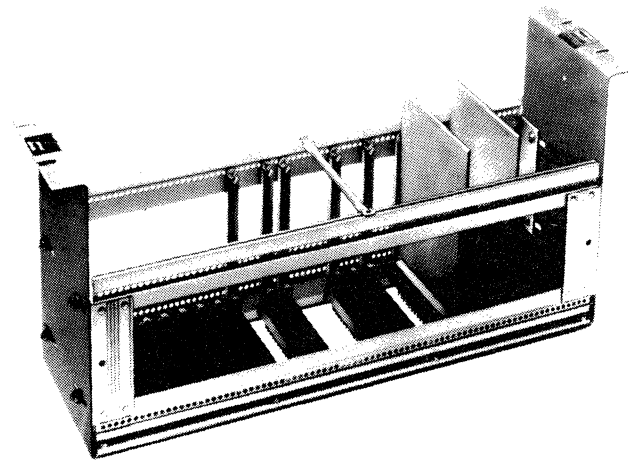
VARIPAK* is available in 4 standard sizes, making it possible to package all 4.500 wide printed circuit cards.

VARIPAK* is made completely of aluminum. Guide Plate is extruded aluminum 6063-T6. Mounting Hanger and Connector Panel are made of No. 14 gauge aluminum 6061-T4.

- CONNECTOR PANEL—Available for two types of connector mounting—panel type and strap type. Strap type 1/8" thick, 3/4" wide aluminum strap mounted to each Guide Plate. The Connector Panel is a precision blanked part.
- GUIDE PLATE—Available in various sizes. Has provisions to mount VARIPAK* Guides in 82 different positions on a .200" grid. The greatest density possible is 41 guides on a .400" spacing.
- VARIPAK* GUIDES—made of polycarbonate with a temperature rating of 280° - 300° F. Designed to snap in place in any of 82 positions provided in the Guide Plate. Available in three printed circuit card thicknesses—1/16", 3/32" and 1/8". Quickly removable from any position without damage to either Guide or Guide Plate.
- ACCESSORIES—The following are accessory parts supplied on request at additional cost:

  Market Strip—53-9016.2402, an extruded flexible white polyvinyl strip provides an area upon which component identification can be imprinted.

  Front Panel—53-9016.2201, a panel of 14 gauge aluminum 6061-T4. Hinge and mounting hardware can be provided to serve a decorative, protective or functional purpose.



* REQUEST BULLETIN 03-9016 FOR OTHER VARIATIONS POSSIBLE.

VARIPAK*

Units listed on right use 4.50" wide printed circuit cards. Height of the unit is 5.218" and is adjustable 1" either way. The vertical distance between mounting holes is 2 1/4". Unit measures 19" long with standard mounting slots pre-cut.

With Blank Connector Panel	With 3/4" Mounting Strap	Depth of Guide Plate	Depth of Unit	Inside Distance Between Guide Plate	Per Ea. 1-24	Per Ea. 25-99
03-9016-02-1	03-9016-02-2	4"	5 1/2"	4.560"	19.50	16.00
03-9016-06-1	03-9016-06-2	5 1/2"	8 1/2"	4.560"	19.50	16.00
03-9016-10-1	03-9016-10-2	7"	8 1/2"	4.560"	19.50	16.00
03-9016-14-1	03-9016-14-2	8"	11"	4.560"	19.50	16.00

PART NUMBER FOR VARIPAK* GUIDES

Part Number	Nominal P.C. Card Thickness	Will Fit Assemblies	All Guides Per Ea. 1-499	All Guides Per Ea. 500 and up	Part Number	Nominal P.C. Card Thickness	Will Fit Assemblies	All Guides Per Ea. 1-499	All Guides Per Ea. 500 and up
53-9016.1201	1/16		.10	.08	53-9016.1207	1/16		.10	.08
53-9016.1202	3/32	02	.10	.08	53-9016.1208	3/32	10	.10	.08
53-9016.1203	1/8		.10	.08	53-9016.1209	1/8		.10	.08
53-9016.1204	1/16		.10	.08	53-9016.1210	1/16		.10	.08
53-9016.1205	3/32	06	.10	.08	53-9016.1211	3/32	14	.10	.08
53-9016.1206	1/8		.10	.08	53-9016.1212	1/8		.10	.08

Snap Rivet Supplied with Each Guide.
All guides are supplied in light grey color.

PART NUMBERS FOR VARIPAK* GUIDE PLATES †††

Part Number	Per Ea. 1-49	Per Ea. 50-199	Depth	Overall Length
53-9016.1301	5.50	4.50	4"	
53-9016.1302	5.50	4.50	5 1/2"	16 7/8"
53-9016.1303	5.50	4.50	7"	
53-9016.1304	5.50	4.50	8"	

††† Use this ordering code when ordering guide plates individually for use in drawer assemblies, etc.

ACCESSORIES

Front Panel	Per Ea. 1-24	Per Ea. 25-99
53-9016.2201	9.25	7.50

Market Strip	Per Ea. 1-24	Per Ea. 25-99
53-9016.2402	.09	.09

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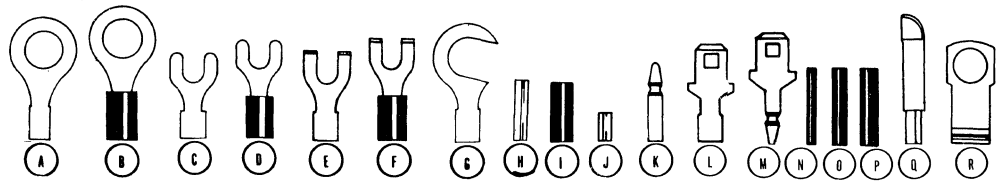
GC ELECTRONICS SOLDERLESS TERMINALS and CONNECTORS



WIRE SIZE	STUD SIZE	LENGTH	FIG.	100 PACK PART. NO.	100 PACK NET/100	1000 PACK PART. NO.	1000 PACK NET/100
			RING TONGUE — NON INSULATED				
22-16	4-6	17/32	A	13-000-C	$2.21	13-000-M	$18.90
22-16	4-6	23/32	A	13-002-C	2.21	13-002-M	18.90
22-16	8	41/64	A	13-004-C	2.21	13-004-M	18.90
22-16	8	23/32	A	13-006-C	2.48	13-006-M	21.00
22-16	8-10	23/32	A	13-008-C	2.21	13-008-M	18.90
22-16	10	57/64	A	13-010-C	1.94	13-010-M	16.60
16-14	4-6	19/32	A	13-012-C	2.23	13-012-M	19.10
16-14	4-6	45/64	A	13-014-C	2.23	13-014-M	19.10
16-14	8	45/64	A	13-016-C	2.23	13-016-M	19.10
16-14	10	45/64	A	13-018-C	2.23	13-018-M	19.10
16-14	1/4	57/64	A	13-020-C	3.11	13-020-M	26.65
12-10	4-6	3/4	A	13-022-C	3.11	13-022-M	26.65
12-10	8-10	3/4	A	13-024-C	3.11	13-024-M	26.65
12-10	1/4	1-1/32	A	13-026-C	3.87	13-026-M	33.15
16-14	5-6	3/4	A				
16-14	10	55/64	A	13-030-C	6.55	13-030-M	56.10
			RING TONGUE — INSULATED				
22-16	4-6	45/64	B	13-050-C	$5.04	13-050-M	$43.20
22-16	4-6	29/32	B	13-052-C	5.04	13-052-M	43.20
22-16	8-10	29/32	B	13-054-C	5.04	13-054-M	43.20
16-14	4-6	25/32	B	13-056-C	5.04	13-056-M	43.20
16-14	4-6	57/64	B	13-058-C	5.04	13-058-M	43.20
16-14	10	57/64	B	13-060-C	5.04	13-060-M	43.20
16-14	1/4	1-5/64	B	13-062-C	5.88	13-062-M	50.40
12-10	8-10	1-3/64	B	13-064-C	5.88	13-064-M	50.40
12-10	1/4	1-21/64	B	13-066-C	6.74	13-066-M	57.60
22-16	4/6	45/64	B				
22-16	8-10	29/32	B				
16-14	5-6	25/32	B				
16-14	5-6	57/64	B				
			SPADE TERMINAL — NON INSULATED				
22-16	4-6	3/4	C	13-100-C	$2.21	13-100-M	$18.90
22-16	8	3/4	C	13-102-C	1.94	13-102-M	16.60
16-14	4-6	3/4	C	13-104-C	2.21	13-104-M	18.90
16-14	10	3/4	C	13-106-C	2.21	13-106-M	18.90
			SPADE TERMINAL — INSULATED				
22-16	4-6	1-3/16	D	13-108-C	$5.04	13-108-M	$43.20
16-14	4-6	1-3/16	D	13-110-C	5.04	13-110-M	43.20
16-14	10	1-3/16	D	13-112-C	5.04	13-112-M	43.20
			FLANGE SPADE TERMINAL — NON INSULATED				
22-16	4-6	5/8	E	13-114-C	$2.21	13-114-M	$18.90
16-14	10	3/4	E	13-116-C	3.05	13-116-M	26.20
16-14	4-6	3/4	E	13-118-C	4.54	13-118-M	38.80
16-14	8	3/4	E	13-120-C	4.54	13-120-M	38.80
22-16	8-10	3/4	E	13-122-C	4.54	13-122-M	38.80
			FLANGE SPADE TERMINAL — INSULATED				
22-16	4-6	13/16	F	13-124-C	$7.42	13-124-M	$61.70
22-16	8-10	13/16	F	13-126-C	9.17	13-126-M	76.20
16-14	4-6	13/16	F	13-128-C	7.93	13-128-M	67.80
16-14	8	13/16	F	13-130-C	9.76	13-130-M	83.50
16-14	10	13/16	F	13-132-C	9.76	13-132-M	83.50
			HOOK TERMINAL				
22-16	4-6	23/32	G	13-200-C	$1.94	13-200-M	$16.60
22-16	8-10	23/32	G	13-202-C	2.25	13-202-M	19.30
			BUTT CONNECTOR — NON INSULATED				
22-16	—	9/16	H	13-220-C	$2.36	13-220-M	$20.20
16-14	—	9/16	H	13-222-C	1.94	13-222-M	16.60
12-10	—	9/16	H	13-224-C	2.25	13-224-M	19.30
			BUTT CONNECTOR — INSULATED				
22-16	—	1	I	13-226-C	$5.88	13-226-M	$50.40
16-14	—	1	I	13-228-C	5.17	13-228-M	44.30
12-10	—	1-1/16	I	13-230-C	6.30	13-230-M	54.00
22-16	—	1	I				
16-14	—	1	I				
			PARALLEL CONNECTOR — NON INSULATED				
22-16	—	5/16	J	13-240-C	$2.38	13-240-M	$20.40
16-14	—	5/16	J	13-242-C	3.84	13-242-M	33.00
			SNAP TERMINAL				
16-14	—	5/8	K	13-250-C	1.96	13-250-M	$16.78
			TAB TERMINALS — NON INSULATED				
18-14	—	—	L	13-260-C	$2.31	13-260-M	$19.80
18-14	—	—	L	13-262-C	2.31	13-262-M	19.80
18-14	—	—	L	13-264-C	2.52	13-264-M	21.60
18-14	—	—	L	13-266-C	2.36	13-266-M	20.20
			ADAPTER				
—	—	7/8	M	13-270-C	$4.00	13-270-M	$34.20
—	—	5/16	M	13-272-C	4.04	13-272-M	34.60
—	—	7/8	M	13-274-C	4.00	13-274-M	34.20
—	—	49/64	M	13-276-C	4.00	13-276-M	34.20
			INSULATING TUBING				
22-16	—	5/8	N	13-280-C	$2.46	13-280-M	$21.10
			CONNECTOR INSULATOR				
16-14	—	1-7/8	O	13-282-C	$2.46	13-282-M	$21.10
			TERMINAL INSULATOR				
16-14	—	1-5/8	P	13-284-C	$2.46	13-284-M	$21.10
			KNIFE DISCONNECT				
22-16	—	—	Q	13-290-C	$7.35	13-290-M	$63.00
			FLAG TERMINAL				
22-16	8-10	11/16	R	13-294-C	$2.36	13-294-M	$20.20
16-14	8-10	5/8	R	13-296-C	2.21	13-296-M	18.90

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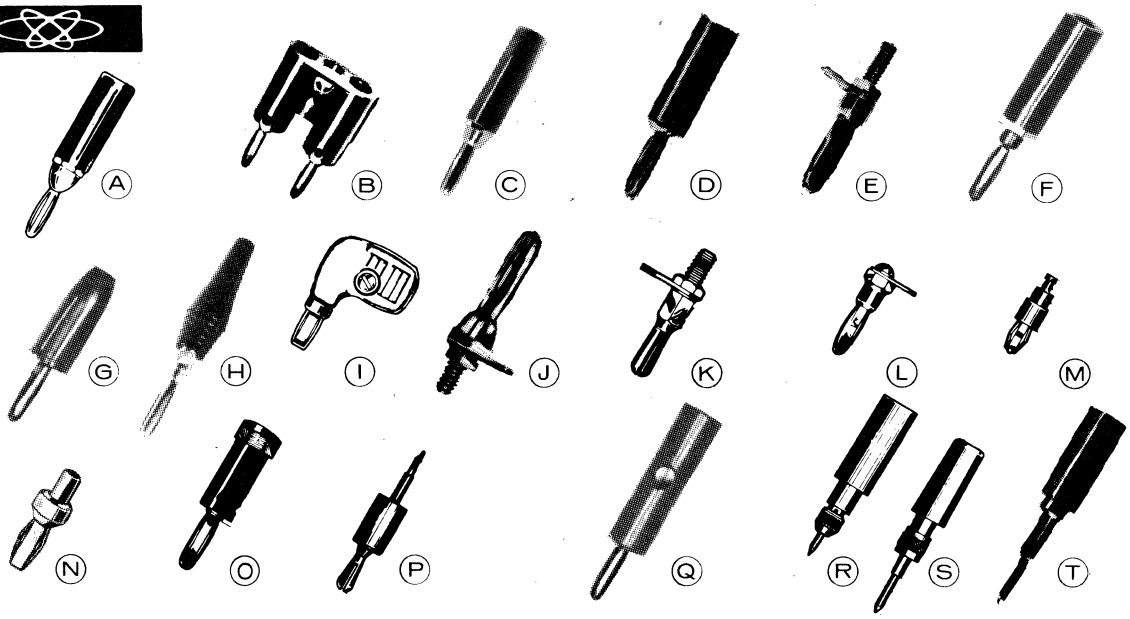
GC ELECTRONICS ELECTROCRAFT COMPONENTS



BANANA PLUGS

Electrocraft plugs are carefully designed, accurately molded and machined of best available material and rigidly inspected. Except as otherwise noted, all Banana Plugs are made to standard industry dimensions and mate with jacks with an 0.161" bore. Design provides for sufficient spring tension to assure good holding power and minimum contact reistance.

(A) BANANA PLUG — Four leaved, phosphor bronze, nickel plated spring; hex brass body, separate internal brass stud.

Cat. No. 33-000 Red Net $ .25
Cat. No. 33-000-BU Net $21.00/C
Cat. No. 33-002 Blk Net $ .25
Cat. No. 33-002-BU Net $21.00/C

BANANA PLUG — Four leaved, phosphor bronze, nickel plated spring; lead wire connection with set screw through plastic handle.

Cat. No. 33-006 Red Net $ .22
Cat. No. 33-006-BU Net $18.00/C
Cat. No. 33-008 Blk Net $ .22
Cat. No. 33-008-BU Net $18.00/C

(B) DUAL BANANA PLUG—Four leaved, phosphor bronze, nickel plated spring and steel, cadmium plate screw.

Cat. No. 33-010 Blk Net $ .78

BANANA PLUG — Unbreakable plastic handle, cross slotted, nickel plated brass body; separate internal brass stud.

Cat. No. 33-012 Red Net $ .22
Cat. No. 33-012-BU Net $18.00/C
Cat. No. 33-014 Blk Net $ .22
Cat. No. 33-014-BU Net $18.00/C

BANANA PLUG—cross slotted, nickel plated brass body; lead wire connection with set screw through plastic handle.

Cat. No. 33-018 Red Net $ .22
Cat. No. 33-018-BU Net $18.00/C
Cat. No. 33-020 Blk Net $ .22
Cat. No. 33-020-BU Net $18.00/C

BANANA PLUG — Midget Type, unbreakable plastic handle, four leaved, nickel plated, phosphor bronze spring, lead wire connection solders to drilled body.

Cat. No. 33-024 Red Net $ .25
Cat. No. 33-024-BU Net $20.66/C
Cat. No. 33-026 Blk Net $ .25
Cat. No. 33-026-BU Net $20.66/C

(C) BANANA PLUG unbreakable plastic handle; four leaved, nickel plated, phosphor bronze spring; lead wire connection through cross drilled hole in threaded spacer for solderless connection.

Cat. No. 33-028-1 Red Net $ .37
Cat. No. 33-028-1 BU Net $33.00/C
Cat. No. 33-028-2 Blk Net $ .37
Cat. No. 33-028-2 BU Net $33.00/C

BANANA PLUGS

These Banana Plugs meet standard industry specifications, mate with jacks with 0.163" bore.

(D) BANANA PLUG — Unbreakable plastic handle; four leaved, nickel plated phosphor bronze spring.

	Net
Cat. No. 33-032-1BU Red	$18.00/C
Cat. No. 33-032-2BU Blk	$18.00/C
Cat. No. 33-032-3BU Yel	$18.00/C
Cat. No. 33-032-4BU Grn	$18.00/C
Cat. No. 33-032-5BU Blu	$18.00/C

(E) BANANA PLUG—Threaded shank; four leaved, nickel plated phosphor bronze spring. Term. Lug & hex nut.

Cat. No. 33-034-BU Net $15.00/C

(F) INSULATED BANANA PLUG nickel plated brass plug with 4 leaved beryllium copper, nickel plated spring—fits standard Banana Jack, bakelite handle.

Cat. No. 33-036-1 Red Net $ .19
Cat. No. 33-036-1 BU Net $16.00/C
Cat. No. 33-036-2 Blk Net $ .19
Cat. No. 33-036-2 BU Net $16.00/C

(G) INSULATED BANANA PLUG solderless connection. Nickel plated brass plug — 4 leaved beryllium copper, nickel plated spring. Fits standard Banana Jack, Nylon handle.

Cat. No. 33-037-1 Red Net $ .19
Cat. No. 33-037-1 BU Net $16.00/C
Cat. No. 33-037-2 Blk Net $ .19
Cat. No. 33-037-2 BU Net $16.00/C

BANANA PLUG—flexible handle, unbreakable—shockproof plastic. Phosphor bronze, nickel plated spring.

Cat. No. 33-040-1 Red Net $ .26
Cat. No. 33-040-1 BU Net $21.00/C
Cat. No. 33-040-2 Blk Net $ .26
Cat. No. 33-040-2 BU Net $21.00/C

(H) BANANA PLUG flexible handle, stack type, unbreakable — shockproof plastic. Phosphor bronze, nickel plated spring.

Cat. No. 33-042-1 Red Net $ .28
Cat. No. 33-042-1 BU Net $23.00/C
Cat. No. 33-042-2 Blk Net $ .28
Cat. No. 33-042-2 BU Net $23.00/C

(I) BANANA PLUG — Right angle "Gun" tip (meter plug), molded plastic handle (2 half-shells), four leaved, phosphor bronze, nickel plated springs; lead wire solders to body.

Cat. No. 33-046 Red Net $ .42
Cat. No. 33-046-BU Net $36.00/C
Cat. No. 33-048 Blk Net $ .42
Cat. No. 33-048-BU Net $36.00/C

(J) BANANA PLUG—Threaded shank; four leaved, nickel plated phosphor bronze spring. Term. lug & hex nut.

Cat. No. 33-058-BU Net $15.00/C

(K) BANANA PLUG—Threaded shank type; slotted nickel plated brass body; supplied with terminal lug and hex nut.

Cat. No. 33-060 Net $ .18
Cat. No. 33-060-BU Net $15.00/C

(L) BANANA PLUG—Panel mounting type; four leaved, phosphor bronze, nickel plated spring; #6-32 tapped body.

Cat. No. 33-062 Net $ .18
Cat. No. 33-062-BU Net $15.00/C

BANANA PLUG—Threaded shank type; four leaved, phosphor bronze, nickel plated spring.

Cat. No. 33-064 Net $ .18
Cat. No. 33-064-BU Net $15.00/C

BANANA PLUG—Panel mounting type; cross slotted, nickel plated brass body, tapped #6-32; supplied with screw and terminal lug.

Cat. No. 33-066 Net $ .18
Cat. No. 33-066-BU Net $15.00/C

(M) BANANA PLUG — Sub-miniature type, four leaved, beryllium copper, silver plated spring; body rivets to terminal board and wire solders to turret terminal. Fits jacks with .104" ID.

Cat. No. 33-068 Net $ .22
Cat. No. 33-068-BU Net $18.00/C

(N) MIDGET BANANA PLUG rivet type, 4 leaved, phosphor bronze, silver plated spring. Fits all standard Banana Jack.

Cat. No. 33-069 Net $ .19
Cat. No. 33-069 BU Net $16.00/C

MIDGET BANANA PLUG — designed to meet Mil-spec No. SC-C-2231. Rivet type — 4 leaved, phosphor bronze, silver plated spring. Fits all standard Banana Jack.

Cat. No. 33-070 Net $ .22
Cat. No. 33-070 BU Net $18.00

(O) BANANA PLUG ADAPTOR—Adapts tip plug to banana plug; insulated handle, standard tip jack one end; other end four leaved banana plug.

Cat. No. 33-072 Red Net $ .35
Cat. No. 33-072-BU Net $30.00/C
Cat. No. 33-074 Blk Net $ .35
Cat. No. 33-074-BU Net $30.00/C

(P) BANANA PLUG-KLIPZON ADAPTOR—One end cross slotted; brass, nickel plated banana plug; other end "Klipzon" self holding wire piercing tip.

Cat. No. 33-076 Red Net $ .52
Cat. No. 33-076-BU Net $45.00/C
Cat. No. 33-078 Blk Net $ .52
Cat. No. 33-078-BU Net $45.00/C

ADAPTER, KLIPZON TIP TO BANANA PLUG—For connection of test leads terminated with Klipzon prods to equipment with banana jacks.

Cat. No. 33-080 Red Net $ .42
Cat. No. 33-080-BU Net $36.00/C
Cat. No. 33-082 Blk Net $ .42
Cat. No. 33-082-BU Net $36.00/C

(Q) STACK BANANA PLUG stack type, 4 leaved, phosphor bronze, nickel plated spring. 2" long with plastic handle. Fits standard banana plugs in top and side.

Cat. No. 33-084-1 Red Net $ .32
Cat. No. 33-084-1 BU Net $27.00/C
Cat. No. 33-084-2 Blk Net $ .32
Cat. No. 33-084-2 BU Net $27.00/C

STACK BANANA PLUG — stack type, 4 leaved beryllium copper, nickel plated spring. 2" long, with plastic handle. Fits standard banana plugs in top and side.

Cat. No. 33-086-1 Red Net $ .35
Cat. No. 33-086-1 BU Net $30.00/C
Cat. No. 33-086-2 Blk Net $ .35
Cat. No. 33-086-2 BU Net $30.00/C

TIP PLUGS

The following Tip Plugs are, unless otherwise noted, made to the standard industry specifications of .080" pin diameter. Careful machining, close tolerances and the use of brass alloy assures good contact and service ability.

(R) PHONO NEEDLE TIP PLUG—Insulated handle; nickel plated brass body; chuck design to hold .058 phono needle which is easily replaceable. Wire solders to body.

Cat. No. 33-100 Red Net $ .18
Cat. No. 33-100-BU Net $15.00/C
Cat. No. 33-102 Blk Net $ .18
Cat. No. 33-102-BU Net $15.00/C

(S) INSULATED TIP PLUG—Solderless type, wire tightens securely under knurled collar. Handle is unbreakable plastic and body is machined brass, nickel plated.

Cat. No. 33-106 Red Net $ .18
Cat. No. 33-106-BU Net $15.00/C
Cat. No. 33-108 Blk Net $ .18
Cat. No. 33-108-BU Net $15.00/C

TIP PLUGS

These Tip Plugs are made to standard industry specifications of .080" diameter. Handles are unbreakable plastic.

(T) HEAVY DUTY PHONE TIP PLUG—Standard tip, large diameter for soldering heavy duty wire into nickel plated brass body.

	Net
Cat. No. 33-110-1BU Red	$15.00/C
Cat. No. 33-110-2BU Blk	$15.00/C
Cat. No. 33-110-3BU Yel	$15.00/C
Cat. No. 33-110-4BU Grn	$15.00/C
Cat. No. 33-110-5BU Blu	$15.00/C

Net

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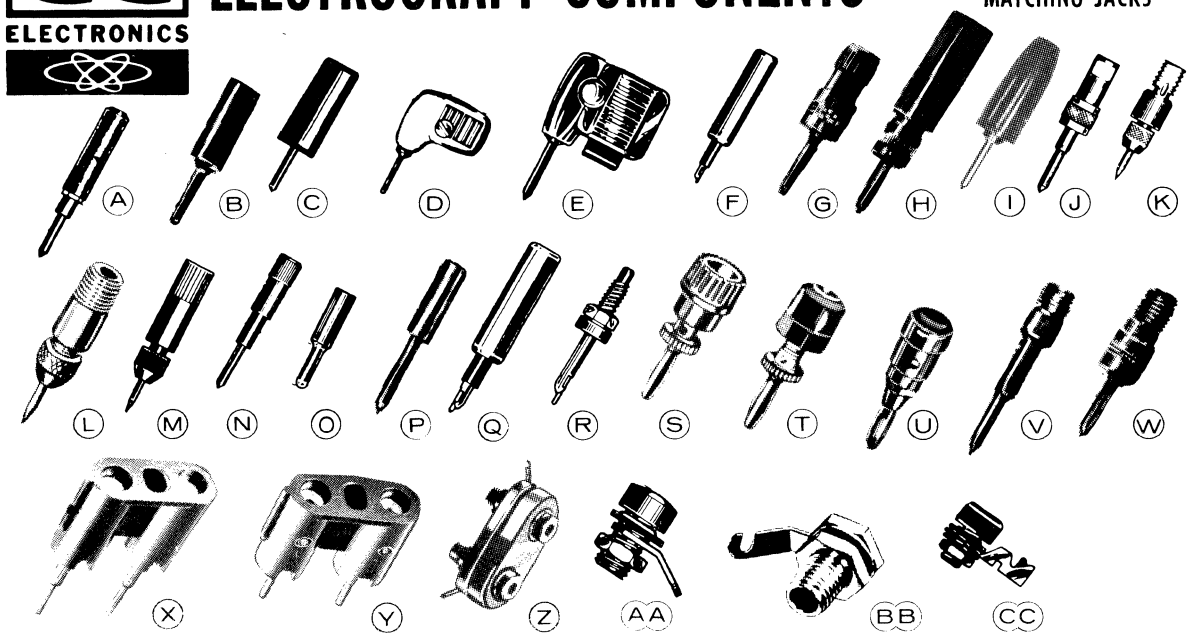
GC ELECTRONICS ELECTROCRAFT COMPONENTS

BANANA PLUGS • TIP PLUGS MATCHING JACKS



(A) SUB-MINIATURE PHONE TIP PLUG—Standard tip, extra-small diameter, machined bone fibre insulated handle. Wire solders to nickel plated, brass body.

Cat. No. 33-112 Red Net $ .22
Cat. No. 33-112-BU Net $18.00/C
Cat. No. 33-114 Blk Net $ .22
Cat. No. 33-114-BU Net $18.00/C

(B) INSULATED HOLLOW TIP PLUG—Drawn brass, nickel plated, solder type.

Net
Cat. No. 33-116-1BU Red $10.20/C
Cat. No. 33-116-2BU Blk $10.20/C

(C) INSULATED SHORT TIP PLUG—Unbreakable plastic handle; wire solders to brass nickel plated body.

Cat. No. 33-118 Red Net $ .15
Cat. No. 33-118-BU Net $12.00/C
Cat. No. 33-120 Blk Net $ .15
Cat. No. 33-120-BU Net $12.00/C

(D) RIGHT ANGLE TIP PLUG—Two insulated plastic handle half shells assemble with one screw and nut. Maximum wire insulation 7/64"; wire solders to body.

Cat. No. 33-128 Red Net $ .32
Cat. No. 33-128-BU Net $27.00/C
Cat. No. 33-130 Blk Net $ .32
Cat. No. 33-130-BU Net $27.00/C

(E) "TRIGGER-QUIK" TIP PLUG—right angle plug, similar to 33-128 and 33-130. Spring loaded solderless wire connection, "trigger" design. 1 Red and 1 Black plug per pair.

Cat. No. 33-132 Red Net $ .45
Cat. No. 33-132-BU Net $39.00/C
Cat. No. 33-134 Blk Net $ .45
Cat. No. 33-134-BU Net $39.00/C
Cat. No. *33-136 Pkg. per. pr. Net $ .75

*20 pair per package display.

(F) KLIPZON MINI-PROD—Insulated tip plug can be snapped securely on wires. Incorporates sharp point to pierce insulation; fits standard tip jacks; wire solders to body.

Cat. No. 33-138 Red Net $ .42
Cat. No. 33-138-BU Net $36.00/C
Cat. No. 33-140 Blk Net $ .42
Cat. No. 33-140-BU Net $36.00/C

(G) "JR." SOLDERLESS PHONE TIP—Press fit; nickel plated brass body; wire fastens under knurled collar.

Cat. No. 33-142-BU Net $18.66/C

(H) "JR." SOLDERLESS PHONE TIP—Threaded nickel plated brass body; wire fastens under knurled collar.

Net
Cat. No. 33-144-1BU Red $20.83/C
Cat. No. 33-144-2BU Blk $20.83/C
Cat. No. 33-144-3BU Yel $20.83/C
Cat. No. 33-144-4BU Grn $20.83/C
Cat. No. 33-144-5BU Blu $20.83/C

(I) INSULATED TIP PLUG short tip type, nickel plated brass plug with nylon handle. Fits standard phone tip jack.

Cat. No. 33-145-1 Red Net $ .14
Cat. No. 33-145-1 BU Net $10.50/C
Cat. No. 33-145-2 Blk Net $ .14
Cat. No. 33-145-2 BU Net $10.50/C

(J) SOLDERLESS TIP PLUG—All metal. Precision machined brass, nickel plated; wire fastens under knurled collar.

Cat. No. 33-146 Net $ .13
Cat. No. 33-146-BU Net $10.20/C

(K) PHONO NEEDLE TIP PLUG—Nickel plated brass body with 1/4-20 thread; chuck design to hold phono needle.

Cat. No. 33-148 Net $ .17
Cat. No. 33-148-BU Net $13.20/C

(L) NEEDLE TIP AND CHUCK brass nickel plated body, with steel nickel plated needle. Chuck is removable for quick replacement. Needle pierces corrosion or plating for positive reading.

Cat. No. 33-149 Net $ .17
Cat. No. 33-149-BU Net $13.20/C

(M) PUSH-ON NEEDLE CHUCK—Nickel plated brass. Knurled body for press fit into Test Prod handles drilled with 1/4" hole.

Cat. No. 33-150 Net $ .17
Cat. No. 33-150-BU Net $13.20/C

(N) HEAVY DUTY PHONE TIP PLUG—Nickel plated brass; knurled shank for press fit into Test Prod handles, drilled with 1/4" hole.

Cat. No. 33-152 Net $ .13
Cat. No. 33-152-BU Net $10.20/C

(O) STANDARD HOLLOW PHONE TIP—Drawn brass, bright nickel plated.

Cat. No. 33-154 Net $ .13
Cat. No. 33-154-BU Net $3.50/C

STANDARD SOLID PHONE TIP—Brass, bright nickel plated.

Cat. No. 33-156 Net $ .17
Cat. No. 33-156-BU Net $4.20/C

(P) HEAVY DUTY PHONE TIP PLUG—Brass; bright nickel plated, solder type.

Cat. No. 33-158-BU Net $4.75/C

(Q) KLIPZON MINI-PROD ADAPTOR—Converts standard Tip Plug and Test Prod to self holding Klipzon wire piercing prod.

Cat. No. 33-160 Red Net $ .42
Cat. No. 33-160-BU Net $36.00/C
Cat. No. 33-162 Blk Net $ .42
Cat. No. 33-162-BU Net $36.00/C

(R) KLIPZON PANEL MOUNTS—Wire holding patented Klipzon Test Prod with threaded shank (6-32 x 3/8") for panel mount. Designed for test setups.

Cat. No. 33-164 Net $ .52
Cat. No. 33-164-BU Net $45.00/C

(S) COMBINATION POST-PLUG captive head, molded of Butyrate per Mil-L-P-349A, type 3, class MS. Brass, nickel plated body, with 4 leaved phosphor bronze, nickel plated spring. Used to convert any panel-mounted banana jack to 5-way binding post termination. Accepts solid or standard wire, spade lug, phone tip, banana plug or alligator clip.

Cat. No. 33-165-1 Red Net $ .30
Cat. No. 33-165-1 BU Net $27.00/C
Cat. No. 33-165-2 Blk Net $ .30
Cat. No. 33-165-2 BU Net $27.00/C

(T) COMBINATION POST-PLUG captive head, molded of nylon, per Mil-P-20693A. Brass, nickel plated insert is molded in body with 4 leaved phosphor bronze, nickel plated spring. Used to convert any panel-mounted banana jack to 5-way binding post termination. Accepts solid or stranded wire, spade lug, phone tip, banana plug or alligator clip.

Cat. No. 33-166-1 Red Net $ .30
Cat. No. 33-166-1 BU Net $27.00/C
Cat. No. 33-166-2 Blk Net $ .30
Cat. No. 33-166-2 BU Net $27.00/C

(U) COMBINATION POST-PLUG captive, brass nickel plated head with molded styrene cap per MIL-L-P416, type 1. Brass, nickel plated body with 4 leaved phosphor bronze, nickel plated spring. Used to convert any panel-mounted banana jack to a spring-loaded push post. Accepts solid or stranded wire, or standard phone tip which locks in place upon release of pressure on cap.

Cat. No. 33-167 Net $ .45
Cat. No. 33-167 BU Net $42.00/C

(V) HEAVY DUTY PHONE TIP PLUG—Soldering well in nickel plated brass body large enough for standard banana plugs; threaded to fit into plastic handle.

Cat. No. 33-170-BU Net $10.20/C

(W) "JR." SOLDERLESS PHONE TIP—Nickel plated brass body; wire fastens under knurled collar; threaded to fit into plastic handle.

Cat. No. 33-172-BU Net $11.40/C

(X) DUAL STANDARD TIP PLUG solderless type, insulated molded black plastic body. Brass, nickel plated body with dual tip plugs on 3/4" centers. Designed to mate with dual combination jack assembly 33-206. Set screws secure wires.

Cat. No. 33-174 Net $ .78
Cat. No. 33-174 BU Net $72.00/C

(Y) DUAL SHORT TIP SOLDERLESS PLUG insulated molded black plastic body with brass, nickel plated tip plugs on 3/4" centers. Mates with dual tip jack 33-206. Set screws secure wire without soldering.

Cat. No. 33-176 Net $ .80
Cat. No. 33-176 BU Net $74.00/C

(Z) DUAL BANANA JACK insulated-molded black styrene, per Mil-LP416, type 1. Brass, nickel plated body. Mounting requires two 3/8" holes on 3/4" centers in panel up to 1/4" thick. Accepts standard and dual banana plugs. Dual jack comes complete with 2 hex nuts, 4 flat washers and brass tinned lugs.

Cat. No. 33-179 Net $ .53
Cat. No. 33-179 BU Net $48.00/C

BANANA AND TIP PLUG JACKS

Jacks are made to standard industry specifications. On Banana Jacks, the bore is .163" which fits all standard Banana Plugs. Tip Plug Jacks have built in spring contacts and are designed for all standard tip plugs with .080" diameter.

(AA) BANANA JACK—Molded phenolic head; nickel plated brass body supplied with tinned solder lug, fibre washer and mounting nut. Mounts in 5/16" hole.

Cat. No. 33-180 Red Net $ .17
Cat. No. 33-180-BU Net $13.20/C
Cat. No. 33-182 Blk Net $ .17
Cat. No. 33-182-BU Net $13.20/C

(BB) BANANA JACK—A hex brass nickel plated body recessed head and supplied with nut and lug.

Cat. No. 33-184-BU Blk Net $10.20/C

(CC) BANANA JACK, HEAVY DUTY—Molded phenolic head; nickel plated brass body; extruded fibre washer, lock washer, heavy duty solder lug and mounting nut.

Cat. No. 33-186 Red Net $ .23
Cat. No. 33-186-BU Net $20.00/C
Cat. No. 33-188 Blk Net $ .23
Cat. No. 33-188-BU Net $20.00/C

GC ELECTRONICS ELECTROCRAFT COMPONENTS

PHONE JACKS • PHONO PIN PLUGS AND JACKS • CONNECTORS

(A) TIP JACK — Featuring positive hold hex lock between molded head and jack body.

	Net
Cat. No. 33-190 Red	$ .18
Cat. No. 33-190-1BU Red	$15.00/C
Cat. No. 33-190-2BU Blk	$15.00/C
Cat. No. 33-190-3BU Yel	$15.00/C
Cat. No. 33-190-4BU Grn	$15.00/C
Cat. No. 33-190-5BU Blu	$15.00/C
Cat. No. 33-190 Blk	$ .18

(B) HIGH VOLT. NYLON BANANA JACK —high voltage flashover to panel prevented by heavy molded nylon body and cup washer, made per MIL-P-20693A. Colors conform to Federal Standard 595. Hex nuts and insert shell are nickel plated brass per QQ-N-290 type V (FC). Phosphor bronze contact, silver plated per QQ-S-365, overall Gold plated. Withstands 100 hours salt spray test.

Cat. No. 33-191-1 Red	Net $ .52
Cat. No. 33-191-1 BU	Net $45.00/C
Cat. No. 33-191-2 Blk	Net $ .52
Cat. No. 33-191-2 BU	Net $45.00/C

(C) BANANA JACK—ALL METAL brass nickel plated body; supplied with solder lug and hex mounting nut. Mounts in ¼" hole; fits panels up to ⅜" thick.

Cat. No. 33-192	Net $ .13
Cat. No. 33-192-BU	Net $10.20/C

(D) BANANA-TIP JACK COMBINATION —Molded phenolic head; brass nickel plated body. Phosphor bronze spring. Supplied with extruded fibre washer and mounting nut.

Cat. No. 33-194 Red	Net $ .20
Cat. No. 33-194-BU	Net $16.20/C
Cat. No. 33-196 Blk	Net $ .20
Cat. No. 33-196-BU	Net $16.20/C

(E) DUAL BANANA AND STAND-TIP PLUG — insulated molded black plastic brass, nickel plated body. Mounts in two ⅜" holes on ¾" centers on panels up to 5/16" thick, mates with Dual Banana Plug 33-010 and Dual Standard Tip Plug 33-174.

Cat. No. 33-197	Net $ .79
Cat. No. 33-197 BU	Net $73.00/C

(F) BANANA PLUG SPLICE—Insulated plastic handle, brass insert for coupling 2 standard Banana Plugs.

Cat. No. 33-200 Red	Net $ .30
Cat. No. 33-200-BU	Net $26.66/C
Cat. No. 33-202 Blk	Net $ .30
Cat. No. 33-202-BU	Net $26.66/C

(G) DUAL TIP JACK ASSEMBLY insulated molded black styrene body, per MIL-L-P416, type 1. Recessed body made of nickel plated brass with phosphor bronze contact. Mounting takes two ⅜" holes on ¾" centers in panels up to ¼" thick. Accepts standard phone tip plugs. Complete with two hex nuts.

Cat. No. 33-206	Net $ .60
Cat. No. 33-206 BU	Net $54.00/C

(H) INSULATED TIP JACK — Molded plastic head and washer; brass, nickel plated body with hex nut. Requires 5/16" hole; fits panels up to ¼" thick.

	Net
Cat. No. 33-208-1BU Red	$18.00/C
Cat. No. 33-208-2BU Blk	$18.00/C
Cat. No. 33-208-3BU Yel	$18.00/C
Cat. No. 33-208-4BU Grn	$18.00/C
Cat. No. 33-208-5BU Blu	$18.00/C

(I) STANDARD TIP JACK—Molded phenolic plastic head; nickel plated brass body with phosphor bronze spring; supplied with extruded fibre washer.

Cat. No. 33-210 Red	Net $ .17
Cat. No. 33-210-BU	Net $13.20/C
Cat. No. 33-212 Blk	Net $ .17
Cat. No. 33-212-BU	Net $13.20/C

(J) HIGH VOLT. NYLON PHONE TIP JACK — high voltage flashover to panel prevented by heavy molded nylon body and cup washer, made per MIL-P-20693A. Colors conform to Federal Standard 595. Hex nuts and insert shell are nickel plated brass per QQ-N-290 type V (FC). Phosphor bronze contact, silver plated per QQ-S-365, overall Gold plated. Withstands 100 hours salt spray test.

Cat. No. 33-214-1 Red	Net $ .81
Cat. No. 33-214-1 BU	Net $75.00/C
Cat. No. 33-214-2 Blk	Net $ .81
Cat. No. 33-214-2 BU	Net $75.00/C

(K) TIP JACK, ALL-INSULATED— Head and body molded of nylon, in one piece; phosphor bronze spring; supplied with mounting nut; mounts in ⅜" hole.

Cat. No. 33-216 Red	Net $ .22
Cat. No. 33-216-BU	Net $18.00/C
Cat. No. 33-218 Blk	Net $ .22
Cat. No. 33-218-BU	Net $18.00/C

(L) MINIATURE BANANA JACK— Molded nylon head and insulating washer provide excellent isolation from panel. Fits 5/16" mounting hole; for panels up to ¼" thick.

	Net
Cat. No. 33-220-1BU Red	$18.00/C
Cat. No. 33-220-2BU Blk	$18.00/C
Cat. No. 33-220-3BU Yel	$18.00/C
Cat. No. 33-220-4BU Grn	$18.00/C
Cat. No. 33-220-5BU Blu	$18.00/C

(M) TIP JACK, ALL METAL—Brass nickel plated body; phosphor bronze spring.

Cat. No. 33-226	Net $ .13
Cat. No. 33-226-BU	Net $10.20/C

(N) TIP JACK, IN-LINE STYLE—Insulated handle, brass nickel plated body; phosphor bronze spring.

Cat. No. 33-228 Red	Net $ .25
Cat. No. 33-228-BU	Net $21.00/C
Cat. No. 33-230 Blk	Net $ .25
Cat. No. 33-230-BU	Net $21.00/C

(O) NYLON IN-LINE TIP JACK insulated, molded nylon handle and body per MIL-P-20693A. Heat treated, phosphor bronze, gold plated contact. Safe, recessed contact accommodates all standard phone tip plugs—well suited for use with patch and extension cords. Also may be used for mounting on panel when wrap around terminal must be insulated in rear.

Cat. No. 33-231-1 Red	Net $ .35
Cat. No. 33-231-1 BU	Net $30.00
Cat. No. 33-231-2 Blk	Net $ .35
Cat. No. 33-231-2 BU	Net $30.00

(P) TIP PLUG SPLICE—Insulated; brass nickel plated body; phosphor bronze springs.

Cat. No. 33-232 Red	Net $ .32
Cat. No. 33-232-BU	Net $27.00/C
Cat. No. 33-234 Blk	Net $ .32
Cat. No. 33-234-BU	Net $27.00/C

(Q) NYLON TIP JACK—Nylon insulated body wtih machined beryllium copper contact, silver plated contact recessed in head, hot tin dipped solder terminal.

Cat. No. 33-240 Blk	Net $ .32
Cat. No. 33-240-BU	Net $27.00/C
Cat. No. 33-242 Red	Net $ .32
Cat. No. 33-242-BU	Net $27.00/C

(S) NYLON TIP JACK — SPADE TERMINAL—insulated nylon molded body; brass, nickel plated hex nut. Fits all standard phone tip plugs. Mounts in ¼" hole in panel up to ¼" thick.

Cat. No. 33-245-1 Red	Net $ .30
Cat. No. 33-245-1 BU	Net $24.50/C
Cat. No. 33-245-2 Blk	Net $ .30
Cat. No. 33-245-2 BU	Net $24.50/C

(T) NYLON FEED-THRU JACK feed thru type. Insulated nylon molded body; brass, nickel plated hex nut. Fits all standard phone tip plugs. Mounts in ¼" hole in panel up to ¼" thick.

Cat. No. 33-247-1 Red	Net $ .26
Cat. No. 33-247-1 BU	Net $21.00
Cat. No. 33-247-2 Blk	Net $ .26
Cat. No. 33-247-2 BU	Net $21.00

(U) BINDING POST — Brass nickel plated body; supplied with 8-32 mounting screw and lock washer.

Cat. No. 33-250 Red	Net $ .22
Cat. No. 33-250-BU	Net $17.67/C
Cat. No. 33-252 Blk	Net $ .22
Cat. No. 33-252-BU	Net $17.67/C

(V) BINDING POST — Brass nickel plated body supplied with #8-32 mounting screw and lock washer.

Cat. No. 33 254	Net $ .18
Cat. No. 33-254-BU	Net $15.33/C

BINDING POST — head of molded bakelite; molded in brass threaded insert. Comes complete with 8-32 threaded screw — ½" long brass, nickel plated lockwasher. Head diameter ½".

Cat. No. 33-255 Red	Net $ .18
Cat. No. 33-255 BU	Net $15.33/C

(W) BINDING POST-COMBINATION TYPE—Accepts banana plug, tip plug, bare wire or spade lug. Threaded #8-32 mounting stud ½" long; supplied with 2 hex nuts.

Cat. No. 33-256 Red	Net $ .22
Cat. No. 33-256-BU	Net $18.00/C
Cat. No. 33-258 Blk	Net $ .22
Cat. No. 33-258-BU	Net $18.00/C

(X) BINDING POST-COMBINATION —Similar in construction to 33-256/8 except with molded shoulder-type plastic washers to insulate post from chassis.

Cat. No. 33-260 Red	Net $ .28
Cat. No. 33-260-BU	Net $24.00/C
Cat. No. 33-262 Blk	Net $ .28
Cat. No. 33-262-BU	Net $24.00/C

(Y) BINDING POST-INSULATED UNIVERSAL TYPE—Non-removable, molded brass; brass nickel plated body with threaded #8-32 mounting stud.

Cat. No. 33-264 Red	Net $ .32
Cat. No. 33-264-BU	Net $27.00/C
Cat. No. 33-266 Blk	Net $ .32
Cat. No. 33-266-BU	Net $27.00/C

(Z) BINDING POST molded plastic head and brass nickel plated body. Insulating washer and 2 hex nuts supplied. Stud length 1 11/32", 8-32 threaded. Accommodates phone tip plug, spade lug, alligator clip, banana plug or stranded wire.

Cat. No. 33-265 Red	Net $ .18
Cat. No. 33-265 BU	Net $16.00
Cat. No. 33-267 Blk	Net $ .19
Cat. No. 33-267 BU	Net $16.00

(AA) HEAVY DUTY BINDING POST— Machined brass nickel plated body; supplied with a thick molded insulating spacer; shoulder keys into

Net

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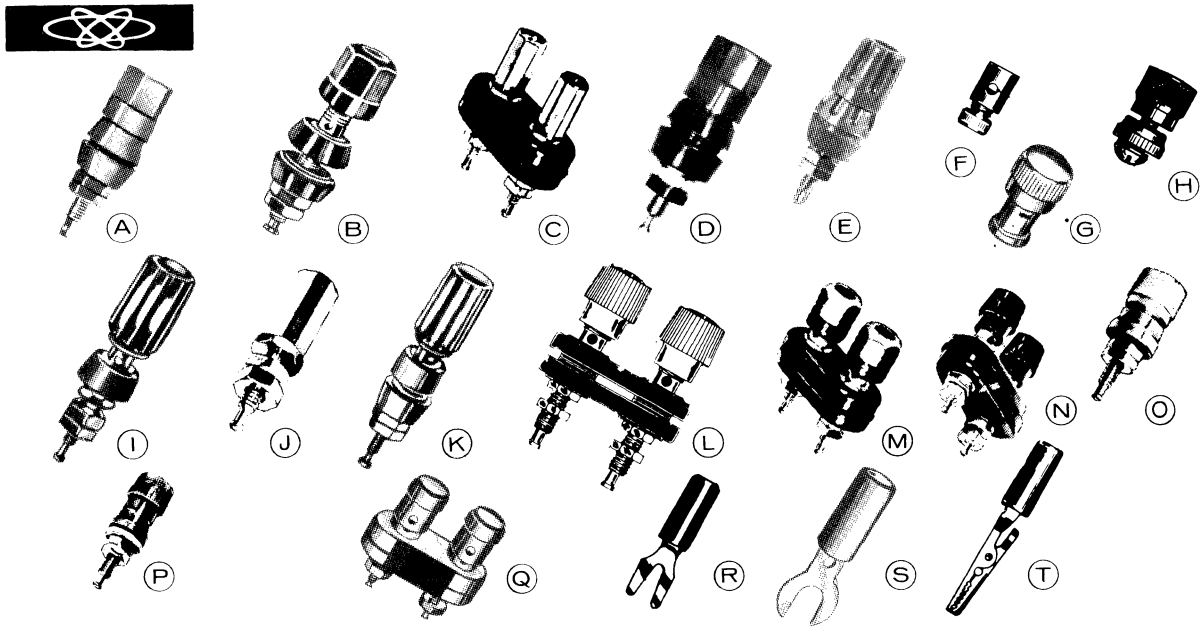
GC ELECTRONICS ELECTROCRAFT COMPONENTS

BINDING POSTS•SPADE LUGS•CLIPS



chassis mounting hole and positively prevents post from turning.
Cat. No. 33-268 Red Net $ .47
Cat. No. 33-268-BU Net $42.00/C
Cat. No. 33-270 Blk Net $ .47
Cat. No. 33-270-BU Net $42.00/C

(A) HEAVY DUTY BINDING POST Identical in design to binding post No. 33-268/270, except end of stud milled flat and drilled for solder connection.
Cat. No. 33-272 Red Net $ .47
Cat. No. 33-272-BU Net $42.00/C
Cat. No. 33-274 Blk Net $ .47
Cat. No. 33-274-BU Net $42.00/C

(B) NYLON BINDING POST molded nylon head and washer insulates post from panel. Banana plug receptacle .161" I.D. Molded in brass bushing in head and washers. Wire hole at right angle to flat on insulated washers. Punched keyed slot for mounting washers. Head is non-removable from stud. Mounting requires ½" hole in panels up to ¼" thick. Direct solder connection to stud. Body and inserts are brass, gold plated overall.
Cat. No. 33-275-1 Red Net $ .47
Cat. No. 33-275-1 BU Net $42.00/C
Cat. No. 33-275-2 Blk Net $ .47
Cat. No. 33-275-2 BU Net $42.00/C

(C) DUAL BINDING POST dual binding post assembly with metal posts. Can accept standard dual banana plug and wire, etc. Mounts in two ⅜" holes on ¾" centers in 1/16" to ¼" panels. With wrap-around solder studs. Has ⅝" x 1⅜" rounded black base.
Cat. No. 33-276 Net $ .66
Cat. No. 33-276 BU Net $60.00/C

(D) HEAVY DUTY BINDING POST captive plastic head with molded in brass inserts; machined brass nickel plated body; accepts banana or tip plug, spade lug, alligator clip or bare wire; supplied with a thick molded insulating spacer; spacer has a "D" shaped shoulder; shoulder keys into chassis mounting hole and positively prevents post from turning. Maximum rating 30 amps—2000 R.M.S. volt; supplied with 2 hex nuts.
Cat. No. 33-278 Red Net $ .42
Cat. No. 33-278 BU Net $36.00/C
Cat. No. 33-280 Blk Net $ .42
Cat. No. 33-280 BU Net $36.00/C

(E) BINDING POST 5-way, nylon. Fluted style, insulated, Banana adapter type. Wrap around tips — Brass nickel plated.
Cat. No. 33-279-1 Red Net $ .49
Cat. No. 33-279-1 BU Net $42.00/C
Cat. No. 33-279-2 Blk Net $ .49
Cat. No. 33-279-2 BU Net $42.00/C

BINDING POST—5-way, nylon. Fluted style, insulated, Banana adapter type. Spade type tip—Brass nickel plated.
Cat. No. 33-281-1 Red Net $ .52
Cat. No. 33-281-1 BU Net $45.00/C
Cat. No. 33-281-2 Blk Net $ .52
Cat. No. 33-281-2 BU Net $45.00/C

(F) BINDING POST, ALL METAL—Brass nickel plated body and knurled cap; accepts banana plug, phone tip or wire.
Cat. No. 33-282 Net $ .15
Cat. No. 33-282-BU Net $12.00/C

(G) BINDING POST compression type captive brass, nickel plated head. Knurled for finger grip. Brass, nickel plated body. Screw head down to tighten wire between body and sliding contact. Threaded internally for 6-32 mounting screw. Base of post is knurled for sure grip to panel.
Cat. No. 33-283 Net $ .25
Cat. No. 33-283 BU Net $21.00/C

(H) BINDING POST-ALL METAL — Heavy brass nickel plated body and knurled cap; #8-32 x ½" mounting screw and lock washer supplied.
Cat. No. 33-284 Net $ .18
Cat. No. 33-284-BU Net $15.00/C

(I) METAL BINDING POST gold plated, fluted brass, captive head. Molded black nylon washer with gold plated brass insert. Use where direct ground connection is made to panel or chassis. Complete with gold plated brass flat washer for grounding. Accepts phone tip plug, spade lug, banana plug, alligator clip or stranded wire.
Cat. No. 33-285 Net $ .32
Cat. No. 33-285 BU Net $27.00/C

(J) BINDING POST 5-way metal binding post. Can accept banana plug. Mounts in .171" hole in 1/16" to ⅜" panels. Has wrap around solder stud. 8-32 thread.
Cat. No. 33-286 Net $ .25
Cat. No. 33-286 BU Net $21.60/C

(K) METAL BINDING POST gold plated, fluted brass, captive head. Molded black nylon washer with gold plated brass insert. Use where internal ground circuit is isolated from chassis or panel. Accepts phone tip plug, spade lug, banana plug, alligator clip or wire strand.
Cat. No. 33-287 Net $ .32
Cat. No. 33-287 BU Net $27.00/C

(L) DUAL BINDING POST—INSULATED dual 5-way binding post assembly with black insulated, fluted heads. Accepts dual banana plugs. Mounts in 2 ⅜" holes. ¾" centers on 1/16"-¼" panels. Has solder studs, ⅝" x 1⅜" rounded base. Supplied with 4 hex nuts, two flat washers.
Cat. No. 33-288 Net $ .60
Cat. No. 33-288 BU Net $54.00/C

(M) DUAL BINDING POST insulated head, washer of molded black styrene, drilled to accept standard phone tips, forward or sideways. Brass, nickel plated body, molded nylon, hex head with brass nickel plated insert. Mounts in two ⅜" holes on ¾" centers in panels up to ¼" thick. Accommodates single or dual banana plugs.
Cat. No. 33-290 Blk Net $ .72
Cat. No. 33-290 BU Net $66.00/C
Cat. No. 33-292 One Red Head and One Blk Head Net $ .72
Cat. No. 33-292 BU One Red Head and One Blk Head Net $66.00/C

(N) DUAL BINDING POST captive type nylon head with nickel plated brass insert. Molded black styrene washer, with cross slot to accommodate standard phone tip forward, back or sideways. Supplied with 4 hex nuts and 2 washers. Mounts in two ⅜" holes on ¾" centers on panels up to ¼" thick.
Cat. No. 33-291 2 black heads Net $ .56
Cat. No. 33-291 BU Net $50.00/C
Cat. No. 33-293 2 red heads Net $ .56
Cat. No. 33-293 BU Net $50.00/C
Cat. No. 33-295 1 black and 1 red heads Net $ .56
Cat. No. 33-295 BU Net $50.00/C

(O) NYLON BINDING POST grounding type, with molded nylon, non-removable head takes direct solder connection to stud. High quality, durable binding post.
Cat. No. 33-294-1 Red Net $ .31
Cat. No. 33-294-1 BU Net $26.40
Cat. No. 33-294-2 Blk Net $ .31
Cat. No. 33-294-2 BU Net $26.40

(P) NYLON BINDING POST all metal parts are brass insulated. Molded nylon head (non-removable). Takes direct solder connection to stud. High quality.
Cat. No. 33-296-1 Red Net $ .31
Cat. No. 33-296-1 BU Net $26.40
Cat. No. 33-296-2 Blk Net $ .31
Cat. No. 33-296-2 BU Net $26.40

(Q) DUAL SPRING LOADED BIND. POST—captive brass, nickel plated head with molded black styrene insulator, cross-slotted to accept standard phone tips or wire either forward or sideways. Molded black styrene cap; nickel plated brass body. Requires 2 ⅜" holes on ¾" centers for mounting on panels up to ¼" thick. Accommodates standard phone tips or wires in side holes and secures them when pressure on cap is released. Complete with 4 hex nuts and 2 flat washers.
Cat. No. 33-298 Net $ .81
Cat. No. 33-298 BU Net $75.00/C

DUAL BINDING POST—captive type bakelite head with nickel plated brass insert. Molded black styrene washer, with cross slot to accept standard phone tip forward, back or sideways. Supplied with 4 hex nuts and 2 washers. Mounts in two ⅜" holes on ¾" centers on panels up to ¼" thick.
Cat. No. 33-299 Red Net $ .72
Cat. No. 33-299 BU Net $66.00/C

(R) SPADE LUG PLUG, INSULATED—Molded plastic handle; tapered "fork" fits binding posts and terminal screws up to #10 size.
Cat. No. 33-300 Red Net $ .15
Cat. No. 33-300-BU Net $10.80/C
Cat. No. 33-302 Blk Net $ .15
Cat. No. 33-302-BU Net $10.80/C

(S) INSULATED SPADE LUG molded butyrate handle with brass, nickel plated lug. Designed to fit all standard multi purpose binding posts. Wire up to #10 solders in front hole.
Cat. No. 33-304-1 Red Net $ .15
Cat. No. 33-304-1 BU Net $12.00/C
Cat. No. 33-304-2 Blk Net $ .15
Cat. No. 33-304-2 BU Net $12.00/C

(T) ALLIGATOR CLIP-INSULATED HANDLE—⅜" jaw opening; made of cadmium plated steel with unbreakable plastic handle.
Cat. No. 33-310 Red Net $ .13
Cat. No. 33-310 BU Net $8.50/C
Cat. No. 33-312 Blk Net $ .13
Cat. No. 33-312 BU Net $8.50/C

ALLIGATOR CLIP, SCREW CONNECTION—Molded plastic handle, cadmium plated steel jaws with maximum ⅜" opening.
Cat. No. 33-314 Red Net $ .13
Cat. No. 33-314-BU Net $9.50/C
Cat. No. 33-316 Blk Net $ .13
Cat.No. 33-316-BU Net $9.50/C

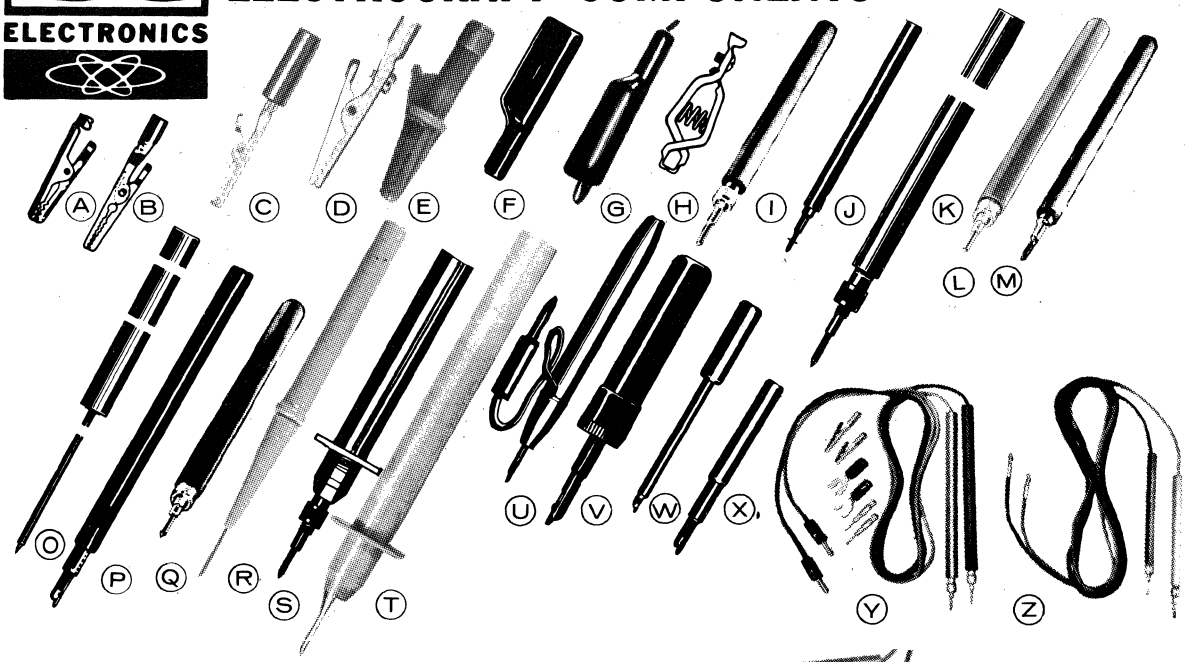
ALLIGATOR CLIP, SOLID COPPER—Identical to #33-314/16, except solid copper for higher current carrying capacity.
Cat. No. 33-318 Red Net $ .15
Cat. No. 33-318-BU Net $11.50/C
Cat. No. 33-320 Blk Net $ .15
Cat. No. 33-320-BU Net $11.50/C

ALLIGATOR CLIP—With extra long insulated handle; cadmium plated steel jaws which open to maximum ⅜".
Cat. No. 33-322 Red Net $ .25
Cat. No. 33-322-BU Net $21.00/C
Cat. No. 33-324 Blk Net $ .25
Cat. No. 33-324-BU Net $21.00/C

INSULATED ALLIGATOR CLIP ADAPTORS—Completely insulated with black molded plastic.

ELECTROCRAFT COMPONENTS

TEST PRODS LEADS



Cat. No. 33-326 Net $ .52
Cat. No. 33-326 BU Net $45.00/C
Cat. No. 33-328 Net $ .63
Cat. No. 33-328 BU Net $54.00/C

ALLIGATOR CLIP ADAPTOR—Accommodates standard tip plug or banana plug.

Cat. No. 33-330 Red Net $ .45
Cat. No. 33-330-BU Net $39.00/C
Cat. No. 33-332 Blk Net $ .45
Cat. No. 33-332-BU Net $39.00/C

ALLIGATOR CLIP ADAPTOR—Adapts standard tip plug to alligator clip.

Cat. No. 33-334 Red Net $ .37
Cat. No. 33-334-BU Net $33.00/C
Cat. No. 33-336 Blk Net $ .40
Cat. No. 33-336 BU Net $33.00/C

ALLIGATOR-KLIPZON PROD ADAPTOR—Adapts Klipzon Mini-Prod connectors and standard tip plugs to Alligator clip.

Cat. No. 33-338 Red Net $ .42
Cat. No. 33-338-BU Net $36.00/C
Cat. No. 33-340 Blk Net $ .42
Cat. No. 33-340-BU Net $36.00/C

(A) MINI-GATOR CLIP (MUELLER)—Very small alligator clip, for applications where space is a factor.

Cat. No. 33-342 Net $ .10
Cat. No. 33-342-BU Net $7.20/C
Cat. No. 33-344 Net $ .10
Cat. No. 33-344-BU Net $7.20/C

(B) ALLIGATOR CLIP-ALL METAL — Cadmium plated jaws with 3/8" opening.

Cat. No. 33-346 Net $ .08
Cat. No. 33-346 BU Net $5.40/C

(D) ALLIGATOR CLIP-ALL METAL For solderless connection of wire by means of a #6-32 binding head screw.

Cat. No. 33-348 Net $ .08
Cat. No. 33-348-BU Net $6.00/C
Cat. No. 33-350 Net $ .12
Cat. No. 33-350-BU Net $9.00/C

All copper

(E) ALLIGATOR CLIP insulated with standard banana plug adapter. Molded plastic over steel jaws and clips.

Cat. No. 33-352-1 Red Net $ .48
Cat. No. 33-352-1 BU Net $41.00/C
Cat. No. 33-352-2 Blk Net $ .48
Cat. No. 33-352-2 BU Net $41.00/C

(F) ALLIGATOR CLIP INSULATOR—Flexible molded vinyl insulator fits over most standard alligator clips.

Cat. No. 33-360 Red Net $ .08
Cat. No. 33-360-BU Net $4.80/C
Cat. No. 33-362 Blk Net $ .08
Cat. No. 33-362-BU Net $4.80/C

(G) ALLIGATOR CLIP BOOT-molded vinyl plastic; allows maximum jaw opening of clip while still insulating clip. "Miniature."

Cat. No. 33-363-1 Red Net $ .06
Cat. No. 33-363-1 BU Net $ 4.00/C
Cat. No. 33-363-2 Blk Net $ .06
Cat. No. 33-363-2 BU Net $ 4.00/C

(H) BATTERY CONNECTING & TESTING CLIP—5 amp rating; steel cadmium plated jaws with 1/2" spread.

Cat. No. 33-370 Net $ .08
Cat. No. 33-370-BU Net $6.00/C

BATTERY CONNECTING & TESTING CLIP—10 amp rating; steel cadmium plated jaws with 7/16" spread.

Cat. No. 33-372 Net $ .08
Cat. No. 33-372-BU Net $6.00/C

(I) SOLDERLESS FIBRE TEST PROD bone fibre handle, machined to nickel plated brass tip. Features .245" inside diameter for heavy duty wire. Overall length 5 1/4"

Cat. No. 33-376-1 Red Net $ .35
Cat. No. 33-376-1 BU Net $30.00/C
Cat. No. 33-376-2 Blk Net $ .35
Cat. No. 33-376-2 BU Net $30.00/C

(J) HEAVY DUTY TEST PROD heavy duty Test Prod. Threaded type. Extra sturdy brass, nickel plated tip with red or black molded plastic handle. Overall length 6 3/16".

Cat. No. 33-378-1 Red Net $ .38
Cat. No. 33-378-1 BU Net $33.00/C
Cat. No. 33-378-2 Blk Net $ .38
Cat. No. 33-378-2 BU Net $33.00/C

(K) DELUXE TEST PROD 5 1/4"—Solderless design; wire fits through handle and is fastened to tip with knurled collar.

Cat. No. 33-380 BU Net $33.00/C
Cat. No. 33-382 BU Net $33.00/C

(L) LONG TEST PROD, NEEDLE POINT TYPE—Extra safe design due to long unbreakable plastic handle; replaceable phono needle tip.

Cat. No. 33-384 BU Net $30.00/C
Cat. No. 33-386 BU Net $30.00/C

(M) SUBMINIATURE TEST PROD handle bone fibre—red or black. Tip brass, nickel plated. Designed for checking all types of miniature products and equipment. Easily assembled due to threading.

Cat. No. 33-388-1 Red Net $ .27
Cat. No. 33-388-1 BU Net $24.00
Cat. No. 33-388-2 Blk Net $ .27
Cat. No. 33-388-2 BU Net $24.00

THIN HANDLE TEST PROD With solderless wire connection; extruded plastic handle, press fitted on nickel plated brass test tip.

Cat. No. 33-392 BU Net $21.60/C
Cat. No. 33-394 BU Net $21.60/C

(O) LONG REACH TEST PROD—Has 4" very thin insulated extension beyond handle. Needle point assembly; brass nickel plated.

Cat. No. 33-396 BU Net $24.60/C
Cat. No. 33-398 BU Net $24.60/C

(P) KLIPZON TEST PROD—Klipzon tip clips on wire or chassis; sharp point, easily penetrates insulation or corrosion; thin plastic handle.

Cat. No. 33-400 BU Net $63.00/C
Cat. No. 33-402 BU Net $63.00/C

(Q) SOLDERLESS TEST PROD threaded prod with 5" long plastic handle, 3/8" diameter. Nickel plated phone tip. Wire fits through handle, wraps around screw portion.

Cat. No. 33-404-1 Red Net $ .35
Cat. No. 33-404-1 BU Net $30.00/C
Cat. No. 33-404-2 Blk Net $ .35
Cat. No. 33-404-2 BU Net $30.00/C

(R) TEST PROD tapered slim-type. Fully insulated plastic—solder type. 5 1/2" overall nickel-plated brass tip.

Cat. No. 33-406-1 Red Net $ .81
Cat. No. 33-406-1 BU Net $75.00/C
Cat. No. 33-406-2 Blk Net $ .81
Cat. No. 33-406-2 BU Net $75.00/C

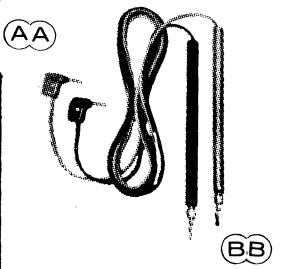
(S) HIGH VOLTAGE TEST PROD—Heavy-duty type; has guard ring to prevent accidental touching of tip; handle accepts wires up to 3/8" diameter.

Cat. No. 33-408 Red Net $ .78
Cat. No. 33-408-BU Net $72.00/C
Cat. No. 33-410 Blk Net $ .78
Cat. No. 33-410-BU Net $72.00/C

(T) R.F. TEST PROD heavily insulated fibre probe. Coax cable or IN-34 crystal for R.F. Probes may be used because of larger inside diameter. Heavy duty tip is removable.

Cat. No. 33-411-1 Red Net $ .70
Cat. No. 33-411-1 BU Net $63.00/C
Cat. No. 33-411-2 Blk Net $ .70
Cat. No. 33-411-2 BU Net $63.00/C

(U) KLIPZON CRYSTAL PROD KIT—Self-holding prod, complete with Germanium Diode and other parts to assemble low capacity crystal probe.



Cat. No. 33-412 Red Net $1.83
Cat. No. 33-414 Blk. Net $1.83

(V) KLIPZON JUMBO PROD HANDLE—Tip pierces insulation. Self-holding point clips on wires (up to .220" diameter); chassis, screws, terminals, etc.

Cat. No. 33-416 BU Net $66.00/C
Cat. No. 33-418 BU Net $66.00/C

(W) KLIPZON LONGIE ADAPTOR—Long, slender self-holding point with needle to pierce insulation.

Cat. No. 33-420 BU Net $45.00/C
Cat. No. 33-422 BU Net $45.00/C

(X) KLIPZON JUMBO ADAPTOR — Adapts regular tip plug or test prod to self holding Klipzon type.

Cat. No. 33-424 BU Net $63.00/C
Cat. No. 33-426 BU Net $63.00/C

(Y) UNIVERSAL TEST LEADS—50" flexible cable; one end 6" break-resistant plastic handle, with solderless tip plug; other end terminated in banana plug; supplied with alligator clip, spade lugs and phono tip plugs, fit the banana plug end.

Cat. No. 33-450-S Net $1.88

UNIVERSAL "NEEDLEPOINT" TEST LEADS—One end 6" break-resistant Test Prod, with phono needle type test prod; other end terminated with banana plug; furnished with spade lugs, alligator clips and phono tip plug, fit on banana plug.

Cat. No. 33-452-S Net $1.88

(Z) "THRIFTY" TEST LEADS — 50" flexible kink-proof cable; one end 4" insulated test prods with solderless wire connections; other ends terminated in standard phone tips.

Cat. No. 33-454-S Net $ .75

(AA) SOLDERLESS TIP TEST LEADS red and black 4" x 3/8" diameter plastic handle, with red and black flexible, kinkless 50" leads.

Cat. No. 33-455-S Net $ .85
Cat. No. 33-457-S Net $ .91

(BB) HEAVY DUTY TEST LEADS—50" flexible kink-proof cable; 7 1/2" long, heavy-duty unbreakable test prods,

Net

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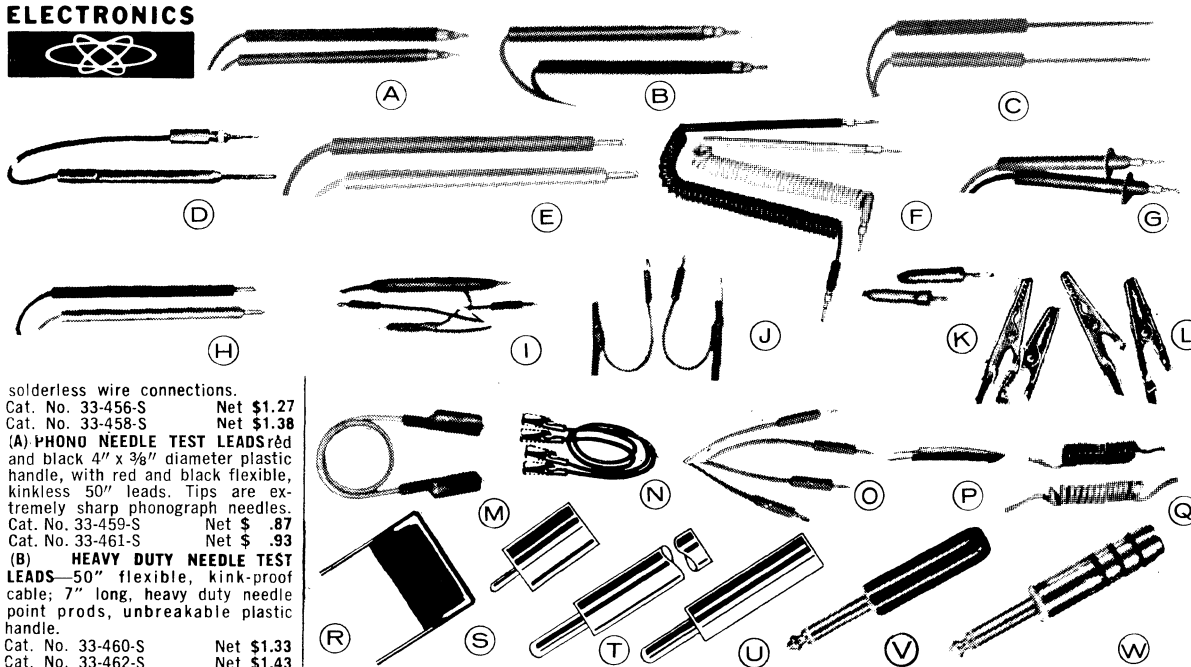
GC ELECTRONICS ELECTROCRAFT COMPONENTS

TEST LEADS · PHONE PLUGS



solderless wire connections.
Cat. No. 33-456-S Net **$1.27**
Cat. No. 33-458-S Net **$1.38**

(A) PHONO NEEDLE TEST LEADSred and black 4" x 3/8" diameter plastic handle, with red and black flexible, kinkless 50" leads. Tips are extremely sharp phonograph needles.
Cat. No. 33-459-S Net **$ .87**
Cat. No. 33-461-S Net **$ .93**

(B) HEAVY DUTY NEEDLE TEST LEADS—50" flexible, kink-proof cable; 7" long, heavy duty needle point prods, unbreakable plastic handle.
Cat. No. 33-460-S Net **$1.33**
Cat. No. 33-462-S Net **$1.43**

(C) LONG REACH TEST LEADS50" flexible, kink-proof cable; one end "long reach" with 5" insulated test prod, very thin extension; other end terminated in right angle, meter-type insulated tip plug.
Cat. No. 33-464-S Net **$1.65**

(D) RETRACTABLE TEST PROD Electrocraft's own printed circuit test prod with the exclusive retractable tip. This exclusive feature allows complete testing of printed circuitry without shorting or shock to the user.
Cat. No. 33-465-1-S Red Net **$ 1.65**
Cat. No. 33-465-2-S Blk Net **$ 1.65**

(E) SUBMINIATURE TEST LEADS red and black fibre handles, O.D. only 1/4"; insulated tips. Flexible, kinkless rubber leads 50" long, and threaded phone tips. Ideal for testing in tight or cramped places.
Cat. No. 33-466-S Net **$ 1.26**

(F) STRETCH TYPE TEST LEADS—Kink-proof, spiral-type 9" cable; extended length 6 feet; one end 6 3/8" heavy duty test prods with solderless wire connection; other end insulated, solderless tip plug.
Cat. No. 33-470-S Net **$2.97**

(G) HIGH VOLTAGE TEST LEADS—48" heavy insulated high tension wire (22,000/V).

Pair of 1 red, 1 black, with tip plugs.
Cat. No. 33-472-S Net **$2.57**

Pair of 1 red, 1 black, with insulated spade lugs.
Cat. No. 33-474-S Net **$2.40**

Pair of 1 red, 1 black, with alligator clips.
Cat. No. 33-476-S Net **$2.48**

(H) KLIPZON TEST LEADS—48" flexible, kink-proof cable; one end slim handle, self-holding and insulation piercing, other end Klipzon Tip Plugs. Klipzon prods and tips fit standard tip jacks, have sharp needle point to penetrate wire insulation, corrosion. Pair of 1 red and 1 black.
Cat. No. 33-480-S Net **$2.03**

KLIPZON TEST LEADS—Same as above, but with standard Phone Tip Plugs.
Cat. No. 33-482-S Net **$1.65**

KLIPZON TEST LEADS—Same as above, but other end insulated banana plug.
Cat. No. 33-484-S Net **$1.95**

(I) KLIPZON CRYSTAL PROBE—Germanium diode probe with self-holding points, for measuring high frequency voltages; flexible lead wires are terminated on meter end with Klipon tip plug.
Cat. No. 33-486-S Net **$4.35**

KLIPZON CRYSTAL PROBE — Crystal probe on one end, plus ground lead terminated on each end with tip plug.
Cat. No. 33-488-S Net **$4.35**

(J) KLIPZON SHIELDED LOW CAPACITY—36" low capacity, coaxial type lead, with self-holding insulation piercing, tip prods.
Cat. No. 33-490-S Net **$2.97**

(K) HEAVY DUTY KLIPZON TEST LEADS—48" 16-gauge, heavy insulated lead wires, terminated on one end with Klipzon Jumbo prod handles.
Cat. No. 33-492-S Net **$2.87**

(L) ALLIGATOR CLIP TEST LEADScadmium plated steel alligator clips on both ends of heavy duty test lead wire. Priced per pair.
Cat. No. 33-496-S 12" Net **$ .55**
Cat. No. 33-497-S 24" Net **$ .61**
Cat. No. 33-498-S 36" Net **$ .70**
Cat. No. 33-499-S 48" Net **$ .79**

(M) ALLIGATOR CLIP JUMPER LEADS —Flexible, kink-proof, lead wires, terminate at each end with fully insulated steel nickel plated alligator clips.
Pair of 1 red and 1 black, 12" long.
Cat. No. 33-500-S Net **$ .92**
Pair of 1 red and 1 black, 24" long.
Cat. No. 33-502-S Net **$ .95**
Pair of 1 red and 1 black, 36" long.
Cat. No. 33-504-S Net **$1.05**
Pair of 1 red and 1 black, 48" long.
Cat. No.33-506-S Net **$1.10**

(N) MID-ALLIGATOR CLIP TEST LEAD — cadmium plated steel alligator clips with red vinyl plastic boots. Priced per pair.
Cat. No. 33-501-S 12" Net **$ .81**
Cat. No. 33-503-S 18" Net **$ .84**
Cat. No. 33-505-S 24" Net **$ .87**
Cat. No. 33-507-S 36" Net **$ .96**

(O) KLIPZON JUMPER LEADS—Flexible, kink-proof cable, with patented tips, which clip on wires and terminals, have sharp insulation and corrosion piercing points.
Cat. No. 33-510, 12" Net **$ .77**
Cat. No. 33-512, 12" Net **$ .77**
Cat. No. 33-514, 24" Net **$1.12**
Cat. No. 33-516, 24" Net **$1,12**

(P) TEST LEAD WIRE—Flexible, rubber-coated and kink-resistant replacement wire for test leads.
Package of two, 50" length, red & black, 6000/V insulation.
Cat. No. 33-518-S Net **$ .60**
Package of two, 48" length, red & black, 22,000/V test leads.
Cat. No. 33-520-S Net **$ .87**

(Q) STRETCH LEAD WIRE — Coiled wire, for all applications. Package contains 1 red and 1 black lead. 9" long—stretches to 6 Ft.
Cat. No. 33-522-S Net **$1.95**

UNIVERSAL TEST LEAD KIT — two 55" leads and 12 interchangeable testing tips and connectors. Convert test leads to many different types. Has four phone tips, two alligator clips, two needle tips, two banana plugs, two spade lugs. Plastic wallet-style kit.
Cat. No. 33-528 Net **$ 2.40**

TEST LEAD PLUG INTERCHANGE KIT

— Contains pairs of alligator clips, banana plugs, spade lugs and phone tips, (1 each in red and black) to adapt standard test leads to many different types.

Cat. No. 33-530
Net **$2.25**

PRINTED CIRCUIT CONNECTORS

These Tiny Sub-miniature Tip Plugs and Tip Jacks are ideally suited for use in printed Circuit or limited space applications. Extremely Compact!

(R) MINIATURE HORIZONTAL JACK — Unique design accepts .080" diameter tip plug in either end, or from top or bottom! Silver-plated berylium copper formed contact. Two terminals.

Cat. No. 33-235-1 Red Net **$ .14**
Cat. No. 33-235-1 BU Net **$ 9.90/C**
Cat. No. 33-235-2 Blk Net **$ .14**
Cat. No. 33-235-2 BU Net **$ 9.90/C**
Cat. No. 33-235-3 BU Yel. Net **$ 9.90/C**
Cat. No. 33-235-4 BU Grn. Net **$ 9.90/C**
Cat. No. 33-235-5 BU Blue Net **$ 9.90/C**

(S) MINIATURE VERTICAL JACK — Mounts through single .052" hole, requires minimum mounting area. Silver-plated, machined berylium-copper contact.

Cat. No. 33-237-1 Red Net **$ .17**
Cat. No. 33-237-1 BU Net **$13.60/C**
Cat. No. 33-237-2 Blk Net **$ .17**
Cat. No. 33-237-2 BU Net **$13.60/C**
Cat. No. 33-237-3 BU Yel. Net **$13.60/C**
Cat. No. 33-237-4 BU Grn. Net **$13.60/C**
Cat. No. 33-237-5 BU Blue Net **$13.60/C**

(T) MINIATURE LONG HANDLE TIP PLUG — For use with horizontal, vertical or standard .080" diameter tip jacks. Four-inch handle for ready access to "hard-to-reach" test points. Nickel-plated machined brass body, solder type lead connection.

Cat. No. 33-238-1 Red Net **$ .34**
Cat. No. 33-238-1 BU Net **$28.90/C**
Cat. No. 33-238-2 Blk Net **$ .34**
Cat. No. 33-238-2 BU Net **$28.90/C**

(U) SUB-MINIATURE TIP PLUG — For use with miniature jack, .080" diameter tip. Nickel-plated machined brass body, solder type lead connection.

Cat. No. 33-239-1 Red Net **$ .21**
Cat. No. 33-239-1 BU Net **$16.80/C**
Cat. No. 33-239-2 Blk Net **$ .21**
Cat. No. 33-239-2 BU Net **$16.80/C**
Cat. No. 33-230-3 BU Yel. Net **$16.80/C**
Cat. No. 33-239-4 BU Grn. Net **$16.80/C**
Cat. No. 33-230-5 BU Blue Net **$16.80/C**

(V) TWO-CONDUCTOR PHONE PLUG,

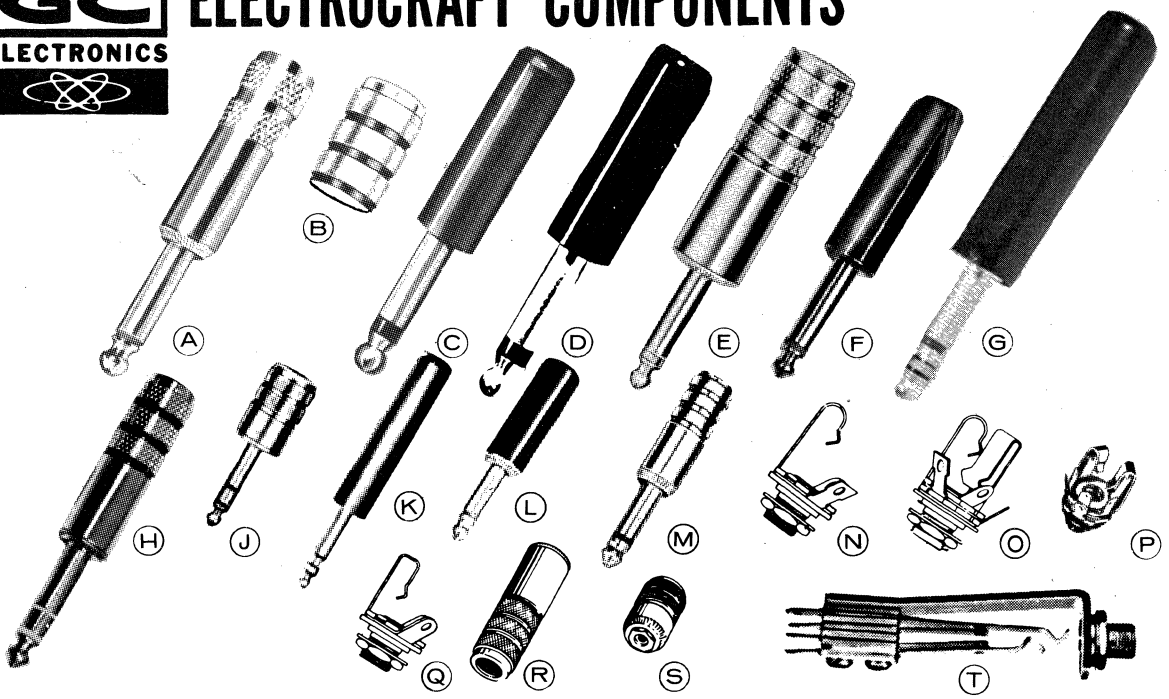
(W) TWO-CONDUCTOR PHONE PLUG,

Single closed circuit, 3-conductor.
Cat. No. 33-710 Net **$ .48**
Cat. No. 33-710 BU Net **$44.32/C**

GC ELECTROCRAFT COMPONENTS

ELECTRONICS

PHONE PLUGS



clamps around cable insulation or shield, and acts as strain relief.
With black plastic handle.
Cat. No. 33-606 Blk Net $ .45
Cat. No. 33-606-BU Net $39.90/C
With red plastic handle
Cat. No. 33-608 Red Net $ .45
Cat. No. 33-608-BU Net $39.90/C
Metal (shielded) handle.
Cat. No. 33-610 Net $ .63
Cat. No. 33-610-BU Net $57.50/C

(A) TWO-CONDUCT. PHONE PLUG, PLAIN SOLDER PLUGS—Standard size plug.
Cat. No. 33-612 Blk Net $ .45
Cat. No. 33-612-BU Net $39.17/C

(B) SHIELDED TWO-CONDUCTOR PHONE PLUG—Standard phone plug with special, short metal handle.
Cat. No. 33-614 Net $ .57
Cat. No. 33-614-BU Net $51.30/C

(C) STAND. SHIELDED TWO-CONDUCTOR PHONE PLUG—Regular plug with metal (shielded) handle.
Cat. No. 33-616 Net $ .63
Cat. No. 33-616-BU Net $57.00/C

(D) TWO-CONDUCT. PHONE PLUG, TYPE PJ-055B—Made in accordance with military specifications; solder terminal and screw connection.
Cat. No. 33-618 Net $ .87
Cat. No. 33-618-BU Net $80.63/C

SHORT FINGER, TWO-CONDUCTOR PHONE PLUG—Special short finger (barrel) type plug to connect microphone or telephone pickup to Revere/Wollensack tape recorders.
Cat. No. 33-620 Net $ .69
Cat. No. 33-620-BU Net $63.30/C

(E) LARGE HANDLE TWO-CONDUCT. PHONE PLUG — With black plastic handle, 1½" long.
Cat. No. 33-622 Blk Net $ .48
Cat. No. 33-622-BU Net $42.30/C
With red plastic handle, 1½" long.
Cat. No. 33-624 Red Net $ .48
Cat. No. 33-624-BU Net $42.30/C
Metal (shielded) handle, 1" long.
Cat. No. 33-626 Net $ .70
Cat. No. 33-626-BU Net $63.00/C
Metal (shielded) handle, 2 1/16" long.
Cat. No. 33-628 Net $ .75
Cat. No. 33-628-BU Net $69.00/C

(F) "THIN FINGER" TWO-CONDUCT. PHONE PLUGS—"Undersize" finger (barrel) diameter of .206" for applications where polarized input is desired to distinguish between different connections.
With black plastic handle.
Cat. No. 33-630 Blk Net $ .47
Cat. No. 33-630-BU Net $41.40/C
With metal (shielded) handle.
Cat. No. 33-632 Net $ .56
Cat. No. 33-632-BU Net $61.00/C

(G) 3-CONDUCT PHONE PLUG: COMB. CLAMP AND SOLDER LUG TERMINALS:
With black plastic handle.
Cat. No. 33-640 Blk Net $ .65
Cat. No. 33-640-BU Net $58.35/C
With metal (shielded) handle.
Cat. No. 33-642 Net $ .79
Cat. No. 33-642-BU Net $73.35/C

(H) 3-CONDUCT. PHONE PLUG, SCREW TERMINALS—
With black plastic handle.
Cat. No. 33-644 Blk Net $ .76
Cat. No. 33-644-BU Net $70.83/C
With red plastic handle.
Cat. No. 33-646 Red Net $ .80
Cat. No. 33-646-BU Net $70.83/C
With metal (shielded) handle.
Cat. No. 33-648 Net $ .90
Cat. No. 33-648-BU Net $83.17/C

(J) 3-CONDUCTOR PHONE PLUG, LARGE HANDLE—Accommodate large diameter cables, with room in handle for wired-in resistors or capacitors.
Cat. No. 33-650 Net $ .78
Cat. No. 33-650-BU Net $72.00/C

(K) 3-CONDUCTOR PHONE PLUG, TYPE PJ-068—With solder terminals and screw connection.
Cat. No. 33-654 Net $2.20
Cat. No. 33-654-BU Net $209.99/C

(L) MINIATURE PHONE PLUGS: COMB. CLAMP AND SOLDER TERMINALS—Two-conductor style, tested for 500/V breakdown.
With metal (shielded) handle.
Cat. No. 33-660 Net $ .59
Cat. No. 33-660-BU Net $51.66/C
With black plastic handle.
Cat. No. 33-662 Blk Net $ .45
Cat. No. 33-662-BU Net $40.02/C
With red plastic handle.
Cat. No. 33-664 Red Net $ .45
Cat. No. 33-664-BU Net $40.02/C

(M) MINIATURE PHONE PLUGS: COMB. CLAMP AND SCREW TERMINALS—Same plugs as listed above except for different style terminals.
With metal (shielded) handle.
Cat. No. 33-666 Net $ .67
Cat. No. 33-666-BU Net $59.85/C
With black plastic handle.
Cat. No. 33-668 Blk Net $ .48
Cat. No. 33-668-BU Net $42.51/C
With red plastic handle.
Cat. No. 33-670 Red Net $ .48
Cat. No. 33-670-BU Net $42.51/C

GC Electrocraft Jacks require a minimum panel space and depth behind panel. Parts are keyed and mechanically interlocked. Springs are made of nickel silver, with phenolic spaces and brass, nickel plated mounting bushings. Panel mounting jacks furnished with nickel plated steel washers and nickel plated brass mounting nut.

PHONE JACKS

(N) PANEL MOUNTING, TWO-CONDUCTOR PHONE JACKS—Open circuit, 2-conductor.
Cat. No. 33-690 Net $ .32
Cat. No. 33-690-BU Net 27.00/C
Closed circuit, 2-conductor.
Cat. No. 33-692 Net $ .34
Cat. No. 33-692-BU Net 29.83/C
Open circuit, 2-conductor, MIL type, JJ-034.
Cat. No. 33-694 Net $ .40
Cat. No. 33-694-BU Net 34.17/C
Open circuit, 2-conductor .210" ID Sleeve fits plugs 33-630/2.
Cat. No. 33-700 Net $ .28
Cat. No. 33-700-BU Net 24.98/C
Closed circuit, 2-conductor .210" ID Sleeve—fits plugs 33-630/2.
Cat. No. 33-702 Net $ .32
Cat. No. 33-702-BU Net 26.67/C

(O) PANEL MOUNTING 3-CONDUCTOR PHONE JACKS—Open circuit, 3-conductor.
Cat. No. 33-708 Net $ .42
Cat. No. 33-708-BU Net 36.00/C
Single closed circuit, 3-conductor.
Cat. No. 33-710 Net $ .48
Cat. No. 33-710-BU Net 44.32/C
Open circuit, 3-conductor, MIL type JJ-033.
Cat. No. 33-712 Net $ .45
Cat. No. 33-712-BU Net 39.98/C

(P) STEREO TELEPHONE JACK new jack designed for switching out speakers when connecting stereo headphones and for switching three wire stereo input circuits. Normally closed dual switch contacts open both stereo circuits separately when three circuits plug is inserted.
Cat. No. 33-711 Net $ .60
Cat. No. 33-711 BU Net $54.00

(Q) MINIATURE PANEL MOUNTING JACKS—These jacks mate with plugs 33-660 through 33-670. Open circuit, 2-conductor.
Cat. No. 33-720 Net $ .27
Cat. No. 33-720-BU Net 23.32/C
Closed circuit, 2-conductor.
Cat. No. 33-722 Net $ .30
Cat. No. 33-722-BU Net 26.66/C

(R & S) CORD MOUNTED JACKS—Often referred to as "extension jacks" or "In-line jacks."
2-conductor, open circuit style, with solder lug terminals and metal (shielded) handle.
Cat. No. 33-730 Net $ .87
Cat. No. 33-730-BU Net 77.51/C
2-conductor, open circuit style, with solder lug terminals and black plastic handle.
Cat. No. 33-732 Blk Net $ .63
Cat. No. 33-732-BU Net 55.83/C
2-conductor, open circuit, screw type terminal, with metal (shielded) handle.
Cat. No. 33-734 Net $ .97
Cat. No. 33-734-BU Net 90.00/C
2-conductor, open circuit, screw type terminals, with black plastic handle.
Cat. No. 33-736 Blk Net $ .72
Cat. No. 33-736-BU Net 66.60/C
3-conductor, open circuit style, with solder lug terminals and metal (shielded) handle.
Cat. No. 33-740 Net $1.12
Cat. No. 33-740-BU Net 99.90/C
3-conductor, open circuit style, with screw type terminal and metal (shielded) handle.
Cat. No. 33-742 Net $1.20
Cat. No. 33-742-BU Net 110.01/C
Miniature type, mates with plugs #33-660 through #33-670, with solder lugs and metal (shielded) handle.
Cat. No. 33-746 Net $ .78
Cat. No. 33-746-BU Net 70.01/C

(T) LONG FRAME JACKS—2-conductor, open circuit.
Cat. No. 33-750 Net $ .48
Cat. No. 33-750-BU Net 44.16/C
3-conductor, single closed circuit.
Cat. No. 33-752 Net $ .67
Cat. No. 33-752-BU Net 61.65/C
3-conductor, single closed circuit ring grounded.
Cat. No. 33-754 Net $ .67
Cat. No. 33-754-BU Net 61.65/C
2-conductor, open circuit w/insulated break.
Cat. No. 33-756 Net $ .67
Cat. No. 33-756-BU Net 61.65/C
3-conductor, 2 closed circuit.
Cat. No. 33-758 Net $ .75
Cat. No. 33-758-BU Net 70.80/C
2-conductor, closed circuit w/insulated make.
Cat. No. 33-760 Net $ .75
Cat. No. 33-760-BU Net 70.80/C

Net
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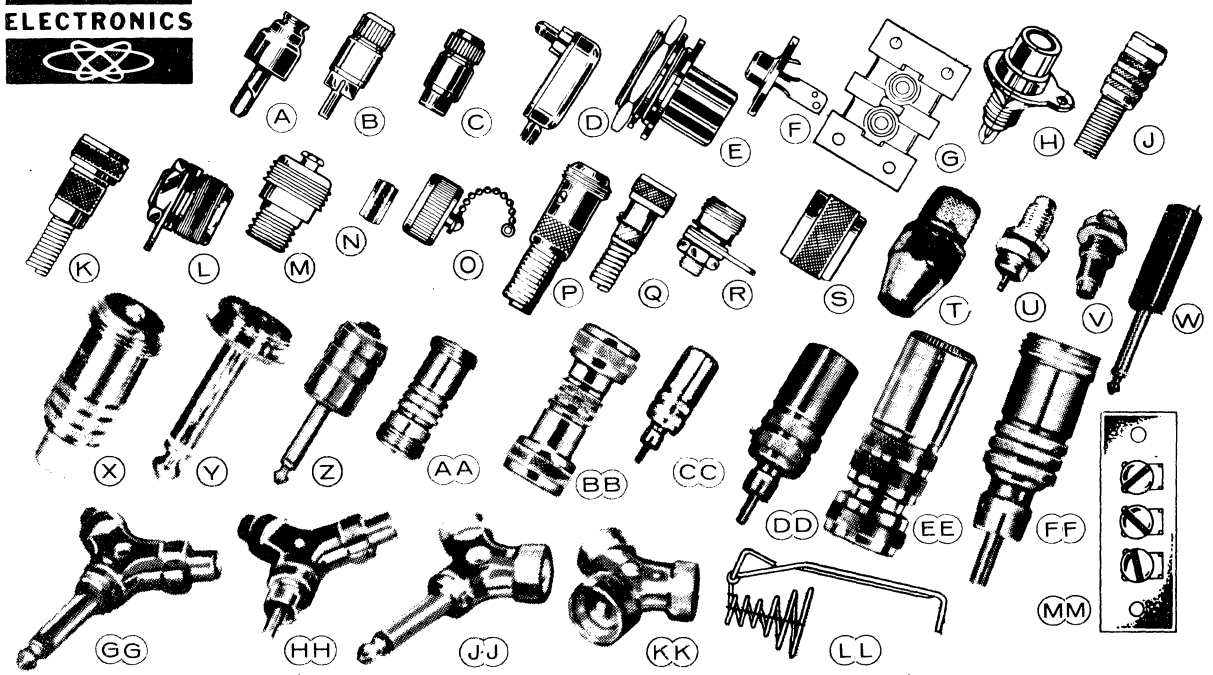
GC ELECTRONICS ELECTROCRAFT COMPONENTS



These plugs and jacks are universally used for audio connections, phonographs, pre-amplifiers and amplifiers in connection with single conductor shielded cable.

(A) PHONE PLUGS—Solder type.
Cat. No. 33-770 Net **$ .08**
Cat. No. 33-770-BU Net **4.80/C**

(B) PHONO PLUGS — Combination clamp, solder type, with removable metal (shielded) handle.
Cat. No. 33-772 Net **$ .32**
Cat. No. 33-772-BU Net **28.50/C**

(C) PHONO JACK, CORD MOUNTED—Combination clamp and solder, terminal; removable metal (shielded) handle.
Cat. No. 33-774 Net **$ .40**
Cat. No. 33-774-BU Net **34.17/C**

(D) SOLDERLESS PHONO PLUGS—Positive, noise-free pressure connection. Right angle style, designed for regular shielded cable with approximately 3/16" OD.
Grey plastic shell.
Cat. No. 33-776 Net **$ .28**
Cat. No. 33-776-BU Net **23.40/C**
Black plastic shell.
Cat. No. 33-778 Net **$ .28**
Cat. No. 33-778-BU Net **23.40/C**
Red plastic shell.
Cat. No. 33-780 Net **$ .28**
Cat. No. 33-780-BU Net **23.40/C**
Yellow plastic shell.
Cat. No. 33-782 Net **$ .28**
Cat. No. 33-782-BU Net **23.40/C**
Blue plastic shell.
Cat. No. 33-784 Net **$ .28**
Cat. No. 33-784-BU Net **23.40/C**

(E) PHONO JACK, SINGLE HOLE MOUNTING—Supplied with washer and mounting nut.
Cat. No. 33-790 Net **$ .25**
Cat. No. 33-790-BU Net **20.67/C**

(F) PHONO JACK—Fastens to chassis with 2 rivets or 2 screws.
W/oval, space saving metal mounting plate.
Cat. No. 33-792 Net **$ .11**
Cat. No. 33-792-BU Net **7.33/C**
With regular round mounting plate.
Cat. No. 33-796 Net **$ .11**
Cat. No. 33-796-BU Net **7.50/C**

(G) DOUBLE PHONO PIN JACK
Cat. No. 33-800 Net **$ .15**
Cat. No. 33-800-BU Net **12.00/C**
TRIPLE PHONO PIN JACK
Cat. No. 33-802 Net **$ .18**
Cat. No. 33-802-BU Net **15.00/C**

(H) SINGLE HOLE PANEL PHONO JACK—Mounts in 3/32" hole, requires only one hole drilled. With washer, nut and solder lug for ground.
Cat. No. 33-804 Net **$ .20**
Cat. No. 33-804-BU Net **16.20/C**

Designed for use with single conductor, **shielded** microphone cable. Bodies, **lock nuts** and mounting nuts: **brass**, nickel plated; contact terminals, brass, hot-tinned; insulation is high-grade phenolic.

(J) CORD MOUNTED MICROPHONE CONNECTORS—Flexible spring protects cable; center conductor solders to contact; **braid** is clamped securely by set screw.
Male connector.
Cat. No. 33-810 Net **$ .28**
Cat. No. 33-810-BU Net **24.00/C**
(K) FEMALE CONNECTOR.
Cat. No. 33-812 Net **$ .37**
Cat. No. 33-812-BU Net **31.50/C**
(L) PANEL MOUNTED MICROPHONE CONNECTORS—**May be** insulated with suitable fibre washers; mates with No. 33-812 connector.
Single contact connector.
Cat. No. 33-814 Net **$ .23**
Cat. No. 33-814-BU Net **19.38/C**

(M) MICROPHONE AND CHASSIS CONNECTOR—Closed circuit type which grounds center contact when cable connector removed.
Cat. No. 33-816 Net **$ .30**
Cat. No. 33-816-BU Net **26.50/C**

(N) COUPLING NUT—Converts #33-810 male connector to 812 female type.
Cat. No. 33-818 Net **$ .12**
Cat. No. 33-818-BU Net **8.33/C**

(O) CAP FOR PANEL CONNECTORS—Protects unusued connectors from mechanical damage and dust.
Cat. No. 33-820 Net **$ .47**
Cat. No. 33-820-BU Net **42.48/C**

(P) MINIATURE MICROPHONE CONNECTORS—Made to the same specifications and of same materials as standard size connectors. Cord mounted male connector.
Cat. No. 33-826 Net **$ .30**
Cat. No. 33-826-BU Net **26.00/C**

(Q) Cord mounted female connector.
Cat. No. 33-828 Net **$ .37**
Cat. No. 33-828-BU Net **33.15/C**

(R) Panel mounted connector.
Cat. No. 33-830 Net **$ .23**
Cat. No. 33-830-BU Net **20.33/C**

(S) COUPLING NUT—Converts male connector #33-826 to female connector #33-828.
Cat. No. 33-832 Net **$ .08**
Cat. No. 33-832-BU Net **5.48/C**

(T) MALE COAXIAL CONNECTORS Low-cost solderless coaxial cable connector. For use with RG-8/U, RG-11/U, RG-13/U and RG-59/U. Mates with No. 33-836 receptacle or No. 33-838 female coupler. Low-loss insulation.
Cat. No. 33-834 Net **$ .53**
Cat. No. 33-834 BU Net **$48.00**

(U) FEMALE CHASSIS FITTING silver-plated, low-loss insulated coaxial cable connector. Mates with No. 33-834. 5/8" threaded stem.
Cat. No. 33-836 Net **$ .53**
Cat. No. 33-836-BU Net **$48.00**

(V) FEMALE COUPLER highly conductive, silver-plated cable connector. Mates at either end with No. 33-834 connector.
Cat. No. 33-838 Net **$ .65**
Cat. No. 33-838 BU Net **$60.00**

GC Electronics Adaptors are designed for quickly interchanging various cable connectors; these handy devices are small, yet sturdy and of attractive modern design.

(W) PHONO JACK INPUT, STANDARD PHONE PLUG OUTPUT:
Cat. No. 33-850 Net **$ .75**
Cat. No. 33-850-BU Net **$67.50/C**
PHONO JACK INPUT, STANDARD PHONE PLUG OUTPUT, HEAVY DUTY METAL SHIELDED TYPE.
Cat. No. 33-852 Net **$ .87**
Cat. No. 33-852-BU Net **$78.30/C**

(X) PHONO JACK INPUT, MALE MICROPHONE CONNECTOR OUTPUT:
Cat. No. 33-854 Net **$ .67**
Cat. No. 33-854-BU Net **$59.40/C**

PHONO JACK INPUT, FEMALE MICROPHONE CONNECTOR OUTPUT:
Cat. No. 33-856 Net **$ .75**
Cat. No. 33-856-BU Net **$67.50/C**

(Y) FEMALE MICROPHONE CONNECTOR INPUT, STANDARD PHONE PLUG OUTPUT:
Cat. No. 33-858 Net **$ .35**
Cat. No. 33-858-BU Net **$30.00/C**

(Z) MINIATURE PHONE JACK INPUT, STANDARD PHONE PLUG OUTPUT:
Cat. No. 33-860 Net **$ .87**
Cat. No. 33-860-BU Net **$78.30/C**

(AA) COUPLER, CONNECTS 2 FEMALE MICROPHONE CONNECTORS.
Cat. No. 33-862 Net **$ .45**
Cat. No. 33-862-BU Net **$40.00/C**

(BB) COUPLER, CONNECTS 2 MALE MICROPHONE CONNECTORS.
Cat. No. 33-864 Net **$ .50**
Cat. No. 33-864-BU Net **$44.17/C**

(CC) MIN. PHONE JACK INPUT, STANDARD PHONO PLUG OUTPUT:
Cat. No. 33-865 Net **$ .87**
Cat. No. 33-865 BU Net **$78.30**

(DD) STANDARD PHONE JACK INPUT, PHONO PLUG OUTPUT:
Cat. No. 33-866 Net **$1.10**
Cat. No. 33-866-BU Net **105.84/C**
(EE) STANDARD PHONE JACK INPUT, FEMALE MICROPHONE CONNECTOR OUTPUT:
Cat. No. 33-868 Net **$1.08**
Cat. No. 33-868-BU Net **$99.17/C**
STANDARD PHONE JACK INPUT, MALE MICROPHONE CONNECTOR OUTPUT:
Cat. No. 33-870 Net **$ .98**
Cat. No. 33-870-BU Net **$89.10/C**
(FF) MALE MICROPHONE CONNECTOR INPUT, PHONO PLUG OUTPUT:
Cat. No. 33-872 Net **$ .75**
Cat. No. 33-872-BU Net **$67.50/C**
(GG) "Y" ADAPTOR—Input: 2 phono jacks (in parallel); output: phone plug.
Cat. No. 33-880 Net **$1.05**
Cat. No. 33-880-BU Net **$94.50/C**
"Y" ADAPTOR—Input: 2 phono jacks (in parallel); output: single phono jack.
Cat. No. 33-882 Net **$1.05**
Cat. No. 33-882-BU Net **$94.50/C**
(HH) "Y" ADAPTOR—Input: 2 phono jacks (in parallel); output: standard phono plug.
Cat. No. 33-884 Net **$1.13**
Cat. No. 33-884-BU Net **$102.60/C**

(JJ) "Y" ADAPTOR—Input: 2 male mike connectors (in parallel); output: standard phone plug.
Cat. No. 33-886 Net **$1.13**
Cat. No. 33-886-BU Net **$102.60/C**

(KK) "Y" ADAPTOR—Input: 2 male microphone connectors (in parallel); output: female microphone connector.
Cat. No. 33-888 Net **$ .98**
Cat. No. 33-888-B Net **$89.63/C**

(LL) MINIATURE SPRINGS — Guards miniature tubes and provides 2-way support. Direct axial pressure downward plus a sideways support to keep the tube upright and perpendicular to the chassis. Resilient sring maintains life and action indefinitely.

Cat. No.	Tube Size	Net
33-900-BU	for 7 pin, 2 inch long tube	**$10.20/C**
33-901-BU	for 1 pin, 1½ inch tube	**$10.20/C**
33-902-BU	for 7 pin, 1⅛ inch tube	**$10.20/C**
33-903-BU	for 9 pin, 1½ inch tube	**$10.80/C**

(MM) HEAVY DUTY TERMINAL BOARDS—Brass, cadmium plated lugs, .042 thick on ½" centers. Numbered terminals. X. P. Bakelite Strip 7/8" wide, 3/32" thick. Nickel plated 8-32 x 5/16 brass screw.

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you require...

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distributors

CANNON AUDIO PLUGS for low level circuit applications

CANNON® PLUGS

Cannon Audio Plugs are designed for use on audio/video and other low level circuit applications in the electronic/industrial fields where reliability, quiet operation and the elimination of mechanical interference are necessary. Some common uses are: microphones, tape recorders, medical instruments, cameras and test instrumentation computers.

XLR PLUG SERIES

The XLR incorporates the most advanced audio/electronic design concepts. Small and compact, it features resilient insulators on the socket side plus resilient ribs for shock protection and quiet operation.

Shells are zinc (receptacles), steel or zinc (plugs), with satin nickel finish. Insulators are rigid molded plastic (pin side), resilient polychloroprene (socket side). Contacts are brass, silver plated. Coupling is by the latch-lock method.

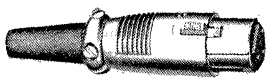
FEATURES

• QUIET OPERATION

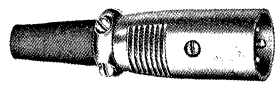
Thick zinc cross sections for shell strength, plus resilient insulators and resilient ribs on the socket side, insures elimination of mechanical interference from shock.

• EASY TO WORK WITH

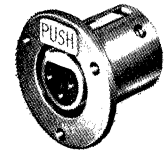
Finger grips for positive handling.
Integral cable clamp with two clamping positions for positive grip on cable sizes from 7/32 to 5/16 of an inch.
Large internal space for ease of wiring.



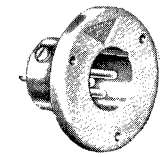
XLR-(*)-11C
XLR-(*)-11SC (steel shell)
SOCKET



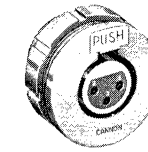
XLR-(*)-12C
XLR-(*)-12SC (steel shell)
PIN



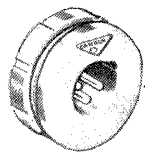
XLR-(*)-13
SOCKET



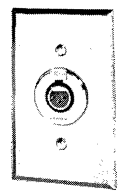
XLR-(*)-14
PIN



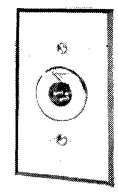
XLR-(*)-13N
SOCKET



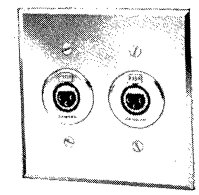
XLR-(*)-14N
PIN



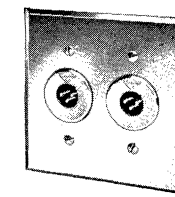
XLR-(*)-35
SOCKET



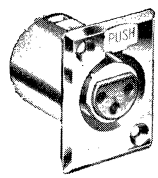
XLR-(*)-36
PIN



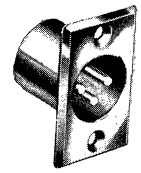
XLR-(*)-35-2G
SOCKET



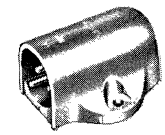
XLR-(*)-36-2G
PIN



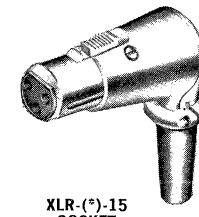
XLR-(*)-31
SOCKET



XLR-(*)-32
PIN



XLR-(*)-42
PIN



XLR-(*)-15
SOCKET

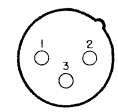
Adapter Receptacles

XLR(*)-50 (with plain shell)
XLRC(*)-50N (with coupling nut)
XLR(*)-50T (with threaded barrel)

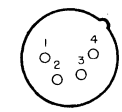
*Add insert arrangement to complete ordering number.

INSERT ARRANGEMENTS

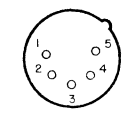
FACE VIEW OF PIN INSERTS



3
3-15 AMP
CONTACTS



4
4-10 AMP
CONTACTS.



5
5-7½ AMP
CONTACTS

P PLUG SERIES

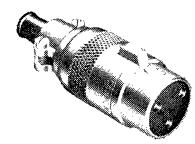
The Cannon P is a versatile plug in terms of the wide range of insert arrangements offered. It is a proven plug, and has been the standard of quality in the audio field for many years. Socket contacts are full floating and precision-made from milled bar stock.

Shells are zinc (receptacles), steel or zinc (plugs), with satin chrome finish. Insulators are phenolic. Contacts are brass, silver plated. Coupling is by the latch-lock method.

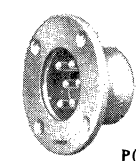
Other P Series plugs not shown.

P(*)-CG-12S Straight cord plug. (Pin)
P(*)-13 Flush panel receptacle. (Socket)
P(*)-CG-15 90° angle cord plug. (Socket)
P(*)-CG-16 90° angle cord plug. (Pin)
P(*)-17 Surface panel receptacle. (Socket)
P(*)-18 Surface panel receptacle. (Pin)
P(*)-23 Straight cord plug. (Socket)
P(*)-24 Straight cord plug. (Pin)
P(*)-35 Single gang wall receptacle. (Socket)
P(*)-36 Single gang wall receptacle. (Pin)
P(*)-35-2G Two gang wall receptacle. (Socket)
P(*)-36-2G Two gang wall receptacle. (Pin)
P(*)-41 Microphone mounting receptacle. (Socket)
P(*)-42 Microphone mounting receptacle. (Pin)

*Add insert arrangement to complete ordering number.



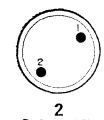
P(*)-CG-11S
SOCKET



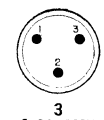
P(*)-14
PIN

INSERT ARRANGEMENTS

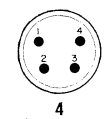
FACE VIEW OF PIN INSERTS



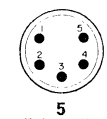
2
2-30 AMP
CONTACTS



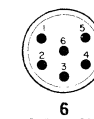
3
3-30 AMP
CONTACTS



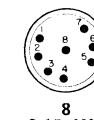
4
4-30 AMP
CONTACTS



5
5-30 AMP
CONTACTS



6
6-30 AMP
CONTACTS



8
8-15 AMP
CONTACTS

ITT CANNON ELECTRIC INC SEE YOUR CANNON AUTHORIZED DISTRIBUTO

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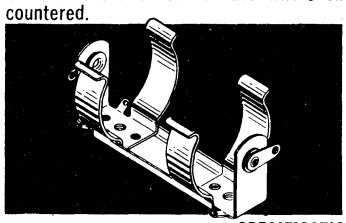
KEYSTONE ALL STEEL BATTERY HOLDERS

KEYSTONE ELECTRONICS CORP. NEW YORK 12, N. Y.

STANDARDIZED ALL STEEL BATTERY HOLDERS

An important advance in design that has gained wide acceptance for military and commercial usage. Battery when installed is held under spring tension at a constant pressure assuring low resistance contact will hold up to 4 cells in series in sturdy insulating tube. Retainer clips available to lock battery securely. This prevents shifting or loosening of battery in holder. Recommended for use where shock or severe vibration is encountered.



- CORROSION RESISTANT NICKEL PLATED
- STAINLESS STEEL CONTACTS
- MOISTURE PROOF INSULATING WASHERS
- IDEAL FOR NI-CAD AND ALKALINE CELLS

SPECIFICATIONS

Made of SAE 1065 Carbon Steel to MIL Spec. 17919, heat treated to spring temper and nickel plated .0002 thick. Contact assembly consists of a stainless steel eyelet, moisture proof vulcoid washers and a coated copper solder lug. Ribbed carbon steel base for added support is nickel plated and has 2 mounting holes for ease in mounting.

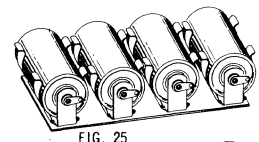


FIG. 25

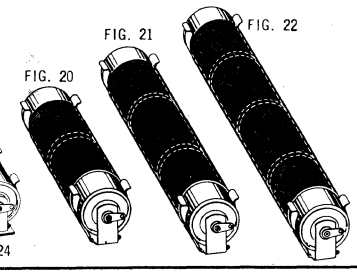


FIG. 20 FIG. 21 FIG. 22

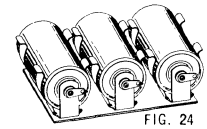


FIG. 24

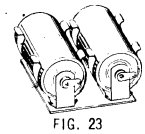


FIG. 23

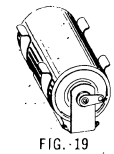
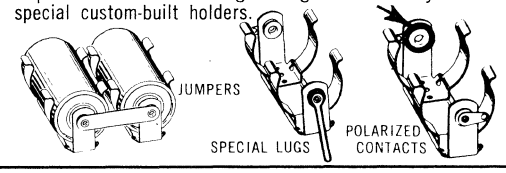
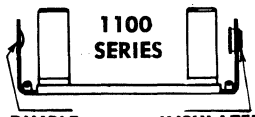


FIG. 19

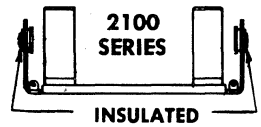
MODIFICATIONS AVAILABLE

Variety of stock parts permits fast delivery on special requirements. Use our engineering service for your special custom-built holders.





DIMPLE CONTACT — INSULATED CONTACT



INSULATED CONTACTS

One Insulated Contact	Net Each 5-19	Net Each 20-99	All Contacts Insulated	Net Each 5-19	Net Each 20-99	Fig. No.	Holds No. of Cells	All Batteries in the Group are of Similar Size and Fit Holders Listed: Burgess	Eveready	RCA
PENCELL HOLDERS										
Cat. No.			Cat. No.							
1139	.25	.23	2139	.30	.26	19	1	Z, HG9	E9, E12	VS034A
	—	—	2140*	.40	.38	23	2	CD6, 9R	E91, E133	VS144
	—	—	2171*	.65	.64	24	3	HG12R	E502, N46	VS149
	—	—	2182*	.75	.70	25	4	H133	515, 915	VS313A
1189	.40	.38	2189	.40	.38	20	2	HG502R	1015	VS334
1191	.45	.41	2191	.45	.40	21	3	920		
1194	.50	.48	2194	.55	.51	22	4	930		
"C" CELL HOLDERS										
1173	.35	.30	2173	.35	.33	19	1	1		VS035A
	—	—	2174*	.50	.49	23	2	P6	E233	VS300
	—	—	2187*	.75	.70	24	3	120	635	VS335
	—	—	2188*	.95	.85	25	4	130	935	VS400
1185	.50	.45	2185	.50	.49	20	2	H233		
1195	.50	.48	2195	.55	.51	21	3	302599		
1198	.55	.51	2198	.60	.57	22	4			
"D" CELL HOLDERS										
1175	.35	.30	2175	.35	.33	19	1	2	E42	VS036
	—	—	2176*	.50	.49	23	2	2R	N56	VS036A
	—	—	2190*	.75	.70	24	3	CD7	E95	VS336
	—	—	2192*	.95	.85	25	4	210	D99	
1186	.48	.44	2186	.50	.49	20	2	230	A100	
1199	.55	.51	2199	.55	.51	21	3		950	
1162	.60	.54	2162	.60	.57	22	4		1050	
1179	.35	.30	2179	.35	.34	19	1		E94	

*Clips mounted on phenolic 1/16" thick Mil Spec 3115B

SPACE SAVER BATTERY CLIPS

DIMPLE AND INSULATED CONTACTS

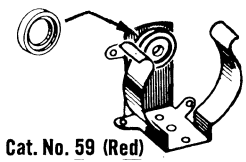
Std. Pkg. 10 Pieces

These holders are available insulated contact or with a dimple contact. Provides positive contact in either case. They are compact and economical. The "AA", "C", "D", Mercury and Ni-Cad batteries are accommodated. Made of SAE 1065 steel heat treated to spring temper and nickel plated. Insulated type has steel nickel plated eyelet and resin impregnated vulcanized fibre insulation. Snap-on washer for polarization will be supplied upon request.

Cat. No.	Battery Types	Min. to max. Diameter	Net Each 5-19	Net Each 20-99
92*	AA	.531-.660	.05	.04
99*	AA	.531-.660	.05	.04
100†	AA	.531-.660	.08	.07
86*	C	.875-1.125	.08	.08
87†	C	.875-1.125	.12	.11
88†	D	1.187-1.375	.13	.12
89*	D	1.187-1.375	.10	.09

*Non-Insulated †Insulated

INSULATED POLARIZING WASHERS

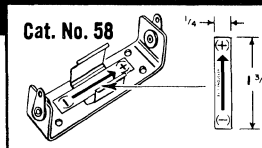


Cat. No. 59 (Red)
Cat. No. 60 (Black)

Molded Insulated Polarizing Washers. The washers hold securely when snapped over the eyelets used on our standardized battery holders.

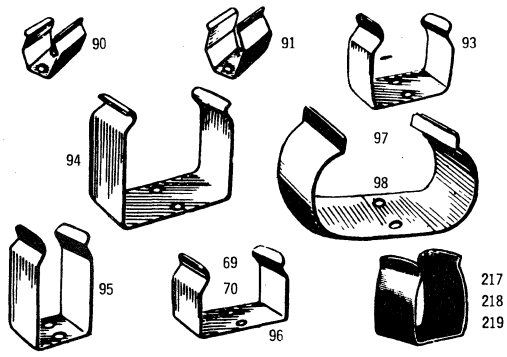
POLARITY LABELS

Cat. No. 58



- PRESSURE SENSITIVE
- WILL ADHERE TO ANY SURFACE
- NO GLUE OR DAMPING REQUIRED
- ECONOMICAL

Wherever circuit polarity is to to be shown labels colored Blue and Red.



BATTERY AND COMPONENT HOLDERS

Cat. No.	Battery Types	Min. to Max. Diameters	NET EACH 5-19	NET EACH 20-99	Cat. No.	Battery Types	Min. to Max. Diameters	NET EACH 5-19	NET EACH 20-99
69	2U6 or (2) AA	5/8 x 1 1/8	.07	.06	96	(1) K 20	5/8 x 1 13/64	.08	.07
70	(2) RM 12	5/8 x 1 5/16	.09	.08	97	(2) "C"	(2) 1 1/64 Dia.	.09	.08
90	#7	3/8 to 29/64	.06	.04	98	(2) D	(2) 1 23/64 Dia.	.11	.10
91	(1) AA	17/32 to 21/32	.07	.05	217	1 3/8 Dia.	1 3/8 Dia.	.18	.14
93	(1) C	7/8 to 1 1/8	.07	.06	218	1 1/2 Dia.	1 1/2 Dia.	.20	.15
94	(1) D	1 3/16 to 1 3/8	.08	.07	219	2" Dia.	2" Dia.	.22	.16
95	(1) U-15	5/8 x 1 1/32	.07	.06					

Clips are made of Aluminum except Nos. 69, 217, 218, 219 are made of Steel.

KEYSTONE ELECTRONICS CORP., NEW YORK, N. Y.

Net

© U.C.P., Inc.

KEYSTONE BATTERY HOLDERS

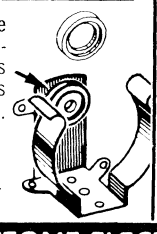
KEYSTONE ELECTRONICS CORP. NEW YORK 12, N.Y.

Cat. No.	NET EACH 5-19	NET EACH 20-99	Holds No. of Cells	Fig. No.	ALL BATTERIES LISTED WITHIN BOXES ARE IN THE SAME SIZE GROUP BATTERY CROSS REFERENCE Burgess	Eveready	RCA
MINIATURE CELL HOLDERS							
137	.23	.21	1	1	7	912	VS074
138	.38	.34	2	2			
169	.49	.44	3	3			
170	.64	.57	4	4			
PENCELL HOLDERS							
139	.23	.21	1	1	CD6	E9, E12	VS034A
140	.38	.34	2	2	9R, Z	E91	VS144
171	.49	.44	3	3	HC9	E133	VS149
182	.64	.57	4	4	HG12R	333	VS313A
189	.45	.36	2	5	H133	E502	VS334
191	.49	.44	3	6	HG502R	515	
192	.64	.54	4	7	920	915, 1015	
193	.93	.81	6	8	930	N46	
"C" CELL HOLDERS							
173	.30	.26	1	1	1	226	VS035A
174	.38	.34	2	2	P6	E233	VS300
187	.45	.36	3	3	120	635	VS335
185	.45	.36	2	5	130	935	VS400
195	.49	.44	3	6	H233		
196	.64	.54	4	7	302599		
197	.93	.81	6	8			
"D" CELL HOLDERS							
175	.30	.26	1	1	2	E42	VS036A
176	.38	.34	2	2	2R	N56	VS036
190	.49	.44	3	3	CD7	E95	VS336
186	.46	.37	2	5	210	D99	
199	.50	.45	3	6	230	A100	
200	.65	.55	4	7		950	
201	.95	.85	6	8		1050	
205	.95	.85	6	12			
1½ VOLT CELL HOLDERS							
154	.21	.20	1	1	N	E340	VS073
155	.35	.32	2	2		E400	
156	.49	.44	3	3		E401	
160	.49	.44	1	1	21R	964	VS236
179	.30	.26	1	1		E94	
4½ VOLT CELL HOLDERS							
139	.23	.21	1	1		333	VS1149
9 VOLT CELL HOLDERS							
139A	**.26**	**.24**	1	1		206	**VS327**
203P	**.44**	**.30**	1	14	2U6	216	**VS323**
173P	**.30**	**.29**	1	1	P6M	226	**VS300A**
15 VOLT CELL HOLDERS							
163	.30	.26	1	11	K10	417	
161	.30	.26	1	11	U10	411	VS083
166	.30	.26	1	9			
167	.38	.34	2	10			
225	.21	.20	1	1	Y10	504	
226	.35	.32	2	2			
22½ VOLT CELL HOLDERS							
164	.30	.26	1	11	K15		
168	.30	.26	1	11		420	
177	.30	.26	1	9	U15	412	VS084
178	.38	.34	2	10			
139A	**.26**	**.24**	1	1	Y15	505	
140A	**.41**	**.37**	2	2			
171A	**.52**	**.47**	3	3			
182A	**.67**	**.60**	4	4			
30 VOLT CELL HOLDERS							
157	.30	.26	1	14	Y20	506	
165	.30	.26	1	11	K20	430	
183	.30	.26	1	9	U20	413	VS085
184	.38	.34	2	10			
134	.38	.34	1	1	Y20S	507	

INSULATED POLARIZING WASHERS

Insulated Polarizing Washers eliminate the danger of damage and short circuit to expensive transistor equipment. The washers hold securely when snapped over the eyelets used on our standardized battery holders.

Material: Precision molded of plastic.



Cat. No.	NET COST EACH 5-19	20-99
59	.04	.03

A standard line of battery holders available for immediate shipment from stock. Low cost, lightweight and sturdily constructed of quality materials. Good electrical contact, low leakage current and snap-fit clips are the outstanding features.

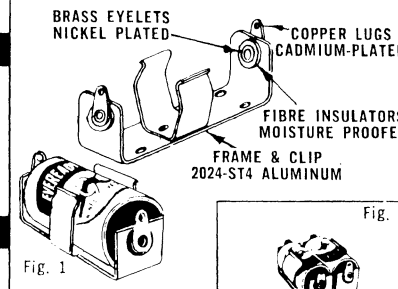


Fig. 1

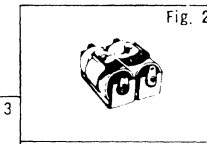


Fig. 2

Fig. 3

Fig. 4

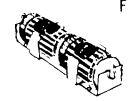


Fig. 5

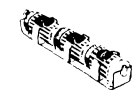


Fig. 6

Fig. 7

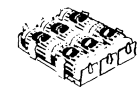


Fig. 8

Fig. 9

Fig. 10

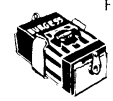


Fig. 11

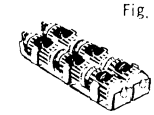


Fig. 12

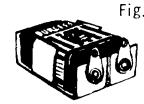


Fig. 14

RETAINER CLIPS

These retainers prevent the battery from shifting or loosening in the holder. Made of high carbon steel, heat treated to spring temper and nickel plated.

Cat. No. 61—Retainer for "A" or Mercury cells with diameters of 1/32" to 9/16" when used with Keystone #91, 92, 99 or 100 clips also clip #95 for rectangular battery.

Cat. No. 62—Retainer for C cells or other batteries with maximum diameter of 1 1/32" when used with Keystone #93, 86 or 87 clips.

Cat. No. 63—Retainer for D cells or other batteries with maximum diameter of 1 11/32" when used with Keystone #94, 88 or 89 clips.

Cat. No. 66—Retainer for mercury cells with .650 dia. when used with our #91 clips.

Any above, Net Each (5-19) .05; (20-99) .04

MERCURY BATTERY HOLDERS

FIG. 13

FIG. 15

FIG. 16

FIG 17

FIG 18

FIG. 19

Mallory Mercury Battery Listing	Aluminum and Phenolic Base Holders Cat. No.	Fig. No.	All Steel Holders One Insulated Contact Cat. No.	Fig. No.	All Steel Holders All Contacts Insulated Cat. No.	Fig. No.
RM1R	101*	13	1101	15	2101	16
RM3R	103*	13	1103	15	2103	16
RM4R	104*	13	1104	15	2104	16
ZM9	139	1	1139	19	2139	19
RM12R	139	1	1139	19	2139	19
RM42	175	1	1175	19	2175	19
TR113			1113	15	2113	16
TR114			1114	15	2114	16
TR115	132	1	1132	15	2132	16
TR132	132	1	1132	15	2132	16
TR133	139	1	1139	19	2139	19
TR134	134	1	1134	19	2134	19
TR135	135	5	1135	19	2135	19
TR136	189	5	1189	19	2189	19
TR137			1125	19	2125	19
TR145			1145	15	2145	16
TR152	124**	1				
TR153	106**	1				
TR162			1113	15	2113	16
TR163	132	1	1132	15	2132	16
TR164	109	1	1109	19	2109	19
TR165	110	1	1110	19	2110	19
TR169	189	5	1189	19	2189	19
TR175	124**	1				
TR177			1142	19	2142	19
TR233	173	1	1173	19	2173	19
TR234			1144	19	2144	19
RM400	111*	18				
RM401	124**	1				
RM411	166**	9				
RM412	177**	9				
RM413	183**	9				
RM450	112*	17				
RM502	139	1	1139	19	2139	19
RM601			1116	15	2116	16
RM625	117*	17				
RM630	126*	18				
RM640	118*	13				
RM675	127*	18				
302351	119	1	1119	19	2119	19
302478	120	5	1120	19	2120	19
302642	121	1	1121	19	2121	19
302435	122**	1				
302437	139	1	1139	19	2139	19
302599	173	1	1173	19	2173	19

*Bakelite Base Holders
**Available Only in Aluminum

NET EACH PRICE LIST
MERCURY BATTERY HOLDERS

No.	5-19	20-99	No.	5-19	20-99	No.	5-19	20-99
101	.30	.26	175	.30	.26	1175	.35	.30
103	.30	.26	177	.30	.26	1189	.40	.38
104	.30	.26	183	.30	.26	2101	.35	.34
106	.30	.26	189	.45	.36	2103	.35	.34
109	.30	.26	1101	.35	.30	2104	.35	.34
110	.38	.34	1103	.35	.30	2109	.35	.34
111	.30	.26	1104	.35	.30	2110	.35	.34
112	.30	.26	1109	.35	.30	2113	.35	.34
117	.30	.26	1110	.35	.30	2114	.35	.34
118	.30	.26	1113	.35	.30	2116	.35	.34
119	.38	.34	1114	.35	.30	2119	.35	.34
120	.38	.34	1116	.35	.30	2120	.45	.41
121	.38	.34	1119	.35	.30	2121	.45	.41
122	.38	.34	1120	.40	.38	2125	.35	.34
124	.23	.21	1121	.40	.38	2132	.35	.34
126	.30	.26	1125	.35	.30	2134	.35	.34
127	.30	.26	1132	.35	.30	2135	.40	.37
132	.30	.26	1134	.35	.30	2139	.30	.26
134	.38	.34	1135	.35	.30	2142	.30	.26
135	.38	.34	1139	.25	.23	2144	.30	.26
139	.23	.21	1142	.25	.23	2145	.35	.34
166	.30	.26	1144	.25	.23	2173	.35	.33
173	.30	.26	1145	.35	.30	2175	.35	.33
			1173	.35	.30	2189	.40	.38

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PRE-PUNCHED TERMINAL BOARDS

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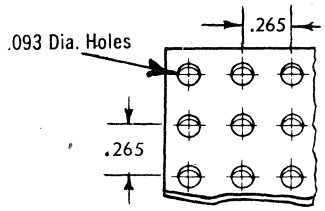
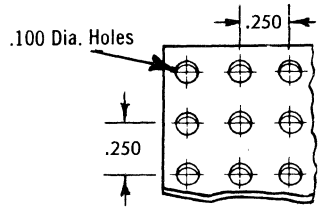
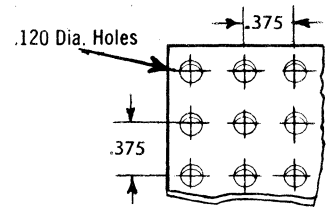
- COMPLETE RANGE OF SIZES AND SUITABLE HARDWARE
- "DO IT YOURSELF" STAKING TOOLS
- COPPER CLAD FOR PRINTED CIRCUITS
- UNCLAD TYPE FOR WIRED CIRCUITS
- STANDARD AND CUSTOM-MADE



"A" PATTERN .093 DIA. HOLES



"E" PATTERN .100 DIA. HOLES



"H" PATTERN .120 DIA. HOLES

"A" PATTERN .093 DIA. HOLES .265 x .265 C to C

Size Width & Length	No. of Holes W & L	XXXP Natural	Glass Epoxy	Paper Base Epoxy
		1/16" THICK		
		Cat. No.	Cat. No.	Cat. No.
.82 x 8.50	3 x 32	1731	1790	1796EP
1.88 x 8.50	7 x 32	1737	1791	1797EP
2.44 x 8.50	9 x 32	1738	1788	1798EP
3.25 x 8.50	13 x 32	1785	1789	1801EP
3.25 x 17.00	13 x 64	1786	1787	1802EP
4.88 x 4.88	18 x 18	1806	1807	1803EP
4.88 x 8.50	18 x 32	1784	1792	1804EP
4.88 x 17.00	18 x 64	1739	1793	1805EP
8.50 x 8.50	32 x 32	1732	1794	1808EP
8.50 x 17.00	32 x 64	1733	1795	1809EP
		3/32" THICK		
1.38 x 1.88	5 x 7	1758	—	1758EP
1.38 x 4.00	5 x 15	1760	—	1760EP
1.38 x 8.50	5 x 32	1749	—	1749EP
1.88 x 2.94	7 x 11	1759	—	1759EP
1.88 x 8.50	7 x 32	1740	—	1740EP
2.44 x 8.50	9 x 32	1741	—	1741EP
3.25 x 8.50	13 x 32	1814	—	1814EP
3.25 x 17.00	13 x 64	1816	—	1816EP
4.88 x 8.50	18 x 32	1756	—	1756EP
4.88 x 17.00	18 x 64	1742	—	1742EP
8.50 x 8.50	32 x 32	1817	—	1817EP
8.50 x 17.00	32 x 64	1757	—	1757EP

"E" PATTERN .100 DIA. HOLES .250 x .250 C to C

Size Width & Length	No. of Holes W & L	XXXP Natural
	1/16" THICK	
		Cat. No.
2.13 x 4.00	8 x 16	1750
2.13 x 8.50	8 x 34	1765
3.63 x 8.50	14 x 34	1766
8.50 x 8.50	34 x 34	1767
8.50 x 17.00	34 x 68	1768
	3/32" THICK	
2.13 x 8.50	8 x 34	1770
8.50 x 8.50	34 x 34	1771
8.50 x 17.00	34 x 68	1772

"H" PATTERN .120 DIA. HOLES .375 x .375 C to C

Size Width & Length	No. of Holes W & L	XXXP Natural	Paper Base Epoxy
		1/16" THICK	
		Cat. No.	Cat. No.
1.88 x 8.25	5 x 22	1743	—
2.25 x 8.25	6 x 22	1744	—
4.13 x 8.25	11 x 22	1782	—
4.13 x 16.50	11 x 44	1745	—
		3/32" THICK	
1.88 x 8.25	5 x 22	1746	1746EP
2.25 x 8.25	6 x 22	1747	1747EP
4.13 x 8.25	11 x 22	1783	1783EP
4.13 x 16.50	11 x 44	1748	1748EP
6.00 x 8.25	16 x 22	1941	1941EP
6.00 x 16.50	16 x 44	1942	1942EP
8.25 x 8.25	22 x 22	1943	1943EP
8.25 x 16.50	22 x 44	1939	1939EP

TERMINALS AND EYELETS For Boards with .093-.100 dia. Holes

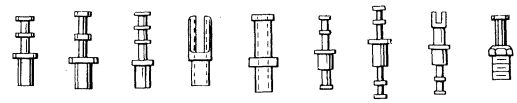
TERMINALS

Brass (Mil Spec QQ626) and Silver Plated.

NOTE: When ordering Turret Terminals **BE SURE TO SPECIFY Cat. No. of Terminal** and add **—2 for 1/16" thick Board** and **—3 for 3/32" thick Board**

I.E. **1598-2** for 1/16" thick Board and **1598-3** for 3/32" thick Board

ALL TERMINAL DRAWINGS ARE ACTUAL SIZE.



1502 1514 1598 1511 1540 1530 1512 1634 1595

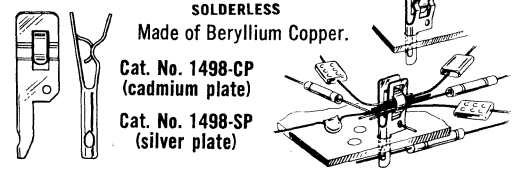
PUSH-IN TERMINAL

SOLDERLESS

Made of Beryllium Copper.

Cat. No. 1498-CP (cadmium plate)

Cat. No. 1498-SP (silver plate)



PRECISION MADE EYELETS

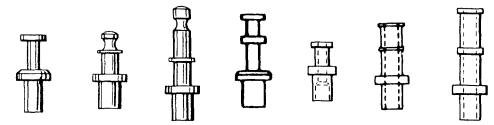
Made of Brass and Hot Tinned for easy solderability

Specify **Cat. No. 33** for 1/16" thick Board
Cat. No. 34 for 3/32" thick Board

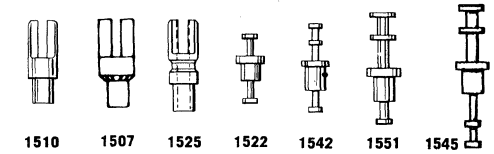
TERMINALS AND EYELETS For Boards with .120 dia. Holes

TERMINALS

ALL TERMINAL DRAWINGS ARE ACTUAL SIZE.



1532 1504 1505 1503 1553 1509 1541



1510 1507 1525 1522 1542 1551 1545

PRECISION MADE EYELETS

Specify **Cat. No. 43** eyelet for 1/16" thick Board
Cat. No. 44 eyelet for 3/32" thick Board

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THE PRACTICAL APPROACH TO SIMPLE OR COMPLEX CIRCUITRY

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STANDARDIZED KEYBOARDS: Permits time saving, low cost, assembly of components. Used extensively in development of prototype breadboarding, test design or production runs. A large selection of sizes and materials offers the designer the flexibility and convenience needed to create special circuitry on short notice.

ELECTRONIC HARDWARE: A large selection of turret, push-in and stamped terminals, brackets, eyelets, etc. available from stock.

STAKING TOOLS: Inexpensive tooling supplied for staking eyelets, bushings, turret terminals, etc. You can do an entire assembly at your bench with ease, using our impact tool. Other tools for arbor, kickpress, drill press. See Staking Tool page

SPECIAL SERVICES: We will install eyelets or terminals to suit your application. We invite inquiries for special sizes or additional holes drilled. Prompt quotations rendered at no cost to you.

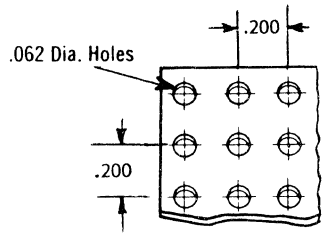
MATERIAL SPECIFICATIONS & TOLERANCES

XXXP Type PBE (Paper Base Elect.) Mil-P-3115C Temp. 250° F Max.
XXXPC Type PP Copper Clad Mil-P-13949 Temp. 250° F Max.
PAPER BASE EPOXY Mil-P-22324 (Type PEE) Temp. 250° F Max.
GLASS EPOXY UNCLAD Mil-P-18177 G-10 (GEE) Temp. 300° F. Max.
GLASS EPOXY Copper Clad Mil-P-13949B (GE) Temp. 300° F Max.

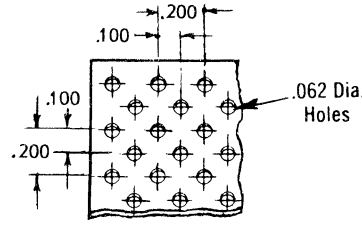
TOLERANCE: Length and width overall dimension after fabrication Plus or Minus .015.

HOLE SIZE: Plus or Minus .003.

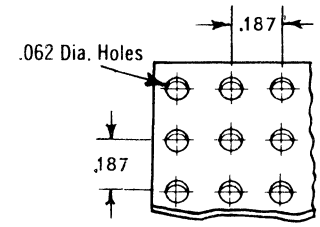
Thickness of standard sheet varies Plus or Minus .008 for 1/16 or .010 for 3/32" thick.



"F" PATTERN .062 DIA. HOLES



"G" PATTERN .062 DIA. HOLES



"B" PATTERN .062 DIA. HOLES

"F" PATTERN .062 DIA. HOLES .200 x .200 C to C

Size Width & Length	No. of Holes W & L	XXXP Natural	Glass Epoxy	Paper Base Epoxy	Glass Epoxy Cop. Clad (1 Side)	Glass Epoxy Cop. Clad (2 Sides)	XXXP Cop. Clad (1 Side)	XXXP Cop. Clad (2 Sides)
		1/16" THICK						
		Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.
1.25 x 8.50	8 x 42	1730	1844	1730EP	1846	1847	1848	1853
3.00 x 4.50	14 x 20	1835	1845	1835EP	1836	1837	1838	1839
3.63 x 8.50	18 x 42	1773	1854	1773EP	1855	1856	1857	1858
3.63 x 17.00	18 x 85	1775	1859	1775EP	1864	1865	1866	1867
4.50 x 6.50	22 x 30	1868	1870	1868EP	1876	1877	1878	1879
4.50 x 8.50	22 x 42	1869	1871	1869EP	1881	1886	1887	1888
4.88 x 8.50	24 x 42	1774	1872	1774EP	1882	1889	1894	1899
4.88 x 17.00	24 x 85	1776	1873	1776EP	1883	1891	1895	1902
8.50 x 8.50	42 x 42	1777	1874	1777EP	1884	1892	1896	1903
8.50 x 17.00	42 x 85	1778	1875	1778EP	1885	1893	1897	1904

"G" PATTERN .062 DIA. HOLES .100 GRID ALTERNATES

Size Width & Length	No. of Holes W & L	XXXP Natural	Glass Epoxy	Paper Base Epoxy	Glass Epoxy Copper Clad (1 Side)	Glass Epoxy Copper Clad (2 Sides)
		1/16" THICK				
		Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.
1.75 x 4.00	(8 x 19) x 2	1752	1909	1752EP	1919	1920
2.25 x 8.50	(11 x 42) x 2	1754	1910	1754EP	1921	1922
3.50 x 4.00	(17 x 19) x 2	1753	1911	1753EP	1923	1924
3.50 x 8.50	(17 x 42) x 2	1905	1912	1905EP	1925	1926
3.50 x 17.00	(17 x 85) x 2	1906	1913	1906EP	1927	1928
3.88 x 8.50	(19 x 42) x 2	1907	1914	1907EP	1929	1930
4.88 x 8.50	(24 x 42) x 2	1908	1915	1908EP	1931	1932
4.88 x 17.00	(24 x 85) x 2	1779	1916	1779EP	1933	1934
8.50 x 8.50	(42 x 42) x 2	1780	1917	1780EP	1935	1936
8.50 x 17.00	(42 x 85) x 2	1781	1918	1781EP	1937	1938

"B" PATTERN .062 DIA. HOLES .187 x .187 C to C

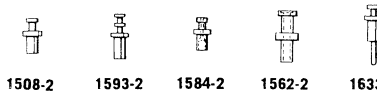
Size Width & Length	No. of Holes W & L	XXXP Natural	XXXP Copper Clad (1 Side)
		1/16" THICK	
		Cat. No.	Cat. No.
1.38 x 8.50	6 x 45	1761	1818
1.88 x 8.50	8 x 45	1734	1819
2.44 x 3.38	12 x 17	1812	1813
2.84 x 8.50	15 x 45	1735	1820
3.66 x 6.75	19 x 35	1824	1825
5.69 x 8.50	30 x 45	1762	1834
5.69 x 17.00	30 x 90	1736	1831
6.75 x 7.31	19 x 35	1826	1827
7.31 x 10.50	38 x 56	1828	1829
7.31 x 18.00	38 x 95	1832	1830
8.50 x 17.00	45 x 90	1763	1833

TERMINALS AND EYELETS For Boards with .062 dia. Holes

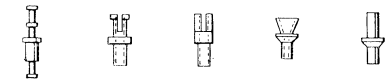
TERMINALS

Brass, (Mil Spec QQ626) and Silver Plated.

ALL TERMINAL DRAWINGS ARE ACTUAL SIZE.



1508-2 1593-2 1584-2 1562-2 1633-2



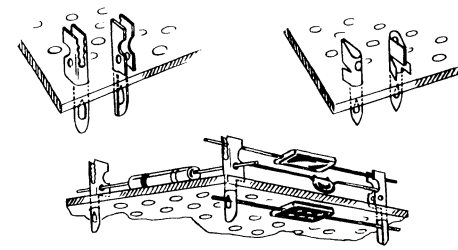
1613-2 1592-2 1526-2 1631-2 1632-2

PUSH-IN TERMINALS

Made of Beryllium Copper.

Cat. No. 1499-FT (fused tin plate)
Cat. No. 1499-SP (silver plate)

Cat. No. 1500 (silver plate)



PRECISION MADE EYELETS

Made of Brass and Hot Tinned for easy solderability.

Cat. No. 23 For 1/16" thick Board

A variety of mounting brackets and staking tools are listed on tl following pages.

© U.C.P., Inc.

STANDARDIZED TERMINAL BOARDS

KEYSTONE ELECTRONICS CORP. NEW YORK 12 N Y

STANDARDIZED TURRET TERMINAL BOARDS

Cut your production cost by eliminating the tooling and setup charge usually applied to nonstandardized boards. Terminals are securely riveted and hot tinned for easy soldering.

TERMINALS: Your choice of most popular types.
Made of Brass: QQ-626, comp. 22, ½ hard.
Hot Dip Solder finish: Mil-F-14072 Type 221.

Material: Your choice of either PBE or GEE Phenolic.

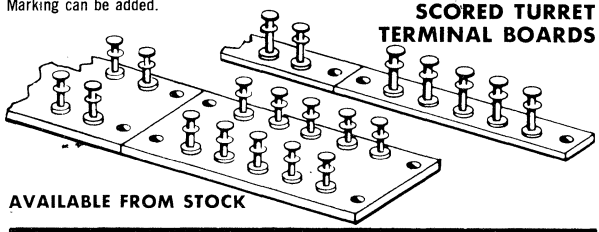
PBE: Paper base electrical, Mil-P-3115C, Temp. 250° F max. Type XXXP.

GEE: Glass Epoxy, Mil-P-18177, Temp. 300° F max. Type G-10.

Five sections **SCORED** for easy **separation** M'tg. holes in each section.

These boards **CAN BE MODIFIED** with terminals staked in all holes, scoring eliminated. Marking can be added.

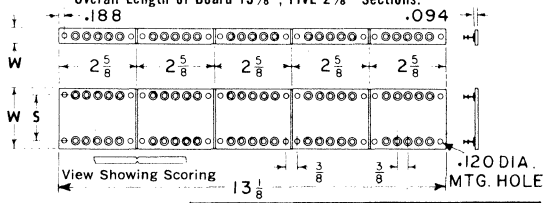
SCORED TURRET TERMINAL BOARDS



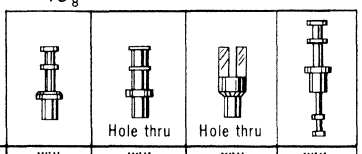
AVAILABLE FROM STOCK

3/8" SPACING AND SCORED

3/32" THICK PHENOLIC — Choice of 4 Types of Terminals
Overall Length of Board 13⅛", FIVE 2⅝" Sections.



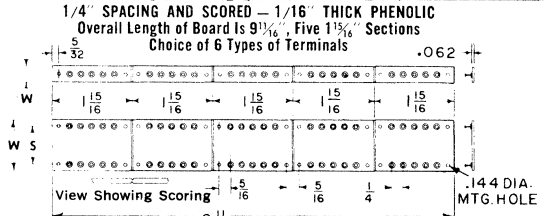
Five sections **SCORED** for easy operation.
M'tg. holes in each section.
CHOICE OF TERMINALS



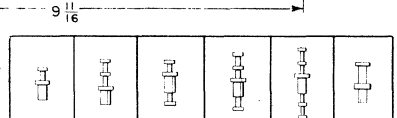
W	S	No. of Terms.	Material	With 1503 Term. Cat. No.	With 1509 Term. Cat. No.	With 1507 Term. Cat. No.	With 1545 Term. Cat. No.
½	Single Row	25	PBE	15031	15091	15071	15041
			GEE	15231	15291	15271	15241
1½	1	50	PBE	15032	15092	15072	15042
			GEE	15232	15292	15272	15242
1½	1 3/16	50	PBE	15036	15096	15076	15046
			GEE	15236	15296	15276	15246
2	1½	50	PBE	15033	15093	15073	15043
			GEE	15233	15293	15273	15243
2½	2	50	PBE	15034	15094	15074	15044
			GEE	15234	15294	15274	15244
3	2½	50	PBE	15035	15095	15075	15045
			GEE	15235	15295	15275	15245

MINIATURE TURRET TERMINAL BOARDS

1/4" SPACING AND SCORED — 1/16" THICK PHENOLIC
Overall Length of Board Is 9 11/16", Five 1 15/16" Sections
Choice of 6 Types of Terminals



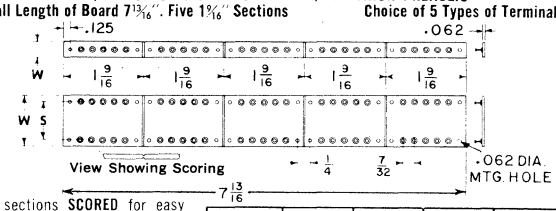
Five sections **SCORED** for easy operation.
M'tg. holes in each section.
CHOICE OF TERMINALS



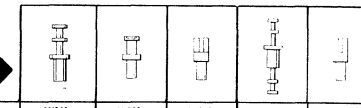
W	S	No. of Terms.	Material	With 1572 Term. Cat. No.	With 1573 Term. Cat. No.	With 1574 Term. Cat. No.	With 1575 Term. Cat. No.	With 1583 Term. Cat. No.	With 1559 Term. Cat. No.
5/16	Single Row	25	PBE	15047	15057	15067	15077	15087	15097
			GEE	15247	15257	15267	15277	15287	15297
7/8	9/16	50	PBE	15048	15058	15068	15078	15088	15098
			GEE	15248	15258	15268	15278	15288	15298
1⅛	13/16	50	PBE	15049	15059	15069	15079	15089	15099
			GEE	15249	15259	15269	15279	15289	15299

MINIATURE TURRET TERMINAL BOARDS

7/32" SPACING AND SCORED — 1/16" THICK PHENOLIC
Overall Length of Board 7 13/16". Five 1 9/16" Sections
Choice of 5 Types of Terminals



Five sections **SCORED** for easy operation.
M'tg. holes in each section
CHOICE OF TERMINALS



W	S	No. of Terms.	Material	With 1502 Term. Cat. No.	With 1562 Term. Cat. No.	With 1526 Term. Cat. No.	With 1512 Term. Cat. No.	With 1533 Term Cat. No.
5/16	Single Row	25	PBE	15021	15023	15025	15063	15053
			GEE	15221	15223	15225	15263	15253
3/4	½	50	PBE	15028	15029	15026	15064	15054
			GEE	15228	15229	15226	15264	15254
1	3/4	50	PBE	15022	15024	15030	15065	15056
			GEE	15222	15224	15230	15265	15256

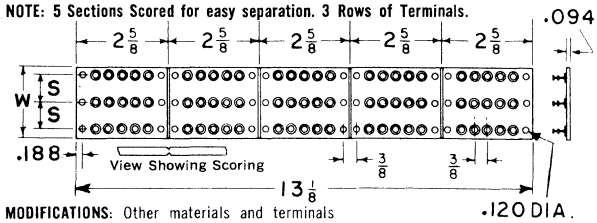
UNIVERSAL TERMINAL BOARDS

Designed for production or experimental use, these **standardized boards** are well suited for any electronic application requiring a sturdy mounting surface for resistors, condensers and components.

TERMINAL: 1503-3 HOT TIN DIP finish for easier soldering and infinite shelf life.

MATERIALS: **PBE** (Paper Base Elect. Mil-P-3115C type XXXP)
GEE (Glass Epoxy Mil-P-18177 type G-10)

NOTE: 5 Sections Scored for easy separation. 3 Rows of Terminals.



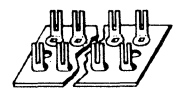
MODIFICATIONS: Other materials and terminals of your choice supplied. Marking may be added.

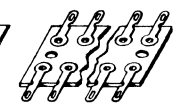
Assembled. with **TERMINAL** 1503-3

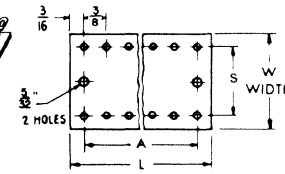
W	S	Total No. of Terms.	Material	Cat. No.
2½	1	75	PBE	15332
			GEE	15342
3½	1½	75	PBE	15333
			GEE	15343

READI-MADE TERMINAL BOARDS

• ECONOMICAL • SAVE TOOLING COST
• DELIVERY FROM STOCK • RANGE OF SIZES • APPROVED MATERIALS







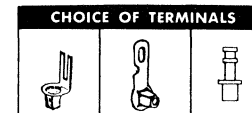
Readi-Made Terminal Boards are ideal for General Use. Excellent for mounting resistors, condensers, etc. Choice of Terminals.

MATERIAL: 1/16" thick Bakelite (Mil Spec 3115C-Pbe-P grade).

TERMINALS: 1204 and 1268 are stamped from .023 thick brass. 1539 is turned from 3/16" dia. brass rod.

PLATING: 1204 is Cadmium plated. 1268 and 1539 are Hot Tinned for easy soldering.

CHOICE OF TERMINALS



W	L	S	A	Terminals Each Side	With 1268 Term. Cat. No.	With 1204 Term. Cat. No.	With 1539 Term. Cat. No.
1	1⅛	11/16	1½	5	1268-10	1204-10	1239-10
1	2¼	11/16	1⅞	6	1268-12	1204-12	1239-12
1	5¼	11/16	4⅞	14	1268-28	1204-28	1239-28
1¾	3¾	1 1/16	3⅜	10	1268-20	1204-20	1239-20
1¾	4⅛	1 1/16	3¾	11	1268-22	1204-22	1239-22
1¾	7⅛	1 1/16	6¾	19	1268-38	1204-38	1239-38
½	7⅛	Single Row	6¾	19	1268-19	1204-19	1239-19

KEYSTONE ELECTRONICS CORP., NEW YORK, N. Y.

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STANDARDIZED PLUG-IN HOUSINGS

KEYSTONE ELECTRONICS CORP. NEW YORK 12 N Y

BANANA PLUG IN MODULES

3/4" Centers

- Suitable for test adaptors, modules, filters, etc.
- Low resistance Beryllium Copper spring plugs
- Shielded or molded hi-impact Butyrate cover
- Mates with all standard patch board plugs

MATERIAL SPECIFICATIONS—
(For All Items On This Page)

BANANA PLUG SPRINGS: One piece Beryllium Copper per QQ-C-533 and heat treated to 15N, 73-79.

PLUG BODY: Brass QQ-626 Comp. 22½ H; silver plated, MIL-P-14072 per QQ S-365.

BAKELITE: Black per MIL-P-3115C, TYPE PBE.

PLASTIC HOUSING: Molded of high impact clear Butyrate plastic will withstand temp. 210°F. Ample room for wiring or terminal board.

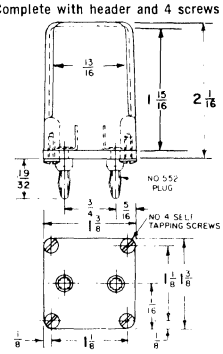
HEADER: Precision machined black bakelite which mounts flush to housing with self-tap screws. Solder lugs firmly staked to banana plugs.

ALUMINUM HOUSING: For circuits requiring shielding. Banana plugs attached to ¼" thick bakelite and staked to solder lugs. Hole for cable entry can be supplied at small additional charge.

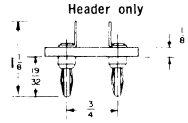
MODIFICATIONS: We welcome the opportunity to quote on variations of standard items.

PLASTIC HOUSING

Cat. No. 658
Complete with header and 4 screws

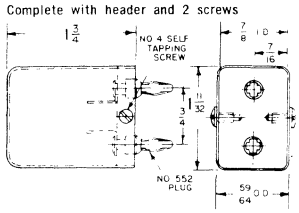


- **Cat. No. 656**
Header only

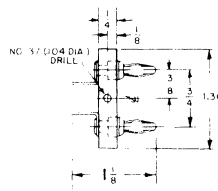


ALUMINUM SHELL

Cat. No. 659
Complete with header and 2 screws



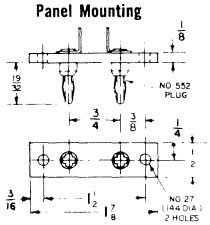
Cat. No. 657
Header only



BANANA PLUG AND JACK STRIP

3/4" Centers — Mate with all Stack-Up Plugs

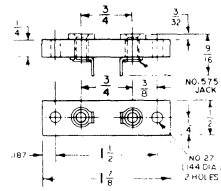
BANANA PLUG STRIP
Panel Mounting



Cat. No. 621

A much needed accessory for patch-cord boards and stack-up plugs. Low resistance banana plugs are spaced on ¾" centers, staked into ⅛" thick black bakelite and solder plugs.

JACK STRIP
Panel Mount Jack Strip



Cat. No. 653

These panel mounting strips mate with any ¾" spaced stack-up plug or individual patchcords. Silver plated jacks are staked into ¼" thick black bakelite with solder lugs. Multiples can be supplied in most instances without tooling or setup charges.

TERMINALS AND EYELETS

TERMINALS: Turret terminals can be staked into .062 dia holes.

1508-2 1526-2 1562-2 1592-2 1593-2

Cat. No.	O.D.	Height Above The Board
1508-2	.093	3/32
1526-2	.095	5/32
1562-2	.125	5/32
1592-2	.125	5/32
1593-2	.093	5/32

EYELETS: High quality precision formed and hot dip solder finish for good solderability.

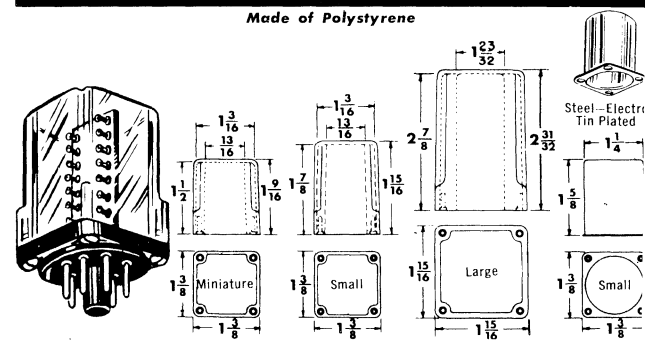
Specify Cat. No. 23
For .062 dia. hole
BOARD THICKNESS 1/16"

SELF-TAPPING SCREWS

CAT. NO. 688 — For miniature and small covers #4 x 5/16"
CAT. NO. 689 — For large covers #4 x 3/8"

PLASTIC MOLDED HOUSINGS

Made of Polystyrene



LOW COST DUST COVERS — AVAILABLE FROM STOCK

- Variety of molded materials
- Good chemical resistance
- A choice of 4 types
- Low water absorption
- Rigid construction

PLUG IN HOUSINGS

A wide range of colors is available in Polystyrene and Butyrate on special order

TERMINAL BOARDS NOT INCLUDED

Housing with Octal Header & 4 Screws Cat. No.	Housing only LESS Header & Screws Cat. No.	TYPE	MATERIAL	COLOR
662	672	Miniature	Polystyrene	Clear
663	673	Small	Butyrate	Clear
664	674	Small	Nylon	Natural (White)
665	676	Small	Polystyrene	Clear
668	679	Large	Polystyrene	Clear
669	680	Small	Steel—Electro Tin Plated	—

HEADERS

HEADERS: Headers are available in two sizes and a variety of pin configurations that standard sockets. Molded of general purpose phenolic with brass nickel plated pi sturdily staked. Guide hole tapped 8-32 for terminal board mounting stud.

Fig. 4

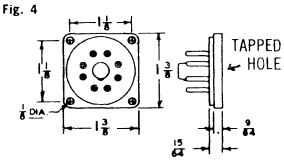
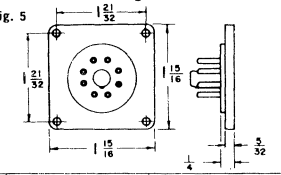


Fig. 5



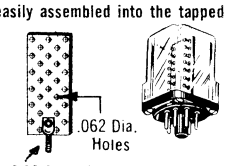
1⅜" square for miniature and small covers—Fig. 4	Pin Configuration	1 15/16" Square for large covers—Fig. 5
Cat. No.		Cat. No.
681	Octal	685
682	Nine Pin	Not Avail.
683	Eleven Pin	686
684	Twenty Pin	687

Mica Filled Headers — Available on special order

TERMINAL BOARDS

(For Use with Above Housings)

These boards are stocked in XXXP paperbase and glass epoxy material. Spacing of hol is .100 and .200 alternates. An 8-32 threaded stud is firmly eyeletted to the board a is easily assembled into the tapped hole of the headers.



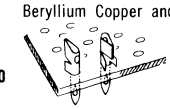
XXXP PBE MIL-P-31 15C Bakelite	Glass Epoxy G-10, GEE MIL-P-18177B	Size of Board with Stud	For Cover Listed Above
Cat. No.	Cat. No.		
692	696	1 x 1 5/16	Miniature
693	697	1⅛ x 1¾	Small
694	698	1½ x 2¾	Large
695	699	1⅛ x 1 1/16	Metal Cas

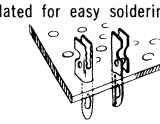
PUSH-IN TERMINALS

Recommended for use with above Terminal Boards

FLEA TERM. AND IMP TERM. designed for subminiature work. Fit holes .062 dia. perfectly. Made of Beryllium Copper and plated for easy soldering.

FLEA TERM.
Cat. No. 1500
(silver plate)





IMP TERM.
Cat. No. 1499-F
(fused tin plate
Cat. No. 1499-SI
(silver plate)

KEYSTONE ELECTRONICS CORP., NEW YORK, N. Y.

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LAB-TRONICS INC.
Chicago, Illinois 60613

CONNECTING CABLES with *Lenite*

MFD. IN U.S.A.

MOLDED PLUGS and JACKS

Lab-Tronics' molded cable construction is the accepted standard for appearance, durability, and handling ease. L-Ts' molded connectors are waterproof; no strain on soldered connections; eliminate need for unsightly external clamps. Molded plugs and jacks are attractive gray, to match cable. Cables are soldered to connectors before molding, assuring completely noise-free operation; highest quality, low-capacitance type, insuring minimum loss. Jacket is smooth silver-gray, non-contaminating high temperature plastic. Plugs and jacks of highly polished brass, machined to close tolerances, then double-plated. Individually packaged in strong, clear plastic bags or attractive boxes with complete description and length of cable printed on the label.

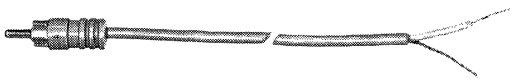
SHIELDED

SHIELDED CONNECTING CABLES WITH MOLDED PHONO PIN PLUGS AND MOLDED PHONO PIN PACKS

The silver gray cable is of high quality, low-capacitance type for minimum loss. Used for interconnecting tuners, pre-amps, amplifiers, record changers, recorders, and accesssories — wherever a Phono Pin Jack or Plug is used.

Shielded Cable. Molded Phono Pin Plug each end.

		NET
C101	18"	.54
C102	36"	.63
C103	72"	.81
C104	120"	1.11



Shielded Cable. Molded Phono Pin Plug; Stripped and Tinned.

		NET
C105	18"	.39
C106	36"	.48
C107	72"	.66
C108	120"	.96

Shielded Cable. Molded Phono Pin Plug; Phono Pin Jack.

		NET
C201	18"	.63
C202	36"	.72
C203	72"	.90
C204	120"	1.20

Shielded Cable. Molded Phono Pin Jack each end.

		NET
C401	18"	.84
C402	36"	.93
C403	72"	1.11
C404	120"	1.41

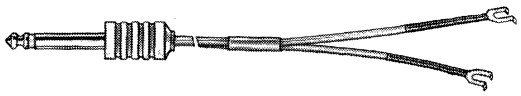
→ (Where a RIGHT ANGLE molded phono pin plug is desired, add "R" to stock number.)

FOR CABLE EXTENSION APPLICATIONS

Extra length shielded cables to meet the growing demand for stereophonic and extension use in Hi-Fi and Stereo. Extra long molded grips on phono pin plug for ease of handling when jack is recessed into the cabinet or chassis.

Shielded Cable. Molded SHIELDED Phone Plug; Stripped and Tinned.

		NET
C4006	6'	.96
C4010	10'	1.20
C4015	15'	1.50



Shielded Cable. Molded SHIELDED Phone Plug; Lugs.

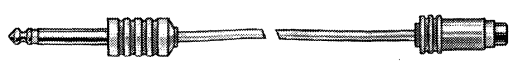
		NET
C4106	6'	1.02
C4110	10'	1.26
C4115	15'	1.56

Shielded Cable. Molded SHIELDED Phone Plug each end.

		NET
C4306	6'	1.32
C4310	10'	1.56
C4315	15'	1.86
C4325	25'	2.46

Shielded Cable. Molded SHIELDED Phone Plug; Phono Pin Plug.

		NET
C4406	6'	1.11
C4410	10'	1.35
C4415	15'	1.65



Shielded Cable. Molded SHIELDED Phone Plug; Phono Pin Jack.

		NET
C4506	6'	1.17
C4510	10'	1.41
C4515	15'	1.71

Shielded Cable. Molded SHIELDED Phone Plug; Molded SHIELDED Phone Jack.

		NET
C4606	6'	1.71
C4610	10'	1.89
C4615	15'	2.19

→ (Where a RIGHT ANGLE molded phone pin plug is desired, add "R" to stock number.)

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CONNECTING CABLES with *Lenite* MOLDED PLUGS and JACKS

MFD. IN U.S.A.

LAB-TRONICS INC.
Chicago, Illinois 60613

FOR MICROPHONES, PROFESSIONAL RECORDERS, SPECIAL AUDIO EQUIPMENT, TV EYES, ELECTRONIC INSTRUMENTS, OFFICE EQUIPMENT, ETC.

L-T cables and molded connectors are designed to provide a noise-free, trouble-free, strain-proof connection. All metal parts are machined brass, smoothly polished and nickel plated. Soldered connections are imbedded in unbreakable molded plastic and cannot loosen or pull out. Low loss, fully shielded cable. Can be used with high impedance inputs. Handy grooved plastic handles for easy gripping. Cables and molded plugs are color-matched in soft, pleasing silver-gray.

SHIELDED

NEW TINY MOLDED PHONE PLUGS

NEW TINY PHONE PLUG, used in some of the latest models of recording equipment, business machines, hearing aids, pocket radios, meters, etc. The miniature, two-conductor phone plug is approximately ⅓ size of standard phone plug. Molded body cannot come apart. Low-capacitance shielded cable and parallel unshielded cord available. Silver-gray cable and matching molded unbreakable plastic termination.

Shielded Cable. Tiny Plug; Stripped and Tinned.

		NET
T2003	3′	.96
T2006	6′	1.17
T2010	10′	1.38

Shielded Cable. Tiny Plug; Standard Phone Plug.

		NET
T2303	3′	1.26
T2306	6′	1.47
T2310	10′	1.65

Shielded Cable. Tiny Plug; Phono Pin Plug.

		NET
T2403	3′	1.11
T2406	6′	1.32
T2410	10′	1.50

Shielded Cable. Tiny Plug; Phono Pin Jack.

		NET
T2503	3′	1.14
T2506	6′	1.35
T2510	10′	1.53

SHIELDED

MICROPHONE CONNECTORS

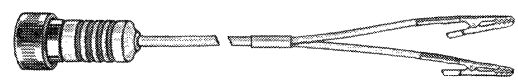
A new molded connector which is interchangeable with the present type now on the market. Molded grip with the cable molded directly onto the polished nickel plated brass connector. BOTH conductor AND shield are soldered to the connector prior to molding, insuring noise-free operation. Heavy duty co-axial shielded cable, low loss, with a nominal capacitance of approximately 25mmf/ft. For use with microphones, pre-amps, test equipment, VTVM, oscilloscopes, recorders, custom Hi-Fi installations or wherever a standard microphone connector is used. Coupling ring may be screwed back to convert connector from female to male type. Molded in gray to match the cable.

Shielded Cable. Molded Microphone Connector. Molded Phono Pin Plug.

		NET
E801	1′	.78
E803	3′	.90
E806	6′	1.11

Shielded Cable. Molded Male and Female Microphone Connector.

		NET
E906	6′	1.29
E912	12′	1.71
E925	25′	2.64



Shielded Cable. Molded Microphone Connector; Clips.

		NET
E1003	3′	1.14
E1006	6′	1.35
E1012	12′	1.77

Shielded Cable. Molded Microphone Connector; Stripped and Tinned.

		NET
E1106	6′	.99
E1110	10′	1.29
E1125	25′	2.40

Shielded Cable. Molded Microphone Connector; Molded Phone Plug.

		NET
E1306	6′	1.29
E1310	10′	1.59
E1325	25′	2.76

Shielded Cable. Molded Microphone Connector; Molded Pin Jack.

		NET
E1506	6′	1.26
E1510	10′	1.56
E1525	25′	2.67

Shielded Cable. Molded Microphone Connector; Molded Phone Jack.

		NET
E1606	6′	1.59
E1610	10′	1.89
E1625	25′	3.00

LAB-TRONICS INC.
Chicago, Illinois 60613

CONNECTING CABLES with *Lenite* MOLDED PLUGS and JACKS

MFD. IN U.S.A.

FOR HI-FI, TUNERS, AMPLIFIERS, PRE-AMPLIFIERS, RECORDERS, SPEAKERS, SPEAKER EXTENSIONS, RECORD CHANGERS, PUBLIC ADDRESS SYSTEMS, AUDIO EQUIPMENT, RADIO AND STEREOPHONIC SYSTEMS

MOLDED DUAL PHONO PIN PLUG FOR ALL STEREO AMPLIFIERS

Plugs into standard 7/16" centers dual phono jacks on all stereo amplifiers. Used for interconnecting stereo record changers. amplifiers and accessories. All cables are isolated — separately shielded to prevent cross talk.

Two conductor separately shielded stereo cable; Molded dual phono pin plug; stripped and tinned.

		NET
SP8003	3'	1.41
SP8006	6'	1.68
SP8010	10'	2.04

Two conductor separately shielded stereo cable; Molded dual phono pin plugs each end.

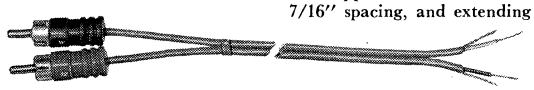
		NET
SP8403	3'	1.71
SP8406	6'	1.98
SP8410	10'	2.34

Two conductor separately shielded cables; Molded dual phono pin plugs; dual phono pin jacks.

		NET
SP8503	3'	2.07
SP8506	6'	2.34
SP8510	10'	2.70

MOLDED DUAL PHONO PIN PLUGS — "SEPARATE PLUGS"

For use in applications where distances between centers are greater than the standard 7/16" spacing, and extending to 6". Color coded for ease in identification.

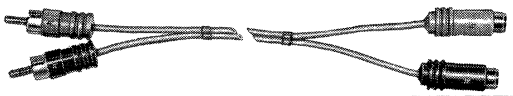


Two individually shielded pin plugs; stripped and tinned.

		NET
CP8003	3'	1.47
CP8006	6'	1.74
CP8010	10'	2.10

Two individually shielded pin plugs; each end.

		NET
CP8403	3'	1.77
CP8406	6'	2.04
CP8410	10'	2.40



Two individually shielded pin plugs; phono pin jacks.

		NET
CP8503	3'	1.95
CP8506	6'	2.22
CP8510	10'	2.58

PARALLEL CABLE (NOT SHIELDED)

MOLDED CONNECTORS AND PLUGS WITH *Lenite* FOR VARIOUS TERMINATIONS

Flexible parallell cable (not shielded) with molded plugs for voice coil recording, speaker extensions, audio output, low impedance lines, etc.

Flexible Cable. Molded Phono Pin Plug; Stripped and Tinned.

		NET
P6006	6'	.45
P6010	10'	.57
P6020	20'	.87

Flexible Cable. Molded Phono Pin Plug; Lugs.

		NET
P6106	6'	.51
P6110	10'	.63
P6120	20'	.93

Flexible Cable. Molded Phono Pin Plug; Clips.

		NET
P6206	6'	.75
P6210	10'	.87
P6220	20'	1.17

Flexible Cable. Molded Phono Pin Plug each end.

		NET
P6406	6'	.66
P6410	10'	.78
P6420	20'	1.08

Flexible Cable. Molded Phone Plug; Stripped and Tinned.

		NET
P7006	6'	.75
P7010	10'	.87
P7020	20'	1.17

Flexible Cable. Molded Phone Plug each end.

		NET
P7306	6'	1.26
P7310	10'	1.38
P7320	20'	1.68

Flexible Cable. Molded Phone Plug; Molded Phono Pin Plug.

		NET
P7406	6'	.96
P7410	10'	1.08
P7420	20'	1.38

Flexible Cable. Molded Phone Plug; Phono Pin Jack.

		NET
P7506	6'	1.02
P7510	10'	1.14
P7520	20'	1.44

→ (Where a RIGHT ANGLE molded phono pin plug is desired, add "R" to stock number.)

© U.C.P., Inc.

MOLDED ADAPTERS & CONNECTORS

MFD. IN U.S.A. with *Lenite*

for VARIOUS TERMINATIONS

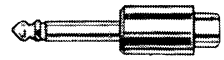
LAB-TRONICS INC.
Chicago, Illinois 60613

FOR MATING DIFFERING TERMINATIONS WITH MICROPHONES, SPEAKERS AND AMPLIFIERS

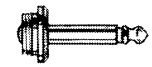
ADAPTERS AND CONNECTORS

Lab-Tronics' line of adapters was extensively researched, and is a most useful and complete line. A *must* for the lab or repair kit. Reduces the number of cables required. Capable of connecting almost any termination to any other termination. Microphone connectors are convertible from female to male. American-engineered and American-manufactured to the highest standards of performance and durability.

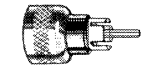
C400 Phono Pin Jack; Phono Pin Jack.
C400.....**NET .60**



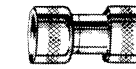
P55A Phono Pin Jack; Phone Plug.
P55A.....**NET .75**



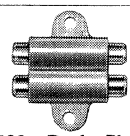
M75P Male Mic; Phone Plug.
M75P.....**NET .30**



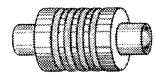
MP Mic; Phono Pin Plug.
MP.....**NET .60**



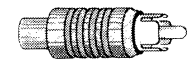
C800 Mic; Mic.
C800.....**NET .60**



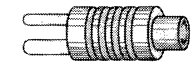
CD400 Dual Phono; Dual Phono.
CD400.....**NET 1.20**



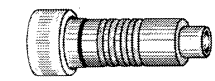
A753 Phone Jack; Phono Pin Jack.
A753.....**NET 1.05**



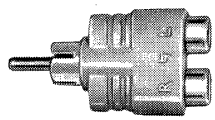
A750 Phone Jack; Phono Pin Plug.
A750.....**NET 1.05**



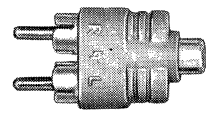
A780 Phono Pin Jack; 2 Prong Polarized ¼" centers.
A780.....**NET .75**



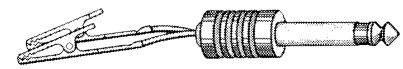
A751 Mic Connector; Phono Pin Jack.
A751.....**NET .75**



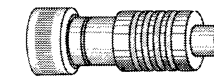
A754 Two Phono Pin Jacks; Phono Pin Plug.
A754.....**NET 1.20**



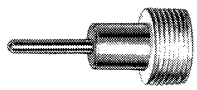
A755 Two Phono Pin Plugs; Phono Pin Jack.
A755.....**NET 1.20**



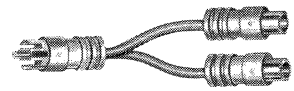
A782 Phone Plug; Clips.
A782.....**NET .75**



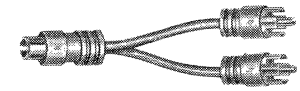
A752 Mic Connector; Phone Jack.
A752.....**NET 1.05**



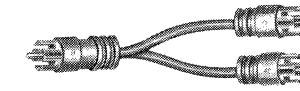
A259 Adapts PL-259 plug to auto radio (Motorola type) plug.
A259.....**NET 1.05**



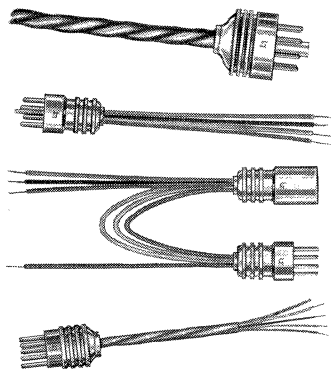
A455 Phono Pin Plug; 2 Phono Pin Jacks.
A455.....**NET 1.14**



A544 Phono Pin Jack; 2 Phono Pin Plugs.
A544.....**NET 1.14**



A444 Phono Pin Plug; 2 Phone Pin Plugs.
A444.....**NET 1.14**

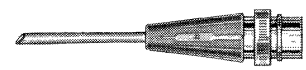


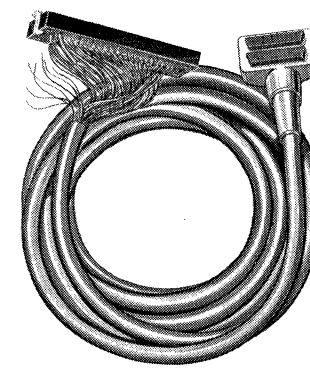
EXACT DUPLICATE CABLES FOR ORIGINAL EQUIPMENT REPLACEMENT

Molded Male Plugs, Molded Female Receptacles, Molded Octal Plugs, etc. (as widely used on Record Changers, Audio and TV equipment).

ORIGINAL EQUIPMENT MANUFACTURERS:

We invite manufacturers to submit prints or sketches through our local representatives or direct to factory.





ALL PRICES QUOTED ARE U.S.A. PRICES

Guarantee

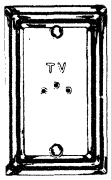
L-T Molded Plugs and Jacks are *GUARANTEED* against defects for two years from the time they are purchased. This guarantee covers breakage, mechanical, electrical or operational failures. Any L-T molded termination which becomes defective within 2 years and is returned to the factory, will be replaced at no charge.

Copyright 1964

Mosley

Mosley

FLUSH MOUNTED TV SOCKETS



Easy-to-install, attractive wall plate TV sockets for every installation requirement. Ivory or brown plates are styled to harmonize with existing electrical plates. Available in types for single, dual or triple lead-in lines and for single and dual lines plus 4-wire rotor cable. Packaged with mating plug(s), F-9 mounting brackets and full instructions.

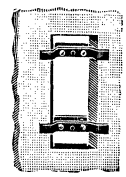
			Net
F-1PK	iv.	Single Flush Socket w/Plug and Mtg. Hdw.	$1.25
F-1PK	br.	Single Flush Socket w/Plug and Mtg. Hdw.	$1.25
F-11PK	iv.	Dual Flush Socket w/Plug and Mtg. Hdw.	$1.72
F-11PK	br.	Dual Flush Socket w/Plug and Mtg. Hdw.	$1.77
F-14PK	iv.	Single Lead-in and 4-Wire Socket / Plugs	$2.26
F-14PK	br.	Single Lead-in and 4-Wire Socket / Plugs	$2.26
F-114PK	iv.	Dual Lead-in and 4-Wire Socket / Plugs	$2.26
F-114PK	br.	Dual Lead-in and 4-Wire Socket / Plugs	$2.32

"ANTI-STUB" TV/FM WALL PLATE OUTLETS

Similar to F-1PK, above, but with switch to disconnect system beyond outlet being used. Prevents "stub-effect". Silver plated positive action contacts. Brown or ivory polystyrene. With polarized plug and mounting hardware.

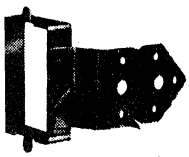
			Net,
FD-1PK	iv.	Single Flush Switching Outlet	$1.35
FD-1PK	br.	Single Flush Switching Outlet	$1.39

MOUNTING HARDWARE



Type F-9, Mounting Brackets of heavy gauge steel for installing F-Series Sockets in walls of existing buildings. Requires rectangular opening 1¾" wide by 4" long.

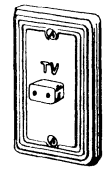
	Net,
F-9	$ .24



Type F-8 Plaster Ring for installing F-Series Sockets in new construction. Mounts easily and quickly to wood studding. Adjustable for plaster thicknesses up to 1½". Heavy plated steel.

	Net,
F-8	$ .40

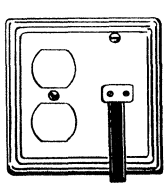
SURFACE MOUNTED SOCKETS



Surface mounted sockets resemble flush wall plate types but may be used for either concealed wiring or where TV line is brought along surface of wall. No wall opening required. In brown or ivory polystyrene. Supplied with mating plug(s) and wood screws.

			Net
SM-1PK	iv.	Single Lead-in Socket w/Plug	$1.06
SM-1PK	br.	Single Lead-in Socket w/Plug	$1.10
SM-11PK	iv.	Dual Lead-in Socket w/Plug	$1.49
SM-11PK	br.	Dual Lead-in Socket w/Plug	$1.49
SM-14PK	iv.	Single Lead-in and 4-Wire Socket w/Plugs	$2.44
SM-14PK	br.	Single Lead-in and 4-Wire Socket w/Plugs	$2.44

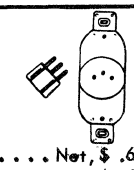
AC/TV WALL PLATE SOCKETS



Combination TV lead-in outlet and plate for double convenience outlet. Ideal for installation during new construction or remodeling. Metal barrier plate, supplied separates AC and TV services to comply with electrical codes. Install in ganged electrical boxes. Brown or ivory. With mating plug(s) and mounting screws.

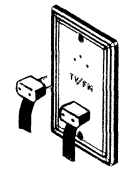
			Net
AC-1PK	iv.	300 ohm Socket w/Plug	$1.27
AC-1PK	br.	300 ohm Socket w/Plug	$1.30
AC-11PK	iv.	Two 300 ohm Sockets w/Plug	$1.73
AC-11PK	br.	Two 300 ohm Sockets w/Plug	$1.73
AC-14PK	iv.	300 ohm and 4-Wire Socket w/Plugs	$2.30
AC-14PK	br.	300 ohm and 4-Wire Socket w/Plugs	$2.30

TV/FM WALL PLATE OUTLETS



Permits all electrical and TV/FM outlets to be matched. Designed to fit standard, single or double convenience outlet plates, either plastic or metal. Brown or ivory polystyrene.

			Net,
FY-1	iv.	Single TV/FM Outlet w/Mtg. Hdw.	$ .67
FY-1	br.	Single TV/FM Outlet w/Mtg. Hdw.	$ .67
FY-1PK	iv.	Single TV/FM Outlet w/Plug, Mtg. Hdw.	$1.06
FY-1PK	br.	Single TV/FM Outlet w/Plug, Mtg. Hdw.	$1.06
FY-14	iv.	Single TV/FM Outlet and 4-Wire Socket	$ .87
FY-14	br.	Single TV/FM Outlet and 4-Wire Socket	$ .87
FY-14PK	iv.	Single Outlet & 4-Wire Socket w/Plugs, Hdw	$1.70
FY-14PK	br.	Single Outlet & 4-Wire Socket w/Plugs, Hdw	$1.70

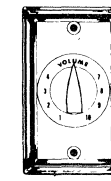


STEREO TV/FM WALL PLATE OUTLETS

For use in areas where FM can be received with TV antenna. Resistor-type 2 set coupler built-in to isolate TV from FM permitting simultaneous reception without interaction. Net,

WPS-11PK	iv.	TV/FM Stereo Plate	$1.46
WPS-11PK	br.	TV/FM Stereo Plate	$1.46

AUDIO PAD PLATE w/KNOB



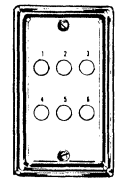
Attractive brown or ivory polystyrene plate with satin finished anodized aluminum dial face and modern indicator knob. Use to assemble L-pad, T-pad, Fader, etc., for audio and Hi-Fi systems. Less control.

Type FAV-1 ..... $1.09

ATTENUATOR PLATE with SPEAKER JACK

Same as Type FAV-1. Plug and jack have been supplied for additional external speaker unit. Less control.

Type FAV-2 ..... $1.63

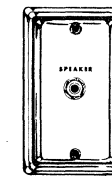


FLUSH SPEAKER SWITCH PLATE

High quality 6 position switch plate selects any speaker or combination of speakers in remote locations. Heavy duty push button switches on brown or ivory plate. Complete with plated machine screws and instructions.

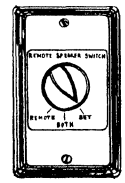
Type FAS-6 ..... $11.43

SPEAKER WALL PLATE OUTLETS



Brown or ivory polystyrene flush mounting outlets. Speaker socket and plug polarized and solderless. Ideal for custom Hi-Fi installations where remote speakers are not permanently installed. Complete with mounting brackets and instructions.

Type FAS-1PK Single	$1.86
Type FAS-11PK Double	$2.03

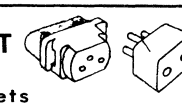


3-POSITION SPEAKER SWITCH

Three position speaker switch for Hi-Fi or Stereo Speaker Systems. Will operate single speaker system, remote system or both. Type FSS-2 is supplied with external plug and jack for additional speaker.

Type FSS-1	$2.50
Type FSS-2	$2.68

TV/FM INTERCHANGEABLE OUTLET



Permits all electrical and TV/FM outlets to be matched. Designed to fit interchangeable type electrical plates styles 91041 Brown, 92041 Ivory and 97011 Stainless Steel. Molded of low loss polystyrene in brown or ivory. Supplied with Mosley 303 Polarized 300 ohm Transmission Line Plug.

			Net
FG-1PK	iv.	Replaceable Outlet and Plug	$ .59
FG-1PK	br.	Replaceable Outlet and Plug	$ .59

Net

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Mosley

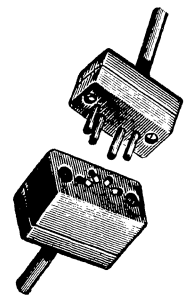
Mosley

300 OHM CONNECTORS

Precision molded low loss 300 ohm connectors for UHF and VHF transmission lines. Constant impedance. Solderless.

Type 301	Line Plug	Net, $ .21
Type 311	Line Socket	$ .21
Type 321	Polarized, pair	$ .40
Type 304	Input Adapter	$ .21
Type 27-S	Flat-line Splicer . . .	$ .13
Type 29-S	Round / Flat Splicer	$ .14

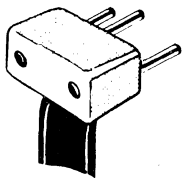
MULTI-WIRE CONNECTORS



For rotator cable connections and many other low voltage uses. No set screws in line plugs and line sockets. In brown or ivory.

Type 354	4-wire Base Socket	Net, $ .95
Type 364	4-wire Line Socket	$ .67
Type 374Iv.	4-wire Line Plug	$ .51
Type 374Br.	4-wire Line Plug	$ .52

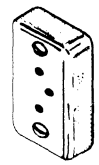
300 OHM TV PLUG



300 ohm plug, one piece construction and utilizing set screws to hold line. Supplied with 3 pins to mate with AC-TV series plates but center pin is removable to use with Mosley 2 pin sockets. Brown or ivory.

Type 303Iv. . . . . Net, $ .21
Type 303Br. . . . . $ .22

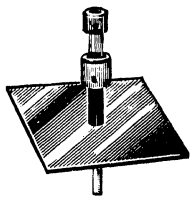
UNIVERSAL TV SOCKET



Compact, neat plug-in socket for FM or TV lead-in line. Use as line tap or terminal socket. Low loss polystyrene, constant impedance design for 300 ohm line. In brown or ivory. Complete with mating plug.

343PK iv. above w/plug . Net, $ .68
343PK br. above w/plug . . . $ .70

ROOF-THRU



8" x 9" copper flashing with polystyrene feed through bushing permits direct weather-proof roof entrance of flat TV line and rotor cable. Easy to install.

Type 624 . . . . . Net, $4.07

Type 623. Similar to Type 624 but for round or oval 300 ohm line only.

Type 623 . . . . . Net, $4.07

WALL-THRU

Neat, low loss wall entr ice for all popular oval, round or flat transmission lines. Fits walls up to 13" thick. Type 343 TV Socket mounts on inside plate. Brown or ivory.

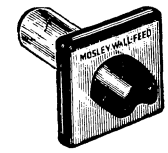
625 iv. . . . . Net, $1.32
625 br. $1.36
625Pk iv. above w/plug $2.03
625PK br. above w/plug $2.09

TV ANTENNA SWITCHES

Top quality rotary TV Antenna Switches for UHF and VHF. Silver-to-silver contacts and constant impedance design assures low insertion loss. Solderless. Brown or ivory.

F-20 iv. 3-Way TV Switch . . . . Net, $2.53
F-20 br. 3-Way TV Switch $2.61
F-42 iv. 2-Way TV Switch $1.39
F-42 br. 2-Way TV Switch $1.39

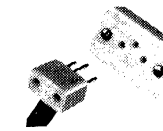
WALL FEED



Install at gable end or under roof over hang to provide weatherproof TV lead-in entrance into attic. Ideal for house trailer installations. Ivory or brown polystyrene plate with weatherhood and 2" tube. In trailer installation cut tube flush with inside wall and install Type 343 TV Socket directly over opening.

626 iv. . . . . Net, $ .86
626 br. . . . . $ .88
626PK iv. Wall Feed w/Socket $1.56
626PK br. Wall Feed w/Socket $1.61

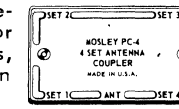
MULTI-SET COUPLERS



"Tiny-Mite" Multi-set Coupler and plug-in socket with plug. Resistor type tap-off unit will operate two TV sets from one antenna. Neat, compact. In brown or ivory.

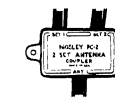
912 iv. . . . . Net, $1.22
912 br. $1.22

4-Set Coupler. Resistor type coupler designed for metropolitan areas, the major multi-set markets. Ideal for motels, small apartment buildings, etc. Brown or ivory polystyrene case.



PC-4 iv. . . . . Net, $3.19

A unique, compact two set coupler, designed to minimize set interaction and radiation.



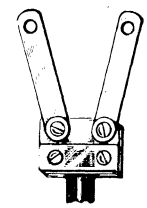
PC-2 iv. . . . . Net, $1.45

TUNABLE WAVE TRAPS

High Q series resonant wave traps for eliminating interference patterns and cross-talk on TV and FM. Use on any receiver input, 50 to 600 ohms, balanced or unbalanced. Solderless. Install on set terminal strip. Choose type with range including frequency of interfering station.

WT-7	brown	For Freqs. 6.8 - 8.5 mc.
WT-14	brown	For Freqs. 13.8 - 16 mc
WT-21	brown	For Freqs. 16 - 28 mc.
WT-41	brown	For Freqs. 27 - 55 mc.
WT-78	brown	For Freqs. 47 - 110 mc.
WT-168	brown	For Freqs. 100 - 230 mc

. . . . . Net, $3.1



MOSLEY "Y-TY"

Solderless strain relief connector preven transmission line from breaking at the a tenna. Easy to install, fits all types lin Use Type 263-L for antennas with termina more than 4" apart.

263-S black Y-TY(small) . . . . Net, $ .4
263-L black Y-TY(large) . . . . . $ .4

POLYETHYLENE TV CONDUIT

Black polyethylene tubing makes ideal conduit for runni TV and FM transmission lines within walls. Simplifies r placement of hidden wires. ¾" inside diameter. Flexibl easy to install. Many other applications such as interc and other low voltage cables.

80-25	black	500'	TV Conduit	Net, $ .2
80-50	black	500'	TV Conduit	$ .3
80-100	black	500'	TV Conduit	$ .3
80-500	black	500'	TV Conduit	$ .3

See MOSLEY Antennas and other Amateur Components listed in another section of this book.

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mueller clips

a complete line of

ALLIGATOR TEST & BATTERY CLIPS

Mueller Electric Co. CLEVELAND, OHIO 44114

"60 SERIES" ALLIGATOR CLIPS

No. 60—CONVENTIONAL TYPE

New slim design with full-me-hing teeth. Convenient, round thumb grip, barrel connection for banana plug. Equipped with small soldering lip. Strong spring with a hard bite. Cadmium plated. 2" long.

EACH NET.....$0.07 **LOTS OF 10.....$0.046**

No. 60-S—SCREW CONNECTION

Eliminates necessity for soldering. Otherwise same as No. 60.

EACH NET.....$0.08 **LOTS OF 10....$0.052**

No. 60-CS—COPPER ALLIGATOR CLIP

Solid copper version of No. 60-S. Screw connection. 2" long. 10 per box.

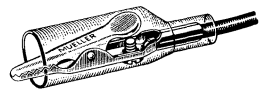
EACH NET.....$0.12 **LOTS OF 10.....$0.08**

No. 60PR-2—SPECIAL BARREL FOR TEST PROD OR PHONE TIP

Barrel crimped to provide friction fit on standard test prod or phone tip. Holds prod on test, frees hand for other work.

EACH NET.....$0.10 **LOTS OF 10.....$0.072**

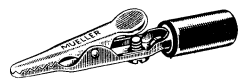
No. 62 FLEXIBLE VINYL INSULATOR



Red and black insulators for Alligator Clips 60, 60-S, 60-CS, 60PR-2.

EACH NET.....$0.05 **LOTS OF 10.....$0.035**

No. 60-HS—STEEL ALLIGATOR CLIP WITH INSULATED HANDLE



Same as No. 60-S except equipped with red and black insulating sleeves on end. Very convenient for distinguishing leads. Has screw connection also. Cadmium plated. $2\frac{1}{32}$" long. Shipped half red, half black.

EACH NET.....$0.11 **LOTS OF 10.....$0.075**

No. 60-CHS—COPPER ALLIGATOR CLIP, INSULATED HANDLE

Solid copper version of No. 60-HS. Screw connection. Shipped with half red, half black insulating sleeves. 10 per box.

EACH NET.....$0.15 **LOTS OF 10.....$0.10**

"70 SERIES" ALLIGATOR CLIPS

U.S. Patent No. 2,762,028

A trim, modern Alligator Clip.
Features simplified design, fast connection of wire with cord strain relief ears, patented hinge construction and lower cost.
Mueller's traditionally snappy spring, full jaw spread, fine meshing teeth, round thumb grip and trim shape give most wanted features for test work in close quarters.

No. 70—FOR SOLDERED CONNECTION

Steel, cadmium plated. $1\frac{1}{16}$" long.

EACH NET.....$0.07 **LOTS OF 10.....$0.042**

No. 70-S—SCREW CONNECTION

Otherwise same as No. 70.

EACH NET.....$0.08 **LOTS OF 10.....$0.048**

No. 70-CS—COPPER SCREW CONNECTION

Solid copper version of No. 70-S.

EACH NET.....$0.11 **LOTS OF 10.....$0.075**

No. 72— SKIN-TIGHT INSULATOR FOR 70 SERIES ALLIGATOR CLIPS!

For the first time complete, skin-tight, one-piece insulation for a standard size Alligator Clip! Covers entire clip right down to nose. Special tip slot permits full jaw opening without exposing teeth.

EACH NET.....$0.05 **LOTS OF 10.....$0.035**

WEE-PEE-WEE No. 88

Entirely Non-ferrous.

An extremely small clip for fine testing in radio and electrical work. Light-Weight; thin-nosed; spring-temper phosphor bronze. **Ideal for close-wound coils.** $1\frac{1}{16}$" long; jaw spread $\frac{1}{8}$". 10 per box.

EACH NET.....$0.23 **LOTS OF 10.....$0.16**

Use No. 93 Insulator.

NEW! MICRO-GATOR CLIP

(Smallest Insulated Clip Ever Made)

U.S. Patent No. 2,762,028 Trademark Reg.

Micro-Gator

Micro-Gator with Insulator

The alligator clip with the microscopic tip! This is the alligator clip you now can use where no other clip will do . . . on printed circuits, in tight spots and on tiny terminals too crowded for anything but its microscopic tip. It offers the speed, free-handed ease and convenience associated with other Mueller alligator clips. The Micro-gator is truly small (takes 30 to weigh an ounce!) Including separate skin-tight insulator the tip is no bigger than the head of a pin! Yet the Micro-gator has ample thumb grip, and plenty of bite to stand up straight on the smallest terminals. Ample $\frac{7}{32}$" jaw spread. Solder connection. Skin-tight flexible vinyl insulator (sold separately) has "lip-action" tip slot so that jaws stay covered whether open or closed.

No. 34 (Steel, cadmium plated)

EACH NET.....$0.06 **LOTS OF 10.....$0.04**

No. 34-C (Solid Copper)

EACH NET.....$0.07 **LOTS OF 10.....$0.05**

No. 36 (Insulator for Nos. 34 and 34-C)

EACH NET.....$0.05 **LOTS OF 10.....$0.03**

MINI-GATOR CLIP

U.S. Patent No. 2,762,028 Trademark Reg.

Mini-gator

Mini-gator with Insulator

Indispensable for testing or incorporation into miniaturized equipment. Skin-tight flexible Vinyl insulator (sold separately) covers completely — has slotted "lip action" tip. Clip weighs 1/20th oz., has tiny $1\frac{1}{64}$" O.D. nose, but ample $\frac{5}{16}$" jaw spread. Crimping ears. Solder connection. Surprisingly strong bite penetrates corrosion and coatings.

No. 30 (Steel, cadmium plated)

EACH NET.....$0.06 **LOTS OF 10.....$0.04**

No. 30-C (Solid Copper)

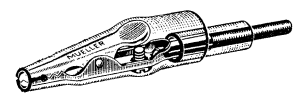
EACH NET.....$0.07 **LOTS OF 10.....$0.05**

No. 32 (Insulator for Nos. 30 and 30-C)

EACH NET.....$0.05 **LOTS OF 10.....$0.03**

COMPLETELY INSULATED ALLIGATOR CLIPS

Patent Pending



No. 63 or 63-C Clip

Sold only as a unit, with factory-applied insulators.

A radically new development that doubles the usefulness of Alligator Clips! Completely insulated right down to the nose. Flexible 2-piece skin-type vinyl insulator of high dielectric strength, with "lip action" slotted nose that permits opening of clip without exposing metal. Insulator nose is only 13/64" O.D. The tight fitting sheath preserves all the slimness of the Alligator Clip, still giving complete protection against shorts in even the tightest spots. These clips could be bunched together—touching all around—without danger of shorting. Screw connection easily made by slipping insulator forward.

No. 63—INSULATED ALLIGATOR CLIP (STEEL)

Composed of Mueller No. 60-S Alligator Clip steel, cadmium plated, screw connection, complete with 2-piece vinyl insulator. Shipped half with red insulators, half black. 10 per box.

EACH NET.....$0.19 **LOTS OF 10.....$0.13**

No. 63-C—INSULATED ALLIGATOR CLIP (COPPER)

Composed of Mueller No. 60-CS Alligator Clip, solid copper, screw connection. Shipped half with red insulators, half black. 10 per box.

EACH NET.....$0.22 **LOTS OF 10.....$0.15**

CROCODILE CLIPS

No. 85 or 85-C Clip with No. 87 Insulator

No. 85-T Clip

No. 85—A very small clip with slender, elongated jaws for getting into tight places in radio or electrical test work. Screw connection. $2\frac{1}{8}$" long.

EACH NET.....$0.09 **LOTS OF 10.....$0.065**

No. 85-C—Same as No. 85, except solid copper. A radio frequency, entirely non-ferrous test clip. 10 per box.

EACH NET.....$0.18 **LOTS OF 10.....$0.12**

No. 85-T—Crocodile "Tip-Clip"—equipped with standard phone tip on one jaw, otherwise same as No. 85. Ideal for use as a prod, for ordinary clip connections and for connections to insulated binding posts having non-removable heads. $2\frac{5}{8}$" long. 10 per box.

EACH NET.....$0.23 **LOTS OF 10.....$0.163**

Use No. 87 Insulators for clips 85, 85-C and 85-T. Red and Black. Cover entire clip except nose. Protect against short and shock. Help to distinguish leads.

© U.C.P., Inc.

mueller clips

a complete line of

ALLIGATOR TEST & BATTERY CLIPS

Mueller Electric Co. CLEVELAND, OHIO 44114

TEST CLIPS

No. 45 PEE WEE

A very small test clip for radio, ignition, meter and similar work. 1½" long. Jaw spread ⅛". Steel, cadmium plated.

EACH NET.....$0.08 **LOTS OF 10.....$0.053**

No. 45-C Clip
No. 47 Insulator

No. 45-C
Solid Copper R.F. Test Clip

Solid copper radio frequency test clip. Phosphor bronze spring, brass screw. Will not heat up in high frequency test work, entirely non-ferrous. 1½" long. 10 per box.

EACH NET.....$0.14 **LOTS OF 10.....$0.095**

Use No. 47 Insulator for clips 45 and 45-C.

No. 48-B

A small test and battery clip for radio use and general testing purposes. 2" long. Jaw spread ½". Steel, cadmium plated. 10 per box.

EACH NET.....$0.12 **LOTS OF 10.....$0.086**

No. 48C—Solid Copper. Same size as 48-B.

EACH NET.....$0.17 **LOTS OF 10.....$0.12**

No. 50-C Needle Clip

Solid bronze. Needle pierces insulation of wire for quick test contact. 2¼" long. 10 per box.

EACH NET....$0.28 **LOTS OF 10....$0.20**

No. 51-C—Large crocodile clip. Same as 50-C but without needle. 10 per box.

EACH NET....$0.19 **LOTS OF 10..$0.133**

Use No. 49 insulator for Clips 48-B, 48-C, 50-C and 51-C.

No. 27

A high grade test clip with meshing teeth on three sides of jaws. For laboratory and shop test work 2 1/16" long. Jaw spread ⅝". Steel, cadmium plated. 10 per box.

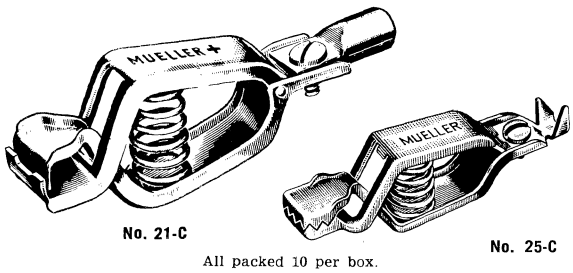
EACH NET.....$0.14 **LOTS OF 10.....$0.098**

No. 27-C—Solid copper. Same size as No. 27. 10 per box.

EACH NET.....$0.23 **LOTS OF 10.....$0.16**

Use No. 29 Insulator for clips 27 and 27-C.

LARGER SIZES OF CLIPS



No. 21-C

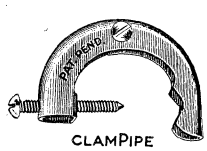
No. 25-C

All packed 10 per box.

		Each Net	Lots of 10
No. 24-A	— 25 Amp. Steel, lead plated, 2⅞" long	$0.24	$0.163
No. 25	— 40 Amp. Steel, cadmium plated, 3" long	.21	.15
No. 25C	— 75 Amp. Solid Copper, 3" long	.43	.30
No. 21-A	— 50 Amp. Steel, lead plated, 4" long	.42	.29
No. 21-C*	— 100 Amp. Solid Copper, 4½" long	.97	.68
No. 11-A*	— 100 Amp. Steel, lead plated, 6" long	1.06	.75
No. 11C*	— 200 Amp. Solid Copper, 6" long	1.81	1.27
No. 33-C*	— 300 Amp. Solid Copper, 7¾" long	3.45	2.41

(*Furnished with detachable lug connection for easy securing to large cables.)

GROUND CLAMP

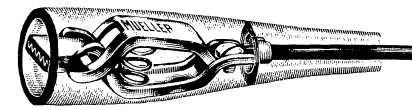


CLAMPIPE
No. 58

The ClamPipe will not spread, bend or lop over when applied. Point of large screw bites through corrosion into clean metal to insure good contact. Applicable to pipe ⅜" to 1⅜" O.D. The best ground clamp on the market!

EACH NET....$0.20 **LOTS OF 10....$0.14**

FLEXIBLE INSULATORS FOR CLIPS



A convenient protection against short circuit and electric shock. Colors help to distinguish leads. Packed half red and half black to indicate polarity. Long tail prevents breakage of wire. Constructed so that clip is held in firmly. NOW AVAILABLE also in blue, white, yellow and green at 10% above regular price are insulators marked * below.

Insulator No.	For Use with Clip No.	Each Net	Lots of 10
13*	11-A, 11-C	$0.80	$0.56
23*	21-A, 21-C	.40	.28
26*	24-A, 25, 25-C	.21	.15
29*	27, 27-C	.13	.09
32*	30, 30-C	.05	.03
35	33-C	2.93	2.05
36*	34, 34-C	.05	.03
47*	45, 45-C	.06	.04
49*	48-B, 48-C, 50-C, 51-C	.09	.065
62*	60, 60-S, 60-CS, 60PR-2 (also 70 Series)	.05	.035
72*	70, 70-S, 70-CS	.05	.035
87*	85, 85-C, 85-T	.06	.04
93	88	.12	.08

*Also available in blue, white, yellow and green.

MUELLER *QUALITY* BATTERY BOOSTER CABLE

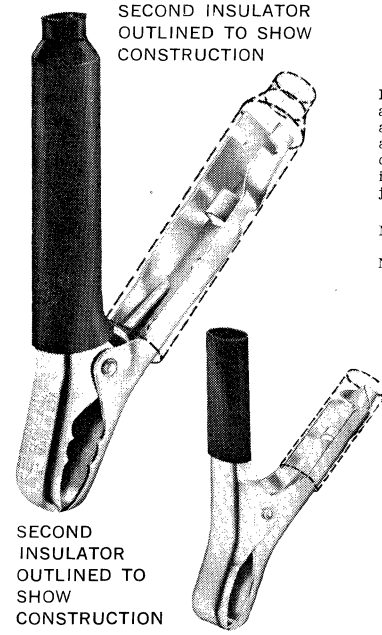
Highest quality cables, equipped with famous Hippo-Clips, for boosting "dead" 6 or 12-volt vehicle batteries with an external battery. Cables are pure copper, finely stranded for high flexibility and covered with rubber insulation which stays flexible in the coldest weather and resists oil, grease and acid. 413 strands of No. 30 wire in the 4-gauge cable and 259 strands of No. 30 wire in the 6-gauge cable. The many fine features of the Hippo-Clips alone are listed elsewhere on this page. The clips are both soldered to the cable and clinched around the cable insulation by means of clinching ears.

Packaged: pair of cables with clips in a bright, attractive display carton. Standard shipping container 10 cartons.

No. 8A6—8 ft., 6-gauge, with No. 41A Hippo-Clips (Steel, bright copper plated)
NET PRICE PER PAIR $4.50

No. 12A6—12 ft., 6-gauge, with No. 41A Hippo-Clips (Steel, bright copper plated)
NET PRICE PER PAIR.....$6.00

No. 12C4—12 ft., 4-gauge, with No. 41C Hippo-Clips (Solid Copper)
NET PRICE PER PAIR.....$11.40



HIPPO-CLIP

HIPPO-CLIP—For battery booster cables and fast chargers. Proved higher quality and superior design. Built-in solder strap and clinching ears for fast, sure cable connection. Supplied with vinyl handle insulators in red or black. Full 1-9/16" jaw spread. 6" long.

	Net price ea.
No. 41-A Steel, bright copper plated, 100 amp.	$ .45
No. 41-C Solid Copper, 200 amp.	.90

NEW!

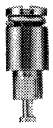
PIGMY HIPPO-CLIP

PIGMY HIPPO-CLIP—A new small plie clip for battery operated equipment an automotive test. Flat, wide handle allow positive grip. Won't "squirt away" Built-in solder strap and wire clinchin ears. Supplied with vinyl handle insulat ors in red or black. Ample 1⅛" jav spread. 3" long.

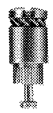
	Net price ea.
No. 46-A Steel, bright copper plated, 50 amp.	$ .1
No. 46-C Solid Copper, 75 amp.	.2

ntt NATIONAL TEL-TRONICS CORP.
YONKERS, N. Y.

NEW PRODUCTS



NEW
COMBINATION TERMINAL
STAKE-IN BINDING POST
Screw head, turret terminal. Knurled shank. Lockwasher. Nickel plated brass 15/16 long. Knurled end 7/32, tip 3/16. Screw ¼ 10-32. No. 1-872.



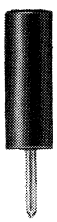
NEW
COMBINATION TERMINAL
STAKE-IN BINDING POST
Similar to above. 13/16 long. Knurled end 6/32, tip 3/16. Screw 1/4 8-32. No. 872.

NEW
COMBINATION BINDING POST
BANANA PLUG
Converts any standard jack into 5-way binding post. Molded fluted nylon head. Red or black. Captive head. Phosphor Bronze, nickel plated spring. 15/16 overall closed. No. 863.

NEW
COMBINATION BINDING POST
BANANA PLUG
Molded hex head. Otherwise same as above. 1-7/16 overall closed. No. 864. Available in red and black.

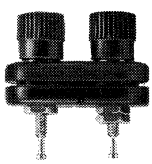
NEW
METAL BINDING POST
Captive head. Wrap-around terminal. Brass, nickle plated. Can be insulated from panel. Accepts phone tip, spade lug, banana plug, alligator clip, or wire strand. 1-5/32 overall length. No. 873.

NEW
METAL BINDING POST
Gold plated. Fluted brass. Molded black nylon insulator. 5-way, will accept phone, spade, banana, alligator or wire connector. No. 1-873.



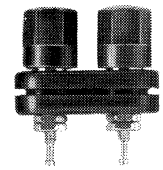
NEW
INSULATED TIP PLUG
Plastic handle. Black and red. Nickel plated brass body. Handle 1″, tip length 1/2″. No. 858.

NEW
INSULATED BANANA JACK
With wrap-around terminal. Molded bakelite. Red, white, blue, green, yellow, black. Brass, nickel plated. No. 846.



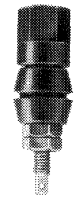
NEW
DUAL 5-WAY BINDING POST
Nylon gluted head. Red or black. Accepts phone, spade, banana, alligator, or wire connections. No. 2-878.

NEW PRODUCTS



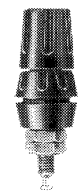
NEW
DUAL 5-WAY BINDING POST
Nylon hexagonal. Similar to preceding. No. 4-876. Available in red and black.

NEW
5-WAY BINDING POST
Molded nylon. Hexagonal head. Screw end. Accepts phone, spade, banana, alligator, or wire connection. No. 1-876. Available in red and black.

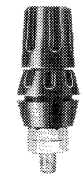


NEW
5-WAY BINDING POST
Molded nylon. Hexagonal head. Spade lug. Accepts phone, spade, banana, alligator, or wire connection. No. 2-876. Available in red and black.

NEW
4-WAY INDING POST
Molded nylon. Hexagonal head. Wrap-around lug. Accepts phone jack in head or shaft hole. Also alligator, spade, or wire connection. No. 3-876. Available in red and black.



NEW
5-WAY BINDING POST
Molded nylon. Fluted head. Wrap-around end. Accepts phone, spade, banana, alligator, or wire connection. No. 877. Available in red and black.



NEW
5-WAY BINDING POST
Molded nylon. Fluted head. Screw end. Accepts phone spade, banana, alligator, or wire connection. No. 1-877. Available in red and black.

NEW
5-WAY BINDING POST
Molded nylon. Fluted head. Spade end. Accepts phone, spade, banana, alligator, or wire connection. No. 2-877. Available in red and black.

NEW
5-WAY BINDING POST
Self-locking. Molded nylon. Fluted head. Screw end. Accepts phone, spade, banana, alligator or wire connection. No. 882. Available in red and black.

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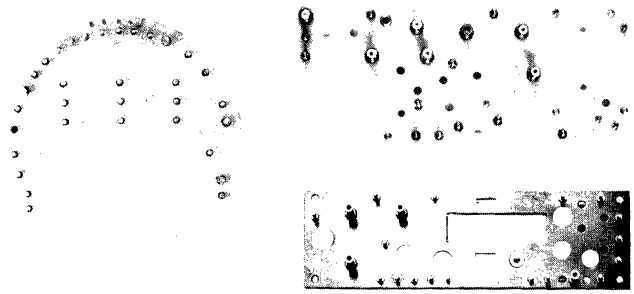
NATIONAL TEL-TRONICS CORP.
YONKERS, N. Y.

ntt

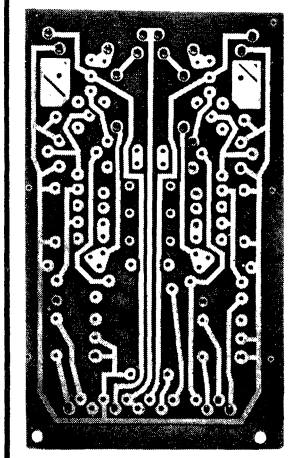
SPECIAL CUSTOM PRODUCTS

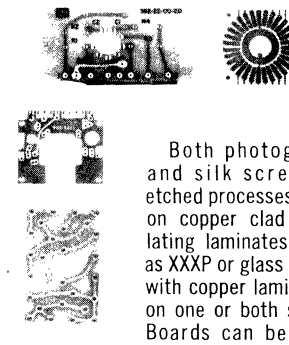
TERMINAL BOARDS



All terminal boards manufactured to rigid Commercial and Military specifications. Materials used include paper, cloth, glass or nylon laminates bonded with phenolic, silicone or melamine resins. Terminal boards can be supplied lacquered or varnished, printed, rubber stamped, silk screened, hot stamped, engraved or fungus proofed.

PRINTED CIRCUITS

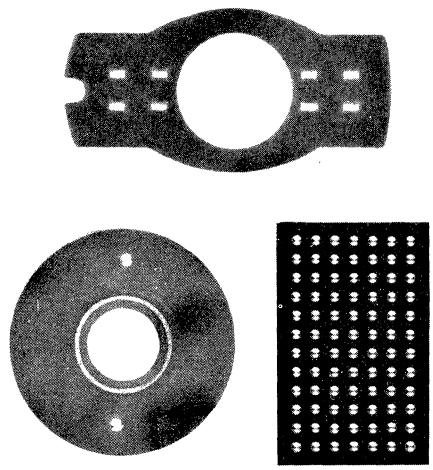




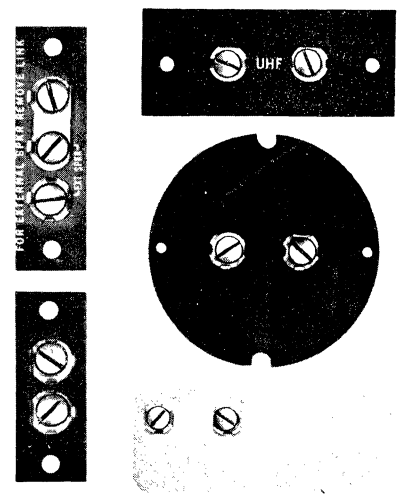
Both photograph and silk screened etched processes used on copper clad insulating laminates such as XXXP or glass epoxy with copper laminated on one or both sides. Boards can be supplied drilled or punched and with protective coatings to prevent oxidation. Various platings are also available such as gold, silver, albaloy and nickel Rhodium.

FABRICATED PARTS

National Tel-Tronics facilities include complete tool room and fabrication facilities to supply customers with all types of intricate and precisely machined or punched parts. Fabrication materials include all types of insulation materials and metals. Facilities are also available for all types of plating and lacquered, anodized or irridite finishes.

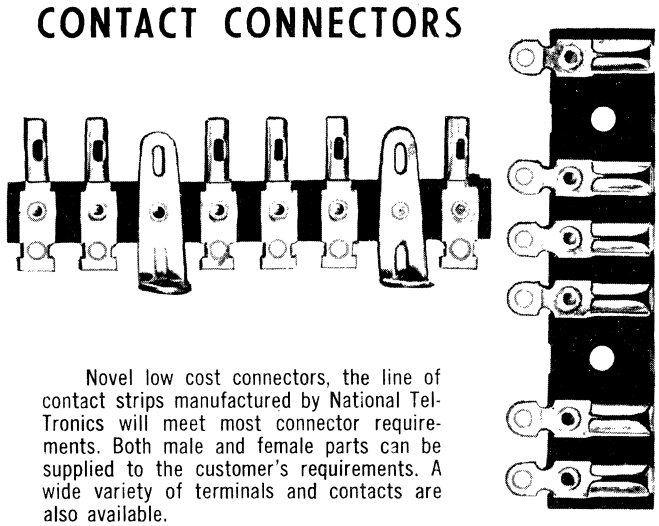


BINDING POST BOARDS



A complete line of binding post boards designed to meet the customers specifications. National Tel-Tronics facilities and engineering staff are highly qualified to assist the customer in the design and tooling of all shapes. Binding posts can be supplied marked, lacquered or fungus proofed.

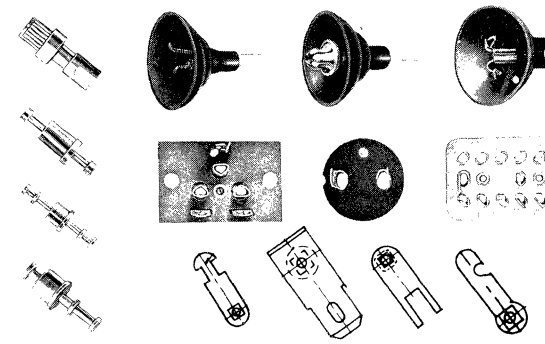
CONTACT CONNECTORS



Novel low cost connectors, the line of contact strips manufactured by National Tel-Tronics will meet most connector requirements. Both male and female parts can be supplied to the customer's requirements. A wide variety of terminals and contacts are also available.

Photos shown are not to size or scale

OTHER SPECIAL PRODUCTS



National Tel-Tronics manufactures a complete line of turret terminals designed to meet Commercial and Military specifications. Anode leads, both of the button and spring types are available to specifications. Inter-chassis and in-line connectors are available to the customer's requirements and specifications.

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ntt NATIONAL TEL-TRONICS CORP.
YONKERS, N. Y.

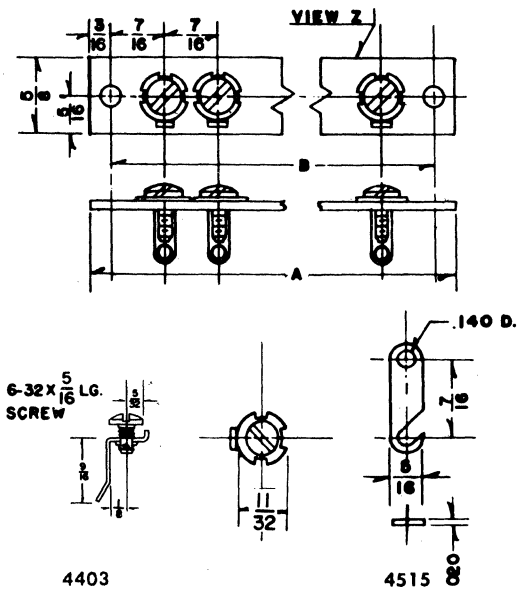
2404

2403 SPECIAL

BINDING POST BOARDS

Boards—1/16″ thick XP Laminated Phenolic, other grades of insulating material when specified. **Terminals**—1/32″ thick, brass, cadmium plated. **Screws**—Steel nickel plated.

2400 SERIES

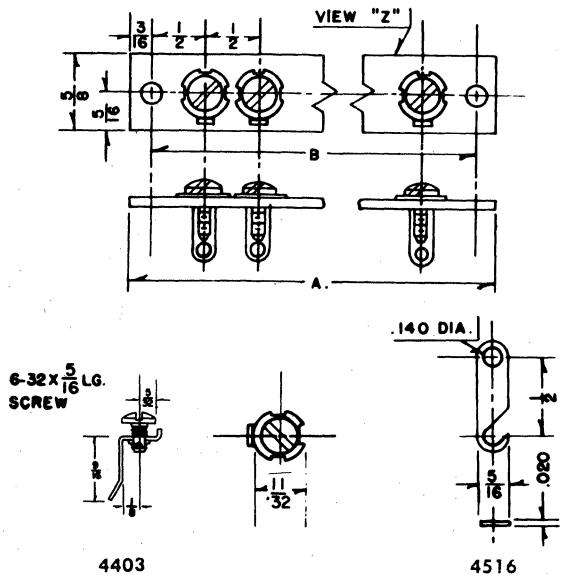


4403 4515

PART NO.	A	B	●LUG POSITIONS (AS PER VIEW "Z")											
			1	2	3	4	5	6	7	8	9	10	11	12
2401	1¼″	⅞″	o	●	o									
2402	1 11/16″	1 5/16″	o	●	●	o								
2403	2⅛″	1¾″	o	●	●	●	o							
2404	2 9/16″	2 3/16″	o	●	●	●	●	o						
2405	3″	2⅝″	o	●	●	●	●	●	o					
2406	3 7/16″	3 1/16″	o	●	●	●	●	●	●	o				
2407	3⅞″	3½″	o	●	●	●	●	●	●	●	o			
2408	4 5/16″	3 15/16″	o	●	●	●	●	●	●	●	●	o		
2409	4¾″	4⅜″	o	●	●	●	●	●	●	●	●	●	o	
2410	5 3/16″	4 13/16″	o	●	●	●	●	●	●	●	●	●	●	o
2411	5⅝″	5¼″	o	●	●	●	●	●	●	●	●	●	●	o
2412	6 1/16″	5 11/16″	o	●	●	●	●	●	●	●	●	●	●	●

O—INDICATES MOUNTING HOLE ●—INDICATES TERMINAL

2500 SERIES



4403 4516

PART NO.	A	B	●LUG POSITIONS (AS PER VIEW "Z")											
			1	2	3	4	5	6	7	8	9	10	11	12
2501	1⅜″	1″	o	●	o									
2502	1⅞″	1½″	o	●	●	o								
2503	2⅜″	2″	o	●	●	●	o							
2504	2⅞″	2½″	o	●	●	●	●	o						
2505	3⅜″	3″	o	●	●	●	●	●	o					
2506	3⅞″	3½″	o	●	●	●	●	●	●	o				
2507	4⅜″	4″	o	●	●	●	●	●	●	●	o			
2508	4⅞″	4½″	o	●	●	●	●	●	●	●	●	o		
2509	5⅜″	5″	o	●	●	●	●	●	●	●	●	●	o	
2510	5⅞″	5½″	o	●	●	●	●	●	●	●	●	●	●	o
2511	6⅜″	6″	o	●	●	●	●	●	●	●	●	●	●	●
2512	6⅞″	6½″	o	●	●	●	●	●	●	●	●	●	●	●

O—INDICATES MOUNTING HOLE ●—INDICATES TERMINAL

Photos shown are not to size or scale

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NATIONAL TEL-TRONICS CORP.
YONKERS, N. Y.

BINDING POST BOARDS
SCREW TYPE

2553 SPECIAL

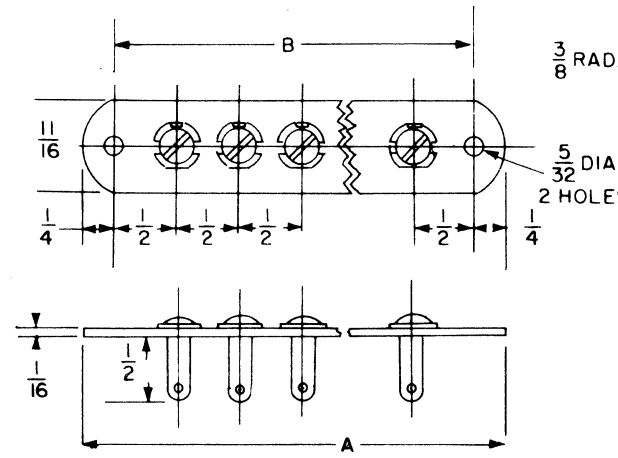
2554

Boards—1/16″ thick XP Laminated Phenolic, other grades of insulating material when specified. **Terminals**—1/32″ thick, brass, cadmium plated. **Screws**—Steel nickel plated.

2550 SERIES

PART NO.	A	B	● TERMINAL POSITIONS												
				1	2	3	4	5	6	7	8	9	10	11	12	13
2551	1½″	1″	o	●	o											
2552	2″	1½″	o	●	●	o										
2553	2½″	2″	o	●	●	●	o									
2554	3″	2½″	o	●	●	●	●	o								
2555	3½″	3″	o	●	●	●	●	●	o							
2556	4″	3½″	o	●	●	●	●	●	●	o						
2557	4½″	4″	o	●	●	●	●	●	●	●	o					
2558	5″	4½″	o	●	●	●	●	●	●	●	●	o				
2559	5½″	5″	o	●	●	●	●	●	●	●	●	●	o			
2560	6″	5½″	o	●	●	●	●	●	●	●	●	●	●	o		
2561	6½″	6″	o	●	●	●	●	●	●	●	●	●	●	●	o	
2562	7″	6½″	o	●	●	●	●	●	●	●	●	●	●	●	●	o

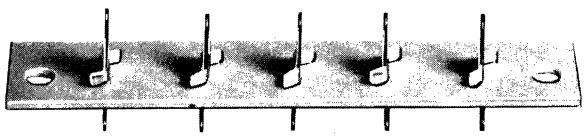
●—INDICATES TERMINAL O—INDICATES MOUNTING HOLE



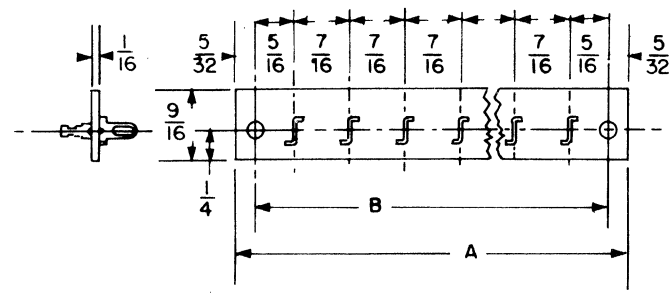
2620 SERIES (Double End)

PART NO.	A	B	TERMINAL POSITIONS								
				1	2	3	4	5	6	7	8	9
2621	15/16″	5/8″	o	ı	o							
2622	1 3/8″	1 1/16″	o	ı	ı	o						
2623	1 13/16″	1½″	o	ı	ı	ı	o					
2624	2¼″	1 15/16″	o	ı	ı	ı	ı	o				
2625	2 11/16″	2 3/8″	o	ı	ı	ı	ı	ı	o			
2626	3⅛″	2 13/16″	o	ı	ı	ı	ı	ı	ı	o		
2627	3 9/16″	3¼″	o	ı	ı	ı	ı	ı	ı	ı	o	
2628	4″	3 11/16″	o	ı	ı	ı	ı	ı	ı	ı	ı	o

ı—INDICATES TERMINAL POST O—INDICATES MOUNTING HOLE



Boards — 1/16″ thick XP laminated phenolic. Other grades of insulating material when specified.
Terminals—.025 brass, cadmium plated.



Photos shown are not to size or scale

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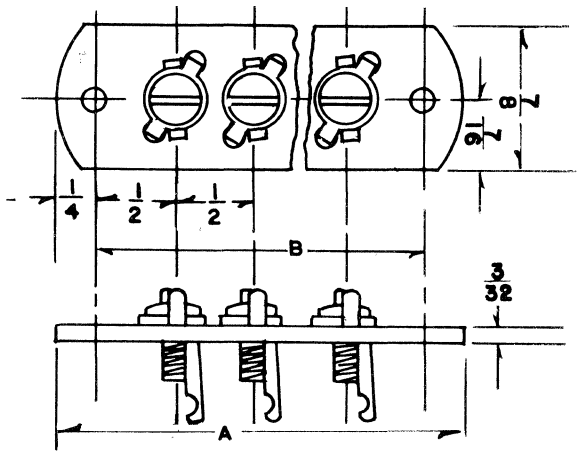
YONKERS, N. Y.

2703

2704

BINDING POST BOARDS
HEAVY DUTY – SCREW TYPE

STANDARD



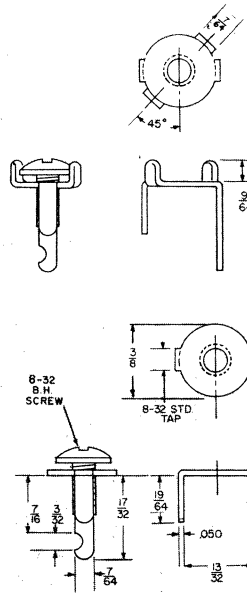
These #2700 binding post boards are used on heavy electronic equipment by an ever-increasing number of customers.

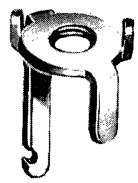
The boards are made from XP laminated phenolic sheet material 3/32" thick. Terminal No. 4418 made from .062 thick brass with steel or brass 8/32" x 3/8" screws. Boards may be marked or fungus proofed as desired.

PART NO.	A	B	POSITION OF LUGS									
			1	2	3	4	5	6	7	8	9	10
2701	1½"	1"	o	●	o							
2702	2"	1½"	o	●	●	o						
2703	2½"	2"	o	●	●	●	o					
2704	3"	2½"	o	●	●	●	●	o				
2705	3½"	3"	o	●	●	●	●	●	o			
2706	4"	3½"	o	●	●	●	●	●	●	o		
2707	4½"	4"	o	●	●	●	●	●	●	●	o	
2708	5"	4½"	o	●	●	●	●	●	●	●	●	o
2709	5½"	5"	o	●	●	●	●	●	●	●	●	o
2710	6"	5½"	o	●	●	●	●	●	●	●	●	o

O—INDICATES MOUNTING HOLE ●—INDICATES TERMINAL

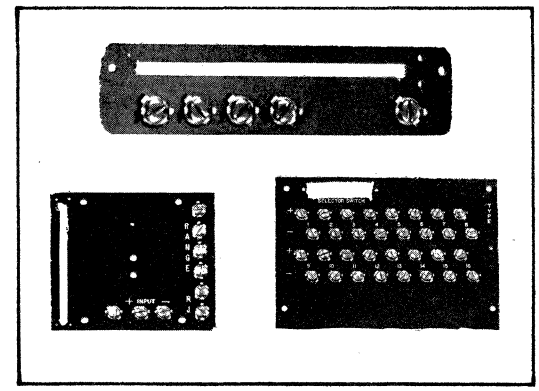
CUSTOM




4418

4419

Photos of boards shown on this page represent several binding post boards made to our customers' specifications. Our well facilitated tool room and highly qualified engineering staff are ready to assist you with your special requirements.



Photos shown are not to size or scale

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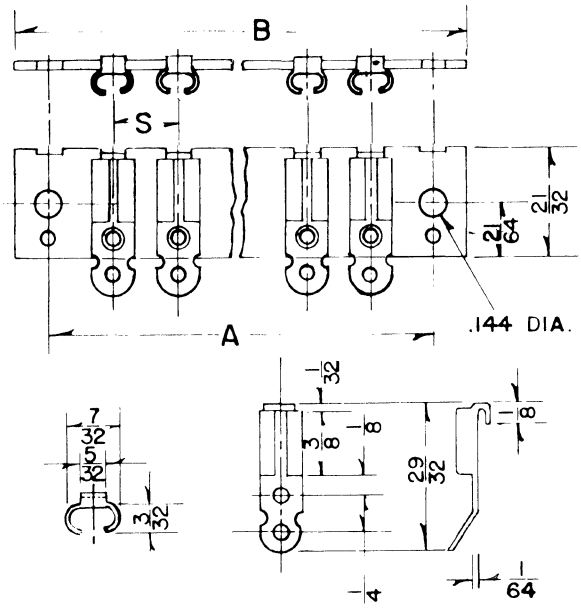
ntt

501 502 503 504

CONTACT STRIPS
500 & 550 SERIES

Contact strips are used as low cost connectors made in 3/8" and 1/2" spacing. Contacts will accommodate 1/8" or 5/32" pin plugs. Boards are furnished with .144 diameter mounting holes or may be supplied with metal brackets.

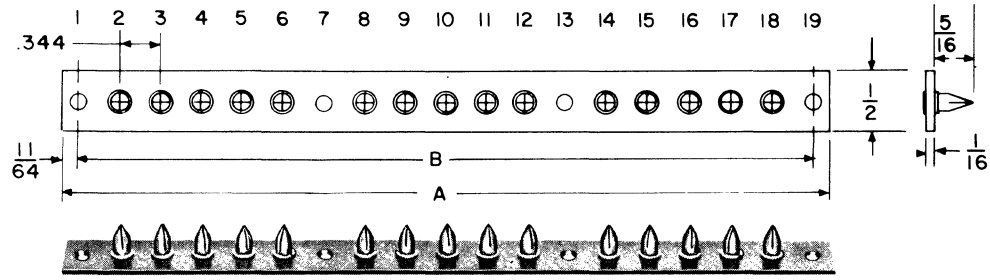


PART NO.	A	B	S	POSITIONS OF TERMINALS 1	2	3	4	5	6	
501	3/4"	1 1/8"	3/8"	o C	o					
502	1 1/8"	1 1/2"	3/8"	o C	C	o				
503	1 1/2"	1 7/8"	3/8"	o C	C	C	o			
504	1 7/8"	2 1/4"	3/8"	o C	C	C	C	o		
505	2 1/4"	2 1/2"	3/8"	o C	C	C	C	C	o	
506	2 5/8"	3"	3/8"	o C	C	C	C	C	C	o
507	1 1/8"	1 1/2"	3/8"	o C	D	o				
508	1 1/8"	1 1/2"	3/8"	o D	C	o				
509	1 1/2"	1 7/8"	3/8"	o C	C	D	o			
510	1 7/8"	2 1/4"	3/8"	o D	C	C	C	o		
551	1"	1 1/2"	1/2"	o C	o					
552	1 1/2"	2"	1/2"	o C	C	o				
553	2"	2 1/2"	1/2"	o C	C	C	o			
554	2 1/2"	3"	1/2"	o C	C	C	C	o		
555	3"	3 1/2"	1/2"	o C	C	C	C	C	o	
556	3 1/2"	4"	1/2"	o C	C	C	C	C	C	o
557	1 1/2"	2"	1/2"	o C	D	o				
558	1 1/2"	2"	1/2"	o D	C	o				
559	2"	2 1/2"	1/2"	o C	C	D	o			
560	2 1/2"	3"	1/2"	o D	C	C	C	o		

O—INDICATES MOUNTING HOLE

C=Contact for 1/8" Pin—4501
D=Contact for 5/32" Pin—4502

GRIP-TYPE CONICAL TERMINAL ASSEMBLIES
1600 SERIES



TERMINAL LUG and HOLE POSITIONS and SIZE OF STRIP

PART NO.	A	B	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1601	2.06	1.72	.136	⊕	⊕	⊕	⊕	.136													
1602	1.71	1.376	.136	⊕	⊕	⊕	.136														
1603	2.41	2.063	.136	⊕	⊕	⊕	⊕	⊕	.136												
1604	4.47	4.125	.136	⊕	⊕	⊕	⊕	⊕	.136	⊕	⊕	⊕	⊕	⊕	.136						
1605	2.75	2.406	.136	⊕	⊕	⊕	⊕	⊕	⊕	.136											
1606	3.784	3.44	.136	⊕	⊕	⊕	⊕	.136	⊕	⊕	⊕	⊕	.136								
1607	3.44	3.093	.136	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	.136									
1608	6.53	6.187	.136	⊕	⊕	⊕	⊕	⊕	.136	⊕	⊕	⊕	⊕	⊕	.136	⊕	⊕	⊕	⊕	⊕	.136

Photos shown are not to size or scale

denotes grip-type terminal

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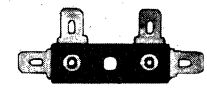
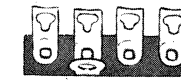
TERMINAL STRIPS

TT5TT

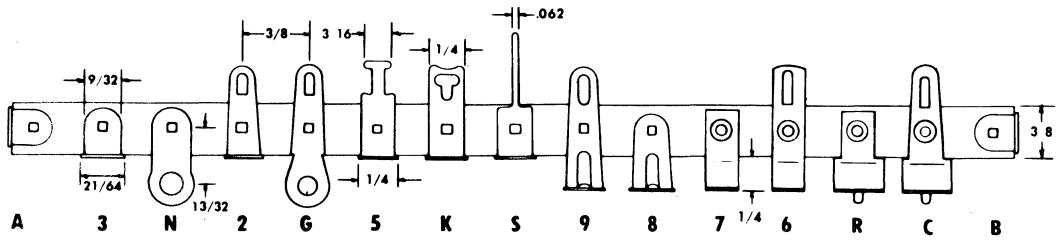

ZOL


UKUU

Custom Tie Lug Terminal Strips are fabricated to meet each customer's individual requirements. Made from NEMA grade XP laminated phenolic 1/16" thick by 3/8" wide. Brass or Steel lugs and mounting brackets are securely eyeletted in position at 3/8" or 1/2" spacing, arranged in desired sequence. Other insulation materials such as: XXP, XXXP, Canvas, Linen, Nylon, Paper Epoxy, Glass Epoxy, Glass Melamine and Silicone may be furnished on request. The insulation itself can be waxed or varnish impregnated if so specified. Lugs and brackets are cadmium plated unless otherwise specified. Hot tin, electro tin plate, cadmium over copper and tin plate over copper finishes for the lugs are available.

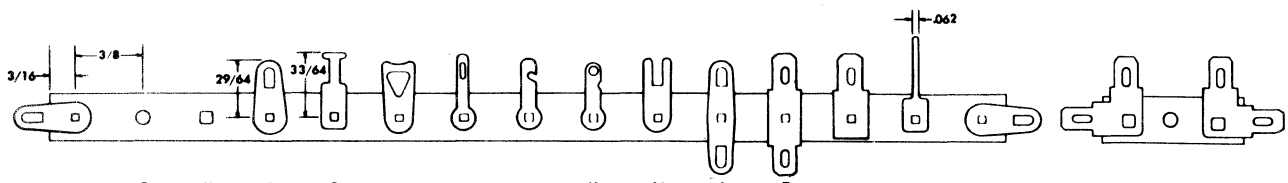
MOUNTING LUGS and BRACKETS

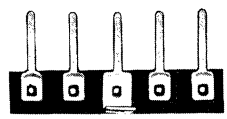
Mounting Holes .140 to .145 are standard. .170 and .199 mounting holes are available when requested.

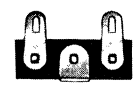


SOLDER, WIRE-A-WRAP AND FASTON LUGS

Lugs can be furnished BENT AT RIGHT ANGLE if desired.
X denotes square hole; no lug in that position. O denotes round hole; no lug in that position.




WWSWW


131

HOW TO DETERMINE PART NUMBERS

To arrive at the correct part number, for a Terminal Strip, refer to the drawings above and select the LETTERS or NUMBERS of the terminal, mounting lug or bracket desired; indicate them in the sequence desired, reading from left to right. May be supplied with as many as 16 lugs on a strip.

For example: In the photograph of terminal strips shown above, the first is "WWSWW." This means that the first two lugs are "W," the mounting lug is "S" and then two additional "W" lugs.

In the second strip, "131," the first lug is "1", the mounting lug is "3" and the last lug is "1".

Photos shown are not to size or scale

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ntt

M-V7VVV7V

M-VV3VV

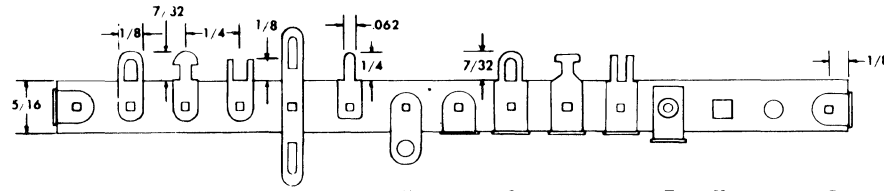
M-T3T

M-1121

TERMINAL STRIPS
M I N I A T U R E

National Miniature Terminal Strips are recommended for all applications where space is a factor. These strips are made of the same materials as the STANDARD Terminal Strips described on the opposite page except smaller. Strips are 1/16" by 5/16" wide NEMA grade XP laminated phenolic with brass lugs securely eyeletted in position. Lugs are supplied in any of the finishes used on the STANDARD series with the insulation likewise available in a choice of materials and finishes.

Mounting Holes .093 are standard. .125 mounting holes are available when requested.



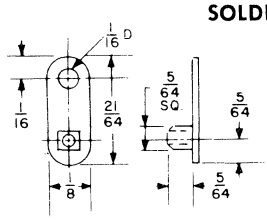
HOW TO DETERMINE PART NUMBERS

The identical system is used to determine the terminals, mounting lugs and brackets for the miniature series of terminal strips with one notable exception: in each instance the prefix "M" appears before the part number to designate miniature terminal strip. The LETTERS and NUMBERS are selected from those appearing on this page. May be supplied with 24 lugs on a strip.

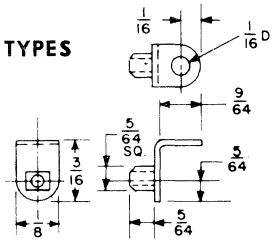
S U B - M I N I A T U R E

When importance is placed on space saving, Subminiature tie lug strips are selected. Indicate type desired.

SOLDER TYPES

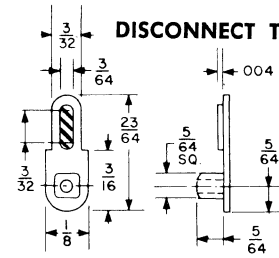


SM-1

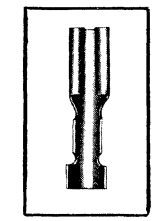


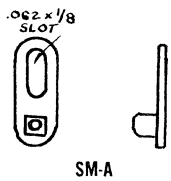
SM-3

DISCONNECT TYPE



SM-F


RECOMMENDED
Female Faston
Berg #T-3775
New Cumberland, Pa.



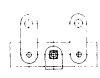
SM-A

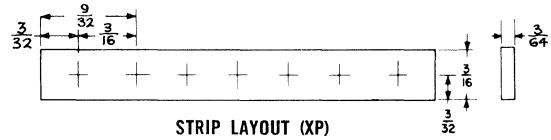
PART NO. PREFIX	TERMINAL COMBINATION				
SM	1	1	3	1	1
SM		●	●		
SM			●	●	
SM		●	●	●	
SM	●	●	●	●	
SM		●	●	●	●
SM	●	●	●	●	●

PART NO. PREFIX	TERMINAL COMBINATION				
SM	F	F	3	F	F
SM		●	●		
SM			●	●	
SM		●	●	●	
SM	●	●	●	●	
SM		●	●	●	●
SM	●	●	●	●	●

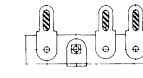
Chart indicates standard combinations

●—INDICATES TERMINAL


SM-131
ACTUAL SIZE



STRIP LAYOUT (XP)


SM-F3FF
ACTUAL SIZE

Photos shown are not to size or scale

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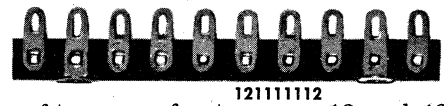
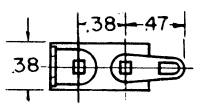
TERMINAL STRIPS

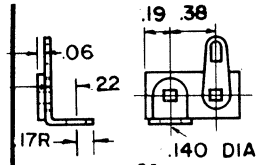

121111112

11311-1/2

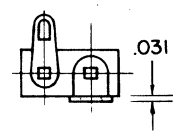
We have listed several combinations of terminal strips as Standard Stock items. For other combinations of terminals for strips, refer to pages 12 and 13 for detailed instructions. We welcome your inquiries on specials as well as standard items.



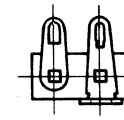
AD

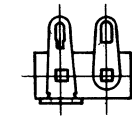


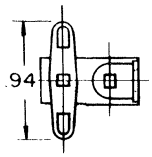
31



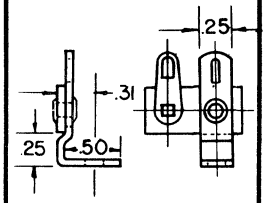
13


12

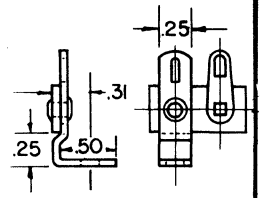

21



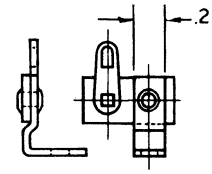
4B



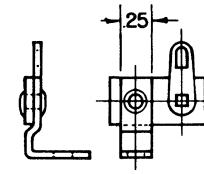
16



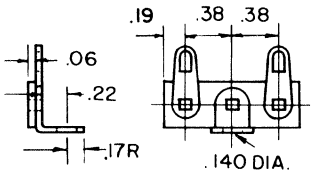
61



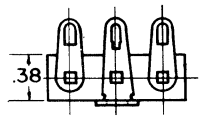
17



71



131



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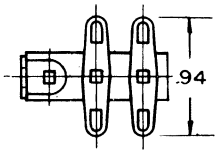

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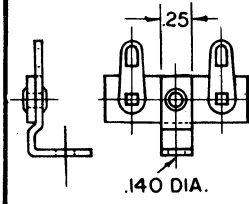

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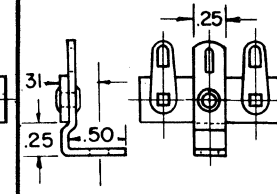

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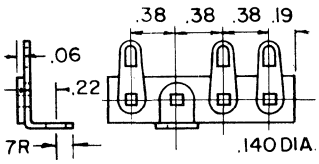

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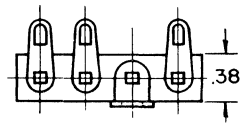

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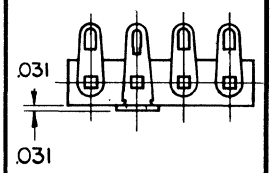

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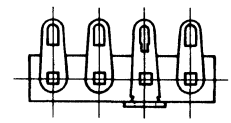
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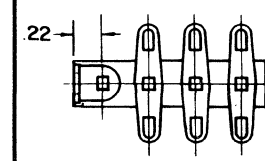

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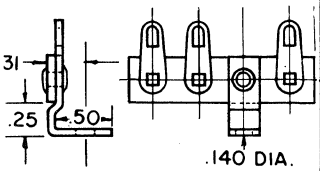

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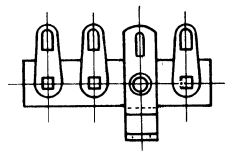
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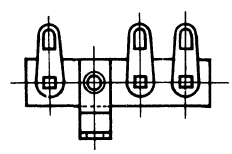
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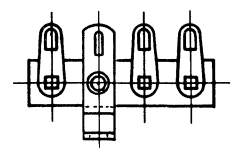
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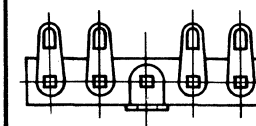
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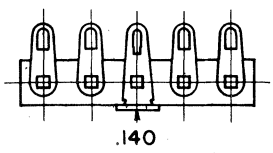

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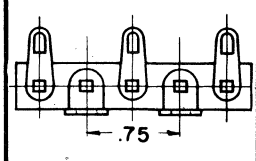

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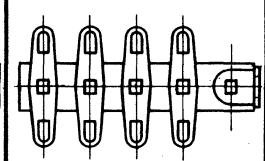
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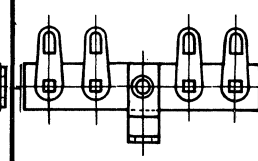
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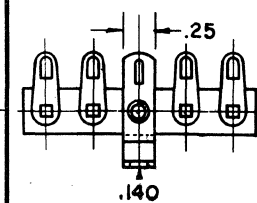

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YONKERS, N. Y.

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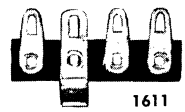
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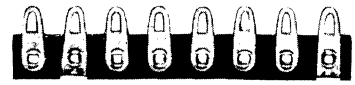
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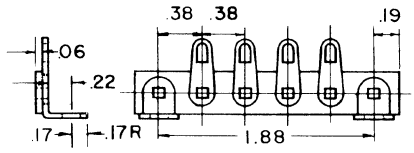

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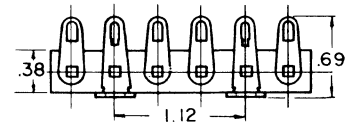

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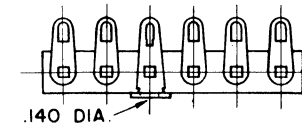

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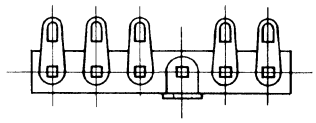
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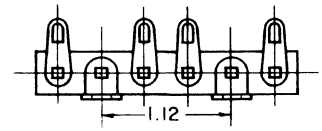

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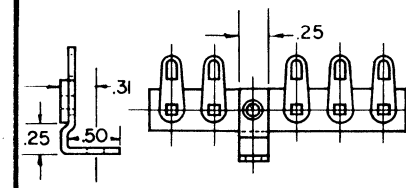

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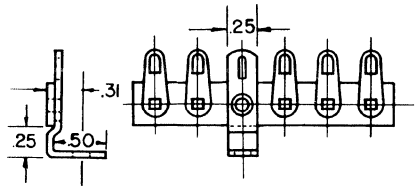

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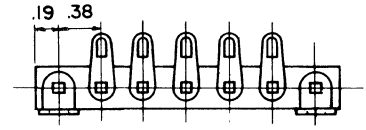

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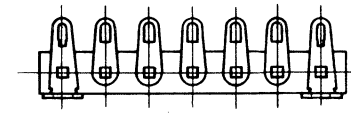
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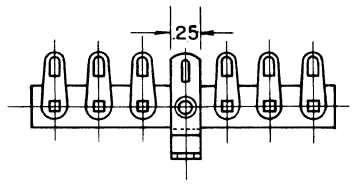

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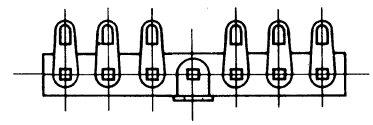
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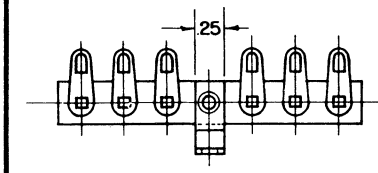

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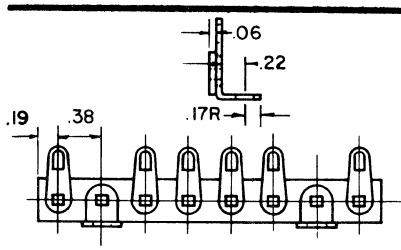

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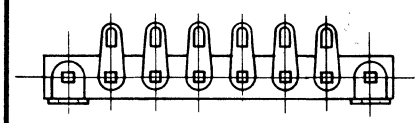
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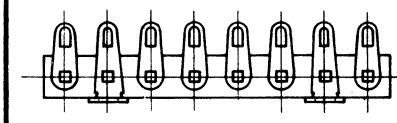
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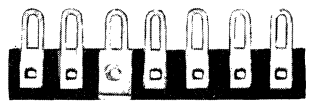
MINIATURE TERMINAL STRIPS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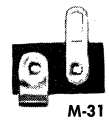
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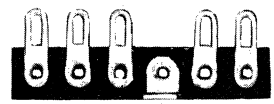
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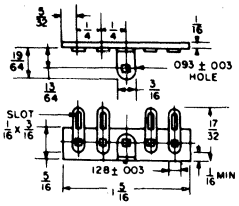

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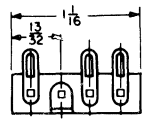

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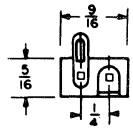

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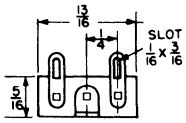

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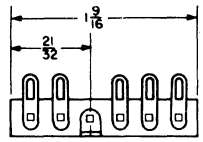

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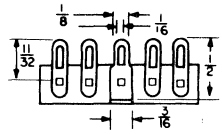

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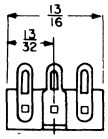

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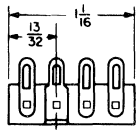

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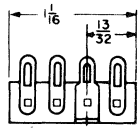

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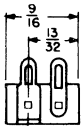

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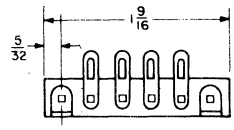

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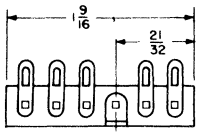

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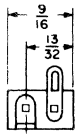

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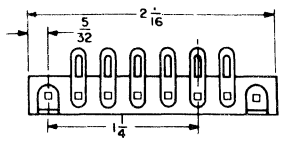

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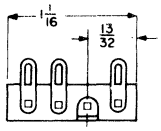

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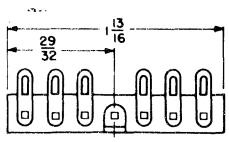

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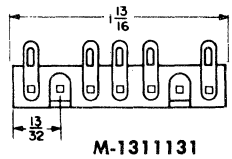

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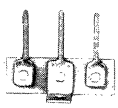
3/8" OR 1/2" SPACING—SPECIFY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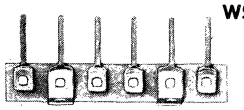
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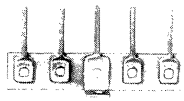
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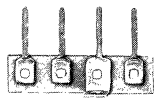
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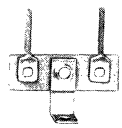
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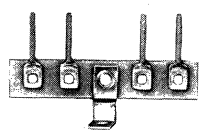
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ntt

SP-8

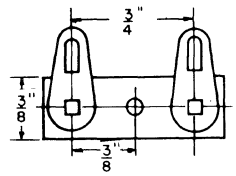
SP-10

101 SPEC

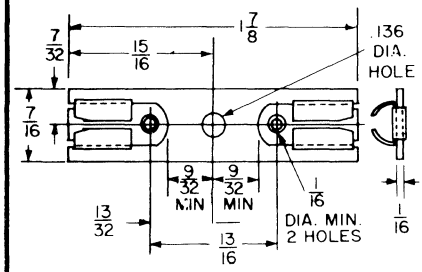
SPEAKER TERMINAL STRIPS

Strips shown on this page are most commonly used on speakers. Insulating strip made of 1/16" vulcanized fiber, terminals made of steel or brass cadmium plated, contacts made of spring steel tempered or spring brass cadmium plated.

Miniature crescent shaped speaker strips used for 2" speakers. Insulating strip made of 3/64" vulcanized fiber, terminals brass cadmium plated or hot tinned.



SP-1



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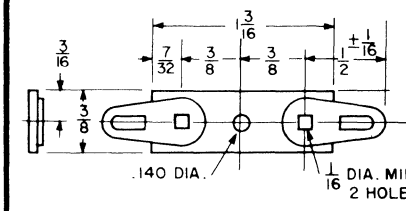

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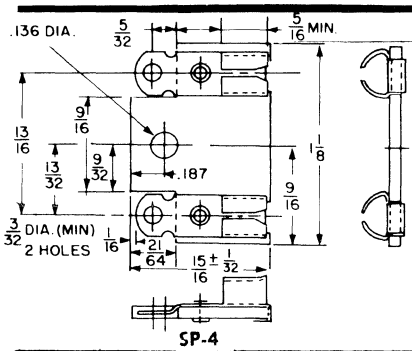

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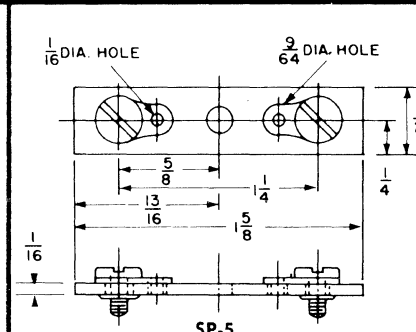

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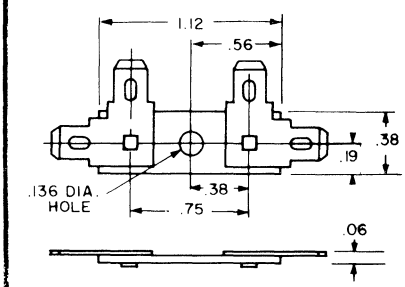

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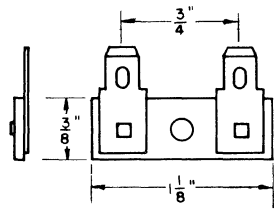
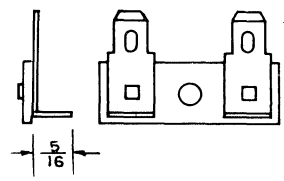


SP-9



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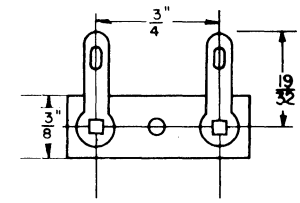

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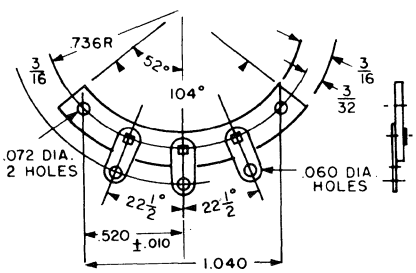

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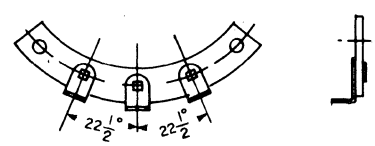

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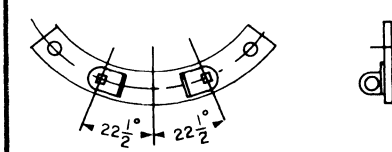

SP-20

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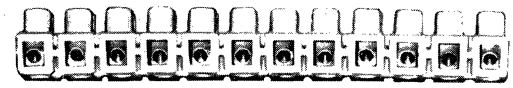
MOLDED TERMINAL BLOCKS



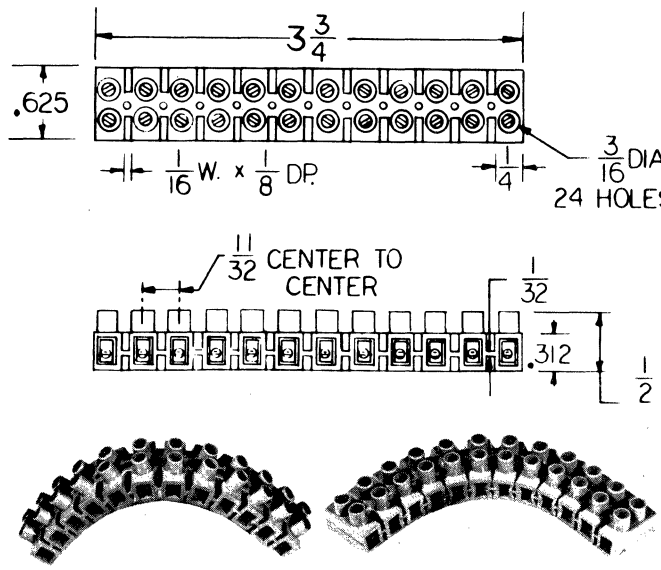
905 SERIES • FLEXIBLE

Type No. 905 Solderless Terminal Blocks are specially designed for applications where space and weight conservation are important factors. Because they are molded of flexible polyester material they may be bent in any direction to fit contours and sharp angles. Typical applications for these terminal blocks include missile guidance systems, computers, aircraft communications, underwater detecting equipment, etc.

The shortest distance between the live parts of Type No. 905 Terminal Block is 3/8". Its brass terminals will accommodate a #10 wire as a maximum. The polyester material of which the blocks are made is rated at 25 amperes.

Connection of the conductor to the block is simple. No solder is required. Insert the conductor in block and tighten the set screw.

Flexible Terminal Block No. 905 measures 3¾" long, 5/8" wide, ½" high and 11/32" between terminal centers. It may be cut to smaller sizes as required.



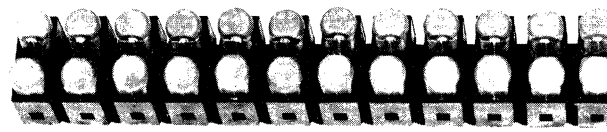
900 SERIES • PUSH BUTTON

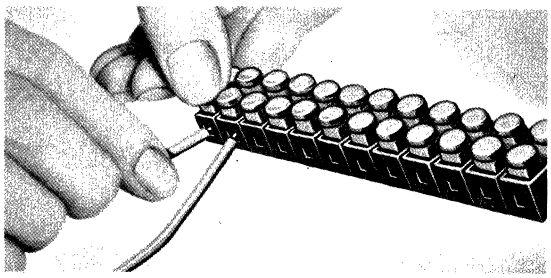
Like Type No. 905, the No. 900 Terminal Block is solderless, and is molded of black nylon plastic. The push buttons are molded of red nylon plastic.

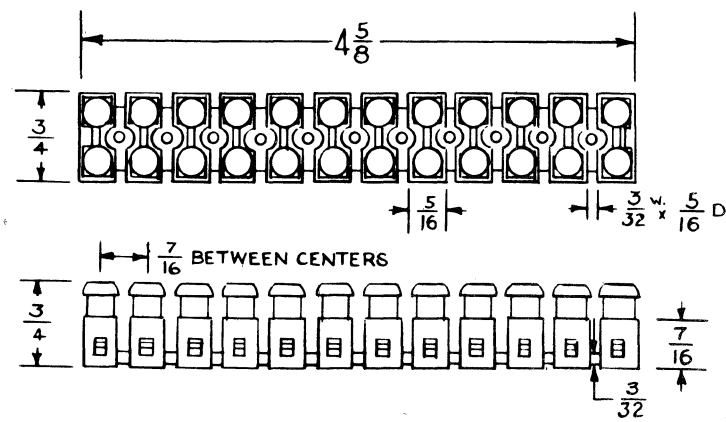
These terminal blocks have extremely high dielectric properties and are approved to resist 380 volts between terminals.

Connection of the conductor is extremely fast. Press the red button and insert the wire. Release pressure for locking. The beryllium copper contacts are molded into the block.

Type No. 900 Terminal Block is available for 12 connectors. It may be cut to smaller size if required.







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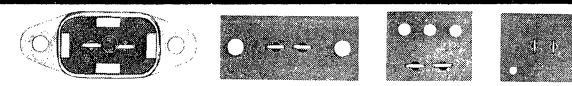
INTERLOCK RECEPTACLES



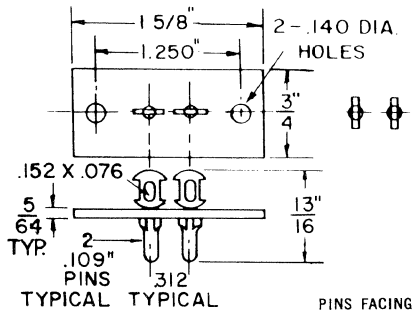
Flush type boards made from XP laminated phenolic, 5/64" and 3/32" thick.

Pins are made from ¼-hard brass wire cadmium plated. Solder ends of pins are flattened, pierced and trimmed to facilitate either a feed thru, wrap around or faston connection.

Bath tub shells made from .020 steel cadmium plated.

Polarized interlocks are made both in flush and bath tub styles.

Most items shown are approved by underwriter laboratories.



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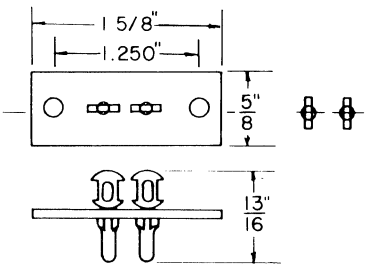
PINS FACING 714



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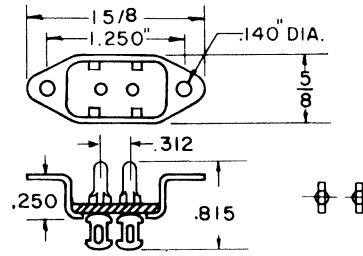

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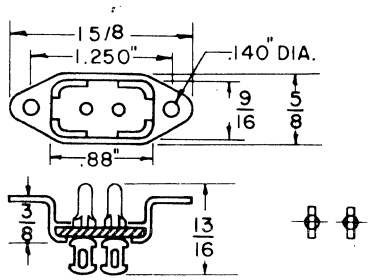

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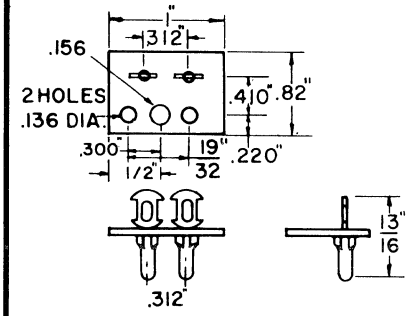
PINS FACING



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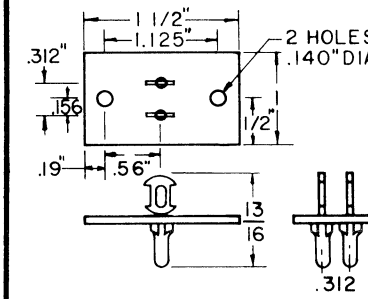

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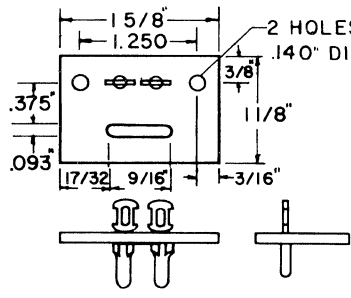

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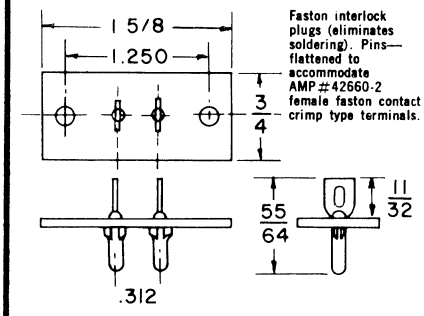

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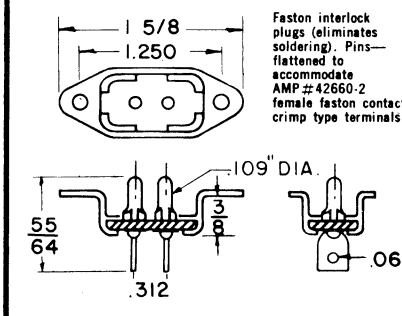

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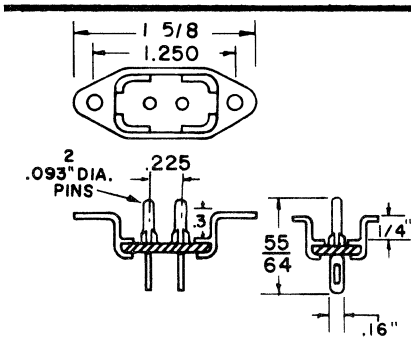

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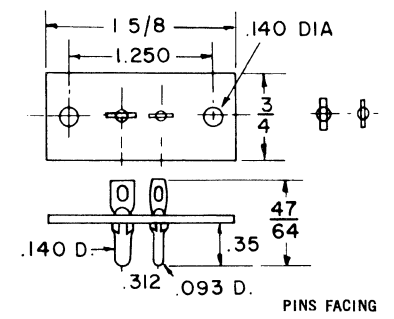

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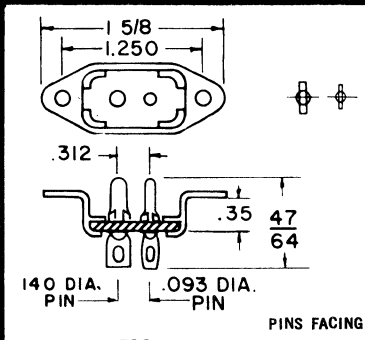

732

PINS FACING 733

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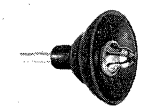
ANODE CONNECTORS

243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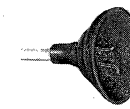
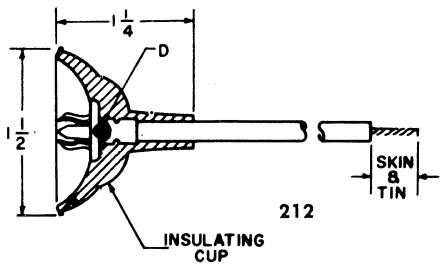

240

Anode Connectors are used as a connection between the High Voltage section of a T.V. set or oscilliscope and the second anode button on a cathode ray picture tube thus delivering the electric energy between those two points.

Refer to charts for type desired.

PART NO.	CONTACT POSITION	CONTACT TYPE	D ASSEMBLY METHOD	CLIP E MUSIC WIRE DIA.
212	180°	SNAP BUTTON	SOLDER	—
238	90°	WIRE CLIP STRAIGHT END	MECHANICAL	.041
240	180°	WIRE CLIP STRAIGHT END	MECHANICAL	.041
246	180°	WIRE CLIP ST. END SPIRAL	SOLDER	.051

Dash No. preceded by Part No. denotes customer's specified wire length, suction cup, neoprene. Example: Part No. 246-18". Specify wire size desired.



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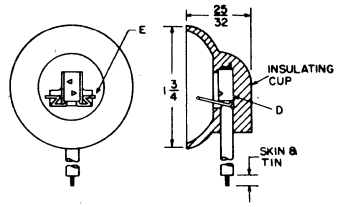

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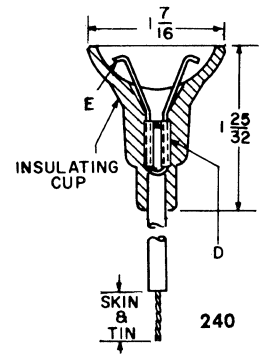

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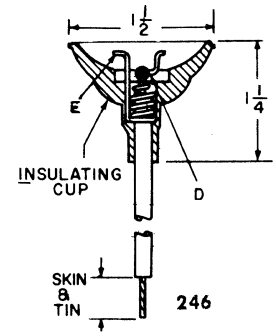
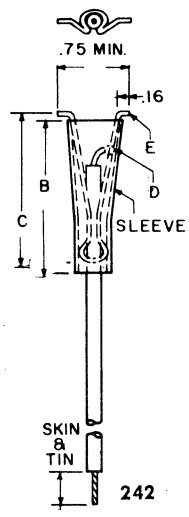


246

All anode connectors in this group assembled with vinyl insulating sleeves as shown in Part Nos. 242 to 245. Dash No. preceeded by Part No. denotes customer's specified wire length. Example: Part No. 245-18. Specify wire size desired.



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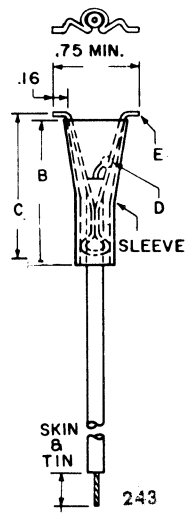

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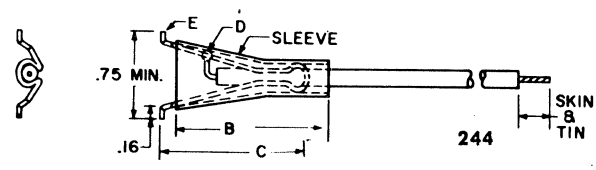

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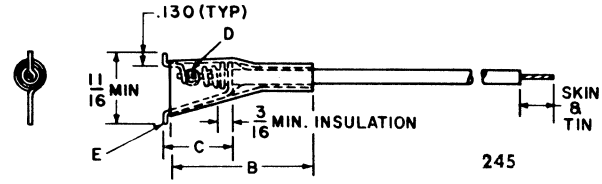

245

PART NO.	CONTACT POSITION	CONTACT TYPE	B	C	D ASSEMBLY METHOD	CLIP E MUSIC WIRE DIA
242	180°	WIRE CLIP STRAIGHT END	2	1 7/16	SOLDER	.051
243	90°	WIRE CLIP STRAIGHT END	2	1 7/16	SOLDER	.051
244	90°	WIRE CLIP STRAIGHT END	1 1/4	7/8	SOLDER	.051
245	180°	WIRE CLIP ST. END SPIRAL	1 1/2	21/32	SOLDER	.051

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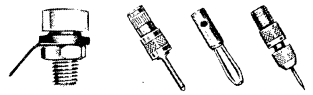
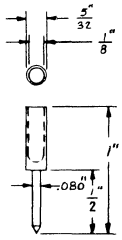
TIP PLUGS, BANANA PLUGS & JACKS



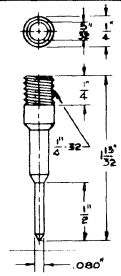
No. 801
PHONE TIPS
Solder Type

A nickel-plated brass solder type phone tip 1" long.



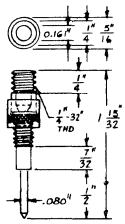
No. 802
TIP PLUG
Threaded, Heavy Duty

Nickel-plated brass with exceptionally large well for soldering. Threaded for easy assembly in plastic handle. Accepts standard phone tip jacks. Rear of plug accepts standard banana plugs.



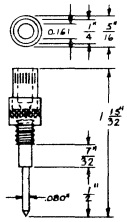
No. 805
SOLDERLESS TIP PLUG
Large, Threaded

A nickel-plated brass solderless tip plug. Wire fits through body of tip and is then wrapped around threaded portion and knurled collar tightened. Fits standard phone tip jacks and is threaded for easier assembly in plastic handle.



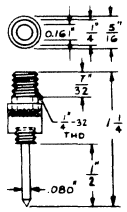
No. 806
SOLDERLESS TIP PLUG
Large, Knurled

A force-fit type nickel-plated brass tip plug. Fits standard phone tip jacks. Solderless, wire fits through tip body and then wrapped around screw portion. Knurled collar for tightening.



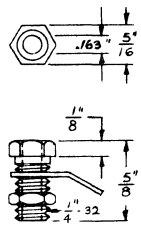
No. 807
SOLDERLESS TIP PLUG
Small, Threaded

Manufactured exactly like No. 805 Solderless Tip Plug except shorter. nickel-plated brass with wire going through tip, then wrapped around screw portion and held firmly by tightening knurled collar.



No. 813
BANANA JACK
Non-Insulated Type

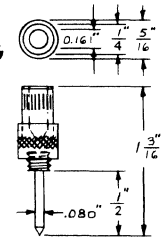
Mounting in 1/4" hole in any panel up to 3/8" thick, it will accept standard banana plug. Its body is HEX Brass, nickel-plated and is supplied with hex nut and tinned brass lug.



Photos shown are not to size or scale

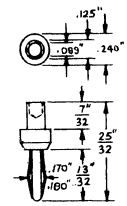
No. 808
SOLDERLESS TIP PLUG
Small, Knurled

A solderless, nickel-plated brass Tip Plug which fits standard phone tip jacks. Made exactly like No. 806 except shorter length. Wire fits through body tip, raps around screw portion and then tightened with knurled collar.



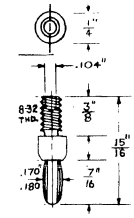
No. 809
MIDGET BANANA PLUG
Rivet Type

Nickel or silver-plated brass body with phosphor bronze spring. Fits all standard banana jacks.



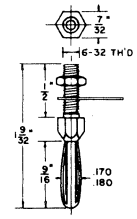
No. 814
MIDGET BANANA PLUG
Threaded Type

Nickel or silver-plated brass body with phosphor bronze spring.



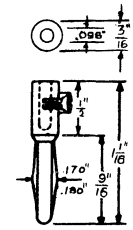
No. 811
BANANA PLUGS

Nickel plated hex brass body with phosphor bronze spring supplied with or without soldering lug and nut. Threaded stud for panel mounting.



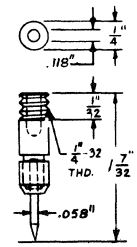
No. 812
BANANA PLUG
Solderless

Nickel-plated phosphor bronze spring. Side screw holds wire eliminating soldering. Accepts standard banana jacks. Threaded shank to fit plastic handle.



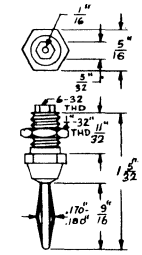
No. 866
NEEDLE TIP AND CHUCK

Nickel-plated brass body, nickel-plated steel needle. Chuck is removable for easy replacement. Needle pierces plating or corrosion for positive reading.



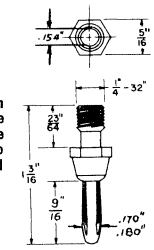
No. 815
BANANA PLUG
Phosphor Bronze

Nickel-plated hex brass body with phosphor bronze spring. Wire can be directly soldered to brass stud or directly to plug. Solderless connection is made possible because stud locks wire to plug.



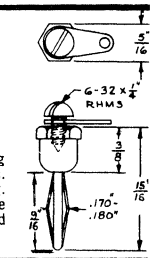
No. 816
BANANA PLUGS

Nickel plated hex brass body with phosphor bronze spring. Wire can be fed through side hole or can be soldered to brass stud. Threaded to facilitate the use of an insulated handle.



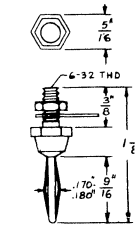
No. 819
BANANA PLUG
Threaded Hole

Nickel-plated brass banana plug fitting standard banana jacks. Four-leaf phosphor bronze spring. Threaded male enables it to be used on all size panels. Supplied with screw and tinned-brass lug.



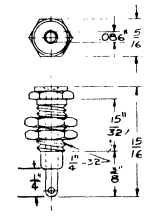
No. 821
BANANA PLUG
6-32 Thread, Lug, Nut

Nickel-plated brass banana plug which fits standard banana jack. Four-leaf, nickel-plated phosphor bronze spring. A hex nut and phosphor bronze lug are supplied. Stud is threaded for panel mounting.

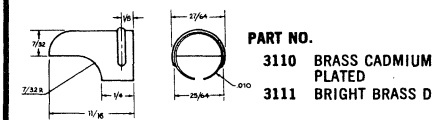


No. 810
PHONE TIP JACK
Non-Insulated Type

A nickel-plated brass body with a phosphor bronze spring, this phone tip jack provides positive contact with standard phone tip plug. Mounts in 1/4" hole in any panel up to 3/8" thick. Supplied with hex nut.



PILOT LIGHT SHIELD



PART NO.	
3110	BRASS CADMIUM PLATED
3111	BRIGHT BRASS D

These light shields direct the light to the desired area and prevent glare. Intended for use on radio receivers, tv receivers, meters and all electronic instruments, they are made with ribbed bottoms which hold the shields securely in position on the pilot light bulb. Made of brass, they are furnished brass, cadmium-plated or bright-dipped finish.

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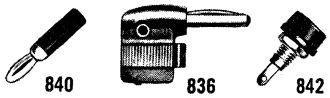
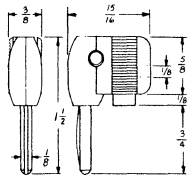
ntt NATIONAL TEL-TRONICS CORP.
YONKERS, N. Y.



TIP PLUGS, BANANA PLUGS & JACKS

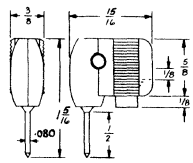
No. 836
INSULATED BANANA PLUG
Meter Type, Push Button

Nickel-plated brass body with nickel-phosphor bronze, slotted spring. Molded Bakelite handle in Red or Black. (Indicate color desired.) Push button, then feed conductor through hole. Release button, conductor is locked in position. Fits standard banana jacks.



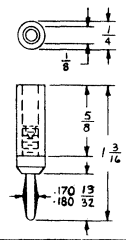
No. 837
INSULATED TIP PLUG
Meter Type, Push Button

Tip is brass, nickel-plated, with Molded Bakelite in Red or Black. (Indicate color desired.) Push button, then feed conductor through hole. Release button, conductor is held firmly in position. Fits standard phone tip jacks.



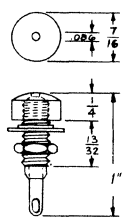
No. 840
INSULATED BANANA PLUG
Miniature Type

Fits standard banana jacks with wire soldered directly into stud. Machined Plastic handle in Red or Black. Indicate color desired. Nickel-plated brass plug with nickel-plated phosphor bronze spring.



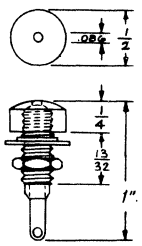
No. 842
PHONE TIP JACK
7/16" Diameter Head
Insulated Type

This nickel-plated brass body Phone Tip Jack has Molded Bakelite head in choice of colors: Black, Blue, Red, White, Yellow, Green. Indicate color desired. Spring of phosphor bronze. Positive contact with and acccepts standard phone tip plugs. Mounts in 5/16" hole in any panel up to 3/8" thick. Supplied complete with hex nut and fibre washer.



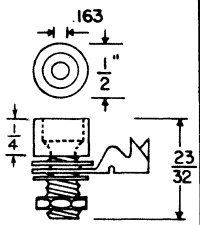
No. 843
1/2" Diameter Head

This nickel-plated brass body Phone Tip Jack has Molded Bakelite head in choice of colors: Black or Red. (Indicate color desired.) Spring of phosphor bronze. Positive contact with and accepts standard phone tip plugs. Mounts in 5/16" hole in any panel up to 3/8" thick. Supplied complete with hex nut and fibre washer.



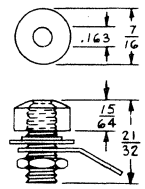
No. 844
BANANA JACK
Insulated Type

Molded Bakelite head in Red, Black and Blue. Indicate color desired. Nickel-plated brass body. Accepts standard banana plug. Mounts in any panel up to 3/8" thick in 5/16" hole. Supplied with hex nut, fibre washer lock washer and tinned brass lug.



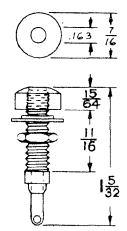
No. 845
BANANA JACK
Insulated Type

Molded Bakelite head in Red, White, Black, Blue, Green, Yellow. Indicate color desired. Nickel-plated brass body. Accepts standard banana plugs. Mounts in any panel up to 3/8" thick, in 5/16" hole. Supplied with hex nut, fibre washer and tinned brass lug.

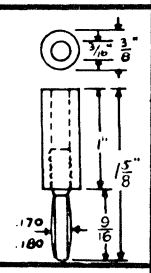


No. 848
INSULATED JACK
Combination Type

Accepts standard phone tip plugs or standard banana plugs. Molded Bakelite head in Red, Blue, Black, Yellow, Green, White. Indicate color desired. Nickel-plated brass body with phosphor bronze spring. Supplied with hex nut and fibre washer.

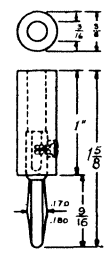


No. 851
INSULATED BANANA PLUG
Fits all standard banana jacks. Molded bakelite handle can be furnished in Red, Black and Blue. Four-leaved spring is made of phosphor bronze and in nickel-plated.



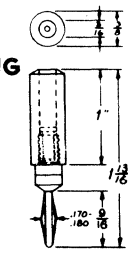
No. 852
INSULATED BANANA PLUG
wtih Side Screw

Fitting standard banana jacks, set screw holds wire without soldering. This Banana Plug has Molded Bakelite handle in Red, White, Black, Blue, Yellow or Green. Indicate color desired. Plug is nickel-plated brass with four-leaved phosphor bronze spring.



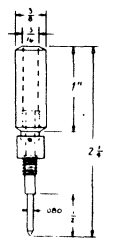
No. 853
INSULATED BANANA PLUG

Molded Bakelite handles in Red, White, Blue, Black, Yellow, Green. Indicate desired color. Nickel-plated brass body. Knurled collar when tightened holds wire which has been passed through body tip and wrapped around screw portion. Fits standard phone tip jacks.



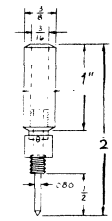
No. 855
SOLDERLESS TIP PLUG
Large Type

Handles of Molded Bakelite in choice of Red, Black, Yellow, White, Green, Blue. Indicate color desired. Nickel-plated brass body. Wire fits through body tip, wraps around screw portion and tightened with knurled collar. Fits standard phone tip jacks.



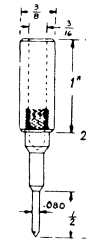
No. 856
SOLDERLESS TIP PLUG
Small Type

Molded Bakelite handles in Red, White, Blue, Black, Yellow, Green. Indicate desired color. Nickel-plated brass body. Knurled collar when tightened holds wire which has been passed through body tip and wrapped around screw portion. Fits standard phone tip jacks.



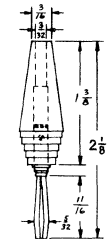
No. 857
TIP PLUG
Heavy Duty, Insulated

Nickel-plated brass plug with molded Bakelite handle. Large diameter well permits soldering of heavy duty wire directly into plug. Accepts standard phone tip jacks. Choice of Blue, Black, Red, Green, Yellow and White handle. Indicate color.



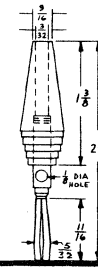
No. 860
INSULATED BANANA PLUG

Insulated banana plug with a flexible vinyl handle. Spring is nickel-plated phosphor bronze. Set screw in side of plug permits a solderless connection. Serrations on handle facilitate grip.



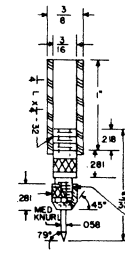
No. 862
INSULATED BANANA PLUG *Stack Type*

Stack type insulated banana plug with a flexible vinyl handle. Spring is phosphor bronze nickle-plated. Set screw in side of plug permits a solderless connection. Serrations on handle facilitate grip.



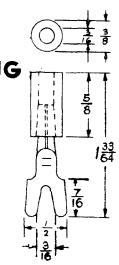
No. 868
INSULATED NEEDLE TIP PLUG

Molded Bakelite handles in Red, Black, Yellow, White, Green and Blue. Indicate color desired. Nickel-plated brass, body, nickel-plated steel needle. Chuck is removable for easy replacement. Needle pierces plating or corrosion for positive reading.



No. 870
INSULATED SPADE LUG

Red or Black casein handle. Indicate color desired. Hot-tinned steel lug is .030 thick. Banana plug can be inserted in spade lug through back of handle.



Photos shown are not to size or scale

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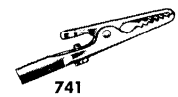
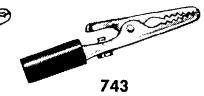
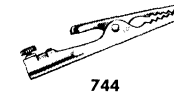
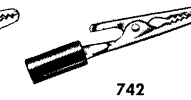
NATIONAL TEL-TRONICS CORP.
YONKERS, N. Y.

ALLIGATOR CLIPS

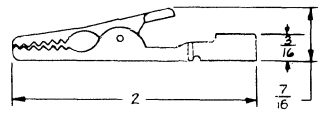

741


743


744

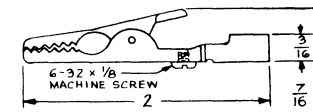

742

No. 740
ALLIGATOR CLIP
Solder Type



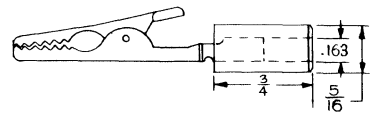
Cadmium-plated steel with 3/8" jaw opening. Accurately matched jaws grip securely.

No. 741
ALLIGATOR CLIP
Screw Type



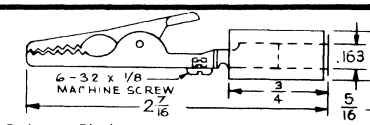
Screw supplied for solderless connection when required. Accurately matched, cadmium-plated steel jaws with 3/8" opening, provide secure grip.

No. 742
INSULATED ALLIGATOR CLIP
Solder Type



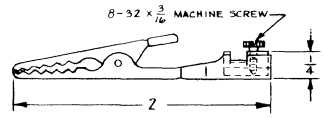
Accurately matched, cadmium-plated steel jaws, with 3/8" opening, provide secure grip. Red or Black Molded Plastic handle. Indicate color desired. Accepts standard banana plug in back.

No. 743
INSULATED ALLIGATOR CLIP
Screw Type



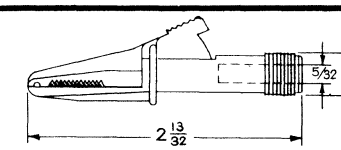
Molded Plastic handle in Red or Black. Indicate color desired. Accurately matched, cadmium-plated steel jaws opening 3/8" provide secure grip. Supplied with screw for solderless connection when required. Accepts standard banana plug in back.

No. 744
ALLIGATOR CLIP
Special Screw Type



Jaws of cadmium-plated steel open to 3/8" and grip securely. Supplied with screw for solderless connection.

No. 745
ALLIGATOR CLIP
Fully Insulated Type



Cadmium-plated steel jaws open to 3/8" and grip securely. Accepts standard banana plug in back. Can be supplied in Red or Black.

NYLON TIP JACKS

Available Colors: Red, Black, Green, Blue, White, Orange, Yellow.

888

883

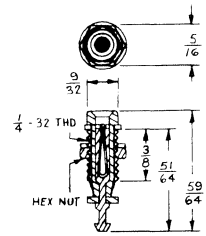
887

886

884

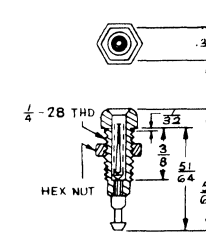
885

No. 883
NYLON TIP JACK
Wrap Around Type
with Metal Shell



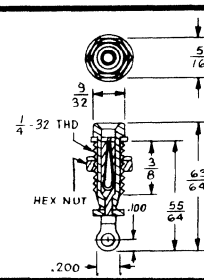
Molded nylon tip jack with metal shell eliminates the possibility of threads stripping during assembly. Indicate color desired; see above.

No. 886
ALL NYLON TIP JACK
Wrap Around Type



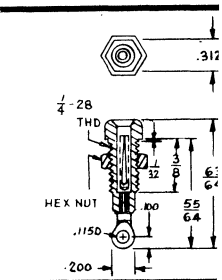
Completely molded. Accepts all standard phone tip plugs. Contact recessed in hexagon head for safe contact and for grip in tightening. Mounts in panels up to 1/4" thick in 1/4" hole. Nylon Grade FM 10001 is used for body. Nickel-plated brass hex nut. Indicate color desired, see above.

No. 884
NYLON TIP JACK
Spade Terminal Type
with Metal Shell



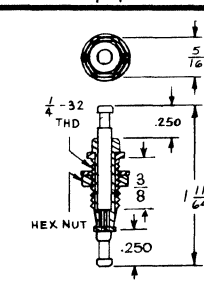
Metal shell eliminates the possibility of threads stripping during assembly. Indicate color desired; see above.

No. 887
ALL NYLON TIP JACK
Spade Terminal Type



Completely molded. Accepts all standard phone tip plugs. Contact recessed in hexagon head for safe contact and for grip in tightening. Mounts in panels up to 1/4" thick in 1/4" hole. Nylon Grade FM 10001 is used for body. Center contact is heat treated silver-plated phosphor bronze. Nickel-plated brass hex nut. Indicate color desired; see above.

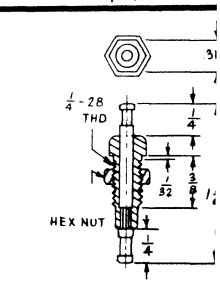
No. 885
NYLON TIP JACK
Feed-Through Type
with Metal Shell



Thread stripping during assembly is eliminated with metal shell. Indicate color desired; see above.

Photos shown are not to size or scale

No. 888
ALL NYLON TIP JACK
Feed-Through Type



Completely molded. Contact recessed in hexagon head for both safe contact and grip in tightening. Mounts in panels up to 1/4" thick, in 1/2" hole. Nylon Grade FM 10001 for body. Center contact is tin-plated brass. Nickel-plated brass hex nut. Indicate color desired; see above.

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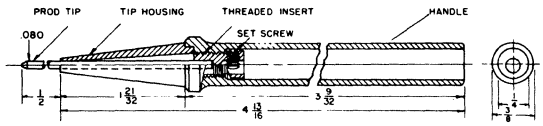
ntt NATIONAL TEL-TRONICS CORP.
YONKERS, N. Y.

TEST PRODS

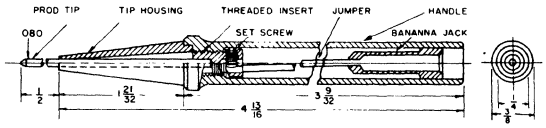
TEST PROD No. 891



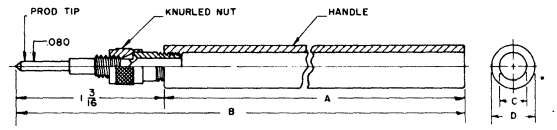
Shouldered insulated handle made of bakelite. Tip made of nickel-plated brass has set screw in side for securing conductor and thus making a solderless connection. Tip screw into handle. Available in Red and Black. Indicate color.

TEST PROD No. 892
With Banana Plug Adaptor

Same as No. 891 except with a banana plug adapter in back of handle.



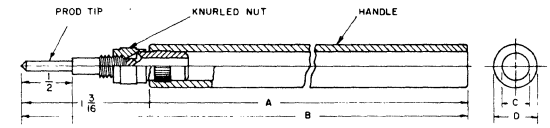
TEST PROD; SOLDERLESS THREADED TYPE



PART NO.	'A' HANDLE	'B' OVERALL	'C' I.D.	'D' O.D.
894	4	5¼	3/16	3/8
895	4	5¼	¼	3/8
991	5½	6⅞	3/16	3/8
992	5½	6⅞	¼	3/8

Handle; Molded Plastic, Red or Black #805 Solderless tip; nickel plated brass solderless tip plug. Wire fits through body and is then wrapped around threaded portion and knurled collar tightened. Fits standard phone tip jacks and is threaded for easier assembly into handle.

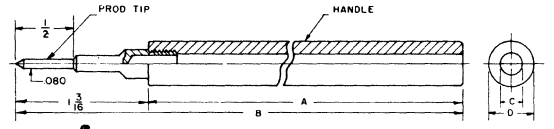
SOLDERLESS TEST PROD — *Force Fit Type*



PART NO.	'A' HANDLE	'B' OVERALL	'C' I.D.	'D' O.D.
896	4	5¼	3/16	3/8
904	4	5¼	¼	3/8
993	5½	6⅞	3/16	3/8
994	5½	6⅞	¼	3/8

Handle; molded plastic, Red or Black #806 Solderless Tip; force fit nickel plated brass tip plug. Fits standard phone tip jacks. Solderless wire fits through tip body and then wraps around screw portion. Knurled collar for tightening.

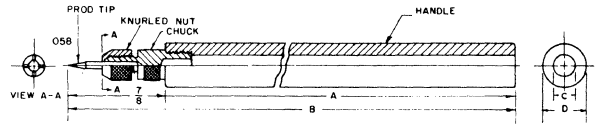
TEST PROD — HEAVY DUTY SOLDER TYPE



PART NO.	'A' HANDLE	'B' OVERALL	'C' I.D.	'D' O.D.
897	4	5 3/16	3/16	3/8
898	4	5 3/16	¼	3/8
995	5½	6 11/16	3/16	3/8
996	5½	6 11/16	¼	3/8

Handle; Molded Plastic, Red or Black #802 Solder tip; Heavy duty nickel plated brass with exceptionally large well for soldering, threaded for easy assembly in handle. Fits standard phone tip jack.

TEST PROD — PHONO NEEDLE TYPE



PART NO.	'A' HANDLE	'B' OVERALL	'C' I.D.	'D' O.D.
901	4	4⅞	3/16	3/8
902	4	4⅞	¼	3/8
997	5½	6⅜	3/16	3/8
998	5½	6⅜	¼	3/8

Handle; molded plastic, Red or Black #866 Tip; Phono Needle type with nickel plated brass body and nickel plated steel needle. Chuck is removable for easy replacement. Needle pierces plating or corrosion for positive reading.

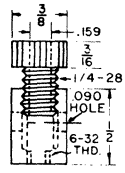
BINDING POSTS

874 METAL BINDING POST

HEAD: BRASS nickel plated.

BODY: Brass nickel plated.

DESCR.: Accepts standard phone tips or banana plugs.

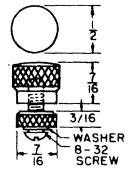


875 METAL BINDING POST

HEAD: BRASS nickel plated.

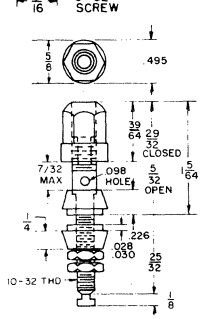
WASHER: Brass nickel plated.

DESCR.: Supplied complete with screw and lockwasher.



876 WRAP AROUND TYPE

Designed to accept phone tip plug, spade lug, banana plug, alligator clip and wire strand. Direct solder connection. Molded nylon head (non-removable from stud) and washer completely insulates post from panel. Mounts in ½" or keyed hole for panels 1/16-1/4" thick. Nickel-plated brass metal parts. Molded-in brass bushings in head and washers. Indicate color: Red, Black, Yellow, Blue, White, Green, Rated 2,000 volts a-c RMS test. 30 amp safe current-carrying capacity.

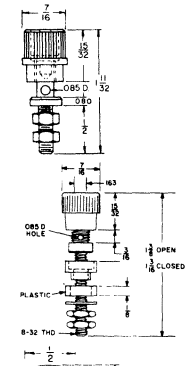


878 5-WAY GROUNDING TYPE

Designed to accept phone tip plug, banana plug, spade lug, alligator clip, wire strand. Indicate color desired of molded plastic, captive head: Red, Black. 8-32 threaded stud. Nickel-plated brass body and insert in head.

879 FULLY INSULATED TYPE

Designed to accept phone tip plug, banana plug, spade lug, alligator clip, wire strand. Molded plastic captive head in Red or Black; indicate color desired. Nickel-plated brass body. Molded plastic washers with nickel-plated brass inserts. 8-32 threaded stud. Mounts in panel with milled slot for locking in 5/16" hole; supplied with two hex nuts.

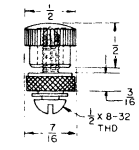


880 BINDING POST

HEAD: MOLDED bakelite with molded-in brass threaded insert, Red or Black. SPECIFY COLOR.

WASHER: Brass, nickel plated.

DESCR.: Supplied complete with screw and lockwasher.

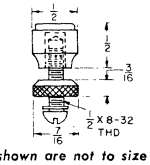


881 BINDING POST

HEAD: MOLDED bakelite with molded-in brass threaded insert, Red, Black. SPECIFY COLOR.

WASHER: Brass, nickel plated.

DESCR.: Supplied complete with screw and lockwasher.



Photos shown are not to size or scale

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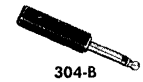
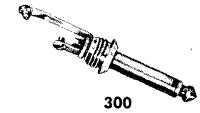
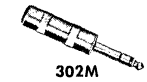
YONKERS, N. Y.

ntt

PHONE PLUGS



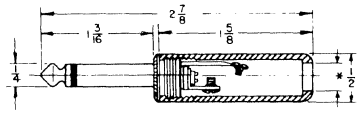




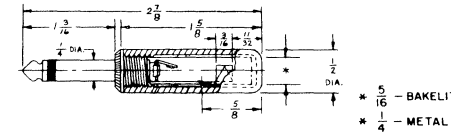
TWO & THREE CONDUCTORS

Widely used in hi-fi equipment, tape recorders, dictaphone machines, etc. Molded plastic shells in Red or Black are supplied for numbers 300, 301 and 302. These plugs can also be supplied with metal handle. Use the following code in ordering handle.

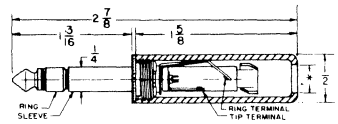
B=Black R=Red M=Metal Handle



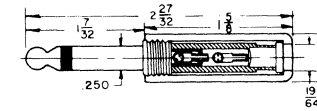
300 Two conductor Screw type accommodates two conductor jacks #336 and #337.



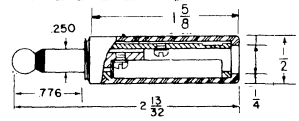
301 Two conductor Solder type accommodates two conductor jacks #336 and #337.



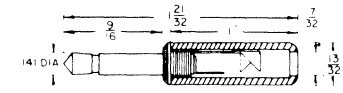
302 Three conductor Solder type accommodates three conductor jacks #338 and #339.



304 Two conductor solder type made to PJ055 military specification. Solder terminals are silver plated to facilitate soldering. Supplied with Black or Red insulated handle.

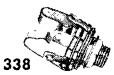


305 Two conductor solder type made to PJ054 military specification. Solder terminals are silver plated to facilitate soldering. Supplied with Red or Black Insulated Handle.



307 Two conductor solder type. Accommodates sub miniature jacks #311 and #313 May be supplied with Red, Black or White handles.

PHONE JACKS

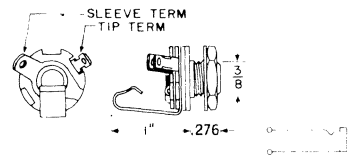


TWO & THREE CONDUCTORS

These telephone jacks are of two basic types, open circuit and closed circuit and are available as two conductor and three conductor jacks. The nickel plated special spring brass springs are designed to retain their tension throughout unlimited use. The standard size jacks mount in ⅜" holes.

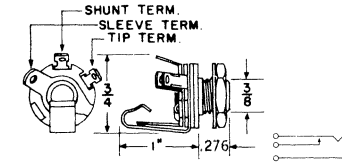
336

Two Conductor, open circuit; will accommodate plugs #300, 301 and 304.



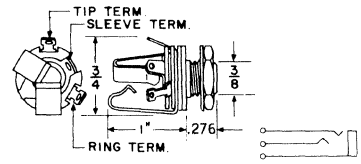
337

Two Conductor, closed circuit; Will accommodate plugs #300, 301 and 304.



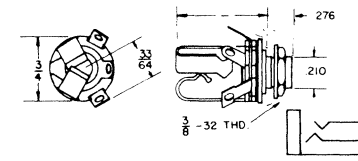
338

Three Conductor, open circuit; will accommodate plug #302.



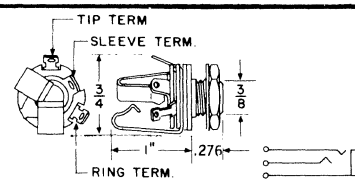
338-A

Three Conductor, open circuit with .210 I.D. Will accommodate plug #PJ068.



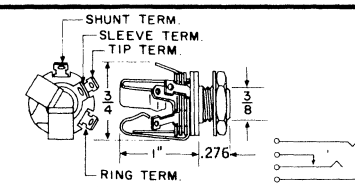
338-B

Three Conductor open circuit with Bright Brass Bushing. Will accommodate plug #302.



339

Three Conductor closed circuit; Will accommodate plug #302.

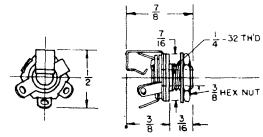


SUB-MINIATURE JACKS — FOR MINIATURE ELECTRONIC APPLICATION

Tape Recorders Computing Machines Dictating Machines Miniature Radios Despite their tiny size (about one third that of standard models) these subminiature jacks are precision made and are ruggedized for all electronic applications. Mounting bushings are made of nickel plated brass and require ¼" diameter mounting holes. Insulators are laminated phenolic and spring contacts are silverplated.

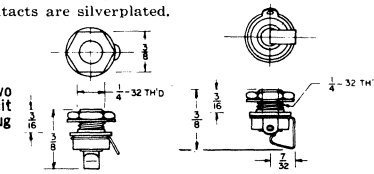
311

Subminiature Phone Jack two conductor closed circuit will accommodate plug #307.



313

Subminiature Jacks, two conductor open circuit will accommodate plug #307.



Photos shown are not to size or scale

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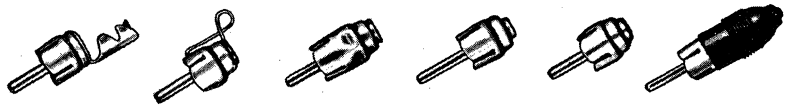

PHONO PLUGS

SHELLS—.016 Brass or Steel Cadmium Plated, designed to have a wiping action with mating part, for good ground.

PINS—Drawn brass bright nickel plated.

INSULATOR WASHER — .062 thick fibre. IF low loss material is desired for insulating washer add "L" to part #. Example #36A with low loss washer would be #36AL.

PART NO.	A	B	C	D	FIG.
36A	1/8	.175	11/16	15/16	1
36B	1/8	.175	3/8	5/8	1
36C	1/8	.175	9/16	13/16	1
37A	1/8	.145	11/16	15/16	1
37B	1/8	.145	3/8	5/8	1
37C	1/8	.145	9/16	13/16	1
38A	1/8	.125	11/16	15/16	1
38B	1/8	.125	3/8	5/8	1
38C	1/8	.125	9/16	13/16	1
39A	1/8	.125	9/16	53/64	2
39B	1/8	.145	9/16	53/64	2
39C	1/8	.175	9/16	53/64	2
40A	1/8	.125	11/16	57/64	2
40B	1/8	.145	11/16	57/64	2
40C	1/8	.175	11/16	57/64	2
41A	1/8	.125	3/8	41/64	2
41B	1/8	.145	3/8	41/64	2
41C	1/8	.175	3/8	41/64	2
42A	1/8	.145	11/16	1-3/32	3
42B	1/8	.145	3/8	25/32	3
42C	1/8	.145	9/16	31/32	3
43A	1/8	none	11/16	15/16	4
43B	1/8	none	3/8	5/8	4
43C	1/8	none	9/16	13/16	4
44A	1/8	.145	11/16	1-7/16	5
44B	1/8	.145	3/8	1-1/8	5
44C	1/8	.145	9/16	1-1/4	5
60A	1/8	.175	11/16	1-5/8	6
60B	1/8	.175	3/8	1-5/16	6
60C	1/8	.175	9/16	1-1/2	6
EW CRIMP TYPES					
46A	1/8	.175	11/16	1-7/32	7
46B	1/8	.175	3/8	29/32	7
46C	1/8	.175	9/16	1-3/32	7
39D-A	1/8	.175	11/16	1-3/32	8
39D-B	1/8	.175	3/8	25/32	8
39D-C	1/8	.175	9/16	31/32	8

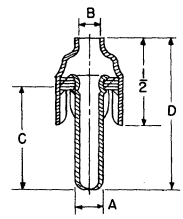

FIG. 1

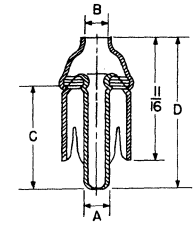

FIG. 2

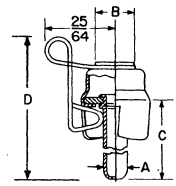

FIG. 3

Self shorting Phono Plug Steel piano wire spring is cadmium plated.

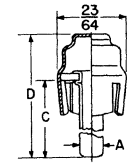

FIG. 4

Self shorting Phono Plug has no hole for a wire and is used to insure that mating jack cannot be activated accidentally. Has copper washer for complete shorting action.

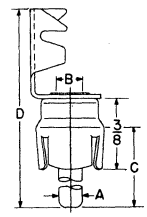

FIG. 5

Has strain relief lug to insure strong connection. Crimp type.

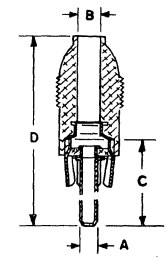

FIG. 6

Snap on Plug with handle.

NEW Crimp Type

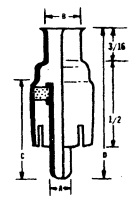

FIG. 7

NEW Crimp Type

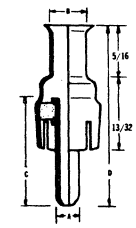

FIG. 8

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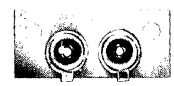
PHONO JACKS


331-2

318

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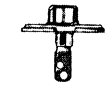
333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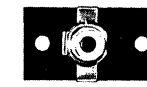

319

#318, #319, #326 and #327
Single Conductor, Phono Jacks
INSULATOR DISC—XP Laminated Phenolic
INSULATOR BUSHING—Ceramic
SHELL—Steel-cadmium plated.
CONTACT—Spring brass cadmium plated.
#328—Printed Circuit Dip Solder Type Assembled to printed circuit board as shown in fig. 2.
#329 and 332—Compact Design. Assembled to chassis by curling as shown in fig. 1 accommodates #36B, #37B, #38B Plugs.
CONTACT—Lance acts as solder barrier and provides hole for soldering wire.
#330—Similar to #329 with longer terminal on contact.
#331-2—Connector. Consists of #330 Jacks assembled to a XP Board on ½" centers, providing individual ground connections avoiding ground loop.
#333—Snap in Dip Solder Printed Circuit Type. Assembled as shown in fig. 3.
#340-341—Panel Mounting Jack, Shells made of Brass, nickel plated.
INSULATOR—Ceramic.
CONTACT—Spring brass.
NUT ¼"—32 Brass nickel plated.
LUG—Brass cadmium plated.

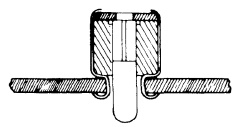


FIG. 1

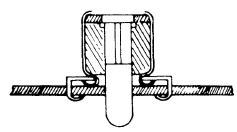


FIG. 2

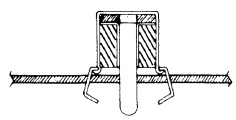
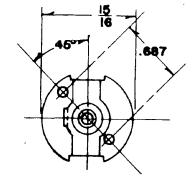
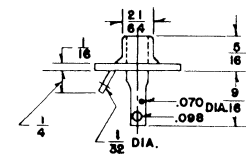


FIG. 3





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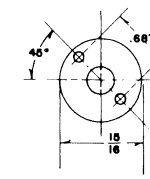

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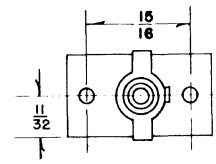

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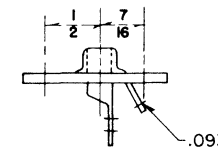

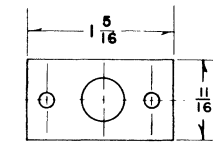

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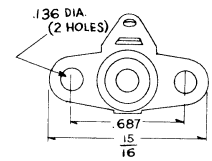

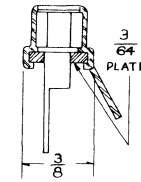

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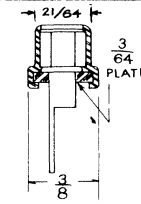

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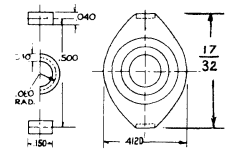

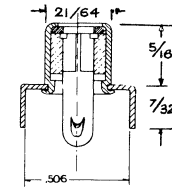

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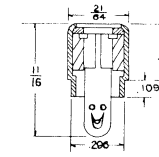

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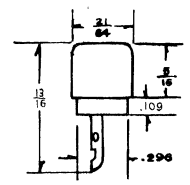

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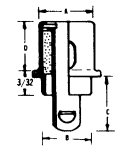

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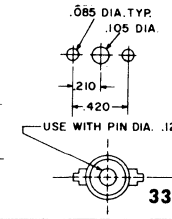

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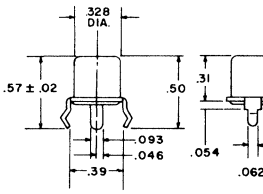

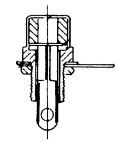
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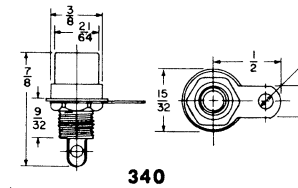

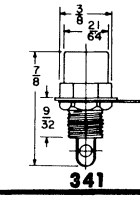

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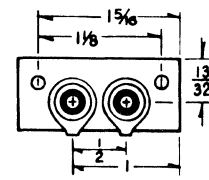

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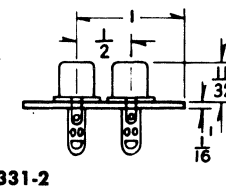

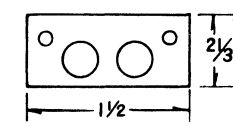

331-2A

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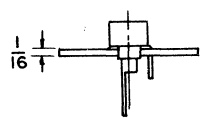
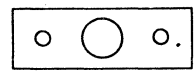
PHONO JACKS

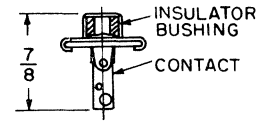
375

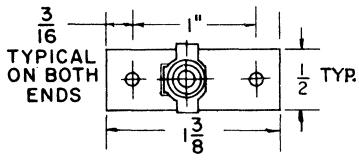
370 SERIES





INSULATOR
371-A
TYPICAL FOR ALL PARTS





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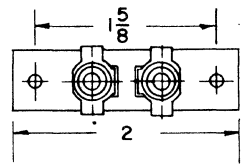

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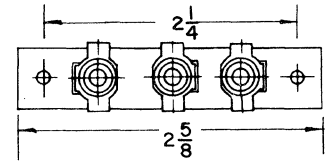

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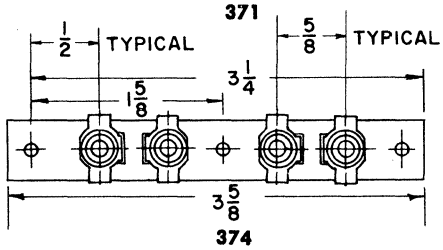

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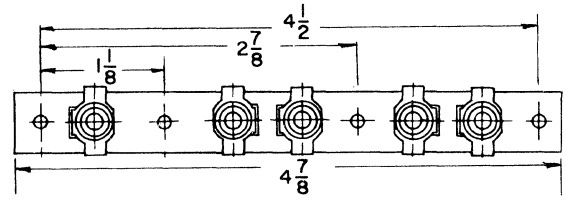
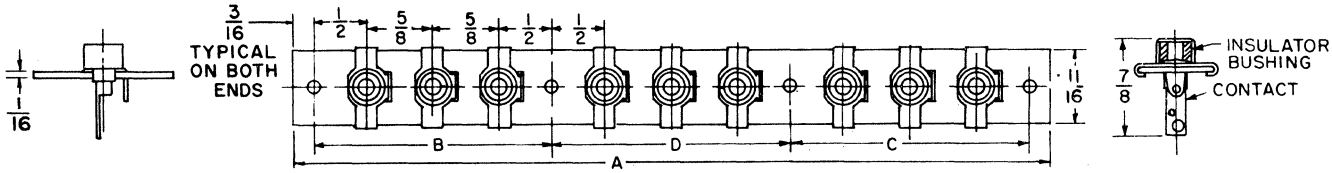


375

380 SERIES

Note: Mounting Plate — 1/16″ thick 'XP' Laminated Phenolic.
Ground Shell—.016 steel cadmium plated.
Contact—.013 spring brass.
Insulator Bushing—ceramic.
Insulator Plate — 1/32″ (.031) thick 'XP' Laminated.



PART NO.	QUANTITY OF JACKS	A	B	C	D	PHYSICAL STACK-UP
381	1	1⅜	1	—	—	o ● o
382	2	2	1⅝	—	—	o ● ● o
383	3	2⅝	2¼	—	—	o ● ● ● o
384	4	3¼	2⅞	—	—	o ● ● ● ● o
385	5	4¼	2¼	1⅝	—	o ● ● ● o ● ● o
386	6	4⅞	2⅞	1⅝	—	o ● ● ● ● o ● ● o
387	7	5½	2⅞	2¼	—	o ● ● ● ● o ● ● ● o
388	8	6⅛	2⅞	2⅞	—	o ● ● ● ● o ● ● ● ● o
389	9	7⅛	2¼	2¼	2¼	o ● ● ● o ● ● ● o ● ● ● o
390	10	7¾	2⅞	2¼	2¼	o ● ● ● ● o ● ● ● o ● ● ● o
391	11	8⅜	2⅞	2¼	2⅞	o ● ● ● ● o ● ● ● ● o ● ● ● o
392	12	9	2⅞	2⅞	2⅞	o ● ● ● ● o ● ● ● ● o ● ● ● ● o

Photos shown are not to size or scale

●—INDICATES TERMINAL O—INDICATES MOUNTING HOLE

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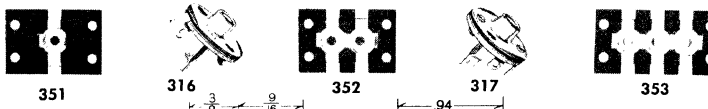
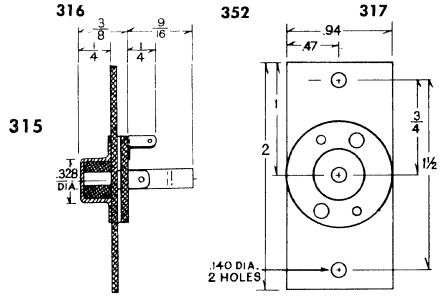
NATIONAL TEL-TRONICS CORP.
YONKERS, N. Y.

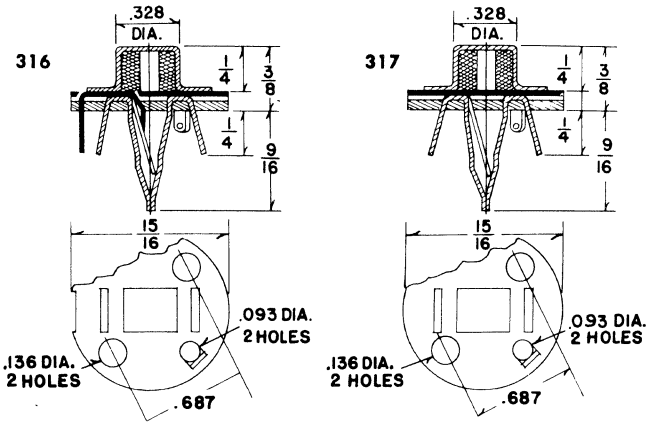
ntt



SWITCHING JACKS

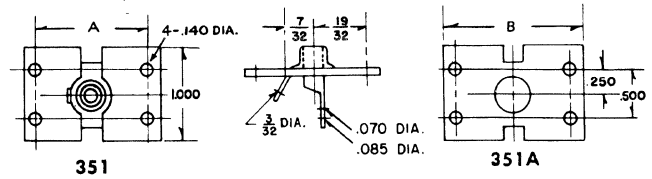
RADIOS PHONOGRAPHS TELEVISION
TAPE RECORDERS HI-FI STEREO SOUND

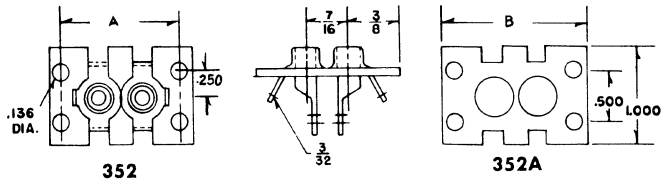


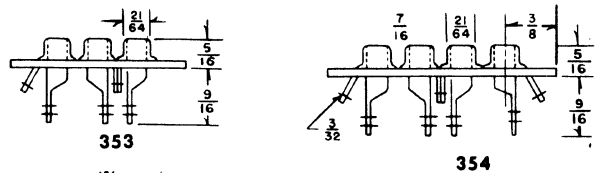


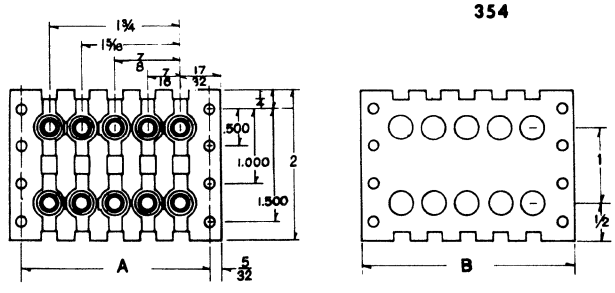
#315—Similar to #317 except it is made with a rectangular mounting plate as shown.
#316 Switching type jack—3—conductor.
SPRINGS—3 Phosphor bronze cad. plated.
INSULATOR BUSHING—1—ceramic.
DISCS—XP Lam. Phenolic.
GROUND SHELL—.016 Steel Cad. Plated.
GROUND LUG & EYELETS—brass cad. plated.
Accommodates #36A, #37A, & 38A plugs.
#317 Switching type Jack 2 conductor.
Same as #316 except it has only 2 Phos. bronze springs.
Each of the above may be supplied with Glass Melamine bottom wafer. Suffix part # with a "G". Example #317 with Glass Melamine would be #317G.

PHONO CONNECTORS









PART NO.	NO. OF JACKS	MTG. CENTERS A	OVERALL LENGTH B	INSULATOR PART NO.
351	1	1.187	1.500	351A
352	2	1.187	1.500	352A
353	3	1.625	1.937	353A
354	4	2.062	2.375	354A
355	5	2.500	2.812	355A

We can supply up to 10 Jacks in a row

DOUBLE STACK CONNECTORS

PART NO.	NO. OF JACKS	MTG. CENTERS A	OVERALL LENGTH B	INSULATOR PART NO.
2-354	8	2.062	2.375	2-354A
2-355	10	2.500	2.812	2-355A
2-356	12	2.937	3.250	2-356A
2-357	14	3.375	3.687	2-357A
2-358	16	3.812	4.125	2-358A
2-359	18	4.250	4.500	2-359A
2-360	20	4.687	4.937	2-360A

MOUNTING PLATES — 1/16" thick XP lam. Phenolic.
GROUND SHELL — .016 Steel Cadmium Plated.
CONTACTS — .013 Spring Brass, Insulator Bushings — Ceramic.
INSULATOR PLATES — 1/32" thick XP Lam Phenolic.

Photos shown are not to size or scal

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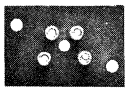
YONKERS, N. Y.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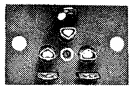
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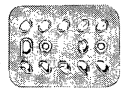
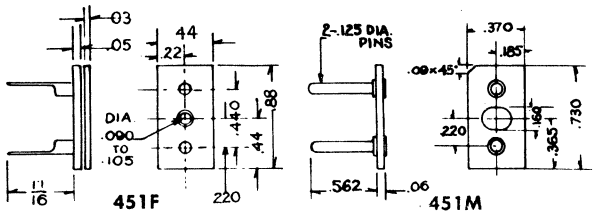
SPECIAL

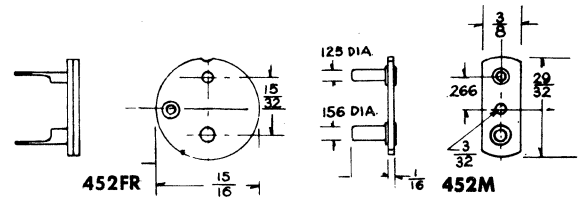

458-S

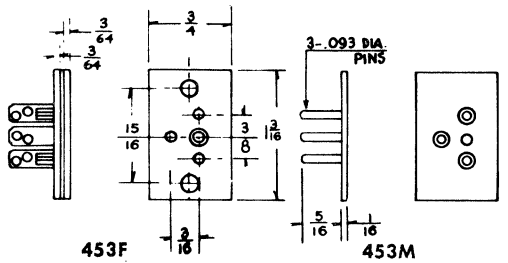
PIN PLUGS & SOCKETS

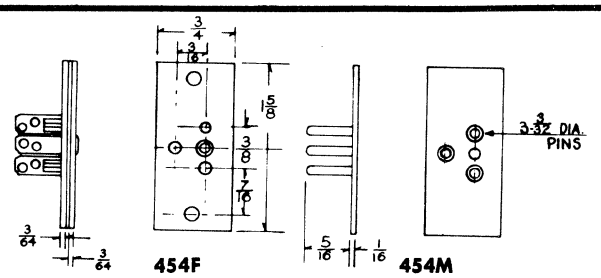
450 Series Pin Plugs and Sockets used as inter chassis and in line connectors.
WAFERS of sockets 3/64" XP Lam. Phenolic.
CONTACTS—Spring Brass cad. plated.

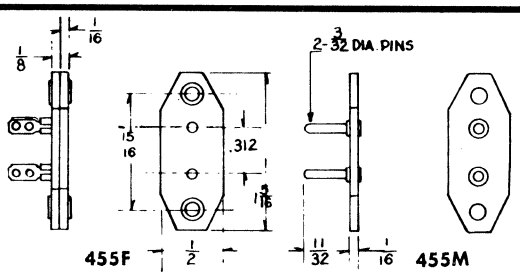
PLUG DISCS 1/16" XP Lam. Phenolic.
PINS—Drawn brass bright nickel plated.
Many other combinations may be acquired by deleting or adding contacts.

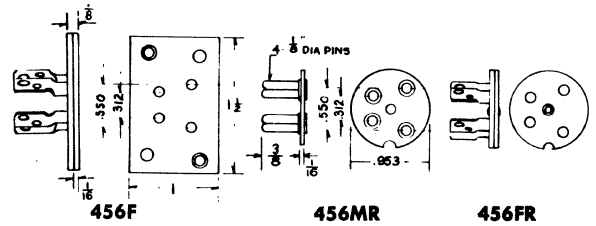


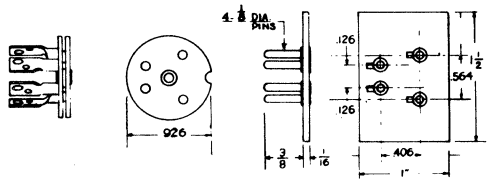


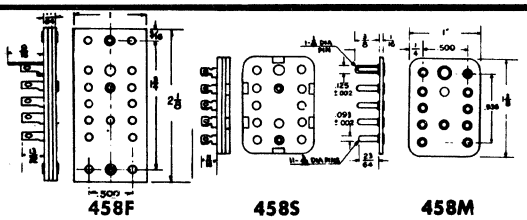


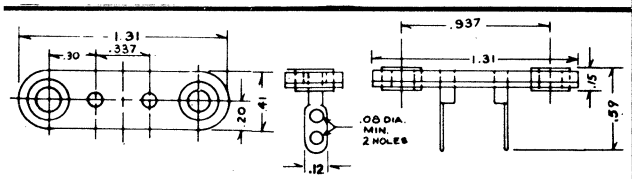


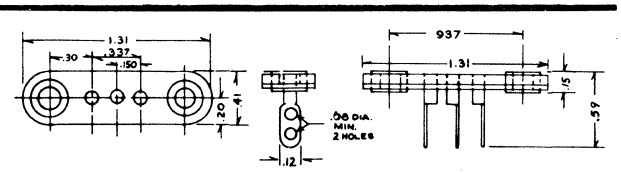


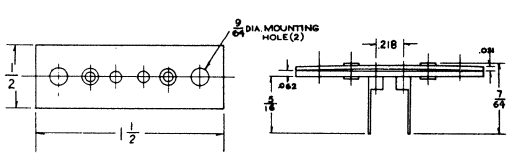


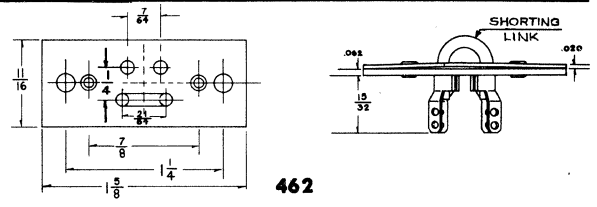












Photos shown are not to size or scale

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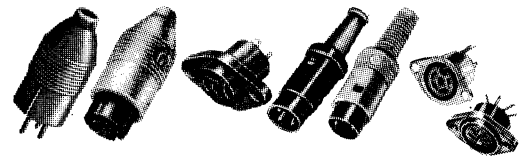
rye SOUND

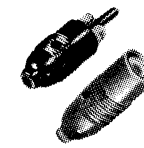
CORPORATION, MAMARONECK, N. Y.

hirschmann · plugs · sockets · terminals

6-36 POLE MULTIPLE CONNECTORS



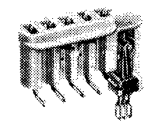
SMALL, MULTI-POLE CONNECTORS



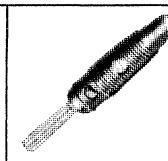
PICK-UP PLUGS AND SOCKETS

THIRD-HAND PROBE CONNECTORS

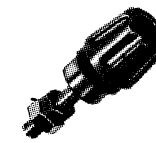
FULL CONTACT PLUGS



SOCKET WITH SWITCH



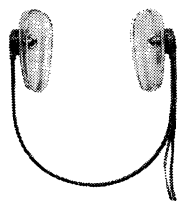
BUNCH-PIN PLUGS FLEX-HANDLES



BINDING POSTS & TERMINALS

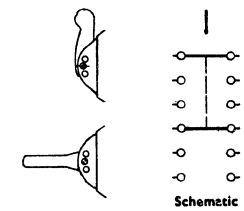
ALLIGATOR CLIPS

sound/transducers

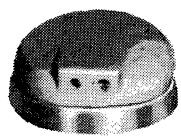


HEADSETS: stereo or mono monitoring for maximum intelligibility. Lightweight units available in a variety of styles with choice of earpads, earloops, eartips, lucite earcups, cords and plugs. Impedance range 15 to 8000 ohms.

MINIATURE SWITCHES: for low voltage applications. These switches are subjected to the most stringent mechanical and metallurgical inspections and can be employed with full confidence on the widest range of electrical equipment.

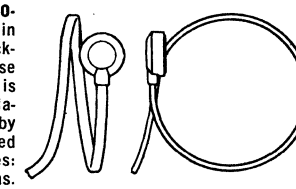


Schematic



EARPHONES: quality magnetic transducers in flesh or grey; power, frequency or sensitivity to fit the application. Standard U.S. polarized-type cord connection. Impedances from 3.2 to 8000 ohms.

CONTACT THROAT MICROPHONES/HEART BEAT MICROPHONES: effective for use in surroundings with high background sound levels because only the operator's voice is registered. Microphone diaphragm is held in place by a light steel band covered by soft plastic. Impedances: 50, 120, 200 and 500 ohms. In grey only.



beyer · microphones · headsets · transformers

PROFESSIONAL MICROPHONES FOR STUDIO USE

Dynamic, moving coil ribbon and double ribbon.

OPTIMUM PERFORMANCE MICROPHONES FOR HIGH FIDELITY SPEECH & MUSIC REPRODUCTION • MICROPHONES FOR HOME TAPE RECORDERS AND AMATEUR USE • INDUSTRIAL AND SPECIAL APPLICATION MICROPHONES • SOUND PROBES • DYNAMIC HEADPHONES • TRANSFORMERS, WINDSCREENS, STANDS, TRIPODS, ADAPTORS.

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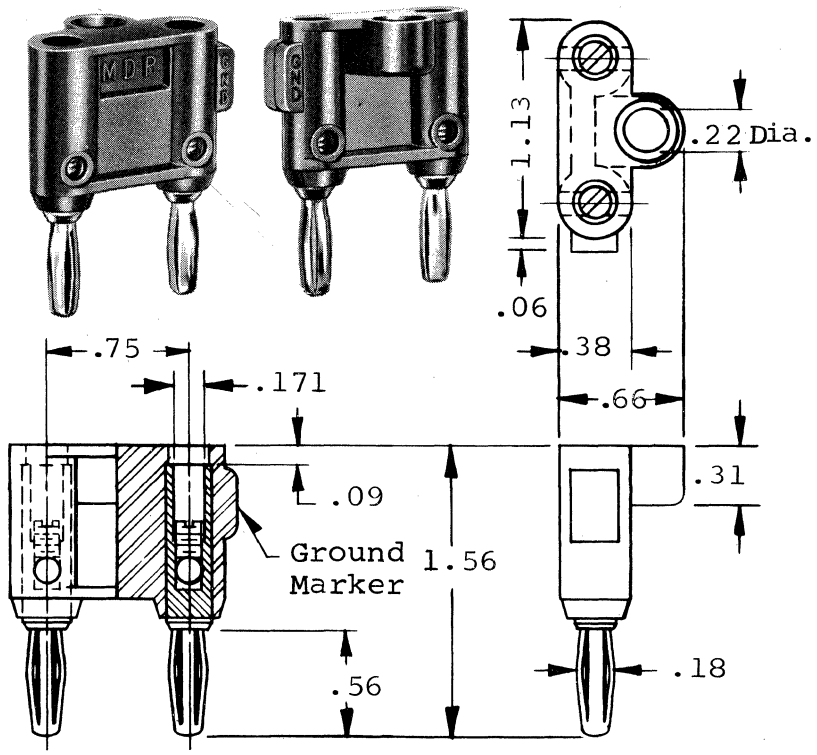
POMONA Electronics — ¾" SPACED MOLDED DOUBLE BANANA PLUGS

Pomona Banana Plug and stack-up accessories are of the highest quality—tough thermoplastic—molded directly on to the metal body of plugs and connectors for maximum strength, moisture resistance and insulative properties:

General Specifications listed below apply to items using banana plugs in this catalog.

ACTUAL SIZE



FEATURES . . .

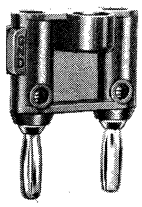
- One piece beryllium copper heat treated spring for maximum long life.
- Rounded spring design results in maximum contact area.
- STACK-UP feature allows an unlimited number of connections at the same electrical point.

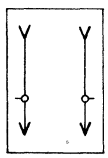
SPECIFICATIONS . . .

- Fits standard 0.166 dia. banana jacks.
- Spring, beryllium copper alloy 25 per QQ-C-533.
- Plug body, Brass per QQ-B-626 Comp. 22.
- Nickel plated per QQ-N-290, Class 2.
- Contact resistance less than 0.001 ohms per plug.

RATINGS		Models: MDP; MDP-ST; 1330; 1330-ST
Capacity	:	0.8 pf to 10 MC
Current	:	15 Amps. Cont., 30 Amps. Int.
Voltage	:	5000 W.V.
Temperature	:	−25°C to +85°C.

DOUBLE BANANA PLUG



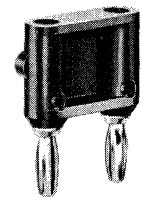


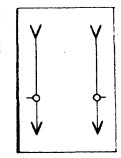
Double banana plug on ¾" centers; set screws secure leads; simplifies cable construction or component mounting; banana jacks permit top Stack-Up for multiple connections.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

MODEL MDP (Specify Color) — **NET .75**

COMPONENT MOUNTING DOUBLE BANANA PLUG



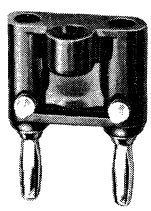


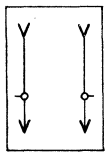
Double banana plug on ¾" centers; set screws secure leads; features recess for mounting small components; banana jacks permit top Stack-Up for multiple connections.

COLORS: Black, Red

MODEL 1330 (Specify Color) — **NET .75**

DOUBLE BANANA PLUG WITH SOLDER TURRET TERMINALS



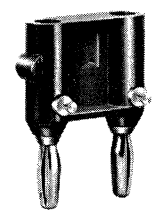


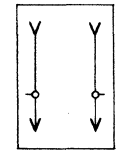
Similar to Model MDP, except has solder turret terminals for permanent noise-free connections of cables and components. Double banana plug on ¾" centers; banana jacks permit top Stack-Up for multiple connections.

COLOR: Black

MODEL MDP-ST — **NET .85**

COMPONENT PLUG WITH SOLDER TURRET TERMINALS





Similar to Model 1330, except has solder turret terminals for permanent noise-free connections of components, etc. Double banana plug on ¾" centers: Banana jacks permit top Stack-Up for multiple connections.

COLORS: Black, Red.

MODEL 1330-ST (Specify Color) — **NET .85**

Net

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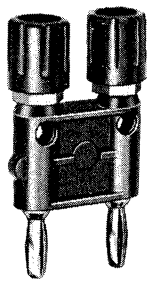
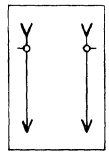
POMONA Electronics — 3/4" SPACED BANANA PLUG TEST ACCESSORIES

BINDING POSTS TO DOUBLE BANANA PLUG

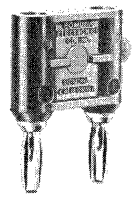


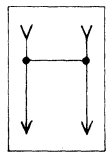


Features insulated binding posts on 3/4" centers for rapid mounting and interchangeability of components. Binding posts allow top Stack-Up for multiple connections. Side Stack-Up provided by thru-holes in plug body.
UPPER: Insulated double binding posts, 3/4" on centers with .166 dia. banana jack.
LOWER: Double banana plug, 3/4" on center. Cross holes in body provide side Stack-Up connections.
COLORS: Body, Black. Binding Posts, Black/Red.

MODEL 1286 — **NET 2.50**

INSULATED SHORTING BAR

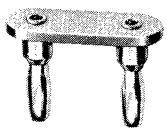


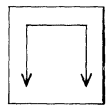


Ideal as a connecting link for use with 3/4" spaced banana jacks. Banana plugs internally solder-bonded with #14 AWG wire. Banana jacks provide top Stack-Up. Resistance less than 1.5 milliohms installed. Current rating 15 Amps. Cont., 30 Amps. Int. "Shorting Bar" marked on top of plug.
COLORS: Natural, Black, Red.

MODEL MDP-S (Specify Color) — **NET .95**

METAL SHORTING BAR

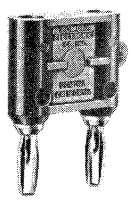


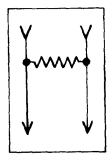


Low profile, nickel plated brass shorting bar. Double banana plugs 3/4" on centers swaged to 3/32" thick brass bar. Resistance, less than 1.5 milliohms installed. Current rating: 15 Amps. Cont., 30 Amps. Int.

MODEL 1855 — **NET .75**

MOLDED PRECISION RESISTOR



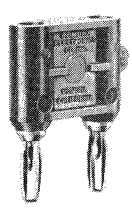


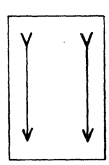
Ideal where rapid change of resistance values is required. Used in breadboarding, R & D labs., Standards, Terminations, etc. Deposited carbon 1% resistor, 1/2 watt, molded internally. Resistor soldered to double banana plug, 3/4" on centers. Top Stack-Up provided for multiple connections. Resistance value stamped on top of plug.

(OHMS)					
	50	200	1K	100K	1 Meg.
	75	250	5K	200K	2 Meg.
	120	500	10K	250K	5 Meg.
	130	600	20K	500K	10 Meg.
	150	900	50K		

MODEL MDP-R (Specify Value) — **NET 2.75**

ADAPTER — .080 RECEPTACLE TO DOUBLE BANANA PLUG

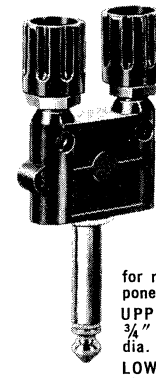


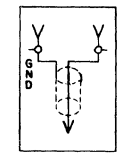


Permits .080 Tip plugs to be used with equipment having banana jacks.
UPPER: Receptacles, beryllium copper, gold flashed; spaced 3/4" on center to accept .080 dia. pin tip plugs.
LOWER: Double banana plug, 3/4" on centers, nickel plated. Cross holes in body provide Stack-Up connections.
COLOR: Black

MODEL 1845 — **NET .85**

ADAPTER — BINDING POSTS TO PHONE PLUG

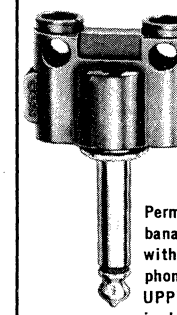


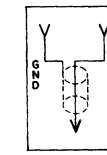


Permits single or double banana plugs to be used with equipment having phone jacks. Ideal for rapid mounting of components and test leads.
UPPER: Insulated posts, 3/4" on center with .166 dia. banana jack.
LOWER: 1/4" dia. phone plug, 1-3/16" long.
COLOR: Body, Black. Binding Posts: Black/Red.

MODEL 1285 — **NET 4.85**

ADAPTER — BANANA JACKS TO PHONE PLUG

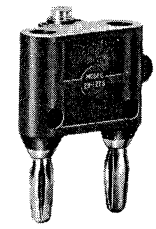


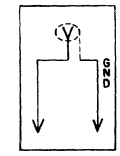


Permits single or dc ,bl banana plugs to be use with equipment havin phone jacks.
UPPER: Double banar jack, 3/4" on center .166 dia.
LOWER: Standard 1/4 dia. phone plug, 1-3/16" long.
COLOR: Black

MODEL 1980 — **NET 2.8**

ADAPTER — MICRODOT RECEPTACL TO BANANA PLUGS

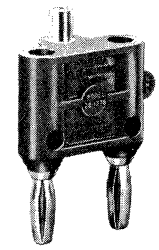


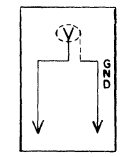


Permits Microdot miniature coaxial plugs be used with equipment having banana jack Cross holes in body provide side Stack-l connections.
UPPER: Microdot receptacle, Screw-On Typ
LOWER: Double banana plug, 3/4" on centers.

MODEL	Type (Ohms)	Body Color	Receptacle Thread	NET
1275	50	Green	10-32	5.85
1277	70	Violet	12-32	5.85
1279	93	White	1/4-32	5.85

ADAPTER — MICRODOT RECEPTACLE TO BANANA PLUGS

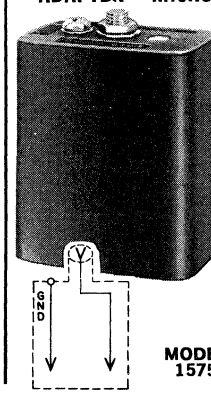


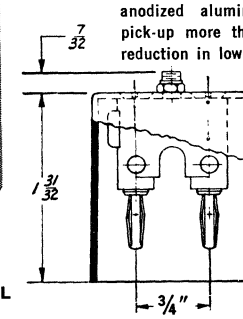


Permits Microdot miniature coaxial plugs be used with equipment having ban jacks. Cross holes in body provide side Sta Up connections.
UPPER: Microdot Receptacle, Slide-On Ty Universally adapts to 50, 70 or 93 ohm t plug.
LOWER: Double banana plug, 3/4" on c ters.
COLOR: Black

MODEL 1276 — **NET 5:**

ADAPTER—MICRODOT RECEPTACLE TO SHIELDED BANANA PLU

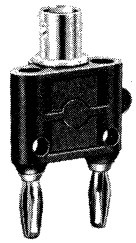




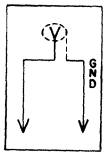
Permits Microdot miniature coaxial plug, 50 ohm be used with equipment having banana jacks. B anodized aluminum shield reduces n pick-up more than 70 DB. Ideal for n reduction in low level acceleration syster
UPPER: Microd Receptacle, Screv Type, Receptacle Thread 10-32.
LOWER: Shielde Double banana p 3/4" on centers.
COLOR: Black

MODEL 1575 — **NET 6**

POMONA Electronics BNC ADAPTERS

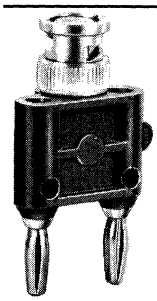


ADAPTER — BNC RECEPTACLE TO BANANA PLUGS

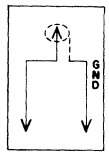


Permits BNC plug to be used with equipment having banana jacks. Excellent for adapting laboratory VTVM, oscilloscopes and signal generator inputs to readily available coaxial cables.
UPPER: BNC receptacle.
LOWER: Double banana plug, ¾" on centers.
COLOR: Black

MODEL 1269 **NET 2.85**

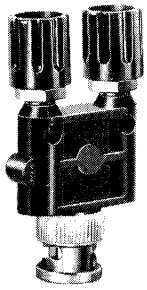


ADAPTER — BNC PLUG TO BANANA PLUGS

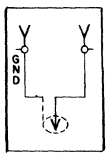


Permits BNC receptacle to be used with equipment having banana jacks. Minimizes number of coaxial connections for maximum efficiency.
UPPER: BNC plug.
LOWER: Double banana plug, ¾" on centers.
COLOR: Black

MODEL 1270 **NET 3.85**

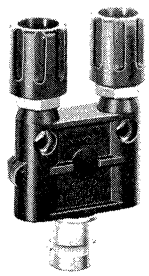


ADAPTER — BINDING POSTS TO BNC PLUG

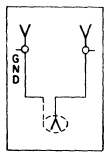


Permits single or double banana plug to be used with equipment having BNC receptacle. Excellent for use with laboratory oscilloscopes.
UPPER: Insulated binding posts, ¾" on centers with .166 dia. banana jacks.
LOWER: BNC plug.
COLOR: Body, Black. Binding Posts: Black/Red.

MODEL 1296 **NET 4.85**

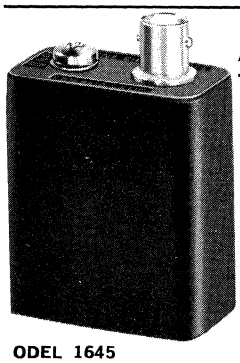


ADAPTER — BINDING POSTS TO BNC RECEPTACLE



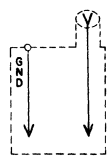
Permits single or double banana plugs to be used with equipment having BNC plug.
UPPER: Insulated binding posts, ¾" on centers with .166 dia. banana jacks.
LOWER: BNC receptacle.
COLOR: Body, Black. Binding Posts: Black/Red.

MODEL 1452 **NET 4.85**



ADAPTER — BNC RECEPTACLE TO SHIELDED BANANA PLUGS

Permits BNC plug to be used with equipment having banana jacks. Black anodized aluminum shield reduces noise pick-up more than 70 DB. Ideal for low level inputs to oscilloscopes, wave analyzers, etc.



UPPER: BNC Receptacle.
LOWER: Shielded double banana plug, ¾" on centers.

ODEL 1645 **NET 3.45**

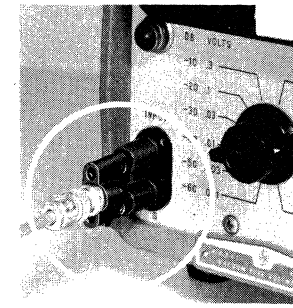
Now! Increase the flexibility of your laboratory with the use of POMONA molded test accessories.

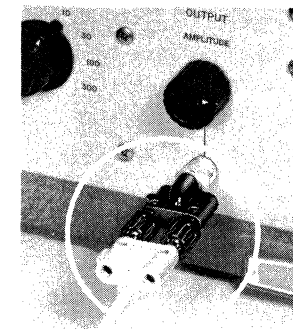
Minimize the necessity of stocking a large quantity and variety of coaxial cables by using POMONA molded adapters.

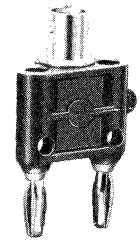
Tough thermo-plastic material molded to plug body or connectors insures maximum strength, moisture resistance and excellent insulative properties.

POMONA ELECTRONICS adapters are designed and engineered with you in mind, from the selection of the best in materials, incorporated with a quality control program that enables us to offer to you, products that are unequalled in reliability and quality.

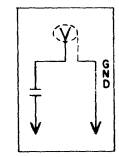
Complete engineering facilities are offered to our customers for special adapter problems that may arise.





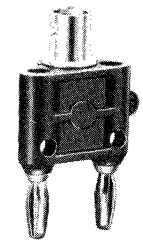


ADAPTER — SIGNAL ISOLATOR — BNC RECEPTACLE TO BANANA PLUGS

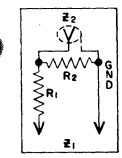


Permits BNC male connector to be used with equipment having banana jacks. General purpose ceramic capacitor molded internally. Rated @ .01 mfd ±20%, 200 WVDC. Insulation resistance 10,000 megohms min. Ideal for isolating DC signals from VTVM inputs and signal generator outputs.
UPPER: BNC receptacle.
LOWER: Double banana plug, ¾" on centers.
COLOR: Blue

MODEL 1868 **NET 7.85**

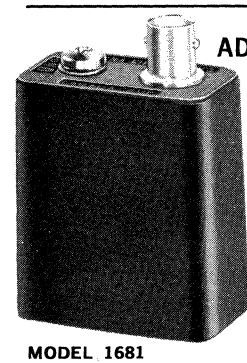


ADAPTER — BNC MATCHING PAD

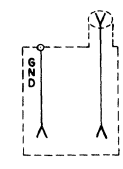


Adapts 600 OHM sources to 50, 75 or 93 OHM cables. Excellent for matching signal generators and VTVM's to standard coaxial cables. Ideal for receiver alignment. Molded in deposited carbon resistors 1%, ¼W.
UPPER: BNC receptacle.
LOWER: Double banana plug, ¾" on centers.

MODEL	COLOR	RANGE — OHMS	NET
1656-1	Yellow	600 to 50	10.85
1656-2	Red	600 to 75	10.85
1656-3	White	600 to 93	10.85



ADAPTER — BNC RECEPTACLE TO SHIELDED BANANA JACKS



Permits BNC plug to be used with equipment having banana plugs. Black anodized aluminum shield reduces noise pick-up more than 70 DB. Ideal for low level inputs to oscilloscopes, wave analyzers, etc.
UPPER: BNC receptacle.
LOWER: Shielded double banana jacks, ¾" on centers.
COLOR: Black

MODEL 1681 **NET 3.45**

Net
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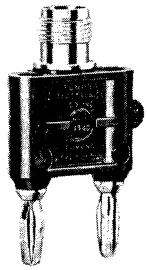
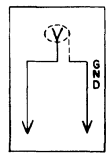
POMONA Electronics — TNC & "N" ADAPTERS



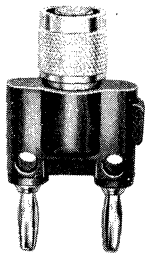
ADAPTER — TNC RECEPTACLE TO BANANA PLUGS



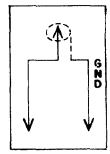
Permits TNC plug to be used with equipment having banana jacks. Perfect for connecting modern control systems to laboratory test equipment.
UPPER: TNC Receptacle.
LOWER: Double banana plug, ¾" on centers.
COLOR: Black

MODEL 1340

NET 5.85



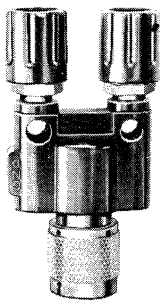
ADAPTER — TNC PLUG TO BANANA PLUGS



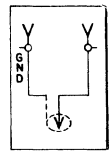
Permits TNC receptacle to be used with equipment having banana jacks. Minimizes your stock of coaxial cables.
UPPER: TNC plug.
LOWER: Double banana plug, ¾" on centers.
COLOR: Black

MODEL 1981

NET 6.85



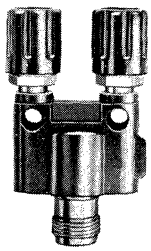
ADAPTER — BINDING POSTS TO TNC PLUG



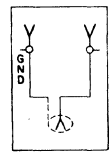
Permits single or double banana plug to be used with equipment having a TNC receptacle. Exceptional for signal insertion with rapid interchangeability of terminations.
UPPER: Insulated binding posts, ¾" on centers with .166 dia. banana jacks.
LOWER: TNC plug.
COLOR: Body, Black. Binding Posts: Black/Red.

MODEL 1982

NET 6.85



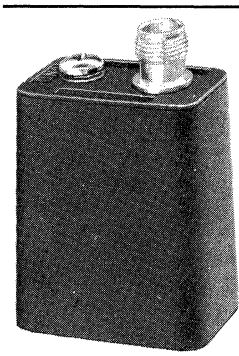
ADAPTER — BINDING POSTS TO TNC RECEPTACLE



Permits single or double banana plug to be used with equipment having TNC plug. Useful for rapid interconnection of systems and components.
UPPER: Insulated binding posts, ¾" on centers with .166 dia. banana jacks.
LOWER: TNC receptacle
COLOR: Body, Black. Binding Posts: Black/Red.

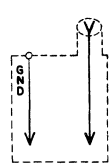
MODEL 1976

NET 5.85



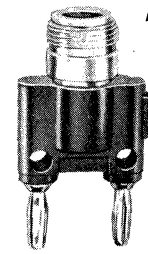
ADAPTER — TNC RECEPTACLE TO SHIELDED BANANA PLUGS

Permits TNC plug to be used with equipment having banana jacks. Black anodized aluminum shield reduces noise pick-up more than 70 DB.
UPPER: TNC receptacle.
LOWER: Double banana plug, ¾" on centers.
COLOR: Black

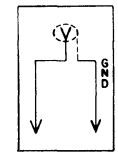


MODEL 1975

NET 4.85



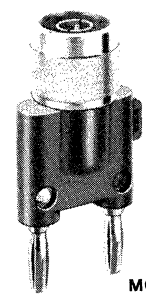
ADAPTER — TYPE "N" RECEPTACLE TO BANANA PLUGS



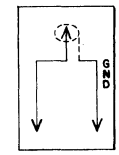
Permits Type "N" plug to be used with equipment having banana jacks. Ideal for low loss measurement systems.
UPPER: Type "N" receptacle.
LOWER: Double banana plug, ¾" on centers.
COLOR: Black

MODEL 1740

NET 5.85



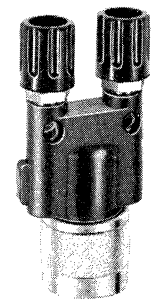
ADAPTER — TYPE "N" PLUG TO BANANA PLUGS



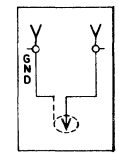
Permits type "N" receptacle to be used with equipment having banana jacks.
UPPER: Type "N" plug.
LOWER: Double banana plug, ¾" on centers
COLOR: Black

MODEL 1770

NET 5.85



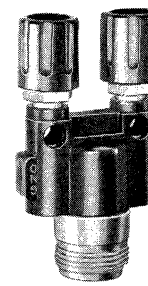
ADAPTER — BINDING POSTS TO TYPE "N" PLUG



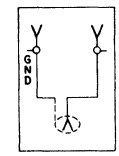
Permits single or double banana plug to be used with equipment having Type "N" receptacle. Binding posts allow component insertion.
UPPER: Insulated binding posts, ¾" on centers with .166 dia. jacks.
LOWER: Type "N" plug.
COLOR: Black. Binding Posts: Black/Red.

MODEL 1796

NET 5.85



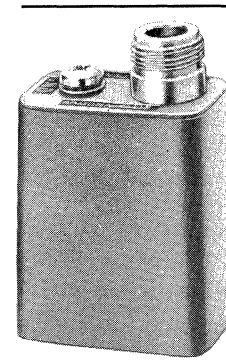
ADAPTER — BINDING POSTS TO TYPE "N" RECEPTACLE



Permits single or double banana plug to be used with equipment having type "N" plug. Useful for rapid interconnection of systems and components.
UPPER: Insulated binding posts, ¾" on centers with .166 dia. jacks.
LOWER: Type "N" receptacle
COLOR: Body, Black. Binding Posts: Black/Red.

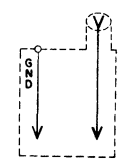
MODEL 1992

NET 5.85



ADAPTER — TYPE "N" RECEPTACLE TO SHIELDED BANANA PLUGS

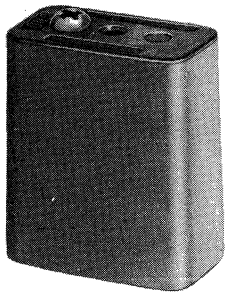
Permits type "N" plug to be used with equipment having banana jacks. Black Anodized aluminum shield reduces noise pick up more than 70 DB.
UPPER: Type "N" receptacle.
LOWER: Double banana plug, ¾" on centers.
COLOR: Black



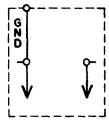
MODEL 1983

NET 4.85

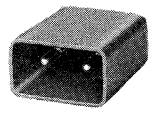
POMONA Electronics — SHIELDED BANANA PLUGS UHF ADAPTERS

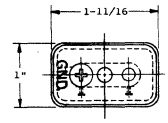


SHIELDED DOUBLE BANANA PLUG IN-LINE CABLE ENTRY

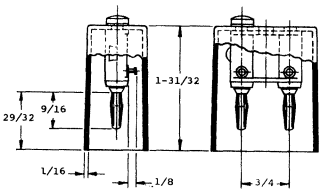


RATED: 15A CONTINUOUS
1200 WVDC
3400 VDC BREAKDOWN
2.5 PF @ 1 MC



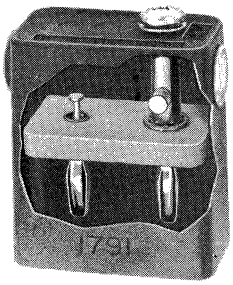


- Shielded double plug ¾" spaced
- Die cast aluminum shell, black anodized
- Noise pick-up reduced 70 DB
- Gold flashed solder turret terminals for positive reliable cable connections
- One piece nickel plated beryllium copper spring for use with standard 0.166 dia. banana jacks
- Rounded banana spring design results in maximum contact area and minimum contact resistance
- GND clearly molded in shell
- Cable opening, 7/32" diameter

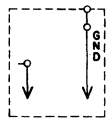


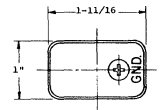
MODEL 1433 — **NET 2.25**

SHIELDED DOUBLE BANANA PLUG RIGHT ANGLE CABLE ENTRY

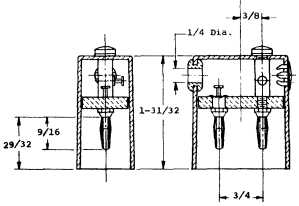


RATED: 15A CONTINUOUS
2800 PEAK WV
5000 VDC BREAKDOWN
2.0 PF @ 1 MC.



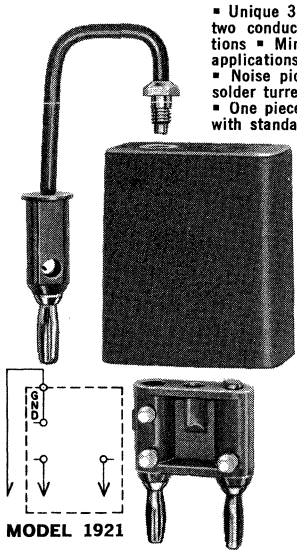


- Shielded double plug, ¾" spaced
- Ceramic insulating base
- Die cast aluminum shell, black anodized
- GND clearly molded in shell
- Noise pick-up reduced 70 DB
- One piece nickel plated beryllium copper springs for use with 0.166 diameter banana jacks
- Rounded banana spring design results in maximum contact area and minimum contact resistance
- Vinyl grommet and nickel plated snap button supplied



MODEL 1791 — **NET 2.95**

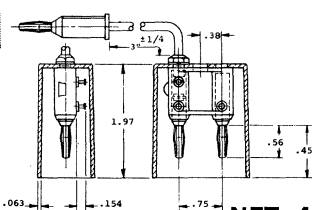
BALANCED LINE SHIELDED DOUBLE BANANA PLUG



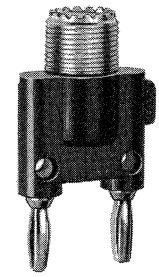
- Unique 3 terminal design allows connection to shielded two conductor cable while maintaining balanced conditions
- Minimizes ground loop errors in low signal level applications
- Die cast aluminum shell, black anodized
- Noise pick-up reduced at least 70 DB
- Gold flashed solder turret terminals for reliable noise free connections
- One piece nickel plated beryllium copper spring for use with standard 0.166 dia. banana jacks.

RATED:

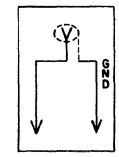
- 15A Continuous
- 1000 WV Peak; line to shield
- 2000 WV peak; line to line
- 2500 V peak breakdown; line to shield
- 5000 V peak breakdown, line to line
- 2.0 pf @ 1 MC Capacity; line to line
- 3.0 pf @ 1 MC. capacity; both lines to shield.



MODEL 1921 — **NET 4.85**



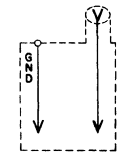
ADAPTER — UHF RECEPTACLE TO DOUBLE BANANA PLUG



Permits UHF plug to be used with equipment having banana jacks.
UPPER: UHF receptacle, ⅝" dia.
LOWER: Double banana plug, ¾" on centers.
COLOR: Black.

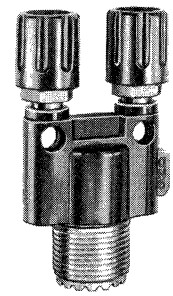
MODEL 1707 — **NET 4.85**

ADAPTER — UHF RECEPTACLE TO SHIELDED BANANA PLUGS

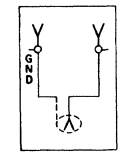


Permits UHF plug to be used with equipment having banana jacks. Black anodized shield reduces noise pick-up at least 70 DB.
UPPER: UHF receptacle, ⅝" dia.
LOWER: Double banana plug, ¾" on centers
COLOR: Black

MODEL 1708 — **NET 4.85**

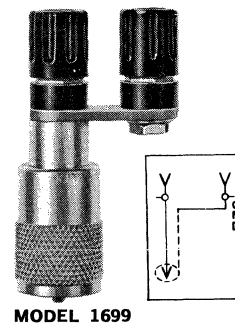


ADAPTER — BINDING POSTS TO UHF RECEPTACLE



Permits single or double banana plug to be used with equipment having UHF plug.
UPPER: Insulated binding posts, ¾" on centers, with .166 dia. jacks.
LOWER: UHF receptacle, ⅝" dia.
COLOR: Body, Black.
Binding Posts: Black/Red.

MODEL 1792 — **NET 5.85**

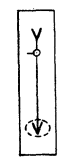


ADAPTER — BINDING POSTS TO UHF PLUG

Permits single or double banana plug to be used with equipment having a UHF receptacle, ⅝" dia. Convenient for use with modern oscilloscopes. Center conductor binding post Red; Ground, Black.
UPPER: Insulated binding posts ¾" on centers with .166 dia. jacks.
LOWER: UHF plug

MODEL 1699 — **NET 4.85**

ADAPTER — BINDING POSTS TO UHF PLUG



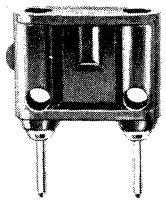
Permits single banana plug to be used with equipment having a UHF receptacle, ⅝" dia. Adds flexibility to your oscilloscope.
UPPER: Insulated binding post with .166 dia. banana jack.
LOWER: UHF plug.

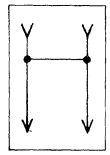
MODEL 1698 — **NET 3.85**

Net
© U.C.P., Inc.

POMONA Electronics — .080 TIP AND BANANA PLUG ACCESSORIES

INSULATED SHORTING BAR



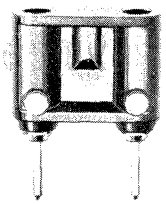


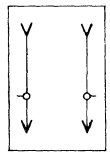
Used as a connecting link with equipment having tip jacks. Plugs internally solder bonded with 14 AWG wire. Top stack-up feature.

UPPER: Banana jacks, .166 dia., ¾" on centers. Brass, nickel plated.
LOWER: Pin Tip. 080 dia., Brass, nickel plated.
COLORS: Black, Red

MODEL 1730 (Specify color) **NET .75**

PLUG — COMPONENT MOUNTING, PIN TIP

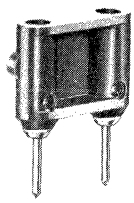


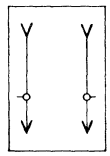


Features recess for mounting components. Gold flashed solder turret terminals for permanent noise-free connections.
UPPER: Receptacle accepts .080 pin, beryllium copper, gold flashed, ¾" on centers.
LOWER: Pin tip, .080 dia. Brass, nickel plated.
COLORS: Black, Red

MODEL 1904 (Specify color) **NET .85**

ADAPTER — BANANA JACKS TO PIN TIP





Permits single or double banana plugs to be used in equipment having tip jacks. Features recess for component mounting. Internal set screws firmly secure wire leads.

UPPER: Banana jacks, .166 dia., ¾" on centers.
LOWER: Pin tip, .080 dia.
COLOR: Black

MODEL 1858 **NET .75**

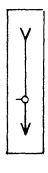
ADAPTER — BANANA JACK TO PIN TIP

Permits single banana plug to be used with equipment having tip jacks. Brass, nickel plated.

UPPER: Banana jack, .166 dia.
LOWER: Pin tip, .080 dia.
COLORS: Black, Red.

MODEL 1432 (Specify Color) **NET .15**

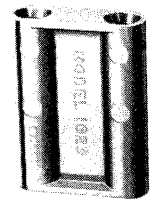
PLUG — PIN TIP, SOLDERLESS

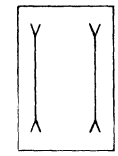


Wire firmly held in place with internal set screw, eliminating soldering. Assembly of test leads simplified.
UPPER: Receptacle accepts .080 dia. pin, beryllium copper, gold flashed.
LOWER: Pin tip, .080 dia., brass, nickel plated.
COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

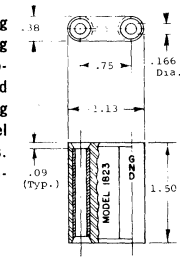
MODEL 1922 (Specify color) **NET .50**

DOUBLE BANANA PLUG SPLICE



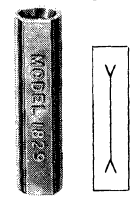


Provides rapid method for splicing cables. Reduces necessity of storing extra long cables. Molded thermo-plastic body eliminates shock hazard by completely enclosing banana plug contact. Brass, nickel plated banana jacks. .166 dia., ¾" on centers.
COLORS: Black, Red.

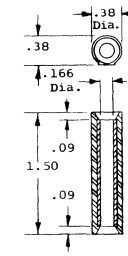


MODEL 1823 (Specify color) **NET .50**

SINGLE BANANA PLUG SPLICE

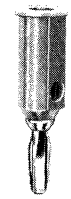


Provides rapid method for splicing cables. Reduces the necessity of storing extra long cables. Molded thermo-plastic body eliminates shock hazard by completely enclosing banana plug contact. Brass, nickel plated banana jack. .166 dia.
COLORS: Black, Red



MODEL 1829 (Specify color) **NET .25**

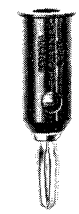
ADAPTER — PIN TIP RECEPTACLE TO BANANA PLUG

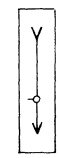


Permits .080 dia. pin tip to be used with equipment having banana jacks. Insulation molded to plug body.
UPPER: Receptacle accepts .080 dia. pin, beryllium copper, gold flashed.
LOWER: Banana plug, one piece nickel plated beryllium copper spring for use with standard 0.166 dia. banana jacks.
COLORS: Black, Red.

MODEL 1809 (Specify Color) **NET .50**

SOLDERLESS BANANA PLUG

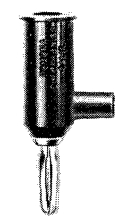


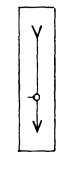


Wire firmly held in place with internal set screw, eliminating soldering. Assembly of test leads simplified.
UPPER: Banana jack, .166 dia.
LOWER: Banana plug, one piece nickel plated beryllium copper spring for use with standard 0.166 dia. banana jacks.
COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

MODEL 1325 (Specify color) **NET .50**

SOLDERLESS BANANA PLUG WITH SAFETY COLLAR





Features: Integral safety collar insulates exposed wire leads. Wire firmly held in place with internal set screw eliminating soldering. Assembly of test leads simplified.
UPPER: Banana jack, .166 dia.
LOWER: Banana plug, one piece nickel plated beryllium copper spring for use with standard 0.166 dia. banana jacks.
COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

MODEL 1825 (Specify Color) **NET .50**

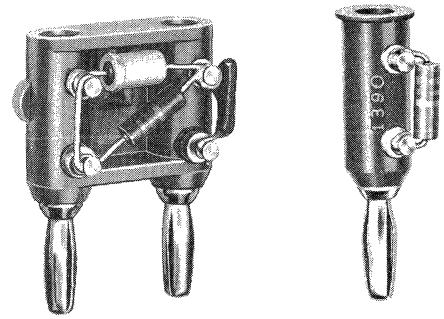
POMONA Electronics — ISOLATION PLUGS—COMPONENT MOUNTINGS

CREATE passive and active networks, voltage dividers, isolation networks or attenuators with the Split-Terminal isolation plugs described below.

Gold flashed solder turret terminals provide permanent, reliable noise-free connections for component mounting.

Tough thermo-plastic material molded to plug body and connectors insures maximum strength, moisture resistance and excellent insulative properties.

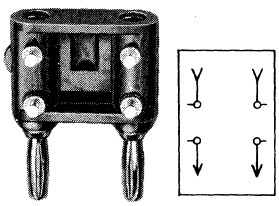
TYPICAL APPLICATION



ACTUAL SIZE

MODEL MDP-X **MODEL 1390**

PLUG — DOUBLE BANANA, ISOLATION



Provides four terminal isolation. Top Stack-up receptacles isolated from lower plugs. Ideal for insertion of matching networks in laboratory VTVM's, signal generators, etc. Gold flashed solder turret terminals for permanent noise-free connections

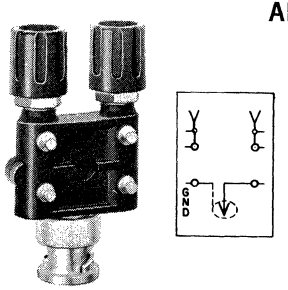
UPPER: Double banana jacks, .166 dia., ¾" on centers

LOWER: Double banana plug.

COLOR: Red

MODEL MDP-X **NET 3.25**

ADAPTER — BNC — BINDING POST, ISOLATION



Permits single or double banana plug to be used with equipment having BNC receptacle. Provides isolation for a four terminal network. Binding post facilitates connections of test leads or additional components. Gold flashed solder turret terminals provide permanent noise-free connections.

UPPER: Insulated binding posts, ¾" on centers with .166 dia. jacks.

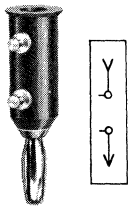
LOWER: BNC plug.

COLOR: Body, Black.

Binding Posts: Black/Red.

MODEL 1469 **NET 10.85**

PLUG — SINGLE BANANA, ISOLATION



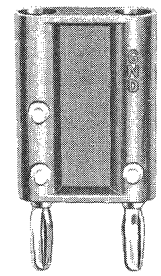
Provides two terminal isolation. Top Stack-Up receptacle is isolated from lower plug to permit addition of series resistors, diodes, etc. Ideal for computers, lab circuit design and testing. Gold flashed solder turret terminate for permanent noise-free connections.

UPPER: Banana jack, .166 dia.

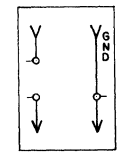
LOWER: Banana plug

COLORS: Black, Red.

MODEL 1390 (Specify color) **NET .95**



PLUG — BANANA, ISOLATION



Provides three terminal isolation. Excellent for "T" and "Pi" networks. Plug and receptacle nickel plated. Gold flashed solder turret terminals for permanent noise-free connections. "Ground" is straight feed-thru. Hot side isolated.

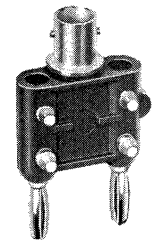
UPPER: Banana jack, .166 dia. ¾" on centers.

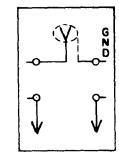
LOWER: Double banana plug.

COLOR: Blue

MODEL 1837 **NET 2.50**

ADAPTER — BNC RECEPTACLE TO BANANA PLUGS





Permits BNC plug to be used with equipment having banana jacks. Provides isolation for a four terminal network. Excellent for matching pad networks. Gold flashed solder turret terminals for permanent noise-free connnections.

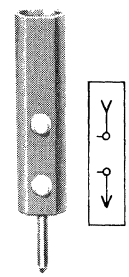
UPPER: BNC receptacle.

LOWER: Double banana plug, ¾" on centers.

COLOR: Black

MODEL 1468 **NET 9.85**

PLUG — PIN TIP, ISOLATION

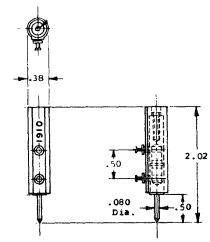


Pin tip receptacle is isolated from .080 pin tip plug. Provides for addition of series components. Ideal for use with computer boards, lab circuit designs, etc. Gold flashed solder turret terminals for permanent noise-free connections.

UPPER: Receptacle accepts .080 dia. pin. Beryllium copper, gold flashed.

LOWER: Pin tip, .080 dia. Brass, nickel plated.

COLORS: Black, Red.



MODEL 1910 (Specify color) **NET .95**

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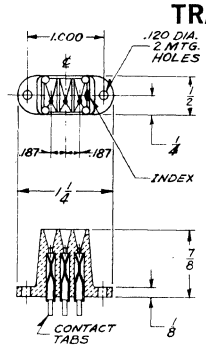
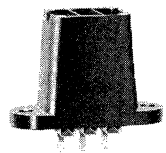
POMONA Electronics TEST ACCESSORIES

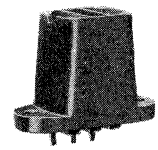
TRANSISTOR SOCKET



For use in testing 3 lead transistors with .017 dia. leads. Beryllium copper springs for long life. Ideal for aging racks, incoming inspection, life testing, etc.



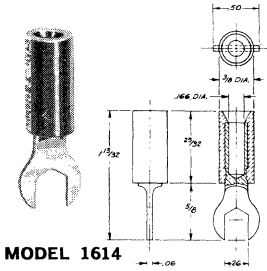
MODEL TS-187



MODEL TS-187R

MODEL	TEMP. RANGE	INSULATION RESISTANCE	COLOR	NET
TS187	—100°C To +300°C.	1 x 10^5 Megohms Min. @ 500 V.D.C. @ 40% R.H., 24°C.	Black	1.75
TS187R	—125°C To +700°C.	1 x 10^6 Megohms Min. @ 500 V.D.C. @ 40% R.H., 24°C.	Red	3.75

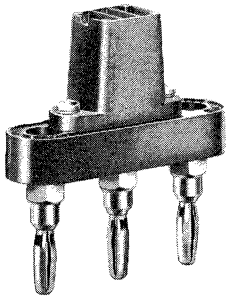
INSULATED SPADE LUG ADAPTER

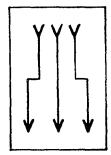


Permits single banana plug to be used with equipment having binding posts. Tough thermoplastic molded to body for maximum reliability and low shock hazard. Spade lug body, one piece machined brass, nickel plated.
UPPER: Banana jack, .166 dia.
LOWER: Spade lug, .26 opening.
COLORS: Black, Red

MODEL 1614 (Specify color) **NET .35**

ADAPTER — TRANSISTOR TEST SOCKET

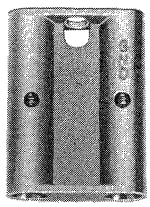


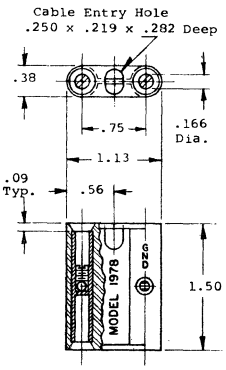


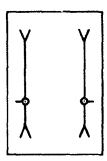
Permits the insertion of transistors with .017 dia. leads into equipment having banana jacks ¾" on centers. Ideal for incoming inspection. Transistor socket contact and banana spring made of beryllium copper. Heavy duty phenolic construction. Insulation resistance: 1 x 10^5 megohms min. @ 500 V.D.C., at 40% R.H., 24°C.

MODEL 1472 **NET 5.85**

DOUBLE BANANA PLUG CABLE SPLICE



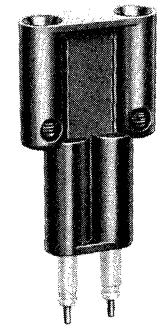


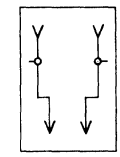


Provides rapid method for splicing cables. Internal set-screws firmly secure leads. Cable strain relief provided for extra pull-strength. Beveled thru-holes eliminate shock hazard by completely enclosing banana plug contact. Standard .166 dia. banana jacks, ¾" on centers.
RECEPTACLES: Brass, nickel plated, .166 dia.
PLUG BODY: Tough Thermo-Plastic molded to receptacle.
COLORS: Black, Red.

MODEL 1978 (Specify Color) **NET .75**

ADAPTER — AMP PROGRAM BOARD



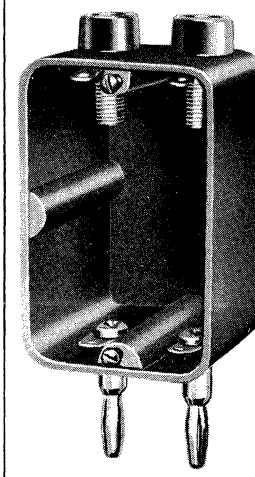


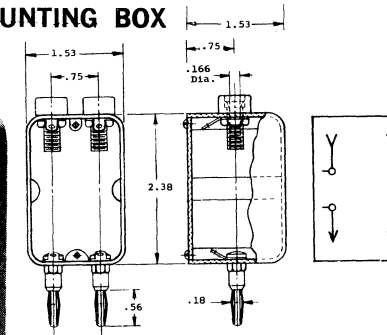
Permits single or double banana plug to be used with AMP program boards having ¼" or ⅜" center to center spacing. Ideal for mounting components. Internal set screws secure leads. Useful in analog computer applications, etc.
UPPER: Banana jacks, ¾" on centers. Brass nickel plated.
LOWER: Dual AMP pins, ¼" or ⅜" on centers.

MODEL	PIN SPACING	COLOR	NET
1977	⅜"	Black	3.85
1991	¼"	Gray	3.85

MODEL 1977

COMPONENT MOUNTING BOX



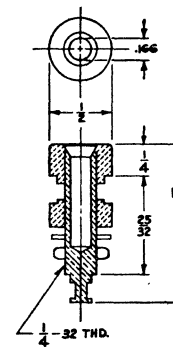


Build your own active or passive networks. A multitude of uses. Molded housing of electrical grade phenolic. Cover plate and mounting screws included.
UPPER: Insulated banana jacks, ¾" on center .166 dia. Brass, nickel plated.
LOWER: Banana plugs, ¾" on centers. One piece nickel plated beryllium copper spring for use with standard 0.166 dia. banana jacks.
COLOR: Housing and cover, Black.
Banana jack insulators: Black, Red.

MODEL 1224 **NET 2.9**

INSULATED BANANA JACK ASSEMBLY

Used with standard banana plugs. Body, one piece brass, silver plated. Heavy duty shouldered ceramic insulator. Lockwasher and hex nut included, unassembled.



FEATURES:

- Closed entry receptacle, .166 dia.
- Insulator head molded to body
- Mounts in ⅜" dia. hole, panels up to ⅜" thi
- Solder turret terminal
- Rated: 2,500 WVDC

1581 — Black	1581-5 — Gre
1581-1 — Brown	1581-6 — Blu
1581-2 — Red	1581-7 — Viol
1581-3 — Orange	1581-8 — Gra
1581-4 — Yellow	1581-9 — Whi

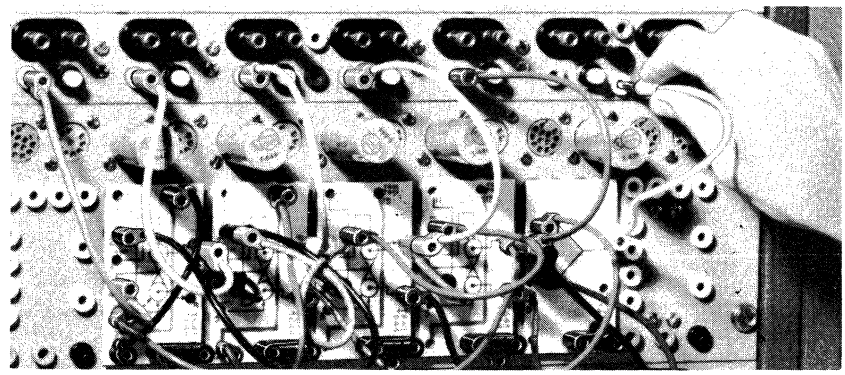
Standard Package: 10 (per color)

MODEL 1581 (Specify Color) **NET .2**

POMONA Electronics — PATCH CORDS BANANA PLUG

POMONA BANANA PLUG PATCH CORDS

Tough thermoplastic insulation molds the plug and leads into a strong moisture resistant integral unit. Excellent for computer board and test equipment applications. Used by leading industries in applications where extreme reliability is of prime importance.



FEATURES

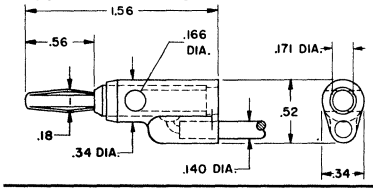
- One piece beryllium copper heat treated spring for maximum long life.
- Rounded spring design results in maximum contact area.
- Extra flexible polyvinyl insulation used on all leads.

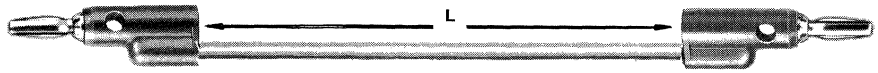
SPECIFICATIONS

- Fits standard 0.166 dia. banana jacks.
- Spring, beryllium copper alloy 25 per QQ-C-533.
- Plug body, brass per QQ-B-626, Comp. 22.
- Nickel plated per QQ-N-290, Class 2.
- Contact resistance less than 0.001 ohms per plug.
- Temp. Range: −0°C to +105°C.
- Wire, 18 AWG, stranding 65 x 36 T.C.
- Insulation, polyvinyl .140" O.D.
- Ratings: 15 A. Cont., 30 A. Int. 10,000 W.V.D.C.

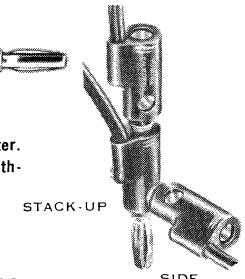
STACK-UP BANANA PLUG PATCH CORD

MODEL	LENGTH
B-4	4"
B-8	8"
B-12	12"
B-18	18"
B-24	24"
B-36	36"





Multiple stacking feature accommodates the most complex stacking; keeps circuitry neater. Greatly simplifies circuit connections and changes. Reliable solder-bonded connections withstand pull test in excess of 50 lbs. Banana plugs both ends.
COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

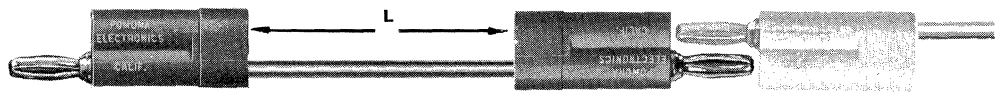


MODEL B (Specify Color) — **NET 1.50**

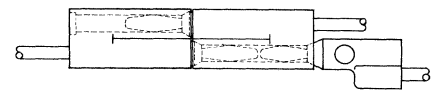
EXTENSION STACKING BANANA PLUG PATCH CORD

MODEL	LENGTH
HB-4	4"
HB-8	8"
HB-12	12"
HB-18	18"
HB-24	24"
HB-36	36"

(Specify Color)



Dual purpose. Shields all hot leads when used as an extension cord. Endless extension couplings possible with any banana plug patch cord. Provides vertical stacking from any jack. Reliable solder-bonded connections withstand pull test in excess of 50 lbs. Banana plugs both ends.
COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

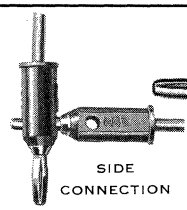


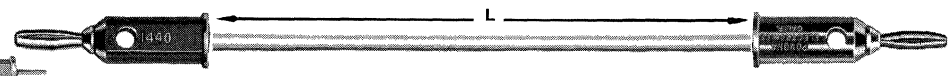
MODEL HB — **NET 1.75**

HORIZONTAL STACKING BANANA PLUG PATCH CORD

MODEL	LENGTH
1440-4	4"
1440-8	8"
1440-12	12"
1440-18	18"
1440-24	24"
1440-36	36"

(Specify Color)





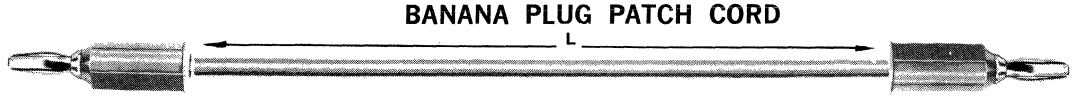
Ideal as an interconnecting lead between power supplies, test equipment, etc.
Horizontal stacking feature. Banana plugs on both ends.
COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

MODEL 1440 — **NET 1.00**

BANANA PLUG PATCH CORD

MODEL	LENGTH
1985-4	4"
1985-8	8"
1985-12	12"
1985-18	18"
1985-24	24"
1985-36	36"

(Specify Color)



Excellent for general lab work. Permits interconnection between test instruments, etc. Banana plugs both ends.
COLORS: Black, Brown, Red, Orange, Red, Yellow, Green, Blue, Violet, Gray, White.

MODEL 1985 — **NET .85**

OTHER LENGTHS AVAILABLE TO ORDER

Net

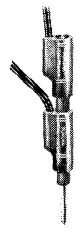
© U.C.P., Inc.

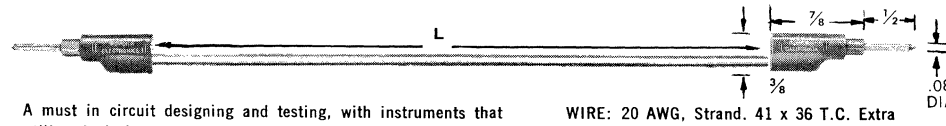
POMONA Electronics — PATCH CORDS .080 TIP

PIN TIP VERTICAL STACKING PATCH CORD

MODEL	LENGTH
P-4	4″
P-8	8″
P-12	12″
P-18	18″
P-24	24″
P-36	36″

MODEL P
(Specify Color)
NET 1.75


STACK-UP



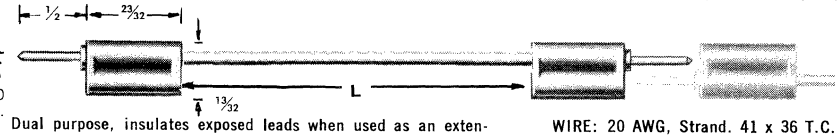
A must in circuit designing and testing, with instruments that utilize tip jacks.
PIN TIP: .080 dia., ½″ long, brass, gold flashed.
RECEPTACLE: Beryllium copper, gold flashed. Accepts .080 dia. pin.

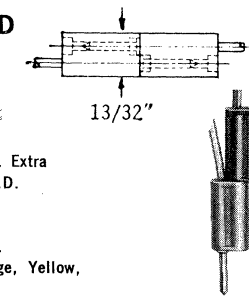
WIRE: 20 AWG, Strand. 41 x 36 T.C. Extra flexible polyvinyl insulation .087″ O.D.
RATED: 5 A. Cont., 10 A. Int.
3,000 W.V.D.C.
TEMP. RANGE: —0°C to +105°C.
COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

PIN TIP EXTENSION STACKING PATCH CORD

MODEL	LENGTH
1727-4	4″
1727-8	8″
1727-12	12″
1727-18	18″
1727-24	24″
1727-36	36″

MODEL 1727
(Specify Color)
NET 1.85





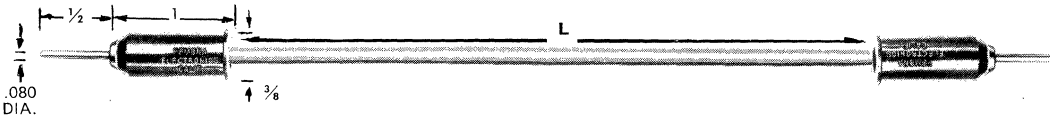
Dual purpose, insulates exposed leads when used as an extension cord. Endless extension coupling possible. Also provides stacking from .080 jack.
PIN TIP: .080 dia., ½″ long, brass, gold flashed.
RECEPTACLE: Beryllium copper, gold flashed. Accepts .080 dia. pin.

WIRE: 20 AWG, Strand. 41 x 36 T.C. Extra flexible polyvinyl insulation .087″ O.D.
RATED: 5 A. Cont., 10 A. Int.
3,000 W.V.D.C.
TEMP. RANGE: — 0°C to +105°C.
COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

PIN TIP PATCH CORD

MODEL	LENGTH
1990-4	4″
1990-8	8″
1990-12	12″
1990-18	18″
1990-24	24″
1990-36	36″

MODEL 1990
(Specify Color)
NET .75



Heavy Duty patch cord. Excellent for general lab work. Permits interconnection between test instruments that utilize tip jacks.
PIN TIP: .080 dia., ½″ long, brass, nickel plated.
WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation .140″ O.D.

RATED: 5 A. Cont., 10 A. Int.
10,000 W.V.D.C.
TEMP. RANGE: — 0°C to +105°C.
COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

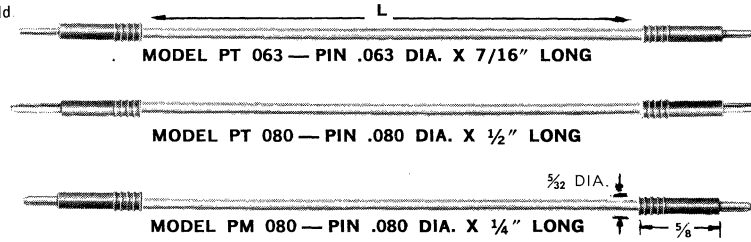
PIN TIP PATCH CORD

MODEL			LENGTH
PT063-4	PT080-4	PM080-4	4″
PT063-8	PT080-8	PM080-8	8″
PT063-12	PT080-12	PM080-12	12″
PT063-18	P8080-18	PM080-18	18″
PT063-24	PT080-24	PM080-24	24″
PT063-36	PT080-36	PM080-36	36″

MODEL PT & PM (Specify Color)
NET .85

Small body style permits usage in equipment having receptacles spaced closely together. Three models shown.

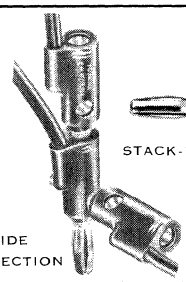
PIN TIP: Brass, gold flashed.
WIRE: 22 AWG, Strand. 19 x 34 T.C. Insulation, polyvinyl .064″ O.D.
RATED: 3 A. Cont., 7.5 A. Int.
1,000 W.V.D.C.
COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.



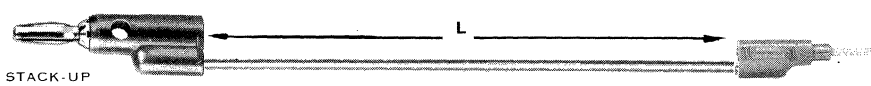
BANANA PLUG TO PIN STACK-UP PATCH CORD

MODEL	LENGTH
1126-4	4″
1126-8	8″
1126-12	12″
1126-18	18″
1126-24	24″
1126-36	36″

MODEL 1126
(Specify Color)
NET 1.75


SIDE CONNECTION

Adapts to equipment using banana jacks and pin jacks. Banana plug and pin tip allow vertical stack-up.



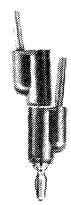
BANANA PLUG: Spring, one piece beryllium copper, heat treated, nickel plated.
PIN TIP: .080 dia. ½″ long, brass, gold flashed.

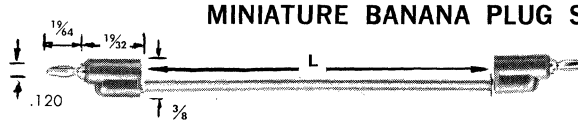
Receptacle, beryllium copper, gold flashed.
Accepts .080 Dia. pin.
WIRE: 20 AWG, Strand. 41 x 36 T.C. Extra flexible polyvinyl insulation .087″ O.D.
RATED: 5 A. Cont., 10 A. Int.
3,000 W.V.D.C.
TEMP. RANGE: — 0°C to +105C
COLORS: Black, Red.

MINIATURE BANANA PLUG STACK-UP PATCH CORD

MODEL	LENGTH
1081-4	4″
1081-8	8″
1081-12	12″
1081-18	18″
1081-24	24″
1081-36	36″

MODEL 1081
(Specify Color)
NET 1.50





Fits miniature banana jacks with .104 dia. Compact size. For use where receptacles are spaced closely together.

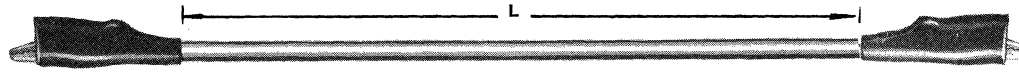
BANANA PLUG: Spring, one piece beryllium cop heat treated. Gold flashed.
WIRE: 20 AWG, Strand. 41 x 36 T.C. Extra flex polyvinyl insulation .087″ O.D.
RATED: 5 A. Cont., 10 A. Int.
3,000 W.V.D.C.
TEMP. RANGE: — 0°C to +105C°.
COLORS: Black, Brown, Red, Orange, Yellow, Gr Blue, Gray White.

OTHER LENGTHS AVAILABLE TO ORDER

POMONA Electronics — JUMPERS— CLIP LEADS

MODEL	LENGTH
MG-B-4	4″
MG-B-8	8″
MG-B-12	12″
MG-B-24	24″
MG-B-36	36″

MODEL MG-B
(Specify Color)



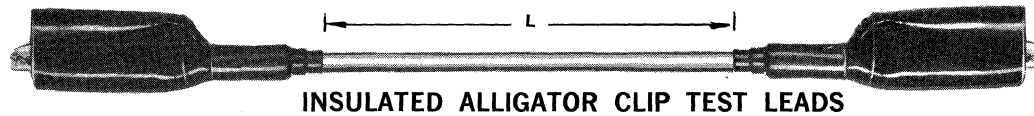
INSULATED MINIGATOR CLIP TEST LEADS

CLIP: Minigator, steel, cad plated.
WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation .140″ O.D.
INSULATOR: Red vinyl with red wire. Black on all other colors.
COLORS: Black, Red.

NET .95

MODEL	LENGTH
AL-B-4	4″
AL-B-8	8″
AL-B-12	12″
AL-B-24	24″
AL-B-36	36″

MODEL AL-B
(Specify Color)



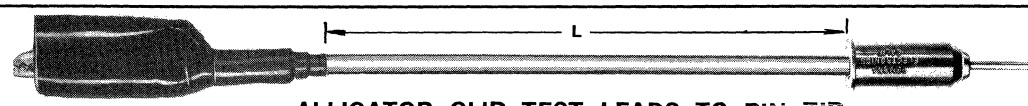
INSULATED ALLIGATOR CLIP TEST LEADS

CLIP: Alligator, steel, cad plated.
WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation .140″ O.D.
INSULATOR: Red vinyl with red wire. Black on all other colors.
COLORS: Black, Red.

NET .95

MODEL	LENGTH
1958-4	4″
1958-8	8″
1958-12	12″
1958-24	24″
1958-36	36″

MODEL 1958
(Specify Color)



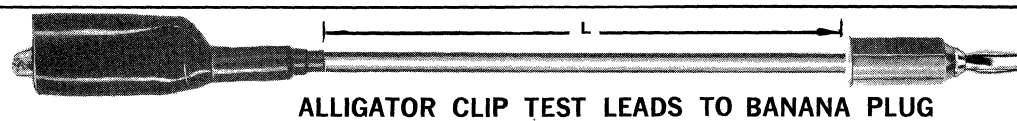
ALLIGATOR CLIP TEST LEADS TO PIN TIP

Adapts to equipment using tip jacks.
CLIP: Alligator, steel, cad plated.
PIN TIP: .080 dia. x ½″ long. Brass nickel plated. Tough thermo-plastic molded to body.
INSULATOR: Red vinyl with red wire. Black on all other colors.
WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation .140″ O.D.
COLORS: Black, Red.

NET .95

MODEL	LENGTH
1959-4	4″
1959-8	8″
1959-12	12″
1959-24	24″
1959-36	36″

MODEL 1959
(Specify Color)



ALLIGATOR CLIP TEST LEADS TO BANANA PLUG

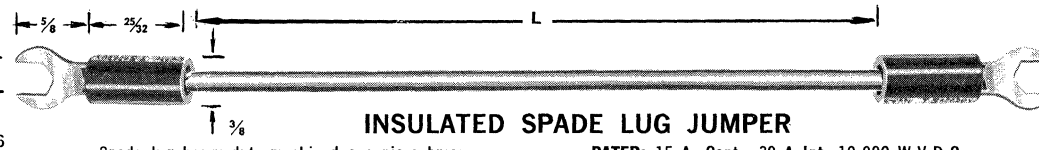
Adapts to equipment using standard banana jacks.
CLIP: Alligator, steel, cad plated.
BANANA PLUG: Spring, one piece beryllium copper heat treated, nickel plated. Tough thermoplastic molded to body.
INSULATOR: Red vinyl with red wire. Black on all other colors.
WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation .140″ O.D.
COLORS: Black, Red.

NET .95

MODEL	LENGTH	NET
1743-12	12″	.95
1743-24	24″	.95
1743-36	36″	.95
1743-48	48″	1.00
1743-60	60″	1.05

(Typical Dimensions spade lug)

MODEL 1743
(Specify Color)

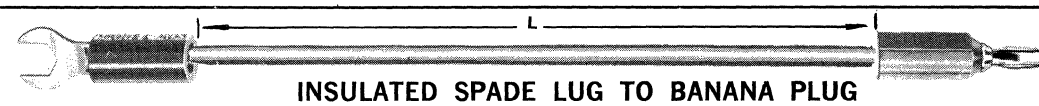


INSULATED SPADE LUG JUMPER

Spade lug heavy duty machined one piece brass. Tough thermo-plastic molded to spade lug body.
SPADE LUGS: Brass 1/16″ thick, nickel plated.
WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation .140″ O.D.
RATED: 15 A. Cont., 30 A Int. 10,000 W.V.D.C.
TEMP. RANGE: —0°C to +105°C.
COLORS: Black, Red, Green, White.

MODEL	LENGTH	NET
1987-12	12″	.95
1987-24	24″	.95
1987-36	36″	.95
1987-48	48″	1.00
1987-60	60″	1.05

MODEL 1987
(Specify Color)

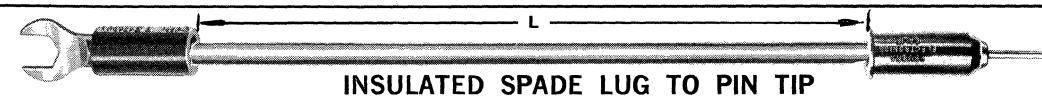


INSULATED SPADE LUG TO BANANA PLUG

Spade lug, heavy duty machined one piece brass. Tough thermo-plastic molded to spade lug and banana plug body.
SPADE LUG: Brass 1/16″ thick, nickel plated.
BANANA PLUG: Spring one piece beryllium copper heat treated, nickel plated.
WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation .140″ O.D.
RATED: 15 A. Cont., 30 A. Int. 10,000 W.V.D.C.
TEMP. RANGE: —0°C to +105°C.
COLORS: Black, Red, Green, White.

MODEL	LENGTH	NET
1989-12	12″	.95
1989-24	24″	.95
1989-36	36″	.95
1989-48	48″	1.00
1989-60	60″	1.05

MODEL 1989
(Specify Color)

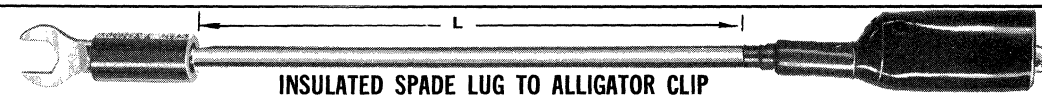


INSULATED SPADE LUG TO PIN TIP

Spade lug, heavy duty machined one piece brass. Tough thermo-plastic molded to spade lug and pin tip body.
SPADE LUG: Brass 1/16″ thick, nickel plated.
PIN TIP: .080 dia. ½″ long. Brass nickel plated.
WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation .140″ O.D.
RATED: 5 A. Cont. 10 A. Int. 10,000 W.V.D.C.
TEMP. RANGE: —0°C to +105°C.
COLORS: Black, Red, Green, White.

MODEL	LENGTH	NET
1960-12	12″	.95
1960-24	24″	.95
1960-36	36″	.95
1960-48	48″	1.00
1960-60	60″	1.05

MODEL 1960
(Specify Color)



INSULATED SPADE LUG TO ALLIGATOR CLIP

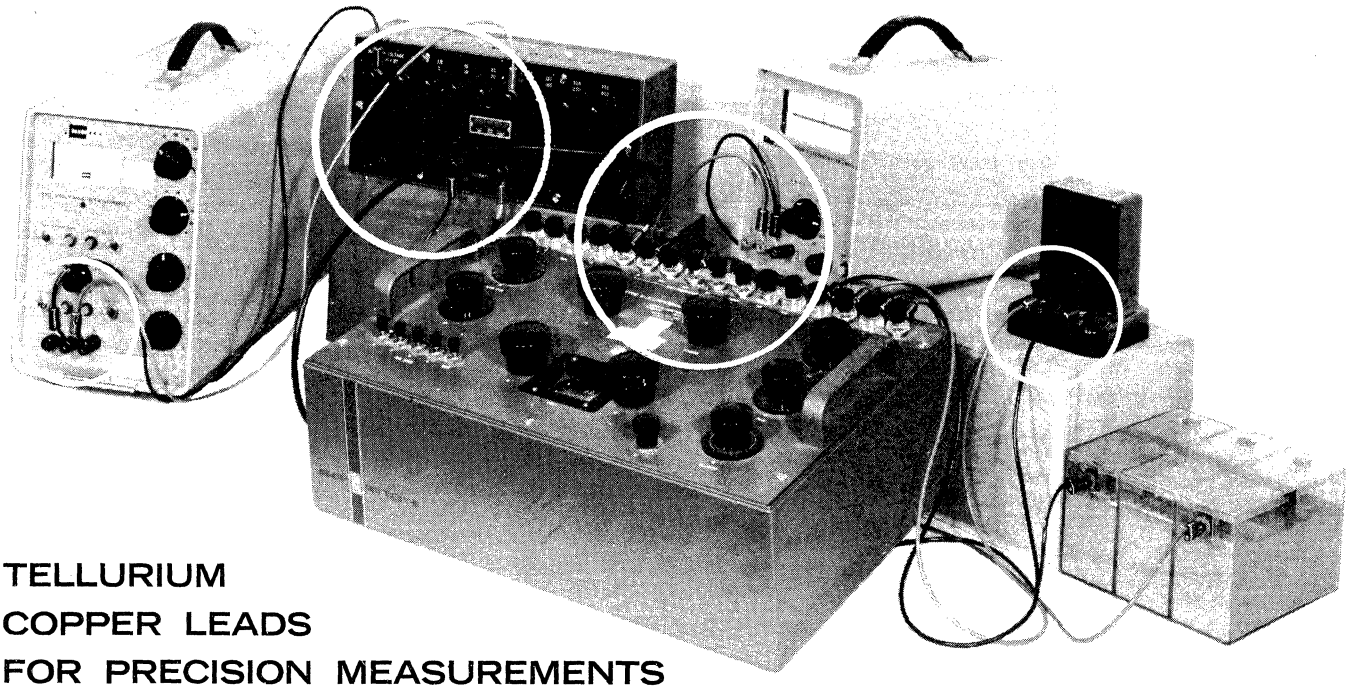
Spade lug, heavy duty machined one piece brass. Tough thermo-plastic molded to spade lug body.
SPADE LUG: Brass 1/16″ thick, nickel plated.
CLIP: Alligator, steel, cad plated.
INSULATOR: Red vinyl with red wire. Black on all other colors.
WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation .140″ O.D.
COLORS: Black, Red, Green, White.

OTHER LENGTHS AVAILABLE TO ORDER

Net

© U.C.P., Inc.

POMONA *Electronics* JUMPERS— LOW THERMAL E.M.F.



TELLURIUM COPPER LEADS FOR PRECISION MEASUREMENTS

POMONA ELECTRONICS has advanced the state of the art in measurements where Thermoelectric Effects are significant sources of error. Comparators designed for use with the Kelvin-Varley voltage divider and microvolt leads were tested with Primary Standards Laboratory equipment.
Thermoelectric voltages were not detected until the most sensitive galvanometer range was used.

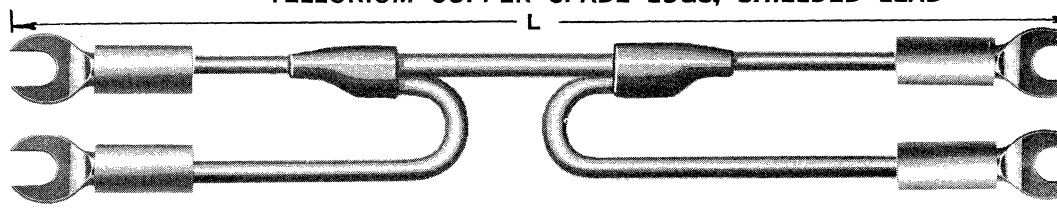
THERMOELECTRIC PROPERTIES—Tellurium copper gold plated spade lugs cold-staked to multi-stranded 12 gauge COPPER wire minimize thermoelectric effects—an absolute necessity for low voltage, high precision measurements.

LOW RESISTANCE—12 gauge multi-stranded COPPER wire results in extremely low cable resistance. Spade lugs plated with 50 micro inches gold for minimum contact resistance and minimum thermal EMF when using copper binding posts (Less than 0.1 μv/c°).

TELLURIUM COPPER SPADE LUGS, SHIELDED LEAD

MODEL	LENGTH
1756-24	24″
1756-48	48″

MODEL 1756
(Specify Length)



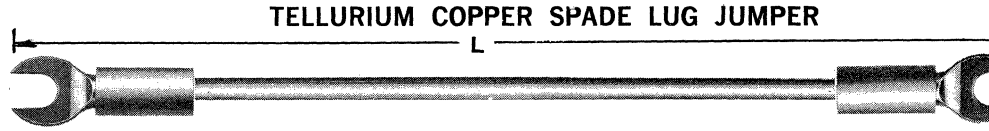
Designed for use with Kelvin Varley voltage dividers where extreme precision is required for low voltage measurement Features guard shield to effectively reduce shunt resistance. Tough thermo-plastic molded to spade lug body. Tellurium copp heavy duty one piece machined spade lug gold plated per MIL-G-45204, Type II Class I. Conductor 12 AWG multi-strand bare copper. Polyethylene primary insulation. Braided shield bare copper. Polyvinyl jacket, color black, per MIL-C-17C Type IIA

NET 9.85

TELLURIUM COPPER SPADE LUG JUMPER

MODEL	LENGTH	NET
1693-12	12″	2.50
1693-18	18″	2.50
1693-24	24″	2.50
1693-36	36″	2.50
1693-48	48″	2.55
1693-60	60″	2.60

MODEL 1693
(Specify Color)



Single conductor tellurium copper spade lug jumper used in applications where guard shield is not required. Tough therm plastic molded to spade lug body. Tellurium Copper heavy duty one piece machined spade lug gold plated per MIL-G-452 Type II, Class I. Conductor, 12 AWG multi-stranded bare copper. Insulation polyvinyl, 105°C. .144″ O.D.
COLORS: Black, Red, Green.

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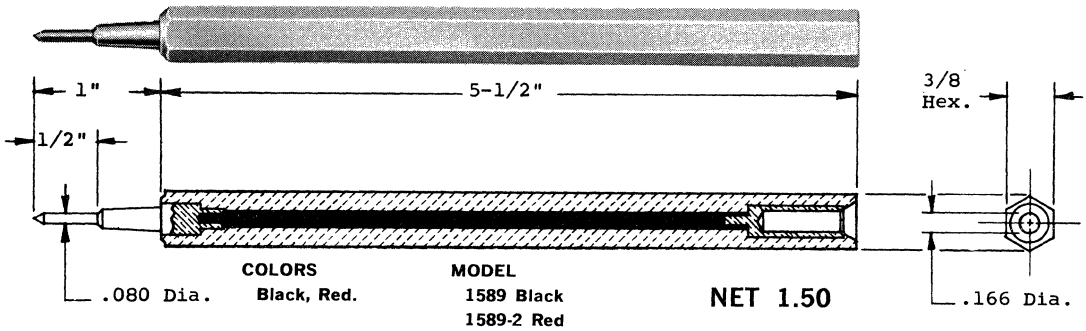
POMONA Electronics TEST PROBES

TEST PROBE TO BANANA JACK



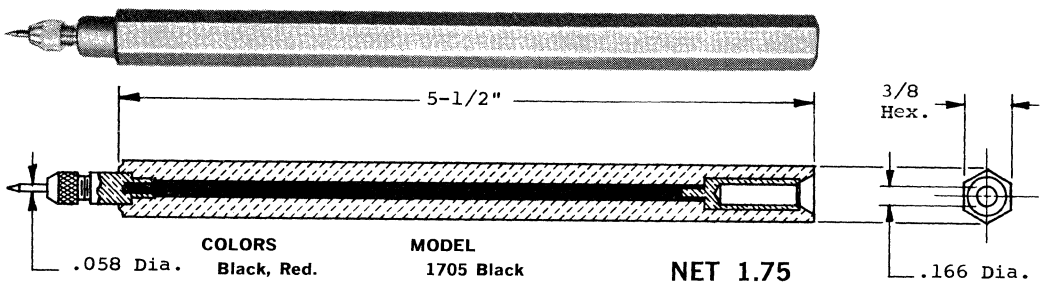
COLORS	MODEL	
Black, Red.	1589 Black 1589-2 Red	NET 1.50

Banana jack in handle connected to tip. Permits use of standard banana plugs for circuit testing as a test prod. Heavy duty insulated handle molded to banana jack and tip.

PIN TIP: .080 dia. x ½" long, brass nickel plated.

RECEPTACLE: .166 dia. Brass nickel plated. Accepts standard banana plug.

NEEDLE TIP PROBE TO BANANA JACK



COLORS	MODEL	
Black, Red.	1705 Black 1705-2 Red	NET 1.75

Sharp replaceable needle tip allows testing of encapsulated circuits. Banana jack in handle connected to tip. Permits use of standard banana plugs for circuit testing as a test prod. Heavy duty insulated handle molded to banana jack and tip.

PIN TIP: Replaceable needle tip, steel nickel plated.

RECEPTACLE: .166 dia. Brass nickel plated. Accepts standard banana plug.

TEST PROBE TO BANANA PLUG

Insulated handle molded to probe tip and wire lead.
PROBE PIN TIP: .080 dia. x ½" long. Brass nickel plated.
WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation, .140" O.D.

BANANA PLUG: Spring, one piece beryllium copper, heat treated, nickel plated. Tough thermo-plastic molded to body.
COLORS: Black, Red.

MODEL	LENGTH	COLOR	NET
1986-48-B	48"	Black	1.75
1986-48-R	48"	Red	1.75

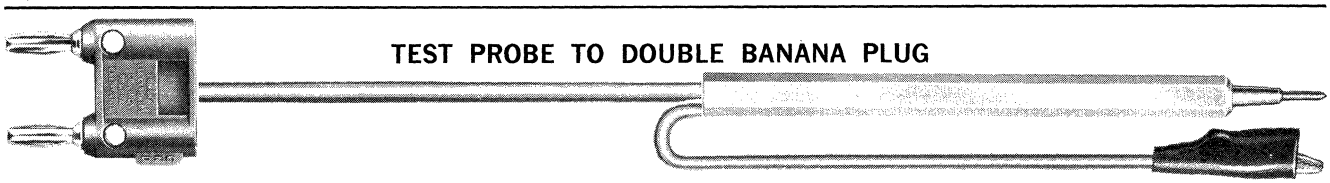
TEST PROBE TO PIN TIP

nsulated handle molded to probe tip and wire lead.
ROBE PIN TIP: .080 dia. x ½" long. Brass nickel plated.
IRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation .140" O.D.

PIN TIP: .080 dia. x ½" long. Brass nickel plated. Tough thermo-plastic molded to body.
COLORS: Black, Red.

MODEL	LENGTH	COLOR	NET
1988-48-B	48"	Black	1.75
1988-48-R	48"	Red	1.75

TEST PROBE TO DOUBLE BANANA PLUG



e piece molded construction. Insulated handle molded to probe tip and cable.
uble banana plug molded to cable. Insulated minigator clip connected to shield
id.
OBE PIN TIP: .080 dia. x ½" long. Brass nickel plated.
NANA PLUG: Spring, one piece beryllium copper, heat treated, nickel plated.
Tough thermo-plastic molded to double plug body. Color, Gray.

CLIP: Minigator, steel, cad plated.
INSULATOR, VINYL: Color, Black.
CABLE: Shielded microphone cable: Polyethylene insulation. Vinyl jacket. Nom. capacity 25 pf./ft. Color, Gray.
HANDLE: Color, red, molded of tough thermo-plastic.

MODEL	LENGTH	
1569-B-48	48"	NET 5.85

OTHER LENGTHS AVAILABLE TO ORDER

© U.C.P., Inc.

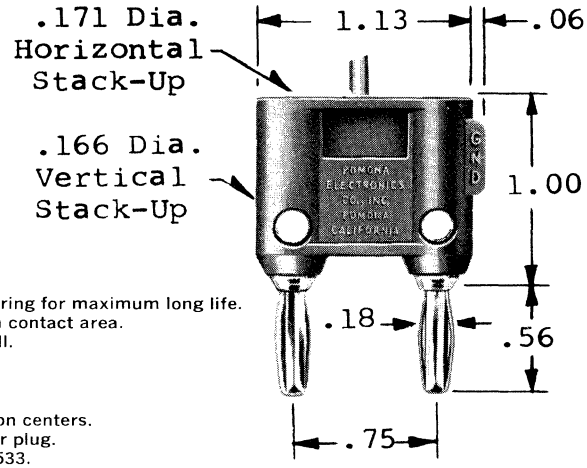
POMONA Electronics — PATCH CORDS DOUBLE BANANA PLUGS

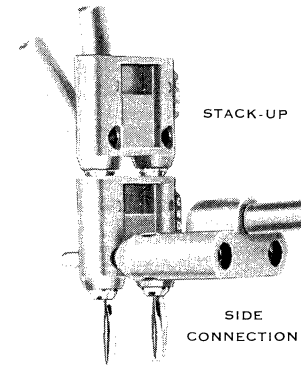
POMONA MOLDED DOUBLE BANANA PLUG PATCH CORDS AND TEST LEADS

. . . indispensable for bridge transformer connections, three terminal capacitor measurements and general hook-up for two wire systems. They are horizontally and vertically stackable in parallel.

Tough thermo-plastic material molded to plug body and cable insures maximum strength, moisture resistance and excellent insulative properties.

Used by leading industries in applications where extreme reliability is of prime importance.





FEATURES . . .

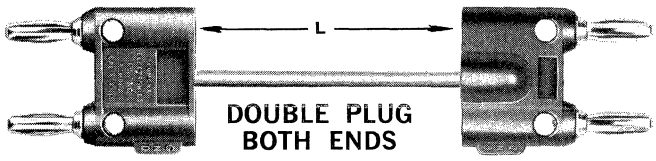
- One piece beryllium copper heat treated spring for maximum long life.
- Rounded spring design results in maximum contact area.
- GND., clearly molded on plug body and shell.
- Solder-bonded noise-free connections.

SPECIFICATIONS . . .

- Fits standard 0.166 dia. banana jacks, ¾″ on centers.
- Contact resistance less than 0.001 ohms per plug.
- Spring beryllium copper alloy 25 per QQ-C-533.
- Plug body brass per QQ-B-626, Comp. 22.
- Nickel plated per QQ-N-290, Class 2.

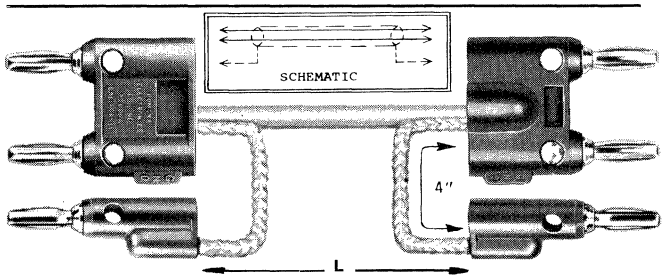
CABLE TYPE DESCRIPTION

TWO COND. TWISTED PAIR	18 AWG, Strand. 65 x 36 T.C. Vinyl insulation. Vinyl jacket, .250″ O.D. Nom. Cap. 30 pf/ft. COLOR: Gray.
SHIELDED MICROPHONE CABLE	Polyethylene insulation. Vinyl jacket, .205″ O.D. Nom. Cap. 25 pf/ft. COLOR: Gray.
COAXIAL SHIELDED CABLE	RG58C/U Polyethylene insulation. Vinyl jacket. .195″ O.D. Nom. Cap. 28.5 pf/ft. COLOR: Black.



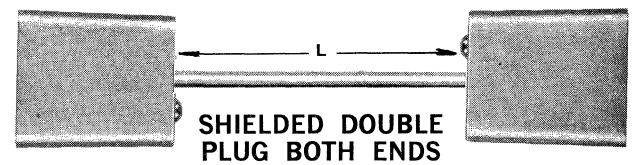
DOUBLE PLUG BOTH ENDS

TWO COND. TWISTED PR.	SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
2BA-18	2BB-18	2BC-18	18″	4.85
2BA-24	2BB-24	2BC-24	24″	4.85
2BA-30	2BB-30	2BC-30	30″	4.85
2BA-36	2BB-36	2BC-36	36″	4.85
2BA-48	2BB-48	2BC-48	48″	5.00
2BA-60	2BB-60	2BC-60	60″	5.15



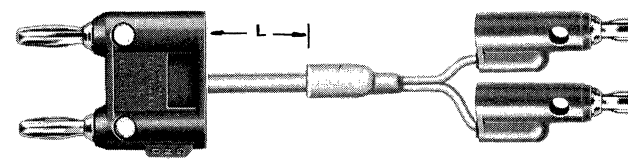
TWO COND. SHIELDED BALANCED LINE

CABLE DESCRIPTION	MODEL	LENGTH
2-Cond. shielded mic. cable. Polyethylene insulation. Vinyl jacket, .231″ O.D. Nom. Cap. between cond. 18 pf./ft. Nom. Cap. between one cond. and remaining cond. connected to shield, 32 pf./ft. COLOR: Cable and double plug, Gray. Single ground plug, Green.	1167-18	18″
	1167-24	24″
	1167-30	30″
	1167-36	36″
	MODEL 1167	
	NET 7.85	



SHIELDED DOUBLE PLUG BOTH ENDS

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
1550-B-18	1550-C-18	18″	5.85
1550-B-24	1550-C-24	24″	5.85
1550-B-30	1550-C-30	30″	5.85
1550-B-36	1550-C-36	36″	5.85
1550-B-48	1550-C-48	48″	6.00
1550-B-60	1550-C-60	60″	6.15



DOUBLE PLUG TO SINGLE BANANA PLUGS

CABLE DESCRIPTION		MODEL	LENGTH
TWO COND. TWISTED PAIR	18 AWG, Strand. 65 x 36 T.C. Vinyl insulation. Vinyl jacket, .250″ O.D. Nom. Cap. 30 pf/ft. COLOR: Gray.	1368-18	18″
		1368-24	24″
		1368-30	30″
		1368-36	36″
		MODEL 1368	
		NET 5.85	

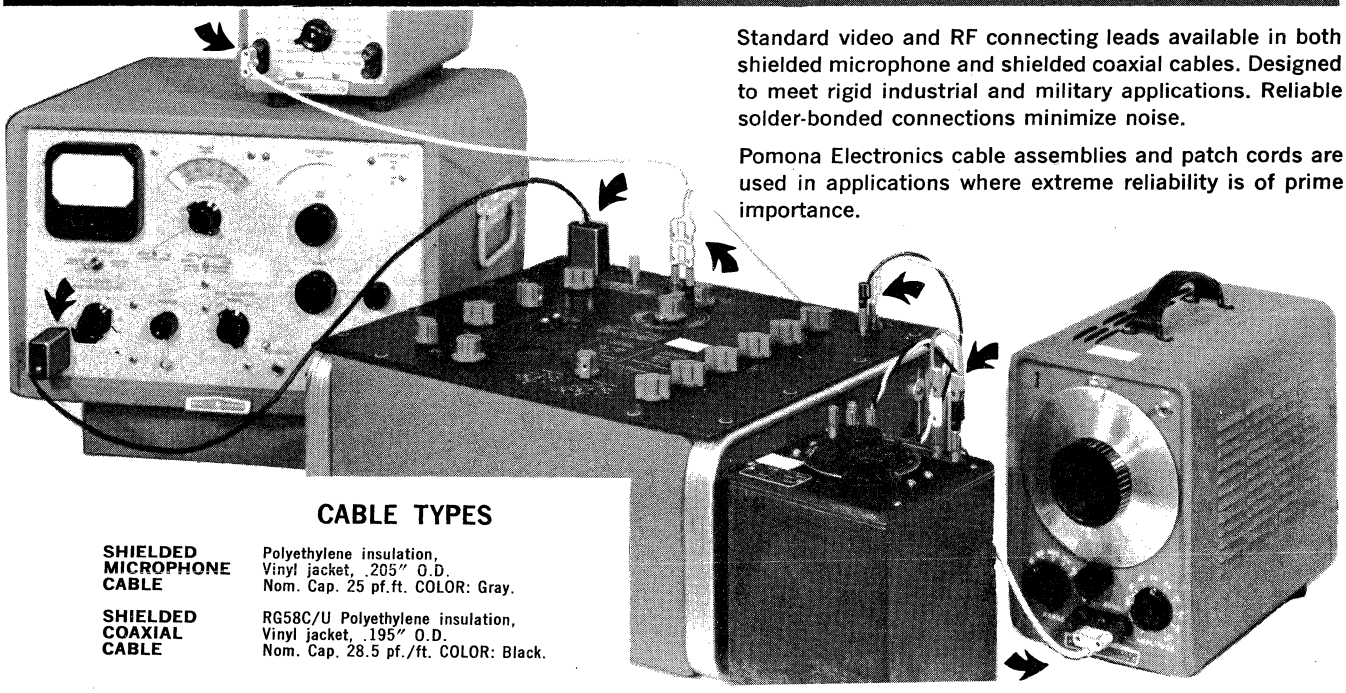
NOTE: Molded double plug matches color of cable.
Two cond. Twisted pair, GRAY. Shielded mic. cable, GRAY.
Coaxial RG58C/U Cable, BLACK.

1. Other cable colors available to order on the Two Cond. Twisted Pair and Shiel Mic. cable models with plug to match.
COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, Wh
2. Other lengths and cable types available to order.

POMONA *Electronics* PATCH CORDS BNC CONNECTING LEADS

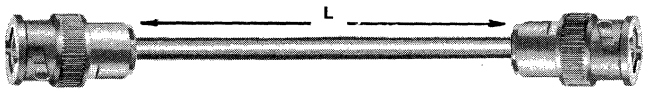
Standard video and RF connecting leads available in both shielded microphone and shielded coaxial cables. Designed to meet rigid industrial and military applications. Reliable solder-bonded connections minimize noise.

Pomona Electronics cable assemblies and patch cords are used in applications where extreme reliability is of prime importance.



CABLE TYPES

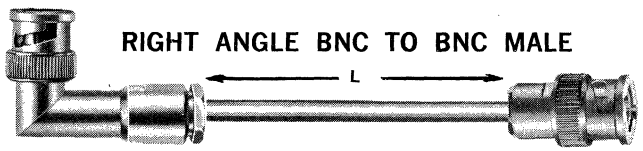
SHIELDED MICROPHONE CABLE	Polyethylene insulation, Vinyl jacket, .205″ O.D. Nom. Cap. 25 pf.ft. COLOR: Gray.
SHIELDED COAXIAL CABLE	RG58C/U Polyethylene insulation, Vinyl jacket, .195″ O.D. Nom. Cap. 28.5 pf./ft. COLOR: Black.



BNC MALE BOTH ENDS

CONN.: 1ST END } UG88C/U, Male BNC — **CABLE:** Shielded Mic. or Shielded Coax, RG58C/U. — **CONN.:** 2ND END } UG88C/U, Male BNC

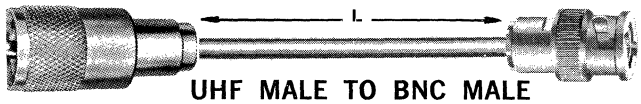
SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
BNC-B-18	BNC-C-18	18″	5.85
BNC-B-24	BNC-C-24	24″	5.85
BNC-B-30	BNC-C-30	30″	5.85
BNC-B-36	BNC-C-36	36″	5.85
BNC-B-48	BNC-C-48	48″	6.00
BNC-B-60	BNC-C-60	60″	6.15



RIGHT ANGLE BNC TO BNC MALE

CONN.: ST END } UG913A/U, Angle Male BNC — **CABLE:** Shielded Mic. or Shielded Coax, RG58C/U. — **CONN.:** 2ND END } UG88C/U, Male BNC

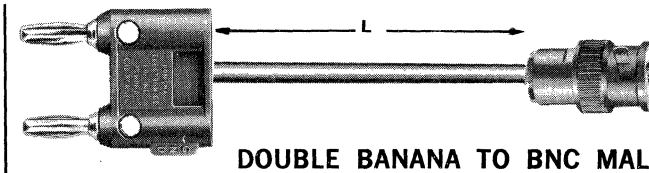
SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
1383-B-18	1383-C-18	18″	7.85
1383-B-24	1383-C-24	24″	7.85
1383-B-30	1383-C-30	30″	7.85
1383-B-36	1383-C-36	36″	7.85



UHF MALE TO BNC MALE

CONN.: ST END } PL259, UHF Male — **CABLE:** Shielded Mic. or Shielded Coax, RG58C/U. — **CONN.:** 2ND END } UG88C/U, Male BNC

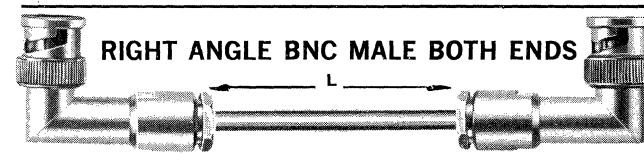
SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
1367-B-18	1367-C-18	18″	5.85
1367-B-24	1367-C-24	24″	5.85
1367-B-30	1367-C-30	30″	5.85
1367-B-36	1367-C-36	36″	5.85



DOUBLE BANANA TO BNC MALE

CONN.: 1ST END } Double Banana Plug, ¾″ on Centers — **CABLE:** Shielded Mic. or Shielded Coax, RG58C/U. — **CONN.:** 2ND END } UG88C/U, Male BNC

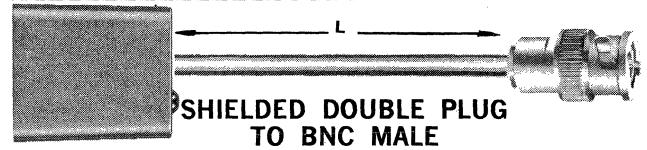
SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
2BB-BNC-18	2BC-BNC-18	18″	5.85
2BB-BNC-24	2BC-BNC-24	24″	5.85
2BB-BNC-30	2BC-BNC-30	30″	5.85
2BB-BNC-36	2BC-BNC-36	36″	5.85
2BB-BNC-48	2BC-BNC-48	48″	6.00
2BB-BNC-60	2BC-BNC-60	60″	6.15



RIGHT ANGLE BNC MALE BOTH ENDS

CONN.: 1ST END } UG913A/U, Angle Male BNC — **CABLE:** Shielded Mic. or Shielded Coax, RG58C/U. — **CONN.:** 2ND END } UG913A/U, Angle Male BNC

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
1155-B-18	1155-C-18	18″	10.85
1155-B-24	1155-C-24	24″	10.85
1155-B-30	1155-C-30	30″	10.85
1155-B-36	1155-C-36	36″	10.85



SHIELDED DOUBLE PLUG TO BNC MALE

CONN.: 1ST END } Shielded Double plug, ¾″ on centers. — **CABLE:** Shielded Mic. or Shielded Coax, RG58C/U. — **CONN.:** 2ND END } UG88C/U, Male BNC

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
1555-B-18	1555-C-18	18″	6.85
1555-B-24	1555-C-24	24″	6.85
1555-B-30	1555-C-30	30″	6.85
1555-B-36	1555-C-36	36″	6.85

OTHER LENGTHS AND CABLE TYPES AVAILABLE TO ORDER

Net

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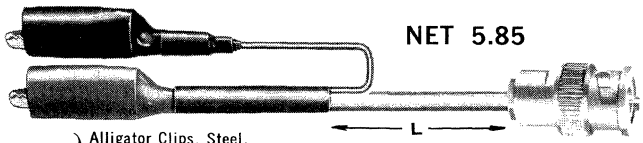
POMONA Electronics

PATCH CORDS CONNECTING LEADS

ALLIGATOR CLIPS TO BNC MALE



NET 5.85

CONN.: 1ST END — Alligator Clips, Steel, cad plated. Insulators, Vinyl: Black/Red.
CABLE: Shielded Mic. or Shielded Coax, RG58C/U.
CONN.: 2ND END — UG88C/U, BNC, Male.

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH
AL-B-BNC-18	AL-C-BNC-18	18″
AL-B-BNC-24	AL-C-BNC-24	24″
AL-B-BNC-30	AL-C-BNC-30	30″
AL-B-BNC-36	AL-C-BNC-36	36″

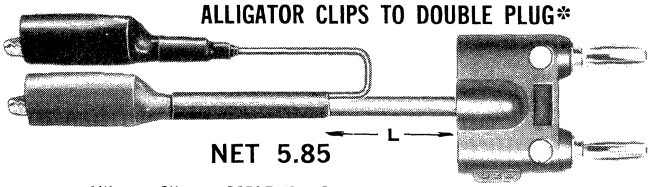
MINIGATOR CLIPS TO BNC MALE

NET 5.85

CONN.: 1ST END — Minigator Clips, Steel, cad plated. Insulators, Vinyl: Black/Red.
CABLE: Shielded Mic. or Shielded Coax, RG58C/U.
CONN.: 2ND END — UG88C/U, BNC, Male

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH
MG-B-BNC-18	MG-C-BNC-18	18″
MG-B-BNC-24	MG-C-BNC-24	24″
MG-B-BNC-30	MG-C-BNC-30	30″
MG-B-BNC-36	MG-C-BNC-36	36″

ALLIGATOR CLIPS TO DOUBLE PLUG*

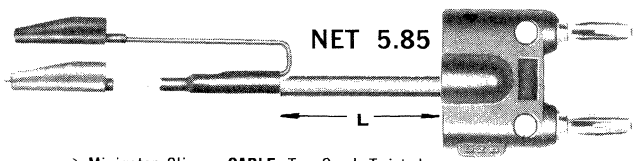


NET 5.85

CONN.: 1ST END — Alligator Clips, Steel, cad plated. Insulators, Vinyl: Black/Red.
CABLE: Two Cond. Twisted Pair, Shielded Mic. or Shielded Coax, RG58C/U.
CONN.: 2ND END — Double Banana Plug, ¾″ on centers.

TWO COND. TWISTED PAIR	SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH
2BA-AL-18	2BB-AL-18	2BC-AL-18	18″
2BA-AL-24	2BB-AL-24	2BC-AL-24	24″
2BA-AL-30	2BB-AL-30	2BC-AL-30	30″
2BA-AL-36	2BB-AL-36	2BC-AL-36	36″

MINIGATOR CLIPS TO DOUBLE PLUG*

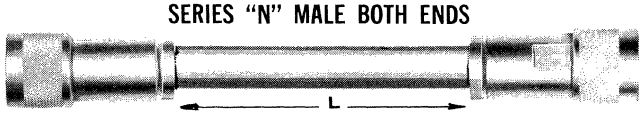


NET 5.85

CONN.: 1ST END — Minigator Clips, Steel, cad plated. Insulators, Vinyl: Black/Red.
CABLE: Two Cond. Twisted pair, Shielded Mic. or Shielded Coax, RG58C/U.
CONN.: 2ND END — Double Banana Plug, ¾″ on centers.

TWO COND. TWISTED PAIR	SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH
2BA-MG-18	2BB-MG-18	2BC-MG-18	18″
2BA-MG-24	2BB-MG-24	2BC-MG-24	24″
2BA-MG-30	2BB-MG-30	2BC-MG-30	30″
2BA-MG-36	2BB-MG-36	2BC-MG-36	36″

SERIES "N" MALE BOTH ENDS

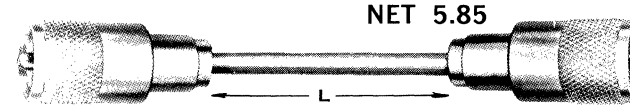


CONN.: 1ST END — UG21B/U "N" Male
CABLE: Coax, RG213/U or RG8/AU
CONN.: 2ND END — UG21B/U "N" Male

CABLE DESCRIPTION	MODEL	LENGTH
Shielded Coax. Polyethylene Insulation. Vinyl jacket, Black. Nom. Cap. 29.5 pf/ft. Nom. Imp. 52 ohms. Nom. O.D. .405″.	1658-18	18″
	1658-24	24″
	1658-30	30″
	1658-36	36″

NET 10.85

UHF MALE BOTH ENDS

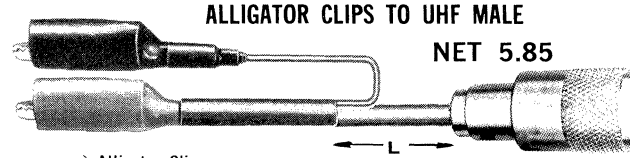


NET 5.85

CONN.: 1ST END — PL259, UHF, Male
CABLE: Shielded Mic. or Shielded Coax, RG58C/U.
CONN.: 2ND END — PL259, UHF, Male

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH
UHF-B-18	UHF-C-18	18″
UHF-B-24	UHF-C-24	24″
UHF-B-30	UHF-C-30	30″
UHF-B-36	UHF-C-36	36″

ALLIGATOR CLIPS TO UHF MALE

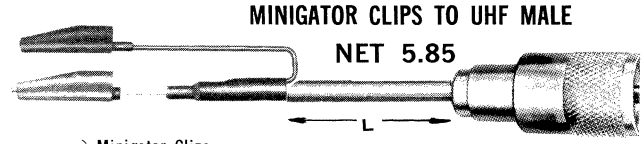


NET 5.85

CONN.: 1ST END — Alligator Clips, Steel, cad plated. Insulators, Vinyl: Black/Red.
CABLE: Shielded Mic. or Shielded Coax, RG58C/U.
CONN.: 2ND END — PL259, UHF, Mal

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH
AL-B-UHF-18	AL-C-UHF-18	18″
AL-B-UHF-24	AL-C-UHF-24	24″
AL-B-UHF-30	AL-C-UHF-30	30″
AL-B-UHF-36	AL-C-UHF-36	36″

MINIGATOR CLIPS TO UHF MALE

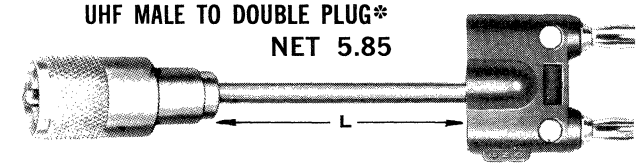


NET 5.85

CONN.: 1ST END — Minigator Clips, Steel, cad plated. Insulators, Vinyl: Black/Red.
CABLE: Shielded Mic. or Shielded Coax, RG58C/U.
CONN.: 2ND END — PL259 UHF, Ma

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH
MG-B-UHF-18	MG-C-UHF-18	18″
MG-B-UHF-24	MG-C-UHF-24	24″
MG-B-UHF-30	MG-C-UHF-30	30″
MG-B-UHF-36	MG-C-UHF-36	36″

UHF MALE TO DOUBLE PLUG*

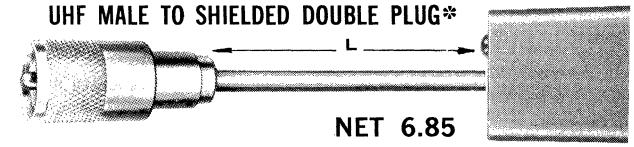


NET 5.85

CONN.: 1ST END — PL259 UHF, Male
CABLE: Shielded Mic. or Shielded Coax, RG58C/U.
CONN.: 2ND END — Double Banana Plu ¾″ on centers.

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH
2BB-UHF-18	2BC-UHF-18	18″
2BB-UHF-24	2BC-UHF-24	24″
2BB-UHF-30	2BC-UHF-30	30″
2BB-UHF-36	2BC-UHF-36	36″

UHF MALE TO SHIELDED DOUBLE PLUG*



NET 6.85

CONN.: 1ST END — PL259, Male, UHF
CABLE: Shielded Mic. or Shielded Coax, RG58C/U.
CONN.: 2ND END — Shielded Double Pl ¾″ on centers.

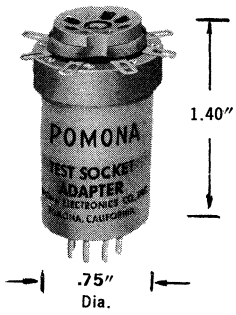
SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH
1556-B-18	1556-C-18	18″
1556-B-24	1556-C-24	24″
1556-B-30	1556-C-30	30″
1556-B-36	1556-C-36	36″

*NOTE: Molded double plug matches color of cable.
Two cond. Twisted pair, GRAY. Shielded mic. cable, GRAY.
Coaxial RG58C/U cable, BLACK.

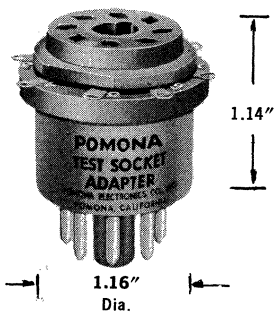
1. Other CABLE COLORS available to order on the Two Cond. Twisted Pair Shielded Mic. cable models, with plug to match.
COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, Wh
2. Other lengths and cable types available to order.

POMONA *Electronics*

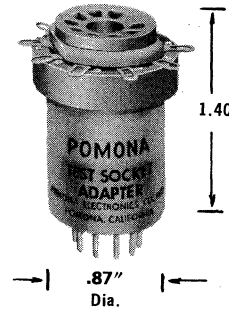
TEST SOCKET TUBE ADAPTERS
BREADBOARD SOCKETS



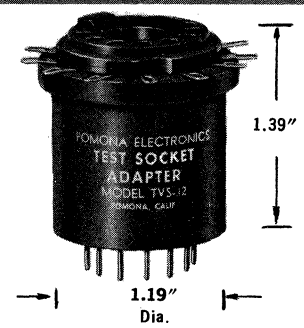
MODEL TVS-7
7 PIN MIN.
NET 1.65



MODEL TVS-8
8 PIN OCTAL
NET 1.75



MODEL TVS-9
9 PIN MIN.
NET 1.85



MODEL TVS-12
12 PIN COMPACTRON
NET 2.25

Pomona Test Socket Tube Adapters are ideal for making measurements of voltage, resistance, audio and video without tracing complicated circuits from the bottom of the chassis. They feature: Extended test tabs for easy use with either alligator clips or test prods; Low loss MICA-FILLED molded phenolic construction per MIL-M-14, MFE. Power factor less than 0.010 at 10 Mc; high insulation resistance, the I.R. exceeds 500,000 megohms at 40% R.H., at 24°C; Distributed capacity, inter-element approximately 1 micro-micro farad; high voltage operation, voltage breakdown elements exceeds 1700 volts AC or DC. Model TVS-12 molded of electrical grade Black phenolic.

TVS-789 KIT SET OF THREE 5.25
(TVS-7, TVS-8, TVS-9)

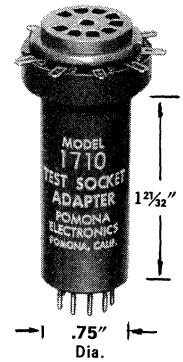
TUNER TV TEST SOCKET TUBE ADAPTERS

FOR USE WITH TUNERS HAVING CAPTIVE OR TELESCOPING TUBE SHIELDS

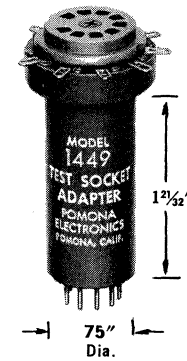
IT'S TALL • IT'S SLIM • IT FITS

- Extra height—exact fit—clears shields
- Ready access to socket connections
- Exposed operation saves time
- MUST for every modern TV Service Shop

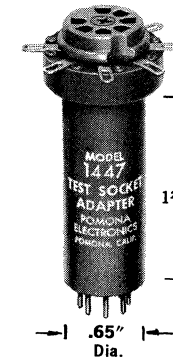
The 7-, 9- or 10-HIGH adapter rises above the shields and places testing in the open. Shields or tuner covers do not have to be removed. All construction is the highest quality. Interelement distributed capacity is approximately 1.5 micro-micro farad. Voltage breakdown elements exceed 1800 V. AC or DC. The insulation resistance exceeds 5×10^5 megohms at 40% R.H. at 24°C.



MODEL 1710
10 HIGH
10 pin, Miniature
NET 2.25



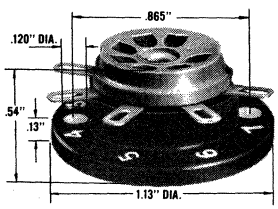
MODEL 1449
9 HIGH
9 pin, Miniature
NET 1.95



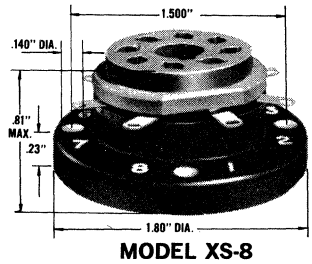
MODEL 1447
7 HIGH
7 pin, Miniature
NET 1.85

SURFACE MOUNTED BREADBOARD SOCKETS
IDEAL FOR ELECTRONIC AND EXPERIMENTAL USE

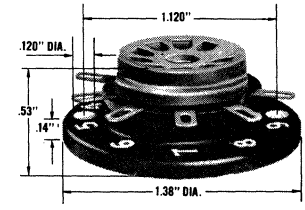
Surface Mounted Breadboard Sockets are used for experimental circuit design, portable and enclosed units, plug-in and packaged assemblies. They feature: An insulated base to prevent connections from shorting to chassis; Eliminates double chassis design; Circuits may be wired in an enclosed unit; The base connections are numbered for easy identification; Grade-A phosphor bronze spring contacts; Standard center to center mounting holes; For ease of installation the 7 and 9 Pin Miniatures may be mounted either in the center or on the sides, the 8 Pin Octal is mounted on the sides; Small mounting holes permit the re-use of experimental chassis.



MODEL XS-7
7 PIN MINIATURE
NET .49



MODEL XS-8
8 PIN OCTAL
NET .57



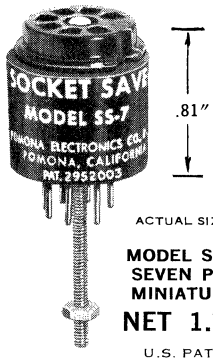
MODEL XS-9
9 PIN MINIATURE
NET .57

Net
© U.C.P., Inc.

POMONA *Electronics* SOCKET SAVERS

The Socket Saver® is designed to be installed on tube checkers and other electronic equipment to prevent wear and tear of sockets on original equipment. They are easy to install and remove. This eliminates the necessity of replacing and rewiring sockets on original equipment. Built of quality materials. BERYLLIUM COPPER LONG LIFE CONTACTS to give maximum service.

.75″ Dia.



.81″

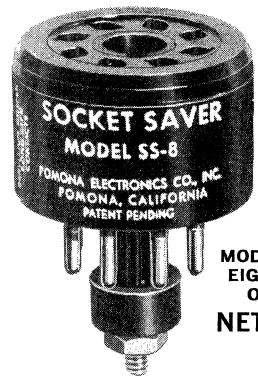
ACTUAL SIZE

MODEL SS-7
SEVEN PIN
MINIATURE

NET 1.75

U.S. PAT. NO. 2952003

1.25″ Dia.



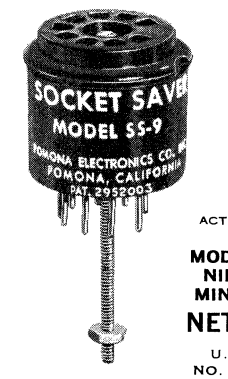
.81″

ACTUAL SIZE

MODEL SS-8
EIGHT PIN
OCTAL

NET 1.75

.89″ Dia.



.81″

ACTUAL SIZE

MODEL SS-9
NINE PIN
MINIATURE

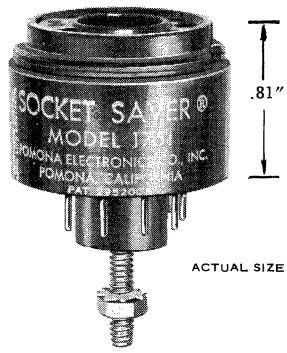
NET 1.75

U.S. PAT. NO. 2952003

MODEL SS-789 KIT SET OF THREE 5.25

(SS-7, SS-8, SS-9)

1.18″ Dia.



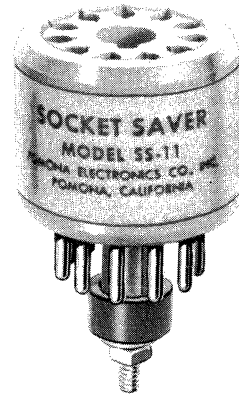
.81″

ACTUAL SIZE

MODEL 1751
9 PIN
NOVAR

NET 1.95

1.25″ Dia.



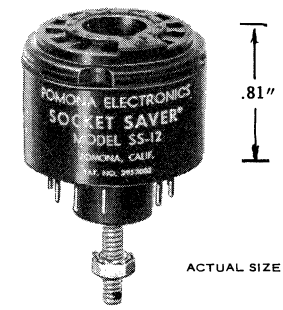
1.00″

ACTUAL SIZE

MODEL SS-11
11 PIN
OCTAL STYLE

NET 1.95

1.13″ Dia.



.81″

ACTUAL SIZE

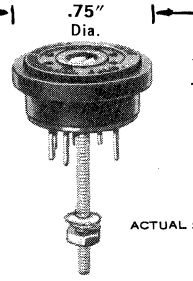
MODEL SS-12
12 PIN
COMPACTRON

NET 2.25

MINIATURIZED SOCKET SAVERS®

For use in applications where vertical height is restricted. Contacts made of beryllium copper, heat treated. Models 1847 and 1849 closed entry receptacles, contact and pin one piece formed beryllium copper, molded of black phenolic electrical grade.

.75″ Dia.



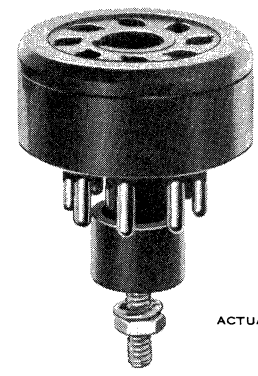
.336″

ACTUAL SIZE

MODEL 1847
7 PIN MINIATURE

NET 1.95

1.17″ Dia.



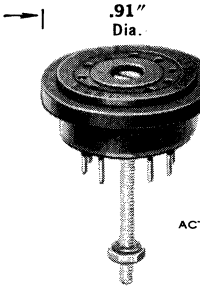
.68″

ACTUAL SIZE

MODEL 1848
8 PIN OCTAL

NET 1.95

.91″ Dia.



.336″

ACTUAL SIZE

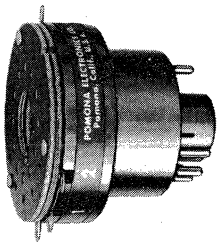
MODEL 1849
9 PIN MINIATURE

NET 1.95

© U.C.P., Inc.

POMONA Electronics — CATHODE RAY TUBE TEST ADAPTERS

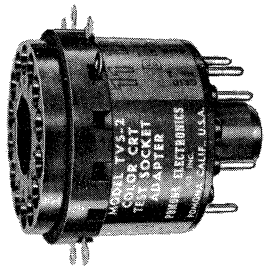
■ POMONA Test Socket Adapters are ideal for making measurements of voltage, resistance, and video from the base of the picture tube. The test socket adapter is inserted between the CR Tube base and its socket. This completes the circuit and makes all connections readily accessible. Measurements can be made without tracing circuit wiring to test points below the chassis, thereby saving valuable time and increasing efficiency in trouble shooting.



MODEL TVS-1

DUO DECAL
For Television
picture tubes

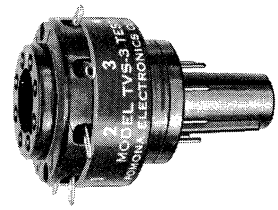
NET 1.95



MODEL TVS-2

NEO-DIHEPTAL
For color Television
picture tubes

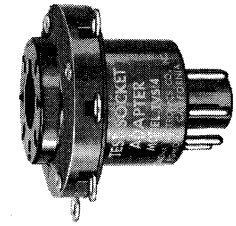
NET 7.45



MODEL TVS-3

EIGHTAR (.040 PINS)
For 110° Television
picture tubes

NET 2.55



MODEL TVS-4

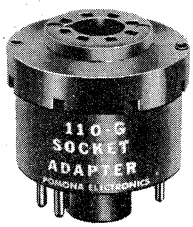
7 PIN (.093 PINS)
For 110° Television
picture tubes

NET 1.95

TUBE SOCKET CONVERSION ADAPTERS

110° CRT SOCKET ADAPTER TO DUO DECAL BASE. **FOR TESTING NEW NARROW-NECK 110° TUBES.**

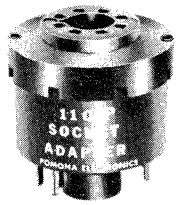
Modernize your present test equipment with these simple adapters. Just plug in adapter to convert to 110° socket. Used for testing, ageing, and lifetesting, etc.



MODEL 110-G

Eightar socket end, 8JS Basing, accepts pins with .040 dia., (.600 pin circle dia.). Wired to test 110° series similar to 17DLP4, 21ESP4, 23KP4, etc. Plug end wired to Duo Decal 12L Basing.

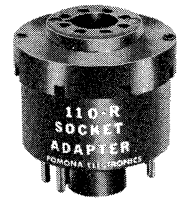
NET 1.55



MODEL 110-P

Eightar socket end, 8JK Basing, accepts pins with .040 dia., (.600 pin circle dia.). Wired to test 110° Semi-Flat S-F series 17DAP4/SF17, 21EAP4/SF21, etc. Plug end wired to Duo Decal 12L Basing.

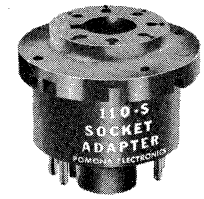
NET 1.55



MODEL 110-R

Eightar socket end, 8HR Basing, accepts pins with .040 dia., (.600 pin circle dia.). Wired to test 110° series similar to 17BZP4, 21CEP4, 23CP4, etc. Plug end wired to Duo Decal 12L Basing.

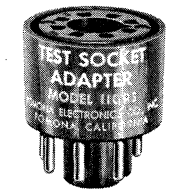
NET 1.55



MODEL 110-S

Socket end, button base, 7FA Basing, accepts 7 pins .093 dia., (.820 pin circle dia.). Wired to test 110° series similar to 17BVP4, 21CSP4, 23JP4, etc. Plug end wired to Duo Decal 12L Basing.

NET 1.55



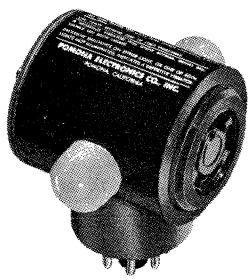
MODEL 110-RS

Eightar socket end, 8HR Basing, accept pins with .040 dia., (.600 pin circle dia.). Wired to test 110° series similar to 17BZP4, 21CEP4, 23CP4, etc. Plug end, 7 pin Button, 7FA Basing.

NET 1.95

VIBRATOR TEST ADAPTER

FOR CHECKING ANY STANDARD
3 OR 4 PRONG VIBRATOR,
6 OR 12 VOLT



The Pomona Vibrator Test Adapter simplifies servicing of auto radios by eliminating the vibrator as a possible source of trouble. Features compact rugged phenolic construction. Instantly shows when contacts are sticking or open. Will indicate starting voltage. Eliminates all guesswork.

MODEL DA-34
3 OR 4 PRONG
6-12 VOLT

NET 4.95

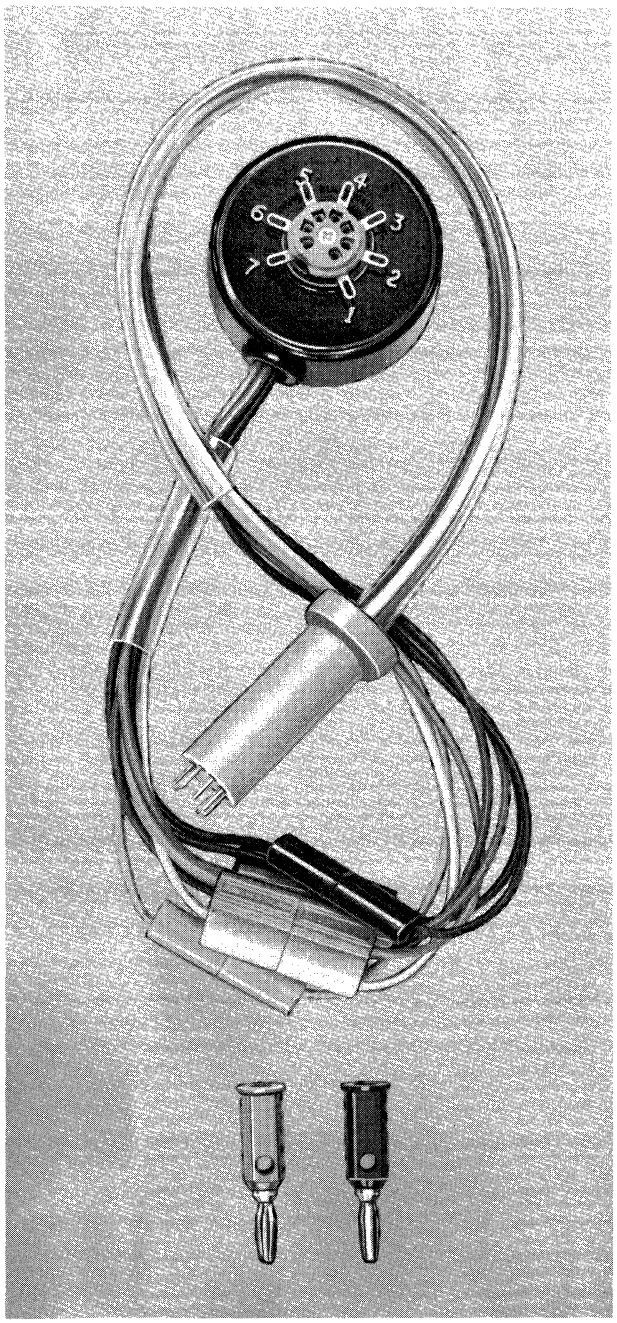
Net

© U.C.P., Inc.

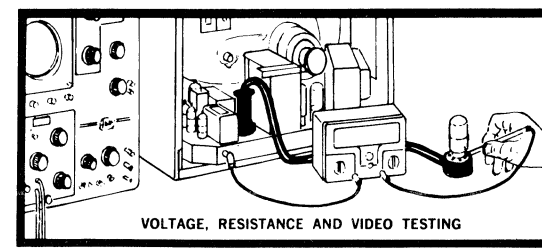
POMONA *Electronics* UNIVERSAL HARNESS TESTING ADAPTER

New! Universal Harness Testing Adapter

Takes the Trouble out of Trouble Shooting!

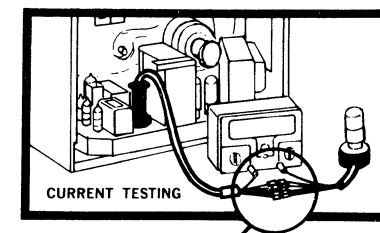


Provides quick testing of CURRENT . . . VOLTAGE . . .RESISTANCE and VIDEO. All test points made accessible; extends 24″ from chassis. Eliminates time-consuming operations of unsoldering and resoldering connections. Color-coded connections for current and in-circuit testing. Three models available for 7, 8 and 9 pin sockets. Two combination phone tip/banana plug adapters permit use with all meters.

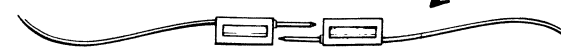


VOLTAGE, RESISTANCE AND VIDEO TESTING

Pays for itself in testing time saved!



CURRENT TESTING



TYPICAL CONNECTOR

* **TEST SOCKET . . .** Extended test tabs, phosphor bronze contacts, heavy duty molded phenolic base with easy-to-read socket connections.
* **CURRENT MEASUREMENT CONNECTIONS . . .** Fully insulated, molded .080 phone tip plugs.
* **INSULATED PLUG . . .** Fits either shielded or unshielded tube sockets.

7 Pin Model 1737
8 Pin Model 1738
9 Pin Model 1739

$14.95 NET EA.

PAT. PEND.

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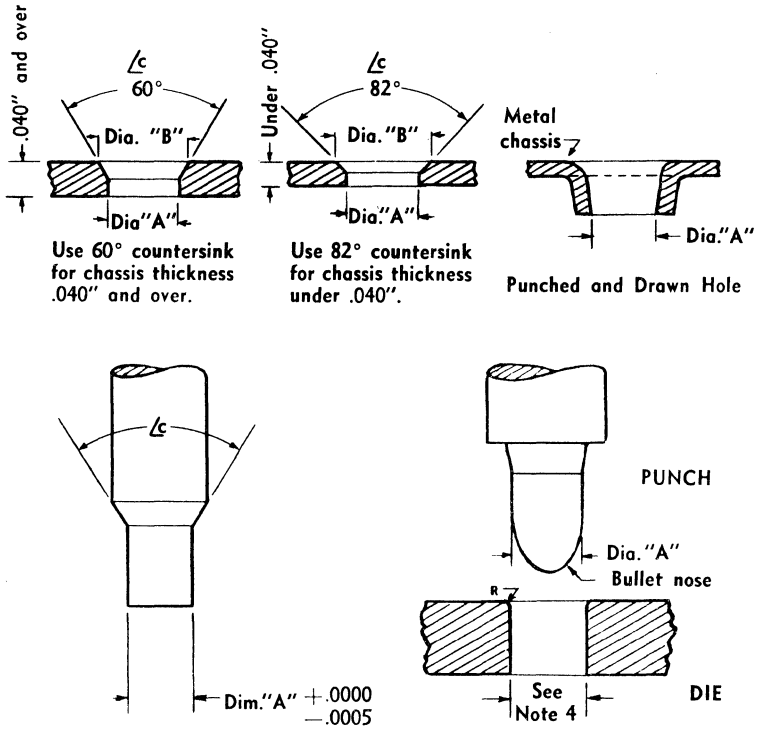
Net

Sealectro PRESS-FIT® TEFLON† TERMINALS

†Reg. Trademark, E. I. Du Pont de Nemours & Co.

INSTALLATION PROCEDURE — FEED-THRU AND STAND-OFF



PUNCH AND COUNTERSINK DETAIL — DRAW PUNCH AND DIE DETAIL

Bushing minor diameter +.002 −.000	Hole or punch Dia. "A" ±.002	Dia. "B" +.010 −.000
.093	.086	.110
.104	.091	.115
.125	.113	.135
.127	.114	.140
.135	.122	.145
.148	.136	.160
.165	.152	.175
.171-.172	.158	.175
.175	.162	.195
.179	.166	.185
.185	.172	.195
.200	.187	.210
.204	.191	.235
.215	.203	.235
.217-.218	.205	.235
.234	.221	.240
.263	.250	.280
.266	.253	.280

NOTES

1. Teflon should protrude .040" min. below chassis.
2. Clearance between punch and die should be held to normal shop tolerances governed by material and thickness and type.
3. Predrawn hole size is governed by material type and thickness.
4. Die diameter is punch diameter plus double the metal thickness, tolerances being consistent with normal shop practice.

INSTALLATION PROCEDURE

Simplest, fastest, most economical terminal installation known, with practically no restriction as to chassis material and thickness.

Inexpensive insertion tool available from Sealectro, facilitates installation. Tool fits any drillpress (power off) or hand arbor press, to hold given PRESS-FIT Terminal. Centered over chassis hole, and with applied pressure, the PRESS-FIT Terminal slips into the hole for a rigid permanent, trouble-free installation. Just PRESS-FIT — that's it! In four easy steps:

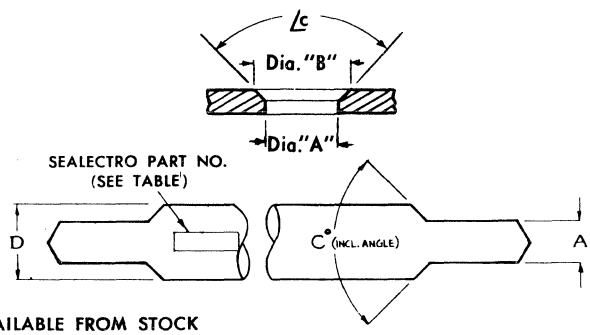
(1) PUNCH OR DRILL HOLE . . .
.013"±.002" less than diameter of terminal section (dia. "G" in tables) passing through chassis. Minimum protrusion of bushing passing through chassis, .040". Maximum thickness of chassis .125"; for greater thickness, ask for our recomcomendations. Countersink from breakout or die side of chassis (not from punch side).

(2) COUNTERSINK ENTRANCE EDGE . . .
Use 60° countersink when chassis thickness is .040" and over; use 82° countersink when chassis thickness is less than .040". This enables centering of terminal in hole and prevents scoring the Teflon bushing. Depth and maximum diameter of countersink is determined by thickness of chassis stock and bushing's major diameter.

(3) INSERTION TOOL . . .
Insertion tool is placed in chuck of drillpress (power off) or hand arbor press. Terminal is held by tool, leaving assembler's hands free to index and center chassis hole underneath tool. Proper pressure is applied and released just as soon as major diameter of terminal seats itself.

(4) PERMANENT INSTALLATION . . .
PRESS-FIT Terminal is now permanently secured in place.

DRILL AND COUNTERSINK IN 1 OPERATION



AVAILABLE FROM STOCK

SEALECTRO PART NO.	DIMENSION			
	A	B*	C°	D
086 - 115 - 60	.086	.115	60	.187
112 - 140 - 60	.112	.140	60	.187
136 - 160 - 60	.136	.160	60	.187
136 - 160 - 82	.136	.160	82	.187
152 - 175 - 60	.152	.175	60	.187
158 - 175 - 60	.158	.175	60	.187
172 - 195 - 60	.172	.195	60	.250

Note: B* is recommended diameter of countersink +.010 −.000

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STAND-OFFS MICROMINIATURE and SUBMINIATURE

FIG.	PART No.	TOOL NO.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 —.000 G DIA.	K	K
1	ST-SM-3C1-L6	B3-10	0.35	750	2500	.213	.093			.031	.089	.040		.125	**.093**		
1	ST-SM-7	B3-1	0.30	1000	3000	.262	.147			.040	.075	.040		.125	**.093**		
1	ST-SM-7LT	B3-1	0.40	1000	3000	.299	.174			.040	.085	.040		.125	**.093**		
1	ST-SM-16	B3-1	0.60	1000	3000	.350	.210			.040	.100	.040		.125	**.093**		
1	ST-SM-3C1-L4	B3-4	0.50	750	2500	.250	.130			.031	.089	.040		.125	**.104**		
1	ST-SM-1	B-8	0.45	1000	3000	.350	.210			.040	.100	.040		.172	**.148**		
1	*ST-SM-1C2	B-8	0.50	1000	3000	.410	.210			.040	.160	.040		.172	**.148**		
1	ST-SM-1C6	B-8	0.50	1000	3000	.500	.210			.040	.250	.040		.172	**.148**		
1	ST-SM-1L2	B-8	0.40	1000	3000	.265	.125			.040	.100	.040		.172	**.148**		
1	ST-SM-1L2-C2	B-8	0.40	1000	3000	.280	.125			.040	.115	.040		.172	**.148**		
1	ST-SM-1L4	B-8	0.35	1000	3000	.250	.110			.040	.100	.040		.172	**.148**		
1	ST-SM-1L6	B-8	0.40	1000	3000	.285	.145			.040	.100	.040		.172	**.148**		
1	ST-SM-1L6-C2	B-8	0.30	1000	3000	.260	.145			.040	.075	.040		.172	**.148**		
1	ST-SM-1L8	B-8	0.50	1000	3000	.750	.610			.040	.100	.040		.172	**.148**		
1	ST-SM-1L10	B-8	0.50	1000	3000	.594	.450			.040	.100	.040		.172	**.148**		
1	ST-SM-1L12	B-8	0.40	1000	3000	.460	.320			.040	.100	.040		.172	**.148**		
1	ST-SM-2	B-8	0.35	1000	3000	.310	.210			.050	.050	.040		.172	**.148**		
1	ST-SM-2C2	B-8	0.50	1000	3000	.335	.210			.050	.075	.040		.172	**.148**		
1	ST-SM-2C2-L2	B-8	0.20	1000	3000	.230	.105			.050	.075	.040		.172	**.148**		
1	ST-SM-2C4	B-8	0.40	1000	3000	.370	.210			.050	.110	.040		.172	**.148**		
1	ST-SM-2C6	B-8	0.40	1000	3000	.305	.145			.050	.110	.040		.172	**.148**		
1	ST-SM-2C6-C2	B-8	0.30	1000	3000	.247	.147			.050	.050	.040		.172	**.148**		
1	**ST-SM-2L2	B-8	0.35	1000	3000	.250	.150			.030	.070	.040		.172	**.148**		
1	ST-SM-2L4	B8-G1	0.30	1000	3000	.210	.120			.030	.060	.040		.172	**.148**		
1	ST-SM-500	B8-18A	0.40	1000	3000	.360	.204			.046	.110	.046		.172	**.148**		
1	ST-SM-6	B-8	0.40	1200	3500	.345	.210			.060	.075	.040		.172	**.148**		
1	ST-SM-8	B-8	0.45	1000	3000	.370	.210			.040	.120	.040		.172	**.148**		
1	ST-SM-15	B-8	0.35	1500	4000	.350	.210			.078	.062	.040		.172	**.148**		
1	ST-SM-19	B-8	0.45	1000	3000	.365	.193			.040	.132	.040		.172	**.148**		
1	ST-SM-3	B-15	0.45	1000	3000	.350	.210			.040	.100	.040		.195	**.172**		
1	ST-SM-4	B-16	0.35	1200	3500	.350	.210			.040	.100	.040		.200	**.179**		
1	ST-SM-5	B-22	0.35	1200	3500	.350	.210			.040	.100	.040		.250	**.218**		
2	ST-SM-1SL	B8-16	0.40	1000	3000	.265	.125			.040	.100	.040		.172	**.148**	.010	.01
3	ST-MM-10-TUR	B3-2C	0.40	1000	3000	.310	.170	.020	.060	.040	.100	.030	.060	.125	**.093**		
3	ST-SM-16-TUR	B3-2B	0.60	1000	3000	.350	.210	.020	.100	.040	.100	.040	.080	.125	**.093**		
3	ST-SM-027-TUR	B8-A	0.60	1000	3000	.480	.250	.020	.093	.040	.190	.040	.093	.172	**.130**		
3	ST-SM-1 TUR	B-8	0.40	1000	3000	.350	.210	.020	.100	.040	.100	.040	.080	.172	**.148**		
3	ST-SM-1 TUR-C2	B-8	0.50	1000	3000	.375	.210	.020	.100	.040	.125	.040	.080	.172	**.148**		
3	ST-SM-TUR-C4	B-8	0.40	1000	3000	.360	.210	.020	.100	.040	.110	.040	.080	.172	**.148**		
3	ST-SM-19 TUR-C2	B-8	0.55	1000	3000	.500	.210	.020	.100	.040	.250	.040	.080	.172	**.148**		
3	ST-SM-22 TUR	B-8	0.50	1700	4500	.428	.210	.020	.100	.093	.125	.040	.080	.172	**.148**		
3	ST-SM-22 TUR-C2	B-8	0.30	1700	4500	.461	.210	.020	.100	.093	.158	.040	.080	.172	**.148**		
3	*ST-SM-25 TUR	B8-A	0.50	1000	3000	.334	.154	.020	.046	.040	.140	.046	.093	.172	**.148**		
3	ST-SM-25 TUR-C2	B8-A	0.35	1000	3000	.254	.154	.020	.046	.040	.060	.046	.093	.172	**.148**		
3	*ST-SM-29 TUR	B8-A	0.50	1000	3000	.455	.250	.020	.093	.040	.165	.040	.093	.172	**.148**		
3	ST-SM-29 TUR-C2	B8-A	0.60	1000	3000	.540	.250	.020	.093	.040	.250	.040	.093	.172	**.148**		
3	ST-SM-29 TUR-L2	B8-A	0.50	1000	3000	.470	.250	.020	.093	.040	.180	.040	.093	.172	**.148**		
3	ST-SM-51-TUR-C2	B8-A	0.45	1400	3800	.346	.156	.020	.047	.040	.150	.047	.093	.172	**.152**		
3	ST-SM-51-TUR-C4	B8-A	0.40	1000	3000	.296	.156	.020	.047	.040	.100	.047	.093	.172	**.152**		
3	ST-SM-51-TUR-C6	B8-A	0.50	1000	3000	.361	.156	.020	.047	.040	.165	.047	.093	.172	**.152**		
3	ST-SM-51-TUR-L2	B8-A	0.40	1000	3000	.335	.207	.020	.100	.040	.088	.047	.093	.172	**.152**		
3	ST-SM-52-TUR	B8-A	0.30	1000	3000	.347	.207	.020	.100	.040	.100	.047	.093	.172	**.152**		
3	ST-SM-4 TUR	B-16	0.35	1000	3000	.350	.210	.020	.100	.040	.100	.040	.080	.200	**.179**		
3	ST-SM-20 TUR	B-18	0.40	1000	3000	.350	.210	.020	.100	.040	.100	.040	.080	.218	**.185**		
3	ST-SM-21 TUR	B-18	0.40	1000	3000	.375	.210	.020	.100	.040	.125	.040	.080	.218	**.185**		
3	ST-SM-23 TUR	B-22	0.40	1200	3500	.350	.210	.020	.100	.040	.100	.040	.080	.250	**.204**		
4	ST-SM-50-TUR	B-8	0.30	1000	3000	.262	.125	.020	.085	.050	.087	.040	.080	.172	**.148**		
4	ST-SM-352-TUR	B-8	0.30	1000	3000	.250	.110	.020	.080	.040	.100	.040	.080	.172	**.148**		
4	ST-SM-36 TUR	B-16	0.35	1500	4000	.320	.120	.020	.080	.075	.125	.048	.090	.200	**.172**		
5	ST-SM-40 TUR	B-9	0.40	1000	3000	.392	.232	.029	.031	.050	.110	.070	.109	.172	**.148**		
5	ST-SM-45 TUR	B8-13B	0.40	1000	3000	.362	.232	.029	.031	.050	.080	.070	.109	.172	**.148**		
6	ST-SM-47 TUR	B-8	0.30	1000	3000	.328	.210	.020	.120	.040	.078	.040	.080	.172	**.148**		
6	ST-SM-47 TUR-C2	B-8	0.40	1000	3000	.350	.210	.020	.120	.040	.100	.040	.080	.172	**.148**		
6	ST-SM-47 TUR-C4	B-8	0.50	1000	3000	.415	.210	.020	.120	.040	.165	.040	.080	.172	**.148**		
6	ST-SM-47-TUR-C6	B-8	0.50	1000	3000	.428	.210	.020	.120	.093	.125	.040	.080	.172	**.148**		
7	ST-SM-42 TUR	B3-2A	0.40	1000	3000	.334	.153	.015	.031	.041	.140	.068	.078	.125	**.093**		
7	ST-SM-44 TUR	B-2	0.40	1000	3000	.255	.150	.015	.031	.030	.075	.068	.078	.125	**.093**		

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thick (*Silver—**Gold Flash over Silver)
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

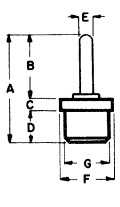

Fig. 1

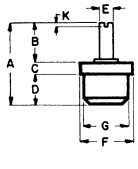

Fig. 2

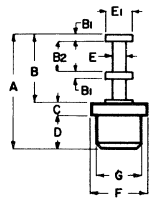

Fig. 3

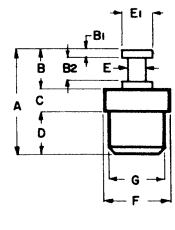

Fig. 4

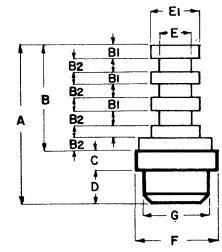

Fig. 5

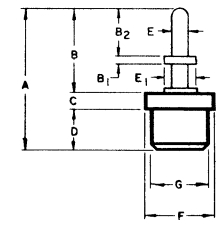

Fig. 6

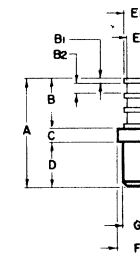

Fig. 7

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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STAND-OFFS MICROMINIATURE and SUBMINIATURE

FIG.	PART No.	TOOL NO.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 −.000 G DIA.	K	K_1
51	RST-SM-3-C1	B-3-B	0.40	1000	3000	.250	.130			.031	.089	.040		.125	**.093**		
51	RST-SM-16	B-3-2X	0.40	1000	3000	.350	.210			.040	.100	.040		.125	**.093**		
51	RST-SM-3	B-3-B	0.30	1000	3000	.250	.130			.031	.089	.040		.125	**.104**		
51	RST-SM-3-C3	B-3-B	0.30	1000	3000	.250	.130			.031	.089	.040		.125	**.106**		
51	RST-SM-11C1	B8-G	0.45	1500	4000	.350	.210			.020	.120	.040		.172	**.112**		
51	RST-SM-39-C1	B-8-M	0.35	1000	3000	.350	.210			.015	.125	.040		.172	**.112**		
51	RST-SM-13	B6-X1	0.50	500	2000	.310	.210			.040	.060	.040		.150	**.125**		
51	RST-SM-1	B8-X1	0.40	1200	3500	.350	.210			.040	.100	.040		.172	**.148**		
51	RST-SM-1B2	B8-G	0.40	1200	3500	.330	.210			.020	.100	.040		.172	**.148**		
51	RST-SM-1-CB	B8-X1	0.30	1000	3000	.330	.210			.046	.074	.040		.170	**.148**		
51	RST-SM-1C6	B8-X1	0.40	2000	5000	.500	.210			.040	.250	.040		.172	**.148**		
51	RST-SM-1L2	B8-X1	0.50	1200	3500	.265	.125			.040	.100	.040		.172	**.148**		
51	RST-SM-1L8	B8-X1	0.50	1200	3500	.750	.610			.040	.100	.040		.172	**.148**		
51	RST-SM-2	B8-X2	0.40	1000	3000	.310	.210			.050	.050	.040		.172	**.148**		
51	RST-SM-6	B8-X	0.35	1200	3500	.345	.210			.060	.075	.040		.172	**.148**		
51	RST-SM-7C2	B8-X1	0.30	1200	3500	.382	.210			.040	.132	.045		.172	**.148**		
51	** RST-SM-11	B8-G	0.30	1200	3500	.350	.210			.020	.120	.040		.172	**.148**		
51	RST-SM-28	B8-X1	0.35	1500	4000	.390	.218			.040	.132	.040		.172	**.148**		
51	RST-SM-39	B-8-M	0.30	1200	3500	.350	.210			.015	.125	.040		.172	**.148**		
51	RST-SM-3CD3	B-15-X	0.45	1000	3000	.500	.360			.040	.100	.040		.195	**.172**		
52	RST-SM-3SL	B3-2X	0.50	500	2000	.350	.210			.040	.100	.080		.125	**.104**	.036	.180
52	RST-SM-41SL	B6-C	0.30	750	2500	.150	.062			.025	.063	.050		.150	**.125**	.020	.047
53	RST-SM-47-TUR	B8-X-1	0.40	1000	3000	.328	.210	.020	.120	.040	.078	.040	.080	.172	**.148**		
53	RST-SM-47-TUR-C2	B8-X-1	0.40	1200	3500	.350	.210	.020	.120	.040	.100	.040	.080	.172	**.148**		
54	RST-MM-10-TUR	B1-2	0.40	500	2000	.310	.170	.020	.060	.040	.100	.030	.060	.125	**.093**		
54	RST-SM-25-TUR-C4	B8-X-1	0.40	1500	4000	.295	.156	.020	.046	.040	.100	.046	.093	.172	**.148**		
54	RST-SM-38-TUR	B10	0.40	1500	4000	.405	.210	.020	.100	.040	.155	.040	.080	.188	**.171**		
54	RST-SM-1-TUR	B8-X-1	0.40	1200	3500	.350	.210	.020	.100	.040	.100	.040	.080	.172	**.148**		
54	RST-SM-4-TUR	B16	0.40	1500	4000	.350	.210	.020	.100	.040	.100	.040	.080	.200	**.179**		
54	RST-SM-20-TUR	B18	0.40	1500	4000	.350	.210	.020	.100	.040	.100	.040	.080	.218	**.185**		
54	RST-SM-21-TUR	B18	0.30	1700	4500	.375	.210	.020	.100	.040	.125	.040	.080	.218	**.185**		
54	RST-SM-23-TUR	B22-X-2	0.30	1500	4000	.350	.210	.020	.100	.040	.100	.040	.080	.250	**.204**		
55	RST-SM-31-TUR	B8-X-1	0.50	1700	4500	.455	.227	.020	.187	.040	.187	.040	.080	.172	**.148**		
55	RST-SM-31-TUR-CD1	B8-3	0.35	1500	4000	.382	.227	.020	.187	.025	.130	.040	.080	.172	**.148**		
55	RST-SM-31-TUR-L2	B8-X-1	0.40	1200	3500	.296	.156	.020	.116	.040	.100	.046	.093	.172	**.148**		
55	RST-SM-352-TUR	B8-X-1	0.40	1200	3500	.250	.110	.020	.080	.040	.100	.040	.080	.172	**.148**		
55	RST-SM-350-TUR	B10	0.20	1500	4000	.320	.125	.020	.080	.040	.155	.040	.080	.188	**.171**		
55	RST-SM-36-TUR	B16	0.30	1500	4000	.320	.120	.020	.080	.075	.125	.048	.090	.200	**.172**		

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thickness. **Gold flash over silver.
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

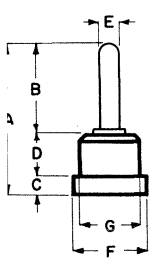

Fig. 51

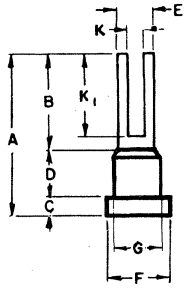

Fig. 52

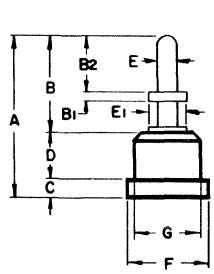

Fig. 53

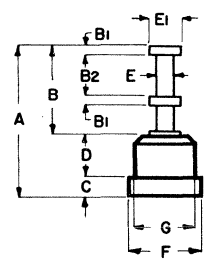

Fig. 54

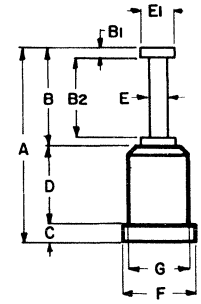

Fig. 55

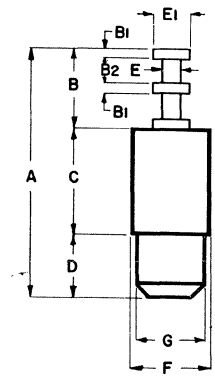

Fig. 101

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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STAND-OFFS MINIATURE

FIG. #	PART No.	TOOL NO.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 −.000 G DIA.
101	ST-210	B3-A	0.50	1500	4000	.346	.156	.020	.046	.103	.087	.046	.093	.125	.104
101	ST-211	B3-A	0.50	1500	4000	.346	.156	.020	.046	.103	.087	.046	.093	.125	.104
101	ST-215	B3-A	0.50	1500	4000	.359	.156	.020	.046	.103	.100	.046	.093	.125	.104
101	ST-1200	B6-10	0.20	3000	7000	.531	.156	.020	.046	.219	.156	.046	.093	.156	.127
101	ST-1400L2	B12-3	0.30	2800	7500	.647	.250	.020	.093	.250	.150	.040	.093	.187	.135
101	ST-230L2	B9-3	0.50	2500	6000	.482	.250	.020	.094	.125	.110	.040	.093	.172	.148
101	ST-1175L2	B9-3	0.30	3200	7500	.598	.250	.020	.093	.187	.165	.040	.093	.172	.148
101	ST-250	B12	0.30	2500	6000	.431	.156	.020	.046	.125	.150	.046	.093	.187	.165
101	ST-250L2	B12	0.50	2500	6000	.522	.250	.020	.093	.125	.150	.040	.093	.187	.165
101	ST-250L3	B12-2	0.60	2000	5000	.556	.281	.031	.093	.125	.150	.046	.125	.187	.165
101	ST-250L6	B12	0.50	2500	6000	.485	.210	.020	.100	.125	.150	.040	.093	.187	.165
101	ST-260L3	B13	0.60	3000	7000	.556	.281	.031	.093	.175	.100	.046	.125	.187	.165
101	ST-1000	B13	0.20	2800	6700	.493	.156	.020	.046	.187	.150	.046	.093	.187	.165
101	ST-1000L2	B13	0.30	2800	6700	.584	.250	.020	.093	.187	.150	.040	.093	.187	.165
101	ST-1000L3	B13-3B	0.65	2500	6000	.616	.281	.031	.093	.187	.150	.046	.125	.187	.165
101	ST-1000-2C	B13	0.30	2800	6700	.468	.156	.020	.046	.187	.125	.046	.093	.187	.165
101	ST-1450L3	B13-3B	0.55	3000	7000	.681	.281	.031	.093	.200	.200	.046	.125	.187	.165
101	ST-1500	B12-3	0.20	3100	7300	.556	.156	.020	.046	.250	.150	.046	.093	.187	.165
101	ST-1500L2	B12-3	0.30	3100	7300	.647	.250	.020	.093	.250	.150	.040	.093	.187	.165
101	ST-1500L3	B13	0.35	3100	7300	.681	.281	.031	.093	.250	.150	.046	.125	.187	.165
101	ST-1525	B12-3	0.25	3000	7000	.706	.156	.020	.046	.250	.300	.046	.093	.187	.165
101	ST-1900	B13-4	0.20	3500	8000	.831	.281	.031	.093	.350	.200	.046	.125	.187	.165
101	ST-1901	B12	0.25	3500	8000	.893	.343	.031	.125	.350	.200	.047	.125	.187	.165
101	ST-2000	B13-3B	0.25	4500	10000	.831	.281	.031	.093	.400	.150	.046	.125	.187	.165
101	ST-2000L2	B12-3	0.20	4500	10000	.797	.250	.020	.093	.400	.150	.040	.093	.187	.165
101	ST-2000L2-C2	B12-3	0.20	4500	10000	.797	.250	.020	.093	.400	.100	.040	.093	.187	.165
101	ST-2000L3	B12-3	0.15	4500	10000	.706	.156	.020	.046	.400	.150	.046	.093	.187	.165
101	ST-2000L3-C2	B12-3	0.20	4500	10000	.656	.156	.020	.046	.400	.100	.046	.093	.187	.165
101	ST-250C1	B12	0.30	2500	6000	.431	.156	.020	.046	.125	.150	.046	.093	.187	.171
101	ST-250L3-C1	B12-2	0.60	2000	5000	.556	.281	.031	.093	.125	.150	.046	.125	.187	.171
101	ST-250L4	B12-2	0.60	2000	5000	.556	.281	.031	.093	.125	.150	.062	.125	.187	.171
101	ST-250L4-C2	B12	0.65	2000	5000	.621	.281	.031	.093	.125	.215	.062	.125	.187	.171
101	ST-250L5	B12	0.50	2500	6000	.485	.210	.020	.100	.125	.150	.040	.080	.218	.171
101	ST-251C1	B12	0.35	2500	6000	.485	.210	.020	.100	.125	.150	.040	.080	.187	.171
101	ST-1000C1	B13	0.20	2800	6700	.493	.156	.020	.046	.187	.150	.046	.093	.187	.171
101	ST-1000L2-C1	B13	0.35	2800	6700	.584	.250	.020	.093	.187	.150	.040	.093	.187	.171
101	ST-1500C1	B12-3	0.25	3100	7300	.556	.156	.020	.046	.250	.150	.046	.093	.187	.171
101	ST-1500L3-C1	B13	0.40	3100	7300	.681	.281	.031	.093	.250	.150	.046	.125	.187	.171
101	ST-1500L4-C1	B12-3	0.15	3200	7500	.610	.210	.020	.100	.250	.150	.040	.080	.187	.171
101	ST-1501C1	B13	0.20	3100	7300	.593	.156	.020	.046	.250	.187	.046	.093	.187	.171
101	ST-1525C1	B12-3	0.20	3000	7000	.706	.156	.020	.046	.250	.300	.046	.093	.187	.171
101	ST-2000C1	B13-3B	0.25	4500	10000	.831	.281	.031	.093	.400	.150	.046	.125	.187	.171
101	ST-2000C4	B13-3B	0.40	3000	7000	.831	.281	.031	.093	.250	.300	.046	.125	.187	.171
101	ST-2500C1	B26	0.20	5500	12000	.968	.281	.031	.093	.500	.187	.046	.125	.250	.171
101	ST-4000C1	B26	0.25	6000	13000	1.268	.281	.031	.093	.800	.187	.046	.125	.250	.171
101	ST-941	B19-A	0.60	2500	6000	.546	.281	.031	.093	.125	.140	.046	.125	.218	.185
101	ST-1510L3	B24-1	0.40	3000	7000	.718	.281	.031	.093	.250	.187	.046	.125	.250	.215
101	ST-2500	B26	0.20	5500	12000	.968	.281	.031	.093	.500	.187	.046	.125	.250	.215
101	ST-2500B2	B24-1	0.30	4000	9000	.968	.281	.031	.093	.370	.317	.046	.125	.250	.215
101	ST-2500L2	B26	0.20	5200	11500	.934	.250	.020	.093	.500	.187	.040	.093	.250	.215
101	ST-2500L3	B26	0.20	5200	11500	.843	.156	.020	.046	.500	.187	.046	.093	.250	.215
101	ST-4000	B26	0.30	6000	13000	1.268	.281	.031	.093	.800	.187	.046	.125	.250	.215
101	ST-4000L2	B26	0.25	6000	13000	1.234	.250	.020	.093	.800	.187	.040	.093	.250	.215
101	ST-4000L3	B26	0.15	6000	13000	1.143	.156	.020	.046	.800	.187	.046	.093	.250	.215

Terminal Lugs: Brass, Silver Plate .0003" Min. Thick.

Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

See preceding page for figure drawing

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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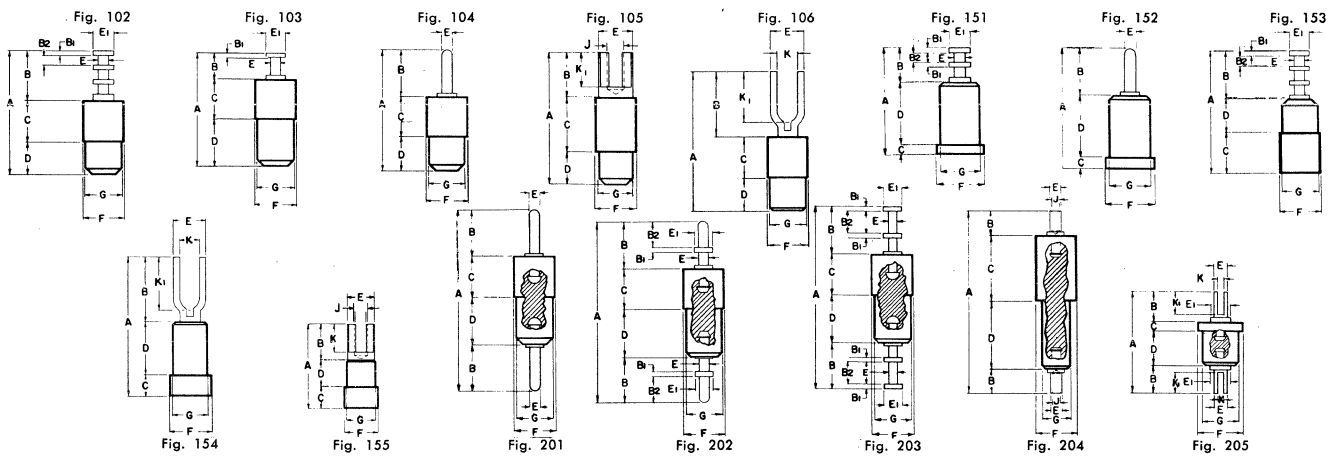
STAND-OFFS MINIATURE and SUBMINIATURE

FIG.	PART No.	TOOL NO.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASH OVER SEA LEVEL	A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 —.000 G DIA.	J DIA.	K	K_1
102	**ST-1150**	B12	0.60	2500	6000	.555	.218	.020	.046	.187	.150	.046	.093	.187	**.171**			
103	**ST-1500TUR**	B12-3	0.20	2700	6500	.520	.120	.020		.250	.150	.048	.090	.187	**.165**			
103	**ST-1600-TUR**	B13-3B	0.20	2000	6000	.519	.120	.020		.187	.212	.048	.090	.187	**.171**			
104	**ST-251***	B13-3	0.45	2000	5000	.485	.210			.125	.150	.040		.187	**.165**			
104	**ST-1020L5***	B13-3	0.40	2200	5500	.547	.210			.187	.150	.040		.187	**.165**			
104	**ST-1181***	B13	0.70	2200	5500	.718	.312			.187	.218	.040		.187	**.165**			
104	**ST-1182***	B16-1	0.55	2500	5500	.600	.300			.125	.175	.062		.200	**.180**			
105	**ST-1500SL-C3**	B11	0.50	2700	6500	.603	.203			.250	.150	.148		.187	**.165**	.078		.156
105	**ST-250SL**	B11	0.70	2000	5000	.478	.203			.125	.150	.148		.187	**.171**	.078		.156
105	**ST-250SL-1L**	B11	0.70	2000	5000	.478	.203			.125	.150	.148		.187	**.171**	.046		.161
105	**ST-1000SL**	B11	0.70	2300	5600	.540	.203			.187	.150	.148		.187	**.171**	.078		.156
105	**ST-1000SL-1L**	B11	0.70	2300	5600	.540	.203			.187	.150	.148		.187	**.171**	.046		.161
105	**ST-1150SL-1L**	B11	0.50	2300	5600	.555	.203			.187	.165	.148		.187	**.171**	.046		.156
105	**ST-1180SL**	B11	0.70	2300	5600	.602	.203			.187	.212	.148		.187	**.171**	.078		.156
105	**ST-1180SL-C2**	B11	0.80	2300	5600	.620	.203			.187	.230	.148		.187	**.171**	.078		.156
105	**ST-1500SL**	B11	0.45	2700	6500	.603	.203			.250	.150	.148		.187	**.171**	.078		.156
105	**ST-1500SL-1L**	B11	0.45	2700	6500	.603	.203			.250	.150	.148		.187	**.171**	.046		.156
105	**ST-2000SL**	B11	0.30	4200	9500	.753	.203			.400	.150	.148		.187	**.171**	.078		.156
105	**ST-2000SL-1L**	B11	0.30	4200	9500	.753	.203			.400	.150	.148		.187	**.171**	.046		.161
105	**ST-2000SL-C2**	B11	0.30	4200	9500	.703	.203			.400	.100	.148		.187	**.171**	.078		.156
105	**ST-2500SL-C1**	B25	0.30	5000	11000	.890	.203			.500	.187	.148		.250	**.171**	.078		.156
105	**ST-4000SL-C1**	B25	0.25	6000	13000	1.190	.203			.800	.187	.148		.250	**.171**	.078		.156
105	**ST-2500SL**	B25	0.30	5000	11000	.890	.203			.500	.187	.148		.250	**.217**	.078		.156
105	**ST-2500SL-1L**	B25	0.30	5000	11000	.890	.203			.500	.187	.148		.250	**.217**	.046		.161
105	**ST-4000SL**	B25	0.20	6000	13000	1.190	.203			.800	.187	.148		.250	**.217**	.078		.156
105	**ST-4000SL-1L**	B25	0.25	6000	13000	1.190	.203			.800	.187	.148		.250	**.217**	.046		.161
106	**ST-35ML**	B11-C	0.85	2000	5000	.633	.296			.187	.150	.150		.187	**.171**		.090	.234
151	**RST-1**	B18-1B	0.40	3000	7000	.487	.154	.020	.046	.046	.287	.046	.093	.218	†**.185**			
151	**RST-1L2**	B18-1B	0.20	3000	7000	.583	.250	.020	.093	.046	.287	.046	.093	.218	†**.185**			
152	**RST-2**	B18	0.15	3200	7500	.543	.210			.046	.287	.040		.218	**.185**			
152	**RST-2C2**	B18-1B	0.50	4000	9000	.756	.210			.046	.500	.040		.218	**.185**			
152	**RST-2L2**	B18	0.70	2500	6000	1.133	.800			.046	.333	.040		.218	**.185**			
153	**RST-1150**	B13-X	0.70	1200	3500	.555	.218	.020	.046	.187	.150	.046	.093	.187	**.171**			
154	**RST-15ML**	B13-X-2	0.75	2000	5000	.629	.296			.093	.240	.150		.187	**.171**		.090	.234
155	**RST-250SL**	B12-X	0.75	1900	4800	.478	.203			.125	.150	.148		.187	**.165**	.078		.156
201	**DST-SM-110***	B8-16	0.20	1000	3000	.560	.180			.040	.160	.040		.172	**.148**			
201	**DST-SM-110-L4***	B8-11	0.15	1500	4000	.600	.155			.080	.210	.040		.172	**.148**			
201	**DST-1010-C2***	B13-3-1	0.20	2700	6400	.819	.210			.187	.212	.040		.187	**.148**			
201	**DST-1010-C4***	B9	0.20	2700	6400	.819	.210			.187	.212	.040		.172	**.148**			
201	**DST-SM-105***	B17	0.25	1000	3000	.640	.210			.050	.170	.040		.205	**.169**			
201	**DST-900***	B12	0.15	2000	5000	.572	.110			.140	.212	.040		.187	**.171**			
201	**DST-900-L2**	B12	0.20	2000	5000	.696	.172			.140	.212	.040		.187	**.171**			
201	**DST-1010***	B13-3-1	0.20	2700	6500	.819	.210			.187	.212	.040		.187	**.171**			
201	**DST-1010-L1***	B13	0.20	1500	4000	.587	.125			.187	.150	.040		.187	**.171**			
202	**DST-1001***	B13	0.20	2000	6000	.819	.210	.020	.120	.187	.212	.040	.080	.187	**.171**			
203	**DST-1000-C2***	B13	0.20	2000	5000	.819	.210	.020	.100	.187	.212	.040	.080	.187	**.148**			
203	**DST-SM-105-TUR***	B17	0.20	1000	3000	.640	.210	.020	.100	.050	.170	.040	.080	.205	**.169**			
203	**DST-1000***	B13	0.20	2500	6000	.819	.210	.020	.100	.187	.212	.040	.080	.187	**.171**			
203	**DST-1015***	B20	0.20	2700	6500	.819	.210	.020	.100	.187	.212	.040	.080	.218	**.187**			
203	**DST-1550**	B24-1	0.40	3500	8000	1.187	.281	.031	.093	.250	.375	.046	.125	.250	**.218**			
203	**DST-2550**	B26	0.35	5000	11000	1.687	.281	.031	.093	.500	.625	.046	.125	.250	**.218**			
203	**DST-4050**	B26	0.30	6000	13000	2.287	.281	.031	.093	.800	.925	.046	.125	.250	**.218**			
204	**DST-2560**	B28	0.15	4000	9000	1.377	.176			.500	.525	.085		.312	**.217**	.062	.156	
205	**DTS-SM-101SL***	B10-3	0.20	1000	3000	.480	.140			.040	.160	.060	.093	.185	**.165**		.032	.110
205	**DST-SM-100SL***	B17	0.20	1000	3000	.480	.140			.040	.160	.060	.093	.205	**.169**		.032	.110

Terminal Lug: Brass, Silver Plate .0003" Min. Thick. *Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Min. Thick.
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.



Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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FEED-THRUS MICROMINIATURE and SUBMINIATURE

FIG.	PART No.	TOOL NO.	CAPACITANCE mmf	V.RMS NOMINAL RATING	60 CPS FLASHOVER SEA LEVEL	A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 −.000 G DIA.	J	K	K_1
301	FT-MM-3SL	BO-1	0.65	400	1800	.510	.100			.040	.090	.030	.060	.093	.075		.024	.080
301	FT-MM-3SL-2L	BO-1-A	0.75	400	1800	.635	.225			.040	.090	.030	.060	.093	.075		.024	.075
301	FT-MM-3SL-4L	BO-1	0.65	400	1800	.471	.110			.040	.090	.030	.060	.093	.075		.024	.080
302	FT-MM-5-TUR	BO	0.70	400	1800	.510	.100	.020	.060	.040	.100	.040	.060	.093	.075			
303	FT-MM-5SL	BO-1	0.70	400	1800	.510	.100			.040	.100	.030	.060	.093	.075		.024	.080
303	FT-MM-6SL	BO-1	0.70	400	1800	.552	.100			.040	.100	.030	.060	.093	.075		.024	.080
304	FT-MM-7	BO-1	0.70	400	1800	.588	.125			.040	.100	.030	.060	.093	.075	.040		.080
305	FT-MM-7ML	BO-1	0.70	400	1800	.588	.120			.040	.100	.030	.060	.093	.075	.040		.080
306	FT-MM-16L2	BO-2	0.70	400	1800	.550	.275			.040	.100	.030		.093	.075			
307	FT-MM-47-TUR	BO-A	1.05	500	2000	1.500	.210	.020	.100	.040	.125	.032	.060	.093	.075			
307	FT-MM-47-TUR-BC*	BO-A	1.10	500	2000	1.500	.210	.020	.100	.040	.125	.032	.060	.093	.075			
307	FT-MM-47-TUR-SS#	BO-A	1.00	500	2000	1.500	.210	.020	.100	.040	.125	.032	.060	.093	.075			
307	FT-MM-48-TUR-BC*	BO-5	0.70	500	2000	1.700	.210	.020	.100	.090	.125	.032	.060	.093	.075			
351	FT-SM-7	B3-1	0.50	500	2000	.375	.147			.040	.075	.040		.125	.093			
351	FT-SM-16	B3-1	0.75	500	2000	.515	.210			.040	.100	.040		.125	.093			
351	FT-SM-16L2	B3-1	0.65	500	2000	.453	.156			.040	.100	.040		.125	.093			
351	†FT-SM-16L6	B3-1	0.80	500	2000	.987	.687			.040	.100	.040		.125	.093			
351	†FT-SM-16L14	B3-1	0.80	500	2000	.438	.125			.040	.100	.040		.125	.093			
351	FT-SM-13	B6	0.50	750	2500	.515	.210			.040	.060	.040		.150	.125			
351	FT-SM-23	B6	0.45	750	2500	.335	.125			.040	.060	.040		.150	.125			
351	FT-SM-23L2	B6	0.60	750	2500	.375	.125			.040	.100	.040		.150	.125			
351	FT-SM-022	B8-A	0.65	1000	3000	.630	.210			.040	.170	.040		.172	.148			
351	FT-SM-023	B8	0.65	1000	3000	.630	.210			.040	.217	.040		.172	.148			
351	FT-SM-1	B8-16	0.50	1000	3000	.515	.210			.040	.100	.040		.172	.148			
351	FT-SM-1C6	B8-A	0.70	1000	3000	.710	.210			.040	.250	.040		.172	.148			
351	FT-SM-1L2	B8-16	0.50	1000	3000	.443	.210			.040	.100	.040		.172	.148			
351	FT-SM-1L3	B8-16	0.70	1000	3000	.725	.210			.040	.100	.040		.172	.148			
351	FT-SM-1L4	B8-16	0.70	1000	3000	1.000	.210			.040	.100	.040		.172	.148			
351	FT-SM-1L6	B8-16	0.55	1000	3000	.562	.210			.040	.100	.040		.172	.148			
351	FT-SM-2	B8-18	0.40	1000	3000	.515	.210			.050	.050	.040		.172	.148			
351	FT-SM-2C4	B8-18	0.50	1200	3500	.535	.210			.050	.110	.040		.172	.148			
351	FT-SM-2C4-L2	B8-13	0.50	1200	3500	.431	.106			.050	.110	.040		.172	.148			
351	FT-SM-2C6	B8-18	0.50	1200	3500	.410	.147			.050	.110	.040		.172	.148			
351	FT-SM-8	B8-16	0.60	1000	3000	.535	.210			.040	.120	.040		.172	.148			
351	FT-SM-9	B8-16	0.50	1000	3000	.535	.210			.040	.132	.040		.172	.148			
351	FT-SM-9L1	B8-16	0.55	1000	3000	.515	.210			.040	.132	.040		.172	.148			
351	FT-SM-9L2	B8-16	0.50	1000	3000	.407	.125			.040	.132	.040		.172	.148			
351	†FT-SM-14**	B8'16	0.50	1000	3000	.375	.125			.040	.100	.040		.172	.148			
351	†FT-SM-14L2**	B8-16	0.50	1000	3000	.325	.075			.040	.100	.040		.172	.148			
351	FT-SM-18	B8-16	0.55	1000	3000	.443	.093			.040	.100	.040		.172	.148			
351	FT-SM-19	B8-16	0.60	1000	3000	.535	.210			.040	.160	.040		.172	.148			
351	FT-SM-19L1	B8-16	0.60	1000	3000	.571	.210			.040	.160	.040		.172	.148			
351	FT-SM-35	B8	0.70	1200	3500	.890	.625			.040	.100	.045		.172	.148			
351	FT-SM-35L2	B8	0.60	1000	3000	.585	.320			.040	.100	.045		.172	.148			
351	FT-SM-1C1	B8-16	0.55	1000	3000	.515	.210			.040	.100	.040		.172	.157			
351	FT-SM-10	B18	1.10	1000	3000	2.500	.460			.040	.100	.040		.219	.169			
351	FT-SM-10L1	B18	1.30	1000	3000	2.500	.460			.040	.100	.049		.219	.169			
351	FT-SM-10L2	B18	1.00	1000	3000	1.875	.125			.040	.100	.049		.218	.169			
351	FT-SM-10L4	B18	0.65	1000	3000	.937	.125			.040	.100	.049		.218	.169			
351	FT-SM-10L6	B18-E	0.85	1000	3000	1.250	.125			.040	.100	.049		.218	.169			
351	FT-SM-27L2	B18-1	0.70	1000	3000	1.090	.680			.050	.110	.040		.218	.171			
351	FT-SM-3	B15	0.50	1200	3500	.515	.210			.040	.100	.040		.195	.172			
351	FT-SM-3L2	B15	0.55	1200	3500	.560	.210			.040	.100	.040		.195	.172			
351	FT-SM-4	B16	0.50	1200	3500	.515	.210			.040	.100	.040		.200	.179			
351	FT-SM-5	B22	0.50	1200	3500	.515	.210			.040	.100	.040		.250	.218			

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thick
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.
* Beryllium Copper
# Stainless Steel

**Gold Flash over Silve
† E Diameter ±.001

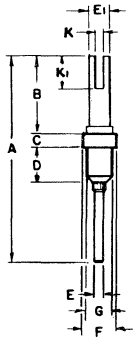


Fig. 301

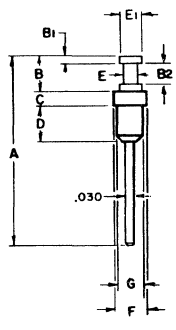


Fig. 302

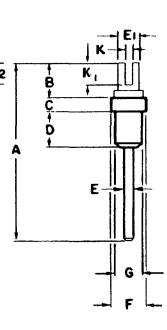
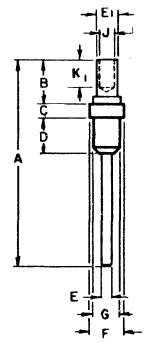


Fig. 303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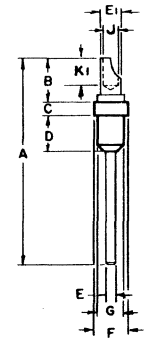
Fig. 305

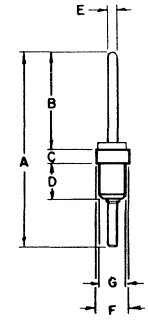
Fig. 306

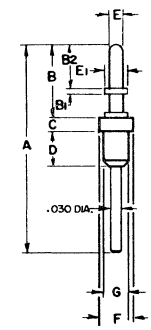
Fig. 307

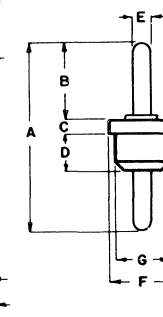
Fig. 351

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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FEED-THRUS SUBMINIATURE

FIG.	PART No.	TOOL NO.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 −.000 G DIA.	K	K_1
352	FT-SM-024		—	—	—	.515	.210			.140		.040		.148			
352	FT-SM-17		—	—	—	.375	.200			.140		.040		.180			
353	FT-SM-80	B9-X	0.70	1700	4500	.531	.031			.156	.218	.050		.172	.148		
353	FT-SM-81	B9-X1	0.70	1000	3000	.281	.031			.040	.100	.040		.172	.148		
354	FT-SM-125	B3-1	0.50	500	2000	.306	.078			.040	.075	.040	.050	.125	.093		
354	FT-SM-021	B18	0.40	1200	3500	.449	.250			.046	.060	.051	.060	.218	.185		
355	FT-SM-706	B3-5	0.40	500	2000	.218	.031			.040	.060	.030	.040	.125	.093		
356	FT-SM-400	B18-H	1.00	1000	3000	.561	.053		.718	.040	.125	.040	.060	.218	.185		
356	FT-SM-400L2	B18-H	1.10	1000	3000	.718	.210		1.031	.040	.125	.040	.060	.218	.185		
356	FT-SM-400L4	B18-H	1.30	1000	3000	.998	.490		1.343	.040	.125	.040	.060	.218	.185		
357	FT-M-9L4	B10-2	0.80	1000	3000	.593	.250			.062	.140	.050		.187	.148		
357	FT-SM-9L6	B8-15-2	0.60	1000	3000	.479	.250			.040	.070	.050		.172	.148		
358	FT-SM-1SL	B3-1	0.60	500	2000	.312	.116			.040	.100	.040		.125	.106	.010	.020
358	FT-SM-100SL	B17	0.65	1500	4000	.480	.140			.040	.160	.060		.205	.169	.032	.110
359	FT-SM-1SL-1	B3-1	0.50	500	2000	.312	.116			.040	.100	.040		.125	.106	.010	.020
360	FT-SM-16-TUR	B-3-2B	0.70	500	2000	.500	.210	.020	.100	.040	.100	.040	.080	.125	.093		
360	FT-SM-1TUR-C6	B8	0.70	1000	3000	.500	.210	.020	.100	.040	.100	.040	.080	.172	.116		
360	FT-SM-028TUR	B8	0.60	1000	3000	.550	.245	.020	.070	.040	.125	.040	.080	.172	.148		
360	FT-SM-029TUR	B8	0.50	1000	3000	.812	.210	.020	.100	.040	.165	.040	.080	.172	.148		
360	FT-SM-1TUR	B8	0.50	1000	3000	.500	.210	.020	.100	.040	.100	.040	.080	.172	.148		
360	FT-SM-1TUR-C4	B8	0.50	1000	3000	.500	.210	.020	.100	.040	.165	.040	.080	.172	.148		
360	FT-SM-1-TUR-C10	B8	0.40	1000	3000	.438	.210	.020	.100	.040	.083	.040	.080	.172	.148		
360	FT-SM-1-TUR-L2	B8	0.50	1000	3000	.438	.210	.020	.100	.040	.100	.040	.080	.172	.148		
360	FT-SM-1-TUR-L6	B8	0.70	1000	3000	.609	.210	.020	.100	.040	.165	.040	.080	.172	.148		
360	FT-SM-22-TUR-C2	B9	0.70	1200	3500	.609	.210	.020	.100	.093	.158	.040	.080	.172	.148		
360	FT-SM-4-TUR	B16	0.50	1200	3500	.500	.210	.020	.100	.040	.100	.040	.080	.200	.179		
360	FT-SM-1TUR-C8	B18	0.50	1200	3500	.438	.210	.020	.100	.040	.100	.040	.080	.218	.185		
360	FT-SM-33-TUR	B22	0.50	1500	4000	.500	.210	.020	.100	.040	.100	.040	.080	.250	.234		
361	FT-SM-2-TUR-C1	B8	0.50	1000	3000	.531	.210	.020	.100	.040	.100	.040	.080	.172	.112		
361	FT-SM-23-TUR	B6	0.50	750	2500	.500	.210	.020	.100	.040	.060	.040	.080	.150	.125		
361	FT-SM-025-TUR	B8	0.65	1000	3000	.609	.210	.020	.100	.040	.165	.040	.080	.172	.148		
361	FT-SM-026-TUR	B8-A	0.55	1000	3000	.437	.156	.020	.047	.040	.065	.040	.080	.172	.148		
361	FT-SM-1-TUR-C2	B8	0.45	1000	3000	.500	.210	.020	.100	.040	.060	.040	.080	.172	.148		
361	FT-SM-2-TUR	B8	0.70	1000	3000	.531	.210	.020	.100	.040	.100	.040	.080	.172	.148		
361	FT-SM-2-TUR-C2	B8	0.70	1000	3000	.531	.210	.020	.100	.040	.125	.040	.080	.172	.148		
361	FT-SM-22-TUR	B9	0.65	1200	3500	.609	.210	.020	.100	.093	.125	.040	.080	.172	.148		
361	FT-SM-51-TUR	B8-A	0.55	1000	3000	.437	.156	.020	.047	.040	.088	.047	.093	.172	.152		
361	FT-SM-51-TUR-C2	B8-A	0.65	1000	3000	.500	.156	.020	.047	.040	.150	.047	.093	.172	.152		
361	FT-SM-51-TUR-C4	B8-A	0.60	1000	3000	.437	.156	.020	.047	.040	.100	.047	.093	.172	.152		
361	FT-SM-20-TUR-C1	B18	0.55	1200	3500	.531	.210	.020	.100	.040	.100	.040	.080	.218	.175		
361	FT-SM-20-TUR	B18	0.65	1200	3500	.531	.210	.020	.100	.040	.100	.040	.080	.218	.185		
361	FT-SM-21-TUR	B18	0.65	1200	3500	.531	.210	.020	.100	.040	.125	.040	.080	.218	.185		
361	FT-SM-34-TUR	B19-A	0.55	1500	4000	.609	.210	.020	.100	.093	.125	.040	.080	.218	.185		
361	FT-SM-26-TUR	B28-A	0.50	1500	4000	.531	.210	.020	.100	.040	.100	.040	.080	.312	.264		
362	FT-SM-1-TUR-L4	B8	0.50	1000	3000	.500	.210	.020	.100	.040	.100	.040	.080	.172	.148		
363	FT-SM-28-TUR	B6	0.45	750	2500	.350	.125	.020	.095	.040	.060	.040	.080	.150	.125		
363	FT-SM-18-TUR	B8	0.60	1000	3000	.443	.093	.020	.062	.040	.100	.040	.080	.172	.148		
363	FT-SM-37-TUR-C1	B8-G-1	0.65	750	2500	.493	.093	.020	.063	.020	.170	.040	.080	.172	.148		
363	FT-SM-84-TUR	B8	0.60	1000	3000	.640	.250	.020	.210	.040	.125	.040	.080	.172	.148		
363	FT-SM-36-TUR	B16	0.60	1200	3500	.500	.120	.020	.080	.075	.125	.048	.090	.200	.172		
363	FT-SM-36-TUR-L1	B16-1-A	1.00	1000	3000	.500	.120	.020	.080	.075	.125	.080	.125	.200	.172		
364	FT-SM- 16-TUR-L2	B3-5	0.60	500	2000	.350	.125	.020	.085	.040	.100	.040	.080	.125	.093		
364	FT-SM-32-TUR	B8	0.50	1000	3000	.350	.125	.020	.095	.040	.100	.040	.080	.172	.148		
364	FT-SM-32-TUR-L2	B8	0.60	1000	3000	.385	.160	.020	.130	.040	.100	.040	.093	.172	.148		
364	FT-SM-47-TUR-L2	B8	0.50	1000	3000	.380	.090	.020	.060	.040	.100	.040	.080	.172	.148		
365	FT-SM-47-TUR	B8	0.55	1000	3000	.500	.210	.020	.120	.040	.100	.040	.080	.172	.148		
365	FT-SM-47-TUR-L1	B8	0.50	1000	3000	.500	.210	.020	.120	.040	.100	.040	.080	.172	.148		
366	FT-SM-6-TUR-SL	B3-4-1	0.70	750	2500	.346	.093	.020	.060	.030	.130	.040	.080	.125	.106	.015	.047

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thick
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

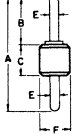
Fig. 352 

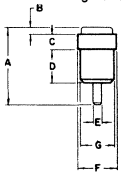
Fig. 353 

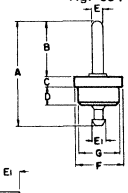
Fig. 354 

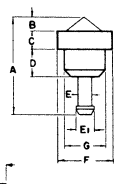
Fig. 355 

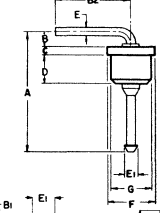
Fig. 356 

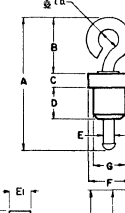
Fig. 357 

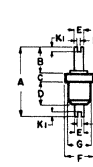
Fig. 358 

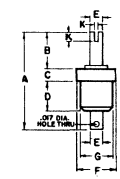
Fig. 359 

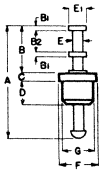
Fig. 360 

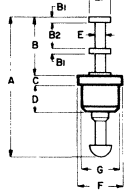
Fig. 361 

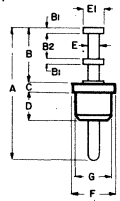
Fig. 362 

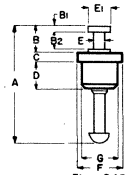
Fig. 363 

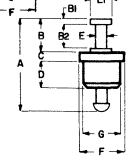
Fig. 364 

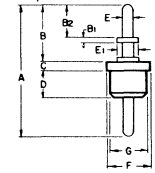
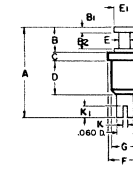
Fig. 365 

Fig. 366 

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FEED-THRUS SUBMINIATURE – SUBMINIATURE, MINIATURE (TUBULAR)

FIG.	PART No.	TOOL No.	CAPACITANCE mmf	V.RMS NOMINAL RATING	60 CPS FLASHOVER SEA LEVEL	A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 —.000 G DIA.
451	RFT-SM-9	B8	0.50	1000	3000	.443	.093	.020	.062	.040	.100	.040	.080	.172	.148
452	RFT-SM-1	B8	0.50	1000	3000	.515	.210			.040	.100	.040		.172	.148
452	RFT-SM-2	B8	0.40	750	2500	.515	.210			.050	.050	.040		.172	.148
452	RFT-SM-9L4	B8-19	1.15	1200	3500	2.500	1.750			.040	.132	.040		.172	.148
453	RFT-SM-47-TUR-L1	B8	0.60	1200	3500	.500	.210	.020	.120	.040	.100	.040	.080	.172	.148
454	RFT-SM-16-TUR	B3-12	0.85	500	2000	.500	.210	.020	.100	.040	.100	.040	.080	.125	.093
454	RFT-SM-23-TUR	B6	0.50	1000	3000	.500	.210	.020	.100	.040	.060	.040	.080	.150	.125
454	RFT-SM-1-TUR	B8	0.50	1000	3000	.500	.210	.020	.100	.040	.100	.040	.080	.172	.148
454	RFT-SM-1-TUR-L6	B8	0.60	1200	3500	.609	.210	.020	.100	.040	.165	.040	.080	.172	.148
454	RFT-SM-2-TUR	B8	0.70	1000	3000	.531	.210	.020	.100	.040	.100	.040	.080	.172	.148
454	RFT-SM-2-TUR-C4	B8	0.60	1200	3500	.531	.210	.020	.100	.040	.165	.040	.080	.172	.148
454	RFT-SM-2-TUR-C6	B8	0.70	1200	3500	.531	.210	.020	.100	.040	.125	.040	.080	.172	.148
454	RFT-SM-22-TUR	B8	0.70	1200	3500	.609	.210	.020	.100	.093	.125	.040	.080	.172	.148
454	RFT-SM-21-TUR	B18	0.50	1500	4000	.531	.210	.020	.100	.040	.125	.040	.080	.218	.185
455	RFT-SM-18-TUR	B8	0.55	1000	3000	.443	.093	.020	.062	.040	.100	.040	.080	.172	.148
455	RFT-SM-32-TUR	B8	0.45	1000	3000	.350	.125	.020	.094	.040	.100	.040	.080	.172	.148
455	RFT-SM-35-TUR	B8	0.60	1000	3000	.500	.120	.020	.080	.040	.130	.040	.080	.172	.148
455	RFT-SM-37-TUR	B8	0.50	1200	3500	.493	.093	.020	.062	.040	.150	.040	.080	.172	.148
456	RFT-SM-18-TUR-L2##	B8-15-1	0.60	1000	3000	.378	.093	.020	.062	.040	.100	.040	.080	.172	.148

FIG.	PART No.	TOOL NO.	CAPACITANCE mmf	V,RMS NOMINAL RATING	60 CPS FRASHOVER SEA LEVEL	A	B	C	D	E DIA.	F DIA.	+.002 —.000 G DIA.	H	H_1 DIA.	J	K	K_1
501	FT-SM-59	B3-1	0.40	500	2000	.225	.125	.040	.060	.040	.125	.093			.030		
501	FT-SM-59C2	B3-1	0.40	500	2000	.215	.125	.040	.050	.040	.125	.093			.030		
501	FT-SM-59L2	B3-1	0.45	500	2000	.312	.207	.040	.060	.040	.125	.093			.030		
501	FT-SM-600	B3-1	0.45	500	2000	.317	.187	.040	.090	.040	.125	.093			.030		
501	FT-SM-601	B3-1	0.40	500	2000	.405	.275	.040	.090	.040	.125	.093			.030		
501	FT-SM-54	B4-1	0.40	750	2500	.310	.207	.050	.053	.040	.130	.120			.030		
501	FT-SM-52	B6	0.40	750	2500	.225	.125	.040	.060	.040	.150	.125			.030		
501	FT-SM-50L2	B8-13-A	0.30	750	2500	.250	.147	.050	.053	.040	.172	.148			.030		
501	FT-SM-55	B8-4	0.50	1000	3000	.296	.136	.060	.100	.040	.172	.148			.030		
501	FT-SM-55L2	B8-4	0.45	1000	3000	.234	.074	.060	.100	.040	.172	.148			.030		
501	FT-SM-62	B8-13-A	0.75	750	2500	.367	.207	.050	.110	.085	.172	.148			.063		
501	FT-SM-62C2	B8-13-A	0.90	1000	3000	.413	.207	.050	.156	.085	.172	.148			.063		
501	FT-SM-62C6	B8-13-A	0.70	1000	3000	.332	.207	.050	.075	.085	.172	.148			.063		
501	FT-SM-62C8	B8-13-A	0.60	1000	3000	.312	.207	.050	.055	.085	.172	.148			.063		
501	FT-SM-62L1	B8-13-A	0.70	1000	3000	.367	.207	.050	.110	.085	.172	.148			.070		
501	FT-SM-57	B18-2	0.40	1200	3500	.367	.207	.050	.110	.040	.218	.171			.030		
501	FT-SM-60	B18-1	0.70	1000	3000	.367	.207	.050	.110	.085	.218	.171			.063		
501	FT-SM-63	B21-A	0.65	1200	3500	.367	.207	.050	.110	.085	.240	.200			.063		
502	FT-SM-56	B8-13-A	0.35	1200	3500	.307	.207	.050	.110	.040	.172	.148	.057	.050	.030		
502	FT-SM-58	B8-4	0.30	1000	3000	.282	.147	.060	.075	.040	.172	.148	.042	.070	.030		
502	FT-SM-61	B18-1	0.75	1200	3000	.417	.207	.050	.160	.085	.218	.171	.050	.085	.063		
502	FT-SM-61L2	B18-1	0.95	1000	3000	.710	.500	.050	.160	.085	.218	.171	.050	.085	.063		
502	FT-SM-51	B21	0.35	1200	3500	.367	.207	.050	.110	.040	.240	.200	.057	.050	.030		
502	FT-SM-53	B22	0.35	1200	3500	.287	.147	.040	.100	.060	.250	.218	.030	.050	.030		
503	FT-SM-55-1A	B8-4	0.45	1000	3000	.296	.136	.060	.100	.040	.172	.148			.030		
503	FT-SM-50L2-1A	B8-13-A	0.30	1000	3000	.250	.147	.050	.053	.040	.172	.148			.030		
504	FT-SM-71L4	B8-A	0.55	1000	3000	.270	.100	.040	.100	.060	.172	.148			.030		
505	FT-SM-42SL	B3-3	0.65	1500	4000	.412	.065	.109	.238	.062	.125	.089			.030	.020	.050
505	FT-1025SL	B11	0.90	2000	5000	.602	.203	.187	.212	.148	.187	.171			.052	.072	.156
505	FT-150-SL*	B11-A	1.0	1000	3000	.426	.203	.060	.163	.148	.218	.185			.078		.156
506	FT-SM-59SL	B3-1	0.40	500	2000	.225	.125	.040	.060	.040	.125	.093			.030	.015	.115
506	FT-SM-52SL	B6	0.40	750	2500	.225	.125	.040	.060	.040	.150	.125			.030	.015	.115
506	FT-SM-50SL	B8-13-A	0.30	1000	3000	.310	.207	.050	.053	.040	.172	.148			.030	.010	.125
506	FT-SM-62C4SL	B8-13-A	0.75	1000	3000	.320	.190	.050	.080	.085	.172	.148			.050	.030	.175
506	FT-SM-50SL-C1	B8-13-A	0.30	1000	3000	.310	.207	.050	.053	.040	.172	.165			.030	.010	.125
506	FT-SM-60SL	B18-1	0.70	1000	3000	.367	.207	.050	.110	.085	.218	.171			.062	.030	.175

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thick
Cavacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

*Silver Finish
Gold over Silver

Fig. 451

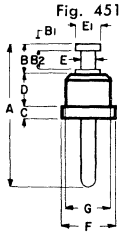


Fig. 452

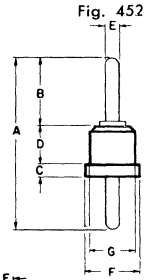


Fig. 453

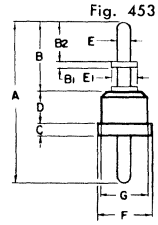


Fig. 454

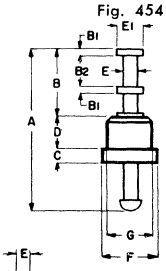


Fig. 455

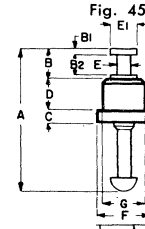


Fig. 456

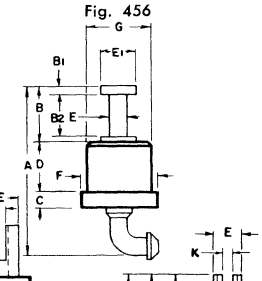


Fig. 501

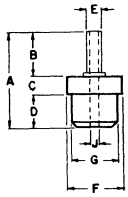


Fig. 502

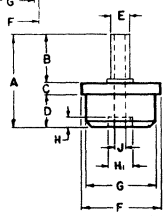


Fig. 503

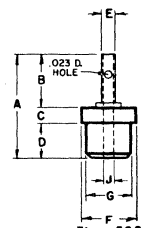


Fig. 504

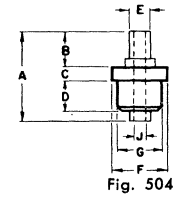


Fig. 505

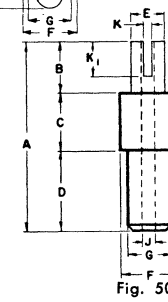
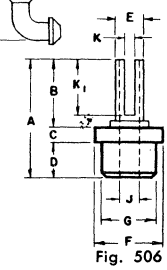


Fig. 506



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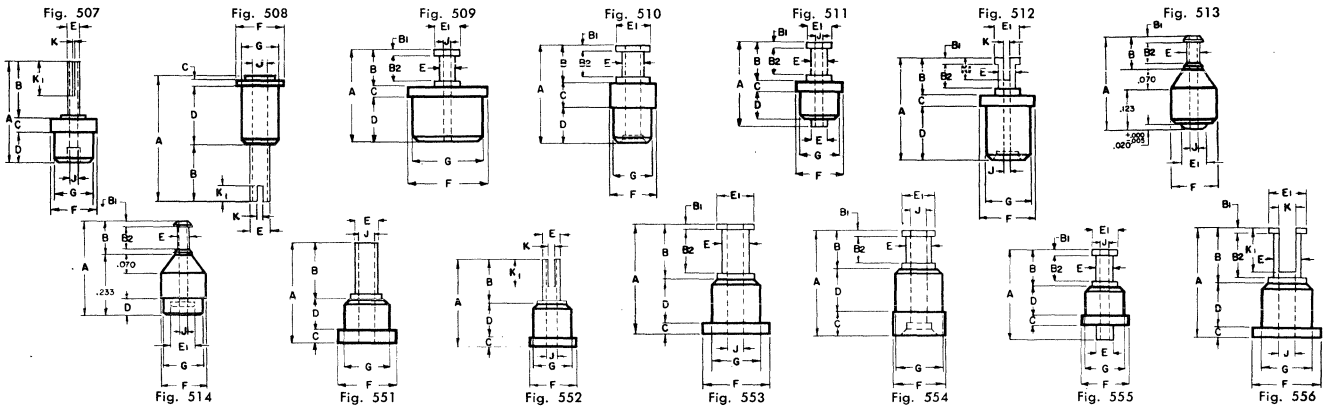
FEED-THRUS SUBMINIATURE (TUBULAR)

FIG.	PART No.	TOOL No.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 −.000 G DIA.	J DIA.	K	K_1
507	FT-SM-65SL	B3-2B	0.40	750	2500	.294	.156			.078	.060	.060		.125	.105	.030	.015	.145
507	FT-SM-56SL	B8-13-A	0.25	1000	3000	.367	.207			.050	.110	.040		.172	.148	.030	.010	.125
508	FT-SM-66	B8-G-2	0.80	250	1500	.332	.072			.025	.220	.072		.172	.148	.052	.011	.062
508	FT-SM-66L2	B8-G-2	0.75	250	1500	.470	.210			.025	.220	.072		.172	.148	.052	.011	.062
508	FT-SM-66L4	B8-G-2	0.90	250	1500	.606	.346			.025	.220	.072		.172	.148	.052	.011	.062
509	FT-SM-702	B3-5	0.50	500	2000	.215	.125	.020		.040	.050	.040	.080	.125	.093	.030		
509	FT-SM-79	B6-A	0.50	750	2500	.273	.133	.020		.060	.080	.060	.090	.150	.125	.030		
509	FT-SM-79C4	B6-B	0.65	750	2500	.273	.133	.020	.093	.040	.100	.060	.090	.150	.125	.030		
509	FT-SM-701	B6	0.60	750	2500	.293	.133	.020		.050	.110	.060	.090	.150	.125	.030		
509	FT-SM-703	B6-B	0.50	750	2500	.233	.133	.020		.040	.060	.060	.090	.150	.125	.030		
509	FT-SM-704L2	B6-B	0.50	750	2500	.200	.090	.020	.050	.050	.060	.060	.090	.150	.125	.030		
509	FT-SM-71C2	B8-A	0.60	1000	3000	.303	.133	.020		.040	.130	.060	.090	.172	.148	.030		
509	FT-SM-71C4	B8-A	0.50	1000	3000	.238	.133	.020	.093	.040	.065	.060	.093	.172	.148	.040		
509	FT-SM-72L2	B8-13	0.50	1000	3000	.293	.133	.020	.093	.050	.110	.060	.093	.172	.148	.030		
509	FT-SM-71L2	B8-A	0.50	1000	3000	.273	.133	.020		.040	.100	.060	.090	.172	.148	.030		
509	FT-SM-350	B23-1	0.35	1200	3500	.273	.133	.020		.065	.075	.060	.090	.250	.218	.030		
509	FT-SM-70	B27	0.40	1700	4500	.333	.133	.020	093	.040	.160	.060	.090	.297	.263	.030		
510	FT-SM-74	B9-1	0.75	1000	3000	.351	.133	.020	.093	.093	.125	.082	.125	.172	.148	.062		
510	FT-SM-77	B10	0.80	1500	4000	.381	.133	.020	.093	.093	.155	.082	.125	.188	.171	.062		
511	FT-SM-79L2	B6-B	0.60	1000	3000	.303	.133	.020		.060	.080	.060	.090	.150	.125	.030		
511	FT-SM-71	B8-A	0.50	1000	3000	.303	.133	.020	.093	.040	.100	.060	.090	.172	.148	.030		
511	FT-SM-71L8	B8-A	0.70	1000	3000	.460	.133	.020	.093	.040	.100	.060	.090	.172	.148	.040		
511	FT-SM-72	B8-13	0.60	1200	3500	.333	.133	.020	.093	.050	.110	.060	.090	.172	.148	.030		
511	FT-SM-74L2	B8-13	0.85	1000	3000	.411	.133	.020		.093	.125	.082	.125	.172	.148	.062		
512	FT-SM-76SL	B17	0.75	1200	3500	.333	.133	.020	.093	.040	.160	.060	.093	.205	.169	.030	.032	.080
513	FT-SM-75		0.40	750	2500	.313	.120	.020	.080			.047	.090	.172		.031		
514	FT-EM-75L2		0.40	750	2500	.343	.120	.020	.080		.060	.047	.090	.172	.150*			
551	FT-MM-8	B3-2X	0.50	750	2500	.360	.055			.045	.260	.045		.125	.090	.030		
551	FT-SM-96	B3-2X	0.30	750	2500	.252	.100			.040	.110	.043		.125	.093	.030		
551	RFT-SM-40	B6-C	0.30	750	2500	.193	.105			.025	.063	.050		.150	.125	.030		
551	RFT-SM-52B2	B6-C	0.30	750	2500	.225	.125			.025	.075	.040		.150	.125	.030		
551	RFT-SM-52B4	B6-C	0.30	500	2000	.247	.147			.025	.075	.040		.150	.125	.030		
551	RFT-SM-50	B8	0.40	1000	3000	.310	.207			.050	.053	.040		.172	.148	.030		
551	RFT-SM-50B2	B8-X-1	0.30	1000	3000	.250	.147			.045	.053	.040		.172	.148	.030		
551	RFT-SM-50L2	B8-X-2	0.30	1000	3000	.250	.147			.050	.053	.040		.172	.148	.030		
551	RFT-SM-55	B8-X	0.45	1000	3000	.296	.136			.060	.100	.040		.172	.148	.063		
551	RFT-SM-62	B8-X-2	0.70	1000	3000	.367	.207			.050	.110	.085		.172	.148	.063		
551	RFT-SM-62L2	B8-X-2	0.70	950	2900	.310	.150			.050	.110	.085		.172	.148	.063		
551	RFT-SM-66	B8-3	0.35	750	2500	.193	.105			.025	.063	.080		.172	.148	.052		
551	RFT-SM-60	B18-X	0.70	1000	3000	.367	.207			.050	.110	.085		.218	.171	.063		
552	RFT-SM-103SL	B3-1X	0.40	500	2000	.225	.115			.020	.090	.065		.108	.093	.018	.023	.090
552	RFT-SM-1B4SL	B2-5	0.40	500	2000	.266	.146			.020	.100	.060		.125	.105	.030	.015	.130
552	RFT-SM-40SL	B6-C	0.40	500	2000	.193	.105			.025	.063	.050		.150	.125	.030	.020	.050
552	RFT-SM-41SL	B6-C	0.30	500	2000	.150	.062			.025	.063	.050		.150	.125	.030	.030	.047
552	RFT-SM-52B2-SL	B6-C	0.40	750	2500	.310	.160			.025	.125	.060		.150	.135	.030	.028	.100
553	RFT-SM-602	B3-6	0.40	500	2000	.200	.100	.010		.020	.080	.050	.070	.125	.093	.030		
553	RFT-SM-78D1	B6-C	0.35	750	2500	.200	.100	.010	.080	.025	.075	.060	.090	.150	.123	.030		
553	RFT-SM-74	B9	1.00	750	2500	.351	.133	.020	.093	.093	.125	.082	.125	.172	.148	.062		
554	RFT-SM-72BC-2	B9	0.60	1200	3500	.392	.162	.020	.130	.100	.130	.060	.093	.172	.148	.042		
554	RFT-SM-77	B10	0.60	1200	3500	.381	.133	.020	.093	.093	.155	.090	.125	.188	.177	.062		
555	RFT-SM-71	B8	0.60	1000	3000	.333	.133	.020	.093	.040	.100	.060	.093	.172	.148	.030		
555	RFT-SM-71L2	B8-X-1	0.50	750	2500	.273	.133	.020	.093	.040	.100	.060	.093	.172	.148	.030		
555	RFT-SM-72C4	B8	0.50	1000	3000	.333	.133	.020		.040	.130	.060	.093	.172	.148	.030		
556	RFT-SM-602SL	B3-6	0.40	500	2000	.200	.100	.010	.080	.020	.080	.050	.070	.125	.093	.030	.030	.080
556	RFT-SM-602SL-C2	B3-6	0.50	750	2500	.260	.100	.010	.080	.020	.140	.050	.070	.125	.093	.030	.030	.040
556	RFT-SM-78SL	B7-B	0.55	500	2000	.200	.100	.010	.080	.020	.080	.085	.115	.160	.143	.060	.030	.090

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thick
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

*±.005



Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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FEED-THRUS MINIATURE

FIG.	PART No.	TOOL No.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 —.000 G DIA.	J DIA.	K
601	FT-225*	B9	0.60	1500	4000	.619	.187			.140	.105	.040		.172	.148		
601	FT-800-L5*	B12	0.60	1700	4500	.675	.200			.125	.150	.040		.187	.165		
601	FT-311*	B10	0.60	1700	4500	.540	.133			.063	.171	.046		.187	.171		
601	FT-1000-L5*	B13-3A	0.80	2000	5000	.740	.125			.187	.212	.063		.187	.171		
601	FT-1500-L5*	B13	0.80	2500	6000	.865	.125			.250	.275	.050		.187	.171		
602	FT-1101	B12-3	0.75	2000	5000	.836	.250	.020	.093	.250	.150	.050	.093	.187	.171		
603	FT-992	B9-3	0.75	1700	4500	.836	.250	.020	.073	.187	.165	.050	.093	.172	.148		
603	FT-1001	B13	0.75	2000	5000	.836	.250	.020	.093	.187	.212	.050	.093	.187	.171		
604	FT-M-1*	B19	1.10	2000	5000	2.005	.125	.020	.085	.093	.287	.050	.093	.218	.185		
604	FT-M-1L2*	B19	0.75	2000	5000	1.000	.125	.020	.085	.093	.287	.050	.093	.218	.185		
604	FT-M-2BC*	B19	1.00	2000	5000	2.000	.125	.020	.085	.230	.150	.050	.093	.218	.185		
605	FT-M-3**	B18-1B	0.95	1000	3000	1.052	.281	.031	.093	.046	.287	.060	.125	.218	.185		
606	FT-310#	B10	0.75	1700	4500	.540	.133	.020	.093	.063	.171	.046	.093	.187	.171		
606	FT-320*#	B28-A	0.70	1700	4500	.540	.133	.020	.093	.063	.171	.046	.093	.312	.171		
606	FT-325**	B28	1.20	750	2500	.506	.099	.020	.048	.063	.171	.125	.188	.312	.171		
607	FT-960	B13	0.70	1500	4000	.740	.125	.031	.062	.187	.125	.050	.093	.187	.171		
607	FT-1000	B13	0.70	2200	5500	.740	.125	.031	.062	.187	.212	.050	.093	.187	.171		
607	FT-1000B1	B24	0.80	2500	6000	.740	.125	.031	.062	.187	.212	.050	.093	.250	.171		
607	FT-1100	B12-3	0.70	2500	6000	.740	.125	.031	.062	.250	.150	.050	.093	.187	.171		
607	FT-1500	B12-3	0.70	3000	7000	.865	.125	.031	.062	.250	.275	.050	.093	.187	.171		
607	FT-1990	B13	0.90	2500	6000	1.115	.125	.031	.062	.365	.318	.050	.125	.187	.171		
607	FT-1995	B13	0.90	2500	6000	1.115	.125	.031	.062	.375	.340	.050	.125	.187	.171		
607	FT-2000	B13-3B	0.95	3500	8000	1.115	.125	.031	.062	.375	.400	.050	.125	.187	.171		
607	FT-2000B2	B13-3B	0.80	2000	5000	1.115	.125	.031	.062	.562	.212	.050	.125	.187	.171		
607	FT-2500C1	B26	1.45	4500	10000	1.365	.125	.031	.062	.500	.525	.050	.125	.250	.171		
607	FT-4000C1	B26	1.65	6000	13000	1.965	.125	.031	.062	.800	.825	.050	.125	.250	.171		
607	FT-400	B19-A	0.80	2000	5000	.640	.133	.020	.093	.093	.210	.046	.093	.215	.185		
607	FT-410	B19-A	0.80	2000	5000	.718	.133	.020	.093	.093	.288	.046	.093	.215	.185		
607	FT-2500	B26	1.70	4500	10000	1.365	.125	.031	.062	.500	.525	.050	.125	.250	.217		
607	FT-4000	B26	1.50	6000	13000	1.965	.125	.031	.062	.800	.825	.050	.125	.250	.217		
608	FT-980-DTUR	B9-3	0.80	1500	4000	.836	.250	.020	.093	.187	.165	.050	.093	.172	.148		
608	FT-995-DTUR	B9-3	0.85	1500	4000	.836	.250	.020	.093	.125	.230	.050	.093	.172	.148		
608	FT-1000-DTUR-C3	B13-3B	0.75	2000	5000	.836	.250	.020	.093	.187	.212	.050	.093	.187	.165		
608	FT-1000-DTUR	B13-3B	0.80	2000	5000	.836	.250	.020	.093	.187	.212	.050	.093	.187	.171		
608	FT-1100-DTUR	B12-3	0.75	2000	5000	.836	.250	.020	.093	.250	.150	.050	.093	.187	.171		
608	FT-2000-DTUR	B13	1.00	3500	8000	1.337	.281	.031	.093	.375	.400	.050	.093	.187	.171		
608	FT-1050-DTCR	B24	0.80	2500	6000	.836	.250	.020	.093	.187	.212	.050	.093	.250	.204		
608	FT-1050-DTUR-C3	B24	0.70	2500	6000	.836	.250	.020	.093	.187	.212	.050	.093	.250	.230		
609	FT-950-DTUR*	B12	1.00	1500	4000	.828	.281	.031	.093	.125	.200	.062	.125	.187	.171		
609	FT-940-DTUR*	B19-A	1.00	1200	3500	.828	.281	.031	.093	.094	.210	.062	.125	.218	.185		
609	FT-996-DTUR*	B19-A	1.00	2500	6000	.828	.281	.031	.093	.187	.212	.062	.125	.218	.185		
610	FT-1550-DTUR	B24-A	1.25	3000	7000	1.187	.281	.031	.093	.250	.375	.062	.125	.250	.218		
610	FT-2550-DTUR	B26	1.60	5000	11000	1.687	.281	.031	.093	.500	.625	.062	.125	.250	.218		
610	FT-4050-DTUR	B40	1.90	6000	13000	2.287	.281	.031	.093	.800	.925	.062	.125	.250	.218		
611	FT-800	B12	0.75	1700	4500	.680	.207			.125	.150		.085	.187	.171	.063	.187
611	FT-801**	B12	0.70	1700	4500	.535	.062			.125	.150		.085	.187	.171	.067	.062

Terminal Lug: Brass, Silver Plate .0003" Min. Thick.
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis
**Gold flash over silver.
*Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thick
#Seating Turret E1 dimension.

Fig. 601

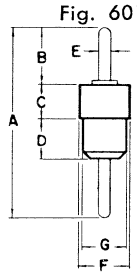


Fig. 602

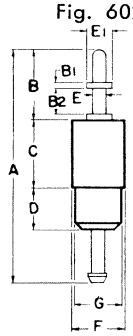


Fig. 603

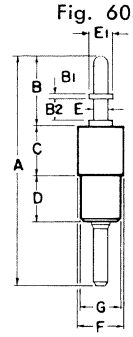


Fig. 604

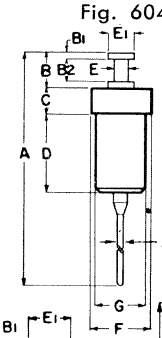


Fig. 605

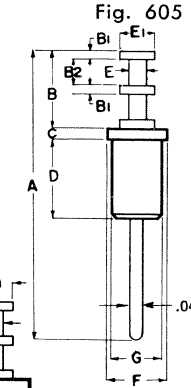


Fig. 606

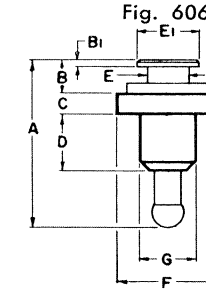


Fig. 607

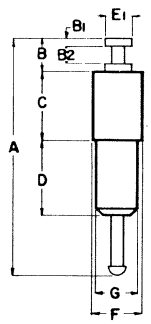


Fig. 608

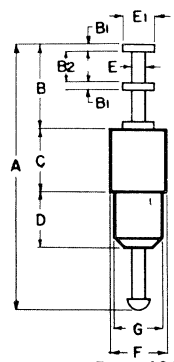


Fig. 609

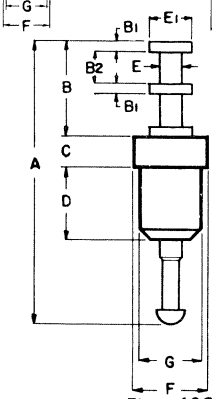


Fig. 610

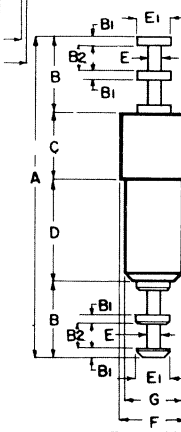
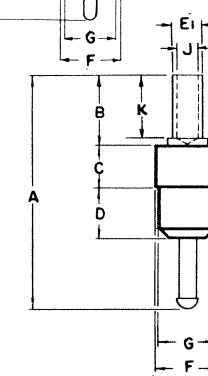


Fig. 611



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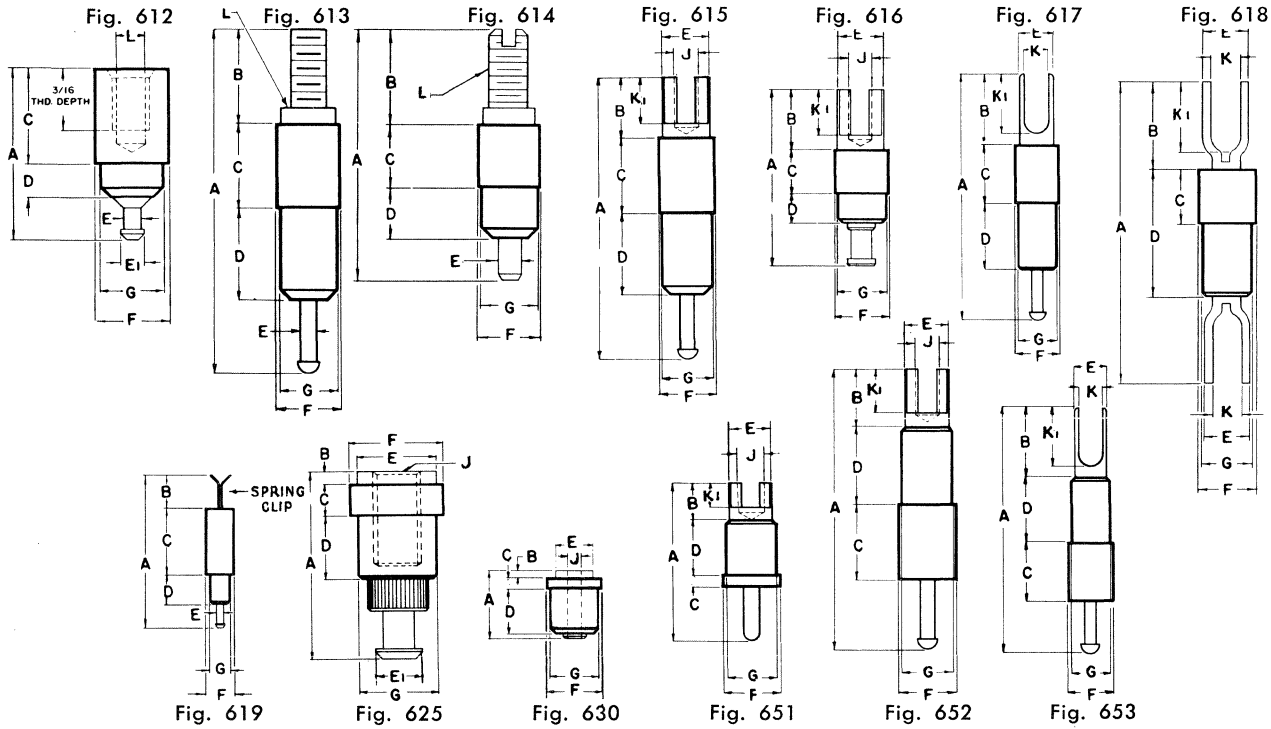
FEED-THRUS MINIATURE

FIG.	PART No.	TOOL No.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	A	B	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 −.000 G DIA.	J DIA.	K	K_1	L Class 2
612	FT-E-4**	B19	1.00	1500	4000	.500		.281	.100	.050	.062	.218	.185				4-40
613	FT-1000T	B13-2	0.80	2000	5000	.899	.281	.187	.212	.050		.187	.171				4-36
613	FT-1000T1	B13-2	0.80	2000	5000	.899	.281	.187	.212	.050		.187	.171				4-40
613	FT-1500T	B13-2	0.90	2500	6000	1.024	.281	.250	.275	.050		.187	.171				4-36
613	FT-1500T1	B13-2	0.90	2500	6000	1.024	.281	.250	.275	.050		.187	.171				4-40
613	FT-1800T1	B13-6	0.90	2000	5000	1.039	.421	.187	.212	.050		.187	.171				4-40#
613	FT-2000T	B13-2	0.95	3500	8000	1.274	.281	.375	.400	.050		.187	.171				4-36
613	FT-2000T1	B13-2	0.95	3500	8000	1.274	.281	.375	.400	.050		.187	.171				4-40
614	FT-500T1	B13-4	0.80	1500	4000	.743	.281	.187	.150	.070		.187	.171				4-40
615	FT-1000SL	B11	0.80	2000	5000	.821	.203	.187	.212	.148		.187	.171	.078		.156	
615	FT-1000SL-1L	B11	0.75	2000	5000	.821	.203	.187	.212	.148		.187	.171	.046		.156	
615	FT-1000SL-C2	B11	0.80	2000	5000	.821	.203	.187	.230	.148		.187	.171	.078		.156	
615	FT-1500SL	B13-X-3	0.90	2500	6000	.947	.203	.250	.275	.148		.187	.171	.078		.156	
615	FT-1500SL-1L	B13-X-3	0.80	2500	6000	.947	.203	.250	.275	.148		.187	.171	.046		.156	
615	FT-2000SL	B11	1.20	3500	8000	1.197	.203	.375	.400	.148		.187	.171	.078		.156	
615	FT-2000SL-1L	B11	0.85	3500	8000	1.197	.203	.375	.400	.148		.187	.171	.046		.156	
615	FT-2030SL	B11	1.10	2500	6000	1.197	.203	.225	.550	.148		.187	.171	.078		.156	
615	FT-2035SL	B11	1.00	2500	6000	1.197	.203	.250	.525	.148		.187	.171	.078		.156	
616	FT-900SL	B11	0.90	1000	3000	.593	.203	.150	.100	.148		.187	.171	.078		.156	
617	FT-1500ML	B13-B	0.90	2500	6000	1.040	.296	.250	.275	.148		.187	.171		.110	.250	
618	FT-35ML	B11-C	1.40	2000	5000	1.015	.296	.187	.427	.150		.187	.171		.090	.234	
619	FT-2010ML*	B33	1.35	2500	6000	1.285	.281	.562	.250	.050		.250	.171				
625	FT-1600T10	B32-1	1.80	2000	5000	.737	.050	.125	.250	.125	.187	.375	.312	##			
630	FT-E-2**	B10	0.85	1000	3000	.225	.020	.040	.150	.125		.187	.165	†			
630	FT-E-1	B23-X-1	0.90	1000	3000	.225	.015	.040	.155	.195		.250	.203	.096			
630	FT-E-5	B23-X-1	0.75	1000	3000	.210	.010	.040	.155	.170		.250	.203	.072			
651	RFT-195SL	B10	0.60	1000	3000	.477	.125	.040	.187	.148		.187	.171	.078		.078	
651	RFT-200SL	B10	0.70	1000	3000	.532	.125	.040	.187	.148		.187	.171	.078		.078	
651	RFT-210SL	B10	0.70	1000	3000	.586	.125	.040	.140	.148		.187	.171	.078		.078	
652	RFT-1000SL	B13	0.80	2000	5000	.821	.203	.187	.212	.148		.187	.171	.078		.156	
652	RFT-1500SL	B13-X-1	1.00	2500	6000	.947	.203	.250	.275	.148		.187	.171	.078		.156	
652	RFT-2000SL	B13	1.00	3500	8000	1.197	.203	.375	.400	.148		.187	.171	.078		.156	
653	RFT-1500ML	B13	0.95	2500	6000	1.040	.296	.250	.275	.148		.187	.171		.110	.250	

Terminal Lug: Brass, Silver Plated .0003" Min. Thick.
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.
** Gold Flash over Silver
# .156 Hex Brass Base.
† 0-80 Thread.
10/32 Thread
* Solder dip on tail only.



Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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FEED-THRUS

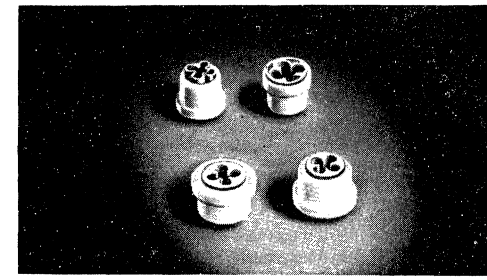
CLOVERLEAF TEFLON RECEPTACLES

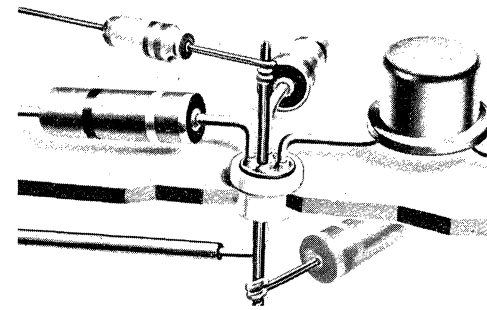
PAT. PENDING

The "Press-Fit" Cloverleaf Receptacle provides economical, yet uniformly perfect solder joints by means of dip-soldering with metal chassis. The unique Cloverleaf configuration permits insertion of four, or more wire leads, plus an optional center pin post for mounting additional components after the dip-soldering operation. The Cloverleaf design provides an encompassing hold on the leads, and excellent capillary flow of solder. The Cloverleaf receptacle is a Sealectro "Press-Fit" design. Virgin Teflon insulation, precisely machined to "Press-Fit" into the chassis provides fast, positive installation.

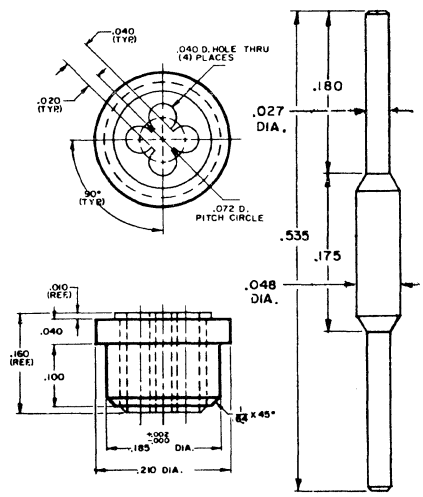
The reliability of dip solder joints made with the Cloverleaf receptacle, combined with the inherent dependability and repairability of metal chassis construction makes it ideal for use in high density, complex electronic instrumentation packaging, while the low cost of the terminal and its installation provides a new and better assembly technique for premium quality radio and television manufacturing.

- Best of both—dip soldering economies and uniformity with metal chassis reliability and repairability.
- Fast, positive "Press-Fit" installation. Terminal may be oriented by insertion tool.
- Optional center pin for additional component mounting.
- Cloverleaf design provides holding position of leads during soldering operations.
- Shaped and plated for maximum capillary flow of solder. No precleaning required.





Optional center pin provides top and bottom extra component mounting. Extremely useful in high-density packaging, or for after-mounting of delicate components.



FT-E-10 **FT-MM-L10**

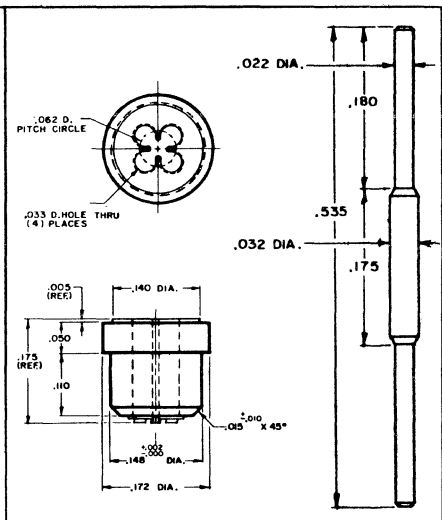
For AWG-19 wire or smaller.

Chassis Preparation: .172″ diameter hole with 60° countersink to a .195″ ±.010 diameter for .040″ or thicker chassis. 82° countersink for thinner chassis.

Cloverleaf insert material: Brass-Gold Flashed.

Center pin (FT-MM-L10) material: Brass-Gold Flashed.

Insertion Tool No. B-18-F



FT-E-12 **FT-MM-12**

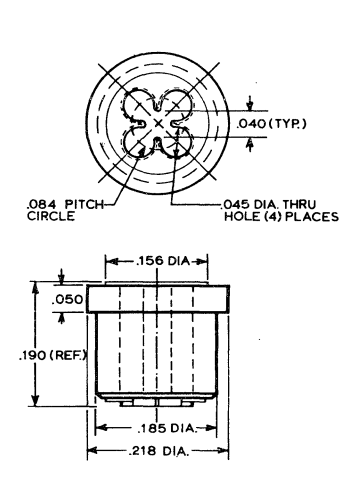
For AWG-22 wire or smaller.

Chassis Preparation: .136″ diameter hole with 60° countersink to a .160″ ±.010 diameter for .040″ or thicker chassis. 82° countersink for thinner chassis.

Cloverleaf insert material: Bronze-Gold Flashed.

Center pin (FT-MM-L12) material: Brass-Gold Flashed.

Insertion Tool No. B-9-4



FT-E-15

For AWG-20 wire or smaller.

Chassis Preparation: .172″ diameter hole with 60° countersink to a .195″ ±.010 diameter for .040″ or thicker chassis. 82° countersink for thinner chassis.

Cloverleaf insert material: Bronze-Gold Flashed.

Center pin (FT-MM-L10) material: Brass-Gold Flashed.

Insertion Tool No. B-9-5

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FEED-THRUS FOR WELDED CONNECTIONS

FIG.	Part No.	TOOL No.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 −.000 G DIA.	J	J_1	K	K_1
660	FT-SM-705-L2	B10-5	.80	750	2500	.463	.100			.035	.155	.060	.149	.187	.172	.068	.100	.018	.125
660	FT-SM-705-L4	B10-6	.80	750	2500	.581	.218			.035	.155	.060	.149	.187	.172	.068	.100	.018	.125
307	FT-MM-47-TUR-BC*	B0-A	1.10	500	2000	1.500	.210	.020	.100	.040	.125	.032	.060	.093	.075				.080
307	FT-MM-48-TUR-BC*	B0-5	0.70	500	2000	1.700	.210	.020	.100	.090	.125	.032	.060	.093	.075				.080

Capacitance and voltage measured with terminals installed in .050″ thick aluminum chassis

*Beryllium copper gold plate over copper flash.

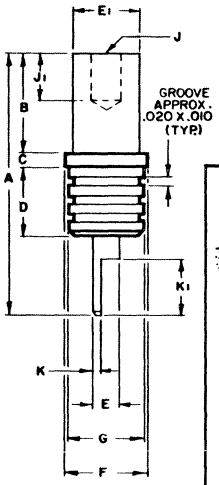
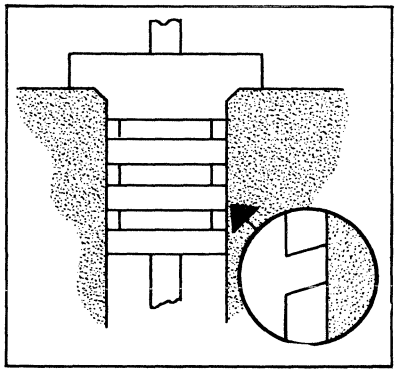


Fig. 660



"Press-Fit" installation for deep holes. As the terminal is pressfitted into the hole, the lands and grooves of the body are deflected upward, thus providing a high degree of pull-out strength as illustrated in the accompanying sketch.

Typical deep hole terminal Type FT-SM-705-L2 is a feedthru featuring a wield terminal at bottom. In this particular case, the wire is welded to the bottom terminal and drawn through the hole before terminal is pressfitted into place.

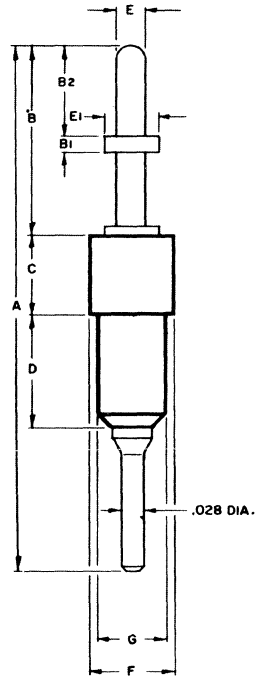
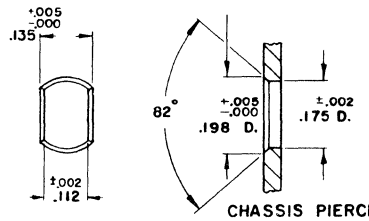


Fig. 307

FEED-THRUS FOR WIRE-WRAP CONNECTIONS



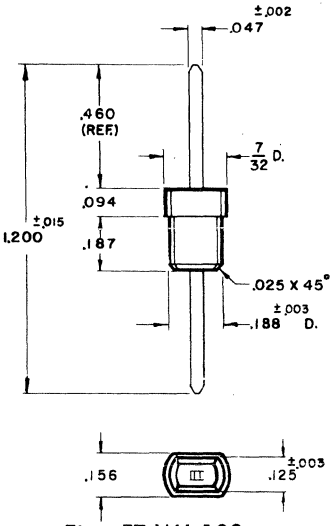


Fig. FT-WJ-100
Insertion Tool No. B-19

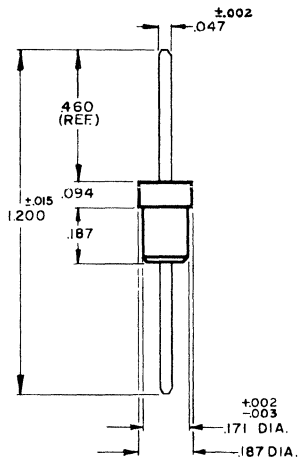


Fig. FT-WJ-200
Insertion Tool No. B13-5

BUSHINGS

FIG.	PART No.	A	D	D_1	F	G	G_1	J
1001	B-1440	.140	.100		.125	.093		.040
1001	B-1440-1	.140	.100		.125	.093		.035
1001	B-1441	.100	.060		.125	.093		.037
1001	B-1464	.100	.080		.125	.093		.038
1001	B-1414	.140	.100		.172	.148		.060
1001	B-1435	.140	.100		.172	.148		.040
1001	B-1439	.160	.120		.172	.148		.073
1001	B-1452	.125	.075		.172	.148		
1001	B-1455	.165	.125		.172	.148		.083
1001	B-1475	.140	.100		.172	.148		.073
1001	B-1446	.330	.250		.218	.185		
1001	B-1447	.225	.185		.218	.185		.120
1001	B-1447-1	.130	.090		.218	.185		.120
1001	B-1451	.327	.140		.218	.185		
1001	B-1473	.450	.400		.218	.185		.150
1001	B-1443	.140	.075		.250	.218		
1001	B-1454	.240	.200		.250	.218		
1002	B-1409	.080	.060		.172	.148		.030
1002	B-1447-2	.130	.090		.218	.185		.120
1003	B-1453	.082	.042	.017	.145	.103	.115	.067
1003	B-1449	.070	.040	.020	.187	.123	.143	.052
1003	B-1403	.104	.069	.040	.218	.154	.164	.120
1003	B-1401	.104	.054	.025	.218	.154	.164	.085
1003	B-1406	.094	.044	.015	.218	.154	.164	.099
1003	B-1407	.104	.069	.040	.218	.154	.164	.085
1003	B-1408	.094	.044	.015	.218	.154	.164	.085
1003	B-1413	.094	.044	.015	.218	.154	.164	.120
1003	B-1416	.104	.069	.040	.218	.154	.164	.099
1003	B-1418	.085	.035	.015	.195	.154	.164	.085
1003	B-1419	.134	.099	.070	.218	.154	.164	.120
1003	B-1420	.104	.054	.025	.218	.154	.164	.099
1003	B-1421	.104	.069	.040	.218	.154	.164	.120
1003	B-1424	.094	.044	.025	.195	.154	.164	.085
1003	B-1432	.104	.054	.025	.218	.154	.164	.120
1003	B-1437	.125	.075	.060	.218	.154	.164	.120
1003	B-1463	.104	.054	.035	.218	.154	.164	.099
1003	B-1466	.140	.105	.075	.218	.154	.164	.120
1003	B-1472	.135	.085	.060	.218	.154	.164	.085
1003	B-1462	.156	.106	.076	.218	.168	.178	.089
1003	B-1431	.104	.069	.040	.248	.184	.194	.150
1003	B-1467	.104	.054	.035	.250	.190	.200	.157
1003	B-1436	.104	.069	.040	.260	.199	.210	.128
1003	B-1450	.190	.140	.120	.230	.199	.210	.128
1003	B-1459	.104	.069	.040	.268	.204	.214	.170
1003	B-1459-1	.104	.069	.040	.268	.204	.214	.125
1004	#B-1470	.260	.140	.070	.500	.431	.450	.302

Can be used as Transistor Holder for TO-5 Header.

Fig. 1001

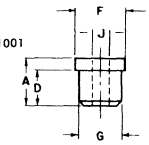


Fig. 1002

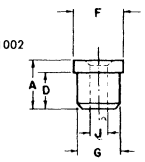


Fig. 1003

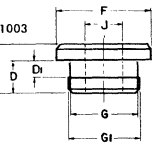
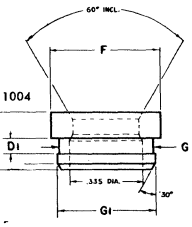


Fig. 1004



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TEST POINT JACKS

FIG.	PART No.	TOOL No.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	REF. A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 —.000 G DIA.	J* PROBE DIA.	J_1 PROBE LNGTH	K	K_1
701	**SKT-13C3**	S13-1	0.45	500	2000	.203	.060	.010	.040	.030	.113	.046	.080	.150	**.120**	.040	.078		
701	**SKT-22**	S4	0.20	1500	4000	.449	.120	.030	.060	.046	.283	.040	.060	.142	**.120**	.040	.245		
701	**SKT-22C2**	S22	0.30	1500	4000	.410	.120	.030	.060	.046	.244	.040	.060	.142	**.120**	.040	.205		
701	**SKT-13B2**	S14	0.30	750	2500	.253	.060	.010	.040	.050	.143	.046	.080	.172	**.140**	.040	.125		
701	**SKT-14B2**	S14	0.30	1000	3000	.345	.120	.023	.077	.046	.179	.040	.060	.172	**.140**	.040	.140		
701	**SKT-13B4**	S13	0.40	750	2500	.203	.060	.010	.040	.046	.097	.046	.080	.172	**.148**	.040	.078		
701	**SKT-13L2**	S13	0.40	750	2500	.190	.050	.010	.030	.046	.094	.046	.080	.172	**.148**	.040	**.078**		
701	**SKT-14**	S5	0.35	1000	3000	.345	.120	.023	.077	.046	.179	.040	.060	.172	**.148**	.040	.140		
701	**SKT-12**	S7	0.70	1000	3000	.375	.060	.010	.040	.046	.269	.046	.078	.218	**.170**	.090	.250		
701	**SKT-2BC**	S2	0.70	1000	3000	.437	.120	.037	.053	.046	.271	.054	.074	.218	**.185***	.090	.195		
701	**SKT-5BC**	S2	0.60	1000	3000	.437	.120	.037	.053	.046	.271	.054	.074	.218	**.185***	.080	.195		
701	**SKT-5BC-C2**	S35	0.45	1000	3000	.453	.120	.037	.053	.046	.287	.054	.074	.218	**.185***	.050	.195		
701	**SKT-10**	S1	0.70	1200	3500	.640	.187	.037	.104	.050	.400	.054	.074	.218	**.185***	.080	.287		
701	**SKT-37C1**	S12	0.55	1000	3000	.340	.120	.023	.077	.046	.174	.054	.074	.218	**.185***	.090	.140		
701	**SKT-41**	S2	0.55	1200	3500	.467	.120	.035	.047	.046	.301	.054	.074	.218	**.185***	.080	.225		
701	**SKT-42**	S23-1	0.40	2000	5000	.455	.105	.020	.065	.050	.300	.080	.125	.218	**.185***	.080	.315		
701	**SKT-27**	S11	0.80	3200	7500	.761	.187	.035	.116	.187	.386	.054	.074	.218	**.200**	.093	.455		
701	**SKT-27L1**	S12	0.70	2000	5000	.699	.187	.035	.116	.125	.386	.054	.074	.218	**.200**	.093	.390		
701	**SKT-0930**	S37	0.70	3200	7500	.834	.187	.035	.116	.230	.417	.054	.074	.375	**.200**	.093	.518		
701	**SKT-3BC**	S2	0.60	1000	3000	.437	.120	.037	.053	.046	.271	.054	.074	.250	**.204**	.080	.195		
701	**SKT-19**	S9	0.60	1200	3500	.400	.060	.010	.037	.046	.294	.066	.098	.250	**.218**	.105	.250		
702	**SKT-35**	B8-14	0.25	1200	3500	.400	.150			.046	.204	.040		.172	**.148**	.032	.200		
703	**SKT-1**	S31	0.55	1200	3500	.687	.354			.046	.287	.115		.218	**.185***	.050	.250	.140	.042
703	**SKT-4**	S30	0.40	1200	3500	.687	.354			.046	.287	.104		.218	**.185***	.041	.250	.140	.050
703	**SKT-8**	S1	0.50	1200	3500	.687	.330			.046	.287	.103		.218	**.185***	.080	.250	.156	.046
703	**SKT-8B2**	S1	0.55	2000	5000	.711	.354			.070	.287	.103		.218	**.185***	.080	.274	.156	.048
703	**SKT-18**	S25	0.50	1500	4000	.687	.354			.052	.281	.115		.218	**.185***	.050	.250	.140	.042
703	**SKT-20**	S27	0.80	1000	3000	.687	.330			.187	.146	.103		.218	**.185***	.080	.187	.156	.046
703	**SKT-20L1**	S25	0.75	1000	3000	.687	.330			.187	.146	.110		.218	**.185***	.050	.250	.156	
703	**SKT-23**	S28	0.65	1000	3000	.625	.355			.046	.224	.115		.218	**.185***	.050	.200	.140	.042
703	**SKT-26**	S26	0.60	1000	3000	.718	.316			.046	.356	.104		.218	**.185***	.060	.315	.125	.052
704	**SKT-15**	S32	0.60	3500	8000	.732	.188			.157	.387	.110		.250	**.220**	.050	.320	.140	.042
705	**SKT-36**	S28	0.80	1000	3000	.620	.287			.046	.287	.115		.218	**.185***	.050	.250	.156	.052
706	**SKT-31**	S17	0.45	1000	3000	.408	.187			.046	.175	.060		.172	**.148**	.040	.135		
707	**SKT-38**					1.000	.060	.010			.940	.046	.078	.218	**.125#**	.090	.825		
707	**SKT-38C1**					1.000	.060	.010			.940	.046	.078	.187	**.125#**	.090	.825		
707	**SKT-13**					.203	.060	.010			.143	.046	.080	.140		.040	.075		
707	**SKT-13C1**					.203	.060	.010			.143	.046	.080	.120		.040	.075		
707	**SKT-13L1**					.203	.060	.010			.143	.046	.080	.140		.025	.075		
708	**SKT-39**					.370	.120	.023			.250	.040	.060	.250		.040	.165		
708	**SKT-39C1**					.370	.120	.023			.250	.040	.060	.270		.040	.140		
708	**SKT-43B1**					.460	.120	.037			.340	.054	.074	.400		.070	.250		

Terminal Lug: Beryllium Copper — Gold Flash over Silver Plate.
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

*±.001
#±.005

Fig. 701

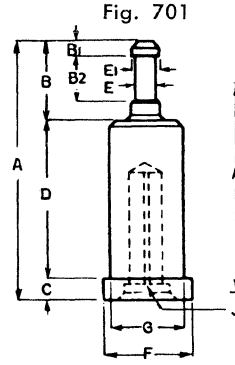


Fig. 702

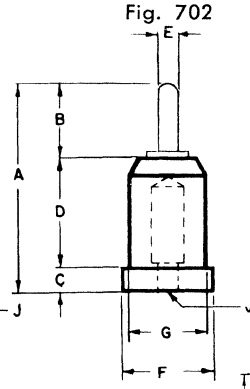


Fig. 703

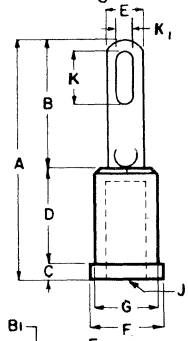
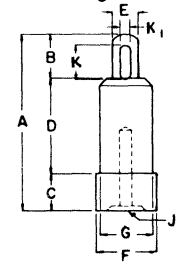


Fig. 704



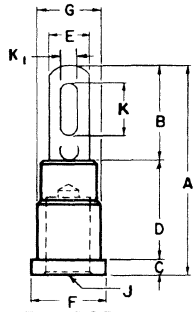


Fig. 705

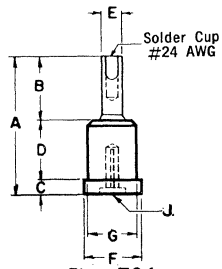


Fig. 706

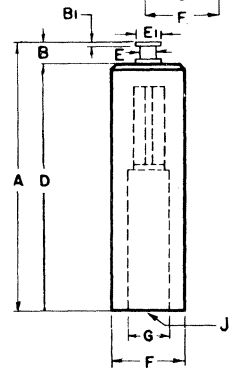


Fig. 707

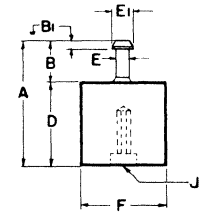
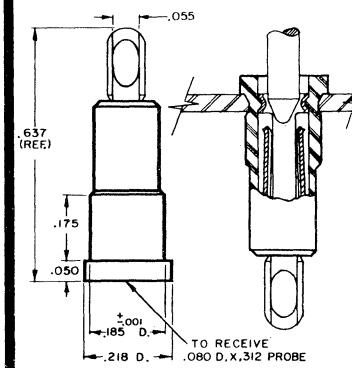


Fig. 708

SKT-0804—GUIDED ENTRY TEST POINT JACK FOR INCREASED CHASSIS PULL-OUT STRENGTH

Featuring a beryllium-copper formed lug with unique design configuration, the SKT-0804 test point jack offers greater pull-out strength and high torque resistance. The jack is designed to provide guided-entry for an .080" diameter probe. The SKT-0804 construction permits uniform retention and greater support of the Teflon bushing by the lug.

Insertion Tool No. S-38



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TEST POINT JACKS

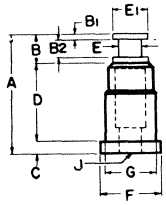

Fig. 709

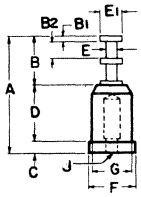

Fig. 710

FIG.	Part No.	Tool No.	Capacitance mmf	V,RMS 60 CPS Nominal Rating	Flashover Sea Level	Ref. A	B	B_1	B_2	C	D	E Dia.	E_1 Dia.	F Dia.	+.002 —.000 G Dia.	J* Probe Dia.	J_1 Probe Lgth
709	SKT-50	S23	0.50	2700	5500	.435	.105	.020	.065	.046	.284	.080	.125	.218	.184	.080	.310
710	SKT-34	B8-14	0.25	1700	4500	.425	.175	.020	.060	.046	.250	.040	.080	.172	.184	.032	.200
710	SKT-24	S18	0.65	1000	3000	.437	.154	.020	.046	.046	.391	.050	.080	.250	.204	.080	.145
711	SKT-100	S8	0.60	2200	5500	.912	.534	.125		.060	.378	.050	.080	.250	.218	.080	.250
712	SKT-28	S20	0.70	1000	3000	.450	.180		.120	.046	.224	.110	.080	.218	.185*	.080	
713	SKT-401	S17	0.50	1000	3000	.359	.140			.065	.154			.172	.148	.040	.125
713	SKT-400	S17	0.50	1000	3000	.359	.140			.065	.154			.187	.148	.040	.125
713	SKT-620	S33	0.60	1200	3500	.437	.156			.065	.216			.218	.171	.062	.187
713	SKT-800	S18	0.60	1200	3500	.437	.156			.065	.216			.250	.185*	.080	.187
714	SKT-113PC					.381	.090			.281		.062		.187		.080	.250
714	SKT-110PC					.441	.078			.343		.112		.218		.080	.250
714	SKT-111PC					.381	.080			.281		.112		.218		.080	.250
730	SKT-16L2	S15	0.80	1200	3500	.640		.140		.050	.400	.031		.218	.185*	.050	.200
731	SKT-100PC	S8	0.55	2200	5500	.500	.250	.130		.062	.316	.050	.080	.250	.218	.080	.250
731	SKT-101PC	S8	0.45	2200	5500	.400	.250	.130		.062	.316	.050	.080	.250	.218	.080	.250
732	SKT-102PC		0.45	1200	3500	.500	.140	.125			.378	.050	.080	.218	.187†	.080	.250
732	SKT-102PC-B2		0.40	1500	4000	.520	.140	.130			.398	.040	.080	.218	.187†	.080	.250
732	SKT-103PC		0.50	1200	3500	.400	.140	.125			.378	.050	.080	.218	.187†	.080	.250
732	SKT-103PC-L1		0.50	1200	3500	.400	.140	.187			.378	.035	.080	.218	.187†	.080	.250
732	SKT-0802		0.50	2700	6500	.500	.140	.125			.689	.050	.080	.218	.187†	.080	.500
733	SKT-105PC					.385	.233	.125		.062		.050	.080	.219	.185*	.080	.250

Terminal Lug: Beryllium Copper, Gold Flash over Silver. *±.001 † Tolerance ±.005
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

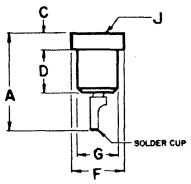

Fig. 713

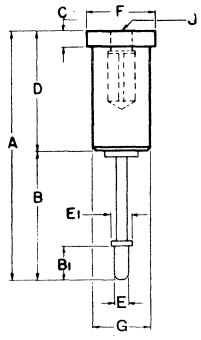

Fig. 711

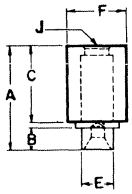

Fig. 714

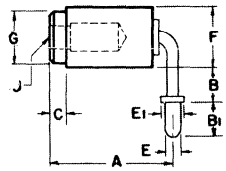

Fig. 733

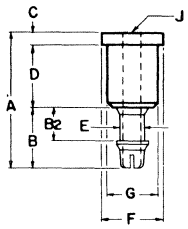

Fig. 712

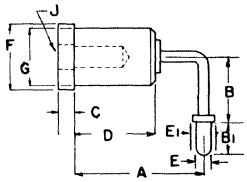

Fig. 731

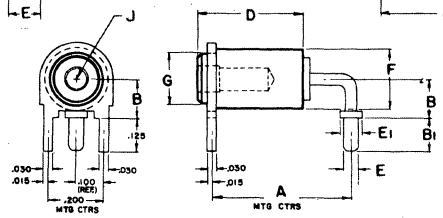

Fig. 732

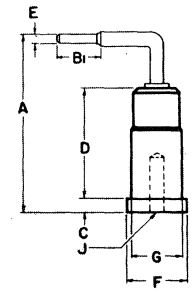

Fig. 730

TAPER PIN RECEPTACLES AND SPECIAL UNITS

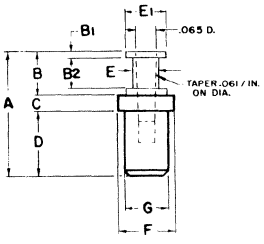

Fig. 752

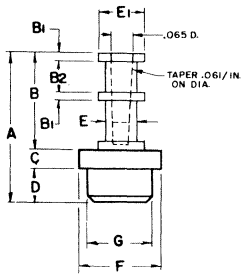

Fig. 753

Fig.	Part No.	TOOL No.	Capacitance mmf	V,RMS 60 CPS Nominal Rating	Flashover Sea Level	A	B	B_1	B_2	C	D	E Dia.	E_1 Dia.	F Dia.	+.002 —.000 Dia. G
751	TP-ST-201	B22	0.70	1000	3000	.350	.133	.020	.093	.080	.140	.093	.149	.250	.200
752	TP-ST-203	B8-13	0.90	1500	4000	.383	.133	.020	.093	.050	.200	.093	.125	.172	.133
753	TP-ST-202	B22	0.65	1000	3000	.453	.293	.025	.093	.060	.100	.093	.149	.250	.200
753	TP-ST-202-B2	B23	0.75	1500	4000	.513	.293	.025	.093	.080	.140	.093	.149	.250	.200
754	TP-FT-200	S22	1.10	1000	3000	.593	.210	.020	.180	.040	.143	.093	.125	.250	.200
755	TP-FT-201	B22	0.70	1000	3000	.500	.133	.020	.093	.080	.140	.093	.149	.250	.200
756	TP-FT-100	B6A-1	1.10	1000	3000	1.798	.133	.020	.093		.171	.080	.093		.150
757	RFT-340**	B22	0.90	1500	4000	.650	.182			.040	.138	.093	.125	.250	.200
758	PL-20**	B23-B	1.40	1000	3000	.940	.140	.020		.050	.450	.050	.078	.250	.218

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thick.
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.
**Gold Flash over Silver Plate.

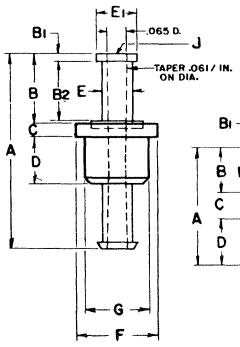

Fig. 754

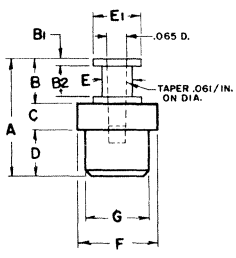

Fig. 751

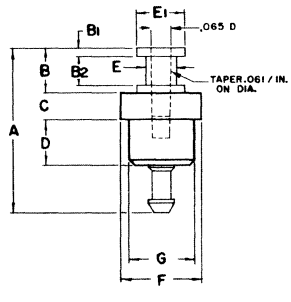

Fig. 755

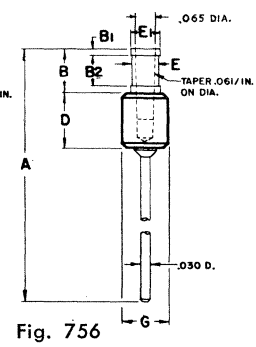

Fig. 756

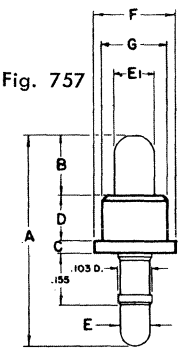

Fig. 757

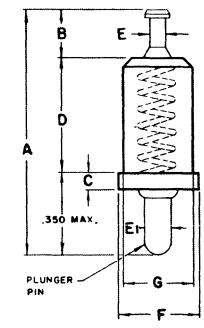

Fig. 758

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PROBES AND PLUGS

FIG.	PART No.	TOOL No.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	A	B	B_1	C	D	±.001 E DIA.	E_1 DIA.	F DIA.	+.002 −.000 G DIA.	J DIA.	J_1 DIA.	K_1
801	FT-M-9C1	B8-16	1.0	1000	3000	1.937	.250		.046	.165	.050		.172	.148			
801	FT-M-9	B18-1B	1.0	1000	3000	1.937	.250		.046	.141	.050		.218	.185*			
801	FT-M-2	B18-1B	1.10	1000	3000	2.083	.250		.046	.287	.050*		.218	.185*			
801	FT-M-2L2	B18-1B	0.70	1000	3000	.906	.250		.046	.287	.050		.218	.185*			
801	FT-M-2L4	B18-1B	0.85	1000	3000	1.531	.250		.046	.287	.050*		.218	.185*			
801	FT-M-19	B18-1B	1.0	1000	3000	1.870	.120		.046	.250	.040		.218	.185*			
802	PR-15	B-23	0.90	3000	7000	1.531			.157	.375	.050*	.125	.250	.220			
803	RFT-M-14	B-18-1C	0.90	1700	4500	1.940	.120		.046	.320	.040*		.218	.185*			
804	FT-M-4#	B18-1B	0.80	1000	3000	.739	.281		.046	.287	.081*		.218	.185*			
804	FT-M-12	B-10	0.65	1000	3000	.687	.272		.040	.212	.040		.187	.171			
804	FT-M-7	B18-1B	0.80	1000	3000	.739	.281		.046	.287	.081*		.218	.185*			
804	FT-M-8	B18-1B	0.90	1000	3000	.562	.250		.046	.141	.050*		.218	.185*			
804	FT-M-8-L1	B18-E	0.90	1000	3000	.562	.250		.046	.141	.081		.218	.185*			
804	FT-M-11	B18-1B	0.90	1000	3000	.562	.250		.052	.135	.050*		.218	.185			
804	FT-M-14	B18-E	0.80	1000	3000	.906	.250		.046	.287	.050		.218	.185			
804	FT-M-16	B18-1B	0.80	1000	3000	.648	.190		.046	.287	.090*		.218	.185*			
804	FT-M-17	B18-1B	0.80	1000	3000	.612	.250		.046	.141	.062*		.218	.185*			
805	RFT-M-11	B18-E	0.80	1000	3000	.562	.250		.052	.135	.050*		.218	.185*			
806	FT-M-6##	B13-2	0.85	2000	5000	.867	.250		.187	.212	.100**		.187	.171			.203
807	PR-10	B8-14	0.70	1000	3000	.538	.130		.046	.175	.040		.172	.148			
807	PR-10-B-L2	B-9-3	0.70	1500	4000	.571	.125		.125	.160	.040		.172	.148			
807	PR-13	B-8	0.65	1000	3000	.416	.080		.040	.135	.040		.172	.148			
807	PR-13C1	B-8	0.65	1000	3000	.416	.080		.040	.135	.040		.172	.148			
808	PR-400	B13-3	0.55	1000	3000	.407	.125		.065	.090	.040		.187	.148			
808	PR-620	B18-1	0.55	1200	3500	.559	.187		.065	.176	.062		.218	.171			
808	PR-800	B23-A	0.70	1200	3500	.559	.187		.065	.169	.080		.250	.185*			
809	PR-300					.645	.270		.375		.080		.218		.062	.128	
809	PR-0900					.645	.270		.375		.090		.218		.062	.128	
810	PR-302	B22-X1				.645	.270		.050	.325	.080		.250	.218	.062	.128	
811	PR-100**	B6-X	0.75	750	2500	.365	.194		.046	.125	.077**		.150	.120	.030		
812	FT-M-5	B18-1B	0.70	1000	3000	.833	.250		.046	.287	.050		.218	.185			
812	FT-M-9L2	B18-1B	0.65	1000	3000	.682	.250		.046	.141	.050		.218	.185			
813	PR-28***					1.300		.030	.453		.080	.060					

Terminal Lug: Gold Flash over Silver Plate. *±.001
Capacitance and voltage measured with terminals installed in .050″ thick aluminum chassis.
No ball on end of Lug.
Silver Plate .0003″ Min. Thick. **Beryllium Copper — E Dimension +.003 —.002 ***Gold over Copper.

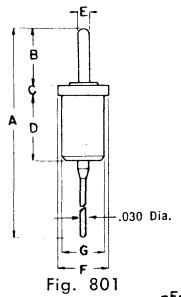


Fig. 801

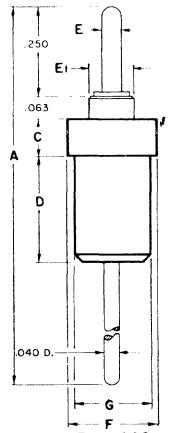


Fig. 802

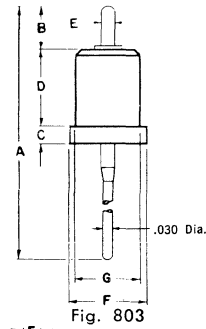


Fig. 803

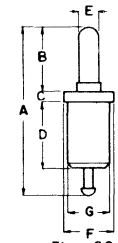


Fig. 804

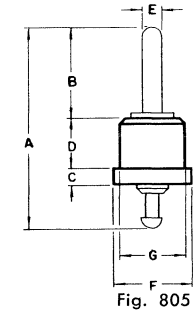


Fig. 805

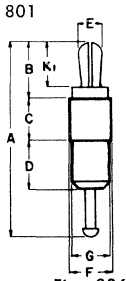


Fig. 806

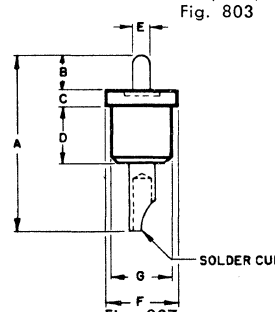


Fig. 807

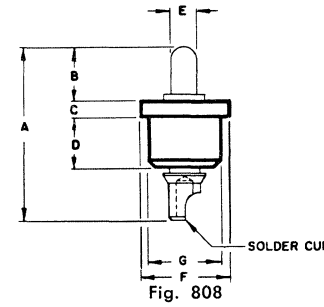


Fig. 808

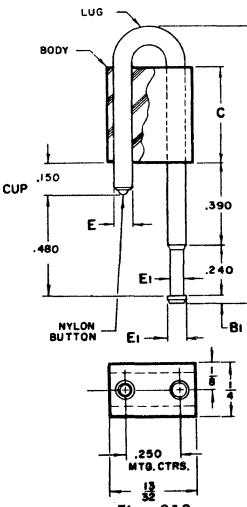


Fig. 813

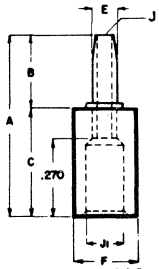


Fig. 809

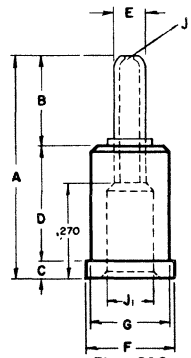


Fig. 810

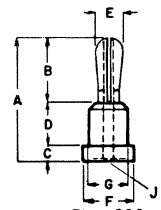


Fig. 811

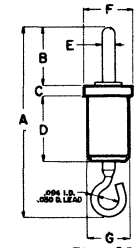


Fig. 812

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

TRANSISTOR UNITS SOCKETS

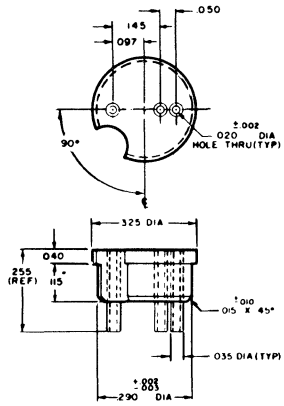


Fig. TC-1000

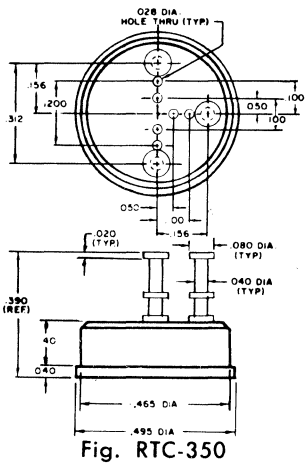


Fig. RTC-350

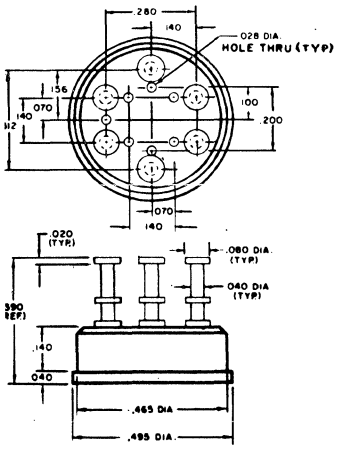


Fig. RTC-650T

NEW--"T" SERIES DESIGN

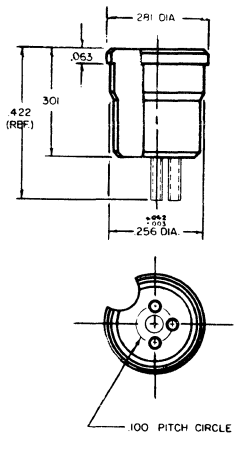


Fig. TS-305-1

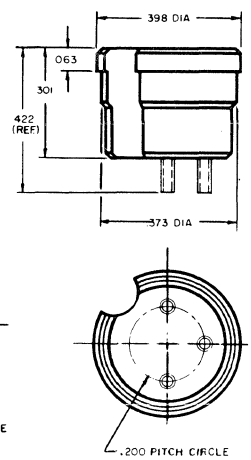


Fig. TS-306

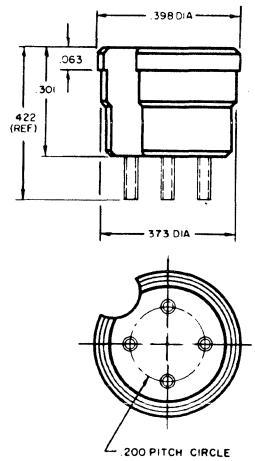


Fig. TS-401

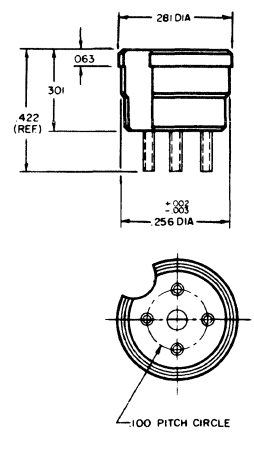


Fig. TS-401-1

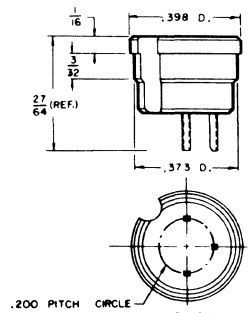


Fig. TS-300

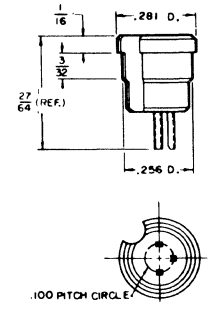


Fig. TS-300-1

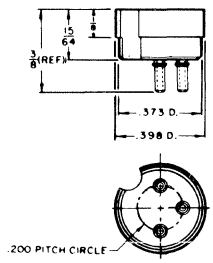


Fig. TS-350

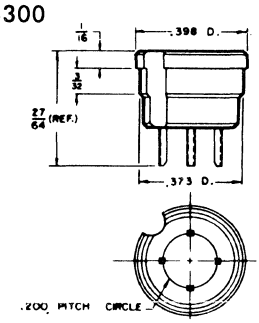


Fig. TS-400

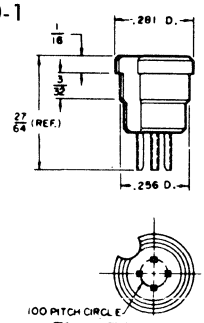


Fig. TS-400-1

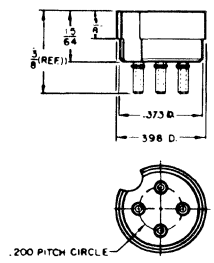


Fig. TS-450

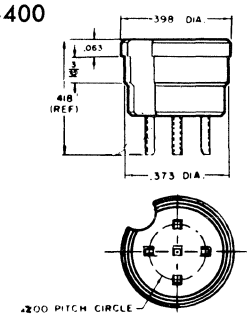


Fig. TS-500

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

© U.C.P., Inc.

TRANSISTOR UNITS HOLDERS

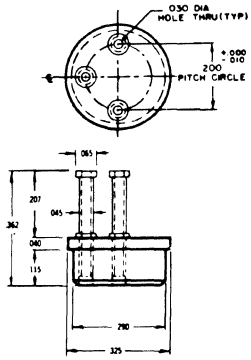


Fig. TC-300T

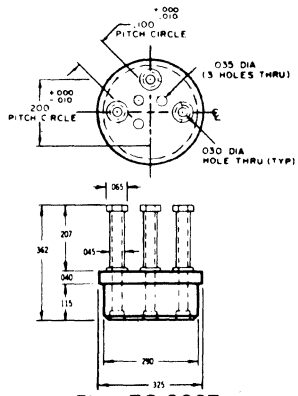


Fig. TC-303T

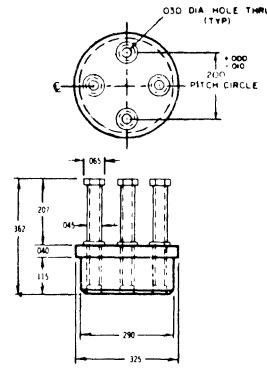


Fig. TC-400T

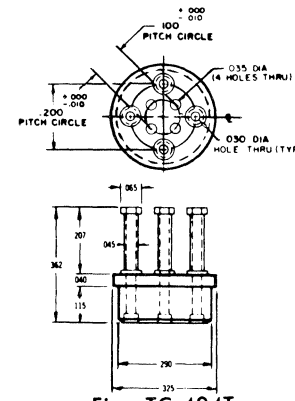


Fig. TC-404T

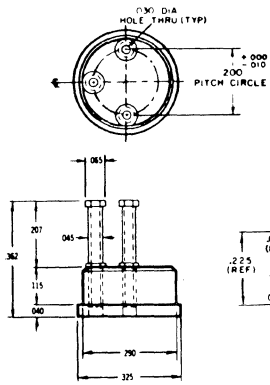


Fig. RTC-300T

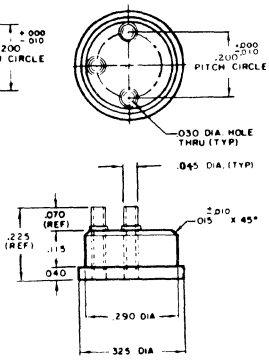


Fig. RTC-300-L2

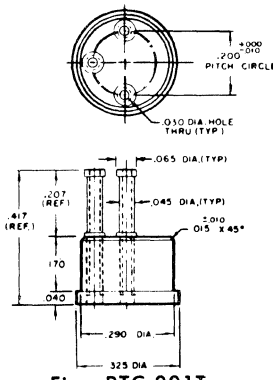


Fig. RTC-301T

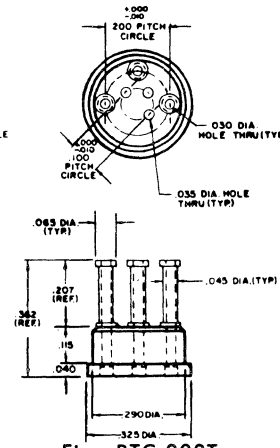


Fig. RTC-303T

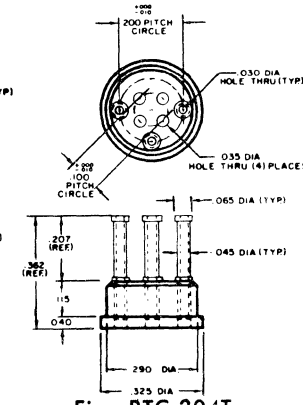


Fig. RTC-304T

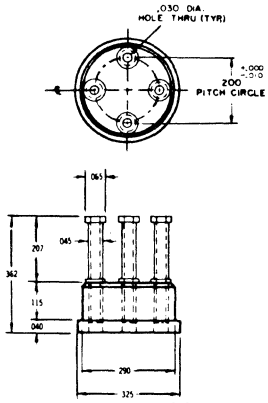


Fig. RTC-400T

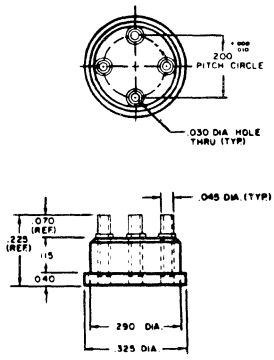


Fig. RTC-400-L2

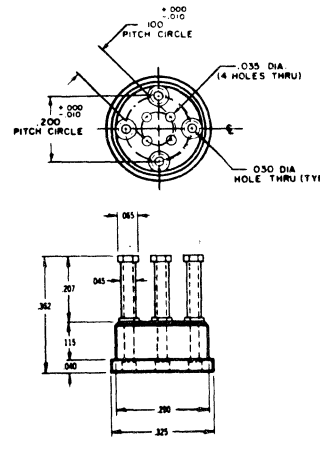


Fig. RTC-404T

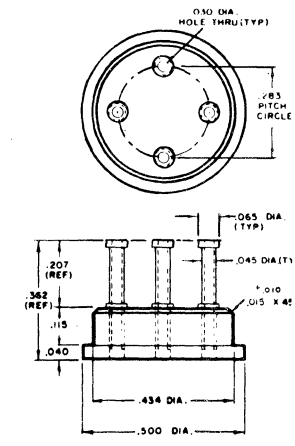


Fig. RTC-460T

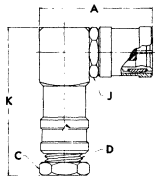
Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

Sealectro

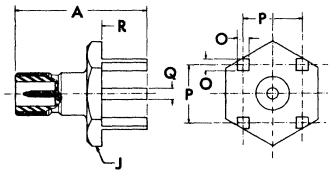
CONHEX®

SUB-MINIATURE R. F. CONNECTORS

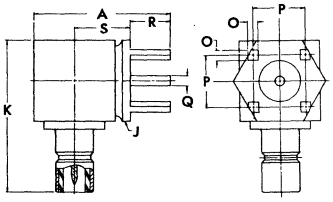
*Designed for use with 50 ohm sub-miniature cables such as the RG-188/U or RG-174/U.



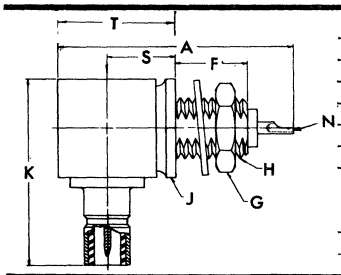
	50 OHM 3105*	75 OHM 3135†
A	19/32	11/16
C	15/64 HEX	5/16 HEX
D	#10-32, UNF-2A	#9/32-40, UNS-2A
J	15/64 HEX	11/32 HEX
K	3/4 approx.	27/32 approx.



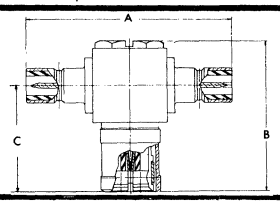
	50 OHM 3107	75 OHM 3137
A	.448	.448
J	5/16 HEX	3/8 HEX
O	.040 (Typ.)	.040 (Typ.)
P	.200	.200
Q	.038D	.038D
R	.155	.155



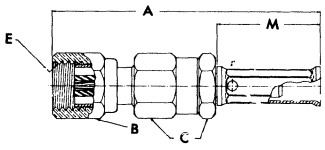
	50 OHM 3108	75 OHM 3138
A	17/32 approx.	19/32 approx.
J	5/16 HEX	3/8 HEX
K	19/32	21/32
O	.040 (Typ.)	.040 (Typ.)
P	.200	.200
Q	.038D	.038D
R	.155	.155
S	.215	.247



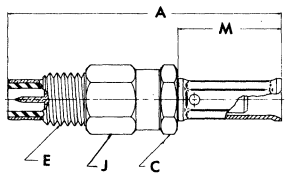
	50 OHM 3109	75 OHM 3139
A	3/4 approx.	13/16 approx.
F	.228	.228
G	1/4 HEX	3/8 HEX
H	#10-32, UNEF-2A	#5/16-32, UNEF-2A
J	5/16 HEX	3/8 HEX
K	19/32	21/32
N	.038 O.D. x .025 I.D. x .078 Deep	.038 O.D. x .025 I.D. x .078 Deep
S	.215	.247
T	.372	.435



	50 OHM 3114	75 OHM 3144
A	.860	.923
B	41/64	45/64
C	.456	.488

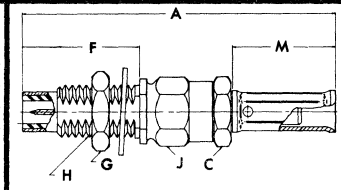


	50 OHM 6000*	75 OHM 6030†
A	1-1/32 approx.	1-1/16 approx.
B	15/64 HEX	11/32 HEX
C	7/32 HEX	5/16 HEX
E	#10-32, UNF-2B	#5/16-32, UNEF-2B
M	.375	.400

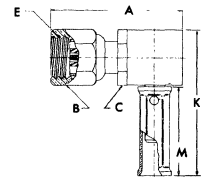


	50 OHM 6001*	75 OHM 6031†
A	63/64 approx.	1-1/64 approx.
C	7/32 HEX	5/16 HEX
E	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	7/32 HEX	5/16 HEX
M	.375	.400

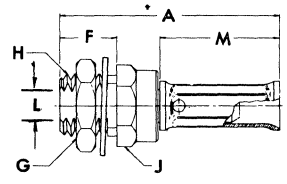
†Designed for use with many of the 75 ohm sub-miniature cables and 95 ohm sub-miniature cables.



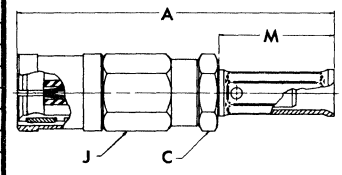
	50 OHM 6003*	75 OHM 6033†
A	1-1/8 approx.	1-5/32 approx.
C	7/32 HEX	5/16 HEX
F	.425	.425
G	1/4 HEX	3/8 HEX
H	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	7/32 approx.	11/32 HEX
M	.375	.400



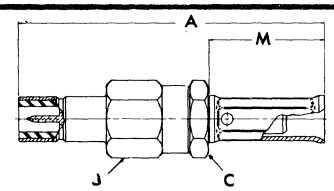
	50 OHM 6005*	75 OHM 6035†
A	39/64 approx.	21/32 approx.
B	15/64 HEX	11/32 HEX
C	15/64 HEX	11/32 HEX
E	#10-32, UNF-2B	#5/16-32, UNEF-2B
K	5/8 approx.	23/32 approx.
M	.375	.400



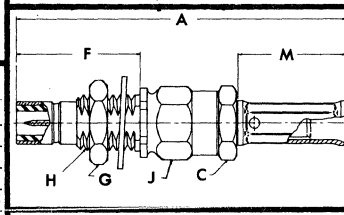
	50 OHM 6006*	75 OHM 6036†
A	47/64 approx	51/64 approx.
F	.228	.228
G	1/4 HEX	3/8 HEX
H	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	7/32 HEX	11/32 HEX
L	.067D	.111D
M	.375	.400



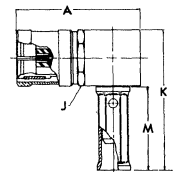
	50 OHM 6100*	75 OHM 6130†
A	1-1/64 approx.	1-3/64 approx.
C	7/32 HEX	5/16 HEX
J	7/32 HEX	11/32 HEX
M	.375	.400



	50 OHM 6101*	75 OHM 6131†
A	63/64 approx.	1-1/64 approx.
C	7/32 HEX	5/16 HEX
J	7/32 HEX	5/16 HEX
M	.375	.400



	50 OHM 6103*	75 OHM 6133†
A	1-1/8 approx.	1-5/32 approx.
C	7/32 HEX	5/16 HEX
F	.425	.425
G	1/4 HEX	3/8 HEX
H	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	7/32 HEX	11/32 HEX
M	.375	.400



	50 OHM 6105*	75 OHM 6135†
A	19/32	41/64
J	15/64 HEX	11/32 HEX
K	5/8 approx.	23/32 approx.
M	.375	.400

CRIMP-ON ASSEMBLY TOOL — Part No. CT-6

TYPICAL SPEC CABLES FOR USE WITH "CONHEX" CONNECTORS

RG-161/U	3000, -1, -3, -5, -6 — 3100, -1, -3, -5
RG-174/U	3000, -1, -3, -5, -6 — 3100, -1, -3, -5
RG-179/U	3000, -1, -3, -5, -6 — 3100, -1, -3, -5
RG-179A/U	3000, -1, -3, -5, -6 — 3100, -1, -3, -5
RG-180/U	3030, -31, -33, -35, -36 — 3130, -31, -33, -35
RG-187/U	3000SB, -1SB, -3SB, -5SB, -6SB 3100SB, -1SB, -3SB, -5SB, -6SB
RG-188/U	3000, -1, -3, -5, -6 — 3100, -1, -3, -5 6000, -1, -3, -5, -6 — 6100, -1, -3, -5
RG-195/U	3030, -31, -33, -35, -36 — 3130, -31, -33, -35 6030, -31, -33, -35, -36 — 6130, -31, -33, -35

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Sealectro

CON HEX®

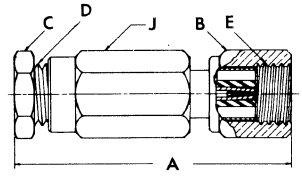
PLATING: 0.0001 Gold over 0.0001 Copper.

MATING CONNECTORS: All Screw-On (Snap-On) plugs will mate with all Screw-On (Snap-On) jacks & receptacles of the same resistance rating.

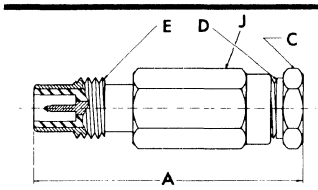
SUB-MINIATURE R. F. CONNECTORS

U. S. Pat. No. 2,937,360

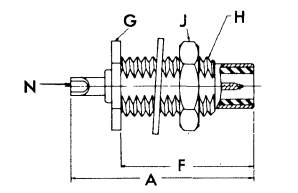
*Designed for use with 50 ohm sub-miniature cables such as the RG-188/U or RG-174/U.



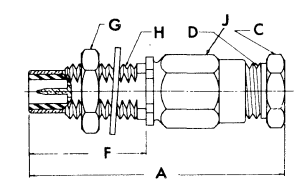
	50 OHM 3000*	75 OHM 3030†
A	7/8 approx.	13/16 approx.
B	15/64 HEX	11/32 HEX
C	15/64 HEX	5/16 HEX
D	#10-32, UNF-2A	#9/32-40 UNS-2A
E	#10-32, UNF-2B	#5/16-32, UNEF-2B
J	15/64 HEX	5/16 HEX



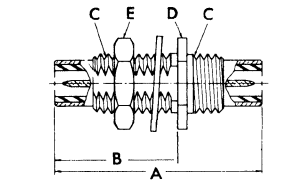
	3001*	3031†
A	27/32 approx.	51/64 approx.
C	15/64 HEX	5/16 HEX
D	#10-32, UNF-2A	#9/32-40, UNS-2A
E	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	15/64 HEX	5/16 HEX



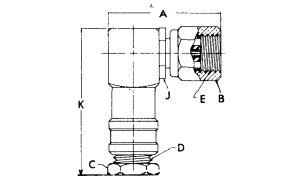
	6002	6032
A	19/32	19/32
F	.426	.426
G	1/4 HEX	3/8 HEX
H	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	1/4 HEX	3/8 HEX
N	.060 O.D. x .040 I.D. x .078 Deep	.060 O.D. x .040 I.D. x .078 Deep



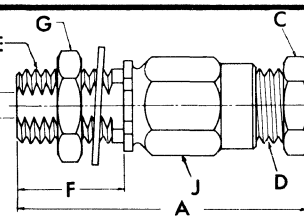
	3003 BA*	3033 BA†
A	7/8 approx.	7/8 approx.
C	15/64 HEX	5/16 HEX
D	#10-32, UNF-2A	#9/32-40, UNS-2A
F	.425	.425
G	1/4 HEX	3/8 HEX
H	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	15/64 HEX	11/32 HEX



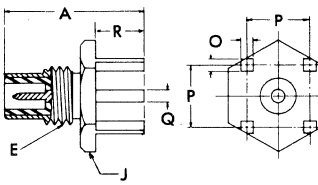
	6004	6034
A	.671	.671
B	.397	.397
C	#10-32, UNF-2A	#5/16-32, UNEF-2A
D	1/4 HEX	3/8 HEX
E	1/4 HEX	3/8 HEX



	3005*	3035†
A	39/64 approx.	23/32 approx.
B	15/64 HEX	11/32 HEX
C	15/64 HEX	5/16 HEX
D	#10-32, UNF-2A	#9/32-40, UNS-2A
E	#10-32, UNF-2B	#5/16-32, UNEF-2B
J	15/64 HEX	11/32 HEX
K	3/4 approx.	27/32 approx.

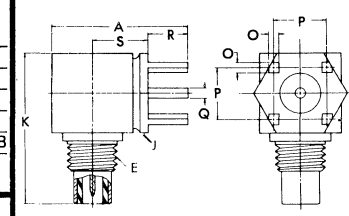


	3006 BA*	3036 BA†
A	49/64 approx.	3/4 approx.
C	15/64 HEX	5/16 HEX
D	#10-32, UNF-2A	#9/32-40, UNS-2A
E	#10-32, UNF-2A	#5/16-32, UNEF-2A
F	.277	.277
G	1/4 HEX	3/8 HEX
J	15/64 HEX	11/32 HEX
L	.067D.	.111D.

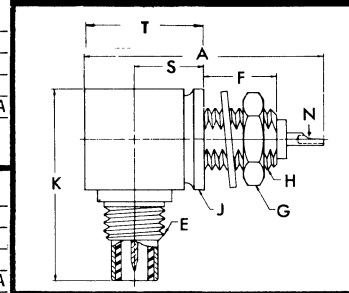


	3007	3037
A	.448	.448
E	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	5/16 HEX	3/8 HEX
O	.040 (Typ.)	.040 (Typ.)
P	.200	.200
Q	.038D.	.038D.
R	.155	.155

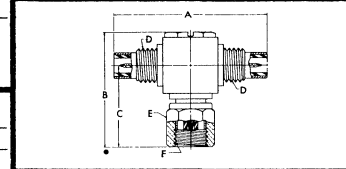
†Designed for use with many of the 75 ohm sub-miniature cables and 95 ohm sub-miniature cables.



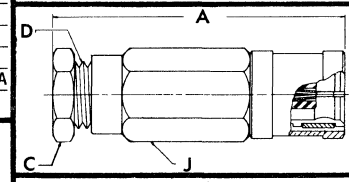
	50 OHM 3008	75 OHM 3038
A	17/32 approx.	19/32 approx.
E	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	5/16 HEX	3/8 HEX
K	19/32	21/32
O	.040 (Typ.)	.040 (Typ.)
P	.200	.200
Q	.038D	.038D
R	.155	.155
S	.215	.247



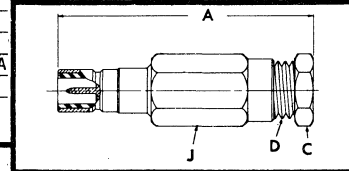
	3009	3039
A	3/4 approx.	13/16 approx.
E	#10-32, UNF-2A	#5/16-32, UNEF-2A
F	.228	.228
G	1/4 HEX	3/8 HEX
H	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	5/16 HEX	3/8 HEX
K	19/32	21/32
N	.038 O.D. x .025 I.D. x .078 Deep	.038 O.D. x .025 I.D. x .078 Deep
S	.215	.247
T	.372	.435



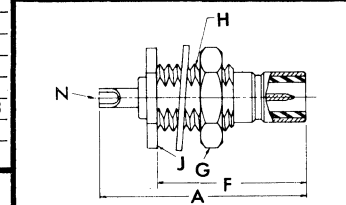
	3014	3044
A	.860	.923
B	21/32 approx.	23/32 approx.
C	15/32 approx.	1/2 approx.
D	#10-32, UNF-2A	#5/16-32, UNEF-2A
E	15/64 HEX	11/32 HEX
F	#10-32, UNF-2B	#5/16-32, UNEF-2B



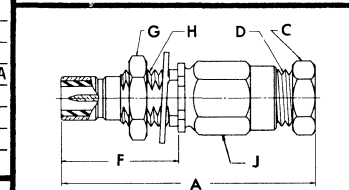
	3100*	3130†
A	7/8 approx.	27/32 approx.
C	15/64 HEX	5/16 HEX
D	#10-32, UNF-2A	#9/32-40, UNS-2A
J	15/64 HEX	11/32 HEX



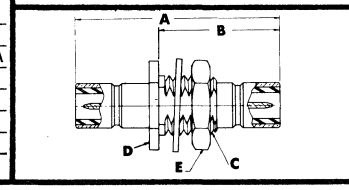
	3101*	3131†
A	7/8 approx.	51/64 approx.
C	15/64 HEX	5/16 HEX
D	#10-32, UNF-2A	#9/32-40, UNS-2A
J	15/64 HEX	5/16 HEX



	6102	6132
A	19/32	19/32
F	.426	.426
G	1/4 HEX	3/8 HEX
H	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	1/4 HEX	3/8 HEX
N	.060 O.D. x .040 I.D. x .078 Deep	.060 O.D. x .040 I.D. x .078 Deep



	3103 BA*	3133 BA†
A	7/8 approx.	7/8 approx.
C	15/64 HEX	5/16 HEX
D	#10-32, UNF-2A	#9-32-40, UNS-2A
F	.425	.425
G	1/4 HEX	3/8 HEX
H	#10-32, UNF-2A	#5/16-32, UNEF-2A
J	15/64 HEX	11/32 HEX



	6104	6134
A	.671	.671
B	.430	.430
C	#10-32, UNF-2A	#5/16-32, UNEF-2A
D	1/4 HEX	3/8 HEX
E	1/4 HEX	3/8 HEX

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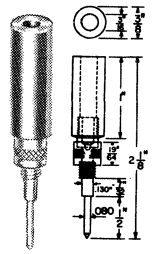
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

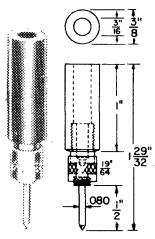
INSULATED TIP PLUG
Solderless



HANDLE: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Threaded type. Fits standard phone tip jacks.
Std. Pkg. 100

No.	Type	NET Per C
200	Senior	$15.00

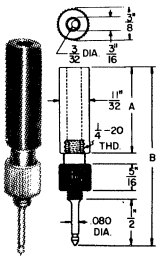
INSULATED TIP PLUG
Solderless



HANDLE: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Threaded type. Fits standard phone tip jacks.
Std. Pkg. 100

No.	Type	NET Per C
201	Junior	$15.00

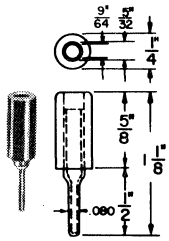
INSULATED TIP PLUG
Signal Corps Approved



HANDLE: ETHYL CELLULOSE, Type EM-1, per MIL-P-3412. Red, Black. SPECIFY COLOR
PLUG: Steel, case hardened to Signal Corps specs.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Recess at end of prod tip holds plugs more firmly in jack spring. Prevents tip from falling out when in an inverted position.
Std. Pkg. 50

No.	Handle (A)	Overall (B)	NET Per C
250	1 inch	2⅛"	$54.00
358	3 inch	4⅛"	84.00

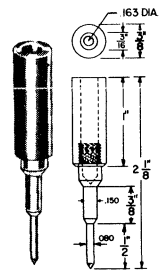
INSULATED TIP PLUG
Solder Type



HANDLE: MOLDED BUTYRATE, per FED. SPEC. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
BODY: Brass, nickel plated our No. 158.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Drawn hollow tip for easy soldering. Fits standard phone tip jack. **Std. Pkg. 100**

No.	NET Per C
237	$10.20

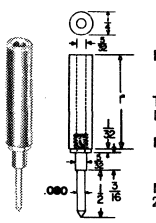
INSULATED TIP PLUG
Heavy Duty Type



HANDLE: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Large diameter well enables soldering of heavy duty wire directly into plug. Fits standard phone tip jacks. **Std. Pkg. 100**

No.	NET Per C
229	$15.00

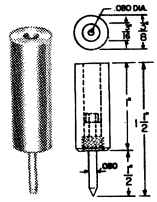
SUB-MINIATURE TIP PLUG



HANDLE: FIBRE, per MIL-F-148A, Grade CH. Red, Black. SPECIFY COLOR
TIP: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Ideally suited for checking sub-miniature equipment. Fits standard phone tip jacks. **Std. Pkg. 100**

No.	NET Per C
270	$18.00

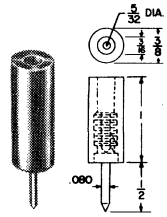
INSULATED SHORT TIP PLUG



HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Inserts flush to insulate handle, no metal exposed; eliminates possibility of shock or grounding. Fits standard phone tip jacks. **Std. Pkg. 100**

No.	NET Per C
203	$12.00

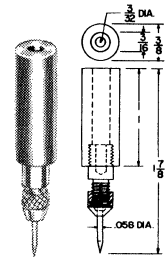
INSULATED SHORT TIP PLUG
Solderless



HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: wire fits through handle and body of tip then wrapped around screw portion. Inserts flush to insulated handle, no metal exposed, eliminates possibility of shock or grounding. Fits standard phone tip jacks. **Std. Pkg. 50**

No.	NET Per C
283	$13.20

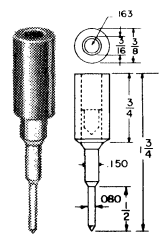
INSULATED TIP PLUG
Phono Needle



HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Removable chuck for easy replacement of broken needle. Needle pierces corrosion or plating for positive reading. **Std. Pkg. 50**

No.	NET Per C
216	$15.00

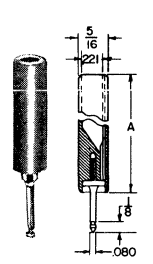
ADAPTER
Banana Plug to Tip Plug



HANDLE: MOLDED BUTYRATE, per FED. SPEC. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Accepts standard banana plugs, adapts to standard tip plug. Std. Pkg. 100

No.	NET Per C
215	$15.00

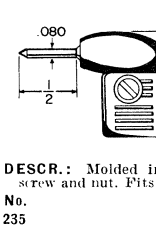
SUB-MINIATURE TIP PLUG
AND TEST PROD



HANDLE: Molded Nylon, per MIL-P-20693A. Available in Red or Black. SPECIFY COLOR
TIP: Brass, Silver plated.
DESCR.: Solderless assembly. Ideal for use with sub-miniature printed-circuit tip jacks. Sharp tip breaks flux or oxide coating on printed-circuit pattern for positive contact when used as prod. Grooved head or prod makes positive contact when laid across wires. Fits all standard .080" tip jacks. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
348	1 inch	1⅝"	$15.00
349	4 inches	4⅝"	30.00

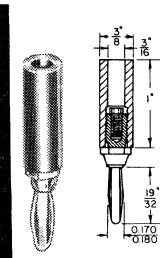
METER TIP PLUG



HANDLE: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black. SPECIFY COLOR
TIP: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Molded in two halves for easy assembly with screw and nut. Fits standard phone tip jacks. **Std Pkg. 50**

No.	NET Per C
235	$27.00

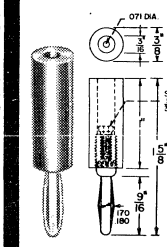
INSULATED BANANA PLUG



HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Hex brass, nickel or silver plated.
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel or silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks.
Std. Pkg. 100

No.	Spring Material	Plating	NET Per C
212	Phosphor Bronze	Nickel	$21.00
232	Phosphor Bronze	Silver	24.00
242	Beryllium Copper	Nickel	30.00
262	Beryllium Copper	Silver	33.00

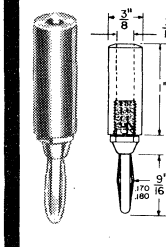
INSULATED BANANA PLUG



HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Brass, nickel or silver plated.
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel or silver plated.
RATING: 15 Amps AC for 10° Temp. rise, continuous duty.
DESCR.: Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks.
Std. Pkg. 100

No.	Spring Material	Plating	NET Per C
211	Phosphor Bronze	Nickel	$18.00
261	Phosphor Bronze	Silver	21.00
271	Beryllium Copper	Nickel	24.00
281	Beryllium Copper	Silver	27.00

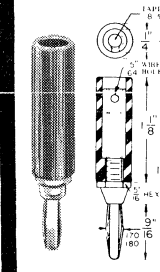
INSULATED BANANA PLUG
Solderless



HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Hex brass, nickel or silver plated.
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel or silver plated.
RATING: 15 AC Amps for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: Wire fits through handle and body of tip then wrapped around screw portion. Fits standard banana jacks.
Std. Pkg. 50

No.	Spring Material	Plating	NET PER C
295	Phosphor Bronze	Nickel	$18.00
296	Phosphor Bronze	Silver	21.00
297	Beryllium Copper	Nickel	24.00
298	Beryllium Copper	Silver	27.00

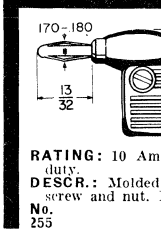
INSULATED BANANA PLUG
Solderless



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black. SPECIFY COLOR
BODY: Hex brass, nickel plated with mating brass spacer.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Cross drilled hole in spacer enables quick solderless connection of wire to plug. Fits standard banana jacks.
Std. Pkg. 100

No.	NET Per C
256	$33.00

METER BANANA PLUG



HANDLE: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black. SPECIFY COLOR
PLUG: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Molded in two halves for easy assembly with screw and nut. Fits standard banana jacks. **Std. Pkg. 50**

No.	NET Per C
255	$36.00

Net

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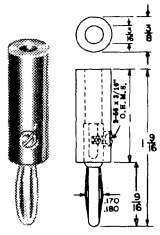
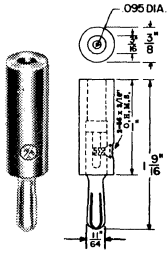
INSULATED BANANA PLUG With Side Screw



HANDLE: MOLDED THERMO-SETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Set screw secures wire without soldering. Fits standard banana jacks. **Std. Pkg. 100**

No.	Spring	NET Per C
204	Phosphor Bronze	$18.00
254	Beryllium Copper	27.00

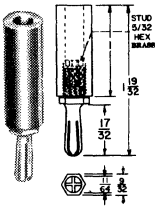
INSULATED BANANA PLUG Split Type With Side Screw



HANDLE: MOLDED THERMO-SETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Cross-slotted for spring tension. Set screw secures wire, without soldering. Fits standard banana jacks. **Std. Pkg. 100**

No.	NET Per C
213	$18.00

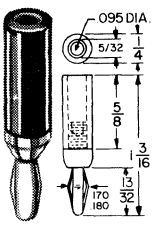
INSULATED BANANA PLUG Split Type With Internal Stud



HANDLE: MOLDED THERMO-SETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Cross-slotted for spring tension. Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks. **Std. Pkg. 100**

No.	NET Per C
253	$18.00

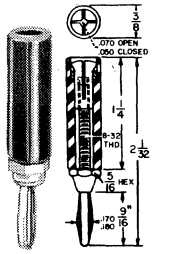
INSULATED BANANA PLUG Midget Type



HANDLE: MACHINED BUTYR-ATE, per MIL-P-10408A, Type I, Class II. Red, Black. SPECIFY COLOR
PLUG: Brass, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper, nickel or silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Wire soldered directly into stud. Fits standard banana jacks. **Std. Pkg. 50**

No.	Spring Material	Plating	NET Per C
291	Phosphor Bronze	Nickel	$18.00
292	Phosphor Bronze	Silver	21.00
293	Beryllium Copper	Nickel	24.00
294	Beryllium Copper	Silver	27.00

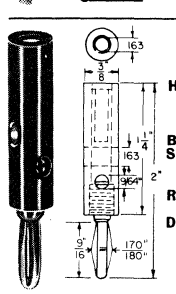
INSULATED BANANA PLUG With Internal Spring Collett



HANDLE: MACHINED BUTYR-ATE, per MIL-P-10408A, Type I, Class II. Red or Black. SPECIFY COLOR
BODY: Hex brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: Spring collett provides quick connect and disconnect of wire. Tin wire for secure contact. Fits standard banana jack. **Std. Pkg. 100**

No.	NET Per C
299	$39.00

STACK BANANA PLUG Solderless



HANDLE: MACHINED BUTYR-ATE, per MIL-P-10408A, Type I, Class II. Red, Black, Yellow or Green. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless connection. Accepts standard banana plugs in top and side. Interconnects unlimited amount of multiple circuits. **Std. Pkg. 50**

No.	Spring Material	NET Per C
1511	Phosphor Bronze	$27.00
1512	Beryllium Copper	30.00

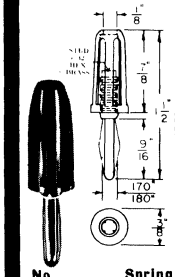
NYLON PLUGS COLOR CODE SUFFIX

Add to Catalog Number as required

— 101	WHITE	— 104	GREEN	— 106	ORANGE	— 112	PURPLE
— 102	RED	— 105	BLUE	— 107	YELLOW	— 113	GREY
— 103	BLACK			— 108	BROWN		

BANANA PLUG TYPE

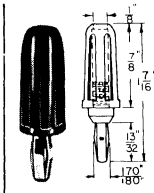
NYLON BANANA PLUG



HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel plated.
SPRING: Phosphor bronze or beryllium copper nickel or silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks. **Std. Pkg. 100**

No.	Spring Material	Plating	NET Per C
476	Phosphor Bronze	Nickel	$21.00
477	Phosphor Bronze	Silver	24.00
478	Beryllium Copper	Nickel	27.00
479	Beryllium Copper	Silver	30.00

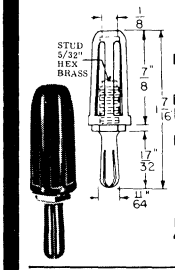
NYLON BANANA PLUG Midget



HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper, nickel or silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Wire soldered directly into stud. Fits standard banana jacks. **Std. Pkg. 100**

No.	Spring Material	Plating	NET Per C
426	Phosphor Bronze	Nickel	$18.00
427	Phosphor Bronze	Silver	21.00
428	Beryllium Copper	Nickel	24.00
429	Beryllium Copper	Silver	27.00

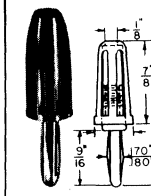
NYLON BANANA PLUG Split Type



HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Cross-slotted for spring tension. Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks. **Std. Pkg. 100**

No.	NET Per C
494	$18.00

NYLON BANANA PLUG Solderless

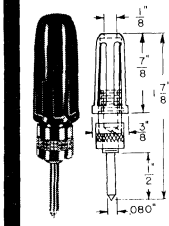


HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper nickel or silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: Wire fits through handle and body of tip then wrapped around screw portion. Inserts flush to handle, no metal exposed, eliminates possibility of shock or grounding. Fits standard banana jacks. **Std. Pkg. 100**

No.	Spring Material	Plating	NET Per C
455	Phosphor Bronze	Nickel	$21.00
456	Phosphor Bronze	Silver	24.00
457	Beryllium Copper	Nickel	27.00
458	Beryllium Copper	Silver	30.00

PIN TIP TYPE

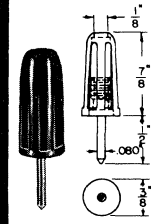
NYLON TIP PLUG Solderless



HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: wire fits through body of tip then wrapped around screw portions and tightened with knurled collar. Threaded type. Fits standard phone tip jacks. **Std. Pkg. 100**

No.	NET Per C
490	$16.80

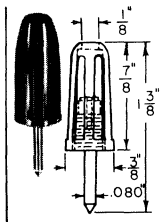
NYLON SHORT TIP PLUG Solderless



HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: Wire fits through handle and body of tip then wrapped around screw portion. Inserts flush to handle, no metal exposed, eliminates possibility of shock or grounding. Fits standard phone tip jacks. **Std.Pkg.100**

No.	NET Per C
492	$15.00

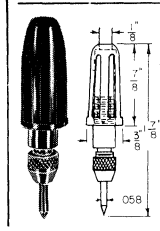
NYLON SHORT TIP PLUG



HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Inserts flush to insulated handle, no metal exposed; eliminates possibility of shock or grounding. Fits standard phone tip jacks. **Std. Pkg. 100**

No.	NET Per C
491	$13.80

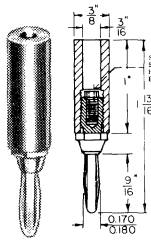
NYLON TIP PLUG Phono Needle



HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Removable chuck for easy replacement of broken needles. Needle pierces corrosion or plating for positive reading. **Std. Pkg. 50**

No.	NET Per C
493	$16.80

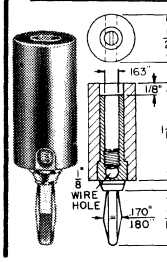
HIGH TEMPERATURE BANANA PLUG



HANDLE: MOLDED THERMOSET-TING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Hex brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Withstands temperature to 1200 degrees F. Full resiliency—non-oxidizing. Excellent for thermo-couple connection on plastic extruding die heads. **Std. Pkg. 10**

No.	NET Per C
388	$72.00

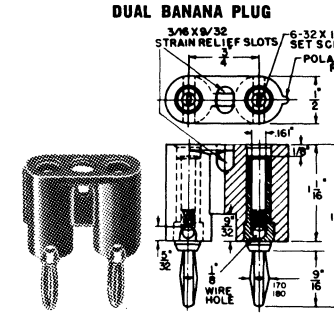
STACK BANANA PLUG



BODY: MOLDED POLYSTYRENE, per Fed. Spec. L-P416, Type I for electrical characteristics. Red or Black. SPECIFY COLOR
PLUG: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
SCREW: Steel, cadmium plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Internal set screw for wire or phone tip connection. Can be stacked for multiple connections. **Std. Pkg. 25**

No.	NET Ea.
324	$48.00

DUAL BANANA PLUG



BODY: MOLDED POLYSTYRENE, per Fed. Spec L-P416 Type I for electrical characteristics. Red or Black
PLUG: Brass, nickel plated. SPECIFY COLOR
SPRING: Four-leaved phosphor bronze, nickel plated.
SCREW: Steel, cadmium plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 5K Volts 60 cycle AC continuous working voltage CAPACITANCE 1.0 mmfd. between conductors.
DESCR.: Mates with standard dual binding post ¾ centers. Polarity indicated on top and side. Wire hel with internal set screw. Can be stacked for multipl connections. **Std. Pkg. 2**

No.	NET Per
210	$72.0

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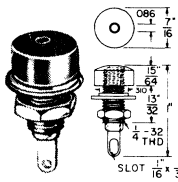


INSULATED PHONE TIP JACK

HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

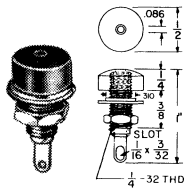
BODY: Brass, nickel plated.

SPRING: Phosphor bronze.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

DESCR.: Positive contact with standard phone tip plugs. Supplied complete with hex nut and fibre washer. Mounts in 5/16" hole in panels up to 3/8" thick. Accepts standard phone tip plugs. **Std. Pkg. 100**

No.	NET Per C
202	$13.20



INSULATED PHONE TIP JACK

HEAD: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II, Red, Black Yellow, Green. SPECIFY COLOR

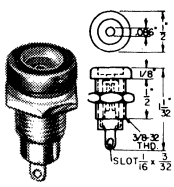
BODY: Brass, nickel plated.

SPRING: Phosphor bronze.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

DESCR.: Complete with hex nut and fibre washer. Mounts in 5/16" hole in panels up to 3/8" thick. Accepts standard phone tip plugs. **Std. Pkg. 50**

No.	NET Per C
223	$21.00



MOLDED NYLON TIP JACK

BODY: MOLDED NYLON, per MIL-P-20693A. Red, Black, Yellow, Green, Blue. SPECIFY COLOR

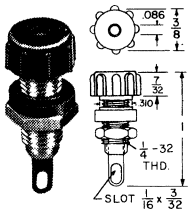
CONTACT: Phosphor bronze.

CAP: Brass, nickel plated.

RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 5 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 3.0 mmfd.

DESCR.: Mounts in 3/8" hole in panels up to 5/16" thick. Accepts standard phone tip plugs. **Std. Pkg. 100**

No.	NET Per C
240	$18.00



!NSULATED PHONE TIP JACK

HEAD: Fluted Head, MOLDED NYLON, per MIL-P-20693A. With molded nylon washer. Red, Black, Yellow, Green, Blue. SPECIFY COLOR

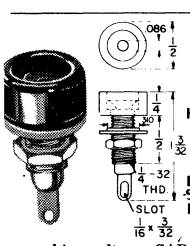
BODY: Brass, nickel plated.

SPRING: Phosphor bronze.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

DESCR.: Extruded portion of head and washer provides excellent insulation from panel. Supplied with hex nut. Mounts in 5/16" hole in panels up to 1/4" thick. Accepts standard tip plugs. **Std. Pkg. 100**

No.	NET Per C
241	$18.00



INSULATED TIP JACK Meter Type

HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue per LC-726-1. SPECIFY COLOR

BODY: Brass, nickel plated.

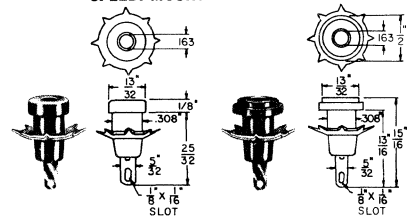
SPRING: Phosphor bronze.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

DESCR.: Supplied complete with hex nut and fibre washer. Mounts in 5/16" hole in panels up to 3/8" thick. Recessed jack body prevents possibility of shock or grounding. Accepts standard phone tip plugs. **Std. Pkg. 50**

No.	NET Per C
282	$15.00

"SPEEDI-MOUNT" BANANA JACKS



#398—Small Head #399—Large Head

BODY: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, per LC-726-1. SPECIFY COLOR

CONTACT: Brass, cadmium plated.

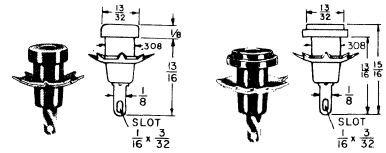
WASHER: Steel cadmium plated, internal and external tooth.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty. 3 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

DESCR.: Unusual dished lockwasher permits fast assembly. Teeth embed into jack and panels, prevent pulling out and turning. Mounts in 5/16" hole in panels up to 3/16" thick. Accepts standard banana plug. **Std. Pkg. 100**

No.		NET Per C
398	Small Head 13/32"	$6.60
399	Large Head 1/2"	$6.60

"SPEEDI-MOUNT" TIP JACKS



#279—Small Head #299—Large Head

BODY: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

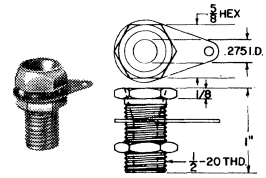
SPRING: Phosphor bronze.

WASHER: Steel cadmium plated, internal and external tooth.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty. 3 K Volts 60 cycle AC continuous working voltage. CAACITANCE 3.0 mmfd.

DESCR.: Unusual dished lockwasher permits fast assembly. Teeth embed into jack and panels, prevents pulling out and turning. Mounts in 5/16" hole in panels up to 3/16" thick. Accepts standard phone tip plugs. **Std. Pkg. 100**

No.		NET Per C
279	Small Head 13/32"	$6.60
299	Large Head 1/2"	$6.60



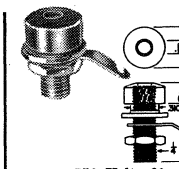
GIANT BANANA JACK

BODY: HEX BRASS, nickel plated.

RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Supplied with hex nut and brass tinned lug, mounts in 1/2" hole in panels up to 5/8" thick. **Std. Pkg. 25**

No.	NET Per C
157	$30.00



INSULATED BANANA JACK

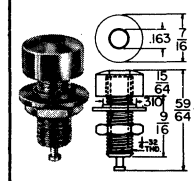
HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

BODY: Brass, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

DESCR.: Supplied with hex nut, fibre washer, and brass tinned lug. Mounts in 5/16" hole in panels up to 3/8" thick. Accepts standard banana plugs. **Std. Pkg. 100**

No.	NET Per C
205	$13.20



INSULATED BANANA JACK With Solder Tab

HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

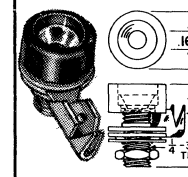
BODY: Brass, nickel plated.

TAB: Brass, cadmium plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

DESCR.: Supplied with hex nut and fibre washer. Mounts in 5/16" hole in panels up to 3/8" thick. Solder direct to tab Accepts standard banana plugs. **Std. Pkg. 100**

No.	NET Per C
256	$15.00



INSULATED BANANA JACK

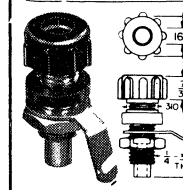
HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue per LC-726-1. SPECIFY COLOR

BODY: Brass, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

DESCR.: Supplied with hex nut, fibre washer, lockwasher and brass tinned lug. Mounts in 5/16" hole in panels up to 3/8"thick. Jack body recessed for snug contact. Accepts standard banana plugs. **Std. Pkg. 100**

No.	NET Per C
219	$15.00



INSULATED MIDGET BANANA JACK

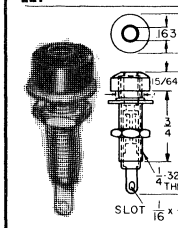
HEAD: Fluted Head, MOLDED NYLON, per MIL-P-20693A. With molded nylon washer. Red, Black, Yellow, Green, Blue. SPECIFY COLOR

BODY: Brass, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

DESCR.: Extruded portion of head and washer provides excellent insulation from panel. Supplied with hex nut, brass tinned lug. Mounts in 5/16" hole in panels up to 1/4" thick. Accepts standard banana plugs. **Std. Pkg. 100**

No.	NET Per C
221	$18.00



INSULATED JACK Combination Type

HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

BODY: Brass, nickel plated.

SPRING: Phosphor bronze.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

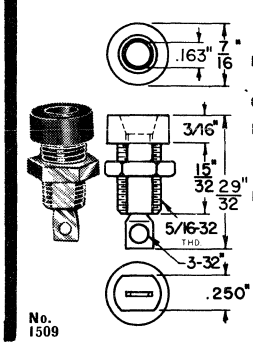
DESCR.: Supplied with hex nut and fbre washer. Accepts standard phone tip plugs or standard banana plugs. **Std. Pkg. 100**

No.	NET Per C
206	$16.20

NYLON BANANA JACKS

COLOR CODE SUFFIX — Add to Catalog Number as required

— 101 WHITE	— 104 GREEN	
— 102 RED	— 105 BLUE	— 108 BROWN
— 103 BLACK	— 106 ORANGE	— 112 PURPLE
	— 107 YELLOW	— 113 GREY



"DOUBLE-D" BODY

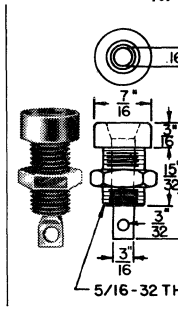
BODY: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.

CONTACT: Brass, cadmium plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous working voltage. CAPACITANCE 5.5 mmfd.

DESCR.: Mounts in 5/16" hole in panels up to 5/16" thick. Accepts standard banana plugs. Wide temperature and humidity range. "Double-D" body mounts in round or punched hole to fit. **Std. Pkg. 50**

No.	NET Per C
1509	$12.00



FULL ROUND BODY

BODY: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.

CONTACT: Brass, cadmium plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 5.0 mmfd.

DESCR.: Mounts in 5/16" hole in panels up to 5/16" thick. Accepts standard banana plugs. Wide temperature and humidity range. **Std. Pkg. 50**

No.	NET Per C
1508	$12.00

Net

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HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

NYLON TIP JACKS

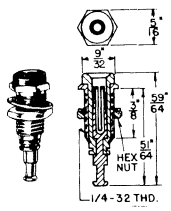
With Metal Shell

Made to Meet MS-16108 Spec.

COLOR CODE SUFFIX

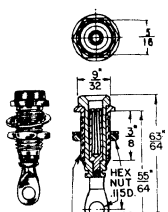
(Add to Catalog Number as Required)

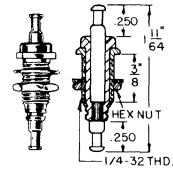
— 101 WHITE	— 105 BLUE	— 108 BROWN
— 102 RED	— 106 ORANGE	— 112 PURPLE
— 103 BLACK	— 107 YELLOW	— 113 GREY
— 104 GREEN		



Molded Nylon Tip Jack. Metal shell eliminates possibility of stripping threads during assembly. Meets following requirements:

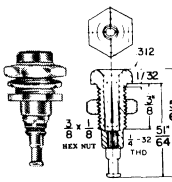
1. Salt Spray Test — Withstands 100 hours.
2. Rating — 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 10.0 mmfd.
3. Insulation Resistance — 5,000 megohms.
4. Operating Conditions —
   - A. Continuous: 23 hours on, 1 hour off.
   - B. Elevation: Up to 5,000 ft.
   - C. Temperature: —55 to + 85°C.
   - D. Humidity: Up to 95%.
5. Material Specifications —
   - A. Insulator: Molded Nylon, per MIL-P-20693A. Specify color as coded above.
   - B. Shell and Nut: Brass Nickel Plated per QQ-N-290, type V (FC).
   - C. Lockwasher: Phosphor Bronze Nickel Plated per Spec. QQ-N-290, type V (FC).
   - D. Center Contact: Heat Treated Bery, Copper, Silver plated per QQ-S-365, Gold plated overall.
6. Non-Operating Conditions —
   - A. Elevation: Up to 50,000 ft.
   - B. Temperature: Continuous exposure for 72 hours at +160°F and 240 hours at —80°F.
   - C. Humidity: Up to 100%.





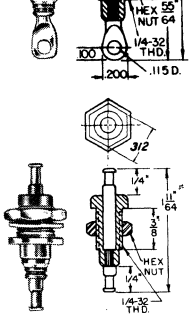
No.	Type	Std. Pkg.	NET Per C
1501	Wrap Around	25	$28.80
1502	Spade Terminal	25	42.00
1503	Feed Through	25	39.00

All Nylon



Completely Molded Nylon Jack. Fits all standard phone tip plugs. Contact recessed in head for safe contact. Hexagon head for grip in tightening. Mounts in ¼" hole in panels up to ¼" thick. Meets following requirements:

1. Salt Spray Test — Withstands 100 hours.
2. Rating: 15 Amps AC for 10°C Temp. rise, continuous duty. 5 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 3.0 mmfd.
3. Insulation Resistance — 5,000 megohms.
4. Operating Temperature— —55 to +150°C.
5. Material Specifications —
   - A. Body: Molded Nylon, per MIL-P-20693A. Specify Color as coded above.
   - B. Center contact: Heat treated Beryllium Copper, Silver plated per QQ-S-365, Gold plated overall. No. 1507 Brass, per QQ-B-626, Comp. 22, plated as above.
   - C. Hex Nut: Brass Nickel Plated.



No.	Type	Pkg.	Per C
1505	Wrap Around	25	$21.00
1506	Spade Terminal	25	30.00
1507	Feed Through	25	28.20

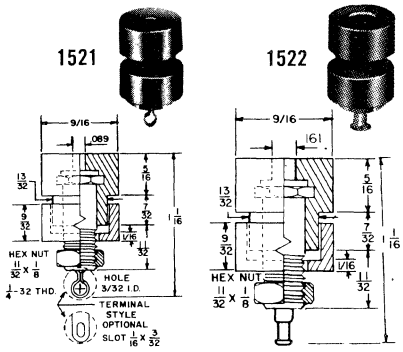
HIGH VOLTAGE NYLON JACKS

Color Code Suffix

Add to Catalog Number as Required

— 101 WHITE	— 105 BLUE
— 102 RED	— 106 ORANGE
— 103 BLACK	— 107 YELLOW
— 104 GREEN	— 108 BROWN

1521 1522



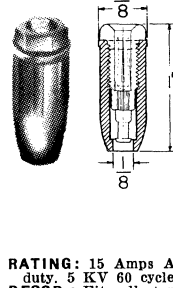
Made to meet MS-16107 Spec.

Heavy molded nylon body and cup washer prevent high-voltage flashover to panel. Meets following requirements:

1. Salt Spray Test — Withstands 100 hours.
2. Electrical Rating — 15 Amps AC for 10°C Temp. rise, continuous duty. 5 KV 60 cycle AC continuous working voltage. Millivolt drop per MIL-J-6751.
3. Material Specifications—
   - A. Insulator and Washer: Nylon Grade FM 10001, in accordance with MIL-P-17091 spec.
   - B. Insert Shell and Nut: Brass, Nickel plated per spec. QQ-N-290, type V (FC). Insert gold washed overall.
   - C. Contact: Phosphor bronze or beryllium copper, gold washed.
   - D. Terminal style: Optional formed cylinder or slotted flat terminals as shown.

No.		Std. Pkg. 25 NET Per C
1521	TIP JACK	$45.00
No.		NET Per C
1522	BANANA JACK	$45.00

NYLON IN-LINE TIP JACK



Color Code Suffix

Add to Catalog Number as Required

— 101 WHITE	— 106 ORANGE
— 102 RED	— 107 YELLOW
— 103 BLACK	— 108 BROWN
— 104 GREEN	— 112 PURPLE
— 105 BLUE	— 113 GREY

All Nylon

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.

BODY: Molded Nylon, per MIL-P-20693A.

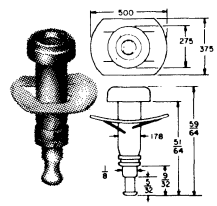
CONTACT: Heat treated beryllium copper, gold washed.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 5 KV 60 cycle AC continuous working voltage.

DESCR.: Fits all standard phone-tip plugs, with recessed contact for safe connection. Ideally suited for use in patch and extension cords. Can also be used for panel mounting where wrap-around terminal connection must be insulated at rear. Std. Pkg. 50

No.	NET Per C
1515	$30.00

NYLON TEST JACK



BODY: Nylon, Grade FM 10001. SPECIFY COLOR

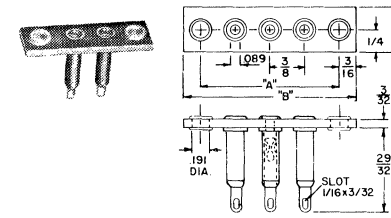
CONTACT: Phosphor bronze, gold plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 3 KV 60 cycle AC continuous working voltage.

DESCR.: Mounts in 3/8" hole, with Tinnerman Speed Nut for fast permanent assembly. Teeth embed into jack body, preventing pulling out and turning. Accepts standard phone tip plugs. Std. Pkg. 25

No.	NET Per C
1598	$25.00

PIN JACK STRIPS



STRIP: LAMINATED PHENOLIC, XP, Black. Meets Federal Spec. L-L-31, Type I.

BODY: Brass, nickel plated.

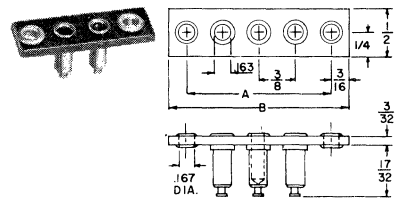
SPRING: Phosphor bronze.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 KV, 60 cycle AC continuous working voltage.

DESCR.: From 2 to 10 pin jacks assembled on ¾" centers on a heavy-duty board. Provides positive contact with standard phone tip plugs. Mounting holes accept screws up to #8. Std. Pkg. 25

No.	Jacks	Mtg. Ctrs. ("A")	Length ("B")	NET Per C
1982	2	1⅛"	1½"	$21.00
1983	3	1½"	1⅞"	27.00
1984	4	1⅞"	2¼"	36.00
1985	5	2¼"	2⅝"	45.00
1986	6	2⅝"	3"	51.00
1987	7	3"	3⅜"	60.00
1988	8	3⅜"	3¾"	69.00
1989	9	3¾"	4⅛"	75.00
1990	10	4⅛"	4½"	84.00

BANANA JACK STRIPS



STRIP: LAMINATED PHENOLIC, XP, Black, Meets Federal Spec. L-L-31, Type 1.

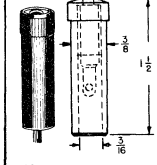
BODY: Brass, nickle plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 KV, 60 cycle AC continuous working voltage.

DESCR.: From 2 to 10 Banana jacks assembled on ¾" centers on a heavy-duty board. Provides positive contact with standard banana plugs. Mounting holes accept screws up to #8. Std. Pkg. 25

No.	Jacks	Mtg. Ctrs. ("A")	Length ("B")	Net Per C
1972	2	1⅛"	1½"	$21.00
1973	3	1½"	1⅞"	27.00
1974	4	1⅞"	2¼"	36.00
1975	5	2¼"	2⅝"	45.00
1976	6	2⅝"	3"	51.00
1977	7	3"	3⅜"	60.00
1978	8	3⅜"	3¾"	69.00
1979	9	3¾"	4⅛"	75.00
1980	10	4⅛"	4½"	84.00

IN-LINE PHONE TIP JACK



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black, Yellow, Green. SPECIFY COLOR

CAP.: MOLDED THERMOSETTING plastic Red and Black per MIL-M-14 CFG. Yellow, Green, per LC-726-1.

BODY: Brass, nickel plated.

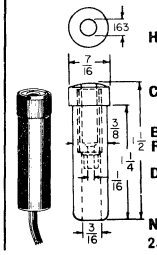
SPRING: Phosphor bronze.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Suitable for test lead extension where long leads are required. Accepts standard phone tip plug. Std. Pkg. 50

No.	NET Per C
248	$21.00

IN-LINE BANANA JACK



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black, Yellow, Green. SPECIFY COLOR

CAP: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, per LC-726-1.

BODY: Brass, nickel plated.

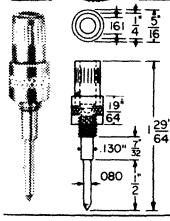
RATING: 15 Amps AC for 10°C Temp rise, continuous duty.

DESCR.: Suitable for test lead extension where long leads are required. Accepts standard banana plugs. Std. Pkg. 50

No.	NET Per C
251	$21.00

HERMAN H. SMITH, INC.

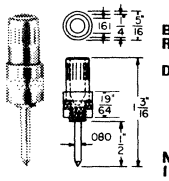
"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"



SOLDERLESS TIP PLUG

BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless; wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Force fit type. Fits standard phone tip jacks. **Std. Pkg. 100**

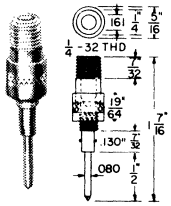
No.	Type	NET Per C
105	Senior	$10.20



SOLDERLESS TIP PLUG

BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless; wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Force fit type. Fits standard phone tip jacks. **Std. Pkg. 100**

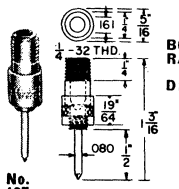
No.	Type	NET Per C
106	Junior	$9.60



SOLDERLESS TIP PLUG Threaded Sr.

BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless; wire fits through body of tip, then wrapped around screw portion and tightened with knurled collar. Threaded for easy assembly in plastic handle. Fits standard phone tip jacks. **Std. Pkg. 100**

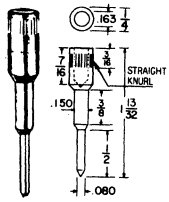
No.	Type	NET Per C
124	Senior	$12.00



SOLDERLESS TIP PLUG Threaded Jr.

BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless; wire fits through body of tip, then wrapped around screw portion and tightened with assembly in plastic handle. Fits knurled collar. Threaded for easy standard phone tip jacks. **Std. Pkg. 50**

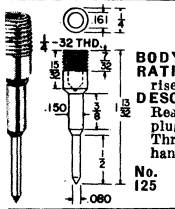
No.	Type	NET Per C
127	Junior	$11.40



HEAVY DUTY TIP PLUG Force-Fit

BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise continuous duty.
DESCR.: Extra large well for soldering. Rear of plug accepts standard banana plugs. Fits all standard phone tip jacks. **Std. Pkg. 25**

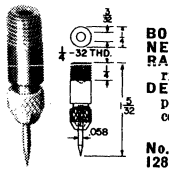
No.	Type	NET Per C
156	Force Fit	$10.00



HEAVY DUTY TIP PLUG Threaded

BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Extra large well for soldering. Rear of plug accepts standard banana plugs. Fits standard phone tip jacks. Threaded for easy assembly in plastic handle. **Std. Pkg. 50**

No.	Type	NET Per C
125	Threaded	$10.20

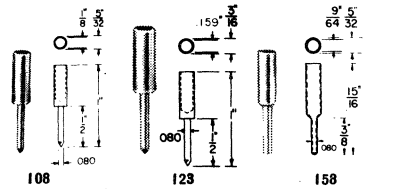


NEEDLE TIP AND CHUCK

BODY: Brass, nickel plated.
NEEDLE: Steel, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Removable chuck for easy replacement. Needle pierces plating or corrosion for positive reading. **Std. Pkg. 50**

No.	NET Per C
128	$13.20

SOLDER TYPE PHONE TIPS

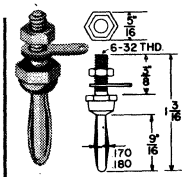


108	123	158

Brass, Nickel Plated

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty. **Std. Pkg. 100**

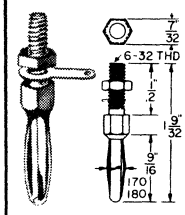
No.	Type	NET Per C
108	Standard	$21.00
23	Large I.D.	26.40
158	Drawn	15.00



BANANA PLUG

BODY: HEX BRASS, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and phosphor bronze lug. Threaded stud for panel mounting. Fits standard banana jacks. **Std. Pkg. 100**

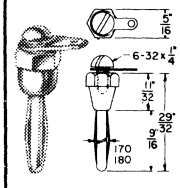
No	NET Per C
102	$15.00



BANANA PLUG

BODY: HEX BRASS, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and phosphor bronze lug. Threaded stud for panel mounting. Fits standard banana jacks. **Std. Pkg. 100**

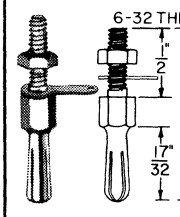
No.	NET Per C
103	$15.00



BANANA PLUG

BODY: HEX BRASS, nickel plated.
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with screw and phosphor bronze tinned lug. Internal female permits use on all size panels. Fits standard banana jacks. **Std. Pkg. 100**

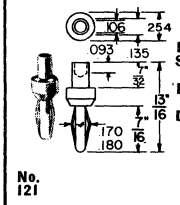
No.	Spring Material	NET Per C
100	Phosphor Bronze	$15.00
190	Beryllium Copper	24.00



BANANA PLUG Split Type

BODY: HEX BRASS, nickel plated, cross-slotted.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Fits all standard banana jacks. Supplied with hex nut and phosphor bronze lug, threaded stud for panel mounting. Fits standard banana jacks. **Std. Pkg. 100**

No.	NET Per C
104	$13.20



MIDGET BANANA PLUG Rivet Type

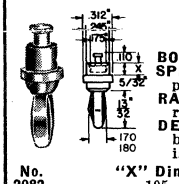
BODY: BRASS, silver plated.
SPRING: Four-leaved phosphor bronze, silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Can be furnished in varying types to meet Jan specs. Fits all standard banana jacks. **Std. Pkg. 100**

No.	NET Per C
121	$16.20

MIL-SPEC. TYPE

Same as above, made to meet Signal Corps Drawings SC-C2231. **Std. Pkg. 100**

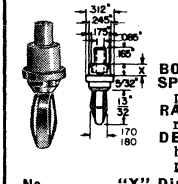
No.	NET Per C
122	$18.00



RIVET TYPE BANANA PLUG Wrap Around Type

BODY: BRASS, nickel plated.
SPRING: Four leaved, beryllium copper, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Rivets to panel or bakelite board. Wire wraps around stud and is then soldered. **Std. Pkg. 100**

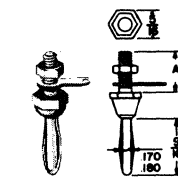
No.	"X" Dim.	Panel	NET Per C
2082	.105	1/16"	$18.00
2083	.135	5/32"	18.00
2084	.165	1/8"	18.00



RIVET TYPE BANANA PLUG Solder Well Type

BODY: BRASS, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Rivets to panel or bakelite board. Wire solders to well in rear of plug. **Std. Pkg. 100**

No.	"X" Dim.	Panel	NET Per C
2067	.105	1/16"	$18.00
2068	.135	5/32"	18.00
2069	.165	1/8"	18.00

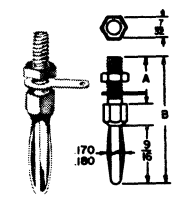


BANANA PLUG

BODY: HEX BRASS, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper, nickel or silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and tinned phosphor bronze lug threaded stud for panel mounting. Fits standard banana jacks. **Std. Pkg. 50**

PHOS. BR. SPRING Nickel Plated Overall			BERYL. COP. SPRING Nickel Plated Overall	
No.	NET Per C	A	B	No.	NET Per C
431	$15.00	6-32x3/8"	1 7/32"	443	$18.00
432	15.00	6-32x1/2"	1 11/32"	444	18.00
433	15.00	6-32x3/4"	1 19/32"	445	18.00
434	15.00	8-32x3/8"	1 7/32"	446	18.00
435	15.00	8-32x1/2"	1 11/32"	447	18.00
436	15.00	8-32x3/4"	1 19/32"	448	18.00

PHOS. BR. SPRING Silver Plated Overall			BERYL. COP. SPRING Silver Plated Overall	
No.	NET Per C	A	B	No.	NET Per C
437	$18.00	6-32x3/8"	1 7/32"	449	$21.00
438	18.00	6-32x1/2"	1 11/32"	450	21.00
439	18.00	6-32x3/4"	1 19/32"	451	21.00
440	18.00	8-32x3/8"	1 7/32"	452	21.00
441	18.00	8-32x1/2"	1 11/32"	454	21.00
442	18.00	8-32x3/4"	1 19/32"	453	21.00

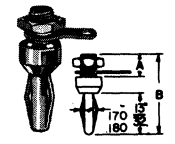


BANANA PLUG

BODY: HEX BRASS, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper, nickel or silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and tinned phosphor bronze lug threaded stud for panel mounting. Fits standard banana jacks. **Std. Pkg. 50**

PHOS. BR. SPRING Nickel Plated Overall			BERYL. COP. SPRING Nickel Plated Overall	
No.	NET Per C	A	B	No.	NET Per C
401	$15.00	6-32x3/8"	1 7/32"	414	$18.00
403	15.00	6-32x1/2"	1 11/32"	415	18.00
404	15.00	6-32x3/4"	1 19/32"	416	18.00
405	15.00	8-32x3/8"	1 7/32"	417	18.00
406	15.00	8-32x1/2"	1 11/32"	418	18.00
407	15.00	8-32x3/4"	1 19/32"	419	18.00

PHOS. BR. SPRING Silver Plated Overall			BERYL. COP. SPRING Silver Plated Overall	
No.	NET Per C	A	B	No.	NET Per C
408	$18.00	6-32x3/8"	1 7/32"	420	$21.00
409	18.00	6-32x1/2"	1 11/32"	421	21.00
410	18.00	6-32x3/4"	1 19/32"	422	21.00
411	18.00	8-32x3/8"	1 7/32"	423	21.00
412	18.00	8-32x1/2"	1 11/32"	424	21.00
413	18.00	8-32x3/4"	1 19/32"	425	21.00

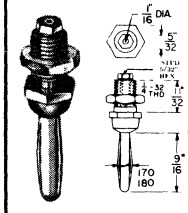


MIDGET BANANA PLUG

BODY: BRASS, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper. Nickel or silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and tinned phosphor bronze lug threaded stud for panel mounting. Fits standard banana jacks. **Std. Pkg. 50**

PHOS. BR. SPRING Nickel Plated Overall			BERYL. COP. SPRING Nickel Plated Overall	
No.	NET Per C	A	B	No.	NET Per C
460	$15.00	4-40x3/8"	15/16"	468	$18.00
461	15.00	4-40x1/2"	1 1/16"	469	18.00
462	15.00	6-32x3/8"	15/16"	470	18.00
463	15.00	6-32x1/2"	1 1/16"	471	18.00

PHOS. BR. SPRING Silver Plated Overall			BERYL. COP. SPRING Silver Plated Overall	
No.	NET Per C	A	B	No.	NET Per C
464	$18.00	4-40x3/8"	15/16"	472	$21.00
465	18.00	4-40x1/2"	1 1/16"	473	21.00
466	18.00	6-32x3/8"	15/16"	474	21.00
467	18.00	6-32x1/2"	1 1/16"	475	21.00



BANANA PLUG

BODY: HEX BRASS, nickel plated.
SPRING: Phosphor bronze or beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut. Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. **Std. Pkg. 50**

No.	Spring Material	NET Per M
145	Phosphor Bronze	$16.20
135	Beryllium Copper	27.00

Net

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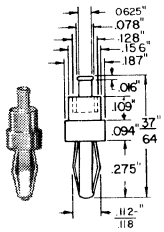
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

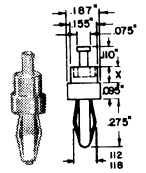
SUBMINIATURE PLUGS & JACKS



SUB MINIATURE BANANA PLUG Rivet Type

BODY: BRASS, silver plated.
SPRING: Four leaved beryllium copper, silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: One piece beryllium copper spring insures positive and lasting contact. **Std. Pkg. 50**

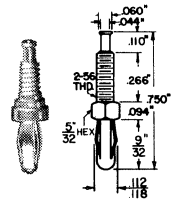
No.	NET Per C
191	$15.00



Swager Type SUB MINIATURE BANANA PLUG

BODY: BRASS, silver plated.
SPRING: Four leaved beryllium copper, silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: One piece beryllium copper spring insures positive and lasting contact. **Std. Pkg. 100**

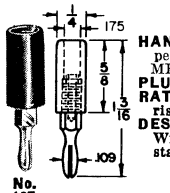
No.	"X" Dim.	Panel	NET Per C
2073	.105	1/16"	$15.00
2074	.135	5/32"	15.00
2075	.165	1/8"	15.00



SUB MINIATURE BANANA PLUG

BODY: BRASS, silver plated.
SPRING: Four leaved beryllium copper, silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: One piece beryllium copper spring insures positive and lasting contact. **Std. Pkg. 50**

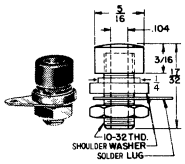
No.	NET Per C
192	$15.00



INSULATED BANANA PLUG Sub Miniature

HANDLE: MACHINED BUTYRATE, per Fed. Spec. L-P344, Type I, Class MH, Red or Black. SPECIFY COLOR
PLUG: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Cross-slotted for spring tension. Wire solders directly into plug. Fits standard midget banana jacks. **Std. Pkg. 100**

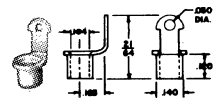
No.	NET Per C
197	$15.00



INSULATED BANANA JACK Sub Miniature

HEAD: MACHINED BUTYRATE, per Fed. Spec. L-P344, Type I, Class MH, Red or Black. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 6.0 mmfd.
DESCR.: Supplied with hex nut, fibre washer and tinned lug. Mounts in 1/4" hole in panels up to 1/8" thick. Accepts standard midget banana plugs. **Std. Pkg. 100**

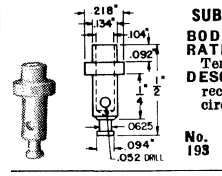
No.	NET Per C
196	$15.00



SUB MINIATURE BANANA JACK

BODY: BRASS, silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: This jack is riveted directly to chassis or to printed circuit board for easy assembly. **Std. Pkg. 100**

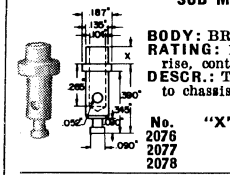
No.	NET Per C
194	$.90



SUB MINIATURE BANANA JACK

BODY: BRASS, silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: This jack is riveted directly to chassis or to printed circuit board for easy assembly. **Std. Pkg. 50**

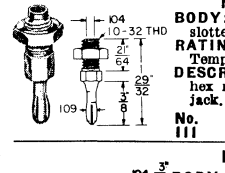
No.	NET Per C
193	$9.00



SUB MINIATURE BANANA JACK Panel Mount

BODY: BRASS, silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: These jacks are riveted directly to chassis or bakelite board. **Std. Pkg. 100**

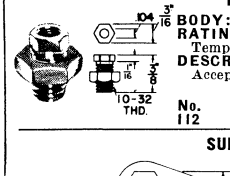
No.	"X" Dim.	Panel	NET Per C
2076	.105	1/16"	$9.00
2077	.135	5/32"	9.00
2078	.165	1/8"	9.00



MIDGET BANANA PLUG

BODY: BRASS, nickel plated, cross-slotted.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Cross-slotted, supplied with hex nut. Fits our No. 112 midget jack. **Std. Pkg. 50**

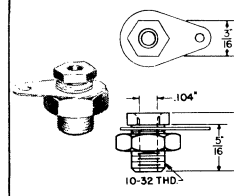
No.	NET Per C
111	$10.20



MIDGET BANANA JACK

BODY: BRASS, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut. Accepts our No. 111 midget plug. **Std. Pkg. 50**

No.	NET Per C
112	$7.80

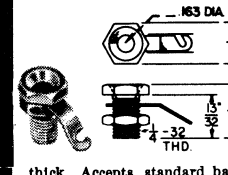


SUB MINIATURE BANANA JACK

BODY: HEX BRASS, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and tinned lug Mounts in .196 (#10) hole in panels up to 1/8" thick. Accepts standard midget banana plugs. **Std. Pkg. 100**

No.	NET Per C
195	$7.80

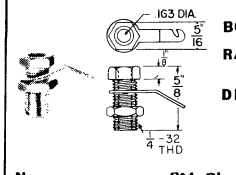
STANDARD BANANA JACKS



BANANA JACK

BODY: Hex brass nickel plated with recessed head.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and brass tinned lug. Mounts in 1/4" hole; fits panels up to 5/16" thick. Accepts standard banana plugs. **Std. Pkg. 100**

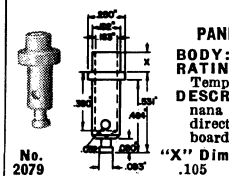
No.	NET Per C
101	$10.20



BANANA JACK

BODY: Hex brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and brass tinned lug. Mounts in 1/4" hole in panels up to 5/8" thick. Accepts standard banana plugs.

No.	Std. Pkg. 100	NET Per C
109		$10.20

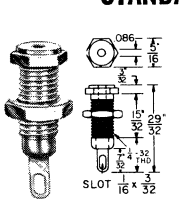


PANEL MOUNT BANANA JACK

BODY: BRASS, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Accepts all standard banana plugs. These jacks are riveted directly to chassis or bakelite board. **Std. Pkg. 100**

No.	"X" Dim.	Panel	NET Per C
2079	.105	1/16"	$10.80
2080	.135	5/32"	10.80
2081	.165	1/8"	10.80

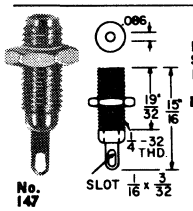
STANDARD TIP JACKS



PHONE TIP JACK

BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Positive contact with standard phone tip plugs. Supplied with hex nut. Mounts in 1/4" hole in panels up to 3/8" thick. **Std. Pkg. 100**

No.	NET Per C
107	$10.20

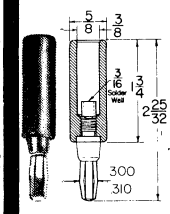


HEADLESS PHONE TIP JACK

BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut. Used with plastic molded instrument cases, where jack body is screwed into case. Accepts standard phone tip plugs. **Std. Pkg. 100**

No.	NET Per C
147	$6.00

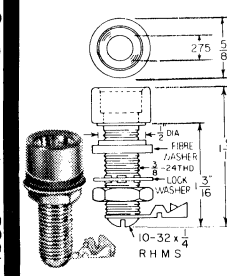
GIANT BANANA PLUGS & JACKS



INS. GIANT BANANA PLUG

HANDLE: MACHINED PHENOLIC plastic, per MIL-P-77B, Type I, Red or Black. SPECIFY COLOR
BODY: Hex brass, nickel plated.
SPRING: Six-leaved, phosphor bronze, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Large deep internal well for soldering heavy duty wire. Recessed so that no metal portions are exposed when plugged into mating jack, in order to prevent shocks or grounding. **Std. Pkg. 50**

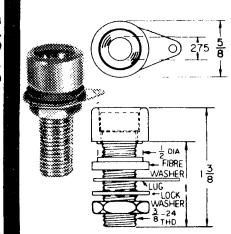
No.	NET Per C
285	$46.20



INS. GIANT BANANA JACK

HEAD: MACHINED BUTYRATE, per Fed. Spec. L-P344, Type I, class MH. Red or Black. SPECIFY COLOR
BODY: Hex brass, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 7.0 mmfd.
DESCR.: Supplied with hex nut, fibre washer, lock-washer, screw and tinned copper lug. Jack body recessed for snug contact. Mounts in 1/2" hole in panel up to 3/4" thick. **Std. Pkg. 50**

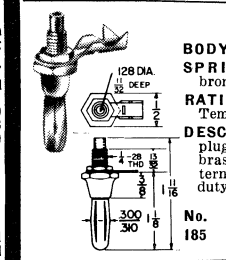
No.	NET Per C
286	$42.00



INS. GIANT BANANA JACK

HEAD: MACHINED BUTYRATE, per Fed. Spec. L-P344, Type I, class MH, Red or Black. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 7.0 mmfd.
DESCR.: Supplied with hex nut, fibre washer, lock-washer, and brass tinned lug. Jack body recessed for snug contact. Mounts in 1/2" hole in panel up to 3/4" thick. **Std. Pkg. 50**

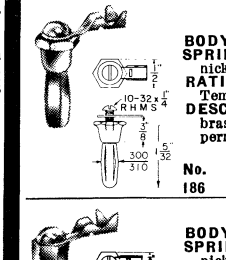
No.	NET Per C
287	$42.00



GIANT BANANA PLUG

BODY: HEX BRASS, nickel plated.
SPRING: Six-leaved phosphor bronze, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Plug portion of #285 plug. Supplied with hex nut and brass tinned lug. Large deep internal well for soldering heavy duty wire. **Std. Pkg. 25**

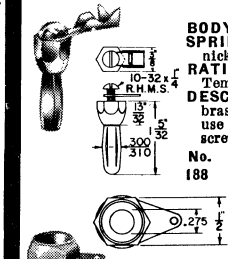
No.	NET Per C
185	$30.00



GIANT BANANA PLUG

BODY: HEX BRASS, nickel plated.
SPRING: Six-leaved phosphor bronze, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with screw and brass tinned lug. Internal female permits use on all size panels. **Std. Pkg. 25**

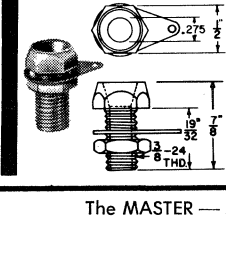
No.	NET Per C
186	$30.00



GIANT BANANA PLUG

BODY: HEX BRASS, nickel plated.
SPRING: Six-leaved phosphor bronze, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with screw and brass tinned lug. Female permits use on all size panels. Internal screw. **Std. Pkg. 25**

No.	NET Per C
188	$30.00



GIANT BANANA JACK

BODY: HEX BRASS, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and brass tinned lug, mounts in 5/8" hole in panels up to 1/2" thick. **Std. Pkg. 25**

No.	NET Per C
187	$30.00

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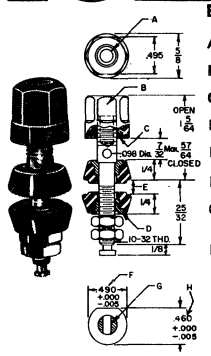
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

BINDING POST - Multipurpose



NOTES:

- **A** Banana Plug Receptacle, .161 I.D.
- **B** Head non-removable from stud.
- **C** Molded-in Brass Bushing in Head.
- **D** Molded-in Brass Bushing in Washers.
- **E** For Panels 1/16" to 1/4" thick.
- **F** Drill 1/2" hole for mounting washers.
- **G** Wire Hole is at right angle to Flat on insulated Washers.
- **H** Production Punch for keyed Slot for mounting Washers. (Sample Washer Sent on Request.)

RATING: 30 Amps AC for 10°C Temp. rise, continuous working voltage. CAPACITANCE 5.0 mmfd.

CURRENT: 30 amps safe current carrying capacity.
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip or wire strand.
DESCR.: MOLDED NYLON, per MIL-P-20693A, head and washer completely insulates post from panel. Mounts in ½" or keyed hole as indicated. Wrap around type—direct solder connection to stud. Metal parts brass.
COLORS: Red, Black, Yellow, Green, Blue, White. Specify color. **Std. Pkg. 100**

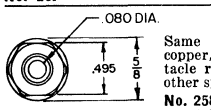
No. 257 — **NET Per C $36.00**

MIL-SPEC BINDING POST

Same as our #257 above, made to meet MIL-P-55149/1. **Std. Pkg. 50**

No. 267 — **NET Per C $42.00**

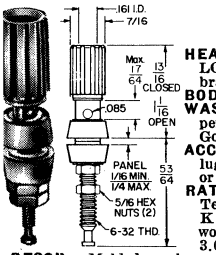
PIN JACK TYPE



Same as above, with Beryllium copper, gold plated pin, tip receptacle replacing Note "A" above. All other specifications apply. **Std. Pkg. 100**

No. 258 — **NET per C $42.00**

NYLON BINDING POST Insulated

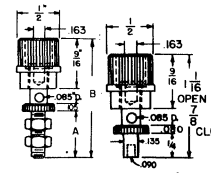


HEAD: CAPTIVE, MOLDED NYLON, per MIL-P-20693A, with brass Gold-Plated Insert.
BODY: Brass, Gold Plated
WASHERS: MOLDED NYLON, per MIL-P-20693A, with brass Gold-plated inserts.
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip, or wire strand.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 3.0 mmfd.
DESCR.: Molded washers completely insulate post from panel. Miniature washers and narrow fluted head require minimum panel space. Mounts in 3/8" round or "D" hole in panel as indicated. Wrap-around solder terminal on stud for direct connection.
COLORS: Red, Black, Yellow, Green, Blue, White.

SPECIFY COLOR — **Std. Pkg. 100**

No. 1517 — **NET Per C $33.00**

BINDING POST Five-Way Grounding Type



HEAD: CAPTIVE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black.

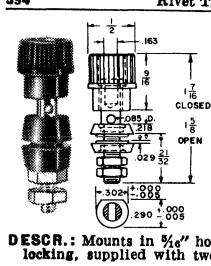
SPECIFY COLOR

BODY: Brass, nickel plated.
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip or wire strand.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage, when insulated from panel as recommended. CAPACITANCE 5.0 mmfd.
DESCR.: Can be insulated from panel with our 2155 and 2163 fibre washers; supplied with 2 hex nuts. **Std. Pkg. 100**

220 391

No.	Description	NET Per C
220	8-32 x ½ Stud	$18.00
230	6-32 x ⅜ Stud	18.00
391	Rivet Type	15.00
	With brass nickel plated insert in head	
280	8-32 Stud	$24.00
264	6-32 Stud	24.00
394	Rivet Type	15.00

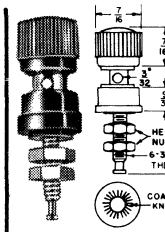
All Insulated Type



HEAD: As above.
BODY: As above.
WASHERS: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. With brass inserts.
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip or wire strand.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 3.0 mmfd
DESCR.: Mounts in 5/16" hole in panel with milled slot for locking, supplied with two hex nuts. **Std. Pkg. 100**

No.	Description	NET Per C
260	8-32 Stud	$27.00
259	6-32 Stud	27.00
	With brass nickel plated insert in head	
290	8-32 Stud	$33.00
281	6-32 Stud	33.00

NYLON BINDING POSTS Grounding Type



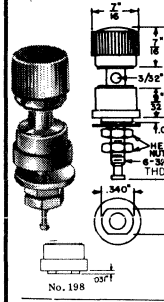
HEAD: CAPTIVE: MOLDED NYLON, per MIL-P-20693A. Red or Black with brass nickel plated insert.

SPECIFY COLOR

WASHER: Molded nylon with brass nickel plated insert.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage, when insulated from panel as recommended. CAPACITANCE 6.0 mmfd.
DESCR.: Supplied with 2 hex nuts. Grounds to panel but supplied with nylon washer for uniformity of height with No. 378 when used on same panel. Can be insulated from panel by using our No. 2150 shoulder washer. **Std. Pkg. 100**

No. 377 — **NET Per C $26.40**

ALL INSULATED



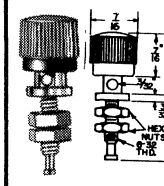
HEAD: CAPTIVE: MOLDED NYLON, per MIL-P-20693A. Red or Black with brass nickel plated insert.

SPECIFY COLOR

WASHER: Molded nylon with brass nickel plated insert.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.
DESCR.: Supplied with two hex nuts. Boss washer insulates post from chassis when used with bakelite washer supplied.

No.	Min. Panel Thickness	Std. Pkg. 100 NET Per C
378	1/16"	$26.40
198	1/32"	26.40

GROUNDING TYPE



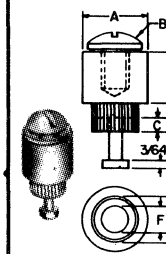
HEAD: CAPTIVE: MOLDED NYLON, per MIL-P-20693A. Red or Black with brass nickel plated insert.

SPECIFY COLOR

BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage, when insulated from panel as recommended. CAPACITANCE 7.0 mmfd.
DESCR.: Supplied with two hex nuts. Can be insulated from panel by using our No. 2150 shoulder washer and 2162 flat washer. **Std. Pkg. 100**

No. 379 — **NET Per C $21.00**

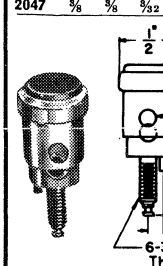
COMBINATION TERMINALS



MATERIAL: BRASS, alloy plate.
DESCR.: Combination Screw and Turret Terminal. Knurled shank prevents turning. Supplied complete with BHMS and Internal Tooth Lockwasher, unassembled. Std. Pkg. 25

No.	A	B	C	D	E	F	G	BHMS	Net Panel Per Thk C
2045	5/16	1/4	1/16	9/64	11/64	1/8	.220	6-32	5/32 $11 40
2046	11/32	5/16	5/64	11/64	13/64	9/64	.250	8-32	1/8 11.40
2047	5/8	3/8	5/32	15/64	13/64	5/32	.257	10-32	5/16 11.40

SPRING LOADED BINDING POSTS



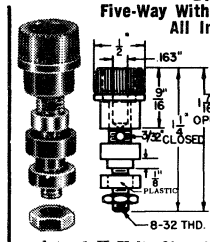
HEAD: CAPTIVE, Brass nickel plated.
CAP: STYRENE, per Fed. Spec. L-P406, Type I, Black.
BODY: Brass, nickel plated.
PIN: Nickel Silver.
ACCEPTS: Standard phone tip or wire in side hole and locks them in place on release of pressure on cap.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Side dowel pin locates and prevents post from turning when mounted in panel. Std. Pkg. 50

A	B	With Dowel Pin No.	With Dowel Pin NET Per C	Less Dowel Pin No.	Less Dowel Pin NET Per C
¼"	⅛"	2701	$56.00	2801	$30.00
⅜"	⅛"	2702	39.00	2802	33.00
½"	⅛"	2703	42.00	2803	36.00
¾"	⅛"	2704	45.00	2804	39.00
1"	⅜"	2705	48.00	2805	42.00
1¼"	⅜"	2706	51.00	2806	45.00
1½"	½"	2707	54.00	2807	48.00
2"	¾"	2708	57.00	2808	51.00

Same as above less threaded stud. Supplied with 6-32 internal mounting thread.

No.	Description	NET Per C
2709	With ⅛" lg. Dowel Pin	$33.00
2809	Without Dowel Pin	27.00

BINDING POST Five-Way With Molded Mounting Washers All Insulated Type



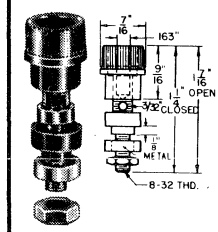
HEAD: CAPTIVE: MOLDED BUTYRATE, per Fed Spec. L-P349A, Type 3, Class MS. Red or Black.

SPECIFY COLOR

BODY: Brass, nickel plated.
WASHERS: MOLDED BUTYRATE, per Fed Spec. L-P349A, Type 3, Class MS.
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip or wire strand.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 5.0 mmfd.
DESCR.: Mounts in ¼" hole in panel. Supplied with one hex nut. **Std. Pkg. 100**

No. 386 — **NET Per C $24.00**

Grounding Type



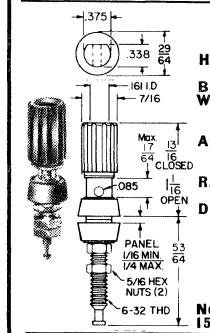
HEAD: CAPTIVE: MOLDED BUTYRATE, per Fed Spec. L-P349A, Type 3, Class MS. Red or Black.

SPECIFY COLOR

BODY: Brass, nickel plated.
WASHERS: MOLDED BUTYRATE, per Fed Spec. L-P349A, Type 3, Class MS. Mounting Washer — Molded plastic. Back-up Washer — Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Mounts in ¼" hole in panel. Grounded to panel by back-up washer. Supplied with one hex nut. **Std. Pkg. 100**

No. 387 — **NET Per C $24.00**

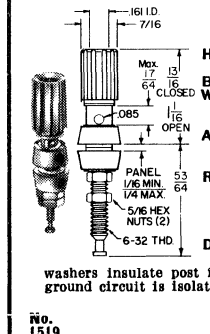
METAL BINDING POST Grounded



HEAD: CAPTIVE, Fluted Brass, Gold-plated.
BODY: Brass, Gold-plated.
WASHER: MOLDED BLACK NYLON, per MIL-P-20693A, with brass Gold-plated insert.
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip, or wire strand.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Fluted-head metal post to match our No. 1517. For use where direct ground connection is made to panel or chassis. Supplied with brass, gold-plated flat metal washer for grounding. **Std. Pkg. 100**

No. 1518 — **NET Per C $27.00**

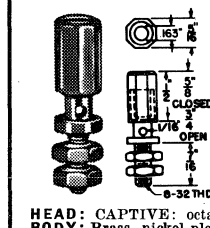
METAL BINDING POST Insulated



HEAD: CAPTIVE, Fluted Brass, Gold-plated.
BODY: Brass, Gold-plated.
WASHER: MOLDED BLACK NYLON, per MIL-P-20693A, with brass Gold-plated insert.
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip, or wire strand.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts, 60 cycle AC continuous working voltage. CAPACITANCE 3.0 mmfd.
DESCR.: Fluted-head metal post to match our No. 1517. Molded washers insulate post from panel for use where internal ground circuit is isolated from chassis or panel. **Std. Pkg. 100**

No. 1519 — **NET Per C $27.00**

BINDING POST - Metal Five-Way



HEAD: CAPTIVE: octagonal brass, nickel plated.
BODY: Brass, nickel plated.
ACCEPTS: Phone tip, spade lug, banana plug, alligator clip or wire strand.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage, when insulated from panel as recommended. CAPACITANCE 5.0 mmfd.
DESCR.: Can be completely insulated from panel by using our 2155 and 2163 fibre washers. Supplied with two hex nuts. **Std. Pkg. 100**

No.	Description	NET Per C
137	Standard	$21.00
208	Wrap-around	$25.00

Net

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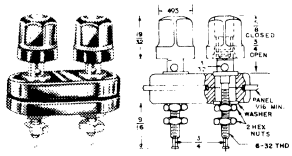
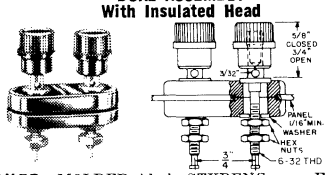
DUAL ASSEMBLY With Insulated Head



WASHER: MOLDED black STYRENE, per Fed. Spec. L-P416, Type I, cross slotted (+) to accept standard phone tips in post either forward or sideways.
BODY: Brass, nickel plated.
HEAD: Captive: MOLDED NYLON, per MIL-P-20693A, with molded in brass insert.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel.
DESCR.: Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Accommodates single or dual banana plugs. Supplied with 4 hex nuts, 2 flat washers.
Std. Pkg. 10

No.	Description	NET Per C
269BB	Two Black Heads	$66.00
269RR	Two Red Heads	66.00
269RB	One Red, One Black Head	66.00

DUAL ASSEMBLY With Insulated Head



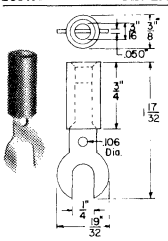
WASHER: MOLDED black STYRENE, per Fed. Spec. L-P416, Type I, cross slotted (+) to accept standard phone tips in post either forward or sideways.
BODY: Brass, nickel plated.
HEAD: Captive, MOLDED BUTYRATE, per Fed Spec. L-P349A, Type 3, Class MS. Red or Black.
SPECIFY COLOR
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel.
DESCR.: Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Accommodates single or dual banana plugs. Supplied with 4 hex nuts, 2 flat washers.
Std. Pkg. 10

No.	Description	NET Per C
224BB	Two Black Heads	$54.00
224RR	Two Red Heads	54.00
224RB	One Red, One Black Head	54.00

Same as above with brass nickel plated insert in head

263BB	Two Black Heads	66.00
263RR	Two Red Heads	66.00
263RB	One Red, One Black Head	66.00

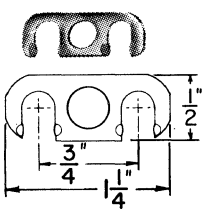
INSULATED SPADE LUG



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black.
SPECIFY COLOR
LUG: Brass, .050 thick, nickel plated.
RATING: 30 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: ¼" I.D. fits all standard Multi-purpose binding posts. Accepts up to #10 insulated wire, which solders in front hole.
Std. Pkg. 100

No.	NET Per C
400	$12.00

SHORTING LINK



MATERIAL: Spring brass, nickel plated, .033" thick.
RATING: 50 Amps AC continuous duty, for 10°C Temp. rise.
DESCR.: Snaps over contact barrels of dual binding posts with standard ¾" mounting centers for positive shorting. Snap-in feature allows use in any position without falling o". Rotates on either post for open-circuit use, retaining snap-in feature. Center hole allows easy insertion or removal.
Std. Pkg. 50

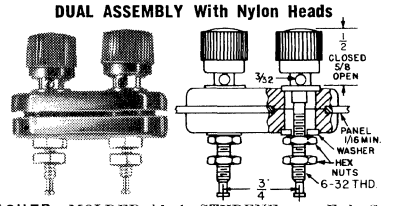
No.	NET Per C
327	$6.00

DUAL BANANA JACK ASSEMBLY

WASHER: MOLDED black STYRENE, per Fed. Spec. L-P416, Type I.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 4.0 mmfd. to panel.
DESCR.: Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Accommodates standard and dual banana plugs. Supplied with two hex nuts and brass tinned lugs.
Std. Pkg. 10

No.	NET Per C
439	$48.00

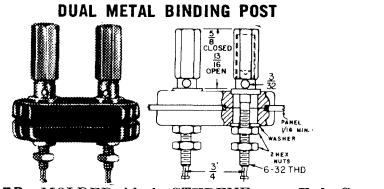
DUAL ASSEMBLY With Nylon Heads



WASHER: MOLDED black STYRENE, per Fed. Spec. L-P416, Type I, cross slotted (+) to accept standard phone tips in post either forward or sideways.
BODY: Brass, nickel plated.
HEAD: Captive: MOLDED NYLON, per MIL-P-20693A, with molded in brass insert.
RATING: 15 Amps AC for 10°C Temp. rise, continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel.
DESCR.: Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Supplied with 4 hex nuts, 2 flat washers.
Std. Pkg. 10

No.	Description	NET Per C
284BB	Two Black Heads	$60.00
284RR	Two Red Heads	60.00
284RB	One Red, One Black Head	60.00

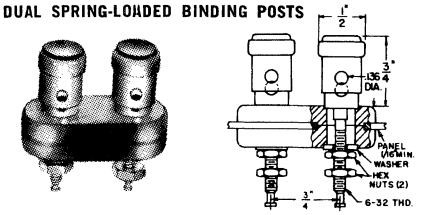
DUAL METAL BINDING POST



WASHER: MOLDED black STYRENE, per Fed. Spec. L-P416, Type I, cross slotted (+) to accept standard phone tips in post either forward or sideways.
BODY: Brass, nickel plated.
HEAD: Captive: Hex brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel.
DESCR.: Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Accommodates single or dual banana plugs. Supplied with 4 hex nuts, 2 flat washers.
Std. Pkg. 10

No.	NET Per C
209	$60.00

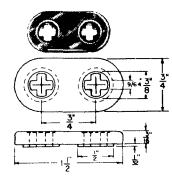
DUAL SPRING-LOADED BINDING POSTS



WASHER: MOLDED black STYRENE, per Fed Spec. L-P416, Type I, cross slotted (+) to accept standard phone tips or wire in post either forward or sideways. Supplied in colors on special order.
HEAD: Captive, brass, nickel plated.
CAP: Molded black styrene, per Fed. Spec. L-P416.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 5 KV 60 cycle AC continuous working voltage.
DESCR.: Accepts standard phone tips or wires in side holes, and locks them in place when pressure on cap is released.
Std. Pkg. 10

No.	NET Per C
2713	$75.00

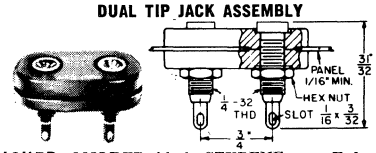
BLACK STYRENE INSULATOR



INSUL.: STYRENE, per Fed. Spec. L-P416, Type I.
RATING: 2 K Volts 60 cycle AC continuous working voltage.
DESCR.: Mounts in two 1/2" holes on 3/4" mounting centers in panels up to 1/4" thick.
Std. Pkg. 100

No.	NET per C
207	$6.00

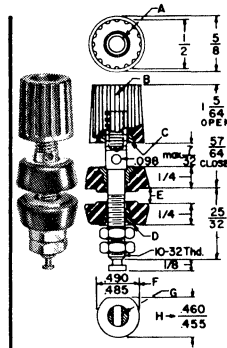
DUAL TIP JACK ASSEMBLY



WASHER: MOLDED black STYRENE, per Fed. Spec. L-P416, Type I.
BODY: Recessed, brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 4.0 mmfd. to panel.
DESCR.: Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Accommodates standard phone tip plugs. Supplied with two hex nuts.
Std. Pkg. 10

No.	NET Per C
488	$54.00

NYLON FLUTED HEAD MULTI-PURPOSE BINDING POST

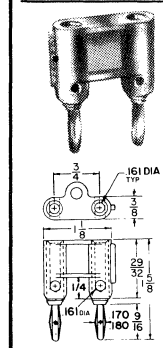


NOTES:
A Banana Plug Receptacle, .161 I.D.
B Head non-removable from stud.
C Molded-in Brass Bushing in Head.
D Molded-in Brass Bushing in Washers.
E For Panels 1/16" to 1/4" thick.
F Drill 1/2" hole for mounting washers.
G Wire Hole is at right angle to Flat on insulated Washers.
H Production Punch for keyed Slot for mounting Washers. (Sample Washer Sent on Request.)

RATING: 30 Amps AC for 10°C Temp. rise, continuous working voltage. CAPACITANCE 5.0 mmfd.
CURRENT: 30 amps safe current carrying capacity.
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip or wire strand.
DESCR.: MOLDED NYLON, per MIL-P-20693A, head and washer completely insulates post from panel. Mounts in ½" or keyed hole as indicated. Wrap around type—direct solder connection to stud. Metal parts brass.
COLORS: Red, Black, Yellow, Green, Blue, White. Specify color.
Std. Pkg. 100

No.	NET Per C
459	$36.00

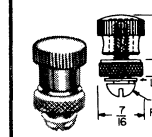
DUAL SHORTING PLUG



BODY: MOLDED BUTYRATE, per Fed. Spec. L-P416, Type I, Red, Black, Yellow, Green.
SPECIFY COLOR
PLUG: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 5 KV 60 cycle AC continuous working voltage.
DESCR.: Internally shorted plug mates with standard dual binding posts on ¾" centers. Used for grounding or shorting input and output connections. Can be stacked for additional current rating. Rear banana jack holes allow connection to shorted posts.
Std. Pkg. 25

No.	NET Per C
1516	$72.00

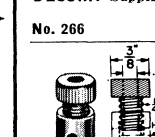
BINDING POST



HEAD: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG, with molded-in brass threaded insert, Red or Black. SPECIFY COLOR
WASHER: Brass, nickel plated
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied complete with screw and lockwasher.
Std. Pkg. 100

No.	NET Per C
265	$15.00

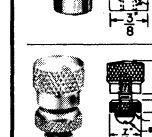
BINDING POST



HEAD: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG, with molded-in brass threaded insert, Red or Black. SPECIFY COLOR
WASHER: Brass, nickel plated
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied complete with screw and lockwasher.
Std. Pkg. 10

No.	NET Per C
266	$18.00

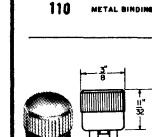
METAL BINDING POST



HEAD: BRASS, nickel plated.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Accepts standard phone tips or banana plugs.
Std. Pkg. 5

No.	NET Per C
136	$12.00

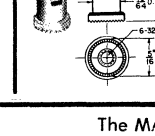
METAL BINDING POST



HEAD: BRASS, nickel plated.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied complete with screw and lockwasher.
Std. Pkg. 2

No.	NET Per C
110	$15.00

BINDING POST Compression Type



HEAD: Captive, brass nickel plated. Straight knurled for finger grip.
BODY: Brass, nickel plated.
ACCEPTS: Phone tips or wire (up to #10 gauge).
DESCR.: Head screws down to compress wire between body and sliding contact. Internally threaded for 6-32 mounting screw. Base knurled for positive grip to panel.
Std. Pkg. 5

No.	NET Per C
159	$21.00

HERMAN H. SMITH, INC.

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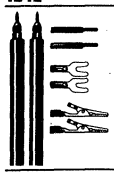
SOLDERLESS TIP TEST LEAD

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.
TIP: Solderless: Brass, nickel plated.
Std. Pkg. 6

No.	Meter End	NET Per Pr.
600	Phone Tips (No. 158)	$.87
601	Spade Lugs (No. 129)	.87
602	Alligator Clips (No. 300)	.93

PHONO NEEDLE TEST LEAD



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.
BODY: Brass, nickel plated.
NEEDLE: Steel, nickel plated. Std. Pkg. 6

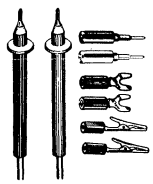
No.	Meter End	NET Per. Pr.
613	Phone Tips (No. 158)	$.87
614	Spade Lugs (No. 129)	.87
615	Alligator Clips (No. 300)	.93

ALL SOLDERLESS TEST LEAD

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.
PLUG: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG.
TIP: Solderless: Brass, nickel plated.
Std. Pkg. 6

No.	NET Per Pr.
603	$1.26

HIGH TENSION TEST LEAD



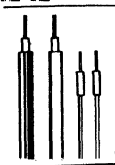
HANDLE: FIBRE, per MIL-F-1148A, Grade CH. Red and Black.
PLUG: FIBRE, per MIL-F-1148A, Grade CH. Red and Black.
TIP: Brass, nickel plated.
Std. Pkg. 1

No.	Meter End	NET Per Pr.
620	Ins. Phone Tips	$1.98
621	Ins. Spade Lugs	1.98
622	Ins. Alligator Clips	2.40

SHORT TIP TEST LEAD

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Grade CH. Red and Black.
PLUG: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG.
TIP: Brass, nickel plated. Std. Pkg. 6
No. 624 NET Per Pr. $1.05

SLIM HANDLE TEST LEAD



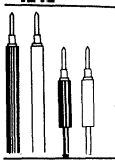
HANDLES: MACHINED BUTYRATE, per MIL-P10408A, Type 1, Class 2. Red and Black (#384).
TIPS: Prod: Brass, Nickel Plated. Meter End: Drawn Brass Nickel Plated (#158).

No.	NET Per Pr.
670	$.66

BANANA PLUG TEST LEAD

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.
PLUG: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG.
TIP: Solderless: Brass, nickel plated.
BODY: Brass, nickel plated.
SPRING: Four leaved phosphor bronze, nickel plated. Std. Pkg. 6
No. 628 $1.50

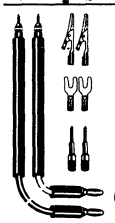
SUB MINIATURE TEST LEAD



HANDLE: FIBRE, per MIL-F-1148A, Grade CH. Red and Black.
PLUG: FIBRE, per MIL-F-1148A, Grade CH. Red and Black.
TIPS: Brass, nickel plated. Std. Pkg. 6

No.	NET Per Pr.
678	$1.26

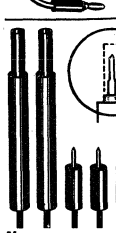
TEST LEAD KIT



DESCR.: Each kit is supplied with one pair of test leads. One end test prods, other end ins. banana plugs.
FITTINGS: Two each: Phone tips, alligator clips, spade lugs. Std. Pkg. 6

No.	Type	NET Ea.
610	Solderless Prods	$1.80
611	Needle Tip Prods	1.80

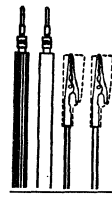
SHIELDED TEST LEADS



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.
TIP: Prod tip brass, nickel plated. Meter end, see type.
DESCR.: Plugs insert flush to insulated handle. Prods have retractable cover leaving no metal exposed. Eliminates possibility of shock or grounding. Supplied with either phone tip or banana plug meter ends. Other variations on special order. Std. Pkg. 6

No.	Type	NET Per Pr.
616	Phone Tip End (No. 203)	$1.80
617	Banana Plug End (No. 211)	1.86

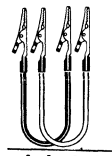
ALLIGATOR CLIP TEST LEAD



HANDLES: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black (#320).
TIPS: Solderless: Brass, nickel plated.
CLIPS: Steel, cadmium plated (No. 300).
BOOT: Vinyl Plastic. Red and Black (No. 331). Std. Pkg. 6

No.	NET Per Pr.
672	$1.26

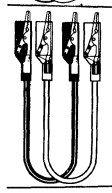
ALLIGATOR CLIP TEST LEAD



CLIPS: STEEL, cadmium plated. Std. Pkg. 6

No.	Wire	NET Per Pr.
604	12 inches	$.57
605	24 inches	.63
606	36 inches	.72
607	48 inches	.81

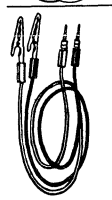
ALLIGATOR CLIP TEST LEAD
With Boots



CLIPS: Steel, Cadmium Plated (#300).
BOOTS: Vinyl plastic (#398) Red and Black. Std. Pkg. 6

No.	Wire	NET Per Pr.
629	12 inches	$.81
657	24 inches	.87
658	36 inches	.96
659	48 inches	1.02

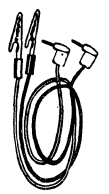
ALLIGATOR CLIP TEST LEAD



CLIP HANDLES: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS, Red and Black (#301)
PLUG HANDLES: MOLDED THERMOSETTING PLASTIC, per MIL-M-14 CFG. Red and Black (#200).
CLIPS: Steel, cadmium plated (No. 301).
TIPS: Solderless: Brass, nickel plated. Std. Pkg. 6

No.	NET Per Pr.
627	$.99

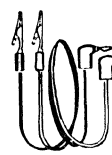
ALLIGATOR CLIP TEST LEAD



CLIP HANDLES: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS, Red and Black (#301)
CLIPS: Steel, cadmium plated (#301).
ELBOWS: MOLDED THERMOSETTING PLASTIC, per MIL-M-14 CFG. Red and Black (#235).
TIPS: Brass, nickel plated. Std. Pkg. 6

No.	NET Per Pr.
628	$1.20

ALLIGATOR CLIP TEST LEAD



CLIP HANDLES: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS, Red and Black (#301).
CLIPS: Steel, cadmium plated.
ELBOWS: MOLDED THERMOSETTING PLASTIC, per MIL-M-14 CFG. Red and Black (#255). Std. Pkg. 6

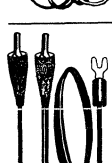
No.	NET Per Pr.
647	$1.20

ALLIGATOR CLIP TEST LEAD

CLIP HANDLES: MOLDED BUTYRATE, per Fed. Spec. L-349A, Type 3, Class MS, Red and Black (#301).
CLIPS: Steel, cadmium plated (#301).
LUGS: Steel, hot tinned (#129). Std. Pkg. 6

No.	NET Per C
649	$1.20

CROCODILE CLIP TEST LEAD



CLIP: STEEL, cadmium plated.
BOOT: Vinyl plastic. Red and Black.
HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black (#218).
LUG: Steel, Hot tinned (#129). Std. Pkg. 6

No.	NET Per Pr.
671	$1.20

CROCODILE CLIP TEST LEAD

CLIPS: Steel, Cadmium plated.
BOOTS: Vinyl plastic, Red and Black.
ELBOWS: MOLDED THERMOSETTING PLASTIC, per MIL-M-14 CFG. Red and Black (#255). Std. Pkg. 6

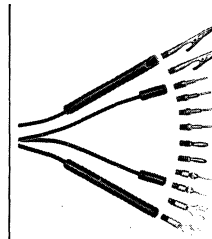
No.	NET Per Pr.
648	$1.14

CROCODILE CLIP TEST LEAD

CLIPS: STEEL, cadmium p'ated.
BOOT: Vinyl plastic. Red and Black.
ELBOW: MOLDED THERMOSETTING PLASTIC, per MIL-M-14 CFG. Red and Black (#235).
TIP: Brass, nickel plated. Std. Pkg. 6

No.	NET Per Pr.
675	$1.14

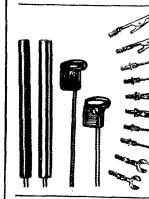
"UNIVERSAL TEST LEAD" Completely Interchangeable



Fifty Leads In One! One lead can make any required test lead combination. All parts adapt into prod handle or tip handle. Complete as shown. With plastic kit. Std. Pkg. 6

No.	NET Ea.
699	$2.40

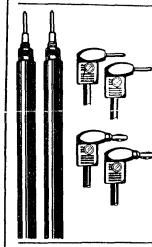
"UNIVERSAL TEST LEAD" Miniature Accessories Completely Interchangeable



Fifty Leads In One. One lead can make any required test lead combination. All parts adapt into prod handle or meter tip. Supplied with miniature tips, clips, banana plugs and spade tips. Complete as shown. With plastic kit. Std. Pkg. 6

No.	NET Ea.
679	$2.40

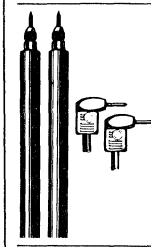
METER TEST LEADS Solderless Prod



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.
TIP: Solderless: Brass, nickel plated.
ELBOW: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black.
BODY: Brass, nickel plated.
SPRING: Four leaved, phosphor bronze, nickel plated. Std. Pkg. 6

No.	Type	NET Per Pr.
625	Phone Tip Meter Tip	$1.35
685	Banana Meter Tip	1.50

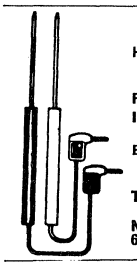
NEEDLE PROD



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.
NEEDLE: Steel, nickel plated.
ELBOW: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black.
BODY: Brass, nickel plated.
SPRING: Four leaved, phosphor bronze, nickel plated. Std. Pkg. 6

No.	Type	NET Per Pr.
626	Phone Tip Meter Tip	$1.35

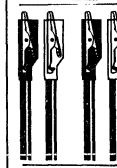
SLIM JIM TEST LEAD



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.
PROBE: Steel, cadmium plated.
INSULATOR: Vinyl spaghetti tubing, Red and Black.
ELBOWS: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black.
TIPS: Brass, nickel plated. Std. Pkg. 6

No.	NET Per Pr.
698	$1.14

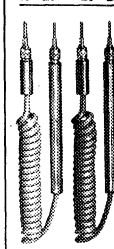
MIDGET ALLIGATOR CLIP TEST LEAD



CLIPS: STEEL, Cadmium plated (#338).
BOOTS: Vinyl plastic (#389) Red and Black. Std. Pkg. 6

No.	Wire	NET Per Pr.
716	12 inches	$.81
717	18 inches	.84
718	24 inches	.87
719	36 inches	.96

RETRACTILE ALL SOLDERLESS TEST LEAD



HANDLE: MOLDED BUTYRATE per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.
PLUG: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG.
TIP: Solderless brass, nickel plated.
WIRE #20 gauge, 41/36 strand, 4000 volt, nom. O.D. .165. Retracts to 12". Extends to 6 ft. Std. Pkg. 6

No.	NET Per Pr.
618	$2.95

TEST LEAD WIRE SPECIFICATIONS

All test leads on this page are supplied with extra-flexible rubber-covered kinkless wire, 50-in. long, unless specified otherwise. **#20 wire, 26/34 strands, 5000 Volts, .125" O.D.**

Net

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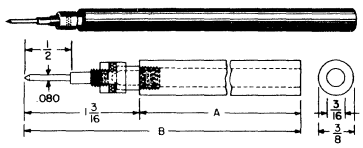
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

SOLDERLESS TEST PROD—Threaded Type



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

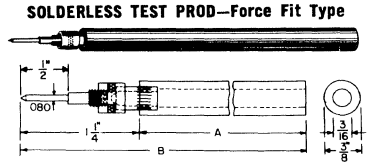
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless: Wire fits through handle and body of plug then wrapped around screw portion and tightened with knurled collar. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
302	4"	5¼"	$30.00
303	5½"	6¾"	33.00

SOLDERLESS TEST PROD—Force Fit Type



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

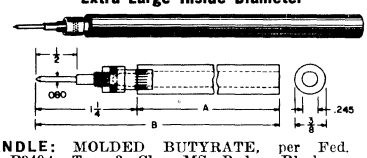
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless: Wire fits through handle and body of plug then wrapped around screw portion and tightened with knurled collar. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
382	4"	5¼"	$24.00
383	5½"	6¾"	27.00

SOLDERLESS TEST PROD—Force Fit Type Extra Large Inside Diameter



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

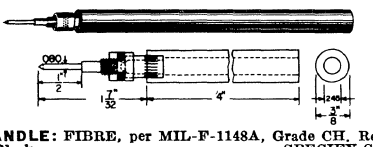
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless: Wire fits through handle and body of plug then wrapped around screw portion and tightened with knurled collar. Extra large I.D. for heavy duty wire. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
352	4"	5¼"	$24.00
353	5½"	6¾"	27.00

SOLDERLESS FIBRE TEST PROD Extra Large Inside Diameter



HANDLE: FIBRE, per MIL-F-1148A, Grade CH. Red or Black. SPECIFY CLOR

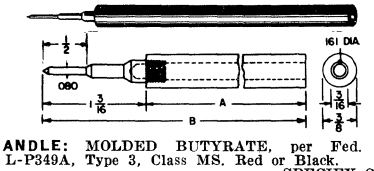
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless: Wire fits through handle and body of plug then wrapped around screw portion and tightened with knurled collar. Large I.D. permits use of heavy duty wire. **Std. Pkg. 25**

No.	NET Per C
323	$30.00

HEAVY DUTY TEST PROD—Threaded Type



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

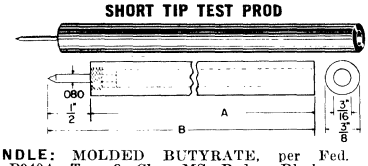
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Large diameter well enables soldering of heavy duty wire directly into plug. Fits standard phone tip jacks. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
319	4"	5¾6"	$30.00
329	5½"	6¹¹⁄16"	33.00

SHORT TIP TEST PROD



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

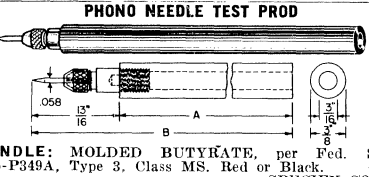
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Inserts flush with insulated handle, no metal exposed; eliminates possibility of shock or grounding. Fits standard phone tip jacks. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
363	4"	4½"	$21.00
364	5½"	6"	24.00

PHONO NEEDLE TEST PROD



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, cont. duty.

DESCR.: Removable chuck for easy replacement or broken needles. Needle pierces corrosion or plating for positive reading. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
317	4"	4¹³⁄16"	$30.00
318	5½"	6¹⁄16"	33.00

SOLDERLESS PHONO NEEDLE TEST PROD

HANDLE: XX BAKELITE, lacquered, per MIL-P-79, Form TR. Red or Black. SPECIFY COLOR

BODY: Brass, nickel plated.

NEEDLE: Phono needle, steel.

RATING: 12 Amps AC for 10°C Temp. rise, cont. duty.

DESCR.: Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to pellet for solderless connections. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
314	4"	5³²⁄32"	$75 00
313	6"	7³²⁄32"	81.00

SUB-MINIATURE TEST PROD

HANDLE: FIBRE, per MIL-F-1148A, Grade CH. Red or Black. SPECIFY CLOR

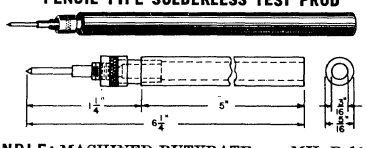
TIP: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, cont. duty.

DESCR.: Threaded for easy assembly. Ideally suited for checking all types sub-miniature equipment. **Std. Pkg. 25**

No.	NET Per C
322	$24.00

PENCIL TYPE SOLDERLESS TEST PROD



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class 2, Red or Black. SPECIFY COLOR

PLUG: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless: Wire fits through handle and body of plug, then wraps around screw portion and is tightened with knurled collar. **Std. Pkg. 25**

No.	Force Fit Type	NET Per C
384		$21.00

TEST PROBE HIGH VOLTAGE TYPE

HANDLE: FIBRE, per MIL-F-1148A, Grade CH. Red or Black. SPECIFY COLOR

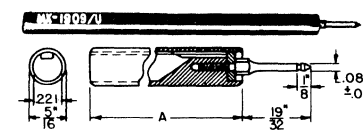
PROBE: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty. 15 KV 60 cycle AC continuous working voltage.

DESCR.: Heavy insulated fibre probe with flash-over shield for high-voltage applications. Large internal I.D. accommodates shielded cable or R.F. networks. Heavy duty removal tip. **Std. Pkg. 10**

No.	NET Ea.
630	$ .72
630D	Display of 12 8.64

NYLON HANDLE PRODS AND TIPS



HANDLE: MOLDED NYLON, per MIL-P20693A. Specify color as coded above.

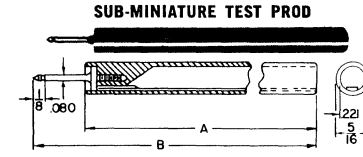
TIP: Brass, silver plated.

RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless. Made to meet Signal Corps Drawing SC-C-82761. **Std. Pkg. 25**

No.	Sig. Corps. Drawing and Part No.	Size ("A")	Color	NET Per C
176	MX-1906/U	1"	Red	$54.00
177	MX-1907/U	1"	Black	54.00
178	MX-1909/U	4"	Red	60.00
179	MX-1910/U	4"	Black	60.00

SUB-MINIATURE TEST PROD



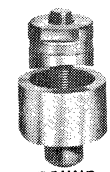
HANDLE: Molded Nylon, per MIL-P-20693A. Available in Red or Black. SPECIFY COLOR

TIP: Brass, Silver plated.

DESCR.: Solderless assembly. Ideal for use with sub miniature printed-circuit tip jacks. Sharp tip breaks flux or oxide coating on printed-circuit pattern for positive contact when used as prod. Grooved head of prod makes positive contact when laid across wires. Fits all standard .080" tip jacks. **Std. Pkg. 2**

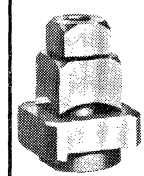
No.	Handle (A)	Overall (B)	NET Per
348	1"	1⁵⁄16"	$15.0
349	4"	4⁵⁄16"	30.0

RADIO CHASSIS PUNCHES



An assortment of round, square, "D", an Keyed holes can be punched by inserting i drilled pilot hole, and turning with wrench Finished hole is smooth, accurately size without burrs. Round punches are provide with center-line markings for enlargin holes larger than pilot hole. Individuall packed in re-usable plastic box for keepin punch sharp and rust-free.

ROUND

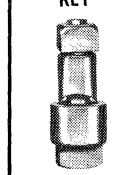


No.	Hole Size	NET Ea.	No.	Hole Size	NE Ea
3801	1/32"	$2.60	3814	1¼"	$3.(
3802	9/64"	2.60	3815	1⁵⁄16"	3.(
3803	5/32"	2.60	3816	1⅜"	3.(
3804	11/64"	2.60	3817	1½"	4.
3805	3/16"	2.60	3818	1⅝"	4.
3806	13/64"	2.60	3819	1¾"	5.
3807	7/32"	2.60	3820	1⅞"	6.
3808	15/64"	2.85	3821	2"	7.
3809	1"	2.85	3822	2¼"	11.
3810	1 1/16"	3.00	3823	2½"	7.
3811	1⅛"	3.00	3824	2⅝"	13.
3812	1 5/32"	3.00	3825	2¾"	18.
3813	1 3/16"	3.00	3826	3"	25.

SQUARE

3827	½"	4.85	3830	⅞"	6.
3828	5/8"	5.00	3831	1"	6.
3829	¾"	5.70			

"KEY"



3832	15/32"	5.00	3834	1 11/64"	5.
3833	15/16"	5.00	3835	1 11/64"	6

METER HOLE PUNCH

3836	2 25/32"	12.

"D"

"D" PUNCHES

3837	½x15/32"	4.50	3838	5/8x13/32"	4

BALL BEARING DRIVE SCREWS

Reduces friction and effort when punch round holes 11/16" and larger. For use o with Round punches listed above.

No.	Use with Nos.	NET
3839	3804 to 3808	$
3840	3809 to 3817	
3841	3818 to 3819	
3842	3820 to 3824 and 3836	
3843	3825 to 3826	

CHASSIS PUNCH SET

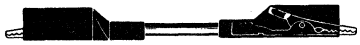
A set of 7 of the most of used chassis punch sizes electronic construction. Pac in a plastic platform box keep punches sharp and r free. Contains the follow sizes: ½", 5/8", ¾", 7/8", 1⅛", 1¼".

No.	NET
3844	$2

SMITH JUMPERS & PATCH CORDS

COLOR CODE SUFFIX
Add to Catalog Number as required
—101 WHITE —103 BLACK —105 BLUE
—102 RED —104 GREEN —107 YELLOW

STANDARD ALLIGATOR CLIP TO PIN PLUG



CLIPS: STEEL, Cadmium plated (No. 300)
BOOTS: Vinyl plastic (No. 331). Boot colors match wire.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D of .140". Available in Red, Black, Yellow, Green, Blue, and White.
SPECIFY COLOR
Std. Pkg. 10

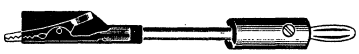
No.	Length	Net Ea.
1596-12	12 inches	$ .40
1596-24	24 inches	.43
1596-36	36 inches	.48
1596-48	48 inches	.51
1596-60	60 inches	.55

MINIATURE ALLIGATOR CLIP BOTH ENDS

CLIPS: STEEL, Cadmium plated (No. 338).
BOOTS: Vinyl plastic (No. 389). Boot colors match wire.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.
WIRE: General purpose, PVC insulated 1/64" wall, #18 AWG, 16/30 stranded conductor. Available in Red, Black, Yellow, Green, Blue, and White.
SPECIFY COLOR
Std. Pkg. 10

No.	Length	Net Ea.
1597-12	12 inches	$ .40
1597-18	18 inches	.42
1597-24	24 inches	.43
1597-36	36 inches	.48
1597-48	48 inches	.51
1597-60	60 inches	.55

STANDARD ALLIGATOR CLIP TO BANANA PLUG



HANDLES: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue White per LC-726-1. SPECIFY COLOR
PLUG: Hex brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
CLIPS: STEEL, Cadmium plated (No. 300) match wire.
BOOTS: Vinyl plastic (No. 331). Boot colors match wire.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140". **Std. Pkg. 10**

No.	Length	Net Ea.
1866-12	12 inches	$ .45
1866-24	24 inches	.50
1866-36	36 inches	.55
1866-48	48 inches	.60
1866-60	60 inches	.65

STANDARD ALLIGATOR CLIP TO SPADE LUG

HANDLES: MOLDED BUTYRATE, per Fed. Spec. L-P349A. Type 3, Class MS. Red, Black, SPECIFY COLOR
LUG: Brass, .050 thick, nickel plated.
CLIPS: STEEL, Cadmium plated (No. 300).
BOOTS: Vinyl plastic (No. 331). Boot colors match wire.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140". **Std. Pkg. 10**

No.	Length	Net Ea.
1867-12	12 inches	$ .35
1867-24	24 inches	.40
1867-36	36 inches	.45
1867-48	48 inches	.50
1867-60	60 inches	.55

SPADE LUG BOTH ENDS

HANDLES: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red, Black, SPECIFY COLOR
LUG: Brass, .050 thick, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140". **Std. Pkg. 10**

No.	Length	Net Ea.
1864-12	12 inches	$ .30
1864-24	24 inches	.35
1864-36	36 inches	.40
1864-48	48 inches	.45
1864-60	60 inches	.50

STANDARD ALLIGATOR CLIP TO PIN PLUG

HANDLES: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Brass, nickel plated.
CLIPS: STEEL, Cadmium plated (No. 300).
BOOTS: Vinyl plastic (No. 331). Boot colors match wire.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG insulated to an O.D. of .140". **Std. Pkg. 10**

No.	Length	Net Ea.
1865-12	12 inches	$ .40
1865-24	24 inches	.45
1865-36	36 inches	.50
1865-48	48 inches	.55
1865-60	60 inches	.60

PIN PLUG BOTH ENDS

HANDLES: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUGS: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of 140". **Std. Pkg. 10**

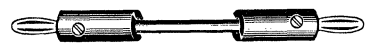
No.	Length	Net Ea.
1862-12	12 inches	$ .50
1862-24	24 inches	.55
1862-36	36 inches	.60
1862-48	48 inches	.65
1862-60	60 inches	.70

PIN PLUG TO BANANA PLUG

HANDLES: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUGS: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, insulated to an O.D. of .140". **Std. Pkg. 10**

No.	Length	Net Ea.
1868-12	12 inches	$ .50
1868-24	24 inches	.55
1868-36	36 inches	.60
1868-48	48 inches	.65
1868-60	60 inches	.70

BANANA PLUG BOTH ENDS



HANDLES: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUGS: Brass, nickel plated.
SPRINGS: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140". **Std. Pkg. 10**

No.	Length	Net Ea.
1863-12	12 inches	$ .60
1863-24	24 inches	.65
1863-36	36 inches	.70
1863-48	48 inches	.75
1863-60	60 inches	.80

"CROSS PATCH" BANANA PLUG CORD

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red, Black, Yellow, Green, Blue, White. SPECIFY COLOR
BODY: Brass, nickel plated.
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140".
DESCR.: Interconnects unlimited number of multiple circuits. Positive, lasting contact for all banana plugs on top and side. **Std. Pkg. 10**

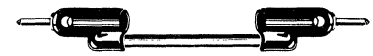
WITH PLUG SPRING 9/16" LONG

No.	Length ("A")	NET Per C
1510-8	8 inches	$90.00
1510-12	12 inches	90.00
1510-24	24 inches	90.00
1510-36	36 inches	102.00

WITH PLUG SPRING 13/32" LONG

1515-8	8 inches	90.00
1515-12	12 inches	90.00
1515-24	24 inches	96.00
1515-36	36 inches	102.00

"CROSS PATCH" PIN TIP CORD



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Red, Black, Yellow, Green, Blue, White. SPECIFY COLOR
BODY: Brass, nickel plated.
CONTACT: Beryllium copper.
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, insulated to an O.D. of .140"
DESCR.: Interconnects an unlimited number of multiple circuits. .080" tip plug and female jack in rear of body fits all standard phone tips and jacks. Side holes accept standard banana plugs. **Std.Pkg. 10**

No.	Length ("A")	NET Per C
1595-8	8 inches	$90.00
1595-12	12 inches	90.00
1595-24	24 inches	96.00
1595-36	36 inches	102.00

"CROSS PATCH" CORD

HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, ClassII. Red, Black, Yellow, Green assemblies. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Four-leaved, beryllium copper, nickel plated.
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140".
DESCR.: Provides a never ending banana plug receptacle, and can be used to interconnect an unlimited amount of multiple circuits. Accepts standard banana plug in side. **Std. Pkg. 10**

No.	Length ("A")	NET Per C
680	8 inches	$87.00
681	12 inches	93.00
682	24 inches	99.00
683	36 inches	105.00

FOR YOUR SPECIAL REQUIREMENTS IN

• PATCH CORDS • JUMPERS • TEST LEADS •

WHAT DO YOU NEED?

We are equipped to manufacture Patch Cords, Jumpers and Test Leads in every conceivable combination of terminal ends — plugs, jacks, clips and connectors — to be found in our entire line.

What are YOUR special requirements? We welcome your inquiry!

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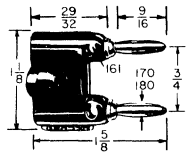
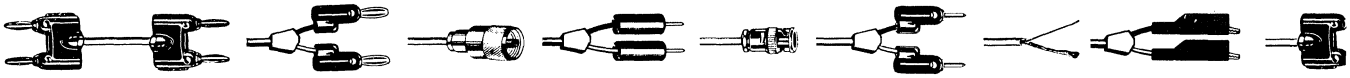
SMITH DOUBLE BANANA PATCH CORDS



CABLE TYPES AVAILABLE

	WIRE "A"	WIRE "B"	WIRE "C"
DESCRIPTION	2-cond. tw. 18 ga. 65/36 str.	Shielded audio cable	Coaxial Cable RG58C/U.
INSULATION	Vinyl	Polyethylene	Polyethylene
JACKET	Vinyl, Color Grey	Vinyl, Color Grey	Vinyl, Color Black
NOM. CAP.	30 mmf./ft.	25 mmf./ft.	28.5 mmf./ft.



A B C D E F G H I

A DOUBLE PLUG BOTH ENDS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
PLUG: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multiple circuits top and side. Each end terminates with molded double banana plug. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1530-12	1540-12	1580-12	12"	$2.15
1530-24	1540-24	1580-24	24"	2.28
1530-36	1540-36	1580-36	36"	2.40
1530-48	1540-48	1580-48	48"	2.52
1530-60	1540-60	1580-48	60"	2.65

B PLUG TO "CROSS-PATCH" BANANA PLUGS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
BODY: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
PLUG: Our No. 1510.
DESCR.: Mates with standard dual binding post having ¾" centers. Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multiple circuits on top and side. One end terminates with double banana plug, other end with "Cross-Patch" banana plugs, color coded Red and Black **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1523-12	1524-12	1525-12	12"	$2.15
1523-24	1524-24	1525-24	24"	2.28
1523-36	1524-36	1525-36	36"	2.40
1523-48	1524-'8	1525-48	48"	2.52
1523-60	1524-60	1525-60	60"	2.65

C DOUBLE PLUG TO PL 259

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
PLUG: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
CONN.: PL-259A.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on side. One end terminates with double banana plug, other end with PL-259A. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
———	1545-12	1585-12	12"	$2.88
———	1545-24	1585-24	24"	3.00
———	1545-36	1585-36	36"	3.12
———	1545-48	1585-48	48"	3.24
———	1545-60	1585-60	60"	3.36

D PLUG TO PHONE TIP

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
PLUG: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
PLUG: Our No. 203.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on side. One end terminates with double banana plug, other end with insulated tip plug, one red and one black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1533-12	1543-12	1583-12	12"	$1.55
1533-24	1543-24	1583-24	24"	1.68
1533-36	1543-36	1583-36	36"	1.80
1533-48	1543-48	1583-48	48"	1.92
1533-60	1543-60	1583-60	60"	2.05

E PLUG TO UG 88C/U

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
PLUG: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
CONN.: UG 88C/U.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on side. One end terminates with double banana plug, other end with UG 88 C/U. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
———	1544-12	1584-12	12"	$2.76
———	1544-24	1584-24	24"	2.88
———	1544-36	1584-36	36"	3.00
———	1544-48	1584-48	48"	3.12
———	1544-60	1584-60	60"	3.24

F PLUG TO "CROSS PATCH" PIN PLUGS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
BODY: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
PLUG: Our No. 1595.
DESCR.: Mates with standard dual binding post having ¾" centers. Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multiple circuits on top and side. One end terminates with double banana plug, other end with "Cross-Patch" Pin plugs with standard .080" tip and jack in rear, banana jack in side, color coded Red and Black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1592-12	1593-12	1594-12	12"	$2.15
1592-24	1593-24	1594-24	24"	2.28
1592-36	1593-36	1594-36	36"	2.40
1592-48	1593-48	1594-48	48"	2.52
1592-60	1593-60	1594-60	60"	2.65

G PLUG TO TINNED LEADS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
PLUG: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on the side. One end terminates with double banana plug, other end stripped and tinned. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1532-12	1542-12	1582-12	12"	$1.19
1532-24	1542-24	1582-24	24"	1.32
1532-36	1542-36	1582-36	36"	1.44
1532-48	1542-48	1582-48	48"	1.56
1532-60	1542-60	1582-60	60"	1.69

H DOUBLE PLUG TOALLIGATOR CLIPS

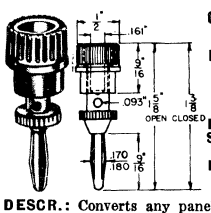
HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
PLUG: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
CLIP: Steel cadmium plated (No. 300).
INSUL.: Molded vinyl plastic (No. 331).
WIRE: As specified above.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on side. One end terminates with double banana plug, other end with insulated alligator clips, one red one black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1531-12	1541-12	1581-12	12"	$1.5
1531-24	1541-24	1581-24	24"	1.6
1531-36	1541-36	1581-36	36"	1.8
1531-48	1541-48	1581-48	48"	1.9
1531-60	1541-60	1581-60	60"	2.0

I DOUBLE JACK TO DOUBLE PLUG

HANDLE: MOLDED BUTYRATE, per Fed. Spec L-P349A, Type 3, Class MS. Color to match wire.
PLUG: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
DESCR.: Mates with standard dual binding post havin ¾" center. Polarity indicated by the word GROUN molded on side. Interconnects unlimited number multiple circuits top and side. One end terminates wit molded double banana plug, other end in double exten sion jack. **Std. Pkg.**

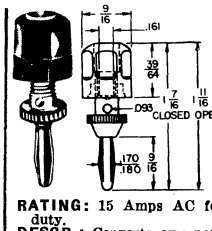
No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NE Ea
1881-12	1822-12	1883-12	12"	$2.
1881-24	1882-24	1883-24	24"	2.
1881-36	1882-36	1883-36	36"	2.
1881-48	1882-48	1883-48	48"	2.
1881-60	1882-60	1883-60	60"	2.



COMBINATION BINDING POST AND BANANA PLUG

HEAD: CAPTIVE. Molded Butyrate, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 AMPS AC for 10°C Temp. rise, continuous duty.
DESCR.: Converts any panel-mounted banana jack into a five-way binding post termination. Accepts phone tip, spade lug, banana plug, alligator clip, or solid or stranded wire. **Std. Pkg. 25**

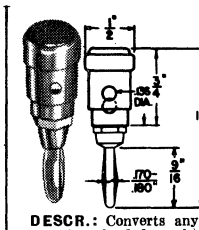
No. 233 — **NET Per C $27.00**



COMBINATION NYLON BINDING POST AND BANANA PLUG

HEAD: CAPTIVE, Molded Nylon, per MIL-P-20693A. Available in Red, Black, Yellow, Green, Blue, White. Molded-in brass nickel plated insert. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Converts any panel-mounted banana jack into a nylon five-way binding post termination. Accepts phone tips, spade lugs, banana plug, alligator clips, or solid or stranded wires. **Std. Pkg. 25**

No. 234 — **NET Per C $27.00**



COMBINATION PUSH PO AND BANANA PLUG

HEAD: Captive, brass nic plated.
CAP: Molded Styrene, Fed. Spec. L-P416, T Black.
BODY: Brass, nickel plat
SPRING: Four-leaved ph phor bronze, nickel plat
RATING: 15 Amps AC 10°C Temp. rise, conti ous duty.
DESCR.: Converts any panel-mounted banana jack int spring loaded push-post. Accepts standard phone solid or stranded wire, and locks them in place on rele of pressure on cap. **Std. Pkg.**

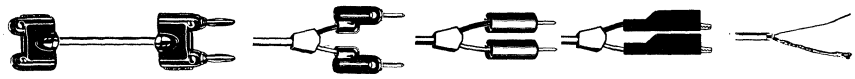
No. 2714 — **NET Pe $42**

FOR YOUR SPECIAL REQUIREMENTS IN PATCH CORDS • JUMPERS • TEST LEADS consult **HERMAN H. SMITH, IN Brooklyn 10, N. Y.**

SMITH PATCH CORDS

CABLE TYPES AVAILABLE

	WIRE "A"	WIRE "B"	WIRE "C"
DESCRIPTION	2-cond. tw. 18 ga. 65/36 str.	Shielded audio cable	Coaxial Cable RG58C*U.
INSULATION	Vinyl	Polyethylene	Polyethylene
JACKET	Vinyl, Color Grey	Vinyl, Color Grey	Vinyl, Color Black
NOM. CAP.	30 mmf./ft.	25 mmf./ft.	28.5 mmf./ft.



A B C D E

A DOUBLE JACK TO "CROSS-PATCH" PLUGS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
BODY: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
PLUG: Our No. 1510. Red and black.
DESCR.: Mates with standard dual banana plugs having ¾" centers. Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multiple circuits on top and side. One end terminates with double banana jacks, other end with "Cross-patch" banana plugs, color coded Red and Black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1895-12	1896-12	1897-12	12"	$2.15
1895-24	1896-24	1897-24	24"	2.28
1895-36	1896-36	1897-36	36"	2.40
1895-48	1896-48	1897-48	48"	2.52
1895-60	1896-60	1897-60	60"	2.65

B DOUBLE JACK TO "CROSS-PATCH" PIN PLUGS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
BODY: Brass, nickel plated.
WIRE: As specified above.
PLUG: Our No. 1595. Red and black.
DESCR.: Mates with standard dual banana plugs having ¾" centers. Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multiple circuits on top and side. One end terminates with double banana jacks, other end with "Cross-Patch" Pin plugs with standard .080" tip and jack in rear, banana jack in side, color coded Red and Black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1861-12	1898-12	1899-12	12"	$2.15
1861-24	1898-24	1899-24	24"	2.28
1861-36	1898-36	1899-36	36"	2.40
1861-48	1898-48	1899-48	48"	2.52
1861-60	1898-60	1899-60	60"	2.65

C DOUBLE JACK TO PHONE TIP

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
PLUG: Brass, nickel plated.
WIRE: As specified above.
PLUG: Our No. 203. Red and black.
DESCR.: Mates with standard dual banana plugs by the word GROUND molded on side. One end terminates with double banana jacks, other end with insulated tip plug, one red and one black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1892-12	1893-12	1894-12	12"	$1.55
1892-24	1893-24	1894-24	24"	1.68
1892-36	1893-36	1894-36	36"	1.80
1892-48	1893-48	1894-48	48"	1.92
1892-60	1893-60	1894-60	60"	2.05

D DOUBLE JACK TO ALLIGATOR CLIPS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
JACKS: Brass, nickel plated.
CLIP: Steel cadmium plated (No. 300).
INSUL.: Molded vinyl plastic (No. 331).
WIRE: As specified above.
DESCR.: Mates with standard dual banana plugs having ¾" center. Polarity indicated by the word GROUND molded o nside. One end terminates with double banana jacks, other end with insulated alligator clips, one red, one black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1889-12	1890-12	1891-12	12"	$1.55
1889-24	1890-24	1891-24	24"	1.68
1889-36	1890-36	1891-36	36"	1.80
1889-48	1890-48	1891-48	48"	1.92
1889-60	1890-60	1891-60	60"	2.05

E DOUBLE JACK TO STRIPPED & TINNED LEADS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
PLUG: Brass, nickel plated.
WIRE: As specifier above.
DESCR.: Mates with standard dual plugs having ¾" center. Polarity indicated by the word GROUND molded on side. One end terminates in double extension jack, other end in stripped and tinned leads. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1886-12	1887-12	1888-12	12"	$1.19
1886-24	1887-24	1888-24	24"	1.32
1886-36	1887-36	1888-36	36"	1.44
1886-48	1887-48	1888-48	48"	1.56
1886-60	1887-60	188-60	60"	1.69

UHF COAXIAL CABLE CONNECTORS
Solder Type

U.H.F. Connectors for use with RG-8, 9, 10, 11, 12, 63, 65/U coaxial cables. **Std. Pkg. 5**

1713

STRAIGHT COAXIAL CONNECTOR
Brass. Silver-plated shell.

No.	Type	NET Per C
1713	PL-259	$67.50

1715

CHASSIS TYPE COAXIAL RECEPTACLE

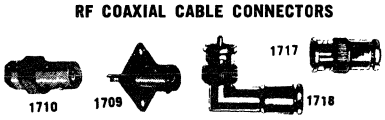
1715	SO-239	$67.50

1716

COAXIAL JUNCTION
For joining separate cable lengths.

1716	PL-258	$121.50

RF COAXIAL CABLE CONNECTORS


1710 1709 1717 1718

Small, weatherproof low-voltage connectors with bayonet action for quick-disconnect. Constant impedance, 50 ohms. Brass, silver-plated. For RG-55 and 58/U Cables.
Std. Pkg. 5

No.	Type	Description	Each
1717	UG-88C/U	Plug	$.81
1718	UG-913/U	90° Plug	2.70
1709	UG-290AA/U	Receptacle	1.08
1710	UG-89B/U	Jack	1.35

SOLDERLESS COAXIAL CABLE CONNECTORS
For RG-8/U, RG-11/U, RG-13/U and RG-59/U Cables

Designed to use the inner conductor of the coaxial cable for the male pin. Can be wrench-tightened for positive contact. Brass, silver plated. **Std. Pkg. 25**

Crimp Type

MALE CONNECTORS

1652

Both types mate with female chassis fitting #1660 and Female Coupling #1680. Designed for quick and easy assembly using #1752 Crimping Tool. Withstands 350-lb pull when assembled. Packaged individually, with instruction sheet. **Std. Pkg. 25**

1656

No.	For Cables	NET Ea.
1652	RG-59/U	$ .48
1652D	Display of 24	11.52
1656	RG-6/U	.63
1656D	Display of 24	15.12
1752	Crimping Tool	3.00

FEMALE CHASSIS FITTING

Mates with #1652 connector. Mounts in 5/16" hole. Threaded stem is 3/8".

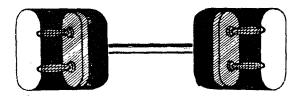
No.		NET Ea.
1660	Individually Packaged	$ .48
1660D	Display of 24	11.52

FEMALE COUPLING

Accepts two #1680, 1652 or 1656 connectors.

No.		NET Ea.
1680	Individually Packaged	$ .60
1680D	Display of 24	14.40

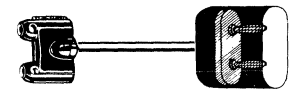
SHIELDED DOUBLE PLUG TO SHIELDED DOUBLE PLUG



SHIELD: Aluminum, black anodized.
BODY: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS.
PLUG: Brass,nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
DESCR.: Mates with standard dual binding post having ¾" center. Both ends terminate with double shielded banana plugs. **Std. Pkg. 10**

No. RG-58C/U Wire	No. RG-11/U Wire	Length	NET Ea.
1876-12	1877-12	12 inches	$7.50
1876-24	1877-24	24 inches	7.62
1876-36	1877-36	36 inches	7.75
1876-48	1877-48	48 inches	7.88
1876-60	1877-60	60 inches	8.00

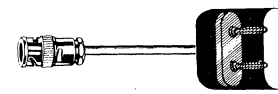
DOUBLE JACK TO SHIELDED DOUBLE PLUG



SHIELD: Aluminum, black anodized.
HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.
PLUG: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
DESCR.: Mates with standard dual binding pos having ¾" center. Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multiple circuits top and side. One end terminates with molded double shielded banana plug, other end in double extension jack. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
———	1884-12	1885-12	12"	$5.15
———	1884-24	1885-24	24"	5.28
———	1884-36	1885-36	36"	5.40
———	1884-48	1885-48	48"	5.52
———	1884-60	1885-60	60"	5.65

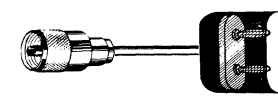
BNEC MALE TO SHIELDED DOUBLE PLUG



BODY: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Assemblies.
SHIELD: Aluminum, black anodized.
PLUG: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: RG-58C/U.
CONN.: UG 88C/U. (BNC Series)
DESCR.: Mates with standard dual binding post having ¾" center. One end terminates with double shielded banana plug, other end with UG 88 C/U. **Std. Pkg. 10**

No.	Length	NET Ea.
1873-12	12 inches	$6.00
1873-24	24 inches	6.12
1873-36	36 inches	6.25
1873-48	48 inches	6.38
1873-60	60 inches	6.50

UHF MALE TO SHIELDED DOUBLE PLUG



SHIELD: Aluminum, black anodized.
BODY: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS.
CONN.: PL-259 (UHF Series).
PLUG: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
DESCR.: Mates with standard dual binding post having ¾" center. One end terminates with double shielded banana plug, other end in UHF Conn. **Std. Pkg. 10**

No. Wire RG-58C/U	No. Wire RG-11/U	Length	Ea. NET
1874-12	1875-12	12 inches	$6.00
1874-24	1875-24	24 inches	6.12
1874-36	1875-36	36 inches	6.25
1874-48	1874-48	48 inches	6.38
1874-60	1875-60	60 inches	6.50

Net
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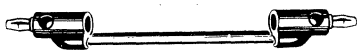
SMITH JUMPERS & PATCH CORDS

COLOR CODE SUFFIX
Add to Catalog Number as required

— 101 WHITE	— 106 ORANGE
— 102 RED	— 107 YELLOW
— 103 BLACK	— 108 BROWN
— 104 GREEN	— 112 PURPLE
— 105 BLUE	— 113 GREY

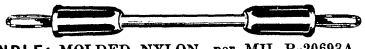
SUB-MINIATURE "CROSS PATCH" CORD



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. SPECIFY COLOR
BODY: Brass, silver plated.
SPRING: Four-leaved beryllium copper, silver plated.
WIRE: General purpose, PVC insulated, 1/64″ wall. #18 AWG, 41/34 stranded conductor. Voltage rating up to 1 KV RMS.
DESCR.: Interconnects unlimited number of multiple circuits. Positive, lasting contact for banana plugs on top and side. Special lengths on request. Std. Pkg. 10

No.	Length ("A")	NET Per C
1590-6	6 inches	$60.00
1590-12	12 inches	69.00
1590-18	18 inches	75.00
1590-24	24 inches	84.00

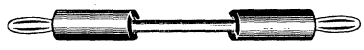
NYLON HANDLE PATCH CORD



HANDLE: MOLDED NYLON, per MIL-P-20693A. Red, Black, Yellow or Green. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140″.
DESCR.: Uses our standard No. 478 banana plug to interconnect circuits. Fits standard banana jacks. Std. Pkg. 10

No.	Length	NET Per C
1520-8	8 inches	$54.00
1520-12	12 inches	60.00
1520-24	24 inches	66.00
1520-36	36 inches	72.00

PATCH CORD



HANDLE: MOLDED THERMOSETTING plastic. Red and Black per MIL-M-14 CFG. Yellow, Green and LC-721-1. SPECIFY COLOR
BODY: Brass, nickel plated.
SRING: Four-leaved beryllium copper, nickel plated.
WIRE: 10 KV PVC flexible wire ,65 strands #36 copper, insulated to an O.D. of .140″.
DESCR.: Uses our standard No. 271 banana plug to interconnect circuits. Fits standard banana jacks. Std. Pkg. 10

No.	Length ("A")	NET Per C
690	8 inches	$48.00
691	12 inches	54.00
692	24 inches	60.00
693	36 inches	66.00

HIGH-CURRENT PATCH CORD

HANDLE: MACHINED PHENOLIC plastic, per MIL-P-77B, Type 1. Red or Black assemblies SPECIFY COLOR
BODY: Brass, nickle plated.
SPRINGS: Six-leaved, phosphor bronze, nickel plated.
WIRE: #10, PVC insulated stranded wire, 105 strands #30 tinned copper wire, insulated to an O.D of .215″.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Tapered recessed plug so that no metal portions are exposed when plugged into mating jacks. Std. Pkg. 10

No.	Length	NET Per C
1591-8	8 inches	$135.00
1591-12	12 inches	135.00
1591-24	24 inches	140.00
1591-36	36 inches	145.00

CABLE TYPES AVAILABLE

	WIRE "A"	WIRE "B"	WIRE "C"
DESCRIPTION	2-cond. tw. 18 ga. 65/36 str.	Shielded audio cable	Coaxial Cable RG58C/U.
INSULATION	Vinyl	Polyethylene	Polyethylene
JACKET	Vinyl, Color Grey	Vinyl, Color Grey	Vinyl, Color Black
NOM. CAP.	30 mmf./ft.	25 mmf./ft.	28.5 mmf./ft.

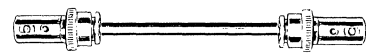
BNC MALE BOTH ENDS

CONN.: UG 88 C/U. (BNC Series)

Std. Pkg. 10

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
———	1539-12	1589-12	12″	$4.00
———	1539-24	1589-24	24″	4.20
———	1539-36	1589-36	36″	4.32
———	1539-48	1589-48	48″	4.34
———	1539-60	1589-60	60″	4.55

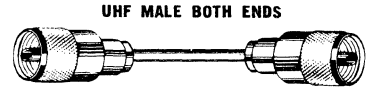
BNC FEMALE BOTH ENDS



CONN.: UG-89B/U. (BNC Series)
WIRE: RG-58C/U.

No.	Length	NET Ea.
1869-12	12 inches	$3.75
1869-24	24 inches	3.85
1869-36	36 inches	4.00
1869-48	48 inches	4.15
1869-60	60 inches	4.25

UHF MALE BOTH ENDS



CONN.: PL-259. (UHF Series) Std. Pkg. 10

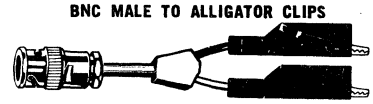
No. RG-58C/U Wire	No. RG-11/U Wire	Length	NET Ea.
1871-12	1870-12	12 inches	$4.50
1871-24	1870-24	24 inches	4.62
1871-36	1870-36	36 inches	4.75
1871-48	1870-48	48 inches	4.88
1871-60	1870-60	60 inches	5.00

BNC FEMALE TO BNC MALE

CONN.: UG-89B/U. (BNC Series)
UG-89B/U. (BNC Series)
WIRE: RG-58C/U.

No.	Length	NET Ea.
1878-12	12 inches	$4.00
1878-24	24 inches	4.20
1878-36	36 inches	4.20
1878-48	48 inches	4.34
1878-60	60 inches	4.55

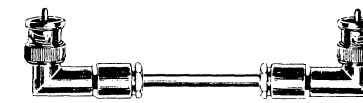
BNC MALE TO ALLIGATOR CLIPS



CONN.: UG-88C/U. (BNC Series)
CLIPS: Steel Cad. Plated (#300).
INSUL.: Molded Vinyl (#331).
WIRE: As specified above.
DESCR.: For testing of wave patterns etc. One end termination with UG-88C/U other end with insulated alligator clips, one red, one black. Std. Pkg. 10

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
———	1537-12	1587-12	12″	$3.75
———	1537-24	1587-24	24″	3.96
———	1537-36	1587-36	36″	4.08
———	1537-48	1587-48	48″	4.20
———	1437-60	1587-60	60″	4.30

RIGHT ANGLE BNC TO RIGHT ANGLE BNC



CONN.: UC-913/U. (BNC Series)
WIRE: As specified above.
DESCR.: Used for patching and jumping. Each end terminates with UG-913/U.

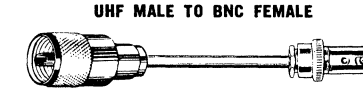
No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
———	1538-12	1588-12	12″	$5.88
———	1538-24	1588-24	24″	6.00
———	1538-36	1588-36	36″	6.12
———	1538-48	1588-48	48″	6.24
———	1538-60	1588-60	60″	6.35

UHF MALE TO BNC MALE

CONN.: UG-88C/U. (BNC Series)
PL-259. (UHF Series)
WIRE: RG-58C/U.

No.	Length	NET Ea.
1879-12	12 inches	$4.00
1879-24	24 inches	4.20
1879-36	36 inches	4.32
1879-48	48 inches	4.34
1879-60	60 inches	4.55

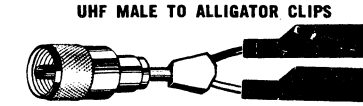
UHF MALE TO BNC FEMALE



CONN.: UG-89B/U. (BNC Series)
PL-259. (UHF Series)
WIRE: RG-58C/U.

No.	Length	NET Ea
1880-12	12 inches	$4.2(
1880-24	24 inches	4.4(
1880-36	36 inches	4.5:
1880-48	48 inches	4.5·
1880-60	60 inches	4.7:

UHF MALE TO ALLIGATOR CLIPS



CONN.: PL-259. (UHF Series)
CLIPS: Steel Cad. Plated (#300).
INSUL.: Molded Vinyl (#331).
WIRE: As specified above.
DESCR.: For testing of wave patterns, etc. One end terminates with PL-259, other end with insulated alligator clips one red, one black. Std. Pkg. 1

No. BG-11/U Wire	No. Wire "B"	No. Wire "C"	Lgth.	NE E:
1872-12	1536-12	1586-12	12″	$3.7
1872-24	1536-24	1586-24	24″	3.9
1872-36	1536-36	1586-36	36″	4.0
1872-48	1536-48	1586-48	48″	4.2
1872-60	1536-60	1586-60	60″	4.3

SPECIAL REQUIREMENTS?

We are equipped to manufacture Probes, Test Leads, Jumpers, Patch Cords, etc., for NON-STANDARD applications. Our nationwide network of technically qualified sales-engineers is at your service, eager to help you with your special requirements and production runs.

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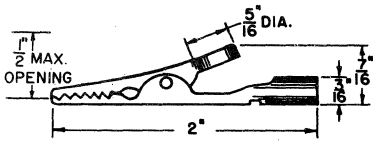
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

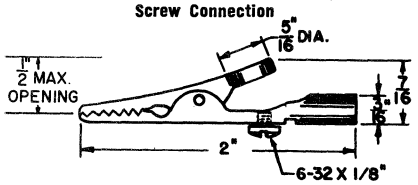
ALLIGATOR CLIPS
Solder Connection



RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: ½" jaw opening. Jaws match accurately and grip securely, accepts standard banana plugs in rear.
Std. Pkg. 100

No.	Type	NET Per C 10	100
300	Steel, Cad. Pl.	$5.00	$4.40
380	Solid Copper	7.50	6.50
332	Brass N.P.	10.40	8.40

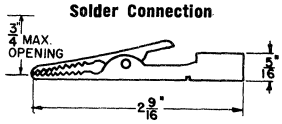
Screw Connection



RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: ½" jaw opening. Supplied with screw for solderless connection when required. Jaws match accurately and grip securely. Accepts standard banana plugs in rear.
Std. Pkg. 100

No.	Type	NET Per C 10	100
350	Steel, Cad. Pl.	$5.80	$4.80
360	Solid Copper	8.40	7.20
339	Brass N.P.	13.00	9.90

JUMBO ALLIGATOR CLIP
Solder Connection



RATING: 10 Amps AC for 10°C Temp. rise, continuous duty, #392.
15 Amps AC for 10°C Temp. rise, continuous duty, #396.
DESCR.: ¾" jaw opening. Jaws match accurately. For heavy terminal use.
Std. Pkg. 100

No.	Type	NET Per C
392	Steel. Cad. Pl.	$15.00
396	Solid Copper	18.00

Screw Connection

RATING: STEEL: 10 Amps AC for 10°C Temp. rise, continuous duty.
COPPER: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: ¾" jaw opening. Jaws match accurately. Supplied with screw for solderless connection. For heavy terminal use.
Std. Pkg. 100

No.	Type	NET Per C
368	Steel, Cad. Pl.	$18.00
356	Solid Copper	21.00

ALLIGATOR CLIP BOOTS

MATERIAL: MOLDED VINYL PLASTIC, Red, Black, Yellow, Green, Blue or White. SPECIFY COLOR
RATING: 1 K Volts 60 cycle AC continuous working voltage.
DESCR.: Fully insulated clip while allowing maximum jaw opening. No. 331 for use on standard size alligator clips such as our No. 300. No. 389 for use on miniature alligator clips, such as our No. 338.
Std. Pkg. 100

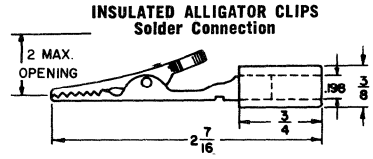
No.	Description	NET Per C 10	100
389	Miniature	$4.80	$4.00
331	Standard	4.80	4.00

MIDGET ALLIGATOR CLIP

DESCR.: 5/16" jaw opening, jaws match accurately and grip securely. Unique SMITH spring construction. Solder connection and ears for crimping.
Std. Pkg. 100

No.	Type	NET Ea. Ea.	10
38	Steel, Cad. Pl.	$.07	$.044
37	Copper	.07	.044

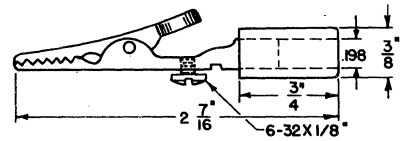
INSULATED ALLIGATOR CLIPS
Solder Connection



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black.
SPECIFY COLOR
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: ½" jaw opening. Jaws match accurately and grip securely, accepts standard banana plugs in rear.
Std. Pkg. 100

No.	Type	NET Per C 10	100
301	Steel, Cad. Pl.	$8.50	$7.50
381	Solid Copper	10.50	9.00
354	Brass N.P.	15.00	11.40

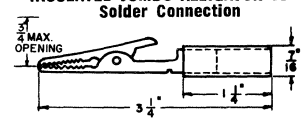
Screw Connection



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black.
SPECIFY COLOR
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: ½" jaw opening. Supplied with screw for solderless connection when required. Jaws match accurately and grip securely. Accepts standard banana plugs in rear.
Std. Pkg. 100

No.	Type	NET Per C 10	100
351	Steel, Cad. Pl.	$9.50	$8.00
361	Solid Copper	11.00	9.60
362	Brass N.P.	19.00	12.40

INSULATED JUMBO ALLIGATOR CLIPS
Solder Connection

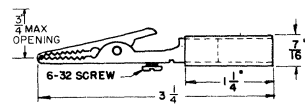


INSULATED

HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red or Black. SPECIFY COLOR
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty, #393.
15 Amps AC for 10°C Temp. rise, continuous duty, #397.
DESCR.: ¾" jaw opening. Jaws match accurately. For heavy terminal use.
Std. Pkg. 100

No.	Type	NET Per C
393	Steel, Cad. Pl.	$21.00
397	Solid Copper	24.00

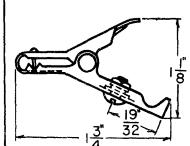
Screw Connection



INSULATED

HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red or Black. SPECIFY COLOR
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty, #369.
15 Amps AC for 10°C Temp. rise, continuous duty, #357.
DESCR.: ¾" jaw opening. Jaws match accurately. Supplied with screw for solderless connection. For heavy terminal use.
Std. Pkg. 100

No.	Type	NET Per C
369	Steel, Cad. Pl.	$24.00
357	Solid Copper	27.00



TL137 TEST CLIP
Signal Corps Approved

RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Steel, nickel plated, made in accordance with government specs, ¾" jaw opening. Needle for piercing corrosion.
Std. Pkg. 25

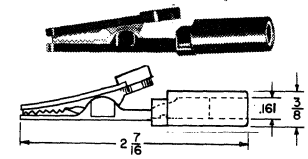
No.	NET Per C
315	$42.00

BATTERY TEST CLIP

MATERIAL: Steel, electro plated. Std. Pkg. 100

No.	Spread	Lgth.	Rating	Spring	100	10
365	½"	1½"	5 amp	7 lbs	4.20	.05
366	9/16"	2"	10 amp	10 lbs	6.00	.07

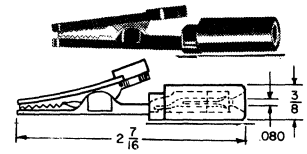
All Insulated Clip



INSULA.: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black.
SPECIFY COLOR
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage.
DESCR.: All metal parts fully insulated with molded plastic. Insures against shock or grounding. Solder type connection.
Std. Pkg. 25

No.	NET Per C
337	$24.00

ALL INSULATED ADAPTERS

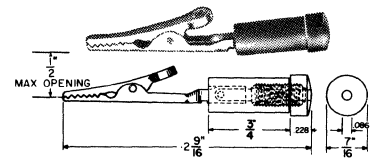


Phone Tip to Alligator Clip

INSULA.: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black.
SPECIFY COLOR
CLIP: Steel, cadmium plated.
BODY: Brass.
CONTACT: Phosphor bronze.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: All metal parts fully insulated with molded plastic. Insures against shock or grounding. Jack in rear permits adapting standard phone tip plugs to alligator clips.
Std. Pkg. 25

No.	NET Per C
336	$36.00

ALLIGATOR CLIP ADAPTERS

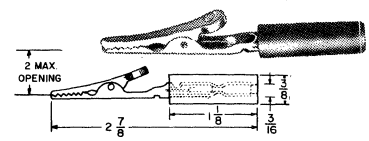


Phone Tip to Alligator Clip

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black.
SPECIFY COLOR
CAP: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG.
CLIP: Steel, cadmium plated or solid copper.
BODY: Brass.
SPRING: Phosphor bronze.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Jack in rear permits adapting standard phone tip plugs to alligator clips.
Std. Pkg. 25

No.	Description	NET Per C
304	Steel Clip	$33.00
334	Copper Clip	36.00

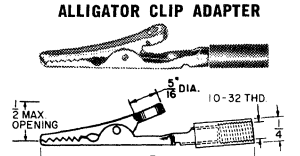
Phone Tip or Banana Plug to Alligator Clip



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black.
SPECIFY COLOR
CLIP: Steel, cadmium plated or solid copper.
BODY: Brass.
SPRING: Phosphor bronze.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Combination jack in rear, permits the adapting standard phone tip plug or banana plugs to alligator clip.
Std. Pkg. 25

No.	Description	NET Per C
305	Steep Clip	$39.00
335	Copper Clip	42.00

ALLIGATOR CLIP ADAPTER



BUSHING: Brass, nickel plated.
CLIP: Steel cadmium plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Adapts standard solderless tips to alligator clip. This novel quick-adapter is a must for all types of bench work.
Std. Pkg. 50

No.	NET Per C
310	$13.20

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HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

INSTRUMENT KNOBS

Plain — With Pointer — With Skirt

Molded black bakelite instrument knobs with molded in brass insert for ¼" shafts. **Style B** pointer knobs have white vinyl pointer. **Style C** skirt type have white indicator line. **Style D** same as style A except with protruding brass insert for mounting special dials and pointers. **Std. Pkg. 10**

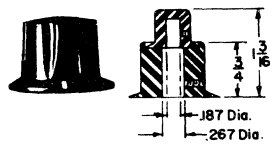
No.	Style	O.D.	Pointer Size	Height	NET Per C
2200	A	1⅛"		5/8"	$28.20
2201	A	1⅜"		11/16"	29.40
2202	A	1⅝"		¾"	33.60
2203	A	2⅜"		⅞"	48.00
2204	B	1⅛"	¾" pointer	11/16"	44.40
2205	B	1⅜"	1 1/16" pointer	¾"	45.00
2206	B	1⅝"	1 3/16" pointer	13/16"	48.00
2207	B	2⅜"	1 9/16" pointer	15/16"	64.20
2208	C	1⅛"	1½" Skirt	13/16"	53.40
2209	C	1⅜"	1¾" Skirt	⅞"	55.20
2210	C	1⅝"	2 1/16" Skirt	29/32"	65.40
2211	C	2⅜"	3" Skirt	1 1/32"	85.80
2212	D	1⅛"		23/32"	34 80
2213	D	1⅜"		25/32"	35.40
2214	D	1⅝"		27/32"	40.20
2215	D	2⅜"		31/32"	55.20
			SKIRT ONLY		
2216		1½"	Skirt only		10.80
2217		1¾"	Skirt only		12.60
2218		2 1/16"	Skirt only		14.40
2219		3"	Skirt only		21.00

Matte Finish — Made to Meet MS-91531

Molded Black, Matte finish bakelite instrument knobs, with molded-in brass insert for ¼" shafts. All knobs supplied with two (2) Allen-head set-screws. Style B pointer knobs have white vinyl pointer. Style C skirt knobs have white indicator line on skirt. **Std. Pkg. 10**

No.	Style	O.D.	Pointer size	Height	NET Per C
2460	A	1¼"		5/8"	$81.00
2461	A	1⅝"		¾"	99.00
2462	A	2⅜"		⅞"	122.00
2463	B	1¼"	¾" pointer	11/16"	92.00
2464	B	1⅝"	1 3/16" pointer	13/16"	106.00
2465	B	2⅜"	1 9/16" pointer	15/16"	132.00
2466	C	1½"	1½" skirt	13/16"	123.00
2467	C	1⅝"	2 1/16" skirt	29/32"	152.00
2468	C	2⅜"	3" skirt	1 1/32"	191.00

FLUTED INSTRUMENT KNOBS



Molded black bakelite fluted instrument knobs, supplied with white-filled line on crown and skirt, opposite set-screw. Supplied with ¼" plain hole with set-screw. **Std. Pkg. 10**

No.	Skirt Dia.	Height	NET Per C
2391	¾"	1/2"	$21.00
2392	1⅛"	5/8"	22.00
2393	1¼"	¾"	24.00
2394	1½"	⅞"	27.00
2395	2"	15/16"	45.00
	With ⅛" plain hole with set-screw		
2396	¾"	½"	$22.00

CONCENTRIC FLUTED

Molded black and Red bakelite dual-concentric fluted instrument knobs. Outside knob is black with white filled line on skirt. Inner knob is red with white-filled line on skirt and crown. Both knobs supplied with set-screws. **Std. Pkg. 10**

No.	NET Per C
2397	$44.00

POINTER KNOBS

A: Length 1 1/4" Hgt. 5/8" — B: Length 2" Hgt. 5/8" — C: Length 1 1/4" Hgt. 5/8"

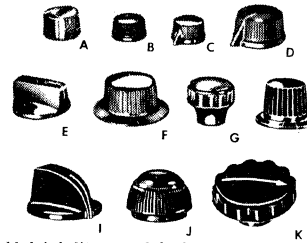
Molded bakelite pointer knobs, supplied with ¼" plain hole or brass inset. Complete with set screw. **Std. Pkg. 25**

No.	Style	Type Hole	Color	NET Per C
2220	A	¼" Plain	Black	$10.80
2221	A	¼" Plain	Walnut	11.40
2222	A	¼" Plain	Ivory	12.00
2223	A	¼" Brass Insert	Black	16.80
2224	A	¼" Brass Insert	Walnut	17.40
2225	A	¼" Brass Insert	Red	18.00
2226	B	¼" Plain	Black	21.60
2227	B	¼" Plain	Walnut	22.20
2228	B	¼" Brass Insert	Black	27.00
2229	B	¼" Brass Insert	Walnut	27.00
2230	C	¼" Plain	Black	13.80
2231	C	¼" Plain	Walnut	14.40

HERMAN H. SMITH, INC.

More than 2,000 electronic component parts manufactured under one roof.

CONTROL KNOBS

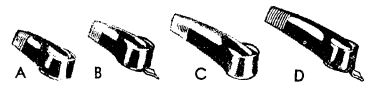


Molded bakelite control knobs. Supplied with ¼" molded hole; complete with set screw. *Recessed for locknut. **Std. Pkg. 25**

No.	Style	O.D.	Height	Color	NET Per C
2240	A	¾"	19/32"	Black	$12.00
2241	A	¾"	19/32"	Walnut	12.00
2242	B	1 1/16"	13/32"	Black	9.60
2243	B	1 1/16"	13/32"	Walnut	9.60
2244*	B	1"	½"	Black	19.20
2245*	B	1"	½"	Walnut	13.80
2275†	B	1 1/16"	13/32"	Black	21.60
2276†	B	1 1/16"	13/32"	Red	21.60
2246	C	1 1/16"	13/32"	Black	9.60
2247	C	1 1/16"	13/32"	Walnut	9.60
2273†	C	1 1/16"	13/32"	Black	21.60
2274†	C	1 1/16"	13/32"	Red	22.20
2248*	D	1"	½"	Black	16.80
2249*	D	1"	½"	Walnut	17.40
2250*	E	1 1/16"	9/16"	Black	14.40
2251*	E	1 1/16"	9/16"	Walnut	15.00
2252*	F	1 1/16"	11/16"	Black	17.40
2253*	F	1 1/16"	11/16"	Walnut	18.00
2254*	F	1 1/16"	11/16"	Ivory	19.20
2258	G	⅞"	¾"	Black	15.00
2259	G	⅞"	¾"	Walnut	15.60
2265	H	29/32"	19/32"	Black	13.80
2266	H	29/32"	19/32"	Red	14.40
2267	J	1 3/16"	5/8"	Black	12.60
2268	J	1 3/16"	5/8"	Red	13.80
2269	K	⅞"	5/8"	Black	14.40
2270	K	⅞"	5/8"	Red	18.60
2283	L	⅞"	½"	Black	19.20
2284	L	⅞"	½"	Red	19.80

† Supplied with brass insert.

LEVER KNOBS



Molded bakelite lever knobs with ¼" brass insert, complete with set screw. **Std. Pkg. 25**

No.	Style	Length	Height	Color	NET Per C
2232	A	1⅝"	19/32"	Black	$22.20
2233	A	1⅝"	19/32"	Walnut	22.80
2234	B	1 13/16"	19/32"	Black	38.40
2235	B	1 13/16"	19/32"	Walnut	38.40
2236	C	2½"	5/8"	Black	24.00
2237	C	2½"	5/8"	Walnut	24.00
2238	D	2 13/16"	5/8"	Black	43.20
2239	D	2 13/16"	5/8"	Walnut	43.80

KNOB DIAL PLATES

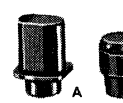
DIAL: BRASS, chrome silver, 1⅝" O.D.
KNOB: Molded bakelite black (our 2250).
DESCR.: For matching dials on instruments, receivers, amplifiers. Dial has clear black etched numbers. Knob fits 1'4" shaft. **Std. Pkg. 10**

No.	Type	NET Each
2261	10 to 0 180 Degrees	$.75
2262	10 to 0 270 Degrees	.75
	DIAL PLATES ONLY ½" I.D.	
2263	10 to 0 180 Degrees	.45
2264	10 to 0 270 Degrees	.45

DIAL: Nickel silver, 1⅝" O.D.
KNOB: Molded bakelite.
DESCR.: Engraved numerals, varnish coated. 10 to 0, in 360 degrees. Knob fits ¼" shaft. **Std. Pkg. 10**

No. 2290	NET Each
	$.75

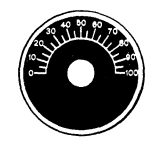
PUSH BUTTON KNOBS



Std. Pkg. 25

No.	Style	O.D.	Height	Color	NET Per C
2277	A	½"	51/64"	Black	$7.20
2278	A	½"	51/64"	Red	8.40
2279	B	31/64"	9/16"	Black	4.80
2280	B	31/64"	9/16"	Red	6.00

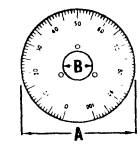
CONTROL PLATES



MATERIAL: Brass Black Satin Finish. Etched silver numerals.
DIMENSION: 13/32" I.D. x O.D. as specified, x .020" thick. **Std. Pkg. 5**

Clockwise Calib. 0-100 No.	Counter-Clockwise Calib. 100-0 No.	Degrees	O.D.	NET Per C
2900	2906	180	2"	$45.00
2901	2907	270	2"	45.00
2902	2908	325	2"	45.00
2903	2909	180	3½"	90.00
2904	2910	270	3½"	90.00
2905	2911	325	3½"	90.00

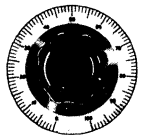
DIAL PLATES



MATERIAL: Brass Chrome Silver Finish. .020" thick.
DESCR.: Mounting Holes 9/64".
Std. Pkg. 5

Clockwise Calib. 0-100 No.	Counter-Clockwise Calib. 100-0 No.	Degrees	A	B	NET Per C
2912	2928	180	1⅛"	⅜"	$45.00
2913	2929	270	1⅛"	⅜"	45.00
2914	2930	325	1⅛"	⅜"	45.00
2915	2931	360	1⅛"	⅜"	45.00
2916	2932	180	1¾"	31/64"	60.00
2917	2933	270	1¾"	31/64"	60.00
2918	2934	325	1¾"	31/64"	60.00
2919	2935	360	1¾"	31/64"	60.00
2920	2936	180	2¾"	¾"	75.00
2921	2937	270	2¾"	¾"	75.00
2922	2938	325	2¾"	¾"	75.00
2923	2939	360	2¾"	¾"	75.00
2924	2940	180	4"	15/16"	120.00
2925	2941	270	4"	15/16"	120.00
2926	2942	325	4"	15/16"	120.00
2927	2943	360	4"	15/16"	120.00

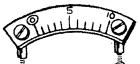
DIAL AND KNOB ASSEMBLY



DIAL: Brass Chrome Silver Finish, .020" thick.
KNOB: Molded Bakelite with ¼" Brass insert. **Std. Pkg.**

Clockwise Calib. 0-100 No.	Counter-Clockwise Calib. 100-0 No.	Degrees	O.D.	NET Each
2960	2976	180	1⅛"	$1.3
2961	2977	270	1⅛"	1.3
2962	2978	325	1⅛"	1.3
2963	2979	360	1⅛"	1.3
2964	2980	180	1¾"	1.4
2965	2981	270	1¾"	1.4
2966	2982	325	1¾"	1.4
2967	2983	360	1¾"	1.4
2968	2984	180	2¾"	3.0
2969	2985	270	2¾"	3.0
2970	2986	325	2¾"	3.0
2971	2987	360	2¾"	3.0
2972	2988	180	4"	3.4
2973	2989	270	4"	3.4
2974	2990	325	4"	3.4
2975	2991	360	4"	3.4

VERNIER DIAL MARKERS



MATERIAL: Brass Chrome Silver Finish. Supplied with hardware. **Std. Pkg.**

No.	For °Dials	Dial O.D.	NET Per
2944	180	1¼"	$30.0
2945	270	1⅛"	30.0
2946	325	1⅛"	30.0
2947	360	1⅛"	30.0
2948	180	1¾"	30.0
2949	270	1¾"	30.0
2950	325	1¾"	30.0
2951	360	1¾"	30.0
2952	180	2¾"	30.0
2953	270	2¾"	30.0
2954	325	2¾"	30.0
2955	360	2¾"	30.0
2956	180	4"	30.0
2957	270	4"	30.0
2958	325	4"	30.0
2959	360	4"	30.0

BINDING POST KNOBS

Std. Pkg.

threaded 8-32 brass inserts

No.	Style	O.D.	Height	Color	NE Per
2271	A	¾"	½"	Black	$8.
2272	A	¾"	½"	Red	9.
2285	B	½"	7/16"	Red	9.
2286	B	½"	7/16"	Black	9.
2287	C	½"	¼"	Red	9.
2288	C	½"	½"	Black	9.

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Net

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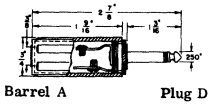
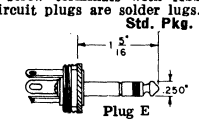
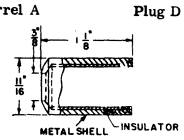
STANDARD PHONE PLUGS

BODY: Body, tip, and sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC working voltage.
DESCR.: Fits standard phone jacks. Molded styrene separator insures maximum insulation between elements.
LUGS: 2 circuit plugs are screw terminals with ribbed clips and cord anchor. 3 circuit plugs are solder lugs.
Std. Pkg. 25

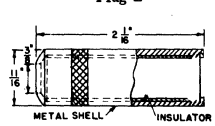

Barrel A


Plug D

Plug E

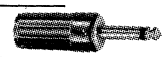


Barrel B



Barrel C

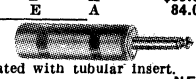
Bakelite Barrel



BARREL: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black. SPECIFY COLOR

No.	Circuit	Terminals	Plug	Barrel	NET Per C
222	2	Screw	D	A	$39.00
227	3	Solder	E	A	84.00

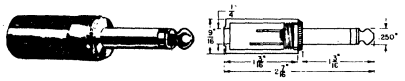
Shielded Barrel



BARREL: BRASS, nickel plated with tubular insert.

No.	Circuit	Terminals	Plug	Barrel	NET Per C
252	2	Screw	D	B	$54.00
272	2	Screw	D	C	66.00
228	3	Solder	E	B	90.00
238	3	Solder	E	C	111.00

STANDARD PHONE PLUG
Baby Bakelite Barrel



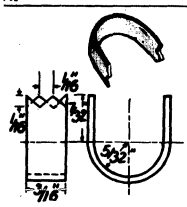
BARREL: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black. SPECIFY COLOR
BODY: Body, tip, sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage.
DESCR.: Molded styrene separator insures maximum insulation between conductors. Fits standard phone jacks.
Std. Pkg. 25

No.	Circuit	Terminals	NET Per C
243	Two	Solder	$24.00

PJ055 AND PJ068 PLUGS

BARREL: MOLDED plastic.
BODY: Body, tip, sleeve—Machined brass.
TERM.: Brass, hot tinned.
INSUL.: Ethyl cellulose type EM-1 MIL-P-3412.
DESCR.: Designed especially for high quality communications equipment and to meet the exacting requirements of the armed services. Parts are assembled together in a mold, providing a finished plug with complete continuity of thermo plastic insulation between the tip rod and plug sleeve.
Std. Pkg. 25

No.	Type	Each
117	PJ055B	$1.35
247	PJ068B	3.65

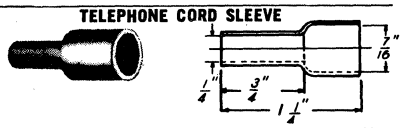


CORD CLAMP STRAIN RELIEF

MATERIAL: Cold Rolled Steel, per QQ-S-636. Finish zinc per Spec. 7253, Table II, Type I.
DESCR.: Used on Government cord assemblies. Made in accordance with Signal Corps. Spec. SC-A-7674.
Std. Pkg. 100

No.	NET Per C
747	$1.80

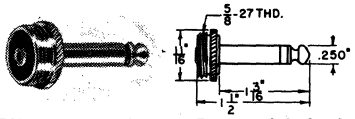
TELEPHONE CORD SLEEVE



MATERIAL: Neoprene in accordance with Grade SC415AFF per MIL-R-3065.
DESCR.: Used on Government cord assemblies, for Strain Relief, Dust and Moisture Seal.
Std. Pkg. 100

No.	NET Per C
18	$6.60

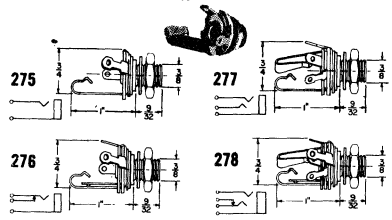
PHONE PLUG ADAPTER



BODY: Body, Tip, Sleeve — Brass, nickel plated.
INSUL.: XXXP Bakelite.
DESCR.: Mates with No. 116 microphone connector. Fits standard phone jacks.
Std. Pkg. 25

	NET Per C
5	$30.00

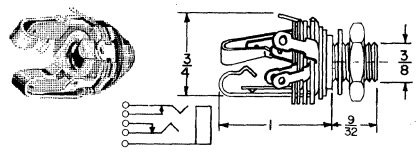
TELEPHONE JACKS



BUSHING: BRASS, nickel plated.
INSUL.: Bakelite, type PBE-P per MIL-P-3115B.
SPRING: Nickel-Silver alloy, spring temper. New tapered design provides for ease of insertion while eliminating possibility of shorts.
SLEEVE TERM.: Brass, hot tinned.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 1.2 K Volts 60 cycle AC continuous working voltage.
DESCR.: Notched insulating washers accurately locate all parts, and eliminate possibility of shorts and arc-over. Springs designed for firm, low-resistance electrical contact. Bushings ¼" long, threaded ⅜"-32. Mounts in ⅜" hole in panels up to 5/32" thick. Overall diameter ⅞", require 1" clearance behind panel. Supplied with ½" hex brass nut and ⅝" steel panel washer, all nickel plated.
Std. Pkg. 50

No.	Circuit	NET Per C
275	Two Conductor Open	$27.00
276	Two Conductor Closed	30.00
277	Three Conductor Open	36.00
278	Three Conductor Closed	45.00

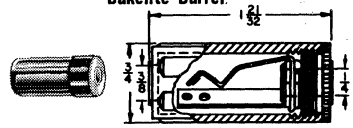
STEREO TELEPHONE JACK



A new jack specially designed for switching-out speakers when connecting stereo headphones, and for switching three-wire stereo input circuits. Dual, normally-closed switch contacts open both stereo circuits independently when three circuit plug is inserted.
Std. Pkg. 50

No.	Circuit	NET Per C
268	Three Conductor Dual Closed	$54.00

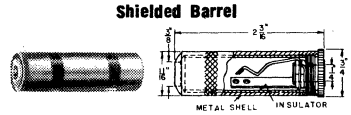
IN-LINE EXTENSION JACK
Bakelite Barrel



BARREL: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage.
SPRING: Nickel, silver, special alloy, spring temper.
INSUL.: XXP Bakelite.
DESCR.: For microphone and Hi-Fi extension cords. Mates with standard phone plugs.
Std. Pkg. 50

No.	Type	NET Per C
274	Solder Connection	$54.00
288	Screw Connection	66.00

Shielded Barrel



BARREL: Brass, nickel plated, with tubular insulator.
BODY: Brass, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage.
SPRING: Nickel, silver, special alloy, spring temper.
INSUL.: XXP Bakelite.
DESCR.: For microphone and Hi-Fi extension cords. Mates with standard phone plugs.
Std. Pkg. 25

No.	Type	NET Per C
273	Solder Connection	$75.00
289	Screw Connection	84.00

MINIATURE MICROPHONE CONNECTORS
⅜-32 THREAD

DESCR.: Ideal for lapel microphone, musical instruments, etc., wherever small cable is used. Accepts caple up to 3/16" diameter.
Std. Pkg. 50

No.	Type	Length	NET Per C
484	Single Contact Female	1¼"	$36.00
485	Single Contact Male	1⅛"	70.00

CHASSIS CONNECTOR

Mounts in 3/16" hole grounded; ¼" hole insulated with shoulder washer.

486	Single Contact Male	⅝"	21.00

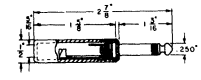
CAP AND CHAIN

DESCR.: Brass, nickel plated. Seals chassis connectors against dust. Eliminates noisy connections. Used with any threaded one or two conductor chassis unit.
Std. Pkg. 10

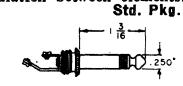
No.		NET Per C
118	⅝-27 Thread	$45.00

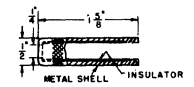
SLIM PHONE PLUGS
Cable Clamp Style

BODY: Body, tip, and sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage.
DESCR.: Fits standard phone jacks. Molded styrene separator insures maximum insulation between elements.
Std. Pkg. 25

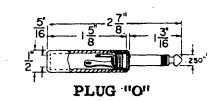

Barrel G

Plug F


Plug H



Barrel J


PLUG "O"

Bakelite Barrel

BARREL: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black. SPECIFY COLOR

No.	Circuit	Terminals	Plug	Barrel	NET Per C
225	2	Solder	F	G	$39.00
307	2	Screw	H	G	45.00

Shielded Barrel

BARREL: BRASS, nickel plated with tubular insert.

No.	Circuit	Terminals	Plug	Barrel	NET Per C
226	2	Solder	F	J	$60.00
316	2	Screw	H	J	63.00

ECONOMY TYPE

BODY: Body, tip, sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage.
DESCR.: An inexpensive modified version of our popular #225 and 225 plugs shown above. Features two small solder lugs.
Std. Pkg. 25

Bakelite Barrel

BARREL: MOLDED THERMOSETTING plastic per MIL-M-14 CFG. Red and Black. SPECIFY COLOR

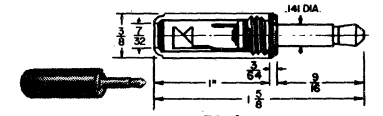
No.	Circuit	Terminals	Plug	Barrel	NET Per C
320	2	Solder	O	G	$30.00

Shielded Barrel

BARREL: BRASS, nickel plated with tubular insert.

No.	Circuit	Terminals	Plug	Barrel	NET Per C
330	2	Solder	O	J	$39.00

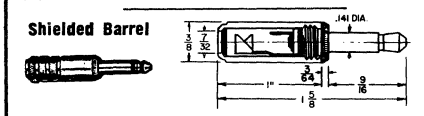
MINIATURE PHONE PLUG



HANDLE: MOLDED plastic. Black.
BODY: Body, tip, sleeve—Brass, nickel plated.
TERM.: Brass, hot tin dipped.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 350 Volts 60 cycle AC continuous working voltage.
DESCR.: Designed for use with hearing aids, small meters, etc. Solder terminals.
Std. Pkg. 50

No.	NET Per C
480	$42.00

Shielded Barrel



BARREL: BRASS, nickel plated with tubular insulator.
BODY: Body, tip, sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 350 Volts 60 cycle AC continuous working voltage.
DESCR.: Designed for use with hearing aids, small meters, etc. Solder terminals.
Std. Pkg. 50

No.	Circuit	NET Per C
481	Two Conductor	$51.00

MICROPHONE CONNECTORS

BODY: Brass, chrome plated.
SPRING: Steel cadmium plated.
INSUL.: XXXP Bakelite.
EYELET: Brass, hot tinned for easy soldering.
Standard Type ⅝-27 Thread
DESCR.: Designed for use with single conductor cable. Microphone connectors provided with flexible protector spring. Cable clamped firmly to connector by hollow point set screw.
Std. Pkg. 50

No.	Type	Length	NET Per C
115	Single Contact Male	1¾"	$21.00
116	Single Contact Female	2"	31.80

CHASSIS CONNECTORS

Mount in .385 hole grounded: .500 hole insulated with shoulder washer.

117	Single Contact Male	⅝"	21.00

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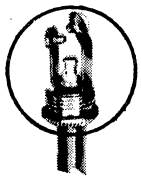
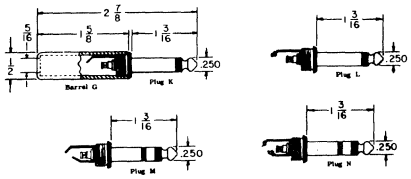
IMPROVED "TURRET-CENTER" STYLE



BODY: Body, Tip, Ring, and sleeve —Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 1.5 KV 60 cycle AC continuous working voltage.
DESCR.: New, improved construction has co-axial "turret-terminal" tip lug and widely separated contacts for maximum voltage ratings. Styrene separator, Mylar sleeves, and Nylon bushings used for increased performance. Fits standard phone jacks. **Std. Pkg. 25**



Bakelite Barrel

BARREL: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black. SPECIFY COLOR

No.	Circuit	Terminals	Plug	Barrel	NET Per C
171	2	Solder	K	G	$39.00
172	2	Screw	L	G	45.00
308	3	Solder	M	G	63.00
309	3	Screw	N	G	72.00

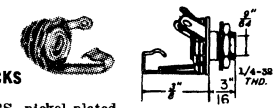
Shielded Barrel

Std. Pkg. 25

BARREL: BRASS, nickel plated with tubular insert.

No.	Circuit	Terminals	Plug	Barrel	NET Per C
173	2	Solder	K	J	$60.00
174	2	Screw	L	J	63.00
311	3	Solder	M	J	78.00
312	3	Screw	N	J	84.00

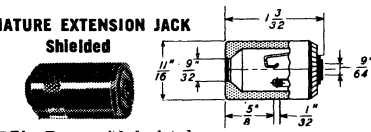
MINIATURE TELEPHONE JACKS



BUSHING: BRASS, nickel plated.
INSUL.: XXXP bakelite, type PBE-P per MIL-P-3115A.
SPRING: Nickel silver alloy, spring temper.
TERM.: Brass, hot tinned.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 500 Volts 60 cycle AC continuous working voltage.
DESCR.: Notched insulation washers interlock springs and lugs, eliminate possibility of shifting which result in electrical shorts. Springs firmly hold mating plug. Supplied with hex brass nut and steel mounting washer all nickel plated. **Std. Pkg. 50**

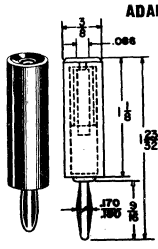
No.	Circuit	NET Per C
482	Two Conductor, Open	$24.00
483	Two Conductor, Closed	27.00

MINIATURE EXTENSION JACK
Shielded



BARREL: Brass, nickel plated.
BODY: Brass, nickel plated.
SPRING: Nickel silver alloy, spring temper.
INSUL.: Bakelite.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 500 Volts 60 cycle AC continuous working voltage.
DESCR.: Mates with Miniature Phone Plugs. **Std. Pkg. 25**
No. 487 **NET Per C $72.00**

ADAPTER Tip Plug to Banana Plug

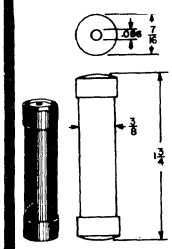


HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
CAP: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG.
PLUG: Brass, nickel plated.
CONTACT: Phosphor Bronze.
SPRING: Four-leaved phosphor bronze, nickel plated.
JACK: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Accepts standard phone tip plugs and adapts to standard banana plugs. **Std. Pkg. 50**
No. 214 **NET Per C $30.00**

LABORATORY INTERCHANGE KIT

DESCR.: All parts interchangeable, converts any standard test lead to an all purpose unit. **Packaged in an electronically** sealed vinyl kit.
Consists of one Red, one Black of the following
Phone tips **No. 215** Spade lugs **No. 218**
Tip plug adapter **No. 214**
Alligator clip jack **No. 305** **Std. Pkg. 1**
No. 640 **NET Ea. $2.25**

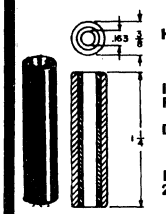
PHONE TIP PLUG SPLICE



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black, Yellow, Green. SPECIFY COLOR
CAP: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, per LC-726-1.
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Invaluable for quick splicing connections or for test lead extension. Accepts standard phone tip plugs. **Std. Pkg. 50**

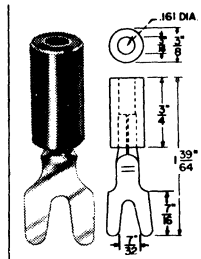
No.	NET Per C
246	$27.00

BANANA PLUG SPLICE



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black, Yellow, Green. SPECIFY COLOR
INSERT: Brass.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Invaluable for quick splicing connections. Accepts standard banana plugs. **Std. Pkg. 50**

No.	NET Per C
245	$24.00

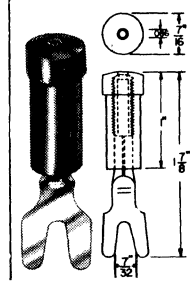


INSULATED SPADE LUG

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
LUG: Steel, hot tinned, .030 thick.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Banana plug can be inserted into spade lug thru rear of handle. **Std. Pkg. 100**

No.	Description	NET Per C
218	Insulated Spade Lug	$10.80
129	Lug Only	1.20

ADAPTER
Phone Tip to Spade Lug



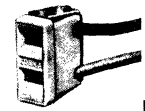
HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3 Class MS. Red or Black.
CAP.: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG.
JACK: Brass.
SPRING: Phosphor Bronze.
SPADE LUG: Steel hot tinned .030 thick.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Tip jack accepts standard phone tip plugs and adapts to spade lug. **Std. Pkg. 50**

No.	Descr.	NET Per C
249	Adapter	$33.00

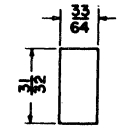
CONVENIENCE OUTLETS

For small unit electrical appliances and Electronic devices, UL Approved RADIOS — CLOCK RADIOS — CLOCKS — T.V. SETS — LAMPS — TOASTERS, ETC.

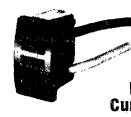
SINGLE SCREW BRACKET TYPE WIRE LEADS



No. 1281 Flat Flange



Cutout Dimensions

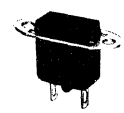


No. 1282 Curved Flange

Can be dropped into opening and held in place by metal bracket and single central screw, supplied. UL Approved.
Rating: 15 amps, 125 Volts AC or DC.
Leads: Plastic wire #14 gauge, 6″ long.

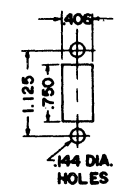
No.	COLOR	Std. Pkg. 50 Net Per C
1281-103	Black	$17.00
1281-101	White	19.00
1282-103	Black	17.00
1282-101	White	19.00

BRACKET TYPE
Top or Bottom Mount



1299

1279

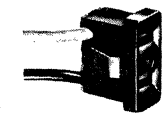


Cutout Dimensions

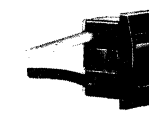
Flat steel bracket mounts with two #6 screws or equivalent size eyelets from top or bottom. UL Approved.
Rating: 15 Amps, 125 Volts AC or DC.
Leads: No. 1279 has two leads, plastic wire #16 gauge, 8″ long. UL Approved.

No.	Terminals	Std. Pkg. 50 Net Per C
1299	Solder	$ 9.00
1279	Wire Leads	22.00

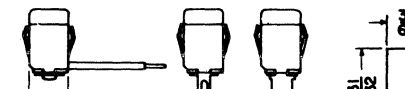
PUSH-IN SNAP-LOCK BRACKET TYPE



1283-1284-1285 Flat Flange



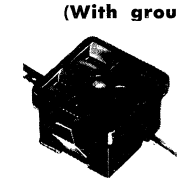
1286-1287-1290 Curved Flange

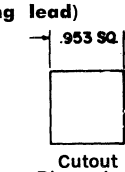


Carbon Steel spring clips lock unit securely in place when pushed into opening. UL Approved.
Rating: 15 Amps, 125 Volts AC or DC.
Leads: Plastic wire #14 gauge, 6″ long.

No.	Terminals	Color	Std. Pkg. 50 Net Per C
1283-103	Wire Leads	Black	$17.00
1283-101	Wire Leads	White	19.00
1284-103	Solder	Black	15.00
1284-101	Solder	White	17.00
1285-103	Kliptite	Black	15.00
1285-101	Kliptite	White	17.00
1286-103	Wire Leads	Black	15.00
1286-101	Wire Leads	White	17.00
1287-103	Solder	Black	15.00
1287-101	Solder	White	17.00
1290-103	Kliptite	Black	15.00
1290-101	Kliptite	White	15.00

THREE WIRE OUTLET
(With grounding lead)





Cutout Dimensions

Carbon Steel spring clips lock unit securely in place when pushed into opening. UL Approved.
Rating: 15 Amps, 125 Volts AC or DC.
Leads: Two #14 gauge 6″ long plastic wire and one #16 gauge green ground lead 6″ long.

No.	Color	Std. Pkg. 50 Net Per C
1280-103	Black	$25.00
1280-101	White	27.00

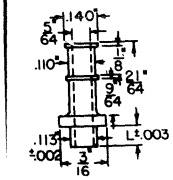
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

TURRET TERMINALS

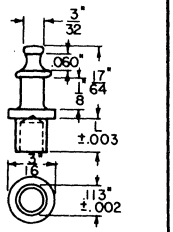
Terminals shown below are "stock" items, available for speedy delivery. All brass, silver-plated, precision made. See next page for Suggested Resale Prices. For quantities over 15,000 request special prices. Inquiries are invited, for special types and sizes to particular requirements. **L** indicates **Shank Length** of Lug. **T** indicates **Thickness** of mounting boards Minimum package 100

2000 HOLLOW LUG



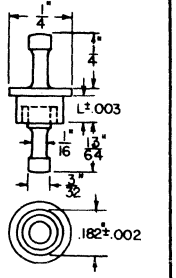
No.	L	T
2000A	.075	1/32
2000B	.105	1/16
2000C	.135	3/32
2000D	.165	1/8
2000E	.195	5/32
2000F	.230	3/16

2001 SHORT TERMINAL LUG



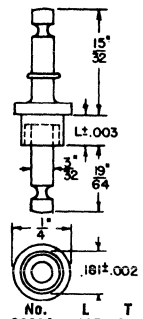
No.	L	T
2001A	.075	1/32
2001B	.105	1/16
2001C	.135	3/32
2001D	.165	1/8

2002 DOUBLE END TERMINAL LUG



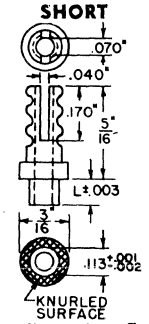
No.	L	T
2002A	.105	1/16
2002B	.135	3/32
2002C	.165	1/8
2002D	.195	5/32
2002E	.230	3/16

2003 DOUBLE END LUG, LONG



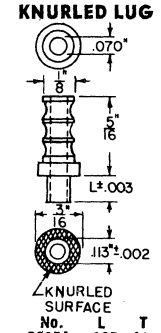
No.	L	T
2003A	.105	1/16
2003B	.135	3/32
2003C	.165	1/8
2003D	.195	5/32
2003E	.230	3/16

2004 SLOTTED TERMINAL LUG SHORT



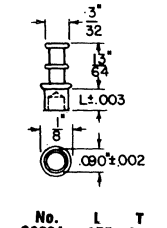
No.	L	T
2004A	.075	1/32
2004B	.105	1/16
2004C	.135	3/32
2004D	.165	1/8

2005 HOLLOW KNURLED LUG



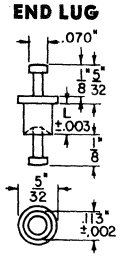
No.	L	T
2005A	.105	1/16
2005B	.135	3/32
2005C	.165	1/8

2006 SHORT TERMINAL LUG



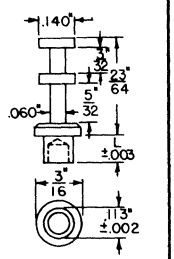
No.	L	T
2006A	.075	1/32
2006B	.105	1/16
2006C	.135	3/32
2006D	.165	1/8

2007 SHORT DOUBLE END LUG



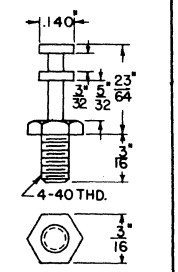
No.	L	T
2007A	.075	1/32
2007B	.105	1/16
2007C	.135	3/32
2007D	.165	1/8

2008 TERMINAL LUG



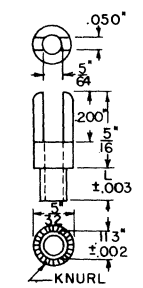
No.	L	T
2008A	.075	1/32
2008B	.105	1/16
2008C	.135	3/32
2008D	.165	1/8
2008E	.195	5/32
2008F	.230	3/16
2008G	.293	1/4

2009 TERMINAL LUG



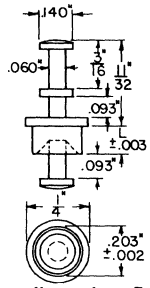
No. 2009

2010 SPLIT TERMINAL LUG



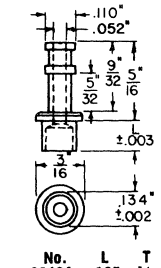
No.	L	T
2010A	.075	1/32
2010B	.105	1/16
2010C	.135	3/32
2010D	.165	1/8

2011 DOUBLE END TERMINAL LUG



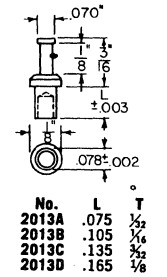
No.	L	T
2011A	.105	1/16
2011B	.135	3/32
2011C	.165	1/8
2011D	.195	5/32
2011E	.230	3/16

2012 TERMINAL LUG



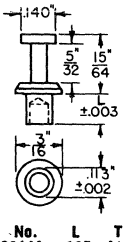
No.	L	T
2012A	.105	1/16
2012B	.135	3/32
2012C	.165	1/8

2013 TERMINAL LUG



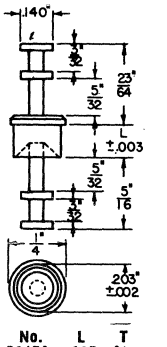
No.	L	T
2013A	.075	1/32
2013B	.105	1/16
2013C	.135	3/32
2013D	.165	1/8

2014 TERMINAL LUG



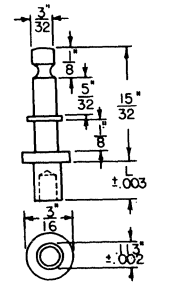
No.	L	T
2014A	.105	1/16
2014B	.135	3/32
2014C	.165	1/8
2014D	.195	5/32
2014E	.230	3/16

2015 TERMINAL LUG



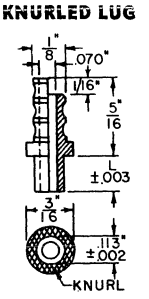
No.	L	T
2015A	.135	3/32
2015B	.165	1/8
2015C	.195	5/32
2015D	.230	3/16

2016 TERMINAL LUG



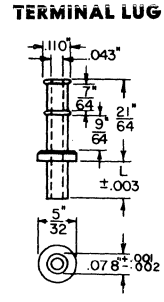
No.	L	T
2016A	.105	1/16
2016B	.135	3/32
2016C	.165	1/8

2017 HOLLOW KNURLED LUG



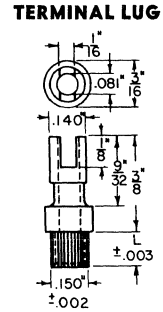
No.	L	T
2017A	.105	1/16
2017B	.135	3/32
2017C	.165	1/8
2017D	.195	5/32

2018 HOLLOW TERMINAL LUG



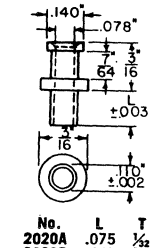
No.	L	T
2018A	.075	1/32
2018B	.105	1/16
2018C	.135	3/32
2018D	.165	1/8
2018E	.195	5/32
2018F	.230	3/16

2019 SPLIT TERMINAL LUG



No.	L	T
2019A	.075	1/32
2019B	.105	1/16
2019C	.135	3/32
2019D	.165	1/8
2019E	.195	5/32
2019F	.230	3/16

2020 TERMINAL LUG



No.	L	T
2020A	.075	1/32
2020B	.105	1/16
2020C	.135	3/32
2020D	.165	1/8

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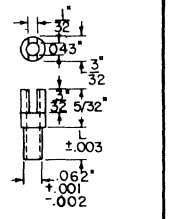
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

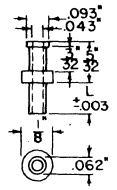
TURRET TERMINALS

2021
MINIATURE SPADE LUG



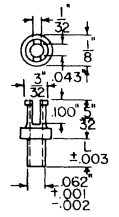
No.	L	T
2021A	.037	1/64
2021B	.053	1/32
2021C	.084	1/16
2021D	.115	3/32
2021E	.147	1/8

2022
MINIATURE HOLLOW LUG



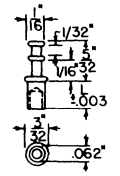
No.	L	T
2022A	.037	1/64
2022B	.053	1/32
2022C	.084	1/16
2022D	.115	3/32
2022E	.147	1/8

2023
MINIATURE HOLLOW SPLIT LUG



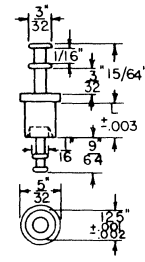
No.	L	T
2023A	.037	1/64
2023B	.053	1/32
2023C	.084	1/16
2023D	.115	3/32
2023E	.147	1/8

2024
MINIATURE DOUBLE TIE LUG



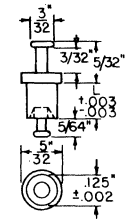
No.	L	T
2024A	.037	1/64
2024B	.053	1/32
2024C	.084	1/16
2024D	.115	3/32
2024E	.147	1/8

2025
MINIATURE THROUGH LUG



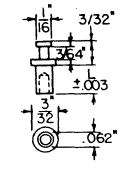
No.	L	T
2025A	.075	1/32
2025B	.105	1/16
2025C	.135	3/32
2025D	.165	1/8

2026
MINIATURE THROUGH LUG



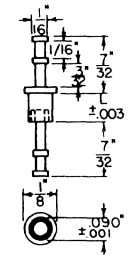
No.	L	T
2026A	.075	1/32
2026B	.105	1/16
2026C	.135	3/32
2026D	.165	1/8

2027
MINIATURE LUG



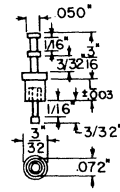
No.	L	T
2027A	.037	1/64
2027B	.054	1/32
2027C	.084	1/16
2027D	.115	3/32
2027E	.147	1/8

2028
FEED-THRU TERMINAL LUG



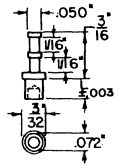
No.	L	T
2028A	.054	1/32
2028B	.084	1/16
2028C	.115	3/32
2028D	.147	1/8

2029
TERMINAL LUG



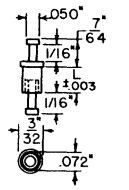
No.	L	T
2029A	.054	1/32
2029B	.084	1/16
2029C	.115	3/32
2029D	.147	1/8

2030
TERMINAL LUG



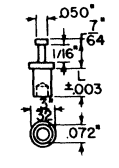
No.	L	T
2030A	.054	1/32
2030B	.084	1/16
2030C	.115	3/32
2030D	.147	1/8

2031
FEED TERMINAL LUG



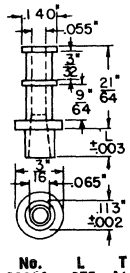
No.	L	T
2031A	.054	1/32
2031B	.084	1/16
2031C	.115	3/32
2031D	.147	1/8

2032
TERMINAL LUG



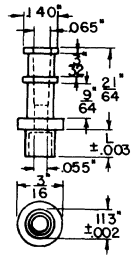
No.	L	T
2032A	.054	1/32
2032B	.084	1/16
2032C	.115	3/32
2032D	.147	1/8

2033
RECEPTACLE LUG



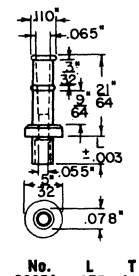
No.	L	T
2033A	.075	1/32
2033B	.105	1/16
2033C	.135	3/32
2033D	.165	1/8
2033E	.195	5/32
2033F	.230	3/16

2034
RECEPTACLE LUG



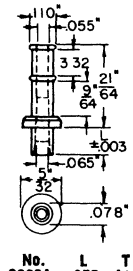
No.	L	T
2034A	.075	1/32
2034B	.105	1/16
2034C	.135	3/32
2034D	.165	1/8
2034E	.195	5/32
2034F	.230	3/16

2035
RECEPTACLE LUG



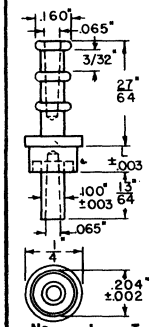
No.	L	T
2035A	.075	1/32
2035B	.105	1/16
2035C	.135	3/32
2035D	.165	1/8
2035E	.195	5/32
2035F	.230	3/16

2036
RECEPTACLE LUG



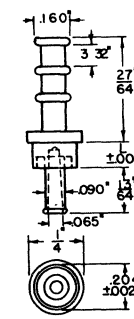
No.	L	T
2036A	.075	1/32
2036B	.105	1/16
2036C	.135	3/32
2036D	.165	1/8
2036E	.195	5/32
2036F	.230	3/16

2037
TAPERED TERMINAL



No.	L	T
2037A	.105	1/16
2037B	.135	3/32
2037C	.165	1/8

2038
TAPERED TERMINAL



No.	L	T
2038A	.105	1/16
2038B	.135	3/32
2038C	.165	1/8

SUGGESTED RESALE PRICES OF TURRET TERMINALS

Cat. No. Series	100-999 Per C	1,000-4,999 Per M	5,000-15,000 Per M
2000	$ 1.50	$12.50	$10.00
2001	1.50	12.50	10.00
2002	3.30	27.50	22.00
2003	4.20	35.00	28.00
2004	2.52	21.00	16.80
2005	2.06	18.00	14.40
2006	1.02	8.50	6.80
2007	1.38	11.50	9.20
2008	1.62	13.50	10.80
2009	2.52	21.00	16.80
2010	2.40	20.00	16.00
2011	3.60	30.00	24.00
2012	2.10	17.50	14.00
2013	1.08	9.00	7.20
2014	1.38	11.50	9.20
2015	4.20	35.00	28.00
2016	1.62	13.50	10.80
2017	2.40	20.00	16.00
2018	3.00	25.00	20.00
2019	2.70	22.50	18.00
2020	1.50	12.50	10.00
2021	1.50	12.50	10.00
2022	1.50	12.50	10.00
2023	2.70	22.50	18.00
2024	1.80	15.00	12.00
2025	2.70	22.50	18.00
2026	2.70	22.50	18.00
2027	1.20	10.00	8.00
2028	3.30	26.50	22.00
2029	2.10	17.50	14.00
2030	1.62	13.50	10.80
2031	1.62	13.50	10.80
2032	3.30	27.50	22.00
2033	3.60	30.00	24.00
2034	4.20	35.00	28.00
2035	4.50	37.50	30.00
2036	3.90	32.50	26.00
2037	9.00	75.00	60.00
2038	10.20	85.00	68.00

ADDITIONAL NUMBERS

We invite your inquiries on other types of turret terminals not shown here.

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Net

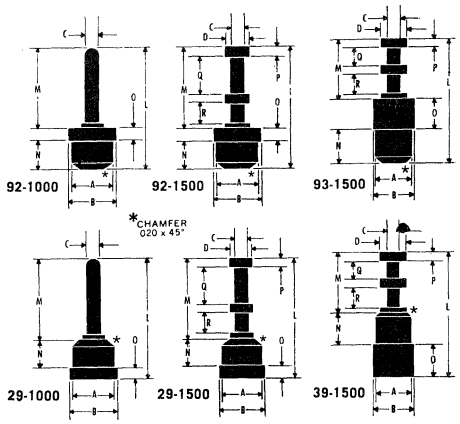
SMITH TEFLON TERMINALS

COLOR CODE SUFFIX Add to Catalog Number as required

— 101 WHITE* — 104 GREEN — 107 YELLOW — 112 PURPLE
— 102 RED — 105 BLUE — 108 BROWN — 113 GREY
— 103 BLACK — 106 ORANGE

PLATING FINISH
STANDARD .0002 Silver Plate, Gold Flash.
OTHER Finishes supplied on request.

* WHITE is natural Teflon, supplied if no color specified. Color does not affect electrical, mechanical, physical or thermal characteristics. **Std. Pkg. 100**



SUBMINIATURE STANDOFF TERMINALS

STANDARD TYPE

PART NO.	A	B	C	L	M	N	O	Net Per C
92-1000	.148	.172	.040	.350	.210	.100	.040	$ 9.00
92-1001	.148	.172	.040	.375	.210	.110	.050	9.00
92-1003	.172	.195	.040	.350	.210	.100	.040	11.00
92-1004	.179	.200	.040	.350	.210	.100	.040	11.00
92-1005	.218	.250	.040	.350	.210	.100	.040	12.00
92-1006	.148	.172	.040	.345	.210	.075	.060	9.00
92-1007	.148	.172	.040	.370	.210	.120	.040	11.00
92-1008	.148	.172	.040	.350	.210	.062	.078	11.00
92-1009	.148	.172	.040	.406	.210	.156	.040	11.00
92-1010	.148	.172	.040	.500	.210	.250	.040	12.00
92-1012	.148	.172	.040	.335	.210	.075	.050	9.00
92-1016	.148	.172	.040	.265	.125	.100	.040	11.00
92-1034	.093	.125	.040	.350	.210	.100	.040	10.00

REVERSE TYPE

29-1000	.148	.172	.040	.350	.210	.100	.040	$11.00
29-1001	.148	.172	.040	.375	.210	.110	.050	11.00
29-1003	.172	.195	.040	.350	.210	.100	.040	12.00
29-1004	.179	.200	.040	.350	.210	.100	.040	12.00
29-1005	.218	.250	.040	.350	.210	.100	.040	13.00
29-1006	.148	.172	.040	.345	.210	.075	.060	11.00
29-1007	.148	.172	.040	.370	.210	.120	.040	12.00
29-1008	.148	.172	.040	.350	.210	.062	.078	11.00
29-1009	.148	.172	.040	.406	.210	.156	.040	12.00
29-1010	.148	.172	.040	.500	.210	.250	.040	13.00
29-1012	.148	.172	.040	.335	.210	.075	.050	11.00
29-1016	.148	.172	.040	.265	.125	.100	.040	11.00
29-1034	.093	.125	.040	.350	.210	.100	.040	10.00

SUBMINIATURE STANDOFF TURRET

STANDARD TYPE

PART No.	A	B	C	D	L	M	N	O	P	Q	R	NET Per C
92-1500	.148	.172	.040	.080	.350	.210	.100	.040	.020	.100	.050	$10.00
92-1501	.148	.172	.040	.080	.375	.210	.125	.040	.020	.100	.050	10.00
92-1502	.179	.200	.040	.080	.350	.210	.100	.040	.020	.100	.050	12.00
92-1503	.185	.218	.040	.080	.375	.210	.125	.040	.020	.100	.050	12.00
92-1504	.148	.172	.046	.093	.334	.154	.140	.040	.020	.046	.048	11.00
92-1505	.148	.172	.040	.080	.428	.210	.125	.093	.020	.100	.050	12.00
92-1506	.148	.172	.040	.093	.455	.250	.165	.040	.020	.093	.097	12.00
92-1507	.148	.172	.040	.080	.500	.210	.250	.040	.020	.100	.050	11.00
92-1508	.185	.218	.040	.080	.350	.210	.100	.040	.020	.100	.050	12.00
92-1512	.148	.172	.040	.093	.540	.250	.250	.040	.020	.093	.097	10.00
92-1513	.171	.188	.040	.080	.405	.210	.155	.040	.020	.100	.050	11.00
92-1519	.148	.172	.046	.093	.334	.154	.140	.040	.020	.046	.048	10.00
92-1520	.172	.200	.048	.090	.320	.120	.125	.075	.020	—	.080	11.00
92-1521	.148	.172	.040	.080	.455	.227	.187	.040	.020	—	.087	10.00

REVERSE TYPE

29-1500	.148	.172	.040	.080	.350	.210	.100	.040	.020	.100	.050	$11.00
29-1501	.148	.172	.040	.080	.375	.210	.125	.040	.020	.100	.050	11.00
29-1502	.179	.200	.040	.080	.350	.210	.100	.040	.020	.100	.050	13.00
29-1503	.185	.218	.040	.080	.375	.210	.125	.040	.020	.100	.050	14.00
29-1504	.148	.172	.046	.093	.334	.154	.140	.040	.020	.046	.048	13.00
29-1505	.148	.172	.040	.080	.428	.210	.125	.093	.020	.100	.050	14.00
29-1506	.148	.172	.040	.093	.455	.250	.165	.040	.020	.093	.097	14.00
29-1507	.148	.172	.040	.080	.500	.210	.250	.040	.020	.100	.050	13.00
29-1508	.185	.218	.040	.080	.350	.210	.100	.040	.020	.100	.050	14.00
29-1512	.148	.172	.040	.093	.540	.250	.250	.040	.020	.093	.097	12.00
29-1513	.171	.188	.040	.080	.405	.210	.155	.040	.020	.100	.050	13.00
29-1519	.148	.172	.046	.093	.540	.154	.140	.040	.020	.046	.048	12.00
29-1520	.172	.200	.048	.090	.320	.120	.125	.075	.020	—	.080	12.00
29-1521	.148	.172	.040	.080	.455	.227	.187	.040	.020	—	.187	12.00

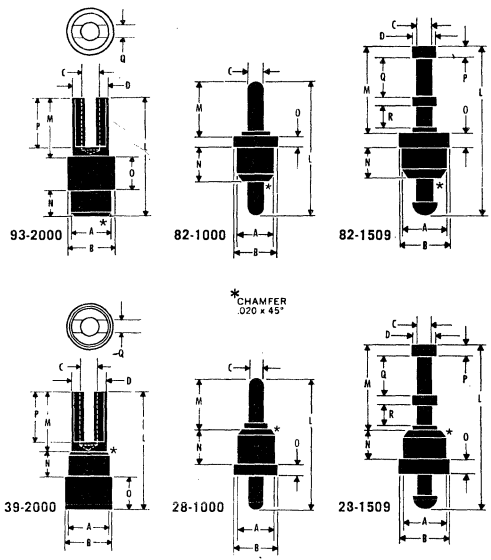
MINIATURE STANDOFF TURRET (set in 6 no. 20)

STANDARD TYPE

PART No.	A	B	C	D	L	M	N	O	P	Q	R	NET Per C
93-1500	.165	.187	.046	.093	.431	.156	.150	.125	.020	.046	.050	$12.00
93-1501	.165	.187	.046	.093	.493	.156	.156	.187	.020	.046	.050	13.00
93-1502	.165	.187	.040	.093	.522	.250	.150	.125	.020	.093	.095	12.00
93-1503	.165	.187	.046	.125	.556	.281	.150	.125	.031	.093	.095	12.00
93-1504	.165	.187	.040	.093	.584	.250	.150	.187	.020	.093	.097	13.00
93-1505	.165	.187	.046	.093	.556	.156	.150	.250	.020	.046	.050	14.00
93-1506	.165	.187	.046	.125	.616	.281	.150	.187	.031	.093	.095	13.00
93-1507	.165	.187	.046	.125	.831	.281	.150	.400	.031	.093	.095	18.00
93-1508	.215	.250	.046	.125	.968	.281	.187	.500	.031	.093	.095	22.00
93-1509	.215	.250	.046	.125	.968	.281	.187	.800	.031	.093	.095	30.00
93-1510	.171	.187	.046	.093	.431	.156	.150	.125	.020	.046	.050	12.00
93-1516	.148	.172	.040	.093	.482	.250	.110	.125	.020	.093	.097	12.00

REVERSE TYPE

99-1500	.165	.187	.046	.093	.431	.156	.150	.125	.020	.046	.050	$13.00
99-1501	.165	.187	.046	.093	.493	.156	.150	.187	.020	.046	.050	14.00
99-1502	.165	.187	.046	.093	.552	.250	.150	.125	.020	.093	.097	13.00
99-1503	.165	.187	.046	.125	.556	.281	.150	.125	.031	.093	.095	13.00
99-1504	.165	.187	.040	.093	.584	.250	.150	.187	.020	.093	.097	14.00
99-1505	.165	.187	.046	.093	.556	.156	.150	.250	.020	.046	.050	15.00
99-1506	.165	.187	.046	.125	.616	.281	.150	.187	.031	.093	.095	14.00
99-1507	.165	.187	.046	.125	.831	.281	.150	.400	.031	.093	.095	19.00
99-1508	.215	.250	.046	.125	.968	.281	.187	.500	.031	.093	.095	23.00
99-1509	.215	.250	.046	.125	1.268	.281	.187	.800	.031	.093	.095	31.00
99-1510	.171	.187	.046	.093	.431	.156	.150	.125	.020	.046	.050	13.00
99-1518	.148	.172	.040	.093	.482	.250	.110	.125	.020	.093	.097	13.00



MINIATURE STANDOFF SLOTTED LUG

STANDARD TYPE

PART NO.	A	B	C	D	L	N	M	O	P	Q	NET Per C
93-2000	.171	.187	.078	.148	.478	.203	.150	.125	.156	.046	$12.00
93-2001	.171	.187	.078	.148	.540	.203	.150	.187	.156	.046	13.00
93-2002	.171	.187	.078	.148	.603	.203	.150	.250	.156	.046	14.00
93-2003	.171	.187	.078	.148	.753	.203	.150	.400	.156	.046	18.00
93-2004	.217	.250	.078	.148	.890	.203	.187	.500	.156	.046	22.00
93-2005	.217	.250	.078	.148	1.190	.203	.187	.800	.156	.046	30.00

REVERSE TYPE

39-2000	.171	.187	.078	.148	.478	.203	.150	.125	.156	.046	$13.00
39-2001	.171	.187	.078	.148	.540	.203	.150	.187	.156	.046	14.00
39-2002	.171	.187	.078	.148	.603	.203	.150	.250	.156	.046	15.00
39-2003	.171	.187	.078	.148	.753	.203	.150	.400	.156	.046	19.00
39-2004	.217	.250	.078	.148	.890	.203	.187	.500	.156	.046	23.00
39-2005	.217	.215	.078	.148	1.190	.203	.187	.800	.156	.046	31.00

SUBMINIATURE FEED-THRU TERMINALS

STANDARD TYPE

PART NO.	A	B	C	L	M	N	O	Net Per C
82-1000	.148	.172	.040	.443	.210	.100	.040	$11.00
82-1001	.148	.172	.040	.410	.147	.110	.050	10.00
82-1002	.148	.172	.040	.515	.210	.050	.050	10.00
82-1003	.148	.172	.040	.515	.210	.100	.040	10.00
82-1004	.148	.172	.040	.535	.210	.110	.050	10.00
82-1005	.179	.200	.040	.515	.210	.100	.040	12.00
82-1006	.218	.250	.040	.515	.210	.100	.040	13.00
82-1007	.148	.172	.040	.535	.210	.120	.040	12.00
82-1008	.148	.172	.040	.535	.210	.132	.040	12.00
82-1009	.148	.172	.040	.535	.210	.160	.040	13.00
82-1010	.148	.172	.040	.725	.210	.100	.040	11.00
82-1011	.148	.172	.040	1.000	.210	.100	.040	13.00
82-1012	.171	.218	.040	2.000	.680	.110	.050	14.00
82-1013	.169	.219	.040	2.500	.460	.100	.040	14.00
82-1014	.169	.219	.049	2.500	.460	.100	.040	14.00
82-1015	.172	.195	.040	.515	.210	.100	.040	11.00
82-1022	.093	.125	.040	.515	.210	.100	.040	11.00
82-1031	.125	.150	.040	.335	.125	.060	.040	11.00

REVERSE TYPE

28-1000	.148	.172	.040	.443	.210	.100	.040	$12.00
28-1001	.148	.172	.040	.410	.147	.110	.050	11.00
28-1002	.148	.172	.040	.515	.210	.050	.050	12.00
28-1003	.148	.172	.040	.515	.210	.100	.040	11.00
28-1004	.148	.172	.040	.535	.210	.110	.050	11.00
28-1005	.179	.200	.040	.515	.210	.100	.040	13.00
28-1006	.218	.250	.040	.515	.210	.100	.040	14.00
28-1007	.148	.172	.040	.535	.210	.120	.040	13.00
28-1008	.148	.172	.040	.535	.210	.132	.040	13.00
28-1009	.148	.172	.040	.535	.210	.160	.040	14.00
28-1010	.148	.172	.040	.725	.210	.100	.040	12.00
28-1011	.148	.172	.040	1.000	.210	.100	.040	14.00
28-1012	.171	.218	.040	2.000	.680	.110	.050	15.00
28-1013	.169	.219	.040	2.500	.460	.100	.040	15.00
28-1014	.169	.219	.049	2.500	.460	.100	.040	15.00
28-1015	.172	.195	.040	.515	.200	.100	.040	12.00
28-1022	.093	.125	.040	.515	.210	.100	.040	12.00
28-1031	.125	.150	.040	.335	.125	.060	.040	12.00

SUBMINIATURE FEED-THRU TURRET

STANDARD TYPE

PART No.	A	B	C	D	L	M	N	O	P	Q	R	NET Per C
82-1509	.148	.172	.040	.080	.438	.210	.100	.040	.020	.100	.050	$10.00
82-1500	.148	.172	.040	.080	.500	.210	.100	.040	.020	.100	.050	11.00
82-1501	.148	.172	.040	.080	.500	.210	.165	.040	.020	.100	.050	12.00
82-1502	.179	.200	.040	.080	.500	.210	.100	.040	.020	.100	.050	13.00
82-1504	.148	.172	.040	.080	.531	.210	.100	.040	.020	.100	.050	11.00
82-1505	.148	.172	.040	.080	.531	.210	.125	.040	.020	.100	.050	11.00
82-1506	.185	.218	.040	.080	.531	.210	.100	.040	.020	.100	.050	13.00
82-1507	.185	.218	.040	.080	.531	.210	.125	.040	.020	.100	.050	13.00
82-1508	.185	.172	.040	.080	.609	.210	.125	.093	.020	.100	.050	14.00
82-1516	.093	.125	.040	.080	.500	.210	.100	.040	.020	.100	.050	11.00
82-1512	.148	.172	.040	.080	.609	.210	.125	.093	.020	.100	.050	13.00

REVERSE TYPE

28-1509	.148	.172	.040	.080	.438	.210	.100	.040	.020	.100	.050	$11.00
28-1500	.148	.172	.040	.080	.500	.210	.100	.040	.020	.100	.050	12.00
28-1501	.148	.172	.040	.080	.500	.210	.165	.040	.020	.100	.050	13.00
28-1502	.179	.200	.040	.080	.500	.210	.100	.040	.020	.100	.050	14.00
28-1504	.148	.172	.040	.080	.531	.210	.100	.040	.020	.100	.050	12.00
28-1505	.148	.172	.040	.080	.531	.210	.125	.040	.020	.100	.050	12.00
28-1506	.185	.218	.040	.080	.531	.210	.100	.040	.020	.100	.050	14.00
28-1507	.185	.218	.040	.080	.531	.210	.125	.040	.020	.100	.050	14.00
28-1508	.185	.172	.040	.080	.609	.210	.125	.093	.020	.100	.050	15.00
28-1516	.093	.125	.040	.080	.500	.210	.100	.040	.020	.100	.050	12.00
28-1512	.148	.172	.040	.080	.609	.210	.125	.093	.020	.100	.050	13.00

Net
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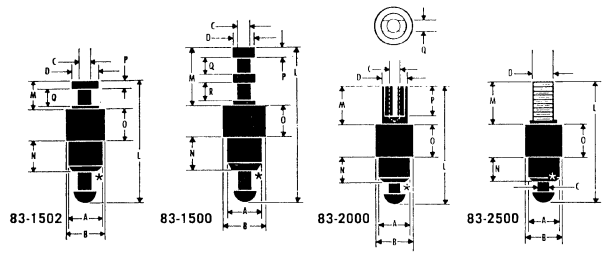
SMITH TEFLON TERMINALS

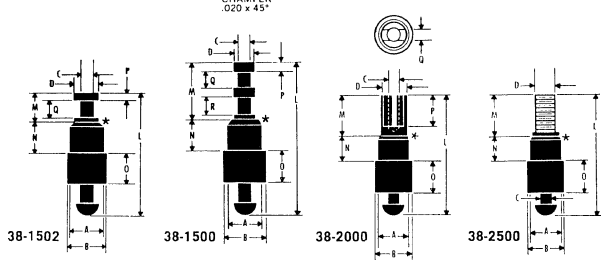
COLOR CODE SUFFIX
Add to Catalog Number as required

— **101** WHITE* — **102** RED — **103** BLACK — **104** GREEN — **105** BLUE — **106** ORANGE — **107** YELLOW — **108** BROWN — **112** PURPLE — **113** GREY

PLATING FINISH
STANDARD .0002 Silver Plate, Gold Flash.
OTHER Finishes supplied on request.

* WHITE is natural Teflon, supplied if no color specified. Color does not affect electrical, mechanical, physical or thermal characteristics. **Std. Pkg. 10C**





MINIATURE FEED-THRU
STANDARD TYPE

PART NO.	A	B	C	D	L	M	N	O	P	Q	NET Per C
83-1502	.171	.187	.046	.093	.540	.133	.171	.063	.020	.093	$14.00
83-1503	.185	.215	.046	.093	.640	.133	.210	.093	.020	.093	18.00
83-1504	.171	.187	.050	.093	.740	.125	.212	.187	.031	.062	18.00
83-1505	.171	.187	.050	.093	.740	.125	.150	.250	.031	.062	18.00
83-1506	.171	.187	.050	.093	.865	.125	.275	.250	.031	.062	20.00
83-1507	.171	.187	.050	.125	1.115	.125	.400	.375	.031	.062	24.00
83-1508	.217	.250	.050	.125	1.365	.125	.525	.500	.031	.062	31.00
83-1516	.171	.250	.050	.125	1.965	.125	.825	.800	.031	.062	44.00
82-1510	.148	.172	.040	.080	.443	.125	.100	.040	.020	.062	13.00
82-1513	.148	.172	.040	.080	.350	.093	.100	.040	.020	.062	12.00
REVERSE TYPE											
38-1502	.171	.187	.046	.093	.540	.133	.171	.063	.020	.093	$15.00
38-1503	.185	.215	.046	.093	.640	.133	.210	.093	.020	.093	19.00
38-1504	.171	.187	.050	.093	.740	.125	.150	.250	.031	.062	19.00
38-1505	.171	.187	.050	.093	.740	.125	.150	.250	.031	.062	19.00
38-1506	.171	.187	.050	.093	.865	.125	.275	.250	.031	.062	21.00
38-1507	.171	.187	.050	.125	1.115	.125	.400	.375	.031	.062	25.00
38-1508	.217	.250	.050	.125	1.365	.125	.525	.500	.031	.062	32.00
38-1516	.171	.250	.050	.125	1.965	.125	.825	.800	.031	.062	45.00
28-1510	.148	.172	.040	.080	.443	.093	.100	.040	.020	.062	13.00
28-1513	.148	.172	.040	.080	.350	.125	.100	.040	.020	.062	14.00

MINIATURE FEED-THRU TURRET
STANDARD TYPE

PART NO.	A	B	C	D	L	M	N	O	P	Q	R	NET Per C
83-1500	.264	.312	.040	.080	.531	.210	.100	.040	.020	.100	.050	$14.00
83-1501	.234	.250	.040	.080	.500	.210	.100	.040	.020	.100	.050	12.00
83-1509	.148	.172	.040	.093	.836	.250	.165	.187	.020	.095	.095	18.00
83-1510	.148	.172	.040	.093	.836	.250	.230	.125	.020	.095	.095	18.00
83-1511	.171	.187	.040	.093	.836	.212	.212	.187	.020	.095	.095	18.00
83-1512	.204	.250	.040	.093	.836	.250	.212	.187	.020	.095	.095	18.00
83-1513	.230	.250	.040	.093	.836	.250	.212	.187	.020	.095	.095	18.00
83-1523	.171	.187	.040	.093	.836	.250	.150	.250	.020	.095	.095	18.00
†83-1524	.218	.250	.062	.125	1.187	.281	.375	.250	.031	.093	.093	25.00
REVERSE TYPE												
38-1500	.264	.312	.040	.080	.531	.210	.100	.040	.020	.100	.050	$15.00
38-1501	.264	.312	.040	.080	.531	.210	.100	.040	.020	.100	.050	13.00
38-1509	.148	.172	.040	.093	.836	.250	.165	.187	.020	.095	.095	19.00
38-1510	.148	.172	.040	.093	.836	.250	.230	.125	.020	.095	.095	19.00
38-1511	.171	.187	.040	.093	.836	.250	.212	.187	.020	.095	.095	19.00
38-1512	.204	.250	.040	.093	.836	.250	.212	.187	.020	.095	.095	19.00
38-1513	.230	.250	.040	.093	.836	.250	.212	.187	.020	.095	.095	19.00
38-1523	.171	.187	.040	.093	.836	.250	.150	.250	.020	.095	.095	18.00
†38-1524	.218	.250	.062	.125	1.187	.281	.375	.250	.031	.093	.093	26.00

† TURRETS BOTH ENDS

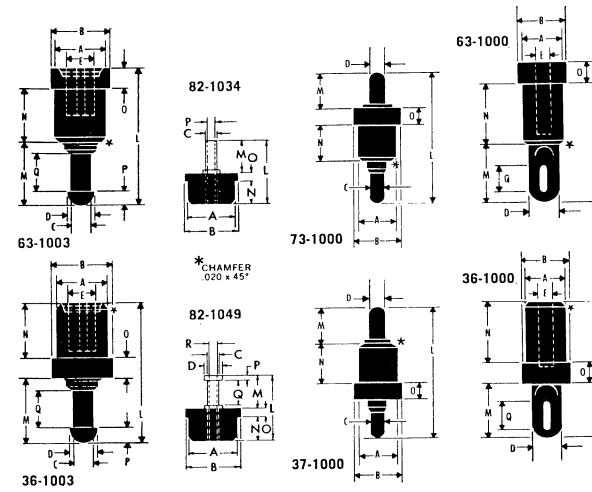
MINIATURE FEED-THRU SLOTTED LUG
STANDARD TYPE

PART NO.	A	B	C	D	L	M	N	O	P	Q	NET Per C
83-2000	.171	.187	.078	.148	.821	.203	.212	.187	.156	.046	$22.00
83-2001	.171	.187	.046	.148	.821	.203	.212	.187	.156	.046	22.00
83-2002	.171	.187	.078	.148	.947	.203	.275	.250	.156	.046	24.00
83-2003	.171	.187	.046	.148	.947	.203	.275	.250	.156	.030	24.00
83-2004	.171	.187	.078	.148	1.197	.203	.400	.375	.156	.046	30.00
83-2005	.171	.187	.046	.148	1.197	.203	.400	.375	.156	.030	30.00
83-2006	.171	.187	.078	.148	1.197	.203	.550	.225	.156	.046	36.00
83-2007	.171	.187	.078	.148	1.197	.203	.525	.250	.156	.046	36.00
REVERSE TYPE											
38-2000	.171	.187	.078	.148	.821	.203	.212	.187	.156	.046	$22.00
38-2001	.171	.187	.046	.148	.821	.203	.212	.187	.156	.046	22.00
38-2002	.171	.187	.078	.148	.947	.203	.275	.250	.156	.046	24.00
38-2003	.171	.187	.046	.148	.947	.203	.275	.250	.156	.030	25.00
38-2004	.171	.187	.078	.148	1.197	.203	.400	.375	.156	.046	30.00
38-2005	.171	.187	.046	.148	1.197	.203	.400	.375	.156	.030	31.00
38-2006	.171	.187	.078	.148	1.197	.203	.550	.225	.156	.046	36.00
38-2007	.171	.187	.078	.148	1.197	.203	.525	.250	.156	.046	37.00

MINIATURE FEED-THRU THREADED LUG
STANDARD TYPE

PART NO.	A	B	C	D†	L	M	N	O	NET Per C
83-2500	.171	.187	.050	4-36	.899	.281	.212	.187	$22.00
83-2501	.171	.187	.050	4-40	.899	.281	.212	.187	22.00
83-2502	.171	.187	.050	4-36	1.024	.281	.212	.250	24.00
83-2503	.171	.187	.050	4-40	1.024	.281	.212	.250	24.00
83-2504	.171	.187	.050	4-36	1.274	.281	.212	.375	30.00
83-2505	.171	.187	.050	4-40	1.274	.281	.212	.375	30.00
REVERSE TYPE									
38-2500	.171	.187	.050	4-36	.899	.281	.212	.187	$23.00
38-2501	.171	.187	.050	4-36	.899	.281	.212	.187	23.00
38-2502	.171	.187	.050	4-40	1.024	.281	.212	.250	25.00
38-2503	.171	.187	.050	4-40	1.024	.281	.212	.250	25.00
38-2504	.171	.187	.050	4-36	1.274	.281	.212	.375	31.00
38-2505	.171	.187	.050	4-40	1.274	.281	.212	.375	31.00

† CLASS 2 THREAD



TEST JACK MINIATURE

These Jacks hve Beryllium Copper Contacts

STANDARD TYPE

PART NO.	A	B	C	D	E†	L	M	N	O	P	Q	NET Per C
63-1003	.185	.218	.054	.074	.090	.437	.120	.281	.046	.037	.053	$19.00
63-1004	.185	.218	.054	.074	.080	.437	.120	.281	.046	.031	.053	19.00
63-1005	.185	.218	.054	.074	.080	.637	.187	.400	.050	.037	.104	19.00
63-1010	.148	.172	.040	.074	.040	.345	.120	.179	.046	.037	.053	20.00
REVERSE TYPE												
36-1003	.185	.218	.054	.074	.090	.437	.120	.281	.046	.037	.053	$19.00
36-1004	.185	.218	.054	.074	.080	.437	.120	.281	.046	.031	.053	19.00
36-1005	.185	.218	.054	.074	.080	.637	.187	.400	.050	.037	.104	19.00
36-1010	.148	.172	.040	.074	.040	.345	.120	.179	.046	.037	.053	20.00

* CHAMFER .020 x 45° † DIAMETER OF MATING PROBE

SUB-MINIATURE TUBULAR FEED-THRU

PART NO.	A	B	C	D	L	M	N	O	P	Q	NET Per C
82-1034	.148	.172	.040	—	.310	.207	.053	.050	.030	—	$11.00
82-1041	.171	.218	.085	—	.367½	.125	.060	.040	.030	—	11.00
82-1040	.093	.125	.040	—	.225	.207	.110	.050	.063	—	13.00
82-1043	.148	.172	.040	—	.407	.207	.160	.040	.030	—	15.00
82-1045	.218	.250	.060	—	.287	.147	.100	.040	.030	.050	14.00

PART NO.	A	B	C	D	L	M	N	O	P	Q	R	NET Per C
82-1049	.125	.150	.060	.090	.273	.133	.080	.060	.020	.093	.030	$13.00
82-1050	.148	.172	.060	.090	.303	.133	.100	.040	.020	.093	.030	13.00
82-1052	.171	.188	.082	.125	.093	.133	.155	.093	.020	.093	.030	15.00

PROBES AND PLUGS MINIATURE
STANDARD TYPE

PART NO.	A	B	C	D	L	M	N	O	NET Per C
73-1000	.185	.218	.030	.050	.906	.250	.287	.046	$15.00
83-1001	.185	.218	.030	.050	1.531	.250	.287	.046	15.00
73-1002	.185	.218	.030	.050	2.083	.250	.287	.046	15.00
REVERSE TYPE									
37-1000	.185	.218	.030	.050	.906	.250	.287	.046	$16.00
37-1001	.185	.218	.030	.050	1.531	.250	.287	.046	16.00
37-1002	.185	.218	.030	.050	2.083	.250	.287	.046	16.00

* CHAMFER .020 x 45°

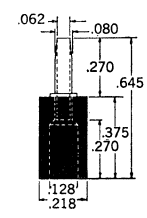
CONNECTOR AND TEST JACK MINIATURE

These Jacks have Beryllium Copper Contacts

STANDARD TYPE

PART NO.	A	B	D	E†	L	M	N	O	NET Per C
63-1000	.185	.218	.105	.050	.687	.354	.287	.140	$16.00
63-1001	.185	.218	.105	.041	.687	.354	.287	.140	16.00
63-1002	.185	.218	.110	.080	.687	.354	.287	.156	16.00
REVERSE TYPE									
36-1000	.185	.218	.105	.050	.687	.354	.287	.140	$17.00
36-1001	.185	.218	.105	.041	.687	.354	.287	.140	17.00
36-1002	.185	.218	.110	.080	.687	.354	.287	.156	17.00

* CHAMFER .020 x 45° † DIAMETER OF MATING PROBE



PROBES

PART NO.	NET Per C
73-3001	$16.00

SMITH TEFLON TERMINALS are available for IMMEDIATE DELIVERY from stock!

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Net

HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

EQUIPMENT HANDLES

MATERIALS AND FINISH SPECIFICATIONS

The following specifications are met by all panel handles, ferrules, and hardware where applicable:

Materials:

Brass: In accordance with Federal Spec. QQ-B-626, Composition 22, ½ Hard.
Aluminum: In accordance with Federal Spec. QQ-A-365, Composition A, Type 3.
Steel: Cold-Rolled, in accordance with QQ-S-633b, Grade FS-1010.

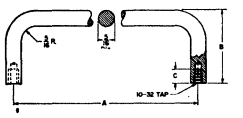
Finishes:

Nickel Plate: Polished Nickel Plate, in accordance with Federal Spec. QQ-N-290, Class I, Type VI.
Black Oxide: In accordance with MIL-F-495A.
Satin Etch: Commercial finish.
Black Anodize: In accordance with MIL-A-8625A.
Optical Black: Color in accordance with Fed. Std. 595, Type 37038. Paint complies with Fed. Spec. TT-E-527.

Note:

Aluminum Handles, either round or oval, and matching ferrules, can be supplied anodized in colors per MIL-A-8625A on special order.

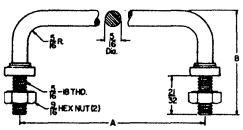
PANEL HANDLES



Brass Panel Handles, finished as shown, with internal 10-32 thread. Individually packaged.
Std. Pkg. 10

No.	Mtg. Ctrs. (A)	Height (B)	Tap Depth (C)	Finish	NET Ea.
0050	3"	1-5/16"	7/16"	Nickel Plate	$.63
601	3"	1-5/16"	7/16"	Black Oxide	.63
0057	3"	1-1/2"	9/16"	Nickel Plate	.63
602	3"	1-1/2"	9/16"	Black Oxide	.63
0056	4-1/4"	1-1/2"	9/16"	Nickel Plate	.72
604	4-1/4"	1-1/2"	9/16"	Black Oxide	.72
0051	4-9/16"	1-1/2"	9/16"	Nickel Plate	.75
605	4-9/16"	1-1/2"	9/16"	Black Oxide	.75
0052	6-7/16"	1-3/4"	9/16"	Nickel Plate	.78
606	6-7/16"	1-3/4"	9/16"	Black Oxide	.78

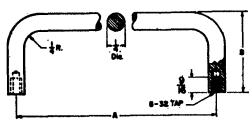
PANEL HANDLES



Brass Panel Handles, finished as shown with male threaded stud. Supplied complete with matching ferrules, and brass, nickel plated hex nuts. Mount in 5/16" panel holes. Individually packaged.
Std. Pkg. 10

No.	Mtg. Ctrs. (A)	Height (B)	Finish	NET Ea.
607	2"	2½"	Nickel Plate	$.81
608	2"	2½"	Black Oxide	.81
609	3"	2½"	Nickel Plate	.84
610	3"	2½"	Black Oxide	.84
611	4"	2½"	Nickel Plate	.87
612	4"	2½"	Black Oxide	.87
0053	4½"	2½"	Nickel Plate	.90
613	4½"	2½"	Black Oxide	.90
614	6"	2 11/16"	Nickel Plate	.98
615	6"	2 11/16"	Black Oxide	.98

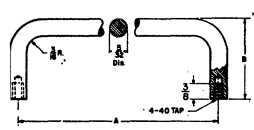
PANEL HANDLES



¼" Diameter panel handles, Brass and Aluminum, finished as shown, with internal 8-32 thread. Individually packaged.
Std. Pkg. 10

No.	Mtg. Ctrs. (A)	Height (B)	Material	Finish	NET Ea.
616	2"	1½"	Brass	Nickel Plate	$.60
617	2"	1½"	Brass	Black Oxide	.60
618	2"	1½"	Aluminum	Satin	.60
619	2"	1½"	Aluminum	Blk. Anodize	.60
620	3"	1½"	Brass	Nickel Plate	.63
621	3"	1½"	Brass	Black Oxide	.63
622	3"	1½"	Aluminum	Satin	.63
623	3"	1½"	Aluminum	Blk. Anodize	.63
624	4"	1½"	Brass	Nickel Plate	.69
625	4"	1½"	Brass	Black Oxide	.69
626	4"	1½"	Aluminum	Satin	.69
627	4"	1½"	Aluminum	Blk. Anodize	.69
628	6"	1½"	Brass	Nickel Plate	.75
629	6"	1½"	Brass	Black Oxide	.75
630	6"	1½"	Aluminum	Satin	.75
631	6"	1½"	Aluminum	Blk. Anodize	.75

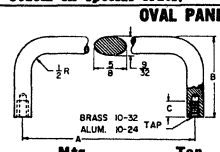
PANEL HANDLES



5/32" Diameter panel handles, Brass and Aluminum, finished as shown, with internal 4-40 thread. Individually packaged.
Std. Pkg. 10

No.	Mtg. Ctrs. (A)	Height (B)	Material	Finish	NET Ea.
632	1¼"	1"	Brass	Nickel Plate	$.82
633	1¼"	1"	Brass	Black Oxide	.82
634	1¼"	1"	Aluminum	Satin	.82
635	1¼"	1"	Aluminum	Blk. Anodize	.82
636	2"	1"	Brass	Nickel Plate	.86
637	2"	1"	Brass	Black Oxide	.86
638	2"	1"	Aluminum	Satin	.86
639	2"	1"	Aluminum	Blk. Anodize	.86
640	3"	1"	Brass	Nickel Plate	.90
641	3"	1"	Brass	Black Oxide	.90
642	3"	1"	Aluminum	Satin	.90
643	3"	1"	Aluminum	Blk. Anodize	.90

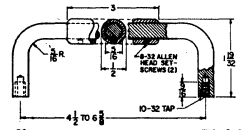
OVAL PANEL HANDLES



Flat, oval panel handles in Brass and Aluminum, finished as shown. Brass handles have internal 10-32 thread, Aluminum handles have internal 10-24 thread. Individually packaged.
Std. Pkg. 10

No.	Mtg. Ctrs. (A)	Height (B)	Tap Depth (C)	Material	Finish	NET Ea.
1644	3"	1 9/32"	9/32"	Brass	Nickel Plate	$1.35
1645	3"	1 9/32"	9/32"	Brass	Black Oxide	1.35
1646	3"	1 9/32"	9/32"	Aluminum	Blk. Anodize	1.08
1647	4 9/16"	1½"	½"	Brass	Nickel Plate	1.52
1648	4 9/16"	1½"	½"	Brass	Black Oxide	1.52
1649	4 9/16"	1½"	9/32"	Aluminum	Blk. Anodize	1.10
1651	6 7/16"	1½"	½"	Brass	Nickel Plate	1.73
1653	6 7/16"	1½"	½"	Brass	Black Oxide	1.73
1654	6 7/16"	1½"	9/32"	Aluminum	Blk. Anodize	1.20
1655	9"	1½"	½"	Brass	Nickel Plate	1.91
1657	9"	1½"	½"	Brass	Black Oxide	1.91
1658	9"	1¼"	9/32"	Aluminum	Blk. Anodize	1.31

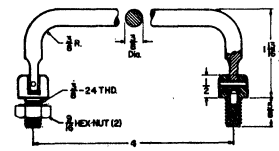
ADJUSTABLE HANDLES



Adjustable Brass Panel handles, with mounting center range from 4½" to 6⅝". Finished as shown. Internal 10-32 thread, supplied with Allen-Head locking screws. Individually packaged.
Std. Pkg. 10

No.	Finish	NET Ea.
1659	Nickel Plate	$2.85
1661	Black Oxide	2.85

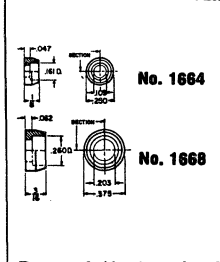
FOLDING HANDLES



Folding Brass panel handles, with spring-loaded detents which snap into upright or left-or-right folded position. Finished as shown. Supplied with brass, nickel plated hex nuts. Mounts in ⅜" panel holes. Individually packaged.
Std. Pkg. 10

No.	Finish	NET Ea.
1662	Nickel Plate	$2.55
1663	Black Oxide	2.55

FERRULES



No. 1664 — No. 2054
No. 1668 — No. 2055

Brass and Aluminum ferrules, finished as shown, to match handles listed above.
Std. Pkg. 50

FOR 5/32" DIA. HANDLES

No.	Material	Finish	NET Per C
1664	Brass	Nickel Plate	$15.00
1665	Brass	Black Oxide	15.00
1666	Aluminum	Satin	15.00
1667	Aluminum	Black Anodize	15.00

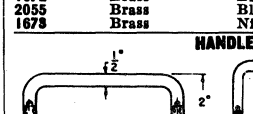
FOR 1/4" DIA. HANDLES

1668	Brass	Nickel Plate	$15.00
1669	Brass	Black Oxide	15.00
1670	Aluminum	Satin	15.00
1671	Aluminum	Black Anodize	15.00

FOR 5/16" DIA. HANDLES

2054	Brass	Nickel Plate	$15.00
1672	Brass	Black Oxide	15.00
2055	Brass	Black Oxide	15.00
1673	Brass	Nickel Plate	15.00

HANDLES

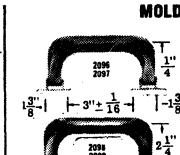


2061 2062

Steel handles painted with Optical Black finish.
Std. Pkg. 10

No.	Diameter	NET Ea.
2061	¼"	$1.80
2062	⅜"	1.20

MOLDED GRIP HANDLES



HANDLE: Molded High Impact styrene.
HDWRE.: Steel, nickel plated.
DESCR.: Designed for economy and rugged use.
Std. Pkg. 10

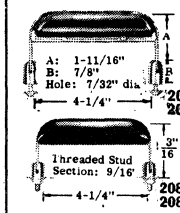
ATTACHES WITH RIVETS OR SCREWS

No.	Color	NET Per C
2096	Black	$45.00
2097	Grey	45.00

ATTACHES WITH THREADED STUD

2098	Black	84.00
2099	Grey	84.00

MOLDED GRIP HANDLES



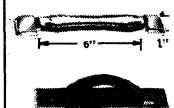
HANDLE: Molded high impact Styrene, Fungus Resistant.
HDWRE.: Steel. Nickel plated.
DESCR.: Rounded palm fitting design. Attaches to case with machine screws.
Std. Pkg. 10

No.	Color	Each
2085	Black	$1.75
2086	Grey	1.75

HANDLE: Molded high impact Styrene, Fungus Resistant.
HDWRE.: Steel, Nickel plated.
DESCR.: Rounded palm fitting design. Attaches to case with washers and nuts supplied. Will support 100 lbs.
Std. Pkg. 10

No.	Color	Stud Lgth.	NET Ea.
2087	Black	9/16"	$1.05
2088	Grey	9/16"	1.05

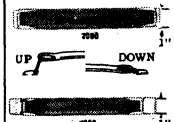
SPRING GLIDE HANDLE



HANDLE: Genuine leather, contoured BLACK, matching stitching, 6" long.
CAPS: Steel, chrome plated.
DESCR.: Strong, silent spring glide, frequency of decibel extremes will not induce handle rattle. Handle moves up for comfortable carrying down when not in use.
Std. Pkg. 10

No.	Color	NET Ea.
2089	Black	$2.40

RETRACTO-LINK HANDLES



HANDLE: Genuine leather, matching stitching, BLACK.
HDWRE.: Steel, nickel plated.
DESCR.: Assemblies are shaped with all hardware installed except for decorative cover caps which are packed separately. Supplied in two styles—different lengths.
Std. Pkg. 10

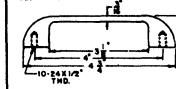
ATTACHES WITH PRONGS THAT BEND INSIDE CASE

No.	Length	Ea.
2090	4⅛"	$2.10
2091	5⅛"	2.10
2092	6⅛"	2.10

ATTACHES WITH RIVETS OR SCREWS

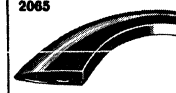
2093	4⅛"	$2.10
2094	5⅛"	2.10
2095	6⅛"	2.10

OVAL HANDLE



Die Cast Zamac Handle. Brush chrome plated.
Std. Pkg. 10

No.	NET Per C
2065	$90.00

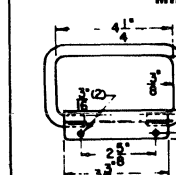


BAKELITE HANDLE

Std. Pkg. 10

No.	Thread	O.D.	Mtg. Center	Color	NET Per C
2281	8-32	4¼"	2⅞"	Black	$14.40
2282	8-32	4¼"	Center	Red	15.60

MIL. SPEC. HANDLES



2063 2064

MATERIAL: Aluminum.
FINISH: Alodine per MIL-C-5541 Spec. Sprayed to MIL-E-15090. Gloss gray color #1640 per MIL SPEC. FTC-595.
Std. Pkg. 10

No.	Type	NET Ea.
2063	Half Bracket	$1.35
2064	Full Bracket	1.35
	With Transflux Plastic Protector	
2048	Half Bracket	$1.80
2049	Full Bracket	1.80

Net

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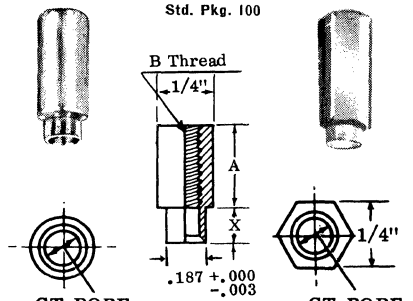
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

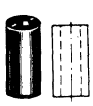
BRASS THREADED SWAGE STANDOFFS

Nickel Plated

Std. Pkg. 100



No.	Per C NET Per C	A	B	X	No.	Per C NET Per C
ROUND					**HEX**	
4100	$4.50	1/4	4/40	.105	4200	$5.10
4101	4.50	1/4	4/40	.135	4201	5.10
4102	4.50	1/4	4/40	.165	4202	5.10
4103	5.10	3/8	4/40	.105	4203	5.70
4104	5.10	3/8	4/40	.135	4204	5.70
4105	5.10	3/8	4/40	.165	4205	5.70
4106	5.70	1/2	4/40	.105	4206	6.45
4107	5.70	1/2	4/40	.135	4207	6.45
4108	5.70	1/2	4/40	.165	4208	6.45
4109	6.90	5/8	4/40	.105	4209	7.35
4110	6.90	5/8	4/40	.135	4210	7.35
4111	6.90	5/8	4/40	.165	4211	7.35
4112	8.10	3/4	4/40	.105	4212	8.40
4113	8.10	3/4	4/40	.135	4213	8.40
4114	8.10	3/4	4/40	.165	4214	8.40
4115	10.50	1	4/40	.105	4215	11.10
4116	10.50	1	4/40	.135	4216	11.10
4117	10.50	1	4/40	.165	4217	11.10
4118	4.50	1/4	6/32	.105	4218	5.10
4119	4.50	1/4	6/32	.135	4219	5.10
4120	4.50	1/4	6/32	.165	4220	5.10
4121	5.10	3/8	6/32	.105	4221	5.70
4122	5.10	3/8	6/32	.135	4222	5.70
4123	5.10	3/8	6/32	.165	4223	5.70
4124	5.70	1/2	6/32	.105	4224	6.45
4125	5.70	1/2	6/32	.135	4225	6.45
4126	5.70	1/2	6/32	.165	4226	6.45
4127	6.90	5/8	6/32	.105	4227	7.35
4128	6.90	5/8	6/32	.135	4228	7.35
4129	6.90	5/8	6/32	.165	4229	7.35
4130	8.10	3/4	6/32	.105	4230	8.40
4131	8.10	3/4	6/32	.135	4231	8.40
4132	8.10	3/4	6/32	.165	4232	8.40
4133	10.50	1	6/32	.105	4233	11.10
4134	10.50	1	6/32	.135	4234	11.10
4135	10.50	1	6/32	.165	4235	11.10
4136	4.50	1/4	8/32	.105	4236	5.10
4137	4.50	1/4	8/32	.135	4237	5.10
4138	4.50	1/4	8/32	.165	4238	5.10
4139	5.10	3/8	8/32	.105	4239	5.70
4140	5.10	3/8	8/32	.135	4240	5.70
4141	5.10	3/8	8/32	.165	4241	5.70
4142	5.70	1/2	8/32	.105	4242	6.45
4143	5.70	1/2	8/32	.135	4243	6.45
4144	5.70	1/2	8/32	.165	4244	6.45
4145	6.90	5/8	8/32	.105	4245	7.35
4146	6.90	5/8	8/32	.135	4246	7.35
4147	6.90	5/8	8/32	.165	4247	7.35
4148	8.10	3/4	8/32	.105	4248	8.40
4149	8.10	3/4	8/32	.135	4249	8.40
4150	8.10	3/4	8/32	.165	4250	8.40
4151	10.50	1	8/32	.105	4251	11.10
4152	10.50	1	8/32	.135	4252	11.10
4153	10.50	1	8/32	.165	4253	11.10



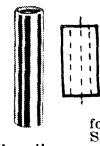
FIBRE SPACERS

These fibre bushings are ideal for use in raising sub panels, chassis, condensers, transformers, etc.

Std. Pkg. 100

1/4" O.D.

Length	for #4 Screw No.	for #6 Screw No.	for #8 Screw No.	NET Per C
1/4"	2335	2130	2140	$3.90
3/8"	2336	2131	2141	4.95
1/2"	2337	2132	2142	6.00
3/4"	2338	2133	2143	7.20
1"	2339	2134	2144	8.25



BRASS SPACERS

Cadmium Plated

These brass bushings are ideal for use in raising sub panels, chassis, condensers, transformers, etc. Hole in bushing to accommodate a #4, #6, or #8 screw.

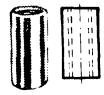
Std. Pkg. 100

1/4" O.D.

Length	for #4 Screw No.	for #6 Screw No.	for #8 Screw No.	NET Per C
1/4"	2340	2100	2105	$3.30
3/8"	2341	2101	2106	4.35
1/2"	2342	2102	2107	5.28
3/4"	2343	2103	2108	6.30
1"	2344	2104	2109	7.20

3/8" O.D.

1/4"	2345	2110	2115	$5.28
3/8"	2346	2111	2116	6.30
1/2"	2347	2112	2117	7.20
3/4"	2348	2113	2118	8.25
1"	2349	2114	2119	9.30

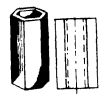


BRASS THREADED SPACERS

Cadmium Plated

1/4" O.D. Threaded 4-40, 6-32 and 8-32.

Length	THD 4-40 No.	THD 6-32 No.	THD 8-32 No.	NET Per C
1/4"	2370	2120	2125	$3.90
3/8"	2371	2121	2126	4.95
1/2"	2372	2122	2127	6.00
3/4"	2373	2123	2128	7.20
1"	2374	2124	2129	8.25



BRASS HEX SPACERS

Cadmium Plated

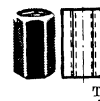
Std. Pkg. 100

1/4" HEX

Length	for #4 Screw No.	for #6 Screw No.	for #8 Screw No.	NET Per C
1/4"	2380	2300	2305	$3.60
3/8"	2381	2301	2306	4.65
1/2"	2382	2302	2307	5.58
3/4"	2383	2303	2308	6.75
1"	2384	2304	2309	7.80

3/8" HEX

1/4"	2385	2310	2315	6.18
3/8"	2386	2311	2316	7.20
1/2"	2387	2312	2317	8.25
3/4"	2388	2313	2318	9.90
1"	2389	2314	2319	10.50

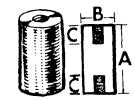


BRASS THREADED HEX SPACERS

Cadmium Plated

1/4" HEX

Length	THD 4-40 No.	THD 6-32 No.	THD 8-32 No.	NET Per C
1/4"	2330	2320	2325	$4.20
3/8"	2331	2321	2326	5.25
1/2"	2332	2322	2327	6.30
3/4"	2333	2323	2328	7.65
1"	2334	2324	2329	8.85



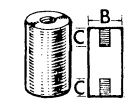
CERAMIC STANDOFFS

MADE TO JAN. SPECS.

Grade L-5 Ceramic made to JAN 1 - 8 and JAN 1 - 10 Specs. Outside of ceramic is glazed.

Std. Pkg. 50

No.	Type	A	B	C	Thd.	NET Per C
2600	NS5W0104	1/2"	3/8"	5/32"	6-32	$15.90
2601	NS5W0105	5/8"	3/8"	1/4"	6-32	16.50
2602	NS5W0106	3/4"	3/8"	1/4"	6-32	16.50
2603	NS5W0108	1"	3/8"	3/8"	6-32	18.00
2604	NS5W0110	1 1/4"	3/4"	3/8"	6-32	21.00
2605	NS5W0112	1 1/2"	3/8"	3/8"	6-32	24.00
2606	NS5W0116	2"	3/8"	3/8"	6-32	22.20
2607	NS5W0205	5/8"	1/2"	3/16"	8-32	15.00
2608	NS5W0206	3/4"	1/2"	1/4"	8-32	17.40
2609	NS5W2008	1"	1/2"	3/8"	8-32	16.50
2610	NS5W0210	1 1/4"	1/2"	3/8"	8-32	19.80
2611	NS5W0212	1 1/2"	1/2"	3/8"	8-32	27.00
2612	NS5W0216	2"	1/2"	3/8"	8-32	27.60
2613	NS5W0220	2 1/2"	1/2"	3/8"	8-32	29.40
2614	NS5W0224	3"	1/2"	3/8"	8-32	31.80
2615	NS5W0308	1"	3/4"	3/8"	10-32	25.50
2616	NS5W0310	1 1/4"	3/4"	3/8"	10-32	22.20
2617	NS5W0312	1 1/2"	3/4"	3/8"	10-32	34.20
2618	NS5W0316	2"	3/4"	3/8"	10-32	35.00
2619	NS5W0320	2 1/2"	3/4"	3/8"	10-32	36.00
2620	NS5W0324	3"	3/4"	3/8"	10-32	39.00
2621	NS5W0332	4"	3/4"	3/8"	10-32	48.00
2622	NS5W0410	1 1/4"	1"	7/16"	1/4-20	29.40
2623	NS5W0412	1 1/2"	1"	1/2"	1/4-20	42.00
2624	NS5W0416	2"	1"	5/8"	1/4-20	45.00
2625	NS5W0420	2 1/2"	1"	5/8"	1/4-20	50.50
2626	NS5W0424	3"	1"	5/8"	1/4-20	55.00
2627	NS5W0432	4"	1"	5/8"	1/4-20	66.00
2628	NS5W0440	5"	1"	5/8"	1/4-20	78.00
2629	NS5W0448	6"	1"	5/8"	1/4-20	90.00



CERAMIC STANDOFFS

COMMERCIAL

Grade L5 Ceramic with outside glazed.

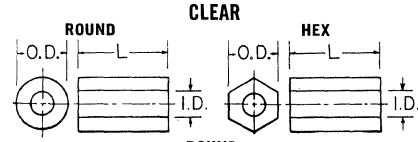
Std. Pkg. 50

No.	A	B	C	Thd.	NET Per C
2640	1/4"	1/4"	Thru	6-32	$12.60
2641	1/2"	1/4"	5/32"	6-32	13.20
2642	3/8"	3/8"	5/32"	6-32	13.80
2643	1/2"	3/8"	3/16"	6-32	14.40
2644	1/2"	1/2"	3/16"	6-32	15.00
2645	3/4"	1/2"	1/4"	6-32	16.00
2646	1"	1/2"	3/8"	6-32	15.00
2647	1 1/2"	1/2"	5/16"	6-32	21.00
2648	2 1/2"	1/2"	1/2"	6-32	30.00
2649	2 1/2"	3/4"	3/4"	1/4-20	36.00
2650	4"	3/4"	3/4"	1/4-20	50.00

ALUMINUM SPACERS

Irridite 14-2 per MIL-C-5541

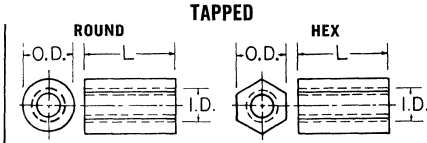
CLEAR



ROUND

OUTSIDE DIAMETER (O.D.) .250	.250	.250	.312		Std. Pkg. 100
INSIDE DIAMETER #4 (.124)	#6 (.156)	#8 (.180)	#10 (.218)	LENGTH "L"	NET Per C
8480	8500	8520	8540	.125	$ 5.40
8481	8501	8521	8541	.250	6.00
8482	8502	8522	8542	.375	7.20
8483	8503	8523	8543	.500	8.40
8484	8504	8524	8544	.625	9.60
8485	8505	8525	8545	.750	10.80
8486	8506	8526	8546	.875	12.00
8487	8507	8527	8547	1.000	12.60
8488	8508	8528	8548	1.250	18.60
8489	8509	8529	8549	1.500	21.00
8490	8510	8530	8550	1.750	21.60
8491	8511	8531	8551	2.000	22.20
——	——	8532	8552	2.50	24.60
——	——	8533	8553	3.00	27.00
——	——	——	8554	3.50	30.00
——	——	——	8555	4.00	33.00
——	——	——	8556	5.00	36.00
——	——	——	8557	6.00	39.00
HEX					
8560	8580	8600	8620	.125	$ 5.40
8561	8581	9601	9621	.250	6.00
8562	8582	9602	8622	.375	7.20
8563	8583	9603	8623	.500	8.40
8564	8584	8604	8624	.625	9.60
8565	8585	8605	8625	.750	10.80
8566	8586	8606	8626	.875	12.00
8567	8587	8607	8627	1.000	12.60
8568	8588	8608	8628	1.250	18.60
8569	8589	8609	8629	1.500	21.00
8570	8590	8610	8630	1.750	21.60
8571	8591	8611	8631	2.00	22.20

TAPPED



ROUND

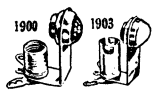
OUTSIDE DIAMETER (O.D.) .250	.250	.250	.312		Std. Pkg. 100
I.D. (THREAD) 4-40	6-32	8-32	10-32	LENGTH "L"	NET Per C
8320	8340	8360	8380	.125	$ 7.20
8321	8341	8361	8381	.250	7.80
8322	8342	8362	8382	.375	9.00
8323	8343	8363	8383	.500	10.20
8324	8344	8364	8384	.625	11.40
8325	8345	8365	8385	.750	12.60
8326	8346	8366	8386	.875	13.80
8327	8347	8367	8387	1.000	14.40
8328	8348	8368	8388	1.250	20.40
8329	8349	8369	8389	1.500	22.80
8330	8350	8370	8390	1.750	24.00
8331	8351	8371	8391	2.00	26.40
——	8352	——	——	2.50	28.80
——	8453	——	——	3.00	31.80
——	8354	——	——	3.00	34.80
——	8355	——	——	4.00	37.80
HEX					
8400	8420	8440	8460	.125	$ 7.20
8401	8421	8441	8461	.250	7.80
8402	8422	8442	8462	.375	9.00
8403	8423	8443	8463	.500	10.20
8404	8424	8444	8464	.625	11.40
8405	8425	8445	8465	.750	12.60
8406	8426	8446	8466	.875	13.80
8407	8427	8447	8467	1.000	14.40
8408	8428	8448	8468	1.250	20.40
8409	8429	8449	8469	1.500	22.80
8410	8430	8450	8470	1.750	24.00
8411	8431	8451	8471	2.00	26.40
——	8432	——	——	2.50	28.80
——	8433	——	——	3.00	31.80
——	8434	——	——	3.50	34.80
——	8435	——	——	4.00	37.80

HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

PANEL INDICATORS

Indicators supplied with facetted jewels in Red, Green, Amber, Blue, Opal and White.
SPECIFY COLOR. **Std. Pkg. 10**

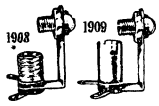


½" JEWEL—Mounts in 7/16" Hole

No.	Type	NET Per C
1900	Miniature Screw	$27.00
1901	Candelabra	33.00
1902	Candelabra w/Univ. Bkt.	34.80
1903	Bayonet	27.00
1904	Bayonet w/Univ. Bkt.	30.00
1912	½" Jewel Only	21.00

¾" JEWEL—Mounts in 11/16" Hole

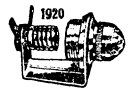
No.	Type	NET Per C
1905	Miniature Screw	$57.00
1906	Bayonet	60.00
1907	Candelabra	60.00
1914	¾" Jewel Only	42.00



⅜" JEWEL—Mounts in 5/16" Hole

No.	Type	NET Per C
1908	Miniature Screw	$27.00
1909	Bayonet	28.80
1941	⅜" Jewel Only	21.00

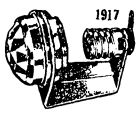
OPEN TYPE



Jewel Removable From Front

½" JEWEL—Mounts in 11/16" Hole
Std. Pkg. 10

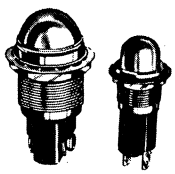
No.	Type	NET Per C
1920	Miniature Screw Open Type	$39.00
1921	Bayonet, Open Type	39.00
1942	Bayonet, "U" Bkt.	54.00
1943	½" Jewel Only	25.20



1" JEWEL—Mounts in 1" Hole

No.	Type	NET Per C
1917	Miniature Screw	$96.00
1918	Bayonet	96.00
1919	Candelabra	102.00
1916	1" Jewel Only	75.00

NEON INDICATORS



UL Approved. Supplies 180 degree light spread. Available in Red, Amber, White, Yellow and Clear caps. Neon removable from front. Candelabra screw base; 105-125 volts 1" mtg. clearance hole. **Std. Pkg. 10**

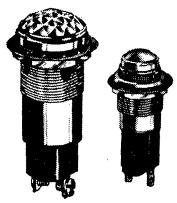
No.	Type	NET Per C
1953		$171.00
1954	Lens Cap Only	70.20

Built-in 56K ohm, ⅓ watt resistor
11/16" mtg. celarance hole.

No.	Type	NET Per C
1955		$135.00
1956	Lens Cap Only	22.20

INDICATOR ASSEMBLIES

Enclosed Type

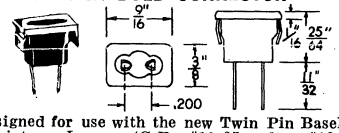


UL Approved. Available in Red, Green, Amber, Blue, Yellow, Clear and White. **Std. Pkg. 10**

Candelabra screw base; 1" mtg. clearance hole; 1" indicator. Uses No. 1916 Jewel. **NET Per C**
No. 1957 $172.20

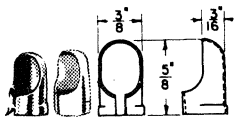
Bayonet base; 11/16" mtg. clearance hole; ½" indicator. Uses No. 1943 jewel.
No. 1958 NET Per C $128.40

SNAP-IN BULB CONNECTOR



Designed for use with the new Twin Pin Baseless Miniature Lamps (G.E. #10-25 volts, #12-6.3 volts, or #15-7.0 volts). Easily assembled to any unit for indicating purposes. Withstands excessive temperatures. Snaps into a .500x.296 rectangular hole in panels .032 to .062 thick. Bezel — brass, cad. plated; contacts — brass, silver plated. **Std. Pkg. 25**
No. 1504 NET Per C $10.20

PILOT LIGHT SHIELD

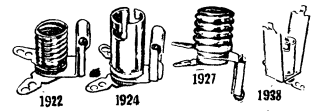


DESCR.: Prevents glare when used in radio receiver meters, etc. Ribbed bottom holds shield securely in place on bulb. **Std. Pkg. 100**

No.	Type	NET Per C
1963	Brass Cad. Plate	$3.60
1978	Plain Brass	3.30
1969	Flared Brass Cad. Plate	4.20

PILOT LIGHT SOCKETS

Clip-On Type

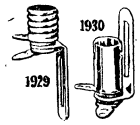


Can be used by clipping on to variable condenser or chassis. All brackets are cadmium plated. **Std. Pkg. 50**

No.	Type	NET Per C
1922	Miniature Screw Up Clip	$9.30
1923	Miniature Screw Down Clip	9.30
1924	Miniature Bayonet Up Clip	9.30
1925	Miniature Bayonet Down Clip	9.30
1926	Candelabra Up Clip	10.20
1927	Candelabra Down Clip	10.20
1938	Clip-in Socket	9.30

PILOT LIGHT SOCKETS

Bracket Type



No.	Type	NET Per C
1928	Miniature Screw Up Bracket	$9.30
1929	Miniature Screw Down Bracket	9.30
1930	Miniature Bayonet Up Bracket	9.30
1931	Miniature Bayonet Down Bracket	9.30
1932	Candelabra Up Bracket	10.20
1933	Candelabra Down Bracket	10.20

Std. Pkg. 50

UNMOUNTED TYPE SOCKETS

No.	Type	NET Per C
1934	Miniature Screw Base	$9.30
1935	Miniature Bayonet Base	9.30
1936	Candelabra Base	10.20

Std. Pkg. 50

NAVY TYPE LAMP SOCKETS

75W-125V
Bayonet Base

Vibration-proof socket for surface mounting. Made to rigid specifications of black phenolic. Has bayonet sleeve of brass and double contacts of heavy spring phosphor bronze. **Std. Pkg. 10**
No. 1950 NET Per C $84.00

SCREW BASE

Made of black phenolic to strict requirements. Instead of usual screw shell has phosphor bronze wire coiled spring for perfect contact and elimination of vibration. Designed for soldering wire leads. **Std. Pkg. 10**
No. 1951 NET Per C $84.00

SCREW BASE

Easily wired and mounted. A very practical unit made of black phenolic to rigid specifications. Has phosphor bronze spring contact to assure positive contact and elimination of vibration. **Std. Pkg. 10**
No. 1952 NET Per C $84.00

MINI-SHIELDS FOR MINI-TUBES

These Mini-Shields fit snugly on all Mini-Tubes. Serrations in base clip prevent shielded tube from jiggling or working loose. Available in two sizes for 1½ & 2" long tubes.

		Std. Pkg. 50	NET Per C
550	for 2" tube	1¾"	$7.80
551	for 1½" tube	1¼"	6.60
553	3 prong base clip		3.30
554	single clips		1.98

MINI-SPRING FOR MINI-TUBES

Maintains a direct axial pressure downwards plus a sideways support that keeps the tube upright and perpendicular to the chassis. The spring action is constant and resilient permanently. **Std. Pkg. 50**

No.	Type	NET Per C
560	Short	$10.20
561	Medium	10.20
562	Long	10.20
563	9 Prong	10.80

GRID CAPS

Std. Pkg. 100

No.	Tube Type	NET Per C
1450	⅜" Glass Tubes	$1.20
1453	⅜" Glass Tubes	1.20
1454	¼" Mini Tubes	1.20

MINIATURE WAFER SOCKETS

Miniature bakelite sockets with brass cadmium plated contacts. XP bakelite top plate 1/16" thick, bottom plate 3/64" thick; high grade spring brass cadmium plated contact; .095 dia. mounting holes. Std. Pkg. 50

No.	Description	MTG. Cen.	NET Per C
	SEVEN PIN		
880	Eyelet only	⅞"	$6.60
881	Eyelet and Shield	⅞"	6.90
882	Grd Strap and Shield	⅞"	7.20
887	Eyelet only	1"	6.60
888	Eyelet and Shield	1"	6.90
889	Grd Strap and Shield	1"	7.20
	NINE PIN		
890	Eyelet only	1⅛"	$ 8.60
891	Eyelet and Shield	1⅛"	8.90
892	Grd Strap and Shield	1⅛"	9.30

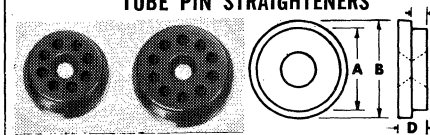
MOLDED MINIATURE SOCKETS

Saddle Type

Molded from either high dielectric black general purpose bakelite or low loss mica-filled bakelite. Both types supplied with center pin. .098 dia. mtg. holes. Std. Pkg. 50

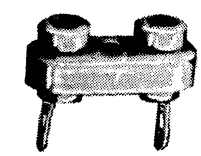
No.	Type	Pin	Mtg. Ctrs.	Mtg. Hole	NET Per C
	GENERAL PURPOSE BLACK BAKELITE				
895	Bottom Mount	7	⅞"	⅝"	$9.00
896	Top Mount	7	⅞"	⅝"	9.00
897	Bottom Mount	9	1⅛"	¾"	10.80
898	Top Mount	9	1⅛"	¾"	10.80
	LOW LOSS MICA-FILLED BAKELITE				
883	Bottom Mount	7	⅞"	⅝"	11.40
884	Top Mount	7	⅞"	⅝"	11.40
885	Bottom Mount	9	1⅛"	¾"	13.20
886	Top Mount	9	1⅛"	¾"	13.20

TUBE PIN STRAIGHTENERS



MATERIAL: MOLDED BLACK STYRENE.
DESCR.: Can be mounted from top with #4 wood screw or screw and nut, or from rear thru hole in plate with supporting bracket. **Std. Pkg. 50**

No.	Type	A	B	C	D	NET Per C
893	7-Pin	39/64"	1 1/16"	⅛"	¼"	$5.40
894	9-Pin	47/64"	51/64"	⅛"	¼"	5.40
899	Set					10.20



CRYSTAL SOCKET

Suitable for Citizen's Band

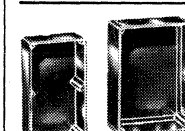
Glazed ceramic base. Phosphor bronze silver plated contacts spaced .486". Pin diameter .051, mtg. hole .125. Std. Pkg. 25 **NET Per C**
No. 1945 $15.00

COOLING FAN

An exceptionally efficient fan for cooling tubes, rectifiers, etc. for Industrial equipment, Amateur Transmitters, and other devices requiring assisted convection flow of air. Permits more efficient RF shielding of equipment without depending on convection cooling. Shaded pole induction motor with Nylon Fan Blade runs 3000 RPM on 105-125 Volts, 60 cycle AC. Blade diameter 2½", over-all size 3½" x 2½" x 3". Mounts either horizontally or vertically. Supplied complete with two 6-32 x 1½" screws and nuts, and two 1" fibre standoffs.

No. 2427
NET Each $4.40

METER CASES



Molded Black Bakelite, with threaded brass inserts for cover mounting.

No.	Case Size	Std. Pkg. 5 NET Insert	Each
2255	3¾" x 6¼" x 2"	6-32	$1.03
2257	5-9/32" x 6-13/16" x 2-5/16"	4-36	1.28
2289	7" x 8" x 2¾"	6-32	2.40

2256	Cover for 2255	.59
2260	Cover for 2257	1.02
2390	Cover for 2289	

Net

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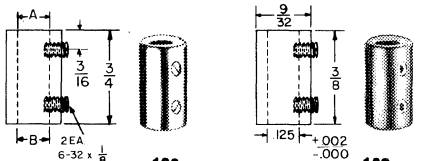
COUPLERS
Brass and Insulated



120 180

Std. Pkg. 25

With Two Set Screws

No.	A	B	O.D.	Material	NET Per C
120	¼"-¼"		7/16"	Brass N.P.	$18.00
140	¼"-¼"		7/16"	Fibre	20.00
131	⅜"-¼"		½"	Brass N.P.	18.00
141	⅜"-¼"		½"	Fibre	20.00
133	⅜"-⅜"		½"	Brass N.P.	18.00
142	⅜"-⅜"		½"	Fibre	20.00

With Four Set Screws

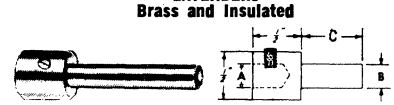
138	¼"-¼"	7/16"	Brass N.P.	28.00

MINIATURE COUPLER

With Allen Head Set Screws

180	⅛"-⅛"	9/32"	Brass N.P.	$40.00

EXTENDERS
Brass and Insulated



Std. Pkg. 25

Long Shaft Type

No.	A	B	C	Material	NET Per C
150	¼"-¼"		1¼"	Brass N.P.	$25.00
130	¼"-¼"		1¼"	Fibre	30.00
132	⅜"-¼"		1¼"	Brass N.P.	25.00
134	⅜"-¼"		1¼"	Fibre	30.00

Short Shaft Type

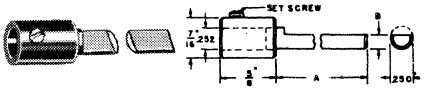
No.	A	B	C	Material	NET Per C
160	¼"-¼"		5/8"	Brass N.P.	$22.00
161	¼"-¼"		5/8"	Fibre	22.00
162	⅜"-¼"		5/8"	Brass N.P.	22.00
163	⅜"-¼"		5/8"	Fibre	22.00

MINIATURE EXTENDER

With Allen Head Set Screws

189	⅛"-⅛"	⅜"	Brass N.P.	$25.00

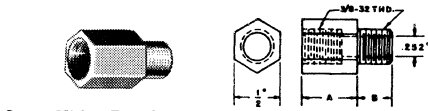
SHAFT EXTENDERS
For Volume Controls



Brass, Nickel Plated. Std. Pkg. 25

No.	A	B	NET Per C
2356	2"	.250"	$21.00
2357	3"	.250"	24.00
2358	4"	.250"	27.00
2359	2"	.219"	21.00
2360	3"	.219"	24.00
2361	4"	.219"	27.00
2362	2"	.156"	21.00
2363	3"	.156"	24.00
2364	4"	.156"	27.00

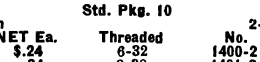
BUSHING EXTENDERS
For Volume Controls



Brass, Nickel Plated. Std. Pkg. 25

No.	A	B	NET Per C
2350	5/8"	5/16"	$36.00
2351	5/8"	¾"	36.00
2352	5/8"	⅝"	36.00
2353	1 1/16"	⅝"	36.00
2354	1 1/16"	½"	36.00
2355	¾"	¼"	36.00

BRASS THREADED RODS



Std. Pkg. 10

1-Ft. Length No.	NET Ea.	Threaded	2-Ft. Length No.	NET Ea.
1400-1	$.24	6-32	1400-2	$.48
1401-1	.24	8-32	1401-2	.48
1402-1	.36	10-32	1402-2	.72
1403-1	.54	¼-20	1403-2	1.08

NYLON THREADED RODS

Std. Pkg. 10

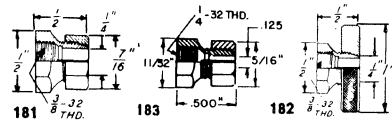
1-Ft. Length No.	NET Ea.	Threaded	2-Ft. Length No.	NET Ea.
1420-1	$ .90	6-32	1420-2	$1.08
1421-1	1.02	8-32	1421-2	2.04
1422-1	1.08	10-32	1422-2	2.16
1423-1	1.20	¼-20	1423-2	2.40

Brass Fibre and Nylon PLAIN RODS

Std. Pkg. 10

¼" DIA No.	Net Ea.	Type	Length	⅛" DIA No.	NET Ea.
1404	$.20	Brass N.P.	6"	1431	$.20
1405	.40	Brass N.P.	12"	1432	.40
1406	.15	Fibre	6"	1433	.15
1407	.30	Fibre	12"	1434	.30
1408	.30	Nylon	6"	1440	.30
1409	.60	Nylon	12"	1441	.60

SHAFT LOCKS Brass Nickel Plated



181 183 182

Wrench Type

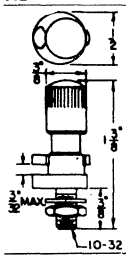
No.	Shaft	Std. Pkg.	NET Per C
181	¼"	100	$24.00

Miniature Wrench Type

188	⅛"	25	24.00

Thumb Type

182	¼"	25	$3.00



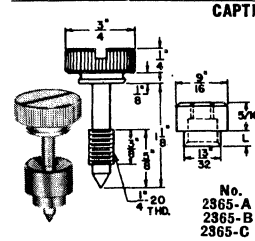
DIAL LOCK

HEAD: Captive: Brass, nickel plated.

BODY: Brass nickel plated.

DESCR.: Prevents detuning of the dial when locked by means of the captive knurled nut. Supplied with hex nut & lockwasher. Std. Pkg. 25

No.	NET Per C
199	$66.00

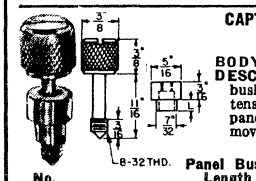


CAPTIVE SCREW & BUSHING
Large Head

BODY: BRASS, nickel plated.

DESCR.: Supplied with panel bushing as shown. Used extensively for quick removal of panels from chassis. Non-removable from panel. Std. Pkg. 50

No.	Panel Bushing Length (L)	NET Per C
2365-A	5/32"	$75.00
2365-B	7/32"	75.00
2365-C	9/32"	75.00

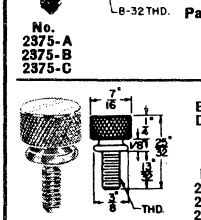


CAPTIVE SCREW & BUSHING
Small Head

BODY: BRASS, nickel plated.

DESCR.: Supplied with panel bushing as shown. Used extensively for quick removal of panels from chassis. Non-removable from panel. Std. Pkg. 50

No.	Panel Bushing Length (L)	NET Per C
2375-A	5/32"	$60.00
2375-B	7/32"	60.00
2375-C	9/32"	60.00

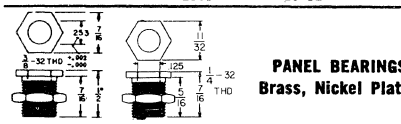


THUMB SCREW

BODY: BRASS, nickel plated.

DESCR.: Used extensively for quick removal of panels from chassis. Std. Pkg. 25

No.	Thread	NET Per C
2366	6-32	$24.00
2367	8-32	24.00
2368	10-32	24.00

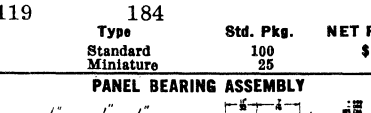


119 184

PANEL BEARINGS
Brass, Nickel Plated

No.	Type	Std. Pkg.	NET Per C
119	Standard	100	$15.00
184	Miniature	25	15.00

PANEL BEARING ASSEMBLY



148 1448

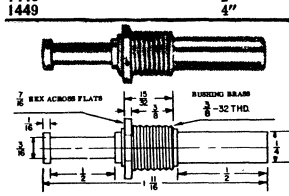
Uses our standard #119 Panel Bearing. Nickel plated overall. Std. Pkg. 25

No.	A	NET Per C
148	3"	$33.00
149	6"	39.00

MINIATURE PANEL BEARING ASSEMBLY

Miniature ⅛" shaft assembly, using our standard #184 Panel Bearing. Brass, nickel plated overall. Std. Pkg. 25

No.	Length "A"	NET Per C
1448	2"	$33.00
1449	4"	39.00

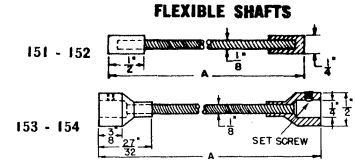


DIAL DRIVE ASSEMBLY
Brass, Nickel Plated

Std. Pkg. 25

No.	NET Per C
126	$33.00

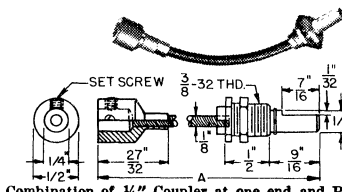
FLEXIBLE SHAFTS



High quality phosphor bronze non-magnetic, non-rusting flexible shafts. Remote control when necessary to mount condensers and potentiometers away from panel at unusual angles. Turns at any angle up to 90°; free from back lash. Std. Pkg. 25

No.	Size "A"	Description	NET Per C
151	3"	With ¼" hub	$45.00
152	6"	With ¼" hub	45.00
153	3⅝"	With ¼" coupler	60.00
154	6⅝"	With ¼" coupler	90.00
155	9⅝"	With ¼" coupler	105.00

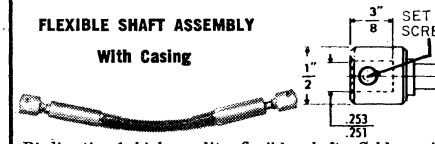
BI-DIRECTIONAL FLEXIBLE SHAFT AND PANEL BEARING



Combination of ¼" Coupler at one end and Panel Bearing Assembly at other. High quality phosphor bronze non-magnetic, non-rusting flexible shaft, turns at any angle up to 90°. Free from backlash. Std. Pkg. 25

No.	Length "A"	NET Ea.
165	4 1/16"	$1.35
166	7 1/16"	1.50

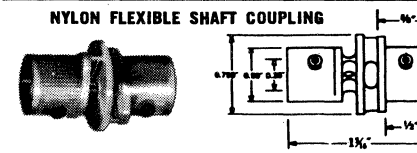
FLEXIBLE SHAFT ASSEMBLY
With Casing



Bi-directional high quality flexible shaft. Cable casing acts as a support and reduces amount of deflection in cable. Metal parts steel cadmium plated.

No.	Length	NET Ea.
169	8"	$6.00
170	12"	6.30

NYLON FLEXIBLE SHAFT COUPLING



DESCR.: Molded nylon with molded-in brass bushings. Hi-temp nylon not influenced by moisture. Designed for long reach shaft coupling. Supplied with 2 Allen head set screws. Std. Pkg. 25

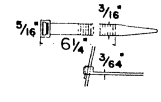
No. 164 NET Ea. $1.05

SHAFT WRENCH

Specially designed offset, double-end wrenches for most hex sizes encountered in electronic construction. Made of heavy gauge, cadmium plated steel, clearly marked with size. No. 999 is especially useful for Toggle Switch and Volume Control mounting nuts. Std. Pkg. 25

No.	For Nut Sizes	NET Per C
998	5/16" - 3/8"	$21.00
997	Set of 2 above	42.00
999	1/2" - 9/16"	21.00

NYLON LOCKING CLAMP



Wedge and ratchet design makes for positive holding and locking. Accommodates cables from ⅛" to 1¾". No knot tying, just slip clamp around cable, insert tongue and pull tight

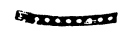
No.	Std. Pkg.	NET Per C
800	100	$9.00

NYLON MOUNTING TABS

For use with No. 800 locking clamp when premounted assembly points are desired. Furnished with .20 mounting hole. Std. Pkg. 10

No.	NET Per C
801	$9.00

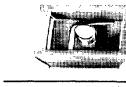
NYLON PERFORATING STRAPPING



For bundling of wire, cable and tubing. Time saver for harnessing Use No. 803 ratchet buckle for fast assembly. Supplied on 50' rolls.

No.	NET Per Roll
802	$15.00

NYLON RATCHET BUCKLE



For No. 802 strapping. Quick and easier assembly with this ingenious item. Std. Pkg. 10

No.	NET Per C
803	For ½" Strapping $10.20

TIGHTENING TOOL

Used with strapping for fast assembly.

No.	NET Ea.
804	$18.00

HERMAN H. SMITH, INC.

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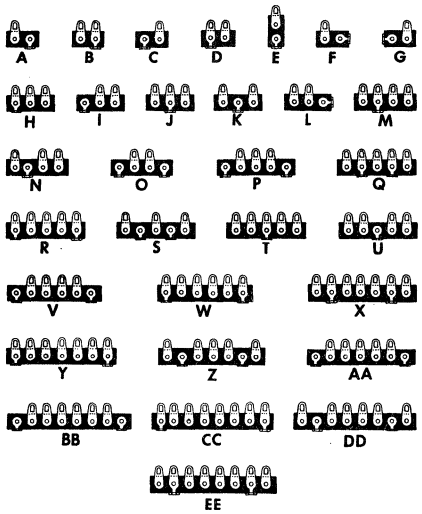
TIE DOWN TERMINAL STRIPS



Standard Type

LUG: Steel, Cadmium plated. Spaced 3/8" centers.
STRIP: XP Bakelite, 5/16" wide x .062 thick.
MOUNT: .140 I.D. for No. 6 Screw.

Std. Pkg. 100

No.	Illus-tration	NET Per C
861	A	$2.10
862	B	2.10
813	C	2.10
820	D	2.10
849	E	2.40
828	F	2.40
821	G	2.40
830	H	3.00
829	I	2.70
864	J	2.40
863	K	2.40
846	L	2.70
850	M	3.90
857	N	3.90
867	O	3.60
853	P	4.80
868	Q	4.20
847	R	4.20
865	S	4.20
866	T	3.60
855	U	3.30
869	V	5.10
854	W	5.10
879	X	5.10
859	Y	5.10
871	Z	4.80
860	AA	4.95
848	BB	5.85
900	CC	5.85
858	DD	5.40
870	EE	5.85

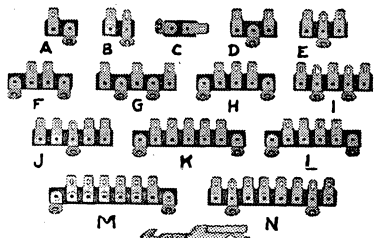
Miniature Type

LUG: Steel, Cadmium plated. Spaced 1/4" centers.
STRIP: XP Bakelite, 5/16" wide x .062 thick.
MOUNT.: .096 I.D. for No. 3 screw or 3/32" rivet.

Std. Pkg. 100

No.	NET Per C
1061	$2.40
1062	2.70
1003	2.70
1004	2.70
1039	2.70
1005	2.70
1009	2.70
1055	3.60
1043	3.60
1064	3.60
1063	3.30
1059	3.60
1074	4.80
1072	4.80
1067	3.80
1073	5.25
1068	5.70
1071	5.85
1065	5.25
1066	5.40
1084	5.85
1069	6.00
1076	7.20
1158	8.10
1156	8.10
1157	8.10
1060	6.60
1078	7.80
1075	9.60
1096	9.30
1070	8.10

"QUICK-CONNECT" TERMINAL STRIPS

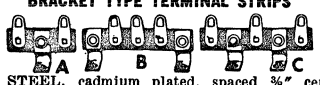


Std. Pkg. 100

No.	Ill.	NET Per C	No.	Ill.	NET Per C	No.	Ill.	NET Per C
1085	A	$2.82	1090	F	$4.80	1095	K	$9.60
1086	B	3.00	1091	G	4.80	1097	L	8.10
1087	C	2.82	1092	H	4.80	1098	M	10.80
1088	D	4.20	1093	I	6.30	1099	N	11.40
1089	E	4.50	1094	J	6.60			

No.		NET Per C
1576	Terminal Strip Connectors	$3.30

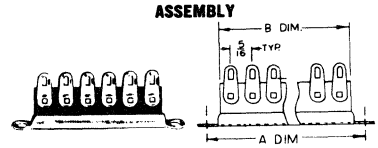
BRACKET TYPE TERMINAL STRIPS



LUGS: STEEL, cadmium plated, spaced 3/8" centers.
BRACKETS: Brass, cadmium plated.
STRIPS: X.P. Bakelite 3/8" wide x .062 thick.
MOUNT.: .140 I.D. for No. 6 screw. Std. Pkg. 100

No.	Fig.	Lugs	NET Per C
077	A	2	$6.96
079	C	3	6.60
080	B	3	6.60
081	B	4	7.20
082	B	5	7.80
083	B	6	8.40

TERMINAL STRIP ASSEMBLY



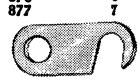
LUG: STEEL, cadmium plated.
BASE: STEEL, cadmium plated. Mounting holes for No. 6 screw.
STRIP: X.P. Bakelite. Std. Pkg. 100

No.	Terminals	Dimensions "A"	Dimensions "B"	NET Per C
3002	2	1.000	5/8"	$6.00
3003	3	1.312	13/16"	6.90
3004	4	1.625	1 1/4"	7.80
3005	5	1.937	1 9/16"	8.70
3006	6	2.250	1 7/8"	9.60
3007	7	2.562	2 3/16"	10.50
3008	8	2.875	2 1/2"	11.40
3009	9	3.187	2 13/16"	12.30
3010	10	3.500	3 1/8"	13.20
3011	11	3.812	3 7/16"	14.10
3012	12	4.125	3 3/4"	15.00

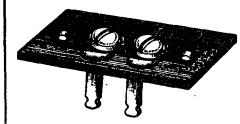
SCREW TYPE TERMINAL BOARD

LUGS: BRASS, hot tinned, spaced 7/16" centers.
SCREW: Steel, cadmium plated 6-32x3/8.
STRIP: X.P. Bakelite 5/8" wide x .062 thick.

No.	Terminals	Mounting Center	Std. Pkg.	NET Per C
872	2	1 7/16"	50	$6.00
873	3	1 7/8"	50	9.00
874	4	2 5/16"	25	11.20
875	5	2 5/8"	25	13.20
876	6	3 1/16"	25	16.80
877	7	3 1/2"	25	21.00



No.		NET Per C
878	Shorting Link	1.80



HEAVY DUTY TERMINAL BOARDS

LUG: BRASS, cadmium plated .042 thick spaced 1/2" centers. Terminals numbered.
STRIP: X.P. Bakelite 7/8" wide x 9/32" thick, numbered.
SCREW: Brass, nickel plated 8-32 x 5/16. Std. Pkg. 25

No.	Terminals	Mtg. Center	NET Per C
902	2	1 1/2"	$20.40
903	3	2"	28.20
904	4	2 1/2"	34.20
905	5	3"	40.80
906	6	3 1/2"	46.20
907	7	4"	52.20
908	8	4 1/2"	58.80
909	9	5"	64.80
910	10	5 1/2"	70.80
911	11	6"	78.80
912	12	6 1/2"	82.80

CONTACT STRIPS

CONTACTS: STEEL, cadmium plated, spring tension spaced 3/8" centers.
STRIP: X.P. Bakelite 5/8" wide x .062 thick.
BRACKET: Steel cadmium plated .140 I.D. for No. 6 screw.
DESCR.: Quick connect and disconnect. Spring tension contacts for .125 dia. contact pins. Single hole mounting. Even number contacts have mtg. bracket in center; odd number contacts have extra contact on right. Special contacts on request.

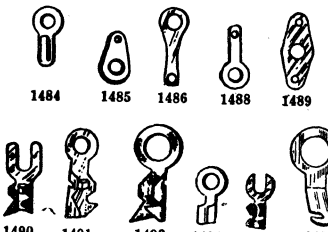
No.	Contacts	Std. Pkg.	NET Per C
822	2	100	$6.60
823	3	50	8.40
824	4	25	10.20
825	5	25	12.00
826	6	25	15.00
827	Pin Only	100	1.20

"T" TYPE TERMINAL STRIPS

LUGS: STEEL, cadmium plated, spaced 3/8" centers.
STRIP: XP Bakelite 5/8" wide x .062 thick
MOUNT.: .140 I.D. for No. 6 screw. Std. Pkg. 100

No.	Lugs	NET Per C
815	1	$3.90
816	2	5.10
817	3	6.30
818	4	7.50
819	5	8.70

SOLDER TYPE LUGS—Hot Tinned



Std. Pkg. 1000

No.	Material	L.	Thick.	Hole	NET Per M
1484	Ph. Br.	5/8"	.020"	No. 6	$5.70
1485-4	Ph. Br.	17/32"	.012"	No. 4	5.40
1485-6	Ph. Br.	17/32"	.012"	No. 6	5.40
1485-8	Ph. Br.	17/32"	.012"	No. 8	5.40
1485-10	Ph. Br.	17/32"	.012"	No. 10	5.40
1486-4	Ph. Br.	13/16"	.012"	No. 4	5.40
1486-6	Ph. Br.	13/16"	.012"	No. 6	5.40
1486-8	Ph. Br.	13/16"	.012"	No. 8	5.40
1486-10	Ph. Br.	13/16"	.012"	No. 10	5.40
1488-4	Ph. Br.	9/16"	.012"	No. 4	4.35
1488-6	Ph. Br.	9/16"	.012"	No. 6	4.35
1488-8	Ph. Br.	9/16"	.012"	No. 8	4.35
1489	Brass	7/8"	.015"	No. 8	6.00
1490	Brass	3/4"	.020"	No. 10	6.60
1491	Copper	15/16"	.020"	No. 10	10.50
1493	Brass	1-1/8"	.027"	1/4"	16.80
1494-6	Brass	5/8"	.020"	No. 6	5.40
1494-8	Brass	5/8"	.020"	No. 8	5.40
1495	Brass	5/8"	.020"	No. 8	6.60
1496	Brass	3/4"	.020"	1/4"	10.20
1497	Brass	7/8"	.017"	5/8"	24.00

SOLDER LUG ASSORTMENT

A complete assortment of the most widely used Solder Lug styles, with hole sizes from #4 thru #10. Packed in a re-usable clear plastic compartmented box.

No.	Approx Quantity of Terminals	NET
1546	1400	$9.00

LOCKING TYPE TERMINAL LUGS

BRASS HOT TINNED Std. Pkg. 1000

No.	L.	Thick	Hole	NET Per M
1410-4	1/8"	.018"	No. 4	$9.00
1410-6	1/8"	.018"	No. 6	9.00
1410-8	1/8"	.018"	No. 8	9.00
1410-10	51/64"	.018"	No. 10	9.00
1410-14	13/16"	.018"	1/4"	10.20
1411-4	47/64"	.020"	No. 4	10.20
1411-6	47/64"	.020"	No. 6	9.00
1411-8	47/64"	.020"	No. 8	9.00
1412-4	5/8"	.018"	No. 4	9.00
1412-6	5/8"	.018"	No. 6	8.40
1412-8	5/8"	.018"	No. 8	8.40
1413-4	29/64"	.018"	No. 4	8.40
1413-6	29/64"	.018"	No. 6	9.00
1413-8	29/64"	.018"	No. 8	9.00
1414-4	15/32"	.018"	No. 4	9.00
1414-6	15/32"	.018"	No. 6	9.00
1414-8	15/32"	.018"	No. 8	9.00
1414-10	55/64"	.018"	No. 10	9.00
1415-4	41/64"	.018"	No. 4	9.00
1415-6	41/64"	.018"	No. 6	9.00
1415-8	41/64"	.018"	No. 8	9.00
1416-4	11/16"	.020"	No. 4	9.00
1416-6	11/16"	.020"	No. 6	9.00
1416-8	11/16"	.020"	No. 8	9.00

LOCKING TYPE TERMINAL LUGS

Brass Electro Plated

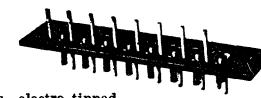
No.	Hole Size	Thick	Length	NET Per M
1465	No. 4	.020"	47/64"	$10.20
1466	No. 6	.020"	47/64"	10.20
1467	No. 8	.020"	5/8"	10.20
1468	1/4"	.020"	15/16"	12.00

LOCKING TERMINAL LUG ASSORTMENT

A complete assortment of the most widely used Locking Terminal Lug styles, with hole sizes from #4 thru #10. Packed in a re-usable clear plastic compartmented box.

No.	Approx. Quantity of Terminals	NET
1547	900	$9.00

LAMINATED TERMINAL STRIPS WITH WIRE WRAP TERMINALS



LUG: Brass, electro-tinned.
STRIP: Cotton Fabric Base Phenolic, Type LE.
SCREW: Brass, nickel plated.
DESCR.: Accommodates lugs for wires, size AWG #18 to 22. Rated 750 volts RMS (1/2 breakdown voltage).
Std. Pkg. 25

No.	Term.	(A) Mtg Ctrs.	B	NET Per C
941	8	3 1/2"	3 3/8"	$10.20
942	10	4 1/4"	4 5/8"	12.00
943	12	5"	5 3/8"	14.00

Net

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HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

SOLDERLESS TERMINALS

"SOLISTRAND" Non-Insulated

The only terminal designed for use with solid, stranded or irregularly shaped wires, or combinations of wires. Corrosion resistant, high strength, electro-tinned; versatile — widely adaptable.

Std. Pkg. 100

RING TONGUE (A)

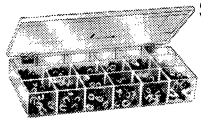
Wire Size	No.	AMP No.	Stud Size	Tong. W.	O'all L.	Stud Clear.	NET Per C
	2850	32989	4	7/32	17/32	5/32	$4.20
22	2851	34194	6	7/32	17/32	5/32	4.20
	2852	32990	8	9/32	11/16	15/64	4.80
to	2853	33214	10	5/16	11/16	9/32	4.80
	2854	33215	1/4	15/32	15/16	27/64	6.60
16	2855	33452	5/16	15/32	15/16	27/64	6.60
	2856	33453	3/8	17/32	1 1/16	17/32	6.60
	2857	32991	4	1/4	9/16	11/64	$4.80
16	2858	34197	6	1/4	9/16	11/64	4.80
	2859	32992	8	5/16	11/32	1/4	4.80
to	2860	320093	10	5/16	11/32	1/4	4.80
	2861	33218	1/4	15/32	15/16	7/16	6.60
14	2862	33454	5/16	15/32	15/16	7/16	6.60
	2863	33455	3/8	17/32	1 1/8	17/32	6.60

SPADE TONGUE (B)

22	2864	32897	6	11/32	5/8	13/64	$4.20
to	2865	32898	8	11/32	5/8	13/64	4.20
16	2866	32899	10	11/32	5/8	13/64	4.20
16	2867	32903	6	11/32	5/8	13/64	$4.20
to	2868	32904	8	11/32	5/8	13/64	4.20
14	2869	32905	10	11/32	5/8	13/64	4.20

BUTT CONNECTOR (C)

2870	31818	22-16 .140 I.D.	37/64	$5.10
2871	31819	16-14 .170 I.D.	37/64	5.10

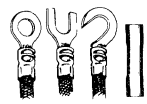


SOLDERLESS TERMINAL ASSORTMENTS

A basic assortment of the most commonly used Ring Tongue and Spade Terminals for wire sizes 22 thru 14. Packed in a re-usable clear plastic compartmented box.

No.	Approx. Quantity of Terminals	Style	NET
1526	200	"PLASTI-GRIP"	$16.20
1527	300	"PLASTI-GRIP"	22.80
1528	200	"SOLISTRAND"	12.00
1529	300	"SOLISTRAND"	18.00
1577	200	"P.I.D.G."	21.00
1578	300	"P.I.D.G."	30.00

"PLASTI-GRIP" (P.G.)



Insulated, strong, special plastic has high dielectric strength. Applied with single operation of press dies or hand tools. High tensile strength. High conductivity copper, electro-tinned. Color coded for wire size.

Std. Pkg. 100

RING TONGUE (A)

Wire Size	No.	AMP No.	Stud Size	Tong. W.	O'all L.	Stud Clear.	NET Per C
	2750	34141	4	7/32	21/32	5/32	$6.60
22	2751	34142	6	7/32	21/32	5/32	6.60
	2752	34145	8	9/32	25/32	1/4	6.60
to	2753	34146	10	9/32	25/32	1/4	6.60
	2754	34150	1/4	15/32	1 1/16	27/64	7.80
16	2755	34151	5/16	15/32	1 1/16	27/64	7.80
	2756	34152	3/8	17/32	1 13/64	17/32	7.80
	2757	34157	4	1/4	1 1/16	5/32	$6.60
16	2758	34158	6	1/4	1 1/16	5/32	6.60
	2759	34160	8	11/32	27/32	17/64	6.60
to	2760	34161	10	11/32	27/32	17/64	6.60
	2761	34162	1/4	15/32	1 1/16	27/64	7.80
14	2762	34163	5/16	15/32	1 1/16	27/64	7.80
	2763	34164	3/8	17/32	1 13/64	33/64	7.80

SPADE TONGUE (B)

22	2764	34153	6	11/32	49/64	13/64	$6.60
to	2765	34155	8	3/8	57/64	19/64	6.60
16	2766	34156	10	3/8	57/64	19/64	6.60
16	2767	34165	6	3/8	57/64	19/64	$5.70
to	2768	34166	8	3/8	57/64	19/64	6.60
14	2769	34167	10	3/8	57/64	19/64	6.60

HOOK TONGUE (C)

20-16	2770	34501	6	9/32	47/64	3/16	$6.60
	2771	321699	8	11/32	55/64	9/32	6.60
16-14	2772	320263	8	11/32	55/64	17/64	$9.60

BUTT CONNECTOR (D)

2773	34070	22-16 .140 I.D.	1	$8.10
2774	34071	16-14 .70 I.D.	1 1/64	8.10

Pre-Insulated Diamond Grip

Color-coded for wire size.

Std. Pkg. 100

RING TONGUE (A)

Wire Size	No.	AMP No.	Stud Size	Tongue Width	Overall Length	Stud Clear.	NET Per C
22	1550	320882	4	3/16	21/32	5/32	$9.00
	1551	31881	6	7/32	21/32	5/32	9.00
to	1552	31886	8	9/32	25/32	1/4	9.00
	1553	31887	10	9/32	25/32	1/4	9.00
16	1554	31894	1/4	15/32	1 1/16	27/64	9.60
14	1555	32441	4	1/4	11/16	11/64	9.00
	1556	32442	6	1/4	11/16	11/64	9.00
to	1557	31902	8	11/32	27/32	9/32	9.00
	1558	322238	10	5/16		1/4	9.00
16	1559	31906	1/4	15/32	1/16	7/16	9.60

FLANGED SPADE (B)

22-16	1560	32562	6	19/64	25/32	13/64	$9.00
	1561	32498	8	27/64	13/16	1/4	9.60
	1562	320861	6	19/64	23/32	13/64	9.00
14-16	1563	320862	8	19/64	23/32	13/64	9.00
	1564	320863	10	19/64	23/32	13/64	9.00

SPADE TONGUE (C)

	1565	34541	6	1/4	53/64	19/64	$9.00
22-16	1566	32053	8	3/8	57/64	19/64	9.00
	1567	32054	10	3/8	57/64	19/64	9.00
	1568	35559	6	19/64	47/64	13/64	9.00
14-16	1569	321233	8	19/64	47/64	13/64	9.00
	1570	32060	10	3/8	57/64	5/16	9.00

HOOK TONGUE (D)

22-16	1571	34313	6	9/32	47/64	13/64	$9.00
	1572	32456	8	11/32	55/64	9/32	9.00
	1573	320381	6	11/32	27/32	9/32	$9.00
14-16	1574	320306	8	11/32	27/32	9/32	10.20
	1575	35481	10	11/32	27/32	9/32	10.20
18-14	1576	47100	.250 Faston Receptacle (E) w/insulation support				$ 3.30

BUTT CONNECTOR (F)

22-16	1548	320559 .125 I.D.	36.00
16-14	1549	320562 .150 I.D.	60.00

HAND CRIMPING TOOL

Makes strong, solderless connections; cuts and strips wire, and has threaded bolt cutter.

No.	Type	NET Ea.
1579	For P.I.D.G. & P.G.	$7.20
2872	For Solistrand Type	7.20

LINEN LACING CORD

Mildew proofed. Spec. MIL-T-713-A Type N.

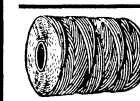
Natural Color

No.	Tube	Ply	Class	Ydg.	NET Ea
725	4 oz.	4	—	210	$1.65
726	8 oz.	4	—	425	3.00
727	1 lb.	4	—	850	5.40
728	4 oz.	6	3	150	1.65
729	8 oz.	6	3	300	3.00
730	1 lb.	6	3	600	5.40
737	4 oz.	8	2	115	1.65
738	8 oz.	8	2	235	3.00
739	1 lb.	8	2	470	5.40
731	4 oz.	9	—	100	1.65
732	8 oz.	9	—	200	3.00
733	1 lb.	9	—	400	5.40
740	4 oz.	12	1	75	1.65
741	8 oz.	12	1	150	3.00
742	1 lb.	12	1	300	5.40

Black Color

794	1 lb.	4	—	850	$6.00
795	1 lb.	6	3	600	6.00
796	1 lb.	8	2	470	6.00
797	1 lb.	9	—	400	6.00
798	1 lb.	12	1	300	6.00

NYLON LACING CORD



MIL-T-713A, Type S. Composition P, Classes 3, 2 and 1. Supplied in 1-lb. tubes.

Natural Color

No.	Class	Test	Yardage	NET Ea.
734	1	70 lb.	600	$9.00
735	2	48 lb.	800	9.30
736	3	32 lb.	1140	9.60

Black Color

791	1	70 lb.	600	$10.80
792	2	48 lb.	800	11.10
793	3	32 lb.	1140	11.40

NYLON LACING TAPE

Braided — MGD Finish

#18 size meets MIL-T-13 A, Type P, Class 2. 500-yard spools.

Natural Color

No.	Size	Width	Thick	Test	NET Each
766	18	.090	.0125	50 lbs.	$9.50
767	21	.0625	.009	25 lbs.	7.00

Black Color

769	18	.090	.0125	50 lbs.	$10.00
770	21	.0625	.009	25 lbs.	7.50

Commercial Type

Has all application of above but at a much lower cost. Supplied in 1-lb tubes in natural color.

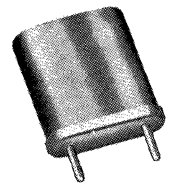
No.	Width	Yardage	NET Ea.
743	1/8"	620	$5.10

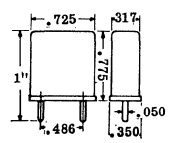
DACRON LACING CORD

Conforms to the physical requirements of MIL-T-713A. Greater tensile strength with minimal stretch than nylon. Fungus, acid and abrasion resistance. Supplied in 1 lb. tubes in natural color.

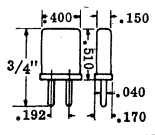
No.	Class	Test	Yardage	NET Ea.
722	1	78 lbs.	750	$9.60
723	2	57 lbs.	1000	9.90
724	3	37 lbs.	1500	10.20

MINIATURE HOLDER TYPE HC-6/U





SUBMINIATURE HOLDER TYPE HC-18/U



CITIZENS BAND CRYSTALS

Extremely accurate crystals, designed to meet FCC tolerance of ±.005%. Recommended for use with 3rd overtone type oscillator having approximately 32 mmfd. input capacities. (For use with other oscillators a trimming capacitor may be necessary). These crystals match most Class D equipment in use today.

All crystals are stamped with channel number, frequency, and use (transmitting or receiving).

Std. Pkg. 1

TRANSMITTING CRYSTALS

Channel Number	Frequency Megacycles	Holder Type HC-6/U No.	Holder Type HC-18/U No.
1	26.965	3601	3624
2	26.975	3602	3625
3	26.985	3603	3626
4	27.005	3604	3627
5	27.015	3605	3628
6	27.025	3606	3629
7	27.035	3607	3630
8	27.055	3608	3631
9	27.065	3609	3632
10	27.075	3610	3633
11	27.085	3611	3634
12	27.105	3612	3635
13	27.115	3613	3636
14	27.125	3614	3637
15	27.135	3615	3638
16	27.155	3616	3639
17	27.165	3617	3640
18	27.175	3618	3641
19	27.185	3619	3642
20	27.205	3620	3643
21	27.215	3621	3644
22	27.225	3622	3645
23*	27.255	3623	3646

Each.....NET $2.75

RECEIVING CRYSTAL

(455 Kc Below Transmitting Frequency)

Channel Number	Frequency Megacycles	Holder Type HC-6/U No.	Holder Type HC-18/U No.
1	26.510	3647	3670
2	26.520	3648	3671
3	26.530	3649	3672
4	26.550	3650	3673
5	26.560	3651	3674
6	26.570	3652	3675
7	26.580	3653	3676
8	26.600	3654	3677
9	26.610	3655	3678
10	26.620	3656	3679
11	26.630	3657	3680
12	26.650	3658	3681
13	26.660	3659	3682
14	26.670	3660	3683
15	26.680	3661	3684
16	26.700	3662	3685
17	26.710	3663	3686
18	26.720	3664	3687
19	26.730	3665	3688
20	26.750	3666	3689
21	26.760	3667	3690
22	26.770	3668	3691
23*	26.800	3669	3692

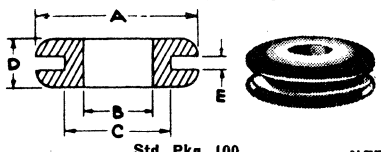
Each.....NET $2.75

*Channel 23 is used on a shared basis with Class C Radio Control devices, which are allowed higher power levels than class D Citizens' Band Radio.

HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

RUBBER GROMMETS



Std. Pkg. 100

No.	A	B	C	D	E	NET Per C
2185	5/16"	1/8"	3/16"	3/4"	1/16"	$2.31
2172	7/16"	3/16"	5/16"	3/4"	1/16"	1.98
2170	5/8"	1/4"	3/8"	1/4"	1/16"	2 31
2174	5/8"	5/16"	7/16"	1/4"	1/16"	2.16
2175	1 1/16"	3/8"	1/2"	1/4"	1/16"	2.31
2177	3/4"	7/16"	9/16"	1/4"	1/16"	2.16
2186	1 1/16"	1/2"	3/4"	5/16"	1/16"	4.20
2187	1 1/8"	5/8"	7/8"	5/16"	1/16"	4.20
2188	1 1/16"	9/16"	3/4"	5/16"	1/16"	4.20
2189	1 "	3/4"	7/8"	5/32"	1/32"	5.10

VINYL GROMMETS

DESCR.: Exceptional aging qualities. High dielectric properties. Oil resistant. Durameter hardness 45 to 85.

No.	A	B	C	D	E	NET Per C
2145	11/32	1/8	1/4	3/16	1/16	$.90
2146	7/16	3/16	5/16	1/32	1/16	.96
2147	9/16	1/4	3/8	1/4	1/16	1 32
2148	5/8	3/8	1/2	1/4	1/16	1.50
2149	13/16	1/2	5/8	9/32	1/16	2.28

GROMMETS

Formerly listed by Radio Essentials, Inc., and American Radio Hardware Inc., (Their catalog numbers as below, minus first digit.)

No.	A	B	C	D	E	NET Per C
91100	3/8"	13/16"	1/2"	13/32"	9/64"	$7.50
91101	7/8"	1 1/16"	1 1/4"	5/8"	3/16"	13.20
91102	9/32"	5/8"	13/32"	3/8"	3/32"	3.15
91103	3/16"	9/16"	15/32"	3/8"	1/8"	3.00
91104	1/4"	7/8"	5/8"	15/32"	3/16"	5.40
91106	5/16"	5/8"	1/2"	1/2"	3/16"	6.60
91107	3/8"	5/8"	7/16"	5/16"	3/32"	3.30
91108	1/4"	5/8"	1/16"	17/32"	5/32"	7.50
91109	3/8"	1 1/16"	7/8"	3/8"	1/4"	13.50
91110	13/64	3/8 1/2"	9/32"	7/32"	3/32"	4.20
91111	3/8"	7/8 1"	1 1/16"	13/32"	9/64"	6.60
91112	4 4/64	1 5/8"	1 3/32"	5/16"	1/16"	7.05
91113	2 1/64"	5/8"	1 3/32"	1/4"	1/16"	2.85
91114	1/8"	1 1/32"	1/4"	3/16"	1/16"	2.34
91115	1/4"	5/16"	3/8"	1/2"	7/32"	4.05
91116	5/16"	3/4"	1/2"	3/8"	1/8"	4 35
91117	3/8"	9/16"	15/32"	5/16"	1/8"	3.15
91118	3/16"	7/16"	5/16"	7/32"	1/16"	2.40
91119	17/64"	9/16"	13/32"	1/4"	1/16"	2.55
91120	19/64	5/8"	7/16"	1/4"	1/16"	3.00
91121	3/8"	1 1/16"	1/2"	1/4"	1/16"	2.85
91122	1/4"	1/2"	1 1/32"	5/32"	1/32"	2.85
91123	9/32"	1 1/16"	1/2"	7/16"	1/4"	5.10
91124	7/16"	3/4"	9/16"	1/4"	1/16"	3.45

RECESS RUBBER BUMPERS

Std. Pkg. 100

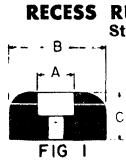


FIG 1

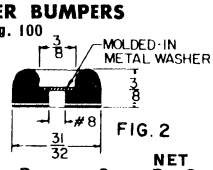
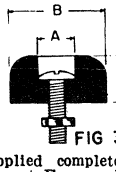


FIG. 2

No.	Fig.	A	B	C	NET Per C
2192	1	7/32"	17/32"	1/4"	$1.50
2193	1	1/4"	5/8"	5/16"	1.95
2194	1	9/32"	3/4"	3/8"	3.00
2184	1	1/4"	5/8"	9/32"	3.00
		With molded-in metal washer			
2135	2	5/8"	31/32"	5/8"	4.80



With Screw

FIG 3

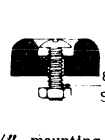


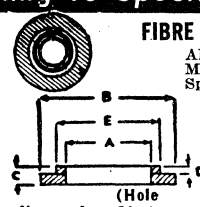
FIG. 4

Supplied complete with 1/2" mounting screw and hex nut For panels up to 1/4" thick. Specify longer screw for thicker panels

Std. Pkg. 100

No.	Fig.	A	B	C	Screw	NET Per C
2196	3	7/32"	17/32"	1/4"	6-32	$6.60
2197	3	1/4"	5/8"	5/16"	6-32	6.90
2198	3	9/32"	3/4"	3/8"	6-32	7.50
2199	3	1/4"	5/8"	9/32"	6-32	7.50
		With molded-in metal washer				
2195	4	5/8"	31/32"	5/8"	8-32	9.30

FIBRE SHOULDER WASHERS



All material based on N.E.M.A. Standard and A.S.T.M. Spec. D-710. **Std. Pkg. 1000**

A. Inside Diameter
B. Outside Diameter
C. Thickness Overall
D. Height of Shoulder
E. Diameter of Shoulder

No.	A	(Hole Size)	B	C	D	E	NET Per M
2150	.140	No. 6	.375	.093	.031	.237	$6.90
2151	.110	No. 4	.250	.062	.031	.187	5.70
2152	.136	No. 6	.250	.093	.031	.187	6.00
2153	.136	No. 6	.312	.093	.031	.187	6.60
2154	.250	1/4"	.500	.068	.028	.312	7.20
2155	.172	No. 8	.375	.093	.031	.246	6.60
2156	.196	No. 10	.375	.093	.031	.308	6.60
2159	.265	17/64"	.500	.097	.031	.365	7.20
2157	.375	3/8"	.750	.093	.031	.500	8.70
2158	.385	3/8"	.625	.093	.031	.500	8.40

NYLON SHOULDER WASHERS

MATERIAL: Natural Nylon per MIL-P-20693A.

Std. Pkg. 1000

2660	.140	No. 6	.250	.062	.031	.187	15.00
2661	.140	No. 4	.375	.093	.031	.237	18.00
2662	.136	No. 6	.250	.093	.031	.187	15.00
2663	.136	No. 6	.312	.093	.031	.187	16.20
2664	.250	1/4"	.500	.068	.028	.312	17.25
2665	.172	No. 8	.375	.093	.031	.246	18.00
2666	.196	No. 10	.375	.093	.031	.308	18.00
2669	.265	17/64"	.500	.097	.031	.365	25.00
2667	.375	3/8"	.750	.093	.031	.500	45.00
2658	.385	3/8"	.625	.093	.031	.500	30.00

FLAT FIBRE WASHERS

All material based on N.E.M.A. Standard and A.S.T.M. Spec. D-710 **Std. Pkg. 1000**

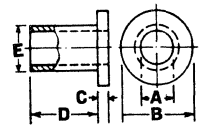
No.	[(Hole Size)	I.D.]	O.D	Thickness	NET Per M
2160	No. 6	.136	.250	1/16	$5.70
2161	No. 4	.110	.250	1/16	5.70
2162	No. 6	.140	.375	1/16	5.10
2163	No. 8	.172	.375	1/16	5.10
2164	No. 10	.196	.375	1/16	5.10
2165	1/4"	.250	.500	1/16	5.40
2166	1/4"	.250	.500	3/32	5.70
2167	5/16"	.312	.500	1/16	5.40
2168	3/8"	.385	.625	1/16	6.60
2169	3/8"	.375	.750	1/16	8.40

NYLON FLAT WASHERS

MATERIAL: Natural Nylon per MIL-P-20693A.

No.	[(Hole Size	I.D.)]	O.D	Thickness	NET Per M
2514	No. 4	.115	.281	.047	$18.00
2670	No. 6	.136	.250	1/16	12.90
2671	No. 4	.110	.250	1/16	12.90
2672	No. 6	.140	.375	1/16	16.30
2515	No. 6	.140	.312	.047	18.60
2673	No. 8	.172	.375	1/16	18.00
2516	No. 8	.170	.375	.062	21.00
2674	No. 10	.196	.375	1/16	16.30
2517	No. 10	.200	.437	.062	22.20
2675	1/4"	.250	.500	1/16	18.00
2676	1/4"	.250	.500	3/32	21.00
2518	1/4"	.260	.562	.062	24.00
2677	5/16"	.312	.500	1/16	18.00
2678	3/8"	.385	.625	1/16	19.50
2679	3/8"	.375	.750	1/16	21.75

NYLON SPACER BUSHINGS



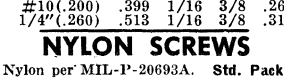
Natural Nylon per MIL-P-20693A.

Std. Pkg. 100

No.	I.D. (A)	B	C	D	E	NET Per M
2534	#4(.115)	.235	3/64	1/4	.147	$21.00
2535	#6(.140)	.290	3/64	1/4	.170	21.00
2536	#8(.170)	.344	1/16	3/8	.205	22.00
2537	#10(.200)	.399	1/16	3/8	.260	24.00
2538	1/4"(.260)	.513	1/16	3/8	.312	27.00

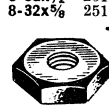
NYLON SCREWS

Natural Nylon per MIL-P-20693A. **Std. Package 1000**



Size	No.	No.	No.	No.	No.	No.	NET Per M
4-40x1/4	2500	2520	2540	2580	2560	2480	$30.00
4-40x3/8	2501	2521	2541	2581	2561	2481	33.00
4-40x1/2	2502	2522	2542	2582	2562	2482	31.20
6-32x1/4	2503	2523	2543	2583	2563	2483	30.60
6-32x3/8	2504	2524	2544	2584	2564	2484	30.60
6-32x1/2	2505	2525	2545	2585	2565	2485	31.20
6-32x5/8	2506	2526	2546	2586	2566	2486	31.20
6-32x3/4	2507	2527	2547	2587	2567	2487	31.80
8-32x1/4	2509	2529	2549	2589	2569	2489	30.60
8-32x3/8	2510	2530	2550	2590	2570	2490	31.20
8-32x1/2	2511	2531	2551	2591	2571	2491	31.20
8-32x5/8	2512	2532	2552	2592	2572	2492	31.80

NYLON HEX NUTS

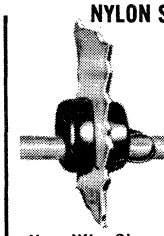


Black Nylon per MIL-P-20693A.

Std. Pkg. 100

No.	Size	NET Per C
2554	4-40	$6.00
2555	6-32	6.30
2556	8-32	6.60
2557	10.32	6.90

NYLON STRAIN RELIEF BUSHINGS



One piece construction. Eliminates grommets, wire knots and costly labor. Completely insulates wire from chassis and prevents cord pull push and twist. No. 937 ideal for small mike cables; No. 938 for line cords; No. 939 for Co-Ax Wire.

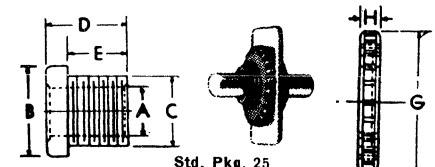
Std. Pkg. 50

A: Chassis Hole
B: Diameter of head
C: Length
D: Chassis Thickness

No.	Wire Size	A	B	C	D	NET Per C
937	1/8-3/16"	.375	.440	.415	to 1/16"	$3.60
938	SP-1 & SPT-1	.437	.468	.406	to 1/16"	3.60
939	.235-.265	.500	.560	.438	to 3/32"	4.20

No. 940 Setting Pliers — NET Each $10.20

INSULATED GROMMET BUSHINGS

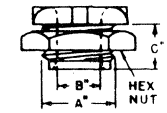


Std. Pkg. 25

Black Phenolic—Matte Finish

BUSHING No.	A	B	C	D	E	COLLAR G	H	NET Per C
931	1/8"	3/8"	1/4"—32	.3750"	1/4"	1/2"	1/8"	$17.40
932	5/16"	7/16"	5/16"—32	.4250"	5/16"	5/8"	1/8"	17.40
933	1/4"	1/2"	3/8"—27	.4375"	5/16"	11/16"	1/8"	18.00
934	5/16"	9/16"	15/32"—32	.4500"	5/16"	7/8"	1/8"	19.80
935	3/8"	1/4"	5/8"—27	.4500"	5/16"	1"	1/8"	21.60

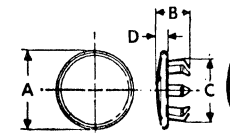
BAKELITE INSULATING BUSHINGS



BODY: MOLDED, bakelite, black, U.L. approved recommended for temperatures up to 300 degrees Fahrenheit.
NUT: Steel, cadmium plated.

Std. Pkg. 50

No.	A	B	C	NET Per C
2136	15/32"	17/64"	1/4"	$8.40
2137	17/32"	5/16"	5/16"	9.00
2138	21/32"	29/64"	5/16"	9.60
2139	27/32"	9/16"	11/32"	10.20



SNAP BUTTON HOLE PLUGS

Steel Nickel-plated plugs for covering punched or drilled holes in metal, plastic or wood.

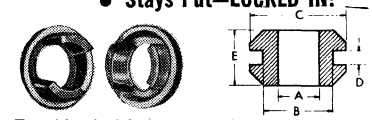
Std. Pkg. 100

No.	Hole	A	B	C	D Prongs	NET Per C
650	1/4"	13/32	1/4	17/64	5/64 6	$2.00
651	5/16"	7/16	1/4	21/64	1/16 6	2.00
652	3/8"	17/16	3/8	25/64	5/64 6	2.00
653	1/2"	21/32	17/64	17/32	5/64 8	2.80
654	5/8"	51/64	9/32	41/64	5/64 8	2.80
655	3/4"	15/16	19/64	49/64	3/32 12	2.80
608	7/8"	1 1/16	19/64	57/64	1/16 12	3.30
612	1"	15/32	19/64	1 1/64	5/64 12	4.50
*656	1"	15/32	19/64	1 1/32	5/64 12	13.80

* Vent

SNAP-LOCK PLASTIC GROMMETS

- Snaps in Place—FAST!
- Stays Put—LOCKED IN!



Two identical halves snap tight, lock in place. Provides a rigid bearing surface, greater dielectric, extreme chemical and wear resistance. Identical halves form complete grommet. Color, black.

Std. Pkg. 100

No.	A	B	C	D	E	NET Per C
2178	3/16"	5/16"	7/16"	1/16"	1/4"	$2.76
2179	1/4"	3/8"	1/2"	1/16"	1/4"	2.88
2180	3/8"	1/2"	5/8"	1/16"	1/4"	3.00

Net

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HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

ROUND HEAD STEEL MACHINE SCREWS

CADMIUM PLATED

Std. Pkg. 100

Size	No.	Net per C	No.	Net per M
2-56 x 1/4"	1173C	.45	1173M	3.00
2-56 x 1/2"	1174C	.48	1174M	3.25
2-56 x 3/4"	1175C	.55	1175M	3.83
3-48 x 3/4"	1176C	.58	1176M	4.17
4-36 x 1/4"	1177C	.48	1177M	3.25
4-36 x 3/8"	1178C	.50	1178M	3.45
4-36 x 1/2"	1183C	.52	1183M	3.50
4-36 x 5/8"	1184C	.67	1184M	5.00
4-36 x 3/4"	1185C	.77	1185M	5.95
4-40 x 1/4"	1350C	.48	1350M	3.25
4-40 x 3/8"	1351C	.50	1351M	3.45
4-40 x 1/2"	1352C	.53	1352M	3.75
4-40 x 5/8"	1353C	.57	1353M	4.05
4-40 x 3/4"	1354C	.78	1354M	6.00
6-32 x 1/4"	1000C	.58	1000M	4.17
6-32 x 3/8"	1001C	.61	1001M	4.48
6-32 x 1/2"	1002C	.65	1002M	4.73
6-32 x 5/8"	1355C	.68	1355M	5.05
6-32 x 3/4"	1356C	.80	1356M	6.30
6-32 x 1"	1357C	.83	1357M	6.67
6-32 x 2"	1358C	1.50	1358M	13.20
8-32 x 1/4"	1006C	.72	1006M	5.55
8-32 x 3/8"	1007C	.75	1007M	5.73
8-32 x 1/2"	1008C	.80	1008M	6.30
8-32 x 3/4"	1359C	.93	1359M	7.67
10-32 x 1/2"	1360C	.95	1360M	8.50
10-32 x 3/4"	1361C	1.12	1361M	9.45
10-32 x 1"	1362C	1.25	1362M	11.00

BRASS MACHINE SCREWS

Round Head Nickel Plated

Std. Pkg. 100

Size	No.	NET per C	No.	NET per M
4-36 x 1/4"	1044C	$.80	1044M	$6.31
4-36 x 3/8"	1045C	.88	1045M	7.14
4-36 x 1/2"	1046C	.98	1046M	8.05
4-40 x 1/4"	1047C	.80	1047M	6.31
4-40 x 3/8"	1048C	.61	1048M	6.72
4-40 x 1/2"	1049C	.98	1049M	8.05
6-32 x 1/4"	1050C	1.03	1050M	8.55
6-32 x 3/8"	1051C	1.08	1051M	9.05
6-32 x 1/2"	1052C	1.20	1052C	10.29
8-32 x 1/4"	1056C	1.43	1056M	12.62
8-32 x 3/8"	1057C	1.50	1057M	13.28
8-32 x 1/2"	1058C	1.68	1058M	15.11

BINDING HEAD STEEL MACHINE SCREWS

CADMIUM PLATED

Std. Pkg. 100

Size	No.	Net per C	No.	Net per M
2-56 x 1/4"	1369C	.45	1369M	3.00
2-56 x 1/2"	1370C	.48	1370M	3.07
2-56 x 5/8"	1371C	.55	1371M	3.83
4-40 x 1/4"	1372C	.48	1372M	3.07
4-40 x 1/2"	1373C	.53	1373M	3.75
4-40 x 3/4"	1374C	.78	1374M	6.00
6-32 x 5/16"	1375C	.55	1375M	3.83
6-32 x 1/4"	1425C	.58	1425M	4.17
6-32 x 3/8"	1426C	.62	1426M	4.50
6-32 x 1/2"	1427C	.65	1427M	4.75
6-32 x 5/8"	1376C	.68	1376M	5.05
6-32 x 3/4"	1377C	.80	1377M	6.30
8-32 x 1/4"	1428C	.72	1428M	5.55
8-32 x 5/16"	1378C	.74	1378M	5.70
8-32 x 3/8"	1429C	.75	1429M	5.75
8-32 x 1/4"	1430C	.80	1430M	6.30
8-32 x 3/4"	1379C	.93	1379M	7.67
10-32 x 1/2"	1380C	.95	1380M	8.50
10-32 x 3/4"	1381C	1.03	1381M	8.55

STEEL SPADE BOLTS

#6 .140 — 1/2" — 6-32 THD. — 1/4"

Std. Pkg. 100

Size	No.	Net per C	No.	Net per M
6-32 x 5/16"	1500C	1.25	1500M	10.20

CABLE CLAMPS

1471 1470 1472

Steel Cadmium Plated with No. 8 Mtg. Hole.
Std. Pkg. 100

No.	Length	Width	Cable	NET Per C
1471	5/8"	5/8"	1/8"	$.78
1470	3/4"	3/8"	1/4"	.84
1472	1"	3/8"	1/2"	.90

SELF TAPPING SCREWS

Std. Pkg. 100

ROUND HEAD—TYPE A—Sharp Point

Size	No.	NET per C	No.	NET per M
4 x 1/2	1801C	$.77	1801M	$6.00
6 x 1/4	1802C	.83	1802M	6.67
6 x 3/8	1803C	.87	1803M	7.00
6 x 1/2	1804C	.98	1804M	8.10
8 x 3/8	1805C	.92	1805M	7.50
8 x 1/2	1806C	1.12	1806M	9.45

ROUND HEAD—TYPE Z—Blunt Point

Size	No.	NET per C	No.	NET per M
4 x 1/2	1807C	$.87	1807M	$7.00
6 x 1/4	1808C	.87	1808M	7.00
6 x 3/8	1809C	.87	1809M	7.00
6 x 1/2	1810C	.98	1810M	8.10
8 x 3/8	1811C	.92	1811M	7.50
8 x 1/2	1812C	1.12	1812M	9.45

SLOTTED HEX HEAD — TYPE Z

Blunt Point

Size	No.	NET per C	No.	NET per M
6 x 1/4	1830C	$1.12	1830M	$9.45
6 x 3/8	1831C	1.12	1831M	9.45
6 x 1/2	1832C	1.12	1832M	9.45
8 x 3/8	1833C	.92	1833M	7.50
8 x 1/2	1834C	1.12	1834M	9.45

PAN HEAD SHEET METAL SCREWS

CADMIUM PLATED

Std. Pkg. 100

Size	No.	Net per C	No.	Net per M
4 x 1/2"	1389C	.87	1389M	7.00
6 x 1/4"	1390C	.87	1390M	7.00
6 x 3/8"	1391C	.90	1391M	7.25
6 x 1/2"	1392C	.92	1392M	7.50
6 x 3/4"	1393C	1.00	1393M	8.40
8 x 1/4"	1394C	1.00	1394M	8.40
8 x 3/8"	1395C	1.05	1395M	8.60
8 x 1/2"	1396C	1.08	1396M	9.17
8 x 1"	1397C	1.38	1397M	12.08

ROUND HEAD STEEL WOOD SCREWS

Std. Pkg. 100

Size	No.	Net per C	No.	Net per M
4 x 1/2"	1384C	.78	1384M	6.00
4 x 3/4"	1385C	.90	1385M	7.25
6 x 3/4"	1386C	.97	1386M	8.00
6 x 1"	1387C	1.20	1387M	10.00
8 x 3/4"	1388C	1.15	1388M	9.75

OVAL HEAD STEEL NICKEL PLATED RACK SCREWS

Std. Pkg. 100

Size	No.	Net per C	No.	Net per M
6-32 x 3/4"	1382C	.75	1382M	5.75
8-32 x 3/4"	1383C	.95	1383M	8.00
10-32 x 1/2"	1111C	.90	1111M	7.22
10-32 x 3/4"	1112C	1.03	1112M	8.63

COUNTER SUNK WASHERS BRASS

NICKEL PLATED

Std. Pkg. 100

Size	No.	Net per C	No.	Net per M
#6	1115C	.55	1115M	3.83
#8	1116C	.65	1116M	5.10
#10	1117C	1.08	1117M	5.75

FAHNESTOCK SPRING BATTERY CLIPS

Clips are made of brass, nickel plated and are available in the single and double clip types.
Std. Pkg. 100

No.	Type	Length	NET Per C
539	Single	5/8"	$1.20
533	Single	3/4"	1.44
534	Single	1"	2.10
535	Double	1 1/2"	2.40
536	Double	2 1/16"	9.60

HEXAGON NUTS

Brass Nickel Plated

Std. Pkg. 100

Size	No.	NET per C	No.	NET per M
4-36x1/4"	1188C	$1.10	1188M	$9.33
4-40x1/4"	1168C	1.10	1168M	9.25
6-32x1/4"	1189C	1.08	1189M	9.17
6-32x5/16"	1190C	1.28	1190M	11.08
8-32x5/16"	1192C	1.28	1192M	11.08
10-32x5/16"	1193C	1.38	1193M	12.08
1/4-32"	1187C	1.97	1187M	18.00
Steel Nickel Plated				
1/4-32"	1186C	1.50	1186M	$13.20

HEX NUTS STEEL

CADMIUM PLATED

Std. Pkg. 100

Size	No.	Net per C	No.	Net per M
2-56 x 3/16"	1363C	.68	1363M	5.05
3-48 x 3/16"	1364C	.68	1364M	5.05
4-46 x 1/4"	1365C	.67	1365M	5.00
4-40 x 1/4"	1179C	.70	1179M	5.25
6-32 x 5/16"	1180C	.72	1180M	5.55
8-32 x 1/4"	1366C	.73	1366M	5.60
8-32 x 5/16"	1181C	.73	1181M	5.70
10-32 x 3/8"	1367C	.97	1367M	8.00
1/4-20 x 7/16"	1368C	1.33	1368M	11.50
1/4-32 x 7/16"	1186C	1.50	1186M	13.20

VOL CONTROL & TOGGLE SWITCH NUTS

Nickel Plated

Std. Pkg. 500

Type	No.	NET Per C	No.	NET Per M
Vol. Cont. Brass*	1195C	$1.65	1195M	$15.00
Vol. Cont. Steel*	1199C	1.32	1199M	12.00
Toggle Sw. Hex†	1196C	1.98	1196M	18.00
Toggle Sw. Ring‡	1197C	3.30	1197M	30.00

*3/8-32 x 1/2 x 3/32 †15/32 x 3/16 x 3/64 ‡15/32 x 5/8 x 1/16

FLAT STEEL WASHERS

NICKEL PLATED

Std. Pkg. 100

Size	No.	Net per C	No.	Net per M
For #2 Screw	1138C	.65	1138M	4.80
For #4 Screw	1149C	.83	1149M	6.60
For #6 Screw	1150C	.65	1150M	4.80
For #8 Screw	1151C	.65	1151M	4.80
For #10 Screw	1152C	.83	1152M	6.60
For 1/4" Screw	1147C	.83	1147M	6.60
For 3/8" Screw	1148C	.90	1148M	7.25

INTERNAL TOOTH LOCKWASHERS STEEL

CADMIUM PLATED

Std. Pkg. 100

Size	No.	Net per C	No.	Net per M
#4	1127C	.51	1127M	3.50
#6	1128C	.51	1128M	3.50
#8	1129C	.55	1129M	3.83
#10	1130C	.55	1130M	3.83
1/4"	1132C	.67	1132M	5.00
3/8"	1131C	1.02	1131M	8.50
Narrow Rim 3/4"	1145C	1.02	1145M	8.50
Narrow Rim 15/32"	1146C	1.02	1146M	8.50

EXTERNAL TOOTH LOCKWASHERS STEEL

CADMIUM PLATED

Std. Pkg. 100

Size	No.	Net per C	No.	Net per M
#4	1139C	.51	1139M	3.50
#6	1140C	.51	1140M	3.50
#8	1141C	.55	1141M	3.83
#10	1142C	.55	1142M	3.83
1/4"	1144C	.67	1144M	5.00
3/8"	1143C	1.02	1143M	8.50

ANGLES

W — T — L1 — H1 — H2 — L2

L1 — Length of leg
L2 — Length of leg
T — Thickness
W — Width
H1 — Hole Location
H2 — Hole Location
A — Hole Diameter
B — Hole Diameter

Std. Pkg. 100

STEEL, Cadmium Plated

No.	L1	L2	H1	H2	W	T	A	B	Net Per C
1444	7/16	7/16	17/64	1/4	3/8	.032	3/16	#4	$.72
1445	1/2	1/2	11/32	23/64	1/2	.050	#6	#4	.90
1446	49/64	27/64	39/64	15/64	5/16	.032	#6	#6	.90
1447	19/64	1/2	61/64	23/64	5/16	.050	#8	#8	1.02
1476	1 1/16	1 1/16	1/2	1/2	3/8	.032	#6	#6	1.50

Note: No. 1476 has Hot Tin Dipped finish

BRASS, Nickel Plated

1474	15/32	15/32	19/64	19/64	5/16	.025	#8	#8	1.80
1475	21/32	21/32	3/8	3/8	3/8	.050	#8	#8	3.60

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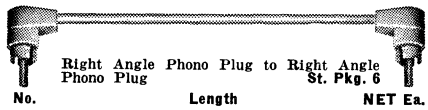
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

JUMPER CORDS

Male Phono Plug with fingergrip handle on each end. Std. Pkg. 6

No.	Length	NET Ea.
631	18 inches	$ .75
632	24 inches	.78
633	36 inches	.84
634	48 inches	.96
635	72 inches	1.05
636	120 inches	1.50
745	180 inches	1.68



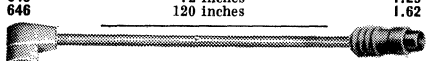
Right Angle Phono Plug to Right Angle Phono Plug. St. Pkg. 6

No.	Length	NET Ea.
2720	18 inches	$ .75
2721	24 inches	.78
2722	36 inches	.84
2723	48 inches	.96
2724	72 inches	1.05
2725	120 inches	1.50
2726	180 inches	1.68

EXTENSION CORDS

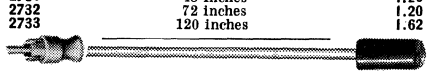
Male Phono Plug with fingergrip handle one end; Female In-line Jack other end. Std. Pkg. 6

No.	Length	NET Ea.
641	18 inches	$ .99
642	24 inches	1.02
643	36 inches	1.08
644	48 inches	1.20
645	72 inches	1.29
646	120 inches	1.62

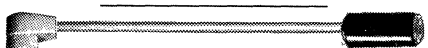


Right Angle Phono Plug to In-line Jack.

No.	Length	NET Ea. St. Pkg. 6
2728	18 inches	$ .99
2729	24 inches	1.02
2730	36 inches	1.08
2731	48 inches	1.20
2732	72 inches	1.20
2733	120 inches	1.62

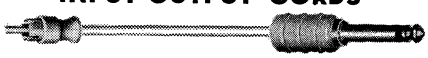


Male Phono Plug one end; In-line Jack other end. Std. Pkg. 6
No. 639 — 72 inches — NET ea. $1.44

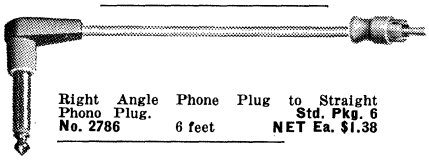


Right Angle Phono Plug to In-line Jack. Std. Pkg. 6
No. 2740 — 72 inches — NET ea. $1.44

INPUT-OUTPUT CORDS



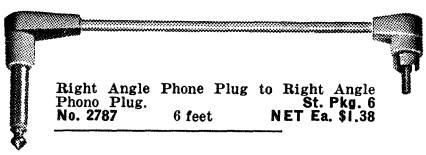
Male Phono Plug with fingergrip handle one end; Male Phono Plug other end. Std. Pkg. 6
No. 662 — 72 inches — NET Ea. $1.38



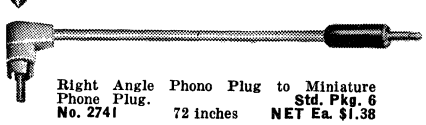
Right Angle Phone Plug to Straight Phono Plug. Std. Pkg. 6
No. 2786 — 6 feet — NET Ea. $1.38

Male Phono Plug with Molded Fingergrip handle one end; Miniature Phone Plug other end. Std. Pkg. 6
No. 715 — 72 inches — NET Ea. $1.38

Right Angle Phono Plug to Phone Plug. Std. Pkg. 6
No. 2739 — 72 inches — NET Ea. $1.38



Right Angle Phone Plug to Right Angle Phono Plug. St. Pkg. 6
No. 2787 — 6 feet — NET Ea. $1.38



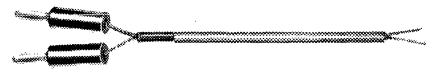
Right Angle Phono Plug to Miniature Phone Plug. Std. Pkg. 6
No. 2741 — 72 inches — NET Ea. $1.38

CONNECTOR CORDS
For Imported HI-FI Equipment

Two banana plugs one end, phono jack other end. Std. Pkg. 6
No. 712 — 72 inches — NET Ea. $1.38

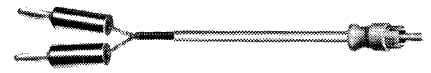
Two banana plugs one end, in-line banana jacks other end. Std. Pkg. 6
No. 713 — 72 inches — NET Ea. $1.62

Two banana plugs one end, ins. alligator clips other end. Std. Pkg. 6
No. 714 — 72 inches — NET Ea. $1.38



Two banana plugs one end, stripped and tinned other end. Std. Pkg. 6
No. 709 — 72 inches — NET Ea. $1.02

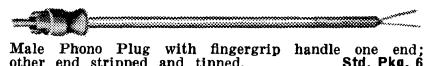
Two banana plugs one end, phone plug other end. Std. Pkg. 6
No. 710 — 72 inches — NET Ea. $1.44



Two banana plugs one end, phono plug other end. Std. Pkg. 6
No. 711 — 72 inches — NET Ea. $1.20

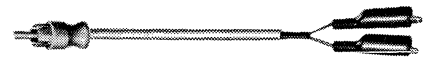
PHONO PLUG CONNECTOR CORDS

Male Phono Plug with fingergrip handle one end; Spade Lugs other end. Std. Pkg. 6
No. 668 — 72 inches — NET Ea. $.72



Male Phono Plug with fingergrip handle one end; other end stripped and tinned. Std. Pkg. 6

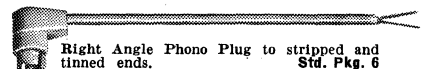
No.	Length	NET Ea.
637	36 inches	$.66
638	72 inches	.84



Male Phono Plug with fingergrip handle one end; Insulated Alligator Clips other end. Std. Pkg. 6

No.	Length	NET Ea.
673	36 inches	$.72
674	72 inches	.94

Std. Pkg. 6
Right Angle Phono Plug to Spade Lugs.
No. 2734 — 72 inches — NET Ea. $.72



Right Angle Phono Plug to stripped and tinned ends. Std. Pkg. 6

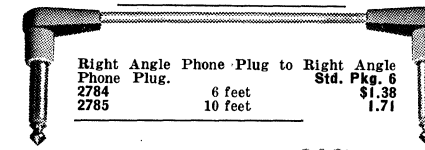
No.	Length	NET Ea.
2735	36 inches	$ .66
2736	72 inches	.84

Right Angle Phono Plug to Insulated Alligator Clips. Std. Pkg. 6

No.	Length	NET Ea.
2737	36 inches	$ .72
2738	72 inches	.90

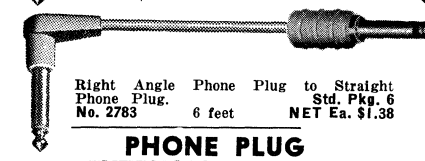
PHONE PLUG JUMPER CORDS

Male Phono Plugs on each end. Std. Pkg. 6
No. 677 — 72 inches — NET Ea. $1.38



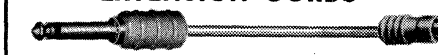
Right Angle Phone Plug to Right Angle Phone Plug. Std. Pkg. 6

2784	6 feet	$1.38
2785	10 feet	1.71

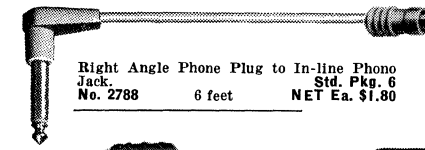


Right Angle Phone Plug to Straight Phone Plug. Std. Pkg. 6
No. 2783 — 6 feet — NET Ea. $1.38

PHONE PLUG EXTENSION CORDS

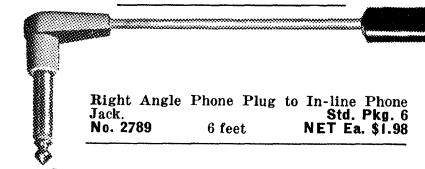


Male Phone Plug one end; Female In-line Jack other end. Std. Pkg. 6
No. 663 — 72 inches — NET Ea. $1.80



Right Angle Phone Plug to In-line Phono Jack. Std. Pkg. 6
No. 2788 — 6 feet — NET Ea. $1.80

Male Phone Plug one end; In-line Jack other end. Std. Pkg. 6
No. 669 — 72 inches — NET Ea. $1.98

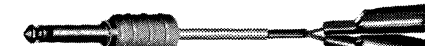


Right Angle Phone Plug to In-line Phone Jack. Std. Pkg. 6
No. 2789 — 6 feet — NET Ea. $1.98

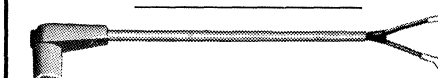
PHONE PLUG CONNECTOR CORDS

Male Phone Plug one end; Spade Lugs other end. Std. Pkg. 6
No. 665 — 72 inches — NET Ea. $1.08

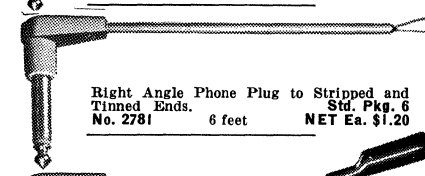
Male Phone Plug one end; other end stripped and tinned. Std. Pkg. 6
No. 667 — 72 inches — NET Ea. $1.20



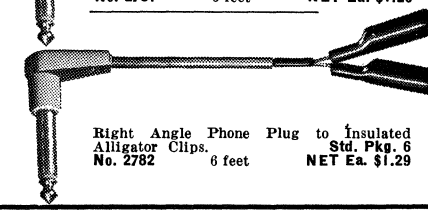
Male Phone Plug one end; insulated Alligator Clips other end. Std. Pkg. 6
No. 664 — 72 inches — NET Ea. $1.29



Right Angle Phone Plug to Insulated Spade Lug. Std. Pkg. 6
No. 2780 — 6 feet — NET Ea. $1.08



Right Angle Phone Plug to Stripped and Tinned Ends. Std. Pkg. 6
No. 2781 — 6 feet — NET Ea. $1.20



Right Angle Phone Plug to Insulated Alligator Clips. Std. Pkg. 6
No. 2782 — 6 feet — NET Ea. $1.29

Net

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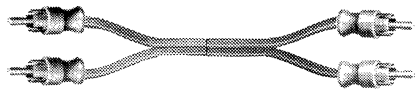
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

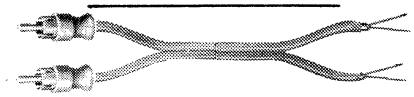
STEREO CONNECTOR CABLES

Twin shielded audio cables, individually color coded with molded connectors, for neat, simultaneous connections of both channels in Stereo Hi-Fi equipment.



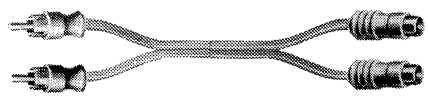
Male Phono Plugs (out No. 1201) with finger grip handle on each end.

No.	Length	NET Each
754	36 inches	$1.80
755	72 inches	2.04
756	144 inches	2.70



Male Phone Plugs (our No. 1201) with finger grip handle, one end. Other end stripped and tinned with color-coded insulation.

No.	Length	NET Each
757	36 inches	$1.59
758	72 inches	1.74
759	144 inches	2.25



Male Phone Plugs (our No. 1201) with finger grip handle, one end. Female molded in-line jacks other end.

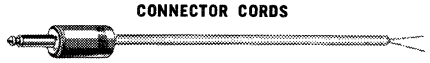
No.	Length	NET Each
760	36 inches	$2.25
761	72 inches	2.40
762	144 inches	3.00

HI-FI CORDS

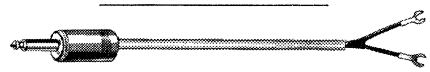
For Revere Equipment

Std. Pkg. 6

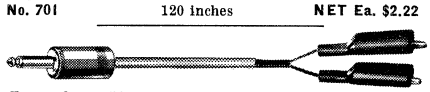
CONNECTOR CORDS



Short-sleeve Phone Plug one end; other end stripped and tinned.
No. 700 — 120 inches — NET Ea. $2.10

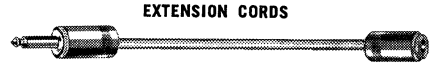


Short-sleeve Phone Plug one end; other end Spade Lugs.
No. 701 — 120 inches — NET Ea. $2.22

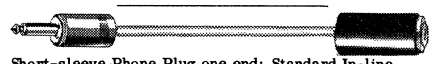


Short-sleeve Phone Plug one end; Insulated Alligator Clips other end.
No. 702 — 120 inches — NET Ea. $2.43

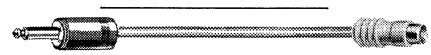
EXTENSION CORDS



Short-sleeve Phone Plug one end; Revere type In-line Jack other end.
No. 703 — 120 inches — NET Ea. $4.98

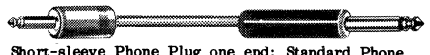


Short-sleeve Phone Plug one end; Standard In-line Jack other end.
No. 704 — 120 inches — NET Ea. $2.88



Short-sleeve Phone Plug one end; Phono In-line Jack other end.
No. 705 — 120 inches — NET Ea. $2.64

INPUT-OUTPUT



Short-sleeve Phone Plug one end; Standard Phone Plug other end.
No. 706 — 120 inches — NET Ea. $2.64

CONNECTOR CORD FOR WEBCOR TAPE RECORDER

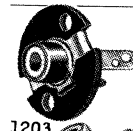
Three way Phone Plug with built in resistor to cut down on audio one end; Insulated Alligator Clips other end.
Std. Pkg. 6
No. 676 — 120 inches — NET Ea. $2.34

PHONO PLUGS

RCA Type Phone Plug. For use with record players, recording and reproducing equipment, etc. Extra large hole in cap (.175") for coaxial cable. Std. Pkg. 100

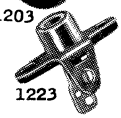
No.	Type	NET Per C
1201	Long Pin (1" overall)	$3.60
1202	Short Pin (13/16" overall)	3.60

PHONO JACKS



Female for No. 1201 plug. Single prong positive grip jack mounted on 1/16" bakelite with 11/16" mounting centers. Std. Pkg. 100

No.	NET Per C
1203	$4.20
1203-1 Insulating Washer	1.80



Small, compact . . . where space is at a premium. 7/16" Mtg. Ctrs.
Std. Pkg. 100

No.	NET Per C
1223	$7.20

Space Saver Rivets and grounds to chassis. Mounts in 19/64" hole.
Std. Pkg. 50

No.	NET Per C
1233	$6.60

PANEL MOUNT PHONO JACK

Mounts in 29/64" hole (.453) with nut and washer. Easy installation for the home Hi-Fi enthusiast. Std. Pkg. 50

No.	NET Per C
1247	$21.00

HANDY GRIP PHONO PLUG

Quick connect: strip wire, solder inner conductor to pin and either solder braid to lug or crimp to lug. Fits all standard phone jacks.
Std. Pkg. 100

No.	NET Per C
1246	$9.00

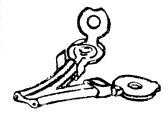
SHIELDED EXTENSION JACK

Brass shell, cadmium plated, 1 7/16" long, with black bakelite insert. Provides insulation for solder-coated positive grip contact. Uses No. 1201 phono plug. Std. Pkg. 50

No.	NET Per C
1237	$27.00

TV ANTENNA LUG

Solderless Type



A secure, swift, positive and permanent method of connecting TV wire to antenna. Simply strip wire, coil around groove and fold over. Insure positive contact.
Std. Pkg. 100

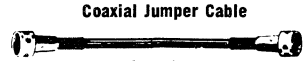
No.	Type	Length	Hole	NET Per C
1460	Double Cup	13/16"	No. 10	$2.64
1461	Double Cup	15/16"	1/4"	2.10

MICROPHONE CABLES

Coaxial Extension Cable

No.	Length	NET Ea.
687	36 inches	$1.40
688	72 inches	1.80
689	144 inches	2.58

Coaxial Jumper Cable



No.	Length	NET Ea.
694	36 inches	$1.62
696	72 inches	1.98
697	144 inches	2.52

ADAPTER

Phone Plug to Phone Plug

Adapts standard phono plug to phone plug with built in resistor to adapt either crystal or magnetic pickups. Std. pkg. 10.

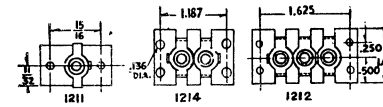
No. 707	With Resistor	$1.59 Ea.
No. 708	Without Resistor	$.90 Ea.

FEED THRU

Accepts Phono Plug on Each End. Std. Pkg. 10
No. 661 — NET ea. $.72

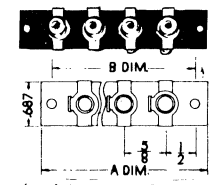
PHONO JACKS

Used on recording units, phono plays, etc. Std. pkg. 50



No.	NET Per C
1211—Single Jack	$ 7.20
1214—Double Jack	9.60
1212—Triple Jack	15.00
1214-1—Insulating Washer for No. 1214	2.40

MULTIPLE PHONO JACKS



Individual phono jacks (no interconnected grounds) kmounted on narrow width bakelite strip.
Std. Pkg. 50

No.	No. of Jacks	Dimensions "A"	Dimensions "B"	NET Per C
1261	1	1 3/8"	1.000	$4.80
1262	2	2"	1.625	8.70
1263	3	2 5/8"	2.250	14.10
1264	4	3 1/4"	2.875	17.10
1265	5	3 7/8"	3.500	21.60
1266	6	4 1/2"	4.125	25.20
1267	7	5 1/8"	4.750	29.40
1268	8	5 3/4"	5.375	33.60

MINIATURE HUM BALANCING CONTROLS

Rheostat rated at 2 watts, grounded rotor, tolerance ± 20%. Screwdriver slot adjustment from front or rear. Useful for hum balancing, centering, hold and locking, linearity, AGC sensitivity, etc.
Std. Pkg. 25

No.	Total Res. Ohms	NET Per C
2291	50	$39.00
2292	100	39.00
2293	300	39.00
2294	500	39.00
2295	700	39.00
2296	1000	39.00
2297	2000	39.00
2298	3000	39.00
2299	4000	39.00

HEX AND SPLINE KEYS

Made of special alloy steel, tempered to avoid brittleness and impose maximum resistance to torsional strain. Ends ground for easy insertion.

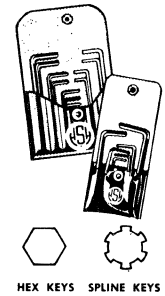
HEX KEYS — Std. Pkg. 50

No.	Screw	Hex	NET Per C
340	No. 2	.034	$7.80
341	No. 3, 4	.050	7.80
342	No. 5, 6	.062	7.80
343	No. 8	.078	7.80
344	No. 10	.093	9.00
345	No. 1/4"	.125	9.00
346	No. 5/16"	.156	9.00

SPLINE KEYS

No.	Screw	O. D.	NET Per C
370	No. 4	.058	$7.80
371	No. 5	.068	7.80
372	No. 6	.075	7.80
373	No. 8	.093	7.80
374	No. 10	.109	9.00
375	No. 1/4"	.143	9.00
376	No. 5/16"	.182	9.00

HEX AND SPLINE KEY KITS



Attractive tearproof vinyl plastic kit with individual pockets for each of six keys in kit.
Std. Pkg. 5.
Kit of 6 hex keys for screws from No. 3 to 5/16".
No. 355 $100.00 NET Per C
Kit of 6 spline keys for screws from No. 5 to 5/16".
No. 385 $100.00 NET Per C
Combination Kit of 3 hex and 3 spline keys for No. 6-8-10 screws.
No. 390 $100.00 NET Per C
Kit of 7 hex keys for screws from No. 2 to 5/16" and 4 spline keys Nos. 4, 6, 8, and 10.
No. 395 $200.00 NET Per C

DISPLAY CARDS

No.		NET Each
355D	Display of 24 Hex Kits No. 355	$24.00
385D	Display of 24 Spline Kits No. 385	24.00
390D	Display of 24 Comb. Kits No. 390	24.00
395D	Display of 20 Comb. Kits No. 395	40.00

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HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

CUTLER-HAMMER SWITCHES

TOGGLE SWITCHES
STANDARD DUTY

15 Amps. 125 Volts — 10 Amps. 250 Volts

AC, UL Approved 15/32" shank; slow-make and break; bakelite case. AC rated only for longer life and greater capacity. **Std. Pkg. 10**

BACK CONNECTED LUG TERMINALS

No.	C-H No.	Type	NET Each
966	7501K13	SPST	$ .69
967	7505K4	SPDT	.81
968	7561K4	DPST	1.08
969	7565K5	DPDT	1.26
970	7611K2	TPST	2.19
971	7615K2	TPDT	2.70

BACK CONNECTED SCREW TERMINALS

No.	C-H No.	Type	NET Each
972	7500K14	SPST	$ .81
973	7504K4	SPDT	.96
974	7560K5	DPST	1.26
975	7564K6	DPDT	1.56
976	7610K2	TPST	2.55
977	7614K2	TPDT	3.24

CENTER OFF STANDARD DUTY TOGGLE SWITCHES

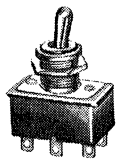
BACK CONNECTED LUG TERMINALS

No.	C-H No.	Type	NET Each
978	7503K13	SPDT	$ .81
979	7563K4	DPDT	1.26
980	7613K2	TPDT	2.70

BACK CONNECTED SCREW TERMINALS

No.	C-H No.	Type	NET Each
981	7502K13	SPDT	$ .96
982	7562K4	DPDT	1.56
983	7612K2	TPDT	3.24

TOGGLE SWITCHES
LIGHT DUTY



AC-DC, UL Approved; 15/32" shank; quick make — quick break; bakelite case. Unusually small size for electrical capacity. **Std. Pkg. 10**

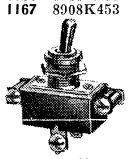
BACK CONNECTED LUG TERMINALS

SMALL BAT HANDLE 15/32" LONG

No.	C-H No.	Type	Current Rating 125 V.	250 V.	NET Each
950	8280K16	SPST		3 Amps.	$ .69
951	8381K8	SPST	6 Amps.	3 Amps.	.81
952	8282K14	SPDT	3 Amps.	1 Amp.	.87
953	8284K14	2 circ.	3 Amps.	1 Amp.	.93
954	8360K7	DPST		3 Amps.	1.26
955	8370K7	DPST	6 Amps.	3 Amps.	1.38
956	8363K7	DPDT		3 Amps.	1.44
957	8373K7	DPDT	6 Amps.	3 Amps.	1.56

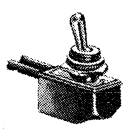
STANDARD BAT HANDLE 1/16" LONG

					NET Each
1160	8908K446	SPST		3 Amps.	$ .69
1161	8908K447	SPST	6 Amps.	3 Amps.	.81
1162	8908K448	SPDT	3 Amps.	1 Amp.	.87
1163	8908K449	2 Circ.	3 Amps.	1 Amp.	.93
1164	8908K450	DPST		3 Amps.	1.26
1165	8908K451	DPST	6 Amps.	3 Amps.	1.38
1166	8908K452	DPDT		3 Amps.	1.44
1167	8908K453	DPDT	6 Amps.	3 Amps.	1.56



SIDE CONNECTED SCREW TERMINALS

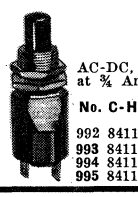
No.	C-H No.	Type	Current Rating 125 V.	250 V.	NET Each
958	8285K8	SPST		3 Amps.	$ .84
959	8396K8	SPST	6 Amps.	3 Amps.	.96
960	8297K8	SPDT	3 Amps.	1 Amp.	1.11
961	8372K7	DPST	6 Amps.	3 Amps.	1.65
962	8365K7	DPDT		3 Amps.	1.89
963	8375K7	DPDT	6 Amps.	3 Amps.	2.01



WIRE LEADS— SIX INCHES LONG Std. Pkg. 10

No.	C-H No.	Type	Current Rating 125 V.
964	8290K16	SPST	
965	8391K8	SPST	6 Amps.

No.	C-H No.	250 V.	NET Each
250 V.		Each 3 Amps.	$ .84
Type		125 V. 3 Amps.	.96

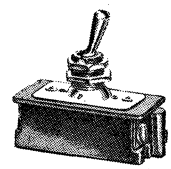


PUSH BUTTON MOMENTARY SWITCHES
Std. Pkg. 10

AC-DC, UL Approved, 15/32" shank; rated at ¾ Amp, 125 volts — ¼ Amp, 250 volts.

No.	C-H No.	Type	Term.	NET Each
992	8411K4	SP Norm. Op	Lug	$ .48
993	8411K3	SP Norm. Op	Screw	.54
994	8411K8	SP Norm. Cl	Lug	.36
995	8411K7	SP Norm. Cl	Screw	.39

TOGGLE SWITCHES
HEAVY DUTY



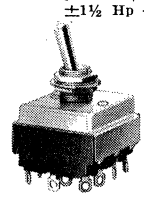
AC - DC, UL Approved; 15/32" shank; slow-make quick break; bakelite case. Screw Terminals.

Std. Pkg. 10

No.	C-H No.	Type	Current Rating 125 V	250-V	NET Each
984*	7321K3	SPST	12 A	6 A	$1.32
985*	7320K3	DPST	12 A	6 A	1.32
986+	7361K5	SPST	15 A	10 A	2.31
987+	7360K8	DPST	15 A	10 A	2.31
988±	7402K4	DPST		20 A	3.24

*1 Hp — 125/250V. +1½ Hp — 125/250V.
±1½ Hp — 125V, 2 Hp — 250V.

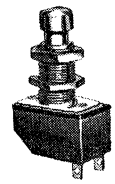
FOUR POLE SWITCHES



AC-DC GOVERNMENT APPROVED PER MIL-S-6745. 15/32" shank. Rated 10 amps, 115 volt AC—20 amps, 28 volts DC (Nominal rating per pole) SEALED LEVER **Std. Pkg. 10**

No.	C-H No.	Type	Terminals	NET Each
944	7661K6	4 PST	Solder Lugs	$4.56
945	7665K4	4 PDT	Solder Lugs	5.61
946	7660K8	4 PST	Screw Term.	4.95
947	7664K3	4 PDT	Screw Term.	6.15
		CENTER OFF		
948	7663K5	4 PDT	Solder Lugs	$5.61
949	7662K5	4 PDT	Screw Term.	6.15

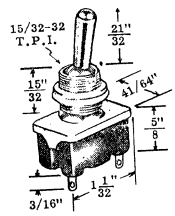
PUSH BUTTON SWITCHES
Push to make—Push to break



AC-DC, UL Approved; 11/16" shank; bakelite case. Pushing the button once closes the contacts. Pushing it again opens the contacts. Rated at 6 Amps. 125 Volts; 3 Amps. 250 Volts. **Std. Pkg. 10**

No.	C-H No.	Type	Term.	NET Each
989	7206K4	SPST	Lug	$ .96
990	7208K4	SPST	Screw	1.08
991	7207K4	SPST	Wire	1.08

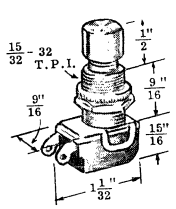
MIDGET TOGGLE SWITCH



Bat lever. Molded phenolic base. 15/32-32 x 15/32" long. Slotted sleeve, nickel finish. Supplied with hex nut and knurled nut. Back connected silver plated solder contacts. Rated 1 amp.-250 volts; 3 amps.-125 volts. **Std. Pkg. 10**

No.	Circuit	NET Each
920	SPST	$ .93
921	SPDT	1.11
922	2 Circ.	1.14
923	DPST	1.35
924	DPDT	1.56

MIDGET MOMENTARY SWITCH
SLOW MAKE AND BREAK



Molded Phenolic Base 15/32-32 x 5/16" slotted sleeve, Nickel Finish. Supplied with hex nut and knurled nut. Side connected silver plated solder contacts. Rated at 3 amps.-120 volts A.C. Supplied less button; order button separately. **Std. Pkg. 10**

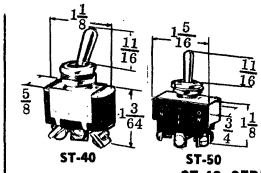
Normally Closed (ON)

No.	Circuit	NET Each
925	SPST	$ .75
926	2 Circ.	.81

Normally Open (OFF)

No.	Circuit	NET Each
927	SPST	$ .75

"ST" SWITCHES



Nominal Rating Per. Pole:
10 Amps. 115 V. AC
20 Amps. 28V. DC
Std. Pkg. 10

ST-40 SERIES — Single Pole With Screw Terminals

HHS	C-H	JAN Type	Circuit	NET Each
1720	8801K13	ST40A	SPST	On-None-Off	$1.68
1721	8813K12	ST40B	SPST	On-None-Mom-Off	1.86
1722	8811K12	ST40C	SPST	On-None-Mom-On	1.86
1723	8810K12	ST40D	SPDT	On-None-On	2.04
1724	8800K13	ST40E	SPDT	On-Off-On	2.04
1725	8804K12	ST40F	SPDT	On-None-Mom-On	2.19
1726	8812K13	ST40G	SPDT	Mom-On-Off-Mom-On	2.19
1727	8809K13	ST40H	SPDT	Off-On-Mom-On	2.19

All ST-40 Switches have Sealed Lever.

ST-42 SERIES — Single Pole With Solder Lugs

HHS	C-H	JAN Type	Circuit	Each
1730	8803K6	ST42A	SPST	On-None-Off	$1.26
1731	8819K5	ST42B	SPST	On-None-Mom-Off	1.38
1732	8817K5	ST42C	SPST	On-None-Mom-On	1.38
1733	8816K5	ST42D	SPDT	On-None-On	1.47
1734	8802K6	ST42E	SPDT	On-Off-On	1.47
1735	8805K5	ST42F	SPDT	On-None-Mom-On	1.82
1736	8818K5	ST42G	SPDT	Mom-On-Off-Mom-On	1.62
1737	8815K6	ST42H	SPDT	On-Off-Mom-On	1.62

ST-50 SERIES — Double Pole With Screw Terminals

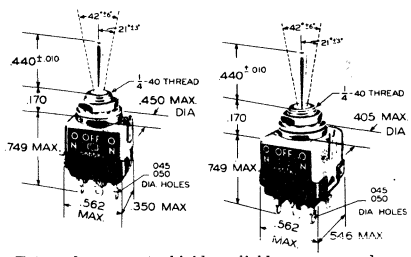
HHS	C-H	JAN Type	Circuit	Each
1740	8822K8	ST50K	DPST*	On-None-Off	$2.25
1741	8828K5	ST50L	DPST	On-None-Mom-Off	2.70
1742	8826K5	ST50M	DPST	Off-None-Mom-On	2.70
1743	8824K8	ST50N	DPDT*	On-None-On	2.70
1744	8820K10	ST50P	DPDT*	On-Off-On	2.70
1745	8830K5	ST50R	DPDT	On-None-Mom-On	2.94
1746	8834K4	ST50S	DPDT*	Mom-On-Off-Mom-On	2.94
1747	8832K4	ST50T	DPDT*	On-Off-Mom-On	2.94

* These switches are equipped with Sealed Lever.

ST-52 SERIES — Double Pole With Solder Lugs

HHS	C-H	JAN Type	Circuit	Each
1760	8823K5	ST52K	DPST	On-None-Off	$1.50
1761	8829K5	ST52L	DPST	On-None-Mom-Off	1.68
1762	8827K5	ST52M	DPST	Off-None-Mom-On	1.68
1763	8825K5	ST52N	DPDT	On-None-On	1.68
1764	8821K5	ST52P	DPDT	On-Off-On	1.68
1765	8831K5	ST52R	DPDT	On-None-Mom-On	1.95
1766	8835K3	ST52S	DPDT	Mom-On-Off-Mom-On	1.95
1767	8833K3	ST52T	DPDT	On-Off-Mom-On	1.95

C-H MINIATURE MILITARY SWITCHES



Extremely compact, highly reliable power or dry circuit switches. Usable as a pre-set switch in aircraft recognition systems; for walkie-talkies; for electronic instruments and communication systems.

RATINGS: 2 Amps. @ 28 V.D.C. 1 Amp @ 50 V.D.C. 2 Amps @ 115 V.A.C.

MINIMUM RATING: 30 Microamps. @ 50 Millivolts.

SINGLE POLE

WEIGHT: 5.0 Grams.
CUBIC CONTENT: .147 cubic inches "behind panel" volume. **Std. Pkg. 5**

HHS	C-H	Circuit	NET Each
1841	8866K1	SPDT	On-Off-On	$6.00
1842	8866K2	SPDT	Mom. On-Off-Mom. On	6.09
1843	8866K3	SPDT	On-Off-Mom. On	6.09
1844	8866K4	SPDT	On-None-On	6.00
1845	8866K5	SPST	On-Off-None	6.00
1846	8866K6	SPST	None-Off-Mom. On	6.09
1847	8866K7	SPST	On-None-Off	6.00

DOUBLE POLE

WEIGHT: 6.5 grams.
CUBIC CONTENT: .230 cubic inches "behind panel" volume. **Std. Pkg. 5**

HHS	C-H	Circuit	NET Each
1851	8867K1	DPDT	On-Off-On	$7.53
1852	8867K2	DPDT	Mom. On-Off-Mom. On	8.76
1853	8867K3	DPDT	On-Off-Mom. On	8.76
1854	8867K4	DPDT	On-None-On	7.53
1855	8867K5	DPST	On-Off-None	7.53
1856	8867K6	DPST	None-Off-Mom. On	8.76
1857	8867K7	DPST	On-None-Off	7.53

Net

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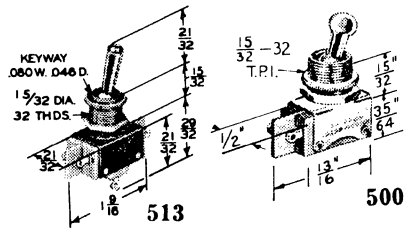
ARROW HART & HEGEMAN SWITCHES

SMALL CANOPY TYPE SWITCHES



Laminated type 15/32-32 slotted sleeve, nickel finish. Supplied with hex nut and knurled nut. Solder terminals. SPST rated at 3 amps-250 volts AC-DC; all other rated at 1 amp-250 volts, 3 amps-125 volts AC-DC. **Std. Pkg. 10**

BAT LEVER POSITIVE ACTION

15/32" long shaft No.	NET Each	CIRCUIT	13/32" long shaft No.	NET Each
510	$ .69	SPST	584	$ .69
511	.87	SPDT	585	.87
542	.93	2-Circ.	586	.93
512	1.26	DPST	587	1.26
513	1.44	DPDT	588	1.44

BAT LEVER MOMENTARY ACTION

15/32" long shaft

Normally Closed (ON) NET Each	CIRCUIT	Normally Open (OFF) NET Each
1020 $1.11	SPST	1024 $1.11
1021 1.29	SPDT	— —
1022 1.68	DPST	1025 1.68
1023 1.86	DPDT	— —

BALL LEVER POSITIVE ACTION

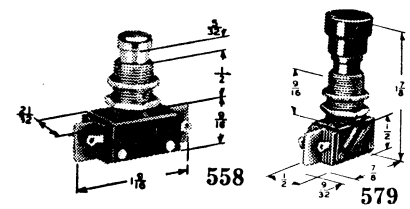
15/32 long shaft NET Each	CIRCUIT	3/4" long shaft NET Each
500 $ .69	SPST	501 $ .84
502 .87	SPDT	503 1.08
540 .87	2 Circ.	541 1.08
504 .26	DPST	505 1.44
506 1.44	DPDT	507 1.59

6" WIRE LEADS POSITIVE ACTION

15/32" long shaft

BALL LEVER NET Each	CIRCUIT	BAT LEVER NET Each
1010 $ .84	SPST	1015 $ .84
1011 1.17	SPDT	1016 1.17
1012 1.29	2 Circ.	1017 1.29
1013 1.65	DPST	1018 1.65
1014 2.01	DPDT	1019 2.01

MOMENTARY PUSH SWITCHES



Laminated type 15/32-32 x 9/16" slotted sleeve, nickel finish. Supplied with hex nut and knurled nut. All switches accept snap on button. SPST rated at 3 amps-250 volts AC-DC. All others rated at 1 amp-250 volts. 3 amps-125 volts AC-DC. **Std. Pkg. 10**

SUPPLIED LESS BUTTON: ORDER BUTTON SEPARATELY.

QUICK MAKE AND BREAK

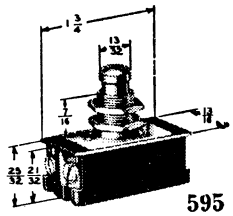
Normally Closed (ON) No.	NET Each	CIRCUIT	Normally Open (OFF) No.	NET Each
552	$1.35	SPST	555	$1.35
556	1.56	SPDT	— —	— —
557	1.53	2 Circ.	— —	— —
564	1.86	DPST	558	1.86
559	2.07	DPDT	— —	— —

SLOW MAKE AND BREAK

Rated at 1 amp.-125 volts AC

Normally Closed (ON) NET Each	CIRCUIT	Normally Open (OFF) NET Each
582 $ .75	SPST	579 — — $ .75
580 .96	2 Circ.	— — — —

STANDARD DUTY MOMENTARY PUSH SWITCHES



Molded phenolic base. 15/32-32 x 7/16" long slotted sleeve, nickel finish. Screw terminals. Supplied with hex nuts.

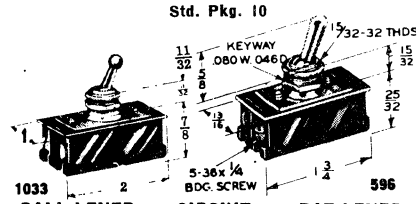
Two circ. rated at 3 amps.-250 volts, 6 amps-125 volts. AC-DC. All others rated at 6 amps-250 volts, 12 amps-125 volts AC-DC. DPST also rated at 1 HP at 250 volts AC-DC. **Std. Pkg. 10**

Normally Closed (ON) No.	NET Each	CIRCUIT	Normally Open (OFF) No.	NET Each
1026	$1.98	SPST	544	$1.98
1027	1.98	SPDT	— —	— —
1028	1.98	2 Circ.	— —	— —
1029	1.98	DPST	595	1.98

STANDARD DUTY TOGGLE SWITCHES

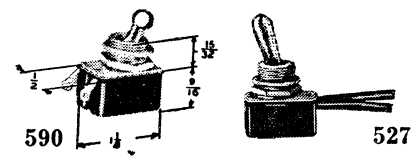
QUICK MAKE AND BREAK

Std. Pkg. 10



BALL LEVER NET Each	CIRCUIT	BAT LEVER NET Each
1030 $1.32	SPST	597 $1.32
1031 1.32	SPDT	598 1.32
1032 1.32	2 Circ.	599 1.32
1033 1.32	DPST	596 1.32

MIDGET SIZE TOGGLE SWITCHES



Molded phenolic base, 15/32-32 x 15/32" long slotted sleeve, nickel finish. Side connected silver plated solder contacts. Supplied with hex nut and knurled nut. SPST rated at 3 amps-250 volts; 6 amps.-125 volts; all others rated at 1 amp-250 volts, 6 amps.-125 volts. **Std. Pkg. 10**

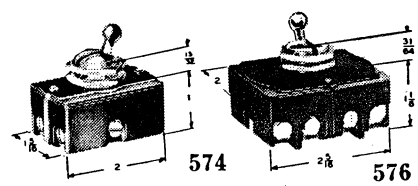
BALL LEVER No.	NET Each	CIRCUIT	BAT LEVER No.	NET Each
590	$ .78	SPDT	591	$ .78
589	.99	2 Circ.	592	.99
594	1.02		593	1.02

6" WIRE LEADS

BALL LEVER NET Each	CIRCUIT	BAT LEVER NET Each
526 $ .96	SPST	527 $ .96
538 1.26	SPDT	528 1.26
543 1.41	2 Circ.	514 1.41

EXTRA HEAVY DUTY POWER SWITCHES

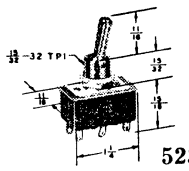
3 POSITION—POSITIVE CENTER OFF



Slotted sleeve 3/4-32, nickel finish. Screw terminals. Supplied with 2 hex nuts. Rated at 5 amps-250 volts. 10 amps-125 volts plus HP rating shown below. **Std. Pkg. 5**

No.	Circuit	Description	NET Each
574	DPDT	3/4 HP 250 volts AC-DS	$ 4.89
575	TPDT	1/2 HP 115/230 volts AC, 3 phase	7.53
576	4PDT	1/2 HP 115/230 volts AC, 2 phase	10.05

INTERMEDIATE SIZE TOGGLE SWITCHES

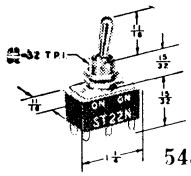


Molded phenolic base. 15/32-32 x 15/32" long slotted sleeve, nickel finish. Supplied with hex nut and knurled nut. Back connected silver plated solder contacts. SPDT rated at 1 amp-250 volts, 6 amps-125 volts AC-DC; all others rated at 3 amps-250 volts, 6 amps-125 volts AC-DC. **Std. Pkg. 10**

BAT LEVER

POSITIVE ACTION No.	NET Each	CIRCUIT	MOMENTARY ACTION No.	NET Each
520	$ .93	SPST	524 OFF	$1.32
521	1.11	SPDT	549 — —	1.50
583	1.14	2 Circ.	— — — —	— —
522	1.35	DPST	537 OFF	1.89
523	1.56	DPDT	525 — —	2.07

ST TYPE TOGGLE SWITCHES



MEETS AN SPEC. JAN-23

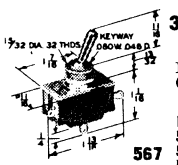
Rated at 3 amps-250 volts, 6 amps-125 volts AC-DC.

Std. Pkg. 10

No.	AWS No.	CIRCUIT	Position	NET Each
545	ST 12A	SPST	OFF-ON	$1.23
546	ST 12D	SPDT	ON-ON	1.41
1040	ST 12V	2-Circ.	OFF-ON	1.44
547	ST 22K	DPST	OFF-ON	1.77
548	ST 22N	DPDT	ON-ON	1.92

MOMENTARY NORMALLY OPEN (OFF)

1041	ST 12C	SPST	OFF-ON	$1.62
1042	ST 22M	DPST	OFF-ON	2.13



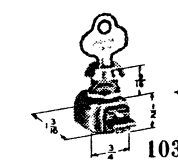
3 POSITION CENTER OFF

Rated at 3 amps-250 volts, 6 amps-125 volts AC-DC.

Std. Pkg. 10

No.	CIRCUIT	NET Each
566	SPDT	$1.68
565	2 Circ.	1.89
567	DPDT	2.07

CANOPY TYPE ROTARY SWITCHES



Laminated type. 11/32-32 x 15/32" sleeve, nickel finish. Solder lugs. Supplied with hex nut and dress nut. SPST rated at 3 amps-250 volts AC-DC, all others rated at 1 amp-250 volts, 3 amps-125 volts. AC-DC. Key removable in OFF position only on SPST and DPST—key removable in both positions on all others. 1⅛" shaft. **Std. Pkg. 10**

KEY TYPE No.	NET Each	CIRCUIT	ROTARY TYPE No.	NET Each
1034	$1.32	SPST	570	$.87
1035	1.50	SPDT	571	1.05
1036	1.53	2 Circ.	— —	— —
1037	1.89	DPST	572	1.44
1038	2.07	DPDT	573	1.62

SWITCH ACCESSORIES

508 509 581 1146 1170 1171 1172 1196 1197 1198

No.	Description	Std. Pkg.	NET Per C
508	ON-OFF name plate	50	$ 5.40
509	HI-LO name plate	50	5.40
581	Snap-On Button (Red or Black)	20	24.00
1146	Narrow Rim Lockwasher	100	1.02
1170	Key—Remove off position	50	21.00
1171	Key—Remove both positions	50	21.00
1172	Locking Ring	100	2.40
1196	Hex Nut—Brass N.P.	100	1.98
1197	Ring Nut—Brass N.P.	100	3.30
1198	Dress Nut—Brass N.P.	100	18.00

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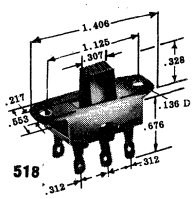
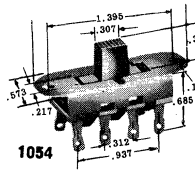
CONTINENTAL-WIRT SLIDE SWITCHES





With Detent

UL APPROVED

General purpose switches, used on hi-fi equipment, test instruments, etc. Steel cadmium plated housings. Black phenolic buttons. **Std. Pkg. 25**

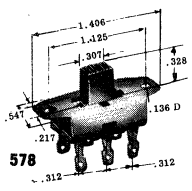
No.	Circuit	Rating @ 125 Volts AC Amps	DC Amps	NET Per C
515	SPST	.75	.75	$11.40
516	SPDT	.75	.75	12.00
517	DPST	.5	.5	15.00
518	DPDT	.5	.5	18.00
1105	SPST	6.0	1.0	14.40
1106	SPDT	6.0	1.0	15.00
1107	DPST	6.0	1.0	24.00
1108	DPDT	6.00	1.0	27.00

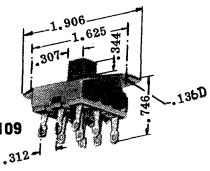
With Spring Return

No.	Circuit	Rating 125V ACDC	NET Per C
568	SPST	.5 Amp	$24.00
569	SPDT	.5 Amp	28.80

TRIPLE THROW With Detent

No.	Circuit	Rating 125V ACDC	NET Per C
1053	SP3T	.5 Amp	$28.80
1054	DP3T	.5 Amp	30.00





SLIDE SWITCHES With Detent

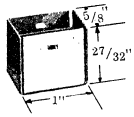
CENTER OFF

No.	Circuit	Rating 125V ACDC	NET Per C
577	SP 3-Position	.5 Amp	$28.80
578	DP 3-Position	.5 Amp	30.00

MULTI-POLE SWITCHES With Detent

Unique construction, all poles are in the same plane, more compact, easier wiring. **Std. Pkg. 25**

No.	Circuit	Rating @ 125 Volts AC Amps	DC Amps	NET Per C
1109	3PDT	3.0	1.0	$48.00
1110	3PDT	.5	.5	45.00
	Same as above but 1.005" wide			
1104	4PDT	.5	.5	60.00



SLIDE SWITCH SHIELD

For terminal protection or electrostatic shielding. Shield is made of steel, cadmium plated, with fibre insulation.

Std. Pkg. 25
No. 519 Each $.10

SMITH STOCKS SWITCHES FOR INDUSTRY

- CUTLER HAMMER
- KULKA "ST" SWITCHES
- MICRO TOGGLE SWITCHES
- ARROW, HART & HEGEMAN
- CONTINENTAL-WIRT

The Major Portions of these foremost brands of switch lines are stocked in depth at our plant in Brooklyn, N.Y., for quick availability either from our warehouse or thru our nationwide network of leading electronic parts distributors.

MICRO TOGGLE SWITCHES

ROCKER-ACTUATED TOGGLE SWITCHES

Combines advantages of Toggle Switch circuitry and current capacity with pushbutton control. Snag-proof keys prevent false actuation. Translucent plastic keys feature edge light indication. Lower half of key emits soft glow from light source in panel. Enables easy identification of actuator position. Transparent plastic keys mounted above flush. An insert with signs, symbols, or letters can be placed under the key.
Temperature range —65°F to +160°F. Sealed between bushing and rocker actuator, and between cover and case. **Std. Pkg. 10**

Circuit Code #	Circuit	Circuit Code #	Circuit
1	ON-OFF-ON	8	OFF-NONE-ON (MOM)
2	ON-NONE-OFF	9	ON (MOM) OFF-ON (MOM
3	ON-NONE-ON	10	ON-NONE-ON (MOM)
4	ON-OFF-NONE	11	ON-OFF (MOM)-NONE
5	ON-ON-NONE	12	ON (MOM)-ON-NONE
6	ON-NONE-OFF (MOM)	13	NONE-OFF-ON (MOM)
7	ON-OFF-ON (MOM)		

RATING: CURRENT CAPACITY (AMPS)

	CONTINUOUS 30 vdc	RESISTIVE LOAD 115 vdc	250 vdc	115 vac	230 vac	LAMP LOAD 30 vdc	115 vac	INDUCTIVE LOAD 30 vdc	115 vac
A	45	20	.75	.5	15	6	5	3	15	10
B	45	15	.75	.5	15	6	4	2	10	7
C	40	20	.75	.5	15	6	7	4	15	15
D	40	18	.75	.5	11	6	5	2	10	8
E	40	20	.75	.5	15	6	5	4	12	15
F	40	18	.75	.5	11	6	4	2	10	8

HHS	MICRO	Circuit	Rating	NET Each
	1 POLE			
	TRANSLUCENT KEY			
3401	1TP1-1	1	A	$ 8.58
3402	1TP1-2	2	A	8.58
3403	1TP1-3	3	A	8.58
3404	1TP1-21	4	A	8.87
3405	1TP1-31	5	A	8.87
3406	1TP1-4	6	B	8.58
3407	1TP1-5	7	B	8.58
3408	1TP1-6	8	B	8.58
3409	1TP1-7	9	B	8.58
3410	1TP1-8	10	B	8.58
3411	1TP1-41	11	B	8.87
3412	1TP1-51	12	B	8.87
3413	1TP1-61	13	B	8.87
	TRANSPARENT KEY			
3414	1TP4-1	1	A	$10.30
3415	1TP4-2	2	A	10.30
3416	1TP4-3	3	A	10.30
3417	1TP4-21	4	A	10.60
3418	1TP4-31	5	A	10.60
3419	1TP4-4	6	B	10.30
3420	1TP4-5	7	B	10.30
3421	1TP4-6	8	B	10.30
3422	1TP4-7	9	B	10.30
3423	1TP4-8	10	B	10.30
3424	1TP4-41	11	B	10.60
3425	1TP4-51	12	B	10.60
3426	1TP4-61	13	B	10.60
	2 POLE			
	TRANSLUCENT KEY			
3427	2TP1-1	1	C	$ 9.98
3428	2TP1-2	2	C	9.98
3429	2TP1-3	3	C	9.98
3430	2TP1-21	4	C	10.21
3431	2TP1-31	5	C	10.21
3432	2TP1-4	6	D	9.98
3433	2TP1-5	7	D	9.98
3434	2TP1-6	8	D	9.98
3435	2TP1-7	9	D	9.98
3436	2TP1-8	10	D	9.98
3437	2TP1-41	11	D	10.21
3438	2TP1-51	12	D	10.34
3439	2TP1-61	13	D	10.21
	TRANSPARENT KEY			
3440	2TP4-1	1	C	$11.70
3441	2TP4-2	2	C	11.70
3442	2TP4-3	3	C	11.70
3443	2TP4-21	4	C	11.93
3444	2TP4-31	5	C	11.93
3445	2TP4-4	6	D	11.70
3446	2TP4-5	7	D	11.70
3447	2TP4-6	8	D	11.70
3448	2TP4-7	9	D	11.70
3449	2TP4-8	10	D	11.70
3451	2TP4-51	12	D	12.06
3452	2TP4-61	13	D	11.93
	4 POLE			
	TRANSLUCENT KEY			
3453	4TP1-1	1	E	$12.29
3454	4TP1-2	2	E	12.29
3455	4TP1-3	3	E	12.29
3456	4TP1-21	4	E	12.48
3457	4TP1-31	5	E	13.26
3458	4TP1-4	6	F	12.29
3459	4TP1-5	7	F	12.29
3460	4TP1-6	8	F	12.29
3461	4TP1-7	9	F	12.29
3462	4TP1-8	10	F	12.29
3463	4TP1-41	11	F	12.48
3464	4TP1-51	12	F	13.49

	TRANSPARENT KEY			
3466	4TP4-1	1	E	$14.01
3467	4TP4-2	2	E	14.01
3468	4TP4-3	3	E	14.01
3469	4TP4-21	4	E	14.01
3470	4TP4-31	5	E	14.98
3471	4TP4-4	6	F	14.01
3472	4TP4-5	7	F	14.01
3474	4TP4-7	9	F	14.01
3475	4TP4-8	10	F	14.01
3476	4TP4-41	11	F	14.20
3477	4TP4-51	12	F	15.24
3478	4TP4-61	13	F	14.20

BUSHING-MOUNTED TOGGLE SWITCHES

Tested and approved under MIL-S-3950A. Silicone sealed between cover and case, and between bushing and toggle lever. Integral terminals provide stronger wiring connections. Wide temperature range of —85°F to +250°F. **Std. Pkg. 10**

Circuit Code #	Circuit	Circuit Code #	Circuit
1	ON-OFF-ON	8	OFF-NONE-ON (MOM)
2	ON-NONE-OFF	9	ON (MOM) OFF-ON (MOM)
3	ON-NONE-ON	10	ON-NONE-ON (MOM)
4	ON-OFF-NONE	11	ON-OFF (MOM)-NONE
5	ON-ON-NONE	12	ON (MOM)-ON-NONE
6	ON-NONE-OFF (MOM)	13	NONE-OFF-ON (MOM)
7	ON-OFF-ON (MOM)		

RATING: CURRENT CAPACITY (AMPS)

	CONTINUOUS 30 vdc	RESISTIVE LOAD 115 vdc	250 vdc	115 vac	230 vac	LAMP LOAD 30 vdc	115 vac	INDUCTIVE LOAD 30 vdc	115 vac
A	45	20	.75	.5	15	6	5	3	15	10
B	45	15	.75	.5	15	6	4	2	10	7
C	40	20	.75	.5	15	6	7	4	15	15
D	40	18	.75	.5	11	6	5	2	10	8

HHS	MICRO	"MS" No.	Circuit	Rating	NET Each
	1 POLE (MS 24523)				
3101	1TL1-1	MS24523-21	1	A	$4.16
3102	1TL1-2	MS24523-22	2	A	4.16
3103	1TL1-3	MS24523-23	3	A	4.16
3104	1TL1-21	MS24523-24	4	A	4.42
3105	1TL1-31	MS24523-33	5	A	4.42
3106	1TL1-4	MS24523-29	6	B	4.16
3107	1TL1-5	MS24523-31	7	B	4.16
3108	1TL1-6	MS24523-30	8	B	4.16
3109	1TL1-7	MS24523-27	9	B	4.16
3110	1TL1-8	MS24523-26	10	B	4.16
3111	1TL1-41	MS24523-25	11	B	4.42
3112	1TL1-51	MS24523-51	12	B	4.42
3113	1TP1-61	MS24523-28	13	B	4.42

	2 POLE (MS 24524)				
3114	2TL1-1	MS24524-21	1	C	$5.53
3115	2TL1-2	MS24524-22	2	C	5.53
3116	2TL1-3	MS24524-23	3	C	5.53
3117	2TL1-21	MS24524-24	4	C	5.75
3118	2TL1-31	MS24524-33	5	C	5.75
3119	2TL1-4	MS24524-29	6	D	5.53
3120	2TL1-5	MS24524-31	7	D	5.53
3121	2TL1-6	MS24524-30	8	D	5.53
3122	2TL1-7	MS24523-27	9	D	5.53
3123	2TL1-8	MS24524-26	10	D	5.53
3124	2TL1-41	MS24524-25	11	D	5.75
3125	2TL1-51	MS24524-32	12	D	5.88
3126	2TL1-61	MS24524-28	13	D	5.75

	4 POLE (MS 24525)				
3127	4TL1-1	MS24525-21	1	C	$7.77
3128	4TL1-2	MS24525-22	2	C	7.77
3129	4TL1-3	MS24525-23	3	C	7.83
3130	4TL1-21	MS24525-24	4	C	8.03
3131	4TL1-31	MS24525-33	5	C	8.81
3132	4TL1-4	MS24525-29	6	D	7.77
3133	4TL1-5	MS24525-31	7	D	7.83
3134	4TL1-6	MS24525-30	8	D	7.77
3135	4TL1-7	MS24525-27	9	D	7.83
3136	4TL1-8	MS24525-26	10	D	7.83
3137	4TL1-41	MS24525-25	11	D	8.03
3139	4TL1-51	MS24525-32	12	D	9.07
3139	4TL1-61	MS24525-28	13	D	8.03

BUSHING-MOUNTED "TS" TOGGLE SMITCHES

Tested and approved under MIL-S-3950A. Terminals plated to enable conversion to solder use by removing screws. Sealed toggle lever. **Std. Pkg. 10**

RATING: CURRENT CAPACITY (AMPS)

	CONTINUOUS 30 vdc	RESISTIVE LOAD 125 vdc	250 vdc	125 vac	250 vac	LAMP LOAD 30 vdc	125 vac	INDUCTIVE LOAD 30 vdc	125 vac
A	40	20	.75	.5	15	6	5	3	15	10
B	40	15	.75	.5	15	6	4	2	10	7
C	30	30	.75	.5	25	9	7	4	15	15
D	30	20	.75	.5	15	6	5	2	10	8

HHS	MICRO	"MS" No.	Circuit	Rating	NET Ea.
	1 POLE (MS 35058)				
3141	511TS1-1	MS35058-21	1	A	$2.18
3142	511TS1-2	MS35058-22	2	A	1.82
3143	511TS1-3	MS35058-23	3	A	2.18
3144	511TS1-21	MS35058-24	4	A	1.82
3145	511TS1-4	MS35058-29	5	B	2.02
3146	511TS1-5	MS35058-31	6	B	2.37
3147	511TS1-6	MS35058-30	7	B	2.02
3148	511TS1-7	MS35058-27	8	B	2.37
3149	511TS1-8	MS35058-26	9	B	2.37
3150	511TS1-61	MS35058-28	10	B	2.02
3151	511TS1-41	MS35058-25	11	B	2.02

	2 POLE (35059)				
5152	512TS1-1	MS35059-21	1	C	$2.93
3153	512TS1-2	MS35059-22	2	C	2.44
3154	512TS1-3	MS35059-23	3	C	2.93
3155	512TS1-21	MS35059-24	4	C	2.44
3156	512TS1-4	MS35059-29	5	D	2.93
3157	512TS1-5	MS35059-31	6	D	3.15
3158	512TS1-6	MS35059-30	7	D	2.93
3159	512TS1-7	MS35059-27	8	D	3.15
3160	512TS1-8	MS35059-26	9	D	3.15
3161	512TS1-61	MS35059-28	10	D	2.93
3162	512TS1-41	MS35059-25	11	D	2.93

Net

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HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

MICRO TOGGLE SWITCHES

"TS" TOGGLE SWITCHES "UL" LISTED

"UL" listed "Commercial" type are identical to military type except for bat handle finish. Bright chrome plated to enhance panel appearance. Also certified by the Canadian Standards Association (CSA). **Std. Pkg. 10**

Circuit Code #	Circuit	Circuit Code #	Circuit
1	ON-OFF-ON	8	OFF-NONE-ON(MOM)
2	ON-NONE-OFF	9	ON(MOM)OFF-ON (MOM)
3	ON-NONE-ON	10	ON-NONE-ON(MOM)
4	ON-OFF-NONE	13	NONE-OFF-ON(MOM)
6	ON-NONE-OFF(MOM)		
7	ON-OFF-ON(MOM)		

RATING "A"	RATING "B"	RATING "C"
15 Amps., 125-250 VAC	10 Amps., 125-250 VAC	15 Amps., 125-250 VAC
½ HP, 125 VAC	¼ HP, 125 VAC	⅓ HP, 125 VAC
1 HP, 250 VAC	½ HP, 250 VAC	¾ HP, 250 VAC

HHS	MICRO	Circuit	Rating	Net Ea.
	1 POLE			
	SCREW TERMINALS			
3331	11TS15-1	1	A	$2.18
3332	11TS15-2	2	A	1.82
3333	11TS15-3	2	A	2.18
3334	11TS15-6	8	B	2.02
3335	11TS15-61	13	B	2.02
3336	11TS15-7	9	B	2.37
	QUICK DISCONNECT TERMINALS			
3337	11TS95-1	1	A	$2.11
3338	11TS95-2	2	A	1.76
3339	11TS95-21	4	A	1.76
3340	11TS95-3	3	A	2.11
3341	11TS95-4	6	B	1.95
3342	11TS95-5	7	B	2.31
3343	11TS95-6	8	B	1.95
3344	11TS95-61	13	B	1.95
3345	11TS95-7	9	B	2.31
3346	11TS95-8	10	B	2.31
	SOLDER TERMINALS			
3347	11TS115-1	1	A	$2.05
3348	11TS115-2	2	A	1.72
3349	11TS115-3	3	A	2.05
3350	11TS115-4	6	B	1.92
3351	11TS115-7	9	B	2.24
	2 POLE			
	SCREW TERMINALS			
3352	12TS15-1	1	A	$2.93
3353	12TS15-2	2	A	2.44
3354	12TS15-21	4	A	2.44
3355	12TS15-3	3	A	2.93
3357	12TS15-5	7	C	3.15
3359	12TS15-61	13	C	2.93
3360	12TS15-7	9	C	3.15
3361	12TS15-8	10	C	3.15
	QUICK DISCONNECT			
3362	12TS95-1	1	A	$2.76
3363	12TS95-2	2	A	2.31
3365	12TS95-3	3	A	2.76
3366	12TS95-4	6	C	2.83
3367	12TS95-5	7	C	3.02
3369	12TS95-61	13	C	2.83
3370	12TS95-7	9	C	3.02
	SOLDER TERMINALS			
3372	12TS115-1	1	A	$2.63
3373	12TS115-2	2	A	2.24
3374	12TS115-21	4	A	2.24
3375	12TS115-3	3	A	2.63
3376	12TS115-4	6	C	2.73
3377	12TS115-5	7	C	2.89
3378	12TS115-6	8	C	2.73
3379	12TS115-61	13	C	2.73
3380	12TS115-7	9	C	2.89
3381	12TS115-8	10	C	2.89

3-HOLE MOUNT "TS" TOGGLE SWITCHES

"An" Type tested and approved under MIL specs. "JAN" Type conform to JAN-S-23. Sealed Lever. **Std. Pkg. 10**

Circuit Code #	Circuit	Circuit Code #	Circuit
1	ON-OFF-ON	8	OFF-NONE-ON(MOM)
2	ON-NONE-OFF	9	ON(MOM)OFF-ON (MOM)
3	ON-NONE-ON	10	ON-NONE-ON(MOM)
4	ON-OFF-NONE	13	NONE-OFF-ON(MOM)
6	ON-NONE-OFF(MOM)		
7	ON-OFF-ON(MOM)		

RATING: CURRENT CAPACITY (AMPS)

	CONTINUOUS	RESISTIVE 30 vdc	RESISTIVE 125 vdc	RESISTIVE 250 vdc	RESISTIVE 115 vac	RESISTIVE 230 vac	LAMP LOAD 30 vdc	LAMP LOAD 125 vac	INDUCTIVE LOAD 30 vdc	INDUCTIVE LOAD 125 vac
A	55	40	.75	.5	20	7.5	7	7	20	15
B	55	30	.75	.5	20	7.5	5	4	18	11
C	55	40	.75	.5	25	8	10	7	20	15
D	55	30	.75	.5	20	7	7	4	18	11

1 POLE (MIL-S-6745)

HHS	MICRO	"AN" No.	"JAN" No.	Circuit	Rating	Net Ea.
3301	31TS1-1	3022-1	ST45E	1	A	$2.57
3302	37TS1-2	3022-2	ST45A	2	A	2.11
3303	31TS1-3	3022-3	ST45D	3	A	2.57
3304	31TS1-21	——	——	4	A	2.11
3305	31TS1-4	3022-9	ST45B	6	B	2.34
3306	31TS1-5*	——	ST45H	7	B	2.76
3307	31TS1-6	3022-8	ST45C	8	B	2.34
3308	31TS1-7	3022-7	ST45G	9	B	2.76
3309	31TS1-8	3022-11	ST45F	10	B	2.76
3310	31TS2-5	3022-6	——	7	B	2.96
3311	31TS1-61	——	——	13	B	2.34

*Has a jumper across the stationary contact terminals.

2 POLE (MIL-S-3950A)

HHS	MICRO	"MS" No.	Circuit	Rating	Net Ea.
3312	532TS1-1	MS25103-21	1	C	$5.33
3313	532TS1-3	MS25103-23	3	C	5.33
3314	532TS1-21	MS25103-24	4	C	4.45
3315	532TS1-5	MS25103-31	7	D	5.79
3316	532TS1-7	MS25103-27	9	D	5.79
3317	532TS1-8	MS25103-26	10	D	5.79
3319	532TS1-61	MS25103-28	13	D	5.23

RATING: CURRENT CAPACITY (AMPS)

	CONTINUOUS	RESISTIVE LOAD 30 vdc	RESISTIVE LOAD 115 vac	LAMP LOAD 30 vdc	LAMP LOAD 115 vac	INDUCTIVE LOAD 115 vdc
E	30	25	22	5	3	15	15
F	20	20	20	5	4	12	15
G	20	18	11	4	2	10	8

3 POLE (MIL-S-3950A)

HHS	MICRO	"MS" No.	Circuit	Rating	Net Ea.
3320	533TS1-1	MS25105-21	1	E	$4.97
3321	533TS1-3	MS25105-23	3	E	4.97
3322	533TS1-21	MS25105-24	4	E	4.16

4 POLE (MIL-S-6745)

HHS	MICRO	"AN" No.	Circuit	Rating	Net Ea.
3323	34TS1-1	3227-1	1	F	$6.66
3324	34TS1-2	3227-2	2	F	5.33
3325	34TS1-3	3227-3	3	F	6.66
3326	34TS1-21	3227-9	4	F	7.83
3327	34TS1-5	3227-5	7	G	8.03
3328	34TS1-6	3227-8	10	G	7.22
3329	34TS1-7	3227-7	9	G	8.03
3330	34TS1-61	3227-10	13	G	7.22

SEALED "TS" TOGGLE SWITCHES

These switches have a panel seal in addition to all other "TS" features. When mounted, the seal provides a dust, liquid and moisture seal at the panel. **Std. Pkg. 10**

Circuit Code #	Circuit	Circuit Code #	Circuit
1	ON-OFF-ON	7	ON-OFF-ON(MOM)
2	ON-NONE-OFF	8	OFF-NONE-ON(MOM)
3	ON-NONE-ON	9	ON(MOM)OFF-ON (MOM)
4	ON-OFF-NONE	10	ON-NONE-ON(MOM)
6	ON-OFF-ON(MOM)		

RATING: CURRENT CAPACITY (AMPS)

	CONTINUOUS	RESISTIVE LOAD 30 vdc	RESISTIVE LOAD 125 vdc	RESISTIVE LOAD 250 vdc	RESISTIVE LOAD 125 vac	RESISTIVE LOAD 250 vac	LAMP LOAD 30 vdc	LAMP LOAD 125 vac	INDUCTIVE LOAD 30 vdc	INDUCTIVE LOAD 125 vac
A	40	20	.75	.5	15	6	5	3	15	10
B	40	15	.75	.5	15	6	4	2	10	7
C	30	30	.75	.5	25	9	7	4	15	15
D	30	20	.75	.5	15	6	5	2	10	8

1 POLE

SCREW TYPE TERMINALS

HHS	MICRO	Circuit	Rating	NET Each
3201	211TS1-1	1	A	$3.45
3202	211TS1-2	2	A	3.06
3203	211TS1-3	3	A	3.45
3206	211TS1-5	7	B	3.61
3207	211TS1-6	8	B	3.25
3209	211TS1-8	10	B	3.61

SOLDER TYPE TERMINALS

HHS	MICRO	Circuit	Rating	NET Each
3211	211TS11-1	1	A	$3.28
3212	211TS11-2	2	A	2.96
3213	211TS11-3	3	A	3.28
3215	211TS11-4	6	B	3.15
3216	211TS11-5	7	B	3.48
3217	211TS11-6	8	B	3.15
3218	211TS11-7	9	B	3.48
3219	211TS11-8	10	B	3.48

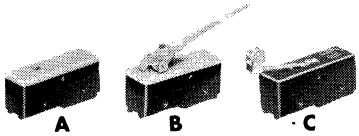
2 POLE

SCREW TYPE TERMINALS

HHS	MICRO	Circuit	Rating	NET Each
3221	212TS1-1	1	C	$4.13
3222	212TS1-2	2	C	3.64
3223	212TS1-3	3	C	4.13
3224	212TS1-21	4	C	3.64
3225	212TS1-4	6	D	4.13
3226	212TS1-5	7	D	4.39
3227	212TS1-6	8	D	4.13
3228	212TS1-7	9	D	4.39
3229	212TS1-8	10	D	4.39

SOLDER TYPE TERMINALS

HHS	MICRO	Circuit	Rating	NET Each
3231	212TS11-1	1	C	$3.84
3232	212TS11-2	2	C	3.45
3233	212TS11-3	3	C	3.84
3236	212TS11-5	7	D	4.06
3237	212TS11-6	8	D	3.93
3238	212TS11-7	9	D	4.06
3239	212TS11-8	10	D	4.06



A B C

ARROW H & H "SNAP-ACTING" Momentary Contact SWITCHES

TERMINAL CODE: S = solder lugs; L = screws, lock washers; C = screws, cup washers; Q = quick connect

Std. Pkg. 5

HIGH SENSITIVITY PIN TYPE (A)

RATINGS
LIMIT LOAD to 1 10 Amp, 125 V., A.C.
or 10 Watts, 125 V., A.C.
or 5 Watts, 25 V., D.C.

Operating Characteristics
Operating Force..... 7 to 12 oz.
Pretravel ..... .012" max.
Overtravel ..... .005" min.
Diff. Travel.. .0002 to .0008 in.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4701	$5.82	4705	$5.82	4709	$6.66
C	4702	5.94	4706	5.94	4710	6.15
L	4703	5.94	4707	5.94	4711	6.15
Q	4704	5.82	4708	5.82	4712	6.06

ADJUSTABLE RIGID LEVER (B)

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force.. 2½ oz. max.
Pretravel ..... 5/8" max.
Overtravel ..... .078" min.
Diff. Travel..... .109" max.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4721	$2.64	4725	$2.64	4729	$2.88
C	4722	2.76	4726	2.76	4731	3.00
L	4723	2.76	4727	2.76	4731	3.00
Q	4724	2.64	4728	2.64	4732	2.88

ROLLER LEAF ACTUATOR (C)

General Purpose 15 Amp

RATINGS
15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics
Operating Force..... 5 oz. max.
Pretravel ..... 5/32" max.
Overtravel..... not over 1/16 in.
Diff. Travel..... .050" max.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4501	$2.19	4533	$2.19	4565	$2.49
C	4502	2.25	4534	2.25	4566	2.52
L	4503	2.25	4535	2.25	4567	2.52
Q	4504	2.19	4536	2.19	4568	2.49

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force..... 5 oz. max.
Pretravel ..... 11/32" max.
Overtravel ..... not over 1/16 in.
Diff. Travel..... .065" max.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4601	$2.25	4633	$2.25	4665	$2.58
C	4602	2.31	4634	2.31	4666	2.64
L	4603	2.31	4635	2.31	4667	2.64
Q	4604	2.25	4636	2.25	4668	2.58

ARROW H & H Snap-Acting Switches continued on next page

ARROW, HART & HEGEMAN

"SNAP ACTING" MOMENTARY CONTACT SWITCHES

PRECISION SNAP-ACTING SWITCH A precision snap-acting switch is a mechanically operated electric switch having predetermined and accurately controlled characteristics, and having contacts other than the blade and jaw, or mercury type, where the maximum separation between any butting contacts is 1/8 inch.

MOMENTARY CONTACT SWITCH A momentary contact switch is a switch which returns from the operated condition to its normal circuit condition when the actuating force is removed.

ACTUATOR An actuator is the mechanism of the switch or enclosure which, when moved as intended, will operate the contacts.

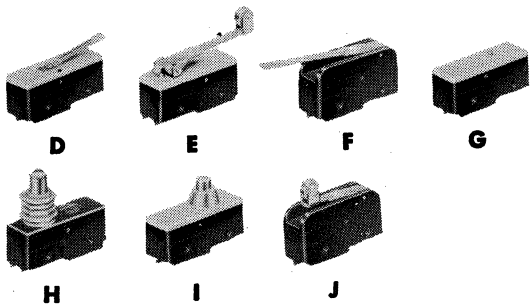
OPERATING FORCE Operating force is that straight line force in the designated direction applied to the actuator to cause the switch contacts to snap to the operated contact position.

PRETRAVEL Pretravel is the distance or angle through which the actuator moves from the actuator free position to the actuator operating position.

OVERTRAVEL Overtravel is the movement of the actuator beyond the operating position.

MOVEMENT DIFFERENTIAL Movement differential is the distance or angle from the operating position to the releasing position.

Std. Pkg. 5



TERMINAL CODE: L = screws, lock washers; S = solder lugs; C = screws, cup washers; Q = quick disconnect

FLEXIBLE LEAF ACTUATOR (D)

General Purpose 15 amp

RATINGS
15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics
Operating Force..... 5 oz. max.
Pretravel..... 5/32″ max.
Overtravel..... not over 1/16 in.
Diff. Travel..... .050″ max.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4505	$1.62	4537	$1.62	4569	$1.95
C	4506	1.68	4538	1.68	4507	2.07
L	4507	1.68	4539	1.68	4571	2.07
Q	4508	1.62	4505	1.62	4572	1.95

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. — ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load — 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. — 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force..... 9 oz. max.
Pretravel..... 11/32″ max.
Overtravel..... not over 1/16 in.
Diff. Travel..... .065″ max.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4605	$1.68	4637	$1.68	4669	$2.97
C	4606	1.74	4638	1.74	4670	2.13
L	4607	1.74	4639	1.74	4671	2.13
Q	4608	1.68	4640	1.68	4672	2.07

STANDARD ROLLER (E)

General Purpose 15 Amp

RATINGS
15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics
Operating Force . 3½ oz. max.
Pretravel..... 9/32″ max.
Overtravel..... .156″ min.
Diff. Travel ... .004 to .040 in.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4521	$2.52	4553	$2.52	4585	$2.88
C	4522	2.64	4554	2.64	4586	3.00
L	4523	2.64	4555	2.64	4587	3.00
Q	4524	2.52	4556	2.52	4588	2.88

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. — ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load — 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. — 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force.. 2½ oz. max.
Pretravel..... 15/32″ max.
Overtravel..... 1/16″ min.
Diff. Travel..... .085″ max.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4621	$2.64	4653	$2.64	4685	$3.00
C	4622	2.70	4654	2.70	4686	3.06
L	4623	2.70	4655	2.70	4687	3.06
Q	4624	2.64	4656	2.64	4688	3.00

RIGID HINGE (F)

General Purpose 15 Amp

RATINGS
15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics
Operating Force..... 2½ oz.
Pretravel..... 5/8″ max.
Overtravel..... .219″ min.
Diff. Travel..... .007 to .050 in.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4525	$1.95	4557	$1.95	4589	$2.31
C	4526	2.01	4558	2.01	4590	2.37
L	4527	2.01	4559	2.01	4591	2.37
Q	4528	1.95	4560	1.95	4592	2.31

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. — ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load — 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. — 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force.. 2½ oz. max.
Pretravel..... 5/8″ max.
Overtravel..... .078″ min.
Diff. Travel..... .109″ max.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4625	$2.07	4657	$2.07	4689	$2.37
C	4626	2.13	4658	2.13	4690	2.43
L	4627	2.13	4659	2.13	4691	2.43
Q	4628	2.07	4660	2.07	4692	2.37

PIN TYPE (G)

General Purpose 15 Amp

RATINGS
15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics
Operating Force..... 9 to 13 oz.
Pretravel..... .015″ max.
Overtravel..... .005″ min.
Diff. Travel.. .0004 to .002 in.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4529	$1.50	4561	$1.50	4593	$1.77
C	4530	1.56	4562	1.56	4594	1.89
L	4531	1.56	4563	1.56	4595	1.89
Q	4532	1.50	4564	1.50	4596	1.77

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. — ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load — 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. — 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force.... 14 to 22 oz.
Pretravel..... .050″ max.
Overtravel..... .010″ min.
Diff. Travel.. .002 to .0075 in.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4629	$1.56	4661	$1.56	4693	$1.86
C	4630	1.62	4662	1.62	4694	1.95
L	4631	1.62	4663	1.62	4695	1.95
Q	4632	1.56	4664	1.56	4696	1.86

PANEL MOUNTED TYPE (H)

General Purpose 15 Amp

RATINGS
15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics
Operating Force..... 9 to 13 oz.
Pretravel..... 1/64″ max.
Overtravel..... 7/32″ min.
Diff. Travel.... .0004 to .002 in.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4509	$3.54	4541	$3.54	4573	$3.96
C	4510	3.57	4542	3.57	4574	4.02
L	4511	3.57	4533	3.57	4575	4.02
Q	4512	3.54	4544	3.45	4576	3.96

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. — ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load — 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. — 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force.... 14 to 22 oz.
Pretravel..... .050″ max.
Overtravel..... .219″ min.
Diff. Travel.. .002 to .0075 in.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4609	$3.63	4641	$3.63	4673	$4.08
C	4610	3.69	4642	3.69	4674	4.14
L	4611	3.69	4643	3.69	4675	4.14
Q	4612	3.63	4644	3.63	4676	4.08

SHORT OVERTRAVEL BUTTON (I)

General Purpose 15 Amp

RATINGS
15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics
Operating Force..... 9 to 13 oz.
Pretravel..... 1/64″ max.
Overtravel..... 1/16″ min.
Diff. Travel.. .0004 to .002 in.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4513	$1.86	4545	$1.86	4577	$2.19
C	4514	1.89	4546	1.89	4578	2.25
L	4515	1.89	4547	1.89	4579	2.25
Q	4516	1.86	4548	1.86	4580	2.19

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. — ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load — 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. — 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force... 14 to 22 oz.
Pretravel..... .050″ max.
Overtravel..... .093″ min.
Diff. Travel.. .002 to .0075 in.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4613	$1.89	4645	$1.89	4677	$2.25
C	4614	1.95	4646	1.95	4678	2.31
L	4615	1.95	4647	1.95	4679	2.31
Q	4616	1.89	4648	1.89	4680	2.25

SHORT ROLLER (J)

General Purpose 15 Amp

RATINGS
15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics
Operating Force 6 oz. max.
Pretravel..... 9/64″ max.
Ovetravel..... 3/32″ min.
Diff. Travel.... .003 to .020 in.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4517	$2.52	4549	$2.52	4581	$2.88
C	4518	2.64	4550	2.64	4582	3.00
L	4519	2.64	4551	2.64	4583	3.00
Q	4520	2.52	4552	2.52	4584	2.88

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. — ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load — 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. — 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force ... 6 oz. max.
Pretravel..... 1/4″ max.
Overtravel..... 1/32″ min.
Diff. Travel..... 3/64″ max.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4617	$2.64	4649	$2.64	4681	$3.00
C	4618	2.70	4650	2.70	4682	3.06
L	4619	2.70	4651	2.70	4683	3.06
Q	4620	2.64	4652	2.64	4684	3.00

Net

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HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

TEFLON* SPAGHETTI TUBING

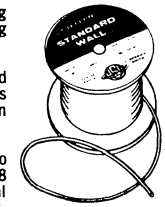
Teflon tubing is ideal for slip-on insulation in electricial and electronics applications. Its exceptional insulating properties provide greater reliability and resistance to high temperatures. Due to its resistance to soldering temperatures, shrink-back during soldering is virtually eliminated.

SMITH Teflon tubing is available in most AWG sizes from #30 to #0, in three basic wall thicknesses; Standard (.011 to .020"), Thin Wall (.009 to .015"), and Lightweight (.006 to .012"). Specific wall thickness for various AWG sizes is detailed in the table. All sizes are available in Natural Teflon, and any of 10 colors as indicated in the Color Code chart.

SMITH Teflon Spaghetti Tubing meets or exceeds the requirements of MIL-I-22129B, and colors conform to MIL STD-104. Standard and Thin-Wall tubing in sizes AWG #30 to #8, and Lightweight tubing in sizes AWG #28 to #9 are supplied in 100-foot dustproof, re-useable reels, polyethylene covered and closed with a special polyethylene plug. Sizes to AWG #0 are carefully packaged in 50 foot coils to prevent distortion of the tubing.

SPECIFY COLOR

*Registered Trademark, E.I. DuPont DeNemours & Co.



COLOR CODE CHART

— 101 WHITE	— 107 YELLOW
— 102 RED	— 108 BROWN
— 103 BLACK	— 112 PURPLE
— 104 GREEN	— 113 GREY
— 105 BLUE	— 115 NATURAL
— 106 ORANGE	

(If no color is specified, Natural Teflon (—115) will be supplied.)

LIGHTWEIGHT

Awg Wire Size	Nom. I.D.	Cat. No.	Nom. Wall Thk.	Std. Pkg. Ft.	NET Ea.
30	.012	———	———	———	———
28	.015	7703-28	.006	100	$7.63
26	.018	7703-26	.006	100	7.75
24	.022	7703-24	.006	100	8.13
22	.027	7703-22	.006	100	9.38
20	.034	7703-20	.006	100	11.13
19	.038	7703-19	.006	100	12.38
18	.042	7703-18	.006	100	13.38
17	.047	7703-17	.006	100	14.88
16	.053	7703-16	.006	100	16.13
15	.059	7703-15	.006	100	16.75
14	.066	7703-14	.008	100	19.50
13	.076	7703-13	.008	100	22.25
12	.085	7703-12	.008	100	24.38
11	.095	7703-11	.008	100	27.38
10	.106	7703-10	.008	100	29.50
9	.118	7703-09	.008	50	16.63
1/8"	.125	7703-81	.008	50	17.88
8	.133	7703-08	.008	50	18.44
7	.148	7703-07	.008	50	20.00
6	.166	7703-06	.010	50	25.88
5	.186	7703-05	.010	50	28.38
4	.208	7703-04	.010	50	31.38
3	.234	7703-03	.010	50	34.50
1/4"	.250	7703-41	.010	50	36.69
2	.263	7703-02	.010	50	37.57
1	.294	7703-01	.010	50	41.19
5/16"	.312	7703-51	.012	50	48.69
0	.330	7703-00	.012	50	49.63

THINWALL

Awg Wire Size	Nom. I.D.	Cat. No.	Nom. Wall Thk.	Std. Pkg. Ft.	NET Ea.
30	.012	7702-30	.009	100	$10.53
28	.015	7702-28	.009	100	9.20
26	.018	7702-26	.009	100	8.88
24	.022	7702-24	.010	100	9.63
22	.027	7702-22	.010	100	10.75
20	.034	7702-20	.012	100	13.63
19	.038	7702-19	.012	100	14.68
18	.042	7702-18	.012	100	15.75
17	.047	7702-17	.012	100	17.38
16	.053	7702-16	.012	100	19.00
15	.059	7702-15	.012	100	19.63
14	.066	7702-14	.012	100	21.00
13	.076	7702-13	.012	100	23.75
12	.085	7702-12	.012	100	25.50
11	.095	7702-11	.012	100	28.38
10	.106	7702-10	.012	100	30.50
9	.118	7702-09	.015	100	44.00
1/8"	.125	7702-81	.015	100	45.00
8	.133	7702-08	.015	50	24.32
7	.148	7702-07	.015	50	26.63
6	.166	7702-06	.015	50	29.75
5	.186	7702-05	.015	50	33.50
4	.208	7702.04	.015	50	36.75
3	.234	7702-03	.015	50	40.75
1/4"	.250	7702-41	.015	50	43.75
2	.263	7702-02	.015	50	45.50
1	.294	7702-01	.015	50	50.69
5/16"	.312	7702-51	.015	50	55.12
0	.330	7702-00	.015	50	56.12

STANDARD WALL

Awg Wire Size	Nom. I.D.	Cat. No.	Nom. Wall Thk.	Std. Pkg. Ft.	NET Ea.
30	.012	———	———	———	———
28	.015	———	———	———	———
26	.018	———	———	———	———
24	.022	7701-24	.012	100	$11.68
22	.027	7701-22	.012	100	12.95
20	.034	7701-20	.016	100	17.75
19	.038	7701-19	.016	100	19.38
18	.042	7701-18	.016	100	20.88
17	.047	7701-17	.016	100	22.93
16	.053	7701-16	.016	100	24.63
15	.059	7701-15	.016	100	25.30
14	.066	7701-14	.016	100	27.25
13	.076	7701-13	.016	100	30.30
12	.085	7701-12	.016	100	32.75
11	.095	7701-11	.016	100	36.38
10	.106	7701-10	.016	100	40.00
9	.118	7701-09	.020	100	57.10
1/8"	.125	7701-81	.020	100	61.00
8	.133	7701-08	.020	50	31.25
7	.148	7701-07	.020	50	33.69
6	.166	7701-06	.020	50	36.44
5	.186	7701-05	.020	50	40.10
4	.208	7701-04	.020	50	43.56
3	.234	7701-03	.020	50	49.88
1/4"	.250	7701-41	.020	50	52.88
2	.263	7701-02	.020	50	54.82
1	.294	7701-01	.020	50	60.94
5/16"	.312	7701-51	.020	50	67.50
0	.330	7701-00	.020	50	68.57

AUTO RADIO CONDENSERS

Eliminates radio interference caused by auto electrical system. Fits all cars — Proven quality — Guaranteed long life. Std. Pkg. 25

No.	Cap.	Type	NET Per C
811	.5 MFD	General, Univ.	$60.00
812	.25 MFD	Universal	54.00

ANTENNA CONNECTOR

For use as connection of auto radio antenna lead-in to auto radio receiver. Std. Pkg. 50

No. 1300 ..... $17.00 Per C

FUSE RETAINER

Recommended for use in auto radio power supply cables. Std. Pkg. 50

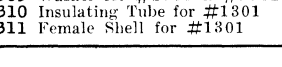
No. 1301 ..... NET Per C $10.20

PARTS FOR CONNECTOR & RETAINER

Std. Pkg. 100

No.	Type	NET Per C
1305	Male Cap for #1300 & #1301	$7.00
1306	Female Shell for #1300	2.31
1307	Contact for #1300 & #1301	3.30
1308	Spring for #1300 & #1301	.66
1309	Washer for #1300 & #1301	.33
1310	Insulating Tube for #1301	.60
1311	Female Shell for #1301	5.40

BATTERY PLUGS



Std. Pkg. 50

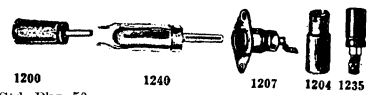
No.	Voltage	—For Batteries— Eveready No.	RCA No.	Philco No.	NET Per C
915	1½ "A"	741, 742, 743, 1052P	VS004, VS005, VS007, VS008	P94, P96 P8F1	$6.00
916	7½ "A"	687	VS003	—	6.60
917	6 "A", 90 "B"	—	VS044	P60A8F4	6.00
918	6 "A", 90 "B"	—	VS046	P41AFL	6.60

Auto Radio IGNITION SUPPRESSORS

Std. Pkg. 50

Cat. No.	Type	NET Per C
805	Snap-On Type Suppressor	$27.00
806	Univ. Type with Double Thrd.	27.00
807	Angle Type Suppressor	33.00
808	Distributor Screw Type	45.00
809	Distributor Plug-in Type	36.00
810	Double Screw Type	27.00

MOTOROLA PLUGS & JACKS



Std. Pkg. 50

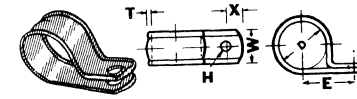
No.	Type	NET Per C
1200	Motorola Type Plug	$10.20
1240	Motorola Type Plug	$10.20
1207	Antenna Connector, Takes 1200 Plug	18.00
1204	Lead-in Adapter, converts Motorola pin plug to Delco	9.00
1235	Female for #1200 plug, without flange	7.20

BATTERY CONNECTORS

No.	Volts	Eveready No.	Std. Pkg.	NET Per C
1205	67½	467, 455, 457	25	$18.00
1206	90	490	25	24.00
1210	67½	477, 437, 479, 495	25	18.00
1217	7½	707	25	18.00
1218	9	276	25	18.00
1219	4½	243	25	24.00
1234	45	216, 246, 415, 416	25	24.00
1296		Female	100	4.50
1297		Male	100	4.50

Send for New Complete Catalog of SMITH Components & Accessories

PLASTIC CABLE CLIPS — ETHYL CELLULOSE



These clips are well known for ability to withstand age moisture, corrosion, shock and vibration. This tough light weight, durable clip withstands temperatures from —60 to +175 degrees F. Made to MIL Std. 242A (Ships)

T .060 — W ½" X 7/32" — H .204 Std. Pkg. 10

No.	Hole (D)	E	NET Per C	NET Per M
831	1/8	.360	$2.34	$19.2
832	5/16	.423	2.40	19.8
833	1/4	.457	2.58	21.6
834	5/16	.498	2.85	24.0
835	3/8	.529	3.00	25.2
836	7/16	.560	3.30	27.6
837	1/2	.592	3.60	30.0
838	9/16	.623	4.20	34.2
839	5/8	.654	4.50	39.6
840	11/16	.752	4.80	42.6
841	3/4	.783	5.10	44.4
842	7/8	.845	5.40	48.0
843	1	.908	5.70	51.6
844	1 1/8	.970	6.00	54.6
845	1 1/4	1.062	6.30	58.2

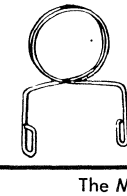
NYLON

These strong and tough molded nylon clamps hold thei shape under severest stress. Do not support combustion Withstands temperatures from —60 to +250 degrees F Made to MIL P17091A amend. 2. Std g. 10

	1/8" to 1/2" (D)	9/16" to 1 1/4" (D
T	.040	.060
W	3/16"	1/4"
X	5/32"	13/64"
H	.167	.204

No.	Hole (D)	E	NET Per C	NET Per M
771	1/8	.310	$3.60	$30.0
772	5/16	.373	3.90	31.8
773	1/4	.407	4.20	34.8
774	5/16	.448	4.65	38.4
775	3/8	.479	4.80	40.2
776	7/16	.510	5.10	42.6
777	1/2	.542	5.40	45.0
778	9/16	.623	6.60	55.8
779	5/8	.654	7.20	65.4
780	11/16	.752	7.50	69.0
781	3/4	.783	8.10	75.0
782	7/8	.845	8.70	81.0
783	1	.908	10.20	96.0
784	1 1/8	1.002	12.00	108.0
785	1 1/4	1.062	13.80	120.0

SPRING GRID CLIP



Small and large type grid clip used to replace clips that have lost their tension due to heat causing poor contact. Available in bulk or 24, $.45. List envelopes on attractive display card. Std. Pkg. 100

No.	Type Type	Per C	Display	NET Per C
1288	1X2-6BQ6	$8.00	1288D	$6.48
1289	1B3-6BG6	8.00	1289D	6.48

HERMAN H. SMITH, INC.

Exclusive Distributors of KULKA BARRIER TERMINAL BLOCKS To Radio Parts Jobbers Only

With Screw Terminals

With One-Sided Solder Terminals

With Two-Sided Solder Terminals

With Bottom Solder Terminals

With Side And Bottom Terminals

With Bottom Terminals

600-SERIES

Height 13/32", Width 7/8", Thickness 1/4", Terminals 3/8" Centers, 5/16" Mtg., 5-40 x 1/4 Screws.

To Series Number Add Suffix	600-					Suffix	600-3/4ST-		600-ST-		600-Y-	Suffix	600-YSY-			600-Z-	
	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' / MDG 'B'	MAI-60 "D" / GDI-30 "H"		General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' / MDG 'B'	MAI-60 "D" / GDI-30 "H"		General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' / MDG 'B'	MAI-60 "D" / GDI-30 "F"
-1	$ .15	$ .16	$ .30	$. .42	$ .50	-1	$ .19	$ .20	$ .38	$ .45	$ .53	-1	$ .23	$ .24	$ .46	$ .53	$ .61
-2	.24	.25	.48	.68	.82	-2	.32	.33	.64	.76	.89	-2	.40	.41	.80	.92	1.05
-3	.33	.36	.66	.91	1.09	-3	.44	.47	.88	1.00	1.18	-3	.60	.63	1.20	1.32	1.50
-4	.42	.46	.84	1.15	1.38	-4	.57	.61	1.14	1.30	1.53	-4	.73	.81	1.46	1.62	1.85
-5	.51	.56	1.02	1.40	1.68	-5	.69	.74	1.38	1.58	1.86	-5	.93	.98	1.86	2.06	2.34
-6	.59	.65	1.18	1.62	1.94	-6	.83	.89	1.66	1.86	2.18	-6	1.07	1.17	2.14	2.34	2.66
-7	.68	.75	1.36	1.89	2.27	-7	.95	1.02	1.90	2.14	2.51	-7	1.23	1.34	2.46	2.70	3.07
-8	.77	.85	1.54	2.11	2.53	-8	1.08	1.16	2.16	2.42	2.84	-8	1.40	1.52	2.80	3.16	3.58
-9	.86	.95	1.72	2.36	2.83	-9	1.21	1.30	2.42	2.72	3.24	-9	1.57	1.70	3.14	3.44	3.91
-10	.95	1.05	1.90	2.61	3.13	-10	1.33	1.43	2.66	2.99	3.55	-10	1.73	1.87	3.46	3.76	4.28
-11	1.03	1.13	2.06	2.83	3.40	-11	1.45	1.55	2.90	3.25	3.86	-11	1.89	2.03	3.78	4.13	4.69
-12	1.12	1.23	2.24	3.08	3.70	-12	1.58	1.69	3.16	3.54	4.20	-12	2.06	2.21	4.12	4.50	5.11
-13	1.21	1.33	2.42	3.32	3.98	-13	1.71	1.83	3.42	3.82	4.54	-13	2.23	2.39	4.46	4.86	5.52
-14	1.31	1.44	2.62	3.60	4.32	-14	1.84	1.97	3.68	4.13	4.90	-14	2.40	2.57	4.80	5.05	5.77
-15	1.40	1.54	2.80	3.85	4.62	-15	1.96	2.10	3.92	4.41	5.18	-15	2.56	2.74	5.12	5.61	6.38
-16	1.49	1.64	2.98	4.10	4.92	-16	2.09	2.24	4.18	4.70	5.52	-16	2.73	2.92	5.46	5.88	6.70
-17	1.57	1.70	3.14	4.31	5.17	-17	2.21	2.37	4.42	4.96	5.82	-17	2.89	3.09	5.78	6.32	7.18
-18	1.66	1.83	3.32	4.56	5.47	-18	2.34	2.51	4.68	5.25	6.16	-18	3.06	3.27	6.12	6.69	7.60
-19	1.75	1.93	3.50	4.81	5.77	-19	2.46	2.64	4.92	5.52	6.48	-19	3.22	3.44	6.44	7.04	8.00
-20	1.84	2.03	3.68	5.06	6.07	-20	2.60	2.78	5.20	5.82	6.83	-20	3.40	3.70	6.80	7.42	8.43
-21	1.93	2.13	3.86	5.30	6.36	-21	2.72	2.90	5.44	6.10	7.16	-21	3.56	3.90	7.12	7.78	8.84
-22	2.02	2.23	4.04	5.55	6.66	-22	2.86	3.07	6.14	6.40	7.51	-22	3.74	3.98	7.48	8.04	9.15

600A-SERIES

Height 13/32"; Width 7/8", Thickness 1/4", Terminals 3/8" Centers, 5/16" Mtg., 6-32 x 1/4 Screws.

600A-						Suffix	600A-3/4ST-		600A-ST-		600A-Y-	Suffix	600-YSY-			600-A-Z-	
-1	$ .16	$ .18	$ .32	$ .47	$ .56	-1	$ .20	$ .22	$ .40	$ .50	$ .59	-1	$ .24	$ .26	$ .48	$ .54	$ .63
-2	.25	.28	.50	.70	.91	-2	.33	.37	.66	.83	.97	-2	.41	.45	.82	.91	1.05
-3	.36	.40	.72	1.00	1.20	-3	.47	.51	.94	1.10	1.30	-3	.63	.63	1.26	1.39	1.59
-4	.46	.51	.92	1.26	1.51	-4	.61	.66	1.22	1.43	1.68	-4	.81	.82	1.62	1.80	2.05
-5	.56	.62	1.12	1.54	1.85	-5	.74	.80	1.48	1.74	2.04	-5	.98	1.00	1.96	2.16	2.46
-6	.65	.72	1.30	1.79	2.15	-6	.89	.96	1.78	2.05	2.40	-6	1.17	1.20	2.34	2.57	2.92
-7	.75	.83	1.50	2.06	2.47	-7	1.02	1.10	2.04	2.36	2.77	-7	1.34	1.38	2.68	2.94	3.35
-8	.85	.94	1.70	2.33	2.80	-8	1.16	1.25	2.32	2.67	3.13	-8	1.52	1.57	3.04	3.34	3.80
-9	.95	1.05	1.80	2.60	3.12	-9	1.30	1.40	2.60	3.00	3.52	-9	1.70	1.76	3.40	3.67	4.19
-10	1.05	1.16	2.10	2.88	3.46	-10	1.43	1.54	2.86	3.30	3.87	-10	1.87	1.94	3.74	4.11	4.68
-11	1.13	1.25	2.26	3.12	3.74	-11	1.55	1.67	3.10	3.58	4.20	-11	2.03	2.11	4.06	4.46	5.08
-12	1.23	1.36	2.46	3.38	4.06	-12	1.69	1.82	3.38	3.90	4.57	-12	2.21	2.30	4.42	4.86	5.53
-13	1.33	1.47	2.66	3.65	4.38	-13	1.83	1.97	3.66	4.21	4.94	-13	2.39	2.49	4.78	5.25	5.98
-14	1.44	1.60	2.88	3.96	4.75	-14	1.97	2.13	3.94	4.54	5.33	-14	2.57	2.69	5.14	5.65	6.44
-15	1.54	1.71	3.08	4.23	5.08	-15	2.10	2.27	4.20	4.85	5.69	-15	2.74	2.87	5.48	6.02	6.86
-16	1.64	1.82	3.28	4.51	5.41	-16	2.24	2.42	4.48	5.17	6.07	-16	2.92	3.08	5.84	6.42	7.32
-17	1.73	1.91	3.46	4.74	5.69	-17	2.37	2.55	4.74	5.46	6.40	-17	3.09	3.23	6.18	6.79	7.73
-18	1.83	2.02	3.66	5.02	6.02	-18	2.51	2.70	5.02	5.78	6.78	-18	3.27	3.42	6.54	7.15	8.15
-19	1.93	2.13	3.86	5.29	6.35	-19	2.64	2.84	5.28	6.18	7.23	-19	3.44	3.60	6.88	7.56	8.61
-20	2.03	2.24	4.06	5.57	6.68	-20	2.78	3.00	5.56	6.40	7.51	-20	3.62	3.80	7.24	7.96	9.07
-21	2.13	2.35	4.26	5.83	7.00	-21	2.90	3.14	5.80	6.71	7.88	-21	3.78	3.98	7.56	8.31	9.47
-22	2.23	2.46	4.46	6.10	7.32	-22	3.07	3.29	6.14	7.24	8.46	-22	3.99	4.17	7.98	8.77	9.99

601-SERIES

Height 1/2", Width 1 1/8", Thickness 5/16", Terminals 7/16" Centers, 27/64" Mtg., 6-32 x 1/4 Screws.

601-						Suffix	601-3/4ST-		601-ST-		601-Y-	Suffix	600-YSY-			601-Z-	
-1	$ .20	$ .22	$ .40	$ .55	$ .66	-1	$ .24	$ .26	$ .48	$ .59	$ .70	-1	$ .28	$ .30	$ .56	$ .68	$ .74
-2	.31	.34	.62	.85	1.02	-2	.41	.44	.82	.95	1.12	-2	.49	.52	.98	1.03	1.19
-3	.42	.46	.84	1.15	1.38	-3	.57	.61	1.14	1.30	1.53	-3	.69	.78	1.38	1.51	1.74
-4	.54	.59	1.08	1.48	1.78	-4	.74	.79	1.48	1.68	1.97	-4	.90	.95	1.80	1.98	2.27
-5	.64	.72	1.28	1.76	2.11	-5	.90	.98	1.80	2.02	2.37	-5	1.10	1.18	2.20	2.42	2.77
-6	.75	.83	1.50	2.06	2.47	-6	1.07	1.15	2.14	2.38	2.79	-6	1.31	1.39	2.62	2.84	3.25
-7	.88	.97	1.76	2.42	2.90	-7	1.23	1.32	2.46	2.77	3.25	-7	1.51	1.60	3.02	3.32	3.80
-8	.99	1.09	1.98	2.72	3.26	-8	1.40	1.50	2.80	3.13	3.67	-8	1.72	1.82	3.44	3.74	4.28
-9	1.10	1.21	2.20	3.02	3.62	-9	1.56	1.67	3.12	3.48	4.08	-9	1.92	2.03	3.84	4.22	4.82
-10	1.22	1.34	2.44	3.35	4.02	-10	1.73	1.85	3.46	3.86	4.52	-10	2.13	2.25	4.26	4.66	5.33
-11	1.33	1.46	2.66	3.65	4.38	-11	1.89	2.02	3.78	4.21	4.94	-11	2.33	2.46	4.66	5.06	5.79
-12	1.44	1.58	2.88	3.96	4.75	-12	2.06	2.20	4.12	4.58	5.37	-12	2.54	2.68	5.08	5.50	6.29
-13	1.56	1.72	3.12	4.29	5.15	-13	2.22	2.38	4.44	4.95	5.80	-13	2.74	2.90	5.48	6.00	6.85
-14	1.67	1.84	3.34	4.59	5.51	-14	2.39	2.56	4.78	5.31	6.22	-14	2.95	3.12	5.90	6.40	7.31
-15	1.78	1.96	3.56	4.90	5.88	-15	2.55	2.73	5.10	5.72	6.70	-15	3.15	3.33	6.30	6.70	7.68
-16	1.90	2.09	3.80	5.22	6.26	-16	2.72	2.91	5.42	6.09	7.13	-16	3.36	3.55	6.72	7.39	8.43
-17	2.01	2.21	4.02	5.52	6.62	-17	2.88	3.08	5.76	6.45	7.55	-17	3.56	3.76	7.12	7.84	8.94
-18	2.12	2.33	4.24	5.83	7.00	-18	3.05	3.26	6.10	6.80	7.96	-18	3.77	3.98	7.54	8.25	9.41
-19	2.24	2.46	4.48	6.16	7.39	-19	3.21	3.43	6.42	7.19	8.41	-19	3.97	4.19	7.94	8.73	9.99
-20	2.35	2.59	4.70	6.46	7.75	-20	3.38	3.62	6.76	7.54	8.82	-20	4.18	4.42	8.36	9.19	10.48
-21	2.47	2.72	4.94	6.79	8.15	-21	3.55	3.80	7.10	7.92	9.28	-21	4.38	4.64	8.76	9.63	10.98
-22	2.59	2.85	5.18	7.12	8.54	-22	3.72	3.98	7.44	8.30	9.72	-22	4.58	4.86	9.16	10.07	11.49
-23	2.71	2.98	5.42	7.45	8.94	-23	3.89	4.16	7.78	8.68	10.17	-23	4.78	5.08	9.56	10.51	12.00

602-SERIES

Height 5/8", Width 1 5/16", Thickness 3/8", Terminals 9/16" Centers, 1/2" Mtg., 8-32 x 5/16 Screws.

602-						Suffix	602-3/4ST-		602-ST-		602-Y-	Suffix	600-YSY-			602-Z-	
-1	$ .23	$ .25	$ .46	$ .63	$ .76	-1	$ .30	$ .32	$ .60	$ .70	$ .82	-1	$ .34	$ .36	$ .60	$ .74	$ .86
-2	.36	.40	.72	.99	1.19	-2	.50	.54	1.00	1.13	1.33	-2	.58	.62	1.00	1.21	1.39
-3	.51	.56	1.02	1.40	1.68	-3	.70	.75	1.40	1.59	1.87	-3	.82	.87	1.40	1.71	1.99
-4	.65	.72	1.30	1.78	2.14	-4	.90	.97	1.80	2.03	2.38	-4	1.06	1.13	1.80	2.19	2.54
-5	.78	.86	1.56	2.15	2.58	-5	1.11	1.19	2.22	2.48	2.91	-5	1.31	1.39	2.22	2.68	3.11
-6	.92	1.01	1.84	2.53	3.04	-6	1.31	1.40	2.62	2.92	3.42	-6	1.55	1.64	2.62	3.14	3.64
-7	1.07	1.18	2.14	2.94	3.53	-7	1.52	1.63	3.14	3.39	3.97	-7	1.80	1.91	3.14	3.67	4.25
-8	1.20	1.32	2.40	3.30	3.96	-8	1.72	1.84	3.44	3.82	4.48	-8	2.04	2.16	3.44	4.14	4.80
-9	1.34	1.47	2.68	3.68	4.42	-9	1.93	2.06	3.86	4.27	5.00	-9	2.29	2.42	3.86	4.63	5.36
-10	1.49	1.64	2.98	4.10	4.92	-10	2.12	2.27	4.24	4.63	5.45	-10	2.52	2.67	4.24	5.03	5.85
-11	1.62	1.78	3.24	4.45	5.34	-11	2.33	2.49	4.66	5.16	6.05	-11	2.77	2.93	4.66	5.60	6.49
-12	1.76	1.94	3.52	4.84	5.81	-12	2.53	2.71	5.06	5.61	6.57	-12	3.01	3.19	5.06	6.09	7.05
-13	1.90	2.09	3.80	5.22	6.26	-13	2.74	2.93	5.48	6.06	7.10	-13	3.26	3.45	5.48	6.52	7.56
-14	2.04	2.24	4.08	5.61	6.73	-14	2.94	3.14	5.88	6.31	7.43	-14	3.50	3.70	5.88	6.87	7.99
-15	2.18	2.40	4.36	6.00	7.20	-15	3.15	3.47	6.30	6.97	8.17	-15	3.75	4.07	6.30	7.57	8.77
-16	2.32	2.55	4.64	6.38	7.66	-16	3.34	3.67	6.68	7.40	8.67	-16	3.98	4.31	6.68	8.04	9.31
-17	2.45	2.70	4.90	6.73	8.08	-17	3.54	3.79	7.08	7.82	9.16	-17	4.32	4.47	7.08	8.50	9.84
-18	2.58	2.85	5.16	7.10	8.52	-18	3.74	4.01	7.48	8.26	9.68	-18	4.46	4.73	7.48	8.98	10.40
-19	2.76	3.00	5.52	7.59	9.11	-19	3.99	4.23	7.98	8.82	10.33	-19	4.75	4.99	7.98	9.58	11.09
-20	2.90	3.15	5.80	7.97	9.56	-20	4.20	4.45	8.40	9.27	10.86	-20	5.00	5.25	8.40	10.07	11.66
-21	3.04	3.30	6.08	8.36	10.03	-21	4.41	4.67	8.82	9.73	11.40	-21	5.25	5.51	8.82	10.57	12.24
-22	3.19	3.45	6.38	8.77	10.52	-22	4.62	4.88	9.24	10.20	11.95	-22	5.50	5.76	9.24	11.08	12.83
-23	3.33	3.60	6.66	9.15	10.98	-23	4.83	5.10	9.66	10.65	12.48	-23	5.75	6.02	9.86	11.57	13.39
-24	3.48	3.75	6.96	9.57	11.48	-24	5.04	5.31	10.08	11.13	13.04	-24	6.00	6.27	10.08	12.09	14.00
-25	3.62	3.90	7.24	9.95	11.94	-25	5.25	5.53	10.50	11.58	13.57	-25	6.25	6.54	10.50	12.60	14.59
-26	3.76	4.05	7.52	10.34	12.41	-26	5.46	5.75	10.92	12.04	14.10	-26	6.50	6.77	10.92	13.10	15.16

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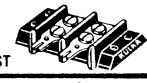
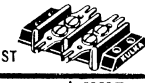
WITH SCREW TERMINALS — WITH ONE-SIDED SOLDER TERMINALS — WITH TWO-SIDED SOLDER TERMINALS

¾ST — ST

Height ¾", Width 1 13/16", Thickness 7/16", Terminals 1 1/16" Centers, 5/8" Mtg., 10-32 x 3/8" Screws.

To Series Number Add Suffix	General Purpose Bakelite CFG 'C'	MFE 'M' MDG 'B'	MME 'GMF' MDG 'B' / MAI-60 "D" GDI-30 "H"			General Purpose Bakelite CFG 'C'	MFE 'M' MDG 'B'	MME 'GMF' MDG 'B' / MAI-60 "D" GDI-30 "H"	
	603-					603-¾ST-	603-Y	603-ST-	
603- SERIES - 1	$ .55	$ .61	$1.10	$1.51	$1.81	$ .66	$ .72	$1.32	$1.62	$1.92
- 2	.94	1.03	1.88	2.58	3.10	1.13	1.22	2.26	2.77	3.28
- 3	1.32	1.45	2.64	3.63	4.36	1.60	1.73	3.20	3.91	4.63
- 4	1.71	1.88	3.42	4.70	5.64	2.07	2.24	4.14	5.06	6.00
- 5	2.09	2.30	4.18	5.75	6.90	2.53	2.73	5.06	6.18	7.23
- 6	2.48	2.73	4.96	6.82	8.18	3.00	3.25	6.00	7.34	8.70
- 7	2.86	3.15	5.72	7.86	9.43	3.46	3.75	6.92	8.46	10.02
- 8	3.25	3.58	6.50	8.93	10.72	3.92	4.25	7.48	9.60	11.38
- 9	3.63	3.99	7.26	9.99	11.99	4.40	4.77	8.80	10.75	12.74
- 10	4.02	4.45	8.04	11.05	13.26	4.80	5.23	9.60	11.83	14.03
- 11	4.57	5.03	9.14	12.57	—	5.53	5.98	11.06	13.52	—
- 12	4.96	5.46	9.92	13.64	—	6.00	6.50	12.00	14.68	—

Height 15/16", Width 2", Thickness ½", Terminals ⅞" Centers, ¾" Mtg., 12-32 x ⅜" Screws.

604- SERIES	604-				604-¾-ST-			604-ST-	
- 1	$ .90	$ .99	$1.80	$2.47	$2.96	$1.10	$1.19	$2.20	$2.67	$3.15
- 2	1.65	1.82	3.30	4.53	5.44	2.00	2.17	4.00	4.92	5.82
- 3	2.40	2.64	4.80	6.60	7.92	2.90	3.14	5.80	7.10	8.42
- 4	3.15	3.46	6.30	8.66	10.39	3.80	4.11	7.60	9.31	11.03
- 5	3.90	4.29	7.80	10.72	12.86	4.70	5.09	9.40	11.52	13.66
- 6	4.65	5.11	9.30	12.78	15.34	5.60	6.06	11.20	13.73	16.27
- 7	5.40	5.94	10.80	14.85	17.82	6.50	7.04	13.00	15.95	18.91
- 8	6.15	6.76	12.30	16.91	20.29	7.40	8.01	14.80	18.16	21.54

Height 1⅛", Width 2½", Thickness ⅝", Terminals 1⅛" Centers, ⅞" Mtg. ¼-28 x ½" Screws

605- SERIES	605-				605-¾-ST-			605-ST-	
- 1	$1.25	$1.38	$2.50	$3.43	$4.12	$1.45	$1.58	$2.90	$3.63	$4.31
- 2	2.40	2.64	4.80	6.60	7.92	2.80	3.04	5.60	7.00	8.32
- 3	3.50	3.85	7.00	9.62	11.54	4.20	4.55	8.40	10.32	12.24
- 4	4.70	5.17	9.40	12.92	15.50	5.60	6.07	11.20	13.82	16.40
- 5	5.80	6.38	11.60	15.95	19.14	7.00	7.50	14.00	17.15	20.33
- 6	7.00	7.70	14.00	19.25	23.10	8.30	9.00	16.60	20.55	24.39

599 SERIES NARROW WIDTH TERMINAL BLOCK

Single Screw Terminal. Height 1 3/32", Width 5/16", Thickness ¼", Terminals ⅜" Centers, .156 dia mtg. holes: 5-40 x ¼" brass nickel plated screws.

599-¾ST—599-ST—599-Z

To Series Number Add Suffix	599- General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	GDI-30 "H" MAI-60 'D'	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	GDI-30 "H" MAI-60 'D'
- 1	$ .15	$ .16	$ .30	$ .42	$ .50	$ .19	$ .20	$ .38	$ .45	$ .53
- 2	.24	.25	.50	.69	.82	.32	.33	.64	.76	.89
- 3	.33	.36	.66	.91	1.09	.44	.47	.88	1.00	1.18
- 4	.42	.46	.84	1.15	1.38	.57	.61	1.14	1.30	1.53
- 5	.51	.56	1.02	1.40	1.68	.69	.74	1.38	1.58	1.85
- 6	.59	.65	1.18	1.62	1.94	.83	.89	1.66	1.86	2.18
- 7	.68	.75	1.36	1.89	2.27	.95	1.02	1.90	2.14	2.51
- 8	.77	.85	1.54	2.11	2.53	1.08	1.16	2.16	2.42	2.84
- 9	.86	.95	1.72	2.36	2.83	1.21	1.30	2.42	2.72	3.19
- 10	.95	1.05	1.90	2.61	3.13	1.33	1.43	2.66	2.99	3.51
- 11	1.03	1.13	2.06	2.83	3.40	1.45	1.55	2.90	3.25	3.81
- 12	1.12	1.23	2.24	3.08	3.70	1.58	1.69	3.16	3.54	4.15
- 13	1.21	1.33	2.42	3.32	3.98	1.71	1.83	3.42	3.82	4.48
- 14	1.31	1.44	2.62	3.60	4.32	1.84	1.97	3.68	4.13	4.85
- 15	1.40	1.54	2.80	3.85	4.62	1.96	2.10	3.92	4.41	5.18
- 16	1.49	1.64	2.98	4.10	4.92	2.09	2.24	4.18	4.70	5.52
- 17	1.57	1.73	3.14	4.31	5.17	2.21	2.37	4.42	4.96	5.82
- 18	1.66	1.83	3.32	4.56	5.47	2.34	2.51	4.68	5.25	6.16
- 19	1.75	1.93	3.50	4.81	5.77	2.46	2.64	4.92	5.52	6.48
- 20	1.84	2.03	3.68	5.06	6.07	2.60	2.78	5.20	5.82	6.83
- 21	1.93	2.13	3.86	5.30	6.36	2.72	2.90	5.44	6.10	7.16
- 22	2.02	2.23	4.04	5.55	6.66	2.86	3.07	6.14	6.40	7.51

699 SERIES NARROW WIDTH TERMINAL BLOCK

Single Screw Terminal. Height ½", Width ⅝", Thickness 5/16", Terminals 7/16" Centers. .175 Dia. Mtg. Holes 6-32 x ¼" Brass Nickel Plated Screws.

699-¾ST—699-ST—699-Z

To Series Number Add Suffix	699- General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	GDI-30 "H" MAI-60 'D'	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	GDI-30 "H" MAI-60 'D'
- 1	$ .20	$ .22	$ .40	$ .55	$ .66	$ .24	$ .26	$ .48	$ .59	$ .69
- 2	.31	.34	.62	.85	1.02	.41	.44	.82	.95	1.11
- 3	.42	.46	.84	1.15	1.38	.57	.61	1.14	1.30	1.52
- 4	.54	.59	1.08	1.48	1.78	.74	.79	1.48	1.68	1.96
- 5	.64	.72	1.28	1.76	2.11	.90	.98	1.80	2.02	2.36
- 6	.75	.83	1.50	2.06	2.47	1.07	1.15	2.14	2.38	2.78
- 7	.88	.97	1.76	2.42	2.90	1.23	1.32	2.46	2.77	3.25
- 8	.99	1.09	1.98	2.72	3.26	1.40	1.50	2.80	3.13	3.67
- 9	1.10	1.21	2.20	3.02	3.62	1.56	1.67	3.12	3.48	4.08
- 10	1.22	1.34	2.44	3.35	4.02	1.73	1.85	3.46	3.86	4.53
- 11	1.33	1.46	2.66	3.65	4.38	1.89	2.02	3.78	4.21	4.93
- 12	1.44	1.58	2.88	3.96	4.75	2.06	2.20	4.12	4.58	5.36
- 13	1.56	1.72	3.12	4.29	5.15	2.22	2.38	4.44	4.95	5.79
- 14	1.67	1.84	3.34	4.59	5.51	2.39	2.56	4.78	5.31	6.22
- 15	1.78	1.96	3.56	4.90	5.88	2.55	2.73	5.10	5.72	6.70
- 16	1.90	2.09	3.80	5.22	6.26	2.72	2.91	5.42	6.09	7.13
- 17	2.01	2.21	4.02	5.52	6.62	2.88	3.08	5.76	6.45	7.55
- 18	2.12	2.33	4.24	5.83	7.00	3.05	3.26	6.10	6.80	7.96
- 19	2.24	2.46	4.48	6.16	7.39	3.21	3.43	6.42	7.19	8.41
- 20	2.35	2.59	4.70	6.46	7.75	3.38	3.62	6.76	7.54	8.82
- 21	2.47	2.72	4.94	6.79	8.15	3.55	3.80	7.10	7.92	9.27
- 22	2.59	2.85	5.18	7.12	8.54	3.72	3.98	7.44	8.30	9.72
- 23	2.71	2.98	5.42	7.45	8.94	3.89	4.16	7.78	8.68	10.16

409 SERIES SUBMINIATURE TERMINAL BLOCK

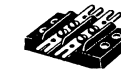
Single Screw Terminal. Height .260, Width .312, Thickness 1/16" Terminals .187 Centers, .093 dia. mtg. holes; 0.80 x 1/8" brass silver plated or gold flash screws.

¾ST — ST

To Series Number Add Suffix	General Purpose Bakelite CFG 'C'	MME 'M' MFE 'GMF' MDG 'B'	GDI-30 "H" MAI-60 'D'	General Purpose Bakelite CFG 'C'	MFE 'M' MME 'GMF' MDG 'B'	GDI-30 "H" MAI-60 'D'
	409-			409-¾ST-		409-ST-
- 1	$ .40	$ .80	$ .90	$ .47	$ .87	$ .97
- 2	.60	1.10	1.20	.74	1.24	1.34
- 3	.80	1.40	1.50	.99	1.59	1.69
- 4	1.00	1.70	1.80	1.25	1.95	2.05
- 5	1.20	2.00	2.10	1.53	2.33	2.43
- 6	1.40	2.30	2.40	1.79	2.69	2.79
- 7	1.60	2.60	2.70	2.05	3.05	3.15
- 8	1.80	2.90	3.00	2.32	3.42	3.52
- 9	2.00	3.20	3.30	2.59	3.79	3.89
- 10	2.20	3.50	3.70	2.83	4.13	4.33
- 11	2.40	3.80	4.00	3.11	4.51	4.71
- 12	2.60	4.10	4.30	3.33	4.88	5.08
- 13	2.80	4.40	4.60	3.64	5.24	5.44
- 14	3.00	4.70	4.90	3.90	5.60	5.80
- 15	3.20	5.00	5.20	4.17	5.97	6.17
- 16	3.40	5.30	5.50	4.42	6.32	6.52
- 17	3.60	5.60	5.80	4.69	6.69	6.89
- 18	3.80	5.90	6.10	4.96	7.06	7.26
- 19	4.00	6.20	6.40	5.23	7.53	7.73
- 20	4.20	6.50	6.70	6.50	7.80	8.00
- 21	4.40	6.80	7.00	5.77	8.17	8.37

410 SERIES MINIATURE TERMINAL BLOCK

Double Screw Terminals. Height 5/16", Width 5/8", Thickness 7/32", Terminals ¼" Centers, .125 dia. mtg. holes; 2-56 x 3/16" binding head brass nickel plated screws.



To Series Number Add Suffix	410-			410-¾ ST-	410-ST-	410-Y
- 1	$ .40	$ .80	$ .96	$ .44	$ .84	$1.00
- 2	.56	1.08	1.30	.63	1.15	1.37
- 3	.72	1.34	1.61	.83	1.45	1.72
- 4	.88	1.60	1.92	1.03	1.75	2.07
- 5	1.04	1.86	2.23	1.22	2.04	2.41
- 6	1.20	2.12	2.54	1.44	2.36	2.78
- 7	1.36	2.38	2.86	1.63	2.65	3.43
- 8	1.52	2.64	3.17	1.83	2.95	3.48
- 9	1.68	2.90	3.48	2.03	3.25	3.83
- 10	1.84	3.16	3.79	2.22	3.54	4.17
- 11	2.00	3.42	4.10	2.42	3.84	4.52
- 12	2.16	3.68	4.42	2.62	4.14	4.88
- 13	2.32	3.94	4.73	2.82	4.44	5.23
- 14	2.48	4.20	5.04	3.01	4.73	5.57
- 15	2.64	4.46	5.35	3.20	5.02	5.91
- 16	2.80	4.72	5.66	3.40	5.32	6.26
- 17	2.96	4.98	5.98	3.60	5.62	6.62
- 18	3.12	5.24	6.29	3.80	5.92	6.97
- 19	3.28	5.50	6.60	4.00	6.22	7.32
- 20	3.44	5.76	6.91	4.20	6.52	7.67
- 21	3.60	6.02	7.22	4.40	6.82	8.02
- 22	3.76	6.28	7.54	4.60	7.12	8.38

411 SERIES MINIATURE TERMINAL BLOCK

Single Screw Terminal. Height 5/16", Width 13/32", Thickness 7/32", Terminals. .250 Centers, .125 mtg. holes; 2-56 x 3/16" binding head brass nickel plated screws.

To Series Number Add Suffix	411			411-¾ST—	411-ST—	411-Z
- 1	$ .28	$ .46	$ .89	$ .44	$ .84	$1.00
- 2	.32	.69	.96	.63	1.15	1.37
- 3	.41	.93	1.23	.83	1.45	1.72
- 4	.50	1.17	1.50	1.03	1.75	2.07
- 5	.59	1.31	1.77	1.22	2.04	2.41
- 6	.68	1.65	2.04	1.44	2.36	2.78
- 7	.77	1.85	2.30	1.63	2.65	3.43
- 8	.87	2.10	2.52	1.83	2.95	3.48
- 9	.97	2.25	2.70	2.03	3.25	3.83
- 10	1.07	2.40	2.88	2.22	3.54	4.17
- 11	1.17	2.55	3.06	2.42	3.84	4.52
- 12	1.27	2.60	3.12	2.62	4.14	4.88
- 13	1.37	2.75	3.30	2.82	4.44	5.23
- 14	1.47	2.90	3.48	3.01	4.73	5.57
- 15	1.57	3.05	3.66	3.20	5.02	5.91
- 16	1.67	3.20	3.84	3.40	5.32	6.26
- 17	1.77	3.35	4.02	3.60	5.62	6.62
- 18	1.87	3.50	4.20	3.80	5.92	6.97
- 19	1.97	3.65	4.38	4.00	6.22	7.32
- 20	2.07	3.80	4.56	4.20	6.52	7.67
- 21	2.17	3.95	4.74	4.40	6.82	8.02
- 22	2.27	4.10	4.92	4.60	7.12	8.38

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HERMAN H. SMITH, INC.

Exclusive Distributors of KULKA BARRIER TERMINAL BLOCKS To Radio Parts Jobbers Only

FIBRE AND XP BAKELITE MARKER STRIPS

Marker strips are supplied to fit each size terminal block — either plain or imprinted — in vulcanized fibre or Bakelite (1/32" thick).

Cat. No.	Fibre Per C	Imp. Fibre Per C	XP Bake. Per C	Imp XP Bake. Per C
410— 411— 600— 600A				
MS600-1	$ 2.90	$ 7.90	$ 3.40	$ 8.40
MS600-2	3.80	8.80	4.60	9.60
MS600-3	4.70	9.70	5.70	10.70
MS600-4	5.70	10.70	6.80	11.80
MS600-5	6.60	11.60	8.00	13.00
MS600-6	7.60	12.60	9.10	14.10
MS600-7	8.50	13.50	10.20	15.20
MS600-8	9.50	14.50	11.40	16.40
MS600-9	10.40	15.40	12.50	17.50
MS600-10	11.40	21.40	13.70	23.70
MS600-11	12.30	22.30	14.80	24.80
MS600-12	13.30	23.30	15.90	25.90
MS600-13	14.20	24.20	17.10	27.10
MS600-14	15.20	25.20	18.20	28.20
MS600-15	16.10	31.10	19.40	34.40
MS600-16	17.10	32.10	20.50	35.50
MS600-17	18.00	33.00	21.60	36.60
MS600-18	19.00	34.00	22.80	37.80
MS600-19	19.90	34.90	23.90	38.90
MS600-20	20.90	40.90	25.00	45.00
MS600-21	21.80	41.80	26.20	46.20
MS600-22	22.70	42.70	27.40	47.40
410-Y—600-Y—600-XY—600A-Y—600A-XY				
MS600-Y-1	$ 6.60	$11.60	$ 7.20	$12.20
MS600-Y-2	7.60	12.60	8.30	13.30
MS600-Y-3	8.50	13.50	9.50	14.50
MS600-Y-4	9.50	14.50	10.60	15.60
MS600-Y-5	10.40	15.40	11.80	16.80
MS600-Y-6	11.40	16.40	12.90	17.90
MS600-Y-7	12.30	17.30	14.00	19.00
MS600-Y-8	13.30	18.30	15.20	20.20
MS600-Y-9	14.20	19.20	16.30	21.30
MS600-Y-10	15.20	25.20	17.50	27.50
MS600-Y-11	16.10	26.10	18.60	28.60
MS600-Y-12	17.10	27.10	19.70	29.70
MS600-Y-13	18.00	28.00	20.90	30.90
MS600-Y-14	19.00	29.00	22.00	32.00
MS600-Y-15	19.90	34.90	23.10	38.10
MS600-Y-16	20.90	35.90	24.30	39.30
MS600-Y-17	21.80	36.80	25.40	40.40
MS600-Y-18	22.80	37.80	26.60	41.60
MS600-Y-19	23.70	38.70	27.70	42.70
MS600-Y-20	24.70	44.70	28.80	48.80
MS600-Y-21	25.60	45.60	30.00	50.00
MS600-Y-22	26.50	46.50	31.20	51.20
601—699				
MS601-1	$ 3.20	$ 8.20	$ 3.80	$ 8.80
MS601-2	4.40	9.40	5.30	10.30
MS601-3	5.70	10.70	6.80	11.80
MS601-4	7.00	12.00	8.30	13.30
MS601-5	8.20	13.20	9.90	14.90
MS601-6	9.50	14.50	11.40	16.40
MS601-7	10.80	15.80	12.90	17.90
MS601-8	12.00	17.00	14.40	19.40
MS601-9	13.30	18.30	15.90	20.90
MS601-10	14.50	24.50	17.50	27.50
MS601-11	15.80	25.80	19.00	29.00
MS601-12	17.10	27.10	20.50	30.50
MS601-13	18.30	28.30	22.00	32.00
MS601-14	19.60	29.60	23.50	33.50
MS601-15	20.90	35.90	25.00	40.00
MS601-16	22.10	37.10	26.60	41.60
MS601-17	23.40	38.40	28.10	43.10
MS601-18	24.70	39.70	29.60	44.60
MS601-19	25.90	40.90	31.10	46.10
MS601-20	27.20	47.20	32.60	52.60
MS601-21	28.50	48.50	34.10	54.10
MS601-22	29.80	49.80	35.50	55.50
MS601-23	31.10	51.10	37.00	57.00
603				
MS603-1	$ 7.60	$12.60	$ 9.10	$14.10
MS603-2	9.40	14.40	11.20	16.20
MS603-3	11.10	16.10	13.40	18.40
MS603-4	12.90	17.90	15.50	20.50
MS603-5	14.70	19.70	17.60	22.60
MS603-6	16.40	21.40	19.70	24.70
MS603-7	18.20	23.20	21.90	26.90
MS603-8	20.00	25.00	24.00	29.00
MS603-9	21.80	26.80	26.10	31.10
MS603-10	23.50	33.50	28.20	38.20
MS603-11	25.30	35.30	30.30	40.30
MS603-12	27.10	37.10	32.40	42.40
603-Y				
MS603-Y-1	$11.40	$16.40	$12.90	$17.90
MS603-Y-2	13.20	18.20	15.00	20.00
MS603-Y-3	14.90	19.90	18.20	22.20
MS603-Y-4	16.70	21.70	19.30	24.30
MS603-Y-5	18.50	23.50	21.40	26.40
MS603-Y-6	20.20	25.20	23.50	28.50
MS603-Y-7	22.00	27.00	25.70	30.70
MS603-Y-8	23.80	28.80	27.80	32.80
MS603-Y-9	25.60	30.60	29.90	34.90
MS603-Y-10	27.30	37.30	32.00	42.00
MS603-Y-11	29.10	39.10	34.10	44.10
MS603-Y-12	30.90	40.90	36.20	46.20

NOTE: XXXP Bakelite Markers are 25% more than XP Bakelite Markers.

Cat. No.	Fibre Per C	Imp. Fibre Per C	XP Bake. Per C	Imp. XP Bake. Per C
601-Y—601-XY				
MS601-Y-1	$ 7.00	$12.00	$ 7.60	$12.60
MS601-Y-2	8.20	13.20	9.10	14.10
MS601-Y-3	9.50	14.50	10.60	15.60
MS601-Y-4	10.80	15.80	12.10	17.10
MS601-Y-5	12.00	17.00	13.70	18.70
MS601-Y-6	13.30	18.30	15.20	20.20
MS601-Y-7	14.50	19.50	16.70	21.70
MS601-Y-8	15.80	20.80	18.20	23.20
MS601-Y-9	17.10	22.10	19.70	24.70
MS601-Y-10	18.30	28.30	21.30	31.30
MS601-Y-11	19.60	29.60	22.80	32.80
MS601-Y-12	20.90	30.90	24.30	34.30
MS601-Y-13	22.10	32.10	25.80	35.80
MS601-Y-14	23.40	33.40	27.30	37.30
MS601-Y-15	24.70	39.70	28.80	43.80
MS601-Y-16	25.90	40.90	30.40	45.40
MS601-Y-17	27.20	42.20	31.90	46.90
MS601-Y-18	28.50	43.50	33.40	48.40
MS601-Y-19	29.70	44.70	34.90	49.90
MS601-Y-20	31.00	51.00	36.40	56.40
MS601-Y-21	32.30	52.30	37.90	57.90
MS601-Y-22	33.60	53.60	39.40	59.40
MS601-Y-23	34.90	54.90	40.90	60.90
602				
MS602-1	$ 3.50	$ 8.50	$ 4.20	$ 9.20
MS602-2	5.10	10.10	6.10	11.10
MS602-3	6.60	11.60	8.00	13.00
MS602-4	8.20	13.20	9.90	14.90
MS602-5	9.80	14.80	11.80	16.80
MS602-6	11.40	16.40	13.70	18.70
MS602-7	13.00	18.00	15.60	20.60
MS602-8	14.50	19.50	17.50	22.50
MS602-9	16.10	21.10	19.40	24.40
MS602-10	17.70	27.70	21.30	31.30
MS602-11	19.30	29.30	23.10	33.10
MS602-12	20.90	30.90	25.00	35.00
MS602-13	22.50	32.50	26.90	36.90
MS602-14	24.00	34.00	28.80	38.80
MS602-15	25.60	40.60	30.70	45.70
MS602-16	27.20	42.20	32.60	47.60
MS602-17	28.80	43.80	34.50	49.50
MS602-18	30.40	45.40	36.50	51.50
MS602-19	32.00	47.00	38.50	53.50
MS602-20	33.60	53.60	40.40	60.40
MS602-21	35.20	55.20	42.30	62.30
MS602-22	36.80	56.80	44.30	64.30
MS602-23	38.40	58.40	46.30	66.30
MS602-24	40.00	60.00	48.20	68.20
MS602-25	41.60	66.60	50.20	75.20
MS602-26	43.20	68.20	52.20	77.20
602-Y—602-XY				
MS602-Y-1	$ 7.30	$12.30	$ 8.00	$13.00
MS602-Y-2	8.90	13.90	9.90	14.90
MS602-Y-3	10.40	15.40	11.80	16.80
MS602-Y-4	12.00	17.00	13.70	18.70
MS602-Y-5	13.60	18.60	15.60	20.60
MS602-Y-6	15.20	20.20	17.50	22.50
MS602-Y-7	16.80	21.80	19.40	24.50
MS602-Y-8	18.30	23.30	21.30	26.30
MS602-Y-9	19.90	24.90	23.10	28.10
MS602-Y-10	21.50	31.50	25.00	35.00
MS602-Y-11	23.10	33.10	26.90	36.90
MS602-Y-12	24.70	34.70	28.80	38.80
MS602-Y-13	26.30	36.30	30.70	40.70
MS602-Y-14	27.80	37.80	32.60	42.60
MS602-Y-15	29.40	44.40	34.50	49.50
MS602-Y-16	31.00	46.00	36.40	51.40
MS602-Y-17	32.60	47.60	38.30	53.30
MS602-Y-18	34.20	49.20	40.20	55.20
MS602-Y-19	35.80	50.80	42.10	57.10
MS602-Y-20	37.40	57.40	44.00	64.00
MS602-Y-21	39.00	59.00	45.90	65.90
MS602-Y-22	40.60	60.60	47.80	67.80
MS602-Y-23	42.20	62.20	49.70	69.70
MS602-Y-24	43.80	63.80	51.60	71.60
MS602-Y-25	45.40	70.40	53.50	78.50
MS602-Y-26	47.00	72.00	55.40	80.40
604				
MS604-1	$ 7.70	$12.70	$ 9.20	$14.20
MS604-2	11.70	16.70	14.10	19.10
MS604-3	15.50	20.50	18.60	23.60
MS604-4	19.30	24.30	23.20	28.20
MS604-5	23.10	28.10	27.70	32.70
MS604-6	26.90	31.90	32.30	37.30
MS604-7	30.70	35.70	36.80	41.80
MS604-8	34.50	39.50	41.40	46.40
605				
MS605-1	$ 8.20	$13.20	$ 9.90	$14.90
MS605-2	14.50	19.50	17.50	22.50
MS605-3	20.90	25.90	25.00	30.00
MS605-4	27.20	32.20	32.60	37.60
MS605-5	33.50	38.50	40.20	45.20
MS605-6	39.80	44.80	47.80	52.80

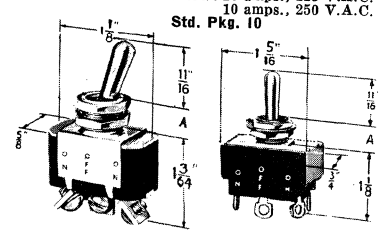
EXTRA SERVICES

	600-1-2	603	604	605
Phillips Screws	.01	.02	.05	.05
Sems Screws	.02	.03	.04	.05
Phillips Sems Screws	.03	.03	.06	.06
K Monel Sems Screws	.04	.06	.08	.09
Fungus Varnish	.05	.05	.05	.05
Staked Screws	.05	.05	.05	.05
Stamped End	.10	.10	.10	.10

List Prices shown are per screw or per end.
All other series prices in first column.

"ST" KULKA SERIES Made to Spec. JAN-S-23

NOMINAL RATING: 20 amps., 125 V.A.C.
10 amps., 250 V.A.C.
Std. Pkg. 10



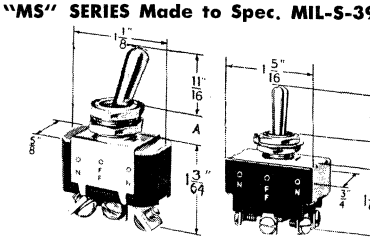
SCREW TERMINALS

		NET Ea.
73501 ST40A	SPST ON-NONE-OFF	$1.05
73502 ST40B	SPST ON-NONE-MOM OFF	1.17
73503 ST40C	SPST ON-NONE-MOM ON	1.17
73504 ST40D	SPDT ON-NONE-ON	1.29
73505 ST40E	SPDT ON-OFF-ON	1.29
73506 ST40F	SPDT ON-NONE-MOM ON	1.41
73507 ST40G	SPDT MOM ON-OFF-MOM ON	1.41
73508 ST40H	SPDT ON-OFF-MOM ON	1.41
73517 ST50K	DPST ON-NONE-OFF	1.35
73518 ST50L	DPST ON-NONE-MOM OFF	1.56
73519 ST50M	DPST OFF-NONE-MOM ON	1.56
73520 ST50N	DPDT ON-NONE-ON	1.56
73521 ST50P	DPDT ON-OFF-ON	1.56
73522 ST50R	DPDT ON-NONE-MOM ON	1.77
73523 ST50S	DPDT MOM ON-OFF-MOM ON	1.77
73524 ST50T	DPDT ON-OFF-MOM OFF	1.77

SOLDER LUGS

73509 ST42A	SPST ON-NONE-OFF	.99
73510 ST42B	SPST ON-NONE-MOM OFF	1.08
73511 ST42C	SPST ON-NONE-MOM ON	1.08
73512 ST42D	SPDT ON-NONE-ON	1.17
73513 ST42E	SPDT ON-OFF-ON	1.17
73514 ST42F	SPDT ON-NONE-MOM ON	1.29
73515 ST42G	SPDT MOM ON-OFF-MOM ON	1.29
73516 ST42H	SPDT ON-OFF-MOM ON	1.29
73525 ST52K	DPST ON-NONE-OFF	1.20
73526 ST52L	DPST ON-NONE-MOM OFF	1.35
73527 ST52M	DPST OFF-NONE-MOM ON	1.35
73528 ST52N	DPDT ON-NONE-ON	1.35
73529 ST52P	DPDT ON-OFF-ON	1.35
73530 ST52R	DPDT ON-NONE-MOM ON	1.56
73531 ST52S	DPDT MOM ON-OFF-MOM ON	1.56
73532 ST52T	DPDT ON-OFF-MOM ON	1.56

"MS" SERIES Made to Spec. MIL-S-3950A



Superseding all previous specification, including MIL-S-3950, MIL-S-6745, MIL-S-21195 and JAN-S-23. Provided with SEALED LEVER for sand, dust and 15-ft. water submersion tests. Screw terminals only.

HHS TYPE	CIRCUIT	NET Ea.
73583 MS35058-21	SPST ON-OFF-ON	$1.62
73534 MS35058-22	SPST ON-NONE-OFF	1.41
73535 MS35058-23	SPST ON-NONE-ON	1.62
73536 MS35058-24	SPDT ON-OFF-NONE	1.41
73537 MS35058-25	SPDT ON-MOM OFF-NONE	1.48
73538 MS35058-26	SPDT ON-NONE-MOM ON	1.75
73539 MS35058-27	SPDT MOM ON-OFF MOM ON	1.75
73540 MS35058-28	SPDT NONE-OFF-MOM ON	1.48
73541 MS35058-29	SPDT ON-NONE-MOM OFF	1.48
73542 MS35058-30	SPDT OFF-NONE-MOM ON	1.48
73543 MS35058-31	SPDT ON-OFF-MOM ON	1.75
73551 MS35059-21	DPDT ON-OFF-ON	2.16
73552 MS35059-22	DPST ON-NONE-OFF	1.80
73553 MS35059-23	DPDT ON-NONE-ON	2.16
73554 MS35059-24	DPDT ON-OFF-NONE	1.80
73555 MS35059-25	DPDT ON-MOM OFF-NONE	2.16
73556 MS35059-26	DPDT MOM ON-OFF-MOM ON	2.34
73557 MS35059-27	DPDT ON-NONE-MOM ON	2.34
73558 MS35059-28	DPDT NONE-OFF MOM ON	2.16
73559 MS35059-29	DPDT ON-NONE MOM OFF	2.16
73560 MS35059-30	DPDT OFF-NONE-MOM ON	2.16
73561 MS35059-31	DPDT ON-OFF-MOM ON	2.34

"AN" SERIES Made to Spec. MIL-S-6745

Screw terminals only. Toggle seal meets sand and dust requirements.

HHS TYPE	CIRCUIT	NET Ea.
73544 AN3021-1	SPDT ON-OFF-ON	$1.62
73545 AN3021-3	SPDT ON-NONE-ON	1.62
73546 AN3021-10	SPDT ON-OFF-NONE	1.34
73547 AN3021-12	SPDT ON-MOM OFF-NONE	1.48
73548 AN3021-7	SPDT MOM ON-OFF-MOM ON	1.75
73549 AN3021-11	SPDT NONE-OFF-MOM ON	1.48
73550 AN3021-5	SPDT ON-OFF-MOM ON	1.75
73562 AN3027-1	DPDT ON-OFF-ON	2.16
73563 AN3027-3	DPDT ON-NONE-ON	2.16
73564 AN3026-9	DPST ON-OFF-NONE	1.80
73565 AN3027-10	DPST ON-MOM OFF-NONE	2.16
73566 AN3027-6	DPDT ON-NONE-MOM ON	2.34
73567 AN3027-7	DPDT MOM ON-OFF-MOM ON	2.34
73568 AN3027-11	DPST NONE-OFF-MOM ON	2.16
73569 AN3027-8	DPDT ON-OFF-MOM ON	2.34

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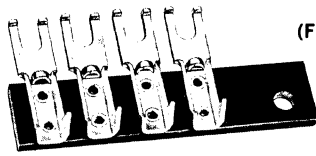
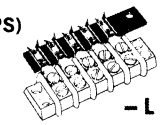
TERMINAL CONNECTING STRIPS



(FANNING STRIPS)



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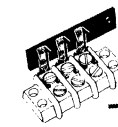
-R



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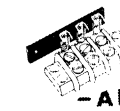


-AR

MATERIALS AVAILABLE: XP bakelite is supplied unless otherwise specified. All are 3/32" thick.

XP Black laminated paper base phenolic.
XXXP Natural Color laminated paper base phenolic, per MIL-P-3115A.
GMG Laminated glass cloth melamine per MIL-P-15037.

CODE	CABLE HOLE AT	STYLE
—L	LEFT	FLAT
—R	RIGHT	FLAT
—AL	LEFT	ANGLE
—AR	RIGHT	ANGLE

CODE EXAMPLE

Catalog Number	Flat or Angle & Clamp Hole	Number of Terminals	Type of Material*
652	AL	22	GMG

652-AL-22-GMG

*Specify only if other than XP.

649 Series used on 410 Series Terminal Blocks
650 Series used on 600 Series Terminal Blocks
651 Series used on 601 Series Terminal Blocks
652 Series used on 602 Series Terminal Blocks

No. of Tmnls	649-L 649-R	650-L 650-R	651-L 651-R	652-L 652-R	649-AL 649-AR	650-AL 650-AR	651-AL 651-AR	652-AL 652-AR
- 2	.19	.14	.15	.19	.25	.21	.22	.25
- 3	.25	.22	.23	.25	.35	.32	.33	.35
- 4	.32	.28	.29	.32	.45	.41	.42	.45
- 5	.39	.35	.36	.39	.55	.52	.53	.55
- 6	.47	.43	.44	.47	.67	.63	.64	.67
- 7	.53	.50	.51	.53	.76	.79	.74	.76
- 8	.61	.56	.57	.61	.87	.83	.84	.87
- 9	.67	.63	.64	.67	.98	.92	.94	.98
-10	.75	.70	.72	.75	1.08	1.03	1.05	1.08
-11	.81	.77	.79	.81	1.18	1.13	1,16	1.18
-12	.88	.84	.85	.88	1.28	1.24	1.24	1.28
-13	.95	.91	.92	.95	1.38	1.34	1.35	1.38
-14	1.03	.98	1.00	1.03	1.50	1.44	1.46	1.50
-15	1.09	1.06	1.07	1.09	1.58	1.55	1.56	1.58
-16	1.17	1.11	1.13	1.17	1.69	1.64	1.66	1.69
-17	1.22	1.19	1.20	1.22	1.78	1.75	1.76	1.78
-18	1.27	1.28	1.29	1.27	1.88	1.87	1.88	1.88
-19	1.32	1.33	1.34	1.32	1.98	1.96	1.97	1.98
-20	1.37	1.41	1.42	1.37	2.08	2.07	2.08	2.08
-21	1.42	1.46	1.50	1.42	2.18	2.16	2.18	2.18
-22	1.47	1.51	1.58	1.47	2.28	2.25	2.29	2.28
-23	--	--	1.66	1.52	--	--	2.39	2.38
-24	--	--	--	1.57	--	--	--	2.48
-25	--	--	--	1.62	--	--	--	2.58
-26	--	--	--	1.67	--	--	--	2.68

TERMINAL LUGS

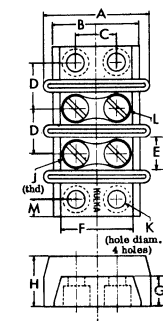
Std. pkg. 100

Series	Bent -YL Part #	Bent -YL Per C	Two-Sided -STL Part #	Two-Sided -STL Per C	One-Sided -¾STL Part #	One-Sided -¾STL Per C	Spade -SLS Part #	Spade -SLS Per C	Flag -SLF Part #	Flag -SLF Per C
409			73104	$4.40	73115	$4.40				
410			73105	4.40	73116	4.40	73126	$3.00	73134	$3.00
411			73106	4.40	73117	4.40	73127	3.00	73135	3.00
599			73107	4.40	73118	4.40	73128	3.00	73136	3.00
600	73101	$4.40	73108	4.40	73119	4.40	73129	3.00	73137	3.00
601	73102	5.90	73109	5.90	73120	5.90	73130	3.50	73138	3.50
602	73103	7.20	73110	7.20	73121	7.20	73131	4.00	73139	4.00
603	73178	10.00	73111	10.00	73122	10.00	73132	5.00	73140	5.00
604			73112	18.00	73123	18.00				
605			73113	26.00	73124	26.00				
699			73114	5.90	73125	5.90	73133	3.50	73141	3.50

CABLE CLAMPS For Terminal Connecting Strips
Made of nickel plated brass with 6-32 plated brass screws.

No.	Size	Per C
1435	⅜"	$16.00
1436	½"	16.00
1437	⅝"	16.00
1438	¾"	16.00
1439	⅞"	16.00

Series	Hole -SLH Part #	Hole -SLH Per C	Jumper -J Part #	Jumper -J Per C	Straddle Plate -SP Part #	Straddle Plate -SP Per C	Comb. YL-¾STL -XYL Part #	Comb. YL-¾STL -XYL Per C	Outside Bent -ZL Part #	Outside Bent -ZL Per C	Long Bent -YSYL Part #	Long Bent -YSYL Per C
409												
410	73142	$3.00	73150	$3.50	73160	$3.50						
411	73143	3.00	73151	3.50					73169	$4.40		
599	73144	3.00	73152	3.50					73170	4.40		
600	73145	3.00	73153	3.50	73161	3.50	73167	$4.40	73171	4.40	73175	$4.40
601	73146	3.50	73154	4.00	73162	4.00			73172	5.90	73176	5.90
602	73147	4.00	73155	4.50	73163	4.50	73168	7.20	73173	7.20	73177	7.20
603	73148	5.00	73156	5.50	73164	7.50						
604			73157	7.50	73165	15.00						
605			73158	10.00	73166	20.00						
699	73149	3.50	73159	4.00					73174	5.90		

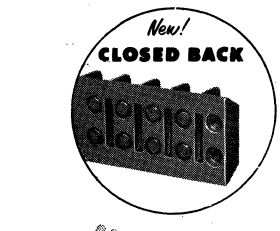


DIMENSIONAL DRAWING AND ELECTRICAL RATING OF TERMINAL BLOCKS

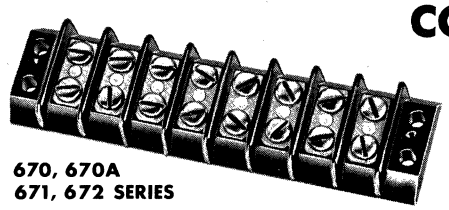
Series No.	A	B	C	D	E	F	G	H	J	K	L	M	Max. Tms.	Rated Voltage (Volts RMS) ⅓ Voltage Breakdown Without Marker Strip	Rated Voltage (Volts RMS) ⅓ Voltage Breakdown With Marker Strip	Current Rating Amps	Maximum AWG Wire Sizes
409	5/16	1/4	—	3/16	9/64	3/16	5/32	17/64	0-80	.093	1/8	1/4	21	750	1500	2	26 to 22
410	5/8	5/8	1/4	1/4	3/16	5/8	7/32	5/16	2-56	.125	3/16	1/8	22	1000	2000	5	20 to 18
411	13/32	13/32	—	1/4	3/16	13/32	7/32	5/16	2-56	.125	3/16	1/8	22	1000	2000	5	20 to 18
599	5/16	3/8	—	3/8	13/64	9/32	1/4	13/32	5-40	.156	1/4	9/64	22	1100	2500	15	22 to 16
600	7/8	11/16	5/16	3/8	13/64	9/32	1/4	13/32	5-40	.156	1/4	9/64	22	1100	2500	15	22 to 16
601	1 1/8	7/8	27/64	7/16	21/64	3/4	5/16	1/2	6-32	.175	1/4	5/32	23	1100	3000	20	16 to 14
602	1 5/16	1 1/16	1/2	5/16	27/64	7/8	3/8	5/8	8-32	.209	5/16	13/64	26	1600	3300	30	14 to 12
603	1 13/16	1 5/16	5/8	1 1/16	15/32	1 1/16	7/16	3/4	10-32	.165	3/8	7/32	10	1700	3000	50	6
604	2	1 1/2	3/4	7/8	9/16	1 1/4	1/2	15/16	12-32	.195	3/8	17/64	8	1800	3400	70	4
605	2 1/2	1 13/16	7/8	3/8	1/4	3/8	9/32	1/2	4-40	.156	5/16	11/64	13	2100	3800	90	2
609	3/8	3/8	—	1 1/8	21/32	1 1/2	5/8	1 1/8	1/4-29	.209	1/2	5/16	6	1000	2000	10	20 to 18
699	11/16	1/2	—	7/16	21/64	13/32	5/16	1/2	6-32	.156	1/4	7/32	23	1100	3000	20	16 to 14

HERMAN H. SMITH, INC.

Exclusive Distributors of KULKA BARRIER TERMINAL BLOCKS To Radio Parts Jobbers Only



COMMERCIAL CLOSED BACK TERMINAL BLOCKS

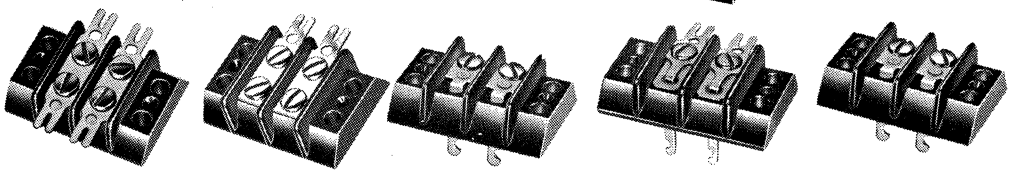


670, 670A
671, 672 SERIES

MOLDED MATERIALS:
General Purpose Phenolic, (commercial grade) unless otherwise specified.

HARDWARE:
SCREWS & TERMINALS: Brass, Nickel Plated.
SOLDER TERMINALS: Brass, Hot-tinned.

SCREW SIZES:
670 Series: 5-40 x 1/4
670A Series: 6-32 x 1/4
671 Series: 6-32 x 1/4
672 Series: 8-32 x 5/16



-ST SERIES | -3/4ST SERIES | -Y SERIES | -XY SERIES | -YSY SERIES

To Add Suffix:	670 Series	670-Y 670-ST 670-3/4ST Series	670-XY 670-YSY Series
—1	$ .15	$ .19	$ .19
—2	.24	.32	.33
—3	.33	.44	.45
—4	.42	.57	.59
—5	.51	.69	.71
—6	.59	.83	.86
—7	.68	.95	.98
—8	.77	1.08	1.12
—9	.86	1.21	1.25
—10	.95	1.33	1.38
—11	1.03	1.45	1.50
—12	1.12	1.58	1.64
—13	1.21	1.71	1.77
—14	1.31	1.84	1.91
—15	1.40	1.96	2.03
—16	1.49	2.09	2.17
—17	1.57	2.21	2.29
—18	1.66	2.34	2.43
—19	1.75	2.46	2.55
—20	1.84	2.60	2.70
—21	1.93	2.72	2.82
—22	2.02	2.86	2.97
—23	2.11	2.96	3.07
—24	2.20	3.08	3.30
—25	2.29	3.20	3.32
—26	2.38	3.32	3.45
—27	2.47	3.44	3.57
—28	2.56	3.56	3.70
—29	2.65	3.68	3.80
—30	2.74	3.80	3.95

To Add Suffix:	670A Series	670A-Y 670A-ST 670A-3/4ST Series	670A-XY 670A-YSY Series
—1	$ .16	$ .20	$ .20
—2	.25	.33	.34
—3	.36	.47	.48
—4	.46	.61	.63
—5	.56	.74	.76
—6	.65	.89	.90
—7	.75	1.02	1.05
—8	.85	1.16	1.20
—9	.95	1.30	1.34
—10	1.05	1.43	1.48
—11	1.13	1.55	1.60
—12	1.23	1.69	1.75
—13	1.33	1.83	1.91
—14	1.44	1.97	2.04
—15	1.54	2.10	2.17
—16	1.64	2.24	2.32
—17	1.73	2.37	2.45
—18	1.83	2.51	2.60
—19	1.93	2.64	2.73
—20	2.03	2.78	2.83
—21	2.13	2.90	3.05
—22	2.24	3.07	3.18
—23	2.32	3.17	3.28
—24	2.42	3.30	3.42
—25	2.52	3.43	3.55
—26	2.62	3.56	3.69
—27	2.72	3.69	3.82
—28	2.82	3.82	3.96
—29	2.92	3.95	4 09
—30	3.02	4.08	4.32

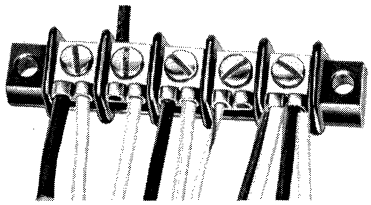
To Add Suffix:	671 Series	671-Y 671-ST 671-3/4ST Series	671-XY 671-YSY Series
—1	$ .20	$ .24	$ .25
—2	.31	.41	.43
—3	.42	.57	.60
—4	.54	.74	.78
—5	.64	.90	.95
—6	.75	1.07	1.13
—7	.88	1.23	1.30
—8	.99	1.40	1.48
—9	1.10	1.56	1.65
—10	1.22	1.73	1.83
—11	1.33	1.89	2.00
—12	1.44	2.06	2.18
—13	1.56	2.22	2.35
—14	1.67	2.39	2.53
—15	1.78	2.55	2.70
—16	1.90	2.72	2.88
—17	2.01	2.88	3.05
—18	2.12	3.05	3.23
—19	2.24	3.21	3.40
—20	2.35	3.38	3.58
—21	2.47	3.55	3.76
—22	2.59	3.72	3.94
—23	2.71	3.89	4.12
—24	2.83	4.06	4 30
—25	2.95	4.23	4.48
—26	3.07	4.40	4.66
—27	3.19	4.57	4.84
—28	3.31	4.74	5.02
—29	3.43	4.91	5.20
—30	3.55	5.08	5.38

To Add Suffix:	672 Series	672-Y 672-ST 672-3/4ST Series	672-XY 672-YSY Series
—1	$ .23	$ .30	$ .31
—2	.36	.50	.52
—3	.51	.70	.73
—4	.65	.90	.94
—5	.78	1.11	1.16
—6	.92	1.31	1.37
—7	1.07	1.52	1.59
—8	1.20	1.72	1.80
—9	1.34	1.93	2.02
—10	1.49	2.12	2.22
—11	1.62	2.33	2.44
—12	1.76	2.53	2.65
—13	1.90	2.74	2.87
—14	2.04	2.94	3.08
—15	2.18	3.15	3.30
—16	2.32	3.34	3.50
—17	2.45	3.54	3.71
—18	2.58	3.74	3.92
—19	2.76	3.99	4.18
—20	2.90	4.20	4.40
—21	3.04	4.41	4.62
—22	3.19	4.62	4.84
—23	3.33	4.83	5.06
—24	3.48	5.04	5.28
—25	3.62	5.25	5.50
—26	3.77	5.46	5.72
—27	—	—	—
—28	—	—	—
—29	—	—	—
—30	—	—	—

KULKA TERMINAL BLOCKS with SCREW CLAMP TERMINALS — No Lugs Required on Leads

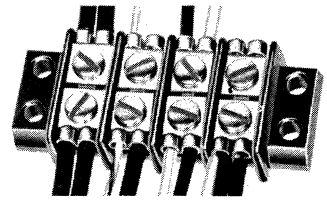
- **Allows for different sizes of wire (AWG #14 to 22) in same terminal, either solid or stranded.**
- Pressure Clamp takes up to four leads per side, as illustrated.

699-3701 SERIES SINGLE ROW



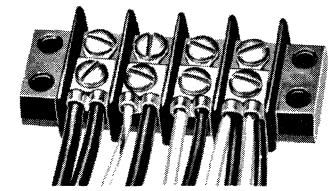
Add Suffix	NET Ea.	Add Suffix	NET Ea.	Add Suffix	NET Ea.
—1	$ .30	—9	$2.00	—17	$3.71
—2	.51	—10	2.22	—18	3.92
—3	.72	—11	2.43	—19	4.14
—4	.94	—12	2.64	—20	4.35
—5	1.14	—13	2.86	—21	4.57
—6	1.35	—14	3.07	—22	4.79
—7	1.58	—15	3.28	—23	5.01
—8	1.79	—16	3.50		

601-3700 SERIES DOUBLE ROW (Screw Clamps Both Sides)



Add Suffix	NET Ea.	Add Suffix	NET Ea.	Add Suffix	NET Ea.
—1	$ .40	—9	$2.90	—17	$5.41
—2	.71	—10	3.22	—18	5.72
—3	1.02	—11	3.53	—19	6.04
—4	1.34	—12	3.84	—20	6.35
—5	1.64	—13	4.16	—21	6.67
—6	1.95	—14	4.47	—22	6.99
—7	2.28	—15	4.78	—23	7.31
—8	2.59	—16	5.10		

601-3701 SERIES DOUBLE ROW (Screw Clamps One Side)



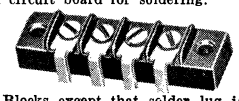
Add Suffix	NET Ea.	Add Suffix	NET Ea.	Add Suffix	NET Ea.
—1	$ .30	—9	$2.90	—17	$5.41
—2	.51	—10	3.22	—18	5.72
—3	.72	—11	3.53	—19	6.04
—4	.94	—12	3.84	—20	6.35
—5	1.14	—13	4.16	—21	6.67
—6	1.35	—14	4.47	—22	6.99
—7	1.58	—15	4.78	—23	7.31
—8	1.79	—16	5.10		

PRINTED CIRCUIT TERMINAL BLOCKS

410-1921 SERIES

Similar to 410-Y Series Blocks except that solder lug is cut off to fit into printed circuit board for soldering.

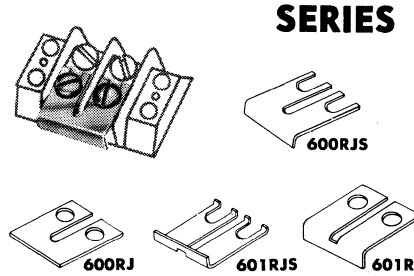
411-1921 SERIES



Similar to 411-Z Series Blocks except that solder lug is cut off to fit into printed circuit board for soldering.

NOTE: Not Stocked; Prices on Request.

SERIES JUMPERS



NOTE: 600RJ, 600RJS and 601RJS are nickel-plated. 601RJ is cadmium-plated.

Stations	600RJ 601RJ	600RJS 601RJS
—2	.23	.25
—3	.27	.40
—4	.30	.44
—5	.35	.50
—6	.47	.63
—7	.50	.70
—8	.54	.74
—9	.58	.78
—10	.81	.90
—11	.84	.93
—12	.87	.95

Stations	600RJ 601RJ	600RJS 601RJS
—13	.90	1.00
—14	.93	1.03
—15	.97	1.07
—16	1.00	1.10
—17	1.03	1.14
—18	1.05	1.17
—19	1.08	1.20
—20	1.10	1.23
—21	1.13	1.25
—22	1.15	1.28
—23*	1.18	1.30

*601 Series only

Net

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HERMAN H. SMITH, INC.

Exclusive Distributors of KULKA BARRIER TERMINAL BLOCKS To Radio Parts Jobbers Only

NAVY TERMINAL BOARDS

Made According to BUREAU of SHIPS Drawings No. 9000 —S6505F-73214 Rev. 5 and Spec. MIL-T-16784 (Ships).

Part No.	Type Desig.	NET Each	Part No.	Type Desig.	NET Each
73601	3TB10	$7.50	73627	10TB12	$7.90
73602	4TB8	3.50	73628	10TB18	8.86
73603	4TB20	5.40	73629	10TB28	9.50
73604	5TB8	8.80	73630	11TB4	4.92
73605	5TB10	9.85	73631	11TB6	5.81
73606	5TB12	10.50	73632	11TB9	6.25
73607	6TB6	2.95	73633	11TB14	6.60
73608	6TB10	3.20	73634	15TB10	3.25
73609	6TB24	5.52	73635	15TB24	5.50
73610	7TB8	5.20	73636	16TB4	4.20
73611	7TB12	6.41	73637	16TB10	5.60
73612	8TB2	1.20	73638	17TB4 [3, 4]	5.85
73613	8TB2C	1.00	73639	17TB10 [3, 4]	7.12
73614	8TB2M	.80	73640	25TB2	1.20
73615	8TB6	2.10	73641	25TB5	1.50
73616	8TB6C	2.00	73642	25TB6	1.70
73617	8TB6M	1.80	73643	25TB7	1.80
73618	8TB8	2.25	73644	25TB9	1.96
73619	8TB8C	2.60	73645	25TB10	2.18
73620	8TB8M	2.30	73646	25TB12	2.25
73621	8TB10	2.70	73647	25TB2 [3]	1.25
73622	8TB10C	3.20	73648	26TB6 [3]	1.72
73623	8TB10M	2.80	73649	26TB8 [3]	2.55
73624	9TB2	1.85	73650	26TB10 [3]	3.00
73625	9TB4	2.04	73651	26TB12 [3]	3.20
73626	10TB8	6.70	73652	27TB12	8.00

Send for our Engineering Data Brochure on the complete line of Kulka Navy Terminal Boards and Hardware.

SLOTTED NUTS AND CONNECTORS FOR BOARDS

All slotted nuts furnished with Kulka Military Terminal Boards meet applicable military specifications. The following lists the styles of nuts and/or connectors furnished with respective terminal boards.

All Nuts and Connectors List Price, Each ..... $.04

Terminal Board	Nut	Connector
3TB	4	
4TB	4	
5TB	4	
6TB	21	
7TB	21	
8TB	12	70
9TB	21	
10TB	21	
11TB	21	
15TB	4	
16TB	4	
17TB	4	88
25TB	96	
26TB	96	99
27TB	96	

JUMPERS

MATERIAL: Brass

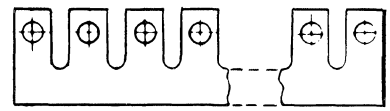


FIG. 1

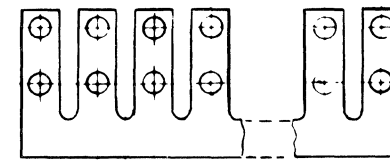
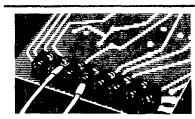


FIG. 2

Stations*	3TBJ fig. 1	4TBJ fig. 1	6TBJ fig. 1	8TBJ fig. 2	10TBJ fig. 1	17TBJ fig. 2	25TBJ fig. 1	26TBJ fig. 2	27TBJ fig. 1
—2	.26	.20	.20	.30	.20	.30	.16	.20	.18
—3	.30	.25	.24	.36	.24	.35	.20	.24	.22
—4	.36	.30	.28	.42	.28	.40	.24	.28	.26
—5	.40	.35	.32	.48	.32	.45	.28	.32	.30
—6	.46	.40	.36	.54	.36	.50	.32	.36	.34
—7	.50	.45	.40	.60	.40	.55	.36	.40	.38
—8	.54	.50	.44	.66	.44	.60	.40	.44	.42
—9	.58	.55	.48	.72	.48	.65	.44	.48	.46
—10	62	.60	.52	.78	.52	.70	.48	.52	.50
—11	.66	—	.56	—	—	—	.52	.56	.54
—12	.70	—	.60	—	—	—	.56	.60	.58

NOTE: Prices are for Brass, unplated. Add 10¢ each to List Price for Plating.
* Indicate number of sections as suffix to part number.



MINIATURE PRINTED CIRCUIT TERMINAL BLOCK TYPE 520

Height 3/8", Width 3/8", Terminals 5/32" centers.

Multiple connections provided by a single block regardless of how close the printed wiring leads may be. Securely mounts by dip-soldering pins into connector mounting holes. This block can be supplied in any of the molded materials shown on page 63.

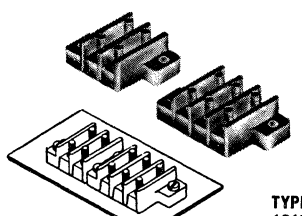
No.	Each	No.	Each
520-1	$ .50	520-13	$3.98
520-2	.82	520-14	4.32
520-3	1.09	520-15	4.62
520-4	1.38	520-16	4.92
520-5	1.68	520-17	5.17
520-6	1.94	520-18	5.47
520-7	2.27	520-19	5.77
520-8	2.53	520-20	6.07
520-9	2.83	520-21	6.36
520-10	3.13	520-22	6.66
520-11	3.40	520-23	7.50
520-12	3.70	520-24	7.66

521 SERIES

Similar to 620 Series Blocks above, except without soldering posts (feedthru).

No.	NET Ea.	No.	NET Ea.
521-1	$ .50	521-13	3.98
521-3	1.09	521-15	4.62
521-5	1.68	521-17	5.17
521-7	2.27	521-19	5.77
521-9	2.83	521-21	6.36
521-11	3.40		

HIGH TEMPERATURE TERMINAL BLOCKS



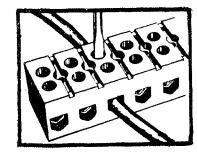
TYPE 1215

Height 25/32", Width 1½", Thickness ⅜", Terminals 17/32" centers.

Stud type terminal boards specifically designed for high temperature applications. Available in two and three terminal configurations, which interlock to make strips of any desired number of terminals, Stainless steel terminals and Mykroy (glass-bonded mica) body allow use up to 850°F, continuous duty. Rated at 5,000 V. RMS, 50 amps.

No.	Terminals	Each
1215-2	2	$5.80
1215-3	3	6.50

PRESSURE CONTACT TERMINAL BLOCK



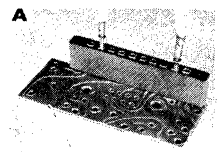
TYPE 9-85

Height 1⅛", Width 1¼", Terminals ⅝" centers.

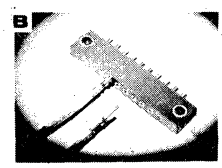
For heavy amperage, high voltage applications. Rated 85 amps, 8,000 volts between terminals and from terminals to mounting surface. Maximum wire size No. 4AWG solid or stranded cable. Cables can be disconnected from either side of the block, while cables on opposite side remain connected. Available in general purpose phenolic or plastics per MIL-M-14.

No.	Gen. Purp.	MAI-60	No.	Gen. Purp.	MAI-60
9-85-2	$1.16	$1.56	9-85-8	$3.55	$5.15
9-85-3	1.75	2.35	9-85-9	4.35	6.15
9-85-4	2.20	3.00	9-85-10	4.60	6.60
9-85-5	2.60	3.60	9-85-11	4.95	7.15
9-85-6	2.85	4.05	9-85-12	5.10	7.50
9-85-7	3.30	4.70			

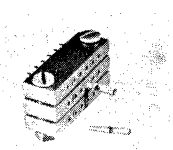
Kulka MINIATURE TAPER-PIN TERMINAL BLOCKS



A



B



C

MOUNTING

(A) Upright, on printed circuit boards, with solder studs thru holes for dip-soldering on reverse side.

(B) Flat-mounted on board, chassis or casing with connections front and rear.

(C) Stack-mounted for multiple units.

CONNECTIONS:

One side of block has taper-pin receptacles that accept AMP type 53, Burndy or equivalent pins for solderless wiring. Other side has counter-bored brass terminal studs, gold plated over silver, for wire sizes to No. 20 AWG.

MATERIALS:

Made of GDI-30 plastic (Glass fiber filled Diallyl Phthalate per MIL-M-19833).

No.	Number of Terminals	NET Each
399-6	6	$2.17
399-10	10	2.93

NARROW WIDTH TERMINAL BLOCK

609 SERIES

Single Screw Terminal. Height ½", Width ⅜", Thickness 9/32", Terminals ⅜" Centers, .156 dia. mtg. holes; 4-40 x 5/16" Panhead, phillips type sems brass nickel plated screws.

Cat. No.	Purp. Gen. Bake. CFG'C'	MME MFE'M' GMF MDG'B'	Cat. No.	Purp. Gen. Bake. CFG'C'	MME MFE'M' GMF MDG'B'
609-1	$ .20	$ .50	608-8	$1.02	$2.30
609-2	.30	.75	609-9	1.14	2.60
609-3	.42	1.02	609-10	1.26	2.90
609-4	.54	1.29	609-11	1.38	3.20
609-5	.66	1.56	609-12	1.50	3.50
609-6	.78	1.83	609-13	1.62	3.80
609-7	.90	2.00			

610 SERIES

Similar to 609 Series above, except has Binding Head Screws.

Cat. No.	Purp. Gen. Bake. CFG'C'	MME MFE'M' GMF MDG'B'	Cat. No.	Purp. Gen. Bake. CFG'C'	MME MFE'M' GMF MDG'B'
610-1	$ .16	$ .46	610-8	$ .78	$1.96
610-2	.24	.69	610-9	.87	2.33
610-3	.33	.93	610-10	.96	2.60
610-4	.42	1.17	610-11	1.05	2.87
610-5	.51	1.41	610-12	1.14	3.14
610-6	.60	1.65	610-13	1.23	3.41
610-7	.69	1.79			

812 SERIES

9/16" centers, 8-32 x 5/16 screws.
Single Row Terminal Blocks.
Height 23/32", Width ¾", Thickness 13/32", Terminal

Add Suffix	812	812-Y 812-ST	812-XY 812-Z	Add Suffix	812	812-Y 812-ST	812-X' 812-Z
—1	$ .26	$ .35	$ .39	—14	$2.35	$3.38	$4.02
—2	.41	.58	.67	—15	2.51	3.62	4.31
—3	.59	.81	.94	—16	2.67	3.84	4.58
—4	.75	1.04	1.22	—17	2.82	4.07	4.97
—5	.90	1.28	1.51	—18	2.97	4.30	5.13
—6	1.06	1.51	1.78	—19	3.17	4.59	5.46
—7	1.23	1.75	2.07	—20	3.34	4.83	5.75
—8	1.38	1.98	2.35	—21	3.50	5.07	6.04
—9	1.54	2.22	2.63	—22	3.67	5.31	6.33
—10	1.71	2.44	2.90	—23	3.83	5.55	6.61
—11	1.86	2.68	3.19	—24	4.00	5.80	6.90
—12	2.02	2.91	3.46	—25	3.16	6.03	7.19
—13	2.19	3.15	3.75	—26	4.32	6.28	7.48

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HERMAN H. SMITH, INC.

Exclusive Distributors of KULKA BARRIER TERMINAL BLOCKS To Radio Parts Jobbers Only

KULKA MILITARY TERMINAL BOARDS
MADE to MEET MIL-T-55164

Molded in terminals, mounting holes and reinforcement plates.

MATERIAL:
PLASTIC: Diallyl Phthalate, Type GD-30F per MIL-M-19833.
SCREWS: Brass per QQ-W-321, Nickel Plate per QQ-N-290.
TERMINAL PLATES: Brass per QQ-B-613. Plates are nickel plated per QQ-N-290.

SCREW SIZES:
20000 Series: 5-40 x 7/32
21000 Series: 6-32 x 1/4
22000 Series: 9-32 x 5/16

37TB 38TB 39TB

Screw Type

MILITARY PART NO.	KULKA PART NO.	EACH
37TB2	20002	$1.31
37TB3	20003	1.69
37TB4	20004	1.98
37TB5	20005	2.18
37TB6	20006	2.40
37TB7	20007	2.72
37TB8	20008	3.01
37TB9	20009	3.20
37TB10	20010	3.46
37TB11	20011	3.69
37TB12	20012	4.11
37TB13	20013	4.36
37TB14	20014	4.67
37TB15	20015	4.86
37TB16	20016	5.13
37TB17	20017	5.38
37TB18	20018	5.61
37TB19	20019	5.92
37TB20	20020	6.12
37TB21	20021	6.36
37TB22	20022	6.65
37TB23	20023	6.95
37TB24	20024	7.25
37TB25	20025	7.55
37TB26	20026	7.97
37TB27	20027	8.25
37TB28	20028	8.50
37TB29	20029	8.80
37TB30	20030	9.61
37TB31	20031	9.24
38TB2	21002	1.75
38TB3	21003	1.90
38TB4	21004	2.11
38TB5	21005	2.41
38TB6	21006	2.78
38TB7	21007	3.26
38TB8	21008	3.66
38TB9	21009	4.07
38TB10	21010	4.51
38TB11	21011	4.92
38TB12	21012	5.33
38TB13	21013	5.77
38TB14	21014	6.18
38TB15	21015	6.38
38TB16	21016	6.60
38TB17	21017	6.90
38TB18	21018	7.12
38TB19	21019	7.41
38TB20	21020	7.76
38TB21	21021	8.01
38TB22	21022	8.32
38TB23	21023	8.53
39TB2	22002	3.00
39TB3	22003	3.45
39TB4	22004	3.90
39TB5	22005	4.20
39TB6	22006	4.50
39TB7	22007	5.02
39TB8	22008	5.40
39TB9	22009	5.85
39TB10	22010	6.29
39TB11	22011	6.62
39TB12	22012	6.96
39TB13	22013	7.27
39TB14	22014	8.58
39TB15	22015	8.95
39TB16	22016	9.35
39TB17	22017	9.70
39TB18	22018	10.12

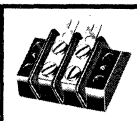
40TB 41TB 42TB

Feed-thru (Y)

MILITARY PART NO.	KULKA PART NO.	EACH
40TB2	20102	$1.38
40TB3	20103	1.80
40TB4	20104	2.13
40TB5	20105	2.36
40TB6	20106	2.64
40TB7	20107	2.99
40TB8	20108	3.32
40TB9	20109	3.55
40TB10	20110	3.84
40TB11	20111	4.11
40TB12	20112	4.57
40TB13	20113	4.86
40TB14	20114	5.20
40TB15	20115	5.42
40TB16	20116	5.73
40TB17	20117	6.02
40TB18	20118	6.29
40TB19	20119	6.63
40TB20	20120	6.86
40TB21	20121	7.15
40TB22	20122	7.47
40TB23	20123	7.79
40TB24	20124	8.13
40TB25	20125	8.45
40TB26	20126	8.93
40TB27	20127	9.26
40TB28	20128	9.56
40TB29	20129	9.90
40TB30	20130	10.14
40TB31	20131	10.39
41TB2	21102	1.85
41TB3	21103	2.05
41TB4	21104	2.31
41TB5	21105	2.66
41TB6	21106	3.10
41TB7	21107	3.61
41TB8	21108	4.07
41TB9	21109	4.53
41TB10	21110	5.02
41TB11	21111	5.48
41TB12	21112	5.95
41TB13	21113	6.43
41TB14	21114	6.90
41TB15	21115	7.15
41TB16	21116	7.42
41TB17	21117	7.77
41TB18	21118	8.05
41TB19	21119	8.38
41TB20	21120	8.79
41TB21	21121	9.09
41TB22	21122	9.45
41TB23	21123	9.71
42TB2	22102	3.14
42TB3	22103	3.64
42TB4	22104	4.15
42TB5	22105	4.53
42TB6	22106	4.89
42TB7	22107	5.47
42TB8	22108	5.92
42TB9	22109	6.44
42TB10	22110	6.92
42TB11	22111	7.33
42TB12	22112	7.73
42TB13	22113	8.11
42TB14	22114	9.48
42TB15	22115	9.92
42TB16	22116	10.37
42TB17	22117	10.79
42TB18	22118	11.18

Two-Sided (ST)*

KULKA PART NO.	EACH
20202	$1.38
20203	1.80
20204	2.13
20205	2.36
20206	2.64
20207	2.99
20208	3.32
20209	3.55
20210	3.84
20211	4.11
20212	4.57
20203	4.86
20214	5.20
20215	5.42
20216	5.73
20217	6.02
20218	6.29
20219	6.63
20220	6.86
20211	7.15
20222	7.47
20233	7.79
20224	8.13
20225	8.45
20226	8.93
20227	9.26
20228	9.56
20229	9.90
20230	10.14
20231	10.39
21202	1.85
21203	2.05
21204	2.31
21205	2.66
21206	3.10
21207	3.61
21208	4.07
21209	4.53
21210	5.02
21211	5.48
21212	5.95
21213	6.43
21214	6.90
21215	7.15
21216	7.42
21217	7.77
21218	8.05
21219	8.38
21220	8.79
21221	9.09
21222	9.45
21223	9.71
22202	3.14
22203	3.64
22204	4.15
22205	4.53
22206	4.89
22207	5.47
22208	5.92
22209	6.44
22210	6.92
22211	7.33
22212	7.73
22213	8.11
22214	9.48
22215	9.92
22216	10.37
22217	10.79
22218	11.18

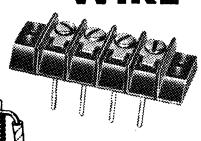


One-Sided (¾ST)*

KULKA PART NO.	EACH
20302	$1.38
20303	1.80
20304	2.13
20305	2.36
20306	2.64
20307	2.99
20308	3.32
20309	3.55
20310	3.84
20311	4.11
20312	4.57
20313	4.86
20314	5.20
20315	5.42
20316	5.73
20317	6.02
20318	6.29
20319	6.63
20320	6.86
20321	7.15
20322	7.47
20323	7.79
20324	8.13
20325	8.45
20326	8.93
20327	9.26
20328	9.56
20329	9.90
20330	10.14
20331	10.39
21302	1.85
21303	2.05
21304	2.31
21305	2.66
21306	3.10
21307	3.61
21308	4.07
21309	4.53
21310	5.02
21311	5.48
21312	5.95
21313	6.43
21314	6.90
21315	7.15
21316	7.42
21317	7.77
21318	8.05
21319	8.38
21320	8.79
21321	9.09
21322	9.45
21323	9.71
22302	3.14
22303	3.64
22304	4.15
22305	4.53
22306	4.89
22307	5.47
22308	5.92
22309	6.44
22310	6.92
22311	7.33
22312	7.73
22313	8.11
22314	9.48
22315	9.92
22316	10.37
22317	10.79
22318	11.18

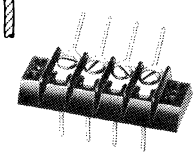
*** No Military Part Number Assigned**

WIRE WRAP* TERMINAL BLOCKS



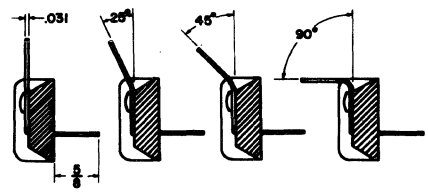
670A-3000 SERIES

BOTTOM WIRE WRAP TERMINALS



670A-3100 SERIES

TOP & BOTTOM WIRE WRAP TERMINALS



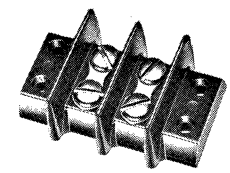
* NOTE: Similar to Kulka 670A Series, 1 to 30 terminals. Not stocked, prices on request.

KULKA HIGH BARRIER TERMINAL BLOCKS

620A SERIES

Height ½", Width ⅞", Thickness ¼", Terminals ⅜" centers, 5/16" Mtg. 6-32 screws. (Similar to 602A series except has higher barriers).

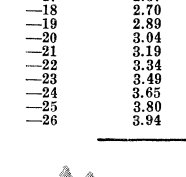
Add Suffix	620A	620A-Y 620A-ST 620A-¾ST	620A-XY 620A-Z
—1	.18	.22	.26
—2	.27	.35	.43
—3	.39	.50	.66
—4	.50	.65	.85
—5	.61	.79	1.03
—7	.82	1.09	1.41
—8	.93	1.24	1.60
—9	1.04	1.39	1.79
—10	1.15	1.53	1.97
—11	1.23	1.65	2.13
—12	1.34	1.80	2.32
—13	1.45	1.95	2.51
—14	1.57	2.10	2.70
—15	1.68	2.24	2.91
—16	1.79	2.39	3.07
—17	1.89	2.53	3.25
—18	2.00	2.68	3.44
—19	2.11	2.82	3.62
—20	2.21	2.96	3.80
—21	2.32	3.09	3.97
—22	2.43	3.26	4.19



622 SERIES

Height ¾", Width 1⅜", Thickness ⅜", Terminals 9/16" centers, ½" mtg. 8-32 screws. (Similar to 602 Series except has higher barriers.)

Add Suffix	622	622-Y 622-ST 622-¾ST	622-XY 622-Z
—1	.24	.31	.35
—2	.37	.52	.60
—3	.54	.73	.86
—4	.68	.94	1.11
—5	.81	1.16	1.37
—6	.96	1.37	1.62
—7	1.12	1.59	1.89
—8	1.26	1.80	2.14
—9	1.40	2.02	2.40
—10	1.58	2.22	2.64
—11	1.70	2.44	2.90
—12	1.84	2.65	3.16
—13	1.99	2.87	3.42
—14	2.14	3.08	3.67
—15	2.28	3.30	3.93
—16	2.43	3.50	4.17
—17	2.57	3.71	4.53
—18	2.70	3.92	4.68
—19	2.89	4.18	4.98
—20	3.04	4.41	5.25
—21	3.19	4.63	5.51
—22	3.34	4.85	5.77
—23	3.49	5.07	6.03
—24	3.65	5.29	6.30
—25	3.80	5.51	6.56
—26	3.94	5.73	6.82



601RZ SERIES

Height 11/16", Width 1⅜", Thickness ⅜", Terminals 7/16" centers, 27/64" mtg., 6-32 screws. Molded of Zytel 31 (Nylon) Plastic.

Add Suffix	NET Ea.	Add Suffix	NET Ea.	Add Suffix	NET Ea.
—1	.78	—8	2.32	—15	3.92
—2	1.00	—9	2.54	—16	4.16
—3	1.22	—10	2.76	—17	4.40
—4	1.44	—11	2.98	—18	4.64
—5	1.66	—12	3.20	—19	4.88
—6	1.88	—13	3.44	—20	5.12
—7	2.10	—14	3.68		

Send for Kulka Terminal Block Catalog containing complete descriptions and engineeering data.

HERMAN H. SMITH, INC. *Brooklyn 10, N. Y.*

Net

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HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

SINGLE RECORD 33-1/3 R.P.M.

TEN LESSONS
UP TO 15 WORDS PER MINUTE
Complete on Two Sides

This twelve inch long play record contains all ten of the Code Course Lessons listed above, five on each side. 20-Page SMITH Instruction Book is included, and the record is housed in attractive, sturdy jacket with International Morse Code table on reverse side.

No. 2420 NET Each $4.80

ADVANCED CODE COURSE

Single Record— 33⅓ R.P.M.
TWELVE LESSONS
16 to 25 Words Per Minute

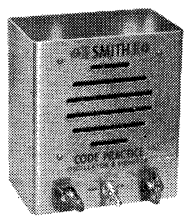
Specially prepared to increase skills in copying code at high speeds. 12 step-by-step lessons are provided plus specific directions with each. 20 page Advanced Code Instruction Book included. Record comes in sturdy jacket with International Morse Code table on reverse side.

No. 2435 Advanced Code Course complete with 20 page instruction Book ..... NET $4.80

BEGINNERS AND ADVANCED CODE COURSES IN COMBINATION PACKAGE

Advanced Code Course #2435 PLUS Beginners' Code Course #2420 (see above) both complete with 20-page instruction books, attractively packaged in combination carton.

No. 2436 NET $9.00



CODE PRACTICE OSCILLATOR & MONITOR

Ideal for the beginner as well as the experienced operator, this versatile instrument can be used as a code practice oscillator, as a keying monitor to check ICW signals, or as a monitor for phone signals.

Two tubes are used, in an up to date circuit that provides continuously variable tone and volume. Self-contained PM speaker affords ample volume for group use, with phone jack available for individual headphone listening.

The handsome Hammertone finish cabinet has additional provision for wall mounting, an exclusive SMITH feature that eliminates need for valuable desk space. The unit is designed for use on 110 Volts AC or DC, and is supplied complete with two tubes.

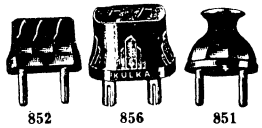
No.	Description	NET Each
2425	Kit	$13.50
2426	Wired	18.00

1228 1208

INTERLOCK PLUGS

Std. Pkg. 100

No.	Type	NET Per C
1208	Recessed	$7.80
1228	Flush	5.40



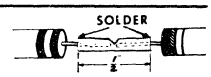
852 856 851

AMERICAN-FOREIGN PLUG ADAPTERS

Streamlined bakelite plug adapters. Adapts from American to Foreign type. **Std. Pkg. 25**

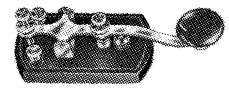
No.	Female End	Male End	NET Per C
852	American	Continental	$24.00
856	American	British	24.00
851	Continental Plug		18.00

"CLEAPS" (Connectors for Joining Severed Wires)



MATERIAL: Brass, cadmium plated.
WIRE SIZE: For wires, .010" to .050" (B&S Gauge 16 to 30).
DESCR.: Used to splice cut leads of condensers, resistors, etc., in process of trouble-shooting. Insert wire in each tapered end and solder thru center opening. **Std. Pkg. 100**

No. 1270 NET Per C $3.00

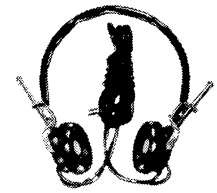


TELEGRAPH KEY

A well-built, smooth operating key, low priced, ideal for the beginner. Molded, bakelite base and knob. Simple adjustments. All metal parts plated, ⅛" silver contacts. Base size 3¼ x 1 13/16"

No. 2442 NET Each $.87

HIGH SENSITIVITY HEADPHONES



The latest in deluxe design, with many features of more expensive types. Featherweight construction assures fatigue-free use. Alnico V magnets, dual coil construction provide excellent tonal fidelity. Adjustable vinyl covered headband, molded plastic cases. Cord equipped with phone tips.

No.	Description	Ohms	NET Each
2441	Single	1000	$1.65
2440	Double	2000	2.70
2446	Single	2—4	1.65
2447	Double	4—8	2.70
2448	Single	2000	1.80
2449	Double	4000	3.00

FOR STEREO USE

Same as above, except each Phone has leads brought out separately.

2477	Double	2000	3.00
2478	Double	4—8	3.00
2479	Double	4000	3.30

RUBBER EAR CUSHIONS

Finest quality soft rubber ear cushions, fit all standard earphones. For comfortable listening over long periods of time.

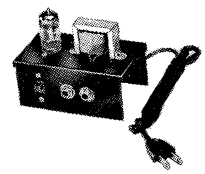
No. 2410 Per Pair $1.08

PLUG-IN COILS

For Short Wave and Broadcast

Molded bakelite, black. Precision wound low loss forms. Four prongs. Equipped with special rim making it easy to insert and pull out. Grooved for color coding.

No.	Description	NET Each
2408	No Winding	$ .50
2413	Set of 4— 9½ to 217 Meters	3.00
2414	Set of 2— 190 to 500 Meters	2.40
2412	No Winding - Ribbed, 6-Prong	.60



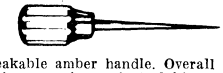
JUNIOR CODE OSCILLATOR

For Headset Only

A neat, compact little unit that provides a clean audio tone, ideal for code practice. It is equipped with two standard telephone jacks, to take phone plugs of both key and headset. A single 12AX7 tube is used in an improved circuit, designed for operation on 110 volts AC or DC. Available in wired or kit form, either type supplied with tube.

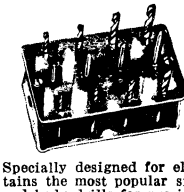
No.	Description	NET Each
2430	Kit	$6.60
2431	Wired	8.70

SCRATCH AWL



Scratch awl with unbreakable amber handle. Overall length 5". A "must" in a serviceman's tool kit.

No. 814 **Std. Pkg. 10** NET Per C $36.00



DRILL & TAP KIT for

- **Hams**
- **Laboratories**
- **Servicemen**

Specially designed for electronic bench duty, this kit contains the most popular sizes of taps and corresponding tap and body drills for precise and speedy work. Drill and tap size identifications are engraved on the steel cadmium plated drill stand, to facilitate correct replacement as needed. **Contains: 4-40, 6-32, 8-32, 10-32 Taps with eight corresponding tap and body drills.**

No.		NET Ea.
750	Kit	$9.00
749	Stand Only	.66

COMPLETE MULTI-VIBRATOR COURSE

"AutoTutor" Modern Teaching Technique, using new "re-inforced learning" principles. Designed as a refresher course for the practicing technician or engineer; as a detailed exploration of Multi-vibrators, for student electronic technician. Complete course consists of 4 hi-fi unbreakable 33⅓ RPM recordings, a 56-page instruction book, illustrations and checksheets, in attractive album package.

No. 2450 ..... NET $12.60

"PANELABELS"

Modern Panel Title Decals

New size type face on all word titles to match modern instrument panels and sound equipment. Packaged individually in clear plastic boxes — instant selection — box itself can be used as water tray for applying the decals. Standard Packages of 6.

Please order by catalog number.

NET, EACH PACKAGE **$1.50**

TRANSMITTER

For industrial prototype use, Hams, Citizens' Banders. Also for Microwave and Broadcast stations.

No. 3700	BLACK
No. 3701	WHITE

RECEIVER

Hams, Citizens' Banders, industrial prototypes, Hi-Fi and Experimenter applications.

No. 3702	BLACK
No. 3703	WHITE
No. 3704	RED
No. 3705	GOLD

DIALS

For all uses in transmitters, Ham and Citizens' Band industrial prototypes, Hi-Fi, electricians, experimenters.

No. 3706	BLACK
No. 3707	WHITE
No. 3708	RED
No. 3709	GOLD

ALPHABETS

Most popular item in the line! For all general uses above.

3710	2-inch	BLACK
3711	2-inch	WHITE
3712	2-inch	RED
3713	2-inch	GOLD
3714	⅝-inch	BLACK
3715	⅝-inch	WHITE
3716	⅝-inch	RED
3717	⅝-inch	GOLD
3718	Assorted	BLACK
3719	Assorted	WHITE
3720	Assorted	RED
3721	Assorted	GOLD

INSTRUMENTS

Primarily for Technicians, Hams and industrial use.

No. 3722	BLACK
No 3723	WHITE

HI-FI AND STEREO

For experimenters, commercial sound distributors, industrial prototypes.

No. 3724	BLACK
No. 3725	WHITE
No. 3726	RED
No. 3727	GOLD

SOUND SYSTEMS

For industrial use by commercial sound distributors, custom installers, electricians and experimenters.

No. 3728	BLACK
No. 3729	WHITE
No. 3730	RED
No. 3731	GOLD

TRANSISTORS AND DIODES

Used by Hams, experimenters, technicians, and industria prototype use. Includes complete list of transistor an diode numbers plus symbols of PNP, NPN, 4 and element transistors, diode symbols.

No. 3732	BLACK
No. 3733	WHITE

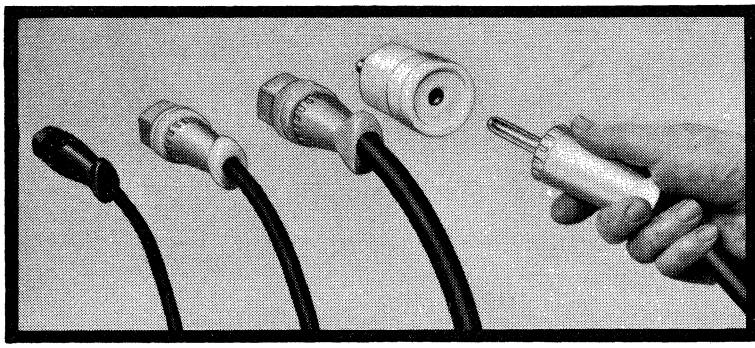
ELECTRICAL DISTRIBUTION

Used primarily by electricians and custom installers o the job and in distribution panel design.

No. 3734	BLACK
No. 3735	WHITE

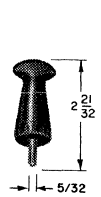
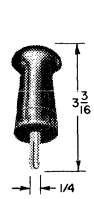
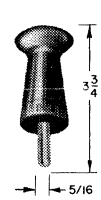
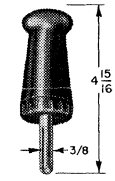
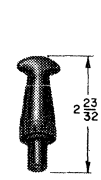
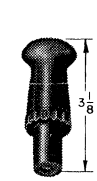
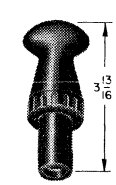
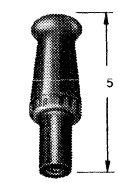
BOOKLET OF COMPLETE TITLE LISTS OF ALL PANELABELS AVAILABLE ON REQUEST

SUPERCON® *Electrical Connectors*



- **CURRENT CARRYING PARTS GOLD-PLATED**
- **SIMPLIFIED, QUICK ASSEMBLY**

Socket and pin types single-conductor plugs and receptacles available. Plugs have a functionally designed grip for handling ease and convenience. Wiring connection to the same plug can be either soldered or solderless. Cable-fastening screws permit a range of cable sizes to be accommodated by the plug. Plug grips are of a simple, two-piece threaded construction for quick assembly. All plastic parts of a receptacle are molded of the same color nylon to permit more rapid and accurate circuit identification front and back of panel when installed. Six colors are available.

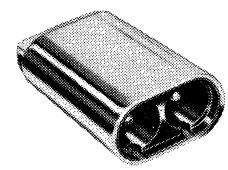
	PIN PLUGS				SOCKET PLUGS			
COLOR	25 AMPERE TYPES	50 AMPERE TYPES	100 AMPERE TYPES	250 AMPERE TYPES	25 AMPERE TYPES	50 AMPERE TYPES	100 AMPERE TYPES	250 AMPERE TYPES
BLACK	PP25GB	PP50GB	PP100GB	PP250GB	PS25GB	PS50GB	PS100GB	PS250GB
YELLOW	PP25GY	PP50GY	PP100GY	PP250GY	PS25GY	PS50GY	PS100GY	PS250GY
RED	PP25GR	PP50GR	PP100GR	PP250GR	PS25GR	PS50GR	PS100GR	PS250GR
BLUE	PP25GBL	PP50GBL	PP100GBL	PP250GBL	PS25GBL	PS50GBL	PS100GBL	PS250GBL
GREEN	PP25GGN	PP50GGN	PP100GGN	PP250GGN	PS25GGN	PS50GGN	PS100GGN	PS250GGN
WHITE	PP25GWT	PP50GWT	PP100GWT	PP250GWT	PS25GWT	PS50GWT	PS100GWT	PS250GWT
								
PANEL:	3/16 MAX.	1/4 MAX.	1/4 MAX.	1/4 MAX.	3/16 MAX.	1/4 MAX.	1/4 MAX.	1/4 MAX
HOLE:	11/16	1	1 3/16	1 9/16	11/16	1	1 3/16	1 9/16
BLACK	RS25GB	RS50GB	RS100GB	RS250GB	RP25GB	RP50GB	RP100GB	RP250GB
YELLOW	RS25GY	RS50GY	RS100GY	RS250GY	RP25GY	RP50GY	RP100GY	RP250GY
RED	RS25GR	RS50GR	RS100GR	RS250GR	RP25GR	RP50GR	RP100GR	RP250GR
BLUE	RS25GBL	RS50GBL	RS100GBL	RS250GBL	RP25GBL	RP50GBL	RP100GBL	RP250GBL
GREEN	RS25GGN	RS50GGN	RS100GGN	RS250GGN	RP25GGN	RP50GGN	RP100GGN	RP250GGN
WHITE	RS25GWT	RS50GWT	RS100GWT	RS250GWT	RP25GWT	RP50GWT	RP100GWT	RP250GWT
	SOCKET RECEPTACLES				PIN RECEPTACLES			

DUB-L-PLUG *Dual Electrical Connectors*

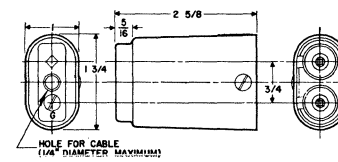
DUB-L-PLUG Dual Electrical Connectors are designed for making safe, rapid connections to binding posts mounted on ¾" centers. All conducting metal parts are gold-plated. Completely recessed integral banana plugs prevent accidental shorting; captive black and white thumbnuts facilitate circuit and polarity identification.

NYLON BODY COLOR	INSULATED TYPE	SHIELDED/ INSULATED TYPE
BLACK	IPG2BC	SPGK2BC
RED	IPG2RC	—
WHITE	IPG2WTC	—
BLUE	IPG2BLC	—
YELLOW	IPG2YC	—
GREEN	IPG2GNC	—

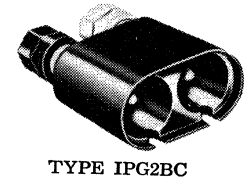
SHIELDED/INSULATED
Has sturdy, die-cast chrome-plated case, removable grounding banana plug, black nylon body.



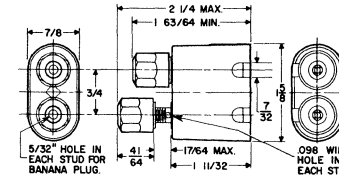
TYPE SPGK2BC



INSULATED TYPES
Have wire slots to permit stacking if desired. Available with bodies in choice of six colors.



TYPE IPG2BC



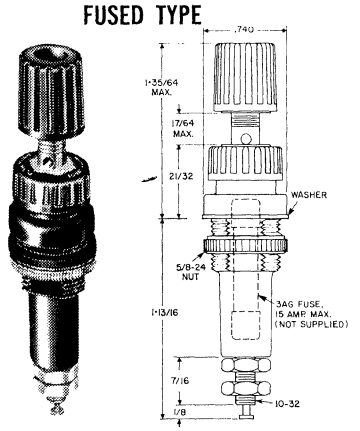
THE SUPERIOR ELECTRIC COMPANY
Bristol, Connecticut, U.S.A.
SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES IN SECTIONS 3500, 4000 AND 5600

© U.C.P., Inc.

SUPERIOR 5-WAY® *Binding Posts*

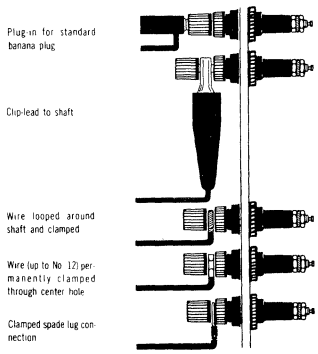
● 5 WAYS TO CONNECT ● GOLD-PLATED BRASS PARTS ● RANGE OF COLORS

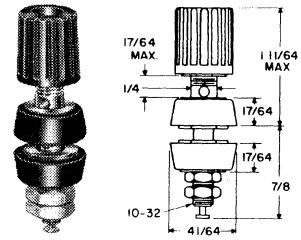
FUSED TYPE



Rated for 250 volts, 15 amperes maximum. Built-in fuseholder accepts standard type 3AG fuse (not supplied). Fuse can be replaced from front of panel. Type FP15BGC has black captive thumbnut; types with noncaptive black, red, white, blue, yellow and green thumbnuts available on special order.

TYPE	FP15BGC
COLOR	BLACK

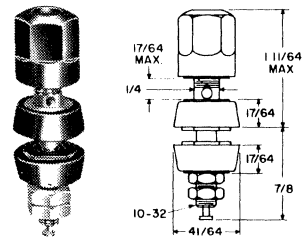




FLUTED NUT TYPES

Plastic parts of standard (not miniature) size types molded of Lexan polycarbonate resin; brass parts are gold-plated. Rated for 30 amperes, 1000 volts working. Nickel-plated brass types available on special order.

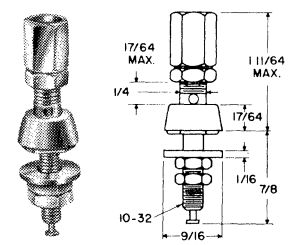
COLOR	RED	BLUE	GREEN	WHITE	BLACK	YELLOW
FLUTED TYPE	DF31RC	DF31BLC	DF31GNC	DF31WTC	DF31BC	DF31YC



HEX NUT TYPES

Rated for 30 amperes, 1000 volts working. Brass parts are gold-plated; plastic parts are of nylon compounded to meet military specifications MIL-P-20693, Type IV. Nickel-plated brass types available on order.

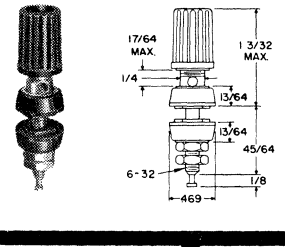
COLOR	RED	BLUE	GREEN	WHITE	BLACK	YELLOW
HEX TYPE	DF30RC	DF30BLC	DF30GNC	DF30WTC	DF30BC	DF30YC



GROUNDING TYPE

For making rapid connections to ground. Made of finely machined brass nickel-plated and polished. Panel grounding collar frozen to shaft has "D" type shoulder for locking in keyed panel hole.

TYPE	GP30NC
FINISH	NICKEL-PLATED



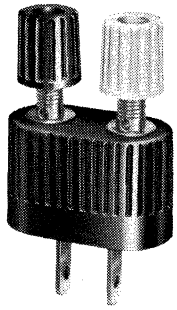
MINIATURE TYPES

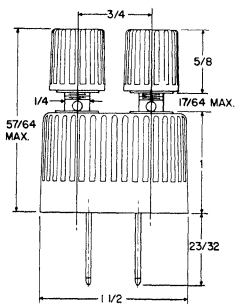
Fluted nut design only. Rated for 15 amperes, 1000 volts working. Gold-plated brass parts; nylon plastic parts compounded to meet military specification MIL-P-20693, Type IV. Types with nickel-plated brass available also.

COLOR	RED	BLUE	GREEN	WHITE	BLACK	YELLOW
TYPE	DF21RC	DF21BLC	DF21GNC	DF21WTC	DF21BC	DF21YC

DUAL ADAPTER TYPE

Facilitates line voltage connections from output receptacles to binding posts. Has integral parallel-blade plug. Rating is 15 amperes, 125 volts. Brass parts are gold-plated.

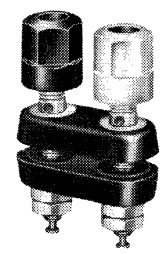


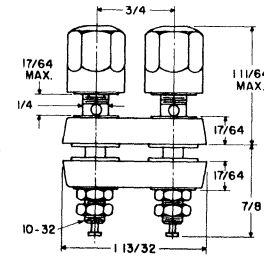


TYPE	DAP15BWC
NUTS	WHITE & BLACK
BODY	BLACK

DOUBLE ASSEMBLY TYPES

For instrument and equipment panels requiring binding posts mounted on ¾″ centers. Rated for a current capacity of 30 amperes and a working voltage of 1000 volts. Brass parts are gold-plated. Panel insulators in black only.





TYPE	NUTS
DF30-2-BWTC	WHITE & BLACK
DF30-2-BBC	BLACK
DF30-2-BRC	RED & BLACK

FOR MORE DETAILED INFORMATION about specifications and technical data on all Superior Electric electrical connectors, write for literature.

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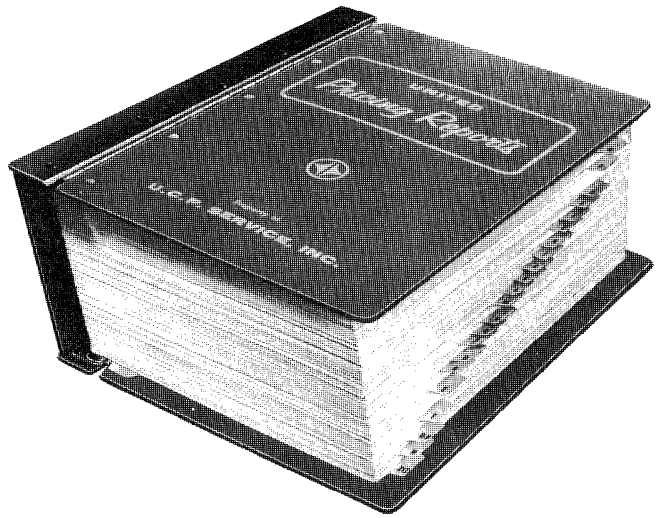

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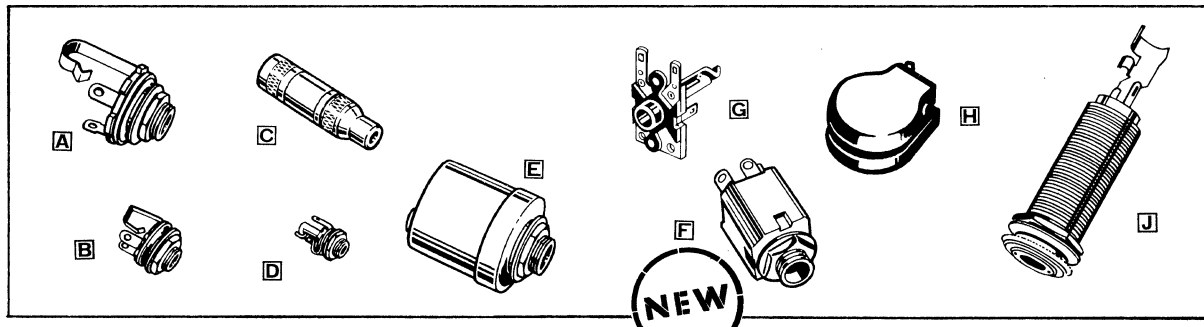
SWITCHCRAFT® INC. Phone Jacks



"LITTEL-JAX" PHONE JACKS

A Quality phone jacks that mate with standard ¼" phone plugs. Notched insulating washers mechanically interlock springs and solder lugs. "V" bend in tip spring firmly "holds" mating plug. Minimum space requirements. Economical. Mount in single ⅜" hole, panels up to 5/32" thick, except L-11 and L-12A in panels up to ¼" thick.

Nos. C-11 and C-12A mate with No. 440 (PJ-055B) Plug; C-12B, S-12B and S-13B mate with No. 480 (JAN-PJ-068) or No. 484 (W.E. No. 309) Plug. Nos. C-11 and C-12B have locating pins (non-turn devices). No. S-11 similar to No. 11 except .210" I.D. sleeve. C-11, C-12B and C-12A per JAN-J-641. All others mate with standard ¼" dia. plugs.

No. 14B Stereo Littel-Jax, switches-out speakers when connecting stereo headphones. Dual, N.O. switch contacts, open both stereo circuits independently when a 3-conductor plug is inserted.

TWO-CONDUCTOR TYPES

Part No.	Schematic No.	Typical Mating Plug	Mil-Type	U.S.A. List Price
11	I	250	—	$0.40
C-11	I	440	JJ-034	.60
L-11	I	250	—	.50
S-11	I	S-250	—	.45
12A	III	250	—	.45
C-12A	III	440	JJ-089	.75
L-12A	III	250	—	.55
13	V	250	—	.90
13A	VI	250	—	.85
13E	IX	250	—	.90

THREE-CONDUCTOR TYPES

12B	IV	267	—	$0.55
C-12B	IV	480	JJ-033	.70
L-12B	IV	267	—	.65
S-12B	IV	480	—	.65
13B	VIII	267	—	.75
S-13B	VIII	480	—	.95
14B	X	267	—	.95

"TINI-JAX" MINIATURE PHONE JACKS

B Miniature 2-conductor Jacks, approximately ⅓ the size of the "Littel-Jax"; otherwise similar in construction. Mount in ¼" dia. hole; panel up to ⅛" thick. No. 43A has a unique spring design that requires a pear shaped tip, such as Switchcraft "Tini-Plug" No. 750.

Part No.	Schematic No.	Typical Mating Plug	Conductors	U.S.A. List Price
41	I	750	2	$0.40
42A	III	750	2	.45
43A	VI	750	2	.70

"TINI-EXTENSION JAX"

C An extension or cable jack to mate with "Tini-Plugs". Two-conductor. Metal housing for ruggedness and electrical shielding. Solder lug terminals.

Switchcraft Part No. 125.....U.S.A. List Price **$1.25**

"MICRO-JAX" SUB-MINIATURE PHONE JACKS

D Precision manufactured jack for miniaturized applications. Two-conductor, single closed circuit. See Schematic Circuit III. Silver plating on special tempered nickel silver springs. Internally keyed nylon insulation interlocks springs and solder lugs to eliminate shorts. Fits .190" dia. hole in panels to 3/32" thick. Only 1/25th the size of standard phone jacks. Mates with "Micro-Plug", Series 850, 880.

Switchcraft Part No. TR-2A.....U.S.A. List Price **$0.45**

"SHIELDED JAX"

E A unique modification of the "Littel-Jax". The shield is assembled into and made part of the jack. Ideal for high impedance circuits.

Part No.	Schematic No.	Typical Mating Plug	Conductors	U.S.A. List Price
CN-11	I	250	2	$0.80
CN-12A	III	250	2	.85
CN-12B	IV	267	3	.95
CN-13B	VIII	267	3	1.15

"HI-D JAX" PHONE JACKS

F New, smaller, more compact phone jacks that mate with standard ¼" phone plugs. Molded box body protects the integral silver-plated, nickel silver springs. Exceptionally low contact resistance and electrical leakage with relatively little capacity between the springs. Mounts on ⅝" centers in two planes. Ideal for P.C. board mounting. Mounts in single ⅜" hole, in panels up to 5/32" thick, depth behind panel, 1 3/32". Weight, only 7⅛ grams.

TWO-CONDUCTOR TYPES

Part No.	Schematic No.	Typical Mating Plug	U.S.A. List Price
111	I	250	$0.40
112A	III	250	.45

THREE-CONDUCTOR TYPES

112B	IV	267	.50
113B	VIII	267	.65
113F	VII	267	.65
114B	X	267	.75

"R-JAX" ECONOMY PHONE JACKS

G Radically new jack design. Simple mounting needs only two (2) 3/32" dia. rivets to fasten securely to mounting panel. Accept standard ¼" dia. phone plugs.

Part No.	Schematic No.	Typical Mating Plug	Conductors	U.S.A. List Price
1	I	250	2	$0.35
2A	II	250	2	.40
2B	IV	267	3	.45
3A	VI	250	2	.65
3B	VIII	267	3	.55
3E	IX	250	2	.75
3F	VII	267	3	.55
4B	X	267	3	.65

"JACK COVERS"

H Handy, rugged, spring-load phone jack covers. Covers jack openings when phone plug is removed. Protects against dust and moisture.

Series 500—Use with standard ⅜"-32 threaded bushing type phone jacks.

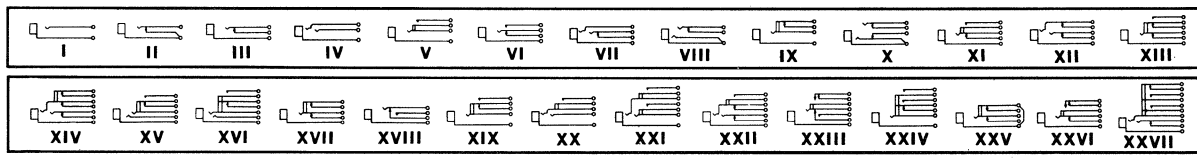
Series 600—Use with certain type tip jacks with ¼" mounting; height of tip jack head 1/8" to 3/16". Also used as covers for "Tini-Jax."

Part No.	Color	U.S.A. List Price
510	Olive Drab	$1.05
512	Bright Nickel	1.05
515	Black	1.05
520	Navy Gray	1.05
610	Olive Drab	.75
612	Bright Nickel	.75
615	Black	.75
620	Navy Gray	.75

"THICK PANEL JAX"

J Phone jacks with long bushing. Mount in single 15/64" dia. hole in panels up to 1¼" thick. Solder lug terminals. Ideal for use with microphones; extra shielding virtually eliminates audio hum. No. 151, 2-conductor mates with 240, 245, 250, 255, 270 and 280 Plugs. No. 152B, 3-conductor mates with 260, 267, 269 and 297 Plugs.

Part No.	Description	U.S.A. List Price
151	2-cond. Brass Nickel Plated	$1.35
152B	3-cond. Brass Nickel Plated	1.50



The above are strictly electrical schematics and do not necessarily indicate relative solder lug positions.

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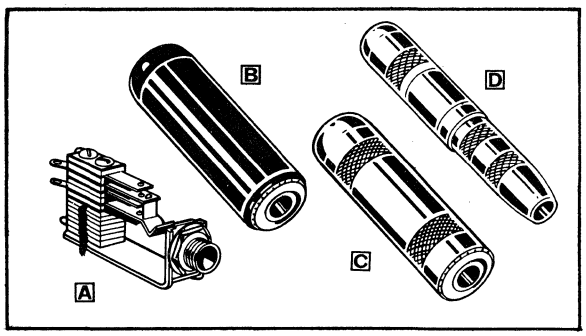
SWITCHCRAFT INC. Jacks



"LF-JAX" LONG FRAME JACKS

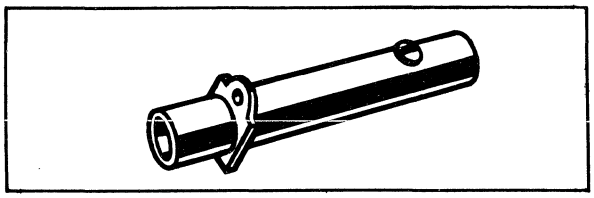
A Quality long frame phone jacks with a ground lug that is an integral part of the frame. Fine silver contacts rated at 3 amp., 300 watts, A.C., non-inductive load. Frame also available with a non-turn device, prefix **Part No.** with letter **"R".** Standard types mount in single $\frac{3}{8}$" dia. hole in panels up to $\frac{5}{16}$" thick. Depth behind panel, only $2\frac{25}{32}$".

Part No.	Schematic No.	Typical Mating Plug	Conductors	U.S.A. List Price
31	I	250	2	$0.75
32	II	250	2	.95
32A	III	250	2	.95
32B	IV	267	3	.95
33	V	250	2	1.05
33A	VI	250	2	1.05
33B	VII	267	3	1.05
33C	VIII	267	3	1.05
33E	IX	250	2	1.05
34	X	267	3	1.20
34A	XI	250	2	1.20
34B	XII	267	3	1.20
35	XIII	250	2	1.45
36	XIV	267	3	1.70

"EXTENSION JAX" CABLE EXTENSION JACKS

Standard $\frac{1}{4}$", 2 and 3-conductor extension phone jacks with solder lugs or screw type terminals. Size $\frac{11}{16}$" O.D., $2\frac{5}{32}$" long; 121 and 131 $\frac{1}{2}$" O.D., $2\frac{1}{2}$" long. Black handles are durable plastic. Shielded handles are brass, bright nickel plated.

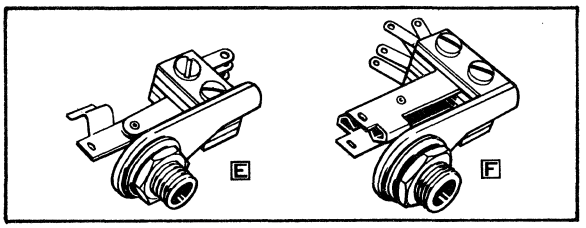
Part No.	Fig.	Cond.	Typical Mating Plug	Term.	Handle	U.S.A. List Price
80	B	2	250	Screw	Black	$1.15
88	B	2	250	Solder	Black	1.00
120	C	2	270	Screw	Shielded	1.55
121	D	2	270	Solder	Shielded	1.60
126	C	2	R-280	Solder	Shielded	1.80
128	C	2	270	Solder	Shielded	1.40
S-128	C	2	S-250	Solder	Shielded	1.50
131	D	3	290	Solder	Shielded	2.00
830	B	3	267	Screw	Black	1.55
S-830	B	3	480	Screw	Black	2.00
838	B	3	267	Solder	Black	1.40
1230	C	3	290	Screw	Shielded	1.95
S-1230	C	3	480	Screw	Shielded	2.50
1238	C	3	290	Solder	Shielded	1.80



COAXIAL-VIDEO JACK

High quality coaxial-video jack designed for use in 75 ohm circuitry. Used in audio and video patching panels, broadcast and test equipment. Features heavy gold plated finish, insulation washers of Teflon, contact fingers of heat-treated beryllium copper, exclusive heat-sink device for faster, safer soldering of braided wire to shield termination. For use with RG59/U type cable. Mates with standard coaxial-video plugs. Mounts in single $\frac{1}{16}$" dia. hole.

Switchcraft Part No. 3601.....U.S.A. List Price **$10.00**



"SF-JAX" SHORT FRAME PHONE JACKS

E **Series 20**—High quality commercial jacks, solder lugs parallel to mounting surface. Mount in $\frac{3}{8}$" dia. holes, panels up to $\frac{3}{16}$" thick.

F **Series 50**—Similar to Series 20, except solder lug location necessitates more depth but requires less panel space. Mount in panels up to $\frac{1}{4}$" thick.

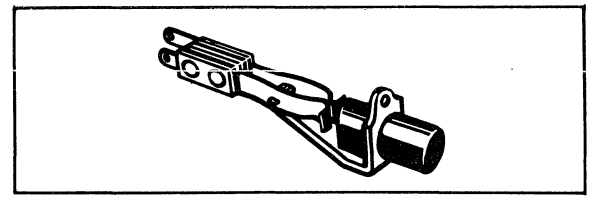
Series C-20 and C-50—MIL Types with Military insulation and finishes, otherwise similar to commercial Series 20 and 50; both will mount in panels up to $\frac{1}{4}$" thick.

SERIES 20 and C-20

Part No.	Schematic No.	Typical Mating Plug	Mil-Type	U.S.A. List Price
21	I	250	—	$0.65
22	II	250	—	.80
22A	III	250	—	.80
22B	IV	267	—	.80
23	V	250	—	.95
C-23	V	440	JJ-099	1.35
23A	VI	250	—	.95
C-23A	VI	440	JJ-098	1.35
23B	VII	267	—	.95
23C	VIII	267	—	.95
23E	IX	250	—	.95
C-23E	IX	440	JJ-102	1.35
24	X	267	—	1.10
24A	XI	250	—	1.10
24B	XII	267	—	1.10
25	XIII	250	—	1.30
26	XIV	267	—	1.40

SERIES 50 and C-50

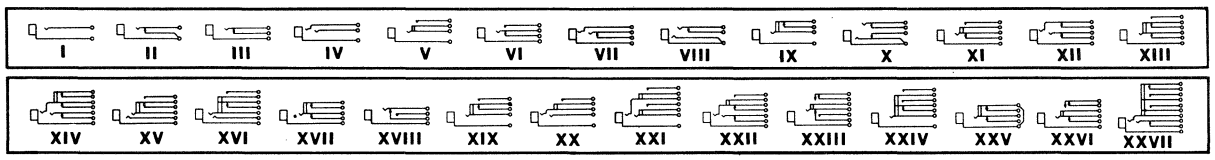
51	I	250	—	$0.65
C-51	I	440	JJ-096	1.20
52	II	250	—	.80
52A	III	250	—	.80
C-52A	III	440	JJ-097	1.30
52B	IV	267	—	.80
C-52B	IV	480	JJ-103	1.30
53	V	250	—	.95
53A	VI	250	—	.95
C-53A	VI	440	JJ-092	1.55
53B	VII	267	—	.95
53C	VIII	267	—	.95
53E	IX	250	—	.95
54	X	267	—	1.10
54A	XI	250	—	1.10
C-54A	XI	440	JJ-093	1.60
54B	XII	267	—	1.10
C-54B	XII	480	JJ-101	1.60
55	XIII	250	—	1.30
C-55B	XV	480	JJ-095	1.85
56	XIV	267	—	1.40



"LAMP JAX" SWITCHBOARD PANEL TYPE

Black nylon lamp housing completely insulates lamp from frame. Interchangeable with W.E. Nos. 47A and 47B. Accepts standard switchboard lamps and lamp caps, W.E. Nos. 2 and 72, etc.

Switchcraft Part No. LT-47.....U.S.A. List Price **$1.40**



The above are strictly electrical schematics and do not necessarily indicate relative solder lug positions.

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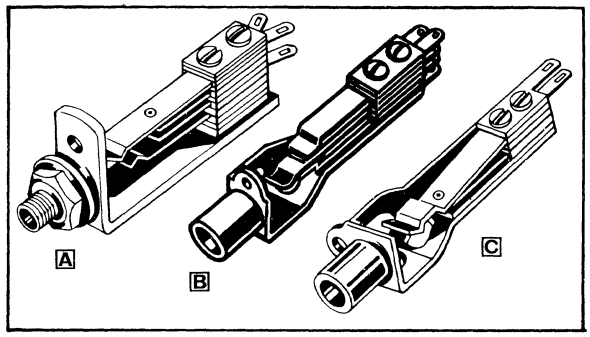
SWITCHCRAFT INC. Jacks and Plugs

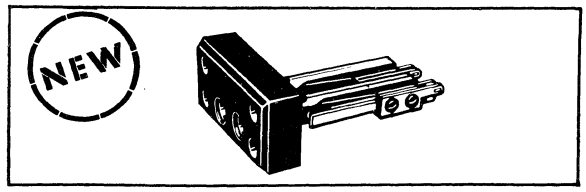


"T-JAX" TELEPHONE TYPE PHONE JACKS

C Long frame, switchboard type, phone jacks. For high quality communication equipment. Springs of nickel silver alloy for maximum life and corrosion resistance. Fine silver contacts are standard. Available in two frame designs. Part numbers in chart cover "A" frame design as shown in **Fig. C.** For frame design "C" as shown in **Fig. B,** add prefix letter "C" to part numbers. All jacks listed mate with standard ¼" dia. phone plugs.

Part No.	Schematic No.	Typical Mating Plug	Conductors	U.S.A. List Price
T-331	I	250	2	$1.05
T-332A	III	250	2	1.20
T-332B	IV	267	3	1.20
T-332C	XVIII	250	2	1.45
T-333	V	250	2	1.35
T-334A	XI	250	2	1.50
T-334B	XII	267	3	1.60
T-334C	XVII	250	2	1.50
T-334F	XIX	250	2	1.50
T-335	XIII	250	2	1.60
T-336	XXVI	250	2	1.75

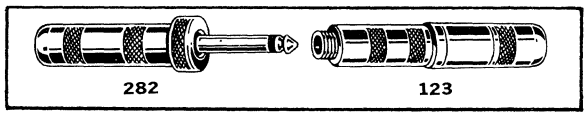
"DUAL-JACK BLOCKS"



Molded black phenolic jack blocks for mounting "MT-JAX" and "T-JAX" long frame phone jacks, on ⅝" centers. Can be rack panel mounted individually or in multiples. Blocks are 2¾" W. x 1¼" H. x ⅝" D. Mount with four No. 8-32 flat head screws.

Part No.	Description	U.S.A. List Price
2300	Jack Block, less jacks	$1.50
2331	2 MT-331	4.50
2332A	2 MT-332A	4.90
2332B	2 MT-332B	4.90
2333	2 MT-333	5.40

"LOCK PLUG AND EXTENSION JAX"



Standard size ¼", 2 and 3 conductor phone plugs and mating cable extension jacks with built-in device. Plug has coupling ring that can be threaded to the bushing of a "Littel-Jax" or to the mating end of the "Lock Extension Jax". Lock Plug handle, 1 51/64" long; ½" dia. Lock Extension Jax, ½" O.D.; 2½" long. All have solder lug terminals.

Part No.	Description	U.S.A. List Price
282	2-Conductor Lock Plug	$1.40
298	3-Conductor Lock Plug	1.75
123	2-Conductor Extension Jax	1.75
133	3-Conductor Extension Jax	2.25

"M-JAX" MILITARY TYPE PHONE JACKS

A Very heavy long frame jacks often referred to as the **Navy Jack.** Ideal for industrial and Military equipment. Long heavy duty springs with fine silver contacts. Mounts on single ⅜" hole, in panels up to ¼" thick.

Part No.	Schematic No.	Adjusted for Plug	Mil-Type No.	U.S.A. List Price
M-441	I	250	—	$1.50
M-442A	III	440	JJ-107	1.70
M-443A	VI	440	JJ-105	1.95
M-443B	VII	482	JJ-106	2.10
M-444*	XII	484 & 480	JJ-083	2.30
M-444B	XII	482	JJ-082	2.20
M-445	XIII	440	JJ-104	2.75
M-446	XIV	482	JJ-079	3.50
M-446A	XVI	482	JJ-081	3.90

*Bushing, .2085".

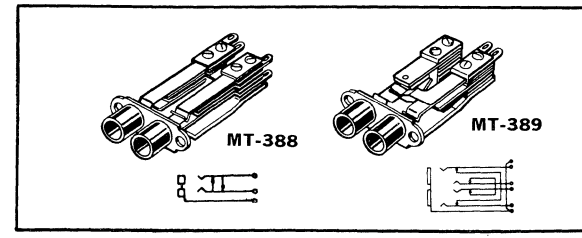
"MT-JAX" MILITARY TELEPHONE JACKS

C Long frame, telephone switchboard jacks designed for high quality communication and military equipment. Springs are of a special nickel silver alloy with welded cross bar palladium contacts. MT-Jax are available in two frame designs, namely "A" & "C". Part numbers in chart cover "A" frame design as shown in **Fig. C.** For frame design "C" as shown in **Fig. B,** add prefix letter "C" to part numbers.

Part No.	Schematic No.	Adjusted for Plug	Mil-Type No.	U.S.A. List Price
MT-331	I	440*	JJ-086	$1.50
MT-332	II	440	—	1.70
MT-332A	III	440	JJ-024	1.70
MT-332B	IV	482†	JJ-022	1.70
MT-332C	XVIII	440	JJ-016	1.95
MT-333	V	440	JJ-084	1.95
MT-333B	VII	482	—	1.95
MT-333E	IX	440	—	1.95
MT-334A	XI	440	—	2.00
MT-334B	XII	482	JJ-042	2.00
MT-334C	XVII	440	JJ-072	2.00
MT-334E	XXV	440	JJ-085	2.00
MT-334F	XIX	440	JJ-035	2.00
MT-335	XIII	440	—	2.25
MT-335A	XXVI	440	JJ-017	2.25
MT-336	XX	482	JJ-074	2.25
MT-336A	XIV	482	JJ-075	2.75
MT-336B	XXI	482	JJ-077	2.75
MT-336C	XXII	482	JJ-073	2.75
MT-336F	XXIII	440	—	2.75
CMT-336E	XIII	440	JJ-019	2.75
MT-337	XXIV	440	JJ-087	2.75
CMT-337	XXIV	440	JJ-015	2.75
MT-339	XXVII	482	JJ-078	4.00
MT-342B§	IV	480‡	—	1.95
MT-344B§	XII	480	—	2.25

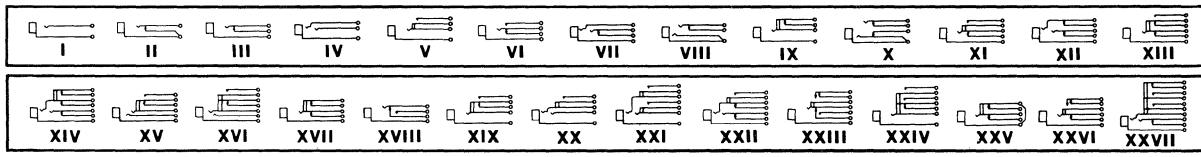
*MIL Type PJ-055.
†MIL Type PJ-051B.
‡MIL Type PJ-068.
§Bushing, .2085".

"TWIN JAX" DUAL MILITARY JACKS



Similar in design to "MT-Jax" except frame is double width, with two mounting ears on 1⅜" centers; bushings are on ⅝" centers. MT-388, MIL-Type No. **JJ-088,** mates with Nos. 411, 412, 413, 420 and 425 plugs. MT-389 has two 3-conductor jacks interconnected; mates with No. 482 Plug.

Switchcraft Part No. MT-388.....U.S.A. List Price **$5.15**
Switchcraft Part No. MT-389.....U.S.A. List Price **5.65**



The above are strictly electrical schematics and do not necessarily indicate relative solder lug positions.

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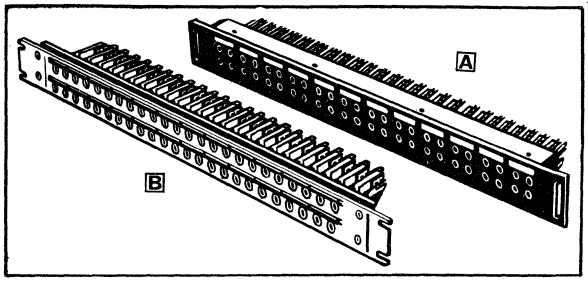
Trade Discount Applies To List Prices Only

SWITCHCRAFT INC. Jack Panels, Plugs, Patch Cords

"JACK PANELS"

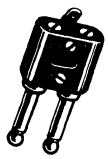


Rugged, heavy-duty jack panels for switching, distribution and control of audio signals in broadcasting stations, theaters, P. A. systems installations, etc. **Series 1200,** Fig. A, black phenolic panels reinforced with steel for the utmost rigidity. Mounting brackets slotted to fit all standard 19″ relay racks. Panel includes plastic covered designation strips. **Series 2800,** Fig. B, clear anodized aluminum panel. Extremely rugged, yet lightweight. Includes new narrow designation strip for each row. Add Prefix "X" to part numbers to indicate offset ground lugs on jacks. Aluminum panels available only with offset lugs.

Part No.	Fig.	Rows	Number of Jacks	Size, In. W x D x H	U.S.A. List Price
1200	A	Single	24 *	19x1¼x1¾	$ 18.00
1232A	A	Single	24 T-332A	19x1¼x1¾	45.00
1332A	A	Single	24 MT-332A	19x1¼x1¾	55.00
1400	A	Single	26 *	19x ⅝x1¾	20.00
1432A	A	Single	26 T-332A	19x ⅝x1¾	50.00
1532A	A	Single	26 MT-332A	19x ⅝x1¾	62.00
2400	A	Double	48 *	19x1¼x2⅛	20.00
2432A	A	Double	48 T-332A	19x1¼x2⅛	75.00
2532A	A	Double	48 MT-332A	19x1¼x2⅛	95.00
2600	A	Double	52 *	19x ⅝x1¾	25.00
2632A	A	Double	52 T-332A	19x ⅝x1¾	85.00
2732A	A	Double	52 MT-332A	19x ⅝x1¾	110.00
2800	B	Double	48 *	19x ⅝x1¾	40.00
X2832A	B	Double	48 T-332A	19x ⅝x1¾	99.00
X2932A	B	Double	48 MT-332A	19x ⅝x1¾	115.00

*Supplied less jacks.

MILITARY TYPE "TWIN-PLUGS"



412

Meet exact industrial and military requirements. **No. 411,** both design and materials, is manufactured in accordance with MIL-P-642(A) specs. **Nos. 412 and 413,** use identical materials. "Twin-Plug" sleeves spaced ⅝″ center to center with self-aligning feature.

Part No. 411—Two electrically independent 2-conductor plugs in black plastic handle. Has provision for Cord Clamp No. S-2674. Military Type **PJ-327** (Old Navy No. 491242). Interchangeable with W.E. 327.....U.S.A. List Price **$4.75**

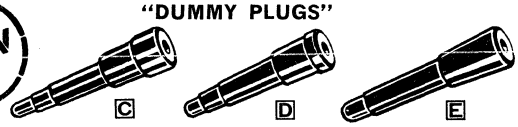
Part No. 412—Two electrically independent 2-conductor plugs in black plastic handle. Has external cord clamp. Old Military Type PJ-289. Similar to W.E. 289B.....U.S.A. List Price **$4.50**

Part No. 413—Three circuit plug with two electrically independent tip circuits in heavy duty die cast frame. Molded black phenolic handle notched to indicate polarity. Interchangeable with MIL-Type PJ-421 and W.E. 241.....U.S.A. List Price **$4.50**

Part No. S-2674—Strain relief clamp, natural brass. For use with No. 411 Twin-Plug. Package of ten.....U.S.A. List Price **$0.50**

"DUMMY PLUGS"

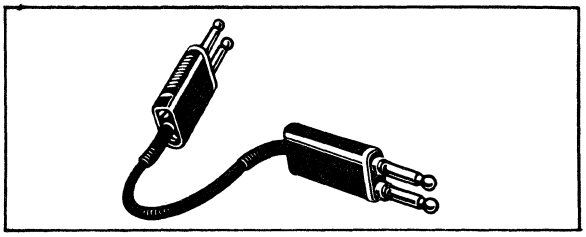
NEW



Low cost, 2- and 3-conductor molded plastic, dummy plugs for use in switchboards, jack panels. Inserts in jack as does a phone plug to switch circuits, but can not couple incoming signals. Can also be used to plug up unused phone jacks to prevent accidental insertion of a phone plug. Series 491, 3-conductor, .207″ dia. finger. Series 492, 3-conductor, .250″ dia. finger. Series 493, 2-conductor, .250″ dia.

Part No.	Fig.	Handle	Typical Mating Jack	U.S.A. List Price
491-01	C	Red	MT-342B	$0.50
491-02	C	Black	MT-342B	.50
491-05	C	White	MT-342B	.50
492-01	D	Red	MT-332B	.50
492-02	D	Black	MT-332B	.50
492-05	D	White	MT-332B	.50
493-01	E	Red	MT-331	.50
493-02	E	Black	MT-331	.50
493-05	E	White	MT-331	.50

PATCH CORD SETS



All patch cords are constructed of bronze tinsel conductors, insulated and shielded, with a heavy black nylon braid overall.

Series 17Q—2-conductor patch cords have No. 413 "Twin-Plug" at each end with shields grounded both ends.

Series 17P—Same as 17Q, except shield grounded one plug only.

Series 18Q—2-conductor patch cords use Military Plug **PJ-051** (Switchcraft Part No. 482) at each end with shields grounded both ends.

Series 19Q—Single conductor patch cords utilize Military Plug **PJ-047B** (Switchcraft Part No. 420) connected to each end with shield grounded both ends.

Part No.	Length	Plugs Used	U.S.A. List Price
17QA17	6 inch	413	$11.00
17QB17	1 foot	413	11.25
17QD17	2 feet	413	11.50
17QF17	3 feet	413	11.75
17QH17	4 feet	413	12.15
17QK17	6 feet	413	13.00
17QN17	10 feet	413	13.75
17PA17	6 inch	413	11.00
17PB17	1 foot	413	11.25
17PD17	2 feet	413	11.50
17PF17	3 feet	413	11.75
17PH17	4 feet	413	12.15
17PK17	6 feet	413	13.00
17PN17	10 feet	413	13.75
18QA18	6 inch	482	11.50
18QB18	1 foot	482	12.00
18QD18	2 feet	482	12.50
18QF18	3 feet	482	13.00
18QH18	4 feet	482	13.50
18QK18	6 feet	482	14.50
18QN18	10 feet	482	16.50
19QA19	6 inch	420	6.00
19QB19	1 foot	420	6.25
19QD19	2 feet	420	6.75
19QF19	3 feet	420	7.25
19QH19	4 feet	420	7.75
19QK19	6 feet	420	9.10
19QN19	10 feet	420	10.50

REPLACEMENT PATCH CORDS

Patch cords are made of bronze tinsel conductors, insulated and shielded, with a heavy black nylon braid overall. Cords designed for use with Switchcraft plugs 413, 420 and 482 or equivalents. When used with No. 420, clip off unnecessary lead.

Series 89Q—2-conductor shielded cord with shield termination at both ends.

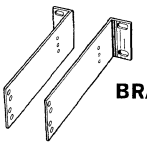
Series 89P—2-conductor shielded cord with shield termination at one end only.

Part No.			
Both Ends Shielded	One End Shielded	Length	U.S.A. List Price
89QA89	89PA89	6 inch	$2.25
89QB89	89PB89	1 foot	2.75
89QD89	89PD89	2 feet	3.00
89QF89	89PF89	3 feet	3.25
89QH89	89PH89	4 feet	3.50
89QK89	89PK89	6 feet	4.50
89QN89	89PN89	10 feet	6.50

JACK PANEL ACCESSORIES

NEW

HOLE PLUG



BRACKET KIT

Hole Plug, P-1801, molded nylon, fits all Switchcraft jack panels, Series 1200, 1400, 2400, 2600, 2800. Designed to plug unused holes in jack panels. Bracket Kit, K-107, consists of 2 long L-shaped steel, stand-off brackets and eight No. 6-32 self-tapping screws. To hold jack panels, Series 1400, 2600, 7″ in front of mounting rack.

Part No.	Description	U.S.A. List Price
P-1801	Hole Plug	$0.30
K-107	Bracket Kit	4.50

Trade Discount Applies To List Prices Only

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SWITCHCRAFT INC. Phone Plugs

"LITTEL PLUG" PHONE PLUGS

Small size phone plugs fit standard ¼" phone jacks except *Nos. S-250, S-260, S-280 and S-290 which have a .206" dia. sleeve. **Nos. C-240, C-245 and C-270 feature an integral cable clamp with screw terminals. †No. R-280 has short sleeve for Revere Recorders. ‡No. 288 has a wide insulator between tip and sleeve for use in a 3-conductor jack to perform a 2-conductor function without shorting. Plugs with solder terminals have built-in cable clamp. Shielded metal handles are nickel plated brass; others are molded of durable plastic; ⅝" long x ½" dia.

TWO-CONDUCTOR TYPE

Part No.	Fig.	Typical Mating "Littel-Jax"	Handle	Ter-minals	U.S.A. List Price
240	A	11	Black	Screw	$0.75
C-240**	A	11	Black	Screw	.90
245	A	11	Red	Screw	.75
C-245**	A	11	Red	Screw	.90
250	A	11	Black	Solder	.70
255	A	11	Red	Solder	.70
270	B	11	Shielded	Screw	1.05
C-270**	B	11	Shielded	Screw	1.20
280	B	11	Shielded	Solder	1.00
288‡	C	11	Shielded	Solder	1.05
S-250	A	S-11	Black	Solder	.75
S-280	B	S-11	Shielded	Solder	1.00
R-280†	B	—	Shielded	Solder	1.25

THREE-CONDUCTOR TYPE

260	A	12B	Black	Screw	$1.20
S-260*	A	S-12B	Black	Screw	1.65
267	A	12B	Black	Solder	1.05
269	A	12B	Red	Solder	1.05
290	B	12B	Shielded	Screw	1.40
S-290*	B	S-12B	Shielded	Screw	1.85
297	B	12B	Shielded	Solder	1.30

STANDARD ¼" PHONE PLUGS

Available with phenolic or shielded, nickel plated over brass handle.

TWO-CONDUCTOR TYPE—SCREW TERMINALS

Typical mating jack "Littel-Jax" No. 11. Nos. 49 and 169 feature circuit closing device. Nos. 170 and 475 (MIL PJ-636) have two-piece handle with built-in clamp for ¼" cable. No. 180 has wide insulator between tip and sleeve for use in a 3-conductor jack to perform a 2-conductor function without shorting.

Part No.	Fig.	Handle	Length & Dia.	U.S.A. List Price
40	A	Black	2 1/16 x ¾	$0.75
45	A	Red	2 1/16 x ¾	.75
49	A	Black	2 1/16 x ¾	1.50
70	B	Shielded	2 1/16 x 1 1/16	1.20
160	C	Shielded	1 x 1 1/16	.90
169	C	Shielded	1 x ¾	1.75
170	D	Shielded	2 1/16 x 1 1/16	1.65
180	—	Shielded	1 x ¾	1.05
475	D	Shielded	1 ¾ x ¾	1.95

THREE-CONDUCTOR TYPE—SOLDER TERMINALS

Typical mating jack "Littel-Jax" No. 12B. No. 190A has two-piece handle with built-in cable clamp for ¼" cable.

60	A	Black	2 1/16 x 1 1/16	$1.05
90	C	Shielded	1 x 1 1/16	1.30
190	B	Shielded	2 1/16 x 1 1/16	1.50
190A	D	Shielded	2 1/16 x 1 1/16	1.95

"LUG-PLUG" PHONE PLUGS

Low cost, two-conductor phone plugs. Fit all ¼" phone jacks.

No. 385 Plug has a .206" dia. sleeve and mates with S-11 "Littel-Jax". All have solder lug terminals. Handle: Shielded metal or phenolic.

Part No.	Fig.	Typical Mating "Littel-Jax"	Handle	Length & Dia.	U.S.A. List Price
350	A	11	Black	⅝ x ½	$0.55
355	A	11	Red	⅝ x ½	.55
380	—	11	Shielded	1 x ½	.70
385	—	S-11	Shielded	1 x ½	1.00

"TINI-PLUGS" SUB-MINIATURE PHONE PLUGS

Miniature 2-conductor phone plugs for use with "TINI-JAX" only 1/3 the size of standard phone plugs. Handle 1⅝" overall length, are plastic or brass, nickel plated.

Part No.	Fig.	Terminal	Handle	U.S.A. List Price
740	E	Screw	Black	$0.75
745	E	Screw	Red	.75
750	E	Solder	Black	.70
755	E	Solder	Red	.70
770	E	Screw	Shielded	1.05
780	E	Solder	Shielded	1.05

"MICRO-PLUGS" ULTRA-MINIATURE PHONE PLUGS

Ultra-miniature 2-conductor phone plugs, only 1 1/64" long; ¼" O.D., .097" dia. sleeve. Mate with No. TR-2A. Have screw on handles in black, red or natural anodized aluminum; accommodates cables up to 7/64" dia. All plugs have integral cable clamps.

Part No.	Fig.	Description	U.S.A. List Price
850	F	Black Handle	$0.75
855	F	Red Handle	.75
880	F	Natural Handle	.75

MILITARY TYPE "LITTEL-PLUGS" AND EXTENSION JAX

Designed to meet exact industrial and military requirements. Plugs are made in accordance with MIL-P-642(A) specifications. One-piece tip rod and one-piece sleeve and plug body provide internal interlock to prevent parts shifting in position. Type 820 Extension Jack meets MIL-J-641A specifications and mates with "Littel-Plug" No. 430. No. 470 has shielded handle; all others plastic: †Red; ‡Black. All plugs have screw terminals.

Part No.	Fig.	Mil-Type No.	Typical Mating Jack	Cond.	U.S.A. List Price
420‡	G	PJ-047B	MT-388	2	$1.50
425†	G	PJ-047R	MT-388	2	1.50
430‡	H	PJ-054B	820	2	1.40
435†	H	PJ-054R	820	2	1.40
440‡	—	PJ-055B	MT-331	2	1.40
445†	—	PJ-055R	MT-331	2	1.40
450‡	H	PJ-540B	820	2	1.40
455†	H	PJ-540R	820	2	1.40
470	—	PJ-055M	MT-331	2	2.00
480‡	I	PJ-068	MT-342B	3	3.60
482†	J	PJ-051R	MT-332B	3	4.00
483‡	J	PJ-051B	MT-332B	3	4.00
484†	J	PJ-309	M-444	3	3.60
820‡	—	JJ-026	430 Plug	2	2.00

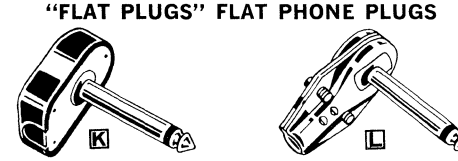
Switchcraft Part No. P-1074-1—Strain Relief Clamp. Nickel Plate Brass. Package of 25.....U.S.A. List Price **$0.85**

TYPE 410 PLUG AND TYPE 810 JACK

Miniature 2-conductor extension jack and mating plug; often referred to as "Throat Microphone Plug and Jack". Plug is Military Type PJ-291; jack is Type JJ-048. Each is of two-piece molded construction. Plug has solder-cup terminals; jack has solder lugs. After wiring, shells must be cemented and clamped till dry. Overall size (engaged), 2⅝" x 17/32" x ⅜".

Switchcraft Part No. 410 Plug.....U.S.A. List Price **$0.60**
Switchcraft Part No. 810 Jack.....U.S.A. List Price **.80**

"FLAT PLUGS" FLAT PHONE PLUGS



¼" phone plugs featuring flat, space-saving handles. Ideal for applications where conventional plugs would protrude too far. Nos. 220, 225 have adapter clips which make them convenient to clamp standard phone tips to terminals. Shielded flat plugs, Nos. 228 and 238 have nickel plated steel handles; all others have red or black plastic handles. Nos. S-230 and S-235 have .206" dia. sleeve.

TWO-CONDUCTOR TYPE

Part No.	Fig.	Typical Mating Jack	Handle	Terminals	U.S.A. List Price
220	K	11	Black	Screw	$0.90
225	K	11	Red	Screw	.90
227	K	11	Black	Solder	.85
228	K	11	Shielded	Solder	.95
229	K	11	Red	Solder	.85

THREE-CONDUCTOR TYPE

230	K	12B	Black	Screw	$1.30
S-230	K	S-12B	Black	Screw	1.75
235	K	12B	Red	Screw	1.30
S-235	K	S-12B	Red	Screw	1.75
237	K	12B	Black	Solder	1.25
238	K	12B	Shielded	Solder	1.40
239	K	12B	Red	Solder	1.25

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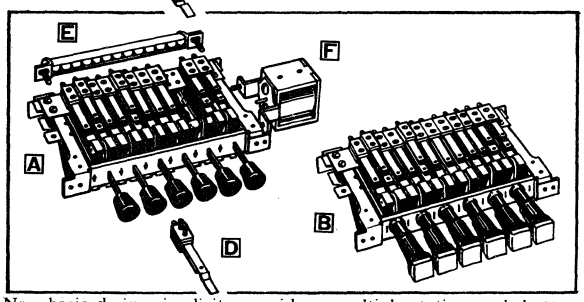
SWITCHCRAFT INC. "Multi-Switches"

"MULTI-SWITCH" MULTIPLE STATION PUSH BUTTON SWITCHES



New basic design simplicity provides a multiple station push button switch that's rugged, compact, versatile and extremely flexible in functions. **All switching components**—frame, stack switches, lamps and accessories **are changeable** to give you hundreds of circuit and function combinations. You can order a "Multi-Switch" with the function you now desire; and later change circuits and/or functions in the field by simple positioning adjustments of "stop plate", "latch bar spring" and/or interchanging switch stacks. **For a complete multiple station assembly, you must order the proper frame and the necessary stack switch for each button on the frame.** Optional accessories include lock-out bar and solenoid release. **Frames can be set up for: 1. Interlock; 2. Non-Lock; 3. All-Lock; 4. Interlock and Non-Lock combinations; 5. All-Lock and Non-Lock combinations.** Interlock action restores to normal any previously actuated buttons when actuating a button. Non-Lock is momentary action of each button. All-Lock is accumulative locking of all buttons with restoration of all buttons to normal when release button is depressed. **Specify switching function when ordering** the frames listed below.

SERIES 7000 NON-ILLUMINATED FRAMES

A Switch frames mount on panels up to ⅜" thick, with 3 5/16" depth behind panel. End brackets of frames have four No. 8/32 tapped holes for mounting. A round brown push-on button is furnished for each station; one extra red button included for use when switch requires a release. Center to center distance between buttons is ⅝". Standard plunger is 1⅛" long, can be supplied up to 4¾" long on special order. Switch frames with buttons on ¾" centers are available in **Series 8000.** This Series has all other features of Series 7000. **Series 7000** "Multi-Switch" frames available from 1 to 37 stations. **Series 8000,** from 1 to 31 stations. Add **10%** to the below prices when ordering Series 8000. Only the most commonly used frames are listed here:

Part No.	No. of Stations	U.S.A. List Price	Part No.	No. of Stations	U.S.A. List Price
7100	1	**$ 7.50**	**7700**	7	**$18.00**
7200	2	**8.50**	**7800**	8	**20.00**
7300	3	**9.75**	**7900**	9	**22.00**
7400	4	**12.00**	**71000**	10	**24.00**
7500	5	**14.00**	**71100**	11	**26.00**
7600	6	**16.00**	**71200**	12	**28.00**

SERIES 21000 ILLUMINATED FRAMES

B Similar in switching functions and characteristics to non-illuminated "Multi-Switches," but features modern square buttons with front and side illumination, lamp diffusers that provide uniform lighting; knurled retaining collar for quick and easy front panel lamp replacement. A 6-volt or 28-volt lamp can be used. Buttons with white jewels and white diffusers are furnished for switching and release stations. Plungers are on ⅝" centers; ¾" centers are available on special order by specifying Series 22000. Lighting circuits on both series are isolated from switching stacks. Prefix part numbers with "L" if push buttons are to light in "IN" position; with "M" to light in "OUT" position; with "N" to light in "IN" and "OUT" positions. Stacks for illumination circuits are mounted on frame. **Series 21000** available up to 37 stations; **Series 22000** up to 31 stations. Add 10% to below prices when ordering Series 22000. Only the most commonly used frames are listed below. All frames are supplied less lamps and stack switches.

Part No.	No. of Stations	U.S.A. List Price	Part No.	No. of Stations	U.S.A. List Price
21100	1	**$11.50**	**21700**	7	**$40.00**
21200	2	**14.50**	**21800**	8	**45.00**
21300	3	**19.50**	**21900**	9	**50.00**
21400	4	**24.50**	**211000**	10	**55.00**
21500	5	**29.50**	**211100**	11	**60.00**
21600	6	**34.50**	**211200**	12	**65.00**

SOLENOID RELEASE—"J" SERIES

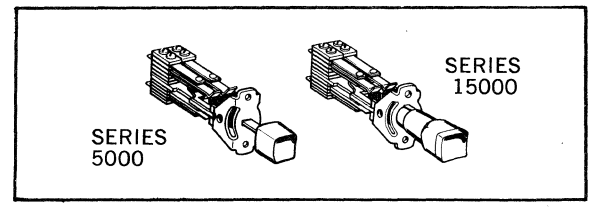
F A simple solenoid assembly that can be added on the end of standard frames by two screws to provide automatic remote release of depressed stations. For use in 115 volt, A.C., 60 cycle circuits. Other voltages available on special order. **J-3** designed for use with up to 12 stations. Complete with mounting bracket and screws.

Part No.	Function Used on	U.S.A. List Price	Part No.	Function Used on	U.S.A. List Price
J-1	Interlock	**$8.50**	**J-3**	All-Lock	**$9.50**

ESCUTCHEON PLATES

Attractive escutcheon plates for "Multi-Switches", non-illuminated Series 7000. Black satin finish over a 1/32" thick aluminum plate; back side has pressure sensitive adhesive. Listed below are standard lengths; can be made available from 1 to 37 stations.

For Series 7000 Part No.	Stations	U.S.A. List Price
ES-04	4	**$0.90**
ES-06	6	**1.10**
ES-08	8	**1.30**
ES-12	12	**1.75**
ES-18	18	**2.50**



"PUSH-PUSH" SWITCHES SERIES 5000—NON-ILLUMINATED SERIES 15000—ILLUMINATED

Push-to-lock, push-to-release or momentary action push-button switches. Available in numerous multiple pole circuits. Welded cross bar palladium contacts rated at 3 amps, 300 watts max., non-inductive A.C. load. Mounts with two 3-48 screws on ⅝" centers. Depth behind panel, 2 7/8". **Series 5000** supplied with square, brown button. **Series 15000,** lighting circuits and buttons are identical to those on Series 21000 "Multi-Switch." Series 15000 supplied less lamps. *Add suffix letter "L" to part number to indicate locking type.

NON-ILLUMINATED SERIES 5000

Part Number Non-locking*	Action	Schematic Circuit	U.S.A. List Price
5003	S.P.D.T.	1-C	**$ 6.00**
5004	D.P.S.T.n.o.	2-A	**6.50**
5006	D.P.D.T.	2-C	**6.75**
5008	4 P.S.T.n.o.	4-A	**7.60**
5009	3 P.D.T.	3-C	**7.75**
5012	4 P.D.T.	4-C	**9.00**

ILLUMINATED SERIES 15000

15003	S.P.D.T.	1-C	**$8.50**
15004	D.P.S.T.n.o.	2-A	**9.00**
15006	D.P.D.T.	2-C	**9.25**
15008	4 P.S.T.n.o.	4-A	**10.00**
15009	3 P.D.T.	3-C	**10.25**
15012	4 P.D.T.	4-C	**11.50**

STACK SWITCHES

D Interchangeable stack switches for "Multi-Switch" frames. Two types listed below: **Series 70,** silver contacts for power circuits; **Series 70P,** welded cross bar palladium contacts for low level circuits. Both rated at 3 amps, 300 Watts, max., A.C. non-inductive load. If more than one circuit will be required specify two (or more) stacks in order to balance the load on the plunger. For example, if two form "C" circuits are required, specify two No. 73 rather than one No. 76; locate stacks to balance load on plunger for easier action. Two mounting screws and one pressure plate furnished with each switch. In addition to Series 70 and 70P Stack Switches, **four other Series are available,** as standard, from stock.

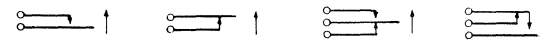
SERIES 70—SILVER CONTACTS

Part No.	Contacts	U.S.A. List Price	Part No.	Contacts	U.S.A. List Price
71	1 "A"	**$0.50**	**74**	2 "A"	**$0.80**
72	1 "B"	**.50**	**75**	2 "B"	**.80**
73	1 "C"	**.60**	**76**	2 "C"	**.95**
73D	1 "D"	**.70**	**76D**	2 "D"	**1.15**

SERIES 70P—PALLADIUM CONTACTS

71P	1 "A"	**$0.60**	**74P**	2 "A"	**$0.95**
72P	1 "B"	**.60**	**75P**	2 "B"	**.95**
73P	1 "C"	**.80**	**76P**	2 "C"	**1.15**
73PD	1 "D"	**.90**	**76PD**	2 "D"	**1.40**

BASIC CONTACT FORMS



LOCK-OUT BAR "K" SERIES

E Prevents the operation of more than one button at a time. For example, a switch with interlock function, automatically releases a previously actuated station when a new station is depressed, but it is possible to depress more than one station simultaneously, unless the "K" Series Lock-Out Bar has been added. Mounts on back of standard Multi-Switch frame with two screws (furnished). Available from 2 to 37 stations for a single frame. Lock-Out Bars listed below for ⅝" center plungers only; for ¾" centers, order special.

Part No.	Stations	U.S.A. List Price	Part No.	Stations	U.S.A. List Price
K-02	2	**$3.00**	**K-08**	8	**$3.75**
K-03	3	**3.15**	**K-09**	9	**4.00**
K-04	4	**3.25**	**K-10**	10	**4.25**
K-05	5	**3.40**	**K-11**	11	**4.50**
K-06	6	**3.50**	**K-12**	12	**4.75**
K-07	7	**3.65**			

LAMPS FOR "MULTI-SWITCHES" AND "PUSH-PUSH" SWITCHES

Lamps are not furnished with **Series 15000, 21000** switches. For initial order or replacement, specify the following part numbers.

Part No.	Volts	Lamp Base	For Frame Series	U.S.A. List Price
P-1593-1	28	Flange	Ind. 327	**$1.50**
P-1593-2	6	Flange	Ind. 328	**1.20**

Many other "Multi-Switch" frames, buttons, diffusers, stack switches, lock-out bars, etc., are available from your distributor.

Trade Discount Applies To List Prices Only
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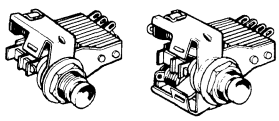
SWITCHCRAFT INC. Push-Button Switches

NEW ILLUMINATED "NF-LITE" SWITCHES



A Series 4100 B Series 4200

Series 4100 and 4200 "NF-LITE" illuminated switches indicate switching and circuit functions at a glance. Flat frame construction provides multiple pole momentary action switching. Lighting circuit is independent of switching circuit. Ideal for control panel or press-to-test applications. Contacts are fine silver rated at 3 amps, 300 watts max., A.C., non-inductive load.
Series 4100, Fig. A, uses single miniature lamp, 6V or 28V. Light from lamp is filtered through color chip to clear plastic push-button. Various colored chips can be inserted at any time. **Series 4200, Fig. B,** same as Series 4100, except utilizes two lamps for greater illumination or color coding of two circuit conditions. Both series require 11/16" min., 1 5/16" max. depth behind panel depending on size of stack; mounts in 3/8" hole in panels up to 1/4" thick. **Series 4100** furnished with **one kit of 4 color chips** (red, amber, green, and yellow), **Series 4200** furnished with **two kits. Lamps** must be **purchased separately.** See lamp listing below.

SERIES 4100

Part Number	Action	Schematic Circuit	U.S.A. List Price
4101	S.P.S.T.n.o.	1-A	$ 1.95
4103	S.P.D.T.	1-C	2.10
4104	D.P.S.T.n.o.	2-A	2.20
4106	D.P.D.T.	2-C	2.45
4109	3 P.D.T.	3-C	3.00

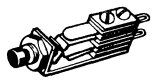
SERIES 4200

4201	S.P.S.T.n.o.	1-A	$2.85
4203	S.P.D.T.	1-C	3.00
4204	D.P.S.T.n.o.	2-A	3.10
4206	D.P.D.T.	2-C	3.35
4209	3 P.D.T.	3-C	3.90

LAMPS FOR ILLUMINATED SWITCHES

The **"NF-Lite", "Littel-Lite"** Switches are not supplied with lamps. When ordering these switches, be sure to specify:

Part No.	Used in Switch	Voltage	Base	Ind. No.	U.S.A. List Price
P-1217	NF-Lite Littel-Lite	6	Screw	1768	$1.20
P-1218	NF-Lite Littel-Lite	28	Screw	335	2.00



MINIATURE "TF" BUTTON SWITCHES

"Tiny Frame" switches. Small, sturdily constructed, provides simple, direct acting push button switching for use where space is at a premium. Available in **Series 970L** push-to-lock, pull-to-release; or **Series 970,** momentary action. Nickel silver springs, integral contacts, recommended for low level circuits where contact resistance is unimportant. Requires only 1 19/32" depth behind panel; mounts in single 1/4" hole in panels up to 3/32" thick.

SERIES 970—NON-LOCKING

Part No.	Action	Schematic Circuit	U.S.A. List Price
974	D.P.S.T. n.o.	2-A	$1.30
975	D.P.S.T. n.c.	2-B	1.30
976	D.P.D.T.	2-C	1.30

SERIES 970L—LOCKING

974L	D.P.S.T. n.o.	2-A	$1.55
975L	D.P.S.T. n.c.	2-B	1.55
976L	D.P.D.T.	2-C	1.55

"CORD SWITCHES"

An attractive bright nickel plated housing supports **Series 903 and 913** button switches. Ideal for cord mounted or pendant switch on remote control applications. Sleeve 11/16" diameter, 2 3/16" long.

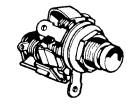
Part Nos. Red Button	Part Nos. Black Button	Action	Schematic Circuit	U.S.A. List Price
E-903	E-913	S.P.D.T. "Break-Make"	1-C	$2.50
E-903D	E-913D	S.P.D.T. "Make-Break"	1-D	2.50

"TINY SWITCHES"

Series 950, red button, and **Series 960,** black button, sub-miniature push-button switches for limited space applications. Integral contacts suitable for low level circuits where contact resistance is not important. Mounts in 1/4" hole in panels up to 3/32" thick; depth behind panel 3/8".

Part Number Red Button	Part Number Black Button	Action	Schematic Circuit	U.S.A. List Price
951	961	S.P.S.T.n.o.	1-A	$0.90
952	962	S.P.S.T.n.c.	1-B	.90
953	963	S.P.D.T.	1-C	1.00

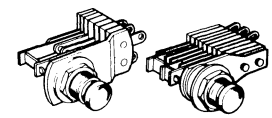
NEW ILLUMINATED "LITTEL-LITE" SWITCHES



Series 210 "Littel-Lite" Switches are unusually small, momentary contact, illuminated push-button types. Requires minimum panel space; ideal for limited space applications and press-to-test circuits. One-piece, clear plastic button and shaft is illuminated by a single miniature lamp, 6V or 28V. Lamps are **not** furnished, see lamp listing below. Includes kit of 4 color chips (red, amber, green, and yellow), can be inserted in switch at any time. Nickel silver spring contacts are recommended for low lever circuits where contact resistance is not important. Also available, fine silver contacts (Part No. suffix **"S"**) rated at 3 amps, 300 watts, max., A.C. non-inductive load. Lighting circuit is independent of switching circuit. Mounts in single 3/8" hole in panels up to 1/4" thick; depth behind panel 1 3/16".

Part Number	Action	Schematic Circuit	U.S.A. List Price
211	S.P.S.T.n.o.	1-A	$1.65
212	S.P.S.T.n.c.	1-B	1.65
213	S.P.D.T.	1-C	1.90
211S	S.P.S.T.n.o.	1-A	1.85
212S	S.P.S.T.n.c.	1-B	1.85
213S	S.P.D.T.	1-C	2.10

NON-LOCKING FLAT FRAME SWITCHES

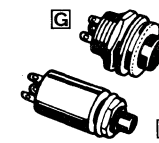


E F

FF Switches. Fig. E, Series 1000. Flat frame construction provides multiple pole switching with minimum depth behind panel. Fine silver contacts rated at 3 amps, 300 Watts Max., A.C., non-inductive load. One piece black button and shaft. 3/8" diameter threaded shank; mounts in panels up to 1/4" thick.
NF Switches. Fig. F, Series 4000, same as FF Switches, except smaller spring design, ideal for mounting in ultra-compact equipment. Only 1/2" W.; 1 5/8" L.; mounts in 3/8" hole in panels up to 5/32" thick.

Part Numbers Series 1000	Part Numbers Series 4000	Action	Schematic Circuit	U.S.A. List Price
1001	4001	S.P.S.T.n.o.	1-A	$1.05
1002	4002	S.P.S.T.n.c.	1-B	1.05
1003	4003	S.P.D.T.	1-C	1.20
1004	4004	D.P.S.T.n.o.	2-A	1.30
1005	4005	D.P.S.T.n.c.	2-B	1.30
1006	4006	D.P.D.T.	2-C	1.55
1009	4009	3 P.D.T.	3-C	2.10

"BUTTON SWITCHES"

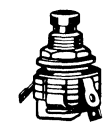


G H

Series 903, 923. Unusually small, momentary action push button switches. Enclosed in metal housing; black or red plastic button. **Series 903, Fig. G.** back panel mounting; 15/32" hole, mounts in panels up to 19/64" thick. **Series 923, Fig. H.** front panel mounting; 1/4" hole, mounts in panels up to 5/32" thick. Both rated at 250 mils, AC, non-inductive load, 30 watts max.

Part Nos. Red Button	Part Nos. Black Button	Action	Schematic Circuit	U.S.A. List Price
903	913	S.P.D.T. "Break-Make"	1-C	$1.50
903D	913D	S.P.D.T. "Make-Break"	1-D	1.50
923	933	S.P.D.T. "Break-Make"	1-C	1.75
923D	933D	S.P.D.T. "Make-Break"	1-D	1.75

"LITTEL-SWITCHES"

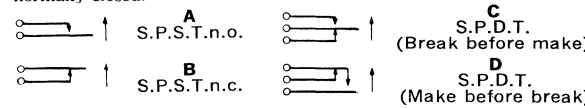


Series 100, 200, tiny momentary contact push button switches. Rugged, dependable action. All contacts insulated from panel bushing with interlocking phenolic washers. Series 100 and 200, springs are of nickel silver, recommended only for low level circuits where contact resistance is unimportant. **Series 100S and 200S** have fine silver contacts rated at 3 amps or 300 watts max., A.C., non-inductive load. One-piece plastic button and shaft in red or black. Mounts in 3/8" hole in panels up to 1/4".

Part Nos. Red Button	Part Nos. Black Button	Action	Schematic Circuit	U.S.A. List Price
101	201	S.P.S.T. n.o.	1-A	$0.90
101S	201S	S.P.S.T. n.o.	1-A	1.05
102	202	S.P.S.T. n.c.	1-B	.90
102S	202S	S.P.S.T. n.c.	1-B	1.05
103	203	S.P.D.T.	1-C	1.00
103S	203S	S.P.D.T.	1-C	1.20

BASIC SCHEMATIC CIRCUITS

Switch circuitry can be described as combinations of basic schematic circuits as shown below. N.O. means normally open; N.C. means normally closed.



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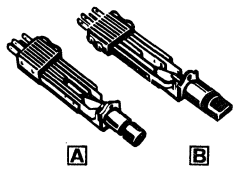
SWITCHCRAFT INC. Push Button and Lever Switches



"T-SWITCHES"

Rugged, long frame switches for quality communication equipment. Welded cross bar palladium contacts rated at 3 amps, 300 watts max., A.C., non-inductive load. Requires minimum of panel space, only $^{9}/_{16}$"x$^{13}/_{16}$"; 2$^{7}/_{8}$" depth behind panel. **Series 11000, Fig. A,** push button T-Switch. Available in momentary action and push-to-lock, pull-to-release action. **Series 11200, Fig. B,** two position turn button T-Switch. Available in non-locking and locking action. Black button with white arrow to indicate switching position.

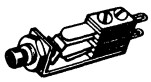
*Add Suffix "L" to Part Numbers to Indicate Locking Type.

A PUSH BUTTON—SERIES 11000

Part No. Non-Locking*	Action	Schematic Circuit	U.S.A. List Price
11001	S.P.S.T. n.o.	1-A	$3.50
11002	S.P.S.T. n.c.	1-B	3.50
11003	S.P.D.T.	1-C	4.00
11003D	S.P.D.T.	1-D	4.00
11004	D.P.S.T. n.o.	2-A	4.50
11005	D.P.S.T. n.c.	2-B	4.50
11006	D.P.D.T.	2-C	5.00
11006D	D.P.D.T.	2-D	5.00
11008	4 P.S.T. n.o.	4-A	5.60
11009	3 P.D.T.	3-C	6.00
11012	4 P.D.T.	4-C	6.80

B TURN BUTTON—SERIES 11200

11201	S.P.S.T. n.o.	1-A	$3.50
11202	S.P.S.T. n.c.	1-B	3.50
11203	S.P.D.T.	1-C	4.00
11203D	S.P.D.T.	1-D	4.00
11204	D.P.S.T. n.o.	2-A	4.50
11205	D.P.S.T. n.c.	2-B	4.50
11206	D.P.D.T.	2-C	5.00
11206D	D.P.D.T.	2-D	5.00
11208	4 P.S.T. n.o.	4-A	5.60
11209	3 P.D.T.	3-C	6.00
11212	4 P.D.T.	4-C	6.80



MINIATURE "TF" BUTTON SWITCHES

"Tiny Frame" switches. Small, sturdily constructed, provides simple, direct acting push button switching for use where space is at a premium. Available in **Series 970L** push-to-lock, pull-to-release; or **Series 970,** momentary action. Nickel silver springs, integral contacts, recommended for low level circuits where contact resistance is unimportant. Requires only 1$^{19}/_{32}$" depth behind panel; mounts in single $^{1}/_{4}$" hole in panels up to $^{3}/_{32}$" thick.

SERIES 970—NON-LOCKING

Part No.	Action	Schematic Circuit	U.S.A. List Price
974	D.P.S.T. n.o.	2-A	$1.30
975	D.P.S.T. n.c.	2-B	1.30
976	D.P.D.T.	2-C	1.30

SERIES 970L—LOCKING

974L	D.P.S.T. n.o.	2-A	$1.55
975L	D.P.S.T. n.c.	2-B	1.55
976L	D.P.D.T.	2-C	1.55

"CORD SWITCHES"

An attractive bright nickel plated housing supports **Series 903** and **913** button switches. Ideal for cord mounted or pendant switch on remote control applications. Sleeve $^{11}/_{16}$" diameter, 2$^{5}/_{16}$" long.

Part Nos. Red Button	Part Nos. Black Button	Action	Schematic Circuit	U.S.A. List Price
E-903	E-913	S.P.D.T. "Break-Make"	1-C	$2.50
E-903D	E-913D	S.P.D.T. "Make-Break"	1-D	2.50

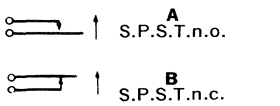
"HOOK SWITCHES"

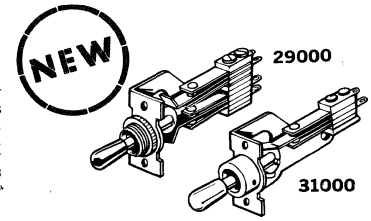
Quality constructed leaf-type switch actuated by a hook (or hanger). Ideal for equipment where it is necessary to actuate a circuit by hanging an accessory on a "hook", as a headset, telephone or microphone. Fine silver contacts, rated at 3 amps, 300 watts, max., A.C., non-inductive load. Requires only $^{19}/_{32}$" depth behind panel.

Part No.	Action	Schematic Circuit	U.S.A. List Price
14004	D.P.S.T. n.o.	2-A	$2.75
14005	D.P.S.T. n.c.	2-B	2.75
14006	D.P.D.T.	2-C	3.00
14012	4 P.D.T.	4-C	3.85

BASIC SCHEMATIC CIRCUITS

Switch circuitry can be described as combinations of basic schematic circuits as shown below. N.O. means normally open; N.C. means normally closed.





"FEATHER LEVER" SWITCHES

Miniature lever switches, lightweight, compact, mount on $^{7}/_{16}$" centers. Available in 2 and 3 position, locking and non-locking types. Actuator designed with nylon roller for smoother, easy lever operation over entire life of switch. Rugged steel frame withstands rough usage, shock and vibration. Nickel silver springs with fine silver contacts, rated at 2 amperes, 200 watts, max., A.C., non-inductive load. Supplied with black plastic push-on knob. Other push-on knobs, available in 10 colors. See listing below. **Series 29000,** with bushing, mounts in $^{5}/_{16}$" O.D. panel hole. Supplied with locknut. **Series 31000,** mounts with 2 No. 2-56 machine screws. Both Series supplied with black push-on knob. Require only 1$^{9}/_{32}$" depth behind panel, mount in panels up to $^{1}/_{8}$" thick. †n.o., center position off. ‡Inter-communications "Talk-Listen" switches, lever locks on one side of neutral and operates non-locking on the other side. *Add suffix letter "L" to Part No. to indicate locking type.

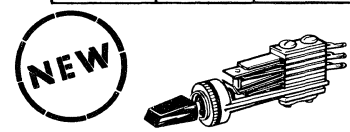
SERIES 29000, 31000 TWO POSITION TYPES

Part No. Non-Locking* 29000	31000	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
29201	31201	S.P.S.T. n.o.	1-A		$1.95
29203	31203	S.P.D.T.	1-C		2.25
29204	31204	D.P.S.T. n.o.	2-A		2.50
29206	31206	D.P.D.T.	2-C		2.75
THREE POSITION TYPES					
29303	31303	S.P.D.T. n.o.	1-C†		$2.50
29304	31304	S.P.S.T. n.o. ea. sec.	1-A	1-A	2.60
29306	31306	S.P.D.T. ea. sec.	1-C	1-C	2.90
29307	31307	S.P.D.T. n.o. ea. sec.	1-C†	1-C†	2.95
29312	31312	D.P.D.T. ea. sec.	2-C	2-C	3.75
‡INTER-COMM SWITCHES					
29303T	31303T	S.P.D.T. n.o.	1-C†		$2.50
29307T	31307T	S.P.D.T. n.o. ea. sec.	1-C	1-C	2.95

PUSH-ON COLOR KNOBS

Kit of molded plastic knobs. Available in 10 colors. For "Feather-Lever" Switches, Series 29000, 31000. Knobs can be changed quickly—simply pull off present knob and push-on new one. For permanence, use plastic cement.

Part No.	Color	Part No.	Color	U.S.A. List Price Per Pkg. of 10
K-108	One of ea. color	K-114	Brown	$0.75
K-109	Red	K-115	Orange	0.75
K-110	Black	K-116	Yellow	0.75
K-111	Green	K-117	Ivory	0.75
K-112	Blue	K-118	Gray	0.75
K-113	White	—	—	0.75



"LEV-R SWITCHES"

"Lev-r Switches." Series 28000 Compact, lever action switch in two and three position, locking and non-locking types. Smooth, easier lever action assured with special nylon roller. Supplied with locknut, non-turn ring (slips over slotted bushing to prevent switch from turning in mounting hole), and a black knob which is molded directly to the lever. Eliminates loose or lost knobs. Fine silver contacts rated at 3 amps, 300 watts, max., A.C., non-inductive load. Mounts on $^{5}/_{8}$" centers in panels up to $^{3}/_{32}$" thick. Requires only one $^{15}/_{32}$" dia. mounting hole for bushing and one $^{1}/_{8}$" dia. hole for non-turn device; depth behind panel, 2$^{1}/_{4}$". *Add suffix letter "L" to Part No. to indicate locking type. †Center position open (OFF).

TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
28201	S.P.S.T. n.o.	1-A		$2.70
28203	S.P.D.T.	1-C		3.00
28204	D.P.S.T. n.o.	2-A		3.25
28206	D.P.D.T.	2-C		3.50
THREE POSITION TYPES				
28304	S.P.S.T. n.o. ea. sec.	1-A	1-A	$3.35
28306	S.P.D.T. ea. sec.	1-C	1-C	3.65
28307	S.P.D.T. n.o. ea. sec.	1-C†	1-C†	3.70
28312	D.P.D.T. ea. sec.	2-C	2-C	4.50

"TINY SWITCHES"

Series 950, red button, and **Series 960,** black button, sub-miniature push-button switches for limited space applications. Integral contacts suitable for low level circuits where contact resistance is not important. Mounts in $^{1}/_{4}$" hole in panels up to $^{3}/_{32}$" thick; depth behind panel $^{3}/_{8}$".

Part Number Red Button	Part Number Black Button	Action	Schematic Circuit	U.S.A. List Price
951	961	S.P.S.T.n.o.	1-A	$0.90
952	962	S.P.S.T.n.c.	1-B	.90
953	963	S.P.D.T.	1-C	1.00

Trade Discount Applies To List Prices Only
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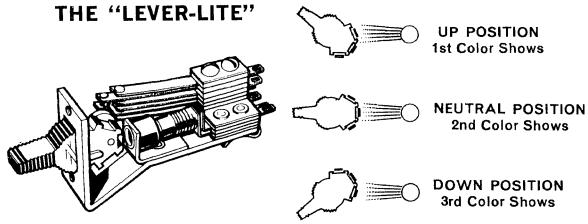
SWITCHCRAFT INC. Lever Switches

COLOR ILLUMINATED LEVER SWITCHES

THE "LEVER-LITE"



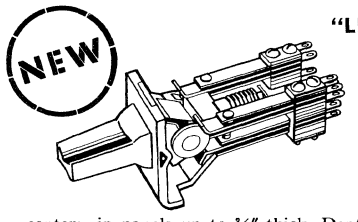
"Lever-Lite", Series 25000. Illuminated switches indicate positions at a glance. Individual color chips can be inserted in each switch position. Available in 2 or 3 positions, locking and non-locking types. Reduces panel space; minimizes costly wiring. Supplied with 6V miniature screw base lamp and six color chips, Red, Green, Amber, Yellow, Blue and White; 28V lamp also available. See lamp listing below. Nickel-silver springs, silver contacts rated 3 amps, 300 watts max., A.C., non-inductive load. Requires only 2¼" depth behind panel, can be mounted on ⅝" centers in panels up to 3/32" thick.
Size: 2¼" L. x 39/64" W. x 1 17/32" H. *Add suffix letter "L" to Part No. to indicate locking type.

TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
25201	S.P.S.T. n.o.	1-A		$4.00
25203	S.P.D.T.	1-C		4.25
25206	D.P.D.T.	2-C		5.00
25209	3 P.D.T.	3-C		5.75

THREE POSITION TYPES

25304	S.P.S.T. n.o. Ea. Sec.	1-A	1-A	$4.50
25306	S.P.D.T. Ea. Sec.	1-C	1-C	5.00
25308	D.P.S.T. n.o. Ea. Sec.	2-A	2-A	5.50
25312	D.P.D.T. Ea. Sec.	2-C	2-C	6.00



"LEVER-LITE" SWITCHES SERIES 27000

"Lever-Lite," Series 2700, illuminated lever switch, three color lighting identical to Series 25000, but utilizes a larger, contoured lever and larger, factory installed color filters. Available in 2 or 3 position, locking and non-locking types. Mounts on ¾" centers, in panels up to 3/32" thick. Depth behind panel 2 3/16". Nickel silver springs with fine silver contacts rated at 3 amps, 300 watts, max., A.C., non-inductive load. On standard 2 position type AMBER lights in the "NEUTRAL" position; GREEN lights in the "DOWN" position. On 3 position types, RED lights in the "UP" position, AMBER in "NEUTRAL" position and GREEN in the "DOWN" position. Supplied with a 6 V lamp. † n. o. center position off. *Add suffix "L" to part number to indicate locking type.

TWO POSITION TYPES

Part No. Non-locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
27206	D.P.D.T.	2-C		$6.50
27212	4 P.D.T.	4-C		8.00

THREE POSITION TYPES

27306	S.P.D.T. ea. sec.	1-C	1-C	6.50
27307	S.P.D.T. n.o. ea. sec.	1-C†	1-C†	6.65
27312	D.P.D.T. ea. sec.	2-C	2-C	8.00

LAMPS FOR "LEVER-LITE" SWITCHES

Lamps are mounted in a "snap-out" frame assembly. A 6V lamp is furnished with each of the above listed switches. Specify the following part numbers when ordering replacement lamps:

Part No.	Voltage	Base	Ind. No.	U.S.A. List Price
P-1217	6V	Screw	1768	$1.20
P-1218	28V	Screw	Hudson 369	2.00

ESCUTCHEON PLATES FOR "LEVER-LITE" SWITCHES

For easy and convenient mounting of Series 25000 and 27000 Switches. Satin black finish. Eliminates punching rectangular hole in mounting panel. **Part No. 531 for Series 25000,** complete with two No. 3-48 black machine screws. **Part No. 532 for Series 27000,** complete with two No. 2-56 machine screws.

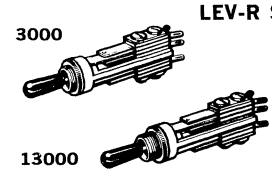
Switchcraft Part No. 531_____U.S.A. List Price **$0.15**
Switchcraft Part No. 532_____U.S.A. List Price **0.25**

AMBIENT LIGHT SHIELD

For use where "LEVER-LITE" Series 27000 switches are mounted on minimum centers. Shield gives positive separation of lighting between switches. Shield is placed between panel and switch, held in place by mounting screws. Two shields can be used per switch if desired.

Switchcraft Part No. P-1864_____U.S.A List. Price **$0.10**

LEV-R SWITCHES



Small lever action switches in two and three position types, locking and non-locking action. Requires half the space usually needed for a lever switch; frame bushing and shaft nickel plated brass. Supplied with locknut and screw-on black knob. Fine silver contacts rated at 3 amps, 300 watts, max. A.C. non-inductive load. Non-locking types have spring return. Series 3000 mounts in panels up to 3/32" thick; Series 13000 mounts in panels up to ¼" thick. Both Series are ⅝" wide; requires 2¼" behind panel; mounts in single ½" dia. hole. †n.o. center position off. ‡Inter-communications "Talk-Listen" switches, lever locks on one side of neutral and operates non-locking on the other side. *Add suffix letter "L" to Part No. to indicate locking type.

SERIES 3000
TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
3001	S.P.S.T. n.o.	1-A		$1.95
3002	S.P.S.T. n.c.	1-B		1.95
3003	S.P.D.T.	1-C		2.25
3003D	S.P.D.T.	1-D		2.40
3004	D.P.S.T. n.o.	2-A		2.50
3005	D.P.S.T. n.c.	2-B		2.50
3006	D.P.D.T.	2-C		2.75
3006D	D.P.D.T.	2-D		2.90
3009	3 P.D.T.	3-C		3.40

THREE POSITION TYPES

3033	S.P.D.T. n.o.	1-C†		$2.65
3034	S.P.S.T. n.o. Ea. Sec.	1-A	1-A	2.75
3035	S.P.S.T. n.c. Ea. Sec.	1-B	1-B	2.75
3036	S.P.D.T. Ea. Sec.	1-C	1-C	3.10
3036D	S.P.D.T. Ea. Sec.	1-D	1-D	3.25
3037	S.P.D.T. n.o. Ea. Sec.	1-C†	1-C†	3.10
30312	D.P.D.T. Ea. Sec.	2-C	2-C	4.00
30313	D.P.D.T. n.o. Ea. Sec.	2-C†	2-C†	4.00

SERIES 13000
TWO POSITION TYPES

13001	S.P.S.T. n.o.	1-A		$2.10
13002	S.P.S.T. n.c.	1-B		2.10
13003	S.P.D.T.	1-C		2.40
13003D	S.P.D.T.	1-D		2.50
13004	D.P.S.T. n.o.	2-A		2.65
13005	D.P.S.T. n.c.	2-B		2.65
13006	D.P.D.T.	2-C		2.75
13006D	D.P.D.T.	2-D		2.90
13009	3 P.D.T.	3-C		3.75

THREE POSITION TYPES

13033	S.P.D.T. n.o.	1-C†		$2.65
13034	S.P.S.T. n.o. Ea. Sec.	1-A	1-A	2.75
13035	S.P.S.T. n.c. Ea. Sec.	1-B	1-B	2.75
13036	S.P.D.T. Ea. Sec.	1-C	1-C	3.10
13036D	S.P.D.T. Ea. Sec.	1-D	1-D	3.25
13037	S.P.D.T. n.o. Ea. Sec.	1-C†	1-C†	3.10
130312	D.P.D.T. Ea. Sec.	2-C	2-C	4.00
130313	D.P.D.T. n.o. Ea. Sec.	2-C†	2-C†	4.00

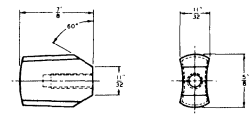
INTER-COM SWITCHES‡
SERIES 3000

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
3033T	S.P.D.T. n.o.	1-C†		$2.50
3037T	S.P.D.T. n.o. Ea. Sec.	1-C†	1-C†	2.95

SERIES 13000

13033T	S.P.D.T. n.o.	1-C†		$2.65
13037T	S.P.D.T. n.o. Ea. Sec.	1-C†	1-C†	3.10

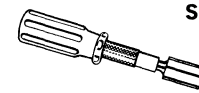
CONTOUR KNOBS FOR LEVER SWITCHES



Attractive contour knobs designed for today's modern equipment. Series M-1177 knobs, 8-32" tapped hole for use with "LEV-R" switches Series 3000, 12000, and 13000. Series M-1178 knobs, 6-32" tapped hole for use with "TEL-EVER" switches Series 6000 and 16000.

Part No. Series 1177	Part No. Series 1178	Color	U.S.A. List Price Per Pkg. of 10
M-1177-1	M-1178-1	Red	$3.50
M-1177-2	M-1178-2	Black	3.50
M-1177-15	M-1178-15	White	3.50

SPECIAL WRENCHES

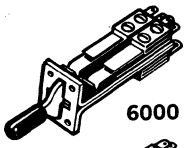


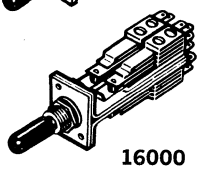
Special Switchcraft wrenches designed to assemble knurled locknuts normally furnished with lever and button switches and jacks. A-1070 wrench fits 15/32"-32 locknuts; A-1071 for use with ¼"-32 knurled locknuts.

Part No. A-1070.....U.S.A. List Price **$6.65**
Part No. A-1071.....U.S.A. List Price **6.65**

SWITCHCRAFT INC. Lever Switches

"TELEVER SWITCHES"


6000


16000

Series 6000 and 16000. Rugged telephone type lever switches featuring **"T-Beam"** frame construction which results in a relatively light construction with sturdiness of a structural "T-Beam". Available in two and three positions, locking and non-locking types. **Nylon rollers** on the lever actuate the special nickel silver springs, providing smooth action; assures long dependable spring life. Welded cross bar palladium contacts are standard, rated at 3 amps, 300 watts max., A.C., non-inductive load. **Series 6000** mounts with four No. 3-48 machine screws. Mounting centers $^{17}/_{32}$" x $^{13}/_{16}$", mounts in panels up to ¼" thick. **Series 16000** features single hole mounting; $^{15}/_{32}$"-32 threaded bushing. Mounts in ½" dia. hole in panels up to ¼" thick. **Part No. 545, "Stop Plate"** provides positive "stops" for two position action. **Part No. 540, "Stop Plate"** provides non-locking or momentary action. The "Stop Plates" can be changed in the field. Both Series switches supplied with black insulated knob. All have tinned solder lug terminals. *Add suffix letter **"L"** to Part No. to indicate locking type. **Series 16000 non-locking type** can be converted to **locking type** by removing **"Stop Plate".**

SERIES 6000
TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
6006	D.P.D.T.	2-C		$5.00
6006D	D.P.D.T.	2-D		5.60
6008	4 P.S.T. n.o.	4-A		5.60
6009	3 P.D.T.	3-C		6.00
60012	4 P.D.T.	4-C		6.80
60012D	4 P.D.T.	4-D		7.50
60024	8 P.D.T.	8-C		10.00

THREE POSITION TYPES

6036	S.P.D.T. Ea. Sec.	1-C	1-C	$5.00
6036D	S.P.D.T. Ea. Sec.	1-D	1-D	5.60
6038	D.P.S.T. n.o. Ea. Sec.	2-A	2-A	5.60
60312	D.P.D.T. Ea. Sec.	2-C	2-C	6.80
60312D	D.P.D.T. Ea. Sec.	2-D	2-D	7.50
60316	4 P.S.T. n.o. Ea. Sec.	4-A	4-A	8.80
60324	4 P.D.T. Ea. Sec.	4-C	4-C	10.00

SERIES 16000
TWO POSITION TYPES

16006	D.P.D.T.	2-C	$5.00
16006D	D.P.D.T.	2-D	5.60
16008	4 P.S.T.n.o.	4-A	5.60
16009	3 P.D.T.	3-C	6.00
160012	4 P.D.T.	4-C	6.80
160012D	4 P.D.T.	4-D	7.50
160024	8 P.D.T.	8-C	10.00

THREE POSITION TYPES

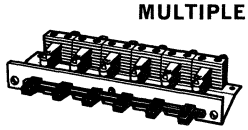
16036	S.P.D.T. Ea. Sec.	1-C	1-C	$5.00
16036D	S.P.D.T. Ea. Sec.	1-D	1-D	5.60
16038	D.P.S.T. n.o. Ea. Sec.	2-A	2-A	5.60
160312	D.P.D.T. Ea. Sec.	2-C	2-C	6.80
160312D	D.P.D.T. Ea. Sec.	2-D	2-D	7.50
160316	4 P.S.T. n.o. Ea. Sec.	4-A	4-A	8.80
160324	4 P.D.T. Ea. Sec.	4-C	4-C	10.00

Part No. 530 Escutcheon Plate. For Series 6000 Telever switches with 4 mounting screws..... U.S.A. List Price **$0.60**

Part No. 540 Stop Plate. For Series 16000 Telever switches. To convert from locking to non-locking action. Includes two mounting screws..... U.S.A. List Price **$0.25**

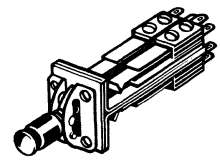
Part No. 545 Stop Plate. For Series 16000 Telever switches. To convert from 3-position to 2-position. Includes two mounting screws..... U.S.A. List Price **$0.25**

MULTIPLE LITTEL-KEY SWITCH



TYPE "MLK". The **Multiple Littel-Key** switches are designed for control panels in industrial, educational, military and communication equipment. Available in assemblies of **6** and **12** stations only. All "MLK" switch assemblies are handled as "special orders". Both the 6 and 12 station assemblies are available in two or three positions, locking and non-locking types. Switches on frames are on ¾" centers. Leaf springs of special nickel silver; fine silver contacts rated at 3 amps. 300 watts max., A.C., non-inductive load.

SERIES 26000 "LEVER-LOCK" SWITCHES



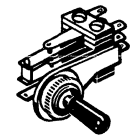
Rugged telephone-type lever switches. "Lever-Lock" feature guards against accidental switching due to **shock, vibrations, operator fatigue,** or **unintended operation.** Ideal for mobile communication equipment. **Index bracket** and **release plunger "locks" lever** in any position. Turning actuator knob to extreme left actuator will be permanently locked. To unlock, turn knob to the right. Pressing release plunger frees actuator from index bracket and allows actuator to be moved to another switching position. Welded cross bar palladium contacts rated at 3 amps, 300 watts max., A.C., non-inductive load. Mounts with four No. 3-48 screws in panels up to $^{3}/_{32}$" thick. Requires $3^{1}/_{32}$" depth behind panel.

TWO POSITION TYPES

Part No. Locking Type Only	Action	Schematic Circuits Pos. 1	Pos. 2	U.S.A. List Price
26206L	D.P.D.T.	2-C		$8.50
26208L	4 P.S.T. n.o.	4-A		9.10
26212L	4 P.D.T.	4-C		10.30
26212DL	4 P.D.T.	4-D		11.00

THREE POSITION TYPES

26306L	S.P.D.T. Ea. Sec.	1-C	1-C	$8.50
26308L	D.P.S.T. n.o. Ea. Sec.	2-A	2-A	9.10
26312L	D.P.D.T. Ea. Sec.	2-C	2-C	10.30
26312DL	D.P.D.T. Ea. Sec.	2-D	2-D	11.00
26316L	4 P.S.T. n.o. Ea. Sec.	4-A	4-A	12.30
26324L	4 P.D.T. Ea. Sec.	4-C	4-C	13.50



"LEV-R SWITCHES", SERIES 12000

Small **right-angle** action switches requiring minimum of depth behind panel. Available in two and three position, locking and non-locking types. Long leaf-type springs insure long switch life. Fine silver contacts rated at 3 amps, 300 watts max., A.C., non-inductive load. Requires only $^{7}/_{8}$" depth behind panel; single ½" dia. mounting hole; mounts in panels up to $^{3}/_{32}$" thick. Supplied with nickel plated locknut and removable black plastic knob. †n.o. center position off. *Add suffix letter **"L"** to Part No. to indicate locking type.

TWO POSITION TYPES

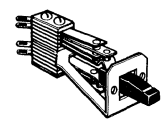
Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
12001	S.P.S.T. n.o.	1-A		$1.75
12002	S.P.S.T. n.c.	1-B		1.75
12003	S.P.D.T.	1-C		2.00
12003D	S.P.D.T.	1-D		2.25
12004	D.P.S.T. n.o.	2-A		2.25
12005	D.P.S.T. n.c.	2-B		2.25
12006	D.P.D.T.	2-C		2.50
12006D	D.P.D.T.	2-D		2.75

THREE POSITION TYPES

12033	S.P.D.T. n.o.	1-C†		$2.25
12034	S.P.S.T. n.o. Ea. Sec.	1-A	1-A	2.35
12035	S.P.S.T. n.c. Ea. Sec.	1-B	1-B	2.35
12036	S.P.D.T. Ea. Sec.	1-C	1-C	2.65
12036D	S.P.D.T. Ea. Sec.	1-D	1-D	2.85
12037	S.P.D.T. Ea. Sec.	1-C†	1-C†	2.75

THREE POSITION TYPES
LOCKING ONE SIDE—NON-LOCKING OTHER SIDE

12033T	S.P.D.T. n.o.	1-C†		$2.25
12037T	S.P.D.T. Ea. Sec.	1-C†	1-C†	2.75



"LK" LITTEL-KEY SWITCHES

Series 23000. Short frame lever-type switches available in 2 or 3 positions, locking or non-locking types. Ideal for applications where panel mounting space and depth behind panel is at a premium. Fine silver contacts, rated at 3 amps, 300 watts max., A.C., non-inductive load. Frame has 2 tapped No. 3-48 holes for easy mounting. Mounts in panels up to ⅛" thick. Depth behind panel only $2^{3}/_{32}$". *Add suffix letter "L" to Part No. to indicate locking type.

TWO POSITION TYPES

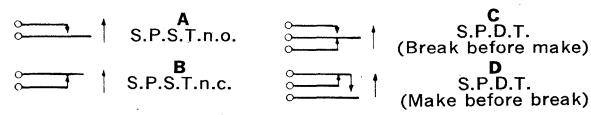
Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
23201	S.P.S.T. n.o.	1-A		$1.65
23203	S.P.D.T.	1-C		1.95
23206	D.P.D.T.	2-C		2.25

THREE POSITION TYPE

23304	S.P.S.T. n.o. Ea. Sec.	1-A	1-A	$2.10
23306	S.P.D.T. Ea. Sec.	1-C	1-C	2.25
23308	D.P.S.T. n.o. Ea. Sec.	2-A	2-A	2.50

BASIC SCHEMATIC CIRCUITS

Switch circuitry can be described as combinations of basic schematic circuits as shown below. N.O. means normally open; N.C. means normally closed.



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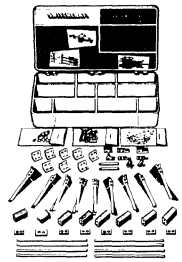
SWITCHCRAFT INC. Switches and Microphone Connectors

STACK SWITCH KITS

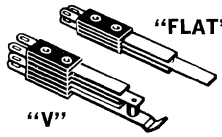


Experimental kits of component parts for assembling stack switches. Designed to speed the assembly of engineering samples in the lab, aid maintenance men in the field and save time in general replacement. Ideal for mechanical engineers and coin machine servicing; used in relays, electronic organs, etc. Each kit consists of **136** springs in different thicknesses, over **152** phenolic spacers and insulators in various sizes, hard-rubber insulating tubing, two sets of stack assembling pins, two roller assemblies, assorted contacts, etc. All in compartmented plastic box.

Kit No. K-101. Assorted ¼" and ⅜" mtg. center contact springs and associated parts.....NET **$9.90**

Kit No. K-102. Assorted ¼" mtg. center contact springs and associated parts.....NET **$9.90**

Kit No. K-103. Assorted ⅜" mtg. center contact springs and associated parts.....NET **$9.90**



STACK SWITCHES

General purpose stack switch assemblies made from a pile-up of various actuator springs, contact springs and lifters. These stack switch assemblies can be used on manually operated devices where switching is operated by cams, levers, push buttons, and other mechanical devices. General purpose stack switches are available with a **"Flat"** or **"V"** actuator spring. Fine silver or palladium cross bar welded contacts are standard, rated at 3 amps., 300 watts max., A.C., non-inductive load. Supplied with pressure plate and two No. 5-40 screws; mount on ⅜" centers. **Height of stack** depends on switching circuit; 1-B circuit $^{21}/_{64}$" **H., min.**; 2-C circuit $^{45}/_{64}$" **H., max.**

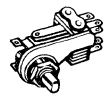
FLAT ACTUATOR SPRING

Part No.	Contact Material	Action	Schematic Circuit	U.S.A. List Price
AA01AA	Silver	S.P.S.T. n.o.	1-A	$0.70
AA01AB	Palladium	S.P.S.T. n.o.	1-A	.80
AA02AA	Silver	S.P.S.T. n.c.	1-B	.70
AA02AB	Palladium	S.P.S.T. n.c.	1-B	.80
AA03AA	Silver	S.P.D.T.	1-C	.90
AA03AB	Palladium	S.P.D.T.	1-C	1.10
AA06AA	Silver	D.P.D.T.	2-C	1.25
AA06AB	Palladium	D.P.D.T.	2-C	1.55

"V" FORMED ACTUATOR SPRING

AA01BA	Silver	S.P.S.T. n.o.	1-A	$0.80
AA01BB	Palladium	S.P.S.T. n.o.	1-A	.90
AA02BA	Silver	S.P.S.T. n.c.	1-B	.80
AA02BB	Palladium	S.P.S.T. n.c.	1-B	.90
AA03BA	Silver	S.P.D.T.	1-C	1.00
AA03BB	Palladium	S.P.D.T.	1-C	1.20
AA06BA	Silver	D.P.D.T.	2-C	1.45
AA06BB	Palladium	D.P.D.T.	2-C	1.65

"RS-SWITCHES"



Rugged rotary switches, available in various multiple circuits, two and three position types, locking or non-locking action. Ideal for communication, musical and test equipment applications. **Fibre cam** actuates long, leaf-type springs resulting in easy action; good wiping action of contacts. Fine silver contacts rated at 3 amps, 300 watts max., AC, non-inductive load. Requires only ⅞" depth behind panel, mounts in single ⅜" hole in panels up to ¼" thick.
*Add suffix letter **"L"** to part number to indicate locking type.

TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
2001	S.P.S.T. n.o.	1-A		$1.25
2002	S.P.S.T. n.c.	1-B		1.25
2003	S.P.D.T.	1-C		1.50
2004	D.P.S.T. n.o.	2-A		1.50
2005	D.P.S.T. n.c.	2-B		1.50
2006	D.P.D.T.	2-C		1.95

THREE POSITION TYPES

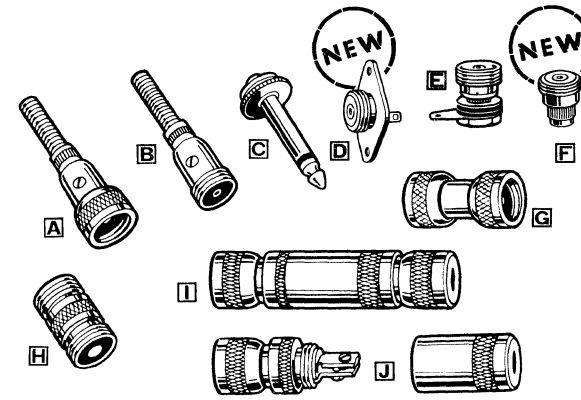
2034	S.P.S.T. n.o. Ea. Sec.	1-A	1-A	$1.50
2035	S.P.S.T. n.c. Ea. Sec.	1-B	1-B	1.50
2036	S.P.D.T. Ea. Sec.	1-C	1-C	1.95

RF-JACKS and RF-PLUGS

Standard phono jacks and plugs with **nylon insulation.** For use in radio frequency applications—low cost, max. insulation resistance. No. 3504M, ⅜" O.D. No. 3505F mounts front of panel in ⅜" hole—fits panel up to $^{11}/_{64}$" thick. **No. 3506** adapter has coaxial connector (Amphenol 83-1SP) one end; 3505F at other end. **No. 3507** has $^{13}/_{32}$" O.D. shielded, screw-on handle with cable clamp.

Part No.	Fig.	Description	U.S.A. List Price
3504M	L	Plug	$0.20
3505F	M	Chassis jack	.60
3506	Q	Adapter	2.00
3507	N	Plug	.80

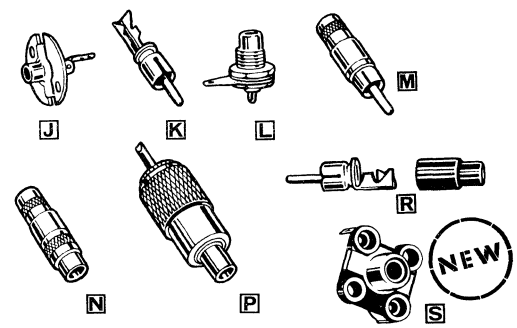
MICROPHONE CONNECTORS



Standard connectors with ⅝"-27 threads. Designed for use with single conductor microphone cable with $^{9}/_{32}$" max. O.D. **Coupling ring** on 2501F removable for fast change of female to male type. Spring assembled into body, cable braid and spring clamped by hollow set screw. **No. 44** adapts 2501F to fit standard 2-cond. phone jack. No. 2501MP mounts in .385" dia. hole. ***No. 2501MPC** same as 2501MP except closed circuit type. **No. 2501FT,** coupler, two female connectors at each end. **No. 2501MT,** coupler, two male connectors at each end. **Nos. 2501FL, 2501FS,** for attaching cable to female connector without soldering; screw terminals. **No. 2501MBL,** insulated male panel receptacle. **No. 2501MPF,** male panel receptacle for PRESS-FIT mounting. **Cable clamp.

Part No.	Fig.	Description	U.S.A. List Price
2501F	A	Female Connector	$0.60
2501M	B	Male Connector	.45
44	C	Phone Plug Adapter	.50
2501MBL	D	Panel Receptacle	.50
2501MP	E	Panel Receptacle	.35
*2501MPC	E	Panel Receptacle	.45
2501MPF	F	Panel Receptacle	.35
2501FT	G	Double Female Connector	.80
2501MT	H	Double Male Connector	.70
**2501FL	I	Screw Term. Female Connector	2.25
2501FS	J	Screw Term. Female Connector	1.65

PHONO JACKS AND PLUGS



Low cost 2-cond. jacks and plugs for record players, FM-AM tuners, tape recorders, test equipment, etc. 3501MC has ⅜" O.D. shell and cable clamp. 3501FP for front panel mount in ¼" hole, in panels up to ⅛" thick. 3501FR for rear panel mount in ⅜" hole, in panels up to $^{13}/_{64}$" thick. **3502** has unique cable clamp with $^{13}/_{32}$" O.D. shielded removable handle. 3503 ext. jack has shielded removable handle, $^{13}/_{32}$" O.D. with cable clamp. **3508 Series,** new color coded phono plugs with cable clamp and **"snap-on"** plastic handles in Red, Black, and White. **Series 3511 "4-Leaf Clover" Jax.** Molded phono Jack with dual contact surfaces for minimum shunt resistance, greater reliability. Open and closed circuit types. Mate with all Switchcraft phono plugs.

Part No.	Fig.	Description	U.S.A. List Price
3501F	K	Chassis jack	$0.15
3501M	—	Plug, less cable clamp	.10
3501MC	L	Plug with cable clamp	.15
3501FP	M	Chassis jack	.35
3501FR	—	As above, chassis jack	.40
3502	N	Plug	.50
3503	P	Extension jack	.60
3508-1	R	Plug, Red handle	.25
3508-2	R	Plug, Black handle	.25
3508-5	R	Plug, White handle	.25
3511	S	Chassis jack, open circuit	.25
3511A	S	Chassis jack, open circuit, grounded	.25
3512	S	Chassis jack, closed circuit	.30
3512A	S	Chassis jack, closed circuit, grounded	.30

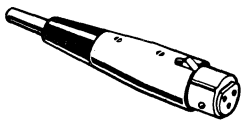
SWITCHCRAFT INC. Q-G* Audio Connectors

Patent Applied For

*NEW AUDIO CONNECTORS WITH COMPLETE GROUNDING PROVISIONS!

Switchcraft's* "Quick-Ground" connectors feature a separate "Ground-Terminal" electrically integral with the connector shell. Ground continuity between mating plugs automatically accomplished through the exclusive "Ground Contactors." Possible loss of insert screw is eliminated by new "Captive Design" Insert Screw. Socket and pin assemblies utilize "wedge-action" to insure firm, reliable positioning in connector shell. Q-G* Series 3 and 4-contact audio connectors, offer 4 and 5-contact versatility when "Ground Terminal" is utilized. Can be used interchangeably with Cannon type XLR-3, XLR-4 and Amphenol type 91-850 Series. ***Number of insert contacts or pins must be specified to complete Part Number.**

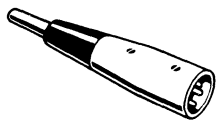
A(*)F CORD PLUGS



Fresh, streamlined design includes rugged, diecast zinc body, satin nickel finish, high-impact resistant thermosetting plastic socket insert, molded latchlock, dual pressure plates, keyed neoprene relief bushing. Features "Ground Terminal" and "Ground Contactors" offers 4 and 5-contact versatility. Mates with Switchcraft A(*)M and other connectors with similar contact arrangements. Takes 7/32" O.D. cable. Overall length 3 7/32"; dia. 3/4".

Part No.	Insert Contacts	U.S.A. List Price
A3F	3	$2.25
A4F	4	2.75

A(*)M CORD PLUGS



Has "Captive Design" insert screw, one-piece pin insert assembly easily removable for fast soldering. Polarizing groove. Die-cast zinc shell, satin nickel finish. Mates with Switchcraft A(*)F and other connectors with similar contact arrangements. Brass, silver plated chromate dipped pins to resist tarnishing. Overall length 2 25/32"; dia. 3/4".

Part No.	Insert Pins	U.S.A. List Price
A3M	3	$1.90
A4M	4	2.00

B(*)M RECEPTACLES

For panel or chassis mounting; locknut accommodates panels up to 1/4" thick. Single hole mounting, can be keyed by using "D" shaped panel hole or S-3519 mounting adapter. Pin insert features "Captive Design" insert screw and "Ground Terminal." Mates with Switchcraft A(*)F and other connectors with similar contact arrangements. Diecast zinc shell, satin nickel finish. Dimensions: Flange 1 7/64" dia.; Barrel 13/16" overall; pin extensions 9/32".

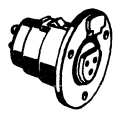
Part No.	Insert Pins	U.S.A. List Price
B3M	3	$2.90
B4M	4	3.00

C(*)M RECEPTACLES

Mounts on wall, panel or chassis with three .136" dia. mounting holes. High impact thermosetting plastic pin insert. "Captive Design" insert screw, "Ground Terminal." Pins, brass, silver plated, chromate dipped; resists tarnishing. Mates with Switchcraft A(*)F and other connectors with similar contact arrangements. Dimensions: Flange 1 1/16" dia.; Barrel 13/16" overall; pin extensions 9/32".

Part No.	Insert Pins	U.S.A. List Price
C3M	3	$1.40
C4M	4	1.50

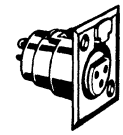
C(*)F RECEPTACLES



For panel or chassis mounting; has socket insert, push-type latch locking device. Flange has three .136" holes for mounting screws. Mates with Switchcraft A(*)M and other connectors with similar contact arrangements. Dimensions: Flange 1 1/16" dia.; Barrel 1 13/16" overall; pin extension 1/4".

Part No.	Insert Pins	U.S.A. List Price
C3F	3	$3.10
C4F	4	3.20

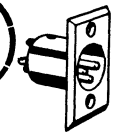
D(*)F RECEPTACLES



Rectangular flange design receptacle permits close mounting on crowded panel or chassis. Features "Captive Design" loss-proof insert screw, positive latch locking device and high impact thermosetting socket insert. Mates with Switchcraft A(*)M and other connectors with similar contact arrangements. Dimensions: Flange 1 1/16" x 1 1/16"; Barrel 1 13/64" overall; pin extension 1/4".

Part No.	Insert Contacts	U.S.A. List Price
D3F	3	$3.20
D4F	4	3.30

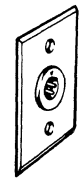
NEW



D(*)M RECEPTACLES

Narrow, rectangular flange design receptacle for mounting on compact panel or chassis. Mates with Switchcraft A(*)F and other connectors with similar contact arrangements. Dimensions: Flange 1/8" x 1 7/16"; Barrel 13/16" overall; pin extension 9/32".

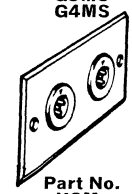
Part No.	Insert Pins	U.S.A. List Price
D3M	3	$1.90
D4M	4	2.00



G(*)M TYPE WALL PLATES

Single gang wall plates with a B(*)M male receptacle. Fits standards electrical outlet box. Wall plates available in brushed brass or brushed stainless steel. Dimensions: Wall Plate 4 1/2"H x 2 3/4"W.

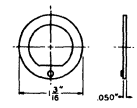
Part No.	Finish	Insert Pins	U.S.A. List Price
G3M	Brass	3	$4.50
G4M	Brass	4	4.75
G3MS	Stainless Steel	3	5.00
G4MS	Stainless Steel	4	5.25



H(*)M TYPE WALL PLATES

Two gang wall plates with two B(*)M male receptacles. Mounts in standard electrical switch box (single). Wall plates available in brushed brass or brushed stainless steel. Dimensions: Wall Plate 4 1/2"H x 2 3/4"W. Six contacts.

Part No.	Finish	Insert Pins	U.S.A. List Price
H3M	Brass	3 ea.	$6.50
H4M	Brass	4 ea.	7.00
H3MS	Stainless Steel	3 ea.	7.00
H4MS	Stainless Steel	4 ea.	7.50

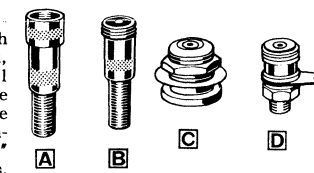


MOUNTING ADAPTER

For use with B3M panel and chassis receptacle. Eliminates necessity of providing a flatted "D" shaped hole in panel to prevent turning of receptacle.

Switchcraft Part No. S-3519.....U.S.A. List Price **$0.40**

"MINI-CON" MINIATURE CONNECTORS



Popular "Mini-Con" microphone-type connectors used with miniaturized audio equipment, lapel microphones, musical instruments, etc. About 1/2 the size of standard microphone connectors. Accepts single conductor shielded cables up to 3/16" O.D. Nickel plated brass bodies. Coupling ring on 5501F removable for quick change of female to male type. Cable-braid spring clamped to body by hollow point set screw. 5501MF mounts by lock-nut front side of panel, in 3/8" dia. hole. 5501MP mounts back side of panel in 3/16" dia. hole. 5501MPC same as 5501MP except shorting type

Part Number	Fig.	Description	U.S.A. List Price
5501F	A	Female Cord Connector	$0.60
5501M	B	Male Cord Connector	.45
5501MF	C	Panel Connector, Male	.45
5501MP	D	Panel Connector, Male	.35
5501MPC	D	Panel Connector, Male	.60

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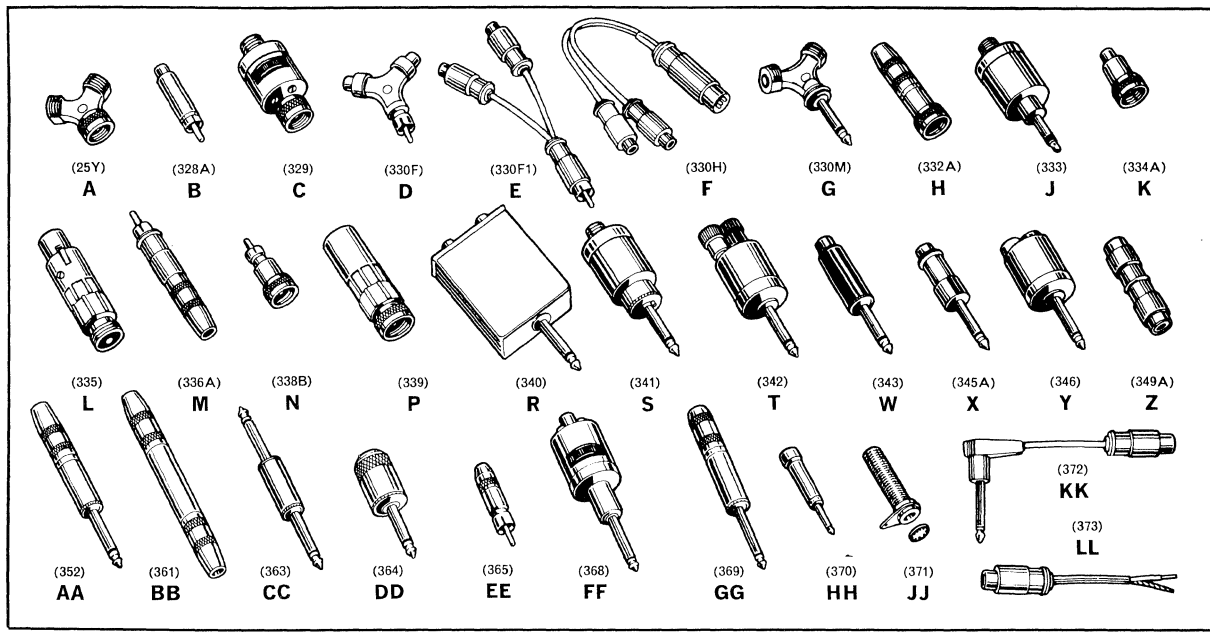
SWITCHCRAFT INC. Adapters



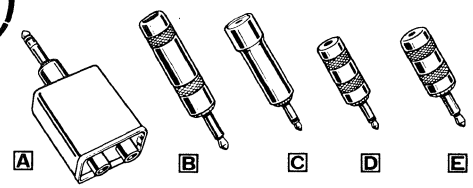
A versatile and complete line of adapters for interconnecting components that do not have mating jacks and/or plugs. For hi-fi, stereo, phonographs, tuners, tape recorders, amplifiers, P.A. systems, etc. Positive mating contacts of high quality material prevent resistive line-losses. **Nickel plated finish** for long life. **No. 328A, audio equalizer,** converts ceramic phono cartridge to magnetic input. **No. 329 Volume Control Adapter** for use in high impedance circuits. **No. 330H,** adapts 3-pin European type plug to standard Switchcraft phono plugs. **No. 335** has unsoldered internal wire at one end to permit user to convert terminal needed. **No. 341, silent plug** adapter, includes a circuit closing device to eliminate amplifier "squeals" when disconnecting. **No. 352,** converts stereo headphones and/or microphones to a monaural input. **Nos. 332A, 334A, 338B** can be used as male or female connector; coupling ring screws back converting to male mike connector.

Part No.	Fig.	Description	U.S.A. List Price
25Y	**A**	Y-Adapter, two male mike connectors in parallel to one female mike connector.	**$1.65**
328A	B	Audio Equalizer. Phono jack input to phono plug output.	**2.95**
329	C	Volume Control, female mike connector to male mike connector.	**6.95**
330F	D	Y-Adapter. Two phono jacks in parallel to a phono plug. Shielded.	**1.75**
330F1	E	Flexible Y-Adapter, phono plug in parallel to 2 phono jacks. Shielded 4" cable.	**2.00**
330F2	—	Same as above, but phono plug and phono jack to a phono plug.	**2.00**
330F3	—	Same as above, but 2 phono plugs to 1 phono plug.	**2.00**
330H	F	Flexible Y-Adapter. 3-pin European type plug to 2 phono jacks. Shielded 5" cable.	**3.00**
330M	G	Y-Adapter, two male mike connectors in parallel to a 2-conductor phone plug.	**1.90**
330PJ	—	Y-Adapter, as above, except two phono jacks in parallel to a 2-cond. phone plug. Shielded.	**1.90**
333	J	Phone jack input to special 2-cond. plug for American Geloso recorders.	**2.35**
332A	H	Phone jack input to female mike connector output.	**1.75**
334A	K	Phono jack input to female mike connector output. Shielded.	**1.25**
334B	—	Same as above, but phono jack input to male mike connector output. Shielded.	**1.25**
335	L	2-cond. input has Switchcraft 2501MP (Amphenol 75PCIM) to output connector Cannon XL-3-11.	**2.95**
336A	M	2-Cond. phone jack input to phono plug output. Shielded.	**1.45**
336B	—	Same as above, but 2-cond. phone jack input to phono jack output.	**1.45**
338A	—	Phono plug input to male mike connector output. Shielded. Similar to 338B.	**1.00**
338B	N	Phono plug input to female mike connector output. Shielded.	**1.00**
339	P	Same as 335, but output connector Switchcraft 2501F (Amphenol 75MCIF) to input connector Cannon XL-3-12.	**2.95**

Part No.	Fig.	Description	U.S.A. List Price
340	R	Two 2-cond. phone jack inputs in parallel to a 2-cond. phone plug output. Shielded.	**$3.75**
341	S	Silent-Plug Adapter. 2-cond. phone jack input to 2-cond. phone plug output.	**2.95**
342	T	Dual purpose binding post/ banana jack input to 2-cond. phone plug output.	**2.60**
343	W	Phono jack input to phone plug output. Built-in limiting resistor for Webcor tape recorders.	**1.95**
345A	X	Phone plug output to phono jack input.	**1.25**
346	Y	Tip jack input to 2-cond. phone plug output.	**2.15**
349A	Z	Phono plug coupler, mates with phono plug at each end. Shielded.	**1.00**
352	AA	Stereo to monaural adapter. 3-cond. phone jack to 2-cond. phone plug output. Shielded.	**2.00**
361	BB	Coupler. 2-cond. phone jack at each end. Shielded.	**2.25**
362	—	Same as above, but 3-cond. phone jack at each end.	**2.75**
363	CC	Coupler. 2-Cond. phone plug at each end. Shielded.	**2.00**
364	DD	2-Cond. "Tini-Jax" 9/64" dia. sleeve, to 2-cond. ¼" O.D. phone plug. Shielded.	**1.45**
365	EE	2-Cond. "Tini-Jax" (as above) input to phono jack output. Shielded.	**1.45**
368	FF	Input volume control, phono jack input to a 2-cond. phone plug output. Shielded.	**4.50**
369	GG	2-Cond. Revere/Wollensak phone jack input to a standard 2-cond. phone plug output. Shielded.	**2.00**
370	HH	Phono jack input to a 2-cond. "Tini-Plug" (9/64" dia. finger) output. Shielded.	**1.40**
371	JJ	Thick panel adapter for 3501P phono jack. Permits mounting of jack in panels up to 1¼" thick.	**.95**
372	KK	2-Cond. molded right angle phone plug to a molded phono jack. 2" shielded cable.	**1.75**
373	LL	2-Cond. molded phono jack to 3" shielded cable, stripped and tinned leads.	**.75**

SWITCHCRAFT INC. Microphone Mixers and HI-FI Adapters and Cables

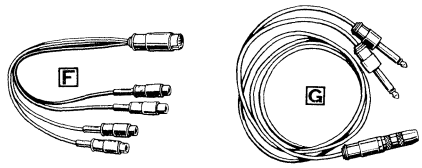
ADAPTERS



New, versatile adapters for interconnecting components and cables that do not have mating jacks and/or plugs. Positive mating contacts prevent resistive line-losses. **No. 353,** stereo headphone adapter, permits use of 2 stereo headphones in a single 3-circuit jack, instead of only one. **Nos. 374, 375, 376, 377** have shielded, nickel plated brass handles.

Part No.	Fig.	Description	U.S.A. List Price
353	A	Stereo Headphone Adapter. 3-circuit plug wired to two 3-circuit jacks. Housed in shielded, metal case, tan finish.	$4.25
374	B	Phone jack input to a 2-cond. "Tini-Plug" (9/64" dia. finger) output.	1.70
375	C	Phono jack input to a 2-cond. "Micro-Plug" (.097" dia. finger) output.	1.50
376	D	"Tini-Jax" input to a 2-cond. "Micro-Plug" (.097" dia. finger) output.	1.50
377	E	"Micro-Jax" input to a 2-cond. "Tini-Plug" (9/64" dia. finger) output.	1.50

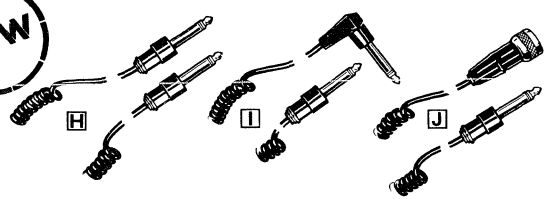
STEREO ADAPTER CABLES



Part No. 330G, Fig. F, flexible stereo cable adapter. Adapts European-type 5-contact sockets to standard Switchcraft phono plugs. Color coded. Fits Norelco, Korting, Grundig, Sony, Elber tape recorders; Grundig radios. **Part No. 05FH81, Fig. G,** adapts 3-circuit phone plugs to two separate 2-cond. phone jacks as used on stereo tape recorders.

Part No.	Fig.	Description	U.S.A. List Price
330G	F	Stereo Adapter Cable. 5-pin European-type plug to four phono jacks. Shielded stereo cables, each 1 ft.	$5.50
05FH81	G	Stereo Headphone Adapter Cable. Two std. 2-cond. phone plugs wired to a 3-cond. phone jack. Shielded, 4 ft. stereo cable.	4.35

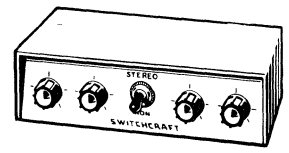
MOLDED COILED CORD CABLE ASSEMBLIES



Shielded, coiled cord assemblies with molded phone plugs and/or microphone connectors. **12 ft. or 20 ft.** extended lengths. Black plastic jacket over single cond., shielded cable.

Part No.	Fig.	Description	U.S.A. List Price
05LP05	H	Straight 2-cond. phone plug at each end. 12 ft.	$7.50
05LP15	I	Straight 2-cond. phone plug at one end, right angle phone plug at other. 12 ft.	7.50
05LP87	J	Straight 2-cond. phone plug at one end, Switchcraft 2501F connector molded to other end. 12 ft.	7.65
05LT05	H	Same as 05LP05, except 20 ft.	10.50
05LT15	I	Same as 05LP15, except 20 ft.	10.50
05LT87	J	Same as 05LP87, except 20 ft.	10.65

MICROPHONE MIXERS



STEREOPHONIC MIXERS

MODEL 306. Two channel stereophonic, high impedance microphone mixers. Extremely versatile, feeds up to two pairs of stereo signals such as microphones, tuners, phonos into two outputs to a recorder or amplifier. Individual gain control for each channel. With a flip of a **lever switch,** converts to **4** monophonic channels. Four standard 2-cond. phone jack inputs on rear panel; two phono jacks for output to amplifier or tape recorder. Size: 2"x3"x6".

Switchcraft Part No. 306.....U.S.A. List Price **$22.50**

MODEL 306TR, same as above, but with two battery operated **transistor amplifiers.** Provides **6 db** gain. Permits use of microphone with up to 30' of cable without loss. Low noise level, low distortion, frequency response: **20 to 20,000 c.p.s.** On-Off switch lengthens battery life. Battery included. Tan finish, brown knobs with gold inserts. Rubber feet on base prevents scratching of finished surfaces.

Switchcraft Part No. 306TR.....U.S.A. List Price **$37.50**

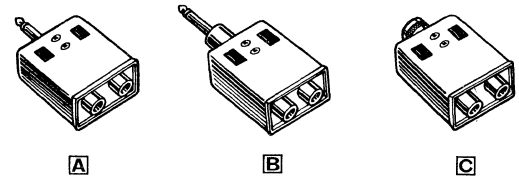
MONOPHONIC MIXERS

MODEL 301 (not illustrated). Similar to 306, except monaural only.
Switchcraft Part No. 301.....U.S.A. List Price **$19.50**

MODEL 301TR. Same as above, but with one battery powered **transistor-amplifier.** Battery included.

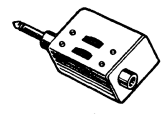
Switchcraft Part No. 301TR.....U.S.A. List Price **$30.00**

"MINI-MIX" AUDIO MIXERS



Miniature, high impedance microphone mixer. Feeds **2** signals into a single output. Each channel has separate gain control recessed inside housing. Very low loss factor. Size: 2-1/6"x1 13/16"x1-1/6".

Part No.	Fig.	Description	U.S.A. List Price
310	A	Two 2-cond. phone jack inputs to 2-cond. phone plug output.	$7.95
311	B	As above, but has long plug output to fit recorders with recessed jacks.	8.95
312	B	Similar to above, except has special size plug and jacks for use with American Geloso recorders.	8.95
313	B	Similar to No. 311, except has short Revere plug and jacks for standard or short phone plugs.	8.95
315	C	Two 2-cond. phone jack inputs to a female mike connector.	7.95
316	—	(Not illustrated.) Two phono jack inputs to a phono plug output.	7.95
320	C	Similar to No. 315, except 2 male mike connector inputs to a female mike connector output.	7.95
326	B	Two 3-cond. phone jack inputs to long 2-cond. phone plug output. Internal resistor network for use with Webcor recorders.	9.95


501

"MIX-AMP" Miniature Transistorized Amplifier

Designed for use with resistance type mixers to overcome loss factor. **Battery powered transistor amplifier.** When used with "MINI-MIX", provides **3 db** gain and accepts signals up to 2 V. On-Off switch. Hi-Lo impedance switch. Frequency response **20 to 20,000 c.p.s.** Battery included. Size: 2 1/4"x1 3/4"x1 1/8".

Part No.	Description	U.S.A. List Price
501	2-cond. phone jack input to extra long 2-cond. phone plug output to fit recorders with recessed jacks.	$20.00
502	Same as 501, but male mike connector input to female mike connector output.	20.00

Trade Discount Applies To List Prices Only
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SWITCHCRAFT INC. Hi-Fi Switches, Controls

HI-FI, STEREO SWITCHES AND CONTROLS

A B C D E

Quality Switchcraft Hi-Fi and Stereo volume controls and selector switches are completely wired and ready for use. Attractive tan finished metal housing. 2"x2"x1". Each unit is complete with mounting hardware and instruction sheet.

Stereo-Monaural Selector. Fig. A. Fast switching from monaural to stereo. Two phono jack inputs and two phono jack outputs.
Switchcraft Part No. 661.....U.S.A. List Price **$3.00**

Stereo-Monaural Selector with Reverse. Fig. B. Same as above, but provides channel reversing.
Switchcraft Part No. 662.....U.S.A. List Price **$3.50**

Phono-Tuner Adapter. Fig. A. Modernizes old sound equipment. Provides amplifier with two inputs for phono and tuner, etc. Switch selects either input. Phono jack output for amplifier; two phono jack inputs for phono and tuner.
Switchcraft Part No. 663.....U.S.A. List Price **$2.50**

Multiple Selector Control. Fig. B. Accepts up to 5 input circuits. Switch selects any one of the five inputs labeled **AM, FM, Phono, Tape, AUX** to amplifier output. Five phono jack inputs to one phono jack output.
Switchcraft Part No. 664.....U.S.A. List Price **$4.95**

Speaker Phase Control. Fig. A. Provides proper phasing in stereo and other speaker installations. Slide switch alters phasing. Screw terminals.
Switchcraft Part No. 665.....U.S.A. List Price **$2.50**

Speaker Volume Control with L-Pad. Fig. C. For volume control of remote or extra speakers. **5** watts peak, **8** ohm, screw terminals.
Switchcraft Part No. 666.....U.S.A. List Price **$6.50**

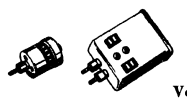
Speaker Selector Switch. Fig. D. Connects remote or extra speakers to radio, T.V. or Hi-Fi set. Three position switch selects either one or both speakers at same time. Screw terminals. Shielded housing.
Switchcraft Part No. 667.....U.S.A. List Price **$4.25**

Stereo Selector Switch. Fig. B. Switch permits selection of both channels of any one of three stereo sources such as FM tuner, tape recorder and record player to one pair of outputs such as a stereo amplifier. Three pairs of phono jack inputs to one pair of phono jack outputs.
Switchcraft Part No. 668.....U.S.A. List Price **$6.25**

Stereo Volume Control. Fig. C. Specially matched tandem control for high impedance circuits. Use as a master gain control for ceramic type stereo cartridges, stereo tape decks, etc., when connected to separate amplifiers. One pair of phono jack inputs to one pair of phono jack outputs.
Switchcraft Part No. 669.....U.S.A. List Price **$6.50**

Stereo Speaker Selector Switch. Fig. E. Designed to connect two remote pairs of stereo speakers to a stereo amplifier. Three position switch selects either pair of stereo speakers or both pairs at the same time. Screw terminals.
Switchcraft Part No. 670.....U.S.A. List Price **$6.25**

Monaural Speaker Selector Switch. Fig. B. Five position tap switch selects any one of five monaural speakers. Inputs labeled 1 through 5. Five phono jack inputs to one phono jack output for amplifier.
Switchcraft Part No. 671.....U.S.A. List Price **$5.50**

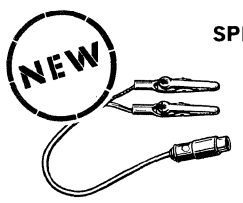


F G

STEREO LINE BALANCE CONTROLS

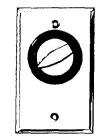
Volume Control Adapter. Fig. F. Single channel for high impedance circuits only, such as crystal mike, phono, etc. Ideal for use in balancing stereo channels; used in pairs for dual stereo channel control. Phono jack input to phono plug output. Shielded. Nickel plated.
Switchcraft Part No. 366.....U.S.A. List Price **$3.95**

Dual Volume Control Adapter. Fig. G. Twin-channel for high impedance circuits. Same as above, but two phono jack inputs and two phono plug outputs with recessed volume controls for each channel. Shielded housing, tan finished. Size: 2 1/16"x1 13/16"x1-1/6".
Switchcraft Part No. 367.....U.S.A. List Price **$7.50**



SPEAKER ADAPTER CABLE

Adapts speaker screw terminals to phono plug. Two alligator clips wired to a molded phono extension jack. Completely shielded, 12" cable, grey plastic jacket. Alligator clips are ideal for use as a quick connect-disconnect to speaker terminals. The molded phono extension jack can be used to add extra lengths of cable for remote speakers.
Switchcraft Part No. 82AB86.....U.S.A. List Price **$1.10**



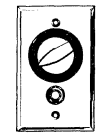
SPEAKER VOLUME CONTROLS

Designed for custom installations. Constant impedance **"T"-pad** controls speaker volume. Rated at **10** watts (20 watts, peak). Mounts in standard electrical outlet boxes, mounting center 3 9/32", 8 ohms. Brushed brass wall plate; ivory and black dial. Screw terminals; mounting screws and instructions. Plate size: 2¾" x 4½" x 1⅝".
Switchcraft Part No. 651.....U.S.A. List Price **$9.95**

Same as above, except brushed stainless steel wall plate.
Switchcraft Part No. 651-S.....U.S.A. List Price **$9.95**

Constant impedance **"T"-pad** speaker volume control switch. All features of No. 651, but **16** ohms. Use with single 16 ohm speaker or two 8 ohm speakers in series. Brushed brass wall plate.
Switchcraft Part No. 652.....U.S.A. List Price **$9.95**

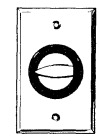
Same as No. 652, except brushed stainless steel wall plate.
Switchcraft Part No. 652-S.....U.S.A. List Price **$9.95**



SPEAKER VOLUME CONTROLS WITH JACK CONNECTION

Mounts in standard electrical wall outlet box. Constant impedance **"T"-pad** controls volume of speakers. **Phone jack** mounted on wall plate permits use of external speaker or headphones: accepts standard 2-cond. phone plug. Rated at **4** watts. Brushed brass wall plate; ivory and black dial. **8** ohms. Wall plate size: 4½" x 2¾" x 1⅝".
Switchcraft Part No. 653.....U.S.A. List Price **$12.00**

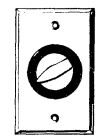
Same as above, but **16** ohm impedance.
Switchcraft Part No. 654.....U.S.A. List Price **$12.00**



MULTI-SPEAKER SELECTOR SWITCH

7-position switch mounted on wall plate; fits standard outlet box. Selects any combination of three speakers. Ivory and black dial; brushed brass plate. Screw terminals. Maintains constant impedance regardless of switch position. Size: 4½" x 2¾" x 1⅝".
Switchcraft Part No. 655.....U.S.A. List Price **$5.50**

Same as above, except brushed stainless steel wall plate.
Switchcraft Part No. 655-S.....U.S.A. List Price **$5.50**

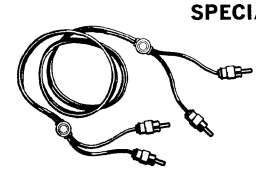


SPEAKER VOLUME CONTROL WITH QUALITY L-PAD

Specially designed **"L"-pad** volume control to prevent mismatch to amplifier at different volume settings. Brushed brass wall plate, ivory and black dial. Fits standard electrical outlet boxes. Solder lug terminals. Rated at **10** watts of peak audio power. 8 ohms. Size: 4½" x 2¾" x 1¼".
Switchcraft Part No. 656.....U.S.A. List Price **$6.95**

Same as above, except brushed stainless steel wall plate.
Switchcraft Part No. 656-S.....U.S.A. List Price **$6.95**

SPECIAL STEREO CABLES



New, small diameter, molded stereo cable assemblies. **All cable connections are soldered** for noise-free connections. 2 shielded insulated cables (tandem) inside a common grey plastic jacket; provides two completely isolated channels. Phono plugs are **color coded** for easy identification of channels. Ideal for use in all stereo applications, such as tape recorders, record players, amplifiers, tuners, etc. Cable capacity, 36 pF per foot.

Part No.	Description	U.S.A. List Price
25FF25	2 straight phono plugs on ea. end. Grey stereo cable, 36" long, shielded.	$3.25
25FK25	Same as above, but 6' long.	3.75
25FN25	Same as 25FF25, but 10' long.	4.50
25FF84	2 straight phono plugs on one end to stripped and tinned leads on other end. Grey stereo cable, 36" long, shielded.	2.90
25FK84	Same as above, but 6' long.	3.25
25FN84	Same as 25FF84, but 10' long.	3.75

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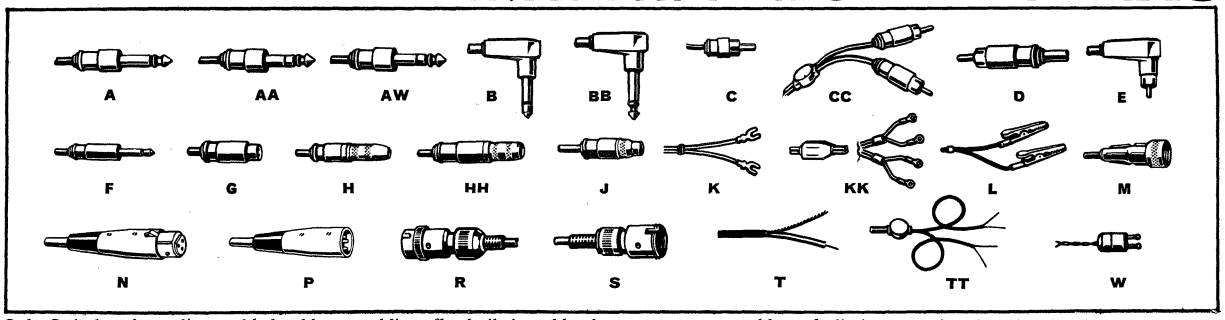
SWITCHCRAFT INC. HI-FI MOLDED CABLES



Only Switchcraft quality molded cable assemblies offer built-in cable clamps to support cable and eliminate strain—functionally designed handles to provide an easy grip. Cables 05LH84, 15LH84 and 87LH84 use coiled cord. Cable is chrome grey (unless otherwise specified) with matching plastic handles. **Fig. AW** Phone Plug with Resistor. 3-Conductor. **Fig. M** Microphone Connector—Female. **Fig. N** Switchcraft 3-Pin Connector—Female. **Fig. P** Switchcraft 3-Pin Connector—Male. **Fig. R** Amphenol 3-Pin Connector—Female. **Fig. S** Amphenol 3-Pin Connector—Male. **Fig. W** Ear-Receiver Plug.

Part Number	Terminations End No. 1 Fig.	End No. 2 Fig.	Length	U.S.A. List Price
STRAIGHT 2-CONDUCTOR PHONE PLUG TO VARIOUS CONNECTIONS				
05AC05	A	A	18″	$1.60
05AD05	A	A	24″	1.75
05AK05	A	A	6′	2.60
05AN05	A	A	10′	3.50
05AU05	A	A	25′	4.75
05AK15	A	BB	6′	2.60
05AN15	A	BB	10′	3.50
05AK25	A	C	6′	2.00
05AN25	A	C	10′	2.75
05AR25	A	C	15′	3.00
05AK30	A	E	6′	2.00
05AN30	A	E	10′	2.75
05AK80	A	H	6′	2.60
05AN80	A	H	10′	3.50
05AR80	A	H	15′	4.00
05AU80	A	H	25′	4.75
05AK82	A	G	6′	2.20
05AN82	A	G	10′	3.00
05AR82	A	G	25′	3.25
05AK87	A	M	6′	2.60
05AN87	A	M	10′	3.50
05AU87	A	M	25′	4.75
05AK84	A	T	6′	1.75
05AN84	A	T	10′	2.25
05AR84	A	T	15′	2.75
05CK84*	A	T	6′	1.40
05CN84*	A	T	10′	1.90
05CK85*	A	K	6′	1.50
05CN85*	A	K	10′	2.00
05CK86*	A	L	6′	1.90
05CN86*	A	L	10′	2.40
05CR86*	A	L	15′	2.60
05CT86*	A	L	20′	3.00
05LH84†	A	T	4′	3.25

Monaural Replacement Headphone Cords for Brush BA-200, BA-205, BA-206 headphones and RCA M1-38107B headphone. Molded "Y" junction.

05KF88*	A	KK	3′	$3.00
05KJ88*	A	KK	5′	3.20

STRAIGHT 3-CONDUCTOR PHONE PLUG TO VARIOUS CONNECTIONS				
10BD10	AA	AA	24″	$3.25
10BF10	AA	AA	36″	3.65
10BK10	AA	AA	6′	4.80
10BN10	AA	AA	10′	6.00
10BU10	AA	AA	25′	8.75
10BK81	AA	H	6′	4.80
10BN81	AA	H	10′	6.00
10BU81	AA	H	25′	8.75

Stereo replacement headphone cords for direct replacement on Jensen HS-10 and Knight KN-840 stereo headphones. Quality tandem shielded stereo cable.

10FJ84	AA	TT	5′	$2.95

Stereo Cable Assembly for use with stereo tape recorders using 3-conductor dual microphone inputs—Norelco, Webcor, Revere, Wollensak.

10FK25	AA	CC	6′	$4.00

Webcor cable assemblies. 3-Cond. phone plug with internal resistor to various connections.

11AK26	AK	D	6′	$3.25
11AN26	AK	D	10′	4.00
11CN86	AK	L	10′	3.25

2-Conductor Revere and Wollensak cables with R.A. Phone Plug to various connections.

12HK25	B	B	6′	$2.50
12HB79	B	HH	12′	3.25
12HR79	B	HH	15′	5.00
12HU79	B	HH	25′	5.95
12HD80	B	H	24′	3.95
RIGHT ANGLE 2-CONDUCTOR PHONE PLUG TO VARIOUS CONNECTIONS				
15AK15	BB	BB	6′	$2.60
15AN15	BB	BB	10′	3.50
15AU15	BB	BB	25′	$4.75
15AK25	BB	C	6′	2.00
15AN25	BB	C	10′	2.75
15AR25	BB	C	15′	3.00
15AK30	BB	E	6′	2.00
15AN30	BB	E	10′	2.75
15AK80	BB	H	6′	2.60
15AN80	BB	H	10′	3.50
15AU80	BB	H	25′	4.75
15AK82	BB	G	6′	2.20
15AN82	BB	G	10′	3.00
15AK87	BB	R	6′	2.60
15AN87	BB	R	10′	3.50
15AN84	BB	T	10′	2.25
15AR84	BB	T	15′	2.75
15CN84*	BB	T	10′	1.90
15CK85*	BB	K	6′	1.50
15CN85*	BB	K	10′	2.00
15CK86*	BB	L	6′	1.90
15CN86*	BB	L	10′	2.40
15LH84†	BB	T	4′	3.25
STRAIGHT PHONO PLUG TO VARIOUS CONNECTIONS				
25AC25	C	C	18″	$1.05
25AF25	C	C	36″	1.20
25AH25	C	C	4′	1.35
25AK25	C	C	6′	1.50
25AN25	C	C	10′	2.00
25AR25	C	C	15′	2.50
25AT25	C	C	20′	3.00
25AU25	C	C	25′	3.50
25AC30	C	E	18″	1.05
25AF30	C	E	36″	1.20
25AK30	C	E	6′	1.50
25AN30	C	E	10′	2.00
25AU30	C	E	25′	3.50
25AK80	C	H	6′	2.00
25AN80	C	H	10′	2.75
25AR80	C	H	15′	3.25
25AC82	C	G	18″	1.25
25AF82	C	G	36″	1.35
25AH82	C	G	4′	1.60
25AK82	C	G	6′	1.75
25AN82	C	G	10′	2.00
25AR82	C	G	15′	2.50
25AT82	C	G	20′	3.00
25AU82	C	G	25′	3.50
25AC84	C	T	18″	.80
25AF84	C	T	36″	.95
25AH84	C	T	4′	1.00
25AK84	C	T	6′	1.15
25AN84	C	T	10′	1.65
25AR84	C	T	15′	2.25
25AT84	C	T	20′	2.75
25AU84	C	T	25′	3.25
25CF84*	C	T	36″	.75
25CK84*	C	T	6′	.90
25CN84*	C	T	10′	1.40
25CK85*	C	K	6′	1.00
25CN85*	C	K	10′	1.50
25CK86*	C	L	6′	1.75
25CN86*	C	L	10′	2.25
25CR86*	C	L	15′	2.35
25CT86*	C	L	25′	2.60
25AK87	C	M	6′	2.45
25AN87	C	M	10′	3.35
25AU87	C	M	25′	4.60

Special Stereo Cables. Two shielded insulated cables inside a common grey plastic jacket. Provides two isolated channels for all stereo applications. Phono plugs color coded.

25FF25	CC	CC	36″	$3.25
25FK25	CC	CC	6′	3.75
25FN25	CC	CC	10′	4.50
25FF84	CC	TT	36″	2.90
25FK84	CC	TT	6′	3.25
25FN84	CC	TT	10′	3.75
STRAIGHT PHONO PLUG (LONG HANDLE) TO VARIOUS CONNECTIONS				
26AF26	D	D	36″	$1.30
26AK26	D	D	6′	1.60
26AN26	D	D	10′	$2.10
26AR26	D	D	15′	2.60
26AK05	D	A	6′	2.20
26AN05	D	A	10′	2.75
26AF82	D	G	36″	1.50
26AK82	D	G	6′	1.95
26AN82	D	G	10′	2.25
26AR82	D	G	15′	2.75
26AF84	D	T	36″	1.10
26AK84	D	T	6′	1.30
26AN84	D	T	10′	1.80
RIGHT ANGLE PHONO PLUG TO VARIOUS CONNECTIONS				
30AC30	E	E	18″	$1.05
30AF30	E	E	36″	1.20
30AH30	E	E	4′	1.35
30AK30	E	E	6′	1.50
30AN30	E	E	10′	2.00
30AR30	E	E	15′	2.50
30AT30	E	E	20′	3.00
30AU30	E	E	25′	3.50
30AK80	E	H	6′	2.00
30AN80	E	H	10′	2.75
30AC82	E	G	18″	1.25
30AF82	E	G	36″	1.35
30AK82	E	G	6′	1.75
30AN82	E	G	10′	2.00
30AR82	E	G	15′	2.50
30AT82	E	G	20′	3.00
30AU82	E	G	25′	3.50
30AF84	E	T	36″	.95
30AK84	E	T	6′	1.15
30AN84	E	T	10′	1.65
30CF84*	E	T	36″	.75
30CK84*	E	T	6′	.90
30CN85*	E	K	10′	1.50
30CF86*	E	L	6′	1.75
30CK86*	E	L	10′	2.25
STRAIGHT TINI-PLUG TO VARIOUS CON.				
40DK05	F	A	6′	$2.75
40DF25	F	C	36″	2.10
40DK25	F	C	6′	2.50
40DK80	F	H	6′	2.75
40DK82	F	G	6′	2.50
40DK83	F	J	6′	2.75
40DN83	F	J	10′	3.25
40DF84	F	T	36″	1.75
40DK84	F	T	6′	2.00
40DN84	F	T	10′	2.50
40DN86	F	W	10′	2.50
41EF75‡	F	W	36″	2.00
41EH75‡	F	W	4′	2.25
45AN25	F	C	10′	2.75
45AR25	F	C	15′	3.25
45AU25	F	C	25′	4.25
EXTENSION JACK CORDS				
82AC82	G	G	18″	$1.50
82AF82	G	G	36″	1.65
82AK82	G	G	6′	1.95
83DK05	J	A	6′	2.75
CORDS w/ SPADE LUGS, ALLIGATOR CLIPS				
85CN85*	K	K	10′	$0.90
85CT85*	K	K	20′	1.50
85CU85*	K	K	25′	1.75
86CN86*	L	L	10′	1.70
86CU86*	L	L	25′	2.55
MICROPHONE CONNECTOR TO VARIOUS CONNECTIONS				
87AF84	M	T	36″	$1.50
87AK84	M	T	6′	1.75
87AN84	M	T	10′	2.25
87AU84	M	T	25′	4.25
87LH84†	M	T	4′	3.35
87AF87	M	M	36″	2.00
87AK87	M	M	6′	2.50
87AP87	M	M	12′	3.50
87AU87	M	M	25′	5.00
91BU92	N	P	25′	12.50
93BU94	R	S	25′	9.75

*Parallel unshielded cable. †Shielded, tinsel coiled cord, Black plastic jacket, extends to 4′. ‡Hearing Aid Tinsel Cord. All other cables shielded.

Trade Discount Applies To List Prices Only

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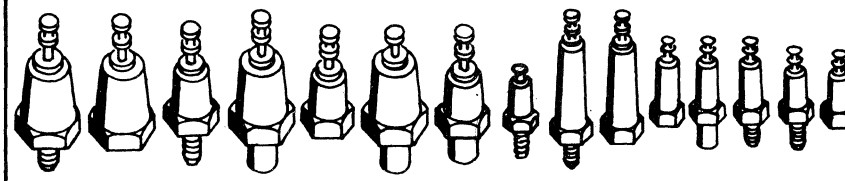
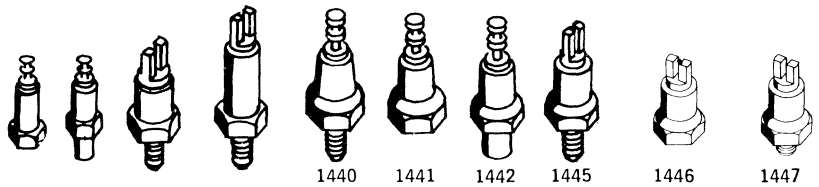
STANDARDIZED ELECTRONIC HARDWARE

INSULATED TERMINALS (MIL-T-55155 Terminals also available)

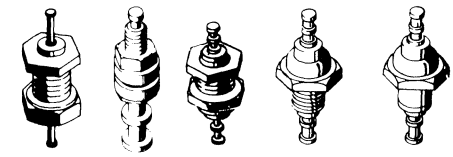


1400 1401 1409 1410 1411 1412 1413 1414 1421 1422 1423 1425 1427
1418 1417 1419 1424 1426



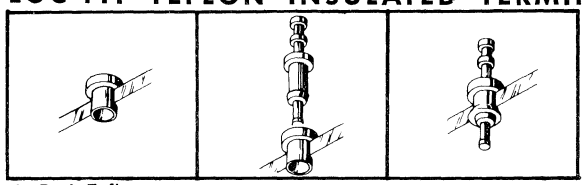
1429 1600, 01,02, 03,04,05 1612, 13,14, 15,16,17 1440 1450, 60,70, 80,90 1441 1451, 61,71, 81,91 1442 1452, 62,72, 82,92 1445 1455, 65,75, 85,95 1446 1456, 66,76, 86,96 1447 1457, 67,77, 87,97

Feed-Thru



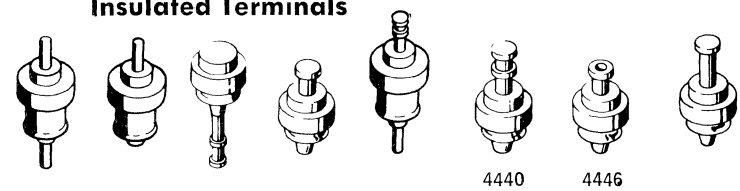
1430 1431 1432 1433, 34,35 36 1483 1484

LOC-FIT TEFLON INSULATED TERMINALS

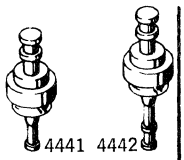


1. Push Teflon Grommet into hole.
2. Insert LOC-FIT terminal.
3. Snap LOC-FIT into place.

Insulated Terminals

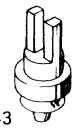


4401 4485 4402 4480 4430 4435 4437 4440 4470 4482 4446 4476 4460



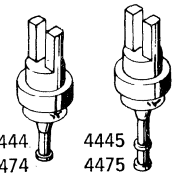
4441 4442 4471 4472

Insulated Feed-Thru



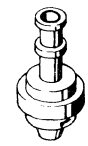
4443 4473 4484

Bifurcated Terminals



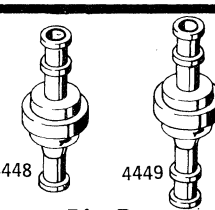
4444 4474 4445 4475

Insulated Bifurcated Feed-Thru



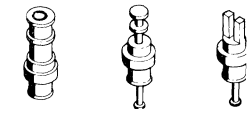
4447

Taper Pin Receptacle



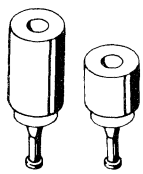
4448 4449

Taper Pin Receptacle Feed-Thru



4483 4487 448

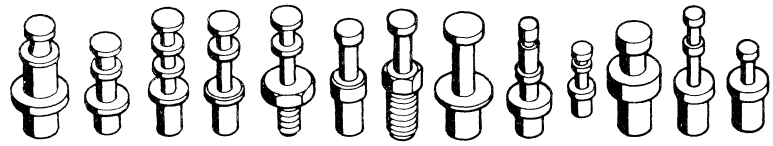
SUB-MINIATURE INSULATI TERMINALS — FEED THRUS BIFURCATED FEED THRU



4450 4451

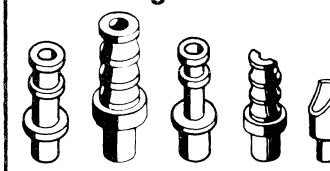
Insulated Test Point

STANDARD TERMINALS Turret

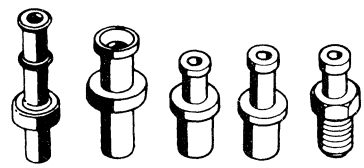


1210 1280 81, 82 1299 2035 1300 1300T 1340 1340T 1350 1370 2030 2031 2064 2060 2061 2062 2520 2540

Hollow Lug

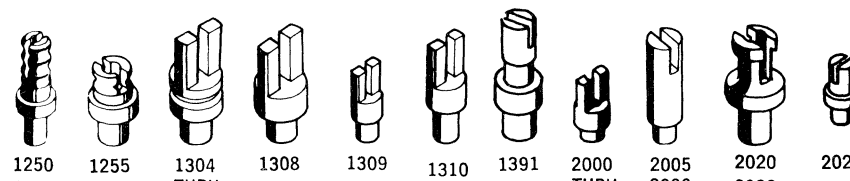


1200 1260 1330 1380 2063



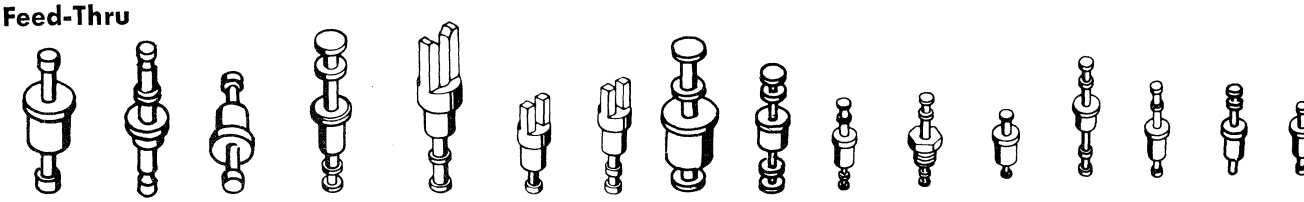
1390 1392 2010 2011 2010T

Bifurcated



1250 1240 1255 1304 THRU 1307 1308 1309 1310 1391 2023 2000 THRU 2004 2005 2006 2065 2020 2022 2021

Feed-Thru



1220 1230 1290 1301 1311 1315 1316 1320 1360 2040 2040T 2050 2500 02, 09 2501 2510 2511 253(

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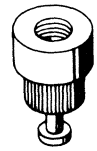
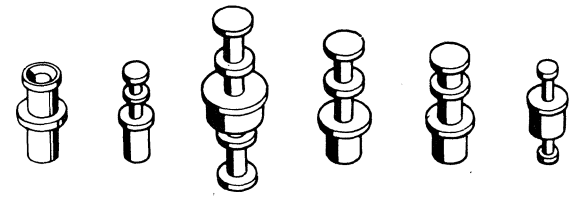
Combination Terminal



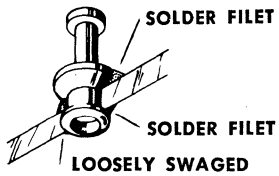
1203

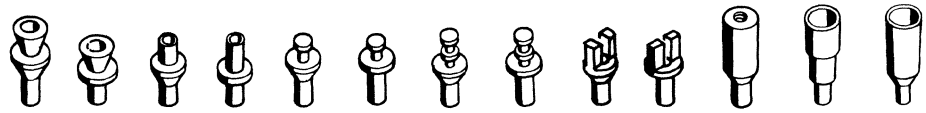
NAS Terminals (Mil-T-55155 Terminals also available)



704 705 706 707 708 709

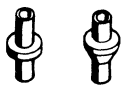
FLOATING PRINTED CIRCUIT TERMINALS





7000 7001 7010 7011 7020 7021 7030 7031 7040 7041 7050 7051 7052

WELDABLE TERMINALS

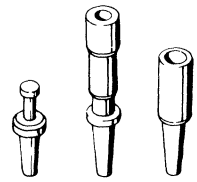


7200 7201
11,21 10,20

EYELETS

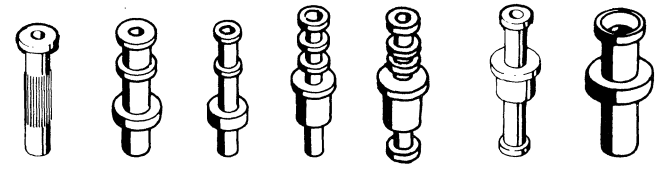
7600 7650

TAPER PINS



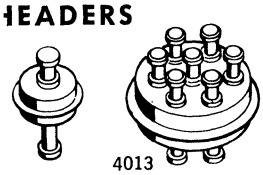
2770 2775 2776

TAPERED RECEPTACLE



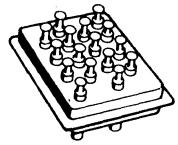
2710 2720 2730 2750 2760 2761 2762 2764

HEADERS

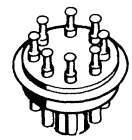


4008
4010
4011

4013
4014, 4109
33,55, 15,51,
56,64, 52,62,
67,68, 63,64,
74,78 65,67

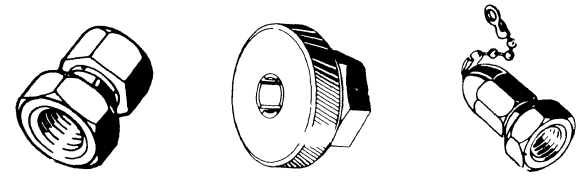


4107
4166



4098

SHAFT LOCKS

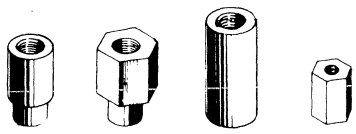


1510
1511
1512

1513
1520

1515
1514
(CAP ONLY)

STAND-OFFS

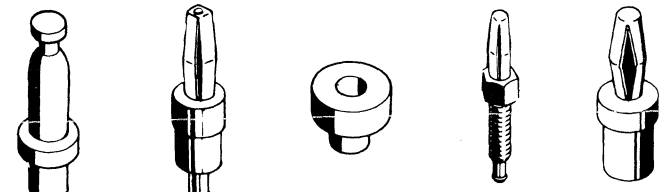


1530 1531 1532 1550 1551 1580

Chassis Fastener

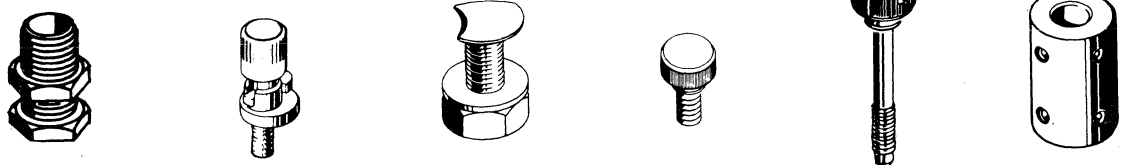
1590
1591

PLUGS & SOCKETS



1700 1705 1710 1715 1780
1785 1782 1786 1716 1781

ACCESSORY HARDWARE



1560 series
1561 series
Chassis
Bushing

1800
Dial
Lock

1815
Dial
Indicator

3100-6
8, 10
Thumb
Screw

3200-6
8,10,25
Captive
Panel Screw

3316A, B
Shaft
Coupling

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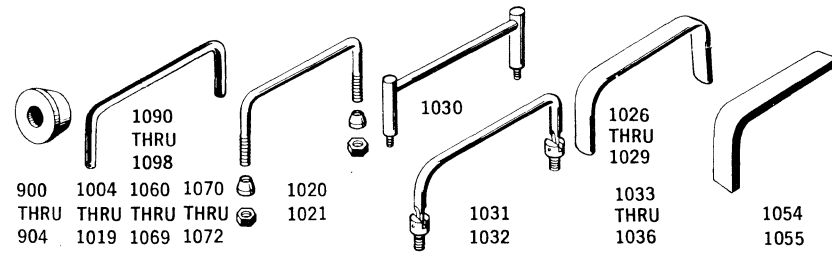
STANDARDIZED ELECTRONIC HARDWARE

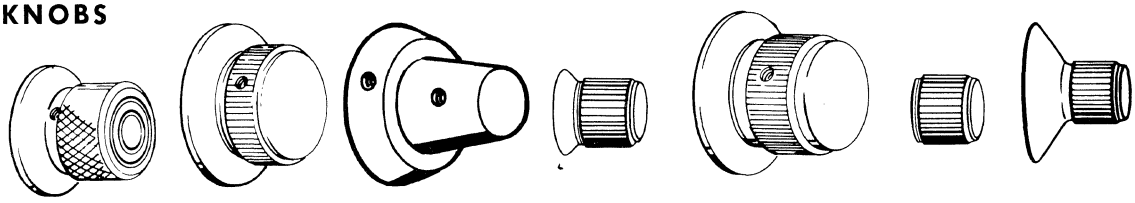
HANDLES & FERRULES

Brass, Aluminum and Stainless Steel



900 THRU 904 | 1004 THRU 1019 | 1060 THRU 1069 | 1070 THRU 1072 | 1020 1021 | 1031 1032 | 1033 THRU 1036 | 1054 1055

KNOBS



300 series
305 series
310 series

400 series
410 series

450 series

500 series
501 series
502 series

550 series
555 series
560 series

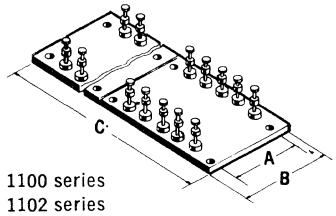
625 series
626 series
627 series

1000 series
1038 series
1040 series

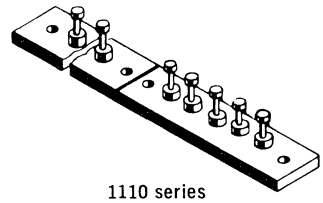
FOR ANODIZED COLORS ORDER BY DASH NO.

-20 PLAIN -25 GREEN
-21 BROWN -26 BLUE
-22 RED -27 VIOLET
-23 ORANGE -28 GREY
-24 YELLOW -30 BLACK

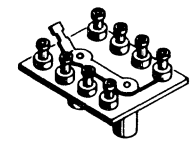
TERMINAL BOARDS & BRACKETS



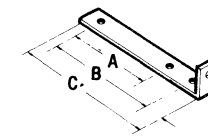
1100 series
1102 series
2200 series 8001 series
2202 series 8003 series



1110 series
1112 series 8002 series
2210 series 8004 series
2212 series

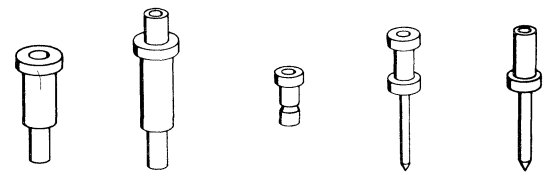


1180 1183
1181 1184
1182 1185



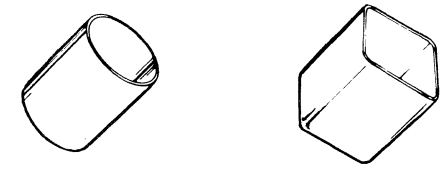
NO.	A	B	C	D	USE ON
11-2	1.50	—	2-1/8	.35	1100B
11-3	1.50	2.00	2-5/8	.35	1100B 1100C
11-4	2.00	2.50	3-5/16	.56	1100C 1100E
11-5	1.50	2.00	2-13/16	.56	1100E 1100C

UNIJAK CONNECTORS



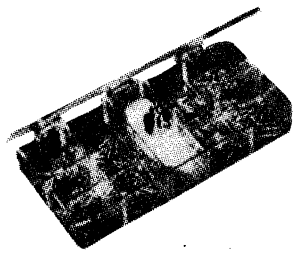
7708 7709 | 7701 THRU 7706 | 7705 | 7710 7712 7714 | 7711 7713 7715

ENCAPSULATION CAPS



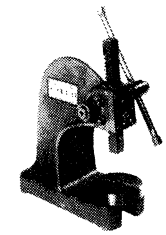
Series 100 | Series 200

ENGINEERING DESIGN KIT



K-44-1 LOC FIT
K-14-1 HI ALUMINA
K-14-2 TEFLON
K-14-3 PLASTIC

SWAGING MACHINES AND TOOLS



Model A

How To Order

Order by basic part number of terminal for which tool is to be used. Disregard letter and/or number following basic number.

Example:
1. For terminal #1300 A-1 order tool #1300
2. For LOC-FIT #4430 B-9 order tool #4330

note: unless otherwise specified, tolerances are ±.010

Standard Catalog Items are stocked by USECO Authorized Distributors throughout the country.
Special Items and information may be obtained by writing Litton Industries, USECO DIVISION Van Nuys, Calif.

LITTON INDUSTRIES
USECO DIVISION

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USECO®

Al = Aluminum	Mtg. D = Mounting Diameter
Bd. Thick. = Board Thickness	O.H. = Overall Height
Br = Brass	O.L. = Overall Length
C = Consecutively	S.D. = Shaft Diameter
CW = Clockwise	Sk. D. Skirt Diameter
CCW = Counter-clockwise	T = Thread
D = Swage Diameter	X = Shank or Thread Length, see box as indicated
H = Height	
M = Material	

1

SHANK LENGTH							
NAS	-1	-2	-3	-4			
	A	B	C	D	E	F	.293 G
	.075	.105	.135	.165	.195	.230	

2

SHANK LENGTH				
AA	A	B	C	D
.037	.053	.084	.115	.147

3

SHANK LENGTH						
A	B	C	D	E	F	G
.054	.094	.125	.156	.188	.219	.281

4

THREAD LENGTH			
A	B	C	D
E	F	G	H
.187	.250	.312	.375

5

THREAD LENGTH	
A	B
C	D
.125	.218

6

SHANK LENGTH				
NAS	-1	-2	-3	-4
	A	B	C	D
	.062	.094	.125	.156

7

SHANK LENGTH				
NAS	-1	-2	-3	-4
	.078	.109	.141	.172

8

HEIGHT ABOVE BOARD							
-1/8	-3/16	-1/4	-3/8	-1/2	-5/8	-3/4	-1.00

TERMINALS & EYELETS

Order by Part Number and Letter. For example, 1300A. NAS 704-1, etc., Standard Plating All Metal Terminals -1, Insulated Terminals, -9, P.C. Terminals and Eyelets -7.

Part Number	X (see box no.)	T or D	Bd Thick—Order by Letter 1/64	1/32	1/16	3/32	1/8	5/32	3/16	1/4	H above/ below bd.	Insulation Material
1200	#1	.114		A	B	C	D				.328/—	
1203C	.141	.221				C					.250/.172	
1203D	.172	.251					D				.312/.203	
1203E	.234	.258						E			.375/.203	
1210	#1	.114		A	B	C	D				.266/—	
1220	#1	.183			B	C	D				.250/.203	
1230	#1	.183			B	C	D				.469/.297	
1240	#1	.183			B	C	D				.481/—	
1250	#1	.114		A	B	C	D				.312/—	
1255	#1	.114		A	B	C	D				.188/—	
1260	#1	.114			B	C	D				.312/—	
1280	#1	.091		A	B	C	D				.239/—	
1281	#7	.090		A	B	C	D				.219/—	
1282	#7	.090		A	B	C	D				.281/—	
1290	#1	.114		A	B	C	D				.156/.125	
1299	#1	.114		A	B	C	D				.421/—	
1300	#1	.114		A	B	C	D				.364/—	
1300T	188	4-40									.364/—	
1301	#1	.114				C	D				.364/.312	
1304	#1	.114			B	C	D				.344/—	
1305	#1	.114			B	C	D				.344/—	
1306	#1	.135			B	C	D				.500/—	
1307	#1	.186				C	D				.688/—	
1308	#2	.114		A	B	C	D				.328/—	
1309	#1	.091		A	B	C	D				.239/—	
1310	#1	.114		A	B	C	D				.312/—	
1311	#1	.114			B	C	D				.310/.250	
1315	#3	.094			B	C	D				.188/.100	
1316	#3	.094			B	C	D				.188/.194	
1320	#1	.204			B	C	D				.344/.125	
1330	#1	.135			B	C	D				.312/—	
1340	#1	.079		A	B	C	D				.181/—	
1340T	.125	2-56									.181/—	
1350	#1	.114			B	C	D				.234/—	
1360	#1	.204				C	D				.364/.315	
1370	#1	.114			B	C	D				.469/—	
1380	#1	.114			B	C	D				.312/—	
1390	#1	.079		A	B	C	D				.328/—	
1391	#1	.151		A	B	C	D				.375/—	
1392	#1	.111		A	B	C	D				.188/—	
1400A,B,C,D	#4	6-32									.59/—	Phenolic
1400E,F,G,H	#4	4-40									.59/—	"
1401		6-32									.59/—	"
1401A		4-40									.59/—	"
1409A,B,C,D	#4	6-32									.50/—	Alkyd
1409E,F,G,H	#4	4-40									.50/—	"
1410	#3	.188		A	B	C	D				.59/—	Phenolic
1411A		6-32									.50/—	Alkyd
1411B		4-40									.50/—	"
1412	#3	.115		A	B	C	D				.42/—	"
1413	#3	.115		A	B	C	D				.50/—	"
1414	.080	3-48									.375/—	"
1417		6-32									.59/—	"
1417A		4-40									.59/—	"
1418A,B,C,D	#4	6-32									.59/—	"
1418E,F,G,H	#4	4-40									.59/—	"
1419	#3	.188		A	B	C	D				.59/—	"
1421	.250	6-32									1.08/—	"
1422		6-32									1.08/—	"
1423		6-32									.88/—	"
1424	#1	.115			B	C	D				.53/—	"
1425	.218	2-56									.53/—	"
1426A	.125	2-56									.38/—	"
1426B	.218	2-56									.38/—	"
1427		2-56									.53/—	"
1428		2-56									.38/—	"
1429	#1	.115			B	C	D				.38/—	
1430		10-32									.26/.42*	Diallyl Phthalate
1431		10-32									.26/.42*	Teflon
1432	.358	5-40									.43/.348	"
1433		1/4-28									.355/.538*	Diallyl Phthalate
1434		1/4-28									.355/.538*	Teflon
1435		3/8-32									.542/.768*	Diallyl Phthalate
1436		3/8-32									.542/.768*	Teflon
1440A,B,C,D	#4	6-32									.53/—	Hi-Alumina
1440E,F,G,H	#4	4-40									.53/—	"
1441A		2-56									.57/—	"
1441B		4-40									.57/—	"
1442	#1	.115		A	B	C	D				.53/—	"
1445A,B,C,D	#4	6-32									.55/—	"
1445E,F,G,H	#4	4-40									.55/—	"
1446A		2-56									.60/—	"
1446B		4-40									.60/—	"
1447	#1	.115		A	B	C	D				.53/—	"
1450A,B,C,D	#4	6-32									.60/—	Teflon
1450E,F,G,H	#4	4-40									.60/—	"
1451		6-32									.63/—	"
1451A		4-40									.63/—	"
1452	#4	.188		A	B	C	D				.60/—	"
1455A,B,C,D	#4	6-32									.60/—	"
1455E,F,G,H	#4	4-40									.60/—	"
1456		6-32									.63/—	"
1456A		4-40									.63/—	"
1457	#3	.188		A	B	C	D				.60/—	"
1460A,B,C,D	#4	6-32									.60/—	Hi-Alumina
1460E,F,G,H	#4	4-40									.60/—	"
1461		6-32									.63/—	"
1461A		4-40									.63/—	"
1462	#3	.188		A	B	C	D				.60/—	"
1465A,B,C,D	#4	6-32									.60/—	"
1465E,F,G,H	#4	4-40									.60/—	"
1466		6-32									.63/—	"
1466A		4-40									.63/—	"
1467	#3	.188		A	B	C	D				.60/—	"
1470A,B,C,D	#4	6-32									.51/—	Teflon
1470E,F,G,H	#4	4-40									.51/—	" *approx.
1471A		2-56									.55/—	Teflon
1471B		4-40									.55/—	"

Part Number	X (see box no.)	T or D	Bd Thick—Order by Letter 1/64	1/32	1/16	3/32	1/8	5/32	3/16	1/4	H above/ below bd.	Insulation Material
1472	#1	.115		A	B	C	D				.51/—	Teflon
1475A,B,C,D	#4	6-32									.51/—	"
1475E,F,G,H	#4	4-40									.51/—	"
1476A		2-56									.55/—	"
1476B		4-40									.55/—	"
1477	#1	.115		A	B	C	D				.51/—	"
1480A,B	#5	2-56									.36/—	Hi-Alumina
1480C,D	#5	4-40									.36/—	"
1481A		4-40									.42/—	"
1481B		2-56									.42/—	"
1482	#3	.115		A	B	C	D				.36/—	"
1483	.250	1/4-28									.359/.552	"
1484	#1	.188			B						.39/.29	"
1485AB	#5	2-56									.36/—	"
1485CD	#5	4-40									.36/—	"
1486A		4-40									.42/—	"
1486B		2-56									.42/—	"
1487	#3	.115		A	B	C	D				.36/—	"
1490A,B	#5	2-56									.36/—	Teflon
1490C,D	#5	4-40									.36/—	"
1491A		2-56									.39/—	"
1492	#3	.115		A	B	C	D				.36/—	"
1495A,B	#5	2-56									.36/—	"
1495C,D	#5	4-40									.36/—	"
1496A		2-56									.39/—	"
1497	#3	.115		A	B	C	D				.36/—	"
1600A,B,C,D	#4	6-32									.62/—	Alkyd
1600E,F,G,H	#4	4-40									.62/—	"
1601A		6-32									.62/—	"
1601B		4-40									.62/—	"
1602	#1	.115		A	B	C	D				.62/—	"
1603A,B,C,D	#4	6-32									.56/—	"
1603E,F,G,H	#4	4-40									.56/—	"
1604A		6-32									.56/—	"
1604B		4-40									.56/—	"
1605	#1	.115		A	B	C	D				.56/—	"
1612A,B,C,D	#4	6-32									.84/—	"
1612E,F,G,H	#4	4-40									.84/—	"
1613A		6-32									.84/—	"
1613B		4-40									.84/—	"
1614	#1	.115		A	B	C	D				.84/—	"
1615A,B,C,D	#4	6-32									.78/—	"
1615E,F,G,H	#4	4-40									.78/—	"
1616A		6-32									.78/—	"
1616B		4-40									.78/—	"
1617	#1	.115		A	B	C	D				.78/—	"
1700	#1	.135				C	D				.390/—	
1705	#1	.157			B	C	D				.38/.109	
1710	#1	.135				C	D				.070/—	
1715	.27	2-56									.38/.39	
1716	.23	4-40									.36/.36	
1780	#1	.190						E	F	G	.48/—	
1781	#3	.094			B	C	D				.38/—	
1782	#1	.190						E	F	G	.48/.131	
1785	#1	.203						E	F	G	.596/—	
1786	#1	.205						E	F	G	.094/—	
2000	#2	.063	AA	A	B	C	D	E			.156/—	
2001	#2	.062	AA	A	B	C	D				.281/—	
2002	#2	.042	AA	A	B	C	D				.125/—	
2003	#2	.063	AA	A	B	C	D				.156/—	
2004	#2	.062	AA	A	B	C	D				.281/—	
2005	#2	.062	AA	A	B	C	D				.312/—	
2006	#2	.042	AA	A	B	C	D				.312/—	
2010	#2	.063	AA	A	B	C	D				.156/—	
2010T	.125	4-40									.156/—	
2011	#2	.071	AA	A	B	C	D				.187/—	
2020	#2	.063	AA	A	B	C	D				.156/—	
2021	#2	.063	AA	A	B	C	D				.156/—	
2022	#2	.063	AA	A	B	C	D				.156/—	
2023	#2	.048	AA	A	B	C	D				.156/—	
2030	#2	.062	AA	A	B	C	D				.156/—	
2031	#2	.042	AA	A	B	C	D				.156/—	
2035	#1	.089			A	B	C	D			.340/—	
2040	#1	.126			A	B	C	D			.239/.136	
2040T	.125	5-40									.239/.136	
2050	#1	.126				A	B	C	D		.156/.084	
2060	#2	.063	AA	A	B	C	D				.094/—	
2061	#2	.042	AA	A	B	C	D				.094/—	
2062	#2	.062	AA	A	B	C					.093/—	
2063	#2	.032	AA	A	B	C	D				.062/—	
2064	#2	.032	AA	A	B	C	D				.070/—	
2065	#2	.032	AA	A	B	C	D				.070/—	
2500	#2	.091			A	B	C	D			.218/.218	
2501	#6	.090			A	B	C	D			.219/.104	
2502	#6	.090			A	B	C	D			.219/.188	
2509	#2	.073			A	B	C	D			.191/.164	
2510	#2	.073			A	B	C	D			.191/.082	
2511	#2	.073			A	B	C	D			.191/.082	
2520	#2	.073			A	B	C	D			.191/—	
2530	#2	.073			A	B	C	D			.109/.082	
2540	#2	.073			A	B	C	D			.109/—	
2710	.531	.094									.030/—	
2720	#1	.114			A	B	C	D			.328/—	
2730	#1	.114			A	B	C	D			.328/—	
2740	#1	.079			A	B	C	D			.328/—	
2750	#1	.079			A	B	C	D			.328/—	
2760	#1	.204				B	C	D			.422/.210	
2761	#1	.204				B	C	D			.422/.210	
2762	#3	.145		A		B	C	D			.250/.250	
2764	#7	.112		A		B	C	D			.250/—	
2770	.205	taper									.188/—	
2775	.281	taper									.484/—	
2776	.281	taper									.250/—	
4401		.142		A		B	C				.312/.266	
4402		.142		A		B	C				.312/.081	
4430		.142		A		B	C	D			.116/.319	
4435		.142		A		B	C				.230/.081	
4437		.142		A		B	C				.312/.319	
4440		.142		A		B	C				.312/.081	
4441		.142		A		B	C	D			.312/.205	
4442		.142		A		B	C				.312/.319	

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TERMINALS & EYELETS (Cont'd)

Part Number	X (see box no.)	T or D	Bd Thick—Order by Letter 1/32	1/16	3/32	1/8	H above/below bd.
4443		.142	A	B	C		.312/.081
4444		.142	A	B	C		.312/.205
4445		.142	A	B	C		.312/.319
4446		.142	A	B	C		.230/.081
4447		.188	A	B	C		.400/.081
4448		.188	A	B	C		.400/.247
4449		.188	A	B	C		.400/.369
4450		.126	A	B	C	D	.346/.280
4451		.189	A	B	C	D	.135/.197
4460		.142	A	B	C		.312/.081
4470		.154	A	B	C		.312/.081
4471		.154	A	B	C	D	.312/.205
4472		.154	A	B	C		.312/.319
4473		.154	A	B	C	D	.312/.081
4474		.154	A	B	C		.312/.205
4475		.154	A	B	C		.312/.319
4476		.154	A	B	C		.230/.081
4480		.126	A	B			.260/.060
4482		.126	A	B			.289/.060
4483		.126	A	B			.253/.060
4484		.126	A	B			.289/.060
4485		.126	A	B			.260/.218
4487		.126	A	B			.289/.218
4489		.126	A	B			.289/.218
7000	#6	.062	A	B	C	D	.136/—
7001	#6	.062	A	B	C	D	.104/—
7010	#6	.062	A	B	C	D	.188/—
7011	#6	.062	A	B	C	D	.156/—
7020	#6	.062	A	B	C	D	.136/—
7021	#6	.062	A	B	C	D	.104/—
7030	#6	.062	A	B	C	D	.188/—

TERMINAL BOARDS & BRACKETS

A, B, C Letters Indicated on Drawing

Part Number	M	See Dwg A	B	C
11-2, 3, 4, 5	Steel	(See bracket box)		
1100A	XXXP	1.00	1.50	13.12
1100B	XXXP	1.50	2.00	13.12
1100C	XXXP	2.00	2.50	13.12
1100D	XXXP	2.50	3.00	13.12
1102A	GEE	1.00	1.50	13.12
1102B	GEE	1.50	2.00	13.12
1102C	GEE	2.00	2.50	13.12
1102D	GEE	2.50	3.00	13.12
1110	XXXP	—	.50	13.12
1112	GEE	—	.50	13.12
1180	GMG	.50	.72	.88
1181	GMG	.75	1.03	1.22
1182	GMG	.88	1.16	1.50
1183	GEE	.50	.72	.88
1184	GEE	.75	1.03	1.22
1185	GEE	.88	1.16	1.50
2200B	XXXP	.75	1.00	7.81
2200C	XXXP	.50	.75	7.81
2202B	GEE	.75	1.00	7.81
2202C	GEE	.50	.75	7.81
2210	XXXP	—	.31	7.81
2212	GEE	—	.31	7.81
8001	(materials			(See 1100 series)
8002	and			(See 1110)
8003	configurations			(See 2200 series)
8004	on request)			(See 2210)

1100 and 2200 series scored for 5 sections

KNOBS

Part Number	SD	H	SKD
300	.250	.562	.75
301	.188	.562	.75
302	.125	.562	.75
305	.250	.625	1.00
306	.188	.625	1.00
307	.125	.625	1.00
310	.250	.687	1.25
311	.188	.687	1.25
312	.125	.687	1.25
400	.250	.69	1.12
401	.188	.69	1.12
402	.125	.69	1.12
410	.250	.875	1.81
411	.188	.875	1.81
412	.125	.875	1.81

MISC. HARDWARE

Part No.	S.D.	T
1510	.250	3/8-32
1511	.250	3/8-32
1512	.125	1/4-32
1513	.125	1/4-32
1514	Cap Only	
1515	.250	3/8-32
1520	.250	3/8-32

Part Number	X (see box no.)	T and D	Bd. Thick.—Order by Letter 1/32	1/16	3/32	1/8	H above/below bd.
1530	#1	6-32, .188	A	B	C	D	#8
1531	#1	6-32, .188	A	B	C	D	#8
1532	#1	2-56 .125	A	B	C	D	#8
1550A		4-40, .187					.250/—
1550B		4-40, .187					.375/—
1550C		6-32, .250					.250/—
1550D		6-32, .250					.375/—
1550E		6-32, .250					.500/—
1550F		6-32, .250					.625/—
1550G		6-32, .250					.750/—
1550H		8-32, .375					.250/—
1550I		8-32, .375					.375/—
1550J		8-32, .375					.500/—
1550K		8-32, .375					.625/—
1550M		8-32, .375					.750/—
1551A		4-40, .187					.250/—
1551B		4-40, .187					.375/—
1551C		6-32, .250					.250/—
1551D		6-32, .250					.375/—

TERMINALS & EYELETS

Part Number	X (see box no.)	T or D	Bd Thick—Order by Letter 1/32	1/16	3/32	1/8	H above/below bd.
7031	#6	.062	A	B	C	D	.156/—
7040	#6	.062	A	B	C	D	.188/—
7041	#6	.062	A	B	C	D	.156/—
7050	#6	.062	A	B	C	D	.312/—
7051	#2	.038	A	B	C	D	.325/—
7052 Teflon	#2	.047	A	B	C	D	.310/—
7600	#6	.030	A	B			
7601	#6	.047	A	B	C	D	
7602	#6	.058	A	B	C	D	
7603	#6	.075	A	B	C	D	
7604	#6	.090	A	B	C	D	
7650A	.051	.030	A				
7650B	.082	.030		B			
7651A	.054	.047	A				
7651B	.085	.047		B			
7651C	.117	.047			C		
7651D	.148	.047				D	
7652A	.068	.058	A				
7652B	.099	.058		B			
7652C	.131	.058			C		
7652D	.162	.058				D	
7653A	.064	.075	A				
7653B	.095	.075		B			
7653C	.127	.075			C		
7653D	.158	.075				D	
7654A	.068	.090	A				
7654B	.099	.090		B			
7654C	.131	.090			C		
7654D	.162	.090				D	
NAS 704	#7	.110	-1	-2	-3	-4	.188/—
NAS 705	#1	.090	-1	-2	-3	-4	.237/—
NAS 706	#6	.201		-2	-3	-4	.342/.315
NAS 707	#7	.112		-2	-3	-4	.360/—
NAS 708	#7	.112		-2	-3	-4	.313/—
NAS 709	#6	.116	-1	-2	-3	-4	.156/.125

KNOBS (Cont'd)

Part Number	SD	H	SKD
450	.250/.125	.99	1.00
500	.250	.50	.62
501	.188	.50	.62
502	.125	.50	.62
550	.250	.612	.81
551	.188	.612	.81
552	.125	.612	.81
555	.250	.675	1.03
556	.188	.675	1.03
557	.125	.675	1.03
560	.250	.750	1.23
561	.188	.750	1.23
562	.125	.750	1.23
625	.250	.56	.45
626	.188	.56	.45
627	.125	.56	.45
1000	.250	.75	1.00
1001	.188	.75	1.00
1002	.125	.75	1.00
1038	.250	.88	1.38
1039	.188	.88	1.38
1040	.125	.88	1.38

HANDLES & FERRULES

Part Number	M	T	OL	H
900	Br	(Fits 1004 thru 1019)		
901	Al	(Fits 1060 thru 1069)		
903	Br	(Fits 1070 thru 1072)		
904	Ss	(Fits 1090 thru 1098)		
1004	Br	10-32	6.44	1.50
1005	Br	10-32	6.44	1.75
1006	Br	10-32	3.00	1.31
1007	Br	10-32	6.00	1.50
1010	Br	10-32	4.25	1.50
1012	Br	10-32	4.00	1.50
1013	Br	10-32	4.56	1.50
1015	Br	10-32	3.00	1.50
1016	Br	8-32	3.00	1.31
1017	Br	10-32	2.00	1.50
1018	Br	10-32	8.00	1.50
1019	Br	10-32	10.00	1.50
1020	Br	5/16-18	4.25	2.12
1021	Al	5/16-18	4.25	2.12
1030	Br	5/16-18	*	1.50
1031 (90° fold)	Br	3/8-24	4.00	1.81
1032 (180° fold)	Br	3/8-24	4.00	1.81
1033	Br	10-32	3.00	1.28
1034	Br	10-32	4.56	1.50
1035	Br	10-32	6.44	1.75
1036	Br	10-32	9.00	1.75
1050	Al	10-32	3.00	1.28

*Available lengths 3" to 6" in 1/2" increments.

TERMINALS & EYELETS

Part Number	X (See Box No.)	Tor D	Bd Thick—Order by Letter 1/64	1/32	1/16	3/32	1/8	H above/below bd.
7200	#2	.046	AA	A	B	C	D	.312/—
7201	#2	.046	AA	A	B	C	D	.312/—
7210	#6	.046		A	B	C	D	.086/—
7211	#2	.046	AA	A	B	C	D	.097/—
7220	#6	.046		A	B	C	D	.086/—
7221	#2	.046	AA	A	B	C	D	.097/—
7701	#2	.062			B	C		.245/—
7702	#2	.062			B	C		.345/—
7705	NA	.060						.030/—
7706	#3	.062			B	C		.245/—
7708	NA	.072						.062/—
7709	NA	.072						.062/—
7710	NA	NA						.395/—
7711	#6	.060				C		.270/—
7712	NA	NA						.215/—
7713	.065	.040	AA					.150/—

HANDLES & FERRULES (Cont'd)

Part Number	SD	H	SKD
1051	Al	10-32	4.56	1.50
1052	Al	10-32	6.44	1.75
1053	Al	10-32	9.00	1.75
1054	Al	8-32	4.25	1.50
1055	Al	8-32	6.00	1.50
1060	Al	10-32	6.44	1.50
1061	Al	10-32	6.44	1.75
1062	Al	10-32	6.00	1.50
1063	Al	10-32	4.25	1.50
1064	Al	10-32	4.00	1.50
1065	Al	10-32	4.56	1.50
1066	Al	10-32	3.00	1.50
1067	Al	10-32	2.00	1.50
1068	Al	10-32	8.00	1.50
1069	Al	10-32	10.00	1.50
1070	Br	6-32	1.25	1.00
1071	Br	6-32	1.75	1.00
1072	Br	6-32	2.25	1.00
1090	Ss	10-32	2.00	1.50
1091	Ss	8-32	3.00	1.31
1092	Ss	10-32	3.00	1.50
1093	Ss	10-32	4.00	1.50
1094	Ss	10-32	4.25	1.50
1095	Ss	10-32	4.56	1.50
1096	Ss	10-32	6.00	1.50
1097	Ss	10-32	8.00	1.50
1098	Ss	10-32	10.00	1.50

HEADERS

Part No.	Mtg. D	O.H.	Pins Numbered
4008	17/64	9/16	1
4010	29/64	29/32	1
4011	29/64	1 9/32	1
4013	29/64	21/32	1 thru 7 CCW
4014	1 3/32	31/32	1 thru 7 CCW
4033	1 13/32	21/32	1 thru 16 CCW
4055	3/4	17/32	1 thru 9 CW
4056	29/32	17/32	1 thru 12 CW
4064	41/64	7/16	1 thru 8 CW
4067	3/4	7/16	1 thru 9 CW
4068	29/32	7/16	1 thru 12 CW
4074	37/64	7/16	1 thru 7 CW
4078	1 3/32	31/32	1 thru 7 CW
4098	61/64	7/8	1 thru 8 CW
4107	1 9/32 x 23/32	7/16	1 thru 16 C
4109	29/32	1/2	1 thru 12 CW
4115	3/4	31/32	1 thru 9 CW
4151	29/32	21/32	1 thru 7 CCW
4152	29/32	21/32	1 thru 7 CCW
4162	41/64	13/32	1 thru 8 CW
4163	37/64	13/32	1 thru 7 CW
4164	29/32	13/32	1 thru 12 CW
4165	3/4	13/32	1 thru 9 CW
4166	1 9/32 x 23/32	13/32	1 thru 16 C
4167	29/32	21/32	1 thru 7 CW

MISC. HARDWARE (Cont'd)

Part Number	X (see box no.)	T and D	Bd. Thick.—Order by Letter 1/32	1/16	3/32	1/8	H above/below bd.
1551E		6-32, .250					.500/—
1551F		6-32, .250					.625/—
1551G		6-32, .250					.750/—
1551H		8-32, .375					.250/—
1551I		8-32, .375					.375/—
1551J		8-32, .375					.500/—
1551K		8-32, .375					.675/—
1551M		8-32, .375					.750/—
1560		3/8-32, .250					.562/—
1560-1		3/8-32, .250					.438/—
1560-2		3/8-32, .250					.375/—
1560-3		3/8-32, .250					.620/—
1561		1/4-32, .125					.562/—
1561-1		1/4-32, .125					.438/—
1561-2		1/4-32, .125					.375/—
1580		3/8-32, .500					.750/—
1590	#1	6-32, .188		B	C	D	.380/—
1591	#1	4-40, .126		B	C	D	.250/—
1800		10-32, .500					1.00/.38
1815		4-40, .250					.04/.375
3100-6		6-32, .420					.375/.500
3100-8		8-32, .420					.375/.500
3100-10		10-32, .420					.375/.500
3200-6		6-32, .094					.188/.692
3200-8		8-32, .120					.188/.692
3200-10		10-32, .140					.188/.692
3200-25		1/4-20, .171					.375/1.125
3316A		.251					.750/—
3316B		.126					.750/—

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TRIMM INC. LIBERTYVILLE • ILLINOIS

PLUGS & JACKS

"511-513" STANDARD PHONE PLUGS

General purpose plugs, designed to fit all standard jacks and available in both two and three conductor types. The "511" series, the two conductor plugs, are provided with binding head screws (No. 6) in terminals, and handles made of molded bakelite or metal when shielded plugs are required. The "513" series are three conductor types and use solder lug connections only. The 515 adapter provides a means of coupling Amphenol type microphone plugs to standard jacks. Tip and stem solid one piece construction, staked after assembly with terminal, prevents loosening in service. All metal parts brass; tip, sleeve, body, and shielded shells bright plated. Stay cord anchorage provided. Shielded types have tubular fiber liners. All plugs fit standard 0.250 I.D. jacks.

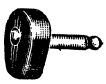
TWO CIRCUIT TYPE

		List
No. 511	—Black plastic shell	$0.70
No. 511-1	—Red plastic shell	0.70
No. 511-2	—Shielded, single piece shell	1.20
No. 511-3	—Shielded, two piece shell with cable clamp	1.65
No. 511-4	—Shielded, stubby shell	0.90
No. 511-5	—Two circuit, shielded, stubby shell. Has long tip to sleeve insulator which leaves "ring" spring open when inserted in three circuit jack	1.05
No. 515	—Adapter. See description in above paragraph	0.50

THREE CIRCUIT TYPE

No. 513	—Three circuit, black plastic shell	1.05
No. 513-1	—Three circuit, red plastic shell	1.05
No. 513-2	—Three circuit, shielded, single piece shell	1.50
No. 513-3	—Three circuit, shielded, two piece shell with cable clamp	1.95
No. 513-4	—Three circuit, shielded, stubby shell	1.30

"512" FLAT TYPE PLUG



Compact, non-protruding design. Ideal for group hearing aid systems, centralized radio systems, etc. Body molded of phenolic plastic. All exposed edges rounded. Provision for stay cord anchorage. Fits standard jacks (0.250″).

		List			List
No. 512	—Black	$0.90	**No. 512-1**	—Red	$0.90
No. 512-2	—Same as No. 512 plus hook projecting outward from face of plug on which headset may be hung. Used on centralized radio installations				$1.35

"514" MIN-A-PLUG

Developed especially for shielded microphone cable. Available in both 2-conductor tip and sleeve construction and 3-conductor tip, ring and sleeve construction. 2-conductor types available in both 0.250″ and 0.206″ dia. Shell is only ½″ in dia., and 1⅝″ long except stubby type—1″ long. Wing type terminal clamps directly on to cord shield. Tip and stem solid one piece construction, staked after assembly, to prevent loosening in service. Shielded types have tubular fiber liners. All external metal parts bright nickel plated.

TWO CONDUCTOR TYPES (0.250″ dia.)

	SOLDER TERMINALS	List
No. 514	—Black plastic shell	$0.70
No. 514-1	—Red plastic shell	0.70
No. 514-2	—Shielded	1.00
No. 514-4	—Shielded, stubby type	0.90

	SCREW TERMINALS	
No. 514-6	—Black plastic shell	0.90
No. 514-7	—Red plastic shell	0.90
No. 514-8	—Shielded	1.20

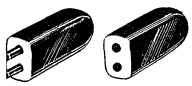
TWO CONDUCTOR TYPES (0.206″ dia.)

	SOLDER TERMINALS	List
No. 514-20	—Black plastic shell	$0.80
No. 514-21	—Red plastic shell	0.80
No. 514-22	—Shielded	1.10
No. 514-24	—Shielded, stubby type	1.00

THREE CONDUCTOR TYPES (0.250″ dia.)

	SOLDER TERMINALS	
No. 514-30	—Black plastic shell	$1.20
No. 514-31	—Red plastic shell	1.20
No. 514-32	—Shielded	1.50

"518" PLUG —"562" JACK



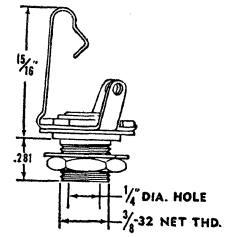
Two-circuit miniature disconnect plug and jack series. Ideal for small size cordage. Plugs have two grooved, parallel pins which engage with multi-leafed contract springs in jack. No. 518 and 562 have acetate half shells cemented together. No. 518-7 and 562-7 have molded bakelite shells held together with screws.

		List
No. 518	—Plug	$0.60
No. 518-7	—Plug	0.80
No. 562	—Jack	0.80
No. 562-7	—Jack	1.00
No. 518-8	—Polarized disconnect plug (Like 518-7 except has 1 pin and 1 female terminal per plug)	Pr. 1.00

"525" CONNECTORS

The "525" series provides means of attaching headset cords, or any two wires, single contact mike plugs (Amphenol 75-MC series of plugs). Main body is similar to shell of "511" series plug. Connector held to receptacle by threaded retaining ring.

		List
No. 525	—Black plastic shell	$1.30
No. 525-1	—Red plastic shell	1.30
No. 525-2	—Shielded, single piece shell	1.70
No. 525-3	—Shielded, two piece shell with cable clamp	2.25
No. 525-4	—Shielded, stubby shell	1.65

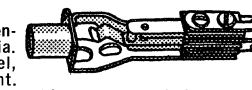


"95" SERIES JACKS

Widely used on P.A. amplifiers, tape recorders, short wave radios, servicemen test instruments, etc. Used where space behind panel is limited. Jack is mounted by a threaded bushing which fits a ⅜″ dia. hole. Springs are nickel silver and are held in place by interlocking insulators. Circuit types can be identified by referring to "Jack Circuits" as shown below.

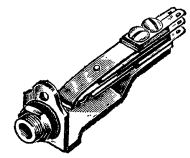
		List
No. 95-01	—Open circuit, two conductor	$0.40
No. 95-02	—Closed circuit, two conductor	0.48
No. 95-25	—Open circuit, three conductor (for 0.250″ dia. plugs)	0.55
No. 95-50	—Open circuit, three conductor (for 0.206″ dia. plugs)	0.65

"90" SERIES JACKS



Commonly known as the telephone jack. Extensively used on jack panels. Bushing fits 29/64″ dia. hole. Depth behind panel 2 15/16″. Frame of steel, cadmium plated with dichromate treatment. Bushing is nickel plated. Springs of nickel silver with terminal ends hot tinned. Contacts are silver with diffused gold coating. Steel 6-32 x ⅜″ mounting screws supplied. Note: listings below are only a few of the most commonly used versions of this series. There is a wide assortment of other circuits available as well as variations in construction and contact surfaces. Consult factory for further information.

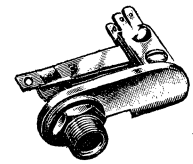
Code	List	Code	List
90SN-01	$1.05	**90SN-09**	$1.70
90SN-02	1.20	**90CSN-14**	2.80
90SN-06	1.40	**90SN-25**	1.20
90SN-07	1.50	**90SN-26**	1.60
90SN-08	1.60	**90SN-27**	1.90



"91" SERIES JACKS

A long frame jack having threaded mounting bushing and which can be attached to panel by this alone, or by mounting screw as in "90" Series. Can be mounted on panels up to ¼″ thick. Mounts in ⅜″ dia. hole. Depth behind panel 3 1/16″. Bushing threaded for ⅜″—32 nut, furnished (also washer).

Code	List	Code	List
91-01	$0.75	**91-09**	$1.20
91-02	0.95	**91-25**	1.00
91-05	1.05	**91-26**	1.20
91-06	1.10	**91-50**	1.20
91-07	1.20	**91-51**	1.40



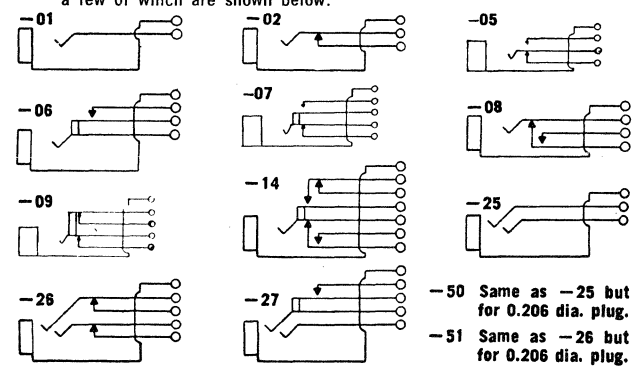
"93" SERIES JACKS

A short frame jack with springs mounted parallel to panel. Used particularly where depth behind panel is limited, on such applications as intercom systems, P.A. amplifiers, etc. Mounting is by means of threaded bushing ⅜″ diameter, rigidly attached to a steel frame. May be mounted on panels up to 3/16″ thick. Contact springs of nickel silver, terminals hot tinned. See diagrams below for circuits.

	List		List
No. 93-01	$0.65	**No. 93-07**	$1.10
No. 93-02	0.80	**No. 93-25**	0.85
No. 93-06	1.00	**No. 93-26**	1.10
		No. 93-27	1.40

JACK CIRCUITS

All TRIMM jacks have a standardized coding consisting of the Jack series number plus a dash number indicating spring arrangement, a few of which are shown below.



–50 Same as –25 but for 0.206 dia. plug.

–51 Same as –26 but for 0.206 dia. plug.

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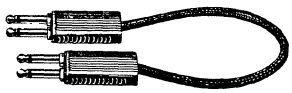
PATCH CORDS, AUDIO TYPE



Trimm Patch Cords feature telephone type plugs, described below, on cords built up of two conductors of multiple strands of bronze tinsel covered with numerous layers of insulation and moisture proofing, color coded, and cabled to produce a highly flexible and water resistant construction. Over this is applied a woven shield, if required, and then a final braid of nylon to assure long dependable service. Reinforced at ends. Color is black unless specified otherwise, (available in blue, brown, green, red, slate and white to order).

"840" SERIES

Widely used broadcast type employing "506" twin plugs at both ends. Conductors wired to the tips and cord shields (when used), to grounded sleeves. Supplied with shield attached to plug at one end only, but also available without shield (W in code number), or with shield attached to plug at both ends (X in code number). Standard types listed below.

	"X" SHIELDING			"W" NO SHIELD	
840-05-PP	$10.90	840-05X-PP	$10.90	840-2W-PP	$11.10
840- 1-PP	11.00	840- 1X-PP	11.00	840-3W-PP	11.40
840- 2-PP	11.25	840- 2X-PP	11.25		
840- 3-PP	11.50	840- 3X-PP	11.50		
840- 4-PP	11.80	840- 4X-PP	11.80		
840- 5-PP	12.10	840- 5X-PP	12.10		
840- 6-PP	12.40	840- 6X-PP	12.40		
840-10-PP	13.80	840-10X-PP	13.80		

"841" SERIES

Uses 2 "517" single, triple circuit plugs of special design for broadcast service. Conductors wired to tip and ring. Shield, if used, wired to sleeve of plug. Special contour on plug permits ring spring on jack to make contact before normally closed tip spring contact is open, to reduce "clicks." Stock types listed below.

841-01-PP	$9.50	841-1X-PP	$9.50
841- 2-PP	9.80	841-2X-PP	9.80
841- 3-PP	10.20		
841- 4-PP	10.60		
841- 5-PP	11.00		
841- 6-PP	11.50	841-2W-PP	9.35
841-10-PP	13.60	841-3W-PP	9.65

"851" SERIES

Uses two "516" 3-circuit plugs. Conductors wired to tip and ring. Shield (if used) to sleeve of plug. Stock types listed below.

851- 1-PP	$9.50	851-05X-PP	$9.60	851-2W-PP	$9.80
851- 2-PP	9.90	851- 1X-PP	9.80	851-3W-PP	10.20
851- 3-PP	10.30	851- 2X-PP	10.20		
851- 4-PP	10.70	851- 3X-PP	10.50		
851- 5-PP	11.20	851- 4X-PP	10.90		
851- 6-PP	11.70	851- 6X-PP	11.90		
851-10-PP	13.30				

NOTE: Patch Cord Code System—First three digits are cord style. No letters following first three digits indicates black cord. Letters following first three digits abbreviate color. After first dash next one or two digits indicate cable length (05 is six inches).

"96" SERIES JACK PANELS

Extensively used in the broadcast field, on instrumentation systems, communication networks, etc. Uses 5/8" thick bakelite panel with appropriate end brackets, side reinforcing strips and designation strips. All jack bushings are insulated from each other. Jacks, as ordinarily supplied (mounted on panels) have offset ground lugs, which considerably reduces wiring cost of installation. Straight ground lugs (duplicating W.E. jacks) available. Types 96-71, 96-72, etc., use tip rings and sleeve plugs (No. 516 and No. 517); others usually used with twin plugs (No. 506) but will fit other standard two-circuit jacks.

Code No.	Rows	No. of Jacks	Jack Type	Jack Mounting Strip Type	Width	List
96-01	1	24	90L-02	96-21	1¾"	$43.50
96-02	2	48	90L-02	96-22	2⅛"	72.50
96-03	2	48	90L-02	96-23	3½"	78.00
96-04	2	48	90L-02	96-24	3½"	80.00
96-06	1	26	90L-02	96-26	1¾"	47.20
96-07	2	52	90L-02	96-27	1¾"	78.00
96-71	1	24	90L-26	96-21	1¾"	53.00
96-72	2	48	90L-26	96-22	2⅛"	90.00
96-74	2	48	90L-26	96-24	3½"	97.50
96-76	1	26	90L-26	96-26	1¾"	57.50
96-77	2	52	90L-26	96-27	1¾"	99.00

JACK MOUNTING STRIPS — LESS JACKS

Used where non-standard arrangements of jacks, lamp sockets, turn or push keys, video jacks, etc., are desired to be mounted onto a jack strip. Listed below are the most commonly used types. Numerous other types are available

Code No.	Rows	Jack Holes per Row.	Width	Desig. Qty.	Strip Type	List
96-21	1	24	1¾"	1	JP-30	$15.50
96-22	2	24	2⅛"	1	JP-30	16.40
96-23	2	24	3½"	1	JP-30	22.00
96-24	2	24	3½"	2	JP-30	24.00
96-26	1	26	1¾"	1	JP-34	17.00
96-27	2	26	1¾"	2	JP-34	18.00

DESIGNATION STRIPS

A variety of types are produced by **TRIMM**. The types listed are those used o most panels, others differing in length and accepting up to 5 rows of typin be produced.

Code No.	No. of Windows	Size	Notes	List
*JP-30	12	16¾" x 15/32"		$1.60
†JP-31	13	16 3/32" x 3/16"	Equiv. WE. 99A	4.50
†JP-32	13	16 3/32" x 7/16"	Equiv. WE. 99B	5.50
*JP-33	12	14 13/16" x 25/64"	Equiv .WE. 90A	2.20
*JP-34	1	17" x ¼"		1.20
*JP-35	1	16¾" x 15/32"		1.50
†JP-37	1	16¾" x ⅝"		1.80

* Dull black baked enamel finish.
† Bright nickel plated.
‡ Extruded lucite.

TELEPHONE TYPE PLUGS

"516" PLUG

One of the most frequently used three-circuit plugs. The accepted standard for many years on telephone switchboards. Used extensively in communication networks, circuit patching of instrument systems and many other applications. Supplied on **TRIMM** No. 851 series patch cords. Polished red fiber shell furnished; black or gray shell optional. Shell can be attached without removing cord. No. 516 plug interchangeable with WE 310; No. 516-10 plug with Mil PJ-051.

"506" PLUG — TWIN, THREE-CIRCUIT

The standard twin plug for broadcast applications. Now widely used in the instrumentation and missile control fields. Supplied on **TRIMM** No. 840 series patch cords. Live circuits connected to tips of each plug; shield, if used, connected to sleeves which are electrically common. Sleeves are spaced 5/8" c. to c. with self-aligning construction. Shell, molded of bakelite, is notched along one edge to indicate correct polarization. Interchangeable with WE 241 and Mil PJ-241.

"501" PLUG

Widely used on high quality military communication equipment. Commonly referred to as PJ-055. Black plastic shell is furnished for non-shielded types and nickel plated brass for shielded types; red plastic shell optional.

PART NUMBERS, DESCRIPTIONS AND BASE PRICES*

Part No.	Description	Base Pric
500	2-ckt. Telephone Plug, Red Shell	$0.90
500-1	As above, Black Shell	0.90
500-10	As above, Red, Shell, "PJ-047R"	0.95
500-11	As above, Black Shell, "PJ-047B"	0.95
501	Description at left, Black Shell	0.7
501-1	As above, Red Shell	0.7
501-2	As above, Metal Shell	1.0
501-10	As above, Black Shell, "PJ-055B"	0.7
501-11	As above, Red Shell, "PJ-055R"	0.7
501-12	As above, Metal Shell, "PJ-055M"	1.0
506	Description at Left, Black Shell	2.6
506-1	As above, Red Shell	2.6
508-	3 Ckt., 0.206" Sleeve. Red Shell	1.6
509-10	2 Ckt., 0.206" Sleeve, Black Shell "PJ-068"	1.6
516	Description at Left, Red Shell	1.5
516-1	As above, Black Shell	1.5
516-10	As above, Red Shell, "PJ-051"	1.6
516-11	As above, Black Shell "PJ-051B"	1.6
517	3 Ckt., 0.250" Sleeve, Red Shell	1.7
517-1	As above, Black Shell (Broadcast Use)	1.7

***BASE PRICE**—Applies to Telephone Type Plugs above only. This is actual re price in single quantities. (Departs from traditional List Price Less 40%, c monly used in Electronics Industry).

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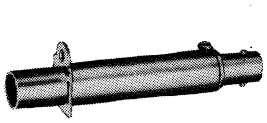
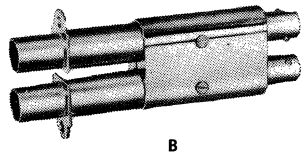
COAXIAL COMPONENTS

"89" SERIES JACKS



A



B

Single Types—Fig. A

Part No.	RG - Cable	Notes	Base
89-01	58		$ 6.00
89-02	59		6.00
89-04	62		6.00
89-05	11		6.25
89-06	8, 9.		6.25
89-07	54	Also fits W.E. 724, Belden 8281 cable. Jack similar to W.E. 477B	6.25
89-08	54	Jack similar to W.E. 477C.	15.00
89-09	2-59	Paralleling 2-RG-59	6.25
89-11	187		6.00
89-12	11, 13		6.25
89-14		Amphenol 2-597	6.00
89-15		Equivalent to W.E. 470B	5.00
89-31		Female UHF. Fitting	20.00
89-32		Female BNC. Fitting	7.00
89-33		Female C Fitting	16.00
†89-715			5.25
†89-731		Female UHF. Fitting	20.00
†89-732		Female BNC. Fitting	7.00
†89-733		Female C Fitting	16.00

†Compatible with RCA., otherwise W.E. equipment.

Twin Types—Fig. B

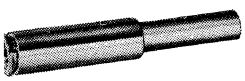
NON-SWITCHING

Code No.	RG Cable Type	Notes	Base
89-51	58		$13.00
89-52	59		13.00
89-57	54-W.E.724 Belden 8281	Equiv. W.E. 465C.	13.50
89-82S	N/A	Has single BNC at rear—used for paralleling	15.50

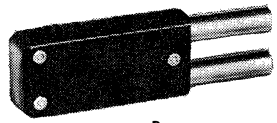
SWITCHING

89-132		Double BNC at rear	17.50
89-1010		Single BNC plus turret terminal for other half to connect to circuit board	17.00
89-1011		Double turret terminal at rear to connect to circuit board	16.50

"530" SERIES PLUGS—Fig. C



C



D

Part No.	Cable	Notes	Base
530-1	RG-58		$4.60
530-2	RG-59		4.60
530-4	RG-62		4.60
530-5	RG-11		5.00
*530-6	RG-54 Belden 8281 W.E. 724	Equiv. to W.E. 358A	3.60
530-7	RG-8 & 9		5.00
*530-9	RG-59	Similar to W.E. 337C	16.00
530-10	RG-55		5.00
*530-15	RG-58 & 59		4.20
*530-32	N/A	Mates with male BNC connection at rear end	5.00
*530-701	RG-58		4.60
*530-702	RG-59		4.60
*530-705	RG-11 & 13		5.00

*Compatible with RCA; other types W.E.

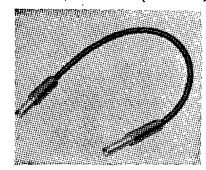
"531" SERIES BRIDGING PLUGS—Fig. D

twin coaxial plug (sometimes called a looping plug) internally wired and iving no external cord connection.

rt No.	Imp.	Notes	Base	Part No.	Imp.	Base
1-1	52 ohm	Compatible	$7.30	531-702	75 ohm	$7.30
1-2	75 ohm	with and	7.30	531-7	75 ohm	29.00
1-3	90 ohm	Eqnuiv. to	7.60	531-707	75 ohm	29.00
1-701	50 ohm	W.E. 477B	7.30			

PATCH CORDS—"849" SERIES

The following cords use two, 530-2 (for W.E.), or 530-702 (for RCA), plugs and RG-59B/U cable (75 ohm).



W.E.	Base	RCA	Base
849-05X-PPG	$ 9.60	849-1X-700PPG	$ 9.60
849-1X-PPG	9.60	849-105X-700PPG	9.60
849-105X-PPG	9.60	849-2X-700PPG	10.00
849-2X-PPG	10.00	849-3X-700PPG	10.00
849-3X-PPG	10.00		
849-4X-PPG	10.00		

The following cords, as above, but with RG-58C/U cable (50 ohm).

W.E.	Base	RCA	Base
849-1X58-PPG	$ 9.60	849-1X58-700PPG	$ 9.60
849-105X58-PPG	9.60	849-105X58-700PPG	9.60
849-2X58-PPG	10.00	849-2X58-700PPG	10.00
849-3X58-PPG	10.00	849-3X58-700PPG	10.00

"869" HYBRID AUDIO-VIDEO SERIES

Provides a method of simultaneously patching audio and video signals. TWIN plug at each end consists of one coaxial section fitting the "89" series jack and one three circuit telephone-type plug fitting the "90" series jacks. On 5/8" centers, providing either horizontal or vertical positioning on appropriate "96" or "99" panels. The coax section uses RG-187 cable (75 ohm) and audio is carried by two additional conductors with shield overall (not common to coax shield).

Standard Types	Base
869-1X-PPG	$30.00
869-105X-PPG	30.00
869-2X-PPG	30.00

JACK PANEL ASSEMBLIES

The "89" series coaxial jacks can be mounted on the "96" or "99" series strips in almost any specified configuration. Listed below are some of the more standard types already produced. Consult factory for information regarding price or your special requirements.

W.E.	RCA	Qty/Row	Rows	Jack Type	Jack Mtg. Strip
99-80		12	1	89-32	99-20
	99-780	12	1	89-732	99-20
98-84		24	2	89-02	96-24
	96-784	24	2	89-702	96-24
*96-94-2		24	2	89-02	96-524-2
	*96-794-2	24	2	89-702	96-524-2
96-85		12	2	89-02	96-25
	96-785	12	2	89-702	96-25
*96-95-2		12	2	89-02	96-525-2
	*96-795-2	12	2	89-702	96-525-2
*96-98-2		Top 24 Bottom 12	2	89-02	96-528-2
	*96-798-2	Top 24 Bottom 12	2	89-702	96-528-2

*Denotes sub-chassis with 24 UHF connectors.

JACK MOUNTING STRIPS, LESS JACKS

The "96" Series Panels, described and listed on a previous page are readily adaptable for coaxial use. In addition to the panels previously listed, the following ones are also available in this series.

Code No.	No. of Rows	Holes/Row	Jack Hole Spacing c. to c. Left to right	Designation Strip Width	Qty.	Type	List
96-20	1	12	1 3/8"	1 3/4"	1	JP-30	$27.00
96-20-1	1	12	5/8 - 2 1/4 - 5/8	1 3/4"	1	JP-35	27.00
96-28	2	upper 24 lower 24	5/8 - 3/4 - 5/8 1 3/8	3 1/2"	2	JP-35	33.00
96-32	2	24	5/8 - 3/4 - 5/8	2 1/8"	2	JP-33	18.40
*96-38	1	32	5/8	1 3/4"	1	JP-34-3	48.00
*96-39	2	32	5/8	1 3/4"	2	JP-34-3	54.00

*Fits 23" racks having 22 1/4" spacing between mounting screw holes.

"99" SERIES

Features an all aluminum, sandwich-like construction of the jack mounting strip. Front panel (3/16" thick) separated from a rear sub-panel (1/8" thick) by spacers. Jacks are mounted on sub-panel. Overall thickness 19/32". Built for use on 19" relay rack. Not usable where one jack must be insulated from another.

Code No.	Rows	Jacks/ Row	Jack Hole Spacing c. to c.	Designation Strip Width	Qty.	Type	Notes	List
99-20	1	12	1 3/8"	1 3/4	1	JP-37		$26.00
99-20-1	1	12	5/8 - 2 1/4 - 5/8	1 3/4	1	JP-37		26.00
99-21	1	24	5/8 - 3/4 - 5/8	1 3/4	1	JP-37		27.00
99-22	2	24	5/8 - 3/4 - 5/8	2 1/8	1	JP-30		34.00
99-22-1	2	24	5/8 - 3/4 - 5/8	2 1/8	2	JP-33	1	35.50
99-22-2	2	24	5/8 - 3/4 - 5/8	2 1/8	2	JP-33	2	36.00
99-24	2	24	5/8 - 3/4 - 5/8	3 1/2	2	JP-37	1	40.00
99-26	1	26	5/8"	1 3/4	1	JP-34		27.00
99-27	2	26	5/8"	1 3/4	2	JP-34	1	36.00

NOTES
1. Designation strip above top, and below bottow row.
2. Designation strip above each row.

OTHER STRIPS

"96-500" Sub-series feature steel subchassis mounted 5 1/4" behind regular bakelite panel. "99-200" Sub-series feature 3/16" aluminum front panel backed by bakelite strip to make total thickness 5/8". Jacks mount to bakelite to isolate them from each other. Contact factory for details.

Trade Discount Applies To List Prices Only

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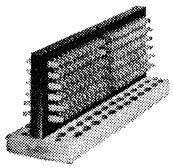


TERMINAL BLOCKS

Originally developed for telephone and telegraph exchange use, now are quite generally found in broadcast and microwave relay stations, large instrument systems —wherever very large numbers of circuits need convenient places of termination.

"421 SERIES"

Molded of black phenolic plastic material, including base. Provides 20 terminals per row, in two banks of ten, with up to ten rows. Base 6 1/16" long x 3" wide. Has steel mounting strip inset in groove in base, with standard mounting dimensions and accommodating #10-24 screws.

Terminals are of 0.040" tin plated brass, and are removable without disassembly of block. Have "butterfly" notched design assuring better retention of wire. Lengths of terminals in three graduated lengths for ease of wiring, and are usually identified by numbering along top row. (Not illustrated). Interchangeable with W.E. "L" series, as indicated by ( ) following TRIMM No.

Code No.	No. Rows	No. Term	Base
421C-1	1	20	$ 4.40
421C-2	2	40	5.00
421C-3 (L34)	3	60	5.75
421C-4 (L4A)	4	80	6.50
421C-5 (L5A)	5	100	7.30
421C-6 (L6A)	6	120	8.00
421C-7	7	140	8.80
421C-8(L8A)	8	160	9.60
421C-9	9	180	11.20
421C-10	10	200	12.50

OTHER SERIES

Summarized below are terminal arrangements and base dimensions for other series available. All bases 5/8" hard maple. Available in 1 to 10 rows. Write for additional information.

Series	Term. per Row	Base Dim.	Notes
421A	20	6 7/16" x 2 5/8"	Eq. to W.E. "M" Type
421B	20	8" x 2 5/8"	Fits Cook Elec. Frame
425A	24	7 7/16" x 2 5/8"	
425B	24	8" x 2 5/8"	Fits Cook Elec. Frame
427B	26	8" x 2 5/8"	Fits Cook Elec. Frame

MINIATURIZED JACKS, PLUGS, PATCH CORDS AND PANELS

A complete new line of quality miniature components possessing the high reliability characteristics of long frame telephone jacks, plugs, cords and panels, but requiring only half the space.

"94" SERIES JACKS

Special features include:

1. Frame, steel cadmium plated, heavily ribbed for increased rigidity.
2. Silver soldered bushing to frame joint.
3. 18% Nickel silver springs.
4. Unique glass-filled-alkyd molded insulation of springs, making entire spring assembly a single modular unit keyed to frame, the springs being embedded into the plastic material as inserts.
5. Gold cross-bar contacts, welded to springs providing exceedingly low noise levels and uniform contact resistance with time.

Stock types (see jack circuits on previous page).

94S-01 BASE 0.72 94S-02B BASE 0.90 94S-08B BASE 1.04 94S-25 BASE 0.80
94S-26B 1.20

"536" - "537" SERIES PLUGS

Miniaturized two circuit (536), and three circuit (537) types for use with "94" series jacks. Reduced in size, but constructed similarly to TRIMM telephone type plugs. The tip, or tip and ring, are molded into place within the body of the plug by means of a high melting molded zytel insulating matrix. Cords are attached by small terminal screws within the plug and can be replaced in a manner similar to regular switchboard patch cords.

"866" - "867" SERIES PATCH CORDS

Two conductor (866) and three conductor (867) cords using "536" and "537" plugs. Cords have overall nylon braid and other construction details of standard patch cords.

"96-700" SERIES JACK MOUNTING STRIPS

Bakelite panels, 3/8" thick, 1 1/4" wide. For "94" series jacks. One or two rows, with either 48 or 52 jacks per row. Standard designation strip is JP-35.

CONSULT FACTORY FOR ADDITIONAL INFORMATION ON MINIATURIZED LINE.

OTHER TELEPHONE TYPE PLUGS

These are in addition to listing of commonly used plugs on previous page. A large number of other plugs, of less commonly used types are available. Consult Factory.

Part No.	Description	Base
504	Twin, 4 Ckt., 0.250 Sleeves, Black Shell (PJ-327, WE. 327)	$2.50
505	Twin, 4 Ckt., 0.250 Sleeves, Black Shell (WE. 289B)	2.70
523	Twin, Two 3 Ckt. 508, One 2 Ckt. 504	4.50

"92" SERIES JACKS

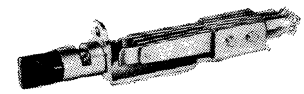
Twin jacks, principally used in toll and carrier frequency systems. 92-1009B provides unbalanced normal through circuitry and 92-1030B provides balanced normal through circuitry between jacks. Single plug inserted into either side of jack opens circuit, permitting testing or patching of circuit up to jack. 92-25 is equivalent of two 90S-25 on single-piece frame and provides no normal through circuitry. Bushing brass, as 92-1009B, or nickel as 92N-1009B. G indicates gold contacts.

No.			Base
	92-1009B	92N-1009B	$2.00
	92-1009BG	92N-1009BG	2.20
	92-1030B	92N-1030B	2.80
	92-1030BG	92N-1030BG	3.20
	92-25		2.00

MILITARY TYPE JACKS —"90" SERIES

See previous page for description.
Listing below covers military types only.

Mil No.	TRIMM No.	List	Mil No.	TRIMM No.	List
JJ-016	90SN-08BM	$1.90	JJ-022	90SN-25M	$1.80
JJ-017	90SN-24BM	2.40	JJ-042	90SN-26BM	2.10
JJ-024	90SN-02BM	1.50	JJ-073	90SN-32BM	2.85
JJ-035	90SN-10BM	2.00	JJ-074	90SN-27BM	2.35
JJ-072	90SN-09BM	2.00	JJ-075	90SN-35BM	2.90
JJ-084	90SN-06BM	1.80	JJ-077	90SN-28BM	2.60
JJ-085	90SN-09ABM	2.00	JJ-078	90SN-34BM	4.10
JJ-086	90SN-01M	1.20			
JJ-087	90SN-13BM	2.70	JJ-015	90CS-13BM	2.85
JJ-088	90SN-1009BM	4.00	JJ-019	90CS-14BM	2.70



"205" - "207" TURN KEYS

Long frame rotating cam type keys or switches. Intended to be assembled on to standard 5/8" thick jack mounting strips having 29/64" dia. jack bushing holes. Hole for #6-32 screw 3/8" off center provided. Entirely interchangeable with telephone type jacks, and essentially similar to W.E. "552" series. See table below for cross reference.

Knob of molded black nylon, has two flat areas on each side to provide convenience in turning. White filled line on front of knob readily identifies in which of two positions key has been turned.

Requires 2 23/32" depth behind panel.

LOCKING TYPE, "205"

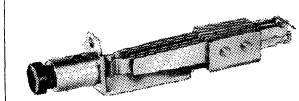
Part No.	Base	Part No.	Base	Part No.	Base	Part No.	Base
205-1A	$2.10	205-2A	$2.50	205-3A	$3.00	205-2A2B	$3.10
205-1B	2.10	205-2B	2.50	205-3C	3.50	205-1A2C	3.30
205-1C	2.30	205-2C	3.00	205-4A	3.50	205-1000	3.50
205-1D	2.30	205-2D	3.10	205-4C	4.10	205-1001	3.80

NON-LOCKING TYPE "207"

Part No.	Base	Part No.	Base	Part No.	Base
207-1A	$2.10	207-1B	$2.10	207-2C	$3.00

CROSS REFERENCE W.E. to TRIMM

W.E. Type	TRIMM Code	W.E. Type	TRIMM Code
552A	205-2C	552E	205-1000
552B	205-3A	552G	205-1D
552C	205-1001	552H	205-2C1A
552D	205-2B 2C		



"204" - "206" PUSH KEYS

Long frame push button type key ver similar to turn keys. The usual applica tions for push button type keys are as a impulse switch for relays, or motor star ers; buzzer signals, test circuits requirin momentary contact, etc.

Mounting, dimensional and contact data, similar to turn keys. Available in nor locking and locking forms. Knob of black plastic material with depresse dimple for finger.

LOCKING TYPE "204"

Part No.	Base	Part No.	Base
204-1A	$2.10	204-2A	$2.50

NON-LOCKING TYPE "206"

Part No.	Base	Part No.	Base	Part No.	Base	Part No.	Base	Part No.	Base
206-1A	$2.10	206-1C	$2.30	206-2A	$2.50	206-2C	$3.00	206-4A	$3.50
206-1B	2.10	206-1D	2.30	206-2B	2.50	206-3C	3.50		

"247" SERIES LAMP SOCKETS

Switchboard type lamp socket; intend for use with standard No. 2 switchboa lamps, and to be assembled on to stan ard 5/8" thick jack mounting strips wi 29/64" dia. jack bushing holes. Has lug f #6-32 mounting screw 3/8" off center line. May be mounted 5/8" c. to. c. ho zontally.

Frame, one piece steel construction. Springs nickel silver insulated from fra and each other with XXXP phenolic laminated spacers. Lamp mounts close lens of lamp cap, giving maximum illumination.

"240" SERIES LAMP CAP

For use in the "247" series lamp sockets. Interchangeable with W.E. No. 2 ty Lenses of glass, dome shaped, held firmly in place in the cap case by spinni edges over the lenses. The cases are slotted to give a spring fit for the la cap in the socket.

		W.E.EQ.	Bas
247	Lamp Socket	47B	.80
240-AY	Lamp Cap White Opalescent	2-AY	.22
240-H	Lamp Cap Red Opalescent	2-H	.22
240-L	Lamp Cap Green Opalescent	2-L	.22
240-U	Lamp Cap Amber	2-U	.22
240-W	Lamp Cap Blue	2-W	.22

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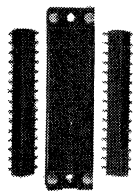
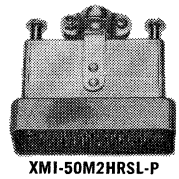
U. S. Components makes connectors for every conceivable purpose. Write for details and information on these new series.



MIC-15M MIC-30FDTP



XMI-50M2HRSL-P

XMI-50F2SLKX

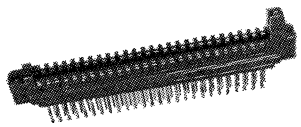
901-25M

MPCC-GM29

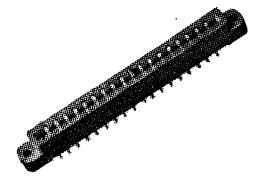
901-25F

UPCC-GF29

REPC-32F



RPCR-52

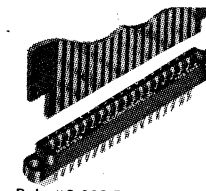


UPCR SERIES
Single Row Printed Card Receptacle

Number of contacts—(Beryllium Copper) 6, 10, 15, 18, 22
Solder wire hole size ..... 1/16"x3/32"
Voltage breakdown between contacts—sea level 2500 V A.C. RMS.
Current rating ..... 5 amps.
Polarizing pins and contacts—snap-in or out design permitting easy interchangeability. Pat. #2,853,689.

UPCR-D. Double Row Printed Card Receptacle. Solder Type Terminals

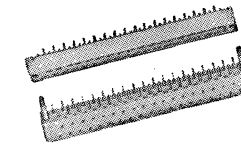
Card range thickness accommodation
UPCR-D ..... .052—.072 (nom. 1/16")
UPCR-93D ..... .080—.104 (nom. 3/32")
Number of contacts (Beryllium Copper) 6, 10, 15, 18, 22 per row, (2) rows
Solder wire hole size ..... 3/64"x3/32"
Voltage breakdown between contacts—sea level 2500 V A.C. RMS.
Current rating ..... 5 amps.



Pat. #2,909,755

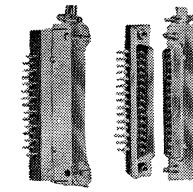
MPC SERIES—Micro Miniature Printed Circuit Connectors

Number of contacts 15, 23, 33, 37, 49
Maximum wire size ..... 26 AWG Wire
Voltage breakdown between contacts—sea level 3100 V. A.C., RMS.
Current rating ..... 3 amps.



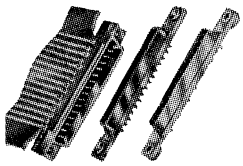
UPCC-SLH SERIES. Hooded Screw Lock

UPCC-M2SL ..... **Male Chassis Screw Lock**
UPCC-F2HSL ..... **Female Hooded Mating Unit**
Available ..... 7, 11, 15, 19, 23, 32 contacts
Voltage Breakdown between contacts—sea level 2500 V. A.C. RMS.
Male — available solder dip, wire solder turret, taper tab terminals
Female — available wire solder, turret tab terminals Pat. #2,953,767



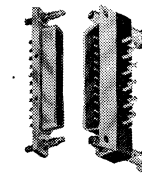
UPCC SERIES. Printed Circuit Connector

Card range thickness accommodation—
Male Dip Solder
UPCC-M ( ) A ..... 1/16"
UPCC-M ( ) B ..... 1/8"
UPCC-M ( ) C ..... 1/4"
UPCC-F ( ) female ..... #20 AWG wire
UPCC-FDN ( ) ..... Solder dip terminals
Maximum wire size—female ..... #20 AWG wire
Number of contacts 7, 11, 15, 19, 23, 32
Voltage Breakdown between contacts—sea level 2500 V. A.C. RMS.
Current rating ..... 7.5 amps.



UPCC-SL SERIES. Printed Circuit Screw Lock

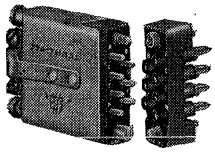
Card range thickness accommodation—
Male Dip Solder
UPCC MSL ( ) A ..... 1/16"
UPCC MSL ( ) B ..... 1/8"
UPCC MSL ( ) C ..... 1/4"
UPCC-FSL ( ) female ..... #20 AWG wire
UPCC-FD-SL ( ) ..... Solder dip terminals
Number of contacts 7, 11, 15, 19, 23, 32
Voltage Breakdown between contacts—sea level 2500 V. A.C. RMS.
Current rating ..... 7.5 amps.



Pat. #2,953,767

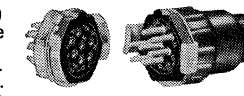
990-SL SERIES. Power Screw Lock

Number of contacts 7, 10, 15, 18
Maximum wire size ..... #16 AWG, wire
Voltage breakdown between contacts—sea level 5300 V. A.C. RMS.
Current rating ..... 13 amps.
990-SL-SDL (solderless ..... uses #53 taper pin Patent #2,761,108. Double lead threads. "Twice the speed with double lead."



MH SERIES. Miniature Hex

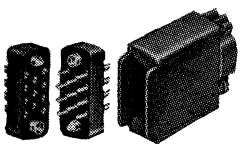
Number of contacts 4, 5, 7, 9
Maximum wire size ..... #20 AWG wire
Voltage breakdown between contacts—sea level 1215 V A.C. RMS.
Current rating ..... 7.5 amps.
MH-SDL (solderless) uses #37 taper receptacle
Also available HMH Hermetic Seal. Plug Series.



Pat. #2,848,702

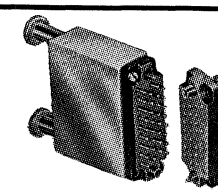
SMI SERIES. Subminiature

Number of contacts 5, 7, 11, 14, 20, 26, 29, 34, 42, 50, 75
Maximum wire size ..... #20 AWG wire
Voltage Breakdown between contacts—sea level 1950 V. A.C. RMS.
Current rating ..... 7.5 amps.
SMI-SDL (solderless) uses #37 taper receptacle
Other configurations upon request.



SMI-SL SERIES. Subminiature Screw Lock

Number of contacts 5, 7, 11, 14, 20, 26, 29, 34, 42, 50, 75
Maximum wire size ..... #20 AWG wire
Voltage Breakdown between contacts—sea level 1950 V. A.C. RMS.
Current rating ..... 7.5 amps.
SMI-SL-SDL (solderless) uses #37 taper receptacle
Other configurations upon request.
Pat. #2,761,108



GENERAL NOTE

All Sub-miniature (SMI), Miniature (MI), 980, 990 series Connectors, available with Solder Type, Solderless Type (SDL) and Turret Type (TU) Terminals

Connectors are available with molded bodies made of asbestos-filled melamine, glass-filled alkyd, asbestos or glass-filled diallyl phthalate, or mica-filled bakelite. All connectors meet or surpass all applicable sections of MIL-Q-9858, MIL-C-8384B, MS, MIL-C-21097A, MIL-C-25955 and NAS specifications. Rigid quality control is applied on a 100% basis for inspection and testing. All solder cups can be provided with 60-40 solder or projecting terminals can be solder dipped.

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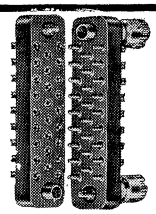
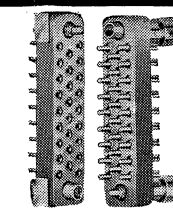


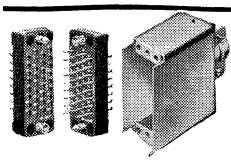
SMI-K SERIES

Subminiature Hoodless Knob Type Screw Lock
Number of contacts
5, 7, 11, 14, 20, 26, 29, 34, 42, 50, 75
Maximum wire size ..... #20 AWG wire
Voltage Breakdown between contacts—sea level
1950 V. A.C. RMS.
Current rating ..... 7.5 amps.
SMI-K-SDL (solderless)
uses #37 taper receptacle
Pat. 2,761,108. Other configurations on request.

SMI-KC SERIES

Subminiature Hoodless Knob Type Screw Lock
Reentrancy female contact....Anti-Rotation Brackets
Number of contacts
5, 7, 11, 14, 20, 26, 29, 34, 42, 50, 75
Maximum wire size ..... #20 AWG wire
Voltage Breakdown between contacts—sea level
1950 V. A.C. RMS.
Current rating ..... 7.5 amps.
SMI-K-SDL (solderless)
uses #37 taper receptacle
Pat. 2,761,108. Other configurations on request.



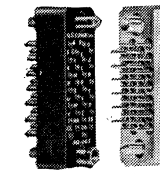


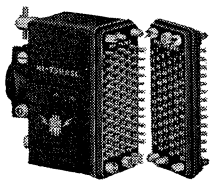
MI-SERIES. Miniature

Number of contacts
7, 12 (8-4), 14, 18, 20, 21, 26, 34, 41, 50, 75
Maximum wire size ..... #20 AWG wire
Voltage breakdown between contacts—sea level
2800 V A.C. RMS.
Current rating ..... 7.5 amps.
MII-SDL (solderless) uses #37 taper receptacle
MIP Series #18 wire — MIW Series #16 wire

HMI SERIES. Hermetic Seal Miniature

Number of contacts
7, 12 (8-4), 14, 18, 20, 21, 26, 34, 41, 50, 75
Maximum wire size ..... #20 AWG wire
Voltage breakdown between contacts—sea level
2200 V A.C. RMS.
Current rating ..... 7.5 amps.
Mates with corresponding MI-F (female) series connectors.





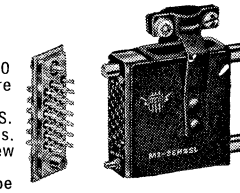
Pat. #2,761,108

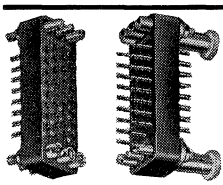
MI-SL SERIES. Miniature Screw Lock

Number of contacts
7, 12 (8-4), 14, 18, 20, 21, 26, 34, 41, 50, 75
Maximum wire size ..... #20 AWG wire
Voltage breakdown between contacts—sea level
2800 V A.C. RMS.
Current rating ..... 7.5 amps.
MI-SL-SDL (solderless)
uses #37 taper receptacle
Pat. #2,761,108
ALSO AVAILABLE FOR #18 AWG WIRE
6-32—Double or single lead threads can be furnished.

HMI-SL SERIES

Hermetic Seal Miniature Screw Lock
Number of contacts
7, 12 (8-4), 14, 18, 20, 21, 26, 34, 41, 50
Maximum wire size ..... #20 AWG wire
Voltage breakdown between contacts—sea level
2200 V A.C. RMS.
Current rating ..... 7.5 amps.
Mates with corresponding MI-FSL (female screw lock) series connectors.
6-32—Double or single lead threads can be furnished.





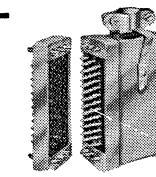
Pat. #2,761,108

MI-KSL SERIES

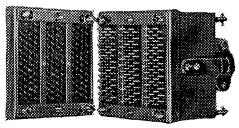
Miniature Hoodless Knob Type Screw Lock
Number of contacts
7, 12 (8-4), 14, 18, 20, 21, 26, 34, 41, 50, 75
Maximum wire size ..... #20 AWG wire
Voltage breakdown between contacts—sea level
2800 V A.C. RMS.
Current rating ..... 7.5 amps.
MI-K-SDL (solderless)
uses #37 taper receptacle
ALSO AVAILABLE FOR #18 AWG WIRE

MI-BSL "FBI" SERIES

Miniature Bracket Screw Lock
Number of contacts 34, 41, 50, 75
Maximum wire size ..... #20 AWG wire
Voltage breakdown between contacts—sea level
2800 V A.C. RMS.
Current rating ..... 7.5 amps.
Hoods ..... aluminum anodized
Brackets ..... die-cast aluminum
MI-BSL-SDL (solderless)
uses #37 taper receptacle

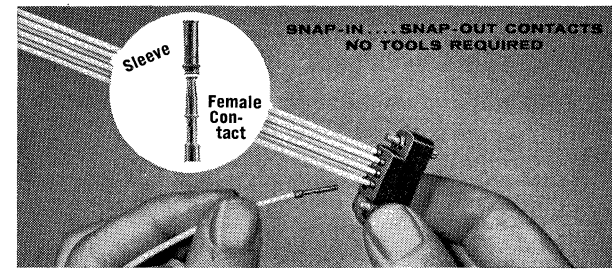


Pat. #2,761,108; #2,845,603; #2,845,604

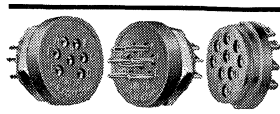


MI-MBSL SERIES

Miniature Bracket Modular Screw Lock
Number of contacts 123, 150, 225
Maximum wire size ..... #20 AWG wire
Voltage Breakdown between contacts—sea level
2800 V. A.C. RMS.
Current rating ..... 7.5 amps.
Hoods ..... aluminum anodized
Brackets ..... die-cast aluminum
MI-BMSL-SLD (solderless)
uses #37 taper receptacle
ALSO AVAILABLE FOR #18 AWG WIRE
Pat. #2,761,108; #2,845,603; #2,933,713; #2,845,604; Additional Patents Pending.
Other configurations upon request.



MRO-MRA. Miniature Round



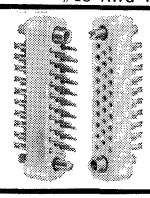
ALSO AVAILABLE FOR #18 AWG WIRE

Number of contacts 7, 9
Maximum wire size ..... #20 AWG wire
Voltage breakdown between contacts—sea level
1215 V A.C. RMS.
Current rating ..... 7.5 amps.
MRO-SDL—MRA-SDL (solderless)
uses #37 taper receptacle

REMI SERIES—Standard and Screwlock

Number of contacts ..... 7, 12 (8-4) 14, 18, 20, 21, 26, 34, 41, 50, 75, 1(
Type of contact ..... crimp style, removable with "snap-in, snap-out" featu
Wire sizes accommodated 18, 20, 22, 24, 26,
Pat. 2,979,689

REMI counterparts of our MI, MI-SL, MI-KSL, MI-BSL and MI-BMSL SERIES can be provided.

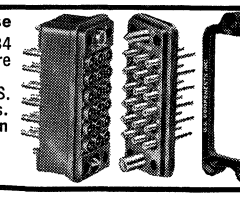


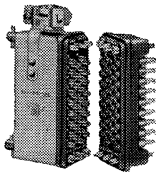
UMI SERIES—Ultra Miniature Series

Number of Contacts
5, 7, 9, 11, 14, 20, 26, 29, 34, 44, 50
Max. Wire Size ..... #22 AWG Wire
Voltage breakdown between contacts—sea level
1330 V. A.C., RMS.
Current rating ..... 3 amps.
ALSO AVAILABLE IN UMI-SL SCREWLOCK SERIES

980 SERIES. Power-Guide Pin Spring Release

Number of contacts 12, 18, 24, 34
Maximum wire size ..... #16 AWG wire
Voltage breakdown between contacts—sea level
4000 V A.C. RMS.
Current rating ..... 13 amps.
980-SL-SDL (solderless) ..... uses #53 taper pin
Patent #2,658,182



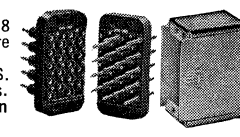


980-SL SERIES. Power Screw Lock

Number of contacts 12, 18, 24, 34
Maximum wire size ..... #16 AWG wire
Voltage breakdown between contacts—sea level
4000 V A.C. RMS.
Current rating ..... 13 amps.
980-SDL (solderless) ..... uses #53 taper pin
Patents #2,658,182; #2,761,108

990 and 990S (Short Contacts) SERIES. Power

Number of contacts 7, 10, 15, 18
Maximum wire size ..... #16 AWG wire
Voltage breakdown between contacts—sea level
5300 V A.C. RMS.
Current rating ..... 13 amps.
990-SDL (solderless) ..... uses #53 taper pin



U. S. COMPONENTS, INC.

NEW YORK, N. Y. ● Cable Address: COMPONENTS, N. Y.

© U.C.P., Inc.

VACO® PRODUCTS CO.
Chicago 11, Illinois

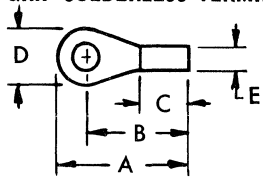
All Vaco Solderless Terminals have been engineered and tested to give you perfect connections every time. Four distinct classes are available to meet your requirements. See illustrations at right for selective packaging.

$ CONNECTOR PAK
Plastic box holds adequate quantity of terminals for on-the-job use. Tab shows actual size terminal illustration and pertinent information

SOLDERLESS TERMINALS and CONNECTORS

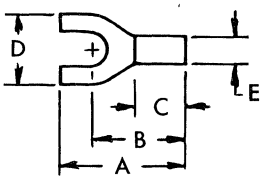
SINGLE-GRIP SOLDERLESS TERMINALS

RING TONGUE



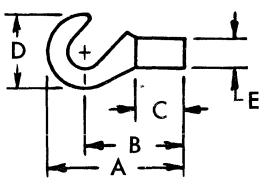
Catalog Number	Wire Size	Stud Size	A	B	C	D	E
11204	22-18	4	19/32	15/32	1/4	7/32	9/64
11205	22-18	5-6	19/32	15/32	1/4	7/32	9/64
11206	22-18	5-6	21/32	33/64	1/4	9/32	9/64
11208	22-18	8	43/64	1/2	1/4	21/64	9/64
11210	22-18	10	43/64	1/2	1/4	21/64	9/64
11214	22-18	12-1/4	59/64	11/16	1/4	29/64	9/64
11238	22-18	3/8	1 1/16	51/64	1/4	17/32	9/64
11304	16-14	4	9/16	29/64	1/4	15/64	5/32
11305	16-14	5-6	9/16	29/64	1/4	15/64	5/32
11306	16-14	5-6	43/64	33/64	1/4	21/64	5/32
11308	16-14	8	23/32	35/64	1/4	21/64	5/32
11310	16-14	10	23/32	35/64	1/4	21/64	5/32
11314	16-14	12-1/4	59/64	11/16	1/4	29/64	5/32
11338	16-14	3/8	1 1/16	51/64	1/4	17/32	5/32

SPADE TONGUE



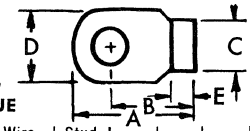
Catalog Number	Wire Size	Stud Size	A	B	C	D	E
13204	22-18	4	17/32	27/64	1/4	15/64	1/8
13206	22-18	5-6	5/8	15/32	1/4	19/64	1/8
13208	22-18	8	41/64	15/32	1/4	11/32	1/8
13210	22-18	10	11/16	1/2	1/4	13/32	1/8
13306	16-14	4-6	19/32	29/64	1/4	19/64	5/32
13308	16-14	8	21/32	31/64	1/4	11/32	5/32
13310	16-14	10	45/64	1/2	1/4	13/32	5/32
14206	22-18	4-6	11/16	15/32	1/4	19/64	1/8

HOOK TONGUE



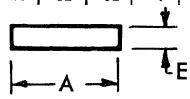
Catalog Number	Wire Size	Stud Size	A	B	C	D	E
15208	22-18	4-8	23/32	9/16	1/4	11/32	1/8
15306	16-14	4-6	19/32	29/64	1/4	19/64	5/32
15308	16-14	8	21/32	31/64	1/4	11/32	5/32
15310	16-14	10	45/64	1/2	1/4	13/32	5/32

FLAG TONGUE



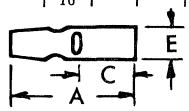
Catalog Number	Wire Size	Stud Size	A	B	C	D	E
16210	22-18	8-10	41/64	29/64	1/4	3/8	1/8
16310	16-14	8-10	21/32	15/32	1/4	3/8	5/32
16410	12-10	8-10	23/32	17/32	1/4	3/8	7/32

CONNECTOR



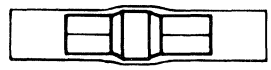
							9/64
17202	22-18		9/16				
17302	16-14		9/16				5/32
17402	12-10		9/16				7/32

SNAP TERMINAL



19301	16-14	5/8		1/4	1/8	5/32
19303	16-14	43/64		1/4	5/32	5/32

SNAP CONNECTOR



Catalog Number	Wire Size	A	B	C	D	E	F
19302		3/4				3/16	1/4
19304		51/64				7/32	1/4
19305		11/16	3/8	1/4	3/16	1/8	

QUICK CONNECTOR

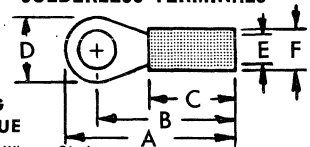
18301	16-14	45/64		13/64	1/4	5/32
18303	16-14	9/16		1/4	1/4	5/32

QUICK CONNECTOR

18204	22-18	17/32		3/16	3/16	3/32
18302	16-14	39/64		13/64	1/4	1/8
18304	16-14	15/32		1/4	1/4	9/64

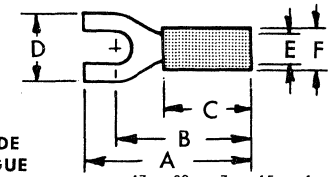
INSULATED SINGLE-GRIP SOLDERLESS TERMINALS

RING TONGUE



Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
51204	22-18	4	25/32	43/64	7/16	7/32	1/8	3/16
51205	22-18	5-6	25/32	43/64	7/16	7/32	1/8	3/16
51206	22-18	5-6	27/32	23/32	7/16	9/32	1/8	3/16
51208	22-18	8	55/64	45/64	7/16	21/64	1/8	3/16
51210	22-18	10	55/64	45/64	7/16	21/64	1/8	3/16
51214	22-18	12-1/4	7/164	57/64	7/16	29/64	1/8	3/16
51238	22-18	3/8	1/4	63/64	7/16	17/32	1/8	3/16
51304	16-14	4	3/4	41/64	7/16	15/64	5/32	13/64
51305	16-14	5-6	3/4	41/64	7/16	15/64	5/32	13/64
51306	16-14	5-6	55/64	45/64	7/16	21/64	5/32	13/64
51308	16-14	8	29/32	47/64	7/16	21/64	5/32	13/64
51310	16-14	10	29/32	47/64	7/16	21/64	5/32	13/64
51314	16-14	12-1/4	7/164	57/64	7/16	29/64	5/32	13/64
51338	16-14	3/8	1/4	63/64	7/16	17/32	5/32	13/64

SPADE TONGUE



Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
53204	22-18	4	47/64	39/64	7/16	15/64	1/8	3/16
53206	22-18	5-6	13/16	21/32	7/16	19/64	1/8	3/16
53208	22-18	8	53/64	21/32	7/16	11/32	1/8	3/16
53210	22-18	10	57/64	11/16	7/16	13/32	1/8	3/16
53306	16-14	4-6	25/32	41/64	7/16	19/64	5/32	13/64
53308	16-14	8	27/32	43/64	7/16	11/32	5/32	13/64
53310	16-14	10	57/64	11/16	7/16	19/64	5/32	13/64
54206	22-18	4-6	7/8	21/32	7/16	19/64	1/8	3/16

HOOK TONGUE

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
55208	22-18	4-8	59/64	3/4	7/16	11/32	1/8	3/16
55306	16-14	4-6	25/32	41/64	7/16	19/64	5/32	13/64
55308	16-14	8	27/32	43/64	7/16	11/32	5/32	13/64
55310	16-14	10	57/64	11/16	7/16	13/32	5/32	13/64

CONNECTOR

							1/8	3/16
57202	22-18		1					
57302	16-14		1				5/32	13/64
57402	12-10		1				13/64	17/64

QUICK CONNECTOR

58301	16-14		15/16		7/16	1/4	5/32	13/64
58302	16-14		55/64		7/16	1/4	5/32	13/64

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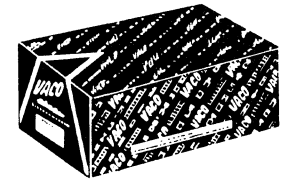
VACO® PRODUCTS CO.
Chicago 11, Illinois

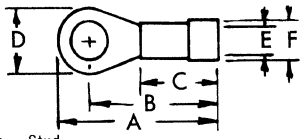
"C" PAK contains 100 terminals of a number and convenient for larger quantity users. Each carton readily identifiable from outside.



"MB" PAK contains 1000 terminals providing minimum terminal cost to large quantity users.

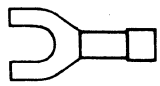
SOLDERLESS TERMINALS and CONNECTORS

DOUBLE-GRIP SOLDERLESS TERMINALS



RING TONGUE

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
41204	22-18	4	47/64	5/8	13/32	7/32	5/32	11/64
41205	22-18	5-6	47/64	5/8	13/32	7/32	5/32	11/64
41206	22-18	5-6	13/16	43/64	13/32	9/32	5/32	11/64
41208	22-18	8	13/16	21/32	13/32	21/64	5/32	11/64
41210	22-18	10	13/16	21/32	13/32	21/64	5/32	11/64
41304	16-14	4	23/32	19/32	13/32	15/64	3/16	13/64
41305	16-14	5-6	23/32	19/32	13/32	15/64	3/16	13/64
41306	16-14	5-6	53/64	21/32	13/32	21/64	3/16	13/64
41308	16-14	8	55/64	45/64	13/32	21/64	3/16	13/64
41310	16-14	10	55/64	45/64	13/32	21/64	3/16	13/64
41314	16-14	1 12-4	5/164	27/32	13/32	29/64	3/16	13/64
41338	16-14	3/8	13/164	15/16	13/32	17/32	3/16	13/64



SPADE TONGUE

43204	22-18	4	23/32	9/16	13/32	15/64	5/32	11/64
43206	22-18	5-6	49/64	39/64	13/32	19/64	5/32	11/64
43208	22-18	8	51/64	39/64	13/32	11/32	5/32	11/64
43210	22-18	10	27/32	41/64	13/32	13/32	5/32	11/64
43306	16-14	4-6	3/4	19/32	13/32	19/64	3/16	13/64
43308	16-14	8	51/64	5/8	13/32	11/32	3/16	13/64

SPADE TONGUE (cont.)

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
43310	16-14	10	27/32	21/32	13/32	13/32	3/16	13/64
44206	22-18	4-6	27/32	5/8	13/32	19/64	5/32	11/64

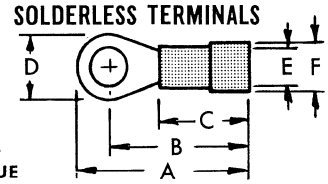
HOOK TONGUE

45208	22-18	4-8	7/8	45/64	13/32	11/32	5/32	11/64
45306	16-14	4-6	3/4	19/32	13/32	19/64	3/16	13/64
45308	16-14	8	51/64	5/8	13/32	11/32	3/16	13/64
45310	16-14	10	27/32	21/32	13/32	13/32	3/16	13/64

QUICK CONNECTORS

48301	16-14		29/32		13/32	1/4	3/16	13/64
48302	16-14		13/16		13/32	1/4	5/32	11/64

INSULATED DOUBLE-GRIP SOLDERLESS TERMINALS



RING TONGUE

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
91204	22-18	4	51/64	11/16	29/64	7/32	11/64	13/64
91205	22-18	5-6	51/64	11/16	29/64	7/32	11/64	13/64
91206	22-18	5-6	55/64	47/64	29/64	9/32	11/64	13/64
91208	22-18	8	7/8	23/32	29/64	21/64	11/64	13/64
91210	22-18	10	7/8	23/32	29/64	21/64	11/64	13/64
91304	16-14	4	25/32	21/32	29/64	15/64	13/64	15/64
91305	16-14	5-6	25/32	21/32	29/64	15/64	13/64	15/64

RING TONGUE (cont.)

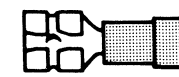
Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
91306	16-14	5-6	57/64	23/32	29/64	21/64	13/64	15/64
91308	16-14	8	59/64	49/64	29/64	21/64	13/64	15/64
91310	16-14	10	59/64	49/64	29/64	21/64	13/64	15/64
91314	16-14	1 12-4	1 1/8	29/32	29/64	29/64	13/64	15/64
91338	16-14	3/8	17/164	1	29/64	17/32	13/64	15/64

SPADE TONGUE

93204	22-18	4	3/4	5/8	29/64	15/64	11/64	13/64
93206	22-18	5-6	53/64	43/64	29/64	19/64	11/64	13/64
93208	22-18	8	27/32	43/64	29/64	11/32	11/64	13/64
93210	22-18	10	29/32	45/64	29/64	13/32	11/64	13/64
93306	16-14	4-6	13/16	21/32	29/64	19/64	11/64	13/64
93308	16-14	8	55/64	11/16	29/64	11/64	13/64	15/64
93310	16-14	10	29/32	45/64	29/64	13/32	13/64	15/64
94206	22-18	4-6	57/64	11/16	29/64	19/64	11/64	13/64

HOOK TONGUE

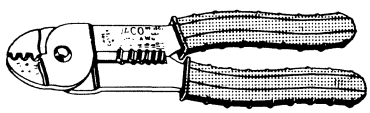
95208	22-18	4-8	15/16	49/64	29/64	11/32	11/64	13/64
95306	16-14	4-6	13/16	21/32	29/64	19/64	13/64	15/64
95308	16-14	8	55/64	11/16	29/64	11/32	13/64	15/64
95310	16-14	10	29/32	45/64	29/64	13/32	13/64	15/64



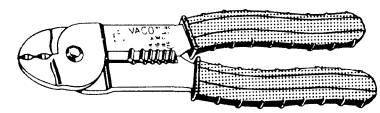
QUICK CONNECTOR

98301	16-14		61/64		29/64	1/4	13/64	15/64
98302	16-14		7/8		29/64	1/4	13/64	13/64

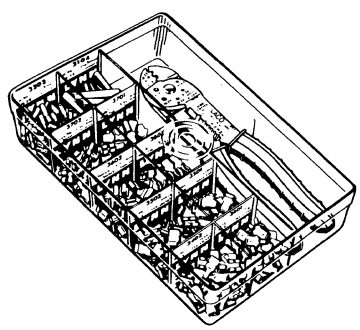
VACO CRIMPING TOOLS and KITS



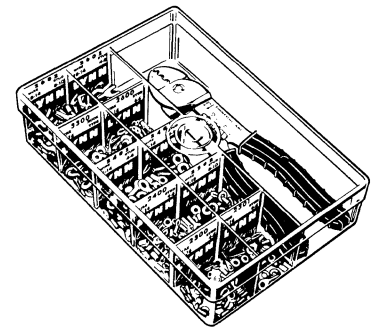
No. 1900 cuts wire, strips wire from 22 to 10 gauge, and crimps non-insulated solderless terminals. Plastic comfort handles are used on all Vaco crimping tools.



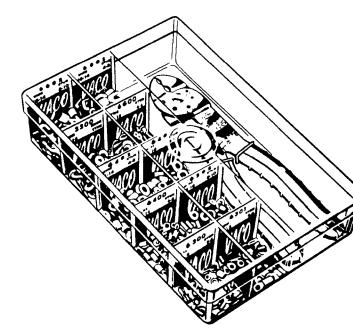
No. 1906 cuts and strips wire 22 to 10 gauge and crimps insulated solderless terminals. All Vaco tools are chrome plated, high quality steel.



No. 2195 Service Kit for Radio-TV and General Purpose Use. Contains No. 1900 crimping tool and one bin each of the following numbers: 11205, 11206, 11210, 11305, 11306, 11310, 14206, 13306, 13310, 15208.



No. 3185 Service Kit for Appliance, Automotive and Electrical Use. Contains No. 1900 crimping tool plus popular assortment of quick-connect terminals and adapters as follows: 18301, 18302, 18303, 18304, 18001, 18002, 18008, 18007, 19301, 19302.



No. 6175 Service Kit for Electronics, Electrical and General Purpose Use. Contains No. 1906 crimping tool plus insulated single-grip terminals as follows: 51205, 51206, 51210, 51305, 53206, 53306, 53310, 51306, 51310, 54206.

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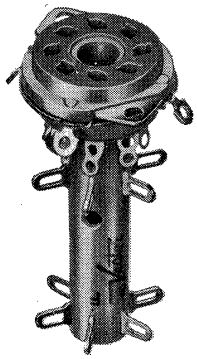
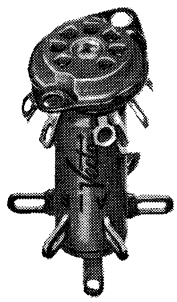
Vector Electronic Company

GLENDALE, CALIFORNIA

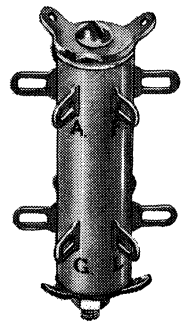
POST SOCKET TURRETS



10-0-12T OCTAL



6-M-6T 7-PIN



6-12 TERMINAL

VECTOR SOCKET TURRETS AND TERMINAL TURRETS simplify electronic construction. Faster wiring, greater component density and higher reliability are assured by their use. Military types (premium grade- have MIL sockets with beryllium copper silver plated socket contacts, brass nickel plated hot tin dipped saddles and glass silicone turret post with fused tin brass terminals. Commercial types have mica filled sockets, hot tin dipped steel saddle, XXXP Phenolic turret post with brass fused tin terminals.

CATALOG NUMBERS Commercial Types	Military Types	TURRET DETAILS Height	No. of Term	No. of Rings	Space Between Rings	NET PRICE Comm. Type 1-19
OCTAL SOCKET-TURRETS						
* 6-0- 6T	680	1½"	6	1	—	$.54
* 8-0- 9T	681	2"	9	2	1"	.60
8-0-12T	682	2"	12	2	1"	.63
* 10-0- 9T	683	2½"	9	2	1⅜"	.63
10-0-12T	684	2½"	12	2	1⅜"	.66
7-PIN SOCKET TURRETS						
* 6-M - 6T	687	1½"	6	1	—	.63
* 8-M - 9T	688	2"	9	2	1"	.69
8-M -12T	689	2"	12	2	1"	.72
10-MB-12T	690	2½"	12	2	1⅜"	.81
9-PIN SOCKET TURRETS						
* 6-N - 6T	693	1½"	6	1	—	.63
* 8-N - 9T	694	2"	9	2	1"	.69
8-N -12T	695	2"	12	2	1"	.72
10-NB-12T	696	2½"	12	2	1⅜"	.81
TERMINAL-TURRETS						
6-12	676	1 11/32"	12	2	⅝"	.45
8-12	677	1 27/32"	12	2	1"	.48
10-12	678	2 11/32"	12	2	1⅜"	.51

NOTE: Tolerance on dimensions ±1/16"
* Indicates preferred types.
Longer or shorter types and other terminal configurations to order.

SOCKET SADDLE NUTS

U-Nuts for easy socket mounting slip over saddle ears. Packed in bags of 50. 4Z thread is No. 4 Sheet Metal.

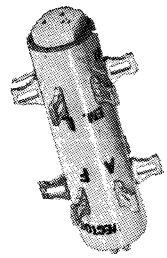
Cat. No.	Thread	Net Price 1-19 Bags
4-40 U Nut	4-40	$1.00
4-Z U Nut	4Z	1.25
4-40 x ¼" Screw	4-40	.60
4Z x ¼" Screw	4Z	.40

TUBE SHIELD BASES

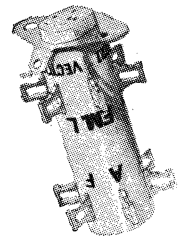
Mount above sockets as base for conventional bayonet type shields.

Cat. No.	Description	Net Price 1-19
S7	7 Pin Steel Cad. Plated	$ .05
S7.17	7 Pin Steel Cad. Iridited	.06
S9	9 Pin Steel Cad. Plated	.05
S9.17	9 Pin Steel Cad. Iridited	.06

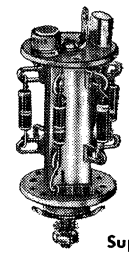
TRANSISTOR TURRETS



7-A-12T-440



8-A-12T

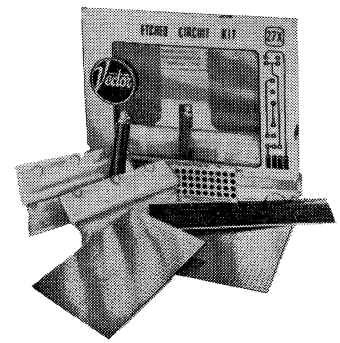


#654 Supplied without wiring

TRANSISTOR SOCKET TURRETS enable user to mount one transistor and other necessary circuit components on a post structure. Sockets furnished accommodate 3-in-line or "top-hat" type transistors. Units furnished with saddle or recessed 4-40 Knurl nut in end opposite socket.

TRANSISTOR WAFER TURRET: Holds four transistors on wafer punched to take JEDEC or in-line leads. 5-40 screw projects 3/16" Min. beyond bottom ground lug for chassis mounting.

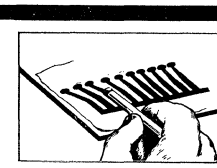
Catalog No.	Height	Space Between Rings	Space Between Wafers	Saddle	Knurl Nut	Net Price 1-19
6-A-12T	1½"	⅞"	—	YES	NO	1.06
7-A-12T-440	1¾"	⅞"	—	NO	YES	1.04
8-A-12T	2"	1⅜"	—	YES	NO	1.08
652	2"	1"	1 1/16"	NO	NO	.81
654	2½"	1⅜"	2 3/16"	NO	NO	.87



27X ETCHED CIRCUIT KIT

Etched circuits in minutes. All you need add is hot water! Complete with two 4½" x 6½" copper clad one side pre-punched Vectorbords, etch resist tape strips and circles, etch resist ink and applicator, dry chemical etchant in ready-touse plastic bag, layout paper; instructions. $5.95 complete or parts available separately as follows:

Cat. No.		Price 1-19
2592	Tape strips-Resist	$ .62/Card
2593	Tape circles-Resist	.72/Card
2594	Etchant per box containing two bags	1.25
3070-1XXXP	4½" x 6½" copper clad one side Vectorbord punched	.85
CU65/45-2	4½" x 6½" copper clad two sides unpunched	.77
3082	Ready-to-use etch resist liquid, ¼ oz.	.45
3086	Etch resist brush	.15



VECTORESIST RUB-ON RESIST FOR MAKING ETCHED CIRCUITS

Vectoresist is an easy-to-use method of making experimental etched circuits which eliminates need for resist tapes and pens. 10" x 15" sheet has various width lines, curves, circles, pads, solid areas and .156" spaced plug contacts printed as resist. To apply to copper clad board just rub back of sheet and character, line, or figure transfers. Works in Ferric Chloride or Ammonium Persulphate solution.

Cat. No. R-322 **Price $2.00 per sheet**

Net

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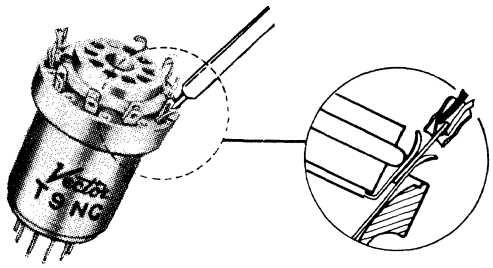
CURRENT TEST ADAPTERS

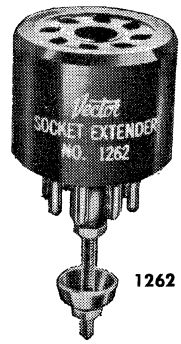


Versatile VECTOR CURRENT TEST ADAPTERS make possible tube circuit current or votage measurements without cutting leads or making computations. All measurements may be made from the tube side of the electronic equipment without disturbing the chassis.

Cat. No.	Type	Net Price 1-19
T-7-M-C	7 Pin Min.	2.20
T-8-O-C	8 Pin Octal	2.45
T-9-N-C	9 Pin Noval	2.45
P-2	Dual Sided Plug-in Probe, Required for above	.75
T-789-C	Set of Above 3 Adapters with P-2 Probe in Case	8.40

SOCKET EXTENDERS

Socket extenders provide a replaceable unit for use in tube testers and expensive meters. Wear is shifted from the socket in the tester to the one in the extender so that when it is worn out a new one can be easily inserted. Sockets have beryllium copper silver plated contacts for long life. An all molded outside shell is used with socket leads soldered to plug pins. All units provided with 1¾" long screw to hold unit firmly in place if desired.

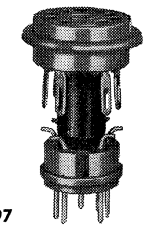


1262

Cat. No.	Socket Type	Net Price 1-19
#1262	Octal 8	1.75
#1263	9 P. Noval	1.75
#1264	7 P. Miniature	1.75

SOCKET CHANGE ADAPTERS

SOCKET CHANGE ADAPTERS facilitate use of unlike tube bases in existing sockets where a change of tube types is required. To be wired by user. Add "S" to number for an outer shell which may be cemented in place.

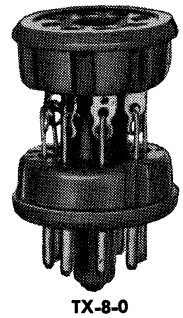


T97

Cat. No.	Socket	Plug	Net Price 1-19
T 780	7 P. Min.	Octal 8	1.05
T 79	7 P. Min.	9 P. Nov.	1.02
T 807	Octal 8	7 P. Min.	1.23
T 809	Octal 8	9 P. Nov.	1.23
T 97	9 P. Nov.	7 P. Min.	1.02
T 980	9 P. Nov.	Octal 8	1.05

EXPERIMENTER'S TEST ADAPTERS

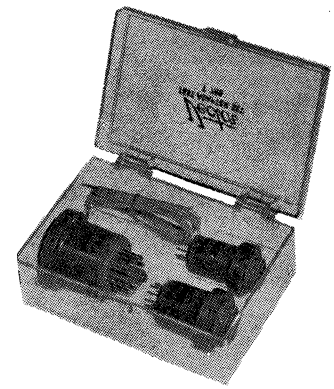
EXPERIMENTER'S TEST ADAPTERS. These are similar to the Socket Test Adapter but are less the shells and tabs so that connections can be cross-connected in any desired way. User must solder connections (Outer shells available at factory — add "S" to number to obtain).



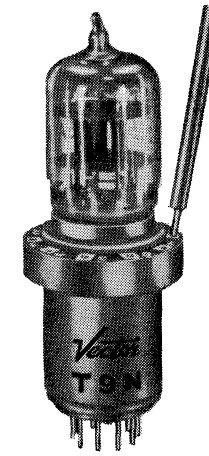
TX-8-O

Cat. No.	Socket Type	Net Price 1-19
TX-8-O	Octal	1.30
TX-7-M	Miniature	.80
TX-9-N	Noval	.85
TX-789	Set of above three in kit	3.25

TUBE SOCKET TEST ADAPTERS



T-789



T9N

TUBE SOCKET TEST ADAPTERS are ideal for making voltage resistance and wave form measurements from the tube side of electronic equipment. To use, insert adapter between tube and socket, and replace tube in adapter socket. Special test tabs are recessed on the adapter skirt and have a hole to grip test probe and protect operator's fingers during insertion and withdrawal. Regular alligator test-clipped probes also hold on tab and socket. Castings are low loss phenolic and fit all shield bases for miniature and noval type or into standard tube clamps. Reduced body diameter permits insertion into new telescoping shields. Adapter socket contacts are beryllium copper, silver plated for long life and low resistance. Electrostatic capacity between adacent leads of the adapter is approximately 1 micro-micro-farad. Flash over voltage between adjacent terminals is in excess of 1500 volts DC.

Adapters may be purchased separately or in kits. Kit T789 consists of the 3 popular "must have" sizes, 7-pin miniature, 8-pin octal, 9-pin noval plus a P1 probe packed into a handy clear plastic carrying case.

Kit T429 consists of 9 adapters as listed below packed in a sturdy plastic case and is a commercial equivalent of the well known Navy tube socket test adapter kit.

Cat. No.	Tube Type	Body Dia.	Skirt Dia.	Length Less Prongs	Price 1 - 19
T-4	4 Pin	1.26	1.56	1.50	2.76
T-5	5 Pin	1.26	1.56	1.50	2.82
T-6	6 Pin	1.26	1.56	1.50	2.89
T-7-O	7 Pin Small	1.26	1.56	1.50	2.95
T-7-L	7 Pin Large	1.45	1.75	1.50	2.95
T-7-M	7 Pin Min.	0.75	1.03	1.50	1.65
T-8-O	8 Pin Octal	1.25	1.56	1.50	1.60
T-8-L	8 Pin Loctal	1.26	1.56	1.50	3.95
T-9-N	9 Pin Noval	0.87	1.16	1.50	1.85
T-429	Set of above Nine types in case.				27.00
T-789	Set of types T-7-M, T-8-O, T-9-N, P1, in case.				5.90
P1	Plug-in Probe with 30" lead.				.39

Special Adapters Designed to Customer Specifications—Write Factory.

EXTENDED TUBE SOCKET TEST ADAPTERS

For most work the short, unshielded adapters are adequate. For hard to reach locations, or where surrounding equipment restricts use of regular test adapters, the 3 to 4 inch extended adapter may be used. In these the leads between plug and socket are individually shielded to minimize coupling. The shield is brought out to a lug on the wall of the adapter and should be connected to the chassis being tested. Capacity to shield is approx. 8 mmf. per lead.

T7MS

Cat. No.	Tube Type	Body Dia.	Skirt Dia.	Length Less Prongs	Price 1 - 19
T-7-M-S	7 Pin Min.	0.75	1.03	3.25	5.37
T-8-O-S	8 Pin Octal	1.25	1.56	4.00	5.05
T-9-N-S	9 Pin Noval	0.87	1.16	3.25	6.00
P1	Plug-in Probe with 30" lead				.39
T-789-S	Set of above in case				17.70

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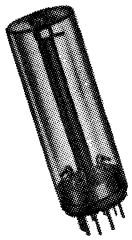
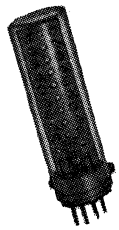
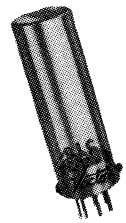
SMALL ROUND AND SQUARE PLUG INS



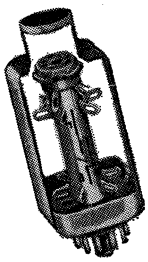
G2.1-8



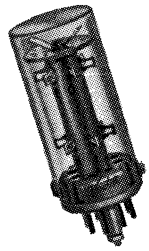
G2.2-8-4



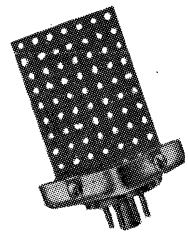
G2.2-8F



B-10-M



G2-10-T-1



C-12-K1.02 (with 511)

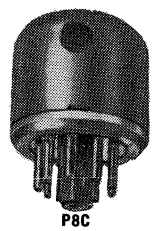
SMALL ROUND AND SQUARE PLUG-INS are ideal for packaging hand wired, printed, or solid state plug-in modules. Aluminum cases provide shielding and strength. Wide variety of internal structures eases circuit wiring. Plugs are standard tube base style with case sizes as follows: "B" type 8-pin Octal 1.42" square; "C" type 8-pin Octal 2" square; G2, 8-pin Octal 1¼" diameter; G2.1, in square Octal based units points toward case corner. Sockets in case top, when furnished, are mica-filled phenolic with brass cadmium plated contacts. Military type (premium grade) have "MIL" sockets with beryllium copper silver plated contacts. (Add "J" to catalog number for this).

Catalog Number	Type of Socket	Internal Structure	Height	Net Price 1-19
B-8	None	None	2"	.99
B-10	None	None	2½"	1.03
B-10-M	7-p. Min.	Turret	2½"	2.01
B-10-N	9-p. Nov.	Turret	2½"	2.05
B-10-T	None	Turret	2½"	1.73
B-10-4	None	Strip "A"	2½"	1.82
C-10	None	None	2½"	1.16
C-10-NN	9-p. Nov. (2)	Turret	2½"	3.01
C-12	None	None	3"	1.20
C-12K1.02	None	None	3"	.97
C-12-M	7-p. Min.	Turret	3"	2.24
C-12-N	9-p. Nov.	Turret	3"	2.27
C-12-NN	9-p. Nov. (2)	Turret	3"	3.04
511*	None	None	3"	.63
514*	None	None	3"	.83
C-12-T	None	Turret	3"	1.88
C-12-4	None	Strip "A"	3"	2.85
G2-10	None	None	2½"	1.05
G2-10-M	7-p. Min.	Post	2½"	1.66
G2-10-N	9-p. Nov.	Post	2½"	1.69
G2-10-T-1	None	Wafer	2½"	1.68
G2-10-4	None	Strip "D"	2½"	1.85
G2.1-8F	None	None	2"	1.35
G2.1-8N	9-p. Nov.	Post	2"	2.04
G2.1-8-4	None	Strip "G"	2"	1.90
G2.2-8F	None	None	2"	1.30
G2.2-8-M	7-p. Min.	Post	2"	1.93
G2.2-8-4	None	Strip "G"	2"	1.88

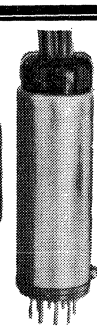
NOTE: *Indicates wall w/mtg. brackets attached for use in C-12-K1.02. 511 has holes per strip A — .093 holes spc. .265". 514 has 1/16" holes per strip G — 1/16" holes spaced .141 to fit JEDEC Transistor leads. Strip "D" has .093" holes spaced 0.2" x 0.25". "Wafer" is 1" diameter used on Transistor Turret 654.

CABLE CONNECTOR PLUGS

Used to permit plugging cables into 8-pin octal, 7 and 9-pin miniature tube sockets. Construction: P7C, P9C, Aluminum shells, side outlet with rubber grommet with ¼" hole, center screw thru length; P7D, P9D, Aluminum shells attached with side screws, end outlet furnished with Heyco strain relief grommet. P8C, PK1D snap-on Polyethylene case with ¼" diam. hole end or side.



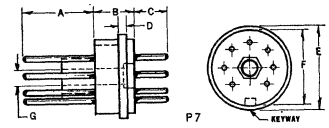
P8C



P9D

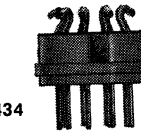
End Outlet Cat. No.	Side Outlet Cat. No.	Plug Style	Outside Diam.	Length Less Prongs	Net Price 1-19 End Outlet	Net Price 1-19 Side Outlet
P7D	P7C	7-p Min.	5/8"	2.2"	1.58	1.13
PK1D	P8C	8-p Oct.	1 17/64"	1¼"	.50	.50
P9D	P9C	9-p Min.	¾"	2.3"	1.67	1.26

TUBE BASE PLUGS



P7

K1.434



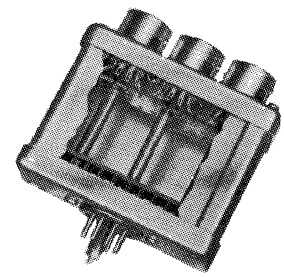
Vector tube base plugs have Mica-filled phenolic castings and phosphor bronze cadmium plated pins. The wide variety of pin configurations on the top side of the plugs allow design features not possible with other types of plugs. Plugs may be mounted as follows:

1. With a 4-40 or 5-40 screw through the center.
2. With a split retainer ring around plug, in a plate or chassis. Retainer rings are indicated by adding "R" after "K" or "P" in the catalog number.
3. With a stamped metal saddle B36-4 for 7-pin, B37-4 for 9-pin, B38-2 for 14-pin.
4. Round shells may be attached by screws and threaded 1/72 inserts in plug periphery, except plugs with a keyway. Add "F" after "K" or "P" in the catalog number. (See Plug-in Can Section for complete units).

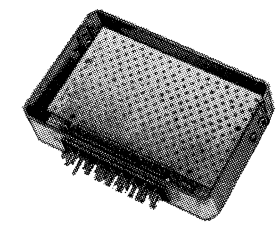
Cat. No.	Type	DIMENSIONS A	B	C	D	E	F	G	Net Price 1-19
P7	7-pin min.	17/32"	.300"	.265"	1/16"	.621	.568	.125	.47
P9	9-pin noval	17/32"	.300"	.265"	1/16"	.748	.700	.125	.52
P7A	7-pin min.	3/16"	.300"	.265"	1/16"	.621	.568	.125	.47
P9A	9-pin noval	3/16"	.300"	.265"	1/16"	.748	.700	.125	.52
*K1.302	(Same as P7 exc. no centerpost)								.47
*K1.402	(Same as P9 exc. no centerpost)								.52
K1.334	Min. hooked Pin Noval	.150	.300"	.265"	1/16"	.621	.568	.125	.59
K1.434	hooked pin	.162	.300"	.265"	1/16"	.748	.700	.125	.64
*P8L	Loctal	13/16"	7/16"	13/32"	100	1.17	1.00	.110	.95
K1.14	14 pin	17/32"	.300"	.265"	1/16"	.750	.700	None	.63
Add R after "P" or "K" for retainer ring.									.45

*ADD $5.00 SET-UP CHARGE FOR ADDING "R"

MULTI-USE PLUG-IN-KIT:



TUBE SOCKET TYPE



TRANSISTOR TYPE

MULTI USE PLUG-IN KITS enable the user to readily wire and package a wide variety of circuits. Kits consist of an aluminum case with plug and accessories for mounting (a) Tube Sockets, or (b) Transistor type assemblies. For the tube circuits the Lip-Loc Case units (see left fig.) are used. These include the following parts: Mounted noval sockets, shield bases, 2 Zip wiring decks, and 11-pin Octal plug plus extra components as follows: equal number of 7-pin miniature sockets, shield bases and adapter mounting rings; plug buttons to close unused socket holes; one extra unpunched base with spacers and screws for mounting larger plugs such as the Amphenol Blue Line (not supplied in kit); one extra zip wiring deck. The extra components may be readily installed as required in place of the furnished items.

For transistor and printed circuit assemblies, the Frame-Loc type case shown at the right above is furnished with snap-in aluminum sides (not illustrated), Elco Varicon 16-pin plug, and perforated epoxy paper center wall with 1/16" holes on alternate centers of a 0.1" grid. Loose T28 Push-In terminals are furnished. Order Receptacle R1.72.

Material specifications are as follows: case, caustic etch on aluminum; sockets, mica-filled phenolic, commercial grade; terminal strips and spacers are phenolic for tube units and epoxy-paper for transistor units. Overall height of all units is 3".

Cat. No.	Sockets	Base Dimen.	Deck Spacing (2 Decks)	Number Terminals per Deck	Base Price 1-19
4-EK3	3N & 3M	1 5/8" x 3 7/8"	1 7/16	22	6.60
5-E2K3	4N & 4M	1.68" x 4.82"	1 7/16	30	7.20
6-E1K3	5N & 5M	1 5/8" x 5 7/8"	1 7/16	38	7.87
4-HK3	None	1" x 4"	1 Wall	—	6.84
5-HK3	None	1" x 5"	1 Wall	—	7.04
6-HK3	None	1" x 6"	1 Wall	—	7.54
R1.72	16 pins	1.19 Net any Quantity			

Net

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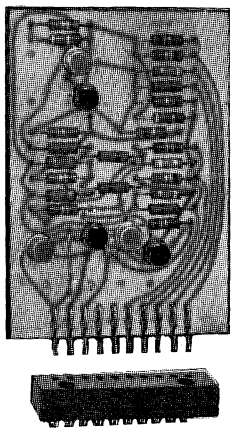
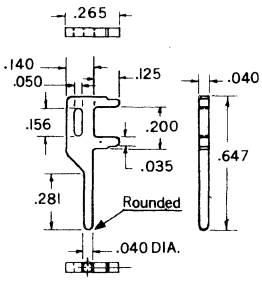
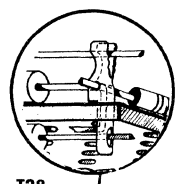
VECTOR PLUGBOARDS



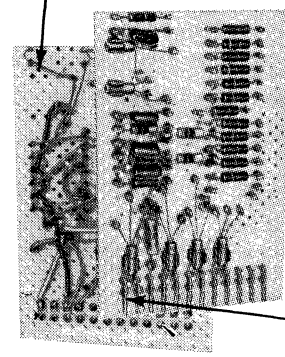
R315



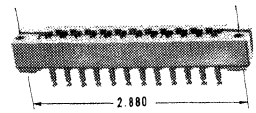
EDGE PIN K23A



T28

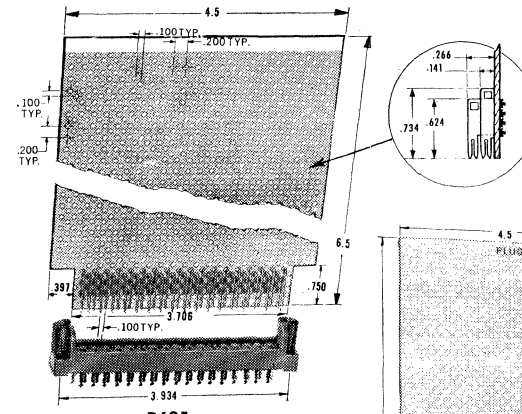


837 (WIRED)

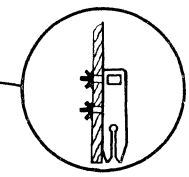


R612-1

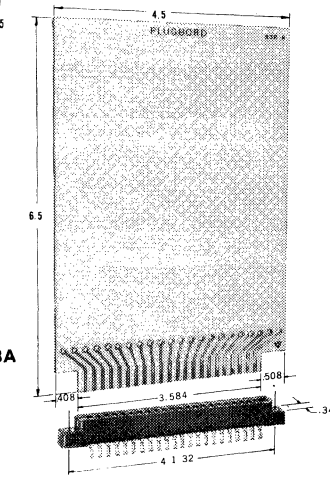
848WE



R635



VARICON CONTACT



838A

R644

Catalog No.	Description	Net Price 1-19
812	4½" x 6½" Epoxy Paper, 16 Varicon Contacts	2.73
812WE	4½" x 6½" Epoxy Glass, 16 Varicon Contacts	3.23
R616-1	Molded Receptable for 812, 812WE	2.38
837	3" x 4½" Epoxy Paper, 12 Varicon Contacts	2.13
837WE	3" x 4½" Epoxy Glass, 12 Varicon Contacts	2.36
R612-1	Molded Receptacle for 837, 837WE	1.64
838	4½" x 6½" Epoxy Paper, 43 Etched Contacts, 2 sides	3.34
838A	4½" x 6½" Epoxy Paper, 22 Etched Contacts, 1 side	2.57
838AWE	4½" x 6½" Epoxy Glass, 22 Etched Contacts, 1 side	3.19
838WE	4½" x 6½" Epoxy Glass, 43 Etched Contacts, 2 sides	3.92
R644	Receptacle for above (Fits all above etched boards)	2.62
846A	3" x 4½" Epoxy Paper, 10-Edge-pin Contacts	1.60
846AWE	3" x 4½" Epoxy Glass, 10 Edge-pin Contacts	2.15
R310	Receptable for 846A, 846AWE	1.75
848WE	4½" x 6½" Epoxy Glass, 35 Varcion Contacts	5.58
R635	Receptacle for 848WE	4.46
K23A-PKG L	Vector Edge-pins, Half Hard Brass, Gold Plt. (50)	1.00
P93	Installing Tool for Vector Edge-pins	Net 20.50

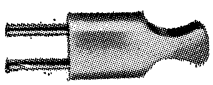
Use Plugboards with attached contacts for test circuits, P. C. prototypes and short runs. Precision pre-punched 1/16" diameter holes on alternate 0.1" centers permit maximum flexibility of component location. Vector T28 MINI-KLIPS, eyelets, or standard turned terminals may be located wherever desired. For maximum economy use epoxy paper boards; for military specification requirements or additional strength use epoxy glass. All Plugboards are 1/16" thick and are available with Elco Varicon, 2 oz. copper etched or Vector Edge-pin contacts. Epoxy paper boards meet requirements MIL-P-22323 type PEE; Epoxy glass is G-10 grade per MIL-P-18177. Copper clad Epoxy paper meets MIL-P-13949 type PX, and copper-clad Epoxy glass meets MIL-P-13949B type FLGE-91.

Receptables listed are glass filled diallyl phthalate, except R315 which is mineral filled phenolic.

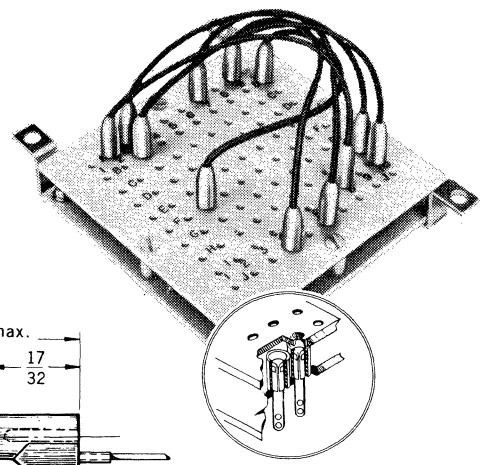
Edge-pins as used on 846 and 846A may be purchased separately for customer installation and may be staked readily along the edge of a "G" pattern Vectorbord with hand tool P93. Production staker available.

Micro-plugbord cards available with .025" and .040" diameter holes. See Radio Master page 854 on Micro-Vectorbord.

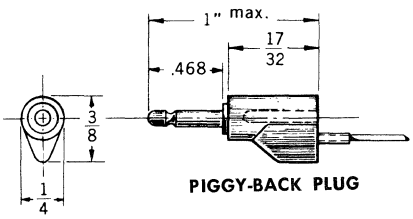
PATCH CORD K2.06



JUMPER PLUG K2.02-1



DETAIL



PIGGY-BACK PLUG

PATCH BOARDS

Vector Patchboards provide simple, but reliable low-cost units for multiple connection, single conductor patching on computers, test and central equipment. Holes are on .265" centers. PB33 has a 3x3 hole layout, PB110 has 1x10, PB210 has 2x10, PB510 has 5x10, PB1010 and PB1010-1 have a 10x10, PB1020 has two blocks of 10x10 and PB1520 is arranged in one block of holes in a 15 hole by 20 hole layout in a single panel.

Extremely low contact resistance (less than .001 ohms) and long contact life (over 2000 insertion per contact without resistance change) assures reliability. All boards are marked front and back with horizontal rows lettered alphabetically and vertical columns numbered. "Z" type brackets for flush mounting using pre-drilled mounting holes on back supplied. Special size patchboards to order.

Cat. No.	Description	Net Price 1-19
PB33	Patchboard 9 contacts, Black color 1.4" x .94"	$2.95
PB110	Patchboard 10 contacts, Black color 3.25"x .40"	3.25
PB210	Patchboard 20 contacts, Black color 3.25"x .67"	4.25
PB510	Patchboard 50 contacts, Black color 3.25"x1.46"	6.45
PB1010	Patchboard 100 contacts, Ivory color 3.25"x3.25"	10.75
PB1010-1	Patchboard 100 contacts, Black color 3.25"x3.25"	10.85
PB1020	Patchboard 200 contacts, Black color 6.03"x3.38"	21.00
PB1520	Patchboard 200 contacts, Black color 6.03"x3.71"	32.35
K2.02-1	Jumper Plug Jumper Type (25 per bundle)	2.50
K2.06	Patchcord Single Contact ea. end 6" (25 per bundle)	2.00
K2.09	Patchcord Single Contact ea. end 9" (25 per bundle)	2.25
K2.15	Patchcord Single Contact ea. end 15" (25 per bundle)	2.50
K9.06	Patchcord Piggy-back each end 6"	.93 ea.
K9.09	Patchcord Piggy-back each end 9"	.93 ea.
K9.15	Patchcord Piggy-back each end 15"	.93 ea.

PATCHCORD PRICES ARE NET ANY QUANTITY.

REMOVABLE PRE-PROGRAMING PATCHBOARDS AVAILABLE — WRITE FACTORY.

SPECIFICATIONS:

Panels: Black XXXP phenolic, Type PBE-P, Grade 810 per MIL-P-3115, .093" thick with printed white numbers and letters. PB1010 has epoxy paper, ivory color, .093" thick with black numbers and letters.

Contacts: Beryllium copper, nickel plated gold finished, 2 holes for soldering on leads. Add letter "A" to Cat. No. if wire-wrap tabs are desired.

Dimensions: All boards 7/8" thick. See Description column for width and length.

Patchcords: Plugs .087" - .091" diameter x .468" long, nickel plated with standard #20 gage wire vinyl insulation. 6" black, 9" yellow, 15" blue.

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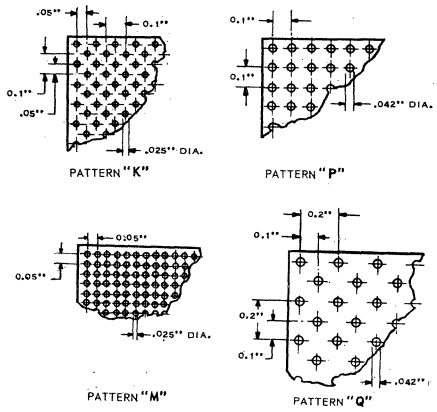
Net

Micro-Vectorbord



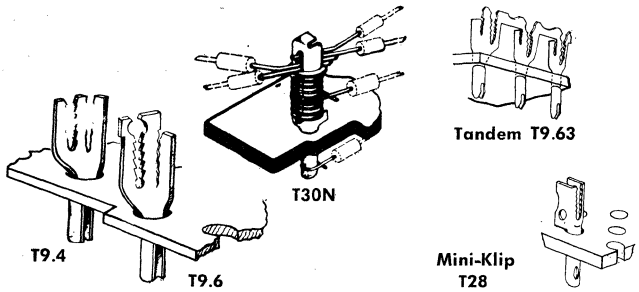
Pattern	Spacing	Pattern	Spacing
M	.05 Centers	P	.10 Centers
K	.05 x. 10	Q	.10 x .20

Micro-Vectorbord has been specially designed for the denser packaging required by cordwood construction and mounting micro-miniature components. All boards listed are 1/32" thick epoxy glass, Type GEE, Grade G-10 per MIL-P-18177. Other thicknesses available on order.

MICRO-VECTORBORD TABLE OF SIZES

Cat. No.	Pattern	Hole Size	Dimension	Number of Holes	Price 1-19
59P19/032	P	.042"	6" x 2" x 1/32"	59 x 19	$1.09
169P59/032	P	.042"	17" x 6" x 1/32"	169 x 59	4.82
29Q9/032	Q	.042"	6" x 2" x 1/32"	(29 x 9) x2	.90
84Q29/032	Q	.042"	17" x 6" x 1/32"	(84 x 29) x2	4.39
76M38/032	M	.025"	4" x 2" x 1/32"	76 x 38	1.52
336M76/032	M	.025"	17" x 4" x 1/32"	336 x 76	7.26
38K19/032	K	.025"	4" x 2" x 1/32"	(38 x 19) x2	1.30
168K38/032	K	.025"	17" x 4" x 1/32"	(168 x 38) x2	6.42

VECTOR PUSH-IN TERMINALS

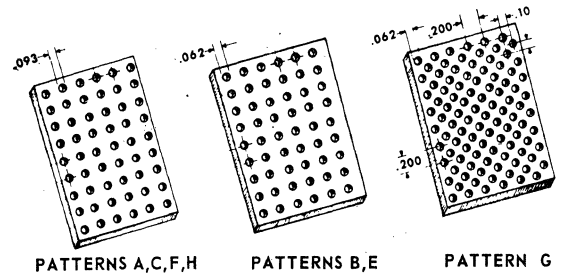


VECTOR PUSH-IN TERMINALS simplify "breadboarding" and production. Push them into .062" or .093" holes in 1/16" or 3/32" Vectorbord panels and they hold without staking. (May be staked by clipping off flush with board surface or flattening with a pair of pliers for maximum holding, if desired). All terminals except T9.4A have serrated slots to grip inserted wires. Large slot accommodates most resistor and capacitor wires. Small slot hold transistor leads. The T9.4A is supplied without "teeth" on the wire slots to permit easy removal of leads when soldered components must be changed. The T9.6 has a special "snap-in" slot to accommodate .075-080 diode leads. All types have thru hole construction enabling riser wires to be inserted down through center of terminal, and slot or hole in shank for additional connections.

SOLDERLESS SPRINGCLIP TERMINALS—Reliable truly solderless terminals for fast setup of experimental circuitry. May be used over and over—permits reusing expensive components by eliminating heat damage. Extremely low contact resistance—less than .002 ohms for T30. Order insertion tool P-92A for easy insertion in .093" holes. Suggested board thickness 3/32" for best support of terminal.

Cat. No.	Fits Holes	Description	Quantity Per Bag	Net Price 1-19 Bags	Bulk Price 1M-4999
T9.4	.093"	Brass, Fused Tin Pltg.	100	$1.25	$ 8.90/M
T9.4A	.093"	Brass, Fused Tin Pltg.	100	1.25	8.90/M
P122		Inserting tool for T9.4 & T9.4A	1	.50	
T28	.062"	Beryllium Copper, Fused Tin Pltg.	100	1.55	11.00/M
T28S	.062"	Beryllium copper silver pltg.	100	1.63	11.68
P91		Inserting tool for T28 & T28S	1	.50	
T30	.093"	Brass, Silver Pltg.	10	1.20	
T30	.093"	Brass, Silver Pltg.	100	8.95	63.93/M
T30N	.093"	Brass, Nickel Pltg.	10	1.15	
T30N	.093"	Brass, Nickel Pltg.	100	8.45	58.90/M
P92C		Inserting-Spring Depressing Tool for T30 and T30N	1	.50	
T9.62	.093"	Two T9.6 in Tandem	25	1.22	
T9.63	.093"	Three T9.6 in Tandem	25	1.75	
T9.64	.093"	Four T9.6 in Tandem	25	2.27	

VECTORBORD



PATTERNS A,C,F,H PATTERNS B,E PATTERN G

Pattern	Spacing	Pattern	Spacing	Pattern	Spacing
A	.265 Centers	B	.188 Centers	H	.100 Centers
C	.200 Centers	E	.141 Centers	G	.20 x .10
		F	.200 Centers		

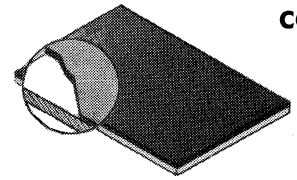
VECTORBORD (Pre-Punched Terminal Board) has precision pre-punched .093" or .062" holes at various spacings on tan XXXP Phenolic (MIL-P-18177) ivory epoxy paper (MIL-P-22324), G-10 Epoxy Glass (MIL-P-1877) or Copper clad epoxy glass type FLGE-91 (MIL-P-13949-B). Ideal for prototypes and many production uses. Vector Push-in Terminals or standard turned terminals and eyelets fit pre-punched holes. User can make own etched circuits with listed copper clad boards. May be sawed, drilled, or punched.

VECTORBORD TABLE OF SIZES

Cat. No.	Pattern	Hole Size	Dimensions	No. of Holes	Price 1-19
XXXP Phenolic					
18A18	A	.093	4.80 x 4.80 x 1/16	18 x 18	$ .43
32A9	A	.093	8.51 x 2.41 x 1/16	32 x 9	.45
32AA18	A	.093	8.51 x 4.80 x 3/32	32 x 18	.84
64A18	A	.093	4.8 x 16.99 x 1/16	64 x 18	1.25
64AA18	A	.093	4.8 x 16.99 x 3/32	64 x 18	1.60
64AA32	A	.093	16.99 x 8.51 x 3/32	64 x 32	2.45
45B30	B	.062	8.51 x 5.69 x 1/16	45 x 30	.84
90B30	B	.062	16.97 x 5.69 x 1/16	90 x 30	1.62
85C24	C	.093	16.99 x 4.80 x 1/16	85 x 23	1.41
95G175	G	.062	35.00 x 19.00 x 1/16	(94 x 175) x 2	7.62
Epoxy Paper					
32AA18EP	A	.093	8.51 x 4.80 x 3/32	32 x 18	1.40
64AA18EP	A	.093	16.99 x 4.80 x 3/32	64 x 18	2.73
64AA32EP	A	.093	16.99 x 8.51 x 3/32	64 x 32	4.39
85F24EP	F	.062	16.99 x 4.80 x 1/16	85 x 23	2.06
85G24EP	G	.062	16.99 x 4.80 x 1/16	(85 x 23) x 2	2.06
85G42EP	G	.062	16.99 x 8.5 x 1/16	(85 x 42) x 2	3.17
120E33EP	E	.062	16.99 x 4 13/16 x 1/16	120 x 33	2.23
Epoxy Glass					
32A18WE	A	.093	8.51 x 4.80 x 1/16	32 x 18	1.89
42G24WE	G	.062	8.5 x 4.80 x 1/16	(42 x 23) x 2	1.94
85G24WE	G	.062	16.99 x 4.80 x 1/16	(85 x 23) x 2	3.81
170H48WE	H	.062	17.00 x 4.80 x 1/16	170 x 47	4.07
120E33WE	E	.062	16.99 x 4 13/16 x 1/16	120 x 33	3.99
Copper Clad XXXP Phenolic					
849-1-XXXP*	F	.062	3 x 4 1/2	20 x 14	.45
849-2-XXXP**	F	.062	3 x 4 1/2	20 x 14	.55
850-1-XXXP*	F	.062	4 1/2 x 6 1/2	28 x 22	.84
850-2-XXXP**	F	.062	4 1/2 x 6 1/2	28 x 22	1.04
42F22C1*	F	.062	4.5 x 8.5	42 x 22	1.05
42F22C2**	F	.062	4.5 x 8.5	42 x 22	1.32
Copper Clad Epoxy Paper					
850-1-EP*	F	.062	4.5 x 6.5 x 1/16	28 x 22	1.39
850-2-EP**	F	.062	4.5 x 6.5 x 1/16	28 x 22	1.67
Copper Clad Epoxy Glass					
42G22WEC1*	G	.062	8.5 x 4.5 x 1/16	(42 x 22) x 2	2.55
42G22WEC2**	G	.062	8.5 x 4.5 x 1/16	(42 x 22) x 2	2.60
85F42WEC1*	F	.062	16.99 x 8.51 x 1/16	85 x 42	8.33
85F42WEC2**	F	.062	16.99 x 8.51 x 1/16	85 x 42	10.25
849-1*	F	.062	3.0 x 4.5 x 1/16	20 x 14	1.01
849-2**	F	.062	3.0 x 4.5 x 1/16	20 x 14	1.10
850-1*	F	.062	4.5 x 6.5 x 1/16	28 x 22	2.03
850-2**	F	.062	4.5 x 6.5 x 1/16	28 x 22	2.21

* Indicates 2 oz. Copper Clad 1 Side
** Indicates 2 oz. Copper Clad 2 Sides

COPPER CLAD PLASTIC SHEETS

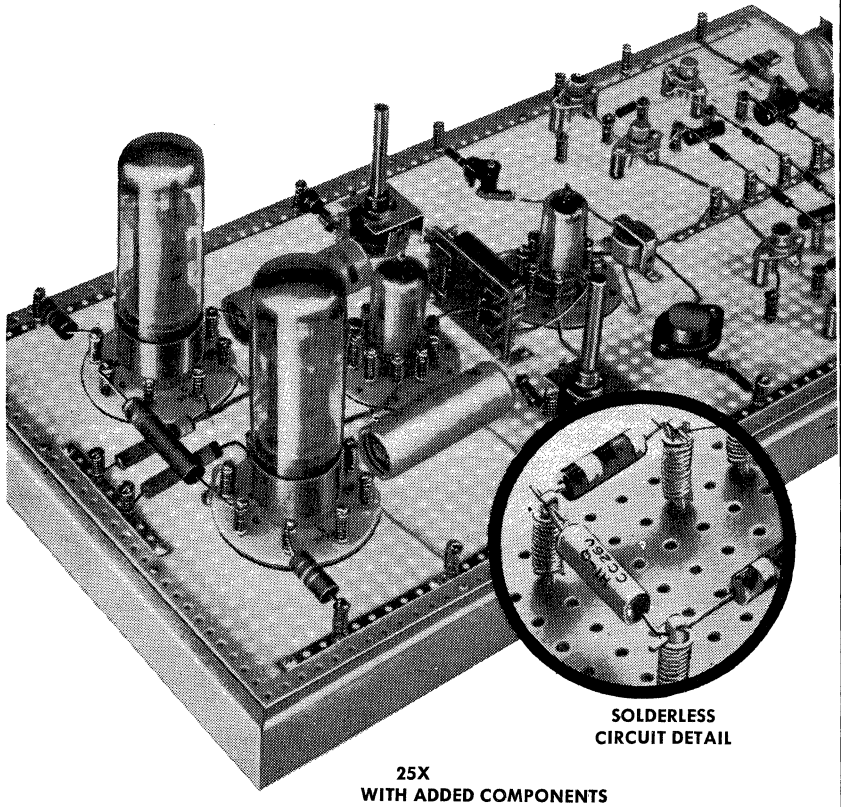


1/16" copper clad unperforated. For making etched circuits, shielding. 2 oz. (.003") clad one or two sides XXXP per MIL-P-13949 Type PP and G-10 epoxy glass per MIL-P-13949B Type FL-GE.

4 1/2" x 3"	XXXP Phenolic	CU 453-1	.30	CU 453-2	.40
6 1/2" x 4 1/2"	XXXP Phenolic	CU 6545-1	.55	CU 6545-2	.77
8 1/2" x 4 1/2"	XXXP Phenolic	CU 8545-1	.70	CU 8545-2	.98
4 1/2" x 3"	Epoxy Glass	CU 453WE-1	.69	CU 453WE-2	.77
6 1/2" x 4 1/2"	Epoxy Glass	CU 6545WE-1	1.34	CU 6545WE-2	1.52
8 1/2" x 4 1/2"	Epoxy Glass	CU 8545WE-1	1.71	CU 8545WE-2	1.95

Net
© U.C.P., Inc.

EXPERIMENTER'S CIRCUIT SET-UP KITS



SOLDERLESS CIRCUIT DETAIL

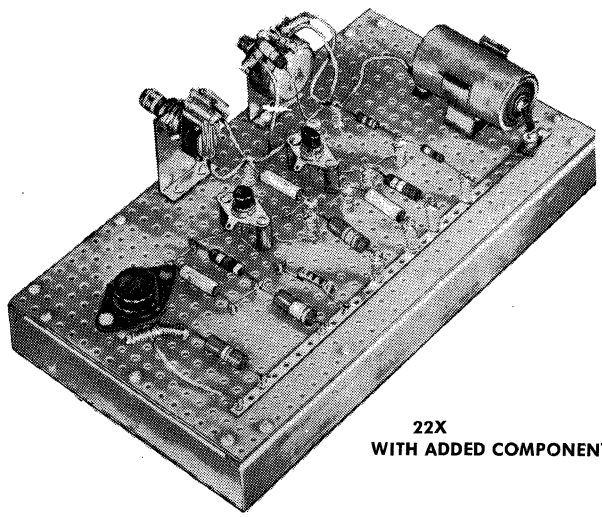
25X
WITH ADDED COMPONENTS

All Kits are provided with supporting side rails (Aluminum in 20X, 21X, and 22X; wood in 25X). The 20X is a starter assortment, 21X a larger size with more components, 22X is for transistor experimentation, and 25X is the largest and designed for solderless circuit set ups with tubes or transistors. Detailed contents as follows:

20X 4 13/16" x 8½" Vectorbord deck, 8 tube sockets (3-7 pin, 3-9 pin, 2-8 octal); 75-T9.4 push-in terminals; 20 T30N SOLDERLESS SPRINGCLIPS, 10 springclips for pot lugs, 2 pieces bus strip; terminal installation tool; 2 sheets grid layout paper; 66 miscellaneous screws, spacers for set up; 2 pot and switch brackets, $6.25.

21X 4 13/16" x 17" Vectorbord deck, 2 pieces Vectorbord as follows: 1-5AA5, 1-32AA7; Sockets as follows: Tube type: 3-7 pin, 3-9 pin, 2-8 pin octal; transistor: 6 Universal type; terminals: 10-T9.6 push-in, 4-T9.62 tandem, 100-T9.4 push-in, 50 T30N SOLDERLESS SPRINGCLIPS, 15 springclips for pot lugs; 3 pieces bus strip; 170 miscellaneous screws, nuts, spacers; terminal installation tool, 70' hookup wire; 6 sheets grid layout paper, 4 pot and switch brackets; 14 miscellaneous mounting brackets, $15.25.

25X 8½" x 17" Vectorbord deck, 2 pieces Vectorbord as follows: 1-15AA5, 1-32AA7, transistor sockets as follows: 2 power transistor sockets, 4 Universal; tube sockets: 3-7 pin, 3-9 pin, 2-8 pin; terminals: 10-T9.6 push-in, 4-T9.62 tandem, 100-T9.4, 100-T30N SOLDERLESS SPRINGCLIPS, 15 springclips for pot lugs; 3 pieces bus strip, 160 miscellaneous screws, nuts, spacers, 8 wafers to make solderless sockets; terminal installation tool, 70' hookup wire, 6 sheets grid layout paper, 4 pot and switch brackets; 8 miscellaneous brackets, $19.50.

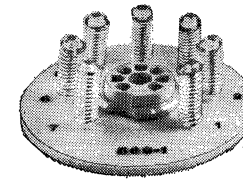


22X
WITH ADDED COMPONENTS

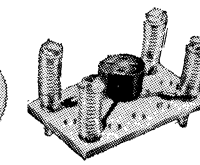
22X 4 13/16" x 8½" Vectorbord deck; 2 pieces Vectorbord as follows: 1-15AA5, 1-32AA7; transistor sockets as follows: 3 power, 4 Universal, 2 tetrode; terminals: 10-T9.6 push-in, 2-T9.62 tandem, 75-T9.4 push-in; 20 T30N SOLDERLESS SPRINGCLIPS, 10 springclips for pot lugs; 3 pieces bus strip; 102 miscellaneous screws, nuts, spacers; terminal installation tool; 70' hookup wire; 6 sheets grid layout paper; 4 pot and switch brackets; 8 miscellaneous brackets; $10.50.

ACCESSORIES

SOLDERLESS SOCKETS

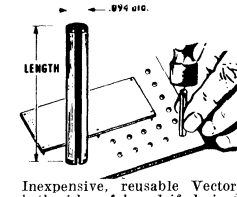


569-1C



570-B

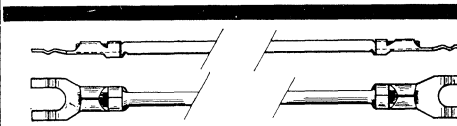
567-1C	Solderless Octal Socket	1.50 ea.
568-1C	Solderless Noval (9 pin) Socket	1.65 ea.
569-1C	Solderless Miniature (7 pin) Socket	1.35 ea.
570-B	Solderless Universal Transistor Socket	1.20 ea.



DRIVE PIN CHASSIS LEGS

	Pkg. of 2
1111-40 .094" Dia. x 1" long	.5
1110-49 .063" Dia. x ¾" long	.5

Inexpensive, reusable Vectorboard chassis supports. Mount both sides of board if desired for component protection when inverting chassis.

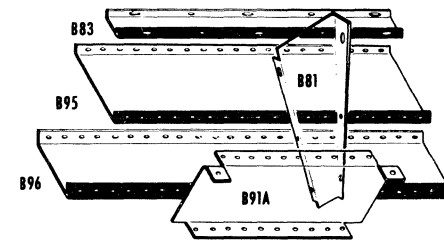


PATCHCORDS FOR INTERCONNECTION BETWEEN SPRINGCLIP TERMINALS

Corrugated spade type lug slips between coils of Springclip terminal and holds tightly. Cords 20 gage standard; lugs plated brass.

Cat. No.	Description	Price
K6.06	6" overall lug ea. end	$4.50/Bdle 25
K6.09	9" overall lug ea. end	4.75/Bdle 25
K6.15	15" overall lug ea. end	5.00/Bdle 25

CHASSIS SUPPORTS

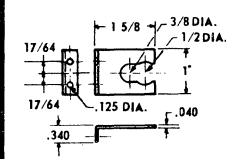


Heavy 0.040" aluminum in 1" & 2¼" heights. Punched holes along top surface accept #4 self tap screws in A or AA pattern VECTORBORD.

Cat. No.	Description (Alum. Channel)	L.	H.	Price 1-19
B81	Z Type End piece	4¾"	x 1"	.38 ea.
B83	U Type Side rail	8½"	x 1"	.43 ea.
B91A	Z Type End piece	4¾"	x 2¼"	.45 ea.
B95	U Type Side rail	8½"	x 2¼"	.51 ea.
B96	U Type Side rail	17"	x 2¼"	.60 ea.

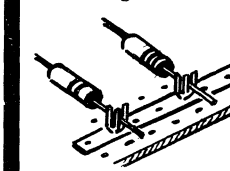
POT & SWITCH BRACKET

B20 Bracket
Pkg. of 4 $.44



BUS STRIP

T-57—PKG X 16" long .95
T-58—PKG X 8" long .65
Pkg. of 10



GRID PAPER

Tracing paper printed with dot pattern corresponding to Vectorbord patterns A (.093 holes on .265 grid) or "G" (.062 holes on staggered 0.1 grid). Speeds circuit construction by facilitating optimum arrangement of components. Paper, when laid on Vectorbord can serve as layout or checking template. Printed dots "WASH OUT" on reproduced copies supplied in pads of 50 sheets per pad.

R173A	(A pattern) 8½" x 11" sheets	$1.45/pad
R173A-1	(A pattern) 8½" x 17" sheets	2.50/pad
R173F	(F pattern) 8½" x 11" sheets	1.45/pad
R173G	(G pattern) 8½" x 11" sheets	1.45/pad

WABER Industrial OUTLET BOXES

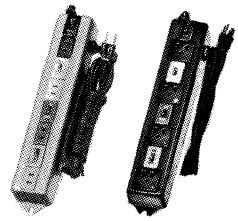
THE *Safe* INSTANT WIRING LINE FOR PLANT, LAB OR SCHOOL

WABER COLOR CODED SWITCH-OUTLET BOXES

Model 30 series, two wire type and Model 32 "U" ground type

	Net
Model 30 (fuse type)	$5.95
Model 30CB (circuit breaker type)	6.95
Model 32 (fuse, 6′ cord-set)	8.50
Model 32-15 (fuse, 15′ cord-set)	9.50
Model 32CB (crct. brkr., 6′ cord-set)	9.50
Model 32CB-15 (crct. brkr. 15′ cord-set)	10.50

FEATURES — Panel mounted fuse or circuit breaker • 4 On-off switches • Tough neoprene cord-set • UL approved components • 12¾″ mounting centers. Size: 13⅛ x 2⅜ x 1⅝″ • Rated 15 amperes, 130 volts continuous duty • Steel case finished in silver gray textured hammertone.



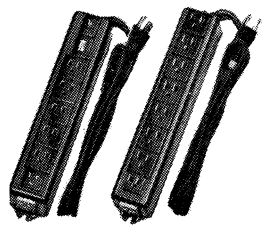
MODEL 30 MODEL 32

WABER "IN-LINE" TYPE "U" GROUND OUTLET BOXES

Outlet on the end and cord out other end permits series stringing. Model 15 is the control unit, with fuse or circuit breaker, switch, pilot light and 7 "U" ground outlets. Model 17 is the slave unit with 9 outlets only.

	Net
Model 15 (fuse, 6′ cord-set)	$8.75
Model 15-15 (fuse, 15′ cord-set	9.75
Model 15CB (crct. brkr., 6′ cord-set)	9.75
Model 15CB-15 (crct. brkr., 15′ cord-set)	10.75
Model 17 (6′ cord-set)	6.75
Model 17-15 (15′ cord-set)	7.75

FEATURES — Panel mounted fuse or circuit breaker • Bright neon pilot light • On-Off Switch • Tough neoprene cord-set • UL approved components • 12¾″ mounting centers • Size: 13⅛ x 2⅜ x 1⅝″ • Rated 15 amperes, 130 volts continuous duty • Steel case finished in silver gray textured hammertone.



MODEL 15 MODEL 17

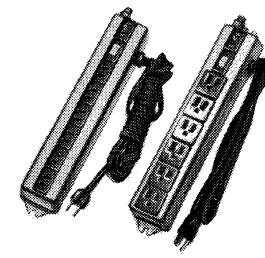
WABER MODEL 20 TWO WIRE OUTLET BOX

	Net
Model 20 (fuse type)	$ 5.95
Model 20CB (circuit breaker type)	6.95

WABER "U" GROUND OUTLET BOX MODEL 24

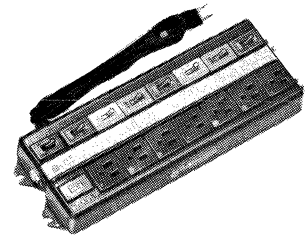
Model 24 (fuse, 6′ cord-set)	8.50
Model 24-15 (fuse, 15′ cord-set)	9.50
Model 24CB (crct. brkr., 6′ cord-set)	9.50
Model 24CB-15 (crt. brkr., 15′ cord-set)	10.50

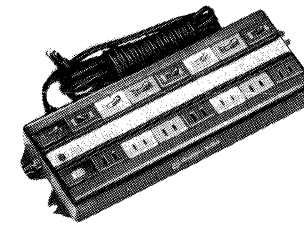
FEATURES — Panel mounted fuse or circuit breaker • Bright neon pilot light • On-off switch • Tough neoprene cord-set • UL approved components • 12¾″ mounting centers. Size: 13⅛ x 2⅜ x 1⅝″ • Rated 15 amperes, 130 volts continuous duty • Steel case finished in silver gray textured hammertone.



MODEL 20 MODEL 24

WABER DELUXE OUTLET BOXES FEATURE INDIVIDUAL CONTROL, MASTER CONTROL & CENTER WRITE-ON STRIP





WABER "25" SERIES MASTER POWER CONTROL CENTER

	Net
Model 25 (fuse, 6′ cord-set)	$15.50
Model 25-15 (fuse, 15′ cord-set)	16.50
Model 25CB (crct. brkr., 6′ cord-set)	16.50
Model 25CB-15 (crct. brkr., 15′ cord-set)	17.50

WABER "35" SERIES MASTER POWER CONTROL CENTER

	Net
Model 35 (fuse type)	13.50
Model 35CB (circuit breaker type)	14.50

FEATURES — Panel mounted fuse or circuit breaker • Bright neon pilot light • Master on-off switch plus seven switch outlet sets • Tough neoprene cord-set • UL approved components • 12¾″ mounting centers. Size 13⅛ x 4¾ x 1⅝″ • Rated at 15 amperes, 130 volts continuous duty • Steel case finished in silver gray textured hammertone.

NEW! WABER GIANT 4 FT. HEAVY DUTY OUTLET BOXES — "Long John" Series

TOUGH NEOPRENE CORD SET • BRIGHT NEON PILOT LIGHT • ON-OFF SWITCH • UL APPROVED COMPONENTS • STEEL CASE FINISHED IN SILVER GRAY TEXTURED HAMMERTONE • RATED AT 15 AMPERES, 130 VOLTS CONTINUOUS DUTY • MOUNTING CENTERS 48¾″ • SIZE: 49 x 2 x 1½″ • FUSE OR PUSH TO RESET CIRCUIT BREAKER AVAILABLE IN MOST MODELS.

WABER MODEL 700 SERIES, 8 U GROUND OUTLETS ON-OFF SWITCH, BRIGHT PILOT LIGHT.

	Net
Model 700 (fuse, 6′ cord-set)	$14.95
Model 700-15 (fuse, 15′ cord-set)	15.95
Model 700CB (crct. brkr., 6′ cord-set	15.95
Model 700CB-15 (crct. brkr., 15′ cord-set)	16.95

WABER MODEL 705 SERIES, 15 U GROUND OUTLETS ON-OFF SWITCH, BRIGHT PILOT LIGHT.

Model 705 (fuse, 6′ cord-set)	$18.95
Model 705-15 (fuse, 15′ cord-set)	19.95
Model 705CB (crct. brkr., 6′ cord-set)	19.95
Model 705CB-15 (crct. brkr., 15′ cord-set)	20.95

WABER MODEL 707 SERIES, 14 U GROUND OUTLETS ON-OFF SWITCH, BRIGHT PILOT LIGHT.

Model 707 (fuse, 6′ cord-set)	$15.75
Model 707-15 (fuse, 15′ cord-set)	16.75
Model 707CB (crct. brkr., 6′ cord-set)	16.75
Model 707CB-15 (crct. brkr., 15′ cord-set)	17.75

WABER MODEL 710 SERIES, 8 U GROUND OUTLETS ONLY.

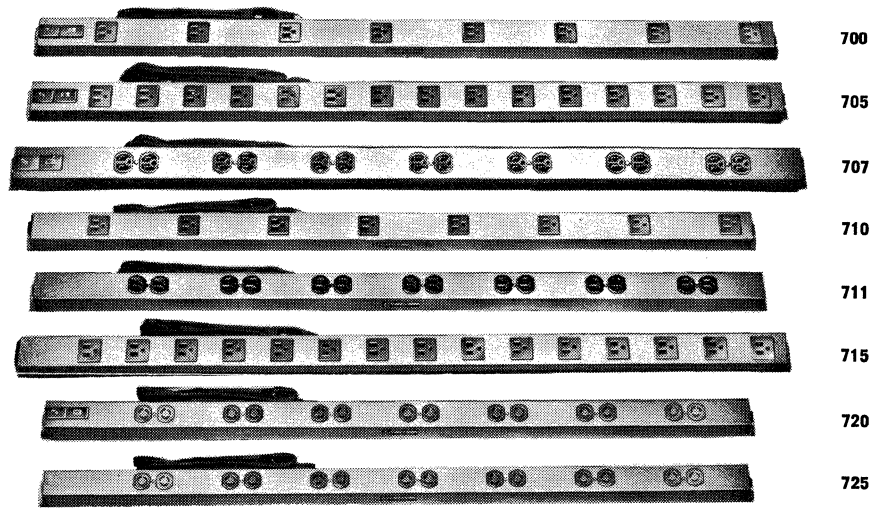
Model 710 (6′ cord-set)	$12.95
Model 710-15 (15′ cord-set)	13.95

WABER MODEL 711 SERIES, 14 U GROUND OUTLETS ONLY.

Model 711 (6′ cord-set)	$13.95
Model 711-15 (15′ cord-set)	14.95

WABER MODEL 715 SERIES, 15 U GROUND OUTLETS ONLY.

Model 715 (6′ cord-set)	$16.95
Model 715-15 (15′ cord-set)	17.95



Models 730 and 735 not illustrated (same as Models 720 and 725)

WABER MODEL 720 SERIES, 14 LOCKING TYPE OUTLETS, ON-OFF SWITCH, BRIGHT PILOT LIGHT.

	Net
Model 720 (fuse, 6′ cord-set)	$32.95
Model 720-15 (fuse, 15′ cord-set)	33.95
Model 720CB (crct. brkr., 6′ cord-set)	33.95
Model 720CB-15 (crct. brkr., 15′ cord-set)	34.95

WABER MODEL 725 SERIES, 14 LOCKING TYPE OUTLETS ONLY.

Model 725 (6′ cord-set)	$31.95
Model 725-15 (15′ cord-set)	32.95

WABER MODEL 730 SERIES, 14 CROW'S FOOT OUTLETS, ON-OFF SWITCH, BRIGHT PILOT LIGHT.

	Net
Model 730 (fuse, 6′ cord-set)	$32.95
Model 730-15 (fuse, 15′ cord-set)	33.95
Model 730CB (crct. brkr., 6′ cord-set)	33.95
Model 730CB-15 (crct. brkr., 15′ cord-set)	34.95

WABER MODEL 735 SERIES, 14 CROW'S FOOT OUTLETS ONLY.

Model 735 (6′ cord-set)	$31.95
Model 735-15 (15′ cord-set)	32.95

WABER ELECTRONICS INC. PHILADELPHIA 33, PENNA.

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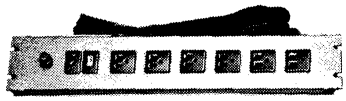
WABER Industrial OUTLET BOXES

THE *Safe* INSTANT WIRING LINE FOR PLANT, LAB OR SCHOOL

WABER RACK MOUNTS — MASTER POWER CONTROLS



MODEL 900

MODEL 904

STANDARD 3½" X 19" UNITS MADE TO BE MOUNTED ON A RACK PANEL FOR REMOTE CONTROL OF OTHER WABER POWER OUTLET BOXES MOUNTED INSIDE THE RACK CABINET, OR SUPPLYING POWER TO COMPONENTS IN THE CABINET.

Waber Model 900 has six "U" ground outlets controlled by an on-off switch, with a pilot light, and fuse or circuit breaker. The 6 or 15 foot cord-set is of tough, durable neoprene.

Waber Models 904, 905, and 906 Rack Power Mounts have two outlets on the front and four outlets mounted on the rear of the panel. This provides an excellent source of power for equipment mounted in the rack. Control is from the front with the convenience of a pilot light, on-off switch, and fuse or circuit breaker for protection.

Model 904 is fitted with "U" ground type outlets, Model 905 with locking type, and Model 906 with crow's foot.

MODEL 900 SERIES, ON-OFF SWITCH, PILOT LIGHT, FUSE OR PUSH TO RESET CIRCUIT BREAKER, AND SIX "U" GROUND OUTLETS.

	Net
Model 900 (fuse, 6′ cord-set)	$10.95
Model 900-15 (fuse, 15′ cord-set)	11.95
Model 900CB (crct. brkr., 6′ cord-set)	11.95
Model 900CB-15 (crct. brkr., 15′ cord-set)	12.95

MODEL 904 SERIES, ON-OFF SWITCH, PILOT LIGHT, FUSE OR PUSH TO RESET CIRCUIT BREAKER, AND SIX "U" GROUND OUTLETS, 2 IN FRONT, 4 IN BACK.

	Net
Model 904 (fuse, 6′ cord-set)	$12.95
Model 904-15 (fuse, 15′ cord-set)	13.95
Model 904CB (crct. brkr., 6′ cord-set)	13.95
Model 904CB-15 (15′ cord-set, crct. brkr.)	14.95

MODEL 905 SAME FEATURES AS MODEL 904 EXCEPT FITTED WITH LOCKING TYPE RECEPTACLES AND PLUG.

	Net
Model 905 (fuse, 6′ cord-set)	$23.95
Model 905-15 (fuse, 15′ cord-set)	24.95
Model 905CB (crct. brkr., 6′ cord-set)	24.95
Model 905CB-15 (crct. brkr., 15′ cord-set)	25.95

MODEL 906 SAME FEATURES AS MODEL 904 EXCEPT FITTED WITH CROW'S FOOT RECEPTACLES AND PLUG.

	Net
Model 906 (fuse, 6′ cord-set)	$24.95
Model 906-15 (fuse, 15′ cord-set)	25.95
Model 906CB (crct. brkr., 6′ cord-set)	25.95
Model 906CB-15 (crct. brkr., 15′ cord-set)	26.95

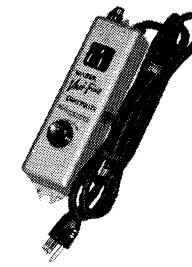
DUST AND SAFETY COVER FOR RACK MOUNT PANELS $4.00

Stepless Control From Zero To Maximum!

WABER VARI-FINE CONTROLLER

The Waber "Vari-Fine" Controller, a solid state device for speed and light control, provides infinite control of motor speed and light intensity, and the speed of AC/DC motors of the universal type. It is rated at 7 amperes, 117 volts. It may be plugged into any standard wall outlet, and is fused for circuit protection. Compact and portable, it features mounting ears for use where a fixed installation is desired. The Waber "Vari-Fine" Controller has many applications in the home, laboratory, school, or factory where regulation is desirable.

Model 200 ..... **$14.95 Net**



MODEL 602 SERIES, 5 "U" GROUND OUTLETS ONLY.

	Net
Model 602 (6′ cord-set)	$4.80
Model 602-15 (15′ cord-set)	5.80

MODEL 603 SERIES, 4 "U" GROUND OUTLETS, FUSE OR PUSH TO RESET CIRCUIT BREAKER.

Model 603 (fuse, 6′ cord-set)	$5.25
Model 603-15 (fuse, 15′ cord-set)	6.25
Model 603CB (crct. brkr., 6′ cord-set)	6.25
Model 603CB-15 (crct. brkr., 15′ cord-set)	7.25

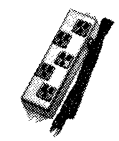
MODEL 605 SERIES, 3 "U" GROUND OUTLETS, PILOT LIGHT, ON-OFF SWITCH, FUSE OR PUSH TO RESET CIRCUIT BREAKER.

Model 605 (fuse, 6′ cord-set)	$5.95
Model 605-15 (fuse, 15′ cord-set)	6.95
Model 605CB (crct. brkr., 6′ cord-set)	6.95
Model 605CB-15 (crct. brkr. 15′ cord-set)	7.95

MODEL 606 SERIES, 2 SETS (SWITCH, PILOT LIGHT, OUTLET), FUSE OR PUSH TO RESET CIRCUIT BREAKER.

Model 606 (fuse, 6′ cord-set)	$6.75
Model 606-15 (fuse, 15′ cord-set)	7.75
Model 606CB (crct. brkr., 6′ cord-set)	7.75
Model 606CB-15 (crct. brkr., 15′ cord-set)	8.75

WABER LOW COST COMPACTS HAVE QUALITY FEATURES



602

603

605

606

WABER 800 SERIES DUPLEX MASTER POWER CONTROLS

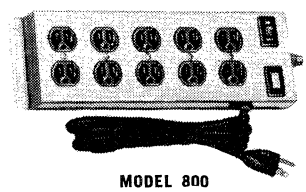
ON-OFF SWITCH • BRIGHT PILOT LIGHT • TOUGH NEOPRENE CORD SET • UL APPROVED COMPONENTS • RATED AT 15 AMPERES, 130 VOLTS CONTINUOUS DUTY • STEEL CASE FINISHED IN SILVER GRAY TEXTURED HAMMERTONE YOUR CHOICE OF FUSE OR PUSH TO RESET CIRCUIT BREAKER • 12⅞ X 2⅞" MOUNTING CENTERS • SIZE 13¼ X 4¼ X 1½"

MODEL 800 SERIES, "U" GROUND OUTLETS.

Model 800 (fuse, 6′ cord-set)	$13.50
Model 800-15 (fuse, 15′ cord-set)	14.50
Model 800CB (crct. brkr., 6′ cord-set)	14.50
Model 800CB-15 (crct. brkr., 15′ cord-set)	15.50

MODEL 801 SERIES, LOCKING TYPE OUTLETS.

Model 801 (fuse, 6′ cord-set)	$29.95
Model 801-15 (fuse. 15′ cord-set)	30.95
Model 801CB (crct. brkr., 6′ cord-set)	30.95
Model 801CB-15 (crct. brkr., 15′ cord-set)	31.95



MODEL 800

MODEL 802 SERIES, CROW'S FOOT TYPE OUTLETS.

	Net
Model 802 (fuse, 6′ cord-set)	$34.95
Model 802-15 (fuse, 15′ cord-set)	35.95
Model 802CB (crct. brkr., 6′ cord-set)	35.95
Model 802CB-15 (crct. brkr., 15′ cord-set)	36.95

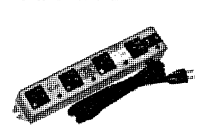
WABER "POWR POINTR" MASTER POWER CONTROL BOXES WITH BRIGHT PILOT LIGHT ON EACH COLOR CODED SWITCH-OUTLET SET

Brilliant pilot light on each switch-outlet set, in addition to color coding, makes identification immediate.

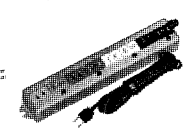
FEATURES — PANEL MOUNTED FUSE OR CIRCUIT BREAKER • PILOT LIGHT, SWITCH, OUTLET SETS (7 ON 25P-35P SERIES, AND 4 ON 30P-32P SERIES) • MASTER SWITCH AND PILOT LIGHT • TOUGH NEOPRENE CORD-SET • UL APPROVED COMPONENTS • 12¾" MOUNTING CENTERS • SIZE: 13⅛ x 4¾ x 1⅝" • RATED AT 15 AMPERES, 130 VOLTS CONTINUOUS DUTY • STEEL CASE FINISHED IN SILVER GREY TEXTURED HAMMERTONE.

MODEL 25P

MODEL 35P



MODEL 32P



MODEL 30P

	Net
Model 25P (fuse, 6′ cord-set)	$19.50
Model 25P-15 (fuse, 15′ cord-set)	20.50
Model 25PCB (crct. brkr., 6′ cord-set)	20.50
Model 25PCB-15 (crct. brkr., 15′ cord-set)	21.50
Model 35P (fuse, 10′ cord-set)	17.50
Model 35PCB (crct. brkr., 10′ cord-set)	18.50

	Net
Model 32P (fuse, 6′ cord-set)	10.50
Model 32P-15 (fuse, 15′ cord-set)	11.50
Model 32PCB (crct. brkr., 6′ cord-set)	11.50
Model 32PCB-15 (crct. brkr., 15′ cord-set)	12.50
Model 30P (fuse, 10′ cord-set)	7.50
Model 30PCB (crct. brkr., 10′ cord-set)	8.50

NEW WABER "STRING BEAN" SERIES

SPACE-SAVER SIZE IN A STURDY STEEL CASE COMPLETELY WIRED FOR INSTANT USE

TOUGH NEOPRENE CORD SET • BRIGHT NEON PILOT LIGHT • ON-OFF SWITCH • UL APPROVED COMPONENTS • STEEL CASE FINISHED IN SILVER GRAY TEXTURED HAMMERTONE • RATED AT 15 AMPERES, 130 VOLTS CONTINUOUS DUTY • MOUNTING CENTERS 49" x 1½" x 1⅛" • FUSE OR CIRCUIT BREAKER AVAILABLE IN MOST MODELS.

MODEL 1000 SERIES, 12 "U" GROUND OUTLETS, BRIGHT PILOT LIGHT, ON-OFF SWITCH.

	Net
Model 1000 (fuse, 6′ cord-set)	$17.95
Model 1000-15 (fuse, 15′ cord-set)	18.95
Model 1000CB (crct. brkr., 6′ cord-set)	18.95
Model 1000CB-15 (crct. brkr., 15′ cord-set)	19.95

MODEL 1001 SERIES, 12 "U" GROUND OUTLETS, FUSE OR CIRCUIT BREAKER.

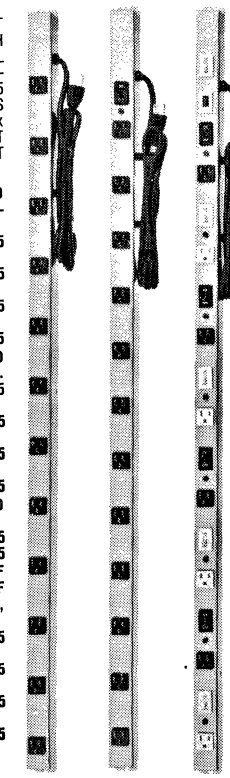
Model 1001 (fuse, 6′ cord-set)	$16.95
Model 1001-15 (fuse, 15′ cord-set)	17.95
Model 1001CB (crct. brkr., 6′ cord-set)	17.95
Model 1001CB-15 (crct. brkr., 15′ cord-set)	18.95

MODEL 1002 SERIES, 12 "U" GROUND OUTLETS ONLY.

Model 1002 (6′ cord-set)	$15.95
Model 1002-15 (15′ cord-set)	16.95

MODEL 1010 SERIES, MASTER ON-OFF SWITCH, PILOT LIGHT, AND 8 SETS OF "U" GROUND OUTLETS, PILOT LIGHTS, AND ON-OFF SWITCHES.

Model 1010 (fuse, 6′ cord-set)	$25.95
Model 1010-15 (fuse, 15′ cord-set)	26.95
Model 1010CB (crct. brkr., 6′ cord-set)	26.95
Model 1010CB-15 (crct. brkr., 15′ cord-set)	27.95



WABER ELECTRONICS INC. PHILADELPHIA 33, PENN/

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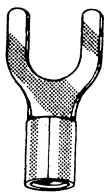
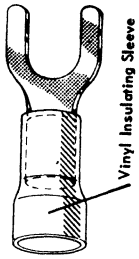
WALDOM SOLDERLESS TERMINALS AND CONNECTORS

COMPLETE LINE . . . 21 TYPES, 5 CONSTRUCTION STYLES



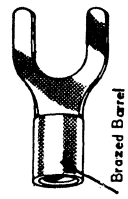
KRIMPTITE ®

Basic non-insulated electro-tin plated copper terminal. One-piece construction for maximum strength and conductivity.



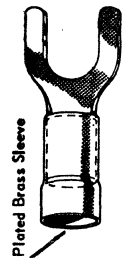
INSULKRIMP ®

All advanced features of KRIMPTITE, plus permantly attached rigid vinyl plastic insulating sleeve for increased vibration resistance.



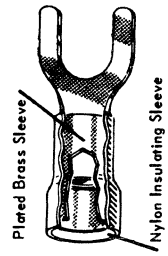
VERSAKRIMP ®

Advantageous features of KRIMPTITE plus the higher tensile strength afforded by BRAZED BARREL construction.



VIBRAKRIMP ®

Particularly suitable where high vibration is a factor. KRIMPTITE construction plus seamless annealed electro-tin plated brass sleeve.



AVIKRIMP ®

All VIBRAKRIMP features, tin-plated brass sleeve plus permanently attached overlapping nylon insulating sleeve.

Insulated terminals color coded: 22-18 Red, 16-14 Blue, 12-10 Yellow, 8 Red, 6 Blue

BASIC TERMINAL CONSTRUCTION DETAILS

Material: Annealed electrolytic copper, electro-tin finish. Modern one-piece design for maximum strength and conductivity. With strength gusset, open end rapid inspection, beveled edge to facilitate wire insertion. Circumferential serrations for maximum contact area and grip. Full 1/4 inch barrel length, wide crimping area, easy location.

Wire ranges 22-18, .032 stock. Wire Ranges 12-10, ,040 stock. Terminals Terminals in 22-18 and 16-14 wire ranges. Are available with 5/32" barrel by adding "S" to front of part desired. Listed by Underwriter Labs., Inc.

FOR CRITICAL APPLICATIONS – VERSAKRIMP® AND AVIKRIMP® TERMINALS

SPADE TONGUE TERMINALS (FIG. A)

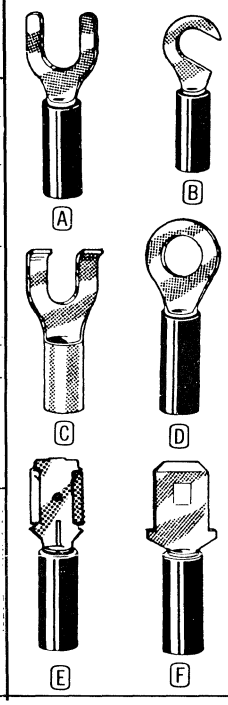
Basic Dimensions				Versakrimp®					Avikrimp®				
Wire Range	Stud Size	Width	Stud Clearance	Length	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M	Length	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M
22-18	5-6	1/4"	7/32"	5/8"	B-3118	3.18	25.44	19.08	13/16"	N-5118	6.55	53.19	39.91
22-18	10	5/16"	5/16"	3/4"	B-3032	3.18	25.44	19.08	15/16"	N-5032	6.55	53.19	39.91
16-14	5-6	1/4"	7/32"	5/8"	B-3123	3.18	25.44	19.08	13/16"	SN-5123	6.55	53.19	39.91
16-14	10	23/64"	9/32"	3/4"	B-3016	3.18	25.44	19.08	15/16"	SN-5016	6.55	53.19	39.91

FLANGED SPADE TERMINALS (FIG. C)

22-18	5-6	19/64"	7/32"	5/8"	B-3080	3.18	25.44	19.08	13/16"	N-5080	6.55	53.19	39.91

RING TONGUE TERMINALS (FIG. D)

22-18	1-2	7/32"	5/32"	33/64"	B-3099	3.18	25.44	19.08	45/64"	N-5099	6.55	53.19	39.91
22-18	3-4	7/32"	5/32"	33/64"	B-3047	3.18	25.44	19.08	45/64"	N-5047	6.55	53.19	39.91
22-18	5-6	7/32"	5/32"	33/64"	B-3001	3.18	25.44	19.08	45/64"	N-5001	6.55	53.19	39.91
22-18	8	9/32"	1/4"	41/64"	B-3097	3.18	25.44	19.08	53/64"	N-5097	6.55	53.19	39.91
22-18	10	9/32"	1/4"	41/64"	B-3098	3.18	25.44	19.08	53/64"	N-5098	6.55	53.19	39.91
22-18	1/4	15/32"	.400"	57/64"	B-3004	4.43	35.59	26.68	1-5/64"	N-5004	8.20	65.61	49.22
16-14	3-4	11/32"	5/16"	47/64"	B-3095	3.18	25.44	19.08	59/64"	N-5095	6.55	53.19	39.91
16-14	5-6	1/4"	7/32"	19/32"	B-3006	3.18	25.44	19.08	45/64"	SN-5006	6.55	53.19	39.91
16-14	10	5/16"	9/32"	45/64"	B-3008	3.18	25.44	19.08	13/16"	SN-5008	6.55	53.19	39.91
16-14	1/4	15/32"	.400"	57/64"	B-3009	4.43	35.59	26.68	1"	SN-5009	8.20	65.61	49.22
12-10	10	3/8"	5/16"	3/4"	B-3011	4.43	35.59	26.68	1-3/64"	N-5011	8.20	65.61	49.22
12-10	1/4	17/32"	13/32"	59/64"	B-3100	5.12	40.94	30.71	59/64"	N-5100	8.38	66.99	50.26
8	10	15/32"	11/32"	61/64"	B-3202	6.99	61.41	52.64					
8	1/4	15/32"	11/32"	61/64"	B-3203	6.99	61.41	52.64					
8	3/8	19/32"	13/32"	1-5/64"	B-3208	9.33	81.63	69.97					
6	10	5/8"	1/2"	1-1/4"	B-3228	10.81	94.58	81.07					
6	1/4	5/8"	1/2"	1-1/4"	B-3229	10.81	94.58	81.07					
6	3/8	5/8"	1/2"	1-1/4"	B-3231	10.81	94.58	81.07					
4	10	21/32"	1/2"	1-5/16"	B-3251	15.50	135.64	116.27					
4	1/4	21/32"	1/2"	1-5/16"	B-3252	15.50	135.64	116.27					
4	3/8	21/32"	1/2"	1-5/16"	B-3254	15.50	135.64	116.27					
2	1/4	5/8"	43/64"	1-17/32"	B-3281	20.76	181.69	155.74					
1/0	1/4	13/16"	5/8"	1-59/64"	B-3307	25.81	226.77	194.37					
2/0	1/4	29/32"	5/8"	1-15/16"	B-3322	32.92	289.24	247.92					



HIGH TEMPERATURE TERMINALS - RING TONGUE

Wire Range	Stud Size	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M
22-16	5-6	S-1165	1.88	15.02	11.27
22-16	8	S-1167	1.88	15.02	11.27
22-16	10	S-1168	1.88	15.02	11.27
16-14	5-6	S-1170	2.08	16.62	12.47
16-14	8	S-1172	2.08	16.62	12.47
16-14	10	S-1173	2.08	16.62	12.47
12-10	10	S-1177	2.77	22.14	16.61

Only a partial listing of more than 2000 items in the WALDOM line of solderless terminals and connectors. Includes many more sizes and types, including Heavy Duty, Flared Insulation, Military Types, Terminal Block Terminals, Flag Terminals, insulation sleeve and many more. Write for WALDOM CATALOG #6E2.

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WALDOM KRIMPTITE® AND INSULKRIMP® TERMINALS

SPADE TONGUE TERMINALS (FIG. A)

Basic Dimensions				Krimptite®					Insulkrimp®				
Wire Range	Stud Size	Width	Stud Clearance	Length	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M	Length	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M
22-18	3-4	1/4"	7/32"	5/8"	S-1116	1.96	14.12	11.03	13/16"	T-2116	4.06	30.05	23.48
22-18	5-6	1/4"	7/32"	5/8"	S-1118	1.96	14.12	11.03	13/16"	T-2118	4.06	30.05	23.48
22-18	5-6	19/64"	7/32"	5/8"	S-1014	1.96	14.12	11.03	13/16"	T-2014	4.06	30.05	23.48
22-18	5-6	5/16"	5/16"	3/4"	S-1029	1.96	14.12	11.03	15/16"	T-2029	4.06	30.05	23.48
22-18	8	19/64"	7/32"	5/8"	S-1030	1.96	14.12	11.03	13/16"	T-2030	4.06	30.05	23.48
22-18	8	5/16"	5/16"	3/4"	S-1031	1.96	14.12	11.03	15/16"	T-2031	4.06	30.05	23.48
22-18	10	5/16"	5/16"	3/4"	S-1032	1.96	14.12	11.03	15/16"	T-2032	4.06	30.05	23.48
16-14	5-6	19/64"	7/32"	5/8"	S-1015*	2.05	14.77	11.54	13/16"	T-2015†	4.06	30.05	23.48
16-14	8	19/64"	7/32"	5/8"	S-1033	2.05	14.77	11.54	13/16"	T-2033	4.06	30.05	23.48
16-14	10	23/64"	9/32"	3/4"	S-1016*	2.05	14.77	11.54	15/16"	T-2016†	4.06	30.05	23.48
12-10	10	3/8"	5/16"	25/32"	S-1017	2.85	20.52	16.03	1-3/32"	T-2017	5.26	38.93	30.41
HOOK TONGUE TERMINALS (FIG. B)													
22-18	5-6	5/16"	5/16"	23/32"	S-1018*	1.96	14.12	11.03	29/32"	T-2018	4.06	30.05	23.48
16-14	5-6	23/64"	9/32"	23/32"	S-1038	2.05	14.77	11.54	29/32"	T-2038	4.06	30.05	23.48
FLANGED SPADE TERMINALS (FIG. C)													
22-18	5-6	19/64"	7/32"	5/8"	S-1080*	1.96	14.12	11.03	13/16"	T-2080†	4.06	30.05	23.48
22-18	8	19/64"	7/32"	5/8"	S-1081	1.96	14.12	11.03	13/16"	T-2081	4.06	30.05	23.48
22-18	10	3/8"	1/4"	23/32"	S-1082*	1.96	14.12	11.03	29/32"	T-2082	4.06	30.05	23.48
16-14	5-6	19/64"	7/32"	5/8"	S-1083	2.05	14.77	11.54	13/16"	T-2083	4.06	30.05	23.48
16-14	8	19/64"	7/32"	5/8"	S-1084	2.05	14.77	11.54	13/16"	T-2084	4.06	30.05	23.48
16-14	10	3/8"	1/4"	23/32"	S-1085	2.05	14.77	11.54	29/32"	T-2085	4.06	30.05	23.48
12-10	10	3/8"	5/16"	3/4"	S-1088	2.85	20.52	16.03	1-1/16"	T-2088	5.26	38.93	30.41
RING TONGUE TERMINALS (FIG. D)													
22-18	1-2	7/32"	5/32"	33/64"	S-1099	1.96	14.12	11.03	45/64"	T-2099	4.06	30.05	23.48
22-18	3-4	7/32"	5/32"	33/64"	S-1047	1.96	14.12	11.03	45/64"	T-2047	4.06	30.05	23.48
22-18	5-6	7/32"	5/32"	33/64"	S-1001	1.96	14.12	11.03	45/64"	T-2001	4.06	30.05	23.48
22-18	5-6	9/32"	1/4"	41/64"	S-1002*	1.96	14.12	11.03	53/64"	T-2002†	4.06	30.05	23.48
22-18	8	9/32"	1/4"	41/64"	S-1097	1.96	14.12	11.03	53/64"	T-2097	4.06	30.05	23.48
22-18	8	5/16"	5/16"	23/32"	S-1021	1.96	14.12	11.03	29/32"	T-2021	4.06	30.05	23.48
22-18	10	9/32"	1/4"	41/64"	S-1098	1.96	14.12	11.03	53/64"	T-2098	4.06	30.05	23.48
22-18	10	5/16"	5/16"	23/32"	S-1003*	1.96	14.12	11.03	23/32"	T-2003†	4.06	30.05	23.48
22-18	1/4	15/32"	.400"	57/64"	S-1004	2.69	19.36	15.13	1-5/64"	T-2004	5.26	38.93	30.41
22-18	5/16	15/32"	.400"	57/64"	S-1005	2.69	19.36	15.13	1-5/64"	T-2005	5.26	38.93	30.41
22-18	3/8	9/16"	9/16"	1-7/64"	S-1143	3.54	25.49	19.91	1-19/64"	T-2143	5.26	38.93	30.41
16-14	3-4	1/4"	7/32"	19/32"	S-1048	2.05	14.77	11.54	25/32"	T-2048	4.06	30.05	23.48
16-14	3-4	11/32"	5/16"	47/64"	S-1095	2.05	14.77	11.54	59/64"	T-2095	4.06	30.05	23.48
16-14	5-6	1/4"	7/32"	19/32"	S-1006*	2.05	14.77	11.54	25/32"	T-2006†	4.06	30.05	23.48
16-14	5-6	5/16"	9/32"	45/64"	S-1007	2.05	14.77	11.54	57/64"	T-2007	4.06	30.05	23.48
16-14	8	5/16"	9/32"	45/64"	S-1024	2.05	14.77	11.54	57/64"	T-2024	4.06	30.05	23.48
16-14	10	5/16"	9/32"	45/64"	S-1008*	2.05	14.77	11.54	57/64"	T-2008†	4.06	30.05	23.48
16-14	1/4	15/32"	.400"	57/64"	S-1009	2.69	19.36	15.13	1-5/64"	T-2009	5.26	38.93	30.41
16-14	5/16	15/32"	.400"	57/64"	S-1041	2.69	19.36	15.13	1-5/64"	T-2041	5.26	38.93	30.41
16-14	3/8	9/16"	9/16"	1-7/64"	S-1147	3.54	25.49	19.91	1-19/64"	T-2147	5.26	38.93	30.41
12-10	5-6	3/8"	5/16"	3/4"	S-1049	2.85	20.52	16.03	1-1/16"	T-2049	5.26	38.93	30.41
12-10	8	3/8"	5/16"	3/4"	S-1050	2.85	20.52	16.03	1-1/16"	T-2050	5.26	38.93	30.41
12-10	10	3/8"	5/16"	3/4"	S-1011*	2.85	20.52	16.03	1-1/16"	T-2011†	5.26	38.93	30.41
12-10	1/4	17/32"	13/32"	59/64"	S-1100	3.76	27.08	21.15	1-15/64"	T-2100	5.57	41.22	32.20
12-10	5/16	17/32"	13/32"	59/64"	S-1101	3.76	27.08	21.15	1-15/64"	T-2101	5.57	41.22	32.20
12-10	3/8	19/32"	31/64"	1-1/32"	S-1013	4.14	29.81	23.29	1-11/32"	T-2013	6.19	45.81	35.79
QUICK DISCONNECTS - PUSH-ON TYPE (FIG. E & F)													
				Length									
18-14	Male .250"			21/32	S-1089*	2.25	16.21	12.66	27/32	T-2089†	4.36	32.28	25.21
18-14	Female .250"			41/64	SS-1090†	2.25	16.21	12.66	27/32	ST-2090†	4.36	32.28	25.21
18-14	Female .187"			17/32	SS-1187	2.25	16.21	12.66	47/64	ST-2187	4.36	32.28	25.21
18-14	Female .110-.125"			29/64	SS-1186	2.25	16.21	12.66	21/32	ST-2186	4.36	32.28	25.21
SNAP PLUG & RECEPTACLE													
16-14	Snap Plug			19/32	S-1055	1.86	13.28	10.38	27/32	T-2055	4.06	30.05	23.48
16-14	Plug Receptacle			1-3/8	PR-1426	6.52	52.16	40.75					
BUTT CONNECTORS (FIG. G)													
22-18				9/16	S-1019*	2.16	15.56	12.15	15/16	T-2019†	4.80	35.52	27.75
16-14				9/16	S-1020	2.16	15.56	12.15	15/16	T-2020	4.80	35.52	27.75
12-10				9/16	S-1046	3.84	27.65	21.60	1-1/16	T-2046	6.55	48.48	37.88

NYLON INSULATED CLOSED END CONNECTORS (FIG. H)

Wire Range	O.D.	Barrel Length	I.D.	Circular Mil Area	Length	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M
22-14	5/16	11/32	1/4	600-5,180	39/64	CE-2214	3.36	24.20	18,90
16-10	7/16	3/8	3/8	2,400-13,000	23/32	CE-1610†	4.92	35.43	27.68

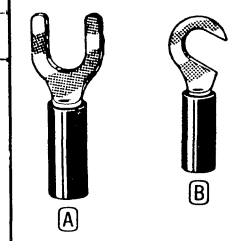
ASSORTMENTS (FIG. I)

Assortment K-170 (Fig. I) - Contains 215 Krimptite® (non-insulated) terminals of types indicated by astericks (*) in listings above, plus Universal Crimping Tool
Net Each . . . . . $ 8.95

Assortment K-180 (Fig. I) - Contains 138 Insulkrimp® (insulated) terminals of types indicated by daggers (†) in above listings plus Universal Crimping tool.
Net Each $10.95

UNIVERSAL CRIMPING TOOL (FIG. J)

Part No. CT-4050 - Crimps both insulated and non-insulated terminals, wire sizes 22 thru 10. Cuts and strips wire.
Net Each . . . . . $ 3.95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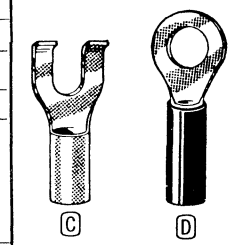
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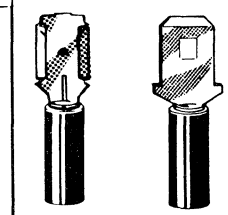
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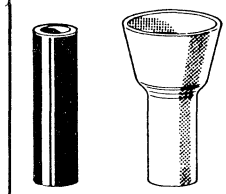
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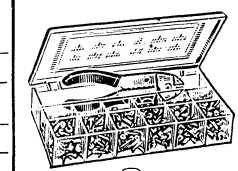
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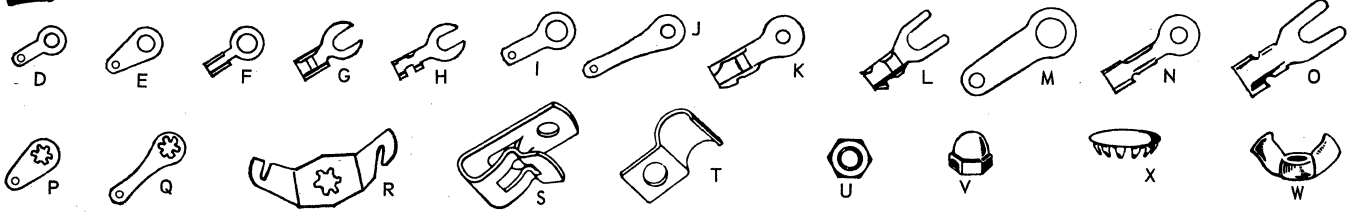
J

Only a partial listing of more than 2000 items in the WALDOM line of solderless terminals and connectors. Includes many more sizes and types, including Heavy Duty, Flared Insulation, Military Types, Terminal Block Terminals, Flag Terminals, insulation sleeve and many more. Write for WALDOM CATALOG #6E2.

WALDOM

ELECTRONIC HARDWARE



TERMINAL AND SPADE LUGS

Terminal lugs for all applications. Supplied with hot-tin dipping in brass, copper or steel as specified in Material (Mtl.) column below.

Waldom No.	Fig.	Mtl., In.	Hole Size	Length In.	Pkg. of 100	Per 1000 1000-4999	Per 1000 5000 Up
T-151	D	.020B	#6	1/2	$0.76	$ 6.23	$ 4.75
T-152	D	.020B	#8	13/16	.82	6.72	5.13
T-153	D	.020B	$10	13/16	.82	6.72	5.13
T-154	E	.020B	#6	9/16	.88	7.22	5.51
T-224	E	.015C	#8	17/32	.97	7.95	6.07
T-155	F	.032C	3/16"	19/32	1.42	11.64	8.88
T-156	F	.032C	#6	1/2	.94	7.71	5.88
T-157	G	.020B	#8	41/64	.80	6.56	5.01
T-158	H	.020B	#6	21/32	.88	7.22	5.51
T-159	H	.020B	#8	21/32	.88	7.22	5.51
T-160	H	.020B	#8	13/16	.98	8.04	6.13
T-162	I	.015B	#8	47/64	.86	7.05	5.38
T-163	J	.025B	#6	1	.98	8.04	5.51
T-164	J	.025B	#8	1	.98	8.04	5.51
T-166	K	.020C	#6	15/16	1.62	13.28	10.13
T-167	K	.020C	#8	15/16	1.62	13.28	10.13
T-168	K	.020C	#10	15/16	1.62	13.28	10.13
T-170	L	.020B	3/16"	25/32	.94	7.71	5.88
T-173	M	.020B	#10	1-5/32	1.56	12.55	9.58
T-187	N	.032B	#8	15/16	2.81	23.04	17.58
T-188	N	.032B	#10	15/16	3.10	25.42	19.40
T-193	O	.032B	#8	1	4.25	34.85	26.59

LOCKING-TYPE LUGS

Locking-type construction eliminates need for additional washer. Fabricated from .018 phosphor bronze and tinned for ease in soldering.

Waldom No.	Fig.	Screw Size	Length, In.	Pkg. of 100	Per 1000 1000-4999	Per 1000 5000 Up
T-194	P	#6	5/8	$1.09	$ 7.89	$ 6.39
T-195	P	#8	5/8	1.09	7.89	6.39
T-196	Q	#4	7/8	1.16	8.04	6.50
T-197	Q	#6	7/8	1.16	8.04	6.50
T-198	Q	#8	7/8	1.16	8.04	6.50
T-223	Q	#10	7/8	1.18	8.15	6.60
T-220	R	#4	53/64	2.06	16.89	12.89
T-221	R	#6	53/64	2.06	16.89	12.89
T-222	R	#8	53/64	2.06	16.89	12.89

SPRING CLIPS (FIG. S)

Brass, nickel-plated spring clips.

Waldom No.	Thickness	Ht., In.	W., In.	Mtg. Hole In.	Pkg. of 100	Per 1000 1000-4999	Per 1000 5000 Up
C-101	.016	45/64	7/32	.130	$1.37	$10.85	$ 8.28
C-102	.020	25/32	5/16	.144	1.82	14.35	10.95
C-103	.022	1	3/8	.144	2.67	22.23	16.96

METAL CABLE CLAMPS (FIG. T)

Mounting hole, .144". Material (Mtl.) abbreviations: B, brass, hot-tin dipped; S, steel, cadmium plated.

Waldom No.	Mtl., In.	Ht., In.	W., In.	Wire Hold Area	Pkg. of 100	Per 1000 1000-4999	Per 1000 5000 Up
C-201	.020B	7/16	1/4	3/32"	$0.81	$ 6.65	$ 5.07
C-202	.032S	5/8	3/8	10/64"	1.02	8.35	6.37
C-203	.032S	11/16	3/8	1/4"	1.17	9.60	7.32
C-204	.032S	15/16	3/8	10/32"	1.30	10.65	8.12

CONTROL AND SWITCH MTG. HEX NUTS (FIG. U)

F-565	3/8-32x 1/2x3/32	$1.47	$12.05	$ 9.19
F-566	15/32x 9/16x5/64	1.80	14.76	11.26
F-567*	475-32X19/32x1/16	3.40	27.24	20.78

*Knurled ring nut (Fig. J)

ACORN NUTS NICKEL-PLATED (FIG. V)

F-574	6-32	$2.74	$27.22	$20.77
F-575	8-32	2.91	19.52	14.89
F-576	10-32	3.52	21.73	16.58

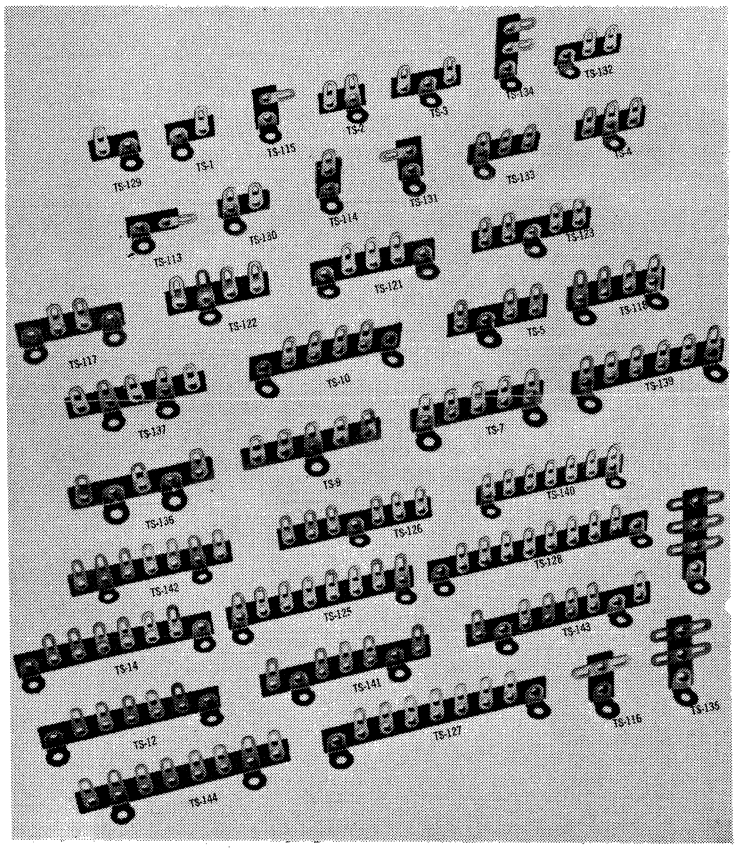
WING NUTS NICKEL-PLATED (FIG. W)

F-571	6-32	$2.63	$21.88	$16.69
F-572	8-32	2.63	21.88	16.69
F-573	10-32	2.63	21.88	16.69

SNAP BUTTON HOLE PLUGS (FIG. X)

HP-1	1/4" hole	$2.20	$18.04	$12.54
HP-2	3/8" hole	2.50	20.50	14.25
HP-3	1/2" hole	2.40	19.68	13.68
HP-4	3/4" hole	3.30	27.06	18.81
HP-5	1" hole	4.40	36.08	25.08

TERMINAL STRIPS



STANDARD TERMINAL STRIPS

Standard type lug mounting terminal strips. Fabricated from X Grade bakelite 1/16" thick, 3/8" wide. Square barrelled construction prevents twisting and slippage. End Terminals are spaced 3/16" from end of strip. All strips are furnished with lug holes spaced 3/8" center to center.

Catalog No.	Bag of 25	100-Over per/C
2 and 3 Position		
TS-1	.58	1.58
TS-129	.58	1.58
TS-2	.63	1.65
TS-130	.63	1.65
TS-113	.68	1.92
TS-114	.68	1.92
TS-115	.68	1.92
TS-131	.58	1.58
TS-3	.80	2.08
TS-132	.80	2.08
TS-4	.80	2.15
TS-133	.80	2.15
TS-134	.80	2.08
4, 5 and 6 Position		
TS-117	1.13	3.05
TS-5	.95	2.58
TS-122	1.00	2.65
TS-118	1.20	3.18
TS-136	1.33	3.55
TS-121	1.33	3.55

Catalog No.	Bag of 25	100-Over per/C
4, 5 and 6 Position		
TS-123	1.18	3.08
TS-9	1.18	3.15
TS-137	1.38	3.68
TS-7	1.38	3.68
TS-10	1.50	4.05
TS-139	1.55	4.18
7, 8 and 9 Position		
TS-141	1.70	4.55
TS-12	1.70	4.55
TS-126	1.55	4.08
TS-142	1.75	4.68
TS-140	1.75	4.68
TS-143	1.88	5.05
TS-14	1.88	5.05
TS-144	1.95	5.18
TS-125	1.95	5.18
TS-127	2.08	5.55
TS-128	2.25	6.05
TS-116	.88	2.30
TS-135	1.33	3.53
TS-138	1.80	4.75

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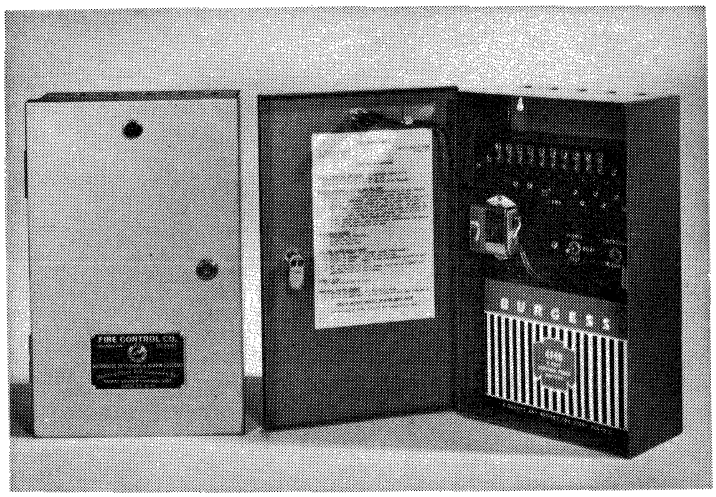

Control Unit #SC-600R Underwriters' Laboratories Approved

COMPARE!

SPECIAL FEATURES MEET AND EXCEED NATIONAL FIRE CODES PAMPHLET #72

MAIN POWER SUPPLY

Input 110-125 Volts AC, 60 Cycles. Maximum current 0.25 ampere. Transformed and rectified to 6 Volts DC, maximum load 2.0 amperes. The Supply is **electrically supervised** so that a failure will sound immediate trouble alarm and automatically transfer to Emergency Power, thus assuring continuity of fire protection. When power is restored, the System automatically returns to Main Power Supply.

EMERGENCY POWER SUPPLY

6 Volt dry battery, Burgess #4F4H or equivalent. Maximum load under alarm condition 2.0 amperes. Order locally.

DETECTOR CIRCUIT

6 Volts DC, maximum current 0.15 ampere. Maximum wire run 5000 ft. #18/2. This Double-Loop Safety Circuit is **electrically supervised** so that a wire break will sound immediate trouble alarm. Emergency circuits compensate for such fault (see N/E Switch), thus assuring continuity of fire protection. Use UL Approved Fire Detector Cable #18/2 for substantial savings in installation.

ALARM CIRCUITS

6 Volts DC, maximum load 1.5 amperes. If only one bell is used, it is **electrically supervised** so that a failure will sound immediate trouble alarm. If two or more bells are used, and/or Annunciator #A-604 is added to the System, they are alternately-connected to the two alarm circuits provided. Use #14/2 wire.

NORMAL/EMERGENCY SWITCH

Provides emergency circuit adjustment.

A) Compensates for wire break in Detector Loop, permitting full response from every Detector until repairs are made.

B) Silences Trouble Buzzer but maintains Red Light to show emergency condition.

TEST/RESET/SILENCE SWITCH

Provides simple operating procedure.

A) Test the System.

B) Silence all Firebells and transfer to Red Light.

C) Reset to normal supervised operation.

CABINET

14" x 9" x 4". Gray Hammertone. Surface Mount. Cylinder lock, 2 keys.

FIRE CONTROL CO. WILMINGTON 1, DEL.

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PRICE BREAK-THROUGH !!!

NOW YOU CAN OFFER A PREMIUM-QUALITY, ALL-UL-APPROVED FIRE ALARM SYSTEM AT LOWEST COST, EVEN IN THE HOME MARKET!!

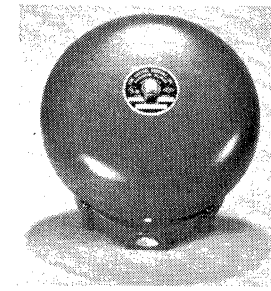
ORDER THE BASIC SYSTEM—COVERS AVERAGE 3 BEDROOM RANCH HOUSE

$120.00 NET

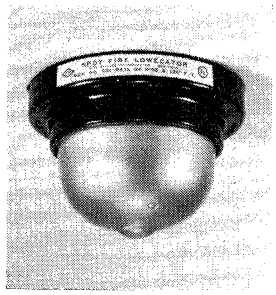
1 Control Unit #SC-600R
1 Underdome Inside Bell #A-6"
6 FyrGuard Detectors #3S
4 FyrGuard Detectors #3H

Same System, but substituting #501 & #502 Detectors **$132.50**

UL APPROVED! The finest quality underdome bells made today. Clear pitch, firm tone. Low current draw. Flush easy-mount on all standard outlet boxes. Use #14/2 wire.



INSIDE BELLS #A		WEATHERPROOF BELLS #AP
6" **$18.00**		6" **$19.50**
8" **21.00**	**NET EACH**	8" **22.50**
10" **24.00**		10" **25.50**



UL APPROVED! The famous Spot Fire Locators. Combination Rate-of-Rise & Fixed-Temperature Automatic Detectors. The standard in the industry and specified in commercial, industrial, and military installations.

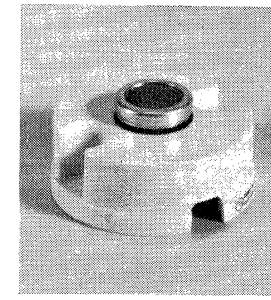
Rated to cover 2500 sq. ft. (Room Area 50' x 50').

Use #501 in offices, showrooms, living rooms, bedrooms, etc.

Use #502 in high temperature areas: furnace room, kitchen, attic.

NET EACH ..... **$3.25** Case Lot of 50, **NET EACH** **$3.00**

UL APPROVED! FyrGuard Automatic Detectors, Fixed-Temperature. A small, unobtrusive and economical fire detector. It is the most widely-used unit in home fire alarm installations.

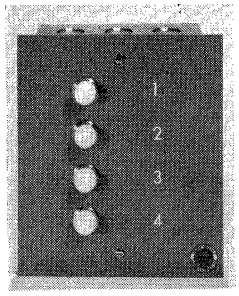


Rated to cover 400 sq. ft. (Room Area 20' x 20').

Use #3S in living rooms, bedrooms, closets, halls, etc.

Use #3H in high temperature areas: furnace room, kitchen, attic.

NET EACH ..... **$2.00** Case Lot of 50, **NET EACH** **$1.75**



UL APPROVED! 4 Zone Annunciator with all Detector Circuits **electrically supervised.** Simple tie-in connections to Control Unit #SC-600R. Optional, for use where large installations require quick identification of the fire area.

Gray Hammertone Cabinet, Flush Mount: 7" x 6" x 3".

Annunciator #A-604, **NET** **$45.00**

UL APPROVED! #5C Manual Pull Station, non-code. Add where required. Wire into Detector Circuit exactly as an Automatic Detector. Flush mount on all handy boxes.

#5C, **NET EACH** .... **$7.50.** Back Box for surface mount **$2.00**

UL APPROVED! #18/2 Fire Detector Cable. Ivory plastic parallel cord specified for Detector Circuits. **250' Coil, NET** **$5.00**

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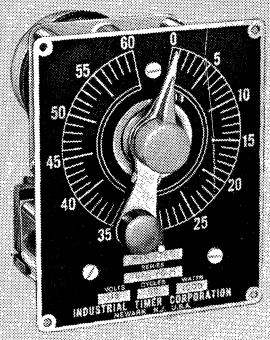
INDUSTRIAL TIMER CORPORATION

PARSIPPANY, N. J.



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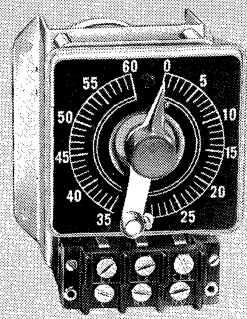

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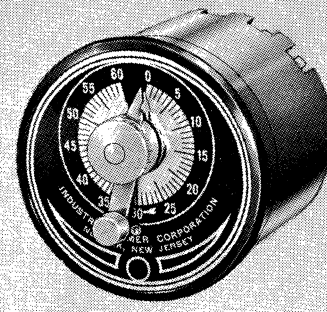

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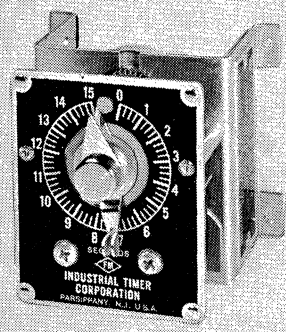

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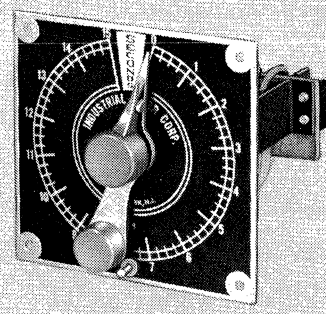

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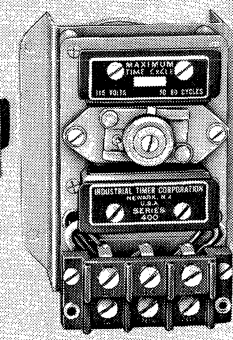

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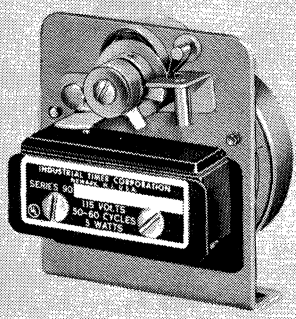

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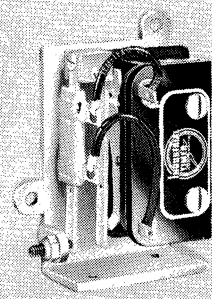

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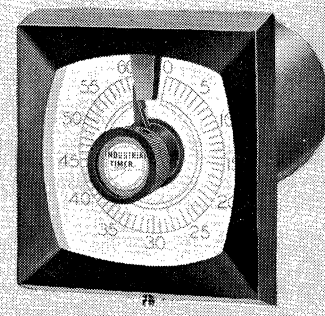


GTD

DELAY TIMERS

This type of timer introduces a predetermined time delay between the closing of a switch and the opening or closing of a load switch. The sequence is: The timer is started by a switch closure, the load switch remains in normal condition until commencement of time delay, at which time it is operated.

TDAF (BULLETIN #300) Time cycles from 1/60 second to 3 hours, instant reset, 10 amp contact rating, panel mounting, extremely accurate. **$43.00**

TDAB (BULLETIN #300) Time cycles from 1/60 second to 3 hours, instant reset, 10 amp contact rating, back mounted or available in housing, extremely accurate. **$43.00**

TD (BULLETIN #300) Time cycles from 1/10 second to 5 minutes, 10 amp contact rating, auto-reset, mounts through a round hole. **$30.50**

SF (BULLETIN #300) Time cycles from 1/10 second to 5 minutes, 10 amp contact rating, back mounted, auto-reset. **$23.00**

"H" (BULLETIN #300) Time cycles from 1/10 second to 5 minutes, 10 amp contact rating, panel mounted, auto-reset. **$26.50**

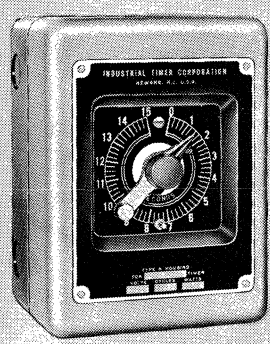
400 (BULLETIN #300) Time cycles from 1/60 second to 3 hours, designed for infrequent adjustment, load rating 10 amps, auto-reset, back mounted. **$38.50**

90 (BULLETIN #300) Time cycles from 1/2 second to 90 seconds. 10 amp contact rating, auto-reset. **$17.00**

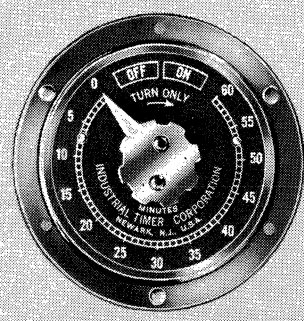
TH (BULLETIN #300) Thermal Time delay switch, snap action contacts rated at 10 amps. Time cycles from 15 seconds to 2 minutes, temperature compensated, adjustable. **$8.50**

GTD (BULLETIN #302) Automatic reset, available in 11 models ranging in time cycles from 3 seconds to 3 hours. 10 amp isolated load contacts. Unit mounts through 3 inch hole in panel and features built-in self locking feature that eliminates mounting screws. A.C. voltages of 115 or 220. **$39.50**

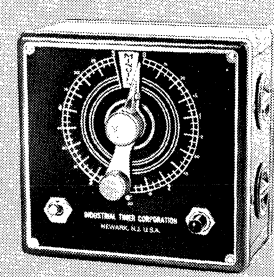
PAB



RS



P & M



INTERVAL TIMERS

An Interval Timer closes (or opens) a load switch at the beginning of a time cycle; at the end of the time interval the load circuit is returned to its original condition.

PAB (BULLETIN #400) Time Intervals from 1/60 second to 3 hours. 15 amp non-inductive. Instant automatic reset. Available with housing. Momentary starting. **$55.00**

RS (BULLETIN #400) Time Intervals from 15 seconds to 24 hours. 20 amp, non-inductive. Manual reset. Available with housing. **$18.50**

P & M (BULLETIN #400) "P" Series — 1/10 second to 5 minutes, remote momentary start, auto-reset, 15 amp load rating. **$33.00**
"M" Series—1 second to 1 minute, push button start, auto-reset, 10 amp contact rating. **$26.50**

Trade Discount Applies To List Prices Only

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INDUSTRIAL TIMER CORPORATION

PARSIPPANY, N. J.

PROGRAMMING CAM TIMERS

A Recycling Timer opens and closes an electrical circuit in a continuous pre-set sequence.

TANDEM (BULLETIN #500) Interchangeable timing elements provide individual time cycles from 1/10 seconds to 3 hours. Elements operate in sequence. 15 amp load rating. **$142.50 complete**

CM (BULLETIN #200) Single switch rated at 10 amps. Adjustable cam provides 2% to 98% "ON"—"OFF" of any of 600 available time cycles. Each model has 50 available time cycles through use of interchangeable gear racks, cycles continuously. **$20.50**

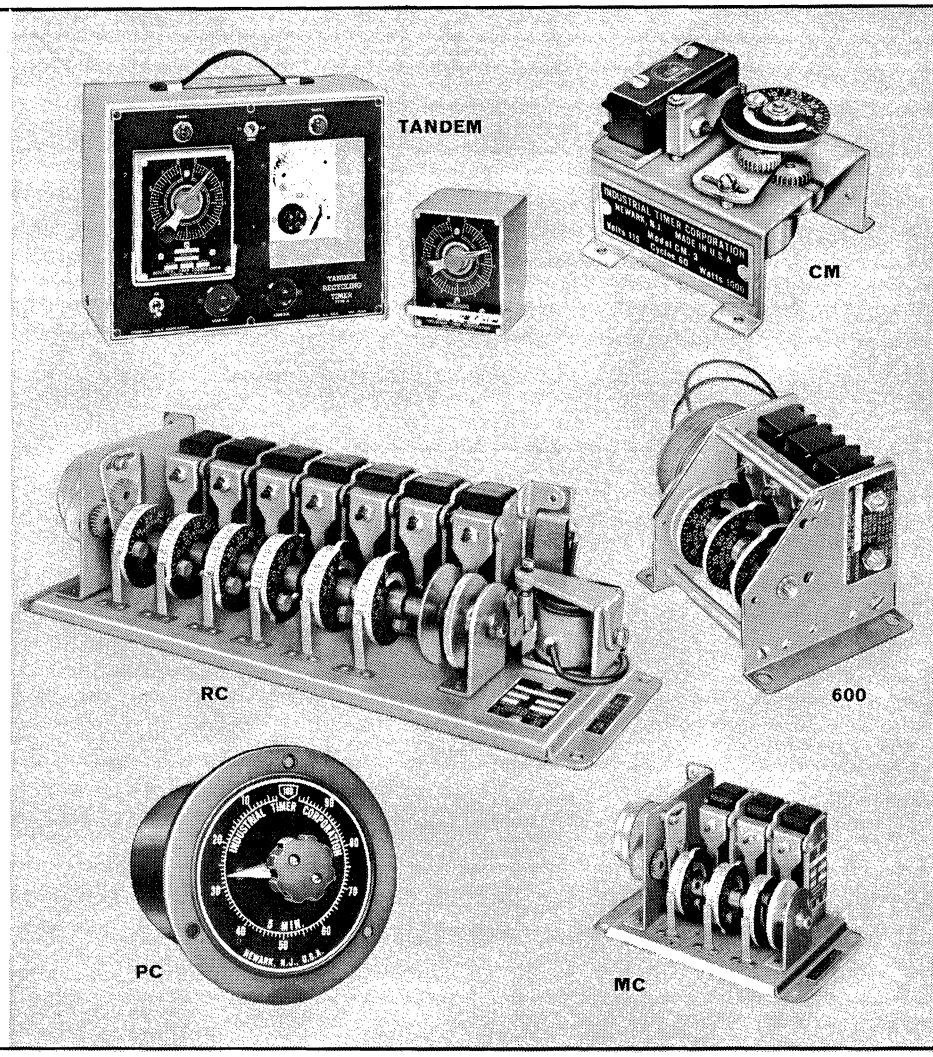
RC (BULLETIN #200) Similar to Series MC, but starts from momentary pulse, makes 1 revolution of cam shaft and stops. The timer recycles from a sustained start. Time cycles from 2/3 second to 72 hours are available, switch rating is 10 amps. **$30.50 to $198.50**

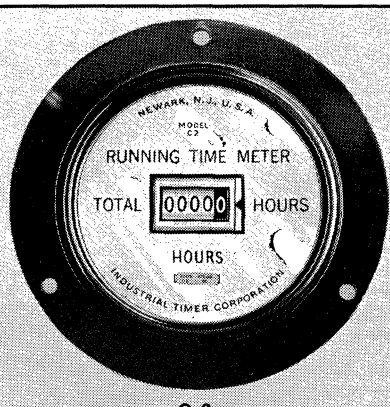
600 (BULLETIN #203) Simplified Recycling Cam Timer available with up to 7 switches from 15 seconds to 60 hours. **$17.00 to $53.00**

PC (BULLETIN #500) Opens and closes a 15 amp load switch continuously. Adjustable from 3% to 97% of time cycles from 15 seconds to 24 hours. Available in housing. **$31.00**

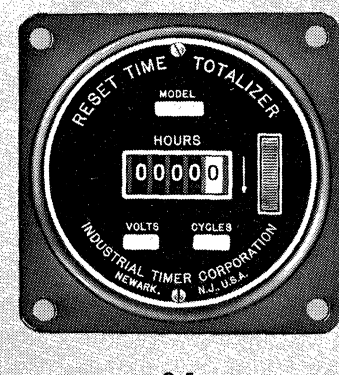
MC (BULLETIN #200, 201, 202) Available with up to 20 individual load circuits. Time cycles from 2/3 second to 72 hours. 10 amp load rating, available in Kit for prototype assembly, or with shaft extension for external drive.

$35.50 for 2 sw. unit up to $191.50 for 20 load switches

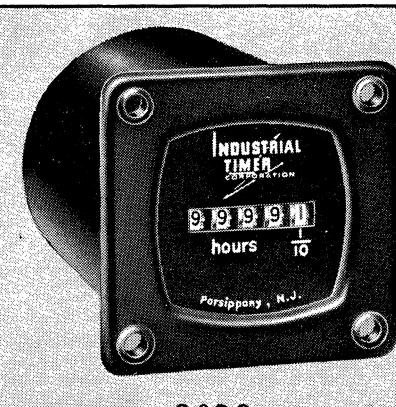




C-2



C-5



C-8 D.C.

TIME MEASUREMENT DEVICES

The running Time Meters and Reset Time Totalizers are used to record the operating time of equipment requiring periodic maintenance.

C-2 (BULLETIN #700) The Series C-2 Running Time Meter is available in counts from 1/10 second to 1 hour. Total accumulation ranges are 10,000 seconds to 100,000 hours. **$20.50**

C-5 (BULLETIN #700) This is a cased type instrument, mounted in a black, baked-finish housing. With heavy steel mounting flange. Screw terminals on back. Model C-5 incorporates a special type of counter that permits resetting to zero at any time. Offered for 115 and 220 volts, 60, 50, and 25 cycles. **$42.50**

C-8 D.C. (BULLETIN #701) The C-8 is a compact Running Time Meter for use on equipment using D.C. voltages. Available for 6, 12, 24, 28 or 32 VDC. Mounts through round 2-3/16" hole in panel, secures with 4 screws. The C-8 accumulates up to 9999.9 hours with a minimum count of 1/10 hour. **$19.25**

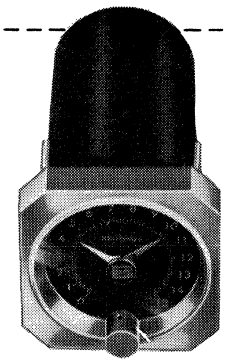
BRISTOL MOTORS / DIVISION OF VOCALINE

SYNCHRONOUS MOTORS AND TIMERS

Versatility is the characteristic which design engineers need — and find — in Bristol Synchronous Motors and Timing Devices. Bristol's unusually broad experience and range of design and manufacturing skills are particularly valuable where special requirements must be met.

The devices shown are among the most widely used. All can be mounted in any position, and take a minimum of space. Materials are selected on the basis of their suitability to provide long service, and perform well under a variety of conditions.

Bristol engineering service is available for applications that require custom design and manufacture.



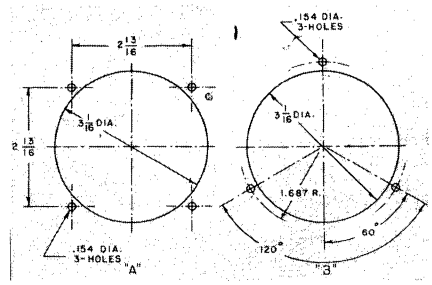
Series 61 Time Delay Relay. Universal Time Delay Relay provides self-holding solenoid starting with adjustable timed contact operation. Series 61 provides three types of load contacts which give seven types of load circuit operation in a single unit. This model may be wired up for one of four basic types of operation: momentary start, automatic reset; momentary start, manual reset; sustained switching; and tandem or cascaded operation. Size 3" in diameter by 5 25/64 long. Timer case bezel 1/32 thick x 3 5/8 inches square. Universal mounting allows standard 3-stud or 4-stud panel mounting. 115 VAC — Price $44.00 each.

TWO TYPES OF FRAMES WITH INTERCHANGEABLE DIAL FACES PROVIDE 4 STYLE COMBINATIONS! (See 62 Series)

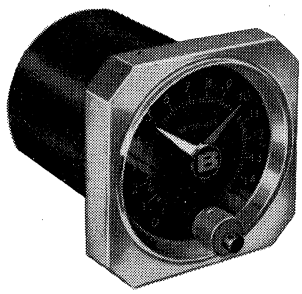
Full Scale Available from 6 Sec. to 24 Hours Interchangable Mounting

The 61 series timers are provided with removable threaded studs. Timers are normally mounted with four studs, Figure A. Threaded holes are provided for alternate three-hole mounting, Figure B.

Two independent load switches rated 15 Amps at 115-230 VAC.



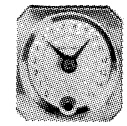
Panel Layout



Series 62 Interval Timer. Companion to the 61 series timers. This model is operated by a manual push button start on the face of the timer and provides unusual circuit versatility. This unit times out to the zero position and remains timed out until started by the manual push button. This timer does not reset on power failure. Size, 3 inches in diameter x 4 21/64 long. Intended for lower cost variable delay timer operations. 115 VAC — Price $27.00 each.

TWO TYPES OF FRAMES WITH INTERCHANGEABLE DIAL FACES PROVIDE 4 STYLE COMBINATIONS!

STYLE A



STYLE B

STYLE C

STYLE D*

New "Bristol-Vision" Dial Design

Features square-dial plate, provides background contrast for better viewing. Pointer-position knob is **easily adjusted without covering hands.**

Rugged Dial Frame

Die-cast in gleaming, rust-and-corrosion-resistant Zemak. Light weight; modern, clean lines.

Bevelled Glass Dial Face

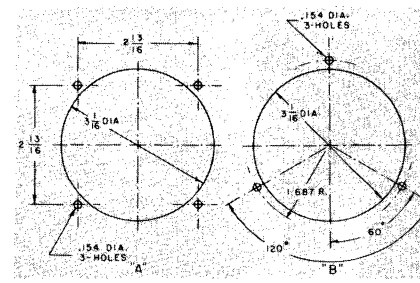
Non-scratch surface won't buckle or deform over wide range of environmental conditions. Fully sealed for permanent protection against dust.

Full Scale Available from 6 Sec. to 24 Hours Interchangeable Mounting

The 62 series timers are provided with removable threaded studs. Timers are normally mounted with four studs, Figure A. Threaded holes are provided for alternate three-hole mounting, Figure B.

*Type D supplied as standard unless otherwise specified.

Two independent load switches rated 15 Amps at 115-230 VAC.



Panel Layout

VOCALINE COMPANY OF AMERICA, INC., Old Saybrook, Conn.

Timers and Motors to meet special applications are available from distributors. See Vocaline Bristol Motors Catalog for complete line of motors and timers.

IMMEDIATE DELIVERY FROM FRANCHISED VOCALINE\BRISTOL MOTORS DISTRIBUTORS

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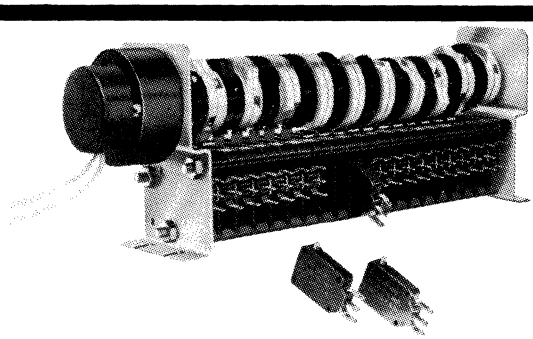
BRISTOL MOTORS / DIVISION OF VOCALINE



SERIES 47 REPEAT CYCLE TIMER

Pocket timer . . . microminiature . . . adjustable . . . . compact . . . high repeat accuracy. This replaceable switch repeat cycle timer is a multi-contact program timer which permits easy switch replacement without disassembling. In addition, one turn of the calibrated adjusting screw provides a 2% variation of cam time sequence. Switches are D.P.S.T. rated at 5 amps-115 volts. Timer available in speeds of 1 rev. per minute to 1 rev. per day. 1 to 20 switches available.

Price: 4-switch—$21.00
8-switch—$35.00

SERIES 63 PERCENTAGE TIMER

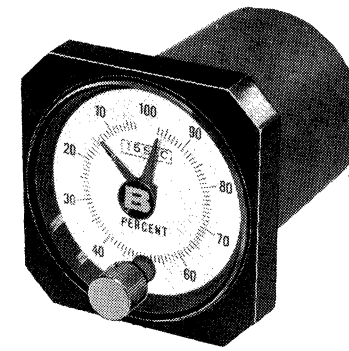
An easily adjustable Repeat Cycle Timer to make or break a circuit for an adjustable percentage of the full cycle time.

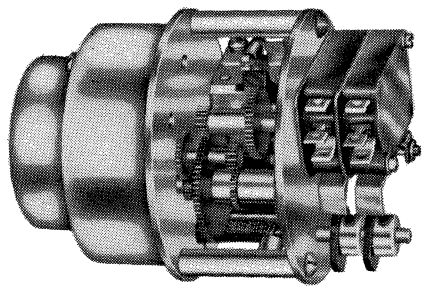
Equipped with a manually adjustable setting hand and a rotating progress pointer to indicate the present progress of the cycle. Load switch rated 20 Amps at 115-230 VAC.

Numerous standard time ranges available.

For styles and mounting provisions, see Series 62.

115 VAC Price $27.00



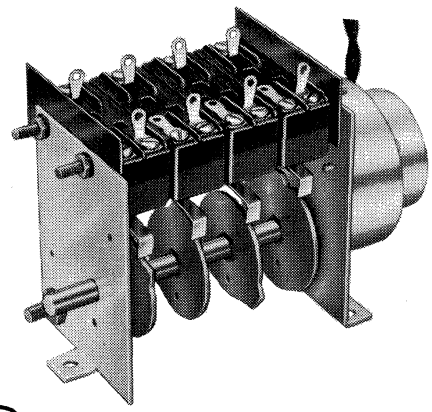


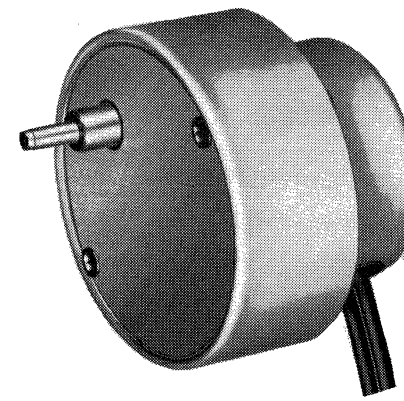
Bristol time delay relay. Series 21 features instantaneous reset action (under 1/5 second) for such applications as photographic timers, electronic circuit safety, alarms, signals, etc. Repeat accuracy better than 1% full scale. Standard unit has two switches rated at 10 amps-non inductive, 5 amps inductive load. Delay period may be changed by positioning of set screw cams. Adjustable cycling time available. 115 VAC—Price $29.00 (2 switches)

SERIES 31

Repeat cycle or program timer. A multi-contact timer with high repeat accuracy. Switches are double pole-single throw and rated 20 amps 115-230 volts. Dual/adjustable cams available for easy setting. Unit available with motor speeds of 1 rev. per minute to 1 rev. per hour. 115 VAC.

Price: 4 switch—$24.00





The Bristol hysteresis synchronous motor model 447 features high starting torque (40 inch-ounces at 1 RPM) and considerably higher running torque. The Model 447 is 2 inches in diameter by $1\frac{21}{64}$" deep. Numerable output speeds and standard shafts available from stock. Be sure to specify clockwise or counter-clockwise rotation (Rotation is determined facing motor output shaft) Price $5.00 each.

U/L Approved.

Model 425—Speeds 4/5 RPM to 1800 RPM.
115 VAC. Price $4.50

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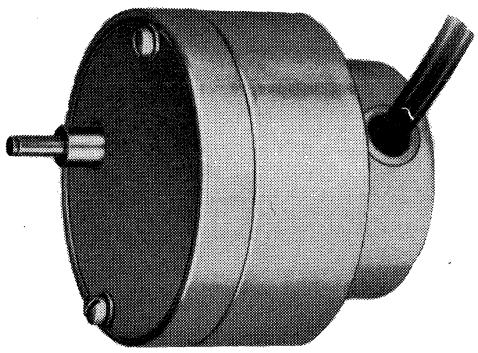
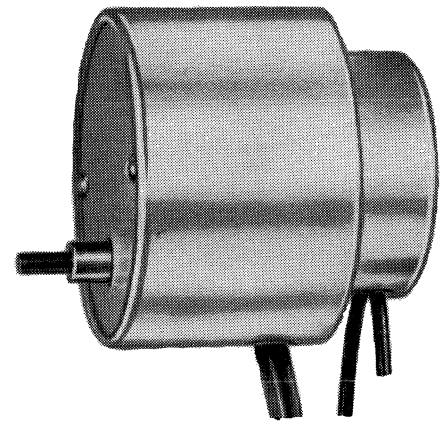
BRISTOL MOTORS / DIVISION OF VOCALINE

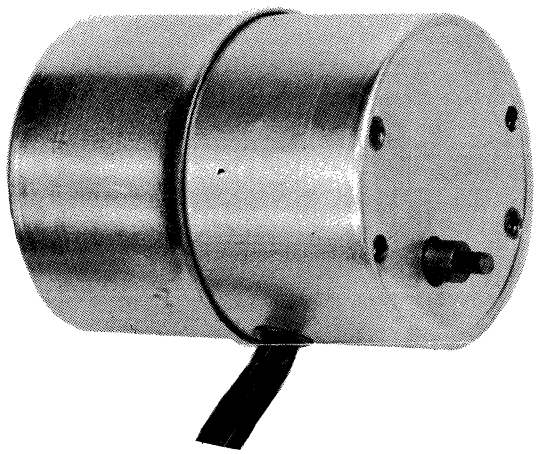
SYNCHRONOUS MOTORS AND TIMERS



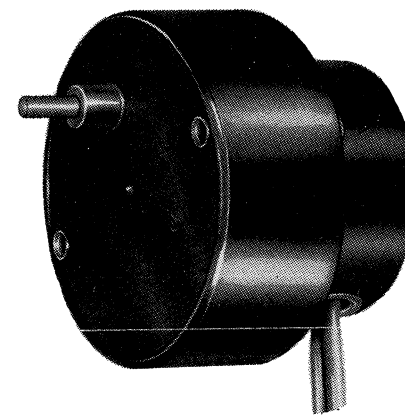
The Bristol Model 420 is a low speed version of Model 447 and develops high torque. The motor's gear train is rated at 20 inch-ounces for continuous operation and 5 inch pounds for static loading or intermittent duty. Size is 2″ in diameter by 1 21/32″ deep. The following speeds are available for 115 volt operation in both clockwise and counter-clockwise rotation — 1 rev. 30 minutes, 1 rev. per hour, 1 rev. per 6 hours, 1 rev. per 12 hours, 1 rev. per 24 hours, 1 rev. per 30 days. Price $6.70 each. U/L Approved.



Bristol Model 830 hysteresis synchronous reversible motor develops 100 inch-ounce starting torque at 1 RPM. This motor employs a resistor and condenser as a phase shift network and these components are included in the price. Available off the shelf in same speeds as Model 447 for 115 volt A.C. operation — $9.20 each.



Series 900 reversible instrument drive motor provides the highest starting and running torque of any motor in the Bristol line. It incorporates a phase shift network . . . a resistor and capacitor is included with each motor. Starting torque in 200 inch ounces at 1RPM. Available speeds for 115 VAC operation: 5 RPM, 10 RPM, 15 RPM, and 60 RPM. Price: $20.00



Bristol shift motor Model 350. This motor features a solenoid action clutch which disengages the rotor from gear train when motor is not energized allowing easy manual positioning or resetting of the output shaft. Develops 16 inch ounce starting torque. Available at 1 RPM, 2 RPM, 4 RPM, and 10 RPM for 115 volt operation. Be sure to specify clockwise or counter-clockwise rotation. Price $7.00 each. U/L Approved.

AVAILABLE "OFF THE SHELF"

VOCALINE COMPANY OF AMERICA, INC.

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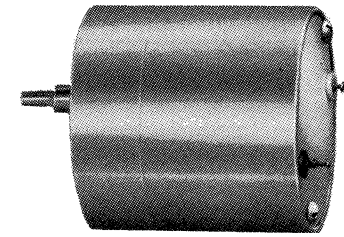
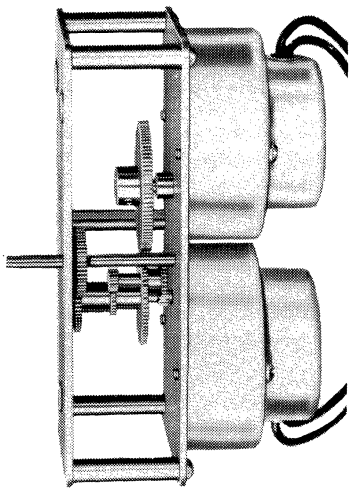
BRISTOL MOTORS / DIVISION OF VOCALINE

MOTORS AND TIMERS

Bristol Model 318 D.C. motor for 6, 12 or 24 VDC operation. The self-contained transistorized inverter system is moulded into the housing. Freedom from radio interference. No brushes. Long life. Output speed accuracy plus or minus 10% at 68°F ambient. Starting torque 16 inch ounces at 1 RPM. Operating ambient range plus 50 Degrees C to minus 30 Degrees C. Model 318 has 2" diameter and is 2⅜" deep and weighs less than 9 ounces. Nominal speeds 1 RPM, 10 RPM, 30 RPM, and 60 RPM. Additional speeds available.

Price—12 Volt—$30.00
24 Volt—$35.00





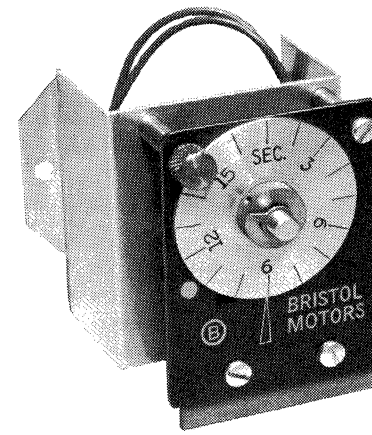
Series 42 DSU

Two Bristol uni-directional motors drive through a common gear train to give three output shaft speeds; direction of rotation optional.

Reversible motors available where speed of output shaft equals the sum or difference of input speeds.

115 VAC.

Price, (Uni-directional motors) $18.00

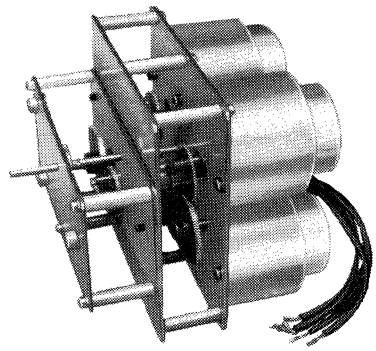


SERIES 55 TIMER

A Time Delay Relay with an adjustable graduated dial and a progress pointer. Can remain stalled indefinitely at the end of the cycle. Automatically resets when power is removed and is ready for another cycle. Load switch SPDT rated 20 Amps at 115 or 230 VAC.

Standard Time Cycles are 15, 30, 60 and 120 seconds.

115 VAC Price $13.50



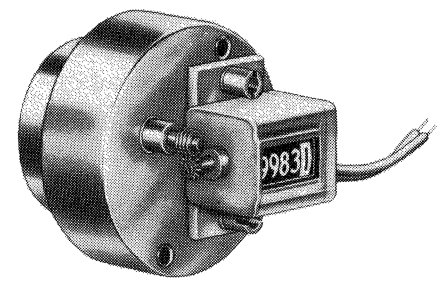
SERIES 40 MSU

Bristol elapsed time indicators, Model ET-1B. A Bristol motor to a common output shaft through three differentials, provide, through electrical switching, up to 40 speeds. 115 VAC —Price $110.00 each.

SERIES 41

Bristol elapsed itme indicators, Model ET-1B. A Bristol motor coupled to a counter records operating hours registered in hours and tenths of hours up to 9999.9. Two inches in diameter by 2½" in depth. 115 VAC—

ET-1A Registers Hours By Hours. 0 to 99999
ET-1C Registers Minutes. 0 to 99999
Price $14.00 Each
Price $29.00 Each (with Manual re-set)



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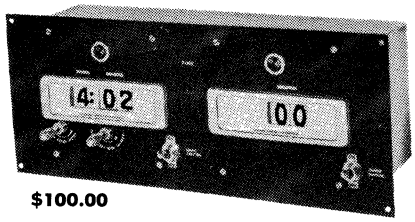
TYMETER GRADINETIC®

DIGITAL READ-OUT CLOCKS
ELAPSED TIME COMPUTERS
INTERVAL, COUNT DOWN, IMPULSE TIMERS

Featuring:
- ***FRONT PANEL MOUNT***
- ***DESK OR BENCH USE***
- ***DIGITS RESETTABLE INDIVIDUALLY***

CSA and UL approved motor & cord



$100.00

DIGITAL CLOCK SECOND BY SECOND

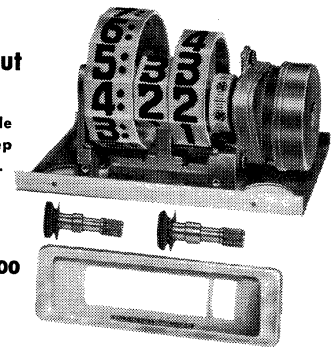
Time registered on 5 polygonal drums. One Hour drum, one 10-minute drum, one minute drum, two seconds drums. 4½"h, 12"w, 3¼"d. Wt. 6 lbs. Anodized metal dustproof case.

#110-12H ..... 12 Hour
#110-24H ..... 24 Hour

MOVEMENT

6-Digit Read Out

3" high
5½" wide
3½" deep
Wt. 2 lbs.

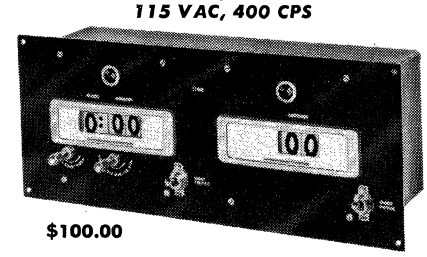


$16.00

Consists of Tymeter Digital Clock Movement, mounting bracket, window escutcheon assembly, 2 time reset assemblies

#130-12H ..... 12 Hour
#131-24H ..... 24 Hour

All Tymeters available in:
120 VAC, 50 or 60 CPS
240 VAC, 50 or 60 CPS
115 VAC, 400 CPS



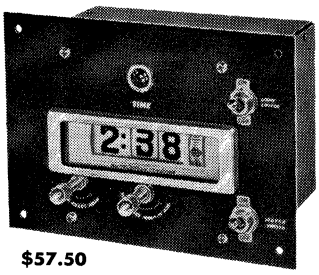
$100.00

ELAPSED TIME DIGITAL COMPUTER

Automatically calculates and registers elapsed time in hours, 10 minutes, minutes and seconds. Second by second. 4½"h, 12"w, 3½"d. Wt. 6 lbs.

Available In:

#115 — **30 Minute** — **12 Hour** — **60 Minute** — **24 Hour**



$57.50

DIGITAL CLOCK

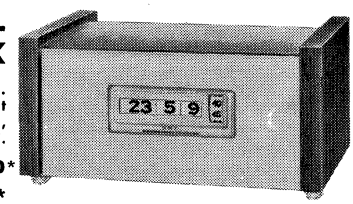
12 and 24 hour 6 digit read out . . . minutes, 10 minutes and hours. Rotating visual 1 RPM calibrated seconds drum. 4½"h, 6"w, 3¼"d. Wt. 3½ lbs. Anodized metal dustproof case.

#160-12H ..... 12 Hour
#161-24H ..... 24 Hour

24-HOUR DIGITAL READ OUT CLOCK

Calculates time automatically. Stainless steel case with walnut wood ends. 3⅞"h, 7¾"w, 3¾"d. Wt. 3 lbs. 110V 60 Cy. AC.

#920-24 Hour $24.50*
#920-12 Hour 19.95*

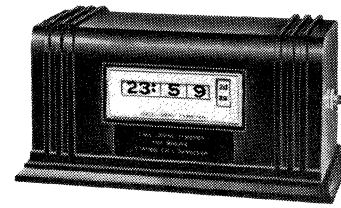


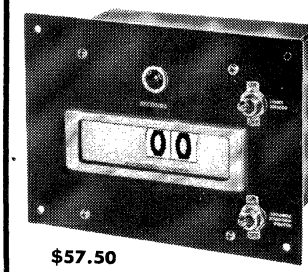
*Plus applicable taxes
PAT. No. 2587277 Other Pats. Pend.

CALL-IDENT
24-HOUR CLOCK with 10-MINUTE STATION CALL REMINDER

Walnut or ebony plastic case. 4"h, 7¾"w, 4"d. Wt. 3 lbs.

#124 ..... 22.50*



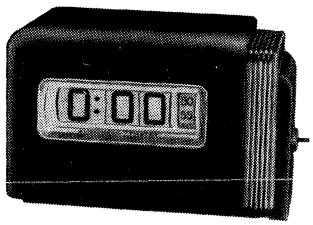


$57.50

ELAPSED TIME DIGITAL COMPUTER

Automatically calculates and registers elapsed time in seconds. Second by second 2 digit read out . . . 00-59. 4"h, 6"w, 3¼"d. Wt. 3½ lbs. Anodized metal dustproof case.

#10-60S . . . . . 60 Seconds

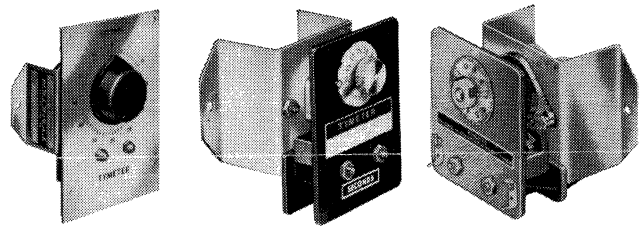


ELAPSED TIME DIGITAL COMPUTER

Automatically calculates and registers elapsed time . . . and repeats. Grey or ebony plastic case. Self starting electric. 3¾"h, 5⅝"w, 3¼"d. Wt. 3 lbs. 120V 60 cy. AC. Ranges available: 60 seconds, 10 minutes, 30 minutes, 60 minutes, 12 hour and 24 hour. UL approved motor and cord.

#80 ..... $17.50*

TIME DELAY, CYCLE, INTERVAL TIMERS

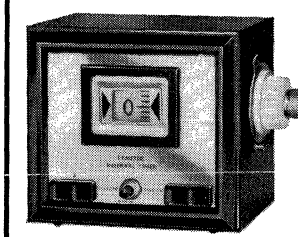


PN-11P Time Delay Timer** — **PN-11 Time Delay Timer** — **PN-21 Time Delay Timer**

	PN-11P	PN-11	PN-21
Delay Ranges	0-14 sec. 0-57 sec. 0-4.5 min.	0.14 sec. 0-57 sec. 0-4.5 min.	0-14 sec. 0-57 sec. 0-4.5 min. 0-9.5 min.

** Optional Private Label on small and large requirements

Complete Line of Timers in All Ranges & Voltages.
Catalog and Specifications on Request



DIRECT READ OUT INTERVAL TIMER

Adjustable reset stop to enable rapid repeat timing. Closes load circuit during OR after a preset interval. Buzzer sounds at end of interval. 120V 60 cy. AC. Ranges available: 60 seconds, 60 minutes, 6 hours, 12 hours, 24 hours and 60 hours. 5"h, 5½"w, 3½"d. Wt. 3½ lbs.

#90 ..... $22.50*

WRITE FOR CATALOG OF COMPLETE LINE SHOWING SPECIFICATIONS

TYMETER ELECTRONICS-PENNWOOD NUMECHRON CO.
PITTSBURGH 8, PENNA.

Net

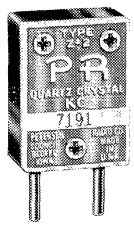
© U.C.P., Inc.

PR Crystals

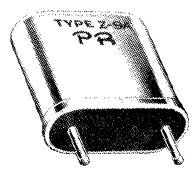
- AMATEUR • AIRCRAFT
- CITIZENS BAND • INDUSTRIAL
- RADIO CONTROL • DIATHERMY
- FREQUENCY STANDARD

PRICE LIST • Effective July 1, 1964 Subject to Change Without Notice • MINIMUM ORDER $10.00

FOR AMATEUR SERVICE



Z-2



Z-9A

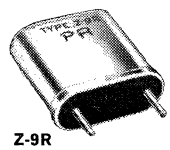
Z-2 and Z-9A Crystals are supplied ONLY in the following bands and calibrated INTEGRAL KILOCYCLES only, NO FRACTIONS. All Z-2 Crystals are calibrated with a load of 32 mmfd.

Type	Frequency Range	For	Price
Z-2 Fundamental	1750 to 2000 Kc. ±250 Cycles	160M.	$2.95
	3500 to 4000 Kc.	80M.	
	7000 to 7425 Kc.	40M.	
	8000 to 8222 Kc.	2M.	
	8334 to 9000 Kc. ±500 Cycles	6M.	

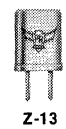
Type	Frequency Range	Price
Z-9A 3rd Overtone	24000 to 24666 Kc. / 25000 to 27000 Kc. ±3 Kc.	$3.95
	28000 to 29700 Kc. ±5 Kc.	
Z-9A 5th Overtone	50000 to 54000 Kc. ±15 Kc.	$4.95

CITIZENS BAND, TRANSMITTER

Supplied in all 23 assigned frequencies. **Be sure to specify channel desired, with name of manufacturer and model of equipment.** Calibrated .005%. Type Z-9R Crystals have .486" pin spacing; .050" pin diameter; .758" height, above pins; width .720" and depth .309". Z-13 Crystals have .192" pin spacing; .040" pin diameter; .530" height above pins; width .402" and thickness .150". Z-13P Crystals are same as Z-13 except for having .017" wire leads instead of pins.



Z-9R



Z-13

Type Z-9R—Transmitter $2.95
Type Z-13—Transmitter 2.95
Type Z-13P—Transmitter 2.95

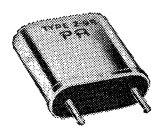
CITIZENS BAND, RECEIVER

Calibrated .005%. Specifications are same as for transmitter crystals, listed above. In ordering, be sure to specify channel desired, with manufacturer and model number of equipment.

Type Z-9R—Receiver $2.95
Type Z-13—Receiver 2.95
Type Z-13P—Receiver 2.95

Type Z-9R, RADIO CONTROL

Supplied in all FCC assigned frequencies. Calibrated .005%. In ordering, be sure to specify frequency desired, with manufacturer and model number of equipment.



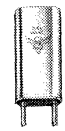
Type Z-9R—Radio Control $2.95

VHF Types, AIRCRAFT

For Lear, Narco and similar equipment operating in the 121 Mc. region, requiring crystals in 30 Mc. range. Z-9R Crystals have .486" pin spacing; .050" pin diameter; .758" height above pins; width .720" and depth .309". Z-13 Crystals have .192" pin spacing; .040" pin diameter; .530" height above pins; width .402" and thickness .150". Z-13P Crystals are same as Z-13, except for having .017 wire leads instead of pins.

Type Z-9R—Aircraft $4.95
Type Z-13—Aircraft 4.95
Type Z-13P —Aircraft 4.95

Type Z-6A, FREQUENCY STANDARD

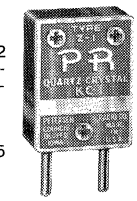


Correlated in oscillator having load capacity of 32 mmfd. .486" pin spacing; .050" pins.

Type Z-6A—100 Kc. $6.95

Type Z-1, MARS and CAP

Calibrated to .005% with 32 mmfd. crystal load capacity. Official assigned transmitter frequencies in the range.

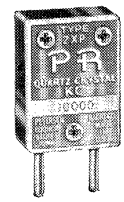


1600 to 10000 Kc. $3.45

Type Z-1, TV MARKER

Channels 2 through 13 ..... $6.45
4.5 Mc. Intercarrier, .01% 2.95
5.0 Mc. Signal Generator, .01% 2.95
10.7 Mc. FM, IF, .01% 2.95

Type 2XP, EXPERIMENTAL



Suitable for converters, experimental, etc. Same holder specifications as Type Z-2.

1600 to 12000 Kc. ± 5 Kc. (Fund.) $3.45

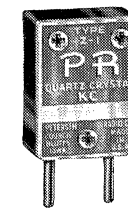
12001 to 25000 Kc. ±10 Kc. (3rd Overtone) 4.45

MILITARY EQUIVALENTS

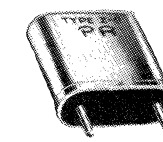
Table below shows PR Crystal types that are interchangeable with Military types.

Military Type	PR Equivalent
HC/6	Z-9, Z-9A, Z-9R
FT-243	Z-1, Z-2
CR-1, CR-1A, etc.	Z-1D
FT-241	Z-1R, Z-1
DC-20	Z-1, Z-1R
DC-30	Z-1D
CM-1	Z-1B, Z-22, Z-1A
DC-34, DC-35	Z-1A Banana Pins
FT-171	Z-1A Banana Pins
DC-11	Z-1A, Z-1B

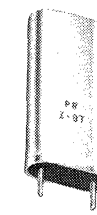
COMMERCIAL TYPES



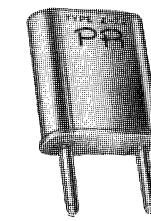
Z-1



Z-9, Z-9R



Z-9T



Z-22

SPECIFICATIONS

Type	Pin Spacing	Pin Diameter	Height Above Pins
Z-1	.486"	.093"	1¾₆"
Z-1A	¾"	.125"	1¾₆"
Z-1B	¼"	.125"	1¾₆"
Z-1D	½"	.125"	1¾₆"
Z-6A	.486"	.050"	1.526"
Z-9	.486"	.050"	.758"
Z-9R	.486"	.050"	.758"
Z-9T	.486"	.050"	1.526"
Z-13	.192"	.040"	.530"
Z-13P	.192"	.017 wire	.530"
Z-22	¾"	.125"	1¼"
Z-30	¾"	.125"	1¼"

Note: Z-1A can be supplied with Standard Banana Pins. Specify when ordering. Z-9, Z-9R, and Z-9T can be supplied with .093 Pins. All Fundamental Crystals are correlated in oscillator having load capacity of 32 mmfd. **unless otherwise specified.**

PRICES WITH .005% TOLERANCE

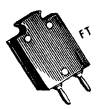
Type	Frequency Range	Each
Z-1—Fund.	900 to 1600 Kc.	$7.00
Z-1—Fund.	1601 to 12000 Kc.	6.50
Z-1—Overtone	12001 to 20000 Kc.	7.00
Z-1A—Fund.	900 to 1600 Kc.	7.00
Z-1A—Fund.	1601 to 2000 Kc.	6.50
Z-1B—Fund.	1000 to 12000 Kc.	6.50
Z-1D—Fund.	Same as Z-1	
Z-1R—Fund.	455 to 900 Kc.	7.50
Z-6A—Fund.	100 Kc. only	6.95
Z-9T—Fund.	101 to 174 Kc.	8.50
Z-9—Fund.	1601 to 2000 Kc.	9.00
Z-9—Fund.	2001 to 15000 Kc.	6.50
Z-9—Fund.	15001 to 18000 Kc.	7.50
Z-9R—3rd Overtone	15001 to 50000 Kc.	7.50
Z-9R—5th Overtone	50001 to 60000 Kc.	9.00
Z-22—Fund.	150 to 500 Kc.	9.50
Z-22—Fund.	1000 to 3000 Kc.	9.00
Z-22—Fund.	3001 to 12000 Kc.	8.50
Z-22—Fund.	12001 to 15000 Kc.	9.00
Z-9 —Marine	2000 to 3000 Kc.	6.00
Z-30—Marine	2000 to 3000 Kc.	6.00

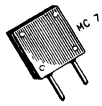
NOTE: When ordering Fundamental Crystals, specify Crystal Load Capacity. For tolerances of .01% and .02%, also for quantities of more than 10 of the same frequency, write for quotations.

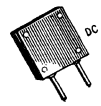
PETERSEN RADIO CO., INC. • COUNCIL BLUFFS, IOWA • MAKERS OF FINE CRYSTALS SINCE 1934

© U.C.P., Inc.

TEXAS CRYSTALS...*FOR EVERY PURPOSE*







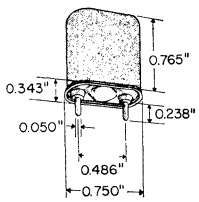
Made to order crystals in pressure type holders can be supplied in five types as shown. All TEXAS CRYSTALS are cut, lapped, and etched to exact frequencies. They are supplied for oscillator circuits having 32 MMFD capacity, unless otherwise ordered, as the crystal frequency will vary with capacity of the circuit.

CRYSTALS MADE TO ORDER

M	1,001 to	1,600 KC .005% TOL.	$4.50
	1,601 to	2,000 KC .005% TOL.	3.55
	2,001 to	2,500 KC .005% TOL.	2.75
	2,501 to	9,000 KC .005% TOL.	2.50
	9,001 to	11,000 KC .005% TOL.	3.00

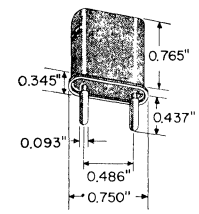
Low frequency crystals from 1001 KC to 2100 KC are space mounted —all others are pressure mounted. The advantage of the pressure mount crystal is its ability to handle more current (up to 50 Milliwatts) without fracture. Order by frequency, type holder, tolerance, and circuit capacity (if known) or type of equipment in which it is to be used.

HERMETICALLY SEALED CRYSTALS MADE TO ORDER



HC 6/U .050 PINS

In recent years, manufacturers have engineered new equipment utilizing the hermetically sealed plated crystal (HC6/U). This crystal is either gold or silver plated, the plating acting as electrodes. These crystals should be used in circuits designed for them as the maximum current capacity is 10 milliwatts (5 milliwatts for overtone type). High stability of frequency is a characteristic of this crystal. All TEXAS CRYSTALS are made to conform with military specifications. When ordering for G. E., Motorola, Link, etc., for split channel operation, a sample of both transmitting and receiving crystals known to be correct, be sent us with order specifying exact crystal frequency desired. We will correlate crystals and return your samples. Type HC6/U has .050 pins and fits CE-1 socket. Type HC17/U is the same physical size except the pins are .093 diameter. Specify type circuit, if known. Order by fundamental frequency, type circuit, type holder. All plated crystals are .005% tolerance.



HC 17/U .093 PINS

1,000 KC	to 1,600 KC	(Fundamental Frequency)	Prices on Request
1,601 KC	to 2,000 KC	(Fundamental Frequency)	$5.00 ea.
2,001 KC	to 2,500 KC	(Fundamental Frequency)	4.00 ea.
2,501 KC	to 5,000 KC	(Fundamental Frequency)	3.50 ea.
5,001 KC	to 7,000 KC	(Fundamental Frequency)	3.90 ea.
7,001 KC	to 10,000 KC	(Fundamental Frequency)	3.25 ea.
10,001 KC	to 15,000 KC	(Fundamental Frequency)	3.75 ea.
15 MC	to 20 MC	(Fundamental Frequency)	5.00 ea.

OVERTONE CRYSTALS

15 MC to 30 MC Third Overtone	$3.85 ea.
30 MC to 40 MC Third Overtone	4.10 ea.
45 MC to 65 MC Third or Fifth Overtone	4.50 ea.
65 MC to 100 MC Fifth Overtone	6.00 ea.

HC-6/U

$2.95 EACH

CLASS "D" CITIZEN BAND CRYSTALS

23 Frequencies—3rd Overtone—.005% TOL.

All "Citizen Band" crystals supplied in HC-6/U holders. Pin spacing .493—Pin dia. .050—Frequencies listed in megacycles. Use circuit recommended in our catalog. Order by frequency.

CE-1 ..... 20c
Ceramic Low Loss Socket for HC-6/U Holder — ½" Pin Spacing .050" Holes.

CHANNEL		CHANNEL		CHANNEL		CHANNEL		CHANNEL	
26.965	1	27.005	4	27.065	9	27.105	12	27.175	18
26.975	2	27.015	5	27.075	10	27.115	13	27.185	19
26.985	3	27.025	6	27.085	11	27.125	14	27.205	20
		27.035	7			27.135	15	27.215	21
		27.055	8			27.155	16	27.225	22
						27.165	17	27.255	23

Can be supplied with .093 pins—15c extra. Available in counter display unit

We supply crystals for every popular make of Citizen Band Transceivers

SUB MINATURE CRYSTALS TYPE HC18/U

Miniature type

Sub Miniature Crystals will operate in the same circuits as HC6/U and HC17/U Crystals. They were designed for use where space is a factor. Supplied in either Pin Type or Wire Leads (½" length for soldering directly into circuit).
Be sure to specify Pin Type or Wire Leads.

Fund Freq. Overtones

8MC to 12MC	$3.95
12MC to 17MC	4.50
20MC to 30MC	3.95
30MC to 40MC	4.25
40MC to 65MC	4.65

CR24/U (BARREL TYPE) CRYSTALS

CR24/U

Designed for the Armed Services the CR24/U is a Pressure Type "AT" Crystal which will accomodate more current than the plated crystal. From 15 to 25MC the crystal is a third overtone — From 25.001 to 60MC the crystal is a fifth overtone.

All Frequencies from 15MC to 50 MC $5.95

TEXAS AMATEUR CRYSTALS

All Texas amateur crystals are lapped and etched to frequency and supplied in FT 243 holders. They can be supplied in MC7, FT171 or DC34 holders for 25¢ extra per crystal ..... $1.50 each

AIRCRAFT CRYSTALS

All crystals are supplied at ¼ operating frequency unless otherwise specified. Tolerance .005%. Order by final frequency and type equipment. Be sure to designate 'HC6/U' holder, or 'miniature' type.

Frequencies in stock from 118 MC to 130 MC

Type HC6/U—all frequencies	$3.85 each
Miniature type—all frequencies	4.75 each

Note: Above crystals can be supplied with wire leads for soldering directly to equipment at 25c per crystal extra.

AIRPORT OWNERS AND SERVICE DEPARTMENTS WRITE FOR QUANTITY PRICES

MARINE CRYSTALS

Supplied in 4 types of holders—FT243, MC7, CR1/AR, HC6/U. .005% tolerance. Order by frequency for transmitter for transmitter types and actual crystal frequency for receiver (including 455 KC IF).

ANY MARINE FREQUENCY FROM 2000 KC to 3200 KC IN FT243, FT171, MC7 or CR1AR	$2.50
HERMETICALLY SEALED CRYSTALS FOR MARINE IN ANY FREQUENCY (Specify either .050 or .093 pins)	3.50

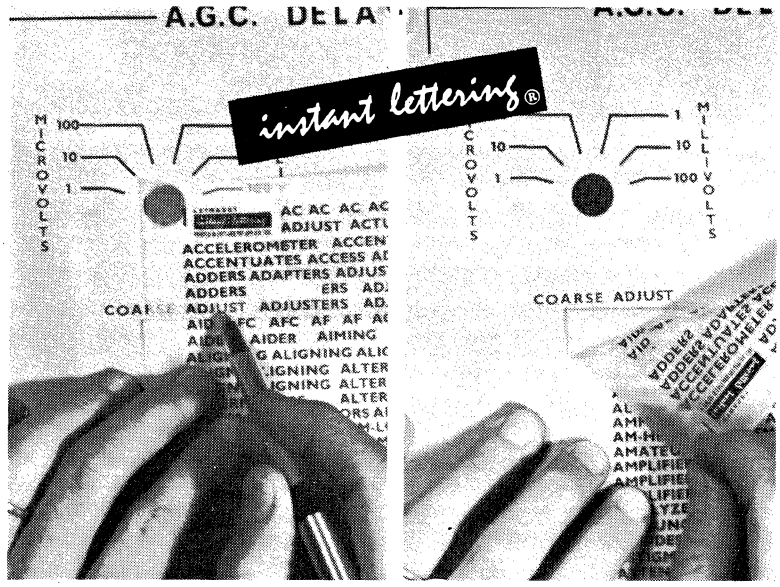
TEXAS LOW FREQUENCY CRYSTALS

Our own manufacture at military tolerances in HC6/U and HC13/U holders.

25 to 79KC	Prices on Request	371 to 540KC	$3.95
80 to 99KC	$6.50	541 to 729KC	4.50
100 to 199KC	4.50	730 to 1000KC	3.55
200 to 370KC	4.25		

TEXAS CRYSTALS DIVISION OF WHITEHALL ELECTRONICS **FORT MYERS, FLORIDA**

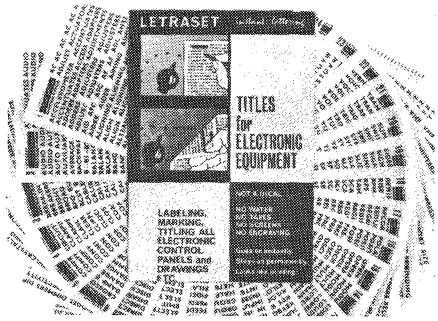
Net
© U.C.P., Inc.



A REVOLUTIONARY NEW METHOD FOR MARKING ELECTRONIC EQUIPMENT

"Instant Lettering" brings you the newest easiest way to get professional lettering instantly on all electronic equipment, drawings, schematics, etc. Self-adhesive letters printed on a special plastic sheet are just pressed down into position. Transfers instantly to practically any surface . . . looks like printing . . . makes prototypes look like finished production equipment!

instant lettering MARKING KITS



With these three kits you can completely mark electronic equipment from component parts to finished control panel — even especially calibrated two-color meter dials, tap switch markings, panel nomenclatures, pilot light jewels, sub-assemblies, circuit boards — at less cost and greater ease. Makes prototypes look like finished production equipment! Ideal for field changes.

■ TITLES FOR ELECTRONIC EQUIPMENT

AC CRYOSTAT OFF TRIPLEXOR VIDEO

This set contains 24 (3" x 5") sheets — thousands of preprinted titles — researched to give you up to 95% of all electronic panel marking. For labeling, marking, titling all electronic control panels, drawings, prototypes, etc.

No. 958 — BLACK.....$4.95 **No. 959 — WHITE.....$4.95**

■ TERMINAL & CHASSIS MARKING KIT

A B C CR TP 1 2 3 4 5 6 7 99 100 101 102

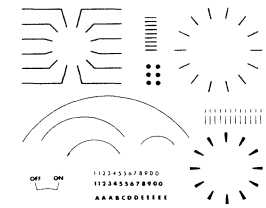
Contains 24 (3" x 5") sheets of all the necessary letters, letter combinations and numerals for marking chassis, printed circuit and terminal boards, rotating components, etc.

No. 966 — BLACK.....$4.95 **No. 967 — WHITE.....$4.95**

■ METER & DIAL MARKING KIT

This set has 12 (5"x7") sheets — in black, red and white — containing arcs, dial patterns, lines, dots, wedges, graduation lines, switch symbols, alphabets and numerals for marking standard and special rotary and tap switches, potentiometers, prototype and especially calibrated meter dials. Different colors on scales and switches simplify usage of complex instruments.

No. 968 — METER & DIAL MARKING KIT.....$4.95



(reduced)

instant lettering DATAKOAT

Clear Protective Coating

DATAKOAT protective coating is specially designed for "Instant Lettering." It is water-clear, dries quickly and protects "Instant Lettering" from abrasion and weathering.

DATAKOAT Protective Coating Kit contains a 1 ounce bottle of **DATAKOAT** with applicator brush in the cap and a 1 ounce bottle of Thinner.

No. 04176 ..... $1.00

DATAKOAT Spray Coating is the handy spray can form of **DATAKOAT.** 16 ounce spray can.

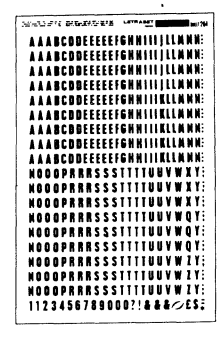
No. 04177 ..... $2.95

instant lettering STANDARD SHEETS

The amazing new "Instant Lettering" method of dry transfer lettering brings you unequalled quality and speed. By shading over the letter with a ballpoint pen anyone can produce reproduction quality lettering instantly!

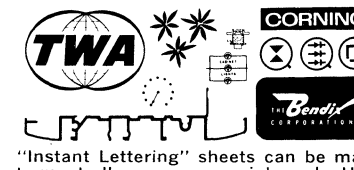
"Instant Lettering" transfers dry to practically any surface, smooth or textured, even wood and metals, glass, plastics and cloth.

Standard 10" x 15" sheets are available in complete alphabets and/or numerals in a wide variety of type faces and colors. Letter sizes range from 8 point to 3 inch display letters.



FREE SAMPLE AND COMPLETE TYPE CHART AVAILABLE

instant lettering MADE TO YOUR OWN SPECIFICATIONS



"Instant Lettering" sheets can be made to meet all your own special needs. Hundreds of companies all over the country have had their logo, drawings, symbols, etc. made in 'Instant Lettering.' They have found that "Instant Lettering" saves time and money. Hundreds of lettering and marking problems that were impossible or too expensive become possible and inexpensive with "Instant Lettering."

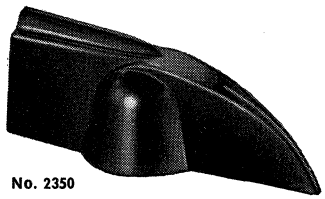
COMPLETE INFORMATION AVAILABLE UPON REQUEST.

THE DATAK CORPORATION • GUTTENBERG, NEW JERSEY

HARRY DAVIES MOLDING CO.

MOLDERS OF PLASTICS

POINTER AND BAR KNOBS



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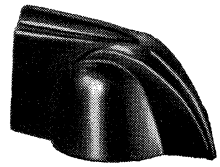

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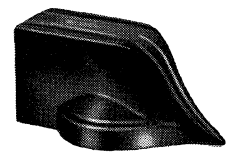

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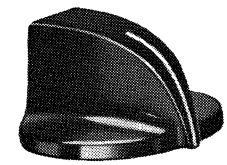

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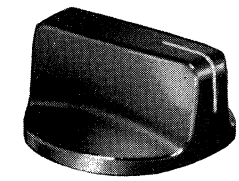
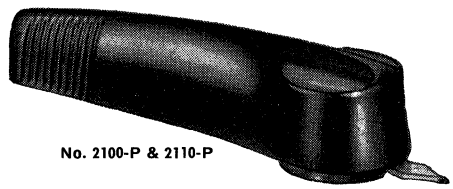
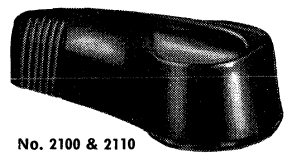


No. 1500, 1510 & 1520



No. 2100-P & 2110-P



No. 2100 & 2110

No. 2350
Length 2", hgt. 5/8", 1/4" molded hole or metal insert, set screw mounting, locknut recess.

No. 2300
Length 1 1/4", hgt. 5/8", 1/4" molded hole, also 1/4" metal insert, set screw or knurled hole mounting, locknut recess.

No. 2150
Length 1 1/4", hgt. 9/16", 1/4" molded hole, set screw mounting, locknut recess.

No. 1550
Dia. 1 1/8", hgt. 5/8", 1/4" molded hole or metal insert, set screw, spring or knurled hole mounting, locknut recess.

No. 1500
Dia. 1 1/8", hgt. 9/16", 1/4" molded hole. Set screw mounting. Locknut recess. Indicator line filled or unfilled.

No. 1510
Dia. 3/4", Hgt. 9/16", 1/8", 3/16" or 1/4" Molded Hole and Set Screw, 1/4" Knurled Hole Mounting.

No. 1520
Dia. 1 1/2", Hgt. 3/4", 1/4" Molded Hole or Brass Insert with Set Screw.

No. 2100-P
Length 2 1/2", hgt. 5/8", width 3/4", 1/4" metal insert and 5/16" pointer, set screw mounting.

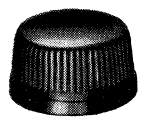
No. 2110-P
Length 1 5/8", hgt. 19/32", width 3/4", 1/4" metal insert and 5/16" pointer, set screw mounting.

No. 2100
Length 2 1/2", hgt. 5/8", width 3/4", 1/4" molded hole or metal insert, set screw mounting, locknut recess.

No. 2110
Length, 1 5/8", hgt. 19/32", width 3/4", 1/4" molded hole or metal insert, set screw or knurled hole mounting, locknut recess.

CONTROL KNOBS

No. 1400



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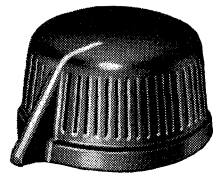

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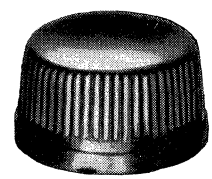

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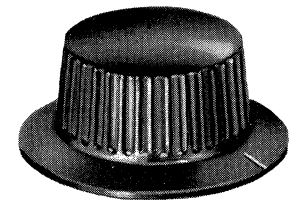

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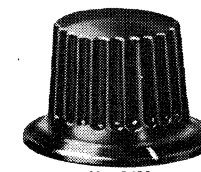

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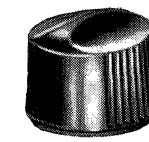


No. 1700

No. 2500 & 2600

No. 1400
Dia. 11/16", hgt. 13/32", 1/8" or 1/4" molded hole or brass insert, set screw, spring or knurled hole mounting.

No. 1450
Dia. 11/16", hgt. 13/32", 1/8" or 1/4" molded hole or brass insert, set screw, spring or knurled hole mounting.

No. 1470
Dia. 1", hgt. 1/2", 1/4" molded hole or brass insert, set screw, spring or knurled hole mounting, indicator line filled or unfilled, locknut recess.

No. 1475
Dia. 1", hgt. 1/2", 1/4" molded hole or brass insert, set screw, spring or knurled hole mounting, locknut recess.

No. 1600
Dia. 1 1/2", hgt. 11/16", 1/4" molded hole or metal insert, set screw mounting. locknut recess, indicator line filled or unfilled.

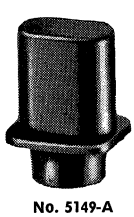
No. 1610
Dia. 15/16", hgt. 5/8", 1/8" or 1/4" molded hole or metal insert, set screw mounting, locknut recess, indicator line filled or unfilled.

No. 1700
Dia. 3/4", hgt. 19/32", 1/4" molded hole or brass insert, set screw, spring or knurled hole mounting.

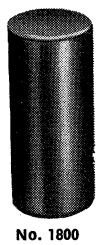
No. 2500
Dia. 3/4", hgt. 3/4", 1/4" molded hole, set screw, spring or knurled hole mounting.

No. 2600
Dia. 7/8", hgt. 7/8", 1/4" molded hole, set screw, spring or knurled hole mounting.

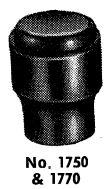
PUSH BUTTONS



No. 5149-A



No. 1800



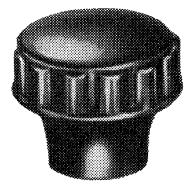
No. 1750 & 1770

No. 5149-A
Hgt. 51/64", oval touch tuning. Push-on to fit flatted shaft. .050" x .187".

No. 1800
Dia. 7/16", hgt. 1" to 1 3/8", touch tuning, plain or recessed top, push-on, to fit flatted shaft .050" x .187" patented friction fit. Also with studs of various lengths.

No. 1750
Dia. 31/64", hgt. 9/16" to 15/16", touch tuning, push on, to fit flatted shaft .050" x .187".

TERMINAL NUTS



No. 2960

No. 2710, 2720, & 2730

No. 1770
Dia. 31/64", hgt. 1/2" to 7/8", 6-32 or 8-32 female metal insert. 8-32 male stud.

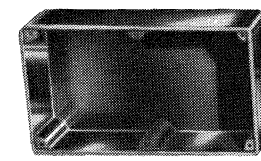
No. 2960
Dia. 7/8", hgt. 3/4", 8-32 or 10-32 female metal insert, 10-24 or 10-32 male stud.

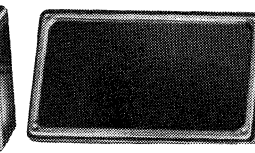
No. 2710
Dia. 3/4", hgt. 1/2", 8-32, 10-32, 10-24 metal insert.

No. 2720
Dia. 5/8", Hgt. 9/16", 10-24, 10-32 Female Metal Insert.

No. 2730
Dia. 13/16, Hgt. 33/64", 10-24, 10-32 Female Metal Insert, 10-32 Male Stud.

METER CASE AND COVERS





No. 240 Case
2" hgt. x 3 3/4" wide x 6 1/4" long. (Outside Dimensions) 1/8" (Wall Thickness).

No. 241
Mating cover with interlocking lip for No. 240 series cases.

No. 220 Case
1 9/16" hgt. x 2 7/8" x 4" long (outside dimensions) .109" (wall thickness).

No. 260 Case
2 5/16" hgt. x 5 9/32" w x 6 13/16" l. (Outside Dimensions)—5/32" (Wall Thickness).

No. 261
Mating cover with interlocking lip for No. 260 case.

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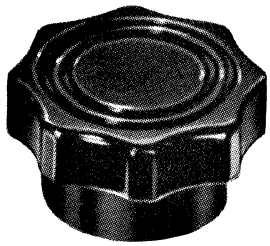
HARRY DAVIES MOLDING CO.

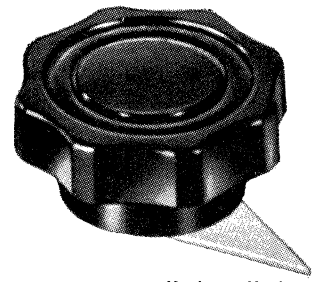
MOLDERS OF PLASTICS

INSTRUMENT KNOBS



Part No.	Knob Dia.	Knob Hgt.
4100	1⅛"	⅝"
4101	1⅜"	11/16"
4102	1⅝"	¾"
4103	2⅜"	⅞"

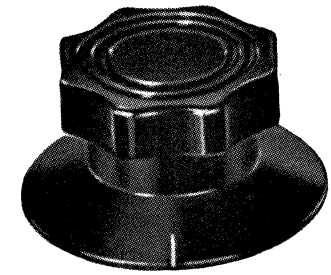
Entire series available with ¼" molded hole or metal insert. Set screw mounting.



Part No.	Knob Dia.	Knob Hgt.
4100 W/PTR	1⅛"	⅝"
4101 W/PTR	1⅜"	11/16"
4102 W/PTR	1⅝"	¾"
4103 W/PTR	2⅜"	⅞"

White vinylite pointer available. Pointer lengths ⅝", ¾", ⅞", 1 1/16", 1 5/16".

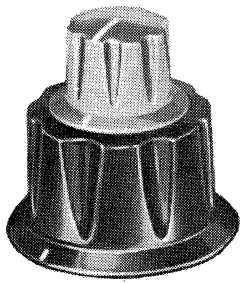
This series can be furnished in compliance with MS 91531.



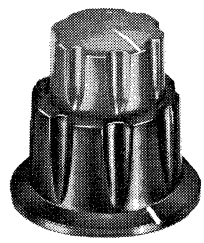
Part No.	Knob Dia.	Skirt Dia.
4104	1⅛"	1½"
4107	1⅜"	1¾"
4108	1⅝"	2 1/16"
4109	2⅜"	3"

Skirt available with or without indicator line filled. Branding stamps constructed to your specifications.

NEW FLUTED INSTRUMENT KNOBS



No. 1915 & 1935



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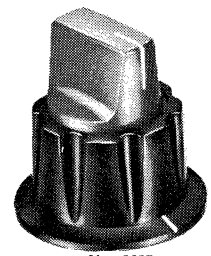

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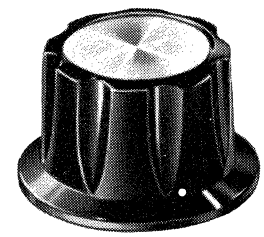
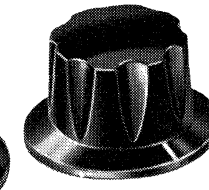


No. 1925-SS



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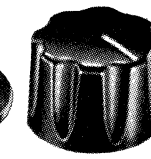

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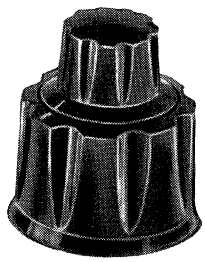

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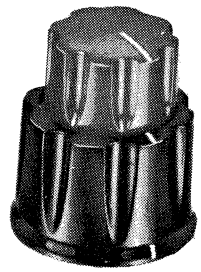

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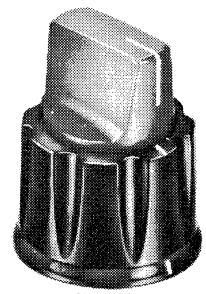

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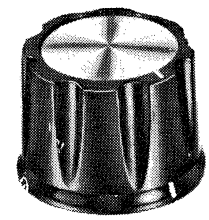

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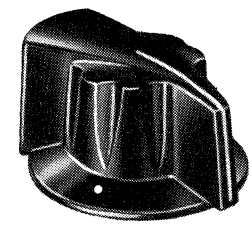

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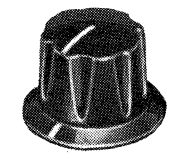

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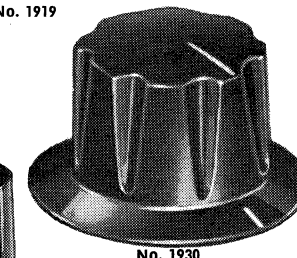

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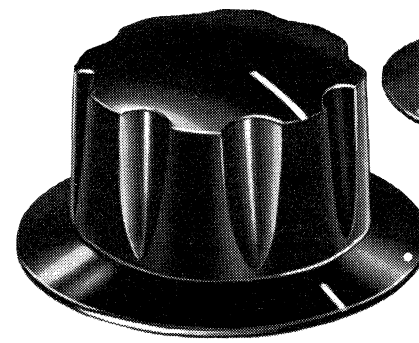

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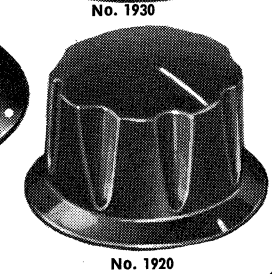

No. 1920

No. 1935
Dual control, dia. 1½", hgt. 1 5/16". See 1930 and 1910 for mountings.

No. 1915
Dual control, dia. 1¼", hgt. 1 3/16". See 1925 and 1910 for mountings.

No. 1905
Dual control, dia. 1 1/16", hgt. 1 3/16". See 1922 and 1910 for mountings.

No. 1916
Dual Control, Dia. 1¼", hgt. 1 13/64". See 1925 and 1914 for Mountings.

No. 1906
Dual Control, Dia. 1 1/16", hgt. 1 13/64". See 1922 and 1914 for Mountings.

No. 1917
Dual Control, Dia. 1¼", hgt. 1 5/16". See 1925 and 1510 for Mountings.

No. 1907
Dual Control, Dia. 1 1/16", hgt. 1 5/16". See 1922 and 1510 for Mountings.

No. 1913
Dia. 1⅛", hgt. ⅝". ¼" molded hole or brass insert. Set screw mounting ¼" CRL knurl.

No. 1919
Length 1¼", hgt. ⅝". ¼" molded hole or brass insert. Set screw mounting.

No. 1914
Dia. ¾", hgt. ½". ⅛", 3/16", ¼" molded hole or insert.

No. 1910
Dia. ¾", hgt. ½". ⅛", 3/16" or ¼", molded hole or brass insert, set screw, spring or knurled hole mounting.

No. 1930
Dia. 1½", hgt. ⅞". ¼" molded hole or brass insert, set screw.

No. 1940
Dia. 2", hgt. 1 5/16". ¼" molded hole or brass insert. Set screw mounting.

No. 1920
Dia. 1¼", hgt. ¾". ¼" molded hole or brass insert, set screw, spring or knurled hole mounting.

Please specify if paint filled indicator line is desired on top of knob and/or on skirt of knob.

Knobs shown are only part of our stock on hand. Our stock molds are interchangeable and meet most requirements with only minor tooling variations. Let us quote on your specifications.

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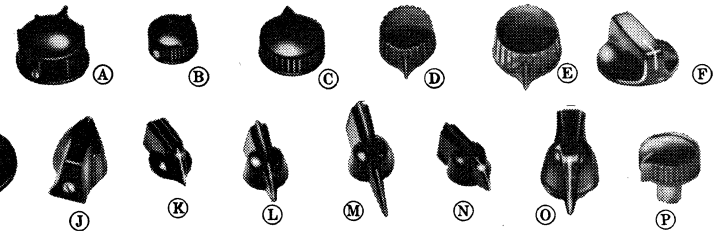
GC ELECTRONICS REPLACEMENT KNOBS



POINTER KNOBS

(A) TENITE POINTER KNOB—1" Diameter, 1/2" Height, Fits 1/4" shafts.

Knurl

Cat. No. 24-464	Walnut	Net $	.12
24-466	Ivory		.12

Set Screw

Cat. No. 24-468	Walnut	Net $	.20
24-470	Ivory		.20

(B) TENITE POINTER KNOB — 23/32" Diameter, 3/8" Height, Fits 1/4" shafts.

Knurl

Cat. No. 24-472	Walnut	Net $	.08
24-474	Ivory		.08

Set Screw

Cat. No. 24-476	Walnut	Net $	.17
24-478	Ivory		.17

(C) TENITE POINTER KNOB — 15/16" Diameter, 7/16" Height, Fits 1/4" shafts.

Knurl

Cat. No. 24-480	Walnut	Net $	.08
24-482	Ivory		.08

(D) BAKELITE POINTER KNOB — 1" Diameter, 1/2" Height, Fits 1/4" shafts.

No Insert—Set Screw

Cat. No. 24-484	Walnut	Net $	.17
24-486	Black		.17

With Insert—Set Screw

Cat. No. 24-488	Walnut	Net $	.33
24-490	Black		.33

(E) BAKELITE POINTER KNOB—1 1/4" Diameter, 5/8" Height, Fits 1/4" shafts.

No Insert—Set Screw

Cat. No. 24-492	Walnut	Net $	.37
24-494	Black		.37
24-496	Ivory		.37

Brass Insert—Set Screw

Cat. No. 24-498	Walnut	Net $	.37
24-500	Black		.37
24-502	Ivory		.37

(F) BAKELITE POINTER KNOB—Line filled, 1 1/8" Diameter, 9/16" Height, Fits 1/4" shafts.

Set Screw

Cat. No. 24-504	Walnut	Net $	.25
24-506	Black		.25
24-508	Red		.25
24-510	Ivory		.25

(G) BAKELITE POINTER KNOB—13/16" Length, 3/4" Height, Fits 1/4" shafts.

Set Screw

Cat. No. 24-512	Walnut	Net $	.18
24-514	Black		.18

(H) TENITE POINTER KNOB — 1 1/4" Diameter, 9/16" Height, Fits 1/4" shafts.

Set Screw

Cat. No. 24-516	Walnut	Net $	.27
24-518	Black		.27
24-522	White		.27

(J) BAKELITE POINTER KNOB—1 1/4" Length, 11/16" Height, Fits 1/4" shafts.

Set Screw

Cat. No. 24-524	Black	Net $	.25
24-526	Red		.25
24-528	Ivory		.25

(K) BAKELITE POINTER KNOB—1 1/4" Length, 9/16" Height, Fits 1/4" shafts.

Set Screw

Cat. No. 24-530	Black	Net $	.22
24-532	Walnut		.22
24-534	Red		.22
24-536	Ivory		.22

(L) BAKELITE POINTER KNOB—1 1/4" Length, 5/8" Height. Fits 1/4" shafts.

Set Screw

Cat. No. 24-538	Black	Net $	.20
24-540	Walnut		.20
24-542	Red		.20
24-544	Ivory		.20

(M) BAKELITE BRASS INSERT — 2" Length, 5/8" Height, Fits 1/4" shafts.

No Insert—Set Screw

Cat. No. 24-546	Black	Net $	.33
24-548	Walnut		.33
24-550	Red		.33
24-552	Ivory		.33

Brass Insert—Set Screw

Cat. No. 24-554	Black	Net $	.42
24-556	Walnut		.42
24-558	Red		.42
24-560	Ivory		.42

(N) BAKELITE BRASS INSERT—1 1/4" Length, 5/8" Height, Fits 1/4" shafts.

Set Screw

Cat. No. 24-562	Black	Net $	.27
24-564	Walnut		.27
24-566	Red		.27

(O) BAKELITE POINTER KNOB—1 1/4" Length, 5/8" Height, Fits 1/4" shafts.

No Insert—Set Screw

Cat. No. 24-570	Walnut	Net $	.18
24-572	Black		.18
24-574	Red		.18
24-576	Ivory		.18

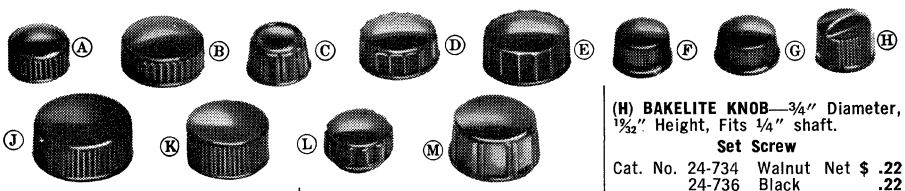
Brass Insert—Set Screw

Cat. No. 24-578	Walnut	Net $	.28
24-580	Black		.28
24-582	Red		.28

(P) PLASTIC POINTER KNOB — 15/16" Diameter, 1/2" shank extension for 1/4" knurled shaft.

Knurl

Cat. No. 24-586	Walnut	Net $	.12
24-588	Ivory		.12



(A) TENITE KNOB—23/32" Diameter, 13/32" Height, Fits 1/4" shaft.

Knurl

Cat. No. 24-666	Walnut	Net $	.12
24-668	Ivory		.12

Set Screw

Cat. No. 24-670	Walnut	Net $	.18
24-672	Ivory		.18

(B) TENITE KNOB—15/16" Diameter, 7/16" Height, Fits 1/4" shaft.

Knurl

Cat. No. 24-674	Walnut	Net $	.12
24-676	Ivory		.12

Spring Type

Cat. No. 24-678	Walnut	Net $	.12
24-680	Ivory		.12

(C) TENITE KNOB—3/4" Diameter, 1/2" Height, Fits 1/4" shaft.

Knurl

Cat. No. 24-682	Walnut	Net $	.12
24-684	Ivory		.12

Set Screw

Cat. No. 24-686	Walnut	Net $	.15
24-688	Ivory		.15

(D) TENITE KNOB—15/16" Diameter, 7/16" Height, Fits 1/4" shaft.

Knurl

Cat. No. 24-692	Ivory	Net $	.12

Spring Type

Cat. No. 24-694	Walnut	Net $	.12

(E) TENITE KNOB—1 1/8" Diameter, 9/16" Height, Fits 1/4" shafts.

Knurl

Cat. No. 24-700	Walnut	Net $	.12

Spring Type

Cat. No. 24-704	Walnut	Net $	.12
24-706	Ivory		.12

Set Screw

Cat. No. 24-708	Walnut	Net $	.18
24-710	Ivory		.18

(F) BAKELITE KNOB—11/16" Diameter, 13/32" Height, Fits 1/4" shafts.

Set Screw

Cat. No. 24-712	Walnut	Net $	.17
24-714	Black		.17
24-716	Red		.17
24-718	Ivory		.17

Set Screw with Arrow

Cat. No. 24-720	Walnut	Net $	.23
24-722	Black		.23
24-724	Red		.23
24-726	Ivory		.28

(G) BAKELITE KNOB—1" Diameter, 1/2" Height, Fits 1/4" shafts.

Set Screw

Cat. No. 24-728	Black	Net $	.25
24-730	Red		.25
24-732	Ivory		.25

(H) BAKELITE KNOB—3/4" Diameter, 19/32" Height, Fits 1/4" shaft.

Set Screw

Cat. No. 24-734	Walnut	Net $	.22
24-736	Black		.22
24-738	Ivory		.22

(J) TENITE KNOB—13/16" Diameter, 1/2" Height, Fits 1/4" shaft.

Knurl

Cat. No. 24-740	Walnut	Net $	.13
24-742	Ivory		.13

(K) TENITE KNOB—1 1/16" Diameter, 1/2" Height, Fits 1/4" shaft.

Knurl

Cat. No. 24-744	Walnut	Net $	.13
24-746	Ivory		.13

Set Screw with Arrow

Cat. No. 24-748	Walnut	Net $	.15
24-750	Ivory		.15

(L) BAKELITE KNOB—7/8" Diameter, 1/2" Height, Fits 1/4" shaft.

Set Screw

Cat. No. 24-752	Walnut	Net $	.23
24-754	Black		.23
24-756	Ivory		.25

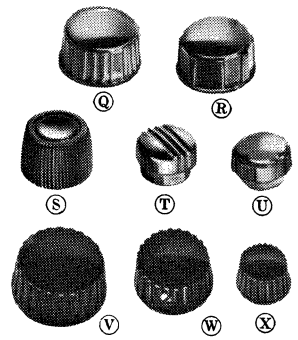
Set Screw with Arrow

Cat. No. 24-758	Walnut	Net $	.30
24-760	Black		.30
24-762	Ivory		.30

(M) BAKELITE KNOB—1" Diameter, 9/16" Height, Fits 1/4" shaft.

Set Screw

Cat. No. 24-764	Walnut	Net $	.28
24-766	Ivory		.28



(Q) BAKELITE KNOB—1 1/16" Diameter, 9/16" Height, Fits 1/4" shafts.

Set Screw

Cat. No. 24-772	Walnut	Net $	.30
24-774	Ivory		.30

(R) BAKELITE KNOB—1" Diameter, 9/16" Height, Fits 1/4" shaft.

Set Screw

Cat. No. 24-776	Walnut	Net $	.23
24-778	Ivory		.23

(S) TENITE KNOB — 1" Diameter, 11/16" Height, Fits 1/4" shaft.

Knurl

Cat. No. 24-780	Walnut	Net $	.13
24-782	Ivory		.13

Spring Type

Cat. No. 24-784	Walnut	Net $	.13
24-786	Ivory		.13

(T) BAKELITE KNOB—7/8" Diameter, 5/8" Height, Fits 1/4" shaft.

Set Screw

Cat. No. 24-788	Walnut	Net $	.30
24-790	Ivory		.30

(U) BAKELITE KNOB—7/8" Diameter, 5/8" Height, Fits 1/4" shaft.

Set Screw

Cat. No. 24-792	Walnut	Net $	.15

(V) BAKELITE KNOB—1 1/4" Diameter, 5/8" Height, Fits 1/4" shaft.

Set Screw—No Insert

Cat. No. 24-796	Walnut	Net $	.28
24-798	Black		.28

Brass Insert—Set Screw

Cat. No. 24-800	Walnut	Net $	.32
24-802	Black		.32

(W) BAKELITE KNOB—1" Diameter, 1/2" Height, Fits 1/4" shaft.

Set Screw—No Insert

Cat. No. 24-804	Black	Net $	.25
24-806	Red		.25

Brass Insert—Set Screw

Cat. No. 24-808	Black	Net $	.28

(X) BAKELITE KNOB—5/8" Diameter, 19/32" Height, Fits 1/4" shaft.

Set Screw—No Insert

Cat. No. 24-812	Walnut	Net $	.15
24-814	Black		.15
24-816	Red		.17
24-818	Ivory		.17

Set Screw—Brass Insert

Cat. No. 24-820	Walnut	Net $	.22
24-822	Black		.22
24-824	Red		.22
24-826	Ivory		.22

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GEE-LAR REPLACEMENT KNOBS

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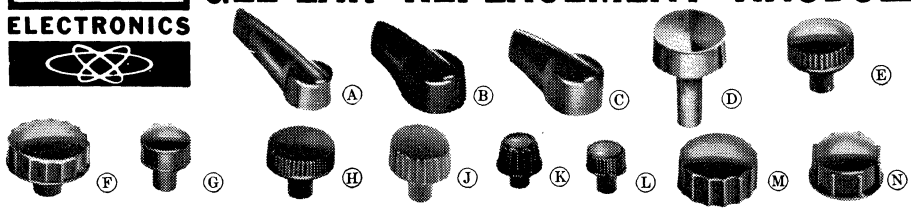


(A) BAKELITE KNOB—2½" Length, ⅝" Height, Fits ¼" shafts.

NO INSERT—SET SCREW

Cat. No. 24-590 Black Net $ .30
24-592 Walnut .30

BRASS INSERT—SET SCREW

Cat. No. 24-594 Black Net $ .37
24-596 Walnut .37

(B) BAKELITE KNOB—1⅝" Length, 19/32" Height, Fits ¼" shafts.

SET SCREW

Cat. No. 24-598 Black Net $ .25
24-600 Walnut .25

(C) BAKELITE BRASS INSERT—1⅝" Length, 19/32" Height, Fits ¼" shafts.

SET SCREW

Cat. No. 24-602 Black Net $ .37
24-604 Walnut .37

(D) TENITE KNOB—1 3/16" Shank, 1⅛" Diameter, 7/16" Height, Fits ¼" shafts.

KNURL

Cat. No. 24-606 Walnut Net $ .18
24-608 Ivory .18

(E) TENITE KNOB—15/64" Diameter, 7/16" Height, ½" Shank Extension, Fits ¼" shafts.

KNURL

Cat. No. 24-610 Walnut Net $ .13
24-612 Ivory .13

(F) TENITE KNOB—1¼" Diameter, 9/16" Height, ½" Shank Extension, Fits ¼" shafts.

KNURL

Cat. No. 24-614 Walnut Net $ .15
24-616 Ivory .15

(G) TENITE KNOB—¾" Diameter, 7/16" Height, ½" Shank Extension, Fits ¼" shafts.

Cat. No. 24-618 Walnut Net $ .12
24-620 Ivory .12

(H) TENITE KNOB—15/16" Diameter, ⅝" Height, ½" Shank Extension, Fits ¼" shafts.

Cat. No. 24-622 Walnut Net $ .13
24-624 Ivory .13

(J) PLASTIC KNOB—15/16" Diameter, ½" Shank Extension for ¼" Knurled Shaft.

KNURL

Cat. No. 24-626 Walnut Net $ .12
24-628 Ivory .12

(K) PLASTIC KNOB MIDGET TYPE—¾" Diameter, ⅜" Shank Extension, Fits ¼" shafts.

KNURL

Cat. No. 24-634 Walnut Net $ .12
24-636 Ivory .12

(L) PLASTIC KNOB MIDGET TYPE—23/32" Diameter, ½" Shank Extension, Fits ¼" shafts.

Cat. No. 24-640 Ivory Net $ .12

(M) TENITE KNOB—1⅛" Diameter, ½" Height, Fits ¼" shafts.

KNURL

Cat. No. 24-642 Walnut Net $ .12
24-644 Ivory .12

SPRING TYPE

Cat. No. 24-646 Walnut Net $ .18
24-648 Ivory .18

SET SCREW

Cat. No. 24-650 Walnut Net $ .18
24-652 Ivory .18

(N) TENITE KNOB—1" Diameter, 7/16" Height, Fits ¼" shafts.

KNURL

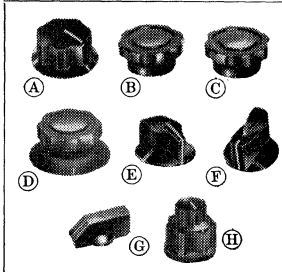
Cat. No. 24-654 Walnut Net $ .12
24-656 Ivory .12

SPRING TYPE

Cat. No. 24-658 Walnut Net $ .15

SET SCREW

Cat. No. 24-662 Walnut Net $ .18
24-664 Ivory .18



GEE-LAR KURZ-KASCH KNOBS

(A) POINTER KNOBS—Indicator line. ¾" Diameter, 7/16" Height.
Cat. No. 25-034 Net $ .48

1" Diameter, 19/32" Height.
Cat. No. 25-036 Net $ .55

1¼" Diameter, 21/32" Height.
Cat. No. 25-038 Net $ .55

1½" Diameter, ¾" Height.
Cat. No. 24-040 Net $ .55

2" Diameter, ⅞" Height.
Cat. No. 25-042 Net $1.03

No Indicator Line.
1½" Diameter, ¾" Height.
Cat. No. 25-044 Net $ .52

2" Diameter, ⅞" Height.
Cat. No. 25-046 Net $ .98

(B) POINTER KNOBS—1" Diameter ⅝" Height, ¾" Pointer.
Cat. No. 25-048 Net $ .70

1⅛" Diameter, ⅝" Height, ¾" Pointer.
Cat. No. 25-050 Net $ .70

1⅜" Diameter, 1 1/16" Height, 1 1/16" Pointer.
Cat. No. 25-052 Net $ .95

1⅝" Diameter, ¾" Height, 1 3/16" Pointer.
Cat. No. 25-054 Net $ .95

2⅜" Diameter, ⅞" Height, 1 9/16" Pointer.
Cat. No. 25-056 Net $1.28

(C) NO POINTER—1" Diameter, ⅝" Height.
Cat. No. 25-058 Net $ .60

1⅛" Diameter, ⅝" Height.
Cat. No. 25-060 Net $ .73

1⅜" Diameter, 1 1/16" Height.
Cat. No. 25-062 Net $ .97

1⅝" Diameter, ¾" Height.
Cat. No. 25-064 Net $ .80

2⅜" Diameter, ⅞" Height.
Cat. No. 25-066 Net $1.17

(D) SKIRT KNOBS—1⅛" Diameter, 13/16" Height, 1½" Skirt.
Cat. No. 25-068 Net $1.42

1⅜" Diameter, 27/32" Height, 1¾" Skirt.
Cat. No. 25-070 Net $1.37

1⅝" Diameter, ⅞" Height, 2 1/16" Skirt.
Cat. No. 25-072 Net $1.53

2⅜" Diameter, 1 5/16" Height, 3" Skirt.
Cat. No. 25-074 Net $2.33

(E) POINTER KNOB BRASS INSERT—1⅛" Diameter, ⅝" Height.
Cat. No. 25-076 Net $ .63

(F) POINTER KNOB NO BRASS INSERT—1⅛" Diameter, 1 1/16" Height, 1 Set Screw.
Cat. No. 25-078 Net $ .18

(G) BAR KNOB NO BRASS INSERT—1½" Length, ⅝" Height, 1 Set Screw.
Cat. No. 25-080 Net $ .33

(H) DUAL CONTROL—1" Diameter, 1 3/64" Height.
Cat. No. 25-086 Net $1.23

GEE-LAR KURZ-KASCH

(A) POINTER KNOB BRASS INSERT—1¼" Length, ⅝" Height, MIL Spec. AN3219-1.
Cat. No. 25-088 Black Net $ .32

(B) POINTER KNOB BRASS INSERT—1½" Length, ⅞" Height.
Cat. No. 25-092 Black Net $ .42

(C) BAR KNOB BRASS INSERT—1¼" Length, 21/32" Height, Black only.
Cat. No. 25-098 Black Net $ .83

(D) BAR KNOB BRASS INSERT—1¼" Length, 21/32" Height, Black only.
Cat. No. 25-100 Black Net $ .78

(E) BRASS INSERT NO ARROW—¾" Diameter, 9/16" Height, Black only.
Cat. No. 25-102 Black Net $ .45

(F) BRASS INSERT WITH ARROW—1⅛" Diameter, 9/16" Height.
Cat. No. 25-104 Net $ .42

1½" Diameter, ¾" Height, Black only.
Cat. No. 25-106 Black Net $ .47

(G) POINTER KNOB BRASS INSERT—1¼" Length, ⅝" Height.
Cat. No. 25-108 Black Net $ .43

(H) POINTER KNOB ⅛" BRASS INSERT—¾" Diameter, 7/16" Height.
Cat. No. 25-116 Black Net $ .50

(J) BAKELITE POINTER KNOB—1 1/16" Diameter, 13/32" Height, Fine serrations, Fits ¼" shaft.

SET SCREW

Cat. No. 24-430 Walnut Net $ .17
24-432 Black .17
24-434 Red .18
24-436 Ivory .18

(K) BAKELITE POINTER KNOB—1 1/16" Diameter, 13/32" Height, Fits ¼" shaft.

NO INSERT—SET SCREW

Cat. No. 24-440 Walnut Net $ .15
24-442 Black .15
24-444 Red .15
24-446 Ivory .15

WITH BRASS INSERT

Cat. No. 24-448 Walnut Net $ .23
24-450 Black .23
24-452 Red .23
24-454 Ivory .28

(L) POINTER BAR KNOB BRASS BUSHING—2¾" Length, Fits ¼" shaft, Metal pointer can be removed.
Cat. No. 24-456 Black Net $ .55
24-458 Walnut .58

(M) POINTER BAR KNOB BRASS BUSHING 1⅝" Length, Fits ¼" shaft, Metal pointer can be removed.

SET SCREW

Cat. No. 24-460 Black Net $ .55

(N) BAKELITE POINTER KNOB—1¾" Diameter, ⅞" Height, with molded white arrow, brass bushing, Black only.
Cat. No. 25-000 Set Screw Type Net $ .47

(O) BAKELITE WITH BRASS INSERT—1½" Diameter, ¾" Height, Indicator line, Black only.
Cat. No. 25-002 Set Screw Type Net $ .33

(P) BAKELITE SKIRT KNOBS—1½" Skirt Diameter, 1 1/16" Height.
Cat. No. 25-004 Set Screw Type Net $ .27

(Q) POINTER KNOBS—1⅛" Diameter, ⅝" Height, ¾" Pointer.
Cat. No. 25-006 Net $ .63

1⅜" Diameter, 1 1/16" Height, 1 1/16" Pointer.
Cat. No. 25-008 Net $ .65

1⅝" Diameter, ¾"Height, 1 3/16" Pointer.
Cat. No. 25-010 Net $ .72

2⅜" Diameter, ⅞" Height, 1 9/16" Pointer.

(R) SKIRT KNOBS—1⅛" Diameter, 13/16" Height, 1½" Skirt.
Cat. No. 25-014 Net $ .78

1⅛" Diameter, 13/16" Height, 1¾" Skirt.
Cat. No. 25-016 Net $ .78

1⅜" Diameter, ⅞" Height, 1½" Skirt.
Cat. No. 25-018 Net $ .80

1⅜" Diameter, ⅞" Height, 1¾" Skirt.
Cat. No. 25-020 Net $ .80

1⅝" Diameter, 29/32" Height, 2 1/16" Skirt.
Cat. No. 25.022 Net $ .95

2⅜" Diameter, 1 1/32" Height, 3" Skirt.
Cat. No. 25-024 Net $1.33

(S) BAKELITE KNOB—1⅛" Diameter, ⅝" Height.
Cat. No. 25-026 Net $ .40

1⅜" Diameter, 1 1/16" Height.
Cat. No. 25-028 Net $ .45

1⅝" Diameter, ¾" Height.
Cat. No. 25-030 Net $ .52

2⅜" Diameter, ⅞" Height.
Cat. No. 25-032 Net $ .72

GEE-LAR KURZ-KASCH PUSH BUTTON KNOBS

PUSH BUTTON KNOB—½" Diameter, 15/32" Height, ⅜" Hole Depth, Black only. Tapered sides.
Cat. No. 25-118 Black Net $ .13

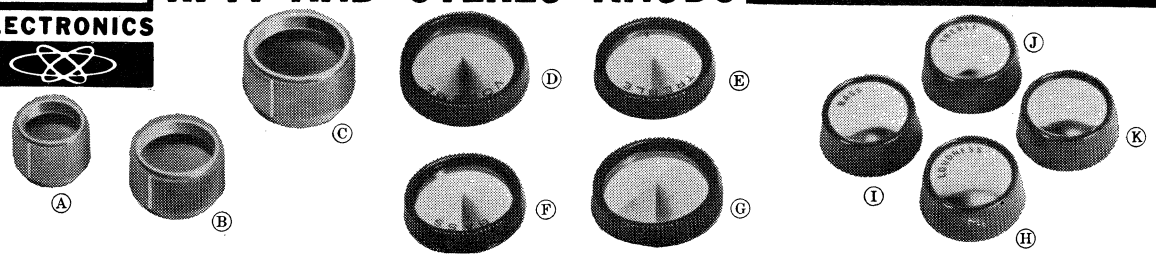
PUSH BUTTON RECESSED TOP—½" Diameter, 15/32" Height, ⅜" Hole Depth, Top recessed for selector tab, Black only.
Cat. No. 25-120 Black Net $ .13

PUSH BUTTON KNOB—7/16" Diameter 15/32" Height, ⅜" Hole Depth, Black only.
Cat. No. 25-122 Black Net $ .13

PUSH BUTTON KNOB—7/16" Diameter, ⅝" Height, ⅜" Hole Depth, Black only.
Cat. No. 25-124 Black Net $ .15

PUSH BUTTON RECESSED TOP—7/16" Diameter, ⅝" Height, ⅜" Hole Depth, Top recessed for selector tab, Black only.
Cat. No. 25-126 Black Net $ .15

GC ELECTRONICS HI-FI AND STEREO KNOBS



HI-FI STEREO KNOB SERIES—For Hi-Fi Stereo Cabinets and Custom Installations. Precision made of TENITE with sparkling brass top ring inserts and indicator lines. Set screw type.

Cat. No. 24-012 Set of 3, Black Net $ .97
24-014 Set of 3, Ivory Net $ .97

INDIVIDUAL KNOBS

"A" Small
1" Diameter 13/16" Height, Fits 1/4" shaft.
Cat. No. 24-000 Black Net $ .30
24-002 Ivory .30

"B" Medium
1 5/16" Diameter, 13/16" Height, Fits 1/4" shaft.
Cat. No. 24-004 Black Net $ .33
24-006 Ivory .33

"C" Large
1½" Diameter, 7/8" Height, Fits 1/4" shaft.
Cat. No. 24-008 Black Net $ .40
24-010 Ivory .40

AUDIO-PHILE KNOB SERIES—For Hi-Fi Custom Installations. TENITE with brass inserts. Indicated for Volume, Treble, Bass or Plain.
Cat. No. 24-024 Set of 4, Maroon Net $1.42

"D" Volume
1½" Diameter, 5/16" Height, Fits Knurl shaft.
Cat. No. 24-016 Maroon Net $ .40

"E" Treble
1½" Diameter, 5/16" Height, Fits Knurl shaft.
Cat. No. 24-018 Maroon Net $ .40

"F" Bass
1½" Diameter, 5/16" Height, Fits Knurl shaft.
Cat. No. 24-020 Maroon Net $ .40

"G" Plain
1½" Diameter, 5/16" Height, Fits Knurl shaft.
Cat. No. 24-022 Maroon Net $ .30

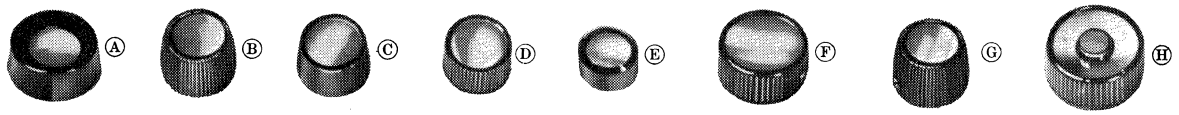
HIGH-FIDELITY KNOB SERIES TENITE—with handsome, individually marked brass inserts for Volume, Bass, Treble and Plain.
Cat. No. 24-034 Set of 4, Maroon Net $1.35

"H" Loudness
1⅛" Diameter, ½" Height, For .250 Diameter and .156 Flat Spring Type Shaft.
Cat. No. 24-026 Maroon Net $ .35

"I" Bass
1⅛" Diameter, ½" Height, For .250 Diameter and .156 Flat Spring Type Shaft.
Cat. No. 24-028 Maroon Net $ .35

"J" Treble
1⅛" Diameter, ½" Height, For .250 Diameter and .156 Flat Spring Type Shaft.
Cat. No. 24-030 Maroon Net $ .35

"K" Plain
1⅛" Diameter, ½" Height, For .250 Diameter and .156 Flat Spring Type Shaft.
Cat. No. 24-032 Maroon Net $ .33



(A) TENITE PLATED GOLD INLAY—1¼" Diameter, ½" Height, Fits ¼" shaft.

SPRING TYPE

Cat. No. 24-070 Walnut Net $ .33
24-072 Ivory .33

(B) TENITE PLATED GOLD INLAY—1" Diameter, 5/8" Height, Fits ¼" shaft.

KNURL TYPE

Cat. No. 24-074 Walnut Net $ .25
24-076 Ivory .25

(C) TENITE PLATED GOLD INLAY—1" Diameter, ½" Height, Fits ¼" shaft.

KNURL TYPE

Cat. No. 24-078 Walnut Net $ .23
24-080 Ivory .23

(D) TENITE PLATED GOLD INLAY—1" Diameter, 3/8" Height, Fits ¼" shaft.

KNURL TYPE

Cat. No. 24-082 Walnut Net $ .25
24-084 Ivory .25

SPRING TYPE

Cat. No. 24-086 Walnut Net $ .27
24-088 Ivory .27

SET SCREW

Cat. No. 24-090 Walnut Net $ .40
24-092 Ivory .40

(E) TENITE PLATED GOLD INLAY—¾" Diameter, 3/8" Height, Fits ¼" shaft.

KNURL TYPE

Cat. No. 24-094 Walnut Net $ .22
24-096 Ivory .22

SPRING TYPE

Cat. No. 24-098 Walnut Net $ .27
24-100 Ivory .27

(F) TENITE PLATED GOLD INLAY—1 3/16" Diameter, ½" Height, Fits ¼" shaft.

KNURL TYPE

Cat. No. 24-102 Walnut Net $ .27
24-104 Ivory .27

SET SCREW

Cat. No. 24-106 Walnut Net $ .42
24-108 Ivory Net $ .42

(G) TENITE PLATED GOLD INLAY—1" Diameter, 11/16" Height, Fits ¼" shaft.

SET SCREW

Cat. No. 24-110 Walnut Net $ .37
24-112 Ivory .37

(H) TENITE PLATED GOLD INLAY—1 3/16" Diameter, ½" Height, Fits ¼" shaft.

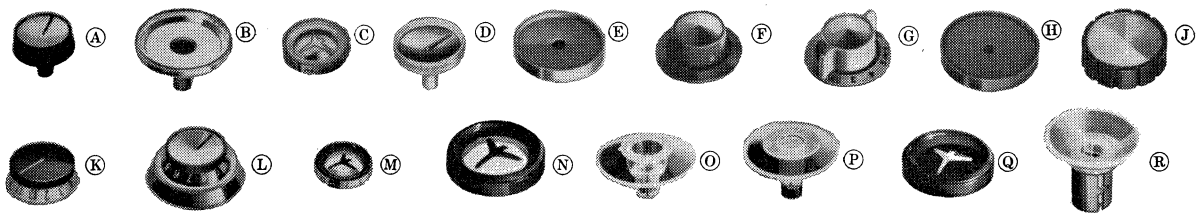
KNURL TYPE

Cat. No. 24-114 Walnut Net $ .28
24-116 Ivory .28

SET SCREW

Cat. No. 24-118 Walnut Net $ .35

GENERAL ELECTRIC KNOB REPLACEMENTS



(A) CHANNEL SELECTOR KNOB — Original Mfg.'s Part No. G 1001, Color Black & Gold.
Cat. No. 27-064 Channel Knob Net $ .92

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. G 1002, Color Black & Silver.
Cat. No. 27-066 Channel Knob Net $ .92

(B) FINE TUNING KNOB—Original Mfg.'s Part No. G 1003, Color Silver.
Cat. No. 27-068 Fine Tuning Net $ .92

(C) CHANNEL SELECTOR KNOB — Original Mfg.'s Part No. GWT43x246, Color Green & Gold.
Cat. No. 27-070 Channel Knob Net $1.25

(D) CHANNEL SELECTOR KNOB — Original Mfg.'s Part No. GWT43x269, Color Clear & Gold.
Cat. No. 27-072 Channel Knob Net $2.10

(E) FINE TUNING KNOB—Original Mfg.'s Part No. WT43x40 (RDK222), Color Fawn.
Cat. No. 27-074 Fine Tuning Net $ .57

(F) OFF-ON VOLUME KNOB—Original Mfg.'s Part No. WT43x41 (RDK223), Color Fawn.
Cat. No. 27-076 Off-On Volume Net $ .75

(G) CHANNEL SELECTOR KNOB — Original Mfg.'s Part No. WT43x42 (RDK224), Color Fawn.
Cat. No. 27-078 Channel Knob Net $ .87

(H) PICTURE VOLUME KNOB —Original Mfg.'s Part No. WT43x43 (RDK225), Color Fawn.
Cat. No. 27-080 Picture Volume Net $ .57

(J) OFF-ON VOLUME KNOB—Original Mfg.'s Part No. WT43x53 (RDK263), Color Brown & Fawn.
Cat. No. 27-082 Off-On Volume Net $1.00

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. WT43x54 (RDK264), Color Brown & Fawn.
Cat. No. 27-084 Channel Knob Net $1.50

(K) CHANNEL SELECTOR KNOB — Original Mfg.'s Part No. WT43x76 (RDK331), Color Brown & Gold.
Cat. No. 27-086 Channel Knob Net $1.92

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. WT43x152 (RDK455), Color Brown.
Cat. No. 27-090 Channel Knob Net $2.85

(L) CHANNEL SELECTOR KNOB — Original Mfg.'s Part No. WT43x139 (RDK434), Color Brown & Gold.
Cat. No. 27-092 Channel Knob Net $2.10

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. WT43x141 (RDK438), Color Fawn & Gold.
Cat. No. 27-094 Channel Knob Net $2.28

(M) CHANNEL SELECTOR KNOB — Original Mfg.'s Part No. WT43x159 (RDK469), Color Brown.
Cat. No. 27-096 Channel Knob Net $1.77

(N) ON-OFF VOLUME OR BRIGHTNESS—Original Mfg.'s Part No. WT43x158 (RDK467), Color Mahogany & Gold.
Cat. No. 27-462 On-Off Volume Net $1.27

ON-OFF VOLUME OR BRIGHTNESS—Original Mfg.'s Part No. WT-43x163 (RDK473), Color Brown.
Cat. No. 27-464 On-Off Volume Net $1.00

CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x164 (RDK474), Color Mahogany.
Cat. No. 27-466 Channel Knob Net $1.50

ON-OFF VOLUME KNOB—Original Mfg.'s Part No. WT43x165 (RDK475), Color Mahogany & Gold.
Cat. No. 27-468 On-Off Volume Net $1.27

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x169 (RDK479), Color Mahogany & Gold.
Cat. No. 27-470 UHF Channel Net $1.77

(O) PICTURE TUNING KNOB — Original Mfg.'s Part No. WT43x171 (RDK490), Color Clear.
Cat. No. 27-472 Picture Knob Net $ .90

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x176 (RDK521), Color Mahogany & Gold.
Cat. No. 27-474 UHF Channel Net $1.77

Continued next page

Net

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GC ELECTRONICS REPLACEMENT KNOBS

GENERAL ELECTRIC KNOB REPLACEMENTS . . . See previous page for illustrations

CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x179 (RDK524), Color Mahogany.
Cat. No. 27-476 Channel Knob
Net **$1.50**

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x182 (RDK527), Color Gold.
Cat. No. 27-478 UHF Channel
Net **$1.77**

(P) CONTRAST TUNING KNOB—Original Mfg.'s Part No. WT43x184 (RDK530), Color Clear.
Cat. No. 27-480 Contrast Tuning
Net **$ .90**

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x187 (RDK540), Color Navy Blue.
Cat. No. 27-482 UHF Channel
Net **$1.17**

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x192 (RDK550), Color Bronze & Gold.
Cat. No. 27-484 UHF Channel
Net **$1.77**

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x194 (RDK552), Color Peacock Blue & Gold.
Cat. No. 27-486 UHF Channel
Net **$1.77**

(Q) BRIGHTNESS KNOB — Original Mfg.'s Part No. WT43x209 (RDK569), Color Navy Blue.
Cat. No. 27-488 Brightness Knob
Net **$1.00**

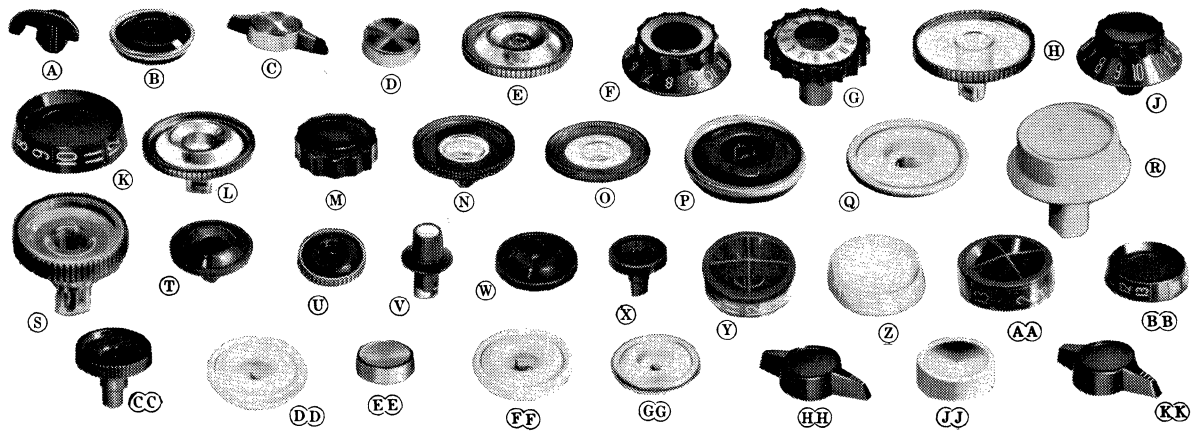
UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x207 (RDK568), Color Cream & Gold.
Cat. No. 27-490 UHF Channel
Net **$1.77**

VHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x217 (RDK587), Color Cream & Gold.
Cat. No. 27-492 VHF Channel
Net **$1.77**

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x219 (RDK599), Color Green & Gold.
Cat. No. 27-494 UHF Channel
Net **$1.77**

(R) BRIGHTNESS KNOB — Original Mfg.'s Part No. WT43x226 (RDK609), Color Clear.
Cat. No. 27-496 Brightness Knob
Net **$ .42**

RCA EXACT TV REPLACEMENT KNOBS



(A) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 76770, Color Dark Maroon & Gold.
Cat. No. 27-200 Channel Knob
Net **$ .76**

(B) FINE TUNING KNOB — Original Mfg.'s Part No. 77707, Color Brown with Polished Brass Shell.
Cat. No. 27-202 Fine Tuning
Net **$1.57**

(C) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 77708, Color Red with Polished Brass Shell.
Cat. No. 27-204 Channel Knob
Net **$1.50**

(D) ON-OFF VOLUME KNOB—Original Mfg.'s Part No. 77710, Color Black with Polished Brass Shell.
Cat. No. 27-206 On-Off Volume
Net **$1.57**

(E) FINE TUNING KNOB — Original Mfg.'s Part No. 79464, Color Gold & Maroon.
Cat. No. 27-208 Fine Tuning
Net **$1.26**

(F) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 79466, Colors Amber, Gray, Maroon & Gold.
Cat. No. 27-210 Channel Knob
Net **$1.77**

(G) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 100627, Color Maroon & Polished Brass.
Cat. No. 27-212 Channel Knob
Net **$2.70**

(H) FINE TUNING KNOB — Original Mfg.'s Part No. 100629, Color Clear with Gold Edge.
Cat. No. 27-214 Fine Tuning
Net **$1.27**

(J) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 100637, Color Brown.
Cat. No. 27-216 Channel Knob
Net **$1.77**

(K) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 100944, Color Dark Wine.
Cat. No. 27-218 Channel Knob
Net **$1.35**

(L) FINE TUNING KNOB — Original Mfg.'s Part No. 101015, Color Gold & Maroon.
Cat. No. 27-220 Fine Tuning
Net **$1.26**

(M) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 101150, Color Dark Wine.
Cat. No. 27-222 Channel Knob
Net **$ .90**

(N) FINE TUNING KNOB — Original Mfg.'s Part No. 101154, Color Gold & Maroon.
Cat. No. 27-224 Fine Tuning
Net **$1.00**

(O) FINE TUNING KNOB — Original Mfg.'s Part No. 101276, Color Gold & Maroon.
Cat. No. 27-226 Fine Tuning
Net **$1.26**

(P) BRIGHTNESS KNOB — Original Mfg.'s Part No. 77709, Color Brown & Gold.
Cat. No. 27-700 Brightness
Net **$1.35**

(Q) FINE TUNING KNOB — Original Mfg.'s Part No. 77717, Color Beige & Gold.
Cat. No. 27-702 Fine Tuning
Net **$1.35**

BRIGHTNESS KNOB — Original Mfg's. Part No. 77718, Color Beige & Gold.
Cat. No. 27-704 Brightness
Net **$1.35**

(R) ON-OFF VOLUME KNOB—Original Mfg.'s Part No. 100621, Color Gray.
Cat. No. 27-706 On-Off Volume
Net **$ .67**

ON-OFF VOLUME KNOB—Original Mfg.'s Part No. 101138, Color Brown.
Cat. No. 27-708 On-Off Volume
Net **$ .67**

(S) BRIGHTNESS KNOB — Original Mfg.'s Part No. 101124, Color Clear & Gold.
Cat. No. 27-710 Brightness
Net **$1.17**

(T) FINE TUNING KNOB — Original Mfg.'s Part No. 100639, Color Brown.
Cat. No. 27-712 Fine Tuning
Net **$1.28**

(U) CONTRAST-BRIGHTNESS—Original Mfg.'s Part No. 79470, Color Mahogany.
Cat. No. 27-714 Contrast-Bright-
Net **$1.50**

(V) HORIZONTAL CONTROL KNOB—Original Mfg.'s Part No. 101010, Color Maroon.
Cat. No. 27-716 Horizontal
Net **$ .82**

(W) FINE TUNING KNOB — Original Mfg.'s Part No. 79864, Color Brown.
Cat. No. 27-718 Fine Tuning
Net **$1.26**

(X) CONTRAST KNOB—Original Mfg.'s Part No. 100622, Color Mahogany.
Cat. No. 27-720 Contrast
Net **$ .82**

CONTRAST KNOB — Original Mfg.'s Part No. 100623, Color Gray.
Cat. No. 27-722 Contrast
Net **$ .82**

(Y) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 104304, Color Mahogany.
Cat. No. 27-724 Channel Knob
Net **$1.35**

(Z) UHF CHANNEL SELECTOR — Original Mfg.'s Part No. 104305, Color Mahogany.
Cat. No. 27-726 Channel Knob
Net **$1.35**

UHF CHANNEL SELECTOR — Original Mfg.'s Part No. 104306, Color Gray.
Cat. No. 27-728 Channel Knob
Net **$1.35**

(AA) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 102503, Color Gray.
Cat. No. 27-730 Channel Knob
Net **$3.00**

CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 102502, Color Mahogany.
Cat. No. 27-732 Channel Knob
Net **$3.00**

(BB) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 104303, Color Gray.
Cat. No. 27-734 Channel Knob
Net **$1.35**

(CC) CONTRAST KNOB — Original Mfg.'s Part No. 104386, Color Maroon.
Cat. No. 27-736 Contrast Knob
Net **$ .82**

(DD) BRIGHTNESS KNOB — Original Mfg.'s Part No. 79080, Color Beige.
Cat. No. 27-738 Brightness Knob
Net **$1.35**

(EE) ON-OFF VOLUME KNOB—Original Mfg.'s Part No. 77710M, Color Mahogany & Gold.
Cat. No. 27-740 On-Off Volume
Net **$1.35**

VOLUME KNOB—Original Mfg.'s Part No. 79445, Color Beige & Gold.
Cat. No. 27-742 Volume Knob
Net **$1.35**

VOLUME KNOB — Original Mfg.'s Part No. 79471, Color Mahogany & Gold.
Cat. No. 27-744 Volume Knob
Net **$1.35**

(FF) FINE TUNING KNOB — Original Mfg.'s Part No. 79077, Color Beige.
Cat. No. 27-746 Fine Tuning
Net **$1.35**

(GG) BRIGHTNESS KNOB — Original Mfg.'s Part No. 77718M, Color Mahogany & Gold.
Cat. No. 27-748 Brightness Knob
Net **$1.35**

FINE TUNING KNOB — Original Mfg.'s Part No. 77717M, Color Mahogany & Gold.
Cat. No. 27-750 Fine Tuning
Net **$1.35**

(HH) CHANNEL SELECTOR KNOB — Original Mfg.'s Part No. 79222BL, Color Black.
Cat. No. 27-752 Channel Knob
Net **$1.17**

CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 79222, Color Mahogany.
Cat. No. 27-754 Channel Knob
Net **$1.17**

(JJ) ON-OFF VOLUME KNOB—Original Mfg.'s Part No. 77710B, Color Beige & Gold.
Cat. No. 27-756 On-Off Volume
Net **$1.35**

(KK) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 77708B, Color Beige & Gold.
Cat. No. 27-758 Channel Knob
Net **$1.35**

CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 77708M, Color Brown & Gold.
Cat. No. 27-760 Channel Knob
Net **$1.35**

ALSO AVAILABLE

Replacement Knobs for

Admiral
Crosley
Emerson
Hotpoint
Motorola
Muntz
Olympic
Philco
Westinghouse
Zenith

WRITE FOR LATEST LISTING

GC ELECTRONICS ELECTRONIC COMPONENTS

GC TV-RADIO DIAL CABLES

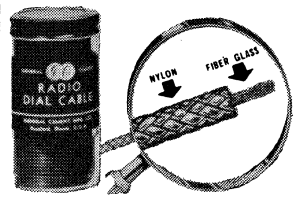
Nylon cord with a fibreglass core. All especially treated to prevent stretching and slipping. G-C Cords No. 75, 75-A and 74 will handle 90% of replacements. 25-Ft., 50-Ft., 100-Ft. Spools are supplied in permanent, clear plastic containers.

G-C No. 75 STANDARD THIN NYLON CORD .028" Diameter — Used on 95% of the latest sets manufactured. Made of finest braided Nylon over a Fiberglas Core. It is prestretched and chemically treated.

Cat. No. 75-25 25 ft. spool Net $ .75
75-50 50 ft. spool 1.43
75-100 100 ft. spool 2.37
75-1000 1000 ft. spool 15.57

G-C No. 75-A EXTRA THIN NYLON CORD .025" Diameter—Used on Motorola, RCA, GE, Sentinel, Stromberg Carlson and others. Extra thin, made of finest braided Nylon, chemically treated.

Cat. No. 75A-25 25 ft. spool Net $ .75
75A-50 50 ft. spool 1.43



75A-100 100 ft. spool 2.37
75A-1000 100 ft. spool 14.25

G-C No. 74 MEDIUM NYLON CORD .040" Diameter—Used on models of RCA, Philco, Majestic, Wells Gardner, etc. Made of finest braided Nylon over a Spun Fiberglas Core.

Cat. No. 74-25 25 ft. spool Net $ .75
74-50 50 ft. spool 1.43
74-100 100 ft. spool 2.37
74-1000 1000 ft. spool 19.77

G-C No. 70 BRAIDED BRONZE CABLE .035" Diameter—Braided phosphor bronze cable made over a Fiberglas core for greater strength and flexibility. Will not unravel.

Cat. No. 70-25 25 ft. spool Net $ .97
70-50 50 ft. spool 1.63
70-100 100 ft. spool 2.70
70-1000 1000 ft. spool 22.20

G-C No. 71 42-STRAND BRONZE CABLE .040" Diameter — 42-strand twisted phosphor bronze cable used on Majestic, Bosch, Philco, etc. 42 fine strands braided over a cotton core.

Cat. No. 71-25 25 ft. spool Net $1.23
71-50 50 ft. spool 1.88
71-100 100 ft. spool 3.52
71-1000 1000 ft. spool 25.80

G-C No. 73 HEAVY NYLON CORD .062" Diameter—This is a heavier cord such as used on models of Philco, Silver Marshall, Majestic, Brunswick, etc.

Cat. No. 73-25 25 ft. spool Net $1.02
73-50 50 ft. spool 1.73
73-100 100 ft. spool 2.97
73-1000 1000 ft. spool 24.90

G-C No. 76 SPECIAL THIN BRONZE CABLE .023" Diameter—Extra thin braided bronze cable such as is used on GE and RCA sets. Also used for speaker cones, pigtails, etc.

Cat. No. 76-25 25 ft. spool Net $ .97
76-50 50 ft. spool 1.43
76-100 100 ft. spool 2.70
76-1000 1000 ft. spool 20.47

G-C COLOR TV NO-STRETCH DIAL CORD

EXTRA FINE .025" Diameter—Supplied on metal spools.

Cat. No. 87-25 25 ft. spool Net $ .90
87-100 100 ft. spool 2.70

STANDARD .028" Diameter — Supplied on metal spools.

Cat. No. 88-25 25 ft. spool Net $ .90
88-100 100 ft. spool 2.70

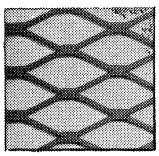
MEDIUM .040" Diameter—Supplied on metal spools.

Cat. No. 89-25 25 ft. spool Net $ .90
89-100 100 ft. spool 2.70

(A) G-C DIAL CABLE TOOL—A handy tool to aid in replacing worn out cables or cables slipped off of drums, to replace dial cord springs also.
Cat. No. 5096 Net $ .60

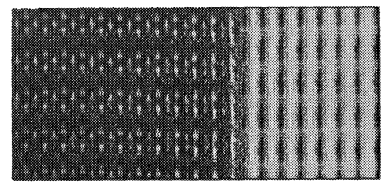
(B) G-C DIAL CORD NON-SLIP DRESSING STICK—Simply rub the stick on cord and job is done. Prevents and stops slipping.
Ⓑ Cat. No. 1212 Net $ .25

G-C SWED. STEEL SPEAKER SHIMS—Four sizes are furnished in a handy gold-lettered partitioned snap case. .004, .006, .008 and .010 in. Instructions included with kit.
Cat. No. 701 Net $ .53



G-C ORNAMENTAL METAL GRILLE SCREEN — Made of heavy metal, finished in beautiful "Brushed Brass-Rich Gold Color" and lacquered for durability.

Cat. No. 9252 12"x18" Net $2.10
9253 18"x24" 3.67
9254 24"x36" 6.27
9255 24"x48" 8.67
9256 36"x48" 11.70



G-C PLASTIC SARAN WOVEN GRILLE CLOTH—A beautiful "lumite" plastic woven cloth in attractive patterns. Easily cleaned with a damp cloth. Won't stain, rot or mildew.

Cat. No. 8736 12"x18" Bronze & Gold Net $ .98
8739 36"x36" Bronze & Gold Net $5.55
8737 12"x18" Ecru & Ivory Net $ .98
8740 36"x36" Ecru & Ivory Net $5.55

G-C GRILLE CLOTH ASSORTMENT—All patterns are modern and the assortment will provide for nearly all of the smaller and moderate size speaker grille openings.
Cat. No. 9114 Net $1.08

G-C TV GRILLE CLOTH—New, modern patterns specially selected to blend in with the best of television cabinets. Gold metallic braid makes this an outstanding TV grille cloth. Colors: Walnut, Mahogany and Blonde. (Specify color when ordering).

Cat. No. 8656-E Envelope 18"x24" Net $1.92
8657-E Envelope 24"x36" 3.50
8658-E Envelope 36"x36" 5.13
8659 36"Wide, per yard, bulk 4.97

G-C RADIO CABINET SPEAKER GRILLE CLOTH—The cloth is supplied in light and dark shades in patterns for both small and large cabinets. It is also available in the light and ivory shades for light wood and plastic cabinets. Colors: Walnut, Mahogany, Ivory, (Specify Color Wanted).

Cat. No. 949-1 1-Yard Packages Net $3.78
949-1R 40" Wide Cont. Length, Yd. 3.60
949-2R 50" Wide Cont. Length, Yd. 3.90
940 18"x20" .98
941 9"x18" .45
942 12"x12" .65
943 14"x18" .60
944 24"x13" .82
945 18"x13" .53
955 18"x25" 1.73

(B) G-C RADIO DIAL BELTS—G-C Belt are approved replacements for all sets. They are made of the very best quality belting material and will not stretch. Especially treated to prevent slipping.
Cat. No. 101 thru 195 Net $ .30

G-C SERVICEMEN'S KIT—Kits contain more popular belts, belt scale and complete listing of over 1100 models. Cat. No. G-25 Net $8.37

(D) G-C WIRE MARKERS—Handy wire markers needed for tracing circuits, marking wires in replacing parts, etc. Nos. 1 to 33—3 full strips included to kit. Cat. No. 9229 Net $1.00

(E) G-C MOTOROLA TV DIAL BELT—Replacement belt as used on Motorola TV Tuners. Original replacement part. Cat. No. 196 Net $ .30

(F) G-C RCA TUNER BELT—Belt used on RCA Tuners such as 8T, 8TC, 8TK, 9TC, etc.
Cat. No. 195 Net $ .30

(G) G-C RCA-TV CHANNEL INDICATOR DRIVE BELT—Exact replacement for 1956 model RCA TV sets. Cat. No. 197 Net $1.10

Net
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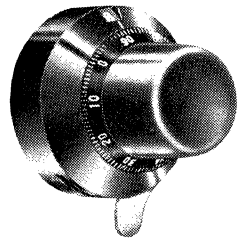
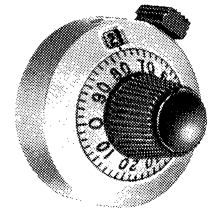
MULTIDIAL®

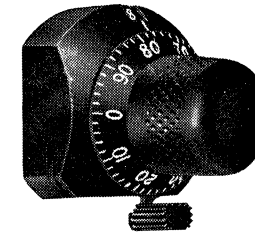
TURNS COUNTING DIALS



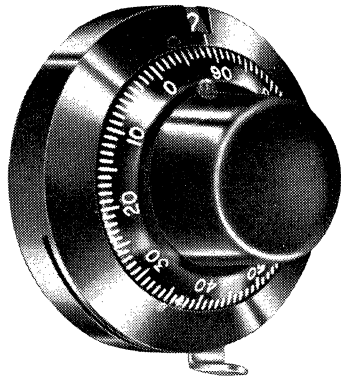
MODEL 10
10-Turn
1″ Diameter



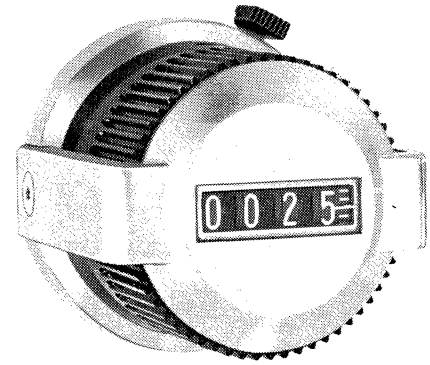
MODEL 11
11-Turn
1″ Diameter



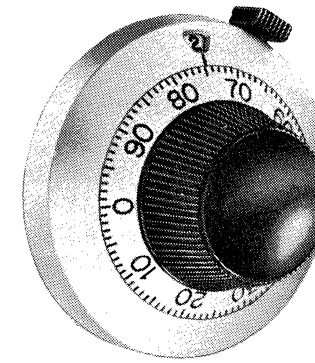
MODEL 14
10-Turn
1″ Diameter



MODEL 20
10-Turn
1 13/16″ Diameter



MODEL 25#
100-Turn
1 13/16″ Diameter
Digital Dial



MODEL 30
10-Turn
1 13/16″ Diameter

MODEL	10	11	14	20	25 - 3 Wheel	25 - 4 Wheel	30
Number of Turns	10	11	10	10	11	100	10
Minor Scale Division	1/100 turn	1/50 turn	1/50 turn	1/100 turn	1/500 turn	1/500 turn	1/100 turn
Shaft Bore (in.)	1/4*	1/4*	1/4*	1/4*	1/4	1/4	1/4*
Finish	Black Anodized	Satin Chrome	Black Anodized†	Black Anodized	Satin Chrome	Satin Chrome	Satin Chrome
Body Size (in.)	1 diam.	1 diam.	3/16 W x 29/32 H	1 13/16 diam.	1 13/16 diam.	1 13/16 diam.	1 13/16 diam.
Depth (in.)	1	7/8	1	1	1 5/8	1 5/8	1
Weight (oz.)	0.7	0.8	0.5	2.0	5.5	5.5	2.2
Price for 1 - 9 Pieces	$8.75	$7.75	$9.75	$7.50	$14.25	$19.75	$5.75

* Accommodations for 1/8″ and 3/16″ diameter shafts available
† Also available in red, blue, gold, green, olive, violet
#25-3 or -4 available with 2 set screws as std.

SPECTROL
SPECTROL ELECTRONICS CORPORATION
San Gabriel, California
Plainview, L.I., New York • Brampton (Toronto) Ontario, Canada
MANUFACTURERS OF PRECISION POTENTIOMETERS, TRIMMING POTENTIOMETERS, TURNS-COUNTING DIALS

Walsco ELECTRONICS

NEW PACKAGED "99" LINE TEKNI-LABELS

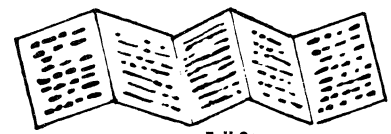
HUNDREDS OF NEEDED TITLES AND DESIGNS FOR QUICK, EASY LABELING OF ELECTRONIC EQUIPMENT!

NEW!... Complete sets of needed titles for all engineering and experimental electronic applications. Distinctive labels provide a professional appearance to the finished job. In use by engineers, designers, manufacturers, technicians, hi-fi enthusiasts, amateurs, custom builders and particularly the "do-it-yourself" group.

Part No.	Description	Net
	AMATEUR RADIO EQUIPMENT	
42-100	White	$ .99
42-101	Black	$ .99
	CITIZENS BAND RADIO	
42-102	White	$ .99
42-103	Black	$ .99
	MOBILE RADIO UNITS	
42-104	White	$ .99
42-105	Black	$ .99
	RADIO TELETYPE	
42-106	White	$ .99
42-107	Black	$ .99
	AUDIO AND INTERCOM SYSTEMS	
42-108	White	$ .99
42-109	Black	$ .99
	ELECTRICAL DISTRIBUTION	
42-114	White	$ .99
42-115	Black	$ .99
	COMPUTER AND DIGITAL	
42-116	White	$ .99
42-117	Black	$ .99
	TRANSISTOR	
42-118	White	$ .99
42-119	Black	$ .99
	RADIO CONTROL MODELS	
42-120	White	$ .99
42-121	Black	$ .99

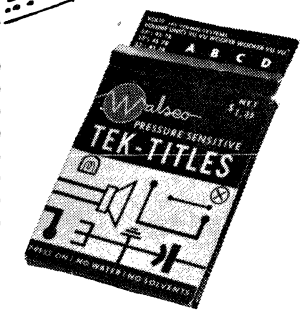
Part No.	Description	Net
	INSTRUMENTS	
42-122	White	$ .99
42-123	Black	$ .99
	OSCILLOSCOPE AND VIDEO	
42-124	White	$ .99
42-125	Black	$ .99
	DIALS AND MARKS	
42-126	White	$ .99
42-127	Black	$ .99
	REPAIRMEN'S TITLES	
42-128	White	$ .99
42-129	Black	$ .99
	STEREO AND HI-FI	
42-130	White	$ .99
42-131	Black	$ .99
	DIAL LABELS	
42-132	White	$ .99
42-133	Black	$ .99
	ALPHABET AND NUMERALS, LARGE	
42-134	White	$ .99
42-135	Black	$ .99
	ALPHABET AND NUMERALS, MEDIUM	
42-136	White	$ .99
42-137	Black	$ .99
	ALPHABET AND NUMERALS, SMALL	
42-138	White	$ .99
42-139	Black	$ .99

WALSCO TEK-TITLES are handsome gold and silver foil labels designed to identify controls, knobs, switches and other electronic components. No water or adhesive is required; you merely snip out the exact title desired from the sheet of hundreds of labels, peel off the backing and press label into position.



Cat. No.		Foil Comp.
42-220	Stereo & High Fidelity Systems	(Gold on White)
42-222	Stereo & High Fidelity Systems	(Silver on Black)
42-224	Transistor Titles	(Silver on Black)
42-226	Intercom Systems	(Gold on White)
42-228	Intercom Systems	(Silver on Black)
42-230	Lubrication Titles	(Silver on Black)
42-232	Maintenance & Calibration	(Gold on White)
42-234	Repairman's Titles	(Gold on White)
42-236	Sound Systems	(Gold on White)
42-238	Amateur Equipment	(Silver on Black)
42-240	Alphabets, Large	(Gold on White)
42-242	Alphabets, Large	(Silver on Black)
42-244	Alphabets & Numerals, Medium	(Gold on White)
42-246	Alphabets & Numerals, Medium	(Silver on Black)
42-248	Numerals, Large	(Gold on White)
42-250	Numerals, Large	(Silver on Black)
42-252	Alphabets & Numerals, Small	(Gold on White)
42-254	Alphabets & Numerals, Small	(Silver on Black)
42-256	Electrical Distribution	(Gold on White)
42-258	School Electrical Systems	(Silver on Black)
42-260	U.S. Government Property	(Silver on Black)
42-262	U.S. Army Property	(Silver on Black)
42-264	U.S. Navy Property	(Silver on Black)
42-266	U.S. Air Force Property	(Silver on Black)

Dealer Net, each **$1.35**



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Net

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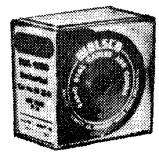
Walsco ELECTRONICS DIAL CORDS • CABLES • BELTS



Same quality as used on original equipment, in variety of sizes and types and conveniently packaged.

"SPECIAL THIN"

Diameter .025", Breaking Strength 15 lbs.

Cat. No. 656-02	25 feet	Net $ .75
Cat. No. 656-10	100 feet	Net 2.37
Cat. No. 656-50	500 feet	Net 8.58

MEDIUM

Diameter .040", Breaking Strength 35 lbs.

Cat. No. 652-02	25 feet	Net $ .75
Cat. No. 652-10	100 feet	Net 2.37
Cat. No. 652-50	500 feet	Net 10.57

PHOSPHOR BRONZE CABLE

42-strand, .032" diameter, 40 lb. breaking strength. Numerous strands give cable extraordinary flexibility.

Cat. No. 662-02	25 feet	Net $ 1.23
Cat. No. 662-10	100 feet	Net 3.52
Cat. No. 662-50	500 feet	Net 16.20

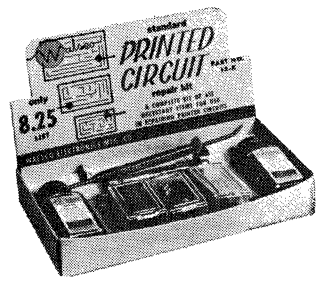
WALSCO SAFETY GLASS REMOVER

Chrome plated, steel handle is combined with two powerful, long lasting suction cups to insure trouble free removal of safety glass on TV sets.

Cat. No. 2575 Net $ .90

PRINTED CIRCUIT ACCESSORIES

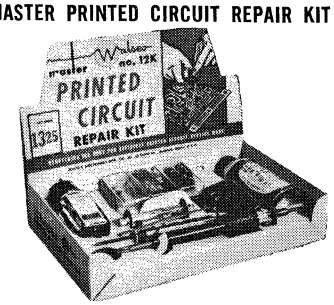
STANDARD PRINTED CIRCUIT REPAIR KIT



Contains one box each of foil, solder washers, solder wire, 1 solder-ease tool, fiber glass brush, printed circuit insulating varnish and solvent, tweezers and complete instructions.

Cat. No. 13-K Net $5.33

MASTER PRINTED CIRCUIT REPAIR KIT



Contains all items above plus 1 Ungar soldering iron with 1 special tip and a 6 oz. spray can of printed circuit insulating varnish. Also includes practice wiring board.

Cat. No. 12-K Net $10.58

BRAIDED BRONZE CABLE

16-strand, .039" O.D., 50 lb. breaking strength. Good flexibility, excellent abrasion resistance.

Cat. No. 660-02	25 feet	Net $ .97
Cat. No. 660-50	500 feet	Net 2.70
Cat. No. 654-02	25 feet	Net 12.00

STANDARD

Diameter .032", Breaking Strength 20 lbs.

Cat. No. 654-02	100 feet	Net $ .75
Cat. No. 654-10	100 feet	Net 2.37
Cat. No. 654-50	50 feet	Net 8.58

HEAVY

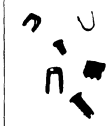
(Used on many Philco and Majestic sets.) **Diameter .060".**

Cat. No. 650-02	25 feet	Net $1.02
Cat. No. 650-10	100 feet	Net 2.97

THIN BRONZE CABLE

An extra-thin cable with diameter of only .022". Surprisingly strong and flexible. Non-raveling.

Cat. No. 664-02	25 feet	Net $ .97
Cat. No. 664-10	100 feet	Net 2.70
Cat. No. 664-50	500 feet	Net 12.00



DIAL CORD CLIPS

This assortment of 24 Walsco Dial Cord Clips contains the proper sizes for all standard thicknesses of cords.

Cat. No. 7745-F Net $ .36

FLAT NYLON LACING CORD

The new, waxed and fungus resistant flat cord for tying harnesses, wrapping coils, etc. Will not cut wire insulation. Breaking strength 50 lbs., approx. width, .085", approx. thickness, .0125".

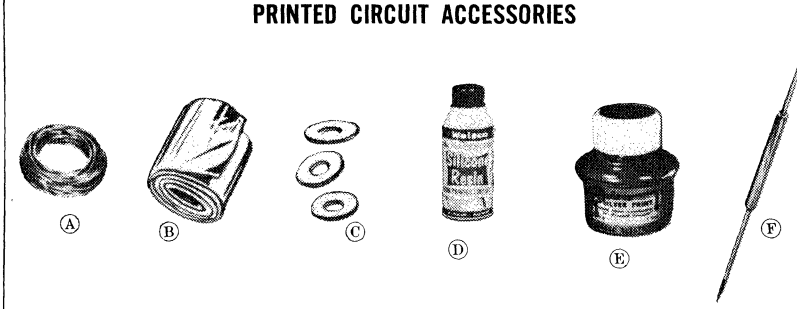
Cat. No. 666-15	150 ft. spool	Net $2.97
Cat. No. 666-75	750 ft. spool	Net 9.00

STANDARD LACING CORD

Meets specifications JAN T-713—type N —Class 3. In natural gray color. Approximately .040". Min. tensile strength 32 lbs., low stretch.

Cat. No. 665-10	100 ft. spool	Net $1.05
Cat. No. 665-45	450 ft. spool	Net 2.00
Cat. No. 665-80	1800 ft. spool	Net 6.60

PRINTED CIRCUIT ACCESSORIES



(A) PRINTED CIRCUIT REPAIR SOLDER — Especially compounded 11' solder wire with flux core to give a perfect solder joint and flow quickly and easily at lower temperatures required for printed circuit work.

Cat. No. 649 Net $ .52

(B) PRINTED CIRCUIT REPAIR FOIL — Copper foil with thermo-plastic backing 24 sq. in. For use in repair of damaged or burned out sections of a printed circuit. Bonds permanently to panel with heat of soldering iron.

Cat. No. 647 Net $ .48

(C) PRINTED CIRCUIT SOLDER WASHERS — Supplies the exact amount solder and flux when replacing components on printed circuit board. Center hole permits passage of most standard wire leads. Box of 60 washers.

Cat. No. 648 Net $ .60

(D) PRINTED CIRCUIT INSULATING VARNISH — A special formula insulating varnish designed for the protection of printed circuits after they have been worked upon in repair or replacement of parts.

Cat. No. 120-02W 2 oz. bottle with brush Net $1.30

Cat. No. 120-06 6 oz. spray can $2.42 each

INSULATING VARNISH SOLVENT — Excellent for dissolving and removing insulating varnish from printed circuits, etc. Also thinner for the Walsco Printed Circuit Insulating Varnish.

Cat. No. 205-02 2 oz. Net $ .37 each

(E) WALSCO SILVER AND COPPER PRINT — "No more wires" when you use Silver or Copper Print. The same "Pure Silver" or Copper compound as used in Printed Circuit design.

Cat. No. 36 ½ Troy oz. Silver Print Net $3.30
Cat. No. 36-1 1 Troy oz. Silver Print Net $5.75
Cat. No. 37-02 2 oz. bottle Copper Print Net $2.17

(F) PRINTED CIRCUIT SOLDER-AID TOOL — Has probe on one end for tightening contacts, etc., and a fork on opposite end for handling wires or wire leads while soldering and unsoldering. 8" long plastic handle.

Cat. No. 2530 Net $1.00

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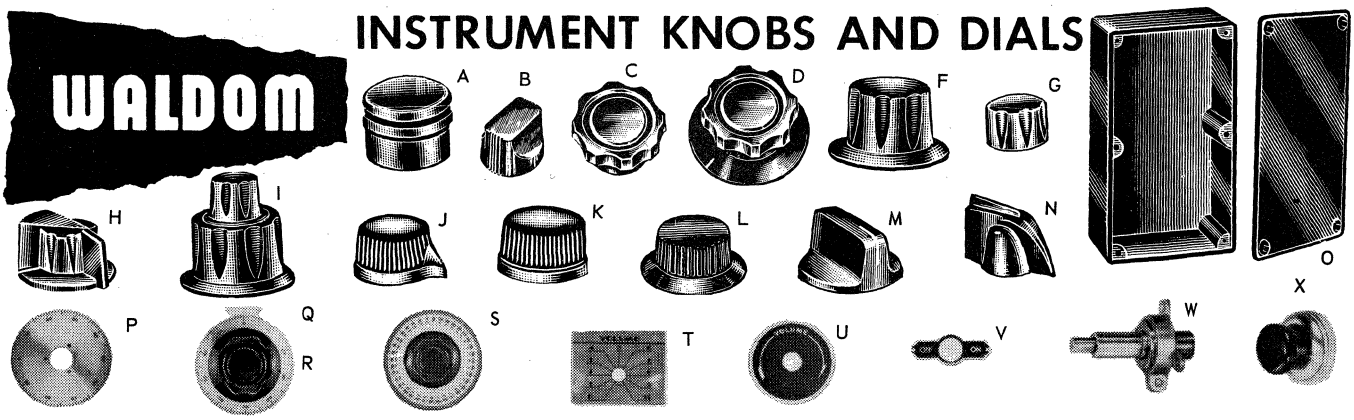
shows hundreds of Walsco Electronic Products.

INSTRUMENT KNOBS AND DIALS

WALDOM



MODERN KNOBS
Styrene 1/4" brass insert, slotted set screw

Part No.	Diameter	Height		1-99 Ea.	100-Up
6126	5/8"	7/16		.25	.207
6126 Red	5/8"	7/16"		.29	.238
6129	5/8"	19/32"		.40	.32

BAR KNOB – FIG. B

BK-1B	11/16"	1/2"		.31	.28

FULL FLUTED KNOBS – FIG. C
Black bakelite, 1/4" brass insert, slotted set screw

WA-4100	1-1/8"	5/8"		.35	.28
WA-4101	1-3/8"	11/16"		.36	.2905
WA-4102	1-5/8"	3/4"		.41	.3248
WA-4103	2-3/8"	7/8"		.59	.4748

W/Skirt – FIG. D

WA-4104	1-1/2"	51/64"		.56	.4718
WA-4107	1-3/4"	55/64"		.63	.5168
WA-4108	2-1/16"	7/8"		.73	.6105
WA-4109	3"	1"		.95	.7875

W/Pointer (plastecele)

6566-P	1-1/8"	5/8"		.63	.5250
6571-P	1-3/8"	11/16"		.68	.5004
6570-P	1-5/8"	3/4"		.73	.6044
6559-P	2-3/8"	7/8"		.98	.8040

LATEST SERIES INSTRUMENT KNOBS
Black bakelite, slotted set screw, white marker line on skirt

			Fig.		
WA-101	3/4"	1/2"	F	.22	.1738
WA-101B*	3/4"	1/2"	F	.29	.2379
WA-101C+	3/4"	1/2"	F	.23	.1868
WA-102	1-1/8"	5/8"	F	.23	.188
WA-102B*	1-1/8"	5/8"	F	.32	.2499
WA-103	1-1/4"	3/4"	F	.25	.2003
WA-103B*	1-1/4"	3/4"	F	.33	.2621
WA-104	1-1/2"	7/8"	F	.27	.2141
WA-104B*	1-1/2"	7/8"	F	.36	.2866
WA-105	2"	15/16"	F	.47	.3822
WA-105B*	2"	15/16"	F	.58	.4627
WA-108	3/4"	1/2"	G	.36	.2879
WA-108B*	3/4"	1/2"	G	.45	.3549
WA-109	1-1/4"	5/8"	H	.31	.2499
WA-109B*	1-1/4"	5/8"	H	.39	.3099

*1/4 Brass Insert, +1/8" molded hole, all other 1/4" molded hole.

DUO CONCENTRIC KNOB
Small knob WA-101C - large knob for 1/4" shaft

WA-107	1-1/4"	1-3/16"	I	.49	.3967

POINTER AND LEVER CONTROL KNOBS–FIG. N
Black bakelite, white filled pointer For 1/4" shaft, set screw

Part No.	Diameter	Height	1-99 Ea.	100-Up
WA-2300	1-1/4"	5/8"	.13	.1008
WA-2300A*	1-1/4"	5/8"	.20	.1573
WA-2350	2"	5/8"	.26	.2037
WA-2350A*	2"	5/8"	.33	.2610

*Brass insert

STANDARD KNOBS – FIG. J
Small Pointer knobs - 11/16" dia., 13/32" high

WA-1400	1/4" molded hole	.11	.09
WA-1400W	1/4" brass insert	.28	.2130
WA-1400R	1/8" molded hole	.17	.1228

Pointer knob - 1" diameter 1/2" high - Fig. J

WA-1470	1/4" molded hole	.22	.1694
WA-1470C	1/4" brass insert	.30	.2284

Small Round knob - 11/16" diameter, 13/32" high - Fig. K

WA-1450	1/4" molded hole	.11	.09
WA-1450W	1/4" brass insert	.28	.2130
WA-1450G	1/8" molded hole	.17	.1228

Round knob - 1" diameter, 1/2" high - Fig. K

WA-1475	1/4" molded hole	.17	.129
WA-1475C	1/4" brass insert	.25	.1924

SKIRTED KNOBS - Fig. L
1-1/2" O.D. x 3/4" high.

WA-1600	1/4" molded hole	.22	.1682
WA-1600A	1/4" brass insert	.26	.2095

7/8" diameter x 9/16" high

WA-1610	1/4" molded hole	.20	.1735
WA-1610A	1/4" brass insert	.26	.2150

MATCHING BAR AND POINTER KNOBS
Black bakelite, set screw, white indicator line. For 1/4" shaft. 1-1/8" diameter, 9/16" high.

WA-1500	Bar knob - Fig. M	.19	.14
WA-1550	Pointer knob	.15	.116
WA-1550C	Above w/brass insert	.22	.1693

ALUMINUM DIAL PLATES – FIG. T
2-3/16" H. x 2-5/8W.

Part No.	Description	Calibration	1-49 Ea.	50-99 Ea.	100-Up
410	Title	0-10	.52	.44	.313
415	Microphone	0-10	.52	.44	.313
423	Increase	Arrow	.52	.44	.313
426	Volume	0-10	.52	.44	.313
428	Bass	5-0-5	.52	.44	.313
429	Treble	5-0-5	.52	.44	.313

ROUND ALUMINUM CONTROL PLATES – FIG. U
1-3/4" Diameter

25	Volume	.28	.24	.168
26	Off-Tone Control	.28	.24	.168
569	0-100 thru 180°	.28	.24	.168
905	0-100 thru 270°	.28	.24	.168

HORIZONTAL SWITCH PLATE – FIG. V
"Off-On" Switch Plate. Etched aluminum with black background and polished aluminum letters and border. 11/16" x 1-11/16".

278		.17	.14	.102

AUXILIARY PLANETARY DRIVES – FIG. W
Fits 1/4" shafts: Operates at 5:1 ratio. Maximum smoothness with adequate torque. 2 Speed drive. Slow speed 5:1, High Speed 1:1

Part No.	1-9 Ea.	10-24 Ea.	25-99 Ea.	100-Over-Ea.
599	7.25	7.00	6.81	5.54
Single speed. Threaded sleeve w/shoulder for mounting dial or pointer				
27067	7.40	7.15	6.96	5.69

PAIR OF KNOBS – FIG. X

	1-99 Ea.	100-Over
Duo-Concentric knobs for 599	.68	.5004

INSTRUMENT CASES – PANELS – COVERS – FIG. O
Wall thickness 1/8" w/highly polished finish. Will withstand rugged usage.

Type	Description	1-49 Ea.	50-99 Ea.	100-Up
BC-138	2"H x 3-3/4"W x 6-1/4"L	.98	.89	.648
BC-138B1	W/Brass inserts in 4 corners	1.10	.98	.7258
BP-137	Flat panel for above	.56	.51	.3672
BP-137A	Molded cover for above	.65	.58	.426
BC-140	2-15/16"H x 5-9/32"W x 6-13/16"L	1.31	1.18	.86
BC-140B1	W/Brass inserts in 4 corners	1.47	1.32	.9636
BP-138	Flat panel for above	.75	.68	.486
BP-139A	Molded Cover for above	.85	.77	.552

HIGH QUALITY DIALS – FIG. P
Aluminum w/hand spun finish. Black numerals.

Type	Calibration	Diameter	1-49,Ea.	50-99 Ea.	100-Up
DO-15	0-100/180°	1-1/8	.45	.38	.27
DO-16	0-100/270°	1-1/8	.45	.38	.27
DO-17	0-100/325°	1-1/8	.45	.38	.27
DO-18	0-100/360°	1-1/8	.45	.38	.27
DO-1	0-100/180°	1-3/4	.60	.51	.36
DO-2	0-100/270°	1-3/4	.60	.51	.36
DO-19	0-100/325°	1-3/4	.60	.51	.36
DO-20	0-100/360°	1-3/4	.60	.51	.36
DO-3	0-100/180°	2-3/4	.75	.64	.45
DO-4	0-100/270°	2-3/4	.75	.64	.45
DO-21	0-100/325°	2-3/4	.75	.64	.45
DO-5	0-100/360°	2-3/4	.75	.64	.45
DO-6	0-100/180°	4	1.20	1.02	.72
DO-7	0-100/270°	4	1.20	1.02	.72
DO-22	0-100/325°	4	1.20	1.02	.72
DO-8	0-100/360°	4	1.20	1.02	.72
DO-8A	0-360/360°	4	1.20	1.02	.72

AZIMUTH DIALS – FIG. S
Precision Test Dial. Outer numbers 0-360 in counter-clockwise direction; inner numerals 0-360 in clockwise direction. Etched in heavy aluminum. Complete w/attached knob, indicator.

27010	6" dia. 3/8" shaft d.	7.20	6.12	4.32
27011	6" dia. 1/4" shaft d.	7.20	6.12	4.32
KD-12	4" dia. 1/4" shaft	3.39	2.88	2.05

DIRECT DRIVE DIAL ASSEMBLIES – FIG. R
Above dials with knob attached and supplied complete w/indicator. Dials under 2-3/4" supplied with knob only, others w/knob and skirt.

Part No.	Calibration	Diameter	1-49 Ea.	50-99 Ea.	100-Up
27084	0-100/180°	1-1/8	1.07	.91	.642
27085	0-100/270°	1-1/8	1.07	.91	.642
27086	0-100/325°	1-1/8	1.07	.91	.642
27087	0-100/360°	1-1/8	1.07	.91	.642
27068	0-100/180°	1-3/4	1.40	1.19	.84
27069	0-100/270°	1-3/4	1.40	1.19	.84
27080	0-100/325°	1-3/4	1.40	1.19	.84
27081	0-100/360°	1-3/4	1.40	1.19	.84
294	0-100/180°	2-3/4	1.84	1.56	1.104
295	0-100/270°	2-3/4	1.84	1.56	1.104
27082	0-100/325°	2-3/4	1.84	1.56	1.104
303	0-100/360°	2-3/4	1.84	1.56	1.104
292	0-100/180°	4	2.54	2.16	1.524
293	0-100/270°	4	2.54	2.16	1.524
27083	0-100/325°	4	2.54	2.16	1.524
302	0-100/360°	4	2.54	2.16	1.524
302A	0-360/360°	4	2.54	2.16	1.524

INDICATORS – FIG. Q
Dials below 2-3/4" D take SL-1, 2-3/4 & 4" Dials take calibrated indicator matched w/its number

SL-1	Single line indicator	.10	.09	.06
VI-3	For DO-3	.30	.26	.18
VI-4	For DO-4	.30	.26	.18
VI-21	For DO-21	.30	.26	.18
VI-5	For DO-5	.30	.26	.18
VI-6	For DO-6	.30	.26	.18
VI-7	For DO-7	.30	.26	.18
VI-22	For DO-22	.30	.26	.18
VI-8	For DO-8	.30	.26	.18
VI-8A	For DO-8A	.30	.26	.18

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PAMOTOR

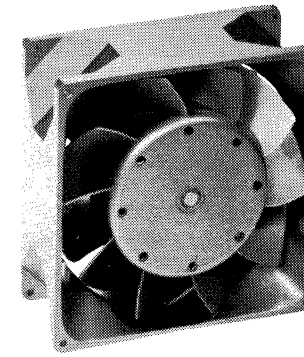
Miniature Axial Fans for High-Reliability Applications

Pamotor axial fans offer features that surpass all similar devices in construction, performance, and reliability. These miniature cooling devices have a multitude of applications in electronic gear and equipment such as computers, instrumentation equipment, industrial and military communications apparatus, military ground support systems, mobile radio gear, test and maintenance equipment, power supplies, data processing equipment, video tape recorders, entertainment electronic equipment, etc. Pamotor fans are equally-suited for use in X-ray and other heat-generating equipment which require ultra-reliable cooling. Every Pamotor fan incorporates the following construction features (most of which cannot be found in conventional fans), assuring maximum dependability at reasonable cost.

MOTOR: Inside-outside rotating motor design yields higher torque capabilities. Flywheel effect produces constant, quiet fan speed. Exceptionally close tolerances maintained for air gap result in maximum efficiency. Available in both induction and shaded-pole types.

BEARING SYSTEM: New bearing system designed for permanent lubrication uses large surface sinter-metal sleeve-bearings individually hand-fitted for radial load, plus thrust ball bearing with felt oil reservoirs for long life lubrication.

MOUNTING: Can be mounted and operated in any position without sacrifice in performance.



BALANCE: Rotor is accurately, dynamically balanced. Stator windings for induction type motor are uniform, allowing for minimum magnetic field density within the air gap.

HOUSING: Precision die cast housings insure accurate overall dimensions plus uniformity of quality. Rugged metal construction withstands physical damage in handling and installation. Warp-free materials are corrosion resistant and will not expand or contract in extreme temperature variations.

PERFORMANCE: Designed and precision manufactured for extra-long life with minimum of maintenance.

SPECIFICATIONS: All electrical materials are Class E, allowing extra margin of safety for operating in the higher ambient temperature range. Qualified environmentally to Specification MIL-T-5422E.

WARRANTY: Motor guaranteed against defects in workmanship and material for period of one year.

SERIES 1000

Characteristic	MODEL 1000A	MODEL 1000B	MODEL 1100	MODEL 1200	MODEL 1300A	MODEL 1300B
Voltage	115 volts	115 volts	115 volts	115 volts	220 volts	220 volts
Frequency	60 cycle	50 cycle	400 cycle	60 cycle	60 cycle	50 cycle
Air Flow	125 cfm	100 cfm	100 cfm	60 cfm	125 cfm	110 cfm
Speed	3300 rpm	2850 rmp	2950 rpm	1800 rpm	3300 rpm	2850 rpm
Input Power	23 watts	26 watts	38 watts	20 watts	23 watts	33 watts
Capacitor	Cat. No. 1004 6 mf	Cat. No. 1003 7 mf	Cat. No. 1008 .75 mf	Cat. No. 1005 4 mf	Cat. No. 1007 1.25 mf	Cat. No. 1006 2 mf
Weight	1 lb. 10 oz.	1 lb. 10 oz.	1 lb. 10 oz.	1 lb. 10 oz.	1 lb. 10 oz.	1 lb. 10 oz.

SERIES 2000

Characteristic	MODEL 2000A	MODEL 2000B	MODEL 2000C	MODEL 2000D
Voltage	115 volts	115 volts	220 volts	220 volts
Frequency	60 cycle	50 cycle	50 cycle	60 cycle
Air Flow	134 cfm	116 cfm	116 cfm	134 cfm
Speed	3300 rpm	2850 rpm	2850 rpm	3300 rpm
Input Power	23 watts	26 watts	33 watts	23 watts
Capacitor	Cat. No. 1005 4 mf	Cat. No. 1005 4 mf	Cat. No. 1006 2 mf	Cat. No. 1005 4 mf
Weight	1 lb. 6 oz.	1 lb. 6 oz.	1 lb. 6 oz.	1 lb. 6 oz.

SERIES 3000

Characteristic	MODEL 3000A	MODEL 3000B	MODEL 3000C	MODEL 3000D
Voltage	115 volts	115 volts	220 volts	220 volts
Frequency	60 cycle	50 cycle	50 cycle	60 cycle
Air Flow	60 cfm	54 cfm	54 cfm	60 cfm
Speed	3200 rpm	2850 rpm	2850 rpm	3200 rpm
Input Power	16 watts	19 watts	21 watts	16 watts
Capacitor	Cat. No. 1005 4 mf	Cat. No. 1005 4 mf	Cat. No. 1006 2 mf	Cat. No. 100(2 mf
Weight	1 lb. 2 oz.	1 lb. 2 oz.	1 lb. 2 oz.	1 lb. 2 oz.

SERIES 2500

(SHADED-POLE TYPES)

Characteristic	MODEL 2500A	MODEL 2500B	MODEL 2500C	MODEL 2500D
Voltage	115 volts	220 volts	220 volts	115 volts
Frequency	60 cycle	60 cycle	50 cycle	50 cycle
Air Flow	100 cfm	100 cfm	80 cfm	80 cfm
Speed	3200 rpm	3200 rpm	2580 rpm	2580 rpm
Input Power	23 watts	27 watts	25 watts	23 watts
Weight	1 lb. 10 oz.	1 lb. 10 oz.	1 lb. 10 oz.	1 lb. 10 oz.

SERIES 5000

Characteristic	MODEL 5000A	MODEL 5000B
Voltage	115 volts	220 volts
Frequency	60 cycle	50 cycle
Air Flow	115 cfm	100 cfm
Speed	2550 rpm	2250 rpm
Input Power	10 watts	12 watts
Capacitor	Cat. No. 1005 4 mf	Cat. No. 1007 1.25 mf
Weight	1 lb. 6 oz.	1 lb. 6 oz.

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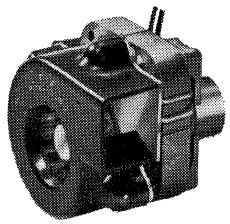
SPACE-SAVING *Precision Bearing* MOTOR-BLOWERS

A new line of compact Motor-Blowers are now available with air deliveries ranging from 5 to 19 cfm free air output. Designed to fill the requirement where space is a problem and a minimum of 5-year maintenance-free performance is imperative. The precision bearing "power-pac" motor with permanent sealed-in lubrication requires no oiling and operates at an extremely low noise level. The unit can be mounted in any position. The low input wattage required is a cost saving factor of particular advantage in multiple installations. The metal wheels are carefully balanced and individually matched to assure maximum efficiency and quietness of operation. Blower housings are high-impact phenolic.



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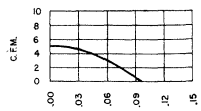

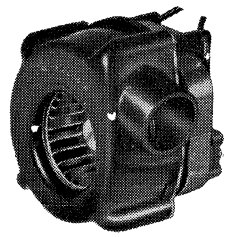

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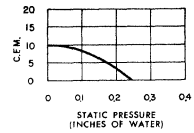

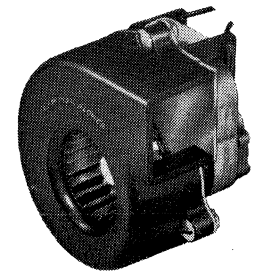

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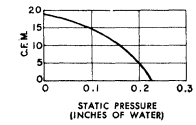
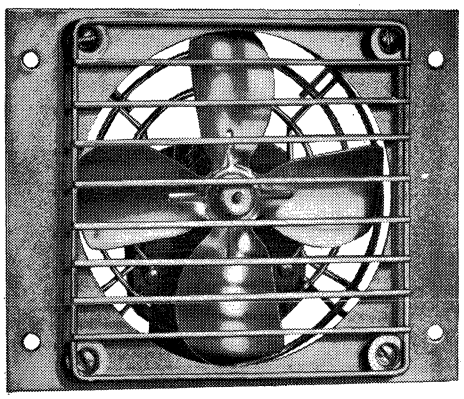


MODEL NUMBER	TYPE	INPUT VOLTAGE	WATTS	DUTY CYCLE	RPM	OUTPUT FREE AIR CFM	DIMENSIONS H x W x D	LIST PRICE
UK-1500	1½	115 V. AC-60 Cycle	7.5	Continuous	3400	5	2 15/16" x 3 5/8" x 3 1/16"	$9.69
UK-2000	2	115 V. AC-60 Cycle	7.5	Continuous	3300	10	3¾" x 3½" x 3¼"	$9.78
UK-2500	2½	115 V. AC-60 Cycle	8	Continuous	3250	19	4⅜" x 3⅞" x 3¼"	$9.90

For applications demanding maintenance-free reliability in excess of 5-years!

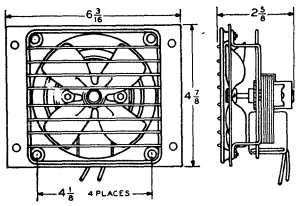


AXIAL FAN MODEL 4.25

THE BIG VALUE IN RUGGEDNESS, COMPACTNESS & HIGH EFFICIENCY

Specifically designed for electronic and instrumentation cooling with tight space requirements — this quiet, dependable 100 CFM "Power-Pac" Axial Fan is recommended for applications where compactness, high-level performance, mounting flexibility and economical price are imperative. "Power-Pack" motor with sealed-in lubrication requires no oiling or maintenance.

Typical applications include: Computors, Electronic Transmitters, Receivers, Radar, TV Cameras, Hi-Fi Equipment, Tape Recorders, Light Projectors, Amplifiers, Test Equipment, Telephone Booths.

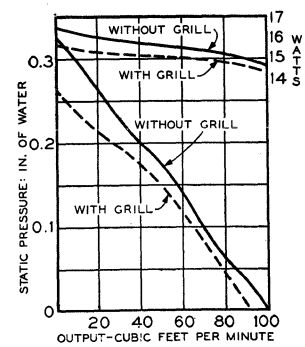


SPACE SAVING DESIGN

Overall mounting plate size is 4⅞" x 6 3/16" and depth is 2⅝". Total weight of complete assembly is 1½ pounds. All metal fire-proof construction.

100 CFM CAPACITY

High output of 100 CFM free air delivery. For larger air volumes, two or more units may be mounted in parallel. Note chart for high performance over wide range of static pressures. Unit designed for operaton on 50/60 cycles.



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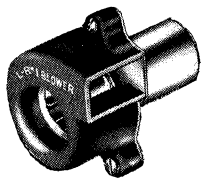
L-R MOTOR & BLOWER ASSEMBLIES



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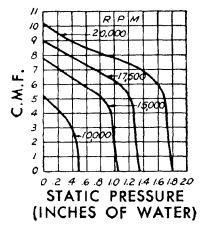

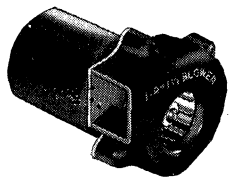

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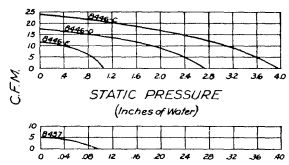

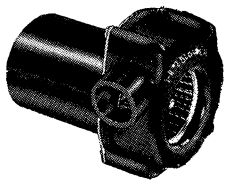

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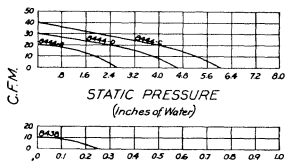

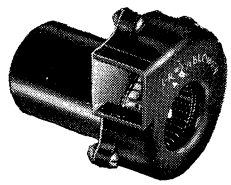

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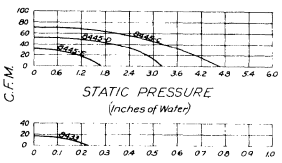

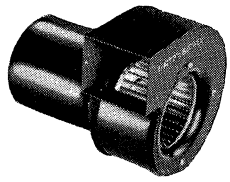

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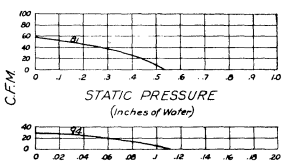

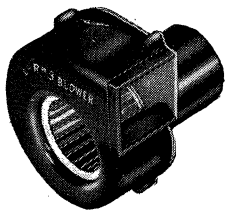

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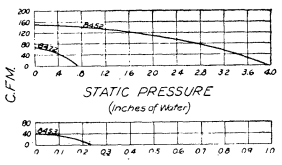
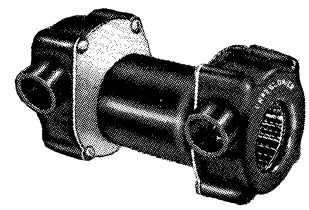
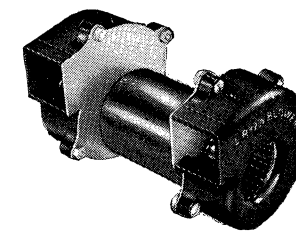


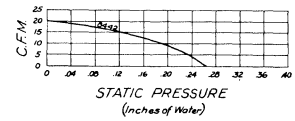
Model No.	Type	Input Voltage	Watts	Duty Cycle	Output Free Air R.P.M.	C.F.M.	Dimensions Length O.A.	Motor Dia.	List Price
8474	1	27.5V. DC	8	Continuous	18,000	9	2 21/64	7/8	$49.00
8437	1½	115V. AC-60 Cycle	15	Continuous	3,150	4	4 9/16	2¼	13.29
8446-E	1½	115V. AC/DC	25	Intermittent	8,000	12	4½	2 7/32	17.96
8446-D	1½	115V. AC/DC	45	Intermittent	11,000	17	4½	2 7/32	17.96
8446-C	1½	115V. AC/DC	70	Intermittent	15,000	23	4½	2 7/32	17.96
8438	2	115V. AC-60 Cycle	16	Continuous	3,100	10	4½	2¼	13.48
8444-E	2	115V. AC/DC	27	Intermittent	6,500	20	4 13/16	2 7/32	18.14
8444-D	2	115V. AC/DC	53	Intermittent	10,000	30	4 13/16	2 7/32	18.14
8444-C	2	115V. AC/DC	90	Intermittent	13,000	40	4 13/16	2 7/32	18.14
8433	2½	115V. AC-60 Cycle	17	Continuous	2,800	17	4½	2¼	13.60
8445-E	2½	115V. AC/DC	30	Intermittent	6,000	35	4 27/32	2 7/32	18.26
8445-D	2½	115V. AC/DC	55	Intermittent	9,000	53	4 27/32	2 7/32	18.26
8445-C	2½	115V. AC/DC	105	Intermittent	12,000	70	4 27/32	2 7/32	18.26
94	2¾	115V. AC-60 Cycle	26	Continuous	1,600	28	5 11/64	3¼	16.50
81	2¾	115V. AC-60 Cycle	40	Continuous	3,100	58	5 51/64	2 13/16	16.50
8453	3	115V. AC-60 Cycle	35	Continuous	1,600	40	5 15/32	3¼	16.95
8472	3	115V. AC-60 Cycle	40	Continuous	3,100	77	6 5/64	2 13/16	16.05
8452	3	115V. AC/DC	120	Intermittent	6,000	150	6¾	2¾	22.40

L-R BLOWERS DUAL ASSEMBLY

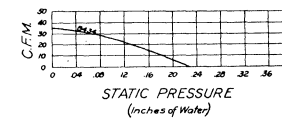




NO. 2 Dual



NO. 2½ Dual



Model No.	Type	Input Voltage	Watts	Duty Cycle	Output Free Air R.P.M.	C.F.M.	Dimensions Length O.A.	Motor Dia.	List Price
8442	2 Dual	115V. AC-60 Cycle	18	Continuous	3,000	10-10	5 1/16	2¼	$19.
8434	2½ Dual	115V. AC-60 Cycle	20	Continuous	2.800	17-17	5 1/16	2¼	20

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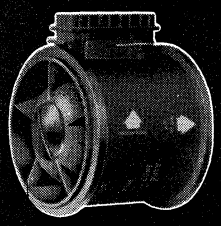
Trade Discount Applies To List Prices Only

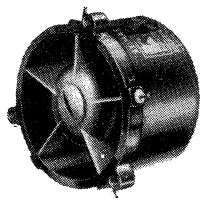
ROTRON

fans and blowers for cooling



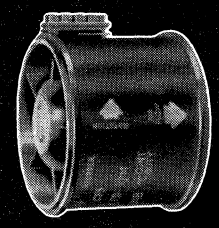
AXIMAX® 1

Ideal for small, tightly packed airborne equipments. Delivers 23 CFM free delivery. Diameter 1.5″ by 1.4″ length. Weight 4 ounces. Choose from constant or varying speed designs. Airflow instantly reversible. Servo rim mounting, electrical connections to compact terminal block. Operates on 115 or 200 VAC, 400 CPS, 1 or 3 phase. Meets applicable military specifications. 60 CPS version available.



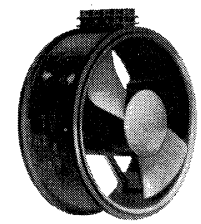
AXIMAX® 2

Air delivery of 60 CFM free delivery from fan 2″ diameter by 1.5″ axial length. Weighs 4½ ounces. Designed for maximum cooling against high static pressures with minimum space and weight loss. Available in choice of constant speed or variable speed Altivar® motor designs. Power requirements 115 or 200 VAC, 400 CPS, 1 or 3 phase. Meets applicable military specifications. 60 CPS version available.



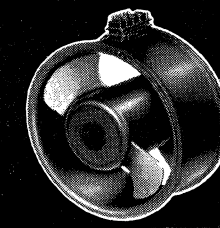
AXIMAX® 3

Air delivery of 165 CFM free delivery. Fan only 3″ in diameter by 2.3″ in length. Weighs only 14 ounces. Selection from constant or varying speed motors. Reversible airflow. Servo rim mounting. Meets applicable military specifications. Power requirements 115 or 200 VAC, 400 CPS, 1 or 3 phase. Rapid electrical connections to compact terminal block. 60 CPS version available.



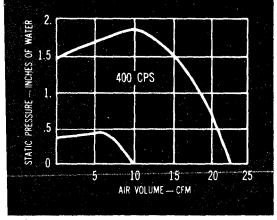
PROPIMAX® 2

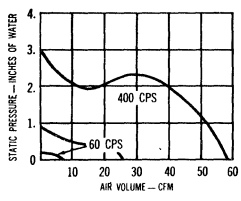
Air delivery of 120 CFM from fan only 3″ in diameter by 1.5″ axial length. Fan weighs only 6½ ounces. Selection from constant or varying speed motors. Ideal for missile and airborne applications. Reversible airflow. Servo rims at either end for quick mounting. Power requirements 115 or 200 VAC, 400 CPS, 1 or 3 phase. Meets applicable military specifications. Electrical connections made to terminal block. 60 CPS version available.

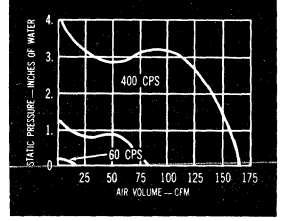


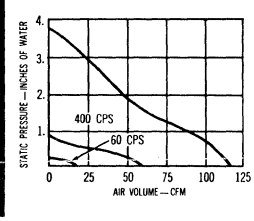
PROPIMAX® 3

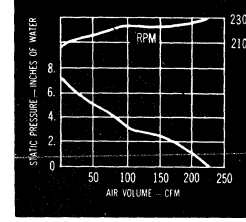
For ground or airborne military applications where line frequencies are high; size, weight and reliability critical; and where high heat loads must be dissipated. Delivers 220 CFM at 22,000 RPM. Size 3¾″ in diameter by 2″ in depth. Airflow reversible. Servo rim mounting. High altitude designs available. 115 or 200 VAC, 400 CPS, 1 or 3 phase. Available as Propimax 3B for 200 CFM at 11,000 RPM, 400 CPS and also 60 CFM at 3,300 RPM, 60 CPS operation.

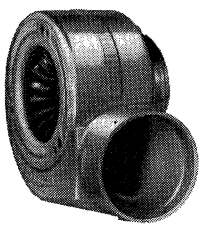


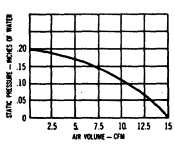








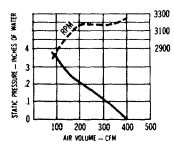


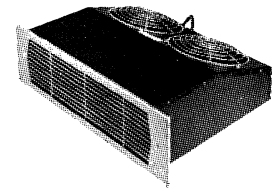


nugget blower™

For spot cooling requirements in commercial electronic equipment. Features 15 CFM at free delivery. Lightweight — only .6 lbs. Compact design — 3 1⁹⁄₃₂″ x 4³⁄₃₂″ x 2¼″. 115 VAC, 60 CPS, 1 phase, 3200 RPM. Draws only 7 watts. Extremely quiet operation. Low cost. "Centraxial" wheel for greater volume-to-pressure characteristics. Air impeller and blower housing molded of high impact strength polycarbonate plastic. Unit can be mounted from inlet side, from motor side, or from a flange (optional) located on outlet side.

TWINPAX-2™





Efficient cabinet cooling at noise level of only 55 db. Delivers up to 400 CFM of clean, filtered air from twin "Feather Fans." Mounts easily to any standard 19″ relay rack and requires only 5¼″ of panel height. Directs air to minimize dead-spots or eddying. Long-life motors complete with capacitors. Pre-lubricated bearings for maintenance-free operation. Twinpax 1 available for 60 and 400 CPS military requirements.

Net

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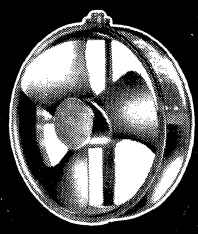
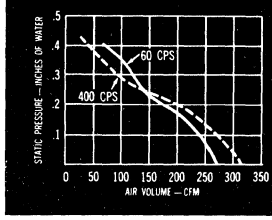
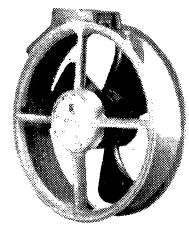
electronic equipment by ROTRON



SAUCER® FAN

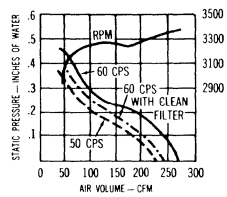
Perfect for flushing tightly packed electronic cabinets requiring filtered cooling air. Delivers up to 280 CFM. Driving motor entirely contained in propeller hub. Measures 7" in diameter by 1.7" in axial depth. Weighs 1 lb. 9 ounces. Airflow reversible. Servo rims for easy mounting. Electrical connections to compact terminal block. 115 VAC, 50-60 CPS, 1 phase. 400 CPS version available. Meets applicable military specifications.

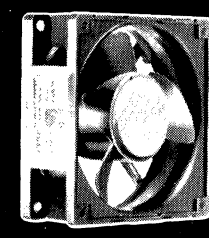




FEATHER® FAN

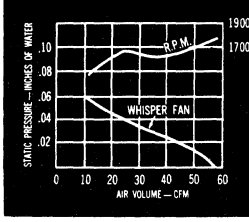
Delivers 270 CFM of air at free delivery. 7" in diameter by 2 7/16" in axial depth. Weighs only 1.5 pounds. Rated for continuous duty from −55°C to +65°C. Draws only 22 watts. 3380 RPM, 115 VAC, 50-60 CPS, single phase. High quality commercial unit with military type performance. Made from high strength polycarbonate plastic. Filter assembly available. Ideal for cooling computer consoles, relay racks, power supplies and semiconductor packages.

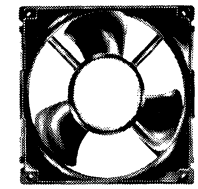




Whisper® Fan

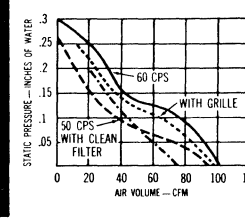
Specifically designed to deliver a substantial quantity of cooling with maximum reliability and minimum acoustical disturbance. Delivers 60 CFM. Size 4 11/16 square by only 1½" deep. Lightweight — only 1.2 pounds. Long life, advanced bearing system. 1800 RPM, 115 VAC, 60 CPS, 1 phase. Dimensionally interchangeable with "Sentinel" Fan. Maintenance-free design. Installs in seconds. Airflow instantly reversible. Available with washable dust filter.

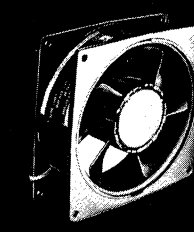




Sentinel™ FAN

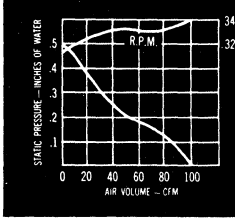
Trouble-free cooling in a compact package. Measures 4 11/16" square by only 1½" in depth. Rugged and reliable. Features stainless-steel ball-bearings. Lubricated for long life. Suitable for 160°F applications. 115 VAC, 50-60 CPS, 1 phase. Weighs just 1 pound. Venturi and spider molded of high impact strength phenolic. Propeller molded of polyolifin. Grill molded of polycarbonate. Quiet operation. Available in "Skeleton," "Venturi," "Grille" and "Filter" versions.

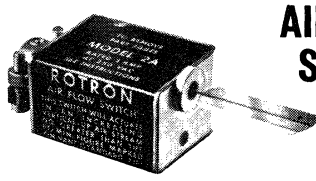




SPARTAN™ FAN

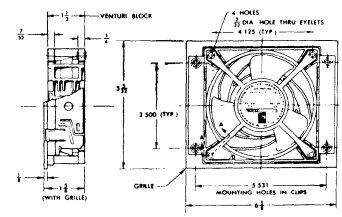
Power packed performer for military applications. Delivers 100 CFM at free delivery. Available with square flanges to mount to 4 holes spaced 4⅛" apart, interchangeable with "Sentinel" Fan mounting dimensions. Only 1½" axial depth. Clamping rings available for mounting with standard motor clamps. 115 VAC, 50-60 CPS, 1 phase. Airflow reversible. Stainless-steel ball-bearings. Built to military specifications (MIL-E-5272C).





AIRFLOW SWITCH

Interlocks equipment operation with cooling airflow. Actuates on velocity change. Detects air stoppages up and down. Eight air velocity ratings — millions of operations life expectancy. Determinator Kit available consisting of airflow switch and 8 actuating vanes for selecting correct vane size.



ROTRON® **ROTRON mfg. co., inc**
WOODSTOCK, NEW YORK
West Coast: Rotron/Pacific, Glendale, Calif.
Canada: The Hoover Co., Ltd., Hamilton, Ont

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Net

Birnbach

WIRE MEASURING MACHINE, BINDING POSTS, PHONO JACKS - HANDLES

"NEW" COMPLETE WIRE MEASURING OUTFIT

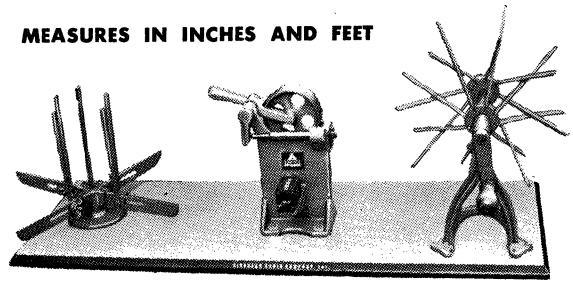
ACCURATE • COMPACT • NOISELESS

CERTIFICATE OF APPROVAL NO. 498-61
DEPARTMENT OF AGRICULTURE — STATE OF CALIFORNIA

MEASURING MACHINE

Sturdy and compact construction. Has a precision quality built counter with large numbers for easy reading and will register wire up to .9,999 feet for direct accurate reading. Can be easily reset to zero position.
Wire passes through two rollers, the upper roller being self-adjusting and the tension of the upper roller can be set by a thumb screw to provide the proper grip for very fine as well as for heavy wire.
Two hardened lead bushings with an opening of 5/8" diameter will guide the wire properly through the rollers. Bushings are removable to allow cables up to 1" dia. to pass through. Will measure accurately all electric wires, cables, coaxial cables, rope, tape, etc.

MEASURES IN INCHES AND FEET



Sold without baseboard.

WIRE WINDER

Has adjustable arms to be set to the desired coil size and the arms will open to a flat position for easy removal of the coil. Simply open thumb screw which holds the front collar tight on the shaft, push the collar in any direction to the desired position and tighten the thumb screw again.

HOLDING REEL

Compact, adjustable to size of coil and folding. Will hold spools or coils of wire.

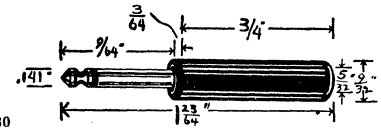
	MODEL	LIST	NET
COMPLETE WIRE MEASURING OUTFIT	7389A	$252.50	$126.25
Separately:			
HOLDING REEL	7398-1M	35.00	17.50
MEASURING MACHINE	7398-2MA	175.00	87.50
WIRE WINDER	7398-3M	59.00	29.50

MINIATURE PLUGS & JACKS

Insulated type, Solder terminals, two conductor mini. phone plug. Ideal for hearing aids, portable receivers, small instruments, etc. Rated 500 volts.

No.	Std. pkg.
130 Red or Black	50

MINIATURE PHONE PLUG

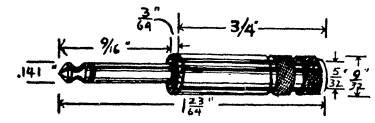


No. 130

SHIELDED MINIATURE PHONE PLUG

Same as No. 130 except with brass, bright nickel plated barrel with insulating tube inside.

No.	Std. pkg.
131	50

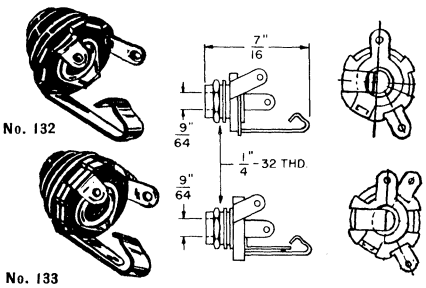


No. 131

MINIATURE TELEPHONE TYPE JACK

Rugged construction, smaller than standard type Jacks. Mount in 1/4" dia. hole in panels up to 1/8" thick.

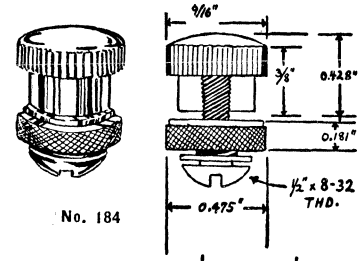
No.	Std. pkg.
132 Open circuit type	50
133 Single closed circuit type	50



No. 132

No. 133

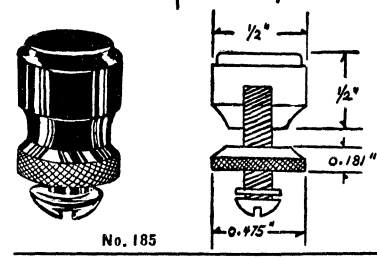
INSULATED BINDING POST



No. 184

Molded bakelite head with brass insert molded-in. Supplied complete with 8/32 x 1/2" screw, lock washer. Has brass insert molded-in. Supplied with washer. Available in black.

Cat. No.		Std. pkg.
184.	Binding Post	50



No. 185

Molded bakelite head with brass insert molded-in. Supplied complete with 8/32 x 1/2" screw and lock washer. Has brass nickel-plated retaining washer.
Colors: Red, Black.

Cat. No.		Std. pkg.
185.	Binding Post	50

Brass, heavily nickel-plated overall. Complete with screw and lock washer. Designed for high amperage, low resistance connections.

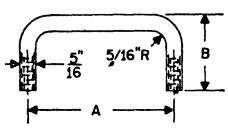
Cat. No.		Std. pkg.
186.	Metal Binding Post	50

BIRNBACH FLEXIBLE SHAFTS

Modern construction calls for more compact arrangement of parts. At times there is difficulty getting the controls to the proper position on the panel. With couplings and these flexible shafts, locations can be made with ease on an offset and angles up to 90 degrees. The flexible shafts are made of phosphor bronze and fitted into 1/4" dia. hubs.

Cat. No.		Std. Pkg.
553	Flexible Shaft 3" long	25
554	Flexible Shaft 6" long	25

HANDLES

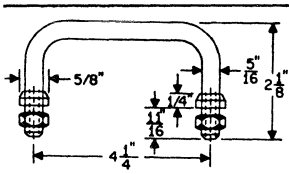


MATERIAL: BRASS
FINISH: NICKEL PLATED

Has 10-32 thread individually packaged for a perfect finish.

Cat. No.	A	B	Std. Pkg.
1065-3	3"	1 5/16"	10
1065-4	4 9/16"	1 1/2"	10
1065-6	6 7/16"	1 3/4"	10
1065-9	9"	1 3/4"	10

CABINET HANDLE



MATERIAL: BRASS
FINISH: NICKEL PLATED
Mounts in 5/16" Hole.
Supplied with Hex Nut and Washer. Individually packaged for perfect finish.

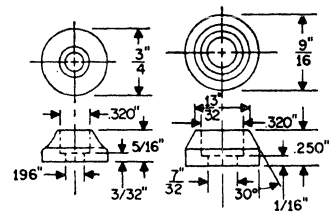
Cat. No.		Std. Pkg.
1066	Handle	10

FERRULE

BRASS—NICKEL PLATED
Used for mounting handles.

Cat. No.		Std. Pkg.
1068	Ferrule	100
1069	Ferrule	100

1069 1068



See Pages 1660-1665 for Birnbach Prices for Above Items

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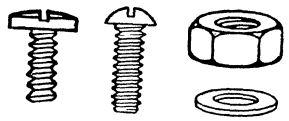
Birnbach

SCREWS & NUTS • WASHERS • STANDOFFS ALL-NYLON FASTENINGS

Non-Corrosive, Non-Conducting



Used in variety of applications, such as; appliances, computers and business machines, chemical and food processing equipment, electronic equipment and instruments, airborn equipment, etc.

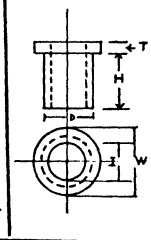
*Reg. T.M. of DuPont

ALL-NYLON FASTENINGS

Zytel 101 per Mil P 20693 Spec, Mil S 7742 Spec

Birnbach All-Nylon Fastenings are made of Zytel 101*, a Polymide plastic of the Nylon 6.6 Type. They offer outstanding insulating properties plus resistance to heat, shock, vibration and chemical solvents plus lightness elasticity and superior torque strength. In most cases, because of their high dielectric strength, they eliminate the need of bushings, washers or other insulation. They are corrosion resistant, non-magnetic and good torque strength thru a wide temperature range. Continuous service temperature to 300°F (150°C). Stock color: Natural. Additional colors available to order. Zytel 101 per MIL-P-17019B.

BIRNBACH NYLON BUSHINGS AND SPACERS



Designed with wide flanges to completely isolate screw from mounting surface, useful where hi tensile and torque requirements require high strength non-insulating screws. Natural color.

Cat. No.	UsedU with Screw Size	Dimensions I	W	T	H	D
6549	#4(.115″)	.235″	3/64″	¼″		.146″
6549A	#6(.140″)	.290″	3/64″	¼″		.170″
6549B	#8(.173″)	.344″	1/16″	⅜″		.205″
6549C	#10(.200″)	.399″	1/16″	⅜″		.260″
6549D	¼″(.260″)	.513″	1/16″	⅜″		.312″

ALL NYLON MACHINE SCREWS

STANDARD PKG.: 100, 1000

Cat. No.	Size	Type
6640	2-56 x ¼″	Round Head
6640A	2-56 x ¼″	Fillister Head
6640B	2-56 x ¼″	Binding Head
6641	2-56 x ⅜″	Round Head
6641A	2-56 x ⅜″	Fillister Head
6641B	2-56 x ⅜″	Binding Head
6550	2-56 x ½″	Round Head
6551	2-56 x ½″	Fillister Head
6551A	2-56 x ½″	Binding Head
6643	4-40 x ¼″	Round Head
6643A	4-40 x ¼″	Fillister Head
6643B	4-40 x ¼″	Binding Head
6644	4-40 x ⅜″	Round Head
6644A	4-40 x ⅜″	Fillister Head
6644B	4-40 x ⅜″	Binding Head
6552	4-40 x ½″	Round Head
6552A	4-40 x ½″	Fillister Head
6552B	4-40 x ½″	Binding Head
6646	6-32 x ¼″	Round Head
6646A	6-32 x ¼″	Fillister Head
6646B	6-32 x ¼″	Binding Head
6553	6-32 x ⅜″	Round Head
6554	6-32 x ⅜″	Binding Head
6555	6-32 x ⅜″	Fillister Head
6556	6-32 x ⅜″	Flat Head
6557	6-32 x ½″	Round Head
6558	6-32 x ½″	Binding Head
6559	6-32 x ½″	Fillister Head
6560	6-32 x ½″	Flat Head
6648	6-32 x ¾″	Round Head
6648A	6-32 x ¾″	Fillister Head
6648B	6-32 x ¾″	Binding Head
6561	6-32 x 1″	Round Head
6561C	6-32 x 1″	Flat Head
6650	8-32 x ¼″	Round Head
6650A	8-32 x ¼″	Fillister Head
6650B	8-32 x ¼″	Binding Head
6562	8-32 x ⅜″	Round Head
6563	8-32 x ⅜″	Binding Head
6564	8-32 x ⅜″	Flat Head
6565	8-32 x ⅜″	Fillister Head
6566	8-32 x ½″	Round Head
6567	8-32 x ½″	Binding Head
6568	8-32 x ½″	Flat Head
6569	8-32 x ½″	Fillister Head
6570	8-32 x ⅝″	Round Head
6571	8-32 x ⅝″	Fillister Head
6572	8-32 x ¾″	Round Head
6572A	8-32 x ¾″	Fillister Head
6572B	8-32 x ¾″	Binding Head
6573	8-32 x 1″	Flat Head
6573A	8-32 x 1″	Fillister Head
6574	10-32 x ⅜″	Round Head
6575	10-32 x ½″	Round Head
6576	10-32 x ½″	Flat Head
6577	10-32 x ⅝″	Round Head
6578	10-32 x 1″	Round Head
6579	10-32 x 1″	Flat Head

THREADED NYLON ROD in 6-32, 8-32, 10-32 and ¼-20 thread sizes available.

ROUND HEAD MACHINE SCREWS

Standard Package 1000

STEEL NICKEL PLATED Cat. No.	Size	BRASS NICKEL PLATED Cat. No.	Size
6300	2-56 x 3/16	6402	4-36 x ½
6301	2-56 x ⅜	6403	4-36 x ¾
6302	2-56 x ½	6404	4-36 x 1
6303	3-48 x ¾	6312	4-40 x ¼
6304	4-36 x ¼	6313	4-40 x ⅜
6305	4-36 x ½	6314	4-40 x ½
6306	4-36 x ¾	6315	4-40 x ¾
6307	4-40 x ¼	6405	6-32 x ¼
6308	4-40 x ½	6406	6-32 x ⅜
6309	4-40 x ¾	6407	6-32 x ½
6420	6-32 x ¼	6408	6-32 x ⅝
6421	6-32 x ⅜	6409	6-32 x ¾
6422	6-32 x ½	6410	6-32 x 1
6423	6-32 x ⅝	6410A	6-32 x 1⅛
6424	6-32 x ¾	6411	6-32 x 1¼
6425	6-32 x 1	6412	6-32 x 1½
6426	8-32 x ¼	6413	8-32 x ¼
6427	8-32 x ⅜	6414	8-32 x ⅜
6428	8-32 x ½	6415	8-32 x ½
6429	8-32 x ⅝	6416	8-32 x ⅝
6430	8-32 x ¾	6417	8-32 x ¾
6431	8-32 x 1	6418	8-32 x 1
6432	8-32 x 1½	6316	10-32 x ¼
6433	10-32 x ¼	6317	10-32 x ⅜
6434	10-32 x ⅜	6318	10-32 x ½
6435	10-32 x ½	6318A	10-32 x 5/8
6436	10-32 x ⅝	6319	10-32 x ¾
6437	10-32 x ¾	6319A	12-24 x 1
6438	10-32 x 1	6320	10-32 x 1
6439	¼-20 x ½	6320A	¼-20 x ⅞
6310	¼-20 x 1¼	6320B	¼-20 x 1¼
6311	¼-20 x 2½	6320C	¼-20 x 1½
6400	4-36 x ¼		
6401	4-36 x ⅜		

BINDING HEAD MACHINE SCREWS

Steel Nickel Plated

Cat. No.	Size	Std. Pkg.
6321	6-32 x ¼″	1000
6322	6-32 x ⅜″	1000
6323	6-32 x ½″	1000
6324	8-32 x ¼″	1000
6325	8-32 x ⅜″	1000
6326	8-32 x ½″	1000

OVAL HEAD RACK SCREWS

Steel Nickel Plated

Widely used for mounting panels on racks and cabinets. Screws are nickel-plated brass.

Cat. No.	Size	Std. Pkg.
6600	6-32 x ¼″	1000
6601	6-32 x ½″	1000
6602	6-32 x ¾″	1000
6603	6-32 x 1″	1000
6604	8-32 x ¼″	1000
6605	8-32 x ½″	1000
6606	8-32 x ¾″	1000
6607	8-32 x 1″	1000
6608	10-32 x ¼″	1000
6609	10-32 x ½″	1000
6610	10-32 x ⅝″	1000
6611	10-32 x ¾″	1000
6611-A	10-32 x 1″	1000

FINISHING RACK WASHERS

Brass Nickel Plated

Cat. No.	Size	Std. Pkg.
6612	6-32 Cup Washer	1000
6613	8-32 Cup Washer	1000
6614	10-32 Cup Washer	1000

SHEET METAL SELF TAPPING SCREWS

Steel Cadmium Plated

TYPE A — SHARP POINT

Cat. No.	Size	Std. Pkg.
6500	#4 x ½	144
6501	#6 x ¼	144
6502	#6 x ⅜	144
6503	#6 x ½	144
6504	#6 x ¾	144
6540	#8 x ⅜	144
6541	#8 x ½	144
6505	#8 x 1	144
6542	#10 x ⅜	144
6543	#10 x ½	144
6506	#10 x ¾	144
6507	#10 x 1	144

HEX HEAD SELF TAPPING SCREWS

TYPE B — BLUNT POINT SLOTTED

Steel Cadmium Plated

Cat. No.	Size	Std. Pkg.	Cat. No.	Size	Std. Pkg.
6510	#6 x ⅜	144	6515	#8 x ½	144
6511	#6 x ½	144	6516	#8 x ¾	144
6512	#6 x ¾	144	6517	#8 x 1	144
6513	#8 x ¼	144	6518	#10 x ½	144
6514	#8 x ⅜	144	6519	#10 x 1	144

VOLUME CONTROL AND TOGGLE NUTS

STEEL - BRASS - NICKEL PLATED

No.	Type	Size	Std. Pkg
6337	Vol. Control Brass	⅜-32x½x5/32	1000
6337A	Vol. Control Steel	⅜-32x½x5/32	1000
6338	Toggle Switch Brass	15-32x9/16x5/64	1000
6339	Toggle Ring Nut	15-32x⅝x1/16	1000

All parts are manufactured to American Thread Standards to a class 2A or 2B fit. B 18.2 (hex nuts), B 18.6 (machine screws), B 1.1 (thread specs.)

BIRNBACH ALL NYLON HEX NUTS

STANDARD PKG.: 100, 1000

Cat. No.	Size	Cat. No.	Size
6585	2-56	6588	8-32
6586	4-40	6589	10-32
6587	6-32	6590	¼-20

BIRNBACH ALL-NYLON WASHERS

STANDARD PKG.: 100, 1000

Cat. No.	Fits Screw No.	O.D.	I.D.	Thickness
6592	2	¼″	3/32″	.016″
6593	4	¼″	⅛″	.016″
6594	6	5/16″	5/32″	.031″
6595	8	⅜″	.170″	.031″
6596	10	⅜″	.195″	.031″
6597	¼″	⅝″	9/32″	.063″

BIRNBACH HEXAGON STEEL MACHINE SCREW NUTS

Nickel Plated

Cat. No.	Thread Size	Width across Flats	Thickness	Std. Pkg
6330	2-56	3/16″	1/16″	1000
6331	3-48	3/16″	1/16″	1000
6332	4-36	1/4″	3/32″	1000
6333	4-40	1/4″	3/32″	1000
6448	6-32	1/4″	3/32″	1000
6449	6-32	5/16″	7/64″	1000
6334	8-32	1/4″	3/32″	1000
6450	8-32	5/16″	7/64″	1000
6335	10-32	3/8″	1/8″	1000
6336	¼-20	7/16″	3/16″	1000

BIRNBACH HEXAGON MACHINE SCREW NUTS

BRASS—NICKEL PLATED

Cat. No.	Thread Size	Width across Flats	Thickness	Std. Pkg.
6440	4-36	1/4″	3/32″	1000
6442	4-40	1/4″	3/32″	1000
6441	6-32	1/4″	5/64″	1000
6443	6-32	5/16″	7/64″	1000
6444	8-32	11/32″	1/8″	1000
6445	10-32	5/16″	7/64″	1000
6446	10-32	3/8″	1/8″	1000
6447	¼-20	7/16″	1/8″	1000

BIRNBACH BRASS NICKEL PLATED FLAT WASHERS

Cat. No.	Fits Screw No.	Hole Size	O.D.	Thickness	Std. Pkg.
6479	4	.118″	9/32″	.025″	1000
6480A	6	.145″	5/16″	.025″	1000
6480	6	.145″	3/8″	.025″	1000
6481	8	.172″	3/8″	.032″	1000
6482	10	.203″	7/16″	.036″	1000
6483	¼-20	.265″	9/16″	.040″	1000

BIRNBACH STEEL KANKLINK LOCKWASHERS

Cat. No.	Screw Size	O.D.	Thickness	Std. Pkg
6484	4	3/16″	1/32″	1000
6485	6	15/64″	1/32″	1000
6486	8	15/64″	.025″	1000
6487	10	5/16″	.050″	1000
6488	¼	7/16″	5/64″	1000

BIRNBACH SHAKEPROOF LOCKWASHERS EXTERNAL TEETH

Cat. No.	Screw Size	Std. Pkg.
6358	4	1000
6359	6	1000
6360	8	1000
6361	10	1000
6362	¼	1000
6363	⅜	1000

BIRNBACH SHAKEPROOF LOCKWASHERS INTERNAL TEETH

Cat. No.	Screw Size	Std. Pkg.
6355	2	1000
6356	3	1000
6357	4	1000
6490	6	1000
6491	8	1000
6492	10	1000
6493	¼	1000
6494	⅜	1000
6494/1	Narrow Rim Control Shaft Lockwasher 3/8″	1000
6494/2	Narrow Rim Toggle Switch Lockwasher 15/32″	1000

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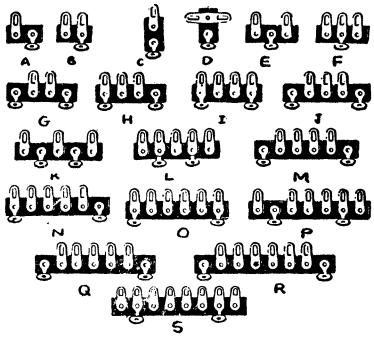
See Pages 1660-1665 for Birnbach Prices for Above Items

Birnbach

TERMINAL STRIPS • LUGS • BUSHINGS SHAFT COUPLINGS • PANEL BEARINGS SPACERS • TUBE CLAMPS

TIE DOWN LUG TERMINAL STRIPS



STANDARD TYPE

These lugs made of 1/16" (.062" thick) XP bakelite x ¾" wide with cadmium plated brass lugs. Lugs are ¾" centers with .140 diam. mounting holes. Strips illustrated are standard; special combinations on request.

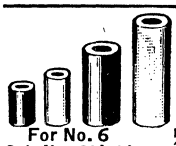
Cat. No.	Illustration	Std. Pkg.	Cat. No.	Illustration	Std. Pkg.
1382	A	100	1385B	L	100
1382A	B	100	1386	M	100
1382B	C	100	1386A	N	100
1382C	D	100	1386B	O	100
1383	E	100	1387	P	100
1383A	F	100	1388	Q	100
1384	G	100		5 Ter., 2 grds.	
1384A	H	100	1389	R	100
1384B	I	100		6 Ter., 2 grds.	
1385	J	100	1390	S	100
1385A	K	100			

MINIATURE TYPE

These lugs made of 1/16" (.062" thick) XP bakelite x 5/16" wide. Brass, cadmium plated lugs are ¼" centers; .096 diam. mounting hole. Clearance for 3/32" rivet or No. 3 screw. Strips illustrated are standard; special combinations on request.

Cat. No.	Illustration	Std. Pkg.	Cat. No.	Illustration	Std. Pkg.
1352	A	100	1355A	K	100
1352A	B	100	1355B	L	100
1352B	C	100	1356	M	100
1352C	D	100	1356A	N	100
1353	E	100	1356B	O	100
1353A	F	100	1357	P	100
1354	G	100	1358	Q	100
1354A	H	100	1359	R	100
1354B	I	100	1360	S	100
1355	J	100			

BIRNBACH BRASS BUSHINGS & SPACERS



An ideal brass bushing for raising sub panels, chassis, condensers, transformers, etc. Hole will accommodate a No. 6 or No. 8 screw.

For No. 6 Cat. No.	Std. Pkg.	¼" O.D. Length	For No. 8 Cat. No.	Std. Pkg.
		¼"		
1125	100		1130	100
1126	100	⅜"	1131	100
1127	100	½"	1132	100
1128	100	¾"	1133	100
1129	100	1"	1134	100
		⅜" O.D.		
1135	100	¼"	1140	100
1136	100	⅜"	1141	100
1137	100	½"	1142	100
1138	100	¾"	1143	100
1139	100	1"	1144	100

THREADED BRASS SPACERS

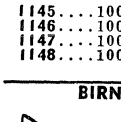
¼" O.D.

For No. 6-32 Cat. No.	Std. Pkg.	Length	For No. 8-32 Cat. No.	Std. Pkg.
1125T	100	¼"	1130T	100
1126T	100	⅜"	1131T	100
1127T	100	½"	1132T	100
1128T	100	¾"	1133T	100
1129T	100	1"	1134T	100

BIRNBACH INSULATED BUSHINGS AND SPACERS

For No. 6 Cat. No.	Std. Pkg.	¼" O.D. Length	For No. 8 Cat. No.	Std. Pkg.
1145	100	¼"	1149	100
1146	100	⅜"	1150	100
1147	100	½"	1151	100
1148	100	¾"	1152	100

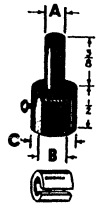
BIRNBACH CABLE CLAMPS



Cat. No.	To Fit Cable Up to	Lth.	Wth.	Mtg. Hole	Std. Pkg.
1153	5/32"	7/16"	¼"		4..100
1154	3/16"	5/8"	3/8"		6..100
1155	¼"	11/16"	3/8"		6..100
1156	½"	15/16"	3/8"		8..100
1157	¾"	1 1/8"	3/8"		10..100

SHAFT COUPLING REDUCERS AND EXTENDERS

By the use of these units all ¼" and ⅜" dia. shafts and knobs can be assembled together. The insulated units are for use where electrical isolation is desired. Furnished complete with set screws shown. Be sure to specify whether Brass or Insulated is desired.

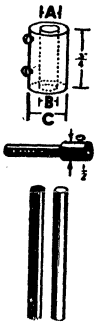


SHAFT COUPLINGS

Cat. No. Br.	Cat. No. Insul.	Shaft A	Hole B	O.D. C	Std. Pkg.
534	634	¼"	¼"	½"	50
535	635	¼"	⅜"	11/16"	50
536	636	⅜"	¼"	½"	50
537	Reducer for ⅜" Dia. to ¼" Dia. Hole		⅜"		50

COUPLINGS

531	631	¼"	¼"	½"	50
532	632	¼"	⅜"	11/16"	50
533	633	⅜"	⅜"	11/16"	50



EXTENDERS

Cat. No.	Overall Lgth.	Shaft Lgth.	Hole I.D.	Shaft O.D.	Std. Pkg.
538 Brass	1¾"	1¼"	¼"	¼"	50
539 Insulated	1¾"	1¼"	¼"	¼"	50

BRASS SHAFTING

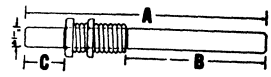
Cat. No.		Std. Pkg.
540	¼" Dia. 6" Long	12
541	¼" Dia. 12" Long	12
542	⅜" Dia. 8" Long	12

FIBRE SHAFTING

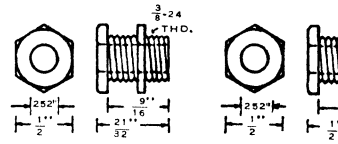
543	¼" Dia. 6" Long	12
544	¼" Dia. 12" Long	12
545	⅜" Dia. 8" Long	12

BIRNBACH FRONT PANEL BEARINGS

Cadmium plated brass for panels up to ⅜" in thickness and for ¼" dia. shafts. The No. 551 and No. 552 are complete assemblies of the No. 550 and ¼" dia. brass shaft cadmium plated.



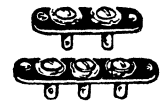
Cat. No.	A	B	C	Std. Pkg.
551	.3"	1¾"	½"	50
552	.6"	4¾"	½"	25



(Same as used on No. 551 and No. 552)

Cat. No.		Std. Pkg.
550	—Front Panel Bearing, threaded length 9/16"	50
550A	—Front Panel Bearing, threaded length 13/32"	50
550-B	—Front Panel Bearing, ⅜-32 threaded length 7/16 - 21/32	O.L.
550-C	—Front Panel Bearing— Miniature ¼-32 thd length 5/16, 3/8" O.L. .125 opening 11/32 hex.	

BAKELITE TERMINAL STRIPS



Terminals are made of brass and cadmium plated. Terminals are mounted on 1/16" bakelite. 7, 8, 9 and 10 terminals are mounted on 3/32" bakelite. All terminals are space 7/16" center to center.

PLAIN

Cat. No.	Terminals	Mtg. Center
1372	2	1-5/16"
1373	3	1-3/4"
1374	4	2-1/16"
1375	5	2-5/8"
1376	6	3-1/16"
1377	7	3-1/2"
1378	8	3-15/16"
1379	9	4-3/8"
1380	10	4-13/16"

MARKED

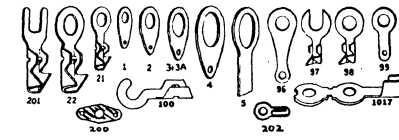
Cat. No.	Terminals Marked
1260	2; A-G
1261	2; Output
1262	2; Input
1263	3; 1-2-3
1264	4; 1-2-3-4
1265	5; 1-2-3-4-5
1266	6; 1-2-3-4-5-6

TERMINAL STRIPS 2 POST

Excellent mounting for twin lead transmission lines Brass hot tinned lugs spaced ⅞" center to center. ¼" bakelite. 1 15/16" mounting center.

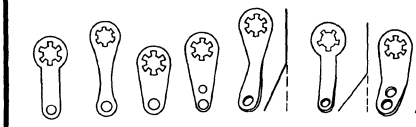
Cat. No. T16.....St. Pkge. 50

BIRNBACH TINNED TERMINAL LUGS



Cat. No.	Hole for Screw	Material	Thickness	Lgth.
1	6	Tinned Copper	.015"	17/32"
2	10	Tinned Copper	.016"	5/8"
3	.252	Tinned Copper	.015"	17/32"
3A	1/4	Tinned Copper	.015"	13/16"
4	3/8	Tinned Copper	.016"	7/8"
5	1/2	Hot Tin. Cop.	.024"	1 3/16"
21	10	Hot Tin. Cop.	.020"	3/4"
22	1/4	Hot Tin. Cop.	.025"	1 1/16"
200	8	Brass Hot Tin.	.015"	7/8"
201	10	Brass Hot Tin.	.020"	25/32"
202	6	Brass Hot Tin.	.020"	5/8"
96	4-6-8-10	Brass Hot Tin.	.020"	7/8"
97	8	Tinned Copper	.016"	5/8"
98	4-6-8-10	Brass Hot Tin.	.020"	1 1/16"
99	4-6-8-10	Brass Hot Tin.	.020"	1 1/16"
100	10	Brass Hot Tin.	.020"	7/8"
1017	10	N. Pl. Cop.	.023"	13/16"

Standard Package — 1000

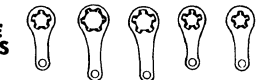


LOCKWASHER TERMINAL LUGS BRASS HOT TINNED

Cat. No.	Hole for Screw	Thickness	Std. Pkge. 1000 Length
140-4	4	.018"	7/32"
140-6	6	.018"	7/32"
140-8	8	.018"	7/32"
140-10	10	.018"	5/64"
140-14	¼"	.018"	13/16"
141-4	4	.018"	4/64"
141-6	6	.018"	4/64"
141-8	8	.018"	4/64"
142-4	4	.018"	5/8"
142-6	6	.018"	5/8"
142-8	8	.018"	5/8"
143-4	4	.018"	23/32"
143-6	6	.018"	23/32"
143-8	8	.018"	23/32"
144-4	4	.018"	13/16"
144-6	6	.018"	13/16"
144-8	8	.018"	13/16"
144-10	10	.018"	53/64"
145-4	4	.018"	23/32"
145-6	6	.018"	23/32"
145-8	8	.018"	23/32"
146-4	4	.018"	41/64"
146-6	6	.018"	41/64"
146-8	8	.018"	41/64"

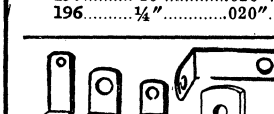
BIRNBACH LOCKING TYPE TERMINAL LUGS

Brass Electro Plated



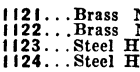
Cat. No.	Hole for Screw	Thickness	Length In.	Std. Pkg.
193	4	.020"	¾"	1000
194	6	.020"	¾"	1000
195	8	.020"	⅞"	1000
197	10	.020"	⅞"	1000
196	¼"	.020"	1⅛"	1000

BRASS AND STEEL ANGLES



Cat. No.	Material	Size	Mtg. Holes	Std. Pkg.
1120	Cadmium Pltd.	½"x ½"	165	100
1121	Brass N.P.	½"x ½"	169	100
1122	Brass N.P.	⅝"x ⅝"	169	100
1123	Steel H.T.	¾"x ¾"	144	100
1124	Steel H.T.	⅝"x1⅛"	169	100

BIRNBACH 3 POST



A synchronizing lock strip for RCA type television receivers.

Brass hot tinned lugs. Spaced 7/16" center to center. Mounting center 1¾". 1/16" bakelite.

Ca. No. T16A.....Std. Pkg. 50

See Pages 1660-1665 for Birnbach Prices for Above Items

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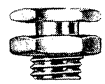
ntt NATIONAL TEL-TRONICS CORP.
YONKERS, N. Y.

1503


1568

1535

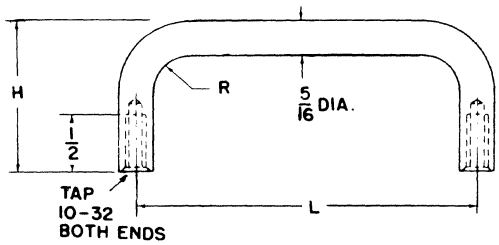
1551

1500

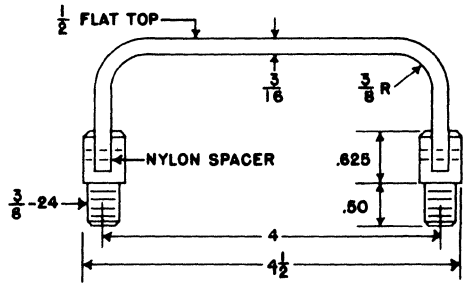
HARDWARE

HANDLES

Material: Brass, Nickel-Plated
Request quotation for other sizes or styles.



PART No.	L	H
1500	6-7/16	1-3/4
1501	4-1/4	1-1/2
1502	3	1-1/2

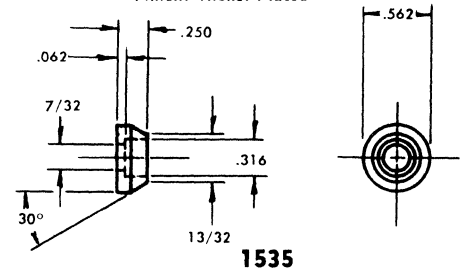


1503 FOLDING HANDLE

Handle folds full 180° has nylon bushings at knuckle joint to retain handle to desired position.

HANDLE FERRULE

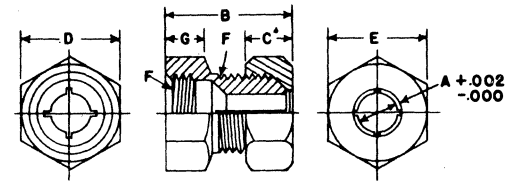
Material: Half-Hard Brass
Finish: Nickel-Plated



1535

SHAFT LOCKS

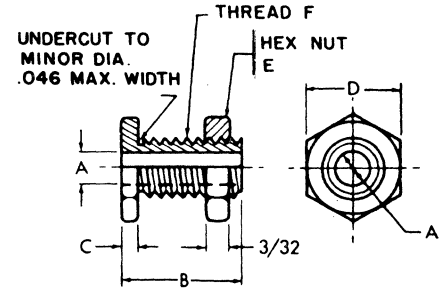
Material: Brass Finish: Nickel-Plated



PART No.	A	B	C	D	E	F	G	FOR SHAFT DIA.
1551	.127	3/8	.150	5/16	5/16	1/4 x 32	.140	1/8
1552	.127	7/16	.187	3/8	3/8	1/4 x 32	.156	1/8
1553	.127	1/2	.218	3/8	5/16	1/4 x 32	.187	1/8
1554	.252	1/2	.250	1/2	7/16	3/8 x 32	.187	1/4
1555	.252	9/16	.250	1/2	7/16	3/8 x 32	.187	1/4

PANEL MOUNTS

PART NO.	SHAFT SIZE	A	B	C	D	E	F	PANEL THICKNESS	FINISH
1560	1/8	.127	5/16	1/16	3/8	3/8	1/4 x 32	1/8	Nickel Plated
1561	1/8	.127	5/16	1/16	3/8	3/8	1/4 x 32	1/8	Dull Black Oxide
1562	1/8	.127	7/16	1/16	3/8	3/8	1/4 x 32	1/4	Nickel Plated
1563	1/8	.127	7/16	1/16	3/8	3/8	1/4 x 32	1/4	Dull Black Oxide
1564	1/8	.127	9/16	1/16	3/8	3/8	1/4 x 32	3/8	Nickel Plated
1565	1/8	.127	9/16	1/16	3/8	3/8	1/4 x 32	3/8	Dull Black Oxide
1566	1/4	.252	3/8	3/32	1/2	1/2	3/8 x 32	1/8	Nickel Plated
1567	1/4	.252	3/8	3/32	1/2	1/2	3/8 x 32	1/8	Dull Black Oxide
1568	1/4	.252	1/2	3/32	1/2	1/2	3/8 x 32	1/4	Nickel Plated
1569	1/4	.252	1/2	3/32	1/2	1/2	3/8 x 32	1/4	Dull Black Oxide
1570	1/4	.252	5/8	3/32	1/2	1/2	3/8 x 32	3/8	Nickel Plated
1571	1/4	.252	5/8	3/32	1/2	1/2	3/8 x 32	3/8	Dull Black Oxide
1572	1/4	.252	3/4	3/32	1/2	1/2	3/8 x 32	1/2	Nickel Plated
1573	1/4	.252	3/4	3/32	1/2	1/2	3/8 x 32	1/2	Dull Black Oxide



Photos shown are not to size or scale

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DABURN

DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

DABURN NYLON FASTENINGS

ZYTEL 101 PER MIL-P-17019B

BINDING HEAD | ROUND HEAD | FILLISTER HEAD | FLAT HEAD

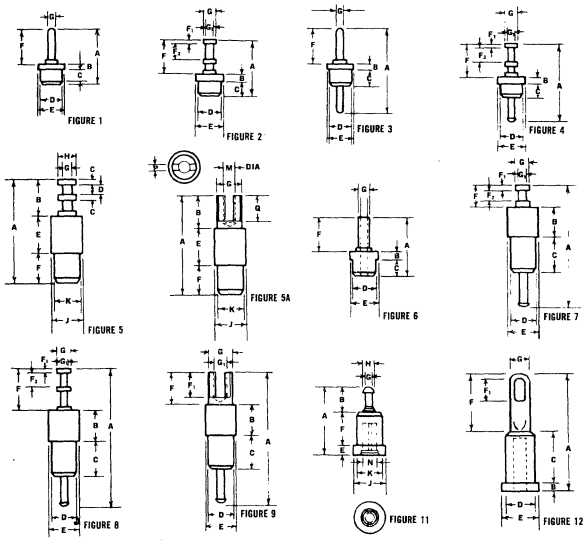
Has outstanding insulation specs. hi-resistance to heat, shock, vibration, chemical. Is light in weight, superior torque strength. Corrosion resistant, non magnetic. Continuous service temperature to 300°F. All parts made to American thread standards to Class 2A or 2B fit. B18.2 (hex nuts), B18.6 (amchine screws), B1.1 (thread specs.).

DABURN No.	Size	Type
14-40	2-56 x 1/4"	Rd. Hd.
14-40A	2-56 x 1/4"	Fill. Hd.
14-40B	2-56 x 1/4"	Bind. Hd.
14-41	2-56 x 3/8"	Rd. Hd.
14-41A	2-56 x 3/8"	Fill. Hd.
14-41B	2-56 x 3/8"	Bind. Hd.
14-42	2-56 x 1/2"	Rd. Hd.
14-42A	2-56 x 1/2"	Fill. Hd.
14-42B	2-56 x 1/2"	Bind. Hd.
14-43	4-40 x 1/4"	Rd. Hd.
14-43A	4-40 x 1/4"	Fill. Hd.
14-43B	4-40 x 1/4"	Bind. Hd.
14-44	4-40 x 3/8"	Rd. Hd.
14-44A	4-40 x 3/8"	Fill Hd.
14-44B	4-40 x 3/8"	Bind. Hd.
14-45	4-40 x 1/2"	Rd. Hd.
14-45A	4-40 x 1/2"	Fill. Hd.
14-45B	4-40 x 1/2"	Bind. Hd.
14-46	6-32 x 1/4"	Rd. Hd.
14-46A	6-32 x 1/4"	Fill. Hd.
14-46B	6-32 x 1/4"	Bind. Hd.
14-47	6-32 x 3/8"	Rd. Hd.
14-47A	6-32 x 3/8"	Bind. Hd.
14-47B	6-32 x 3/8"	Fill. Hd.
14-47C	6-32 x 3/8"	Flat. Hd.
14-48	6-32 x 1/2"	Rd. Hd.
14-48A	6-32 x 1/2"	Bind. Hd.
14-48B	6-32 x 1/2"	Fill. Hd.
14-48C	6-32 x 1/2"	Flat. Hd.
14-49	6-32 x 3/4"	Rd.Hd.
14-49A	6-32 x 3/4"	Fill. Hd.
14-49B	6-32 x 3/4"	Bind. Hd.
14-50	6-32 x 1"	Rd. Hd.
14-50C	6-32 x 1	Flat. Hd.
14-51	8-32 x 1/4"	Rd. Hd.
14-51A	8-32 x 1/4"	Fill. Hd.
14-51B	8-32 x 1/4"	Bind. Hd.
14-52	8-32 x 1/2"	Rd. Hd.
14-52A	8-32 x 1/2"	Fill. Hd.
14-52B	8-32 x 1/2"	Bd. Hd.
14-52C	8-32 x 1/2"	Flat Hd.
14-54	8-32 x 5/8"	Rd. Hd.
14-54A	8-32 x 5/8"	Fill. Hd.
14-55	8-32 x 3/4"	Rd. Hd.
14-55A	8-32 x 3/4"	Fill. Hd.
14-55B	8-32 x 3/4"	Bd. Hd.
14-56A	8-32 x 1"	Fill. Hd.
14-56C	8-32 x 1"	Flat. Hd.
14-57	10-32 x 3/8"	Rd. Hd.
14-58	10-32 x 1/2"	Rd. Hd.
14-59	10-32 x 5/8"	Rd. Hd.
14-60	10-32 x 1"	Rd. Hd.
14-60C	10-32 x 1"	Flat Hd.

STOCK COLOR: Natural — Std. Pkg.: 100, 1000

Additional sizes available to order.

SUB-MINIATURE TEFLON* TERMINALS

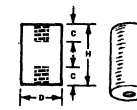


Material, pure virgin Teflon, conforms to MIL-P-19468 and AMS 3651B spec. This terminals series provides instant mounting without any extra fastening hardware. Easily inserted into punched or drilled holes, self locking. unaffected by soldering. Resistant to thermal-mechanical shock, vibration, corrosion moisture. Speeds up assembly — cuts production costs. Suitable for crowded assemblies. Brass meets QQ-B-626 comp. ½ H.

Daburn No.	Fig.	Cap. MMF.	A	B	C	D	E	F	G
11-06	1	.41	.35	.04	.10	.148	.172	.210	.040
11-07	1	.39	.41	.04	.16	.148	.172	.210	.040
11-08	1	.32	.50	.04	.25	.148	.172	.210	.040
11-10	2	.41	.35	.04	.10	.148	.172	.210	.040
11-11	2	.36	.375	.04	.125	.148	.172	.210	.040
11-12	2	.36	.35	.04	.100	.179	.200	.210	.040
11-10-01	2	.45	.420	.093	.125	.148	.172	.210	.040
11-10-02	2	.37	.50	.040	.250	.148	.172	.210	.040
11-11-01	5	.58	.522	.125	.150	.165	.187	.250	.040
11-15	3	.55	.443	.04	.100	.148	.172	.210	.040
11-14	3	.73	.515	.04	.100	.148	.172	.210	.045

DABURN STEATITE STANDOFFS

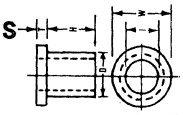
JAN-I-8 AND JAN-I-10 SPECS.



These threaded Steatite pillars are made of L5 glazed Steatite with threaded holes on both sides have one hole mounting. **COLOR:** White

DABURN No.	Conforms to Type	Hgt.	Diam.	L'gth. of Thread	Thread	Std. Pkg.
10-41		1/4"	1/4"	All	6-32	100
10-41B		3/8"	1/4"	5/32"	6-32	100
10-41A		1/2"	1/4"	5/32"	6-32	100
10-44A		3/4"	1/4"	1/4"	6-32	100
10-45A		1"	1/4"	1/4"	6-32	100
10-42		3/8"	3/8"	5/32"	6-32	100
10-42A	NS5W0104	1/2"	3/8"	5/32"	6-32	100
10-43A	NS5W0105	5/8"	3/8"	1/4"	6-32	100
10-44B	NS5W0106	3/4"	3/8"	"1/4	6-32	100
10-45B	NS5W0108	1"	3/8"	3/8"	6-32	100
10-46B	NS5W0110	1 1/4"	3/8"	3/8"	6-32	100
10-46A	NS5W0112	1 1/2"	3/8"	3/8"	6-32	100
10-46C	NS5W0116	2"	3/8"	3/8"	6-32	100
10-43		1/2"	1/2"	1/4"	6-32	100
10-44		3/4"	1/2"	1/4"	6-32	100
10-45		1"	1/2"	3/8"	6-32	100
10-46		1 1/2"	1/2"	3/8"	6-32	100
10-47		2 1/2"	1/2"	3/8"	6-32	100
10-40	NS5W0205	5/8"	1/2"	3/16"	8-32	100
10-40A	NS5W0206	3/4"	1/2"	1/4"	8-32	100
10-40B	NS5W0208	1"	1/2"	3/8"	8-32	100
10-40C	NS5W0210	1 1/4"	1/2"	3/8"	8-32	100
10-40D	NS5W0212	1 1/2"	1/2"	3/8"	8-32	100
10-40E	NS5W0216	2"	1/2"	3/8"	8-32	100
10-40F	NS5W0220	2 1/2"	1/2"	3/8"	8-32	100
10-44C		3/4"	3/4"	1/4"	10-32	100
10-45C	NS5W0308	1"	3/4"	3/8"	10-32	100
10-45D	NS5W0310	1 1/4"	3/4"	3/8"	10-32	100
10-45E	NS5W0312	1 1/2"	3/4"	3/8"	10-32	100
10-45F	NS5W0316	2"	3/4"	3/8"	10-32	100
10-45G	NS5W0320	2 1/2"	3/4"	3/4"	10-32	100
10-47B	NS5W0412	1 1/2"	1"	1/2"	1/4-20	50

DABURN NYLON SPACER/BUSHINGS



Wide flanges isolates screw from mounting surface. Has hi-tensile and torque strength.
COLOR: Natural. Std. Pkg.: 100, 1000.

Daburn No.	Screw Size I.D.	A	B	C	D
14-79	# 4 (.115")	.235"	3/64"	1/4"	.146"
14-79A	# 6 (.140")	.290"	3/64"	1/4"	.170"
14-79B	# 8 (.173")	.344"	1/16"	3/8"	.205"
14-79C	#10 (.200")	.399"	1/16"	3/8"	.260"
14-79D	1/4" (.260")	.513"	1/16"	3/8"	.312"

DABURN NYLON HEX NUTS

Daburn No.	Size	Daburn No.	Size
14-85	2-56	14-88	8-32
14-86	4-40	14-89	10-32
14-87	6-32	14-90	1/4-20

COLOR: Natural — Std. Pkg.: 100, 1000

DABURN NYLON FLAT WASHERS

Daburn No.	For Screw Size	I.D.	O.D.	Thickness
14-92	2	3/32"	1/4"	.016"
14-93	4	1/8"	1/4"	.016"
14-94	6	5/32"	5/16"	.031"
14-95	8	.170"	3/8"	.031"
14-96	10	.195"	3/8"	.031"
14-97	1/4	9/32"	5/8"	.063"

COLOR: Natural — Std. Pkg.: 100, 1000

JACK MATERIAL: Beryllium copper with .000030 min. gold flash over .0003 min. silver plate.

PLATING: Solder finish electro solder plate. Available in all other platings.

COLOR: Natural (White). Std. Pkg.: 100, 1000.

Daburn No.	Fig.	Cap. MMF.	A	B	C	D	E	F	G
11-16	3	.71	.725	.04	.100	.148	.172	.210	.040
11-18	4	.62	.500	.04	.100	.148	.172	.210	.040
11-19	4	.69	.500	.04	.165	.148	.172	.210	.040
11-17	6		.193	.025	.063	.125	.150	.105	.040
11-20	7	.80	.540	.063	.171	.171	.187	.133	.046
11-21	8	.72	.836	.187	.165	.148	.172	.250	.040
11-22	9	.81	.821			.171	.187	.203	.148
11-25-01	11	.70	.637	.050	.40	.185	.218	.187	.054
11-25-02	11	.80	.437	.046	.271	.185	.218	.120	.054
11-25-03	11	.50	.345	.046	.179	.148	.172	.120	.046
11-23	12	.50	.687	.046	.287	.185	.218	.354	.105

Net

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DABURN

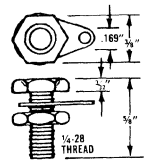
DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

BANANA JACK — No. 17-03

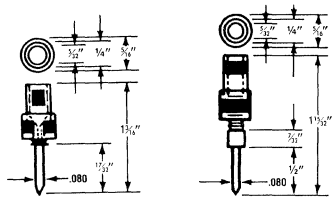
Hexed brass nickel plated hex nut and tinned copper lug. Has recessed head. Mounts in ¼" hole in panels up to 5/16" thick. Fits all standard banana plugs.

Rated: 15 amps AC.



DABURN No.		Std. Pkg.
17-03	Banana Jack	100

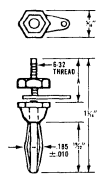
SOLDERLESS PHONE TIP PLUG



Brass nickel plated. Both fit all standard phone tip jacks. Slipping the wire thru body of tip, then wrapping same around screw, is tightened by knurled collar.

DABURN No.	Description Type	Std. Pkg.
17-33	Junior	100
17-34	Senior	100

BANANA PLUG — No. 17-40

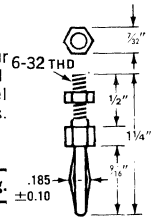


Fits all standard banana jacks. Hex brass, nickel plated. Comes thru with hex N. PL. nut and tinned copper lug. Spring is four leaf phosphor bronze, nickel plated.

RATED: 15 Amps. AC.

DABURN No.	Spring	Dim. A	Std. Pkg.
17-40	Phosphor Bronze	½"	100
17-40A	Phosphor Bronze	⅜"	100
17-40B	Beryllium Copper	½"	100

BANANA PLUG — No. 17-14

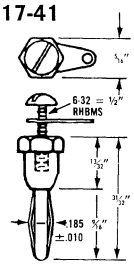


Nickel plated hex brass; spring is four leaf phosphor bronze, nickel plated Comes thru with hex nut, nickel plated. Fits all standard banana jacks. Similar to Smith 103 or BB414.

RATED: 15 Amps. AC.

DABURN No.	Spring	Std. Pkg.
17-14	Phosphor Bronze	100

BANANA PLUG — No. 17-41



Body is hex brass, nickel plated, comes thru complete with N. PL. screw and tinned copper lug; spring is four leaf phosphor bronze or beryllium copper, nickel plated. Fits all standard banana jacks.

RATED: 15 Amps. AC.

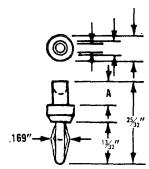
DABURN No.	Spring	Std. Pkg.
17-41	Phosphor Bronze	100
17-41B	Beryllium Copper	100

MIDGET BANANA PLUG

RIVET TYPE

Brass silver plated body. Spring is four leaf phosphor bronze, silver plated.

RATED: 10 Amps. AC.



DABURN No.		Std. Pkg.
17-26	Rivet Type Midget Plug	100

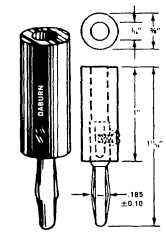
Additional Midget Plugs & Jacks Available.
Also Sub-Miniature Plugs & Jacks.

INSULATED BANANA PLUG

SOLDERLESS

Fits standard banana jacks. Plug is brass nickel plated. Spring is four leaf phosphor bronze, nickel plated. Side set screw holds wire without soldering. Molded plastic handle.

COLORS
Red, Black, Yellow, Green, Blue (Specify)



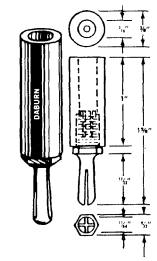
DABURN No.	SPRING	Std. Pkg.
19-46	Phosphor Bronze N.P.	50
19-46B	Beryllium Copper N.P.	50

INSULATED BANANA PLUG

SOLDERLESS

This split plug, brass N. PL., has internal brass N. PL., stud for solderless connection. Fits standard banana jacks. Molded plastic handle.

COLORS
Red, Black, Yellow, Green, Blue. (Specify)



DABURN No.	Std. Pkg.
19-47	50

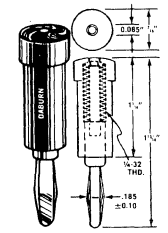
BANANA PLUG

ADAPTER

TIP PLUG TO BANANA PLUG

Fits standard banana jacks, accepts standard phone tips. Plug is brass nickel plated. Spring is four leaf phosphor bronze, nickel plated. Phone tip jack is phosphor bronze molded plastic handle and cap.

COLORS
Red, Black (Specify)



DABURN No.	Std. Pkg.
19-67	50

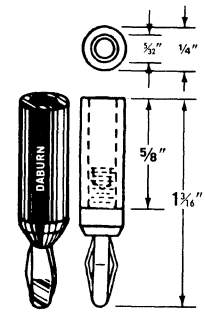
ADAPTER

INSULATED MIDGET BANANA PLUG

SOLDERLESS

Spring is four leaf phosphphor bronze, or beryllium copper, nickel plated. Wire can be soldered directly into plug. Molded plastic handle. Fits standard banana jacks.

COLORS
Red, Black. (Specify)



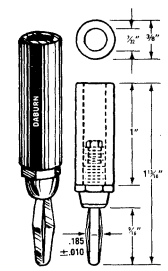
DABURN No.	SPRING	Std. Pkg.
19-55	Phosphor Bronze N.P.	50
19-55B	Beryllium Copper S.P.	50

INSULATED BANANA PLUG

SOLDERLESS

Fits standard banana jacks. Plug is hex brass, Nickel plated. Spring is four leaf phosphor bronze nickel plated. Molded plastic handle.
For solderless connection: wire can be passed thru hex brass N.P. stud and spread, which locks wire to plug. Wire can also be soldered directly to plug.

COLORS
Red, Black, Yellow, Green, Blue. (Specify)



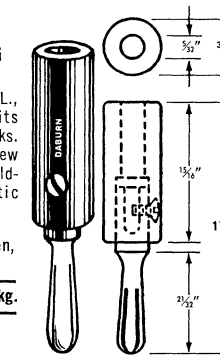
DABURN No.	SPRING	Std. Pkg.
19-04	Phosphor Bronze N.P.	50
19-04B	Beryllium Copper S.P.	50

INSULATED BANANA PLUG

SOLDERLESS

Split plug, brass N. PL., with side screw fits standard banana jacks. Plug is slotted, set screw holds wire without soldering. Molded plastic handles.

COLORS
Red, Black, Yellow, Green, Blue. (Specify)



DABURN No.	Std. Pkg.
19-44	50

BANANA PLUG

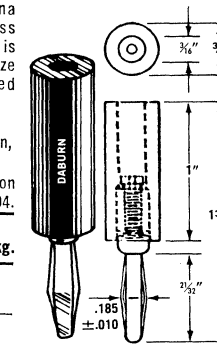
INSULATED BANANA PLUG

SOLDERLESS

Fits standard banana jacks. Plug is brass nickel plated. Spring is four leaf phosphor bronze nickel plated. Molded plastic handle.

COLORS
Red, Black, Yellow, Green, Blue. (Specify)

For solderless connection same as our No. 19-04.



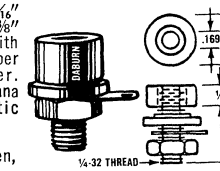
SPRING

DABURN No.	Std. Pkg.
19-65 Phos. Bronze N.P.	50
19-65B Beryllium Copper S.P.	50

INSULATED BANANA JACK

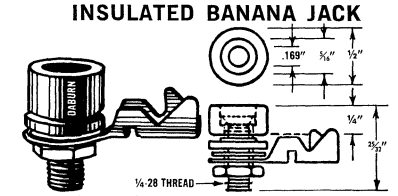
Body is brass nickel plated, mounts in 5/16" hole in panels up to ⅜" thick. Comes thru with hex nut, tinned copper lug and fibre washer. Takes all standard banana plugs. Molded plastic head.

COLORS
Red, Black, Yellow, Green, Blue. (Specify)



DABURN No.	Description	Std. Pkg
19-06	Insulated Jack	50

INSULATED BANANA JACK



Body is brass nickel plated. Mounts in 5/16" hole i panels up to ⅜" thick. Comes thru with hex nu tinned copper lug, lockwasher, fibre washer. Take all standard banana plugs. Jack body is recessed f tight contact. Molded plastic head.

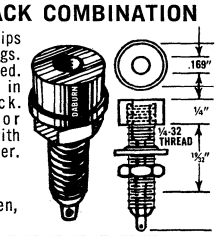
COLORS: Red, Black, Yellow, Green, Blue. (Specif

DABURN No.	Description	Std. Pk
19-91	Insulated Jack	50

INSULATED JACK COMBINATION

Will take senior phone tips or standard banana plugs. Body is brass, nickel plated. Mounts in 5/16" hole in panels up to ½" thick. Springs are phosphor bronze. Comes thru with hex nut and fibre washer. Molded plastic head.

COLORS
Red, Black, Yellow, Green, Blue. (Specify)



DABURN No.	Description	Std. Pl
19-33	Insulated Combination Jack	50

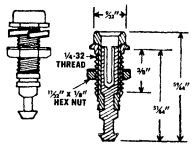
DABURN

DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

NYLON TIP JACK WITH METAL SHELL

Made to Meet MS-16108 Spec — Wrap Around



Molded nylon tip jack with metal shell eliminates possibility of threads stripping during assembly. Made to meet the requirements of MS-16108 specification. Contact recessed in head for safety. Nylon, grade FM 10001, brass N.P. Shell and nut per Spec. 72-53. Tough and rugged. Fits all standard phone tip plugs.

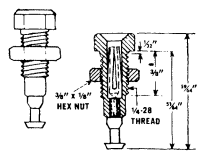
CENTER CONTACT: Heat treated beryllium copper, silver plated.

COLORS: Red, Black, Yellow, Green, Blue, White. (Specify Color)

Daburn No.		Std. Pkg.
19-90	Wrap Around	25

ALL NYLON TIP JACK

WRAP AROUND

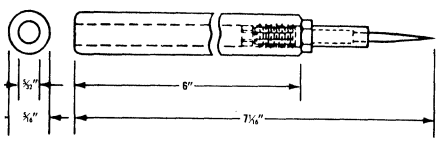


All nylon molded tip jack. Takes all standard phone tip plugs. Contact recessed in head for safety. Hex head for ease in tightening. Mounts in ¼" hole in panels up to ¼". Body is nylon, grade FM 10001. Tough and rugged. Complete with brass nickel plated hex nut. Center contact. Heat treated beryllium copper, silver plated.

COLORS: Red, Black, Yellow, Green, Blue, White. (Specify)

Daburn No.		Std. Pkg.
19-80	Wrap Around	25

BAKELITE PENCIL TYPE TEST PROD

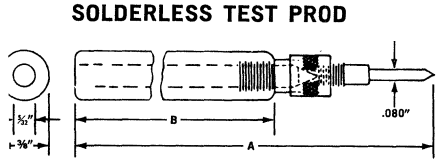


Body is brass nickel plated with heavy steel phono needle in tip. Handle is XX bakelite per MIL--P-79 Spec. Wire threaded thru stud and tightened allows for solderless connection.

COLOR: Red ,Black. (Specify)

Daburn No.		Std. Pkg.
19-11	Bakelite Pencil Type Prod	25

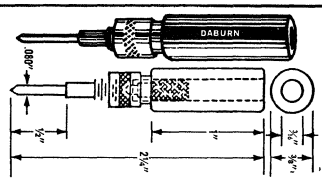
SOLDERLESS TEST PROD



Body is brass nickel plated with molded plastic handle. Solderless connection. for wire fits thru handle and plug body and wraps under knurled nut.

COLOR: Red, Black. (Specify)

Daburn No.	Handle (B)	Overall L'gth (A)	Std. Pkg.
19-10	4"	5 3/16"	50
19-43	5"	6 1/2"	50



INSULATED PHONE TIP

SOLDERLESS — SENIOR

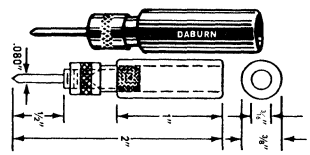
Fits standard phone tip jacks. Brass nickel plated. Solderless connection for wire which fits thru body of tip and fastens under knurled nut. Molded plastic handle.

COLORS: Red, Black, Yellow, Green, Blue. (Specify)

Daburn No.		Std. Pkg.
19-09	Senior	50

INSULATED PHONE TIP

SOLDERLESS — JUNIOR

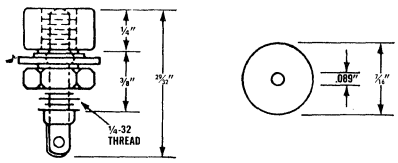


Fits standard phone tip jacks. Brass nickel plated. Solderless connection for wire which fits thru body of tip and fastens under knurled nut. Molded plastic handle.

COLORS: Red, Black, Yellow, Green, Blue. (Specify)

Daburn No.		Std. Pkg.
19-15	Junior	50

INSULATED PHONE TIP JACK

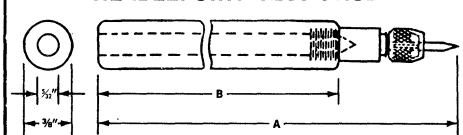


Fits all standard phone tips. Brass nickel plated body. Phosphor bronze spring provides positive contact. Comes thru complete with hex nut and fibre washer. Molded plastic head.

COLORS: Red, Black, Yellow, Green Blue. (Specify)

Daburn No.	Std. Pkg.
19-07	50

NEEDLEPOINT TEST PROD



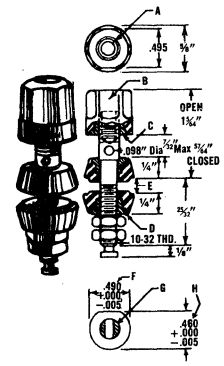
Brass nickel plated plug, chuck is removable for replacement of broken needles. Sharp needle pierces insulation or corrosion for testing purposes. Molded plastic handle.

COLORS: Red, Black. (Specify)

Daburn No.	Handle (B)	Overall L'gth (A)	Std. Pkg.
19-44	4"	4 7/8"	50
19-45	5"	6 3/8"	50

BINDING POSTS — MULTI-PURPOSE

WRAP AROUND TYPE

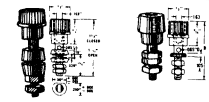


Molded nylon body. Accepts tip plug, spade lug, banana plug, wire alligator clip and direct solder connection. Has molded-in brass inserts in head and washer. Rated at 30 amps. AC, capacitance 5.0 MMFD. Banana plug receptacle .161" I.D. head non-removable from stud and washer completely insulates post from panel. For panels 1/16" to 1/4" thick; drill 1/2" hole for mounting washers. Wire hole is at right angle to flat on insulated washer.

COLORS: Red, Black. (Specify)

Daburn No.	Description	Std. Pkg.
18-75	Nylon Binding Post	100
18-72	Nylon Fluted Head Post	100

STANDARD DUTY BINDING POST

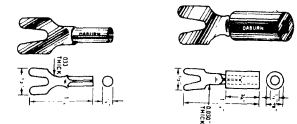


Molded-in brass bushings similar as above. Rated at 15 Amps. AC, capacitance 3.0 MMFD. Body is brass nickel plated. Mounts in 5/16" hole for locking. Has milled slot complete with two hex nuts.

COLOR: Red, Black. (Specify)

Daburn No.	Description	Std. Pkg.
18-78	All Insulated Type	100
18-79	Grounding Type	100

INSULATED SPADE LUG

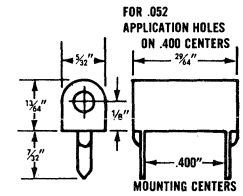


Molded plastic handle lug is steel hot tinned. Rated at 25 Amps. AC. Rear barrel accommodates all standard banana plugs.

COLORS — Insulated Spade: Red, Black.

Daburn No.		Std. Pkg.
19-32	Insulated Spade Lug	50
19-32A	Spade Lug Only	50

PRINTED CIRCUIT TEST JACKS



Nylon bodies, designed for permanent, soldered connection to printed circuit boards. Beryllium copper contacts have gold over silver plate. Accepts .080" diameter per MIL F-14072, M301 test probes. For .052 application holes on .400 centers.

COLORS: Red, Black, Green, Yellow, Blue. Additional colors available.

Daburn No.		Std. Pkg.
19-77	Printed Circuit Jacket	25

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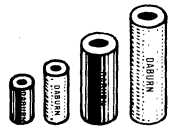
DABURN

DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

DABURN BRASS BUSHINGS AND SPACERS



Suitable for raising sub panels, condensers, transformers, chassis, etc. Bushing hole accommodates a No. 4, No. 6 or No. 8 screw.

1/4" O.D.

Length	For No. 8 Screw Cat. No.	For No. 6 Screw Cat. No.	For No. 4 Screw Cat. No.
1/4"	14-320	14-315	14-310
3/8"	14-321	14-316	14-311
1/2"	14-322	14-317	14-312
3/4"	14-323	14-318	14-313
1"	14-324	14-319	14-314
Std. Pkg. 100			

3/8" O.D.

1/4"	14-330	14-325	14-305
3/8"	14-331	14-326	14-306
1/2"	14-332	14-327	14-307
3/4"	14-333	14-328	14-308
1"	14-334	14-329	14-309
Std. Pkg. 100			

THREADED BRASS SPACERS

Threaded spacers for 4-40, 6-32 and 8-32 application.

1/4" O.D.

Length	For 8-32 Cat. No.	For 6-32 Cat. No.	For 4-40 Cat. No.
1/4"	14-340	14-335	14-300
3/8"	14-341	14-336	14-301
1/2"	14-342	14-337	14-302
3/4"	14-343	14-338	14-303
1"	14-344	14-339	14-304
Std. Pkg. 100			

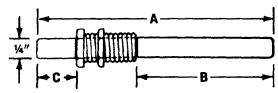
DABURN FIBRE SPACERS

Fibre material per MIL-F-1148A, Grade CH.

1/4" O.D.

Length	For No. 8 Screw Cat. No.	For No. 6 Screw Cat. No.	For No. 4 Screw Cat. No.
1/4"	14-365	14-360	14-355
3/8"	14-366	14-361	14-356
1/2"	14-367	14-362	14-357
3/4"	14-368	14-363	14-358
1"	14-369	14-364	14-359
Std. Pkg. 100			

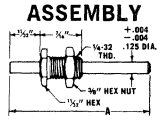
PANEL BEARINGS ASSEMBLY



Brass nickel plated for 1/4" shaft up to "3/8 panels.

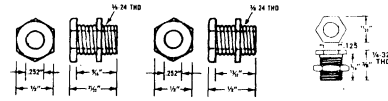
Daburn No.	Description	Std. Pkg.
14-372	3" Overall Length	25
14-374	6" Overall Length	25

MINIATURE PANEL BEARING ASSEMBLY



Daburn No.	Description	Std. Pkg.
14-376	2" Overall Length	25
14-377	4" Overall Length	25

PANEL BEARINGS



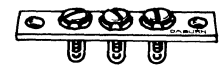
Brass nickel plated. Same as used on the above bearing assemblies.

Daburn No.	Description	Std. Pkg.
14-370	9/16" Threaded Length	50
14-370A	13/32" Threaded Length	50
14-370B	3/8-32 Thread 7/16" Threaded Length,. 21/32" O.L.	50
14-370C	Miniature — 1/4-32 Thd., Threaded L'gth. 5/16", 3/8" O.L., .125" 11/32" Hex.	50

BAKELITE TERMINAL BOARD

SCREW TYPE

Terminals made of brass, hot tinned, mounted on X.P. Bakelite 5/8" wide x 1/16" thick, spaced 7/16" centers. Screws are 6-32 x 3/8" steel, cadmium plated.



Daburn No.	Termi-nals	Mtg. Center	Std. Pgk.
15-72	2	17/16"	50
15-73	3	1 3/4"	50
15-74	4	2 3/16"	50
15-75	5	2 5/8"	50
15-76	6	3 3/16"	50
15-77	7	3 1/2"	50
15-81	SHORTING LINK		100

DABURN TERMINAL BOARD

HEAVY DUTY

Terminals made of brass, cadmium plated, .042" thick, spaced 1/2" centers. Mounted on XP bakelite 7/8" wide x 3/32" thick. Screws are 8-32 x 5/16" brass, nickel plated.

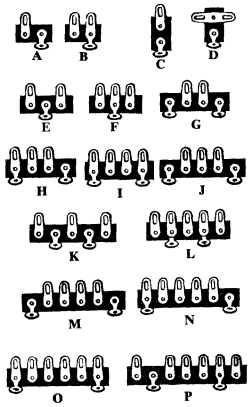
Daburn No.	Termi-nals	Mtg. Center	Std. Pkg.
15-60	2	1 1/2"	25
15-61	3	2"	25
15-62	4	2 1/2"	25
15-63	5	3"	25
15-64	6	3 1/2"	25
15-65	7	4"	25
15-66	8	4 1/2"	25
15-67	9	5"	25
15-68	10	5 1/2"	25
15-69	11	6"	25
15-70	12	6 1/2"	25

LUG TERMINAL STRIP

STANDARD TYPE

Lugs are 3/8" centers with .140 diam. mounting holes. Lugs are 1/16" (.062") thick XP bakelite by 3/8" wide lugs. Special combinations available. Mount: .140 I.D. for #6 screw.

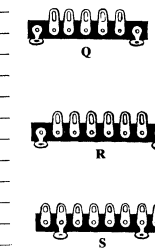
Daburn No.	Illus-tration	Std. Pkg.
15-82	A	100
15-82A	B	100
15-82B	C	100
15-82C	D	100
15-83	E	100
15-83A	F	100
15-84A	H	100
15-84B	I	100
15-85	J	100
15-85A	K	100
15-85B	L	100
15-86	M	100
15-86A	N	100
15-86B	O	100
15-87	P	100
15-88	Q	100
15-89	R	100
15-90	S	100



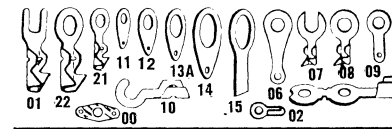
MINIATURE TYPE

Lugs are 1/4" centers. Lugs are .062" thick XP bakelite x 5/16" wide. Steel cadmium plated. Mount: .096 I.D. for 3/32" rivet or No. 3 screw.

Daburn No.	Illus-tration	Std. Pkg.
15-52	A	100
15-52A	B	100
15-52B	C	100
15-52C	D	100
15-53	E	100
15-53A	F	100
15-54	G	100
15-54A	H	100
15-54B	I	100
15-55	J	100
15-55A	K	100
15-55B	L	100
15-56	M	100
15-56A	N	100
15-56B	O	100
15-57	P	100
15-58	Q	100
15-59	R	100
15-60	S	100



DABURN TINNED TERMINAL LUGS



No. Daburn	Hole Standard	Material	L'gth	Thick-ness
101-11	6	Tinned Copper	17/32"	.015"
101-12	10	Tinned Copper	5/8"	.016"
101-13	.252	Tinned Copper	17/32"	.015"
101-13A	1/4	Tinned Copper	13/16"	.015"
101-14	3/8"	Tinned Copper	7/8"	.016"
101-15	1/2	Hot Tin. Copper	1 3/16"	.024"
101-21	10	Hot Tin. Copper	3/16"	.020"
101-22	1/4	Hot Tin. Copper	1 1/16"	.025"
101-00	8	Brass Hot Tin.	7/8"	.015"
101-01	10	Brass Hot Tin.	25/32"	.020"
101-02	6	Brass Hot Tin.	5/8"	.020"
101-06	4-6-8-10	Brass Hot Tin.	7/8"	.020"
101-07	8	Tinned Copper	5/8"	.016"
101-08	4-6-8-10	Brass Hot Tin.	1 1/16"	.020"
101-09	4-6-8-10	Brass Hot Tin.	1 1/16"	.020"
101-10	10	Brass Hot Tin.	7/8"	.020"
Std. Pkg. 1000				

TERMINAL LUGS

LOCKWASHER - BRASS - HOT TINNED

Daburn No.	Hole	Thickness	Length
101-40-4	4	.018"	7/8"
101-40-6	6	.018"	7/8"
101-40-8	8	.018"	7/8"
101-40-10	10	.018"	57/64"
101-40-14	1/4"	.018"	13/16"
101-41-4	4	.018"	47/64"
101-41-6	6	.018"	47/64"
101-41-8	8	.018"	47/64"
101-42-4	4	.018"	5/8"
101-42-6	6	.018"	5/8"
101-42-8	8	.018"	5/8"
101-43-4	4	.018"	23/32"
101-43-6	6	.018"	23/32"
101-43-8	8	.018"	23/32"
101-44-4	4	.018"	13/16"
101-44-6	6	.018"	13/16"
101-44-8	8	.018"	13/16"
101-44-10	10	.018"	53/64"
101-45-4	4	.018"	23/32"
101-45-6	6	.018"	23/32"
101-45-8	8	.018"	23/32"
101-46-4	4	.018"	41/64"
101-46-6	6	.018"	41/64"
101-46-8	8	.018"	41/64"
Std. Pkg. 1000			

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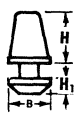
DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

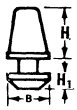
DABURN FEED-THRU INSULATORS



These are quality porcelain insulators smoothly glazed. Heavy nickel plated brass hardware used. Cushion washers supplied.

DABURN No.	Hgt. H	B	H_1	Mounting Hole	H'dwe	Std. Pkg.
10-58	5/8"	11/16"	1/4"	5/16"	6-32	50
10-78	1"	13/16"	5/16"	7/16"	10-32	25
10-125	1 1/4"	7/8"	3/8"	7/16"	10-32	25
10-234	2 3/4"	2"	1"	1 1/4"	1/4-20	10

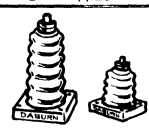
CORRUGATED FEED-THRU INSULATOR



These numbers have twice the leakage path of the straight type due to the increased surface area. Brass nickel plated hardware and cushion washers supplied.

DABURN No.	Hgt. H	B	H_1	Mounting Hole	H'dwe	Std. Pkg.
10-79	1 3/8"	1 1/4"	11/16"	9/16"	10-32	25
10-76	2 3/4"	1 5/8"	1"	3/4"	1/4-20	10
10-52	4 1/2"	2 1/8"	1 1/2"	1"	1/4-20	5

DABURN METAL BASE INSULATORS



Made of hi tensile strength, low absorption ceramic, fully glazed corrugated surface. Provides longer leakage path. Drawn metal bases.

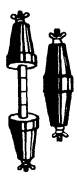
Daburn No.	Hgt. H	B	D	Mtg. Screw	H'dwe	Std. Pkg.
10-67	1 3/8"	1 7/8"x1 5/16"	1 1/2"	2 #8	10-32	25
10-176	2 3/4"	1 3/4"x1 3/4"	1 3/8"	4 #10	1/4-20	10
10-451	4 1/2"	2 1/4"x2 1/4"	1 3/4"	4 #10	1/4-20	5

DABURN STEATITE CONE INSULATORS

Steatite cones have smooth glaze white. Come complete with brass nickel plated screws and cushion washers.

Daburn No.	Hgt. H	B	B_1	T	Mtg. Hole	Std. Pkg.
10-30	5/8"	5/8"	7/16"	6-32	5/32"	100
10-31	1"	11/16"	1/2"	8-32	3/16"	50
10-32	1 1/2"	7/16"	5/8"	10-32	7/32"	50

DABURN LEADIN INSULATORS

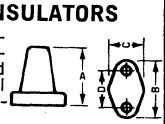


Sections are each 2 3/4" high hi vitrified porcelain glazed. Comes thru with 2 additional bushings 1/4" and 1/2" long, permitting complete insulation of the threaded rod of any length in multiples of 1/4". Complete with brass nickel plated hardware. Lead and cushion washers permit a water tight seal.

Daburn No.	Description	Std. Pkg.
10-237	10" Rod/Bushings	10
10-238	15" Rod/Bushings	10

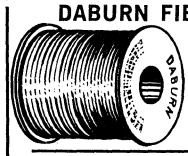
DABURN STANDOFF INSULATORS

Quality glazed porcelain insulators — mounting surface ground flat. Brass nickel plated hardware supplied.



Daburn No.	H	B	B_1	D	Hole	Mtg. H'dwe	Std. Pkg.
10-16	1"	1 3/8"	7/8"	1"	5/32"	8-32	50
10-17	1 1/2"	1 3/4"	1 1/8"	1 1/4"	5/32"	10-32	25

DABURN FIBERGLASS GUY WIRE

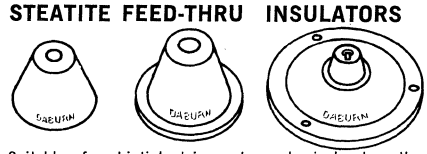


Gives complete isolation for any antenna system. Non-radiating, non-absorbing, no rot, no shrink, no sag. This non metallic guy wire has an overall (PVC) polyvinylchloride jacket.

Daburn No.	Put-Up	Tensile Strength	Color	Nom. O.D.
10-01	100', 500', 1000'	500 lbs.	Green	.125"
10-02	100', 500', 1000'	1000 lbs.	Gray	.218"
10-03	100', 500', 1000'	2500 lbs.	White	.313"

Doubling the cable will double the strength.

STEATITE FEED-THRU INSULATORS



Suitable for hi-dielectric and mechanical strength. Made of L5 glazed Steatite. No hardware included.

Daburn No.	Figure	Hgt. H.	Base Diam.	Screw Size Max.	Std. Pkg.
10-200	I	7/8"	1 1/4"	10-32	25
10-202	I	1 1/8"	1 3/4"	1/4-20	25
10-202	II	1 5/8"	2 1/2"	3/8-16	25
10-203	III	1"	3 1/8"	8-32	12

DABURN STEATITE FEED-THRU INSULATORS

Feedthrus come thru with tops and bottoms for chassis, panel, shields, rack mounting. No hardware included. Made of L5 glazed Steatite.

Daburn No.	Hgt. Top	Diam.	Hole Panel	T'kness Panel To	Screw Size Max.	Std. Pkg.
10-204	1/8"	1/2"	5/16"	1/8"	6-32	50
10-205	7/32"	5/8"	7/16"	1/8"	8-32	50
10-206	3/8"	1/2"	1/4"	3/16"	6-32	50
10-207	3/8"	5/8"	3/8"	3/8"	8-32	50
10-208	3/4"	1 1/8"	3/4"	3/8"	10-32	50
10-209	1 5/8"	1 1/4"	1/2"	2"	10-32	50

DABURN FISH SPINE BEADS

Made of L5 Steatite. Suitable for buss and heavy lines insulation. Beads follow bends and curves because of ball and socket style interlocks. Four beads cover approximately 1". 100 will cover 25" of wire. Size: 5/16" O.D. x 1/8" I.D. Beads treated with Dow Corning compound to prevent accumulation of surface moisture.

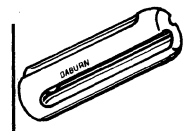
Daburn No.		Std. Pkg.
10-215	Fish Spine Beads	100, 1000

DABURN AIRPLANE INSULATORS

Suitable for mobile and aircraft or guy wire application. compression type strain insulators. Nos. 10-73, 10-74 made of white glazed low absorption porcelain. No. 10-72 made of wet process porcelain.

Daburn No.	Description	Std. Pkg.
10-73	2" White	100
10-74	1 1/2" White	100
10-72	2 1/4" Brown	25

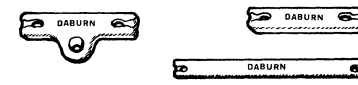
DABURN STEATITE AIRPLANE INSULATOR



Compression type Steatite insulator has small wind resistance. Fully glazed.

Daburn No.	Description	Std. Pkg.
10-63	1 1/2" Lgth.; 17/32" Diam. 3/4" Line Spacing	25

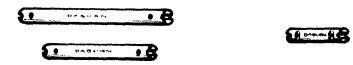
ANTENNA STRAIN INSULATORS



Porcelain glazed to prevent moisture absorption. All have long leakage path — small cross section strength under continuous tension — white glaze prevents accumulation of dirt and ice.

Daburn No.	Description	Std. Pkg.
10-68	4 1/2" Long Center Ins.	10
10-69	4 1/4" Long	25
10-70	7" Long	10

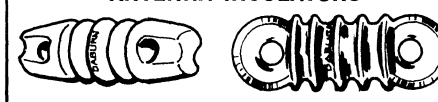
FEEDER SPREADER INSULATORS



Made of highly vitrified — low absorption — hi tensile strength porcelain, with white glaze overall.

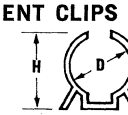
Daburn No.	Description	Std. Pkg.
10-62	2" Long Spreader	25
10-64	4" Long Spreader	25
10-65	6" Long Spreader	25

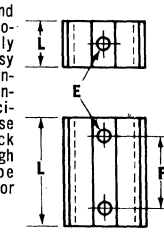
ANTENNA INSULATORS



Daburn No.	Description	Std. Pkg.
10-0	Glass Insulator	100
10-06	Porcelain Insulator — White	100

DABURN COMPONENT CLIPS





Hold and insulate, electrical and electronic components, accessories — spare parts. Holds firmly and still permits fast and easy insertion. Convenient for fastening. Clips and retainers for transistors, batteries, fuses, capacitors, resistors, lamps, etc., These Daburn clips are made of black vinyl (polyvinylchloride). Has high dielectric strength. Can be mounted with screws, rivets or other fastening means.

MATERIAL: Rigid Vinyl.
TEMPERATURE RANGE: −20° to +165°F.
STANDARD PACKAGE: 100, 1000.

Stock Number	D Diam.	H Height	L L'gth.	E Diam. of Hole	F Dist. Bet. Holes
600-1/4"	1/4"	13/32"	1/2"	3/32"	—
600-5/16"	5/16"	15/32"	1/2"	3/32"	—
600-3/8"	3/8"	1/2"	1/2"	3/32"	—
600-7/16"	7/16"	1/2"	1/2"	3/32"	—
600-1/2"	1/2"	5/8"	1/2"	3/32"	—
600-9/16"	9/16"	5/8"	1/2"	3/32"	—
600-5/8"	5/8"	5/8"	1/2"	3/32"	—
600-11/16"	11/16"	3/4"	1/2"	5/32"	—
600-3/4"	3/4"	7/8"	1/2"	5/32"	—
600-7/8"	7/8"	1"	1/2"	5/32"	—
600-1"	1"	1 1/4"	1 1/8"	5/32"	3/4"
600-1 3/8"	1 3/8"	1 15/32"	1 1/8"	5/32"	3/4"

Net

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PRICES

Prices in this *MASTER* should not be considered as final.
Inquire about latest prices and delivery.

DISCOUNTS

Trade discounts apply in most cases
where *list prices* are shown.

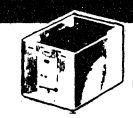
ORDERING

Since previous editions of The MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.

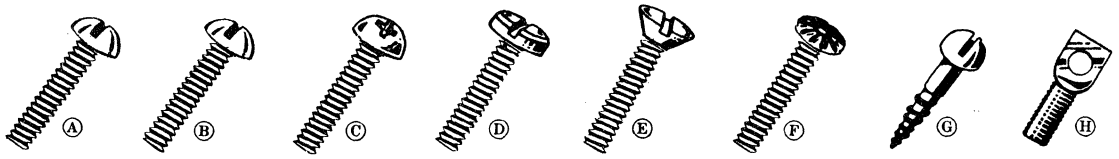
GC ELECTRONICS RADIO AND TV HARDWARE

HINGED COVER PLASTIC BOXES — 50 LINE — Dir. Net Price. 36c Per Box

BOXES OF 100 Standard Carton 10 Boxes of 100



BULK HARDWARE Box of 1000



(A) G-C ROUND HEAD MACHINE SCREWS STEEL — NICKEL PLATED

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dir. Net Per 100	Part No.	Dir. Net Per M
Assorted Screws	H1000-F	35				
Assorted Screws & Nuts	H1001-F	40				
Assorted No. 2 & 4 Screws & Nuts	H1002-F	35				
Assorted 4-36 Screws	H1010-F	40				
Assorted 6-32 Screws	H1012-F	40				
Assorted 8-32 Screws	H1016-F	40				
Assorted 10-32 Screws	H1018-F	25				
2-56 x 1/4"	H1022-F	40	7130-C	$ .45	7130-M	$3.53
2-56 x 1/2"	H1024-F	40	7131-C	.48	7131-M	3.85
2-56 x 3/4"	H1026-F	40	7132-C	.55	7132-M	4.43
3-48 x 3/4"	H1028-F	40	7124-C	.58	7124-M	4.65
4-36 x 1/4"	H1032-F	40	6005-IC	.48	6005-M	3.87
4-36 x 3/8"	H1033-F	35	7138-C	.50	7138-M	3.97
4-36 x 1/2"	H1034-F	35	6006-C	.52	6006-M	4.18
4-36 x 5/8"			5651-C	.87	5651-M	7.36
4-36 x 3/4"	H1036-F	35	6007-C	.77	6997-M	6.63
4-40 x 1/4"	H1042-F	40	6005-AC	.48	6005-AM	3.87
4-40 x 1/2"	H1044-F	35	6005-BC	.53	6005-BM	4.22
4-40 x 5/8"			5652-C	.57	5652-M	4.53
4-40 x 3/4"	H1046-F	35	6005-CC	.78	6005-CM	6.60
6-32 x 1/4"	H1062-F	40	6008-C	.53	6008-M	4.25
6-32 x 1/2"	H1064-F	30	6009-C	.62	6009-M	4.93
6-32 x 5/8"			5653-C	.68	5653-M	5.40
6-32 x 3/4"	H1066-F	30	6010-C	.80	6010-M	6.86
6-32 x 1"	H1068-F	30	6011-C	.83	6011-M	6.67
6-32 x 1 1/4"	H1070-F	30	7141-C	1.00	7141-M	8.00
6-32 x 2"	H1076-F	20	7148-C	1.50	7148-M	12.07
8-32 x 1/4"	H1082-F	30	6013-C	.70	6013-M	5.55
8-32 x 3/8"	H1083-F	25	6014-C	.78	6014-M	6.48
8-32 x 1/2"	H1084-F	25	6015-C	.82	6015-M	6.48
8-32 x 5/8"			5654-C	.87	5654-M	6.95
8-32 x 3/4"	H1086-F	25	6016-C	.93	6016-M	7.42
8-32 x 1"	H1088-F	20	6017-C	1.07	6017-M	8.50
8-32 x 1 1/4"	H1090-F	20	7142-C	1.23	7142-M	9.87
10-32 x 1/2"	H1104-F	20	6020-C	.95	6020-M	7.63
10-32 x 5/8"			5655-C	1.03	5655-M	8.32
10-32 x 3/4"	H1106-F	20	6021-C	1.12	6021-M	8.93
10-32 x 1"	H1108-F	17	6022-C	1.25	6022-M	10.05
10-32 x 1 1/2"	H1112-F	15	7143-C	1.65	7143-M	13.22

(B) G-C ROUND HEAD MACHINE SCREWS BRASS — NOT PLATED

Assorted	H1210-F	30				
2-56 x 1/4"			5657-C	.67	5657-M	$ 5.32
2-56 x 1/2"			5658-C	.80	5658-M	6.42
2-56 x 5/8"			5659-C	.87	5659-M	6.97
2-56 x 3/4"			5660-C	.93	5660-M	7.50
3-48 x 3/4"			5661-C	1.05	5661-M	8.33
4-36 x 1/4"			5662-C	.80	5662-M	6.45
4-36 x 1/2"			5663-C	1.02	5663-M	8.10
4-36 x 5/8"			5664-C	1.10	5664-M	8.82
4-36 x 3/4"			5665-C	1.20	5665-M	9.53
4-40 x 1/4"			5666-C	.93	5666-M	7.73
4-40 x 1/2"			5667-C	1.02	5667-M	8.10
4-40 x 5/8"			5668-C	1.43	5668-M	12.79
4-40 x 3/4"			5669-C	1.27	5669-M	10.80
6-32 x 1/4"			8501-C	1.08	8501-M	8.63
6-32 x 3/8"			5670-C	1.15	5670-M	9.22
6-32 x 1/2"			8502-C	1.30	8502-M	10.38
6-32 x 5/8"			5671-C	1.43	5671-M	11.47
6-32 x 3/4"			8503-C	1.58	8503-M	12.67
6-32 x 1"			8504-C	1.88	8504-M	15.00
6-32 x 1 1/4"			5672-C	2.18	5672-M	17.82
6-32 x 2"			5673-C	3.68	5673-M	29.40
8-32 x 1/4"			8505-C	1.60	8505-M	12.78
8-32 x 3/8"			5674-C	1.68	5674-M	13.43
8-32 x 1/2"			8506-C	1.92	8506-M	15.37
8-32 x 5/8"			5675-C	2.12	5675-M	16.92
8-32 x 3/4"			8507-C	2.35	8507-M	18.75
8-32 x 1"			8508-C	2.80	8508-M	22.35
8-32 x 1 1/4"			5676-C	3.28	5676-M	26.25
10-32 x 1/2"			5677-C	2.43	5677-M	19.50
10-32 x 5/8"			5678-C	2.70	5678-M	21.67
10-32 x 3/4"			5679-C	2.95	5679-M	23.55
10-32 x 1"			5680-C	3.52	5680-M	28.08
10-32 x 1 1/2"			5681-C	4.80	5681-M	38.40

(C) G-C PHILLIPS TYPE ROUND HEAD MACHINE SCREWS STEEL — NICKEL PLATED

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dir. Net Per 100	Part No.	Dir. Net Per M
Assorted	H1180-F	25				
6-32 x 1/4"			8511-C	1.18	8511-M	$ 9.47
6-32 x 1/2"			8512-C	1.07	8512-M	8.53
6-32 x 5/8"			5689-C	1.18	5689-M	9.47
6-32 x 3/4"			8513-C	1.22	8513-M	9.75
6-32 x 1"			8514-C	1.37	8514-M	10.87
8-32 x 5/16"			8515-C	1.03	8515-M	8.32
8-32 x 1/2"			8516-C	1.27	8516-M	10.70
8-32 x 5/8"			5690-C	1.23	5690-M	9.90
8-32 x 3/4"			8517-C	1.33	8517-M	10.65
8-32 x 1"			8518-C	1.45	8518-M	13.57

(D) G-C BINDING HEAD MACHINE SCREWS STEEL — NICKEL PLATED

Assorted	H1168-F	35				
5-36 x 1/4"	H1170-F	35	7154-C	.53	7154-M	$4.20
6-32 x 3/16"			7151-C	.53	7151-M	4.20
6-32 x 1/4"	H1172-F	35	7152-C	.53	7152-M	4.20
6-32 x 3/8"			7153-C	.57	7153-M	4.50
7-32 x 3/8"	H1174-F	30	7155-C	1.57	7155-M	12.48
8-32 x 5/16"			7158-C	.87	7158-M	7.41

(E) G-C OVAL HEAD RACK AND CABINET SCREWS STEEL — NICKEL PLATED

Assorted Screws and Washers	H1005-F	15				
6-32 x 1/2"			6540-C	.62	6540-M	$4.93
6-32 x 5/8"			5691-C	.87	5691-M	7.43
6-32 x 3/4"			6541-C	.73	6541-M	5.80
8-32 x 5/8"			5692-C	.95	5692-M	7.90
8-32 x 3/4"			6542-C	.93	6542-M	7.42
10-32 x 1/2"			8848-C	1.17	8848-M	9.30
10-32 x 5/8"			5693-C	1.03	5693-M	8.32
10-32 x 3/4"			6543-C	1.12	6543-M	8.93

(F) G-C ORNAMENTAL HEAD SCREWS STEEL — BRONZE PLATED

Assorted	H1250-F	20				
6-32 x 3/4"	H1252-F	25	1097-C	1.28	1097-M	$10.27
6-32 x 1"	H1253-F	20	1098-C	1.40	1098-M	11.28
8-32 x 1 1/4"	H1255-F	12	1099-C	1.92	1099-M	15.30

(G) G-C WOOD SCREWS ROUND HEAD — STEEL — NICKEL PLATED

Assorted	H1502-F	25				
No. 4 x 1/2"			6114-C	.78	6114-M	$ 6.23
No. 4 x 5/8"			5694-C	.90	5694-M	7.33
No. 4 x 3/4"			6115-C	.90	6115-M	7.20
No. 6 x 3/4"			6116-C	.97	6116-M	7.73
No. 6 x 1"			6117-C	1.20	6117-M	9.57
No. 8 x 3/4"			6118-C	1.15	6118-M	9.15
No. 8 x 1 1/4"			8071-C	1.58	8071-M	12.68
No. 10 x 1 1/2"			8073-C	2.12	8073-M	16.95
No. 12 x 1 1/2"			8075-C	2.70	8075-M	21.60
No. 14 x 1 3/4"			8076-C	3.80	8076-M	30.45

(H) G-C SPADE BOLTS OR MOUNTING SCREWS STEEL — NICKEL PLATED

Assorted					H1570-F	15				
A No.	B	C	D	E						
6-32	6	9/32"	11/16"	9/16"			6081-C	1.15	6081-M	$ 9.15
6-32	6	13/32"	7/8"	11/16"			6082-C	1.75	6082-M	14.66
8-32	8	7/16"	1 5/32"	15/16"			6084-C	2.93	6084-M	23.40

Net

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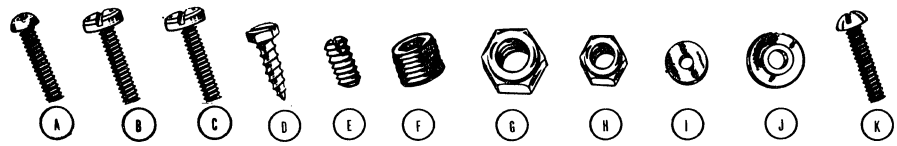
GC ELECTRONICS — ELECTRONIC HARDWARE



DESCRIPTION	100 PACK Part No.	Net/100	1000 PACK Part No.	Net/1000
(A) GC-PHILLIPS TYPE **ROUND HEAD MACHINE SCREWS** **STEEL — NICKEL PLATED**				
Machine Screws, Phillips 6-32x5/16"	8510-C	$1.18	8510-M	$ 9.47
(B) GC-BINDING HEAD MACHINE SCREWS **STEEL — NICKEL PLATED**				
Machine Screws, 2-56x1/4"	7160-C	$ .63	7160-M	$ 5.33
Machine Screws, 2-56x1/2"	7161-C	.63	7161-M	5.33
Machine Screws, 2-56x3/4"	7162-C	.63	7162-M	5.33
Machine Screws, 4-36x1/4"	7163-C	.63	7163-M	5.33
Machine Screws, 4-36x1/2"	7164-C	.63	7164-M	5.33
Machine Screws, 4-36x3/4"	7165-C	.63	7165-M	5.33
Machine Screws, 4-40x1/4"	7170-C	.63	7170-M	5.33
Machine Screws, 4-40x1/2"	7171-C	.63	7171-M	5.33
Machine Screws, 4-40x3/4"	7172-C	.64	7172-M	5.35
Machine Screws, 6-32x3/4"	7173-C	.72	7173-M	5.62
Machine Screws, 8-32x1/4"	7174-C	.72	7174-M	5.62
Machine Screws, 8-32x3/4"	7175-C	.95	7175-M	7.57
Machine Screws, 10-32x1/2"	7176-C	.99	7176-M	7.70
Machine Screws, 10-32x3/4"	7177-C	1.15	7177-M	9.20
(C) GC-BINDING HEAD MACHINE SCREWS **BRASS — NICKEL PLATED**				
Machine Screws, 2-56x1/4"	7160-1-C	$ .84	7160-1-M	$ 6.98
Machine Screws, 2-56x1/2"	7161-1-C	.96	7161-1-M	8.28
Machine Screws, 2-56x3/4"	7162-1-C	1.11	7162-1-M	9.55
Machine Screws, 4-36x1/4"	7163-1-C	.97	7163-1-M	8.32
Machine Screws, 4-36x1/2"	7164-1-C	1.19	7164-1-M	10.18
Machine Screws, 4-36x3/4"	7165-1-C	1.40	7165-1-M	12.05
Machine Screws, 4-40x1/4"	7170-1-C	.97	7170-1-M	8.32
Machine Screws, 4-40x1/2"	7171-1-C	1.19	7171-1-M	10.18
Machine Screws, 4-40x3/4"	7172-1-C	1.40	7172-1-M	12.15
Machine Screws, 5-36x1/4"	7154-1-C	1.40	7154-1-M	12.99
Machine Screws, 6-32x3/16"	7151-1-C	1.34	7151-1-M	11.47
Machine Screws, 6-32x1/4"	7152-1-C	1.27	7152-1-M	10.90
Machine Screws, 6-32x3/8"	7153-1-C	1.35	7153-1-M	11.54
Machine Screws, 6-32x1/2"	7118-1-C	1.51	7118-1-M	12.90
Machine Screws, 6-32x3/4"	7173-1-C	1.83	7173-1-M	15.65
Machine Screws, 8-32x1/4"	7174-1-C	1.85	7174-1-M	15.70
Machine Screws, 8-32x3/8"	7119-1-C	1.94	7119-1-M	16.65
Machine Screws, 8-32x1/2"	7120-1-C	2.20	7120-1-M	18.80
Machine Screws, 8-32x5/16"	7158-1-C	1.88	7158-1-M	16.20
Machine Screws, 8-32x3/4"	7175-1-C	2.70	7175-1-M	23.15
Machine Screws, 10-32x1/2"	7176-1-C	2.54	7176-1-M	21.80
Machine Screws, 10-32x3/4"	7177-1-C	3.43	7177-1-M	29.50

DESCRIPTION	100 PACK Part No.	Net/100	1000 PACK Part No.	Net/1000
(D) GC-SHEET METAL SCREWS **HEX HEAD — SLOTTED — SELF-TAPPING — NICKEL PLATED**				
Sheet Metal Screws, No. 4x3/8"	6089-C	$ .77	6089-M	$ 6.32
(E) GC-RADIO KNOB SET SCREWS				
Set Screws, 6-32x1/8"	6071-C	$1.80	6071-M	$14.40
Set Screws, 6-32x1/4"	6073-C	1.80	6073-M	14.40
Set Screws, 8-32x1/8"	6074-C	1.80	6074-M	14.40
Set Screws, 8-32x1/2"	6077-C	1.80	6077-M	14.40
Set Screws, 10-32x3/16"	6078-C	1.80	6078-M	14.40
(F) GC-ALLEN HEX SET SCREWS **STEEL — HARDENED — HEADLESS**				
Hex Set Screws, 6-32x1/8"	7196-C	$4.93	7196-M	$39.45
Hex Set Screws, 6-32x3/16"	7197-C	4.93	7197-M	39.45
(G) GC-HEXAGON NUTS **STEEL — NICKEL PLATED**				
Hex Nuts, Thread 8-32, Width 5/16", Thickness 1/8"	7232-C	$ .73	7232-M	$ 5.85
(H) GC-BRASS HEXAGON NUTS **NOT PLATED**				
Hex Nuts, Thread 4-40, Width 5/16", Thickness 7/64"	7246-C	$1.17	7246-M	$ 9.33
(I) GC-FLAT FIBRE WASHERS				
Screw Size No. 4: I.D. .020", O.D. 1/4", Thickness 1/32"	6512-C	$ .50	6512-M	$ 4.08
Screw Size No. 7/16", I.D. .440", O.D. 3/4", Thickness 1/32"	6519-C	.83	6519-M	6.63
(J) GC-EXTRUDED FIBRE WASHERS				
Screw Size No. 4: A-3/32", B-203, C-1/8", D-.031	6524-C	$ .87	6524-M	$ 6.90
(K) GC-ROUND HEAD MACHINE SCREWS **BRASS — NOT PLATED**				
Machine Screws, 4-36x3/8"	8509-C	$ .91	8509-M	$ 7.34

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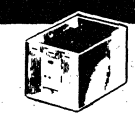
Net

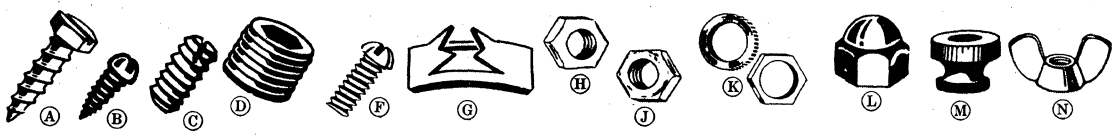
GC ELECTRONICS RADIO AND TV HARDWARE

HINGED COVER PLASTIC BOXES — 50 LINE — Dlr. Net Price 36c Per Box

BOXES OF 100 Standard Carton 10 Boxes of 100



BULK HARDWARE Box of 1000



(A) G-C SHEET METAL SCREWS HEX HEAD — SLOTTED — SELF-TAPPING — NICKEL PLATED POINTED TYPE "A"

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd	H1300-F	25				
Asstd. No. 4 & 6						
Asstd. No. 8 & 10						
No. 4 x 1/2"	H1350-F	35	6090-C	$ .87	6090-M	$ 7.33
No. 6 x 1/4"	H1362-F	30	6091-C	.87	6091-M	7.33
No. 6 x 3/8"	H1363-F	25	6092-C	.90	6092-M	7.66
No. 6 x 1/2"	H1364-F	25	6093-C	.92	6093-M	7.75
No. 6 x 5/8"			5695-C	.95	5695-M	7.57
No. 6 x 3/4"	H1366-F	20	6094-C	1.00	6094-M	8.16
No. 8 x 1/4"	H1382-F	20	8102-C	1.00	8102-M	8.03
No. 8 x 3/8"	H1383-F	20	6095-C	1.05	6095-M	8.33
No. 8 x 1/2"	H1384-F	20	6096-C	1.08	6096-M	8.63
No. 8 x 5/8"			5696-C	1.10	5696-M	8.78
No. 8 x 1"	H1388-F	15	6097-C	1.38	6097-M	11.03
No. 10 x 3/8"	H1403-F	15	6098-C	1.25	6098-M	10.00
No. 10 x 1/2"	H1404-F	15	6099-C	1.27	6099-M	10.13
No. 10 x 3/4"	H1406-F	12	6100-C	1.40	6100-M	11.17

(B) G-C ESCUTCHEON PLATE SCREWS ROUND HEAD — SLOTTED — BRONZE PLATED

Asstd.	H1500-F	25				
No. 2 x 1/4"			1091-C	$ .87	1091-M	$7.08
No. 2 x 3/8"			1093-C	.80	1093-M	6.61

(C) G-C RADIO KNOB SET SCREWS SLOTTED — HEADLESS — CUP POINT Standard

Asst. 6-32, 8-32, 10-32	H1605-F	15				
6-32 x 3/16"	H1623-F	15	6072-C	$1.80	6072-M	$14.40
8-32 x 3/16"	H1633-F	15	6075-C	1.80	6075-M	14.40
8-32 x 1/4"	H1634-F	15	6076-C	1.80	6076-M	14.40
10-32 x 1/4"			6079-C	1.80	6079-M	14.40

(D) G-C ALLEN HEX SET SCREWS STEEL — HEADLESS

Asstd. Lengths, 4-36	H1674-F	5				
Asstd. Lengths, 6-32	H1676-F	5				
Asstd. Lengths, 8-32	H1678-F	5				
8-32 x 1/8"			7201-C	$4.93	7201-M	$39.45
8-32 x 3/16"			7202-C	4.93	7202-M	39.45

(F) PHONO CARTRIDGE MOUNTING SCREWS STEEL — NICKEL PLATED

Assorted	H1560-F	60				
4-36 x 1/4"	H1562-F	40	6005-1C	.48	6005-M	$3.87
4-40 x 1/4"	H1564-F	40	6005-AC	.48	6005-AM	3.87

(G) G-C TINNERMAN SPEED NUTS

Assorted	H1960-F	30				
No. 4			6051-C	$ .93	6051-M	$ 7.70
No. 6			6052-C	.78	6052-M	6.23
No. 8			6053-C	.78	6053-M	6.23

(H) G-C HEXAGON NUTS STEEL — NICKEL PLATED

Description & Specs.			50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted			H1800-F	30				
Thread	Width	Thick-ness						
2-56	3/16"	1/16"	H1802-F	30	7225-C	$ .68	7225-M	$ 5.52
3-48	3/16"	1/16"	H1803-F	30	7226-C	.68	7226-M	5.52
4-36	1/4"	3/32"	H1805-F	30	6041-C	.67	6041-M	5.28
4-40	1/4"	3/32"	H1804-F	30	6041-AC	.67	6041-AM	5.28
5-40	5/16"	7/64"			6045-BC	.73	6045-BM	5.82
6-32	1/4"	3/32"	H1806-F	30	6042-C	.68	6042-M	5.52
6-32	5/16"	7/64"	H1807-F	30	7230-C	.73	7230-M	5.82
8-32	1/4"	3/32"	H1808-F	30	6043-C	.73	6043-M	5.85
8-32	11/32"	1/8"	H1809-F	30	7233-C	.73	7233-M	5.85
10-32	3/8"	5/64"	H1810-F	30	6044-C	.97	6044-M	7.68
10-32	3/8"	1/8"			6049-C	.87	6049-M	6.98
1/4-20	7/16"	3/16"	H1820-F	25	7235-C	1.33	7235-M	10.62
11/32-32	7/16"	1/16"			7236-C	1.95	7236-M	15.60
3/8-32	9/16"	3/32"	H1923-F	15	6050-AC	1.47	6050-AM	11.70
7/16-27	9/16"	1/8"	H1924-F	10	7238-C	3.30	7238-M	26.40
15/32-32	9/16"	5/64"			6050-BC	1.80	6050-BM	14.40

(J) G-C BRASS HEXAGON NUTS NOT PLATED

Thread	Width	Thick-ness						
2-56	3/16"	1/16"			7241-C	$ .98	7241-M	$ 7.83
3-48	3/16"	1/16"			7242-C	.90	7242-M	7.13
4-36	1/4"	3/32"	H1842-F	35	7243-C	1.18	7243-M	9.42
4-40	1/4"	3/32"	H1844-F	25	7244-C	1.17	7244-M	9.33
6-32	1/4"	3/32"	H1846-F	25	7245-C	1.17	7245-M	9.33
6-32	5/16"	7/64"			5697-C	1.40	5697-M	11.18
8-32	1/4"	3/32"			5698-C	1.17	5698-M	9.30
8-32	5/16"	7/64"	H1848-F	15	7248-C	1.40	7248-M	11.18
10-32	3/8"	1/8"	H1850-F	15	7249-C	1.53	7249-M	12.27
1/4-20	7/16"	3/16"			5699-C	3.13	5699-M	25.02

(K) G-C MOUNTING NUTS STEEL — NICKEL PLATED

Assorted			H1920-F	12				
Thread	Width	Thick-ness						
11/32-32 (Rotary Switch Size)	7/16"	1/16"			7236-C	$1.95	7236-M	$15.60
3/8-32 (Volume Control Size)	9/16"	3/32"	H1923-F	15	6050-AC	1.47	6050-AM	11.70
7/16-27 (Pilot Light Size)	9/16"	1/8"			7238-C	3.30	7238-M	26.40
15/32-32 (Toggle Switch Size)	9/16"	5/64"	H1924-F	10	6050-BC	1.80	6050-BM	14.40
15/32-32 Round Ring Nut (Toggle Switch Size)		1/16"	H1926-F	8	6050-CC	3.47	6050-CM	27.78

(L) G-C ACORN NUTS SOLID BRASS — NICKEL PLATED

Assorted	H1950-F	10				
6-32			6031-C	$2.82	6031-M	$22.50
8-32			6032-C	3.00	6032-M	24.00
10-32			6033-C	3.63	6033-M	29.10

(M) G-C KNURLED THUMB NUTS BRASS — NICKEL PLATED

Assorted	H1941-F	10				
6-32	H1943-F	8	6655-C	$2.27	6655-M	$18.15
8-32	H1944-F	8	6656-C	2.27	6656-M	18.15
10-32	H1945-F	5	6657-C	4.98	6657-M	39.90

(N) G-C WING NUTS NICKEL PLATED

Assorted	H1931-F	10				
6-32	H1933-F	10	6658-C	$3.32	6658-M	$26.52
8-32	H1934-F	10	6659-C	2.45	6659-M	19.65
10-32	H1935-F	8	6660-C	2.73	6660-M	21.90

Net

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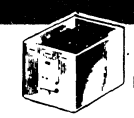
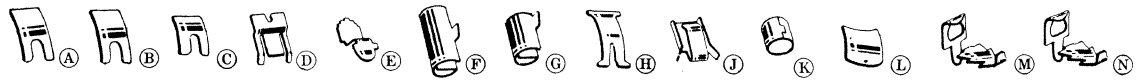
GC ELECTRONICS RADIO AND TV HARDWARE

HINGED COVER PLASTIC BOXES — 50 LINE — Dlr. Net 36c Per Box

BOXES OF 100 Standard Carton 10 Boxes of 100



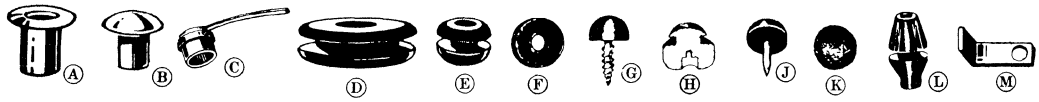
BULK HARDWARE Box of 1000



G-C RADIO KNOB SPRINGS

Description & Specs.			50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asst.			H480-F	18				
TV Spring Asst.			H460-F	12				
No. 1050 Kit of 35 Springs								
No. 1051 Kit of 100 Springs								
Width	Length For Knob	Shaft Dia.						
(A) 3/32" Light	7/16"	1/4"	H482-F	20	6460-C	1.05	6460-M	$ 8.38
(B) 3/32" Heavy	7/16"	1/4"	H484-F	20	6461-C	1.10	6461-M	8.78
(C) 3/32"	5/16"	1/4"	H487-F	20	6462-C	.88	6462-M	7.10

Description & Specs.			50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
(D) 3/8"	5/32"	1/4"	H489-F	10	6463-C	$1.18	6463-M	$ 9.40
(E) 7/64"	13/32"	1/4"			6464-C	1.85	6464-M	14.78
(F) 9/32"	3/8"	1/4"	H492-F	8	6465-C	2.35	6465-M	18.83
(G) 9/32"	1/4"	1/4"			6466-C	2.80	6466-M	22.43
(H) 9/32"	1/2"	1/4"			6467-C	1.27	6467-M	10.10
(J) 9/32"	3/8"	1/4"	H494-F	10	6468-C	1.50	6468-M	11.93
(K) 11/32"	1/4"	1/4"			6469-C	2.35	6469-M	18.83
(L) 3/8"	3/8"	1/4"	H497-F	10	6470-C	1.50	6470-M	12.02
(M) 3/8"	7/16"	1/4"	H498-F	10	6471-C	2.55	6471-M	20.40
(N) 3/8"	7/16"	3/16"	H499-F	10	6472-C	2.33	6472-M	18.68
TV Knob Spring .202" Shaft			H462-F	10	8541-C	1.27	8451-M	10.10
TV Knob Spring 3/8" Flat Shaft			H464-F	10	8542-C	1.52	8542-M	12.08



(A) G-C BRASS EYELETS

Description & Specs.			50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asst. Rivets and Eyelets			H526-F	55				
Asst. Eyelets and Clamps			H744-F	60				
Eyelet Asst.			H510-F	50				
Shank Dia.	Length Under Head	Head Dia.						
.087	1/8"	.145			7251-C	$ .28	7251-M	$ 2.27
.087	5/32"	.145			7252-C	.35	7252-M	2.85
.087	7/32"	.145			7253-C	.47	7253-M	3.20
.087	11/32"	.180			7254-C	1.08	7254-M	8.70
.123	5/32"	.197	H515-F	50	7257-C	.50	7257-M	3.98
.123	7/32"	.195			7259-C	.40	7259-M	3.20
.123	1/4"	.195			7260-C	.52	7260-M	4.18
.123	9/32"	.195			7261-C	.53	7261-M	4.25
.125	5/16"	.289			7264-C	.92	7264-M	7.30
.127	13/32"	.222			7265-C	1.12	7265-M	8.93
.182	3/16"	.315			7269-C	.32	7269-M	2.53

(B) G-C RIVETS NICKEL PLATED

Asst. Rivets and Eyelets			H526-F	55				
Rivet Assortment			H525-F	50				
TV Interlock Receptacle Rivets			H527-F	Asst.				
Shank Dia.	Length Under Head							
.059	5/32"				7276-C	$ .88	7276-M	$6.98
.059	3/16"				7277-C	.88	7277-M	6.98
.060	1/4"				7278-C	.58	7278-M	4.72
.088	3/16"				7280-C	.95	7280-M	7.53
.098	3/16"				7283-C	.98	7283-M	7.92
.121	1/8"				7286-C	.77	7286-M	6.20
.121	3/16"				7288-C	.60	7288-M	4.75
.121	1/4"				7290-C	.70	7290-M	5.70
.121	1/2"				7293-C	.65	7293-M	5.15
.146	5/16"				7296-C	.82	7296-M	6.83

(C) G-C GRID CAPS NICKEL PLATED

Asstd.			H609-F	8				
Glass					6291-C	$1.33	6291-M	$10.73
Metal					6292-C	1.35	6292-M	10.77
TV Spring Type, Asstd.			H610-F					
1/4" High-Voltage					8838-IRC	3.80	8838-IRM	30.35
3/8" High-Voltage					8838-2RC	3.97	8838-2RM	31.75
1/4" Insulated High-Voltage			H612-F	1	8834-C	25.13	8834-M	228.96
3/8" Insulated High-Voltage			H614-F	1	8835-C	25.13	8835-M	228.96

(D) G-C RUBBER GROMMETS

Asstd. Soft Grommets H025-F 15
No. 1040 Kit of 50 Asstd. Grommets Net **$.75**

A	B	C	D	E						
11/32"	1/8"	3/16"	1/16"	1/4"	H030-F	16	1041-2C	$1.12	1041-2M	$8.93
7/16"	3/16"	7/32"	1/16"	5/16"	H032-F	14	1041-C	1.27	1041-M	10.08
9/16"	1/4"	1/4"	1/16"	3/8"	H034-F	12	1042-C	1.68	1042-M	13.50
5/8"	3/8"	1/4"	1/16"	1/2"	H036-F	10	1043-C	1.90	1043-M	15.15

Description & Specs.				50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
1/2"	3/16"	1/4"	1/16"	5/16"		5710-C	$3.80	5710-M	$34.15
1/2"	1/4"	5/16"	1/8"	3/8"		7566-C	2.45	7566-M	19.53
7/8"	9/16"	15/64"	1/16"	3/4"		5711-C	3.53	5711-M	31,82
3/4"	7/16"	1/4"	1/16"	9/16"		5712-C	5.15	5712-M	41.22
13/16"	1/2"	9/32"	1/16"	5/8"	H038-F	8 1043-IC	2.88	1043-IM	26.40
1 1/16"	3/8"	5/16"	1/16"	13/16"		7569-C	5.75	7569-M	45.93
3/4"	5/16"	11/32"	3/32"	15/32"		5715-C	6.80	5715-M	54.36
1 1/8"	5/8"	5/16"	1/16"	7/8"		5716-C	5.73	5716-M	45.90
1 5/16"	1 1/16"	3/8"	1/16"	1"		5717-C	11.55	5717-M	98.46

(E) G-C PURE GUM GROMMETS SOFT RUBBER GROMMETS FOR SHOCK DAMPENING. FOR MOUNTING TUNING CONDENSERS, SOCKETS, PHONO MOTORS, ETC.

Asst. H040-F 12
No. 7581 Kit of 100
Asst. Grommets. $1.62

A	B	C	D	E						
7/16"	3/16"	7/32"	1/16"	5/16"	H042-F	12	7582-C	1.62	7582-M	12.90
9/16"	1/4"	1/4"	1/16"	3/8"	H043-F	10	7584-C	2.30	7584-M	18.38

(F) G-C RADIO KNOB FELTS

3/4" O.D. x 1/4" Hole, Brown H760-F 40 1065-C .38 1065-M 3.22

(G) G-C RUBBER FEET — Screw Type

H050-F 8

O.D.	High							
3/8"	3/16"	H052-F	8	1075-BC	1.13	1075-BM	7.83
1/2"	1/4"	H054-F	8	1075-CC	1.47	1075-CM	11.70
5/8"	5/16"	H056-F	8	1075-FC	2.22	1075-FM	17.75

(H) G-C RUBBER BUTTON BUMPERS

A O.D.	B Height	C Hole	E Height					
3/8"	3/8"	3/16"	3/16"		7596-C	1.43	7596-M	11.50
1/2"	7/16"	1/4"	1/4"	H058-F	8 7597-C	2.10	7597-M	16.85
5/8"	9/16"	3/8"	5/16"		7598-C	3.38	7598-M	27.10

(J) G-C RUBBER TACK BUMPERS

3/8" O.D. H071-F 10 1075-C 1.85 1075-M 14.78

(K) G-C FELT PADS

Asstd. Felt Pads H074-F 40
1/2" O.D. x 1/4" Thick Felt Pads 1071-C .30 1071-M 2.38

(L) G-C CORD STRAIN RELIEFS

Will Fit P.O.S.J. Cord H048-F 5 6675-C 5.27 6675-M 42.11

(M) G-C ANGLES AND BRACKETS

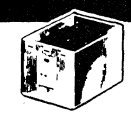
Asstd. H570-F 12

A	B	C Hole Size					
1/4"	3/16"	9/32"	6	6261-C	1.12	6261-M	8.97
3/8"	1/4"	9/32"	6	6262-C	1.40	6262-M	11.12
1/2"	7/16"	3/8"	6	6263-C	1.58	6263-M	12.68

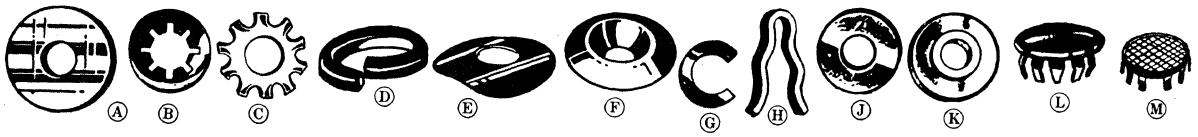
GC ELECTRONICS RADIO AND TV HARDWARE

HINGED COVER PLASTIC BOXES — 50 LINE — Dlr. Net 36c Per Box

BOXES OF 100 Standard Carton 10 Boxes of 100



BULK HARDWARE Box of 1000



(A) G-C METAL WASHERS NICKEL PLATED

Screw Size No.	Hole Size	O.D.	Thickness	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.				H870-F	80				
4	1/8"	9/32"	1/32"	H874-F	80	6154-C	$ .50	6154-M	$ 4.03
6	5/32"	3/16"	1/32"	H876-F	80	6155-C	.50	6155-M	4.03
8	3/16"	7/16"	1/32"	H878-F	80	6156-C	.50	6156-M	4.03
10	13/64"	3/8"	1/32"	H880-F	70	7306-C	.47	7306-M	3.92
10	13/64"	7/16"	1/32"			7307-C	.47	7307-M	3.92
10	13/64"	1/2"	.049			6157-C	.50	6157-M	4.03
12	.228	7/16"	.021			7308-C	.47	7308-M	3.92
1/4"	9/32"	5/8"	1/16"	H882-F	50	6158-C	.57	6158-M	4.33
1/4"	17/64"	1/2"	1/16"			7311-C	.63	7311-M	5.07
5/16"	5/16"	11/16"	1/16"			7312-C	.58	7312-M	4.68

(B) G-C LOCK WASHERS INTERNAL LOCK WASHERS CADMIUM PLATED

Screw Size	O.D.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd. All Types		H918-F	45				
Asstd. Internal Screw		H920-F	50				
2		H922-F	35	7322-C	$ .72	7322-M	$ 5.78
3				7323-C	.63	7323-M	5.03
4		H924-F	50	7324-C	.45	7324-M	3.63
6	9/32"	H926-F	50	7326-C	.45	7326-M	3.63
8	21/64"	H928-F	50	7328-C	.50	7328-M	3.98
10	3/8"	H930-F	45	7330-C	.50	7330-M	3.98
1/4"	9/16"			7332-C	.65	7332-M	5.25
5/16"	19/32"			7333-C	.82	7333-M	6.53
3/8"	11/16"			7334-C	1.10	7334-M	8.78
3/8"	9/16"	H938-F	25	7335-C	1.25	7335-M	9.98
15/32"	19/32"			7338-C	1.58	7338-M	12.63

(C) EXTERNAL LOCK WASHERS CAD PLATED

	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.	H950-F	60				
No. 4			7354-C	$ .45	7354-M	$ 3.63
No. 6			7356-C	.45	7356-M	3.63
No. 8			7358-C	.50	7358-M	3.98
No. 10			7360-C	.48	7360-M	3.87
No. 1/4" 1/2"			7361-C	.65	7361-M	5.22
No. 3/8" 11/16"			7363-C	.97	7363-M	7.68

(D) SPLIT TYPE LOCK WASHERS CAD PLATED

Screw Size	O.D.	Thick.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.			H960-F	60				
No. 4	3/16"	1/32"			6503-C	$ .57	6503-M	$ 4.50
No. 6	15/64"	1/32"			6504-C	.48	6504-M	3.90
No. 8	11/32"	.025			6505-C	.47	6505-M	3.70
No. 10	5/16"	.050			6506-C	.53	6506-M	4.32
No. 1/4"	7/16"	5/64"			6507-C	.80	6507-M	6.38

(E) G-C SPRING FRICTION WASHERS

A	B	C	Thick.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.				H750-F	12				
9/64"	5/16"	1/32"	.012			7385-C	$1.95	7385-M	$15.60
3/16"	3/8"	1/32"	.008			7386-C	1.65	7386-M	13.27
3/16"	7/16"	1/16"	.008			7387-C	1.62	7387-M	12.93
1/4"	9/16"	1/16"	.012			7389-C	1.87	7389-M	14.77

(F) G-C CUP FINISHING WASHERS NICKEL PLATED

	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd. Screws & Washers	H1005-F	15				
Asstd. Washers	H805-F	40				
No. 6	H806-F	45	6161-C	$ .47	6161-M	$ 3.92
No. 8	H808-F	45	6162-C	.53	6162-M	4.20
No. 10	H810-F	35	6163-C	.55	6163-M	4.47

(G) G-C C-WASHERS AND RETAINING RINGS STEEL-CAD PLATED

Shaft Diam. A	B	C	D	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asst'd. C-Washers				H770-F	25				
3/16" .171	.125	.062	.031	H772-F	15	6182-C	$ .95	6182-M	$ 7.53
1/4" .234	.156	.046	.031	H774-F	15	6183-C	1.07	6183-M	8.58
1/4" .260	.187	.062	.031			6184-C	1.10	6184-M	8.73
1/4" 9/32" O.D. Wire Ring .029				H778-F	50	6185-C	.42	6185-M	3.30

(H) G-C HAIR PIN COTTERS

A	B	C	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.			H380-F	50				
9/32"	1/16"	.026			7375-C	$ .48	7375-M	$ 3.90
3/8"	1/16"	.026			7376-C	.42	7376-M	3.30
13/32"	3/32"	.026			7377-C	.47	7377-M	3.78
1/2"	5/32"	.026			7378-C	.48	7378-M	3.90
21/32"	3/16"	.032			7379-C	.50	7379-M	3.93

(J) G-C FLAT FIBRE WASHERS

Screw Size	I.D.	O.D.	Thick.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.				H820-F	35				
6	.140	1/4"	1/32"	H824-F	30	6513-C	$ .50	6513-M	$ 4.08
8	11/64"	3/8"	1/32"	H825-F	30	6514-C	.50	6514-M	4.08
10	.196	3/8"	1/32"	H826-F	30	6515-C	.50	6515-M	4.08
1/4"	1/4"	1/2"	3/64"	H827-F	24	6516-C	.53	6516-M	4.33
3/8"	.390	25/64"	3/64"	H828-F	20	6517-C	.77	6517-M	6.12
15/32"	15/32"	1/4"	1/32"			6518-C	.77	6518-M	6.12

(K) G-C EXTRUDED FIBRE WASHERS

Screw Size	A	B	C	D	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd. Extruded & Flat					H854-F	30				
Asstd. Extruded					H855-F	30				
6	5/16"	.187	.140	.039			6525-C	$ .87	6525-M	$ 6.90
8	3/8"	.250	.169	.031			6526-C	.87	6526-M	6.90
10	7/16"	.255	.196	.032			6527-C	.95	6527-M	7.53
1/4"	1/2"	.375	.250	.032			6528-C	.95	6528-M	7.53
3/8"	5/8"	.437	.380	.031	H864-F	20	6529-C	.98	6529-M	7.92

(L) G-C SNAP BUTTON HOLE PLUGS NICKEL PLATED

Asstd. H300-F 8

No. 1710 Asst. 50 Plugs in Box Dlr. Net $3.05

1/4"	13/32"	1/4"	17/64"	5/64"	H306-F	8	1711-AC	$ 2.25	1711-AM	18.00
5/16"	7/16"	1/4"	21/64"	1/16"			1711-BC	2.40	1711-BM	19.20
3/8"	17/32"	3/8"	25/64"	5/64"	H308-F	8	1711-C	3.08	1711-M	24.60
1/2"	21/32"	17/64"	17/32"	5/64"	H310-F	6	1712-C	3.08	1712-M	24.60
5/8"	51/64"	9/32"	41/64"	5/64"	H312-F	6	1713-C	3.30	1713-M	26.40
3/4"	15/16"	19/64"	49/64"	3/32"	H314-F	5	1714-C	3.60	1714-M	28.80
7/8"	Fits Switch Box Knockout Hole						1714-AC	4.62	1714-AM	36.90
1"	15/32"	19/64"	1 1/32"	5/64"	H316-F	5	1715-AC	4.95	1715-AM	39.60
1 1/8"	15/16"	1 1/32"	1 3/64"	3/32"			1715-BC	5.93	1715-BM	59.40
1 1/4"	1 7/16"	5/16"	1 17/64"	3/32"			1715-C	6.45	1715-M	51.60
1 3/8"	1 1/16"	13/32"	1 13/32"	3/32"			5700-C	7.13	5700-M	57.00
1 7/16"	1 39/64"	27/64"	1 15/32"	7/64"			5701-C	7.28	5701-M	58.20
1 1/2"	1 41/64"	13/32"	1 17/32"	3/32"			5702-C	9.38	5702-M	75.00

(M) G-C SNAP-IN VENTILATING PLUGS NICKEL PLATED

	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
1" Punched Holes	H334-F	4	1709-C	$ 8.10	1709-M	$65.16
1" Screen Vent			1708-C	21.38	1708-M	170.99

Net

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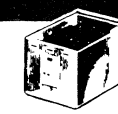
GC ELECTRONICS RADIO AND TV HARDWARE

HINGED COVER PLASTIC BOXES — 50 LINE — Dlr. Net 36c Per Box

BOXES OF 100 Standard Carton 10 Boxes of 100



BULK HARDWARE Box of 1000

G-C SNAP-IN TRIMOUNTS

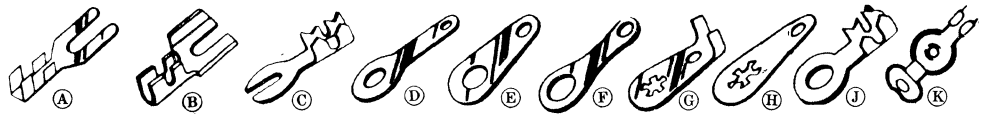
Description & Specs.			50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
No. 1720 Asst. 100 Trimounts Net Price ..... $ .82 Assorted			H370-F	20				
To Fit Hole	**A**	**B**						
1/8"	9/32"	3/16"			1721-C	$1.13	1721-M	$ 9.60
1/8"	9/32"	13/64"	H373-F	25	1722-C	1.20	1722-M	9.90
.136	11/32"	17/64"			1723-C	1.38	1723-M	11.10
.136	23/64"	9/32"	H375-F	20	1724-C	1.45	1724-M	11.63
5/32"	3/16X11/32"	25/64"	H378-F	17	1726-C	1.77	1726-M	14.10
5/32"	3/16X11/32"	21/32"	H379-F	15	1727-C	1.77	1727-M	14.10

G-C DIAL CORD CLIPS NICKEL PLATED

Description & Specs.				50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Used on Cord No.	**A**	**B**	**C**						
75-75A	1/8"	7/64"	3/32"	H745-F	30				
74-74L	1/4"	5/32"	5/32"	H746-F	40	6221-C	$ .68	6221-M	$ 5.43
73-73X	3/16"	9/64"	3/16"			6222-C	.77	6222-M	6.08
						6223-C	.78	6223-M	6.30

G-C FUSE CLIPS

For 1/4" Fuses, No. 6 Mounting Hole TV Fuse Clip, No. 8618 ($ .25) Net)	H600-F	12	6311-C	$1.85	6311-M	$14.82



G-C SOLDERING LUGS TINNED

No. 1020, 100 Asst. Dlr. Net ..... $ .67 Assorted						
No. 6, 5/8" Length (A)	H100-F	30	8466-C	$1.58	8466-M	$12.63
No. 6, 23/32" Length (B)			8467-C	2.82	8467-M	22.50
No. 8, 23/32" Length (B)			8468-C	2.65	8468-M	21.15
No. 6, 23/32" Length (C)	H104-F	25	1021-BC	1.05	1021-BM	8.40
No. 8, 23/32" Length (C)	H106-F	25	7445-C	1.20	7445-M	9.57
No. 10, 23/32" Length (C)			8473-C	1.17	8473-M	9.30
No. 6, 1/2" Length (D)			5708-C	1.68	5708-M	13.50
No. 8, 13/16" Length (D)			5704-C	1.68	5704-M	13.50
No. 10, 13/16" Length (D)			5705-C	1.68	5705-M	13.50
No. 6, 11/16" Length (D)	H108-F	30	1021-CC	.93	1021-CM	8.08
No. 6, 9/16" Length (E)	H112-F	30	1021-FC	.92	1021-FM	7.38
No. 8, 9/16" Length (E)	H113-F	30	7451-C	.87	7451-M	6.98
No. 6, 1" Length (F)	H114-F	25	7454-C	$ .67	7454-M	$ 5.33
No. 8, 1" Length (F)	H117-F	25	7455-C	.86	7456-M	6.50
No. 10, 1" Length (F)	H118-F	25	7456-C	.86	7455-M	6.50
No. 4, 13/16" Length (G)			7458-C	1.85	7458-M	14.85
No. 8, 13/16" Length (G)			7460-C	1.87	7460-M	14.88
No. 10, 13/16" Length (G)			7461-C	1.87	7461-M	14.88
No. 6, 5/8" Length (H)	H122-F	20	7462-C	1.07	7462-M	8.52
No. 8, 5/8" Length (H)			7463-C	1.07	7463-M	8.52
No. 4, 7/8" Length (E)			5706-C	1.68	5706-M	13.50
No. 8, 7/8" Length (E)			5707-C	1.68	5707-M	13.50
No. 6, 7/8" Length (E)			5708-C	1.68	5708-M	13.50
No. 6, 11/16" Length (J)	H124-F	25	7441-C	1.18	7441-M	9.45
No. 8, 11/16" Length (J)	H134-F	25	7442-C	1.13	7442-M	9.12
No. 10, 11/16" Length (J)	H102-F	25	1021-AC	1.13	1021-AM	9.12
Solderless TV Line Lug (K)	H225-F	10	8633-C	1.65	8633-M	13.13

G-C FAHNESTOCK CLIPS NICKEL PLATED

	L	W	Hole	Wire					
Assorted					H590-F	12			
(A)	1/2"	7/32"	4	16	H592-F	15	6301-C	1.50	6301-M	$13.05
(B)	3/4"	5/16"	6	14	H594-F	14	6302-C	1.73	6302-M	13.98
(C)	1 1/16"	3/8"	8	10			6303-C	2.97	6303-M	23.85
(D)	1 1/2"	5/16"	6	10			6304-C	11.02	6304-M	98.06
(E)	3/4"	3/16"	6	14			6306-C	4.03	6306-M	32.28

G-C CABLE HOLDER CLAMPS NICKEL PLATED

To Fit Cable	Mounting Hole						
Assorted		H500-F	20				
1/8" to 3/16"	No. 6	H502-F	25	6251-C	$ .98	6251-M	$ 7.83
3/16" to 1/4"	No. 6	H503-F	20	6252-C	1.12	6252-M	8.88
1/4" to 5/16"	No. 6			7503-C	1.73	7503-M	13.80
5/16" to 1/2"	No. 6	H506-F	15	6253-C	1.27	6253-M	10.13
Baseboard Clips Blk.		H509-F	20	8345-C	2.07	8345-M	16.17

G-C TERMINAL STRIP ASSORTMENT 1/16" INSULATION — 3/8" SPACING

Assorted	H250-F	4		
1 Lug		1781-C	$ 2.70	
2 Lugs		1782-C	2.70	
3 Lugs		1783-C	2.82	
4 Lugs		1784-C	3.90	
5 Lugs		1785-C	4.50	
6 Lugs		1786-C	4.80	
7 Lugs		1787-C	8.70	
8 Lugs		1788-C	9.60	

G-C COMPRESSION SPRINGS

Asst. Small	H440-F	20				
Asst. Large	H441-F	15				

G-C DIAL DRIVE TENSION PHONO SPRINGS STEEL CAD. PLATED

Asst. Reg. Dial Drive		
Asst. Small Dial Drive		
No. 1055 Kit of 25 Asst. Net $1.23	H401-F	8
No. 1056 Kit of 100 Asst. Net $3.57	H400-F	10
Asst. Lge. Tension Spgs.	H421-F	10
Asst. Sm. Tension Spgs.	H420-F	10

A	B	C	Wire Size	Old No	Part No.	Quan In Bx	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
1/8"	1/2"	1/4"	.019	T1	H403-F	10	6450-C	$ 5.03	6450-M	$40.33
1/8"	1"	3/4"	.019	T2	H406-F	8	6451-C	3.78	6451-M	30.30
3/16"	1"	5/8"	.020	T3	H408-F	8	6452-C	4.23	6452-M	33.82
3/16"	1 3/8"	1"	.020	T4	H410-F	8	6453-C	4.33	6453-M	34.72
1/4"	1 1/2"	1"	.026	T5	H412-F	6	6454-C	5.60	6454-M	44.85
1/4"	2"	1 1/2"	.026	T6			6455-C	6.92	6455-M	55.35

G-C PHONO TURNTABLE MOUNTING SPRINGS

O.D.	Lgth.	Wire Size	No. of Coils				
1"x1 1/16"	13/16"	.079	4	7497-C	$ 3.17	7497-M	$25.35

G-C DIAL PULLEYS BRASS

A	B	C	(Groove D Wd.)				
Assorted				H1966-F			
3/8"	.120	1/8"	3/32"	6057-AC	4.62	6057-AM	36.97
7/16"	.067	13/64"	1/8"	6057-BC	6.85	6057-BM	54.88
1/2"	1/8"	9/16"	3/32"	6057-GC	8.48	6057-GM	67.93
.620	.128	.165	1/16"	6057-CC	9.35	6057-CM	74.76
.860	.128	5/32"	.050	6057-FC	16.05	6057-FM	128.34

WALDOM Electronic Hardware

ROUND HEAD STEEL MACHINE SCREWS Nickel Plated		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-579	2-56 x 1/8"	.64	4.70	3.59
F-461	2-56 x 1/4"	.47	3.54	2.70
F-462	2-56 x 1/2"	.50	3.85	2.94
F-463	2-56 x 3/4"	.58	4.47	3.41
F-464	3-48 x 3/4"	.58	4.47	3.41
F-465	4-36 x 1/4"	.50	3.85	2.94
F-466	4-36 x 3/8"	.52	4.03	3.08
F-467	4-36 x 1/2"	.54	4.18	3.19
F-580	4-36 x 5/8"	.57	4.51	3.44
F-468	4-36 x 3/4"	.64	5.00	3.81
F-469	4-40 x 1/4"	.50	3.85	2.94
F-581	4-40 x 3/8"	.52	4.03	3.07
F-470	4-40 x 1/2"	.54	4.18	3.19
F-582	4-40 x 5/8"	.57	4.54	3.44
F-471	4-40 x 3/4"	.64	5.00	3.81
F-472	6-32 x 1/4"	.53	4.25	3.24
F-583	6-32 x 3/8"	.57	4.50	3.43
F-473	6-32 x 1/2"	.62	4.92	3.75
F-584	6-32 x 5/8"	.68	5.41	4.13
F-474	6-32 x 3/4"	.72	5.87	4.48
F-475	6-32 x 1"	.83	6.64	5.07
F-476	6-32 x 1-1/4"	1.00	8.04	6.13
F-477	6-32 x 2"	1.50	12.06	9.20
F-478	8-32 x 1/4"	.70	5.58	4.26
F-479	8-32 x 3/8"	.78	6.15	4.69
F-480	8-32 x 1/2"	.82	6.56	5.00
F-585	8-32 x 5/8"	.87	6.97	5.32
F-481	8-32 x 3/4"	.93	7.38	5.63
F-482	8-32 x 1"	1.07	8.50	6.48
F-483	8-32 x 1-1/4"	1.23	9.95	7.59
F-484	10-32 x 1/2"	.95	7.54	5.75
F-586	10-32 x 5/8"	1.03	8.20	6.26
F-485	10-32 x 3/4"	1.12	8.98	6.85
F-486	10-32 x 1"	1.25	9.92	7.57
F-487	10-32 x 1-1/2"	1.65	13.12	10.01
F-587	12-24 x 3/4"	1.49	12.22	9.32
F-588	12-24 x 1"	1.73	14.60	11.14
F-589	12-24 x 1-1/2"	2.30	18.86	14.39
F-590	12-24 x 2"	2.71	22.22	16.95
F-488	1/4-20 x 1/2"	1.81	14.84	11.32
F-489	1/4-20 x 3/4"	2.06	16.89	12.88
F-490	1/4-20 x 1"	2.35	19.27	14.69
F-491	1/4-20 x 1-1/4"	2.67	21.89	16.70
F-492	1/4-20 x 1-3/4"	3.24	26.57	20.27
F-493	1/4-20 x 2-1/2"	4.08	33.40	25.53

BRASS ROUND HEAD MACHINE SCREWS Nickel Plated		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-461B	2-56 x 1/4"	.70	5.49	4.19
F-462B	2-56 x 1/2"	.80	6.45	4.92
F-463B	2-56 x 3/4"	.93	7.63	5.82
F-464B	3-48 x 3/4"	1.05	8.61	6.57
F-465B	4-36 x 1/4"	.80	6.45	4.92
F-466B	4-36 x 3/8"	1.02	8.10	6.18
F-467B	4-36 x 1/2"	1.12	8.36	6.38
F-580B	4-36 x 5/8"	1.20	9.02	6.88
F-468B	4-36 x 3/4"	1.27	9.84	7.51
F-469B	4-40 x 1/4"	.80	6.45	4.92
F-470B	4-40 x 1/2"	1.02	8.10	6.18
F-582B	4-40 x 5/8"	1.20	9.02	6.88
F-471B	4-40 x 3/4"	1.27	9.84	7.51
F-472B	6-32 x 1/4"	1.08	8.63	6.58
F-583B	6-32 x 3/8"	1.15	9.22	7.03
F-473B	6-32 x 1/2"	1.30	10.38	7.92
F-584B	6-32 x 5/8"	1.51	11.47	8.75
F-474B	6-32 x 3/4"	1.58	12.76	9.67

BRASS ROUND HEAD MACHINE SCREWS (Continued)		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-475B	6-32 x 1"	1.88	15.00	11.44
F-476B	6-32 x 1-1/4"	2.18	17.82	13.18
F-477B	6-32 x 2"	3.68	29.40	22.43
F-478B	8-32 x 1/4"	1.69	13.12	10.01
F-479B	8-32 x 3/8"	1.68	13.43	10.25
F-480B	8-32 x 1/2"	1.92	15.37	11.78
F-585B	8-32 x 5/8"	2.24	17.36	13.25
F-481B	8-32 x 3/4"	2.35	18.75	14.30
F-482B	8-32 x 1"	2.80	22.35	17.05
F-483B	8-32 x 1-1/4"	3.28	26.25	20.03
F-484B	10-32 x 1/2"	2.43	19.50	14.88
F-586B	10-32 x 5/8"	2.70	21.67	16.53
F-485B	10-32 x 3/4"	2.95	23.55	17.97
F-486B	10-32 x 1"	3.52	28.08	21.42
F-487B	10-32 x 1-1/2"	4.80	39.36	30.03

BINDER HEAD STEEL MACHINE SCREWS Nickel Plated		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-591	2-56 x 1/8"	.64	4.70	3.59
F-592	2-56 x 1/4"	.47	3.54	2.70
F-593	2-56 x 1/2"	.50	3.85	2.94
F-594	2-56 x 5/8"	.58	4.43	3.38
F-020	4-40 x 1/4"	.50	3.85	2.94
F-021	4-40 x 1/2"	.54	4.18	3.19
F-022	4-40 x 3/4"	.64	5.00	3.81
F-502	6-32 x 3/16"	.55	4.26	3.25
F-503	6-32 x 1/4"	.53	4.25	3.24
F-504	6-32 x 3/8"	.57	4.50	3.43
F-014	6-32 x 1/2"	.62	4.92	3.75
F-015	6-32 x 3/4"	.72	5.87	4.48
F-621	6-32 x 5/8"	.68	5.41	4.13
F-023	8-32 x 1/4"	.70	5.55	4.23
F-505	8-32 x 5/16"	.78	6.15	4.69
F-024	8-32 x 3/8"	.78	6.15	4.69
F-025	8-32 x 1/2"	.82	6.56	5.00
F-026	8-32 x 3/4"	.93	7.38	5.63
F-577	10-32 x 1/2"	.95	7.54	5.75
F-578	10-32 x 3/4"	1.12	8.98	6.85

BINDER HEAD BRASS MACHINE SCREWS Nickel Plated		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-503B	6-32 x 1/4"	1.08	8.63	6.58
F-504B	6-32 x 3/8"	1.15	9.22	7.03
F-014B	6-32 x 1/2	1.30	10.38	7.92
F-015B	6-32 x 3/4"	1.58	12.67	9.67
F-023B	8-32 x 1/4"	1.60	13.12	10.01
F-024B	8-32 x 3/8"	1.68	13.43	10.25
F-025B	8-32 x 1/2"	1.92	15.37	11.73
F-026B	8-32 x 3/4"	2.35	18.75	14.30

FILLISTER HEAD STEEL MACHINE SCREWS Cadmium Plated		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-606	2-56 x 1/4"	.47	3.54	2.70
F-607	2-56 x 1/2"	.50	3.85	2.94
F-608	4-40 x 1/4"	.50	3.85	2.94
F-609	4-40 x 1/2"	.54	4.18	3.19
F-610	4-40 x 3/4"	.64	5.00	3.81
F-611	6-32 x 1/4"	.53	4.25	3.24
F-612	6-32 x 1/2"	.62	4.92	3.75
F-613	6-32 x 3/4"	.72	5.87	4.48
F-614	8-32 x 3/8"	.78	6.15	4.69
F-615	8-32 x 1/2"	.82	6.56	5.00
F-616	8-32 x 3/4"	.93	7.38	5.63
F-617	10-32 x 1/2"	.95	7.54	5.75
F-618	10-32 x 3/4"	1.12	8.98	6.85

OVAL HEAD STEEL MACHINE SCREWS Nickel Plated		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-506	6-32 x 1/2"	.62	4.92	3.75
F-507	6-32 x 3/4"	.72	5.87	4.48
F-508	8-32 x 3/4"	.93	7.38	5.63
F-509	10-32 x 1/2"	.95	7.54	5.75
F-510	10-32 x 3/4"	1.12	8.98	6.85

PHILLIPS HEAD ROUND STEEL M.S. Cadmium Plated		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-494	6-32 x 1/4"	1.18	9.35	7.13
F-018	6-32 x 5/16"	1.18	9.51	7.26
F-495	6-32 x 1/2"	1.07	8.61	6.57
F-496	6-32 x 3/4"	1.22	9.68	7.39
F-497	6-32 x 1"	1.37	10.91	8.32
F-019	8-32 x 1/4"	1.30	10.66	8.13
F-498	8-32 x 5/16"	1.03	8.20	6.26
F-499	8-32 x 1/2"	1.22	9.75	7.44
F-500	8-32 x 3/4"	1.33	10.58	8.07
F-501	8-32 x 1"	1.48	12.14	9.26

SLOTTED HEX HEAD SHEET METAL SCREWS (Type A) Nickel Plated		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-016	4 x 3/8"	.77	6.25	4.77
F-523	4 x 1/2"	.82	6.72	5.13
F-524	6 x 1/4"	.87	7.25	5.53
F-525	6 x 3/8"	.89	7.30	5.57
F-526	6 x 1/2"	.94	7.75	5.91
F-595	6 x 5/8"	.95	7.80	5.95
F-527	6 x 3/4"	1.00	7.95	6.06
F-528	8 x 1/4"	1.00	7.95	6.06
F-529	8 x 3/8"	1.05	8.36	6.38
F-530	8 x 1/2"	1.08	8.61	6.57
F-017	8 x 5/8"	1.10	8.77	6.69
F-531	8 x 1"	1.41	11.13	8.49
F-532	10 x 3/8"	1.17	9.35	7.13
F-533	10 x 1/2"	1.27	10.09	7.70
F-534	10 x 3/4"	1.40	11.15	8.51

HEX WASHER HEAD SHEET METAL SCREW (Type A) Steel– Indented Slotted Head Nickel Plated		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-060	4 x 3/8"	.81	6.51	4.97
F-061	4 x 1/2"	.86	7.05	5.38
F-056	6 x 1/4"	.91	7.38	5.63
F-057	6 x 3/8"	.94	7.75	5.91
F-050	6 x 1/2"	.99	7.89	6.02
F-058	6 x 5/8"	1.02	8.36	6.38
F-054	6 x 3/4"	1.07	8.77	6.69
F-051	8 x 1/4"	1.07	8.77	6.69
F-052	8 x 3/8"	1.12	9.18	7.00
F-053	8 x 1/2"	1.16	8.51	6.49
F-055	8 x 5/8"	1.18	9.68	7.39
F-059	8 x 3/4"	1.32	10.82	8.26

PAN HEAD SHEET METAL SCREWS (Type A) Nickel Plated		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-596	4 x 1/2"	.77	6.25	4.77
F-033	6 x 1/4"	.82	6.72	5.13
F-597	6 x 3/8"	.84	6.89	5.26
F-034	6 x 1/2"	.89	7.30	5.57
F-035	6 x 3/4"	.97	7.85	5.99
F-036	8 x 1/4	.97	7.85	5.99
F-598	8 x 3/8"	1.02	8.25	6.29
F-037	8 x 1/2"	1.05	8.36	6.38
F-038	8 x 1"	1.34	10.99	8.38

Net

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WALDOM Electronic Hardware

ROUND HEAD STEEL WOOD SCREWS Nickel Plated

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-514	4 x 1/2"	.78	6.26	4.78
F-515	4 x 3/4"	.90	7.23	5.52
F-516	6 x 3/4"	.97	7.76	5.92
F-517	6 x 1"	1.20	9.60	7.32
F-518	8 x 3/4"	1.15	9.18	7.00
F-047	8 x 1"	1.33	11.07	8.45
F-519	8 x 1-1/4"	1.58	12.72	9.70
F-520	10 x 1-1/2"	2.12	16.99	12.96
F-521	12 x 1-1/2"	2.70	21.67	16.53
F-522	14 x 1-3/4"	3.80	30.53	23.29

FLAT HEAD STEEL WOOD SCREWS Cadmium Plated

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-027	4 x 1/2"	.78	6.26	4.78
F-028	4 x 3/4"	.90	7.23	5.52
F-029	6 x 3/4"	.97	7.76	5.92
F-030	6 x 1"	1.20	9.60	7.32
F-031	8 x 3/4"	1.15	9.18	7.00
F-048	8 x 1"	1.35	11.07	8.45
F-032	8 x 1-1/4"	1.58	12.72	9.70
F-044	10 x 1-1/2"	2.12	16.99	12.96
F-045	12 x 1-1/2"	2.70	21.67	16.53
F-046	14 x 1-3/4"	3.80	30.53	23.29

HEX STEEL NUTS Nickel Plated

	Thrd. Width Thk.	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-554	2-56 x 3/16 x 1/16"	.68	5.41	4.13
F-555	3-48 x 3/16 x 1/16"	.68	5.41	4.13
F-556	4-36 x 1/4 x 3/32"	.67	5.33	4.07
F-557	4-40 x 1/4 x 3/32"	.67	5.33	4.07
F-559	6-32 x 1/4 x 3/32"	.67	5.33	4.07
F-560	6-32 x 5/16 x 7/64"	.73	5.82	4.44
F-561	8-32 x 1/4 x 3/32"	.67	5.33	4.07
F-562	8-32 x 5/16 x 7/64"	.73	5.82	4.44
F-563	10-32 x 3/8 x 1/8"	.85	6.80	5.19
F-619	12-24 x 7/16 x 5/32"	1.13	9.27	7.07
F-564	1/4-20 x 7/16 x 3/16"	1.22	9.76	7.44
F-565	3/8-32 x 1/2 x 3/32"	1.47	12.05	9.19

HEX BRASS NUTS Nickel Plated

	Thrd. Width Thk.	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-554B	2-56 x 3/16 x 1/16"	.98	7.86	6.00
F-555B	3-48 x 3/16 x 1/16"	.89	7.18	5.48
F-556B	4-36 x 1/4 x 3/32"	1.18	9.45	7.21
F-557B	4-40 x 1/4 x 3/32"	1.17	9.36	7.14
F-559B	6-32 x 1/4 x 3/32"	1.16	9.33	7.12
F-560B	6-32 x 5/16 x 7/64"	1.40	11.26	8.59
F-561B	8-32 x 1/4 x 3/32"	1.16	9.33	7.12
F-562B	8-32 x 5/16 x 1/8"	1.40	11.26	8.59
F-563B	10-32 x 3/8 x 1/8"	1.53	12.32	9.40

STEEL LOCK WASHERS – (INTERNAL AND EXTERNAL) Cadmium Plated

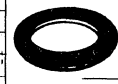
INTERNAL Screw Size	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
MW-416 #4	.44	2.88	2.00
MW-417 #6	.44	2.88	2.00
MW-418 #8	.48	2.98	2.07
MW-419 #10	.48	2.98	2.07
MW-420 1/4	.63	4.04	2.80
MW-421 3/8	.94	7.10	4.93
EXTERNAL Screw Size			
MW-422 #4	.44	2.88	2.00
MW-423 #6	.44	2.88	2.00
MW-424 #8	.48	2.98	2.07
MW-425 #10	.48	2.98	2.07
MW-426 1/4	.63	4.04	2.80
MW-427 3/8	.94	7.10	4.93

STEEL CUP WASHERS Nickel Plated

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
CW-6	For #6 Oval Head or Flat Head Screws	.46	3.78	2.88
CW-8	For #8 Oval Head or Flat Head Screws	.49	4.05	3.09
CW-10	For #10 Oval or Flat Head Screws	.55	4.35	3.32

FLAT STEEL WASHERS Nickel Plated

	Screw Size	I.D.	O.D.	Thick.	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
MW-400	#2	.092"	7/32"	.018"	.43	3.55	2.71
MW-401	#4	.125"	9/32"	.025"	.33	2.75	2.10
MW-402	#6	.150"	3/8"	.032"	.33	2.75	2.10
MW-403	#8	.170"	3/8"	.032"	.33	2.75	2.10
MW-404	#10	.204"	3/8"	.032"	.37	3.12	2.38
MW-408	1/4	.281"	5/8"	.050"	.67	5.33	4.07
MW-410	3/8	.392"	11/16"	.050"	.70	5.63	4.30



FLAT BRASS WASHERS Nickel Plated

	Screw Size	I.D.	O.D.	Thick.	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
MW-400B	#2	.092"	7/32"	.018"	.45	3.70	2.82
MW-401B	#4	.125"	9/32"	.025"	.47	3.85	2.94
MW-402B	#6	.150"	3/8"	.032"	.62	4.92	3.75
MW-403B	#8	.170"	3/8"	.032"	.62	4.92	3.75
MW-404B	#10	.204"	3/8"	.032"	.67	5.33	4.07

Insulating Fibre Washers – Precision made insulating washers, both flat and extruded, for insulation of components and controls from chassis or from each other.

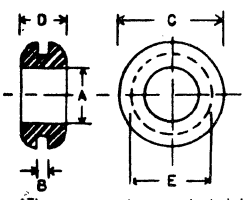
FLAT

	Screw Size	I.D.	O.D.	Thick.	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
FW-374	#4	.020"	1/4"	1/32"	.44	3.60	2.75
FW-375	#6	.145"	1/4"	1/32"	.44	3.60	2.75
FW-376	#8	3/16"	3/8"	1/32"	.47	3.85	2.94
FW-377	#10	.192"	3/8"	1/32"	.47	3.85	2.94
FW-378	1/4	.255"	1/2"	3/64"	.52	4.03	3.07
FW-379	3/8	3/8"	5/8"	3/64"	.77	6.15	4.69
FW-380	7/16	.440"	3/4"	1/32"	.83	6.75	5.15

EXTRUDED

	Screw Size	A	B	C	D	E	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
FW-384	#4	9/32"	13/64"	1/8"	1/32"	5/64"	.87	6.89	5.26
FW-385	#6	5/16"	7/32"	9/64"	1/32"	5/64"	.87	6.89	5.26
FW-386	#8	3/8"	1/4"	11/64"	1/32"	3/32"	.87	6.89	5.26
FW-387	#10	7/16"	9/32"	13/64"	1/32"	3/32"	.95	7.54	5.75
FW-388	1/4"	1/2"	.375"	.296"	1/32"	3/32"	.95	7.54	5.75
FW-389	3/8"	5/8"	.437"	.375"	1/32"	3/32"	.98	7.79	5.94

VINYL GROMMETS

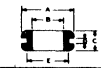


- Exceptional Aging Qualities*
- High Dielectric Properties
- Oil Resistant
- Durometer Hardness 45 to 85
- Cost Less Than Rubber
- Will Not Stain Most Surfaces

*These grommets were tested by Underwriters Laboratories in a circulating air oven at 212 degree F. for seven days with no visible change.

Cat. No.	A	B	C	D	E	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
G-401	1/8	1/16	11/32	3/16	1/4	.90	7.40	5.65
G-402	3/16	1/16	7/16	7/32	5/16	.99	8.25	6.29
G-403	1/4	1/16	9/16	1/4	3/8	1.32	9.51	7.26
G-404	5/16	1/16	5/8	1/4	7/16	1.44	10.17	7.76
G-405	3/8	1/16	5/8	1/4	1/2	1.44	10.17	7.76
G-406	1/2	1/16	13/16	9/32	5/8	2.27	17.71	13.51
G-407	5/8	1/16	1-1/8	9/32	7/8	3.71	30.42	23.21

WALDOM RUBBER GROMMETS – A complete selection of highest quality rubber grommets for use in protecting insulation from raw edges of chassis hole, shock and vibration dampening. For mounting tuning condensers, sockets, phono motors, chassis, etc.



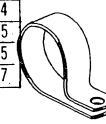
	A	B	C	D	E	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
G-300	11/32"	1/8"	3/16"	1/16"	1/4"	1.44	11.46	8.74
G-301	9/16"	5/16"	3/16"	1/16"	15/32"	1.46	11.64	8.88
G-302	11/16"	3/8"	9/32"	1/16"	1/2"	2.26	18.53	14.14
G-305	7/16"	3/16"	7/32"	1/16"	5/16"	1.48	11.81	9.01
G-307	3/4"	7/16"	1/4"	3/64"	19/32"	2.50	21.50	15.64
G-309	5/8"	11/32"	5/16"	1/16"	15/32"	1.53	12.25	9.35
G-311	1-1/8"	5/8"	5/16"	1/16"	7/8"	5.54	45.43	34.66

Nylon and Ethyl Cellulose Cable Clamps

These clamps combine lightweight and chemical resistance with excellent shock resisting properties in a temperature range of from 185°F. to –40°F. in the Ethyl Cellulose and 300°F. to –60°F. in the Nylon.

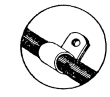
Approved 7-21-44 Army-Navy Aeronautical AN742.

- **OPENS EASILY FOR FAST ASSEMBLY • ONE NAIL INSTEAD OF TWO**
- FORM STABILITY AT HIGH TEMPERATURES • ECONOMY
- ABRASION AND MOISTURE RESISTANCE • CHEMICAL RESISTANCE
- LIGHTNESS IN WEIGHT • TOUGHNESS AND RESILIENCY
- GOOD ELECTRICAL PROPERTIES • STRENGTH AND DURABILITY



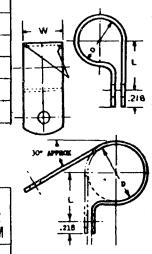
NYLON CABLE CLAMPS

Cat. No.	For Use With Rod O.D.	Dia.	Width	Length	Mat. Thick.	PKG. OF 100	1000-OVER PER M
CCN-31	1/8"	.125"	3/8"	0.328	.050	2.85	24.30
CCN-32	3/16"	.188"	3/8"	0.390	.050	3.00	25.72
CCN-33	1/4"	.250"	3/8"	0.421	.050	3.30	28.12
CCN-34	5/16"	.313"	3/8"	0.453	.050	3.66	31.06
CCN-35	3/8"	.375"	3/8"	0.483	.050	3.89	32.65
CCN-36	7/16"	.438"	3/8"	0.531	.050	4.05	34.53
CCN-37	1/2"	.500"	3/8"	0.562	.050	4.30	36.75
CCN-38	9/16"	.563"	1/2"	0.625	.060	5.32	45.37
CCN-39	5/8"	.625"	1/2"	0.610	.060	6.24	53.16



ETHYL CELLULOSE PLASTIC CLAMPS– Width 3/8"

Cat. No.	For Use With Rod O.D.	Dia.	Length	Mat. Thick		
CCE-1	1/8"	.125"	0.328	.063	1.87	16.03
CCE-2	3/16"	.188"	0.390	.063	1.89	16.14
CCE-3	1/4"	.250"	0.421	.063	1.87	17.79
CCE-4	5/16"	.313"	0.453	.063	2.30	19.63
CCE-5	3/8"	.375"	0.483	.063	2.41	21.69
CCE-6	7/16"	.438"	0.531	.063	2.64	22.54
CCE-7	1/2"	.500"	0.562	.063	2.81	24.00
CCE-8	9/16"	.563"	0.625	.063	3.30	28.09
CCE-9	5/8"	.625"	0.610	.063	3.73	31.81
CCE-10	11/16"	.688"	0.666	.063	4.06	34.59
CCE-11	3/4"	.750"	0.765	.063	4.25	36.25
CCE-12	7/8"	.875"	0.812	.063	4.60	39.36
CCE-13	1"	1.000"	0.906	.063	4.90	41.79
CCE-14	1-1/8"	1.125"	0.968	.063	4.91	41.91
CCE-15	1-1/4"	1.250"	1.156	.063	5.52	47.14



WALDOM Skru-Box

VARIETY ASSORTMENTS SCREWS & NUTS

ROUND HEAD MACHINE SCREWS, NUTS, SHEET METAL SCREWS. R.H.SM.S 4-40 x 1/2, 6-32 x 1/4, 6-32 x 3/4, 8-32 x 1/2, Sheet Metal Screw #6 x 1/2, Nuts 4-40, 6-32, 8-32. 265 Total Pieces.
No. HD-4013 Net 1.59

BINDER-HEAD SCREWS – Same assortment as above, but machine screws have binder-head!
No. HD-4018 Net 1.59

SHEET METAL SCREWS – Slotted Hex Head Sheet Metal Screws Type A in 4 x 3/8", 6 x 1/4", 6 x 1/2", 6 x 3/4", 8 x 3/8", 8 x 1/2", 8 x 5/8". 165 Total Pieces.
No. HD-4014 Net 1.59

WASHER-HEAD SHEET METAL SCREWS – Slotted Hex Head Type A w/flat washer attached, sizes 6 x 1/4, 6 x 3/8, 6 x 1/2, 6 x 3/4, 8 x 1/4, 8 x 3/8, 8 x 1/2, 8 x 5/8. 120 Total Pieces.
No. HD.4011 Net 1.59

WOOD SCREW ASSORTMENT – Round Head Wood Screws 4 x 1/2, 6 x 3/4, 6 x 6 x 1. 8 x 3/4, 8 x 1¼. Flat Head 8 x 1, 8 x 1¼. 139 Total Pieces.
No. HD-4019 Net 1.59

GENERAL HARDWARE KIT – 260 Fasteners – Round Head, Binder Head, and Phillips Head Machine Screws. Hex Steel Nuts, Hex Head (slotted) and Hex Washer Head (slotted) Sheet Metal Screws, Flat Head and Round Head Wood Screws. All popular diameters and lengths.
No. HD-4020 Net 1.59

Walsco ELECTRONICS ELECTRONIC HARDWARE

WALSCO BINDING HEAD MACHINE SCREWS — STEEL NICKEL PLATED

SIZE	BOX OF 100 PART NO.	BOX OF 100 NET/100	BOX OF 1000 PART NO.	BOX OF 1000 NET/1000
Machine Screws, 2-56 x 1/2"	8151-C	$ .63	8151-M	$ 5.33
Machine Screws, 2-56 x 3/4"	8152-C	.63	8152-M	5.33
Machine Screws, 4-36 x 1/4"	8154-C	.63	8154-M	5.33
Machine Screws, 4-36 x 1/2"	8155-C	.63	8155-M	5.33
Machine Screws, 4-36 x 3/4"	8156-C	.63	8156-M	5.33
Machine Screws, 4-40 x 1/4"	8157-C	.63	8157-M	5.33
Machine Screws, 4-40 x 1/2"	8158-C	.63	8158-M	5.33
Machine Screws, 2-56 x 1/4"	8159-C	.63	8159-M	5.33
Machine Screws, 4-40 x 3/4"	8160-C	.64	8160-M	5.35
Machine Screws, 5-36 x 1/4"	8161-C	.53	8161-M	4.20
Machine Screws, 6-32 x 3/16"	8162-C	.53	8162-M	4.20
Machine Screws, 6-32 x 1/4"	8163-C	.53	8163-M	4.20
Machine Screws, 6-32 x 3/8"	8164-C	.57	8164-M	4.50
Machine Screws, 6-32 x 1/2"	8166-C	.65	8166-M	5.12
Machine Screws, 6-32 x 3/4"	8167-C	.72	8167-M	5.17
Machine Screws, 7-32 x 3/8"	8165-C	1.57	8165-M	12.48
Machine Screws, 8-32 x 1/4"	8168-C	.72	8168-M	5.62
Machine Screws, 8-32 x 3/8"	8169-C	.75	8169-M	5.85
Machine Screws, 8-32 x 1/2"	8170-C	.78	8170-M	6.27
Machine Screws, 8-32 x 5/16"	8171-C	.72	8171-M	5.73
Machine Screws, 8-32 x 3/4"	8172-C	.95	8172-M	7.57
Machine Screws, 10-32 x 1/2"	8173-C	.79	8173-M	7.70
Machine Screws, 10-32 x 3/4"	8174-C	1.15	8174-M	9.20

WALSCO BINDING HEAD MACHINE SCREWS — BRASS NICKEL PLATED

Machine Screws, 2-56 x 1/4"	8151-1-C	.84	8151-1-M	6.98
Machine Screws, 2-56 x 1/2"	8152-1-C	.96	8152-1-M	8.28
Machine Screws, 2-56 x 3/4"	8154-1-C	1.11	8154-1-M	9.55
Machine Screws, 4-36 x 1/4"	8155-1-C	.97	8155-1-M	8.32
Machine Screws, 4-36 x 1/2"	8156-1-C	1.19	8156-1-M	10.18
Machine Screws, 4-36 x 3/4"	8157-1-C	1.40	8157-1-M	12.05
Machine Screws, 4-40 x 1/4"	8158-1-C	.97	8158-1-M	8.32
Machine Screws, 4-40 x 1/2"	8159-1-C	1.19	8159-1-M	10.18
Machine Screws, 4-40 x 3/4"	8160-1-C	1.40	8160-1-M	12.15
Machine Screws, 5-36 x 1/4"	8161-1-C	1.40	8161-1-M	12.99
Machine Screws, 6-32 x 3/16"	8162-1-C	1.34	8162-1-M	11.47
Machine Screws, 6-32 x 1/4"	8163-1-C	1.27	8163-1-M	10.90
Machine Screws, 6-32 x 3/8"	8164-1-C	1.36	8164-1-M	11.54
Machine Screws, 6-32 x 1/2"	8166-1-C	1.51	8166-1-M	12.90
Machine Screws, 6-32 x 3/4"	8167-1-C	1.83	8167-1-M	15.65
Machine Screws, 8-32 x 1/4"	8168-1-C	1.85	8168-1-M	15.70
Machine Screws, 8-32 x 3/8"	8169-1-C	1.94	8169-1-M	16.65
Machine Screws, 8-32 x 1/2"	8170-1-C	2.20	8170-1-M	18.80
Machine Screws, 8-32 x 5/16"	8171-1-C	1.88	8171-1-M	16.20
Machine Screws, 8-32 x 3/4"	8172-1-C	2.70	8172-1-M	23.15
Machine Screws, 10-32 x 1/2"	8173-1-C	2.54	8173-1-M	21.80
Machine Screws, 10-32 x 3/4"	8174-1-C	3.43	8174-1-M	29.50

HEX NUTS — STEEL NICKEL PLATED

Thread	Width	Thickness				
2-56	3/16"	1/16"	8802-C	.68	8802-M	5.52
4-36	1/4"	3/32"	8824-C	.67	8824-M	5.28
4-40	5/16"	7/64"	8804-C	.67	8804-M	5.28
6-32	1/4"	3/32"	8806-C	.68	8806-M	5.52
6-32	5/16"	7/64"	8826-C	.73	8826-M	5.82
8-32	1/4"	3/32"	8808-C	.73	8808-M	5.85
8-32	11/32"	1/8"	8828-C	.73	8828-M	5.85
10-32	3/8"	5/64"	8810-C	.97	8810-M	7.68
10-32	3/8"	1/8"	8830-C	.87	8830-M	6.98

HEX NUTS — BRASS

2-56	3/16"	1/16"	8802-1-C	.98	8802-1-M	7.83
4-36	1/4"	3/32"	8845-C	1.18	8845-M	9.42
4-40	5/16"	7/64"	8844-C	1.17	8844-M	9.33
6-32	1/4"	3/32"	8846-C	1.17	8846-M	9.30
6-32	5/16"	7/64"	8826-1-C	1.40	8826-1-M	11.18
8-32	1/4"	3/32"	8848-C	1.40	8848-M	11.18
10-32	3/8"	1/8"	8850-C	1.53	8850-M	12.27

Net

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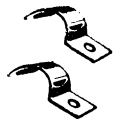
Walsco ELECTRONIC HARDWARE

ELECTRONICS

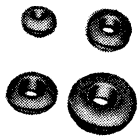


WALSCO CABLE CLAMPS

For all cable or wire groups from 1/8" to 5/16" in diameter.

Description	Mtg. Hole Size
1/8" to 3/16" cable diameter	#6
3/16" to 1/4" cable diameter	#8
1/4" to 5/16" cable diameter	#8
	Assorted

50 LINE Dir. Net .36/Pkg. Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Dealer Net	BULK PACK Cat. No.	Std. Pack	Dealer Net Per 1000
7502-F	25	7502-C	100	$ .98	7502-M	1000	$ 7.83
7503-F	20	7503-C	100	1.73	7503-M	1000	13.80
7505-F	16	7505-C	100	2.08	7505-M	1000	16.65
7500-F	20						



VINYL GROMMETS

Protects insulated wires from sharp edges of chassis holes. Easily installed. Extremely useful for damping vibration in mounting parts.

DIMENSIONS A	B	C	D	E
11/32	1/8	3/16	1/16	1/4
7/16	3/16	1/32	1/16	5/16
9/16	1/4	1/4	1/16	3/8
5/8	3/8	1/4	1/16	1/2
13/16	1/2	9/32	1/16	5/8

Assorted

Cat. No.	Qty. Pkg.	Cat. No.	Qty. Pkg.	Dealer Net	Cat. No.	Std. Pack	Dealer Net Per 1000
7030-F	14	7030-C	100	$1.00	7030-M	1000	$ 8.13
7032-F	12	7032-C	100	1.25	7032-M	1000	10.00
7034-F	12	7034-C	100	1.37	7034-M	1000	10.88
7036-F	10	7036-C	100	1.47	7036-M	1000	11.73
7038-F	8	7038-C	100	2.27	7038-M	1000	18.22
7025-F	12						

CABINET FEET — SCREW TYPE

Made of synthetic rubber. Easily installed with wood screws, metal screws or tacks. Screw type is supplied with wood screws on "50" and "99" line packages.

Diameter	Height
3/8	3/16
1/2	1/4
5/8	5/16
3/4	3/8

Assorted

TACK TYPE

Same as above, but with handy tacks molded in feet.

Diameter: 3/8, 1/2

Assorted

50 LINE Dir. Net .36/Pkg. Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Dealer Net	BULK PACK Cat. No.	Std. Pack	Dealer Net Per 1000
7052-F	8**	7052-C	100**	$1.13	7052-M*	1000	$ 7.83
7054-F	8**	7054-C	100**	1.47	7054-M*	1000	11.70
7056-F	8**	7056-C	100**	2.22	7056-M*	1000	17.70
		7058-C	100**	2.82	7058-M*	1000	22.50
7050-F	8**						
		7071-C	100	$1.85	7071-M	1000	$14.78
		7072-C	100	1.95	7072-M	1000	15.57
7070-F	8						

* No screws included ** Wood screws included

WALSCO INSULATING WASHERS

(Flat and Extruded)

Precision made from vulcanized phenolic fiber. Assures the proper and safe insulation between components and controls from each other or the chassis and other metal parts.

Fits Screw Size	A	B	C	D	
#6	5/16	3/16	.140	.039	Extruded
	5/16		.140		Flat
					Fl & Ex.
#8	3/8	1/4	.169	1/32	Extruded
	3/8		.166		Flat
					Fl. & Ex.
#10	3/8	.308	.195	1/32	Extruded
	3/8		.195		Flat
					Fl. & Ex.
1/4"	1/2	11/32	.250	1/32	Extruded
	1/2		.250		Flat
					Fl. & Ex.
3/8"	5/8	1/2	.380	1/32	Extruded
	5/8		.380		Flat
					Fl. & Ex.

50 LINE Dir. Net .36/Pkg. Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Dealer Net	BULK PACK Cat. No.	Std. Pack	Dealer Net Per 1000
		7856-C	100	$ .87	7856-M	1000	$6.90
		7836-C	100	.42	7836-M	1000	3.30
7824-F	30						
		7858-C	100	.87	7858-M	1000	6.90
		7838-C	100	.42	7838-M	1000	3.30
7825-F	30						
		7860-C	100	.95	7860-M	1000	7.53
		7840-C	100	.42	7840-M	1000	3.30
7826-F	30						
		7862-C	100	.95	7862-M	1000	7.53
		7842-C	100	.47	7842-M	1000	3.68
7827-F	24						
		7864-C	100	.98	7864-M	1000	7.92
		7844-C	100	.77	7844-M	1000	6.12
7828-F	20						

WALSCO SPADE BOLTS

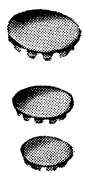
Ideal for fastening condsensers, coils, shields, etc. The type 8572 is straight and has 9/32" long thread. Thread on type 8573 is 5/16" long. Both types are 3/4" long overall, have 6-32 thread and hole for 6-32 screw or 1/8" rivet.

Hole Dia., .141.

Size	A	B	C	D
6-32 Straight	3/4"	9/16"	9/32"	1/4"
6-32 Offset	3/4"	9/16"	5/16"	15/64"

Assorted

50 LINE Dir. Net .36/Pkg Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Dealer Net	BULK PACK Cat. No.	Std. Pack	Dealer Net Per 1000
8570-F	15						
		8572-C	100	$1.22	8572-M	1000	$12.23
		8573-C	100	2.55	8573-M	1000	20.33



WALSCO SNAP-HOLE PLUGS

The quickest, simplest way ever devised to cover a hole in chassis or panel. Spring flanges hold polished nickel-plated flat-head button firmly in place. Use Walsco Snap-Hole Plugs to seal adjustments, cover unused holes, etc.

Fits Hole Diameter: 1/8", 3/16", 1/4", 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1 1/8", 1 1/4", Assorted

50 LINE Dir. Net .36/Pkg. Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Dealer Net	BULK PACK Cat. No.	Std. Pack	Dealer Net Per 1000
					7302-M	1000	$25.65
					7304-M	1000	24.38
7306-F	8	7306-C	100	$2.25	7306-M	1000	18.00
7308-F	8	7308-C	100	2.85	7308-M	1000	22.87
7310-F	6	7310-C	100	3.08	7310-M	1000	24.60
7312-F	6	7312-C	100	3.30	7312-M	1000	26.40
7314-F	5	7314-C	100	3.60	7314-M	1000	28.80
		7315-C	100	4.62	7315-M	1000	36.90
7316-F	4	7316-C	100	4.95	7316-M	1000	39.60
		7318-C		5.93	7318-M	1000	59.40
		7320-C		6.45	7320-M	1000	51.60
7300-F	6						

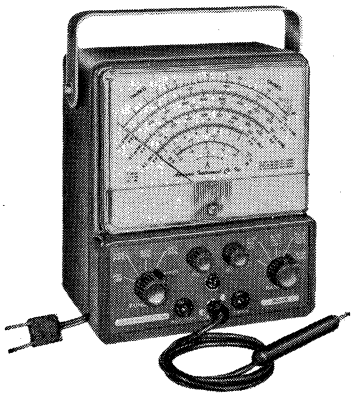
VENTILATING HOLE PLUGS

Assorted 7330-F 3

Snap these protective screen coverings into ventilating holes on chassis, portable equipment cases, amplifiers, amateur rigs, etc. Spring flange holds plug in place.

Fig. No.	Type	Hole Size	Finish	Cat. No.	Dealer Net	Cat. No.	Dealer Net
1	Screened	1"	Steel	7331-C	$21.38	7331-M	$170.99
2	Eyelet	19/32"	Brass—Not Plated	7332-C	4.50	7332-M	40.43
2	Eyelet	3/4"	Brass	7333-C	6.37	7333-M	57.23

THE FIRST EIGHT MODELS IN THE NEW "ACCURATE" LINE—MORE TO COME!



Model 152 A Modern, Streamlined SENIOR V.T.V.M.

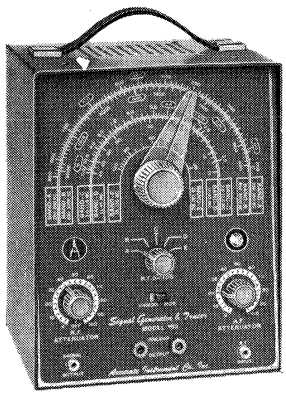
FEATURES GIANT 6½" METER

Only $29.95 COMPLETE! Not a kit . . . the 152 *is a completely Wired and Calibrated Tester . . . Ready to use!*

MODEL 152 FEATURES AND SPECIFICATIONS

● **D.C. VOLTMETER:** Ranges 0 to 3, 30, 150, 300, 1500 volts; Accuracy ± 3% of full scale; Input resistance: 11 megohms. ● **ZERO CENTER VOLTMETER** (For discriminator alignment): Ranges 0 to 1.5, 15, 75, 150, 750 volts; Accuracy ± 3% of full scale. Input resistance: 11 megohms ● **A.C. VOLTMETER:** R.M.S. Ranges: 0 to 3, 30, 150, 300, 1500 volts; Peak to Peak Ranges: 0 to 8, 80, 400, 800 volts; Accuracy: ± 3% of full scale. ● **OHMMETER:** Ranges: 0 to 1000 megohms (5 overlapping ranges); Center Scale Values: 10, 100, 1000, 100,000 ohms, 10 megohms. ● **DECIBEL METER** (for all audio measurements); Ranges —10 to +5, +6 to +25, +26 to +45 decibels. All based on zero db at 1.73 volts on 500 ohm line; ● Pilot light indicates when unit is "on". ● Housed in beautiful grey high-impact case, with color matched etched aluminum panel and portable handle.

Model 152 comes complete with D.C. V.T.V.M. Probe and cable, pair of standard test leads for all other services, detailed instructions. Net Price **$29.95**



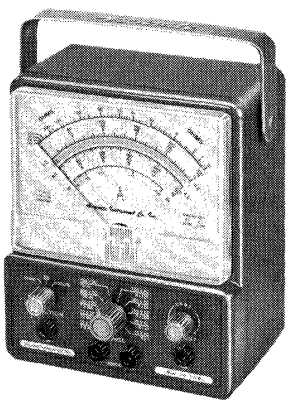
Model 153—A Combination SIGNAL GENERATOR and SIGNAL TRACER

The true test of the claim "two instruments in one" is: can each of the two units be used separately as well as in conjunction with each other? In the case of this versatile combination instrument, the answer is emphatically yes, for, the Signal Generator will function as a full service instrument with a range of 250 Kilocycles to 120 Megacycles and the Signal Tracer will follow any signal whether generated by a broadcasting station or injected by the Signal Generator section of Model 153. When used in combination with no dependence on outside signals, the compatibility of Model 153 provides ideal service, for unlike any standard signal tracer, the Model 153 first injects its own signal then traces that controllable signal to locate the source of trouble whether due to component or circuit by standard signal tracing technique.

SPECIFICATIONS:

SIGNAL TRACER: ● Hi-gain cascode pre-amplifier ● Pre-amplifier output available at front panel jacks for use with VTVM, oscilloscope or phones. ● Low distortion triode output stage. ● Audio Attenuator provided to prevent high signal overloading. ● 4½ inch permanent magnet speaker. ● Separate R.F. and Audio Signal tracing probes.
SIGNAL GENERATOR ● Covers from 250 KC to 120 MC in 5 bands. ● All popular and most used frequencies marked on panel in color. ● High stability electron coupled R.F. oscillator. ● Attenuator used on both R.F. and Audio circuits.

Model 153 comes complete with all necessary probes. Net Price **$28.40**



Model 154, A Modern, Streamlined 20,000 OHMS-PER-VOLT V.O.M.

FEATURES GIANT 6½" METER . . . only $29.95 COMPLETE!

The 20,000 Ohms-per-Volt-V.O.M. has been the one "must have" tester for all Radio and TV technicians since 1935 . . . and now . . . we proudly announce the most recent, streamlined edition of this all-around useful standard with a 6½" meter and at an unbelievably low price.

Model 154 Features and Specifications

● Mirrored Scale permits fine accurate measurements where fractional readings are important. ● Selected resistors are used as multipliers to assure unchanging accurate readings on all ranges. ● 6 D.C. VOLTAGE RANGES (at 20,000 Ohms per Volt) 0 to 15/75/150/300/750/3000 Volts. 6 A.C. VOLTAGE RANGES (at 5,000 Ohms per Volt) 0 to 15/75/150/300,/750/300 Volts. ● 5 RESISTANCE RANGES: 0 to 2000/20,000/200,000 Ohms. 0 to 2/20 Megohms. ● 5 D.C. CURRENT RANGES: 0 to 75/750 Microamperes; 0 to 7.5/75 Milliamperes; 0 to 7.5 Amperes; ● 3 DECIBEL RANGES: —6 db to +18 db; +14 db to +38 db; +28 db to +52 db.

Model 154 comes complete with operating instructions and test leads. Net Price **$29.95**

Employs 6½" Meter

New Model 155—Combination VOLT-OHM MILLIAMMETER

plus **CAPACITY, REACTANCE, INDUCTANCE and DECIBEL MEASUREMENTS.**

Also Tests

SELENIUM and SILICON RECTIFIERS, SILICON and GERMANIUM DIODES.

SPECIFICATIONS:

√ D.C. Volts:	0 to 7.5/15/75/150/750/1,500.	The following components are all tested for QUALITY at appropriate test potentials. Two separate BAD-GOOD scales on the meter are used for direct readings.
√ A.C. Volts:	0 to 15/30/150/300/1,500/3,000.	
√ D.C. Current:	0 to 1.5/15/ 150 Ma.: 0 to 1.5/15 Amperes.	
√ Resistance	0 to 2,000/200,000 Ohms. 0 to 20 Megohms.	
√ Capacity:	.001 to 1 Mfd. 1 to 20 Mfd.	
√ Reactance:	130 to 2,600 Ohms, 2600 Ohms to 2.6 Megohms.	√ All Electrolytic Condensers from 1 Mfd to 1000 Mfd.
√ Inductance:	.35 to 7 Henries, 7 to 7,000 Henries.	√ All Selenium Rectifiers
√ Decibels:	— 6 to + 18, + 14 to + 38, + 34 to + 58.	√ All Silicon Rectifiers
		√ All Germanium Diodes √ All Silicon Diodes

Model 155 comes complete with operating instructions and test leads. Use it on the bench—use it on calls. Complete with all instructions and leads. Net Price **$28.40**

Manufactured By: ACCURATE INSTRUMENT CO., INC. BRONX 59, N. Y.

Net

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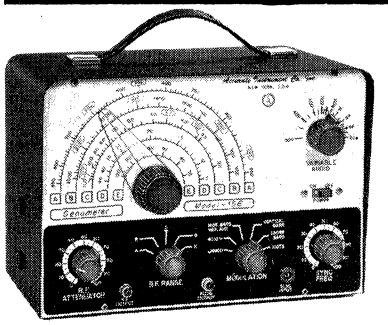
THE FIRST EIGHT MODELS IN THE NEW "ACCURATE" LINE—MORE TO COME!



The Model 156 comes absolutely complete with shielded leads and operating instructions. Net Price **$38.50**

New Model 156 SEVEN (7) SIGNAL GENERATORS IN ONE!

• R.F. Signal Generator for A.M. • R.F. Signal Generator for F.M. • Audio Freq. Generator • Bar Generator • Cross Hatch Generator • Color Dot Pattern Generator • Marker Generator

SPECIFICATIONS:

R. F. SIGNAL GENERATOR: The Model 156 Genometer provides complete coverage for A.M. and F.M. alignment. Generates Radio Frequencies from 250 Kilocycles to 45 Megacycles on fundamentals and from 35 Megacycles to 120 Megacycles on powerful harmonics.

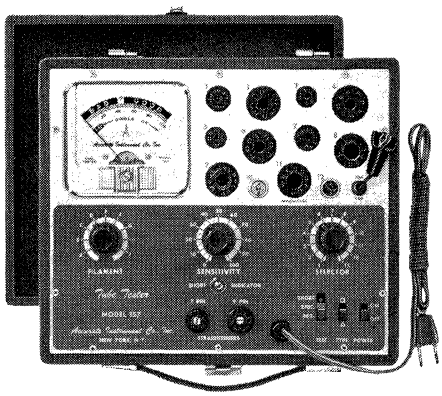
CROSS HATCH GENERATOR: The Model 156 Genometer will project a cross-hatch pattern on any TV picture tube.

VARIABLE AUDIO FREQUENCY GENERATOR: In addition to a fixed 400 cycle sine-wave audio, the Model 156 Genometer provides a variable 300 cycle to 20,000 cycle peaked wave audio signal.

DOT PATTERN GENERATOR (FOR COLOR TV): The Dot Pattern projected on any color TV Receiver tube by the Model 156 will enable you to adjust for proper color convergence.

BAR GENERATOR: The Model 156 projects an actual Bar Pattern on any TV Receiver Screen. Pattern will consist of 4 to 16 horizontal bars or 7 to 20 vertical bars.

MARKER GENERATOR: The Model 156 includes all the most frequently needed marker points. The following markers are provided: 262 Kc., 456 Kc., 600 Kc., 1000 Kc., 1600 Kc., 2500 Kc., 3.579 Mc., 4.5 Mc., 10.7 Mc., (3.579 Mc is the color burst frequency.)



Model 157, A Modern, Streamlined TUBE TESTER

Not a kit . . . The Model 157 is a completely wired and calibrated Tester . . . Ready to use!

TESTS ALL MODERN TUBES INCLUDING THE NEW

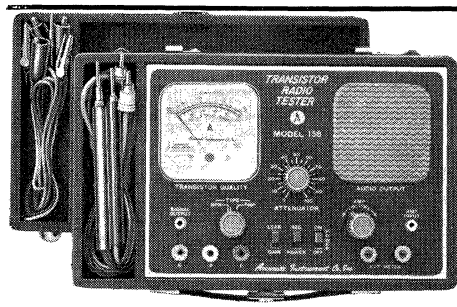
√ Novars √ Nuvistors √ Compactrons √ 10 Pins √ Magnovals

MODEL 157 FEATURES AND SPECIFICATIONS:

• Tests over 1,000 tube types. • Makes **all** necessary tests. Checks for shorts and leakages between **all** elements; tests for filament continuity; indicates the quality (emission) of all tubes. • Checks all modern tubes including 7-pin miniatures; octals, lock-ins, 9-pin noval miniatures; new T-9 types; novars, nuvistors, compactrons; 10 pins, magnovals. • **Speedy** operation assured by use of a new improved circuit which enables us to use a single **rotary** switch in place of the one-at-a-time slide switches previously used. • 7 and 9 pin tube straighteners permanently mounted on front panel. • Employs a rugged, accurate, highly damped meter movement with **sealed** air-damping chamber. • Comes housed in a beautiful portable carrying case with slip-on cover.

Model 157 comes complete — absolutely no extras. Net Price **$28.40**

PICTURE TUBE ADAPTER DESIGNED ESPECIALLY FOR MODEL 157 . . . ONLY $3.85



Model 158 comes housed in a handsome portable case. Complete with a set of clip-on cables for testing transistors; an R.F. diode probe for R.F. and I.F. signal tracing; an audio probe for amplifier tracing and a signal injector cable. Complete. Nothing elese to buy! Net Price **$29.95**

TEST ALL TRANSISTORS . . . ANY TYPE WITHOUT EXCEPTION . . . AND ALL . . . TRANSISTOR OPERATED DEVICES

With New Model 158 TRANSISTOR RADIO TESTER

SEE Read the relative gain and leakage of any transistor directly on the meter.

HEAR All audio stage signals through the front panel speaker

Simplified procedure —

Model 158 ① Injects a signal ② Follows the injected signal through each and every stage including all transistors!

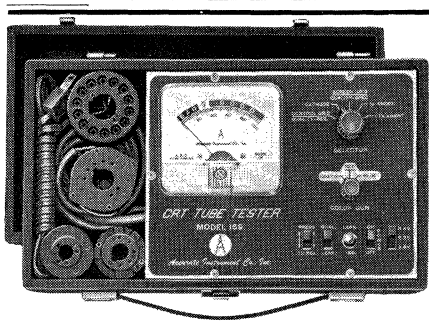
Specifications:

TESTING TRANSISTORS WITH MODEL 158

The Model 158 will test **all** transistors including NPN and PNP, Silicon and Germanium types, **without referring to characteristic data sheets.** The time-saving advantage of this method is self-evident. A further benefit of this service is that it will enable you to test new transistors as they are released, since no characteristic sheets are required.

TESTING TRANSISTOR RADIOS AND OTHER TRANSISTOR DEVICES WITH MODEL 158

An R.F. signal source modulated by an audio tone is injected into the transistor radio from the antenna through the R.F. stage past the mixer into the I.F. amplifier and detector stages and on to the audio amplifier. This injected signal is followed and traced through the receiver by means of the signal tracing section incorporated in the Model 158. The injected signal is heard on the front panel speaker as it is followed through the various stages.



Model 159 comes housed in a beautiful portable carrying case. Complete with sockets for all black and white tubes and all color tubes. Net price **$29.95**

Model 159 TESTS AND REJUVENATES ALL PICTURE TUBES

***ALL* BLACK AND WHITE TUBES . . .**

From 50 degree to 110 degree types — from 8" to 30" types.

***ALL* COLOR TUBES . . .**

Test *ALL* picture tubes — in the carton — out of the carton — in the set!

Specifications:

Provides **separate** filament operating voltages for the older 6.3 types and the newer 8.4 types.

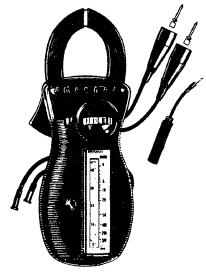
Properly tests the red, green and blue sections of color tubes individually—for each section of a color tube contains its own filament, plate, grid and cathode.

Detects tubes which are apparently good but require rejuvenation. Such tubes will provide a picture seemingly good but lacking in proper definition contrast and focus.

Rejuvenation: Model 159 applies a **selective** low voltage uniformly to assure increased life with no danger of cathode damage.

Manufactured By: ACCURATE INSTRUMENT CO., INC. BRONX 59, N. Y.

AMPROBE INSTRUMENT CORP., Lynbrook, N.Y
AMPROBE INSTRUMENTS

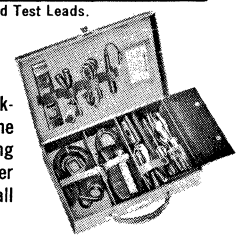


ROTARY SCALE MODELS

Offer you these outstanding features. • Only the Ohms scale plus one voltage scale or current scale is visible at any one time, providing greater reading speed and accuracy; on models other than RS-3 or RS-1000 only scale selected appears. • Magnified unbreakable window. • Pointer-lock "freezes" pointer at reading. • Accurate within ±3% full scale reading. • One hand operation.

MODEL	RANGES	PRICE
RS-1	0-5/15/40/100 Amps A.C. 0-150/600 Volts A.C.	$39.85
RS-2	0-5/15/40/100 Amps A.C. 0-150/300 Volts A.C.	39.85
RS-3	0-5/15/40/100/300 Amps A.C. 0-150/300/600 Volts A.C. 25Ω Mid-Scale	52.50
RS-300	0-5/15/40/100/300 Amps A.C. 0-150/300/600 Volts A.C.	47.50
RS-1000	0-15/40/100/300/1000 Amps A.C. 0-150/300/600 Volts A.C. 25Ω Mid-Scale	69.50

Price includes Top-Grain Cowhide Leather Carrying Case and Test Leads.



AMPROBE TEST-MASTER KITS

Truly the sign of the professional, these good-looking, rugged, genuine cowhide cases contain all the equipment you need to do all your electrical testing jobs with precision and accuracy. The Test-Master has a separate covered section to hold your small hand tools easily within reach.

MODEL TM-43 Super Test-Master Kit contains the famous **Amprobe RS-3** snap-around volt-ammeter-ohmmeter; the New **Model PSA-1 Amprobe Phase Sequence Adaptor:** determines phase sequence of polyphase circuits; the New **A-45L Energizer:** permits series connection to simplify current readings on permanently installed equipment and multiplies sensitivity of RS-3, 5x or 10x; **Model A-50-1 Deca-Tran** when 10x amperage range extension is required. **Price: $94.50**

MODEL TM-53 contains the **Amprobe RS-3, Model PSA-1 Phase Sequence Adaptor, A-45L Energizer. Price: $69.85**

MODEL TM-33 contains the **Amprobe RS-3, Model A-50-1 Deca-Tran** and **Model A-45 Energizer. Price: $84.50**

MODEL TM-11 contains the **Amprobe RS-1,** economy snap-around volt-ammeter; **Model A-50-1 Deca-Tran** and **Model A-45 Energizer. Price: $71.75**

MODEL HK contains **Model A-50-1 Deca-Tran** and **A-45 Energizer.** (to be used with instrument already in possession). **Price:$39.75**

HIGH CURRENT AMPROBES

Designed to fill the need of the individual consistently working in current and voltage ranges higher than scale reading available on the rotary scale models.

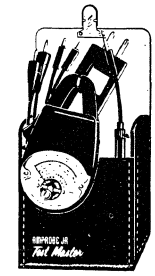
MODEL	RANGE	PRICE
600	0-15/30/60/150/300/600 Amps A.C. 0-150/300/600 Volts A.C.	$59.50
1200	0-15/30/60/150/300/1200 Amps A.C. 0-150/300/600 Volts A.C.	67.50

Price includes Top-Grain Cowhide Leather Carrying Case and Model VL-22 Voltage Test Leads.

AMPROBE ENERGIZERS

The New, more versatile, **Model A-45L ENERGIZER** now permits current readings on permanently wired low-current electrical equipment by simplifying series connection. It increases the sensitivity of your ammeter 5x or 10x for more precise readings directly at outlets by "splitting" double conductor line cords while the appliance is connected to the line. Capacity 10 amps. **Price** w/weatherproof pouch: **$6.75**

Model A-45 ENERGIZER multiplies sensitivity of any Amprobe by 5x or 10x for more precise readings. It also permits low-current readings by "splitting" double conductor line cords. **Price** w/weatherproof pouch: **$5.00**



AMPROBE JR. TEST-MASTER KITS

The Amprobe Jr. Test-Master Kit consists of a specially designed leather case that contains one of the all new **YO Amprobe Jr.** voltage testers, an **Amprobe A-45 Energizer,** battery attachment and test leads.

The New YO models are the only precision instruments in their price class that measure voltage, amperage and resistance, instantly and accurately on a calibrated scale. **Price: $32.85**

MODEL	3 AMMETER RANGES (full scale) BASIC INST.	ENERGIZER 5x	ENERGIZER 10x	2 VOLTAGE RANGES
TM-YO "525"	0-25	0-5	0-2.5	0-150/600
TM-YO "550"	0-50	0-10	0-5	0-150/600
TM-YO "500"	0-100		0-10	0-150/600
TM-YO "25"	0-25	0-5	0-2.5	0-125/250
TM-YO "50"	0-50	0-10	0-5	0-125/250
TM-YO "100"	0-100		0-10	0-125/250

OHMMETER RANGE: 25 Ohms Mid-Scale
Frequency—60 cycles A.C. (other frequencies available)

AMPROBE JR. YO MODELS

The only voltage testers in their price class that measure voltage, amperage **and resistance.** Ranges and models are the same as for TM-YO Models above, except furnished with test leads only. When ordering specify YO "525", YO "550", etc. **Price: $24.85**
P-1 Leather Pouch optional at $2.85. Order Separately.

AMPROBE JR.

The only voltage testers in their price class that also measure amperage. They are precision instruments that measure instantly and accurately on a calibrated scale ±3% full scale (not just an indication). **Price:$19.85**

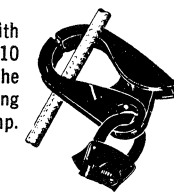
MODEL	RANGES
Y10	0-10 Amps A.C. 0-125/250 Volts A.C.
Y25	0-25 Amps A.C. 0-125/250 Volts A.C.
Y50	0-50 Amps A.C. 0-125/250 Volts A.C.
Y100	0-100 Amps A.C. 0-125/250 Volts A.C.
Y525	0-25 Amps A.C. 0-150/600 Volts A.C.
Y550	0-50 Amps A.C. 0-150/600 Volts A.C.
Y500	0-100 Amps A.C. 0-150/600 Volts A.C.

Price includes Test Leads.
P-1 Leather Pouch optional at $2.85. Order Separately.

AMPROBE CABLE TRACER

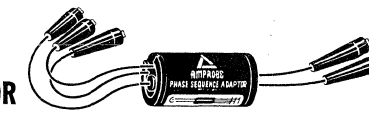
Revolutionary new CABLE TRACER lets you search—and unmistakably identify—up to 10 separate circuits simultaneously. With CABLE TRACER there's no needless handling of wires to locate a conductor. Every time the Indicator Button is pressed, you identify a circuit without extra trips between conductor ends. **Price: $39.50**

AMPROBE DECA-TRAN



The Model A-50-1 Amprobe Deca-Tran can be used with any model Amprobe to extend the amperage ranges 10 times up to 1200 amps. For example, by using the A-50-1 with an RS-1 you can obtain a current reading of 1000 amps AC on the RS-1 range of 0-100 amp. Leather case.

Model A-50-1 w/2' Line Cord **Price: $27.50**
Model A-50 Price: 24.75



PHASE SEQUENCE ADAPTOR

The Model PSA-1 Phase Sequence Adaptor is used to determine the phase sequence of polyphase circuits. When used in conjunction with any Amprobe RS model it permits you to determine phase sequence of motors and other electrical equipment using three phase lines up to 550 volts. **Price** w/leather case: **$10.85**

All prices slightly higher outside the U. S.
CANADIAN SALES DIVISION: ATLAS RADIO CORP., 50 WINGOLD AVE., TORONTO, ONTARIO • **EXPORT CABLE ADDRESS: AMPROBE LYNBROOK**

© U.C.P., Inc.

AMPROBE INSTRUMENT CORPORATION
Lynbrook, N.Y.

AMPROBE RECORDERS

Leather-cased Amprobe Miniature Strip Chart Recorders are supplied with permanently attached motor line cord and one roll each of strip charts. Meter line cord, extensions, adaptors, transducers, etc., supplied where indicated.

Fig. 1
LEATHER-CASED
TYPE "A"

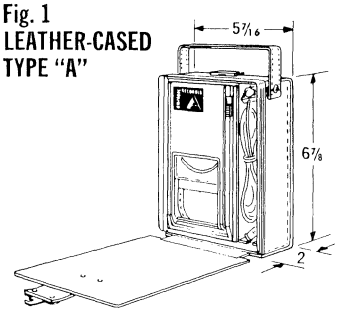
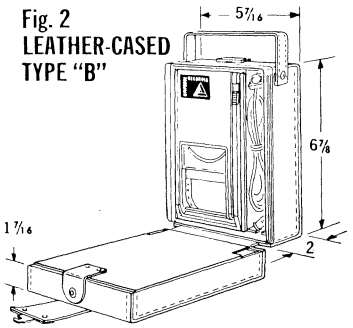


Fig. 2
LEATHER-CASED
TYPE "B"



AMPROBE RECORDER MODELS

Model No.	Fig.	Description	Range	Price
AC VOLTMETERS				
LAV2X	1	Dual Range, Expanded Scale AC Voltmeter	95-130v AC 190-260v AC	$89.85
LAV8600	1	Three Range, AC Voltmeter 1380Ω/V	0-150/300/600v AC	89.85
AC AMMETERS				
LAA81	2	AC Ammeter. Furnished with Model A-70FL Transducer	0-10/50/250/500 Amps AC	99.85
LAA82	2	AC Ammeter. Furnished with Model A-60FL Transducer	0-5/25/100/250 Amps AC	94.85
AC VOLT/AMMETERS All models supplied with appropriate transducer, one RAL-4 Adaptor lead and one five-foot extension lead.				
LAVA81	2	AC Volt/Ammeter. Furnished with A-70FL Transducer.	Volts: 95-130/190-260 Amps: 0-10/50/250/500	134.85
LAVA82	2	AC Volt/Ammeter. Furnished with A-60FL Transducer.	Volts: 95-130/190-260 Amps: 0-5/25/100/250	129.85
TEMPERATURE RECORDERS All models supplied with appropriate Temperature probe.				
LT8100	1	Temperature Recorder. Furnished with FL-RBT-1 Thermometer.	−50° to +100°F +50° to +250°F	103.85

STRIP CHARTS

Perforated and Printed Two Colors. Individually Boxed 30' Rolls. Minimum Order—Box of six Strip Charts. Price $9.00 per box.

Cat. No.	Description	For Use With Recorder Model
835XA	Marked: 95-130/190-260 Volts, AC	LAV2X, LAVA81, LAVA82
830AV600	Marked: 0-150/300/600 Volts, AC	LAV8600
850A	Marked: 0-5/25/100/250 Amps, AC.	LAA81, LAA82, LAVA81, LAVA82
823T1	Marked: −50°F to +100°F	LT8100
833T2	Marked: +50°F to +250°F	LT8100

SPECIFICATIONS

Strip Chart Size: 2½" wide x 30' long

Standard Chart Speeds: 1 inch or 6 inches or 12 inches per hour. (Other speeds available.) Unless otherwise specified, 12 inches per hour chart speed will be shipped.

Impression Rate: Once every 5 seconds at 12 inches per hour
Once every 10 seconds at 6 inches per hour
Once every 1 minute at 1 inch per hour

Power Requirements: 115v AC, 60 cycles 2.5 Watts
(Unless otherwise specified)

Accuracy: AC Ammeters and AC Voltmeters: ±3% F.S.
AC Expanded Scale Voltmeters: ±1.25% F.S.
Temperature Recorders: High Range: +50°F to +250°F: ±5°F
Low Range: −50°F to +20°F: ±4°F
+20°F to +100°F: ±3°F

THERMOMETERS

Amprobe Resistance-Bulb Thermometers are available with either 4¾" or 1" bulb. They are liquid tight and are furnished with a 12 foot lead, allowing flexibility in locating Recorder.

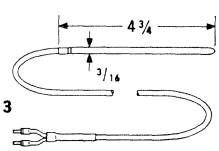


Fig. 3

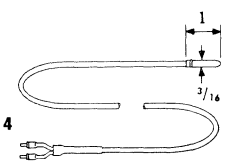


Fig. 4

Model	Description	Fig.	Price
FL-RBT-1	Resistance Bulb Thermometer. Use with Model LT8100. Range: −50°F to +100°F, +50°F to +250°F.	3	$6.50
FL-RBT-2	Resistance Bulb Thermometer. Use with Model LT8100. Range: −50°F to +100°F, +50°F to +250°F.	4	6.50

TRANSDUCERS

Amprobe snap-around (split-core) transformers monitor current without interrupting line or service. Output is provided through six-foot lead, allowing flexibility in locating Recorder.

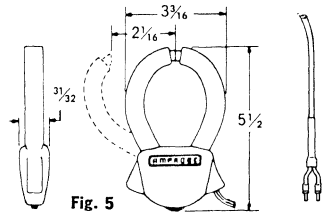
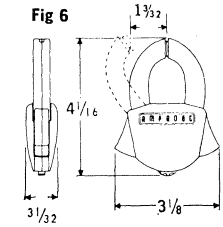


Fig. 5

Fig 6



Model	Description	Fig.	Price
A-70FL	Current Transducer: Range: 0 to 10/50/250/500 Amps	5	$24.75
A-60FL	Current Transducer: Range: 0 to 5/25/100/250 Amps	6	19.75

All prices slightly higher outside the U.S.

CANADIAN SALES DIVISION: ATLAS RADIO CORP., 50 WINGOLD AVE., TORONTO, ONTARIO • EXPORT CABLE ADDRESS: AMPROBE LYNBROOK

Capacitor and Resistor Decades

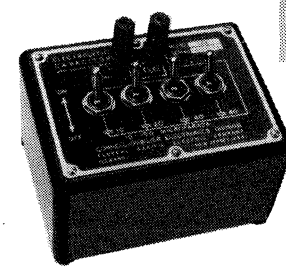
CDE CORNELL-DUBILIER

DECADE CAPACITORS

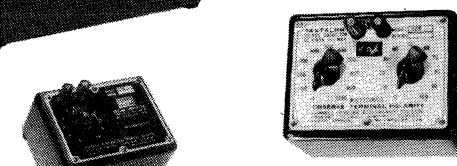
Class 259 • 00

CDE decade capacitors provide a reliable and accurate source of precision selected capacitance for substitution purposes in a wide variety of electronic and electrical applications. Individual capacitor decade boxes are available in mica and paper-oil dielectrics, as well as aluminum electrolytic and tantalum electrolytic types. Metal shielded three-unit decades for rack mounting are also available.

Individual decades feature quality CDE capacitors, ease of range selection, and heat and shock-resistant phenolic cases. Six-way molded nylon terminal posts (polarized for electrolytic decades) are provided. All CDE decades are individually calibrated with a calibration chart showing actual capacitor values to ±1% permanently attached to the unit.



CDE



CDT

CDC

CAPACITOR DECADE RATING INFORMATION

CDE Type No.	User's Net	Cap. Tol.	Capacitor Dielectric	Voltage Max.	Capacitance, mfd. Min.	Max.	@ ea. step	Type of Range Selector	Approximate Size (Inches)
CDA-2	**$17.50**	±2%	Silvered Mica	600vDC 220vAC	.0001	.011	.0001	2 Rotary Switches	3⅝ x 5 x 3 13/16
CDA-5	**14.20**	±5%							
CDB-3	**16.35**	±3%	Paper — Oil	600vDC 220vAC	.01	1.1	.01	2 Rotary Switches	3⅝ x 5 x 3 13/16
CDB-5	**14.20**	±5%							
CDC-3	**27.25**	±3%	Paper — Oil	600vDC 220vAC	1.0	10.0	1.0	1 Rotary Switch	3⅝ x 5 x 3 13/16
CDC-5	**24.65**	±5%							
CDE	**14.20**	−10%, +50%	Etched cathode aluminum electrolytic	450vDC	10	150	10	4 Toggle Switches	3⅝ x 5 x 3 13/16
CDT	**99.50**	±5% (10-100 mfd.) ±10% (100-1000 mfd)	Polarized Tantalum Foil 10-100 mfd - Plain 100 to 1000 mfd - Etched	50vDC Polarized	10	1100	10	2 Rotary Switches	3⅝ x 5 x 3 13/16
CDRM	**58.85**	Standard unit has one each CDA-2, CDB-3 and CDC-3. Special units may be equipped with any combination of decades.							5 x 19 x 3½

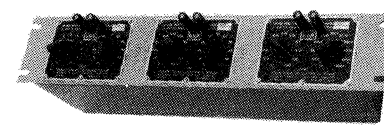
DECADE RESISTORS

Class 259 • 00

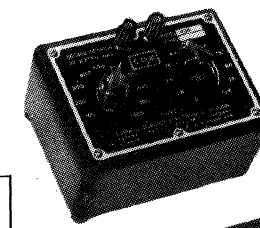
CDE resistance decade boxes feature construction very similar to the type CD-capacitance decades described above. Resistors used in these decades are of relatively high wattage rating for maximum versatility.

Range selection is made by two rotary type selector switches in each decade. Like CDE capacitance decades, the resistance decades feature a custom chart permanently attached to each decade box.

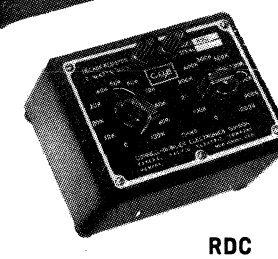
Approximate dimensions for types RDA, RDB and RDC resistance decades are 3⅝" x 5" x 3". The metal encased, rack mounted type RDRM is approximately 19" x 3½" x 5".



RDRM



RDB



RDC

RESISTOR DECADE RATINGS

CDE Type No.	User's Net	Type of Resistor	Resistance, ohms Low Range	High Range	Max.	@ ea. Step	Resistance Tolerance	Watts Max.
RDA	**$15.35**	Wire Wound	1-10	10-100	110	1	Low Range ±5% High Range ±3%	10
RDB	**15.65**	Non-Inductive Wire Wound	100-1K	1K-10K	11K	100	±3%	10
RDC	**15.65**	Non-Inductive Carbon Precision	10K-100K	100K-1M	1.1M	10K	±1%	2
RDRM	**55.00**	Standard rack mount has 1 each RDA, RDB, RDC. Special units may be supplied with any combination of resistor decades.						

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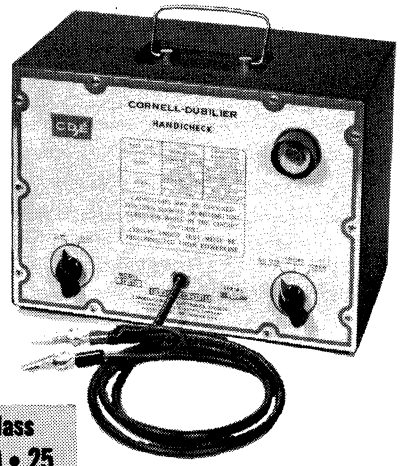
CDE CORNELL-DUBILIER

Service Test Instruments

Type	Class
BF-90	259 • 22

"HANDICHECK" IN-CIRCUIT CAPACITOR TESTER

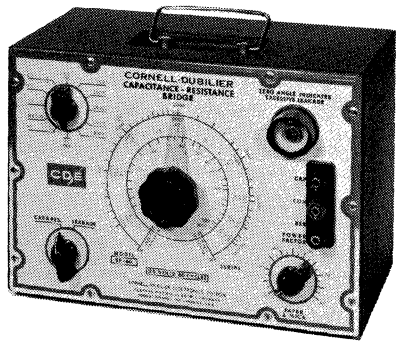


The BF-90 is designed to detect open, shorted or intermittent capacitors without removing the faulted capacitor from the circuit. Indication of capacitor condition is given by a tuning eye which opens, closes, or flutters depending on capacitor condition. The BF-90 will indicate condition of capacitors from 30 pf. to .1 mfd. with as little as 50 ohms in parallel and from .1 mfd. to 2000 mfd. with as little as 1 ohm in parallel. The capacitor tester is designed for operation on 110-125V AC, 50 or 60 cycles. It is supplied in a portable metal case with dark brown wrinkle finish. Case dimensions are 5½" deep x 7" high and 10" wide. Weight of the unit is 6 lbs. 12 oz.

NET PRICE $41.75

Type	Class
BF-60	259 • 25

CAPACITOR RESISTOR BRIDGE

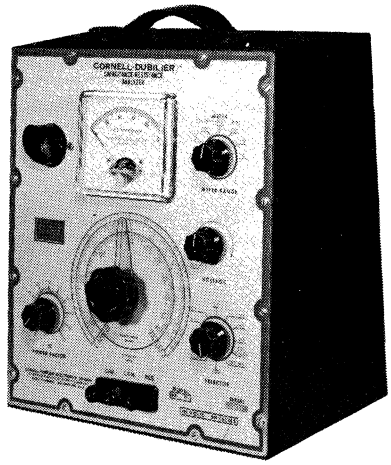


The type BF-60 bridge is designed to measure the most important capacitor and resistor characteristics. The Wein bridge used an electron "eye" for bridge null indications. The bridge will measure resistance and capacitance as well as detect defects such as shorts, opens, intermittents, high leakage and power factor and low insulation resistance. The bridge measures capacitance from 10 pf. to 1000 mfd. in four ranges; resistance from 1000 ohms to 5 meg-ohms in two ranges; and power factor to 50% at 60 cycles. Five fixed DC polarizing voltages are provided. AC power requirements are 110-125V AC, 50 or 60 cycles. Case is dark brown wrinkle finish, 5½" deep x 7" high x 10" wide. Weight is 8 lbs. 4 oz.

NET PRICE $51.85

Type	Class
BF71A	259 • 31

CAPACITANCE-RESISTANCE ANALYZER



The BF-71A capacitance-resistance analyzer performs functions comparable to units many times the price. The unit is a versatile addition to any service shop or laboratory. The BF-71A uses Wein bridge circuitry with an electron "eye" for null indication. It measures capacitance values from 10 pf. to 2000 mfd. in four ranges with an accuracy of ±3%. Bridge measurement voltage is .5 volts rms. Resistance measurements are from 2.5 ohms to 25 meg-ohms in three ranges; current measurements, from 2 microamps to 100 milliamps in three ranges; voltage, to 500 volts DC in three ranges; and power factor measurement, from 0 to 50%. The unit measures leakage current by meter and insulation resistance by indicator or calculation. The 3½" multiscale meter has a sensitivity of 10,000 ohms per volt with an accuracy of 2% of full scale. The internal power supply is continuously variable from 0 to 500 volts DC, 35 milliamps maximum. The BF-71A is supplied in a portable metal case finished in dark brown wrinkle enamel. Dimensions are 11" high x 10" wide x 6½" deep. Weight is 14 lbs. Power requirements are 110-125 v AC, 50 or 60 cycles.

NET PRICE $129.75

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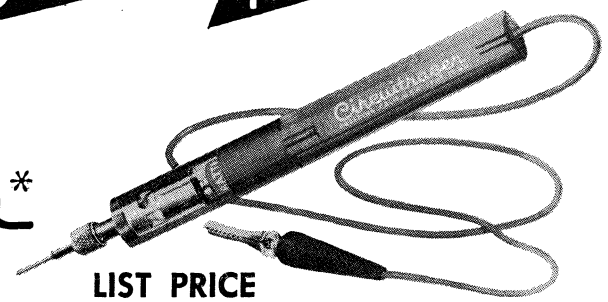
Tracks 'em Down Dead or Alive

ONLY THE VERSATILE DESCO* Circuitracer*



GIVES YOU A 3-IN-1 ELECTRICAL TEST LABORATORY

LIST PRICE $4.95 Weighs only 2½ ozs.

Satisfaction Unconditionally Guaranteed

DON'T SEND A MAN TO DO A BOY'S JOB!

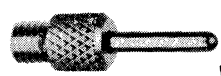
Are the technicians in your laboratories and shops using expensive meters and instruments for sample continuity and voltage checks? Speed up production through the use of the tool specifically designed for this application. A meter should be used only when the value of voltage, resistance or current must be known. Under any other conditions a Circuitracer will provide the required information faster and easier than expensive, bulky meters.

CIRCUIT TESTING WITH A CIRCUITRACER IS FASTER because the signal light is in the tip at the point of contact. This makes it possible to determine the existence of a circuit or voltage without removing the eyes from the test point to read a meter.

SAVE METER REPAIR MONEY BY USING DESCO CIRCUITRACERS. An overvoltage across a meter usually results in extensive damage which takes the meter out of service until repaired or replaced. The worst that can happen to your Circuitracer is a burned out lamp that can be replaced by the operator in less than a minute. Total cost, ten or fifteen cents for the lamp!

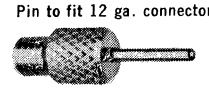
The CIRCUITRACER is the only electrical tester (other than expensive meters) that can test dead circuits, low voltage live circuits AND high voltage live circuits. It is made of the finest materials available and is designed for long life.

WS-12
Socket to fit 12 ga. connector pin

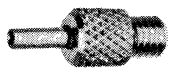


WP-12
Pin to fit 12 ga. connector socket

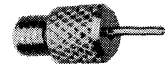
WS-16
Socket to fit 16 ga. connector pin



WP-16
Pin to fit 16 ga. connector socket



WS-20
Socket to fit 20 ga. connector pin



WP-20
Pin to fit 20 ga. connector socket

WRITE FOR CATALOG WITH FULL INFORMATION
*T.M. Reg.

DESCO TEST PROBE ADAPTERS

INSURE CONNECTOR RELIABILITY

Manual probing of harness connectors while circuit testing can damage connectors and impair reliability. Desco Test Probe Adapters were developed to provide a test fitting identical to the pins and sockets in the connectors being tested. They make the same electrical and mechanical contact as the mating connector, and insure against scratching, bending and warping.

The adapters are made in three sizes to fit connectors using #12, #16 and #20 wire gauges. The sockets are gold plated copper with a brass sheath which retains a beryllium copper spring. The pins are stainless steel to insure long life. All are made to rigid MIL-SPECS. The adapters will fit Desco Jumper Wires and the Desco Circuitracer* Tester interchangeably.

Several aircraft and missile manufacturers specify Desco Test Probe Adapters for most manual test connections. (names on request)

DESCO MFG. CO. *Glendale 1, Calif.*

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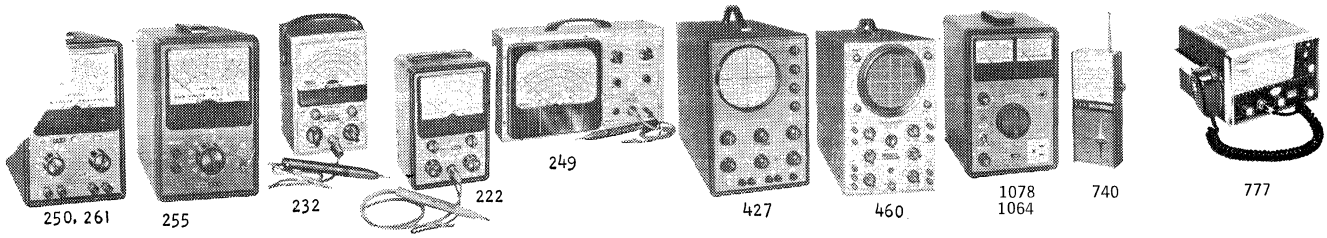
EICO® KITS and WIRED...TEST INSTRUMENTS • HI-FI • HAM GEAR



AC VTVM & AMPLIFIER #250

Kit $49.95 **Wired $79.95**

Highly sensitive, reliable AC VTVM & wideband amplifier. Measures 100 microvolts to 300V in 12 ranges; 10c-600kc ±0db response, 10 megohms input impedance, ±3% accuracy. Wideband amplifier switch-controlled for external use: 8c-800kc response, 5VRMS output, 5K ohms output impedance, gain control, noise —40db. Frame-grid triode cathode follower input circuit, freq.-compensated input attenuator, cathode circuit attenuator. Regulated power supply. 8½" x 5¾" x 7". Wt. 7 lbs.

AC VTVM #255

Kit $44.95 **Wired $72.95**

Same as #250 less external use amplifier.

AC VOLT-WATT METER #261

Kit $49.95 **Wired $79.95**

AC voltmeter & load-compensated audio watt-meter of unique quality. Measures AC voltages from 1mv to 1000V in 11 ranges, power from .015mw to 150W in 7 ranges, across standard loads from 4 to 600 ohms. Tapped power resistor load (4, 8, 16 and 600 ohms) handles up to 80W on 8 ohms and 40W on other taps. Switch to external load up to 150W. Meter automatically compensated for any load selected, internal or external, to provide single watt scale. 8½" x 5¾" x 7". Wt. 6 lbs.

VACUUM TUBE VOLTMETER #222

Complete with exclusive dual-purpose †Uni-Probe®

Kit $27.95 **Wired $42.95**

Entirely electronic, direct reading measurement of resistance, and AC & DC to 1500V in 5 ranges. May be calibrated without removal from cabinet. Complete electronic overload protection, plus fuse. 1% precision ceramic resistors. Exclusive AC/DC Uni-Probe® selects DC or AC-Ohms. DC voltmeter input impedance 11 megohms, accuracy ±3%. AC voltmeter input impedance 1 megohm, accuracy ±5%. Ohmmeter 0.2 ohms to 1000 megohms in 5 ranges. 8½" x 5¾" x 7". Wt. 5 lbs.

PEAK-TO-PEAK VTVM #232 with DUAL-PURPOSE AC/DC †UNI-PROBE®

Kit $29.95 **Wired $49.95**

Measure directly p-p voltage of complex and sine waves: 0-4, 14, 42, 140, 420, 1400, 4200. DC/RMS sine volts: 0-1.5, 5, 15, 50, 150, 500, 1500 (up to 30,000 V. with HVP probe, and 250 mc with PRF probe). Ohms: 0.2 ohms to 1000 megs. 7 **non-skip** ranges on every function. Calibration without removing from cabinet. 4½" meter, can't-burn-out circuit. Zero center, 1% multipliers. Exceptional stability and accuracy. 8½" x 5" x 5". Wt. 5 lbs.

DELUXE PEAK-TO-PEAK VTVM #249 7½" METER and †UNI-PROBE®

Kit $39.95 **Wired $59.95**

All features of Model 232—PLUS big 7½" meter. 8½" x 13" x 5". Wt. 9 lbs.

VACUUM TUBE VOLTMETER #221

Kit $25.95 **Wired $39.95**

4½" meter in can't-burn-out circuit. Zero center for TV/FM discriminator alignment. AC/DC Volts 0-5, 10, 100, 500, 1000 (up to 30,000 V. with HVP probe, up to 250 mc with PRF probe, and peak-to-peak with PTP probe). Ohms: 0.2 ohms to 1000 megs. DB: —20 to +55. Input R: 25 megs. 1% precision multipliers. Stable, accurate double-triode bridge circuit. 9⅞" x 6" x 5". Wt. 7 lbs.

VTVM PROBES

DUAL-PURPOSE AC/DC †UNI-PROBE®

Kit $4.95 **Wired $6.95**

Performs all functions — half-turn of probe-tip selects DC or AC-OHMS!

PEAK-TO-PEAK VTVM PROBES PTP 11 & 25

Kit $4.95 **Wired $6.95**

Read p-p voltages directly on DC scales of your VTVM. Use with any 11 or 25 megohm VTVM.

†U. S. Pat.

RF VTVM PROBES PRF-11 & 25

Kit $3.95 **Wired $4.95**

For RF voltage measurements up to 250 mc. Accuracy ±10%. Use with any 11 or 25 megohm VTVM.

HIGH VOLTAGE PROBE

HVP-2 **Wired $4.95**

For safe measurement up to 30,000 volts dc with any VTVM or 20,000 ohms/volt VOM. HVP-1 supplied with matching resistor for your instrument; HVP-2 supplied with choice of high quality multiplier resistors to match most popular instruments.

ADVANCED GENERAL PURPOSE 5" OSCILLOSCOPE #427

Kit $69.95 **Wired $109.95**

Six-stage vertical amplifier direct-coupled for minimum phase distortion & push-pull throughout for maximum linearity. Frequency-compensated vertical input attenuator. Intensity, focus and astigmatism controls on front panel. Non-blooming trace. Instantaneous, drift-free positioning permits centering and part of a trace expanded. Easy, direct connection to vertical deflection plates. Mu metal shielded 5DEP1 CRT. V Amp: flat DC-500kc, —6db @ 1MC; sensitivity 3.5mv rms cm. H Amp: flat 2cps-450kc; sensitivity 0.18V rms/cm. Sweep: 10cps-100kc. 12½" x 8½" x 16⅞". Wt. 26 lbs.

GENERAL PURPOSE 3" SCOPE #430

Kit $69.95 **Wired $99.95**

Does everything many bigger, more expensive scopes do. Vert amp flat from 2 c to 500 kc, —6db @ 1 mc. Sensitivity 25 mv/cm. Horiz amp flat from 2 c to 300 kc. Sensitivity .25 V/cm. Frequency-compensated coarse attenuator plus fine attenuator adjust size of pattern. Vert and horiz positioning controls permit centering any portion of trace expanded as much as 3 times CRT dia vertically, 2 times horizontally. Sweep frequencies from 10 c to 100 kc in 4 overlapping ranges. Int or ext sweep. Full retrace blanking. Sync fully automatic on all ranges. Flat-face 3" tube; mu-metal neck shield eliminates effects of external fields. Trace controls include intensity and focus; astigmatism adjustment without cabinet removal. 8½" x 5¾" x 11¼". Wt. 11 lbs.

DC WIDEBAND 3" OSCILLOSCOPE #435

Kit $99.95 **Wired $149.95**

Really portable scope for color & black & white tv service on location (⅓ the size of 5" scopes) and fully equipped to do the job. Quality equal to or better than the finest 5" TV service scopes is achieved with a far sharper, brighter trace on a flat-face CRT. Flat from DC—4.5mc (+1, —3db). Zener diode-controlled square wave calibrating voltage, edge-lit calibration grid. Automatic sync full retrace blanking.

DC WIDE BAND 5" SCOPE #460

Kit $89.95 **Wired $129.50**

Flat from DC to 4.5 mc. usable to 10 mc., featuring DC amplifiers. Vert. Sens.: 25 mv/in., push-pull thruout. Sweep freqs.: 10 cps to 100 kc, low sweep with ext. condenser. Automatic sync limiter and amplifier eliminates sync voltage adjustment. On front panel: int. mod., saw-tooth output, 60 cps, ext. sync, ext. capacitor jacks! 60 cps variable phase sine sweep. Pre-set TV V&H sweep positions. Edge-lit plexiglass filter screen with variable illumination. 4 freq. compensated attenuator positions up to 1000:1 on either direct or capacitive coupled input. 13" x 8½" x 16". Wt. 29 lbs.

ELECTRONIC SWITCH #488

Kit $23.95 **Wired $39.95**

Simultaneously observe 2 patterns on 1 scope: compare voltage and current amplitudes, waveforms, freqs. and phase relationships. Continuously variable switching rates from less than 10 cps to over 2000 cps. Very useful as square wave generator over same range. 6" x 8" x 6". Wt. 7 lbs.

SCOPE PROBES

MODEL PSD DEMODULATOR PROBE

Kit $3.95 **Wired $5.95**

Demodulates amplitude-modulated carriers between 150 kc and 250 mc.

MODEL PD DIRECT PROBE

Kit $2.95 **Wired $3.95**

Eliminates stray pickup and signal re-radiation.

MODEL PLC LOW CAPACITY PROBE

Kit $3.95 **Wired $5.95**

For TV waveform tracing in high Z, high frequency or wide-band circuits.

METERED VARIABLE AUTO-TRANSFORMER AC BENCH SUPPLIES

#1078: 7½A rating Kit $42.95 Wired $54.95

Delivers any voltage up to 140VAC with linear variation of output throughout entire range. Smooth rotary brush-tap controlled by panel dial. Highly efficient variable toroidal core design. Auto-transformer. No waveform distortion or voltage drop from no-load to full load. Separate output ammeter & output voltmeter. 8½" x 5¾" x 7". Wt. 13 lbs.

DELUXE CITIZENS BAND TRANSCEIVER MODEL 777

Kit $99.95 **Wired$149.95**

Deluxe CB transceiver that will delight the most demanding CB user. Receiver is super-selective dual conversion superheterodyne with RF stage; three-way power supply permits 117 VAC, 12 VDC, or 6 VDC operation; illuminated panel selection of 6 transmit crystals and 6 receiving crystals (all easily accessible through trap door), plus illuminated dial continuous vernier tuning; optional side-mounting 23 channel adaptor; illuminated "S" meter; adjustable squelch plus automatic noise limiter; spotting switch; 3 watts audio output at only 5% distortion; variable "pi" network with control knobs for simplified antenna loading; 3½" x 3½" heavy-magnet speaker, ceramic element mike with push-to-talk switch. New extra-sturdy Posi-Lock permits 360° rotation with positive lock every 90°. New deluxe appearance with chrome plated bezel and brushed aluminum panel. In the kit, the Model 777 is supplied with the entire transmitter oscillator circuit and RF final mounted, wired, precisely tuned, and sealed at the factory to comply with FCC regulations (section 19.71 part d). This legally permits you to build the kit and put it on the air **without** the supervision of a person holding a commercial radio-telephone license. 1 transmit and 1 receiver crystal supplied. Others available as required. 6" x 8½" x 10". Wt. 15 lbs.

CITIZENS BAND TRANSCEIVERS

	Kit	Wired
Model 772: 117 VAC, 12 VDC*	69.95	99.95

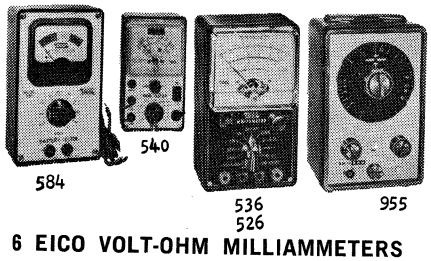
*Includes mounting bracket.

4-channel crystal-controlled transmitting chosen by channel-selector knob on front panel - Crystal-controlled receiving available on one transmit channel, continuous tuning over all 23 CB channels on the three other transmit channels - Press-to-talk button microphone: transmit-receive switching accomplished by high-quality relay with minimum capacity between contacts to prevent current leakages at RF frequencies. Superhet receiver with RF stage for high sensitivity and low s/n ratio; 1750 kc prealigned IF strip for unequalled image rejection and freedom from oscillator "pulling" on strong signals - Current metering jack in series in cathode circuit permits checking of input power to transmitter final, adjusting to FCC limit. 13-tube performance (4 dual function, 4 single function tubes, 1 germ. diode) - Adjustable squelch, automatic noise limiter - Built-in AVC - Built-in 3" x 5" oval PM speaker and detachable ceramic-element cartridge - Posi-Lock mounting bracket - 1 transmit xtal supplied; others available, with matched receiving xtals if desired. 6" x 8½" x 9". Wt. 12 lbs.

CITIZENS BAND WALKIE-TALKIE #740

Kit $54.95 **Wired $79.95**

Including nickel-cadmium battery and charger, plus transmit **and** receive crystals for 1 channel. US-made. Crystal controlled transmit and receive. Full superhet receiver with crystal-controlled local oscillator; and high-level AM type transmitter incorporating quality circuit boards, and 9 transistors. Rechargeable nickel-cadmium battery. 7⅛" x 2⅝" x 1⅝". Wt. 19 oz.



6 EICO VOLT-OHM MILLIAMMETERS

#565 — 20,000 OHMS/VOLT V-O-M
Kit $24.95 **Wired $29.95**

31 Full Scale Ranges - DC/AC/Output Volts: 0-2.5, 10, 50, 250, 1000, 5,000 - DC Current: 0-100 ua; 10, 100, 500 ma; 10 Amp. - Ohms: 0-2000, 200K, 20 meg. - 5 DB Ranges: −12 to +55. - Large 4½" 50 ua Meter Movement. - High-Impact Bakelite case. 6¾" x 5¼" x 3". Wt. 3 lbs.

#555 — 20,000 OHMS/VOLTS V-O-M
Kit $29.95 **Wired $34.95**

As above, with 1% precision resistors.

#566 — 1000 OHMS/VOLT V-O-M
Kit $16.95 **Wired $22.95**

Ranges: Same as Model 536 (see below), plus 7 output voltage ranges. Large 4½" 400 ua meter movement. 6¾" x 5¼" x 3". Wt. 3 lbs.

#556 — 1000 OHMS/VOLT V-O-M
Kit $18.95 **Wired $25.95**

Same as Model 566, with 1% precision resistors.

#536 — 1000 OHMS/VOLT V-O-M
Kit $14.95 **Wired $18.95**

31 1000 Full-Scale Ranges Ohms/Volt. - DC/AC Volts: Zero to 1, 5, 10, 50, 100, 500, 5000. - DC/AC Current: 0-1, 10 ma.; 0.1, 1 Amp. - Ohms: 0-5000, 100K, 1 meg. - 6 DB Ranges: −20 to +69 - Large 3" 400 ua Meter Movement - High-Impact Bakelite case. 6¼" x 3¾" x 2". Wt. 2 lbs.

#526 — 1000 OHMS/VOLT V-O-M
Kit $15.95 **Wired $19.95**

As above, with 1% precision resistors.

BATTERY TESTER #584

Kit $9.95 **Wired $12.95**

For accurate, true DYNAMIC test of all A and B portable radio batteries, lantern batteries, and other types — in or out of equipment. Test Positions (Volts): 1.5, 4.5, 6.0, 7.5, 9.0, 22.5, 45, 67.5, 75, 90 plus Spare Position. Test leads provided. High-impact Bakelite case and satin aluminum panel. 6¼" x 3¾" x 2". Wt. 2 lbs.

READI-TESTER #540

Kit $12.95 **Wired $15.95**

For electrical and electronic servicing; for home and automotive repairs; an all-in-one multi-range ac/dc voltmeter, ammeter, ohmmeter, wattmeter and leakage checker. Instruction book contains an introduction to electricity, operating method, and repair procedures. 3¾" x 6½" x 3½". Wt. 3 lbs.

DECADE RESISTANCE BOX #1171

Kit $24.95 **Wired $29.95**

Exceptionally accurate, wide-range, versatile instrument. 0-99,999 ohms in 1-ohm steps with 5 decades and ½% precision. 12" x 3½" x 3". Wt. 3 lbs.

DECADE CONDENSER BOX #1180

Kit $17.95 **Wired $24.95**

Precision silver-mica capacitors (±1% accuracy, 500 VDC rated) arranged in 3 decades for extremely wide range of 100 mmf to 0.111 mf in steps of 100 mmf. Positive detent ceramic wafer switches, silverplated contacts. 9" x 3½" x 3½". Wt. 3 lbs.

RESISTANCE SUBST. BOX #1100

Kit $7.95 **Wired $12.95**

Enables rapid substitution of wide range of EIA resistance values from 15 ohms to 10 megohms in decade multiples of 15, 22, 33, 47, 68, 100 ohms. Uses standard 1 watt, ±10% EIA resistors. 3¾" x 6½" x 3½". Wt. 2 lbs.

CAPACITANCE SUBST. BOX #1120

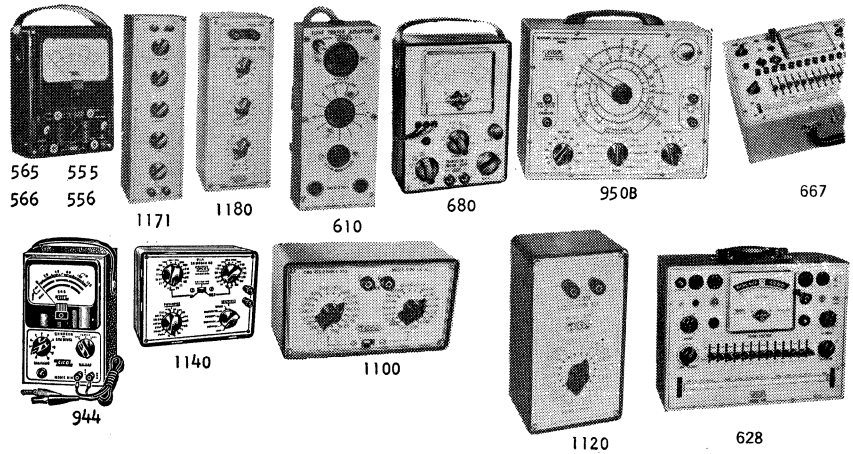
Kit $6.95 **Wired $10.95**

Enables rapid substitution of a wide range of EIA capacitance values from 0.0001 to 0.22 mfd in an operating circuit. Minimum accuracy ±10%. Uses silver mica and molded plastic capacitors, conservatively rated at 600 volts. Convenient 5-way jack-top binding posts. 3¾" x 6½" x 3½". Wt. 2 lbs.

SERIES/PARALLEL R-C COMBINATION BOX #1140

Kit $13.95 **Wired $19.95**

Combines Model 1100 and 1120 with switching facilities permitting selection of any R alone, any C alone, or 1350 combinations of same in series or parallel. Open and short circuit positions provided. Standard EIA values, 10% accuracy. Jack-top binding posts. 6¾" x 5¼" x 2⅜". 3 lbs.



IN-CIRCUIT CAPACITOR TESTER #955

Kit $19.95 **Wired $39.95**

Tests capacitors in the circuit without unsoldering. Checks for shorts, (even in the presence of as little as 1 ohm shunt resistance). Checks open units (as little as 5mmf in the circuit). Measures capacitance with ±10% accuracy between 0.1mf and 50mf. Measures RC product, convertible into dissipation or power factor. Utilizes electron-ray tube EM84/6FG6 with sharp bar pattern. Line adjust control permits maximum sensitivity regardless of the line voltage variations. 8½" x 5¾" x 6". Wt. 6 lbs.

R-C BRIDGE & R-C-L COMPARATOR #950B

Kit $19.95 **Wired $29.95**

Direct measurement of capacity **or** resistance over a wide range of values. For leakage testing of electrolytics, a continuously variable polarizing test voltage from 0 to 500 VDC (±10%) is provided. Bridge balance and leakage are both indicated by a sensitive electron-ray tube indicator. The bridge provides 4 capacitance ranges from 10 mmf to 5000 mf and 4 resistance ranges from 0.5 ohms to 500 megohms. A comparator range permits comparison measurement of capacitance, resistance, or induction against a standard. Transformer-operated power supply. 8" x 10" x 4¾". Wt. 8 lbs.

DYNAMIC CONDUCTANCE TUBE AND TRANSISTOR TESTER #667

Kit $79.95 **Wired $129.95**

Combines mutual inductance test with peak emission test to give a single reading of tube quality. Spots bad transistors by gain and leakage tests. Tests almost all receiving tubes including 5- and 7- pin Nuvistor; 9-pin Novars; 12-pin compactrons; 7-, 9-, and 10-pin miniatures; 5-, 6-, 7-, and 8-pin subminiatures; octals; loctals; & many low-power transmitting & special purpose tubes, voltage regulators, cold-cathode regulators, electron ray indicators, ballast tubes, & pilot lamps. Tests are made under actual tube operating conditions. When one section of a multi-purpose is being tested all sections are drawing their full rated current. N-p-n & p-n-p transistors are checked in two steps: first for leakage, then for Beta. Both are read directly off the meter dial. Multi-circuit lever switch sets up plate, screen, and control grid voltages rapidly. 13 push-button switches insert alternate elements for rapid leakage testing. 200-ma 4½-inch D'Arsonval meter gives accurate readings even for tubes with low cathode current. 20 heater voltages cover all tube types. 12" x 15" x 4½". Wt. 20 lbs.

TUBE TESTER #628

Kit $44.95 **Wired $59.95**

Simple test set-up procedure for checking emission, shorted elements, open elements, & continuity. 13 individual lever-type elements switches for complete flexibility. 4½" meter with 3-color REPLACE-WEAK-GOOD scale, 0 to 100 scale for matching. Tests 7-9- & 10-pin miniatures, octal, loctal, 5- & 7-pin nuvistors, novars, and compactrons, series string, magic eye, VR's. Model CRU adapter available for testing all CRT's, both color & black & white. New, 3-column wide roll chart for extra tube listing capacity. Snap-out chart window. Pilot light test socket (contact type). Line adjust control. Protective overload lamp shows transformer overloads and acts as fuse. Continuous, full-time roll chart development at EICO insures issuance of new up-to-date roll charts as frequently as required. 9½" x 12½" x 4¼". Wt. 8 lbs.

UNIVERSAL CRT TEST ADAPTER CRU

Wired $9.95

New color & black & white TV picture tube adapter for EICO models 667 and 628 has 12-pin socket for 70° and early 90° deflection black & white tubes. 3 additional back-to-back plug-socket adapters provide connectors for 7 & 8-pin 90° & 110° CRT's, & for color tubes. Adaptable to many other tube testers.

CRT TESTER & REJUVENATOR #632

Kit $54.95 **Wired $79.95**

In luggage-type carrying case with accessory compartment containing line cord & universal multi-socket cable that accommodates any CRT, black- & -white or color. Incorporates transformer-operated 1000 v dc supply for repairing CRT defects, a 150 v negative dc supply with a potentiometer providing continuously variable grid cut-off voltage to indicate contrast range of CRT, plus 25-watt rheostat & 3-range filament voltage selector providing precisely controlled filament voltage in 3 ranges 0-5, 5-10, 10-15. Both grid-cut-off & filament voltages are read on the 4½" meter, as is beam current on a 3-color BAD-?-GOOD scale. Meter reading of filament voltage assures accuracy regardless of line voltage variation. Neon-lamp circuit is used for short-open testing. 6 push-buttons are used for short-open, beam current, gas, & life testing to enable instantaneous measurement that will not damage tube. Panel switch selects the red, green, & blue guns of color CRT's for individual testing as for black and white tubes. A spring return repair push-button is used to apply the 1000 vdc for rejuvenate-welding procedures or for removing inter-element shorts. The 632 is completely versatile & is designed to be applicable to both tube & transistor TV CRT's, either color or black & white. 9¾" x 12" x 5". Wt. 8 lbs.

TRANSISTOR & CIRCUIT TESTER #680

Kit $25.95 **Wired $39.95**

Measures ICEO, ICBO & DCβ directly, ACβ indirectly, without charts or special settings — plus all dc volts, currents & resistances needed to service transistor equipment. Battery powered. 50ua, 3½" face meter movement provides sensitivity & scale length necessary for accuracy. Built-in 20,000Ω V VOM facilities frees your other test equipment. 6¾" x 5¼" x 3". Wt. 3 lbs.

TUBE TESTER ADAPTER #610

Kit $5.95 **Wired $11.95**

Adapts EICO models 625 or 666 tube testers for testing the following new tube types: nuvistor 5-pin; nuvistor 7-pin; novar; 10-pin miniature; compactron, 12-pin. Included are roll chart supplements for both 625 and 666 models. 1¼" x 2½" x 6". Wt. 1 lb.

IM/HARMONIC DISTORTION METER & AC VTVM #902

Wired $250.00

Unique combination audio instrument accurately measures IM distortion in four ranges and harmonic distortion in 6 ranges with ±5% FSD accuracy. Residual IM distortion is 0.05%, and residual harmonic distortion is 0.1%. Also 10-range AC VTVM and db meter. 8½" x 12½" x 10⅛". 18 lbs.

PROFESSIONAL CAPACITANCE ANALYZER w/RC BRIDGE & RCL CAMPARATOR #965

Kit $99.95 **Wired $169.95**

Incorporates low voltage (0.45 VAC rms) bridge for safe testing of transistor circuit capacitance, with accurate null reading on meter. Capacitance measurements from 5 pF - 5000 mF in four ranges, resistance measurements from 0.5 ohm - 500 megohm in four ranges. A built-in variable 0-500 VDC supply is used for capacitor leakage and I-R analysis in conjunction with a 6-range DC VTVM, and an 11-range DC VT micro-milliameter capable of reading down to 0.015 uA and up to 15 mA. 8½" x 12½" x 9". 15 lbs.

Net

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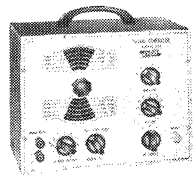
EICO® KITS and WIRED...TEST INSTRUMENTS • HI-FI • HAM GEAR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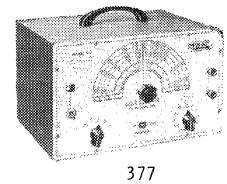
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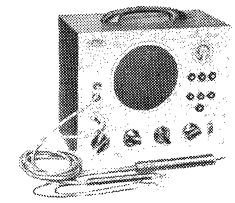
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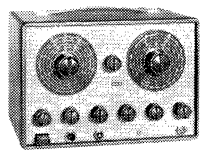
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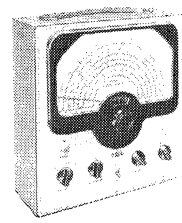
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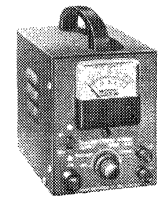
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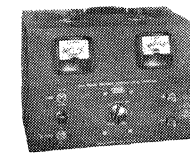
1050, 1060

RF SIGNAL GENERATOR #324

Kit $28.95 **Wired $39.95**

Extended frequency range: 150 kc to 145 mc on fundamentals in 6 bands; 111-435 mc on calibrated harmonics. ±1.5% frequency accuracy; 6:1 vernier tuning knob and excellent spread at most important alignment frequencies. Etched tuning dial, plexiglass windows, edge-lit hairlines. Colpitts RF oscillator, directly plate-modulated by cathode follower for improved modulation. Variable depth of internal modulation 0-50% by 400 cps Colpitts oscillator. Variable gain external modulation amplifier: only 3.0 volts needed for 30% modulation. Turret-mounted slug-tuned coils. Fine and Coarse (3-step) attenuators, 50-ohm output Z. RF and AF outputs respectively 100,000 uv and up to 10 V. Tubes: 12AU7, 12AV7, selenium rectifier, xfmr-operated. 5-way jack-top binding posts for AF in/out; coaxial connector and shielded cable for RF out. Satin aluminum panel and grey wrinkle steel case. 8″ x 10″ x 4¾″. Wt. 8 lbs.

TV-FM SWEEP & POST INJECTION MARKER GENERATOR #369

Kit $89.95 **Wired $139.95**

Feeds only sweep signal to circuit; picks off signal at output and feeds it to internal mixer where markers are added. So circuitry is not affected by marker; marker is not affected by circuit. All-electronic, controllable, inductor sweep circuit is independent of marker gen. Five fund ranges: 3.5-9 mc; 7.5-19 mc; 16-40 mc; 32-85 mc; and 75-216 mc. Retrace blanking obtained with tube that conducts during negative excursion. 3-stage AGC circuit keeps signal level constant, even at sweep width of 20 mc. Phasing control permanently adjusts horizontal sweep. Marker gen has four ranges, from 2-225 mc. 60-225 range is third harmonic of next lower; all others are funds. 8½″ x 12½″ x 7″. Wt. 16 lbs.

SOLID STATE N.T.S.C. STANDARD COLOR SIGNAL & DOT-BAR GENERATOR #380

Kit $129.95 **Wired $169.95**

Provides N.T.S.C. color signals, including both chrominance and luminance. Color burst is precisely gated and delayed according to N.T.S.C. standards. Phase angles are permanently established by a linearly distributed delay line. No adjustments are ever required. Provides square "clean" waveforms without significant overshoots or ringing. In addition to generating 11 different color signals, one at a time, for hue and demodulator adjustments, the Model 380 generates dots, cross-hatch, horizontal lines, and vertical lines for convergence and linearity adjustments. Both video and RF outputs are provided, with gain controls. Three crystal-controlled oscillators for color burst and color information, convergence and sync signals, and RF ouput on TV channel. Outstandingly compact and weighs only 4 lbs.

DELUXE RF SIGNAL GENERATOR #315

Kit $49.95 **Wired $69.95**

Laboratory-precision generator EICO Service-Engineered with 1% accuracy. Frequency range: 75 kc-150 mc in 7 calibrated ranges. Extremely stable. Illuminated hairline VERNIER TUNING. VR stabilized line supply. 400-cycle pure sine wave with less than 5% distortion. Tube complement: 6X5, 6SL7, 6C4, VR-150. Satin aluminum etched panel; rugged steel case. 115 V. 60 cycles AC. 13″ x 12″ x 7″. Wt. 18 lbs.

TV-FM SWEEP GENERATOR #360

Kit $39.95 **Wired $59.95**

Covers all TV-FM alignment frequencies, 500 kc 228 mc. Vernier-driven dial. Center of each of 13 TV channels marked on front panel. Sweep width variable 0-30 mc with mechanical inductive sweep — permits gain comparison of adjacent TV channels. Crystal marker oscillator, variable amplitude. Provides for injection of external marker. Phasing control. Complete with HF tubes. Less Crystal. 10″ x 8″ x 6¾″. Wt. 11 lbs.

EICO 5 MC and 4.5 MC Crystals — $3.95 ea.

SINE & SQUARE WAVE AUDIO OSCILLATOR #377

Kit $37.95 **Wired $54.95**

RC (Wein Bridge) oscillator incorporating 1% resistors and a 2-gang tuning capacitor providing sine wave frequencies from 20 cps to 200 kc in 4 bands. Sine wave distortion is less than 1%. Output amplitude is flat ±1.5 db from 60 cps to 150 kc. Square wave output is obtained from an overdriven clipper and the waveform is free of excessive tilt or rounding between 200 cps and 20 kc. A high degree of frequency stability is obtained after a very short warm-up, and calibration accuracy is the greater of ±3% or 1 cps. The output stage is a split-load cathode follower providing 10 V rms into a 1000-ohm load. The power supply employs full-wave rectifiers and a pi-type LC filter. Hum is less than 0.4% of rated output. 7⅛″ x 11⅝″ x 7⅝″. Wt. 13 lbs.

FM MULTIPLEX SIGNAL GENERATOR #342

Kit $99.95 **Wired $149.95**

A compact instrument for test or alignment of multiplex circuits of FM Multiplex Stereo receivers. Enables you to quickly measure and adjust channel separation and balance, or the input level needed for synchronization or switchover to stereo operation.

DELUXE MULTI-SIGNAL TRACER #147A

Kit $29.95 **Wired $44.95**

Entirely new 5-tube instrument provides high gain RF and low gain audio channels with both visual and aural monitors (electron-ray tube and 5″ speaker). Permits RF, IF and audio signal tracing in TV, FM and AM sets. Highly useful noise localizer circuit that applies DC test voltage thru probe to suspected component and simultaneously picks up and amplifies effect. Wattmeter circuit detects abnormal power consumption in TV and radio receivers. May be connected as test speaker, amplifier or output transformer, and has output for VTVM or scope. Excellent for gain-per-stage estimation, null detector, scope preamplifier, utility amplifier, small P.A. system. New satin finish etched panel; grey wrinkle steel case. 105-125 VAC, 50/60 cps. 8″ x 10″ x 4¾″. Wt. 10 lbs.

LOW-COST MULTI SIGNAL TRACER #145A

Kit $23.95 **Wired $32.95**

More than enough RF gain to trace up to receiver input; signal heard through built-in 5″ PM speaker. Shielded RF crystal demodulator and direct probes supplied. Noise localizer circuit applies DC test voltage through probe to suspected component and simultaneously picks up and amplifies effect. 7¹³⁄₁₆″ x 5⁹⁄₁₆″ x 5¼″. Wt. 7 lbs.

POWER & BIAS SUPPLY FOR TRANSISTORIZED EQUIPMENT #1020

Kit $23.95 **Wired $29.95**

Extremely low ripple DC power supply for hum-free operation of transistor radios, hearing aids, "walkie-talkie" transistor transceivers, transistor preamps and tuners, language lab transistor amplifiers, transistor test equipment, etc. May also be used in TV and radio service work as a bias supply to offset AVC and AGC voltages during alignment, and to cut off the color burst amplifier in color TV adjustments. May also be used as a variable bias supply in the development of transistor and tube circuits, including the supply of the DC bias for filaments or as a filament DC power supply within the current ratings. **Output Voltage Range:** 0-30 V DC, continuously variable. **Max. Output Current Capacity** (continuous): 150 ma from 0-12 V, 200 ma from 12-24 V, 300 ma from 24-30 V. **Ripple:** (120 cps); 0.005% at full load. **Power Requirements:** 117 V, 60 cps. 5″ x 4″ x 5½″. Wt. 5 lbs.

6V & 12V BATTERY ELIMINATOR AND CHARGER #1050

Kit $29.95 **Wired $38.95**

All the power you need for 6-volt and 12-volt battery charging and auto radio servicing. Two DC ranges: 0-8 V (10 amps continuous, 20 amps intermittent), 0-16 volts (6 amps continuous, 12 amps intermittent). Continuous voltage adjustment with variable-type transformer. Separate voltmeter and ammeter. Heavy duty selenium rectifiers. Fused primary; automatic reset circuit-breaker opens secondary circuit upon overload. Rugged, well-ventilated steel cabinet. 8¾″ x 10½″ x 7¾″. Wt. 13 lbs.

EXTRA-FILTERED 6V & 12V BATTERY ELIMINATOR AND CHARGER #1060

Kit $39.95 **Wired $49.95**

Combines Model 1050K Battery Eliminator and Model 1055 Filter in a single unit. Powers both transistor and conventional equipment. 8¾″ x 10½″ x 7¾″. Wt. 17 lbs.

6 & 12 VOLT BATTERY ELIMINATOR & CHARGER #1064

Kit $45.95 **Wired $54.95**

Heavy-duty 2-ranges for operating any mobile radio & transceiver including transistor or "hybrid" types. Also usable as charger for either 6 or 12 volt batteries. Variable transformer provides continuous output adustment. 2 meters simultaneously observe output voltage and current. Ratings: 0-8V: 10A continuous, 20A intermittent; 0-16V: 6A cont., 10A interm. AC ripple: 0-16V range: 0.3% @ 2A, 1% @ 6A. Heavy-duty selenium rectifiers, & automatic reset overload relay. 8½″ x 5¾″ x 7½″. Wt. 14 lbs.

ALL PRICES 5% HIGHER IN THE WEST

EMICO

PRECISION-PLUS

PRECISION

the Recognized Leader . .

ELECTRO-MECHANICAL INSTRUMENT CO. PERKASIE, PENNSYLVANIA

PRICE LIST

PRICES—Prices listed are net and include all hardware and individual boxing. Resistance approximate. If important request factory engineering confirmation.

DC AMMETERS

Range	Approximate Resist. Ohms	MODEL NF-2C Catalog Number	MODEL NF-2C Dealers' Net Price	MODEL RF-2C Catalog Number	MODEL RF-2C Dealers' Net Price	MODEL RF-2¼C Catalog Number	MODEL RF-2¼C Dealers' Net Price	Approximate Resist. Ohms	MODEL 13 Catalog Number	MODEL 13 Dealers' Net Price
0-1	.15	2101	$1.90	2201	$2.00	2301	$2.30			
0-3	.032	2101-A	1.90	2201-A	2.00	2301-A	2.30			
0-5	.016	2102	1.90	2202	2.00	2302	2.30			
0-10	.00115	2103	1.90	2203	2.00	2303	2.30	.0025	2403	$2.30
0-15	.00115	2103-A	1.90	2203-A	2.00	2303-A	2.30	.0025	2403-A	2.30
0-20	.00115	2104	1.90	2204	2.00	2304	2.30			
0-25	.00115	2104-A	1.90	2204-A	2.00	2304-A	2.30	.0006	2405	2.30
0-30	.00115	2105	1.90	2205	2.00	2305	2.30			
0-60	.000116	2106-A	2.60	2206-A	2.70	2306-A	3.00			
1-0-1	.08	2109	1.90	2209	2.00	2309	2.30			
3-0-3	.00115	2110	1.90	2210	2.00	2310	2.30			
6-0-6	.00115	2111	1.90	2211	2.00	2311	2.30			
10-0-10	.00115	2112	1.90	2212	2.00	2312	2.30			
15-0-15	.00115	2113	1.90	2213	2.00	2313	2.30			
20-0-20	.00115	2114	1.90	2214	2.00	2314	2.30	.0006	2414	2.30
30-0-30	.00115	2115	1.90	2215	2.00	2315	2.30	.0006	2415	2.30
75-0-75	.000116	2116-A	2.95	2216-A	3.05	2316-A	3.35			

DC MILLIAMMETERS

0-1	850	2120	$3.70	2220	$3.75	2320	$4.05	950	2420	$4.05
0-3	425	2121	2.60	2221	2.65	2321	2.95	130	2425	2.70
0-5	925	2125	2.35	2225	2.40					
0-5	1300					2325	2.70	75	2426	2.55
0-10	300	2126	2.20	2226	2.25					
0-10	350					2326	2.55	23	2427	2.30
0-20	95	2127	1.90	2227	2.00					
0-20	105					2327	2.30			
0-25	65	2127-A	1.90	2227-A	2.00	2327-A	2.30	12	2428	2.30
0-30	37	2128	1.90	2228	2.00					
0-30	45					2328	2.30	5.5	2429	2.30
0-50	14.5	2129	1.90	2229	2.00					
0-50	18.0					2329	2.30	1.8	2430	2.30
0-100	7.0	2130	1.90	2230	2.00					
0-100	8.3					2330	2.30	1.0	2430-A	2.30
0-150	1.8	2130-A	1.90	2230-A	2.00					
0-150	2.15					2330-A	2.30	.5	2430-B	2.30
0-200	1.5	2130-B	1.90	2230-B	2.00					
0-200	1.7					2330-B	2.30	.35	2431	2.30
0-300	.61	2131	1.90	2231	2.00					
0-300	.8					2331	2.30	.12	2432	2.30
0-500	.21	2132	1.90	2232	2.00					
0-500	.27					2332	2.30			

DC VOLTMETERS (HIGH RESISTANCE)

(100 ohms/volt except 150 and 300 volt ranges are 200 ohms per volt)

0-10	1050	2140	$2.75	2240	$2.85	2340	$3.15
0-30	2800	2141	2.75	2241	2.85	2341	3.15
0-50	4000	2142	2.95	2242	3.05	2342	3.35
0-150	28000	2143	3.10	2243	3.20	2343	3.60
0-300	55000	2144	3.20	2244	3.30	2344	3.60

DC VOLTMETERS (LOW RESISTANCE)

Range	Approximate Resist. Ohms	MODEL NF-2C Catalog Number	MODEL NF-2C Dealers' Net Price	MODEL RF-2C Catalog Number	MODEL RF-2C Dealers' Net Price	MODEL RF-2¼C Catalog Number	MODEL RF-2¼C Dealers' Net Price			
0-1	33	2134	$1.90	2234	$2.00	2334	$2.30			
0-3	100	2135	1.90	2235	2.00	2335	2.30	150	2435	$2.30
3-0-3	30	2136	1.90	2236	2.00	2336	2.30			
0-5	140	2136-A	1.90	2236-A	2.00	2336-A	2.30			
0-8	225	2136-B	1.90	2236-B	2.00	2336-B	2.30			
0-10	280	2137	1.90	2237	2.00	2337	2.30	500	2437	2.30
0-15	450	2137-A	1.90	2237-A	2.00	2337-A	2.30	750	2437-A	2.30
0-20	600	2137-B	1.90	2237-B	2.00	2337-B	2.30	1000	2437-B	2.30
0-30	1000	2137-C	1.90	2237-C	2.00	2337-C	2.30	1500	2437-C	2.30
0-50	1400	2138	1.90	2238	2.00	2338	2.30	2500	2438	2.30

AC AMMETERS

0-1	.365	6101	$3.05	6201	$3.15	6301	$3.45			
0-3	.078	6102	3.05	6202	3.15	6302	3.45			
0-5	.023	6103	3.05	6203	3.15	6303	3.45	.023	6404	$3.45
0-10	.013	6104	3.05	6204	3.15	6304	3.45			

AC MILLIAMMETERS

0-25	750	6125	$3.05	6225	$3.15	6325	$3.45			
0-50	175	6126	3.05	6226	3.15	6326	3.45			
0-100	58	6127	3.05	6227	3.15	6327	3.45			
0-250	12	6128	3.05	6228	3.15	6328	3.45			
0-500	1.75	6129	3.05	6229	3.15	6329	3.45	1.15	6429	$3.45

AC VOLTMETERS

0-5	50	6135	$3.05	6235	$3.15	6335	$3.45			
0-10	175	6136	3.05	6236	3.15	6336	3.45	300	6437	$3.45
0-15	300	6137	3.05	6237	3.15	6337	3.45			
0-25	920	6137-A	3.05	6237-A	3.15	6337-A	3.45			
0-50	1800	6138	3.05	6238	3.15	6338	3.45			
0-150	9530	6139	3.60	6239	3.70	6339	4.00	15000	6439	4.00
0-300	32000	6140	4.20	6240	4.25	6340	4.55	32000	6440	4.55

Net

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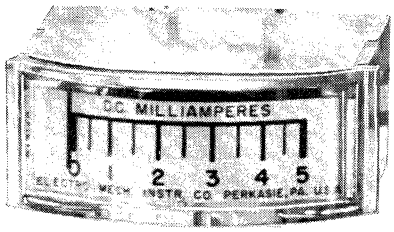
ETERS

Precision Products

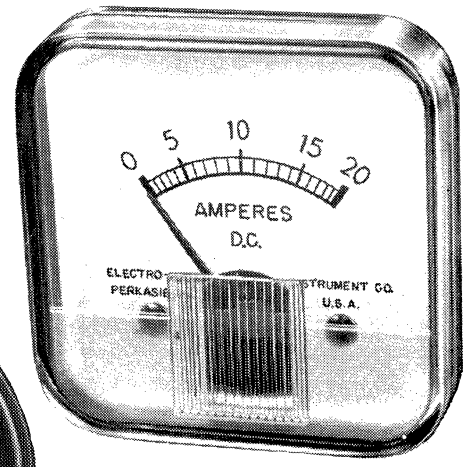
EMICO

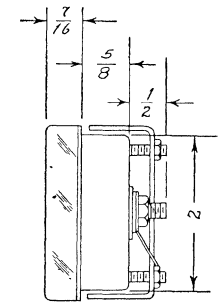
PRECISION-PLUS

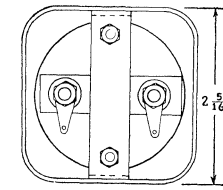
ELECTRO-MECHANICAL INSTRUMENT CO. PERKASIE, PENNSYLVANIA



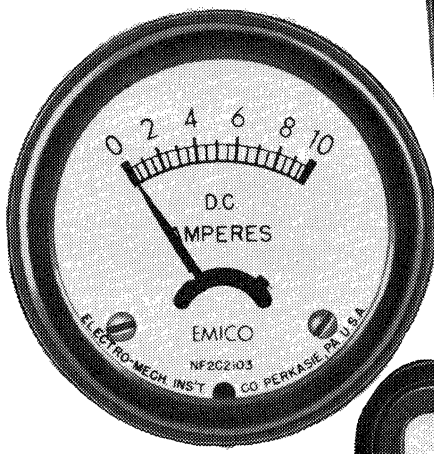
MODEL 13
Edge Reading Type



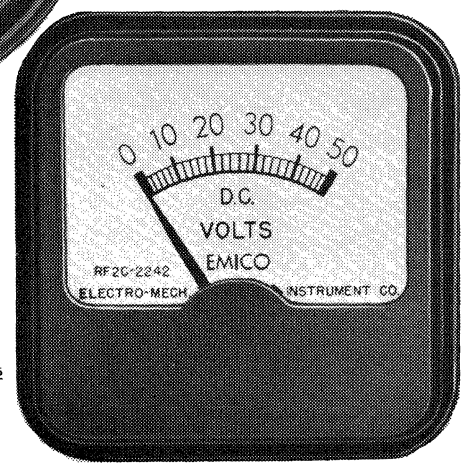


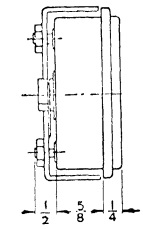


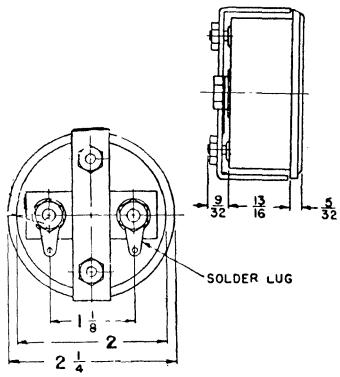
MODEL RF2¼C

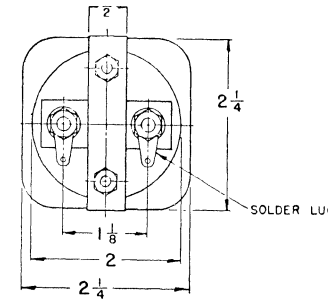


MODEL NF2C









MODEL RF2C

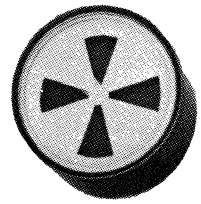
Precision instruments engineered for

- **accuracy**
- **long life**
- **economy**

EMICO Miniature Circuit Indicator
MODEL 801

Gives snap-action response at .001 (milliwatt) to monitor all circuit malfunctions or on-off conditions. Dependable through millions of on-off cycles. Simplified panel installation.

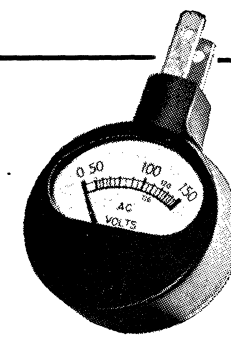
Dealer's Net **$5.00**



EMICO A.C. Voltage Tester

Accurate, precision mechanism plug-in type with damped meter movement. Convenient 90° swivel prongs for ease of reading from any position.

Dealer's Net **$3.45**



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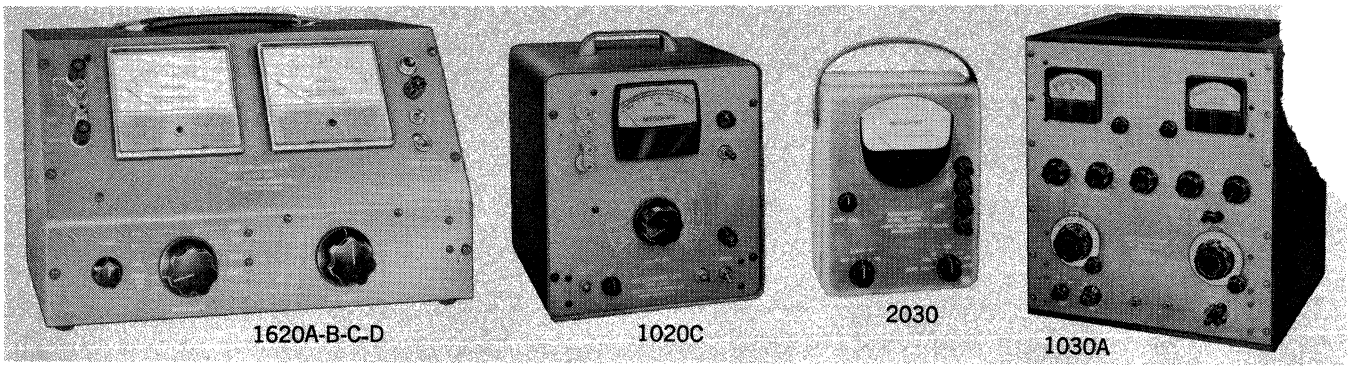

MEGOHMMETERS

Freed manufactures a complete range of insulation resistance measuring equipment with fixed and variable d.c. test voltages from 5 to 2500 volts. Insulation and leakage measurements can be made on transformers, motors, cables, electronic assemblies and components, dielectric materials, electrical appliances and tools, capacitors and resistors.

Type	Resistance Range	Test Voltage	Accuracy	Power and Requirements	Size and Weight
1620	0.1 to 4,000,000 megohms 1 to 2,000,000 megohms @ 500 volts	Variable 50 to 1000 volts d.c.	±5% at full scale	105-125 volts 50-60 cycles	15″ x 9″ x 7½″ 24 lbs. *
1620-A	0.01 to 4,000,000 megohms 0.1 to 200,000 megohms @ 50 volts 1 to 2,000,000 megohms @ 500 volts	Variable 50-100 volts d.c. 100-1000 volts d.c.	±5% at full scale	105-125 volts 50-60 cycles	15″ x 9″ x 7½″ 24 lbs. *
1620-B	1 to 2,000,000 megohms 10 to 2,000,000 megohms @ 2500 volts	Variable 250-2500 volts d.c.	±5% at full scale	105-125 volts 50-60 cycles	15″ x 9″ x 7½″ 24 lbs. *
1620-C	All features same as Type 1620 with additional circuitry for capacitor measurements	Variable 50 to 1000 volts d.c.	±5% at full scale	105-125 volts 50-60 cycles	15″ x 9″ x 7½″ 24 lbs. *
1620-D	0.01 to 40,000,000 megohms 0.1 to 2,000,000 megohms @ 50 volts 1 to 20,000,000 megohms @ 500 volts Circuitry for capacitor measurements	Variable 5-100 volts d.c. 100-1000 volts d.c.	±5% at full scale except highest range ±10%	105-125 volts 50-60 cycles	15″ x 9″ x 7½″ 25 lbs. *
1020-C	0.1 to 2,000,000 megohms 0.1 to 200,000 megohms @ 50 or 100 volts d.c. 1 to 2,000,000 megohms @ 500 volts d.c.	Fixed 50, 100, 500 volts Regulated	±3% all ranges except highest range ±5%	105-125 volts 50-60 cycles	9½″ x 10½″ x 8″ 18 lbs. *
1020-D	0.1 to 2,000,000 megohms 0.1 to 200,000 megohms @ 100 or 200 volts d.c. 1 to 2,000,000 megohms @ 500 volts d.c.	Fixed 100, 200, 500 volts Regulated	±3% all ranges except highest range ±5%	105-125 volts 50-60 cycles	9½″ x 10½″ x 8″ 18 lbs. *
2030-A	10 to 2,000,000 megohms	Fixed 500 volts d.c.	±5% full scale	battery operated transistor supply	6″ x 8″ x 4″ 8 lbs.
2030-B	1 to 20,000,000 megohms	Fixed 500 volts d.c.	±5% full scale	battery operated transistor supply	6″ x 8″ x 4″ 8 lbs.
2030-C	0.1 to 2,000,000 megohms	Fixed 50 volts d.c.	±5% full scale	battery operated transistor supply	6″ x 8″ x 4″ 8 lbs.
2030-D	1 to 2,000,000 megohms	Fixed 100 volts d.c.	±5% full scale	battery operated transistor supply	6″ x 8″ x 4″ 8 lbs.
2030-E	1 to 2,000,000 megohms	Fixed 200 volts d.c.	±5% full scale	battery operated transistor supply	6″ x 8″ x 4″ 8 lbs.
2035	10,000 ohms to 10,000 megohms single scale, no multiplier	Fixed 50 volts d.c.	±20%	battery operated transistor supply	6″ x 8″ x 4″ 8 lbs.

*Rack models available, 19″ x 10½″ x 9½″. Weight 25 lbs.

NON-DESTRUCTIVE D.C. VOLTAGE BREAKDOWN EQUIPMENT

Freed can supply non-destructive voltage breakdown testers for applications where the d.c. test voltage must be removed within microseconds in the event of a breakdown. Simultaneously the component under test is short circuited to prevent it from being damaged by its own capacitive charge. The instrument contains a variable slope ramp generator to apply the test voltage in applications where the capacitive current in the test sample exceeds the preset leakage current limit. An indicating voltmeter holds the reading of the breakdown voltage until reset.

Type	Leakage Current	Test Voltage	Output Accuracy	Power Requirements	Size and Weight
1625	10, 100 & 500 microamperes	*2500 volts d.c.	±5%	105-125 volts 50-60 cycles	19″ x 8¾″ 25 lbs.

*Other test voltages available. Write for specifications.

LOW FREQUENCY "Q" INDICATORS

Direct indication of "Q" at low frequencies, inductance, distributed capacity, impedance and dielectric loss can also be measured. Instrument may be used to study the magnetic properties of iron core material for stability as a function of applied voltage and losses as a function of the frequency. Two units are available, the 1030-A indicates "Q" as a product of meter readings multiplied by dial settings, the 1030-B displays "Q" directly in digital readout.

Type	Test Frequency	Q Range	Accuracy	Test Voltage	Power Requirements	Dimensions and Weight
1030-A	20 cycles to 200 K.C.	1-1000	±5% 20 cycles to 50 KC— to 200 KC at reduced accuracy	Voltage to series circuit, 0.01 to 10 volts voltage across coil variable to 100 volts	105-125 volts 50-60 cycles	21″ x 23″ x 15″ 120 lbs.
1030-B	Specifications as 1030-A with digital "Q" readout					

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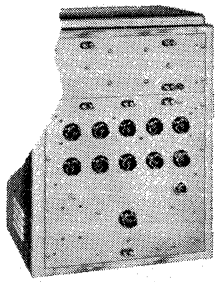
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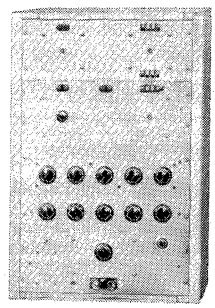
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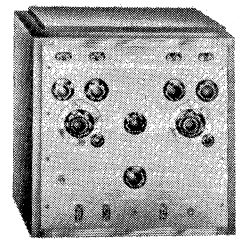
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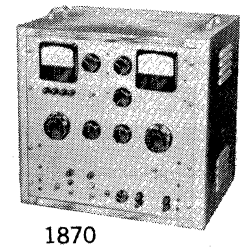
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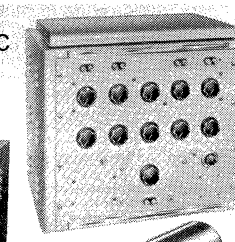
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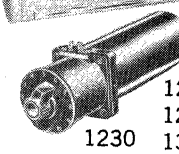
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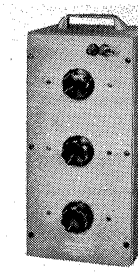
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DECADE INDUCTORS

Each unit is an assembly of four toroids wound on a stabilized Molybdenum permalloy dust core. The coils have a nominal inductance of 1-2-3-4 and are connected in series and switched to vary the inductance from 0-10.

Type	Frequency Range, Cycles	Maximum Q*	Inductance per Step	Total Inductance	Accuracy	Dimensions and Weight	
1220	500-20,000	230 @ 4 KC	0.001 h	0.01 h	±2%	3″ x 3″ x 9″	4½ lbs.
1230	500-20,000	280 @ 3 KC	0.01 h	0.1 h	±1%	3″ x 3″ x 9″	4½ lbs.
1240	500-20,000	260 @ 3 KC	0.1 h	1. h	±0.5%	3″ x 3″ x 9″	4½ lbs.
1270	500-20,000	190 @ 2 KC	1. h	10 h	±0.25%	3″ x 3″ x 9″	4½ lbs.
1341	100-2,000	100 @ 1 KC	10 h	100 h	±0.25%	3″ x 3″ x 9″	4½ lbs.
1280	500-20,000	280 @ 3 KC	0.001 h	1.11 h	See note**	13¾″ x 6⅛″ x 5½″	16 lbs.
1290	500-20,000	280 @ 3 KC	0.001 h	11.11 h	See note**	15″ x 7″ x 5½″	20 lbs.
1310	500-20,000	280 @ 3 KC	0.01 h	11.1 h	See note**	13¾″ x 6⅛″ x 5½″	16 lbs.
1164†	30-2,000	60 @ 300	0.1 h	111 h	±1%	15″ x 7″ x 5½″	28 lbs.

†Type 1164 inductors are wound on special nickel alloy laminated cores.

**Inductance per step:	1 mh	10 mh	100 mh	1 h	10h
**Nominal Accuracy:	±2%	±1%	±0.5%	±0.25%	±0.25%

*Maximum Q depending on inductance value and a.c. voltage across coil.

INCREMENTAL INDUCTANCE BRIDGES

Direct in-line readings of inductance and conductance of iron core component at audio frequencies with or without superimposed direct current. The bridge uses the Owens circuit with provisions for measuring the series or parallel inductance and conductance of the unknown inductor; five precision resistance and capacitance decades are provided to indicate these values. "Q" or storage factor can be measured as the product of the inductive reactance and the conductance.

Type	Inductance Range	Conductance Range	Frequency Range	D.C. Current	Accuracy	Dimensions and Weight
1110-C	1111.1 h to 1 mh 5 decades 1.1 h to 1 μh 2 decades	0.015 μmho—100 mho "Q" = 600 max @ 100 cycles	20 cycles to 10KC	up to 2 amperes	±5% to 5 KC ±2% to 10 KC	21¾″ x 17½″ x 15¼″ 50 lbs.
1115	111.1 h to 100 μh 5 decades 0.11 h to 0.1 μh 2 decades	0.15 μmho—1000 mho "Q" = 600 max @ 100 cycles	20 cycles to 10 KC	up to 15 amperes	±1% to 5 KC ±3% to 10 KC	21¾″ x 28″ x 15¼″ 80 lbs.
1185	111.1 h to 100 μh 5 decades 0.11 h to 0.1 μh 2 decades	0.15 μmho—1000 mho "Q" = 600 max @ 100 cycles	20 cycles to 10 KC	up to 30 amperes	±1% to 5 KC ±3% to 10 KC	21¾″ x 33¼″ x 15¼″ 100 lbs.
1115-A		Same specifications as type 1115 except excitation range to 1000 volts.				

UNIVERSAL BRIDGE

The Freed Type 1150-A Universal Bridge offers the laboratory a combination of eight bridges in one instrument. This bridge will measure the reactive and resistive component of impedances, capacitance, resistance and phase angle. In the Hay and/or Owen bridge configuration the incremental permeability of an inductance can be measured.

Type	Inductance Range	Capacitance Range	Resistance Range	"D" Hay Bridge
1150-A	5 μh 1110 h	5 pf-10 mf	0.05 Ω-1 MΩ	0.001-10 Q = 0.1-1000
	"Q" Maxwell 0.01-50	**"Q" Series Owen** 0.01-600 @ 100 cycles	**"Q" Parallel Owen** 80 @ 100 cycles	**"Q" Parallel Resistor-Condensor Bridge** 0.01-11.1
	Accuracy Inductance ±.5% up to 1 KC. ±2% to 10 KC. Capacitance ±1% @ 1 KC. "D"-"Q" ±5% @ 1 KC. Resistance (ac.) ±1% @ 1 KC.			**Dimensions and Weight** 21¾″ x 24½″ x 17″ 65 lbs.

INDUCTANCE COMPARISON BRIDGE

A complete production unit for comparing transformer and inductor impedances under dynamic conditions against a standard resistor. The instrument has a self-contained metered 500 Ma. d.c. supply, metered 135 volt a.c. source and a direct reading percentage deviation indicator, provision for connecting external test frequencies up to 10 Kc. is provided.

Type	Inductance Range	Deviation Range	Test Frequency	D.C. Current Range	Dimensions and Weight
1870	25 mh - 100 h	±20%, accuracy 1% ±30%, accuracy 5%	60-10,000 cycles	0.5 ma., 0-25 ma., 0-100 ma., 0-500 ma.	22″ x 19½″ x 15″ 150 lbs.

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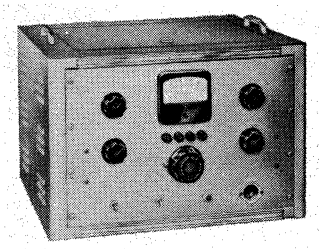
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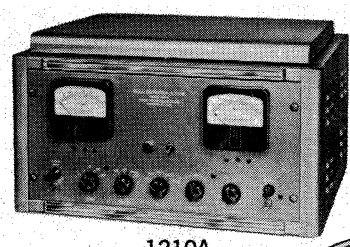
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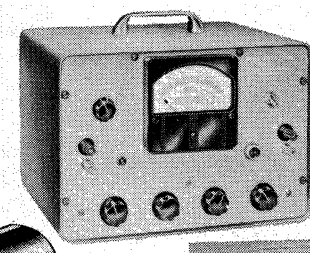
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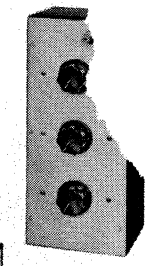
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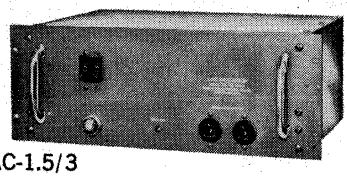
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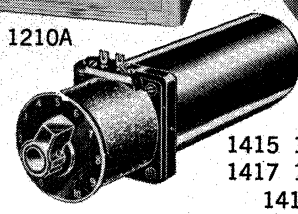
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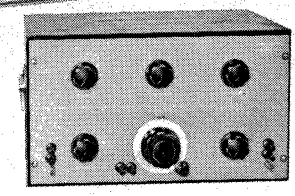
1351

A.C. LINE REGULATOR

A distortion free 60/400 cycle electromechanical a.c. line regulator. Features a tubeless fast response phase reversible magnetic preceded by a transistor comparison amplifier with zener reference.

Type	Nominal Input Voltage	Input Frequency	Output Voltage	Regulation Accuracy	Dimensions and Weight
RAC—1.5/3	115 volts	60 or 400 cycles	Adjustable 110-120 volts	±0.25% for a ±10% Regulation Range ±50% for a ±20% Regulation Range	19″ x 7″ x 13″ 45 lbs.

KUA Rating and Regulation Range	Regulation Accuracy	Response Speed volts/sec.
3 KUA for a Regulation Range of ±10% 1.5 KUA for a Regulation Range of ±20%	±0.25% for ±10% Regulation Range ±0.5% for ±20% Regulation Range	10 @ ±10% 20 @ ±20%

NULL DETECTORS

Sensitive null detectors for bridge measurements, with self contained selective filters to limit the amplifier characteristics at various bridge measuring frequencies.

Type	Sensitivity	Frequency Range	Filter	Power Requirements	Dimensions and Weight
1140-B	10μ volts @ 1 KC for 15% meter deflection filter in	20 to 20,000 cycles	Fixed 60, 400, 1000 cycles Adjustable ±5% of center Other frequencies available	105-125 volts 50-60 cycles	Cabinet 12″ x 8½″ x 10″—18 lbs. Rack—19″ x 6″ x 10″
2076	1μ volts @ 1 KC for 15% meter deflection filter in	20 to 20,000 cycles	Fixed 60, 400, 1000 cycles Adjustable ±5% of center Other frequencies available	Transistorized Battery operated	Cabinet—8″ x 6″ x 8″ Rack—19″ x 5¼″ x 8″

NULL DETECTOR — VACUUM TUBE VOLTMETER

Designed primarily for a.c. bridge measurements, a dual purpose instrument for indicating bridge balance and the a.c. excitation across the unknown.

Type	Null Sensitivity	Frequency Range	Filter	Power Requirements	Dimensions and Weight
1210-B	10 M volts @ 1 KC for 15% meter deflection	20-20,000 cycles	Fixed 60, 400, 1000 cycles provision for other frequencies	105-125 volts 50-60 cycles	*21″ x 12″ x 13″ 37 lbs.
	Voltage Range	**Input Impedance**	**Frequency Range**	**Accuracy**	
	0.1 to 150 volts ac. 0.15-1.5-15-150 volts full scale	50 MΩ in parallel with 25 PF.	20 to 20,000 cycles ±1 db	2% of full scale	

D.C. SUPPLY

A constant voltage transformer regulated current source designed for use with the Freed Incremental Inductance Bridges. Solid state bridge rectification, L-C filters and low internal impedance provides good current regulation with a minimum of circuit complexity.

Type	Current Ranges	Voltage Ranges	Regulation	Power Requirement	Dimensions and Weight
1170-A	4 ranges, 0-5, 25, 100 and 1000 milliamperes	Maximum no load voltage, 1000 Ma, 270V, 100 Ma, 270V, 25 Ma, 85 V, 5 Ma, 48 V	±1% for line variation 105-125 V	105-125 volts 60 cycles	19″ x 10½″ x 13½″ 66 lbs.

DECADE CAPACITORS

The Freed series of Decade Capacitors cover a wide range of values and can be supplied as individual decades from 0.0001 PF. per step to 1 mf. per step or in various combinations of assembled decade boxes. All capacitors are non-inductively wound and heat treated for stability.

Type	Total Capacity	Dielectric	Dissipation Factor	Accuracy	Dimensions and Weight	
1415	10 μf in steps of 1 μf	Mylar	<0.005	±1%	3″ x 3″ x 7″	2 lbs.
1416	1 μf in steps of 0.1 μf	Polystyrene	<0.0002	±1%	3″ x 3″ x 7″	2 lbs.
1417	0.1 μf in steps of 0.01 μf	Polystyrene	<0.0002	±1%	3″ x 3″ x 7″	2 lbs.
1418	0.01 μf in steps of 0.001 μf	Polystyrene	<0.0002	±1%	3″ x 3″ x 7″	2 lbs.
1419	0.001 μf in steps of 0.0001 μf	Polystyrene	<0.0002	±1%	3″ x 3″ x 7″	2 lbs.
1250	1.110 μf in steps of 0.001 μf	Polystyrene	<0.0002	±1%	13¾″ x 6″ x 4½″	8 lbs.
1351	11.111 μf in steps of 0.0001 μf plus 100 pf variable air capacitor	Mylar Polystyrene Air	<0.005	±1%	19″ x 10¾″ x 8″	25 lbs.
1352	1.111 μf in steps of 0.0001 μf	Polystyrene	<0.0002	±1%	19″ x 5¼″ x 10″	13 lbs.
1353	11.111 μf in steps of 0.0001 μf	Mylar Polystyrene	<0.005	±1%	19″ x 5¼″ x 10″	14 lbs.

Maximum operating voltage, 500 VDC or peak. Capacitors can be supplied to better than ±1%, write for complete information.

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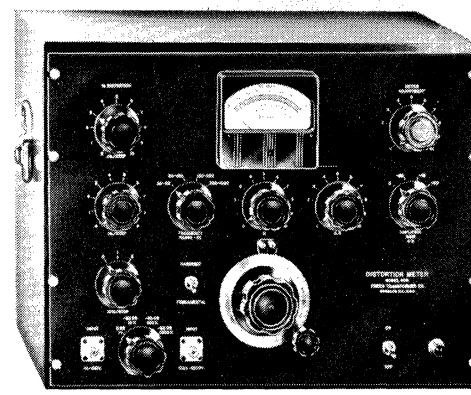

1410

COMPARISON & LIMIT BRIDGE

A rapid and convenient method for laboratory or production testing of resistors, capacitors and inductors. Components may be sorted for tolerances up to ±20% or selected in matched pairs.

Type	Inductance Range	Capacitance Range	Resistance Range	Test Frequency	Accuracy	Dimensions and Weight
1010-A	10 μh-100 h	10 Pf-100 mf.	1 Ω-20 MΩ	50 or 60 cycles 1 KC-10 KC	±0.1% on 5% range	10½" x 12" x 12" 17 lbs.

IMPEDANCE & ADMITTANCE BRIDGE

An audio frequency bridge for measuring the complex impedances of inductors, transformers, filter networks and capacitors.

Type	Frequency Range	Impedance and Admittance	Accuracy	Maximum Applied Voltage	Dimensions and Weight
1120	20 to 20,000 cycles	XL, XC and R up to 1000 ohms, BL, BC and G up to 1000 microhms	R: ±1% G: ±2% X: ±1% up to 5 KC B: ±1% up to 5 KC	125 Volts	10½" x 12" x 12" 25 lbs.

DISTORTION METERS

The type 1410 Distortion Meter measures distortion in the ultra-sonic or carrier frequency range and features high input impedance with high sensitivity. Having a wide input voltage range it can be used for distortion measurements in lov output oscillators, carrier frequency amplifiers and transmitters.

Type	Frequency Range	Input Impedance	Input Voltage	Sensitivity	Power Requirements	Dimensions and Weight
1410	20 KC to 1 MC	50 KΩ shunted by 70 Pf	0.2 to 1000 volts	Distortion level of 0.1% for 0.2 volts input	105-125 volts 50-60 cycles	21" x 16¼" x 15" 60 lbs.

The type 1917 Distortion Meter is a wide range low input impedance instrument, designed with passive circuitry resulting in high stability, low residual distortion and hum levels.

Type	Frequency Range	Input Impedance	Input Voltage	Sensitivity	Dimensions and Weight
1970	20 cycles to 1 megacycle	75-150 300-600	1 to 200 volts	Distortion level of 0.02% for 1 volt input	19" x 10½" x 12" 30 lbs.

PRICE LIST

RAC-1.5/3	AC Line Regulator	$ 390.00
1010-A	Comparison Bridge	325.00
1020-C	Megohmmeter	250.00
1020-D	Megohmmeter	265.00
1030-A	Low Frequency "Q" Indicator	1150.00
1030-B	Low Frequency "Q" Indicator	1350.00
1110-C	Incremental Inductance Bridge	495.00
1120	Impedance and Admittance Bridge	425.00
1115	Incremental Inductance Bridge	795.00
1115-A	Incremental Inductance Bridge	995.00
1140-B	Null Detector Amplifier	250.00
1150-A	Universal Bridge	795.00
1164	Decade Inductor	275.00
1170-A	D.C. Supply	350.00
1180	A.C. Supply	115.00
1185	Incremental Inductance Bridge	1250.00
1210-B	Null Detector—UTUM	350.00
1220	Decade Inductor	90.00
1230	Decade Inductor	85.00
1240	Decade Inductor	90.00
1250	Decade Capacitor	170.00
1270	Decade Inductor	100.00
1280	Decade Inductor	290.00
1290	Decade Inductor	365.00
1310	Decade Inductor	290.00

1341	Decade Inductor	$ 100.00
1351	Decade Capacitor	305.00
1352	Decade Capacitor	220.00
1353	Decade Capacitor	275.00
1410	Distortion Meter	875.00
1415	Decade Capacitors	35.00
1416	Decade Capacitors	50.00
1417	Decade Capacitors	35.00
1418	Decade Capacitors	30.00
1419	Decade Capacitors	45.00
1620	Megohmmeter	335.00
1620-A	Megohmmeter	350.00
1620-B	Megohmmeter	385.00
1620-C	Megohmmeter	360.00
1620-D	Megohmmeter	405.00
1625	Non destructive Breakdown Tester	795.00
1870	Inductance Comparison Bridge	550.00
1970	Distortion Meter	425.00
2030-A	Megohmmeter	195.00
2030-B	Megohmmeter	250.00
2030-C	Megohmmeter	215.00
2030-D	Megohmmeter	215.00
2030-E	Megohmmeter	215.00
2035	Megohmmeter	215.00
2076	Null Detector—Amplifier	265.00

We reserve the right to change specifications or design, without incurring any obligation to incorporate new features in instruments sold.

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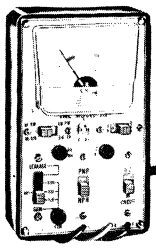
Transistor - Tube Testers

ALL AMERICAN-MADE



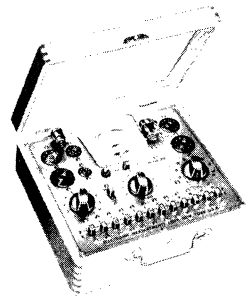
Model 212 — TRANSISTOR ANALYZER

ALL THESE FEATURES NOT AVAILABLE AT ANY PRICE!...

1. Checks DC current gain (BETA) in 3 ranges to 200. 2. Checks leakage on 3 colored scale. 3. Checks all transistors—high or low power for gain and leakage. 4. Checks all transistors as AC current amplifiers. (OSCILLATOR CHECK) 5. Checks all transistors in circuit without removing them. 6. Can be used to signal trace AF, IF or RF circuits. 7. Measure Battery Voltage on 0-12 volt scale. 8. Measures DC current drain on 0-80 milliampere scale. 9. Checks condition of diodes. 10. Supplied with 3 external leads as well as a socket for checking transistors. 11. Comes complete with instruction manual and transistor listing.

Wired . . . $18.50 Kit Form . . . **$13.50**

Size: 3¾" x 8½" x 2". Weight 1½ lbs.



Model 213 — TUBE TESTER

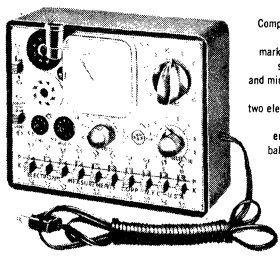
COMPLETELY MODERN! COMPLETELY FLEXIBLE! COMPLETELY NEW!...

Checks all the new 12 prong (Compactron), Nuvistor, Novar and 10 prong tubes, in addition to octal, loctal, miniature, and 9 prong tubes. Tests each tube for shorts, leakages intermittents, as well as for quality. Tube quality is indicated directly on a three color metal dial. Each section of a multi-purpose tube is checked separately.

Magic eye, Voltage Regulator and HI-FI tubes are also tested. Unique switching arrangement makes the checker obsolescent proof. Panel is etched for long wear. It comes complete with instructions and tube charts in ring bound manual.

MODEL 213 (in high impact bakelite case with strap) . . **Wired $28.90**
MODEL 213 Kit **18.90**
MODEL 213P (Illustrated in Wood Carrying Case) **32.25**
MODEL 213P Kit **21.90**
MODEL CRT picture tube adapter **4.50**

Size: 8½" x 7½" x 4". Weight: 4½ lbs.



ALL NEW!... Model 211 — TUBE TESTER

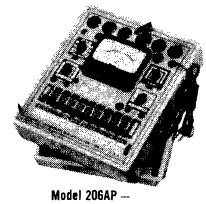
Completely flexible, obsolescent proof. We believe to be the smallest, lowest priced complete tube tester on the market today. It checks each section of multi-purpose tubes separately . . . checks all octal, loctal, 9 prong, nuvistor and miniature tubes for shorts, leakages, opens, intermittents as well as for quality. Shorts or leakages between any two elements in the tube can be detected. **Quality is indicated directly on a two color meter dial using the standard emission test.** It uses an etched panel and a high impact bakelite case. Comes complete with instructions and tube charts in ring bound manual.

Wired . . . $22.90 Kit . . . **$14.90**

EMC Model CRT (Picture Tube Adaptor) . . . **$4.50**

Size: 6¾" x 5¼" x 2¼" deep. Weight: 3 lbs.

Model 204
TUBE-BATTERY-OHM
CAPACITY TESTER



An Emission Tube Tester, wth a completely flexible switching arrangement. Tests all tubes, including Noval and sub-miniatures. Checks batteries under rated load on "reject-good" scale. Tests all cold, cathode, magic eye, voltage regulator and ballasts. Uses 25W line voltage control. Checks condenser leakage to 1 meg. Checks resistance up to 4 megs. Checks capacity from .01 to 1 mfd.

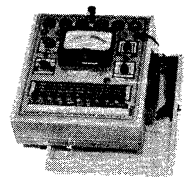
MODEL 204 — Illustrated **$55.90**
MODEL CRA — Cathode Ray Tube Adaptor **4.50**

Model 205AP —
TUBE TESTER

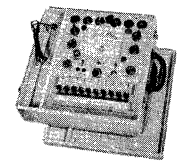
Uses standard emission test on all tubes, it checks all octal, loctal, noval, novar, nuvistor, 10 pin and compactron tubes. Completely flexible switching arrangement. Checks Voltage Regulators and ballasts Uses four position lever-type switches. Line voltage control compensates for line variations between 105 and 135 volts. Checks for shorts and leakages.

MODEL 205AP — Hand rubbed oak carring case (illustrated) **$47.50**
MODEL 205PAPK — Kit Form **36.20**
MODEL CRA — Cathode ray tube adaptor **4.50**

Size: 4½" x 10¾" x 12⅜". Weight: 8½lbs.



Model 206AP —
DYNAMIC MUTUAL
CONDUCTANCE
TUBE TESTER



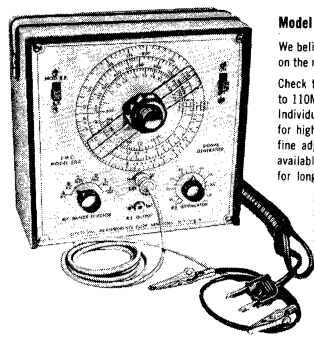
Completely flexible, obsolescence-proof instrument incorporates a full range of tests for any tube types, including VR and ballast tubes, and any basing arrangement, including compactron, novar, nuvistor, 10-pin, octal, loctal, etc. Checks mutual conductance (in 3 ranges up to 12,000 micromhos plus "Reject-Good" scale) emission, gas, noise, shorts, open elements, and reserve life. 10 multi-position lever switches for electrode selection permit complete flexibility in testing present and future types. Independent checks for sections of multi-element tubes. Separate sensitivity and grid-bias controls for critical evaluation. Full filament-voltage range from .75V to 117V. Supplementary, test data for new tubes, at no charge, keep instrument up to date. Roll chart also revised regularly.

MODEL 206AP
With hand-rubbed oak carrying case **$83.50**
MODEL CTA
Cathode-ray tube adapter for Model 206 . . . . **4.50**

Size: 6" x 14½" x 15". Weight: 13½ lbs.

Signal Generator - Oscilloscope

ALL AMERICAN-MADE



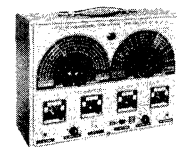
Model 502 — RF SIGNAL GENERATOR

We believe this is the smallest, lowest priced Signal Generator on the market today.

Check these outstanding features: Has 6 bands from 115KC to 110MC on fundamentals and up to 220MC on second harmonic. Individual slug tuned coils for each band. Colpitts RF oscillator for high stability. Planetary drive tuning condenser for fine adjustment of frequencies. 400 cycle internal modulation available. RF accuracy within 1½%. 2 color etched panel for long durability. Provision made for external modulation.

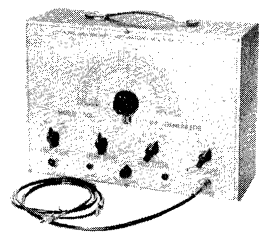
Small, compact-size, measures only 6⅝" x 6⅜" x 4" deep. Supplied with RF output lead. Cathode follower output and RF attenuator. Model 502 wired is priced at **$24.95** and in kit form **$17.95**. Weight 4 lbs.

Model 700
RF-AF-CRYSTAL
MARKER-TV
BAR-GENERATOR



Unlimited test facilities and flexibility in AM, TV, FM, and hi-fi audio are made possible with complete coverage in a single instrument from 18 cps to 216 mc (to 108 mc on fundamentals; calibrated harmonics to 216 mc). Two separate, independently usable oscillators provide unique output variety, including audio sine or square waves, crystal for marking or calibration, and choice of RF modes: unmodulated, or internally modulated with sine or square waves at any frequency and percentage of modulation. This simplifies response and bandwidth checks. AF oscillator uses Wien Bridge for true sine-wave output from 18 to 300,000 cps in 5 bands. Square-wave output to 20 kc. RF oscillator has 5 fundamental and 1 calibrated harmonic bands. RF output across constant, 72-ohm impedance, adjustable with fixed 3-position, decade attenuator plus vernier control. Jack for sync pickup lead locks horizontal or vertical bar display for TV linearity adjustment. Plug-in crystal holder. Continuous amplitude control for AF, square-wave, and crystal outputs, as well as for modulation percentage.

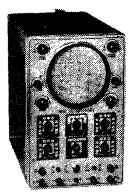
MODEL 700 — Wired and Tested **$55.90**
Weight: 11 lbs.



MODEL 501 — R.F. SIGNAL GENERATOR . . . A versatile signal generator. 6 bands from 115 kc to 110 mc on fundamentals. This significant new instrument has a Colpitts R.F. oscillator and cathode follower output, precision factory tuned coils, a variable gain external modulation amplifier, a 400 cycle Sine wave-variable depth output, R.F. output to 100,000 μV, frequency accuracy of $\pm$1.5%, and provision for audio output to test amplifiers.

MODEL 501 — As Illustrated in hammertone metal case **$37.90***
MODEL 501 — In easy-to-assemble Kit Form **24.90**
*Completely wired and tested

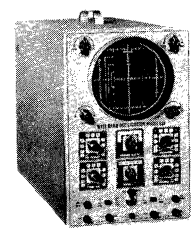
Model 600 — OSCILLOSCOPE Has these EXCLUSIVE FEATURES:



- Uses new 5UP1-5" scope tube for sharp focusing and good intensity.
- Retrace blanking amplifier eliminates confusion, gives clearer pictures.
- Has built-in 60 cycle phasing control and sweep for TV servicing.
- Uses astigmatism control for better focusing.
- Provision for Z axis input or intensity modulation.
- Synchronization available on positive or negative phase of input voltage, or from external source.
- Uses a 2 step compensated attenuator input.
- Has a 2 stage push-pull vertical amplifier with sensitivity of .02v per inch.
- Multivibrator sweep from 15 cycles to over 75 kilocycles.
- Direct connections to scope plates available.

Size: 8¾" side x 14" high x 15½" deep. Weight: 29 lbs.

MODEL 600 — Completely Wired and Tested **$99.50**



Model 601 — WIDE BAND OSCILLOSCOPE . . .

For Color TV and Monochrome. Check these EXCLUSIVE EMC FEATURES: Full 5 mc bandwidth for color TV servicing. Push-pull vertical amplifier with sensitivity of .02 volts per inch. Retrace blanking amplifier eliminates confusion and gives clearer pictures. Multivibrator sweep from 15 cycles to over 75 kilocycles. 5UP1 cathode ray.

SWEEP GENERATOR — Multivibrator type. Frequency range 15 to over 75,000 cycles.

POWER REQUIREMENTS — 105-130 volts 50/60 cycles A6-50 watts.

VERTICAL AMPLIFIER — Maximum sensitivity: .02 volts RMS per inch. Frequency response: Flat within 1.5 DB from 15 cycles to 5 megacycles. Input impedance: 2 megohms — 30 MMFD.

SYNCHRONIZATION — Positive or negative from vertical amplifier or from external source.

Size: 8¾" side x 14" high x 15½" deep. Weight: 29 lbs.

MODEL D — Direct Probe **$3.95**
MODEL DEM — Demodulator Probe **5.75**
MODEL LC — Low Capacity Probe **5.75**
MODEL 601 — Wired . . . . . **117.90** *

EMC

ELECTRONIC MEASUREMENTS CORPORATION
New York 12, New York

Net

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POTRONICS NON-DESTRUCTIVE HIPOT & INSULATION TESTERS

FEATURES

- Portable . . . Most models 17"W x 9"H x 11"D
- Overload continuously adjustable from 20 microamps to 5 milliamperes
- Safety and convenience controls
- Series limiting resistor
- Overload light with re-set button
- Front panel re-entrant output jacks
- Output connected 2% KV meter with AC/DC switch on AC-DC models
- 5 ma. current meter in grounded return

(50/500/5,000 ua. meter available on DC models — $30. additional)

AC OUTPUT

VOLTAGE	MODEL	PRICE
0-2KV @ 5 ma.	102A	$200
0-5KV @ 5 ma.	105A	225
0-10KV @ 5 ma.	110A	275
0-25KV @ 5 ma.	125A	500

DC OUTPUT

VOLTAGE	MODEL	PRICE
0-3 @ 5 ma	103D	$200
0-6 @ 5 ma	106D	220
0-12 @ 5 ma	112D	290
0-20 @ 5 ma	120D	350
0-30 @ 5 ma	130D	400
0-60 @ 5 ma	160D	800
0-120 @ 5 ma	1120D	1,500

AC/DC OUTPUT

VOLTAGE	MODEL	PRICE
0-3 DC, 2.5 AC	103	$230
0-6 DC, 5 AC	106	250
0-15 DC, 10 AC	115	330
0-25 DC, 10 AC	125	425

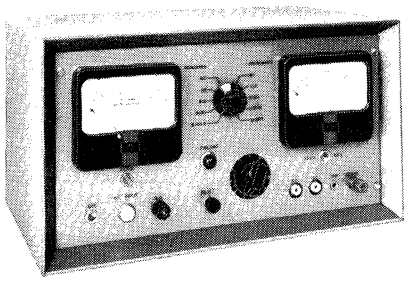
All have 5 ma. capacity. Heavier current models available.

OPTIONAL EXTRAS:

HV hold button $10.00
Output shorting relay $30.00
Test probes $10.00
Rack mount $10.00

Triple range current meter 50/500/5000 ua . . . $30.00 (DC models only)

AC-DC HIPOT AND MEGOHMMETER



MODEL 306B

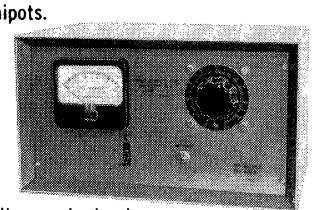
- Voltage to 6 KV, megohms to 100,000
- Overload adjustable from 20 microamperes to 5 ma.
- Performs non-destructive quantitative tests.
- Continuously adjustable output from 0 to maximum
- Overload light with reset button, 2% meter accuracies

SPECIFICATIONS & MODELS

Model No.	Voltage DC	Voltage RMS	Current Meter ua.	Megohms at 500V	Ranges	Size W x H x D"	Price
301A	1.5 KV	1.0 KV	0-50/500	1-1000	2	17 x 9½ x 11	$390
301B	1.5	1.	0-.5/5/50/500	1-100,000	4	17 x 9½ x 11	510
303A	3	2.5	0-50/500	1-1000	2	17 x 9½ x 11	410
303B	3	2.5	0-.5/5/50/500	1-100,000	4	17 x 9½ x 11	530
306A	6	5	0-50/500	1-1000	2	17 x 9½ x 11	440
306B	6	5	0-.5/5/50/500	1-100,000	4	17 x 9½ x 11	565

UL AND ASTM AC TESTERS
HEAVY KVA

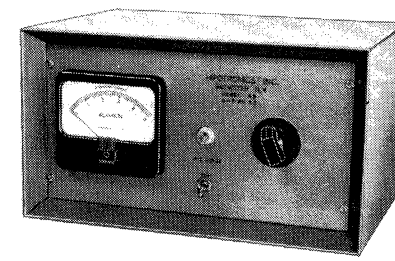
- Meets ASTM, U.L. and other test specifications calling for heavier KVA than current limited hipots.
- Continuously adjustable output
- Output conected KV meter with 3% accuracy
- Instantaneous overload circuit breaker
- 3 wire grounding cord and plug
- Line switch, fuse and pilot light
- Grounded front panel and high voltage output return
- Available with either 6 ft. output lead or bushing on top of cabinet



KV	KVA	SIZE W	SIZE H	SIZE D	MODEL	PRICE
0-1500	½	17"	9"	11"	C1	$350
0-2500	1	17"	9"	11"	C2	425
0-5000	1	22"	13"	15"	C5	495
0-10000	2	22"	13"	15"	C10	625

Available with DC output — consult factory

PRODUCTION HIPOT TESTERS



- In stock production hipot testers at low cost.
- Automatically current limited to safe value.
- Continuously adjustable output.
- Output connected KV meter gives visual indication of arcing or short circuit.
- Six ft. output leads with alligator clips.
- All models have 115 volts, 60 cps, input
- Size: 14"W x 8"H x 10"D

KV	MODEL	PRICE	KV	MODEL	PRICE
0-3 AC	A3	$ 95.00	0-6 DC	B6	$135.00
0-5 AC	A5	110.00	0-12 DC	B12	175.00
0-4 DC	B4	120.00	0-20 DC	B20	235.00

OPTIONAL EXTRAS:

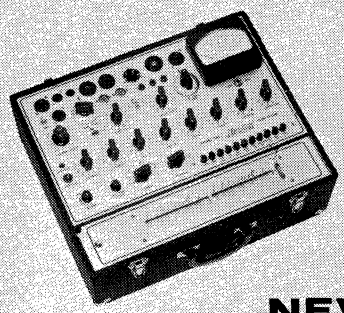
Audible leadage, arcing, or short circuit signal—any model..... $50.00
Test Probe 10.00
AC/DC output models available — check with factory.

HIPOTRONICS, INC.

BREWSTER, NEW YORK

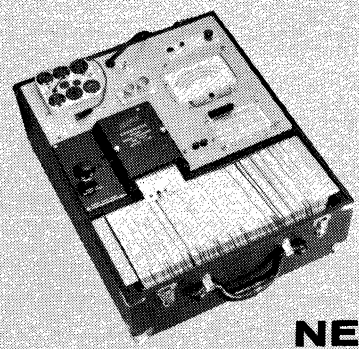
© U.C.P., Inc.

HICKOK TEST EQUIPMENT



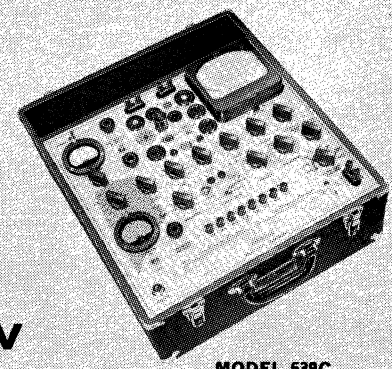
NEW!

MODEL 580
Laboratory and Industrial Portable Tube Tester

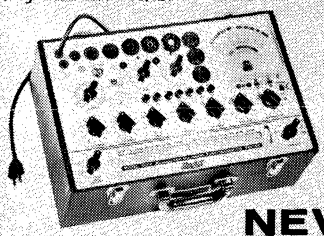


NEW

MODEL 123R
Cardmatic® Automatic Tube Tester

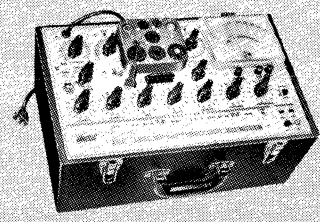


MODEL 539C
New Industrial and Laboratory Portable Tube Tester

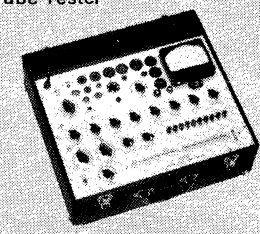


NEW!

MODEL 800A
Service Technician's Portable Tube, Transistor and Diode Tester



MODEL 6000A
Service Technician's Deluxe Portable Tube and Transistor Tester



MODEL 752A
New Industrial and Communications Portable Tube Tester

MODEL 580
Laboratory and Industrial Portable Tube Tester

An entirely new instrument which can be set up directly to any tube test condition without having to rely upon the built-in roll chart. All tube potentials individually variable. Accomodates 4, 5, 6, 7-pin, loctal, octal, 7, 9 and 10-pin miniature, 7 and 8-pin sub-miniature, 5 and 7-pin Nuvistors, Compactrons and Novars. Leakage test sensitivity to 50 megohms. Gas test circuit detects grid current to 0.05 microamperes. G_m ranges to 60,000 μmhos. Cathode reserve test. Push button feature speeds check on dual section tubes. In black leatherette portable case, 19" x 15½" x 7". 105-125v, 60 cycles. 60 watts. Shipping weight, 35 lbs.

Model 580 Laboratory and Industrial Portable Tube Tester—Net Each $585.00

MODEL 123R
Cardmatic® Automatic Tube Tester

Ideal for Industrial and laboratory application. A genuinely complete tube tester, card-programs complete "fringe" tests, saturation and cut-off tests, in addition to basic G_m measurement. G_m ranges: 500-26,000 μmhos; Current ranges: 100 ua to 510MA. Complete with pin straighteners, socket savers and 500 selected cards. In black leatherette portable case, 19½" x 16½" x 9¼". 105-125v, 50-60 cycles, 55 watts. Shipping weight, 57 lbs.

Model 123R Cardmatic® Automatic Tube Tester—Net Each $585.00

Model 121 Cardmatic® Automatic Tube Tester. Low-priced version of the Model 123R. Measures G_m plus saturation, cut-off and important "fringe" tests. Also Tests transistors and diodes. Supplied with 342 selected cards covering popular entertainment tube types. In red leatherette portable case, 19¾" x 13¼" x 8". Shipping weight, 39 lbs.

Net Each $359.50

NEW MODEL 752A
New Industrial and Communications Portable Tube Tester

Designed for use in maintaining communications equipment and industrial electronic apparatus. New voltage regular test circuit tests VR tubes to handbook specifications, including firing point, regulating voltage and current range. Tests Nuvistors, Compactrons, Novars, 10-pin types. Push button test for dual-section tubes speeds selection of tubes for balanced or matched characteristics. Covers 1500 to 30,000 umhos in five ranges. Interelement leakage read directly on the meter (Sensitivity to 10 megohms). Illuminated meter and roll chart. Complete with socket savers and pin-straighteners. In black leatherette portable case, 18⅜" x 16¾" x 7½". 105-125v, 50-60 cycles, 40-70 watts. Shipping weight, 27 lbs.

Model 752A Industrial and Communications Portable Tube Tester—Net Each $355.00

MODEL 539C
New Industrial and Laboratory Portable Tube Tester

Tests VR tubes, low power thyratrons, "4 digit" types. VR test evaluates voltage regulator tubes under actual operating conditions. Tests Nuvistors, Novars, Compactrons, 10-pin types. Provision for separate monitoring of plate current. Panel terminals provide access to grid, plate, cathode and heater circuits, permitting direct measurement of voltages and current for "non-standard" or "tailored" tests. Covers 600 to 60,000 umhos in six ranges. Dual leakage readings: directly on meter or by neon short indicators (Sensitivity to 50 megohms). Complete with socket savers. In black leatherette portable case, 16¾" x 18⅜" x 7½". 105-125v, 50-400 cycles, 40 watts. Shipping weight, 35 lbs.

Model 539C Industrial and Laboratory Portable Tube Tester—Net Each $485.00

MODEL 6000A
Service Technician's Deluxe Portable Tube and Transistor Tester.

Has replaceable socket plate for obsolescence protection. Sensitive, instantaneous inter-element leakage and shorts test (Sensitivity—in excess of 3 megohms) filament continuity test. Covers 3,000 to 15,000 umhos in 3 ranges. Tests Compactrons, Nuvistors, Novars and 10-pin types. 14-position selector switches, no paralleled elements. Also tests transistors and diodes. In red leatherette portable case, 16¾" x 11¾" x 7½". 105-125v, 50-70 cycles, 40 watts. Shipping weight, 21 lbs.

Model 6000A Deluxe Portable Tube and Transistor Tester—Net Each $239.50

MODEL 800A
Service Technician's Portable Tube, Transistor and Diode Tester

Tests 4, 5, 6, 7-pin, octal, loctal, compactrons, 10-pin "headers," 5 and 7-pin Nuvistors and Novars. 14-position selector switches, no paralleled elements. Provides direct meter reading of inter-element leakage and shorts. New filament continuity test speeds test of series string tubes. Also tests transistors and diodes. Complete with test leads. In red leatherette portable case, 16¾" x 11¾" x 7½". Shipping weight 21 lbs.

Model 800A Portable Tube, Transistor and Diode Tester—Net Each $199.95

Model 800A Tube Tester with CRT Adapter, Replaceable Socket Savers and SA-2 Subminiature Socket Adapter—Net Each . $234.15

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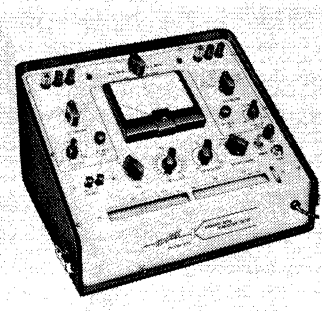
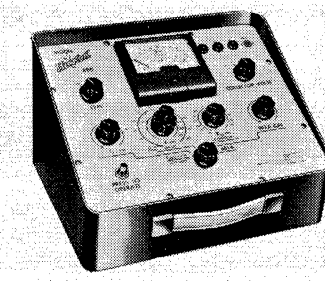
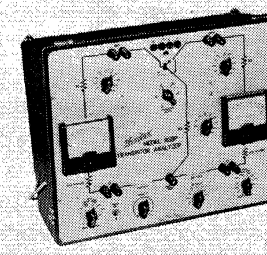
HICKOK TEST EQUIPMENT



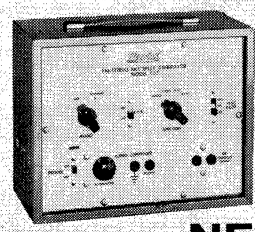
MODEL 870
Dynamic Beta Transistor Tester



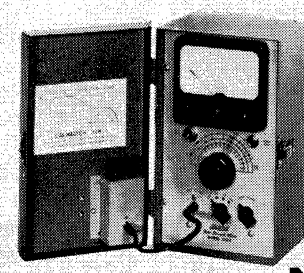
MODEL 890
Dynamic Beta In-Circuit Transistor Tester



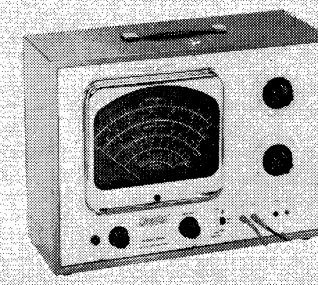
MODEL 850P
Engineer's Portable Transistor Analyzer



MODEL 727 NEW!
FM Stereo Multiplex Generator



MODEL 235A NEW!
UHF/VHF Field Strength Meter



MODEL 209B
True Vacuum Tube Volt-Ohm-Milliampere and Capacitance Meter

MODEL 870
Dynamic Beta Transistor Tester

Measures AC and DC Beta. Collector test current variable up to 2 amperes, permitting Beta measurement on power transistors rated 5 amperes or more. Variable collector voltage and current permit tests according to manufacturers' specifications—Tests switching transistors, measures large signal DC Beta on power transistors—small signal AC Beta on low and medium power transistors. Icbo Ranges: 100ua, 1ma, 10ma; Beta Ranges: 0-100, 0-300. Complete with replaceable roll chart and test leads in black leatherette portable case 14 9/16" x 11 3/4" x 7 7/8". 115v-60 cycles, 40 watts. Shipping weight, 22 lbs.

Model 870 DYNAMIC BETA Transistor Tester—Net Each . . $355.00

MODEL 890
Dynamic Beta In-Circuit Transistor Tester

Utilizes unique new test circuit to measure AC Beta in OR OUT of circuit with 5% accuracy. Measures these in-circuit parameters: AC Beta, Ic, Rin (transistor input impedance), Z Ohms (base-emitter circuit impedance). Measures AC Beta, Ic, Rin and Icbo out of circuit. Portable, completely self-contained, fully-transistorized—battery operated. 10 3/4" x 9" x 6 1/2". Shipping weight 8 lbs.

Model 890 Dynamic Beta In-Circuit Transistor Tester—Net Each $137.50

MODEL 850P
Engineer's Portable Transistor Analyzer

Ideal for use as a "breadboard" in transistor circuit design and development. Checks basic transistor parameters in any of three configurations; common base, common emitter and common collector. Identical input and output meters cover 100ua to 1 ampere in 5 ranges. Battery operated. Furnished complete with leads in black leatherette portable case, 16 1/2" x 8" x 13 1/2". Shipping weight 20 lbs.

Model 850P Engineer's Portable Transistor Analyzer—Net Each $169.50

MODEL 727
FM Stereo Multiplex Generator

Composite audio output includes main channel (L+R) and sub-channel (L-R). Basic audio source is 1000 cycle oscillator switchable to left or right channel. Crystal-controlled 19KC pilot carrier included. RF output at 100MC, adjustable to ±200 KC. Level fixed at 500 microvolts. Separate 38KC signal available for filter and band-pass alignment. 67KC signal for adjusting SCA trap and filter. Separation of 35db or better. Fully transistorized, choice of portable battery operation or optional AC power supply, 105-125v, 50-60 cycles, 1/2 watt. Furnished with leads and instruction book, less battery, in steel case, 11" x 8 1/2" x 5". Shipping weight, 7 lbs.

Model 727 FM Stereo Multiplex Generator—Net Each $199.95

MODEL 235A
UHF/VHF Field Strength Meter

Reads directly in absolute field strength in microvolts from channel 2 through 83. Range 10 to 100,000 microvolts VHF, 30 to 50,000 microvolts UHF. Choice of 75 or 300 ohm input. Headphone jack for audio monitoring. Battery operated and completely portable. Shipped less batteries and headphone. In case, 10 1/2" x 6 1/4" x 6". Shipping weight, 10 lbs.

Model 235A UHF/VHF Field Strength Meter—Net Each . . . $229.50

MODEL 209B
True Vacuum Tube Volt-Ohm-Milliampere and Capacitance Meter

100 millivolt sensitivity. Special "lo-ohms" range. Measures capacitance as low as 1 uuf and up to 1,000 uf; inductance, 50 mh to 100 henries (with conversion chart). 1% stability with ±10% variation in line voltage. Complete with AC and DC probe assemblies, test leads, low capacity high frequency probe. Shipping weight, 26 lbs.

Model 209B True Vacuum Tube Volt-Ohm Milliampere and Capacitance Meter—Net Each $239.50

Hickok Electrical Instrument Co.

Cleveland, Ohio

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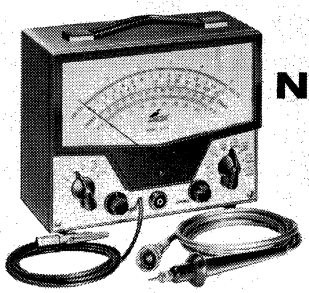
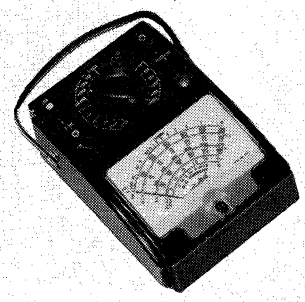
HICKOK TEST EQUIPMENT

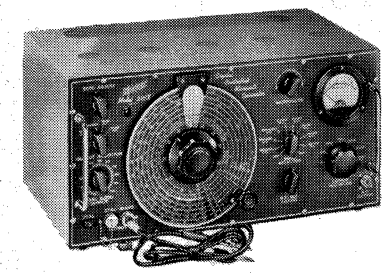


NEW!

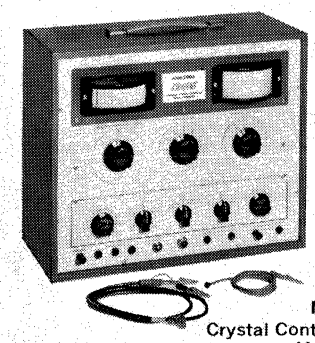
MODEL 470A
Electronic Volt-Ohmmeter



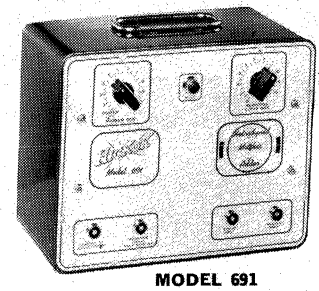
MODEL 455A
Burn-Out Proof Volt—Ohm—Milliammeter



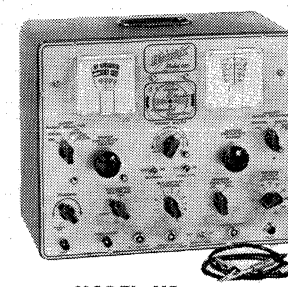
MODEL 295X
Microvolt and Crystal Controlled Generato



MODEL 288AX
Crystal Controlled AM-FM Sweep and Marker Generator



MODEL 691
Heterodyne Marker-Adder



MODEL 615
Sweep and Marker Alignment Generator

MODEL 470A
Electronic Volt-Ohmmeter

A major advance in VTVM design, the 470A provides increased ranges in all functions—using just two basic scales to cover eight ranges. AC and DC values are read from the same scales—AC errors due to crowding are eliminated. Ranges: DC, AC rms and AC peak-to-peak, 0.5-1500v. New AC-DC—Ohms single unit probe eliminates the need for multiple leads. Ohmmeter: Center Scale, 10 Ohms, Ohms X1, X10, X100, X1000, X10,000, X100,000, X1M, X10M. Readability 0.2 ohms to 100 megohms. Input impedance DC volts 15 megohms, AC volts 15 megohms. DC resistance paralleled with approximately 150 uufd. 105-125v, 50-400 cycles, 15 watts, 6⅜" x 7½" x 4½". Complete with single unit probe and test leads. Shipping weight, 8 lbs.

Model 470A Electronic Volt-Ohmmeter—Net Each . . . . . $ 79.50

MODEL 455A
Burn-Out Proof Volt—Ohm—Milliammeter
Has Hickok's exclusive overload cut-out and protection system providing complete safety against burn-outs for the meter and all multipliers, shunts and other components. 20,000 ohms/volt AC and DC. AC/DC Volts: 3, 15, 60, 150, 600, 1200v: Resistance, 0-100 megohms in 4 ranges: Center Scale Ranges: 5, 500, 5000, 500,000 ohms. Current Ranges: 50 ua, 1, 10, 100, 100 MA, 10 amperes. Attractive, streamlined case, large easy to read meter. Battery operated. 8½"L x 5⅞"W x 3"H tapering to 1¾"H. Complete with leads. Shipping weight (two per carton), 12 lbs.

Model 455A Burn-Out Proof Volt-Ohm-Milliammeter—Net Each $89.50

MODEL 295X
Microvolt and Crystal Controlled Generator

Provides continuous frequency coverage in 8 bands from 125KC to 175 MC. Calibrated, metered output from 0.1 to 100,000 microvolts. 1% Dial calibration accuracy. Built-in 1MC crystal standard. Precision step attenuator, direct reading, vernier tuning. 105-125v, 50-400 cycles, 90 watts in steel case 19" x 12½" x 9". Complete with 1MC crystal, 48-inch output cable with 2 connectors. Shipping weight, 47 lbs.

Model 295X Microvolt and Crystal Controlled Generator—Net Each $655.00

MODEL 288AX
Crystal Controlled AM-FM Sweep and Marker Generator

A complete alignment instrument with built-in decibel meter and crystal frequency standard (100KC and 1000KC). Covers 35KC to 110MC in 8 bands frequency modulated and 35KC to 160MC in 8 bands amplitude modulated. Includes new ultrasonic range from 35KC to 125KC. Supplied with 100KC/1000KC crystal, cable assembly and meter leads. Case size, 16" x 7" x 13", Shipping weight, 33 lbs.

Model 288AX Crystal Controlled AM-FM Sweep and Marker Generator—Net Each $315.00

MODEL 691
Heterodyne Marker-Adder

Provides continuously visible marker (including trap points) that will not distort the receiver's response curve. Functions with any marker and sweep equipment with output capability of 0.5 volts, or more. 105-125v, 50-60 cycles, 25 watts. Furnished in steel case, 11¼" x 7" x 8¼", complete with leads. Shipping weight, 16 lbs.

Model 691 Heterodyne Marker Adder—Net Each $129.50

MODEL 615
Sweep and Marker Alignment Generator

For complete TV, IF and RF alignment, including color TV alignment: Also provides harmonic output on UHF. All electronic Sweep with no moving parts. Amplitude modulation less than 0.1db/MC. 110-120v, 60 cycles, 40 watts. Furnished in steel carrying case, 16¼" x 8" x 13½" complete with leads. Shipping weight 39 lbs.

Model 615 Sweep and Marker Alignment Generator—Net Each $359.50

Hickok Electrical Instrument Co.

Cleveland, Ohio

Net

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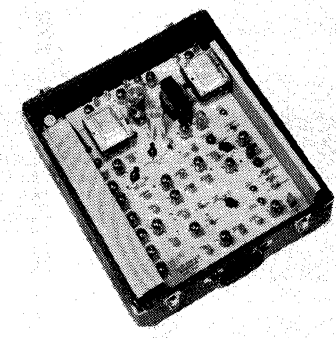
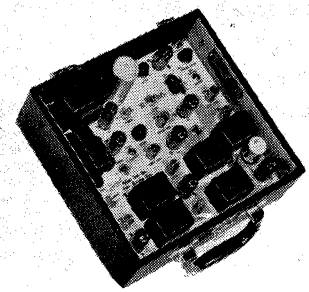
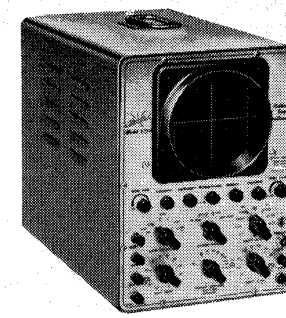
HICKOK TEST EQUIPMENT



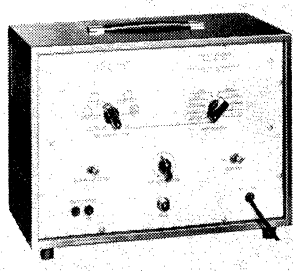
MODEL 656XC
Color Bar-White Dot Generator



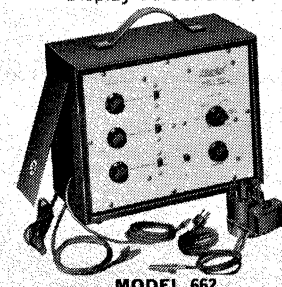
MODEL 660
Crystal Controlled White Dot-Bar Color Display TV Generator



MODEL 675A
Wide Band, High Sensitivity Oscilloscope



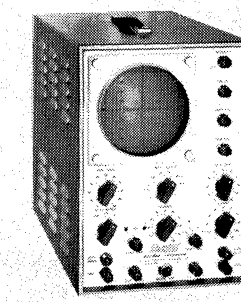
MODEL 661
Chrom-Aligner Combined NTSC Color Bar-White Dot Generator



NEW!

MODEL 662
Installer's Color TV Generator

NEW!



MODEL 677
Wide-Band Service Technicians 5" AC Oscilloscope

MODEL 656XC
Color Bar-White Dot Generator

Produces 100% fully-saturated NTSC standard patterns. Provides complete range of signals for chroma alignment, including R-Y, B-Y, G-Y demodulation systems. 105-125v, 60 cycles, 40 watts. Furnished in black leatherette portable case, 16¾" x 18⅜" x 7¼", complete with cable. Shipping weight, 48 lbs.

Model 656XC Color Bar-White Dot TV Generator—Net Each $549.50

MODEL 661
Chrom-Aligner NTSC Color Bar-White Dot Generator

Generates individual 100% saturated color bars to NTSC standards. Provides the following demodulator alignment signals: R-Y, B-Y, G-Y, G-Y at 90°, RF output on channels 3 or 4. Crystal-controlled chroma and sync. Separate video output. 110v, 60 cycles, 20 watts. Complete with leads and 3.58MC crystal. Shipping weight, 20 lbs.

Model 661 Chrom-Aligner Generator—Net Each $349.50

MODEL 660
White Dot/Color Display Generator

A stable, crystal-controlled white dot and crosshatch generator employing the same dot and sync generating circuitry as the Model 656XC described above. Color display is rainbow type. Lightweight and portable for installation, convergence and in-the-home service. 105-125v, 60 cycles, 40 watts. 10½" x 10½" x 5¼", complete with crystal and output cable. Shipping weight, 21 lbs.

Model 660 White Dot/Color Display Generator—Net Each . $245.00

MODEL 662
Installer's Color TV Generator

Generates ultra-fine dots, crosshatch, vertical bars and horizontal bars. Uses 500 dot system for smallest practical dot and complete screen coverage. Has exclusive crystal-controlled burst phase color reference signal for checking color circuits, trouble shooting and color alignment. Gun killer facilitates convergence, purity check and chroma alignment. Supplied with leads, "quick-connect" cable assembly and instruction book. In steel case, 11" x 8½" x 5⅜". Available with accessory carrying case. 105-125v, 60 cycle, 25 watts. Shipping weight, 15 lbs.

Model 662 Installer's Color TV Generator—Net Each $159.95

Model CR33 Color Picture Tube Tester: Checks beam current capabili ties of all 3 guns of color picture tube. Makes color purity tests of eacl gun individually. Adapter socket fits all color kinescopes. 105-125v AC operated.

Net Each $39.9

MODEL 677
Wide-Band Service Technicians 5" AC Oscilloscope

5 cps to 4.5MC within 3db. New 1-2-3 circuit approach simplifies peak to-peak measurements. Pre-set horizontal and vertical sweep posi tions. Sharp, bright trace with astigmatic correction, facilitates detailec observations of TV sync wave forms, including 3.58MC color burst Furnished complete with detailed application and instruction bool and test leads. Shipping weight, 36 lbs.

Model 677 Wide-Band Service Technicians 5" Oscilloscope—Net Each $199.5

MODEL 675A
Wide Band, High Sensitivity Oscilloscope

5" scope with an illuminated, calibrated screen. Vertical amplifie response within 3 db, DC through 4.5MC, flat through 3.58MC colc burst frequency. Astigmatic control provides a new standard of undis torted trace detail. 105-125v, 50-400 cycles, 125 watts. In steel case 10" x 16" x 13" complete with low capacity probe and ground leac Shipping weight, 45 lbs.

Model 675A, Wide Band, High Sensitivity Oscilloscope—Net Each . . . . . $299.(

Model 770A Industrial and Laboratory 5" oscilloscope. DC amplifie designed for optimum pulse response, rise time better than 0.07 μse Sweep calibrated in writing speed, 0.5 sec/div. to 1 μsec/div. Thre mode horizontal sweep: free-running, driven, automatic. Built calibrator.

Net Each . . . . . To be announc

Hickok Electrical Instrument Co.

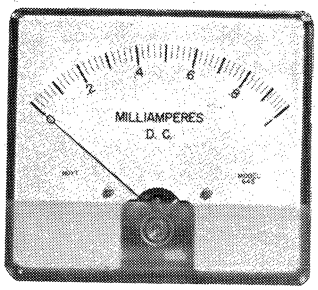
Cleveland, Ohio

Hoyt SINCE 1904

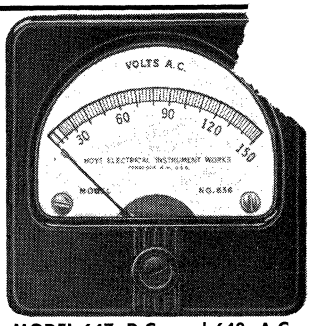
60th Anniversary

HOYT ELECTRICAL INSTRUMENTS

For Original Equipment and Replacement Applications

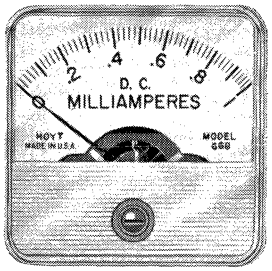


HOYT moving-coil Meters are built on the D'Arsonval principle using carefully selected jewel bearings and polished steel pivots. Accuracy within 2%. Alnico Magnets with soft-iron pole-pieces of uniform flux density used in all movements. Permanently correct balance assured by HOYT "cross arm" spiral wire balance. High torque to weight ratio. Quick response and good damping under all conditions. Choice of "knife-edge" or "lance" type pointers. Full 100° movements standard on most models.

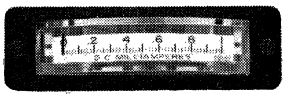


MODEL 647, D.C., and 648, A.C.

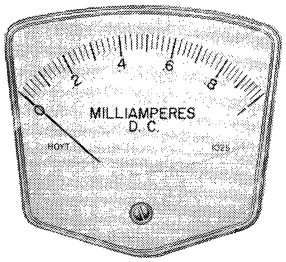
MODEL Nos.
641, 645, 653 and 649, D.C.
642, 646, 654 and 650, A.C.
Clear Plastic Styrene Cases



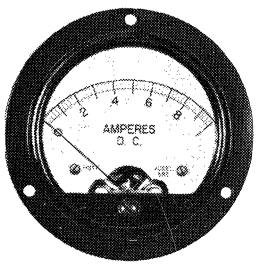
MODEL No. 668 DC
1½" Clear Plastic Square Styrene Case



MODEL No. 673 D.C.
MODEL No. 674 A.C.
Horizontal & Vertical Styrene Case



MODEL Nos.
1025, 1037, 1045, 1060 D.C.
1026, 1038, 1046, 1061 A.C.
Clear Plastic Styrene Case



MODEL Nos. 582 & 17/3, D.C.
MODEL Nos. 584 and 552, A.C.

METER SIZE	MODEL DC	MODEL AC	CASE TYPE PANEL MTG.	SCALE LENGTH DC	FLANGE	BODY DIAM. AC - DC	BODY DEPTH AC - DC
1½"	668	669R	Styrene Sq.	1.800"	1.740"	1.500"	1.000"
2½"	17/3	552	Bakelite Rd.	2.015"	2.690"	2.200"	1.375"
2½"	17/3	552	Metal Rd.	2.015"	2.547"	2.063"	1.297"
2½"	1025	1026	Styrene	2.500"	2.87" x 2.59"	2.16"	1.12"
2½"	635	636	Bakelite Sq.	2.015"	2.375"	2.200"	1.400"
2½"	649	650	Styrene Sq.	2.480"	2.625" x 2.375"	2.200"	1.125"
2½"	673	674	Styrene Edgewise	2.500"	3.25" x 1.00"	2.500"	3.210"
3½"	17/L	560	Metal Rd.	2.480"	3.219"	2.500"	1.500"
3½"	17/L	560	Metal Surf.	2.480"	3.063"	2.500"	—
3½"	582	584	Bakelite Rd.	2.720"	3.500"	2.750"	1.375"
3½"	1037	1038	Styrene	3.812"	3.500"	2.750"	1.125"
3½"	597	598	Bakelite Sq.	2.720"	3.000"	2.750"	1.375"
3½"	653	654	Styrene Sq.	3.435"	3.375" x 3.125"	2.750"	1.125"
3¾"	570	580	Metal Rd.	2.850"	3.750"	3.000"	1.688"
3¾"	570	580	Metal Surf.	2.850"	3.625"	3.000"	—
3¾"	607	610	Bakelite Sq.	2.850"	3.625" x 3.313"	2.250"	1.063"
4¼"	641	642	Styrene	4.250"	4.500" x 3.844"	2.750"	1.125"
4½"	574	617	Metal Rd.	3.875"	4.500"	3.750"	1.594"
4½"	574	617	Metal Surf.	3.875"	4.500"	3.750"	—
4½"	600	601	Bakelite Sq.	4.034"	4.500" x 4.000"	2.750"	1.063"
4½"	645	646	Styrene Sq.	4.470"	4.625" x 4.188"	2.750"	1.125"
4½"	647	648	Bakelite Sq.	4.470"	4.500" x 4.188"	2.750"	1.125"
4½"	1045	1046	Styrene	4.500"	4.81"	2.750"	1.125"
6"	1060	1061	Styrene	5.375"	6.000" x 4.500"	2.750"	1.100"

Size:	1½"	2½"	3½"	3¾"	4½"	6"	6¾"—8½" PANEL METERS	3" x 4" PORTABLE METERS	5" x 4" PORTABLE METERS
		#1025	#1037		#1045		# 583	#602	#578 #575
		# 17/3	#17L		#574		Prices on request.		
		# 635	#653	#673	#641				
Approx.		# 649	#582	# 570	#645				
Range *Resist.*	#668		#597	# 607	#600	#1060			
					#647				

D.C. MILLIAMMETERS

0/1	*60*	$11.40	$10.75	$11.40	$11.95	$12.60	15.10

Above prices also apply to 0/3, 0/5, 0/10, 0/15 MA Standard ranges.

0/25	*1.7*	11.70	11.05	11.70	12.25	12.90	15.55

Above prices also apply to 0/25, 0/30, 0/50, 0/100, 0/150, 0/200, 0/300, 0/500 MA Standard ranges.

D.C. MICROAMMETERS

0/20	*3000*		$19.20	$19.90	$20.58	$21.10	—
0/50	*2000*		16.30	16.80	17.40	18.00	—
0/100	*2000*	14.70	14.20	14.70	15.30	15.90	18.45
0/200	*1000*	12.75	12.10	12.75	13.30	13.95	16.45
0/500	*200*	12.10	11.50	12.10	12.60	13.30	15.75

Zero center microammeters available for most models in 25/0/25, 50/0/50, 100/0/100, 500/0/500 UA. Prices on request.

D.C. MILLIVOLTMETERS

0/50	*3*	11.40	10.75	11.40	11.95	12.60	15.10

D.C. AMMETERS

0/1	*0.005*	11.40	10.75	11.40	11.95	12.60	15.10
0/5	*0.004*	11.75	11.20	11.75	12.35	13.00	15.85

Above prices for 0/5 amp. range also apply to standard ranges of 0/10, 0/15, 0/25, 0/30*, 0/50* amps on all models. No. 668 uses external shunt over 5 amps. See Shunt Table below for High Current Ammeter Ranges.

D.C. VOLTMETERS

0/1	*1000Ω/V.*	12.20	11.65	12.20	12.75	13.40	15.85

Above prices also apply to standard ranges of 0/3, 0/5, 0/10, 0/15, 0/25, 0/30*, 0/50*, 0/100, 0/150*, 0/300* volts on all models.

0/500	*2000Ω/V.*		12.20	12.85	13.40	14.05	16.55

Above prices also apply to standard ranges at 0/600, 0/750 volts on all models except #668.

NOTE:
If "in-between" ranges are required, add $3.00 to price of next higher range listed. If "zero-center" ranges are required, add $5.00 to price of that range. For in-between ranges on moving-coil type Voltmeter 150 volts and up, add $5.00 to next higher range.

NOTE:
Please specify type of case on order from chart above. Unless specified, all meters are calibrated on non-magnetic panels. If steel panels are used, give thickness of steel and size of panel hole (No extra charge). All prices are net — subject to change or withdrawal without notice.

*These ranges carried IN STOCK . . . Models #582, 597, and 647 only. (Calibrated for non-magnetic panels)

STANDARD SWITCHBOARD SHUNTS AND AMMETER RANGES

On High Current Ammeters, add 0/50 millivoltmeter price to external shunt price below. Shunts include 3 ft. leads. Standard Ammeter and Shunt Ranges on types 17/3, 582 and 547 only; others listed are special ranges at slight extra cost.

0/25 —$.905	0/30 —$9.05	0/50 —$ 7.95	0/75 —$ 7.95	0/100—$ 7.95	0/150 —$ 7.95
0/200—$7.95	0/300—$9.25	0/500—$13.90	0/600—$16.70	0/800—$21.15	0/1000—$30.70

Net

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60th Anniversary HOYT ELECTRICAL INSTRUMENTS

For Original Equipment and Replacement Applications

..C. Meters for indicating 60 cycle Voltage and Cur- of the repulsion type with pneumatic damping. ed in the same case styles and sizes as HOYT D.C. s, they match the D.C. meter where both types are on the same panel. See DC-AC Specification Chart on pposite page.
Accuracy is 2%. A choice of pointers is available, and special shields can be supplied at additional cost.

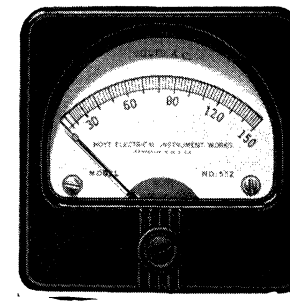
VU METERS, with "A" scale, available in #649, #653, #645 and #647 case styles.
Prices on request.

NOTE: A.C. Meters calibrated at any special frequency Prices on request.

PRICE LIST:

Range	Approx. Resist.	PANEL MOUNTING 2½"	3½"	3¾"	4½"	6"	PORTABLE 3" x 4"	5" x 4"
	Size:				#617		#562	#517
			#560		#601		Prices on request	
		#1026	#1038		#648			
		#552	#654		#642			
		#636	#584	#580	#646			
		#650	#598	#610	#1046	#1061		
A.C. MILLIAMMETERS								
0/6	6000	$11.50	$12.35	$12.90	$13.70	—	—	—
0/10	2700	10.40	11.25	11.80	12.60	15.10	—	—
	Prices for ranges: 0/30, 0/50, 0/100, 0/150, 0/200, 0/300, 0/500 MA. for all models—same as 0/10 MA. range above.							
A.C. AMMETERS								
0/1	0.271	10.40	11.25	11.80	12.60	15.10	—	—
	Above prices also apply to all models of standard single ammeter ranges—0/3, 0/5*, 0/10, 0/15, 0/25, 0/30*, 0/50* amps. A.C. Ammeters are self-contained to 50 amps. For High Current Ranges—See Transformer Section below.							
A.C. VOLTMETERS (Repulsion Type)								
0/25	1476	10.75	11.25	11.95	12.60	15.10	—	—
	Above prices also apply to all models in standard ranges of 0/30, 0/50, 0/100 volts.							
0/150*	25,000	11.75	12.40	12.95	13.70	16.10	—	—
0/300*	50,000	11.75	12.40	12.95	13.70	17.35	—	—
0/500	83,300	—	17.85	18.40	19.00	21.55	—	—
0/600*	99,960	—	17.85	18.40	19.00	21.55	—	—

*These ranges carried IN STOCK on Models #584, #598 and #648 only (calibrated for non-magnetic panels).
NOTE: If "in-between" ranges are required, add $3.00 to next higher price as shown above (add $5.00, if above 150 volts). Standard calibration is for non-magnetic panels. Steel panel calibration at no extra charge if order specifies thickness of steel and size of panel hole. Please specify type of meter case.
DIAL COSTS: Standard range dials only—$1.00 each; special hand drawn single range dials Prices on Request; other custom dials on special order.



MODEL Nos. 635 and 597, D.C.
MODEL Nos. 636 and 598, A.C.

5% RECTIFIER TYPE VOLTMETERS

Available in the following ranges: 0/5, 0/10, 0/15, 0/25, 0/30, 0/50, 0/100, 0/150, 0/300 volts.

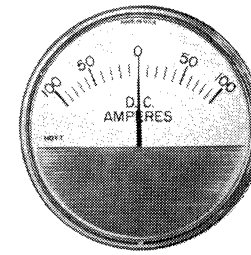
Above ranges apply to models #584-R, #598-R, #654-R at $17.00 ea.

Above ranges apply to models #642-R, #646-R, #648-R at $18.85 ea.

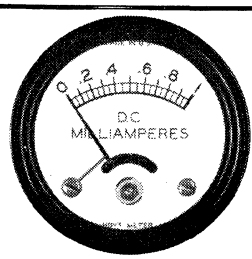
HIGH CURRENT DONUT TYPE TRANSFORMERS (In Stock)

For prices on HIGH CURRENT AC AMMETERS, add price of ammeter model above to transformer price below, plus an additional $4.00 except on model #552, #584, and #648. Transformers have 2-ft. leads and 2 VA burden. Other ranges available on request.

50/5	$9.60	100/5	$9.60	200/5	$9.60	500/5	$17.35
75/5	9.60	150/5	9.60	300/5	9.60	600/5	17.35



MODEL No. 740 D.C. Indicator
2¼" Metal Case w/Plastic Cover



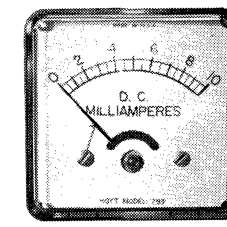
MODEL No. 640, D.C.
2¼" Metal Case

MOVING MAGNET INDICATORS

HOYT Moving Magnet Indicators have been used for many years by the leading manufacturers of electrical devices. Feature long scales and accuracy within 5%.
Attractive appearance is combined with a sturdy movement. Furnished in round or square cases at low cost. Standard finish on metal cases is black. Chrome Plate is available at slight additional cost. Many types of mounting arrangements available.

NOTE: A.C. Vane Meters are furnished in quantity only. Prices on request.
NOTE: If in-between ranges are required—add $5.00 to next higher range price; for "zero-center" ranges, add $5.00 to same range price.
NOTE: DC Ammeters up to 100 amps. have internal shunts.

MODEL DC	MODEL AC	CASE TYPE PANEL MTG.	SCALE LENGTH DC	FLANGE	BODY DIA. DC	BODY DEPTH DC
640	531AC	Nar. Metal Rd.	1.400"	2.281"	2.000"	1.078"
640	531AC	Metal Surface	1.400"	2.375"	2.000"	—
693	594	Metal Sq.	1.400"	2.625"	2.000"	0.563"
793	794	Plastic Sq.	1.715"	2.375"	2.000"	0.500"
740	741	Plastic Rd.	1.715"	2.375"	2.000"	0.520"



MODEL No. 793 D.C., 794 A.C.
2½" Metal Case with Plastic Cover

D.C. MILLIAMMETERS

Range	Approx. Resist.	# 640	# 693	#740 # 793
0/1	1000	$4.25	$4.30	$4.60
0/3	700	3.15	3.25	3.50
0/5	480	2.90	2.95	3.25
0/10	180	2.70	2.80	3.05
0/15	130	2.30	2.35	2.70
Prices for 0/25, 0/30, 0/50, 0/100, 0/150, 0/200, 0/300, 0/500 MA. ranges:		$2.25	$2.30	$2.65

D.C. AMMETERS

Range	# 640	# 693	#740 # 793
0/1	$2.25	$2.30	$2.65
Above prices also apply to 1/0/1, 3/0/3, 0/5, 5/0/5, 0/10, 10/0/10, 0/15 amp. ranges.			
20/0/20	2.85	2.90	3.15
Above prices also apply to 0/25, 0/30, 30/0/30 amp. ranges.			
0/50	3.05	3.10	3.40
50/0/50	3.05	3.10	3.40
0/75	3.50	3.60	4.00
0/100	4.10	4.20	4.50

D.C. VOLTMETERS

Range	Approx. Resist.	# 640	# 693	#740 # 793
0/1		$2.25	$2.30	$2.65
Above prices also apply to 0/3, 0/5, 0/10, 0/15 volt ranges.				
0/25	1375	2.65	2.70	3.00
0/30	1650	2.65	2.70	3.00
0/50	2200	2.85	2.90	3.15
0/100	20,000	2.85	2.90	3.15
0/150	30,000	2.90	2.95	3.25
0/300	60,000	3.90	4.00	4.30

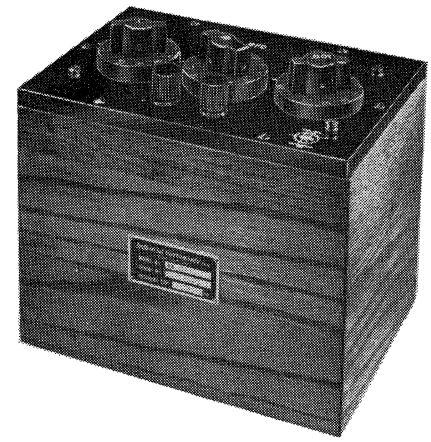
ELECTRICAL

RESISTANCE DECADES

• Available in a wide variety of standard models. Accuracy at 1.0 and 0.1 ohm steps is ±0.25%. Accuracy of all other resistors is ±0.1% of indicated value. Self-cleaning, molded nylon and silver plated brass switch mounted below panel. Zero resistance is less than .003 ohms per dial. Hardwood case. Models DR-1D to DR-4D, 8″ x 5½″ x 4½″. Weight 4 lbs. net, 6 lbs. shipping. Models DR-50D to DR-52D, 9″ x 6″ x 4½″ h. Weight 5 lbs. net, 7 lbs. shipping. Models DR-70D and DR-71D, 17¼″ x 5″ x 4½″ h. Weight 6 lbs. net, 8 lbs. shipping.

ELECTRICAL SPECIFICATIONS AND PRICES

Model No.	Total Resistance Ohms	Decade Steps	Accuracy	Price
DR-1D	1,110,000	10x(1,000+10,000 +100,000)	±0.1%	$ 78.00
DR-2D	111,000	10x(100+1,000 +10,000)	±0.1%	67.00
DR-3D	11,100	10x(10+100+1,000)	±0.1%	65.00
DR-4D	1,110	10x(1.+10+100)	±0.25 & ±0.1%	65.00
DR-50D	11,111	10x(.1+1+10+100 +1,000)	±0.25 & ±0.1%	95.00
DR-51D	111,110	10x(1+10+100 +1,000+10,000)	±0.25 & ±0.1%	100.00
DR-52D	1,111,100	10x(10+100+1,000 +10,000+100,000)	±0.1%	112.00
DR-70D	1,111,111	10x(.1+1+10+100 +1,000+10,000 +100,000)	±0.25 & ±0.1%	165.50
DR-71D	11,111,110	10x(1+10+100 +1,000+10,000 +100,000 +1,000,000	±0.25 & ±0.1%	215.25



CAPACITANCE DECADES

• These are 3-dial units with the sum of the dial settings indicating total capacity in microfarads. Mylar and silver-mica capacitors are used for high stability, low-loss characteristics. Polished hardwood case, engraved dial graduations.

ELECTRICAL SPECIFICATIONS AND PRICES

Model	Decade Steps MF	Accuracy	Dielectric	P.F.	Peak Volts	Price
DK-2A	10x(.001+.01 +0.1)	±1%	Silver Mica	0.2%	700 (.001) (.01) 500 (.1)	$175.00
DK-4	10x(.001+.01 +0.1)	±1% (.001) (.01)	Silver Mica	0.2%	700	80.00
		±3% (0.1)	Mylar	1%	400	
DK-5A	10x(.01+0.1 +1.0)	±1% (.01)	Silver Mica	0.2%	700	
		±3% (0.1) (1.0)	Mylar	1%	400	95.00
DK-11A	10x(.01+0.1 +1.0)	±0.5% (.01) (0.1)	Silver Mica	0.2%	700 (.01) 500 (0.1)	185.00
		±2% (1.0)	Mylar	1%	400 (1.0)	
DK-10	10x(.0001 +0.001 +.01)	±0.5% or 10 mmf	Silver Mica	0.2% 2% (.0001)	700	95.00

PHYSICAL SPECIFICATIONS

	Overall Dimensions	Weight (Lbs.) Net	Shipping
DK-2A, DK-4, DK-10	8 x 5½ x 7½	8	10
DK-5A, DK-11A	10¾ x 7¾ x 7½	10	12

Net

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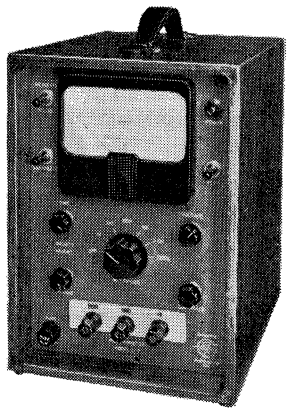
TEST EQUIPMENT



TYPE L MEGOHMMETERS

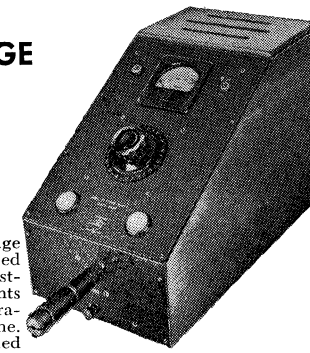
Type L Megohmmeters are used for both laboratory and high speed production testing of motor and transformer winding insulation, cable insulation, high value resistors, capacitor insulation, and for the measurement of surface and volume leakage of insulating materials. These instruments meet the requirements for testing insulation resistance in accordance with ASTM D-257, and Federal Specification LP-406B, Method 4041.

ELECTRICAL SPECIFICATIONS AND PRICES

Model	TEST Voltage	RANGE Low in meg.	RANGE High in meg.	POWER Consumption	WEIGHT Net	WEIGHT Ship.	Size	Price
L-2A	200 fixed	1	100,000	40 Watts	12	15	15"x8"x10"	$175.
L-4A	200 and 500 fixed	1 2.5	100,000 250,000	52 Watts	14	17	15"x8"x10"	215.
L-6B	100 to 600*	1	100,000	82 Watts	15	18	15"x8"x10"	310.
L-7	100 to 600*	1	$5x10^{13}$	75 Watts	20	24	8"x10½" x11½"	383.

*Continuously variable, built-in voltmeter for accurate setting.

TYPE P—VOLTAGE BREAKDOWN TESTERS



The Type P Series Voltage Breakdown Testers are designed for safe, accurate and fast testing of materials, components and circuits both in the laboratory and on the production line. All types have self-contained metered high-voltage power supply with safety features including interlock switches and pilot warning lights. Load current is limited to values shown in table below. Output voltage continuously variable over range listed for each model.

ELECTRICAL SPECIFICATIONS AND PRICES

Model	VOLTAGE RANGE AC volts RMS	VOLTAGE RANGE DC volts	CURRENT RANGE AC	CURRENT RANGE DC	Price
P1	-	0-4000		5 ma (max)*	$218.00
P2	0-3000	0-4000	7 ma (max)	5 ma (max)*	264.00
P3B	0-8000	0-10,000	60 ma (max)	50 ma (max)*	488.00

*Models P1, P2 and P3B incorporate a variable series resistance which limits short circuit current independently of voltage.

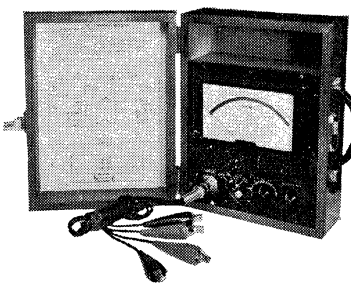
Other power supplies up to 100 KV can be supplied to your specifications. Send complete details for quotation.

WHEATSTONE BRIDGES TYPE RN

Universally used for the measurement of all types of resistance devices and circuits where high accuracy is required. Models available for performing Murray-Varley Loop tests.

Model	Total Resistance of Decade	Ratio Dial Settings	Circuits	Dimensions	Price
RN-1	9x(1+10 +100 +1000)	.001, .01, .1, 1, 10, 100, 1000	.....	9"x8"x6½"	$176.50
RN-2	9x(1+10 +100 +1000)	.001, .01, .1, 1, 10, 100, 1000, M10, M100, M1000	Murray & Varley	9"x8"x6½"	193.25
RN-3	10x(1+10 +100) +9(1000)	1/1000, 1/100, 1/10, 1/9, 1/4, 1/1, 10/1, 100/1, M10, M100, M1000	Murray & Varley	9½"x8"x6½"	226.00

TYPE LRO-1 LOW RESISTANCE OHMMETER



The Type LRO-1 Low Resistance Ohmmeter is useful for the measurement of resistance of sensitive relay contacts, fuses, bus-bars and connections, rail joints, pipe or conduit, switch contacts, transformer windings, motor windings, bonding, grounding and similar applications. The current through the unknown resistance never exceeds 110 ma.

Price $148.85

FEATURES: Extreme accuracy for the most critical measurements. • Entirely self-contained, including 1½ volt flashlight battery • Ranges: .1 ohm, 1 ohm and 10 ohms. 100 meter scale divisions. • Accuracy of plus/minus 1½% on LRO-1 based on full scale values. • Full Scale Readings. • Maximum current through piece under test = 0.11 amp.

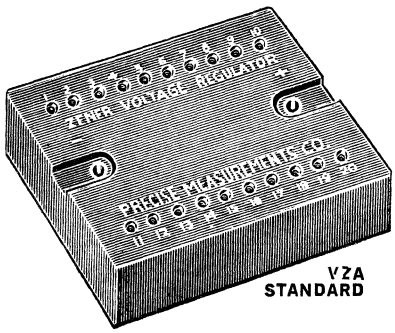
• Other electrical test equipment manufactured by Industrial Instruments can be found in current editions of ELECTRONIC ENGINEERS MASTER. For complete technical details and specifications on test equipments listed here and many others request a copy of Catalog 25.

Industrial Instruments

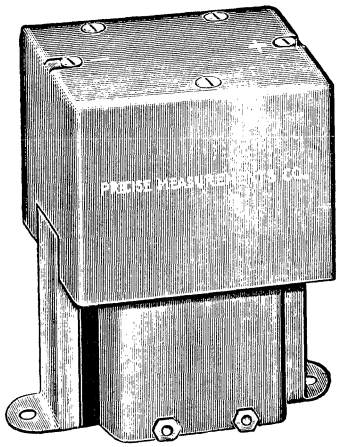
Industrial Instruments INC.

CEDAR GROVE, N. J.

PRECISE VOLTAGE STANDARDS



VZA STANDARD



POWER SOURCE

Use these convenient reference standards for direct calibration of voltmeters, or use as a null type voltmeter by simple addition of a galvanometer. Each VZA STANDARD has twenty taps arranged in two rows. The bottom row is exactly 1/10 the voltage drop of the top row. Type VZ STANDARDS have just one known voltage (without taps), resulting in cost savings and is used for standard cell replacement. Precise Voltage Standards have several advantages over chemical cells, since they are completely solid state and can take voltage and current overloading without loss of accuracy. May be powered from batteries, external power packs or purchased complete with built in power source. Several standards may be wired in series for higher voltages or finer adjusment. All reference standards listed have 1% accuracy. Higher accuracy types with 0.1%, 0.01% and 0.001% available at higher cost.

TYPE VOLT.	VZA STANDARDS MODEL	TAP VOLTS	VZA PRICE
1.000	VZA-1	.01 & .1	**$ 54.00**
5.000	VZA-5	.05 & .5	**54.00**
10.00	VZA-10	.1 & 1	**54.00**
100.0	VZA-100	1 & 10	**63.00**
1,000	VZA-1K	10 & 100	**85.00**
2,000	VZA-2K	20 & 200	**100.00**
4,000	VZA-4K	40 & 400	**110.00**

INSULATION TEST SETS

Used in testing insulation where AC voltages are desired. Dual instruments are also available which provide choice of AC or DC output. Includes kilovolt-meter, current meter and automatic overload limiter circuits.

Model	Voltage	VA	AC	Price AC and DC
3000	0 to 3,000	75	**$165.00**	**$ 250.00**
3010	0 to 3,000	300	**250.00**	**400.00**
3050	0 to 3,000	1,500	**500.00**	**650.00**
3100	0 to 6,000	3,000	**700.00**	**1,100.00**
5000	0 to 5,000	75	**175.00**	**300.00**
1000	0 to 10,000	75	**250.00**	**375.00**
1500-AC	0 to 15,000	75	**285.00**	**AC only**
2500-AC	0 to 25,000	75	**400.00**	**AC only**
2500-DC	0 to 25,000		**DC only**	**420.00**
4000-DC	0 to 40,000		**DC only**	**600.00**

INDUSTRIAL INSTRUMENTS, INC.

PRECISE MEASUREMENTS COMPANY

CEDAR GROVE, NEW JERSEY

Net

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KILOVOLTMETERS

NOW MEASURE UP TO 100,000 VOLTS AC OR DC

Large rugged 6 inch precision mirror scale meter, ideal for use around lab or field testing. Completely transistorized with stabilized anti-drift circuitry results in sensitivity in the order of a few microamperes. Panel mounted trimmers allow for instant recalibration, should this ever be required. Special highly insulated probes supplied with instrument. Has a fast spike bypass circuitry and novel automatic voltage coefficient compensator.

RANGES

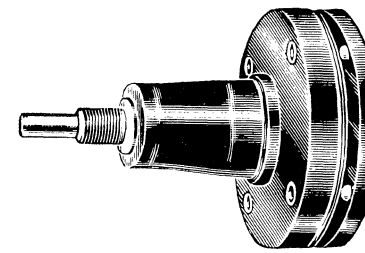
0 to 5,000/10,000/50,000/100,000 Volts DC. or 60 cycles AC.

Model 60-DC only **$350.00** Model 50-AC and DC $400.00

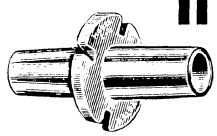
HIGH VOLTAGE SWITCH

For use in High Voltage low current circuits where complete isolation is required. Nominal rating 5,000 Volts DC or AC (peak). Model A or D switch may be used in lower duty circuits up to 10,000 Volts DC. Current rating 500 Milliamperes, steady state (when not being switched). 5 Ma. when switching. Isolated for 15,000 Volts DC test to ground. Special Modified Diallyl Phthalate used in construction.

MODEL	TYPE	PRICE Single Gang
A	2 Pole Reversable (for polarity reversing of power supplies)	$20.00
B	D. P. D. T.	22.00
C	3. P. D. T.	25.00
D	4 Position	20.00
E	6 Position	22.00
F	8 Position	24.00
G	10 Position	26.00



HIGH VOLTAGE CONNECTORS

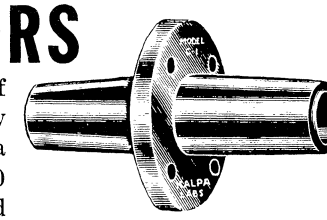


MODEL C-O
RATED FOR
5,000 VOLTS DC

These high voltage connectors are sturdily constructed of Modified Diallyl Phthalate for superior arc resistance and low power factor. Miniature physical size is combined with extra long air paths. Sealed center conductor will handle up to 20 amperes. Neoprene gasket included for mounting on oil-filled tanks. Easily mated with any standard banana jack for quick disconnect, or 10/32 machine bolt for permanent service. Neat and attractive styling is ideal for mounting on front panels.

AVAILABLE IN 10 COLORS:

BLACK, BROWN, RED, ORANGE, YELLOW, GREEN, BLUE, VIOLET, GREY AND WHITE



MODEL C-1
RATED FOR
25,000 VOLTS DC
MAXIMUM

INTRODUCTORY SAMPLE KIT OF TEN (one of each color) *$30.00*

	RATING	PRICE
Miniature Model C-0	*5,000 Volt DC service.*	*$ 5.00 each.*
Standard Model C-1	*25,000 Volt DC maximum.*	*$10.00 each.*

INDUSTRIAL INSTRUMENTS, INC.

KALPA SCIENTIFIC LABORATORIES

CEDAR GROVE, NEW JERSEY

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J-B-T®

25 YEARS OF INTEGRITY IN MANUFACTURING.....

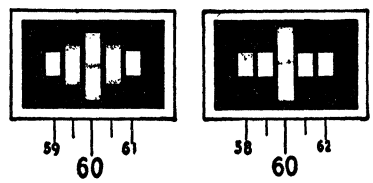
J-B-T INSTRUMENTS, INC. NEW HAVEN 8, CONN.

VIBRATING REED FREQUENCY METERS (PATENTED)

• **USES** — J-B-T Vibrating Reed Frequency Meters are used extensively in radio, telephone, and television service, on engine generator sets, in laboratories, in many types of electronic equipment, on panel and control boards, in inspection set-ups—wherever constant or known frequency is important to efficient operation of equipment. More than 20 years of continuous experience covering many thousands of these instruments are your assurance of quality for both commercial and defense applications.

• **OPERATING PRINCIPLE** — The patented, simplified design used in the J-B-T meter operates on AC or interrupted DC. Each reed is adjusted to respond by resonance to but one frequency. As the current excites the driving coil, the reed "in tune" with the frequency in the coil will respond by vibrating rapidly because of permanent magnet polarization and induced magnetism from the coil. The instrument is adapted to specified operating voltage by a series resistor. To determine frequency, simply read the reed.

• **RESPONSE PATTERNS** — These patterns differ with the increments of frequency between reeds. For example, at 60 cycles, half-cycle steps give the broad response shown below at left, whereas full cycle steps bring the sharp response at right. In general, the lower the frequency the greater the amplitude, the higher the frequency the less the amplitude. Thus a 12 cycle reed normally will have substantially greater amplitude than a 1000 cycle reed.



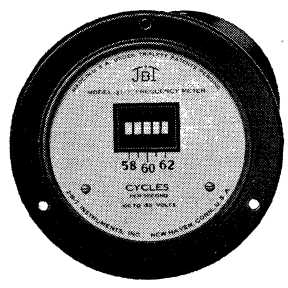
• **ADVANTAGES** — Guaranteed accuracy at reference temperatures of 77°F is ±0.3% or better of the AC frequency being measured, unless otherwise stated. Accuracy on interrupted DC may be somewhat less. High fatique safety factor for continuous operation. Temperature compensations are not required as temperature coefficient of reeds is only approximately 75 parts per million per degree F., negative.

• **STABILITY** — All meters are permanently calibrated at the factory and do not require subsequent adjustment. J-B-T reeds have relatively high Q characteristics, an especially desirable factor in electronic circuits. Wave form or external fields do not ordinarily have an adverse effect. Built with no pivoted parts and with lock washers at every critical point, these rugged meters can take rougher treatment than many instruments.

• **TRUST THE METER** — If a meter plugged in on a 60-cycle AC power line does not indicate exactly 60 cycles, trust the meter! Power supply may momentarily be off-frequency due to changing load conditions. All J-B-T Frequency Meters are meticulously calibrated at the factory, entirely independent of frequency of power supply. Production and inspection equipment are checked regularly against National Bureau of Standards frequency signals.

5 OR 7 REEDS

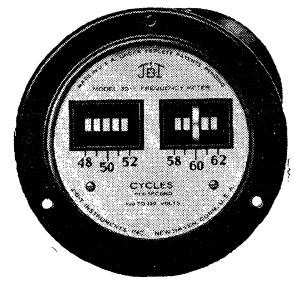
Used on standby power equipment. Handy for accurately measuring frequency of power source. 5 reeds (as illustrated), 58-62 cycles, or 7 reeds, 7-63 cycles, 100-130 volts. Other characteristics and accuracy same as Model 30-F. See Table of Dimensions, lines 4 and 5.



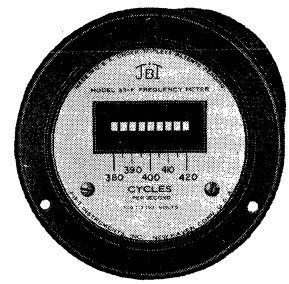
1-F, (illustrated) 58-62 cy., 5 reeds, 3-1/4" metal case **$26.65**

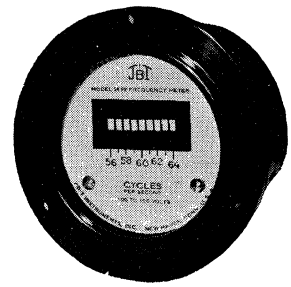
1-FX, 58-62 cy., 5 reeds, 3-1/2" Molded case, MIL-M-6B mtg **$23.65**

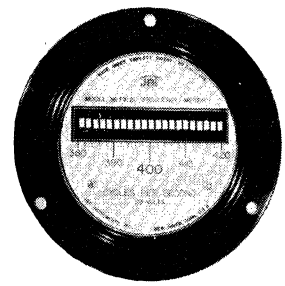
1-FX-7, 57-63 cy., 7 reeds, 3-1/2" Molded case, MIL-M-6B mtg..... **$25.85**



(Meter operating at 60 cycles)







10 REEDS

Range: 48-52 and 58-62 cycles. Double window for ease of reading either range. Often specified for export. 100-130 volts; 130 ohms per volt; 1 watt power consumption. Other voltages available on special order. Accuracy ±0.3% at reference temperature. Flush panel mounting. See Table of Dimensions, lines 4 and 5.

30-F, (illustrated), 48-52 and 58-62 cy., 3¼" Metal Case..... **$30.50**

30-FX, 48-52 and 58-62 cy., 3½" Molded Case, MIL-M-6B mtg..... **$27.50**

9 REEDS — 400 CY.

Used for measuring frequency of high-cycle power sources, particularly aircraft. Accuracy ±0.3% at reference temperature. Nine reeds, 380-420 cycle range. 100-130 volts; 90 ohms per volt; 1.5 watts power consumption. Other voltages available on special order. Flush panel mounting. See Table of Dimensions, lines 4 and 5.

33-F, (illustrated). 380-420 cy., 3¼" Metal Case **$37.10**

33-FX, 380-420 cy., 3½" Molded Case, MIL-M-6B mtg. **$34.10**

9 REEDS — 60 CY.

Covers a broad frequency band. Nine reeds, 56-64 cycles, or in half-cycle steps (accuracy ±0.2%) 58-62 cycles. 100-130 volts; 110 ohms per volt; 1 watt power consumption. Flush panel mounting. See Table of Dimensions, lines 4 and 5.

34-F, 56-64 cy., 3¼" Metal Case 1-cycle steps. **$30.25**

34-FX, (illustrated). 56-64 cy., 3½" Molded Case, MIL-M-6B mtg. **$27.25**

34-F-Z, 58-62 cy., 3¼" Metal Case, ½-cycle steps. **$31.90**

34-FX-Z, 58-62 cy., 3½" Molded Case, MIL-M-6B mtg. **$28.90**

18 OR 21 REEDS

Advanced design offers 21 reeds as an interchangeable 3½" panel meter with 2-cycle intervals for close reading over the band of 380 to 420 cycles per second. Accuracy ±0.3% at reference temperature. The reed flag size is necessarily smaller than in a 9-reed 400-cycle meter, such as the model 33-FX, but the 21 reeds are located in an enlarged window 2" wide with flags 3/32" high x 1/16" wide to give maximum readability. A patented internal construction for mounting the reeds in one clamp assures ruggedness. These instruments and their variations are particularly useful where unusually close indication of frequency throughout the band is desirable. See Table of Dimensions, line 5. All have 3½" Molded Case, MIL-M-6B mounting.

36-FX-21, (as illustrated). 380-420 cycles, 21 reeds, 28 volts operation, 3½" Molded Case; 18 ohms per volt; 1.6 watts power consumption. **$43.75**

36-FX-21-115, 380-420 cycles, 21 reeds, 100-130 volts; 90 ohms per volt; 1.5 watts power consumption **$45.00**

30-FX-18, (not illustrated). 46-54 and 56-64 cycles, 18 reeds in one window with two groupings, 100-130 volts; 320 ohms per volt; 0.35 watts power consumption **$47.50**

3" SQUARE-CASED FREQUENCY METERS

The meters described above are also available with square black molded cases designated as **FS series** per print SK-59, Rev. D. For example, 30-FS is same as 30-FX except for the case.

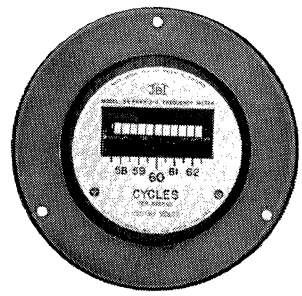
PRICES NET, F.O.B. New Haven, Conn., Individually Boxed, Domestic Packed, Effective July 1, 1964

© U.C.P., Inc.

.....25 YEARS OF INTEGRITY IN MANUFACTURING

J-B-T INSTRUMENTS, INC. NEW HAVEN 8, CONN.

3½" SEALED FREQUENCY METERS



FHXX TYPE Sealed meters, glass-to-metal construction, with solder terminals and detachable flange, supersede the former FHX sealed meters. While JAN-I-6, MIL-M-6B, and MIL-M-10304B (Type MR36) do not refer specifically to frequency indicators, the FHXX series uses the front mounting dimensions of these specifications, and meets or exceeds the sealing and electrical requirements including 3000 volt breakdown. Electrical characteristics and accuracy are the same as for corresponding F models without the HXX designation. Every meter is tested in water where the absolute pressure of the air above the water is reduced to 2.5 inches of mercury (approx. 57,000 ft. altitude) and is maintained for one minute. For dimensions, see Table, Line 8, and Print SK-51 Rev. E. Standard voltage is 100-130.

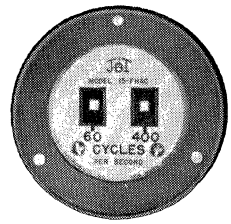
30-FHXX, 10 reeds, 48-52 cy. and 58-62 cy. $34.30
31-FHXX, 5 reeds, 58-62 cy. 30.45
33-FHXX, 9 reeds, 380-420 cy. 40.90
34-FHXX, 9 reeds 56-64 cy. 34.05
34-FHXX-11, 11 reeds, 55-65 cy. 36.25
34-FHXX-Z-11, illustrated, 11 reeds, 57.5-62.5 cy. 37.90

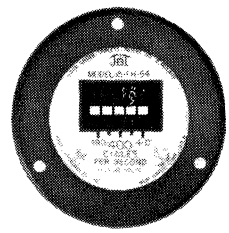
2½" SEALED METERS

J-B-T manufactures 2½" sealed frequency meters which are similar to the 3½" sealed above, except with dimensions per Line 3 of Table.

21-FHXX, 5 reeds, 58-62 cy., 100-130 volts $34.85
23-FHXX, 5 reeds, 380-420 cy., 100-130 volts (normally stocked) $39.80

1½" SEALED METERS





MODEL 15-FHAC. Widely used as the frequency standard on audio-oscillators, the model illustrated operates 2 reeds, 60 and 400 cycles, at approximately 8-10 volts on 0.04 watts for a cathode follower circuit. Accuracy ±0.5% at 77°F. Steel case has telephone black finish, solder terminals. Barrel is 1½" diameter; 2-3/32" detachable flange FL-4 covers glass-to-metal seal. See Table of Dimensions, line 1

15-FHAC $20.30

15-FH-5 METERS (lower photo) also use the 1½" black metal case with 2-3/32" detachable flange and glass-to-metal seal. The 15-FH-5 series features 5 reeds in a row for 100-130 volt operation. Specified where size and weight are important. Same 100% inspection for approx. 57,000 ft. altitude as FHXX types. Standard meters, but not regularly stocked. See Table of Dimensions, line 1.

15-FH-54, 5 reeds, 390-410 cycles, 1.25 watts power consumption $25.85
15-FH-56, 5 reeds, 58-62 cycles, 0.25 watts power consumption $21.45
15-FH-400, 5 reeds, 380-420 cy., 1.25 watts power consumption $25.85

RUGGEDIZED AND ILLUMINATED METERS

Model with "RUG"—Sealed vibrating reed frequency meters and sealed elapsed time meters are available, when so ordered, to the intent of MIL-M-10304B, which covers ruggedization of other kinds of meters. This feature usually is specified only for extra-severe shock and vibration.

LL Construction—Requirements for lighted meter dials have led to illuminating the 3½" FHXX Series of sealed meters. Light from a source behind the panel is admitted through a sealed window built into the meter case. Inquiries are invited.

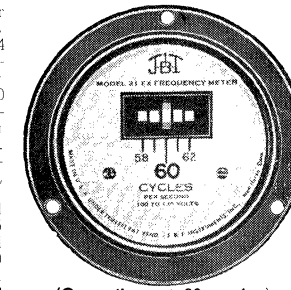
400 CYCLES, IN 1 CYCLE STEPS; 800 CYCLES

Among the variations which J-B-T produces on special order, are 21-reed, 390-410 cycles in 3½" case; and 11-reed, 780-820 cycles with 5-cycle increments. Quotations on request.

NOTE ON METER VOLTAGE

J-B-T Vibrating Reed Frequency Meters of all sizes normally are made with two studs and are designed to be connected across one phase of a multi-phase line. The single phase voltage where the meter will be used thus becomes the voltage to be specified for the meter. Special meters with extra studs are made for the purpose of using at two or more voltages, not additional phases.

2½" METERS — 5 REEDS

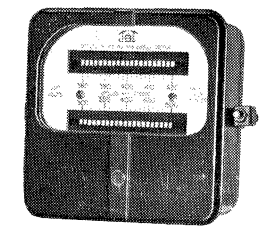


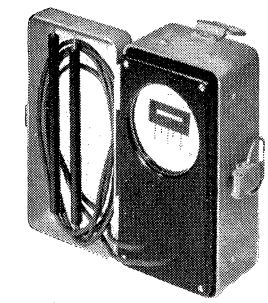
MODEL 21-FX, 23-FX. Matches other 2½" panel instruments. Meets ASA C39.1-1951 and MIL-M-6B (Type MR 24 or MR 25) in depth of case and mounting dimensions. Weighs only 4½ ozs.; 5 reeds, 58-62 cycles, 100-130 volts, 600 ohms per volt, 0.25 watt power consumption. At 400 cycles, 120 ohms per volt, 0.7 watts power consumption. Flush panel mounting; see print MD-20, Rev. B, also Table of Dimensions, Line 2.

21-FX, 58-62 cy.; 2-11/16" Molded Case, 1 cy. steps $22.55
23-FX-54, 390-410 cy., 2-11/16" Molded Case, 5 cy. steps $27.50
23-FX, 380-420 cy., 2-11/16" Molded Case, 10 cy. steps $27.50

(Operating at 60 cycles)

400 CYCLE BROAD AND VERNIER INDICATORS





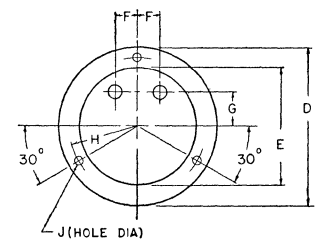
MODEL 41-FX-42 (supersedes Model 41-FX) Widely used in commercial and military testing, this model provides two windows: for 300-500 cycles, 21 reeds in 10-cycle steps, and, for a vernier effect, 380-420 cycles with 21 reeds in 2-cycle steps. Black molded case, flush front is 4¾4" high x 4¾4" wide x 2 17/32" deep behind panel over studs. 100-130 volts is standard; also made with 4 studs for 200-240, 115 and 30 volts, 4.5 watts at 115 volts, 7.7 watts at 200 volts, 2 watts at 30 volts. For mounting, see Print MD-38-11.

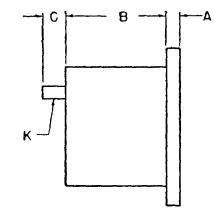
41-FX-42, 100-130 volts $125.00
41-FX-42, 3 voltages, without switch 140.00

PORTABLE FREQ. TESTERS

FP SERIES, METAL OR MOLDED CASE. Accuracy of ±0.3% meets the exacting test requirements of aviation, signal, and communication equipment. **M-Types** use anodized gray aluminum case, 6⅜" long x 4" wide x 3-9/32" deep. Leads permanently attached. See Print SK-63-10. With pertinent name plate, **33-FP-9M** is known as **TS-328 A/U. L-Types,** sturdy molded case within top grain leather carrying case 6-3/32" x 4¼" x 2¾"; 4' leads with 5" test picks and banana plugs.

33-FP-9M, (illustrated) 380-420 cy., 9 reeds, 100-130 volts, 70 ohms per volt, 1.5 watts power consumption; com. quality and packing $49.2
34-FP-9M, 56-64 cy., 9 reeds, 100-130 volts, 130 ohms per volt, 1 watt power consumption, com. quality and packing $42.3
33-FP-9L, 380-420 cy., 9 reeds, 100-130 volts $47.8
34-FP-9L, 56-64 cy., 9 reeds, 100-130 volts $49.7





FREQUENCY AND FREQUENCY — TIME METERS, TABLE OF DIMENSIONS, INCHES

	MODEL	MIL-M-6B* MOUNTING	A	B	C	D	E	F	G	H	J	K	TERMINAL DESCRIPTION
Line 1	15-FH Series	—	1/8	1-9/16	3/8	2-3/32	1-1/2	3/8	3/8	0.875	0.125	Solder,	1/16" dia. hole
Line 2	21-FX and 23-FX Series	MR 24, MR 25	13/64	1-3/8	23/32	2-11/16	2-5/32	7/16	9/16	1.220	0.116	10-32	NF-2 studs
Line 3	21-FHXX, 23-FHXX	MR 26**	3/32	1-27/32	11/16	2-11/16	2-1/8	1/2	1/2	1.220	0.125	Solder,	3/32 hole
Line 4	30-F to 34-F Series	—	7/64	2-3/32	23/32	3-1/4	2-9/16	7/16	7/8	1.453	0.150	10-32	NF-2 studs
Line 5	30-FX to 36-FX Series	MR 34, MR 35	19/64	2	23/32	3-1/2	2-11/16	7/16	7/8	1.580	0.150	10-32	NF-2 studs
Line 6	31-FE Series	—	7/64	3-7/8	23/32	3-1/4	2-9/16	7/16	7/8	1.453	0.150	10-32	NF-2 studs
Line 7	31-FEX-1 Series	MR 34, MR 35	5/32	3-7/8	23/32	3-1/2	2-9/16	7/16	7/8	1.453	0.150	10-32	NF-2 studs
Line 8	30-FHXX to 34-FHXX Series	MR36**	3/32	2-1/4	5/8	3-1/2	2-11/16	1/2	3/4	1.580	0.150	Solder,	3/32 hole

*Also JAN-I-6 and ASA C39.1-1951 Mounting **Also MIL-M-10304B Mounting

PRICES NET, F.O.B. New Haven, Conn., Individually Boxed, Domestic Packed, Effective July 1, 1964

J-B-T®

25 YEARS OF INTEGRITY IN MANUFACTURING.....

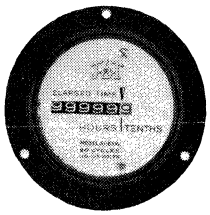
J-B-T INSTRUMENTS, INC. NEW HAVEN 8, CONN.

ELAPSED TIME METERS; FREQUENCY-TIME METERS; REED RELAYS AND OSCILLATOR CONTROLS

• USES AND ADVANTAGES OF ELAPSED (OR RUNNING) TIME METERS

To record operating time of AC electrical and electronic equipment, these self-starting synchronous instruments normally register in 1/10th hour steps to 9,999.9 or 99,999.9 hours, then automatically reset. They are widely used for tube life, TV equipment, punch presses, conveyors, oil burners, ground support equipment, maintenance schedules, etc. J-B-T engineers recommend the AC type of elapsed time meter for superior accuracy, especially where voltage or ambient temperature vary widely.

6-Digit WIDE-NUMERAL ELAPSED TIME METERS

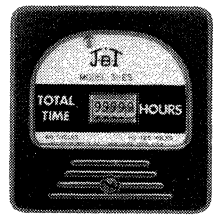


MODEL 31-EXW. The latest J-B-T elapsed time meter is Model 31-EXW, illustrated. Easily-read, wide 6-digit numerals register to 99,999.9 hours then automatically reset. Distinctive contemporary dial shows tenths in black on white, and units in white on black. The 3½" black molded case is interchangeable with Model 31-EX and FX types of frequency meters. Print SK-125 gives mounting information.

Model 31-EXW, 6-digits, 0-99,999.9 hours, 60 cy., 110-125 volts. **$16.95**

SQUARE-CASED ELAPSED TIME METERS

MODEL 31-ES. A square black molded case, matching other 3" x 3" meters, differentiates this model from the round 31-EX. Ask for Print SK-110, Rev. F showing standard rear mounting 2¼" bet. centers of molded-in studs, new rugged case with overall depth 3-11/32" behind flange, and electrical studs on center line. Variations can be made for 99,999 hours (suffix U), 230 volts, minutes, matte finish, or 50 cycles.



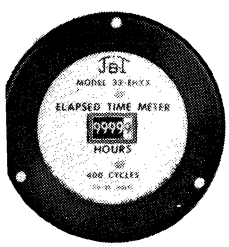
31-ES, 60 cy., 110-125 volts, 0-9,999.9 hours. **$17.05**

3½" SEALED ELAPSED TIME METERS — 60 Cycles

MODEL 31-EHXX. Where rugged requirements make a completely sealed elapsed time meter desirable, this glass-to-metal construction with flat glass front and 3½" diameter separable flange, often is specified. Heavy-duty solder terminals are supplied. Every instrument is checked in a vacuum chamber. Overall dimensions and appearances match the FHXX series sealed frequency meters. Maximum voltage between terminals and case, 1,000 volts, R.M.S. The meter registers in 1/10 hour steps to 9,999.9 hours, then automatically resets. Tenths indicator is red on white, all others in white on black. Mount according to SK-85, Rev. C.

31-EHXX, 60 cy., 110-125 volts..... **$19.75**

3½" SEALED ELAPSED TIME METERS — 400 Cycles



MODEL 33-EHXX. This stable, self-starting 400-cycle elapsed time meter is extensively used for preventive maintenance and for reliability testing and checking in a wide variety of equipment. The instrument is entirely enclosed in a 3½" flanged case, glass-to-metal sealed construction with separable flange; heavy-duty solder terminals; flat glass front. 1/10 hours are shown in red on white, all other numerals white on black. The external appearance matches FHXX frequency meter series. For dimensional details see SK-61, Rev. B.

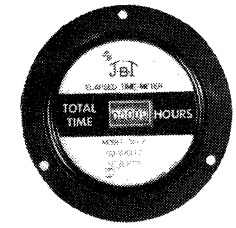
33-EHXX, 400 cy., 0-9,999.9 hours, 1/10 hour steps, 110-125 volts **$58.00**

2½" SEALED ELAPSED TIME METERS

ODEL 21-EHXX. A full size counter reading 9,999.9 hours in 1/10 ur steps and a rugged self-starting synchronous motor are built to this 2½" sealed meter. Its front mounting dimensions are the me as Type MR26 electrical indicating instruments in MIL-M-6B. ass-to-metal seal makes the instrument completely tamper-proof. ik for Print SK-68, Rev. G. (2½" 400-cycle meter, **Model 23-EHXX** so is made on special order.)

·EHXX, 60 cy., 110-125 volts **$26.00**

Popular BASIC 3½" ELAPSED TIME METERS



MODEL 31-EX. First in popularity among all J-B-T elapsed time meters, this self-starting instrument registers to 9,999.9 hours in 1/10 hour steps before automatically resetting. Red numerals on white are used for tenths, all others are white on black. Black molded case matches FX series 3½" frequency meters and completely encloses all parts. This case, with centered terminals, meets type MR34 or MR35 mounting dimensions of MIL-M-6B, also JAN-I-6. Referring to line 5 of the Table of Dimensions on the preceding page, barrel depth (B) is 2½", stud height above center (G) is zero, and all other measurements are as shown. Types for 99,999 hours, or 50 cycles, or special voltages are available on special order.

31-EX, 60 cy., 110-125 volts **$15.95**

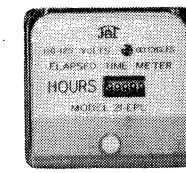
31-EX-200, 60 cy., 230 volts (not regularly stocked) **$17.05**

ELAPSED TIME METERS — Tenths of Minutes

MODEL 31-EXM, 60 cycles, 110-125 volts, reading 0-9,999.9 **minutes;** for short-run applications or readings at closer intervals than 31-EX. Tenths of minutes in red on white, minutes in white on black numerals, otherwise identical with 31-EX **$16.25**

CLEAR-PLASTIC ELAPSED TIME METERS

EPL TYPE. The modern clear-plastic front gathers light from every side and is compatible with many other instruments. A sturdy metal case with solder terminals is used behind the panel. The 2½" size is 2-19/32" wide x 2⅜" high with 2⅛" diam. meter barrel, per print SK-102, Rev. C. The 3½" is per print SK-108, Rev. C.



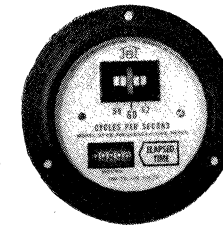
21-EPL, 2½" size (illus.), 60 cy., 110-125 v., 0-9,999.9 hrs. **$25.75**

31-EPL, 3½" size (not illus.), 60 cy., 110-125 v., 0-9,999.9 hrs. **$23.75**

RUGGEDIZED METERS TO MIL-M-7793C

This specialized specification at present omits the popular 3½" sealed sizes. J-B-T 2½" and 3½" round sealed and ruggedized types can be certified as to various test conditions under present MIL-M-7793C and General Meter Specification MIL-M-10304B. Inquiries are invited on smaller sizes to MIL-M-7793C and subsequent revisions as they are released.

ELAPSED TIME — FREQUENCY METERS

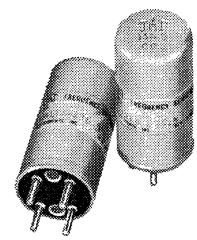


31-FE SERIES. To conserve panel space and centralize information, this panel instrument combines elapsed time or running time meter with frequency reeds. It is used on motor generator sets and on electrical equipment where maintenance routine calls for periodic servicing. The J-B-T design, proved by years of field experience, uses a separate exciting coil for the reeds to achieve close control of reed amplitude and frequency. Reads 0-9,999.9 hours and 58-62 cy. with 5 reeds, for 100-130 volt operation; self starting. Tenths shown in red on white, all other numerals in white on black. Black metal case with front mounting per Table of Dimensions, line 6. Power consumption is 4.7 watts. For variations having 7, 9, or 11 reeds, not regularly stocked, such as Model 34-FE, see print SK-45. Rev. D.

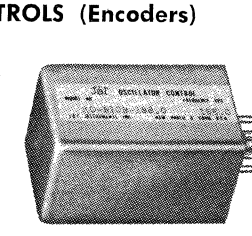
31-FE, 3¼" metal case 4-19/32" deep, ... **$33.00**

31-FEX-1, (per print SK-44 Rev. D—not regularly stocked) like Model 31-FE, except with 3½" metal flange permanently attached for MIL-M-6B front mounting per line 7, Table of Dimensions **$34.10**

RESONANT — REED RELAYS (Decoders) AND OSCILLATOR CONTROLS (Encoders)



Typical Frequency Sensitive Relays RR-A11A-136.5



Typical Sealed Oscillator Control RO-B10B-188.0

For full technical description of J-B-T frequency-sensitive electro-mechanical control devices, see Bulletins 162R and D664; for representative models and prices, see Section 5100 of this book.

PRICES NET, F.O.B. New Haven, Conn., Individually Boxed, Domestic Packed, Effective July 1, 1964

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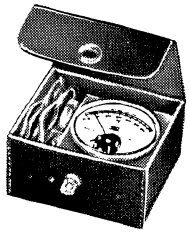
.....25 YEARS OF INTEGRITY IN MANUFACTURING

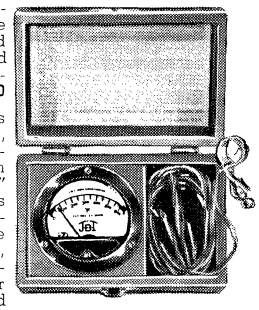
J-B-T INSTRUMENTS, INC. NEW HAVEN 8, CONN.

TEMPERATURE TESTERS AND ACCESSORIES FOR APPLIANCE SERVICING, QUALITY INSPECTION, AND LABORATORY SET-UPS

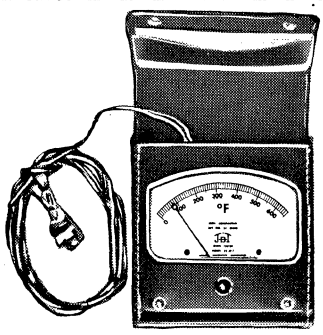
OVEN OR HEAT CHAMBER TESTERS



MODEL 23-JP-1. This popular portable indicating pyrometer saves time and furnishes reliable information in testing and setting thermostats on electric or gas ranges and other appliances by showing oven temperatures as they change. Standard size dial, 0-650°F., with 2⅜" scale arc reading, is used but covered by clear-plastic instrument front. The indicator is mounted on a black metal panel affixed inside a pocket-sized, black top-grain leather case 4½" x 2⅞" x 4¼" over hardware. Characteristic of more expensive pyrometers, the 23-JP-1 is automatically compensated for ambient temperature. Thus the tester eliminates calculations, avoids likelihood of serious error as temperature changes inside the instrument itself, and gives reliable direct readings. Supplied with attached SA-116, 5½' calibrated thermocouple, clip, and convection shield **$26.00**

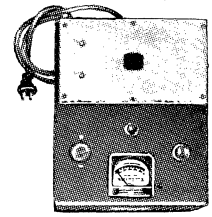


MODEL 32-JP-3. This time-tested model uses a rigid outer carrying case 6" x 3⅞" x 3¾", covered in black leatherette. The glass-covered indicator shows 0-650°F. range in 10° divisions readable to 2½° on a 2⅜" scale arc. Exceptionally fast, continuous response. Automatic compensation for ambient temperature is a valuable feature whether the tester is used for service work, sales demonstrations, or inspection. Attached SA-116, 5½' thermocouple, clip for affixing to grill and convection shield included **$28.00**



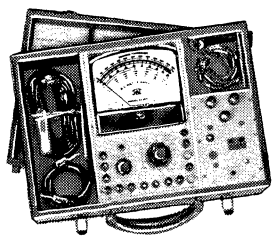
NEWEST MODEL 32-JP-7. Most versatile, and easiest to read of J-B-T temperature testers, Model 32-JP-7 offers a 650°F scale more than 4" long. Automatic compensation for ambient temperature is included, so that temperatures are read directly and without calculations. The 32-JP-7 also provides color-coded external binding posts. These permit quick attachment or interchanging of various J-B-T thermocouples placed in one or more of the heat zones to be checked. An SA-116 5½' thermocouple with attachment clip and convection shield is supplied and is left attached when the tester is carried. For maximum usefulness in checking irons, washers, toasters, clothes dryers, etc., use appropriate accessory thermocouples. Tester price includes stitched Ever-ready case, 5" wide x 5½" high x 2¾" deep, of sturdy, scuff resistant black vinyl. **$29.50**

IRON TESTER



MODEL 32-JIT. Self-contained bench-type tester; checks all makes of irons; measures thermostat temperatures; shows open or short circuits. Automatically compensated for room temperature. Also indicates operating temperature of the sole plate (working surface) on non-electric or cordless irons. Black metal base; overall size 10" x 12" x 5½", scale 0-650°F, 15 amp fuse, 6' cord, 110 volt, 50-60 cycles. **$34.50**

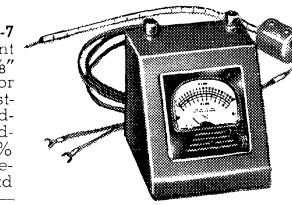
MULTI-PURPOSE TESTER



MODEL 61-JRT. A 9-in-1 tester to speed accurate temperature adjustment and electrical analysis of ranges, refrigerators, test apparatus, etc. Rapidly reads four cold zones —100°F, +80°F. up to 14' distant; two heat zones 0-600°F. up to 5½' distant; one voltage range 0-300 AC; and, with transformer, two current ranges, 0-30 and 0-60 amps, AC. Sturdy, polished walnut case, 15½" x 10-3/16" x 4¾". Two color etched metal panel. Separate switches protect bulb and ammeter circuits. Requires one standard flashlight cell, replaceable in the field. Temperature accuracy ±2% of full scale; rectified AC readings ±5%. Accessories as listed may be added for testing appliances. Includes two SA-162 resistance bulbs, two SA-116 thermocouples, electrical leads, and AS-TR-2 built-in transformer. **$124.00**

MODEL 61-JRT (LESS TRANSFORMER). Same unit, same scales except no reading in amperes; AS-TR-2 transformer omitted. **$110.00**

HEAT INDICATORS



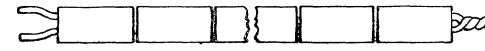
MODEL 32-J PYROMETER IN SN-7 STAND. Mounted in sloping front black metal stand, 4¼" high x 4⅜" deep x 4⅛" wide. Compensated for ambient temperature. Medium resistance system, damped for quick reading on 2⅜" scale, assures ruggedness and pointer stability. For ±2% accuracy, use only the type and resistance of thermocouple and lead provided; if extra length—coil it—to maintain calibration. A protection tube usually is not required. Fo convenience keep an extra thermocouple and lead on hand.

MODEL 32-J IN SN-7 STAND (Supersedes SN-3 Stand)
0° — 650°F-350°C, includes SA-91 thermocouple, SA-84 lead, and CB- connector block **$33.5**
0°-1200°F-650°C, includes SA-87, SA-82, and CB-1 ..... **33.5**
0°-2000°F-1100°C, includes SA-87, SA-82, and CB-1 ..... **33.5**

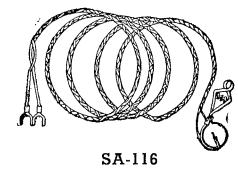
MODEL 32-J IN SN-8 STAND (not illustrated). With 3 binding posts t accommodate flexible extra lead and thermocouple for hard-to-reacl locations. 0°-650°F including SA-91 thermocouple, SA-84 lead, CB-1 cor nector block, and SA-86 flexible leads and thermocouple. **$37.5**

TEMPERATURE AND TESTER ACCESSORIES

THERMOCOUPLES . . . For J-B-T pyrometers and leads, thermocouple are carefully selected, standardized, and tested.



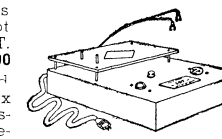
SA-87. 12" #14 Ga. chromel-alumel, 2 hole ceramic beads, fits 5/16 hole; welded tip **$3.4**
SA-88. Same construction as SA-87 but 24" long **$4.2**
SA-89. 12" No. 8 Ga. chromel-alumel, 2-hole ceramic beads, fits 7/16 hole; welded tip **$3.4**
SA-90. Same as SA-89 but 24" long **$4.2**
SA-91. 12" #14 Ga. iron-constantan, 1938 calibration; 2 hole cerami beads, fits 5/16" hole; welded tip **$2.9**
SA-92. Same construction as SA-91 but 24" long **$3.7**



SA-116

SA-116 with **SHIELD** and **CLIP.** Flexible Nc 22 gauge iron constantan, asbestos insu lated, 5½', with attachment clip and cor vection shield for use with 23-JP-1, 32-JP- 32-JP-2, 32-JP-3, 32-JP-4, 32-JP-7, 60-JRT an 61-JRT Testers. (See SA-199 for extra qualit glass insulated type) **$2.0**
SA-175 (PLAIN TIP). For roasters, waffl irons, etc., 5½' #22 Ga. with small ball tip use where clip and shield are unsuitable **$1.6**
SA-176 (for TOASTERS, etc). Same as SA-175 except tip has specic disc to collect heat **$3.0**
SA-188 (for **AUTOMATIC WASHER TEMPERATURES,** etc.). 3/16" dic copper tube, 4" long, encloses couple; for use in pipe or sampl of water; 5½" lead **$4.5**
SA-199 (with **SHIELD** and **CLIP).** Same as SA-116 except duplex nor fraying glass braid construction; dia. .115"; for frequent use abov 400°F. **$2.6**
SA-300 (for **SURFACE READINGS**). Spring-type I-C in Transite tip wit handle and 5' #22 Ga. lead for rapid reading; not regularl stocked **$8.0**

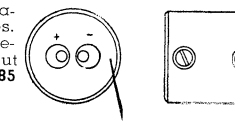
ACCESSORY IRON TESTER, MODEL IT-1. This attachment is identical with 32-JIT except there is no meter. Attach to 32-JP-7 or 61-JRT. **$18.00**



IT-1

LEAD WIRES SA-82. 6' compensating lead for chromel-alumel thermocouples; duplex stranded, asbestos-insulated: outside moisture-proof and flame-proof (not interchangeable with SA-84) **$1.70**
SA-83. Same construction as SA-82 but 26' long ..... **$5.**
SA-84. 6' for iron constantan thermocouples ..... **$1.**
SA-85. Same construction as SA-84 but 26' long ..... **$5.**
SA-86. 7' Iron constantan thermocouple and lead combined; #20 G twisted pair asbestos insulated ..... **$2.**
TRANSFORMERS. AS-TR-2. Attachment for 61-JRT to read 30 and 60 A amp scales on tester; includes jumper lead and panel **$18.**
AS-TR-3 For 60-JRT tester. To read 30 and 60 AC amp by dividing vc scale by 10 or 5. Complete with attachments ..... **$20.**
RESISTANCE BULBS (for cold testing). **SA-142.** Bulb with 14' polyeth lene ribbon lead, for 60-JRT only. ..... **$ 6.**
SA-162. Bulb, with 14' polyethylene ribbon lead, for 50-50 and 61-JR testers ..... **$ 6.**

CONNECTOR BLOCK MODEL CB-1. Lava connector block, withstands high temperatures, accommodates all thermocouples. Heavy brass connectors keep contact resistance low. Usable with or without connector head **$1.85**



PRICES NET, F.O.B. New Haven, Conn., Individually Boxed, Domestic Packed, Effective July 1, 1964

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"SERVICE ENGINEERED" TEST EQUIPMENT

Jackson ELECTRICAL INSTRUMENT COMPANY

Dayton, Ohio

Model 648S DYNAMIC TUBE TESTER

- Exclusive Color Keyed panel makes this unit faster to set up - easier to use - and applicable for "Do-It-Yourself" operations.
- Exclusive color coded chart - fastest moving types printed in red for faster selection of tube settings.
- Best for servicemen - faster more accurate and versatile for new tubes.
- First with push-button sequence switching - makes set-up time less than tube warm - up time.
- Semi-conductor rectifier for instant warm-up.
- 23 seperate heater voltages from .75 to line voltage.
- Variable sensitivity shorts test up to 2 megohms.
- Automatic line voltage indicator.
- Angled view zig-zag roll chart.

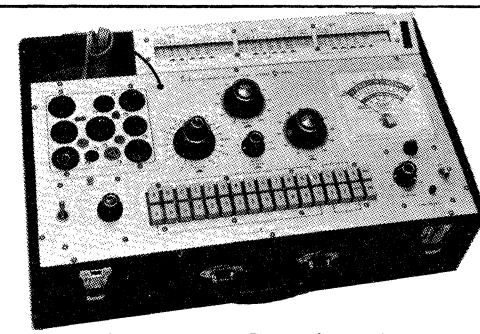
NET $169.95 SHIPPING WT. 21½ LBS.

.....FASTER, MORE ACCURATE, CHECKS MORE TUBES, MORE PROFITABLE.....

Model 658A DYNAMIC OUTPUT TUBE TESTER

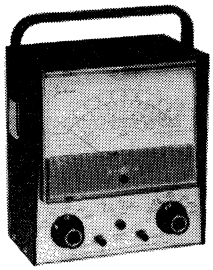
- Dynamic output merit test
- AC rectification test for diodes
- Accurate tests for all 12 volt hybrid tubes
- 231 heater voltages in 2% steps from .7 of a volt to line voltage
- Grid leakage checks up to 80 megohms
- Heater current test for series - string tubes
- Heater continuity check without warm-up
- Dynamic test for "eye" tubes - shows actual operation
- Shows striking point and operating range for regulator and reference tubes

NET $234.95 SHIPPING WT. 25 LBS.



DYNAMIC OUTPUT PRINCIPLE - A sensational new improvement on the time tested Jackson Dynamic Principle. In the Dynamic Output test, variable DC bias voltage, plus variable AC signal voltage are applied to the control grid. Variable DC voltage is applied to plate and screen. The metering circuit, a low impedence bridge type then reads only the AC component of the plate current. Obviously this is the most valid kind of test for amplifiers, it considers the entire output curve of the tube, not just a small portion.

..FREE! NEW TUBE INFORMATION AVAILABLE MONTHLY THROUGH YOUR DISTRIBUTOR..

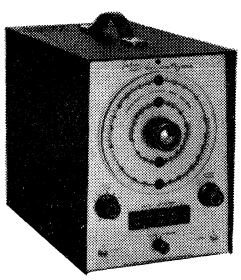


NET $79.95

New Model 805 VTVM

The New Model 805 VTVM features the New Weston Taut Band Suspension Meter. Taut Band Suspension eliminates pivots and jewels, eliminating pivot friction and error due to pivot fall-over. No movement springs - spring-set hysteresis eliminated. It may be operated in any position without degrading performance and is 4 times more sensitive than conventional movements.

● Static free face ● DC accuracy 3% of full scale ● DC ranges 0 - 1 - 5 - 10 - 50 - 100 - 500 - 1000 ● Zero center reference for any DC range ● AC accuracy 5% of full scale ● Frequency 20 cycles to 4.5 mc ● RMS ranges 0 - 1 - 5 - 10 - 50 - 100 - 500 - 1000 ● P--P ranges 0 - 2.8 - 14 - 28 - 140 - 280 - 1400 - 2800 ● Ohmeter resistance ranges 0 - 1K - 10K 100K - 1meg - 10meg - 100meg - 1000meg ● Accuracy 3% of total scale length ● Direct probe - no probe switching necessary ● 6" meter face ● DC input impedence 10 megohms ● AC input impedence .2 megohms shunted by 150 mmf



New Model 605D AUDIO SINE/SQUARE WAVE OSCILLATOR

A new, precision audio generator with a choice of either sine wave or true square wave output. Square wave is NOT a clipped sine wave but is generated by a special Schmitt Trigger circuit. Features push-button range selection and variable output.

Range: 20 cycles to 200,000 cycles, sine or square wave in 4 ranges.

Accuracy: 3% or 1 cycle, whichever is greater.

Output: High Impedance, continuously variable. Sine wave 0 to 5.0 RMS Volts, Square Wave 20 mv to 7.0 P-P.

Sine Waveform: Less than 1% distortion.

Output Level Characteristic: ±1 db over full range.

Hum Level: Down more than 50 db at all output levels.

Square Wave Rise Time: Less than 0.2 μsec.

Square Wave Tilt: 5% at 60 cycles. Less than 1% above 200 cycles.

NET $144.95 SHIPPING WT. 17½ LBS.

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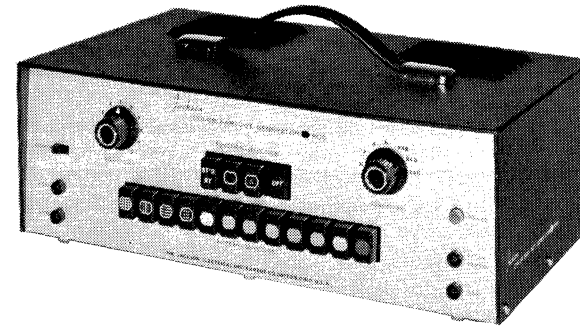
"SERVICE ENGINEERED" TEST EQUIPMENT

Jackson ELECTRICAL INSTRUMENT COMPANY

Dayton, Ohio

Model 800 COLOR BAR-DOT GENERATOR



- Exclusive push-button panel makes separate pattern or color selection easier—faster—clearly marked for error-free selection
  - Stand by • ON-OFF • Crosshatch • Horizontal Lines
  - Pattern • Sound • Vertical Lines • Dot Pattern
  - Eight different color combinations
- Convergence simplified—No deconvergence necessary speed up color alignment.
- Easy to set up—Only four simple wire connections necessary
- Front panel jacks allows easy access of video-sync or color demodulator signals.
- Video level control and video output jack provides either positive or negative video information.
- New modern functional styling—Vynal coated aluminum for long durable service.
- Color gun killer switch allows you to quickly and easily select any combinations of 3 color guns. No extra connections necessary.

NET $239.95 SHIPPING WT. 16 LBS.

COLOR SERVICE, CONVERGENCE FASTER, MORE PROFITABLE WITH PUSH BUTTON EASE

Model CRO-3 5-INCH WIDE-BAND HIGH SENSITIVITY OSCILLOSCOPE

Laboratory quality scope with highly stable circuitry and every feature for accurate TV work, color and black & white. Widely used, too, in many laboratory and industrial applications.

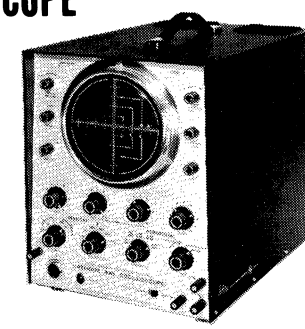
- Wide Band Amplifier, flat within 1 db 20 cycles to 4.5 mc.
- Two-range vertical deflection sensitivity from 0.018 rms volts-per-inch
- Highly stable amplifier circuits. No balancing required.
- Positive or negative internal horizontal sync.
- Linear sawtooth oscillator, 20 cycles through 50 kc.
- Input calibrating voltage, 10 volts peak-to-peak
- Vertical polarity reversal
- Variable sweep expansion
- Return trace blanking
- Z-axis modulation — internal, external or 60-cycle
- Direct connection to deflection plates when required

ACCESSORY PROBES

LC2-1P Low Capacity Probe. Cathode follower type. 2:1 attenuation. Not more than 8 *uuf* effective impedance

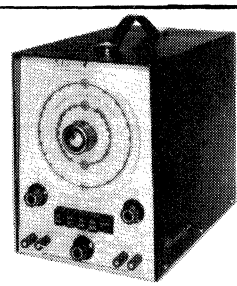
LC10-P High Voltage Low Capacity Probe. 10:1 attenuation ratio. For circuits where up to 1,000-volts is present

DEM-P Demodulation Probe. For RF or IF signal tracing



NET $234.95 SHIPPING WT. 23 LBS.

.....FIRST FOR COLOR SERVICE - FIRST IN SALES.....

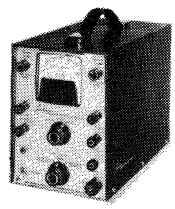


Model 655D WIDE RANGE AUDIO OSCILLATOR

- Push-button range selection
- Exceptionally stable RC tuned sine wave generator
- Frequency range 20 cycles to 200,000 cycles in 4 steps
- Up to 500 milliwatt output
- Output impedances of 10, 250, 500, or 5,000 ohms plus resistive output
- Frequency characteristic within 1 db 30 to 15,000 cycles on transformer output
- Accuracy, 3% or 1 cycle whichever is greater
- Sinusoidal Waveform
- Hum Level down 60 db at maximum output
- Logarithmic Calibration Curve
- Continuously variable output
- Factory-calibrated for guaranteed accuracy

NET $179.95 SHIPPING WT. 21½ LBS.

Model 607D VARIABLE REGULATED POWER SUPPLY



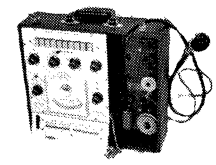
NET $79.95
SHIPPING WT. 11½ LBS.

- DC Regulated Output: Low Position 150 to 225 VDC, 0 to 100 ma. max. High Position 225 to 300 VDC, 0 to 100 ma. Regulation: Within 1.5%, no load to 100 ma. at 300 volts.
- Ripple Content: Bias Supply: Less than 0.003% at 20 ma. Regulated Supply: Less than 0.005% at 100 ma.
- Metered Output: For Bias and Regulated B+ Supply.

A complete laboratory power supply which provides heater, bias and regulated variable B+ voltages in one compact package.

- AC Heater Output: 6.3 VAC at 3 A max.
- DC Bias Output: 30 to 275 VDC, no load. 15 to 150 VDC at 20 ma.

MODEL 825 picture tube tester/booster



NET $119.95
Shipping Weight 16 Lbs.

- 12 separate heater voltages — including color.
- Continuity and leakage checks.
- Line indicator control — for accurate voltages.
- FM tuning eye tube — indicates leakage or continuity — no separate lights to interpolate.
- Push button operation.
- Picture tube cut-off test.
- Life test.
- Removes shorts — welds cathodes.
- Boosts picture tube back to life.
- Grid guard — limits peak current for protection of picture tube against burn-out.
- Separate variable voltages — applied to G1-G2 of picture tube.
- Calibrating control for proper test indications.
- Angled view roll chart — tube set-up information always at your finger tips.
- Checks each color gun separately.
- Plug-in tube socket cable — allows for easy repair or replacement when necessary.

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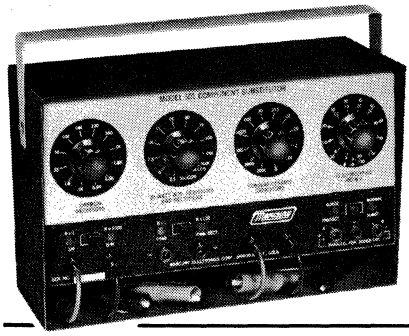
Mercury Technician Approved Test Equipment...TOPS in PERFORMANCE...QUALITY...and VALUE



Model 501 COMPONENT SUBSTITUTOR

Places a complete range of components at your fingertips for fast substitution

CARBON RESISTORS: 24 values from 10 ohms to 5,600,000 ohms • **POWER RESISTORS:** 20 values from 2.5 ohms to 15,000 ohms • **ELECTROLYTICS:** 17 values from 4 mfd. to 230 mfd. • **RECTIFIERS**—(Universal): **Crystal diodes**—all general purpose low voltage types **Selenium power rectifiers**—up to 500 ma., 800 PIV **Silicon power rectifiers**—up to 750 ma., 800 PIV

Dealer Net . . . **$37.50**

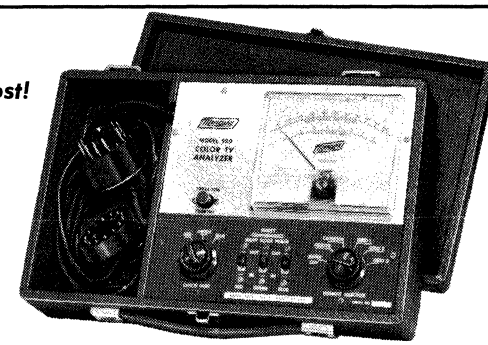
SPECIAL FEATURES: Substitutes up to 4 different components at the same time • A surge protector switch prevents arcing, sparking or healing of electrolytics • Electrolytics are discharged automatically • Size 10″x6¼″x4½″.

Model 900 COLOR TV ANALYZER

A new engineering concept enables you to test color TV at a very low cost!

...Checks color, video and picture tube circuits...Checks the overall performance of color TV sets...Provides for fast purity, convergence and gray scale tracking adjustments

Tests each control grid voltage • Tests each color gun screen voltage and screen current • Tests focus voltage of color picture tubes • Tests each cathode voltage • Tests each control grid emission current • Tests each color gun cathode emission • Enables you to cut-out color guns in any combination and adjust for proper purity, convergence and gray scale tracking • Makes all tests dynamically while color set is in operation...no need to get under TV chassis • Size: 13½″x8″x3½″. *Dealer Net* . . . **$44.95**



Model 1400 IN-CIRCUIT CAPACITOR TESTER

Eliminates the time consuming method of unsoldering and resoldering when checking capacitors...

EXCLUSIVE!

Special low test voltage of 2.9 volts AC provided to prevent damage to the new low voltage electrolytics use in transistorized equipment

SIMPLE TO OPERATE

Test leads connect across the capacitor in-circuit...set range switch and it automatically indicates shorted or open capacitors

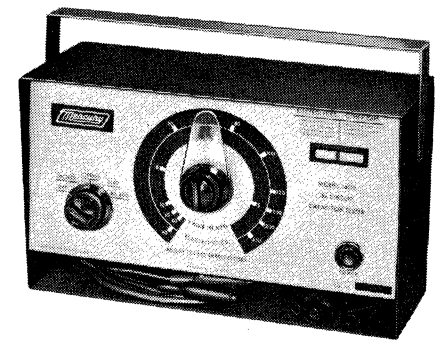
SPECIFICATIONS

SHORTS TEST—Detects shorted capacitors of all type **in-circuit** with shunt resistance as low as 6 ohms.

OPEN TEST—Detects open capacitors for all values **in-circuit** down to 7 mmfd., with shunt resistance as low as 150 ohms.

VALUE TEST—Indicates value of electrolytics **in-circuit** from 2 mfd. to 450 mfd.

• Size: 10″x6¼″x4½″. *Dealer Net* . . . **$29.50**



Model 301 COMBINATION TESTER

3 essential instruments combined into one compact unit!

1. TUBE TESTER 2. CRT TESTER-REACTIVATOR 3. 20,000 OHMS PER VOLT VOM

TUBE TESTER SECTION...will test all tube types, old and new including Nuvistors, Compactrons, Novars, 10-pin types, etc. • Tests dynamic cathode emission, interelement leakage and gas content • 5 year FREE tube data • **CRT TESTER-REACTIVATOR SECTION**...will test, repair and reactivate all black and white and all color picture tubes • **VOM SECTION**...sensitivity is 20,000 ohms per volt/DC and 5000 ohms per volt/AC • 6 DC Voltage Ranges • 6 AC Voltage Ranges • 3 Ohms Ranges • 5 DC Current Ranges • 2 Capacity Ranges • Size: 17½″x13⅛″x4½″.

Dealer Net . . . **$109.75**

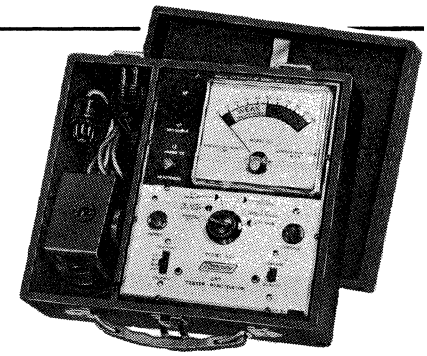
Model 801 CRT TESTER-REACTIVATOR

TESTS, REPAIRS and REACTIVATES all BLACK and WHITE and all COLOR PICTURE TUBES...

TESTS—cathode emission, inter-element leakage, screen grid continuity, opens and life expectancy • **REPAIRS**—inter-element shorts and open elements • **REACTIVATES**—low emission tubes to restore brightness.

SPECIAL FEATURES: "Watch-it-reactivate" feature...see and control the reactivation process on the meter as it takes place • Filament burn-out-protection • No adapters required • Provides 2v, 8v and 12v filament voltages • Visual life expectancy test —estimates remaining life of picture tube

• Size: 11″x9½″x4½″. *Dealer Net* . . . **$49.95**



MERCURY ELECTRONICS CORP., Mineola, New York

Net

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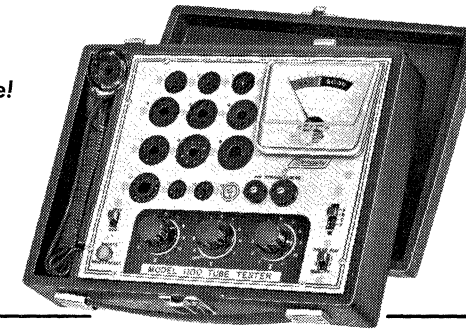
Mercury TUBE TESTERS FOR EVERY PURPOSE

Model 1100 TUBE TESTER

A dependable, professional performing tube tester at an economy price!

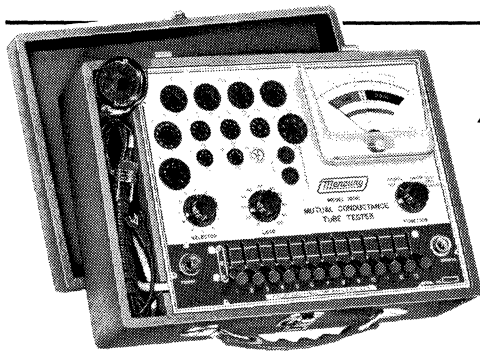


Tests all tube types, old and new including Novars, Nuvistors, Compactrons, 10-pin type, battery type, foreign, hi-fi, Thyratrons, voltage regulators and most industrial types • Tests picture tubes • Tests for dynamic cathode emission, shorts, leakage and gas • Checks each section of multi-section tubes separately • Will detect any short in a tube even where internal pins are tied or heater is tapped • Long lasting phosphor bronze tube sockets • Two-tone etched aluminum panel • 5 year FREE tube data • Size: 10¾″x8¼″x3¼″.

Dealer Net . . . **$39.50**

Model 1000 MUTUAL CONDUCTANCE TUBE TESTER

A true dynamic mutual conductance tube tester at an amazingly low price!

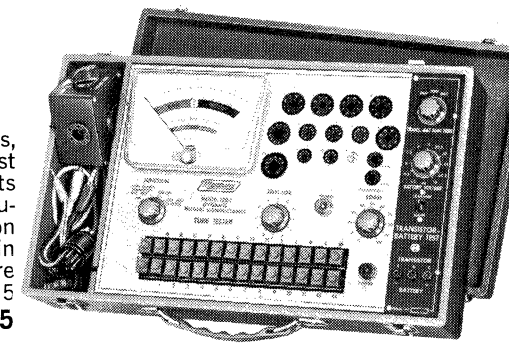


Tests all tube types, old and new including Novars, Nuvistors, Compactrons, 10-pin type, battery type, foreign, hi-fi, Thyratrons, voltage regulators and most industrial types • Tests picture tubes • Tests for true dynamic mutual conductance (Gm) • Tests for shorts, leakage and gas • Lever switches provide complete versatility in accommodating all tube types and basing arrangements—today and in the future • Checks each section of multi-section tubes separately • Automatic line voltage regulation • Long lasting phosphor bronze tube sockets • Two-tone etched aluminum panel • 5 year FREE tube data • Size: 14″x9½″x4¾″.

Dealer Net . . . **$79.95**

Model 1200 MUTUAL CONDUCTANCE TUBE TESTER

Deluxe dynamic mutual conductance tube tester with FAST PUSH BUTTON SETTINGS . . .

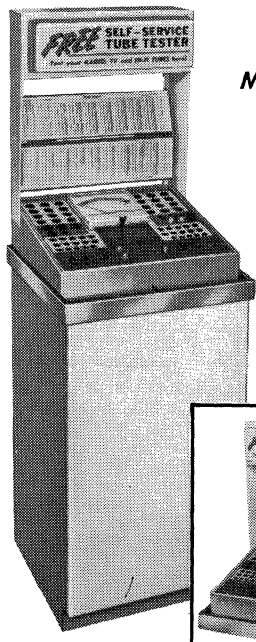


Tests all tube types, old and new including Novars, Nuvistors, Compactrons, 10-pin type, battery type, foreign, hi-fi, Thyratrons, voltage regulators and most industrial types • Tests all black and white and all color picture tubes • Tests transistors and diodes • Tests batteries under load • Tests for true dynamic mutual conductance (Gm) • Tests for shorts, leakage and gas • Checks each section of multi-section tubes separately • Push buttons provide complete versatility in accommodating all tube types and basing arrangements—today and in the future • Automatic line voltage regulation • Two-tone etched aluminum panel • 5 year FREE tube data • Size: 18¼″x10¾″x4¾″.

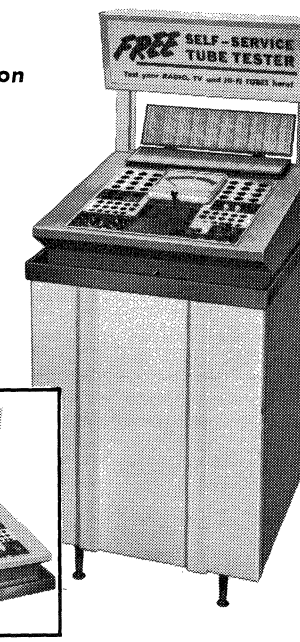
Dealer Net . . . **$119.95**

MERCURY SELF-SERVICE TUBE TESTERS

Modern eye-stopping testers . . . big income producers in any location



Here is everything you want in self-service tube testers at down-to-earth prices. **VERSATILITY**—Tests emission, shorts and gas of over 1200 tube types including the very latest NUVISTORS, NOVARS, COMPACTRONS, 10-PIN type, etc . . . Also tests fuses, pilot lights, 6 and 12 volt auto radio vibrators, all type batteries under load. **SMART APPEARANCE**—Modern cabinet design finished in rich green and white color combination with gold trim. **QUALITY FEATURES**—Completely self-service . . . only two easy-to-use controls are required to test any tube . . . Easy-to-read quick flip tube charts list over 1200 tube types . . . Engineered to accommodate new tube types as they are introduced . . . Etched aluminum panel always retains its handsome appearance . . . 63 phosphor-bronze beryllium tube sockets assure positive contacts and long life.

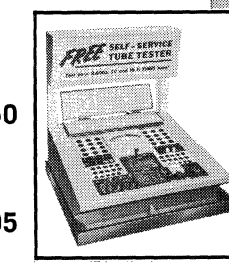


Model 202-LB
(Lo-Boy Floor Model)
Dealer Net **$184.50**

Model 202-C
(Counter Model)
Dealer Net **$129.95**

Model 203-LB
(Deluxe Lo-Boy Floor Model)
Dealer Net **$254.50**

Model 203-C
(Deluxe Counter Model)
Dealer Net **$166.95**



MERCURY ELECTRONICS CORP., Mineola, New York

© U.C.P., Inc.

Net

PRECISE TEST EQUIPMENT

KITS AND FACTORY WIRED

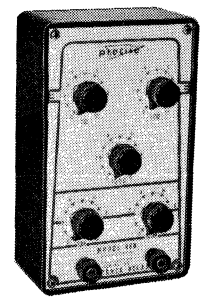
PRECISE ELECTRONICS & DEVELOPMENT CORP. Subsidiary of Designatronics, Inc., Mineola, N. Y.

MODEL 478 CAPACITY DECADE BOX

Reaches over 1 MFD at 1% accuracy. FOUR DECADES. All capacitors within ± 1% and of silver mica and low-drift, molded construction. Aluminum panel; rugged construction; complete with simplified construction manual. Size 3¾"x6¼"x2".

Model 478K, Kit—NET.....$51.95

Model 478W, Wired—NET.....$59.95

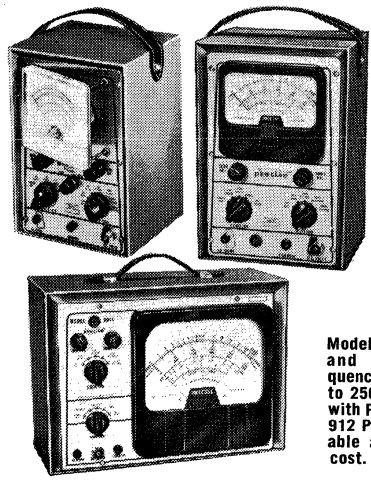


MODEL 468 RESISTANCE DECADE BOX

5 Separate Switches, 11 Positions on Each; Better than ±1% for Extreme Accuracy; Readings from 10 OHM to 1,111,110 OHM in 5 Decades.
Aluminum Panel; Rugged Construction; Complete with Simplified Construction Manual. High impact Bakelite case 3¾" x 6¼" x 2".

Model 468K (kit).....NET **$51.95**

Model 468W (wired).....NET **$59.95**



Models 904, 907 and 9071. Frequency range up to 250 megacycles with Precise Model 912 Probe— available at additional cost.

MODEL 904 VACUUM TUBE VOLTMETER You can tilt the meter left, or right, or up, or down —or even straight ahead—so that it follows the user correcting for parallax all the way. Another Precise first is the "Lead Magician Switch"—which allows your leads to remain in any circuit while you short the VTVM for proper 'Zero Adjust' and open the leads for 'Infinite ohms Adjust'—all this without changing leads. Since three leads are provided, you can leave the 904 connected to both an AC and a DC voltage and take both measurements by rotating the FUNCTION switch and the Lead Magician Switch.
The 904 is fully B+ and B— regulated to maintain readings. Rugged oversize 4½" meter. Wt. 10 lbs. 10"x7"x5".
RANGES: AC-VOLTS: RMS 1.5, 5, 15, 50, 150, 500, 1,500 Peak to Peak 4, 14, 140, 400, 1,400, 4,000.
—DC VOLTS: 1.5, 5, 15, 50, 150, 500, 1500 +DC VOLTS: 1.5, 5, 15, 50, 150, 500, 1500 OHMS: Rx1; Rx10; Rx100; Rx1000; Rx10,000; Rx100,000; Rx1,000,000.
MODEL 904K. Kit. NET.....**$39.95; MODEL 904W.** Factory Wired. NET.....**$49.95**

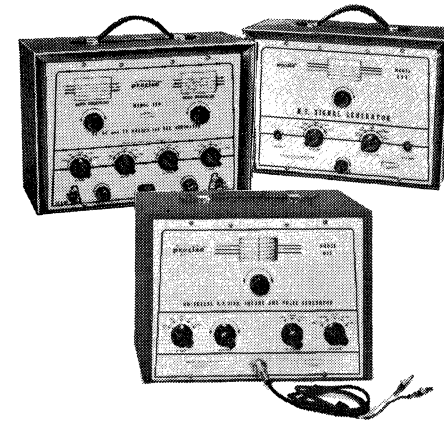
MODEL 909 VACUUM TUBE VOLTMETER 1% precision Resistors; Coax DC connector; FM zero alignment scale; burn-out proof circuit; 25 megohm input impedance on DC complete with test leads and internal battery. Rugged oversize 4½" meter. Wt. 10 lbs. 10"x7"x5".
RANGES: +DC: 0-5-25-250-500-1000 Volts; —DC: 0-5-25-250-500-1000 Volts; AC: 0-5-25-250-500-1000 Volts; Ohms: Rx1-Rx10-Rx1000-Rx10,000-Rx1,000,000 ohms; from .2 Ohms to 1 Billion Ohms: DB: From —20 to +55 DB.
MODEL 909K. Kit. NET..... **$29.95; MODEL 909W.** Factory wired. NET.....**$39.95**

MODEL 9071 . . .VACUUM TUBE VOLTMETER WITH VR.
VR TUBE assures true, accurate and stable readings . . . no drift . . . no shift . . . large, rugged 7½" meter; 1% precision resistors; separate 5V AC scale; 25 MEG input on DC; true zero center; aluminum panel; sturdy steel case; step-by-step 3 color construction book. Wt.: 11 lbs. Size: 11"x8"x5".
(same ranges as Model 909) **MODEL 9071K.** Kit. NET..... **$39.95**
MODEL 9071W. Factory wired. NET.....**$59.95**

MODEL 630-K. RF-AF AND TV MARKER GENERATOR

Reaches 110 mc on fundamentals; 330 mc on harmonics. pre-assembled calibrated heads; audio, 20-20,000 cps; cathode follower output; variable percent modulation; crystal marker; RF, AF stand-by; Wien Bridge AF oscillator; Colpitts RF oscillator; coax fittings. Also has constant output impedance; Vernier tuning; separate RF section; individually tuned coils; full shielding; filtered line. Size 8"x11"x15". Has aluminum panel, leather carrying handle. For 110-120 v., 50-60 cycle AC.

MODEL 630K. Kit. NET.....**$44.95**
MODEL 630-KA preassembled RF head. NET.....**$52.50**
MODEL 630-W wired. NET.....**$69.95**



MODEL 635 UNIVERSAL AF SINE, SQUARE AND PULSE GENERATOR

For accurate testing of audio and video circuits. 1% Ceramic precision resistors; Wien Bridge; variable Z and cathode-follower output; minimum overshoot and roundoff through 100,000 cycles; sine waves through 200 KC. Size: 8"x11"x15".

MODEL 635K Kit .....**$39.95** **MODEL 635W.** wired.....**$54.95**

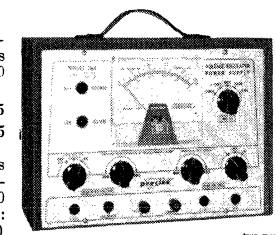
MODEL 610 RF SIGNAL GENERATOR

Same RF head as Model 630; 110 MC on fundamentals; 330 MC on harmonics; 60 and 400 cycle AF; Cathode-follower output; Ext. Mod.; Individually tuned coils. Size: 8"x11"x15".

MODEL 610KA (pre-assembled head) NET.....**$34.95; MODEL 610K** (Kit) NET.....**$27.50**
MODEL 610W (wired) NET.....**$39.95**

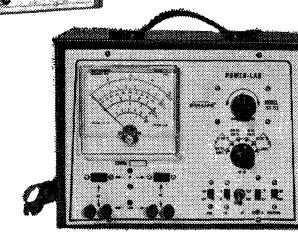
MODEL 760 VOLTAGE REGULATED POWER SUPPLY Compact, Versatile. A must for every serviceman, ham and lab man. 140 Volts to over 450 Volts D.C. with 1% accuracy. Measures current up to 100 ma. depending on voltages. Unregulated variable D.C. from 450 to 1000 Volts, positive or negative. Unregulated A.C. 6.3 and 375 Volts.

MODEL 760 K. (kit) NET **$49.95**
MODEL 760 W. (wired) NET **$69.95**



MODEL 713 POWER LAB Most versatile bench-type power supply on the market. Combines variable low and high-voltage AC and DC supplies, wattmeter, voltmeter, AC and DC ammeter, and isolation transformer in one compact unit. DC power available is 0-30 v. at 10 amps and 140 to 200 v. at .75 amps. (1 amp intermittent) AC power: 0-24 v. at 20 amps: 90-140 v. at 10 amps continuous (1000 watts) and 20 amps intermittent (2000 watts) without isolation: 90-140 v. at 3 amps (300 watts) with isolation. Meter reads AC, DC current to 20 amps, AC, DC voltage to 180 v.; power to 2 KW. 12x8½x5¼". For 110-120 v., 60 cycle AC.

MODEL 713-K. (kit) (300 watts of isolation) NET **$69.95**
MODEL 713-W (wired) NET.....**$89.95**
MODEL 711-K. (kit) (100 watts of isolation) NET **$59.95**
MODEL 711-W. (wired) NET.....**$74.95**



Prices Slightly Higher West of Miss.

Net

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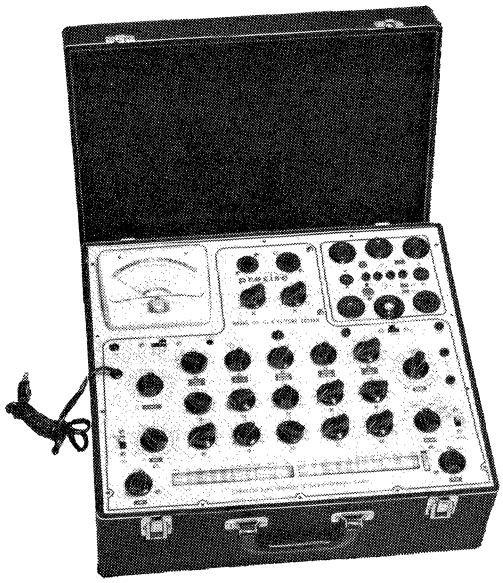
PRECISE TEST EQUIPMENT

KITS AND FACTORY WIRED

PRECISE ELECTRONICS & DEVELOPMENT CORP. Subsidiary of Designatronics, Inc., Mineola, N. Y.

NEVER OBSOLETE!

USE ROLL CHART OR TUBE MANUAL



Model 111M Gm, Em TUBE AND TRANSISTOR TESTER

A highly accurate and dependable instrument for checking ALL modern tube types as well as transistors and diodes. Check Cathode-Ray Tubes with an adaptor.

LOOK AT THESE OUTSTANDING FEATURES:

- Any test voltage can be applied to any pin of the many test sockets.
- New tubes are tested by using base connections indicated in tube manual or data sheet.
- Voltages from zero to higher-than-normal test tube over entire characteristic range.
- Rotary switches connect elements individually. No resetting necessary to make short tests.
- Meter indicates filament current, Bias, Em and Gm.
- Short test checks elements against each other. Test may be made at any time—with tube hot or cold—without resetting element switches. Shorts are indicated directly—no conversion charts.
- Sockets for testing large 4, 5, 6 and 7 prong tube base as well as medium 7, in-line 7, miniature 7 and 9, subminiature 8 pin, octal, loctal, 10-pin Sylvania, Nuvistor, Novar and Compactron.
- Roll chart indicates best test—Gm for RF and IF tubes, Em for power tubes—for Evaluation.
- Semiconductor diodes, transistors and tetrode transistors are checked for leakage and gain.
- Pilot lamps are tested in special socket.
- Gas current test for multiple-element tubes.
- Life test available as guide to tube quality.
- Noise test indicates intermittents.
- Self-bias testing simulates actual operation.
- Characteristic curve can be viewed on oscilloscope with jacks provided.
- Case is rugged, attractive, Leatherette-covered wood. Size: 14 x 16 x 6 inches. Weight 24 pounds—with aluminum panelled instrument.

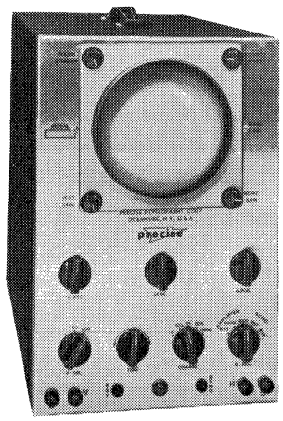
Model 111MK — Kit NET.....$115.95

Model 111MW — Wired NET..... 199.95

ADAPTOR FOR CATHODE RAY TUBES

Model 111M PTA-K — Kit NET.....$ 4.15

Model 111M PTA-W — Wired NET..... 6.25



MODEL 315 5″ OSCILLOSCOPE

A high quality Oscilloscope for Industrial, general radio and television applications. It has frequency compensated vertical and horizontal attenuators along with identical vertical and horizontal amplifiers.
The Model 315 is rugged and in kit form simple to build. Both the horizontal and vertical sections are cathode-follower input and AC coupled.
The instrument is housed in a steel cabinet, attractive brushed aluminum front panel with black lettering.

SPECIFICATIONS

VERTICAL: The vertical amplifier, ±3db through 250 KC. Single ended, AC coupled cathode-follower, frequency compensated step attenuator input, sensitivity approximately 250 MV/inch, Outputs are push-pull.
HORIZONTAL: The same general specifications as the vertical amplifiers.
SYNCHRONIZATION: External and internal.
SWEEP RATE: From approximately 10 cycles through 100 KC. Hard vacuum tube type sweep circuit.
CALIBRATION: 6.3 volts sine wave.
FOCUSING: Focus, Intensity and Astigmatic controls. The astigmatism control is available from the rear of the cabinet. A standby switch is used to turn-off the CRT filament when not in use.

Model 315K — Kit NET.....$ 79.95

Model 315W — Wired NET..... 113.95

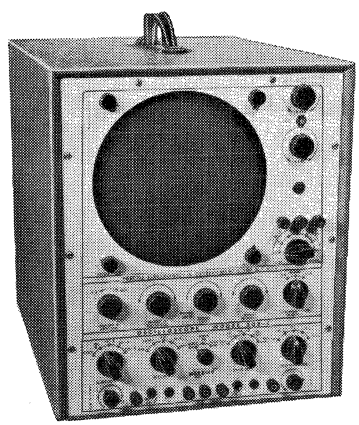
MODEL 3151 COLOR OSCILLOSCOPE

Here's an Oscilloscope that goes up to and over 5mc and relatively flat through 5mc. It not only takes color in its stride, but is ready for the new advances still on the drafting boards.
There are no short cuts in this laboratory type service scope — Push-pull Vertical and Horizontal — High sensitivity — Frequency Compensated Step Attenuators for both Vertical and Horizontal — Focus, Intensity and Astigmatism controls — Calibration output voltage.
VERTICAL: The vertical amplifiers are ±3 db through 5 MC and useable through 7.5 MC. The sensitivity is 10 MV/cm. Frequency compensated step attenuator in the input. The output, push-pull amplifiers.
HORIZONTAL: The horizontal amplifiers are within ±3db through 250 KC. Push-pull output. Frequency compensated step attenuator input and cathode-follower assures linear horizontal trace. Sweep circuit provides sufficient expansion to see color bursts clearly. Horizontal sensitivity is approximately 40 MV/cm.
SYNCHRONIZATION: External and internal.
SWEEP RATE: From approximately 10 cycles through 100 KC. Hard vacuum tube type sweep circuit.
CALIBRATION: 6.3 volts sine wave.
FOCUSING: Focus, Intensity and Astigmatism controls.
Brushed aluminum Panel. Heavy steel cabinet. 13¼″ x 8¼″ x 18½″.

Model 3151K — Kit NET.....$ 89.95

Model 3151W — Wired NET..... 137.95

MODEL 300 C OSCILLOSCOPE



A high quality Oscilloscope for general laboratory, radio and television applications.

SPECIFICATIONS

VERTICAL: Vertical amplifiers ±2db DC through 5 mc, Sensitivity greater than 10 MV/inch, (3.94 MV/cm). Frequency compensated vertical step attenuator selects AC or DC inputs. Push-pull DC amplifiers from input through output.
*Internal electronic input mixing through inputs 1 and 2.
HORIZONTAL: Frequency compensated step attenuator and horizontal amplifier, Push-pull horizontal output.
BLANKING: Internal (return trace blanked), external (return trace not blanked), 60 & 120 cycle blanking through blanking amplifier circuits.
SWEEP RATE: Driven or non-driven linear sweeps from one cycle through 80 KC in 5 ranges (1 to 10 cycles uses external C Circuit), Trigger potentiometer.
MAGNIFIER: Electronic magnifier and magnifier positioner allows any part of a signal to be magnified up to ten times, (up to 80″ of magnification).
SYNCHRONIZATION: Sensitive circuitry provides jitter free high frequency synchronization.
CALIBRATION: Internal calibration wave-form, potentiometer controlled. Edge-illuminated graticule may be turned on or off.
OUTPUTS ON FRONT PANEL: Plus gate output; sawtooth output; 60 cycle phasing output; 60 cycle unphased output; Calibration output.
FOCUSING: Focus, Intensity and Astigmatism controls on front panel.
DIRECT: Deflection plates available from rear of cabinet.
INTENSITY MODULATION: Z modulation through modulation amplifier circuits.
CATHODE RAY TUBE: 7″ tube normally supplied with medium persistency screen, green trace; (high persistency types available at additional cost).
GENERAL: Power supply adequate for additional circuitry; high quality low loss components; Brushed Aluminum panel; steel cabinet 11″ x 14″ x 17″; complete with instruction book.
ACCESSORIES: Model 912T (MM) Demodulator Probe and Model 960 Capacity Attenuator Probe available at extra cost.
*Input attenuator switch #2. Additional switch and components available factory wired or in kit form, available at extra cost. Hole for installation of attenuator Switch #2 located above input binding posts on front panel.

Model 300 CK — Kit NET.....$169.95

Model 300 CW — Wired NET..... 222.95

MODEL 308

The same basic specifications as the Model 300C with the following additionals and two changes (4 & 5).

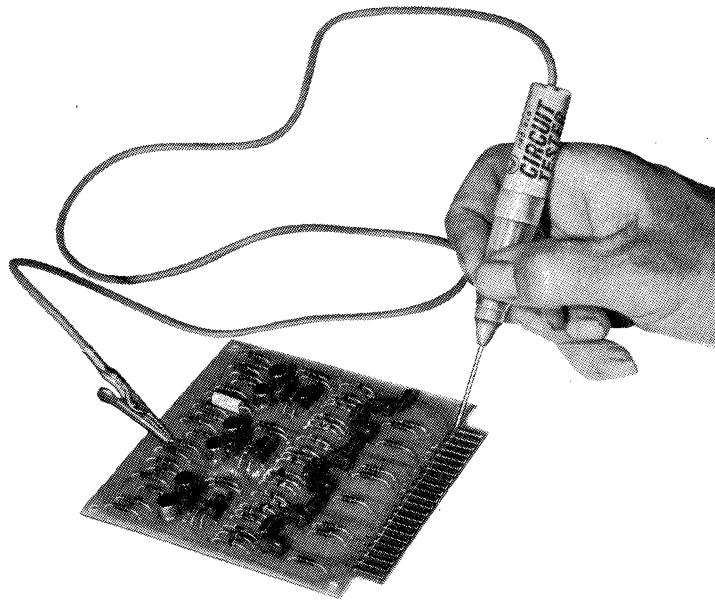
1. Voltage regulation in the horizontal circuits.
2. Hi-Low, normal synchronization switch.
3. High B+supply employing a 6AU4 rectifier for the second anode voltage of CRT.
4. An 8″ Cathode Ray tube (8CP1 is used instead of 7JP1)
5. Size 11″ x 14″ x 19″.

Model 308K — Kit NET.....$179.95

Model 308W — Wired NET..... 249.50

PARAGON® *PRO-GLO*®
CIRCUIT TESTER

A simple, inexpensive instrument for quick checking of non-energized circuits



For Checking

relay contact points
wiring harnesses
ground connections
terminal strips
printed circuits
switches
chassis wiring
fuses
motor windings

and in the Home

extension cords
floor lamps
power tools
fuses
electrical appliances

Consists simply of plastic case containing a battery and lamp, a pointed probe and 3-foot lead wire with alligator clip. In use, clip is connected to ground or common circuit point and probe is touched to various other circuit points. When resistance is less than 1 ohm, lamp glows brightly in translucent case. On open or high resistance circuits, no glow appears, and if continuity is poor, lamp glows dimly.

Signal light at point of contact eliminates necessity for shifting eyes to read meter, increases speed and accuracy in point-to-point testing; avoids distractions from buzzers of nearby workers. Inexpensive enough to be distributed to each person who checks circuits.

To assure long life and reliability, probe and battery contact spring are tin-plated beryllium copper, case is high-impact plastic, and wire is heavy-duty, highly flexible test lead. Uses standard size AA penlight battery and #112 lamp. Model CT-1.

Dealer Net Price $.98

NEW *PRO-GLO*® DIODE TESTER

CHECKS FOR
- **POLARITY**
- **SHORTS**
- **OPENS**

Similar and made of the same high quality materials as PRO-GLO Circuit Tester Model CT-1 described above, but larger case accommodates two AA penlight batteries and #222 lamp. In addition to testing diodes, extra voltage makes this a useful instrument for checking continuity in circuits with resistance up to 10 ohms. Model CT-2

Dealer Net Price $1.35

PARAGON ELECTRIC COMPANY, INC.
Subsidiary of American Machine & Foundry Company
TWO RIVERS, WISCONSIN

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Division of American Machine & Foundry Company
261 Madison Avenue, New York, New York 10016
Cable: "AMMAFOCO" New York

Stocked, sold and serviced in Canada through
Phillips Electrical Company Limited
26 Hollinger Road, Toronto 16, Ontario

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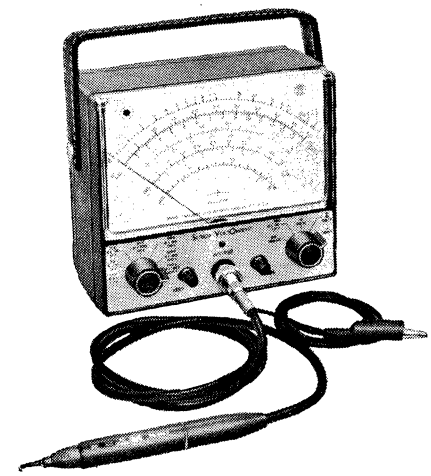
RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WV-98C Senior VoltOhmyst®

(Kit or Wired)



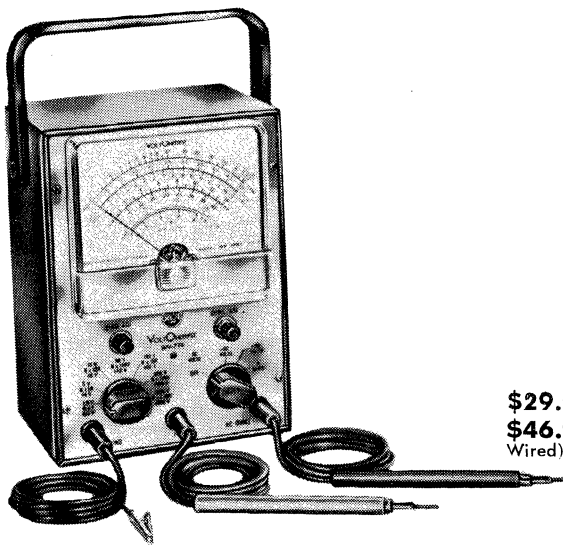
Application: provides direct reading of peak-to-peak voltages of complex waveforms found in video, sync and deflection circuits. Includes an improved circuit providing ±3% accuracy full scale on both ac and dc measurements with less than 1% tracking error. Separate color-coded, peak-to-peak and rms-voltage scales in two distinctive colors simplify readings. Features die-cast aluminum case; high input resistance; electronic protection against burnout; rugged 200-microampere meter movement; precision multiplier resistors with accuracy of ±1% and 0.5-volt full-scale dc range for checking transistor circuits.

- **Large 6½" easy-to-read, full vision meter (26 sq. in.).**
- **Measures complex waveforms directly from 0.2 volt to 4200 volts peak-to-peak in 7 overlapping ranges.**
- **Measures rms values of sine waves from 0.1 volt to 1500 volts in 7 overlapping ranges.**
- **Measures from 0.02 volt to 1500 volts dc on two scales in 7 overlapping "3-to-1" ranges.**
- **INPUT RESISTANCE — 11 megohms on all dc ranges.**
- **Measures resistance from 0.2 ohm to 1000 megohms on single scale, with 7 overlapping ranges.**
- **FREQUENCY RESPONSE — 30 cps to 250 Mc with WG-301A Crystal-Diode Accessory Probe.**
- **Compact design: 7" wide, 3¾" deep, 6½" high.**

Kit features pre-assembled DC/AC-OHMS Probe

$57.95* WV-98C(k) Senior VoltOhmyst Kit.
$79.50* WV-98C Senior VoltOhmyst (Factory Wired).

WV-77E VoltOhmyst® (Kit or Wired)



The WV-77E features flat frequency response ±5% from 40 cps to 5 Mc on the 1.5, 5, and 15-volt rms ranges and the 4, 14, and 40-volt peak-to-peak ranges. The WV-77E measures dc from 0.02 volt to 1500 volts, rms ac from 0.1 volt to 1500 volts, peak-to-peak ac from 0.2 volt to 4000 volts, and resistance from 0.2 ohm to 1000 megohms—all in seven overlapping ranges! Full-scale accuracy is ±3% on dc and ±5% on ac. Meter is electronically protected against burnout. Separate scales are provided for low ac measurements. Input resistance is standard 11 megohms. Width 5⅝", Height 7¾", Depth 4¾", Weight 5 lbs.

- **Fuse in ohms circuit prevents accidental burnout**
- **Circuit minimizes effect of residual gas in bridge tube**
- **Color-coded scales for easier, faster readings**
- **Ultra-slim probes and extra-flexible cables**

$29.95* WV-77E(K) VoltOhmyst Kit
$46.95* WV-77E VoltOhmyst (Factory-Wired)

(Prices for WV-77E(K) and WV-77E include d probe and cable, ac/ohms probe and cable, groun lead and clip, and instruction booklet. Assembl instruction sheet is provided with the WV 77E(K) VoltOhmyst Kit.)

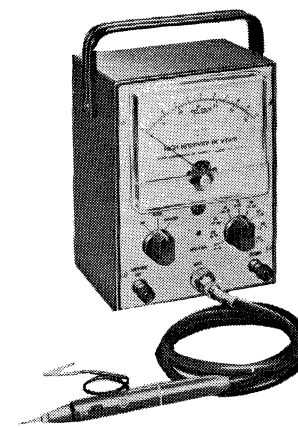
WV-76A HIGH-SENSITIVITY AC VACUUM-TUBE VOLTMETER

(Kit or Wired)

This RCA high-sensitivity AC Vacuum-Tube Voltmeter is designed for audio application in industry, laboratories and schools. It is also useful in broadcast, design and development, production, and servicing applications. Typical uses include frequency response test of pre-amplifiers, power amplifiers and tone-control circuits; feedback circuit design, signal tracing, audio-level and power-level measurements, gain measurements, amplifier balancing application and general audio voltage measurements.

- **Nine overlapping AC voltage ranges — from 10 millivolts to 100 volts full scale. When the WG-300B input probe is set in the "Low-Cap" position, up to 500 volts or +56 db may be measured.**
- **Frequency response is flat from 10 cps to 500 Kc with "Low-Cap" probe, 10 cps to 1.5 Mc with "Direct" probe.**
- **May be used as preamplifier: 38 db maximum gain on 10-millivolt range**
- **High input impedance—permits measurements in circuits sensitive to loading**
- **Probe and cable shielded throughout its length—eliminates pick-up from stray fields**
- **Feedback loop from metering circuit provides additional stability and linearity**
- **Heavy filtering in power-supply section keeps hum to extremely low level**

EQUIPMENT SUPPLIED:
The RCA WG-300B shielded direct/low capacitance probe and cable is supplied with the WV-76A. A switch in the probe housing provides for switching from direct to low-capacitance input. In "DIRECT" position, probe measures up to 100 volts; in "LOW-CAP" position, probe can be used to measure up to 500 volts or +56 db.

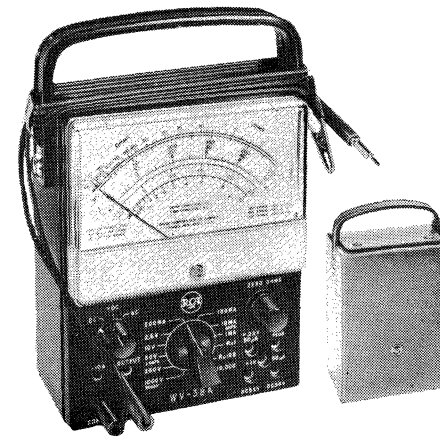


$79.95* factory wired and calibrated.
$57.95* Kit
**User Price (Optional)*

RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WV-38A V-O-M (KIT or WIRED)



NEW FEATURES:

- **Meter movement protected against burnout**
- **New 2-color front panel**

Ohms-divider network fuse-protected. Easier-to-read scales on extra-large 5¼ inch meter. Polarity reversal switch. Full-wave bridge rectifier. Less circuit loading. Standard dbm ranges.

Extra 1-volt and 0.25-volt (250 mv) ranges.

Handle clips accommodate probes and test leads for extra carrying convenience.

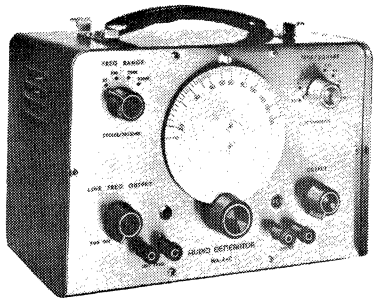
The WV-38A VOM has an input resistance of 20,000 ohms-per-volt on dc and 5,000 ohms-per-volt on ac and an accuracy of ±3% of full scale on dc, ±5% of full scale on ac. Regular scales: 2.5, 10, 50, 250, 1000, 5000 volts, ac and dc; 50 μamp, 1, 10, 100, 500 ma, 10 amps (dc); plus extra scales of 250 mv and 1-volt (dc)! Frequency response (ac), flat from 10 cps to 50 Kc with usable response at 500 Kc. Ohms—3 ranges—R x 1 (0-2,000 ohms), R x 100 (0-200,000 ohms), R x 10,000 (0-20,000,000 ohms). Dimensions: W 5¼" x H 6⅞" x D 3⅛".

$29.95* WV-38A(K) VOM Kit
$43.95* WV-38A VOM (factory wired and calibrated)

WG-270A Accessory Carrying Case for WV-38A VOM **$4.95***

WA-44C AUDIO SIGNAL GENERATOR

SINE/SQUARE WAVE OUTPUT



$98.50* Complete with 20 page instruction booklet.

The Compact WA-44C is ac operated from a 50-to-60 cycle, 105-125 volt source, and covers in four bands a range from 20 cps to 200,000 cps. Can be used for a wide variety of applications, including the measurement of frequency response characteristics of audio amplifiers, and the testing of loudspeakers and enclosures or finding the impedance of LC combinations. Width 10$^{11}/_{16}$", Height 7", Depth 6⅛".

The circuit of the sine-wave function consists of a "Bridged-T" oscillator with a cathode follower output stage. The square-wave output is developed by using the sine-wave oscillator output to drive a clipping and shaping circuit. Produces a stable signal with an amplitude variation of not more than ±1.5 db. Total harmonic distortion is limited to 0.25% over the range of 30 cps to 15 kc.

- Switch selection for sinewave or squarewave output
- Simple one-scale dial
- Separate 60 cps output for intermodulation distortion measurements
- Wide frequency range, 20 cps to 200,000 cps.
- Less than ¼ of 1% distortion over the audio-frequency range

WR-64A COLOR-BAR/DOT/CROSSHATCH GENERATOR

$189.50*

Complete with RF output cable, cable-carrying bracket attachment and instruction booklet.

For checking over-all operation of Color-TV receivers. A "must" for adjusting and trouble-shooting color phasing and matrixing circuits. Generates signals for producing ten bars of different colors simultaneously. Also provides extremely stable fine-line crosshatch and dot patterns free from "jitter" and "crawl". Fixed number of bars and dots facilitate adjustment of over-scan (height and width) and linearity in both color and black-and-white sets.

The Color-Bar and Dot/Crosshatch generating functions require no external sync connections. All three patterns are RF outputs, factory set to channel 3 (can be set to channel 4). A sound carrier is provided to permit accurate adjustment of the fine-tuning control on the receiver.

The WR-64A features a chroma control helpful in checking color sync lock and color AFC alignment. The color sub-carrier frequency, the horizontal sync-pulse frequency, and the "bar" frequency are all crystal controlled. A shielded output cable is provided with the instrument. Width 13½", Height 10", Depth 7½". Weight only 13 pounds.

**User Price (Optional)*

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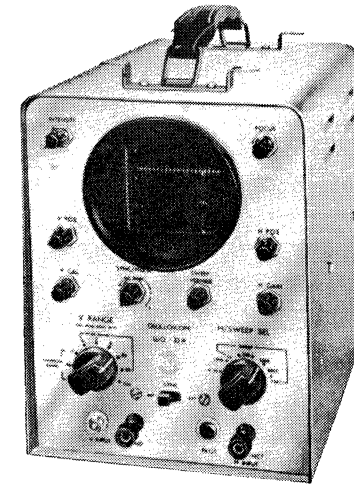
RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WO-33A OSCILLOSCOPE (Kit or Wired)



The WO-33A 3-inch Oscilloscope is the "all purpose" scope! All the bandwidth you need for servicing color-TV, video broadcast monitors and cameras; and for square-wave testing of audio and ultrasonic equipment! All the gain you need for low-level audio work — servicing pickups, microphones, preamps; plus signal-tracing radios, amplifiers—trouble shooting communications signaling systems, ham radio and hi-fi equipment, industrial electronics machinery and other applications.
With vertical amplifier in narrow-band position, sensitivity is 3 rms millivolts/inch; bandwidth within −3 db, 20 cps to 150 Kc. Wide band position: sensitivity 100 rms millivolts/inch; bandwidth within −3 db, 5.5 cps to 5.5 Mc. Sweep circuit: Sawtooth range from 15 cps to 75 Kc; sync — external, ± internal; line sweep — 160° adjustable phase; sync range—to 4.5 Mc.

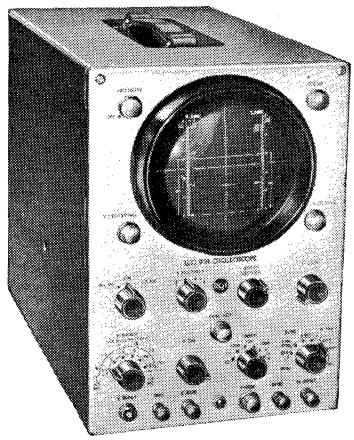
- **for accuracy—voltage-calibrated frequency-compensated, 3-to-1 step attenuator**
- **for measurements—scaled graph screen and calibrating voltage source allows direct reading of peak-to-peak voltages**
- **for stability—"plus-minus" internal sync . . . holds sync to 4.5 Mc**
- **for completeness—shielded input cable with low-capacitance probe included**
- **for portability—compact size—W 6½" x H 8¾" x D 10¼"—weight only 14 lbs. Plus built-in brackets to hold power cord and cables**

$79.95* —WO-33A(K) Oscilloscope Kit

$129.95* —WO-33A Oscilloscope

(Prices for the WO-33A(K) and WO-33A include Direct Low-Cap probe and cable, and instruction booklet.

WO-91A 5" OSCILLOSCOPE



$249.50* complete with WG-300B two-way Direct/Low-Capacitance Probe and Cable, alligator clip and insulator, ground cable; green graph screen. Instruction booklet.

Application: for production and servicing both black-and-white and color TV receivers. Used to measure color burst signals and for trouble-shooting wide-band color circuits, signal tracing and aligning wide-band video amplifiers, and chrominance circuits. A multi-scale graph screen makes peak-to-peak voltage measurements as simple as with a VTVM. Response: Wide-band within ±1 db from 10 cps to 4.5 Mc; High sensitivity within −1 db from 10 cps to 0.5 Mc: within −6 db to 1.5 Mc. Sensitivity: 0.05 volt peak-to-peak per inch (0.018 volts rms) in high-sensitivity position; 0.15 volt peak-to-peak per inch (0.053 rms volts in wide-band position).

- **Voltage - calibrated, frequency - compensated, 3-to-1 step attenuator for "V" amplifier.**
- **Shielded vertical-input connector and shielded cable minimize hum, stray field pickup.**
- **Input Resistance—1 megohm shunted by 40$\mu\mu$f. Low capacitance position—10 megohm shunted by 11 $\mu\mu$f.**
- **Z-Axis input 12 volts for blanking.**
- **Preset "V" and "H" sweep positions**
- **"Plus" or "Minus" internal-sync selector.**
- **Positive-lock internal sync.**
- **Sweep Frequency: 10 cps to 100 Kc**
- **Maximum ac input: 600 volts peak-to-peak.**
- **Weight: 30 lbs. Size 13½" x 16½" x 9".**

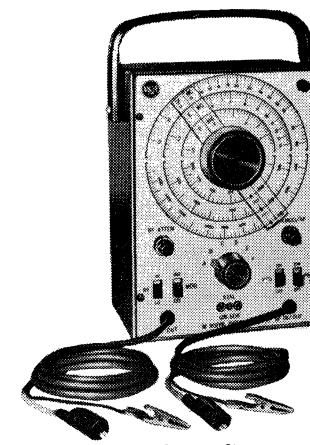
WR-50A RF SIGNAL GENERATOR

The RCA WR-50A RF Signal Generator is a highly versatile, readily portable instrument designed for use in the shop, laboratory or classroom for general television and radio servicing and other applications requiring a continuous wave or modulated RF sine-wave signal in the range from 85 Kc to 40 Mc. The unit is particularly well suited for such applications as alignment and signal tracing of AM, FM, High-Fidelity and Citizens' Band Receivers, and signal tracing and trouble-shooting in television receivers.

- **Easy-to-read dial scale and pointer for variable oscillator**
- **Convenient switch and control locations on front panel**
- **Output cables permanently attached**
- **Built-in DC blocking capacitors**
- **Calibrating oscillator circuit with front panel socket for crystal**
- **400-cycle oscillator for internal modulation of AF output**
- **Shielded cables for RF and AF output**
- **Height 7¾", Width 5⅜", Depth 4¾", Weight 5 lbs.**

$39.95* —WR-50A(K) RF-Signal Gen. Kit

$59.95* —WR-50A RF Signal Generator



**User Price (Optional)*

RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WR-51A
STEREO FM SIGNAL SIMULATOR

The RCA WR-51A Stereo FM Signal Simulator is a compact, lightweight instrument designed to generate the signals necessary for complete service and maintenance of stereo multiplex FM receivers and adaptors.

- **Choice of 4 FM signals—Left Stereo, Right Stereo, Special Phase Test, Monaural FM**
- **Choice of 8 sine-wave frequencies (400 cps, 1 Kc, 5 Kc, 19 Kc, 28 Kc, 38 Kc, 48 Kc, 67 Kc) available separately or for modulating FM signals**
- **100 Mc carrier tuneable ± 0.8 Mc to permit selection of a quiet point in the FM band**
- **19 Kc subcarrier, crystal-controlled within ± 2 cps**
- **100 Mc sweep signal adjustable from 0 - 750 Kc at 60 cps rate**
- **Choice of 3 composite stereo output signals—Left Stereo, Right Stereo, Special Phase Test**
- **Choice of 3 sine-wave frequencies for composite stereo signals**
- **Crystal-controlled markers for receiver IF and RF alignment**
- **Zero-Center meter for checking the balance of stereo amplifier output**
- **Height 10", Width 13½", Depth 8", Weight 14 lbs.**

$249.50*

EQUIPMENT SUPPLIED:
RF Output Cable — WG-227
50 to 300-ohm Padded Balun
Instruction Book

$137.50*

WR-86A UHF SWEEP GENERATOR

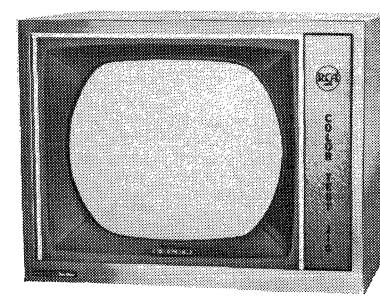
Invaluable for UHF TV application from 300 to 950 Mc, this UHF sweep generator combines a wide sweep range with a high output voltage of excellent amplitude linearity. A blanking circuit is included to provide a reference base line on an oscilloscope. Horizontal sweep frequency for the scope can be obtained from front-panel terminals. The WR-86A has 50-ohm output and will work into a 50-ohm unbalanced load or with the WG-296 padded balun provided into a 300-ohm balanced load. Use accessory WG-298A UHF Demodulator for visual observation and measurement of standing-wave ratio of termination on 300-ohm line. Width 13½", Height 9¾", Depth 7½".

- **Output frequency continuously variable on center frequencies from 300 to 950 Mc.**
- **Sweep width is 10% of indicated dial frequency up to 750 Mc; 85 Mc width from 750 to 950 Mc.**
- **Adjustable piston-type attenuator gives 60 db range of attenuation.**
- **At least 0.6-volt output across either 50 ohms or 300 ohms.**
- **Amplitude variation at maximum sweep width no greater than 0-1 db/Mc.**
- **Lightweight and portable, attractively styled.**

11A1015 COLOR TEST JIG

A "must" for any serviceman now servicing or planning to service Color TV receivers, the RCA Color Test Jig makes a one man service call out of costly two man cabinet pulling jobs. Eliminates necessity of removing picture tube from cabinet and of reconverging tube when chassis is returned. Convergence control panel provides dynamic as well as static convergence.

- Versatile—Can be used with CTC-4, 5, 7, 9, 10, 11 and 12 chassis.
- Safe—Supplied with factory-installed safety glass and kine mask.



SERVICE ACCESSORIES AVAILABLE FOR USE WITH RCA COLOR TEST JIG:

13A-100 High Voltage Extension Cable
13A-101 High Voltage Extension Cable
205-W1 Degaussing Coil
220-X1 Kinescope Socket Extension Cable
221-X1 Deflection Yoke Extension Cable
222-X1 Convergence Magnet Extension Cable
223-X1 High Voltage Extension Cable
224-X1 Convergence Magnet Extension Cable
225-X1 High Voltage Extension Cable
226-X1 Grid Shunt Switch & Cable
228-X1 Deflection Yoke Extension Cable
237-X1 Color Equalizer Magnet Kit

$135.00* Includes kit with all necessary components, hardware and instructions for installation of an RCA Tri-Color Kinescope (Kine not included)

******User Price (Optional)*

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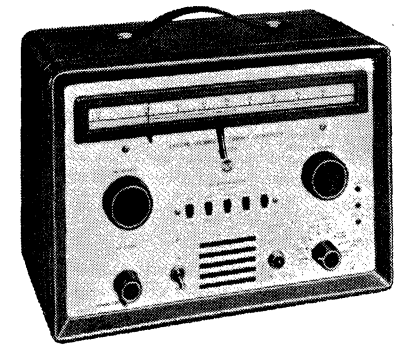
RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WR-99A CRYSTAL-CALIBRATED MARKER GENERATOR

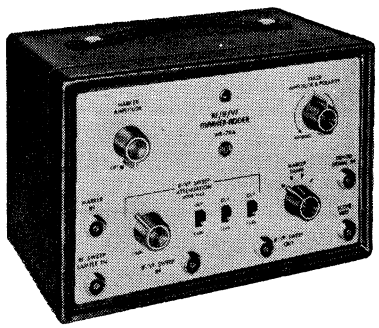
Application: supplies a fundamental frequency rf carrier of crystal accuracy for use in aligning and trouble-shooting TV (color and black-and-white) and FM receivers, and other electronic equipment operating in the range of 19 to 260 Mc. Built-in crystal calibrator, heterodyne detector, amplifier and speaker provides calibrating beats at 1 Mc or 10 Mc intervals throughout entire tuning range which is covered by 8 bands. A built-in 4.5 Mc crystal provides necessary accuracy for alignment of intercarrier-if amplifiers and discriminators.

- **At least 0.1 volt output, into 95 ohms terminated.**
- **Provides signals for adjusting vertical or horizontal linearity.**
- **Precision matched impedance/resistance pad attenuator, 0-60 db in 5 db steps.**
- **Special modulation input available for re-transmission.**
- **Provision for use as Heterodyne Frequency Meter.**
- **Provides dual markers for band-width checks and rf alignment**
- **Triple markers for sound-if alignment and band-width checks.**
- **Adjustable dial pointer for accurate registration with crystal-calibration check points.**



$256.50* complete with rf output cable, instruction booklet.

WR-70A RF/IF/VF MARKER ADDER



$74.50* complete with four coaxial cables and instruction booklet.

Application: for rf, if and video sweep alignment of both color and black-and-white TV receivers. Provides sharp, easy-to-read markers for alignment. A choice of four different marker shapes is available, permitting use of marker type best suited to the response curve. Designed for use with conventional marker and sweep generators, such as the RCA WR-39 and WR-89 series marker generators and the WR-59 and WR-69 series TV sweep generators. With the WR-70A, the marker signal is added to the sweep-response curve after the sweep signal is taken out of the receiver under test.

- **Eliminates or reduces distortion of sweep curve by the marker.**
- **Permits trap alignment without marker "suckout."**
- **Hi-Q markers — high in amplitude, narrow in width.**
- **Four marker choices — positive peak, negative peak, positive and negative peaks (wide band), positive and negative peaks (narrow band).**
- **Voltage stabilized for rock-steady trace display.**

SPECIFICATIONS

IF/VF sweep input — 50 Kc to 50 Mc. RF input — 50 Mc to 250 Mc.

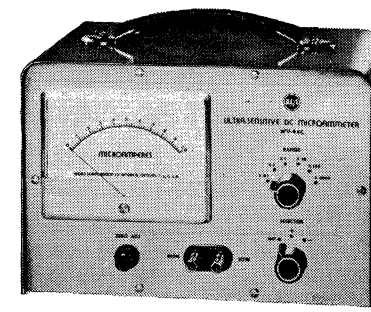
MINIMUM INPUT VOLTAGES — IF/VF — 0.1 volts rms. RF Sweep sample input—0.005 volts rms. Marker input—0.1 volts rms. Maximum demodulator signal input—8 volts peak-to-peak.

MAXIMUM SIGNAL OUTPUT — Marker signal — 2.5 volts rms. Demodulator signal — 10 volts peak-to-peak. Input and output impedances all 100 ohms except demodulator signal input of 0.5 megohm.
Weight: 8 lbs. Size: 7½" x 10½" x 6¼".

WV-84C ULTRA-SENSITIVE DC MICROAMMETER

Application: a battery-operated vacuum tube microammeter designed for measuring minute direct currents, for making current and voltage measurements in electrolysis and corrosion investigations, and for checking currents in light meters, ultra-violet and infrared detectors, and spectrophotometric devices. Self-contained batteries permit use almost anywhere. Low-drain tubes extend battery life and protect the delicate meter against burnout due to accidental overloads. When used as a voltmeter, it is especially suited to measurements in circuits where loading is a critical factor. Can also be used as an ohmmeter to measure extremely high resistances, such as leakage and insulation resistance.

- **Six direct-current ranges for measuring currents from 0.0002 to 1000 microamperes.**
- **Can be used as ohmmeter to measure resistance in the order of billions of ohms.**
- **Voltage drop for full-scale deflection only 0.5 volts.**
- **Input resistance of 100 megohms for measurement of voltages from 0.1 to 1 volt; 1000 megohms input resistance for voltages from 1 to 10 volts, 1005 megohms for voltages from 1 to 100 volts.**



$110.00* includes 50- and 950-megohm multiplier resistors, instruction booklet. (less batteries)

- **Over-all microammeter accuracy on .01 range ±5% or better; accuracy on all other ranges ±4% or better**
- **Size 7½" x 10½" x 6¼". Weight: 10 lbs. including batteries.**

**User Price (Optional)*

RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WT-115A COLOR PICTURE TUBE TESTER

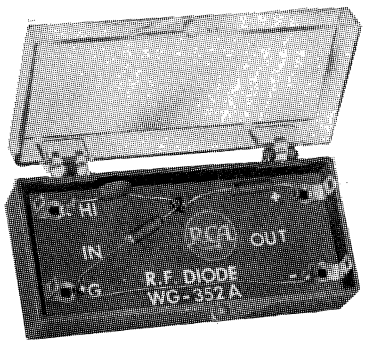
The RCA WT-115A Color Picture Tube Tester is designed specifically for the testing of color picture tubes, including types 21AXP22, 21AXP22A, 21CYP22, 21CYP22A, 21FBP22, 21FKP22, and 21FJP22. The RCA WT-115A offers a quick, reliable means of testing each gun of the color picture tube for emission quality (including warm-up performance), interelectrode leakage, and shorted elements. Readily portable, the WT-115A provides distributors and dealers with an accurate instrument for the testing of color picture tubes in the customer's home or in the store.

- **Designed specifically for testing TV color picture tubes**
- **Tests each gun for emission quality, interelectrode leakage, and shorts**
- **Large, 3-color, sensitive meter with two scales:**
  - **Red/green "quality" scale, with reference marks from 0 to 10**
  - **Separate yellow scale to indicate interelectrode leakage**
- **Sensitive meter and cut-off adjustment control for evaluating the true emission of each gun**
- **Neon shorts indicator**
- **AC line-voltage adjustment for accurate measurements**
- **Test procedure includes 2-minute and 4-minute tests for determining warm-up performance of tube**
- **Tests color picture tube in-set or out-of-set**
- **Built-in cable and socket assembly**

$89.50* Complete with sturdy laminated vinyl case with convenient cable storage compartment.

***User Price (Optional)**

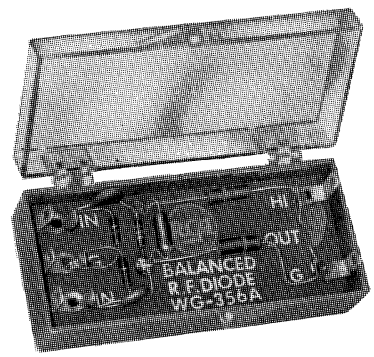
WG-352A
RF DIODE



The RCA WG-352A Rf Diode is designed for use with the RCA WV-38A or WV-38A(K) Volt-Ohm-Milliammeter in rf applications from approximately 100 kc to 100 Mc. When the WG-352A is connected in a high frequency circuit, it will provide rectified output which can be read directly from the meter scales of the WV-38A.

$2.95*

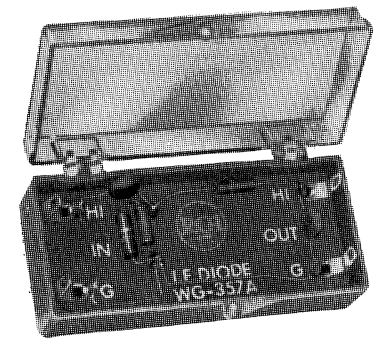
WG-356A
BALANCED RF DIODE



The RCA WG-356A Balanced RF Diode is designed for use with an oscilloscope, such as the RCA WO-33A or WO-91A, in measuring the voltage output of sweep-frequency generators having balanced, 300-ohm output circuits, and for checking the bandpass and gain characteristics of VHF TV rf preamplifiers and antenna distribution amplifiers. The diode is useful through the video/if/rf frequency range up to approximately 250 Mc.

$3.95*

WG-357A
IF DIODE



The RCA WG-357A IF Diode is an unbalanced detector-demodulator designed primarily for use with an oscilloscope, such as the RCA WO-33A or WO-91A, in displaying the sweep output from an if/video sweep generator having an unbalanced output circuit. The WG-357A, which is usable up to approximately 100 Mc, can also be used to observe the rf/if response of individual amplifier stages. It has a maximum input signal rating of 20 rms volts, and a maximum dc voltage rating of 250 volts.

$3.95*

***User Price (Optional)**

Net

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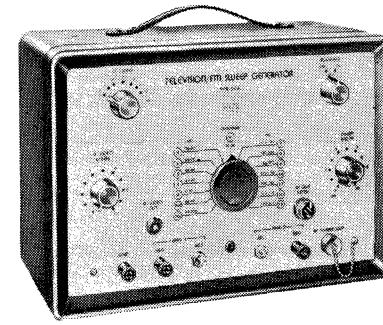
RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WR-69A
TELEVISION/FM SWEEP GENERATOR

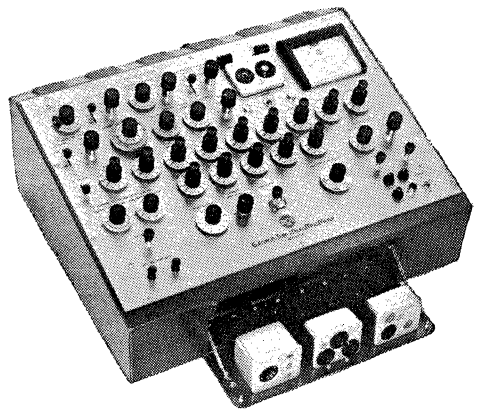


Tops for visual alignment of both TV and FM receivers, the WR-69A has preset switch positions for all VHF TV channels, the FM broadcast band, and TV video, chrominance, and if frequencies. VHF output is on fundamental frequencies only; no beat notes or harmonics are used. Exceptionally good linearity is provided by a precision vibrator capacitor. Continuously adjustable sweep width and flat output make for accurate sweep response portrayals. The WR-69A is especially suited to alignment of color receivers. Special sample-voltage terminal on panel permits use with marker-adder units in alignment. Dual-piston attenuator provides smooth even attenuation over 60 db range. Width 13⅜", Height 10", Depth 7".

- **IF/Video output frequency continuously tunable from 50 Kc to 50 Mc.**
- **Sweep-frequency bandwidth continuously adjustable from 50 Kc to 20 Mc on if/video and fm - 12 Mc max. on TV channels.**
- **Return trace blanking.**
- **Two adjustable bias voltages available on front panel.**

$295.00*

(complete with RF Output cable, IF/Video Output cable and instruction booklet.)



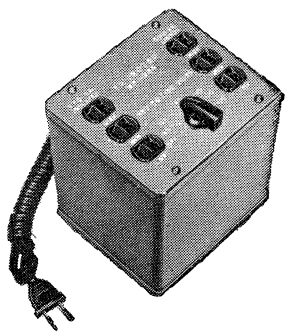
WT-100A Electron-Tube MicroMhoMeter

A precision laboratory measuring instrument which tests tubes under typical operating conditions as specified in the tube manufacturers' technical data manuals. It is particularly useful in production line testing, design and development work, pre-selecting for critical applications, quality control programs, and preventive maintenance. MEASUREMENTS PERFORMED: ac heater current from 0.02 ampere to 5 amperes • dc filament current up to 250 ma • voltage drop across rectifier tubes and semiconductor diodes • transconductance from 10 micromhos to 100,000 micromhos. Within the range of its facilities it will test: vacuum tubes—diodes, triodes, tetrodes, pentodes, heptodes, spetodes, octodes, and multi-unit types; gas tubes—thyratrons, voltage regulators, cold-cathode and hot cathode rectifiers; in these bases and envelopes—bases with 4, 5, and 6 pins, lock-in, miniature, sub-miniature, pencil and lighthouse; and semi-conductor diodes—small dry-disc rectifiers, germanium and silicon diode types. Size: W 23½" x H 8" x D 18½". Weight: 50 lbs.

$989.00* Electron-Tube MicroMhoMeter

(complete with 4 multiple-socket plug-in units, instruction booklet.)

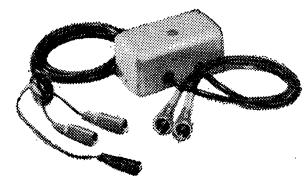
- **measures transconductance to an accuracy of *better* than ± 3%**
- **accurate measurement of "hybrid" auto receiver tube types under actual operating conditions**
- **built-in shorts test for any combination of tube elements**
- **measures transconductance up to 100,000 micromhos in six ranges**
- **measures both control-grid-to-plate and suppressor-grid-to-plate transconductance**
- **built-in calibrating circuit—no null meters or extra devices required**
- **meter completely burnout-proof**
- **regulated power supplies for dc plate and screen test voltages**



WP-25A
TV ISOTAP

Speeds up servicing, prevents damage to test equipment, minimizes shock hazard, cuts down costly returns. The WP-25A may be used as a high-medium-low voltage isolation transformer or as an autotransformer for testing radio and TV receivers at various settings of line voltage. Supplies outputs of 130, 115, and 105 volts at maximum load and is tapped to match line voltages from 105 to 130 volts in six steps **$22.00***

WG-304B
RF MODULATOR



An accessory used to check the over-all frequency response of TV receivers from antenna to picture tube grid. The unit permits modulation of an rf marker signal from a marker generator (such as WR-89A or WR-99A) by a signal from a video sweep generator (such as WR-59C or WR-69A).

$16.50*

**User Price (Optional)*

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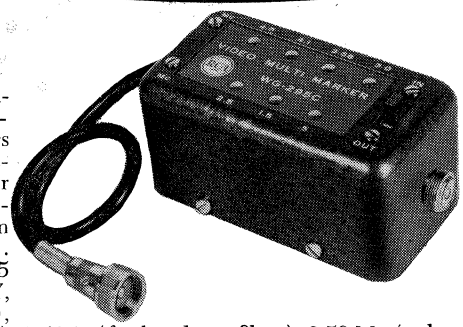
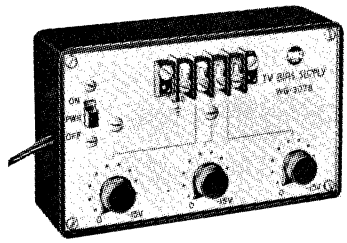
RCA TEST EQUIPMENT ACCESSORIES

WG-295C VIDEO MULTIMARKER



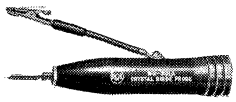
Provides seven simultaneous absorption-type markers at accurately preset frequencies for marking video response curves in color receivers. Markers are at 0.5 Mc (For (Q. R-Y, B-Y, G-Y filters), 1.5 Mc (for J filter), 2.5 Mc (for bandpass filter), 3.58 Mc (color subcarrier frequency), 3 and 4.1 Mc (video and bandpass amplifiers), and 4.5 Mc (sound-trap frequency). Each marker is identified simply by touching a corresponding contact on the WG-295C case. This reduces the amplitude of the particular marker. The WG-295C connects between the IF/VF output on the sweep generator and the video output cable. Equipped with shorting switch. With instruction booklet **$32.50***

WG-307B(K) TV BIAS SUPPLY KIT



Three separate dc output voltages each adjustable from 0 to −15 V. Panel isolated from all circuits. Measures 6⅛" x 3¾" x 2". Weight: 22 ounces. **$11.95***

WG-301A CRYSTAL-DIODE PROBE



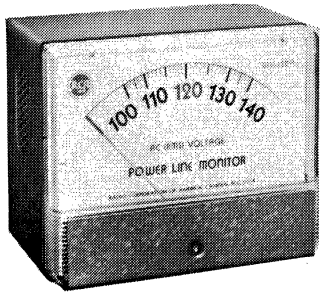
"Slip-on" type for use with the WG-299A, B or C DC/AC Ohms Probe and Cable extending the frequency range of VoltOhmyst® to 250 Mc. **$7.75***

WG-299D DC/AC OHMS PROBE AND CABLE

The WG-299D is a single-unit probe for use with Volt Ohmyst® except WV-77E. Switch provides instant selection of dc or ac/ohms operation. The WG-299D replaces the WG-299A, WG-299B and WG-299C. **$7.95***

WG-300B DIRECT/LOW CAPACITANCE PROBE AND CABLE

Designed for use with the RCA Scopes. Cable is 48" long, completely shielded from microphone connector to probe tip to minimize hum and stray field pick-up. Built-in switch provides instant selection of direct or low-capacitance operation. Input characteristics: 10 megohms resistance, less than 12.5 $\mu\mu$f capacitance in low capacitance position. Includes ground lead and clip. **$9.95***

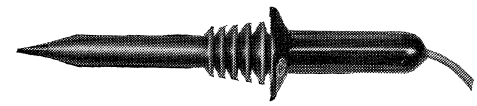


WV-120A POWER LINE MONITOR

For constant indication of power line voltage

Features: • expanded scale 100 to 140 volts indicates true rms values • accuracy ±2% at 120 volts, ±3% at 100 and 140 volts • readable from 10 feet or more • plugs in to power line outlet • wide frequency range, 25 to 400 cps.

H 3 15/16", W 5", D 3 1/16"; Weight: 1½ lbs. $14.95*



WG-289, WG-297 HIGH-VOLTAGE PROBES

The WG-289 extends the dc-voltage range of the WV-77A, WV-77B, WV-77C, WV-87A, WV-87B, WV-97A, WV-98A and WV-98B VoltOhmysts to 50,000 volts. The WG-297 extends the range of the WV-77E VoltOhmyst® and WV-38A volt-ohms-milliammeter to 50,000 volts dc.

The WG-289 is provided with a microphone-type connector, and the WG-297 is provided with banana-plugs for use with appropriate VoltOhmysts and other VTVM's, VOM's.

A choice of three multiplier resistors is available, enabling these probes to be used with many popular electronic and non-electronic volt-ohm-meters!

WG-206—1090-megohm multiplier resistor for VTVM's having 11-megohm input (multiplying factor 100).

WG-210—900-megohm resistor multiplies 5000-volt dc range of 20,000-ohms-per-volt VOM's by a factor of 10.

WG-211—495-megohm resistor multiplies 250-volt dc range of 20,000-ohms-per-volt VOM's by a factor of 100.

WG-289 or WG-297, Probe Only **$11.95***

WG-206, WG-210, or WG-211, Multiplier Resistor Only (each) ... **$ 3.50***

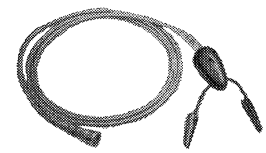
*User Price (Optional)

WG-349A DIRECT/LOW-CAPACITANCE PROBE

A 48-inch, small diameter, extremely flexible shielded cable designed for use with the WO-33A Oscilloscope. The probe consists of three short leads with alligator clips for ground, direct, and low-capacitance connections. For convenient use, the WG-394A eliminates the need for switching. It connects to the oscilloscope by means of a miniature-type microphone connector. Input characteristics: 10 megohms, 12 uuf capacitance, when used with the WO-33A and WO-33A(K). **$5.95***

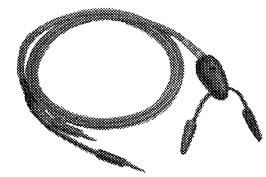
WG-302A RF/IF/VF SIGNAL TRACING PROBE

"Slip-on" type high-frequency probe designed for use with the WG-300A and B probe and cable to permit visual signal tracing for rapid isolation of trouble in radio receivers and in television if and video stages..... $8.50*



WG-350A DEMODULATOR PROBE

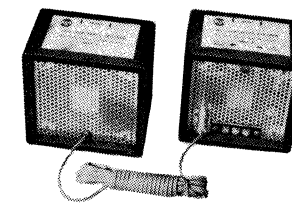
For use with the WO-33A Super-Portable Oscilloscope for demodulation and signal tracing of radio/TV rf and if signals. **$4.95***



WG-351A CRYSTAL DIODE PROBE

For extending the rf measuring capability of the WV-77E VoltOhmyst, and WV-77E(K) VoltOhmyst Kit, to over 100 Mc. **$4.95***

WG-360A PHASE CHECKER



Used for a dynamic check of phasing in any audio system from input to the output of the speakers.

Features:

• sound powered; requires no external voltage source

• any VOM, VTVM, or oscilloscope may be used as the indicator

$14.95*

**User Price (Optional)*

Net

© U.C.P., Inc.

SPRAGUE TEST EQUIPMENT

TO-6 TEL-OHMIKE® CAPACITOR ANALYZER

The TO-6 TEL-OHMIKE capacitor analyzer is a must for checking all capacitors. It is a moderately priced instrument with laboratory quality and accuracy—the highest accuracy of any instrument of its type available to the service trade!

- **LEAKAGE CURRENT** of electrolytics measured directly on meter. Four ranges; .06, .6, 6, and 60mA. Three ranges of DC voltage (continuously variable within each range) permit testing capacitors at exact rated voltage up to 600 volts.
- **POWER FACTOR** of electrolytics, up to 50% measured by Wien Bridge.
- **METER PROTECTOR** of solid-state design allows severe accidental over-loads without burn-outs.
- **MAGIC-EYE TUBE** simplifies bridge balancing for capacitance and power factor measurements. High gain amplifier provides greatly improved sensitivity.
- **PUSH-BUTTONS** color-keyed for instant range selection.
- **MODERN CASE:** Silver-grey hammertone finish, panel is charcoal grey with highly contrasting white designations. Measures 8⅞" high, 14⅝" wide, 6⅛" deep. Weight only 13 pounds.

MODEL TO-6 ..... **115 VAC/50-60 cy** ..... **$ 99.50**
MODEL TO-6S ..... **115-230V/50 cy** **105.75**

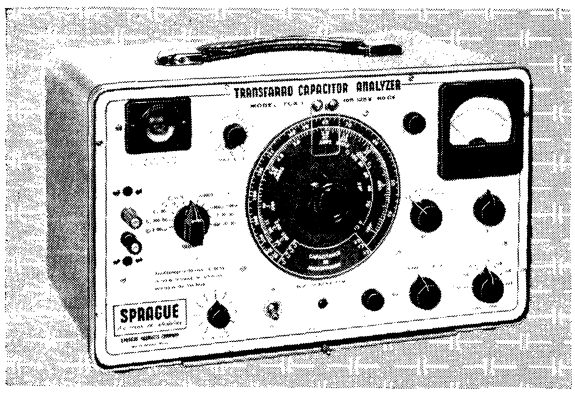
- **CAPACITANCE BRIDGE** measures up to 2000 μF. Five overlapping ranges include exclusive 1 pF to 100 pF range. Special shielded transformer for bridge voltage. Extremely low AC voltage; 1.35 volts for electrolytic capacitors, 2.85 for all others, permits safe testing of all low voltage capacitors.
- **INSULATION RESISTANCE** of papers, ceramics and micas directly read on large meter. No guessing with neon lamps. Dual range—to 10KMΩ@ 30V for low voltage units . . . to 50KMΩ@ 150V for higher voltage components. Fast charge feature speeds testing of high capacitance units.

TEL-OHMIKES FOR RACK MOUNTING

Electrically identical to TO-6 and TO-6S. These models have a standard 19"w. x 10½"h. panel so that it can be mounted in standard relay racks.

MODEL TO-6RM.....**115 VAC/50-60 cy**.....**$109.50**
MODEL TO-6SRM.....**115-230 V/50 cy**..... **115.75**

TCA-1 TRANSFARAD®



The Transfarad is specifically designed to safely test all low-voltage, low-leakage aluminum, tantalum, film, paper, and ceramic capacitors used in transistorized circuits. A must for modern industrial laboratories and electronic service shops.

- **INSULATION RESISTANCE** directly read from 50 megohms to 20,000 megohms. Only 25v d-c is applied, permitting measurements on low voltage ceramic, mica, and film capacitors. IR of ceramics rated below 25v may be calculated from leakage current measurement at exact rated voltage.
- **LEAKAGE CURRENT** measured directly on meter at exact rated d-c voltage of capacitor. Sensitive circuit makes full scale measurements from 0.6 μA to 600μA in seven ranges.
- **POWER FACTOR** measured by Wien bridge from 0 to 50 per cent.
- **MAGIC EYE** null detector in high-gain amplifier has sensitivity control permitting accurate measurement of small capacitors.
- **SHORT-TIME STABILITY** is assured by dual regulation of the power supply. Specially processed etched circuits and complete encapsulation of the critical bridge-null amplifier insure long-time stability.
- **BINDING POSTS** are shielded against strays, assuring greater accuracy during low capacitance measurements.
- **FOR SAFETY** the capacitor under test is automatically discharged after testing. Three wire line cord grounds instrument case.
- **OPERATING PROCEDURES** are clearly shown on convenient pull-out slide.

SAFELY TESTS TRANSISTOR CIRCUIT CAPACITORS INCLUDING TANTALUM TYPES

- The only analyzer which gives the complete story on tantalum and other low leakage current capacitors.
- **CAPACITANCE BRIDGE** measures 1$\mu\mu$F to 2000μF in five overlapping ranges. Only 0.5 volt is applied to the bridge from a continuously adjustable power supply. The voltage across the capacitor is less than this applied voltage, the amplitude depending on the capacitance being measured. No possibility of overheating or deforming any low voltage capacitor during measurements.

MODEL TCA-1 TRANSFARAD 115 VAC/60cy $197.50 net
MODEL TCA-1S TRANSFARAD 115/230 VAC, 50cy $232.50 ne

TRANSFARADS FOR RACK MOUNTING

Electrically identical to the above instruments, these model have a standard 19"w. x 10½"h. panel so that they can be mounted in the conventional relay rack.

MODEL TCA-1RM .....**115VAC/60cy**..... **$207.50 net**
MODEL TCA-1SRM .....**115/230 VAC, 50cy**..... **$242.50 ne**

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All prices and sizes subject to change without notice

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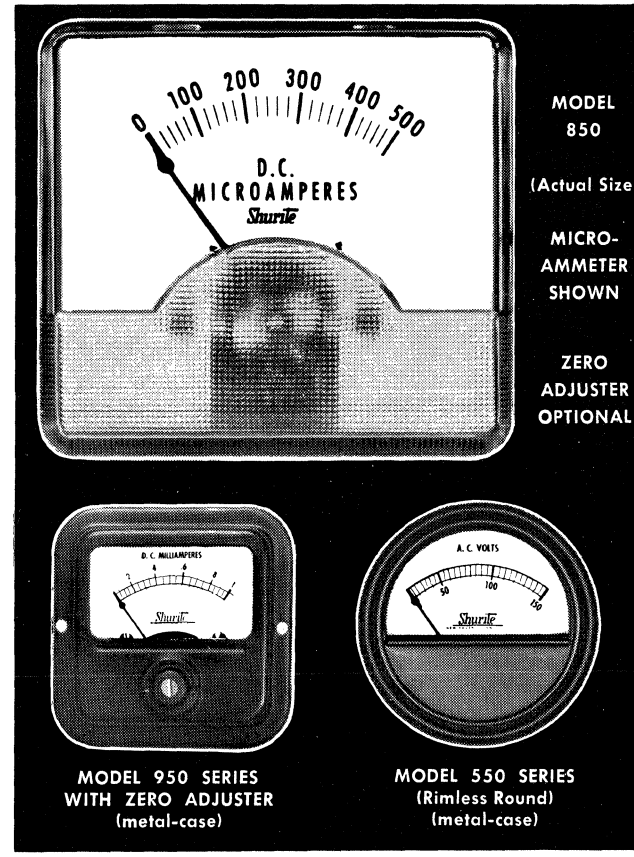
Shurite® PANEL METERS

• **SHURITE** makes attractive, rugged, dependable instruments with accuracy well within ±5%, and the ability to duplicate readings. DC meters are polarized-vane solenoid type (moving-magnet or bridge-type construction where indicated): AC meters are double-vane repulsion type with jeweled bearing. The jewel construction costs more to build, but it pays off in continuing accuracy during a longer useful life. Models 550 and 950 fit 2-5/32" hole; Model 850 fits 2-5/32" to 2-1/32" hole. All are guaranteed.

FEATURES

GUARANTEE: Meters are guaranteed to users against defective workmanship and material, and will be repaired or replaced if sent to the factory postpaid with 50¢ handling charge within one year after purchase . . . **ALL METAL DIALS**—age and moisture resistant, lithographed in black on white for high visibility . . . **STURDY DESIGN**—with husky coil frames designed to prevent breakage, rigidly mounted in cases with anti-turning square head studs . . . **VISCOSITY DAMPING**—careful application of new silicone compound on bearing surfaces damps pointer overtravel . . . **WIDE SELECTION**—Shurite offers the broadest line of standard meters in the economy-priced field. Distributor stocks are backed by an extensive factory inventory.

★ ★ ★ **NEW PRODUCTS** — To meet the growing demand for **more sensitive** meters without sacrifice of ruggedness, Shurite now catalogs: *A) three 0-500 DC Microammeters with 1000 ohms int. res.; *B) a 0-1 DC Milliammeter, Stock No. 8334, 800 ohms int. res., with Bridge-Type design to minimize effect of external magnetic forces; and *C) a field strength meter, Stock No. 8903Z. Also, produced in quantity at extra cost but not yet cataloged, are several expanded scale meters. For example: 10-12.5 DC Volts, with accuracy of ±.125 Volt.



CLEAR PLASTIC INSTRUMENTS

. . . The 850 snap-on front of crystal-clear high temperature polystyrene 2-17/32" wide by 2-5/16" high, admits light from all sides and accentuates the appearance of the dial which has the longest scale arc in its field. The case back is black, but of similar high temperature, high impact material, to provide weight reduction and superior insulation.

TYPICAL USES

Amateur radio rigs . . . Citizens Band equipment . . . battery eliminators . . . battery chargers . . . volt-ohm-milliammeters and kits . . . model train equipment . . . tuning circuits for stereo and tape recorders . . . burglar, fire alarm, or emergency lighting systems . . . transistor testers . . . plating equipment . . . voltage regulators . . . detergent strength analyzers . . . demonstrators . . . many other applications.

DC MICROAMMETERS

RANGE Ua.	RESIST. Approx. Ohms	Model 550* Stock No.	Model 950* Stock No.	Model 950* Net Each	Model 850* Stock No.	Model 850* Net Each
0-500**	1000	5902	9902	**$4.10**	8902	**$4.30**

* For zero adjuster, add 35c to price and Z to stock number
** Sensitive type, note internal resistance. DC bridge-type construction.

DC MILLIAMMETERS

RANGE Ma.	RESIST. Approx. Ohms	MODEL 550* Stock No.	MODEL 950* Stock No.	MODEL 950* Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
0-1**	1000	5300Z	9300Z	**$4.00**	8300Z	**$4.15**
0-1#	800	—	—	—	8334	**3.95**
0-3L**	500	5332Z	9332Z	**4.00**	8332Z	**4.15**
0-3	4500	5301	9301	**3.10**	8301	**3.25**
0-5	3650	5302	9302	**2.85**	8302	**3.00**
0-10	920	5303	9303	**2.60**	8303	**2.75**
0-15	485	5304	9304	**2.40**	8304	**2.55**
0-25	172	5305	9305	**2.40**	8305	**2.55**
0-50	46	5306	9306	**2.40**	8306	**2.55**
0-100	10.4	5307	9307	**2.40**	8307	**2.55**
0-150	4.7	5308	9308	**2.40**	8308	**2.55**
0-200	2.8	5309	9309	**2.40**	8309	**2.55**
0-300	1.5	5310	9310	**2.40**	8310	**2.55**
0-400	.46	5311	9311	**2.40**	8311	**2.55**
0-500	.30	5312	9312	**2.40**	8312	**2.55**

* For zero adjuster, add 35¢ to price and Z to stock number.
**Sensitive type, moving-magnet construction, zero adjuster built-in.
Bridge-type construction; internal magnet design minimizes effects of external magnetic forces. Price does not include zero adjuster.

AC MILLIAMMETERS

RANGE Ma.	RESIST. Approx. Ohms	MODEL 550 Stock No.	MODEL 950 Stock No.	MODEL 950 Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
0-10	4800	5607	9607	**$3.75**	8607	**$3.90**
0-25	750	5601	9601	**3.60**	8601	**3.75**
0-50	150	5602	9602	**3.60**	8602	**3.75**
0-100	37	5603	9603	**3.60**	8603	**3.75**
0-250	5.4	5604	9604	**3.60**	8604	**3.75**
0-500	1.34	5605	9605	**3.60**	8605	**3.75**

NO ZERO ADJUSTER ON AC METERS, EXCEPT ON MODEL 850.
* For zero adjuster add 35c to price and Z to stock number.

DC AMMETERS

RANGE Amps.	RESIST. Approx. Ohms	MODEL 550* Stock No.	MODEL 950* Stock No.	MODEL 950* Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
0-1	.105	5201	9201	**$2.40**	8201	**$2.55**
0-3	.02 Max.	5202	9202	**2.40**	8202	**2.55**
0-5	.02 Max.	5203	9203	**2.40**	8203	**2.55**
0-8	.02 Max.	5204	9204	**2.40**	—	—
0-10	.02 Max.	5205	9205	**2.40**	8205	**2.55**
0-15	.02 Max.	5206	9206	**2.40**	8206	**2.55**
0-25	.02 Max.	5207	9207	**2.85**	8207	**3.00**
0-50	.02 Max.	5208	9208	**2.85**	8208	**3.00**
3-0-3	.02 Max.	5210	9210	**2.50**	—	—
5-0-5	.022 Max.	5211	9211	**2.50**	—	—
6-0-6	.02 Max.	5212	9212	**2.50**	—	—
10-0-10	.02 Max.	5213	9213	**2.85**	8213	**3.00**
20-0-20	.02 Max.	5214	9214	**2.85**	8214	**3.00**
30-0-30	.02 Max.	5215	9215	**2.85**	8215	**3.00**
50-0-50	.02 Max.	5216	9216	**3.00**	8216	**3.15**

* For zero adjuster, add 35c to price and Z to stock number.

AC AMMETERS

RANGE Amps	RESIST. Approx. Ohms	MODEL 550 Stock No.	MODEL 950 Stock No.	MODEL 950 Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
0-1	.42 Max.	5501	9501	**$3.50**	8501	**$3.65**
0-3	.072 Max.	5502	9502	**3.50**	8502	**3.65**
0-5	.041 Max.	5503	9503	**3.50**	8503	**3.65**
0-10	.02 Max.	5504	9504	**3.50**	8504	**3.65**
0-15	.02 Max.	5508	9508	**3.50**	8508	**3.65**
0-30	.02 Max.	5505	9505	**3.60**	8505	**3.75**
0-50	.02 Max.	5506	9506	**4.00**	8506	**4.15**
0-80	.02 Max.	—	—	—	8507	**4.35**

NO ZERO ADJUSTER ON AC METERS, EXCEPT ON MODEL 850.
* For zero adjuster add 35c to price and Z to stock number.

PRICES NET, F.O.B., New Haven, Conn. Individually Boxed, Domestic Packed, Effective July 1, 1964

Net
© U.C.P., Inc.

DC VOLTMETERS

RANGE Volts	RESIST. MODEL 550* Approx. Ohms	Stock No.	MODEL 950* Stock No.	Net Each	MODEL 850* Stock No.	Net Each
0-1	10	5101	9101	**$2.40**	—	—
0-3	93	5102	9102	**2.40**	8102	**$2.55**
3-0-3	250	5103	9103	**2.40**	—	—
0-5	300	5104	9104	**2.40**	8104	**2.55**
0-6	390	5105	9105	**2.40**	—	—
0-8	600	5106	9106	**2.40**	8106	**2.55**
0-10	880	5107	9107	**2.40**	8107	**2.55**
0-15	2370	5108	9108	**2.40**	8108	**2.55**
0-20	3500	5121	9121	**2.40**	8121	**2.55**
0-25	1420	5109	9109	**2.70**	8109	**2.85**
0-25H**	5000	5110	9110	**3.10**	8110	**3.25**
0-50	2920	5122	9122	**2.65**	8122	**2.80**
0-50H**	10000	5111	9111	**3.35**	8111	**3.50**
0-75	4280	5112	9112	**2.70**	—	—
0-100	5740	5113	9113	**2.70**	—	—
0-100H**	20000	5114	9114	**3.25**	—	—
0-150	8500	5115	9115	**2.85**	8115	**3.00**
0-150H**	30000	5116	9116	**3.50**	8116	**3.65**
0-300H**†	60000	5117	9117	**3.60**	8117	**3.75**
0-500H**†	100000	5118	9118	**3.85**	8118	**4.00**
0-750H**†	154000	5119	9119	**4.35**	—	—

* For zero adjuster add 35c to price and Z to stock number.
** H denotes high resistance.
† Supplied with external resistors.

AC VOLTMETERS

RANGE Volts	RESIST. MODEL 550 Approx. Ohms	Stock No.	MODEL 950 Stock No.	Net Each	MODEL 850* Stock No.	Net Each
0-4	11	5401	9401	**$3.65**	—	—
0-6	15.8	5402	9402	**3.65**	—	—
0-10	27	5403	9403	**3.65**	8403	**$3.80**
0-15	35	5404	9404	**3.65**	8404	**3.80**
0-25	53	5412	9412	**3.65**	8412	**3.80**
0-50	96	5405	9405	**3.85**	8405	**4.00**
0-150	100	5406	9406	**4.05**	8406	**4.20**
0-300**	100	5407	9407	**4.60**	8407	**4.75**
0-600**	100	5408	9408	**5.15**	—	—
0-750**	100	5409	9409	**5.75**	—	—

NO ZERO ADJUSTER ON AC METERS, EXCEPT ON MODEL 850
*For zero adjuster add 35c to price and Z to stock number.
**Supplied with external resistors.

VU, S, and FIELD STRENGTH METERS

VU METERS—To measure volume levels in audio transmission circuits; range —20 to + 3 VU, red and black scale; AC rectifier type; pointer normally at —20 VU; 1400 Ohms ±5% internal resistance; see Bulletin VUS-63 for application circuitry.

STOCK NO. 8801Z, 850 series case, zero adjuster included **$5.85**

STOCK NO. 3801, 350 series edgewise case; zero adjuster not available **$5.50**

S METERS—To measure relative signal strength; range 0-40 db; black and red scale; basic movement is 0-5 Ma. DC with 1000 ohms internal resistance ±5%; for application notes and typical circuits, see Bulletin VUS-63.

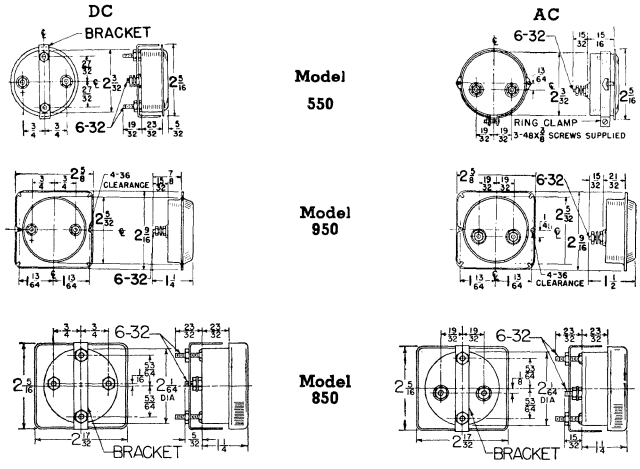
STOCK NO. 3333, 350 Series edgewise case, as illustrated, pointer normally at 40 ..... **$3.45**

STOCK NO. 8333*, 850 Series case, pointer normally at 60 (Formerly supplied with pointer at zero) **$3.35**

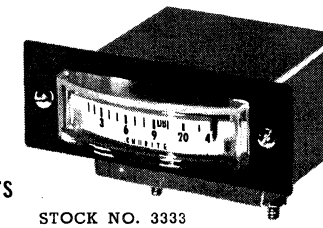
*For zero adjuster, add 35c to price and Z to stock number.

***** FIELD STRENGTH METER**—When this new meter—(a variation of a 0-1 D.C. Milliammeter)—is built into an elementary circuit such as described in Bulletin VUS-63, antenna systems may be easily checked, tuned, phased, or matched to transmission lines.

STOCK NO. 8903Z, 850 Series case; topside marked .1, .5, 1, 2, 3, 4, 5, 7, 10; bottom scale marked 2, 4, 6, 8, 10; zero adjuster included: meter only **$3.95**



Shurite®



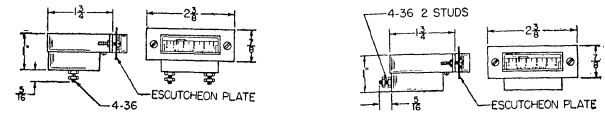
EDGEWISE (MODEL 350)

Including S and VU Meters

STOCK NO. 3333

The high-temperature crystal polystyrene front of the Model 350 series adds beauty to panel designs and the 1.2" scale length offers easy reading. Requires less than half the panel space of other Shurite meters. Horizontal mounting; weight under 2 ozs.; accuracy well within ±5%; black escutcheon plate supplied. Case back normally black; available in light-transmitting frosted polystyrene on special order.

RANGE	Resistance Approx. Ohms	Stock No.	Net Each
0-1 DC Milliamperes	500	3300	**$3.70**
0-5 DC Milliamperes	3100	3302	**3.45**
0-10 DC Milliamperes	700	3303	**3.45**
0-25 DC Milliamperes	150	3305	**3.35**
0-50 DC Milliamperes	28	3306	**3.35**
0-100 DC Milliamperes	7	3307	**3.35**
0-200 DC Milliamperes	3	3309	**3.35**
0-300 DC Milliamperes	2	3310	**3.35**
0-500 DC Milliamperes	1.5	3312	**3.35**
0-100 AC Milliamperes	32	3603	**3.45**
0-3 DC Amperes	.02 Max.	3202	**3.35**
0-5 DC Amperes	.02 Max.	3203	**3.35**
0-10 DC Amperes	.02 Max.	3205	**3.4**
10-0-10 DC Amperes	.02 Max.	3213	**3.55**
0-5 AC Amperes	.04	3503	**3.45**
0-5 DC Volts	725	3104	**3.35**
0-10 DC Volts	1200	3107	**3.35**
0-15 DC Volts	2200	3108	**3.35**
0-15 AC Volts	728	3404	**3.45**
0-150 AC Volts	14000	3406	**4.10**
VU Meter —20 to +3 VU	1400	3801	**5.50**
S Meter 0—40 db	1000	3333	**3.45**



RESISTANCE METERS

RANGE Ohms	Volts	MODEL 550* Stock No.	MODEL 950* Stock No.	Net Each	MODEL 850* Stock No.	Net Each
10,000	4.5**	5701	9701	**$3.00**	8701	**$3.15**

*For zero adjuster add 35c to price and Z to stock number.
**Requires 3 flashlight cells for resistance readings but does not require resistor for voltage readings.

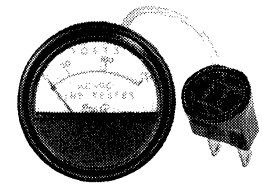
POCKET TYPE METERS

Please ask for Catalog 94-E which describes 12 types of battery testers (pocket meters). Their stock numbers begin with the digit 4. Typical is **Stock No. 4151,** 0-7 DC volts, approx. res. 670 ohms. **$3.0**

3-HOLE MOUNTING ADAPTER

To adapt any Model 550 (round) meter for 3-hole flange mounting (former Model 650) attach this 2¾" flange from front of panel **Mode 5-A,** standard black with hardware, each **$0.1**

HANDY AC-DC LINE VOLTAGE TESTER



STOCK NO. 5406-LT—Plug-in to read line voltage, then find (and demonstrate voltage drop or inadequate wiring by plugging in TV set, iron, toaster, washer air-conditioner, shop equipment, etc. Features of this tester: (a) attached plug receptacle permits continuous reading while loads are changed; (b) reads 15 V AC or DC; (c) cord allows convenien angle for reading; (d) jewel bearing con struction provides continuing accuracy Standard package of 6 meters come with convenient counter display.

Per meter **$4.2**

IMPORTANT — HOW TO ORDER

Give (1) Model Number, (2) Range, (3) Stock Number.
ZERO ADJUSTERS (Z) For DC meters, available only on Models 55C 850, and 950. For AC meters, available on Model 850. When ordering add Z to stock number, as 5101Z, and 35¢ to price.
PANEL CALIBRATION (S) Meters are calibrated for non-magneti panels. If steel panel mounting, specify thickness and overall size c panel; add -S to stock number, as 5101-S.
SEE YOUR DISTRIBUTOR Authorized Shurite distributors carry mos models and can obtain your other needs promptly.

Shurite® METERS
NEW HAVEN, CONN. 06508

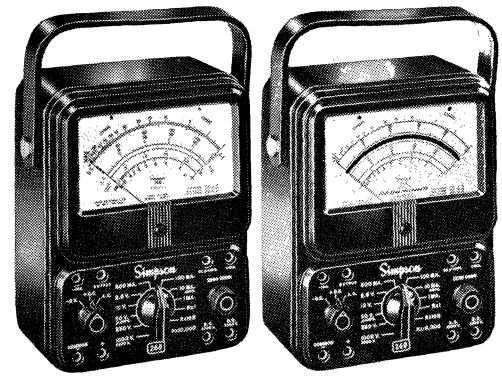
PRICES NET, F.O.B., New Haven, Conn. Individually Boxed, Domestic Packed, Effective July 1, 1964

Simpson VOMs and ADAPTERS

All Prices Net

World Famous 260® VOM TWO VERSIONS

- New Self-Shielded Movement
- New Higher Accuracy: 2% DC, 3% AC
- New Ruggedness from Spring-Backed Jewels
- Greater Repeatability
- Increased Linearity and Stability



Series 4 (Std. Scale) | Series 4M (Mirror Scale)

260® VOM

OTHER FEATURES

- **Converts to 9 Different Testers (See Adapters Below)**
- **Over a Million Purchased . . . Recognized Reliability**
- **20,000 opv, DC; 5,000 opv, AC**
- **Adjust-A-Vue Handle**
- **Polarity Reversing Switch**
- **50 Microampere-250 Millivolt Range**
- **Easy-to-Read Scales:** Black and red, spread out for faster reading, less errors.
- **Popular DBM Ranges:** −20 Dbm to +50 DBM, one milliwatt in 600 ohms!
- **Improved Frequency Response in AC Measurements:** 5 to 500,000 cps.
- **Full-Wave Bridge Rectifier System.**

VOLTAGE RANGES

DC: 0-250mv; 0-2.5v; 0-10v; 0-50v; 0-250v; 0-1000v; 0-5000v.
AC: 0-2.5v; 0-10v; 0-50v; 0-250v; 0-1000v; 0-5000v.
AF: 0-2.5v; 0-10v; 0-50v; 0-250v.
DB (1MW—600Ω): −20 to +10 db; −8 to +22 db; +6 to +36 db; +20 to +50 db.

CURRENT RANGES

DC: 0-50ua; 0-1ma; 0-10ma; 0-100ma; 0-500ma; 0-10 amps.

RESISTANCE RANGES

0-2000Ω (12Ω ctr.); 0-200KΩ (1200Ωctr.); 0-20 meg. (120KΩ ctr.)

FREQUENCY RESPONSE

Essentially flat through 50,000 cps.

ACCURACIES

DC Volts ±2% of full scale. DC current ±1.5% of full scale. AC Volts ±3% of full scale. DC resistance ±2% of arc length.

Size: 5¼" x 7" x 3⅛" . . . Net Wt.: 3½ lbs.

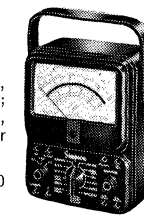
260 (Series 4) with Std. Scale complete with test leads No. 7500 and operator's manual . . . **$48.95** (in roll-top case) . . . **$54.95)**

260 (SERIES 4M) with MIRROR SCALE complete with No. 7500 lead and operator's manual . . . **$50.95** (in roll-top case . . . **$56.95)**

ACCESSORIES

Leads, Probes and Cases	Part No.	Price
Banana plugs and alligator clip	7500	$ 2.10
Banana plugs and test prods	7538	2.50
10,000v High voltage probe....	0507	10.20
25,000v High voltage probe....	0508	11.50
50,000v High voltage probe....	0509	12.50
Leather Carrying Case	1818	8.50
Ever-Redy Carry Case	4236	9.75
Roll-top safety case only for 260, Series 3, 4, 4M, and model 261.....	0249	9.95

MODEL 261 VOM



ACCURACY (77°F): DCV, 0-1000 v, ±1½% F.S., 5000 v, ±2½% F.S.; DC MA & AMP, ±1½% F.S.; ACV, ±3%; ohms, ±1½% of linear arc.

OTHER SPECIFICATIONS: See 260 VOM.

PRICE: Complete with leads and manual **$59.95**

270 Series 2—HIGH ACCURACY VOM

- New High Flux, Self-Shielded Movement
- New Spring-Backed Jewels
- New Diode Overload Protection
- Special Calibration Circuit for Increased Accuracy
- Mirror Scale, Knife-Edge Pointer
- Gold Bonded Diodes for AC
- Excellent Repeatability
- Greater Accuracy Predictable Over a Wide Temperature Range
- DC Accuracy, 1¼%* Full Scale
- AC Accuracy, 2% * Full Scale
- Resistance Accuracy, ±1° of Arc

*At an Ambient Temperature of 77°F

RANGES

DC Voltage (20,000 opv): 0-250 mv; 0-2.5 v; 0-10 v; 0-50 v; 0-250 v; 0-1000 v; 0-5000 v.

AC Voltage (5000 ohms-per-volt): 0-2.5 v; 0-10 v; 0-50 v; 0-250 v; 0-1000 v; 0-5000 v.

AF Output Voltage (With .1 mfd. int. series capacitor): 0-2.5 v; 0-10 v; 0-50 v; 0-250 v.
Volume Level, Decibels (Zero DB equal to 1 mw across a 600 ohm line): −20 to +10 DB; −8 to +22 DB; +6 to +36 DB; +20 to +50 DB.

DC Resistance: 0-2000 ohms (12 ohms center); 0-200,000 ohms (1200 ohms center); 0-20 megohms (120,000 ohms center).

Direct Current: 0-50 mu a; 0-1 ma; 0-10 ma; 0-100 ma; 0-500 ma; 0-10 amp.

270, Series 2, complete with test leads and Operator's Manual **$64.95**

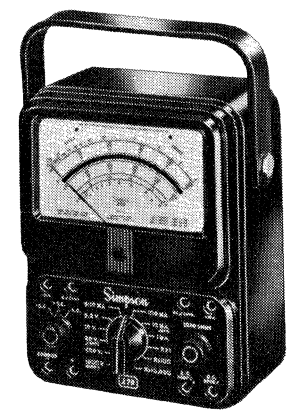
270 RT, in Roll-Top Case **$70.95**

See accessories under 260 VOM above.

270 SERIES 2 VOM

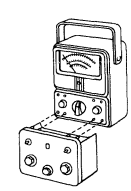
CONVERTS TO 9 DIFFERENT TESTERS WITH ADAPTERS BELOW

ADJUST-A-VUE HANDLE



PLUG-IN ADAPTERS FOR 260® AND 270 VOMs ABOVE

Transistor Testers, Model 650 ..... **$29.95**
DC VTVM, Model 651 ..... **39.95**
Temperature Tester, Model 652 ..... **39.95**
AC Ammeter, Model 653 ..... **19.95**
Battery Tester, Model 656 ..... **19.95**
Microvolt Attenuator, Model 655 ..... **$19.95**
Audio Wattmeter, Model 654 ..... **19.95**
Milliohmmeter, Model 657 ..... **44.95**
DC Ammeter, Model 661 ..... **19.95**



See your distributor or write for Bulletin 2066 giving specifications

WRITE ON LETTERHEAD FOR GENERAL CATALOG 18 — DEPT. V

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Simpson VOLT-OHM-MILLIAMMETERS

All Prices Net

NEW! Dual Sensitivity VOM, Model 263

Overlapping ranges offer greater accuracy expressed as a percentage of reading. Diode overload protection (Prevents movement burnout even on 200,000% overload). External battery compartment makes battery replacement easier. Uses 1½ volt alkaline battery. Complete with test leads No. 0115 and operator's manual

$78.95

RANGES

DC Volts: 0-0.15 / 0-.75 / 0-3 / 0-7.5 / 0-30 / 0-75 / 0-300 / 0-750 / 0-3000 @ 20KΩ/V . . . 0-0.3 / 0-1.5 / 0-6 / 0-15 / 0-60 / 0-150 / 0-600 / 0-1500 / 0-6000 @ 10KΩ/V
AC Volts: 0-2.5 / 0-7.5 / 0-30 / 0-150 / 0-750 @ 10KΩ/V . . . 0-5 / 0-15 / 0-60 / 0-300 / 0-1500 @ 5KΩ/V
DC Microamperes: 0-75 @ 150 MV; 0-150 @ 300 MV
DC Milliamperes: 0-0.75 / 0-7.5 / 0-75 / 0-750 @ 150 MV; 0-1.5 / 0-15 / 0-150 @ 300 MV
DC Amperes: 0-7.5 @ 150 MV; 0-1.5 / 0-15 @ 300 MV
DB Scale (1MW-600): −20 to +75.5 db in 10 ranges
Output Ranges: 0.1 mfd capacitor in series with all AC Voltage ranges through 300 Volts
Resistance Ranges (4.5Ω center): R×1 0-500Ω, R×10 0-5000Ω, R×100 0-50KΩ, R×1K 0-500KΩ, R×10K 0-5 megΩ, R×100K 0-50 megΩ

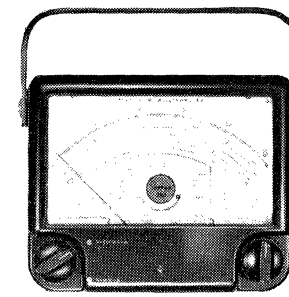
ACCURACIES

DC Volts: 0-0.15 to 1500 ±1½%; 0-3000 to 6000 ±2½%
AC Volts: ±3%
DC Current: ±1½%
R×1: ±3° of Arc
R×10, R×100K: ±2½° of Arc

ACCESSORIES

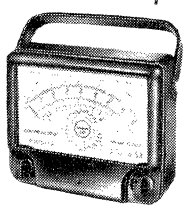
High Voltage Probes: 30KV @ 10KΩ/V, 15KV @ 20KΩ/V
Cat. No. 0141 ..... **$11.95**

Carrying Cases: Ever-Redy Vinyl Carrying Case
Cat. No. 5262 ..... **$ 9.95**

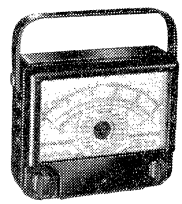


20,000 Ω/VDC
10,000 Ω/VDC
10,000 Ω/VAC
5,000 Ω/VAC

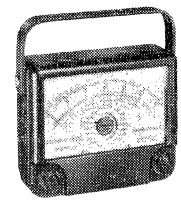
AC/DC VOLT-OHM-MILLIAMMETERS AND TESTERS*



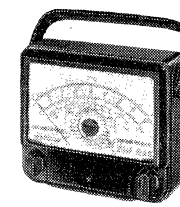
NEW, IMPROVED MODEL 269-2 VOM 100,000 opv



MODEL 267 VOM 20,000 opv



MODEL 268 VOM 20,000 opv



MODEL 262 VOM 20,000 opv

MODEL 355 VOLT-OHMMETER

MODEL 269-2

VOLTAGE RANGES

DC: 1.6v; 8v; 40v; 160v; 400v; 800v; 1600v; 4000v.
AC: 3v; 8v; 40v; 160v; 400v; 800v.
DB: (1MW-600Ω): −12 to +45.5 db in four ranges.

CURRENT RANGES

DC: 0-16ua; 0-160ua; 0-1.6ma; 0-16ma; 0-160ma; 0-1.6 amps; 0-8 amps.

RESISTANCE RANGES (12 Ω Center)

0-200Ω; 0-20KΩ; 0-200KΩ; 0-2 megΩ; 0-20 megΩ; 0-200 megΩ.

ACCURACIES

DC Volts ±2% and ±3% of full scale. **DC Current** ±2%. **AC Volts** ±3% of full scale. **DC Resistance** ±2.5% and ±3% of arc length.

Complete with test leads No. 0115, 4000 V DC probe extension and operator's manual.

$89.95

MODEL 267

DC Volts: 0-.25/2.5/10/50/250/500/1000.
AC Volts: 0-2.5/10/50/250/500/1000.
DC Microamperes: 0-50.
DC Milliamperes: 0-1/10/100/500.
DC Amperes: 0-10.
DB Scale: −20 +10, 1 mw, 600 ohms.
Output Ranges: AC volt ranges to 250 V with .1/mfd condenser in series.

RESISTANCE RANGES

0-2000Ω (12Ω ctr.); 0-200KΩ (1200Ω ctr.); 0-20 meg. (120KΩ ctr.)

FREQUENCY RESPONSE

2.5/10 VAC 20 cps — 500 KC ±5%
50 VAC 20 cps — 150 KC ±5%

ACCURACY

DC V, Milliamperes, Amperes ±3% F.S.; **DC Mics** ±2% F.S.; **AC Volts** ±5% F.S.; **Ohms** ±2.5 and ±3% of linear arc.

Complete with test leads No. 7500 and operator's manual **$54.95**

MODEL 262

VOLTAGE RANGES

DC: 1.6v; 8v; 40v; 160v; 400v; 1600v; 4000v.
AC: 3v; 8v; 40v; 160v; 800v.
AF: 3v; 8v; 40v; 160v.
DB: (1 MW-600Ω): −12 to +45.5 db in four ranges.

CURRENT RANGES

DC: 80ua; 160ua; 1.6 ma; 16 ma; 1.6 amps; 16 amps.

RESISTANCE RANGES

DC: 0-500Ω (4.5Ω ctr.); 0-5KΩ (45Ω ctr.); 0-50KΩ (450Ω ctr.); 0-500KΩ (4,500Ω ctr.); 5 megΩ (45Ω ctr.); 0-50 megΩ (450KΩ ctr.).

FREQUENCY RESPONSE

Essentially flat through 50 kc.

ACCURACIES

DC Volts ±3% of full scale. **AC Volts** ±5% of full scale. **DC Resistance** ±2.5% and ±3% of arc length. Complete with test leads No. 8463, 4000 V DC probe extension and operator's manual.

$69.95

MODEL 268

AC Volts: 0-3/12/60/300/600/1200
DC Volts: 0-3/12/60/300/600/1200
DC Microamperes: 0-60.
DC Milliamperes: 0-1.2/12/120
DC Amperes: 0-12
DB Scale: −12 +11, 1 mw, 600 ohms

OUTPUT RANGES

AC Volt: Ranges to 300 V with .1/mfd condenser in series

RESISTANCE RANGES

0-2000Ω (12Ω ctr.); 0-200KΩ (1200Ω ctr.); 0-2(meg (120KΩ ctr.)

FREQUENCY RESPONSE

2.5/10 VAC 20 cps — 500 kc ±5%; 50 VA(20 cps — 150 kc ±5%

ACCURACY

DC V, Milliamperes, Amperes ±3% F.S.; **D(Mics** ±2% F.S.; **AC Volts** ±5% F.S.; **Ohm** ±2.5% and ±3% of linear arc.

Complete with test leads No. 7500 and operator's manual

$54.9

MODEL 355, MIDGETESTER®

10,000 Ohms per Volt AC-DC
Size: 2¾" x 4½" x 1"
Complete with test leads and operator's manual

$34.9

(WRITE FOR BULLETIN 2066)

*See "ACCESSORIES" Section for carrying cases, etc.

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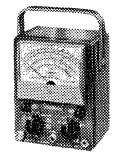
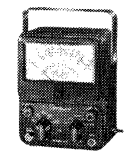
VACUUM TUBE VOLT-OHMMETERS*

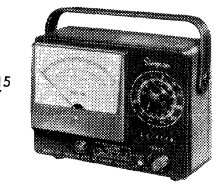
MODEL 311 AC-DC



MODEL 303 AC-DC



MODEL 715 AC ONLY



MODEL 311 VOLTAGE RANGES

DC: 0-1.5v; 5v; 15v; 50v; 150v; 500v; 1500v. (22 megΩ input impedance)
AC: 0-1.5v; 5v; 15v; 50v; 150v; 500v; 1500v; (RMS) (Min. 2.2 megΩ input impedance)
PP: 0-4v; 14v; 40v; 140v; 400v; 1400v; 4000v. (Min. 2.2 megΩ input impedance)
AF: 0-1.5v; 5v; 15v; 50v; 150v; 500v; 1500v. (30 cycles to 100Kc ±5%)
RF: 1.5v; 5v; 15v; 50v; 150v. with probe (50 cycles to 100mc, 0-150 VRMS)

RESISTANCE RANGES

1KΩ (10Ω center); 10KΩ (100Ω center); 100KΩ (1KΩ center); 1 megΩ (10KΩ center); 10 megΩ (100KΩ center); 100 megΩ (1 megΩ center); 1000 megΩ (10 megΩ center).

FREQUENCY RESPONSE

±5% to 100 kc (with RF probe, usable to 250 mc)

LINE VOLTAGE

105/125 v, 50/60 cycles.

ACCURACIES

DC Volts: ±3% of full scale.
AC Volts: ±5% of full scale.
DC Resistance: ±3% of arc length (resistance).

Model 311 with AC/DC ohms probe No. 0734, ground lead No. 0733 and operator's manual. **$69.95**

MODEL 303 VOLTAGE RANGES

AC-DC: 1.2v; 12v; 60v; 300v; 1200v.
AF: 1.2v; 12v; 60v.
RF: 20 volts maximum. (With RF Probe)
DB: −20 to +63 db in five ranges.

RESISTANCE RANGES

1KΩ (10Ω center); 100KΩ (1000Ω center); 1 megΩ (10KΩ center); 10 megΩ (100KΩ center); 1000 megΩ (10 megΩ center).

INPUT IMPEDANCE

10 megohms (all ranges) on DCV; 275K ohms shunted by 210 uuf on ACV.

FREQUENCY RESPONSE

AF: Flat to 100 Kc on the three low AC ranges
RF: 20 Kc to 100 Mc (with RF probe)

LINE VOLTAGE

105/125 v, 50/60 cycles.

ACCURACIES

DC Volts: ±3% of full scale.
AC Volts: ±5% of full scale.
DC Resistance: ±3% of arc length (resistance).

Model 303 with DCV probe No. 0067, ACV-ohm probe No. 0068, ground lead No. 0069 and operator's manual. **$73.95**

Model 303RT (in roll top safety case) **$82.95**

MODEL 715 RANGES

Volts: 0-.01/.03/.1/.3/1/3/10 30 100 300 rms.
Decibels: Total Range −52 to +52 DBM.
Zero DBM: 1 millivolt in 600 ohms.
Scale Markings: −12 to +2 DB.

ACCURACY

±5% of full scale.

TESTER SENSITIVITY

10 millivolts full scale on lowest range.

INPUT IMPEDANCE

Minimum 1 meg @ 1 KC shunted by 25 uuf.

INTERNAL MULTIPLIERS

±1% precision resistors.

FREQUENCY RESPONSE

10 cps to 400 KC ±1 DB.

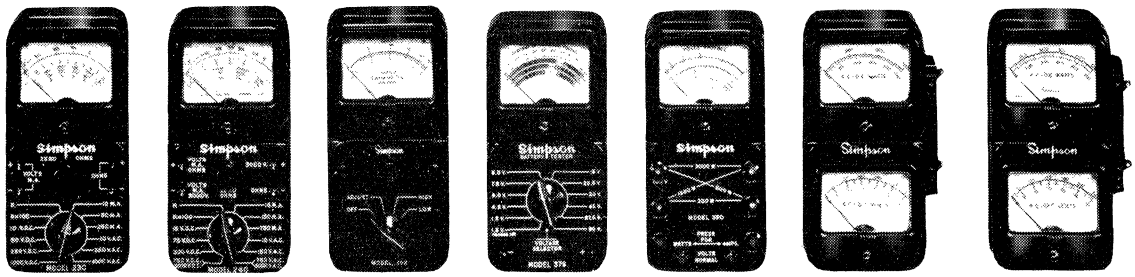
INPUT POWER REQUIREMENTS

110 to 125 VRMS, 50/60 cps @ 10 watts.

Complete with operator's manual and shielded input cable. **$69.95**

*Also See "ACCESSORIES" Section.

HAND-SIZE MICROTESTERS — DIMENSIONS, 3" x 5⅞" x 2½"



AC-DC Volt-Ohm-Milliammeter, Model 240 — 1000 ohms per volt, AC and DC.

AC Volts: 15, 150, 750, 3000.

DC Volts: 15, 75, 300, 750, 3000.

DC Milliamperes: 15, 150, 750.

Ohms: 0-3000 (center scale 30); 0-300,000 (center scale 3000). With Leads..... **$34.95**

AC-DC Volt-Ohm-Milliammeter, Model 230 — AC Volts: 10, 250, 1000 (400 ohms per volt) — DC Volts: 10, 50, 250, 1000 (1000 ohms per volt) — DC Milliamperes: 10, 50, 250 — Ohms: 0-1000, 0-100,000—With Leads.. **$33.95**

DC Ammeter, Model 375 — 0-1, 2.5, 5, 10, 25 amps **$23.95**

DC Milliammeter, Model 373 — 0-1, 5, 10, 25, 50, 100, 250, 1000 ma **$23.95**

DC Microammeter, Model 374 — 0-50, 100, 250, 500, 1000 ua **$26.95**

AC Ammeter, Model 370 — 0-1, 0-2.5, 0-5, 0-10, 0-25 amps **$22.95**

AC Milliammeter (Self-contained transformer), Model 378 — 0-5, 25, 100, 250, 1000 ma **$26.95**

DC Voltmeter (Res. 1000 ohms per volt), Model 377 — 0-1, 2.5, 5, 10, 25, 50, 100, 250, 500, 1000 DC volts **$24.95**

Millivoltmeter, Model 387 — 10, 30, 100, 1000 mv; with leads and manual **$29.95**

AC Voltmeter (Rec. Type — 1000 ohms per volt), Model 376 — 0-5, 10, 25, 50, 100, 250, 500, 1000 AC volts **$23.95**

AC Voltmeter, Model 371 — 0-150, 0-300, 0-600 volts **$24.95**

Ohmmeter, Model 372 — 0-500 ohms (5 ohms center); 0-5000 ohms (50 ohms center); 0-50,000 ohms (500 ohms center); 0-500,000 ohms (5,000 ohms center); 0-5 meg. (50,000 ohms center); 0-50 meg. (500,000 ohms center) — with Leads **$29.95**

Low Ohmmeter, Model 362 — 0-5, 0-25 ohms, with Leads and Manual **$26.95**

AC Volt-Amp-Wattmeter, Model 390 — Volts: 0-150, 300 — Amps: 0-0.3, 15 — Watts: 0-300, 600, 1500, 3000 — with break-in plug and Leads **$54.95**

AC-DC Volt-Wattmeter, Model 391 — AC or DC — Volts: 0-130, 0-260 — Watts: 0-1500, 0-3000 — with Cord and Plug **$47.95**

AC-DC Volt-Wattmeter, Model 392 — AC or DC — Volts: 0-130, 0-260 — Watts: 0-1000, 0-5000 — with Cord and Plug **$49.95**

Battery Tester, Model 379 — (Seperate arcs for Radio A Batteries, Hearing Aid A Batteries, and for all B Batteries) — with Leads **$29.95**

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Simpson TEST EQUIPMENT

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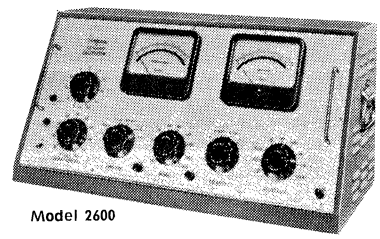
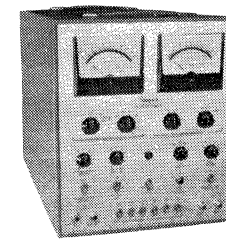
LABORATORY TYPE TEST EQUIPMENT

Model 1900 and NEW Model 1901



Model 2600

Model 2620



DECADING VOLTMETERS

(AC-DC, Model 1901) (DC, Model 1900)

- **Voltage Range: 1 through 1000 Volts**
- **Voltage Accuracy:** p/m .1% of reading at 25°C; p/m .25% of reading from 15°C to 35°C
- **Accuracy of Calibration Source:** p/m .05%
- **Accuracy of Decades:** p/m .05%
- **Sensitivity:** 1000 ohms per volt
- **External Power Requirements:** none
- **Internal Power Requirements:** 1-45 volt battery Eveready No. 482 or equivalent (used for the calibration circuit only)
- **Battery Life:** approx. 1 yr. (2 calib./day)

AC-DC Model 1901 ..... **$645.00**

DC, Model 1901 ..... **345.00**

SELF-POWERED LAB STANDARD CALIBRATOR MODEL 2600

A Self-Powered Calibrator for Electrical Instrument Maintenance and High Accuracy Testing. Two terminal connections cover all 49 ranges for unusually fast operation. DC accuracy is ±0.5% F.S.; AC, ±0.75% F.S. (at 77°F, 25°C). Separate meters (**self shielded** movements) for DC and AC readings. **Size:** 15" x 31" x 15". **Power Requirement:** Approx. 50 watts. **Net Wt:** 132 lbs. @ 117.5 volts, 60 cps.

Price **$1620**

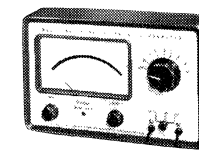
PULSE GENERATOR MODEL 2620

No Other Unit Offers Such Accuracy, Versatility, and Set-Up Speed Within This Price Range. Twin meters read pulse repetition frequency and pulse duration simultaneously. Rise time is 0.02 microseconds; decay time, 0.03 microseconds. Pulse duration, continuously variable from 0.1 to 1000 microseconds. Jitter, less than 0.005 microseconds. Pulse repetition rate, continuously variable from 10 to 100,000 pps in four ranges. **Size** 15½" x 13¼" x 21". **Net Wt.** 66 lbs. 110v., 50/60 cycles.

Price **$625**

WRITE FOR ADDITIONAL SPECIFICATIONS

NEW! ±1% MULTI-RANGE MILLIOHMMETERS, Model 1699



Large 7" meter with mirrored scale and knife-edge pointer. Easy readability. Single arc, 90° dial with 100 divisions. Complete with operator's manual and test leads **$150.00**

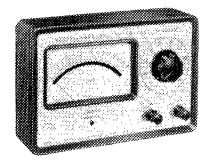
Ranges: 0-.05 / .1 / .25 / .50 / 1 / 5 / 10 / 50. **Accuracy:** ±1% of full scale.

Test Leads: Coaxial cable terminated in Kelvin clips. **Power:** Battery operated.

Controls: Function switch, Range switch. Zero adjust, Full Scale adjust. **Size:** 11⅜" x 7⅜" x 3¼". **Net Weight:** 5 lbs., 10 oz.

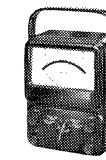
PORTABLE STANDARDS

SERIES 1700 MULTI-RANGE



MODELS 9 & 10

MODEL 880



Accuracy: Model 9, ½ of 1% of Full Scale @ 77°F. Models 10 and 880, 1% of Full Scale @ 77°F. 4½" Hand drawn scale, mirror; knife-edge pointer.

SPECIFICATIONS	DC Voltmeter MODEL 1700	DC Ammeter MODEL 1701	DC Milliammeter MODEL 1702	DC Microammeter MODEL 1703	DC Millivoltmeter MODEL 1704
RANGES	0-1.5, 3, 7.5, 15, 30, 75, 150, 300, 750, 1500	0-0.75, 1.5, 3.0, 7.5, 15, 30, 75	0-1.5, 3, 7.5, 15, 30, 75, 150, 300, 750, 1500	0-75, 150, 750, 1500	0-30, 75, 150, 750, 1500
ACCURACY	½ of 1% of Full Scale in Horizontal Position @ 25°C				
LOSS (Max.)	1 milliampere	45 mv (approx.)	50 to 150 mv	.160—.578 Volts	5 ma
EXT. TEMP. INFLUENCE	¼ of 1%	¼ of 1%	¼ of 1%	¼ of 1%	¼ of 1%
DIELECTRIC TEST	3000 V. RMS	3000 V. RMS	3000 V. RMS	3300 V. RMS	3300 V. RMS
MIRROR SCALE LENGTH	5.5"	5.5"	5.5"	5.5"	5.5"
DAMPING	Magnetic	Magnetic	Magnetic	Magnetic	Magnetic
METER MOVEMENT	Deep Core Magnet Meter Movement (1-5/16")				
SENSITIVITY	1000 Ω/V	—	—	—	200 Ω/V
ZERO ADJUSTER	External	External	External	External	External
SIZE	11⅜" x 7⅜" x 3¼"	11⅜" x 7⅜" x 3¼"	11⅜" x 7⅜" x 3¼"	11⅜" x 7⅜" x 3¼"	11⅜" x 7⅜" x 3¼"
PRICE	$160.00	$155.00	$135.00	$140.00	$150.00

Made to Conform to ASA C 39.1-1959

MODELS 9 & 10 — D'ARSONVAL (DC) AND IRON VANE (AC) METER MOVEMENTS

SINGLE RANGE	DC Model 9	AC Model 10	MULTIPLE RANGE	DC Model 9	AC Model 10
VOLTMETERS			VOLTMETERS		
50	$ 49.50	$43.95	15-150	$ 55.00	—
100	49.50	43.95	150-300	60.45	$55.00
150	49.50	43.95	300-750	66.00	60.45
300	55.00	49.50	15-150-300	63.75	—
			150-300-600	66.00	60.45
MILLIAMMETERS			MILLIAMMETERS		
1	57.15	—	10-100	55.00	—
50	49.50	43.95	25-250	55.00	—
100	49.50	43.95	100-500	55.00	—
500	49.50	43.95	—	—	—
AMMETERS			AMMETERS		
5	49.50	43.95	2.5-5	55.00	—
15	49.50	43.95	5-10	55.00	—
30	49.50	43.95	2.5-10-25	60.45	—
50	49.50	43.95	10-25-50	60.45	—
100	52.50	—	—	—	—
MICROAMMETERS					
5	71.55	—	—	—	—
100	67.00	—	—	—	—
200	64.95	—	—	—	—

MODEL 880 — AC-DC DYNAMOMETER TYPE METER MOVEMENT

WATTMETERS, SINGLE PHASE — Maximum Volts 150-300

Amperes Normal	Amperes Maximum	Watts Range Low	Watts Range High	Price
1	1.5	100	200	$60.45
2	3.0	200	400	60.45
5	7.5	500	1000	60.45
10	15.	1000	2000	60.45
20	30.	2000	4000	66.00
50	75.	5000	10000	66.00

WATTMETERS, DOUBLE CURRENT RANGE — Maximum Volts 150-300

2.5- 5 5-10	3.75- 7.5 7.5 -15.0	250- 500-1000 500-1000-2000	$76.95 76.95

VOLTMETERS — Single and Multiple Ranges

Maximum Volts	Price
0-150	$60.45
0-150-300	71.55
0-75-150-300	76.95
0-150-300-600	76.95

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Simpson TEST EQUIPMENT and ACCESSORIES

All Prices Net

TEMPERATURE TESTERS

Model 385-3L

Models 388-3L and 389-3L

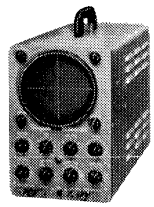
MODEL 385-3L — Accuracy: ±1°F about center scale; ±2°F at either end. For measuring temperatures from +70°F to as low as −50°F. Available in 3 lead model only. Supplied with one No. 0010 15 ft. thermistor probe and operator's manual. **$35.95***

MODEL 388-3L — Therm-O-Meter — Measures Temperatures −50°F to +1000°F. **Accuracy:** +1½ scale divisions. Standard models have combination Fahrenheit and Centigrade scale. Sensing Element: Thermocouple (Iron-Constantan). Supplied with internal battery and one 8″ general purpose probe No. 0190, and operator's manual. Order additional probes as required. Model 388-3L: For three probes. **$67.95***

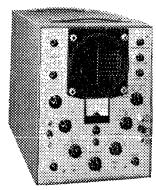
MODEL 389-3L — This dual range instrument provides a means for temperature measurements between −50°F and +100°F and between +100°F and +250°F. Accuracy is ±2°F. Supplied with internal battery and one 15′ thermistor type probe (No. 0010). Order additional probes as required. Model 389-3L (for 3 leads). **$62.95***

*See accessories for other types of probe leads.

SCOPES, COLOR BAR GENERATOR, CAPACITOR LEAKAGE TESTER



Model 466 General Purpose Scope



Model 2610 Wide Band Scope

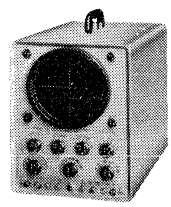
Model 466 GENERAL PURPOSE SCOPE

Freq. Resp. of Vert. Ampl.: From 15 cycles/sec to 100 kc/sec, flat within ±1 db; 6 db down at 250 kc/sec; usable to 1 Mc/sec.
Maximum Vertical Deflection Sensitivity: 30 Millivolts RMS/inch.
Frequency Response of Horizontal Amplifier: From 15 cycles/sec to 20 Kc, flat within ±1 db; 6 db down at 100 Kc/sec.
Maximum Horizontal Deflection Sensitivity: 0.7 volt RMS/inch.
Z-Axis Sensitivity (Voltage Required to Extinguish Beam): 20 volts RMS.
Calibrating Voltage (at 117.5 VAC power source): 1 volt P-P ±10%.
Maximum Input Voltage: 400 volts peak.
Input Resistance: 0.1 Meg (at atten. x 1); 0.5 Meg (at atten. x 100).
Input Capacitance: 40 uuf (at atten. x 1); 35 uuf (at atten. x 100).
Sawtooth Sweep Range: 15 cps to 80 Kc/sec.
Size: 7⅞″ x 12¼″ x 16⅛″. **Net Wt:** 19 lbs.
For use on 110 volts, 60 cycles.
Complete with input cable No. 0100 and operator's manual . . . **$149.95**
Dual Voltage Model for 220/110 volts, 50/60 cycle . . . **$159.95**

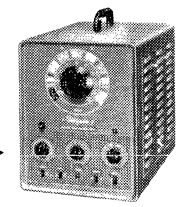
Model 2610 WIDE BAND OSCILLOSCOPE

For the 1001 Jobs Where You Don't Need an Expensive Specialized Scope. Vertical sensitivity, 6 mv RMS/in. Vertical calibration accuracy, ±3%. Response (linear position): DC to 5.0 mc/sec, ±0.5 db; DC to 8.0 mc/sec, ±1.5 db. Response (transient position): DC to 3.5 mc/sec, −3 db, and −6 db at 5.0 mc/sec. Triggered and recurrent sweeps. Precalibrated triggered sweep positions of 5, 50, 500, 5000 microseconds. **Size:** 15″ x 11½″ x 20½″. Net Wt. 53 lbs. **Power Requirements:** Approx. 200 watts at 117.5 v., 50/60 cps. Price **$575.00**

WRITE FOR ADDITIONAL SPECIFICATIONS



Model 458 Color Scope



Model 430 Color Bar Generator

MODEL 458 COLOR SCOPE

- 7″ Cathode Ray Tube.
- Wide band operation, the frequency response is flat within ±1.0 db to 4.5 Mc. Faithfully displays COLOR BURST frequency with a sensitivity greater than 40 Mv rms per inch of vertical deflection.
- Narrow band operation, the frequency response is flat within ±2 db from 10 cycles to 300 Kc with a sensitivity greater than 15 Mv rms per inch.
- Good square wave response provides accurate representation of sync pulses and composite wave-form pattern for trouble-shooting video, sync, and sweep circuits.
- Horizontal sweep, to 250 Kc, for expansion of high frequency wave-form detail and color burst.
- Vernier and Compensated Decimal Step Attenuator for better signal controls.
- Provision for Intensity Modulation of CRT.
- 1 volt peak calibrating voltage.

Line Voltage: 105/125v, 50/60 cycle.
Size: 11″ x 16½″ x 14½″. **Weight:** 29 lbs.
Complete with operator's manual . . . **$249.95**

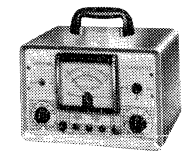
Model 430 COLOR BAR GENERATOR

- 100% Saturated NTSC Signals • Outputs pictured on a single, master control . . . a color print of the signal output is featured at each position on the master control • Line Voltage 105/125 volts, 60 cycle only.

Outputs—Y; chroma; color bar (8 bars simultaneously); R-Y; B-Y; R-Y and B-Y simultaneously; I; Q; I and Q simultaneously; G-Y at 90°; sync and burst; horizontal sync; high level 3.58 megacycle output; high level modulated rf output; positive or negative video output. 4.5 Megacycle (crystal controlled) marker for proper tuning.

Chroma Level Switch — Zero db for checking older style receivers and some current models; −6 db for video checks of newer receivers using vestigal color sideband alignment; −15 db for checking color sync lock under weak signal conditions. Variable chroma control position for other chroma levels.
Size: 19¼″ x 17½″ x 14″. **Shpg. Wt:** 26 lbs.

Complete with operator's manual and test leads . . . **$395.00**



Model 383A Capacitor Leakage Tester

Model 383A CAPACITOR LEAKAGE TESTER

- Measures the leakage resistance of defective paper, mica, or ceramic capacitors. Indicates directly the capacitance of good paper, mica, or ceramic capacitors over a range of 10.0 mmf to 10.0 mf.

Pulse technique detects many marginal capacitors. All measurements are made under load conditions. No adjusting of a bridge circuit and balancing controls. **Line Voltage:** 105/125 v, 60 cycle only. Complete with test leads and operator's manual . . . **$99.95**

CARRYING CASES FOR SIMPSON TEST EQUIPMENT

For Models	Cat. No.	Price
260, 261, 270 — Leather	1818	$8.50
260, 261, 270, 303 — Ever-Redy Leather	4236	9.75
262, 267, 268, 269, 388-3L, 389-3L— Ever-Redy Vinyl	5262	9.95
385-3L — Ever-Redy Leather	8073	8.75
391, 392 — Leatherette-Covered	3413	5.95
355 — Ever-Redy Leather	6355	3.95
All Microtesters — Ever-Redy Leather	4299	7.50
All Microtesters — Leatherette-Covered	3011	5.95
Roll Top Safety Case For 260-2, 9, 10, 880's	6192	9.95
Roll Top Safety Case for 260-3, 261, 270	0249	9.95
Roll Top Safety Case For 303	6379	9.95
1700 Series — Ever-Redy Leather	9808	18.90

WRITE ON LETTERHEAD FOR GENERAL CATALOG 18 — DEPT. V

SIMPSON ELECTRIC CO. • CHICAGO, ILLINOIS

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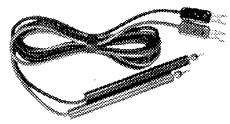
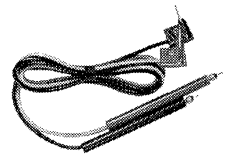
Simpson TEST EQUIPMENT ACCESSORIES and METERS





LEADS

For Models	Cat. No.	Price
260 Series 3, 4, 261, 270 Banana plugs and alligator clip	7500	$2.10
260 Series 3, 267, 268 Banana plugs and test prods	7538	2.50
355 Test prods.	8600	1.85
385-3L, 389-3L Free Air Temperature Probe	0789	7.45
385-3L, 389-3L, 15 ft. Thermistor lead	0010	5.50
385-3L, 389-3L, 30 ft. Thermistor lead	0216	6.45
385-3L, 389-3L, 50 ft. Thermistor lead	0415	7.60
385-3L, 389-3L, 100 ft. Thermistor lead	0416	10.40
385-3L, 389-3L, 150 ft. Thermistor Lead	0417	12.90
388-3L Rugged Service Lead (8 ft.)	0496	5.25
388-3L General purpose thermocouple	0190	4.95
388-3L Surface temperature themocouple (300°F. Max.)	0187	8.90
385-3L, 389-3L Surface temperature probe	0790	5.95
650 Test Lead	7545	1.20
651 Ground Lead	7547	1.20
1704 — 0.26Ω leads for Millivolt Standard; spade lugs both ends	0105	2.95
466, 715 Input cable	0100	2.85
Test prods and elbow terminals 230/240/260-2/372	8381	2.50
Test prods and spade terminals — all microtesters	8379	2.50
Alligator clips and elbow terminals — 230/240/260-2/372	8375	1.75
Alligator clips and spade terminals — all microtesters	8376	1.75
Combination test prods with removable alligator clips and elbow terminals 262/269	8463	2.30
263, 269-2 Combination test prods with removable alligator clips and elbow terminals	0115	2.30

PROBES (High Voltage Types) & MULTIPLIERS

For Models	Cat. No.	Price
221 (30,000v)	0009	$12.55
260 Series 2 (25,000v)	0007	10.75
260 Series 2 (50,000v)	0179	12.50
260 Series 3, 4, 4M, 261, 267, 270 (10,000v)	0507	10.20
260 Series 3, 4, 4M, 261, 267, 270 (25,000v)	0508	11.50
260 Series 3, 4, 4M, 261, 267, 270 (50,000v)	0509	12.50
262, Series 1 and 2 (16,000v)	0172	$11.95
262, Series 1 and 2 (40,000v)	0180	12.50
263, 30 KV at 10K Ω/V and 15 KV at 20 Ω/V	0141	11.95
267 2500 V DC Multiplier	8568	3.60
267 5000 V DC Multiplier	8569	3.60
267 2500 V AC Multiplier	8570	3.60
267 5000 V AC Multiplier	8571	3.60
267 10,000 V DC	0507	10.20
267 25,000 V DC	0508	11.50
267 50,000 V DC	0509	12.50
268 3000 V DC Multiplier	8572	3.60
268 6000 V DC Multiplier	8573	3.60
268 3000 V AC Multiplier	8574	3.60
268 6000 V AC Multiplier	0004	3.60
268 12,000 V DC	0510	10.95
268 30,000 V DC	0511	10.95
269, Series 1 (16,000v)	0173	11.95
269, Series 1 (40,000v)	0181	13.50
269, Series 2 (16,000v)	0119	11.95
269, Series 2 (40,000v)	0120	12.95
270 (10,000v)	0507	10.20
270 (25,000v)	0508	11.50
270 (50,000v)	0509	12.50
303 (30,000v)	0074	11.95

PROBES — Miscellaneous Types

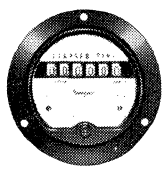
For Models	Cat. No.	Price
303 High frequency	0073	$8.75
303 AC Probe	0068	3.55
303 DC Probe	0067	3.55
303 Ground lead	0069	1.00
311 High Frequency	0731	11.50
311 High voltage	0732	11.75
311 DC-AC/OHMS	0734	8.50
311 Ground lead	0733	1.25
2610 Low Capacity	0299	17.55
Voltage Doubler	0740	14.65
Low Capacitance	0741	14.00
100:1 Voltage Divider	0742	15.20
Direct Resistive Dual Purpose	0743	11.55

OSCILLOSCOPE PROBE KIT — Model 739

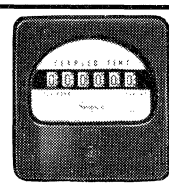
For use with Model 458 Oscilloscope. Includes *low capacity probe, voltage doubler, detector, 100:1 voltage divider and dual direct — resistive. (isolation)

Complete with 4 probes, plastic roll, and operator's manual.....**$45.15**

*For Model 458 only.



Model 55ET



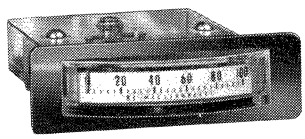
Model 57ET

3½" ELAPSED TIME METERS

These meters use self-starting synchronous clock motors. They indicate up to 99999.9, then recycle and begin again at 00000.0. Molded bakelite case.

Range	Model 55 ET	Model 57 ET
120V-60 cps	$18.85	$18.85
240V-60 cps	19.15	19.15

EDGEWISE METERS



Types: Direct Current and AC Rectifier. **Accuracy:** DC 2% of full scale; AC Rectifier, 3%. **Movement:** Self-shielded.

DC MILLIAMMETERS		
Range	Approx. Resistance	Model 1522
0-1	20 ohms	$14.85
0-5	2.5 ohms	14.85
0-10	13.5 ohms	14.85
0-25	5.4 ohms	15.45
0-50	2.7 ohms	15.45
0-100	1.35 ohms	15.45
0-150	.9 ohms	15.45
0-200	.675 ohms	15.45
0-250	.54 ohms	15.45
0-300	.45 ohms	15.45
0-500	.27 ohms	15.45

DC MILLIVOLTMETERS		
0-50	10 ohms	$15.75

VOLUME LEVEL INDICATORS—VU Meters	
Range	Model 1542
"A" SCALE	$24.75
"B" SCALE	24.75

AC VOLTMETERS—Rectifier Type		
Range	Approx. Resistance	Model 1542
0-150	1000 ohms per volt	$19.20
0-300		19.20

DC VOLTMETERS		
Range	Approx. Resistance	Model 1522
0-10	1000 ohms per volt	$15.00
0-15	1000 ohms per volt	15.00
0-25	1000 ohms per volt	15.00
0-50	1000 ohms per volt	15.00
0-150	1000 ohms per volt	15.00
0-300	1000 ohms per volt	15.00
0-500	2000 ohms per volt	15.15

DC AMMETERS		
0-1	.050 ohms	$15.75
0-5	.010 ohms	15.75
0-10	.005 ohms	15.75
0-15	.0033 ohms	15.75
0-25	.002 ohms	15.75
0-50	.001 ohms	15.75

DC MICROAMMETERS		
0-25	3150 ohms	$22.20
0-50	1800 ohms	19.50
0-100	1100 ohms	17.40
0-200	290 ohms	15.75
0-500	90 ohms	15.30

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Simpson 1½", 2½", 3½", 4½" WIDE-VUE PANEL METERS

All Prices Net

WIDE-VUE SPECIFICATIONS

Size	Model No.	Accuracy	Scale Length
1½"	1212	±2% of full scale	1.5" @ 90° Arc (38.1 mm)
	1214	±3% F. S. @ 25°C. & 60 cy. Sine Wave	
2½"	1227 1257	±2% of full scale	2.5" (63.8 mm)
3½"	1327 1337	±2% of full scale	3.04" (77.2 mm)
	1347	±3% F. S. @ 25°C. & 60 cy. Sine Wave	
	1357	±2% of full scale	
4½"	1329 1339	±2% of full scale	3.93" (100 mm)
	1349	±3% F. S. @ 25°C. & 60 cy. Sine Wave	
	1359	±2% of full scale	

CALIBRATION AND DIALS — All DC Wide-Vue meters listed below have the Simpson self-shielded movement (Calibration not affected by stray magnetic fields or magnetic mounting). All AC Wide-Vue meters have the Simpson Iron-vane type movement. AC Milliammeters and Ammeters, except 0-10 amps, are calibrated for use on 25 through 800 cps; 0-10 AC Ammeters and all AC Voltmeters are calibrated for use on 25 through 125 cps. For other specified frequencies up to 800 cps add $1.65 to the list price.

DC VOLTMETERS — Self-Shielded Movement

Range	Resistance	1½" Model 1212	2½" Model 1227	3½" Model 1327	4½" Model 1329
0-5		$12.75	$13.80	$14.25	$15.75
0-8		—	—	14.25	15.75
0-10		12.75	13.80	14.25	15.75
0-15		12.75	13.80	14.25	15.75
0-25	1000	12.75	13.80	14.25	15.75
0-30	ohms	12.75	13.80	14.25	15.75
0-50	Per	12.75	13.80	14.25	15.75
0-100	volt	12.75	13.80	14.25	15.75
0-150		12.75	13.80	14.25	15.75
0-200		—	13.80	14.25	15.75
0-250		—	13.80	14.25	15.75
0-300		—	13.80	14.25	15.75
0-300	2000	12.75	—	—	—
0-500	ohms	16.05	14.25	15.00	16.20
0-750	per	—	17.55	15.00	16.20
0-1000	volt	—	17.85	18.60	19.80

External Multipliers, Model 183 on 1½" DC meters 500 volts or higher; on 2½" DC meters 750 volts or higher; and on 3½" and 4½" DC meters 1000 volts or higher. All others are self contained.

DC AMMETERS — Self-Shielded Movement

0-1	.050	$12.75	$13.05	$13.65	$15.00
0-1.5	.033	—	13.05	13.65	15.00
0-2	.025	12.75	13.05	13.65	15.00
0-3	.0166	12.75	13.05	13.65	15.00
0-5	.010	12.75	13.05	13.65	15.00
0-10	.005	12.75	13.05	13.65	15.00
0-15	.0033	12.75	13.05	13.65	15.00
0-25	.0020	12.75	13.05	13.65	15.00
0-30	.0017	—	13.05	13.65	15.00
0-50	.001	12.75	13.05	13.65	15.00
0-100	10.0	—	13.05	13.65	15.00
0-150	10.0	—	13.05	13.65	15.00
0-200	10.0	—	13.05	13.65	15.00
0-300	10.0	—	13.05	13.65	15.00
0-500	10.0	—	—	13.65	15.00
15-0-15	.0033	—	—	14.55	—
30-0-30	.0017	—	—	14.55	—
50-0-50	.001	—	—	14.55	—

1½" DC Ammeters are self contained through 10 amps. 15 Amps and higher are supplied as 50 MV meters to be used with external shunts. 2½", 3½" and 4½" DC ammeters are self contained through 50 amps. Higher range DC ammeters are 50 MV meters to be used with external shunts.

DC MILLIAMMETERS — Self-Shielded Movement

0-1	46	$12.30	$12.90	$13.50	$14.25
0-3	46	—	12.90	13.50	14.25
0-5	23	12.30	12.90	13.50	14.25
0-10	2.2	12.30	12.90	13.50	14.25
0-15	2.2	12.30	12.90	13.50	14.25
0-20	2.2	—	12.90	13.50	14.25
0-25	6.0	12.75	13.20	13.80	15.00
0-50	3.0	12.75	13.20	13.80	15.00
0-100	1.5	12.75	13.20	13.80	15.00
0-150	1.0	12.75	13.20	13.80	15.00

DC MILLIAMMETERS (Continued)

Range	(ohms) Approx. Resistance	1½" Model 1212	2½" Model 1227	3½" Model 1327	4½" Model 1329
0-200	.75	12.75	13.20	13.80	15.00
0-250	.60	12.75	13.20	13.80	15.00
0-300	.50	12.75	13.20	13.80	15.00
0-500	.30	12.90	13.20	13.80	15.00
0-750	.20	—	—	13.80	15.00
0-1000	.05	—	13.20	13.80	15.00

DC MICROAMMETERS Self-Shielded Movement

0-15	4500	—	—	$22.50	$24.60
0-25	2200	—	$19.20	20.10	22.20
0-50‡	2000	$16.20	16.65	17.10	18.45
0-100	2000	14.40	15.00	15.60	17.40
0-200	1000	13.05	13.65	14.25	15.75
0-500	200	12.80	13.50	13.95	15.15
25-0-25	2000	16.35	—	17.25	18.60
50-0-50	2000	14.55	15.15	15.75	17.55
100-0-100	1000	13.20	13.80	14.40	15.90
500-0-500	46	12.45	13.05	13.65	14.40

DC MILLIVOLTMETERS Self-Shielded Movement

0-50	10	$12.75	$13.05	$13.65	$15.00
50-0-50	10	—	—	13.65	15.00

Simpson VU meters meet all the Electrical and Ballistic specifications established by Bell Laboratories and American Standards Association as required by broadcasting, communication and sound engineers. They are available with either type A or B scales. Type A scale stresses the level in VU for monitoring wire lines. Type B scale stresses per cent use of transmitter output and is the standard for broadcast service.

VOLUME LEVEL INDICATORS; DECIBEL METERS

Zero Power Level—6 MW. 500 Ohm Line—Core Magnet Type Movement

Range	1½" Model 1214	2½" Model 1247	3½" Model 1347	4½" Model 1349
General-Purpose 5000 ohms	—	$18.35	$19.60	$20.25

VOLUME LEVEL INDICATORS—V. U. METERS

Reference Level—1 MW. 600 Ohms Line. External Magnet Type Movement except Model 1214C which is core magnet type movement.

Range	1½" Model 1214	2½" Model 1247	3½" Model 1347	4½" Model 1349
A—Scale	$19.80	$21.90	$22.50	$23.70
B—Scale	—	—	22.50	23.70

DC GALVANOMETERS Self-Shielded Movement

Scale	Sensitivity Micro-Amperes	Resistance (ohms)	1½" Model 1212C	2½" Model 1227C	3½" Model 1327C	4½" Model 1329C
50-0-50	500-0-500	46	$12.45	$12.90	$13.65	$14.40
50-0-50	75-0-75	2000	13.20	13.95	15.15	16.65

RF AMMETERS — Self-Shielded Movement

Range Amperes	(ohms) Approx. Resistance	1½" Model 1212	2½" Model 1237	3½" Model 1337	4½" Model 1339
0-1	.343	—	—	$15.90	$18.15
0-1.5	.200	—	—	15.90	18.15
0-2	.120	—	—	15.90	18.15

RF AMMETERS (Continued)

0-2.5	.10	—	—	15.90	18.15
0-3	.08	—	—	15.90	18.15
0-5	.045	—	—	15.90	18.15
0-8	.031	—	—	15.90	18.15
0-10	.023	—	—	15.90	18.15

RF MILLIAMMETERS

0-500	.63	—	—	$18.75	$21.15

AC VOLTMETERS—Iron Vane Type Movement

Range	(ohms) Approx. Resistance	2½" Model 1257	3½" Model 1357	4½" Model 1359
0-5	33	—	$12.60	$14.40
0-10	133	$12.30	12.60	14.40
0-15	300	12.30	12.60	14.40
0-25	833	12.45	13.05	14.40
0-50	3,333	12.45	13.05	14.40
0-100	16,666	12.75	13.65	14.40
0-150	25,000	13.05	13.95	15.00
0-250	41,166	13.05	13.95	15.00
0-300	50,000	13.05	13.95	15.00
0-500	83,333	16.65	17.85	19.05

External Multipliers, Model 183 (Featured on back page) are furnished on AC meters having a range of 500 volts or higher. All others are self contained.

AC AMMETERS—Iron Vane Type Movement

0-1	.287	$11.70	$12.45	$14.55
0-1.5	.185	11.70	12.45	14.55
0-2	.115	—	12.45	14.55
0-3	.027	11.70	12.45	14.55
0-5	.012	11.70	12.45	14.55
0-10	.0031	11.70	12.45	14.55
0-15	.0022	11.70	12.45	14.55
0-25	.0003	12.30	12.90	15.00
0-30	.0003	12.30	12.90	15.00
0-50	.0006	12.30	12.90	15.00
0-75	.012	—	13.05	13.95
0-100	.012	11.70	12.45	14.55
0-150	.012	11.70	12.45	14.55
0-200	.012	11.70	12.45	14.55
0-300	.012	11.70	12.45	14.55

2½" AC ammeters are self contained through 50 amps. 3½" and 4½" AC ammeters self contained through 75 amps. Higher range AC ammeters are 5 amp meters to be used with external current transformer.

AC MILLIAMMETERS — Iron Vane Movement

0-10	2,000	$11.70	$12.45	$14.55
0-50	80	11.70	12.45	14.55
0-100	20	11.70	12.45	14.55
0-250	5	11.70	12.45	14.55
0-500	.9	11.70	12.45	14.55

AC VOLTMETERS—RECTIFIER TYPE Self-Shielded Movement

Range Volts	Resistance	1½" Model 1214	2½" Model 1247	3½" Model 1347	4½" Model 1349
0-5		$17.70	$16.50	$18.30	$20.10
0-10	1000	17.70	16.50	18.30	20.10
0-15	ohms	—	—	18.30	20.10
0-50	per	—	—	18.30	20.10
0-150	volt	17.70	16.50	18.30	20.10
0-300	2000	—	16.50	18.30	20.10
0-150	ohms per volt	—	—	19.05	20.85
0-300	2000 ohms per volt	18.30	—	—	—

(continued on next page)

Ranges listed without prices (—) are available on special order only. †1½" DC Milliammeters all self contained. Voltage drop 150 MV or less. ‡Resistance of Model 1212 0-50 MIC Meter is 5300 ohms.

Net

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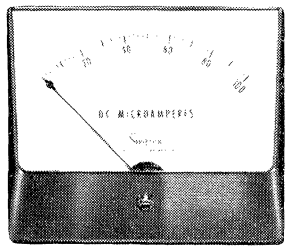
Simpson METERS and METER RELAYS

All Prices Net

NEW WIDE-VUE METERS—TAUT BAND and WATTMETERS



TAUT BAND — DC MICROAMMETERS

Self-Shielded TAUT BAND Movement

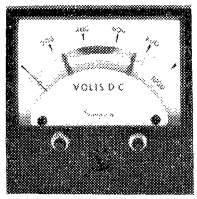
Range	Resistance	1½" Model 1212T	2½" Model 1227T	3½" Model 1327T	4½" Model 1329T
10	4900	—	$30.00	$31.20	$33.60
15	1960	—	27.30	28.20	30.60
25	1960	—	23.40	24.30	26.40
50	960	—	20.55	21.00	22.65
100	503	—	18.90	19.50	21.30

NOTE: Wattmeters calibrated for either magnetic or nonmagnetic panels and for frequency range of 25-125 cycles.

WATTMETERS, Dynamometer Type, Single Phase

Watts	Range Volts	Max. Amps	2½" Model 1277	3½" Model 1377	4½" Model 1379
0-75	150	1.0	—	—	$34.92
0-150	150	2.0	—	—	34.92
0-300	150	4.0	—	—	34.92
0-750	150	10.0	—	—	34.92
0-600	300	4.0	—	—	37.47
0-1500	300	10.0	—	—	37.47
0-3000	300	20.0	—	—	37.47
Compensated Wattmeters					
0-10	300	0.175	—	—	46.75
0-20	300	0.400	—	—	46.75
0-30	300	0.650	—	—	46.75

NEW CONTACTLESS METER RELAYS—Self-Contained, 3½"



RUGGED SEAL CONSTRUCTION

Set points are adjusted thru external, front-adjusted gear drive. Set point is indicated by separate lance pointers. Sensing is accomplished thru an infinite life lamp and photoconductors. A solid state switching circuit and D.P.D.T. slave relay are provided (internally) for each control point. Slave relays will switch 10 amperes @ 115 volts A.C.

ELECTRICAL SPECIFICATIONS

Calibration Accuracy: ±2% of full scale.

Control Point Adjustment: Control points are externally adjustable over 95% of the scale arc. Control point indication is within 2% of actual switching.

Control Point Differential: Difference between "on" and "off" is within .5% of full scale.

Power Requirements: 115 Volts A.C.; 50-500 CPS.

Output: D.P.D.T. relay contacts for each control point. Contacts rated @ 10 amperes, 115 volts A.C. resistive.

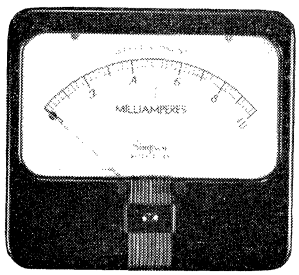
Meter Indication: Continuous, unaffected by control point setting.

Control Circuitry: Fail-safe. Both slave relays "open" in event of power failure.

CONTACTLESS TYPE — MODEL 3324XA

Range	SINGLE CONTROL Resist. Approx. Ohms	SINGLE CONTROL Price	DOUBLE CONTROL Price
0-50	3000	$90.00	$123.90
0-100	1300	87.30	121.50
0-200	570	87.30	121.20
0-500	220	87.30	121.20
0-1	80	86.40	120.30
0-50	10	86.70	120.75

4½ METER RELAY—FRONT ADJUSTABLE—MODEL 29XA



General: Model 29XA Relays are of the D'Arsonval Type. Externally adjusted limit setting contacts are non-locking and intended for circuits with external locking provisions or for light duty non-locking applications.

Calibration: Accuracies ±2% of full scale.

Contacts: Platinum Alloy. For use @ 15 volts DC @ 10 milliamperes maximum on resistive or diode protected inductive loads.

Contact Adjustment: Contacts are externally adjustable over 95° of 100° scale arc, and within 5° of each other. The pointer will indicate the contact make position within 2° of actual contact intercept.

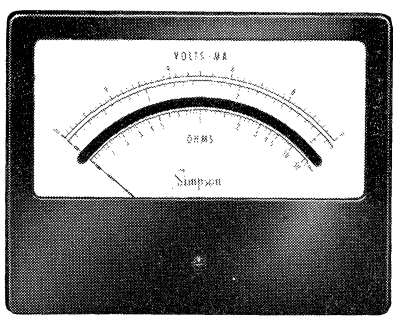
Contact Differential: Normally, contacts will close within 2% of full scale value and break within 10% of full scale value.

Insulation: Breakdown 300 volts AC from Relay contacts to meter circuit. 3 KV AC from Relay terminals to mounting panel. (All Tests at 60 cycles.)

Range	Description	Approx. Resistance (ohms)	Price
0-50	DC Microammeter	2500	$44.10
0-100	DC Microammeter	1800	42.15
0-200	DC Microammeter	1000	39.60
0-500	DC Microammeter	280	39.00
0-1	DC Milliammeter	140	38.10
0-50	DC Millivoltmeter	10	38.25

1% AND 2% PANEL METERS—6" SIZE

Red knife-edge pointers; 1/4-28 studs; front surface glass mirrors on 1% meters; molded black phenolic case; scale length, 4.6" (114.8 mm).



6 INCH RECTANGULAR PANEL METERS — 1% & 2% tolerance

Range	Approx. Resist.	DC Voltmeters[1] Model 1150E, 2%	DC Millivoltmeters[1] Model 1150E, Resist. (ohms)	DC Millivoltmeters[1] Model 1150E, 2%	DC Ammeters[1] Model 1150E, Resist. (ohms)	DC Ammeters[1] Model 1150E, 2%
0-1		—	—	—	.050	$19.65
0-5		—	—	—	.010	19.65
0-10		$18.90	—	—	.005	19.65
0-15		—	—	—	.0033	19.65
0-25	1000	18.90	—	—	.0020	19.65
0-30	OHMS	—	—	—	.0016	19.65
0-50	PER	18.90	10	$19.65	.001	19.65
0-100	VOLT	18.90	—	—	—	—
0-150		18.90	—	—	—	—
0-200		—	—	—	—	—
0-300		18.90	—	—	—	—
0-500	2000 Ω/V	19.50	—	—	—	—

Range	Approx. Resist.	DC Milliammeters[1] Model 1150E, 2%	DC Milliammeters[1] Model 1150E-1 1%	Resist. (ohms)	DC Microammeters[2] Model 1150H, 2%	DC Microammeters[2] Model 1150H-1 1%
0-1	46	$18.90	$23.85	—	—	—
0-10	10	18.90	—	—	—	—
0-15	—	—	—	5500	$29.95	—
0-25	—	—	—	5500	26.85	—
0-50	2.0	18.90	—	5000	24.45	$29.4
0-100	1.0	18.90	23.85	2800	23.40	28.3
0-200	—	—	—	1200	20.40	25.3
0-500	.2	18.90	23.85	200	19.80	24.7

[1]All ranges 1-5/16" shallow core movement.
[2]Ranges 15 through 100 use high flux movements designated as Model 1150H and cannot be calibrated for use on steel panels. Ranges 200 through 500 use 1-5/16" shallow core movement designated as 1150E.
†Supplied as Model 1150E which has 1-5/16" shallow core meter movement. Ranges listed without prices (—) are available on special order only.

WRITE ON LETTERHEAD FOR GENERAL CATALOG 18 — DEPT. V

SIMPSON ELECTRIC CO. • CHICAGO, ILLINOIS

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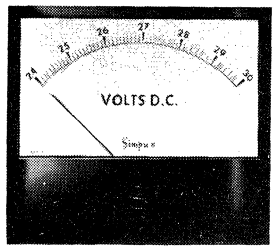
Simpson "RUGGED SEAL" and SEGMENTAL VOLTMETERS

NEW "RUGGED SEAL" METERS—3½", 4½", 4" x 6" (Sq. and Rect.)



Completely sealed and commercially ruggedized. Metal cased and shielded. Not affected by steel panel mounting. DC meters have ±2% F.S. accuracy; AC meters, ±2% F.S. at 25°C and 60-cycle sine wave. Scale lengths: 3½" meter, 2.9" (74 mm); 4½" meter, 3.9" (101 mm); 4" x 6" meter, 4.7" (120 mm).

Movement is external magnet type shielded by metal case. All AC meters are rectifier type, and maintain accuracy from 25 to 2000 cps (except AC ammeter, 50 to 500 cps).

DC VOLTMETERS

Range	Approx. Resist.	3½" Model 3323	4½" Model 3324	4"x6" Model 3326
0-1.5		$17.10	$18.60	$20.40
0-10	(1000	17.10	18.60	20.40
0-15	ohms	17.10	18.60	20.40
0-25	per	17.10	18.60	20.40
0-50	volt)	17.10	18.60	20.40
0-100		17.10	18.60	20.40
0-500		17.10	18.60	20.40

DC AMMETERS

0-5	(int. shunt	$17.40	$18.90	$21.00
0-10	75 mv. max.)	17.40	18.90	21.00

DC MILLIAMMETERS

0-1	80 ohms	$16.50	$18.00	$19.95
0-100	0.5 ohms	17.40	18.90	21.00

DC MICROAMMETERS

0-50	3000 ohms	$22.20	$23.70	$25.95
0-100	3000 ohms	20.10	21.60	24.00

AC VOLTMETERS, RMS SENSING (RECT. TYPE)

Range	Approx. Resist.	3½" Model 3343	4½" Model 3344	4"x6" Model 3346
0-150	(1000 ohms	$20.70	$21.90	$24.00
0-300	per volt)	20.70	21.90	24.00

AC AMMETERS (RECT. TYPE)

0-1	(int. Trans.	$25.80	$27.00	$29.10
0-5	Burden, 0.5 VA Max.)	25.80	27.00	29.10

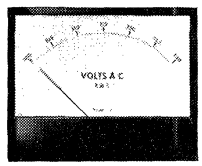
AC MILLIAMMETERS (Rect. TYPE)

0-1	600 ohms	$20.40	$21.60	$23.40

AC MICROAMMETER (RECT. TYPE)

0-100	400 ohms	$21.60	$22.50	$24.60

SEGMENTAL VOLTMETERS – "Rugged Seal" Construction



The significant portion of the overall voltage scale of these meters is expanded to occupy the full scale length. In addition to the stock expansions and accuracies shown, special segmental voltmeters can be built on order.

Meters are completely sealed and commercially ruggedized; metal cased and shielded; and are not affected by mounting on steel panels. Movement is external magnet type shielded by the metal case.

Accuracies shown are in percent of center scale value.

All of these AC segmental voltmeters are the RMS sensing type which are preferred when working with distorted waveforms.

AC VOLTMETERS, RMS SENSING, RECTIFIER (ROUND)

Center Scale Value — 115 V

Range	Sensitivity	Accuracy	2½" Model 3282	3½" Model 3283	4½" Model 3284
100-130	50 opv	1.0%	$70.00	$64.50	$71.50
105-125	65 opv	0.6%	70.00	64.50	71.50
110-120	80 opv	0.3%	70.00	64.50	71.50

AC VOLTMETERS, RMS SENSING, RECTIFIER (RECTANGULAR)

Center Scale Value — 115 V

Range	Sensitivity	Accuracy	3½" Model 3383	4½" Model 3384	4"x6" Model 3386
100-130	50 opv	1.0%	$59.00	$65.00	$69.50
105-125	65 opv	0.6%	59.00	65.00	69.50
110-120	80 opv	0.3%	59.00	65.00	69.50

DC VOLTMETERS (ROUND)

Range	Center Scale Value	Accuracy	2½" Model 3222	3½" Model 3223	4½" Model 3224
24-30	27 V	0.6%	$74.50	$68.50	$76.00

DC VOLTMETERS (RECTANGULAR)

Range	Center Scale Value	Accuracy	3½" Model 3323	4½" Model 3324	4"x6" Model 3326
24-30	27 V	0.6%	$49.20	$55.20	$59.40

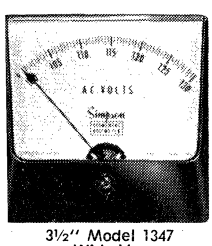
FREQUENCY METERS (ROUND)

Range cps	Center Scale cps	Accuracy	.....	.....	3½" Model 3283	4½" Model 3284
57-63	60	0.25%	——		$152.50	$159.50
380-420	400	0.25%	——		152.50	159.50

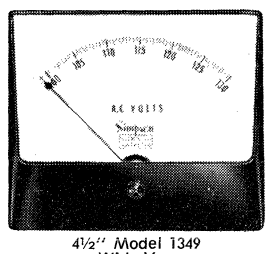
FREQUENCY METERS (RECTANGULAR)

Range cps	Center Scale cps	Accuracy	3½" Model 3383	4½" Model 3384	4"x6" Model 3386
57-63	60	0.25%	$148.25	$153.00	$157.50
380-420	400	0.25%	148.25	153.00	157.50

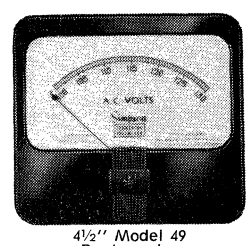
SEGMENT VOLTMETERS (Average Sensing) 100-130 AC Volts



3½" Model 1347
Wide-Vue



4½" Model 1349
Wide-Vue



4½" Model 49
Rectangular

WIDE-VUE					RECTANGULAR	
Size	(Single Range) Model	Price	(Multi-Range) Model	Price	Model (Single Range)	Price
3½"	1347	$40.80	—	—	—	—
4½"	1349	40.95	1349	$50.60	49	$40.50

Simpson Segmental AC Voltmeters improve meter accuracy and readability over most conventional type meters. Used primarily in monitoring line voltage, these segmental Voltmeters increase the efficiency, reliability and life of costly components .

MODEL NO.	1347	1349	49
Scale Length	3.14" (79.7 mm)	3.93" (100 mm)	3.5" (89.0 mm)
Operating Frequency Range	20-2000 cps		
Accuracy	±.5% of Center scale value at 25°C and 60 cps sine wave		
Movement Type	Core Magnet Meter Movement		
Frequency Influence	Less than 0.5% of Center scale value for temperature range of ±20° from 25°C.		
Sensitivity	160 to 100 ohms/volt end scale values. Sensitivity decreases as input voltage increases.		
Intermittent Input Voltage (max.)	150 volt RMS for 10 seconds		

WRITE ON LETTERHEAD FOR GENERAL CATALOG 18 — DEPT. V

SIMPSON ELECTRIC CO. • CHICAGO, ILLINOIS

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Simpson

2½, 3½, 4½ ROUND AND RECTANGULAR
PANEL METERS

All Prices Net

AC VOLTMETERS—RECTIFIER TYPE

Range	Ohms	2½" Models 145/147	3½" Models 45/47	4½" Model 49
0-1		—	18.75	20.55
0-3		—	18.75	20.55
0-5		—	18.75	20.55
0-10	2000	—	18.75	20.55
0-15	ohms	—	18.75	20.55
0-50	per volt	—	18.75	20.55
0-100		—	18.75	20.55
0-150		—	18.75	20.55
0-300		—	18.75	20.55

AC MILLIAMMETERS—RECTIFIER TYPE

0-1	600	—	18.00	19.50
0-2	400	—	18.00	19.50
0-5	200	—	18.00	19.50

AC MICROAMMETERS—RECTIFIER TYPE

0-100	3400	—	20.55	22.05
0-200	2400	—	18.15	19.80
0-300	1800	—	18.00	19.50
0-500	1200	—	17.70	19.20

AC VOLTMETERS

Range	Approx. Resistance	2½" Models 155/157	3½" Models 55/57	4½" Model 59
0-1.5	3 ohms	$11.70	$12.45	$14.10
0-3	12	11.70	12.45	14.10
0-5	33	11.70	12.45	14.10
0-10	133	11.70	12.45	14.10
0-15	300	11.70	12.45	14.10
0-25	833	12.15	12.75	14.10
0-50	3,333	12.15	12.75	14.10
0-100	16,666	13.20	13.80	14.70
0-150	25,000	12.90	13.65	14.85
0-250	41,166	12.90	13.65	14.85
0-300	50,000	12.90	13.65	14.85
0-500	83,333	17.40	17.70	18.30
0-750	125,000	19.20	19.35	20.10
0-1000	166,666	20.70	20.85	21.75

AC AMMETERS

†0-1	.287	$11.55	$12.15	$14.40
†0-1.5	.185	11.55	12.15	14.40
†0-2	.115	11.55	12.15	14.40
†0-3	.027	11.55	12.15	14.40
†0-5	.012	11.55	12.15	14.40
†0-10	.003	11.55	12.15	14.40
†0-15	.0022	11.55	12.15	14.40
†0-25	.0003	11.85	12.45	15.00
†0-30	.0003	11.85	12.45	15.00
†0-50	.0006	11.85	12.45	15.00
0-75	.012	11.55	12.15	14.40
†0-75	.012	—	13.20	14.55
0-100	.012	11.55	12.15	14.40
0-150	.012	11.55	12.15	14.40
0-200	.012	11.55	12.15	14.40
0-250	.012	11.55	12.15	14.40
0-300	.012	11.55	12.15	14.40
0-500	.012	11.55	12.15	14.40

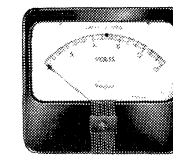
AC MILLIAMMETERS

0-10	2,000 ohms	$11.55	$12.15	$14.40
0-15	875	11.55	12.15	14.40
0-25	390	11.55	12.15	14.40
0-50	80	11.55	12.15	14.40
0-100	20	11.55	12.15	14.40
0-250	5	11.55	12.15	14.40
0-500	.9	11.55	12.15	14.40

ACCURACY: DC METERS OR AC IRON VANE TYPE METERS ±2% OF FULL SCALE; RECTIFIER TYPE ±3% OF FULL SCALE @ 25°C. AND 60 CYCLE SINE WAVE.

2½" Models 125, 135, 145, 155, 175
3½" Models 25, 35, 45, 55, 75

2½" Models 127, 137, 147, 157, 177
3½" Models 27, 37, 47, 57, 77



4½" Models 29, 39, 49, 59, 79, 142

All meters listed below, except wattmeters, have the Simpson external magnet meter movement, calibrated for non-magnet panel. When ordering these meters for use on steel panels, state panel thickness and add 1.65 to price shown below for re-calibration. Wattmeters listed below have the Simpson dynamometer movement calibrated for either magnetic or non-magnetic panels and for a frequency range of 25—125 cycles.

DC VOLTMETERS

External Magnet Meter Movement

Range	(ohms) Approx. Resistance	2½" Models 125/127	3½" Models 25/27	4½" Model 29
0-1.5	1000	$13.05	$13.50	$14.85
0-3	1000	13.05	13.50	14.85
0-5	1000	13.05	13.50	14.85
0-8	1000	13.05	13.50	14.85
0-10	1000	13.05	13.50	14.85
0-15	1000	13.05	13.50	14.85
0-25	1000	13.05	13.50	14.85
0-30	1000	13.05	13.50	14.85
0-50	1000	13.05	13.50	14.85
0-100	1000	13.05	13.50	14.85
0-150	1000	13.05	13.50	14.85
0-200	1000	13.05	13.50	14.85
0-250	1000	13.05	13.50	14.85
0-300	1000	13.05	13.50	14.85
0-500	2000	13.80	14.10	15.30
0-750	2000	16.65	14.10	15.30
0-1000	2000	16.95	17.55	19.20
0-1500	2000	—	17.85	19.50
0-2000	2000	17.55	18.15	19.80
0-2500	2000	—	18.45	20.10
0-3000	2000	18.15	18.75	20.40
0-4000	2000	—	19.05	20.70
0-5000	2000	—	19.35	21.00

DC MILLIAMETERS

External Magnet Meter Movement

0-1	46	$12.15	$12.75	$13.95
0-1.5	46	12.15	12.75	13.95
0-3	46	12.15	12.75	13.95
0-5	23	12.15	12.75	13.95
0-10	2.2	12.15	12.75	13.95
0-15	2.2	12.15	12.75	13.95
0-20	2.2	12.15	12.75	13.95
0-25	6.0	12.90	13.35	14.85
0-50	3.0	12.90	13.35	14.85
0-75	2.0	12.90	13.35	14.85
0-100	1.5	12.90	13.35	14.85
0-150	1.0	12.90	13.35	14.85
0-200	.75	12.90	13.35	14.85
0-250	.60	12.90	13.35	14.85
0-300	.50	12.90	13.35	14.85
0-500	.30	12.90	13.35	14.85
0-750	.20	12.90	13.35	14.85
0-1000	.05	12.90	13.35	14.85

DC AMMETERS

0-1	.050	$12.90	$13.35	$14.70
0-1.5	.033	12.90	13.35	14.70
0-2	.025	12.90	13.35	14.70
0-3	.0166	12.90	13.35	14.70
0-5	.010	12.90	13.35	14.70
0-10	.005	12.90	13.35	14.70
0-15	.0033	12.90	13.35	14.70
0-25	.0020	12.90	13.35	14.70
0-30	.0017	12.90	13.35	14.70
0-50	.001	12.90	13.35	14.70
0-75	10.0	12.45	12.90	14.40
0-100	10.0	12.45	12.90	14.40
0-150	10.0	12.45	12.90	14.40
0-200	10.0	12.45	12.90	14.40
0-250	10.0	12.45	12.90	14.40
0-300	10.0	12.45	12.90	14.40
0-500	10.0	12.45	12.90	14.40
0-750	10.0	12.45	12.90	14.40
0-1000	10.0	12.45	12.90	14.40
15-0-15	.0033	13.20	13.65	15.15
30-0-30	.0017	13.20	13.65	15.15
50-0-50	.001	13.20	13.65	15.15

DC MICROAMMETERS

0-15*	4500	—	$22.95	$25.05
0-25‡	2200	$19.65	20.55	22.65
0-50	2000	17.10	17.55	18.90
0-100	2000	14.85	15.45	17.25
0-200	1000	13.20	13.95	15.45
0-500	200	12.75	13.35	14.85
25-0-25	2000	17.35	17.70	19.05
50-0-50	2000	15.00	15.60	17.40
100-0-100	1000	12.90	14.10	15.75
500-0-500	46	12.30	12.90	14.10

DC MILLIVOLTMETERS

0-50	10	$12.45	$12.90	$14.40
0-100	20	12.45	12.90	14.40

RF AMMETERS — Internal Thermocouple Type

Range	Approx. Resistance	2½" Model 135/137	3½" Model 35/37	4½" Model 39
0-1	.343 ohms	$14.10	$15.00	$17.25
0-1.5	.200	14.10	15.00	17.25
0-2	.120	14.10	15.00	17.25
0-2.5	.10	14.10	15.00	17.25
0-3	.08	14.10	15.00	17.25
0-5	.045	14.10	15.00	17.25
0-8	.031	14.10	15.00	17.25
0-10	.023	14.10	15.00	17.25

RF MILLIAMMETERS ‡0-100 linear scale

‡0-115	4.0 ohms	—	28.35	29.85
0-150	4.5	—	18.00	20.40
0-250	3.5	—	18.00	20.40
0-500	.63	—	18.00	20.40

VOL. LEVEL INDICATORS — DECIBEL METERS

Zero Power Level — 6 MW 500 Ohm Line

Range	2½" Models 145/147	3½" Models 45/47	4½" Model 49
General Purpose Type —10 to +6 db 5000 ohms	$18.30	$18.45	$20.10
High Speed Type —10 to +6 db 5000 ohms	—	20.40	21.75
Low Speed Type —10 to +6 db 5000 ohms	—	20.25	21.15

VOLUME LEVEL INDICATORS — VU METERS

Reference Level — 1 MW 600 Ohm Line

Range Scale 3900 ohms	2½" Models 145/147	3½" Models 45/47	4½" Model 142
"A" Scale; Not Illuminated	—	$22.35	$24.15
"B" Scale; Not Illuminated	—	22.35	24.15
"A" Scale; Illuminated	—	—	26.70
"B" Scale; Illuminated	—	—	26.70

WATTMETERS — DYNAMOMETER TYPE

Single Phase

Range Watts	Max. Volts	Max. Amps.	2½" Model 175/177	3½" Model 75/77	4½" Model 79
0-70	150	1.0	$26.25	$27.60	$33.90
0-150	150	2.0	26.25	27.60	33.90
0-300	150	4.0	26.25	27.60	33.90
0-750	150	10.0	26.25	27.50	33.90
0-600	300	4.0	28.65	30.00	36.45
0-1500	300	10.0	28.65	30.00	36.45
0-3000	300	20.0	28.65	30.00	36.45

COMPENSATED WATTMETERS — Single Phase

0-10	300	.175	—	44.10	45.75
0-20	300	.400	—	44.10	45.75
0-20	500	.175	—	44.10	45.75
0-30	300	.650	—	44.10	45.75
0-30	500	.300	—	44.10	45.75
0-50	500	1.25	—	44.10	45.75

DC GALVANOMETERS

Scale	Sensitivity Micro-Amperes	Res. Ohms	2½" Models 125/127	3½" Models 25/27	4½" Model 29
50-0-50	75-0-75	2000	13.65	15.00	15.45
50-0-50	500-0-500	46	$12.75	$13.20	$14.85

†AC ammeters are self-contained. Higher range AC ammeters can be supplied with external current transformers and include 2 foot leads. External current transformers should be ordered separately. DC ammeters are self-contained for ranges up to and including 50 amperes. Higher range DC ammeters (50MV) listed above can be supplied with external shunts and include 5 foot leads. *These meters use the Hi Flux magnet and cannot be recalibrated for use on steel panels. ‡The Model 29 meters in this range use the Hi Flux magnet and cannot be recalibrated for use on steel panels.

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Insulation Testers

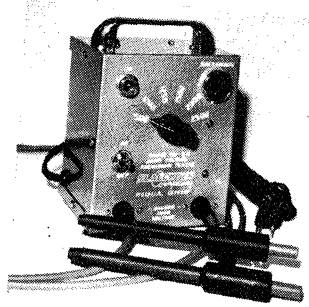
WRITE FOR DATA SHEETS ON THE INSTRUMENTS SHOWN . . . ALL ARE STANDARD PRODUCTION MODELS, AVAILABLE FOR IMMEDIATE DELIVERY FROM STOCK . . . LET US QUOTE ON YOUR REQUIREMENTS FOR MODIFIED UNITS OR SPECIAL TEST EQUIPMENT.

SLAUGHTER CO.

ARDMORE, OKLA.

High-voltage Insulation Tester

with buzzer signal on breakdowns
. . . grounds
. . . . shorts



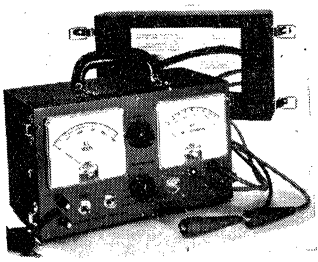
MODEL **101**

Watch what you are doing . . . not the tester

SIX TEST VOLTAGES . . 500 to 2500 V.A.C. PRICED SO YOU CAN AFFORD TO SPOT A FEW ALONG YOUR ASSEMBLY LINES. FOR SAFETY

High-voltage Leakage Tester

checks insulation for . . . leakage
. . . grounds
. . . . . arcing



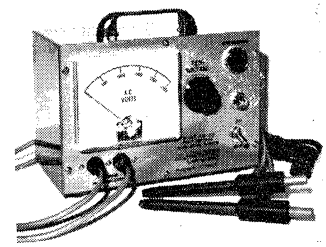
MODEL **122**

16 lb. Portable for lab and field work

VARIABLE VOLTAGE RATINGS TO 5 KV AC & DC. DUAL RANGE LEAKAGE METER 0/100/1000 μa. . . . CAPACITY COMPENSATION. . . MEASURES INSULATION RESISTANCE, CAPACITY, POWER FACTOR.

Adjustable High-voltage Tester

with buzzer signal on breakdowns
. . . grounds
. . . . shorts



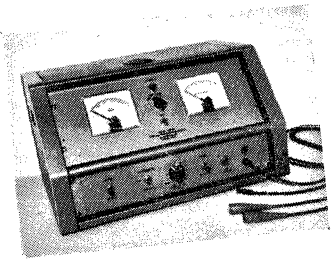
MODEL **106**

Voltmeter shows actual Test Voltage

CONTINUOUSLY VARIABLE TEST VOLTAGE RATINGS TO 10,000 VOLTS AC & DC . . RECOMMENDED FOR BREAKDOWN TESTING AT FINAL ASSEMBLY AND INSPECTION

Automatic H-V Insulation Tester

for precision checking . . . breakdowns
. . . leakage
. . . grounds



MODEL **103-MP**

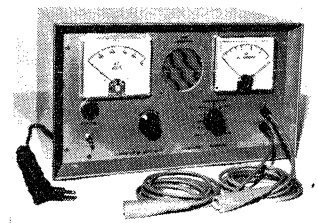
Automatic Test Cycle

FULLY AUTOMATIC TEST CYCLE. . . CONTROLLED RATE-OF-RISE. . . ADJUSTABLE TEST VOLTAGE, DWELL TIME, & LEAKAGE LIMIT. . . CAPACITY COMPENSATION ON AC TEST. . . FOR PRECISION TEST OF CRITICAL PARTS & ASSEMBLIES. . .

SLAUGHTER CO. • ARDMORE, OKLA.

High-voltage Leakage Tester

audibly signals excess leakage
. . . grounds
. . . . . arcing



MODEL **103**

Measures Leakage . . . not capacity current

TEST VOLTAGE CONTINUOUSLY VARIABLE ADJUSTABLE LEAKAGE LIMIT. . CAPACITY COMPENSATION ON AC TESTS. . . RATINGS TO 10,000 VOLTS AC & DC. . . . LIMITED ENERGY. . NON-DESTRUCTIVE. . . FOR LAB AND PRODUCTION LINE SERVICE. . . . . .

SLAUGHTER CO. • ARDMORE, OKLA.

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Stroboscopes

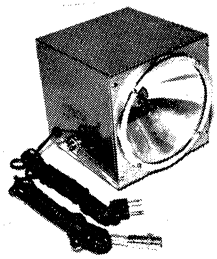
WRITE FOR DATA SHEETS ON THE INSTRUMENTS SHOWN . . . ALL ARE STANDARD PRODUCTION MODELS, AVAILABLE FOR IMMEDIATE DELIVERY FROM STOCK . . . LET US QUOTE ON YOUR REQUIREMENTS FOR MODIFIED UNITS OR SPECIAL TEST EQUIPMENT.

SLAUGHTER CO.

ARDMORE, OKLA.

Inspection Stroboscope

.....with high intensity daylight lamp



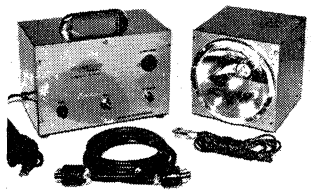
MODEL **161**

0/2,000 Flashes per Minute

LIGHT WEIGHT INEXPENSIVE TRIGGERED FLASH UNIT.....PUSH-TO-SEE SWITCH.... INTENSE WHITE LIGHT FOR INSPECTION ON-THE-GO

Inspection Stroboscope

...with extra high intensity daylight lamp



MODEL **167**

0/600 Flashes per Minute

SUPER INTENSITY TRIGGERED FLASH UNIT ... PUSH-TO-SEE SWITCH.... FOR INSPECTION ON-THE-GO UNDER HIGH AMBIENT LIGHT CONDITIONS.

MIDGET STROBOSCOPE FLASH HEAD

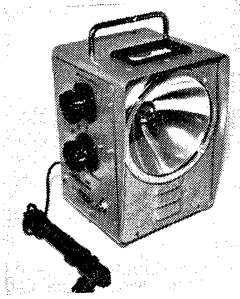
MODEL **166**

0/10,000 Flashes per Minute

FOR WORK ON MINIATURIZED EQUIPMENT .... FOR PRINTING TRADES.... FOR BIO-MEDICAL WORK.. ADAPTS TO ANY SLAUGHTER STROBOSCOPE...

Metered Precision Stroboscope

.....with high intensity daylight lamp



MODEL **165**

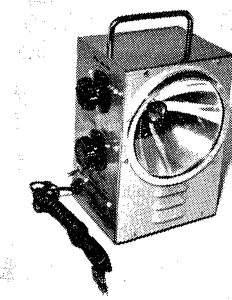
50/16,000 Flashes per Minute

PRECISION STROBOSCOPE TACHOMETER INSTANT STARTING. . .HIGH INTENSITY WHITE LIGHT. . . OPERATES FROM EXTERNAL CONTACTS OR INTERNAL OSCILLATOR. . EASILY SYNCHRONIZED. .OUTPUT JACKS TO COUPLE SCOPE, ETC....

SLAUGHTER CO. • ARDMORE, OKLA.

Universal Stroboscope

...with high intensity daylight lamp



MODEL **163**

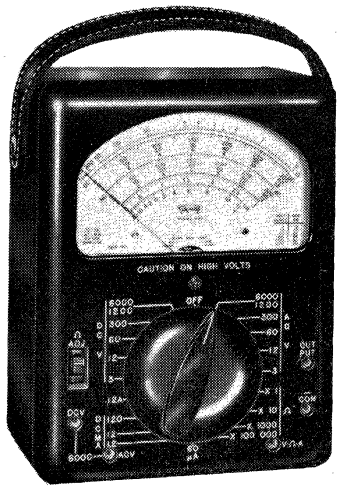
50/16,000 Flashes per Minute

UNIVERSAL UNIT FOR MOTION STUDY & INSPECTION ON-THE-GO... INSTANT STARTING ... HIGH INTENSITY WHITE LIGHT .... TRIGGER EXTERNALLY OR OPERATE FROM INTERNAL OSCILLATOR

SLAUGHTER CO. • ARDMORE, OKLA.

© U.C.P., Inc.

TRIPLETT TEST EQUIPMENT



630
TYPE 2

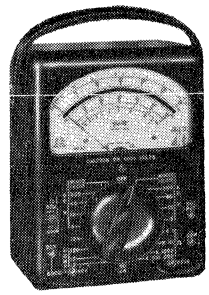
Volt-Ohm-Milliammeter

MODEL 630
TYPE 2

1. One selector switch minimizes chance of incorrect setting and burnout. **2.** 5,000 ohms per volt AC sensitivity; 20,000 DC. **3.** Four resistance ranges to 100 megohms.
Outstanding resistance ranges: low reading .1 ohm, high 100 megs. Fuse affords protection to the resistors in the ohmmeter circuit, especially the X1 setting.
Spring-backed instrument jewels for ruggedness. Accuracy 2% DC, 3% AC.

RANGES

DC Volts: 0-3-12-60-300-1,200-6,000 at 20,000 ohms per volt.
AC Volts: 0-3-12-60-300-1,200-6,000 at 5,000 ohms per volt.
Ohms: 0-1,000-10,000.
Megohms: 0-1-100.
DC Microamperes: 0-60 at 250 millivolts.
DC Milliamperes: 0-1.2-12-120 at 250 millivolts.
DC Amperes: 0-12.
DB: −20 to +77 (600 ohm line at 1 MW).
Output Volts: 0-3-12-60-300-1,200; jack with condenser in series with AC ranges. **Usable with frequencies through 500 Kc.**
CASE—Molded, fully insulated, 3-7/32" x 5½" x 7½".
MODEL 630—
Suggested U. S. A. *User Net....**$49.50**
Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs.



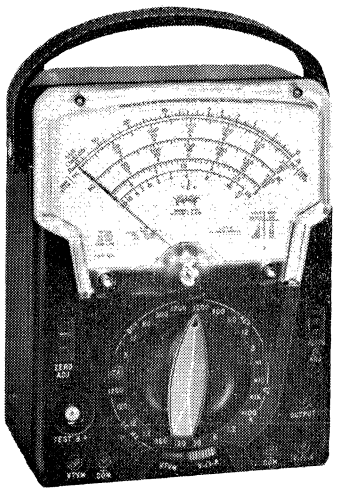
630-A

Volt-Ohm-Milliammeter

MODEL 630-A

A laboratory type V-O-M with ½% resistors for greater accuracy.
Long range scale to eliminate parallax. Ranges and other features as described for Model 630, above. Accuracy 1½% DC, 3% AC.

MODEL 630-A—
Suggested U. S. A. *User Net **$59.50**
Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs.



631

Combination V-O-M and VTVM

MODEL 631

1. One selector switch. **2.** Complete V-O-M in combination with battery operated VTVM. **3.** 11 megohm input to VTVM.
Two fundamental units at the price of a single tester; VTVM stability assured by long life battery operation.
Sensitivity plus—sensitivity of the 1.2 volt (VTVM) range is equal to over nine million ohms per volt. Usable with frequencies through 500 Kc.
Large meter easy to read; unbreakable meter face.
Spring-backed instrument jewels for ruggedness. Accuracy 3% DC, 4% AC, VTVM 4%.

V-O-M RANGES

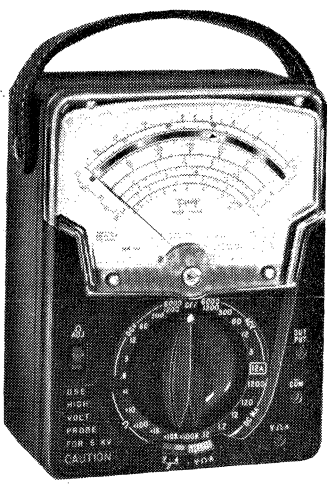
DC Volts: 0-3-12-60-300-1,200 (20,000 ohms per volt).
0-0.25 at 60 microamperes.
AC Volts: 0-3-12-60-300-1,200 (5,000 ohms per volt).
Ohms: 0-1,500-15,000.
Megohms: 0-1.5-150.
DC Microamperes: 0-60 at 250 MV.
DC Milliamperes: 0-1.2-12-120-1,200 at 250 MV.
DC Amperes: 0-12 at 250 MV.
DB: −20, +11, +23, +37, +51, +63. (600 ohm line at 1 MW).
Output Volts: 0-3-12-60-300-1,200; jack with condenser in series with AC ranges.

VTVM RANGES

DC Volts: 0-1.2-6-30-120.
Case: Molded, fully insulated, 3 11/32" x 5½" x 7½".
MODEL 631—
Suggested U. S. A. *User Net.....**$69.50**

RF PROBE FOR 631

With this probe and Model 631 RF measurements can be made up to 250 MC.
Pt. T-79A-145 .....***$7.70 Net**
Shipping wt. 5 lbs.



630-NS

Volt-Ohm-Milliammeter

MODEL 630-NS

1. 200,000 ohms per volt DC for greater accuracy on high resistance circuits. 20,000 ohms per volt AC. **2.** Suspension Meter Movement. No pivots, no bearings, no hairsprings; no rolling friction. Extremely rugged. Greater sensitivity and repeatability. **3.** 62 ranges. Temperature and frequency compensated.
The unit is precision designed to give maximum coverage, to withstand accidental overloads and to offer greater reading accuracy. Special precision resistors rigidly mounted and directly connected to the switch to form a simplified unit. Usable with frequencies through 100 Kc. Accuracy 1½% DC, 3% AC.
CASE—Molded, fully insulated, 3 11/32" x 5½" x 7½". Shipping wt. 5 lbs.

RANGES

DC Volts: 0-0.6-3-12-60-300-1,200 at 100,000 Ohms/Volt.
0-0.3-1.5-6-30-150-600 at 200,000 Ohms/Volt.
0-0.150 at 60 microamperes.
AC Volt: 0-3-12-60-300-1,200 at 10,000 Ohms/Volt.
0-1.5-6-30-150-600 at 20,000 Ohms/Volt.
DB: −20 to +63 in 10 ranges.
DC Microamperes: 0-60-600 at 150 Mv. 0-5-120 at 300 Mv.
DC Milliamperes: 0-6-60-600 at 150 Mv. 0-1.2-12-120-1,200 at 300 Mv.
DC Amperes: 0-6 at 150 Mv. 0-12 at 300 Mv.
Ohms: 0-1K-10K-100K (4.4-44-440 at center scale).
Megohms: 0-1-10-100 (4400-44,000-440,000 Ohms center scale.).
Output: Condenser in series with AC Volt ranges:
MODEL 630-NS
Suggested U. S. A. *User Net.....**$99.50**

ALL PRICES ARE SUGGESTED U.S.A. USER NET, SUBJECT TO CHANGE, SPECIFICATIONS SUBJECT TO REVISION.

Net
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TEST EQUIPMENT

TRIPLETT

Volt-Ohm-Milliammeter

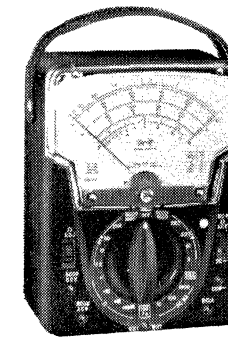
MODEL 630-PLK—Type 2

1. Comprehensive overload protection. **2.** One selector switch minimizes chance of incorrect settings. **3.** Polarity reversing switch. Transistorized electronic switching circuit guards against accidental burnouts. Eliminate bent pointers, burned-out coils, changes in accuracy due to overheating, in fact nearly any need for repairs. Accuracy ±2% on DC, ±3% AC.

RANGES

DC Volts: 0-2.5-10-50-250-1,000-5,000 at 20,000 ohms/volt.
0-0.25 at 100 microamperes.
AC Volts: 0-3-10-50-250-1,000-5,000 at 5,000 ohms/volt.

Decibels: −20 to +11, +21, +35, +49, +61, +75; "O" DB at 1MW on 600 ohm line.
DC Microamperes: 0-100 at 250 Mv.
DC Milliamperes: 0-10-100-1000 at 250 Mv.
DC Amperes: 0-10 at 250 Mv.
Ohms: 0-1,000-10,000 (4.4-44 at center scale).
Megohms: 0-1-100 (4,400-440,000 at center scale).
Output Volts (AC): 0-3-10-50-250-1,000, at 5,000 ohms/volt; jack with condenser in series with AC ranges.
Case: Molded, fully insulated; 3 11/32" x 5½" x 7½".
Suggested U.S.A. User Net.....**$79.50**



630-PLK
TYPE 2

Volt-Ohm-Milliammeter

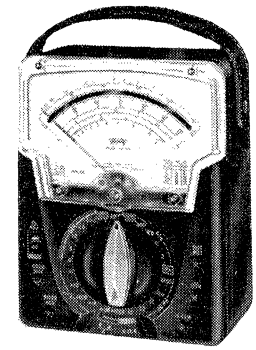
MODEL 630-NA

1. One selector switch. **2.** 70 ranges; 1½% DC accuracy on meter; with mirror scale and overload protection. **3.** Temperature and frequency compensation.
The super deluxe of V-O-Ms. Usable with frequencies through 500 Kc.
Spring-backed instrument jewels for ruggedness. Accuracy 1½% DC, 3% AC.

RANGES

DC Volts: 0-.6-3-12-60-300-1,200-6,000 at 10,000 ohms per volt.
0-.3-1.5-6-30-150-600-3,000 at 20,000 ohms per volt.
0-0.120 at 60 microamperes.
AC Volts: 0-3-12-60-300-1,200-6,000 at 5,000 ohms per volt.
0-1.5-6-30-150-600-3,000 at 10,000 ohms per volt.
Ohms: 0-1K-10K-100K.

Megohms: 0-1-10-100.
DC Microamperes: 0-120 at 240 millivolts.
0-60-600 at 120 millivolts.
DC Milliamperes: 0-1.2-12-120-1,200 at 240 millivolts.
0-6-60-600 at 120 millivolts.
DC Amperes: 0-12 at 240 millivolts.
0-6 at 120 millivolts.
DB. −20 to +77 (600 ohm line at 1 MW).
Output Volts: 0-3-12-60-300-1,200; jack with condenser in series with AC ranges.
Case—Molded, fully insulated. 3 11/32" x 5½" x 7½".
MODEL 630-NA—
Suggested U. S. A. *User Net.....**$79.50**
Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs.



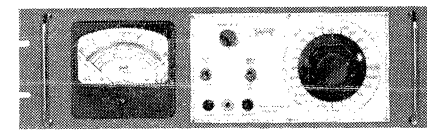
630-NA

MODEL 630-NA-RM—RACK MOUNTED V-O-M

Rack mounted V-O-M with ranges same as Model 630-NA above, except no 3000 or 6000 AC or DC Volts. The heavy etched aluminum panel, 19" x 5¼" has two chrome plated handles for easy removal of the tester from the rack. The 4" meter has mirror scale and knife-edge pointer. Standard test leads come out the front. Accuracy 1½% DC, 3% AC.

Also provision in the back for a three-lead connector. There is a DC reversing switch on the panel. Large, easy to turn single selector switch. Test components and wiring enclosed in aluminum housing. Shipping wt. 22 lbs.

MODEL 630-NA-RM—
Suggested U. S. A. *User Net.....**$109.50**



630-NA-RM

Volt-Ohm-Milliammeter

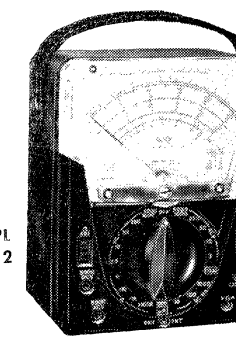
MODEL 630-PL—Type 2

1. One selector switch minimizes chance of incorrect settings and burnouts. **2.** Polarity reversing switch. **3** Usable with frequencies through 500 Kc. Unbreakable plastic window.
Outstanding resistance ranges: low reading .1 ohm; high to 100 megs. Fuse affords extra protection to the resistors in the ohmmeter circuit, especially the X1 setting.
Spring-backed instrument jewels for ruggedness.
High sensitivity: 5,000 ohms per volt AC; 20,000 ohms per volt DC.
Accuracy 2% DC, 3% AC.

RANGES

DC Volts: 0-2.5-10-50-250-1,000-5,000 at 20,000 ohms/volt.
0-0.25 at 100 microamperes.
AC Volts: 0-3-10-50-250-1,000-5,000 at 5,000 ohms/volt.

Decibels: −20 to +11, +21, +35, +49, +61, +75; "O" DB at 1 MW on 600 ohm line.
DC Microamperes: 0-100 at 250 millivolts.
DC Milliamperes: 0-10-100-1,000 at 250 millivolts.
DC Amperes: 0-10 at 250 millivolts.
Ohms: 0-1,000-10,000 (4.4-44 at center scale).
Megohms: 0-1-100 (4,400-440,000 at center scale).
Output V (AC): 0-3-10-50-250-1,00 at 5,000 ohms/volt, jack with condenser in series with AC ranges.
Case: Molded, fully insulated; 3 11/32" x 5½" x 7½".
MODEL 630-PL—
Suggested U. S. A. *User Net.....**$49.50**
Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs.



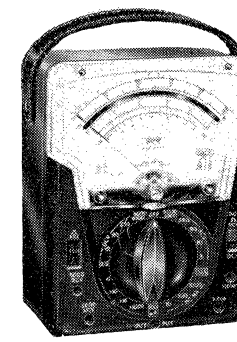
630-PL
TYPE 2

Volt-Ohm-Milliammeter

MODEL 630-APL

Laboratory type V-O-M featuring ½% resistors and more accurate movement for greater accuracy. Long MIRROR scales to eliminate parallax in reading. RANGES and other features same as Model 630-PL above. Accuracy 1½% DC, 3% AC.

MODEL 630-APL—
Suggested U. S. A. *User Net.....**$59.50**
Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs.

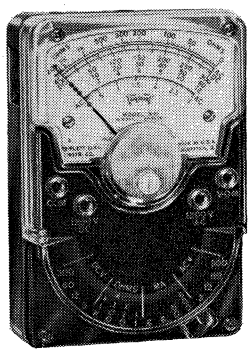


630-APL

ALL PRICES ARE SUGGESTED U.S.A. USER NET, SUBJECT TO CHANGE, SPECIFICATIONS SUBJECT TO REVISION.

TEST EQUIPMENT

TRIPLETT



MODEL 310

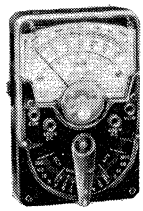
Volt-Ohm-Milliammeter

MODEL 310

1. One selector switch. **2.** 20,000 ohms per volt DC sensitivity. **3.** Shirt pocket size VOM with provision for attaching AC clamp-on ammeter.
Self-shielded for checking in strong magnetic fields.
Rugged, high torque, bar-ring instrument.
Unbreakable plastic meter window.
Standard sensitivity 20,000 ohms per volt DC, and 5,000 ohms per volt AC.
Spring-backed instrument jewels for ruggedness.
Accuracy 3% DC, 4% AC.

RANGES

DC Volts: 0-3-12-60-300-1,200 (at 20,000 ohms per volt).
AC Volts: 0-3-12-60-300-1,200 (at 5,000 ohms per volt).
Ohms: 0-20,000-200,000. **Megohms:** 0-2-20.
DC Microamperes: 0-600 at 250 millivolts.
DC Milliamperes: 0-6-60-600 at 250 millivolts.
Weight—Approx. 14 oz., complete with batteries.
Case—Molded, fully insulated, 2¾" x 4¼" x 1 5/16".
MODEL 310—
Suggested U. S. A. *User Net.....**$37.50**
Complete with leads, battery and instruction manual. Shipping wt. 2 lbs.



MODEL 310-C

Volt-Ohm-Milliammeter

MODEL 310-C

New 310-C is the same as Model 310, above, (except 600 volt ranges replace 1200 volt ranges of model 310) plus the following features:
1. Fully enclosed lever range switch.
2. 15,000 Ohms per volt AC (20,000 O/V DC same as 310)
3. Reversing switch for DC measurements. Handsize and lightweight, but wtih the features of a full size V-O-M.
MODEL 310-C
Suggested U. S. A. *User Net.....**$44.50**

MODEL 100

V-O-M AND CLAMP-ON AMMETER SET — MODEL 100

Handsomely packaged set includes: Model 310 V-O-M, Model 10 Clamp-on Ammeter Adapter; Model 101 Line Separator; Model 379 Leather Case; Model 311 Leads. ($67.10 Value Separate Unit Purchase Price.)

MODEL 100, as above, you save **$2.60.** Shipping wt. 7 lbs.
Suggested U. S. A. *User Net.....**$64.50**
MODEL 100-C—Same as above but with Model 310-C. Suggested U. S. A. *User Net **$71.50**

MODEL 10

CLAMP-ON ADAPTER

MODEL 10
CHECKS LINE LOADS WITH MODEL 310 OR 310-C

(Also can be used with Model 630, 630-A, 630-NA, 631, 630-PL, 630-APL, 630-NS by means of 611 leads.)
Checks all line loads instantly, accurately, safely — without breaking the circuit or interrupting work. Easy range switching. Six Model 10 Clamp-On Adapter AC Ammeter ranges: 0-6-12-30-60-120-300. Clips around single wire to read A.C. Amperes direct.

MODEL 10

Used with Adapter 101 to divide instantly two-conductor cords.
A lever securely locks the Model 10 to Model 310 when used in combination. Model 10 con be left attached to Model 310 when the latter tester is used as an AC-DC V-O-M only. The only change is to remove the lead plug from the Model 310 V-O-M jack and insert it in the jack provided in the Model 10 housing.
Case black molded plastic with engraved white markings.
MODEL 10—
Suggested U.S.A. *User Net.....**$15.50**

MODEL 101

No. 611 LEADS

In addition to use with the Model 310, the No. 10 Adapter also can be used as a Clamp-On Ammeter with any Volt-Ohm-Milliammeter having a 3 AC Volt scale at 5,000 Ohms per Volt, such as Triplett Models 630, 630-A, 630-NA, 630-PL, 630-APL, 630-NS, 631, etc.

This is done by means of a long lead attachment (No. 611) making possible easy readings in difficult locations.
No. 611 leads—
Suggested U. S. A. *User Net.....**$2.10**

No. 311 LEADS

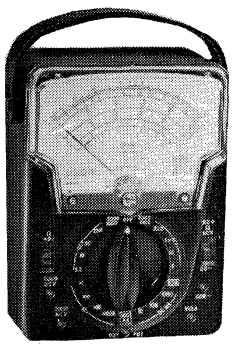
The Model 10 can be separated from the Model 310 (in the same way as above) by using No. 311 lead attachment. This permits readings in difficult locations.
No. 311 leads—
Suggested U. S. A. *User Net.....**$2.10**

LINE SEPARATOR

Plugs into AC outlet to divide instantly two-conductor cords. Increases ammeter sentitivity 10X and 20X. Use up to 30 AC Amperes from 0.3 to 30 in nine steps. Also has provision for Voltmeter prods for voltage measurements.

MODEL 101

Case, black molded plastic with engraved markings.
MODEL 101—
Suggested U. S. A. *User Net.....**$6.00**



MODEL 630-L TYPE 2

Volt-Ohm-Milliammeter

. Two low power ohms ranges (X1 and (10). 140 Mv. ohmmeter circuit voltage. Im-ortant for semi-conductor circuitry. **2.** One elector switch minimizes chance of incorrect ettings. **3.** Exclusive shielded Bar-Ring Move-ent. Mercury battery. Wired circuits.
pecial low power ohmmeter circuit allows emi-conductor testing without destructive verloads.
eads from .2 ohm to 100 megohms in four anges.
ccuracy ±2% on DC, ±3% on AC.

RANGES

DC Volts: 0-2.5-10-50-250-1,000-5,000 at 20,000 ohms/volt.
AC Volts: 0-3-10-50-250-1,000-5,000 at 5,000 ohms/volt.
Decibels: −20 to +11, +21, +35, +49, +61, +75; "O" DB at 1 Mw on 600 ohm line.
DC Microamperes: 0-100 at 120 millivolts.
DC Milliamperes: 0-10-100-1,000 at 120 millivolts.
DC Amperes: 0-10 at 120 millivolts.
Ohms: 0-1,000-10,000 (13-130 at center scale).

MODEL 630-L—TYPE 2

Megohms: 0-1-100 (4,000-400,000 at center scale).
Output V (AC): 0-3-10-50-250-1,000 at 5,000 ohms/volt, jack with condenser in series with AC ranges.
Case: Black molded, fully insulated; 3 11/32" x 5½" x 7½".
Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs.
MODEL 630-L
Suggested U. S. A. *User Net.....**$54.50**

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Net
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TEST EQUIPMENT

TRIPLETT

ONE MILLION OHMS/VOLT Volt-Ohm-Milliammeter

MODEL 630-M

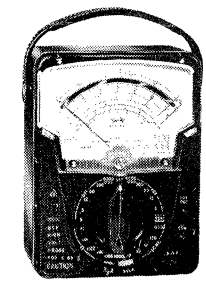
1. **1,000,000 Ohms per volt D.C.** for greater accuracy on high resistance circuits. 20,000 ohms per volt A.C. 2. **1ua Suspension Meter Movement.** No pivots, bearings, or rolling friction. Extremely rugged. Greater sensitivity and repeatability. 3. **61 Ranges,** usable with frequencies through 100 KC. Temperature compensated. 1½% DC Accuracy, 3% AC.

Current Measurements from 20 nanoamperes. Voltage Measurements from 5 mv.

61 RANGES

D.C. VOLTS: 0-0.6-3-12-60-300 at 500,000 Ohms/Volt, 0-0.3-1.5-6-30-150 at 1,000,000 Ohms/Volt, 0-1200 at 125,000 Ohms/Volt, 0-600 at 250,000 Ohms/Volt. **A.C. VOLTS:** 0-3-12-60-300-1200 at 10,000 Ohms/Volt, 0-1.5-6-30-150-600 at 20,000 Ohms/Volt. **DB:** −20 to +77 in 10 ranges. **D.C. MICROAMPERES:** 0-1 at 300 M.V., 0-60-600 at 150 M.V., 0-120 at 300 M.V. **D.C. MILLIAMPERES:** 0-6-60-600 at 150 M.V., 0-1.2-12-120-1200 at 300 M.V. **D.C. AMPERES:** 0-6 at 150 M.V., 0-12 at 300 M.V. **OHMS:** 0-1K-10K-100K (4.4-44-440 at center scale) **MEGOHMS:** 0-1-10-100 (4400-44,000-440,000 Ohms center scale) **OUTPUT:** Condenser in series with AC Volt ranges.

Suggested U.S.A. User Net Price **$199.50**



630-M

Electronic Volt-Ohmmeter

MODEL 850

1. Long 7" easy-to-read scale. 2. .5 DCV range for transistor circuits. 3. High stability —meter connected in cathode circuit of 12AU7. ELECTRICAL PROTECTION of meter against burnout. FREQUENCY RANGE —from 15 cps to 3 Megacycles. SEPARATE SCALE on easy-view meter for Peak-to peak reading. SINGLE UNIT PROBE — with built-in switch for AC/DC/OHMS. 11 MEGOHM INPUT RESISTANCE on all DC Voltage ranges. Line voltage: 115 VAC 50-60 cycles. Ground type plug.

Spring-backed instrument jewels for ruggedness.

Accurate within ±3% on AC and DC. Ohms accurate with ±3% of full scale based on DC scale.

RANGES

Eight DC Volts Ranges: 0-.5-1.5-5-15-50-150-500-1500. **Seven AC RMS Volts Ranges:** 0-1.5-5-15-50-150-500-1500. **Seven Peak-to-Peak Volts Ranges:** 0-4-14-40-140-400-1400-4000. **Seven Resistance Ranges:** 0-1000-10,000-100,000-1 Meg-10 Meg-100 Megohms-1000 Megohms. **Frequency Range:** 15CPS to 3 MC; (Up to 250 MC with accessory diode probe available extra). **Input Impedance:** DC Volts 11 Megohms; AC Volts minimum of .83 Megohms.

CASE—Molded black case completely insulated. 7⅝" x 6⅞" x 3¾". Carrying handle also can be used to place the tester at 35° angle for ease in reading. **PANEL**—Etched aluminum. Shipping wt. 7 lbs.

MODEL 850—

Suggested U. S. A. *User Net Price **$79.50**

Auxiliary Diode Probe for frequencies to 250 MC. Pt. T-79A-193 .....**$ 7.50**

High Voltage Probe for DC Voltages to 50 KV Pt. 79B-196 .....**$20.50**

Versatile Volt-Ohm-Milliammeter

MODEL 800

1. 70 ranges with 1½% DC accuracy including DC Polarity Reversing Swtich. 2. Overload protection of meter, fused, temperature and frequency compensated. 3 Long (7") Mirror Scale —easily read.

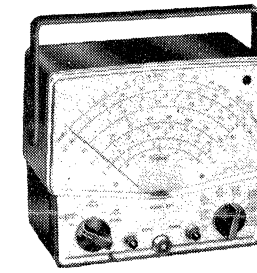
3% AC ACCURACY to 1200 volts; mirror and knife-edge pointer to eliminate parallax; WIRED CIRCUIT (not printed); HIGH FLUX BAR-RING self shielded magnet; DUAL SENSITIVITY provides extra ranges, DC volts at 20,000 and 10,000 ohms per volt, AC at 10,000 and 5,000 ohms per volt. Shatterproof meter window, molded transparent plastic; fully antistat treated.

RANGES

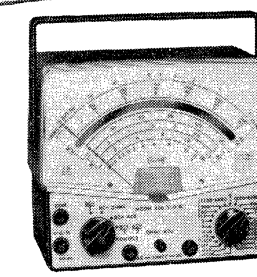
DC Volts: 0-0.6-3-12-60-300-1200-6000 at 10,000 Ohms per vole. 0-0.3-1.5-6-30-150-600-3000 at 20,000 Ohms per Volt. 0-.120 at 60 Microamperes. **AC Volts:** 0-3-12-60-300-1200-6000 at 5,000 Ohms per Volt. 0-1.5-6-30-150-600-3000 at 10,000 Ohms per Volt. **DB:** −30 to +70 in 12 ranges. **DC Microamperes:** 0-60-600 at 120 MV. 0-120 at 240 MV. **DC Milliamperes:** 0-6-60-600 at 120 MV. 0-1.2-12-120-1200 at 240 MV. **DC Amperes:** 0-6 at 120 MV. 0-12 at 240 MV. **Ohms:** 0-1K-10K-100K (4.4-44-440 at center scale). **Megohms:** 0-1-10-100 (4400-44,000-440,000 Ohms center scale). **Output:** Condenser in series with AC volt range. **CASE**—Heavy, molded case completely insulated, 7½" x 6¼" x 3⅞", with an insulated, movable handle, which can also serve as a tester stand. Shipping wt. 7 lbs.

MODEL 800—

Suggested U. S. A. *User Net.....**$89.50**



850



800

Pocket Volt-Ohm-Milliammeter

MODEL 666-R

1. One selector switch. 2. Three resistance ranges to 3 megohms. 3. Five volt ranges to 5,000 AC & DC volts.

Hand-size — the ideal tester for electrical maintenance. Recessed range knob enables tester to fit in tool kit.

AC rectifier pre-calibrated unit for easy replacement.

RANGES

DC Volts: 0-10-50-250-1,000-5,000 at 1,000 ohms per volt.

AC Volts: 0-10-50-250-1,000-5,000 at 1,000 ohms per volt.

Ohms: 0-3,000-300,000. **Megohms:** 0-3.

DC Milliamperes: 0-10-100 at 250 MV.

DC Amperes: 0-1 at 250 MV.

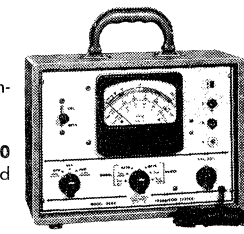
Output Volts: 0-10-50-250-1,000.

CASE—Black molded, streamlined, completely insulated. Handy pocket size, 3⅛" x 5⅞" x 2¾".

MODEL 666-R—

Suggested U. S. A. *User Net.....**$34.50**

Complete with leads, alligator clips, batteries and instruction manual. Shipping wt. 3 lbs.



2590

666-R

TESTER STAND

Metal stand holds Model 630, 630-A, 630-PL, 630-L, 630-PLK, 630-APL, 630-NA, 630-NS, 631 or 630-M tester in approximately a 45° angle; will enable you to make easier readings.

STAND ONLY — Pt. T-255-A-33. Shipping wt. 1 lb. Suggested U.S.A. *User Net **$1.00**

Transistor Tester

MODEL 259

1. Tests Beta amplification ICBO, ICEO for both power and signal type transistors. Tests for shorts and leakage. Checks leakage and forward currents on diodes. 2 Simulated operating test conditions. 3. Simple and straightforward operation. No roll chart or special data needed, always up-to-date.

A transistor socket and external leads permits use of Model 2590 with any basing arrangement. Calibrate adjustment control adjusts for full scale calibration after the transistor has been inserted. Accuracy 2%. **CASE** — Gray leatherette covered case, 11⅝" x 8⅝" x 5⅛". RECESSED PANEL etched heavy gauge aluminum. Shipping wt. 9 lbs. Power — 115 volts, 50-60 cycle AC.

MODEL 2590—Suggested U. S. A. *User Net Price .....**$59.**

FIVE SCALES

0-1 MA for Signal Transistor ICEO
0-100 MA for Power Transistor ICEO
0-500 Microamp for Signal Transistor ICBO
0-1 MA for Power Transistor ICBO
5-100 Beta Range; also shows on GOOD-?-B/ scale.

ALL PRICES ARE SUGGESTED U.S.A. USER NET, SUBJECT TO CHANGE. MODELS SUBJECT TO REVISION.

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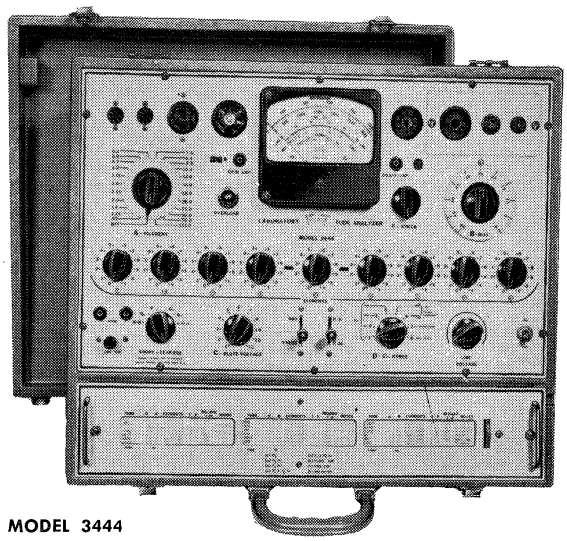
TRIPLETT TEST EQUIPMENT

TRUE DYNAMIC MUTUAL CONDUCTANCE TUBE ANALYZER—MODEL 344



MODEL 3444

The only tube tester under $1,000 that is simple and fast to operate and **1.** Will measure tube characterics at KNOWN readable potentials. **2.** Provides readings to: (a) Plot tube characteristic curves. (b) Measure grid current at known potentials. (c) Compare cut off characteristics of dual tubes. **3.** Reads directly in micromhos with a self checking Gm circuit.

This True Dynamic Mutual Conductance Analyzer speedily and accurately solves the most perplexing tube analysis problems in any field.

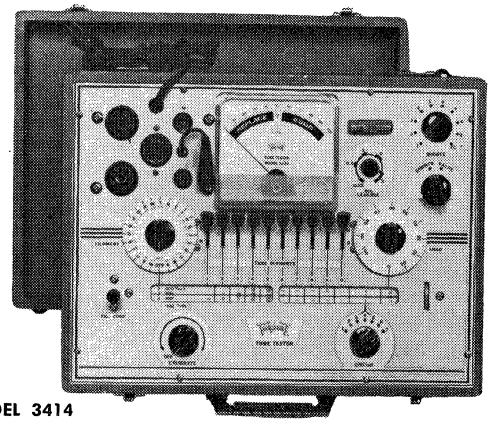
It measures true Gm without any extra compensating factors — using proper value DC electrode potentials, 5 KC-AC signal source and a vacuum tube microammeter (at a very low [33 ohm] plate impedance for best correlation). In addition it offers a combination of unique test advantages never before available in a Portable Analyzer, as follows: CHECKS PLATE current cutoff. CHECKS GAS under actual operating conditions (measures to approximately one UA of gas current). CHECKS RECTIFIERS under load. CHECKS THYRATRON firing voltage and grid current. CHECKS DUAL section tubes with only one lever movement. PROVIDES SHORTS and leakage measurements from 0-10 megohms using a filtered DC supply of 85 volts. PROVIDES cut off measurements on voltage amplifiers. **RECESSED SOCKET SAVER** (under-the-panel-mounted) are easily removable for replacement. **CASE**—Wood, gray leatherette covered, 15 3/16" x 18 13/16" x 7 3/4". Hinged removable lid, sloping panel, compartment for line cord, leads, acorn adapter, and removable roll chart. Chrome hardware including metal protective feet on case side and bottom. Shipping wt. 30 lbs.

MODEL 3444—Suggested U. S. A. *User Net.....**$349.50**

CG ADAPTER may be used in cover or beside Model 3444 to test low power transmitting, industrial, special purpose tubes, etc.

Suggested U. S. A. *User Net.....**$39.50**

FASTER, FLEXIBLE TUBE TESTER—MODEL 3414



MODEL 3414

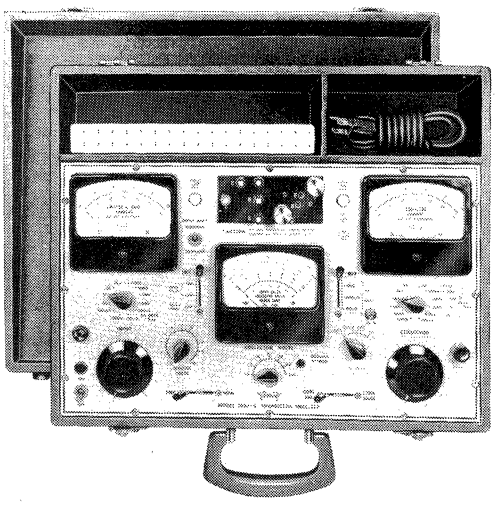
1. Rapid easy testing-setups can be made while tube is heating. **2.** Input filament continuity test. **3.** Modified circuit for better correlation on Gm. Rejects burned out tubes instantly without waiting for the filaments to heat. NEON INDICATOR SHORTS TEST, new, fast and accurate. Full range filament voltages — 0.65 to 117 in 23 steps. Improved lever switching for complete control of each tube element. Quick-change roll chart. TV picture tube test by means of adapter (available extra, see below) without removing tube from receiver. Large, clear-view meter has three-color GOOD-?-BAD scale.

COUNTER-PORTABLE TYPE CASE. Ultra-professional appearance; Wood, dark gray leatherette covered: 15 7/8" x 11 1/2" x 6 1/2". Hinged removable cover. Chrome hardware and feet. Etched panel. Shipping wt. 17 lbs.

MODEL 3414—Suggested U. S. A. *User Net.....**$109.50**

BV ADAPTER for Picture Tube tests with Models 3414, 3444 and 3423. Net **$7.20***

NEW MODEL 3490-A TRANSISTOR ANALYZER FOR COMPLETE TRANSISTOR ANALYSES



NEW! MODEL 3490-A

1. Reads leakage current down to 100 **nanoamperes** on 6ua full scale meter.
2. Analyzes both power & signal types at specified voltages and currents.
3. Continuous current — up to 30 amp collector — and voltage control for transistor supply electrodes.

Tests DC Beta, AC Beta at 1KC, leakages (Ico, Ieo, Iceo), Alpha, Reach Through Voltage, Saturation Voltage, Floating Potential. The 3490-A's flexibility allows plotting of transistor characteristic curves along with setting up nearly any type of transistor test. Input bias reversing switch gives added versatility.

The ultimate in transistor analysis, Model 3490-A offers among other features: INPUT currents to 3 Amperes — SEPARATE Input and Collector meters (4 1/2") monitor emitter or base and collector **continuously** — VARIABLE Tetrode Voltage — CONTINUOUS INSTRUMENT COVERAGE, no skips — Transistor tabulation included at no extra cost. Model 3490-A also tests diodes, rectifiers, zener diodes, SCR, etc.

CASE — Wood, gray leatherette covered, 18 13/16" x 15 7/16" x 8" with removable cover, and sloping etched aluminum panel.

RANGES

Input Current (Emitter or Base) .....0-100-300 ua, 0-1-3-10-30 Ma, 0-.1-.3-1-3 Amp.
Collector Current .....0-300 ua, 0-1-3-10-30 Ma, 0-.1-.3-1-3-10-30 Amp.
Iceo, Ico (Icbo) .....0-6Ma, 0-600 ua, 0-60 ua, 0-6 ua.
Collector Voltage .....0-120 V, 0-60 V, 0-30 V, 0-12 V, 0-6 V, 0-3 V, 0-1.2 V.
Emitter or Base Voltage .....0-12 V, 0-1.2 V.
Tetrode .....0-10 V Calibrated Control.

Shipping wt: 30 lbs.

MODEL 3490-A — Suggested U.S.A. User Net **$399.50**

PROBES FOR HIGH VOLTAGE TESTING

MODELS 630, 630-A, and 631

Completely insulated polystyrene test probe with guard-type handle. Probe is 11 3/4" long, with 48" hi-voltage wire lead with banana lug at tester end.

Part T-79-68....0-12,000 D.C. Volts.....***$14.50**
Part T-79-69....0-12,000 A.C. Volts.....* **14.50**
Part T-79-70....0-30,000 D.C. Volts.....* **14.50**
Part T-79-71....0-30,000 A.C. Volts.....* **14.50**

For Models 630-PL, 630-APL

Part T-79-83 . 0-10,000 D.C. Volts.....***$14.50**
Part T-79-165..0-10,000 A.C. Volts.....* **14.50**
Part T-79-130..0-25,000 D.C. Volts.....* **14.50**
Part T-79-166..0-25,000 A.C. Volts.....* **14.50**

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Net

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TEST EQUIPMENT

TRIPLETT

Signal Generator

Complete frequency coverage 160 KC to 110 MC fundamental with seven bands (220 MC harmonics). R.F. circuits are double shielded with copper steel shields. Large easily read etched aluminum dial. Cathode follower output provides good stability by acting as a buffer to the oscillator. 400 cycle audio frequency with variable control for 0-100 per cent modulation.

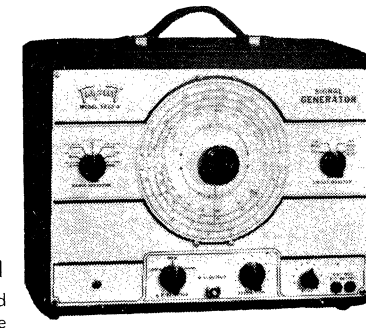
Band A .....160-370 KC
B .....360-735 KC
C .....715-1875 KC

MODEL 3432-A

D .....1825-4950 KC
E .....4.85-13 MC
F .....12.5-35 MC
G .....34-110 MC
G (Harmonics) .....68-220 MC

CASE—Metal with black baked enamel suede finish, 15 11/32" x 11 1/32" x 6 1/4". Black leather strap handle, rubber feet. Shipping wt. 30 lbs.

MODEL 3432-A—
Suggested U. S. A. *User Net.....**$119.50**



3432-A

Load Check

1. Low cost unit for servicing by looking through line cord. **2.** Saves time locating shorts and opens by using only soldering iron and pliers. **3.** Only tester of its kind. Helps prevent costly repair comebacks.

Quick way to locate hidden shorts and overloaded circuits.

Double meter indication provides simultaneous check of line voltage and power.

Double range on Watts meter permits one unit to serve from a 5-tube radio to the largest TV set.

Watts: DC-AC: 0-500-1,000.
Volts: DC-AC: 0-150.

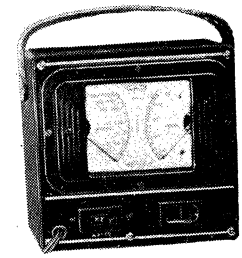
MODELS 660, 661

CASE—Black molded, 2 1/2" x 5 1/2" x 6", insulated to protect instrument from ground. Removable black leather strap handle.

MODEL 660—
Suggested U. S. A. *User Net.....**$39.50**
Designed for radio and Low Wattage Appliances. Appearance and construction same as 660 with watt range 150-300.

MODEL 661
Watts: DC-AC: 0-150-300.
olts: DC-AC: 0-150.

MODEL 661—
Suggested U. S. A. *User Net.....**$39.50**
Shipping wt. 5 lbs. ea.



660, 661

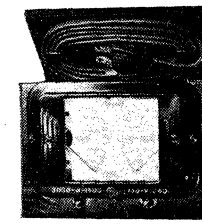
Appliance Tester

Shows power consumption of industrial equipment, radios, and household appliances under actual operating conditions, DC or AC 25 to 133 cycles. Permits Watts and Volts to be read simultaneously or independently. Shows if voltage remains within limits under operating loads. Assures ample current capacity for momentary tests on motor starting overloads. Shows faulty power lines.

MODEL 2002

Watts: DC-AC: 0-1,500-3,000.
Volts: DC-AC: 0-130-260.
CASE—Heavy leather and snap button cover and leather handle, 6 1/2" x 4 1/2" x 3 1/4".

MODEL 2002—
Suggested U. S. A. *User Net.....**$49.50**



2002

Leather Carrying Cases

MODEL 639-N
(For Testers 630, 630-A, 630-PL, 630-APL, 630-NA, 630-NS, 631, 630-T

639-N black cowhide leather carrying case. Center-cover flaps snap back allowing full view of scales. Tester stand is included at no extra cost.

MODEL 639-N (Case only)—
*Net **$9.90**

MODEL 639-OS

Black leather case, has built-in stand on back. Flaps open to permit use of tester in case. Compartment for accessories. (As 859-OP illustration).

Suggested U. S. A. *User Net.....**$12.10**

MODEL 639

Black leather case. For models 630, 630-A, 630-PL, 630-APL, 630-NA, 630-NS and 631 .....***$9.90**

MODEL 639-P

Model 639-P black cowhide leather carrying case lined with 3/8" sponge rubber.

MODEL 639-P—
Suggested U. S. A. *User Net.....**$14.90**

MODEL 629

Leather case for 625-NA, 660, 661, 690-A....***$7.20**

MODEL 859-OP

Black Leather Carrying Case, lined with sponge rubber. Flaps open to permit use of tester without removal from case. Model 859-OP. For Models 800 and 850. *Net.....**$19.50**

MODEL 369

Handsome black cowhide leather carrying case for Model 310.

MODEL 369—
Suggested U. S. A. *User Net.....**$3.20**

MODEL 369-T

Neckstrap Carrying Case for Model 310....***$7.70**

MODEL 379

As above, large enough for 310-10 in combination. Has pocket for 101.....***$6.00**

MODEL 669

Black leather case for 666-R.....***$6.90**

MODEL 669-OS

Black leather case for Model 666-R. Tester can be used in the case. (Similar to 859-OP.)
Case only ***$7.40**

639-N

369

639

859-OP

630 SERIES ACCESSORIES

EXTERNAL SHUNTS—For 630, 630-A
Pt. T-91-247 30 Amperes (Plug-in) .....*$ 9.90
Pt. T-91-248 60 Amperes (Portable) *$13.20
Pt. T-91-255 120 Amperes (Portable) *$13.20

EXTERNAL SHUNTS FOR 631
Pt. T-91-248 60 Amperes (Portable) *$13.20
Pt. T-91-255 120 Amperes (Portable) $13.20

EXTERNAL SHUNTS FOR 630-NA
Pt. T-91-429 0-15-30 Amperes (Plug-in) *$13.50
Pt. T-91-430 0-30-60 Amperes (Portable) *$18.00
Pt. T-91-431 0-60-120 Amperes (Portable) *$18.00

EXTERNAL SHUNTS FOR 666-R, 666-HH, 630-PL, 630-APL
Pt. T-91-243 25 Amperes (Plug-in) *$12.30
Pt. T-91-244 50 Amperes (Portable) *$13.20
Pt. T-91-191 100 Amperes (Portable) *$13.20

REPLACEMENT LEADS
LEADS for Models 630, 630-A, 630-PL, 630-A 631, 666-HH, 666-R, 630-NA & 630-NS Rul (T-79-127). *Net .....
REPLACEMENT LEAD for Model 630-T. T-79 *Net .....
REPLACEMENT LEADS for Model 310. T-79A *Net .....
AC-DC—Ohms probe for model 850 Pt. #T-79A lead assembly. U.S.A. *User net price .....

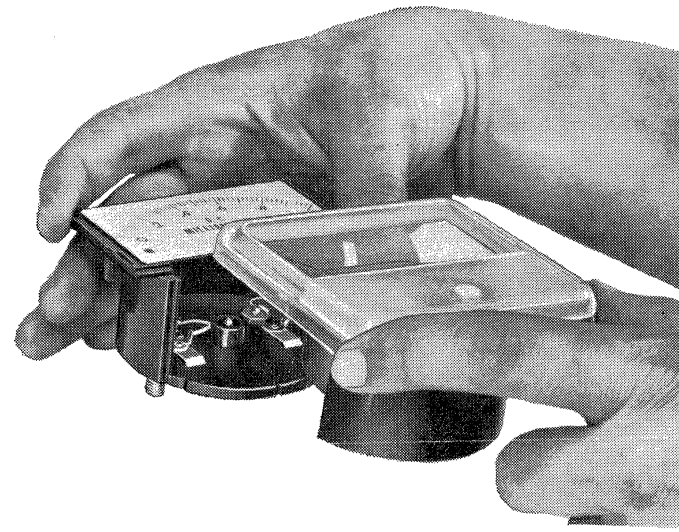
ALL PRICES ARE SUGGESTED U.S.A. USER NET, SUBJECT TO CHANGE. MODELS SUBJECT TO REVISION.

TRIPLETT INSTRUMENTS

UNIMETERS

An Innovation in self-service meters these Select-Your-Range Unimeters consist of two basic meter movements, which can be combined with any one of a number of separate dial-component units for a wide variety of meter ranges. The basic meter movements and the Dial-Component units lock together simply; no soldering, no wiring, no opening of the dust-proof movement is required.

In two sizes, 327-U 3½" rectangular and 420-U 4½" rectangular with mirror scale for greater accuracy in reading. Also in handy kits, both sizes, as below. The triple-purpose kit case with handle provides handy portability; easy protective storage and attractive display.



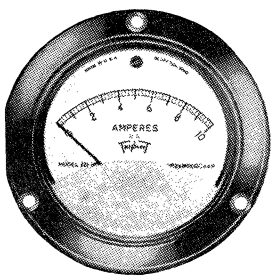
UNIMETER PRICE LIST — BASIC MOVEMENTS

	Suggested U.S.A. User Net
Model 327-U 0-1 DC Milliammeter (50 MV)	**$12.10**
Model 327-U 0-50 DC Microammeter (250 MV)	**17.50**
Model 420-U 0-1 DC Milliammeter (50 MV)	**$13.20**
Model 420-U 0-50 DC Microammeter (250 MV)	**18.70**

DIAL-COMPONENT UNITS

Suggested U.S.A. User Net Price Each Unit (Specify for use with 327-U or 420-U) **$2.75**

DC-MA		DC-VM 1000 o/v Film Type	DC-AM	AC-VM Rectifier Type*	DC-UA	DC-MA		DC-VM 1000 o/v Film Type	DC-AM	AC-VM Rectifier Type*	DC-UA
0-1	0-100	0-10	0-1	0-10	0-50	0-15	0-250	0-150	0-15		0-500
0-5	0-150	0-25	0-5	0-150	0-100	0-25	0-300	0-300	0-25		
0-10	0-200	0-50	0-10	0-300	0-200	0-50	0-500	0-500	0-50	*500 o/v	



RUGGEDIZED INSTRUMENTS

A complete line of 2½" and 3½" ruggedized and sealed instruments designed to meet government specification MIL-M-10304B.

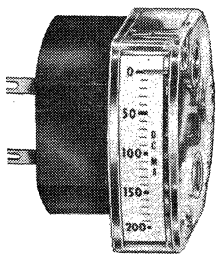
Triplett ruggedized instruments employ the unique and exclusive bar-ring construction so well adapted to ruggedization, that the addition of spring loaded jewels and an internal rubber mount (both designed for jewel protection) constitute the essential difference between the commercial and ruggedized movements.

The bar-ring construction is inherently self-shielding so that the heavy steel case does not affect instrument calibration nor does mounting in a steel panel of any thickness.

The unusually strong housing consists of a drawn steel case with heavy die cast window bezel. The bezel seals the window to the case with a simple gasket and screws. A tough plastic window is used instead of glass.

Husky gasket-sealed studs are used for electrical connections to provide additional protection over delicate glass sealed types.

Most catalog ranges of DC: MV, Volts, Mic. Ma, Amp and AC rectifier type can be supplied. Regular dials in accordance with MIL-M-10304A are supplied although special dials of all descriptions can be made up for special applications.



MINIATURE EDGEWISE PANEL INSTRUMENTS

If space on your panel is at a premium here is a miniature meter that will fit into even the most restricted area—yet give you the readability, performance and reliability you expect from the conventional 2½" sizes.

Weighing only four ounces this meter also is of value to the user who has a weight limitation factor on his hands.

Accuracy—DC 2% of full scale; AC Rectifier type 5% of full scale.

Self-Shielded Bar-Ring Magnet—Not affected by magnetic panels. High torque, exceedingly rugged and accurate.

Mounting—Horizontal, zero at left and barrel down is standard.

Vertical mounting or other special adaptations in quantity orders.

Panel Hole Required—Only 5/16" x 1 11/16".

DC-MA	Suggested U.S.A. User Net
0-1	$10.90
0-10	10.90
0-25	11.30
0-50	11.30
0-100	11.30
0-150	11.30
0-200	11.30
0-300	11.30
0-500	11.30
DC-VM	
0-10	$11.80
0-50	11.80
0-150	11.80

DC-UA	Suggested U.S.A. User Net
0-50	$16.40
0-100	14.30
0-200	12.20
DC-AM	
0-10	$11.80
AC-VM (Rect. Type)	
0-150	$19.70
0-300	20.70
VU Meters	
A or B Scales	$21.90

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Net

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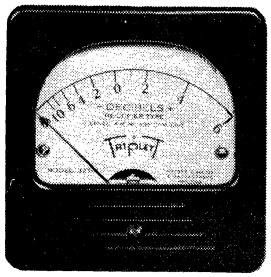
INSTRUMENTS

TRIPLETT



DC 221-T, 321-T

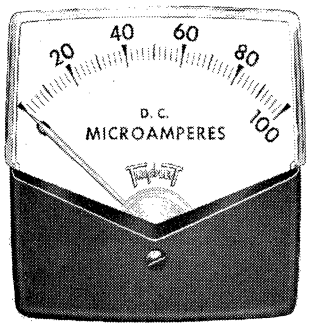
AC 231-S, 331-S

DC MILLIVOLTMETERS

Range	Approx. Res.	Approx. "M" Scale Div.	2½" Models 221-T 227-T	2½" Models 220-M 221-PL 227-PL	3½" Models 320-M 321-T 327-T	3½" Models 321-PL 327-PL	4½" Model 420	4½" Models 420-M 420-PL
0-50	6.3	50	$10.90	$10.90	$11.60	$11.60	$12.80	$12.80
0-100	12.5	50	10.90	10.90	11.60	11.60	12.80	12.80
0-150	20	75(30)**	10.90		11.60		12.80	

DC VOLTMETERS (1000 Ohms per Volt) — FILM TYPE RESISTORS

Range	Scale Div.	2½" Models 221-T, 227-T	2½" Models 220-M, 221-PL, 227-PL	3½" Models 321-T, 327-T	3½" Models 320-M, 321-PL, 327-PL	4½" Models 420-M, 420, 420-PL
0-10	50	$11.80	$11.80	$12.30	$12.30	$13.50
0-15	75(30)**	11.80	11.80	12.30	12.30	13.50
0-25	50	11.80	11.80	12.30	12.30	13.50
0-50	50	11.80	11.80	12.30	12.30	13.50
0-100	50	11.80	11.80	12.30	12.30	13.50
0-150	75(30)**	11.80	11.80	12.30	12.30	13.50
0-200	40	11.80	11.80	12.30	12.30	13.50
0-250	50	11.80	11.80	12.30	12.30	13.50
0-300	60(30)	11.80	11.80	12.30	12.30	13.50
0-500	50	14.10***	14.10***	13.00	13.00	14.20
0-750	75(30)**	14.60***	14.60***	13.00	13.00	14.20
0-1000	50	14.90	14.90	15.50	15.50	16.70
0-2000	40	15.50	15.50	16.20	16.20	17.40
0-3000	60(30)**	16.20	16.20	16.80	16.80	18.00
0-4000	40	16.50	16.50	17.20	17.20	18.40
0-5000	50	16.80	16.80	17.50	17.50	18.70



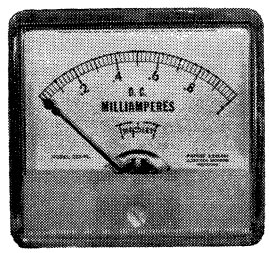
DC 220-M, 320-M, 420-M

DC VOLTMETERS (1000 Ohms per Volt) — WIREWOUND RESISTORS

Range	Scale Div.	2½" Models 221-T, 227-T	2½" Models 220-M, 221-PL, 227-PL	3½" Models 321-T, 327-T	3½" Models 320-M, 321-PL, 327-PL	4½" Model 420-M, 42(420-PL
0-1	50	$11.80	$11.80	$12.30	$12.30	$13.50
0-3	60(30)**	11.80	11.80	12.30	12.30	13.50
0-5	50	11.80	11.80	12.30	12.30	13.50

DC MICROAMMETERS

Range	Approx. Res.	Scale Div.	2½" Models 221-T, 227-T	2½" Models 220-M, 221-PL, 227-PL	3½" Models 321-T, 327-T	3½" Models 320-M, 321-PL, 327-PL	4½" Model 420	4½" Model 420-M 420-Pl
0-20	5600	40	$19.40	$19.40	$20.10	$20.10	$21.30	$21.3(
0-50	2000	50	16.40	16.40	17.10	17.10	18.30	18.3(
0-100	825	50	14.30	14.30	15.00	15.00	16.20	16.2(
0-200	360	40	12.20	12.20	12.90	12.90	14.10	14.1(
0-500	156	50	11.70	11.70	12.40	12.40	13.60	13.6(
50-0-50	825	50	14.30	14.30	15.00	15.00	16.20	16.2(
100-0-100	360	50	12.20	12.20	12.90	12.90	14.10	14.1(
500-0-500	55	50	10.90	10.90	11.60	11.60	12.80	12.8(

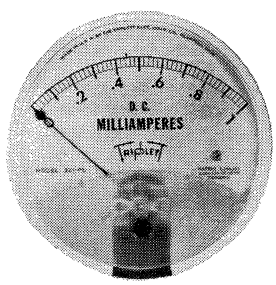


DC 227-PL, 327-PL

AC 237-PL, 337-PL

DC MILLIAMMETERS

Range	Approx. Res.	Scale Div.	2½" Models 221-T, 227-T	2½" Models 220-M, 221-PL, 227-PL	3½" Models 321-T, 327-T	3½" Models 320-M, 321-PL, 327-PL	4½" Model 420	4½' Mode 420-I 420-F
0-1	55	50	$10.90	$10.90	$11.60	$11.60	$12.80	$12.8
0-1.5	30	75(30)**	10.90	10.90	11.60	11.60	12.80	12.8
0-3	14	60(30)**	10.90	10.90	11.60	11.60	12.80	12.8
0-5	8.5	50	10.90	10.90	11.60	11.60	12.80	12.8
0-10	3.1	50	10.90	10.90	11.60	11.60	12.80	12.8
0-15	6.6	75(30)**	10.90	10.90	11.60	11.60	12.80	12.8
0-25	4	50	11.30	11.30	12.00	12.00	13.20	13.2
0-50	2	50	11.30	11.30	12.00	12.00	13.20	13.2
0-75	1.3	75(30)**	11.30	11.30	12.00	12.00	13.20	13.2
0-100	1	50	11.30	11.30	12.00	12.00	13.20	13.2
0-150	0.6	75(30)**	11.30	11.30	12.00	12.00	13.20	13.2
0-200	0.5	40	11.30	11.30	12.00	12.00	13.20	13.2
0-250	0.4	50	11.30	11.30	12.00	12.00	13.20	13.2
0-300	0.33	60(30)**	11.30	11.30	12.00	12.00	13.20	13.2
0-400	0.25	40	11.30	11.30	12.00	12.00	13.20	13.2
0-500	0.2	50	11.30	11.30	12.00	12.00	13.20	13.2
0-750	0.13	75(30)**	11.30	11.30	12.00	12.00	13.20	13.2
0-1000	0.1	50	11.30	11.30	12.00	12.00	13.20	13.

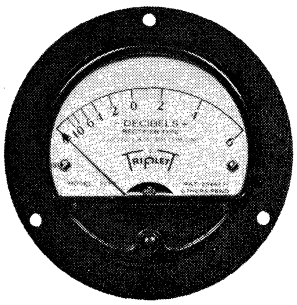


DC 221-PL, 321-PL

AC 231-PL, 331-PL

ALL PRICES ARE SUGGESTED U.S.A. USER NET, SUBJECT TO CHANGE, SPECIFICATIONS SUBJECT TO REVISION.

TRIPLETT INSTRUMENTS



DC AMMETERS

Range	Scale Div.	2½" Models 221-T, 227-T	2½" Models 220-M, 221-PL, 227-PL	3½" Models 321-T, 327-T	3½" Models 320-M, 321-PL, 327-PL	4½" Model 420	4½" Models 420-M, 420-PL
0-1	50	$11.30	$11.30	$12.00	$12.00	$13.20	$13.20
0-3	60(30)**	11.30	11.30	12.00	12.00	13.20	13.20
0-5	50	11.80	11.80	12.30	12.30	13.50	13.50
0-10	50	11.80	11.80	12.30	12.30	13.50	13.50
0-15	75(30)**	11.80	11.80	12.30	12.30	13.50	13.50
0-25	50	11.80	11.80	12.30	12.30	13.50	13.50
0-30	60(30)**	11.80	11.80 } 221-PL	12.30	12.30 } 321-PL	13.50	
0-50	50	11.80	11.80 } only	12.30	12.30 } only	13.50	

D.C. Ammeters are self-contained up to and including 50 Amperes. Shunts 75 Amperes (50 M.V.) and higher are switchboard type with 5 ft. leads.

AC VOLTMETERS

Range	Approx. Ohms/Volt	Scale Div.	2½" Models 231-S, 237-S	2½" Models 231-PL, 237-PL	3½" Models 331-S, 337-S	3½" Models 331-PL, 337-PL	4½" Model 430	4½" Model 430-PL
0-1.5	1.33	75(30)**	$11.40	$11.40	$12.10	$12.10	$12.80	$12.80
0-3	3.33	60(30)**	11.40	11.40	12.10	12.10	12.80	12.80
0-5	4	50	11.40	11.40	12.10	12.10	12.80	12.80
0-10	10	50	11.40	11.40	12.10	12.10	12.80	12.80
0-15	16	75(30)**	11.40	11.40	12.10	12.10	12.80	12.80
0-25	20	50	11.40	11.40	12.10	12.10	12.80	12.80
0-50	50	50	11.40	11.40	12.10	12.10	12.80	12.80
0-100	91	50	11.40	11.40	12.10	12.10	12.80	12.80
0-150	125	75(30)**	12.50	12.50	13.20	13.20	13.80	13.80
0-250	144	50	13.10	13.10	13.80	13.80	14.40	14.40
0-300	144	60(30)**	13.60	13.60	14.30	14.30	15.00	15.00
0-500*	125	50	17.70	17.70	18.40	18.40	19.10	19.10
0-750*	125	75(30)**	20.50	20.50	21.20	21.20	21.90	21.90
0-1000*	125	50	22.10	22.10	22.80	22.80	23.50	23.50

These A.C. Voltmeters are for use on frequencies from 25 to 133 cycles. *Supplied with external resistor boxes at prices shown above. All other instruments are self-contained. Double-range Voltmeters are available on special order. Prices on request.

AC AMMETERS

Range	Approx. Res.	Scale Div.	2½" Models 231-S, 237-S	2½" Models 231-PL, 237-PL	3½" Models 331-S, 337-S	3½" Models 331-PL, 337-PL	4½" Model 430	4½" Model 430-PL
)-1	.29	50	$11.40	$11.40	$12.10	$12.10	$12.80	$12.80
)-2	.19	40	11.40	11.40	12.10	12.10	12.80	12.80
)-3	.03	60(30)**	11.40	11.40	12.10	12.10	12.80	12.80
)-5	.015	50	11.40	11.40	12.10	12.10	12.80	12.80
)-10	.005	50	11.40	11.40	12.10	12.10	12.80	12.80
)-15	.002	75(30)**	11.40	11.40	12.10	12.10	12.80	12.80
)-25	.001	50	11.40	11.40	12.10	12.10	12.80	12.80
)-30	.001	60(30)**	11.40	11.40	12.10	12.10	12.80	12.80
)-50	.0005	50	11.40	11.40	12.10	12.10	12.80	12.80
)-75	.0003	75			13.30		14.50	

AC MILLIAMMETERS

Range	Approx. Res.	Scale Div.	2½" Models 231-S, 237-S	2½" Models 231-PL, 237-PL	3½" Models 331-S, 337-S	3½" Models 331-PL, 337-PL	4½" Model 430	4½" Model 430-PL
10	3800	50	$11.40	$11.40	$12.10	$12.10	$12.80	$12.80
15	1600	75(30)**	11.40	11.40	12.10	12.10	12.80	12.80
25	460	50	11.40	11.40	12.10	12.10	12.80	12.80
50	115	50	11.40	11.40	12.10	12.10	12.80	12.80
100	35	50	11.40	11.40	12.10	12.10	12.80	12.80
200	12	40	11.40	11.40	12.10	12.10	12.80	12.80
250	3.8	50	11.40	11.40	12.10	12.10	12.80	12.80
500	1.2	50	11.40	11.40	12.10	12.10	12.80	12.80

THERMO AMMETERS (R.F.)

Range	Approx. Res.	Scale Div.	2½" Models 241-T, 247-T	3½" Models 341-T, 347-T	3½" Models 341-PL, 347-PL	4½" Model 440	4½" Model 440-PL
5 Amps	.93	50	$12.10	$12.80	$12.80	$14.00	$14.00
. Amps	.35	50	12.10	12.80	12.80	14.00	14.00
..5 Amps	.21	75(30)	12.10	12.80	12.80	14.00	14.00
!.5 Amps	.13	50	12.10	12.80	12.80	14.00	14.00
' Amps	.06	50	12.10	12.80	12.80	14.00	14.00
0 Amps	.03	50	12.10	12.80	12.80	14.00	14.00

Internal couples are normally furnished at prices shown. If external couples are required, please specify on order, adding $6.10 net to price of instrument shown above. External couples only less meter, with leads, $7.30 net each.

**Scale divisions for 2-inch Models in parentheses.

***Supplies with external resistors.

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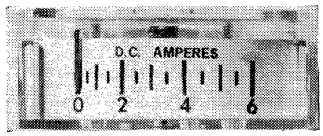
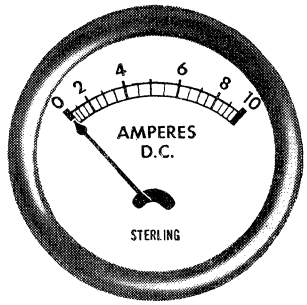
STERLING PANEL METERS



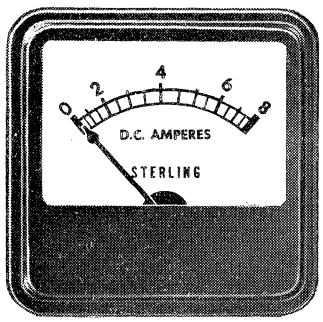
MODEL 95

1-15/16″ clear plexiglas face. Fits mounting hole 1-27/32″ x 25/32″.



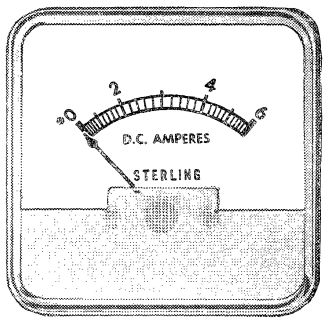
MODEL 80

2-5/32″ dia. flange, flush case. Fits mounting hole 2-1/32″ dia. Black enamel finish.



MODEL 75

2-¼″ square flange, fits mounting hole 2-1/32″ dia. Black enamel finish.



MODEL 55

2-¼″ clear plasite face. Fits. mounting hole 2-1/32″ dia.

All Sterling meters have rugged, time-proven linear-power movement. Calibration accuracy is within 5%. Back clamp mounting is provided.

PRICE LIST

Range	Approximate Ohms Resist.	Model 55 Part No.	Model 95 Part No.	NET PRICE	Model 75 Part No.	Model 80 Part No.	NET PRICE
D.C. AMMETERS							
0-1	.02 Max.	55-855	95-855	$2.05	75-855	80-855	$1.80
0-3	.02 Max.	55-856	95-856	2.05	75-856	80-856	1.80
0-6	.02 Max.	55-857	95-857	2.05	75-857	80-857	1.80
0-8	.02 Max.	55-928	95-928	2.05	75-928	80-928	1.80
0-10	.02 Max.	55-858	95-858	2.05	75-858	80-858	1.80
0-15	.02 Max.	55-864	95-864	2.05	75-864	80-864	1.80
0-25	.02 Max.	55-865		2.05	75-865	80-865	1.80
0-50	.02 Max.	55-866		2.65	75-866	80-866	2.40
3-0-3	.02 Max.	55-860	95-860	2.05	75-860	80-860	1.80
10-0-10	.02 Max.	55-862	95-862	2.05	75-862	80-862	1.80
20-0-20	.02 Max.	55-863		2.05	75-863	80-863	1.80
30-0-30	.02 Max.	55-867		2.05	75-867	80-867	1.80
50-0-50	.02 Max.	55-925		2.85	75-925	80-925	2.55
D.C. VOLTMETERS							
0-1	105	55-801	95-801	$2.05	75-801	80-801	$1.80
0-3	520	55-802	95-802	2.05	75-802	80-802	1.80
0-5	945	55-804	95-804	2.05	75-804	80-804	1.80
0-10	1925	55-807	95-807	2.05	75-807	80-807	1.80
0-15	3425	55-808	95-808	2.05	75-808	80-808	1.80
0-25	4825	55-809	95-809	2.05	75-809	80-809	1.80
0-50	10,000	55-811	95-811	2.05	75-811	80-811	1.80
0-100	20,000	55-813	95-813	2.35	75-813	80-813	2.10
0-150	30,000	55-815	95-815	2.55	75-815	80-815	2.25
0-300	100,000	55-817		3.30	75-817	80-817	3.00
0-500	160,000	55-818		3.85	75-818	80-818	3.60
D.C. MILLIAMMETERS							
0-1	1000	55-834	95-834	$3.85	75-834	80-834	$3.60
0-2	500	55-835	95-835	2.95	75-835	80-835	2.70
0-5	125	55-836	95-836	2.55	75-836	80-836	2.25
0-10	28	55-837	95-837	2.40	75-837	80-837	2.10
0-15	12	55-838	95-838	2.05	75-838	80-838	1.80
0-25	4.5	55-839	95-839	2.05	75-839	80-839	1.80
0-50	1.3	55-840	95-840	2.05	75-840	80-840	1.80
0-100	.37	55-841	95-841	2.05	75-841	80-841	1.80
0-150	.14	55-842	95-842	2.05	75-842	80-842	1.80
0-200	.09	55-843	95-843	2.05	75-843	80-843	1.80
0-300	.04	55-844	95-844	2.05	75-844	80-844	1.80
0-400	.03	55-845	95-845	2.05	75-845	80-845	1.80
0-500	.02	55-848	95-848	2.05	75-848	80-848	1.80
A.C. VOLTMETERS							
0-5	28	55-871		$3.15	75-871	80-871	$2.85
0-10	104	55-872		3.15	75-872	80-872	2.85
0-15	210	55-873		3.15	75-873	80-873	2.85
0-25	1750	55-910		3.15	75-910	80-910	2.85
0-50	2750	55-879		3.15	75-879	80-879	2.85
0-150	11,500	55-874		3.90	75-874	80-874	3.60
0-300	19,400	55-875		4.35	75-875	80-875	4.05
0-500	34,400	55-913		4.95	75-913	80-913	4.65
A.C. AMMETERS							
0-1	.7	55-886		$3.15	75-886	80-886	$2.85
0-3	.09	55-887		3.15	75-887	80-887	2.85
0-5	.04	55-888		3.15	75-888	80-888	2.85
0-10	.02	55-889		3.15	75-889	80-889	2.85
0-15	.02	55-917		3.15	75-917	80-917	2.85
0-30	.02	55-892		3.30	75-892	80-892	3.00
A.C. MILLIAMETERS							
0-100	104	55-882		$3.15	75-882	80-882	$2.85
0-250	16	55-883		3.15	75-883	80-883	2.85
0-500	3	55-884		3.15	75-884	80-884	2.85

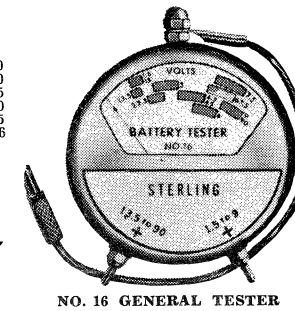
For meters with special scales, ranges or construction, contact the factory or local Sterling representative.

POCKET METER BATTERY TESTERS

No. 10 Dual A and B for Hearing Aids. Has 2-0-2 and 50-0-50 scales.....Net Price $3.30
No. 13 Transistor Hearing Aid tester. Has 0-7 volt scale.....Net Price $3.00
No. 24 Ammeter 0-35 amp. for No. 6 dry cells. Scale has 1 amp. divisions.....Net Price $2.25
No. 34 Voltmeter for "hot-shot" batteries. 0-10 volt scale with 1/5 volt divisions.....Net Price $2.40
No. 16 General voltmeter. Has geeen color zones for batteries from 1.5 to 90 volts.....Net Price $4.05
No. 44 Voltammeter. 0-35 amp. scale, 1 amp. divisions, 0-10 volt scale, 1/5 volt divisions.....Net Price $2.76

SEND FOR CATALOGS OF OUR COMPLETE LINE OF POCKET METERS AND PORTABLE BATTERY TESTERS.

THE **STERLING** MANUFACTURING COMPANY
CLEVELAND, OHIO 44113



NO. 16 GENERAL TESTER

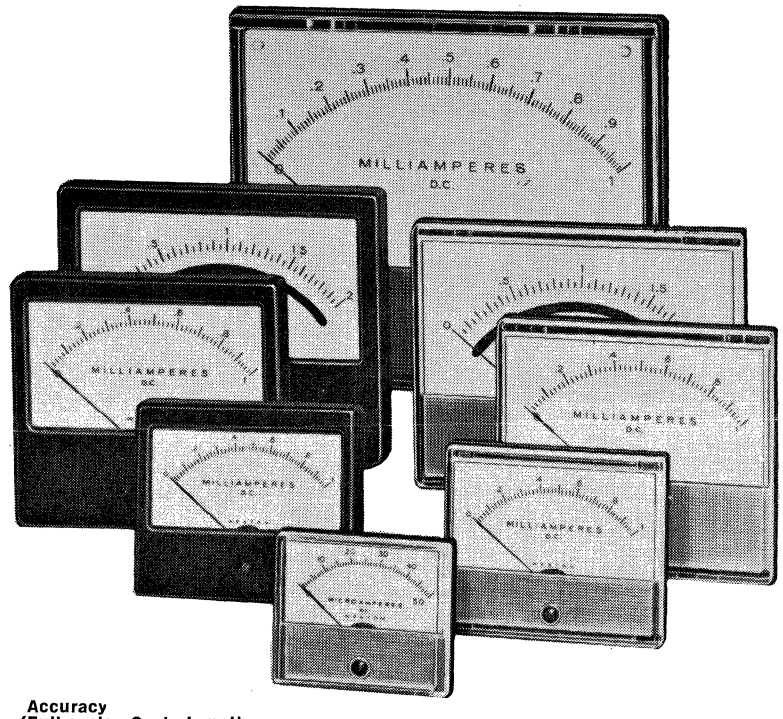
WESTON INSTRUMENTS

1900 PANEL INSTRUMENT SERIES

GENERAL

The 1900 Series is an integrated line of a-c and d-c panel instruments, providing a carefully selected choice of sizes, case styles, accuracies, pointers, scales and ranges. Particular attention has been paid to designing instruments that will present an overall appearance of harmony, even when random sizes are mounted side by side. Mounting bezels provide three types of mounting—recess, flush and conventional.

One of the many features of this new Weston series is the method of construction which provides quick interchangeability of fronts and easy access for adjustment or service, if ever required. From their spring-backed jewels to their unique fastening clips, the 1900 Series incorporate the fine workmanship and quality that has always been associated with Weston.



SPECIFICATIONS

2½" SIZE	Function & Mechanism	Accuracy (Full scale value)	Scale Length (100° arc)	Pointer	Type Scale	Case Front
Model 1921	D-C CORMAG®	2%	2.3"	Lance	Plain	Plastic
Model 1922	Rect. CORMAG®	3%**	2.3"	Lance	Plain	Plastic
Model 1924	Iron Vane	2%	2.3"	Lance	Plain	Plastic
3½" SIZE						
Model 1931	D-C CORMAG®	2%	2.7"	Lance	Plain	Plastic/Bakelite
Model 1932	Rect. CORMAG®	3%**	2.7"	Lance	Plain	Plastic/Bakelite
Model 1934	Iron Vane	2%	2.7"	Lance	Plain	Plastic/Bakelite
Model 1936	D-C Ext. Mag.	2%	2.7"	Lance	Plain	Plastic/Bakelite
Model 1938	Thermo. Ext. Mag.	2%	2.7"	Lance	Plain	Plastic/Bakelite
4½" SIZE						
Model 1941	D-C CORMAG®	2%*	3.9"	Lance	Plain	Plastic/Bakelite
Model 1942	Rect. CORMAG®	2%**	3.9"	Lance	Plain	Plastic/Bakelite
Model 1944	Iron Vane	2%	3.9"	Lance	Plain	Plastic/Bakelite
Model 1946	D-C Ext. Mag.	1%	3.9"	Knife-edge	Mirrored	Plastic/Bakelite
Model 1948	Thermo. Ext. Mag.	2%	3.9"	Lance	Plain	Plastic/Bakelite
5½" SIZE						
Model 1951	D-C CORMAG®	2%*	4.7"	Lance	Plain	Plastic/Bakelite
Model 1952	Rect. CORMAG®	2%**	4.7"	Lance	Plain	Plastic/Bakelite
Model 1954	Iron Vane	2%	4.7"	Lance	Plain	Plastic/Bakelite
Model 1956	D-C Ext. Mag.	1%	4.7"	Knife-edge	Mirrored	Plastic/Bakelite
Model 1958	Thermo. Ext. Mag.	2%	4.7"	Lance	Plain	Plastic/Bakelite
7½" SIZE						
Model 1971	D-C CORMAG®	1%†	7.2"	Lance	Plain	Plastic
Model 1972	Rect. CORMAG®	2%††	7.2"	Lance	Plain	Plastic
Model 1976	D-C Ext. Mag.	1%†	7.2"	Lance	Plain	Plastic
Model 1977	Rect. Ext. Mag.	2%††	7.2"	Lance	Plain	Plastic

*1% when knife-edge pointer and mirrored scale is specified.
**on sine wave 60 cycle source at normal room temperature of 25 C.
†½% with knife-edge pointer and mirrored scale on special order ONLY.
††on sine wave 60 cycle source at normal room temperature; 1½% can be supplied on special order.

NOTE: If Models 1924, 34, 36, 44, 46, 54, 56 and 76 are used on steel panels, order should specify panel thickness to assure proper adjustment.

PRICE SUBJECT TO CHANGE WITHOUT NOTICE

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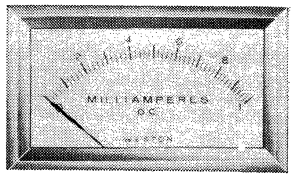
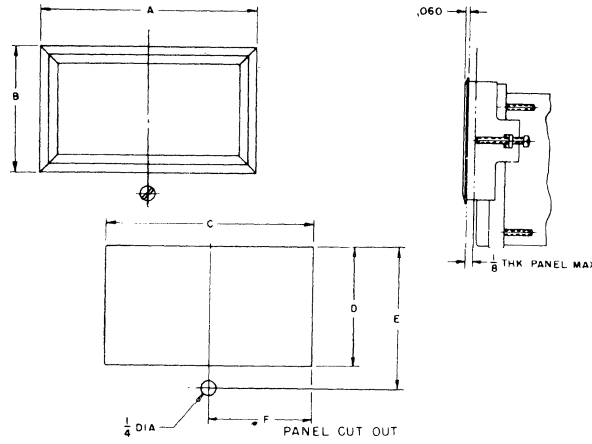
WESTON INSTRUMENTS

THREE TYPES OF MOUNTINGS

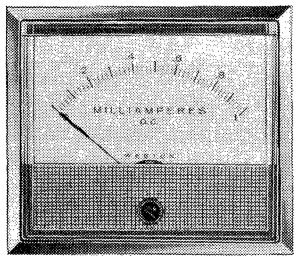


RECESS (Plastic front only)

Only the scale is visible since meter is mounted behind the panel . . . half bezel fits into window.

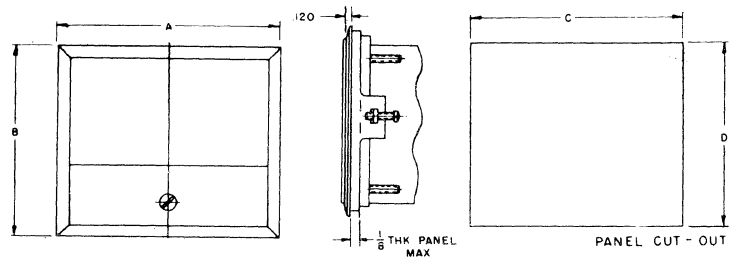


MODEL	A	B	C	D	E	F
1921 1922 1924	3.120	1.720	3.000	1 19/32	2.070	1 1/2
1931 1932 1934 1936 1938	3.860	2.265	3 23/32	2 5/32	2.550	1 55/64
1941 1942 1944 1946 1948	4.960	2.900	4 13/16	2 3/4	3.215	2 13/32
1951 1952 1954 1956 1958	6.060	3.300	5 7/8	3 5/32	3.950	2 15/16

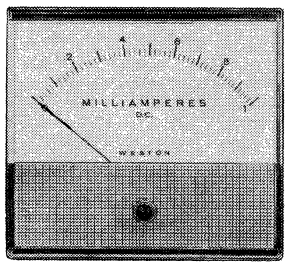


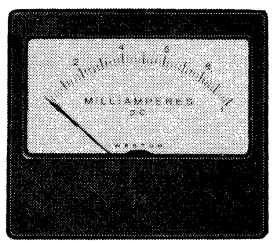
FLUSH (Plastic front only)

Full Bezel permits mounting flush with panel through rectangular cutout.



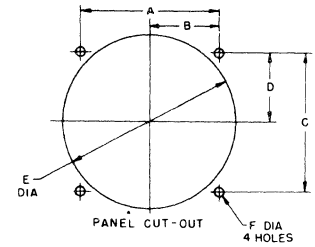
MODEL	A	B	C	D
1921 1922 1924	3.050	2.620	2 31/32	2 17/32
1931 1932 1934 1936 1938	3.830	3.320	3 11/16	3 3/16
1941 1942 1944 1946 1948	5.000	4.550	4 25/32	4 11/32

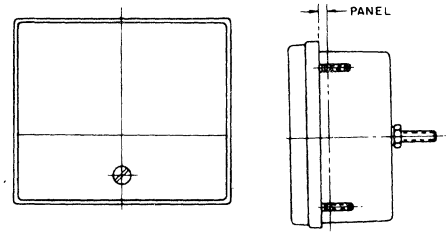




CONVENTIONAL

Use same dimensions, whether you choose a meter with taut band or pivot and jewel movement.





MODEL	A	B	C	D	E	F
1921 1922 1924	1.880	.940	1.880	.940	2.220 DIA	.125 DIA
1931 1932 1934 1936 1938	2.250	1.125	2.250	1.125	2.820 DIA	.125 DIA
1941 1942 1944 1946 1948	4.000	2.000	3.560	2.020	2.820 DIA	.154 DIA
1951 1952 1954 1956 1958	5.250	2.625	3.000	2.150	2.820 DIA	.154 DIA
1971 1972	6.000	3.000	4.500	3.500	3.560 DIA	.15 DI

WESTON 1900 T SERIES WITH TAUT BAND MECHANISMS

Available in Bakelite or static-free clear plastic cases in sizes from 3½" through 7½".

Taut-Band instruments are slightly higher in price than the 1900 Series with conventional pivot and jewel movements, but are completely interchangeable.

Taut-Band mechanisms are free from friction and inertia. They offer outstanding sensitivity, reliability and uniformity from zero to full scale.

Your distributor can provide complete information on Weston 1900 T Series with Taut Band Mechanisms.

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WESTON INSTRUMENTS

1900 STOCK PANEL INSTRUMENT SERIES

D-C (Cormag) — MODELS 1921/1931/1941/1951/1971

	Ranges				Scale Divisions		Nominal Resist. Ohms			PRICES				
	2½" M-1921 / 3½" M-1931 / 4½" M-1941 / 5½" M-1951		7½" M-1971		2½" M-1921 / 3½" M-1931 / 4½" M-1941 / 5½" M-1951	7½" M-1971	2½" M-1921 / 3½" M-1931	4½" M-1941 / 5½" M-1951	7½" M-1971	2½" M-1921	3½" M-1931	4½" M-1941	5½" M-1951	7½" M-1971
ua														
50	x		x		50	100	4800	2500	5160	$18.60	$19.10	$20.10	$30.40	—
100	x		x		50	100	1225	2500	4640	17.40	17.90	18.80	28.70	$45.20
200	x		x		40	100	600	850	1700	16.60	17.10	18.10	27.20	42.20
500	x		x		50	100	240	240	935	—	16.10	17.10	—	—
ma*														
1	x		x		50	100	88	115	93	14.60	15.10	16.10	24.30	40.30
1.5			x			150			93	—	—	—	—	—
2	x		x		40	100	45	16	69	—	—	16.10	24.30	—
3			x			150			33.5	—	—	—	—	—
10	x		x		50	100	2.5	2.7	3.36	14.60	15.10	16.10	24.30	—
20	x		x		40	100	2.2	2.7	1	—	15.10	16.10	24.30	—
30			x			150			1	—	—	—	—	—
50	x		x		50	100	2.0	2	1	14.60	15.10	16.10	25.20	—
100	x		x		50	100	1.0	1	.5	14.60	15.10	16.10	24.30	—
200	x		x		40	100	0.5	0.5	.25	—	15.10	16.10	24.30	—
500	x		x		50	100	0.2	0.2	.1	—	15.10	16.10	24.30	—
amps**														
1	x		x		50	100				14.60	15.10	16.10	25.20	—
1.5			x			150				—	—	—	—	—
2	x		x		40	100				14.60	15.10	16.10	25.20	—
3			x			150		Approx. MV Drop		—	—	—	—	—
5	x		x		50	100		50		14.60	15.10	16.10	25.20	—
10	x		x		50	100				14.60	15.10	16.10	25.20	—
20	x		†		40					14.60	15.10	16.10	25.20	—
30	x		†		60					14.60	15.10	16.10	25.20	—
volts														
1			x			100				—	—	—	—	—
1.5			x			150				—	—	—	—	—
2	x		x		40	100				15.40	15.90	16.90	25.20	—
3			x			150				—	—	—	—	—
5	x		x		50	100				15.40	15.90	16.90	25.20	—
10	x		x		50	100				15.40	15.90	16.90	25.20	—
15	x		x		75	150				15.40	15.90	16.90	25.20	—
30	x		x		60	150		Ohms Per Volt		—	15.90	16.90	25.20	—
50	x		x		50	100		1000		15.40	15.90	16.90	25.20	—
80			x			80				—	—	—	—	—
100	x		x		50	100				15.40	15.90	16.90	25.20	—
150	x		x		75	150				15.40	15.90	16.90	25.20	—
200	x				40					—	15.90	16.90	25.20	—
300	x		x		60	150				15.40	15.90	16.90	25.20	—
500	x		x		50	100				15.40	15.90	16.90	25.20	—

*NOTE: Range of 50 ma and up are shunted and have a drop of approximately 50 mv on Model 1971 and 100 mv on Models 1921, 1931, 1941 and 1951.

**For ranges above 30 amps use a 50 mv instrument, with required external shunt.

†For ranges above 10 amps use external shunts.

D-C (External Magnet) — MODELS 1936/1946/1956/1976

	Ranges			Scale Divisions		Nominal Resist. Ohms		PRICES			
	3½" M-1936	4½" M-1946 / 5½" M-1956	7½" M-1976	3½" M-1936 / 4½" M-1946 / 5½" M-1956	7½" M-1976	3½" M-1936 / 4½" M-1946 / 5½" M-1956 / 7½" M-1976	3½" M-1936	4½" M-1946	5½" M-1956	7½" M-1976
ua										
20	x	x*		40		5400	—	—	—	—
30			x		150		—	—	—	—
50	x	x	x	50	100	2180	—	$30.50	$35.40	$56.40
100	x	x	x	50	100	870	—	29.80	—	—
200	x	x	x	40	100	550	$26.40	—	—	—
500	x	x		50		120	—	—	—	—

*2% accuracy only.

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WESTON INSTRUMENTS

1900 STOCK PANEL INSTRUMENT SERIES

RECTIFIER TYPE A-C (Cormag) — MODELS 1922/32/42/52/72

	Ranges					Scale Divisions					Nominal Resist. Ohms					P R I C E S			
	2½" M-1922	3½" M-1932	4½" M-1942	5½" M-1952	7½" M-1972	2½" M-1922	3½" M-1932	4½" M-1942	5½" M-1952	7½" M-1972	2½" M-1922	3½" M-1932	4½" M-1942	5½" M-1952	7½" M-1972	2½" M-1922	3½" M-1932	4½" M-1942	5½" M-1952
ua																			
100		x					50					4000				$22.50	—	—	—
200		x			x		40			100		2000			3000	22.50	—	—	—
500		x			x		50			100		800			1500	22.50	—	—	—
ma																			
1		x			x		50			100		475			460	19.30	$19.80	—	—
2		x					40					280				19.30	—	—	—
5		x			x		50			100		140			150	—	—	—	—
volts																			
3		x					60									24.60	20.70	$21.70	$25.60
7.5		x					75									24.60	20.70	21.70	25.60
15		x			x		75			150						24.60	20.70	21.70	25.60
30		x			x		60			150		Ohms Per Volt 1000				24.60	20.70	21.70	25.60
75		x			x		75			150						24.60	20.70	21.70	25.60
150		x			x		75			150						24.60	20.70	21.70	25.60
300		x			x		60			150						24.60	—	21.70	25.60
500		x			x		50			100						24.60	—	21.70	25.60

A-C (Iron Vane) — MODELS 1924/1934/1944/1954

	Ranges				Scale Divisions			Approx. Resist. Ohms				P R I C E S			
	2½" M-1924	3½" M-1934	4½" M-1944	5½" M-1954	2½" M-1924	3½" M-1934	4½" M-1944	5½" M-1954	2½" M-1924	3½" M-1934	4½" M-1944	5½" M-1954	2½" M-1924	3½" M-1934	4½" M-1944	5½" M-1954
ma†																
10		x			20	50			2550				$19.10	$19.50	—	$26.60
20		x			40	40			637				19.10	—	$20.50	26.60
50		x			25	50			100				19.10	19.50	20.50	26.60
100		x			20	50			25				19.10	19.50	—	26.60
200		x			40	40			6.33				—	—	20.50	—
500		x			25	50			1.0				19.10	19.50	20.50	26.60
amps*																
1		x			20	50			.25				19.10	19.50	20.50	26.60
2		x			40	40			.062				19.10	19.50	—	—
5		x			25	50			.016				19.10	19.50	20.50	26.60
10		x			20	50			.0045				19.10	19.50	20.50	—
20		x			40	40			.0011				19.10	19.50	20.50	26.60
30		x			30	60			.00056				19.10	—	20.50	—
volts**																
3		x			30	60			6				20.00	20.50	21.50	27.60
7.5		x			37.5	75			37				20.00	20.50	21.50	—
15		x			30	75			150				20.00	—	21.50	27.60
30		x			30	60			600				20.00	—	21.50	27.60
75		x			37.5	75			3750				20.00	—	—	27.60
150		x			30	75			15,000				20.00	20.50	21.50	27.60
300		x			30	60			60,000				20.00	20.50	21.50	27.60
500		x			25	50			100,000				20.00	20.50	21.50	27.60

†Frequency: 25 to 500 cycles.

*Power consumption: 5 ampere range at 5 amperes, 0.45 watts; at 60 cycles, 0.45 volt-amperes.
Frequency: 25 to 500 cycles.

**Power consumption: 150 volt range at 115 volts, 1.15 watts, at 60 cycles, 1.15 volt-amperes.
Frequency: adjusted for use on frequencies of 25 to 125 cycles.

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WESTON INSTRUMENTS

201/301 PANEL INSTRUMENT SERIES

MODELS 201/301
D-C VOLTMETERS — 1000 OHMS PER VOLT

Range	Scale Div. 201	Scale Div. 301	Price 201	Price 301
1	20	50	$16.90	$18.10
1.5	30	75	16.90	14.90
3	30	60	13.90	14.90
5	25	50	13.90	14.90
8	40	40	16.90	18.10
10	20	50	13.90	14.90
15	30	75	13.90	14.90
30	30	60	13.90	14.90
50	25	50	13.90	14.90
80	40	40	16.90	18-10
100	20	50	13.90	14.90
150	30	75	13.90	14.90
200	40	40	14.40	15.40
250	25	—	14.40	—
300	30	60	14.40	15.40
500	25	50	14.90	15.40
800	—	40	—	17.90
1KV	—	50	—	19.80

MODELS 201/301 — D-C MILLIAMMETERS

Range	Scale Div. 201	Scale Div. 301	Approx. Resis. Ohms 201	Approx. Resis. Ohms 301	Price 201	Price 301
1	20	50	100	88	13.40	14.40
1.5	30	75	40	88	16.30	14.40
2	40	40	40	45	16.30	14.40
3	30	60	40	45	16.30	14.40
5	25	50	6	8	13.40	14.40
10	20	50	2.5	2.5	13.40	14.40
15	30	75	2.5	2.5	13.40	14.40
20	40	40	2.5	2.5	13.40	14.40
30	30	60	2.5	2.5	13.40	14.40
50	25	50	2	2	13.40	14.40
100	20	50	1	1	13.40	14.40
150	30	75	0.66	0.66	13.40	14.40
200	40	40	0.5	0.5	16.30	14.40
300	30	60	0.33	0.33	16.30	14.40
800	40	40	0.12	0.2	13.40	14.40
500	25	50	0.2	0.12	16.30	14.40
1000	20	50	0.05	0.05	16.30	17.50
1-0-1	40	40	40	45	13.40	14.40
10-0-10	—	50	—	2.5	—	14.40
50-0-50	50	50	2	2	16.30	14.40
100-0-100	40	40	1	1	13.40	14.40

MODELS 201/301 — D-C AMMETERS

Range	Scale Div. 201	Scale Div. 301	Price 201	Price 301
1	20	50	$13.40	$14.40
1.5	30	75	13.40	14.40
2	40	40	16.30	14.40
3	30	60	13.40	14.40
5	25	50	13.40	14.40
10	20	50	13.40	14.40
15	30	75	14.40	14.40
20	20	40	14.40	15.40
30	30	60	14.40	15.40
50	25	50	17.50	15.40
5-0-5	—	50	—	17.50
10-0-10	—	40	—	14.40
15-0-15	—	60	—	18.70
20-0-20	—	40	—	18.70
30-0-30	—	60	—	15.40
50-0-50	—	50	—	15.40

MODELS 201/301—206*/306* D-C MICROAMMETERS

Range	Scale Div. 201/206	Scale Div. 301/306	Approx Resis. 201	Approx Resis. 206	Approx Resis. 301	Approx Resis. 206	Approx Resis. 210	Price 206	Price 301	Price 306
10	20	50	—	3800	—	3800	$ —	$36.80	$ —	$38.00
20	40	40	—	1480	5500	1480	—	30.90	23.70	26.40
30	30	60	—	1480	5500	1480	—	29.70	22.50	30.90
50	25	50	4150	1175	4800	1175	19.30	23.40	20.30	23.40
100	20	50	870	660	1230	660	16.40	26.10	17.30	21.50
200	40	40	600	—	600	55	13.90	—	14.90	21.50
500	25	50	160	—	230	—	13.90	—	14.90	—
10-0-10	—	40	—	—	5500	—	—	—	23.70	—
25-0-25	—	50	4150	—	4800	—	16.40	—	20.30	—
50-0-50	20	50	870	—	1200	—	15.90	—	17.30	—
100-0-100	40	40	600	—	600	—	13.40	—	14.90	—
500-0-500	20	50	100	—	88	—	13.40	—	14.40	—

*External magnet type, unshielded

MODELS 202/302 RECTIFIER TYPE A-C VOLTMETERS

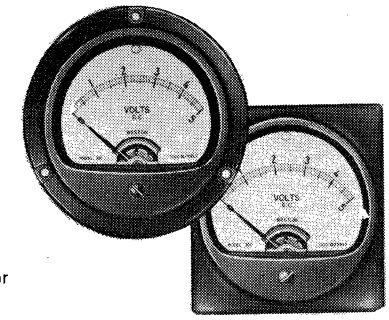
1000 ohms per volt

Range	Scale Div. 202	Scale Div. 302	Price 202	Price 302
3	—	60	$24.00	$20.70
5	—	50	24.00	20.70
10	—	50	24.00	20.70
15	—	75	24.00	20.70
30	—	60	24.00	20.70
50	—	50	24.00	20.70
100	—	50	24.00	20.70
150	—	75	24.00	20.70
300	—	60	24.00	21.30

2000 ohms per volt

Range	Scale Div. 202	Scale Div. 302	Price 202	Price 302
1	—	50	$24.60	$21.30
1.5	—	75	24.60	25.80
3	—	60	24.60	25.80
5	—	50	24.60	25.80
10	—	50	24.60	25.80
15	—	75	24.60	21.30
30	—	60	24.60	25.80
50	—	50	24.60	21.30
100	—	50	24.60	25.80
150	—	75	24.60	21.30

- 2½" and 3½" Sizes
- 2% Accuracy Full Scale
- Spring Back Jewels
- Long Term Stability
- Self Shielded Mechanism
- Cases Sealed Against Dust
- Minimum Power Consumption
- Minimum Response Time
- Note: Specify Round or Square Case



MODELS 202/302
RECTIFIER TYPE A-C MILLIAMMETERS

Range	Scale Div. 202	Scale Div. 302	Approx. Resis. 202-302	Price 202	Price 302
1	25	50	470	$24.00	$20.70
2	40	40	270	24.00	20.70
5	25	50	150	24.00	20.70
0.5	25	50	1030	24.00	25.20

MODELS 202/302
RECTIFIER TYPE A-C MICROAMMETERS

Range	Scale Div. 202	Scale Div. 302	Approx Resis. 202-302	Price 202	Price 302
100	20	50	3400	$28.50	$24.40
200	40	40	2400	27.00	28.20
300	30	60	2000	27.00	28.20
500	25	50	1030	24.00	20.70

MODELS 204/304—A-C VOLTMETERS—25-125 CYCLES

Range	Scale Div. OHMS/V	204	304	Price 204	Price 304
1.5	30	1.5	3	$20.80	$18.10
3	30	15	15	20.80	18.10
5	50	26	26	17.10	18.10
8	40	—	81	—	18.10
10	50	100	100	17.10	18.10
15	30	250	250	20.80	18.10
30	30	790	790	20.80	18.10
50	50	2124	2124	20.80	18.10
80	40	5712	5712	20.80	18.10
100	50	—	10065	—	18.10
130	26	13065	13065	21.40	18.50
150	30	20295	20295	17.60	18.50
250	25	56060	56060	22.60	23.70
300	30	81550	81550	19.10	20.10
500	50	131550	131550	26.10	21.50

MODELS 204/304—A-C AMMETER—25-500 CYCLES

Range	Amps Scale 204	Amps Scale 304	Scale Div. 204	Scale Div. 304	Approx. Resis. 204	Approx. Resis. 304	Price 204	Price 304
1	1	1	50	50	0.130	0.130	$16.60	$17.60
1.5	—	1.5	—	30	—	0.555	—	17.60
2	2	2	40	40	0.026	0.026	16.60	17.60
3	3	3	30	30	0.013	0.013	16.60	17.60
5	5	5	50	50	0.005	0.005	16.60	17.60
5 Amps.*	—	100	—	50	—	0.005	—	17.60
5 Amps.*	—	200	—	40	—	0.005	—	17.60
5 Amps.*	—	300	—	30	—	0.005	—	17.60
10	10	10	50	50	0.0014	0.0014	16.60	17.60
15	15	15	30	30	0.0015	0.0015	16.60	17.60
20	20	20	40	40	0.0005	0.0005	16.60	17.60
30	30	30	30	30	0.0004	0.0004	16.60	17.60
50	50	50	50	50	0.0002	0.0002	16.60	17.60

*For use with Current Transformer. Above prices do not include Transformer.

MODELS 204/304 — A-C MILLIAMMETERS

Range	Scale Div. 204	Scale Div. 304	Approx. Resis. 204	Approx. Resis. 304	Price 204	Price 304
15	30	30	4.50	.54	$20.00	$21.40
50	50	50	.34	34	20.20	17.60
100	50	50	8.5	8.5	20.20	17.60
500	50	50	0.42	0.42	16.60	17.60

MODELS 208/308 — THERMO-AMMETERS

Range	Scale Div. 208	Scale Div. 308	Price 208	Price 308
1	20	50	$34.40	$37.10
1.5	30	—	34.40	—
2	40	—	34.40	—
3	30	60	34.40	37.10
5	25	50	$28.40	$37.10
8	40	40	34.40	37.10
10	20	50	34.40	37.10
15	30	60	34.40	37.10
20	40	—	34.40	37.10

MODELS 208/308 — THERMO-MILLIAMMETERS

Range	Scale Div. 208	Scale Div. 308	Approx. Resis. 208	Approx. Resis. 308	Price 208	Price 308
† 10	—	50	—	85	—	$64.50
† 50	—	50	—	5	—	64.50
100	20	50	5.2	8	39.20	33.20
200	—	40	—	2.7	—	33.20

†Vacuum Thermocouple Type.

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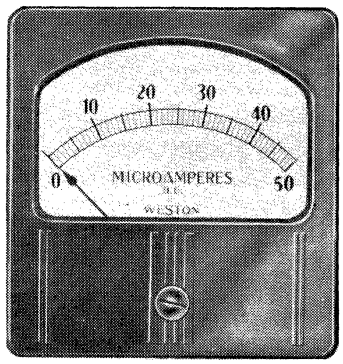
WESTON INSTRUMENTS

741-744 PANEL INSTRUMENT GROUP



741/744 PANEL INSTRUMENTS

These instruments are regularly supplied in flush, black Bakelite cases which can be mounted on panels up to ⅞" thick. The adjustable mounting arrangement is invisible from the front of the panel. Illumination feature available if required.

Rated Accuracy: 1% of full scale value.

Overall Dimensions: 4" x 4.25" (101.6 x 107.9 mm)

Scale: 3.52" (90 mm)

Model 741: Permanent Magnet Moving Coil Type

Model 744: Movable Iron Type

MODEL 741 D-C VOLTMETERS (1000 ohms/volt)

Range	Scale Div.	Price
10	50	$42.10
30	60	42.10
50	50	42.10
150	75	43.50
300	60	46.25

MODEL 741 D-C AMMETERS

Range	Scale Div.	Price
1	50	$42.10
5	50	42.10
10	50	42.10
25	50	42.10
50	50	42.10

MODEL 741 D-C MILLIAMMETERS

Range	Scale Div.	Approx. Resistance Ohms	Price
1	60	16.3	$42.10
10	50	2.5	42.10
25	50	2.4	42.10
50	50	2	42.10
100	50	1	42.10
200	40	0.5	42.10
300	60	0.33	42.10
500	50	0.2	42.10

MODEL 741 D-C MICROAMMETERS

Range	Scale Div.	Approx. Resistance Ohms	Price
30	60	1850	$58.80
50	50	870	57.20
100	50	550	56.05
200	40	320	44.65
500	50	60	44.65
50-0-50		550	56.05

MODEL 744 A-C VOLTMETERS (25-125 Cycles)

Range	Scale Div.	Approx. Resistance Ohms	Price
10	50	33	$48.40
15	75	98	48.40
30	60	362	48.40
130	65	7880	49.80
150	75	9100	49.80
*300	60	18200	57.90
*500	—	—	69.40

*Furnished with Exterior Resistor Type 51

MODEL 744 A-C AMMETERS (25-500 Cycles)

Range	Scale Div.	Approx. Resistance Ohms	Price
1	50	1.12	$48.40
3	60	0.112	48.40
5	50	0.0275	48.40
10	50	0.0135	48.40
15	75	0.0068	48.40
20	40	0.0026	48.40
30	60	0.0020	48.40
50	50	0.00043	48.40

MODEL 744 A-C MILLIAMMETERS (25-500 Cycles)

Range	Scale Div.	Approx. Resistance Ohms	Price
250	50	10.2	$48.40

PORTABLE INSTRUMENTS

MATCHED A-C AND D-C PORTABLE INSTRUMENTS

MODEL 433—A-C INSTRUMENTS

Scale Length 4.04"—Accuracy within ¾ of 1% — Movable Iron Type — Shielded Case Size 5⅛" x 5¼" x 3¼"—Weight 2½ lbs.—Hand Calibrated Mirror Scales Bakelite Case with Carrying Strap.

Note: These instruments are calibrated for use in a horizontal position.

A-C VOLTMETERS

Made with single, double and triple ranges. For use on frequencies from 25 to 125 cycles.

Range	Price
10, 15, 150, 250	$ 94.25
10/5, 20/10, 30/15	95.75
450/300/150	112.25
600/300/150	112.25
750/300/150	112.25

A-C MILLIAMMETERS

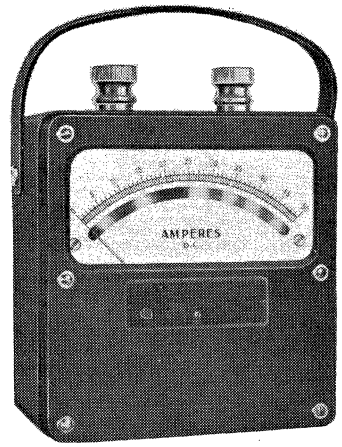
Made in single and double ranges only, for use on frequencies from 25 to 500 cycles.

Range	Price
15, 30, 150, 500	$ 85.75
300/150	100.25

A-C AMMETERS

Made in single, double and triple ranges for use on frequencies from 25 to 500 cycles. All instruments have two binding posts; double and triple range instruments are provided with a range selector switch.

Range	Price
1, 3, 5, 10	$ 89.25
15, 30, 50	89.25
2/1, 5/2.5, 10/5	102.25
3/1.5/0.75, 5/2.5/1, 10/5/1	140.25
20/5/2, 30/7.5/3, 50/20/5	140.25



MODEL 432—D-C AND SINGLE PHASE A-C WATTMETERS

Double voltage and single or double current ranges, self-contained up to 300 volts and 50 amperes, frequencies from 25 to 125 cycles.

Electrodynamometer Type

Accuracy ½ of 1%....Scale Length 4.04"

Case Size 5⅛" x 5¼" x 3¼" .....Wt. 3¼ lbs.

Normal Volts	Normal Amps	Price
150/75	1	$192.25
Double Current Ranges		
300/150	5/2.5	$192.25

MODEL 931—D-C INSTRUMENTS

Scale Length 4.04"—Accuracy within ½ of 1% Core Magnet Moving Coil Type. Case Size: 5⅛" x 5¼" x 3¼"—Weight 2 lbs. — Hand Calibrated Mirror Scales — Bakelite Case with Carrying Strap.

Note: These instruments are calibrated for use in a horizontal position.

D-C VOLTMETERS

Range	Price 1,000 Ohms Per Volt	Price 5,000 Ohms Per Volt
3, 15, 50	$ 87.25	$ 98.75
300/150/3	101.25	112.75
750/300/150	101.25	112.75

D-C AMMETERS

	Price
3, 5, 15, 50	$ 89.00
30/15/3	101.50
50/20/5	101.50

Self-contained up to 50 amperes inclusive, but can be supplied with external 50 mv shunts and 5 ft. leads.

D-C MILLIAMMETERS

Range	Price
15, 150	$ 85.50
1500/150/15	98.75
15/1.5/.15	110.50

Single range, Milliammeters with ranges above can be supplied with external 50 mv shunts and 30 ma are shunted and have a drop of 50 mv ±5%.

D-C MICROAMMETERS

High Resistance Range	Approx. Res. Ohms	Price	Low Resistance Ohms	Price
30	2300	$110.50	490	$112.75
100	2000	98.75	60	110.50
200	600	94.00	15	98.75

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WESTON INSTRUMENTS

PORTABLE INSTRUMENTS

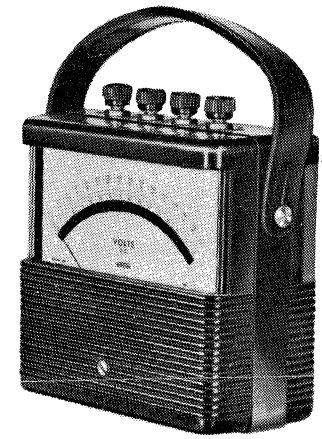
901-904 GROUP ¼-½% ACCURACY

Size: 7½" x 7¼" x 3⅝" **Scale Length: 5½"**

D-C 901, ¼% Accuracy, Self Shielded Permanent Magnet Moving Coil Type

A-C 904, ½% Accuracy, Movable Iron Type

These modern style instruments are used for general testing and for checking other meters in daily use in industry where easy reading and high shielding are desired. Long 5½" hand calibrated mirror scales combined with knife-edge pointers eliminate reading errors. Leather carrying cases are available, specify instrument model and range—Price $24.50.



Model 901

D-C VOLTMETER (7 RANGE)—Model 901

(5000 ohms per volt)

Range (Volts)	Price
750/300/150/75/30/15/3	$182.25

D-C AMMETER—Model 901

Range (Amperes)	Price
50 mv/20/5/2	$162.25

D-C MILLIAMMETERS (7 RANGE)—Model 901

Range (Ma)	Approx. Res. Ohms	Price
1000/500/200/100/50/20/10	.049/.099/.244/.475/.9/1.88/2.5	$172.25
100/50/20/10/5/2/1	1.49/2.96/7.28/14.1/26.4/52.5/60	172.25

A-C VOLTMETER—Model 904

Range (Volts)	Approx. Res. Ohms	Price
750/300/150/75/ 30/15/7.5/3**	117,500/18,400/5180/ 1145/182/46/11.1/1.76	$247.50

†Other frequency ranges available. Prices on request.
*Frequency 25-125 cps.
**Frequency 50-125 cps, accuracy ½%; 125-450 cps, accuracy 1%.

A-C MILLIAMMETERS—Model 904

(Frequency 25 to 500 cycles)

Range (Ma)	Approx. Res. Ohms	Price
150/75	16/64	$176.50
300/150*	4/16	176.50

*Also stocked for 25-1000 cycles at $191.50.

A-C AMMETERS—Model 904

Range (Amperes)	Price
200/100/50/20/10/5/2**	$222.50
(Frequency 25 to 1000 cycles)	
50/20/10/5/2/1	215.50

**Frequency is 50-450 cps.

D-C AND SINGLE PHASE A-C WATTMETERS—Model 905

(Frequency 25-60 cycles)

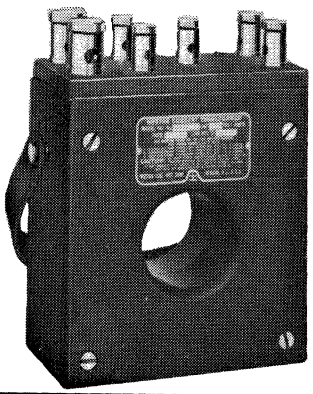
Volts		Amperes		Watts		
Normal	Max.	Normal	Max.	High Range	Low Range	Price
200/100	300/150	25	50	5 KW	2.5 KW	$197.50
		5	10	1 KW	.5 KW	197.50
		10/5	20/10	2/1 KW	1/.5 KW	212.50
		5/2.5	10/5	1000/500	500/250	212.50

CURRENT TRANSFORMERS

Model 461

Size: 7.97" x 6.63" x 2.75" **Weight: Type 1—8 lbs.; Type 2—8.4 lbs.** **Core Opening: 2.12"**

Models 461 are used with A-C instruments as multipliers. Four self-contained primary ranges are brought out to binding posts. A secondary short circuiting switch is provided. Black bakelite case.



Range (Amps)	Type*	Price
800/400/200/ 100/50/20/10 Pri. to 5 Sec.	1	$117.25
800/400/200/ 100/50/20/10 Pri. to 5 Sec.	2	147.25
1000/500/250/ 100/50/25/10 Pri. to 5 Sec.	1	147.25
1000/500/250/ 100/50/25/10 Pri. to 5 Sec.	2	$147.25
500/250/100/ 50/25/10/5/ 2.5/1/0.5 Pri. to 5 Sec.	5	157.25

*Type 1—Primarily used for Ammeter applications.

Type 2—Primarily used for Wattmeter applications.

Type 5—Similar to Type 2 except for additional ranges.

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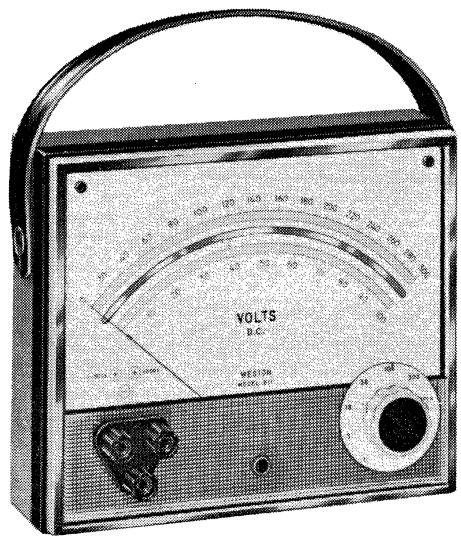
WESTON INSTRUMENTS

911/912 PORTABLE/PANEL INSTRUMENTS

Newly designed Weston Portable/Panel instruments now provide a combination of features never before offered in portable test equipment. Equally valuable in shop or field, these units feature high accuracy, long-scale length and modern styling. And, these instruments are designed for . . .
Panel or switchboard mounting without special adaptors or attachments! Simply remove meter from case and mount on panel . . . **all** hardware is supplied. The compact steel case may be attached behind panel when mechanical protection is required.



Model 911/912

SPECIFICATIONS

ACCURACY—±1% of full scale value on d-c voltmeters and milliammeters (±2% of full scale value on 300 and 1000 volts d-c).
±2% of full scale value on rectifier type a-c voltmeters 10 through 300 volts.
±3% of full scale value on rectifier type a-c voltmeters for 1000 volt range and 3 volt range above mid-scale.

COMPACT CASE—Modern designed instrument front of clear durable plastic provides unlimited natural illumination which, coupled with knife-edge pointers and mirror scale, provide unexcelled readability. The instrument is cased in heavy duty, grey finished steel. Handle can be swung under instrument so that it may be tilted for easy reading. Size: 7½" x 6½" x 2⅜".

COMPONENTS—Weston VAMISTOR® precision metal film resistors and other long-life components are used.
Adjustable resistors provide for easy calibration, if required.

BINDING POSTS—Screw type with captive heads can use all types of leads. Triangular base allows greater torque when securing leads. Wide ¾" spacing permits use of plug type leads. Cross hole located so fine wire is not cut.

SCALE—Large 7.2" mirror back with knife-edge pointer.

MECHANISM—CORMAG® self-shielding, with spring-backed jewels.

RANGE SWITCH—Large, sure-grip knob.

SIZE—7½" x 6½" x 2⅜".

RANGES AND PRICES

Model 911 D-C VOLTMETER (20,000 ohms per volt) 1000/300/100/30/10/3/1 Volts	Price $68.50
Model 911 D-C AMMETER 10/3/1 amps., 300/100/30/10 ma	Price $68.50
Model 911 D-C MILLIAMMETER 100/30/10/3/1/.3/.1 milliamperes	Price $68.50
Model 912 A-C VOLTMETER (5,000 ohms per volt) 1000/300/100/30/10/3 Volts	Price $78.50

WESTON D-C MILLIVOLT/MICROAMMETER

D-C MILLIVOLT/MICROAMMETER—Model 1477

Size: 7½" x 6½" x 4⅜" **Weight: 5½ lbs.** **Scale Length: 7.2"**

A portable test instrument designed to measure potentials and currents in the low-level millivolt and microampere ranges. No energy is drawn from the input circuit during steady-state operation. Only with an initial input application is there a small current taken during the transient period prior to steady state indication.

D-C Input Ranges
Millivolts 1/2/5/10/20/50/100/200/500/1000
Microamperes 10/20/50/100/200/500/1000

D-C Output
(Rear Terminals) ..... 1 MA DC for full scale input (into a load up to 5000 ohms)

Power Requirements ..... 120 volts AC, 5 or 60 cycles, 19 watts

Accuracy
Panel Indicator (Both Scales) ..... ±1% of full scale value on ranges of 2-1000 MV and 20-1000 μA
±2% of full scale value on ranges of 1 MV and 10 μA
1 MA Output ..... ±0.25% on ranges of 5-1000 MV and 50-1000 μA
±0.5% on ranges of 1-2 MV and 10-20 μA

Operating Position ..... Vertical

Price $446.25

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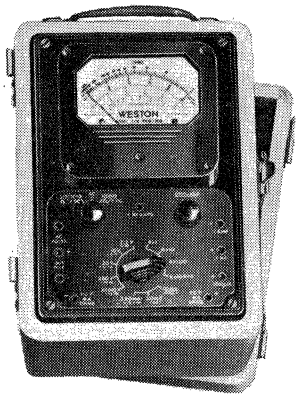
WESTON INSTRUMENTS

SUPER-SENSITIVE ANALYZER MODEL 779



ACCURACY: A-C within 3%; D-C within 2% to 250 volts; 3% on 1,000 volt range.

Size: 6⅜" x 9⅛" x 4⅞" (162 x 232 x 124 mm)

Approx. Wt.: 6 lbs. (2.72 kgs.)

A compact 26 range ultra-sensitive analyzer with five d-c voltage ranges at a sensitivity of either 1,000 or 20,000 ohms per volt. A-C temperature compensated; precision resistors throughout. Supplied in a rugged solid oak case with a removable cover and convenient carrying handle. Test leads are provided.

RANGES

Volts D-C	Volts A-C	Current D-C Only	Decibels	Ohms
2.5	2.5	.1 Ma	— 14 to + 2*	0-3000
10	10	1 Ma	— 2 to + 14*	0-30,000
50	50	10 Ma	+ 12 to + 28*	0-300,000
250	250	50 Ma	+ 26 to + 42†	0-30 Meg
1000	1000	250 Ma	+ 38 to + 54††	
		1 Amp	(6 milliwatts,	
		10 Amp	500 ohms, zero level)	

*Substantially flat to 10,000 cycles.
†Substantially flat to 3,000 cycles. ††Substantially flat to 1,000 cycles.

Model 779 Type 1B
Price.....$194.25

MODEL 799 INSULATION TESTER

ACCURACY: Within ⅛" of scale length.

SCALE: 2.375" (60.3 mm)

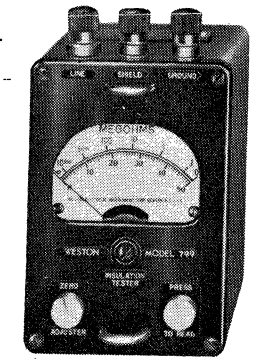
Size: 3⁹⁄₁₆" x 5¼" x 5" (86 x 133 x 127 mm)

Approx. Wt.: 3.8 lbs. (1.7 kgs.)

For leakage measurements up to 10,000 megohms at low voltage at a maximum test potential 50 volts. Test leads, tubes, batteries and oak case are supplied.

RANGES: 0-10,000 megohms (Logarithmic scale)

Price.....$108.75



Model 799

MARK II ANALYZER

The new thin-line Mark II is a highly sensitive and extremely rugged volt-ohm-milliammeter designed for a wide range of accurate test measurements in the electronic field.

Famous CORMAG® mechanism protects the instrument against false readings due to magnetic disturbances. Electrostatic shielding assures accurate measurements at high d-c voltages. Fuses in the low ohmmeter circuits prevent burnout if voltages are mistakenly applied. Interchangeable parts eliminate all need for parts selection in the event replacements are ever necessary. The breakproof case will withstand dropping and thus eliminate the major source of repair and maintenance costs.

FEATURES

- Modern Thin-Line Design
- Spring Back Jewels for Maximum Shock Resistance
- Fused Resistance Ranges
- Transit Switch Position to Dampen Movement During Transportation
- Fully Insulated Crack-proof Case
- Single Selector Knob for all Functions and Ranges
- Wide Angle Scale for Maximum Visibility
- Precision Components —No Parts Selection Required
- Single Board Etched Wiring Circuit for Easy Maintenance
- Static Shielded for Accurate High Voltage Measurement
- 4-Way Combination Tilt Stand and Protective Cover Available

SPECIFICATIONS

Accuracy: 2%, d-c; 3%, a-c.

Scale Length: 4.63"

Ranges:
D-C Volts: 1.6, 8, 40, 160, 400, 800, 4000 . . . at 20,000 ohms/volt.
A-C Volts: 1.6, 8, 40, 160, 400, 1600 . . . at 1,000 ohms/volt.
DB Range: —15 db to +54 db (in six ranges).
D-C Amperes: 8
D-C Milliamperes: 1.6, 8, 80, 800.
D-C Microamperes: 80.

Ohms Range	Center Scale	Full Scale
R x 1	25	1,000
R x 10	250	10,000
R x 100	2,500	100,000
R x 1,000	25,000	1 megohms
R x 10,000	250,000	10 megohms

Case: Black impact resistant plastic, with carrying strap.

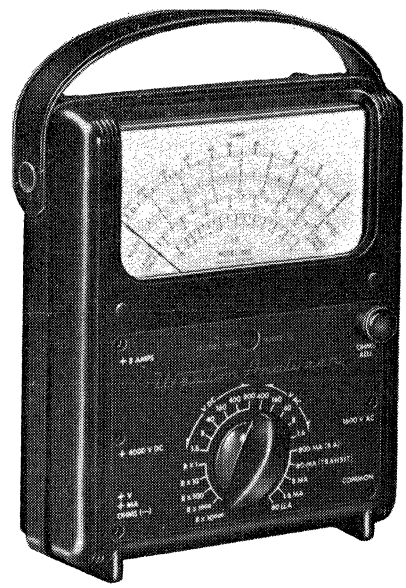
Panel: Black impact resistant plastic with engraved white markings.

Size: 6.25" x 7.50" x 2.25".

Approx. Weight: 2.5 lbs.

Ohms: Four decade ranges: 1K to 10 meg full scale; 25 ohms to 250K center scale

High Voltage Probes: High voltage probes are available for measuring high voltages up to 20 kv at 50 microamperes or less. Probes have multiplier resistors encased in insulated handles. Multipliers are rated with a flash voltage of 30 kv.



Model 980 Mark II

Price.....$53.50

Combination protective front cover and tilt stand $5.50

Eveready leather carrying case—Model 9959—Part No. 249350.....$9.75

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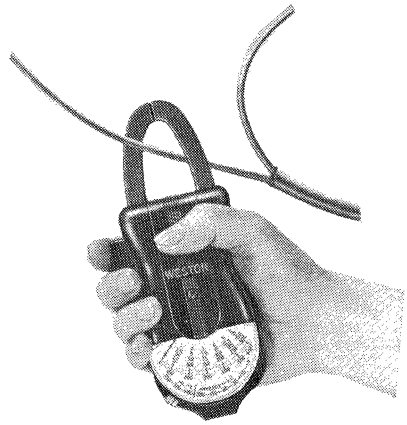
WESTON INSTRUMENTS

Model 749
Miniature Clamp Volt-Ammeter



Light weight and rugged pocket-size instrument for quick easy servicing. Has self-shielded core magnet mechanism with spring backed jewels, and shatter-proof Plexiglas window. Only one scale for all ranges and functions. Jaws take up to 1" round, or 1¾" x ⅜" rectangular conductors. Furnished with test leads in scuff proof case.

Plug-In Adapter available for making both current and voltage measurements . . . has female receptacles on both sides for plugging in load without disturbing circuit being tested . . . convenient for lead insertion for voltage checks . . . serves as 10 to 1 divider for low current measurements.

RATED ACCURACY: (Model 749) ±3% full scale deflection.
RANGES: Current 300/150/60/30/15/6 amperes a-c.
Voltage 600/300/150 volts a-c.

Model 749—$51.50 complete Plug-In Adapter—$5.25

Model 633 Clamp Volt-Ammeter and Clamp-Ammeter

Model 633 Type VA-1

	Price
Model 633 Type VA-1 (Incl. Potential Leads)—1000/250/100/25/10 amperes a-c 700/350/175 volts a-c	$141.50
Model 633 Type A-3—2000/1000/500/250/100/50 amperes a-c	133.50
Model 9958, 50 foot Extension Cable, Plug & Receptacle for Model 633 Type A-3	79.25
Leather Carrying Case (Model 633 Types VA-1, A-3)	13.50
Leather Carrying Case (Model 9958—Cable, Plug and Receptacle)	22.50

NOTE—Model 633 instruments may be used for continuous duty up to 500 amperes.

Approximate Dimensions and Weights

Model 633 Types VA-1, A-3	13⅝"x4⅜"x2½" 3¼ lbs.
Leather Carrying Case (Types VA-1, A-3)	14½"x5½"x3⅝" 2¼ lbs.
Model 9958, 50 Foot Extension Cable, Plug & Receptacle	4¼ lbs.
Leather Carrying Case (Model 9958—Cable, Plug & Receptacle)	14"x8½"x3¾" 4¼ lbs.

Foot-Candle Meters — Model 614

Size: 7⅜" x 3⅜" x 2¼" Scale Length: 2.36"
Weight: 1 lb. 13 ozs.

This unit is ideal for general commercial lighting surveys where wide ranges of light values exxist. Completely self-contained, no outside power or batteries being required. Available for checking two different light situations.

†VISCOR filtered, 0-60/120/600 foot-candles, for visual correction for color ..... Price $133.25

†VISCOR and Cosine correction filtered, 0-100/250/500 foot-candles for visual correction for color and direction correction.
Price $136.25

Model 614

Sightmeters—Model 703

Size: 4⅝" x 2⅝" x 1⅝" Scale Length: 1.57"
Weight: 10 ounces

This pocket sized meter is ideal for checking illumination levels at work stations. It is available for checking three different light situations. Leather case available..... Price $3.00

Unfiltered, Type 3A, 0-75 foot-candles. ..... Price $48.50

†VISCOR filtered, Type 6A, 0-75 foot-candles for visual correction for color ..... Price $60.50

†VISCOR and Cosine correction filters Type 7, 0-100 foot-candles for visual correction for color and direction correction.
Price $63.75

Model 9924 Multiplier Disc fits Type 3A and Type 6A and multiplies scale readings by 10 ..... Price $1.75

†VISCOR—A registered trademark.

Model 703

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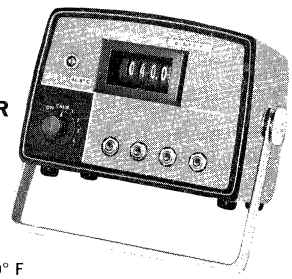
DIGITEC®

DIGITAL TEST EQUIPMENT

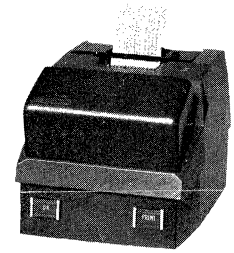
DIGITAL THERMOMETER



*3 Base Models
*59.0° F. to 122.0° F.
*000.0° C to 100.0° C
*Any Specified 40° F or 20° C Span
*15 Interchangeable Thermistor Probes

From ***$345.00***

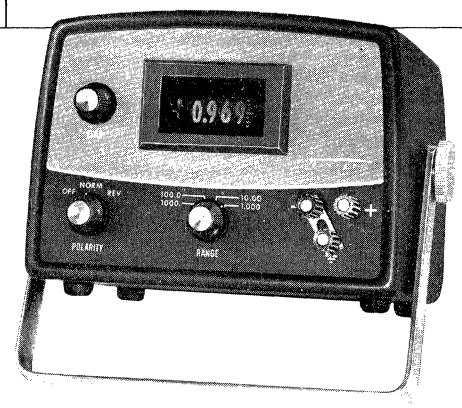
DIGITAL PRINTER



*BCD 1-2-4-8 Parallel Input (+6V or +12V)
*Prints 2 Banks of 4 Columns
*Automatic Negative Sign Print
*48 Line/Minute Print Rate
*For use with any Coded Output DigiTec
*Time, Identification and Serializing Accessories Available

From ***$750.00***

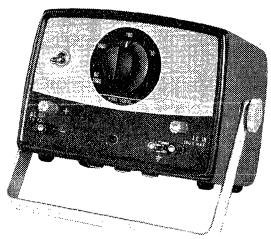
THE PROVEN LOW COST HIGH ACCURACY DVM



*36 Models with F.S. Ranges from 1 V to 1000 V DC
*Millivolt F.S. Ranges from 10.00 MV to 100.0 MV
*Reliable Silicon Transistor Circuit
*Floating or Grounded Input
*Rack and Flange Mounts Available
*0.1% to 0.25% F.S. Accuracy
*Specific Variations to Your OEM Requirements

From ***$310.00***

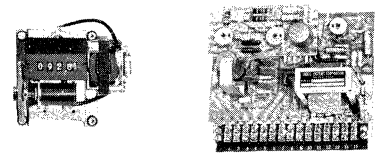
AC-DC CONVERTER



*4 Ranges—1, 10, 100, 1000 V
*0.3% Accuracy
*50 CPS to 20 KC
*.05% Linearity
*Silicon Solid State Circuitry
*Rack and Flange Mounts Available

From ***$285.00***

MODULAR DIGITAL READOUT SYSTEMS



Two Compact MODULES Provide "BUILT-IN" DIGITAL READOUT for Your Equipment.

*Read Voltage, Current, Temp., Speed or other Transduced Parameters.
*Single or Multi-Range
*Linear or Special Functions
*"1000", "2000" or "4000" Digit FS Display
*Specific Variations to your OEM Requirements.

From ***$235.00***

UNITED SYSTEMS CORPORATION

Dayton 3, Ohio

Stocking Reps throughout United States, Canada, England and France

...features

LOW COST. Outstanding performance is provided in a low cost instrument providing digital readout.

ACCURACY. Warranted accuracy is maintained for all internal contributing factors and the listed external conditions.
(1) Ambient Temperature—60° to 115° F.
(2) Power Source—105 to 125 V—50 to 60 CPS.

READING AMBIGUITY. There is no ambiguity or reading (even for small changes) and no allowance need be made. Bi-directional voltage variations are followed without distracting backtracking. Input voltage drift can be continuously observed.

RESOLUTION AND REPEATABILITY. The instrument can be easily read and is sensitive to small voltage changes. For short term observation, under stabilized ambient conditions, unit will repeat and is easily read to .05% or less. Thus, for many applications, the instrument can be used to a comparative accuracy of .05% full scale.

CALIBRATION EASE. High input impedance permits direct calibration with Standard Cell. Under normal usage, recalibration is required only at 6 month intervals.

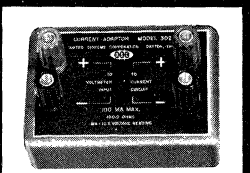
RELIABILITY. High reliability is achieved by a silicon transistor amplifier and the absence of stepping switches and relays. Normal overloads or incorrect polarity will not damage instrument.

READING SPEED. Instrument comes to reading balance quickly and without annoying creep. Average reading time is approximately 2 seconds.

INPUT. A 3-terminal color coded input group is furnished whereby choice is provided for grounded or floating input. A jumper link is furnished so that either negative or positive side of the input can be grounded.

DECIMAL POINT. Decimal points are illuminated by a single, long-life easy-to-replace bulb. The decimal point shifts with range selector.

OTHER USES. By use of compatible transducers, the DigiTec can be used to display readings of current, pressure, speed, position, flow, angle or any parameter. Current adaptors are available to provide readings of from .1 μA to 2 AMP.



READING RETENTION. A jack is located on the rear of the case to permit holding of a displayed voltage by means of an external switch. Suitable switches complete with cord and plug are available as optional accessories.

CARRYING HANDLE. For the portable models, the convenient carrying handle also serves to set the viewing angle for optimum readability.

Certificate of Accuracy furnished with each instrument (traceable to NBS)

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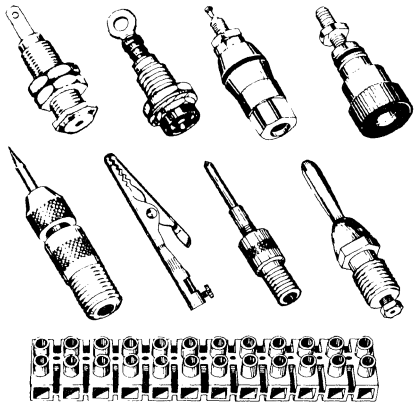
WORKMAN Electronic PRODUCTS, INC.
SARASOTA, FLORIDA

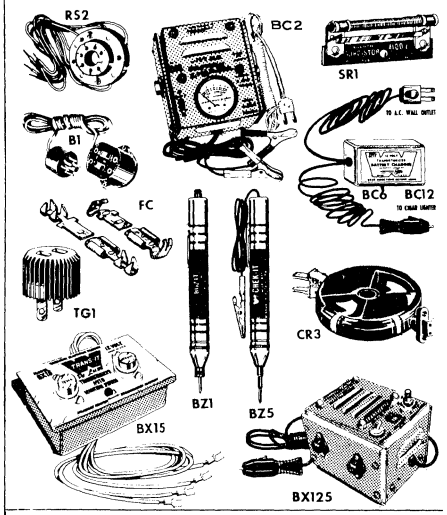
REPLACEMENT COMPONENTS

TEST ACCESSORIES



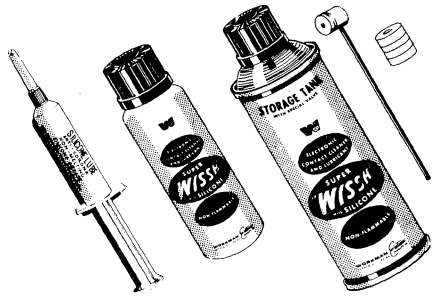
MODEL	DESCRIPTION		LIST	DLR.
300	Phone Plug, 2 cond. scr.		.80	.48
300-M	Phone Plug, metal handle		1.15	.69
301	Phone Plug, 2 cond. sold.		.75	.45
301-M	Phone Plug, metal handle		1.10	.66
302	Phone Plug, 3 cond. sold.		1.15	.69
302-M	Phone Plug, metal handle		1.40	.84
307	Phone Plug, min. 2 cond.	2 for	1.40	.84
311-2	Phone Jack, sub-min. cl.	2 for	.90	.54
313-2	Phone Jack, sub-min. open	2 for	.80	.48
336	Phone Jack, 2 cond., open		.40	.27
337	Phone Jack, 2 cond., closed		.50	.30
338	Phone Jack, 3 cond., open		.60	.36
339	Phone Jack, 3 cond., closed		.85	.51
740	Alligator Clip, solder type	2 for	.24	.14
741	Alligator Clip, screw type	2 for	.24	.14
742	Alligator Clip, solder type	2 for	.60	.36
743	All. Clip, insul. screw type	2 for	.60	.36
744	All. Clip, solderless, scr.	2 for	.60	.36
745	All. Clip, fully insulated	2 for	1.80	1.08
801	Phone Tip, solder type	2 for	.20	.12
802	Tip Plug, hvy. duty, solder	2 for	.40	.24
805	Tip Plug, solderless, lg.	2 for	.45	.27
806	Tip Plug, force fit, lg.	2 for	.45	.27
807	Tip Plug, solderless, sm.	2 for	.45	.27
808	Tip Plug, force fit, sm.	2 for	.50	.30
810	Phone Tip Jack, non-insul.	2 for	.45	.27
812	Banana Plug, solderless	2 for	.65	.39
813	Banana Jack, non-insul.	2 for	.45	.27
814	Banana Plug, midget, thrd.	2 for	.85	.51
815	Banana Plug, thrd. shank	2 for	.80	.48
819	Banana Plug, thrd. hole	2 for	.65	.39
821	Banana Plug, 6-32 thrd.	2 for	.65	.39
840	Banana Plug, insul. midget	2 for	1.00	.60
842	Phone Tip Jack, insul. 7/16"	2 for	.65	.39
843	Phone Tip Jack, insul. 1/2"	2 for	.75	.45
845	Banana Jack, insulated	2 for	.60	.36
848	Combination, insul. jack	2 for	.65	.39
852	Banana Plug, insul. screw	2 for	.75	.45
853	Banana Plug, insul. sd'less	2 for	.85	.51
855	Lg. Tip Plug, insul. sd'less	2 for	.80	.48
856	Sm. Tip Plug, insul. sd'less	2 for	.80	.48
857	Tip plug, insul. hvy. duty	2 for	.60	.36
860	Banana Plug, insul. flex.	2 for	1.20	.72
862	Banana Plug, stack, flex.	2 for	1.30	.78
864	Banana Plug, insul. long	2 for	1.46	.88
866	Needle Tip and chuck	2 for	.64	.40
868	Needle Tip and chuck, ins.	2 for	.80	.48
870	Spade Lug, insulated	2 for	.50	.30
876	Binding Post, wrap-around	2 for	1.65	.99
878	Binding Post, 5 way grd.	2 for	1.00	.60
879	Binding Post, fully insul.	2 for	1.00	.60
880	Binding Post, lock-wsh'r	2 for	.80	.48
881	Binding Post, smooth hd.	2 for	1.00	.60
883	Nylon Tip Jack, wrap ar'd	2 for	1.10	.66
884	Nylon Tip Jack, spade trm.	2 for	1.80	1.08
885	Nylon Tip Jack, feed thru	2 for	1.60	.96
886	All nylon Tip Jack, wrap	2 for	1.10	.66
887	All nylon Tip Jack, spade	2 for	1.30	.78
888	All nylon Tip Jack, feed	2 for	1.60	.96
894	Test Prod, 3/16" opening	2 for	1.30	.78
895	Test Prod, 1/4" opening	2 for	1.30	.78
897	Tip Prod, hvy. duty 3/16"	2 for	1.20	.72
898	Tip Prod, hvy. duty 1/4"	2 for	1.30	.78
900-6	Push button 6 term. blk.		1.75	1.05
901	Needle tip and chuck 3/16"	2 for	1.50	.90
902	Needle tip and chuck 1/4"	2 for	1.90	.86
903	Test Prod, sm. tip 1 4"	2 for	1.60	.96
905	Flex. Terminal Block		4.00	2.40

SERVICE AIDS



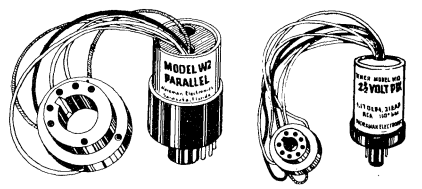
MODEL	DESCRIPTION	LIST	DLR.
BC2	Battery Charger, 6 Amps.	—	20.79
BC6	Battery Charger 6 volt	3.98	2.80
BC12	Battery Charger 12 volt	3.98	2.80
BX14	Trans-It Ign. Sys. 12 volt	23.25	16.27
BX14A	Trans-It Ign. Sys. 6 volt	23.25	16.27
BX15	Trans-It DeLuxe 12 volt	25.75	18.00
BX15A	Trans-It DeLuxe 6 volt	25.75	18.00
BX100K	Transverter Kit		23.95
BX125	Transverter		29.95
BZ1	Buzit	14.50	8.70
BZ5	Chek-It Circuit Tester	2.49	1.49
CCL	Mounting Clips	.55	.33
CCS	Mounting Clips	.55	.33
CR1	Reel-It Cheater Cord	2.25	1.35
CR2	Reel-It Cheater Cord ext.	2.25	1.35
CR3	Reel-It A.C. ext. cord	1.95	1.17
D1	Conv. Stand. to Button	2.63	1.58
D2	Conv. Standard to Shell	2.63	1.58
D3	Conv. Shell to Button	2.63	1.58
D4	Conv. Button to Shell	2.63	1.58
D5	Conv. 23EP4 to Syl. 8YP4	2.63	1.58
D18	Adapter Plug	.95	.57
DS-7	Alignment tool 7"x1/8"	1.25	.75
DS-8	Alignment tool 8"x3/16"	1.25	.75
DS-12	Alignment tool 12"x1/8"	1.40	.85
DS-14	Alignment tool 14"x3/16"	1.65	1.00
FC	Faston Connectors	.75	.45
FCN5	Fuse Adaptors	.70	.42
GE12	G.E. No. 12 Lamp	.25	.15
HP	Handi Plug	.25	.15
NT	Hypodermic Needle	.70	.42
PO1	Precision Oiler	1.10	.66
PO2	Precision Graphiter	1.10	.66
PO3	Precision Greaser	1.10	.66
PS10A	Powered Iron Cores Kit	1.60	.96
RS1	110° Button Socket	1.00	.60
RS2	110° Shell Socket	1.00	.60
RS3	Standard Socket	1.00	.60
SO1	Printed Circuit Solder	.56	.34
SO2	Silver Solder	.56	.34
SO3	Ribbon Solder	.42	.25
SR1	Surgistor, 300 watt	2.10	1.26
SR2	Surgistor, 250-400w-50Ω	3.20	1.92
SR5	RCA #973913-1, #106542	4.00	2.40
SR7	Motorola #6C749855	4.00	2.40
SR8	Motorola #6K753334	4.00	2.40
ST1	Pin Straightener	.85	.51
TG1	Tube Guard	2.00	1.20
TMK	Power Trans. Mtg. Kit	.95	.57
TMM	Mica Collector Insulators	.65	.39
TMS	Dia. Base Trans. Socket	.55	.33
TH4	Touch 'n' Hold	3.25	1.95
WJ1	Wissh Jet	6.25	3.75
X1	Extends Button Base	2.25	1.35
X2	Extends Shell Base	2.25	1.35
X3	Extends Std. Duo-Decal	2.25	1.35
X9	Xtend-Shaft	.30	.18
10V	Boost-A-Volt	10.00	6.00
484	Tuner Shaft	1.00	.60

CHEMICALS



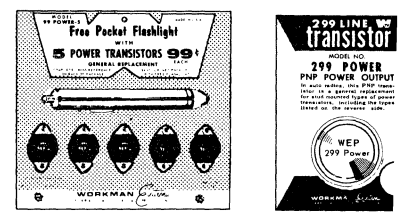
MODEL	DESCRIPTION	LIST	DLR
H6	"Wissh" 6.oz cleaner	1.65	.9
H6A	"Wissh" Aerosol	2.05	1.2
H14	"Wissh" 16 oz. cleaner	3.25	1.9
H32	"Wissh" cleaner kit	5.42	3.2
S3	Super "Wissh" pocket sz.	1.30	.7
S6	Super "Wissh" 6 oz.	2.00	1.2
S24	Super "Wissh" 24 oz.	5.00	2.9
ET1	Scru-Loos	1.65	.9
SG6	Silicone-Lube	1.25	.7
HC	Speaker Conditioner	.95	.5
HF6	Freez-It 6 oz. Aerosol	2.00	1.2

SUPER BRIGHTENERS



MODEL	DESCRIPTION	LIST	DL
W2	Standard Parallel	2.65	1.
W3	Standard Series	2.90	1.
W4	Standard Isolation	3.70	2.
W5	110° Button Parallel	3.90	2.
W6	110° Button Series	3.90	2.
W7	110° Shell Parallel	3.90	2.
W8	110° Shell Series	3.90	2.
W9	Universal Standard	4.15	2.
W10	110° Button Series 3-1/2v	3.50	2.
W11	110° Shell Series	3.50	2.
W12	110° Button Universal	4.50	2.
P3	Series-Standard Base	1.75	1.
P5	Standard Parallel	1.50	.
P7	Standard Universal	2.50	1.

POWER TRANSISTORS



MODEL	DESCRIPTION	LIST	I
99 Power	PNP Output	1.65	
99 Power-5	PNP Output	—	4
199 Power	PNP Output	3.32	1
299 Power	PNP output	4.70	2
Power 12	PNP output	3.60	2
Power 25	PNP output	4.20	2
Power 40	PNP output	4.75	2
Power 60	PNP output	6.00	3
Power 80	PNP output	7.25	4
2N278	PNP output	8.20	4

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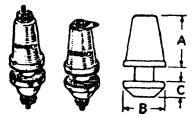
Birnbach

FEEDTHRU • STEATITE PILLARS • CORRUGATED CERAMIC • STANDOFF INSULATORS

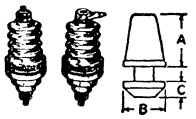
BIRNBACH FEEDTHRU INSULATORS



Made of highly vitrified, low absorption porcelain smoothly glazed to prevent accumulation of dust or dirt. Maximum strength is achieved by the proper proportions and flat mounting surfaces. Long insulating sleeves on the lower part of the insulator contribute much to their performance on high voltages. Brass nickel plated hardware.

Cat. No.	Height A	Std. Pkg.	Dimensions B	C	Mounting Hole	Hardware
458	5/8"	50	11/16"	1/4"	5/16"	6-32
478	1"	25	13/16"	5/16"	7/16"	10-32
478J	1"	25	13/16"	5/16"	7/16"	No. 403 Jack
4125	1 1/4"	25	7/8"	3/8"	7/16"	10-32
4125J	1 1/4"	25	7/8"	3/8"	7/16"	No. 403 Jack
4234	2 3/4"	10	2"	1"	1 1/4"	1/4-20
4175	2 3/4"	10	1 1/4"	3/4"	5/8"	1/4-20
4175J	2 3/4"	10	1 1/4"	3/4"	5/8"	No. 394 Jack

CORRUGATED FEEDTHRU INSULATORS



The six new corrugated type feedthru insulators have more than twice the leakage path of the straight type because of increased surface of the corrugations and recommends itself where a straight side insulator of equal height is not satisfactory because of its shorter leakage path. Brass nickel plated hardware and cork mounting washers supplied.

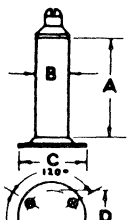
Cat. No	Height A	Std. Pkg.	Dimensions B	C	Mounting Hole	Hardware
479	1 3/8"	25	1 1/4"	11/16"	9/16"	10-32
479J	1 3/8"	25	1 1/4"	11/16"	9/16"	No. 403 Jack
4276	2 3/4"	10	1 5/8"	1"	3/4"	1/4-20
4276J	2 3/4"	10	1 5/8"	1"	3/4"	No. 394 Jack
4452	4 1/2"	5	2 1/8"	1 1/2"	1"	1/4-20
4452J	4 1/2"	5	2 1/8"	1 1/2"	1"	No. 394 Jack

HIGH VOLTAGE FEEDTHRU INSULATOR

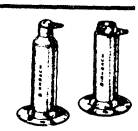
This insulator has been designed to meet the demand for an insulator having high dielectric and mechanical strength. The extra long leakage path is made possible by the corrugations on the top insulator. The bottom sleeve taper from a base dia. of 1-3/16" where the electric stress is greatest.

Cat. No.	Height	Std. Pkg.	Base Dia.	Mounting Hole	Hardware
4233	1 5/8"	10	2"	1 1/4"	1/4-20

STEATITE PILLARS

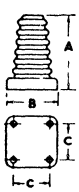


Have great tensile strength with extremely low losses at very high frequencies. Tapped on both ends; supplied with nickel plated mounting base and top hardware.

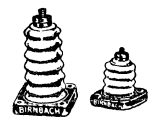


Cat. No.	Height A	Std. Pkg.	Dimen. B	Base Dia. C	D	Hardware
450	1"	10	1/2"	1 1/8"	7/8"	6-32
450J	1"	10	1/2"	1 1/8"	7/8"	No. 403 Jack
451	1 1/2"	10	1/2"	1 1/8"	7/8"	6-32
451J	1 1/2"	10	1/2"	1 1/8"	7/8"	No. 403 Jack
452	2 1/2"	10	1/2"	1 1/8"	7/8"	6-32
452J	2 1/2"	10	1/2"	1 1/8"	7/8"	No. 403 Jack
453	2 1/2"	5	3/4"	1-9/16"	1-3/16"	1/4-20
453J	2 1/2"	5	3/4"	1-9/16"	1-3/16"	No. 395 Jack
454	4"	5	3/4"	1-9/16"	1-3/16"	1/4-20
454J	4"	5	3/4"	1-9/16"	1-3/16"	No. 395 Jack

BIRNBACH METAL BASE INSULATORS



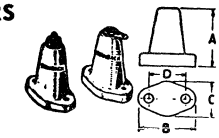
Corrugated surface provides long leakage path. Made of high tensile strength low absorption porcelain fully glazed. Supplied with nickel plated brass screws and nuts, cadmium plated drawn steel bases.



Cat. No.	Height A	Std. Pkg.	Base Dimension B	C	Mtg. Screw D	Hardware
867	1 3/8"	25	1 7/8" x 1 5/8"	1 1/2"	2 No. 8	10-32
867J	1 3/8"	25	1 7/8" x 1 5/8"	1 1/2"	2 No. 8	403 Jack
4176	2 3/4"	10	1 3/4" x 1 3/4"	1 3/8"	4 No. 10	1/4-20
4176J	2 3/4"	10	1 3/4" x 1 3/4"	1 3/8"	4 No. 10	395 Jack
4451	4 1/2"	5	2 1/4" x 2 1/4"	1 3/4"	4 No. 10	1/4-20
4451J	4 1/2"	5	2 1/4" x 2 1/4"	1 3/4"	4 No. 10	395 Jack

BIRNBACH STANDOFF INSULATORS

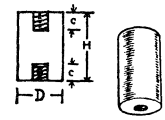
Made of highly vitrified low absorption glazed porcelain. No washers necessary — mounting surface is ground flat for No. 404. No. 966 it is advisable to use cork washers which are available. All brass nickel plated hardware supplied.



Cat. No.	Height A	Std. Pkg.	Base Dimension B	C	D	Mounting Holes	Hardware
405	5/8"	100	1"	11/16"	5/16"		6-32
965	1"	50	1 1/4"	3/4"	13/16"	5/16"	8-32
966	1"	50	1 3/8"	7/8"	1"	5/16"	8-32
966J	1"	50	1 3/8"	7/8"	1"	5/16"	No. 403 Jack
866	1 1/2"	25	1 3/4"	1 1/8"	1 1/4"	5/16"	10-32
866J	1 1/2"	25	1 3/4"	1 1/8"	1 1/4"	5/16"	No. 403 Jack
866SJ	1 1/2"	10	1 3/4"	1 1/8"	1 1/4"	5/16"	No. 395 Jack
4275	2 3/4"	10	2 3/4"	2"	2 1/8"	1/4"	1/4-20
4275J	2 3/4"	10	2 3/4"	2"	2 1/8"	1/4"	No. 399 Jack
4450	4 1/2"	5	3 5/8"	2 1/2"	2 5/8"	9/32"	1/4-20
4456J	4 1/2"	5	3 5/8"	2 1/2"	2 5/8"	9/32"	No. 399 Jack

BIRNBACH STEATITE PILLARS JAN-I-8 and JAN-I-10 SPECS.

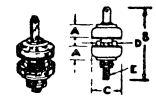
(Less Hardware)



In many constructions, these unmounted threaded Steatite pillars will facilitate assembly because of the one hole mounting and parallel mounting surfaces. They are made of L5 glazed Steatite with threaded holes on both sides.

Cat. No.	Conforms to Type	Height H	Diam. D	Threaded Hole Length of Thread	Thread	Std. Pkg.
441		1/4"	1/4"	All	6-32	100
441B		3/8"	1/4"	5/32"	6-32	100
441A		1/2"	1/4"	5/32"	6-32	100
444A		3/4"	1/4"	1/4"	6-32	100
445A		1"	1/4"	1/4"	6-32	100
442		3/8"	3/8"	3/32"	6-32	100
442A	NS5W0104	1/2"	3/8"	5/32"	6-32	100
443A	NS5W0105	5/8"	3/8"	1/4"	6-32	100
444B	NS5W0106	3/4"	3/8"	1/4"	6-32	100
445B	NS5W0108	1"	3/8"	3/8"	6-32	100
446B	NS5W0110	1 1/4"	3/8"	3/8"	6-32	100
446A	NS5W0112	1 1/2"	3/8"	3/8"	6-32	100
446C	NS5W0116	2"	3/8"	3/8"	6-32	100
443		1/2"	1/2"	3/64"	6-32	100
444		3/4"	1/2"	1/4"	6-32	100
445		1"	1/2"	3/16"	6-32	100
446		1 1/2"	1/2"	3/16"	6-32	100
447		2 1/2"	1/2"	3/8"	6-32	100
440	NS5W0205	5/8"	1/2"	3/16"	8-32	100
440A	NS5W0206	3/4"	1/2"	1/4"	8-32	100
440B	NS5W0208	1"	1/2"	3/8"	8-32	100
440C	NS5W0210	1 1/4"	1/2"	3/8"	8-32	100
440D	NS5W0212	1 1/2"	1/2"	3/8"	8-32	100
440E	NS5W0216	2"	1/2"	3/8"	8-32	100
440F	NS5W0220	2 1/2"	1/2"	3/8"	8-32	100
444C		3/4"	3/4"	1/4"	10-32	100
445C	NS5W0308	1"	3/4"	3/8"	10-32	100
445D	NS5W0310	1 1/4"	3/4"	3/8"	10-32	100
445E	NS5W0312	1 1/2"	3/4"	3/8"	10-32	100
445F	NS5W0316	2"	3/4"	3/8"	10-32	100
445G	NS5W0320	2 1/2"	3/4"	3/8"	10-32	100
448		2 1/2"	3/4"	3/4"	1/4-20	50
449		4"	3/4"	3/4"	1/4-20	50
447B	NS5W0412	1 1/2"	1"	1/2"	1/4-20	50
447D	NS5W0420	2 1/2"	1"	5/8"	1/4-20	50
447E	NS5W0424	3"	1"	5/8"	1/4-20	50

STEATITE BUTTONS



This specially designed Steatite button is intended for use to simplify wiring and to be used as a binding post or a binding post insulator. Attention is called to the uniqueness of the design which prevents either section of the insulator from turning in respect to the special screw. The specially designed screw locks both sections.

Cat No.	Std. Pkg.
457—Button	25

Dimensions A	B	C	D	E
5/16"	1 3/8"	3/4"	1/2"	6-32

"LUCITE" FEEDTHRU INSULATORS

These feedthru insulators are ideal for bringing high frequency leads thru a panel. They are made of genuine Dupont Lucite. Because of its low loss at high frequency, it is well adapted to insulated elements of high frequency circuits. The 1/2" dia. insulators have brass nickel plated 6-32 hardware and the 3/4" dia. insulators, 10-32 hardware.

Cat. No	Height Above Panel	Insulator Dia.	Mounting Hole	Bottom Height	Std. Pkg.
377	1/4"	1/2"	5/16"	1/4"	25
378	1/2"	1/2"	5/16"	1/4"	25
379	1"	1/2"	5/16"	1/4"	25
475	1 1/2"	3/4"	7/16"	1/2"	25
476	2"	3/4"	7/16"	1/2"	25

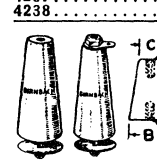
BIRNBACH LEADIN INSULATORS

Each cone is 2 3/4" high and made of low absorption, highly vitrified glazed porcelain. The Nos. 4237 and 4238 Leadin Insulators have sufficient insulating bushings to insulate the rod that goes through the wall. In addition, 2 bushings are included, 1/4" and 1/2" long, allowing complete insulation of the threaded rod of any length in multiples of 1/4". They come complete with brass nickel plated hardware and lead and cork washers to permit a water-tight seal.

Cat. No.	Description	Std. Pkg
4235	10" Rod	10
4236	15" Rod	10
4237	10" Rod with bushings	10
4238	15" Rod with bushings	10

BIRNBACH CONE STANDOFF INSULATORS

(Steatite)



Made of low absorption high tensile strength Steatite with a smooth glaze. All heights except the No. 430 are available with a Jack or a threaded hole top. Available in a white glaze and are complete with screws, metal and cork washers.

Cat. No	Height A	Std. Pkg.	Base Dimensions B	C	Threaded Holes D	E	Mtg. Hole
430	5/8"	100	5/8"	7/16"	6-32	6-32	5/16"
431	1"	50	13/16"	1/2"	8-32	8-32	13/32"
431J	1"	50	13/16"	1/2"	8-32	No. 403 Jack	13/32"
432	1 1/2"	50	7/8"	5/8"	10-32	10-32	7/32"
432J	1 1/2"	50	7/8"	5/8"	10-32	No. 403 Jack	7/32"
433	2 3/4"	25	1 1/4"	3/4"	1/4-20	1/4-20	9/32"
433J	2 3/4"	25	1 1/4"	3/4"	1/4-20	No. 395 Jack	9/32"

See Pages 1660-1665 for Birnbach Prices for Above Items

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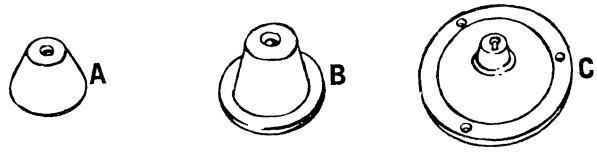
Birnbach GLAS-LINE CABLE | INSULATORS ANTENNA • FEED-THRU STAND-OFF

STEATITE FEEDTHRU INSULATOR

Useful in many constructions. Has high dielectric and mechanical strength. They are made of L-5 Glazed Steatite. No hardware is included.



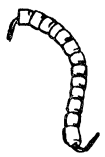
Cat. No.	Figure	Height	Base Diam.	Max. Screw Size	Std. Pkg.
4200	A	7/8"	1 1/4"	10-32	25
4201	A	1 1/8"	1 3/4"	1/4-20	25
4202	B	1 5/8"	2 1/2"	3/8-16	25
4203	C	1"	3 1/8"	8-32	12

STEATITE FEEDTHRU PANEL BUSHING INSULATORS

Made of L-5 Glazed Steatite. These Feedthrus have male and female (tops and bottoms) for feeding thru chassis, panels, shields, racks or panels. No hardware included. (100 to Std. Package)

Cat. No.	Top Height	Max. Dia.	Panel Hole	Panel Thickness	Max. Screw Sz.
4204	1/8"	1/2"	5/16"	To 1/8"	6-32
4205	7/32"	5/8"	7/16"	To 1/8"	8-32
4206	3/8"	1/2"	1/4"	To 3/16"	6-32
4207	3/8"	5/8"	3/8"	To 3/8"	8-32
4208	3/4"	1 1/8"	3/4"	To 3/8"	10-32
4209	1 5/8"	1 1/4"	1/2"	To 2"	10-32

FISH SPINE BEADS



Made of L-5 Glazed Steatite. Useful for insulating Buss or Heavy Lines. Ball and Socket style interlocks permitting beads to follow bends and curves. Four Beads cover approx. 1"-Package of 100 covers 25" of wire. Dimensions: 5/16" O.D. 1/8" I.D. Beads are treated with special Dow Corning treatment to prevent accumulation of surface moisture.

Cat. No.		Std. Pkg.
4215	FISH SPINE BEADS	100

BIRNBACH FEEDER SPREADERS

They have a cross section of 3/8" x 1/2". Made of highly vitrified, low absorption, high tensile strength porcelain with a smooth white glaze overall.

Cat. No.	Std. Pkg.
462—Spreader, 2" long	25
464—Spreader, 4" long	25
469—Spreader, 6" long	25

BIRNBACH STEATITE AIRPLANE INSULATORS

A very small compression type Steatite insulator with small wind resistance; Fully glazed. It is 1 1/2" in length; 17/32" in diameter; 3/4" line spacing.

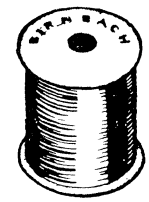
Cat. No.	Std. Pkg.
463—Steatite Airplane Insulators	25

BIRNBACH AIRPLANE INSULATORS

They are used on mobile and aircraft and also with guy wire on TV installations. They are shaped for the least air resistance and have very high tensile strength, and low loss. Nos. 473 and 474 are made of white glazed low absorption porcelain. No. 472 is made of wet process glazed brown.

Cat. No.	Std. Pkg.
472—2 1/4" (brown)	25
473—2" (white)	100
474—1 1/2" (white)	100

NEW FROM BIRNBACH INSULATED *GLAS-LINE* CABLE



Provides complete isolation of any antenna system where support must be obtained from metallic objects such as towers, windmills, etc.

NON-INDUCTIVE • NON-CONDUCTING • NON-ABSORBING • NO SAG • NO ROT • NO SHRINK • FLEXIBLE • USE FOR DIRECTIONAL ARRAYS, BEAMS, RHOMBIC SYSTEMS, ETC.

This Birnbach non-metallic guy wire is not to be handled as regular wire. Do not twist around itself for solid joint; it must be knotted firmly in place (use bow line knot) — use coupling devices such as our Nos. 472, 473 or 474 insulators. Must not be abraided by constant friction — will wear and break line; avoid tight turns. An open thimble should be used to couple the Birnbach "Glas-Line" cable to an eye-bolt at mast or tree. Glass fibers conform to Mil 1140 Spec. and plastic jacket conforms to Mil-I-631C Spec.

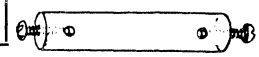
*The breaking strength indicated is applicable when "Glas-Line" cable is properly used.

DESCRIPTION: Fiberglass insulation with PVC insulation overall. Color coded per indicated tensile strength.

Cat. No.	Put-Up	*Tensile Strength	Color	Nom. O.D.
GL 1	100', 500', 1000' 2500'	500 lbs.	Green	.125"
GL 2	100', 500', 1000' 2500'	1000 lbs.	Gray	.2187"
GL 3	100', 500', 1000' 2500'	2500 lbs.	White	.3125"

For greater strength — doubling or tripling the cable will double or triple the tensile strength.

LUCITE SPREADERS



They are made of Dupont Lucite rod which has a very low loss at radio frequencies. It is water clear and has very low water absorption. The holes are drilled to take a No. 12 wire. A screw at the end of the spreader locks the wire in position.

Cat. No.	Wire-Spacing	Std. Pkg.
436	2"	25
437	4"	25
438	6"	25

BIRNBACH ANTENNA INSULATORS

These antenna insulators have exceptionally low moisture absorption. The leakage path is long and the cross section is small and is consistent with the strength required. Smooth white glaze overall prevents the accumulation of dirt or ice.

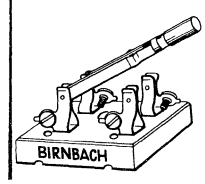
Cat. No.	Std. Pkg.
468—4 1/2" long Center Insulator	10
668—4 1/4" long	25
470—7" long	10
471—12" long	5

BEEHIVE STANDOFF

Base measures 2-3/16" diam. with 3 holes on 1-15/16" circle for No. 6 screws. Height of base 1 1/2". Complete with 10-32 brass screw and nuts. No. 766J has a No. 403 Jack. Available in white glaze.

Cat. No.	Std. Pkg.
766 —Standoff Insulator, 10-32 Screws	10
766J—Jack Type with No. 403 Jack	10

BIRNBACH KNIFE SWITCHES



Made of special nickel plated spring brass on a rugged base. Screw terminals located conveniently for easy connections in circuit. Two mounting holes.

Cat. No.	Descrip.	Base	Std. Pkg.
6100	SPST	Por.	25
6101	SPDT	Bake.	20
6103	DPST	Por.	10
6104	DPDT	Bake.	10
6105	TPDT	Por.	10

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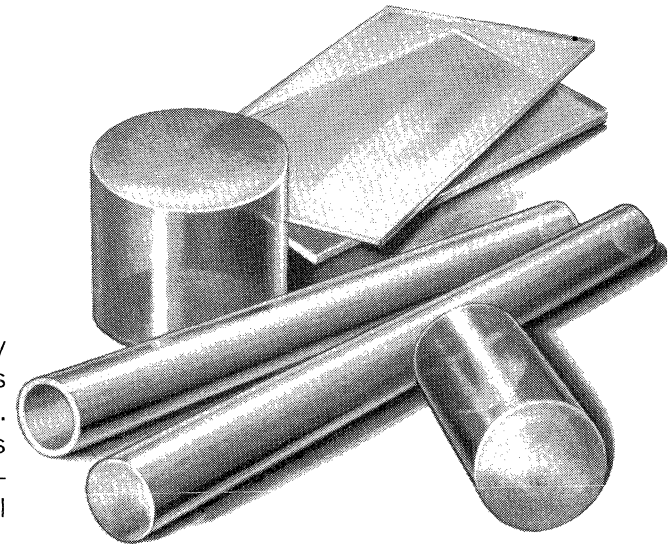
See Pages 1660-1665 for Birnbach Prices for Above Items

JB® Polystyrene

ROD TUBING SHEET



For radio and electronic applications, because of its very low loss factor at ultra high frequencies, Polystyrene is the ideal material for insulators, coil forms, shields, etc. It has excellent arc resistance, is non-tracking and has splendid insulating properties. Because its water absorption is practically zero it has excellent dimensional stability.

POLYSTYRENE ROD – Transparent
AVAILABLE IN 12" OR 48" LENGTHS

Catalog Number	Diameter	Net Price 12" lgth.	48" lgth.
JB-100	1/8"	$ .03	$ .12
JB-101	3/16"	.07	.28
JB-102	1/4"	.12	.48
JB-103	5/16"	.18	.72
JB-104	3/8"	.26	1.04
JB-106	1/2"	.48	1.92
JB-107	5/8"	.72	2.88
JB-108	3/4"	1.00	4.00
JB-109	7/8"	1.42	5.68
JB-110	1"	1.90	7.60
JB-111	1 1/8"	2.50	10.00
JB-112	1 1/4"	3.00	12.00
JB-113	1 3/8"	3.60	14.40
JB-114	1 1/2"	4.30	17.20
JB-116	1 3/4"	6.00	24.00
JB-118	2"	7.50	30.00

POLYSTYRENE TUBING – Satin Finish
AVAILABLE IN 12" OR 48" LENGTHS

Catalog Number	O.D.	I.D.	Net Price 12" lgth.	48" lgth.
JB-201	1/4"	1/8"	$ .10	$ .40
JB-202	5/16"	3/16"	.14	.56
JB-203	3/8"	1/4"	.18	.72
JB-205	1/2"	3/8"	.26	1.04
JB-206	5/8"	1/2"	.32	1.28
JB-207	3/4"	5/8"	.40	1.60
JB-208	1"	7/8"	.56	2.24
JB-220	1 1/2"	1 1/4"	1.50	6.00
JB-222	2"	1 3/4"	2.20	8.80

POLYSTYRENE SHEET*

Catalog Number	Thickness	Sheet Size	Net Price
JB-125	1/16"	12" x 12"	$ 4.15
JB-126	3/32"	12" x 12"	4.80
JB-127	1/8"	12" x 12"	5.50
JB-128	3/16"	12" x 12"	7.15
JB-129	1/4"	12" x 12"	8.15
JB-245	1/16"	12" x 24"	7.80
JB-246	3/32"	12" x 24"	9.15
JB-247	1/8"	12" x 24"	10.50
JB-248	3/16"	12" x 24"	13.15
JB-249	1/4"	12" x 24"	15.65
JB-315	1/32"	24" x 24"	9.65
JB-301	1/16"	24" x 24"	11.15
JB-302	3/32"	24" x 24"	13.00
JB-303	1/8"	24" x 24"	14.80
JB-304	3/16"	24" x 24"	18.75
JB-305	1/4"	24" x 24"	23.00
JB-316	5/16"	24" x 24"	27.65
JB-309	3/8"	24" x 24"	31.25
JB-311	1/2"	24" x 24"	38.65
JB-317	5/8"	24" x 24"	50.00
JB-318	3/4"	24" x 24"	69.25
JB-319	1"	24" x 24"	94.15

*Sheets are all crystal clear with smooth surfaces fully protected against abrasion by masking paper on both sides.

JULIUS BLUM & CO., INC., CARLSTADT, NEW JERSEY JB®

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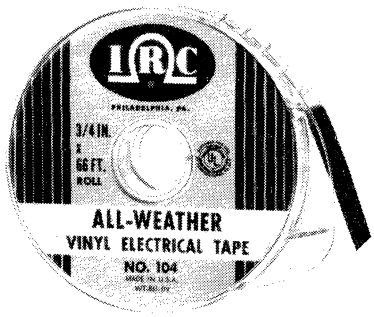
Service Accessories

INTERNATIONAL RESISTANCE COMPANY



VINYL ELECTRICAL TAPES for fast, safe, one-hand insulating. Has everything technicians, servicemen and hobbyists want.

- Meets MIL-I-7789A
- 2 to 18 times stronger than any other tapes
- UL approved for a single wrap
- Provides a tight insulated plastic seal that resists abrasion, water, acids and alkalies
- Adheres readily to all shapes
- Excellent for insulating tools

NEW ALL-WEATHER TAPE — TYPE 104 for heavy duty outside or inside service when applying at temperatures below 40°F. Ideal for telephone and electric utilities, TV antenna installation and other applications requiring dependable service at extreme temperatures.

GENERAL PURPOSE TAPE — TYPE 103 for use under less adverse conditions for TV servicing, routine maintenance, insulation and wire splicing, and industrial plant maintenance of electrical equipment.

SIZES — TYPE 104 and TYPE 103

3/8" wide by 20 feet long*	3/4" wide by 20 feet long*
3/8" wide by 36 yards long*	3/4" wide by 66 feet long**

TAPE-AND-TEAR DISPENSER. Seal and insulate in one fast movement. Save tape and time. Sturdy dispenser keeps tape clean and prevents stretch. Cutting blade is shielded. Holds 66 feet of 3/4" tape.

* Type 103 only.
** Types 103 and 104

ELECTRONIC CONTROL CLEANER. IRC's Electronic Control Cleaner provides positive, long-lasting protection against damaging corrosion and oxidation. Sprayed on volume controls, tuners, switches and other sensitive components, it quickly removes dirt and clogging gum . . . deposits a non-drying film that lubricates contact surfaces.

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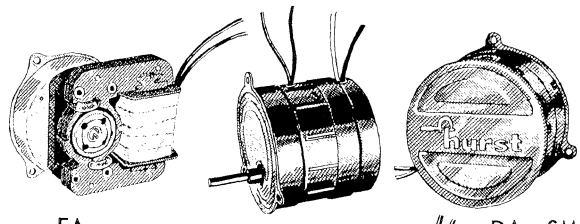
HEAVY DUTY SYNCHRONOUS MOTORS

Small Size, Low Cost Motors for Continuous Timing Applications Beyond the Capacity of Standard Clock Motors

Hurst Synchronous Motors were developed to fill the repeatedly expressed need for a timing unit of larger capacity than clock motors, at a practical low cost, light in weight and compact in size. In this middle area of size and price, Hurst motors provide outstanding quality and performance.

Hurst HEAVY DUTY Synchronous Motors



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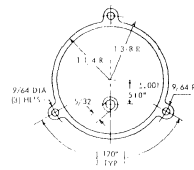
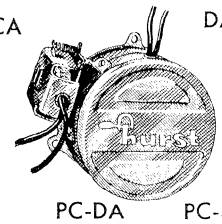


Mounting Dimensions, all motors except PC Series



PC-DA PC-SM
AR-DA AR-SM

Rugged synchronous motors for continuous duty applications. In a wide choice of output speeds for alarm systems, extra-large clocks, displays, railroad signaling equipment, process controls, code signal devices, time switches, program instruments, aircraft training devices, etc. Engineered for tough jobs requiring accurate timing. Will not overheat during continuous duty or in a stalled position. Gear trains are constructed to withstand considerably more than the motor's rated capacity. Mounting can be made in any plane with assurance of trouble-free service. Specifications common to all Hurst motors: Operating temperature, 40° to 105° C. Power required, 5 watts, (E series 10 watts) 95-130 volts AC, 60 cycles. Shaft, stainless steel 3/16" dia. x 1" long flattened. Finest quality bronze bearings. Hardened steel pinions and wheel shafts. Brass gears lubricated for lifetime service. Completely enclosed cases, nickel plated. Mounting, three 9/64" dia. holes spaced 120°. Torque equals 1 RPM rating divided by speed.

150 INCH-OUNCE (EA Series — open frame) shaded pole. Completely accurate clockwise rotation. An extremely cool running timing motor with same gear units specified above. Torque, 150 inch-ounce at 1 RPM. Dimensions, 3 1/4" long x 2 5/8" wide x 1 5/8" high. Output shaft 3/16" dia. x 1" long flattened. (Exception: 3600 RPM speed has 3/32" output shaft x 1" long flattened. Shipping Wt. 1 lb. 3 oz.

OUTPUT SPEEDS: 1, 2, 4, 6, 8, 10, 12, 20, 30, 60 and 120 RPM. 3600 RPM.

EA	Net Each, Lots of				
	1-24	25-49	50-74	75-99	100-249
PRICE	$ 7.75	7.36	6.98	6.20	5.43
3600 RPM Only	$ 5.20	4.94	4.68	4.16	3.64

120 INCH-OUNCE REVERSIBLE. (DA Series) instantly reversible (with SPDT switching). Completely accurate both clockwise and counter-clockwise. 100g shock resistance. Vibration resistant, accurate synchronization of 10-55 cps at .065" excursion. Good magnetic shielding. Torque, 120 inch-ounce at 1 rpm. Case dimensions, 2 1/2" dia. x 1 3/4". Output shaft 3/16" dia. x 1" long flattened. Shipping Wt., 1 lb. 1 oz.

OUTPUT SPEEDS: 1, 2, 4, 6, 8, 10, 12, 20, 30, 60 and 120 RPM.

DA	Net Each, Lots of				
	1-24	25-49	50-74	75-99	100-249
PRICE	$12.70	12.07	11.43	10.16	8.89

(Price includes capacitor)

POSITIVE CLUTCH DA SERIES. Basic DA motor with Positive Clutch and Instantaneous Brake. Starts in 10 milliseconds — stops 60 rpm shaft in 6°; 1 rpm, 1/10°. Shipping Wt. 1 lb. 5 oz.

OUTPUT SPEEDS: 1, 2, 4, 6, 8, 10, 12, 20, 30, 60 and 120 RPM.

PC-DA	Net Each, Lots of				
	1-24	25-49	50-74	75-99	100-249
PRICE	$ 17.55	16.67	15.80	14.04	12.29

(Price includes capacitor)

POSITIVE CLUTCH SM SERIES. Basic SM motor with Positive Clutch and Instantaneous Brake. Starts in 10 milliseconds — stops 60 rpm shaft in 6°; 1 rpm, 1/10°. Shipping Wt., 1 lb. 4 oz.

OUTPUT SPEEDS: 1/2, 1, 2, 3, 4, 5, 6, 10, 15, 30 and 60 RPM.

PC-SM	Net Each, Lots of				
	1-24	25-49	50-74	75-99	100-249
PRICE	$ 15.53	14.75	13.98	12.42	10.87

100 INCH-OUNCE REVERSIBLE. (CA Series) Instantly reversible (with SPDT switching). Completely accurate both clockwise and counter-clockwise. 1200 rpm rotor speed for quiet performance. Torque, 100 inch-ounce at 1 rpm. Case dimensions, 2 1/2" dia. x 2 1/8". Output shaft 3/16" dia. x 1" long flattened. Shipping Wt., 1 lb. 2 oz. Most versatile and economical motor in its field!

OUTPUT SPEEDS: 1/3, 1/2, 1, 1 1/2, 2, 2 1/2, 3, 4, 5, 6, 8, 10, 12, 15, 16, 20, 24, 25, 30, 32, 33 1/3, 40, 48, 50, 60, 64, 80, 100, 120, 150, 160, 200, 240, 400, 600, 800 and 1000 RPM.

CA	Net Each, Lots of				
	1-24	25-49	50-74	75-99	100-249
PRICE	$ 10.88	10.34	9.79	8.70	7.62

(Price includes capacitor)

40 INCH-OUNCE UNIDIRECTIONAL. (SM Series) Shaded pole. Clockwise rotation. Instant start at full torque at 40 inch-ounce at 1 rpm. 100g shock resistance. Vibration resistant, accurate synchronization at 10-55 cps at .065" excursion. Case dimensions, 2 1/2" dia. x 1 3/4". Output shaft 3/16" dia. x 1" long flattened. Shipping Wt., 1 lb.

OUTPUT SPEEDS: 1/2, 1, 2, 3, 4, 5, 6, 10, 15, 30 and 60 RPM.

SM	Net Each, Lots of				
	1-24	25-49	50-74	75-99	100-249
PRICE	$ 10.68	10.15	9.61	8.54	7.48

100 INCH-OUNCE REVERSIBLE (AR-DA Series) or 40 INCH-OUNCE UNIDIRECTIONAL (AR-SM Series) Each is an Automatic Reset motor when a return spring is attached to the output shaft. When clutch is de-energized the shaft is free for manual or automatic reset. Note: The clutch mechanism is lubricated and completely enclosed. AR Series is designed for heavy applications and will easily handle full torque on model SM or DA (either directional rotation). Physical size and appearance same as PC Series. Accurate within 1/5 second at 1 RPM and more accurate at higher speeds. Max. error in seconds $\frac{.5625}{RPM}$. Case dimensions, 2 1/2" dia. x 2 1/16". Clutch actuator 7/8" height x 1 3/16" width. Output shaft 3/16" dia. x 1" long flattened. Mounting same as standard motor shown in sketch. Shipping Wt., 1 lb. 6 oz.

OUTPUT SPEEDS: 1, 4, 6, 10, 30 and 60 RPM.

AR-DA	Net Each, Lots of				
	1-24	25-49	50-74	75-99	100-249
PRICE	$ 20.70	19.67	18.63	16.56	14.49

AR-SM	Net Each, Lots of				
	1-24	25-49	50-74	75-99	100-249
PRICE	$ 18.70	17.77	16.83	14.96	13.09

hurst MANUFACTURING CORP. — PRINCETON, INDIANA

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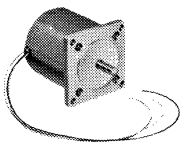
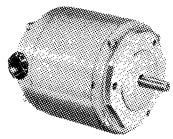
SLO-SYN® *Synchronous Motors*

- **INSTANT STARTING, STOPPING, REVERSING**
- **72 RPM SHAFT SPEED WITHOUT GEARS**
- **CAN BE USED AS D-C STEPPING MOTORS**

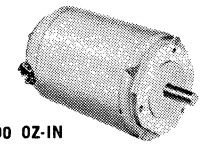
A SLO-SYN Synchronous Motor is a permanent magnet type a-c motor having instant start, stop and reverse characteristics and a basic shaft speed of 72 RPM with 60 cycles applied. Adaptable for use as a d-c stepping motor or incremental positioning device that can be stepped 200 times per revolution of the motor shaft. Compact and economical, has almost negligible overshoot, no ratchets or detents. A single-pole, three-position switch can give complete forward, reverse and "off" control because the motor has three leads only. Starts or stops in less than 0.025 second or approximately 1.5 cycles. No need for mechanical or electrical braking; stops in less than 5° of motor shaft rotation. Starting and operating currents are nearly identical; no excessive inrush current when motor is turned on. All types have lubricated-for-life bearings.



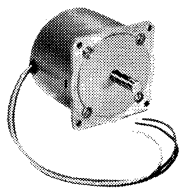
25 OZ-IN



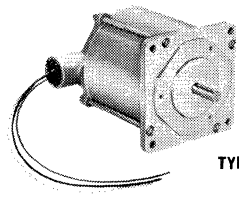
150 AND 250 OZ-IN



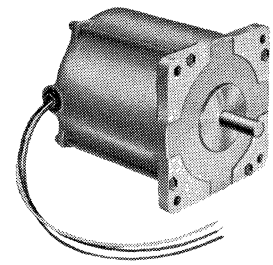
400 OZ-IN



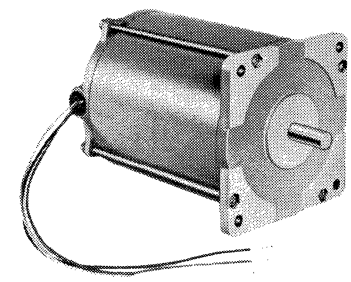
50 OZ-IN



TYPE X250



1000 OZ-IN

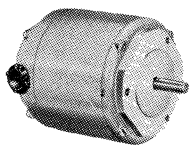


1800 OZ-IN

RATINGS AND SPECIFICATIONS FOR A-C APPLICATIONS

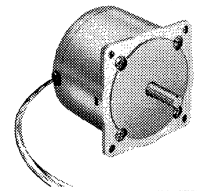
TYPE	MAXIMUM AMPERES	TORQUE (Oz-In)	MAXIMUM MOMENT OF INERTIA OF A RIGIDLY ATTACHED LOAD (Lb-In²)	PHASE-SHIFTING COMPONENTS*				APPROXIMATE MOTOR WEIGHT (POUNDS)	
				RESISTOR	RESISTOR PART NUMBER	CAPACITOR	CAPACITOR PART NUMBER	NET	SHIPPING
120 Volts, 50/60 Cycles, 1 Phase, 72 RPM at 60 Cycles									
SS25	0.1	25	0.25	500 ohm ±5%, 5 watt	R-SS25	0.75 mfd ±6%, 330 VAC	C-SS25	1¼	1½
SS50	0.3	50	0.5	250 ohm ±5%, 25 watt	R-SS50/150	2.6 mfd ±6%, 330 VAC	C-SS50	3	3½
SS50M†	0.3	50	0.5	250 ohm ±5%, 25 watt	R-SS50M/150M	2.6 mfd ±6%, 330 VAC	C-SS50M	3	3½
SS150	0.4	150	1.5	250 ohm ±5%, 25 watt	R-SS50/150	3.75 mfd ±6%, 330 VAC	C-SS150	6½	8
SS150M	0.4	150	1.5	250 ohm ±5%, 25 watt	R-SS50M/150M	3.75 mfd ±6%, 330 VAC	C-SS150M	6½	8
SS250	0.6	250	3	150 ohm ±5%, 50 watt	R-SS250/400	6.5 mfd ±6%, 330 VAC	C-SS250/400	6½	8
SS250M†	0.6	250	3	150 ohm ±5%, 50 watt	R-SS250M	6.5 mfd ±6%, 330 VAC	C-SS250M	6½	8
X250‡	0.6	250	3	150 ohm ±5%, 50 watt	R-SS250/400	6.5 mfd ±6%, 330 VAC	C-SS250/400	7¾	9
SS400	0.6	400	4.5	150 ohm ±5%, 50 watt	R-SS250/400	6.5 mfd ±6%, 330 VAC	C-SS250/400	12¼	13¾
X1000‡§	3.0	1000	9	65 ohm ±5%, 160 watt	R-X1000	30 mfd ±5%, 330 VAC	C-X1000	31	33
SS1800§	4.0	1800	16	40 ohm ±5%, 300 watt	R-SS1800	60 mfd ±6%, 330 VAC	C-SS1800	45	50
240 Volts, 50/60 Cycles, 1 Phase, 72 RPM at 60 Cycles									
SS52§	0.2	50	0.5	1000 ohm ±5%, 10 watt	R-SS52	0.67 mfd ±6%, 660 VAC	C-SS52	3	3½
SS152	0.2	150	1.5	1000 ohm ±5%, 25 watt	R-SS152	1.0 mfd ±6%, 660 VAC	C-SS152	6½	8
SS252	0.3	250	3	750 ohm ±5%, 50 watt	R-SS252/402	1.75 mfd ±6%, 660 VAC	C-SS252/402	6½	8
X252‡	0.3	250	3	750 ohm ±5%, 50 watt	R-SS252/402	1.75 mfd ±6%, 660 VAC	C-SS252/402	7¾	9
SS402	0.3	400	4.5	750 ohm ±5%, 50 watt	R-SS252/402	1.75 mfd ±6%, 660 VAC	C-SS252/402	12¼	13¾
X1002‡§	1.5	1000	9	250 ohm ±5%, 200 watt	R-X1002	8 mfd ±6%, 660 VAC	C-X1002	31	33
SS1802	2.0	1800	16	130 ohm ±5%, 320 watt	R-SS1802	15 mfd ±6%, 660 VAC	C-SS1802	45	50

*External resistor and capacitor must be ordered separately. †Militarized. ‡Explosion-proof. §For 60 cycle operation only.



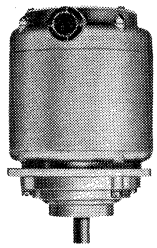
BIFILAR TYPES

Used for d-c stepping where use of push-pull circuitry and center-tapped power supply is not possible or where increased torque at high stepping speeds is required.



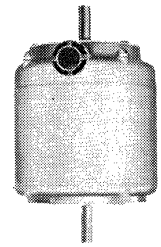
FOUR-LEAD TYPES

Designed to provide flexibility needed for use with equipment requiring isolated windings with no common connection.



PLANETARY GEAR TYPES

Basic 50 and 150 oz-in types and type X250 available with planetary gear assemblies in speeds of 16.6, 3.32, 0.665, 0.133 or 0.027 rpm; 16.6 rpm available in other 250 and on 400 oz-in types.



DOUBLE END TYPES

Three-lead, bifilar and four-lead types with output shaft at each end of motor available in all listed torque ratings. 50, 150 and 250 oz-in types available also with planetary gear assemblies in 16.6, 3.32, 0.665, 0.133 or 0.027 rpm speeds.

THE SUPERIOR ELECTRIC COMPANY

Bristol, Connecticut, U.S.A.

SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES IN SECTIONS 2100, 4000 AND 5600

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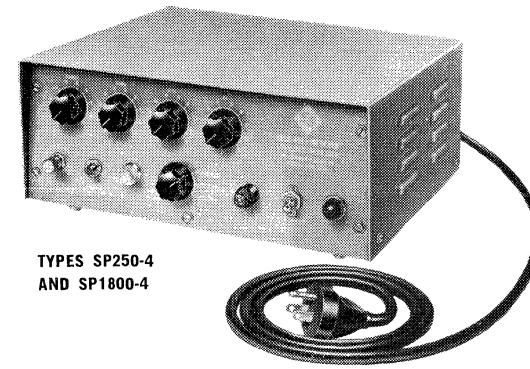
SLO-SYN® PRESET INDEXERS

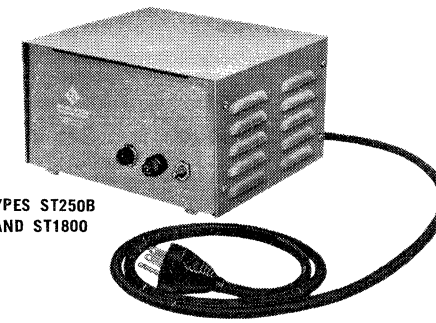
SLO-SYN Preset Indexers of the SP250 and SP1800 Series are used for control of indexing operations in applications using appropriate bifilar SLO-SYN Synchronous Motors for positioning. Automatically provide the correct switching sequence needed to drive a SLO-SYN motor the required number of 1.8° steps. Have provisions for actuating external equipment needed to perform related operations. Models available to control indexing movements up to 99,999 steps with SLO-SYN Motors in torque ratings from 25 to 1800 ounce-inches. Speed adjustable from 4 steps per second up to maximum possible with motor used. Either manual or automatic cycling possible.



TYPES SP250-4
AND SP1800-4

SLO-SYN® TRANSLATORS

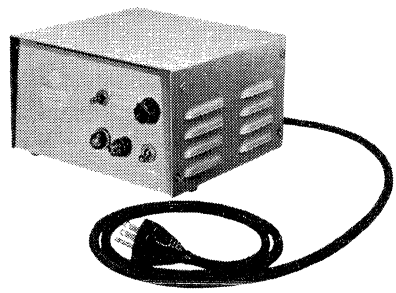
SLO-SYN Translator types ST250B and ST1800 are pulse-to-step converters designed for use with appropriate bifilar SLO-SYN Synchronous Motors connected for incremental stepping. Convert low level signal pulses or square waves from an external source into the correct four-step switching sequence needed to drive a SLO-SYN Motor at 200 steps per revolution (1.8° per step). Used in programmed positioning, indexing and indicating operations.



TYPES ST250B
AND ST1800

SLO-SYN®
ADJUSTABLE SPEED DRIVES

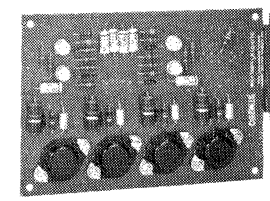
SLO-SYN Adjustable Speed Drive types ST250B-1015 and ST1800-1004 are essentially SLO-SYN Translators which include a built-in oscillator to supply triggering signals. Oscillator frequency adjustable to vary speed from 4 steps per second to maximum permissible with motor used.



TYPES ST250B-1015 AND ST1800-1004

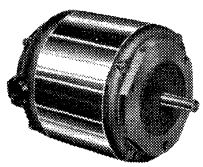
SLO-SYN® TRANSLATOR MODULES

SLO-SYN Translator Module types STM250 and STM250V are plug-in printed circuit boards with logic capabilities for stepping a SLO-SYN Motor in one direction. Suitable power supply required to operate. Type STM250V incorporates a built-in oscillator.

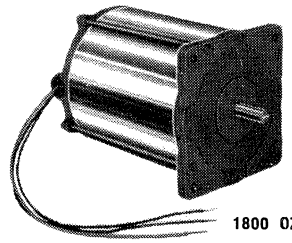


TYPES STM250 AND STM250V

SLO-SYN® SYNCHRONOUS MOTORS FOR SPECIAL APPLICATIONS



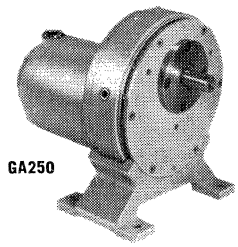
150 AND 250 OZ-IN



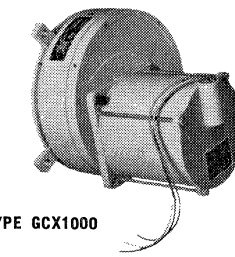
1800 OZ-IN

Basic SLO-SYN Synchronous Motors designed for special environments. Have same external construction, dimensions and electrical ratings as standard motors except that the steel parts are nickel-plated and the aluminum parts are anodized. High Vacuum types operate in vacuums to 10^{-6} Torr.; High Temperature types rated for temperatures to 130°C; High Radiation types withstand radiation dosage of 3,000 megarads. All three types available in 50, 150, 250, 400, 1000 and 1800 oz-in torque ratings; High Vacuum types in 25 oz-in also.

SLO-SYN® HIGH TORQUE GEARMOTORS



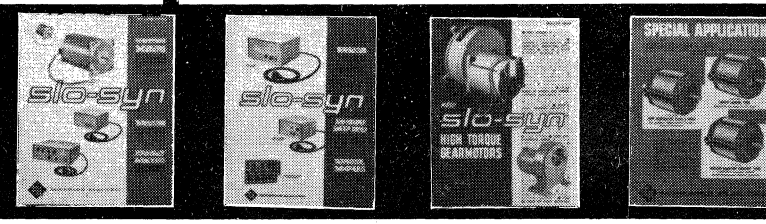
TYPE GA250



TYPE GCX1000

Consist of a single- or double-reduction, parallel-shaft gearbox driven by a SLO-SYN Synchronous Motor. Available in speeds from 0.5 to 36 rpm, in torque ratings from 25 to 1600 lb.-in. Start, stop and reverse instantly and need only a single-pole, three-position switch for complete forward, reverse and "off" control. Speed reduction accomplished through a spur gear train completely enclosed in an aluminum housing. Can be stalled without overheating or damage to motors or gear trains. Face or foot mounting possible.

FOR MORE DETAILED INFORMATION about ratings, specifications and technical data on **SLO-SYN** motors and control equipment, request the complete **SLO-SYN** literature file including d-c stepping information.



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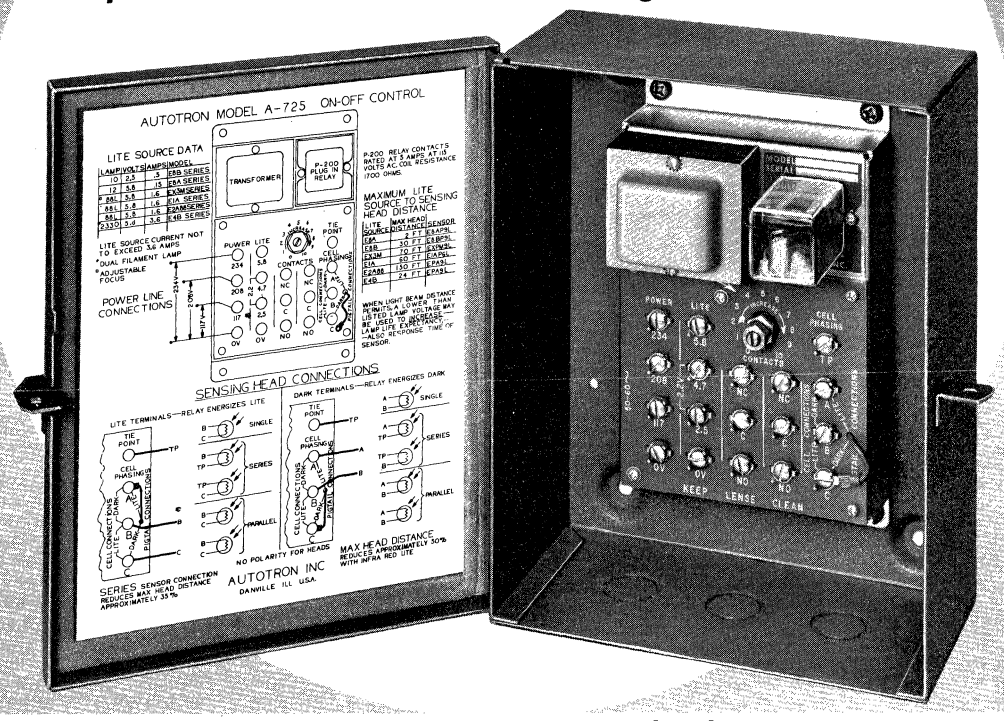
AUTOTRON Photoelectric Controls

AUTOTRON, INC Danville, Illinois

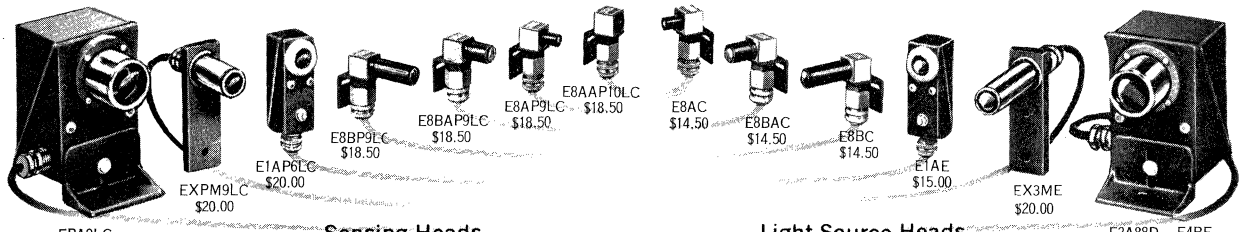
A725 ON/OFF Control and A750 Timing Control

Thousands of Control Uses

- Tension
- Registration
- Inspection
- Weighing
- Sorting
- Measuring
- Counting
- Die Protection
- Smoke Detection
- Jam-up
- Packaging
- Processing
- Spraying
- Traffic
- Conveyor
- Cut-off
- Limit
- Timing



Choice of 7 standard sensing heads and 7 standard light source heads in any combination



Sensing Heads — Light Source Heads

Features of A725 and A750

One connection changes from LIGHT- to DARK-energized operation (or vice versa).

5.8, 4.7, 3.3, 2.5, 2.2 and 1.1 Light Source Voltages makes available minimum suitable voltage for maximum lamp life and maximum speed of sensing cell response.

Rugged, 5-amp DPDT Plug-in Relay.

a. **Plug-in mounting** permits replacement in seconds without special skill or tools

b. **Transparent enclosure** protects against dust, physical injury and tampering.

Rectified output current for positive and QUIET operation of control relay.

Cad cells and transistors replace tubes.

Transistors protected from transient voltages.

Cad Cells are exceptionally well shielded from extraneous light.

All circuit components are securely mounted on modern circuit board.

All contacts of the DPDT Relay wired to large, screw type terminals.

Operate at ambient temperatures to 115°F.

In JIC enclosures at $12.50 extra.

Operate from 234, 208 and 117 V, 50-60 c.

‡Mounting bracket and cord grip are standard. Furnished with cord assembly potted inside housing, without mounting bracket at no extra charge when specified.

A725 ON/OFF Control

FAST ACTING – .025 sec. light time and .025 sec. dark time minimum.

SENSITIVE – Adjustment has shaft lock.

Power Consumption, 15 watts.

Energizes LIGHT connected to LIGHT terminals.

Energized DARK connected to DARK terminal.

A725 ON/OFF Control less heads.....$69.50

A750 Timing Control

1 to 12 seconds adjustable time delay with 1% repeat accuracy. Time delay adjustment has shaft lock.

Energizes LIGHT and times out DARK connected to LIGHT terminal. Recycle time is almost instant (.015 sec. max.) and is independent of light level on the sensing cell. Timing control is voltage regulated and variation in timing between 100 and 130 volts is negligible.

Energizes DARK and times out LIGHT connected to DARK terminal. Recycle time is 50 milliseconds min. depending on light intensity on the sensing cell. For minimum recycle time reduce light intensity to minimum operating value.

A750 Timing Control less heads.....Net $88.00

† Use of infrared filters reduces maximum distance between heads approximately 50% (see page 3).

Model Numbers			max. ft. between heads†	NET per set
Control	Sensing Head	Light Source		
A725	E8AAP10LC	E8AC	2	$102.50‡
A725	E8AP9LC	E8AC	2	$102.50‡
A725	E8BAP9LC	E8BAC	15	$102.50‡
A725	E8BP9LC	E8BC	30	$102.50‡
A725	EXPM9LC	EX3ME	70	$109.50
A725	E1AP6LC	E1AE	60	$104.50
A725	EPA9LC	E2A88E	150	$109.50
A725	EPA9LC	E4BE	24	$127.50
A750	E8AAP10LC	E8AC	1	$121.00‡
A750	E8AP9LC	E8AC	1	$121.00‡
A750	E8BAP9LC	E8BAC	7.5	$121.00‡
A750	E8BP9LC	E8BC	15	$121.00‡
A750	EXPM9LC	EX3ME	35	$128.00
A750	E1AP6LC	E1AE	30	$123.00
A750	EPA9LC	E2A88E	75	$128.00
A750	EPA9LC	E4BE	12	$146.00

DIMENSIONS

A725, A750—8-3/8 x 4-1/4 x 10-3/8
E8BA9LC, E8BAC—15/16 x 1-7/8 x 1-3/8
E8BP9LC, E8BC—15/16 x 2-21/32 x 1-3/8
E8AAP10LC, 15/16 x 1 x 1-3/8
E8AP9LC, E8AC—15/16 x 1-9/16 x 1-3/8
E1AP6LC, E1AE—1-7/16 x 1-3/8 x 3-5/8
EXPM9LC—1-1/2 x 3-3/4 x 4-3/4
EX3ME- 1-1/2 x 5-1/4 x 4-3/4
EPA9LC, E2A88D, E4BE—3-15/16 x 5-5/16 x 5-1/4

Net

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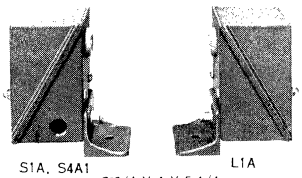
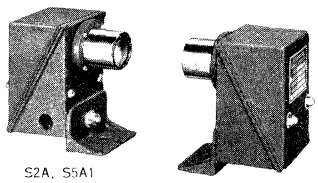
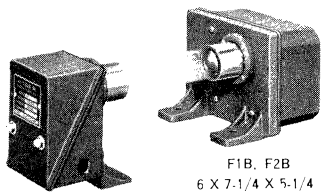
AUTOTRON Self-Contained Photoelectric ON/OFF Controls and Light Sources



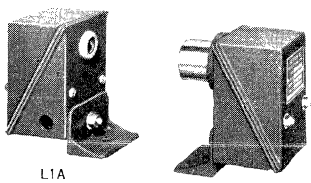
S1A, S4A1 — 3-3/4 X 4 X 5-1/4 — L1A



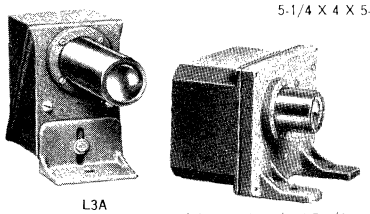
S2A, S5A1 — 5-1/4 X 4 X 5-1/4 — L2A



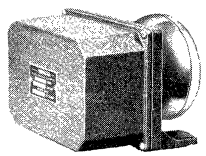
L2A — F1B, F2B 6 X 7-1/4 X 5-1/4



L1A — A579 5-1/4 X 4 X 5-1/4



L3A 8 X 4 X 5-1/4 — L4 6 X 7-1/4 X 5-1/4



L6 6 X 7-1/4 X 5-1/4

FEATURES and NOTES

R—Built-in SAFETY Relay (contacts SPDT rated 5 amps. at 115 VAC)

In Control: Energizes when power comes on; de-energizes when tube filament burns out or power goes off.

In Light Source: Energizes when light comes on; de-energizes when lamp fails or power goes off.

Y—Built-in Light Beam Intensity Adjustment.

*Available with built-in heating element at $7.50 extra.

DARK Energized—Plate relay energizes when light beam is interrupted; de-energizes when the light beam is restored, when a tube filament fails or any tube loses emission.

LIGHT Energized—Plate relay energizes when light beam is restored; de-energizes when light beam is interrupted, when tube filament fails or any tube loses emission.

Specified minimum dark and light time are based on the specified minimum foot-candles.

Each self-contained unit is complete for operation direct from electric service. The illustrations show controls and light sources in matched pairs but any combination can be used if the light source provides enough light to operate the control at the installed distance.

S Series ON-OFF Controls

Rugged, industrial Photoelectric Controls, moderately sensitive, factory adjusted for use where object interrupts light beam 100% Minimum dark time, .06 second; minimum light time, .06 seconds.
Plate Relay Contacts, SPDT, rated 8 amperes at 115 VAC non-inductive load.
Splashproof cast aluminum case with adjustable bracket; tapped for ½" conduit.
Power consumption 10 watts.
S1A and S4A1 have ¾" lens mounted in flexible neoprene—require 20 foot-candles minimum light.
S2A and S5A1 have 1½" lens—require 10 foot-candles minimum light.

Energized		50-60 cycles	Net
Dark	Light	volts	Each
S1A	S4A1	115/230	$38.75
S1AR	S4A1R	115 or 230 (specify)	50.75
S2A	S5A1	115/230	45.00
S2AR	S5A1R	115 or 230 (specify)	57.00

F Series ON/OFF Controls

"Fail Safe", sensitive, high speed. Widely used where "safe" relay action is required in case of tube failure, where light change is limited, and where photo-tube dark time or light time is short. Special, quick response DC circuit permits speeds to 1200 operations (cycles) per minute. Sensitivity adjustment inside case inhibits tampering. Shaftlock secures setting.
Minimum light, 5 foot-candles. Minimum phototube dark time, .025 second; minimum phototube light time, .025 second.
Plate Relay: Contacts DPDT, rated 8 amps at 115 VAC, non-inductive load. Splashproof cast aluminum case tapped for ½" conduit. Rigid mounting feet. Lens dia. 1½". 115/230 v., 50-60 cycles. Power 20 watts.

Energized		For 115/230 v., 50-60 Cycles	Net
†Dark	†Light	Description	Each
*F2B	*F1B	Photoelectric Control	$67.50
*F2BR	*F1BR	Above with R feature	79.50

A579 Transistor ON-OFF Control

Fast Acting, rugged industrial construction. Photoelectric Control.
.025 second light time; .025 second dark time (minimums).
Rugged, 8-ampere DPDT plug-in relay with transparent plastic enclosure.
No tubes. Cad Cell and Transistors replace tubes. Transistors protected from transient voltage. Cad Cell exceptionally well shielded from extraneous light by long lens tube and carefully designed mounting arrangement.
All components are securely mounted on modern printed circuit board.
All contacts of the 8-ampere DPDT Relay are wired to large, easily accessible screw type terminals, separated by high barriers.
Splashproof cast aluminum case with adjustable mounting bracket; tapped for ¾" conduit. Power consumption; 5 watts. Maximum ambient operating temperature 115°F.
Relay de-energizing time delay easily added by user; instructions included with control.
Requires 5 foot-candles minimum light. Operates from 115 or 230 v (specify) 50-60 cycles. Power consumption, 5 watts.

A579 LIGHT-ENERGIZED Transistor ON/OFF Photoelectric Control.....NET each $58.00

L1A Light Source

Has ¾" lens mounted in flexible Noeprene. Splashproof cast aluminum case tapped for ½" conduit. Adjustable mounting bracket.

Model	L1A	L1AY	L1AR	L1ARY
Net each	$18.50	$23.50	$30.50	$35.50

L2A Light Source

Has 1½" lens mounted in a brass lens tube. Splashproof cast aluminum case tapped for ½" conduit. Adjustable mounting bracket.

Model No.	L2A	L2AY	L2AR	L2ARY
Net each	$21.80	$26.80	$33.80	$38.80

L4 Light Source

Has prefocused, two-filament lamp, extra low voltage connection and 1½" OD straight fixed beam. The prefocused lamps permit replacement with minimum change in the light beam. The dual filaments provide protection against shutdowns—when one filament fails the other lights up and a signal light in the housing comes on indicating that the lamp should be replaced as soon as convenient. Splashproof cast aluminum case with rigid mounting feet, taped for ½" conduit.

L4 Light Source — Net each $49.50

L6 Hi Intensity Light Source

Has high intensity spot beam for extremely adverse conditions such as steam, vapor, fog, heavy rainfall, etc. The #4515 sealed-beam spot lamp is swivel-mounted for directional adjustment of the beam. Lamp life expectancy; 3000 hours at normal voltage, 10000 hours at low voltage. See footcandle rating in table below. Gasket sealed cast aluminum case tapped for ½" conduit. 115/230 V, 50-60 C.

L6 Light Source.....Net each $36.00

Model No.	FOOT CANDLES 20	10	5	2	Lens Diameter	NET each	Ship wt lbs.
	DISTANCE IN FEET						
L1A	8	12	15	18	¾	$18.50	2.5
L2A	13	20	30	45	1½	21.80	2.5
L4	N7	12	—	—	1½	49.50	8
	L2	4	6	12			
L6	N30	42	57	85		36.00	7
	L18	25	31	40			

L3A Light Source

Has 1½" lens with light beam adjustment from a minimum focal length of 4¾" and corresponding focal size of 5/16 x ¼" to a straight light beam of 1½" O.D. Light output at twice the focal distance exceeds 30 foot-candles.
Increasing the focal length increases the focal size. For example at 6" focal length the focal size is ½ x ⅜" and at 12" focal length the focal size is 1½" (straight light beam).

Model No.	L3A	L3AY	L3AR	L3ARY
Net each	$29.30	$34.30	$41.30	$46.30

Control and Light Source Sets

(practically any light source can be used with any contro

MODEL NUMBERS energized DARK	LIGHT	max. ft. between lenses	Min. Dark Time	Min. Light Time	Net per Set
S1A-L1A	S4A1-L1A	8	.06	.06	$57.25
S2A-L1A	S5A1-L1A	12	.06	.06	63.50
S2A-L2A	S5A1-L2A	20	.06	.06	66.80
S2A-L4	S5A1-L4	N 12 / L 4	.06	.06	94.50
F2B-L1A	F1B-L1A	15	.025	025	86 00
F2B-L2A	F1B-L2A	30	.025	.025	89.30
F2B-L4	F1B-L4	N — / L 6	.025	.025	117.00
—	A579-L1A	15	.025	.025	76.50
—	A579-L2A	30	.025	.025	79.80
	A579-L4	N — / L 6	.025	.025	107.50

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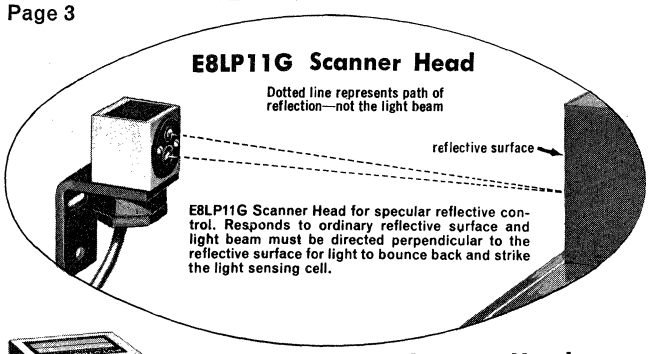
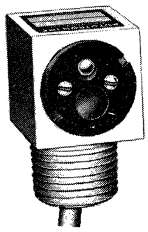
AUTOTRON Miniature Photoelectric Scanner Heads and Controls

E8LP11G Scanner Head

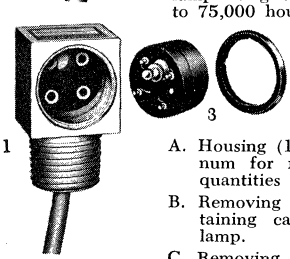




E8LP11G Miniature Scanner Head

For high speed scanning service in minimum space. E8LP11G Scanner Head combines the fast acting cadmium selenide cell and the light source lamp in a single miniature housing (approximately ⅞ inch in all three dimensions plus ⅜" male pipe thread connection. See dimensional diagram below.)

The light sensing element is a fast response, cadmium selenide cell. The lamp has a built-in lens. An infrared filter helps protect against ambient light. The lamp rating is 2.5 volts at .5 amperes-life expectancy up to 75,000 hours depending on operating voltage.



Unique Design— Rugged Construction

A. Housing (1) is precision machined from bar aluminum for ruggedness and stability. In production quantities can be furnished in specified colors.

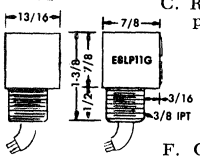
B. Removing a ring nut (2) releases capsule (3) containing cadmium selenide cell and light source lamp.

C. Removing two screws from capsule (not visible in photo) permits replacement of cell and lamp.

D. Polarized design assures correct position on four spring loaded contacts (4) when capsule is inserted in the head.

E. 6-foot cable is factory-connected to terminals in housing.

F. Cable, terminal connections and contact base are encapsulated in the housing with epoxy resin.



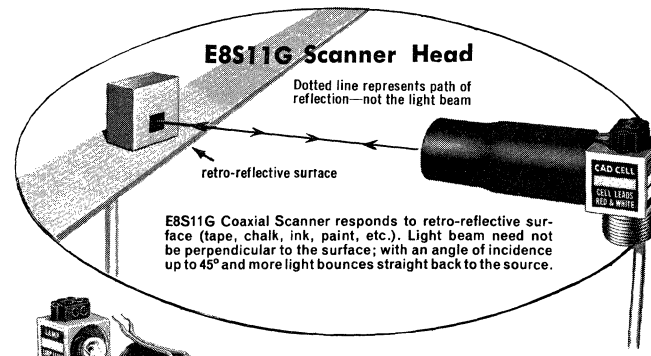
E8LP11G Scanner Head including mounting bracket, also 6-foot factory-connected cable with cable grip and seal for connecting to 800 control. **$28.75**

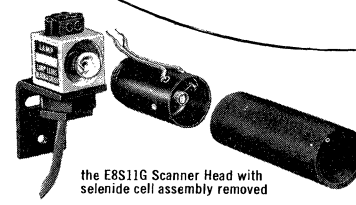
Standard Control/Scanner Head Combinations

†Control	†Scanner	Distance	Price
800	E8LP11G	17 in.	96.25
800	E8S11G	60 in.	106.25
800	E8S11G-6A	*3¼ in.	109.75
800	E8S11G-4A	*⅞ in.	109.75

†For 115 or 230 volts (specify) 50-60 Cycles AC. *focal length

E8S11G Scanner Head





the E8S11G Scanner Head with selenide cell assembly removed

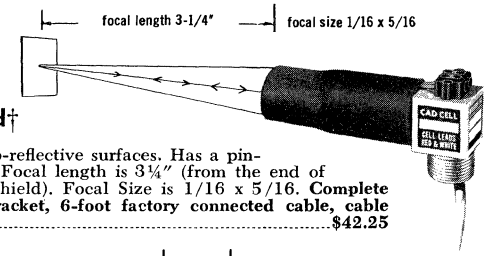
E8S11G Coaxial Scanner Head

For use with retro-reflective tape or other retro-reflective material. May be used with a retro-reflective mirror when it acts as a sort of limit switch or for detecting or identifying objects with retro-reflective markings, code marks, labels, etc.

The light beam does not need to be perpendicular to the retro-reflective surface; beams at angles of 45 and more bounce straight back to the source.

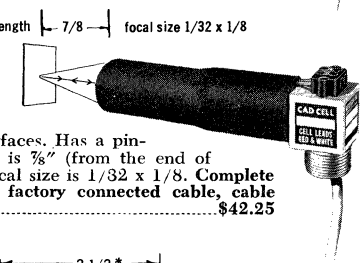
E8S11G Scanner Head† with mounting bracket, 6-foot factory connected cable, cable grip and seal for connection to the control.....**$38.75**

E8S11G-6A Coaxial Scanner Head†

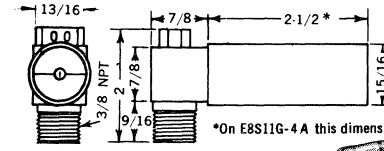


For use with retro-reflective surfaces. Has a pin-point type beam. Focal length is 3¼" (from the end of Neoprene Light Shield). Focal Size is 1/16 x 5/16. **Complete with mounting bracket, 6-foot factory connected cable, cable grip and seal.** **$42.25**

E8S11G-4A Coaxial Scanner Head†



For use with retro-reflective surfaces. Has a pin-**point light beam.** Focal length is ⅞" (from the end of the Neoprene Light Shield). Focal size is 1/32 x 1/8. **Complete with mounting bracket, 6-foot factory connected cable, cable seal and grip.** **$42.25**



*On E8S11G-4A this dimension is 3-9/32"

AUTOTRON 800 Sensitive Transistor Photoelectric Control†

for use with E8LP11G and E8S11G Scanner Heads and other remote cad cell heads where extra sensitivity is needed.

FEATURES

Chatter free relay operation—due to square wave signal sent to relay coil.

The latest silicon transistors assure extreme temperature stability not obtainable with ordinary transistors.

FAST ACTING—.025 second light time; .025 second dark time, minimum.

EXTREMELY SENSITIVE—Sensitivity adjustment has shaft lock.

Rugged 5-ampere DPDT Relay, plug-in mounted with "see thru" plastic cover.

A. Cover protects against foreign matter, physical injury and tampering.

B. Plug-in mounting permits replacement in seconds without tools or special skill.

Transistors are protected from transient voltage.

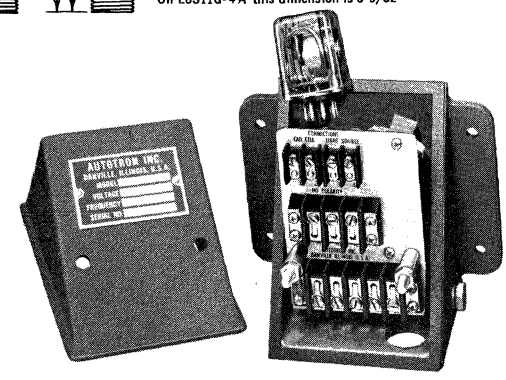
All Circuit components are securely mounted on a modern circuit board.

All contacts of the DPDT relay wired to large, easily accessible, screw type terminals.

Splashproof cast aluminum case tapped for ¾" conduit.

Power consumption, 5 watts. Shipping weight 2½ pounds.

Model 800 ON/OFF Control†.....**$67.50**



Model 800 Control

Net

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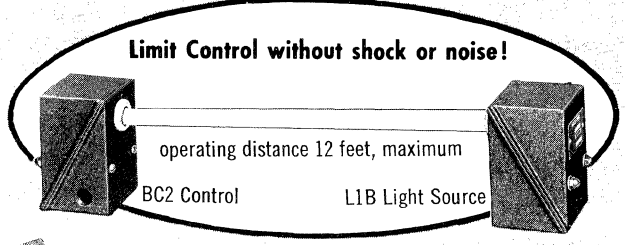
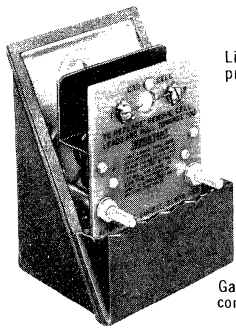
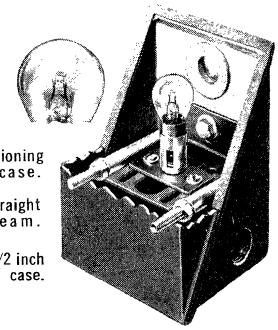
AUTOTRON Photoelectric Controls

BC2/L1B LIGHT-energized Limit Switch





Light shield provides unusual protection against ambient light



3-way adjustment for positioning lamp without moving case.

Lamp easily focused for a straight beam or a pinpoint beam.

Gasket sealed cast aluminum case tapped for 1/2 inch conduit. Three mounting holes in bottom of case.

BC2 Light-energized Limit Switch

The photosensing element is a cad cell.

Relay energizes when light is on cell.

¾" lens mounted in flexible Neoprene.

Minimum dark time .06 second; minimum light time .06 second.

Contacts SPDT, 2-amps at 115 VAC, non-inductive.

Relay is protected by plastic enclosure.

Power consumption, 0.5 watts.

For 115 v. 50-60 cycle operation only.

BC2 Photoelectric Limit Switch.....$24.75

L1B Light Source

¾" lens mounted in flexible silicone rubber.

Low operating voltage extends lamp life to 5000 hours, approx.

High voltage tap for extremely dirty applications.

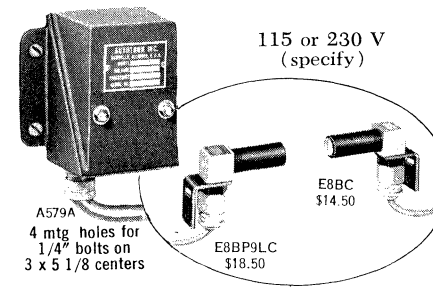
Mounting adjustment permits focusing lamp for a straight beam or a pinpoint beam.

Mounting adjustment permits alignment of lamp without moving case.

For 115/230 v, 50-60 cycle operation.

L1B Light Source.....Net $18.50

A650 Control Pak
(Transistor ON/OFF Control)



A579A Control, E8BP9C Photo Cell Sensing Head and E8BC Light Source Head, with 6-foot cable to each head. Max. distance between heads, 12 feet. Minimum light time, .025 second; Minimum dark time, .025 second. LIGHT-energized. Rugged, 5-ampere plug-in DPDT Relay with transparent cover.

Cad Cell and transistors instead of tubes.

Transistors protected from transient voltage.

Cad Cell exceptionally well shielded from extraneous light.

All circuit components securely mounted on a modern printed circuit board.

All contacts of the DPDT Relay wired to large easily accessible screw type terminals with high barriers.

Splash-proof, cast aluminum case, tapped for ¾" conduit.

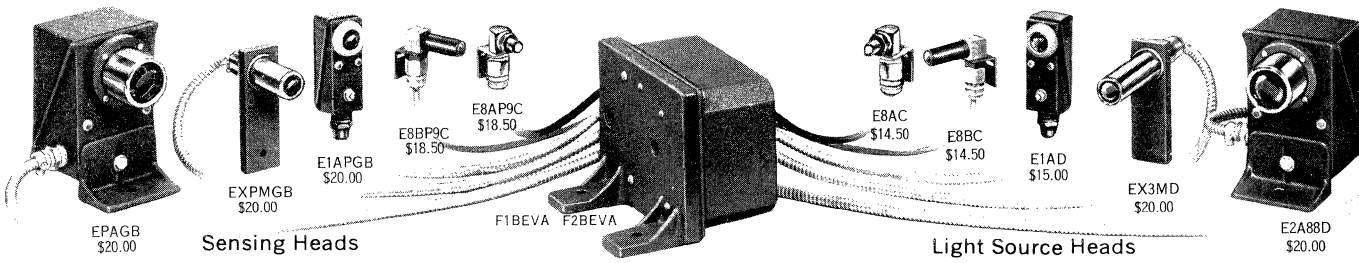
Power consumption—5 watts.

Time delay easily added by user.

AUTOTRON A650 Control Pak Net each $87.80
(includes A579A ON-OFF Control with E8BP9LC and E8BC Remote Heads and connecting cables.

P-204 Infrared Filter Assembly ...Net 3.45

F Series Photoelectric ON/OFF Controls with Remote Sensing and Light Source Heads



F Series ON/OFF Controls have a special quick response DC circuit which permits speeds to 1200 operations per minute. Sensitivity adjustment inside case inhibits tampering. Shaft lock secures setting.

Plate Relay: Contacts DPDT, rated 8 amps at 115 VAC, non-inductive load. Splashproof cast aluminum case, tapped for ½" conduit. Power consumption, 20 watts.

DIMENSIONS
F1BEVA, F2BEVA 6 x 7-1/4 x 5-1/4
EPAGA, E2A88D 5-1/4 x 4 x 5-1/4
EXPMGA, EX3MD 3-3/4 x 1-1/2 x 4-3/4
E8BP9C, E8BC 2-3/4 x 7/8 x 1-1/8
E8AP9C E8AC 2 x 7/8 x 1-1/8

Model Number Control	Sensing Head	Light Source	Max. ft. between heads	Min. dark time	Min. light time	Price	With R Feature Model Number	With R Feature Price	Ship. Wt. lbs.
LIGHT ENERGIZED F Series Controls with Sensing and Light Source Heads (115/230 V, 50-60 C)									
F1BEVA	EPAGA	E2A88D	30	.025	.025	$117.50	F1BEVAR	EPAGA-E2A88D $129.50	12
F1BEVA	E1APGA	E1AD	5	.025	.025	112.50	F1BEVAR	E1APGA-E1AD 124.50	9
F1BEVA	EXPMGA	EX3MD	focused	.025	.025	117.50	F1BEVAR	EXPMGA-EX3MD 129.50	9
F1B4EVE	E8AP9C	E8AC	1⅛	.05	.025	110.50	F1B4EVER	E8AP9C-E8AC 122.50	9
F1B4EVF	E8BP9C	E8BC	12	.025	.025	110.50	F1B4EVFR	E8BP9C-E8BC 122.50	9
DARK ENERGIZED F Series Controls with Sensing and Light Source Heads (115/230 V, 50-60 C)									
F2BEVA	EPAGA	E2A88D	30	.025	.025	117.50	F2BEVAR	EPAGA-E2A88D 129.50	12
F2BEVA	E1APGA	E1AD	5	.025	.025	112.50	F2BEVAR	E1APGA-E1AD 124.50	9
F2BEVA	EXPMGA	EX3MD	focused	.025	.025	117.50	F2BEVAR	EXPMGA-EX3MD 129.50	9
F2B4EVE	E8AP9C	E8AC	1⅛	.05	.025	110.50	F2B4EVER	E8AP9C-E8AC 122.50	9
F2B4EVF	E8BP9C	E8BC	12	.025	.025	110.50	F2B4EVFR	E8BP9C-E8BC 122.50	9

Models F1BEVA and F2BEVA have connections for operating remote sensing and remote light source heads.

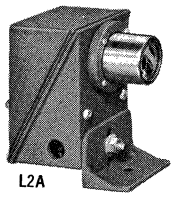
The Sensing and Light Source Heads are listed in "matched" pairs. However, either light source may be used with either sensing head provided the light source has sufficient foot candle output at the installed distance.

Each AUTOTRON Remote Sensing Head and Light Source Head is equipped with 6-foot connecting cable.

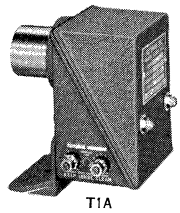
AUTOTRON Photoelectric Controls

Self-Contained Photoelectric Timing Controls *(for Light Sources see preceding page)*

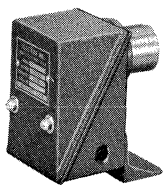
For applications requiring delayed plate relay response to light change, such as conveyor jam-up, spraying, processing, etc.



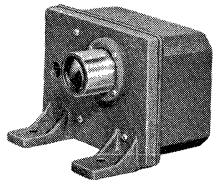
L2A
5-1/4 x 4 x 5-1/4



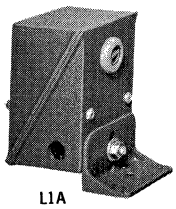
T1A
5-1/4 x 4 x 5-1/4



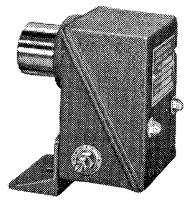
L2A



T2B, T3A, T5A
6 x 7-1/4 x 5-1/4



L1A
3-3/4 X 4 X 5-1/4



A579P
5-1/4 x 4 x 5-1/4

T1A Photoelectric Timing Control

Relay energizes DARK—unit times out DARK. Time delay with shaft lock adjustment from 1 to 10 seconds. Repeat accuracy 4%. Minimum light, 40 foot-candles. Plate relay: Contacts SPDT, rated 8 amps at 115 v. AC, non-inductive load. Splashproof aluminum case, tapped for ½" conduit. Adjustable mounting bracket. Lens dia. 1½". Power consumption, 10 watts. 115/230 v., 50-60 cycles.

T1A Photoelectric Timing Control. Net each $57.50

T2B, T3A and T5A Timing Controls

Plate Relay: Contacts DPDT, rated 8 amps at 115 v. AC, non-inductive load. Time delay adjustment has shaft lock. Splashproof cast aluminum case tapped for ½" conduit. Lens diameter 1½". 115/230 v., 50-60 cycles. Power consumption 20 watts.

T2B Photoelectric Timing Control

Relay energizes LIGHT—unit times out with DARK. Repeat accuracy 3%. Minimum light 20 foot-candles.

Timing Ranges (specify)	Min. Light Time
No. 1 1. to 3. sec.	.2 sec.
No. 2 2.5 to 8. sec.	.4 sec.
No. 3 4. to 15. sec.	.8 sec.

T2B Photoelectric Timing Control. Net each $72.50
T2BR—Above with Safety Relay. . Net each 84.50

T3A Photoelectric Timing Control

Relay energizes LIGHT—unit times out with LIGHT. Timing accuracy, 2%. . Minimum light 10 foot candles.

T3A and T5A Timing Ranges (specify)

No. 0.1 .03 to .3 sec.	No. 1. .6 to 15 sec.
No. 0.2 .06 to 3. sec.	No. 2. 1. to 25 sec.
No. 0.5 .1 to 6. sec.	No. 2.5 1.5 to 50
	No. 3. 30. to 300.

T3A Photoelectric Timing Control. Net each $72.50
T3AR—Above with Safety Relay. . Net each $84.50

T5A Photoelectric Timing Control

Relay energizes DARK—unit times out with DARK. Timing accuracy 2%. Minimum light, 10 foot candles. Timing ranges—same as T3A (specify).

T5A Photoelectric Timing Control. Net each $82.50
T5AR—Above with Safety Relay. . Net each $94.50

A579P Transistor Timing Control.

Photoelectric—Relay energizes LIGHT—unit times out with DARK. Cad Cell and Transistors replace tubes. Plug-in plate relay, with plastic dust cover; Contacts DPDT, rated 8 amps at 115 VAC, non-inductive load. Time delay adjustment has shaft lock. Splashproof cast aluminum case with adjustable mounting bracket, tapped for ¾" conduit. Repeat accuracy 4%. Power consumption, 5 watts. 115 or 230 v (specify) 50-60 cycles.

Adjustable timing ranges (specify) { No. .4: .1 to 5 sec. / No. 2. : 1. to 20 sec.

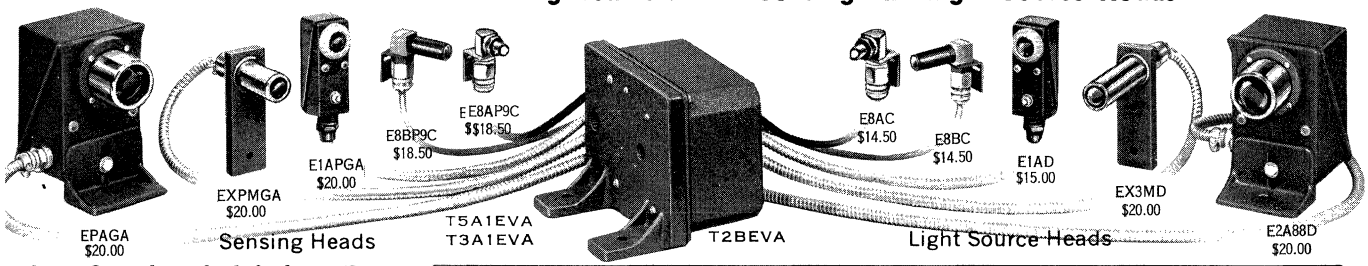
A579P Timing Control. . . . . Net each $67.00

Control and Light Source Sets

(practically any Light Source can be used with any Control)

Model Numbers	max. ft. between lenses	Min. dark time	Min. light time	Price per set.
T1A-L1A	5 ft	—	.5	$76.00
T1A-L2A	10 ft	—	.5	79.30
T3A-L1A	12 ft	.005	—	91.00
T3A-L2A	20 ft	.005	—	94.30
T5A-L1A	12 ft	—	.005	101.00
T5A-L2A	20 ft	—	.005	104.30
T2B-L1A	8 ft	—	.4	91.00
T2B-L2A	13 ft	—	.4	94.30
A579P-L1A	15 ft	—	.5	85.50
A579P-L2A	30 ft	—	.5	88.80

T Series Photoelectric Timing Controls with Sensing and Light Source Heads



T Series Controls are built for heavy Duty Industrial Service. Plate Relay Contacts: DPDT, Silver Cadmium Oxide, rated 8 amps at 115 VAC, non-inductive load.

Time Delay adjustment with shaftlock, inside case.

Timing Ranges same as self-contained models, page 2. H Feature available with all models—to order add Suffix "H" to Model Number and $7.50 to price.

The Sensing and Light Source Heads are listed in matched pairs for convenience. Other combinations are practical when required.

DIMENSIONS

A579A 6 1/4 x 3-1/2 x 5-1/2
A725, A750 8-3/8 x 4-1/4 x 10-3/8
T5A1EVA, T3A1EVA, T2BEVA 6 x 7-1/4 x 5-1/4
EPAGA, E2A88D 5-1/4 x 4 x 5-1/4
EXPMGA, EX3MD 3-3/4 x 1-1/2 x 4-3/4
E8BP9C, E8BC 2-3/4 x 7/8 x 1-1/8
E8AP9C, E8AC 2 x 7/8 x 1-1/8

Model Number: Control	Sensing Head	Light Source	Max. Ft. Between Heads	Min. Dark Time	Min. Light Time	Price	With R Feature: Control	Sensing Head	Light Source	Price	Ship. Wt. Lbs.
DARK-ENERGIZED—ENERGIZE DELAY (115/230 V, 50-60 C)											
T5A1EVA	EPAGA	E2A88D	23	delay	.005	$132.50	T5A1ERVA	EPAGA	E2A88D	$144.50	11
T5A1EVA	E1APGA	E1AD	5	delay	.005	127.50	T5A1ERVA	E1APGA	E1AD	139.50	9
T5A1EVA	EXPMGA	EX3MD	5	delay	.005	132.50	T5A1ERVA	EXPMGA	EX3MD	144.50	9
T5A4EVE	E8AP9C	E8AC	1.2	delay	.01	125.50	T5A4ERVA	E8AP9C	E8AC	137.50	9
T5A4EVF	E8BP9C	E8BC	5	delay	.005	125.50	T5A4ERVF	E8BP9C	E8BC	137.50	9
LIGHT-ENERGIZED—ENERGIZE DELAY (115/230 V, 50-60 C)											
T3A1EVA	EPAGA	E2A88D	23	.005	delay	$132.50	T3A1ERVA	EPAGA	E2A88D	$144.50	11
T3A1EVA	E1APGA	E1AD	5	.005	delay	127.50	T3A1ERVA	E1APGA	E1AD	139.50	9
T3A1EVA	EXPMGA	EX3MD	5	.005	delay	132.50	T3A1ERVA	EXPMGA	EX3MD	144.50	9
T3A4EVE	E8AP9C	E8AC	1.2	.05	delay	125.50	T3A4ERVA	E8AP9C	E8AC	137.50	9
T3A4EVF	E8BP9C	E8BC	5	.025	delay	125.50	T3A4ERVF	E8BP9C	E8BC	137.50	9
LIGHT-ENERGIZED—DE-ENERGIZE DELAY (115/230 V, 50-60 C)											
T2BEVA	EPAGA	E2A88D	16	delay	See	$122.50	T2BERVA	EPAGA	E2A88D	$134.50	11
T2BEVA	E1APGA	E1AD	3	delay	Chart	117.50	T2BERVA	E1APGA	E1AD	129.50	9
T2BEVA	EXPMGA	EX3MD	3	delay		122.50	T2BERVA	EXPMGA	EX3MD	134.50	9

Net

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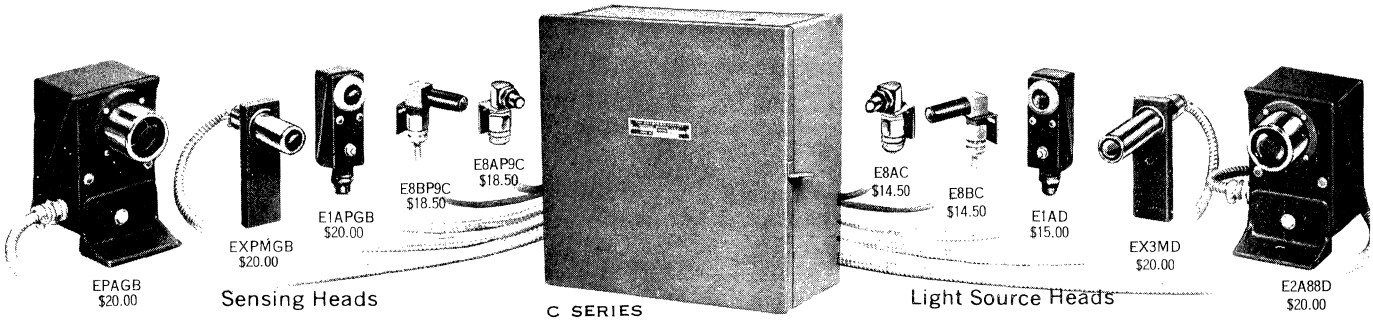
AUTOTRON Photoelectric Controls

C-Series Impulse Actuated Photoelectric Timing Controls



C Series Controls are triggered (ENERGIZED) by electric impulses. De-Energizing is controlled by adjustable time delay—the relay remains energized through the timing period for which the control is set. DARK-energized Controls time out with LIGHT; LIGHT-energized Controls time out with DARK.

When the "ENERGIZING" light change occurs *before the timing period expires* the relay remains energized through another complete timing period.

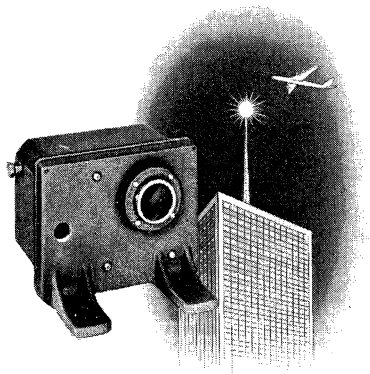
Quick "Light Change" is required. Objects should travel at near 60 feet per minute (unless specified). Timing repeat accuracy, 1%. Power consumption, 20 watts.

Plate Relay: SPDT contacts rated 15 ampere at 115 VAC, non-inductive load.

Timing Range Numbers	0.6	1	2	3
Timing Range in Seconds	.05 to .5	0.1 to 1.0	0.5 to 5.0	1.0 to 10.0

Model Number Control	Sensing Head	Light Source	Max. Ft. Between Heads	Min. Dark Time	Min. Light Time	Price	Ship. Wt. Lbs.
DARK-ENERGIZED — DE-ENERGIZE Delay (115/230 V, 50-60 C)							
C3V-EPAGB-E2A88D			13	.00001	.001	$197.00	19
C3V-E1APGB-E1AD			10	.00001	.001	192.00	16
C3V-EXPMGB-EX3MD			10	.00001	.001	197.00	17
C3403V-E8AP9C-E8AC			1⅛	.00001	.001	190.00	16
C3403V-E8BP9C-E8BC			4	.00001	.001	190.00	16
LIGHT ENERGIZED — DE-ENERGIZE Delay (115/230 V, 50-60 C)							
C4V-EPAGB-E2A88D			13	.001	.00001	$197.00	19
C4V-E1APGB-E1AD			10	.001	.00001	192.00	16
C4V-EXPMGB-EX3MD			10	.001	.00001	197.00	17
C4403V-E8AP9C-E8AC			1⅛	.001	.00001	190.00	16
C4403V-E8BP9C-E8BC			4	.001	.00001	190.00	16

A2BX Solar ON/OFF Control



Automatically turns lights "ON" at preset light value—and turns lights "OFF" when light exceeds preset value.

DPDT Control Relay energizes when light exceeds intensity for which control is set; de-energizes when light falls below the preset level.

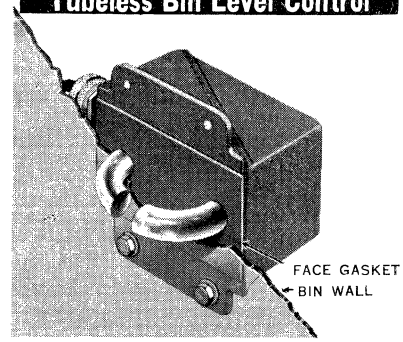
In case of tube failure the relay de-energizes; providing same control action as when light falls below preset level.

Dual Time Delays prevent operation by either momentary light flashes or shadows. Modern, simple circuitry uses one rugged, premium type power tube. Light intensity adjustment from outside of housing. Gasket-sealed cast aluminum housing, tapped for ½" conduit. For 115/230 v, 50-60 c. Available with three adjustment ranges:

No. A2BX-.2; 1 to 5 fc for street lighting, parking lots
No. A2BX-.5; 15 to 50 fc for signs, parking lots
No. A2BX-1; 20 to 150 fc for obstruction or tower lights

A2BX Solar Control (all models) Net $76.95

Tubeless Bin Level Control

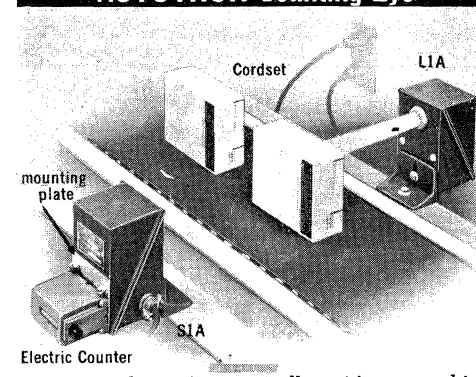


Tubeless Photoelectric actuation — unaffected by pressure of material in the bin. Only rigid, non-moving Lucite probes project into the bin. Cast aluminum, gasket-sealed housing mounts to bin wall as shown. Removal of cover makes all parts accessible. Dust-covered plug-in DPDT 8-ampere relay provides ON/OFF control for either high or low bin level. All wiring connections brought out of case in 3-foot oil proof cable. For 115/230V, 50-60 C.

A700 Bin Level Control.....Net each $68.00

(Includes 3-foot cable, face gasket and mounting template)

AUTOTRON Counting Eye



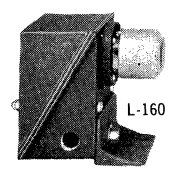
Counts anything—Automatically—without touching the object. Each object must interrupt the light beam .06 second or more. Space between objects must permit restoration of the light beam .06 second or more. Max. distance between lenses, 8 feet.

Counting Eye Components

S1A Photoelectric Control (see page 1)	$38.75
L1A Light Source (see page 1)	18.50
Cordset: two 6-foot rubber covered cords with plugs and attachment clamps	2.50
Plate and hardware for mounting counter (4 mounting holes on 3-15/16 x 1-23/64" centers)	1.50
CE-600AS602 Electric Counter (6-digit, knob reset)	$22.40

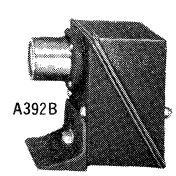
A-138 Counting Eye 115 v., 50-60 c ....**Net each $90.05**
(includes above items wired ready to plug in.)

Photoelectric Controls with Infrared Light Beams



For burglar alarms, safety applications, etc. Controls and Light Sources are designed for use in pairs as listed.

CONTROL No.	CONTROL Net Each	LIGHT SOURCE No.	LIGHT SOURCE Net Each	Max. ft. between lenses	CONTACTS combination	CONTACTS Rating amps.	Ship. wt. lbs.
A392B	$52.50	L-160	$30.65	15	SPDT	8	5½
A435	83.50	L-148	46.50	50	DPDT	10	14



FOTOLECTRIC® UNITS By ELECTRONIC DEVICES WORNER RANKIN, ILLINOIS

NET PRICES

The Wholesaler Recommended Equipment. Easy to Stock, Easy to Install.

INDUSTRIAL FOTOLECTRIC CONTROLS

Each Unit Packaged With Easy-to-Follow Installation Instructions.
Engineering Bulletins on All Units Mailed Upon Request.

FOR GENERAL INDUSTRIAL APPLICATIONS

Series 33 Lt. Sources

Model 23 Photocell

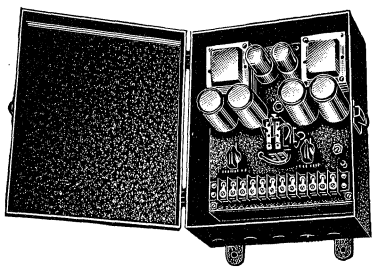
Model 33 Series Light Sources are available in different units for distances listed below, each operating in conjunction with Photocells (Model 23 Series) as designated. Light Source and Photocell heads operate in pairs. Each pair is set supervising by an Amplifier chosen for the task to be performed.
The Light Source and Photocell heads are heavy duty solid cast metal size 3″ x 3″ x 4½″ plus lens. Equipped with ½″ conduit fitting. For 110/120 v. 50/60 cy. ac.

FOR CROSS-OVER BEAM, for supervision of small objects (under 2″ square) at high speed. Distances shown are from lens to point of supervision. (Moisture-proofed units.)

Model	Max. Distance	Each
33-3	Light Source— 3 inches	$25.05
33-6	Light Source— 6 inches	25.05
33-9	Light Source— 9 inches	25.05
33-12	Light Source—12 inches	25.05
23-3	Photocell. Use with Model 33-3 Light Source	28.05
23	Photocell for use with Models 33-6, 9 and 12 Light Sources	28.05

FOR DIRECTIONAL BEAM, for supervising objects over 2″ square. Distances shown cover area of supervision between units.

Model	Max. Distance	Each
33-10	Light Source— 1 to 10 ft.	$19.50
23-10	Photocell	28.05
	Moisture-proofed on order, slightly higher	
33-25	Light Source—10 to 25 ft.	30.00
33-25	Photocell (Moisture-proofed)	32.10



MODEL 63 SERIES AMPLIFIERS

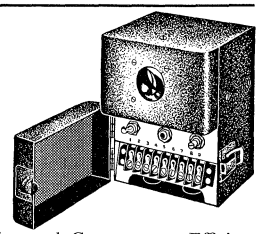
For fine precision at high speeds. Specially engineered to operate in conjunction with the above Model 33 Series Light Sources with Model 23 Photocells. All models, 9¼″ x 11½″ x 5″. For 110/120 v. 50/60 cy. ac.

Model 63 Series Amplifiers are well engineered, highest quality units, widely used. The relay will operate up to 650 times a minute under normal conditions. Will operate also from light sources such as bright daylight, artificial lights, radiant energy, etc. These characteristics are basic standards in all Amplifiers of this Series.

Model 63, as described above ..... Each $117.00
Model 63-A, equipped with Time Delay Circuit giving delay from 0 to 45 seconds ..... Each 134.10
Model 63-B, has added amplification to operate on less active change of light ..... Each 141.30
Model 63-C, same as Model 63, but operates with "on" light Each 117.00
Model 64 Amplifier. Operates up to 450 times a minute..... Each 67.35

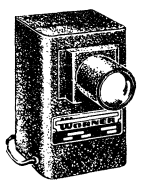
TWO-UNIT SET for Indoor Use

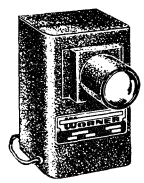
Light Source



Amplifier

This Amplifier unit includes Photo-Cell, Relay and Components. Efficient for distances from a few inches to 75 ft., where Relay is not required to operate in excess of 400 times a minute, such as: Counting, sorting large objects; limit switches; start, stop operations; opening doors, etc.
Model 62 R & L "Two-Unit Set"..... Per Set $82.50





Light Source and Amplifier Identical in Appearance

"DARK-ENERGIZED" SET

Operates When Photocell is Dark

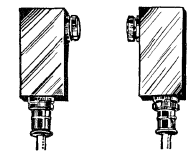
Amplifier includes components to operate as a Two-Unit Set. Light Beam up to 15′ supervises 2-inch objects up to 400 times p/m. Dark-Energized photocell unit is designed for installations that require supervisory control when the light beam is absent from the photocell.

Model 107 R & L, Dark-Energized Two-Unit Set..... Per Set $79.00

"MINIATURE" FOTOLECTRIC HEADS

Vertical Light Source **Model M-36**

Vertical Photocell **Model M-26**



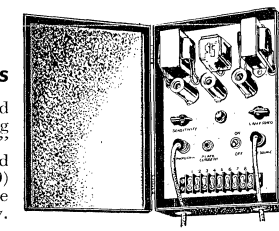
For Horizontal Installation, order Models M-37 and M-27

Size 1¼″ x 2½″ x ¾″, for space limitations, yet unsurpassed for precision control at any desired speed. Units are expertly machined out of solid aluminum blocks for indestructible one-piece construction. Equipped with 6′ cable with positive prong-type connectors, screw-band tightening collar. For 110/120 v., 50/60 cy. ac.

Model M-36 Vertical Light Source $24.96
Model M-26 Vertical Photo-cell Receiver 28.31
Model M-37 Horizontal Light Source 24.96
Model M-27 Horizontal Photo-cell Receiver 28.31

MODEL 66 SERIES AMPLIFIERS

For Use With Miniature Heads



Maximum speed ratings can be regulated on each unit provided that light falling upon photocell will have an "on-period" that equals the "off-period," provided conductor wires to photocell have zero (0) capacity. This insures positive, accurate performance. For 110/120 v. 50/60 cy. ac.

Model 67 Amplifier for applications where fine detection at high speeds is not a factor or Relay is not required to operate in excess of 450 times per minute ..... Each $69.90

Model 66 Amplifier, operates up to 900 counts a minute. Double-pole, double-throw relay with contact rating 110 v. 60 cy. ac., 10 amp. non-inductive and 5 amp. inductive. Has light beam intensity control. Each $131.10

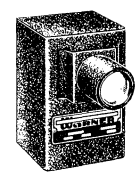
Model 66-A Amplifier, designed for use with ultra high speed electronic decade counters. Accurate counts of light beam interruption or variation of intensity up to 10,000 counts per minute. Output pulses up to 50 volts dc. regulated by the sensitivity control ..... Each $138.60

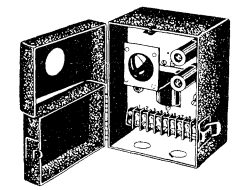
Model 66-T Amplifier, same as Model 66 with a Time Delay circuit incorporated to give regulated time delay from 0 to 45 seconds. Efficient for synchronizing operations ..... Each $155.40

FOR INDOOR SMOKE DETECTION

SERIES 200 TWO-UNIT SETS. Choose either set according to distance to be supervised. Both sets are designed to detect smoke substantially before heat releases automatic sprinklers. Sets activate whatever remote alarm the user installs. Units should be installed high above floor traffic and several feet from walls; usually suspended from ceiling.

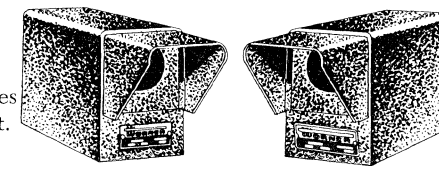
Each set comprises Light Source unit and unit combining Photocell, Amplifier, Relay. Model 201 Photocell-Amplifier unit has split door, top section removable. All units are 7 inches high. For 110/120 v. 50/60 cy. ac.





Model 201, Two Unit Set Supervises distance up to 75 feet.

Model 202 Two-Unit Set Supervises Distances from 75 to 500 feet.



Model 201, Two Unit Smoke Detector Set
For supervising a distance up to 75 feet $112.50

Model 202, Two Unit Smoke Detector Set
For supervising a distance from 75 to 500 feet 142.50

Prices slightly higher West of Rockies

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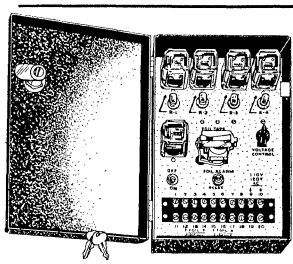
FOTOLECTRIC® UNITS By WORNER ELECTRONIC DEVICES RANKIN, ILLINOIS — NET PRICES

The Wholesaler Recommended Equipment. Easy to Stock, Easy to Install.

WORNER BURGLAR ALARM SYSTEMS

Each Unit Packaged With Easy-to-Follow Installation Instructions.
Engineering Bulletins on All Units Mailed Upon Request.



Model 9000-S
Master Control Panel

MODEL 9000 SERIES—the Master Control System. Consists of Model 9000-S Master Control Panel and can supervise ONE to FOUR Fotolectric (detection) Sets. Contains Relays which energize alarm circuits. Control Panel installed remotely. Size: 7" x 10¼" x 4⅜". For 110-120 v. 50/60 cy. ac.

On a separate circuit, the Master Control Panel will also supervise foil tape, door traps and window switch systems. Both circuits operate independently and simultaneously. Sounds continuous alarm (until reset) when either of these detection circuits is opened or wiring of Fotolectric system is tampered with. Prevents false alarms should power fail or drop momentarily and resets automatically when power is restored. Also operates with any type electrical devices employed by professional burglar alarm companies.

Illustration shows FOUR Relay units plugged in to show plug-in location of 1, 2, 3 or 4 Relays as needed; one Relay for each Fotolectric (detection) Set used. Model 9000-S Master Control Panel list priced "less Relays," as ONE Relay is automatically supplied with each Model No. 9000 series Fotolectric Set ordered.

Model 9000-S Master Control Panel.....**Each, $66.00**

FOTOLECTRIC SETS

Consist of LIGHT SOURCE and PHOTOCELL units ordered in sets according to distance to be covered and by Model Number as shown for each Series.

All Light Sources project infra-red (invisible) light beams.

Sets for 100 and 150 ft. ranges are for indoor use. Sets for 75, 250 and 500 ft. ranges are weatherproof, for both indoor and outdoor use.

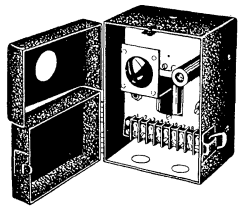
Sets for 75, 150, 250 and 500 ft. ranges have unwanted light rejector for maximum day-light efficiency.

Cases of similar design house different components for the tasks listed.

Model	Range	Fotolectric Set	Per Set
9100	100 ft.	Master Tresp. Trap	**$105.15**
9150	150 ft.	Master Tresp. Trap	**120.30**
9075	75 ft.	Master Tresp. Trap	**123.60**
9250	250 ft.	Master Tresp. Trap	**130.80**
9500	500 ft.	Master Tresp. Trap	**146.25**

For 100 Ft. Ranges
Light Sources and Photocell Receivers have matching cases.

For 150-Ft. Range
Light Source



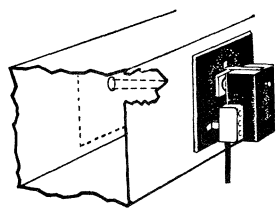
For 150-Ft. Range
Photo-cell Receiver

MODEL 7000 SERIES comprises (Light Source and Amplifier) Fotolectric Sets that operate in conjunction with burglar alarm companies' central control equipment. Does not interfere with operation of foil tapes or window traps. For 110/120 v. 50/60 cy. a.c. For 24 v. 60 cy. use Worner Step-Down Transformer.

Model	Range	Fotolectric Set	Per Set
7100	100 ft.	Central Cont. Tresp. Trap	**$105.15**
7150	150 ft.	Central Cont. Tresp. Trap	**120.30**
7075	75 ft.	Central Cont. Tresp. Trap	**123.60**
7250	250 ft.	Central Cont. Tresp. Trap	**130.80**
7500	500 ft.	Central Cont. Tresp. Trap	**146.25**

MODEL 5000 SERIES is a TWO-PIECE set comprising No. 5000 series Fotolectric sets. For 100 ft. and 150 ft. ranges for interior use only where a single beam is ample protection. Not intended for use with foil systems, etc. Photocell Receivers of both ranges combine relay and amplifier components. On-off switch, phone jack to test plate current, sensitivity control. Lock. Alarm can be turned off or trespass trap reset only by the possessor of the key. For 110/120 v. 50/60 cy. ac.

Model	Range	Fotolectric Set	Per Set
5100	100 ft.	Single Beam Tresp. Trap	**$105.15**
5150	150 ft.	Single Beam Tresp. Trap	**120.30**

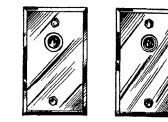


Light beam projected across duct detects smoke or flame.

FIRE PROTECTION Institutions, schools, hospitals, hotels, etc., where fire originating in or drawn into ventilating or air conditioning ducts is fan driven to a succession of uncontrollable outbreaks throughout building. The Worner Fan Motor Stop installed on air duct minimizes this hazard by early detection, automatic stopping of fan and signaling of alarm. Meets requirements of National Board of Fire Underwriters and listed by Underwriters Laboratories. Write for Bulletin 650.

"MINIATURE" BURGLAR ALARM

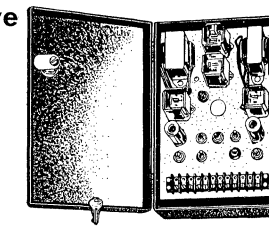
"In-Wall" Concealment



Light Source and Photo-cell Receiver units concealed in light-switch type face plates. Projects invisible light beam ranging up to 35 feet (indoors). Standard size wall plates concealing Fotolectric detection units are high finish stainless steel. Light bulb rated 2000 hours. For guaranteed efficiency Fotolectric sets must be used only with specially engineered amplifiers listed below.

Model 81 "In-Wall" Light Source, each **$21.18**
Model 82 "In-Wall' Photocell Receiver, each **22.92**

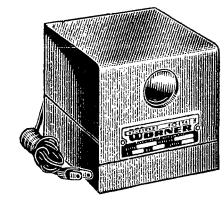
Amplifiers for above Fotolectric Sets

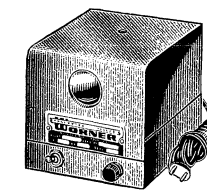


Two specially engineered units. Circuits with no-voltage control relay prevent false alarms due to line voltage irregularities and will sound alarm if tampered with. Standard alarm continuous, regulated warning signal "special" upon order. For 110/120 v., 60 cy. a.c.

Model 86-1 is a single channel Amplifier Panel that will amplify current flow of one Fotolectric Set. **each $115.50**

Model 86-2 is a dual channel Amplifier Panel that will amplify current flow of two Fotolectric Sets, guarding separate area. Will also supervise one Fotolectric Set, providing for future addition of a second Fotolectric Set. **each $178.50**





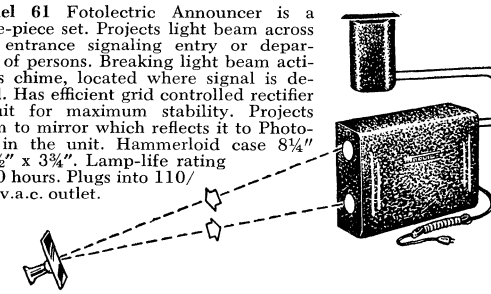
THE TWO-UNIT WORNER WATCHMAN

Exciter Lamp is equipped with removable infra-red filter. Provides invisible light beam ranging up to 50 ft. The Photocell Receiver combines Photocell and electrical components. Equipped with toggle switch for either continuous alarm or to sound only while light beam is broken. Extraneous light rejector maintains daylight range. Two-piece case construction enables removal of cover without unmounting. Identical cases 5" x 5" x 5½" welded steel, mahogany hammerloid finish. For indoor use; 110-120V. 60 cycle A.C.

Model 4000 Two Unit Watchman .....**per set $63.00**

THE ELECTRONIC RECEPTIONIST

Model 61 Fotolectric Announcer is a three-piece set. Projects light beam across any entrance signaling entry or departure of persons. Breaking light beam activates chime, located where signal is desired. Has efficient grid controlled rectifier circuit for maximum stability. Projects beam to mirror which reflects it to Photocell in the unit. Hammerloid case 8¼" x 6½" x 3¾". Lamp-life rating 1000 hours. Plugs into 110/120 v.a.c. outlet.



Model 61 Fotolectric Announcer.....**Per Set $40.50**
Model 61-T. Fully transistorized. Size: 7¾" x 5¾" x 3⅛". Operates 6-volt Chime. Plugs into 110/120 v.a.c. outlet **Per Set $40.50**

Prices slightly higher West of Rockies

CLAIREX

THE *OLDEST* MANUFACTURER OF CADMIUM SULPHIDE AND CADMIUM SELENIDE PHOTO CONDUCTORS

NOW OVER 50 STANDARD TYPES . .

CL Cell #	Sensitive Material	Enclosure (inches)	Pk. Spectral Response, A	Light Resistance[1]	Voltage Rating (Max.)	Power[4] (MW)
CL503	CdSe	.5x.5	7350	7.2K	250	500-250[2]
CL504	CdSe	.5x.5	6900	1.5K	250	500-250[2]
CL504L	CdSe	.5x.5	6900	0.25K	60	500-250[2]
CL505	CdS	.5x.5	5500	9K	250	500-250[2]
CL505L	CdS	.5x.5	5500	1.5K	60	500-250[2]
CL507	CdS	.5x.5	6150	7.2K	250	500-250[2]
CL602[3]	CdS	.25x.5	5150	1M	300	75
CL603[3]	CdSe	.25x.5	7350	133K	300	75
CL603A[3]	CdSe	.25x.5	7350	75K	300	75
CL603AL	CdSe	.25x.5	7350	3.5K	60	75
CL604[3]	CdSe	.25x.5	6900	30K	300	75
CL604L	CdSe	.25x.5	6900	1.5K	60	75
CL605	CdS	.25x.5	5500	166K	300	75
CL605L	CdS	.25x.5	5500	7.5K	60	75
CL607[3]	CdS	.25x.5	6150	133K	300	75
CL702	CdS	.36x.18	5150	1M	300	125
CL702L	CdS	.36x.18	5150	20K	60	125
CL703	CdSe	.36x.18	7350	133K	300	125
CL703A	CdSe	.36x.18	7350	67K	300	125
CL703L	CdSe	.36x.18	7350	2.7K	60	125
CL704	CdSe	.36x.18	6900	30K	300	125
CL704L	CdSe	.36x.18	6900	.6K	60	125
CL705	CdS	.36x.18	5500	166K	300	125
CL705L	CdS	.36x.18	5500	3.3K	60	125
CL707	CdS	.36x.18	6150	133K	300	125
CL707L	CdS	.36x.18	6150	2.7K	60	125
CL802	CdS	1.25x.28	5150	10.0K	300	2000-500[2]
CL803	CdSe	1.25x.28	7350	1.4K	300	2000-500[2]
CL804	CdSe	1.25x.28	6900	.6K	300	2000-500[2]
CL805	CdS	1.25x.28	5500	1.7K	300	2000-500[2]
CL807	CdS	1.25x.28	6150	1.4K	300	2000-500[2]
CL902	CdS	.21x.15	5150	1M	250	50
CL902N	CdS	.21x.15	5150	500K	75	50
CL903	CdSe	.21x.15	7350	133K	250	50
CL903A	CdSe	.21x.15	7350	67K	250	50
CL903N	CdSe	.21x.15	7350	66K	75	50
CL904	CdSe	.21x.15	6900	30K	250	50
CL904N	CdSe	.21x.15	6900	15K	75	50
CL905	CdS	.21x.15	5500	166K	250	50
CL905N	CdS	.21x.15	5500	83K	75	50
CL907	CdS	.21x.15	6150	133K	250	50
CL907N	CdS	.21x.15	6150	66K	75	50

TO-5 Case

TO-18 Case

DUAL ELEMENT CELLS

CL703/2	CdSe	.36x.18	7350A	50K	300	75-125
CL703L/2	CdSe	.36x.18	7350A	6.5K	60	75-125
CL704/2	CdSe	.36x.18	6900A	17K	300	75-125
CL704L/2	CdSe	.36x.18	6900A	1.5K	60	75-125
CL705/2	CdS	.36x.18	5500A	166K	300	75-125
CL705L/2	CdS	.36x.18	5500A	7.5K	60	75-125

each element

HIGH SPEED "CHOPPER" CELLS

(Response Times: Rise <0.4msec, Fall ≤3.0msec)

CL703C	CdSe	.36 TO-5	7350A	50K	250	125
CL703CL	CdSe	.36 TO-5	7350A	2.3K	60	125
CL903C	CdSe	.21x.15	7350A	50K	250	50

W/Ne2H Neon

Additional technical data available on request

Operating temperature, all types, −50 to +75° C.

[1]Average DC resistance (±33⅓%) measured at 2 foot-candles, 2870° K. and 25° C ambient

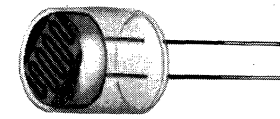
[2]With and without heat sink. [3]Designed to replace "400" Series end-view types.

[4]At 25° C ambient; derated linearly to zero at 75°C. [5]S denotes side view cell.

Clairex Photoconductive Cells... light-controlled resistors offering a wide variety of response characteristics and packaging, together with stable and closely controlled parameters . . . suitable for most design applications. New sixteen page design manual free on request.

BOTH METAL *AND* GLASS PACKAGES

ALL PHOTOS ACTUAL SIZE



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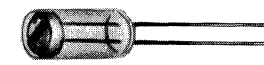

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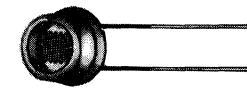

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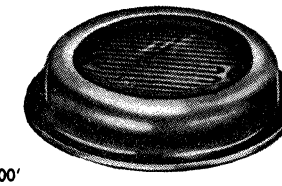

'800'

'900'

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PHOTOCONDUCTIVE CELLS...

THE *"LIGHT"* TOUCH . . . IN AUTOMATION AND CONTROL

NEW YORK 1, N. Y.

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INDICATOR LIGHTS

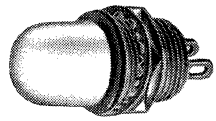
for every panel design by

CONTROLS COMPANY C OF AMERICA
CONTROL SWITCH DIVISION
Folcroft, Pa.

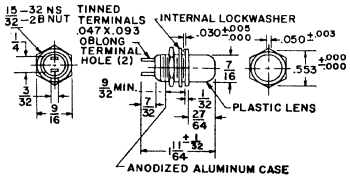
Shown below are only a few of the more than 50 basic standard types of indicator lights available from Control Switch Division. Actually, there are dozens of variations in color, mounting, appearance and circuitry possible for almost every basic style. For example, indicator lights are available for 6, 14, or 28 volt, D.C. and 110 V. A.C. circuits. So whatever your needs, there are ready-made, in-stock indicator lights to fit your panel.

(LIST PRICES BELOW ARE FOR UNITS WITHOUT LAMPS)

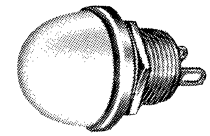
SERIES L14005B



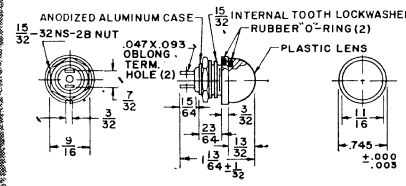
Conforms to MS-25256. Long plastic lens for 180° visibility. Front panel mounting (L14000) shown; also available for back mounting (L14200). Uses MS-25237 lamps. **LIST $0.98**



SERIES L5105



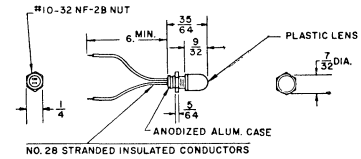
Watertight, front-of-panel mounting. Wide-angle visibility. 2-terminal circuit. Mounts in ½-inch hole. Uses MS-25237 lamps. Press-to-Test Model L16200 available. **LIST $1.62**



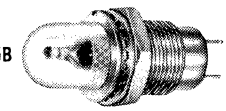
SERIES L10000

Supplied with 5V. Lamp

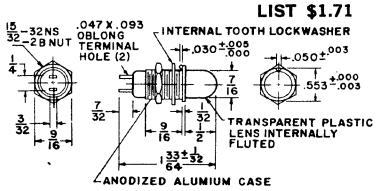
Sub-miniature, moisture-proof. Rated life of 60,000 continuous hours at 5 volts. Models available to mount flush with panel surface. **LIST $5.45**



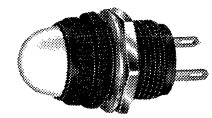
SERIES L15015B



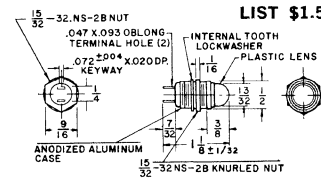
Neon indicator with built-in 62,000 ohm resistor for 115V circuits. Conforms to MS-25257. Available for front or back panel mounting. **LIST $1.71**



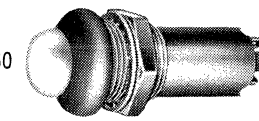
SERIES L14215



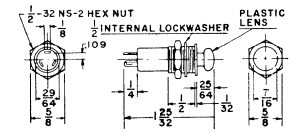
Special model for back-of-panel mounting on very compact panels. Mounting nut is tightened from front. Lens has knurled nut for easy removal of lens-lamp module. Uses MS-25237 lamps. **LIST $1.59**



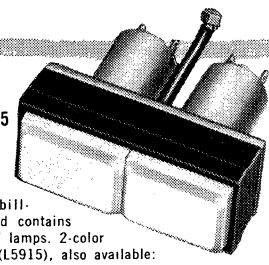
SERIES L3060



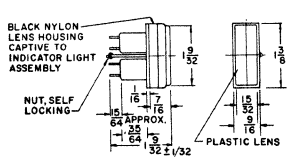
Moisture-proof push-to-test indicator light. Test lamp circuit by pushing plastic lens. Supplied with or without silicon rubber boot to seal panel. Lens has "O"-ring seal. Flange-type mounting in ½-inch hole. Uses MS-25237 lamps. **LIST $4.45**



SERIES L5915

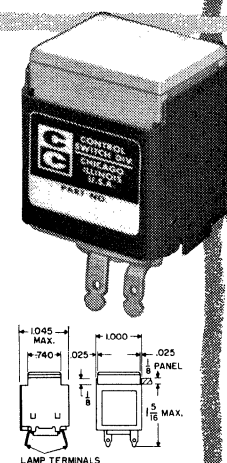


Miniature "bill-board" placard contains two MS-25237 lamps. 2-color model shown (L5915), also available: 1-color (L5900) and Press-to-Test (L5200). All legends engraved (not hot-stamped). Self-indexing unit. Captive lens. **L5915: LIST $5.90**



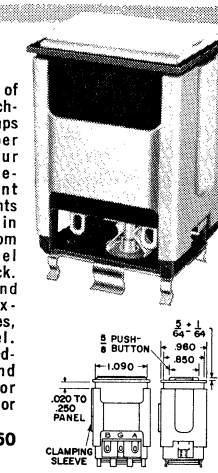
SERIES C6

TWINLITE modular indicator light assembly with identical panel appearance and mounting configuration to Series C6 lighted push-buttons. Mounts with barriers in rows, in matrix, or individually. Contains two lamps on individual or common circuits. Split or solid color buttons available. With 6 V. or 28 V. lamps. **LIST $5.25**



NEW M-SERIES

Indicator version of new M-Series switchlites has four lamps with silicon rubber color filters, four lamp circuits. Relamps from front without tools. Mounts without hardware in single cut-out from front of any panel .020 to .250 thick. One piece legend button. Matrix-mounted assemblies, splash-proof model. Snap-on switch modules in DPDT and 4PDT, alternate or momentary action, or solenoid-hold. **LIST $7.50**



THE COMPLETE LINE OF

DIALCO® INDICATOR LIGHTS

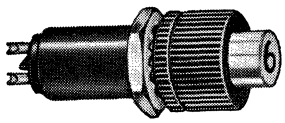
Foremost Manufacturer of Indicator Lights

DIALIGHT CORPORATION • BROOKLYN, N.Y. 11237

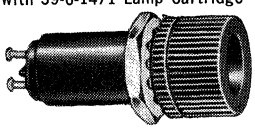
(Illustrations are approx. actual size)

DATALITES® – Ultra-Miniature Indicator Lights

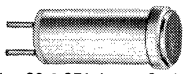
Mounts in 3/8" Clearance Hole



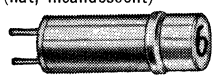
No. 7538 Lampholder complete with 39-6-1471 Lamp Cartridge



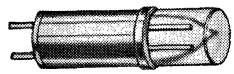
No. 8738 Lampholder with turret terminals



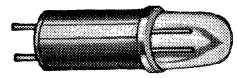
No. 39-6-371 Lamp Cartridge (flat, incandescent)



No. 39-6-1471 Lamp Cartridge (short cylind., incandescent)



No. 38-1531 (without resistor)
No. 45-56K-1531 (with resistor)



No. 38-931 (without resistor)
No. 45-56K-931 (with resistor)

HOT STAMPED LEGENDS

Short and Long Cylindrical lenses can be hot-stamped with one to three digits of standard size, as follows:
1 DIGIT, 11/64" high (14 pt. type)
2 DIGITS, 7/64" high (10 pt. type)
3 DIGITS, 5/64" high (8 pt. type)

These standard sizes of Legends will be provided in a uniform manner per order—i.e., the size of type will be determined by the longest legend indicated in each individual order.

With DIALCO'S Plug-in Lamp Cartridges or with Permanent Lamps (built-in)

Designed for the computer-automation industries

Datalites are made in 2 basic styles: *Lampholders* with DIALCO'S own plug-in *replaceable Lamp Cartridges,* or with *Built-in Neon Lamps.* Shown above: Lampholder No. 7538 which accommodates either the No. 38- or the No. 39- cartridges. A similar, slightly longer Lampholder — No. 7545 — accommodates the No. 45- cartridges. Single units mount in 3/8" clearance hole. Also available — *twin-lamp* assemblies which mount in 3/4" clearance hole . . . New long-life lamps are used in the plug-in cartridges. At most voltages, and for several current ratings, you may now specify 50,000 hour incandescent lamps. At higher voltages, where neon lamps may be used, 25,000 hour *minimum* may be attained with built-in resistors.

The **T-1¾ INCANDESCENT LAMPS** used in **DIALCO Lamp Cartridges** can be supplied in a wide range of voltages, including:

Voltage	Amperes	Hourly Rating
■ 1.35	0.06	500
■ 2.7	0.06	500
6♠	0.04	1000
6♠	0.20	1000
■ 6.3	0.20	3000
■10♠	0.014	6000+
■10♠	0.04	6000+
14	0.08	750
18	0.04	1000
28	0.04	1000

■Should not be used with translucent lenses.

♠Since there are **three 6 volt lamps** and **two 10 volt lamps,** when ordering it is necessary to specify voltage and ampere rating from chart above; e.g. 39-**604**-1471, 39-**6**-1471, 39-**6.3**-1471, 39-**10**-1431, 39-**1004**-1431.

NEON CARTRIDGE Catalog Numbers—with NE-2E Lamps

LENS COLOR (Transparent)	STOVEPIPE (Without built-in resistor)	LONG CYL. (Without built-in resistor)	STOVEPIPE (With built-in resistor)	LONG CYL. (With built-in resistor)
Red	38-931	38-1531	45-56K-931	45-56K-1531

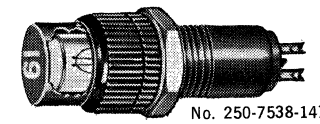
NOTE: To designate a unit with the **NE-2H** High Brightness lamp, add **H** to the Catalog Number; e.g., 38**H**-931 . . . 45**H**-22K-931 . . . 45**H**-33K-931.

INCANDESCENT CARTRIDGE Catalog Numbers

■LENS COLOR (Translucent)	■SHORT CYL. (Translucent)	■STOVEPIPE (Translucent)	■LONG CYL. (Translucent)	■FLAT (Translucent)
Red	39-6-1471	39-6-971	39-6-1571	39-6-371

■For **transparent** lenses, change next to last digit to **3**; e.g., 39-6-1431.
For **Volts,** change mid digit (-6-) per lamp chart above; e.g., 39-**28**-1471.

LENS COLOR: The *final figure* in Catalogue Number indicates that the lens has RED color. When color other than red is desired, change this digit to a figure from the listing below . . . *Example:* 39-6-1*4*76 (Light Yellow).
Red — 1 . . . Green — 2 . . . Yellow (Amber) — 3 . . . Blue — 4
White Trans. — 5 . . . Light Yellow — 6 . . . Clear (Colorless) — 7.



No. 250-7538-1471

"Data Cap" Indicator Lights
Mount in 3/8" Clearance Hole

Series No. 250. Accommodates DIALCO'S own Lamp Cartridges — Short Cylindrical Incandescent, or Long Cylindrical Neon with or without built-in resistor.

Features: (1) A *rotatable* read-out Lens Cap Assembly with a cylindrical lens displaying a hot-stamped *legend* (see below) . . . (2) A Lampholder similar to *No. 7538* shown at left . . . (3) Accommodates a *clear* (colorless) Lamp Cartridge *without* a legend.

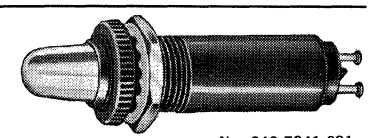
Advantages: If lamp fails, the Lamp Cartridge may be quickly replaced from front of panel. Since the Cartridge requires no hot-stamping, down time and costs are kept at a minimum . . . The Lens Cap is of the screw-on type. It is spring-mounted and *rotatable,* thus facilitating alignment of the legend *after* installation of the assembly. Choice of 7 lens colors; solder cup, turret, or Amp "53" terminals.

HOT STAMPED LEGENDS
(Digits, Letters or Symbols)

SHORT and LONG CYLINDRICAL lenses can be hot-stamped with one to three digits of standard size, as follows:
1 DIGIT, 13/64" high (18 pt. type) . . .
2 DIGITS, 11/64" high (14 pt. type) . . .
3 DIGITS, 9/64" high (12 pt. type) . . .
These standard sizes of Legends will be provided in a uniform manner per order —i.e., the size of type will be determined by the longest legend indicated in each individual order.
Standard—BLACK letters; but white, red, green, or blue letters can be supplied to order . . . Available—colored legends on black or gray lenses.

DATALITES with PERMANENT LAMPS

Built-in (not replaceable): Neon Lamps *NE-2E* or *NE-2H* (high brightness) *and* required current-limiting *resistor* . . . Units mount in 3/8" clearance hole from back of panel; two terminals; fully insulated; 5 lens colors; conform to applicable Mil. Specs. . . . Shown: No. 249-7841-931 *with built-in resistor* . . . Available—shorter unit, without resistor, No. 249-7840-931 . . . (For units with high brightness lamp, add *H* to Cat. No.; *Example:* 249-7841*H*-931)



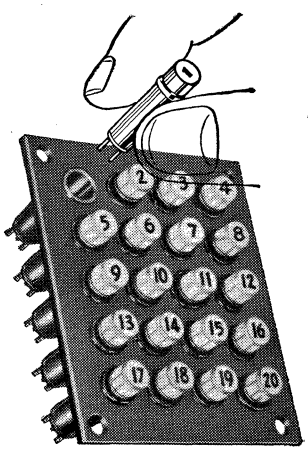
No. 249-7841-931
with built-in resistor

MULTIPLE INDICATORS in a Compact "Package"

Ready to install in a minimum of space

For Data-Processing Equipment, Computers, and Automation Applications

A Complete "Data Matrix" and "Data Strip" Manufacturing Service

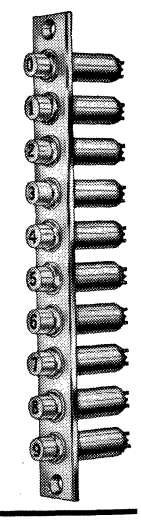


To expedite installation of multiple-indicators, let DIALCO perform the following manufacturing services for you:

- **Fabricate** a "Data Matrix" or "Data Strip" panel to your specifications . . . **Punch** the necessary holes therein for DIALCO Lamp Holders and your fuses, switches, screws, etc.
- **Mount** the required number of Lamp Holders on the panel for vertical or horizontal reading . . . **Lamp Holders** can be spaced on any center-to-center measuring from 7/16" up. (½" center-to-center spacing is standard, as shown on typical configurations illustrated) . . . **There is no basic or stock item;** we can supply from 2 to 40 Lamp Holders on a panel or strip.
- **Insert** required Lamp Cartridge into Lamp Holders.
- **Hot Stamp** or engrave legends on lenses (see above).

Lamp holders accommodate DIALCO'S Neon or Incandescent Lamp Cartridges (see above) . . . Each Lamp Holder has 2 Solder Cup terminals and is completely insulated (without the use of insulating shoulder washers); Turret, or AMP "53" Terminals can also be furnished.

MATERIALS AND FINISHES: Lamp Holder housing, panel or strip, and cartridge sleeve are aluminum with clear anodized finish . . . Option: black anodized finish or to specifications.



◀ **"DATA MATRIX" No. DM-7538-20** (Approx. ½ actual size) **"DATA STRIP" No. DSV-7538-10** ▶

For Complete Data, Request Catalog L-160E.

© U.C.P., Inc.

THE COMPLETE LINE OF

INDICATOR LIGHTS

DIALCO®

Foremost Manufacturer of Indicator Lights

DIALIGHT CORPORATION • BROOKLYN, N.Y. 11237

(Illustrations are approx. actual size)

When Connecting a Neon Light to a Circuit Having One Side Grounded, Always Connect the Hot Side of the Circuit to the Terminal Marked + (Center Contact).

Sub-Miniature Indicator Lights for NEON Lamps

NE-2D *(regular)*
NE-2J *(high brightness)*

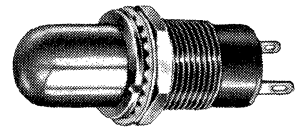
TWO TERMINALS — FULLY INSULATED . . . Meet or exceed environmental and operational requirements of MIL-L-6723 and MIL-L-3661.

For FRONT of Panel Insertion in 15/32" Clearance Hole

With Built-in Resistor

(A patented DIALCO feature—
U.S. Pat No. 2,421,321)

Conform to MS25257



Accommodates a T-2 Neon Glow Lamp: NE-2D (MS25252) for 105-125 Volts A.C. or D.C.; *for Catalog Numbers see below* . . . **NE-2J** (High Brightness) for 110-125 Volts A.C. only; *for Catalog Numbers, see* Catalog L-178

DIALCO Cat. No. WITHOUT LAMP	MS No. WITHOUT LAMP*	MS No. WITH LAMP* MS25252-NE-2D	LENS COLOR
137-8836-933■	MS25257-2	MS25257-1	Aviation Yellow
137-8836-931■	MS25257-4	MS25257-3	Identification Red
137-8836-937■	MS25257-6	MS25257-5	Clear (Colorless)

■ With patented built-in resistor: 62K ± 10%.

***MARKING:** The Part No. marked on the assembly is the Part No. for the complete assembly less lamp.

Also: Similar Series not covered by MS25257: For NE-2D lamp, with standard 62K built-in resistor . . . For NE-2J *(high brightness)* lamp, with standard 22K built-in resistor. See **Catalog L-178.**

The LIGHT SOURCE: Tiny Neon Glow Lamps NE-2D or NE-2J

Recommended resistor values:

For NE-2D at 105-125 volts A.C. or D.C.

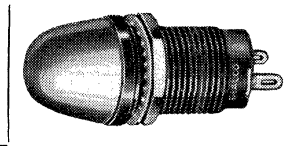
Bright light—62,000 ohms . . . . . Long life—100,000 ohms

For NE-2J (High Brightness) at 110-125 volts (A.C. only)

Bright light—22,000 ohms . . . . . Long life—33,000 ohms

For Front of Panel Mtg. in 15/32" Clearance Hole

ASSEMBLIES WITHOUT BUILT-IN RESISTOR		
LENS SHAPE	LENS FINISH	CATALOG NO.
Stovepipe	Transparent	137-8536-931
Cylindrical	Transparent	137-8536-1531



Without Built-in Resistor

The Series listed above is similar to the Series shown at the left, except that it has no built-in resistor or anti-rotation tab. Choice of 5 lens colors.

WATER-TIGHT ASSEMBLIES - Front Mtg. in 15/32" Clearance Hole

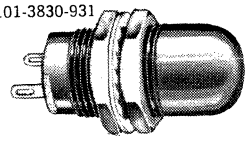
LENS COLOR	WITH BUILT-IN RESISTOR: ACCOMMODATE NE-2D LAMP*	WITH BUILT-IN RESISTOR: ACCOMMODATE NE-2J LAMP**	WITHOUT BUILT-IN RESISTOR
Red	181-8836-931	181-8836H-931	181-8536-931
Yellow (Amber)	181-8836-933	181-8836H-933	181-8536-933
White Translucent	181-8836-935	181-8836H-935	181-8536-935
Light Yellow	181-8836-936	181-8836H-936	181-8536-936
Clear (Colorless)	181-8836-937	181-8836H-937	181-8536-937

*62K standard **22K standard

Sub-Miniature Indicator Lights for T-1¾ Bulbs

MIDGET FLANGED BASE
INCANDESCENT

101-3830-931



Mounts from Front or Back of Panel in a 15/32" Clearance Hole.

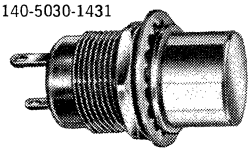
CAT. NO. with STOVEPIPE LENS		
LENS FINISH	Front or Back Mtg. in 15/32" hole	Front Mtg. in 17/32" hole
Transparent	101-3830-931	101-5030-931
Translucent	101-3830-971	101-5030-971
CAT. NO. with CYLINDRICAL LENS		
Transparent	140-3830-1431	140-5030-1431
Translucent	140-3830-1471	140-5030-1471

Water-tight Series (not illust.) also available:

Front Mtg. in 15/32" Clearance Hole

WATER-TIGHT ASSEMBLIES		
LENS SHAPE	LENS FINISH	CATALOG NO.
Stovepipe	Transparent	101-8430W-931
	Translucent	101-8430W-971
Cylindrical	Transparent	140-8430W-1431
	Translucent	140-8430W-1471

140-5030-1431



Mounts from Front of Panel in a 17/32" Clearance Hole.

LENS COLOR:
See code at bottom right.

Two Terminals — Fully Insulated

Meet or exceed environmental and operational requirements of MIL-L-6723 and MIL-L-3661.

RUGGED CONSTRUCTION

Lamp, socket, and all connections are completely insulated from the bushing and panel to which it is attached. The use of phenolic material for military specification grade assures permanent isolation from ground.

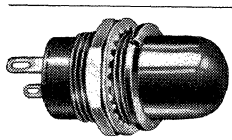
These assemblies are solidly made to withstand usual vibration and corrosion resistance tests.

Order Complete with Lamp. Specify Lamp Number.

MANUFACTURER'S RATINGS

LAMP No.	MILITARY No.	VOLTS	AMPS	LIFE HOURS
331 *	——	1.35	.06	500
338 *	——	2.7	.06	500
328	MS25237	6.0	.20	1000
345	——	6.0	.04	1000
344 *	——	10.0	.015	50000
367 *	——	10.0	.04	20000
349	——	6.3	.20	3000
330	——	14.0	.08	750
327	MS25237	28.0	.04	1000
380 *	——	6.3	.04	50000
381	——	6.3	.20	50000
382	——	14.0	.08	50000

*Low candlepower types. Useful in special situations only.



Front of Panel Insertion:
Requires a single 15/32" Clearance Hole

Anti-rotation Tab on face of flange prevents rotation of unit while nut is being tightened.

DIALCO Catalog No.	MS No. WITHOUT LAMP*	CAP COLOR
162-8430-933	MS25256-2	Aviation Yellow
162-8430-932	MS25256-4	Aviation Green
162-8430-931	MS25256-6	Identification Red
162-8430-937	MS25256-8	Aviation White
162-8430-975	MS25256-10	Translucent White
162-8430-934	MS25256-12	Aviation Blue

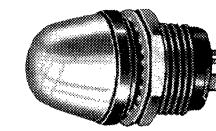
***MARKING:** The Part No. marked on the assembly is the Part No. for the complete assembly **less lamp.**

Note: The inclusion of MS25237-327 lamp in MS25256 series of assemblies, formerly designated by the use of odd numbered suffixes -1 through -11 inclusive, is now superseded by the use of suffix -327 (28 volts at .04 amp) or -328 (6 volts at .20 amp) after the even numbered dash number.

Examples:
MS25256-2-**327**;
MS25256-10-**328**.

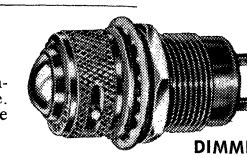
New WATER-TIGHT *Series*

Series No. 177-8430-971 is designed to be water-tight, oil-tight, and dust-tight on face of panel. Mounts from front of panel in 15/32" clearance hole. Two 1/16" thick neoprene retained "O" rings assure absolute seal. Stovepipe lens; choice of 7 colors.



DIMMERS — MECHANICAL or POLAROID

Illustrated: Units for *Front* of Panel Insertion; require a 17/32" clearance hole. Units for *Back* of Panel Insertion require a 15/32" clearance hole.

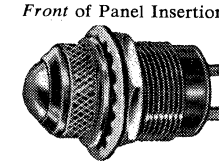


DIMMIN
Front of Panel Insertion

CATALOGUE NUMBERS

DIMMING	(*Back* insert.) Lens, unfrosted	(*Front* insert.) Lens, unfrosted
Semi-blackout	109-3830-131	109-5030-131
Blackout	108-3830-131	108-5030-131
Polaroid	112-3830-131	112-5030-131
NON-DIMMING	111-3830-131	111-5030-131

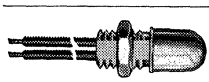
For *"Lens, backfrosted,"* change series numbers ending in —131 to —*111*. For *"Lens, frosted all over,"* change series numbers ending in —131 to —*121*.



NON-DIMMIN

LENS COLOR: The *final figure* in Catalogue Number indicates that the le has RED color. When color other than red is desired, change this digit a figure from the listing below. Note that white lenses are translucent a are always furnished unfrosted (For example: 111-3830-135).

Red — 1 . . . Green — 2 . . . Yellow (Amber) — 3 . . . Blue — 4 . . White Trans. — 5 . . . Light Yellow — 6 . . . Clear (Colorless) — 7



Sub-Sub-Miniatures

New . . . Series 252-9951-971

Conforms to Drawing MS25446 . . . Requires only .193" Panel Mounting Clearance Hole . . . For complete data, refer to Catalog L-168A.

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DIALIGHT CORPORATION • BROOKLYN, N. Y. 11237

(Illustrations are approx. actual size)

When Connecting a Neon Light to a Circuit Having One Side Grounded, Always Connect the Hot Side of the Circuit to the Terminal Marked + (Center Contact).

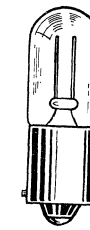
ASSEMBLIES with BUILT-IN RESISTORS (U. S. Patent No. 2,421,321)

For the T-3¼ NEON GLOW LAMP FOR VOLTAGES UP TO 250

NOTE: To designate a unit for use with the High Brightness **NE-51H** lamp, add **H** to the Catalog Number. Example: 52408H-991

For operation on 105-125V. or 210-250V. . . . The required resistor is an integral part of the unit — BUILT IN. Also, simple external resistors for all higher voltages.

Assemblies Conform to All Applicable Military Specifications.



NE-51 or NE-51H (High Brightness)

75 W., 125V.

BUILT-IN RESISTOR VALUES for the NE-51 TYPE GLOW LAMPS (Values in ohms)

NE-51			New NE-51H (high brightness)		
VOLTS	Applied to terminals 105-125 AC-DC	210-250 AC-DC	VOLTS	Applied to terminals 110-125 AC	210-250 AC-DC
BRIGHT LIGHT	■ 56,000	■ 180,000	BRIGHT LIGHT	■ 22,000	■ 68,000
LONG LAMP LIFE	100,000	270,000	LONG LAMP LIFE	33,000	100,000

■ **Standard values of patented built-in resistors. (Other values optional).**

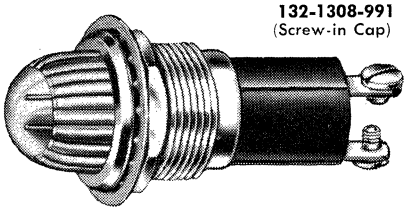
External resistors will be furnished which will permit use of these pilot lights on voltages higher than 250 volts.

PROPER CHOICE OF LAMP AND BUILT-IN RESISTOR VALUES: The NE-51 glow lamp types are shown with resistor tables. Lamps are the *standard NE-51* and the *new NE-51H*. The *high brightness lamp* may be operated at about three times the level of current that may be applied to the standard lamp and it will produce more than eight times as much light.

* The **NE-51H** Neon Glow Lamp is not recommended for use on **DC** circuits under 160 V.

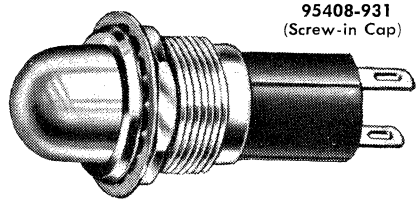
For Mounting in 11/16" Clearance Hole *(For Front of Panel Insertion)*

132-1308-991 (Screw-in Cap)



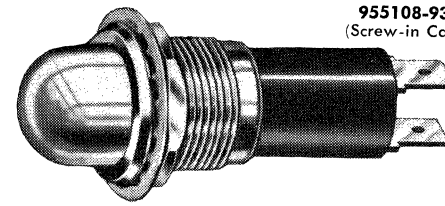
With SCREW TERMINALS

95408-931 (Screw-in Cap)



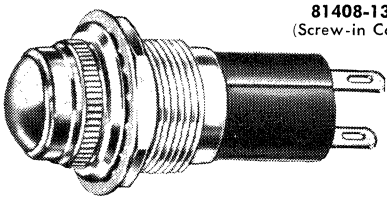
With SOLDERING TERMINALS

955108-931 (Screw-in Cap)

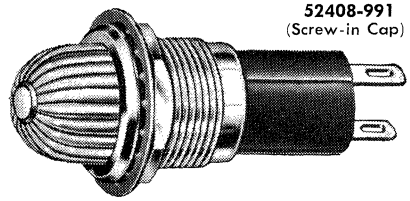


With QUICK-CONNECT TERMINALS

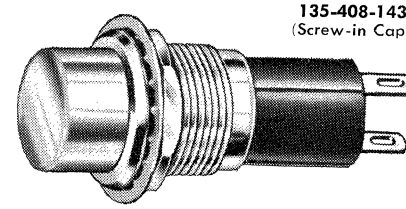
81408-131 (Screw-in Cap)



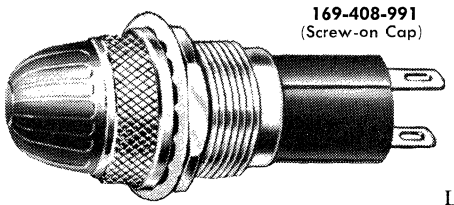
52408-991 (Screw-in Cap)



135-408-1431 (Screw-in Cap)



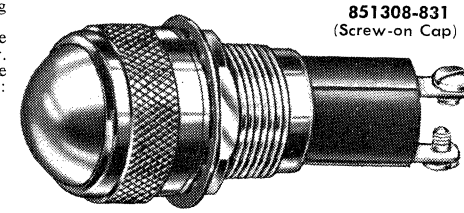
169-408-991 (Screw-on Cap)



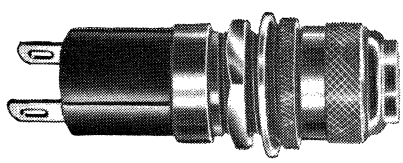
LENS COLOR: The *final figure* in the Catalog Number indicates that the lens has RED color. When color other than red is desired, change this digit to a figure from the listing below. Note: White lenses are translucent and are always furnished unfrosted. (For example: 37408-335).

Red—1; Yellow (Amber)—3;
White Translucent—5;
Light Yellow—6; Clear (Colorless)—7.

851308-831 (Screw-on Cap)



9/16" Assemblies mount from BACK of panel only



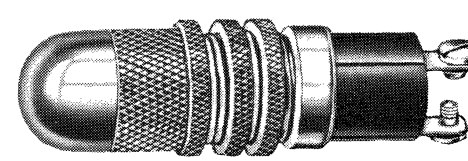
37408-XP15-331 (Screw-on Cap)

With optional hardware

Assemblies which mount in a 9/16" clearance hole are useful where close center-to-center spacing is required.

Standard Hardware consists of 3 knurled rings . . . *Optional Hardware* consists of 1 ring, 1 lockwasher, and 1 mounting nut . . . Specify hardware desired.

For details, refer to Catalog L-161E.



With standard hardware

171308-931 (Screw-on Cap)

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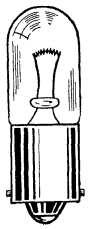


(Illustrations are approx. actual size)

ASSEMBLIES for T-3¼ INCANDESCENT LAMP

2 to 55V. (No Higher)

For details, refer to Catalog L-161E.

With Miniature Bayonet Base

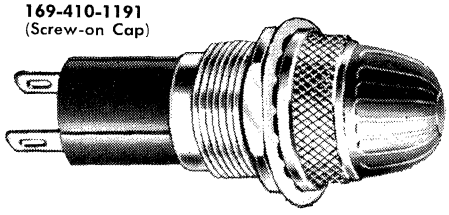
Conform to All Applicable Military Specifications

For Mounting in 11/16" Clearance Hole

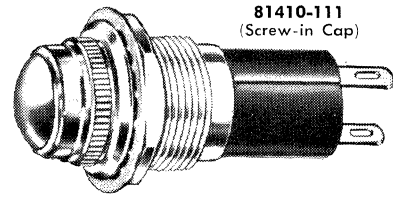
For Front of Panel Insertion

75W., 125V.

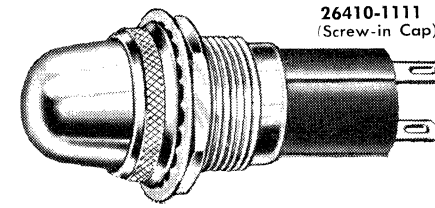
169-410-1191
(Screw-on Cap)



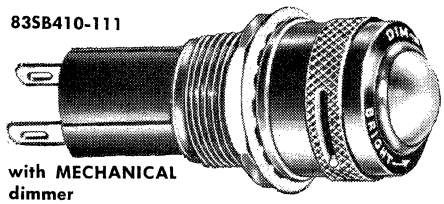
81410-111
(Screw-in Cap)



26410-1111
(Screw-in Cap)



83SB410-111



with MECHANICAL dimmer

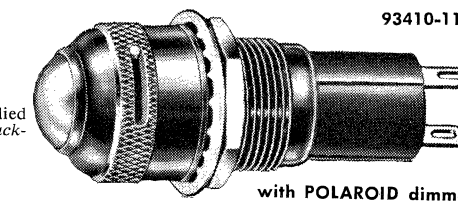
Mechanical and Polaroid Dimmers

Mount in 11/16" clearance hole

Any of the Dialco mechanical dimmers can be supplied either for *"Complete Blackout"* or for *"Semi-Blackout"*. Typical Catalogue Numbers are as follows:

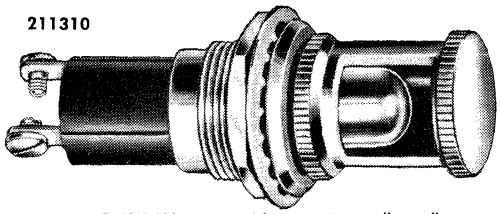
83B410-111 ("Complete Blackout")
83SB410-111 ("Semi-Blackout")

93410-111



with POLAROID dimmer

211310



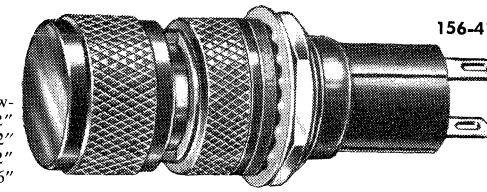
PUSH-IN CAP with opening ½" x ½"
Typical Assembly. Other Catalog Nos. are assigned to cover other optional features.

Assemblies with Light Shield Caps

Mount in 11/16" clearance hole

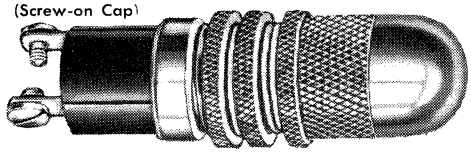
Complete Series available with the following Push-in Caps: With ONE opening 3/32" x 1/2", 3/16" x 1/2", 3/16" x 9/16", 1/2" x 1/2" . . . With TWO openings 1/2" x 1/2" . . . Also Screw-in Cap with opening 3/16" x 1/2", and Friction-Fit Cap with opening 1/8" x 1/2".

156-410



PUSH-PULL CAP
Variable Opening—from 0" to ¼" x ⅜"

(Screw-on Cap)



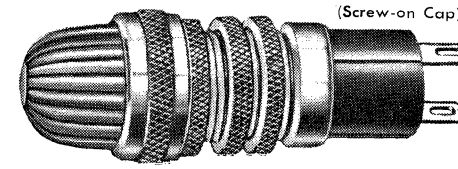
with standard hardware: **171310-931**
with optional hardware: **171310-XP15-931**

For Mounting in 9/16" Clearance Hole

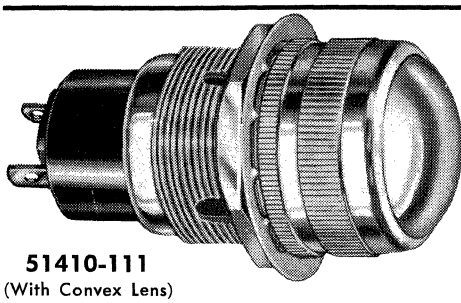
(from BACK of panel)

Standard Hardware consists of 3 knurled rings . . . *Optional Hardware* consists of 1 ring, 1 lockwasher, and 1 mounting nut . . . Specify hardware desired.

(Screw-on Cap)



with standard hardware: **70410-1191**
with optional hardware: **70410-XP10-1191**

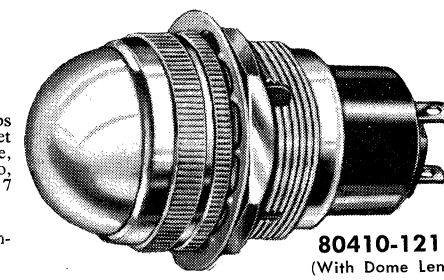


51410-111
(With Convex Lens)

For Mounting in 1" Clearance Hole

Complete Series available with Screw-on Caps (as illustrated), Friction-Fit Caps, or Bayonet Caps. Choice of 9 Lens Types: Flat, Dome, Stovepipe, Faceted, Torpedo Faceted, Torpedo, Large Torpedo, Small Convex, Large Convex. 7 Lens Colors (see below).

GLASS LENSES: Plastic lenses are not recommended for use with lamps rated over 2 watts.



80410-1211
(With Dome Lens)

LENS COLOR: The *final figure* in the above numbers indicates that the lens has RED color. When color other than red is desired, change this digit to a figure from the listing below. Note that white lenses are translucent and are always furnished unfrosted. (For example: 80410-1235.)

Red—1; Green—2; Yellow (Amber)—3; Blue—4; White Translucent—5; Light Yellow—6; Clear (Colorless)—7.

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(Illustrations are approx. actual size)

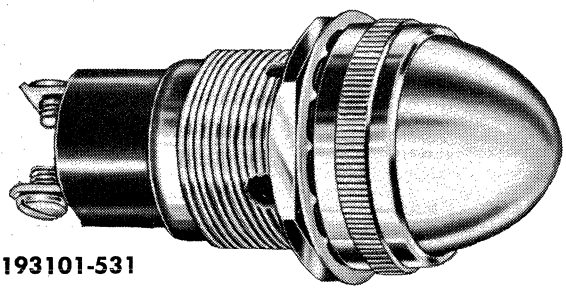
ASSEMBLIES for INCANDESCENT LAMPS

(with double contact bayonet base or candelabra screw base)

75W., 125V.

Range of Voltages at 6 watts) . . . **G-6** Double Contact Bayonet Base Lamps: 32 V. max.
S-6 Double Contact Bayonet Base Lamps, or Candelabra Screw Base Lamps:
6, 12, 24, 32, 48, 70-80, 125, 130, 135, and 145 volts.

For details, refer to Catalog L-161E.



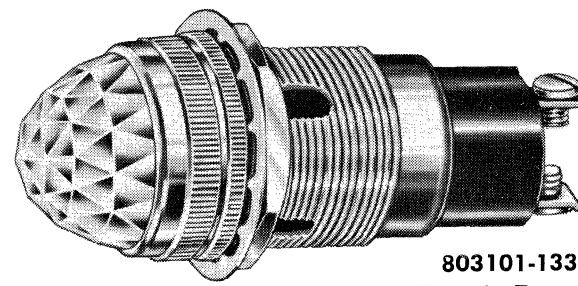
193101-531

Assembly with Screw-on Cap, Large Torpedo Lens, and Screw Terminals in protruding position.

For Mounting in 1″ Clearance Hole

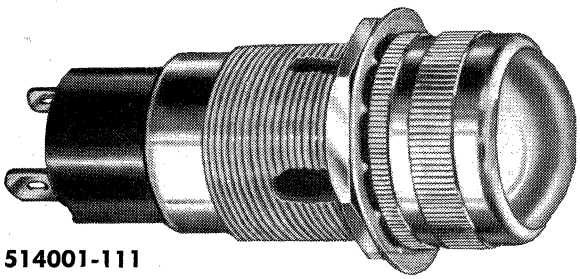
•

Typical assemblies for use with S-6 bulb with candelabra screw base



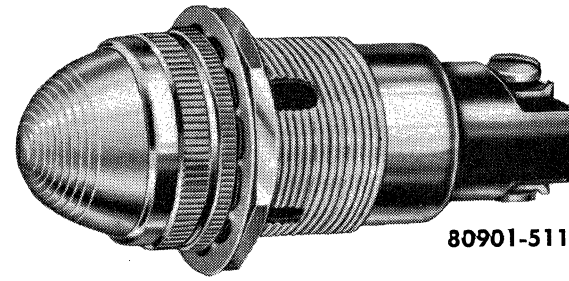
803101-1331

Assembly with Screw-on Cap, Torpedo Faceted Lens, and Screw Terminals in protruding position.



514001-111

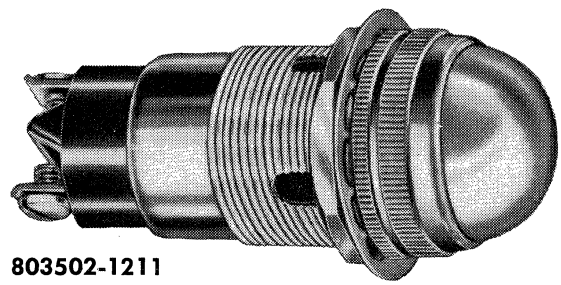
Assembly with Screw-on Cap, Convex Lens, and Soldering Terminals. Similar units available with Quick Connect Terminals.



80901-511

Assembly with Screw-on Cap, Torpedo Lens, and Screw Terminals in side position. Similar units available with screw terminals in protruding position (see above).

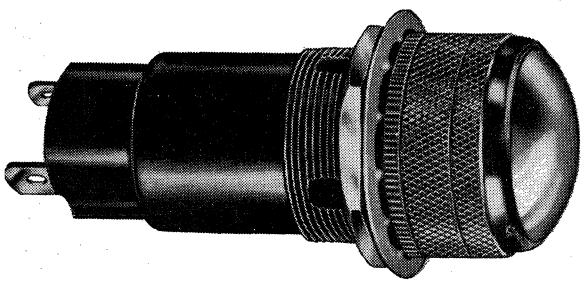
Typical assembly for use with S-6 double contact bayonet base incandescent lamps



803502-1211

Assembly with Screw-on Cap, Dome Lens, and Screw Terminals. Terminals may be specified as fixed type or moveable type.

DIMMERS and LIGHT SHIELDS



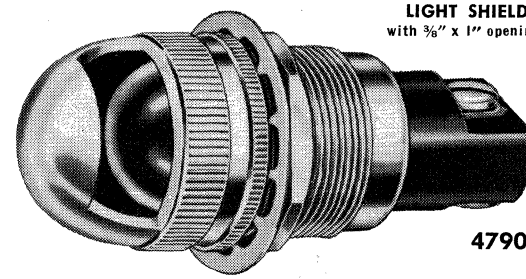
71B4001-111 Mechanical Dimmer

784001-111 Polaroid Dimmer

Typical assemblies for use with S-6 bulb with candelabra screw base

Shown are typical assemblies in a most extensive Series available only from DIALCO.

LIGHT SHIELD
with 3/8″ x 1″ opening



47901

LENS COLOR: The *final* figure in the above numbers indicates that the lens has RED color. When color other than red is desired, change this digit to a figure from the listing below. Note that *white lenses* are translucent and are always furnished unfrosted. (For example: 80901-535).

Red—1; Green—2; Yellow (Amber)—3; Blue—4; White Translucent—5; Light Yellow—6; Clear (Colorless)—7.

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(Illustrations of indicator lights are approx. actual size)

OIL-TIGHT INDICATOR LIGHTS

75W., 125V.

OIL-TIGHT • WATER-TIGHT • DUST-TIGHT

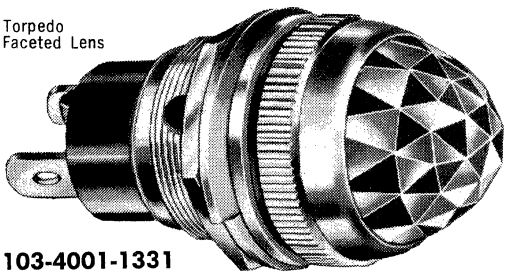
WITH RETAINED "O" RING SEAL CONSTRUCTION

•

For HEAVY DUTY INDUSTRIAL APPLICATIONS

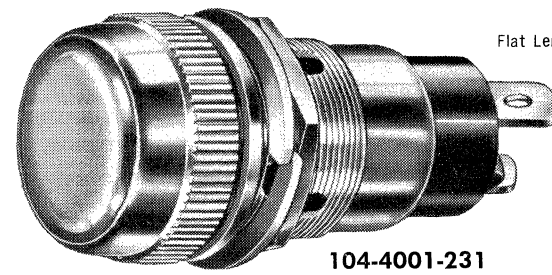
•

Torpedo Faceted Lens



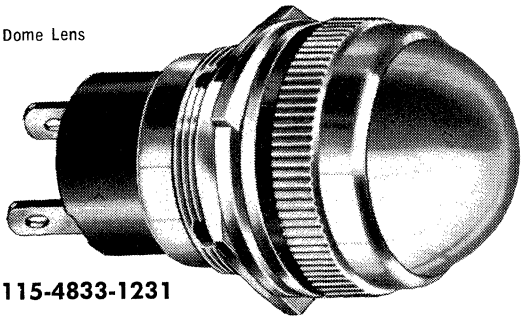
103-4001-1331

Flat Lens



104-4001-231

Dome Lens



115-4833-1231

For S-6 incandescent lamps with intermediate screw base.

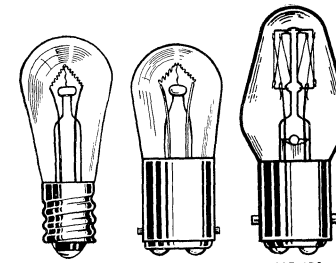
In this Series the larger base and socket offer adequate electrical clearance for 250 Volts. Large lens area provides stronger illumination and — with **flat** lens — more legible legend presentation. Also available with binding screw

Mount in 1" Clearance Hole

Rugged, designed for severe vibration conditions. Features include: One-piece solid brass mounting bushing . . . Three retained oil-proof elastomer seals (1 gasket and 2 "O" Rings) . . . Solid brass knurled lens holder with gasketed lens . . . High impact phenolic insulation . . . Rugged terminals—soldering or binding screw type . . . An Oil-Tight Adaptor Set (Cat. No. 1316-L) is available for mounting any 1" assembly in a 1 3/16" clearance hole.

Five lens types available: Torpedo, Torpedo Faceted, Dome, Stovepipe, or Flat lens. The **flat lens** can be used with **discs** inserted behind the lens to display a legend . . . 7 lens colors are available see bottom of Page 1016.

For complete details, refer to Catalog L-200C.



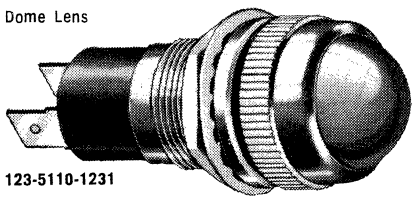
S-6 Cand. Screw | S-6 D.C. Bay. | 10C7/1DC D.C. Bay

3 types of Incandescent Lamps may be used: Especially recommended is the 10C7/1DC lamp which is designed to WITHSTAND SEVERE VIBRATION and SHOCK. (Lamps shown approx. 2/3 actual size).

ASSEMBLIES for T-3¼ INCANDESCENT or NEON LAMPS

With Miniature Bayonet Base

Dome Lens

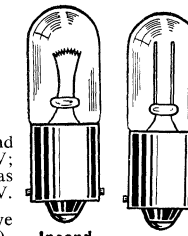


123-5110-1231

For Mounting in 11/16" Clearance Hole

In these Oil-Tight Indicator Lights, a high degree of resistance to shock and vibration is achieved by the use of the rugged *Neon* lamps on 120 and 240 V; and by choosing low voltage *Incandescent* lamps with short filaments, such as No. 44 or No. 1866 for circuits powered by transformers stepping down to 6.3 V.

Exclusive Features: Assemblies for use with NE-51 Neon Glow Lamps have *"built-in"* resistors—an exclusive *Dialco* feature (U.S. Pat. No. 2,421,321). *Options include:* binding screw, soldering or quick connect terminals. 7 lens colors are available; see bottom of page 1015 for method of specifying color.



Incand. | **Neon NE-51 NE-51H (High Bright.)**

Assemblies for the **T-3¼ INCANDESCENT LAMP**

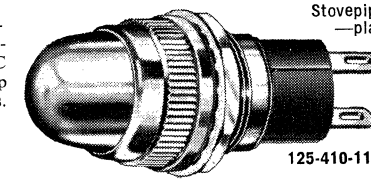
GLASS LENS TYPE	LENS SURFACE	CATALOG NO. with SCREW terminals	CATALOG NO. with SOLDERING terminals	CATALOG NO. with QUICK CONNECT terminals
DOME	unfrosted	123-1310-1231	123-410-1231	123-5110-1231
	back frosted	123-1310-1211	123-410-1211	123-5110-1211
STOVEPIPE	unfrosted	125-1310-1131	125-410-1131	125-5110-1131
	back frosted	125-1310-1111	125-410-1111	125-5110-1111
	inside fluted	125-1310-1191	125-410-1191	125-5110-1191

Also available with NE-51H (high brightness) Neon Lamps

Assemblies listed in the chart below may also be ordered for use with the NE-51H (High Brightness) Neon Glow Lamp on 110-125 V AC or 210-250 V AC-DC circuits. See page 1014 for lamp data and chart of resistor values.

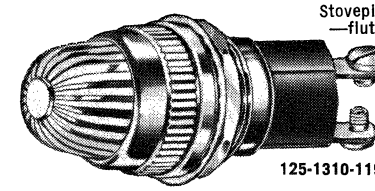
When Connecting a Neon Light to a Circuit Having One Side Grounded, Always Connect the Hot Side of the Circuit to the Terminal Marked + (Center Contact)

Stovepipe —plain



125-410-1131

Stovepipe —fluted



125-1310-1191

Assemblies with **Built-in Resistor** for the **NE-51 NEON GLOW LAMP****

LENS TYPE	LENS SURFACE	CATALOG NO. with SCREW terminals (105–125 V.)	CATALOG NO. with SOLDERING terminals (105–125 V.)	CATALOG NO. with QUICK CONNECT terminals (105–125 V.)	CATALOG NO. with SCREW terminals (210–250 V.)	CATALOG NO. with SOLDERING terminals (210–250 V.)	CATALOG NO. with QUICK CONNECT terminals (210–250 V.)
DOME (glass)	unfrosted	123-1308-1231	123-408-1231	123-5108-1231	123-9308-1231	123-9408-1231	123-8308-1231
DOME (plastic)	not matted	123-1308-831	123-408-831	123-5108-831	123-9308-831	123-9408-831	123-8308-831
	matted	123-1308-841	123-408-841	123-5108-841	123-9308-841	123-9408-841	123-8308-841
STOVEPIPE (glass)	unfrosted	125-1308-1131	125-408-1131	125-5108-1131	125-9308-1131	125-9408-1131	125-8308-1131
	inside fluted	125-1308-1191	125-408-1191	125-5108-1191	125-9308-1191	125-9408-1191	125-8308-1191
STOVEPIPE (plastic)	unfrosted	125-1308-931	125-408-931	125-5108-931	125-9308-931	125-9408-931	125-8308-931
	inside fluted	125-1308-991	125-408-991	125-5108-991	125-9308-991	125-9408-991	125-8308-991

****For assemblies to accommodate the **NE-51H High Brightness** Lamp, add **H** to the Catalog Number. **Example:** 123-1308**H**-831

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DIALIGHT CORPORATION • BROOKLYN, N. Y. 11237

(Illustrations are approx. actual size)

A SELECTION OF OPEN TYPES

For T-3¼ Low Voltage Incandescent Lamps

Typical assemblies for bayonet base lamp.
Available also for screw base type. See listing below.

Min. Screw Base (2-48V.)

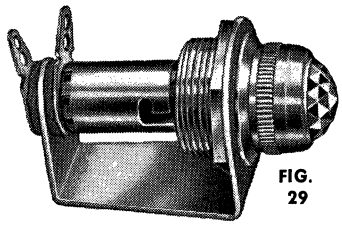
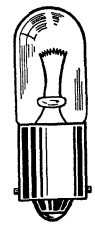


FIG. 29



Min. Bayonet Base (2-55V.)

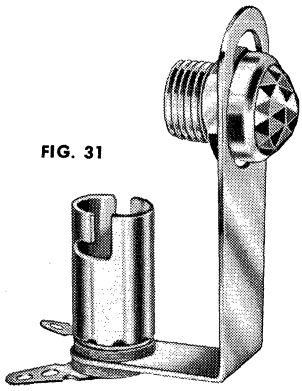


FIG. 31

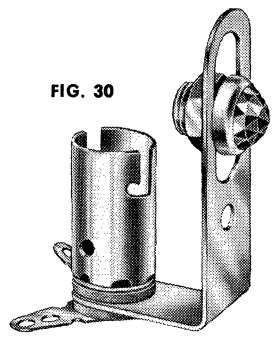


FIG. 30

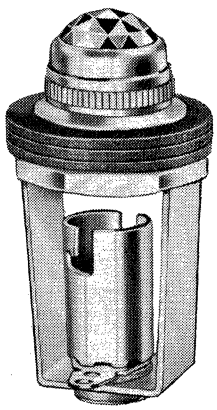


FIG. 32

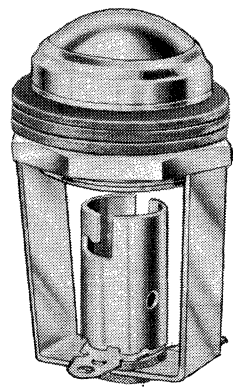


FIG. 33

CATALOGUE NUMBERS

Assemblies for T-3¼ miniature bayonet base lamps

No. 810B-431	Faceted	½" lens.	For	11/16" mounting hole.	Fig. 29
No. 710U-431	Faceted	½" lens.	For	7/16" mounting hole.	Fig. 31
No. 755U-431	Faceted	11/32" lens.	For	9/32" mounting hole.	Fig. 30
No. 857B-431	Faceted	½" lens.	For	11/16" mounting hole.	Fig. 32
No. 67B-111	Convex	¾" lens.	For	13/16" mounting hole.	Fig. 33

Assemblies for T-3¼ miniature screw base lamps

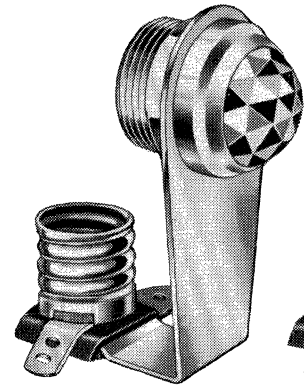
					Similar to
No. 810M-431	Faceted	½" lens.	For	11/16" mounting hole.	Fig. 29
No. 510-431	Faceted	½" lens.	For	7/16" mounting hole.	Fig. 31
No. 555-431	Faceted	11/32" lens.	For	9/32" mounting hole.	Fig. 30
No. 855-431	Faceted	½" lens.	For	11/16" mounting hole.	Fig. 32
No. 66M-111	Convex	¾" lens.	For	13/16" mounting hole.	Fig. 33

LENS COLOR: The **final figure** in the catalogue number indicates that lens has RED color. When color other than red is desired, change this digit to a figure from the listing below. Note that white lenses are translucent and are always furnished unfrosted.

Red—1 Green—2 Yellow (Amber)—3 Blue—4
White Translucent—5 Light Yellow—6 Clear (Colorless)—7

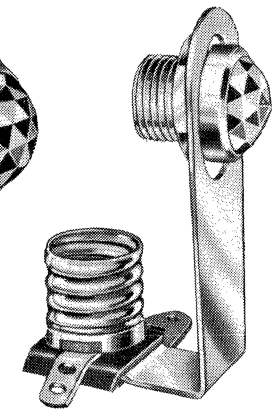
For Candelabra Screw Base Lamps

75W., 125V.



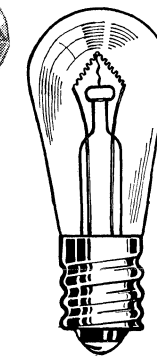
25-18-15-431

Tamper-proof lens holder. 5/8" Faceted Lens. Requires 11/16" mounting clearance hole.

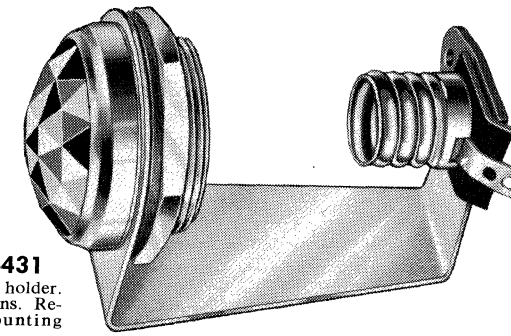


10-18-14-431

With elongated slot. 1/2" Faceted Lens. Requires 7/16" mounting clearance hole.

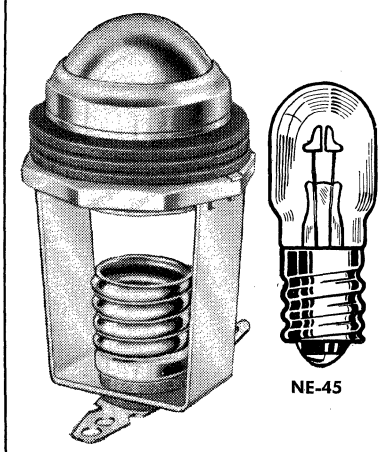


S-6 (6 to 145 V.)



31-18-16-431

Friction-fit lens holder. 1" Faceted Lens. Requires 1" mounting clearance hole.



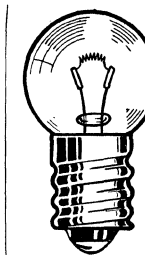
NE-45

67BN-831

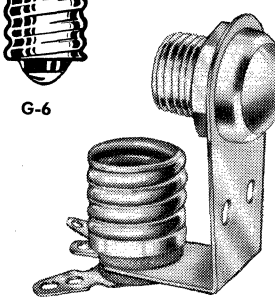
For NE-45 Neon Glow Lamps (105-125 V.)

Friction-fit lens holder. 3/4" Plastic Dome Lens. Requires 13/16" mounting clearance hole.

For details, refer to Catalog L-161E.



G-6



610-121

For G-6 Low Voltage Lamps (up to 32 V., no higher)

Tamper-proof lens holder. ½" Convex Lens. Requires 7/16" mounting clearance hole.

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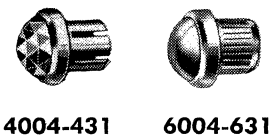
Lens Holders with Lenses for Panel Mounting

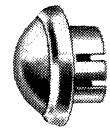
For details, refer to Catalog L-161E.

FRICTION FIT PUSH IN TYPES

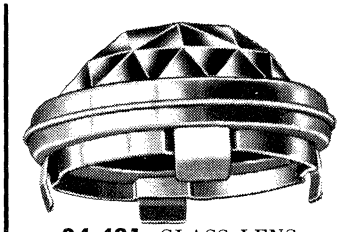


4004-431
9/32″ hole
1/4″ shank

6004-631
9/32″ hole
1/4″ shank

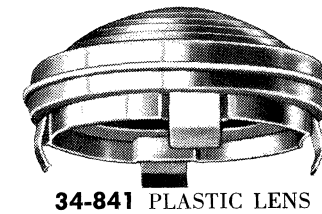


38003-631
3/8″ mtg. hole
3/16″ shank
Options: 1/8″, 3/32″

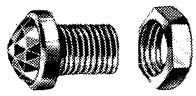


34-431 GLASS LENS

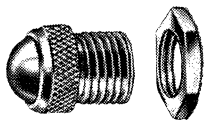
These Holders snap into a 1⅜″ hole



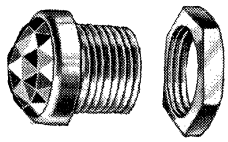
34-841 PLASTIC LENS



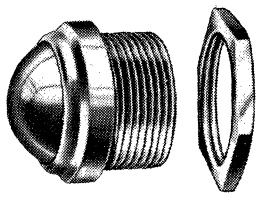
5006-431
9/32″–32 thread
3/8″ shank
(option 1/4″)



7005-631
3/8″–24 thread
5/16″ shank

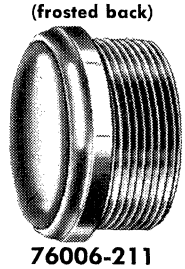


10006-431
7/16″–27 thread
3/8″ shank
(options: 1/4″, 5/8″)



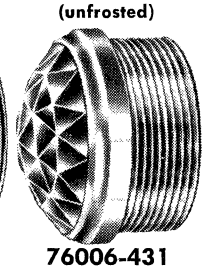
25006-111
11/16″–27 thread
3/8″ shank
(option 1/4″)

FLAT (frosted back)



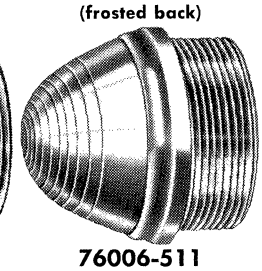
76006-211

FACETED (unfrosted)



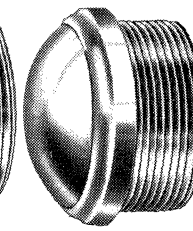
76006-431

TORPEDO (frosted back)



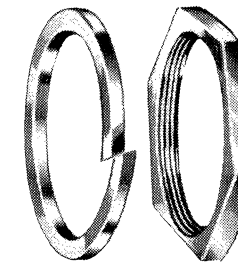
76006-511

CONVEX (frosted back)



1″–27 thread

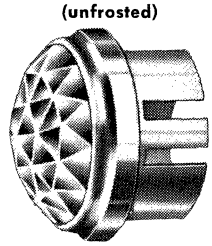
76006-111



3/8″ shank—tamper proo

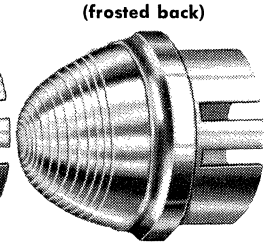
Mount in 1″ clearance hole

FACETED (unfrosted)



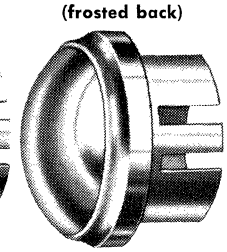
31-431

TORPEDO (frosted back)



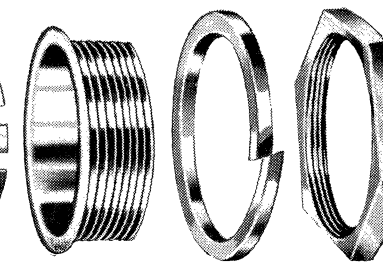
31-511

CONVEX (frosted back)



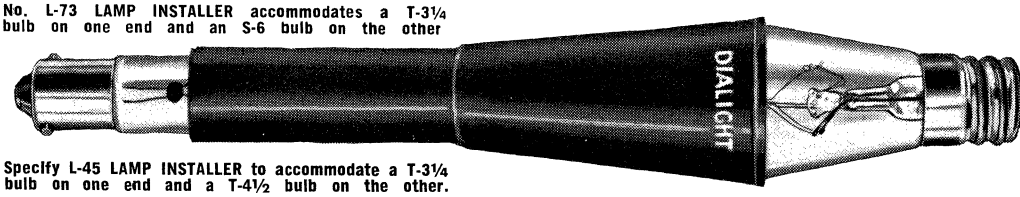
31-111

BUSHING **31246**



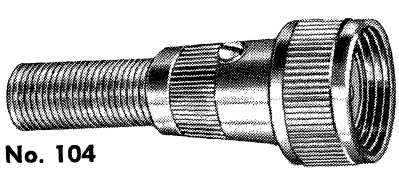
1″–27 thread 3/8″ shank

No. L-73 LAMP INSTALLER accommodates a T-3¼ bulb on one end and an S-6 bulb on the other

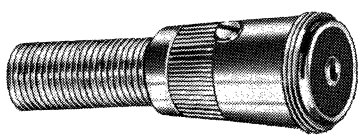


Specify L-45 LAMP INSTALLER to accommodate a T-3¼ bulb on one end and a T-4½ bulb on the other.

CONNECTORS FOR SINGLE CONDUCTOR CABLE

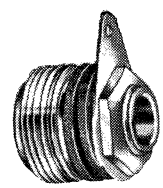


No. 104

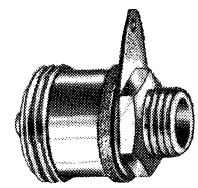


No. 101

For Microphones, Speakers, Pick-ups, Jacks (using cable shield for second conductor). Female Cable Connector, Catalog **No. 104.** This unit has a spring protector to prevent sharp bending of cable. It solders to cable sheath, and is secured by a set screw. **Catalog No. 101** has the same general characteristics, but is a **male** connector.



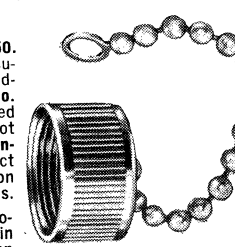
No. 50



No. 51

Male Chassis Connectors . . . No. 50. Shell grounds to panel, or may be insulated by washers. Fits a ⅜″—24 threaded hole, or may be secured by nut. **No. 50P** is similar to No. 50, but is designed to force fit in hole in panel. Does not require a nut to fit in place. **No. 51 Connector** has a sprung center contact which grounds before cable connection is broken, preventing open circuit howls.

Cap and Chain, Catalog No. 103. To protect unused male connectors. Chain secured by screw prevents loss when removed to make connection.



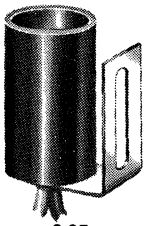
No. 103

© U.C.P., Inc.

LEECRAFT® LAMPHOLDERS — PILOT LIGHT SOCKETS — SPECIAL ASSEMBLIES

MINIATURE BAYONET

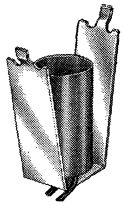
3-00 SERIES



3-05

See Figure 2 for typical mountings.

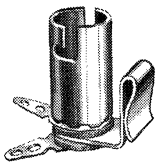
2-00 SERIES



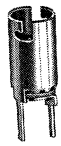
2-15

See Figure 1 for typical mountings.

7-00 SERIES



7-01

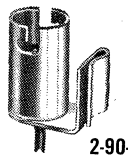


7-35
For P.C. Boards.

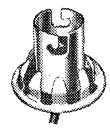
*Sockets can be supplied with one lead or one terminal for use in grounded circuits.

Example: To specify grounded socket 7-01 becomes 7-01-1, 2-15 becomes 2-15-1, etc.

2-00-1 SERIES*

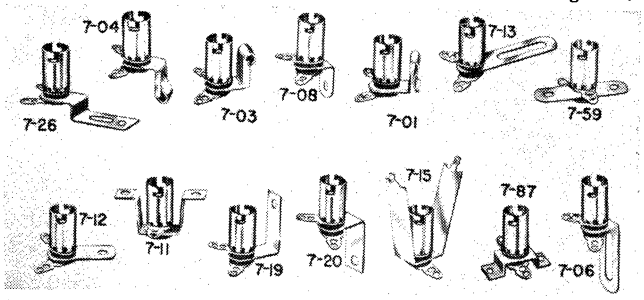


2-90-1



2-40-1

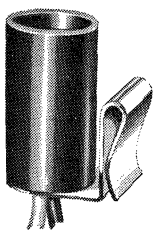
Brackets are applicable to Series 2-00, 5-00, 6-00, 7-00, 10-00, and 17-00. (Figure 1)



ALL SOCKETS ILLUSTRATED ABOVE HAVE 2 TERMINALS. EXAMPLE: If bracket attached to 7-12 **is required** with series mentioned, **specify:** 2-12, 5-12, 6-12, 7-12, 10-12, 17-12.

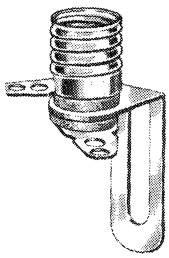
CANDELABRA SCREW

4-00 SERIES



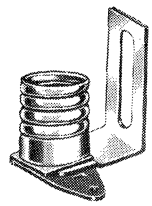
4-45

6-00 SERIES

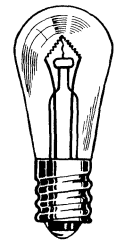


6-06

18-00 SERIES

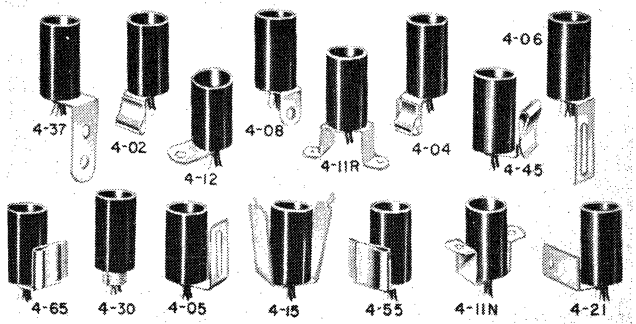


18-79



S-6
7C7-120V
10C7-120V

-00 SERIES — CAND. SCREW • 3-00 SERIES — MIN. BAY.
Brackets are applicable to both series. (Figure 2)



When 3-00 Series Min. Bay. is required, specify 3-37, 3-02, etc.

MIDGET SCREW

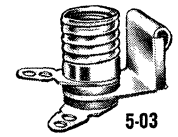
16-00 SERIES SOLDER. TERM.
•
16-200 SERIES WIRE LEADS

16-08

MINIATURE SCREW

5-00 SERIES
SOLDER TERMINALS or WIRE LEADS

See Figure 1 for typical mountings.



5-03

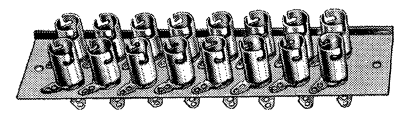
MIDGET GROOVED

25-200 SERIES WIRE LEADS
•
25-00 SERIES SOLDERING TERMINALS

25-212-1

Used in data processing and automation fields with **Lens-End** Lamp Nos. **253, 253X,** and **261.** Send for Data Sheet No. 25.

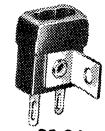
No. 7M-16



MULTIPLE ASSEMBLIES can be made to your specifications.

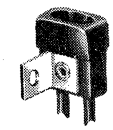
WEDGE BASE

23-00 SERIES



23-24

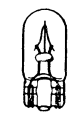
23-200 SERIES



23-223

24-00 SERIES

24-07A



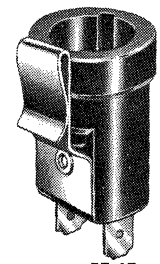
#159-6V
#161-12V
#158-12V
#259-6.3V

23-00 SERIES — Molded housing, terminals.
23-200 SERIES — Molded housing with wire leads.
24-00 SERIES — Wafer type terminals.

CANDELABRA BAYONET

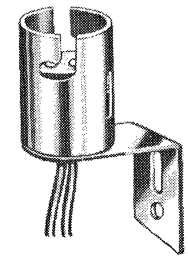
DOUBLE CONTACT

57-00 SERIES



57-45

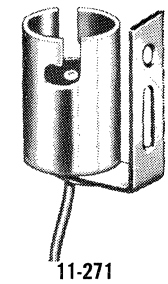
12-200 SERIES



12-272

SINGLE CONTACT

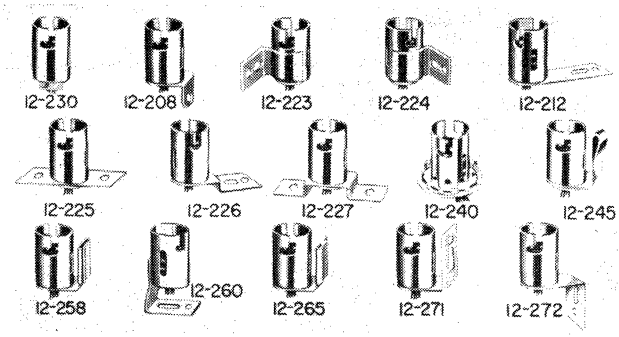
11-200 SERIES



11-271

See Figure 3 for typical mountings.

12-200 SERIES — DOUBLE CONTACT CAND. BAY.
11-200 SERIES — SINGLE CONTACT CAND. BAY. (Fig. 3)



Mounting Brackets shown above can also be used with 11-200 and 12-00 Series. If the bracket attached to 12-272 is required, **specify** 11-272 for 11-200 Series, or 12-72 for 12-00 Series.

LEECRAFT MANUFACTURING CO., Inc.
Long Island City 1, N. Y.

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SNAPLITE® INDICATOR LIGHTS
NEON PILOT LIGHTS and SPECIAL ASSEMBLIES
LEECRAFT®

TINEON INDICATOR LIGHTS

• Long life High Brightness Neon Lamps • Press fit into 5/16" hole • Rated 110-250V • Nylon housing in colors (white standard) • Speed nut furnished • Plastic lens in colors • Legends • Built-in Resistor • Insulated Leads.

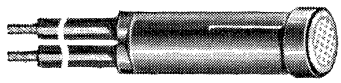
No. 36N2311-6

3600 SERIES (with built-in resistor)

STANDARD 3600 SERIES — 110-125 VOLTS*

Nylon Housing Color	Lens Color Red	Amber	White	Clear
Black	36N1311-6	36N1313-6	36N1315-6	36N1317-6
White	36N2311-6	36N2313-6	36N2315-6	36N2317-6
Red	36N3311-6	36N3313-6	36N3315-6	36N3317-6
Yellow	36N6311-6	36N6313-6	36N6315-6	36N6317-6
Gray	36N7311-6	36N7313-6	36N7315-6	36N7317-6

*If 210-250 V. is required, add **H** after second digit in catalog number. Example: 36**H**N3311-6



No. 41N1315-6

4100 SERIES (less resistor)

STANDARD 4100 SERIES

Nylon Housing Color	Lens Color Red	Amber	White	Clear
Black	41N1311-6	41N1313-6	41N1315-6	41N1317-6
White	41N2311-6	41N2313-6	41N2315-6	41N2317-6
Red	41N3311-6	41N3313-6	41N3315-6	41N3317-6
Yellow	41N6311-6	41N6313-6	41N6315-6	41N6317-6
Gray	41N7311-6	41N7313-6	41N7315-6	41N7317-6

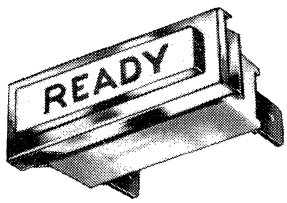
with ALUMINUM BEZEL
All Tineons may be furnished with aluminum bezel. Please specify when ordering.

No. 36EN2111-6 (Hi-Hat red lens) With aluminum bezel

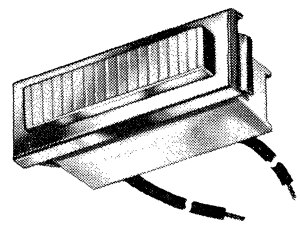
RECTANGULAR INDICATOR LIGHTS

Equipped with long life high brightness neon lamps, these pilot lights have decorative chrome bezels, and are furnished with insulated wire leads or male tab terminals. High-heat plastic lenses are available in a choice of transparent and translucent colors.

BRAND NAMES, TRADE MARKS and appropriate legends can be clearly hot-stamped on the lens. Series 3100 (wire leads) and 3100T (tabs) are rated 110-125V. Series 3100H (wire leads) and 3100 HT (tabs) are rated 210-250V. UL and CSA listed and approved.



No. 31-2115TL



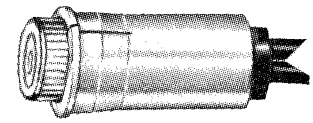
No. 31-2111-6

Lens Color	3100 Series Wire Leads	3100H Series Wire Leads	3100T Series .250 Tabs	3100HT Series .250 Tabs
Red	31-2111-6	31H2111-6	31-2111T	31H2111T
Amber	31-2113-6	31H2113-6	31-2113T	31H2113T
Clear	31-2117-6	31H2117-6	31-2117T	31H2117T
White (Translucent)	31-2115-6	31H2115-6	31-2115T	31H2115T

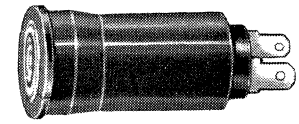
Write for catalog. Prototype samples available on request.

SNAPLITE INDICATOR LIGHTS

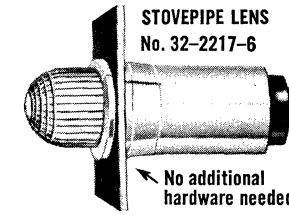
SNAPLITES contain long life neon lamps of the high brightness types. Within the housing are resistors chosen to suit the applied circuit voltage and to provide the required lamp life so that replacement of the lamp will be unnecessary during the life of the equipment.



CYLINDRICAL LENS — No. 32-2111-6



FLUSH LENS — No. 32-1315T



FEATURES: Snaps into place in ½" hole with no additional hardware . . . Wide variety of Lens and Housing colors . . . Incandescent-like brightness . . . Tab or Solder Terminals; or Wire Leads.

HOUSING COLORS: The standard housing color is **white** as indicated by the third digit in the Catalog Number. When color other than white is desired, **change** this digit to a number from the listing below:

Black—1, White—2, Red—3, Green—4, Blue—5, Yellow—6, Gray—7
Example: 32-5111-6 (Blue housing).

CHROME RINGS

These units are also available with chrome rings for those applications where a decorative ring, or bezel, is desired instead of a specific housing color.

HOW TO ORDER SNAPLITES WITH RINGS:

For Hole Size .500 to .513: Add letter **"R"** after Series Number in place of the dash (—) . . . Example: 32-2111-6 with Ring becomes 32**R**2111-6
For Hole Size .514 to .519: Add letters **"CR"** after Series Number in place of the dash (—) . . . Example: 35-2131T with Ring becomes 35**CR**2131T

LAMPS and RESISTORS: Standard units contain high brightness Neon lamps and appropriate resistors for long life. A variety of other lamps and/or resistors can be supplied.

LEGENDS: Can be hot-stamped on the face of the lens.

Leecraft Series	Volts	Terminations
3200	110-125	insulated wire leads
3500	210-250	insulated wire leads
3200T	110-125	.187 tab terminals
3500T	210-250	.187 tab terminals

1/3W, 125V
1/3W, 250V

CATALOG NUMBERS with CYLINDRICAL LENS

Lens Color	3200 Series Wire Leads	3500 Series Wire Leads	3200T Series .187 Tabs	3500T Series .187 Tabs
Red	32-2111-6	35-2111-6	32-2111T	35-2111T
Amber	32-2113-6	35-2113-6	32-2113T	35-2113T
Clear	32-2117-6	35-2117-6	32-2117T	35-2117T
White (Translucent)	32-2115-6	35-2115-6	32-2115T	35-2115T

CATALOG NUMBERS with FLUSH LENS

Lens Color	3200 Series Wire Leads	3500 Series Wire Leads	3200T Series .187 Tabs	3500T Series .187 Tabs
Red	32-2311-6	35-2311-6	32-2311T	35-2311T
Amber	32-2313-6	35-2313-6	32-2313T	35-2313T
Clear	32-2317-6	35-2317-6	32-2317T	35-2317T
White (Translucent)	32-2315-6	35-2315-6	32-2315T	35-2315T

CATALOG NUMBERS with STOVEPIPE LENS

Lens Color	3200 Series Wire Leads	3500 Series Wire Leads	3200T Series .187 Tabs	3500T Series .187 Tabs
Red	32-2211-6	35-2211-6	32-2211T	35-2211T
Amber	32-2213-6	35-2213-6	32-2213T	35-2213T
Clear	32-2217-6	35-2217-6	32-2217T	35-2217T
White (Translucent)	32-2215-6	35-2215-6	32-2215T	35-2215T

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Long Island City 1, N. Y.

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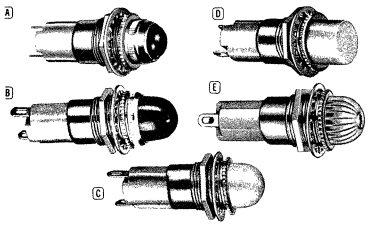
DRAKE
CHICAGO 31, ILLINOIS

INDICATOR LIGHTS



"DELUXE MOLDED" Series
MINIATURE BAYONET BASE
INDICATOR LIGHTS

Polished chrome finish (MIL units are black nickel plated), molded Glaskyd housing give fine appearance, assure dependability. All "DELUXE MOLDED" units have Drake's E-Z-Tite flange for quick assembly with Drake No. 32 wrench. Install lamps and mount units from front of panel up to 13/32" thick, in 11/16" dia. mounting hole on 31/32" centers. Units with built-in 1/4 watt series resistors take neon lamps.

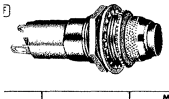
(ALL ILLUSTRATIONS APPROX. 3/8 ACTUAL SIZE)

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Lugs	Built-in Resistor (Ohms)	Net Each Lots Of 1-9	10-24	25-99
A	5200-222-101		1/2"	17/32"	1 5/32"	Solder		$ .91	$ .82	$ .76
B	5200-222-301		5/8"	11/16"	1 5/32"	Solder		1.12	1.01	.93
C	5200-222-304		5/8"	1/2"	1 5/32"	Solder		.78	.70	.65
D	5200-222-604		5/8"	7/16"	1 5/32"	Solder		.78	.70	.65
	5200-228-101	LH75-LC14	1/2"	17/32"	1 5/32"	Solder		1.25	1.12	1.04
B*	5200-228-301	LH75-LC15	5/8"	11/16"	1 5/32"	Solder		1.47	1.32	1.22
	5200-229-101	LH62-BR2	1/2"	17/32"	1 5/32"	Solder		1.19	1.07	.99
C*	5200-229-303	LH62-PR5	5/8"	1/2"	1 5/32"	Solder		.99	.90	.83
	5200-232-103		1/2"	17/32"	1 5/32"	Solder	22K	1.02	.92	.85
E	5200-232-323		5/8"	1/2"	1 5/32"	Solder	22K	.93	.84	.78
	5200-232-623		5/8"	7/16"	1 5/32"	Solder	22K	.93	.84	.78
	5200-242-103		1/2"	17/32"	1 5/32"	Solder	100K	1.02	.92	.85
E	5200-242-323		5/8"	1/2"	1 5/32"	Solder	100K	.93	.84	.78
	5200-242-623		5/8"	7/16"	1 5/32"	Solder	100K	.93	.84	.78
	5200-248-100	LH76-LC14	1/2"	17/32"	1 5/32"	Solder	100K	1.43	1.28	1.19
	5200-249-103	LH64-PR2	1/2"	17/32"	1 5/32"	Solder	100K	1.32	1.19	1.10
C*	5200-249-303	LH64-PR5	5/8"	1/2"	1 5/32"	Solder	100K	1.17	1.06	.98

T-3¼ BULB 6.3 to 28V

LAMP NO. NE51H — 125V and 250V

EN DESCRIPTION CODE (last three Drake Number digits): See explanation — "DRAKE LENS CODE NUMBER DATA"
Black Finish.



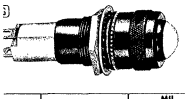
"DELUXE MOLDED" MINIATURE BAYONET BASE INDICATOR LIGHTS

with Friction Fit Lens Shank, for Easy Legend Alignment
Other features are same as those of units listed above.

• LAMPS SAME AS ABOVE •

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Lugs	Built-in Resistor (Ohms)	Net Each Lots Of 1-9	10-24	25-99
F	5203-222-550		1/2"	11/16"	1 5/32"	Solder		$1.07	$ .96	$ .89
F	5203-232-564		1/2"	11/16"	1 5/32"	Solder	22K	1.19	1.07	.99

ENS DESCRIPTION CODE (last three Drake Number digits): See explanation — "DRAKE LENS CODE NUMBER DATA"



"DELUXE MOLDED" MINIATURE BAYONET BASE INDICATOR LIGHTS

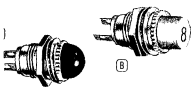
with Mechanical Dimmer Lens Assembly: Type 5207 for Complete Blackout, Type 5208 for Partial Blackout
Other features are same as those of units listed above.

• LAMPS SAME AS ABOVE •

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Lugs	Built-in Resistor (Ohms)	Net Each Lots Of 1-9	10-24	25-99
G	5207-228-101	LH75-LC17	1/2"	17/32"	1 5/32"	Solder		$2.15	$1.94	$1.79
G	5207-248-100	LH76-LC17	1/2"	17/32"	1 5/32"	Solder	100K	2.33	2.10	1.94
G	5208-228-101	LH75-LC18	1/2"	17/32"	1 5/32"	Solder		2.15	1.94	1.79
G	5208-248-100	LH76-LC18	1/2"	17/32"	1 5/32"	Solder	100K	2.33	2.10	1.94

ENS DESCRIPTION CODE (last three Drake Number digits): See explanation — "DRAKE LENS CODE NUMBER DATA"

OEM PRICES ON REQUEST ★ *UNITS CAN BE ORDERED WITH LAMP INSTALLED* ★ SPECIFY LENS COLOR



"TINYLITE" MIDGET SCREW BASE INDICATOR LIGHTS
SMALLEST INDICATOR LIGHTS WITH REPLACEABLE LAMP

Fully enclosed. Supplied with midget lamp installed. Lamps replaced and units mounted from front of panels up to 9/64" thick, in 7/64" dia. mounting hole on 19/64" centers. Friction device prevents lamps from loosening in use.

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Lamp Voltage	Replacement Lamp No.	Net Each Lots Of 1-9	10-24	25-99
A	121- 7-204		7/16"		13/64"	7	765	$ .76	$ .69	$ .63
B*	121- 7-604		3/8"		13/64"	7	765	.76	.69	.63
B	121- 7-644		3/8"	7/64"	13/64"	7	765	.88	.79	.73
A	121-14-204		7/16"	on	13/64"	14	1465	.77	.70	.64
B*	121-14-604		3/8"	7/64"	13/64"	14	1465	.77	.70	.64
B	121-14-644		3/8"	numbers	13/64"	14	1465	.89	.80	.74
A	121-28-204		7/16"		29/64"	28	335	1.28	1.15	1.06
B*	121-28-604		3/8"		29/64"	28	335	1.28	1.15	1.06
B	121-28-644		3/8"		29/64"	28	335	1.40	1.26	1.16

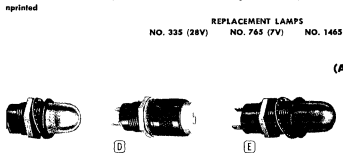
LAMP NO. 765 7V
NO. 1465 14V

NS DESCRIPTION CODE (last three Drake Number digits): See explanation — "DRAKE LENS CODE NUMBER DATA"
nprinted

REPLACEMENT LAMPS
NO. 335 (28V) NO. 765 (7V) NO. 1465 (14V)

LAMP NO. 335 28V

(ALL ILLUSTRATIONS APPROX. 3/8 ACTUAL SIZE)



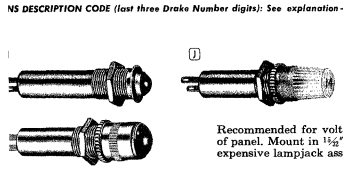
"MF" INDICATOR LIGHTS
FOR USE WITH MIDGET FLANGE BASE LAMPS IN MIL STANDARD OR COMMERCIAL APPLICATIONS

Small but sturdy—only 9/64" max. dia. MIL units, black anodized finish; other units, clear finish. Lamps replaced and units mounted from front of panel, in 15/64" dia. mounting hole on 3/4" centers. Built-in series resistor takes NE2D neon lamp; other units take T-1¾ bulb.

Fig. No.	Drake Number	MIL Style Number	MS Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Built-in Resistor (Ohms)	Max. Panel Thickness	Net Each Lots Of 1-9	10-24	25-99
C	5131-038-303	LH73-LC12	MS25256	7/16"	25/64"	45/64"		9/32"	$1.09	$ .98	$ .91
C	5131-038-304	LH73-LC12		7/16"	25/64"	49/64"		9/32"	1.09	.98	.91
D	5131-038-544	LH73-LC11		15/32"	33/64"	49/64"		9/32"	1.49	1.34	1.24
E	5133-048-703	LH74-LC13	MS25257	7/16"	33/64"	1 1/64"	62K	15/32"	1.89	1.71	1.58
F	5133-032-101			5/16"	11/32"	1 1/64"		15/32"	1.06	.96	.88
G	5133-032-504			7/16"	33/64"	1 1/64"		15/32"	.87	.79	.73

LAMP NO. NE2D 115V

NS DESCRIPTION CODE (last three Drake Number digits): See explanation — "DRAKE LENS CODE NUMBER DATA"



"TELESLIDE" INDICATOR LIGHTS
FOR USE WITH TELEPHONE SLIDE BASE LAMPS

Recommended for voltages from 24 to 55. Lamps replaced from front of panel. Mount in 15/64" dia. hole on 25/64" centers. No. 135 replaces mpre expensive lampjack assembly.

Fig. No.	Drake Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Max. Panel Thickness	Mounting	Lens Fitting	Finish	Net Each Lots Of 1-9	10-24	25-99
H	135-101	3/16"	1/4"	2 7/32"	17/32"	Front	Friction	Plain Brass	$1.07	$ .96	$ .89
J	136-624	5/16"	11/64"	1 3/32"	7/32"	Front or Rear	Threaded	Nickel Plate	.92	.83	.76
K	137-101	1/2"	23/64"	1 23/64"	5/16"	Front or Rear	Threaded	Nickel Plate	1.10	.99	.92

NS DESCRIPTION CODE (last three Drake Number digits): See explanation — "DRAKE LENS CODE NUMBER DATA"

EM PRICES ON REQUEST ★ *UNITS CAN BE ORDERED WITH LAMP INSTALLED* ★ SPECIFY LENS COLOR

INDICATOR LIGHTS

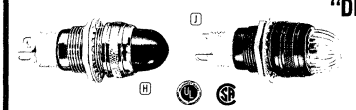
DRAKE
CHICAGO 31, ILLINOIS

DRAKE LENS CODE NUMBER DATA

On all units illustrated and described, the last three digits of the DRAKE NUMBER identify the lens shape and other variants. These types are described below.

100 : Convex glass clear
101 : Convex glass diffusing
103 : Convex plastic clear
110 : Convex glass faceted
113 : Convex plastic faceted
203 : Dome plastic clear
204 : Dome plastic translucent
301 : Macrodome glass diffusing
303 : Macrodome plastic clear
304 : Macrodome plastic translucent
305 : Macrodome Lexan diffusing
320 : Macrodome glass fluted
323 : Macrodome plastic fluted
410 : Beehive glass faceted
430 : Beehive glass signal lined
431 : Beehive glass diffusing
500 : Flush glass clear
503 : Flush plastic clear
504 : Flush plastic translucent
523 : Flush plastic fluted
544 : Flush plastic translucent, imprinted
550 : Flush glass clear, printed disc
603 : Cylindrical plastic clear
604 : Cylindrical plastic translucent
623 : Cylindrical plastic fluted transparent
624 : Cylindrical plastic fluted semi-transparent
644 : Cylindrical plastic imprinted
703 : Long Macrodome plastic clear

LENS COLORS: incandescent and neon — Red, Yellow (amber), White or Colorless; — incandescent only — Green or Blue



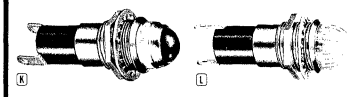
"DELUXE MOLDED" Series INDICATOR LIGHTS
MINIATURE BAYONET BASE
with 5/8" GLASS MACRODOME LENS (JEWEL)

Lens holder with female thread permits neon lamp to project all the way up into macrodome lens for maximum visibility. Other "DELUXE MOLDED" features as previous.

• LAMPS SAME AS FOR OTHER "DELUXE MOLDED TYPES •

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Lugs	Built-in Resistor (Ohms)	Net Each Lots Of 1-9	10-24	25-99
H	5204-222-301		5/8"	27/64"	1 11/32"	Solder		$1.21	$1.09	$1.01
J*	5204-232-320		5/8"	27/64"	1 11/32"	Solder	22K	1.37	1.23	1.14
J	5204-238-320	LH78-LC20	5/8"	27/64"	1 11/32"	Solder	27K	1.76	1.58	1.46
J*	5204-242-320		5/8"	27/64"	1 11/32"	Solder	100K	1.37	1.23	1.14
J	5204-248-320	LH77-LC20	5/8"	27/64"	1 11/32"	Solder	100K	1.76	1.58	1.46

LENS DESCRIPTION CODE (last three Drake Number digits): See explanation — "DRAKE LENS CODE NUMBER DATA"
*Polished Chrome Finish.



"STANDARD" INDICATOR LIGHTS
MINIATURE BAYONET BASE

Serviceable series, with nickel plated lens holder and flange. Lamp installed and units mounted from front of panels up to 13/64" thick, in 11/16" dia. mounting hole on 31/32" centers. Built-in 1/2 watt series resistors for neon lamps.

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Lugs	Built-in Resistor (Ohms)	Net Each Lots Of 1-9	10-24	25-99
K	5100-182-101		1/2"	17/32"	1 31/32"	Solder		$ .66	$ .60	$ .55
	5100-182-304		5/8"	1/2"	1 31/32"	Solder		.57	.52	.48
K	5100-192-103		1/2"	17/32"	1 23/32"	Solder	25K	.74	.66	.61
L	5100-192-323		5/8"	1/2"	1 23/32"	Solder	25K	.68	.61	.56
K	5100-202-103		1/2"	17/32"	1 11/32"	Solder	100K	.74	.66	.61
L	5100-202-323		5/8"	1/2"	1 11/32"	Solder	100K	.68	.61	.56

LENS DESCRIPTION CODE (last three Drake Number digits): See explanation — "DRAKE LENS CODE NUMBER DATA"

LAMP NOS. NE51 — 125V NE51H — 125 and 250V

MINIATURE BAYONET BASE
INSTRUMENT LIGHT

Uses T-3¼ bulbs, inserted from front of panel up to 13/32" thick, in 11/16" dia. hole on 31/32" centers.

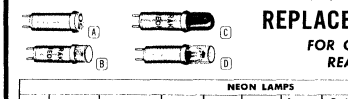
Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Lugs	Built-in Resistor (Ohms)	Net Each Lots Of 1-9	10-24	25-99
M	168E			11/16"	1 3/8"	Solder		$1.42	$1.28	$1.18

T-3¼ BULB 6.3 to 28V

(ALL ILLUSTRATIONS APPROX. 3/8 ACTUAL SIZE)

OEM PRICES ON REQUEST ★ *UNITS CAN BE ORDERED WITH LAMP INSTALLED* ★ SPECIFY LENS COLOR

BI-PIN CARTRIDGE LAMPS



REPLACEABLE BI-PIN CARTRIDGE LAMPS
FOR COMPUTER AND READOUT USES

Save space on crowded panels. Wide choice of filter shapes and colors (Red, Yellow, Green, Blue, White, Colorless). Neon types with or without built-in resistors. Incandescent types available in wide range of low voltages. Selected units have low power drain, can be driven with transistors.

Lamps fit DRAKE or any other cartridge base lampholders. Easily replaced from front of panel. Lamps sealed into clear anodized aluminum casings. Two stainless steel terminals; Nylon insulation. Low cost printing of 1, 2 or 3 digits, letters or symbols on flat face filters, up to 12 pt. type. Legends are pin-indexed for fast installation and replacement, with automatic line-up. These and other Bi-Pin Cartridge Lamps available in single units or multiple-unit blocks. Built to withstand environmental requirements of MIL-STD-202B per MIL-L-3661A.

NEON LAMPS

Fig. No.	Drake Number	Starting Volts AC	Starting Volts DC	Design Current (MA.)	Watts	C.P. at Design Current	Average Life at Des. Cur. (Hrs.)	Resist. Req. for Des. Cur. at Norm. Circ. V.	Built-in Resistor	Net Each Lots Of 1-9	10-24	25-99
A	1-503	65	90	0.3	1/25	.003	25M	220K		$ .80	$ .72	$ .66
B	1-603	"	"	0.3	1/25	.003	25M	220K		.80	.72	.66
C	1-703	"	"	0.6	1/15	.006	25M	100K		.64	.58	.53
D	1-803	"	"	0.6	1/15	.006	25M	100K		.64	.58	.53
C	2-703	65	90	1.1	1/8	.010	10M	56K	x	.80	.72	.66
D	2-803	"	"	1.1	1/8	.010	5M	56K	x	.80	.72	.66
A	4-503	95	135	0.8	1/10	.012	25M	68K		.80	.72	.66
B	4-603	"	"	0.8	1/10	.012	25M	68K		.80	.72	.66
C	5-703	"	"	2.6	1/3	.034	10M	22K	x	.80	.72	.66
D	5-803	"	"	2.6	1/3	.034	10M	22K	x	.80	.72	.66

INCANDESCENT LAMPS

Fig. No.	DRAKE NUMBER Transparent Filter	DRAKE NUMBER Translucent Filter	Design Volts	Design Current (Amps.)	Average Life (Hrs.)	Candle Power (C.P.)	Net Each Lots Of 1-9	10-24	25-99
B	6-603	6-604	6	.20	500	.63	$ .98	$ .88	$ .81
C	6-703	6-704	6	.20	500	.63	.98	.88	.81
B	11-603	11-604	28	.04	1000	.34	1.08	.97	.90
C	11-703	11-704	28	.04	1000	.34	1.08	.97	.90

★ COMPLETE CARTRIDGE UNITS (ORDER LAMPS AND LAMPHOLDERS SEPARATELY) ★

CARTRIDGE LAMPHOLDERS

Exclusive advanced design for "D" hole mounting cuts costs, saves assembly time, provides standardized legend alignment. Extra savings by using DRAKE Lampholder *without collars.*

Small size — mount in 3/8" dia. hole on 21/32" centers. Sturdy black anodized aluminum body, collar and facing nut — cadmium and Cronak plated steel lockwasher and hex nut — molded phenolic insulation — silver plated-gold flashed spring brass terminals, identified with letters A and B for DC operation with seasoned lamps. Exclusive DRAKE *E-Z-Tite* knurled facing nut (#20 wrench) for fast, secure panel installation. Both contacts insulated from mounting. Max. Amps.: 1 — Max. Watts: 75 — Test Voltage: 1,000 AC @ 60 cps. Available with or without built-in 1/10 watt current limiting resistor for use with neon cartridges.

DRAKE Cartridge Lampholders accept all Bi-Pin Cartridge Lamps now on the market.

Filter Shapes: (#1) Flush (#2) Short Cylindrical (#3) Long Cylindrical (#4) Long Macrodome

Fig. No.	Without Collar	Net Each Lots Of 1-9	10-24	25-99	Fig. No.	With Collar	Net Each Lots Of 1-9	10-24	25-99	Built-in Resistor (Ohms) ±10%	Max. Current (MA.)
E	4428-000	$ .80	$ .72	$ .67	G	4428-001	$ .92	$ .83	$ .76		1.0
F	4438-000	1.14	1.03	.95	H	4438-001	1.25	1.13	1.04	22K	2.04
	4438-002	1.14	1.03	.95		4438-003	1.25	1.13	1.04	47K	1.40
	4438-004	1.14	1.03	.95		4438-005	1.25	1.13	1.04	56K	1.27
	4438-006	1.14	1.03	.95		4438-007	1.25	1.13	1.04	100K	.85

PROJECTIONS FROM PANEL FACE-LAMP INSTALLED				
Filter Shape	Without Collar Front	Without Collar Rear	With Collar Front	With Collar Rear
(#1)	7/32"	13/64"	9/64"	9/64"
(#2)	9/64"	13/64"	11/32"	17/64"
(#3)	15/64"	13/64"	9/64"	17/64"
(#4)	25/64"	13/64"	45/64"	17/64"

OEM PRICES ON REQUEST ★ *UNITS CAN BE ORDERED WITH LAMP INSTALLED* ★ SPECIFY LENS COLOR

Net

© U.C.P., Inc.

DRAKE
CHICAGO 31, ILLINOIS

INDICATOR LIGHTS

"ECONOGLO" NEON GLOW INDICATOR LIGHTS

Excellent for LOW COST 115V applications or as D.C. circuit components. Available with or without series resistors. Mount from front of panel. Equipped with 2" wire leads. Plain macrodome also available; substitute lens code 303 for 323 when ordering.

Fig. No.	Drake Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Built-In Resistor (Ohms)	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	Net Each Lots Of 1-9	10-24	25-99
A*	116-323 or 303		3/8"	15/32"		3/16"	1/16"	7/16"	$ .23	$ .20	$ .19
	116-603		3/4"	11/16"		3/16"	3/16"	7/16"	.23	.20	.19
A	R116-323 or 303	11/32"	3/8"	15/32"	100K	3/16"	1/16"	7/16"	.28	.25	.23
	R116-603	on	3/4"	11/16"	100K	3/16"	3/16"	7/16"	.28	.25	.23
	117-323 or 303	all	3/8"	13/32"		1/2"	1/16"	11/16"	.29	.26	.24
B	117-603	numbers	1/4"	5/8"		1/2"	1/16"	11/16"	.29	.26	.24
	R117-323 or 303		7/16"	15/32"	100K	1/2"	1/16"	11/16"	.35	.31	.29
B**	R117-603		1/4"	5/8"	100K	1/2"	1/16"	11/16"	.35	.31	.29

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation—"DRAKE LENS CODE NUMBER DATA"
For HI-BRIGHTNESS Lamps, prefix Drake Number with letter "H". * No Resistor ** With Resistor

"MINEON" NEON GLOW INDICATOR LIGHTS

Similar to "ECONOGLO" types, except mounted in black anodized aluminum body with solder lugs or turret terminals. Drake E-Z-Tite facing nut, and No. 20 wrench, make assembly fast.

DRAKE NUMBER														
Fig. No.	Pin Plugs	Net Each Lots Of 1-9	10-24	25-99	Turret Lugs	Net Each Lots Of 1-9	10-24	25-99	Lens Dia.	Panel Projection Front	Rear	Built-In Resistor (Ohms)	Mtg. Hole Dia.	Max. Panel Thickness	Mtg. Centers
C	118-323	$ .69	$ .62	$ .57	118T-323	$ .85	$ .77	$ .71	11/32"	15/16"	1 31/32"		3/16"	3/16"	5/8"
D	118-604	.69	.62	.57	118T-604	.85	.77	.71	11/32"	5/16"	1 31/32"		3/16"	3/16"	5/8"
C	R118-323	.88	.79	.73	R118T-323	1.04	.94	.87	11/32"	11/16"	1 31/32"	100K	3/16"	3/16"	5/8"
D	R118-604	.88	.79	.73	R118T-604	1.04	.94	.87	11/32"	5/16"	1 31/32"	100K	3/16"	3/16"	5/8"

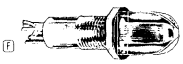
DRAKE TURRET LUGS

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation—"DRAKE LENS CODE NUMBER DATA"
For HI-BRIGHTNESS Lamps, prefix Drake Number with letter "H".

DRAKE STOCKING DISTRIBUTORS
INSURE BETTER SERVICE

You can purchase most items for immediate delivery and for the same price you would pay the factory.

"POSTLITE" INDICATOR LIGHTS



Unique all polystyrene neon indicator light with built-in series resistor. Extremely decorative.

Fig. No.	Drake Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Built-In Resistor (Ohms)	Lamp	Max. Panel Thickness	Mounting Centers	Net Each Lots Of 1-9	10-24	25-99
F	105	3/8" (Sq.)	3/4"	15/16"	100K	Std. Hi-Brite	5/16"	7/8"	$ .68	$ .61	$ .57
F	105-025 (Hi-Brite)	3/8" (Sq.)	3/4"	15/16"	25K		5/16"	7/8"	.68	.61	.57

"FLUSHLITE" INDICATOR LIGHTS

"One-of-a-kind" neon unit—all nylon with built-in series resistor. Exceptional appearance.

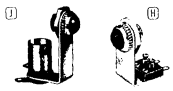
Fig. No.	Drake Number	Lens Size	Length in Front of Panel	Length Behind Panel Face	Built-In Resistor (Ohms)	Lamp	Max. Panel Thickness	Mounting Centers	Net Each Lots Of 1-9	10-24	25-99
G	110	13/32" x 1 1/4"	11/32" or 5/16"	17/32" or 3/4"	100K	NE2E	11/32" (Rear Mtd.)	5/16" or 1 3/8"	$ .50	$ .45	$ .42
G	110-025 (Hi-Brite)	13/32" x 1 1/4"	11/32" or 5/16"	17/32" or 3/4"	22K	NE2H	11/32" (Rear Mtd.)	5/16" or 1 3/8"	.50	.45	.42

OEM PRICES ON REQUEST ★ *UNITS CAN BE ORDERED WITH LAMP INSTALLED* ★ SPECIFY LENS COLOR

INDICATOR LIGHTS

DRAKE
CHICAGO 31, ILLINOIS

"MINISPACE" 5/16" Lens MONEY SAVER INDICATOR LIGHTS



For practical economy. Lamp replacement from behind panel. Cadmium plated lens holder has Drake E-Z-Tite knurl, for fast assembly with Drake No. 14 wrench.

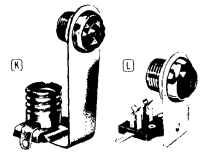
MIN. SCREW BULB NO. G-3½ 1.3 to 6.3V

MIN. BAY. BULB NO. G-3½ 63 to 28V

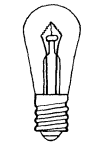
Fig. No.	Drake Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Back	Built-In Resistor (Ohms)	Bulb Size	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	Net Each Lots Of 1-9	10-24	25-99
	5-113	3/16"	Min. Screw	7/32"	27/32"		G-3½	3/16"	1/16"	5/16"	$ .18	$ .17	$ .15
J	58-103	3/16"	Min. Bay.	7/32"	27/32"		G-3½	3/16"	1/16"	3/8"	.19	.17	.16
H	2005-IL-113	3/16"	Min. 2-Pin	7/32"	1 3/16"		G-3½	3/16"	1/16"	3/8"	.21	.19	.17
	5005-272-113	3/16"	Min. Wedge	7/32"	21/32"		T-3¼	3/16"	1/16"	3/8"	.19	.17	.15

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation—"DRAKE LENS CODE NUMBER DATA"

MONEY SAVER INDICATOR LIGHTS—1/2" Lens



Popular low cost units. Lamps replaced from behind panel. Nickel plated lens holder.

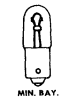

LAMP NO. 656 120V

WEDGE BASE BULB NO. T-3¼ 6.3 to 14V

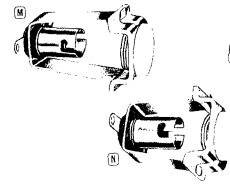
Fig. No.	Drake Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Back	Built-In Resistor (Ohms)	Bulb Size	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	Net Each Lots Of 1-9	10-24	25-99
	10-113	1/2"	Min. Screw	5/32"	31/32"		T-3¼	7/16"	1/4"	23/32"	$ .23	$ .20	$ .19
K	10C-113	1/2"	Cand. Screw	5/32"	1"		56	7/16"	1/4"	11/16"	.27	.25	.23
	10G-113	1/2"	Min. Bay.	5/32"	31/32"		G-3½	7/16"	1/4"	15/16"	.24	.22	.20
	10T-113	1/2"	Min. Bay.	5/32"	1 7/32"		T-3¼	7/16"	1/4"	23/32"	.24	.22	.20
L	5010-272-113	1/2"	Min. Wedge	5/32"	21/32"		T-3¼	7/16"	1/4"	23/32"	.24	.22	.20

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation—"DRAKE LENS CODE NUMBER DATA"
Drake No. 10C-113 is UL and CSA Listed.

(ALL ILLUSTRATIONS APPROX. 3/8 ACTUAL SIZE)

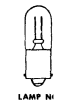

MIN. BAY. BULB NO. T-

MONEY SAVER MINIATURE BAYONET BASE INDICATOR LIGHTS with Snap-in Bracke



Available with attached 1/2 watt series resistor f NE51H Hi-Brightness neon lamp. Specify 100 resistor for NE51 lamp. Lamps replaced from behi panel. No. 54 has nickel plated lens holder with Dra E-Z-Tite knurl for Drake No. 24 wrench.

Fig. No.	Drake Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Back	Built-In Resistor (Ohms)	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	Net Each Lots Of 1-9	10-24	25-99
M	52-504	11/64"	1/16"	1 1/2"		5/64"	3/32"	23/32"	$ .21	$ .19	$ .17
	N252-IL-503	11/64"	1/16"	1 1/2"	22K	5/64"	3/32"	23/32"	.43	.39	.36
N	53-504	5/64"	7/64"	1 1/2"		5/64"	3/32"	23/32"	.21	.19	.17
	N253-IL-323	5/64"	7/64"	1 1/2"	22K	5/64"	3/32"	23/32"	.43	.39	.36
O	54-113	1/2"	11/32"	1 13/32"		5/64"	5/64"	23/32"	.31	.28	.26
	N254-IL-103	1/2"	11/32"	1 13/32"	22K	5/64"	5/64"	23/32"	.53	.47	.44

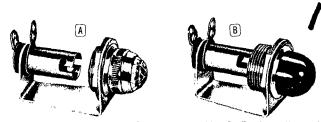

LAMP NO NE51H 125 V

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation—"DRAKE LENS CODE NUMBER DATA"
N252, N253, N254 are UL and CSA Listed.

OEM PRICES ON REQUEST ★ *UNITS CAN BE ORDERED WITH LAMP INSTALLED* ★ SPECIFY LENS COL

INDICATOR LIGHTS

MONEY SAVER INDICATOR LIGHTS HORIZONTAL MOUNTING



Plastic lens. Lamps replaced from front of panel. Nickel plated lens holder. Rated at 2 watts.

MIN. BAY. BULB NO. T-3¼ 6.3-28V

Fig. No.	Drake Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Back	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	Net Each Lots Of 1-9	10-24	25-99
A	20-113	1/2"	Min. Bay.	17/32"	1 11/32"	11/64"	3/64"	1"	$ .34	$ .31	$ .28
	205-113	1/2"	Min. Screw	17/32"	1 11/32"	11/64"	1/64"	1"	.34	.31	.28
B	21C-304	5/8"	Min. Bay.	1/2"	1 15/32"	11/64"	1/64"	1"	.27	.24	.22

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation—"DRAKE LENS CODE NUMBER DATA"

MONEY SAVER INDICATOR LIGHTS FOR EASY PANEL THICKNESS ADJUSTMENT

Supplied with three fiber spacing washers. Sturdily built. Plastic lens. Nickel plated lens holder. Lamps replaced from front of panel. Rated at 2 watts.

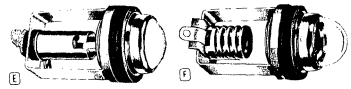
MIN. SCREW BULB NO. T-3¼ 2.5-6.3V

MIN. BAY. AS ABOVE

Fig. No.	Drake Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Face	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	Net Each Lots Of 1-9	10-24	25-99
C	50-113	1/2"	Min. Bay.	17/32"	1 15/32"	11/64"	1/4"	1"	$ .45	$ .41	$ .38
D	51-304	5/8"	Min. Bay.	1/2"	1 7/32"	11/64"	1/4"	1"	.38	.34	.32

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation—"DRAKE LENS CODE NUMBER DATA"

"STANDARD" INDICATOR LIGHTS FRONT LAMP REPLACEMENT



Smallest diameter units with front lamp replacement for 120 V incandescent lamps. Polished chrome friction lamp holder.

LAMP NO. NE45 125V

Fig. No.	Drake Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Face	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	Net Each Lots Of 1-9	10-24	25-99
E	60-101	3/4"	Min. Bay.	3/4"	1 15/32"	13/64"	1/4"	1 1/16"	$ .82	$ .74	$ .68
	A460N-IL-100	3/4"	Cand. Screw	3/8"	1 13/32"	13/64"	1/4"	1 1/16"	.83	.75	.69
F	A461N-IL-203	3/4"	Cand. Screw	17/32"	1 1/4"	13/64"	1/4"	1 1/16"	.80	.72	.66

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation—"DRAKE LENS CODE NUMBER DATA"
N460N-IL-100 and A461N-IL-203 are UL and CSA Listed.

MONEY SAVER INDICATOR LIGHT SLIP-FIT BEZEL FOR EASY INSTALLATION

Lamps may be replaced from front or rear of panel. Polished chrome friction lens holder.

LAMP NO. 656 120V

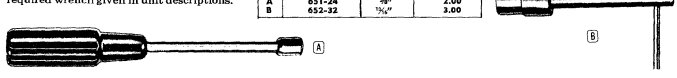
Fig. No.	Drake Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Face	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	Net Each Lots Of 1-9	10-24	25-99
G	75-110	1"	Cand. Screw	7/16"	2 1/16"	1"	1/2"	1 1/16"	$ .92	$ .83	$ .76

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation—"DRAKE LENS CODE NUMBER DATA"

DRAKE E-Z-TITE WRENCHES

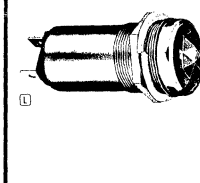
Special Socket Wrenches to fit specially knurled mounting bushing flanges or nuts. Speeds up mounting of units. Number of required wrench given in unit descriptions.

Fig. No.	Drake Number	Size Dia.	Net Each 1-99
A	651-14	7/16"	$1.50
A	651-20	1/2"	1.50
A	651-24	9/16"	2.00
B	652-32	13/16"	3.00



INDICATOR LIGHTS

"STANDARD" INDICATOR LIGHTS



Practical, good-looking—polished chrome plated lens holder. Special feature: easy front replacement of pop-forward lamps. Snap-in lens assembly. Mount from front of panels up to 1/2" thick, in 1" dia. hole on 1 3/8" centers.

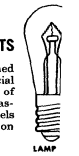
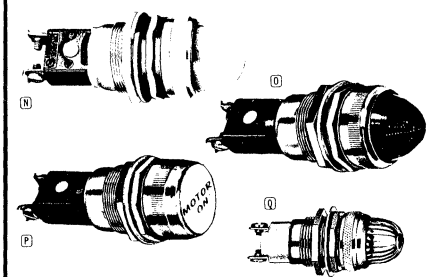

LAMP 656 120

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Face	Lamps	Net Each Lots Of 1-9	10-24	25-99
L	B1476L-ISE-110		1"	Cand. Screw	3/4"	2 7/16"	656 or 10C7	$1.33	$1.20	$1.11
M	B1476L-ISE-410		1"	Cand. Screw	3/4"	2 7/16"	656 or 10C7	1.35	$1.22	1.13

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation—"DRAKE LENS CODE NUMBER DATA"

"TITELITE" OIL-WATER-DUST PROOF INDICATOR LIGHTS



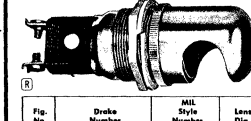
Neoprene gaskets seal out oil, water, dust, dirt. Ruggedly made for severe duty. Polished chrome plated screw-on lens holder (MIL types, black nickel plated); octagon nut for easier mounting. Pop-forward lamp on screw base units, easily replaced from front of panel. Mount from front or rear of panels up to 7/8" thick, in 1" dia. hole on 1 3/8" centers. No. 5205-233 has built-in 1/4 watt series resistor for NE51H lamp. Mounts from front or rear of panels up to 3/4" thick, in 11/16" dia. hole on 31/32" centers.

LAMP 656 120

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Face	Built-In Resistor (Ohms)	Net Each Lots Of 1-9	10-24	25-99
N	B979S-IBE-305		1"	D.C. Cand. Bay.	1 5/16"	1 7/8"		$1.74	$1.57	$1.45
	B979S-IBE-410		1"	D.C. Cand. Bay.	1 5/16"	2 1/8"		1.74	1.57	1.45
O	B979S-IBE-430		1"	D.C. Cand. Bay.	1 3/16"	2 1/8"		1.74	1.57	1.45
P	B979S-IBE-550		1"	D.C. Cand. Bay.	1 5/16"	2 1/16"		1.92	1.73	1.60
	B1479S-IBE-305		1"	Cand. Screw	1 5/16"	1 7/8"		1.88	1.69	1.57
	B1479L-IBE-410		1"	Cand. Screw	1 3/16"	1 27/32"		1.86	1.68	1.55
	B1479L-IBE-430		1"	Cand. Screw	1 3/16"	1 27/32"		1.86	1.68	1.55
	B1479L-IBE-550		1"	Cand. Screw	1 5/16"	2 1/32"		1.95	1.76	1.63
	5205-223-301		5/8"	Min. Bayonet	15/16"	1 7/8"		1.43	1.29	1.19
Q	5205-233-320		5/8"	Min. Bayonet	15/16"	1 7/8"	25K	1.58	1.42	1.32

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation—"DRAKE LENS CODE NUMBER DATA"

CANDELABRA SCREW BASE INSTRUMENT LIGHT



For 120V, 6S6 lamp. Nickel plated friction hood. Mounts from front or rear of panels up to 1/2" thick, in 1" dia. hole on 1 3/8" centers.

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Face	Lamps	Net Each Lots Of 1-9	10-24	25-99
R	900-006			Cand. Screw	17/32"	1 29/32"	656	$1.32	$1.19	$1.10

(ALL ILLUSTRATIONS APPROX. 3/8 ACTUAL SIZE)

OEM PRICES ON REQUEST ★ *UNITS CAN BE ORDERED WITH LAMP INSTALLED* ★ SPECIFY LENS C

DRAKE

MINIATURE LIGHTING SPECIALISTS

"GEMLITE"

SUB-MIDGET INDICATOR LIGHT

HERE'S MAXIMUM EFFICIENCY IN MINIMUM SIZE— WITH THE ADVANTAGES OF NEW LONG-LIFE INCANDESCENT LAMPS!

"GEMLITES" combine practicality, convenience, economy for all kinds of instruments, control panels and other applications. Specially DRAKE-designed to fill growing needs for soundly constructed extra-small units, for low voltage operation and convenient lamp replacement. For rapid installation in round holes, they have E-Z Tite flanges—use No. 12 wrench.

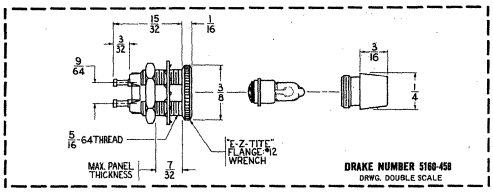
SPECIFICATIONS . . . Mounts in 5/16" diameter "D" hole from front of panel . . . Maximum panel thickness: 7/32". . . Minimum center-to-center spacing: 15/32". . . Secured with hexagon nut . . . Nickel plated brass hardware, black body . . . Lens: translucent Butyrate . . . COLORS: AMBER, BLUE, COLORLESS, GREEN, RED and YELLOW . . . Phenolic insulation . . . Turret type solder lugs . . . Torque: 20 lb. inch . . . BUILT TO PERFORM AS *PRESCRIBED IN MIL-L-3661A.*

"GEMLITE" 5160-458
9.7 carat Diamond Ring
Courtesy of C. D. Peacock Jewelers
Est. 1837—Chicago

PHOTOS ACTUAL SIZE

Drake Number	Net Each Lots Of		
	1-9	10-24	25-99
5160-458-604	$1.75	$1.58	$1.46
*5160-458-644	1.84	1.66	1.53

*Imprinted Lenses see photo.



DRAKE NUMBER 5160-458
DRWG. DOUBLE SCALE

SUB-MIDGET
T-1
INCANDESCENT
LAMP

FEATURES . . .

- Houses new 60,000 hour, 5 V., 300 milliwatt lamp.
- Only 3/4" long—3/8" maximum diameter (0.09 cubic inches).
- Flat on thread means easy economical mounting in 5/16" diameter "D" hole.
- 180° Visibility.
- Replaceable lamp from front of panel.
- Flat face lens for READOUT applications.

LAMP DATA				
Lamp No.	Design Voltage	Design Current amp.	Average Life hr.	Candle Power c.p.
682	5.0	.06	60M	.029
685	5.0	.06	60M	.048
714	5.0	.075	16M	.080
718	5.0	.115	16M	.132

OEM PRICES ON REQUEST ★ *UNITS CAN BE ORDERED WITH LAMP INSTALLED* ★ SPECIFY LENS COLOR

DRAKE

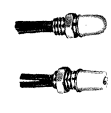
MINIATURE LIGHTING SPECIALISTS

"ASTROLITE"

MILITARY INDICATOR LIGHT

ANOTHER SUB-MIDGET INDICATOR LIGHT— THIS ONE BUILT TO MILITARY DRAWING MS25446

DRAKE'S *"ASTROLITE"* was aptly named because its primary use is in missile work, but has other instrumentation applications as well. The built-in 60,000 hour incandescent lamp affords maximum life in an Indicator Light built to meet *Military Standard MIL-L-6723*—particularly useful where space is at a premium.

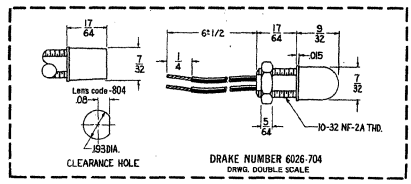


"ASTROLITES"
6026-704
6026-804

PHOTOS ACTUAL SIZE

FEATURES . . .

- Per Military Standard Drawing MS25446.
- Micro-miniature unit (0.028 Cubic Inches).
- Built-in long life T-1 incandescent lamp—60,000 hours life.
- Built-in Teflon insulated lead wires.
- 180° Visibility.
- Flat on thread for "D" hole easy economical mounting.
- Optional flat face lens for READOUT applications.



DRAKE NUMBER 6026-704
DRWG. DOUBLE SCALE

SPECIFICATIONS . . .

Mounts in 0.191" diameter "D" hole.
Maximum panel thickness: 3/16".
Minimum center-to-center spacing: 1 1/32".
Secured with hexagon nut.
Nut: chromated zinc over brass.
Body: Stainless Steel.
Lens: Translucent Butyrate.
COLORS: AMBER, BLUE, COLORLESS, GREEN, RED, YELLOW and WHITE.
Termination: Two 26 ga. stranded Teflon Insulated 6" Lead Wires.
Lamp potted in with epoxy resin.
Net weight per thousand: 5 lbs.
Test Voltage: 500AC to ground.
Maximum operating voltage: 6 V.
Design current: 0.06 amps. at 5 volts.

MILITARY TABLE					
DRAKE NUMBER *With Macrodome Lens	†COLOR Diffusing Lens	MILITARY STYLE NUMBER	Net Each Lots Of		
			1-9	10-24	25-99
6026-704	Blue	MS 25446-2	$2.96	$2.66	$2.46
6026-704	Green	MS 25446-3	2.96	2.66	2.46
6026-704	Red	MS 25446-4	2.96	2.66	2.46
6026-704	White	MS 25446-5	2.96	2.66	2.46
6026-704	Yellow	MS 25446-6	2.96	2.66	2.46
	Non-Diffusing Lens				
6026-703	Colorless	MS 25446-6	2.96	2.66	2.46

*For READOUT application, order cylindrical lens: Lens code—804.
†Always specify color with Drake Number.

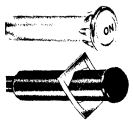
OEM PRICES ON REQUEST ★ *UNITS CAN BE ORDERED WITH LAMP INSTALLED* ★ SPECIFY LENS COLOR

NEON "GLO-LITES"

DRAKE

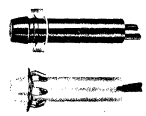
CHICAGO 31, ILLINOIS

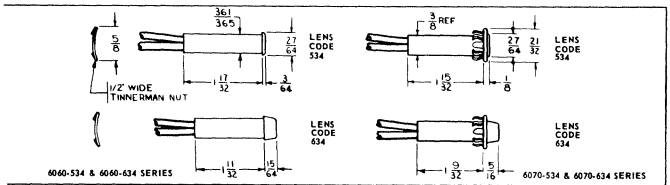
THE NEW LOOK IN NEON INDICATOR LIGHTS



SAVE MONEY WITH ONE-PIECE NYLON BODY and LENS

"Glo-Lites" are best suited for use in appliances . . . instruments . . . specialties . . . and other products where line voltage is available. Positive quality factors are many.





DRAKE NUMBER TINNERMAN NUT					DRAKE NUMBER PLUG-IN					Circuit Voltage (AC) †	Built-In Resistance (ohms)
Flush	Cylindrical (Tapered)	Net Each Lots Of			Flush	Cylindrical (Tapered)	Net Each Lots Of				
		1-9	10-24	25-99			1-9	10-24	25-99		
6060-534	6060-634	$.38	$.34	$.32	6070-534	6070-634	$.42	$.38	$.35	—	None*
*6063-534	*6063-634	.46	.42	.38	*6073-534	*6073-634	.50	.45	.41	125	25K

*External series resistance required which will limit current to 0.6ma.
†Starting Voltages: NE2E lamp; AC 65V, DC 90 V. NE2H lamp (with bullets preceding part No.) AC 95V, DC 135V.

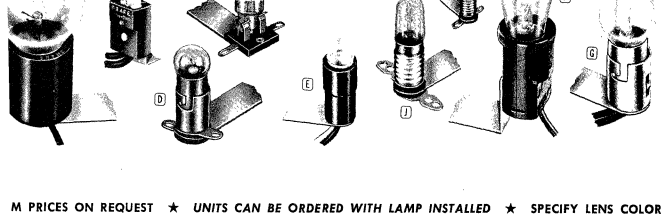
Choose between red, white or amber colors and between flush or tapered cylindrical lens styles — both are translucent and signal lined on the inside.

HI-BRIGHTNESS UNITS ARE RECOMMENDED FOR GREATER ILLUMINATION. (See chart above where bullet • precedes part number.)

A FEW DRAKE LAMPHOLDERS

Ask for additional information about these and other styles

A: No. A1700 Intermediate Screw Base with Phenolic Housing
B: No. 1900 Miniature 2-Pin Base with Phenolic Housing
C: No. 4272 "WEDGE-GRIP" Miniature Wedge Base
D: No. 4080 Miniature Bayonet Base
E: No. N500 Miniature Bayonet Base with Nylon Housing
F: No. B1400 Candelabra Screw Base with Phenolic Housing
G: No. A1100 Double Contact Bayonet Base
H: No. 2100 Midget Screw Base
J: No. 100 Miniature Screw Base



M PRICES ON REQUEST ★ *UNITS CAN BE ORDERED WITH LAMP INSTALLED* ★ SPECIFY LENS COLOR

DRAKE

CHICAGO 31, ILLINOIS

LENSES & LENS SHAPES

Fig. No.	Drake Number	Lens Diam.	Shank O.D.	Shank I.D.	Shank Length	Net Each Lots Of 1-9	10-24	25-99
A	615S-113	3/8"	.218	Solid	1/4"	$.90	$.85	$.05
B	615L/1-113	3/8"	.218	Solid	1/2"	.08	.07	.06
C	24-113	5/16"	.278/.282	1/4"	1/4"	.07	.06	.06
D	35-101	5/16"	.324/.330	15/64"	3/8"	.26	.23	.21
E	14L-15-113	5/16"	5/16"—32 Thd.	15/64"	3/8"	.12	.11	.10
F	14L-15-103	5/16"	5/16"—32 Thd.	15/64"	3/8"	.12	.11	.10

Fig. No.	Drake Number	Lens Diam.	Shank O.D.	Shank I.D.	Shank Length	Net Each Lots Of 1-9	10-24	25-99
G	31-113	1/2"	.373/.377	11/64"	3/4"	$.12	$.11	$.10
H	23-113	1/2"	.373/.377	11/64"	3/4"	.12	.11	.10
J	16-17-113	1/2"	5/16"—27 Thd.	11/64"	3/8"	.14	.13	.12
K	16-17-103	1/2"	5/16"—27 Thd.	11/64"	3/8"	.14	.13	.12
L	38-52B-110	1/2"	5/16"—27 Thd.	11/64"	3/8"	.25	.23	.21
M	103A-900	1/2"	.483/.485	15/64"	3/4"	.27	.24	.22

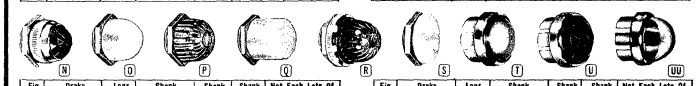


Fig. No.	Drake Number	Lens Diam.	Shank O.D.	Shank I.D.	Shank Length	Net Each Lots Of 1-9	10-24	25-99
N	25-52B-110	1/2"	5/16"—27 Thd.	11/64"	3/8"	$.22	$.21	$.19
Q	25P-32B-304	5/8"	5/16"—27 Thd.	11/64"	3/8"	.12	.11	.10
P	25P-32B-323	5/8"	5/16"—27 Thd.	11/64"	3/8"	.12	.11	.10
Q	25P-32B-604	5/8"	5/16"—27 Thd.	11/64"	3/8"	.12	.11	.10

Fig. No.	Drake Number	Lens Diam.	Shank O.D.	Shank I.D.	Shank Length	Net Each Lots Of 1-9	10-24	25-99
R	2554-52B-320	5/8"	5/16"—27 Thd.	11/64"	3/8"	$.47	$.43	$.39
S	52A-B-004	1 1/2"	5/16"—27 Thd.	11/64"	3/8"	.12	.11	.10
T	60A-101	3/4"	.885/.887	9/16"	1/2"	.40	.36	.33
U	60A-110	3/4"	.885/.887	9/16"	1/2"	.40	.36	.33
UU	60A-203	3/4"	.885/.887	9/16"	1/4"	.33	.30	.28

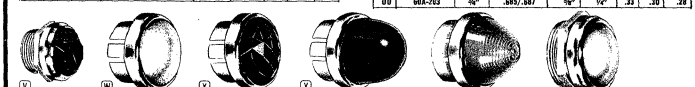
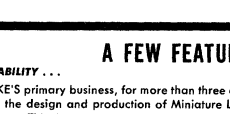


Fig. No.	Drake Number	Lens Diam.	Shank O.D.	Shank I.D.	Shank Length	Net Each Lots Of 1-9	10-24	25-99
V	60A3-27-110	3/4"	1 1/16"—27 Thd.	25/64"	3/8"	5.51	5.46	5.42
W	75A-101	1"	.887/.889	25/64"	5/16"	.42	.38	.35

Fig. No.	Drake Number	Lens Diam.	Shank O.D.	Shank I.D.	Shank Length	Net Each Lots Of 1-9	10-24	25-99
X	75A-110	1"	.887/.889	25/64"	5/16"	$.42	$.38	$.35
Y	75A-305	1"	.887/.889	25/64"	5/16"	.45	.41	.38
Z	75A-431	1"	.887/.889	25/64"	5/16"	.45	.41	.38
AA	75A3-C-101	1"	1"—27 Thd.	25/64"	3/8"	.63	.57	.53
BB	75A3-C-110	1"	1"—27 Thd.	25/64"	3/8"	.63	.57	.53
CC	75A3-C-500	1"	1"—27 Thd.	25/64"	3/8"	.63	.57	.53



(ALL ILLUSTRATIONS APPROX. 3/8 ACTUAL SIZE)

A FEW FEATURES ABOUT DRAKE PRODUCTS

RELIABILITY . . .

DRAKE'S primary business, for more than three decades, has been the design and production of Miniature Lighting components. This long experience assures you of the most advanced design, the most practical and serviceable construction, and the most expert manufacture. Here are just a few typical DRAKE "plus" features:

1. Seamless drawn bayonet shells. Will not open up as lockseam shells do.
2. All resin impregnated fibre insulation, "Vulcoid".
3. Brass center contact rivets.
4. Molded phenolic or nylon shell housings.
5. Coil springs for center contact support that do not take a set.
6. Guaranteed to meet specifications as listed.
7. All steel parts protected with a suitable noncorrosive finish, such as cadmium.
8. 100% test of all units rated at 115 volts breakdown.

This outstanding quality has been a major factor in satisfying the thousands of customers, including the "giants" as well as smaller manufacturers, whom we have supplied for many years. And you'll find DRAKE's traditional *"Personalized Service"* an added asset of inestimable value.

OEM PRICES ON REQUEST ★ *UNITS CAN BE ORDERED WITH LAMP INSTALLED* ★ SPECIFY LENS COLOR

Net

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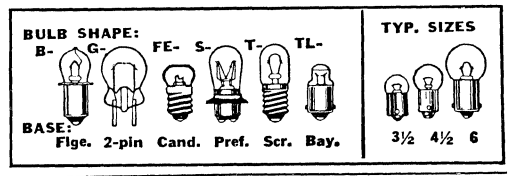
MINIATURE LAMPS



Lamp No.	Bulb	Base§	Design Volts	Design Amps.	Net Price* Each	Net Price* Box 10
PR2•	B-3½	S.C. min. flanged	2.38	0.50	**$0.20**	**$1.22**
PR3•	B-3½	S.C. min. flanged	3.57	.50	**.20**	**1.22**
PR4•	B-3½	S.C. min. flanged	2.33	.27	**.20**	**1.22**
PR6•	B-3½	S.C. min. flanged	2.47	.30	**.20**	**1.22**
PR7	B-3½	S.C. min. flanged	3.7	.30	**.25**	**1.52**
PR12•	B-3½	S.C. min. flanged	5.95	.50	**.20**	**1.22**
PR13	B-3½	S.C. min. flanged	4.75	.50	**.20**	**1.22**
6	S-8	D.C. bayonet	6.4	3.00	**.35**	**2.10**
8	S-8	D.C. bayonet	8.0	2.20	**.35**	**2.10**
10	G-3½	Min. two-pin	2.5	.50	**.26**	**1.59**
13	G-3½	Min. screw	3.7	.30	**.17**	**1.04**
14•	G-3½	Min. screw	2.47	.30	**.17**	**1.04**
27	G-4½	Min. screw	4.9	.30	**.20**	**1.22**
31	G-4½	Min. screw	6.15	.30	**.22**	**1.33**
39	T-3¼	Min. bayonet	6.3	.36	**.35**	**1.99**
40•	T-3¼	Min. screw	6.3	.15	**.14**	**.85**
41•	T-3¼	Min. screw	2.5	.50	**.22**	**1.34**
42•	T-3¼	Min. screw	3.2	.35	**.27**	**1.67**
43•	T-3¼	Min. bayonet	2.5	.50	**.22**	**1.34**
44•	T-3¼	Min. bayonet	6.3	.25	**.14**	**.85**
45•	T-3¼	Min. bayonet	3.2	.35	**.18**	**1.12**
46•	T-3¼	Min. screw	6.3	.25	**.14**	**.85**
47•	T-3¼	Min. bayonet	6.3	.15	**.14**	**.85**
48•	T-3¼	Min. screw	2.0	.06	**.22**	**1.34**
49•	T-3¼	Min. bayonet	2.0	.06	**.18**	**1.12**
50	G-3½	Min. screw	7.5	.22	**.15**	**.92**
51•	G-3½	Min. bayonet	7.5	.22	**.13**	**.82**
53•	G-3½	Min. bayonet	14.4	.12	**.13**	**.82**
55•	G-4½	Min. bayonet	7.0	.41	**.13**	**.82**
57•	G-4½	Min. bayonet	14.0	.24	**.13**	**.82**
57X•	G-4½	Min. bayonet	14	.24	**.17**	**1.05**
67•	G-6	S.C. bayonet	13.5	.59	**.17**	**1.05**
67K	G-6	Candelabra screw	13.5	.41	**.44**	**2.65**
71K	G-6	Candelabra screw	22	.18	**.35**	**1.99**
112	TL-3	Min. screw	1.2	.22	**.17**	**1.04**
123	G-3½	Min. screw	1.25	.30	**.17**	**1.04**
131	G-3½	Min. screw	1.3	.10	**.18**	**1.12**
136	G-4½	Min. screw	1.25	.60	**.20**	**1.22**
159	T-3¼	Wedge	6.3	.15	**.22**	**1.33**
222•	TL-3	Min. screw	2.25	.25	**.17**	**1.04**
223•	FE-3¾	Min. screw	2.25	.25	**.20**	**1.22**
224	TL-2¾	Special 1½-turn thd.	2.15	.22	**.20**	**1.22**
233	G-3½	Min. screw	2.33	.27	**.20**	**1.22**
243	TL-3	Min. screw	2.33	.27	**.20**	**1.22**
259	T-3¼	Wedge	6.3	.25	**.20**	**1.22**
263X	G-3½	Min. screw	2.65	.30	**.27**	**1.67**
313•	T-3¼	Min. bayonet	28	.17	**.31**	**1.87**
327•	T-1¾	S.C. midget flanged	28	.04	**.72**	**4.37**
328•	T-1¾	S.C. midget flanged	6	.20	**.56**	**3.42**
331	T-1¾	S.C. midget flanged	1.35	.06	**.87**	**5.29**
338	T-1¾	S.C. midget flanged	2.7	.06	**.87**	**5.29**
345	T-1¾	S.C. midget flanged	6	.04	**1.50**	**9.25**
363	G-4½	Min. bayonet	14	.20	**.22**	**1.33**

NEON INDICATING GLOW LAMPS

Gaseous-discharge type for use as indicators. Average useful life, 25,000 hours AC; Types NE-17, 45, 48, 57, 58, 7,500 hours; Types NE-30, 34, 56, 79, 10,000 hours; Type NE-51, 15,000 hours. DC is approximately 60% of AC values. **Ambient Temperature:** Not to exceed 300°F.

Lamp No.	Nom. Watts	Volts (Circ.)	Bulb (Clear)	Base	Res.¶ Ohms	Net Each*
A1B	1/25	110-125	T-2	Wire term.	200K	**$0.14**
A1Cπ	1/10	110-125	T-2	Wire term.	68K	**.14**
NE-2 (A1A)	1/17	110-125	T-2	Wire term.	150K	**.10**
NE-2A (A2A)	1/25	110-125	T-2	Wire term.	200K	**.10**
NE-2D (C7A)	1/15	110-125	T-2φ	SC Mid.Fig.	110K	**.82**
NE-2E (A9A)	1/15	110-125	T-2φ	Wire term.	100K	**.10**
NE-2H (C2A)π	¼	110-125	T-2φ	Wire term.	30K	**.12**
NE-2J (C9A)π	¼	110-125	T-2φ	SC Mid.Fig.	30K	**.82**
NE-2M (K2A)	1/17	110-125	T-2θ	Wire term.	150K	**.34**
NE-2P (K3A)π	¼	110-125	T-2θ	Wire term.	33K	**.34**
NE-2V (A2B)	1/15	110-125	T-2	Wire term.	100K	**.14**
NE-17 (B5A)	¼	110-125	T-4½	DC Bay.	30K	**.90**
NE-30 (J5A)	1	110-125	S-11	Med. Scr.#	None	**1.20**
NE-32 (L5A)	1	110-125	G-10	DC Bay.	7.5K	**1.20**
NE-34 (R2A)	2	110-125	S-14	Med. Scr.	None	**1.85**
NE-40 (6A)	3	110-125	S-14	Med. Scr.	None	**2.70**
NE-45 (B7A)	¼	110-125	T-4½	Cand. Scr.	None	**.85**
NE-48 (B9A)	¼	110-125	T-4½	DC Bay.	30K	**.70**
NE-51 (B1A)	1/25	110-125	T-3¼	Min. Bay.	200K	**.21**
NE-51H (B2A)π	1/7	110-125	T-3¼	Min. Bay.	47K	**.23**
NE-56 (J9A)	1	220-250	S-11	Med. Scr.#	None	**1.25**
NE-57 (F3A)	¼	110-125	T-4½	Cand. Scr.#	None	**.99**
NE-58 (F4A)	½	220-250	T-4½	Cand. Scr.	None	**.95**
NE-79 (R1A)	1	110-125	S-7	DC Bay.	7.5K	**1.34**
NE-84 (K1A)π	¼	110-125	T-2φ	Tel. slide	30K	**.64**

AC-DC ARGON INDICATOR LAMPS

AR-1 (W1A)	2	110-125	S-14	Med. Scr.	None	**$1.90**
AR-3 (J2A)π	¼	110-125	T-4½	Cand. Scr.	None	**.85**
AR-4 (J3A)π	¼	110-125	T-4½	DC Bay.	15K	**.75**
AR-9 (K4A)	1/25	110-125	T-2	Wire term.	200K	**.20**

¶Lamps with screw base have proper ballast built-in. Those with bayonet base or wire terminals do not have them, but are to be supplied and attached by user. Resistance shown for normal operation at indicated circuit volts. φFormed tip bulb. πUse 135 v. minimum for satisfactory DC operation. θRound end bulb. #Center electrode connected to base shell. ***FET included.**

PANEL, PILOT, AND FLASHLIGHT LAMPS

Lamp No.	Bulb	Base§	Design Volts	Design Amps.	Net Price* Each	Net Price* Box 10
401	G-4½	Min. screw, flasher	1.25	.22	**.35**	**1.99**
405	G-4½	Min. screw, flasher	6.5	.50	**.27**	**1.67**
406	G-4½	Min. screw, flasher	2.6	.30	**.22**	**1.33**
407	G-4½	Min. screw, flasher	4.9	.30	**.20**	**1.22**
425	G-4½	Min. screw	5	.50	**.20**	**1.22**
428	G-4½	Min. screw	12.5	.25	**.17**	**1.04**
431R†	G-4½	Min. bayonet	14	.25	**.27**	**1.67**
432	G-4½	Min. screw	18	.25	**.22**	**1.33**
432G‡	G-4½	Min. screw	18	.25	**.35**	**1.99**
432R†	G-4½	Min. screw	18	.25	**.27**	**1.67**
433	G-4½	Min. bayonet	18	.25	**.27**	**1.67**
502	G-4½	Min. screw	5.1	.15	**.17**	**1.04**
509K	G-6	Candelabra screw	24	.18	**.27**	**1.67**
605	G-4½	Min. screw	6.15	.50	**.20**	**1.22**
965	T-4½	Min. screw	9.84	.50	**.25**	**1.53**
1000	RP-11	D.C. bayonet	6.2	3.87	**1.14**	**6.95**
1034•	S-8	D.C. indexing (2-pos. taillight)	12.8 14	1.80 .51	**.34**	**2.10**
1154•	S-8	D.C. indexing (2-pos. taillight)	6.4 7.0	2.63 .75	**.39**	**2.36**
1224K	G-6	Candelabra screw	32	.16	**.54**	**3.30**
1240	G-16½	D.C. prefocus	32	3.5	**1.90**	**11.60**
1404	G-6	S.C. bayonet	10	.09	**.49**	**2.98**
1408	T-3¼	Min. bayonet	10	.13	**.27**	**1.67**
1446	G-3½	Min. screw	12	.20	**.25**	**1.53**
1447	G-3½	Min. screw	8	.15	**.20**	**1.22**
1449	G-3½	Min. screw	14	.20	**.16**	**.99**
1458	G-5	Min. bayonet	20	.25	**.27**	**1.67**
1474	T-3	Min. screw	14	.17	**.35**	**2.14**
1476	T-3	Min. screw	18	.17	**.44**	**2.65**
1477	T-3	Min. screw	24	.17	**.54**	**3.30**
1487	T-3¼	Min. screw	14	.20	**.25**	**1.53**
1488	T-3¼	Min. bayonet	14	.15	**.27**	**1.67**
1490•	T-3¼	Min. bayonet	3.2	.16	**.18**	**1.12**
1491	G-8	D.C. bayonet	2.4	.80	**.49**	**2.98**
1493	S-8	D.C. bayonet	6.5	2.75	**1.05**	**6.42**
1630	S-8	D.C. prefocus	6.5	2.75	**1.40**	**8.55**
1651	S-8	S.C. bayonet	5	.60	**.65**	**3.98**
1724	S-11	D.C. bayonet	6.2	4.50	**.87**	**5.29**
1763	S-11	S.C. prefocus	6.1	4.10	**1.20**	**7.60**
1767	T-1¾	Midget screw	2.5	.20	**.65**	**3.98**
1768	T-1¾	Midget screw	6	.20	**.90**	**5.50**
1769	T-1¾	Midget screw	2.5	.20	**.87**	**5.29**
1775	T-1¾	Midget screw	6.3	.075	**.87**	**5.29**
1809	T-3¼	Min. bayonet	2	.06	**.54**	**3.30**
1813	T-3¼	Min. bayonet	14.4	.10	**.25**	**1.58**
1815•	T-3¼	Min. bayonet	14	.20	**.20**	**1.22**
1819•	T-3¼	Min. bayonet	28	.04	**.36**	**2.18**
1822	T-3¼	Min. bayonet	36	.10	**.60**	**3.67**
1828	T-3¼	Min. bayonet	37.5	.05	**.65**	**3.98**
1829•	T-3¼	Min. bayonet	28	.07	**.35**	**2.14**
1835	T-3¼	Min. bayonee	55	.05	**.65**	**3.98**
1847•	T-3¼	Min. bayonet	6.3	.15	**.18**	**1.12**
1850	T-3¼	Min. bayonet	5	.09	**.25**	**1.53**
1855	T-4½	Min. bayonet	6.3	.80	**.35**	**1.99**
1866	T-3¾	Min. bayonet	6.3	.25	**.22**	**1.33**
1881	T-3¼	Min. bayonet	15.5	.24	**.18**	**1.12**
1891•	T-3¼	Min. bayonet	14	.24	**.16**	**1.00**
1892	T-3¼	Min. bayonet	14.4	.12	**.25**	**1.53**
1898	T-3¼	Min. bayonet	14	.33	**.35**	**2.14**

†Outside coated red. ‡Outside coated green. §S.C. indicates single cor tact; D.C., double contact; Min., miniature. **•Popular Types. *FE included where applicable.**

CIRCUIT COMPONENT NEON LAMPS

For use as voltage indicators, regulators, switching, etc. All ratings belo are DC; all bulb types are T-2 except: NE-51S, NE-67 (T-4½). All hav parallel-post electrodes (W-11), except NE-16, fireman's hat electrode (P-3). **Ambient Temperature:** —00° F +165° F, limit.

No. Lamp	Volts DC Starting	Operating Volts DC	DC Ma	Base	Net Eac
NE-2ASΔ	60-90	55°	.03	Wire term.	**$0.2**
NE-2L	65-85	50τ°	0.3	Wire term.	**.1**
NE-2SΔ	60-90	40-74	0.3	Wire term.	**.2**
NE-23	60-90	59τ	0.3	Wire term.	**.1**
NE-68Δ	60-90	52-65	0.3	Wire term.	**.4**
NE-68AΔ	60-90	52-65	.1-.3	Wire term.	**.3**
NE-75	60-90	55τ°	0.4	Wire term.	**.5**
NE-76Δ	68-76	50-60	0.4	Wire term.	**1.0**
NE-77ω	Triode	Avg. 85	0.5	Wire term.	**.5**
NE-80Δ	60-80	50-58	0.1	Wire term.	**.6**
NE-81Δ	64-80	50-60	0.3	Wire term.	**.5**
NE-83Δ	60-100	65τ	10.0	Wire term.	**.2**
NE-86Δ	55-90	55τ	1.5	Wire term.	**.1**
NE-96	120-150	60-80	0.5	Wire term.	**.2**
NE-97	110-140	60-80	0.5	Wire term.	**.2**
NE-3	55-90	55τΔ	0.3	Tel. Slide	**.6**
NE-4	60-90	59τ	0.3	Tel. Slide	**.4**
NE-5	120-150	60-80	0.5	Tel. Slide	**.4**
NE-51S	55-90	55τ°	0.2	Min. Bay.	**.2**
NE-67	55-90	56τ	0.2	Min. Bay.	**.2**
NE-16	67-87	53-65	1.5	DC Bay.	**.6**

τAverage, after 100 hours burning at rated current. individual lots m vary from average. ΔLeads are tinned. °Average greater than indicat value. ωWith 140-180 v. DC on outer electrode, lamp trigger with 140 DC trigger to cathode.

GENERAL ELECTRI

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Net

Eldema CORPORATION INDICATORS FOR INDUSTRY

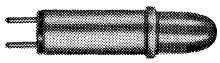
COMPTON, CALIF. • REPRESENTATIVES IN ALL PRINCIPAL CITIES

(Illustrations are approx. actual size)

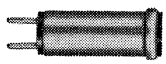
C-LITES MINIATURE NEON AND INCANDESCENT LAMP CARTRIDGES

ELDEMA MINIATURE C-LITE CARTRIDGES EASILY INSERTED FROM FRONT OF THE PANEL. NEON TYPES AVAILABLE WITH BUILT-IN RESISTOR. TWO TERMINAL — COMPLETE INSULATION FROM THE PANEL. HIGH IMPACT PLASTIC LENS, CLEAR ANODIZED ALUMINUM CASE, HIGH DIELECTRIC INSULATOR, STAINLESS STEEL TERMINALS. MEETS MIL-L-3661.

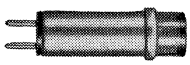
INCANDESCENT C-LITES– TYPE CF



CF01 STOVEPIPE



CF02 FLUSH



CF03 SHORT FLAT

LENS COLORS

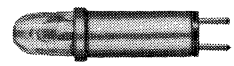
ACS – Amber Clear
ATS – Amber Transluscent
BCS – Blue Clear
BTS – Blue Transluscent
CCS – Cloudy Clear
GCS – Green Clear
GTS – Green Transluscent
RCS – Red Clear
RTS – Red Transluscent
WCS – Water Clear
WTS – White Transluscent
YTS – Yellow Transluscent

LAMP TYPES

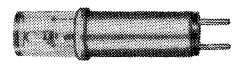
LAMP NO.	VOLTS	AMPS (MA)	LIFE HOURS
680	5	60	50,000
1730	6	40	1,000
2114	6	60	3,000
1784	6	200	1,000
2180	6.3	40	50,000
2181	6.3	200	50,000
1869	10	14	20,000
2107	10	40	5,000
1705	14	80	750
2182	14	80	50,000
2102	18	40	1,000
1762	28	40	1,000

TO ORDER — SPECIFY STYLE, COLOR, AND LAMP TYPE. FOR EXAMPLE: CF03-RTS-1762

NEON C-LITES — TYPE CG



CG01
CG01R
STOVEPIPE



CG04
CG04R
LONG FLAT

LENS COLORS

ACS – Amber Clear
CCS – Cloudy Clear
RCS – Red Clear
WCS – Water Clear
YCS – Yellow Clear

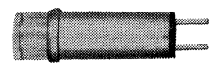
LAMP TYPES

CG01 and CG04 – No Resistor
NE2H – High Brightness
NE2E – Standard Brightness

CG01R and CG04R – Built-in Resistor
A1C-47K, High Brightness, 110 VAC
A1B-150K, Std. Brightness, 90 VDC

TO ORDER — SPECIFY STYLE, COLOR, AND LAMP TYPE. FOR EXAMPLE: CG01-ACS-NE2E CG04R-RCS-A1B-150K

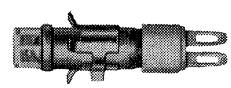
NEW SHORT CARTRIDGE



CG03 SHORT FLAT

Uses Short Neon Lamps – A1C High Brightness, A1B Std. Brightness
Specify As Above – CG03 - ACS - A1B

CLIP/SOCKET MOUNT

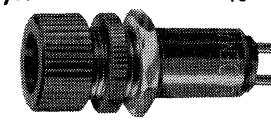


#10905 Spring Steel Clip and 2K Socket for C-Lite Mounting in 19/64" Hole.

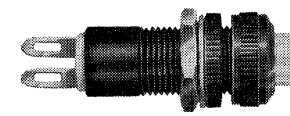
D-HOLDERS

RUGGED BLACK ANODIZED ALUMINUM HOLDER, STEEL HEX NUT AND LOCK WASHER — CADMIUM PLATED AND IRRIDITED, HIGH DI-ELECTRIC INSULATOR. GOLD PLATED SOLDER CUP OR TIN PLATED SOLDER LUG TERMINALS. MEETS MIL-L-3661 SPECIFICATIONS.

SINGLE LAMPHOLDER
Style DH — Mounts in 3/8" Hole

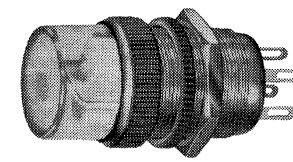


DHAB-14B, LAMPHOLDER



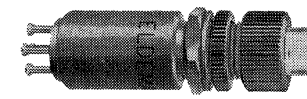
DHKB-15B LAMPHOLDER
with CF03 C-Lite Installed

DUAL LAMPHOLDER
Style DF — Mounts in 3/4" Hole

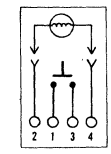


DFKB-17WCB, CLEAR LENS,
with Clear Anodized Aluminum Light Barrier Between Lamps

MOMENTARY SWITCH-LITE
Style DS — Mounts in 3/8" Hole

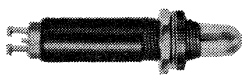


DSA1B SWITCH-LITE, GOLD PLATED TURRET PINS AND CONTACTS. CF03 C-LITE INSTALLED.

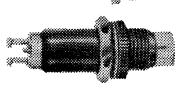


The DSA1B is momentary, normally open switch-lite with separate light circuit. Rated at 1/2 amp load.

E-LITES PERMANENT NEON LAMP INDICATORS MILITARY TYPE — 25,000 HOUR LIFE — 3/8" MOUNTING



EG01



EG03

BLACK ANODIZED ALUMINUM BODY, TIN PLATED TERMINALS HIGH IMPACT PLASTIC LENS MEETS MIL-L-3661 OPTIONAL BUILT-IN RESISTOR

STYLE	COLOR	LAMP/RESISTOR
EG01 (Dome)	ACB (Amber)	NE2E
EG03 (Flat)	CCB (Cloudy)	NE2E-100K
	RCB (Red)	NE2H
	WCB (Clear)	NE2H-33K

SPECIFY STYLE - COLOR - LAMP/RESISTOR
EXAMPLE — EG03-ACB-NE2E-100K

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PILOT LITES FOR ALL APPLICATIONS

Eldema CORPORATION

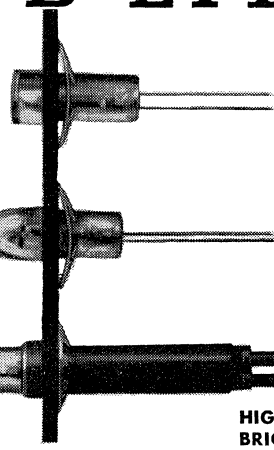
SUBSIDIARY OF GENISCO TECHNOLOGY CORPORATION

B-LITES

COMMERCIAL NEON INDICATORS

PERMANENT CLIP MOUNTING

REQUIRES ONLY 5/16-INCH PANEL HOLE



TYPE BG90

TYPE BG20

Types BG90 and BG20 moulded of high impact plastic. Available with attached resistor for 110 volt operation.

STYLE	COLOR	LAMP
BG20 (Dome)	AC – Amber	NE2E – Standard Brightness
BG90 (Flat)	CC – Cloudy	NE2H – High Brightness
	RC – Red	NE2H-33K – For 110 volt
	WC – Clear	

SPECIFY SHAPE - COLOR - LAMP — EXAMPLE: BG90-RC-NE2H

TYPE BG03

SERIES BG03 — INSULATED LEADS
BUILT-IN RESISTOR FOR 110 VOLTS

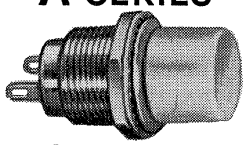
HIGH IMPACT PLASTIC LENS, BRIGHT METAL COLLAR, NYLON BODY, 6-INCH LEADS.

PART NUMBER	LENS COLOR
BG03-ACS-NE2H-33K	Amber
BG03-CCS-NE2H-33K	Cloudy
BG03-RCS-NE2H-33K	Red
BG03-WCS-NE2H-33K	Clear

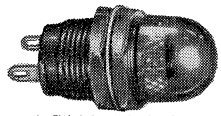
LAMPHOLDERS FOR REPLACEABLE T-1¾ INCANDESCENT LAMPS

A-SERIES

FRONT MOUNT IN 17/32" HOLE OR REAR MOUNT IN 15/32" HOLE — NICKEL PLATED BRASS BODY AND HARDWARE — PHENOLIC INSULATION — TINNED TERMINALS — PLASTIC LENS



AB112-A22AT



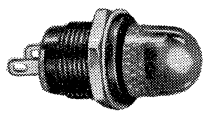
AC111-A21RC

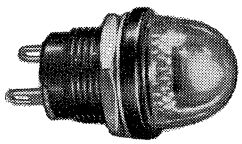
COMPLETELY INSULATED TWO TERMINAL UNITS. LENS AND LAMP EASILY REPLACED FROM FRONT OF THE PANEL.

HOLDER PART NUMBERS	DOME LENS	COLOR	FLAT LENS
AB111 Front Mount, Black	A21AC	Amber Clear	A22AC
AB112 Front Mount, Bright	A21AT	Amber Transluscent	A22AT
AC111 Rear Mount, Black	A21BT	Blue Transluscent	A22BT
AC112 Rear Mount, Bright	A21CC	Cloudy Clear	A22CC
	A21GC	Green Clear	A22GC
	A21GT	Green Translucent	A22GT
	A21RC	Red Clear	A22RC
	A21RT	Red Transluscent	A22RT
	A21WC	Water Clear	A22WC
	A21WT	White Transluscent	A22WT
	A21YT	Yellow Transluscent	A22YT

M-SERIES

FRONT MOUNT IN 15/32" HOLE — BLACK ANODIZED ALUMINUM BODY — STEEL MOUNTING HARDWARE — PHENOLIC INSULATION — TINNED TERMINALS — HIGH IMPACT PLASTIC LENS





MA111-M12RC
Sub-Miniature Holder and Lens

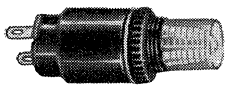
MA311 - M13RC
Watertight Unit with Two 1/16" O Rings to Seal to Panel Face

STANDARD ASSEMBLY	COLOR	WATERTIGHT ASSEMBLY
MA111 - M12AC	Amber Clear	MA311 - M13AC
MA111 - M12BC	Blue Clear	MA311 - M13BC
MA111 - M12GC	Green Clear	MA311 - M13GC
MA111 - M12RC	Red Clear	MA311 - M13RC
MA111 - M12WC	Water Clear	MA311 - M13WC
MA111 - M12WT	White Transluscent	MA311 - M13WT
MA111 - M12YT	Yellow Transluscent	MA311 - M13YT

M SERIES UNITS MEET MIL-L-3661 AND MS25256 SPECIFICATIONS AND PART NUMBER

R-SERIES

REAR MOUNTS IN 3/8" DIAMETER HOLE — 1/8" PANEL — ALUMINUM HOUSING AND MOUNTING NUT — PHENOLIC INSULATION — TINNED TERMINALS — HIGH IMPACT PLASTIC LENS

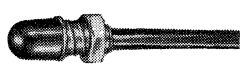


RLD6B-L09WC

HOLDER NUMBER	FRESNEL RING LENS		SMOOTH FACE LENS	
RLD6B (Black)	L09AC	Amber	L10AT	Amber
RLD6S (Silver)	L09CC	Cloudy	L10BT	Blue
	L09GC	Green	L10GT	Green
	L09RC	Red	L10RT	Red
	L09WC	Clear	L10WT	White
			L10YT	Yellow

NEW SUB-MINIATURE LAMP ASSEMBLY
.193 PANEL HOLE MOUNT — MEETS MS25446

J-SERIES



5 volt — 60 ma — 100,000 hour lamp
Stainless steel body and nut
High strength plastic lens
Insulated leads

ASSEMBLY	COLOR
JK511 - J21AT	Amber (Yellow)
JK511 - J21BT	Blue
JK511 - J21GT	Green
JK511 - J21RT	Red
JK511 - J21WC	Clear
JK511 - J21WT	White
JK511 - J21YT	Light Yellow

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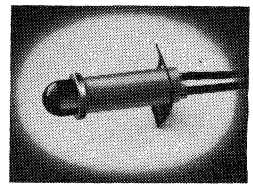
INDUSTRIAL DEVICES, Inc.

EDGEWATER, NEW JERSEY

OMNI-GLOW PILOT LIGHT



For use on instrument panels, appliances, switchboards, all electrical and electronic apparatus, OMNI-GLOW will last in excess of 10,000 to 25,000 hours of operating life.

With built-in glow lamp and current limiting resistor, all mechanical spring contacts are eliminated, providing a cost-saving, rugged unit relatively free from failure due to vibration or shock.

Easy mounting — only a ½" hole required for any panel thickness. Instant fastening — speed nut assures permanent shock and vibration-proof attachment.

Drawing less than 1/10 watt at 115 volts, long life, high reliability operation is provided over the 75-150 volt range; can also be used at higher voltage with decreased life.

Nylon body and acrylic lens assembly is 1 15/16" long overall. Lens extends 17/32" in front of panel. Black plastic (105°C) leads are 4½" long, stripped and tinned ½".

Four standard models have red (Model #1010A1), clear (Model #1010A2), amber (Model #1010A3), or white translucent (Model #1010A4) lenses.

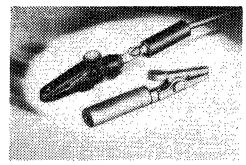
Furnished complete with lamp and speed nut, OMNI-GLOW is UL approved—CSA Approval No. 13346.

Catalog Number	Description	List Price
1010A*	OMNI-GLOW Pilot Light	$ .90

* Note (1) red, (2) clear, (3) amber, (4) white.

SAFE-T-KLIP

(U. S. Patent 2,754,490)



New convenience and safety are realized through the use of 100% insulation on these test clips. Tough nylon insulation covers the entire clip, including the nose, without the bulkiness of rubber boots or insulating tape. Danger of short circuit due to clips touching each other or other components is eliminated, and test leads may be changed from one connection to another without cutting the power in the equipment.

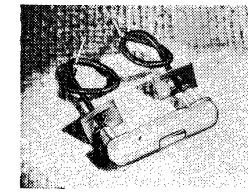
Available in pairs (one red, one black) SAFE-T-KLIP incorporates a cadmium plated steel alligator clip and provides shock-proof, short-circuit proof operation in excess of 600 volts. Width of the clips is 3/8"; maximum height is 5/8".

Six models are available. The #1410A is for use with a wire lead and provides either a soldered or screw terminal connection. The nylon sleeve is threaded to the clip for easy connection: Overall assembled length is 2 3/16". The #1410B, with overall length of 2 11/32", provides positive clip connection to all standard (.081 dia.) phone-tip test prods. The #1410C has a jack for standard banana plugs and an overall length of 2 1/16".

The 1410D is similar to 1410B except that the entrance hole is modified for Signal Corps. application.

Catalog Number	Description	List Price
1410A	SAFE-T-KLIP for use with lead wire provides screw terminal or solder	$1.80 pr.
	Color — black (Model No. 1410-A1)	.90 ea.
	Color — red (Model No. 1410-A2)	.90 ea.
1410B	SAFE-T-KLIP for use with standard .080" test prod	1.50 pr.
	Color — black (Model No. 1410-B1)	.75 ea.
	Color — red (Model No. 1410-B2)	.75 ea.
1410C	SAFE-T-KLIP for use with banana plug	1.20 pr.
	Color — black (Model No. 1410-C1)	.60 ea.
	Color — red (Model No. 1410-C2)	.60 ea.
1410D	SAFE-T-KLIP for Signal Corps use	1.40 pr.
	Color — black (Model No. 1410-D1)	.70 ea.
	Color — red (Model No. 1410-D2)	.70 ea.
1410F	SAFE-T-KLIP with type AGX 5 amp fuse	2.30 pr.
	Color — black (Model No. 1410F-E1)	1.15 ea.
	Color — red (Model No. 1410F-E2)	1.15 ea.
1410M	SAFE-T-KLIP Miniature for lead wire	1.20 pr.
	Color — black (Model No. 1410M-F1)	.60 ea.
	Color — red (Model No. 1410-F2)	.60 ea.

TINY-GLOW PILOT LIGHT



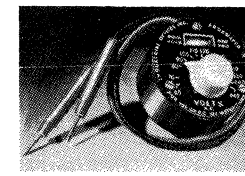
Midget Size. For use on instrument panels, switchboards, electrical and electronic apparatus. Neon lamp draws less than 1 milliampere at 110 volts. Over 25,000 hours of actual service, operates over a wide range, 75 to 250 volts. A.C. or D.C. TINY-GLOW outlasts the equipment that it serves.

Shock and vibration proof, no spring contacts, soldered connections. Requires less back-of-panel space than any other pilot light. Polished chrome plated housing, 3/8" brass mounting studs. Mounts simply and easily with speed nuts on two 13/64" holes, 1 3/8" apart. Furnished complete with lamp and speed nuts. Dimensions: 1 11/16" x 7/16" x 3/8".

Catalog Number	Description	List Price
300	TINY GLOW Pilot Light	$1.25

MINI-VOLT VOLTMETER

(U.S. Pat. 2,644,134)



MINI-VOLT is an "abuse-proof" voltmeter, sufficiently accurate to indicate a 2 or 3 volt drop on 110 volt line. Virtually burn-out proof, this rugged unit is used by electricians, radio and TV repairmen, refrigeratior and air conditioning servicemen, experimentors, lab technicians, handymen.

MINI-VOLT has wide application for all equipment whose proper operation requires correct voltage.

In addition to measuring the exact voltage over the range from 65 to 660 volts, Model #400B is used to identify AC or DC lines, check rectifiers, filter capacitors, chokes; test for blown fuses, grounded components, DC polarity, measure voltage drops with load, and 1001 other uses.

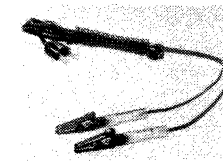
For use on AC (any frequency) or DC, MINI-VOLT, with an impedance of approximately ½ megohm, draws negligible current and can therefore provide dependable voltage readings even on circuits used in electronic apparatus.

Will provide a lifetime of service — glow lamp is guaranteed for 25,000 hours of actual operation. Furnished complete with extra-heavy insulated 12-inch flexible test leads and test prods.

Lightweight impact resistant case and dial panel, thoroughly insulated. So rugged that instrument can be thrown into tool box or dropped to floor without damage. C.S.A. approval #8910.

Catalog Number	Description	List Price
400B	Range 65 to 660 volts	$3.75

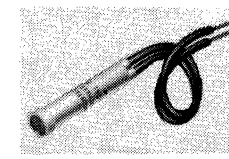
SAFE-T-KORD Model 1480



- A safe convenient way to apply line voltage to assemblies and components for test and experimentation.
- Eliminates accidental shocks and shorts to avoid blowing the main fuses.
- Consists of two nylon-insulated Safe-T-Klips, each with type AGX-5 ampere fuse and six foot line cord.
- Fast fuse check possible with see-thru Lexan fuse housing.

Catalog Number	Description	List Price
1310	LINE-VOLT Test Lite (55-550 volts)	$1.50

GLO-DOT PILOT LIGHT



Small and attractive pilot light mounts in 5/16" hole with speed nut (provided). Built-in resistor assures long life while strain-relief provides added protection. Entire series UL & CSA approved. 4½" leads, 22 AWG stranded 105°C insulation supplied stripped ½". Top ring is .340 dia. by .140" high while length of body under shoulder is 1 3/64" overall.

Catalog Number	Description	List Price
2110A-*	GLO-DOT w/(see note) lens	$ .85

*Note: (1) red, (2) clear, (3) amber, (4) white

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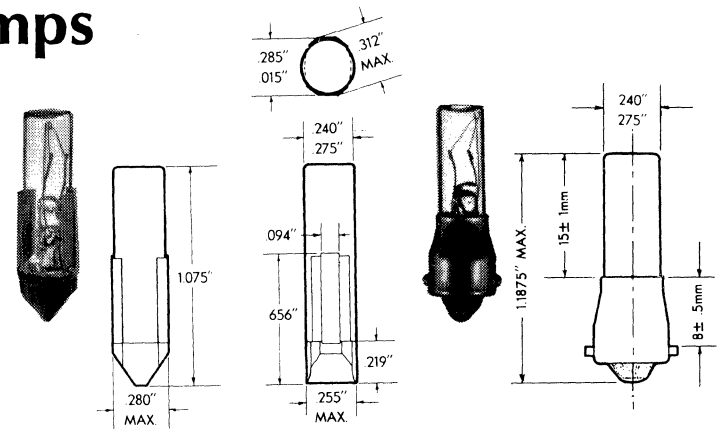
SYLVANIA SPEC-MASTER PILOT LIGHTS

Slide Base Pilot Lamps

(For use with Universal Housings)

- Minimum static life... 5000 hours.
- Rugged flair-stem construction provides highest environmental reliability.
- Established resonance frequencies for each lamp type permits selection of the right lamp for your job.
- Exclusive slide base provides better electrical contact and reduces lamp failure due to extreme shock and vibration.
- SPEC-MASTER line of Pilot Lamps includes the world's smallest, most reliable standard-voltage (120 volts) incandescent lamp. No bulky, expensive transformers required!

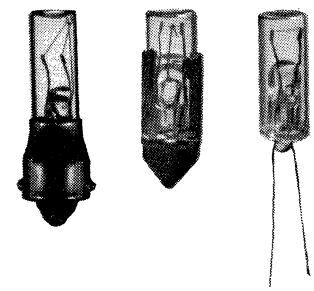


(To Order Use LAMP NO. & MFG. CODE)

Lamp No.	Mfg. Code	Volts	Avg. Watts	Avg. Current (Amps)	Base	Quantity	Price
6PSB	B0672	6	.8	.140	Slide	1-9	$0.45
12PSB	B1272	12	2.0	.170		10-99	$0.43
24PSB	B2472	24	1.7	.073		100-999	$0.41
28PSB	B2972	28	1.1	.040		1000-Over	*
48PSB	B4872	48	2.5	.053			
60PSB	B6072	60	3.0	.050			
120PSB	B2072	120	3.0	.025			
6MB	B5100	6	.8	.140	Miniature Bayonet	1-9	$0.45
12MB	B5101	12	2.0	.170		10-99	$0.43
24MB	B5103	24	1.7	.073		100-999	$0.41
28MB	B5104	28	1.1	.040		1000-Over	*
48MB	B5106	48	2.5	.053			
60MB	B5107	60	3.0	.050			
120MB	B5108	120	3.0	.025			
6PS	B0673	6	.8	.140	Unbased	1-9	$0.38
12PS	B1273	12	2.0	.170		10-99	$0.36
24PS	B2473	24	1.7	.073		100-999	$0.33
28PS	B2973	28	1.1	.040		1000-Over	*
48PS	B4873	48	2.5	.053			
60PS	B6073	60	3.0	.050			
120PS	B2073	120	3.0	.025			

*Contact Your Distributor

Miniature Bayonet Base Pilot Lamps



SPEC-MASTER Bayonet Based Pilot Lamps are designed for use where it is economically unfeasible or physically impossible to replace existing housings with the new Slide Base design. These Bayonet Based Lamps offer the same long life and environmental reliability as the Slide Base types. Can replace any conventional T3¼ Miniature Bayonet Miniature Lamp.

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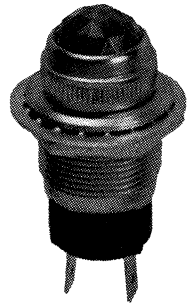
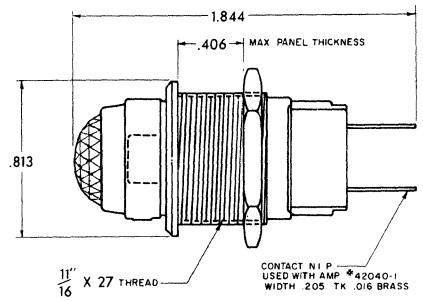
Universal, Shock-Resistant Housing

SPEC-MASTER HOUSINGS (for use with Slide Based Pilot Lamps). Made of rugged General Purpose Phenolic with nickle-plated contacts. Chrome-plated threaded mounting bushing. Electrical contact can be made with AMP Connector 42040-1 or leads can be soldered through holes in contacts. Length of housing: $1\frac{27}{32}$". Maximum panel thickness to which housing can be mounted: $\frac{13}{32}$". Meets Military requirements for Dissimilar Metals. UL Approved, 75 Watts at 125 Volts.





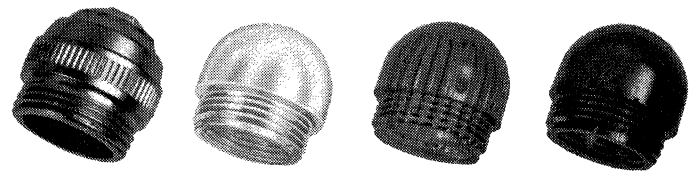
(To Order Use ORDERING DESIGNATION)

(For use with SLIDE BASED PILOT LAMPS)
Ordering Designation—Housing B0099

Quantity	Price
1-9	$0.58
10-99	$0.54
100-999	$0.50
1000-Over	$0.49

SPEC-MASTER Lenses

Made of new high-temperature LEXAN® Thermoplastic. Operates up to 290°F at 66 psi. Allows a wider angle of visibility with only a 15° loss of signal. Available in four types: Jeweled, Transparent, Fluted, Opaque.



(To Order Use ORDERING DESIGNATION)

Jeweled		Transparent		Fluted		Opaque			
Color	Ordering Designation	Color	Ordering Designation	Color	Ordering Designation	Color	Ordering Designation	Quantity	Price
Red	JR-B0100	Red	TR-B0110	Red	FR-B0120	Red	OR-B0130		
Green	JG-B0102	Green	TG-B0112	Green	FG-B0122	Green	OG-B0132	1-9	$0.14
Blue	JB-B0103	Blue	TB-B0113	Blue	FB-B0124	Yellow	OY-B0131	10-99	$0.13
Amber	JA-B0106	Amber	TA-B0111	Amber	FA-B0126	White	OW-B0133	100-999	$0.12
		Yellow	TY-B0114	Clear	FC-B0125				
		Clear	TC-B0116						

For complete manual on Pilot and Indicator Lights contact your Distributor or Lighting Division, Dept. 144, Sylvania Electric Products Inc., Salem, Mass.

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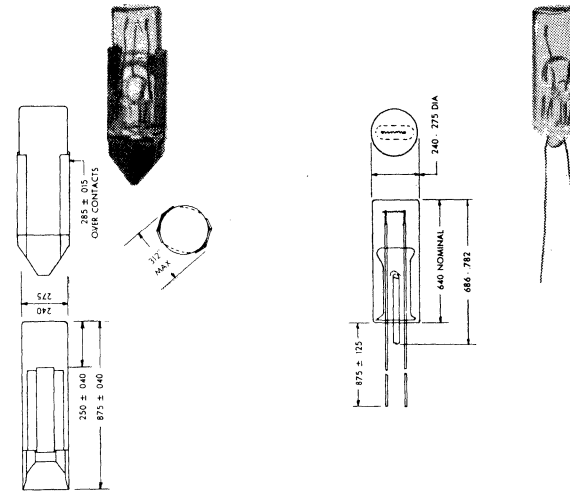
Sylvania Indicator Lamps

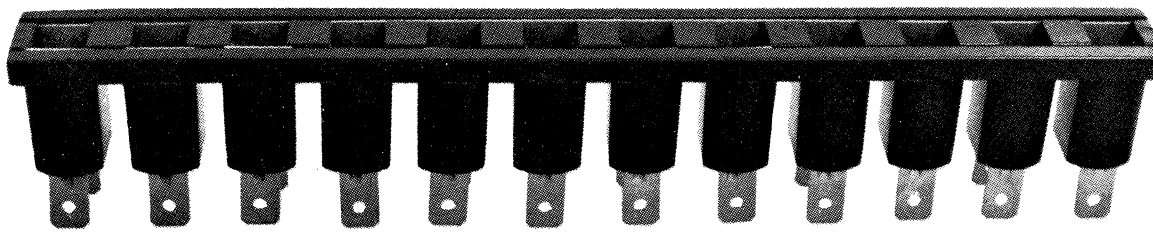


- Life ratings of lamps range from 5000 to 15,000 hours.
- Slide Base and new, ruggedized construction resist extremes of shock and vibration.
- Moulded glass mount gives greater filament stability.
- Flat-Top design for brighter, more positive undistorted signals.
- Working temperature range of base insulator material: —70°F to +375°F.
- Dumet lead wire; nickel-iron alloy core; copper sleeve with same coefficient of expansion as glass.
- Nickel-plated contacts comply with Military Standard MS-33586 (Dissimilar Metals).
- Unbased lamps have nominal lead length of ⅞".
- Used by major computer manufacturers and other leaders in the electronic field.

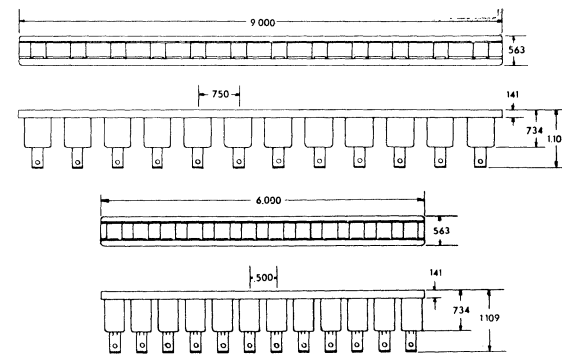
BASED LAMPS								UNBASED LAMPS		
(To Order Use LAMP NO. & MFG. CODE)										
Lamp Number	Mfg. Code	Volts	Avg. Watts	Current Amps Min.	Current Amps Max.	Quantity	Price Each	Lamp Number	Mfg. Code	Price
4CSB	B0430	4	.068	.015	.020			4CS	B0432	
4ESB	B0450	4	.16	.035	.045			4ES	B0452	
5ESB	B0550	5	.20	.035	.045			5ES	B0551	
6ESB	B0650	6	.24	.035	.045			6ES	B0652	
10CSB	B1030	10	.18	.015	.020			10CS	B1031	
10ESB	B1063	10	.40	.035	.045	1-9	$0.43	10ES	B1053	$0.33
12ESB	B1255	12	.36	.035	.045	10-99	$0.41	12ES	B1257	$0.31
16CSB	B1630	16	.28	.015	.020	100-499	$0.37	16CS	B1632	$0.27
16ESB	B1650	16	.64	.035	.045	500-Over	*	16ES	B1652	*
18ESB	B1860	18	.72	.035	.045			18ES	B1861	
24ESB	B2455	24	.96	.035	.045			24ES	B2454	
24CSB	B2490	24	.42	.015	.020			24CS	B2491	
28ESB	B2900	28	1.12	.035	.045			28ES	B2905	
10ASB	B1040	10	.10	.009	.011	1-9 10-99 100-499 500-Over	$0.65 $0.61 $0.55 *	10AS	B1041	$0.58 $0.54 $0.45 *
48ESB	B4861	48	1.92	.035	.045	1-9 10-99 100-499 500-Over	$0.49 $0.44 $0.38 *	48ES	B4862	$0.39 $0.36 $0.31 *

*Contact Your Distributor

Strip Sockets*



Made of LEXAN®. Twelve sockets on either ½" or ¾" centers. Available with either common ground connection for all sockets or individual ground connection for each socket. Nickel-plated socket contacts, when used with nickel-plated indicator lamps, comply with Military Standard MS-33586 (Dissimilar Metals). Strip of 12 sockets is easily cut to provide any smaller number of sockets. Each strip includes three Tinnerman clips for mounting to a panel. Two clips are recommended for strips of two to five sockets; three clips for five to twelve sockets. If additional clips are required, C10464-012-27 should be used with the ¾" spacing; C11600-012-27 for ½" spacing. A standard AMP receptacle 42040-1 may be used to make electrical connection to the sockets, or leads may be soldered to socket contacts. Receptacles available from AMP, Inc., Harrisburg, Pa.



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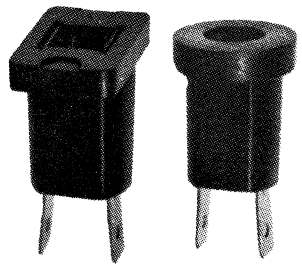
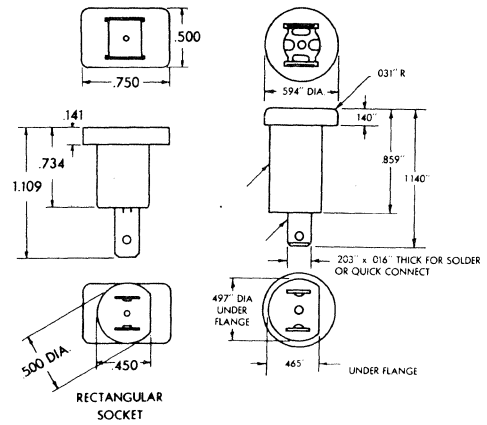
Single Sockets*

Two types available: rectangular and round. Nickel-plated contacts comply with Military Standard MS-33586. By rotating the rectangular socket in the panel in which it is mounted, the same spacing dimension as the socket strip is maintained, whether it be the ½" or ¾" centers. AMP receptacle 42040-1 may be used with the single socket. One Tinnerman clip, number C10464-012-27, is recommended for each single socket.





(To Order, Use ORDERING DESIGNATION)

Product Description	Ordering Designation	Quantity	Prices
Strip Socket, ½" Centers, Common Ground	Strip - B1250	1-9	$2.65
		10-19	$2.55
Strip Socket, ¾" Centers, Common Ground	Strip - B1275	20-49	$2.35
		50-Over	*
Strip Socket, ½" Centers, Individual Contacts	Strip - B3250	1-9	$2.75
		10-19	$2.65
		20-49	$2.45
Strip Socket, ¾" Centers, Individual Contacts	Strip - B3275	50-Over	*

(Tinnerman clips for socket mounting included)
*Contact Your Distributor

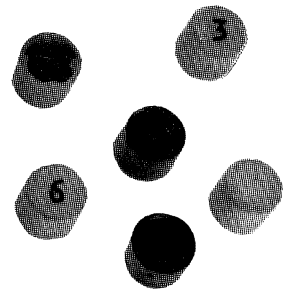
(To Order, Use ORDERING DESIGNATION)

Product Description	Ordering Designation	Quantity	Prices
Single Socket Round	Socket - B0150	1-9	$0.26
		10-99	$0.24
Single Socket Rectangular	Socket - B0151	100-499	$0.22
		500-Over	*

(Tinnerman clips for socket mounting included)
*Contact Your Distributor

Color Caps

Two types of color caps available for coding of circuits: Profax and Pyrex hard glass. The Profax cap should be used with lamps rated below 1.5 watts. Heat generated by lamps of 1.5 watts or higher may discolor caps. A special Pyrex color cap is available for use with lamps above 1.5 watts. The Profax cap is desirable in applications in which aesthetic value and illumination of the cap is important.



(To Order, Use ORDERING DESIGNATION)

PROFAX Color	PROFAX Ordering Designation	PYREX GLASS Color	PYREX GLASS Ordering Designation
Red	CAP-B8001	Red	CAP-B8071
Yellow	CAP-B8002	Yellow	CAP-B8072
White	CAP-B8003	White	CAP-B8073
Green	CAP-B8004	Green	CAP-B8074
Blue	CAP-B8005	Blue	CAP-B8075

Product Description	Quantity	Price
PROFAX COLOR CAPS WITH LEGEND (0-9 or A-Z)	1-9	$0.07
	10-99	$0.065
Only PROFAX caps can be legended. (Profax caps can have 2 numbers or letters stamped on. For the second legend add 1c extra per cap.)	100-499	$0.06
	500-Over	*
COLOR CAPS, LARGE PROFAX — COLOR CAPS, PYREX HARD GLASS	1-9	$0.06
	10-99	$0.055
	100-499	$0.05
	500-Over	*

*Contact Your Distributor

U.S. Patent 3,082,397

For complete manual on Pilot and Indicator Lights contact your Distributor or Lighting Division, Dept. 144, Sylvania Electric Products Inc., 60 Boston Street, Salem, Mass.

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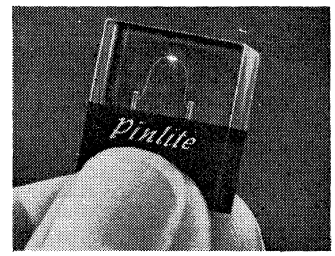
Pinlite® THE WORLD'S SMALLEST INCANDESCENT LAMP

PINLITE FEATURES

- Lowest Power Consumption
- Lowest Series "L" & Shunt "C"
- IR and UV Emission
- Smallest Size
- Fastest Response (Audio Range)
- Vibration & Shock Resistant
- Built-in Lens Concentrates Light Beam Up to 10X Normal Intensity

PINLITE APPLICATIONS

- Transistor Indicators
- Microwave Noise Sources
- Modulated Light Source
- Microwave Bolometers
- Optical Point Sources
- Medical & Industrial Light Probes
- Remote Electronic Attenuators
- Read Out Devices
- Pointer & Meter Scale Illuminators
- Photometric Instrumentation
- Light Actuated Switches
- Telemetry

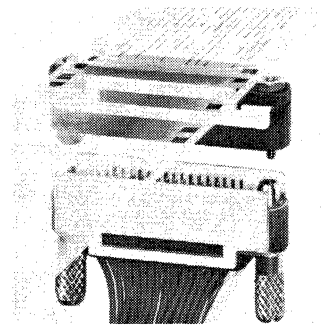


The "THUMB-THING"...Pinlite Test Componen

Here is your opportunity to test the PINLITE without fear of losing or mishandling this incredibly tiny lamp.

The Thumb-Thing consists of a PINLITE embedded in a clear plastic container, together with a micro-miniature battery and a switching arrangement. Provides engineers with a practical, easy-to-handle method of testing PINLITES. Battery is easily removed, exposing two sturdy leads which can be connected to an external power source or test signal.

Model 15 Contains Type 15-15 Pinlite Model 12 Contains Type L12-12 Pinlit
Price: $10.00 each Federal Excise Tax and Battery Included.

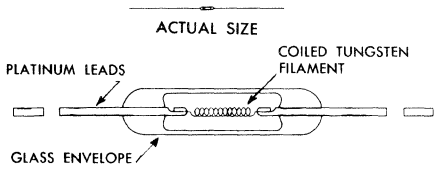


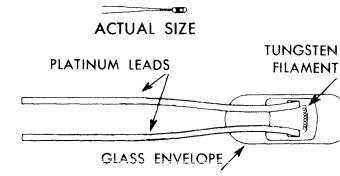
A Compact Readout Device with up t 32 Individual Light Sources Per Inch

The Pinlite Division is now offering the new Multi Track Head which can be used in conjunction wit perforated tapes, photo sensitive film, or other opt cal sensing devices to provide a convenient mean of relating time sequences and/or controlling inte mittent on-off applications.
The Pinlite Multi-Track Head is presently availabl in two models:

1. The Model 16-1212, featuring 16 independentl connected type L12-12 Pinlites spaced on .06 centers.
2. The Model 32-1212, featuring 32 independentl connected type L12-12 Pinlites spaced on .03 centers.

SPECIFICATIONS





AXIAL LEADED STYLE							LENS STYLE				
10-10	13-7	15-15	15-45	30-30	60-25	Type	L12-3	L12-6	L12-12	L15-30	L15-45
1.0	1.35	1.5	1.5	3	6	Operating Voltage ..... (Volts)	1.25	1.25	1.25	1.5	1.5
10	6.00	15	45	30	25	Operating Current .... (Milliamps)	3	6	12	30	45
.016	.016	.016	.030	.030	.040	Diameter ..... (Inches)	.030	.030	.030	.030	.030
.070	.070	.070	.125	.125	.200	Length ..... (Inches)	.080	.080	.080	.080	.080
16	38	13.5	4	11	27	Cold Resistance ..... (Ohms)	86	35	16	5.5	4
100	215	100	33	100	240	Hot Resistance ..... (Ohms)	400	200	100	50	33
4	4	5	10	7	8	Pulse Response* .. (Milliseconds)	3	4	5	7	10
25	20	60	220	250	400	Total Light Output (Millilumens)	5	15	50	160	220
750	500	800	1000	1000	1000	Life Expectancy ..... (Hours)	500	750	1000	1000	1000
3	3	3	5	5	5	Lead Diameter ..... (Mils)	4	4	4	4	4
3/8	3/8	3/8	3/8	3/8	3/8	Lead Length ..... (Inches)	3/8	3/8	3/8	3/8	3/8
..... Platinum						Lead Material	..... Platinum				
..... Tungsten						Filament Material	..... Tungsten				

*To ½ Brightness.

PRICES*

4.75	7.95	4.75	4.00	4.00	4.00	Sample Quantity (1-9)	10.00	6.00	5.00	5.00	5.00
2.50	4.45	2.50	2.00	2.00	2.00	Qty. Prices (5000 - up)	5.25	2.00	1.75	1.75	1.75

*f.o.b. Shipping Point. All Prices subject to 10% Fed. Ex. Tax. DELIVERY — Most quantities from stock.

SPECIAL PINLITES AND ASSEMBLIES

With a sound technical background and experience in the production and design of microminiature components, Pinlite Division now includes an additional service to you — the design of micro-modules and microminiature assemblies. The availability of Pinlites in completed assemblies (to your specifications) eliminates the need for additional and delicate handling procedures and insures 100% usage of the lamps.
This concept of serving express customer needs also extends i Pinlite design. Although the specifications above describe our sta ard line of Pinlites, it should be understood that with our progr sive manufacturing techniques and engineering capabilities, a mi miniature lamp can be designed to fulfill your specific requiremer

Pinlite Division KAY ELECTRIC CO. FAIRFIELD, NEW JERSEY 07007

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INDICATOR SERVICE CATALOG SHEET

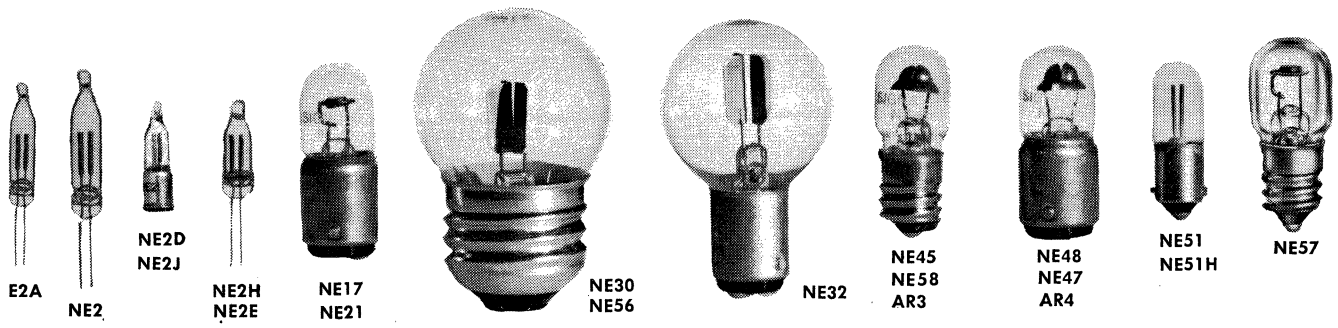
Signalite

NEON GLOW LAMPS

SPECIFICATIONS

The selection of Signalite glow lamps shown here are those which, in our experience, are in greatest demand and represent the greatest proportion of both OEM and renewal sales. **All other NE type lamps and circuit component lamps are available.**

DESIGNATION		MECHANICAL DATA			ELECTRICAL DATA							
LAMP NO.	ASA NO.	MAXIMUM OVERALL LENGTH (inches)	BASE	BULB	CIRCUIT VOLTS AC or DC	WATTS NOM.	SERIES RESIST. OHMS	AVERAGE USEFUL LIFE HOURS*	MAX. BREAKDOWN VOLTAGE AC	MAX. BREAKDOWN VOLTAGE DC	DESIGN CURRENT MA.	SUGGESTED RETAIL PRICE
NE2	A1A	1 1/16†	1" Wire Terminal	T2	105-125	1/17	150,000 Ex.	25,000	65	90	0.5	$ .10
NE2A	A2A	27/32†	2" Wire Terminal	T2	105-125	1/25	220,000 Ex.	25,000	65	90	0.3	.10
NE2D	C7A	15/16	S.C. Midget Flange	T2	105-125	1/15	100,000 Ex.	25,000	65	90	0.6	.82
NE2E	A9A	3/4†	2" Wire Terminal	T2	105-125	1/15	100,000 Ex.	25,000	65	90	0.6	.10
NE2H	C2A	3/4†	2" Wire Terminal	T2	105-125**	1/4	30,000 Ex.	25,000	95	135	1.9	.12
NE2J	C9A	15/16	S.C. Midget Flange	T2	105-125**	1/4	30,000 Ex.	25,000	95	135	1.9	.82
NE17	B5A	1 1/2	DC Bayonet	T4½	105-125	1/4	30,000 Ex.	7,500	55	75	2.0	.90
NE21	B6A	1 1/2	S.C. Bayonet	T4½	105-125	1/4	30,000 Ex.	7,500	55	75	2.0	.95
NE30	J5A/J6A	2 1/4	Medium Screw	S11	105-125	1	4,800 In.	10,000	60	85	12.0	1.20
NE32	L5A/L6A	2 1/8	DC Bayonet	G10	105-125	1	4,800 Ex.	10,000	60	85	12.0	1.20
NE45	B7A	1 17/32	Cand. Screw	T4½	105-125	1/4	30,000 In.	7,500	65	90	2.0	.85
NE47	B8A	1 1/2	S.C. Bayonet	T4½	105-125	1/4	30,000 Ex.	7,500	65	90	2.0	.85
NE48	B9A	1 1/2	DC Bayonet	T4½	105-125	1/4	30,000 Ex.	7,500	65	90	2.0	.70
NE51	B1A	1 3/16	Min. Bayonet	T3¼	105-125	1/25	220,000 Ex.	15,000	65	90	0.3	.21
NE51H	B2A	1 3/16	Min. Bayonet	T3¼	105-125**	1/7	47,000 Ex.	25,000	95	135	1.2	.23
NE56	J9A/L1A	2 1/4	Medium Screw	S11	210-250	1	30,000 In.	10,000	60	85	5.0	1.25
NE57	F3A	1 17/32	Cand. Screw	T4½	105-125	1/4	30,000 In.	7,500	55	75	2.0	.99
NE58	F4A	1 17/32	Cand. Screw	T4½	210-250	1/2	100,000 In.	7,500	65	90	2.0	.95
AR3	J2A	1 17/32	Cand. Screw	T4½	105-125	1/4	15,000 In.	***	80	115	3.5	.85
AR4	J3A	1 1/2	DC Bayonet	T4½	105-125	1/4	15,000 Ex.	***	80	115	3.5	.75



NOTES:
* Life when operated on AC. For standard-brightness lamps, life on DC is approximately 60% of these values. For high-brightness lamps, life on DC is slightly less than 60%.
** On DC, use 150 volts, minimum, for satisfactory operation.
† Dimension is for glass parts only.
*** Ultraviolet output drops to 50% of initial in 150 hours. Visible light decreases to 50% in 1,000 hours.

Signalite INCORPORATED
NEPTUNE, NEW JERSEY

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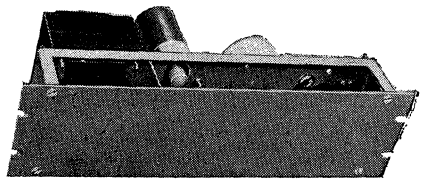
Acme ACME Electric
ENGINEERED FOR QUALITY

POWER SUPPLIES
CONSTANT VOLTAGE STABILIZERS
MAGNETIC AMPLIFIERS
VOLTAGE ADJUSTORS

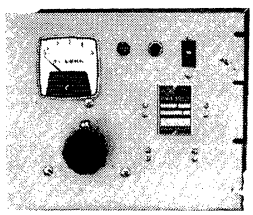
DC REGULATED POWER SUPPLIES



Continuous duty magnetic power supplies. No tubes. Output voltage adequately maintained. Rapid recovery from input line variations and/or sudden load changes. Current limited. Units feature constant voltage transformer, resonant capacitor, electrolytic filter, silicon rectifiers, adequate bleeder. Bulletin 174.

100-130 volt, 60 cycles; Less than 1% ripple voltage RMS.

Catalog No.	Watts	Amps	D.C. Volts	Approx. Efficiency
PS-41423	150	6.25	24	76
PS-41424	200	4.15	48	81
PS-41425	250	2.0	125	86
PS-41426	300	2.0	150	86
PS-41427	200	1.0	200	80
PS-41428	250	1.0	250	85



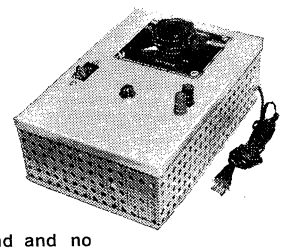
UNFILTERED, NON REGULATED POWER SUPPLIES

Sturdily built, economically priced, manual regulation, silicon rectifiers provide full-wave d-c output. Bulletin 174.

Input 100-120 volts, 60 cycles.

Catalog No.	Watts	D.C. Volts	Amps
PS-39887	300	0-100	3
PS-39888	500	0-100	5
PS-39889	1000	0-100	10
PS-39890	2000	0-100	20

ADJUSTABLE DC POWER SUPPLIES
Portable or Rack Models

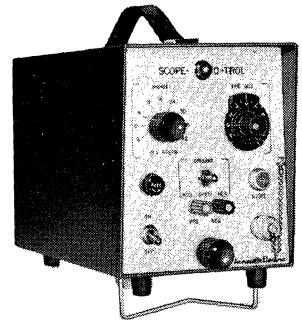


95-130 volts, 60 cycle. Direct current output stabilized and adjustable from 0-45 volts, current outputs 0.2.5 amp. and 0-5 amps. Voltage regulation approximately 5% between full load and no load.

Available in portable, plug-in model or standard rack type. Bulletin 17.

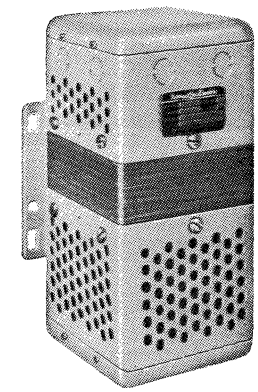
SCOPE-O-TROL

Operates from 115 volt, 60 cycle circuit. Regulated output range from 0 to 300 volts d-c, stabilized at any desired setting. Coarse adjustment, 75 volt steps, fine adjustment .25/degree. Less than 1 millivolt ripple RMS. Current limiting and short circuit protection. Bulletin 17.



CONSTANT VOLTAGE STABILIZERS

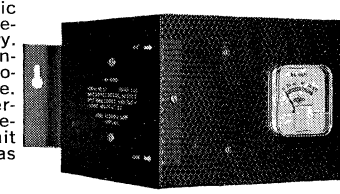
Catalog Number	VA Output Capacity	Input Voltage Range	Output Voltage ±1%
T-31936	15	95-130	120*
T-31937	30	95-130	120*
T-31938	60	95-130	120*
T-31939	120	95-130	120*
T-31940	250	95-130	120*
T-31941	350	95-130	120*
T-31942	500	95-130	120*
T-31943	500	175-235x 190-260x 380-520	120x 240
T-31944	750	95-130	120*
T-31945	750	175-235x 190-260x 380-520	120x 240
T-31946	1000	95-130	120*
T-31947	1000	175-235x 190-260x 380-520	120x 240
T-31948	2000	95-130x 175-235x 190-260	120x 240
T-31949	3000	95-130x 190-260	120*
T-31950	3000	95-130x 190-260	240*
T-31951	3000	175-235x 190-260x 380-520	240*
T-31952	3000	190-260x 380-520	480*
T-31953	5000	95-130x 190-260	120*
T-31954	5000	95-130x 190-260	240*
T-31955	5000	175-235x 190-260x 380-520	240*
T-31956	5000	190-260x 380-520	480*



* Indicates that stabilizer has special output tap for rectifier connection. All standard units listed have a voltage correction response time of less than 2 cycles, stabilizing output voltage ±1% under ±15% variation of input voltage.

MAGNETIC AMPLIFIERS

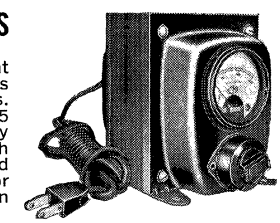
Combine solid state electronic components with magnetic reactors and advanced circuitry. Bias control winding is converted from input line to provide self saturation of core. Independent gain control operates from 0-5 ma signal. Independent potentiometers permit individual adjustment of bias or gain control.



Catalog No.	Watts	Dc Output Volts	Amps	AC Input
MA-42900	5	24	0.21	120
MA-42901	40	80	0.5	120
MA-42902	80	80	1.0	120
MA-42903	125	80	1.6	120
MA-42904	250	80	3.2	120
MA-42905	500	80	6.4	120
MA-42906	500	160	3.2	240
MA-42907	1000	80	12.8	120
MA-42908	1000	160	6.4	240

MANUAL VOLTAGE ADJUSTORS

An inexpensive voltage adjustor that increases a low voltage or reduces a high voltage condition to 115 volts. Seven steps of adjustment from 95 to 125 volts input to approximately 115 volts output. Units supplied with integrally mounted tap-switch, cord and plug and plug-in receptacle for outlet connection. Write for Bulletin 091.



ACME ELECTRIC CORPORATION
Cuba, New York
Canadian Representative: POLYGON SERVICES, Ltd.
50 Northline Rd., Toronto 16, Ont.

SAA-3581-2034

Acme ACME Electric

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PORTABLE — Plug-in Type INVERTERS

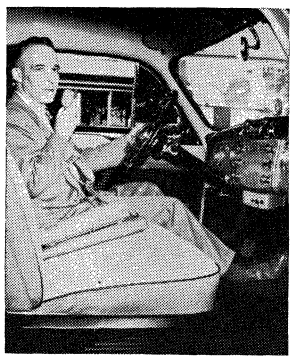
Specially Designed for Operating Standard A.C. Dictating Machines, Record Players, Incandescent Lamps, Electric Razors, Electronic Test Equipment, and Other Small Electrical and Electronic Devices from D.C. Voltages in Automobiles, Buses, Trucks, Boats, Planes, Trains, and D.C. Districts.

ATR Portable Inverters are light-weight plug-in units for applications as recommended above. These Inverters feature instant starting, frequency stability, and high efficiency and reliability. Inverters have partial RF filtering which is only suitable for small insensitive type radios. For sensitive radio sets, ATR Universal Inverters, catalog sheet 657U, must be used. The 6 and 12-volt units are equipped with cigarette lighter cord set to plug into dash receptacle; whereas, the other higher input voltage units are equipped with standard two-blade plug-in cord sets. With ATR Inverters the need for special equipment is eliminated. They are designed for quiet, long-life operation. All ATR Models indicated are equipped with ATR plug-in Inverter Vibrators. Models RME and RMF come equipped with a four-point voltage regulator which makes possible the correct output voltage for minimum to maximum loads. The battery current consumption required is normally less than that drawn by one ordinary automobile headlight. The operating efficiency is approximately 75%. To figure battery current consumption see catalog sheet 657U. These Inverters are recommended only for use with loads having power factors in excess of 80% and should be used only for the applications as outlined above and on the reverse side of this sheet. **These Portable Inverters are not recommended for tape recorder operation, except as specified in (2) below.**

Illustrates ATR Mighty Midget (DME) Model Inverter having Cigarette Lighter Plug Attachment.

Illustrates ATR Medium (RME and RMF) Model Inverter having Four-Point Voltage Regulator and Cigarette Lighter Plug Attachment.

EASY TO INSTALL
EASY TO OPERATE



Illustrates Under-Dash Mounting for ATR Models RME and RMF. See Page 1019 for available accessories.

Ideal for Emergency Lighting Applications for Civil Defense, Red Cross, Rescue Work, etc., Simply Using Extension Cords.

TYPE	INPUT D.C. VOLTS	A.C. OUTPUT 60 CYCLES	OUTPUT WATTAGE Int.	OUTPUT WATTAGE Cont.	SHIPPING WEIGHT	DEALER PRICE
6-DME (1)	6	110 Volts	40	30	5 lbs.	$18.50
6C-DME (1)	6/12	110	40	30	5	21.25
6-RMF (2)	6	110	80	60	12	36.50
6C-RMF (2)	6/12	110	80	60	12	40.25
12-DME (1)	12	110	50	40	5	18.50
12T-RME (2) (3)	12	110	125	90	12	36.50
*28-RME (2)	28	110	100	80	12	46.50
32-RME (2)	32	110	100	80	12	46.50
110-RME (2)	110	110	150	100	12	43.50
220-RME	220	110	150	100	12	46.50

* Recommended for 24-Volt Battery Systems.
For Inverters having larger or smaller output capacities, or for operation on other D.C. input voltages, please consult available ATR Inverter catalog sheets.
All models designated above are housed in attractively finished grey-hammerloid metal cabinets. Dimensions of Medium (RME and RMF) Model Inverters, 8⅜" x 8" x 3¾"; shipping weight, 12 lbs. Dimensions of Mighty Midget (DME) Model Inverters, 5¼" x 4¾" x 2¾"; shipping weight, 5 lbs. For correct replacement vibrator, consult Inverter Vibrator Guide.

(1) These Inverters primarily recommended for Edison VP dictating machines. May also be used with Model 200 Soundscriber (with engine of car not running).
(2) Primarily recommended for Dictaphone's Time Master, Gray Audograph and DeJur Stenorette dictating machines, or other similar types. Also, highly recommended for Norelco Tape Recorder Model EL-3516 and Geloso Model G255-S.
(3) THIS INVERTER SPECIALLY DESIGNED AND RECOMMENDED ALSO FOR USE WITH RCA 8½" PORTABLE TV SET OR G.E. 9" PORTABLE TV SET IN AN AUTOMOBILE.

JOBBERS ATTENTION: See Page 1039 in this ATR Section and Page 598 in Section 1900 for your Catalog Needs!

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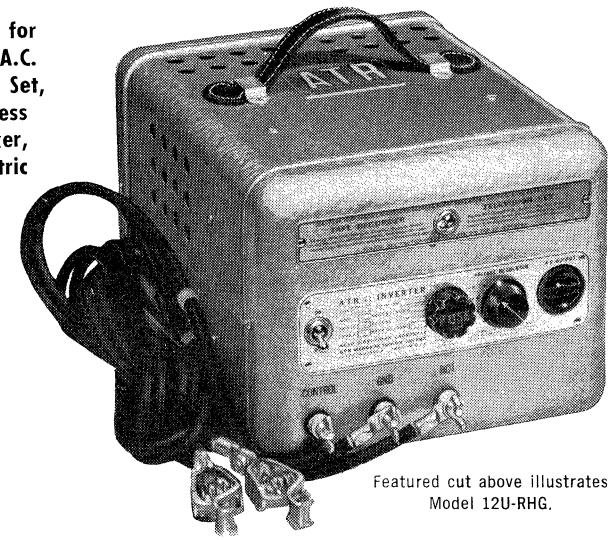
ATR UNIVERSAL INVERTERS

Specially Designed for Operating Standard A.C. Tape Recorder, Television Set, Dictating Machine, Radio Set, Ham Gear, Public Address System, Amplifier, Record Player, Electric Razor, Food Mixer, Vacuum Cleaner, Sewing Machine, Business Machine, Electric Drill, Fluorescent and Incandescent Lamp, and Electronic Test Equipment from D.C. Voltages in Automobiles, Buses, Trucks, Boats, Trains, Planes, and D.C. Districts. Ideal for Emergency Lighting Applications for Civil Defense, Red Cross, Rescue Work, etc., Simply Using Extension Cords.



Featured cut above illustrates Model 12U-RHG.

ATR Universal Inverters are actually a combination of 4 Inverter designs in one unit! These Inverters are especially recommended for applications as mentioned above and feature complete RF frequency interference suppression, instant starting, frequency stability, and built-in power factor corrector utilizing a simple toggle switch. With ATR Inverters, the need for special equipment is eliminated. They are designed for quiet, long-life operation at high efficiency and maximum reliability. All models indicated are equipped with ATR heavy duty plug-in Inverter Vibrators. These Inverters also come equipped with four-point voltage regulator which make possible the correct output voltage for minimum to maximum loads and also help compensate for input voltages which are lower or higher than normal. The operating efficiency is in excess of 75%. To figure approximate current consumption from storage battery, divide the rated input wattage of the recorder (or load) being operated by the storage battery voltage and further divide this answer by .75 which will give the actual current consumption based on the actual load and efficiency. The battery current consumption required for a tape recorder is normally less than that drawn by ordinary automobile headlight(s). These Universal Inverters are recommended only for use with loads having power factors in excess of 70%. ATR Inverters should be used only for the applications as outlined.

"—P" models equipped with cigarette lighter cord set to plug into dash receptacle.

All ATR Universal Inverters are housed in attractively finished grey-hammerloid metal cabinets.

Dimensions of Standard (RSF) Model Universal Inverters, 8½" x 9⅞" x 5¼"; shipping weight 22 lbs.

Dimensions of Heavy Duty (RHG) Model Universal Inverters, 6⅞" x 11¼" x 8½"; shipping weight 27 lbs.

Dimensions of Super Heavy Duty (HSJ) Model Universal Inverters 6½" x 12⅞" x 8½"; shipping weight 37 lbs.

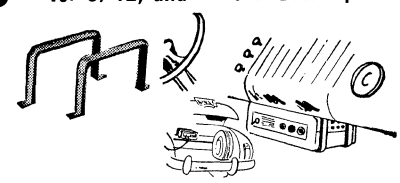
For correct replacement Vibrator, consult Inverter Vibrator Guide.

Type	Input D.C. Volts	A.C. Output 60 Cycles	Output Watt. Int.	Output Watt. Cont.	Shipping Weight	Dealer Price
6U-RSF	6	110 Volts	100	80	22 lbs.	$55.00
6U-RSF-P	6	110	100	80	22	55.00
6U-RHG	6	110	150	125	27	73.00
6U-HSJ	6	110	175	150	37	91.50
12U-RSF	12	110	125	100	22	55.00
12U-RSF-P	12	110	125	100	22	55.00
12U-RHG	12	110	175	150	27	73.00
12U-HSJ	12	110	250	200	37	91.50
*28U-RSF	28	110	125	100	22	66.00
*28U-RHG	28	110	175	150	27	87.50
*28U-HSJ	28	110	250	200	37	103.50
32U-RSF	32	110	150	100	22	66.00
32U-RHG	32	110	200	180	30	77.50
32U-HSJ	32	110	325	225	37	103.50
50U-RSF	50	110	150	100	22	66.00
50U-RHG	50	110	225	200	27	87.50
110U-RSF	110	110	250	150	22	55.00
110AU-RHG	110	110	325	250	27	66.00
110BU-RHG	110	110	450	350	30	77.50
110U-HSJ	110	110	600	400	37	103.50
220U-RSF	220	110	250	150	22	58.25
220U-RHG	220	110	325	250	27	73.00
220U-HSJ	220	110	500	300	37	103.50

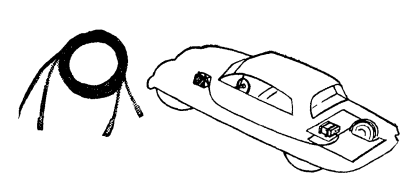
* Recommended for 24 volt battery systems.

ACCESSORIES for 6, 12, and 28 Volt D.C. Input Inverters.

REMOTE CONTROL UNIT — for under-dash mounting permitting installation of Inverter in auto-trunk compartment. Dealer Price $5.97



MOUNTING BRACKETS — to securely mount Inverter in trunk compartment of car or under-dash, as illustrated. Dealer Price $3.30 pr.



EXTENSION CABLES — to provide additional cable lengths for installation of Inverter in trunk compartment. Dealer Price $6.63 pr.

JOBBERS ATTENTION: See Page 1039 in this ATR Section and Page 598 in Section 1900 for your Catalog Needs!

"A" BATTERY ELIMINATORS

. . . FOR DEMONSTRATING AND TESTING AUTO RADIOS

6 VOLT OR 12 VOLT!

TRANSISTOR or VIBRATOR OPERATED!

LOW RIPPLE!!

Specially Designed for Testing and Operating Auto Radios and D.C. Electrical Apparatus on Regular A.C. Lines, 105-125 Volts, 50-60 Cycles.

SUGGESTED USES:

As a power supply for radio sets, aircraft instruments, relays, motors and other electrical and electronic equipments. In the laboratory, for supplying various low D.C. voltages.

Battery Eliminators may be treated as batteries in the sense that they can be connected in series for higher voltages at the same current output per unit or in parallel for the same output voltage per unit at higher currents.

- **Eliminates Storage Batteries and Battery Chargers.**
- **Operates the Equipment at Maximum Efficiency at All Times.**
- **Delivers Filtered Direct Current at the Correct Voltage for Proper Operation.**
- **Minimum Ripple**
- **Fully Automatic and Fool-Proof**
- **Adjustable Voltage Control**

Featured cut illustrates Heavy Duty "A" Battery Eliminator, Model 620C-ELIT; equipped with Voltmeter, Ammeter and Voltage Control.

Illustrates Standard "A" Battery Eliminator, Model 610C-ELIF; equipped with Voltmeter, Ammeter and Voltage Control.

Equipped with Full-Wave Dry Disc Selenium Rectifier, Assuring Noiseless, Interference-Free Operation and Extreme Long Life and Reliability.

TYPE 610C-ELIF—Rated output 6 volts at 10 amperes continuous or 12 volts at 6 amperes continuous. Size 6½" x 9⅛" x 8½". Shipping weight, 22 lbs. Code word "SELIT." USER NET PRICE $55.00

TYPE 620C-ELIT—Rated output 6 volts at 20 amperes continuous or 12 volts at 10 amperes continuous. Uses dual rectifiers. Sizes 6½" x 12⅞" x 8½". Shipping weight, 33 lbs. Code word "HELIT." USER NET PRICE $73.50

Either 6 or 12 volt output obtainable by means of simple output toggle switching arrangement having locking device to prevent accidental switching.

All ATR Eliminators have as standard equipment: On-Off Switch, 8-Position Voltage Control, Meter(s), Fuse Protection, Rubber Mounting Feet, 6-ft. All-Rubber Cord Set and Cabinet of heavy gauge metal having attractive grey-hammerloid finish.

JOBBERS ATTENTION: See Page 1039 in this ATR Section and Page 598 in Section 1900 for your Catalog Needs!

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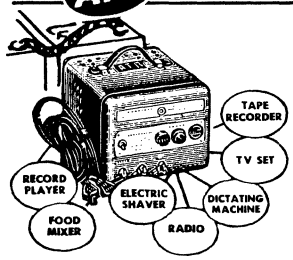
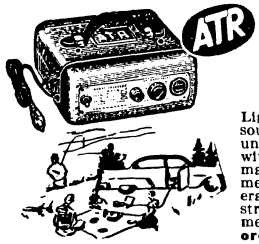
ATR Inverters, Vibrators, "A" Eliminators, etc.



ATR DC TO AC UNIVERSAL INVERTERS

New, universal inverters for operating 110-v., 60 cycle AC equipment from DC voltages in autos, buses, trucks, boats, trains, planes and DC districts. Designed especially for standard 110-volt AC tape recorders, TV sets, radios, PA systems, electric razors, test equipment, etc. Units are carefully engineered and ruggedly constructed to provide long life operation. All feature complete RF interference suppression and exceptional frequency stability. Have operating efficiency in excess of 75%. Four-point voltage regulator corrects output voltage for minimum and maximum loads, and also helps compensate for input voltages lower or higher than normal. Inverters are recommended for use with loads having power factors in excess of 70%. Built-in toggle switch selects most efficient operation for use with TV sets or tape recorders. Inverters are not recommended for use with large motor driven appliances such as refrigerators, washing machines, etc. All have ON-Off switches. Housed in attractive gray hammeroid metal cabinet with convenient leather carrying strap. Sizes: Standard Model RSF, 8¼x9⅞x5¼"; Heavy-Duty Model RHG 6⅛x11¼x8½", Extra-Heavy-Duty Model HSJ, 6½x12⅞x8½". With battery clips for instant connection to power source. Models with "P" suffix equipped with adapter cord for use in auto cigarette lighter receptacles. *Recommended for24 volt battery operation. **Before ordering, check wattage of equipment with which inverter will be used.**

Stock No.	Mfr's Type	Input D.C. Volts	A.C. Output 60 Cycles	Output Watt. Int.	Output Watt. Cont.	Shipping Weight	List Price	Net Price
	6U-RSF	6	110 Volts	100	80	22 lbs.	$ 82.50	$ 55.00
	6U-RSF-P	6	110	100	80	22	82.50	55.00
	6U-RHG	6	110	150	125	27	109.50	73.00
	6U-HSJ	6	110	175	150	37	137.25	91.50
	12U-RSF	12	110	125	100	22	82.50	55.00
	12U-RSF-P	12	110	125	100	22	82.50	55.00
	12U-RHG	12	110	175	150	27	109.50	73.00
	12U-HSJ	12	110	250	200	37	137.25	91.50
*	28U-RSF	28	110	125	100	22	99.00	66.00
*	28U-RHG	28	110	175	150	27	131.25	87.50
*	28U-HSJ	28	110	250	200	37	155.25	103.50
	32U-RSF	32	110	150	100	22	99.00	66.00
	32U-RHG	32	110	200	180	30	116.25	77.50
	32U-HSJ	32	110	325	225	37	155.25	103.50
	50U-RSF	50	110	150	100	22	99.00	66.00
	50U-RHG	50	110	225	200	27	131.25	87.50
	110U-RSF	110	110	250	150	22	82.50	55.00
	110AU-RHG	110	110	325	250	27	99.00	66.00
	110BU-RHG	110	110	450	350	30	116.25	77.50
	110U-HSJ	110	110	600	400	37	155.25	103.50
	220U-RSF	220	110	250	150	22	87.37	58.25
	220U-RHG	220	110	325	250	27	109.50	73.00
	220U-HSJ	220	110	500	300	37	155.25	103.50



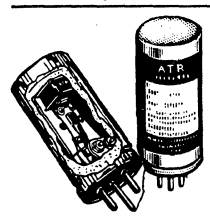
PORTABLE PLUG-IN TYPE INVERTERS

SPECIALLY DESIGNED FOR OPERATING STANDARD A. C. DICTATING MACHINES, RECORD PLAYERS, INCANDESCENT LAMPS, ELECTRIC RAZORS, ELECTRONIC TEST EQUIPMENT, AND OTHER SMALL ELECTRICAL AND ELECTRONIC DEVICES FROM D. C. VOLTAGES IN AUTOMOBILES, BUSES, TRUCKS, BOATS, PLANES, TRAINS, AND D. C. DISTRICTS.

Lightweight inverters for operating 110 v. AC equipment from DC voltage sources. Feature excellent frequency stability and high efficiency. 6 and 12-volt units plug into cigarette lighter receptacle of any vehicle; others are equipped with standard 2-prong plugs. All are designed especially for use with dictating machines; record players, electric razors, test equipment, etc. Not recommended for tape recorders and large motor driven appliances such as refrigerators, washing machines, etc. Gray Hammeroid case with leather carrying strap. Sizes: DME, 5¼x4¾x2¾"; RME and RMF, 8⅜x8x3¾". *Recommended for 24-volt operation. **Check wattage rating of equipment before ordering. RMF/RME Model Inverters equipped with voltage regulator.**

Stock No.	Mfr's Type	Input D.C. Volts	A.C. Output 60 Cycles	Output Watt. Int.	Output Watt. Cont.	Shipping Weight	List Price	Net Price
	6-DME (1)	6	110 Volts	40	30	5 lbs.	$27.75	$18.50
	6C-DME (1)	6/12	110	40	30	5	31.87	21.25
	6-RMF (2)	6	110	80	60	12	54.75	36.50
	6C-RMF (2)	6/12	110	80	60	12	60.37	40.25
	12-DME (1)	12	110	50	40	5	27.75	18.50
	12T-RME (2) (3)	12	110	125	90	12	54.75	36.50
*	28-RME (2)	28	110	100	80	12	69.75	46.50
	32-RME (2)	32	110	100	80	12	69.75	46.50
	110-RME (2)	110	110	150	100	12	65.25	43.50
	220-RME	220	110	150	100	12	69.75	46.50

(1) These Inverters primarily recommended for Edison VP dictating machines. May also be used with Model 200 Sound-scriber (with engine of car not running).
(2) Primarily recommended for Dictaphone's Time Master, DeJur Stenorette, and Gray Audograph dictating machines or other similar types. Also recommended for use with Norelco tape recorder Model EL-3516 and Geloso Model G 255-S tape Recorder.
(3) **This Inverter specially designed and recommended also for use with RCA 8½" portable TV set or G.E. 9" portable TV set in an automobile.**



ATR VIBRATORS

FOR ALL AUTO RADIO SETS SINCE 1954 USE ONE OF THE ATR VIBRATORS LISTED BELOW ... ATR VIBRATORS FEATURE

Ceramic Stack Spacers with Two-Bolt Stack construction.

Instant Starting—as a result of highly efficient magnetic circuit with formed base for more uniform operation on both high and low voltages.

Large Oversize Tungsten Contacts having Full Wiping Action—for greater reliability and longer life.

Perforated Reed of Highest Quality Swedish Spring Steel.

Highest Precision Construction and Workmanship—Practically all parts used are held to within a tolerance of 0.0005 of inch.

Value Plus—as readily evidenced by the Larger Contacts, Ceramic Spacers and Precision Construction and Workmanship. Available in TEN-PAK.

ATR No. 1400 (Bulk), 4-Prong, 6-Volt For All 6-Volt Sets Since 1954

ATR No. 1843 (Bulk), 3-Prong, 12-Volt For All 12-Volt General Motors Since 1954

ATR No. 1843 also used in following automobiles: 1956 **Ford** (Philco), Lincoln (Bendix), and Mercury (Bendix); 1956 Chrysler (Philco); 1955-57 Packard; 1956-57 Plymouth (Philco); 1956 Studebaker (Philco) and 1957 Mercury (Philco)

ATR No. 1840 (Bulk), 4-Prong, 12-Volt For 12 Volt Cars other Than GM Since 1954

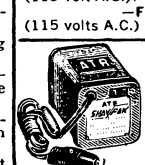
Vibrator Prices subject to Excise Taxes, if applicable.

ATR ELECTRONIC TUBE PROTECTOR

A "MUST" FOR EVERY TV HOME! WILL DOUBLE OR TRIPLE THE LIFE OF ALL TYPES OF ELECTRONIC TUBES, INCLUDING TV PICTURE TUBE. Automatic in operation, for use with any electronic equipment having input wattage of 100 to 300 watts. Fuse protected; rugged construction; and enclosed in interior decorator's golden brown hammerloid-finish metal case. Available in two models. Our Floor Model 300 is 4"x2⅝"x2¾" and weighs 2 lbs. Has 6 ft. cord set to plug into wall socket. Wall Model 250 is 1 - 15/16" OD x 3⅛" in length and plugs directly into wall socket. Shipping weight is 1 lb.

—**Wall Model 250**
(115 volt A.C.) . . . . . **Net $2.63**

—**Floor Model 300**
(115 volts A.C.) . . . . . **Net $3.30**



ATR SHAV-PAKS

Every man should have this lightweight ATR Inverter in his car for that "Keep Clean-Shaved Look." Will operate standard A.C. Electric Shavers from your CAR or Boat*. Complete with 3 ft. cord set. Plugs into cigarette lighter receptacle. Fuse protected, rugged construction, and attractively housed in grey hammeroid-finish steel case. Size 4"x2⅝"x 2¾". Shipping weight 2½ lbs.

Model 6-SPB (6 volt) . . . . . **Net $8.63**
Model 12-SPB (12 volt) . . . . . **Net 8.63**

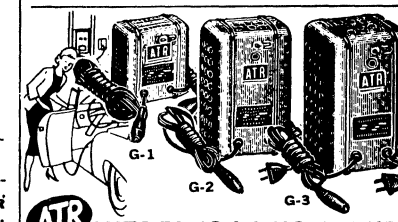
ATR "A" BATTERY ELIMINATOR

FOR DEMONSTRATING AND TESTING TRANSISTOR OR VIBRATOR-TYPE AUTO RADIOS. Designed for testing D.C. Electrical Apparatus on regular 110 volt A. C. lines . . . equipped with full-wave dry disc-type rectifier, assuring noiseless, interference-free operation. Fully Automatic and Fool-Proof; has voltmeter, ammeter, and 8-position voltage control. Fuse protected, and housed in heavy gauge grey hammeroid-finish metal case. 6 ft. cord set included. Size: Model 610C-ELIF, 6½"x9⅛"x8½"—shipping weight 22 lbs.; Model 620C-ELIT, 6½"x12⅛"x8½"—shipping weight 33 lbs.

IDEAL AS A POWER SUPPLY FOR MODEL RAILROAD TRAINS, RADIO SETS, ELECTRO PLATING OUTFITS, AND OTHER 6 OR 12 VOLT, D.C. EQUIPMENT. MAY ALSO BE USED AS A BATTERY CHARGER.

—**Model 610C-ELIF** (6 volt at 10 amps. or 12 volt at 6 amps.) . . . . . **Net $55.00**

—**Model 620C-ELIT** (6 volt at 20 amps. or 12 volt at 10 amps.) . . . . . **Net $73.50**



ATR AUTO PLUG-IN, HOME-TYPE PORTABLE BATTERY CHARGERS

No installation . . . just plug into cigarette lighter receptacle! Makes motor starting easy! Keeps your car battery fully charged in your own garage. Operates directly from standard 110 volt A.C. Household Current. Available in three portable sizes for both 6 or 12 volt cars. Light in weight, rugged in construction, economical, and built to last. Each battery charger is housed in grey hammerloid-finish metal case. Complete with cord sets. Size of G1 is 5⅜"x4⅛"x2¾"—shipping weight is 6 lbs.; G2 is 8½"x5½"x3⅛"—shipping weight is 8 lbs.; and G3 is 8½"x5½"x5¼"—shipping weight is 10 lbs.

(G-1) —**Model 612CA4** (4 amp.)
6 or 12 volt . . . . . **Net $19.46**

(G-2) —**Model 612CA6** (6 amp.)
6 or 12 volt . . . . . **Net $22.46**

(G-3) —**Model 612CA10** (10 amp.)
6 or 12 volt . . . . . **Net $27.71**

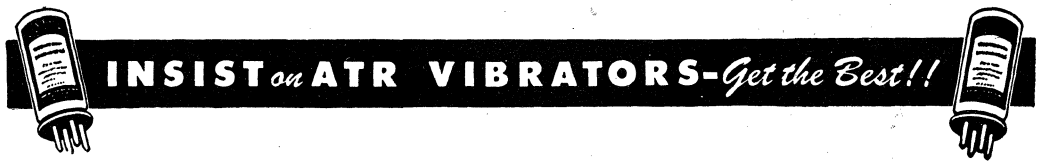
Illustrates ATR Emergency Lighting and Power Unit, Model ETS complete with lamps.

ATR EMERGENCY LIGHTING and POWER UNIT

Completely Automatic Standby-Power Units Specially Designed to Permit the Instantaneous Continued Operation of Critical Lighting Equipment, PA Systems, Amplifiers, Intercom Systems, Burglar Alarms, Fire Alarms, Synchronous Electric Clocks, Electric Time and Recording Clocks, Incubators, Gas Valves, Telephone and Test Equipment, and Similar Critical Devices in the Event of 115 Volt AC Commercial Power Line Failure. For Use: In Hospitals, Banks, Hotels, Theatres, Factories, Office Buildings, Schools, Homes, and Many Other Areas of Operation.

Type	*Storage Battery Input	A.C. Output 60 Cycles	Output Wattage Int.	Output Wattage Cont.	Net With Lamps
661-ETM	6-volts	110-volts	80	60	$113.00
662-ETS	6	110	100	80	131.67
663-ETH	6	110	150	125	149.67
1232-ETS	12	110	125	100	131.67
1233-ETH	12	110	175	150	149.67
1234-ETJ	12	110	250	200	168.34

For Units Without Lamps Deduct $14.66 Net



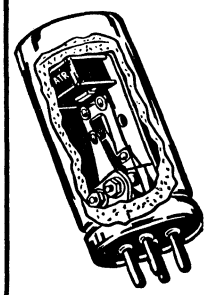
ATR Replacement Vibrator Specifications

FOR COMPLETE INFORMATION ON AUTO RADIO VIBRATORS FOR AUTOMOBILES MANUFACTURED PRIOR TO AND IN 1954 SEE ATR VIBRATOR MANUAL NO. 554. THIS MANUAL ALSO CONTAINS INFORMATION ON HOUSEHOLD, 2-WAY COMMUNICATION SETS AND:

- VIBRATOR LISTINGS BY RECEIVER NAME AND MODEL NUMBER.
- BUFFER REFERENCE CIRCUITS.
- SUBSTITUTION CHART ON DISCONTINUED VIBRATORS.
- VIBRATOR SPECIFICATIONS.
- VIBRATOR EQUIVALENT CHARTS.
- CROSS REFERENCE LISTINGS.
- AUTO BATTERY GROUND CHARTS
- INSTALLATION NOTES.
- SERVICING PROCEDURE FOR AUTO RADIO VIBRATORS.

FOR ALL AUTO RADIO SETS SINCE 1954 USE ONE OF THE ATR VIBRATORS LISTED BELOW

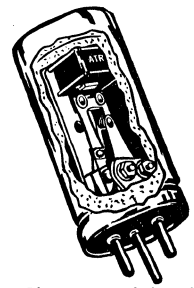
No. 340 (Boxed)
No. 1400 (Bulk)



4-Prong
6-Volt

For all 6-Volt Sets Since 1954

No. 1343 (Boxed)
No. 1843 (Bulk)

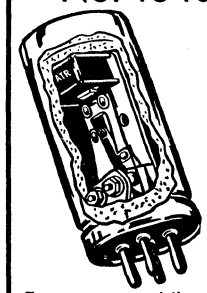


3-Prong
12-Volt

FOR ALL 12-VOLT GENERAL MOTORS SINCE 1954

Plus automobiles shown in box below.

No. 1340 (Boxed)
No. 1840 (Bulk)



4-Prong
12-Volt

For 12 Volt Cars other Than GM Since 1954

Except automobiles shown in box below.

ATR Type 1343 and 1843 also used in following automobiles:
1956 Ford (Philco), Lincoln (Bendix), and Mercury (Bendix); 1956 Chrysler (Philco); 1955-57 Packard; 1956-57 Plymouth (Philco); 1956 Studebaker (Philco) and 1957 Mercury (Philco).

EVERYBODY AGREES ATR AUTO-RADIO VIBRATORS *are* TOPS

Here's why-

ATR Vibrators, the heart of vibrator-operated power supplies, are proven units of the highest quality engineered to perfection. They are backed by more than thirty-one years of vibrator design and research, development and manufacturing — ATR pioneered in the vibrator field.

All ATR Products incorporate only the best materials and workmanship and are carefully manufactured under rigid engineering inspections and tests making them the finest that can be built.

...ATR Vibrators Feature

- √ **Ceramic Stack Spacers** with Two-Bolt Stack Construction — for adjustment permanency under any operating condition.
- √ **Instant Starting** — as a result of highly efficient magnetic circuit with formed base for more uniform operation on both high and low voltages.
- √ **Large Oversize Tungsten Contacts** having Full Wiping Action — for greater reliability and longer life.
- √ **Perforated Reed** of Highest Quality Swedish Spring Steel — for uniform flexibility and prevention of reed breakage.
- √ **Highest Precision Construction and Workmanship** — Practically all parts used are held to within a tolerance of 0.0005 of inch.
- √ **Value Plus** — as readily evidenced by the Larger Contacts, Ceramic Spacers and Precision Construction and Workmanship.

JOBBERS ATTENTION: See Page 1039 in this ATR Section and Page 598 in Section 1900 for your Catalog Needs!

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Communication Vibrators for SUPER SERVICE

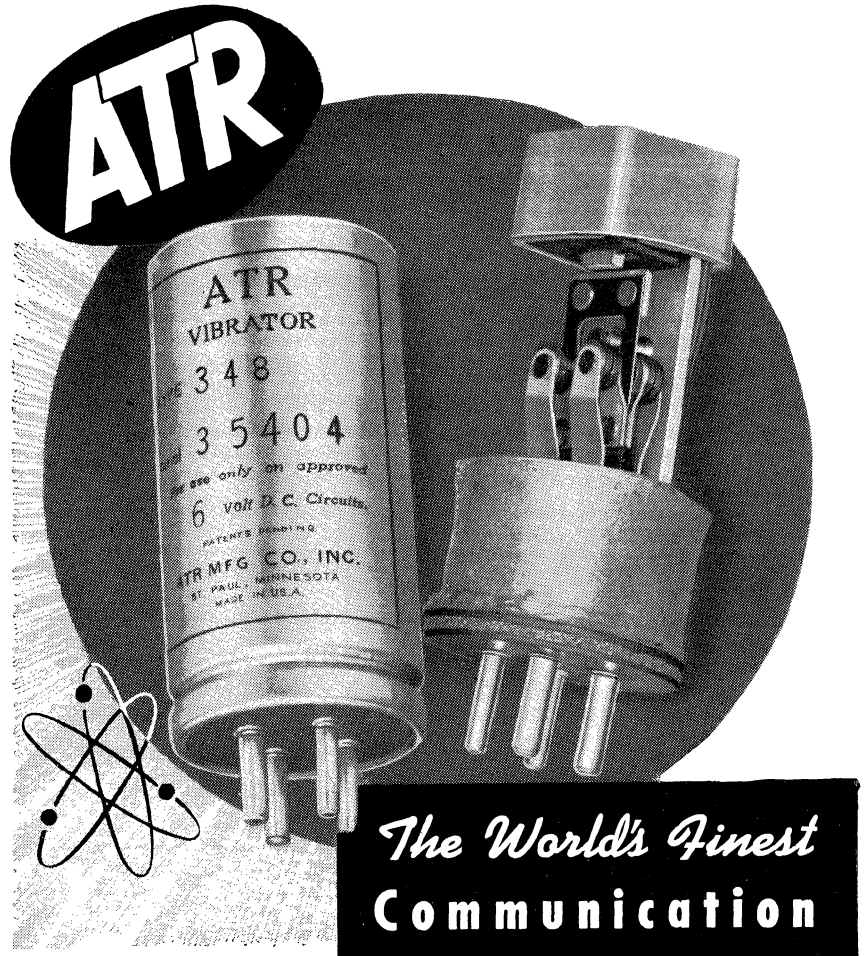
ATR COMMUNICATION VIBRATORS eliminate the problem of short-life call-backs on those tough two-way communication rigs. Yes, Sir! these ATR COMMUNICATION VIBRATORS deliver SUPER SERVICE.

ATR SUPER HEAVY DUTY VIBRATORS FEATURE:

- Ceramic Stack Spacers
- ¼" Diameter Power Contacts
- Driver-Type Coil Construction
- Special Reed Hinge and Wiring
- Power Capability Up To 15 Amperes

ATR VIBRATORS are proven units of the highest quality, engineered to perfection. They are backed by more than 33 years of vibrator design and research, development and manufacturing.

ATR pioneered in the vibrator field.



The World's Finest **Communication VIBRATORS**

COMPARISON CHART

MALLORY	C-D/RADIART	ATR STANDARD HEAVY DUTY	DEALER PRICE	ATR SUPER HEAVY DUTY	DEALER PRICE
G1501/G4501	6715	12432	3.27	1348	5.37
G1502/G4502	6721	12433	3.27	1349	5.37
G1601/G859	6301/6326	*1340	2.67	1348	5.37
G1602	6330	*1343	2.67	—	—
G1801	6805	*1525	4.62	*1548	5.37
G1807	6820	*1524	4.62	1574	5.37
1501/4501	5715/5515	6432	3.27	348	5.37
1512	5721	6433	3.27	349	5.37
1513/4513	5725	64325	3.27	3485	5.37
1514	5715/5515	—	—	348	5.37
1601/859	5300/5301	*340	2.67	348	5.37
1701	5722	No Repl.	—	No Repl.	—
1751	5718/5518	—	—	3491	5.37
1752	——	—	—	3485	5.37
1801/4549	5805	*525	4.62	*548	5.10
1807	5820/5620	5241	4.62	574	5.37
1808/4546	5821	*522	4.62	549	5.37
1813/4549	5805	*525	4.62	548	5.10
1852	5820/5620	5241	4.62	574	5.37

* These Vibrators are of the shunt-coil type; whereas, all other Vibrators listed are of the series-drive type.

All ATR Super Heavy-Duty Communication Vibrators of the series-drive type incorporate eight (8) ¼" diameter power contacts and two (2) series-drive contacts.

The ATR Standard Heavy Duty Communication Vibrators incorporate 3/16" power contacts.

All ATR 6 and 12-volt Vibrators, as listed, are housed in cans 1½" OD x 2⅞" in length. Frequency, 115 cycles.

JOBBERS ATTENTION: See Page 1039 in this ATR Section and Page 598 in Section 1900 for your Catalog Needs!

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Associated Specialties Co.

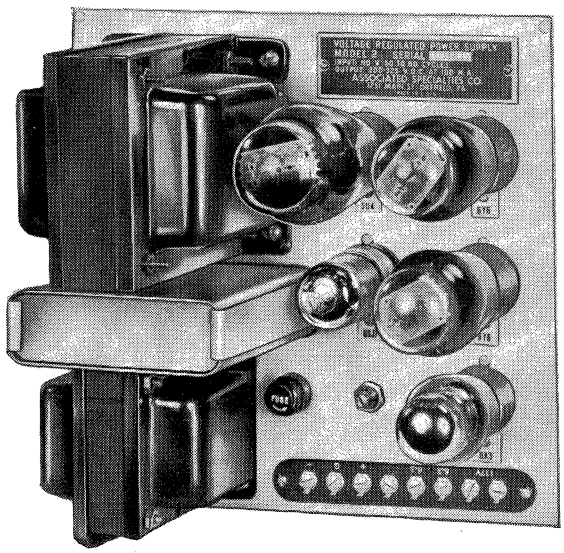
OREFIELD, PENNSYLVANIA

ELECTRONICALLY REGULATED D.C. CONSTANT VOLTAGE POWER SUPPLIES

RELAY RACK MOUNTING TYPES
—BK (BLACK RIPPLE FRONT PANEL)
—GR (GRAY RIPPLE FRONT PANEL)

Input: 105-125 volts AC. 50-60 cycles.
Regulation of DC Voltage: Better than 1% for loads of 0 to 100 ma. and line voltage variations from 105 to 125 volts.
Isolated Output: Both positive and negative sides of the output are isolated from ground. Either side may be grounded or the output may be left floating.
AC Output for Filaments: An isolated AC voltage of 6.3 volts AC at 3 amperes is available at the output terminal connections.
Overload Protection: A fuse mounted on the front panel protects supply against external overloads or internal failure.
Input and Output Connections: All input and output connections are made to a single terminal strip conveniently located on the rear of the chassis.
Dimensions: Standard 19" relay rack mounting. Panel width: 19 inches; Panel Height: 5¼ inches; Depth Behind Panel: 7¼ inches.
Cabinet Finish: Standard Black ripple enamel.
Controls: Rear Chassis—DC output voltage control. Front Panel—Pilot light, input power switch, and fuse.
High Quality Components: Only components of the highest quality are used in this equipment insuring you years of trouble-free dependable operation.
Accessibility: By removing two small screws, the front panel may be removed while the supply stays mounted on a relay track or cabinet. This allows quick and easy inspection.

MODEL	OUTPUT VOLTAGE	RIPPLE
1	200-325 V.D.C.	10 M.V. MAX.
11	75-200 V.D.C.	5 M.V. MAX.



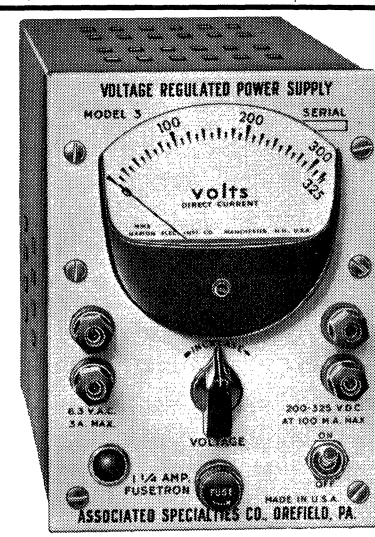
SUB-CHASSIS MOUNTING

Sub-chassis mounting type regulated power supplies are designed to save space and money. They can be mounted on a chassis along with other components and thereby save space which would be used by a relay rack mounting supply. Savings are made in the size and cost of the cabinet required for a job along with the lower cost of the sub-chassis mounting supplies.

SAME AS MODEL 1 AND 11 EXCEPT

Dimensions: 9" wide, 8¾" long, 4¾" high above chassis, 1¾" clearance required below chassis. Size of cut-out required, 8¼" wide x 8" high. Location of four mounting holes: 8⅝" wide x 8 11/32" high.
Chassis Finish: Aluminum.
Controls: DC output voltage control adjustable from the top side of the chassis.

MODEL	OUTPUT VOLTAGE	RIPPLE
2	200-325 V.D.C.	10 M.V. MAX.
12	75-200 V.D.C.	5 M.V. MAX.



CABINET MOUNTING

An ideal unit for bench work or assembly into equipment.

SAME AS MODEL 1 AND 11 EXCEPT

Input Connections: A line cord at rear of cabinet.
Output Connections: 5 way binding posts.
Dimensions: 5" wide, 7" high, 16" deep.
Panel Finish: Aluminum.
Cabinet Finish: Gray enamel.
Controls: D.C. output voltage on front panel.
Meters: Output voltage.

MODEL	OUTPUT VOLTAGE	RIPPLE
3	200-325 V.D.C.	10 M.V. MAX.
13	75-200 V.D.C.	5 M.V. MAX.

MODEL P2 PANEL $9.00

Mounts two Model 2 or 12 power supplies side by side in a 19 inch relay rack space 8¾" high.

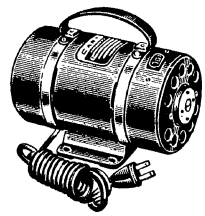
OUTPUT	MOUNTING	SIZE	WEIGHT	COLOR	MODEL	PRICE
200-325 V.D.C., 0-100 M.A.	RACK MOUNTED	SEE ABOVE	20 POUNDS	GRAY COVER	1-GR	$52.50
REGULATION	RACK MOUNTED	SEE ABOVE	20 POUNDS	BLACK COVER	1-BK	$52.50
LINE BETTER THAN 1%	SUB-CHASSIS MOUNTING	SEE ABOVE	15 POUNDS	ALUMINUM CHASSIS	2	$49.50
LOAD BETTER THAN 1%	CABINET	SEE ABOVE	20 POUNDS	GRAY	3	$69.50
RIPPLE 10 MV R.M.S. MAX.						
75-200 V.D.C., 0-100 M.A.	RACK MOUNTED	SAME AS 1-GR	20 POUNDS	GRAY COVER	11-GR	$69.50
REGULATION	RACK MOUNTED	SAME AS 1-BK	20 POUNDS	BLACK COVER	11-BK	$69.50
LINE BETTER THAN 1%	SUB-CHASSIS MOUNTING	SAME AS 2	15 POUNDS	ALUMINUM CHASSIS	12	$66.50
LOAD BETTER THAN 1%	CABINET	SAME AS 3	20 POUNDS	GRAY	13	$79.50
RIPPLE 5 MV R.M.S. MAX.						

Net
© U.C.P., Inc.

Carter Motor — GENEMOTORS, DC-AC CONVERTERS FREQUENCY CHANGERS

6 TO 230 VOLT INPUT

Up to 250 watt sine wave output. Available with manual frequency control.



MARK II SUPER CONVERTERS

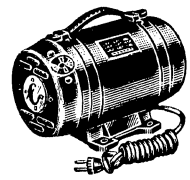
New, long life design increases brush life and assures dependable service. Smooth, quiet, ball bearing operation. Standard 100% P.F. models change DC to AC for operating amplifiers, office equipment, test instruments, radios and other high-power-factor equipment. Also available in 70% P.F. models to operate popular tape recorders from DC input. Many other catalog models available promptly from factory stock. A converter can be furnished to operate any tape recorder. Continuous duty. Size: 8¼" x 4½" x 5" high. Weight, 13 lbs.

STANDARD 100% PF CONVERTERS

Carter No.	DC Input Volts	DC Input Amps	Watts, AC at 60 cps, 115 v.	List Price
D1040CB	115	.7	40	$126.50
D1010CB	115	1.7	100	129.80
D1015CB	115	2.0	150	130.90
B1040CB	12	8	40	116.60
B1010CB	12	15	100	119.90
B1015CB	12	23	150	121.00
Mark II Heavy Duty Super Converter. Continuous duty, less filter, 10¼" long, 4½" wide, 5" high. Weight, 19 lbs.				
D1020CB	115	2.6	200	$145.20
D1025CB	115	3.2	250	145.20
B1020CB	12	30	200	135.30
B1025CB	12	34	250	135.30

IDEAL POWER

For Industrial and Marine Communications. 12 to 250 volt input. 300 to 750 watt output models. Manual frequency control available.



CUSTOM CONVERTERS

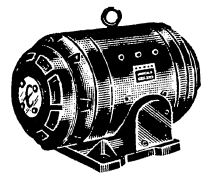
Dependable rotary power for operating office business machines, professional tape recorders, railroad, mobile and marine radio and radar equipment. Finest construction. Sealed ball bearings require no lubrication. Long life, continuous duty, high efficiency on all models. Only popular models listed here. For 50-cycle output, add **$5.50** to list prices. All models 100% power factor. Size: 200 watts, 12⅝" w. x 6¾" d. 7¼" h.; 210 and 300 watts, 11⅝" w.; 500 watts, 12⅝" w; 750 watts, 13⅞" w.

Carter Number	DC Inp. V.	DC Inp. A.	List Price	Carter Number	DC Inp. V.	DC Inp. A.	List Price
KS1020C5P	230	1.3†	$242.00	D1030CP	115§	4.6§	$209.00
DS1020C5P	115†	2.6†	231.00	E1050CP	24¶	33¶	240.30
HS1020C5P	64†	5†	234.85	C1050CP	32¶	25¶	240.30
CS1020C5P	32†	9†	234.85	W1050CP	48¶	16¶	240.30
BR1021CP*	12‡	29‡	286.00	D1050CP	115¶	7¶	236.50
B1030CP	12§	45§	209.00	C1075CP	32•	32•	270.60
E1030CP	24§	22§	209.00	D1075CP	115•	8.8•	270.60
C1030CP	32§	19§	209.00	K1075CP	230•	4.4•	281.60

Watts At 115 v. AC, 60 cps: †200 ‡300 ¶500 •750
*Equipped with manual frequency control. For frequency control on all other models, add **$82.50** to list prices. Filter available add **$44.00** to list prices.

HEAVY DUTY POWER

1000 - 1500 and 2000 watt output, 24 to 230 volt input models.



MONARCH CONVERTERS

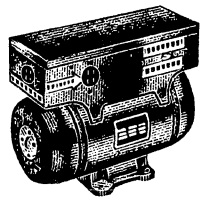
The Monarch series is ideal for heavy-duty industrial service, marine, mine, crane and railroad communications. Slow speed (1800 rpm.), long life, 4-pole design; ball bearing equipped. **No filter is necessary for most applications.** Size: 19" x 11" x 12" high. Three-phase output available at no extra charge. 24 and 28 v. input available.

Carter Number	DC Input Volts	DC Input Amps	Watts*	List Price
J10150M‡	28	80	1500	$704.00
C10150M	32	69	1500	704.00
W10200M†	48	60	2000	759.00
H10200M†	64	45	2000	759.00
D10200M‡	115	25	2000	759.00
K10200M‡	230	12.5	2000	759.00

†Reduced voltage starters necessary, add **$159.50** to list price
‡Reduced voltage starters necessary, add **$103.40** to list price
*At 115 v. AC, 60 cps.

OPERATES REFRIGERATORS

and freezers up to 1/6 HP. Has handy AC outlet to run most appliances from DC.



MARINE REFRIGERATOR-APPLIANCE CONVERTERS

Operates standard refrigerators, compressors (up to 1/6 hp only), vacuum cleaners and other appliances from DC; for use aboard commercial and pleasure boats. Converter operates only when power is called for. Input, from 24 to 230 v. DC. Size: 14" x 6¾" x 11" high. Net Weight, 65 lbs.

Carter Number	DC Input	List Price
RF24	24 v.	$493.90
RF28	28 v.	493.90
RF32	32 v.	493.90
RF48	48 v.	493.90
RF64	64 v.	493.90
RF115	115 v.	493.90
RF230	230 v.	493.90

IDEAL POWER

For operating two-way radio from wide input range. Isolated output.

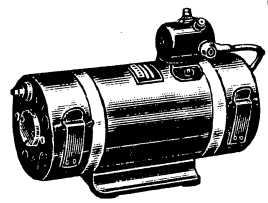
CARTER CUSTOM DYNAMOTORS

For railroad and marine radio-telephone, industrial communications systems, locomotives, telephone emergency standby power, etc. Heavy duty construction. Low rpm speed, small temperature rise assure extra long life. Filter not normally required. **Size:** 12⅜" x 6¹¹⁄₁₆" x 7¼". Weight, 47 lbs.

Carter Number	Input Range	Output Volts	Output Recv.	Amps Trans.	List Price
KS1220P	236-264	12.8	5	18	$264.00
DS1220P	118-132	12.8	5	18	253.00
HS1220P	67-74	12.8	5	18	253.00
CS1220P	33-37	12.8	5	18	253.00
WS1220P	45-50	12.8	5	18	253.00
DS640P	118-132	6.3	15	40	253.00
HS640P	67-74	6.3	15	40	253.00
CS640P	33-37	6.3	15	40	253.00

OPERATES TWO-WAY RADIO

From "non-standard" DC input. Common windings.



CHANGE-A-VOLT DYNAMOTORS

Operate 6 volt 2-way radio equipment from 12 volt systems without rewiring. Supplied complete with starting relay and switch, 12 volt fuse block and wiring to directly convert a 12 volt battery to a 6 volt radio supply. B615V delivers 15 amps continuously and 45 amps intermittent. 65% efficiency. Can also serve as battery equalizer when operating low voltage equipment. Size: 11⅛" x 4½" x 7¼" high. Weight, 25 lbs.

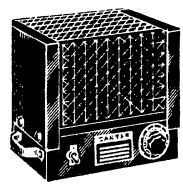
Carter No.	Input* Volts	Input* Amps	List Price	Carter No.	Input† Volts	Input† Amps	List Price
B615V	12	11.5	$129.80	E128V	24	6.0	$129.80
E615V	24	5.7	129.80	J128V	28	5.3	129.80
J615V	28	5.0	129.80	C128V	32	4.6	129.80
C615V	32	4.3	129.80	HS128V	70	2.2	129.80
HS615V	70	2.1	129.80	D128V	115	1.3	129.80
D615V	115	1.2	129.80				

*Output 6 volts, 15 amps. †Output 12 volts, 8 amps.

	Input	Output	List Price
A1212V	6 v. 29 amps	12 v. 12 amps	$129.80
B 246V	12 v. 17 amps	24 v 6 amps	129.80

DELIVERS 60 CYCLE OUTPUT

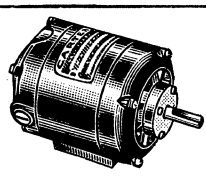
From 25 to 400 cycle input in capacities 20 to 2000 watts. 50 cycle output available.



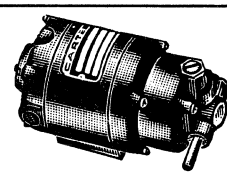
AC TO AC FREQ. CHANGERS

Produces 115 v., 50 or 60 cycle AC output from 25 to 400 cycle input. For operating standard equipment on non-standard frequencies. Standard units are for single phase input and output. Three-phase output available on order. 70% PF models to run tape recorders, optional at no extra cost. For frequency control (meter), add **$4.00** to list price.

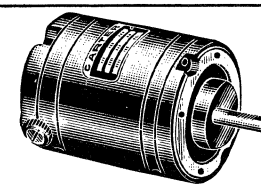
Carter No.	Output Watts	List Price	Carter No.	Output Watts	List Price
FC1020L	20	$271.70	FC1025CP	250	$533.50
FC1040L	40	272.80	FC1050CP	500	566.50
FC1060L	60	273.90	FC1075CP	750	599.50
FC1080C	80	348.70	FC10100M	1000	1094.50
FC1010C	100	349.80	FC10150M	1500	1144.00
FC1015C	150	350.90	FC10200M	2000	1204.50
FC1020C	200	365.20			



CLASSIC FHP MOTORS



CLASSIC GEAR MOTORS



REGENT MOTORS

QUALITY "CLASSIC" AC, UNIVERSAL AND SHUNT MOTORS

Available up to 1/7 HP. Gearmotors available from 1 to 750 RPM up to 8 in. lbs. torque con. duty. New Regent Universal motors deliver ½ HP at 10000 RPM. Shunt models up to ⅛ HP.

WRITE FOR CATALOGS

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Trade Discount Applies To List Prices Only

BURGESS BATTERIES

P6

2U6

Hg-9

2

Y15

4FH

BURGESS Number	NEDA Numbers	Other	Volts	Terminal Type	Overall Dimensions L	W	H	Unit Package Quantities	Weight of Unit Package in Pounds	Sugg. Dealer Each	List Price Each
BURGESS ACTIVATORS FOR TRANSISTOR CIRCUITS											
NE	-------	-------	1½	Flashlight	7/16 (diam.)		1 11/64	6	1/8	$ .08	$ .125
XX9	1900	239	9, 13½	Socket	1 9/32	29/32	2 17/32	1	1/8	1.05	1.50
D6	1603	276	9	Snap Type	2 9/16	2	3 5/32	1	1	1.26	1.80
2N6	1602	246	9	Snap Type	1 3/8	1 3/8	2 3/4	1	3/10	1.30	1.85
4D4	1400	274	6	Snap Type	2 17/32	2	7 5/16	1	2½	3.33	4.75
2U6	1604	216	9	Snap Type	1	3 9/64	1 7/8	12	1	.48	.69
A4	-------	-------	6	Flat Contacts	1 9/32	1 9/32	2 11/32	1	1/4	.69	1.00
D6PI	1601	2506	3, 6, 9	Socket	2 19/32	1 7/16	7 27/32	1	1 3/8	1.76	2.50
C6X	1612	2356	9	Snap Type	2 5/16	1 1/32	6 1/16	1	5/8	1.10	1.60
P6	1600	226	9	Snap Type	1	(diam.)	1 15/16	12	1 3/8	.62	.89
D5	26	707	7½	Snap Type	2 9/16	2	2 23/32	1	7/8	1.15	1.65
130	14	635	1½	Flashlight	63/64	(diam.)	1 15/16	12	1 3/8	.155	.25
230	13	A100	1½	Flashlight	1 21/64	(diam.)	2 25/64	24	5 1/4	.155	.25
930	15	1015	1½	Flashlight	35/64	(diam.)	1 31/32	12	1/2	.155	.25
M6	1605	266	9	Snap Type	1 13/16	1 13/16	2 7/16	1	2/5	1.22	1.75
D6S	1608	2761	9	Socket	2 1/4	1 1/4	7 29/32	1	1 1/8	1.36	1.95
2Z3	1610	243	4½	Snap Type	1 3/8	1 3/8	2 3/4	1	3/10	1.11	1.59
Y6 (YL6)	1606	E177	9	Snap Type	3/5	3/5	1 9/10	12	1/2	.83	1.20
L6	1611	206	9	Flat Contacts	47/64	(diam.)	1 31/32	12	1	.53	.75
2MN6	-------	216	9	Snap Type	1	39/64	1 7/8	12	1	.65	.98
PM6	-------	226	9	Snap Type	1	(diam.)	1 15/16	6	5/8	.80	1.19
PM8	1810	228	12	Snap Type	1	(diam.)	2 7/16	1	1/8	.95	1.35
1306	1306	333	4½	Flat Contacts	43/64	(diam.)	1 31/32	1	1 oz.	.62	.89
BURGESS MERCURY ACTIVATORS Information on additional Mercury Batteries not listed below is available.											
Hg-1		E1	1.4	Flat	5/8 (diam.)		21/32	4	.13	.42	.65
Hg-1R		E1N	1.35	Flat	5/8 (diam.)		21/32	4	.13	.52	.75
Hg-3R		E3	1.35	Flat	1	(diam.)	21/32	4	.30	.67	1.05
Hg-4R		E4	1.35	Flat	1 13/64	(diam.)	21/32	4	.45	.86	1.35
Hg-9		E9	1.4	Flat	17/32	(diam.)	1 31/32	12	.90	.51	.75
Hg-12		E12	1.4	Flat	5/8 (diam.)		2	2	.25	.80	1.15
Hg-12R		E12N	1.35	Flat	5/8 (diam.)		2	2	.25	.82	1.25
Hg-42R		E42N	1.35	Flat	1 13/64	(diam.)	2 3/8	1	.50	1.85	2.75
H113R		E113	4.05	Flat	43/64	(diam.)	27/32	2	.15	1.93	2.75
H114R		E114	5.4	Flat	43/64	(diam.)	1 3/32	2	.15	1.70	2.50
H115R		E115N	6.75	Flat	43/64	(diam.)	1 21/64	2	.15	1.70	2.50
H126		E126	8.4	Flat	41/64	(diam.)	1 63/64	12	1.00	1.05	1.50
H132R		E132N	2.7	Flat	43/64	(diam.)	1 5/16	2	.15	1.05	1.50
H133		E133	4.2	Flat	21/32	(diam.)	2	12	1.20	1.05	1.50
H133R		E133N	4.05	Flat	21/32	(diam.)	2	2	.20	1.22	1.75
H134R		E134N	5.4	Flat	43/64	(diam.)	2 5/8	2	.25	1.60	2.25
H135R		E135N	6.75	Flat	43/64	(diam.)	3 9/32	2	.30	2.00	2.95
H136R		E136N	8.1	Flat	43/64	(diam.)	3 15/16	2	.35	2.20	3.25
H137R		E137N	9.45	Flat	43/64	(diam.)	4 19/32	1	.20	2.76	3.95
H145		E145	7.0	Flat	21/32	(diam.)	1 13/64	2	.15	1.55	2.30
H146		E146	8.4	Snap	1	19/32	1 7/8	6	.50	1.05	1.50
H152R		E152N	2.7	Flat	31/32	(diam.)	1 9/64	2	.075	.82	1.25
H153R		E153N	4.05	Flat	31/32	(diam.)	1 45/64	2	.075	1.35	1.95
H162R		E162	2.7	Flat	43/64	(diam.)	57/64	2	.15	1.05	1.50
H163		E163	4.2	Flat	21/32	(diam.)	1 5/16	2	.15	1.05	1.50
H163R		E163N	4.05	Flat	21/32	(diam.)	1 5/16	2	.15	1.25	1.75
H164		E164	5.6	Flat	21/32	(diam.)	1 3/4	12	.80	1.25	1.75
H164R		E164N	5.4	Flat	21/32	(diam.)	1 3/4	2	.20	1.35	1.95
H165		E165	7.0	Flat	21/32	(diam.)	2 13/64	2	.20	1.60	2.25
H165R		E165N	6.75	Flat	21/32	(diam.)	2 13/64	2	.20	1.70	2.50
H177		E177	9.8	Snap	35/64	(diam.)	1 29/32	12	.30	1.22	1.75
H233		E233	4.2	Flat	1 1/64	(diam.)	1 31/32	1	.20	1.90	2.75
Hg-312		E312	1.4	Flat	5/16	(diam.)	9/64	6	.024	.24	.35
Hg-400		E400	1.4	Flat	29/64	(diam.)	9/64	6	.024	.24	.35
Hg-400R		E400N	1.35	Flat	29/64	(diam.)	9/64	6	.024	.35	.50
Hg-401		E401	1.4	Flat	29/64	(diam.)	1 1/8	3	.09	.35	.50
Hg-401R		E401N	1.35	Flat	29/64	(diam.)	1 1/8	2	.05	.42	.60
Hg-450R		E450	1.35	Flat	29/64	(diam.)	9/16	4	.01	.52	.75
Hg-502R		E502	1.35	Flat	17/32	(diam.)	1 31/32	2	.16	.70	1.00
Hg-520		E520	1.40	Flat	1/2	(diam.)	9/32	6	.024	.17	.25
Hg-575		.....	1.4	Flat	29/64	(diam.)	1/8	6	.05	.24	.34
Hg-601R		E601	1.35	Flat	5/8	(diam.)	1 9/64	2	.16	.83	1.30
Hg-625		E625	1.4	Flat	5/8	(diam.)	1/4	4	.05	.35	.50
Hg-625R		E625N	1.35	Flat	5/8	(diam.)	1/4	4	.05	.42	.60
Hg-630		E630	1.4	Flat	5/8	(diam.)	1/4	4	.05	.35	.50
Hg-630R		E630N	1.35	Flat	5/8	(diam.)	1/4	4	.05	.42	.65
Hg-640		E640	1.4	Flat	5/8	(diam.)	7/16	4	.15	.35	.50
Hg-640R		E640N	1.35	Flat	5/8	(diam.)	7/16	4	.15	.42	.60
Hg-675		E675	1.4	Flat	29/64	(diam.)	13/64	6	.022	.26	.40
302157		.....	1.35	Socket	2 7/16	1 5/16	4 3/16	1	.844	10.35	15.50

Trade Discount Applies To List Prices Only
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BURGESS BATTERIES

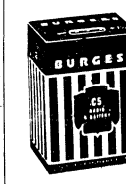
BURGESS Number	NEDA Numbers	Other	Volts	Terminal Type	Overall Dimensions L	W	H	Unit Pkg. Quant.	Wgt. Unit Pkg. in Lbs.	Sugg. Dealer Each	List Price Each
BURGESS SEALED RECHARGEABLE NICKEL CADMIUM CELLS AND BATTERIES											
Information on additional Nickel Cadmium Batteries not listed below is available.											
CD1			1.25		.460 (diam.)		.225	1		$ 1.16	$ 1.66
CD2			1.25		.610 (diam.)		.236	1		.81	1.16
CD8			1.25		.984 (diam.)		.232	1		.90	1.29
*CD8L	*(L indicates types		1.25		.984 (diam.)		.257	1		.99	1.41
CD3			1.25		.984 (diam.)		.275	1		.97	1.38
*CD3L	with solder lugs		1.25		.984 (diam.)		.300	1		1.05	1.50
CD4			1.25		.984 (diam.)		.350	1		.95	1.36
*CD4L	on terminals).		1.25		.984 (diam.)		.375	1		1.21	1.73
CD5			1.25		1.700 (diam.)		.300	1		1.47	2.10
*CD5L			1.25		1.700 (diam.)		.325	1		1.60	2.29
CD6(AA)			1.25		.560 (diam.)		1.950	1		1.93	2.75
*CD6L(AA)			1.25		.560 (diam.)		2.275	1		2.20	3.15
CD9			1.25		.550 (diam.)		3.680	1		3.01	4.30
CD7(D)			1.25		1.310 (diam.)		2.425	1		3.50	5.00
*CD7L(D)			1.25		1.310 (diam.)		2.775	1		3.75	5.35
CD10(D)			1.25		1.300 (diam.)		2.425	1		6.50	9.25
*CD10L(D)			1.25		1.300 (diam.)		2.775	1		6.82	9.75
CD11(D)			1.25		1.300 (diam.)		2.425	1		4.53	6.50
CD12 (short C)			1.25		.876 (diam.)		1.672	1		3.05	4.35
CD12L(short C)			1.25		.876 (dia.)		1.672+L	1		3.12	4.45
CD13 (half D)			1.25		1.273 (diam.)		1.440	1		4.67	6.65
CD13L(half D)			1.25		1.273 (dia.)		1.440+L	1		4.81	6.90
CD14			1.25		1.01 (diam.)		1.945	1		3.40	4.85
CD21			6		1.065 (diam.)		1.525	1		5.95	8.50
CD22			6		1.065 (diam.)		2.650	1		5.90	8.43
CD23			6		1.800 (diam.)		1.725	1		10.15	14.50
CD24			9.6		1.065 (diam.)		3.200	1		9.74	13.90
CD25			9.6		1.065 (diam.)		1.975	1		9.58	13.68
*CD25L			9.6		1.065 (diam.)		3.200	1		9.48	13.54
CD26			9.6		1.800 (diam.)		2.575	1		15.85	22.50
CD27			12		1.065 (diam.)		2.925	1		12.04	17.20
CD28			12		1.065 (diam.)		3.600	1		11.95	17.08
CD29			12		1.800 (diam.)		3.100	1		19.50	27.95
CD30			6		1½	1½	3 13/16	1		19.96	28.53
CD31			6		3 13/16	1 17/32	3⅝	1		23.79	34.00
CD100			1.25		1.36	.75	3.36	1		7.21	10.30
CD101			1.25		1.36	1.36	2.40	1		7.14	10.20
CD102			1.25		1.36	1.36	3.36	1		8.26	11.80
CD103S			1.25		1.57	.92	4.01	1		12.40	17.71
CD104			1.25		1.67	1.93	3.13	1		12.42	17.75
CD105			1.25		1.67	1.93	3.65	1		13.19	18.95
CD106S			1.25		1.57	1.48	4.01	1		14.10	20.18
CD107			1.25		1.67	1.93	4.25	1		12.32	17.60
CD108			1.25		1.05	3.56	4.90	1		15.19	21.65
CD109			1.25		1.34	3.56	4.90	1		18.79	26.80
CD110			1.25		1.66	3.56	4.90	1		21.96	31.35
CD111			1.25		1.97	3.56	4.90	1		29.54	42.10
BURGESS PORTABLE RADIO "A"											
Z4	2	724	6	Flat Contacts	1 3/16	1 3/16	2 7/32	1	1/5	.87	1.25
F3	3	736	4½	Socket	4	1 7/16	4⅛	1	1	1.05	1.50
4F	4	742	1½	Socket	2⅝	2⅝	4 3/32	1	1⅕	1.15	1.65
F4PI	6	744	6	Socket	2 21/32	2 21/32	4⅛	1	1½	1.15	1.65
G3	7	746	4½	Socket	4 1/16	1⅞	4 11/16	1	1⅕	1.26	1.80
B5	8	713	7½	Socket	3 29/32	⅞	2 27/32	1	½	2.07	2.95
C5	9	717	7½	Socket	2 7/32	1 15/16	3 1/32	6	4¾	1.23	1.75
T5	10	W360	7½	Socket	2 17/32	2 19/32	3 29/32	3	4	1.32	1.90
2R	13	950	1½	Flashlight	1 21/64 (diam.)		2 25/64	48	11	.13	.20
2D	18	720	1½	Socket	2 9/16	1 9/32	2 31/32	1	⅖	1.02	1.45
D3	19	726	4½	Socket	3⅞	1 5/16	2 15/16	1	¾	1.05	1.50
21R	20	964	1½	Flashlight	1 21/64 (diam.)		4⅛	1	⅖	.32	.45
BURGESS PORTABLE RADIO "B" BATTERIES											
P45	211P	477	67½	Snap Type	1 29/32	1	5 9/32	6	3¾	2.70	3.85
XX45	200	467	67½	Snap Type	2¾	1 11/32	3 43/64	1	¾	2.70	3.85
XX30	201	455	45	Snap Type	2 17/32	31/32	3 21/32	1	½	2.27	3.25
M30	202	482	45	Socket	3 9/16	1¾	5½	1	2	2.97	4.25
K45	203	457	67½	Snap Type	2 11/16	1 5/16	2¼	1	½	2.70	3.85
XX50	212	437	75	Snap Type	1 27/32	1 5/16	6 5/16	1	9/10	3.15	4.50
U30	213	415	45	Snap Type	1 3/32	19/32	3 17/32	1	⅛	1.75	2.50
P60	214	479	90	Snap Type	1 29/32	1	7 13/32	1	4/5	2.97	4.25
U10	208	411	15	Flat Contact	1	39/64	1 7/16	1	1 oz.	.81	1.15
U15	215	412	22½	Flat Contact	1	39/64	1 31/32	1	1 oz.	1.05	1.50
U20	210	413	30	Flat Contact	1	39/64	2 17/32	1	2 ozs.	1.23	1.75
UX45	217	416	67½	Snap Type	1 7/32	31/32	3 31/32	1	¼	2.07	2.95
N60X	216	495	90	Snap Type	1⅞	1 11/32	7⅛	1	1	3.47	4.95
D30	------	487	45	Socket	5 1/16	2 1/32	7 5/16	1	4½	3.84	5.50
V45	200	468	67½	Snap Type	2¾	1 11/32	3 43/64	6	4½	2.77	3.95
V60	------	------	90	Snap Type	3 23/32	1 7/32	3 11/16	1	1-3/10	3.15	4.50

CD3

CD7

CD25

2R



C5

XX45

P45

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BURGESS BATTERIES

F6A60

F2BP

XX30PI

5308

5540

5360

BURGESS Number	NEDA Numbers	Other	Volts	Terminal Type	Overall Dimensions L	W	H	Unit Pkg. Quant.	Wgt. Unit Pkg. in Lbs.	Sugg. Dealer Each	List Price Each
BURGESS PORTABLE RADIO "A & B" BATTERIES											
G6B60	400	752	9A, 90B	Recessed Plug	13 29/32	2 13/16	4 21/32	1	6 3/10	$5.78	$8.25
F6A60	401	753	7½, 9A, 90B	Socket	9 5/16	2 21/32	4 5/16	1	5 2/5	5.43	7.75
T5Z50	403	755	6, 7½A, 75B	Socket	8½	3 11/32	2⅜	1	3½	5.08	7.25
T5Z50P	431	785	7½A, 75B	Recessed Plug	8½	3 11/32	2⅜	1	3½	4.83	6.90
F6A60P	406	757	9A, 90B	Recessed Plug	9 7/16	2¾	4 11/32	1	5 3/10	5.57	7.95
T6Z60	405	756	7½, 9A, 90B	Socket	8 15/16	2 3/16	3 13/16	1	4 3/10	4.87	6.95
T6Z60P	428	727	9A, 90B	Recessed Plug	8 15/16	2 3/16	3 13/16	1	4 3/10	5.22	7.45
4TZ60	425	729	1½A, 90B	Socket	7⅝	2⅛	3¾	1	3 4/5	4.38	6.25
BURGESS INDUSTRIAL - ELECTRONIC - TRANSISTOR BATTERIES ("A" TYPES)											
5R	...	...	1½	Flashlight	49/64 (diam.)		2 15/64	12	¾	.24	.36
8R	23	960P	1½	Socket	1 3/32 (diam.)		3 15/16	1	¼	.77	1.10
9R	...	1015E	1½	Flashlight	35/64 (diam.)		1 63/64	12	½	.12	.17
37	...	...	1½	Flashlight	1 5/16 (diam.)		6⅛	1	9/16	.65	.98
2F	11	W353	1½	Socket	2 19/32	1⅜	4¼	1	¾	.87	1.25
2Z	...	1016E	1½	Flashlight	1⅛	19/32	1 63/64	1	1 oz.	.32	.45
2FBP	700	W354	1½	Binding Post	2 21/32	1⅜	4 1/32	5	3½	.79	1.15
F2BP	701	W352	3	Binding Post	2 21/32	1⅜	4 1/32	5	4	.94	1.35
F4BP	915	510S	6	Binding Post	2⅝	2⅝	4	1	1½	.83	1.25
2F2H	703	W356	3	Binding Post	2⅝	2⅝	4 1/16	5	7	1.33	1.90
422	704	750	3	Brass Straps	1 11/32	23/32	2 5/16	1	2 ozs.	.57	.85
432	705	751	4½	Brass Straps	1 33/32	21/32	2¼	1	3 ozs.	.66	1.00
532	706	703	4½	Brass Straps	2 15/32	13/16	2 23/32	1	3/10	1.00	1.50
44	...	...	1½	Binding Post	1 29/32 (diam.)		4 5/32	1	⅞	1.75	2.61
2BBP	...	...	1½	Binding Post	1 19/32	27/32	2 11/16	1	¼	1.16	1.65
B2BP	...	...	3	Binding Post	1⅝	13/16	2 11/16	1	¼	.94	1.40
2F2BP	...	...	3	Binding Post	5 3/16	1 5/16	4 5/32	1	1 4/5	2.23	3.20
F4X	...	...	6	Binding Post	5 5/16	1 13/32	4⅛	1	1¾	2.65	3.79
2F4	1	718	6	Socket	4	2 13/16	5 7/16	1	2½	2.87	4.10
6F	5	743	1½	Socket	4 3/32	2¾	4 1/16	1	2⅛	2.28	3.25
8F	17	741	1½	Socket	3 29/32	2 23/32	5½	1	3	2.42	3.45
BURGESS INDUSTRIAL - ELECTRONIC - TRANSISTOR BATTERIES ("B" TYPES)											
U10	208	411	15	Flat Contact	1	39/64	1 1/16	1	1 oz.	.81	1.15
U15	215	412	22½	Flat Contact	1	39/64	1 31/32	1	1 oz.	1.05	1.50
U20	210	413	30	Flat Contact	1	39/64	2 17/32	1	2 ozs.	1.23	1.75
W30	-----	-----	45	Binding Post	3	1¼	3 25/32	1	3/5	2.11	3.15
XX15	-----	425P	22½	Socket	1 11/32	15/16	3⅞	1	¼	1.37	1.95
XX22	-----	433P	33	Socket	2 17/32	31/32	3⅛	1	⅓	1.92	2.75
XX30PI	-----	455P	45	Socket	2 17/32	31/32	4 1/32	1	½	2.27	3.25
Y10	220	504	15	Flat Contact	19/32	19/32	1 23/64	1	1 oz.	.81	1.15
Y15	221	505	22½	Flat Contact	19/32	19/32	1 31/32	1	1 oz.	1.05	1.50
Y20	223	506	30	Flat Contact	1 3/16	19/32	1 13/32	1	1 oz.	1.30	1.85
Y20S	222	507	30	Flat Contact	19/32	19/32	2 5/16	1	1 oz.	1.30	1.85
Z30NX	711	W350	45	Binding Post	3 1/32	1⅞	4 19/32	5	7 3/5	2.69	3.85
U200	722	493	300	Pin Jacks	2¾	2 9/32	3⅞	1	1	8.37	11.95
Z30T	-----	-----	45	Socket	3	2 5/16	4⅛	1	1 3/10	2.62	3.75
W30BPX	-----	W358	45	Binding Post	3	1¼	3 25/32	1	3/5	2.69	3.85
Z30BP	-----	W351	45	Binding Post	3 11/16	2 11/32	3 7/16	1	1 3/5	5.87	8.25
Z96P (9968)	-----	-----	144	Binding Post	2⅝	2⅝	13 3/16	1	3¾	18.25	26.00
5156PI	721	768	22½	Socket	4 7/64	2⅜	2 55/64	1	1 3/5	3.84	5.50
A60	-----	-----	90	Socket	4 7/16	3⅜	4½	1	3 1/3	5.55	7.95
W20PI	-----	-----	30	Socket	1 5/16	1 13/16	3 7/32	1	½	1.65	2.47
XX69	227	W361	103½	Flashlight	1 11/32	1 11/32	11 23/32	1	1	4.86	6.95
Z30	205	738	45	Socket	3	2 5/16	4 1/16	2	2¾	2.76	3.95
A30	206	W359	45	Socket	3 5/16	2¼	4 5/16	2	3½	2.69	3.85
B30	207	484	45	Socket	4 1/16	2 17/32	5 5/16	2	4½	3.47	4.95
4156	710	763	22½	Binding Post	3 17/32	2⅛	2 29/32	1	1	1.61	2.35
5156SC	708	778	22½	Spring Clip	4⅛	2½	2¾	5	8	3.84	5.50
5308	709	762S	45	Binding Post	4 1/16	2 5/16	5⅛	1	2½	3.05	4.35
K10	224	417	15	Flat Contact	1¼	⅞	1 17/32	1	2 ozs.	1.16	1.65
K15	225	420	22½	Flat Contact	1¼	⅞	2 9/32	1	2 ozs.	1.23	1.75
K20	226	430	30	Flat Contact	1¼	15/16	2 23/32	1	3 ozs.	1.51	2.15
BURGESS INDUSTRIAL AND ELECTRONIC "C" BATTERIES											
2370PI	718	771	4½	Socket	4 1/64	1 27/64	2 63/64	5	3 2/5	1.93	2.75
2370	712	761T	4½	Binding Post	3 15/16	1⅜	2⅞	5	3 7/10	1.76	2.50
5540	713	773	7½	Bndg Post Neg	4	⅞	2¾	5	1 9/10	1.65	2.35
5360	714	781	4½	Binding Post	2 13/32	27/32	2 21/32	6	1½	.99	1.40
W5BP	-----	W362	7½	Binding Post	2 31/32	23/32	1¾	6	4/5	1.64	2.35
A3BPX	-----	-----	4½	Binding Post	1 31/32	23/32	2¼	1	¼	1.76	2.50
A8BP	-----	-----	12	Binding Post	2 25/32	1 25/64	2 15/32	1	½	4.17	6.22
2156	702	766	22½	Spring Clips	6 21/32	4 1/16	2 31/32	6	17½	4.87	6.95
BURGESS FARM RADIO "A", "B", AND "A" & "B" BATTERIES											
20F2(PI)	720	X-125	3	Socket	11½	4	6⅛	1	13 9/10	7.70	11.00
20F	719	740	1½	Socket	7⅝	2 9/16	6 15/16	1	6 4/5	7.65	10.95
21308PI or SC	727 or 715	W364P or F	45	Socket or Spring Clip	8⅛	4 15/32	7 9/32	1	12 4/5	6.45	9.20
10308PI or SC	726 or 716	W363P or F	45	Socket or Spring Clip	8 1/32	4 1/32	7 3/16	1	12	5.36	7.65
2308PI or SC	717 or 723	W365P or F	45	Socket or Spring Clip	8 3/32	2 31/32	7¼	1	7 4/5	4.58	6.55
17GD60	413	759	1½A, 90B	Socket	15 11/16	4⅜	7 1/16	1	19	7.95	10.65
S6D60	415	776	7½A, 90B	Socket	9⅞	4⅛	7 13/16	1	17	10.47	14.95

Trade Discount Applies To List Prices Only
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BURGESS BATTERIES

BURGESS FLASHLIGHT AND LANTERN BATTERIES

BURGESS Number	NEDA Numbers	Other	Volts	Terminal Type	Overall Dimensions L	W	H	Unit Pkg. Quant.	Wgt. Unit Pkg. in Lbs.	Sugg. Dealer Each	List Price Each
2 (24V)	13	950	1½	Flashlight	1 21/64 (diam.)		2⅜	48	10½	$ .13	$ .20
2 (50 Bulk)	13	950	1½	Flashlight	1 21/64 (diam.)		2⅜	50	10½	.13	.20
210 (24V)	------	1050	1½	Flashlight	1 21/64 (diam.)		2⅜	48	11	.155	.25
210 (50 Bulk)	------	1050	1½	Flashlight	1 21/64 (diam.)		2⅜	50	10¾	.155	.25
2MB(12 Pack)	.....	.....	1½	Flashlight	1 21/64 (diam.)		2⅜	216	46	.13	.20
1	14	935	1½	Flashlight	63/64 (diam.)		1 15/16	24	2⅝	.13	.20
Z	15	915	1½	Flashlight	35/64 (diam.)		1 31/32	12	½	.095	.15
7	24	912	1½	Flashlight	13/32 (diam.)		1¾	12	¼	.095	.15
N (Bare)	910	904	1½	Flashlight	7/16 (diam.)		1 11/64	12	⅛	.08	.125
F4H Ind.	908	509	6	Spring	2⅜	2⅜	4⅜	25	36 1/10	.83	1.25
F4M (Metal)	908	509	6	Spring	2⅜	2⅜	4⅜	12	19	.83	1.25
F4BP	915	510S	6	Binding Post	2⅝	2⅝	4	1	1 2/5	.83	1.25
TW1	918	731	6	Binding Post	5⅜	2⅞	4 15/16	1	3⅕	1.96	2.95
TW2	926	-----	12	Binding Post	5⅜	2⅞	4 15/16	1	3⅕	1.96	2.95

TW1

BURGESS IGNITION - TELEPHONE AND PROTECTIVE SYSTEM BATTERIES

* Battery also available with spring clip terminals ** Battery also available with screw terminals

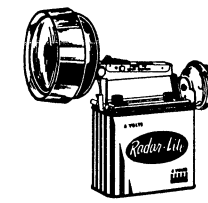
4FH	900	735	1½	Screw Terminal	2⅜	2⅜	4	12	16	.84	1.25
4F2H	901	W357	3	Spring Clip	3 29/32	2 11/16	5 13/32	1	2⅗	1.57	2.25
4F4H	902	706	6	Binding Post	8 5/16	2 13/16	5 13/16	1	6⅕	3.34	4.98
4F5H	903	715	7½	Binding Post	7 3/16	3 31/32	5 13/16	1	7⅖	4.86	7.25
4F6H	904	716	9	Binding Post	8½	3 31/32	5 13/16	1	9	5.53	8.25
*6 Ign.	905	6 Ign.	1½	Screw Terminal	2½ (diam.)		6⅝	12	21 3/10	.84	1.25
**6 Tel.	906	6 GL	1½	Spring Clip	2½ (diam.)		6⅝	12	24⅗	.84	1.25
6 Ind.	911	6 Ind.	1½	Screw Terminal	2½ (diam.)		6⅝	12	25	.90	1.35
S461	907	1461	6	Binding Post	10½	2¾	7 13/32	6	53⅓	3.34	4.98

No. 6 Ignition

BURGESS PHOTO-FLASH BATTERIES

120	...	835	1½	Flashlight	1 (diam.)		1 15/16	24	2¼	.16	.25
220	...	850	1½	Flashlight	1 11/32 (diam.)		2 25/64	12	2½	.16	.25
920	...	815	1½	Flashlight	35/64 (diam.)		1 31/32	24	1	.13	.20
U15	215	412	22½	Flat Contact	31/32	9/16	1 31/32	1	1 oz.	1.05	1.50
Y10	220	504	15	Flat Contact	19/32	19/32	1 23/64	1	1 oz.	.81	1.15
Y15	221	505	22½	Flat Contact	19/32	19/32	1 31/32	1	1 oz.	1.05	1.50
U10	208	411	15	Flat Contact	1	39/64	1 7/16	1	1 oz.	.81	1.15
U20	210	413	30	Flat Contact	1	39/64	2 17/32	1	2 ozs.	1.23	1.75
XX150	...	489	225	Pin Jacks	4¼	2⅝	4¼	1	2½	6.96	9.95
U160	...	491	240	Flat Contact	2 9/16	1 5/16	4 13/32	1	⅘	5.56	7.95
N150	...	492	225	Pin Jacks	3 9/16	2¾	4¾	1	2½	6.96	9.95
U320	...	497	510	Flat Contact	2 15/16	1 17/32	5 7/16	1	1½	11.16	15.95
K30P-K			45	Battery & Bulb				1	⅖	1.67	2.50

220



TW3

BURGESS ALKALINE BATTERIES

AL-1	814	E93	1½	Flat Contact	63/64 (diam.)		1 15/16	6	1	.51	.75
AL-133	1306	333	4½	Flat Contact	21/32 (diam.)		2	12	1	.70	1.00
AL-2		E95	1½	Flat Contact	1 21/64 (diam.)		2 13/32	24	8	.65	.95
AL-7			1½	Flat Contact	13/32 (diam.)		1¾	12	¼	.31	.45
AL-9	815	E91	1½	Flat Contact	17/32 (diam.)		1 31/32	12	1	.33	.50
AL-N	910	E90	1½	Flat Contact	29/64 (diam.)		1⅛	3	1 oz.	.24	.35

TW7

BURGESS RADAR LIGHTS NOTICE: All Radar Lights are packed in individual cartons complete with battery.

BURGESS Number	Description	Unit Pkg. Quan.	Wt. of Un. Pkg. in Lbs.	Sugg. Dealer Ea. Complete	LIST PRICE EACH Head Only	Battery	Complete
TW3	Radar-Lite Spot-Flasher (Lamp 4546, 407)	1	5 1/10	$8.41	$10.20	$2.95	$13.15
TW4	Radar-Lite Spot-Without Flasher (Lamp 4546)	1	4¾	6.76	7.75	2.95	10.70
TW7	Radar-Lamp Chrome-Finish (Lamp 1651)	1	4⅕	5.86	6.50	2.95	9.45
TW8	Radar-Lamp Copper-Finish (Lamp 1651)	1	4⅕	5.86	6.50	2.95	9.45
TW9	Radar Bearcat Focusing Lantern (Lamp 425 or 502)	1	4⅛	4.67	4.50	2.95	7.45
TW11	Radar-Lite (Bulb Reflector Model) (Lamp 425)	1	4¾	5.68	6.20	2.95	9.15
TW12	12 Volt Radar-Lite (Uses TW2 Battery) (Lamp 965)	1	5	6.88	8.20	2.95	11.15
TW4E	Power Failure Operated Lantern (Spot Beam) (Lamp 4546)	1	6	13.61	17.50	2.95	20.45
TW6E	Power Failure Operated Lantern (Flood Beam) (Lamp 4512)	1	6	13.61	17.50	2.95	20.45
TW34	Radar-Flash (Lamp 407)	1	4	4.49	3.95	2.95	6.90

BURGESS RADAR-MATE and FLASHLIGHTS (less batteries)

BURGESS Number	Description (Batteries not included)	Unit Pkg. Quan.	Wt. of Un. Pkg. in Lbs.	Sugg. Dealer Each	List Price Each
JR1	4½ Volt Radar-Mate Lantern. Uses 3 No. 2 (Size D) batteries (Lamp PR3)	6	7½	$3.32	$4.98
161	Magnet Flashlight—2 Cell Prefocused (Lamp PR2 or PR4)	6	3	1.33	1.99
163	Tuffy-Plastic Flashlight—2 Cell Prefocused (Lamp PR2 or PR4)	6	1⅝	.69	.99
257	Satellite Torch—2 Cell Junior Prefocused (Lamp PR2 or PR4)	3	1	1.17	1.75
357	Satellite Torch—2 Cell Prefocused (Lamp PR2 or PR4)	6	2¾	1.30	1.95
263	2 Cell Magnet-Tough Plastic Industrial Flashlight (Lamp PR2)	6	2½	1.33	1.99
453	2 Cell Industrial—Safety Light (Lamp PR2)	1	½	3.33	5.00
563	Penlight (AAA size) (Lamp 224)	12	1½	.82	1.25
663	Penlight (Heavy Duty AA size) (Lamp 222)	12	1½	.82	1.25
763	Snap-Lite Pocket Light (AAA size) (Lamp 224)	12	1½	.82	1.25

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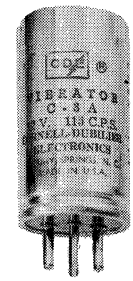
Vibrators

CDE CORNELL-DUBILIER

AUTO RADIO & SPECIAL PURPOSE VIBRATORS

Class 250 • 00



These CDE replacement vibrators are designed to give long life and excellent performance in auto radios and special purpose applications. Construction features the exclusive CDE "Seal-Vent"design which seals the vibrator against contamination on the shelf and permits the unit to breath in service. Design also insures quick starting and smooth operation as well as perfect contact alignment. Vibrators listed cover the vast majority of replacement applications. In cases where the units listed do not cover the unit to be replaced, the information given on this page should permit use of a standard replacement vibrator with simple socket change and rewiring.

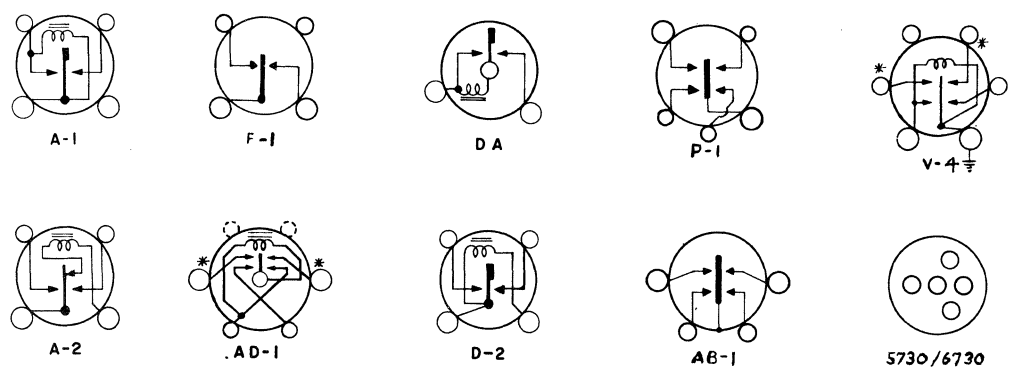
CDE Type	Voltage	Freq. (cps)	Max. Load Amps	Plug Base	Circuit Diagram	Size (Inches—DxL)	List Price*	Net Price*
INTERRUPTER TYPES								
5301	6	115	6	4	A-1	1½ x 2⅞	$ 4.84	**$ 2.96**
5335	6	115	6	4	F-1	1½ x 2⅞	5.04	**3.08**
5560	6	60	5	4	A-2	1½ x 3⅛	9.34	**5.72**
6301	12	115	4	4	A-1	1½ x 2⅞	4.84	**2.96**
6330	12	115	4	3 Spcl.	DA	1½ x 2⅞	4.84	**2.96**
6371	12	115	4	4	A-1	1½ x 2⅝	4.85	**2.97**
6372	12	115	4	4	D-2	1½ x 2⅝	4.85	**2.97**
6514	12	180	3	4	A-1	1½ x 2⅞	10.78	**6.60**
5300-32	32	115	1.4	4	A-1	1½ x 3⅛	7.32	**4.50**
SYNCHRONOUS TYPES								
5426	6	115	6	5	P-1	1 15/16 x 3½	7.92	**4.84**
5454	6	115	6	5 Rev.	AD-1	1½ x 2⅞	8.80	**5.38**
5830	6	115	10	4 Spcl.	AB-1	1½ x 2⅞	7.95	**4.87**
5831	6	115	10	6	V-4	1½ x 2⅞	7.95	**4.87**
UNIVERSAL REPLACEMENT TYPES								
C1A	6	115	6	4	A-1	1½ x 2⅞	2.41	**1.47**
C3A	12	115	4	3 Spcl.	DA	1½ x 2⅞	2.51	**1.53**
C4A	12	115	4	4	A-1	1½ x 2⅞	2.51	**1.53**

VIBRATORS FOR FOREIGN CAR RADIOS

CDE Type	Voltage	Blaupunkt Part No.	Plug Base	List Price*	Net Price*
5730	6	SM0702-01Z	5 Special	$ 6.35	**$ 3.89**
6730	12	SM0702-02Z	5 Special	6.35	**3.89**

* Prices Include 8% Federal Excise Tax

CIRCUIT DIAGRAMS



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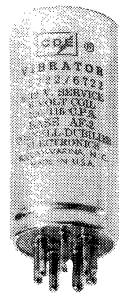
Class 250 • 00

COMMUNICATIONS VIBRATORS



Recent design improvements in CDE's replacement communications vibrator line have more than doubled in life expectancy of these units. The new communications vibrator offer extremely long life and excellent performance in the most demanding applications. Replacements are listed for most of the two way radio and citizens band equipment in service. More detailed replacement information is contained in the CDE Vibrator Replacement Guide to be issued shortly. Current ratings listed are maximum continuous ratings. Transmitting ratings are approximately 4 times these based on one minute transmit and four minutes receive. Information contained in the listing should permit replacement of all communications vibrator types with only a few requiring socket and wiring changes.

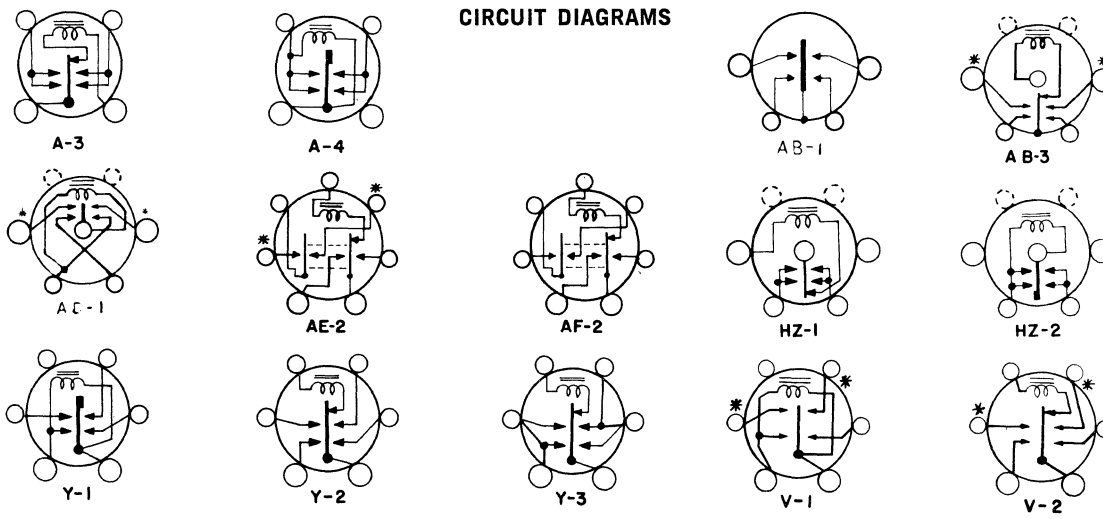
CDE Type	Voltage	Freq. (cps)	Max. Load Amps	Plug Base	Circuit Diagram	Size D x L	List Price*	Net Price*
INTERRUPTER TYPES								
5715	6	115	9	4	A-3	1½ x 2⅞	$6.53	**$3.99**
5718	6	115	10	6	Y-2	1½ x 2⅞	7.46	**4.56**
5721	6	115	10	6	Y-3	1½ x 2⅞	7.10	**4.34**
5722/6722	6	100	6	7	AF-2	1½ x 2⅞	9.88	**6.04**
5725	6	115	9	5Rev.	HZ-1	1½ x 2⅞	7.10	**4.34**
5821	6	115	10	6	V-2	1½ x 2⅞	7.92	**4.84**
6715	12	115	5	4	A-4	1½ x 2⅞	8.80	**5.35**
6718	12	115	6	6	Y-1	1½ x 2⅞	7.46	**4.56**
5722/6722	12	100	4	7	AF-2	1½ x 2⅞	9.88	**6.04**
6725	12	115	5	5Rev.	HZ-2	1½ x 2⅞	7.10	**4.34**
6715S	12	115	5	4	A-3	1½ x 2⅞	7.10	**4.34**
SYNCHRONOUS TYPES								
5805	6	115	10	5Rev.	AD-1	1½ x 2⅞	8.80	**5.38**
5820	6	115	6	5Rev.	AB-3	1½ x 2⅞	10.02	**6.14**
5822	6	100	6	7	AE-2	1½ x 2⅞	9.34	**5.72**
6805	12	115	5	5Rev.	AD-1	1½ x 2⅞	8.80	**5.38**
6820	12	115	5	4Spcl.	AB-1	1½ x 2⅞	10.02	**6.14**
6821	12	115	5	6	V-1	1½ x 2⅞	7.92	**4.84**
6822	12	100	4	7	AE-2	1½ x 2⅞	9.34	**5.72**

VIBRATORS FOR FOREIGN CITIZENS BAND EQUIPMENT

CDE Type	Replacement Data	List Price*	Net Price*
6566	Japanese C.B. equipment. Vibrator NISSIN 12Z-1A rated 12v, 60 cps, 4 amp, 6 pin special socket 1½" x 2⅞"	$10.90	**$6.54**
5821	Replaces West German CACO C-602-6. See listing above for ratings and details.	7.92	**4.84**

* Prices Include 8% Federal Excise Tax

CIRCUIT DIAGRAMS



Vibrators

CDE CORNELL-DUBILIER

HEAVY DUTY VIBRATORS

Class 250 • 00

These heavy duty vibrators are replacements for popular units used in inverter power supplies. Units listed cover the vast majority of requirements. If replacement is required for an obsolete vibrator (not listed), the Cornell-Dubilier Vibrator Department, Fuquay-Varina, N. C., will provide a replacement recommendation on request.

STANDARD SERIES

Vibrator	Voltage	Frequency	*D.C. Amps.	Base	Type	Size	List Price	Net Price
6VB6H	6	60 ± 2	15	HB	Horiz. Single	2 5/32 x 5 9/16 x 2 9/16	$14.20	**$ 8.52**
6VD6H	6	60 ± 2	30	HE	Horiz. Tandem	2 23/32 x 5 15/16 x 3 3/8	24.70	**14.82**
6VL6H	6	60 ± ½	12	HA	Vert. Single	1 31/32 Dia. x 4 9/16	14.20	**8.52**
6VL10	6	100 ± 3	10	HA	Vert. Single	1 31/32 Dia. x 4 9/16	12.90	**7.74**
12VB6H	12	60 ± 2	10	HB	Horiz. Single	2 5/32 x 5 9/16 x 2 9/16	14.20	**8.52**
12VD6H	12	60 ± ½	20	HE	Horiz. Tandem	2 23/32 x 5 15/16 x 3 3/8	24.70	**14.82**
12VL6H	12	60 ± ½	9	HA	Vert. Single	1 31/32 Dia. x 4 9/16	14.20	**8.52**
12VL10	12	100 ± 3	8	HA	Vert. Single	1 31/32 Dia. x 4 9/16	12.90	**7.74**
28VB6H	28	60 ± 2	8	HB	Horiz. Single	2 5/32 x 5 9/16 x 2 9/16	14.20	**8.52**
28VD6H	28	60 ± ½	15	HE	Horiz. Tandem	2 23/32 x 5 15/16 x 3 3/8	24.70	**14.82**
28VL6	28	60 ± 2	7	HA	Vert. Single	1 31/32 Dia. x 4 9/16	12.90	**7.74**
28VL10	28	100 ± 3	6	HA	Vert. Single	1 31/32 Dia. x 4 9/16	12.90	**7.74**
32VB6H	32	60 ± ½	6	HB	Horiz. Single	2 5/32 x 5 9/16 x 2 9/16	14.20	**8.52**
32VD6H	32	60 ± ½	12	HE	Horiz. Tandem	2 23/32 x 5 15/16 x 3 3/8	24.70	**14.82**
32VL6H	32	60 ± ½	6	HA	Vert. Single	1 31/32 Dia. x 4 9/16	14.20	**8.52**
32VL10	32	100 ± 3	5	HA	Vert. Single	1 31/32 Dia. x 4 9/16	12.90	**7.74**
110VB6H	110	60 ± ½	3	HB	Horiz. Single	2 5/32 x 5 9/16 x 2 9/16	14.20	**8.52**
110VC6H	110	60 ± ½	6	HE	Horiz. Tandem	2 23/32 x 5 15/16 x 3 3/8	24.70	**14.82**
110VL6H	110	60 ± 1	3	HA	Vert. Single	1 31/32 Dia. x 4 9/16	14.20	**8.52**

POPULAR OLD TYPES (Not directly replaceable by Standardized Series)

Vibrator	Voltage	Frequency	*D.C. Amps.	Base	Type	Size	List Price	Net Price
427	6	60 ± 2	12	HF	Vert. Single	2 3/16 Dia. x 4 11/16	$12.90	**$ 7.74**
490	6	60 ± 3	25	HL	Horiz. Tandem	2 23/32 x 5 15/16 x 3 3/8	24.70	**14.82**
491	6	60 ± 2	20	HL	Horiz. Tandem	2 5/32 x 5 3/8 x 3 7/16	24.70	**14.82**
1315H	110	60 ± ½	3	HH	Horiz. Single	2 5/32 x 5 9/16 x 2 9/16	15.25	**9.15**

SMALL VIBRATORS USED IN POWERCON® INVERTERS

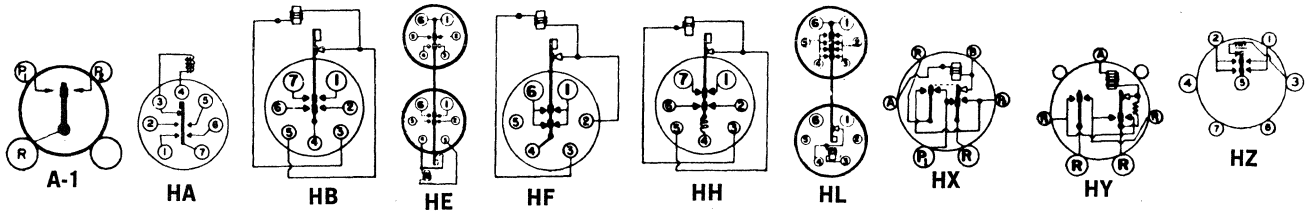
Vibrator	Voltage	Frequency	*D.C. Amps.	Base	Type	Size	List Price	Net Price
2522	110	60 ± 3	5	HX	Vert. ARV	1 ½ Dia. x 2 7/8	$ 9.10	**$ 5.46**
2529	6	60 ± 5	5	None	Wire-in	1 x 1 x 2 3/8	4.40	**2.64**
2530	12	60 ± 5	3	None	Wire-in	1 x 1 x 2 3/8	4.40	**2.64**
2531	6	60 ± 3	10	A-1	Vert. ARV	1 ½ Dia. x 2 7/8	8.10	**4.86**
2532	12	60 ± 3	5	A-1	Vert. ARV	1 ½ Dia. x 2 7/8	8.10	**4.86**
2533	110	60 ± 5	6	None	Wire-in	1 x 1 x 3/8	4.40	**2.64**
2563	6	60 ± 3	15	HZ	Vert. ARV	1 ½ Dia. x 2 7/8	10.90	**6.54**
2564	28	60 ± 3	5	HZ	Vert. ARV	1 ½ Dia. x 2 7/8	10.90	**6.54**
2565	110	60 ± 3	8	HY	Vert. ARV	1 ½ Dia. x 2 7/8	10.90	**6.54**
6565	12	60 ± 3	8	A-3	Vert. ARV	1 ½ Dia. x 2 7/8	10.90	**6.54**
6567	12	60 ± 3	8	None	Wire Leads	1 ½ Dia. x 2 7/8	10.90	**6.54**

POPULAR OLD TYPES (Directly replaceable by Standardized Series)

Old	New	Old	New	Old	New
2989	32VB6H	**3079**	110VC6H	**3103**	6VB6H
3047	12VD6H	**3087**	12VB6H	**4123**	6VD6H

*D.C. Ampere rating is based upon measurement made with a D.C. ammeter in primary lead. Circuit must be properly designed for load being handled. Technical advice is available through CDE Vibrator Department, Fuquay Varina, N. C.

CIRCUIT DIAGRAMS



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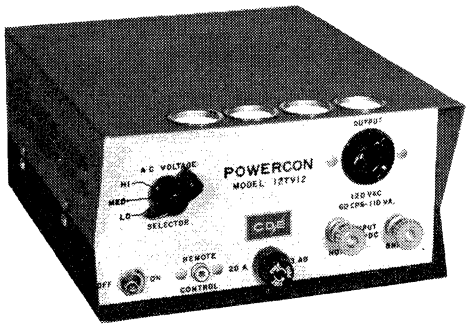
CDE CORNELL-DUBILIER

Power Supplies

POWERCON® | **Class 251 • 00**

1965 MODEL POWERCON® INVERTERS



12TV12 illustrates the modern styling of the 1965 POWERCON® inverter line.

These 1965 model POWERCON® inverter power supplies are being introduced throughout the summer and early fall of 1964. They feature all new designs and attractive styling to provide the ultimate in inverter power supplies for providing AC power in autos, trucks, aircraft and boats. Units are ideal for operating a wide variety of electronic entertainment devices as well as small appliances and lighting equipment.

The first model in the new line, the 12TV12 illustrated, has met with enthusiastic acceptance. This model is intended for operation of portable TV sets as well as other household appliances within the rating. Other models in the 1965 POWERCON® line will feature the same attractive styling as the 12TV12. The combination of attractive design and superior power supply design features makes the 1965 POWERCON® Line the outstanding buy in mobile, aircraft and marine power supplies.

Models are available with either square wave or sine wave outputs. Square wave models have stable 110v AC output under various loads due to built in capacity and conservative ratings. Intermittent loads will not damage the unit. Intermittent ratings listed are for loads with 70-100% power factor. Square wave units feature superior filtering and solid mechanical and electrical design to give hash-free output for interference free TV, FM and shortwave reception.

The sine-wave units have added reactors and capacitors to provide true sine-wave power — indistinguishable from commercial power. These units are recommended for electronic equipment where optimum performance is required. The sine-wave units control output voltage between 110 and 120v AC with up to 15% input variation. Units feature automatic load regulation for heavy or light loads. Sine-Wave units will operate inductive loads as low as 25% power factor without power factor correction as long as the wattage rating is not exceeded and the inrush VA does not exceed the intermittent ratings.

In the event the outstanding 1965 model POWERCON® inverter may not yet be available in your area, satisfactory performance will be obtained from the listing of current models on the following two pages.

CDE Type	Typical Applications	Replacement Vibrators	Input VDC	Watts		Overall Dimension Deep x W x High	Shipping Weight Approx. lbs.	Net Price
				Continuous	Intermittent			
12SP2A	Electric Shavers. NOTE: Intermittent duty only.	None	12	None	20	3⅞ x 2⅞ x 2¾	2	**$ 8.69**
12A4	Test gear, small dictating machines, shavers, phonographs.	6567	12	40	50	6¼ x 4⅛ x 3⅜	6	**16.29**
12A6	CB gear, larger dictating machines, small amplifiers.	6567	12	60	75	6¼ x 4⅛ x 3⅜	12	**30.89**
12B8	Smallest portable TV, small tape recorders, stereo amplifiers.	6565	12	80	100	8¾ x 7⅝ x 3⅞	12	**32.29**
12B10	Office machines, calculators, typewriters, adders.	12VB6H	12	100	125	8¾ x 7⅝ x 3⅞	14	**46.59**
12DSW10	SINE-WAVE, just like utility power, any PF load.	12VB6H	12	100	125	10⅜ x 9⅞ x 5½	22	**69.95**
12TV12	TV, special for portable TV, also for radios, phonographs.	12VB6H	12	120	140	8¾ x 7⅝ x 3⅞	16	**29.95**
12D15	Small induction soldering guns, all office machines.	12VD6H	12	150	175	10⅜ x 9⅞ x 5½	26	**61.79**
12D22	Multi-use, ideal for camp trailer, small tools, CB, TV.	12VD6H	12	220	250	10⅜ x 9⅞ x 5½	31	**77.59**
12ESW25	SINE-WAVE, SSB, large PA systems, 100 watt amplifiers.	12VD6H	12	250	300	12¼ x 9⅞ x 5½	31	**98.89**
28D15	Aircraft, marine, trucks, other systems using 24 VDC.	28VB6H	28	150	175	10⅜ x 9⅞ x 5½	26	**77.95**
110B10	110 VDC input units used for emergency power, for AC applications where commercial DC available; apartments, larger boats, and merchant vessels. The 110F40 is the largest unit and is dual RFI filtered.	110VB6H	110	100	150	8¾ x 7⅝ x 3⅞	11	**38.95**
110B15		110VB6H	110	150	200	8¾ x 7⅝ x 3⅞	13	**48.95**
110D25		110VB6H	110	250	325	10⅜ x 9⅞ x 5½	26	**57.95**
110F40		110VC6H	110	400	600	14⅛ x 11¼ x 6¼	49	**102.95**
12TP3	SOLID-STATE, TRANSISTORIZED!!!!	None	12	30	30	5⅞ x 3¾ x 1½	2	**40.00**

(Accessories on following page)

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Power Supplies

CDE CORNELL-DUBILIER

ACCESSORY KITS FOR 1965 MODEL POWERCON® INVERTERS

Class 251 • 00

These accessory kits are designed for use with the new 1965 model POWERCON® inverter power supplies. They provide maximum flexibility in mounting and control of the units. The following types of accessory kits are available:

REMOTE CONTROL UNITS

Consist of under dash or post mounting control head with switch, pilot light and AC outlet. Uses 4 wire cable from control socket.

FUSE KITS

Provides maximum protection to power supply. Hot cable fuse block for 2" cartridge fuse should be used with short heavy cable for remote installations. Last two digits of type number indicate ampere rating of fuse.

MOUNTING KITS

Heavy flanged plate for bulkhead or floor mounting. Supplied with hardware and instructions.

LEAD KITS

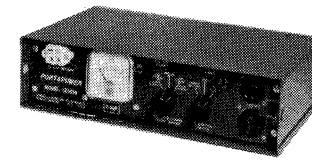
Two cables with heavy lugs to fit under the battery clamp screw or starter solenoid. First two digits of type number designate gauge of cable and last two digits, cable length.

For Powercon® Model	Mounting Kits		Lead Kits		Remote Control Kits		Fuse Kits	
	Type	Net Price	Type	Net Price	Type	Net Price	Type	Net Price
12A4	None	—	LK-1016	**$6.15**	RK-112	**$6.60**	FK-220	**$2.10**
12A6	None	—	LK-1016	**6.15**	RK-112	**6.60**	FK-220	**2.10**
12B8	MK-3544-4	**$3.30**	LK-1016	**6.15**	RK-112	**6.60**	FK-220	**2.10**
12B10	MK-3544-4	**3.30**	LK-816	**7.80**	RK-112	**6.60**	FK-220	**2.10**
12D15	MK-3544-5	**3.60**	LK-816	**7.80**	RK-112	**6.60**	FK-240	**2.70**
12D22	MK-3544-5	**3.60**	LK-616	**12.30**	RK-112	**6.60**	FK-240	**2.70**
28D15	MK-3544-5	**3.60**	LK-1016	**6.15**	RK-112	**6.60**	FK-220	**2.10**
12TV12	MK-3544-5	**3.60**	LK-1016	**6.15**	RK-112	**6.60**	FK-220	**2.10**
12DSW10	MK-3544-5	**3.60**	LK-816	**7.80**	RK-112	**6.60**	FK-220	**2.10**
12ESW25	MK-3544-5	**3.60**	LK-616	**12.30**	RK-112	**6.60**	FK-250	**2.70**

PORTAPOWER® PORTABLE INVERTER & CHARGER

Class 251 • 00 | Models 12SC14, 12PP14

The model 12SC14 is a combination battery charger and inverter. The unit may be ordered separately or as the model 12PP14 complete with carrying case and provision for battery. This portability makes this the unit ideal for camping, small boats, or other uses. When AC power is available the unit may be used for battery charging. When used with 12 volt battery, the unit produces 140 watts continuous (170 watts intermittent) of 115 volt, 60 cycle square wave power. Replacement vibrator is 12VL6H. Over-all dimensions of the 12SC14 are 15½" x 11" x 5⅝" and approximate shipping weight is 19 pounds. Over-all dimensions of the 12PP14 are 14" x 10" x 9½" and weight, less battery, is 24 pounds.



12SC14

12PP14

Model	Description	Net Price
12PP14	Includes inverter 12SC14, carrying case A-2734 and lead kit LK-1401	**$79.95**
12SC14	Includes inverter and charging cord A-2599	**69.95**
AK-127	Accessory kit includes carrying case A-2734 and lead kit LK-1401	**10.00**
LK-1016	Lead kit includes two 16 foot #10 leads for use with 12SC14 when not in case	**6.15**

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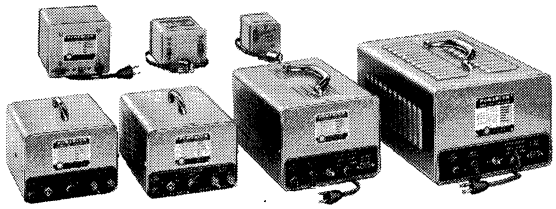
CDE CORNELL-DUBILIER

Power Supplies

POWERCON® | Class 251 • 00

CURRENT MODEL POWERCON® INVERTERS



These current production model POWERCON® inverter power supplies will be superseded by the new 1965 models described previously. Ample stocks of the current models are available however and the unit can probably be obtained through late 1964 and early 1965. These current model POWERCON® inverters have the same high quality as the 1965 models but lack the styling of the new line. The choice of models in current production is quite wide permitting selection of ratings for any application. As stocks are depleted, selection should be made from the 1965 model listing.

REGULAR POWERCONS — SQUARE-WAVE OUTPUT

Model No.	Input (Nominal) Volts DC	Input (Nominal) Amps	Output (Nominal) Volt-Amperes Continuous	Output (Nominal) Volt-Amperes Intermittent	CLASS	List Price	Suggested Resale
6SP2	6	5.0	20	20	SP	$ 11.85	$ 7.90
6L6	6	15.0	60	80	L	47.05	31.35
6S8	6	20.0	80	100	S	59.65	39.75
6H10	6	25.0	100	125	H	68.85	45.90
6SH15	6	38.0	150	175	SH	95.40	63.60
6/12D6	6 or 12	14.0 or 7.0	60	75	L	52.05	34.70
12SP2	12	2.5	20	20	SP	11.85	7.90
12L8-1	12	10.0	80	100	L	47.05	31.35
12S10	12	12.5	100	125	S	71.20	47.45
12H15	12	20.0	150	175	H	95.65	63.75
12SH22	12	29.0	225	250	SH	118.60	79.05
28S10	28	5.0	100	125	S	88.50	59.00
28H15	28	7.5	150	175	H	113.65	75.75
28SH22	28	11.0	225	250	SH	150.75	100.50
32S12	32	5.0	100	125	S	88.50	59.00
32H18	32	7.5	180	200	H	113.65	75.75
32SH22	32	10.0	225	275	SH	150.75	100.50
110L10	110	1.1	100	150	L	56.65	37.25
110S15	110	1.7	150	200	S	71.55	47.70
110H25	110	2.8	250	325	H	85.65	57.10
110H35	110	4.0	350	450	H	133.65	89.10
110SH40	110	4.5	400	600	SH	141.15	94.10
220S15	220	0.85	150	200	S	82.50	55.00
220H25	220	1.4	250	325	H	125.10	83.40
220SH40	220	2.2	400	600	SH	175.95	117.30

SINE-WAVE OUTPUT — WITH VOLTAGE REGULATION

6SW8	6	20.0	80	100	H	102.90	68.60
6SW15	6	40.0	150	175	SH	126.20	84.15
12SW10	12	12.5	100	125	H	114.75	76.50
12SW25	12	33.0	250	300	SH	135.40	90.25
28SW25	28	14.0	250	300	SH	179.40	119.60
110SW15	110	1.7	150	200	H	126.25	84.15
110SW25	110	3.0	250	300	SH	179.40	119.60

BATTERY ELIMINATOR POWERCONS

Model No.	Input Volts	Output Volts	Class	List Price	Suggested Resale
110B6	110	6A-12 VDC 10A- 6 VDC	H	$ 75.75	$50.50
110B12	110	10A-12 VDC 20A- 6 VDC	H	100.95	67.30

DC INPUT TO HIGH-VOLTAGE DC OUTPUT, FILTERED

Model No.	Input (Nominal) Volts DC	Input (Nominal) Amps	Output (Nominal) Volts DC	Output (Nominal) Volt-Amps (Cont.)	List Price	Suggested Resale
12TP3*	12	3.0	300	30	$59.95	$40.00
12TP12*	12	12.0	500	120	79.95	53.35

* Have taps at one-half rated voltage.

POWERCON ACCESSORIES

Model No.	Description	List Price	Suggested Resale
LEAD KITS			
LK 605	DUAL #6 — 5 ft.	$ 8.05	$ 5.37
LK 612	DUAL #6 — 12 ft.	14.85	9.90
LK 616	DUAL #6 — 16 ft.	18.45	12.30
LK 805	DUAL #8 — 5 ft.	5.60	3.75
LK 812	DUAL #8 — 12 ft.	9.60	6.45
LK 816	DUAL #8 — 16 ft.	11.70	7.80
LK 1005	DUAL #10 — 5 ft.	4.70	3.15
LK 1012	DUAL #10 — 12 ft.	7.65	5.10
LK 1015	DUAL #10 — 15 ft.	9.25	6.15
LK 1016	DUAL #10 — 16 ft.	9.25	6.15
MOUNTING KITS			
MK 3544-1	FOR L & S CASES	4.95	3.30
MK 3544-2	FOR H CASE ONLY	5.40	3.60
MK 3544-3	FOR SH CASE ONLY	6.75	4.50
REMOTE CONTROL KITS (For 6 and 12 Volt Models in L, S, H and SH Case)			
RK 105	5 ft. Extension Cable	8.10	5.40
RK 112	12 ft. Extension Cable	9.90	6.60
RK 116	16 ft. Extension Cable	10.80	7.20
MASTER FUSE KITS (2 inch Cartridge)			
FK 220	20 Ampere	3.15	2.10
FK 230	30	3.15	2.10
FK 240	40	4.05	2.70
FK 250	50	4.05	2.70
FK 260	60	4.05	2.70

All models are housed in cases of similar design and appearance. The class designations signify approximate size and weigh as follows:

SP — Shaver Pack — 2⅝ x 2½ x 3$\frac{3}{32}$ ..... 2 lbs
L — Lightweight — 5½ x 6¼ x 8 ..... 12 lbs
S — Standard — 5½ x 6¼ x 9 ..... 14 lbs
H — Heavy — 6½ x 7½ x 11 ..... 20 lbs
SH — Super Heavy — 8 x 9½ x 13 ..... 35 lbs

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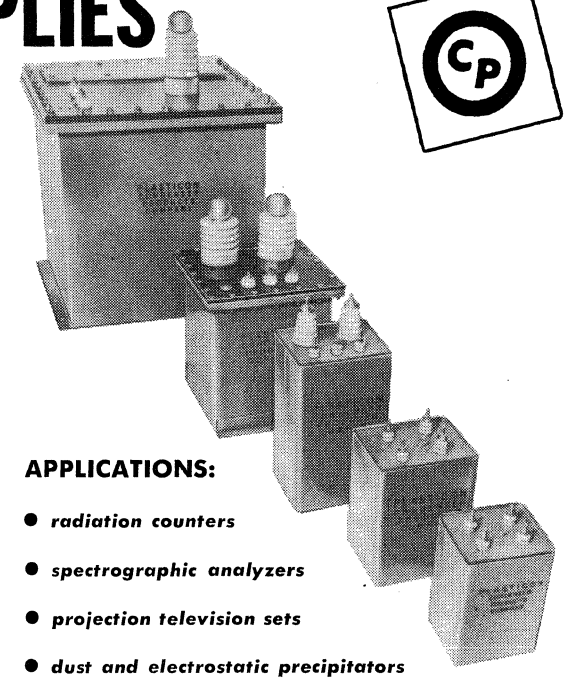
PLASTICON POWER SUPPLIES



HI VOLT POWER SUPPLIES

These hermetically-sealed, self-contained power supplies are designed for Hi Voltage low current DC for many applications. Our exclusive engineering techniques and oil-filled construction assure smaller, lighter, more reliable units.

HI VOLT POWER SUPPLIES FEATURE —

- Hermetically sealed oil filled construction **to assure small size and light weight.**
- Variable output voltage when the input voltage is supplied through an auto transformer **to assure flexibility.**
- High quality components safely rated and carefully assembled **to assure reliability.**
- Neutral case which may also be made either positive or negative **to assure safety.**

APPLICATIONS:

- ***radiation counters***
- ***spectrographic analyzers***
- ***projection television sets***
- ***dust and electrostatic precipitators***
- ***oscilloscopes***
- ***display tubes***

STANDARD POWER SUPPLIES

Model No.	Output Voltage KVDC	Rated Output Current Ma.	Max. Output Current Ma.	% Ripple At Rated Current	Circuit	Case Size	Weight Pounds
PS2-2M60	2	2.0	5.0	1.5	Half Wave	3¾ x 3⅜ x 5½″ Hi.	4.5
PS5-3M60	5	3.0	3.75	.6	Half Wave	3¾ x 4⅜ x 6″	9.0
PS5-5M60	5	5.0	5.75	.8	Half Wave	3¾ x 4⅜ x 6″	9.0
PS10-1M60V	0-12	1.0	1.75	2.0	Full Wave Doubler	3¾ x 4⅜ x 8″	11.5
PS10-5M60V	0-10	5.0	5.25	3.0	Full Wave Doubler	3¾ x 4⅜ x 8″	11.5
PS15-1M60V	0-15	1.0	1.75	2.0	Full Wave Doubler	3¾ x 4⅜ x 8″	12.0
PS15-5M60V	0-15	5.0	5.25	3.0	Full Wave Doubler	3¾ x 4⅜ x 9″	12.0
PS30-1M60V	0-30	1.0	1.5	3.0	Full Wave Doubler	7 x 7 x 7¾″	25.0
PS50-2M60VT	0-50	2.0	4.0	1.5	Full Wave Tripler	12½ x 12½ x 12½″	80.0

NOTES:

1. The case can be made either positive or negative.
2. The PS50 Supply has a separate accessible compartment for the rectifier tubes.
3. Hi Volt Supplies are rated at 118 V AC input, 60 cycles.
4. Hi Volt Supplies for 400 cycle operation are also available for aircraft use — built to military specifications.
5. Hi Volt Supplies are engineered for various applications. Send us your requirements.

NEW! SUB-MINIATURE SOLID-STATE POWER SUPPLIES

Model No.	Output Voltage KVDC	Rated Output Current MA.	Max. Output Current MA.	% Ripple At Rated Current	Circuit	Case Dimensions	Approx. Weight Pounds
PST2-2M60	0-2.	2.	3.00	0.5	Half Wave	3¾ x 2¼ x 3½″ Hi	2.5
PST5-2M60	0-5.	2.	3.00	0.5	Full Wave Doubler	3¾ x 2¼ x 3½″ Hi	2.5
PST10-1M60	0-10.	1.	1.75	1.0	Full Wave Doubler	3¾ x 3⅛ x 4″ Hi	4.5
PST15-1M60	0-15.	1.	1.75	1.0	Full Wave Doubler	4⅜ x 3¾ x 5½″ Hi	8.5
PST20-1M60	0.20.	1.	1.75	1.0	Full Wave Doubler	4⅜ x 3¾ x 5½″ Hi	8.5

NOTES:

1. The case is neutral — Output has reversible polarity.
2. Input rated @ 115 V AC ±5% from 60 to 400 cycle operation.
3. Case is standard CP70 Type Container.
4. Finish on all units consists of Zinc Chromate Primer & Secondary Coat of Grey Lacquer.
5. Terminals are Ceramic Solder Seal Type with No. 8-32 Threaded Studs except Model PST15-1M60 which has No. 10-32 Threaded Studs on output terminals.
6. Units can be mounted in any position.

CONDENSER PRODUCTS has designed and built high voltage D.C. power supplies for:

- ***Airborne Equipment***
- ***Shipboard Installation***
- ***380 to 1,000 CPS Applications***
- ***High voltage output from 1 to 50 KV with current ratings up to 50 ma.***
- ***and many other varied applications***
- ***Let CONDENSER PRODUCTS engineers solve your high voltage power supply problems.***

Condenser Products Company

See Sect. 1500 for Capacitors

MANUFACTURERS

- *Glassmike Capacitors*
- *Plasticon Capacitors*
- *HiVolt Power Supplies*
- *Pulse Forming Networks*

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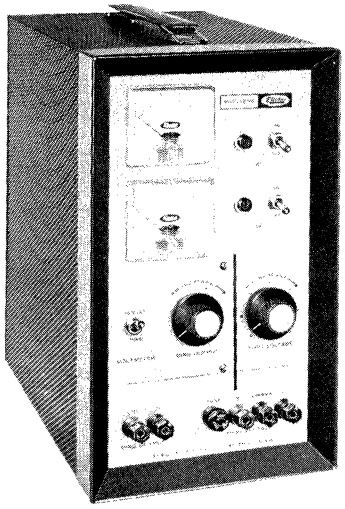


"RB-500" Regulated DC Power Supply **$395**

Regulated 500 Volt, 250 MA Supply under $400!

Compare with others . . .

High Voltage Output: 0-500VDC, 0-250MA

Regulation: 0.03% (or 0.015V, whichever is greater) for combined line (102-125V) and load (no-load to full-load) variations.

Ripple: 5MV, RMS, maximum.

Bias Output: 0-150 volts.

Filament Outputs: Two 6.3V, 5 amps, for series (12.6V@5A) or parallel (6.3V@10A) operation.

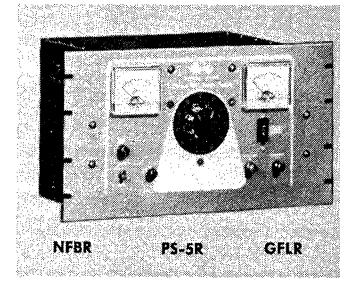
Meters: 0-500/0-150V, 0-250MA.

Size: 12 x 8 x 14 in.

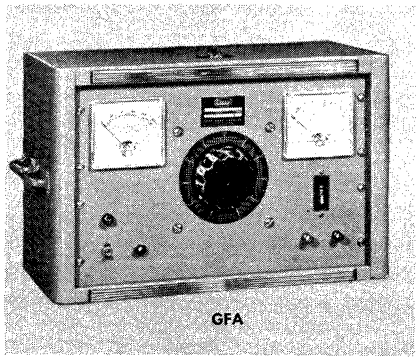
Weight: 32 lbs. net.

Electro CHICAGO

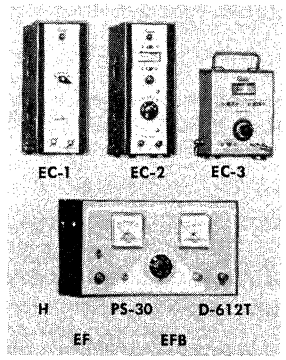
REGULATED & SEMI-REGULATED DC POWER SUPPLIES



NFBR PS-5R GFLR



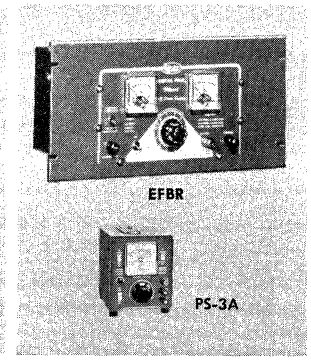
GFA



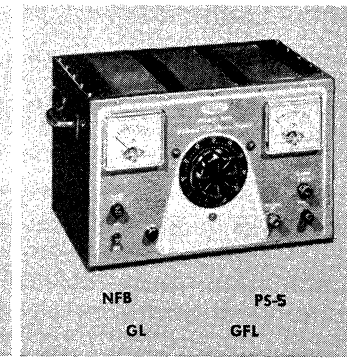
EC-1 EC-2 EC-3

H PS-30 D-612T

EF EFB



EFBR PS-3A



NFB PS-5

GL GFL

Output, filtering for every need, from $27.50 . . . guaranteed performance, long service life

Model	Voltage Output	Amperage Output	Load Regulation (V/A)	Maximum Ripple (%)	Meters	DC Impedance (ohms)	Size (HxWxD) (inches)	Weight (lbs. net)	Price (net)
EC-1	12 (adjustable)	0-5	1.4 (0-5A)	0.5	———	1.4 (0-5A)	10¾ x 4⅜ x 6½	10	$ 29.95
H	12 (adjustable) 6 (adjustable)	0-10 0-20	0.23 (3-10A) 0.15 (3-20A)	5 5	0-20V, 0-30A	0.23 (3-10A) 0.15 (3-20A)	7 x 12 x 8½	29	99.50
PS-30	12 (adjustable)	0-30	2.7 (6-30A)	1	0-20V, 0-50A	0.27 (0-30A)	9¼ x 16¾ x 13	56	198.00
EC-2	0-16	0-5	1.8 (0-5A)	0.5	0-20V/10A	1.8 (0-5A)	10¾ x 4⅜ x 6½	9	39.95
D612T	0-16 0-8	0-10 0-10	0.44 (3-10A) 0.3 (3-10A)	0.5@ 5A, 2 @10A	0-20V, 0-10A	0.44 (3-10A) 0.3 (3-10A)	7 x 12 x 8½	20	69.95
EC-3	0-24 (0-7 bias)	0-100MA	———	0.2	0-24V/100MA	———	6¼ x 5 x 3½	3	27.50
PS-3A	0-25	0-200MA	.02%	0.5MV	0-25V/100MA/200 MA	.05	6¼ x 5 x 6	3½	99.50
EF	0-28 0-14	0-5 0-5	0.9 (1-5A) 0.6 (1-5A)	1 1	0-50V, 0-6A	0.9 (1-5A) 0.6 (1-5A)	7 x 12 x 8½	21	110.00
EFBR	0-32 0-16	0-4 0-8	1.25 (0-4A) 1.0 (0-8A)	0.1 0.1	0-40/20V, 0-10A	1.25 (0-4A) 1.0 (0-8A)	8¾ x 19 x 8½	34	160.00
EFB	0-32 0-16	0-4 0-8	1.25 (0-4A) 1.0 (0-8A)	0.1 0.1	0-40/20V, 0-10A	1.25 (0-4A) 1.0 (0-8A)	7 x 12 x 8½	31	140.00
NFBR	0-32	0-15	0.3 (0-15A)	0.75	0-50V, 0-20A	0.3 (0-15A)	10½ x 19 x 14¼	82	275.00
NFB	0-32	0-15	0.3 (0-15A)	0.75	0-50V, 0-20A	0.3 (0-15A)	9¾ x 14¼ x 14¼	71	250.00
PS-5R	0-55	0-10	0.8 (0-10A)	0.5	0-75V, 0-10A	0.8 (0-10A)	10½ x 19 x 14¼	71	275.00
PS-5	0-55	0-10	0.8 (0-10A)	0.5	0-75V, 0-10A	0.8 (0-10A)	9¾ x 14¼ x 14¼	60	250.00
GL	0-125	0-5	1.5 (0-5A)	5.0	0-150V,0-5A	1.5 (0-5A)	9¾ x 14¼ x 14¼	65	255.00
GFLR	0-125	0-5	1.5 (0-5A)	0.5	0-150V, 0-5A	1.5 (0-5A)	10½ x 19 x 14¼	79	297.00
GFL	0-125	0-5	1.5 (0-5A)	0.5	0-150V, 0-5A	1.5 (0-5A)	9¾ x 14¼ x 14¼	75	275.00
GFA	0-125	0-10	1.6 (0-10A)	1.0	0-150V, 0-10A	1.6 (0-10A)	14¼ x 22 x 15¾	150	575.00

Stocked at Your Electronic Distributor. Write for Full-line Catalog. Prices subject to change without notice.

Electro CHICAGO

ELECTRO PRODUCTS LABORATORIES, Inc. Chicago (Niles), Illinois 6064

4122

Since 1936 — Pioneers in Low Voltage Power Supplies

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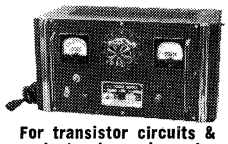
Net

SILICON POWER RECTIFIER



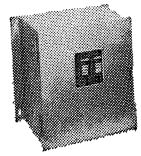
For transistor circuits & electronic equipment
MODEL G92F

INPUT: 115 volts AC 60 cycles, 1 phase
OUTPUT: 0-30. Volts DC, 0-10 Amperes D.C. continuous duty
REGULATION: No load to full load 15%
RIPPLE: Less than 0.5% RMS
METERS: 2% Accuracy

PRICE: $145.00 NET

*Also available in 5 Amperes
PRICE: $95.00 NET

INDUSTRIAL POWER UNITS

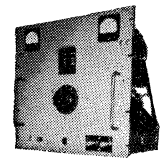


MODEL A10

INPUT 115 or 230 AC Volts, 60 cycles—Single Phase.
DC OUTPUT 115 Volts DC 125 Watts
APPLICATION: Power sources for operating DC Motors, Relays, Solenoids, Magnetic Chucks.
DIMENSIONS: 11" H x 9" W x 6½" D

PRICE $63.00 NET
Also available 250 watts **$84.00**

SILICON INDUSTRIAL POWER UNIT

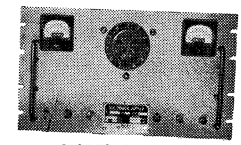


MODEL #G30-40F

INPUT: 115 Volts AC, 60 cycles, single phase.
OUTPUT: 0-32 Volts DC, 0-40 Amperes DC, continuous duty
RIPPLE: 1% RMS
DIMENSIONS: 12¼"Hx19"Wx13"D
REGULATION: D.C.V. at full load: 32 minimum D.C.V. at 1/10 load: 35 maximum

PRICE: $385.00

SILICON POWER RECTIFIER

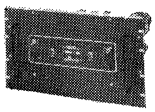


MODEL G30.10FR

INPUT: 115 Volts AC, 60 Cycles, Single Phase
OUTPUT: 0-30 Volts DC, 0-10 Amperes, continuous duty
CONTROL: Continuously variable over entire range
REGULATION: 6% No Load to Full Load
RIPPLE: 0.2% RMS
METERS: 2% Accuracy
DIMENSIONS: 19"Wx13"Dx10½"H

PRICE: $185.00 NET

SILICON RACK MOUNT SUPPLY

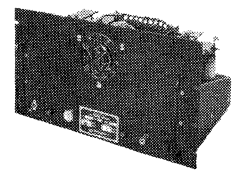


MODEL #GX30-10

INPUT: 115 Volts AC 60 Cycles, Single Phase
OUTPUT: 30 Volts DC 0-10 Amperes Continuous Duty
REGULATION: 10% No Load to Full Load
RIPPLE: Below 0.5% RMS
DIMENSIONS: 8¾" H x 19" W x 10" D

PRICE: $137.50 NET

SELENIUM POWER SUPPLY

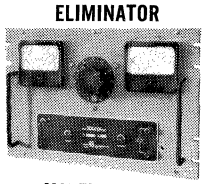


MODEL G48-6FM

INPUT: 115 Volts AC 60 Cycles—Single Phase
OUTPUT: 0-48 Volts DC, 0-6 Amperes
CONTROL: Continuously variable over entire range
RIPPLE: 1% RMS
DIMENSIONS: 19" W x 13" D x 10½" H, Fits RETMA, Western Electric racks

PRICE: $190.00 NET

AIRCRAFT BATTERY ELIMINATOR

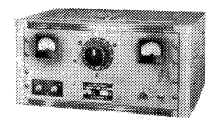


MODEL #G101F

INPUT: 115 Volts AC 60 cycles, single phase
OUTPUT: 0-30 Volts DC, 0-20 Amperes, continuous duty
RIPPLE: 0.5% RMS
Unique overload device prevents needle slam and shows overload condition
REGULATION: D.C.V. at full load: 30
D.C.V. at 1/10 load: 35
METERS: 2% Accuracy

PRICE: $200.00 NET
May be used for Rack or Bench

SILICON POWER SUPPLY



MODEL #GS 14-15F

INPUT: 115 Volts AC, 1 Phase, 60 cycles
OUTPUT: 0-14 Volts DC, 0-15 Amperes, continuous duty
RIPPLE: Less than 1% RMS
METER ACCURACY: 2%
DIMENSIONS: 9" H x 17½" W x 9" D

PRICE: $125.00 NET

Silicon Controlled Automatic Battery Charger

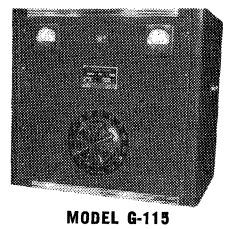
110 VAC, 12 VDC — Price $49.00

SELENIUM POWER SUPPLY
MODEL GX 30-5

INPUT: 115 Volts AC 60 cycles, single phase
OUTPUT: 30 Volts DC, 0-5 Amperes, DC Continuous Duty
REGULATION: 12% No Load to Full Load
RIPPLE: Below 1% RMS
DIMENSIONS: 5" W x 13½" L x Overall Height 10"

PRICE: $75.00 NET

SILICON GENERAL PURPOSE RECTIFIER

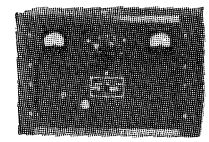


MODEL G-115

INPUT: 115 Volts AC 60 cycles, 1 Phase
OUTPUT: 0-32 Volts DC, 0-50 Amperes DC, Continuous duty variable over entire range
RIPPLE: 1% RMS
DIMENSIONS: 22"H x 19"W x 15"D

PRICE: $475.00 NET

DC POWER SUPPLY

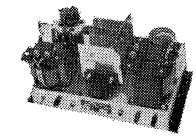


MODEL G94F

INPUT: 115 Volts AC 60 cycles, 1 Phase DC
OUTPUT: 0-300 Volts DC Continuous Variable 0-1 Amperes.
RIPPLE: 100 MV RMS
DIMENSIONS: Rack 8¾" H x 19" L x 9½" D
CABINET: 10½"Hx22"Lx12"D

PRICE: $240.00
Also available 2 AMP **$325**

SILICON POWER SUPPLY



MODEL GX30-20

INPUT: 115 Volts, 1 Phase, 60 cycles
OUTPUT: 0-34, Volts, DC 0-20 Amperes, continuous duty
REGULATION: No load to full load: 18%
RIPPLE: Below 1% Silicon Rectifiers, High Efficiency
DIMENSIONS: 10" x 17" x 3"

PRICE: $185.00 NET

HIGH CURRENT POWER SUPPLIES

MODEL G 300 Output 300A, 24-30V, Saturable Reactor ..... **$ Inquire**
MODEL G 500 Output 500A, 24-30V, Saturable Reactor ..... **$ Inquire**
MODEL G 1000 Output 1000A, 24-30V, Saturable Reactor ..... **$ Inquire**

LOW COST MODELS

MODEL 28-1: 1A, 28VDC ..... **$ 24.00**
MODEL 28-2: 2A, 28VDC ..... **$ 48.00**
MODEL 28-15: 15A, 28VDC **$165.00**
MODEL 115-2(nf): 2A, 115VDC ..... **$ 65.00**
MODEL 115-5(nf): 5A, 115VDC **$138.00**
MODEL 115-5: 5A, 115VDC **$224.00**
MODEL 115-10(nf): 10A, 115VDC **$195.00**
MODEL 115-10: 10A, 115VDC **$354.00**

HIGH VOLTAGE D.C. POWER SUPPLIES .0-125 VDC

1% ripple, good regulation

MODEL GP 125-3: Output 3A, 0-125V, Powerstat. Meters **$225.00**
MODEL GP 125-3: Output 5A, 0-125V, Powerstat. Meters **$275.00**
MODEL GP 125-10: Output 10A, 0-125V, Powerstat. Meters **$375.00**
MODEL GP 125-20: Output 20A, 0-125V, Powerstat. Meters **$495.00**
MODEL GP 60-6: Output 6A, 0-60V, Powerstat. Meters **$225.00**
MODEL GP 60-12: Output 12A, 0-60V, Powerstat. Meters **$320.00**

3φ MODELS

MODEL GP 125-40: Output 40A, 0-125V, Powerstat. Meters ..... **$ Inquire**
MODEL GP 125-80: Output: 80A, 0-125V, Powerstat. Meters ..... **$ Inquire**
MODEL GP 125-125: Output 125A, 0-125V, Powerstat. Meters ..... **$ Inquire**
MODEL GP 250-15: Output 15A, 0-250V, Powerstat. Meters ..... **$ Inquire**
MODEL GP 250-25: Output 25A, 0-250V, Powerstat. Meters ..... **$ Inquire**
MODEL GP 250-40: Output 40A, 0-250V, Powerstat. Meters ..... **$ Inquire**
MODEL GP 250-75: Output 75A, 0-250V, Powerstat. Meters ..... **$ Inquire**
MODEL GP 500-5: Output 5A, 0-500V, Powerstat. Meters ..... **$ Inquire**
MODEL GP 500-10: Output 10A, 0-500V, Powerstat. Meters ..... **$ Inquire**
MODEL GP 500-25: Output 25A, 0-500V, Powerstat. Meters ..... **$ Inquire**
MODEL GP 500-35: Output 35A, 0-500V, Powerstat. Meters ..... **$ Inquire**

MAGNETIC AMPLIFIER POWER SUPPLIES

MODEL GM 20-32, Output 20A, 24-30V, 5% reg ..... **$ Inquire**
MODEL GM 25-32, Output 25A, 24-30V, 5% reg ..... **$ Inquire**
MODEL GM 30-32, Output 30A, 24-30V, 5% reg ..... **$ Inquire**

12 VOLT POWER SUPPLIES

MODEL GS 12-1, Output 1A, 12V ..... **$ Inquire**
MODEL GS 12-5, Output 5A, 12V ..... **$ Inquire**
MODEL GS 10-12, Output 10A, 12V ..... **$ Inquire**
MODEL GS 12-15, Output 15A, 12V ..... **$ Inquire**

See Components In Section 4800

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BRONX **NEW YORK**

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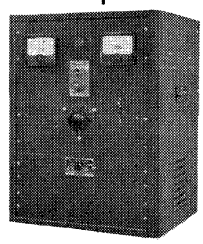
SILICON POWER RECTIFIER
Model G50-50R



INPUT: 220 Volts AC, 60 cycles, 3 phase

OUTPUT: 0-50 volts DC, 0-50 amperes continuous duty

RIPPLE: 0.5% RMS

REGULATION: No Load to Full Load 8%

METERS: 2% Accuracy

Also available in 100 Amp.

SILICON INDUSTRIAL POWER UNIT
Model G30-100

INPUT: 220 Volts AC, 60 cycles, 3 phase

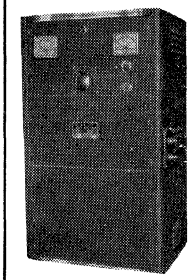
OUTPUT: 0-30 Volts DC, 0-100 amperes continuous duty

RIPPLE: 4% RMS

REGULATION: 5-8% 1/10th load to full load with constant input and at maximum output voltage setting

METERS: 2% Accuracy

SILICON AIRCRAFT BATTERY ELIMINATOR
Model G30-200



INPUT: 220 Volts AC, 60 cycles, 3 phase

OUTPUT: 0-30 Volts DC, 0-200 amperes continuous duty also avail. 300A

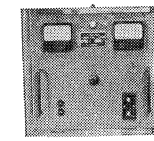
RIPPLE: 4% RMS

REGULATION: 5-8% 1/10th load to full load with constant input and maximum output voltage setting

METERS: 2% Accuracy

Also available in 300 Amps

SILICON REGULATED POWER SUPPLY
Model G530-40M



INPUT: 115 Volts AC, 60 cycles, 1 phase

OUTPUT: 5-30 Volts DC, 0-40 amperes

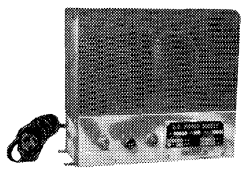
RIPPLE: 1% RMS

REGULATION: ±1% from no load to full load

METERS: 2% Accuracy

PRICE: $790.00

SILICON POWER SUPPLY
Model GX24-1



INPUT: 115 Volts AC, 60 cycles, 1 phase

OUTPUT: 24 Volts DC, 0-1 ampere DC, continuous duty

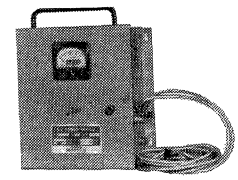
RIPPLE: 0.4% RMS

REGULATION: 10% no load to full load

PRICE: $50.00

Also available in 2 Amps

PORTABLE SILICON BATTERY CHARGER
Model G612-20



INPUT: 115 volts AC, 60 cycles, 1 phase

OUTPUT: 6/12 Volts DC, 20 amperes continuous duty

METER: Amp. meter 2% Accuracy

DIMENSIONS: 11"H x 9"W x 6½"D

PRICE: $45.00

BENCH PLATING RECTIFIER
Model G10-8

INPUT: 115 Volts, 50-60 cycles, 1 phase

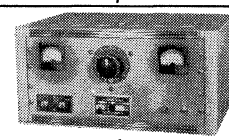
OUTPUT: 10 amperes, 0-8 Volts DC

RECTIFIER: Full wave selenium rectifier

VOLTAGE CONTROL: Powerstat

METERS: 2% Accuracy volt meter, amp. meter

PRICE: $75.00



BENCH PLATING RECTIFIER
Model G30-8

INPUT: 115 Volts, 50-60 cycles, 1 phase

OUTPUT: 30 amperes, 0-8 Volts DC

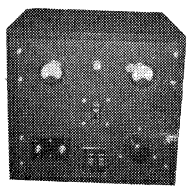
RECTIFIER: Full wave selenium rectifier

VOLTAGE CONTROL: Powerstat

METERS: 2% Accuracy, volt meter, amp. meter

PRICE: $115.00

BENCH PLATING RECTIFIER
Model G50-8



INPUT: 115 volts, 50-60 cycles, 1 phase

OUTPUT: 50 amperes, 0-8 Volts DC

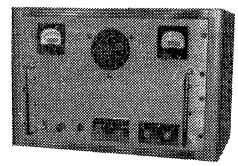
RECTIFIER: Full wave selenium rectifier

VOLTAGE CONTROL: Powerstat

METER: 2% Accuracy, volt meter, amp. meter

PRICE: $175.00

BENCH PLATING RECTIFIER
Model G100-8



INPUT: 115 Volts, 50-60 cycles, 1 phase

OUTPUT: 100 amperes, 0-8 Volts DC

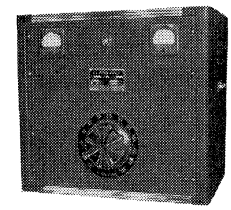
RECTIFIER: Full wave selenium rectifier

VOLTAGE CONTROL: Powerstat

METERS: 2% Accuracy, volt meter, amp. meter

PRICE: $275.00

BENCH PLATING RECTIFIER
Model G200-6



INPUT: 115 Volts, 50-60 cycles, 1 phase

OUTPUT: 200 amperes, 0-6 Volts DC

RECTIFIER: Full wave selenium rectifiier

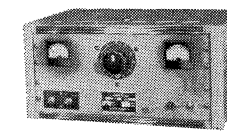
COOLING: Fan

VOLTAGE CONTROL: Powerstat

METERS: 2% Accuracy, volt meter, amp. meter

PRICE: $395.00

BENCH PLATING RECTIFIER
Model G50-15



INPUT: 115 Volts, 50-60 cycles, 1 phase

OUTPUT: 50 amperes, 0-15 Volts DC

RECTIFIER: Full wave selenium rectifier

VOLTAGE CONTROL: Powerstat

METERS: 2% Accuracy, volt meter, amp. meter

PRICE: $210.00

ECONOMY RANGE D.C. POWER SUPPLIES

1% ripple, good regulation

MODEL GT	12-15:	Output 0-12V,	15A	$122
MODEL GT	12-25:	Output 0-12V,	25A	$124
MADEL GT	12-100:	Output 0-12V,	100A	$286
MODEL GT	14-20:	Output 0-14V,	20A	$113
MODEL GT	14-30:	Output 0-14V,	30A	$276
MODEL GT	14-40:	Output 0-14V,	40A	$231
MODEL GT	16-5:	Output 0-16V,	5A	$129
MODEL GT	16-10:	Output 0-16V,	10A	$133
MODEL GT	16-25:	Output 0-16V,	25A	$180
MODEL GT	28-5:	Output 0-28V,	5A	$111
MODEL GT	28-12:	Output 0-28V,	12A	$145
MODEL GT	28-24:	Output 0-28V,	24A	$273
MODEL GT	32-5:	Output 0-32V,	5A	$178
MODEL GT	32-5:	Output 0-32V,	5A	$168
MODEL GT	32-12:	Output 0-32V,	12A	$109
MODEL GT	32-15:	Output 0-32V,	15A	$194
MODEL GT	32-24:	Output 0-32V,	24A	$162
MODEL GT	32-30:	Output 0-32V,	30A	$354
MODEL GT	32-50:	Output 0-32V,	50A	$297
MODEL GT	32-60:	Output 0-32V,	60A	$561
MODEL GT	48-5:	Output 0-48V,	5A	$138
MODEL GT	48-10:	Output 0-48V,	10A	$164
MODEL GT	130-2:	Output 0-130V,	2A	$124
MODEL GT	130-5:	Output 0-130V,	5A	$223
MODEL GT	120-5:	Output 0-120V,	5A	$277
MODEL GT	130-10:	Output 0-130V,	10A	$286
MODEL GT	200-10:	Output 0-220V,	10A	$382
MODEL GT	80-5:	Output 0-80V,	5A	$220
MODEL GT	80-10:	Output 0-80V,	10A	$275
MODEL GT	80-20:	Output 0-80V,	20A	$450
MODEL GT	80-50:	Output 0-80V,	50A	$1550
MODEL GT	80-100:	Output 0-80V,	100A	$1950

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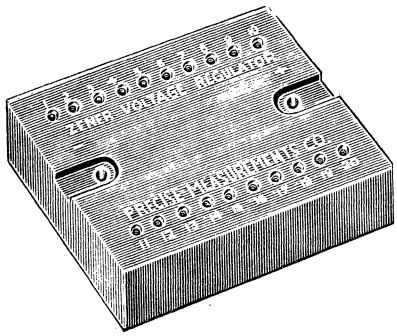
HIGH VOLTAGE ZENER REGULATORS

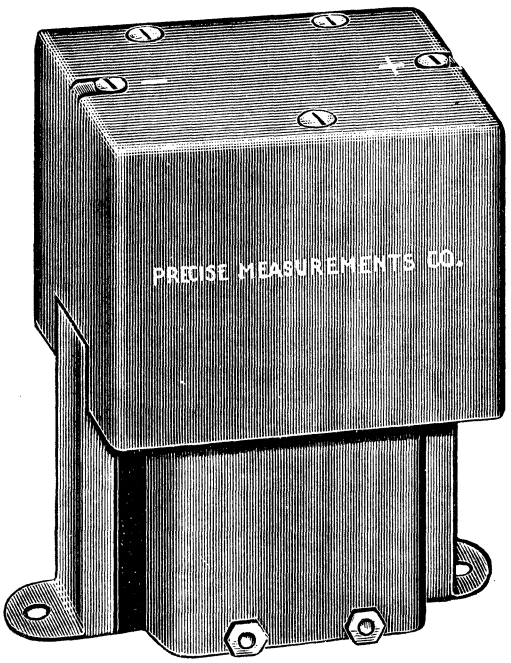
REGULATE UP TO 20,000 VOLTS



Simply connect in parallel* with any high voltage power supply and automatically obtain both line and load voltage regulation as well as ripple reduction. Nominal current rating is .5 to 1 Ma. for better than 1% stabilization. Power supplies with up to 5 Ma. (maximum) may be regulated. Can be wired in series for higher voltage service (five 4,000 volt types to regulate a 20,000 Volt power supply). Twenty built in taps included, each provides a regulated voltage. Ideal for photomultiplier tubes. Use as a high voltage reference in conjunction with regulator amplifier circuitry.

MODEL	TOTAL VOLTAGE	VOLTS AT EACH TAP	PRICE
ZA-1K	1,000 Volts	50 Volts	$50.00
ZA-2K	2,000 Volts	100 Volts	55.00
ZA-3K	3,000 Volts	100 & 200	60.00
ZA-4K	4,000 Volts	200	70.00

*If necessary, insert a series resistor to limit zener current to under 5 Ma.



COMPLETELY SOLID STATE

Model	Output Voltage	Price
15-0-15	15-0-15 Volts	$ 50.00
30-0-30	30-0-30 Volts	50.00
05-KV-5MA	500 Volts DC	50.00
1-KV-5MA	1-KV-DC	60.00
2-KV-5MA	2-KV-DC	70.00
3-KV-5MA	3-KV-DC	80.00
5-KV-5MA	5-KV-DC	95.00
7.5-KV-5MA	7.5-KV-DC	110.00
10-KV-5MA	10-KV-DC	125.00
15-KV-5MA	15-KV-DC	140.00
20-KV-5MA	20-KV-DC	235.00
30-KV-5MA	30-KV-DC	300.00

Now Available...

MOLDED ROCK PACKAGED POWER SUPPLIES

NEW LOW COST UNITS

Makes your DC voltage problems easy. Just wire in the two input and output connections and you are ready to operate. New patent applied for features, greatly improve reliability. Service if it should ever be required is a matter of minutes to unscrew the old top and replace with a new element. Newly designed H.V. transformer has special insulation for trouble-free performance. Output is completely isolated and either post may be grounded or operated as a floating supply. DC is filtered for 5% or less ripple. Output may be varied from full ratings down to zero by simply inserting a small Variac in input. All units rated for 5 Ma. current. Power packs 7.5 KV and higher have slightly modified construction. 115 volt, 60 cycle input. Use with above Zener Regulators to obtain 1% line and load regulation.

INDUSTRIAL INSTRUMENTS, INC.

PRECISE MEASUREMENTS COMPANY

CEDAR GROVE, NEW JERSEY

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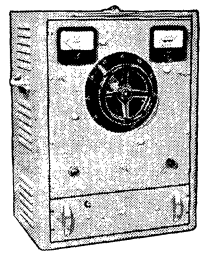
PRECISE MEASUREMENTS COMPANY

heavy duty... POWER SUPPLIES

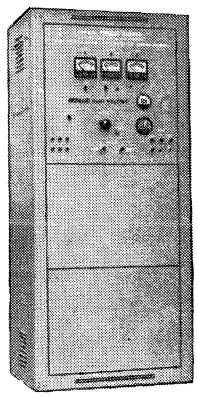


These industrial type power supplies are built for service and efficiency. All are of the transformer type and employ husky components that have been selected for their power handling capacity. Controls are arranged so that operation is greatly simplified and a number of safety features are built in for maximum protection of personnel and equipment. Output is continuously variable from zero to full rated value. Polarity reversing models (as illustrated) can be had at additional cost.

Model	Voltage	Current	Price
F-100V	0-100	10 Amp	$650.00
F-500V	0-500	3 Amp	800.00
F-6001	0-1000	2 Amp	975.00
F-6002	0-2000	1 Amp	985.00
F-6003-AI	0-3000	100 MA	375.00
F-6003-AV	0-3000	500 MA	550.00
F-6003-AK	0-3000	1 Amp	1100.00
F-6005-AI-H	0-5000	100 MA	550.00
F-6005-AV	0-5000	500 MA	775.00
F-6005-AIK	0-5000	1 Amp	1200.00
F-6010-AI	0-10,000	100 MA	800.00
F-6010-AV	0-10,000	500 MA	3000.00
F-6020-A05	0-20,000	50 MA	975.00
F-6030-A3	0-30,000	300 MA	5000.00
F-6050-T	0-50,000	½ MA	600.00
F-6100-T	0-100,000	.1 MA	1100.00

Standard ripple 5% or less. .01% to 1% available. All power supplies have automatic overload cutout control circuits. Regulated models available on special order.

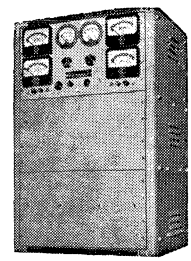
3 ϕ HEAVY DUTY POWER SUPPLIES



For use in applications where high voltages at extra high currents are required. Either fixed or fully variable types are available. Automatic circuits protect against over-current conditions, turning off main power in a split second. Used for Plasma research, Electron beam furnaces, plate power and condenser charging.

Model	Voltage	Current Amps	Price
A 1-A	0 to 100	100	$ 2,000.00
A 1-B	0 to 100	1000	12,500.00
A 10A	0 to 1,000	5	2,500.00
A 10B	0 to 1,000	10	3,700.00
A 30A	0 to 3,000	5	4,500.00
A 31	0 to 3,000	10	6,750.00
A 32	0 to 3,000	20	7,850.00
A 50	0 to 5,000	5	5,900.00
A 51	0 to 5,000	10	8,350.00
A 72	0 to 7,500	10	9,250.00
A 100	0 to 10,000	5	10,250.00
A 110	0 to 10,000	10	14,575.00
A 200	0 to 20,000	5	16,450.00
A 300	0 to 30,000	5	19,200.00
A 500	0 to 50,000	5	27,500.00

CONSTANT CURRENT POWER SUPPLIES



Designed for application where output current must remain constant regardless of loading resistance changes. Used for magnet fields, plating applications, gaseous lamps. Dependable magnetic current stabilizer has no moving parts, no tubes, no transistors to replace. Simply set current to desired level, no balancing or other adjustments needed. Ideal for lamp operation since operating state ionizing voltage in no way affects lamp current. Standard hum level 5%. Lower hum levels available on order.

Model	Max. Voltage	Current	Price
C-25-100	25 V.	100 Amp.	$ 980.00
C-70-70	70 V.	70 Amp.	1,700.00
C-500-10	500 V.	10 Amp.	1,700.00
C-Dual 500-10	500 or 1000 V.	10 or 20 Amp.	2,750.00
C-1000-5	1000 V.	5 Amp.	3,000.00
C-3000-1	3000 V.	1 Amp.	2,500.00
C-5000-1	5000 V.	1 Amp.	3,450.00
C-10K-5H	10 KV.	500 Ma.	3,850.00

Dual 500 V - 500 V, 10 Ampere Power Supply. — Illustrated

PORTABLE HIGH VOLTAGE DC POWER SUPPLIES

New Mirror Scale Instrument Illustrated

One of the most popular power supplies on the market. Completely redesigned for greater ruggedness and convenience of operation. Widely used for powering electronic equipment and for routine breakdown and insulation testing. Output voltage is well filtered D.C. which is adjustable with convenient front panel control. Input is 115 Volt, 60 cycle A.C. Larger 6" precision 1% mirror scale movement available on order. Regulated models offer closely stabilized output voltage regardless of line or load changes.

Model	Max. Voltage	R.F. OSC. Regulated 100 Microamps	Trans. Type Unregulated 1 MA.	Trans. Type Unregulated 5 MA.
6000-1	1,000		$160.00	$200.00
6000	2,500	145.00	175.00	225.00
6005	5,000	150.00	200.00	250.00
6010	10,000	155.00	225.00	275.00
6015	15,000	160.00	250.00	300.00
6025	25,000	215.00	275.00	350.00

Note. Regulated power supplies are of the radio frequency type and adjust from approximately 20% to full rated voltage. The 1 and 5 milliampere types are transformer operated and have a range of zero to full voltage output. These are recommended for industrial service applications.

Mirror Scale Higher Accuracy Meter. Recommended for more exact calibration or test purposes. Add $50.00 to any meter equipped power supply.

For additional built-in current meter (both meters are 3 inch size), including automatic meter protector circuit, add $50.00 to any power supply.

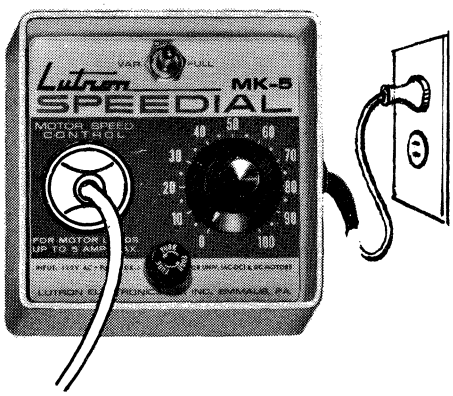
INDUSTRIAL INSTRUMENTS, INC.

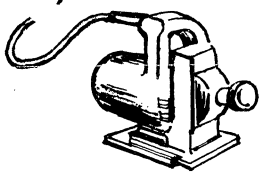
PRECISE MEASUREMENTS COMPANY

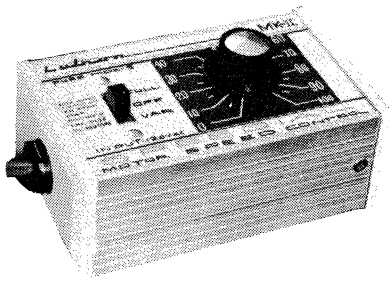
CEDAR GROVE, NEW JERSEY

LUTRON Motor Speed & Lighting Controls

INTERNATIONAL RESISTANCE COMPANY







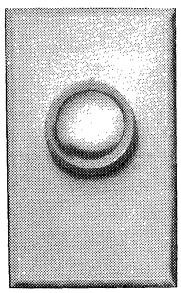
SPEEDIAL MOTOR SPEED CONTROLS Varies the speed of hand tools from zero to full speed with no loss of torque. Electric tool operations are faster, surer and more precise. Just dial the proper speed for the job, for any material, any tool. Eliminates "dance and bounce." Easily saves its cost in drill bits and saw blades. For use on Universal (AC-DC) and D.C. series motors only. Can also be used for clutches and brakes requiring variable D.C. voltage.

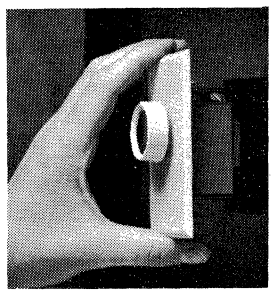
- In Factory or Laboratory — controls mixers, variable speed drives and winding machines
- Electric Drills — for plastics, wood, steel and concrete
- Electric Saws — for plastics, steel or wood
- Electric Sanders — coarse and fine finish.
- Electric Screwdrivers

HEAVY DUTY INDUSTRIAL MODELS

Model	Max. Amps	50-60 cps Input Volts	Max. Output RMS Volts DC	Weight
MK-5	5	120	90	2.0
MK-10	10	120	90	2.0
MK-15	15	120	90	2.3
MK-250-5	5	208-250	180	2.0
MK-250-10	10	208-250	180	2.0
MK-250-15	15	208-250	180	2.3

MARK II HOBBYIST A handy, inexpensive motor speed control for home, workshop and light duty use. Perfect for hand tools and for blenders and mixers on slow speed. Will control sewing machines or slow down drill for car buffing. Mark II can be used on tools and motors up to 5 amp. name plate rating.





ELECTRONIC LIGHT CONTROLS Continuous dimming controls for residential, commercial and industrial use. A popular accessory for hi-fi and TV rooms. Quickly and easily installed in the same manner as an ordinary switch, they fit standard depth wall boxes. For single or multi-ganged installation.

MODEL D-6P Incandescent only. 600 watts. Push-on, push-off. Fits single wall box.

MODEL D-63P Incadescent only. 600 watts. 3-way, push-on, push-off. Fits single wall box.

MODEL FD-600* Fluorescent and incandescent. 600 watts. Control both, together or separately. Up to 12 fluorescent lamps. Fits single wall box.

MODEL D-600P UL listed. Incandescent only. 600 watts. Push-on, push-off. Fits single wall box.

MODEL D-600 UL listed. Incandescent only. 600 watts. Fits single wall box. Deluxe unit for residential and commercial use. 5 year guarantee.

MODEL D-1000 Incandescent only. 1000 watts. Fits single wall box. Conservatively rated. For residential and commercial use.

OTHER POPULAR MODELS

MODEL D-6 600 watts. Incandescent
MODEL D-1800 1800 watts. Incandescent
MODEL D-3600 3600 watts. Incandescent
MODEL FD-900 18 Fluorescent Lamps*
MODEL FD-1800 36 Fluorescent Lamps*
MODEL FD-3600 72 Fluorescent Lamps*

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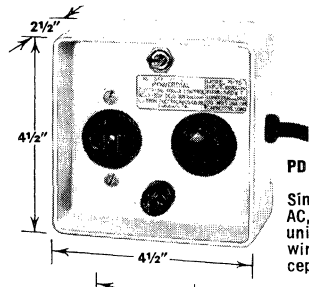
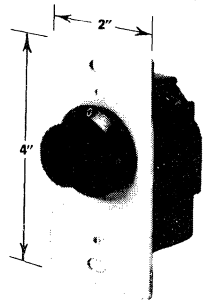
LUTRON Industrial Powerdials

INTERNATIONAL RESISTANCE COMPANY



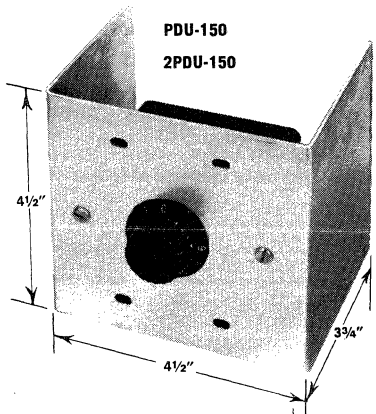
PD

Simply switch to AC, DC or off. All units have fuse, 3 wire cord and receptacle.



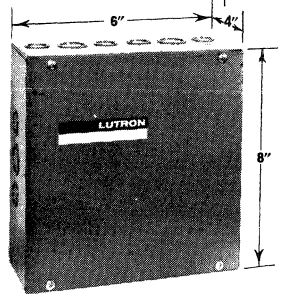
PDU-50

2PDU-50



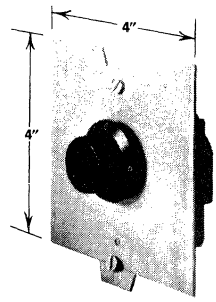
PDU-150

2PDU-150



PDU-300

2PDU-300



PDU-75

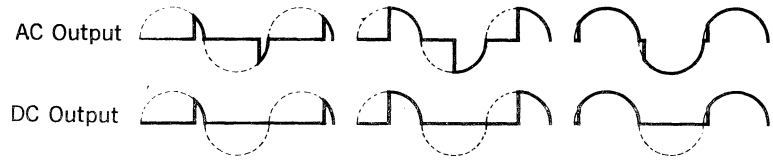
2PDU-75

PDU-100

2PDU-100

Solid state power control replaces variable auto-transformers in majority of jobs. Only 1/10 the weight and ½ the size of conventional controls. No brushes to wear or burn out.

TYPICAL WAVEFORMS



SCR Firing Angle 45° (low output) 90° (medium output) 170° (high output)

POWERDIAL WILL CONTROL

- Universal Motors*
- Soldering Irons
- Shaded Pole Motors*
- Temperature
- Permanent Split Capacitor Motors*
- Electric Punches and Actuators
- Lamps • Voltage • Current
- Electric Heating Elements
- Solenoids and Brakes • Electroplaters

* For fan and other light loads

PD SERIES

MODEL	RMS. AMPS. AC OUT	RMS. AMPS. DC OUT	AC INPUT VOLTS	AC OUTPUT VOLTS	RMS - DC OUTPUT VOLTS	WEIGHT LB.
PD-50	0-5	0-5	120	0-120	0-85	2.0
PD-75	0-7.5	0-7.5	120	0-120	0-85	2.0
PD-100	0-10	0-7.5	120	0-120	0-85	2.3
PD-150	0-15	0-10	120	0-120	0-85	2.6
PD-250	0-25	0-15	120	0-120	0-85	3.3
2PD-50	0-5	0-5	240	0-240	0-170	2.0
2PD-75	0-7.5	0-7.5	240	0-240	0-170	2.0
2PD-100	0-10	0-7.5	240	0-240	0-170	2.3
2PD-150	0-15	0-10	240	0-240	0-170	2.6
2PD-250	0-25	0-15	240	0-240	0-170	3.3

PDU SERIES

PDU Series is suitable for panel mounting.

May be wired for AC or DC output. Two wire connection.

MODEL	RMS. AMPS. AC	RMS. AMPS. DC	AC INPUT VOLTS	AC OUTPUT VOLTS	RMS. - DC OUTPUT VOLTS	WEIGHT LB.
PDU-50	0-5	0-5	120	0-120	0-85	.25
PDU-75	0-7.5	0-7.5	120	0-120	0-85	.34
PDU-100	0-10	0-7.5	120	0-120	0-85	.53
PDU-150	0-15	0-10	120	0-120	0-85	1.0
PDU-300	0-30	0-20	120	0-120	0-85	6.0
2PDU-50	0-5	0-5	240	0-240	0-170	.25
2PDU-75	0-7.5	0-7.5	240	0-240	0-170	.34
2PDU-100	0-15	0-7.5	240	0-240	0-170	.53
2PDU-150	0-15	0-10	240	0-240	0-170	1.0
2PDU-300	0-30	0-20	240	0-240	0-170	6.0

INTERNATIONAL RESISTANCE COMPANY

Distributor Division • Philadelphia, Pa. 19108

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MALLORY BATTERIES

MANGANESE ALKALINE BATTERIES

Mallory Number	Volts	Use	Wt., Oz.	Net Each
Mn1300	1.5	All Purpose "D"	5¼	65c
Mn1306	4.5	Transistor radio	1⅓	70c
Mn1400	1.5	All Purpose "C"	2⅛	51c
Mn1500	1.5	All Purpose "AA"	.82	33c
Mn2400	1.5	All Purpose "AAA"	.4	31c
Mn9100	1.5	All Purpose "N"	.34	24c

MERCURY BATTERIES

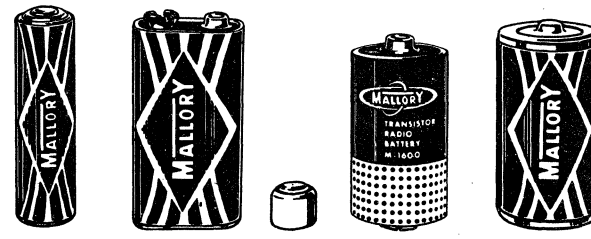
Flat terminals, unless otherwise noted.

Mallory Number	Volts	Cap., MAH	Use	Size, Inches L. x W. x H.	Wt., Oz.	Net Each
RM1	1.4	1000	Electronic	⅜ dia. x 21/32	0.75	$0.42
RM1R	1.35	1000	Electronic	⅜ dia. x 21/32	0.75	.52
RM1RT†	1.35	1000	Electronic	⅜ dia. x 21/32	0.75	.57
RM1RT2‡	1.35	1000	Electronic	⅜ dia. x 21/32	0.75	.62
RM3R	1.35	2200	Electronic	1 dia. x 21/32	0.93	.67
RM4R	1.35	3400	Electronic	1.2 dia. x 21/32	1.6	.86
RM4RT†	1.35	3400	Electronic	1.2 dia. x 21/32	1.6	.91
RM4Z	1.4	2400	Electronic	1.2 dia. x ½	1.2	.58
RM12	1.4	3600	Electronic	⅜ dia. x 2	2.0	.80
RM12R	1.35	3600	Electronic	⅜ dia. x 2	2.0	.82
RM12RT†	1.35	3600	Electronic	⅜ dia. x 2	2.0	.87
RM12RT2‡	1.35	3600	Electronic	⅜ dia. x 2	2.0	.92
RM24	1.4	1000	Radio	0.4 dia. x 1¾	0.5	.42
RM42	1.4	14000	Electronic	1.2 dia. x 2⅜	5.9	1.70
RM42R	1.35	14000	Electronic	1.2 dia. x 2⅜	5.9	1.85
RM42RT†	1.35	14000	Electronic	1.2 dia. x 2⅜	5.9	1.90
RM42RT2‡	1.35	14000	Electronic	1.2 dia. x 2⅜	5.9	1.95
RM312	1.4	36	Electronic	5/16 dia. x 9/64	0.01	.24
RM400	1.4	80	Electronic	29/64 dia. x 9/64	0.04	.24
RM400R	1.35	80	Electronic	29/64 dia. x 9/64	0.04	.35
RM400RT2‡	1.35	80	Electronic	29/64 dia. x 9/64	0.04	.45
RM401	1.35	800	Electronic	29/64 dia. x 1⅛	0.4	.35
RM401R	1.35	800	Electronic	29/64 dia. x 1⅛	0.4	.42
RM411	14	160	Electronic	1 x 17/32 x 1 3/32	1	2.00
RM412	22.4	160	Electronic	1 x 17/32 x 1 5/16	1	2.62
RM413	28	160	Electronic	1 x 17/32 x 2½	1.5	3.25
RM415*	42	160	Electronic	1 x 17/32 x 3½	2.5	5.10
RM450R	1.35	350	Electronic	29/64 dia. x 9/16	0.18	.52
RM502R	1.35	2400	Electronic	½ dia. x 1 31/32	1.05	.70
RM520	1.4	130	Electronic	½ dia. x 9/32	0.07	.17
RM575	1.4	100	Radio	.455 dia. x .129	0.01	.24
RM601R	1.35	1800	Electronic	⅜ dia. x 1 5/32	1.2	.83
RM625	1.4	250	Electronic	⅜ dia. x ¼	0.15	.35
RM625R	1.35	250	Electronic	⅜ dia. x ¼	0.15	.42
RM625RT†	1.35	250	Electronic	⅜ dia. x ¼	0.15	.47
RM625RT2‡	1.35	250	Electronic	⅜ dia. x ¼	0.15	.52
RM630	1.4	250	Electronic	⅜ dia. x ¼	0.17	.35
RM630R	1.35	250	Electronic	⅜ dia. x ¼	0.17	.42
RM640	1.4	500	Electronic	⅜ dia. x 7/16	0.38	.35
RM640R	1.35	500	Electronic	⅜ dia. x 7/16	0.38	.42
RM640RT2‡	1.35	500	Electronic	⅜ dia. x 7/16	0.38	.52
RM675	1.4	160	Electronic	29/64 dia. x 15/64	0.07	.26
TR113R	4.05	250	Electronic	21/32 dia. x 53/64	0.45	1.93
TR114R	5.4	250	Electronic	21/32 dia. x 1 1/16	0.59	1.70
TR114RT2‡	5.4	250	Electronic	21/32 dia. x 1 1/16	0.59	1.80
TR115	7.0	250	Dictating	21/32 dia. x 1 5/16	0.73	1.54
TR115R	6.75	250	Electronic	21/32 dia. x 1 5/16	0.73	1.70
TR126	8.4	600	Radio	¾ dia. x 1 15/16	1.6	1.05
TR132	2.8	1000	Paging	21/32 dia. x 1 5/16	1	.85
TR132R	2.7	1000	Electronic	21/32 dia. x 1 5/16	1	1.05
TR133	4.2	1000	Radio, Pag.	21/32 dia. x 2	1.4	1.05
TR133R	4.05	1000	Radio, Pag.	21/32 dia. x 2	1.4	1.22
TR134	5.6	1000	Electronic	21/32 dia. x 2 9/64	1.9	1.35
TR134R	5.4	1000	Electronic	21/32 dia. x 2 9/64	1.9	1.60
TR134T2‡	5.6	1000	Electronic	21/32 dia. x 2 9/64	1.9	1.45
TR135	7.0	1000	Electronic	21/32 dia. x 3¼	2.4	1.70
TR135R	6.75	1000	Electronic	21/32 dia. x 3¼	2.4	2.00
TR136	8.4	1000	Electronic	21/32 dia. x 3 29/32	2.9	2.00
TR136R	8.1	1000	Electronic	21/32 dia. x 3 29/32	2.9	2.20
TR137	9.8	1000	Electronic	21/32 dia. x 4 9/16	3.4	2.40
TR137R	9.45	1000	Electronic	21/32 dia. x 4 9/16	3.4	2.76
TR145	7	250	Electronic	21/32 dia. x 1 5/16	0.58	1.55
TR146*	8.4	350	Radio	1 x 19/32 x 1 15/16	1.6	1.05
TR152	2.8	350	Electronic	15/32 dia. x 1⅜	0.42	.75
TR152R	2.7	350	Electronic	15/32 dia. x 1⅜	0.42	.82
TR153	4.2	350	Electronic	15/32 dia. x 1 11/16	0.6	1.05
TR153R	4.05	350	Electronic	15/32 dia. x 1 11/16	0.6	1.35
TR162R	2.7	500	Electronic	21/32 dia. x ⅞	0.58	1.05
TR163	4.2	500	TV tuner	21/32 dia. x 1 5/16	0.87	1.05
TR163R	4.05	500	Electronic	21/32 dia. x 1 5/16	0.87	1.22
TR164	5.6	500	Radio	21/32 dia. x 1¾	1.16	1.25
TR164R	5.40	500	Electronic	21/32 dia. x 1¾	1.16	1.35
TR165	7	500	TV tuner	21/32 dia. x 2 5/16	1.45	1.60
TR165R	6.75	500	Electronic	21/32 dia. x 2 5/16	1.45	1.70
TR169	12.6	500	Electronic	21/32 dia. x 3⅞	2.88	3.50
TR175	7	350	Radio	31/64 dia. x 1 5/32	1	1.05
TR177*	9.8	250	Radio	35/64 dia. x 1 29/32	1	1.22
TR233	4.2	2200	Radio	1 1/64 dia. x 1 31/32	3	1.90
TR233R	4.05	2200	Electronic	1 1/64 dia. x 1 31/32	3	2.00
TR234	5.6	2200	Electronic	1 1/64 dia. x 2 19/32	3.88	2.20
TR234R	5.6	2200	Electronic	1 1/64 dia. x 2 19/32	3.88	2.62
TR235R	6.75	2200	Electronic	1 1/64 dia. x 3¼	4.63	2.93
TR236R	8.10	2200	Electronic	1 1/64 dia. x 3 7/32	4.76	3.64
TR286*	8.4	750	Radio	1 dia. x 1 15/16	1.6	1.35
TR289*	12.6	750	CB radio	1 dia. x 2 25/64	3.6	2.05
ZM9	1.4	2400	Radio	½ dia. x 1 31/32	1	.51

*Snap terminals. †1 tab, 1 flat terminal. ‡2 tab terminals.

MERCURY VOLTAGE REFERENCE BATTERY

Mallory No. 303113—Eight outputs, 0–10.80 v. in 1.35 v. steps. **Size:** 6½" x 2⅝" x 1". In lined leatherette case with complete technical information. Net Each..... **$25.80**



MERCURY POWER-PAK BATTERIES

Mallory Number	Volts	Cap., MAH	Use	Terminals	Net Each
302157	1.35	28,000	Radiation eqpt.	Socket	$10.35
302250	9.45	250	Radiation eqpt.	Tabs	2.45
302351	5.4	2,200	Fire alarm	Flat	3.60
302358	10.8	250	Radiation eqpt.	Leads	3.48
302362	16.2	250	Radiation eqpt.	Leads	4.75
302435	6.75	250	Radiation eqpt.	Flat	2.80
302462	97.2	1,000	Transmitter "B"	Leads	32.34
302465	47.25	1,000	Geophysical	Leads	19.20
302478	9.8	2,400	Recorder	Flat	5.80
302497	6.75	2,200	Test equipment	Posts	5.10
302579	29.7	250	Test equipment	Leads	10.85
302580	27	3,400	Electronic	Socket	26.40
302642	7.0	2,400	Fire alarm	Flat	4.25
302651	1.35	14,000	Electronic	Leads	3.90
302702	2.7	2,200	Geophysical	Leads	3.22
302904	5.4	3,400	Meter	Leads	5.80
302905	6.75	3,400	Test equipment	Leads	6.95
302907	9.45	3,400	Electronic	Leads	9.30
302908	10.8	3,400	Radiation eqpt.	Leads	10.30
303145	8.4	3,600	Depth finder	Snap	6.25
303219	9.8	175	Electronic	Flat	1.79
303314	16.8	2,400	Transceiver	Leads	9.90

• PHOTO BATTERIES

For flashguns, electronic flash, photocells, meters, Wink-lites®, etc. Mercury type with flat terminals except as otherwise noted.

Mallory Number	Volts	Wt., Oz.	Net Each	Mallory Number	Volts	Wt., Oz.	Net Each
PX1	1.35	0.6	$0.51	PX21*‡	4.5	1.5	$ 0.75
PX4	5.6	3.2	1.35	PX450	1.35	0.3	.51
PX6	8.1	4.0	2.75	PF489†	225	37	6.96
PX13	1.35	0.6	.35	PF491†	240	13	5.56
PX14	2.7	1.3	.75	PF492†	225	40	6.96
PX16*	1.5	5.3	.75	PF497†	510	26	11.16
PX18	46.2	6.0	3.50	PX625	1.4	0.15	.42
PX19*	4.5	1.5	.82	PX640	1.35	0.38	.42

*Manganese battery. †Zinc-carbon battery. ‡Snap terminals.
®Polaroid Corp. trademark.

ZINC-CARBON BATTERIES

Mallory No.	Nom. Volts	Use	T*	Size, Inches L. x W. x H.	Wt., Oz.	Net Each
M4	1.5	Radio "A"	a	2 11/16 x 2 11/16 x 4 7/16	20	$1.15
M9	7.5	Radio "A"	a	2 7/32 x 1 15/16 x 3 1/32	31	1.23
M13F	1.5	Flashlight "D"	b	1 11/32 dia. x 2 13/32	3.3	.13
M13P	1.5	Photo "D"	b	1 11/32 dia. x 2 13/32	3.3	.16
M13R	1.5	Radio "D"	b	1 11/32 dia. x 2 13/32	3.3	.155
M13X	1.5	Industrial "D"	b	1 11/32 dia. x 2 13/32	3.3	.155
M14F	1.5	Flashlight "C"	b	1 1/32 dia. x 1 15/16	1.5	.13
M14P	1.5	Photo "C"	b	1 1/32 dia. x 1 15/16	1.5	.16
M14R	1.5	Radio "C"	b	1 1/32 dia. x 1 15/16	1.5	.155
M15F	1.5	"AA" penlight	b	9/16 dia. x 1 31/32	0.5	.13
M15P	1.5	Photo "AA"	b	9/16 dia. x 1 31/32	0.5	.16
M15R	1.5	Radio penlight	b	9/16 dia. x 1 31/32	0.5	.155
M20	1.5	Radio "A"	b	1⅜ dia. x 4 11/64	6	.32
M24F	1.5	Junior penlight	b	13/32 dia. x 1¾	0.3	.095
M200	67.5	Radio "B"	c	2 13/16 x 1⅜ x 3 45/64	12	2.70
M208	15	Electronic "B"	b	1 1/32 x ⅝ x 1 29/64	0.8	.81
M210	30	Electronic "B"	b	1 1/32 x ⅝ x 2 9/16	1.4	1.23
M211P	67.5	Radio "B"	c	1 29/32 x 63/64 x 5 7/16	8.5	2.70
M215	22.5	Radio "B"	b	1 1/32 x ⅝ x 2	1.5	1.05
M504	15	Electronic "B"	b	⅝ x 19/32 x 1⅜	0.6	.81
M505	22.5	Electronic "B"	b	⅝ x 19/32 x 1 63/64	0.6	1.05
M506	30	Electronic "B"	b	1 13/64 x ⅝ x 1 27/64	0.9	1.30
M507	30	Electronic "B"	b	⅝ x 19/32 x 2 39/64	0.9	1.30
M900	1.5	Ignition	e	2⅝ x 2⅝ x 4 9/32	20	.84
M903	7.5	Lighting	e	7¼ x 4 1/16 x 6 7/16	122.0	4.86
M904	9	Lighting	e	8 9/16 x 4 1/16 x 6 7/16	136	5.53
M905F	1.5	Ignition	f	2⅝ dia. x 6⅝	34	.84
M905S	1.5	Ignition	e	2⅝ dia. x 6⅝	34	.84
M906F	1.5	Telephone	f	2⅝ dia. x 6⅝	34	.84
M906S	1.5	Telephone	e	2⅝ dia. x 6⅝	34	.84
M907	6	Industrial	e	10 13/32 x 2 25/32 x 7 9/32	153	3.34
M908	6	Metal lantern	g	2 11/16 x 2 11/16 x 4 7/16	21	.79
M910F	1.5	Flashlight "N"	b	29/64 dia. x 1 1/16	0.22	.08
M911F	1.5	R.R., Indust.	f	2⅝ dia. x 6⅝	34	.90
M911S	1.5	R.R., Indust.	e	2⅝ dia. x 6⅝	34	.90
M915	6	Lighting	e	2 11/16 x 2 11/16 x 4 5/32	21	.79
M916	6	R.R. lantern	g	2 11/16 x 2 11/16 x 4 11/16	21	.79
M918	6	Lighting	e	5 11/32 x 2 27/32 x 4 15/16	52	1.83
M1600	9	Radio	c	1 dia. x 1 15/16	1.8	.62
M1602	9	Radio	c	1 13/32 x 1 11/32 x 2¾	4.5	1.30
M1603	9	Radio	c	2 9/16 x 2 1/32 x 3 5/32	15	1.26
M1604	9	Radio	c	1 1/32 x 11/16 x 1 29/32	1.3	.48
M1605	9	Radio	c	1 13/16 x 1 13/16 x 2 7/16	7	1.05
M1611	9	Radio	b	¾ dia. x 2	7	.53

*Terminals: **a**—Socket. **b**—Flat. **c**—Snap. **e**—Screw. **f**—Fahnestock clip. **g**—Coil spring.

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HIGH VOLTAGE POWER PACKS

COMPACT "M" SERIES 2 TO 75 KVDC

The "M" series Power Packs are a completely new design. Long life and a small package directed the use of the latest techniques and advanced materials. Many features have been incorporated with the highest quality materials, at the same time maintaining economy of cost.

Standard input voltage is 118 at frequencies from 50 to 500 cycles per second inclusive. Available also are input voltages of 220, 230 and 240 volts from 50 to 500 cycles per second inclusive. For 220 volts suffix the desired part number with "X", 230 volts "Y" and 240 Volts "Z". All units may be modified for other input voltages.

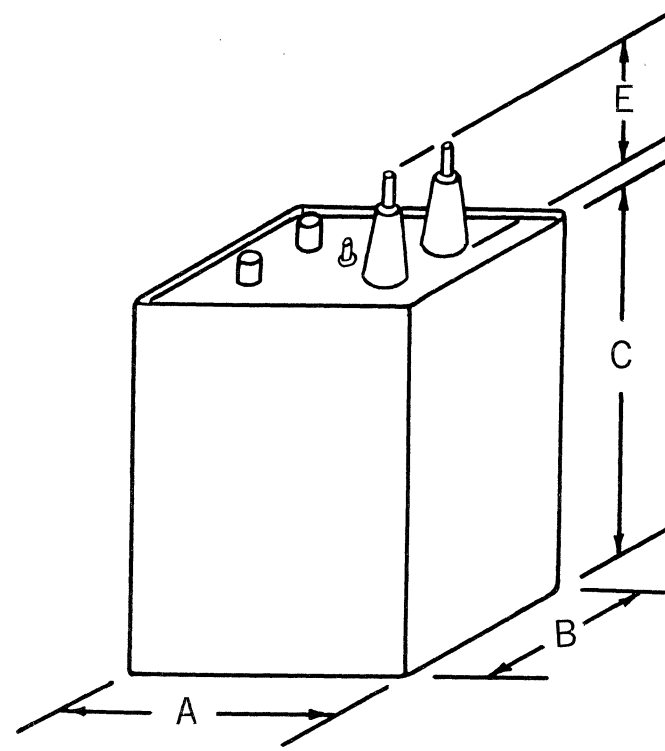
The output is filtered DC and standard potentials and current ratings are listed below. All units can be modified for any required potential and current below the values specified in the listing. The output potential can be varied from zero to the rated voltage and load by means of a variable auto transformer at the primary.

Ripple is 1% RMS or 2.75% peak to peak at rated current and voltage.

Design life is 40,000 hours at 35°C and 5,000 hours at 85°C.

Case finish is light blue gray lacquer per MIL-L-7178.

All units except the 75 KV, have two output terminals isolated from the container, permitting either terminal to be operated at ground or an intermediate point between them can be tied to ground. The 75 KV unit has a single high voltage terminal for the output. The Power Pack is normally furnished to deliver a positive output potential relative to ground. If a negative output is desired it can be shipped as such from the factory upon request. The polarity can be easily reversed as required by opening the top access port and reversing the selenium rectifier board. The remaining output terminal at low potential is left ungrounded so that the lead current be monitored if required.



PART NUMBER	KV RANGE	MAX. MA.	DIMENSIONS				MOUNTING AREA		WEIGHT LBS.
			A	B	C	E	L	W	
HV20-152M	0-2	1.5	3¾	1¾	3	⅜	1¾	5¼	1 LB.
HV50-152M	0-5	1.5	3¾	2¼	3⅜	⅝	2¼	5¼	2 LBS.
HV100-152M	0-10	1.5	3¾	3 3/16	4½	1 1/16	3 3/16	5¼	4 LBS.
HV150-152M	0-15	1.5	3¾	3 3/16	5½	1 1/16	3 3/16	5¼	5 LBS.
HV200-152M	0-20	1.5	3¾	4 5/16	5⅞	2⅛	4 5/16	5¼	9 LBS.
HV300-152M	0-30	1.5	3¾	4 5/16	7½	3¼	4 5/16	5¼	11 LBS.
HV500-152M	0-50	1.5	4 11/16	6	8½	4 5/16	6	6¼	18 LBS.
HV750-152M	0-75	1.5	5⅝	7⅝	12 3/16	7½	7⅜	7¼	26 LBS.
HV20-502M	0-2	5	3¾	2¼	3⅜	⅜	2¼	5¼	2 LBS.
HV50-502M	0-5	5	3¾	2¼	3¾	⅝	2¼	5¼	3 LBS.
HV100-502M	0-10	5	3¾	4 5/16	5⅞	1 1/16	4 5/16	5¼	8 LBS.
HV150-502M	0-15	5	3¾	4 5/16	6⅛	1 11/16	4 5/16	5¼	9 LBS.
HV200-502M	0-20	5	3¾	4 5/16	8	2⅛	4 5/16	5¼	12 LBS.
HV300-502M	0-30	5	4 11/16	6	8½	3¼	6	6¼	18 LBS.
HV500-502M	0-50	5	5⅝	7⅜	12 3/16	4 5/16	7⅜	7¼	26 LBS.
HV750-502M	0-75	5	11⅛	14 1/16	16¼	7½	14 1/16	11⅛	124 LBS.
HV10-103M	0-1	10	3¾	2¼	3⅜	⅜	2¼	5¼	2 LBS.
HV25-103M	0-2.5	10	3¾	2¼	3¾	⅝	2¼	5¼	3 LBS.
HV50-103M	0-5	10	3¾	4 5/16	5⅞	⅝	4 5/16	5¼	8 LBS.
HV100-103M	0-10	10	3¾	4 5/16	8	1 1/16	4 5/16	5¼	12 LBS.
HV150-103M	0-15	10	4 11/16	6	8½	1 11/16	6	6¼	18 LBS.
HV250-103M	0-25	10	5⅝	7⅜	12 3/16	3¼	7⅜	7¼	26 LBS.
HV375-103M	0-37.5	10	11⅛	14 1/16	16¼	4 5/16	14 1/16	11⅛	124 LBS.

SURFACE AREA REQUIRED FOR MOUNTING INCLUDING AREA REQUIRED FOR FOOTED BRACKETS

SEE SECTION 1500, PAGES 486-488

HIGH & LOW VOLTAGE CAPACITORS

Plastic Capacitors, Inc.

CHICAGO 14, ILLINOIS
Cable Address: PLASCAPINC, Chicago

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RCA BATTERIES

RADIO • FLASHLIGHT
FARM • TRANSISTOR
INDUSTRIAL • PHOTO FLASH

JULY 1, 1964

PORTABLE "A" TYPES

Type	Distr. Resale Price Ea.*	List Price Ea.*	Volts	Suggested Current Range Ma.	Max. Dimensions Inches L.	W. or Dia.	Overall Ht.	Standard Package Units	Lbs. (Appr.)	NEDA• Type No.	Replaces Eveready	Burgess	Mallory
VS004	1.15	1.65	1½	0-1000	2 5/8	2 5/8	3 27/32	12	17	4	742	4F	M4
VS009	1.16	1.65	6	0-250	2 5/8	2 5/8	3 27/32	12	17	6	744	F4P1	M6
VS034A♦	.13	.20	1½	0-25	—	9/16	1 31/32	144	5.3	815	915	Z	M15F
VS035A♦	.13	.20	1½	0-80	—	1 1/32	1 15/16	240	24	814	935	1	M14F
VS036♦	.13	.20	1½	0-150	—	1 1/32	2 13/32	192	37.5	813	950	2 or 2R	M13M or F
VS065	1.23	1.75	7½	0-70	2 5/32	1 15/16	3 1/32	12	7.8	9	717	C5	M9
VS067	1.05	1.50	4½	0-250	3 15/16	1 5/16	4 3/32	6	5.9	3	736	F3	M3
VS068♦	.87	1.25	6	0-25	1 7/32	1 7/32	2 11/32	6	1	2	724	Z4	M2
VS069	1.02	1.45	1½	0-300	2 25/32	1 13/32	3 1/32	6	3	18	720	2D	M18
VS070	.77	1.10	1½	0-250	—	1 1/32	4 1/16	6	2.3	23	960P	8R	M23
VS072	1.05	1.50	4½	0-150	4 3/32	1 7/16	2 15/16	3	2.1	19	726	D3	M19
VS129	2.07	2.95	7½	0-50	3 29/32	27/32	2 27/32	6	2.5	8	713	B5	M8
VS141	.88	1.25	1½	0-500	2 1/32	1 3/8	4 1/4	6	4.5	11	W353	2F	M11
VS236♦	.32	.45	1½	0-300	—	1 1/32	4 3/16	48	18	20	964	21R	M20
VS315▲	1.15	1.65	7½	0-80	2 9/16	2 1/32	2 13/16	6	4.7	26	707	D5	M26
VS734♦	.16	.25	1.5	0-25	—	9/16	1 31/32	144	6	—	815	920	M15F
VS735♦	.16	.25	1.5	0-80	—	1 1/32	1 15/16	72	7	—	835	120	—
VS736♦	.16	.25	1.5	0-150	—	1 1/32	2 13/32	72	13	—	850	220	—

* Available on special order only. • National Electronic Distributors Association. ♦ Flashlight-type terminals.
▲ 2 snap-fasteners. * Optional.

PORTABLE "B" TYPES

Type	Distr. Resale Price Ea.*	List Price Ea.*	Volts	Suggested Current Range Ma.	Max. Dimensions Inches L.	W. or Dia.	Overall Ht.	Standard Package Units	Lbs. (Appr.)	NEDA• Type No.	Replaces Eveready	Burgess	Mallory
VS012	3.47	4.95	45	0-70	3 31/32	2 17/32	5 5/16	6	19.3	207	484	B30	M207
VS013	2.97	4.25	45	0-40	3 19/32	1 27/32	5 1/2	6	12.6	202	482	M30	M202
VS014	2.69	3.85	45	0-40	3 9/16	2 1/4	4 1/2	5	9.5	206	W359	A30	M206
VS015	2.76	3.95	22½,45	0-25	3	2 5/16	4 1/8	5	6.5	205	738	Z30	M205
VS016▲	2.70	3.85	67½	0-10	2 13/16	1 3/8	3 23/32	12	10	200	467	XX45	M200
VS055▲	2.25	3.25	45	0-10	2 21/32	1	3 11/16	12	6.7	201	455	XX30	M201
VS082▲	2.70	3.85	67½	0-6	2 13/16	1 3/8	2½	12	6.4	203	457	K45	M203
VS084♦	1.05	1.50	22½	0-2.5	1 1/32	5/8	2	12	1.1	215	412	U15	M215 or RM412
VS086▲	1.75	2.50	45	0-4	1 1/16	5/8	3 11/16	12	2	213	415	U30	M213 or RM415
VS090▲	3.15	4.50	90	0-10	3 23/32	1 3/8	3 23/32	12	13	204	490	N60	M204
VS125▲	2.77	3.95	67½	0-10	2 13/16	1 3/8	3 23/32	12	10.0	200	468	V45	M-200
VS217▲	3.15	4.50	75	0-10	1 15/16	1 15/32	6 15/32	12	12.6	212	437	XX50	M212
VS218▲	2.70	3.85	67½	0-8	1 29/32	1	5 7/16	12	6.4	211P	477	P45M P45	M211P
VS219▲	2.97	4.25	90	0-8	1 31/32	1 1/32	7 15/32	12	9.1	214	479	P60	M214
VS316▲	3.47	4.95	90	0-10	1 15/16	1 15/32	7 1/8	6	6.5	216	495	N60X	M216
VS318▲	2.07	2.95	67½	0-3	1 1/32	1	3 1/2	6	1.5	217	416	UX45	M217

• National Electronic Distributors Association. ▲ 2 snap-fasteners. ♦ Flashlight-type terminals.
* Optional.

PORTABLE "A-B" TYPES

Type	Distr. Resale Price Ea.*	List Price Ea.*	Volts A	Volts B	Suggested Current Range Ma. A	Suggested Current Range Ma. B	Max. Dimensions Inches L.	W. or Dia.	Overall Ht.	Standard Package Units	Lbs. (Appr.)	NEDA• Type No.	Replaces Eveready	Burgess	Mallory
VS019	5.43	7.75	7½,9	90	0-50	12-15	9 7/32	2 23/32	4 5/16	1	5.1	401	753	F6A60	M401
VS047	5.78	8.25	9	90	0-50	12-15	14 1/16	2 11/16	4 1/16	1	6.6	400	752	G6B60	M400
VS050	5.08	7.25	6,7½	75	0-50	0-12	8 9/16	2 7/16	3 3/4	1	3.8	403	755	T5Z50	M403
VS057W	4.87	6.95	7½,9	90	0-50	8-12	8 7/8	2 1/8	3 25/32	1	3.1	405	756	T6Z60	M405
VS058	5.57	7.95	9	90	0-50	12-15	9 7/32	2 23/32	4 5/32	1	5.2	406	757	F6A60P	M406
VS059	5.22	7.45	9	90	0-50	8-12	8 7/8	2 1/8	3 25/32	1	3.3	428	727	T6Z60P	M428
VS060	4.83	6.90	7½	75	0-50	0-12	8 3/8	3 5/8	2 1/4	1	3	431	785	T5Z50P	M431
VS064	4.38	6.25	1½	90	0-300	10-14	3 27/32	2 1/32	7 13/16	1	2.8	425	729	4TZ60	M425

TYPES FOR TRANSISTOR APPLICATIONS

Type	Distr. Resale Price Ea.*	List Price Ea.*	Volts	Suggested Current Range Ma.	Max. Dimensions Inches L.	W. or Dia.	Overall Ht.	Standard Package Units	Lbs. (Appr.)	NEDA• Type No.	Replaces Eveready	Burgess	Mallory
VS143♦▲	.42	.65	1.4	0-100	—	0.625	0.650	40	2	1100	E1	Hg1	RM1R
VS144♦▲	.80	1.15	1.4	0-250	—	0.640	1.968	10	1¼	1101	E12	Hg12	RM12R
VS145♦▲	.24	.35	1.4	0-7	—	0.455	0.135	60	½	1106	E400	Hg400	RM400R
VS147♦▲	.35	.50	1.4	0-20	—	0.615	0.238	40	½	1104	E630	Hg630	RM630
VS148♦▲	.85	1.25	2.8	0-100	—	0.662	1.315	10	¾	1200	E132	H132	TR132R
VS149♦▲	1.05	1.50	4.2	0-100	—	0.662	1.965	24	2.3	1304	E133	H133	TR133
VS150♦▲	.35	.50	1.4	0-50	—	0.625	0.440	20	¾	1105	E640	Hg640	RM640
VS163♦▲	1.05	1.50	4.2	0-50	—	0.662	1.327	10	¾	1305	E163	H163	TR163
VS164♦▲	1.25	1.75	5.6	0-50	—	0.662	1.767	10	1	1404	E164	H164	TR164
VS165♦▲	1.59	2.25	7	0-50	—	0.662	2.217	10	1	1500	E165	H165	TR165R
VS300A	.62	.89	9	0-9	—	1	1 15/16	36	4.5	1600	226	P6M	M1600
VS301	1.76	2.50	3,6,9	0-150	8	2 13/16	1 5/16	6	8	1601	2506	D6P1	M1601
VS304	1.05	1.50	9,13½	0-10	1 11/32	1 1/32	2 11/16	12	2.3	1900	239	XX9	M1900
VS305	1.30	1.85	9	0-15	1 13/32	1 11/32	2 3/4	12	3.8	1602	246	2N6	M1602
VS306	1.26	1.80	9	0-30	2 9/16	2 1/32	3 5/32	6	5.6	1603	276	D6	M1603
VS309A▲	1.22	1.75	9.8	0-10	—	9/16	1 29/32	24	1	1606	E177	H177	TR177
VS312▲	1.05	1.50	8.4	0-30	1 1/32	5/8	2	12	1¼	1604	E146	H146	TR146
VS313♦▲	.51	.75	1.4	0-200	—	0.550	1.968	36	7	1103	E9	930	ZM9
VS322	1.22	1.75	9	0-20	1 13/16	1 13/16	2 7/16	12	5.5	1605	266	M6	M1605
VS323	.48	.69	9	0-8	1 1/32	1 1/16	1 29/32	72	5.9	1604	216	2U6	M1604
VS324	1.19	1.70	4½	0-40	1 13/32	1 11/32	2 3/4	12	3.5	1610	243	—	M1610
VS327♦	.53	.75	9	0-7	—	3/4	2	12	1	1611	206	H126	M1611
VS328♦▲	1.05	1.50	8.4	0-50	—	3/4	2	24	2	1611	E126	H126	TR126
VS329	1.05	1.50	12	0-9	—	1	2 1/16	12	1.7	1810	228	—	TR829
VS332	.53	.75	4.5	0-12	—	0.662	1.965	12	.9	1306	333	AL-133	MN1306
VS334♦	.155	.25	1½	0-25	—	9/16	1 31/32	144	5.2	15	1015	930	M15R
VS335♦	.155	.25	1½	0-80	—	1 1/32	1 15/16	72	7	14	635	130	M14R
VS336♦	.155	.25	1½	0-150	—	1 1/32	2 13/32	192	40	13	A100	230	M13R
VS337	1.93	2.75	4½	0-200	2 13/16	1 3/4	8 11/32	12	34	1303	2731	—	—
VS338	.71	1.00	6	0-25	1 13/32	3/4	4 11/16	6	2	1403	2713	—	—
VS339	1.05	1.50	9	0-20	1 13/32	3/4	4 11/16	6	1.8	1613	2709	—	—
VS400▲	1.90	2.75	4.2	0-60	—	1 1/32	1 31/32	10	2.5	1300	E233	H233	TR233R
VS401♦▲	.35	.50	1.4	0-50	—	0.460	1.130	24	1	1102	E401	Hg401	RM401
VS675▲	.26	.40	1.4	0-5	—	0.455	0.210	60	.5	—	E675	RM675	Hg-675

• National Electronic Distributors Association. ♦ Flashlight Type Terminals. ▲ Mercury Types.
* Optional.

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RCA BATTERIES

RADIO • FLASHLIGHT
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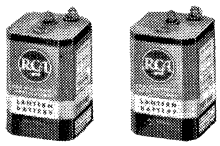
LANTERN TYPES



Type	Distr. Resale Price Ea.*	List Price Ea.*	Volts	Suggested Current Range Ma.	Max. Dimensions Inches L.	W. or Dia.	Overall Ht.	Standard Package Units	Lbs. (Appr.)	NEDA• Type No.	Replaces Eveready	Burgess	Mallory
VS034A♦	.13	.20	1½	0-25	—	9/16	1 31/32	144	5.3	815	915	Z	M15F
VS035A♦	.13	.20	1½	0-80	—	1 1/32	1 15/16	240	24	814	935	I	M14F
VS036♦	.13	.20	1½	0-150	—	1 11/32	2 13/32	192	37.5	813	950	2R	M13F
VS040C	.85	1.29	6	0-250	2 5/8	2 5/8	4 13/32	12	17	908	509	F4H	M908
VS040S	.85	1.29	6	0-250	2 5/8	2 5/8	4 3/8	12	18	915	510S	F4BP	M915
VS073	.08	.125	1½	0-20	—	0.445	1.180	96	1½	910	904	N	M910F
VS074	.095	.15	1½	0-20	—	13/32	1¾	120	2.5	24	912	7	M24F
VS138	1.45	2.05	3	0-1000	3 7/8	2 1/16	5 13/16	5	13.5	901	W357	4F2H	M901
VS317	1.96	2.95	6	0-500	5 11/32	2 27/32	4 15/16	6	20	918	731	TW1	M918

FARM TYPES

			A	B	A	B								
VS022	7.95	10.65	1½	90	0-300	8-12	15 11/16	4 1/32	6 15/16	3	50.5	413	759	17GD60	M413
VS119	10.47	14.95	7½,9	90	0-50	10-12	7 27/32	4 1/8	9 7/8	3	45.6	415	776	S6D60	M415

•National Electronic Distributors Association.
*Optional.

INDUSTRIAL and SPECIAL-PURPOSE TYPES

			A	B	C									
VS006C	.84	1.25	1½	—	—	0-1500	—	2 5/8	6 21/32	12	26	906	6GL	—	M906
VS006S	.84	1.25	1½	—	—	0-1500	—	2 5/8	6 21/32	12	25	905	6 IGN.	6 IGN.	M905
VS028	.99	1.40	—	—	—4½	0-50	2 7/16	2 7/32	3	10	3.6	714	781	5360	M714
VS029§	1.65	2.35	—	—	—7½	0-50	3 29/32	2 7/32	3	10	6	713	773	5540	M713
VS039	3.34	4.98	6	—	—	0-1500	10 7/16	2 23/32	7 7/32	4	38	907	1461	S461	M907
VS040C	.83	1.25	6	—	—	0-250	2 5/8	2 5/8	4 13/32	12	17	908	509	F4H	M908
VS040S	.83	1.25	6	—	—	0-250	2 5/8	2 5/8	4 3/8	12	18	915	510S	F4BP	M915
VS070	.77	1.10	1½	—	—	0-250	—	1 11/32	4 1/16	6	2.3	23	960P	8R	M23
VS083♦	.81	1.15	—	15	—	0-2.5	1 1/32	5/8	1 15/32	6	0.5	208	411	U10	M208
VS084♦	1.05	1.50	—	22½	—	0-2.5	1 1/32	5/8	2	12	1.1	215	412	U15	M215
VS085♦	1.23	1.75	—	30	—	0-2.5	1 1/32	5/8	2 9/16	12	1.4	210	413	U20	M210
VS093	8.37	11.95	—	300	—	0-2.5	2 11/16	2 7/32	3 29/32	3	3.7	722	493	U200	—
VS100	.94	1.35	3	—	—	0-250	2 21/32	1 11/32	4 9/16	5	4	701	W352	F2BP	M701
VS101	.87	1.25	1½	—	—	0-500	2 21/32	1 11/32	4 3/8	5	4	700	W354	2FBP	M700
VS102	1.61	2.35	—	22½	—	0-40	3½	2 3/32	3 1/16	5	4.7	710	763	4156	M710
VS103	4.01	5.98	6	—	—	0-1000	8 5/16	2 13/16	6 7/16	4	26	902	706	4F4H	M902
VS106	.84	1.25	1½	—	—	0-1000	2 5/8	2 5/8	4 3/8	12	18	900	735	4FH	M900
VS112	3.05	4.35	—	22½,45	—	0-50	4 3/32	2 9/16	5 7/16	5	15.3	709	W376	5308	M709
VS114	2.69	3.85	—	22½,45	—	0-20	3 1/32	1 7/8	4 31/32	5	5	711	W350	Z30NX	M711
VS127W	5.36	7.65	—	22½,45	—	0-250	8 1/32	4 1/16	7 5/8	4	44	724	W363F	10308SC	M716
VS130	1.76	2.50	—	—	—4½	0-150	4 1/16	1 13/32	3 1/32	5	4.5	712	761T	2370ST	M712
VS131	3.84	5.50	—	—	—22½	0-50	4	2 7/16	3 1/8	4	6.5	708	778	5156SC	M708
VS133	1.00	1.50	4½	—	—	0-50	2 7/16	2 7/32	3 1/16	10	3	706	703	532	M706
VS134	.65	.95	3	—	—	0-25	1 7/32	5/8	2 21/32	10	1	704	750	422	M704
VS136*	1.33	1.90	3	—	—	0-500	2 5/8	2 5/8	4 9/16	5	7.5	703	W356	2F2H	—
VS138	1.57	2.25	3	—	—	0-1000	3 7/8	2 11/16	5 13/16	5	13.5	901	W357	4F2H	M901
VS139	4.86	7.25	7½	—	—	0-1000	7 1/4	4 1/16	6 7/16	4	31½	903	715	4F5H	M903
VS140*	5.53	8.25	9	—	—	0-1000	8 13/32	4 1/16	6 7/16	4	37	904	716	4F6H	M904
VS142*	.74	1.10	4½	—	—	0-25	1 25/32	5/8	2 21/32	10	1.5	705	751	432	M705
VS157W*	6.45	9.20	—	22½,45	—	0-300	8 1/8	4 7/16	7 11/16	4	51	715	W364F	21308SC	—
VS317	1.96	2.95	6	—	—	0-500	5 11/32	2 27/32	4 15/16	6	20	918	731	TW1	M918

§ 5-Screw terminals and 1 pigtail.
* Available on special order only.
• National Electronic Distributors Association.
* Optional.
♦ Flashlight-type terminals.

PHOTO FLASH

VS704	.81	1.15	15	0-1.5	5/8	19/32	1 3/8	12	0.37	220	504	Y10	M504
VS705	1.05	1.50	22½	0-1.5	5/8	19/32	1 49/64	12	0.5	221	505	Y15	M505
VS734♦	.16	.25	1½	0-25	—	9/16	1 31/32	144	6	—	815	920	—
VS735♦	.16	.25	1½	0-80	—	1 1/32	1 15/16	72	7	—	835	120	—
VS736♦	.16	.25	1½	0-150	—	1 11/32	2 13/32	72	13	—	850	220	—

♦ Flashlight-type terminals. • National Electronic Distributors Association. * Optional.

ALKALINE TYPES

VS1073	.24	.35	1½	0-150	—	0.470	1.130	72	2	910	904	AL-N	Mn9100
VS1074	.31	.45	1½	0-200	—	0.40	1.735	12	1¼	—	—	—	Mn2400
VS1149♦	.70	1.00	4½	0-100	—	0.662	1.965	24	2	1306	333	AL-133	Mn1306
VS1334	.33	.50	1½	0-300	—	0.550	1.960	48	2.8	815	E91	AL-9	Mn1500
VS1335	.51	.75	1½	0-500	—	1 1/32	2	24	4	814	E93	AL-1	Mn1400
VS1336	.65	.95	1½	0-1000	—	1 5/16	2 3/8	72	25	813	E95	AL-2	Mn1300

♦ Alkaline types specially designed for transistor radios. * Optional.

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SOLA

A DIVISION OF
BASIC PRODUCTS CORPORATION

BPC

In Canada: Sola-Basic Products Ltd.,
377 Evans Avenue, Toronto 18, Ontario

New "static" line-and-load regulator is insensitive to frequency

The Solatron® Line Voltage Regulator

fast . . . effective . . . economical voltage control

The new Solatron regulator operates on a different principle than the popular Sola CV transformer. And — it should not be confused with the Sola CV since the new Solatron offers fast, effective corrective action for voltage fluctuation in **line and load.** It is **not** sensitive to frequency, and is adaptable to both wye and delta 3-phase installations. It is also considerably smaller and lighter than other regulators of equal capacity.

Output is held within ± 1% for input variations of either ± 10% or ± 20%. It is maintenance-free and has no moving parts. Available in the following KVA ratings (1-phase): 1, 2, 3, 5, 7½, 10, 15, 25, 33⅓, 37½. Voltage ratings: 120-240-480; 208Y/120 and 410Y/240 (3-phase installations use 3 units, may be either delta or wye connected).

The new Solatron is available for 50- or 60-cycle operation. Special Solatrons for 400-cycle applications are also available — as are electronic component models.

For more information, write to the Sola Electric Company or ask your distributor for Sola Bulletin VR-200.

1. **No Moving Parts, Maintenance Free.**
2. **Adjustable Output Voltage:** Voltage may be adjusted to 10% of rated voltage and retain full regulation at any output setting.
3. **Fast Response:** 90% correction in less than 5 cycles; Complete correction in 10 cycles.
4. **Frequency Insensitive:** Normal design range for 60-cycle units is 47-70 CPS.
5. **98% Efficiency:** At rated load and rated output voltage.
6. **Low Harmonic Content:** No harmful waveform distortion. Units furnishing less than 1% total harmonic content are optional.
7. **Power Factor, Load, or Frequency:** Can be varied individually or simultaneously without affecting the output voltage level.
8. **Easy to Service:** Control circuit is on removable end plate, can be serviced or replaced without disturbing power connections.
9. **Ultra Compact:** Smaller and lighter than other standard regulators. Less than 17 pounds per KVA, less than 6 x 6 x 6 inches per KVA. All power windings on one magnetic core.

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"TECHNICAL APPARATUS BUILDERS"

NEW YORK 6, N. Y., U.S.A.
(212 - 732-6245)

For all DC Power Requirements write Eng. Dept. Specialists in Design. Mfgrs. of D.C. Power Supplies. "TABTRON"®, "TABPAK"®, "REG-O-TAB®", "REG-O-VAC"®, "TABSTAT"®. "TABGLO"®, "TABLITE"®, "VARITAB"®, "AMPTAB"®.

PACKAGED AC & DC POWER

"TABTRON" VARIABLE DC POWER SUPPLIES, COMPLETELY BUILT, DESIGNED FOR CONTINUOUS SERVICE, READY TO USE. "VARIAC"® VARIABLE TRANSFORMER, ISOLATION RECTIFIER TRANSFORMER, FULL WAVE BRIDGE RECTIFIER. METERS, VOLTS AND AMP., PILOT LIGHT, SWITCH, TERMINALS AND FUSE, CABINET OR RACK MT'D (RP). STD 115/60Cy INPT. OTHER INPTS TO ORDER.

Model	D.C. Volts & Amps Ripple & Regulation	Price	Fig.*
T9V50A	0 to 9VDC @ 50Amp	$171	7
T12V10A	0 to 12VDC @ 10Amp/Int up to 18A	45	2
T12V10ACE	0 to 12VDC @ 10Amp/.1% Rip @ 2A	54	2
T12V15ARM	0 to 12VDC @ 15Amp/1% Rip ±5% Reg	198	3
T12V20A	0 to 12VDC @ 20Amp/Int. up to 30Amp	100	3
T12V25ACE	0 to 12VDC @ 25Amp/1% Rip @ 10A	153	4
T12V50A	0 to 12VDC @ 50Amp	198	7
T12V100A	0 to 12VDC @ 100Amp	279	6
T12V200AP	0 to 12VDC @ 200Amp/4% Rip/480Mv	441	6
T14V20ACE	0 to 14VDC @ 20Amp/1% Rip @ 8Amp	108	3
T14V30ARM	0 to 14VDC @ 30Amp/1% Rip ±5% Reg	354	5
T14V40ARC	0 to 14VDC @ 40Amp/0.1% Rip/14Mv Max	396	5
T14V40ACE	0 to 14VDC @ 40Amp/1% Rip at 15Amp	270	6
T16V5ACE	0 to 16VDC @ 5Amp/0.5% Rip	50	2
T16V10ACC	0 to 16VDC @ 10Amp/0.5% Rip. at 5Amps	69	2
QT816V	0 to 8VDC @ 8A & 0 to 16VDC @ 5A, Rip .01%	69	2
T16V20A	0 to 16 VDC @ 20Amp	126	3
T16V25ACE	0 to 16VDC @ 25Amp/1% Rip @ 10A	171	3
T16V50A	0 to 16VDC @ 50Amp/Full Wave Rect.	210	5
T30V10ACE	0 to 30VDC @ 10Amp/1% Rip at 5Amp	139	3
T32V5A	0 to 32VDC @ 5Amp	57	2
T32V5ACC	0 to 32VDC @ 5Amp/0.5% Rip/160Mv	79	3
T28V5ARC	0 to 28VDC @ 5Amp/.05% Rip/14Mv	135	3
T32V12A	0 to 32VDC @ 12Amp	105	3
T32V12ACC	0 to 32VDC @ 12Amp/0.5% Rip/160Mv	180	5
T28V12ARC	0 to 28VDC @ 12Amp/.05% Rip/14Mv	225	5
T32V15ARM	0 to 32VDC @ 15Amp/1% Rip ±5% Reg	234	5

Model	D.C. Volts & Amps Ripple & Regulation	Price	Fig.*
T30V20ACE	0 to 30VDC @ 20Amp/1% Rip at 8A	$180	3
T32V24A	0 to 32VDC @ 24Amps	174	5
T32V24ACC	0 to 32VDC @ 24Amp/0.5% Rip/160Mv	234	5
T28V30ARC	0 to 28VDC @ 30Amp/.05% Rip/14Mv	486	5
T32V30ARM	0 to 32VDC @ 30Amp/1% Rip ±5% Reg	369	5
T32V50A	0 to 32VDC @ 50Amp	360	6
T32V50ACC	0 to 32VDC @ 50Amp/1% Rip/320Mv	430	6
T30V100AP	0 to 30VDC @ 100Amp/4% Rip/1.2V	696	6
T30V200AP	0 to 30VDC @ 200Amp/4% Rip/1.2V	898	8
T32V60ARMP	0 to 32VDC @ 60Amp/1% Rip ±5% Reg	666	6
T48V5ACC	0 to 48VDC @ 5Amp/0.5% Rip/240Mv	149	4
T48V10ACC	0 to 48VDC @ 10Amp/0.5% Rip/240Mv	175	4
T48V10ARM	0 to 48VDC @ 10Amp/1% Rip ±5% Reg	333	5
T60V5ACC	0 to 60VDC @ 5Amp/0.5% Rip/300Mv	171	4
T60V10ARM	0 to 60VDC @ 10Amp/1% Rip ±5% Reg	369	5
T60V10ACC	0 to 60VDC @ 10Amp/0.5% Rip/300Mv	297	5
T90V10ARM	0 to 90VDC @ 10Amp/1% Rip ±5% Reg	399	6
T130V2ACC	0 to 130VDC @ 2Amp/1% Rip/1.3V	183	5
T120V5ACC	0 to 120VDC @ 5Amp/1% Rip/1.20V	270	5
T130V10ACC	to 130VDC @ 10A/1% Rip/1.3V	439	6
T150V10ARM	0 to 150VDC @ 10Amp/1% Rip ±5% Reg	570	6
T220V10A	to 220VDC @ 10Amp	395	6
T220V10ACC	0 to 220VDC @ 10Amp/1% Rip/2.2V	486	6
T300V1ACC	0 to 300VDC @ 1Amp/0.03% Rip/90Mv	234	5
T300V2ACC	0 to 300VDC @ 2Amp/0.03% Rip/90Mv	351	5

* Size: Fig 1, 4Hx5Wx6D; Fig 2, 5Hx9Wx6D; Fig 3, 7Hx6½Wx12D; Fig 4, 9Hx 15Wx7D; Fig 5, 10½Hx22Wx15D; Fig 6, 19Hx22Wx15D; Fig 7, 14½Hx14Wx 10D; Fig 8, 37Hx22Wx18D

MAGNETIC REGULATED (MR) or TRANSISTORIZED REGULATED (Q)

Model	D.C. Volts & Amps Ripple & Regulation	Price	Fig.*
MRT12V50ACC	0 to 12V @ 50A/Rip ±1% Reg 10/12V	$459	5
MRT32V25ACC	0 to 32V @ 25A/Rip ±1% Reg 24/28V	396	5
MRT32V50ACC	0 to 32V @ 50A/Rip ±1% Reg 24/28V	639	6
MRT28V100AP	0 to 28V @ 100A/Rip ±1% Reg 24/28V	891	7
QT2.5VD25AR*	0.2 to 2.5V @ 250Ma/Rip 0.1%, Reg 1% @ 50Ma	36	1
QT14V1A*	0 to 14V @ 1Amp (Non-Regulated)	18	1
QT30VD300AR*	0 to 30V @ 300Ma Rip 50Mv/Reg ±200Mv/Sp	36	1
QF12VD5A	12VDC ±5% V @ 500Ma/Rip 1%/Reg ±2%/Sp	65	2
QT30V4AR	1 to 30V @ 4A/Rip 10Mv Reg ±1V Short-Pruf	148	3
QF25V2.5A	25V @ 2.5A/Rip & Reg ±0.5% & Short-Pruf	135	3
QM6V4AP	6V @ 4A • Regulation 0.5% &	153	3
QM10V4AP	10V @ 4A • LINE & LOAD REG! &	153	3
QM12V4AP	12V @ 4A • RIPPLE 0.5% &	153	3
QM153AP	15V @ 3A • REMOTE CONTROL &	153	3
QM18V3AP	18V @ 3A • SENSING &	153	3

Model	D.C. Volts & Amps Ripple & Regulation	Price	Fig.*
QM24V2.5AP	24V @ 2.5A • PROGRAMMING &	$153	3
QM28V2.5AP	28V @ 2.5A • NO-DERATING &	153	3
QM32V2AP	32V @ 2A • FORCED AIR &	153	3
QM36V1.75AP	36V @ 1.75A • COOLED! &	153	3
QM40V1.5AP	40V @ 1.5A • QTY PRICED	153	3
VOLTABIAC/DC	0-16VAC & DC @ 2A & 0-130VAC @ 2A	78	2
VOLTABIIAC/DC	0-16VAC & DC @ 10A & 0-130VAC @ 3.5A	136	2
VOLTABIIIAC/DC	0-50VAC @ 5A; 0-40VDC @ 5A & 0-140VAC @ 7.5A	164	3
VOLTABXAC/DC	0-25VAC @ 10A; 0-50VDC @ 5A & 0-120VAC @ 10A	189	3
VOLTAB-AC/DC6	0-36VAC & DC @ 6A & AC, 10A	39	2
VOLTAB-AC/DC15	0-36VAC & DC @ 12A & AC 10A	68	2
VOLTAB-AC/DC25	0-36VAC & DC @ 24A & AC 10A	117	3
HiV-TAB2.5K	0-2500VDC @ 5Ma/Rip Max 2%	60	2
HiV-TAB5K	0-5000VDC @ 5Ma/Rip Max 2%	84	2
HiV-TAB10K	0-10,000VDC @ 5Ma/Rip Max 2%	99	2

LO-PRICED BASIC D.C. SUPPLIES — BUILT, VENTILATED ENCLOSURE OR CABINET!

Model	Description	Price
B6.3V30ACC	6.3VDC @ 30A/1% Rip	$120
B12V12ARC	12VDC @ 12A/Rip 1Mv/.01%	200
B12V15ARM	12VDC @ 15A/1% Rip ±5% Reg	190
B12V24A	12VDC @ 24Amp	126
B12V24ACC	12VDC @ 24A/1% Rip	164
B12V50A	12VDC @ 50Amp	153
B12V50ACC	12VDC @ 50A/Rip 1%	243
B24V30ARM	24VDC @ 30A/Rip 1%/Reg ±5%	333
B28V1ACC	28VDC @ 1A/0.5% Rip	26
B28V2ARC	28VDC @ 2A/Rip 10Mv/.05%	50

Model	Description	Price
B28V5A	28VDC @ 5Amp	$48
B28V5ACC	28VDC @ 5A/Rip 1%	60
B28V5ARC	28VDC @ 5A/Rip 3Mv	108
B28V12A	28VDC @ 12Amp	94
B28V12ACC	28VDC @ 12A/Rip 1%	149
B28V24A	28VDC @ 24Amp	135
B28V24ACC	28VDC @ 24A/1% Rip	200
B28V30ARM	28VDC @ 30A/1% Rip ±5% Reg	333
B28V50A	28VDC @ 50Amp	225
B28V50ACC	28VDC @ 50Amp/1% Rip	315

Model	Description	Price
B28V50ARM	28VDC @ 50A/1% Rip ±5% Reg	$42
B28V100A/P	28VDC @ 100Amp/Rip 4%	43
B115V2.5A	115VDC @ 2.5A	8
B115V5A	115VDC @ 5A	14
B115V5ACC	115VDC @ 5A/1% Rip	23
B115V10A	115VDC % 10A	20
B115V10ACC	115VDC @ 10A/1% Rip	36
B220V5A	220VDC @ 5A	24
B220V5ACC	220VDC @ 5Amp/1% Rip	37
B220V10A $360; B220V10ACC $459; B440V5A $369		
B440V5ACC $549		

LO-PRICED RELAY-PAKS SIZES FROM 12 TO 220VDC!

Model	Description	Price
B12VER	12-16V @ 2A	$10
B12VGR	12-16V @ 4A	22
B12VNR	12V @ 24A	60
B24VAR	24V @ 1A	10
B24VER	24-28V @ 2A	17

Model	Description	Price
B24VJR	24-28V @ 6A	$32
B24VLR	24-28V @ 12A	57
B36VAR	24-28V @ 1A	18
B48VAR	48-56V @ 1A	24
B48VER	48-56V @ 2A	36

Model	Description	Price
B48VJR	48-56V @ 6A	$
B60VAR	60-68V @ 1A	
B60VER	60-68V @ 2A	
B80VAR	80-90V @ 1A	
B115VAR	115V @ 1A	

TRANSISTORIZED INVERTERS, CONVERTERS & DC to DC SUPPLIES!

Model	Description	Price
Q225L	Converter 12VDC to 115VAC/SQW @ 225 Watts	$40
BQ200L	Converter & 4A Batty Chgr 12VDC to 115 VAC @ 225W	$80
CQ412A	Inverter 6VDC to 12VDC @ 4Amps	$45
CQ500N	Inverter 28VDC to 500 & 250VDC @ 200Ma	$69

Model	Description	Price
CQ250A	Converter 6VDC to 250 & 125VDC @ 150Ma	$
CQ500B	Converter 12VDC to 500 & 250 VDC @ 200Ma	$
CQ600B	Converter 12VDC to 600 & 300VDC @ 200Ma	$
CQ50L	Converter 2 VDC to 115VAC/SQW @ 50Watts	$

BATTERY CHARGERS for NICKEL CADMIUM, LEAD, SILVER, ALKALI. STANDBY, AUTOMATIC SENSING TO .06V (ABC)

Model	Description	Price
NBC2V	"NICAD" ADJ/Up to 20 Cells @ up to 20Ma	$ 6
NBC10V	"NICAD" ADJ/Up to 75 Cells @ up to 40Ma	$10
NBC30V	"NICAD" ADJ/Up to 25 Cells @ up to 500Ma	$28
BC612VT5A	6 & 12V up to 5A Charge & Trickle	$26
BC612VT35A	6& 12V up to 35A Charge & Trickle	$90
BC12/24VT5A	12 & 24V up to 5A Charge & Trickle	$40

Model	Description	Price
ABC14V3AR	up to 14V @ 3Amp & Adj 30Ma/Float	$
ABC14V50AR	up to 14V @ 50Amp & Adj to 15A/Float	$3
ABC24V3AR	up to 24V @ 3Amp & Adj to 800Ma/Float	$1
ABC30V8AR	up to 30V @ 8Amp & Adj to 1Amp/Float	$1
ABC38V30AR	up to 38V @ 30Amp & Adj 10Amp/Float	$3
ABC12V70AR	up to 12V @ 70Amp & Adj to 10A/Float	$2

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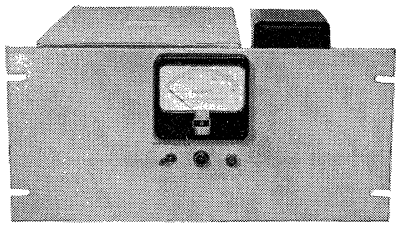
Net

SPELLMAN HIGH VOLTAGE RF TYPE - DC POWER SUPPLIES



MODEL RG-30

CONTINUOUSLY VARIABLE 15-30 KV REGULATED DC POWER SUPPLY WITH REGULATED FOCUS VOLTAGE TAP

A continuous duty DC supply with highly filtered outputs and regulations against line load and drift better than 0.5% at 1 ma. Ripple less than .005% A variable focus tap 4-6 KV for use with flying spot tubes. 19″ wide x 8¾″ high x 13″ deep.

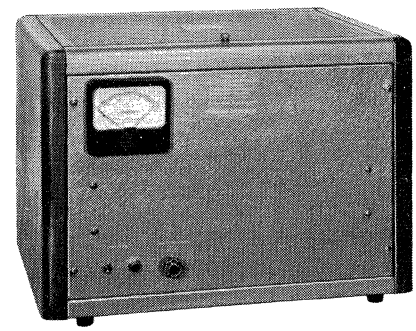
With HV meter $375. Net **Less meter $325. Net**

MODEL RG-30-1 — Same as RG-30 except regulations against line, load and drift less than 0.1% at 1 ma. 19″ wide x 8¾″ high x 15″ deep.

With HV meter $450. Net **Less meter $400. Net**

MODEL RG-40 is a 20-40 KV unit with focus tape designed for use with 5AZP4 projection tube. In wide use in projection television systems. Same specifications as RG-30 except .7 ma. at 40 KV. 19″ wide x 10½″ high x 13″ deep.

With HV meter $375. Net **Less meter $325. Net**



MODEL LAB-30PN

DC POWER SUPPLY REVERSIBLE POLARITY CONTINUOUSLY VARIABLE 1 TO 30 KV

Regulated DC Power Suppiy with regulations of 0.5% at 2 milliamperes. Polarity reversible from front panel.

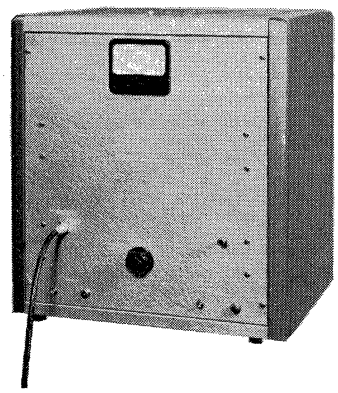
Standard Rack Model — 19″ wide x 12″ high x 13″ deep.
Standard Bench Model — 21″ wide x 14″ high x 15″ deep.

With HV meter $645. Net **Less meter $595. Net**

MODEL LAB-30 is a positive polarity output regulated High Voltage DC Power Supply with same electrical characteristics and dimensions as the LAB-30PN. Available in either positive or negative polarity.

With meter $545. Net **Less meter $495. Net**

SPECIAL MODELS up to 5 ma. output AVAILABLE



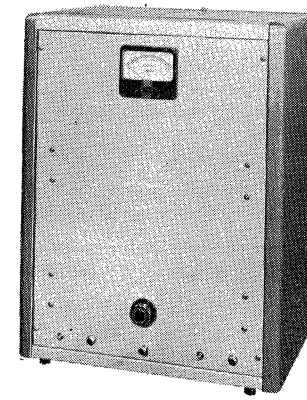
MODEL LAB-60PN

REVERSIBLE POLARITY CONTINUOUSLY VARIABLE 0-60 KV DC REGULATED POWER SUPPLY

Current output 1 ma. at 60 KV 2 ma. may be drawn from 50 KV down. Regulations — no load to full load 0.5% at 1 ma. 21¾″ wide x 22¾″ high x 18″ deep. Dimensions in cabinet: 22¾″ high x 21″ wide x 18″ deep.

LAB-60PN — Reversible polarity — either positive or negative output controlled through switch on front panel. ..... **$820 Net**

LAB-60 — Same as above not reversible. Specify polarity when ordering. ..... **$765 Net**



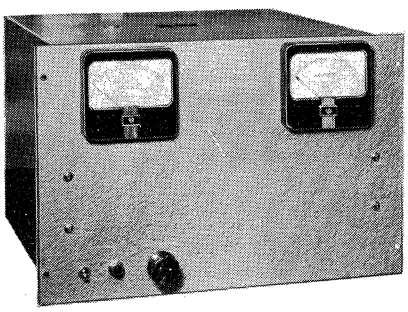
MODEL LAB-90

0-90 KV REGULATED DC POWER SUPPLY

Continuously variable 0 to 90 KV DC Power Supply. Output current .7 ma. at 90 KV. 1 ma. at 80 KV. 2 ma. from 40 KV down. Voltage regulations better than 0.5% throughout entire range. Dimensions in cabinet: 28″ high x 21¾″ wide x 18″ deep.

LAB-90 — Complete with HV meter ..... **$900 Net**
Specify polarity output — positive or negative.

MODEL LAB-90C — Same as above except automatic overload cut-out and reset button provided. Adjustable sensitivity. .5 ma. to 2.5 ma. ..... **$950 Net**

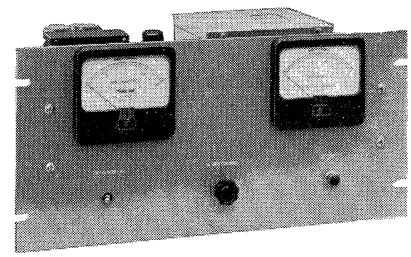


MODEL LAB-20

CONTINUOUSLY VARIABLE 0-20 KV REGULATED RF TYPE DC POWER SUPPLY

Current output: 4 ma. @ 20 KV; 10 ma. from 10 KV down. Regulations against line, load and drift, better than 0.5% at 1 ma. Ripple .005%. 19″ W x 12¼″ H x 15″ D.

Complete with HV and current meters..... **$525 Net**



MODEL LAB-10

CONTINUOUSLY VARIABLE 1-15 KV REGULATED DC SUPPLY

Output current 2 ma. Regulations line and load better than .5%. Input: 117 V 60 cycles. Complete with HV and current meters. 19″ W x 8¾″ H x 13″ D..... **$275 Net**

MODEL LAB-10PN — Same specifications as above except reversible polarity ..... **$375 Net**

SPELLMAN HIGH VOLTAGE CO., INC. | BRONX 69, N.Y.

Net

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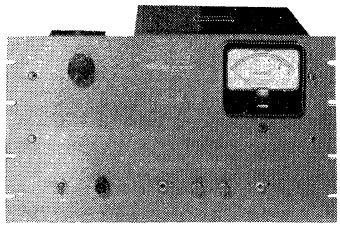
SPELLMAN HIGH VOLTAGE RF TYPE DC POWER SUPPLIES

1-15 KV UNREGULATED



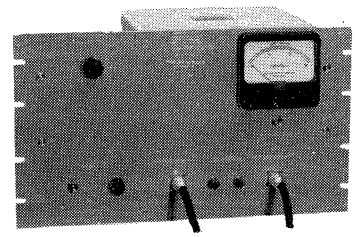
MODEL PN-15

FLOATING REVERSIBLE POLARITY CONTINUOUSLY VARIABLE DC POWER SUPPLY

The high voltage output available through Alden HV connectors on front panel. Reversible and floating secondary — either positive or negative can be grounded or left floating. Current output 2 ma. at 15 KV. Voltage continuously variable through knob on front panel. Input: 117 V 60 cycles. Dimensions 10½" high x 19" wide x 13" deep.

Complete with meter ..... **$250 net**

0-30 KV UNREGULATED



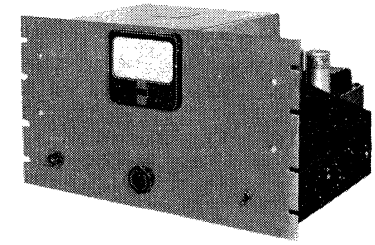
MODEL PN-30

REVERSIBLE POLARITY 0-30 KV DC POWER SUPPLY

Continuously variable — reversible 0-30 KV unregulated. Current output approx. 2 ma. at 20 KV. 1 ma. at 30 KV. Ripple less than 0.1%. Input: 117 V 60 cycles. 19"W x 10½"H x 13"D.

With HV meter ..... **$275 net**

12-40 KV UNREGULATED

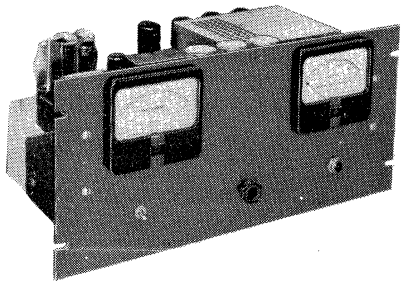


MODEL 2040

A highly filtered, rugged supply ideal for precipitators, spot knocking, electrostatic flocking and spraying and insulation breakdown testing and anode supply for cathode ray tube. Voltage range variable 12 to above 40 KV. Current output 1 ma. at 30 KV. Input: 117 V-60 cycles. 19"W x 12¼"H x 13"D.

With HV meter ..... **$215 net**

RF TYPE REGULATED DC

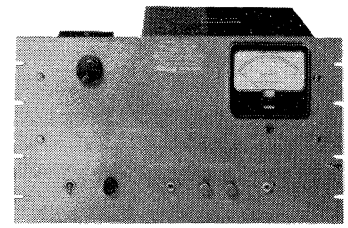


CONTINUOUSLY VARIABLE

Output current 2 ma. Input: 117 V 60 cycles. Regulated against line and load better than 0.5%. Complete with current and volt meters. Dimensions: Panel height 8¾", width 19", depth 13".

2-6 KV — Model RG-5 ..... $250 net
5-12 KV — Model RG-10 ..... 260 net
10-18 KV — Model RG-15 ..... 275 net

0-15 KV UNREGULATED



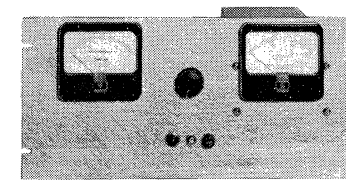
MODEL PNT-15

CONTINUOUSLY VARIABLE DC 2 MA. POWER SUPPLY

PLASTIC HOLE DETECTOR designed to detect holes in plastic sheet during manufacture. Thyratron detector circuit rings alarm to indicate hole when detected. Voltage continuously variable through knob on front panel. Input: 117V 60 cycles. Dimensions: 10½" H x 19" W x 13" D.

Complete with HV meter and sensitivity control. **$350 net**

UNREGULATED 0-60 KV SOLID STATE



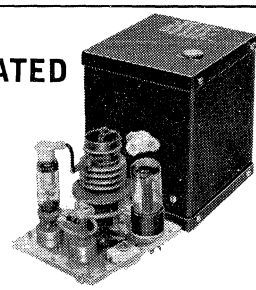
MODEL ST-60

CONTINUOUSLY VARIABLE 0-60 KV DC POWER SUPPLY

Continuously variable from 0-60 KV; 250 microamps @ 50 KV; 1 ma. @ 20 KV. Input: 117 V 60 cycles. 19"W x 8¾"H x 12"D. Complete with HV and current meters. **$350 net**

5 KV UNREGULATED

MODEL 4575



5 KV — 1 ma. DC POWER SUPPLY

For an output voltage of 5 KV DC at 1 milliampere, the low voltage input requirement is 250 V at 50 milliamperes, By varying the DC input the output voltage can be varied from approx. 1 KV to 7½ KV. Dimensions: 5⅝" high x 5" deep x 4¼" wide. In completely enclosed metal housing ... **$32.50 net**

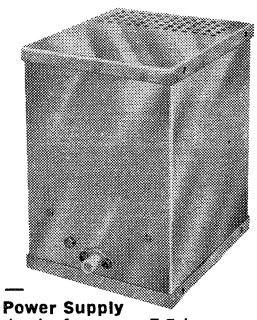
MODEL 4575-2 — same as above with 2 ma. output at 5 KV ... **$42.50 net**

MODEL 4575PN — Reversible polarity. High voltage secondary floating or can be grounded. 1 ma. at 5 KV **$42.50 net**

MODEL 4575-2PN—Reversible polarity. 2 ma. at 5 KV ... **$52.50 net**

7½-12 KV UNREGULATED

MODEL 7512



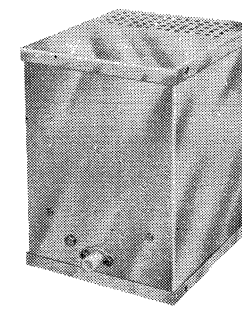
7½-12KV — 1 ma. DC Power Supply

Voltage output of approx. 7.5 to 12 KV. 1 ma. of current may be drawn throughout the voltage range. To obtain an output voltage of 7.5 KV at 1 ma., low voltage input requirement is 300 V DC at 50 ma. By varying the DC input, the output voltage can be increased. Maximum input voltage of 425 V at 100 ma. will give an output of 12 KV at 1 ma. 5¾" W., 8¼" H., 6¾" D.

$42.50 net

10-20 KV UNREGULATED

MODEL 7516



10- 20 KV — .5 ma. DC POWER SUPPLY

Voltage output of approx. 10 to 20 KV. To obtain output voltage of 10 KV at 1 ma., low voltage input requirement is 300 V DC at 50 ma. Maximum input voltage of 425 V at 100 ma. will give an output of 20 KV at .5 ma.
5¾"W x 8¼"H x 6¾"D **$48.50 net**

SPELLMAN HIGH VOLTAGE CO., INC. | BRONX 69, N.Y.

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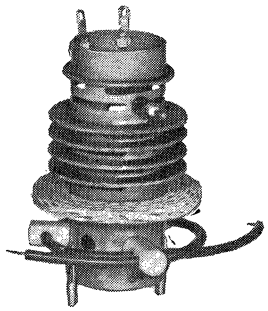
Net

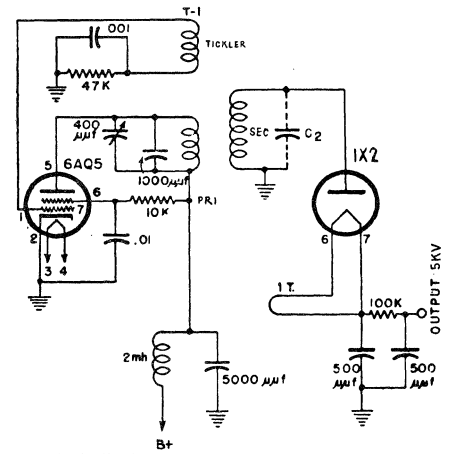
SPELLMAN HIGH VOLTAGE STEP-UP COILS

FOR RF POWER SUPPLIES

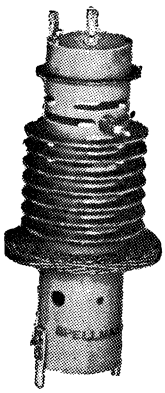


COIL MODEL 5 KV

Secondary Height	3½"
Secondary Windings	1¾"
Consisting of 4 Pie Windings	
Primary Diameter	2¼"
Secondary Voltage Output	5 KV
Secondary Current	2 Milliamperes
Approx. Frequency	300 KC
5KV Coil	**$7.70 Net**

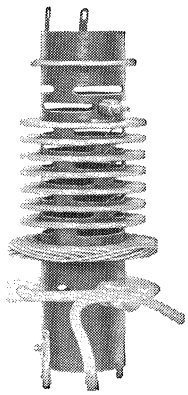


COIL MODEL 10-15 KV

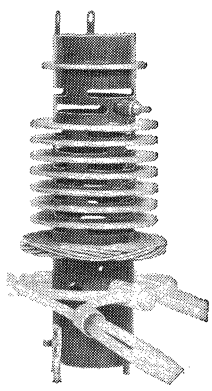


10-15 KV
$13.20 Net

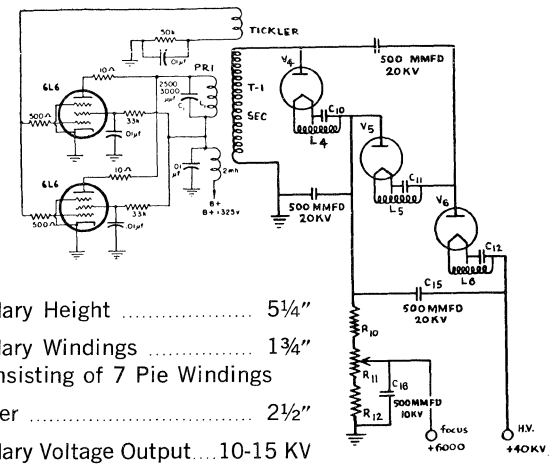
COIL MODEL 10-15 KV-1



COIL MODEL 10-15 KV-2

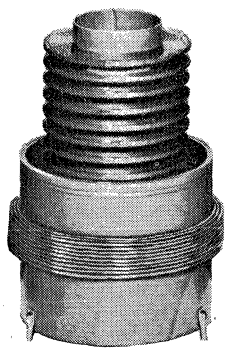


10-15 KV-1 with filament winding for single 1B3 rectifier ..... **$13.75 Net**
10-15 KV-2 with 2 filament windings for two 1B3 rectifiers ..... **$14.30 Net**



Secondary Height	5¼"
Secondary Windings	1¾"
Consisting of 7 Pie Windings	
Diameter	2½"
Secondary Voltage Output	10-15 KV
Secondary Current	2 Milliamperes
Approx. Frequency	175 KC

L4, L5, L6 are Spellman RF Filament Transformers



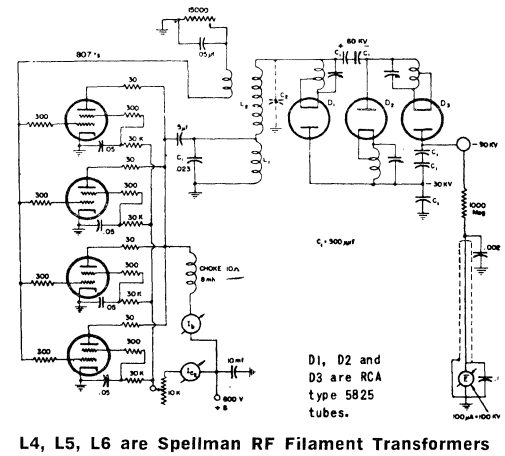
TECHNICAL INFORMATION AND CIRCUIT DIAGRAMS FURNISHED WITH EACH COIL

COIL MODEL 35 KV

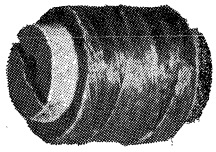
Secondary Height	7"
Secondary Windings	3" dia.
Consisting of 10 Pie Windings	
Primary (separate from secondary)	
Height	4"
Diameter	4¼"
Secondary Voltage Output	35 KV
Secondary Current	5 Milliamperes
Approx. Frequency	70 KC
35KV Coil	**$46.20 Net**

25KV—Same as 35 KV except
Secondary Height ..... 6"
25KV Coil ..... **$39.60 Net**

70KV—Same as 35KV except Sec. height 10", 12 pie windings 4" dia., Primary height 4", Diameter 5", Approx. Frequency 70 KC.
70KV Coil ..... **$82.50 Net**



L4, L5, L6 are Spellman RF Filament Transformers



RF FILAMENT TRANSFORMERS

A self-resonant auto transformer for use with type 1B3 Rectifier tube. Complete with instructions.

Will operate with Spellman HV coils..... **$1.65 Net**
Tuning Padder for Filament Transformer.. **.58 Net**

SPELLMAN HIGH VOLTAGE CO., INC. | BRONX 69, N.Y.

Net

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SOLA

A DIVISION OF
BASIC PRODUCTS CORPORATION

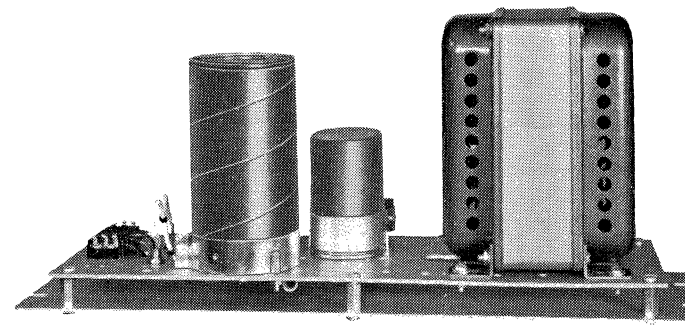
B P C

In Canada: Sola Basic Products Ltd.,
377 Evans Avenue, Toronto 18, Ontario

Sola CVDC Power Supplies

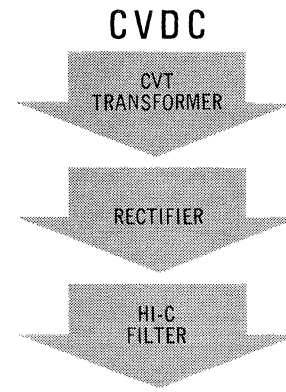
FAST, RELIABLE VOLTAGE REGULATION FROM A LOW-COST SOURCE

CVDC circuitry is so trim and simple that it can offer the utmost in performance and reliability. The constant-voltage transformer (originated by Sola) offers inherent current-limiting action that allows utilization of efficient, economical semiconductor rectifiers with low forward voltage drop. CVDC has these specific advantages:



Constant-voltage Sola transformer provides ±1% regulation for line-voltage variations as great as ±15%, serves as the heart of CVDC power supplies for voltage-sensitive equipment.

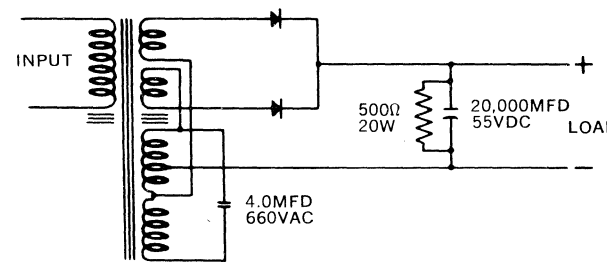
1. Fast, dependable line-voltage regulation: within ± 1% for fluctuations of ± 15%; voltage will return to regulation envelope in approximately 50 milliseconds.
2. Load regulation: from ½% to 8%, one half to full load.
3. Automatic current limiting: short circuit protection; withstands load faults; high overloads cannot damage power supply or equipment components.
4. High efficiency: upwards of 75%; low input-power requirements.
5. Simplified operation: no adjustments or maintenance; continuous duty.
6. Convection cooling.
7. Ripple: 1% rms maximum.
8. Ambient operating temperature: 40° C maximum.



Fixed output for fixed, intermittent, variable, or pulse loads.
All inputs 100-130 volts, 60 cps.

Catalog No.	Volts Out	Amps.	VA	Load Regulation 20%-F.L.	Load Regulation 50%-F.L.	Panel Ht.*	Price
281513-1	6	10	60	9	7	3½	$150.00
281514-1	12	5	60	7	5	3½	115.00
281845	12	15	180	7	5	5¼	195.00
281515-1	18	5	90	5	4	3½	120.00
281024-1	26	4	144	5	4	5¼	145.00
281203	24	15	360	5	4	8¾	250.00
28626	28	8	224	6	4	5¼	180.00
281048	48	4	192	3.5	2.5	5¼	135.00
281561	48	10	480	4	2	5¼	185.00
281125	125	2	250	2.5	1.5	5¼	145.00
281150	150	2	300	2	1.5	5¼	145.00
281200	200	1	200	3	2	5¼	140.00
281250	250	1	250	3	2	5¼	150.00

*All supplies furnished with panel for 19" rack mounting.



Typical schematic diagram for Sola CVDC power supply.

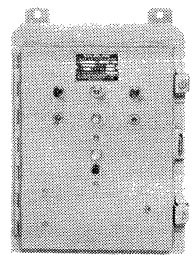
STABILINE® automatic VOLTAGE REGULATORS

- **THE MOST EXTENSIVE LINE OF AUTOMATIC VOLTAGE REGULATORS**
- **RATED OUTPUTS FROM 0.25 TO 100 KVA**

STABILINE Automatic Voltage Regulators deliver a constant output voltage regardless of variations in input voltage or changes in load current. They are conservatively rated, ruggedly built precision products offered in a wide range of types and ratings. Submit specifications of electrical ratings desired.

DC Regulator Control

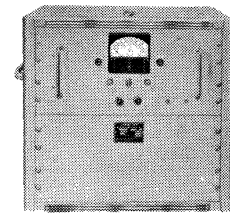
Provides automatically regulated d-c voltage adjustable from 25 to 100% of maximum with an input variation of ±10% in a-c line voltage at 50/60 cycles. Accuracy is ±1% of 100% voltage setting. Designed for use with a motor-driven POWERSTAT Variable Transformer and associated d-c components supplied by the user. Supply can be from either a single-phase full-wave or a 3-phase full-wave unfiltered source. Error detection requires either 1 milliampere, 300 kilohms or 10 milliamperes, 15 kilohms supplied from the d-c output.



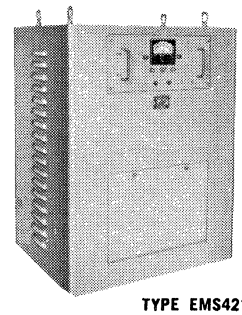
TYPE CB5001

EMT series

Electro Mechanical Transistorized types in ratings from 2 to 100 KVA. Control circuit is completely transistorized. Speed of response sufficiently fast for most applications.



TYPE EMT4115



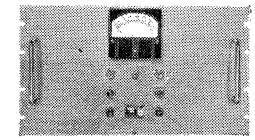
TYPE EMS42100

EMS series

Electro Mechanical Transistorized types for single or three phase duty with ratings from 25 to 275 KVA. Several types available with individual line control for greater application flexibility.

EMK series

Electro Mechanical high speed, high accuracy assemblies in ratings of 2.5/5.0 KVA. Accuracy ±1.0% of nominal output voltage.



TYPE EMK4105R

RATINGS AND SPECIFICATIONS

EMT SERIES

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE‡‡	OUTPUT VOLTAGE (adjustable)	MAXIMUM OUTPUT AMPERES	RATED OUTPUT KVA	CORRECTION RATE (sec./volt)	TYPE
For 50/60 Cycle, Single Phase Operation						
115	90-115	110-120	52	6.0	.12	EMT10228
	95-135	110-120	17.5	2.0	.075	EMT4102†
	95-135	110-120	52	6.0	.075	EMT4106C§
	105-125	110-120	104	12.0	.15	EMT4112B*§
	95-135	110-120	130	15.0	.125	EMT4115
120	108-137	110-120	35	4.2	.1	EMT4104††
						EMT4104U††
						EMT4104UT††
230‡	195-255	220-240	32.5	7.5	.083	EMT4207
	195-255	220-240	87	20.0	.083	EMT10138
	205-250	220-240	120	27.5	.111	EMT4228B
240‡	228-256	220-240	35	8.4	.1	EMT4104††
						EMT4104U††
						EMT4104UT††
460	400-520	440-480	15	6.6	.041	EMT4407
	400-520	440-480	40	17.6	.041	EMT4418
For 50/60 Cycle, Three Phase Operation						
230‡	195-255	220-240	25	10.0	.083	EMT6210Y
			38	15.0	.083	EMT6215Y
			50	20.0	.083	EMT6220Y
			113	45.0	.25	EMT6245Y
			175	70.0	.25	EMT6270D
460	400-520	440-480	16	12.5	.041	EMT6412Y
			22	17.5	.041	EMT6417Y
			33	25.0	.041	EMT6425Y
			66	50.0	.125	EMT6450Y
			100	75.0	.125	EMT6475Y
460	420-500	440-480	131	100.0	.188	EMT64100Y

EMS SERIES

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE ‡‡	OUTPUT VOLTAGE (adjustable)	MAXIMUM OUTPUT AMPERES	RATED OUTPUT KVA	CORRECTION RATE (sec./volt)	TYPE
For 60 Cycle, Single Phase, 2 Wire, Single Control Operation						
115	103.5-126.5	110-120	833	100	.65	EMS41100
230	218.5-241.5	220-240	435	100	.22	EMS42100
For 50/60 Cycle, Single Phase, 3 Wire, Individual Line Control Operation						
240/120	204-276/102-138	230-250/115-125	104	25	.06/.03	EMSI4225
	204-276/102-138	230-250/115-125	250	60	.06/.03	EMSI4260
	228-252/114-126	220-240/110-120	417	100	.21/.10	EMSI42100††
For 50/60 Cycle, Three Phase, Single Control Operation						
230‡	203-257	220-240	339	135	.28	EMS62135Y‡
460	445-495	440-480	230	180	.30	EMS64180Y
			347	275	.30	EMS64275Y
For 50/60 Cycle, Three Phase, Individual Line Control Operation						
208/120	177-239/102-138	191-217/115-125	250	90	.08/.14	EMSI6290Y
	165-233/95-135	191-217/115-125	525	190	.22/.37	EMSI62190Y††

EMK SERIES

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	MAXIMUM OUTPUT AMPERES	RATED OUTPUT KVA	CORRECTION RATE (sec./volt)	TYPE
For 50/60 Cycle, Single Phase Operation						
115	95-135	110-120	21.5	2.5	.02	EMK4105†
	105-125	110-120	43	5.0	.04	

See Footnotes on Facing Page

THE SUPERIOR ELECTRIC COMPANY
Bristol, Connecticut, U.S.A.
SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES IN SECTIONS 2100, 3500 AND 5600

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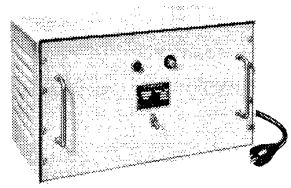
STABILINE® automatic VOLTAGE REGULATORS

IE series

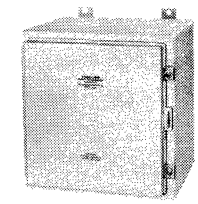
Instantaneous Electronic types have no moving parts. Hold output voltage to within ±0.1% for wide line variations, within ±0.15% for any load current change or power factor change from .5 lagging to unity.



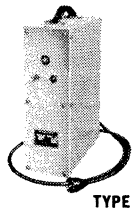
TYPE IE5101

All-boost Marine

Electro Mechanical Transistorized type EMT10228 is fully enclosed in a weatherproof cabinet. Well suited for marine or industrial applications where equipment must withstand effects of dust and moisture. Has 6 KVA rated output.



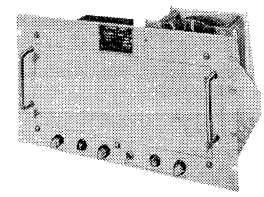
TYPE EMT10228



TYPE IET51002

IET series

Instantaneous Electronic Transistorized types in ratings from 0.25 to 1.0 KVA. Output voltage remains within a 0.5 volt bandwidth for any and all variations in line voltage, load current and load power factor.



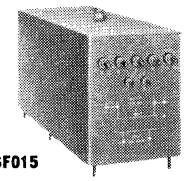
TYPE EM4108MCR

Militarized

Standard Instantaneous Electronic, Electro Mechanical and Electro Mechanical Transistorized types that meet requirements of applicable military specifications. Type EMTH41007MH is 3½ x 6 x 4½"; others fit standard 19" relay rack.

MR series

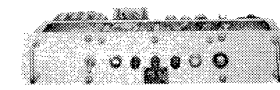
Provide the constant RMS voltage required to maintain proper tube filament temperature. Response time will not exceed 0.6 second under most adverse line or load changes.



TYPE MR6F015

400 cycle

Instantaneous Electronic types in ratings of 1.0 and 5.0 KVA. Maximum waveform distortion is 3.5% under all input line and most load conditions. Other 400 cycle types listed under MR Series and Militarized types.



TYPE IEH5101R

RATINGS AND SPECIFICATIONS

IE SERIES

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	MAX. OUTPUT AMPS.	RATED OUTPUT KVA	TYPE
For 60 ± 10% Cycle Operation					
115	95-135	110-120	2.2	0.25	IE51002†
			4.5	0.5	IE51005†
			8.5	1.0	IE5101†
			22	2.5	IE5102†
			43.5	5.0	IE5105†
			87	10.0	IE5110
230	195-255	220-240	1.1	0.25	IE52002†
			2.2	0.5	IE52005†
			4.5	1.0	IE5201†
			11	2.5	IE5202†
			22	5.0	IE5205†
			43.5	10.0	IE5210
For 50 ± 10% Cycle Operation					
115	95-135	110-120	4.5	0.5	IEL51005†
			8.5	1.0	IEL5101†
			43.5	5.0	IEL5105†
			87	10.0	IEL5110
230	195-255	220-240	2.2	0.5	IEL52005†
			4.5	1.0	IEL5201†
			11	2.5	IEL5202†
			22	5.0	IEL5205†
			43.5	10.0	IEL5210

IET SERIES

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	MAX. OUTPUT AMPS.	RATED OUTPUT KVA	TYPE
For 60 ± 5% Cycle Operation					
115	95-135	110-120	2.2	0.25	IET51002†
			4.5	0.5	IET51005†
			8.5	1.0	IET5101†

MR SERIES

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	FREQUENCY (cycles)	LOAD RANGE IN AMPERES	RATED OUTPUT	TYPE
6.3	120V. RMS ± 10%	6.0-6.5	60 ± 10%	8 -25	150 VA	MR6F015
6.3	120V. RMS ± 10%	6.0-6.5	400 ± 5%	2.5-8.2	50 VA	MRH6F0(

IEH 400 CYCLE TYPES

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	MAX. OUTPUT AMPS.	RATED OUTPUT KVA	TYPE
For 400 ± 5% Cycle Operation					
115	95-130	110-120	8.5	1.0	IEH5101R
			43.5	5.0	IEH5105†

MILITARIZED TYPES IE5101MR AND IEH5101MR

For 60 ± 5% Cycle, Single Phase Operation					
120	105-135	115-125	8.3	1.0	IE5101MR
For 400 ± 5% Cycle, Single Phase Operation					
120	105-135	115-125	8.3	1.0	IEH5101MR

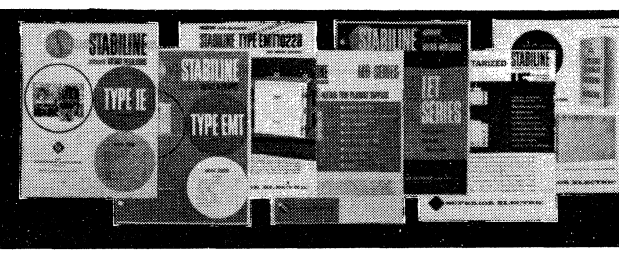
MILITARIZED TYPES EM4108MCR AND EMTH41007MH

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	MAXIMUM OUTPUT AMPERES	RATED OUTPUT KVA	CORRECTION RATE (sec./volt)	TYPE
For 45-66 Cycle, Single Phase Operation						
120	105-135††	115-125	66.6	8.0	0.1	EM4108MCR
For 380-420 Cycle, Single Phase Operation						
115	103.5-126.5	115	6	0.69	0.23	EMTH41007MH

FOOTNOTES (all charts)

†Also available as rack models (suffix R when ordering). ††For 60 cycle operation only.
*Can also be operated on an input range of 95 to 135 volts with a rating of 52.0 amperes, 6.0 KVA and a correction rate of .075 seconds per volt.
§Also available as rack (suffix R when ordering) or wall mounted (suffix W when ordering) models.
‡Units can be converted for 208 volt operation by simple tap changes. Input and output voltage ranges change in proportion.
‡‡At nominal output. Shifts proportionally with output voltage setting.

FOR MORE DETAILED INFORMATION about ratings, specifications and technical data on STABILINE automatic voltage regulators, request either the complete STABILINE literature file or individual bulletins describing the series that meet your particular requirements.



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EVEREADY®

FLASHLIGHTS, LANTERNS and BATTERIES

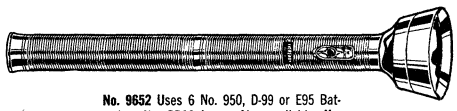
the world's most trusted brand for over 50 years!

ALL PRICES WITHOUT BATTERIES.

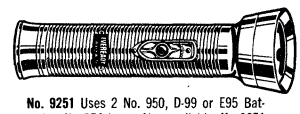
"CAPTAIN" FLASHLIGHTS . . . Classic Design

— Heavy-Duty Copper/Nickel/Chrome/Plated Steel
— Exclusive 3-Way Lock Switch and Flasher
— End-Loading . . . Ring Hanger

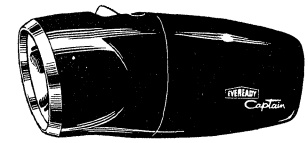
No. 9951 Magnet Lite. Uses 2 No. 950, D-99 or E95 Batteries, No. PR2 Lamp.



No. 9652 Uses 6 No. 950, D-99 or E95 Batteries, No. PR18 Lamp. Also available: **No. 9352**—Uses 3 No. 950, D-99 or E95 Batteries, No. PR3 Lamp.



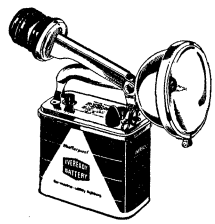
No. 9251 Uses 2 No. 950, D-99 or E95 Batteries, No. PR2 Lamp. Also available: **No. 9351**—Uses 3 No. 950, D-99 or E-95 Batteries, No. PR3 Lamp and **No. 9231**—Uses 2 No. 935 or E93 Batteries, No. PR4 Lamp.



No. 3300 Rechargeable Flashlight—Twice the Light of standard 2-Cell Flashlights . . . never needs batteries! Uses rechargeable battery, No. PR3 Lamp.

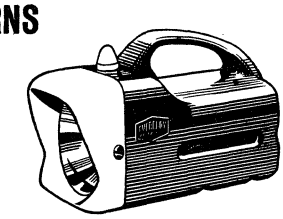
	No. 3300	No. 9231	No. 9251	No. 9351	No. 9352	No. 9652	No. 9951
List Each	$14.95	$2.19	$2.19	$2.49	$3.95	$5.95	$2.49
Sugg. Dealer	9.96	1.46	1.46	1.66	2.64	3.81	1.66

WEATHERPROOF LANTERNS



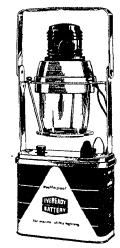
No. 100 "Big Jim" Lantern w/flasher. Uses 1 No. 731 Battery, No. 4546 Lamp, No. 407 Signal Lamp.

No. 101 Same without flasher.



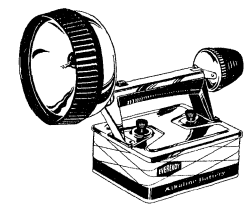
No. 108 All American Lantern. "Cordahide" polyethylene construction. Uses 1 No. 509 Battery, No. PR13 Lamp.

No. 68 Display—Contains 3 No. 108 All American Lanterns in Colors (white, red, black).



No. 105 "Big Jim" Camp and Emergency Lantern. Uses 1 No. 731 Battery, No. PR13 Lamp, No. 407 Signal Lamp.

No. 106 Same without flasher.



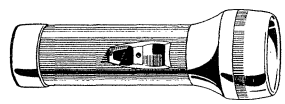
No. 150 "Captain" Stainless Steel Lantern. Uses 1 No. 520 Alkaline Battery and No. 4618 1-ampere Lamp for Double Brilliance, Longer Service, No. 407 Signal Lamp.

No. 151 Same without flasher.

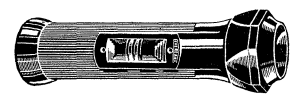
	No. 68	No. 100	No. 101	No. 105	No. 106	No. 108	No. 150	No. 151
List Each	$11.37	$10.75	$8.00	$10.75	$8.20	$3.79	$14.00	$12.00
Sugg. Dealer	7.59	6.45	4.80	6.45	4.92	2.53	8.39	7.19

"CORDAHIDE" polyethylene FLASHLIGHTS—

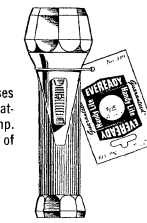
Insulated, Withstand Abuse, Resists Oils, Greases, Most Chemicals.



No. 6251 "Hercules" Lite. Uses 2 No. 950, D-99 or E95 Batteries, No. PR2 Lamp. Also available: **No. 62** Display—containing 6 No. 6251 Lites.



No. 330 Utility Lite. Uses 2 No. 950, D-99 or E95 Batteries, No. PR2 Lamp. Available individually boxed (**No. 330**) or in display of 6 (**No. 67**).



No. 349 Handy Lite. Uses 2 No. 935 or E-93 Batteries, No. PR4 Lamp. Available in assortment of 6 (**No. 49**) in colors.

No. 337 Magnet Utility Lite. Uses 2 No. 950, D-99 or E95 Batteries, No. PR2 Lamp. Available individually boxed (**No. 337**) or in display of 12 (**No. 51**) in Colors.

	No. 49	No. 51	No. 62	No. 67	No. 330	No. 337	No. 6251
List Each	$5.94	$16.68	$7.74	$5.94	$0.99	$1.39	$1.29
Sugg. Dealer	4.14	11.16	4.50	4.14	0.70	0.94	0.90

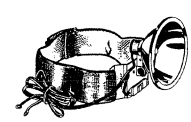
INDUSTRIAL and SPECIAL PURPOSE LITES

Industrial Flashlights

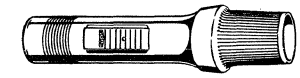
No. 1251—2 Cell, No. PR6 Lamp. **No. 1351**—3 Cell, No. PR7 Lamp. Uses Nos. 950, 1050, D99 or E95 Batteries. Will not shatter crack or dent.

Safety Flashlights

No. 1259—2 Cell, No. PR6 Lamp. **No. 1359**—3 Cell, No. PR7 Lamp. Uses Nos. 950, 1050, D99 or E95 Batteries. Approved by U.S. Bureau of Mines, Listed by Underwriters' Laboratories, Inc.



No. 3452 Head-Lite. Uses 1 No. 510S Battery and No. PR13 Lamp. Rainproof pouch also available (No. 1348).



Torch Lite

No. 2T3—3" wand. **No. 2T5**—5" wand. Uses 2 No. 950, D99 or E95 Batteries and No. PR2 Lamp.

	No. 2T3	No. 2T5	No. 1251	No. 1259	No. 1348	No. 1351	No. 1359	No. 3452
List Each	$1.49	$1.59	$2.89	$4.15	$0.69	$3.29	$4.35	$3.29
Sugg. Dealer	.99	1.05	1.93	2.74	0.46	2.19	2.89	2.14

Trade Discount Applies To List Prices Only

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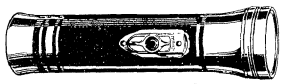
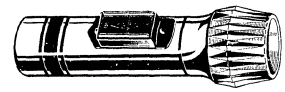
HEAVY-GUAGE, CHROME-PLATED METAL FLASHLIGHTS



America's Standard

No. 2251 All-Purpose Flashlight—2 Cell, No. PR2 Lamp. **No. 2351**—3 Cell, No. PR3 Lamp. Use Nos. 950, D-99 or E95 Batteries. Available individually boxed.

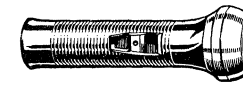


Magnet Lites

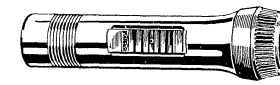
No. 5MF Magnet Lite—2 Cell, No. PR2 Lamp. No. 7MF—3 Cell, No. PR3 Lamp. Use Nos. 950, D-99 or E95 Batteries. Available individually boxed. **No. 5MF** available in display of 6 with Selling Tags (**No. 6-5MF**) or display of 6 with Counter Card (**No. 14**).

Leader Lites

No. 326 Leader Lite—Uses 2 No. 950, D-99 or E95 Batteries, No. PR2 Lamp. Available in Displayer **No. 16** (containing 12 No. 326 Lites) or with Selling Tags—**No. 260** (containing 12 No. 326 Lites).



No. 350 "Highlander II" Lite—Uses 2 No. 950, D-99 or E95 Batteries, No. PR2 Lamp. Available in **No. 27-A** Display—containing 7 No. 350 Lites.

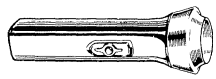


All American

No. 319 All American Lites-Uses 2 No. 950, D-99 or E95 Batteries, No. PR2 Lamp. Available in Counter Display of 14 Lites (**No. 130B**).
Also available **No. 339**—Uses 2 No. 935 or E93 Batteries, No. PR4 Lamp; Display **No. 39C** contains 6 No. 339 Lites with Selling Tags.

	No. 5MF	No. 6-5MF	No. 7MF	No. 14	No. 16	No. 39C	No. 130B	No. 260	No. 2251	No. 2351
List Each	$1.99	$11.94	$2.49	$11.94	$11.88	$7.14	$16.66	$11.88	$1.95	$2.35
Sugg. Dealer	1.33	7.98	1.66	7.98	7.56	4.68	9.84	7.56	1.30	1.57

MINIATURE FLASHLIGHTS

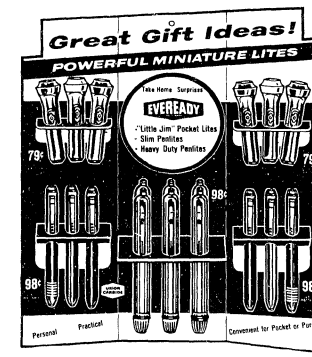


No. 115 "Little Jim" Pocket Lite—Uses 1 No. 915 or E91 Battery, No. 112 Lamp. Available in Counter Display of 12 (**No. 15**).

No. 230 Heavy-Duty Penlite. Uses 2 No. 915 or E91 Batteries and No. 222 Lamp. Available individually boxed or in Counter Display of 12 (**No. 23**).

No. 212 Slim Penlite. Uses 2 No. 912 or E92 Batteries and No. 224 Lamp. Available individually boxed or in Counter Display of 12 (**No. 21-C**).

	No. 15	No. 21-C	No. 23	No. 167	No. 212	No. 230
List Each	$9.48	$11.76	$11.76	$16.50	$0.98	$0.98
Sugg. Dealer	6.30	7.80	7.80	10.95	0.67	0.67



No. 167 Display-combination miniature lite assortment contains: 6 each of Slim and Heavy Duty Penlites and 6 "Little Jim" Pocket Lites.

EVEREADY® BATTERIES with *POWER TO SPARE*

(See complete line listing for prices)

POPULAR FLASHLIGHT BATTERIES

No. 915 Size AA

No. 935 Size C

No. 950 Size D

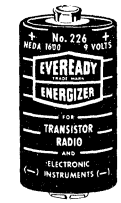
No. D99 Heavy-Duty Size D

ENERGIZERS FOR TRANSISTOR RADIOS

and other electronic applications

No. 206 9 Volts

No. 216 9 Volts



No. 226 9 Volts

No. 333 4½ Volts

No. 1035 Size C 1½ Volts

No. 1015 Size AA 1½ Volts

SUPER POWER ALKALINE BATTERIES

for radios, cameras, toys, flashlights, and high drain applications, rechargeable TV

No. E90 Size N 1½ Volts

No. E91 Size AA 1½ Volts

No. 563 4½ Volts

No. E93 Size C 1½ Volts

No. E94 Size ½D 1½ Volts

No. E92 Size AAA 1½ Volts

No. 523 4½ Volts

No. 561 15 Volts

No. E95 Size D 1½ Volts

COMPLETE LINE SPECIFICATIONS

MERCURY BATTERIES

No. E9
1.4 Volts

No. E146X
8.4 Volts

No. E133
4.2 Volts

SEALED NICKEL CADMIUM RECHARGEABLE BATTERIES

No. N24
1.25 Volts

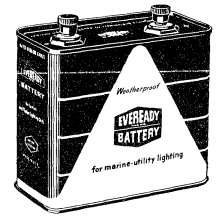
No. N46
1.25 Volts

No. N57
1.25 Volts

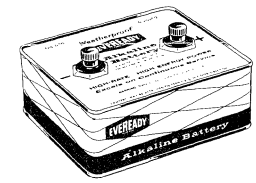
No. N73
1.25 Volts

LANTERN BATTERIES

No. 509 — Spring
No. 510S — Screws
No. 510F — Fahnestock
6 Volts



No. 731
6 Volts

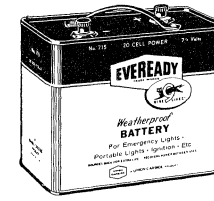


No. 520
6 Volts
Alkaline

OTHER BATTERIES

No. 6 "Ignitor"
1½ Volts

"HOT SHOT"
No. 1461 6 Volts
No. 1462 6 Volts
No. 1463 12 Volts
No. 1562 7½ Volts
No. 1662 9 Volts



EMERGENCY LIGHTING
No. 715 7½ Volts
No. 706 6 Volts
No. 716 9 Volts

"Eveready" Battery Number	NEDA Number	Overall Dimensions in inches L	W	H	Terminals & Voltages	Battery Weight lbs.	ozs.	Unit Pkg. Quan.	Sugg. Dealer Each	List Price Each	Major Use
E1	1100	0.625 Diam. x 0.650			Flat Contacts—, +1.40		0.43	4	0.42	0.65	Meters, Instruments, Signal Lights, Miniature Radios
E1N		0.625 Diam. x 0.650			Flat Contacts—, +1.35		0.43	4	0.52	0.75	
E3		0.985 Diam x 0.660			Flat Contacts—, +1.35		0.93	4	0.67	1.05	
E4		1.195 Diam. x 0.660			Flat Contacts—, +1.35		1.6	4	0.86	1.35	
EPX-4		0.662 Diam. x 1.965			Flat Contacts—, +5.40		1.16	1	1.35	1.95	Camera
No. 6 "Ignitor" Gen. Purpose	905 914	2⅜ Diam. x 6⅝			**Screw—, +1½	2	2	1	0.84	1.25	Ignition, Lighting
No. 6 "Gray Label" Telephone	906	2⅜ Diam. x 6⅝			***Fahnestock—, +1½	2	2	1	0.84	1.25	Telephone
No. 6 Railroad & Industrial	911	2⅜ Diam. x 6⅝			**Screw—, +1½	2	2	1	0.90	1.35	Ignition, Telephone
EPX-6		0.662 Diam. x 4.090			Flat Contacts—, +4.05, +8.1		1.6	1	2.75	3.95	Camera
E9	1103	0.550 Diam. x 1.968			Flat Contacts—, +1.40		1.05	4	0.51	0.75	Transistor Applications
E9N		0.550 Diam. x 1.968			Flat Contacts—, +1.40		1.05	2	0.60	0.85	Transistor Radio
E12	1101	0.640 Diam. x 1.968			Flat Contacts—, +1.40		1.4	2	0.80	1.15	Instruments, Miscellaneous
E12N		0.640 Diam. x 1.968			Flat Contacts—, +1.35		1.4	2	0.83	1.20	Meters, Instruments
EPX-13		0.610 Diam. x 0.233			Flat Contacts—, +1.35		15	5	0.35	0.50	
EPX-14		0.655 Diam. x 0.614			Flat Contacts—, +2.7		0.3	1	0.75	1.10	
N22		0.457 Diam. x 0.217			Flat Contacts—, +1.25		0.04	1	1.05	1.50	Instruments, Hobby, Transistor Applications, Miscellaneous
N22T		0.457 Diam. x 0.222			Solder Tabs—, +1.25		0.04	1	1.10	1.60	
N24		0.610 Diam. x 0.235			Flat Contacts—, +1.25		0.12	1	0.70	1.00	
N24T		0.610 Diam. x 0.240			Solder Tabs—, +1.25		0.12	1	0.75	1.10	
N26		0.992 Diam. x 0.252			Flat Contacts—, +1.25		0.32	1	0.75	1.10	
N26T		0.992 Diam. x 0.272			Solder Tabs—, +1.25		0.32	1	0.84	1.20	
N28		0.992 Diam. x 0.272			Flat Contacts—, +1.25		0.4	1	0.78	1.15	
N28T		0.992 Diam. x 0.292			Solder Tabs—, +1.25		0.4	1	0.87	1.25	
N32		0.992 Diam. x 0.350			Flat Contacts—, +1.25		0.45	1	0.83	1.20	
N32T		0.992 Diam. x 0.370			Solder Tabs—, +1.25		0.45	1	0.91	1.30	
N33		0.992 Diam. x 0.358			Flat Contacts—, +1.25		0.46	1	0.98	1.40	
N33T		0.992 Diam. x 0.378			Solder Tabs—, +1.25		0.46	1	1.05	1.50	
N36		1.697 Diam. x 0.300			Flat Contacts—, +1.25		1.17	1	1.47	2.10	Novelties
N36T		1.697 Diam. x 0.320			Solder Tabs—, +1.25		1.17	1	1.54	2.20	
N38		1.355 Diam. x 0.394			Flat Contacts—, +1.25		1.0	1	1.75	2.50	
N38T		1.355 Diam. x 0.414			Solder Tabs—, +1.25		1.0	1	1.82	2.60	
N39		1.984 Diam. x 0.394			Flat Contacts—, +1.25		2.0	1	2.66	3.80	
N40		1.984 Diam. x 0.394			Flat Contacts—, +1.25		2.0	1	2.80	4.00	
N40T		1.984 Diam. x 0.414			Solder Tabs—, +1.25		2.0	1	2.87	4.10	
N41		1.984 Diam. x 0.719			Flat Contacts—, +1.25		3.3	1	4.69	6.70	
N41T		1.984 Diam. x 0.739			Solder Tabs—, +1.25		3.3	1	4.76	6.80	

*NEDA number same as an "Eveready" battery number on a different battery. Omitted to prevent errors in shipping.

**Equipped with screw terminals unless Fahnestock spring terminals are specified.

**Equipped with Fahnestock spring terminals unless screw terminals are specified.

△Furnished with Fahnestock spring terminals. If socket terminals required, specify W-363P, W-364P, W365P.

†Flashlight types.

††Shipped from factory only.

¶N53 also available with 1.750" height

¶N53T also available with 1.755" height

Trade Discount Applies To List Prices Only

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COMPLETE LINE SPECIFICATIONS

"Eveready" Battery Number	NEDA Number	Overall Dimensions in inches L W H	Terminals & Voltages	Battery Weight lbs.	Battery Weight ozs.	Unit Pkg. Quan.	Sugg. Dealer Each	List Price Each	Major Use
S41		0.455 Diam. x 0.165	Flat Contacts—, +1.5		0.06	6	0.27	0.40	
E42		1-9/32 Diam. x 2.390	Flat Contacts—, +1.40		5.85	1	1.64	2.50	
E42N		1-9/32 Diam. x 2.390	Flat Contacts—, +1.35		5.85	1	1.85	2.75	
N43		1.984 Diam. x 0.989	Flat Contacts—, +1.25		5.0	1	5.70	8.15	
N43T		1.984 Diam. x 1.009	Solder Tabs—, +1.25		5.0	1	5.78	8.25	
N45		0.563 Diam x 1.969	Solder Tabs—, +1.25		0.8	1	2.10	3.00	
N46		0.563 Diam x 1.969	Flat Contacts—, +1.25		0.8	1	1.93	2.75	
N52		1.031 Diam. x 1.969	Solder Tabs—, +1.25		1.4	1	3.17	4.55	
N53		0.90 Diam. x ¶1.684	Flat Contact—, Tab +1.25		1.7	1	2.58	3.60	
N53T		0.90 Diam. x ¶1.689	Solder Tabs—, +1.25		1.7	1	2.63	3.70	
N54		9/16 Diam. x 3-35/64	Flat Contacts—, +1.25		2.3	1	4.12	5.90	
N54T		1.031 Diam. x 1.979	Tab—, Tab +1.25		2.3	1	4.17	6.00	
N56		1.344 Diam. x 2.406	Flat Contacts—, +1.25		5.0	1	4.12	5.90	Instruments, Hobby, Transistor Applications, Miscellaneous
N56T		1.344 Diam. x 2.416	Solder Tabs—, +1.25		5.0	1	4.17	6.00	
N57		1.344 Diam. x 2.406	Flat Contacts—, +1.25		5.4	1	5.64	8.05	
N57T		1.344 Diam. x 2.416	Solder Tabs—, +1.25		5.4	1	5.69	8.15	
N66		1.050 Diam. x 1.830	Solder Tabs—, +6		2.2	1	4.72	6.75	
N67		1-33/64 x 1-33/64 x 4-13/64	Wire Leads—, +6		8.3	1	18.46	26.40	
N69		1-4/64 x 1-1/64 x 4-1/32	Nut & Stud—, +1.25		4.1	1			
N70		3⅞ x 1-9/16 x 4-1/32	Wire Leads—, +6	1	12	1	29.62	42.30	
N71		1-41/64 x 23/32 x 2-17/32	Nut & Stud—, +1.25		6.8	1			
N72		1-41/64 x 23/32 x 4-1/32	Nut & Stud—, +1.25		9.5	1			
N73		1-25/64 x 1-25/64 x 2-17/32	Nut & Stud; Tab—, +1.25		6.0	1	6.05	8.65	
N74		1-25/64 x 1-25/64 x 3½	Nut & Stud; Tab—, +1.25		9.2	1	7.12	10.15	
N75		2-1/16 x 1-23/32 x 3-7/32	Nut & Stud—, +1.25		13.4	1	9.35	13.35	
N76		2-1/64 x 1-23/32 x 3¾	Nut & Stud—, +1.25		15.7	1	10.21	14.60	Novelties
S76		0.455 Diam. x 0.200	Flat Contacts—, +1.50		0.08	6	0.30	0.45	
N77		2-1/64 x 1-23/32 x 4-9/32	Nut & Stud—, +1.25	1	1.6	1	11.17	15.95	
N78		1-41/64 x 1-9/16 x 4-1/32	Nut & Stud—, 1.25		14.7	1	11.96	17.10	
N79		3-39/64 x 1-5/64 x 4-31/32	Nut & Stud—, +1.25	1	12	1	13.79	19.70	Instruments, Hobby, Transistor Applications, Miscellaneous
N81		3-39/64 x 1-13/32 x 4-31/32	Nut & Stud—, +1.25	2	2.9	1	16.78	23.95	
N-82		3-3/64 x 1-15/64 x 4-63/64	Nut & Stud—, 1.25	1	11.	1	21.57	30.75	
N83		3-39/64 x 1-23/32 x 4-31/32	Nut & Stud—, +1.25	2	9.6	1	19.90	28.45	
N85		3-39/64 x 2-1/32 x 4/21-32	Nut & Stud—, +1.25	3	1.6	1	22.94	32.75	Radio, Electronic
E90	910	0.470 Diam. x 1.130	Flat Contacts—, +1.5		0.35	3	0.24	0.35	Radio Electronic
E91	15	9/16 Diam. x 1-31/32	Flat Contacts—, +1.5		0.75	12	0.325	0.50	Radio, Electronic
E92		0.4 Diam. x 1.735	Flat Contacts—, +1.5		0.4	12	0.31	0.45	
E93	14	1-1/32 Diam. x 1-15/16	Flat Contacts—, +1.5		2.0	12	0.39	0.60	
E94	927	1-11/32 Diam. x 1-7/32	Flat Contacts—, +1½		1.8	12	0.325	0.50	Electronic Photoflash
E95		1-11/32 Diam. x 2-13/32	Flat Contacts—, +1½		4.1	12	0.49	0.75	Communication Equipment
E97S		1-11/32 Diam. x 5-7/32	Ins. Screw—, +1½		9	12	0.73	1.10	Hobby
†D99		1-11/32 Diam. x 2-13/32	Flat Contacts—, +1½		3.3	48	0.155	0.25	Flashlight, Toys
E113		0.660 Diam. x 0.845	Flat Contacts—, +4.05		0.45	1	1.94	2.85	Instruments
E114		0.660 Diam. x 1.080	Flat Contacts—, +5.40		0.59	1	1.74	2.55	Instruments
E115		0.660 Diam. x 1.40	Flat Contacts—, +7		0.73	1	1.56	2.25	Instruments
E115N		0.660 Diam. x 1.40	Flat Contacts—, +6.75		0.73	1	1.74	2.55	Instruments
E126	1611	0.724 Diam. x 2	Flat Contacts—, +8.4		1.65	1	1.05	1.50	Transistor Radio
E132	1200	0.662 Diam. x 1.315	Flat Contacts—, +2.80		0.9	2	0.84	1.25	Transistor Applications
E132N		0.66' Diam. x 1.315	Flat Contacts—, +2.70		0.9	2	1.05	1.50	Transistor Applications
E133	1304	0.662 Diam. x 1.965	Flat Contacts—, +4.2		1.4	2	1.05	1.50	Transistor Applications
E133N	1304	0.665 Diam. x 1.965	Flat Contacts—, +4.05		1.4	2	1.23	1.80	Transistor Applications
E134		0.662 Diam. x 2.620	Flat Contacts—, +5.60		1.9	2	1.39	2.00	Transistor Applications
E134N		0.662 Diam. x 2.620	Flat Contacts—, +5.40		1.9	2	1.61	2.30	Transistor Applications
E135		0.662 Diam. x 3.275	Flat Contacts—, +6.75		2.4	1	1.74	2.55	Instruments
E135N		0.662 Diam. x 3.275	Flat Contacts—, +6.75		2.4	1	2.06	2.95	Instruments
E136		0.662 Diam. x 3.930	Flat Contacts—, +8.40		2.9	1	2.06	2.95	Instruments
E136N		0.662 Diam. x 3.930	Flat Contacts—, +8.10		2.9	1	2.27	3.35	Instruments
E137		0.662 Diam. x 4.585	Flat Contacts—, +9.80		3.1	1	2.50	3.60	Instruments
E137N		0.662 Diam. x 4.585	Flat Contacts—, +9.45		3.1	1	2.80	4.00	Instruments
E145		21/32 Diam. x 1-3/16	Flat Contacts—, +7		0.7	1	1.63	235	Electronic
E146X	1604	1-1/32 x ⅝ x 2	Min.Snap—, +8.40		1.6	6	1.05	1.50	Transistor Radio
E152		0.485 Diam. x 1.140	Flat Contacts—, +2.80		0.42	1	0.75	1.10	Instruments
E152N		0.485 Diam. x 1.140	Flat Contacts—, +2.70		0.42	1	0.83	1.20	Instruments
E153		0.485 Diam. x 1.708	Flat Contacts—, +4.2		0.4	1	0.95	1.40	Instruments
E153N		0.485 Diam. x 1.708	Flat Contacts—, +4.05		0.4	1	1.39	2.00	
E162		0.662 Diam. x 0.887	Flat Contacts—, +2.70		0.58	1	0.87	1.30	Instruments
E163		0.662 Diam. x 1.327	Flat Contacts—, +4.20		0.87	2	1.05	1.50	Transistor Applications
E163N		0.662 Diam. x 1.327	Flat Contacts—, +4.05		0.87	2	1.10	1.60	Transistor Applications
E164		0.662 Diam. x 1.767	Flat Contacts—, +5.6		1.16	2	1.25	1.75	Transistor Applications
E164N		0.662 Diam. x 1.767	Flat Contacts—, +5.4		1.16	2	1.32	1.95	Transistor Applications
E165		0.662 Diam. x 2-7/32	Flat Contacts—, +7.00		1.45	2	1.61	2.30	Transistor Applications
E165N		0.662 Diam. x 2-7/32	Flat Contacts—, +6.75		1.45	2	1.66	2.45	Transistor Applications
E169		0.662 Diam. x 3-63/64	Flat Contacts—, +12.6		4.2	1	3.50	4.95	Instruments
E175		1/2 Diam. x 1-3/32	Flat Contacts—, +7.0		1.0	10	1.05	1.50	Transistor Radio
E177	1606	35/64 Diam. x 1-29/32	Min. Snap—, +9.8		0.67	1	1.25	1.75	Transistor Radio
206	1611	3/4 Diam. x 2	Flat Contacts Neg. Recessed—, +9		1.2	1	0.53	0.75	Transistor Radio
216	1604	1-1/32 x 21/32 x 1-29/32	Min Snap—, +9		1.3	12	0.48	0.69	Transistor Radio
226	1600	1 Diam. x 1-15/16	Snap Type—, +9		2.0	6	0.62	0.89	Transistor Radio
228		1 Diam. x 2-7/16	Snap Type—, +12		2.3	1	1.05	1.50	Transistor Radio
E233	1300	1-1/64 Diam. x 1-31/32	Flat Contacts—, +4.2		3.0	1	1.93	2.80	Transistor Radio
E233N		1-1/64 Diam. x 1-31/32	Flat Contacts—, +4.05		3.0	1	2.06	2.95	Instrument
E234		1-1/64 Diam. x 2-5/8	Flat Contacts—, +5.60		3.88	1	2.27	3.35	Instruments
E234N		1-1/64 Diam. x 2-5/8	Flat Contacts—, +5.4		3.88	1	2.66	3.80	Instrument
E235N		1.015 Diam. x 3-1/4	Flat Contacts—, +6.75		4.85	1	2.93	4.50	Instrument
E236N		1.015 Diam. x 3-7/8	Flat Contacts—, +8.1		5.82	1	3.64	5.50	Instrument
239	1900	1-21/64 x 1-1/32 x 2-11/16	Socket—, +9, +13-½		3	1	1.05	1.50	Transistor Radio
243	1610	1-13/32 x 1-11/32 x 2¾	Min. Snap—, +4½		4.5	1	1.19	1.70	Transistor Radio
246	1602	1-13/32 x 1-11/32 x 2¾	Min. Snap—, +9		4.5	1	1.30	1.85	Transistor Radio
266	1605	1-13/16 x 1-13/16 x 2-7/16	Snap Type—, +9		7	1	1.22	1.75	Transistor Radio
274	1400	2-9/16 x 2-1/32 x 7-29/32	Snap Type—, +6	2	7	1	3.33	4.75	Transistor Radio
276	1603	2-9/16 x 2-1/32 x 3-5/32	Snap Type—, +9		15	1	1.26	1.80	Transistor Radio
E286		1.0 Diam. x 1-15/16	Snap Type—, +8.4		2.6	6	1.35	1.95	Transistor Radio
E289		1.0 Diam. x 2-13/32	Snap Type—, +12.6		3.6	6	2.05	2.95	Transistor Radio
E312		0.310 Diam. x 0.140	Flat Contacts—, +1.40		0.02	6	0.24	0.35	Instruments
333	1306	0.662 Diam. x 1.965	Flat Contacts—, +4.5		0.9	1	0.62	0.89	Transistor Radio
W-350	711	3-1/32 x 17⅛ x 4-31/32	Ins. Screw—, +22½, +45		14.5	1	2.69	3.85	Radio, Transceivers, Instrumen
W-351		3⅝ x 2¼ x 3-11/16	Screw—, +22½, +45	1	5.5	1	5.87	8.25	Radio, Transceivers, Instrumen
W-352	701	2-21/32 x 1-11/32 x 4-9/16	Ins. Screw—, +3		12.5	1	0.94	1.35	Electronic Devices, Instruments
W-353	11	2-19/32 x 1⅜ x 4¼	Socket—, +1½		12.5	1	0.87	1.25	Portable Radio
W-356	*	2⅝ x 2⅝ x 4-9/16	Ins. Screw—, +3	1	6	1	1.33	1.90	Radio and Electric Devices
W-357	901	3⅞ x 2-11/16 x 5-13/16	Fahnestock—, +3	2	12	1	1.57	2.25	Model Ignition, Telephone
W-358		2-15/16 x 1-3/16 x 4⅛	Ins. Screw—, +45		8.75	1	2.69	3.85	Industrial
W-359	206	3-9/16 x 2¼ x 4½	Socket—, +45	1	11.8	1	2.69	3.85	Portable "B"
W-361	227	1-11/32 x 1-11/32 x 11-23/32	Flat Contacts—, +103½	1	4	1	4.86	6.95	Portable "B"
W-362		2-15/16 x 11/16 x 1¾	Screw+, —4½, —7½		1.5	1	1.64	2.35	Radio "C"
△W363F	*	8-1/32 x 4-1/16 x 7-5/8	Fahnestock—, +22½, +45	11	5	1	5.36	7.65	Heavy Duty Radio "B"

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△W364F	*	8-1/8 x 3-7/16 x 1-11/16	Fahnestock—, +22½, +45	11	14	1	6.45	9.20	Heavy Duty Radio "B"
△W-365F	723	8-1/16 x 2-15/16 x 7⅝	Fahnestock—, +22½, +45	7	7.5	1	4.58	6.55	Industrial "B"
W-366	407	9-1/32 x 2-1/32 x 4-23/32	Socket—"A", +1½ "A", —"B", +63 "B"	4	4	1	6.65	9.50	Portable Radio "A-B"
W-367	408	9⅛ x 2¾ x 4-7/16	Socket—"A", +7½ "A", —"B", +63 "B"	4	5	1	6.65	9.50	Portable Radio "A-B"
W-368	*	9-1/32 x 2-23/32 x 3-9/16	Recessed Plug—"A", +6 "A", —"B", +75 "B"	4		1	8.05	11.50	Portable Radio "A-B"
W-369	410	9-15/16 x 2-¼ x 4-23/32	Socket—"A", +1½ "A", —"B", +90 "B"	4	5	1	5.95	8.50	Portable Radio "A-B"
W-371		1-5/32 x 1-5/32 x 2-9/16	Socket (including plug)—, +3		2.2	1	0.73	1.10	Model Ignition
E400	1106	0.455 Diam. x 0.135	Flat Contacts—, +1.40		0.04	6	0.24	0.35	Transistor Applications
E400N		0.455 Diam. x 0.135	Flat Contacts—, +1.35		0.04	6	0.29	0.45	Transistor Applications
E401	1102	0.470 Diam. x 1.130	Flat Contacts—, +1.40		0.4	3	0.35	0.50	Transistor Applications
E401N		0.470 Diam. x x1.130	Flat Contacts—, +1.35		0.4	1	0.42	0.60	Transistor Applications
411	208	1-1/32 x ⅝ x 1-29/64	Flat Contacts—, +15		0.8	1	0.81	1.15	Pocket Radio "B", Instruments
412	215	1-1/32 x ⅝ x 2	Flat Contacts—, +22½		1.2	1	1.05	1.50	Pocket Radio "B", Instruments
413	210	1-1/32 x ⅝ x 2-9/16	Flat Contacts—, +30		1.4	1	1.23	1.75	Pocket Radio "B", Instruments
415	213	1-3/64 x ⅝ x 3-11/16	Min. Snap—, +45		2.5	1	1.75	2.50	Pocket Radio "B"
416	217	1-21/64 x 63/64 x 3½	Min. Snap—, +67½		4	1	2.07	2.95	Portable Radio "B"
417	224	1-5/16 x 31/32 x 1-9/16	Flat Contacts—, +15		1.8	1	1.16	1.65	Pocket Radio "B", Instruments
420	225	1-5/16 x 31/32 x 2-3/16	Flat Contacts—, +22½		2.5	1	1.23	1.75	Pocket Radio "B", Instruments
425P		1-23/64 x 1-1/32 x 3-15/16	Socket—, +22½		4.1	1	1.37	1.95	Instruments
430	*	1-5/16 x 1 x 2-13/16	Flat Contacts—, +30		3.2	1	1.51	2.15	Pocket Radio "B", Instruments
430P		1-23/64 x 1-1/32 x 3-11/32	Socket—, +30		3.2	1	1.51	2.15	Instruments
433P		2-21/32 x 1-1/64 x 3-1/16	Socket—, +33		6	1	1.92	2.75	Instruments
437	212	1-15/16 x 1-15/32 x 6-15/32	Snap Type—, +75		14.8	1	3.15	4.50	Portable Radio "B"
E450		0.455 Diam. x 0.570	Flat Contacts—, +1.35		0.18	4	0.52	0.75	Instruments
455	*	2-21/32 x 1 x 3-11/16	Snap Type—, +45		7.8	1	2.27	3.25	Portable Radio "B"
455P		2-21/32 x 1-1/64 x 3-29/32	Socket—, +45		8.6	1	2.27	3.25	Instruments
457	203	2-13/16 x 1⅜ x 2½	Snap Type—, +67½		7.4	1	2.70	3.85	Portable Radio "B"
460K		1-29/64 x 1-3/8 x 2.344	Flat Contacts—, +45		5.3	6	1.67	2.50	Photoflash
467	200	2-13/16 x 1⅜ x 3-45/64	Snap Type—, +67½		12	1	2.70	3.85	Portable Radio "B"
468	200	2-13/16 x 1-3/8 x 3-45/64	Snap Type—, + 67-1/2		12	1	2.77	3.95	Radio Electronic
477	211	1-29/32 x 63/64 x 5-7/16	Snap Type—, +67½		8.6	1	2.70	3.85	Portable Radio "B"
479	214	1-31/32 x 1-1/32 x 7-15/32	Snap Type—, +90		12	1	2.97	4.25	Portable Radio "B"
482	202	3-19/32 x 1-27/32 x 5½	Socket—, +45	1	15	1	2.97	4.25	Portable Radio "B"
484	207	3-31/32 x 2-17/32 x 5-5/16	Socket—, +45	3	2	1	3.47	4.95	Fluorescent Lantern
487		5⅛ x 2-1/16 x 7¼	Socket—, +22½, +45	4	2	1	3.84	5.50	Farm Radio "B"
489		4-11/32 x 2-11/16 x 4-3/16	Socket—, +225	2	12	1	6.96	9.95	Electronic Photoflash
490	204	3-23/32 x 1⅜ x 3-45/64	Snap Type—, +90		15	1	3.15	4.50	Portable Radio "B"
491		2-19/32 x 1-5/16 x 4½	Flat Recessed & Socket—, +240		13	1	5.56	7.95	Electronic Photoflash
492		3-9/16 x 2-29/32 x 4-29/32	Socket—, +180, +225	2	8	1	6.96	9.95	Electronic Photoflash
493	722	2-11/16 x 2-7/32 x 3-29/32	Pinjacks—, +300		14.5	1	8.37	11.95	Geiger Counter
495	*	1-15/16 x 1-15/32 x 7⅛	Snap Type—, +90	1		1	3.47	4.95	Portable Radio "B"
497		3 x 1-19/32 x 5⅝	Flat Recessed—, +180, +510	1	10	1	11.16	15.95	Electronic Photoflash
E502		0.550 Diam. x 1.968	Flat Contacts—, +1.35		1.05	2	0.70	1.00	Transistor Applications
504	220	⅝ x 19/32 x 1⅜	Flat Contacts—, +15		0.6	1	0.81	1.15	Pocket Radio "B", Instruments
505	221	⅝ x 19/32 x 1-63/64	Flat Contacts—, +22½		0.8	1	1.05	1.50	Pocket Radio "B", Instruments
506	223	1-13/64 x ⅝ x 1-27/64	Flat Contacts—, +30		0.9	1	1.30	1.85	Pocket Radio "B", Instruments
507	222	⅝ x 19/32 x 2.605	Flat Contacts—, +30		0.9	1	1.30	1.85	Pocket Radio "B", Instruments
509	908	2⅝ x 2⅝ x 4-13/32	Coil Springs—, +6	1	5.5	1	0.85	1.29	Lanterns
510F	917	2⅝ x 2⅝ x 4-13/32	Fahnestock—, +6	1	4	1	0.85	1.29	Miscellaneous
510S	*	2⅝ x 2⅝ x 4⅜	Plastic Knurl—, +6	1	7	1	0.85	1.29	Miscellaneous
515	*	35/64 Diam. x 1-31/32	Flat Contacts—, +1.5		0.5	24	0.095	0.15	Flashlights, Toys
520	930	5-17/32 x 4-21/32 x 2-21/32	Ins. Screw—, +6	2	8	1	3.31	4.95	Lanterns, Electronics
E520		0.495 Diam. x 0.286	Flat Contacts—, +1.4		0.07	6	0.17	$.25	Transistor Applications
523		0.662 Diam. x 1.965	Flat Contacts—, 4.5		1.1	1	0.70	1.00	Transistor Radio
531		0.662 Diam. x 2.290	Snap Type—, +4.5		1.25	1	0.82	1.25	Photographic
560		2-21/32 x 1-17/32 x 7-5/32	Socket—, +7½	1	10	1	4.33	6.50	Portable Television
561		8-5/16 x 2-13/16 x 5-7/8	Socket—, +15	6		1	10.62	15.95	Portable Television
563		1-23/63 Diam. x 7-5/32	Flat Contacts—, +4.5		15	3	2.76	4.15	
564		8-5/16 x 2-13/16 x 5⅞	Socket—, +13.5		5.8	1	9.94	14.95	
E601		0.627 Diam. x 1.40	Flat Contact—, +1.35		1.22	1	0.83	1.30	Instruments
621		2-9/16 Diam. x 13	Screw—, +3	4	10	12	2.80	4.25	Fishing Buoy
E625		0.615 Diam. x 0.238	Flat Contacts—, +1.4		0.14	4	0.35	0.50	Transistor Applications
E625N		0.615 Diam. x 0.238	Flat Contacts—, +1.35		0.14	4	0.42	0.60	Transistor Applications
E630	1104	0.615 Diam. x 0.238	Flat Contacts—, +1.40		0.17	4	0.35	0.50	Transistor Applications
E630N		0.615 Diam. x 0.238	Flat Contacts—, +1.35		0.17	4	0.42	0.65	Transistor Applications
E640	1105	0.625 Diam. x 0.440	Flat Contacts—, +1.40		0.38	4	0.35	0.50	Transistor Applications
E640N		0.625 Diam. x 0.440	Flat Contacts—, +1.35		0.38	4	0.42	0.60	Transistor Applications
E675		0.455 Diam. x 0.210	Flat Contacts—, +1.40		0.07	6	0.26	0.40	Instruments
702		2-17/32 x ⅞ x 3⅛	Socket—, +4½		5	1	1.92	2.75	Shot Firing
703	*	2-7/16 x 27/32 x 3-1/16	Spring—, +4½		5	1	1.00	1.50	Instruments
704		2-11/16 x 1-11/32 x 4⅜	Socket—, +8		11.8	1	2.08	2.95	Shot Firing
706	902	8-5/16 x 2-13/16 x 6-7/16	Ins. Screw—, +6	5	14	1	4.01	5.98	Ignition, Emergency Lighting
707	26	2-9/16 x 2-1/32 x 2-13/16	Snap Type—, +7½		12	1	1.15	1.65	Portable Radio "A"
708		2⅝ x 2¾ x 4-13/16	Socket—, +22½	1	11	1	4.38	6.25	Shot Firing
711		2⅝ x 1-5/16 x 4⅛	Plastic Knurl—, +1.5		12	1	0.79	1.15	
713	8	3-29/32 x 53/64 x 2-27/32	Socket—, +7½		6.3	1	2.07	2.95	Portable Radio "A"
714		3-31/32 x 1-11/32 x 3½	Screw—, +4½		14.5	1	1.57	2.25	Telephone Test Sets
715	903	7¼ x 4-1/16 x 6-7/16	Ins. Screw—, +7½	7	10	1	4.86	7.25	Ignition, Emergency Lighting
716	*	8-37/64 x 4-1/16 x 6-7/16	Ins. Screw—, +9	8	8	1	5.53	8.25	Ignition, Emergency Lighting
717	9	2-5/32 x 1-15/16 x 3-1/32	Socket—, +7½		8	6	1.23	1.75	Portable Radio "A"
†718	1	3-29/32 x 2¾ x 5-7/16	Socket—, +6	2	4	1	2.87	4.10	Portable Radio "A"
720	18	2-25/32 x 1-13/32 x 3-1/32	Socket—, +1½		6.5	1	1.02	1.45	Portable Radio "A"
724	2	1-7/32 x 1-7/32 x 2-11/32	Flat Contacts—, +6		2.5	1	0.87	1.25	Portable Radio "A"
726	19	4-3/32 x 1-7/16 x 2-15/16	Socket—, +4½		10.5	1	1.05	1.50	Portable Radio "A"
727	428	8⅞ x 2⅛ x 3-25/32	Recessed Plug—"A", +9 "A", —"B", +90 "B"	2	14	1	5.22	7.45	Portable Radio "A-B"
†729	*	3-27/32 x 2-7/32 x 7-13/16	Socket—"A", +1½ "A", —"B", +90 "B"	2	7	1	4.38	6.25	Portable Radio "A-B"
731	918	5-11/32 x 2-27/32 x 4-15/16	Ins. Screw—, +6	3	4	1	1.96	2.95	Lantern
732		5-11/32 x 2-27/32 x 4-15/16	Ins. Screw—, +12	3	4	1	1.96	2.95	
735	900	2⅝ x 2⅝ x 4⅜	Screw—, +1½	1	7	1	0.84	1.25	Model Ignition "Glo-Plug"
736	3	3-15/16 x 1-5/16 x 4-3/32	Socket—, +4½	1		1	1.05	1.50	Portable Radio "A"
738	205	3 x 2-5/16 x 4⅛	Socket—, +22½, +45	1	3	1	2.76	3.95	Portable Radio "B"
740	719	4-19/32 x 3⅞ x 7¾	Socket—, +1½	6	....	1	7.65	10.95	Farm Radio "A"
741	17	3⅞ x 2-11/16 x 5⅜	Socket—, +1½	2	10	1	2.42	3.45	Portable Radio "A"

*NEDA number same as an "Eveready" battery number on a different battery. Omitted to prevent errors in shipping.

*Equipped with screw terminals unless Fahnestock spring terminals are specified.

*Equipped with Fahnestock spring terminals unless screw terminals are specified.

△Furnished with Fahnestock spring terminals. If socket terminals required, specify W-363P, W-364P, W365P.

†Flashlight types.

††Shipped from factory only.

Trade Discount Applies To List Prices Only

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COMPLETE LINE SPECIFICATIONS

"Eveready" Battery Number	NEDA Number	Overall Dimensions in inches L	W	H	Terminals & Voltages	Battery Weight lbs.	ozs.	Unit Pkg. Quan.	Sugg. Dealer Each	List Price Each	Major Use
742	4	2⅝ x 2⅝ x 3-27/32			Socket—, +1½	1	6	1	1.15	1.65	Portable Radio "A"
††743	5	3-13/16 x 2⅝ x 4-1/32			Socket—, +1½	1	15	1	2.28	3.25	Portable Radio "A"
744	*	2⅝ x 2⅝ x 3-27/32			Socket—, +6	1	6	1	1.15	1.65	Portable Radio "A"
746	7	3-15/16 x 1-5/16 x 4-21/32			Socket—, +4½	1	3	1	1.26	1.80	Portable Radio "A"
750	*	1-11/32 x 11/16 x 2-21/32			Spring—, +3	.....	2	1	0.65	0.95	Instruments
751	705	2 x 11/16 x 2-21/32			Spring—, +4½	.....	3	1	0.74	1.10	Instruments
752	400	14-1/16 x 2-11/16 x 4-1/16			Recessed Plug—"A", +9 "A", —"B", +90 "B"	6	2	1	5.78	8.25	Portable Radio "A-B"
752W	*	14-1/16 x 2-11/16 x 4-1/16			Recessed Plug—"A", +9 "A", —"B", +90 "B", —, +1½	6	8	1	6.48	9.25	Portable Radio "A-B"
753	401	9-7/32 x 2-23/32 x 4-5/16			Socket—"A", +7½ "A", +9 "A", —"B", +90 "B"	4	12	1	5.43	7.75	Portable Radio "A-B"
754	402	10-15/32 x 3¼ x 4			Socket—"A", +7½ "A", +9 "A", —"B", +90 "B"	6	1	1	6.62	9.45	Portable Radio "A-B"
755	403	8-9/16 x 3¾ x 2-7/16			Socket—"A", +6 "A", +7½ "A", —"B", +75 "B"	3	9	1	5.08	7.25	Portable Radio "A-B"
756	*	8⅞ x 2⅛ x 3-25/32			Socket—"A", +7½ "A", +9 "A", —"B", +90 "B"	2	14	1	4.87	6.95	Portable Radio "A-B"
757	406	9-7/32 x 2-23/32 x 4-7/32			Recessed Plug—"A", +9 "A", —"B", +90 "B"	4	12	1	5.57	7.95	Portable Radio "A-B"
759	*	15-11/16 x 4-1/32 x 6-15/16			Socket—"A", +1½ "A", —"B", +90 "B"	16	4	1	7.95	10.65	Farm Radio "A-B"
761T	712	4-1/16 x 1-15/32 x 3½			Screw—, +1½, +3, +4½	.....	14	1	1.76	2.50	Telephone Test Sets
762S	709	4-3/32 x 2-9/16 x 5-7/16			Plastic Knurl—, +22½, +45	2	12	1	3.05	4.35	Instruments
763	710	3½ x 2-3/32 x 2-15/16			Screw—, +22½	.....	14	1	1.61	2.35	Instruments
766T	*	6¾ x 4⅛ x 3-15/16			Fahnestock—, +16½, +18, +19½, +21, +22½	4	10	1	4.87	6.95	Switchboard Testing
771	*	3-29/32 x 1⅜ x 3-1/16			Socket+, —3, —4½	.....	13	1	1.93	2.75	Radio "C"
773	*	3-29/32 x ⅞ x 3⅛			5 Screw; 1 wire+, —1½, —3, —4½, —6, —7½	.....	9	1	1.65	2.35	Radio "C"
776	*	7-27/32 x 4⅛ x 9⅞			Socket & Recessed Plug—"A", +7½ "A", +9 "A", —"B", +90 "B"	14	12	1	10.47	14.95	Home Receiver "A-B"
778	*	4⅛ x 2-17/32 x 3-7/16			Fahnestock+, —3, —4½ —6, —9, —10½, —16½, —22½	1	8	1	3.84	5.50	Instruments
781	*	2-15/32 x 55/64 x 3			lastic Knurl—, —4½	.....	5	1	0.99	1.40	Instruments
785	431	8⅜ x 3⅝ x 2¼			Socket—"A", +7½ "A", —"B", +75 "B"	2	12	1	4.83	6.90	Portable Radio "A-B"
789		5-9/32 x 1-7/16 x 3¼			Flat—, +3	1	1.5	1	2.21	3.25	Finger Print Camera
799		8-5/32 x 4¼ x 8-19/32			Fahnestock—, +22½, +45, +49½	13	5	1	9.45	13.50	Camera Cranking
812		13/32 Diam. x 1-3/4			Flat Contacts—, +1.5	.....	0.3	12	0.13	0.20	Photoflash
815		9/16 Diam. x 1-31/32			Flat Contacts—, +1½	.....	0.6	24	0.16	0.25	Photoflash
835		1-1/32 Diam. x 1-15/16			Flat Contacts—, +1½	.....	1.4	24	0.16	0.25	Photoflash
850		1-11/32 Diam. x 2-13/32			Flat Contacts—, +1½	.....	3.3	12	0.16	0.25	Photoflash
†904	910	0.445 Diam. x 1.180			Flat Contacts—, +1½	.....	0.22	6	0.08	0.125	Flashlight, Novelties
†912	24	13/32 Diam. x 1¾			Flat Contacts—, +1½	.....	0.3	12	0.095	0.15	Flashlight, Toys
†915		9/16 Diam. x 1-31/32			Flat Contacts—, +1½	.....	0.6	24	0.13	0.20	Flashlight, Toys
†935	814	1-1/32 Diam. x 1-15/16			Flat Contacts—, +1½	.....	1.4	24	0.13	0.20	Flashlight, Toys
†950	813	1-11/32 Diam. x 2-13/32			Flat Contacts—, +1½	.....	3	48	0.13	0.20	Flashlight, Toys
960P	23	1-11/32 Diam. x 4-1/16			Socket—, +1½	.....	5	1	0.77	1.10	Portable Radio "A"
964	20	1-11/32 Diam. x 4-3/16			Flat Contacts—, +1½	.....	5.9	12	0.32	0.45	Portable Radio "A"
1007		6-13/32 x 3-7/32 x 3⅛			Socket—, +10	3	13	1	42.00	50.00	Portable Tools
1015	15	9/16 Diam. x 1-31/32			Flat Contacts—, +1½	.....	0.6	24	0.155	0.25	Transistor Portable
1035	14	1-1/32 Diam. x 1-15/16			Flat Contacts—, +1.5	.....	1.4	12	0.155	0.25	Portable Radio "A" Transistor
1050		1-11/32 Diam. x 2-13/32			Flat Contacts—, +1½	.....	3.3	48	0.155	0.25	Portable Radio "A" Transmitter
Formerly A100 1150		1-11/32 Diam. x 2-13/32			Flat Contacts—, +1½				——	——	Ind. Fish.
1052P		1-1/8 Diam. 3-29/32			Socket—, + 1.5	.....	4	1	0.67	1.25	Instrument
1461	907	10-13/32 x 2-25/32 x 7-9/32			Plastic Knurl—, +6	9	9	1	3.34	4.98	Ignition, Fence Controllers
1462		5⅜ x 5⅜ x 7¼			Plastic Knurl—, +6	9	7	1	4.01	5.98	Ignition, Fence Controllers
1463	922	10-13/32 x 2-25/32 x 7-9/32			Plastic Knurl—, +12	7	8	1	4.01	5.98	Toy Cars
1562	*	7-15/16 x 5 x 7½			Plastic Knurl—, +7½	11	10	1	4.86	7.25	Ignition, Searchlights
1662	913	7-27/32 x 5-9/32 x 7-9/32			Plastic Knurl—, +9	14	1	1	5.53	8.25	Ignition, Searchlights
2314	2400	1-21/64 x 1-1/32 x 2⅞			Socket+, —12, —21	.....	3	1	1.58	2.25	Transistor Portable
2356N	1612	2-3/16 x 1-5/32 x 6¼			Snap Type—, +9	1	1	1	1.10	1.60	Transistor Radio
2506	1601	8 x 2-13/16 x 1-9/16			Socket—, +3, +6, +9	1	8	1	1.76	2.50	Transistor Portable
2709N	1613	1-13/32 x 47/64 x 4-11/16			Snap Type—, +9	.....	4.5	1	1.05	1.50	Transistor Portable
2713N	1403	1-13/32 x 47/64 x 4-11/16			Min. Snap—, +6	.....	4	1	0.71	1.00	Transistor Portable
2731N	1303	2-13/16 x 1¾ x 8-11/32			Socket—, +4½	2	11	1	1.93	2.75	Transistor Radio
2744N	920	2-21/32 x 2-21/32 x 3⅞			Socket—, +6	1	14	1	0.79	1.19	Safety Flasher, Miscellaneous
2745N	924	2-21/32 x 2-21/32 x 4-7/16			Coil Springs—, +6	1	14	1	0.79	1.19	Safety Flasher, Lantern
2746N	925	2-21/32 x 2-21/32 x 4⅜			Screw—, +6	1	14	1	0.79	1.19	Lighting, Miscellaneous
2761N	1608	2-9/32 x 1¼ x 7-31/32			Socket—, +9	1	9	1	1.58	2.25	Transistor Portable
2762N	1609	2-13/16 x 1¾ x 8-11/32			Socket—, +9	2	11	1	1.93	2.75	Transistor Radio
2780N	923	5-11/32 x 2-27/32 x 4-5/32			Socket—, +12	3	8	1	2.37	3.40	Safety Flasher, Miscellaneous
E302157		2½ x 1⅜ x 4¼			Socket—, +1.35	.....	13.5	1	10.35	15.50	Radiation Equipment
E302250		11/16 Diam. x 1-29/32			Tabs—, +9.45	.....	1.0	1	2.45	3.75	Radiation Equipment
E302351		1-1/16 Diam. x 2⅝			Flat Contact—, +5.40	.....	4.5	1	3.61	5.50	Fire Alarm
E302358		¾ Diam. x 2-5/32			Wire Leads—, +10.8	.....	0.87	1	3.48	5.45	Radiation Equipment
E302362		23/32 Diam. x 3-5/32			Wire Leads—, +16.2	.....	1.13	1	4.75	7.40	
E302435		11/16 Diam. x 1½			Flat Contacts—, +6.75	.....	0.75	1	2.80	4.40	Radiation Equipment
E302462		2-13/16 x 1-17/32 x 6⅜			Wire Leads—, +97.2	2	—	1	32.34	49.75	Transmitter "B"
E302465		2-3/16 Diam. x 3¾			Wire Leads—, +47.25	1	1.0	1	19.20	30.00	Geophysical
E302478		1-9/32 Diam. x 3⅝			Flat Contacts—, +9.8	.....	9.0	1	5.77	8.80	Wire Recorder
E302497		1-1/16 Diam. x 4⅛			Screw—, +6.75	.....	6.0	1	5.10	8.00	Test Equipment
E302579		1-13/32 x ¾ x 3-3/16			Wire Leads—, +29.7	.....	5.0	1	10.85	16.70	Test Equipment
E302580		2-23/32 x 2-23/32 x 3-29/32			Socket—, +27.0	2	6.0	1	26.74	40.00	Instrument
E302642		1-9/32 Diam. x 2-⅝			Flat Contacts—, +7.00	.....	5.0	1	4.25	6.50	
E302651		1-5/16 Diam. x 2-7/16			Spec. Leads—, 1.35	.....	6.14	1	3.90	5.75	
E302702		1⅛ Diam. x 1⅝			Wire Leads—, +2.70	.....	2.0	1	3.21	4.80	Geophysical
E302904		1-11/32 Diam. x 3-31/32			Wire Leads—, +5.40	.....	6.0	1	5.82	8.75	Meter
E302905		1-11/32 Diam. x 3-19/32			Wire Leads—, +6.75	.....	9.0	1	7.02	10.50	Test Equipment
E302907		1-5/16 Diam. x 4⅞			Wire Leads—, +9.45	.....	11.6	1	9.24	13.95	Instruments
E302908		1-11/32 Diam. x 5-9/16			Wire Leads—, +10.8	.....	12.0	1	10.24	15.00	Radiation Equipment
E303219		½ Diam. x 1-9/16			Flat Contacts—, +9.8	.....	0.60	1	1.79	2.80	Auto Radio Converter (FM)
E303314		2.850 x 1.284 x 2.774			Recessed Flat Contacts—, +16.8	.....	13.0	1	9.55	14.33	Communication Equipment

*NEDA number same as an "Eveready" battery number on a different battery. Omitted to prevent errors in shipping.

**Equipped with screw terminals unless Fahnestock spring terminals are specified.

***Equipped with Fahnestock spring terminals unless screw terminals are specified.

△Furnished with Fahnestock spring terminals. If socket terminals required, specify W-363P, W-364P, W365P.

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†Flashlight types.

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(Transistorized, 600 watts)

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Same features as CONTINENTAL above, but has capacity of 175 to 200 watts. **Size** 10¾" x 6" x 6". Shpg. Wt., 21 lbs.
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TITAN (Transistorized, 175 watts)
Same features as ATLAS above less remote control, but with on-off switch and A.C. receptacle in case. Capacity 150 to 175 watts. **Size** 10¾" x 6" x 6". Shpg. Wt., 20 lbs.
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150-175 watt version of SUPREME, less remote control. Plugs into cigarette lighter. Hi-low voltage selector switch to maintain proper ouput voltage. Filtered. **Size:** 10¾" w. x 6" d. x 6" h. Shpg. Wt., 21 lbs.
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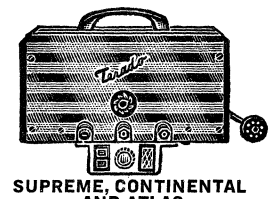

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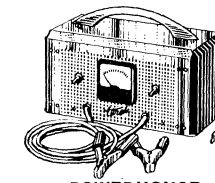

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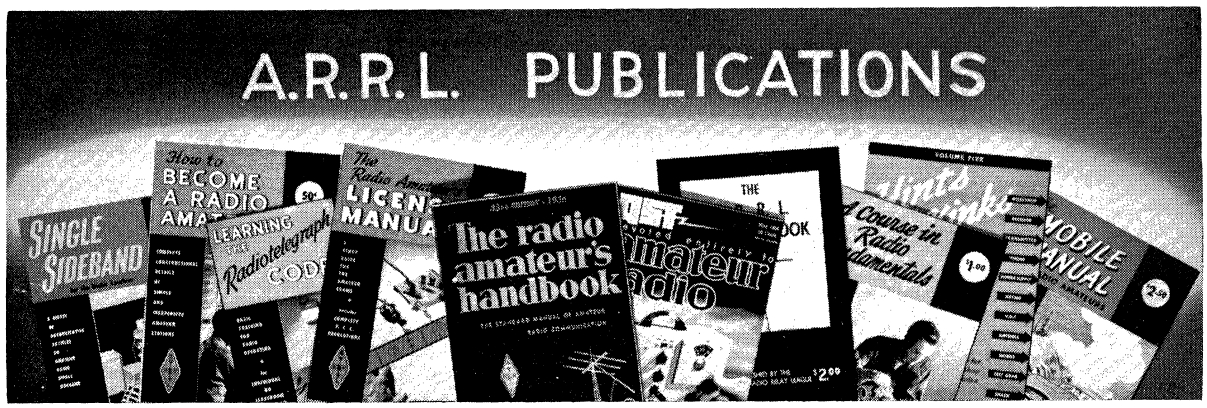

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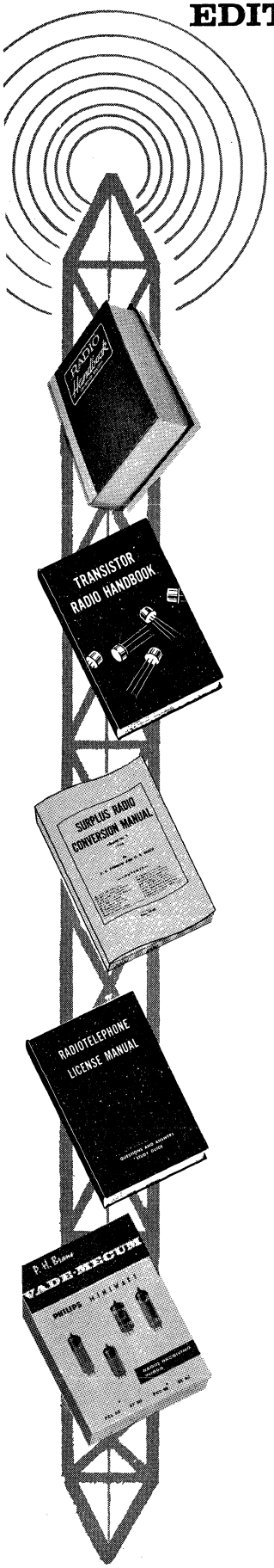

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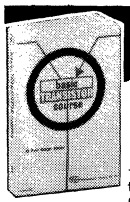

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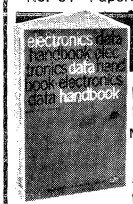

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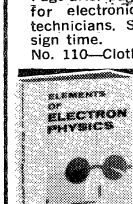

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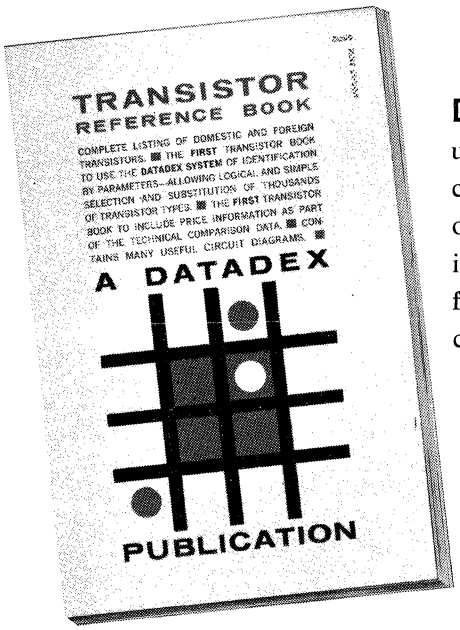

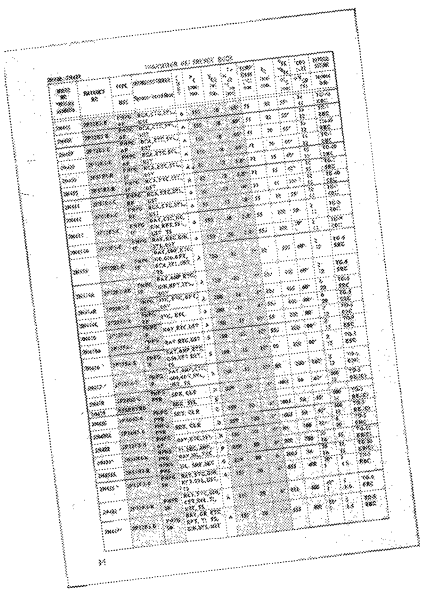

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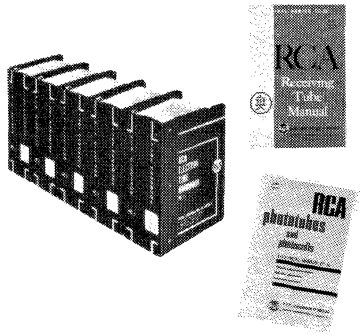

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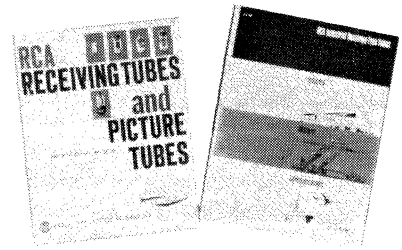

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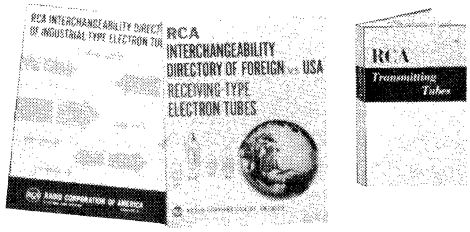

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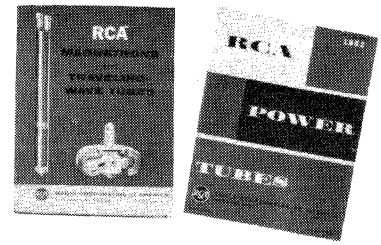

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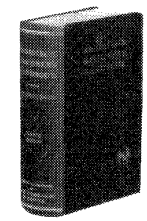

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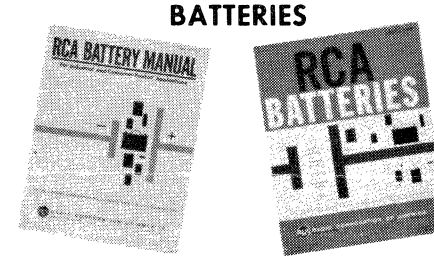

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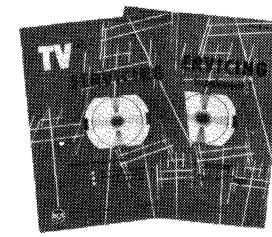

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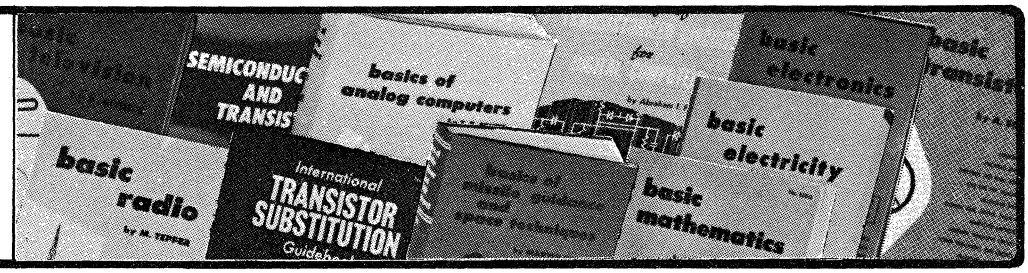

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ALLIED CONTROL

ALLIED CONTROL COMPANY INC., NEW YORK, NEW YORK

GENERAL PURPOSE RELAYS

RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS	COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE	OUTLINE DRAWING	DESCRIPTION
AS								Compact design, single hole mounting, terminal board on the front and contacts on top for easy inspection. **Terminals:** .078 x .107 hook **Weight:** 2.0 ounces max. **Mounting:** (1) 6-32 NC-2B tapped hole 7-32 deep
AS-3A	115v a-c	SPDT	5	3.5 va	850	$4.70		
AS-3D	26.5v d-c	SPDT	5	1.3 w	528	4.60		
TAT-2C								Subminiature with the performance of a miniature plus extra long life **Terminals:** Elongated holes .080 x .040 **Weight:** 0.70 ounces max. **Mounting:** (4) 4-48 NF-2B tapped holes
TAT-2C	6v d-c	DPDT	2	700 mw	52	$3.08		
TAT-2C	12v d-c	DPDT	2	700 mw	185	3.08		
TAT-2C	24v d-c	DPDT	2	700 mw	700	3.08		
TAT-2C	48v d-c	DPDT	2	700 mw	2500	3.08		
TAT-2C	115v d-c	DPDT	2	700 mw	15000	4.55		
TAT-4C								Subminiature with the performance of a miniature plus extra long life **Terminals:** Elongated holes .080 x .040 **Weight:** 0.75 ounces max. **Mounting:** (4) 4-48 NF-2B tapped holes
TAT-4C	6v d-c	4PDT	2	700 mw	52	$3.48		
TAT-4C	12v d-c	4PDT	2	700 mw	185	3.48		
TAT-4C	24v d-c	4PDT	2	700 mw	700	3.48		
TAT-4C	48v d-c	4PDT	2	700 mw	2500	3.48		
TAT-4C	115v d-c	4PDT	2	700 mw	15000	4.95		
TFMDO								Enclosed in a transparent polycarbonate cover and rigidly secured to base. **Enclosure:** Dust cover **Weight:** 2.5 ounces **Socket:** Any std. RETMA or EIA octal
TFMDO-2C	6v d-c	DPDT	5	700 mw	52	$6.02		
TFMDO-2C	12v d-c	DPDT	5	700 mw	185	6.02		
TFMDO-2C	24v d-c	DPDT	5	700 mw	700	6.02		
TFMDO-2C	115v d-c	DPDT	5	700 mw	15000	7.49		
TF154-2C								Features no internal wiring, contact arms extended to form combination solder and plug-in terminals **Terminals:** Elongated holes .080 x .040 **Enclosure:** Dust cover **Weight:** 0.80 ounces max. **Socket:** Allied type 30055-1
TF154-2C	6v d-c	DPDT	5	700 mw	52	$3.52		
TF154-2C	12v d-c	DPDT	5	700 mw	185	3.52		
TF154-2C	24v d-c	DPDT	5	700 mw	700	3.52		
TF154-2C	48v d-c	DPDT	5	700 mw	2500	3.52		
TF154-2C	115v d-c	DPDT	5	700 mw	15000	4.99		
TF154-4C								Features no internal wiring, contact arms extended to form combination solder and plug-in terminals **Terminals:** Elongated holes .080 x .040 **Enclosure:** Dust cover **Weight:** 0.95 ounces max. **Socket:** Allied type 30055-2
TF154-4C	6v d-c	4PDT	5	700 mw	52	$4.02		
TF154-4C	12v d-c	4PDT	5	700 mw	185	4.02		
TF154-4C	24v d-c	4PDT	5	700 mw	700	4.02		
TF154-4C	48v d-c	4PDT	5	700 mw	2500	4.02		
TF154-4C	115v d-c	4PDT	5	700 mw	15000	5.49		
TF154-6C								Features no internal wiring, contact arms extended to form combination solder and plug-in terminals **Terminals:** Elongated holes .080 x .040 **Enclosure:** Dust cover **Weight:** 1.0 ounces max. **Socket:** Allied type 30055-20
TF154-6C	6v d-c	6PDT	5	1.5 w	25	$5.25		
TF154-6C	12v d-c	6PDT	5	1.5 w	90	5.25		
TF154-6C	24v d-c	6PDT	5	1.5 w	430	5.25		
TF154-6C	48v d-c	6PDT	5	1.5 w	1550	5.25		
TF154-6C	115v d-c	6PDT	5	1.5 w	9000	6.15		

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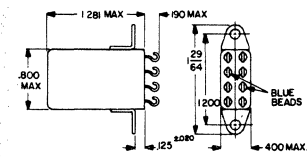
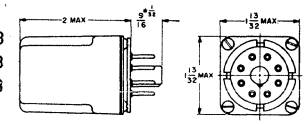
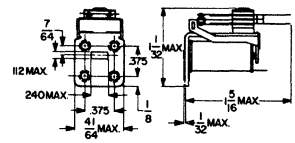
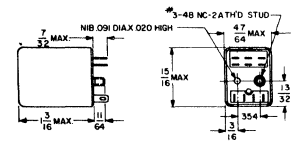
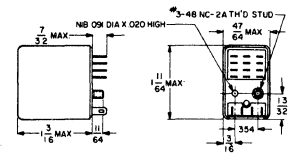
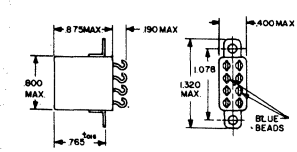
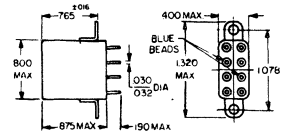
ALLIED CONTROL

ALLIED CONTROL COMPANY INC., NEW YORK, NEW YORK

SENSITIVE and PLATE CIRCUIT RELAYS

RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS	COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE	OUTLINE DRAWING	DESCRIPTION
JSH	JSH-3D 3.2 ma d-c	SPDT	2	25 mw	2500	$14.60		**Vibration:** 15g to 2000 cps **Shock:** 50g operational **Operate:** 15 milliseconds **Release:** 10 milliseconds **Temp:** −65°C to +125°C **Weight:** 1.1 ounces max. **Mounting** :(2) 0.125 dia. holes
	JSH-3D 2.2 ma d-c	SPDT	2	25 mw	5000	14.60		
	JSH-3D 1.6 ma d-c	SPDT	2	25 mw	10000	16.50		
	JSH-6D 4.0 ma d-c	DPDT	2	40 mw	2500	15.50		
	JSH-6D 2.8 ma d-c	DPDT	2	40 mw	5000	15.50		
	JSH-6D 2.0 ma d-c	DPDT	2	40 mw	10000	17.50		
TFMDO	TFMDO-2C 9.5 ma d-c	DPDT	5	220 mw	2500	$6.33		Inclosed in a transparent polycarbonate cover and rigidly secured to base. **Enclosure:** Dust cover **Weight:** 2.5 ounces max. **Socket:** Any std. RETMA or EIA octal
	TFMDO-2C 7.0 ma d-c	DPDT	5	250 mw	5000	6.83		
	TFMDO-2C 5.5 ma d-c	DPDT	5	300 mw	10000	7.23		
TFT	TFT-2C 9.5 ma d-c	DPDT	5	220 mw	2500	$3.49		Subminiature with small size moving parts resulting in quick release and exceptional contact rating. **Terminals:** Elongated holes .080 x .040 **Weight:** 0.70 ounces max. **Mounting:** (4) 4-48NF 2B tapped holes
	TFT-2C 7.0 ma d-c	DPDT	5	250 mw	5000	3.99		
	TFT-2C 5.5 ma d-c	DPDT	5	300 mw	10000	4.39		
TS154-2C	TS154-2C 5.8 ma d-c	DPDT	1	85 mw	2500	$3.73		Features no internal wiring. Contact arms extend to form combination solder and plug in terminals. **Terminals:** Elongated holes .080 x .040 **Enclosure:** Dust cover **Weight:** 0.80 ounces max. **Socket:** Allied type 30055-1
	TS154-2C 4.1 ma d-c	DPDT	1	85 mw	5000	4.23		
	TS154-2C 3.1 ma d-c	DPDT	1	85 mw	10000	4.63		
TS154-4C	TS154-4C 8.4 ma d-c	4PDT	1	175 mw	2500	$4.17		Features no internal wiring. Contact arms extend to form combination solder and plug in terminals. **Terminals:** Elongated holes .080 x .040 **Enclosure:** Dust cover **Weight:** 0.95 ounces max. **Socket:** Allied type 30055-2
	TS154-4C 6.2 ma d-c	4PDT	1	175 mw	5000	4.67		
	TS154-4C 4.5 ma d-c	4PDT	1	175 mw	10000	5.07		

SUBMINIATURE TYPE RELAYS

RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS	COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE	OUTLINE DRAWING	DESCRIPTION
KHJ	KHJ-6D 6v d-c	DPDT	2	1.5 w	39	$12.64		**Vibration:** 20g to 2000 cps **Shock:** 100g operational **Operate:** 5 milliseconds **Release:** 3 milliseconds **Temp:** −65°C to +125°C **Weight:** 0.5 ounces max. **Mounting** :(2) 0.120 dia. holes
	KHJ-6D 12v d-c	DPDT	2	1.5 w	147	12.64		
	KHJ-6D 26.5v d-c	DPDT	2	1.5 w	612	12.64		
	KHJ-6D 48v d-c	DPDT	2	1.5 w	2370	13.64		
	KHJ-6D 115v d-c	DPDT	2	1.5 w	10000	15.34		
KHJO	KHJO-6D 26.5v d-c	DPDT	2	1.5 w	612	$12.64		**Vibration:** 20g to 2000 cps **Shock:** 100g operational **Operate:** 5 milliseconds **Release:** 3 milliseconds **Temp:** −65°C to +125°C **Weight:** 0.5 ounces max. **Mounting** :(2) 0.120 dia. holes **Socket:** Armel type HRC-1 or equiv.

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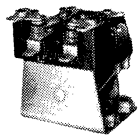
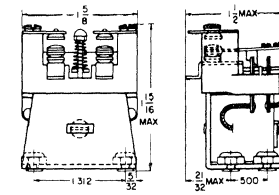
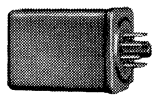
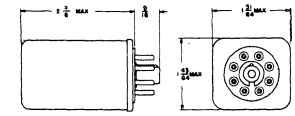
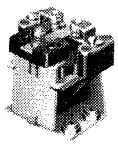
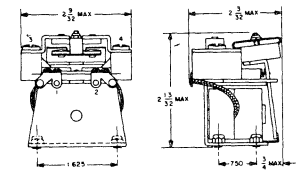
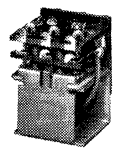
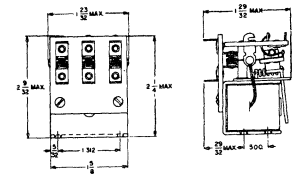
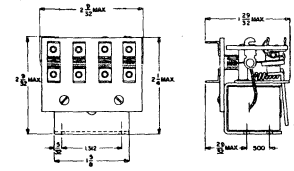
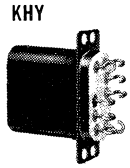
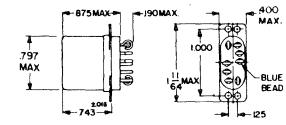
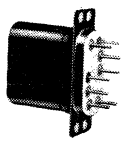
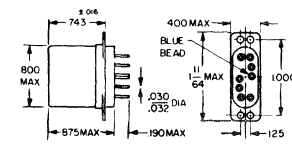
ALLIED CONTROL

ALLIED CONTROL COMPANY INC., NEW YORK, NEW YORK

POWER RELAYS

	RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS	COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE	OUTLINE DRAWING	DESCRIPTION
BO 	BO-6A	6v a-c	DPDT	15	5.0 va	1.07	$5.50		Compact, rugged design with contacts and terminals, readily accessible on top of relay **Terminals:** .096 diameter holes, tin dipped **Weight:** 5.5 ounces max. **Mounting:** (4) 6-32 elastic stop nuts
	BO-6A	24v a-c	DPDT	15	5.0 va	17	5.50		
	BO-6A	115v a-c	DPDT	15	5.0 va	445	5.50		
	BO-6A	220v a-c	DPDT	15	5.0 va	1700	5.62		
	BO-6D	6.3v d-c	DPDT	15	2.5 w	14.2	5.05		
	BO-6D	13.2v d-c	DPDT	15	2.5 w	70	5.05		
	BO-6D	26.5v d-c	DPDT	15	2.5 w	230	5.05		
	BO-6D	115v d-c	DPDT	15	2.5 w	5000	5.60		
BOHRO 	BOHRO-6A	115v a-c	DPDT	15	5.0 va	445	$11.33		**Vibration:** 10-55 cps at .062" double amplitude **Shock:** 30g operational **Temp:** −55°C to +71.5°C **Weight:** 9.5 ounces max. **Socket:** Any std. RETMA or EIA octal
	BOHRO-6D	26.5v d-c	DPDT	15	2.5 w	230	10.88		
CNA 	CNA-13A	115v a-c	SPST NO DB	25	10.5 va	145	$8.00		Heavy duty, compact relay with double break contact construction eliminating pigtails **Terminals:** Coil (1 & 2) 3-32 dia. holes Contacts (3 & 4) 10-32 screw type **Weight:** 9.5 ounces max. **Mounting:** (4) 6-32 elastic stop nuts
	CNAS-13A	115v a-c	SPST NO DB	50	10.5 va	145	10.00		
PO-9 	PO-9A	24v a-c	3PDT	15	10.5 va	8.0	$6.40		Low cost, compact, multi pole **Terminals:** .079 x .164 hook, tin dipped **Weight:** 7.5 ounces max. **Mounting :** (4) 6-32 tapped holes
	PO-9A	115v a-c	3PDT	15	10.5 va	145.0	6.40		
	PO-9D	13.2v d-c	3PDT	15	2.5 w	70	6.00		
	PO-9D	24.0v d-c	3PDT	15	2.5 w	230	6.00		
	PO-9D	115.0v d-c	3PDT	15	2.5 w	5000	6.42		
PO-12	PO-12A	115v a-c	4PDT	15	10.5 va	145	$7.16		Low cost, compact, multi pole **Terminals:** .079 x .164 hook, tin dipped **Weight:** 8.0 ounces max. **Mounting :** (4) 6-32 tapped holes
	PO-12D	13.2v d-c	4PDT	15	2.5 w	70	6.60		
	PO-12D	24.0v d-c	4PDT	15	2.5 w	230	6.60		

SUBMINIATURE TYPE RELAYS

KHY 	KHY-6D	6v d-c	DPDT	2	1.5 w	34	$12.64		**Vibration:** 20g to 2000 cps **Shock:** 50g operational **Operate:** 5 milliseconds **Release:** 3 milliseconds **Temp:** −65°C to +125°C **Weight:** 0.5 ounces max. **Mounting :** (4) 0.096 dia. holes
	KHY-6D	12v d-c	DPDT	2	1.5 w	155	12.64		
	KHY-6D	26.5v d-c	DPDT	2	1.5 w	615	12.64		
	KHY-6D	48v d-c	DPDT	2	1.5 w	1920	13.64		
	KHY-6D	115v d-c	DPDT	2	1.5 w	8120	15.34		
KHYO 	KHYO-6D	26.5v d-c	DPDT	2	1.5 w	615	$12.64		**Vibration:** 20g to 2000 cps **Shock:** 50g operational **Operate:** 5 milliseconds **Release:** 3 milliseconds **Temp:** −65°C to +125°C **Weight:** 0.5 ounces max. **Mounting :** (4) 0.096 dia. holes **Socket:** Armel type HRK-1 or equiv.

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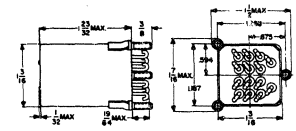
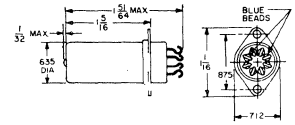
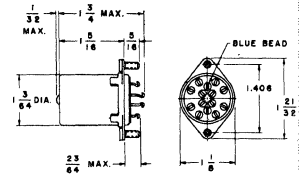
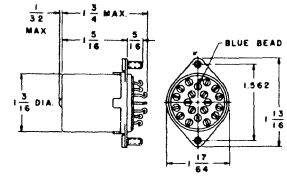
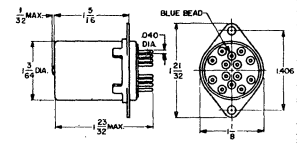
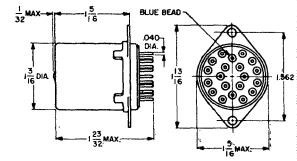
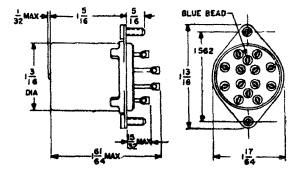
ALLIED CONTROL

ALLIED CONTROL COMPANY INC., NEW YORK, NEW YORK

MINIATURE TYPE RELAYS

RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS	COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE	OUTLINE DRAWING	DESCRIPTION
CH	CH-12D 26.5v d-c	4PDT	10	4.0 w	180	$30.00		**Vibration:** 20g to 2000 cps **Shock:** 50g operational **Operate:** 15 milliseconds **Release:** 10 milliseconds **Temp:** —65°C to +125°C **Weight:** 5.0 ounces max. **Mounting** : (3) 6-32 NC-2A thd. studs
MH-6	MH-6D 26.5v d-c	DPDT	5	1.75 w	400	$14.25		**Vibration:** 15g to 1000 cps **Shock:** 50g operational **Operate:** 8 milliseconds **Release:** 5 milliseconds **Temp. MH:** —55°C to +85°C **MHB:** —65°C to +125°C **Weight:** 2.0 ounces max. **Mounting** : (2) 0.125 dia. holes
	MHB-6D 26.5v d-c	DPDT	5	1.25 w	325	14.25		
MH-12	MH-12D 26.5v d-c	4PDT	5	2.5 w	300	$20.90		**Vibration:** 15g to 1000 cps **Shock:** 50g operational **Operate:** 10 milliseconds **Release:** 5 milliseconds **Temp. MH:** —55°C to +85°C **MHB:** —65°C to +125°C **Weight:** 3.0 ounces max. **Mounting** : (2) 6-32 NC-2A thd. studs
	MHB-12D 26.5v d-c	4PDT	5	3.0 w	250	20.90		
MH-18	MH-18D 26.5v d-c	6PDT	5	3.0 w	240	$23.75		**Vibration:** 15g to 1000 cps **Shock:** 50g operational **Operate:** 10 milliseconds **Release:** 5 milliseconds **Temp. MH:** —55°C to +85°C **MHB:** —65°C to +125°C **Weight:** 4.2 ounces max. **Mounting** : (2) 6-32 NC-2A thd. studs
	MHB-18D 26.5v d-c	6PDT	5	3.5 w	200	23.75		
MHUO-12	MHUO-12D 26.5v d-c	4PDT	5	2.5 w	300	$20.90		**Vibration:** 15g to 1000 cps **Shock:** 50g operational **Operate:** 10 milliseconds **Release:** 5 milliseconds **Temp:** —55°C to +85°C **Weight:** 3.0 ounces max. **Mounting** : (2) 0.156 dia. holes **Socket:** Allied type 16188-1
MHUO-18	MHUO-18D 26.5v d-c	6PDT	5	3.0 w	240	$23.75		**Vibration:** 15g to 1000 cps **Shock:** 50g operational **Operate:** 10 milliseconds **Release:** 5 milliseconds **Temp:** —55°C to +85°C **Weight:** 4.2 ounces max. **Mounting** : (2) 0.152 dia. holes **Socket:** Allied type 16189-1
MHY	MHY-12D 26.5v d-c	4PDT	10	3.5 w	200	$25.41		**Vibration:** 20g to 500 cps **Shock:** 50g operational **Operate:** 10 milliseconds **Release:** 5 milliseconds **Temp:** —65°C to +125°C **Weight:** 4.2 ounces max. **Mounting** : (2) #6-32 NC-2A thd. studs

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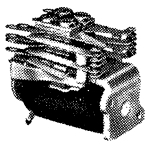
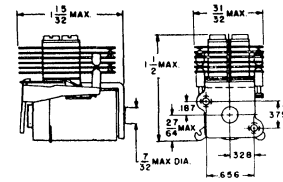
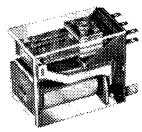
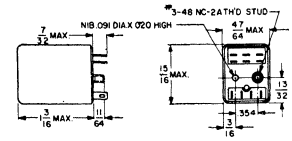
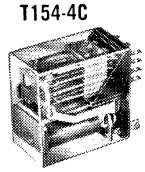
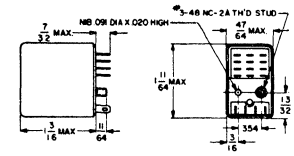
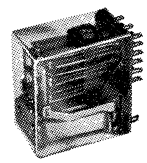
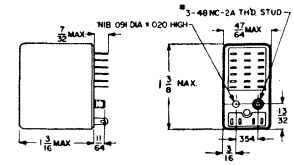
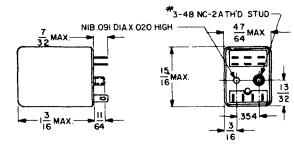
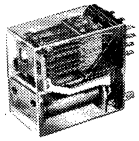
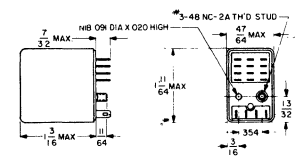
ALLIED CONTROL

ALLIED CONTROL COMPANY INC., NEW YORK, NEW YORK

TELEPHONE TYPE RELAYS

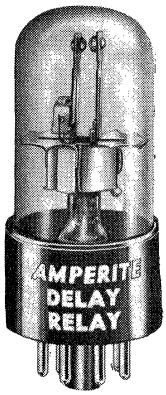
RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS	COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE	OUTLINE DRAWING	DESCRIPTION
SK								Miniature size for front of panel wiring with an efficient metal to metal hinge. **Terminals:** elongated holes .062 x .125 . **Weight:** 2.5 ounces max. **Mounting:** (2) 4-40 NC-2B thd.
	SK-4C 24v d-c	4PDT	2	1.5 w	425	$4.60		
T154-2C								Features no internal wiring, contact arms extended to form combination solder and plug-in terminals **Terminals:** Elongated holes .080 x .040 **Enclosure:** Dust cover **Weight:** 0.80 ounces max. **Socket:** Allied type 30055-1
	T154-2C 6v d-c	DPDT	2	700 mw	52	$3.42		
	T154-2C 12v d-c	DPDT	2	700 mw	185	3.42		
	T154-2C 24v d-c	DPDT	2	700 mw	700	3.42		
	T154-2C 48v d-c	DPDT	2	700 mw	2500	3.42		
	T154-2C 115v d-c	DPDT	2	700 mw	15000	4.89		
T154-4C								Features no internal wiring, contact arms extended to form combination solder and plug-in terminals **Terminals:** Elongated holes .080 x .040 **Enclosure:** Dust cover **Weight:** 0.95 ounces max. **Socket:** Allied type 30055-2
	T154-4C 6v d-c	4PDT	2	700 mw	52	$3.82		
	T154-4C 12v d-c	4PDT	2	700 mw	185	3.82		
	T154-4C 24v d-c	4PDT	2	700 mw	700	3.82		
	T154-4C 48v d-c	4PDT	2	700 mw	2500	3.82		
	T154-4C 115v d-c	4PDT	2	700 mw	15000	5.29		
T154-6C								Features no internal wiring, contact arms extended to form combination solder and plug-in terminals **Terminals:** Elongated holes .080 x .040 **Enclosure:** Dust cover **Weight:** 1.0 ounces max. **Socket:** Allied type 30055-20
	T154-6C 6v d-c	6PDT	2	1.5 w	25	$4.95		
	T154-6C 12v d-c	6PDT	2	1.5 w	90	4.95		
	T154-6C 24v d-c	6PDT	2	1.5 w	430	4.95		
	T154-6C 48v d-c	6PDT	2	1.5 w	1550	4.95		
	T154-6C 115v d-c	6PDT	2	1.5 w	9000	5.85		

BIFURCATED CONTACTS

RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS	COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE	OUTLINE DRAWING	DESCRIPTION
T-163-2C								Same as T-154-2C except for bifurcated contacts and gold plated terminals and contacts for longer shelf life
	T-163-2C 6v d-c	DPDT	2	700 mw	52	$3.80		
	T-163-2C 12v d-c	DPDT	2	700 mw	185	3.80		
	T-163-2C 24v d-c	DPDT	2	700 mw	700	3.80		
	T-163-2C 48v d-c	DPDT	2	700 mw	2500	3.80		
	T-163-2C 115v d-c	DPDT	2	700 mw	15000	5.27		
T-163-4C								Same as T-154-4C except for bifurcated contacts and gold plated terminals and contacts for longer shelf life
	T-163-4C 6v d-c	4PDT	2	700 mw	52	$4.33		
	T-163-4C 12v d-c	4PDT	2	700 mw	185	4.33		
	T-163-4C 24v d-c	4PDT	2	700 mw	700	4.33		
	T-163-4C 48v d-c	4PDT	2	700 mw	2500	4.33		
	T-163-4C 115v d-c	4PDT	2	700 mw	15000	5.80		

THERMOSTATIC **AMPERITE** DELAY RELAYS

GLASS ENCLOSED • HERMETICALLY SEALED • A.C., D.C., OR PULSATING CURRENT



STANDARD

AMPERITE THERMOSTATIC DELAY RELAYS

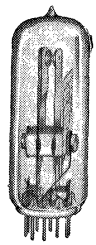
Amperite Thermostatic Delay Relays are actuated by a heater . . . can therefore be used on A.C., D.C., or pulsating current. Being hermetically sealed, Amperite Relays are not affected by altitude, moisture, or other atmospheric conditions. **REPLACED AS EASILY AS A RADIO TUBE.**

CIRCUITS SPST: Available only — normally open or normally closed.

HEATER VOLTAGES AVAILABLE: 2.5, 5.0, 6.3, 12.6, 26, 50, 115V.
For 220V use a 6500 ohm-5 watt resistor in series with 115V heater.

HEATER WATTAGE: Standard and Miniature Relays—all voltages—2w prox. All heaters may be operated continuously. Heaters will not be damaged by a 50% voltage overload for duration of 1 hour or less.

VARIATION OF DELAY WITH HEATER VOLTAGE

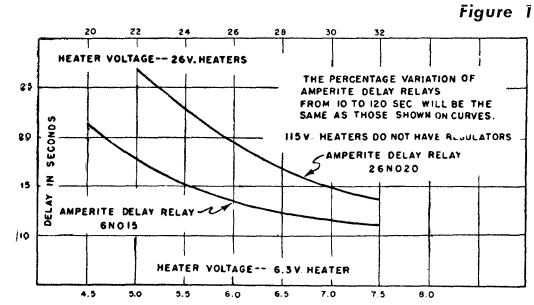


MINIATURE

FIGURE 1 — Effect of change in heater voltage on delay in seconds. Only low voltage heaters (2.5 to 26 V.) incorporate heater voltage regulations as shown in this diagram.

For 22 to 30 V. supply: We recommend Amperite Delay Relays with 26 V. heaters for airplanes and similar power supplies. These heaters are regulated for battery variation of 22 to 30 V. as shown in this diagram.

Figure 1



CONTACT RATING

	Delay	Contact Rating Non-Inductive	DC Voltage Breakdown Contact-to-Contact	Heater-to-Contact
STANDARD	2 to 10 Sec.	115V — 3a AC	250V	500V
RELAYS	15 to 180 Sec.	115V — 3a AC	800V	800V
		220V — 1a AC	800V	800V
MINIATURE	2 to 10 Sec.	115V — 2a AC	250V	500V
RELAYS	15 to 180 Sec.	115V — 2a AC	800V	800V
		220V — 1a AC	800V	800V
FLASHERS		—½a AC	250V	500V

AMBIENT TEMPERATURES: Relays are compensated for temperatures of — 55° to + 80°C. (Relays can be operated from — 80°C to + 125°C without damage). Ambient temperature tolerances depend on type. Low voltage heaters 26V or less have better ambient compensation than relays with 115V heaters. If the relays are actually to be used over ambients of — 55°C to + 80°C it is advisable to have each relay tested at the factory over the ambient. A nominal charge is made for this service.

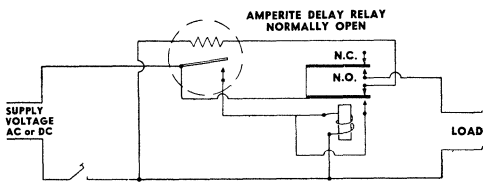
DELAYS AVAILABLE: From 2 to 180 seconds. Relays can be used in series to obtain longer delays. The delay of any individual relay can be increased up to 50% by using a resistor in series with the heater. Relays with short delays such as 2 to 5 seconds can be increased 100%.

CONTACT DROP: — 0.1V — Prox. at 1A.

LIFE of any individual relay will depend on the service the contacts are subjected to. With a 115 V. — 2A A.C. non inductive load the contacts will withstand at least 250,000 operations. SHELF LIFE of Amperite Delay Relays is over 10 years.

INDUCTIVE A.C. LOADS: When breaking an inductive A.C. load, use a condenser of .01 to .1 mfd across contacts. In some cases, putting a 20,000 ohm, 5w. resistor across the contacts reduces the arcing considerably.

Relay Contacts should not be used on voltages above 220V.



INSTANTANEOUS RECYCLE: This can be obtained by using a normally open Amperite Delay Relay in conjunction with a DPDT Magnetic Relay as shown at left. If normally closed is required — use a **normally open** Amperite Delay Relay — and use the NC contacts on the magnetic relay. Choose the Amperite Delay Relay for the voltage required and the delay required (e.g. — 115N030 — would be used on 115 volt supply — for a 30 second delay).

LONG RECYCLE RELAYS: are also available. For example, Amperite Delay Relay 115N07T has a delay in closing of 3 to 8 seconds. After heater is disconnected, contacts will remain closed for 30 seconds minimum. Write us about your requirements.

© U.C.P., Inc.

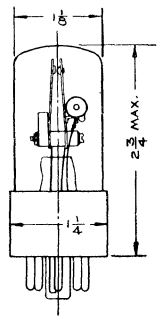
THERMOSTATIC AMPERITE DELAY RELAYS

GLASS ENCLOSED • HERMETICALLY SEALED • A.C., D.C., OR PULSATING CURRENT

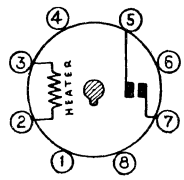
BREAKING D.C. CURRENT: When Relay contacts open D.C. Current above 50 volts, a condenser with a resistor in series with the condenser must be connected across the conatcts. The following condenser values are approximate.

	50 V. D.C.	115 V. D.C.	230 V. D.C.
0 to .5 Amp.	None	.1 MF	.25 MF
.5 to 1.5 Amps.	"	.25 "	.25 "
1.5 to 3 Amps.	.25 MF	1 "	.5 "

SPECIFICATIONS:



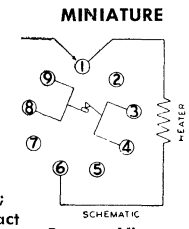
Standard Octal Base



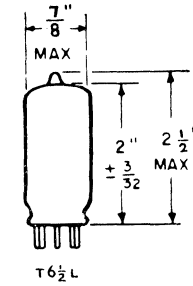
Bottom View
Schematic Diagram

Base Wiring:
Standard Radio Octal:
Prongs 2-3-heater;
Prongs 5-7-contacts.

Base Wiring:
9-Pin Miniature:
Prongs 1-6 heater;
Prongs 3-4, 1 contact;
Prongs 8-9, 2nd contact



Bottom View
Schematic Diagram



9-Pin Miniature Base

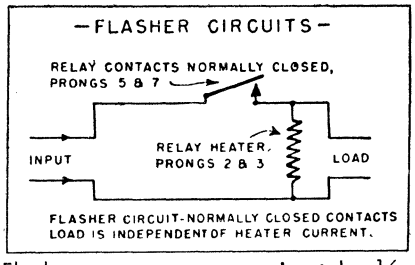
STANDARD AND MINIATURE TYPES OF AMPERITE DELAY RELAYS AND FLASHERS... Net $2.40 each

STANDARD RELAYS: Available in 2 to 180 Seconds Delay. MINIATURE RELAYS: Available in 2 to 120 Seconds Delay.

Types shown in Bold type in the chart below are more popular relays and are more readily available.

MINIATURE TYPES: Designated by letter T (e.g. 6N05T)

Delay-Seconds	Tolerance Seconds at 20°C	NORMALLY OPEN CONTACTS — HEATER VOLTAGES							NORMALLY CLOSED CONTACTS — HEATER VOLTAGES						
		2.5 V.	5.0 V.	6.3 V.	12.6 V.	26 V. (22-30)	50 V.	115 V.	2.5 V.	5.0 V.	6.3 V.	12.6 V.	26 V. (22-30)	50 V.	115 V.
2	± 1½	2N02	5N02	6N02	12N02	26N02	50N02	115N02	2C2	5C2	6C2	12C2	26C2	50C2	115C2
3	± 1½	2N03	5N03	**6N03**	12N03	**26N03**	50N03	**115N03**	2C3	5C3	**6C3**	12C3	**26C3**	50C3	**115C3**
5	± 2½	2N05	5N05	**6N05**	12N05	**26N05**	50N05	**115N05**	2C5	5C5	**6C5**	12C5	**26C5**	50C5	**115C5**
8	± 3	2N08	5N08	**6N08**	12N08	**26N08**	50N08	**115N08**	2C8	5C8	**6C8**	12C8	**26C8**	50C8	**115C8**
10	± 4	2N010	5N010	**6N010**	12N010	**26N010**	50N010	**115N010**	2C10	5C10	**6C10**	12C10	**26C10**	50C10	**115C10**
15	± 4	2N015	5N015	**6N015**	12N015	**26N015**	50N015	**115N015**	2C15	5C15	**6C15**	12C15	**26C15**	50C15	**115C15**
20	± 5	2N020	5N020	**6N020**	12N020	**26N020**	50N020	**115N020**	2C20	5C20	**6C20**	12C20	**26C20**	50C20	**115C20**
30	±10	**2N030**	**5N030**	**6N030**	**12N030**	**26N030**	50N030	**115N030**	2C30	5C30	**6C30**	12C30	**26C30**	50C30	**115C30**
45	±10	2N045	5N045	**6N045**	12N045	**26N045**	50N045	**115N045**	2C45	5C45	**6C45**	12C45	**26C45**	50C45	**115C45**
60	±15	**2N060**	5N060	**6N060**	12N060	**26N060**	50N060	**115N060**	2C60	5C60	**6C60**	12C60	**26C60**	50C60	**115C60**
75	±15	2N075	5N075	**6N075**	12N075	**26N075**	50N075	**115N075**	2C75	5C75	**6C75**	12C75	**26C75**	50C75	**115C75**
90	±20	2N090	5N090	**6N090**	12N090	**26N090**	50N090	**115N090**	2C90	5C90	**6C90**	12C90	**26C90**	50C90	**115C90**
120	±35	2N0120	5N0120	**6N0120**	12N0120	**26N0120**	50N0120	**115N0120**	2C120	5C120	**6C120**	12C120	**26C120**	50C120	**115C120**
150	±35	2N0150	5N0150	**6N0150**	12N0150	**26N0150**	50N0150	**115N0150**	2C150	5C150	**6C150**	12C150	**26C150**	50C150	**115C150**
180	±45	2N0180	5N0180	**6N0180**	12N0180	**26N0180**	50N0180	**115N0180**	2C180	5C180	**6C180**	12C180	**26C180**	50C180	**115C180**



Flashers operate approximately ⅓ on, ⅔ off. The percentage time on can be increased by reducing the voltage of the heater.

Flashers available only in quantities of 12 or less. Cannot be supplied in production quantities.

Normally closed flashers are standard, and are indicated by the letter "F." The number following letter "F" denotes flashes per minute. *For example a 6F30 flasher,* has 6.3V heater, normally closed 30 FPM with a ± 1 flashes per minute tolerance. A 6F30T, would be the same type but in 9-pi miniature. Flashers are available from *30 to 90 Flashes per minute* with tol erances as shown in the chart below:

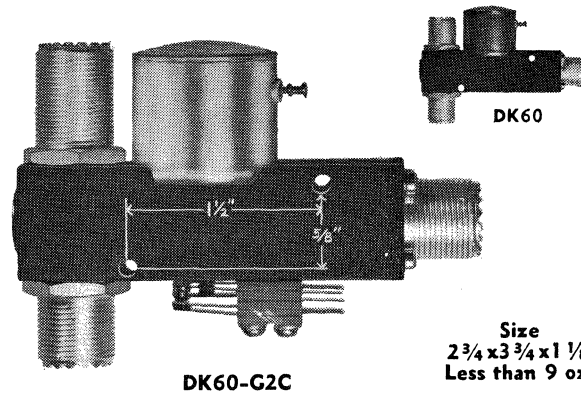
FLASHERS have contact rating of ½a 115V AC, non-inductive.

Tol. FPM — 20°C	Standard Flashers Available		
10 ± 5	6F10	26F10	115F10
30 ± 15	6F30	26F30	115F30
45 ± 15	6F45	26F45	115F45
60 ± 20	6F60	26F60	115F60
75 ± 20	6F75	26F75	
90 ± 25	6F90	26F90	

© U.C.P., Inc.

DOW-KEY DK60 SERIES COAXIAL RELAYS

4 VERSATILE MODELS, AC or DC OPERATION UHF, N, BNC, TNC or C CONNECTORS



DK60-G2C

Size
2¾ x 3¾ x 1⅛
Less than 9 oz.

r.f. SPECIFICATIONS:

Low VSWR: Less than 1.15:1 from 0 to 500 mc — **Low Losses:** Pure silver contacts. All other parts used in crucial positions are plated with fine silver. (Gold plating available at extra cost, special order.) — **Low Cross-Talk:** (greater than 80 db) in DK60-G and DK60-G2C through the use of a patented "isolated connector" arrangement which opens the disconnected conductor and simultaneously provides an electrostatic shield between it and the rest of the circuit. — **High Power Rating:** (a) one kilowatt through straight connectors, (b) to 10 watts through "isolated connector" — excellent for video switching.

MECHANICAL SPECIFICATIONS:

High Contact Pressures: Long-Life Expectancy greater than one million operations. — **Continuous Duty:** Teflon feed-through terminals used on coil to provide connection ease. — **Small, Compact:** Only 2¾" x 3¾" x 1⅛". — **Light-weight:** Less than 9 ounces.

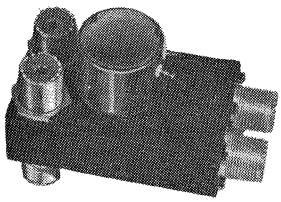
ELECTRICAL SPECIFICATIONS:

Wide variety of coil voltages: 6, 12, 24, 28, 32, 48, 110, 220 D.C. volts at 2.0 watts: 6, 12, 24, 110, 220 A.C. Volts at 6 volt-amps 50-60 cps. (special voltage or resistances available on request.) — **Less than 50 degrees C temperature rise above ambient:** Maximum ambient temperature is 75 degrees C. Auxiliary contacts available for power control — DPDT at 5a. 100 v a.c. on DK60-2C and DK60-G2C.

UNCONDITIONAL GUARANTEE
(We will repair if faulty within 1 year)

STANDARD RELAYS, WITH TYPE UHF CONNECTORS, INCLUDE:

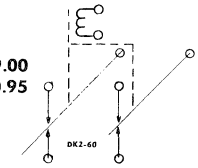
- **DK60** — SPDT r.f. switch **each $12.45**
- **DK60-G** — SPDT r.f. switch with special "isolated" connector in de energized position **each $13.70**
- **DK60-2C** — SPDT r.f. switch with DPDT auxiliary contacts **each $14.35**
- **DK60-G2C** — SPDT r.f. switch with DPDT auxiliary contacts and special "isolated" connector in de-energized position **each $15.65**



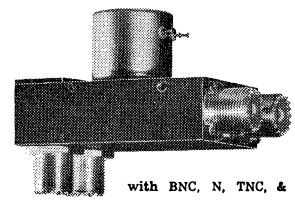
DK2-60 DPDT Switch

DK2-60	$19.00
DK2-60-2C	$20.95

available with BNC N. TNC. & C at slightly higher cost.



DK2-60 DPDT r.f. switch — for switching two coaxial lines simultaneously.

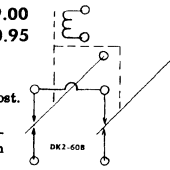


DK2-60B r.f. By Pass Switch

DK2-60B	$19.00
DK2-60B-2C	$20.95

with DPDT aux. contacts

with BNC, N, TNC, & C at slightly higher cost.

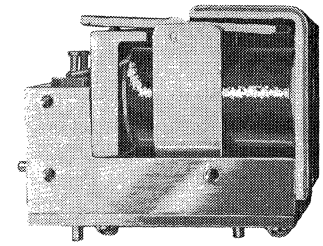


DK2-60B r.f. Bypass switch. Ideal for switching in and out a power amplifier between an exciter and an antenna.

Specifications: Similar to DK60 series except — size: 2¾" x 3¾" x 1¾". Weight — less than 12 ounces.

DK61 SERIES INDUSTRIAL AND MILITARY APPLICATIONS!

DK61
Actual Size
11/16" x 1-3/16" x 1-9/16"



A compact, superb new DOW-KEY relay specifically designed, thoroughly tested and proven, for the rugged requirements of industrial and military application.

R. F. SPECIFICATIONS:

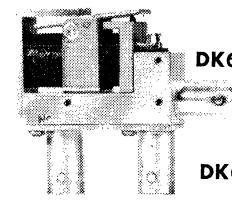
Low VSWR: Less than 1.10:1 from 0 to 400 mc. Less than 1.20:1 from 0 to 1000 mc. Contact material available for low and high power levels. — **Cross-Talk:** Greater than 40 db @ 400 mc. — **Power Rating:** 100 watts. — **Connectors Available:** Connectors shown are std., available in BNC, TNC, and other miniature connectors.

ELECTRICAL SPECIFICATIONS:

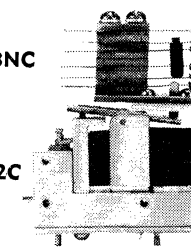
Coil Voltages: 6, 12, 24, 28, 48, 110 or 220 V DC at less than 3.0 watts — **Operating Time:** Less than 15 ms. **Auxiliary SPDT or DPDT** contacts available for power control rated at 3 a at 150 V DC.

ENVIRONMENTAL AND MECHANICAL SPECIFICATIONS:

Operating Temperature Range: -65 degrees C., to 125 degrees C. — **Duty Cycle:** Continuous. — **Life Expectancy:** Greater than 500,000. — **Vibration:** Withstands vibration tests in accordance with MIL-STD-202B, test condition B. — **Finish:** Silver Plated per Mil Spec QQ-S-365 and cadmium plated per QQ-P-416 to withstand salt spray and humidity tests. — **Weight:** less than 4 ounces.



DK61-BNC



DK61-2C

MODELS AVAILABLE

DK61: With Dow-Key solder type connectors _____ **$25.50**
DK61-BNC: BNC Connectors _____ **$26.50**
DK61-TNC: TNC Connectors _____ **$26.50**

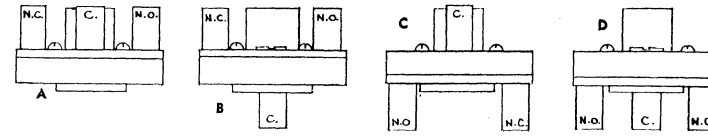
Available with SPDT (add 1c to model No.) and DPDT (add 2c to model No). auxiliary contacts.

COAXIAL CONNECTORS: Write for catalog sheet on coaxial connectors and adapters from UHF, to BNC and UHF to Phono Series, etc.

Manufactured by DOW-KEY COMPANY, Thief River Falls, Minnesota

Net
© U.C.P., Inc.

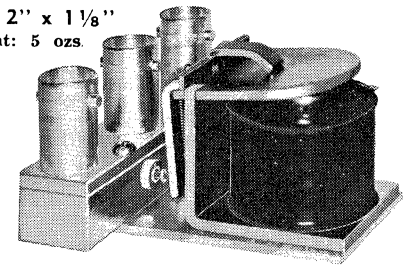
DK67 SERIES



Connector Configurations

The Dow-Key DK67 series are adaptable, high performance coaxial relays. The relays can be obtained with non-shorting, shorting, or resistor terminated contacts and four different connector configurations.

Size: 2¼" x 2" x 1⅛"
Weight: 5 ozs.



Coil Ratings: Available in 6, 12, 24, 28, 32, 48, 110 and 220 A.C. and D.C. Power consumption D.C. — 2 watts; A.C. — 6VA.

R.F. Ratings: 100 watts power rating to 2000 mc.

VSWR: Less than 1.3:1 @ 2000 mc; Less than 1.1:1 @ 400 mc.

Isolation: Greater than 40 db @ 2000 mc and greater than 60 db @ 400 mc in DK67 with shorting contacts.

Contacts: 3/32 fine silver are standard; other types available per request.

Life Expectancy: Over 500,000 cycles at rated load when operated at a rate of less than 2 cycles per second.

Operating Time: Less than 15 milliseconds D.C. types. Less than 25 milliseconds A.C. types.

Operating Temperature Range: —65° C to +85° C.

R.F. Connectors: BNC or TNC.

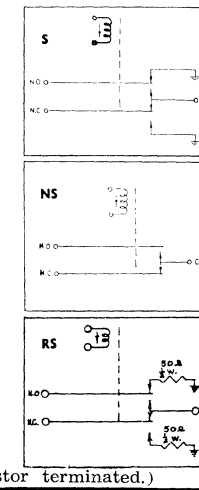
Finish: Silver per MIL-QQ-S-365, Cadmium per MIL-QQ-P-416.

Salt Spray: MIL-STD-202, 48 hr. test condition B.

Humidity: MIL-STD-202, 10 day.

Vibration: Type I per MIL-STD-167.

CONTACT TYPES

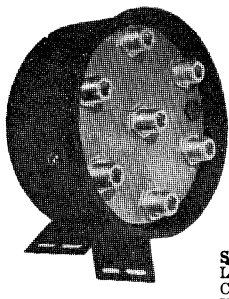


ORDER SPECIFICATIONS and DESIGNATION:

SERIES
CONNECTOR CONFIGURATION
CONTACT TYPE
CONNECTOR TYPE
IF SWITCH REQUIRED
VOLTAGE

DK67 - A - NS - BNC - DPDT - 28 V DC

Available with DPDT auxiliary switches. Net each $18.50 (additional for models with auxiliary switches or resistor terminated.)



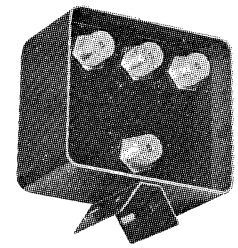
DK71
with UHF Connector
$49.50

DK71

FOR REMOTE SELECTION OF r.f. SOURCES

SINGLE POLE, SIX THROW MULTI-POSITION SWITCH

Specifications:
Low VSWR: Less than 1.1:1 at 100 mc — Cross-talk: greater than 45 db at 100 mc — High power rating: 1 kw — Coaxial connectors: UHF is standard, but available also with N, BNC, TNC and C at slightly higher cost — 50 ohm impedance — weatherproof — continuous duty, over 1,000,000 operations — size 5¾" x 2¾" — weight 3 pounds — available in all standard A.C. and D.C. operating voltages.



DOW-KEY DK72

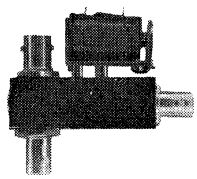
SINGLE POLE THREE THROW COAXIAL SWITCH

SIZE: 4" x 3½" x 2⅝"; Wt.: 1 lb., 8 oz.

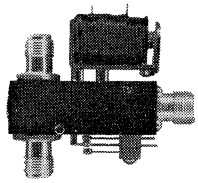
Weatherproof coaxial relay for remote switching of r.f. sources. Designed for mounting on mast and remote switching up to 3 antennas. Not a rotating or stepping switch. Simplify installation, save money by running one cable instead of several to your antenna array.

See your dealer for catalog sheet and complete specifications, or write.

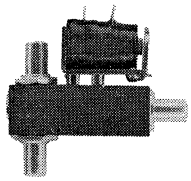
MODEL DK72 with UHF Connectors ____ $22.95
With type N, BNC, TNC or C Connectors ____ $26.95



DK77-BNC



DK77-TNC-1C



DK77-PH
Size 2⅛ x 2⅜

DK77 Series

SPDT RELAYS

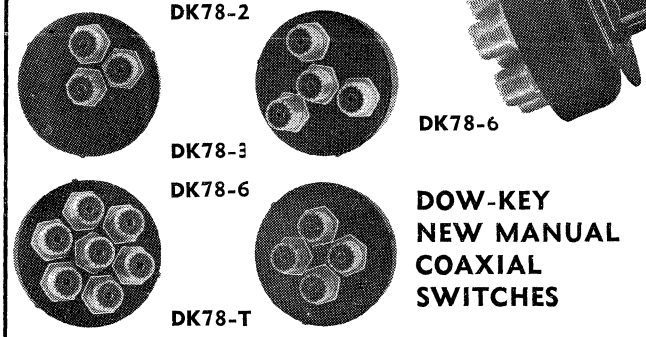
Miniature, low-cost series of 50 ohm SPDT coaxial relays available with phono, TNC and BNC coaxial connectors — with high performance characteristics.

Frequency range 0 to 1000 mc.
Power rating to 250 watts.
VSWR less than 1.1:1 at 500 mc.
Isolation greater than 30 db at 500 mc.
Insertion loss less than .03 db at 500 mc.
Life expectancy over 1,000,000 operations.
Models with 1C in mfrs. type have SPDT auxiliary switches rated at 5 amp at 110 VAC resistive.
Wt. — less than 3.5 ozs.
Comply with MIL-5541, AN-C-170 and MIL-S-5002.

PRICING

	Net Each
DK77-BNC, TNC, or PH	$7.90
DK77-BNC-1C, TNC-1C, or PH-1C (with external SPDT switch)	$9.00

DK78 SERIES



DOW-KEY NEW MANUAL COAXIAL SWITCHES

Dow-Key Company's new manual series of coaxial switches with excellent R.F. characteristics (not wafer switches). R.F. Rating, 1 KW. VSWR less than 1.05:1 at 150 mc. Isolation greater than 50 db at 500 mc and greater than 80 db at 30 mc. With dial plate and knob. Wt. — 10 ozs. Size — 3" dia. x 1-1/8" deep.

	Net Each
Model DK78-2, single pole double throw	$12.75
Model DK78-3, single pole three throw	$12.75
Model DK78-6, single pole six throw	$15.75
Model DK78-T, transfer-crossover switch	$15.75

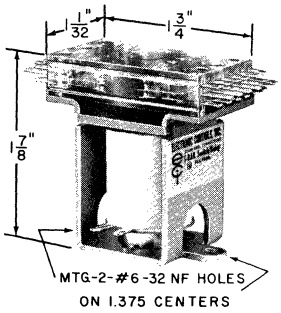
Available also with BNC, TNC, and N connectors at slightly higher cost.

DOW-KEY products available at your local distributor or write:

Manufactured by DOW-KEY COMPANY, Thief River Falls, Minnesota

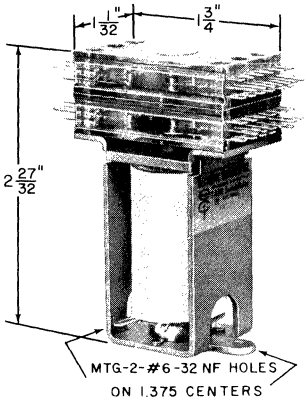
T-BAR® RELAYS

SWITCH MORE CIRCUITS IN LESS SPACE...CONTROL UP TO 36 CIRCUITS SIMULTANEOUSLY



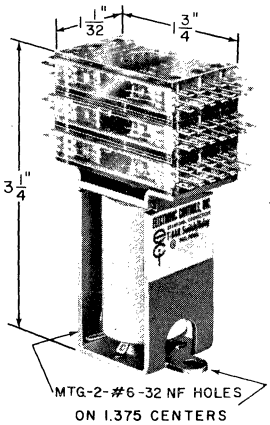
SERIES 801 12 poles, single wafer

COIL CHARACTERISTICS				Operate & Release Times	Weight Oz.	Net** 1-24
Voltage* VDC	Resistance Ohms	Current Amps	Watts @ Nom. Volts			
6	11.9	0.504	3.01	Maximum operate time 30 milliseconds; less, for "A" form contacts or fewer poles.	4.5	$14.39
12	49.1	0.244	2.96		4.5	14.39
24	193	0.124	2.98		4.5	13.09
28	2.58	0.109	3.03		4.5	13.09
48	778	0.062	2.98		4.5	14.39
110	3963	0.028	3.05		4.5	13.09



SERIES 801 24 poles, double wafer

6	11.09	0.541	3.24	Maximum operate time 30 milliseconds; less, for "A" form contacts or fewer poles.	5	$25.89
12	45	0.267	3.19		5	25.89
24	174	0.138	3.32		5	23.54
28	227	0.123	3.44		5	23.54
48	674	0.071	3.41		5	25.89
110	3450	0.032	3.54		5	23.54

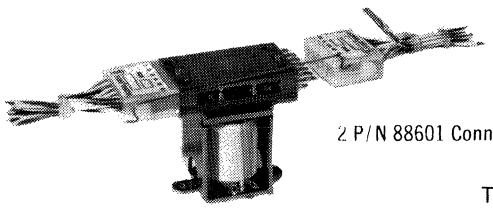


SERIES 801 36 poles, triple wafer

6	7	0.857	5.06	Maximum operate time 30 milliseconds; less, for "A" form contacts or fewer poles.	5.5	$34.89
12	28	0.429	5.16		5.5	34.89
24	111	0.216	5.15		5.5	31.72
28	150	0.187	5.23		5.5	31.72
48	438	0.110	5.26		5.5	34.89
110	2355	0.047	5.18		5.5	31.72

*Minimum pull in voltage 80% of Nominal at 20°C
**These prices refer only to "C" form variations.

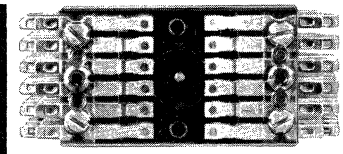
Ordering Information: Specify series number, followed by dash; then number of poles plus the form letter and coil voltage. (For example, a 36-pole relay. double throw, with 24 volt coil is 801-36C24.)



2 P/N 88601 Connector, illustrated, contacts are snap-in.

T-Bar Switches are also available in toggle, momentary and lighted pushbutton variety.

Patent Pending



GENERAL FEATURES

CONTACT RATINGS:

Non inductive.
135w, 3 amps make & break
150w, 5 amps carry

CONTACT MATERIAL:

Gold-bonded fine silver (others available on special order)

CONTACT FORMS AVAILABLE:

"A" single throw N.O.
"B" single throw N.C.
"C" double throw

CONTACT LIFE (in cycles):

Mechanical—Min. 5,000,000
Electrical—From a minimum of 1,000,000 at 100 mils to a minimum of 100,000 at 3 amps, 135w resistive.

COIL VOLTAGES:

Standard—24, 28 and 110 VDC
6, 12 and 48 VDC or 110 VAC also available at additional cost.
Others—consult factory

OPERATE & RELEASE TIMES:

Both vary with number of poles and contact form.
See table for standard values; consult factory for others.

DIELECTRIC:

Terminal-to-Case: 1000 VAC @ std. sea level and 20°C
Terminal-to-Terminal: 750 VAC @ std. sea level and 20°C

TEMPERATURE RANGE:

—55°C to +85°C

TERMINALS:

Solder tab (standard) which also mates with 18-pin T-Bar connector P/N 88601. (See photograph)

DUST-TIGHT CONTACT ENCLOSURE

electronic controls, inc., Wilton, Conn.

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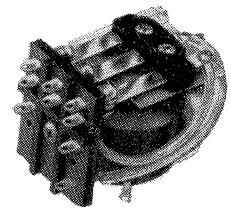
GLOBE RELAYS

MIDGET SERIES

TYPE "W" MIDGET GENERAL PURPOSE



This relay offers high reliability at a minimum cost. The silver cadmium-oxide contacts are mounted on beryllium copper blades.** There is good contact wiping action. This unit operates well in ambient temperatures up to 125° C.

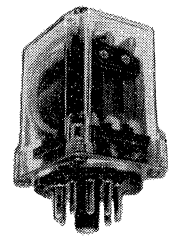
** Fine silver contacts for 5 amp applications.

CONTACTS: 5 amps @ 24 VDC or 115 VAC, 10 amps @ 24 VDC or 115 VAC. Arrangement 1, 2 or 3 PDT.

COIL: D-C applications up thru 120 VDC, A-C applications up thru 230 VAC.

MOUNTING: One 6-32 screw and keying boss to prevent turning.

TYPE "WC" MIDGET GENERAL PURPOSE WITH DUSTITE ENCLOSURE



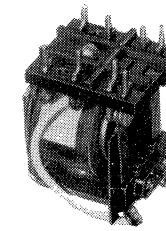
Relay is identical to type "W." However, the unit provides a clear dust-proof polystyrine case on Octal type plug-in base. Operating temperatures up to 85° C ambient. Variation of base or a hermetically sealed can, can be provided on request. This unit comes in standard Globe wiring. For special wiring to meet existing installations specify "WZ" wiring.

CONTACTS: 5 amps @ 24 VDC or 115 VAC, 10 amps @ 24 VDC or 115 VAC. Arrangement 1, 2 or 3 PDT.

COIL: D-C applications up thru 120 VDC, A-C applications up thru 230 VAC.

MOUNTING: Octal plug-in.

TYPE "WP" MIDGET PRINTED CIRCUIT



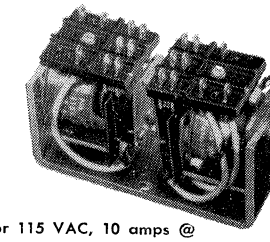
Relay is identical to the "W" type using the same integrally moulded parts. The terminals are designed for direct mounting into printed circuit boards. They will fit into .050 inch diameter holes and project 1/32 inch beyond an 1/8 inch thick circuit board. Base plate area on the board is only 1.070 x .890 inches. Dimensional artwork for hole configuration is available.

CONTACTS: 5 amps @ 24 VDC or 115 VAC, 10 amps @ 24 VDC or 115 VAC. Arrangement 1, 2 or 3 PDT.

COIL: D-C applications up thru 120 VDC, A-C applications up thru 120 VAC.

MOUNTING: Soldered into printed circuit boards.

TYPE "WL" MIDGET LATCHING



This latching relay may be had with either coil to operate at any specified voltage. It is designed that either coil may be used to operate the contacts into a latched position. The other coil will latch or unlatch the contacts into the opposite position.

CONTACTS: 5 amps @ 24 VDC or 115 VAC, 10 amps @ 24 VDC or 115 VAC.

COIL: D-C applications up thru 120 VDC, A-C applications up thru 230 VAC on either coil.

MOUNTING: 2 holes for #6 screws in center of frame.

PRICES (SUBJECT TO CHANGE)

Voltage	Coil Current	D-C Resistance	5 Ampere Contacts "W," "WP" Open Part No.	Price (Net)	5 Ampere Contacts "WC" Dustite Part No.	Price (Net)	10 Ampere Contacts "W," "WP" Open Part No.	Price (Net)	10 Ampere Contacts "WC" Dustite Part No.	Price (Net)
PLATE	9 to 30MA	2,500 Ω	1W1	$3.50	1WC1	$5.50	1W20	$3.75	1WC20	$5.80
			2W1	4.20	2WC1	6.60	2W20	4.45	2WC20	6.75
			3W1	4.90	3WC1	8.10	3W20	5.95	3WC20	8.55
PLATE	7 to 20MA	5,000 Ω	1W2	3.95	1WC2	5.95	1W21	4.20	1WC21	6.25
			2W2	4.60	2WC2	7.00	2W21	4.85	2WC21	7.15
			3W2	5.45	3WC2	8.45	3W21	5.70	3WC21	8.90
PLATE	4 to 14MA	10,000 Ω	1W3	4.35	1WC3	6.35	1W22	4.60	1WC22	6.65
			2W3	5.00	2WC3	7.40	2W22	5.25	2WC22	7.55
			3W3	5.85	3WC3	8.85	3W22	6.10	3WC22	9.30
6V. D-C	200MA	30 Ω	1W4	3.05	1WC4	5.10	1W23	3.50	1WC23	5.55
			2W4	3.35	2WC4	5.65	2W23	3.80	2WC23	6.10
			3W4	3.75	3WC4	6.95	3W23	4.40	3WC23	7.60
12V. D-C	120MA	100 Ω	1W5	3.05	1WC5	5.10	1W24	3.50	1WC24	5.55
			2W5	3.35	2WC5	5.65	2W24	3.80	2WC24	6.10
			3W5	3.75	3WC5	6.95	3W24	4.40	3WC24	7.60
24V. D-C	53MA	450 Ω	1W6	3.05	1WC6	5.10	1W25	3.50	1WC25	5.55
			2W6	3.35	2WC6	5.65	2W25	3.80	2WC25	6.10
			3W6	3.75	3WC6	6.95	3W25	4.40	3WC25	7.60
115V. D-C	15MA	8,000 Ω	1W7	3.55	1WC7	5.65	1W26	4.00	1WC26	6.05
			2W7	3.85	2WC7	6.15	2W26	4.30	2WC26	6.60
			3W7	4.55	3WC7	7.45	3W26	5.20	3WC26	8.40
6V. A-C	400MA	5 Ω	1W8	3.05	1WC8	5.15	1W27	3.50	1WC27	5.60
			2W8	3.55	2WC8	5.75	2W27	4.00	2WC27	6.40
			3W8	4.05	3WC8	7.05	3W27	4.70	3WC27	7.70
12V. A-C	150MA	20 Ω	1W9	3.05	1WC9	5.15	1W28	3.50	1WC28	5.60
			2W9	3.55	2WC9	5.75	2W28	4.00	2WC28	6.40
			3W9	4.05	3WC9	7.05	3W28	4.70	3WC28	7.70
24V. A-C	120MA	70 Ω	1W10	3.05	1WC10	5.15	1W29	3.50	1WC29	5.60
			2W10	3.55	2WC10	5.75	2W29	4.00	2WC29	6.40
			3W10	4.05	3WC10	7.05	3W29	4.70	3WC29	7.70
115V. A-C	25MA	1,500 Ω	1W11	3.05	1WC11	5.15	1W30	3.50	1WC30	5.60
			2W11	3.55	2WC11	5.75	2W30	4.00	2WC30	6.40
			3W11	4.05	3WC11	7.05	3W30	4.70	3WC30	7.70
230V. A-C	8MA	8,000 Ω	1W12	3.55	1WC12	5.75	1W31	4.00	1WC31	6.10
			2W12	4.05	2WC12	6.25	2W31	4.50	2WC31	6.90
			3W12	4.25	3WC12	7.55	3W31	5.20	3WC31	8.20

globe electrical mfg. co. gardena, california

Write for technical information and complete catalog of Globe Relays.

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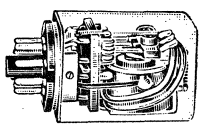
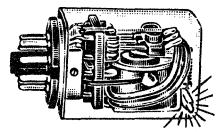
Net

GUARDIAN RELAYS

ENCLOSED PLUG-IN AC-DC RELAYS



Type 1210 and 1215



Type 1210-N

Type 1210—Small size relay in Lucite‡ enclosure for efficient, dust-free, and trouble-free operation. This transparent, lightweigh LEXAN‡ case has high impact strength, unaffected by weather and is resistant to temperatures of 200° F. Relay is powerful and economical. Available with 8 pin octal plug for DPDT and 11 pin for 3 PDT. Contacts rated for 8 amperes, 60 cycles, 115 v. AC non-inductive. **Type 1210-N**—Plug-in relay utilizes a miniature neon lamp connected across coil terminals. The lamp lights each time the coil is energized, or indicates a circuit fault when lamp is "dark." Ideal for detecting circuit faults in relay banks, mass relay arrangements, or where relays are visibly located at intermediate switching points of the circuitry. Precludes the use of circuit testers. Available with 8 pin octal plug for DPDT and 11 pin for 3 PDT. Contact rated 10 amperes at 115 v. AC, 60 c., non-inductive load. Size 1210 and 1210-N: 2 23/32" x 1 3/8" x 1 3/8". Shpg. Wt. 3.5 oz.
‡Registered DuPont trademark.

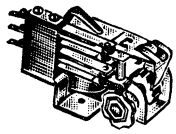
ENCLOSED PLUG-IN RELAYS—AC-DC

Guardian Number	Volts	Cont. Comb.	Net Each, Lots of 1-24	25-49	50-99	100-249	250 up
1210-N-G115	115AC	DPDT	$6.75	$6.08	$5.74	$5.40	$4.73
1210-N-GC115	115AC	3DPT	8.00	7.20	6.80	6.40	5.60
1210-G6	6AC	DPDT	6.00	5.40	5.10	4.80	4.20
1210-GC6	6AC	3PDT	7.50	6.75	6.38	6.00	5.25
1210-G24	24AC	DPDT	6.00	5.40	5.10	4.80	4.20
1210-GC24	24AC	3PDT	7.50	6.75	6.38	6.00	5.25
1210-G115	115AC	DPDT	6.00	5.40	5.10	4.80	4.20
1210-GC115	115AC	3PDT	7.50	6.75	6.38	6.00	5.25
1210-G230	230AC	DPDT	6.25	5.63	5.31	5.00	4.38
1210-GC230	230AC	3PDT	7.75	6.98	6.59	6.20	5.43
1215-G6	6DC	DPDT	6.00	5.40	5.10	4.80	4.20
1215-GC6	6DC	3PDT	7.50	6.75	6.38	6.00	5.25
1215-G12	12DC	DPDT	6.00	5.40	5.10	4.80	4.20
1215-GC12	12DC	3PDT	7.50	6.75	6.38	6.00	5.25
1215-G24	24DC	DPDT	6.00	5.40	5.10	4.80	4.20
1215-GC24	24DC	3PDT	7.50	6.75	6.38	6.00	5.25
1215-G110	110DC	DPDT	6.50	5.85	5.53	5.20	4.55
1215-GC110	110DC	3PDT	8.00	7.20	6.80	6.40	5.60

ENCLOSED PLATE CIRCUIT PLUG-IN RELAYS—DC

Guardian Number	Coil Res.	Comb. Cont.	Net Each, Lots of 1-24	25-49	50-99	100-249	250 up
1215-G2.5	2500	DPDT	$6.20	$5.58	$5.27	$4.96	$4.34
1215-GC2.5	2500	3PDT	7.25	6.53	6.16	5.80	5.08
1215-G5	5000	DPDT	6.30	5.67	5.36	5.04	4.41
1215-GC5	5000	3PDT	7.50	6.75	6.38	6.00	5.25
1215-G10	10000	DPDT	6.50	5.85	5.53	5.20	4.55
1215-GC10	10000	3PDT	7.75	6.98	6.59	6.20	5.43

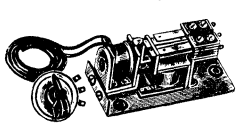
IMPULSE RACHET RELAYS—AC



Type 670—For on/off control of lighting, motors, appliances and speaker applications, among others. Highly reliable operation over 1,000,000 steps. Each impulse (up to 10 steps per second) reverses contact. Contact arrangements of SPDT and DPDT; ratings to 12½ amps resistive load at 115 v., 60 cycles. Intermittent duty coil with voltage of 115 v. AC, 60 cycles. Size, 3" x 1 3/4" x 2 1/16". Shipping Weight, 7.5 ounces.

Guardian Number	Cont. Comb.	Net Each, Lots of 1-24	25-49	50-99	100-249	250 up
670-C115	SPDT	$6.50	$5.85	$5.53	$5.20	$4.55
670-G115	DPDT	7.00	6.30	5.95	5.60	4.90

DC ELECTRICAL RESET OVERLOAD RELAY



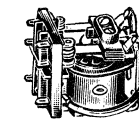
Type X-300-ER—Applicable for use in industrial panel installation, for remote protection of machines and replacing fuses. Provides precise protection from current surges and continuous overloads. Remote panel installation of the control potentiometer simplifies adjustment of relay to operate on any current value from 250 to 750 milliamperes. Auxiliary for pilot light indication of "overload" or "clear" position. Reset relay can be operated from any point convenient to operator. Insulation between coil and ground rated at 3,000 volts. Size, 4¾" x 2" x 1 15/16".

Guardian Number	Shipping Weight	Net Each, Lots of 1-24	25-49	50-99	100-249	250 up
X-300-ER	13 oz.	$9.50	$8.55	$8.08	$7.60	$6.65

ENGINEER'S SWITCH KIT

Indispensable to those who design, build or test electrical controls. Contains large assortment of switch blades, contacts, separators, adapters, fish paper, bushings, etc.
Engineer's Switch Kit—Net Ea. $10.95

MEDIUM POWER AC-DC RELAYS



Type 1200—Rated at 10 amps, 60 cycles, 115 v. non-inductive load. Heavy solder lug type terminals molded in phenolic block, with barriers for over-surface insulation, built to meet U/L specifications. Applicable to automation, communications, remote control, selectors, switching devices and experimental uses. Size, 1 5/8" x 1" x 1 1/4". Shipping Weight, 2.5 oz.

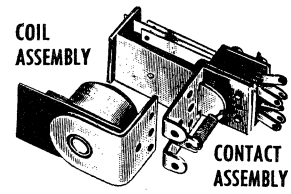
60 CYCLES—AC COILS

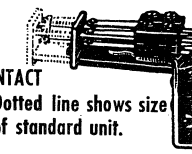
Guardian Number	Volts	Cont. Comp.	Net Each, Lots of 1-24	25-49	50-99	100-249	250 up
1200-G6	6	DPDT	$3.75	$3.38	$3.19	$3.00	$2.63
1200-GC6	6	3PDT	4.25	3.83	3.61	3.40	2.98
1200-G24	24	DPDT	3.75	3.38	3.19	3.00	2.63
1200-GC24	24	3PDT	4.25	3.83	3.61	3.40	2.98
1200-C115	115	SPDT	3.50	3.15	2.98	2.80	2.45
1200-G115	115	DPDT	3.75	3.38	3.19	3.00	2.63
1200-GC115	115	3PDT	4.25	3.83	3.61	3.40	2.98
1200-G230	230	DPDT	4.00	3.60	3.40	3.20	2.80
1200-GC230	230	3PDT	4.50	4.05	3.83	3.60	3.15

DC COILS

1205-G6	6	DPDT	$3.40	$3.06	$2.89	$2.72	$2.38
1205-GC6	6	3PDT	3.85	3.47	3.27	3.08	2.70
1205-G12	12	DPDT	3.40	3.06	2.89	2.72	2.38
1205-GC12	12	3PDT	3.85	3.47	3.27	3.08	2.70
1205-C24	24	SPDT	3.20	2.88	2.72	2.56	2.24
1205-G24	24	DPDT	3.40	3.06	2.89	2.72	2.38
1205-GC24	24	3PDT	3.85	3.47	3.27	3.08	2.70
1205-G110	110	DPDT	3.75	3.38	3.19	3.00	2.63
1205-GC110	110	3PDT	4.25	3.83	3.61	3.40	2.98

SERIES 200 RELAY WITH COMPLETELY INTERCHANGEABLE COIL AND CONTACT ASSEMBLIES





MIDGET CONTACT ASSEMBLY. Dotted line shows size of standard unit.

The coil assembly consists of the coil and field piece; the contact assembly consists of switch blades, armature, return spring and mounting bracket. The Guardian Midget Contact Assembly is **interchangeable** with the standard Series 200 coil assembly. Available with SPDT, DPDT or 4PDT contact switch assemblies, each **interchangeable** with all AC or DC coils.

SERIES 200 RELAY

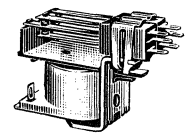
Guardian Number	Volts	Coil	Net Each, Lots of 1-24	25-49	50-99	100-249	250 up
200-6A	6	AC	$1.75	$1.58	$1.49	$1.40	$1.23
200-12A	12	AC	1.75	1.58	1.49	1.40	1.23
200-24A	24	AC	1.75	1.58	1.49	1.40	1.23
200-115A	115	AC	2.05	1.85	1.74	1.64	1.44
200-230A	230	AC	2.70	2.43	2.30	2.16	1.89
200-6D	6	DC	1.90	1.71	1.62	1.52	1.33
200-12D	12	DC	1.90	1.71	1.62	1.52	1.33
200-24D	24	DC	1.90	1.71	1.62	1.52	1.33
200-32D	32	DC	1.90	1.71	1.62	1.52	1.33
200-110D	110	DC	2.50	2.25	2.13	2.00	1.75
200-5,000D	.....	†	2.20	1.98	1.87	1.76	1.54
200-10,000D	.....	†	2.50	2.25	2.13	2.00	1.75

†Plate

CONTACT SWITCH ASSEMBLIES

Guardian Number	Type	*	Cont. Comb.	Net Each, Lots of 1-24	25-49	50-99	100-249	250 up
200-1	Standard	8	SPDT	$1.50	$1.35	$1.26	$1.20	$1.05
200-2	Standard	8	DPDT	2.00	1.80	1.70	1.60	1.40
200-4	Standard	12.5	DPDT	2.25	2.03	1.91	1.80	1.57
200-5	Standard	8	4PDT	3.50	3.15	2.98	2.80	2.45
200-M1	Midget	10	SPDT	1.40	1.26	1.19	1.12	.98
200-M2	Midget	10	DPDT	1.75	1.58	1.49	1.40	1.23
200-M5	Midget	8	4PDT	2.85	2.57	2.42	2.28	2.00

*Contact Amps.



NEW SERIES 900 10-AMP RELAY

- Underwriters' Laboratories Listed (115 VAC)
- Designed with reduced number of parts for long, trouble-free service
- Has keyed and locked lifters

Dependable, low cost, DPDT relay featuring new, trouble-free design that incorporates a minimum of parts. Contacts all rated 10 amps, 115 VAC resistive load. Has molded switches, one-piece mounting clip and return spring; molded bobbin and coil cover. Average shipping weight 6 oz.

Guardian No.	Coil Voltage	QUANTITIES 1-9	10-24	25-49
900-2C-24A	24 AC	$1.75	$1.66	$1.49
900-2C-115A	115 AC	1.75	1.66	1.49
900-2C-230A	230 AC	1.75	1.66	1.49
905-2C-6D	6 DC	1.75	1.66	1.49
905-2C-12D	12 DC	1.75	1.66	1.49
905-2C-24D	24 DC	1.75	1.66	1.49

UL approved CSA approved

Further savings are available when Series 900 relays are purchased in bulk packs of 50 units. Relays are supplied nested in new, convenient "form fitted" assembly line trays . . . one package of 50—$70.00; 2 and up—$61.50 ea.

Net

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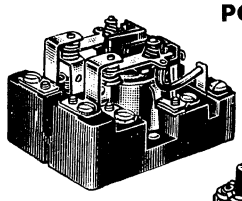
GUARDIAN RELAYS

POWER RELAYS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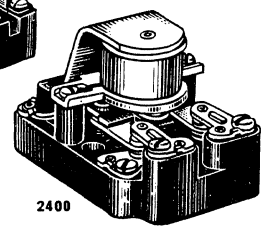
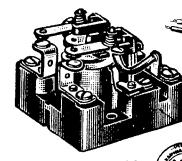

2400


2210

Approved

SERIES 2200 AND 2210—25 AMPS

2200 (DPDT) and 2210 (DPST-NO) power relays have 25 ampere contacts and interchangeable coil assemblies for either relay. See list below. Replaceable contact switch parts (see lists) available for Series 2200 only. Mounting: 2 holes .196″ dia. holes on 1⅞″ centers. Size: 2200—3⅜″ l. x 2½″ w. x 2⅜₁₆″ h. Shpg. Wt., 11 oz.; 2210—2¹¹⁄₁₆″ l. x 2½″ w. x 2³⁄₁₆″ h. Shpg. Wt., 10 oz.

Guardian Number	Volts AC	Net Each, Lots of 1-24	25-49	50-99	100-249	250 up
2200-UDPDT-6	6	$6.25	$5.63	$5.31	$5.00	$4.38
2200-UDPDT-24	24	6.25	5.63	5.31	5.00	4.38
2200-UDPDT-115	115	6.25	5.63	5.31	5.00	4.38
2200-UDPDT-230	230	6.75	6.08	5.74	5.40	4.73
2210-UPDST-NO-6	6	5.25	4.73	4.46	4.20	3.68
2210-UDPST-NO-24	24	5.25	4.73	4.46	4.20	3.68
2210-UDPST-NO-115	115	5.25	4.73	4.46	4.20	3.68
2210-UDPST-NO-230	230	5.60	5.04	4.76	4.48	3.92

REPLACEMENT COILS FOR EITHER RELAY

2200-6A	6	$2.25	$2.03	$1.91	$1.80	$1.58
2200-24A	24	2.25	2.03	1.91	1.80	1.58
2200-115A	115	2.25	2.03	1.91	1.80	1.58
2200-230A	230	2.50	2.25	2.13	2.00	1.75

REPLACEMENT CONTACT SWITCH PARTS

For Series 2200 only. No solder required. Includes one NO and one NC contact bracket, moving blade and terminal. "Right" or "Left" determined by viewing relay from armature hinge end with contacts up.

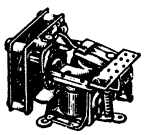
Guardian Number	Type	Net Each, Lots of 1-24	25-49	50-99	100-249	250 up
CS-2200	Left	$1.85	$1.67	$1.57	$1.48	$1.30
CS-2200	Right	1.85	1.67	1.57	1.48	1.30

SERIES 2400 AC AND 2405 DC—15 AMPS

Both series have standard DPDT contacts rated for 15 amps non-inductive or 1 hp at 115/230 v., 60 cycles. Inverted coil construction protects armature and contacts to insure long life, reliable operation. Screw type terminals easily accessible for top or bottom connections. Armature extension permits manual circuit testing. Mounting: Two .196″ dia. holes on 1⅞″ centers. Size, 3⁵⁄₁₆″ x 2½″ x 2¹⁄₁₆″. Shipping Weight, 8 oz.

Guardian Number	Volts	Amps	Net Each, Lots of 1-24	25-49	50-99	100-249	250 up
2400-UDPDT-6	6*	15	$5.75	$5.18	$4.89	$4.60	$4.03
2400-UDPDT-24	24*	15	5.75	5.18	4.89	4.60	4.03
2400-UDPDT-115	115*	15	5.75	5.18	4.89	4.60	4.03
2400-UDPDT-230	230*	15	6.00	5.40	5.10	4.80	4.20
2405-UDPDT-6	6†	15	5.75	5.18	4.89	4.60	4.03
2405-UDPDT-12	12†	15	5.75	5.18	4.89	4.60	4.03
2405-UDPDT-24	24†	15	5.75	5.18	4.89	4.60	4.03
2405-UDPDT-110	110†	15	6.25	5.63	5.31	5.00	4.38
2400-SPDT-AUX Aux. Swch	.....	10	1.35	1.22	1.15	1.08	.95

*AC. †DC.

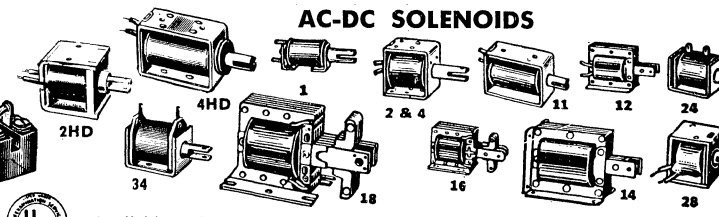


ELECTRICAL RESET STEPPER M.E.R.

Type M.E.R.—A direct drive (steps on energization) electrical reset stepper with positive mechanical reset interlock actuated by the reset magnet and unlocked on the first energization of the step magnet. This device assures positive reset on as short a pulse as one-hundredth of a second or even from its own selection contacts. Unit is capable of counting in groups up to 21, then resetting automatically. By interconnecting two or more Steppers, count can be increased to any desired total counting by tens or by any other convenient multiple. Unit can be used to control a sequence of operation and then automatically reset to the initial or starting position. Maximum steps per second, 20. 24 points; 22 active contacts. Coil, 115 v. AC; will operate satisfactorily at 15% below or 10% above this voltage. Stepping coil rated 30 VA, 18 w.; reset coil rated 9 VA, 7 w. Size, 3¼″ lg. x 2³⁄₁₆″ w. x 3¼″ h. Shpg. Wt., 11½ oz.

Guardian Number	Net Each, Lots of 1-24	25-49	50-99	100-249	250 up
MER-115	$15.00	$13.50	$12.75	$12.00	$10.50

AC-DC SOLENOIDS



Available in both intermittent and continuous duty types. Intermittent types should not be energized for more than 5 consecutive minutes, or be permitted to rise more than 85°C. above 24° C. ambient rating without giving sufficient time to cool between operation cycles. Continuous duty types are designed so they will not rise more than 85° C. above the 24° C. ambient temperature rating when operated at rated load. Plunger has slotted end with ⅛″ diameter hole for coupling. In chart, (I) indicates intermittent duty type, (C) indicates continuous duty type.

AC NO.	V.	*	Ohms	Lift Oz.†	Net Each, Lots of 1-24	25-49	50-99	100-249	250 up
1A1	115A	I	300	8	$3.00	$2.70	$2.55	$2.40	$2.10
1A1	115A	C	675	3	3.00	2.70	2.55	2.40	2.10
2	115A	I	60	27	3.50	3.15	2.98	2.80	2.45
2	115A	C	166	10.5	3.50	3.15	2.98	2.80	2.45
2HD	115A	I	39	60	8.25	7.43	6.81	6.60	5.78
2HD	115A	C	113	19	8.25	7.43	6.81	6.60	5.78
4	115A	I	37	24	4.00	3.60	3.40	3.20	2.80
4	115A	C	133	6	4.00	3.60	3.40	3.20	2.80
11	24A	I	5.1	20	3.00	2.70	2.55	2.40	2.10
11	24A	C	12	8	3.00	2.70	2.55	2.40	2.10
11	115A	I	125	20	3.00	2.70	2.55	2.40	2.10
11	115A	C	300	8	3.00	2.70	2.55	2.40	2.10
12	115A	I	100	32	4.25	3.83	3.61	3.40	2.98
12	115A	C	150	22	4.25	3.83	3.61	3.40	2.98
14	115A	I	11	110	5.75	5.18	4.89	4.60	4.03
14	115A	C	18	65	5.75	5.18	4.89	4.60	4.03
16	115A	I	41	96	3.50	3.15	2.98	2.80	2.45
16	115A	C	85	55	3.50	3.15	2.98	2.80	2.45
16	230A	I	200	96	3.75	3.38	3.19	3.00	2.63
16	230A	C	350	55	3.75	3.38	3.19	3.00	2.63
18	115A	I	8.8	304	4.75	4.28	4.04	3.80	3.33
18	115A	C	19.7	145	4.75	4.28	4.04	3.80	3.33
18	230A	I	45	304	5.00	4.50	4.25	4.00	3.50
18	230A	C	78	145	5.00	4.50	4.25	4.00	3.50
24	115A	I	310	19	3.25	2.93	2.76	2.60	2.28
24	115A	C	500	12	3.25	2.93	2.76	2.60	2.28
28	24A	I	7.5	35	3.00	2.70	2.55	2.40	2.10
28	24A	C	17.4	20	3.00	2.70	2.55	2.40	2.10
28	115A	I	220	35	3.25	2.93	2.76	2.60	2.28
28	115A	C	400	20	3.25	2.93	2.76	2.60	2.28
34	115A	I	400	16	2.20	1.98	1.87	1.76	1.54
34	115A	C	865	9	2.20	1.98	1.87	1.76	1.54

DC NO.	V.	*	Ohms	Lift Oz.†	Net Each, Lots of 1-24	25-49	50-99	100-249	250 up
1A1	24D	I	42.6	5	$2.75	$2.48	$2.34	$2.20	$1.93
1A1	24D	C	74.4	2	2.75	2.48	2.34	2.20	1.93
1A1	115D	I	803	5	3.25	2.93	2.76	2.60	2.28
1A1	115D	C	2070	2	3.25	2.93	2.76	2.60	2.28
2HD	24D	I	1.2	120	8.50	7.65	7.22	6.80	5.95
2HD	24D	C	.4	66	8.50	7.65	7.22	6.80	5.95
4	24D	I	15	57	4.00	3.60	3.40	3.20	2.80
4	24D	C	50	20	4.00	3.60	3.40	3.20	2.80
4	115D	I	346	57	4.25	3.83	3.61	3.40	2.98
4	115D	C	1210	20	4.25	3.83	3.61	3.40	2.98
4HD	24D	I	15	156	6.10	5.49	5.19	4.88	4.27
4HD	24D	C	50	86	6.10	5.49	5.19	4.88	4.27
4HD	110D	I	330	156	6.10	5.49	5.19	4.88	4.27
4HD	110D	C	1200	86	6.10	5.49	5.19	4.88	4.27
11	6D	I	2	39	3.00	2.70	2.55	2.40	2.10
11	6D	C	5	21	3.00	2.70	2.55	2.40	2.10
11	24D	I	32	39	3.00	2.70	2.55	2.40	2.10
11	24D	C	72	21	3.00	2.70	2.55	2.40	2.10
22	6D	I	4.7	24	2.80	2.52	2.38	2.24	1.96
22	6D	C	9	13	2.80	2.52	2.38	2.24	1.96
22	24D	I	60	24	2.80	2.52	2.38	2.24	1.96
22	24D	C	144	13	2.80	2.52	2.38	2.24	1.96
28	6D	I	3.3	41	2.80	2.52	2.38	2.24	1.96
28	6D	C	7.7	35	2.80	2.52	2.38	2.24	1.96
28	12D	I	13	41	2.80	2.52	2.38	2.24	1.96
28	12D	C	27	35	2.80	2.52	2.38	2.24	1.96
28	24D	I	50	41	2.80	2.52	2.38	2.24	1.96
28	24D	C	104	35	2.80	2.52	2.38	2.24	1.96
34	6D	I	4.3	21	2.20	1.98	1.87	1.76	1.54
34	6D	C	9.1	8.5	2.20	1.98	1.87	1.76	1.54
34	24D	I	66	21	2.20	1.98	1.87	1.76	1.54
34	24D	C	145	8.5	2.20	1.98	1.87	1.76	1.54

*Duty. †Max.; obtained during cold operation when plunger is down.

Type	ADJUSTABLE STROKE Inter.	Cont.	Size, Inches L. x W. x H.	Shpg. Wt., Oz.
1A1	AC ⅛″—½″	⅛″—⅜″	1¾ x 1⁵⁄₁₆ x 1¹¹⁄₁₆	4.5
1A1	DC ⅛″—⅜″	⅛″—¼″	1¾ x 1⁵⁄₁₆ x 1¹¹⁄₁₆	4.5
2	AC ⅛″—⅞″	⅛″—⅞″	1¹³⁄₁₆ x 1⁷⁄₁₆ x 1⅝	10
2HD	AC ⅛″—⅝″	⅛″—⅝″	1³⁄₃₂ x 1⁷⁄₁₆ x 1⅝	13
2HD	DC ⅛″—¾″	⅛″—⅝″	1³⁄₃₂ x 1¹¹⁄₁₆ x 1⅝	13
4	AC ⅛″—1″	⅛″—1½″	2 x 1⁷⁄₁₆ x 1⅝	14.5
4	DC ⅛″—1″	⅛″—⅞″	2 x 1⁷⁄₁₆ x 1⅝	14.5
4HD	DC ⅛″—¾″	⅛″—¾″	2³⁄₆₄ x 1⁷⁄₁₆ x 1⅝	15
11	AC ⅛″—1″	⅛″—1″	1⁵⁄₁₆ x 1²⁷⁄₃₂ x 1³⁄₁₆	7.5
11	DC ⅛″—⅞″	⅛″—⅝″	1⁵⁄₁₆ x 1²⁷⁄₃₂ x 1³⁄₁₆	7.5
12	AC ⅛″—1″	⅛″—⅞″	1⅝ x 1¹³⁄₁₆ x 1⁷⁄₁₆	6
14	AC ⅛″—1½″	⅛″—1½″	2⁷⁄₁₆ x 1⁷⁄₁₆ x 2¹⁄₁₆	19
16	AC ⅛″—¾″	⅛″—⅝″	1⅝ x 1⅛ x 1⁷⁄₁₆	7.5
18	AC ⅛″—1″	⅛″—1″	2½ x 1¹³⁄₁₆ x 2¹⁄₁₆	16.5
22	DC ¹⁄₁₆″—⅜″	¹⁄₁₆″—¼″	1⅛ x ¾ x ¾	2.5
24	AC ¹⁄₁₆″—⅝″	¹⁄₁₆″—⅝″	1¼ x 2⁷⁄₃₂ x 5⁹⁄₆₄	3
28	AC ¹⁄₁₆″—½″	¹⁄₁₆″—½″	1⅛ x 1⁵⁄₁₆ x 1³⁄₁₆	3.5
28	DC ¹⁄₁₆″—½″	¹⁄₁₆″—⅜″	1⅛ x 1⁵⁄₁₆ x 1³⁄₁₆	3.5
34	AC ¹⁄₁₆″—½″	¹⁄₁₆″—½″	1⅛ x ¾ x 1⁷⁄₆₄	2.5
34	DC ¹⁄₁₆″—⁷⁄₁₆″	¹⁄₁₆″—¼″	1⅛ x ¾ x 1⁷⁄₆₄	2.5

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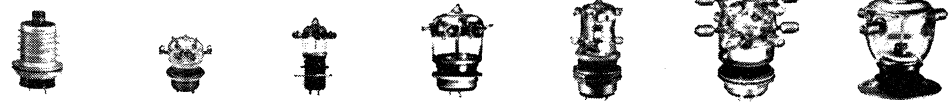
Jennings® VACUUM TRANSFER AND COAXIAL RELAYS



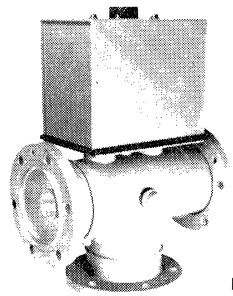
Vacuum Transfer Relays

Jennings Type	RA Series	RB7B	RB1	RB2A	RB3	RB4	RE6B
Contact arrangement	1, 2, 3 & 4PDT	2PDT	SPDT	2PDT	2PDT	4PDT	SPDT
Rated operating voltage— dc or 60 cycle	300 v pk	7 kv pk	12 kv pk	20 kv pk	12 kv pk	20 kv pk	25 kv pk
16 mc		3 kv pk	8 kv pk	10 kv pk	8 kv pk	10 kv pk	12 kv pk
Test voltage—60 cycle peak	2000 v pk	9 kv pk	18 kv pk	25 kv pk	15 kv pk	25 kv pk	30 kv pk
Continuous current—rms amps— 60 cycle	30 amps	14 amps	15 amps	20 amps	30 amps	20 amps	25 amps
2.5 mc		9 amps	10 amps	12 amps	10 amps	10 amps	13 amps
16 mc		4 amps	6 amps	6 amps	6 amps	6 amps	8 amps
Contact resistance	.01 ohms max.	.01 ohms max.	.012 ohms max.	.01 ohms max.	.01 ohms max.	.01 ohms max.	.01 ohms max.
Contact capacitance	17 mmfd max.	1 mmfd nom.	0.5 mmfd nom.	1 mmfd nom.	1 mmfd nom.	1 mmfd nom.	1 mmfd nom.
Capacitance to ground	11 mmfd nom.	2 mmfd nom.	1.5 mmfd nom.	2.5 mmfd nom.	2.5 mmfd nom.	2.5 mmfd nom.	2.5 mmfd nom.
Operate times	25 msec max.	15 msec max.	18 ms max.	20 ms max.	20 ms max.	45 ms max.	25 ms max.
Release times	10 msec max.	5 msec max.	5 ms max.	10 ms max.	8 ms max.	10 ms max.	10 ms max.
DC actuating coil—resistance ±10%	225 ohms	265 ohms	265 ohms	225 ohms	120 ohms	131 ohms	120 ohms
voltage	26.5 vdc	26.5 vdc	26.5 vdc	26.5 vdc	26.5 vdc	26.5 vdc	26.5 vdc
Shock	30G-11 ms	30G-11 ms	30G-11 ms	30G-11 ms	30G-11 ms	30G-11 ms	30G-11 ms
Vibration	20G to 2000 cps	10G to 2000 cps	5G to 2000 cps	5G to 2000 cps	5G to 2000 cps	5G to 2000 cps	10G to 500 cps

NOTE: Most of the rf voltage and current ratings can be increased approx. 30% by the use of special heavy duty terminals.

Vacuum Coaxial Relays

FOR 50 OHM 3⅛ LINES

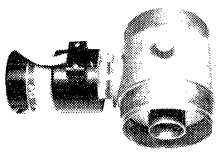


RC21

TYPE RC21 SPDT LATCHING VACUUM RELAY

Size: 3⅛ inch
Fittings: "EIA," Swivel Flange type
Inner Connector: Anchor type. "EIA" Bullet to Jennings spring type.
Configuration "T": May be installed in place of "EIA" 50 ohm standard elbow without modification of existing coaxial line.
Actuation: Electro-mechanical latching type. Momentary energize to open/close. 26.5 or 115 V DC. May be obtained with 24 V DC bi-stable electro-mechanical actuator. Optional manual actuation is available with the bi-stable actuator. Also available for 115 V AC operation, self de-energizing.
Indicator: Auxiliary Contacts 2PDT (two each)
Transfer time: Less than 50 millisec.
Weight: 18 lbs. (approx.)

Impedance: 50 ohms
Frequency: (0-600 mc)—Crosstalk—VSWR
200 mc —47.12 db—1.03
225 mc —46.1 db—1.04
250 mc —45.0 db—1.05
300 mc —43.6 db—1.05
400 mc —41.2 db—1.06
500 mc —39.2 db—1.07
600 mc —37.5 db—1.09
Power Rating: 20 kw average at 600 mc. 3 megawatt pk. (special order)
Insertion Loss: 0.01 db max.



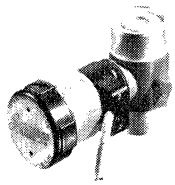
RC10

TYPE RC10 SPST LATCHING VACUUM RELAY

Size: 3⅛ inch
A SPST latching relay for use at frequencies up to 100 mc. Simple fittings are available that permit assembling multiple units in crossbar networks in a minimum of space. As an example a 4 x 5 (4 inputs, 5 outputs) network can be assembled occupying less than 9 cu. ft. of space.

Characteristic Impedance: 50 ohms
Power Rating: 50 kw average to 60 mc
Frequency Range: 0 to 100 mc
VSWR: 1.02 max. at 30 mc; 1.05 max. at 60 mc
Crosstalk: Greater than 60 db isolation at 60 mc
Actuating Voltage: 26.5 V DC
Actuator: Latching type
Position Indicators: DPDT Auxiliary Contacts

FOR 50 OHM 1⅝ LINES

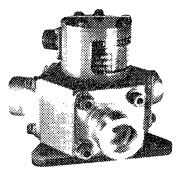


RC5

TYPE RC5 SPST LATCHING VACUUM RELAY

Size: 1⅝ inch
A SPST latching relay for use at frequencies up to 100 mc. The RC 5 relay has been designed to provide an extremely flexible means of remotely switching coaxial lines. Simple fittings are available for assembly of multiple units in crossbar networks in a minimum of space.

Characteristic Impedance: 50 ohms
Power Rating: 25 kw cw average at 30 mc
Frequency Range: 0 to 100 mc
VSWR: 1.02 max. at 30 mc; 1.05 max. at 60 mc
Crosstalk: Greater than 60 db isolation at 30 mc
Actuation: Intermittent duty latching type electrical/manual
Actuating Voltage: 26.5 V DC
Position Indicators: DPDT Auxiliary Contacts



RC43

RC40 SERIES VACUUM COAXIAL RELAYS

These are SPDT relays for use at frequencies up to 600 mc. The RC40 series utilizes type RB1 transfer relays in specially designed and compensated housings. Three different sizes are available to accomodate a variety of standard coaxial connectors. Housings are available with the following connectors: BNC, TNC, N, UHF, C, SC, and LC.

MODEL RC43

Characteristic Impedance: 50 ohms
Power Rating: 15 kw peak, 1 kw average at 600 mc, 3 kw average at 30 mc
Frequency Range: 0 to 600 mc
VSWR: 1.05: 1 max.
Crosstalk: Greater than 30 db isolation at 400 mc
Insertion Loss: 0.05 db max.
Actuating Voltage: 26.5 or 100 V DC
Height: 3¼ inches

JENNINGS RADIO MANUFACTURING CORPORATION • SAN JOSE, CALIF.

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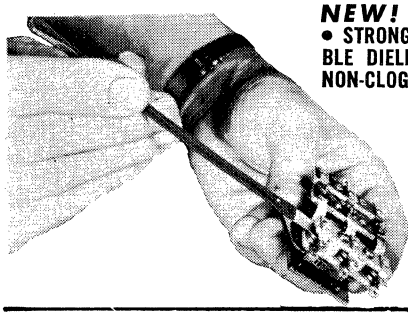
JONARD INDUSTR CORP JIC

NEW PRECISION RELAY AND ELECTRONIC TOOLS

DIACRON DIAMOND SPATULA



NEW! **EXCLUSIVE ADVANTAGES! • STRONG ABRASIVE POWER • FLEXIBLE DIELECTRIC • LONG LASTING • NON-CLOGGING.**

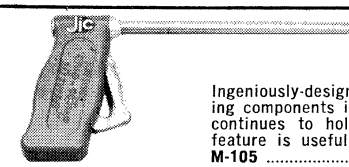
Consists of abrasive Diamond particles - Developed for any type contacts: Silver, Platinum, Gold, Palladium, Tungsten, Molybdenum - Length 5⅝" - Diamond coated face 1" x ¼" - Nylon Shaft - Three types to meet every application: Type 200 (coarse) for Industrial Relays - Type 300 (medium) for Intermediate and Telephone relays - Type 400 (fine) for Sensitive Relays.

CONTACT BURNISHER-CLEANER

K-234 Set of 3
Individual Spatulas and Kits packaged in Rigid Plastic Boxes.

Type No.	Description	Price
#200	Shaft Green	$ 4.95
#300	Shaft Red	$ 4.95
#400	Shaft Blue	$ 4.95
K-234	Kit 3 asst'd.	$14.85
K-222	Kit 3 #200	$14.85
K-333	Kit 3 #300	$14.85
K-444	Kit 3 #400	$14.85

J.I.C. TRIGGA-SNIP



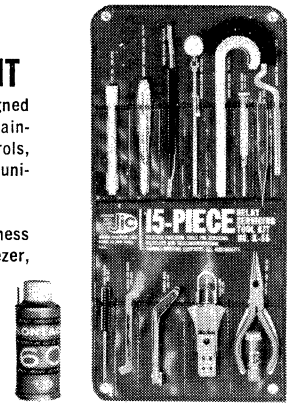
Ingeniously-designed wire cutting instrument for removing components in awkward positions. The TRIGGA-SNIP continues to hold the wire that has been cut. This feature is useful when cutting wires in deep chassis.
M-105 ..... **$4.75**

NEW! 15 PIECE RELAY SERVICING TOOL KIT

Precision-made and professionally-designed group of new tools for adjusting and maintaining relays, contactors, switches, controls, and other components for the telecommunication and electronic industries.

2 Spring Adjusters, Tension & Thickness Gauges, Duck Bill Plier, Screw Driver, Tweezer, Mirror, 4-way Tool, Brush, Armature & Stop Benders, Contact Spray, Contact Burnisher.

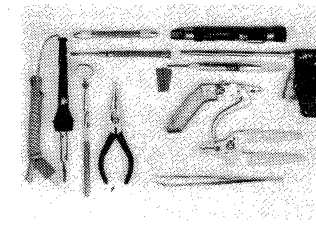
KIT K-55 $29.90



KONTACT 60 NEW FORMULA CONTACT CLEANING SPRAY

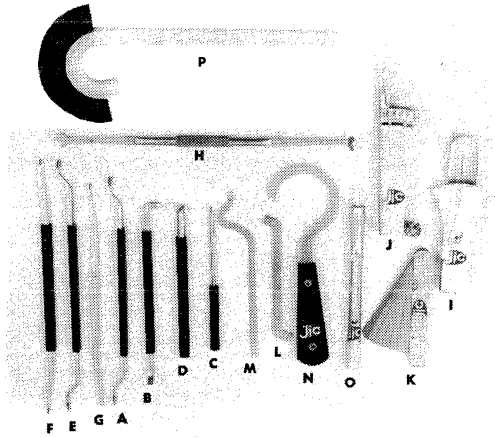
For contacts, switches, controls, tuners, all Electronic Equipment. Leaves anti-corrosion film and long-lasting lubricant. Gives excellent results without dismounting equipment. Free extension tube for fine spray in hard-to-reach areas.
No. K-60 ..... **$2.45**

12 PIECE SERVO TOOL KIT



Carefully selected precision tools for servicing complex Instruments & Equipment.
Wire Cutter, 25-Watt Soldering Iron, Microscope 40x50x60, Chain Nose Plier, Inspection Mirror, Tweezer, Swivel Screw Driver, Wire Stripper, Pin Vise, Pocket Burnisher & 12 Blades, Locking Plier.
KIT #K-50 ..... **$29.50**

SPECIAL TOOLS FOR ADJUSTING AND SERVICING RELAYS



SPRING ADJUSTERS

(A)	SA-2	General type, chisel-edged. L. 7" slot W. .023"	**$2.48**
(B)	SA-6A	Cross & Lengthwise slots. Slot W. .025"	**$2.45**
(C)	SA-7	For Miniature Relays. Slot W. .015"	**$ .99**
(D)	SA-8	For Heavy type springs, Round Head. Slot W. .075"	**$1.98**
(E)	SA-16	Double-ended, Lengthwise slot. L. 8" Slot W. .030"	**$2.40**
(F)	SA-17	For all types relays. L. 8" Slot W. .025"	**$2.95**
(G)	SA-20	For closely-set spring relays. Slot W. .020" & .015"	**$3.50**

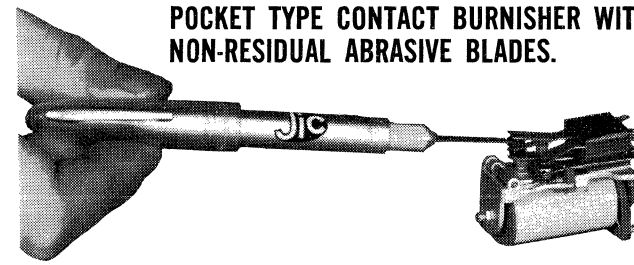
ADJUSTMENT DROP WRENCHES. Bent one side, 8" Long 3 TYPES
(H) Sizes 3/16" 7/32" ¼" Same size both ends ..... **$2.95 ea.**

GAUGES

(I)	G-50	Tension Gauge 0-50 GRAMS Calibrated front & back	**$6.95**
(J)	GP-50	Preset Tension Ga., 0-50 grams, for Precision reading	**$8.45**
(K)	T-720N	Thickness Ga., 26 blades. L. 3" W. ½" .0015" to .025"	**$3.90**
(L)	AB-21	Armature Arm Bender, Slot 3/16"	**$1.30**
(M)	SB-22	Armature Stop Bender, Slot W. .035"	**$1.48**
(N)	BC-23	Bank Cleaner, Diam. 1½" Length 6"	**$2.95**
(O)	FW-24	4-way Tool (Phillips & Standard screw driver) Hex ¼" & 5/16"	**$1.95**
(P)	HB-75	Curved Hair Brush for cleaning selector switches	**$2.35**
(Q)	WB-65	Nickel-Silver Wire Brush for cleaning relays & others	**$1.75**

Other Types and Sizes Available on Special Request.

POCKET TYPE CONTACT BURNISHER WITH NON-RESIDUAL ABRASIVE BLADES.

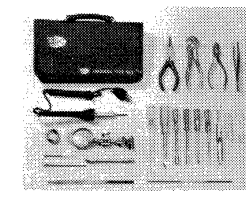


Pen with 12 blades #RB6 P-6 ..... **$3.90**
Pen with 12 blades #RB4 P-4 ..... **$3.90**

REPLACEMENT BLADES

No.	Width	Length	Thickness	Pkg. 25	Pkg.100
RB6	3/16"	1¾"	.007"	$3.75	**$12.50**
RB4	¼"	1¼"	.007"	$3.75	**$12.50**

20 PIECE PRECISION TOOL SET



Specifically Designed for Electronic Assembly Service and Repair. Comes in durable leatherette Zipper Case.
K-600 ..... **$24.75**

1 Diagonal Cutting Nipper 4½"
1 15-Watt Soldering Iron
1 Pen-type Contact Burnisher with 12 replacement blades
1 Round Nose Pliers 4½"
1 Midget Wrench 5¼"
1 Pin Vise
2 Tweezers
1 Aligner
1 Chisel
1 Screw Driver
1 Solder Core
1 Magnifying Glass
1 Miniature driver .020"
1 Miniature driver .050"
2 Nut Drivers ¼" - 3/16"
2 Needle Files
1 Phillips Driver

WRITE FOR COMPLETE CATALOG OF J.I.C. PRECISION TOOLS

JONARD INDUSTRIES CORP., PRECISION TOOLS DIV., BRONX 63, N. Y.

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PICK-A-RELAY CHART

Quick-Finding Selection Guide for Immediate Delivery, Stock Relays

COIL	CONTACT ARR'NG'M'NT	ENCLOSURE	CONTACT RATING, amps (at 28 VDC/115 VAC) Ranges are inclusive, from zero to maximum value shown for each bar. (1 2 3 5 10 15 20 25 30)
VOLTAGE ACTUATED A.C. 6, 12, 24, 115, 230 Volts (See catalog for CURRENT operation ranges)	1PDT	OPEN	51C; 261C
		DUST COVER	321
		DUST COVER PLUG-IN	5D1C; 26D1C
	2PDT	OPEN	262C; 252C; or: 1.5 KW RF; 26L
		DUST COVER PLUG-IN	26D2C
		HERM. SEALED	26S01; 26S20
	3PDT	OPEN	263C; 253C; or: 1.5 KW RF
		DUST COVER PLUG-IN	26D3C
	4PDT	HERM. SEALED	SM004F Coil: 115 VAC 47-440 cps only
VOLTAGE ACTUATED D.C. 6, 12, 24, 110 Volts (See catalog for CURRENT operation ranges)	1PDT	OPEN	261C
		DUST COVER PLUG-IN	26D1C
	2PDT	OPEN	AS or ES; 15 amps @ 115 VAC; 6 amps @ 28 VDC; 262C; 252C; or: 1.5 KW RF; 26L
		DUST COVER PLUG-IN	26D2C
		HERM. SEALED	KX1 1 amp @ 115 VAC, case not grounded
	3PDT	OPEN	263C; 253C; or: 1.5 KW RF
		DUST COVER PLUG-IN	26D3C
	4PDT	OPEN	A, E, or M; 264C
		HERM. SEALED	KX4 1 amp @ 115 VAC, case not grounded; SM004E Coil: 24 VDC only
CURRENT ACTUATED Sensitive D.C. (See catalog for CURRENT and VOLTAGE operation ranges)	1PDT	OPEN	51C except model 51CB44D: 1 amp
		DUST COVER	310
		DUST COVER PLUG-IN	5D1C except model 5D1CB44D: 1 amp
	2PDT	OPEN	52C
		DUST COVER PLUG-IN	5D2C
		HERM. SEALED	T
	3PDT	DUST COVER PLUG-IN	5D3C
	4PDT	OPEN	54C

NEED SPECIAL TYPES ?
CONTACT KURMAN FOR "STANDARD VARIATIONS" AND "SPECIAL DESIGNS"

KURMAN INSTRUMENTS CORP., BROOKLYN, N. Y. 11222

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MAGNECRAFT RELAYS

The *relays* you can *rely* on

310 different Relay Models

Immediate Delivery from STOCKING DISTRIBUTORS

MAGNECRAFT ELECTRIC CO., Chicago, Ill. 60630

All prices and specifications effective August 1, 1964 and subject to change without notice.

All prices are NET for 1 to 9 Relays except Mercury-Wetted Contact and Dry Reed Relay prices are NET for 1 to 24.

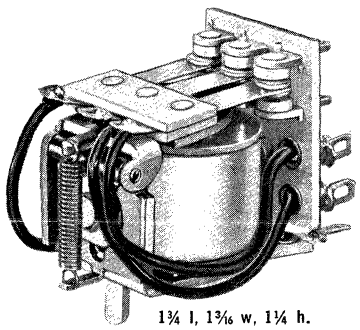
All contact ratings based on 115 VAC or 32 VDC, non-inductive load.

Voltage operated relays pull in at 85% of nominal voltage.

ORDER BY CATALOG NUMBER. Labels on MAGNECRAFT STOCK RELAY CARTONS carry Catalog Number, contact combination and rating; coil voltage or current.

All enclosed relays are identified by catolag number and wiring diagram.

NOTE. Order MAGNECRAFT STOCK RELAYS from STOCKING DISTRIBUTORS. Their stocks are supplemented by complete stocks maintained at the MAGNECRAFT plant in Chicago.



1¾ l, 1⅜ w, 1¼ h.

Class 88 Small AC-DC General Purpose Relay.

Open Type Relay. Has 10 ampere silver alloy contacts. Tinned solder terminals, spaced for easy wiring. One #6-32 tapped mounting hole with locating boss. Weight, 2 ounces.

The General Purpose Relay with Telephone Type Reliability

The MAGNECRAFT 88 Relay is an abrupt departure in clapper type relay design. Dimensionally interchangeable with relays made by others the 88 has been developed to **provide Telephone Type Relay reliability at general purpose relay prices.**

Unique in relays of this type MAGNECRAFT 88 Relays have **rugged, precision-built hinge-pin armature bearings** with oversize bearing surfaces—the same construction used in the finest telephone type relays for **lowest friction** and **maximum contact effectiveness** with **stabilized adjustment over long life.**

Glass insulation provides **great di-electric strength unaffected by humidity and temperature changes.**

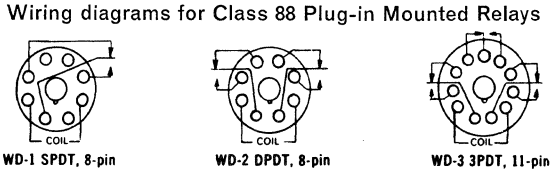
Molded Nylon bobbins with ruggedized coil terminal inserts **eliminate possibility of shorts.**

Built-in contact wipe with riveted contacts further **advance reliability through long life.**

The many refinements, plus MAGNECRAFT Quality Control and Inspection Standards **give you hidden values beyond price**—unseen values that keep making friends through years of dependable service.

When you inspect and compare you will soon see that many MAGNECRAFT 88 **extra values are not hidden.**

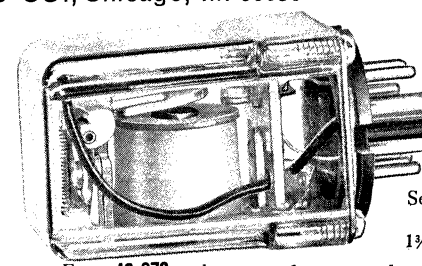
Wiring diagrams for Class 88 Plug-in Mounted Relays



WD-1 SPDT, 8-pin — WD-2 DPDT, 8-pin — WD-3 3PDT, 11-pin

h* is overall dimension above socket WD is abbreviation for Wiring Diagram

†Voltage operated relays pull in at 85% of nominal voltage.



Class 88CP Small AC-DC Plug-in Relay with "see-thru" plastic cover

See wiring diagrams at lower left

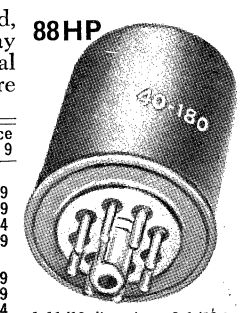
1⅜ x 1⅛ x 2⅛ h*

Enc. **40-279** polystyrene dust cover housing Class **88** all purpose relay with 8- or 11-pin standard octal plug. Silver alloy contacts, 10 ampere rating. Weight, 3 ounces.

	COIL			10 ampere silver alloy contacts: OPEN RELAY		WITH ENCLOSURE 40-279		
	volt. or current	res. ohms	nominal power	Stock Part No.	NET	Stock Part No.	Plug	NET
	alternating current voltage actuated							
SPDT †WD-1	6VAC	—	3 VA	W88AX1	3.35	W88ACPX1	8-pin	5.50
	12VAC			W88AX2	3.35	W88ACPX2		5.50
	24VAC			W88AX3	3.40	W88ACPX3		5.55
	115VAC			W88AX4	3.55	W88ACPX4		5.70
DPDT WD-2	6VAC	—	3 VA	W88AX5	3.95	W88ACPX5	8-pin	6.24
	12VAC			W88AX6	3.95	W88ACPX6		6.24
	24VAC			W88AX7	4.00	W88ACPX7		6.29
	115VAC			W88AX8	4.15	W88ACPX8		6.44
	230VAC			W88AX32	4.60	W88ACPX32		6.99
3PDT WD-3	6VAC	—	3 VA	W88AX9	4.35	W88ACPX9	11-pin	7.66
	12VAC			W88AX10	4.35	W88ACPX10		7.66
	24VAC			W88AX11	4.40	W88ACPX11		7.81
	115VAC			W88AX12	4.55	W88ACPX12		7.96
	230VAC			W88AX36	5.00	W88ACPX39		8.51
	direct current voltage actuated							
SPDT †WD-1	6VDC	25	1.5W	W88X2	3.20	W88CPX1	8-pin	5.35
	12VDC	100		W88X3	3.20	W88CPX2		5.35
	24VDC	400		W88X4	3.25	W88CPX3		5.40
	110VDC	8000		W88X5	3.80	W88CPX4		5.95
DPDT WD-2	6VDC	25	1.5W	W88X6	3.55	W88CPX5	8-pin	5.84
	12VDC	100		W88X7	3.55	W88CPX6		5.84
	24VDC	400		W88X8	3.60	W88CPX7		5.89
	110VDC	8000		W88X9	4.15	W88CPX8		6.44
3PDT WD-3	6VDC	25	1.5W	W88X10	3.95	W88CPX9	11-pin	7.21
	12VDC	100		W88X11	3.95	W88CPX10		7.21
	24VDC	400		W88X12	4.00	W88CPX11		7.26
	110VDC	8000		W88X13	4.55	W88CPX12		7.81
	DC current actuated for plate circuit operation							
SPDT †WD-1	7.2 MA	2500	125MW	W88X14	3.75	W88CPX13	8-pin	5.90
	5.0 MA	5000		W88X15	3.85	W88CPX14		6.00
	3.6 MA	10000		W88X16	4.25	W88CPX15		6.40
DPDT WD-2	10 MA	2500	250MW	W88X17	4.01	W88CPX16	8-pin	6.30
	7.2 MA	5000		W88X18	4.11	W88CPX17		6.40
	5 MA	10000		W88X19	4.51	W88CPX18		6.80
3PDT WD-3	12.3 MA	2500	375MW	W88X20	4.44	W88CPX19	11-pin	7.70
	8.7 MA	5000		W88X21	4.54	W88CPX20		7.80
	6.1 MA	10000		W88X22	4.94	W88CPX21		8.20

Class 88 HP—Hermetically Sealed Enclosure Plug-in Mounted—10 Amps.—AC and DC

40-180 enclosure, hermetically sealed, housing Class **88** high reliability relay (see above) with standard 8-pin octal plug. Silver alloy contacts, 10 ampere rating. Weight 5 ounces.



1-11/16 diameter x 2-1/32 h.

contacts 10 amps.	†volt-age	res. ohms	nom. power	Stock Part No.	Price 1 to 9
	alternating current voltage actuated				
DPDT WD-2	6VAC	—	3VA	W88AHPX-21	8.59
	12VAC	—		W88AHPX-22	8.59
	24VAC	—		W88APHX-23	8.64
	115VAC	—		W88APHX-24	8.79
	direct current voltage actuated				
DPDT WD-2	6VDC	25	1.5W	W88HPX-32	8.19
	12VDC	100		W88HPX-33	8.19
	24VDC	400		W88HPX-34	8.24
	110VDC	8000		W88HPX-35	9.29

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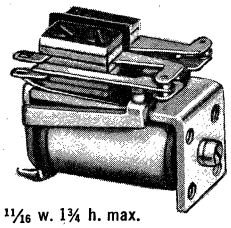
Telephone Type MAGNECRAFT RELAYS

Sub-miniature—DC—3 amps.

33



1 11/32 l, 11/16 w. 1¾ h. max.

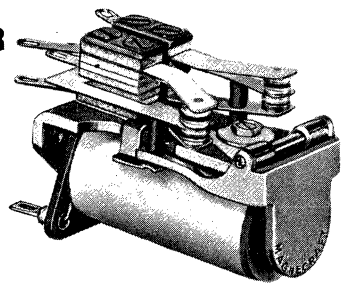
Class **33** midget sub-miniature; the smallest telephone type MAGNECRAFT Relay and one of the smallest telephone type relays on the market. Class 33 is also the fastest operating and inherently more shock resistant and vibration resistant. Long life, reliability and accuracy fit Class 33 relays for a wide range of small space requirements. They are extensively used for aircraft, computer and mobile applications where small size, light weight and resistance to shock and vibration are essential.

Palladium contacts; 3 ampere rating. Four 4-40 tapped mounting holes on ⅜ x ⅜ centers. Weight, 1 ounce.

contacts 3 amps	voltage DC	res. ohms	nominal power	Stock Part No.	NET
DPDT	6VDC	17	2.0W	W33X237	4.87
	12VDC	75		W33X238	4.87
	24VDC	280		W33X239	4.92
	110VDC	6500		W33X240	5.50
4DPT	6VDC	17	2.0W	W33X241	6.58
	12VDC	75		W33X242	6.58
	24VDC	280		W33X243	6.63
	110VDC	6500		W33X244	7.23

Small—Power—AC-DC—10 amps.

22R



2 1/16 l, 1 1/32 w, 1¾ high, max.

Class **22R** small size, high reliability, long life relay with heavy duty 10 ampere silver alloy contacts and same pin type armature hinge as Class 66AR.

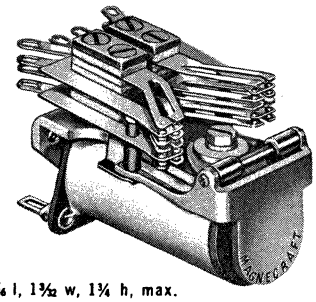
All mounting and wiring at heel end. Tinned solder terminals with easy-to-wire spacing. Two #6-32 tapped mounting holes on ¾ centers. Weight, 5 ounces.

contacts 10 amps.	voltage	res. ohms	nominal power	Stock Part No.	NET
DPDT	6VAC		5VA	W22ARX38	6.25
	24VAC			W22ARX39	6.25
	115VAC			W22ARX40	6.30
DPDT	6VDC	20	2.5W	W22RX67	6.00
	12VDC	88		W22RX68	6.00
	24VDC	225		W22RX69	6.05
	110VDC	5000		W22RX70	6.63
4PDT	6VDC	20	2.5W	W22RX71	8.79
	12VDC	80		W22RX72	8.79
	24VDC	225		W22RX73	8.84
	110VDC	5000		W22RX74	9.42

NOTE—Voltage actuated relays pull in at 85% of nominal voltage.

Small—AC-DC—Twin Contacts

22T



2 1/16 l, 1 1/32 w, 1¾ h, max.

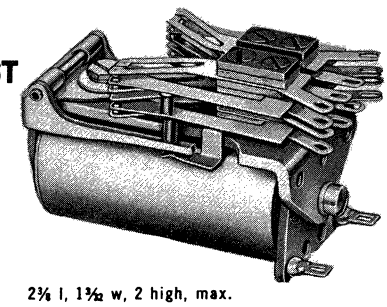
Class **22T** —miniature long form relay with accuracy reliability and long life equal and sometimes superior to larger relays. A unique, pin type armature hinge of heavy duty design and precision construction assures stabilized adjustment through millions of operations. Twin Palladium contacts with long, flexible bifurcated contact springs assure the ultimate in switching reliability.

Twin Palladium contacts, 4 ampere rating. All mounting and wiring at heel end. Tinned solder terminals with easy-to-wire spacing. Two #6-32 tapped mounting holes on ¾ centers. Weight, 5 ounces.

contacts 4 amps.	volt. or current	res. ohms	nominal power	Stock Part No.	NET
	alternating current voltage actuated				
DPDT	115VAC		5VA	W22ATX12	5.94
	direct current voltage actuated				
4PDT	6VDC	20	2.0W	W22TX267	8.44
	12VDC	80	2.0W	W22TX268	8.44
	24VDC	375	1.5W	W22TX269	8.49
	110VDC	8000	1.5W	W22TX270	9.97
6PDT	6VDC	12	3.0W	W22TX271	11.87
	12VDC	50		W22TX272	11.87
	24VDC	250		W22TX273	11.92
	110VDC	5000		W22TX274	12.91
	DC current actuated for plate circuit operation				
SPDT	4.5 MA	5000		W22TX276	5.91
	6.0 MA	2700	100MW	W22TX277	5.24
	3.2 MA	10000		W22TX278	6.18
DPDT	4.5 MA	10000	200MW	W22TX275	6.93

Medium—AC-DC—Twin Contacts

66T



2⅜ l, 1 1/32 w, 2 high, max.

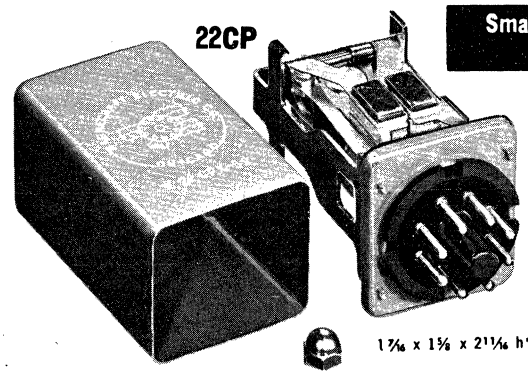
Class **66T** —similiar to 22T except has larger coil for greater sensitivity and/or effective switching of more circuits. A unique, pin type armature hinge of heavy duty design and precision construction assures stabilized adjustment through millions of operations. Twin Palladium contacts with long flexible bifurcated contact springs assure the ultimate in switching reliability.

Twin Palladium contacts, 4 ampere rating. All mounting and wiring at heel end. Tinned solder terminals with easy-to-wire spacing. Two #6-32 tapped mounting holes on ¾ centers. Weight, 5 ounces.

contacts 4 amps.	volt. or current	res. ohms	nominal power	Stock Part No.	NET
	alternating current voltage actuated				
4PDT	115VAC		6VA	W66ATX2	7.72
	direct current voltage actuated				
4PDT	6VDC	30	1.0W	W66TX23	7.59
	12VDC	135		W66TX24	7.59
	24VDC	540		W66TX25	7.64
8PDT	6VDC	20	2.0W	W66TX29	13.21
	12VDC	85		W66TX30	13.21
	24VDC	250		W66TX31	13.26
	110VDC	5750		W66TX32	13.84
	DC current actuated for plate circuit operation				
4PDT	5.3 MA	11000	300MW	W66TX26	8.96
6PDT	6.75 MA	11000	500MW	W66TX27	12.64
8PDT	8.5 MA	11000	800MW	W66TX28	14.25

Small—AC-DC—Plug-in with removable dust cover

22CP



1 7/16 x 1⅝ x 2 11/16 h*

40-284 enclosure with removable dust cover housing Class 22 relay with 8- or 11-pin standard octal plug. Internal bracket supports cover and protects relay. One screw holds cover in place. Silver alloy contacts, 5 ampere rating. Weight, 6 ounces.

contacts 5 amps.	voltage	res. ohms	nominal power	Stock Part No.	NET
	alternating current voltage actuated				
DPDT WD-5	115VAC		5VA	W22CPX60	10.23
	direct current voltage actuated				
SPDT †WD-4	6VDC	20	2.0W	W22CPX44	8.73
	12VDC	80	2.0W	W22CPX45	8.73
	24VDC	375	1.5W	W22CPX46	8.78
	110VDC	8000	1.5W	W22CPX47	10.02
DPDT WD-5	6VDC	20	2.0W	W22CPX48	9.85
	12VDC	80	2.0W	W22CPX49	9.85
	24VDC	375	1.5W	W22CPX50	9.90
	110VDC	8000	1.5W	W22CPX51	11.14

contacts 5 amps.	volt. or current	res. ohms	nominal power	Stock Part No.	NET
	direct current voltage actuated				
3PDT WD-6	6VDC	20	2.0W	W22CPX52	11.87
	12VDC	80	2.0W	W22CPX53	11.87
	24VDC	375	1.5W	W22CPX54	11.92
	110VDC	8000	1.5W	W22CPX55	13.16
	DC current actuated for plate circuit operation				
SPDT †WD-4	4.5 MA	5000		W22CPX57	9.36
	6.0 MA	2700	100MW	W22CPX58	9.02
	3.2 MA	10000		W22CPX59	10.02
DPDT WD-5	4.5 MA	10000	200MW	W22CPX56	11.14

Net

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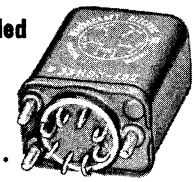
MAGNECRAFT RELAYS

Hermetically Sealed

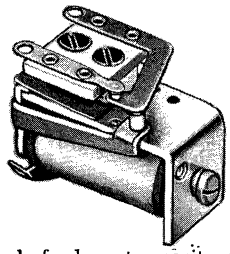
Hermetically Sealed Sub-miniature DC 5 amps. 33HS



3½₂ x 1¹½₂ x 1⁴¹⁄₆₄ h*

40-157 enclosure, hermetically sealed, housing Class 33 miniature relay with 8- or 14-pin high compression, glass insulated, solder terminal header. Silver alloy contacts, 5-ampere rating. Three 4-40 tapped mounting holes on ½ x 1 centers. Weight, 3 ounces.

contacts 5 amps.	voltage DC	res. ohms	nominal power	Stock Part No.	NET
	6VDC	17		W33HSX177	13.21
	12VDC	75		W33HSX178	13.21
DPDT	24VDC	280	2.0W	W33HSX179	13.26
†WD-8	110VDC	6500		W33HSX180	13.87
	6VDC	17		W33HSX181	16.65
	12VDC	75		W33HSX182	16.65
4PDT	24VDC	280	2.0W	W33HSX183	16.70
WD-9	110VDC	6500		W33HSX184	17.36



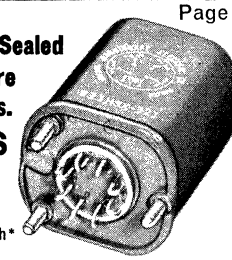
Class 33F RF Switching Subminiature

Class 33 telephone type relay designed especially for lowest capacitance between springs and minimum losses at high frequencies. Suitable for antenna change-over switching. Contact springs have ceramic insulation. Contacts are Palladium, 2 ampere rating.

Tinned solder terminals. Four #4-40 tapped mounting holes on ⅜ x ⅜ centers. Weight, 1 ounce. 1¹½₂ l, 1¹⁄₁₆ w, 1¹⁄₁₆ h.

contacts 2 amps.	voltage	res. ohms	nominal power	Stock Part No.	NET
	6VDC	28		W33FX20	4.06
SPDT	12VDC	100	1.5W	W33FX21	4.11
	24VDC	500		W33FX22	4.16
	110VDC	6500		W33FX23	4.69

Hermetically Sealed Miniature DC 5 amps. 11HS

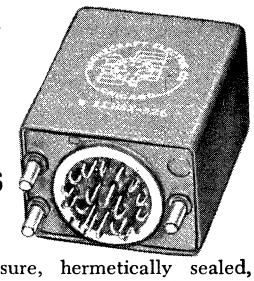


1⅝ x 1¾ x 2¹⁄₁₆ h*

40-102 enclosure, hermetically sealed, housing Class 11 miniature relay with 14-pin, high compression, glass insulated solder terminal header. Silver alloy contacts, 5 ampere rating. Three #6-32 NC-2 threaded mounting studs on ¹⁵⁄₁₆ x 1³⁄₁₆ centers. Weight, 6 ounces.

contacts 5 amps.	volt. or current	res. ohms	nominal power	Stock Part No.	NET
	6VDC	25		W11HSX321	15.92
	12VDC	100		W11HSX322	15.97
4PDT	24VDC	400	1.5W	W11HSX323	15.97
WD-9	110VDC	9000		W11HSX324	17.06
DC current actuated for plate circuit operation					
DPDT WD-8	5 MA	10000	250MW	W11HXS325	13.70

Hermetically Sealed Miniature DC 5 amps. 11HS

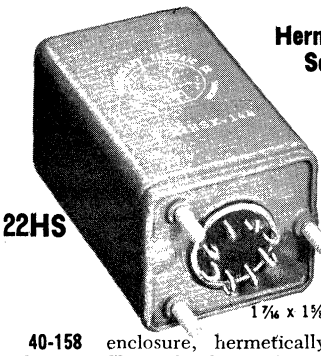


1¹⁵⁄₆₄ x 1⁴⁷⁄₆₄ x 2⅜ h*

40-188 enclosure, hermetically sealed, housing Class 11 miniature relay with 20-pin high compression glass insulated solder terminal header. Silver alloy contacts, 5 ampere rating. Three #6-32 NC-2 threaded mounting studs on ½ x 1¹³⁄₃₂ centers. Weight, 6 ounces.

contacts 5 amps.	voltage	res. ohms	nominal power	Stock Part No.	NET
	6VDC	13		W11HSX326	19.91
	12VDC	56		W11HSX327	19.91
6PDT	24VDC	280	2.5W	W11HSX328	19.96
WD-10	110VDC	5000		W11HSX329	20.18

Hermetically Sealed small AC-DC 5 amps. 22HS



1⁷⁄₁₆ x 1⅝ x 2¹¹⁄₁₆ h*

40-158 enclosure, hermetically sealed, housing Class 22 relay with 14-pin glass insulated solder terminal header. Silver alloy contacts, 5 ampere rating. Three #6-32 threaded mounting studs on ¹⁵⁄₁₆ x 1³⁄₁₆ centers. Weight, 7 ounces.

contacts 5 amps.	voltage	res. ohms	nominal power	Stock Part No.	NET
	alternating current voltage actuated				
4PDT WD-9	115VAC	500	5VA	W22AHSX32	17.30
	direct current voltage actuated				
	6VDC	20	2.0W	W22HSX144	17.00
4PDT	12VDC	80	2.0W	W22HSX145	17.00
WD-9	24VDC	375	1.5W	W22HSX146	17.05
	110VDC	8000	1.5W	W22HSX147	18.03

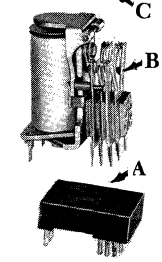
22TPM Direct Plug-in Assemblies with Twin Contacts Snap-on Cover

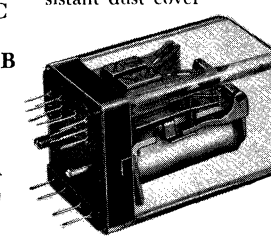
Effect big saving over factory-wired plug-ins.

A. You wire the precision built socket

B. Plug the 22TPM Relay into the socket

C. Snap-on the transparent high temperature resistant dust cover

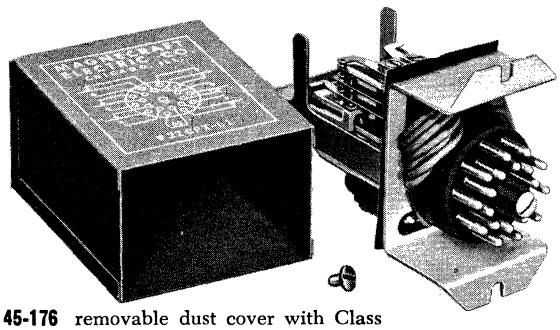




Dim. 1²¹⁄₃₂ x 2⁴⁵⁄₆₄ x 2⅝ h.

Class 22TPM direct Plug-in assemblies give you all the plug-in advantages with savings, compactness and convenience not obtainable with factory-wired plug-ins. These stock assemblies have twin palladium contacts rated 4 amps at 115 VAC or 32 VDC non-inductive load. Part Numbers and prices include complete assembly—socket with screws, 22TPM Relay and snap-on dust cover.

Contacts 4 amps	Voltage	Res. Ohms	Nom. Power	Stock Part No.	Price 1 to 9
DPDT	115VAC	—	5VA	W22ATPMX-1	$ 8.35
4DPT	115VAC	—		W22ATPMX-2	11.52
DPDT	24VDC	500	1.5W	W22TPMX-1	8.10
4PDT	24VDC	500		W22TPMX-2	10.87



22 CP

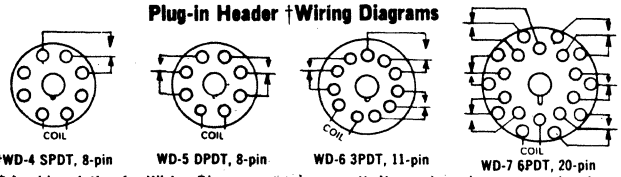
Small—DC—Plug-in with removable dust cover

45-176 removable dust cover with Class 22 relay and 20-pin octal plug. Hold-down bracket permits mounting in any position. Internal bracket supports cover. One screw holds cover. Rubber gasket seals out dust. Silver alloy contacts, 5 ampere rating. Hold down bracket has two mounting holes for 6-32 screws on 2²¹⁄₃₂ centers. Weight, 8 ounces.

1⁹⁄₁₆ x 2¹¹⁄₁₆ x 3¹³⁄₃₂ h*

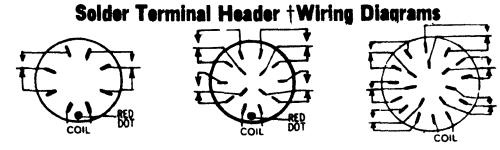
contacts 5 amps.	voltage	res. ohms	nominal power	Stock Part No.	NET
	6VDC	12		W22CPX61	16.72
	12VDC	50		W22CPX62	16.72
6PDT	24VDC	225	3.0W	W22CPX63	16.77
WD-7	110VDC	5000		W22CPX64	17.35

Plug-in Header †Wiring Diagrams



†WD-4 SPDT, 8-pin — WD-5 DPDT, 8-pin — WD-6 3PDT, 11-pin — WD-7 6PDT, 20-pin

Solder Terminal Header †Wiring Diagrams



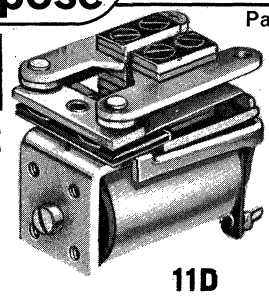
†WD-8 DPDT, 8-hook — WD-9 4PDT, 14-hook — WD-10 6PDT, 20-hook

†WD is abbreviation for Wiring Diagram h* is overall dimension above mounting base

NOTE—Voltage actuated relays pull in at 85% or nominal voltage.

Power—Latching Special Purpose MAGNECRAFT RELAYS

Miniature Power DC 50 amps SPST-NO-DB



11D

1⅝ l, 1⅝ w
1⅞ h.

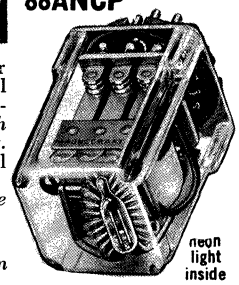
Class **11D** miniature telephone type relay with heavy brass contact arms and large 50-ampere silver alloy, single pole, single throw, normally open, double break contacts. The Class 11 is a small size relay with big relay reliability, accuracy and long life.

Solder terminals, spaced for easy wiring. Four 4-40 tapped mounting holes on ⅜ x 7/16 centers. Weight, 3 ounces.

contacts 50 amps.	voltage	res. ohms	nominal power	Stock Part No.	NET
SPST	6VDC	25		W11DX38	5.39
NO	12VDC	100	1.5W	W11DX39	5.45
double	24VDC	400		W11DX40	5.45
break	110VDC	9000		W11DX41	6.08

Small AC 10 amp. plug-in relay with neon "ON" light

88ANCP



neon light inside cover

1⅜ x 1⅜ x 2⅛ h*

Enc. 40-279 polystyrene dust cover with 8- or 11-pin standard octal plug housing Class **88** high reliability relay (see page 1) *with built-in neon circuit indicator light.* Indicator light comes on when coil is energized.

- *Eliminates need for expensive pilot lamp assemblies*
- *Saves panel space*
- *Circuit condition can be seen at a glance*

Silver alloy contacts, 10 ampere rating. Weight, 3 ounces.

contacts 10 amps.	wiring diagrams	volt. AC	nominal power	Stock Part No.	NET
SPDT	WD-1*	115		W88ANCPX-1	6.64
DPDT	WD-2*	115	3VA	W88ANCPX-2	7.29
3PDT	WD-3*	115		W88ANCPX-3	8.81

*See page 1.

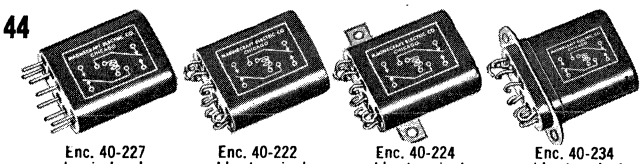
Micro-Miniature Rotary Relays

MAGNECRAFT Class 44 Rotary Relays have been developed to provide increased reliability in the crystal can size. Here are a few of many areas in which improvement has been made:

1. Frame and header assembly of rugged bridge-type construction—assures greatly increased resistance to distortion from shock, vibration and temperature—to military specification requirements
2. Balanced armature—minimizes the effect of gravity, shock and vibration on operating reliability.
3. Hinge design—oversize, instrument type bearings at *BOTH* ends.
   a. Minimizes friction for increased sensitivity and greater contact pressure.
   b. Increases operating reliability and life.
4. The latest and finest developments in high temperature insulation.
5. Hermetically sealed in inert gas for maximum protection against severe ambient conditions.

Contact combination: Double Pole, Double Throw
Contact rating: 2 amperes at 28 VDC or 115 VAC, non-inductive.
Operate Time: 5 milliseconds maximum with nominal voltage
Release Time: 5 milliseconds maximum.

44



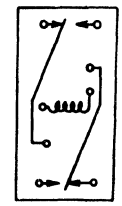
Enc. 40-227 plug-in header no bracket

Enc. 40-222 solder terminals no bracket

Enc. 40-224 solder terminals side bracket

Enc. 40-234 solder terminals flange bracket

Case – .875 x .797 x .359

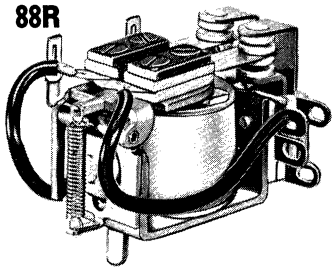


Standard wiring diagram for Class 44 Relays

DC voltage	res. ohms	nominal power	Stock Part No.	NET	Stock Part No.	NET
			Enc. 40-227		Enc. 40-222	
6.5	34		W44HPX-34	17.60	W44HSX-103	17.60
11	92		W44HPX-35	17.60	W44HSX-104	17.60
26.5	552	1.2W	W44HPX-36	17.60	W44HSX-105	17.60
38.5	1278		W44HPX-37	18.00	W44HSX-106	18.00
76	5000		W44HPX-38	19.90	W44HSX-107	19.90
			Enc. 40-224		Enc 40-234	
6.5	34		W44HSX 108	17.95	W44HSX-113	17.95
11	92		W44HSX 109	17.95	W44HSX-114	17.95
26.5	552	1.2W	W44HSX-110	17.95	W44HSX-115	17.95
38.5	1278		W44HSX-111	18.35	W44HSX-116	18.35
76	5000		W44HSX-112	20.25	W44HSX-117	20.25

Small—Power—AC-DC—15 amps.

88R



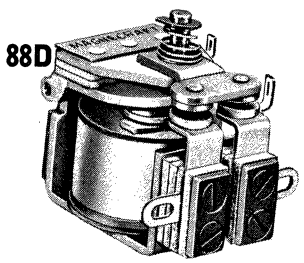
1⅞ l, 1 13/32 w, 1 13/32 high

Class **88R** extra quality, high reliability clapper type relay with 15 ampere heavy duty silver alloy contacts for industrial control applications. Has the exclusive quality features of Class 88 relays described on page one. Tinned solder terminals. One #6-32 tapped mounting hole and locating boss. Weight 3 ounces.

contacts 15 amps.	voltage	res. ohms	nominal power	Stock Part No.	NET
	6VAC	—		W88ARX1	5.97
DPDT	12VAC	—	3VA	W88ARX2	5.97
	24VAC	—		W88ARX3	6.02
	115VAC	—		W88ARX4	6.17
	6VDC	25		W88RX1	5.90
DPDT	12VDC	100	1.5W	W88RX2	5.90
	24VDC	400		W88RX3	5.95
	110VDC	8000		W88RX4	6.40

Power - AC and DC - 50 amps.

88D



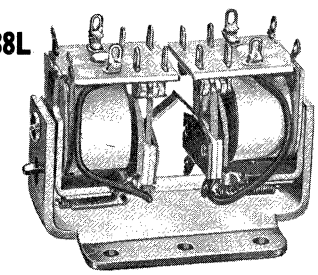
1-13/16 x 1-1/4 (less soldering tabs) x 1-7/16 high

The popular high reliability Class 88 Relay (see page 1) specially designed with 50-ampere SPST, Double Break, Normally Open contacts. Developed especially for switching heavy current in minimum space reliably and economically. Unique contact structure provides positive wiping action. One 6-32 tapped mounting hole and locating boss. Weight, 3 ounces.

contacts 50 amps.	voltage	res. ohms	nominal power	Stock Part No.	NET
50	24VAC	—		W88ADX-1	5.15
amperes	115VAC	—	3VA	W88ADX-2	5.25
SPST	230VAC	—		W88ADX-3	5.70
Double	6VDC	25		W88DX-1	4.65
BREAK,	12VDC	100	1.5W	W88DX-2	4.65
Normally	24VDC	400		W88DX-3	4.70
Open	110VDC	8000		W88DX-4	5.94

Latch-In - AC and DC - Small

88L



2-11/16 max. x 1¾ x 1-15/16 high max.

Two class 88 relays (see page 1) with interlocking latch-in levers mounted on a common base. Each armature latches when pulled in. Energizing one armature releases (resets) the other. Each relay is complete with independent operating coil. Contacts are silver alloy, 10 ampere rating. Relay coils are designed for continuous duty operation. Weight 6½ ounces.

contacts 10 amps.	voltage	res. ohms	nominal power	Stock Part No.	NET
	6VAC	—		W88ALX-2	10.60
4PDT	24VAC	—	6VA	W88ALX-3	10.60
	115VAC	—	prox	W88ALX-4	10.60
	6VAC	—		W88ALX-5	12.80
6PDT	24VAC	—	6VA	W88ALX-6	12.80
	115VAC	—	prox.	W88ALX-7	12.80
	6VDC	12		W88LX-1	9.65
4PDT	12VDC	50		W88LX-2	9.65
	24VDC	200	3W	W88LX-3	9.65
	110VDC	4000		W88LX-4	10.85
	6VDC	12		W88LX-5	11.75
6PDT	12VDC	50		W88LX-6	11.75
	24VDC	200	3W	W88LX-7	11.75
	110VDC	4000		W88LX-8	12.95

NOTE—Voltage actuated relays pull in at 85% of nominal voltage.

Net

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132MPC and 133MPC Mercury-Wetted Contact Relays in MPC Package

132 and 133MPC Specifications

Operate Time: 2 ms. average.

Release Time: 2 ms. average.

Operating Position: Upright—not more than 30° from vertical.

Nominal Power: 500 Milliwatts.

Life Expectancy: 1 Billion cycles.

Contacts: Mercury-wetted.

Contact Load Rating: 50 VA at 3.0 amps. max., or 400V max. non-inductive. Switches from 50VA to extremely minute current and voltage reliably.

Contact Resistance: 25 milliohms max.; less than 10% change in contact resistance through life.

Maintenance: No change in adjustment after the relay is made. May be stored indefinitely without deterioration.

Ambient Temperature:—37.8°F to +200°F.

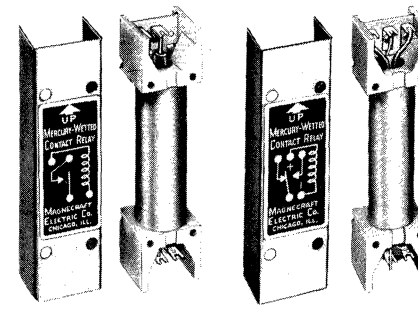
132MPC SPST-NO

Stock Part No.	COIL MA	†Volts	Ohms	Price 1 to 24
W132MPCX-1	140	—	30	
W132MPCX-2	85	6VDC	70	
W132MPCX-3	48	12VDC	250	5.83
W132MPCX-4	24	24VDC	1000	
W132MPCX-5	12	48VDC	4000	6.00
W132MPCX-6	9	—	7000	6.68

133MPC SPDT Form C

single side stable*

W133MPCX-1	140	—	30	
W133MPCX-2	85	6VDC	70	
W133MPCX-3	48	12VDC	250	7.65
W133MPCX-4	24	24VDC	1000	
W133MPCX-5	12	48VDC	4000	7.82
W133MPCX-6	9	—	7000	8.50



132MPC with cover removed

133MPC with cover removed

MPC Modular Package (see Mercury-Wetted Relays above and Dry Reed Relays below)

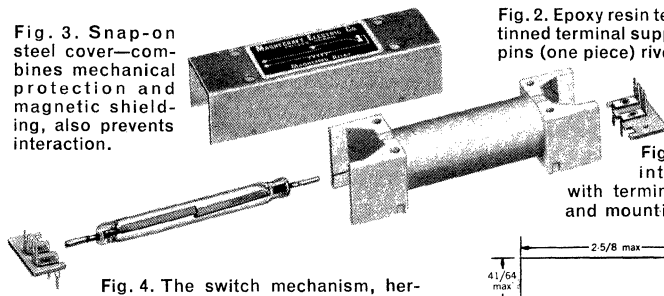
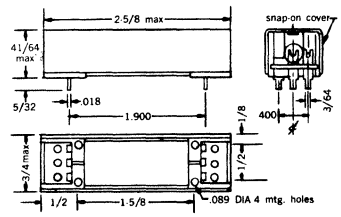


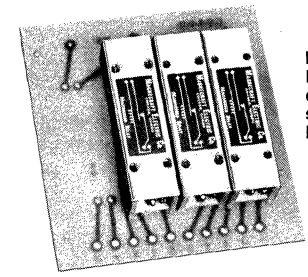
Fig. 3. Snap-on steel cover—combines mechanical protection and magnetic shielding, also prevents interaction.

Fig. 2. Epoxy resin terminal board with tinned terminal supports and terminal pins (one piece) riveted into mortised position.

Fig. 1. Nylon bobbin intergrally molded with terminal board support and mounting base.

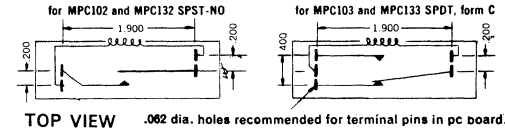
Fig. 4. The switch mechanism, hermetically sealed with an atmosphere of inert gas in a glass capsule—protected for life from dust, moisture, contamination and tampering.





MPC Packaged Relays provide quick plug-in assembly to circuit boards.

Wiring Diagrams and Terminal Pin Spacings



.062 dia. holes recommended for terminal pins in pc board.

Class 102MPC and 103MPC Dry Reed Relays in MPC package

Class 102MPC SPST-NO

Contact Combination: SPST-NO.

Operate Time: 3 ms. average *Release:* ½ ms. average.

Nominal Power: 500 milliwatts.

Contacts: Gold: rated 15 VA at 1 amp., max. or 250 VAC max. non-inductive load.

Life Expectancy: 20 million cycles at maximum rating.
100 million cycles at ½ maximum rating.
200 million cycles at low load (1/10 amp. at 12V).

Stock Part No.	COIL MA	†Volts	Ohms	Price 1 to 24
W102MPCX-5	140	11—	30	
W102MPCX-6	85	6VDC	70	
W102MPCX-7	48	12VDC	250	3.29
W102MPCX-8	24	24VDC	1000	
W102MPCX-9	12	48VDC	4000	3.46
W102MPCX-10	9	—	7000	4.14

Operates in any position.

Class 103MPC SPDT Form C (Single Side Stable)

Contact Combination: SPDT, Form C, single side stable*

Operate Time: 2 ms. average.

Release Time: ½ ms average.

Contact Bounce: 4 ms. max. on release (normally closed contact).

Nominal Power: 500 milliwatts.

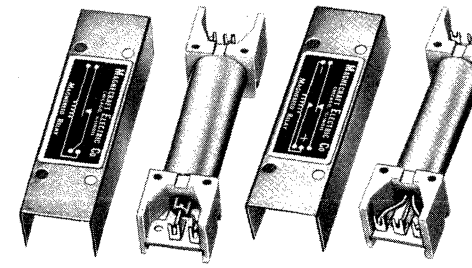
Contacts: Gold—rated 10 VA at 0.5 amp. max. or 250 VAC max.; non-inductive load.

Life Expectancy:
25 million cycles at maximum rating.
50 million cycles at ½ maximum rating.
100 million cycles at low load (1/10 amp. at 12V).

W103MPCX-1	140	—	30	
W103MPCX-2	85	6	70	
W103MPCX-3	48	12	250	5.83
W103MPCX-4	24	24	1000	
W103MPCX-5	12	48	4000	6.00
W103MPCX-6	9	—	7000	6.68

Operates in any position.

***Single Side Stable**–Armature contact releases from the operated position when coil current falls below the drop out value.



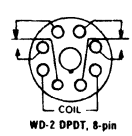
102MPC with cover removed

103MPC with cover removed

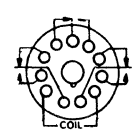
103CP Dry Reed Relay Plug-in Assemblies with Plastic Dust Cover

Each assembly includes two or three Class 103SPDT Dry Reed Relays (for specifications see Class 103 on opposite page) with plug-in mounting in polystyrene dust cover.

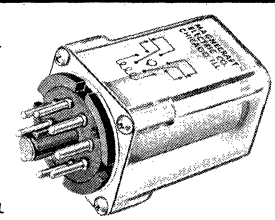
contacts	direct current current	†volts	res. ohms	catalog number	Price 1 to 24
	—	6V	75	W103CPX-7	12.92
DPDT	—	12V	300	W103CPX-8	12.95
WD-2	—	24V	1000	W103CPX-9	13.01
	8MA	—	5000	W103CPX-10	13.57
	—	6V	40	W103CPX-11	16.77
3PDT	—	12V	150	W103CPX-12	16.83
WD-3	—	24V	650	W103CPX-13	16.95
	10MA	—	5000	W103CPX-14	17.50



WD-2 DPDT, 8-pin

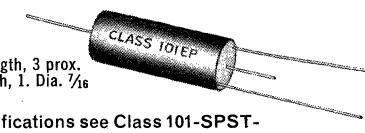


WD-3 3PDT, 11-pin



Dimensions: 1-3/8 x 1-3/8 x 2-1/8 h. Weight 5 oz.

Class 101EP Axial Lead Relays



Overall length, 3 prox.
Body length, 1. Dia. 1/16

For specifications see Class 101-SPST-NO-Open Style on opposite page.

Class 101EP-SPST-NO

COIL MA	†Volts	Ohms	Nom Pwr	Stock Part No.	Price 1 to 24
—	6VDC	65		W101EPX-5	3.62
—	12VDC	225	600	W101EPX-6	3.62
—	24VDC	1000	MW	W101EPX-7	4.24
8	—	5000		W101EPX-8	4.68

†Voltage operated relays pull in at 85% of nominal voltag

Encapsulated Dry Reed MAGNECRAFT RELAYS

These **Dry Reed Relays by MAGNECRAFT** have pre-adjusted GOLD contacts completely protected from dust, contamination and tampering by hermetic sealing in an atmosphere of inert gas, inside a glass capsule. The isolated switching contacts are actuated by a coil around the glass capsule.

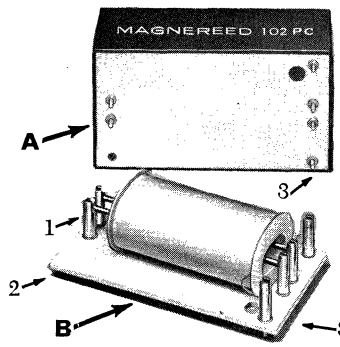
MAGNEREED Relays **bridge the gap between electromechanical relays and complex, costly solid state switching devices** through stabilized contact resistance; high speed positive switching; sensitive operation; and adaptability to complex logic circuits plus ability to better **withstand over-voltage transients and higher ambient temperatures.**

Encapsulated MAGNEREED Relay Assemblies with Printed Circuit "plug-in" terminal pins. (see hand with circuit board at lower left)

Illustration "A" at right shows the "plug-in" terminal pins of an Encapsulated MAGNEREED assembly. Illustration "B" shows the relay on the Epoxy mounting board before encapsulation. The rugged terminal posts (1) extend through the mounting board (2) to form the terminal pins (3).

The leads from the capsule are soldered to the rigid terminal posts with the capsule and coil in position; stresses created when leads are bent that transmit to contacts inside the capsule are completely avoided.

Encapsulation eliminates breakage, protects coil, leads and terminals against mechanical injury and atmospheric change; provides fast and economical circuit board mounting.



Class 101 SPST-NO

Operate Time: 1 ms average
Release Time: ½ ms average
Contacts: Gold, rated 12VA at .25 amp. max. or 100VAC max. non-inductive
Life Expectancy:
5 million cycles at max. rating
20 million cycles at ½ max. rating.
Operates in any position
Capacitance between contacts: .3 mmf**

101 SPST-NO open type

Nom. Power 600MW
Overall length, 1-1/2, bobbin 7/8 O.D. 7/16. Weight 1 oz.

COILS—DC MA	†volts	ohms	Stock Part No.	Price 1 to 24
46MA	6V	100	W101X-1	3.29
30MA	12V	250	W101X-2	3.29
20MA	24V	500	W101X-3	3.85
9MA	—	2500	W101X-4	4.25

101PC SPST-NO (45-321)

Nom. Power 600MW
1-1/2 x 1/2 x 9/16 h.
weight 2 oz.

COILS—DC MA	†volts	ohms	Stock Part No.	Price 1 to 24
—	6V	65	W101PCX-5	5.11
—	12V	250	W101PCX-6	5.16
—	24V	1000	W101PCX-7	5.26
8MA	—	5000	W101PCX-8	5.68

101PC DPST-NO (45-322)

Nom. Power 900MW
1-1/2 x 11/16 x 9/16 h.
weight 3 oz.

COILS—DC MA	†volts	ohms	Stock Part No.	Price 1 to 24
—	6V	40	W101PCX-9	7.15
—	12V	150	W101PCX-10	7.18
—	24V	650	W101PCX-11	7.24
8MA	—	5000	W101PCX-12	7.69

Class 104 SPDT

Operate Time: 1 ms average
Release Time: 1 ms average
Contacts: Gold, rated 3VA at 0.25 amp. max. or 28V max. non-induct.
Contact Bounce:
0.5 ms max. N.O. contacts
2.0 ms max. N.C. contacts
Life expectancy: 10 million cycles at rated load
Operates in any position.

Send for complete 50-page Engineering Catalog 165

104PC SPDT (45-332)

Nom. Power 600MW
1-1/2 x 1/2 x 9/16 h.
weight 2 oz.

—	6V	65	W104PCX-7	10.07
—	12V	225	W104PCX-8	10.12
—	24V	1000	W104PCX-9	10.22
8	—	5000	W104PCX-10	10.64

104PC DPDT (45-333)

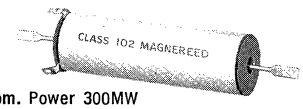
Nom. Power 900MW
1-1/2 x 11/16 x 9/16 h.
weight 3 oz.

—	6V	40	W104PCX-3	14.59
—	12V	150	W104PCX-4	14.62
—	24V	650	W104PCX-5	14.68
8	—	5000	W104PCX-6	15.13

Class 102 SPST-NO

Operate Time: 3 ms average
Release Time: ½ ms average
Contacts: Gold, rated 15VA at 1 amp. max. or 250VAC max. non-inductive
Life Expectancy:
20 million cycles at max. rating
100 million cycles at ½ max. rating.
Operates in any position
Capacitance between contacts: .9 mmf**

102 SPST-NO open type



Nom. Power 300MW
Overall length, 3-1/4; bobbin 2-1/16 O.D. 1/2 weight 2 oz.

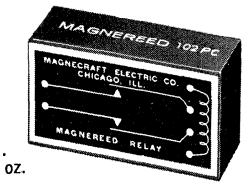
32MA		100	W102X-1	2.57
23MA	6V	200	W102X-2	2.57
14.5MA	12V	500	W102X-3	2.57
7.5MA	24V	2000	W102X-4	2.70
4.6MA		5000	W102X-5	3.25

102PC SPST-NO (45-324)

Nom. Power 400MW
2-1/4 x 21/32 x 5/8 h.
weight 3 oz.

—	6V	100	W102PCX-1	4.77
—	12V	400	W102PCX-2	4.83
—	24V	1500	W102PCX-3	4.87
6.5MA	—	5000	W102PCX-4	5.32

102PC DPST-NO (45-326)



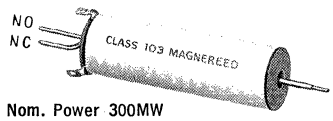
Nom. Power 700MW
2-1/4 x 1-1/4 x 3/4 h.
weight 4 oz.

—	6V	50	W102PCX-5	6.22
—	12V	200	W102PCX-6	6.28
—	24V	800	W102PCX-7	6.33
9MA	—	5000	W102PCX-8	6.78

Class 103 SPDT

Contact Combination: SPDT form C, break before make (single side stable)
Operate Time: 2 ms average
Release Time: ½ ms average
Contacts: Gold, rated 10VA at 1 amp. or 250VAC max., non-inductive.
Contact Bounce: 4 ms average on release (normally closed contact)
Life Expectancy:
25 million cycles at max. rating.
50 million cycles at ½ max. rating.
100 million cycles at low load.
Capacitance betw. contacts: .8 mmf**

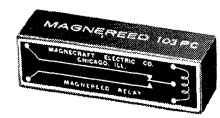
103 SPDT open type



Nom. Power 300MW
Overall length, 3-1/2; bobbin 2-1/8 O.D. 1/2 weight 2 oz.

32MA	—	100	W103X-8	4.54
23MA	6V	200	W103X-9	4.75
14.5MA	12V	500	W103X-10	5.22
7.5MA	24V	2000	W103X-11	5.66
4.6MA	—	5000	W103X-12	5.79

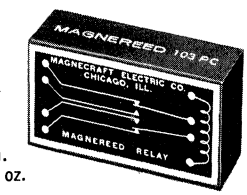
103PC SPDT (45-325)



Nom. Power 400MW
2-1/4 x 21/32 x 5/8 h.
weight 3 oz.

—	6V	100	W103PCX-1	7.22
—	12V	400	W103PCX-2	7.27
—	24V	1500	W103PCX-3	7.32
6.5MA	—	5000	W103PCX-4	7.76

103PC DPDT (45-327)



Nom. Power 700MW
2-1/4 x 1-1/4 x 3/4 h.
weight 4 oz.

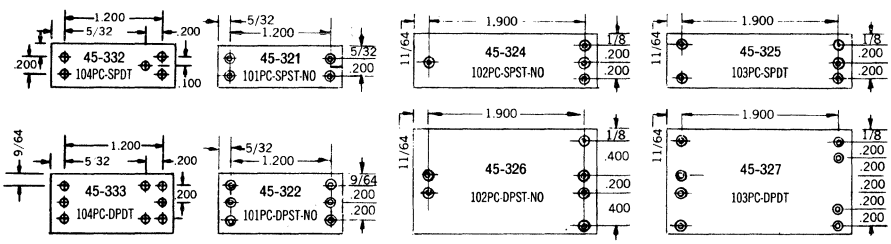
—	6V	50	W103PCX-5	10.77
—	12V	200	W103PCX-6	10.79
—	24V	800	W103PCX-7	10.84
9MA	—	5000	W103PCX-8	11.31

**nominal value for open style reed relays

†Voltage operated relays pull in at 85% of nominal voltage.

Terminal Pin Spacings for the 8 Printed Circuit Encapsulated Dry Reed Assemblies shown above. Numbers in diagrams correspond to numbers shown in headings.

All Terminal Pins are .040 diameter and ⅛ inch long.



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Class 110 Air Dashpot Time Delay Relays

Operate Time Delay adjustable 0.2 to 30 sec.

The new MAGNECRAFT Class 110 Relay has been developed to provide, in a small, inexpensive Time Delay Relay, the high reliability and the great life users have learned to expect from MAGNECRAFT Relays.

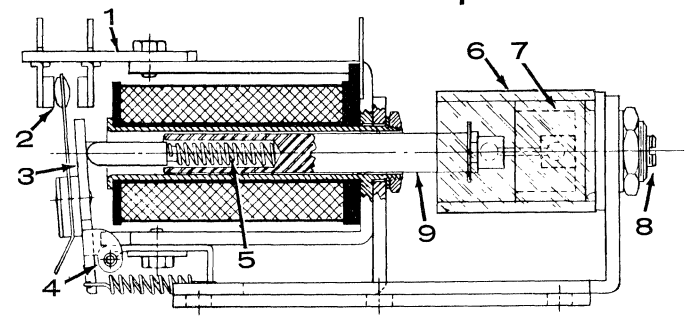
In this unique development, **proven high reliability relay contacts and switching mechanism are merged with a precision-built air dashpot timer.** The result is a masterpiece of simplicity and a minimum number of moving parts that sets new standards of compactness and long life reliability.

The Air Dashpot Timer is built of **non-aging inert materials** to provide the last word in reliability through long life. The cylinder is tempered glass, precision ground to dimensions and polished for lowest friction. The precision fitted piston is of dimensionally stable, low friction graphite. All metal parts are corrosion resistant.

The Solenoid Assembly is unique; a new patent-applied-for invention. When the operating coil is energized the Solenoid pulls out the dashpot piston at the rate for which the timing adjustment is set. Through the timing period, the relay contacts remain in the de-energized (normal) position, **completely free from any tendency to make premature or faltering contact.**

At the end of the timing period (when the Dashpot piston travel is complete) the Solenoid Plunger **instantaneously** completes the magnetic circuit which **snaps in** the Relay Contacts and **holds them under full magnetic power until the coil is de-energized.**

When the coil is de-energized relay contact dropout is **instantaneous and positive;** the Solenoid Plunger Spring helps the relay release spring snap the contacts to the de-energized position.

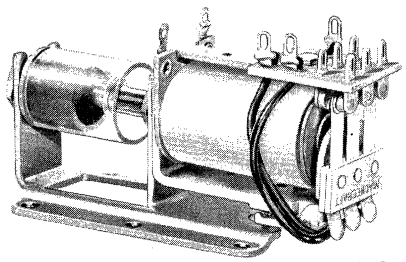


1. Terminal Board.
2. Heavy Duty Relay Contacts have built-in contact wipe.
3. Ruggedized relay armature.
4. Pin type armature hinge. The same precision built hinge used in the finest telephone type relays.
5. Compression Spring—Compresses when solenoid pulls out dashpot piston: when coil is de-energized, helps snap contacts to normal position and returns piston to start position.
6. Air Dashpot Cylinder—Specially treated glass, precision ground and polished.
7. Graphite Piston—Controls travel of solenoid plunger through setting of timing adjustment.
8. Timing adjustment screw—Provides stepless adjustment from 0.2 to 30 seconds.
9. Solenoid Plunger—When coil is energized the plunger pulls out dashpot piston; at end of travel the plunger instantaneously completes magnetic circuit that pulls in contacts and maintains full contact pressure until coil is de-energized.

Some of the Features

1. **High Reliability through long life:**
   a. Proven high reliability relay contacts and switching mechanism.
   b. Precision-built Air Dashpot of inert, non-aging, low friction materials.
   c. Solenoid assembly completes magnetic circuit instantaneously for positive switching action; protects contacts from chattering and frying.
   d. All metal parts protected from corrosion.
   e. Extreme simplicity – few moving parts; none subjected to distortion.
2. **0.2 to 30 seconds Timing Adjustment** with a single screw.
3. **Instantaneous release.** Air Dashpot reaches "start" position within 0.2 second.
4. **Operates in any position.** Timing should be set in installed position.
5. **Timing Repeat Accuracy ± 10%.**
6. **Temperature Range, −65 to +165°F.**
7. **AC and DC operation.** AC models rectified for DC reliability from AC service.
8. **Low Power Consumption.** DC, 4 watts; AC, 7 volt amperes.

Open—solder terminals

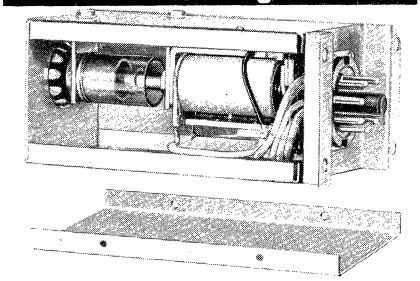


Has solder terminals. Six mounting holes: two holes 6-32 thread, located diagonally, spaced 1-3/16 x 2-1/8; two holes .156 dia., located diagonally, spaced 1-3/16 x 2-1/8; two holes .156 dia., spaced 1-3/16. Dimensions; 3-13/16 long, 1-15/16 high, 1-7/16 wide. Weight; 6 ounces.

Stock Part No.	Voltage	Res. Ohms	Time Delay	Contacts Comb.	Contacts Rat.	Price 1-9
W110X-9	24VDC	100	0.2 to	DPDT	10 amps.	17.75
W110X-10	110VDC	2500	30			18.34
W110AX-9	115VAC*	—	Sec.			20.91

*AC models rectified for DC reliability from AC service.

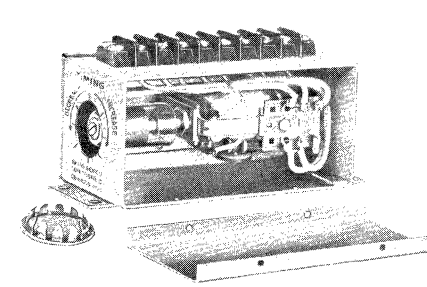
with 40-347 Plug-in Cover



Phenolic octal plug base with hold down bracket and heavy duty metal enclosure with snap-on cover which permits quick access to relay. Snap-on cap provides access to timing screw. Permanently identified with wiring diagram, contact combination, contact rating, part number and coil operating voltage. Hold down bracket has four mounting holes, .177 diameter on 1-1/2 x 2-5/32 centers. Dimensions: 3-1/32 x 2-5/32 x 4-5/8. Weight, 15 ounces.

Stock Part No.	Voltage	Res. Ohms	Time Delay	Contacts Comb	Contacts Rat.	Price 1-9
W110CPX-10	24VDC	100	0.2 to	DPDT	10	26.78
W110CPX-11	110VDC	2500	30	WD-2	amps.	27.44
W110ACPX-9	115VAC*	—	Sec.			29.79

with 40-348 Dust Cover



Heavy duty metal enclosure with snap-on cover which permits quick access to relay Snap-on cap provides access to timing screw Has molded phenolic barrier screw type terminal block. Permanently identified with wiring diagram, contact combination, contact rating, part number and coil operating voltage. Four mounting holes, .177 diameter on 4-5/8 x 1-1/8 centers. Dimensions: 5 x 2-3/8 x 2-17/32. Weight, 15 ounces.

Stock Part No.	Voltage	Res. Ohms	Time Delay	Contacts Comb.	Contacts Rat.	Price 1-
W110CSX-1	24VDC	100	0.2 to	DPDT	10	28.5
W110CSX-2	110VDC	2500	30	WD-2	amps.	29.2
W110ACSX-1	115VAC*	—	Sec.			30.0

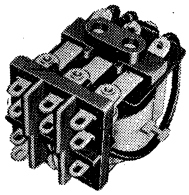
NOTE—Voltage actuated relays pull in at 85% of nominal voltage.

6 PAGE LISTING (1)

LINE ELECTRIC COMPANY

RELAYS • BUZZERS • FOOT SWITCHES

GENERAL PURPOSE RELAYS



MINIATURE OPEN TYPE (SERIES MK)

Open type relay in standard contact arrangements up to 3PDT. 5 or 10 amp contact rating. Voltages up to 230 volts, A.C. or D.C. Factory adjusted to pull in at 75% max. of nominal voltage D.C. and 80% max. of nominal voltage A.C. Designed to pass 1,000 volt A.C. Hipot test between all elements.

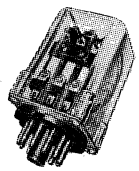
PLATE CIRCUIT RELAYS 5 amp. open type

	2500Ω	5000Ω	10,000Ω	20,000Ω
MKC-1 SPDT	$3.15	$3.25	$3.80	$4.05
MKC-2 DPDT	3.65	3.80	4.30	4.55
MKC-3 3PDT	4.10	4.20	4.75	5.00

AC	5 amp contact rating	6, 12, 24, 115V	220V
	MK1A SPDT	$3.10	$3.55
	MK2A DPDT	3.75	4.15
	MK3A 3PDT	4.15	4.55

DC	5 amp contact rating	6, 12, 24V	110V
	MK1D SPDT	$3.05	$3.45
	MK2D DPDT	3.40	3.85
	MK3D 3PDT	3.85	4.25

All models available in 10 amps. DIMENSIONS: 1-11/16 × 1-3/16 × 29/32



MINIATURE PLUG-IN (SERIES MKP)

Plug-in type relay, same factory tested, quality features as above. Will operate continuously in ambient temperature ranges of 45° to 75°C. for D.C. coils and —45° to 55°C. for A.C. coils. Metal or clear butyrate dust cover.

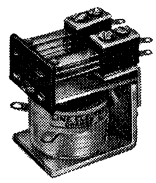
PLATE CIRCUIT RELAYS 5 amp. enclosed type

	2500Ω	5000Ω	10,000Ω	20,000Ω
MKF-1 SPDT	$5.90	$6.00	$6.40	$6.65
MKF-2 DPDT	6.30	6.40	6.80	7.10
MKF-3 3PDT	7.75	7.90	8.40	8.65

AC	5 amp contact rating	6, 12, 24, 115V	220V
	MKP1A SPDT	$5.45	$5.90
	MKP2A DPDT	6.05	6.45
	MKP3A 3PDT	7.50	7.95

DC	5 amp contact rating	6, 12, 24V	110V
	MKP1D SPDT	$5.40	$5.85
	MKP2D DPDT	6.00	6.40
	MKP3D 3PDT	7.45	7.90

All models available in 10 amps. DIMENSIONS: 2-1/4 × 1-5/8 × 1-3/8



MINIATURE MULTIPLE LEAF (SERIES MW)

A small, versatile relay available in a variety of contact configurations consisting of forms A, B, C or D (make before break), up to a maximum of 12 springs. Coils can be supplied for operation on D.C. or A.C. 60 cps. Operation on 400 cps. source is available with self-contained rectifiers on relays with covers.

	10 amp contact rating	6, 12, 24, 115V	220V
AC	MW1A SPDT	$2.70	$3.10
	MW2A DPDT	3.30	3.75
	MW3A 3PDT	3.80	4.20
	MW14A 4PDT	4.60	5.05
		6, 12, 24V	110V
DC	MW1D SPDT	$2.60	$3.10
	MW2D DPDT	3.25	3.65
	MW3D 3PDT	3.75	4.15
	MW14D 4PDT	4.55	5.00

DIMENSIONS: 1-17/32 × 1-21/32 × 1-0

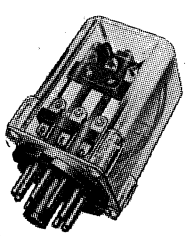
MINIATURE MULTIPLE LEAF PLUG-IN (SERIES MWP)

Plug-in type relay, same factory tested, quality features as above. Will operate continuously in ambient temperature ranges of 45° to 75°C. for D.C. Coils and —45° to 55°C. for A.C. Coils. Metal or clear butyrate dust cover.

AC	10 amp contact rating	6, 12, 24,115V	220V
	MWP1A SPDT	$5.25	$5.65
	MWP2A DPDT	5.80	6.25
	MWP3A 3PDT	7.35	7.75
	MWP14A 4PDT	9.05	9.45

DC	10 amp contact rating	6, 12, 24,115V	220V
	MWP1D SPDT	$5.20	$5.55
	MWP2D DPDT	5.75	6.20
	MWP3D 3PDT	7.30	7.60
	MWP14D 4PDT	8.95	9.40

All models available in 10 amps. DIMENSIONS: 3-13/64 x 1-15/16 x 1-5/16.



SPOTLIGHT RELAYS (SERIES A)

High quality, general purpose plug-in relay with built-in circuit indicator lamp. Available in colored cases for circuit identification and in metal can. Saves panel space, reduces costly labor.

AC	5 amp contact rating	6, 12, 24, 115V	220V
	A-1A SPDT	$6.40	$6.85
	A-2A DPDT	7.00	7.40
	A-3A 3PDT	8.45	8.85
		6, 12, 24V	110V
DC	A-1D SPDT	$6.35	$6.75
	A-2D SPDT	6.95	7.35
	A-3D 3PDT	8.40	8.80

All models available in 10 amps.
DIMENSIONS: 2-1/4 × 1-3/8 × 1-3/8

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6 PAGE LISTING (2)

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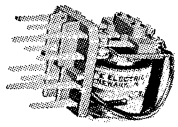
GENERAL PURPOSE RELAYS

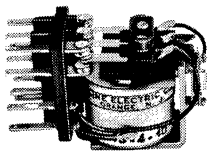


PRINTED CIRCUIT or TAPER TAB (SERIES MKT)

Printed circuit type relay incorporating coil, frame and load contacts of standard Series MK. Connector lugs fit standard amp terminal #41355. Series MKTE is the MKT with plastic dust cover. Available with studs for chassis mount or taper tab connectors. Price same as MKTR below.

	5 amp contact rating	6, 12, 24, 115V	220V
AC	MKT1A SPDT	$3.25	$3.65
	MKT2A DPDT	3.95	4.35
	MKT3A 3PDT	4.10	4.50
		6, 12, 24V	110V
DC	MKT1D SPDT	3.20	$3.60
	MKT2D DPDT	3.60	4.05
	MKT3D 3PDT	4.10	4.50

All models available in 10 amps.
DIMENSIONS: 2-1/32 × 1-7/32 × 29/32

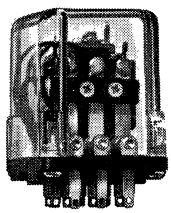


QUICK CONNECT TERMINAL RELAY (SERIES MKA)

Quick connect terminal type miniature relay incorporating coil, frame and load contacts of the standard Series MK. The connector lugs fit standard .110" quick connect terminals.

	5 amp contact rating	6, 12, 24, 115V	220V
AC	MKA1A SPDT	$3.25	$3.65
	MKA2A DPDT	3.95	4.35
	MKA3A 3PDT	4.40	4.85
DC	MKA1D SPDT	$3.20	$3.60
	MKA2D DPDT	3.60	4.05
	MKA3D 3PDT	4.10	4.50

All models available in 10 amps. DIMENSIONS: 29/32 x 1-3/16 x 1-11/16



New!

MINIATURE PLUG-IN *LOW PROFILE LOW COST*

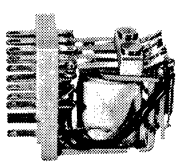
(SERIES MKTR)

Despite its compact size this new totally enclosed, low cost, low profile miniature relay has not compromised the high quality of its progenitor the Series MK open relay. The low mounting profile (dust cover included) has been made possible by incorporating the frame of the relay with the connector-header. Thus a certain basic hardware has been eliminated resulting in important size reduction. Versatility is also assured since the standard terminals can be used with Amp snap-on connectors, printed circuits, or plug-in receptacles. Also available with studs for chassis mounting. Termination can be used for soldered connections. The plug-in-receptacle is true 10 ampere construction. Lugs can be used for either solder or snap-on connections.

	5 amp contact rating	6, 12, 24, 115V	220V
AC	MKTR1A SPDT	$4.25	$4.65
	MKTR2A DPDT	4.95	5.35
	MKTR3A 3PDT	5.40	5.85
		6, 12, 24V	110V
DC	MKTR1D SPDT	$4.20	$4.60
	MKTR2D DPDT	4.60	5.05
	MKTR3D 3PDT	5.10	5.50

AVAILABLE 3 WAYS: Plate circuit relay. Spotlight relay (with or without colored dust cover). Hermetic seal or any combination.
DIMENSIONS: 1-3/16 x 1-3/8 x 1-3/8.

92-67 RECEPTACLE .30 net.



MINIATURE 4-POLE RELAY (SERIES JA)

The series JA is a high quality, miniature 4PDT relay for AC or DC operation. The JA relay features nylon dust cover, gold flashed fine silver contacts rated at 3 amps. This imported relay features exceptional quality and rugged design to meet the most exacting requirements. It is excellent for computers, logic systems and data processing. Standard configuration features solder terminals and 3-48, 23/64" mounting stud. Can be used with our 92-50 socket (50c each).

	Voltage	Resistance	Nominal Power	Price
DC	6 VDC	40 OHMS	800 MW	$4.10
	12 VDC	160 OHMS	800 MW	4.10
	24 VDC	650 OHMS	800 MW	4.10
	48 VDC	2500 OHMS	800 MW	4.20
	90 VDC	10000 OHMS	800 MW	4.40
	110 VDC	10000 OHMS	800 MW	4.40
AC	6 VAC	10.5 OHMS	1.1 VA	$4.40
	12 VAC	43 OHMS	1.1 VA	4.40
	24 VAC	160 OHMS	1.1 VA	4.40
	115 VAC	3900 OHMS	1.1 VA	4.40

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Net

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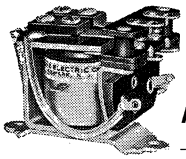
GENERAL PURPOSE RELAYS



MEDIUM POWER RELAY OPEN TYPE (SERIES LR)

Open type, heavy-duty type relay designed for many applications. Standard fine silver contacts rated at 10 amperes, optional Silver Cadmium load contacts rated at 15 amps. Ambient temperature operating range, continuous duty: A.C., —45° to 55°C.; D.C., —45° to 75°C.

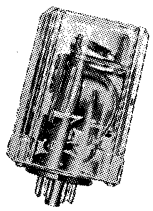
AC

10 amp contact rating	6, 12, 24, 115V	220V
LR1A SPDT	$4.00	$4.20
LR2A DPDT	4.85	5.05
LR12A SPDT-DB	5.05	5.25

DC

10 amp contact rating	6, 12, 24V	110V
LR1D SPDT	$4.65	$5.10
LR2D DPDT	5.05	5.45
LR12D SPDT-DB	4.85	5.05

DIMENSIONS: 2-3/8 × 1-1/2 × 1-21/32



MEDIUM POWER RELAY PLUG-IN TYPE (SERIES LRP)

This relay is available in either metal or plastic enclosures, equipped with a standard octal plug in header for single and double pole types. Eleven pin headers are also available. The standard LRP plastic enclosure is a clear hi-impact butyrate, colors are available at no extra charge. Female sockets for 8 and 11 pin headers are also available.

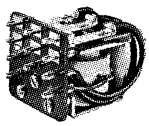
AC

10 amp contact rating	6, 12, 24, 115V	220V
LRP1A SPDT	$7.00	$7.10
LRP2A DPDT	8.20	8.50
LRP12A SPDT-DB	8.80	9.00

DC

10 amp contact rating	6, 12, 24V	110V
LRP1D SPDT	$6.80	$7.00
LRP2D DPDT	8.00	8.40
LRP12D SPDT-DB	8.70	8.80

DIMENSIONS: 3-1/8 × 1-15/16 × 1-15/16



HEAVY DUTY RELAY OPEN TYPE (SERIES LG)

Open type relay, specifically designed for extremely heavy-duty applications. Standard Fine Silver load contacts are rated at 15 amps. with optional Silver Cadmium Oxide contacts where larger inrush loads are encountered. Loads are rated at 115/60 non-inductive. All load contacts are factory gold-flashed to prevent contact oxidation prior to use.

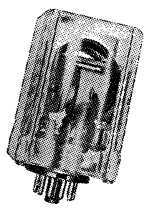
AC

10 amp contact rating	6, 12, 24, 115V	220V
LG1A SPDT	$4.30	$4.50
LG2A DPDT	4.85	5.05
LG3A 3PDT	5.40	5.60

DC

10 amp contact rating	6, 12, 24V	110V
LG1D SPDT	$4.20	$4.40
LG2D DPDT	4.75	4.95
LG3D 3PDT	5.30	5.60

DIMENSIONS: 1-1/2 × 2-3/8 × 13/16



HEAVY DUTY RELAY PLUG-IN TYPE (SERIES LGP)

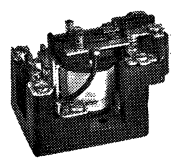
Plug-in type relay, with same quality features as above. Also available in either metal or clear butyrate enclosure. Ambient temperature operating range, continuous duty; A.C., —45° to 55°C.; D.C.,—45° to 75°C.

AC

10 amp contact rating	6, 12, 24, 115V	220V
LGP1A SPDT	$7.30	$7.50
LGP2A DPDT	7.85	8.05
LGP3A 3PDT	8.40	8.60

DC

10 amp contact rating	6, 12, 24V	110V
LGP1D SPDT	$7.20	$7.40
LGP2D DPDT	7.75	8.05
LGP3D 3PDT	8.40	8.60



NEW! HEAVY DUTY POWER RELAYS (SERIES ST)

A 25 amp. power relay ideally suited for starting motors up to 1 hp, elevator controls, and many other applications which require high current or high voltage switching with maximum dependability. One piece molded base, sturdy two-hole mounting. Top removable coil.

Available with one or two auxiliary 5 ampere contacts.

	25 amp contact rating	6, 12, 24, 115V	220V
AC	ST2A DPDT	$6.55	$6.85
	ST3A (1. aux. con.)	8.55	8.85
	ST14A (2. aux. con.)	10.05	10.35
		6, 12, 24VDC	110VDC
DC	ST2D DPDT	$6.55	$6.85
	ST3D (1. aux. con.)	8.55	8.85
	ST14D (2. aux. con.)	10.05	10.35

DIMENSIONS: 2-5/16 × 3-1/8 × 2-1/2

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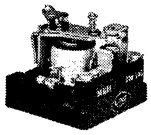
LINE ELECTRIC COMPANY

RELAYS • BUZZERS • FOOT SWITCHES

GENERAL PURPOSE RELAYS



HEAVY DUTY POWER RELAYS (SERIES STM)

Same quality features as Series ST, but assembled on a compact base.

AC

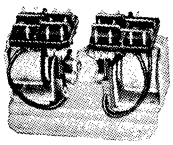
25 amp contact rating	6, 12, 24, 115V	220V
STM1A SPDT	$4.25	$4.75
STM4A SPDT NO	3.90	4.40
STM5A DPST NO	4.65	5.15
STM7A SPST NC	3.90	4.40
STM10A SPST NO DB	4.15	4.65

DC

25 amp contact rating	6, 12, 24, 110V
STM1D SPDT	$4.25
STM4D SPDT NO	3.90
STM5D DPST NO	4.65
STM7D SPST NC	3.90
STM10D SPST NO DB	4.15

DIMENSIONS: 2-1/2 X 2-5/16 X 2-1/16.

MECHANICAL LATCH RELAYS



OPEN TYPE (SERIES RL)

Open type for use where a sustained relay closure is required, and current drain of a relay coil is to be eliminated. Incorporates two coils, one to close load contacts, the other to reset them. Requires only momentary electrical contact to operate or release. Provides positive mechanical latch, eliminating chatter during sustained relay closure.

AC

5 amp contact rating	6, 12, 24, 115V	220V
RL1A SPDT	$7.15	$8.00
RL2A DPDT	8.25	9.00
RL3A 3PDT	9.15	9.95
RL14A 4PDT	10.45	11.30
RL15A 5PDT	11.45	12.30
RL16A 6PDT	12.55	13.35

DC

5 amp contact rating	6, 12, 24V	110V
RL1D SPDT	$6.50	$7.75
RL2D DPDT	7.50	8.75
RL3D 3PDT	8.50	9.75
RL14D 4PDT	9.50	10.75
RL15D 5PDT	10.50	11.75
RL16D 6PDT	11.50	12.75

Available in 10 amp contact rating. DIMENSIONS: 2-11/16 × 1-3/4 × 1-3/4

PLUG-IN TYPE (SERIES RLP)

Plug-in type, same factory-tested quality features as above. Available in clear butyrate enclosure up to 5PDT.

AC

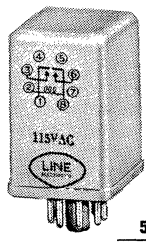
5 amp contact rating	6, 12, 24, 115V	220V
RLP1A SPDT	$9.40	$10.25
RLP2A DPDT	10.50	11.30
RLP3A 3PDT	14.75	15.60
RLP14A 4PDT	16.15	17.00
RLP15A 5PDT	17.25	18.00

DC

5 amp contact rating	6, 12, 24V	110V
RLP1D SPDT	$8.75	$10.05
RLP2D DPDT	9.85	11.15
RLP3D 3PDT	14.10	15.40
RLP14D 4PDT	15.55	16.80
RLP15D 5PDT	16.65	17.90

All models available 3PDT, 4PDT, 5PDT, and in 10 amp contact rating.

HERMETICALLY SEALED RELAYS



PLUG-IN TYPE (SERIES HKP)

The Series HKP relay incorporates the basic MK frame into hermetically sealed plug-in configuration. All units are thoroughly vacuum baked and out-gassed and back filled with nitrogen before sealing. The HK series will fit any standard octal based receptacle and is in the classification of a general purpose relay.

PLATE CIRCUIT RELAYS 5 Amp

	2500Ω	5000Ω	10,000Ω	20,000Ω
HKF1 SPDT	$8.90	$9.00	$9.40	$9.65
HKF2 DPDT	9.30	9.40	9.80	10.10
HKF3 3PDT	10.75	10.90	11.40	11.65

AC

5 amp contact rating	6, 12, 24, 115V	220V
HKP1A SPDT	$8.45	$8.90
HKP2A DPDT	9.05	9.45
HKP3A 3PDT	10.50	10.95

DC

	6, 12, 24V	110V
HK 1D SPDT	$8.40	$8.85
HK 2D DPDT	9.00	9.40
HK 3D 3PDT	10.45	10.90

AC

10 amp contact rating	6, 12, 24,115V	220V
HKH1A SPDT	$8.50	$8.95
HKH2A DPDT	9.15	9.55
HKH3A 3PDT	10.60	11.10

DC

	6, 12, 24V	110V
HKH1D SPDT	$8.45	$8.90
HKH2D DPDT	9.10	9.50
HKH3D 3PDT	10.60	10.95

DIMENSIONS: 2-1/16 x 1-21/32 x 1-7/16

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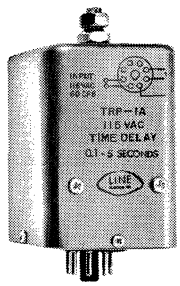
Net

6 PAGE LISTING (5)

LINE ELECTRIC COMPANY

RELAYS • BUZZERS • FOOT SWITCHES

TIME DELAY RELAYS



PLUG-IN TYPE (SERIES TRP)

The series TRP Time Delay Relay provides a pre-set delay between the closing of one set of contacts and the subsequent operation of a set of SPDT load contacts.

The series TRP initiates from a sustained switch closure to L1 and L2. The unit resets instantaneously when this circuit is opened; ready for another timing operation.

The series TRP is available in two operational options:

Type "A"—If sustained closure is interrupted during time cycle, unit will not reset. When closure is again made, timing will continue to give originally selected time delay.

Type "B"—If sustained closure is interrupted during time cycle, unit will instantaneously reset.

$16.50 List

Information Required When Ordering

Time Cycle selected from chart.

SPECIFICATIONS

Plug in only using standard 8 pin octal receptacle.

TIME CYCLES

Model	Minimum Setting	Maximum Setting
TRP-5	0.1 sec.	5 seconds
TRP-10	0.1 sec.	10 seconds
TRP-15	0.1 sec.	15 seconds
TRP-30	0.1 sec.	30 seconds
TRP-60	0.1 sec.	60 seconds

Note: Time Cycles exceeding 60 seconds available, contact factory for details.

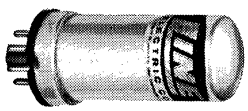
Voltages 115/60 only.

Load Contacts SPDT rated at 5 amps., non-inductive — Note: 10 amps available, contact factory.

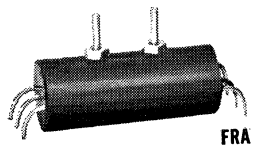
DIMENSIONS: 4-15/32 x 2-3/8 x 2-3/8

REED RELAYS – 5 STANDARD TYPES

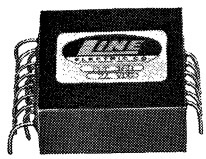
FR



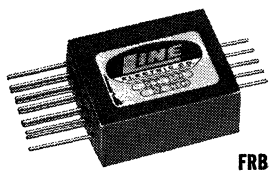
FRP



FRA



FT



FRB

In computer, data processing and guidance system development, design engineers are enthusiastically applying dry reed relays in place of switching diodes. The reasons: miniature profile—life expectancy exceeding 100,000,000 operations—less heat generated compared with switching diodes—3 millisecond operating time and very high resistance in the open contact stage.

To efficiently serve the growing demand for dry reed relays in these and other applications, Line Electric now stocks these 5 standard types for immediate delivery in prototype quantities.

Open Coil Type—Series FR

6 VDC & 12 VDC & 24 VDC. 6 Contact Arrangements

FR1-SPDT, $ 5.50 ea. FR4-SPST NO, $3.30 ea.
FR2-2PDT, $ 9.00 ea. FR5-2PST NO, $4.50 ea.
FR3-3PDT, $12.75 ea. FR6-3PST NO, $5.50 ea.

Plug-In Type—Series FRP

6 VDC & 12 VDC & 24 VDC. 6 Contact Arrangements

FRP1-SPDT, $ 8.50 ea. FRP4-SPST NO, $6.00 ea.
FRP2-2PDT, $12.00 ea. FRP5-2PST NO, $7.50 ea.
FRP3-3PDT, $16.00 ea. FRP6-3PST NO, $8.50 ea.

Lug Mount Type—Series FRA

6 VDC & 12 VDC & 24 VDC. 2 Contact Arrangements

FRA1-SPDT, $7.50 ea. FRA4-SPST NO, $4.50 ea.

Printed Circuit Type—Series FT

6 VDC & 12 VDC & 24 VDC. 6 Contact Arrangements

FT1-SPDT, $ 8.25 ea. FT4-SPST NO, $5.25 ea.
FT2-2PDT, $12.00 ea. FT5-2PST NO, $6.50 ea.
FT3-3PDT, $15.75 ea. FT6-3PST NO, $8.50 ea.

Encapsulated Type—Series FRB

6 VDC & 12 VDC & 24 VDC. 6 Contact Arrangements

FRB1-SPDT, $ 7.00 ea. FRB4-SPST NO, $4.50 ea.
FRB2-2PDT, $10.50 ea. FRB5-2PST NO, $6.00 ea.
FRB3-3PDT, $14.50 ea. FRB6-3PST NO, $7.00 ea.

SPECIFICATIONS

CONTACT RATING
10 volt-amperes resistive
3 watts D.C. resistive

MAXIMUM CURRENT
0.5 amperes

DIELECTRIC STRENGTH
250 volts
60 cps R.M.S.

MAXIMUM VOLTAGE
110 volts

LIFE EXPECTANCY
Rated load - - -
1 x 10^6 operations
Dry circuit - - -
100 x 10^6 operations

OPERATE TIME
3 milliseconds maximum, including bounce

CONTACT RESISTANCE
50 millohms

INSULATION RESISTANCE
1000 megohms minimum

RELEASE TIME
5 milliseconds maximum, including bounce

Trade Discount Applies To List Prices Only

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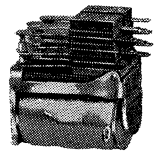
6 PAGE LISTING (6)

LINE ELECTRIC COMPANY

RELAYS • BUZZERS • FOOT SWITCHES

MINIATURE TELEPHONE RELAYS



(SERIES GT)

Fast acting miniature telephone type relay. Highly versatile, supplied in contact arrangements up to 6PDT, and in a variety of styles including open, dust cover, and hermetically sealed. Factory will supply enclosure details.

AC

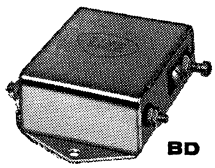
	6, 12, 24V	115V
GT1A SPDT	$5.55	$5.95
GT2A DPDT	6.50	6.75
GT3A 3PDT	7.00	7.45
GT14A 4PDT	7.40	7.85
GT15A 5PDT	8.10	8.50
GT16A 6PDT	8.80	9.30

DC

	6, 12, 24V	110V
GT1D SPDT	$3.55	$4.00
GT2D DPDT	4.50	4.75
GT3D 3PDT	5.00	5.45
GT14D 4PDT	5.40	5.85
GT15D 5PDT	6.10	6.50
GT16D 6PDT	6.80	7.30

DIMENSIONS: Max. 1-9/16 × 17/32 × 3/4

BUZZERS D.C. - A.C.



BD

BDH

VARIABLE SOUND AND PITCH D.C. - A.C.

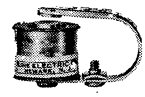
The series BD buzzers are designed for use in offices, plants, etc., where quality, good appearance and dependable operation is demanded. Three sizes of buzzers are available, each size varying in tone and volume of sound. However, the volume of sound and pitch of each size buzzer can be varied by means of double, locking adjustments. The three sizes of buzzers are equipped with phospher bronze springs and pure hard-drawn silver contacts. They are bug and dust-proof with tight-fitting polished chrome covers.

Model No.	6-8VDC	12VDC	24VDC	48VDC
BD-0	$3.25	$3.50	$3.75	$5.25
BD-1	3.15	3.25	3.40	4.80
BD-2	3.25	3.50	3.75	5.20

(BD-0 Low tone, BD-1 Medium tone, BD-2 Loud tone)

Hermetic Seal				
BDH	8.50	9.00	9.50	10.00

DIMENSIONS: BD0—1-5/8 × 1-1/8 × 1-1/2
BD1—2-1/8 × 2 × 11/16
BD2—2-7/8 × 2-1/2 × 1
BDH—1-9/16 × 3-13/16 × 2-13/16

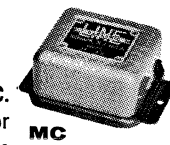


MD

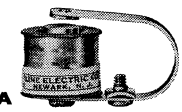
MB

AC BUZZERS

Available for 6, 12, 24, 115, 220, and 440 volts A.C. 60 cps operation, these buzzers are ideally suited for paging, warning, starting and dismissal signals. These buzzers are a non-contact type therefore suitable for continuous duty, providing a clear, penetrating signal.



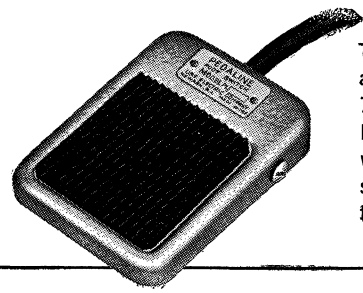
MC



MA

	6, 12, 24, 115 VAC/60 cy	220VAC/60 cy
MA	$2.25	$2.80
MB	2.50	3.05
MC	3.15	3.70
MD	1.60	2.40
MCH Hermetic Seal	10.00	11.00

PEDALINE FOOT SWITCH



The Pedaline is a compact light weight foot operated switch. The single switch type weighs only 7 ounces; the double switch type 7½ ounces. Baked on light gray hammertone enamel finish with black foot pad. Available with a single pole snap action switch or two single pole double throw switches which operate in sequence.

#PL1 single switch only	$3.15
#PL-1C single switch w/line cord	$4.45
#PL5 double switch	$4.80
#PL-5C double switch w/line cord	$5.65

DIMENSIONS: 3-1/2 × 2-5/8 × 1

LINE ELECTRIC CO. Orange, New Jersey

Division of Industrial Timer Corporation

IN CANADA: Sperry Gyroscope Ottawa Ltd. • Ottawa, Ontario

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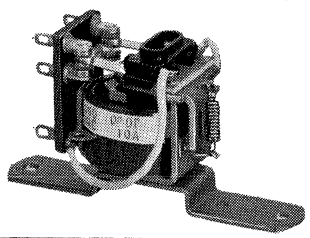
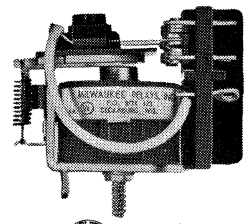
MILWAUKEE RELAYS, INC.

CEDARBURG, WIS.

Standard Relays Stocked by Leading Industrial Distributors

Contact Poles	Rat'g in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET	10 amps. other data identical NET
100U/101U Series AC						
SPDT	5A	6VAC	5.3	2.0VA	3.00	3.05
		12VAC	21		3.00	3.05
		24VAC	82		3.00	3.05
		48VAC	354		3.05	3.10
		115VAC	2,250		3.05	3.10
		230VAC	9,100		3.35	3.40
DPDT	5A	6VAC	4.7	2.2VA	3.50	3.75
		12VAC	19		3.50	3.75
		24VAC	74		3.50	3.75
		48VAC	280		3.60	3.80
		115VAC	1,800		3.60	3.80
		230VAC	6,800		3.90	4.10
3PDT	5A	6VAC	4.7	2.2VA	3.90	4.05
		12VAC	19		3.90	4.05
		24VAC	74		3.90	4.05
		48VAC	280		3.95	4.10
		115VAC	1,800		3.95	4.10
		230VAC	6,800		4.25	4.10
100ML/101ML Series AC						
4PDT	5A	6VAC	1.8	3VA	10.20	10.30
		12VAC	7.5		10.20	10.30
		24VAC	32		10.20	10.30
		115VAC	1,000		10.20	10.30
		230VAC	4,100		11.10	11.20
6PDT	5A	6VAC	1.8	3VA	12.30	12.50
		12VAC	7.5		12.30	12.50
		24VAC	32		12.30	12.50
		115VAC	1,000		12.30	12.50
		230VAC	4,100		13.30	13.50
100 Series AC						
SPDT	5A	6VAC	5.3	2.0VA	2.95	3.00
		12VAC	21		2.95	3.00
		24VAC	82		2.95	3.00
		48VAC	354		3.00	3.05
		115VAC	2,250		3.00	3.05
		230VAC	9,100		3.30	3.35
DPDT	5A	6VAC	4.7	2.2VA	3.40	3.60
		12VAC	19		3.40	3.60
		24VAC	74		3.40	3.60
		48VAC	280		3.50	3.65
		115VAC	1,800		3.50	3.65
		230VAC	6,800		3.80	3.95
3PDT	5A	6VAC	4.7	2.2VA	3.80	4.00
		12VAC	19		3.80	4.00
		24VAC	74		3.80	4.00
		48VAC	280		3.85	4.05
		115VAC	1,800		3.85	4.05
		230VAC	6,800		4.15	4.35
100D/100F Series AC						
SPST-NC	8A	24VAC	55	3.2VA	3.00	
SPST-NO-DM	10A	6VAC	3	3.2VA	3.55	
SPST-NO-DM	10A	24VAC	55	3.2VA	3.55	
SPST-NO-DM	10A	115VAC	1,350	3.2VA	3.55	
SPDT	8A	6VAC	3	3.2VA	3.25	
		12VAC	14		3.25	
		24VAC	55		3.25	
		115VAC	1,350		3.25	
		230VAC	5,300		3.45	
DPDT	8A	6VAC	3	3.2VA	4.60	
		12VAC	14		4.60	
		24VAC	55		4.60	
		115VAC	1,350		4.60	
		230VAC	5,300		4.85	
3PDT	8A	6VAC	3	3.2VA	5.40	
		12VAC	14		5.40	
		24VAC	55		5.40	
		115VAC	1,350		5.40	
		230VAC	5,300		6.00	

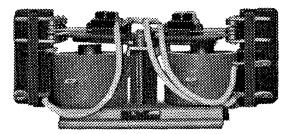




UL File No. E37066
CSA File 20690

100U/101U Series

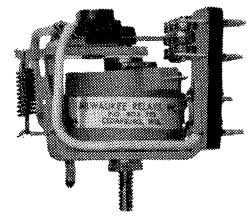
Small general purpose relay with molded phenolic barriers for U/L and CSA listings. All AC and DC models carry U/L and CSA label. 100U: 1/8" dia., silver cadmium oxide contacts, gold flashed, 5 amps. 101U: 3/16" dia., silver cadmium oxide contacts, gold flashed, 10 amps. Mounting: 6-32 stud and self-locking locator tab.



NEW!

100ML/101ML Series

Magnetic Latching relay, operates on momentary impulse or continuous duty. Magnetic latching principle provides exceptionally long life. UL and CSA listings applied for. Mounting: Two 5/32" dia. holes on 1 3/8" centers.



100 Series

Low cost, general purpose relay, designed for long, trouble-free life. 1/8" dia., silver cadmium oxide, gold flashed contacts, rated 5 amp. 3/16" dia., silver cadmium oxide, gold flashed contacts, rated 10 amp. Mounting: 6-32 mounting stud and self-locking locator tab.

100D/100F Series

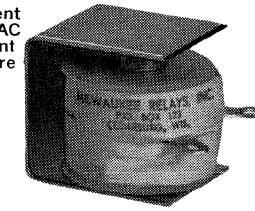
Medium duty power relay. 100D mounted on two 5/32" dia. holes on 2 5/8" centers. 100F mounted on two 5/32" dia. holes on 2 1/4" centers. Contacts: 3/16" dia. silver cadmium oxide, gold flashed, rated 8 amps.

Contact Poles	Rat'g in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET	10 amps. other data identical NET
100U/101U Series DC						
SPDT	5A	6VDC	32	1.2W	2.95	3.00
		12VDC	130		2.95	3.00
		24VDC	490		2.95	3.00
		48VDC	1,800		3.00	3.05
		110VDC	10,000		3.45	3.50
DPDT	5A	6VDC	32	1.2W	3.30	3.40
		12VDC	130		3.30	3.40
		24VDC	490		3.30	3.40
		48VDC	1,800		3.40	3.50
		110VDC	10,000		3.85	3.85
3PDT	5A	6VDC	32	1.2W	3.60	3.75
		12VDC	130		3.60	3.75
		24VDC	490		3.60	3.75
		48VDC	1,800		3.65	3.80
		110VDC	10,000		4.10	4.25
100ML/101ML Series DC						
4PDT	5A	6VDC	21	2W	9.25	9.45
		12VDC	82		9.25	9.45
		24VDC	280		9.25	9.45
		110VDC	6,800		10.45	10.65
6PDT	5A	6VDC	21	2W	11.25	11.55
		12VDC	82		11.25	11.55
		24VDC	280		11.25	11.55
		110VDC	6,800		12.35	12.75
100D/100F Series DC						
SPDT	5A	6VDC	32	1.2W	2.85	2.90
		12VDC	130		2.85	2.90
		24VDC	490		2.85	2.90
		48VDC	1,800		2.90	2.95
		110VDC	10,000		3.35	3.40
DPDT	5A	6VDC	32	1.2W	3.20	3.40
		12VDC	130		3.20	3.40
		24VDC	490		3.20	3.40
		48VDC	1,800		3.30	3.50
		110VDC	10,000		3.75	3.95
3PDT	5A	6VDC	32	1.2W	3.60	3.80
		12VDC	130		3.60	3.80
		24VDC	490		3.60	3.80
		48VDC	1,800		3.70	3.90
		110VDC	10,000		4.10	4.30
100 Series DC						
SPST-NO-DM	10A	6VDC	24	1.5W	3.20	
		12VDC	96		3.20	
		24VDC	360		3.20	
SPDT	8A	6VDC	24	1.5W	3.00	
		12VDC	96		3.00	
		24VDC	360		3.00	
		110VDC	8,000		3.50	
DPDT	8A	6VDC	24	1.5W	4.35	
		12VDC	96		4.35	
		24VDC	360		4.35	
		110VDC	8,000		4.80	
3PDT	8A	6VDC	24	1.5W	5.05	
		12VDC	96		5.05	
		24VDC	360		5.05	
		110VDC	8,000		5.70	
BZ BUZZER AC						
		6VAC	8	3.0VA	1.70	
		12VAC	32		1.70	
		24VAC	130		1.70	
		115VAC	4,500		1.70	

BZ BUZZER

Continuous or intermittent duty buzzer. Operates on AC voltage 50/60 cycle. Mounting: No. 6-32 tapped core

NEW!



KEY TO DESCRIPTIVE DATA ON MILWAUKEE RELAY LABELS

SERIES — 100 — CONTACT ARRANGEMENT — DPDT — CONTACT RATING IN AMPS — 10A — COIL RATING — 115VAC

CONTACT DESCRIPTION

S — Single; D — Double; P — Pole; T — Throw; N — Normally; O — Open; C — Closed; B — Break; M — Make.

Relay contacts are rated at 115VAC, 60 cycle, non-inductive load.

Complete data, Engineering Sheets and the "A" Bulletin , listing our entire line of relays, can be obtained from leading distributors.

Prices and specifications subject to change without notice.

Net

© U.C.P., Inc.

Milwaukee Relays

100 PC Series AC

Contact Poles	Ratg in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET	10 amps other data identical NET
SPDT	5A	6VAC	5.3	2.0VA	3.05	3.10
		12VAC	21		3.05	3.10
		24VAC	82		3.05	3.10
		48VAC	354		3.10	3.15
		115VAC	2,250		3.10	3.15
		230VAC	9,100		3.40	3.45
DPDT	5A	6VAC	4.7	2.2VA	3.60	3.70
		12VAC	19		3.60	3.70
		24VAC	74		3.60	3.70
		48VAC	280		3.70	3.75
		115VAC	1,800		3.70	3.75
		230VAC	6,800		4.10	4.05
3PDT	5A	6VAC	4.7	2.2VA	4.10	4.20
		12VAC	19		4.10	4.20
		24VAC	74		4.10	4.20
		48VAC	280		4.15	4.25
		115VAC	1,800		4.15	4.25
		230VAC	6,800		4.45	4.60

100RF Series AC

DPDT	5A	6VAC	4.7	2.2VA	3.20	
		12VAC	19		3.20	
		115VAC	1,800		3.25	

105A Series AC

DPDT	10A	6VAC	4.7	2.2VA	6.65	
		12VAC	19		6.65	
		24VAC	74		6.65	
		48VAC	280		6.75	
		115VAC	1,800		6.75	
		230VAC	6,800		7.00	
3PDT	10A	6VAC	4.7	2.2VA	7.10	
		12VAC	19		7.10	
		24VAC	74		7.10	
		48VAC	280		7.20	
		115VAC	1,800		7.20	
		230VAC	6,800		7.40	

105 Series AC

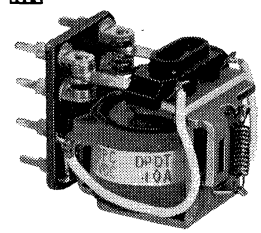
SPDT	5A	6VAC	5.3	2.0VA	5.00	5.10
		12VAC	21		5.00	5.10
		24VAC	82		5.00	5.10
		48VAC	354		5.05	5.15
		115VAC	2,250		5.05	5.15
		230VAC	9,100		5.35	5.45
DPDT	5A	6VAC	4.7	2.2VA	5.65	5.75
		12VAC	19		5.65	5.75
		24VAC	74		5.65	5.75
		48VAC	280		5.70	5.80
		115VAC	1,800		5.70	5.80
		230VAC	6,800		6.10	6.20
3PDT	5A	6VAC	4.7	2.2VA	5.95	6.20
		12VAC	19		5.95	6.20
		24VAC	74		5.95	6.20
		48VAC	280		6.00	6.25
		115VAC	1,800		6.00	6.25
		230VAC	6,800		6.30	6.50

105MC Series AC

SPDT	5A	6VAC	5.3	2.0VA	6.80	6.90
		12VAC	21		6.80	6.90
		24VAC	82		6.80	6.90
		48VAC	354		6.85	6.95
		115VAC	2,250		6.85	6.95
		230VAC	9,100		7.05	7.25
DPDT	5A	6VAC	4.7	2.2VA	7.50	7.60
		12VAC	19		7.50	7.60
		24VAC	74		7.50	7.60
		48VAC	280		7.55	7.65
		115VAC	1,800		7.55	7.65
		230VAC	6,800		7.95	8.10
3PDT	5A	6VAC	4.7	2.2VA	7.85	8.00
		12VAC	19		7.85	8.00
		24VAC	74		7.85	8.00
		48VAC	280		7.90	8.05
		115VAC	1,800		7.90	8.05
		230VAC	6,800		8.20	8.25

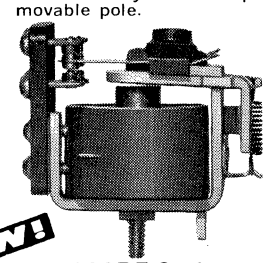
105MC Series

Hermetically sealed plug-in relay. SPDT and DPDT relay furnished with 8 pin octal header. 3PDT furnished with 11 pin header. Contacts: 1/8" dia. silver cadmium oxide rated 5 amp. 3/16" dia. silver cadmium oxide rated 10 amp. Color: Grey



100PC/100PCT Series

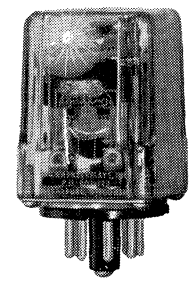
Printed circuit mounted relay. Printed circuit tabs accept .110 Quick Connects. 5 amp and 10 amp contacts. DC sensitivity 125 MW per movable pole.



NEW!

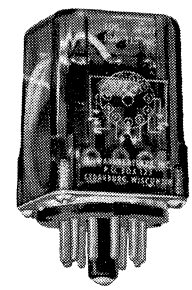
100RF Series

Antenna switching relay. Designed for 300 ohm line. 1/8" dia. contacts, silver cadmium oxide, gold flashed. 5 amps. Mounting: 6-32 mounting stud and self locking locator tab.



105A Series

General purpose plug-in relay. Clear buturate dust cover. With built-in bulb indicator. Bulb is in parallel with the relay coil and indicates voltage or current available in power circuit. 3/16" dia., silver cadmium oxide contacts, gold flashed, 10 amp. Mountings: Standard 8 and 11 pin plugs.



105 Series

General purpose plug-in relay. Light transparent blue buturate dust cover. Available with B-3 hold-down spring for special mountings. 1/8" dia. silver cadmium oxide contacts, gold flashed. 5 amps., 3/16" dia. silver cadmium oxide contacts, gold flashed, 10 amps. Mountings: Standards 8 and 11 pin plugs.

100 PC Series DC

Contact Poles	Ratg in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET	10 amps other data identical NET
SPDT	5A	6VDC	32	1.2W	2.95	3.00
		12VDC	130		2.95	3.00
		24VDC	490		2.95	3.00
		48VDC	1,800		3.00	3.05
		110VDC	10,000		3.45	3.50
DPDT	5A	6VDC	32	1.2W	3.40	3.50
		12VDC	130		3.40	3.50
		24VDC	490		3.40	3.50
		48VDC	1,800		3.45	3.55
		110VDC	10,000		3.90	4.00
3PDT	5A	6VDC	32	1.2W	3.90	4.00
		12VDC	130		3.90	4.00
		24VDC	490		3.90	4.00
		48VDC	1,800		3.95	4.05
		110VDC	10,000		4.40	4.50

100PCT Series DC

SPDT	5A	7.2MA	2.5K	125MW	3.20	
		5MA	5K		3.30	
		3.6MA	10K		3.90	
DPDT	5A	10MA	2.5K	250MW	3.25	
		7.2MA	5K		3.35	
		5MA	10K		3.95	
3PDT	5A	12.3MA	2.5K	375MW	3.40	
		8.7MA	5K		3.50	
		6.1MA	10K		4.10	

100RF Series DC

DPDT	5A	6VDC	32	1.2W	3.15	
		12VDC	130		3.15	

105A Series DC

DPDT	10A	6VDC	32	1.2W	6.60	
		12VDC	130		6.60	
		24VDC	490		6.60	
		48VDC	1,800		6.70	
		110VDC	10,000		7.10	

105 Series DC

SPDT	5A	6VDC	32	1.2W	4.95	5.05
		12VDC	130		4.95	5.05
		24VDC	490		4.95	5.05
		48VDC	1,800		5.00	5.10
		110VDC	10,000		5.45	5.55
DPDT	5A	6VDC	32	1.2W	5.60	5.70
		12VDC	130		5.60	5.70
		24VDC	490		5.60	5.70
		48VDC	1,800		5.65	5.75
		110VDC	10,000		6.10	6.20
3PDT	5A	6VDC	32	1.2W	6.00	6.15
		12VDC	130		6.00	6.15
		24VDC	490		6.00	6.15
		48VDC	1,800		6.05	6.20
		110VDC	10,000		6.50	6.65

105T Series DC

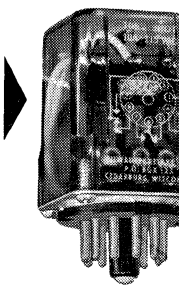
SPDT	5A	7.2MA	2.5K	125MW	5.35	
		5MA	5K		5.50	
		3.6MA	10K		6.00	
DPDT	5A	10MA	2.5K	250MW	5.90	
		7.2MA	5K		6.00	
		5MA	10K		6.30	
3PDT	5A	12.3MA	2.5K	375MW	7.00	
		8.7MA	5K		7.10	
		6.1MA	10K		7.75	

105MC Series

SPDT	5A	6VDC	32	1.2W	6.75	6.85
		12VDC	130		6.75	6.85
		24VDC	490		6.75	6.85
		48VDC	1,800		6.80	6.90
		110VDC	10,000		7.05	7.15
DPDT	5A	6VDC	32	1.2W	7.40	7.50
		12VDC	130		7.40	7.50
		24VDC	490		7.40	7.50
		48VDC	1,800		7.45	7.55
		110VDC	10,000		7.70	7.80
3PDT	5A	6VDC	32	1.2W	7.90	8.00
		12VDC	130		7.90	8.00
		24VDC	490		7.90	8.00
		48VDC	1,800		7.95	8.10
		110VDC	10,000		8.20	8.30

105T Series

General purpose plate circuit relays. Sensitivity 125MW single pole; 250MW double pole; 375MW three pole. Light transparent blue buturate dust cover. 1/8" dia., silver cadmium oxide, gold flashed contacts; rated 5 amps. Mountings: Standard 8 and 11 pin plugs.



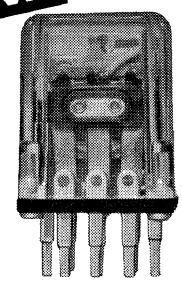
COMPLETE ENGINEERING SPECIFICATIONS ON EACH RELAY ARE AVAILABLE FROM YOUR DISTRIBUTOR.

Milwaukee Relays

Contact Poles	Ratg in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET	10 amps, other data identical NET
105PC Series AC						
SPDT	5A	6VAC	5.3	2.0VA	3.85	3.95
		12VAC	21		3.85	3.95
		24VAC	82		3.85	3.95
		115VAC	2,250		3.85	3.95
		230VAC	9,100		4.20	4.30
DPDT	5A	6VAC	4.7	2.2VA	4.15	4.35
		12VAC	19		4.15	4.35
		24VAC	74		4.15	4.35
		115VAC	7,800		4.15	4.35
		230VAC	6,800		4.25	4.55
3PDT	5A	6VAC	4.7	2.2VA	4.55	4.85
		12VAC	19		4.55	4.85
		24VAC	74		4.55	4.85
		115VAC	1,800		4.55	4.85
		230VAC	6,800		4.95	5.25
110 Series AC						
SPDT	5A	6VAC	2.2	2.9VA	3.60	
		12VAC	7.8		3.60	
		24VAC	32		3.60	
		115VAC	750		3.60	
		230VAC	2,900		3.80	
DPDT	5A	6VAC	2.2	2.2VA	4.55	
		12VAC	7.8		4.55	
		24VAC	32		4.55	
		115VAC	750		4.55	
		230VAC	2,900		4.75	
3PDT	5A	6VAC	2.2	2.2VA	5.05	
		12VAC	7.8		5.05	
		24VAC	32		5.05	
		115VAC	750		5.05	
		230VAC	2,900		5.25	
120 Series AC						
SPDT	15A	6VAC	3	3.2VA	4.20	
		12VAC	14		4.20	
		24VAC	55		4.20	
		115VAC	1,350		4.20	
		230VAC	5,300		4.65	
SPST-NO-DM	20A	6VAC	3	3.2VA	4.00	
		12VAC	14		4.00	
		24VAC	55		4.00	
		115VAC	1,350		4.00	
		230VAC	5,300		4.20	
130 Series AC						
SPDT	25A	6VAC	1.5	4.5VA	4.35	
		12VAC	6		4.35	
		24VAC	25		4.35	
		115VAC	600		4.35	
		230VAC	2,500		4.75	
SPST-NO-DM	35A	6VAC	1.5	4.5VA	4.25	
		12VAC	6		4.25	
		24VAC	25		4.25	
		115VAC	600		4.25	
		230VAC	2,500		4.65	

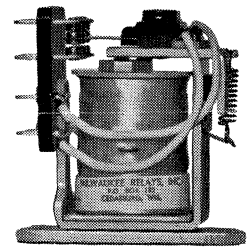
Contact Poles	Ratg in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET	201 NET
200 Series AC						
DPDT	5A	6VAC	1.7	6VA	3.00	3.10
		12VAC	6.75		3.00	3.10
		24VAC	24		3.00	3.10
		115VAC	720		3.00	3.10
		230VAC	2,950		3.20	3.55
3PDT	5A	6VAC	1.7	6VA	3.20	3.35
		12VAC	6.75		3.20	3.35
		24VAC	24		3.20	3.35
		115VAC	720		3.20	3.35
		230VAC	2,950		3.40	3.70
4PDT	5A	6VAC	1.7	6VA	3.45	3.60
		12VAC	6.75		3.45	3.60
		24VAC	24		3.45	3.60
		115VAC	720		3.45	3.60
		230VAC	2,950		3.65	4.00

NEW!



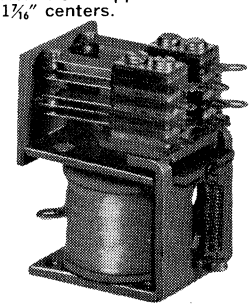
105PC/105PCT Series

Printed circuit mounted relay with dust cover. Printed circuit tabs accept .110 Quick Connects. Available with complete termination to 3PDT, 5 amp and 10 amp contacts. DC sensitivity 125 MW per movable pole.



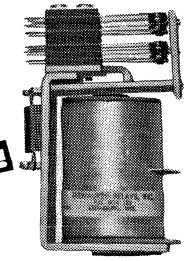
110/110T Series

Long coil, tall frame, general purpose relay. Available to 3PDT, 5 amp contacts. DC sensitivity 100 MW per movable pole. Mounting: Two No. 6-32 topped holes on 1 7/16" centers.



200/201 Series

Tinned, pierced solder terminals. 200: 1/8" dia., silver cadmium oxide, gold flashed contact, rated 5 amp. 201: 3/16" dia., silver cadmium oxde, gold flashed contacts, rated 10 amp. Mounting: No. 8-32 tapped core and locating boss.



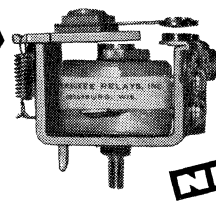
NEW!

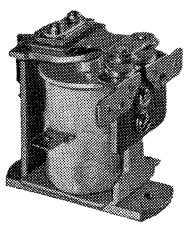
210T Series

Sensitive plate circuit relay. 115 milliwatts for single pole, 125 milliwatts for 2 pole, 275 milliwatts for 4 pole. 3/16" dia., silver cadmium oxide, gold flashed contacts, rated 5 amp. Mounting: No. 8-32 tapped core and locating boss.

120 Series

Rugged, small size, medium duty power relay. Available as SPDT or SPST-NO-DM contact configuration. 1/4" dia., silver cadmium, gold flashed contacts, rated 15 amp SPDT, 20 amp DM configuration. Terminals: combination .250 quick connect and solder hole.





130 Series

Rugged, small size, heavy duty power relay. Available as SPDT or SPST-NO-DM contact configuration. SPDT: 1/4" dia., silver cadmium oxide, gold flashed contacts, rated 25 amp. SPST-NO-DM: 5/16" dia., silver cadmium, gold flashed contacts, rated 35 amp. Terminals: combination .250 quick connect and solder hole.

Contact Poles	Ratg in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET	10 amps, other data identical NET
105PC Series DC						
SPDT	5A	6VDC	32	1.2W	3.80	3.90
		12VDC	130		3.80	3.90
		24VDC	490		3.80	3.90
		110VDC	10,000		4.20	4.30
DPDT	5A	6VDC	32	1.2W	4.10	4.30
		12VDC	130		4.10	4.30
		24VDC	490		4.10	4.30
		110VDC	10,000		4.40	4.60
3PDT	5A	6VDC	32	1.2W	4.30	4.70
		12VDC	130		4.30	4.70
		24VDC	490		4.30	4.70
		110VDC	10,000		4.80	5.00
105PCT Series DC						
SPDT	5A	7.2MA	2.5K	125MW	3.95	
		5MA	5K		4.05	
		3.6MA	10K		4.45	
DPDT	5A	10MA	2.5K	250MW	4.35	
		7.2MA	5K		4.45	
		5MA	10K		4.95	
3PDT	5A	12.3MA	2.5K	375MW	4.75	
		8.7MA	5K		4.85	
		6.1MA	10K		5.35	
110 Series DC						
SPDT	5A	6VDC	36	1.1W	3.40	
		12VDC	140		3.40	
		24VDC	600		3.40	
		110VDC	9,500		3.40	
DPDT	5A	6VDC	36	1.2W	4.40	
		12VDC	140		4.40	
		24VDC	600		4.40	
		110VDC	9,500		5.45	
3PDT	5A	6VDC	36	1.2W	4.95	
		12VDC	140		4.95	
		24VDC	600		4.95	
		110VDC	9,500		5.65	
110T Series DC						
SPDT	5A	6.3MA	2.5K	100MW	3.50	
		4.5MA	5K		3.85	
		3.2MA	10K		4.75	
DPDT	5A	9MA	2.5K	200MW	3.80	
		6.3MA	5K		4.15	
		4.5MA	10K		5.05	
3PDT	5A	11.0MA	2.5K	300MW	4.20	
		7.8MA	5K		4.55	
		5.5MA	10K		5.45	
120 Series DC						
SPDT	15A	6VDC	24	1.5W	4.05	
		12VDC	96		4.05	
		24VDC	360		4.05	
		110VDC	8,000		4.75	
SPST-NO-DM	20A	6VDC	24	1.5M	4.00	
		12VDC	96		4.00	
		24VDC	360		4.00	
		110VDC	8,000		4.50	
130 Series DC						
SPDT	25A	6VDC	18	2W	4.35	
		12VDC	72		4.35	
		24VDC	288		4.35	
		110VDC	6,050		4.95	
SPST-NO-DM	35A	6VDC	18	2W	4.25	
		12VDC	72		4.25	
		24VDC	288		4.25	
		110VDC	6,050		4.85	

Contact Poles	Ratg in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET	201 NET
200 Series DC						
DPDT	5A	6VDC	18	2W	2.70	2.80
		12VDC	72		2.70	2.80
		24VDC	285		2.70	2.80
		110VDC	6,050		3.40	3.55
3PDT	5A	6VDC	18	2W	2.95	3.05
		12VDC	72		2.95	3.05
		24VDC	285		2.95	3.05
		110VDC	6,050		3.65	3.75
4PDT	5A	6VDC	18	2W	3.80	3.90
		12VDC	72		3.80	3.90
		24VDC	285		3.80	3.90
		110VDC	6,050		4.50	4.60
210T Series DC						
SPDT	5A	6.8MA	2,500	115MW	3.30	
		4.8MA	5,000		3.45	
		3.4MA	10,000		3.95	
DPDT	5A	7MA	2,500	125MW	3.85	
		5MA	5,000		4.25	
		3.53MA	10,000		5.25	
4PDT	5A	10.5MA	2,500	275MW	5.45	
		7.4MA	5,000		5.60	
		5.25MA	10,000		6.00	

COMPLETE ENGINEERING SPECIFICATIONS ON EACH RELAY ARE AVAILABLE FROM YOUR DISTRIBUTOR.

Net

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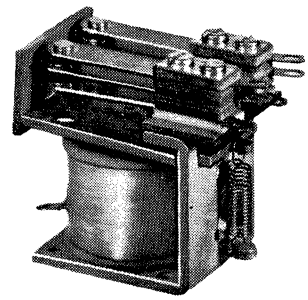
Milwaukee Relays

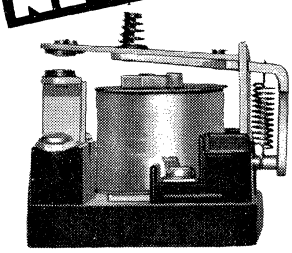
Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET	NET
220 Series AC						
SPDT	15A	6VAC	1.7	6VA	3.20	
		12VAC	6.75		3.20	
		24VAC	24		3.20	
		115VAC	720		3.20	
		230VAC	2,950		3.40	
DPDT	15A	6VAC	1.7	6VA	4.05	
		12VAC	6.75		4.05	
		24VAC	24		4.05	
		115VAC	720		4.05	
		230VAC	2,950		4.25	
4PDT	15A	6VAC	1.7	6VA	6.45	
		12VAC	6.75		6.45	
		24VAC	24		6.45	
		115VAC	720		6.45	
		230VAC	2,950		6.65	
900 Series AC						
SPST-NO	25A	24VAC	12	9.5VA	4.00	
SPST-NO-DM	25A	6VAC	.85	9.5VA	4.10	
		12VAC	3.2		4.10	
		24VAC	12		4.10	
		115VAC	290		4.10	
		230VAC	1,200		4.45	
SPDT	25A	6VAC	.85	9.5VA	4.30	
		12VAC	3.2		4.30	
		24VAC	12		4.30	
		115VAC	290		4.30	
		230VAC	1,200		4.70	
DPST-NO	25A	6VAC	.85	9.5VA	4.85	
		12VAC	3.2		4.85	
		24VAC	12		4.85	
		115VAC	290		4.85	
		230VAC	1,200		5.30	
DPDT	25A	6VAC	.85	9.5VA	6.40	
		12VAC	3.2		6.40	
		24VAC	12		6.40	
		115VAC	290		6.40	
		230VAC	1,200		6.90	



220 Series

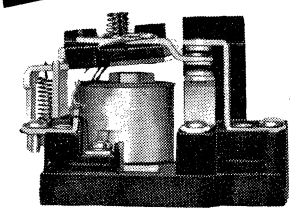
Multiple contact, medium duty power relay. Long movable contact arms. ¼" dia., silver cadmium oxide, gold flashed contacts, rated 15 amp. Mounting: 8-32 tapped core with locating boss.

NEW!



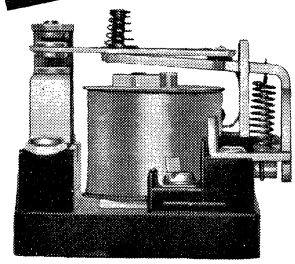
900 SERIES (DM)

NEW!



900 SERIES (DPDT)

NEW!



900 SERIES (SPDT)

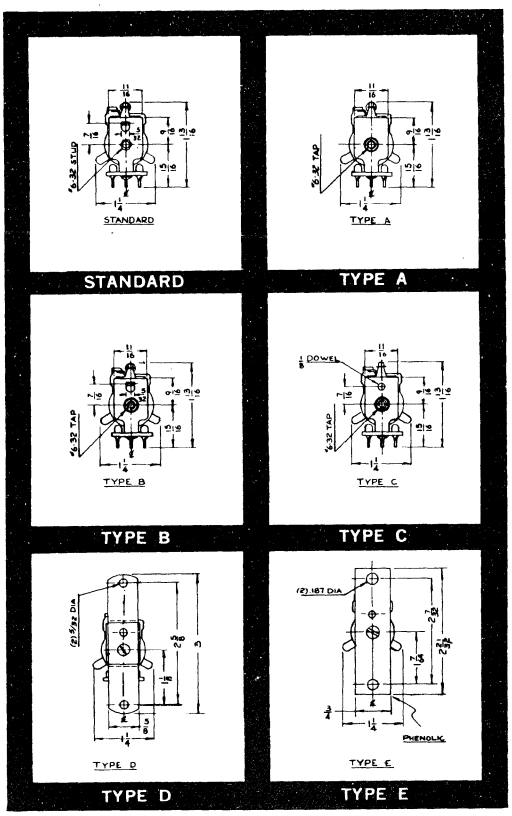
900 Series (New)

Heavy duty power relay. UL and CSA listings applied for. Contacts 5/16" dia., silver cadmium oxide gold flashed. Screw type terminals. Mounting: Two 3/16" dia. holes on 1 7/8" centers.

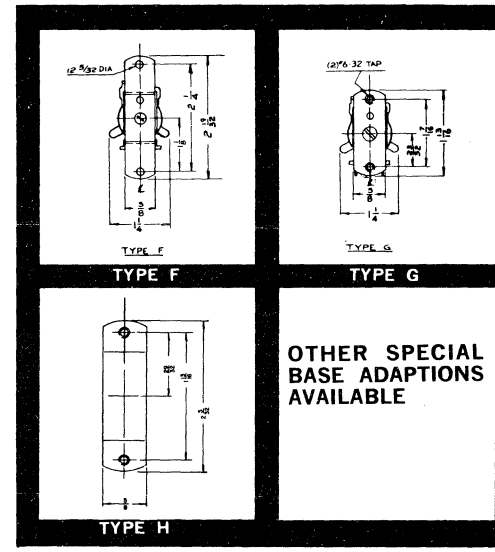
Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET	NET
220 Series DC						
SPDT	15A	6VDC	18	2W	3.20	
		12VDC	72		3.20	
		24VDC	285		3.20	
		110VDC	6,050		3.45	
DPDT	15A	6VDC	18	2W	4.05	
		12VDC	72		4.05	
		24VDC	285		4.05	
		110VDC	2,050		4.50	
4PDT	15A	6VDC	18	2W	6.40	
		12VDC	72		6.40	
		24VDC	285		6.40	
		110VDC	6,050		6.90	
900 Series DC						
SPST-NO-DM	25A	6VDC	18	2W	4.10	
		12VDC	72		4.10	
		24VDC	290		4.10	
		110VDC	6,050		4.70	
SPDT	25A	6VDC	18	2W	4.30	
		12VDC	72		4.30	
		24VDC	290		4.30	
		110VDC	6,050		4.90	
DPST-NO	25A	6VDC	18	2W	4.85	
		12VDC	72		4.85	
		24VDC	290		4.85	
		110VDC	6,050		5.45	
DPDT	25A	6VDC	18	2W	6.40	
		12VDC	72		6.40	
		24VDC	290		6.40	
		110VDC	6,050		7.00	

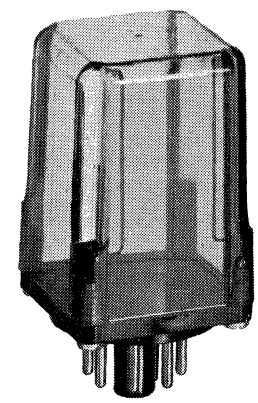
MOUNTINGS

MOUNTING VARIATIONS FOR 100 SERIES



MOUNTINGS





B CASE

Light blue tinted Butyra case, furnished with oct type plug, 8 or 11 pin a four screws.

B8 — 8 Pin Plug & Case ..... Net.

N11 — 11 Pin Plug & Case ..... Net.

N CASE

Nylon case, furnished w octal type plug, 8 or 11 p and four screws.

N8 — 8 Pin Plug & Case ..... Net.

N11 — 11 Pin Plug & Case ..... Net.

COMPLETE ENGINEERING SPECIFICATIONS ON EACH RELAY ARE AVAILABLE FROM YOUR DISTRIBUTOR.

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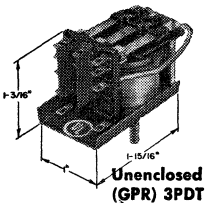
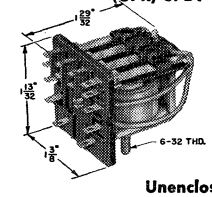
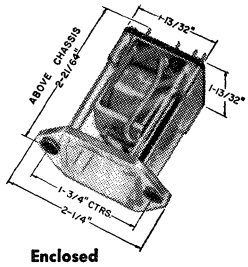
MODEL GPR GENERAL PURPOSE RELAYS



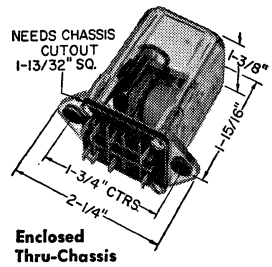
Unenclosed (GPR) 3PDT



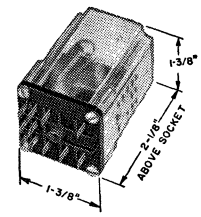
Unenclosed (GPR) 4PDT



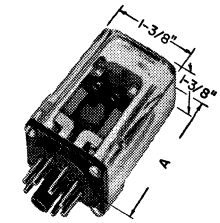
Enclosed Above-Chassis (GPRTA)



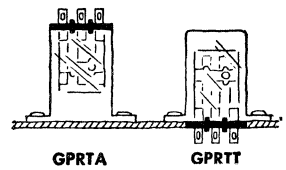
Enclosed Thru-Chassis (GPRTT)



Enclosed for socket mtg. (GPRTS)



Enclosed Plug-Base (GPRTP)
1 & 2 pole A = 27/64, Octal Plug
3 pole A = 25/32, 11-Pin Plug



Includes Indicator, Plate, Thyratron and Latching Versions in Unenclosed and Enclosed Types

Simple, rugged, low cost relays handling substantial power for small size. Uncomplicated design provides unusual flexibility for making and changing connections and mounting. Stock includes relays in versatile enclosures, some with indicator light, also plate, thyratron and latching versions. Wide commercial and industrial use where economy and versatility are important.

Basic (Unenclosed) Relay: All connections terminate on barrier-type terminal panel on combination solder—quick-connect (push-on) lugs which accept AMP 110 female connectors. The terminal panel is conveniently incorporated into printed circuit boards. Fixed contacts are integral inlay on terminal itself. Normally furnished with a 6-32 x ½" mounting stud and non-turn boss (or lug for 4-pole relays). A 6-32 threaded hole is optional. Unenclosed relays can also be mounted by plugging their panels into Ohmite SOGPR sockets. See "Socket" following.

Contact Ratings: Two ratings—fine silver contacts, 5 amps at 115 VAC or 32 VDC; silver-cadmium contacts, 10 amps.

Insulation: Tested at 1500 VAC.

Coil Wattage: 1.4 watts DC operation; 160 watts (2.0 volt-amps) AC except 2.4 watts (3.70 volt-amps) for 4-pole AC and AC latching relays.

ENCLOSED RELAYS (GPRTA-, GPRTT-, GPRTS-, GPRTP-). Four types of clear plastic enclosures as follows:

Chassis Mounting Types: "GPRTA"—("Terminals-Above-Chassis" type) has terminal panel opposite to mounting flange; "GPRTT"—("Terminals-Through-Chassis" type) has terminal panel on same end as mounting flange, requires chassis cutout; "GPRTS" type (Terminals for Socket Use) is similar to GPRTT but has no mounting flanges. It is intended strictly for plug-in mounting in Ohmite socket "SOGPR" (see "Socket" below).

Plug Base Type: "GPRTP"—employs octal plug for 1 and 2 pole relays; 11-pin plug for 3-pole. The octal plug base is integral with relay for rigidity—is designed with recessed pins which meet UL spacing requirements (150V).

(Continued on next page)

STOCK GPR RELAYS*

Contacts	Coil Data: Volts	Amps.	Ohms	5 AMP CONTACTS: Unenclosed GPR	Net $ 1-24	Enclosed Above Chassis GPRTA†	Net $ 1-24	Enclosed Thru-Chassis GPRTT†	Net $ 1-24	Enclosure for SOGPR Socket GPRTS ‡	Net $ 1-24	Enclosed Plug Base GPRTP	Net $ 1-24	10 AMP CONTACTS: Unenclosed GPR	Net $ 1-24	Enclosure for SOGPR Socket GPRTS ‡	Net $ 1-24	Enclosed Plug Base GPRTP	Net $ 1-24	Indicator Plug Base GPRTP	Net $ 1-24
SPDT	6VAC	.334	4.2	-3T	3.19	-3T	5.19	-3T	5.19			-3T	5.43	-203T	3.23			-203T	5.52		
DPDT	6VAC	.334	4.2	-6T	3.84	-6T	5.84	-6T	5.84	-6T	5.75	-6T	6.03	-206T	3.93	-206T	5.94	-206T	6.22	-291T	7.11
3PDT	6VAC	.334	4.2	-9T	4.24	-9T	6.74	-9T	6.74	-9T	6.65	-9T	7.48	-209T	4.38	-209T	6.94	-209T	7.77		
4PDT	6VAC	.650	2.5							-403T	7.90			-433T	5.13	-433T	8.19				
SPDT	12VAC	.167	17	-12T	3.19	-12T	5.19	-12T	5.19			-12T	5.43	-212T	3.23			-212T	5.52		
DPDT	12VAC	.167	17	-15T	3.84	-15T	5.84	-15T	5.84	-15T	5.75	-15T	6.03	-215T	3.93	-215T	5.94	-215T	6.22	-292T	7.11
3PDT	12VAC	.167	17	-18T	4.24	-18T	6.74	-18T	6.74	-18T	6.65	-18T	7.48	-218T	4.38	-218T	6.94	-218T	7.77		
4PDT	12VAC	.309	10	-406T	4.99					-406T	7.90			-436T	5.13	-436T	8.19				
SPDT	24VAC	.084	65	-21T	3.19	-21T	5.19	-21T	5.19			-21T	5.43	-221T	3.23			-221T	5.52		
DPDT	24VAC	.084	65	-24T	3.84	-24T	5.84	-24T	5.84	-24T	5.75	-24T	6.03	-224T	3.93	-224T	5.94	-224T	6.22	-293T	7.11
3PDT	24VAC	.084	65	-27T	4.24	-27T	6.74	-27T	6.74	-27T	6.65	-27T	7.48	-227T	4.38	-227T	6.94	-227T	7.77		
4PDT	24VAC	.155	40	-409T	4.99					-409T	7.90			-439T	5.13	-439T	8.19				
SPDT	115VAC	.0174	1600	-30T	3.19	-30T	5.19	-30T	5.19			-30T	5.43	-230T	3.23			-230T	5.52		
DPDT	115VAC	.0174	1600	-33T	3.84	-33T	5.84	-33T	5.84	-33T	5.75	-33T	6.03	-233T	3.93	-233T	5.94	-233T	6.22	-294T	7.11
3PDT	115VAC	.0174	1600	-36T	4.24	-36T	6.74	-36T	6.74	-36T	6.65	-36T	7.48	-236T	4.38	-236T	6.94	-236T	7.77		
4PDT	115VAC	.0325	1000	-412T	4.99					-412T	7.90			-442T	5.13	-442T	8.19				
SPDT	230VAC	.0087	7000	-39T	3.58	-39T	5.58	-39T	5.58			-39T	5.82	-239T	3.62			-239T	5.91		
DPDT	230VAC	.0087	7000	-42T	4.23	-42T	6.23	-42T	6.23	-42T	6.14	-42T	6.42	-242T	4.32	-242T	6.33	-242T	6.61	-295T	7.50
3PDT	230VAC	.0087	7000	-45T	4.63	-45T	7.13	-45T	7.13	-45T	7.04	-45T	7.87	-245T	4.77	-245T	7.33	-245T	8.16		
4PDT	230VAC	.0147	4000	-415T	5.38					-415T	8.29			-445T	5.52	-445T	8.58				
SPDT	6VDC	.23	26	-48T	3.04	-48T	5.04	-48T	5.04			-48T	5.38	-248T	3.08			-248T	5.47		
DPDT	6VDC	.23	26	-51T	3.39	-51T	5.39	-51T	5.39	-51T	5.30	-51T	5.98	-251T	3.48	-251T	5.49	-251T	6.17	-296T	7.06
3PDT	6VDC	.23	26	-54T	3.84	-54T	6.34	-54T	6.34	-54T	6.25	-54T	7.43	-254T	3.98	-254T	6.54	-254T	7.72		
4PDT	6VDC	.23	26	-418T	4.70					-418T	7.61			-448T	4.84	-448T	7.90				
SPDT	12VDC	.114	105	-57T	3.04	-57T	5.04	-57T	5.04			-57T	5.38	-257T	3.08			-257T	5.47		
DPDT	12VDC	.114	105	-60T	3.39	-60T	5.39	-60T	5.39	-60T	5.30	-60T	5.98	-260T	3.48	-260T	5.49	-260T	6.17	-297T	7.06
3PDT	12VDC	.114	105	-63T	3.84	-63T	6.34	-63T	6.34	-63T	6.25	-63T	7.43	-263T	3.98	-263T	6.54	-263T	7.72		
4PDT	12VDC	.114	105	-421T	4.70					-421T	7.61			-451T	4.84	-451T	7.90				
SPDT	24VDC	.060	400	-66T	3.04	-66T	5.04	-66T	5.04			-66T	5.38	-266T	3.08			-266T	5.47		
DPDT	24VDC	.060	400	-69T	3.39	-69T	5.39	-69T	5.39	-69T	5.30	-69T	5.98	-269T	3.48	-269T	5.49	-269T	6.17	-298T	7.06
3PDT	24VDC	.060	400	-72T	3.84	-72T	6.34	-72T	6.34	-72T	6.25	-72T	7.43	-272T	3.98	-272T	6.54	-272T	7.72		
4PDT	24VDC	.060	400	-424T	4.70					-424T	7.61			-454T	4.84	-454T	7.90				
SPDT	110VDC	.0110	10,000	-75T	3.63	-75T	5.63	-75T	5.63			-75T	5.97	-275T	3.67			-275T	6.06		
DPDT	110VDC	.0110	10,000	-78T	3.98	-78T	5.98	-78T	5.98	-78T	5.89	-78T	6.57	-278T	4.07	-278T	6.08	-278T	6.76	-299T	7.65
3PDT	110VDC	.0110	10,000	-81T	4.43	-81T	6.93	-81T	6.93	-81T	6.84	-81T	8.02	-281T	4.57	-281T	7.13	-281T	8.31		
4PDT	110VDC	.0110	10,000	-427T	5.29					-427T	8.20			-457T	5.43	-457T	8.49				
	Approx. weight			2.5 oz.		3.0 oz.		3.0 oz.		3.0 oz.		3.5 oz.		2.5 oz.		3.5 oz.		3.5 oz.		3.5 oz.	

*Column heads carry symbols to indicate UL or CSA (Canadian Standards Association) approval. A color tint in column indicates relay carries UL stamp; a grey tint indicates that relay is recognized under UL "components program" and does not carry UL stamp. See explanation in "UL and CSA Approval."
‡4-Pole GPRTS relays are not covered by CSA.

†GPRTA and GPRTT types as listed by UL, differ slightly from the stock versions above and consequently, are made to order. These UL versions have a "U" added to the catalog number, such as in "GPRTAU." These units will carry the UL stamp. They also have CSA approval and will carry the CSA stamp.

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semiconductor diodes • r.f. chokes

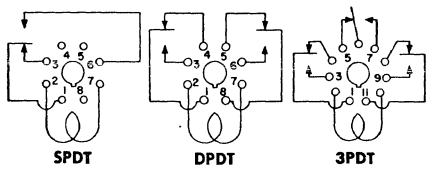
MODEL GPR GENERAL PURPOSE RELAYS

Socket (SOGPR): Unique socket fits the terminal panels of all GPR relays and provides over-the-surface spacing to meet UL requirements for 150 volts. Requires chassis cut-out to mount. Hold down springs (see illustration) for unenclosed and enclosed relays, are provided with each socket but are not required except under conditions of vibration or shock. Socket solder terminals will also accept AMP 110 quick-connectors. See socket listings.

Indicator Relay: Incorporates light bulb to indicate energized condition of coil. Stocked only in GPRTP enclosures described in preceding. Neon bulb furnished with coil ratings 70 volts and above; incandescent bulbs for coil ratings below 70 volts.

Plate Relays: Feature same physical construction as standard general purpose relays but are adjusted for greater sensitivity and can be used as electronic circuit controls, i.e., in the plate circuits of standard vacuum tubes.

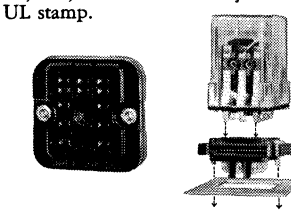
Thyratron Plate Relay: Designed specifically for plate circuit of thyratron tubes 2050 and 2D21 with 115 VAC supply (see diagram). Also suitable for operation in series with silicon controlled rectifiers from a 115 VAC supply. Ready to work, no capacitors or adjustments required, no chatter. Available unenclosed and in most GPR enclosures.



Plug wiring schemes for plug base (GPRTP) relays

Latching Relay: Consists of two GPR relays with armatures linked so that the n.o. contacts of one are mechanically latched in closed position when, and after, this relay is energized. When 2nd relay is energized, first relay restores and latches 2nd. Permits switching of twice the number of circuits and holding without coil current. Unenclosed type "GPRLE". Enclosed type "GPRLETP" in clear plastic case with Jones plug P-324-SB fitting S-324-AB socket.

UL & CSA Approval: Column heads in the stock tables carry the UL (Underwriter's Laboratories) or CSA symbol (Canadian Standards Association) where such approval has been granted. The columns marked with a UL symbol are grey tinted and these relays are subject to UL Reexamination service. GPRX and GPRLEX relays in the grey areas carry the UL stamp. GPRTSX, GPRTPX, and GPRLETPX relays in the grey areas are recognized under the "UL components program." The acceptability of such relays by UL depends upon their combination with other equipment such as sockets, etc., and therefore they do not carry the UL stamp.



SOCKETS FOR GPR AND GPRTS RELAYS

For up to 3PDT: 1¾" square, requires 1¼" x 1½" cutout. 2 holes (for No. 6 screws) on 1⅜" centers.
Stock No. SOGPR-9.....Net 1-24 $1.03

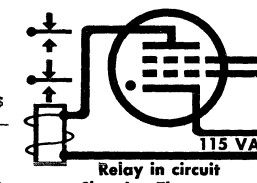
For 4-pole models, 2" square, requires 1½" x 1½" cutout, 2 holes (for No. 6 screws) on 1⅝" centers.
Stock No. SOGPR-12.....Net 1-24 $1.18

STOCK "GPR" PLATE CIRCUIT RELAYS — 5 AMP CONTACTS

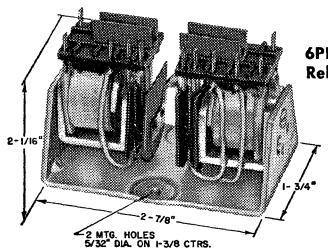
Contacts	COIL DATA Ohms	Pull-in max. ma.	Unenclosed GPR (UL)	Net $ 1-24	Enclosed Above-Chassis GPRTA	Net $ 1-24	Enclosed Thru-Chassis GPRTT	Net $ 1-24	Enclosed for SOGPR Socket GPRTS	Net $ 1-24	Enclosed Plug-Base GPRTP (UL)	Net $ 1-24
SPDT	2500	7.2	GPRX -82T	3.62	GPRTAX -82T	5.52	GPRTTX -82T	5.52			GPRTPX -82T	5.86
DPDT	2500	10	-83T	4.15	-83T	5.67	-83T	5.67			-83T	6.26
3PDT	2500	12.3	-84T	4.75	-84T	6.62	-84T	6.62			-84T	7.71
4PDT	2500	15.0	-463T	5.61					GPRTSX -463T	8.52		
SPDT	5000	5	-85T	3.72	-85T	5.62	-85T	5.62			-85T	5.96
DPDT	5000	7.2	-86T	4.25	-86T	5.77	-86T	5.77			-86T	6.36
3PDT	5000	8.7	-87T	4.85	-87T	6.72	-87T	6.72			-87T	7.81
4PDT	5000	11	-466T	5.72					GPRTSX -466T	8.63		
SPDT	10,000	3.6	-88T	4.12	-88T	6.02	-88T	6.02			-88T	6.36
DPDT	10,000	5	-89T	4.65	-89T	6.17	-89T	6.17			-89T	6.76
3PDT	10,000	6.1	-90T	5.25	-90T	7.12	-90T	7.12			-90T	8.21
4PDT	10,000	7.5	-469T	6.11					GPRTSX -469T	9.02		
Approx. weight			2.5 oz.		3.0 oz.		3.0 oz.		3.0 oz.		3.5 oz.	

STOCK GPR THYRATRON RELAYS

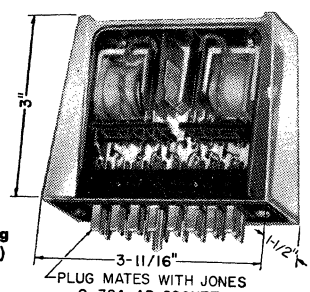
Contacts	5 AMP CONTACTS Unenclosed (UL) GPR	Net $ 1-24	Enclosed Above-Chassis GPRTA	Net $ 1-24	Enclosed Thru-Chassis GPRTT	Net $ 1-24	Enclosed for SOGPR Socket GPRTS	Net $ 1-24	Enclosed Plug-Base GPRTP (UL)	Net $ 1-24	10 AMP CONTACTS Unenclosed (UL) GPR	Net $ 1-24	Enclosed for SOGPR Socket GPRTS	Net $ 1-24	Enclosed Plug-Base GPRTP (UL)	Net $ 1-24
SPDT	GPRX -191T	3.35	GPRTAX -191T	5.35	GPRTTX -191T	5.35	GPRTSX ——	——	GPRTPX -191T	5.59	GPRX -391T	3.39	GPRTSX ——	——	GPRTPX -391T	5.68
DPDT	-192T	4.00	192T	6.00	-192T	6.00	——	——	-192T	6.19	-392T	4.09	——	——	-392T	6.38
3PDT	-193T	4.40	-193T	6.90	-193T	6.90	——	——	-193T	7.64	-393T	4.54	——	——	-393T	7.93
4PDT	-473T	5.15	——	——	——	——	-473T	8.06	——	——	-483T	5.29	-483T	8.35	——	——



Relay in circuit Showing Thyratron



6PDT Latching Relay (GPRLE)



Enclosed Latching Relay (GPRLETP)

STOCK "GPR" LATCHING RELAYS — 5 AMP CONTACTS

Total Contacts	COIL DATA—(Each Coil) Volts	Amps.	Ohms	(UL) Unenclosed (UL) GPRLE†	Net $ 1-24	(UL) Enclosed Plug-Base (UL) GPRLETP†	Net $ 1-24
4PDT	6VAC	.650	2.5	GPRLEX-1T	10.47	GPRLETPX-1T	16.47
6PDT	6VAC	.650	2.5	GPRLEX-2T	12.57	GPRLETPX-2T	19.57
4PDT	12VAC	.309	10.0	GPRLEX-3T	10.47	GPRLETPX-3T	16.47
6PDT	12VAC	.309	10.0	GPRLEX-4T	12.57	GPRLETPX-4T	19.57
4PDT	24VAC	.155	40.0	GPRLEX-5T	10.47	GPRLETPX-5T	16.47
6PDT	24VAC	.155	40.0	GPRLEX-6T	12.57	GPRLETPX-6T	19.57
4PDT	115VAC	.0325	1000	GPRLEX-7T	10.47	GPRLETPX-7T	16.47
6PDT	115VAC	.0325	1000	GPRLEX-8T	12.57	GPRLETPX-8T	19.57
4PDT	230VAC	.0147	4000	GPRLEX-9T	11.25	GPRLETPX-9T	17.25
6PDT	230VAC	.0147	4000	GPRLEX-10T	13.35	GPRLETPX-10T	20.35
4PDT	6VDC	.23	26	GPRLEX-11T	9.42	GPRLETPX-11T	15.42
6PDT	6VDC	.23	26	GPRLEX-12T	11.42	GPRLETPX-12T	18.42
4PDT	12VDC	.114	105	GPRLEX-13T	9.42	GPRLETPX-13T	15.42
6PDT	12VDC	.114	105	GPRLEX-14T	11.42	GPRLETPX-14T	18.42
4PDT	24VDC	.060	400	GPRLEX-15T	9.42	GPRLETPX-15T	15.42
6PDT	24VDC	.060	400	GPRLEX-16T	11.42	GPRLETPX-16T	18.42
4PDT	110VDC	.0110	10,000	GPRLEX-17T	10.60	GPRLETPX-17T	16.60
6PDT	110VDC	.0110	10,000	GPRLEX-18T	12.60	GPRLETPX-18T	19.60
Approx. weight →				7.0 oz.		11.3 oz.	

†See paragraph, "UL & CSA Approval."

OHMITE

resistors • rheostats • tap switches • relays
variable transformers • tantalum capacitors
semiconductor diodes • r.f. chokes

ALL-PURPOSE RELAYS (Also see Model GPR Relays)

MODEL DO RELAY

AC or DC OPERATION

Ideal for mobile equipment applications where severe shock and vibration are encountered. Coil drain: 3-watts DC, 6 watts 60 cycle AC. Contact ratings: 10 amps. at 115 v. AC; 32 volt DC non-inductive load. Insulation tested at 1500 v. AC. Size, (4 pole) 2¼ x 2 1/16 x 1 13/16"; (3 pole) 2¼ x 1⅝ x 1 13/16".

Stock No.	Type	Coil Data †V.A.C.	Amps.	Net 1-24
DOX-50T	3PDT	6	2.33	8.65
DOX-183T	4PDT	6	2.33	9.85
DOX-49T	3PDT	12	1.28	8.65
DOX-184T	4PDT	12	1.28	9.85
DOX-181T	3PDT	24	.57	8.65
DOX-185T	4PDT	24	.57	9.85
DOX-226T	‡DPST*	115	.110	8.60
DOUX-34‡	‡DPST*	115	.110	9.78
DOX-227T	‡3PST	115	.110	7.84
DOUX-28‡	‡3PST	115	.110	9.02
DOX-46T	3PDT	115	.110	8.65
DOUX-30‡	3PDT	115	.110	9.83
DOX-228T	‡4PST	115	.110	8.80
DOUX-31‡	‡4PST	115	.110	9.98
DOX-53T	4PDT	115	.110	9.85
DOUX-33‡	4PDT	115	.110	11.03
DOX-61T	3PDT	230	.070	9.05
DOX-130T	4PDT	230	.070	10.25
DOX-145T	3PDT	6	.487	7.47
DOX-186T	4PDT	6	.487	8.65
DOX-51T	3PDT	12	.231	7.47
DOX-102T	4PDT	12	.231	8.65
DOX-141T	3PDT	24	.105	7.47
DOX-137T	4PDT	24	.105	8.65
DOX-93T	3PDT	110	.022	8.07
DOX-187T	4PDT	110	.022	9.25
DOX-182T	3PDT	220	.014	8.75
DOX-188T	4PDT	220	.014	9.93

‡ Normally open
† AC Voltage is 60 cycle
* Double Break Contacts — 20 Amp.
‡ Listed by UL.

MODEL DOS RELAY

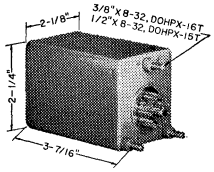
AC or DC OPERATION

Quality, general-purpose relays originally designed to meet rigorous aircraft specs. Extremely compact yet rugged. Coil drain: 2.5 watts DC, 3 watts at 60 cycles AC. Contact ratings: DP, 15 amps. at 115 v. AC or 32 v. DC non-inductive load; SP, 25 amps. Molded phenolic insulation; tested at 1500 v. AC. 1⅞ x 1⅝ x 1 13/32".

Stock No.	Type	Coil Data †V.A.C.	Amps.	Net 1-24
DOSX-229T	‡SPST*	6	.890	4.84
DOSX-230T	‡DPST	6	.890	4.94
DOSX-30T	DPDT	6	.890	5.46
DOSX-16T	DPDT	12	.460	5.46
DOSX-231T	‡SPST*	24	.269	4.84
DOSX-232T	‡DPST	24	.269	4.94
DOSX-162T	DPDT	24	.269	5.46
DOSX-233T	‡SPST*	115	.043	4.84
DOSUX-34‡	‡SPST*	115	.043	6.02
DOSX-234T	‡DPST	115	.043	4.94
DOSUX-31‡	‡DPST*	115	.043	6.13
DOSX-7T	DPDT	115	.043	5.46
DOSUX-33‡	‡DPDT*	115	.043	6.64
DOSX-235T	‡SPST*	230	.030	5.24
DOSX-236T	‡DPST	230	.030	5.34
DOSX-12T	DPDT	230	.030	5.86
DOSX-158T	DPDT	6	.550	4.96
DOSX-66T	DPDT	12	.210	4.96
DOSX-9T	DPDT	24	.105	4.96
DOSX-237T	‡SPST*	110	.022	4.99
DOSX-238T	‡DPST	110	.022	5.09
DOSX-59T	DPDT	110	.022	5.56
DOSX-177T	DPDT	220	.013	6.14

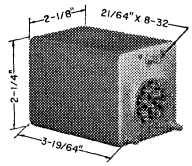
‡ Normally open
† AC Voltage is 60 cycle
* Double Break Contacts — 25 Amp.
‡ Listed by UL.

DO RELAYS IN HERMETIC ENCLOSURES



DOHPX-16T, 3PDT, 11 Prongs
DOHPX-15T, 4PDT, 20 Prongs

Stock DO relays with 115 volt coil in hermetically sealed metal enclosures, filled with dry nitrogen. Both 3 and 4-pole DO relays are supplied in these enclosures with plug (DOHPX-) or solder terminal (DOHX-) connectors as illustrated. **Weights:** 3-pole hermetic relay approx. 14 oz.; 4-pole approx. 15 oz.

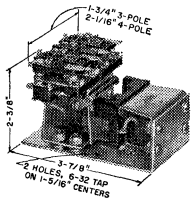


DOHX-22T, 3PDT, 14 Terminals
DOHX-23T, 4PDT, 14 Terminals

10 AMP. CONTACTS

Stock No.	Type	Coil Data Volts	Amps.	Net 1-24
DOHPX-16T	3PDT	115VAC	.110	21.95
DOHPX-15T	4PDT	115VAC	.110	27.95
DOHX-22T	3PDT	115VAC	.110	21.31
DOHX-23T	4PDT	115VAC	.110	22.90

MODEL DO LATCHING RELAY (DOLEX-)



Consists of Model DO relay and a "reset magnet" with both armatures mechanically latched so that the normally open contacts of the relay remain closed when the relay energizing voltage is removed. The relay releases to normal position when the reset coil is pulsed. Permits "holding" of circuits without continuous coil current. Coils of stock units (both relays and reset coils) are 115VAC. Available with 3 or 4-pole relays. **Weights:** 3-pole—16.5 oz.; 4-pole —17 oz.

DOLEX-3T, 3PDT*
DOLEX-5T, 4PDT

10 AMP. CONTACTS

Stock No.	Type	Coil Data† Volts	Amps.	Net 1-24
DOLEX-3T	3PDT	115VAC	.110	15.17
DOLEX-5T	4PDT	115VAC	.110	16.37

† Coil data applies to relay part of latching assembly. Reset magnet operates on 115VAC, 60 cycle also.

MODEL DOSY RELAY

FOR PLATE CIRCUIT OPERATION

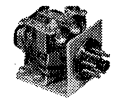
The high operating sensitivity makes the DOSY relay adaptable to a wide range of electronic control circuits, such as plate circuit controls, etc.

The insulation is of high grade, molded phenolic material. At 115 v. AC or 32 v. DC, non-inductive load, Model DOSY relay has a contact rating of 15 amperes.

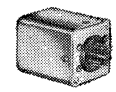
There are two DPDT types, one having 10,000 ohms coil resistance (maximum pull-in current of 8 ma. DC); the other having 5,000 ohms coil resistance. Dimensions are same as for Model DOS next column.

Stock No.	Type	Coil Data D.C. Ohms	Max. Pull-in Current	Net Each 1-24
DOSYX-67T	DPDT	10,000	8 MA	6.09
DOSYX-68T	DPDT	5,000	11 MA	6.09
DOSYX-69T	SPDT	10,000	5 MA	5.62
DOSYX-70T	SPDT	5,000	7 MA	5.62

MODEL DOS PLUG-IN & ENCL. TYPES



DOSPX-1T

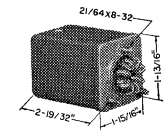


DOSEPX-5T

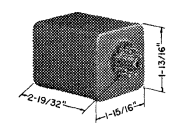
Model DOS, DPDT relay with standard octal plug base, unenclosed or enclosed types. Enclosed dust-proof type has drawn aluminum cover. Overall dimensions, exclusive of plug: DOSPX-1T—1⅝ x 2 x 1 15/16"; DOSEPX-5T—2⅛ x 2½ x 2⅛". Contacts—15 amps. Similar to DOSX-7T shown under "DOS Relays" above.

Stock No.	Type	Coil V.A.C.	Amps.	Net 1-24
DOSPX-1T Unenclosed	DPDT	115	.043	7.26
DOSEPX-5T Enclosed	DPDT	115	.043	8.30

DOS RELAYS IN HERMETIC ENCLOSURES



Hermetic Enclosures with 8 Terminals
DOSHX-39T, 115VDC
DOSHX-40T, 115VAC



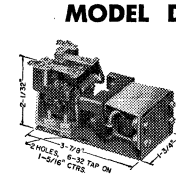
Hermetic Enclosures with Octal Plugs
DOSHPX-46T, 115VDC
DOSHPX-47T, 115VAC

Hermetically Sealed non-removable enclosures, filled with dry nitrogen, are also available to provide protection under adverse ambient conditions. DOS relays with 115 volt AC or DC coils are provided in these enclosures with either octal plug (DOSHPX-) or solder-terminal (DOSHX-) connectors as illustrated. **Weights:** 8 oz. each approx.

15 AMP. CONTACTS

Stock No.	Type	Coil Data Volts	Amps.	Net 1-24
DOSHX-40T	DPDT	115VAC	.043	13.58
DOSHPX-47T	DPDT	115VAC	.043	13.66
DOSHX-39T	DPDT	110VDC	.022	13.68
DOSHPX-46T	DPDT	110VDC	.022	13.76

MODEL DOS LATCHING RELAY (DOSLEX-)



DOSLEX-1T

Consists of Model DOS relay and a "reset magnet" with both armatures mechanically latched so that the normally open contacts of the relay remain closed when the relay energizing voltage is removed. The relay releases to normal position when the reset coil is pulsed. Permits "holding" of circuits without continuous coil current. Coils of stock units (both relay and reset magnet) are 115VAC. **Weight:** 14.2 oz.

15 AMP. CONTACTS

Stock No.	Type	Coil Data † Volts	Amps.	Net 1-24
DOSLEX-1T	DPDT	115VAC	.043	11.98

† Coil data applies to relay part of latching assembly. Reset magnet operates on 115VAC, 60 cycle also.

Net

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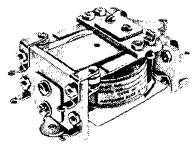
PHILLIPS-ADVANCE CONTROL CO.

JOLIET, ILLINOIS



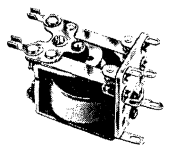
ANTENNA TYPES

AH SERIES A changeover relay designed specifically for RF operation. The small size of this relay makes it ideal for use in compact sets where the load does not exceed ½ KW. Low-cost handling of RF energy is assured by the Steatite insulation used throughout, and by adequate spacing between contacts. Units are fast and positive in action, and will operate in any position.

Dimensions: H. 1 7/16", W. 1 5/8", L. 2 3/4".

Mounting Data: 2 tapped holes; 6-32 NC-2; 2" centers.

TYPE	COIL RES. (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
AH/2C/6VD	16	DPDT	10	11.75
AH/2C/12VD	63	DPDT	10	11.75
AH/2C/24VD	250	DPDT	10	11.75
AH/2C/115VA	450	DPDT	10	13.00
AH/2C1C/115VA	450	DPDT & SPDT (aux)	10	14.25



ANTENNA TYPES

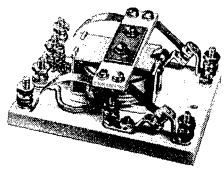
AM SERIES Space-saving "transmit-receive" antenna relays for many different low-power RF applications. They fill the need for 300-ohm circuit switching in mobile, marine, aircraft, television, communication and fixed-station service. Conically-shaped silver contacts assure low resistance paths for either "receive" or "transmit" positions.

Dimensions: H. 1-9/16", W. 15/16", L. 1-15/16".

Mounting Data: Relay supplied with single 6-32 NC-2 mounting stud with hex nut.

Weight: 2 oz.

TYPE	COIL RES. (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
AM/2C/6VA	4	DPDT	2	4.70
AM/2C/115VA	1600	DPDT	2	5.05
AM/2C/6VD	25	DPDT	2	4.20
AM/2C/12VD	100	DPDT	2	4.20
AM/2C/24VD	250	DPDT	2	4.20



ANTENNA TYPE

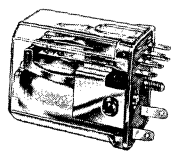
AT SERIES For heavy-duty RF transmitter antenna changeover applications. Primarily designed for fixed-station usage, with a conservative 1-kilowatt RF rating. Insulated with ceramic Steatite. Excellent wiping action of contacts assures flow of most minute currents for receiving positions. High efficiency. Available with auxiliary single-pole, normally open contacts.

Dimensions: H. 1-11/16", W. 2-13/16", L. 3-9/16".

Mounting Data: 4 holes .157 dia.; clearance for 6-32 screws.

Weight: 12.6 oz.

TYPE	COIL RES. (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
AT/2C/115VA	450	DPDT	10	13.20



MINIATURE TELEPHONE TYPES

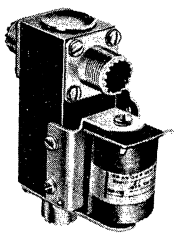
AZ SERIES Accepted in almost all branches of electrical and electronic engineering, the AZ Series incorporates the advantages of microminiaturization with long life characteristics. Their low cost makes them suitable for such applications as medium power switching, as well as tape head, microphone, and other low level switching applications.

Special contact materials and other voltage ranges available on special order. All AZ relays come with a clear plastic dust cover.

ACCESSORIES

TYPE		NET
ST140-U1	Two pole socket	0.39
ST140-1	Retaining spring (2C)	0.05
ST140-2	Grounding clip (2C and 4C)	0.03
ST141-U1	Four pole socket	0.62
ST141-1	Retaining spring (4C)	0.08

TYPE (DPDT)	COIL RES. (OHMS)	OPERATING VOLT RANGE	PULL IN POWER (NOMINAL)	NET
AZ420-15-4	52	3-10 VDC	75MW	3.15
AZ420-1011-4	185	5.5-18 VDC	70MW	3.15
AZ420-08-4	600	9.5-32 VDC	75MW	3.15
AZ420-70-4	700	11.5-36 VDC	85MW	3.15
AZ420-07-4	1000	12.5-46 VDC	75MW	3.15
AZ420-56-4	2500	19.5-65 VDC	80MW	3.20
AZ420-035-4	15000	52.5-165VDC	85MW	5.40
TYPE (4PDT)				
AZ421-15-1	52	4.5-10 VDC	170MW	3.50
AZ421-1011-1	185	8-19 VDC	165MW	3.50
AZ421-08-1	600	15-32 VDC	195MW	3.50
AZ421-70-1	700	17-36 VDC	205MW	3.50
AZ421-07-1	1000	19-46 VDC	195MW	3.50
AZ421-56-1	2500	30-65 VDC	170MW	3.80
AZ421-035-1	15000	75-165VDC	200MW	5.60



COAXIAL TYPES

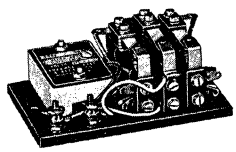
CB SERIES Unsurpassed for meeting problems of coaxial cable switching. Designed for performance on 52-ohm coaxial lines. Low standing-wave ratios permit usage on frequencies up to 300 megacycles. Units operate equally well in any position. The CB/1000 is a kit for converting CB/1C to CB/1C2C contact arrangement. All types CB, with exception of CB/1C2C/115VA(N), supplied with SO-239 connectors. CB/1C2C/115VA(N) supplied with "N" connectors.

Dimensions: H. 1 7/8", W. 3 1/16", L. 3 7/8".

Mounting Data: 2 tapped holes 6-32 NC-2; 1 7/16" centers.

Weight: 11.1 oz.

TYPE	COIL RESISTANCE (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
CB/1C/6VD	18	SPDT	5	20.0
CB/1C/12VD	70	SPDT	5	20.0
CB/1C/24VD	280	SPDT	5	20.0
CB/1C/115VA	280	SPDT	5	21.0
CB/1C2C/6VD	18	SPDT (int) DPDT (aux)	5	23.6
CB/1C2C/12VD	70	SPDT (int) DPDT (aux)	5	23.6
CB/1C2C/24VD	280	SPDT (int) DPDT (aux)	5	23.6
CB/1C2C/115VA	280	SPDT (int) DPDT (aux)	5	24.5
CB1000		DPDT	5	5.0
CB/1C2C/115VA (N)	280	SPDT (int) DPDT (aux)	5	24.



TIME DELAY TYPES

DB & DM SERIES With their adjustable time-delay range, these relays excellent for use in preheating tube-filaments; for specialized lighting circuits, photographic controls, protection applications, etc. DB provides time-delay before break. DM provides delay before make. Both series utilize bi-metal thermal units which can be adjusted for delays from 5 to 60 seconds. Cooling of the thermal units for proper re-cycling requires 8 to 10 times the delay period.

Dimensions: H. 1 5/8", W. 2 5/8", L. 3 3/4".

Mounting Data: 2 holes .152 dia.; 3 1/16" centers.

Weight: 7.8 oz.

TYPE	COIL RES. (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NE
DB/2C/115VA	450	DPDT	15	13
DM/2C/115VA	450	DPDT	15	14

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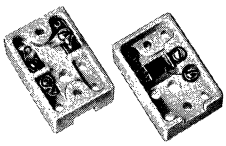
PHILLIPS-ADVANCE CONTROL CO.

TIME DELAY TYPES



DT SERIES Efficient, low-cost units used in conjunction with various relays for delayed making or breaking of controlled circuits. Applicable wherever a time delay of 5 to 60 seconds is needed. Units are adjustable with a range of 8 to 20 cycles per minute. Operating on the bi-metal thermal principle, these types are housed in unglazed porcelain, and are obtainable with either normally-open or normally-closed contacts.

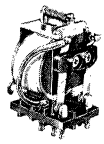
Dimensions: H. 13/16", W. 1 17/64", L. 1 57/64".

Mounting Data: 2 holes .154 dia. for 6-32 NC-2 screws; 1 3/8" centers.

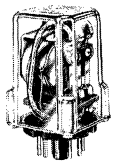
Weight: 1.4 oz.

TYPE	COIL VOLT	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
DT/1A/115VA	115VAC	SPST-NO	2	2.75
DT/1B/115VA	115VAC	SPST-NC	2	2.75

GENERAL PURPOSE RELAYS



GHA



GHP

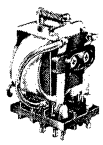
GH SERIES—GHA—GHP Low-cost continuous-duty general purpose relay. Contacts rated at 5 amps resistive load. Available as an open relay (GHA) or with a dustite plastic enclosure (GHP). Enclosed types with SPDT and DPDT contacts have 8 pin octal plug-in bases while the 3PDT types use 11 pin plug-in bases. Open relays supplied with axial type solder lugs. UL (Underwriters Laboratories) approval granted on types GHA1C and GHA2C.

Dimensions: Open Style—1 47/64" x 1 7/64" x 1 3/16"".
Enclosed Style—1 13/32" x 1 13/32" x 2 1/8".

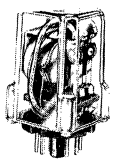
TYPE	COIL RESISTANCE (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
GHA/1C/6VA	4	SPDT	5	3.05
GHA/1C/12VA	16	SPDT	5	3.05
GHA/1C/24VA	63	SPDT	5	3.05
GHA/1C/115VA	1600	SPDT	5	3.05
GHA/1C/220VA	5000	SPDT	5	3.55
GHA/1C/6VD	25	SPDT	5	3.05
GHA/1C/12VD	100	SPDT	5	3.05
GHA/1C/24VD	400	SPDT	5	3.05
GHA/1C/110VD	8000	SPDT	5	3.55
GHA/2C/6VA	4	DPDT	5	3.55
GHA/2C/12VA	16	DPDT	5	3.55
GHA/2C/24VA	63	DPDT	5	3.55
GHA/2C/115VA	1600	DPDT	5	3.55
GHA/2C/220VA	5000	DPDT	5	4.05
GHA/2C/6VD	25	DPDT	5	3.35
GHA/2C/12VD	100	DPDT	5	3.35
GHA/2C/24VD	400	DPDT	5	3.35
GHA/2C/110VD	8000	DPDT	5	3.85
GHA/3C/6VA	4	3PDT	5	4.05
GHA/3C/12VA	16	3PDT	5	4.05
GHA/3C/24VA	63	3PDT	5	4.05
GHA/3C/115VA	1600	3PDT	5	4.05

TYPE	COIL RESISTANCE (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
GHA/3C/220VA	5000	3PDT	5	4.55
GHA/3C/6VD	25	3PDT	5	3.75
GHA/3C/12VD	100	3PDT	5	3.75
GHA/3C/24VD	400	3PDT	5	3.75
GHA/3C/110VD	8000	3PDT	5	4.25
GHP/1C/6VA	4	SPDT	5	5.10
GHP/1C/12VA	16	SPDT	5	5.10
GHP/1C/24VA	63	SPDT	5	5.10
GHP/1C/115VA	1600	SPDT	5	5.10
GHP/1C/6VD	25	SPDT	5	5.15
GHP/1C/12VD	100	SPDT	5	5.15
GHP/1C/24VD	400	SPDT	5	5.15
GHP/1C/110VD	8000	SPDT	5	5.65
GHP/2C/6VA	4	DPDT	5	5.75
GHP/2C/12VA	16	DPDT	5	5.75
GHP/2C/24VA	63	DPDT	5	5.75
GHP/2C/115VA	1600	DPDT	5	5.75
GHP/2C/220VA	5000	DPDT	5	6.25
GHP/2C/6VD	25	DPDT	5	5.65
GHP/2C/12VD	100	DPDT	5	5.65
GHP/2C/24VD	400	DPDT	5	5.65
GHP/2C/110VD	8000	DPDT	5	6.15
GHP/3C/6VA	4	3DPT	5	7.05
GHP/3C/24VA	63	3PDT	5	7.05
GHP/3C/115VA	1600	3PDT	5	7.05
GHP/3C/220VA	5000	3PDT	5	7.55
GHP/3C/6VD	25	3PDT	5	6.95
GHP/3C/12VD	100	3PDT	5	6.95
GHP/3C/24VD	400	3PDT	5	6.95
GHP/3C/110VD	8000	3PDT	5	7.45

GENERAL PURPOSE RELAYS



GHB



GHH

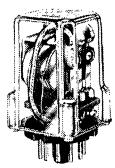
GHB—GHH Similar in size and mounting to the GHA and GHP types shown above with contacts rated at 10 amps resistive. GHB is open style with axial leads and GHH utilizes plastic enclosure and plug-in base. UL approval granted on types GHB/1C and GHB/2C.

Dimensions: Open Style—1 47/64" x 1 7/64" x 1 3/16".
Enclosed Style—1 13/32" x 1 13/32" x 2 1/8".

TYPE	COIL RESISTANCE (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
GHB/1C/6VA	4	SPDT	10	3.50
GHB/1C/24VA	63	SPDT	10	3.50
GHB/1C/115VA	1600	SPDT	10	3.50
GHB/1C/6VD	25	SPDT	10	3.50
GHB/1C/12VD	100	SPDT	10	3.50
GHB/1C/24VD	400	SPDT	10	3.50
GHB/2C/6VA	4	DPDT	10	4.05
GHB/2C/24VA	63	DPDT	10	4.05
GHB/2C/115VA	1600	DPDT	10	4.05

TYPE	COIL RESISTANCE (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
GHB/2C/6VD	25	DPDT	10	3.80
GHB/2C/12VD	100	DPDT	10	3.80
GHB/2C/24VD	400	DPDT	10	3.80
GHB/3C/6VA	4	3PDT	10	4.60
GHB/3C/24VA	63	3PDT	10	4.60
GHB/3C/115VA	1600	3PDT	10	4.60
GBH/3C/6VD	25	3PDT	10	4.40
GHB/3C/12VD	100	3PDT	10	4.40
GHB/3C/24VD	400	3PDT	10	4.40
GHH/2C/24VA	63	DPDT	10	6.05
GHH/2C/115VA	1600	DPDT	10	6.05
GHH/2C/24VD	400	DPDT	10	5.75
GHH/3C/115VA	1600	3PDT	10	7.25
GHH/3C/24VD	400	3PDT	10	7.25

GENERAL PURPOSE RELAYS

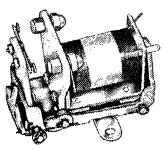


GHE A plate circuit current operated unit having extremely good sensitivity. Standard GHE enclosed in dustite plastic enclosure and mounts with either an 8 pin or 11 pin plug-in base. Nominal power of 130 milliwatts per 1C (single pole) is required.

Dimensions: 1 13/32" x 1 13/32" x 2 1/8".

TYPE	COIL RESISTANCE (OHMS)	COIL CURRENT	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
GHE/1C/2500D	2500	7.2 MA	SPDT	5	5.40
GHE/1C/5000D	5000	5.0 MA	SPDT	5	5.85
GHE/1C/10000D	10000	3.6 MA	SPDT	5	6.25
GHE/2C/2500D	2500	10.0 MA	DPDT	5	6.15
GHE/2C/5000D	5000	7.2 MA	DPDT	5	6.25
GHE/2C/10000D	10000	5.0 MA	DPDT	5	6.65
GHE/3C/2500D	2500	11.8 MA	3PDT	5	7.60
GHE/3C/5000D	5000	8.3 MA	3PDT	5	7.70
GHE/3C/10000D	10000	5.8 MA	3PDT	5	8.10

HIGH VOLTAGE TYPES



HV SERIES Applicable where "standard" design high voltage units occupy too much space. Contact assembly mounted on Steatite to insure high insulation and low energy loss. Will break up to 5000 volts RMS at 200 milliamperes current. Available in SPDT (double break-double make DM-DB) contact arrangement.

Dimensions: 1 23/32" x 2 7/32" x 3 1/16".

Mounting data: 2 holes 3/16" diameter on 1 3/4" centers.

TYPE	COIL RESISTANCE	CONTACTS	NET
HV/1Z/24VD	120 Ohms	SPDT DB-DM	17.65
HV/1Z/110VD	3000 Ohms	SPDT DB-DM	18.25

Net

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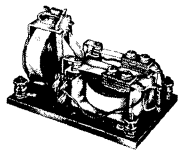


LATCHING TYPES

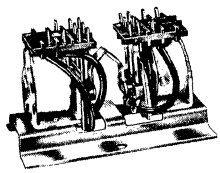
LE SERIES The LE Series relays are employed in industrial and power control applications where it is desirable to eliminate continuous use of current consumption by the duty coil.

The latching mechanism in these relays is positive, and assures consistent performance. The units are assembled on a heavy bakelite base.

Dimensions: H. 2⅜", W. 2½", L. 3⅝".

Mounting Data: 2 holes .152 dia.; clearance for 6-32 NC-2 screws; 2" centers.

TYPE	COIL RESISTANCE	CONTACTS	NET
LE/2C/115VA	160 ohms	DPDT 15 amps	12.00
LE/2C/24VD	100 ohms	DPDT 15 amps	11.65

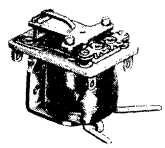


LATCHING TYPES

LGA SERIES Used in industrial and power control applications where it is desirable to eliminate continuous use of current consumption by the duty coil. Latching mechanism is positive and assures consistent performance. Both operate and reset coils are electrically operated.

Dimensions: 1¾" x 1⅝" x 3½".
Two 6-32 mounting holes on 1⅜" centers.

TYPE	COIL RESISTANCE (BOTH COILS) (OHMS)	FORM	CONTACTS RATING (AMPS)	NET
LGA/4C/24VA	40	4PDT	5	10.45
LGA/4C/115VA	1000	4PDT	5	10.45
LGA/4C/6VD	16	4PDT	5	9.35
LGA/4C/12VD	63	4PDT	5	9.35
LGA/4C/24VD	250	4PDT	5	9.35
LGA/4C/110VD	5000	4PDT	5	10.55
LGA/6C/24VA	40	6PDT	5	12.50
LGA/6C/115VA	1000	6PDT	5	12.50
LGA/6C/6VD	16	6PDT	5	11.40
LGA/6C/12VD	63	6PDT	5	11.40
LGA/6C/24VD	250	6PDT	5	11.40
LGA/6C/110VD	5000	6PDT	5	12.60



SPECIAL PURPOSE TYPES

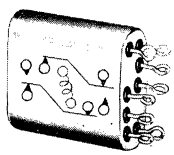
MK SERIES Ultra-small and feather-light, these direct current devices require less than ½ cubic inch mounting space. All switching is entirely above ground . . . insulated material is silicone glass. Beryllium copper armature hinges assure stable performance under vibration and shock.

Dimensions: H. 51/64", W. 41/64", L. 53/64".

Mounting Data: Relay supplied with single 2-56 NC-2 machine screw.

Weight: 11 grams.

TYPE	COIL RESISTANCE	FORM	CONTACTS RATING (AMPS)	NET
MK/1C/6VD	50	SPDT	1	4.95
MK/1C/12VD	200	SPDT	1	4.95
MK/1C/24VD	800	SPDT	1	4.95
MK/2C/6VD	30	DPDT	1	5.95
MK/2C/12VD	120	DPDT	1	5.95
MK/2C/24VD	500	DPDT	1	5.95
MK/2C/5000D	5000	DPDT	1	6.95



MICRO-MINIATURE CRYSTAL CAN TYPES

MV SERIES Hermetically sealed rotary action DPDT (2 Form C) DC relay for severe military and industrial applications. All units are designed to meet requirements of MIL-R-5757 D. Occupies ¼ cubic inch. Contains new spring leaf contact blades which insure longer life with rapid heat dissipation. This Series, except MV7033, is available from stock with wide variety of terminal and mounting arrangements (see ordering information). MV7033 meets requirements of USAF Specification MS24250-6 (USAF) and is available from stock with solder hooks and special side angle mounting brackets only.

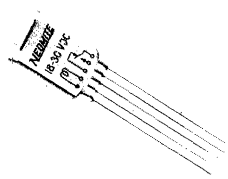
ORDERING INFORMATION
All relays listed here except MV7033 are available with any of the following terminal and mounting arrangement combinations.

TERMINAL ARRANGEMENT		MOUNTING ARRANGEMENT	
Solder-Hook	Code 1	Side Studs	Code 1
Plug-in Pin	Code 2		
3" Leads	Code 3 (add .35)	Top Studs	Code 2
		2 Hole Bracket	Code 3
		Plain Can Plug-in	Code 4
		4 Hole Bracket	Code 5
		Side Angle Brackets	Code 6
		Flange Bracket	Code 7

EXAMPLES:

1. Solder-hook terminals with side angle mounting brackets with 12 volt DC coil MV/2C/120D-16 Price: 13.50
2. 3" leads, top studs with 110 volt DC coil MV/2C/5000D-3; Price: 13.90 + .35 for 3" leads = 14.25

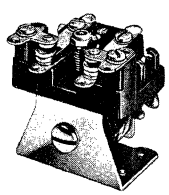
TYPE	RESISTANCE (OHMS)	PULL-IN CURRENT MAX. (MA)	COIL NOMINAL VOLTAGE (VDC)	NET
MV/2C/30D	30	85	6	13.5(
MV/2C/120D	120	44	12	13.5(
MV/2C/600D	600	21	26	13.5(
MV/2C/1000D	1000	16	35	13.5(
MV/2C/2500D	2500	10	55	13.6(
MV/2C/5000D	5000	7	78	13.9(
MVT/2C/10000D	10000	5	110	14.5
MV7033	600	21	26.5	13.5



NEOMITE MICRO-MINIATURE TYPES

NM SERIES Hermetically sealed SPDT (form C) DC relay for missiles, aircraft, control equipment and printed circuits. Occupying only 0.04 of a cubic inch, it is ideal where space is at a minimum and long life is important. Contact resistance is extraordinarily low, making it invaluable in dry circuit switching. Available from stock with a screw down mounting bracket or a bend-over-tab mounting bracket for printed circuit board use.

TYPE	RESISTANCE (OHMS)	PULL-IN CURRENT MAX. (MA)	COIL NOMINAL VOLTAGE (VDC)	NE
NM/1C/50	50	44	4	21.(
NM/1C/200	200	22	8	21.(
NM/1C/500	500	14	12	21.(
NM/1C/1K	1000	10	16	21.(
NM/1C/2K	2000	7	24	21.(
6B 346000 Two hole Bracket				.
6B 347000 Tab Bracket				.



POWER TRANSFER TYPES

PG SERIES A continuous duty general purpose relay, available in AC or DC with DPDT (2C) and SPDT-DB (1Z) contact arrangements. Excellent for general industrial power control circuits and withstand vibration and shock because of special armature and frame design. 30 amp contact rating is achieved on the PG/1Z by including a jumper between blades, effecting a single pole design.

Dimensions: H. 1⅞", W. 1⅝", L. 1½".

Mounting Data: 4 tapped holes 6-32 NC-2; ½" x 1-5/16" centers.

Weight: 4.4 oz.

TYPE	COIL RESISTANCE (OHMS)	FORM	CONTACTS RATING (AMPS)	NI
PG/2C/6VA	1.4	DPDT	15	7
PG/2C/24VA	25	DPDT	15	7
PG/2C/115VA	400	DPDT	15	7
PG/2C/220VA	1600	DPDT	15	7
PG/2C/6VD	16	DPDT	15	6
PG/2C/12VD	63	DPDT	15	6
PG/2C/24VD	250	DPDT	15	6
PG/1Z/6VD	16	SPDT	30	8
PG/1Z/115VA	400	SPDT	30	10

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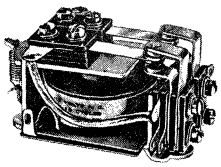
Net

PHILLIPS-ADVANCE CONTROL CO.



POWER TYPES

PC SERIES Compact and positive-acting relays for either AC or DC. Used in air conditioning and lighting systems, small motor starting, transformers, garage door openers—wherever dependable circuit switching is necessary. Contacts rated at 15 Amps resistive, 5 Amps inductive at 115VAC or 26.5 VDC.

Dimensions: H. 1⅛", W. 1⅝", L. 2⅝"—1 & 2 hole.
H. 1⅛", W. 2¾", L. 3⅜"—3 & 4 hole.

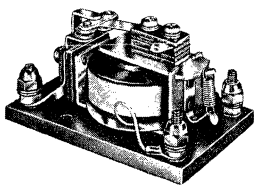
Mounting Data: 2 tapped holes 6-32 NC-2; 2" centers.

Weight: 8 oz.

TYPE	COIL RESISTANCE (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
PC/3C/12VD	63	3PDT	15	8.45
PC/3C/24VD	250	3PDT	15	8.45
PC/3C/110VD	4000	3PDT	15	8.95
PC/4C/6VA	1.6	4PDT	15	10.95
PC/4C/24VA	16	4PDT	15	10.95
PC/4C/115VA	450	4PDT	15	10.95
PC/4C/220VA	1600	4PDT	15	12.45
PC/4C/6VD	16	4PDT	15	10.95
PC/4C/12VD	63	4PDT	15	10.95
PC/4C/24VD	250	4PDT	15	10.95
PC/4C/110VD	4000	4PDT	15	11.45

Note: PC/3C and PC/4C not available in 12 volts AC.

TYPE	COIL RESISTANCE (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
PC/1C/6VA	1.6	SPDT	15	3.95
PC/1C/12VA	4	SPDT	15	3.95
PC/1C/24VA	16	SPDT	15	3.95
PC/1C/115VA	450	SPDT	15	3.95
PC/1C/220VA	1600	SPDT	15	4.95
PC/1C/6VD	16	SPDT	15	3.95
PC/1C/12VD	63	SPDT	15	3.95
PC/1C/24VD	250	SPDT	15	3.95
PC/1C/110VD	4000	SPDT	15	4.45
PC/2C/6VA	1.6	DPDT	15	5.95
PC/2C/12VA	4	DPDT	15	5.95
PC/2C/24VA	16	DPDT	15	5.95
PC/2C/115VA	450	DPDT	15	5.95
PC/2C/220VA	1600	DPDT	15	6.95
PC/2C/6VD	16	DPDT	15	5.95
PC/2C/12VD	63	DPDT	15	5.95
PC/2C/24VD	250	DPDT	15	5.95
PC/2C/110VD	4000	DPDT	15	6.55
PC/3C/6VA	1.6	3PDT	15	8.45
PC/3C/24VA	16	3PDT	15	8.45
PC/3C/115VA	450	3PDT	15	8.45
PC/3C/220VA	1600	3PDT	15	9.65
PC/3C/6VD	16	3PDT	15	8.45



POWER TYPES

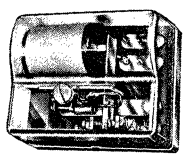
PV SERIES Very heavy-duty power-transfer relays—excellent for motor starting, lighting circuits and numerous applications where heavy double make contacts are needed. "T" blade is equipped with two 5/16" silver-cadmium oxide contacts, with ample contact gap. These contacts minimize pitting and burning under heavy non-inductive or inductive loads.

Dimensions: H. 1⅝", W. 2¼", L. 3¼".

Mounting Data: 2 holes .169 dia. clearance for 8-32 NC-2 screws, 1⅞" centers.

Weight: 6.8 oz.

TYPE	COIL RESISTANCE (OHMS)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
PV/1X/6VD	16	SPST-NO	30	7.35
PV/1X/115VA	450	SPST-NO	30	7.70
PV/1Z/6VD	16	SPDT	30	8.55
PV/1Z/115VA	450	SPDT	30	8.70



SENSITIVE TYPES

SV SERIES For use in any DC circuit restricted to a few thousandths of a watt power consumption.

Transparent, molded plastic cover guards against dust or dirt reaching the contacts or other working parts.

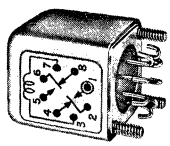
Adjustments are quickly made with the vernier screws which vary relay sensitivity from the 5-milliwatt factory setting. Both the two stationary contacts and the spring tension can be accurately and permanently set—yet easily changed.

Dimensions: H. 1½", W. 2", L. 2⅝".

Mounting Data: 2 holes .52 dia.

Weight: 6.5 oz.

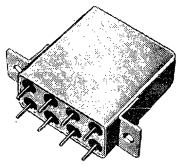
TYPE	COIL RESISTANCE (OHMS)	COIL CURRENT (MA)	CONTACTS FORM	CONTACTS RATING (AMPS)	NET
SV/1C/.005D	.005	1000	SPDT	1	7.95
SV/1C/1000D	1000	2.25	SPDT	1	8.25
SV/1C/1600D	1600	1.80	SPDT	1	8.40
SV/1C/2200D	2200	1.50	SPDT	1	8.40
SV/1C/3500D	3500	1.20	SPDT	1	8.40
SV/1C/5500D	5500.	0.95	SPDT	1	8.75
SV/1C/8700D	8700	0.75	SPDT	1	9.40
SV/1C/10000D	10000	0.70	SPDT	1	9.40
SV/1C/14000D	14000	0.60	SPDT	1	10.10
SV/1C/20000D	20000	0.50	SPDT	1	11.10
SV/1C/30000D	30000	0.40	SPDT	1	11.85
SV/1C/40000D	40000	0.35	SPDT	1	13.30



MINIATURE ROTARY TYPE

VGS SERIES Miniature sealed rotary action DPDT (2 form C) relay for missile and aircraft use. A more sensitive version of its forerunner, the VG. VGS occupies less than a cubic inch of space and withstands 15 G's to 2000 cycles vibration, utilizing only 125 milliwatts of power at 25 degrees C. Contacts rated at 5 amps resistive at 115 VAC or 26.5 VDC. Contact material is silver magnesium nickel alloy, gold flashed.

TYPE	COIL RESISTANCE (OHMS)	NET
VGS/2C/2000D	2000	22.50



HIGH SHOCK AND VIBRATION CRYSTAL CAN RELAY

VR SERIES A 0.2 inch grid-spaced hermetically sealed relay, designed to meet the requirements of Military Specification MIL-R-5757D. Will withstand 35 G's vibration and 100 G's shock. The standard catalog item has a pull-in power of 250 milli-watts at 25 degrees C, and a nominal operating power of 1.25 watts. The double-pole double-throw contacts are of silver magnesium nickel, gold plated and have a rating of 3 amperes resistive at 28 volts DC or 115 volts AC.

TYPE	COIL RESISTANCE (OHMS)	NET
VR/2C/35D-10	35	13.00
VR/2C/35D-24	35	13.00
VR/2C/125D-10	125	13.00
VR/2C/125D-12	125	13.00
VR/2C/125D-13	125	13.00
VR/2C/125D-14	125	13.00
VR/2C/125D-24	125	13.00

TYPE	COIL RESISTANCE (OHMS)	NET
VR/2C/125D-31	125	13.00
VR/2C/125D-34	125	13.00
VR/2C/675D-10	675	13.00
VR/2C/675D-11	675	13.00
VR/2C/675D-12	675	13.00
VR/2C/675D-13	675	13.00
VR/2C/675D-14	675	13.00
VR/2C/675D-20	675	13.00
VR/2C/675D-24	675	13.00
VR/2C/675D-33	675	13.00
VR/2C/675D-34	675	13.00
VR/2C/1500D-24	1500	13.00
VR/2C/2450D-14	2450	13.10
VR/2C/2450D-24	2450	13.10
VR/2C/9100D-24	9100	14.00
VR/2C/9100D-31	9100	14.00

Net

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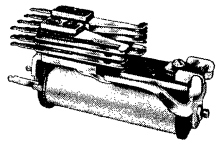
LONG FRAME TELEPHONE TYPES



TYPE 2 Dependable and versatile, the Type 2 is the "workhorse" of relays. It operates millions of times with reliability and requires little attention during its long life. An unusually large number of variations in contact assemblies, contact materials, coils, adjustments, and mounting arrangements are available.

On special order:

Operating Voltage: Up to 750 volts DC. Up to 440 volts AC, 60 cycles.

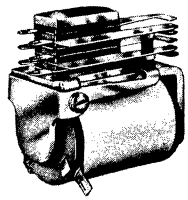
Resistance: Up to 50,000 ohms, single or double wound.

Standard Contacts: 18 ga. palladium, rated 3 amps, 150W. resistive.

Type	Coil Voltage	Contact Arrange.	Coil Res. (Ohms)	Operate Curr. (Amps)	Operate Time (Sec.)	Net
2DC-6-2C	6	DPDT	50	.048	.030	7.20
2DC-6-6C	6	6PDT	50	.090	.065	11.20
2DC-24-2C	24	DPDT	600	.015	.025	7.50
2DC-24-6C	24	6PDT	600	.024	.050	11.50
2DC-48-4C	48	4PDT	2,000	.011	.040	7.70
2DC-48-6C	48	6PDT	2,000	.013	.050	11.70
2DC-115-1C	115	SPDT	3,600	.0045	.010	7.00
2DC-115-3C	115	3PDT	3,600	.008	.015	9.25
2DC-230-2C	230	DPDT	10,000	.004	.010	8.80
2DC-230-4C	230	4PDT	10,000	.006	.050	10.80

Type	Coil Voltage	Contact Arrange.	Coil Res. (Ohms —DC)	Curr. Drain (Amps—AC)	Pick-up Volt. 60 Cy.	Net
2AC-6-C	6	SPDT	0.2	1	4.5	7.10
2AC-6-4C	6	4PDT	0.2	1	4.5	8.60
2AC-24-2C	24	DPDT	4	.24	21	7.55
2AC-24-4C	24	4PDT	4	.24	21	8.60
2AC-115-1C	115	SPDT	100	.08	100	7.50
2AC-115-3C	115	3PDT	100	.08	100	9.70

SHORT FRAME TELEPHONE TYPES

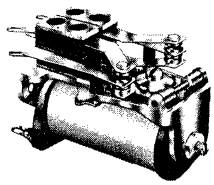


TYPE 4 Relays constructed on the same general design of compact assembly and possess similar specifications The heelpiece, armature and coil core are made of annealed magnetic iron, with the heelpiece acting as a return pat for the magnetic circuit. The armature is pivoted on long-life bearings to insure constant pickup and drop-out adjust ment. Standard relays are supplied with solder terminals for contact springs and coils.

Standard Contacts: 18 ga. palladium, rated 3 amps, 150W. resistive.

TYPE	CONTACT ARRANGE.	COIL RES. OHMS	NET
4CDC-6-2C	DPDT	30	5.30
4CDC-12-2C	DPDT	75	5.30
4CDC-24-2C	DPDT	425	5.30
4CDC-115-2C	DPDT	6500	5.80
4CDC-6-4C	4PDT	30	7.05
4CDC-12-4C	4PDT	75	7.05
4CDC-24-4C	4PDT	425	7.05
4CDC-115-4C	4PDT	6500	7.65
4CDC-12-6C	6PDT	75	8.60
4CDC-24-6C	6PDT	425	8.65
4CDC-115-6C	6PDT	6500	9.20

MEDIUM FRAME TELEPHONE TYPES



TYPE 8 Small versatile multi-contact telephone type relays. Available with many variations in coils, contact assem blies, contact ratings, adjustments, terminal arrangements and mountings for a variety of applications. Standard cor tact blades are made of spring temper nickel silver, designed to give true independent twin contact operation. Fo special applications, other materials and configurations are used for contact blades.

Coil Characteristics:

Operating Voltage: Up to 300 volts D. C., 115 volts A. C., 60 or 400 cycles.

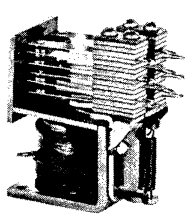
Resistance: Up to 21,000 ohms. Single or double wound.

Standard Contacts: Twin palladium, rated 4 amps, 175W. resistive.

TYPE (DC)	COIL RES. (OHMS)	OPERATE CURR. (AMPS)	WATTS	OPERATE TIME (SEC.)	NET
8DC-12-4C	100	.072	.518	.022	8.25
8DC-12-6C	100	.100	1.0	.030	11.30
8DC-24-4C	300	.046	.635	.020	8.25
8DC-24-6C	300	.064	1.23	.025	11.30
8DC-115-4C	8000	.010	.80	.023	9.80
8DC-115-6C	8000	.012	1.15	.023	12.15

TYPE (AC)	COIL RES. (OHMS)	CURR. DRAIN (AMPS)	PICK-UP VOLT. 60 CY.	NET
8AC-115-2C	400	.075	95	6.3(
8AC-115-4C	400	.075	95	8.9(

GENERAL PURPOSE TYPES



TYPE 12 Low cost general purpose relay with multiple contacts. Used widely in commercial applications such a industrial controls, communications equipment, and automatic vending machines. On special order available in resis ances up to 12,000 ohms. AC or DC, 230 volts, maximum. Coil dissipation, 3 watts maximum.

Dimensions: H. 2 3/16"; L. 1 23/32"; W. 1".

Mounting: Single stud, four mounting holes.

Standard Contacts: 3/16" silver.

TYPE	COIL VOLTAGE (DC)	CONTACT ARRANGE.	RATING (AMPS)	NET
12DC-6-2C-10	6	DPDT	10	2.30
12DC-12-2C-10	12	DPDT	10	2.40
12DC-24-2C-10	24	DPDT	10	2.50
12DC-115-2C-10	115	DPDT	10	2.80
12DC-6-3C-10	6	3PDT	10	3.00
12DC-12-3C-10	12	3PDT	10	3.10
12DC-24-3C-10	24	3PDT	10	3.15
12DC-115-3C-10	115	3PDT	10	3.50
12DC-6-4C-10	6	4PDT	10	3.00
12DC-12-4C-10	12	4PDT	10	3.10
12DC-24-4C-10	24	4PDT	10	3.15
12DC-115-4C-10	115	4PDT	10	3.50
12DC-6-6C-10	6	6PDT	10	3.50
12DC-12-6C-10	12	6PDT	10	3.60
12DC-24-6C-10	24	6PDT	10	3.65
12DC-115-6C-10	115	6PDT	10	4.00

TYPE	COIL VOLTAGE (AC)	CONTACT ARRANGE.	RATING (AMPS)	NE
12AC-6-2C-10	6	DPDT	10	2.4(
12AC-12-2C-10	12	DPDT	10	2.5
12AC-24-2C-10	24	DPDT	10	2.5
12AC-115-2C-10	115	DPDT	10	2.7
12AC-6-3C-10	6	3PDT	10	2.7
12AC-12-3C-10	12	3PDT	10	2.8
12AC-24-3C-10	24	3PDT	10	2.9
12AC-115-3C-10	115	3PDT	10	3.1
12AC-6-4C-10	6	4PDT	10	3.1
12AC-12-4C-10	12	4PDT	10	3.1
12AC-24-4C-10	24	4PDT	10	3.2
12AC-115-4C-10	115	4PDT	10	3.4
12AC-6-6C-10	6	6PDT	10	3.6
12AC-12-6C-10	12	6PDT	10	3.6
12AC-24-6C-10	24	6PDT	10	3.7
12AC-115-6C-10	115	6PDT	10	3.9

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Net

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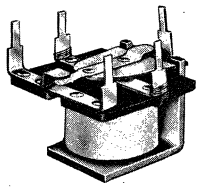
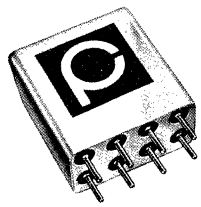


GENERAL PURPOSE TYPES

TYPE 15 A small economical unit designed for printed circuit or screw mounting. 200 milliwatts nominal operating power. Available form 1C only.
Dimensions: H. 0.781"; L. 1 1/16"; W. 1".
Mounting: Single 9/32" tapped hole.

TYPE	COIL VOLTAGE	COIL RES.	CONTACT RATING (AMPS)	NET
15-6-1C	6	85	1	1.50
15-12-1C	12	300	1	1.50
15-24-1C	24	1100	1	1.50

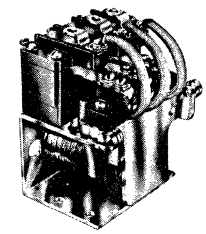


MICRO-MINIATURE TYPES

TYPE 30 Phillips micro-miniature Type 30 provides rugged, dependable performance from a compact, hermetically sealed relay. It is ideal for applications involving computer systems, missile or aircraft control circuits, communications equipment and general electronic circuitry.

Quality controlled production and precision components assembled and tested under dust-free, super clean manufacturing conditions assures you that the Phillips micro-miniature Type 30 will uphold the high quality standards of your products. Conforms to MIL-5757 D. Meets the following low level requirements: 30 microvolts open circuit voltage; 10 microamperes contact current.

Type	Mounting	Res.	Volt. Nom.	Net
30-01G	Solder Header with 2 Mounting Brackets	675	26.5	7.25
30-02G	Solder Header with Side Bracket	675	26.5	7.25
30-04G	Solder Header with 2 Side Studs	675	26.5	7.25
30-05G	Solder Header with 2 Top Studs	675	26.5	7.25
30-07G	Plug In—Plain Can	675	26.5	7.25



POWER TYPES

TYPE 33B Designed and constructed with a variety of features which contribute to the sensitivity and longevity of this relay. Contacts and terminals are mounted on molded phenolic blocks with integral barriers. Moveable contact blades are made of spring temper phosphor bronze for high conductivity and long life. Adjusting screws on each blade permit close adjustment in the factory for contact gap, over-travel, and pressure. Armature pivots on machined phosphor bronze bearing pins and pivot holes are precision reamed. Adjustment of the armature and yoke assembly allows proper alignment between the armature and pole face. Four 6-32 N. C. tapped mounting holes in the base allow easy mounting on chassis or bracket.

Coil Characteristics:
Operating Voltage: Up to 300 volts D. C. Up to 450 volts A. C., 60 cycles.
Resistance: Up to 12,000 ohms.
Operating Current: 0.007 amps D. C., minimum.
Operating Time: 0.010 seconds, minimum.
Contact Assembly: All forms A, B, or C plus double makes, breaks and transfers. Code No. 13 or 14 silver contacts, standard. Other contacts available.

*Stock numbers are coded—
Relay Type 33B—AC or DC—nominal voltage 24—
Contact assembly 5C—contacts Code 14

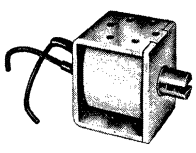
A type 33B Relay for 24 volt DC operation with a 4C contact assembly using Code number 14 contacts.

Type (DC)	Coil Res. (Ohms)	Operate Curr. (Amps)	Watts	Operate Time (Sec.)	Contact Arrange.	Net
33BDC-6-3C-14	18	.185	.62	.019	3PDT	6.60
33BDC-6-5C-14	18	.225	.91	.025	5PDT	8.10
33BDC-24-3C-14	250	.064	1.02	.025	3PDT	6.60
33BDC-24-5C-14	250	.070	1.22	.029	5PDT	8.10
33BDC-230-3C-14	10,000	.010	1.0	.014	3PDT	8.60
33BDC-230-5C-14	10,000	.011	1.21	.016	5PDT	10.10

Type (AC)	Coil No.	Coil Res. (Ohm —DC)	Curr. Drain (Amps)	Pick-up Volt. 60 Cy.	Contact Arrange.	Net
33BAC-6-3C-14	33CA3F	1	.720	4.5	3PDT	6.60
33BAC-6-5C-14	33CA3F	1	.720	4.5	5PDT	8.10
33BAC-24-3C-14	33CA3K	9	.390	21	3PDT	6.60
33BAC-24-5C-14	33CA3K	9	.390	21	5PDT	8.10
33BAC-115-3C-14	33CA3Q	215	.070	100	3PDT	9.10
33BAC-115-5C-14	33CA3Q	215	.070	100	5PDT	10.60

SOLENOIDS

TYPES 38, 39, 40, 41, 42, 51 Solid frame solenoids using high-grade steel in all parts of the magnetic circuit. Carefully controlled annealing, after all machining operations are completed, assures maximum efficiency. The frame is dovetailed and staked to the end plate, adding mechanical strength and increasing the performance of the magnetic circuit. Plungers and plunger stops, which are made of annealed and specially processed steel, are available in three standard types for specific operating requirements. Type 51 is a laminated frame solenoid and has been designed and engineered to meet all of the requirements of the highest quality A. C. solenoid. Special production techniques and rigid quality control combine to provide a highly efficient unit. The frame is composed of silicon steel laminations securely riveted to a steel frame. Pole faces are precision ground and equipped with copper shading rings. Silicon steel laminations are also used for the plunger.



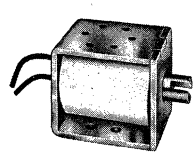
TYPE 38

DC SOLENOIDS

CONTINUOUS DUTY Type	Volt.	Coil Res.	Net	25% INTERMITTENT DUTY Type	Volt.	Coil Res.	Net
38C06DC-AY	6	6	4.50	—	—	—	—
38C12DC-AY	12	21	4.50	382512DC-AY	12	6	4.50
38C24DC-AY	24	66	4.50	382524DC-AY	24	21	4.50
38C48DC-AY	48	300	4.50	382548DC-AY	48	66	4.50
38C115DC-AY	115	1500	4.50	3825115DC-AY	115	400	4.50

AC SOLENOIDS

CONTINUOUS DUTY Type	Volt.	Coil Res.	Net	25% INTERMITTENT DUTY Type	Volt.	Coil Res.	Net
38C0660-AX	6	0.75	4.50	—	—	—	—
38C1260-AX	12	2.5	4.50	38251260-AX	12	0.75	4.50
38C2460-AX	24	10	4.50	38252460-AX	24	2.5	4.50
38C11560-AX	115	135	4.50	382511560-AX	115	50	4.50
38C23060-AX	230	470	4.50	382523060-AX	230	135	4.50



TYPE 39

DC SOLENOIDS

CONTINUOUS DUTY Type	Volt.	Coil Res.	Net	25% INTERMITTENT DUTY Type	Volt.	Coil Res.	Net
39C06DC-AY	6	4	5.10	—	—	—	—
39C12DC-AY	12	10	5.10	392512DC-AY	12	4	5.10
39C24DC-AY	24	60	5.10	392524DC-AY	24	10	5.10
39C48DC-AY	48	250	5.10	392548DC-AY	48	60	5.10
39C115DC-AY	115	1600	5.10	3925115DC-AY	115	300	5.10

AC SOLENOIDS

CONTINUOUS DUTY Type	Volt.	Coil Res.	Net	25% INTERMITTENT DUTY Type	Volt.	Coil Res.	Net
39C0660-AX	6	.4	5.10	—	—	—	—
39C1260-AX	12	1.5	5.10	39251260-AX	12	.4	5.10
39C2460-AX	24	7	5.10	39252460-AX	24	1.5	5.10
39C11560-AX	115	105	5.10	392511560-AX	115	30	5.10
39C23060-AX	230	400	5.10	392523060-AX	230	105	5.10

Net
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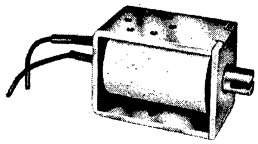
PHILLIPS-ADVANCE CONTROL CO.



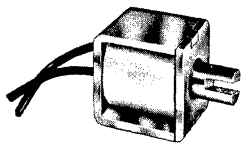
TYPE 40

DC SOLENOIDS

CONTINUOUS DUTY				25% INTERMITTENT DUTY			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
40C06DC-AY	6	3.6	6.00	—	—	—	—
40C12DC-AY	12	12	6.00	402512DC-AY	12	3.6	6.00
40C24DC-AY	24	47.5	6.00	402524DC-AY	24	12	6.00
40C48DC-AY	48	225	6.00	402548DC-AY	48	47.5	6.00
40C115DC-AY	115	1570	6.00	4025115DC-AY	115	417	6.00

AC SOLENOIDS

CONTINUOUS DUTY				25% INTERMITTENT DUTY			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
40C0660-AX	6	0.8	6.00	—	—	—	—
40C1260-AX	12	1.5	6.00	40251260-AX	12	0.8	6.00
40C2460-AX	24	8.8	6.00	40252460-AX	24	1.5	6.00
40C11560-AX	115	84	6.00	402511560-AX	115	25	6.00
40C23060-AX	230	417	6.00	402523060-AX	230	84	6.00



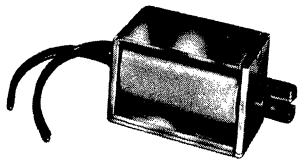
TYPE 41

DC SOLENOIDS

CONTINUOUS DUTY				25% INTERMITTENT DUTY			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
41C06DC-AU	6	12	4.10	—	—	—	—
41C12DC-AU	12	60	4.10	412512DC-AU	12	12	4.10
41C24DC-AU	24	200	4.10	412524DC-AU	24	60	4.10
41C48DC-AU	48	830	4.10	412548DC-AU	48	200	4.10
41C115DC-AU	115	4500	4.10	4125115DC-AU	115	1400	4.10

AC SOLENOIDS

CONTINUOUS DUTY				25% INTERMITTENT DUTY			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
41C0660-AX	6	1	4.10	—	—	—	—
41C1260-AX	12	10	4.10	41251260-AX	12	1	4.10
41C2460-AX	24	45	4.10	41252460-AX	24	10	4.10
41C11560-AX	115	740	4.10	412511560-AX	115	230	4.10
41C23060-AX	230	2700	4.10	412523060-AX	230	740	4.10



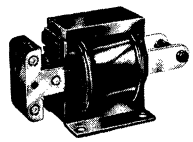
TYPE 42

DC SOLENOIDS

CONTINUOUS DUTY				25% INTERMITTENT DUTY			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
42C06DC-AU	6	8	4.50	—	—	—	—
42C12DC-AU	12	30	4.50	422512DC-AU	12	8	4.50
42C24DC-AU	24	115	4.50	422524DC-AU	24	30	4.50
42C48DC-AU	48	420	4.50	422548DC-AU	48	115	4.50
42C115DC-AU	115	2300	4.50	4225115DC-AU	115	675	4.50

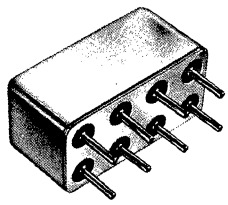
AC SOLENOIDS

CONTINUOUS DUTY				25% INTERMITTENT DUTY			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
42C0660-AX	6	1	4.50	—	—	—	—
42C1260-AX	12	3.5	4.50	42251260-AX	12	1	4.50
42C2460-AX	24	30	4.50	42252460-AX	24	3.5	4.50
42C11560-AX	115	370	4.50	422511560-AX	115	125	4.50
42C23060-AX	230	1100	4.50	422523060-AX	230	370	4.50



TYPE 51 AC SOLENOIDS

CONTINUOUS DUTY				25% INTERMITTENT DUTY			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
51C11560	115	30	7.20	512511560	115	15	7.20
51C23060	230	150	7.20	512523060	230	65	7.20
51C46060	460	650	7.20	512546060	460	285	7.20

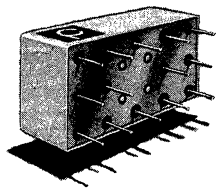


MICRO-MINIATURE HALF SIZE TYPES

TYPE 62 A unique half-size microminiature relay having these eleven specific advantages: (1) diagonally mounted coil allows larger coil for greater sensitivity; (2) uniquely designed armature assures maximum sensitivity and magnetic uniformity; (3) massive pole pieces provide higher heat dissipation; (4) contacts of gold-flashed silver magnesium nickel for high temperature stability and low level performance; (5) single coil design provides greater reliability (6) single stamping forms integral return spring and back stop. Fewer parts, greater dependability; (7) Welded, spade type coil terminations; (8) greater rigidity thru unitized, welded construction; (9) designed for optimum magnetic characteristics; (10) balanced armature provides higher resistance to vibration and shock; (11) sensitivity level below 200 milliwatts.

Dimensions: H. 0.400"; L. 0.390"; W. 0.800".

Type	Res.	Contacts	Volt.	Style	Net
62-01-G	700	DPDT	26.5	Solder Header with 2 Mounting Brackets	14.25
62-07-G	700	DPDT	26.5	Plug In—Plain Can	14.25



MICRO-MINIATURE 4 POLE—HALF SIZE TYPES

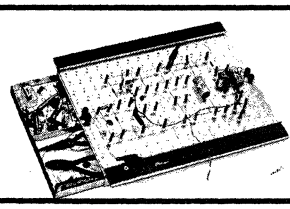
TYPE 64 The Type 64 embodies engineering advances truly unique among today's four-pole, double throw relays—twice the versatility of conventional 2PDT's, half the size of conventional 4PDT's, with no sacrifice in performance. Designed specifically to meet aero-space needs, the Type 64 features all-welded construction and "Thermo-Dri" nitrogen backfilling to assure contamination-free operation. Symmetrical circuitry simplifies wiring. Available in various coil resistances and all popular header styles. Meets MIL-R-5757/12A.

Type	Res.	Contacts	Voltage	Style	Net
64-01-H	500	4PDT	26.5	Solder Header with Mounting Brackets	24.50
64-07-H	500	4PDT	26.5	Plug In—Plain Can	24.50

SENSITIVE MICRO-MINIATURE TYPES

TYPE 80 A 40 milliwatt micro-miniature relay using latest manufacturing techniques, including back-filling with "Thermo-Dri" nitrogen and precise adjustments to obtain an operate time of less than 10 milliseconds. This unit meets all requirements of military specifications, MIL-R-5757/13A. Vibration, 20 G's through 2000 CPS. Shock, 65 G's for 1 milliseconds. Operating temperature range, —65 C to +125 C.

Type	Res. (Ohms)	Contact Rating (Amps)	Voltage	Style	Net
80-01-S	5000	3	26.5	Solder Header with Mounting Brackets	13.00
80-07-S	5000	3	26.5	Plug In—Plain Can	13.00



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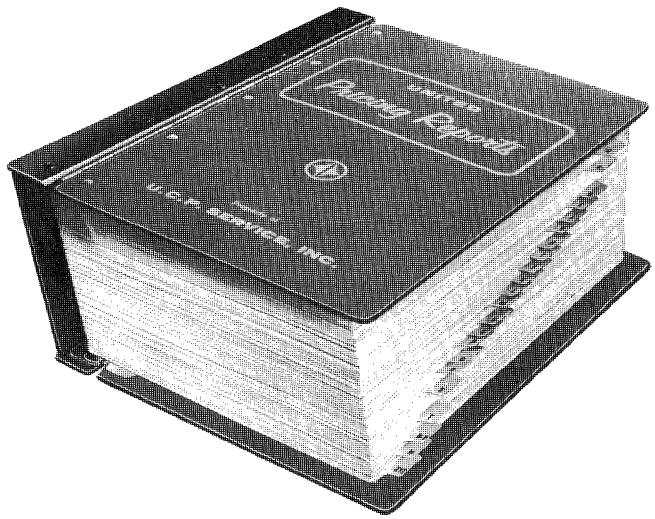

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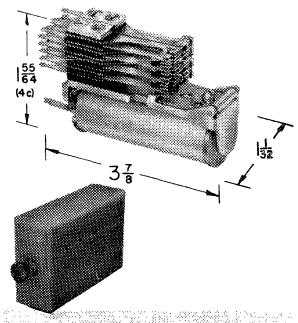
KEY TO SUFFIXES

SUFFIX	STANDS FOR	EXAMPLE	SUFFIX	STANDS FOR	EXAMPLE
A	— Alternating Current	BS17A	N	— Neon Light	KRP11AN
D	— Direct Current	BS17D	P	— Enclosed in Plastic Dust Cover	MG11DP
DD	— DC in a sealed "D" can	MH23DD	R	— With Built-in Rectifier	MH17AMR
G	— Silver Cad.-Oxide Contacts	KRP5AG	S	— Sealed in can	PW5DS, SM5DS
L	— Plate Circuit	SM5L	T	— Sealed in "T" can	MG11DT
M	— Sealed in "M" can	MH17DM	Y	— U/L Listed	AB11AY

TELEPHONE TYPE RELAYS

BS SERIES Long coil telephone type. Suited for computer and automatic test equipment applications requiring large numbers of poles. Tinned, pierced solder type terminals for rear panel wiring. Mounting: Two No. 8-32 NC 2B tapped holes on ¾" centers. Contacts arms: Bifurcated with 1/16" dia. twin palladium contacts. Weight: Approximately 9 ozs.

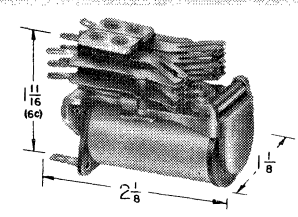
BS DUST COVER Two sizes of sheet metal enclosures. Small size for BS relays up to 6 Form C (6PDT, BS23), measures: H: 2 3/16", W: 1¼", L: 3 27/32" exclusive ⅝" knob; weight: 6.5 ozs. Medium size for up to 10 Form C, measures: H: 2⅝", other dimensions same as small size; weight: 7 ozs.
35D188, Small size NET $1.80
35D189, Medium size NET $1.80



TYPE	COILS Voltage or Current	Resistance in Ohms	Nominal Power	CONTACTS Arrangement	Rate in Amps	NET
BS17A	**115V**	**71**	**17.9VA**	**4PDT**	**4**	**$ 9.00**
BS17D	24V	1,000	576MW	4PDT	4	7.40
BS17D	110V	6,500	1.8W	4PDT	4	8.00
BS17L	5.5MA	10,000	300MW	4PDT	4	8.00
BS23A	115V	71	17.9VA	6PDT	4	10.50
BS23D	24V	1,000	576MW	6PDT	4	8.95
BS23D	110V	6,500	1.8W	6PDT	4	9.50
BS23L	7.6MA	10,000	600MW	6PDT	4	9.50

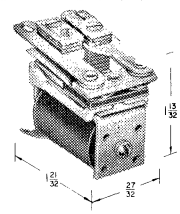
SPECIFY COIL VOLTAGE OR RESISTANCE WHEN ORDERING

LS SERIES Short springs and light weight armature provide fast action without sacrificing reliability and long life. Stainless steel hinge bearing designed to give 100 million operations. Tinned, pierced solder type terminals. Mounting: Two No. 6-32 tapped holes on ¾" centers. Bifurcated contact arms with 1/16" dia. twin palladium contacts. Weight: Approximatel ⅓ ozs.



LS17D	**24V**	**300**	**1.8W**	**4PDT**	**4**	**5.60**
LS17D	48V	1,300	1.8W	4PDT	4	5.75
LS17D	110V	8,000	1.8W	4PDT	4	6.00
LS23D	24V	300	1.8W	6PDT	4	6.80
LS23D	48V	1,300	1.8W	6PDT	4	6.95
LS23D	110V	8,000	1.8W	6PDT	4	7.20

MB SERIES Miniature DC contactor. Designed for very high current applications. Extra rugged construction insures long life. Handles 150 ampere surges for 0.3 sec. Contact arms: Stationary, heavy brass, ¼" dia. silver contacts pierced solder terminals. Movable, ¼" x 13/16" silver bar contact. Mounting: Four No. 3-48 tapped holes on ⅜" x ⅜" centers. Weight: 2 ozs.



MB3D	**6V**	**13.3**	**2.7W**	**SPST-NO-DB**	**60**	**$ 5.40**
MB3D	12V	62.3	2.7W	SPST-NO-DB	60	5.50
MB3D	24V	245	2.7W	SPST-NO-DB	60	5.50
MB3D	110V	5,000	2.7W	SPST-NO-DB	60	5.90

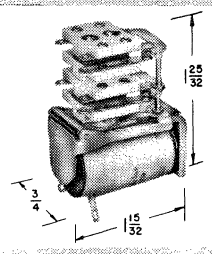
POTTER & BRUMFIELD DIVISION AMERICAN MACHINE & FOUNDRY COMPANY
PRINCETON, INDIANA

8-64

Potter & Brumfield Relays

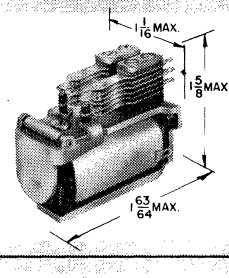
TELEPHONE TYPE RELAYS

MC SERIES Built with ceramic contact spaces for RF switching to minimize losses at high frequencies. Intercontact capacitance 1.5 mmfd. max. Tinned, pierced solder type terminals. Mounting: Four No. 3-48 tapped holes on ⅜" x ⅜" centers. Contacts: 3/32" dia. palladium. Weight: 2 oz.



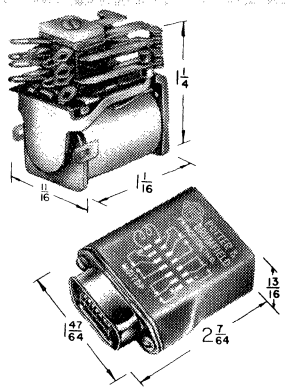
TYPE	COILS			CONTACTS		SUGG. LIST PRICE
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
MC5A	**6V**	**2.5**	**4.6VA**	**SPDT**	**1**	**$ 5.00**
MC5A	115V	800	4.6VA	SPDT	1	5.00
MC5D	12V	96	1.6W	SPDT	1	4.40
MC5D	24V	365	1.6W	SPDT	1	4.40
MC11A	115V	800	4.6VA	DPDT	1	6.90
MC11D	12V	96	1.6W	DPDT	1	6.35
MC11D	24V	365	1.6W	DPDT	1	6.35
MC11D	110V	6,200	1.6W	DPDT	1	6.85

MF SERIES Unusually low coil temperature rise is an inherent feature of this efficient AC miniature telephone type relay. The rise does not exceed 20°C for a 4 Form C relay with continuous operation at 115V AC 50/60 cycles @ 25°C. The MF is economical since even a large number in an enclosed chassis require no costly cooling, and less costly circuit components, such as transformers, can normally be used. Sensitivity: 2.3VA (4 Form C). Two mountings: Two 6-32 tapped holes on ¾" centers; four 4-40 tapped holes on ⅜" x ⅜" centers. Weight: 3 ozs. maximum.



MF11AM†	**24V**	**44.2**	**1.5VA**	**DPDT**	**5**	**12.25**
MF11AM†	115V	886	1.5VA	DPDT	5	12.25
MF17A	6V	2.5	2.3VA	4PDT	5	9.25
MF17A	24V	33.7	2.3VA	4PDT	5	9.25
MF17A	115V	580	2.3VA	4PDT	5	9.25

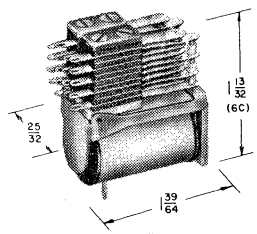
MG SERIES Sub-miniature telephone type relay for aircraft, computer and other applications requiring good shock and vibration characteristics. Furnished open, sealed or in nylon dust cover. Mounting: Open model has four No. 3-48 tapped holes on ⅜" x ⅜" centers. Sealed model has three No. 4-40 threaded studs on 1" x ½" centers. Dust cover model has plug-in header that fits Amphenol receptacle No. 57-20140 or similar. Contacts: 3/32" dia. silver. Weight: Open 1.2 ozs.; Dust cover 2.0 ozs.; Sealed 2.75 ozs.



MG11D	**6V**	**23**	**1.6W**	**DPDT**	**2**	**5.20**
MG11D	12V	90	1.6W	DPDT	2	5.20
MG11D	24V	365	1.6W	DPDT	2	5.20
MG11D	110V	7,560	1.6W	DPDT	2	5.65
MG11DT‡	24V	365	1.6W	DPDT	2	10.50
MG17D	6V	23	1.6W	4PDT	2	6.95
MG17D	12V	90	1.6W	4PDT	2	6.95
MG17D	24V	365	1.6W	4PDT	2	6.95
MG17D	110V	7,560	1.6W	4PDT	2	7.40
MG17DP§	6V	23	1.6W	4PDT	2	11.55
MG17DP§	12V	90	1.6W	4PDT	2	11.55
MG17DP§	24V	365	1.6W	4PDT	2	11.55
MG17DP§	110V	7,560	1.6W	4PDT	2	12.15
MG17DT‡	24V	365	1.6W	4PDT	2	12.60
MG17DT‡	110V	7,560	1.6W	4PDT	2	13.20

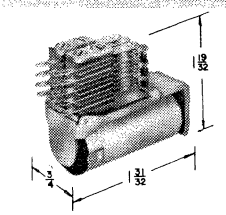
MH SERIES MINIATURE TYPE

Ideal for miniature program applications where space and weight are factors. Mounting: Open model, MH11L, one No. 6-32 threaded stud 1½2" long plus locating boss. All other open models have four No. 3-48 holes on ¾" x ¾" centers. Sealed models, M enclosures, three 6-32 NC 2 threaded studs on 1¼" x ½" centers. D enclosures, three 6-32 threaded studs on 1 3/16" x 15/16" centers. All sealed models have hook end solder terminals. All models have ⅛" dia. gold-flashed silver contacts. Weight: Open models 2½ oz. max. Sealed models 5 ozs. max.



MH11L	**4.5MA**	**10,000**	**200MW**	**DPDT**	**3**	**5.45**
MH11LM†	4.5MA	10,000	200MW	DPDT	3	9.20
MH17D	6V	23	1.6W	4PDT	5	5.45
MH17D	12V	96	1.6W	4PDT	5	5.45
MH17D	24V	365	1.6W	4PDT	5	5.45
MH17DM†	6V	23	1.6W	4PDT	5	11.00
MH17DM†	12V	96	1.6W	4PDT	5	11.00
MH17DM†	24V	365	1.6W	4PDT	5	11.00
MH17AMR†	115V	6,200	2VA	4PDT	5	17.95
MH23D	6V	13.3	2.5W	6PDT	5	6.85
MH23D	12V	62.3	2.5W	6PDT	5	6.85
MH23D	24V	245	2.5W	6PDT	5	6.85
MH23D	110V	5,000	2.5W	6PDT	5	7.30
MH23DD†	12V	62.3	2.5W	6PDT	5	14.60
MH23DD†	24V	245	2.5W	6PDT	5	14.60
MH23DD†	110V	5,000	2.5W	6PDT	5	15.15

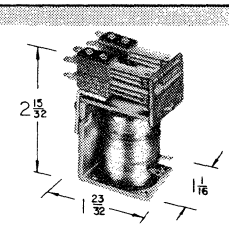
ML SERIES A small telephone type relay having excellent sensitivity with outstanding switching capabilities. Ideal for transistorized computor networks, telephone systems and battery powered communications equipment. Single contact arms have ⅛" dia. gold-flashed silver contacts rated at 3 amps for 100,000 operations. Pierced solder terminals. Mounting: Four 3-48 holes on ⅜" centers. Weight: 2.5 ozs.



ML11D	**4.0MA**	**2,500**	**40MW**	**DPDT**	**3**	**6.05**
ML11D	2.83MA	5,000	40MW	DPDT	3	6.20
ML11D	2.0MA	10,000	40MW	DPDT	3	6.50
ML17D	5.65MA	2,500	80MW	4PDT	3	7.20
ML17D	4.0MA	5,000	80MW	4PDT	3	7.35
ML17D	2.83MA	10,000	80MW	4PDT	3	7.65
ML23D	6.93MA	2,500	120MW	6PDT	3	8.15
ML23D	4.9MA	5,000	120MW	6PDT	3	8.30
ML23D	3.46MA	10,000	120MW	6PDT	3	8.60

PLATE CIRCUIT and SENSITIVE RELAYS

GB SERIES (See GA series for similar voltage actuated relays.) Sensitivity 115 milliwatts for single pole and 275 milliwatts for 4 pole. Medium cost, high quality relay. Pull-in is not adjustable. Mounting: No. 8-32 tapped core and locating boss. Contacts: 3/16" dia. silver. Weight: Approximately 5 ozs.



GB5D	**6.8MA**	**2,500**	**115MW**	**SPDT**	**5**	**3.45**
GB5D	4.8MA	5,000	115MW	SPDT	5	3.60
GB5D	3.4MA	10,000	115MW	SPDT	5	4.10
GB11D	7MA	2,500	125MW	DPDT	5	4.85
GB11D	5MA	5,000	125MW	DPDT	5	4.95
GB11D	3.53MA	10,000	125MW	DPDT	5	5.50
GB17D	10.5MA	2,500	275MW	4PDT	5	5.80
GB17D	7.4MA	5,000	275MW	4PDT	5	5.95
GB17D	5.25MA	10,000	275MW	4PDT	5	6.40

†Sealed Relay
§Enclosed Relay

See ordering information on page 8.

Trade Discount Applies To List Prices Only

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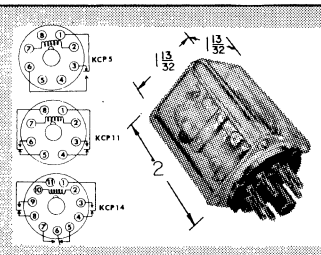
Potter & Brumfield Relays

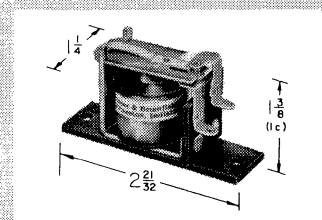
PLATE CIRCUIT and SENSITIVE RELAYS

KCP SERIES Low cost plate circuit relay enclosed in clear cellulose acetate cover. Sensitivity 125 mw single pole; 250 mw double pole; 375 mw three pole. Mounting: Standard octal plug-in type. Eight pin for KCP5 and KCP11. Eleven pin for KCP14. Contacts: ⅛" dia. gold-flashed silver. Weight: Approximately 3 ozs. Use KCP-KRP hold down spring when vibration, inverted or horizontal mounting are factors (see page 10).



TYPE	COILS			CONTACTS		SUGG. LIST PRICE
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
KCP5§	**7.2MA**	**2,500**	**125MW**	**SPDT**	**2**	**$ 5.90**
KCP5§	5MA	5,000	125MW	SPDT	2	6.00
KCP5§	3.6MA	10,000	125MW	SPDT	2	6.40
KCP11§	10MA	2,500	250MW	DPDT	2	6.30
KCP11§	7.2MA	5,000	250MW	DPDT	2	6.40
KCP11§	5MA	10,000	250MW	DPDT	2	6.80
KCP14§	12.3MA	2,500	375MW	3PDT	2	7.75
KCP14§	8.7MA	5,000	375MW	3PDT	2	7.85
KCP14§	6.1MA	10,000	375MW	3PDT	2	8.25

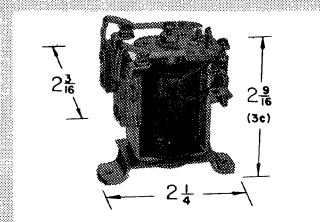
LB SERIES Designed for top performance, long life at an unusually low cost. Each coil is wound with a given coil resistance and factory adjusted to operate on minimum current requirements. Mounting: Two 3/16" dia. holes on 2 7/32" centers. Contacts: ⅛" dia. silver. Weight: Approximately 2 ozs.



LB5	**9MA**	**2,500**	**200MW**	**SPDT**	**5**	**2.45**
LB5	6.3MA	5,000	200MW	SPDT	5	2.65
LB5	4.5MA	10,000	200MW	SPDT	5	2.85

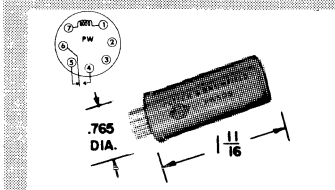
SPECIFY COIL VOLTAGE OR RESISTANCE WHEN ORDERING

LM SERIES (See KL for similar voltage actuated relays.) Sensitivity 100 milliwatts for single pole and 200 milliwatts for double pole. Medium cost, high quality relay with 7/32" dia. silver contacts. Pull-in adjustable by tail spring adjusting screw. Mounting: Two No. 6-32 tapped holes on 1 13/16" centers. Weight: Approximately 5 ozs. DC Coils only.



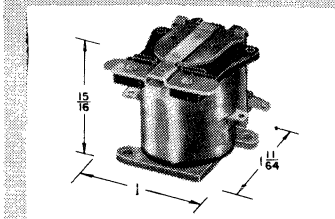
LM5	**6.3MA**	**2,500**	**100MW**	**SPDT**	**5**	**3.90**
LM5	4.5MA	5,000	100MW	SPDT	5	4.10
LM5	3.2MA	10,000	100MW	SPDT	5	4.40
LM11	9MA	2,500	200MW	DPDT	5	5.55
LM11	6.3MA	5,000	200MW	DPDT	5	5.75
LM11	4.5MA	10,000	200MW	DPDT	5	6.30

PW SERIES (In both voltage and current actuated models.) Sensitivity 40 mw for current actuated models. 180 mw for voltage actuated models. Precision, light weight, hermeticaly sealed relay for aircraft and missile applications. Will withstand 10G vibration to 500 cps. Mounting: Standard 7-pin miniature tube base. Weight: Approx. 1 oz.



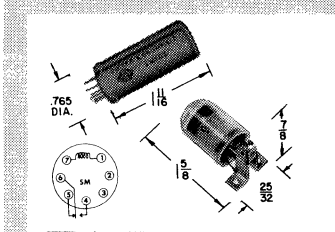
PW5DS†	**6V**	**202**	**180MW**	**SPDT**	**1**	**10.25**
PW5DS†	12V	810	180MW	SPDT	1	10.25
PW5DS†	24V	3,240	180MW	SPDT	1	10.25
PW5LS†	2.8MA	5,000	40MW	SPDT	1	10.60
PW5LS†	2.0MA	10,000	40MW	SPDT	1	11.00

RS SERIES (In both voltage and current actuated models.) 60 mw. sensitivity. Low-cost, small, light weight, sensitive relay for radio-sonde, light dimmer and model applications. Mounting: Two No. 4-40 tapped holes on diagonal ¾" x ⅝" centers. Contacts: Bar palladium. Weight: 1½ ozs.



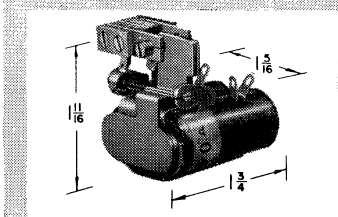
RS5D	**6V**	**335**	**110MW**	**SPDT**	**2**	**2.60**
RS5D	12V	1,350	110MW	SPDT	2	2.75
RS5D	5MA	2,500	60MW	SPDT	2	2.85
RS5D	3.5MA	5,000	60MW	SPDT	2	3.15
RS5D	2.5MA	10,000	50MW	SPDT	2	3.60

SM SERIES (In both voltage and current actuated models.) Sensitivity 75 mw for current actuated models. Medium cost, light weight, dust covered (right) or hermetically sealed (left) relay for light contact loads found in computers, model airplanes and similar applications. Extremely long mechanical life because of reed armature. Mounting: Sealed, standard 7-pin miniature tube socket; dust cover, two 3/32" dia. holes on 17/32" centers. Contacts: Stationary silver; movable rhodium. Weight: 1 oz. max.



SM5D5†	**6V**	**80**	**500MW**	**SPDT**	**.25**	**6.25**
SM5D5†	12V	360	500MW	SPDT	.25	6.25
SM5D5†	24V	900	500MW	SPDT	.25	6.25
SM5L§	2.7MA	10,000	75MW	SPDT	.25	5.95
SM5LS†	3.9MA	5,000	75MW	SPDT	.25	6.55
SM5LS†	2.7MA	10,000	75MW	SPDT	.25	7.00

SS SERIES Ultra sensitive precision relay. 10 mw sensitivity. Dual series-connected coils with balanced armature on needle-point bearings for all low energy circuits such as instruments and bridge balancing. May also be used as a differential relay by connecting the two coils in separate circuits. Mounting: Two No. 6-32 tapped holes on 2 3/32" centers. Contacts: ⅛" dia. silver. Weight: Approx. 3½ ozs.



SS5D	**1MA**	**10,000**	**10MW**	**SPDT**	**2**	**12.60**

†Sealed Relay
§Enclosed Relay

See ordering information on page 8.

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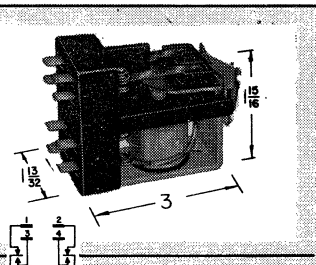
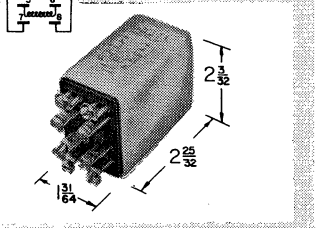
Potter & Brumfield Relays

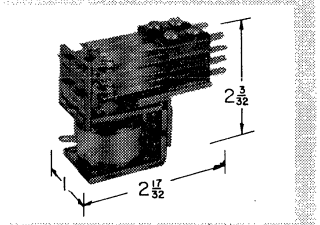
AB SERIES For appliance and general purpose applications where rugged construction, long life and quiet operation are required. All equipped with terminals to fit snap-on connectors and may also be applied to printed circuits using dip soldering. Snap-on screw adaptors packed with each relay. All AC models carry U/L and CSA* labels. Mounting: Two No. 8-32 tapped holes, on 1¼" centers. Weight: Approx. 5 ozs. Silver contacts.



ABC SERIES Medium duty power relay with dust cover. For small motors, industrial control and similar applications. All equipped with terminals to fit snap-on connectors and may also be applied to printed circuits using dip soldering. Snap-on screw adaptors packed with each relay. All AC models carry U/L and CSA* labels. Mounting: One No. 8-32 threaded stud ⅜" long and locating tab on 9/16" centers. Contacts: ¼" dia. silver. Weight: Approx. 7 ozs.

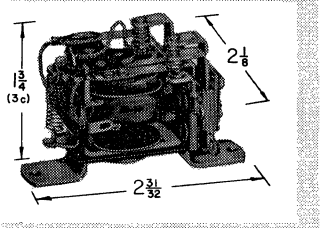


GF SERIES Medium duty power relay for industrial control applications. Long contact arms have ¼" dia. silver contacts rated at 10 amps at 115V AC or 28V DC resistive. Contacts have excellent wipe or self-cleaning action. Tinned, pierced solder terminals. Mounting: 8-32 tapped core with locating boss. Weight: 4.75 ozs. (See GA series for similar voltage actuated relays.)



MR SERIES A medium duty power relay that can handle small motors, transmitters, and general purpose applications. Mounting: Two 5/32" dia. holes on 2¼" centers for MR3 and 11, 2⅝" centers for MR2, 5 and 14. Contacts: 1/32" dia. silver. Weight: 4 ozs.

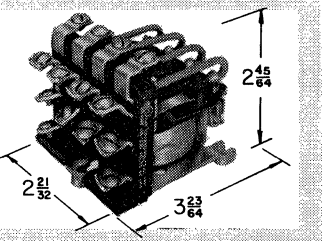
MS/MR Metal dust cover similar to PM/PR shown below. 3⅝" x 2⅜" x 2 19/32". Weight: 7.5 ozs.
35D130 fits MS/MR NET $1.90



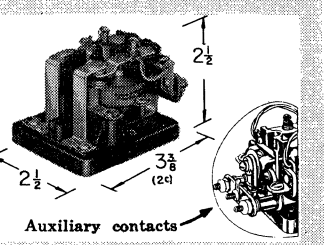
PM SERIES A compact heavy duty 4PDT power relay for polyphase and heavy duty switching applications. Screw terminals. Has ¼" silver-cadmium-oxide contacts rated at 25 amps at 115V., 25 amps at 230V. 50/60 cycle resistive AC, 1 HP per movable arm at 120V. or 240V. AC single phase, U/L and CSA* listed, except 440V. Mounts by one front key-hole and two rear channel slots for 8-32 screws on 2" x 2½" triangular centers. Weight: 14 ozs.

9PM1 Adapter plates for mounting PM on PR mounting holes. Box of 10 Net $1.50

For metal enclosure see below.

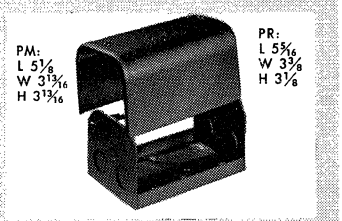


PR SERIES Heavy duty relay for industrial control applications requiring long life and fast action. Heavy duty screw type terminals. All AC and DC models except PR11AL5 carry U/L labels. Only AC models except PR11AL5 carry CSA* labels also. Mounting: Two 3/16" dia. holes on 1⅞" centers. Weight: 11 ozs. max. Contacts: 5/16" dia. silver. Enclosure: See "PR" cover. The PR11AL5 relay is equipped with 3/16" dia. silver SPDT auxiliary contacts rated at 5 amps.



PM and PR DUST COVERS These dust covers have a sheet metal base with knockouts for ½" dia. conduit and an aluminum cover fitted with two screws. Finished in gray baked enamel. Mounting: Three No. 10 holes on 1⅞" x 4⅛" centers. Approx. weight: 1 lb.

35D227 Metal cover for PM only NET $3.00
35D013 Metal cover for PR only NET $3.00



POWER TYPE RELAYS

TYPE	COILS: Voltage or Current	COILS: Resistance in Ohms	COILS: Nominal Power	CONTACTS: Arrangement	CONTACTS: Rate in Amps	SUGG. LIST PRICE
AB11AY	**6V**	**1.3**	**6.4VA**	**DPDT**	**10**	**$5.30**
AB11AY	24V	23	6.4VA	DPDT	10	5.30
AB11AY	115V	510	6.4VA	DPDT	10	5.30
AB11AY	230V	2,050	6.4VA	DPDT	10	5.70
AB11D	12V	72	2.0W	DPDT	10	5.20
AB11D	24V	288	2.0W	DPDT	10	5.20
AB11D	110V	6,050	2.0W	DPDT	10	5.70
ABC11AY§	**6V**	**1.3**	**6.4VA**	**DPDT**	**10**	**6.40**
ABC11AY§	24V	23	6.4VA	DPDT	10	6.40
ABC11AY§	115V	510	6.4VA	DPDT	10	6.40
ABC11AY§	230V	2,050	6.4VA	DPDT	10	6.80
ABC11D§	6V	18	2.0W	DPDT	10	6.30
ABC11D§	12V	72	2.0W	DPDT	10	6.30
ABC11D§	24V	288	2.0W	DPDT	10	6.30
ABC11D§	110V	6,050	2.0W	DPDT	10	6.80
GF17A	6V	1.7	6VA	4PDT	10	6.65
GF17A	12V	6.8	6VA	4PDT	10	6.65
GF17A	24V	24	6VA	4PDT	10	6.65
GF17A	115V	690	6VA	4PDT	10	6.65
GF17A	230V	2,950	6VA	4PDT	10	7.05
GF17D	6V	18	2.0W	4PDT	10	6.65
GF17D	12V	72	2.0W	4PDT	10	6.65
GF17D	24V	288	2.0W	4PDT	10	6.65
GF17D	110V	6,050	2.0W	4PDT	10	7.10
MR3A	**6V**	**2.75**	**3.25VA**	**SPST-NO-DB**	**10**	**3.85**
MR3A	24V	50	3.25VA	SPST-NO-DB	10	3.85
MR3A	115V	1,250	3.25VA	SPST-NO-DB	10	3.85
MR3D	6V	24	1.6W	SPST-NO-DB	10	3.50
MR3D	12V	96	1.6W	SPST-NO-DB	10	3.50
MR3D	24V	360	1.6W	SPST-NO-DB	10	3.50
MR5A	6V	2.75	3.25VA	SPDT	8	3.45
MR5A	12V	13.25	3.25VA	SPDT	8	3.45
MR5A	24V	50	3.25VA	SPDT	8	3.45
MR5A	115V	1,250	3.25VA	SPDT	8	3.45
MR5A	230V	4,600	3.25VA	SPDT	8	3.85
MR5D	6V	24	1.6W	SPDT	8	3.20
MR5D	12V	96	1.6W	SPDT	8	3.20
MR5D	24V	360	1.6W	SPDT	8	3.20
MR5D	110V	8,000	1.6W	SPDT	8	3.70
MR11A	6V	2.75	3.25VA	DPDT	8	4.85
MR11A	12V	13.25	3.25VA	DPDT	8	4.85
MR11A	24V	50	3.25VA	DPDT	8	4.85
MR11A	115V	1,250	3.25VA	DPDT	8	4.85
MR11A	230V	4,600	3.25VA	DPDT	8	5.25
MR11D	6V	24	1.6W	DPDT	8	4.60
MR11D	12V	96	1.6W	DPDT	8	4.60
MR11D	24V	360	1.6W	DPDT	8	4.60
MR11D	110V	8,000	1.6W	DPDT	8	5.10
MR14A	6V	2.75	3.25VA	3PDT	8	5.80
MR14A	12V	13.25	3.25VA	3PDT	8	5.80
MR14A	24V	50	3.25VA	3PDT	8	5.80
MR14A	115V	1,250	3.25VA	3PDT	8	5.80
MR14A	230V	4,600	3.25VA	3PDT	8	6.20
MR14D	6V	24	1.6W	3PDT	8	5.45
MR14D	12V	96	1.6W	3PDT	8	5.45
MR14D	24V	360	1.6W	3PDT	8	5.45
MR14D	110V	8,000	1.6W	3PDT	8	5.95
PM17AY	**6V**	**.37**	**14VA**	**4PDT**	**25**	**12.35**
PM17AY	12V	1.4	14VA	4PDT	25	12.35
PM17AY	24V	5.0	14VA	4PDT	25	12.35
PM17AY	115V	120	14VA	4PDT	25	12.35
PM17AY	230V	587	14VA	4PDT	25	12.75
PM17A	440V	1,790	14VA	4PDT	25	13.60
PR1AY	**24V**	**12**	**9.8VA**	**SPST-NO**	**25**	**4.05**
PR3AY	6V	0.86	9.8VA	SPST-NO-DB	25	4.15
PR3AY	12V	3.2	9.8VA	SPST-NO-DB	25	4.15
PR3AY	24V	12	9.8VA	SPST-NO-DB	25	4.15
PR3AY	115V	290	9.8VA	SPST-NO-DB	25	4.15
PR3AY	230V	1,200	9.8VA	SPST-NO-DB	25	4.50
PR3DY	6V	18	2.0W	SPST-NO-DB	25	4.15
PR3DY	12V	71	2.0W	SPST-NO-DB	25	4.15
PR3DY	24V	288	2.0W	SPST-NO-DB	25	4.15
PR3DY	110V	6,050	2.0W	SPST-NO-DB	25	4.75
PR5AY	6V	0.86	9.8VA	SPDT	25	4.35
PR5AY	12V	3.2	9.8VA	SPDT	25	4.35
PR5AY	24V	12	9.8VA	SPDT	25	4.35
PR5AY	115V	290	9.8VA	SPDT	25	4.35
PR5AY	230V	1,200	9.8VA	SPDT	25	4.75
PR5DY	6V	18	2.0W	SPDT	25	4.35
PR5DY	12V	71	2.0W	SPDT	25	4.35
PR5DY	24V	288	2.0W	SPDT	25	4.35
PR5DY	110V	6,050	2.0W	SPDT	25	4.95
PR7AY	6V	0.86	9.8VA	DPST	25	4.90
PR7AY	12V	3.2	9.8VA	DPST	25	4.90
PR7AY	24V	12	9.8VA	DPST	25	4.90
PR7AY	115V	290	9.8VA	DPST	25	4.90
PR7AY	230V	1,200	9.8VA	DPST	25	5.35
PR7DY	6V	18	2.0W	DPST	25	4.90
PR7DY	12V	71	2.0W	DPST	25	4.90
PR7DY	24V	288	2.0W	DPST	25	4.90
PR7DY	110V	6,050	2.0W	DPST	25	5.50
PR11AY	6V	0.86	9.8VA	DPDT	25	6.45
PR11AY	12V	3.2	9.8VA	DPDT	25	6.45
PR11AY	24V	12	9.8VA	DPDT	25	6.45
PR11AY	115V	290	9.8VA	DPDT	25	6.45
PR11AY	230V	1,200	9.8VA	DPDT	25	6.95
PR11AY	440V	4,500	9.8VA	DPDT	25	7.80
PR11AL5	6V	0.86	9.8VA	DPDT	20	8.15
PR11AL5	12V	3.2	9.8VA	DPDT	20	8.15
PR11AL5	24V	12	9.8VA	DPDT	20	8.15
PR11AL5	115V	290	9.8VA	DPDT	20	8.15
PR11AL5	230V	1,200	9.8VA	DPDT	20	8.55
PR11DY	6V	18	2.0W	DPDT	25	6.45
PR11DY	12V	71	2.0W	DPDT	25	6.45
PR11DY	24V	288	2.0W	DPDT	25	6.45
PR11DY	110V	6,050	2.0W	DPDT	25	7.05

*Canadian Standards Association

§Enclosed Relay

See ordering information on page 8.

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SOLID STATE
TIME DELAY RELAYS

Excellent operational characteristics mark this economical P&B series of reliable solid state time delay relays. Includes models for AC or DC operation. All relays provide a time delay on operate either with knob adjustment for the entire time range, or as a fixed value timer optionally adjustable by an external resistor. Available with an internal DPDT relay or as a separate timing unit for use with P&B relays listed under "Notes."

CD TIME DELAY RELAYS
are distinguished by

- Accurate Time Delay Values
- Excellent Repeatability
- Fast Reset Time
- Wide Time Delay Range

SPECIFICATIONS:

Timing Accuracy: ±10%
Repeatability: ±2%
Fast Reset Time: 60 milliseconds
Ambient Operating Temperature: −40°C to +55°C
Duty: Continuous
Enclosures: Rugged plastic

WIDE TIME DELAY RANGE

Type	Outline Drawing	Time Delay in Seconds	Input Voltage	Notes	Sugg. List Price
CDB-38-70003	Fig. 1	0.1 to 10	115V AC	1	43.80
CDB-38-70005	Fig. 1	1.8 to 180	115V AC	1	43.80
CDD-38-30003	Fig. 1	0.1 to 10	24V DC	1	41.55
CDD-38-30005	Fig. 1	1.8 to 180	24V DC	1	41.55
CDB-21-70003	Fig. 2	0.1 to 10	115V AC	2	38.70
CDB-21-70001	Fig. 2	1.8 to 180	115V AC	2	38.70
CDD-21-30003	Fig. 3	0.1 to 10	24V DC	3	38.35
CDD-21-30001	Fig. 3	1.8 to 180	24V DC	3	38.35
CDH-31-30005	Fig. 4	180 (note 5)	24V DC	4 & 5	38.90

NOTES

1. Has internal relay with DPDT contacts rated at 10 amperes, 115V AC.
2. Use with Potter & Brumfield relay KRP11AG—115V AC or KRP14AG—115V AC (see page 10). One set of normally open contacts on KRP relay must be connected to the time delay unit.
3. Use with Potter & Brumfield KRP5DG—24V DC, KRP11DG—24V DC or KRP14DG—24V DC relay (see page 10).
4. Use with Potter & Brumfield KHP17D11—24V DC relay (see page 9).
5. As supplied, this unit has a fixed time delay of 180 seconds. Connect external ½ watt resistor between terminals 9 and 12 to reduce time delay period. The following are approximate values of required resistors:

RESISTOR	TIME DELAY
2.7 meg ohms	120 seconds
1.3 meg ohms	90 seconds
680 K ohms	60 seconds
270 K ohms	30 seconds
68 K ohms	10 seconds
short circuit	1.8 seconds

CHOOSE FROM THESE TYPES

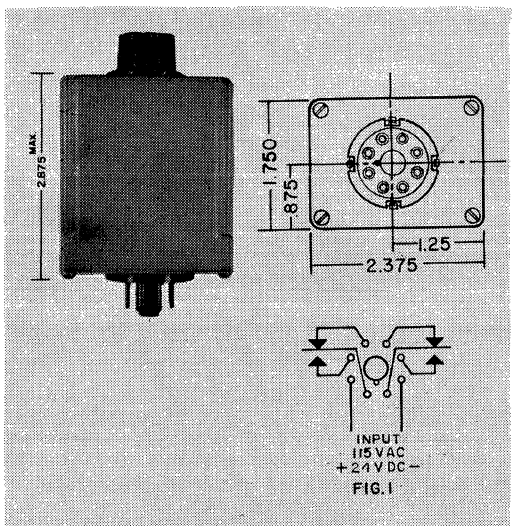

FIG. 1

Knob-adjustable with self-contained DPDT relay:
CDB-38-70003 **CDD-38-30003**
CDB-38-70005 **CDD-38-30005**
1¾" x 2⅜" x 3⅜" high. Weight: 7 ozs.

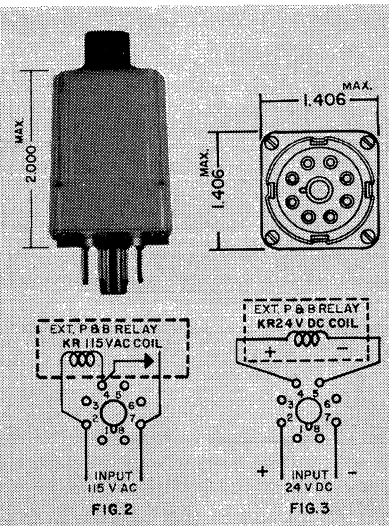

FIG. 2 FIG. 3

Knob-adjustable use with external relay:
CDB-21-70003 **CDD-21-30003**
CDB-21-70001 **CDD-21-30001**
1¹³⁄₃₂" sq. x 2⅜" high. Weight: 3¼ ozs.

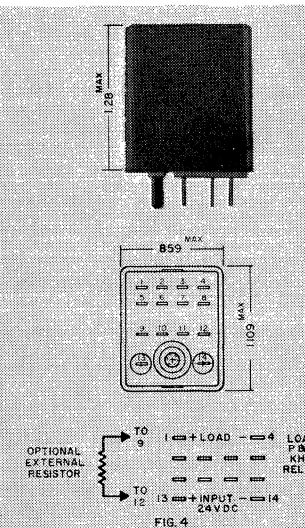

FIG. 4

Adjustable to provide fixed time delay by external resistor (not furnished); use with external relay.
CDH-31-30005
⁵⁵⁄₆₄" x 1¹⁄₆₄" x 1³¹⁄₃₂". Weight: 1½ ozs.

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DEPENDABILITY • LONGEVITY • HIGH SPEED

Mercury-Wetted Contact Relays

AVAILABLE IN THESE SERIES:

JML—SENSITIVE, FORM C NON-BRIDGING — single-side-stable, bi-stable, chopper

JMP—POLARIZED FORM D BRIDGING — single-side-stable, bi-stable, chopper

JM—BRIDGING FORM D

1 CAPSULE	SPDT	single coil, dual coil
2 CAPSULES	DPDT	single coil
3 CAPSULES	3PDT	single coil
4 CAPSULES	4PDT	single coil

Rare long life, high speed, and unvarying dependability—all are the result of the basic component of these relays: a hermetically sealed glass capsule. It contains the contact arrangement and a small reservoir of mercury sealed under a high pressure hydrogen atmosphere. A film of mercury is renewed for every operation—that's why you can think in terms of billions of operations without contact bounce, pits or welds.

TWO TYPES OF CAPSULES

The capsule used in JML relays has a SPDT, break-before-make (Form C), non-bridging contact arrangement. Each capsule used in JMP, and JM1 to JM4 relays has a SPDT, make-before-break, (form D), bridging contact arrangement. Both JML and JMP series achieve a high rate of sensitivity by factory-adjusted magnet biasing.

Single-Side-Stable: The relay will release (open its normally open contacts) when the coil current is reduced to less than must release value.

Bi-Stable: The armature remains in the last operated position until opposite polarity is applied.

Chopper: Approximately equal dwell exists on the normally open and closed contacts when the coil is driven by 60 cps sine waves.

QUALITY SPECIFICATIONS

CONTACT RATINGS:

JML: 500V max., and 2 amps max., 100 VA max.*
JMP and JM1 to JM4: 500V max., and 5 amps max., 250 VA max.*
*With contact protection unless low level current is applied. Details of simple circuit consisting of resistor and capacitor in series are packed with each relay.

SENSITIVITY:

Minimum sensitivities are
JML: 27.3 ampere turns
JMP: 70 ampere turns
JM1: 190 ampere turns
JM2 and 3: 250 ampere turns
JM4: 260 ampere turns

TIMING:

JML: 200 operations per sec.
JMP and JM1: 100 operations per sec.
JM2, 3 and 4: 60 operations per sec.

SHOCK RESISTANCE:

All series: 30G for 11 milliseconds, non-operating. Vibrations up to 10G, 10-500 cps.

TEMPERATURES:

All series: −39°C (mercury freezes), 107°C internal (potting compound softens).

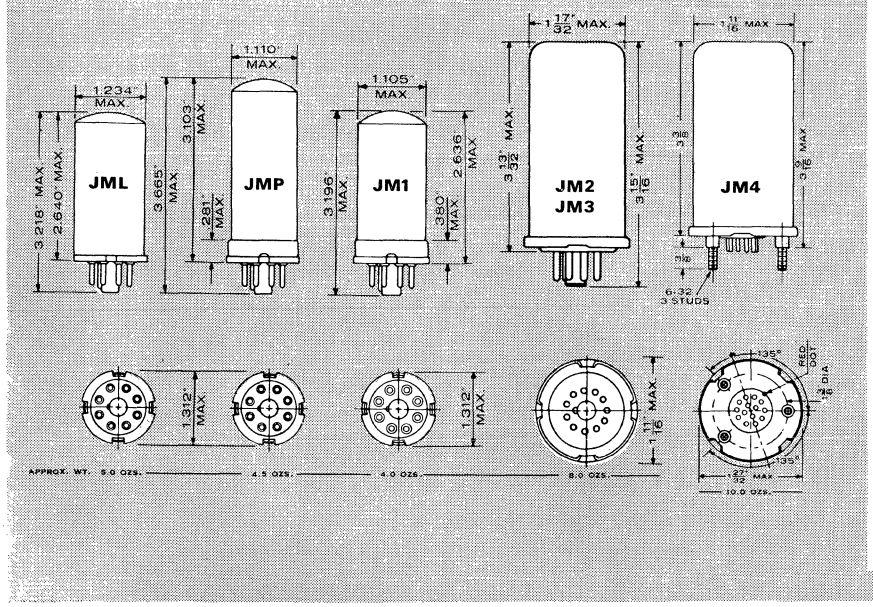
TERMINATIONS:

All series: Octal style plugs, except figures 23, 32, and 42 (Hook Solder), figure 41 (14-pin miniature plug).

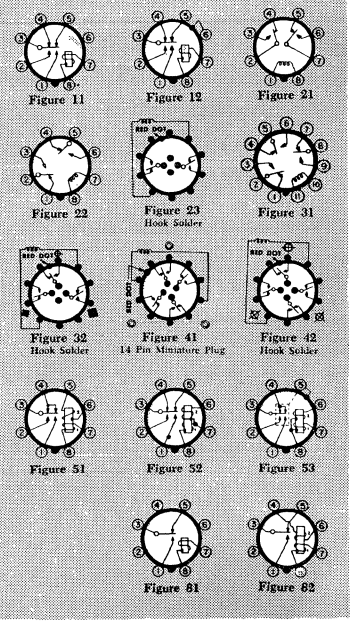
ENCLOSURES:

Five steel case sizes, one each for JML, JMP, JM1, JM2 and JM3, and JM4. Required mounting position: Vertical.

OUTLINE DIMENSIONS



TERMINATIONS



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AVAILABLE FROM STOCK FOR FAST DELIVERY

JML Sensitive

SERIES Capsule	Coil	Terminal Fig. No.	COIL CHARACTERISTICS RESISTANCE (Ohms ±10%)	SOAK* ma DC	MUST OPERATE ma DC	MUST RELEASE ma DC	NET PRICE
SINGLE-SIDE-STABLE							
JML	1061	81	40	36.0	9.75	1.68	$11.60
JML	1110	81	350	13.1	3.56	0.61	11.60
JML	1160	81	1000	8.1	2.21	0.38	11.60
JML	1190	81	2500	4.0	1.43	0.17	12.40
JML	1200	81	4000	3.4	1.25	0.25	12.40
JML	1260	81	25000	1.9	0.52	0.09	12.40
JML	1440	82	(1) 4000 (2) 800	2.7	0.86 11.60	0.10	13.60
BI-STABLE							
JML	5160	81	1000		+1.24	−1.24	12.10
JML	5200	81	4000		+0.53	−0.53	12.40
JML	5430	82	(1) 1100 (2) 1100		+1.76	−1.76	13.60
CHOPPER				Voltage RMS 60cps			
JML	8130	81	600	6.3V			12.10

JMP Polarized

SERIES Capsule	Coil	Terminal Fig. No.	COIL CHARACTERISTICS RESISTANCE (Ohms ±10%)	SOAK* ma DC	MUST OPERATE ma DC	MUST RELEASE ma DC	NET PRICE
SINGLE-SIDE-STABLE							
JMP	1081	11	90	46.25	16.0	1.3	15.20
JMP	1160	11	1000	16.2	5.60	0.40	15.20
JMP	1200	11	4000	8.55	2.96	0.24	16.30
JMP	1260	11	25000	3.77	1.32	0.15	16.30
JMP	1340	52	(1) 700 (2) 3300	33.80	14.20 5.70	2.80	17.25
JMP	1470	53	(1) 1020 (2) 970	25.2	14.0 16.0	6.0	18.95
BI-STABLE							
JMP	5200	11	4000		+1.5	−1.5	16.30
JMP	5340	52	(1) 700 (2) 3300		+6.0 +2.4	−6.0 −2.4	17.75
CHOPPER				Voltage RMS 60cps			
JMP	8120	12	500	6.3V			15.70
JMP	8200	12	4000	18.5V			16.80
JMP	8240	11	11000	117.0V with 12000 ohm (±5%) ½ watt resistor in series with coil			16.80

*Current to be applied to the coil winding for at least 2 seconds just prior to current flow tests.

JM1 Single Capsule

SERIES Capsule	Coil	Terminal Fig. No.*	COIL CHARACTERISTICS RESISTANCE (Ohms ±10%)	MUST OPERATE Current ma DC	MUST OPERATE Voltage DC @ 25°C	MAX. VOLTAGE (at 35°C.)	NET PRICE
SPDT Single Coil							
JM1	106	12	40	67.7	2.98	9.0	14.05
JM1	109	12	130	38.8	5.55	16.1	14.05
JM1	112	11	500	20.1	11.10	31.6	14.05
JM1	114	11	700	20.0	15.40	37.4	14.05
JM1	114	12	700	20.0	15.40	37.4	14.05
JM1	118	11	2500	10.1	27.80	70.7	14.30
JM1	119	11	4000	8.1	35.60	89.5	8.15 (ANY QTY)
JM1	119	12	4000	8.1	35.60	89.5	14.80
JM1	120	11	7000	6.0	46.20	117.0	14.80
JM1	121	11	11000	5.0	60.50	148.0	14.80
JM1	123	11	25000	3.6	99.00	224.0	14.80
SPDT Dual Coil							
JM1	405	51	(1) 700 (2) 3300	(1) 32.0 (2) 12.3		(1) 37.4 (2) 81.0	16.20

JM2 2 Capsules

SERIES Capsule	Coil	Terminal Fig. No.*	COIL CHARACTERISTICS RESISTANCE (Ohms ±10%)	MUST OPERATE Current ma DC	MUST OPERATE Voltage DC @ 25°C	MAX. VOLTAGE (at 35°C.)	NET PRICE
DPDT Single Coil							
JM2	104	22	50	110.0	6.04	12.25	22.80
JM2	106	22	140	66.5	10.00	20.5	22.80
JM2	109	22	315	44.0	15.30	30.7	22.80
JM2	110	22	500	34.8	19.20	38.7	22.80
JM2	111	22	700	30.5	23.50	45.8	22.80
JM2	112	22	1250	22.1	30.40	61.2	22.80
JM2	112	23	1250	22.1	30.40	61.2	22.80
JM2	115	21	5000	11.3	62.10	122.0	22.80
JM2	115	22	5000	11.3	62.10	122.0	22.80
JM2	115	23	5000	11.3	62.10	122.0	22.80

JM3 3 Capsules

SERIES Capsule	Coil	Terminal Fig. No.*	COIL CHARACTERISTICS RESISTANCE (Ohms ±10%)	MUST OPERATE Current ma DC	MUST OPERATE Voltage DC @ 25°C	MAX. VOLTAGE (at 35°C.)	NET PRICE
3PDT Single Coil							
JM3	109	31	315	44.0	15.30	30.7	29.50
JM3	110	31	500	34.8	19.20	38.7	29.50
JM3	111	31	700	30.5	23.50	45.8	29.50
JM3	112	31	1250	22.1	30.40	61.2	29.50
JM3	115	31	5000	11.3	62.10	122.0	29.50
JM3	115	32	5000	11.3	62.10	122.0	29.50

JM4 4 Capsules

SERIES Capsule	Coil	Terminal Fig. No.*	COIL CHARACTERISTICS RESISTANCE (Ohms ±10%)	MUST OPERATE Current ma DC	MUST OPERATE Voltage DC @ 25°C	MAX. VOLTAGE (at 35°C.)	NET PRICE
4PDT Single Coil							
JM4	106	41	65	100.0	7.15	15.1	38.00
JM4	110	41	390	42.0	18.00	37.0	38.00
JM4	110	42	390	42.0	18.00	37.0	38.00
JM4	112	41	700	35.4	27.20	49.5	38.00
JM4	114	41	1400	23.0	35.40	70.0	38.00
JM4	114	42	1400	23.0	35.40	70.0	38.00
JM4	117	41	4000	15.6	68.50	118.0	38.00
JM4	117	42	4000	15.6	68.50	118.0	38.00
JM4	118	41	6500	10.5	75.00	151.0	38.00
JM4	118	42	6500	10.5	75.00	151.0	38.00
JM4	119	41	10000	8.6	94.30	187.0	38.00
JM4	119	42	10000	8.6	94.30	187.0	38.00

*Octal style plugs, except Fig. 23, 32, 42 (Hook Solder), Fig. 41 (14-Pin miniature plug).

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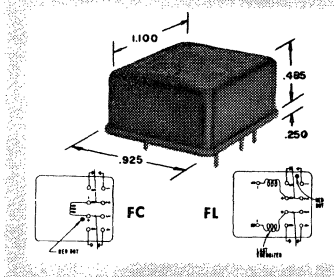
Potter & Brumfield High Performance Relays

FC SERIES Conventional micro-miniature relay lies flat on printed circuit board. Withstands 100g shock, 400g linear acceleration, 30g vibration to 2000 cps. Ambient temperature range: −65° to +125°C. Hermetically sealed. Bifurcated contacts. Plugs in on .2" grid. Meets applicable sect. MIL-R-5757D, and MSFC-SPEC-339. Weight: .75 ozs.

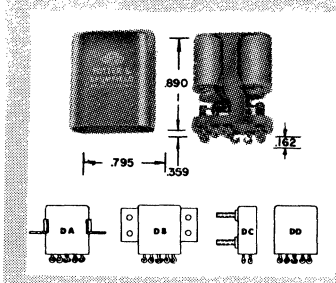
FL SERIES Dual-coil latching relay has same specs as above, except operates by pulsing each coil alternately (observing coil polarity); or connecting the coils in series from a reversing (polarized) source. Remains latched without coil power.



TYPE Hermetically Sealed	COILS Voltage or Current	Resistance in Ohms	Nominal Power	CONTACTS Arrangement	Rate * in Amps	SUGG. LIST PRICE
FC11D	**6V**	**60**	**.65W**	**DPDT**	**3**	**$ 16.00**
FC11D	12V	210	.65W	DPDT	3	16.00
FC11D	24V	900	.65W	DPDT	3	16.00
FL11D	**6V**	**67.5**	**.65W**	**DPDT**	**3**	**18.00**
FL11D	12V	230	.65W	DPDT	3	18.00
FL11D	24V	1,000	.65W	DPDT	3	18.00

SC SERIES Micro-miniature permanent magnet relay for low power, high shock/vibration applications. 100g shock, 30g vibration to 2000cps with no contact openings. Ambient temperature range: −65°C. to +125°C. Features single coil action and conforms to standard micro-miniature coil operation except polarized connections because of magnetic circuit. Positive terminal marked with red dot. Mounting: SC11D**, SCG11D −DA, −DB, DC and DD correspond to similarly designed SL mountings. Weight: ¾ oz.

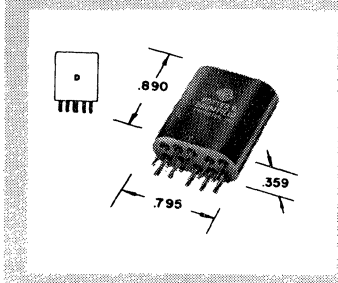
**Cinch No. 54A20730 and Armel No. HRK-1, 8-pin receptacles available from distributors for plug-in applications.



SC11D	**6V**	**35**	**1W**	**DPDT**	**3**	**15.75**
SC11D	12V	135	1W	DPDT	3	15.75
SC11D	24V	550	1W	DPDT	3	15.75
SC11DA	6V	35	1W	DPDT	3	15.75
SC11DA	12V	135	1W	DPDT	3	15.75
SC11DA	24V	550	1W	DPDT	3	15.75
SC11DB	6V	35	1W	DPDT	3	15.75
SC11DB	12V	135	1W	DPDT	3	15.75
SC11DB	24V	550	1W	DPDT	3	15.75
SC11DC	24V	550	1W	DPDT	3	15.75
SC11DD	24V	550	1W	DPDT	3	15.75
SCG11D	**24V**	**550**	**1W**	**DPDT**	**3**	**15.75**

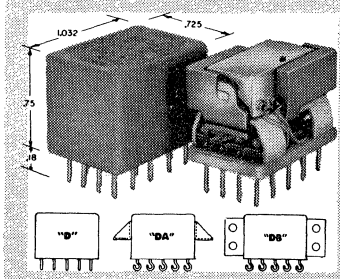
SL SERIES Dual coil micro-miniature magnetic latching relay with same shock/vibration, resistance and ambient temperature range as SC. Coils may be connected in series for polar operation. Mounting: SL11D° for plug-in applications: −DA has shoulder flangers with two .104" x .136" holes on a 1.062" center; −DB has a welded bracket with four .125" dia. holes on 1.062" x .281" centers; −DC has two No. 4-40 NC 2A threaded studs on .488" x .220" diagonal centers; −DD has plain case with hook end solder terminals. SCG-SLG11D have plug-in terminals on .2" grid.

°Viking No. P/N VB10/3DV 1 10-pin receptacles available from distributors for plug-in applications.



SL11D	**6V**	**40**	**1W**	**DPDT**	**3**	**17.25**
SL11D	12V	160	1W	DPDT	3	17.25
SL11D	24V	630	1W	DPDT	3	17.25
SL11DA	6V	40	1W	DPDT	3	17.25
SL11DA	12V	160	1W	DPDT	3	17.25
SL11DA	24V	630	1W	DPDT	3	17.25
SL11DB	6V	40	1W	DPDT	3	17.25
SL11DB	12V	160	1W	DPDT	3	17.25
SL11DB	24V	630	1W	DPDT	3	17.25
SL11DC	24V	630	1W	DPDT	3	17.25
SL11DD	24V	630	1W	DPDT	3	17.25
SLG11D	**24V**	**630**	**1W**	**DPDT**	**3**	**17.25**

TL SERIES High performance 4PDT micro-miniature magnetic latching relay for severe environments. Encapsulated and hermetically sealed coils within hermetically sealed relay case can't contaminate contacts by outgassing. Strong permanent magnetic forces keep contacts locked in desired position when relay is de-energized. Approx. 0.5ms transfer time. Temperature range: −65°C to 125°C. Meets or exceeds applicable sections MIL-R-5757D and MSFC-SPEC-339. Weight: Approx. 1¼ ozs. Mountings: D = plain case, plug-in header. DA = shoulder bracket .300" from base, hook-end solder. DB = flat plate, .593" wide x 1.60" long, 4−.125" dia. holes on .281" x 1.30" centers, hook-end solder.



TL17D	**24V**	**600**	**1W**	**4PDT**	**3**	**25.00**
TL17DA	24V	600	1W	4PDT	3	25.00
TL17DB	24V	600	1W	4PDT	3	25.00

* @28VDC

ORDERING INSTRUCTIONS —— File-O-Matic Sec. 23

All relay contacts are rated at 115 volt-60 cycle, non inductive load.

When ordering specify relay type and coil voltage or resistance.

Example: PR5AY, 115 Volts AC, 60 cycles or LB5, 2500 ohms resistance.

To operate 110V DC relays on 220V DC use a 5 watt wire-wound resistor of a value approximately the relay coil resistance in series with the relay coil.

CONTACT LEGEND: S-Single; D-Double; P-Pole; T-Throw; N-Normally; O-Open; C-Closed; B-Break; M-Make.

Prices and Specifications subject to change without notice. For latest prices refer to United Pricing Service.

AMF

POTTER & BRUMFIELD

Specialists in RELAYS for a third of a century

Three modern plants in the United States are devoted solely to engineering and producing electromagnetic relays. Manufacturing methods, processes and equipment are constantly re-evaluated and kept current with every technical advance. Augmenting P&B's own facilities are the vast research and financial resources of our parent organization, American Machine & Foundry Company.

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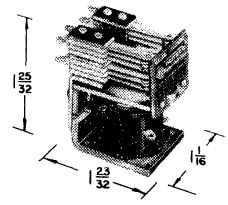
GENERAL PURPOSE RELAYS Potter & Brumfield Relays

GA SERIES Low cost, all purpose, multiple contact, voltage switching relay. Used for many industrial control applications. Tinned, pierced solder type terminals. Contacts: 3/16" dia. silver, designed for maximum self-cleaning action. Mounting: No. 8-32 tapped core with locating boss. Weight: 3½ ozs.

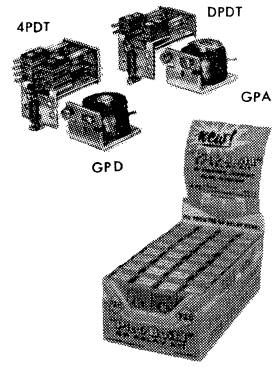
See GF series for similar relays having 10 amp ratings.



SPECIFY COIL VOLTAGE OR RESISTANCE WHEN ORDERING

GP SERIES Separate AC and DC coils to match with 2PDT or 4PDT switches. AC coils ('GPA) available in 6, 12, 24, 115 and 230 volts. DC coils (GPD) available in 6, 12, 24 and 110 volts; current coils: 2,500 5,000 and 10,000 ohms. Contacts: 3/16" dia. silver.

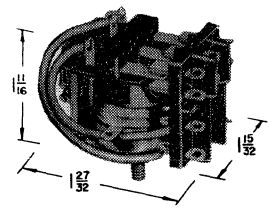
GP11	Switch Assembly	DPDT	5 amps	$1.70
GP17	Switch Assembly	4PDT	5 amps	2.95



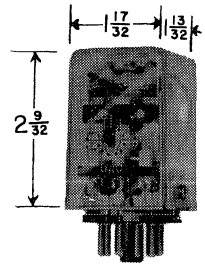
GP-100 A complete kit of GP Series coils and switches consisting of the following: AC coils: Two 6 V., two 12 V., four 24 V., six 115 V., two 230 V. DC coils: Two 6 V., two 12 V., two 24 V., four 110 V. Also two 2,500 and four 10,000 ohm coils; eighteen DPDT switch assemblies. Fourteen 4PDT switch assemblies. The complete kit is ideal for experimenters, school and industrial laboratories.

NET $133.65

KA and KAP SERIES Small, low cost, highly efficient general purpose relays for handling light power loads such as small motors, solenoids and other relays, and general automation work. All KA models carry U/L labels. Only AC models are CSA* listed. KAP relays with "Y" suffix bear CSA* seal and have U/L component listing. Mechanical life expectancy: 10 million operations. Duty: continuous. Contacts: Movable, 1/8" dia. gold-flashed silver; stationary, 5/32" dia. wide silver overlay.

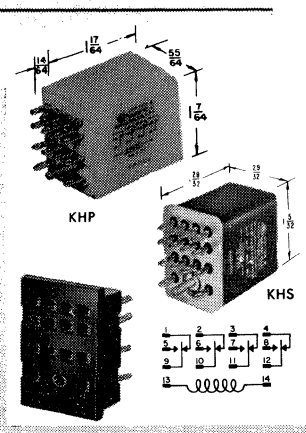


The KA is the open version of this series. Mounting: One No. 6-32 threaded stud and locating tab on 7/16" centers. Weight: 2 ozs. The KAP is the enclosed model and is protected by a clear, high impact plastic dust cover. Terminals: 8 or 11-pin plug. Weight: 3 ozs.



"G" suffix indicates silver-cadmium-oxide contacts on movables rated 10 amps.

KHP and KHS SERIES Small, rugged, 4PDT, available for AC or DC operation. KHP has Nylon dust cover; KHS is hermetically sealed in metal enclosure. These relays are designed to meet the exacting requirements of data processing, computer and process control applications. Contacts are 3/32" gold-flashed silver and are rated 3 amps @ 30V DC or 115V AC resistive for 100,000 operations. "12" suffix indicates silver-cadmium-oxide contacts. Mounting: Solder terminals with a 3—48 stud 23/64" long. Adaptable to sockets (below) with printed circuit or solder lug terminals. Weights without sockets: KHP 1⅛ ozs; KHS 1⅝ ozs.



KHP hold down spring (similar to KCP-KRP, page 10)
9KH3 50 per box, weight 3 ozs. Net $5.00

9KH1 Solder terminal sockets and retainers, Single $0.60 Box of 10 Net $6.00
9KH2 Printed circuit terminal sockets, Single $0.60 Box of 10 Net $6.00
Weight per box: 4 ozs.

TYPE	COILS Voltage or Current	COILS Resistance in Ohms	COILS Nominal Power	CONTACTS Arrangement	CONTACTS Rate in Amps	SUGG. LIST PRICE
GA11A	**6V**	**1.7**	**6VA**	**DPDT**	**5**	**$ 3.35**
GA11A	12V	6.8	6VA	DPDT	5	3.35
GA11A	24V	24	6VA	DPDT	5	3.35
GA11A	115V	690	6VA	DPDT	5	3.35
GA11D	6V	18	2.0W	DPDT	5	3.35
GA11D	12V	72	2.0W	DPDT	5	3.35
GA11D	24V	288	2.0W	DPDT	5	3.35
GA11D	110V	6,050	2.0W	DPDT	5	3.80
GA14A	24V	24	6VA	3PDT	5	4.05
GA14A	115V	690	6VA	3PDT	5	4.05
GA14D	24V	288	2.0W	3PDT	5	4.05
GA17A	6V	1.7	6VA	4PDT	5	4.85
GA17A	12V	6.8	6VA	4PDT	5	4.85
GA17A	24V	24	6VA	4PDT	5	4.85
GA17A	115V	690	6VA	4PDT	5	4.85
GA17A	230V	2,950	6VA	4PDT	5	5.25
GA17D	6V	18	2.0W	4PDT	5	4.85
GA17D	12V	72	2.0W	4PDT	5	4.85
GA17D	24V	288	2.0W	4PDT	5	4.85
GA17D	110V	6,050	2.0W	4PDT	5	5.30
GPA	**6V**	**1.7**	**6VA**	**None**	-	**1.65**
GPA	12V	6.8	6VA	None	-	1.65
GPA	24V	24	6VA	None	-	1.65
GPA	115V	690	6VA	None	-	1.65
GPA	230V	2,950	6VA	None	-	2.10
GPD	–	**2,500**	–		-	**1.50**
GPD		5,000		None		1.75
GPD		10,000		None		2.10
GPD	6V	18	2.0W	None	-	2.10
GPD	12V	72	2.0W	None	-	2.10
GPD	24V	288	2.0W	None	-	2.10
GPD	110V	6,050	2.0W	None	-	3.15
KA5AY	**6V**	**5.1**	**2VA**	**SPDT**	**5**	**3.20**
KA5AY	12V	21	2VA	SPDT	5	3.20
KA5AY	24V	75	2VA	SPDT	5	3.20
KA5AY	115V	2,250	2VA	SPDT	5	3.20
KA5AY	230V	9,110	2VA	SPDT	5	3.60
KA5AG	6V	5.1	2VA	SPDT	10	3.25
KA5AG	12V	21	2VA	SPDT	10	3.25
KA5AG	24V	75	2VA	SPDT	10	3.25
KA5AG	115V	2,250	2VA	SPDT	10	3.25
KA5AG	230V	9,110	2VA	SPDT	10	3.65
KA5DY	6V	32.1	1.2W	SPDT	5	3.05
KA5DY	12V	120	1.2W	SPDT	5	3.05
KA5DY	24V	472	1.2W	SPDT	5	3.05
KA5DY	110V	10,000	1.2W	SPDT	5	3.65
KA5DG	6V	32.1	1.2W	SPDT	10	3.10
KA5DG	12V	120	1.2W	SPDT	10	3.10
KA5DG	24V	472	1.2W	SPDT	10	3.10
KA5DG	110V	10,000	1.2W	SPDT	10	3.70
KA11AY	6V	5.1	2VA	DPDT	5	3.85
KA11AY	12V	21	2VA	DPDT	5	3.85
KA11AY	24V	75	2VA	DPDT	5	3.85
KA11AY	115V	2,250	2VA	DPDT	5	3.85
KA11AY	230V	9,110	2VA	DPDT	5	4.25
KA11AG	6V	5.1	2VA	DPDT	10	3.95
KA11AG	12V	21	2VA	DPDT	10	3.95
KA11AG	24V	75	2VA	DPDT	10	3.95
KA11AG	115V	2,250	2VA	DPDT	10	3.95
KA11AG	230V	9,110	2VA	DPDT	10	4.35
KA11DY	6V	32.1	1.2W	DPDT	5	3.40
KA11DY	12V	120	1.2W	DPDT	5	3.40
KA11DY	24V	472	1.2W	DPDT	5	3.40
KA11DY	110V	10,000	1.2W	DPDT	5	4.00
KA11DG	6V	32.1	1.2W	DPDT	10	3.50
KA11DG	12V	120	1.2W	DPDT	10	3.50
KA11DG	24V	472	1.2W	DPDT	10	3.50
KA11DG	110V	10,000	1.2W	DPDT	10	4.10
KA14AY	6V	5.1	2VA	3PDT	5	4.25
KA14AY	12V	21	2VA	3PDT	5	4.25
KA14AY	24V	75	2VA	3PDT	5	4.25
KA14AY	115V	2,250	2VA	3PDT	5	4.25
KA14AY	230V	9,110	2VA	3PDT	5	4.65
KA14AG	6V	5.1	2VA	3PDT	10	4.40
KA14AG	12V	21	2VA	3PDT	10	4.40
KA14AG	24V	75	2VA	3PDT	10	4.40
KA14AG	115V	2,250	2VA	3PDT	10	4.40
KA14AG	230V	9,110	2VA	3PDT	10	4.80
KA14DY	6V	32.1	1.2W	3PDT	5	3.85
KA14DY	12V	120	1.2W	3PDT	5	3.85
KA14DY	24V	472	1.2W	3PDT	5	3.85
KA14DY	110V	10,000	1.2W	3PDT	5	4.45
KA14DG	6V	32.1	1.2W	3PDT	10	4.00
KA14DG	12V	120	1.2W	3PDT	10	4.00
KA14DG	24V	472	1.2W	3PDT	10	4.00
KA14DG	110V	10,000	1.2W	3PDT	10	4.60
KAP5AG	**24V**	**75**	**2VA**	**SPDT**	**10**	**5.50**
KAP5AG	115V	2,250	2VA	SPDT	10	5.50
KAP5DG	24V	472	1.2W	SPDT	10	5.45
KAP5DG	110V	10,000	1.2W	SPDT	10	6.05
KAP11AY	24V	75	2VA	DPDT	5	6.05
KAP11AY	115V	2,250	2VA	DPDT	5	6.05
KAP11AY	230V	9,110	2VA	DPDT	5	6.45
KAP11AG	6V	5.1	2VA	DPDT	10	6.15
KAP11AG	24V	75	2VA	DPDT	10	6.15
KAP11AG	115V	2,250	2VA	DPDT	10	6.15
KAP11DG	24V	472	1.2W	DPDT	10	6.10
KAP11DG	110V	10,000	1.2W	DPDT	10	6.70
KAP11DY	12V	120	1.2W	DPDT	5	6.00
KAP11DY	24V	472	1.2W	DPDT	5	6.00
KAP11DY	110V	10,000	1.2W	DPDT	5	6.60
KAP14AY	24V	75	2VA	3PDT	5	7.50
KAP14AY	115V	2,250	2VA	3PDT	5	7.50
KAP14AY	230V	9,110	2VA	3PDT	5	7.90
KAP14AG	24V	75	2VA	3PDT	10	7.65
KAP14AG	115V	2,250	2VA	3PDT	10	7.65
KAP14DG	24V	472	1.2W	3PDT	10	7.60
KAP14DG	110V	10,000	1.2W	3PDT	10	8.20
KAP14DY	12V	120	1.2W	3PDT	5	7.45
KAP14DY	24V	472	1.2W	3PDT	5	7.45
KAP14DY	110V	10,000	1.2W	3PDT	5	8.05
KHP17A11	**6V**	**10.5**	**1.2VA**	**4PDT**	**3**	**5.85**
KHP17A11	12V	43	1.2VA	4PDT	3	5.85
KHP17A11	24V	160	1.2VA	4PDT	3	5.85
KHP17A11	115V	3,900	1.2VA	4PDT	3	6.25
KHP17D11	6V	40	900MW	4PDT	3	4.80
KHP17D11	12V	160	900MW	4PDT	3	4.80
KHP17D11	24V	650	900MW	4PDT	3	4.80
KHP17D12	24V	650	900MW	4PDT	3	4.95
KHP17D11	48V	2,600	900MW	4PDT	3	5.00
KHP17D11	90V	9,000	900MW	4PDT	3	5.60
KHP17D11	110V	11,000	900MW	4PDT	3	5.60
KHP17D12	110V	11,000	900MW	4PDT	3	5.75
KHS17A11	**6V**	**10.5**	**1.2VA**	**4PDT**	**3**	**10.60**
KHS17A11	12V	43	1.2VA	4PDT	3	10.60
KHS17A11	24V	160	1.2VA	4PDT	3	10.60
KHS17A11	115V	3,900	1.2VA	4PDT	3	11.00
KHS17D11	6V	40	900MW	4PDT	3	7.75
KHS17D11	12V	160	900MW	4PDT	3	7.75
KHS17D11	24V	650	900MW	4PDT	3	7.75
KHS17D11	110V	11,000	900MW	4PDT	3	8.55

*Canadian Standards Association

See ordering information on page 8.

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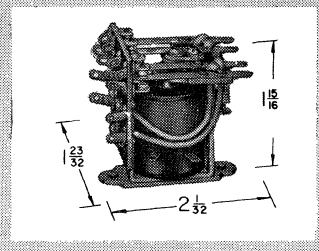
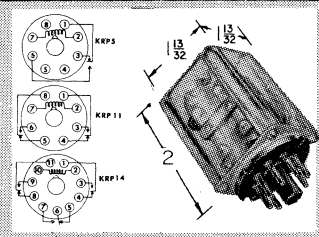
Potter & Brumfield Relays

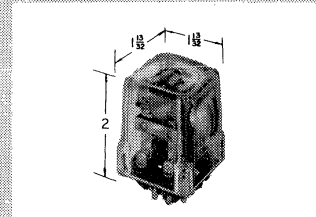
KL SERIES Multiple contact relay. Varied contact combinations and high dielectric phenolic insulation affords extreme versatility and utility. Widely used in such applications as industrial controls, elevator controls, communications equipment and electronic measuring devices. Mounting: All models—Two No. 6-32 tapped holes on 1 7/16" centers. Contacts: 1/8" dia. gold-flashed silver. Weight: 5 ozs.



KRP SERIES Versatile, multi-contact arrangement. Enclosed in a clear cellulose acetate dust cover. Standard 8-pin octal-type plug for KRP5 and KRP11, 11-pin for KRP14. Weight: Approx. 3 ozs. Contacts: 5 amp, 3/16" dia. gold-flashed silver. 10 amp 3/16" dia. silver cadmium-oxide. See KCP-KRP hold down spring for special mounting applications. See KRP indicator lamp relay for current monitoring applications.

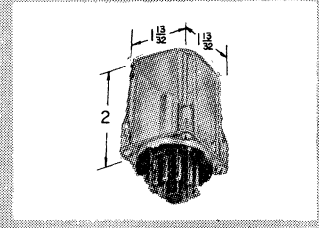


KRP-N INDICATOR LAMP RELAY A general purpose relay incorporating a lamp to indicate current or voltage availability in power circuit. Contacts: 3/16" dia. silver cadmium-oxide. Enclosure: Clear cellulose acetate dust cover. Mounting: Standard octal plug. Weight: Approx. 3 ozs. See KCP-KRP Hold Down Spring for special mountings.



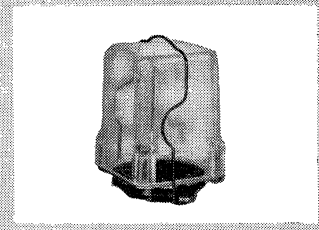
"P"— CASE A clear cellulose acetate case for mounting rectifiers, capacitors, resistors or a combination of these. Available with octal-type plug with 8 or 11-pins. Comes complete with four screws. Weight: .5 ozs. each. See KCP-KRP Hold Down Spring for special mounting applications.

35DO70 Case (8-pin plug) NET $.55
35DO72 Case (11-pin plug) NET $.70

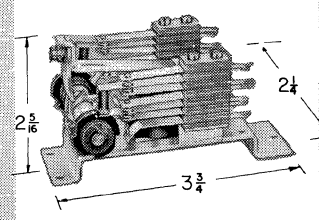


KCP-KRP HOLD DOWN SPRING Designed to insure secure mounting of relay in any position. Fits all KCP or KRP plug-in relays. Durable stainless steel spring can be moved aside for relay removal or installation. Mounting: Two 5/32" dia. holes on 1 5/16" centers; will accommodate machine screws or rivets. Available in quantities of 50 per box. Weight: 3 ozs. per box.

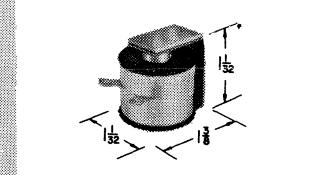
9-KR-15 NET $5.00



AP SERIES RATCHET, IMPULSE A reliable compact unit for applications requiring on-off or reversing action on alternate operations. Positive ratchet operation at all speeds on impulses as short as 60 ms. Intermittent operation only. Mounting: Three 5/32" dia. holes on 3 3/8" x 7/8" triangular centers. Contacts: 3/16" dia. silver. Weight: 7 ozs.



BU BUZZER AC operated coil with a spring steel armature which buzzes when coil is energized. Used extensively in test equipment, laboratories and a host of other applications where a small light weight, dependable buzzer is required. Weight: 1 5/8 ozs. Mounting: No. 6-32 tapped core.



GENERAL PURPOSE RELAYS

TYPE	COILS			CONTACTS		SUGG. LIST PRICE
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
KL5A	**115V**	**760**	**2.9VA**	**SPDT**	**5**	**3.85**
KL5D	12V	140	1.1W	SPDT	5	3.60
KL5D	24V	600	1.1W	SPDT	5	3.60
KL11A	12V	7.8	2.9VA	DPDT	5	4.80
KL11A	24V	33	2.9VA	DPDT	5	4.80
KL11A	115V	760	2.9VA	DPDT	5	4.80
KL14A	24V	33	2.9VA	3PDT	5	5.35
KL14A	115V	760	2.9VA	3PDT	5	5.35
KL14D	24V	600	1.1W	3PDT	5	5.15
KL14D	110V	10,000	1.1W	3PDT	5	5.75
KL17A	6V	2.25	2.9VA	4PDT	5	6.30
KL17A	24V	33	2.9VA	4PDT	5	6.30
KL17A	115V	760	2.9VA	4PDT	5	6.30
KL17D	12V	140	1.1W	4PDT	5	6.00
KL17D	24V	600	1.1W	4PDT	5	6.00
KL17D	110V	10,000	1.1W	4PDT	5	6.60
KRP5A§	**6V**	**5.1**	**2VA**	**SPDT**	**5**	**5.45**
KRP5A§	24V	75	2VA	SPDT	5	5.45
KRP5A§	115V	2,250	2VA	SPDT	5	5.45
KRP5AG§	6V	5.1	2VA	SPDT	10	5.55
KRP5AG§	24V	75	2VA	SPDT	10	5.55
KRP5AG§	115V	2,250	2VA	SPDT	10	5.55
KRP5D§	6V	32.1	1.2W	SPDT	5	5.40
KRP5D§	12V	120	1.2W	SPDT	5	5.40
KRP5D§	24V	472	1.2W	SPDT	5	5.40
KRP5D§	110V	10,000	1.2W	SPDT	5	6.00
KRP5DG§	6V	32.1	1.2W	SPDT	10	5.50
KRP5DG§	12V	120	1.2W	SPDT	10	5.50
KRP5DG§	24V	472	1.2W	SPDT	10	5.50
KRP5DG§	110V	10,000	1.2W	SPDT	10	6.10
KRP11A§	6V	5.1	2VA	DPDT	5	6.05
KRP11A§	12V	21	2VA	DPDT	5	6.05
KRP11A§	24V	75	2VA	DPDT	5	6.05
KRP11A§	115V	2,250	2VA	DPDT	5	6.05
KRP11A§	230V	9,110	2VA	DPDT	5	6.45
KRP11AG§	6V	5.1	2VA	DPDT	10	6.25
KRP11AG§	12V	21	2VA	DPDT	10	6.25
KRP11AG§	24V	75	2VA	DPDT	10	6.25
KRP11AG§	115V	2,250	2VA	DPDT	10	6.25
KRP11AG§	230V	9,100	2VA	DPDT	10	6.65
KRP11D§	6V	32.1	1.2W	DPDT	5	6.00
KRP11D§	12V	120	1.2W	DPDT	5	6.00
KRP11D§	24V	472	1.2W	DPDT	5	6.00
KRP11D§	110V	10,000	1.2W	DPDT	5	6.60
KRP11DG§	6V	32.1	1.2W	DPDT	10	6.20
KRP11DG§	12V	120	1.2W	DPDT	10	6.20
KRP11DG§	24V	472	1.2W	DPDT	10	6.20
KRP11DG§	110V	10,000	1.2W	DPDT	10	6.80
KRP14A§	6V	5.1	2VA	3PDT	5	7.50
KRP14A§	12V	21	2VA	3PDT	5	7.50
KRP14A§	24V	75	2VA	3PDT	5	7.50
KRP14A§	115V	2,250	2VA	3PDT	5	7.50
KRP14A§	230V	9,110	2VA	3PDT	5	7.90
KRP14AG§	6V	5.1	2VA	3PDT	10	7.80
KRP14AG§	12V	21	2VA	3PDT	10	7.80
KRP14AG§	24V	75	2VA	3PDT	10	7.80
KRP14AG§	115V	2,250	2VA	3PDT	10	7.80
KRP14AG§	230V	9,100	2VA	3PDT	10	8.20
KRP14D§	6V	32.1	1.2W	3PDT	5	7.45
KRP14D§	12V	120	1.2W	3PDT	5	7.45
KRP14D§	24V	472	1.2W	3PDT	5	7.45
KRP14D§	110V	10,000	1.2W	3PDT	5	8.05
KRP14DG§	6V	32.1	1.2W	3PDT	10	7.75
KRP14DG§	12V	120	1.2W	3PDT	10	7.75
KRP14DG§	24V	472	1.2W	3PDT	10	7.75
KRP14DG§	110V	10,000	1.2W	3PDT	10	8.35
KRP11AN§	**6V**	**5.1**	**2VA**	**DPDT**	**10**	**7.15**
KRP11AN§	12V	21	2VA	DPDT	10	7.15
KRP11AN§	24V	75	2VA	DPDT	10	7.15
KRP11AN§	115V	2,250	2VA	DPDT	10	7.15
KRP11AN§	230V	9,110	2VA	DPDT	10	7.55
KRP11DN§	6V		1.2W	DPDT	10	7.10
KRP11DN§	12V	120	1.2W	DPDT	10	7.10
KRP11DN§	24V	420	1.2W	DPDT	10	7.10
KRP11DN§	110V	10,000	1.2W	DPDT	10	7.70
KRP14AN§	6V	5.1	2VA	3PDT	10	8.70
KRP14AN§	12V	21	2VA	3PDT	10	8.70
KRP14AN§	24V	75	2VA	3PDT	10	8.70
KRP14AN§	115V	2,250	2VA	3PDT	10	8.70
KRP14AN§	230V	9,110	2VA	3PDT	10	9.10

SPECIAL PURPOSE RELAYS

AP11A	**6V**	**0.6**	**18.5VA**	**DPDT**	**5**	**8.70**
AP11A	12V	2.28	18.5VA	DPDT	5	8.70
AP11A	24V	8.8	18.5VA	DPDT	5	8.70
AP11A	115V	240	18.5VA	DPDT	5	8.70
AP11A	230V	900	18.5VA	DPDT	5	9.15
AP11D	6V	4.0	9.0W	DPDT	5	8.70
AP11D	24V	65	9.0W	DPDT	5	8.70
AP11D	110V	1,350	9.0W	DPDT	5	9.35
AP17A	24V	8.8	18.5VA	4PDT	5	10.50
AP17A	115V	240	18.5VA	4PDT	5	10.50
AP17D	12V	15.5	9.0W	4PDT	5	10.50
AP17D	24V	65	9.0W	4PDT	5	10.50
AP17D	110V	1,350	9.0W	4PDT	5	11.15
BU	**6V**	**2.75**	**4.6VA**			**1.70**
BU	12V	13.25	4.6VA			1.70
BU	24V	50	4.6VA			1.70
BU	115V	1,250	4.6VA			1.70

§Enclosed Relay

See ordering information on page 8.

Trade Discount Applies To List Prices Only

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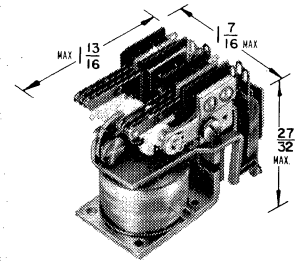
Potter & Brumfield Relays

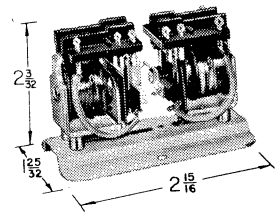
SPECIAL PURPOSE RELAYS

GM SERIES Unusually versatile switching makes this impulse/sequencing relay especially suitable for single coil latching. The 2 Form C contact arrangement is switched alternately by cam action during drop-out of the armature. It can also be furnished with additional 2 Form C auxiliary contacts (designated by "L"). AC version operates on a 50% coil duty cycle (5 Min. max.). Mounting: 8-32 tapped core with locating boss. Weights: With aux. contacts 4¾ ozs. Without aux. contacts 4 ozs.



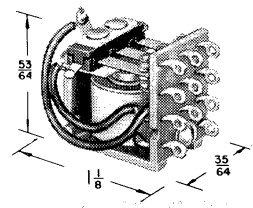
TYPE	COILS Voltage or Current	COILS Resistance in Ohms	COILS Nominal Power	CONTACTS Arrangement	CONTACTS Rate in Amps	SUGG LIST PRICE
GM11A	**24V**	**16**	**9.4VA**	**DPDT**	**3**	**$ 7.15**
GM11A	115V	425	9.4VA	DPDT	3	7.15
GM11AL11	24V	16	9.4VA	DPDT/DPDT	3	10.20
GM11AL11	115V	425	9.4VA	DPDT/DPDT	3	10.20
GM11D	12V	36	4W	DPDT	3	6.90
GM11D	24V	144	4W	DPDT	3	6.90
GM11D	110V	3025	4W	DPDT	3	7.35
GM11DL11	12V	36	4W	DPDT/DPDT	3	10.00
GM11DL11	24V	144	4W	DPDT/DPDT	3	10.00
GM11DL11	110V	3025	4W	DPDT/DPDT	3	10.45

KB SERIES LATCHING RELAY Both release and trip coils must be for the same voltage. One coil operates relay to set latch and other coil releases it. Ideal for memory work and overload applications. Operates on momentary impulse to either coil. Mounting: Two 7/32" dia. holes on 1⅜" centers. Weight: 6 ozs. Contacts: ⅛" dia. silver rated 5 amps; "G" suffix indicates silver cadmium-oxide contacts on movables rated 10 amps. AC relays with 5 amp. contacts carry U/L and CSA° labels.



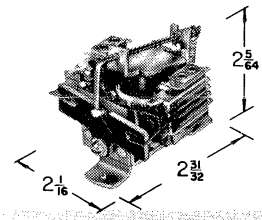
KB17AY	**6V**	**2.3**	**5VA**	**4PDT**	**5**	**10.50**
KB17AY	12V	10	5VA	4PDT	5	10.50
KB17AY	24V	42	5VA	4PDT	5	10.50
KB17AY	115V	1,030	5VA	4PDT	5	10.50
KB17AY	230V	4,100	5VA	4PDT	5	11.30
KB17AG	6V	2.3	5VA	4PDT	10	10.60
KB17AG	12V	10	5VA	4PDT	10	10.60
KB17AG	24V	42	5VA	4PDT	10	10.60
KB17AG	115V	1,030	5VA	4PDT	10	10.60
KB17AG	230V	4,100	5VA	4PDT	10	11.40
KB17D	6V	13.1	2.7W	4PDT	5	9.45
KB17D	12V	52.0	2.7W	4PDT	5	9.45
KB17D	24V	230	2.7W	4PDT	5	9.45
KB17D	110V	4,560	2.7W	4PDT	5	10.65
KB17DG	6V	13.1	2.7W	4PDT	10	9.65
KB17DG	12V	52.0	2.7W	4PDT	10	9.65
KB17DG	24V	230	2.7W	4PDT	10	9.65
KB17DG	110V	4,560	2.7W	4PDT	10	10.85
KB23AY	24V	27	7.8VA	6PDT	5	12.60
KB23AY	115V	700	7.8VA	6PDT	5	12.60
KB23AG	24V	27	7.8VA	6PDT	10	12.80
KB23AG	115V	700	7.8VA	6PDT	10	12.80
KB23D	24V	230	2.7W	6PDT	5	11.45
KB23DG	24V	230	2.7W	6PDT	10	11.75
KB23DG	110V	4,560	2.7W	6PDT	10	12.95

KM SERIES Subminiature relay for applications requiring unusually small relays with up to 3-poles. 3/32" dia. silver contacts. Withstands 30g mechanical shock and .06" excursion 10 to 55 cps mechanical vibration. Used extensively in small business machines, alarm systems, automatic toys and communications systems. Mounting: One 2-56 tapped core and locating half-punch. Solder terminals. Weight: .58 ozs.



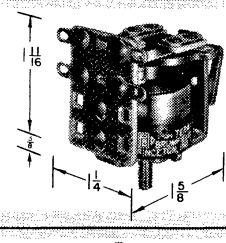
KM5D	**6V**	**36**	**1.1W**	**SPDT**	**2**	**3.35**
KM5D	12V	144	1.1W	SPDT	2	3.35
KM5D	24V	500	1.1W	SPDT	2	3.35
KM11D	6V	36	1.1W	DPDT	2	3.70
KM11D	12V	144	1.1W	DPDT	2	3.70
KM11D	24V	500	1.1W	DPDT	2	3.70
KM14D	6V	36	1.1W	3PDT	2	4.25
KM14D	12V	144	1.1W	3PDT	2	4.25
KM14D	24V	500	1.1W	3PDT	2	4.25

PC SERIES Single coil impulse latching relay for on-off and current reversal switching on alternate pulses. Operates on 30 millisecond pulses to the coil. Mounting: Two 7/32" dia. holes on 2⅝" centers. Weight: 5 ozs. Contacts: ⅛" dia. gold-flashed silver cadmium-oxide.



PC11A	**6V**	**0.6**	**18.5VA**	**DPDT**	**7.5**	**5.50**
PC11A	12V	2.28	18.5VA	DPDT	7.5	5.50
PC11A	24V	8.8	18.5VA	DPDT	7.5	5.50
PC11A	115V	240	18.5VA	DPDT	7.5	5.50
PC11D	6V	4.0	9.0W	DPDT	7.5	5.35
PC11D	12V	15.5	9.0W	DPDT	7.5	5.35
PC11D	24V	65.0	9.0W	DPDT	7.5	5.35
PC17A	24V	8.8	18.5VA	4PDT	7.5	7.60
PC17A	115V	240	18.5VA	4PDT	7.5	7.60
PC17D	24V	65	9.0W	4PDT	7.5	7.45

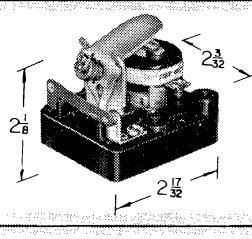
KT SERIES ANTENNA SWITCHING RELAY Glass base insulation for minimum RF loss to switch 300 ohm line. Mounting: One No. 6-32 threaded stud. Contacts: ⅛" dia. gold-flashed silver. Weight: 1½" ozs.



KT11A	**6V**	**5.1**	**2VA**	**DPDT**	**5**	**3.70**
KT11A	115V	2,250	2VA	DPDT	5	3.70
KT11D	6V	32.1	1.2W	DPDT	5	3.70
KT11D	12V	120	1.2W	DPDT	5	3.70

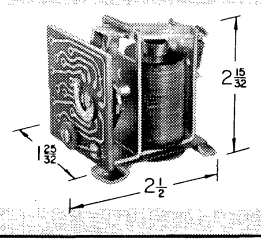
SPECIFY COIL VOLTAGE OR RESISTANCE WHEN ORDERING

MS SERIES MOTOR STARTING RELAYS For starting capacitor start, induction-run motors. Operates on back EMF of start winding. Armature gap can be altered to change pull-in. Meets all U/L spacing requirements. Mounting: Two 7/32" dia. holes on 1 29/64" centers. Contacts: ¾ HP, 7/32" dia. fine silver. 3 HP, 7/32" dia. silver cadmium. Weight: 5 ozs. max.
MS/MR Metal dust cover similar to PM/PR shown on page 4. 3⅝" x 2⅜" x 2 19/32". Weight: 7.5 ozs.
35D130 fits MS/MR NET $1.90



MS2AY	**115V**	**530**	**5.9VA**	**SPST-NC**	**¾HP**	**3.55**
MS2AY	230V	2,100	5.9VA	SPST-NC	¾HP	3.95
MS4AY	115V	530	5.9VA	SPST-NC-DB	3HP	4.15
MS4AY	230V	2,100	5.9VA	SPST-NC-DB	3HP	4.55

SA SERIES STEPPING SWITCH A twelve position stepping relay with printed circuit strips to switch currents up to 250 milliamps. Armature-driven pawl operates a ratchet wheel to drive the movable contact in steps of 30 degrees over 12 positions. Used widely for audio-level switching in TV remote control units, scoreboards and process controls. Mounting: Two 6-32 holes on 1 13/16" centers. Weight: 4 ozs.



SA-1N-12A	**115V**	**140**	**20VA**	**12-steps**	**.25**	**6.60**

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°Canadian Standards Association

See ordering information on page 8.

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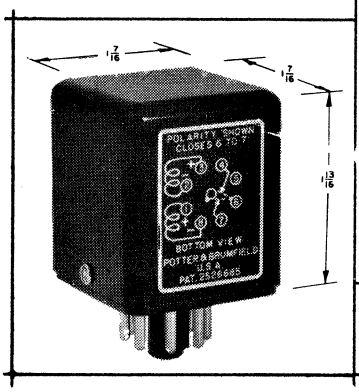

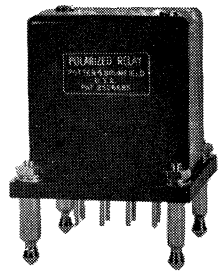

MDP-900-1 and MDP-930-1 Replaces Western Electric Type 255

NEW! SMALL POLARIZED RELAYS

- **Sensitive**
- **High Speed**
- **Bounce-free**

For Bi-Stable or Center-Stable Operation

Small size, ultra-sensitivity and high speed switching together with efficient, bounce-free contact action characterize P&B MDP polarized relays. Their operation depends on both the magnitude and direction of the coil current. Two types of contact arrangements provide the following action when the coils are de-energized: *Bi-stable* – armature remains in its last energized position; *Center-stable* – armature remains in center-off position with contacts open. Silver contacts. Temperatures: −60°C to +85°C. Measuring only 1 7/16" sq. by 1 13/16" high (seated), MDP relays are equipped with a plastic dust cover and 8 or 12-pin plugs. Weight: 4¼ ozs.

Types MDP-900-1 and MDP-930-1 (with extra long life contacts) will directly replace Western Electric Type 255 relays. 2-11/16" square x 3-3/4" overall height. Weight: 10 ozs.

37B536 Hold-down Bracket to adapt MDP relays to Barber-Colman socket. Box of 10 Net $2.50

TYPE	COILS			CONTACTS		Sugg. List Price
	Pull-In Current In MA	Resistance In Ohms Each Coil*	Pull-In Power In Micro Watts	Arrangement	Rate In Amps Resistive	
Center-stable:						
MDP-306-5	1.5	250 (4)	562	1 Form C	.005-.5A† 5-150V	31.80
Bi-stable:						
MDP-300-1	1.5	150 (2)	338	1 Form C	.01-.1A† 25-150V	21.30
MDP-900-1	2.0	150 (2)	600	1 Form C	.01-.1A† 25-150V	27.60
MDP-930-1	2.4	150 (2)	863	1 Form C	.01-.5A† 25-150V	28.15
MDP-1300-1	1.4	150 (2)	294	1 Form C	.01-.1A† 25-150V	21.30
MDP-1300-8	0.28	4000 (2)	314	1 Form C	.01-.1A† 25-150V	21.30
Center-stable:						
MDP-1001	1.75	12 (1)	36.8	1 Form C	3 @ 28 VDC	24.35
MDP-1004	0.49	130 (1)	31.2	1 Form C	3 @ 28 VDC	24.35
MDP-1006	0.32	330 (1)	33.8	1 Form C	3 @ 28 VDC	24.35
MDP-1007	0.27	480 (1)	35.0	1 Form C	3 @ 28 VDC	24.35
MDP-1008	0.23	900 (1)	47.6	1 Form C	3 @ 28 VDC	24.35
MDP-1009	0.18	1460 (1)	47.3	1 Form C	3 @ 28 VDC	24.35
MDP-1011	0.10	3500 (1)	35.0	1 Form C	3 @ 28 VDC	24.35
MDP-1013	0.067	7200 (1)	32.3	1 Form C	3 @ 28 VDC	24.35
MDP-2001	3.50	6 (2)	73.5	1 Form C	3 @ 28 VDC	24.35
MDP-2008	0.46	360 (2)	76.2	1 Form C	3 @ 28 VDC	24.35
MDP-2009	0.32	1000 (2)	102.0	1 Form C	3 @ 28 VDC	24.35
MDP-2011	0.17	2300 (2)	66.5	1 Form C	3 @ 28 VDC	24.35
MDP-2101	5.30	6 (2)	169	1 Form C	3 @ 28 VDC	24.35
MDP-2107	0.80	240 (2)	154	1 Form C	3 @ 28 VDC	24.35
MDP-2112	0.22	3300 (2)	160	1 Form C	3 @ 28 VDC	24.35

*Number of coils shown in ( ) parenthesis. †With suitable arc suppression

FACILITIES

ENGINEERING CAPABILITIES P&B's large staff of specialists concentrate exclusively on the design engineering aspects of electro-mechanical relays. During nearly a third of a century, they have created many original and basic designs which have earned wide acceptance throughout the world. Our engineering capabilities are wholly devoted to a continual search for new designs and the improvement of existing relays. Chances are, our engineers can help you solve your relay problems and perhaps suggest cost-saving hook-up and mounting methods compatible with modern production techniques.

PRODUCTION FACILITIES Manufacturing facilities include three factories in the United States and one in Canada. More than 150,000 square feet of space is devoted exclusively to the production of high quality relays for commercial and military needs. Shop staffs apply their skills equally well in large production runs or in turning out limited quantities of custom-designed relays.

TESTING AND QUALITY CONTROL A completely equipped Test Department is maintained for prototype as well as specific, customer-required testing. Our scope of testing capabilities includes vibration, acceleration, shock, humidity, atmospheric pressure, life-under-load, reliability, contact resistance and others. Certification of test results will be supplied upon request. A complete Standards Room is maintained to keep all test equipment in meticulous calibration. More than 100 employees comprise our Quality Control group. Government inspection is under the cognizance of the United States Navy.

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SEE PAGE 5 FOR RELIABLE

TIME DELAY RELAYS

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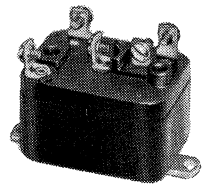
DIVISION OF ESSEX WIRE CORPORATION

Logansport, Indiana

TYPE 84



APPROX. OVERALL DIMENSIONS
2⅜" x 1⅝" x 1½"

TOTALLY ENCLOSED
SCREW TERMINALS
OPERATES ANY POSITION

SINGLE POLE NORMALLY OPEN

Part Number	Coil Voltage (60 Cy.)	Price	*Contact Rating 125/250 V. A.C.	
			Inductive	Resistive
84-901	6	2.85	8 AMP. CONTINUOUS 25 AMP. INRUSH	16 AMP. CONTINUOUS
84-902	24	2.90		
84-903	115/120	3.05		
84-904	230/240	3.35		

SINGLE POLE DOUBLE THROW

Part Number	Coil Voltage (60 Cy.)	Price	*Contact Rating 125/250 V. A.C.	
			Inductive	Resistive
84-905	6	3.00	8 AMP. CONTINUOUS 18 AMP. INRUSH	12 AMP. CONTINUOUS
84-906	24	3.20		
84-907	115/120	3.35		
84-908	230/240	3.59		

*See Type 84D—For D.C. Contact Rating.

TYPE 129

APPROX. OVERALL DIMENSIONS
2⅜" x 1⅞" x 1⅞"

TOTALLY ENCLOSED
SCREW TERMINALS
OPERATES ANY POSITION

SINGLE POLE NORMALLY OPEN

Part Number	Coil Voltage (60 Cy.)	Price	Contact Rating 250 V. A.C. MAX.	
			Inductive	Resistive
129-901	6	3.89	18 AMP. CONTINUOUS 1 H.P.—125 V. 2 H.P.—250 V.	18 AMP. CONTINUOUS
129-902	24	3.94		
129-903	115/120	4.05		
129-904	208/230	4.14		

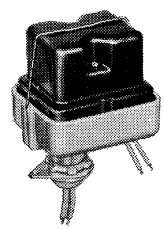
SINGLE POLE DOUBLE THROW
(ISOLATED TERMINALS)†

Part Number	Coil Voltage (60 Cy.)	Price	Contact Rating 250 V. A.C. MAX.	
			Inductive	Resistive
129-905	6	4.32	18 AMP. CONTINUOUS 1 H.P.—125 V. 2 H.P.—250 V.	18 AMP. CONTINUOUS
129-906	24	4.37		
129-907	115/120	4.50		
129-908	208/230	4.59		

†All Contact Terminals Must Be Wired Same Polarity.

TYPE 129AR

ADD-A-RELAY



APPROX. OVERALL DIMENSIONS
3⅝" x 2⅝" x 3⅜"

MOUNTS IN ½" KNOCK-OUT
OPERATES ANY POSITION
MEETS STANDARD CODE REQUIREMENTS

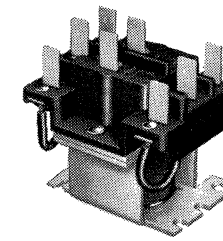
SINGLE POLE NORMALLY OPEN

UNDERWRITERS LABORATORIES WHITE CARD LISTED
File E 12139D 184N13.13 July 17, 1963.

Part Number	Coil Voltage (60 Cy.)	Price	Contact Rating 250 V. A.C. MAX.	
			Inductive	Resistive
129AR-901	24	6.64	18 AMP. CONTINUOUS 1 H.P.—125 V. 2 H.P.—250 V.	18 AMP. CONTINUOUS
129AR-902	115/120	6.94		
129AR-903	208/230	7.25		

Aluminum Die-Cast Base and Bushing • Locknuts and Position Locking Washer Included • Color Coded 8" Load Wires • High Impact Phenolic Enclosure

TYPE 91

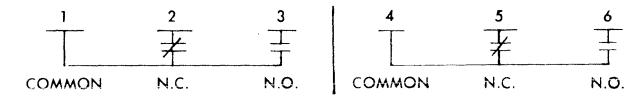


APPROX. OVERALL DIMENSIONS
2⅛" x 1⅞" x 2⅜"

QUICK-CONNECT TERMINALS
ENCLOSED CONTACTS
OPERATES ANY POSITION
SOLENOID ACTION

TWO POLE DOUBLE THROW

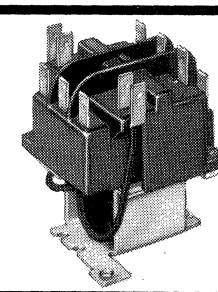
CONTACT TERMINAL ARRANGEMENT



Part Number	Coil Voltage (60 CY.)	Price	Circuit Rating Terminals		Power Rating (A)	
			1-2-3	4-5-6	Inductive	Resistive
91-901	24	5.14	(A)	(A)	12 AMP. CONT. 60 AMP. INRUSH 125 V. A.C. — 6 AMP. CONT. 35 AMP. INRUSH 250 V. A.C.	15 AMP. 277 V. A.C. MAX.
91-902	115/120	5.37				
91-903	208/230/240	5.57				
91-904	24	4.94	(A)	(B)		
91-905	115/120	5.17				
91-906	208/230/240	5.37				
91-907	24	4.84	(B)	(B)	*Pilot Rating (B)	
91-908	115/120	5.07			Inductive	Resistive
91-909	208/230/240	5.27			125 V.A. 1/10 H.P. 125/250 V. A.C.	3 AMP. 277 V. A.C. MAX.

Quick-Connect Wiring Terminals Included.
*See Type 91D—For D.C. Contact Rating.

TYPE 92

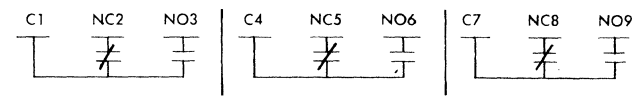


APPROX. OVERALL DIMENSIONS
2⅜" x 2⅜" x 2¾"

QUICK-CONNECT TERMINALS
ENCLOSED CONTACTS
OPERATES ANY POSITION
SOLENOID ACTION
MANUAL OPERATING BUTTON

THREE POLE DOUBLE THROW

CONTACT TERMINAL ARRANGEMENT



Part Number	Coil Voltage (60 CY.)	Price	Circuit Rating			Power Rating (A)	
			X	Y	Z	Inductive	Resistive
92-901	24	5.87	(A)	(A)	(A)	20 AMP. CONT. 100 AMP. INRUSH 125 V. A.C. — 10 AMP. CONT. 50 AMP. INRUSH 250 V .A.C.	25 AMP 277 V. A.C. MAX.
92-902	115/120	6.07					
92-903	208/230/240	6.24					
92-904	24	5.79	(A)	(B)	(A)		
92-905	115/120	5.99					
92-906	208/230/240	6.14					
92-907	24	5.70	(B)	(A)	(B)	*Pilot Rating (B)	
92-908	115/120	5.90					
92-909	208/230/240	6.05				Inductive	Resistive
92-910	24	5.64	(B)	(B)	(B)	125 V.A. 1/10 H.P. 125/250 V. A.C.	3 AMP. 277 V. A.C. MAX.
92-911	115/120	5.84					
92-912	208/230/240	5.99					

Quick-Connect Wiring Terminals Included.
*See Type 92D—For D.C. Contact Rating.

Net

© U.C.P., Inc.

RBM CONTROLS

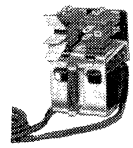
A. C. GENERAL REPLACEMENT RELAYS

The design flexibility of this relay permits many combinations of pole forms (N.O., N.C. & D.T.); number of poles (1 to 6); contact ratings (3, 6 & 15 amperes); coil and contact termination (solder, quick-connect and lead wire) and front or rear mounting.

Relays listed offer wide latitude of circuit application combining power and control circuit ratings. In addition, the relays listed serve as a replacement for over 400 RBM custom designed relays for high volume industrial applications. (Consult your RBM distributor for replacement recommendations).

TYPE 987

TWO POLE DOUBLE THROW



APPROX. OVERALL DIMENSIONS
2⅛" x 1" x 2"

Part Number	Coil Voltage (60 Cy.)	Price	Contact Rating (Non-Inductive) 125/250 V. A.C. Left Hand Stack	Right Hand Stack
987-901	6	3.90	15 AMP. 1PDT	3 AMP. 1PDT
987-902	24	4.10		
987-903	115/120	4.20		
987-904	230/240	4.44		

TWO POLE DOUBLE THROW

APPROX. OVERALL DIMENSIONS
2⅛" x 1" x 2"

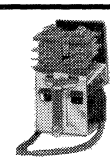
Part Number	Coil Voltage (60 Cy.)	Price	Contact Rating (Non-Inductive) 125/250 V. A.C. Left Hand Stack	Right Hand Stack
987-905	6	4.02	15 AMP. 1PDT	15 AMP. 1PDT
987-906	24	4.22		
987-907	115/120	4.35		
987-908	230/240	4.55		

THREE POLE DOUBLE THROW

APPROX. OVERALL DIMENSIONS
2⅛" x 1" x 2"

Part Number	Coil Voltage (60 Cy.)	Price	Contact Rating (Non-Inductive) 125/250 V. A.C. Left Hand Stack	Right Hand Stack
987-909	6	4.47	15 AMP. 1PDT	3 AMP. 2PDT
987-910	24	4.66		
987-911	115/120	4.79		
987-912	230/240	4.99		

FOUR POLE DOUBLE THROW



APPROX. OVERALL DIMENSIONS
2⅛" x 1" x 2"

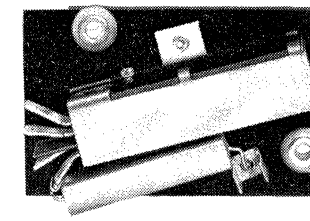
Part Number	Coil Voltage (60 Cy.)	Price	Contact Rating (Non-Inductive) 125/250 V. A.C. Left Hand Stack	Right Hand Stack
987-913	6	5.02	3 AMP. 2PDT	3 AMP. 2PDT
987-914	24	5.22		
987-915	115/120	5.35		
987-916	230/240	5.55		

ALL RELAYS HAVE 9" COIL LEAD WIRES
FEMALE QUICK-CONNECT WIRING TERMINALS INCLUDED
MOUNTING BRACKET INCLUDED TO PERMIT FRONT OR REAR MOUNTING

A. C. TIME DELAY RELAYS

TYPE 59

THERMAL



After Energization • After De-Energization • Thermal & Rectifier/Capacitor Types • Fixed Timing Cycle • Not Instantaneous Reset • Pilot Duty and Horsepower Ratings • Operates Any Position

APPROX. OVERALL DIMENSIONS
3⅜" x 2⅛" x ⅞"

AMBIENT COMPENSATED
QUICK-CONNECT TERMINALS
RESILIENT MOUNTING

SINGLE POLE NORMALLY OPEN

TIME DELAY TO CLOSE—AFTER ENERGIZATION—APPROX. 30 SECS.

Part Number	Operating Voltage	Operating Watts	Price	Contact Rating
59-901	24	3.0	3.42	3 AMP. 125/250 V. A.C. PILOT DUTY
59-902	115/120	7.0	4.12	
59-903	230/240	10.0	4.12	

SINGLE POLE NORMALLY CLOSED

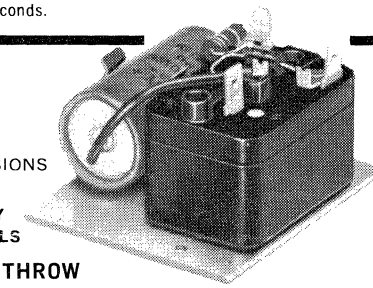
TIME DELAY TO OPEN—AFTER ENERGIZATION—APPROX. 30 SECS.

Part Number	Operating Voltage	Operating Watts	Price	Contact Rating
59-904	24	3.0	3.42	3 AMP. 125/250 V. A.C. PILOT DUTY
59-905	115/120	7.0	4.12	
59-906	230/240	10.0	4.12	

Quick-Connect Wiring Terminals Included.
Reset Time Approximately 60 seconds.

TYPE 84T

RECTIFIER/CAPACITOR



APPROX. OVERALL DIMENSIONS
2⅝" x 2¼" x 1½"

TOTALLY ENCLOSED RELAY
QUICK-CONNECT TERMINALS

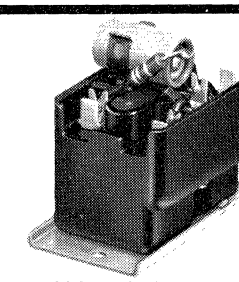
SINGLE POLE DOUBLE THROW

Part Number	Contact Action †Delay After Coil Energized	Contact Action Delay After Coil De-Energized	Coil Voltage (60 Cy.)	Time Delay in Secs. ±25%	Price	Contact Rating (A.C.) Inductive
84TE-901	X	—	24	1	7.57	3 AMP. 125 V. 1.5 AMP. 250 V. CONTINUOUS
84TE-902	X	—	115/120	2	7.57	
84TE-903	X	—	230/240	2	7.57	
84TD-901	—	X	24	1	7.57	
84TD-902	—	X	115/120	2	7.57	
84TD-903	—	X	230/240	2	7.57	

Quick-Connect Wiring Terminals Included.
†Reset Time Approximately 4 Seconds. (For Capacitor Discharge).

TYPE 129T

RECTIFIER/CAPACITOR



APPROX. OVERALL DIMENSIONS
3⅛" x 2" x 3"

TOTALLY ENCLOSED RELAY
QUICK-CONNECT TERMINALS
NON-POSITIONAL MOUNTING

SINGLE POLE NORMALLY OPEN

TIME DELAY TO OPEN—AFTER DE-ENERGIZATION—2 SECONDS ±25%

Part Number	Coil Voltage (60 Cy.)	Price	Contact Rating 250 V. A.C. Max. Inductive	Resistive
129TD-901	115/120	8.57	18 AMP. CONTINUOUS	18 AMP. CONTINUOUS
129TD-902	230/240	8.57	1 H.P.—125 V. 2 H.P.—250 V.	

Quick-Connect Wiring Terminals Included.

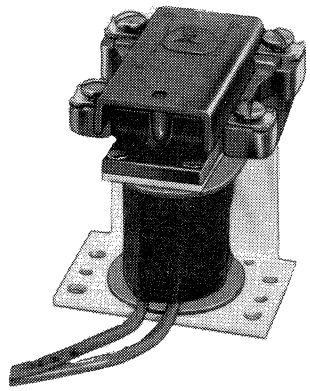
© U.C.P., Inc.

RBM CONTROLS

A. C. POWER CONTACTORS

TYPE 75

18 AMP.—230 V.



APPROX. OVERALL DIMENSIONS
2½" x 2⅛" x 2¼"

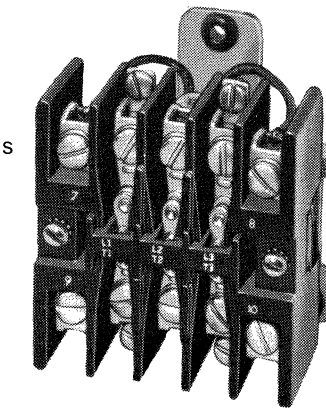
SCREW POWER TERMINALS
NO. 8 SOLID WIRE MAX.
COIL LEAD WIRE TERMINATION
PROTECTIVE CONTACT COVER

TWO POLE NORMALLY OPEN

Part Number	Coil Voltage (60 Cy.)	Price	Contact Rating (A.C.)	
			Inductive	Resistive
75-901	24	4.59	1 H.P. Per Pole 115/230 V. — 2 Pole Rating 2 H.P.—230 V. — 18 AMP. Cont. 230 V.	25 AMP. 240 V. Per Pole
75-902	115/120	4.59		
75-903	230/240	4.59		

TYPE 85

25 AMP.—250 V.
12.5 AMP.—600 V.



APPROX. OVERALL DIMENSIONS
3½" x 2⅞" x 2⅝"

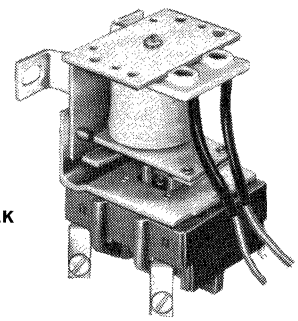
SCREW TERMINALS—NO. 6 SOLID WIRE MAX. • DOUBLE BREAK "NO-KISS" CONTACT ACTION • AUXILIARY WIRING TERMINALS • STRAIGHT-THRU WIRING • HI-DIELECTRIC ARC RESISTANT MOLDED CONTACT BLOCK & CARRIER • RESILIENT MOUNTING

THREE POLE NORMALLY OPEN

Part Number	Coil Voltage (60 Cy.)	Price	Contact Rating (A.C.) Inductive	
			250 V.	600 V.
85-901	24	10.80	25 AMP. CONT. 150 AMP. INRUSH	12.5 AMP. CONT. 75 AMP. INRUSH
85-902	120	10.80		
85-903	208/230	10.80		

TYPE 80

25 AMP.—250 V.



APPROX. OVERALL DIMENSIONS
3⅛" x 2⅝" x 2⅞"

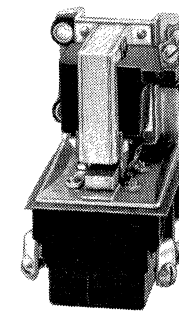
SCREW POWER TERMINALS—NO. 8 SOLID WIRE MAX. • COIL LEAD WIRE TERMINATION • DOUBLE BREAK "NO-KISS" CONTACT ACTION • HI-DIELECTRIC ARC RESISTANT MOLDED CONTACT BLOCK AND CARRIER

TWO POLE NORMALLY OPEN

Part Number	Coil Voltage (60 Cy.)	Price	Contact Rating (A.C.) Inductive
80-901	24	7.27	25 AMP. CONTINUOUS 150 AMP. INRUSH 250 V. MAX.
80-902	120	7.27	
80-903	208	7.27	
80-904	240	7.27	

TYPE S30

30 AMP.—250 V.
15 AMP.—600 V.



APPROX. OVERALL DIMENSIONS
3⅞" x 2⅜" x 2½"

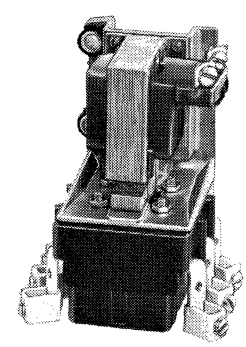
SCREW POWER TERMINALS NO. 8 SOLID WIRE MAX. SOLENOID ACTUATED • ENCLOSED CONTACTS • DOUBLE BREAK "NO-KISS" CONTACT ACTION • CAST ALUMINUM BASE • RESILIENT MOUNTING • LAMINATED "C" MAGNET & SELF ALIGNING "T" ARMATURE • HIGH DI-ELECTRIC ARC RESISTANCE MOLDED CONTACT BLOCK & CARRIER • EPOXY-CLAD MAGNET COIL.

THREE POLE NORMALLY OPEN

Part Number	Coil Voltage (60 Cy.)	Price	Contact Rating (A.C.) Inductive		
			Voltage	Continuous	Inrush
S30-901	24	11.55	250	30 AMP.	180 AMP.
S30-902	115	11.55			
S30-903	230	11.55	600	15 AMP.	90 AMP.

TYPE S40

40 AMP.
250 V. MAX.



APPROX. OVERALL DIMENSIONS
3⅞" x 2¾" x 2½"

PRESSURE CONNECTOR POWER TERMINALS NO. 6 SOLID WIRE MAX.

THREE POLE NORMALLY OPEN

Part Number	Coil Voltage (60 Cy.)	Price	Contact Rating (A.C.) Inductive
S40-901	24	13.10	40 AMP. CONTINUOUS 200 AMP. INRUSH 250 V. MAX.
S40-902	115	13.10	
S40-903	230	13.10	

Net

© U.C.P., Inc.

RBM CONTROLS

A. C. INDUSTRIAL CONTACTORS 15 TO 50 AMPERE—600 VOLT

Unique design permits common base, coil & magnet for contactor ratings from 15 to 50 amperes • Double break "no-kiss" contact action • Replaceable contacts & coil • Epoxy sealed molded magnet coil housing • Laminated corrosion resistant E-Type magnet & self-aligning armature • Hi-dielectric arc resistant molded contact block & carrier • 50/60 cycle magnet coil • Resilient mounting.

TYPE C15

15 AMP.—600 V.

APPROX. OVERALL DIMENSIONS
3⅝" x 2¾" x 3⅜"

PRESSURE CONNECTOR POWER TERMINALS NO. 10 SOLID WIRE MAX.

FOUR POLE NORMALLY OPEN*

Part Number	Coil Voltage (50/60 Cy.)	Price	Contact Rating (A.C.) Horsepower Voltage	Single Phase	Three Phase
C15-901	24	19.80	110	1	1½
C15-902	110	19.80	220	1½	2
C15-903	220	19.80	600	1½	2
C15-904	440	19.80	Resistive		
			15 AMP. 600 V. Max. (Per Pole)		

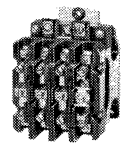
*All contacts can be converted to normally closed with screw driver. No special parts required. See below.

TYPE C30

30 AMP.—600 V.

APPROX. OVERALL DIMENSIONS
3⅝" x 2¾" x 3⅜"

PRESSURE CONNECTOR POWER TERMINALS NO. 6 SOLID WIRE MAX.



THREE POLE NORMALLY OPEN
(WITH 15 AMP. AUXILIARY NORMALLY OPEN *CONTACT)

Part Number	Coil Voltage (50/60 Cy.)	Price	Main Contact Rating (A.C.) Horsepower Voltage	Single Phase	Three Phase
C30-901	24	24.30	110	2	3
C30-902	110	24.30	220	3	7½
C30-903	220	24.30	600	5	10
C30-904	440	24.30	Resistive		
			30 AMP.—600 V. (Per Pole)		

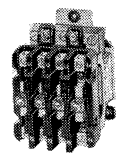
*Auxiliary pole can be converted to normally closed with screw driver. No special parts required. See below.

TYPE C50R

50 AMP.—480 V. RESISTIVE ONLY

APPROX. OVERALL DIMENSIONS
3⅝" x 2¾" x 3⅜"

PRESSURE CONNECTOR POWER TERMINALS NO. 6 STRANDED WIRE MAX.



FOUR POLE NORMALLY OPEN

Part Number	Coil Voltage (50/60 Cy.)	Price	Contact Rating (A.C.)
C50R-901	24	26.00	RESISTIVE ONLY FOR ELECTRIC HEATING 50 AMP. 480 VOLT MAX.
C50R-902	110	26.00	
C50R-903	220	26.00	
C50R-904	440	26.00	

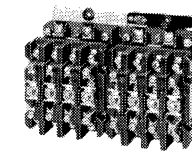
Two Type C contactors mounted side by side on common steel base • Resilient mounting • Hardened steel mechanical interlock prevents simultaneous closing of both contactors • No cross-phase wiring • Suitable for motor reversing & transformer tap changing application.

TYPE CR15

15 AMP.—600 V.

APPROX. OVERALL DIMENSIONS
3⅜" x 5⁵⁄₁₆" x 3⅜"

PRESSURE CONNECTOR POWER TERMINALS NO. 10 SOLID WIRE MAX.



FOUR POLE NORMALLY OPEN*
(EACH CONTACTOR)

Part Number	Coil Voltage (50/60 Cy.)	Price	Contact Rating (A.C.) Horsepower Voltage	Single Phase	Three Phase
CR15-901	110	43.20	110	1	1½
CR15-902	220	43.20	220	1½	2
CR15-903	440	43.20	600	1½	2

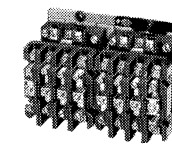
*All contacts can be converted to normally closed with screw driver. No extra parts required. See below.

TYPE CR30

30 AMP.—600 V.

APPROX. OVERALL DIMENSIONS
3⅜" x 5⁵⁄₁₆" x 3⅜"

PRESSURE CONNECTOR POWER TERMINALS NO. 6 STRANDED WIRE MAX.

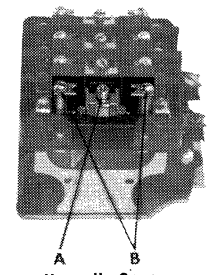


THREE POLE NORMALLY OPEN
(EACH CONTACTOR HAS 15 AMP. AUXILIARY NORMALLY OPEN *CONTACT)

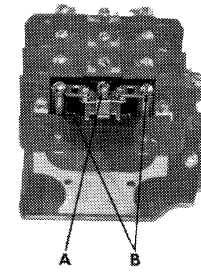
Part Number	Coil Voltage (50/60 Cy.)	Price	Contact Rating (A.C.) Horsepower Voltage	Single Phase	Three Phase
CR30-901	110	52.10	110	2	3
CR30-902	220	52.10	220	3	7½
CR30-903	440	52.10	600	5	10

*Auxiliary contact can be converted to normally closed with screwdriver. No special parts required. See below.

15 AMPERE CONTACT CONVERSION NORMALLY OPEN TO NORMALLY CLOSED



Normally Open
Fig. 1



Normally Closed
Fig. 2

All 15 ampere contact assemblies on RBM standard type C contactors are normally open. To convert to normally closed—

1. Remove movable contact assembly and lock washer by backing off terminal nut "A".
2. Loosen screws "B" and remove stationary contact assemblies.
3. Invert movable contact assembly, and replace on contactor with flat "I" spring resting on contact block. Contacts facing out.
4. Remove screws "B" from, and reinsert into opposite end of, stationary contact assembly. Re-install stationary contact assemblies; holding contacts in alignment with movable contacts while tightening screws.

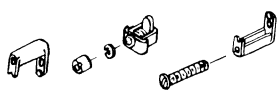
UNIVERSAL ENCLOSURE

APPROX. OVERALL DIMENSIONS
8⅝" x 5¾" x 4⅜"

Part No.	Price
UE-901	6.00

This heavy gauge enclosure has tapped holes (with identification template) to permit mounting of all power relays and contactors listed below.

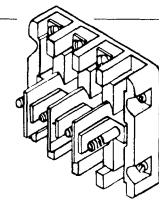
ENCLOSURE WILL ACCOMMODATE FOLLOWING TYPES—129, 75, 80, 85, S30, S40, C15, C30 & C50R.



CONTACT ASSEMBLIES
Figure 1

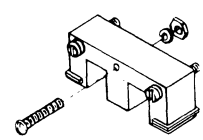
For Contactor Type	Use Contact Assembly Part No.	Price	Replaces
C15, CR15*	CA-901	5.76	45997-3 45997-4
C30, CR30*	CA-902	7.80	45997-5
C50R	CA-903	10.40	45997-22
†109153 †109453	CA-904	9.66	45997-16 45997-20

*Reversing type—2 sets required.
†Not standard catalog items.



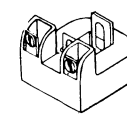
CONTACT BLOCK & CARRIER
Figure 2

4 Pole Part Number	Price	5 Pole Part Number	Price
RP-902	6.92	RP-903	7.82



ARMATURE & MAGNET
Figure 3

Part Number	Price
RP-901	4.28



MAGNET COILS
Figure 4

TYPE C REPLACEMENT PARTS

Voltage (50/60 Cy.)	*Standard Part Number	Price	Replaces	Special Part Number	Price	Replaces
24	MC-901	4.68	45225-5	MC-911	4.82	45225-35
110	MC-902	4.68	45225-1	MC-912	4.82	45225-31
220	MC-903	4.68	45225-2	MC-913	4.82	45225-32
440	MC-904	4.68	45225-3	MC-914	4.82	45225-33
550	MC-905	4.68	45225-4	MC-915	4.82	45225-34

*Do not substitute standard for special coils or vice versa.

RBM CONTROLS

D. C. GENERAL PURPOSE RELAYS 24 VOLTS—MAX.

TYPE 84D

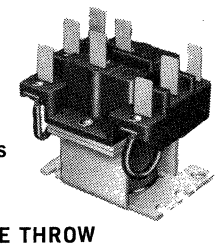
APPROX. OVERALL DIMENSIONS
2⅜" x 1⅝" x 1½"

TOTALLY ENCLOSED
SCREW TERMINALS
OPERATES ANY POSITION

SINGLE POLE DOUBLE THROW

Part Number	Coil Voltage (D.C.)	Price	Contact Rating (D.C.) Inductive	
			Voltage	Current
84D-901	6	3.05	6	3 AMP.
84D-902	12	3.05	12	3 AMP.
84D-903	24	3.05	24	1.5 AMP.

TYPE 91D



APPROX. OVERALL DIMENSIONS
2⅛" x 1⅞" x 2⅜"

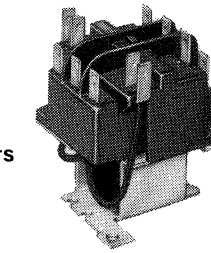
QUICK-CONNECT TERMINALS
ENCLOSED CONTACTS
OPERATES ANY POSITION
SOLENOID ACTION

TWO POLE DOUBLE THROW

Part Number	Coil Voltage (D.C.)	Price	Contact Rating (D.C.) Inductive	
			Voltage	Current
91D-901	6	4.84	6	3 AMP.
91D-902	12	4.84	12	3 AMP.
91D-903	24	4.84	24	1.5 AMP.

Quick-connect wiring terminals included.

TYPE 92D



APPROX. OVERALL DIMENSIONS
2⅜" x 2⅜" x 2¾"

QUICK-CONNECT TERMINALS
ENCLOSED CONTACTS
OPERATES ANY POSITION
SOLENOID ACTION
MANUAL "TEST" BUTTON

THREE POLE DOUBLE THROW

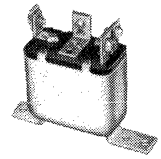
Part Number	Coil Voltage (D.C.)	Price	Contact Rating (D.C.) Inductive	
			Voltage	Current
92D-901	6	5.84	6	3 AMP.
92D-902	12	5.84	12	3 AMP.
92D-903	24	5.84	24	1.5 AMP.

Quick-connect wiring terminals included.

D. C. POWER CONTACTORS 32 VOLTS MAX.

TYPE 60

15 AMP—6 V.
7.5 AMP.—32 V.



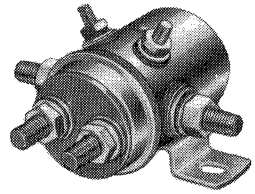
APPROX. OVERALL DIMENSIONS
2⅞" x 1⅛" x 2⅝"

METAL ENCLOSURE
SCREW TERMINALS

SINGLE POLE NORMALLY OPEN

Part Number	Coil Voltage (D.C.)	Price	Contact Rating D.C. Inductive	
			Voltage	Current
60-901	6	2.70	6	15 AMP.
60-902	12	2.70	12	15 AMP.
60-903	24	2.70	24	7.5 AMP.
60-904	32	2.70	32	7.5 AMP.

TYPE 70



APPROX. OVERALL DIMENSIONS
3⅜" x 3⅜" x 2½"
TERMINAL NUTS AND LOCK WASHERS INCLUDED.

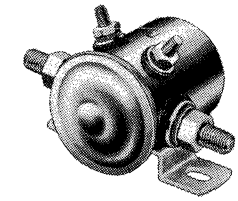
SINGLE POLE DOUBLE THROW
(ISOLATED TERMINALS)

Part Number	Contact Material	Coil Voltage (D.C.)	Price
70-909	SILVER	6	9.54
70-910		12	9.54
70-911		24	9.54
70-912		32	9.54

TYPE 70

Drawn steel dust proof enclosure • Copper stud power & coil terminals • Double break rotating disk movable contact • Isolated coil terminals • Solenoid actuated.

Suggested mounting—cap down.



APPROX. OVERALL DIMENSIONS
2½" x 3½" x 2½"
TERMINAL NUTS AND LOCK WASHERS INCLUDED.

CONTACT RATING

D.C. INDUCTIVE LOAD **COPPER OR SILVER CONTACTS**

Voltage (D.C.)	Normally Open		Normally Closed	
	Continuous	Inrush	Continuous	Inrush
6	80 AMP.	300 AMP.	60 AMP.	100 AMP.
12	80 AMP.	150 AMP.	60 AMP.	60 AMP.
24	50 AMP.	50 AMP.	30 AMP.	30 AMP.
32	50 AMP.	50 AMP.	30 AMP.	30 AMP.

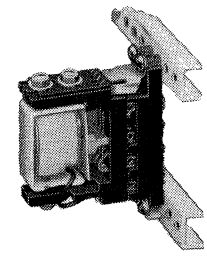
SINGLE POLE NORMALLY OPEN

Part Number	Contact Material	Coil Voltage (D.C.)	Price
70-901	COPPER	6	3.74
70-902		12	3.74
70-903		24	3.74
70-904		32	3.74
70-905	SILVER	6	5.97
70-906		12	5.97
70-907		24	5.97
70-908		32	5.97

D. C. WIRE CONTACT RELAYS

TYPE 81

COMPUTERS • BUSINESS MACHINES • OFFICE EQUIPMENT
DURABLE—200,000,000 OPERATIONS
FAST—6 MILLISECONDS OPERATE TIME



APPROX. OVERALL DIMENSIONS
2" x 5⁄8" x 2⅛"

CONTACT PERFORMANCE *GUIDE
RESISTIVE LOAD—NO ARC SUPPRESSION—48 V. D.C.

ELECTRICAL LIFE

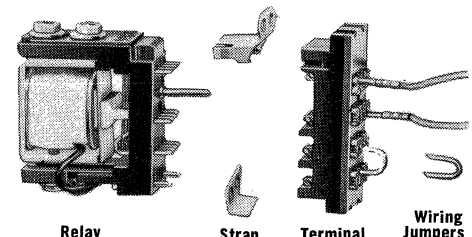
Contact Load (Amperes)	0.025	0.100	0.500	1.0	3.0
Number of Operations (Millions)	200	100	20	5	Carry Only. No Make or Break.

*Based on tests with relay operating rate 30 per second. Consult factory for life expectancy for inductive loads—with or without arc suppression, giving contact loads, frequency of operation and "on time" ratio.

FOUR POLE DOUBLE THROW

Part Number	D.C. Operating Voltage		†Price
	Nominal	Pick-Up	
81-901	24	18	8.42
81-902	48	36	8.42
81-903	115	87	8.42

†Includes terminal block, mounting straps, wiring jumpers and terminals.



Relay Strap Terminal Block Wiring Jumpers and Terminals

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RBM CONTROLS

MINIATURE DIRECT CURRENT SENSITIVE RELAYS

ELECTRICAL LIFE				Mechanical Life (No Load)	Operating Time (Incl. Bounce)	Vibration	Shock
Non-Inductive Load	0.5 AMP.	1.0 AMP.	2.0 AMP.	100,000,000 at 180 Operations Per Minute	20 MILLI-SECONDS	2G 10-55 CYCLES	2G OPERATE 10G NON-OPERATE
Number Operations	1,000,000	300,000	300,000				

1PDT—40 MW: 2PDT—125 MW: 3PDT—200 MW: COIL RESISTANCE—15,000 OHMS MAX. — ISOLATED CONTACTS — PROTECTIVE COVERS—MOLDED COMBINATION COIL BOBBIN AND TERMINAL BLOCK (HI-DIELECTRIC WITH MINIMUM MOISTURE ABSORPTION) OPEN & PLUG-IN TYPES. MINUS 55 TO PLUS 85°C OPERATING AMBIENT.

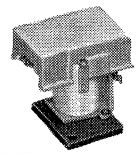
SINGLE POLE DOUBLE THROW

Contact Rating	Coil Power	
2 AMP. NON-INDUCTIVE 28 V. D.C.—115 V. A.C.	MINIMUM REQUIRED	0.040 WATTS
	MAXIMUM CAPACITY	1.5 WATTS

TYPE MS25

SOLDER TERMINALS

APPROX. OVERALL DIMENSIONS
1 9/16" x 1 1/2" x 1 7/16"



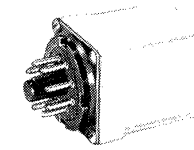
Part Number	D.C. MAGNET COIL At 25°C			Price
	Nominal Voltage or Current	*Max. Pick-up Voltage or Current	†Resistance in Ohms	
MS25-901	6 V.	4.5 V.	510	3.25
MS25-902	12 V.	9.0 V.	2025	3.38
MS25-903	24 V.	18.0 V.	8100	3.84
MS25-904	3.7 MA.	2.8 MA.	5000	3.56
MS25-905	2.7 MA.	2.0 MA.	10000	4.10
MS25-906	2.1 MA.	1.6 MA.	15000	5.05

*Nominal Drop-out Approximately 35% of Pick-up †Nominal ±10%.

TYPE MS25P

PLUG-IN OCTAL BASE

APPROX. OVERALL DIMENSIONS
2" x 1 3/8" x 1 3/8"



Part Number	D.C. MAGNET COIL At 25°C			Price
	Nominal Voltage or Current	*Max. Pick-up Voltage or Current	†Resistance in Ohms	
MS25P-901	6 V.	4.5 V.	510	5.76
MSP25-902	12 V.	9.0 V.	2025	5.90
MSP25-903	24 V.	18.0 V.	8100	6.37
MS25P-904	3.7 MA.	2.8 MA.	5000	6.00
MS25P-905	2.7 MA.	2.0 MA.	10000	6.40
MS25P-906	2.1 MA.	1.6 MA.	15000	7.35

*Nominal Drop-out Approximately 35% of Pick-up †Nominal ±10%.

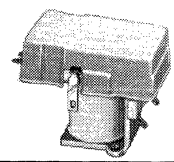
TWO POLE DOUBLE THROW

Contact Rating	Coil Power	
2 AMP. NON-INDUCTIVE 28 V. D.C.—115 V. A.C.	MINIMUM REQUIRED	0.125 WATTS
	MAXIMUM CAPACITY	1.5 WATTS

TYPE MS50

SOLDER TERMINALS

APPROX. OVERALL DIMENSIONS
1 5/8" x 1 1/8" x 1 3/8"



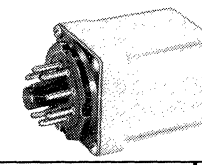
Part Number	D.C. MAGNET COIL At 25°C			Price
	Nominal Voltage or Current	*Max. Pick-up Voltage or Current	†Resistance in Ohms	
MS50-901	6 V.	4.5 V.	160	4.10
MS50-902	12 V.	9.0 V.	650	4.15
MS50-903	24 V.	18.0 V.	2600	4.20
MS50-904	6.7 MA.	5.0 MA.	5000	4.38
MS50-905	4.7 MA.	3.5 MA.	10000	4.92
MS50-906	3.9 MA.	2.9 MA.	15000	5.87

*Nominal Drop-out Approximately 35% of Pick-up †Nominal ±10%.

TYPE MS50P

PLUG-IN OCTAL BASE

APPROX. OVERALL DIMENSIONS
2" x 1 3/8" x 1 3/8"



Part Number	D.C. MAGNET COIL At 25°C			Price
	Nominal Voltage or Current	*Max. Pick-up Voltage or Current	†Resistance in Ohms	
MS50P-901	6 V.	4.5 V.	160	6.14
MS50P-902	12 V.	9.0 V.	650	6.19
MS50P-903	24 V.	18.0 V.	2600	6.30
MS50P-904	6.7 MA.	5.0 MA.	5000	6.40
MS50P-905	4.7 MA.	3.5 MA.	10000	6.80
MS50P-906	3.9 MA.	2.9 MA.	15000	8.25

*Nominal Drop-out Approximately 35% of Pick-up †Nominal ±10%.

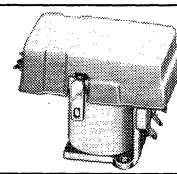
THREE POLE DOUBLE THROW

Contact Rating	Coil Power	
2 AMP. NON-INDUCTIVE 28 V. D.C.—115 V. A.C.	MINIMUM REQUIRED	0.200 WATTS
	MAXIMUM CAPACITY	1.5 WATTS

TYPE MS50

SOLDER TERMINALS

APPROX. OVERALL DIMENSIONS
1 5/8" x 1 1/8" x 1 3/8"



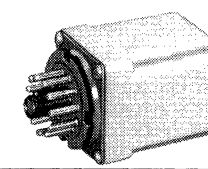
Part Number	D.C. MAGNET COIL At 25°C			Price
	Nominal Voltage or Current	*Max. Pick-up Voltage or Current	†Resistance in Ohms	
MS50-921	6 V.	4.5 V.	100	5.00
MS50-922	12 V.	9.0 V.	400	5.03
MS50-923	24 V.	18.0 V.	1600	5.08
MS50-924	8.5 MA.	6.4 MA.	5000	5.29
MS50-925	6.0 MA.	4.5 MA.	10000	5.82
MS50-926	4.9 MA.	3.7 MA.	15000	6.77

*Nominal Drop-out Approximately 35% of Pick-up †Nominal ±10%.

TYPE MS50P

PLUG-IN ELEVEN-PIN BASE

APPROX. OVERALL DIMENSIONS
2" x 1 3/8" x 1 3/8"



Part Number	D.C. MAGNET COIL At 25°C			Price
	Nominal Voltage or Current	*Max. Pick-up Voltage or Current	†Resistance in Ohms	
MS50P-921	6 V.	4.5 V.	100	7.35
MS50P-922	12 V.	9.0 V.	400	7.38
MS50P-923	24 V.	18.0 V.	1600	7.43
MS50P-924	8.5 MA.	6.4 MA.	5000	7.85
MS50P-925	6.0 MA.	4.5 MA.	10000	8.25
MS50P-926	4.9 MA.	3.7 MA.	15000	9.15

*Nominal Drop-out Approximately 35% of Pick-up †Nominal ±10%.

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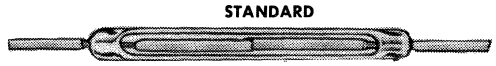
RBM CONTROLS

GLASS REED SWITCHES

MINIATURE
BI-REED ®


STANDARD
BI-REED ®

MINIATURE
TRI-REED ®

CONTACT FORM		SINGLE POLE NORMALLY OPEN (BI-REED)						SINGLE POLE DOUBLE THROW (TRI-REED)		
		MINIATURE				STANDARD		MINIATURE		
PART NUMBER		BRM-901 (Gold Alloy Contacts)		BRM-902 (Rhodium Plated Contacts)		BRS-901 (Gold Alloy Contacts)		TRM-901 (Gold Alloy Contacts)		
PRICE		1.25		1.35		1.25		6.50		
NON-INDUCTIVE CONTACT RATING	Make and Break	12 VA. A.C.—4 WATTS D.C. 1/8 AMP. MAXIMUM UP TO 250 VOLTS		15 VA. A.C.—5 WATTS D.C. 1/4 AMP. MAXIMUM UP TO 250 VOLTS		15 VA. A.C.—5 WATTS D.C. 1.0 AMP. MAXIMUM UP TO 250 VOLTS		15 VA. A.C.—5 WATTS D.C. 1/4 AMP. MAXIMUM UP TO 125 V. A.C. OR 32 V. D.C.		
	No Make or Break	1.0 AMP. 250 V.		1.0 AMP. 250 V.		5 AMP. 250 V.		1 AMP. 125 V. A.C. OR 32 V. D.C.		
CONTACT LIFE Based on 10 Ohm Miss Test	Resistive Load (D.C.)	10 MICRO-AMP @ 10 MILLI-VOLTS	1/8 AMP. @ 32 VOLTS	10 MICRO-AMP. @ 10 MILLI-VOLTS	1/8 AMP @ 32 VOLTS	10 MICRO-AMP. @ 10 MILLI-VOLTS	1/8 AMP. @ 32 VOLTS	10 MICRO-AMP. @ 10 MILLI-VOLTS	1/8 AMP @ 32 VOLTS	
	Number Operations	100,000,000	5,000,000	100,000,000	10,000,000	200,000,000	125,000,000	100,000,000	10,000,000	
APPROXIMATE OVERALL DIMENSIONS		Over Leads	Glass Length	Glass Diameter		Over Leads	Glass Length	Glass Diameter	Over Leads	Glass Length	Glass Diam.
		1.5″	0.75″	0.100″		3.35″	2.1″	0.200″	1.5″	0.60″	0.125″
Weight		0.315 GRAMS				2.5 Grams			0.295 Grams		
MINIMUM BREAKDOWN VOLTAGE (60 Cy. R.M.S.)		250 V.				500 V.			250 V.		
MINIMUM INSULATION RESISTANCE (Megohms)		500 K.				500 K.			100 K.		
INITIAL CONTACT RESISTANCE (Milliohms Max.)		150		150		50			150		
MAXIMUM OPERATE TIME (Milliseconds)		Pull-In Including Bounce)		Release		Pull-In (Incl. Bounce)		Release	Pull-In (Incl. Bounce)		Release
		1.0		0.5		1.0		0.5	1.0		0.5
*AMPERE-TURNS TO OPERATE		Pull-In		Drop Out		Pull-In		Drop Out	Pull-In		Drop Out
		Nominal	Minimum			Nominal	Minimum		Nominal	Minimum	
		35 ± 15	20	50% OF P.U.		100±20	60	30% OF P.U.	50±15	35	70% OF P.U.
NOMINAL COIL POWER		0.335 WATTS				0.360 WATTS			0.335 WATTS		
VIBRATION		15G—2000 C.P.S.				20G—750 C.P.S.			15G—2000 C.P.S.		
SHOCK (JAN S-44)		50G (MIN.)				40G (MIN.)			50G (MIN.)		
AMBIENT TEMPERATURE RANGE		—55° TO +85°C				—55° TO +85°C			—55° TO +85°C.		
STANDARD TEST COIL SPECIFICATIONS See Fig. 1	Wire Size	#44				#36			#44		
	Number Turns	10,000				10,000			10,000		
	Tube I.D.	0.150″				0.210″			0.150″		
	Tube O.D.	0.200″				0.375″			0.200″		
	Tube Length	0.75″				1.75″			0.75″		

*To correlate operate specifications—use standard test circuit. (Fig. 2)

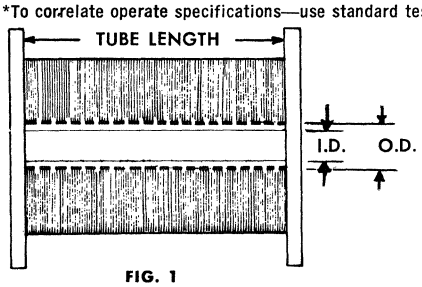


FIG. 1
STANDARD TEST COIL

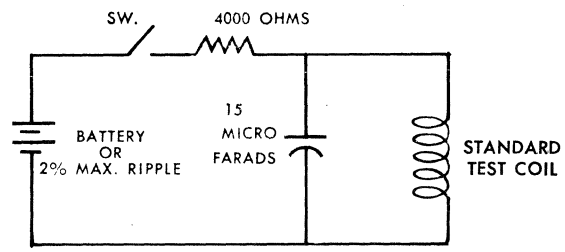


FIG. 2
STANDARD TEST CIRCUIT

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RBM CONTROLS

REED-PAK STANDARD GLASS REED RELAYS

NORMALLY OPEN

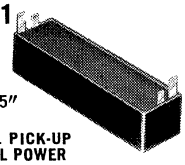
MAGNETICALLY SHIELDED

CONTACT RESISTANCE (Initial): 50 MILLIOHMS (Max.); **INSULATION RESISTANCE:** 10K MEGOHMS (Min.); **VIBRATION:** 20G—750 C.P.S. (Min.) COIL ENERGIZED OR DE-ENERGIZED; **SHOCK:** 40G (Min.) JAN S-44.

Contact Rating (Non-Inductive)		Contact Life (Based On 10 Ohm Miss Test)			Operate Sensitivity					Operate Time—Milliseconds				
Make and Break	15 VA. A.C.—5 Watts D.C. 1 Amp. Max. Up to 250 Volts	Resistive Load (D.C.)	10 Micro-Amp. @ 10 Milli-Volts	1/8 Amp. @ 32 Volts	Contact Form	1PNO	2PNO	4PNO	6PNO	Pull-In (Incl. Bounce)	1PNO	2PNO	4PNO	6PNO
											1	1	2	4
No Make or Break	5.0 Amp. 250 Volts	Number Operations	200,000,000	125,000,000	Milliwatts (Nominal)	125	250	400	680	Release	0.5 (Max.)			

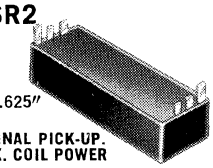
TYPE BRSR1

SPNO
APPROX. OVERALL DIMENSIONS
2.55" x .675" x .625"
(PLUS LEADS)
125MW.—NOMINAL PICK-UP
1.0 WATT MAX. COIL POWER



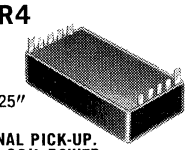
TYPE BRSR2

2PNO
APPROX. OVERALL DIMENSIONS
2.55" x .925" x .625"
(PLUS LEADS)
250 MW.—NOMINAL PICK-UP.
1.25 WATTS MAX. COIL POWER



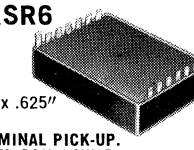
TYPE BRSR4

4PNO
APPROX. OVERALL DIMENSIONS
2.55" x 1.4" x .625"
(PLUS LEADS)
400 MW.—NOMINAL PICK-UP.
1.65 WATTS MAX. COIL POWER



TYPE BRSR6

6PNO
APPROX. OVERALL DIMENSIONS
2.55" x 1.87" x .625"
(PLUS LEADS)
680 MW.—NOMINAL PICK-UP.
2.0 WATTS MAX. COIL POWER



NORMALLY OPEN

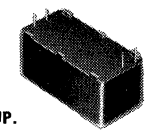
MAGNETICALLY SHIELDED

CONTACT RESISTANCE (Initial): 150 MILLIOHMS (Max.); **INSULATION RESISTANCE:** 10K MEGOHMS (Min.); **VIBRATION:** 15G-2000 C.P.S. (Min.) COIL ENERGIZED OR DE-ENERGIZED; **SHOCK:** 50G (Min.) JAN S-44.

Contact Rating (Non Inductive)		Contact Life (Based On 10 Ohm Miss Test)			Operate Sensitivity				Operate Time—Milliseconds			
Make and Break	12 VA. A.C.—4 WATTS D.C. 1/8 Amp. Max. Up to 250 Volt	Resistive Load (D.C.)	10 Micro Amp. @ 10 Milli-Volt	1/8 Amp. @ 32 Volt	Contact Form	1PNO	2PNO	4PNO	Pull-In (Incl. Bounce)	1PNO	2PNO	4PNO
										1	1	2
No Make Or Break	1.0 Amp. 250 Volt	Number Operations	100,000,000	5,000,000	Milliwatts (Nominal)	100	150	300	Release	0.5 (Max.)		

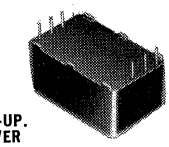
TYPE BRMR1

SPNO
APPROX. OVERALL DIMENSIONS
1.14" x .56" x .54"
(PLUS LEADS)
100 MW.—NOMINAL PICK-UP.
1.0 WATT MAX. COIL POWER



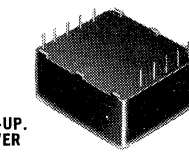
TYPE BRMR2

2PNO
APPROX. OVERALL DIMENSIONS
1.14" x .73" x .54"
(PLUS LEADS)
150 MW.—NOMINAL PICK-UP.
1.5 WATTS MAX. COIL POWER



TYPE BRMR4

4PNO
APPROX. OVERALL DIMENSIONS
1.14" x 1.0" x .54"
(PLUS LEADS)
300 MW.—NOMINAL PICK-UP.
3.0 WATTS MAX. COIL POWER



DOUBLE THROW

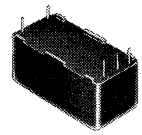
CONTACT RESISTANCE (Initial): 150 MILLIOHMS (Max.); **INSULATION RESISTANCE:** 10K MEGOHMS (Min.); **VIBRATION:** 15G-2000 C.P.S. (Min.) COIL ENERGIZED OR DE-ENERGIZED; **SHOCK:** 50G (Min.) JAN S-44.

MAGNETICALLY SHIELDED. NON-POLARIZED . . . FORM C CONTACT IN ONE CAPSULE . . . POSITIVE BREAK BEFORE MAKE

Contact Rating (Non-Inductive)		Contact Life (Based On 10 Ohm Miss Test)			Operate Sensitivity			Operate Time—Milliseconds		
Make and Break	15 VA. A.C.—5 Watts D.C. 1/4 Amp. Max. Up To 125 V. A.C.—32 V. D.C.	Resistive Load (D.C.)	10 Micro-Amp. @ 10 Milli-Volts	1/4 Amp. @ 32 Volts	Contact Form	1PDT	2PDT	Pull-In (Incl. Bounce)	1PDT	2PDT
									1	1
No Make or Break	1.0 Amp. 125 V. A.C. or 32 V. D.C.	Number Operations	100,000,000	10,000,000	Milliwatts (Nominal)	150	250	Release	0.5 (Max.)	

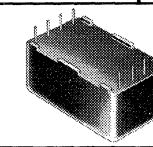
TYPE TRMR1

SPDT
APPROX. OVERALL DIMENSIONS
1.14" x .56" x .54" (PLUS LEADS)
150 MW.—NOMINAL PICK-UP.
1.0 WATT MAX. COIL POWER



TYPE TRMR2

2PDT
APPROX. OVERALL DIMENSIONS
1.14" x .73" x .54" (PLUS LEADS)
250 MW.—NOMINAL PICK-UP.
1.5 WATTS MAX. COIL POWER



SPECIFICATIONS

Part Number	D.C. Magnet Coil at 25°C Nominal Voltage	Max. Pick-up Voltage	Minimum Drop-out Voltage	Max. Pick-up Current	†Resistance in Ohms	Price
SINGLE POLE						
BRSR1-901	6 V.	4.5 V.	0.55 V.	43.0 MA.	115	4.95
BRSR1-902	12 V.	9.0 V.	1.10 V.	22.5 MA.	445	5.00
BRSR1-903	28 V.	18.0 V.	2.50 V.	7.8 MA.	2550	5.05
TWO POLE						
BRSR2-901	6 V.	4.5 V.	0.51 V.	86.5 MA.	58	6.30
BRSR2-902	12 V.	9.0 V.	1.00 V.	45.0 MA.	220	6.35
BRSR2-903	28 V.	18.0 V.	2.10 V.	13.3 MA.	1500	6.40
FOUR POLE						
BRSR4-901	6 V.	4.5 V.	0.50 V.	107.0 MA.	47	9.30
BRSR4-902	12 V.	9.0 V.	0.95 V.	58.0 MA.	172	9.35
BRSR4-903	28 V.	18.0 V.	2.00 V.	22.8 MA.	877	9.40
SIX POLE						
BRSR6-901	6 V.	4.5 V.	0.48 V.	204.0 MA.	24	12.30
BRSR6-902	12 V.	9.0 V.	0.95 V.	83.0 MA.	113	12.35
BRSR6-903	28 V.	18.0 V.	2.00 V.	34.2 MA.	580	12.40

†Nominal ±10%.

Part Number	D.C. Magnet Coil at 25°C Nominal Voltage	Max. Pick-up Voltage	Minimum Drop-out Voltage	Max. Pick-up Current	†Resistance in Ohms	Price
SINGLE POLE						
BRMR1-901	6 V.	3.25 V.	0.8 V.	27.0 MA.	105	6.82
BRMR1-902	12 V.	6.5 V.	1.0 V.	15.5 MA.	420	6.88
BRMR1-903	28 V.	15.2 V.	2.5 V.	6.5 MA.	2350	7.01
TWO POLE						
BRMR2-901	6 V.	3.25 V.	0.8 V.	46.5 MA.	70	9.54
BRMR2-902	12 V.	6.5 V.	1.0 V.	25.2 MA.	280	9.58
BRMR2-903	28 V.	15.2 V.	2.5 V.	9.8 MA.	1540	9.65
FOUR POLE						
BRMR4-901	6 V.	3.25 V.	0.8 V.	93.0 MA.	35	15.00
BRMR4-902	12 V.	6.5 V.	1.0 V.	46.5 MA.	140	15.05
BRMR4-903	28 V.	15.2 V.	2.5 V.	19.7 MA.	770	15.10
SINGLE POLE						
TRMR1-901	6 V.	4 V.	1.5 V.	42 MA.	105	15.00
TRMR1-902	12 V.	8 V.	3 V.	21 MA.	420	15.05
TRMR1-903	28 V.	19 V.	6 V.	8 MA.	2350	15.10
TWO POLE						
TRMR2-901	6 V.	4 V.	1.5 V.	64 MA.	70	20.00
TRMR2-902	12 V.	8 V.	3 V.	32 MA.	280	20.05
TRMR2-903	28 V.	19 V.	6 V.	12 MA.	1540	20.10

†Nominal ±10%

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RBM CONTROLS

A. C. CONTROLS ENGINEERING DESIGN AND APPLICATION DATA

Type	Magnet Coil Rating (Volt Amperes)			Operation in % of Nom. Coil Voltage		Breakdown Voltage All Terminals—60 Cy. RMS			Contact Material		**Electrical Life		**Mechanical Life		Maximum Operating Ambient Degrees Fahrenheit
	Inrush	Sealed		Pick-up	*Max. Safe Operate	Opposite Polarity	Open Contacts Same Polarity	To Ground	Power Rating	Pilot Rating	Oper. At Rated Load	Cper. Per Min.	Oper. At No Load	Oper. Per Min.	
		Nom.	Max.												
59	No Magnet Coil			85%	110%	1500	1000	1500	.....	Fine Silver	100,000	1	1,000,000	1	140
75	16	10	12	85%	110%	1500	1000	1500	Silver Alloy	.....	†100,000	6	1,000,000	60	140
80	27	15.6	17	85%	110%	1500	1500	1500	Silver Alloy	.....	†100,000	3	500,000	10	105
84	4	2.8	3	85%	110%	1500	1000	1500	Silver Alloy	.....	100,000	6	1,000,000	60	140
84T	9	2.8	3	85%	110%	1500	1000	1500	.....	•Gold Alloy	100,000	6	1,000,000	60	140
85	90	19	23	85%	110%	2200	2200	2200	Silver Alloy	.....	†100,000	3	500,000	10	105
91	22	8	10	85%	110%	1500	1000	1500	Fine Silver	•Gold Alloy	†100,000	6	750,000	60	130
92	24	8.9	12	85%	110%	1500	1000	1500	Fine Silver	•Gold Alloy	†100,000	6	750,000	60	130
129	10	4.5	5	85%	110%	1500	1000	1500	Silver Alloy	.....	†100,000	3	500,000	10	105
129AR	10	4.5	5	85%	110%	1500	1000	1500	Silver Alloy	.....	†100,000	3	500,000	10	105
129T	10	4.5	5	85%	110%	1500	1000	1500	Silver Alloy	.....	†100,000	3	500,000	10	105
987	9	5.5	6.5	85%	110%	1500	1000	1500	Fine Silver	•Gold Alloy	100,000	6	1,000,000	60	140
C	90	18	21	85%	110%	2200	2200	2200	Silver Alloy	.....	†100,000	3	1,000,000	10	105
CR	90	18	21	85%	110%	2200	2200	2200	Silver Alloy	.....	†100,000	3	1,000,000	10	105
S	50	14.5	17	85%	110%	2200	2200	2200	Silver Alloy	.....	†100,000	3	500,000	10	105

*Magnet coils designed for continuous duty. Do not operate at rate higher than indicated under Mechanical Life.

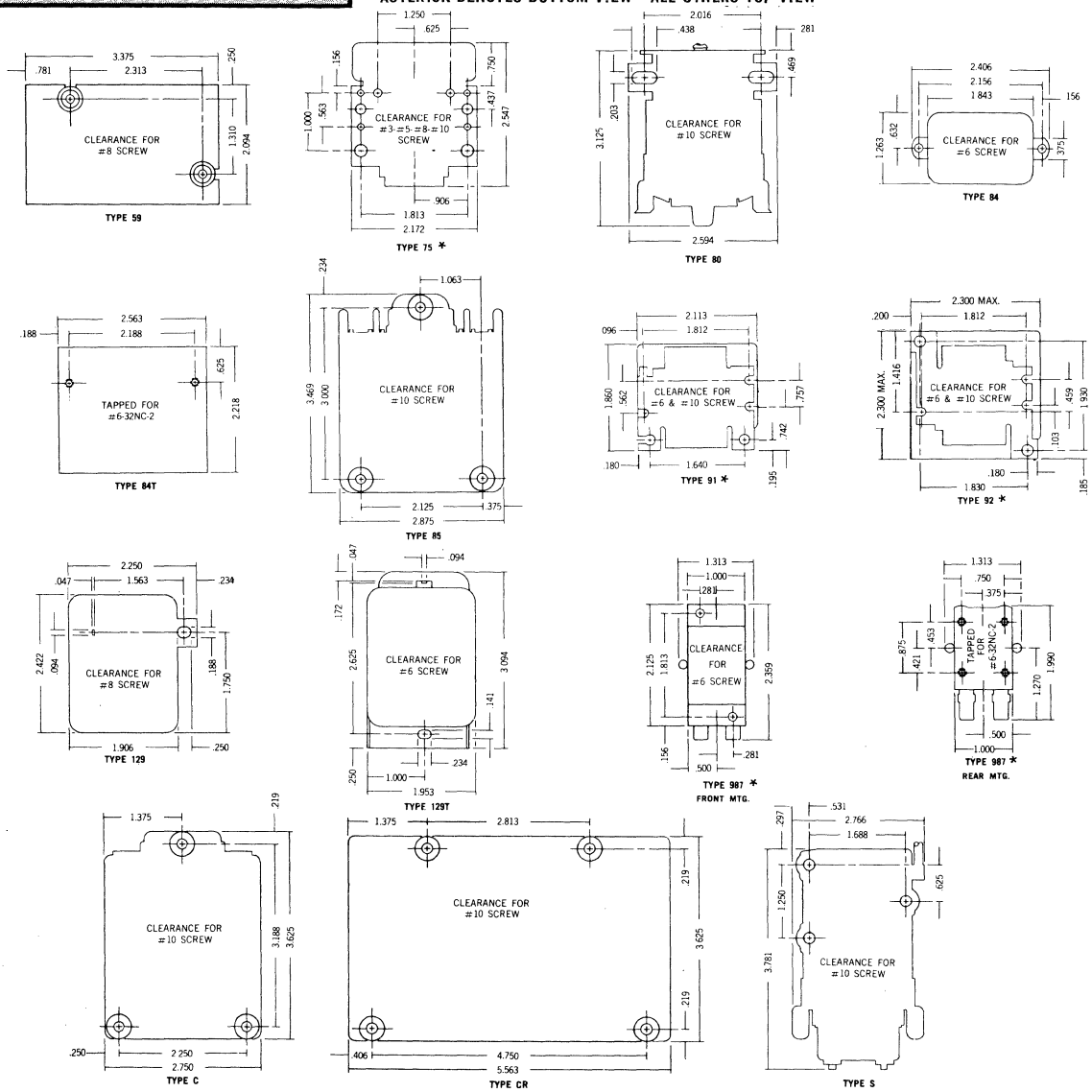
**Based on steady state test under laboratory environmental conditions. Consult factory if application involves unusual load, speed of operation, off-on ratio, environmental or operating conditions. Electric life substantially greater when operated below rated load.

†Load tests—making inrush ratings (0.4 to 0.5 P.F.)—breaking 125% continuous rating (0.65 to 0.8 P.F.).

•Cross-bar contacts

MOUNTING DIMENSIONS

DIMENSIONS ARE APPROX. CONSULT FACTORY FOR EXACT DIMENSIONS
***ASTERISK DENOTES BOTTOM VIEW—ALL OTHERS TOP VIEW**



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RBM CONTROLS

D. C. CONTROLS ENGINEERING DESIGN AND APPLICATION DATA

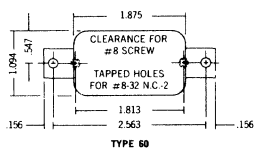
Type	Magnet Coil Rating (Watts)	Operation in % of Nom. Coil Rating		Breakdown Voltage All Terminals—60 Cy. RMS			Contact Material		**Electrical Life		**Mechanical Life		Maximum Operating Ambient Degrees Fahrenheit
		Pick up	*Max. Safe Operate	Opposite Polarity	Open Contacts Same Polarity	To Ground	Power Rating	Pilot Rating	Oper. At Rated Load	Oper. Per Min.	Oper. At No Load	Oper. Per Min.	
60	2	75%	110%	1000	1000	1000	Fine Silver Copper	.....	100,000	4	250,000	4	122
70	9	75%	110%	500	500	500	Silver	.....	100,000	4	250,000	4	122
81	4	75%	110%	1250	750	1250	.....	Eutectic Alloy (Silver Copper)	1,000,000	1800	200,000,000	1800	122
84D	3	75%	110%	1500	1000	1500	.....	Silver Alloy	100,000	6	1,000,000	60	140
91D	6.5	75%	110%	1500	1000	1500	.....	•Gold Alloy	100,000	6	750,000	60	140
92D	7	75%	110%	1500	1000	1500	.....	•Gold Alloy	100,000	6	750,000	60	140
BMR	Switch Only—No Magnet Coil			500	250	250	.....	Gold Alloy, or Rhodium	5,000,000	60	2,000,000,000	7200	185
BRMR1	0.100	60%	110%	500	250	500	.....	Gold Alloy	2,000,000	60	2,000,000,000	7200	185
BRMR2	0.150	60%	110%	500	250	500	.....	Gold Alloy	2,000,000	60	2,000,000,000	7200	185
BRMR4	0.300	60%	110%	500	250	500	.....	Gold Alloy	2,000,000	60	2,000,000,000	7200	185
BRS	Switch Only—No Magnet Coil			500	500	500	.....	Gold Alloy	20,000,000	60	2,000,000,000	7200	185
BRSR1	0.125	75%	110%	500	500	500	.....	Gold Alloy	20,000,000	60	2,000,000,000	7200	185
BRSR2	0.250	75%	110%	500	500	500	.....	Gold Alloy	20,000,000	60	2,000,000,000	7200	185
BRSR4	0.400	75%	110%	500	500	500	.....	Gold Alloy	20,000,000	60	2,000,000,000	7200	185
BRSR6	0.680	75%	110%	500	500	500	.....	Gold Alloy	20,000,000	60	2,000,000,000	7200	185
MS25-MS25P	Current Sensitive			1000	1000	1000	.....	•Gold Alloy	100,000	60	100,000,000	180	185
MS50-MS50P (2 Pole)	Current Sensitive			1000	1000	1000	.....	•Gold Alloy	100,000	60	100,000,000	180	185
MS50-MS50P (3 Pole)	Current Sensitive			1000	1000	1000	.....	•Gold Alloy	100,000	60	100,000,000	180	185
TRM	Switch Only—No Magnet Coil			500	250	500	.....	Gold Alloy	2,000,000	60	2,000,000,000	7200	185
TRMR1	0.150	70%	110%	500	250	500	.....	Gold Alloy	2,000,000	60	2,000,000,000	7200	185
TRMR2	0.250	70%	110%	500	250	500	.....	Gold Alloy	2,000,000	60	2,000,000,000	7200	185

*Magnet coils designed for continuous duty. Do not operate at rate higher than indicated under Mechanical Life.

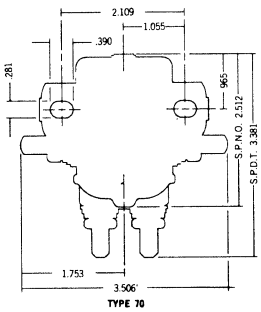
**Based on steady state test under laboratory environmental conditions. Consult factory if application involves unusual load, speed of operation, off-on ratio, environmental or operating conditions. Electrical life substantially greater when operated below rated load.

MOUNTING DIMENSIONS

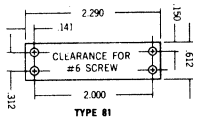
DIMENSIONS ARE APPROX. CONSULT FACTORY FOR EXACT DIMENSIONS
***ASTERISK DENOTES BOTTOM VIEW—ALL OTHERS TOP VIEW**



TYPE 60



TYPE 70



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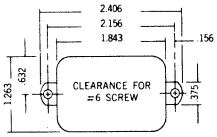

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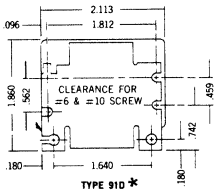

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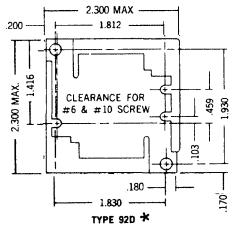

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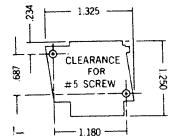

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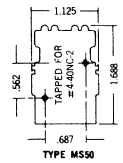

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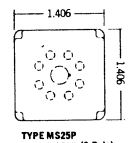
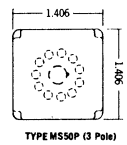


TYPE MS25P
TYPE MS50P (2 Pole)



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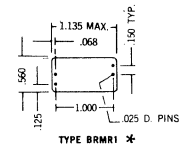

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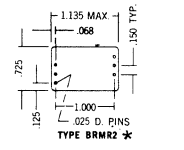

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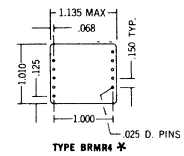

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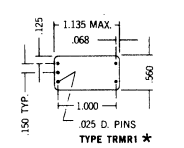

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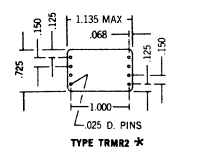

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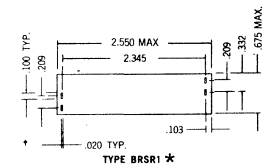

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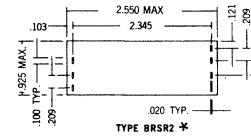

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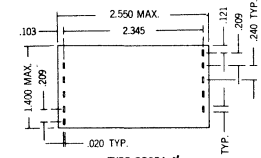

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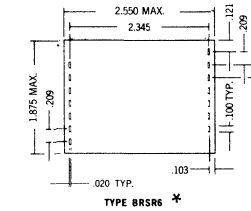

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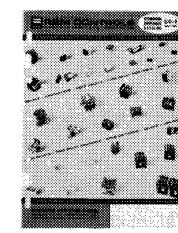
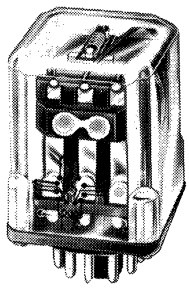


Write for the RBM Controls complete engineering and design application data catalog SC-1.

SCHRACK RELAYS

SENSITIVE RELAY — CMD SERIES



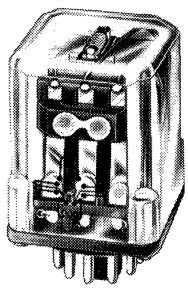
In this series there are eleven types in three classifications.

No.	Coil	List Price
CMD-5D	600Ω	$4.95
CMD-5D	2400Ω	4.95
CMD-5D	9600Ω	5.20
CMD-11D	450Ω	6.10
CMD-11D	1890Ω	6.10
CMD-11D	7300Ω	6.10
CMD-5A	540Ω	5.00
CMD-5A	234Ω	4.75
CMD-5A	1000Ω	4.75
CMD-5A	3850Ω	4.75
CMD-5A	6900Ω	5.30

1. D.C. Relays with one form C contact Type CMD 5D — base wiring; Pull-in sensitivity 40 mw; Coil Rating 60 mw; Coil Windings—600 ohm, 2400 ohm, 9600 ohm
2. D.C. Relays with two form C contacts Type CMD 11D — base wiring; Pull-in sensitivity 60 mw; Coil Rating 80 mw; Coil Windings—450 ohm, 1890 ohm, 7300 ohm
3. A.C. Relays with one form C contact Type CMD 5A—base wiring; Pull-in sensitivity 80 MVA; Coil Rating 120 MVA; Coil Windings—540 ohm, 234 ohm, 1000 ohm, 3850 ohm and 6900 ohm

Contact ratings are 2 amps at 115 VAC.
Contact points are gold-flashed silver.

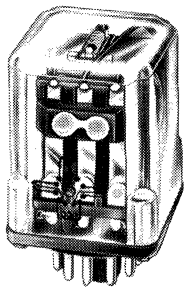
CAD SERIES



Contacts	10 Amp. Rating SPDT	DPDT	3PDT
Relay Type	CAD5A10	CAD11A10	CAD14A10
6 volts a.c. 12 volts a.c. 24 volts a.c. 115 volts a.c.	$4.95	$5.55	$6.75
230 volts a.c.	$5.50	$5.95	$7.15
Relay Type	CAD5D10	CAD11D10	CAD14D10
6 volts d.c. 12 volts d.c. 24 volts d.c.	$4.95	$5.55	$6.75
110 volts d.c.	$5.50	$5.95	$7.15

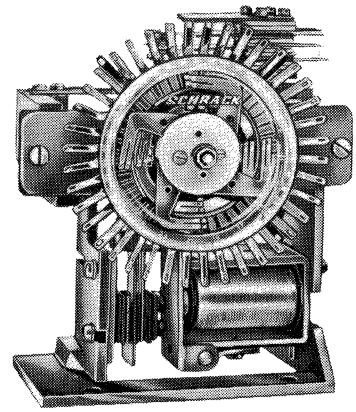
Same basic design as CA series; however, with clear plastic dust cover and octal-type plug-in base. Case is secured firmly to base by 4 "upset" plastic studs. Contact carrier plate is self-centering. Contact carrier is made of "KERIPOLE," a polyester material with glass fibre filling.

CSD SERIES



A plate circuit relay, similar to the CAD Type; however with increased sensitivity (125 MW per movable arm).

Contacts	2 Amp. Rating SPDT	DPDT	3PDT
Relay Type	CSD5	CSD11	CSD14
2500 ohms	$5.20	$5.60	$6.80
5000 ohms	$5.30	$5.70	$6.90
10,000 ohms	$5.70	$6.10	$7.30



ROTARY STEPPING SWITCH TYPE RT

The SCHRACK Rotary Stepping Swtich is a combination of three reliable components:

1. Standard Relay with 1 Form C heavy-duty contact.
2. Ratchet driven Rotary Switch consisting of four banks of twelve or ten points each with sliding bifurcated wipers.
3. Ratchet driven Stepping Relay with two cams which actuate one Form C contact each.

GENERAL CONSTRUCTION The Schrack Rotary Stepping Switches have a highly efficient magnetic circuit and a driving mechanism designed for maximum operating safety. All components are mounted on a rigid die-cast light metal frame. and contacts permanently molded in a sturdy melamine plastic.

ROTARY SWITCH terminals are arranged in a circular pattern with four groups of twelve points each. An alternate version with 4 x 10 points is available for applications requiring decimal counting. Each group occupies a quadrant of the circle and contains a common bus which is connected to the twelve or ten insulated points in sequence by means of a sliding wiper as the switch is operated.

The sliding contacts are four bifurcated spring phosphor bronze wipers. The wiper contact assemblies are insulated electrically from each other and the wipers are of the non-bridging type.

CONTACT RATING The contacts of the rotary switch bank are capable of carrying .5 amps on a steady state basis and of interrupting .1 amps at 110 volts DC with a resistive load or .2 amps at 115 volts AC.

TYPE RT 304 — 4 x 12 Contact Points
TYPE RT 404 — 4 x 10 Contact Points

Voltage	Driving Coil	Code No.	Price
12 Volts d.c.	17 ohms	RT 304-012	$19.00
24 Volts d.c.	57 ohms	RT 304-024	$19.00
48 Volts d.c.	280 ohms	RT 304-048	$19.00
110 Volts d.c.	1290 ohms	RT 304-110	$19.00

Same specifications and prices apply to Type RT 404.

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SCHRACK ELECTRICAL SALES CORPORATION

NEW YORK, N. Y.

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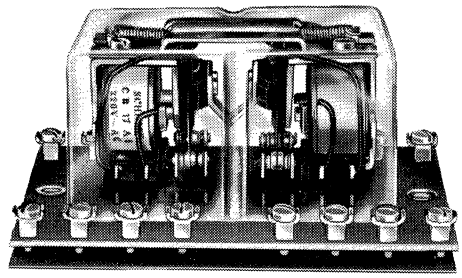
SCHRACK RELAYS

TYPE CBT LATCHING RELAY



SPECIFICATIONS

A dual coil mechanical latching relay. Each relay operates on a momentary impulse on either coil and is held in the set position until released by an impulse on the other coil. Both coils must be for the same voltage and are continuously rated.

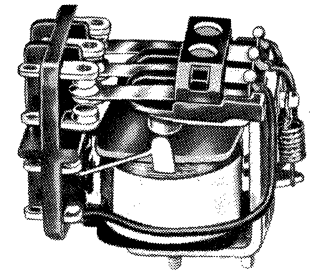
Contact rating: 10 amps. (Based on 600 operations per hour at 115 volts AC 60 cy. resistive load).

May be operated continuously at 1000 cycles per hour.

The CBT relays have a transparent dust cover and a sturdy base plate of insulating material. Screw-type terminals are provided for all contact and coil connections.

COIL			CONTACTS		
Voltage (Volts)	Resistance (Ohms)	Nominal Power	Arrangement	10 Amp. Rating Type	Price
6 AC	2.9	5.5VA	4PDT	CBT17A10	$10.60
12	10.5	5.5	4PDT		10.60
24	42	5.5	4PDT		10.60
115	1130	5.5	4PDT		10.60
230	4100	5.5	4PDT		11.40
6 DC	14	2.7W	4PDT	CBT17D10	9.65
12	54	2.7	4PDT		9.65
24	220	2.7	4PDT		9.65
110	4500	2.7	4PDT		10.85
6 AC	2.9	5.5VA	6PDT	CBT23A10	12.80
12	10.5	5.5	6PDT		12.80
24	42	5.5	6PDT		12.80
115	1130	5.5	6PDT		12.80
230	4100	5.5	6PDT		13.60
6 DC	14	2.7W	6PDT	CBT23D10	11.75
12	54	2.7	6PDT		11.75
24	220	2.7	6PDT		11.75
110	4500	2.7	6PDT		12.95

OPEN RELAY TYPE CA



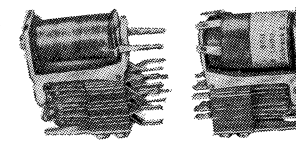
Contacts	10 Amp. Rating SPDT	DPDT	3PDT
Relay Type	CA5A10	CA11A10	CA14A10
6 volts a.c. 12 volts a.c. 24 volts a.c. 115 volts a.c.	$2.75	$3.20	$3.90
230 volts a.c.	$3.15	$3.60	$4.30
Relay Type	CA5D10	CA11D10	CA14D10
6 volts d.c. 12 volts d.c. 24 volts d.c.	$2.75	$3.20	$3.85
110 volts d.c.	$3.15	$3.60	$4.25

A robust and dependable open-type relay, with pierced solder lug terminals. Contact rating: 5 amps or 10 amps; according to contact material. Standard coils available: 6, 12, 24, 115, 230 volts a.c.; 6, 12, 24, 110 volts d.c.

Standard versions include 1, 2, or 3 Form C contacts. **Optional: solder lugs for printed circuit boards or taper tabs for AMP-Connectors. All relays are available with AMP contacts.**

MINIATURE RELAY TYPE RK

A small and reliable, fast-acting open-type relay for a wide field of applications, including telephone equipment. May be fitted with a maximum of 18 contact springs (6 Form C or any other combination not exceeding 6 movable arms). A.C. and D.C. coils are available, using approximately 400 mW (500 mVA) per movable arm.

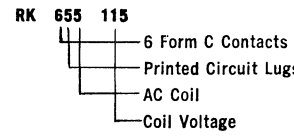


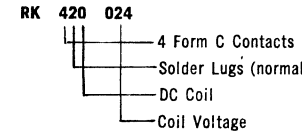
CONTACT RATING

Fine Silver Contacts are rated at 2 amp. max., or 115 volts max. A.C. Special contacts (Palladium, gold/nickel etc.) are available on request. Standard fine silver contacts are gold flashed to prevent corrosion. Twin contacts also available on request. Contact pressure (standard figures) approx. 15-18 grams.

COIL DATA FOR SOME TYPICAL RELAYS				
RELAY TYPE	CONTACTS	COIL VOLTAGE	OHMS	APPROX. OPERATE VOLTAGE
RK 420 024	4 Form C	24 v. d. c.	350	19.2 volts
RK 425 024		24 v. d. c.	80	19.2 "
RK 420 110		110 v. d. c.	7000	88 "
RK 425 115		115 v. d. c.	2320	92 "
RK 620 024	6 Form C	24 v. d. c.	245	19.2 "
RK 625 024		24 v. d. c.	67	19.2 "
RK 620 110		110 v. d. c.	5000	88 "
RK 625 115		115 v. d. c.	1460	92 "

The Code Numbers of the RK Relays consist of a 6 digit combination which is composed as follows:





List prices subject to usual discount.

TYPE	LIST PRICE	TYPE	LIST PRICE
RK 425 024 a.c.	$4.30	RK 420 024 d.c.	$4.17
RK 455 024 a.c	4.47	RK 450 024 d.c.	4.34
RK 425 115 a.c.	4.75	RK 420 110 d.c.	4.84
RK 455 115 a.c.	4.91	RK 450 110 d.c.	5.01
RK 625 024 a.c.	5.05	RK 620 024 d.c.	4.88
RK 655 024 a.c.	5.30	RK 650 024 d.c.	5.14
RK 625 115 a.c.	5.48	RK 620 110 d.c.	5.65
RK 655 115 a.c.	5.73	RK 650 110 d.c.	5.90

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NEW YORK, N. Y.

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AEROVOX

RESISTORS

±1% PRECISION ®CARBOFILM AND ®CARBOMOLD RESISTORS

CARBOFILM PRECISION RESISTORS

Precision deposited carbon resistors designed for circuits calling for the accuracy and stability of wire-wound resistors with the marked economy of carbon resistors. The exclusive Aeroglaze conformal coating offers mechanical protection superior to any other coating eliminating the need for special tubes, sleeves and jackets. Aeroglaze coating will meet all moisture requirements of MIL-R-10509B. Carbofilm resistors offer outstanding stability, low voltage coefficient, low capacitance and inductance in high frequency applications.

CARBOFILM CHARACTERISTICS

TESTING: All Tests conducted in accordance with MIL-R-10509B requirements.

TEMPERATURE COEFFICIENT: Approximately 200 ppm per degree C in the lower resistance ranges and not exceeding 500 ppm per degree C in the highest values specified by MIL-R-10509B.

MOISTURE RESISTANCE: Will meet or surpass the requirements of MIL-R-10509B.

LOAD LIFE: When tested for more than 1,000 hours at full load operation in 40°C ambient temperature, maximum changes are less than 1% with an average change of less than 0.5%.

TEMPERATURE CYCLING: After 5 complete temperature cycles there is an average change of 0.21% with a maximum change of less than 0.5%.

SHORT TIME OVERLOAD: When subjected to 2.5 times the rated working voltage, but not exceeding 2 times the maximum rated voltage for 5 seconds, changes are less than 0.25% with an average change of 0.13%.

LOW TEMPERATURE OPERATION: Maximum changes are less than 1%.

ACCURACY: Guaranteed tolerance of plus/minus 1% at 25°C. (77°F.)

AGING: Due to manufacturing process and control, changes attributed to aging are negligible. The average change in resistance for self-aging is approximately 0.2% per year.

VOLTAGE COEFFICIENT: Does not exceed .002% per volt.

CARBOMOLD PRECISION RESISTORS

A superior molded carbon-deposited resistor manufactured under the most exacting quality control standards and specifications assuring excellent performance under the most adverse operating conditions. Resistors are encapsulated in a strong reinforced moisture and heat resistant plastic for added stability, precision and reliability. Rated for full load operation at 70°C and linearly derated to zero load at 150°C. Will meet or exceed insulation resistance requirements of MIL-R-10509D.

CARBOMOLD CHARACTERISTICS

TESTING: All tests conducted in accordance with MIL-R-10509C requirements.

TEMPERATURE COEFFICIENT: Extends from approximately 200 ppm per degree C in the lower resistance ranges to and not exceeding 500 ppm per degree C at the highest values specified by MIL-R-10509D.

MOISTURE RESISTANCE: Will meet or surpass the requirements of MIL-R-10509D.

LOAD LIFE: When tested for more than 1000 hours at full load operation in 70°C ambient temperature, maximum changes less than 1% with an average change of less than 0.5%.

TEMPERATURE CYCLING: After 5 complete temperature cycles there is an average change of 0.21% with a maximum change of less than 0.5%.

SHORT TIME OVERLOAD: When subjected to 2.5 times the rated working voltage, but not exceeding 2 times the maximum rated voltage for 5 seconds, changes are less than 0.25% with an average change of 0.13%.

LOW TEMPERATURE OPERATION: Maximum changes are less than 1%.

ACCURACY: Guaranteed tolerance of plus/minus 1% at 25°C.

AGING: Average change in resistance for self-aging, approximately 0.2% in a year.

VOLTAGE COEFFICIENT: Does not exceed .002% per volt.

For full technical information request Bulletin NPJ-115-16 Rev.

CARBOFILM

TYPE	SIZES	STD. MIN. OHMS	STD. MAX. MEGOHMS	Availability: Comm. Value	Availability: MIL-BELL Value	MIL-R-10509B Max DC Voltage	Equiv. to MIL-R-10509B: Type	Char.	Tol.	MARKING
CPSX½	.203 x 19/32	10	2.2	✓	✓	350	RN20	X	1%	RN20 Number
CPX½	.260 x 23/32	2,210,000	5.0	✓		350	- - - -	- -	- - -	Type, Value, Tolerance
CPLX½	.260 x 1	5,100,000	7.5	✓		500	- - - -	- -	- - -	Type, Value, Tolerance
*CPX 1	.328 x 1 5/16	10	15	✓	✓	500	RN25	X	1%	Type, Value, Tolerance and RN25 Number
**CPX 2	.328 x 2 1/16	50	100†	✓		750	RN30	X	1%	Type, Value, Tolerance and RN30 Number

† Only stock value above 50 megohms is 100 megohms furnished in ±2% tolerance.
* Values from 10.1 meg to 15 meg will be furnished at ±2% only.
** Values from 30.1 meg to 100 meg will be furnished at ±2% only.

CARBOMOLD

Carbomold Stocked In Mil-Bell Values Only

TYPE	SIZES	STD. MIN. OHMS	STD. MAX. MEGOHMS	MIL-R-10509D Max. DC Volt.	Equiv. to MIL-R-10509D: Type	Char.	Tol.	MARKING
CPM-⅛	.140 x .395	10	1.0	250	RN60	B	F	RN60 Number
CPM-¼	.220 x .590	10	2.0	300	RN65	B	F	RN65 Number
CPM½	.250 x .745	10	2.49	350	RN70	B	F	Type, Value, Tolerance, RN70 Number
CPM-1	.375 x 1 7/64	10	5.11	500	RN75	B	F	Type, Value, Tolerance, RN75 Number
CPM-2	.375 x 2 21/32	30	10.0	750	RN80	B	F	Type, Value, Tolerance, RN80 Number

Net
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AEROVOX

RESISTORS

±1% PRECISION ® CARBOFILM AND ® CARBOMOLD RESISTORS

COMMERCIAL STOCK VALUES ±1% TOLERANCE

OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	MEG-OHMS	MEG-OHMS	MEG-OHMS
10.0	36	82	300	820	2950	7000	20,000	62,000	220,000	650,000	2.0	6.2	27.0
11.0	39	85	330	850	3000	7450	22,000	65,000	225,000	680,000	2.2	6.5	30.0
12.0	40	89.5	350	900	3300	7500	22,500	68,000	240,000	700,000	2.225	6.8	33.0
12.5	43	90	360	910	3500	8000	24,000	70,000	250,000	750,000	2.4	7.0	36.0
13.0	44.5	91	390	1000	3600	8200	25,000	75,000	270,000	800,000	2.5	7.5	39.0
14.5	45	99.5	400	1100	3900	8500	27,000	80,000	300,000	820,000	2.7	8.0	43.0
15.0	47	100	430	1200	4000	8950	30,000	82,000	330,000	850,000	3.0	8.2	47.0
16.0	50	110	450	1250	4300	9000	33,000	85,000	350,000	900,000	3.3	8.5	50.0
17.5	51	120	470	1300	4450	9100	35,000	90,000	360,000	910,000	3.5	9.0	100.0†
18.0	55	130	500	1450	4500	9950	36,000	91,000	390,000		3.6	9.1	
20.0	56	150	510	1500	4700	10,000	39,000	100,000	400,000	MEGOHMS	3.9	10.0	
22.0	59.5	160	550	1600	5000	11,000	40,000	110,000	430,000		4.0	12.0	
22.5	60	175	560	1750	5100	12,000	43,000	120,000	450,000	1.0	4.3	12.5	
24.0	62	180	600	1800	5500	12,500	45,000	125,000	470,000	1.1	4.5	13.0	
25.0	65	200	620	2000	5600	13,000	47,000	130,000	500,000	1.2	4.7	15.0	
27.0	68	220	650	2200	5950	13,500	50,000	150,000	510,000	1.25	5.0	16.0	
29.5	70	225	680	2250	6000	15,000	51,000	160,000	550,000	1.3	5.1	18.0	
30.0	74.5	240	700	2400	6200	16,000	55,000	175,000	560,000	1.5	5.5	20.0	
33.0	75	250	750	2500	6500	17,500	56,000	180,000	600,000	1.6	5.6	22.0	
35	80	270	800	2700	6800	18,000	60,000	200,000	620,000	1.8	6.0	25.0	

†Only stock value above 50 megohms is 100 megohms furnished in ±2% tolerance.

AEROGLAZE® CARBOFILM ± 1% RESISTORS MIL-BELL VALUES**

	Net Price*
CPSX½ (RN20X)	
10 ohms to 49.9 ohms	.64
50 ohms to 2.2 meg	.54
CPX½	
2.21 meg to 5.0 meg	.83
CPLX½	
5.1 meg to 7.5 meg	.90
CPX-1 (RN25X)	
10 ohms to 99.9 ohms	.94
100 ohms to 5.0 meg	.81
5.01 meg to 10.0 meg	.89
10.1 meg to 15.0 meg*	1.03
CPX-2 (RN30X)	
50 ohms to 199 ohms	1.20
200 ohms to 10.0 meg	.97
10.1 meg to 30.0 meg	1.13
30.1 meg to 50.0 meg*	1.25
100 meg*	1.62

*All new production will be furnished at ± 2% only for values in these ranges.

MIL-BELL STOCK VALUES ±1% TOLERANCE

OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	MEG-OHMS	MEG-OHMS	MEG-OHMS
10.0	23.2	53.6	124	287	665	1540	3570	8250	19100	44200	102000	237000	549000	1.13	2.61	6.04
10.2	23.7	54.9	127	294	681	1580	3650	8450	19600	45300	105000	243000	562000	1.15	2.67	6.19
10.5	24.3	56.2	130	301	698	1620	3740	8660	20000	46400	107000	249000	576000	1.18	2.74	6.34
10.7	24.9	57.6	133	309	715	1650	3830	8870	20500	47500	110000	255000	590000	1.21	2.80	6.49
11.0	25.5	59.0	137	316	732	1690	3920	9090	21000	48700	113000	261000	604000	1.24	2.87	6.65
11.3	26.1	60.4	140	324	750	1740	4020	9310	21500	49900	115000	267000	619000	1.27	2.94	6.81
11.5	26.7	61.9	143	332	768	1780	4120	9530	22100	51100	118000	274000	634000	1.30	3.01	6.98
11.8	27.4	63.4	147	340	787	1820	4220	9760	22600	52300	121000	280000	649000	1.33	3.09	7.15
12.1	28.0	64.9	150	348	806	1870	4320	10000	23200	53600	124000	287000	665000	1.37	3.16	7.32
12.4	28.7	66.5	154	357	825	1910	4420	10200	23700	54900	127000	294000	681000	1.40	3.24	7.50
12.7	29.4	68.1	158	365	845	1960	4530	10500	24300	56200	130000	301000	698000	1.43	3.32	7.68
13.0	30.1	69.8	162	374	866	2000	4640	10700	24900	57600	133000	309000	715000	1.47	3.40	7.87
13.3	30.9	71.5	165	383	887	2050	4750	11000	25500	59000	137000	316000	732000	1.50	3.48	8.06
13.7	31.6	73.2	169	392	909	2100	4870	11300	26100	60400	140000	324000	750000	1.54	3.57	8.25
14.0	32.4	75.0	174	402	931	2150	4990	11500	26700	61900	143000	332000	768000	1.58	3.65	8.45
14.3	33.2	76.8	178	412	953	2210	5110	11800	27400	63400	147000	340000	787000	1.62	3.74	8.66
14.7	34.0	78.7	182	422	976	2260	5230	12100	28000	64900	150000	348000	806000	1.65	3.83	8.87
15.0	34.8	80.6	187	432	1000	2320	5360	12400	28700	66500	154000	357000	825000	1.69	3.92	9.09
15.4	35.7	82.5	191	442	1020	2370	5490	12700	29400	68100	158000	365000	845000	1.74	4.02	9.31
15.8	36.5	84.5	196	453	1050	2430	5620	13000	30100	69800	162000	374000	866000	1.78	4.12	9.53
16.2	37.4	86.6	200	464	1070	2490	5760	13300	30900	71500	165000	383000	887000	1.82	4.22	9.76
16.5	38.3	88.7	205	475	1100	2550	5900	13700	31600	73200	169000	392000	909000	1.87	4.32	10.0
16.9	39.2	90.9	210	487	1130	2610	6040	14000	32400	75000	174000	402000	931000	1.91	4.42	
17.4	40.2	93.1	215	499	1150	2670	6190	14300	33200	76800	178000	412000	953000	1.96	4.53	
17.8	41.2	95.3	221	511	1180	2740	6340	14700	34000	78700	182000	422000	976000	2.00	4.64	
18.2	42.2	97.6	226	523	1210	2800	6490	15000	34800	80600	187000	432000		2.05	4.75	
18.7	43.2	100	232	536	1240	2870	6650	15400	35700	82500	191000	442000		2.10	4.87	
19.1	44.2	102	237	549	1270	2940	6810	15800	36500	84500	196000	453000	MEGOHMS	2.15	4.99	
19.6	45.3	105	243	562	1300	3010	6980	16200	37400	86600	200000	464000		2.21	5.11	
20.0	46.4	107	249	576	1330	3090	7150	16500	38300	88700	205000	475000		2.26	5.23	
20.5	47.5	110	255	590	1370	3160	7320	16900	39200	90900	210000	487000	1.00	2.32	5.36	
21.0	48.7	113	261	604	1400	3240	7500	17400	40200	93100	215000	499000	1.02	2.37	5.49	
21.5	49.9	115	267	619	1430	3320	7680	17800	41200	95300	221000	511000	1.05	2.43	5.62	
22.1	51.1	118	274	634	1470	3400	7870	18200	42200	97600	226000	523000	1.07	2.49	5.76	
22.6	52.3	121	280	649	1500	3480	8060	18700	43200	100000	232000	536000	1.10	2.55	5.90	

CARBOMOLD ± 1% RESISTORS MIL-BELL VALUES ONLY

	Net Price*
CPM ⅛ (RN60B)	
10 ohms to 24.9 ohms	1.78
25 ohms to 49.9 ohms	1.18
50 ohms to 500 ohms	1.02
501 ohms to 500 K ohms	.96
501 K ohms to 1 meg	1.02
CPM ¼ (RN65B)	
10 ohms to 49.9 ohms	.99
50 ohms to 500 K ohms	.94
501 K ohms to 1.0 meg	.99
1.01 meg to 2.0 meg	1.08
CPM ½ (RN70B)	
10 ohms to 49.9 ohms	.91
50 ohms to 2.2 meg	.85
2.21 meg to 2.49 meg	1.03
CPM 1 (RN75B)	
10 ohms to 99.9 ohms	1.36
100 ohms to 5.0 meg	1.28
5.01 meg to 5.11 meg	1.42
CPM 2 (RN80B)	
30 ohms to 199 ohms	1.99
200 ohms to 10 meg	1.65

**Prices listed are for MIL-BELL values only. For commercial standard values listed in catalog IDC 563 add 10% to the above prices in the appropriate columns. For prices on any values other than MIL-BELL or catalog commercial standard values contact your authorized Aerovox Industrial Distributor.

PACKAGING:

Commercial Stock Values—Small quantities packaged individually in sealed plastic tubes. Also available in larger quantities, protected by paper sleeves and packed in bulk.

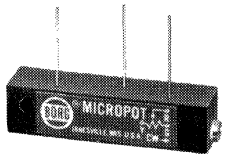
Mil Bell Stock Values—Small quantities packaged individually in sealed plastic tubes. Also available in larger quantities packed in bulk.

*Request OEM Price in quantities of 25-49, 50-99, 100-249, 250-499 and 500-999

TRIMMERS, POTENTIOMETERS, DIALS AND MOTORS

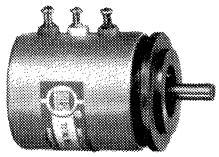
MICROPOT® TRIMMING POTENTIOMETERS

Borg produces 10 complete series of Micropot trimmers—from subminiature square trimmers to standard sizes. Borg trimmers are offered in general purpose, humidity-proof, high temperature, or humidity-and-high-temperature models, in a wide choice of resistance ranges and end terminals. Borg trimmers have a 40-turn adjustment screw for an extremely fine degree of selectivity. Wire-wound resistance elements are up to 50% longer than competitive types.



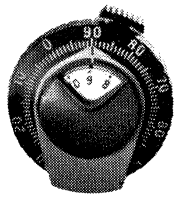
MICROPOT® CARBON TRIMMERS

Borg's Micropot carbon trimmers provide infinite resolution with a wide range of resistance values.



MICROPOT® PRECISION POTENTIOMETERS

Borg offers a complete line of Micropot potentiometers for precision application—military and commercial—ranging from ½-inch to 3-inches. They are available in single-turn or multi-turn models with high resolution and a wide range of resistance values.

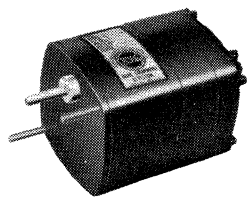


MICRODIAL® CONCENTRIC DIALS

Engineers consider the Borg Microdial line the most comprehensive in the industry. Concentric scale Microdials are available in three basic series. Each features epicyclical gearing to eliminate ambiguity, and large numerals for high readability. Each dial is available with or without brake. Most Microdial models are offered in a choice of color combinations for coding.

MICRODIAL® DIGITAL DIALS

Borg's digital Microdial line includes three, four, or five digit models. The 1300 Series has optional 10, 100, or 1000 turns. The 10-turn 1330 Microdial has internal illumination, convex lens, and is available with or without brake. Borg dials offer 1000:1 indexing accuracy, and are virtually free from accidental setting changes.



SUB-FRACTIONAL MOTORS

Borg's line of sub-fractional h.p. motors includes synchronous, induction, or low inertia types, in two or four pole models. Borg motors speed/torque ratios meet the most exacting requirements of instruments, controls, and related products.

AMPHENOL-BORG Distributor Division / Amphenol-Borg Electronics Corporation

BROADVIEW, ILLINOIS

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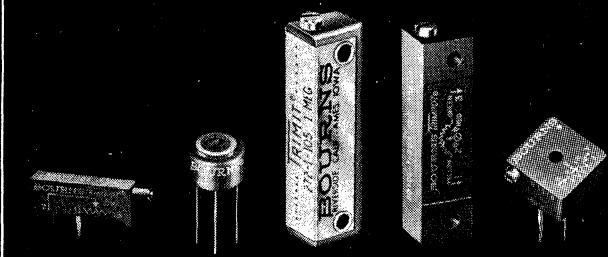


BOURNS TRIMPOT® POTENTIOMETERS

THE INDUSTRY'S LARGEST SELECTION OF ADJUSTMENT POTENTIOMETERS

33 Standard Models / 4 Terminal Types / 3 Mounting Styles

Military ■ Industrial ■ Commercial ■ Wirewound ■ RESISTON® Carbon

Rectangular ■ Square ■ Precision Rotary ■ Humidity-Proof ■ High-Temperature ■ Special-Purpose

Only Bourns TRIMPOT Potentiometers Give You All Of These Outstanding Features

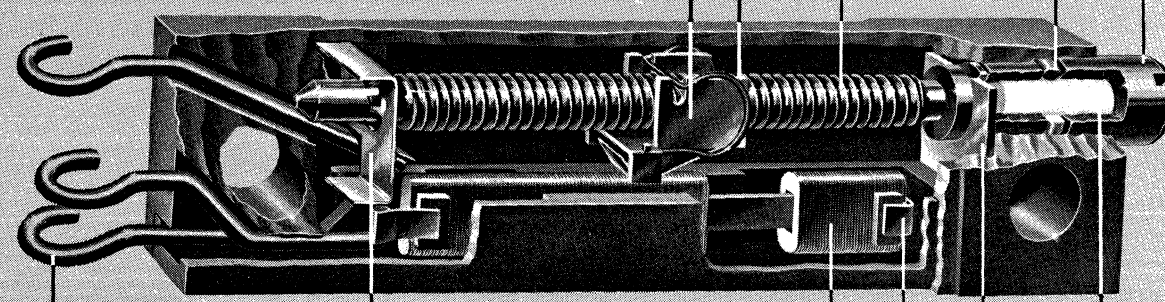
SPRING—Carriage spring provides positive no-slip performance during rotation plus a reliable idling feature at mechanical limits of travel.

LEADSCREW—Stainless steel leadscrew is corrosion-resistant.

O-RING—Silicone rubber O-ring seals potentiometer against humidity, withstands high temperature.

SHAFT HEAD—Stainless steel with machined slot for screwdriver adjustment. Meets military salt spray requirements.

WIPER—Gold-plated wiper carriage and precious-metal wiper for low noise. Carriage and wiper are welded together.



SOLDER TERMINALS—Tinned terminals are compact, yet large enough for easy soldering. Teflon-insulated leads and printed circuit pins are also available.

SILVERWELD® TERMINATION—This exclusive Bourns feature is unequalled in ruggedness. There is a metal-to-metal bond from the terminal to the resistance wire.

PICK-OFF—Precious-metal, positive-contact pick-off assures wiper continuity.

ELEMENT—Special ceramic element card for maximum reliability is precision wound with low-temperature-coefficient resistance wire.

SHAFT RETAINER—Shaft is locked in place for top performance under extreme shock, vibration and acceleration.

SHAFT INSULATOR—High-dielectric-strength, ceramic insulator isolates shaft head from internal circuits.

This cutaway of Model 224 shows the typical high quality to be found in all Bourns TRIMPOT potentiometers, although some features may vary from model to model.

Turn Page for Complete Listing→

FOR BOURNS® PRECISION POTENTIOMETERS, SEE PAGES 1166, 1167

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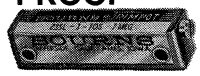
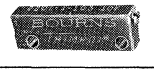
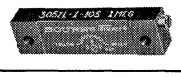
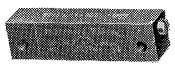
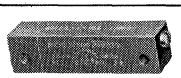
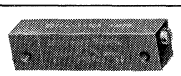
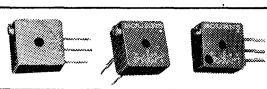
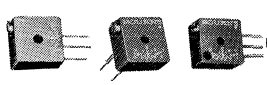
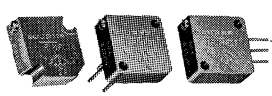
BOURNS TRIMPOT® ADJUSTMENT POTENTIOMETERS—

HUMIDITY-PROOF

Description		Name	Model	Resistance (Ohms)③	Terminals ①	End Setting (%)	Tolerance (%)⑥	Power Rating (Watt)	Max. Operating Temp. (°C)	Adj. Turns	Humidity Proof⑦ (Mil Spec)	Size (Inches) H	W	L	Standard Resistances (Ohms)	Price② 1 - 9	10-24	25-49
GENERAL PURPOSE RESISTON⑨ CARBON ELEMENT		TRIMPOT⑨	235	20K to 1 Meg	L*,S*,P	0-1.0	±20	0.25	125	22	Yes	23/64	19/64	1-11/32	20K-1 Meg	7.02	6.50	5.85
GENERAL PURPOSE WIREWOUND		TRIMPOT	236	10 to 1K 2K to 50K 100K	L*,S*,P L*	0-0.2④ 0-0.1 0-5.0	±10	0.80	135	25	Yes	23/64	19/64	1-11/32	10 -10K 20K-25K 50K 100K	7.02 8.64 9.18 11.34	6.50 8.00 8.50 10.50	5.85 7.20 7.65 9.45
MICRO-MINIATURE HIGH TEMPERATURE WIREWOUND		TRIMPOT	3000	50 to 20K	P	0-0.1⑨	±10	0.50	175	15	Yes	5/16	5/32	3/4	50 -10K 20K	9.72 10.80	9.00 10.00	8.10 9.00
HIGH TEMPERATURE RESISTON CARBON ELEMENT		TRIMPOT	3001	20K to 1 Meg	P	0-1.0	±20	0.20	150	15	Yes	5/16	5/32	3/4	20K-1 Meg	9.18	8.50	7.65
SUB-MINIATURE HIGH TEMPERATURE WIREWOUND		TRIMPOT	220	10 to 30K	L*, W*	0-0.1⑤	±10	1.00	175	15	Yes	5/16	3/16	1	10 -10K 20K-30K	8.64 10.26	8.00 9.50	7.20 8.55
HIGH TEMPERATURE WIREWOUND		TRIMPOT	224	10-1K 2K to 50K 100K	L*,S*,P	0-0.2④ 0-0.1 0-5.0	±5	1.00	175	22	Yes	5/16	3/16	1-1/4	10 -10K 20K-25K 50K 100K	7.02 8.64 9.18 11.34	6.50 8.00 8.50 10.50	5.85 7.20 7.65 9.45
ULTRA-RELIABLE HIGH TEMPERATURE WIREWOUND		TRIMPOT	224-500	100-1K 2K to 20K	L, P	0-0.2④ 0-0.1	±5	0.50	150	22	Yes	5/16	3/16	1-1/4	100-10K 20K	27.00 30.00	13.50 15.00	12.15 13.50
HIGH TEMPERATURE RESISTON CARBON ELEMENT		TRIMPOT	3051	20K to 1 Meg	L*,S*,P	0-1.0	±20	0.25	150	22	Yes	5/16	3/16	1-1/4	20K-1 Meg	7.02	6.50	5.85
HIGH TEMPERATURE PALIRIUM⑨ ELEMENT		TRIMPOT	3052	100K to 1 Meg	L*, P	0-0.1	±10	1.00	175	25	Yes	5/16	3/16	1-1/4	100K-1 Meg	5.94	5.50	4.95
HIGH TEMPERATURE PALIRIUM ELEMENT		TRIMPOT	3053	2 to 10 20 to 100	P L*,P	1-15⑩	±10	0.50	175	25	Yes	5/16	3/16	1-1/4	(L) 20-100 (P) 2-5 10-100	5.94 9.18 5.94	5.50 8.50 5.50	4.95 7.65 4.95
HIGH TEMPERATURE WIREWOUND		TRIMPOT	3010	10 to 1K 2K to 50K 100K	L*, P	0-0.2④ 0-0.1. 0-5.0	± 5	1.00	175	25	Yes	5/16	9/32	1-1/4	10 -10K 20K-25K 50K 100K	7.02 8.64 9.18 11.34	6.50 8.00 8.50 10.50	5.85 7.20 7.65 9.45
HIGH TEMPERATURE RESISTON CARBON ELEMENT		TRIMPOT	3011	20K to 1 Meg	L*, P	0-1.0	±20	0.25	150	22	Yes	5/16	9/32	1-1/4	20K-1 Meg	7.02	6.50	5.85
HIGH TEMPERATURE PALIRIUM ELEMENT		TRIMPOT	3012	100K to 1 Meg	L*, P	0-0.1	±10	1.00	175	25	Yes	5/16	9/32	1-1/4	100K-1 Meg	5.94	5.50	4.95
MICRO-MINIATURE WIREWOUND		BOURNS	3280	10 to 50K	L, P, W	0-0.1⑤	±5	1.00	175	25	Yes	13/64	3/8	3/8	10 -10K 20K-25K 50K	7.56 9.18 9.72	7.00 8.50 9.00	6.30 7.65 8.10
MICRO-MINIATURE RESISTON CARBON ELEMENT		BOURNS	3281	20K to 1 Meg	L, P, W	0-1.0	±20	0.5	150	25	Yes	13/64	3/8	3/8	20K-1 Meg	7.56	7.00	6.30
SUB-MINIATURE HIGH TEMPERATURE WIREWOUND		TRIMPOT	3250	10 to 50K	L P, W	0-0.1⑤	±5	1.00	175	25	Yes	3/16 7/32	1/2 1/2	1/2 1/2	10 -10K 20K-25K 50K 10 -10K 20K-25K 50K	6.71 7.56 10.01 7.23 7.97 10.53	6.22 7.00 9.27 6.69 7.38 9.75	5.60 6.30 8.34 6.02 6.64 8.78
SQUARE HIGH TEMPERATURE RESISTON CARBON ELEMENT		TRIMPOT	3251	20K to 1 Meg	L P,W	1.0	±20	0.50	150	25	Yes	3/16 7/32	1/2 1/2	1/2 1/2	20K-1 Meg	7.83	7.25	6.53

FOR BOURNS® PRECISION POTENTIOMETERS, SEE PAGES 1166, 1167

Net

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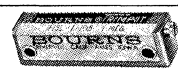
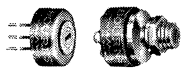
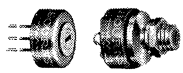
LARGEST SELECTION, LONGEST RECORD OF RELIABILITY

Description		Name	Model	Resistance (Ohms)③	Terminals ①	Setting End (%)	Tolerance (%)⑥	Power Rating (Watt)	Max. Operating Temp. (°C)	Adj. Turns	Humidity Proof⑦ (Mil Spec)	Size (Inches) H	W	L	Standard Resistances (Ohms)	Price② 1 - 9	10-24	25-49
UNSEALED																		
GENERAL PURPOSE WIREWOUND		TRIMPOT⑨	200	10 to 50K 100K	L*,S*,P L*	0-0.7④ 0-5.0	±10	0.25	105	25	Steady State Only	5/16	1/4	1-1/4	10 -10K 20K-25K 50K 100K	4.86 6.48 7.56 9.18	4.50 6.00 7.00 8.50	4.05 5.40 6.30 7.65
GENERAL PURPOSE RESISTON⑨ CARBON ELEMENT		TRIMPOT	215	20K to 1 Meg	L*,S*,P	0-1.0	±20	0.25	125	22	Steady State Only	5/16	1/4	1-1/4	20K-1 Meg	4.86	4.50	4.05
HIGH TEMPERATURE WIREWOUND		TRIMPOT	260	10 to 1K 2K to 50K 100K	L*,S*,P L*	0-0.2④ 0-0.1 0-5.0	±10	1.00	175	25	Steady State Only	5/16	1/4	1-1/4	10 -10K 20K-25K 50K 100K	5.94 7.56 8.10 9.72	5.50 7.00 7.50 9.00	4.95 6.30 6.75 8.10
SINGLE-TURN																		
MICRO-MINIATURE HIGH TEMPERATURE HUMIDITY-PROOF WIREWOUND		BOURNS⑨	3300	10 to 20K	P S	0-1.0	±5	0.50	175	1	Yes	5/16 dia. x 3/16 5/16 dia. x 15/32			10 -10K 20K 10 -10K 20K	5.94 7.56 8.91 10.53	5.50 7.00 8.25 9.75	4.95 6.30 7.43 8.78
MICRO-MINIATURE HIGH TEMPERATURE HUMIDITY-PROOF RESISTON CARBON ELEMENT		BOURNS	3301	10K to 1 Meg	P S	0-1.0	±20	0.25	150	300°	Yes	5/16 dia. x 3/16 5/16 dia. x 15/32			10K-1 Meg 10K-1 Meg	5.94 8.91	5.50 8.25	4.95 7.43
SUB-MINIATURE SINGLE-TURN WIREWOUND		BOURNS	3367	10 to 20K	P S	0-1.0	±5	0.50	105	1	Steady State Only	1/2 dia. x 15/64 1/2 dia. x 15/32			10 -20K 10 -20K	4.86 5.67	4.50 5.25	4.05 4.73
SUB-MINIATURE SINGLE-TURN RESISTON CARBON ELEMENT		BOURNS	3368	20K to 1 Meg	P S	0-1.0	±20	0.25	105	1	Steady State Only	1/2 dia. x 15/64 1/2 dia. x 15/32			20K-1 Meg 20K-1 Meg	5.94 6.75	5.50 6.25	4.95 5.63
COMMERCIAL																		
COMMERCIAL WIREWOUND		TRIMIT⑨	271 273 275	50 to 20K	L* S* P	0-2.0	±10	0.25	85	25	No	5/16	1/4	1-1/4	50-10K 20K	3.18 4.32	2.95 4.00	2.65 3.60
COMMERCIAL RESISTALOY⑨ CARBON ELEMENT		TRIMIT	272 274 276	20K to 1 Meg	L* S* P	0-7.5	±20	0.20	85	25	No	5/16	1/4	1-1/4	20K-1 Meg	3.78	3.50	3.15
COMMERCIAL WIREWOUND		E-Z-TRIM⑨	3067	100 to 20K	S, P	0-2.0	±10	0.50	85	15	No	23/64	9/32	1	100-20K	1.85	1.71	1.54
COMMERCIAL CARBON ELEMENT		E-Z-TRIM	3068	20K to 1 Meg	S, P	0-5.0	±20	0.20	85	15	No	23/64	9/32	1	20K-1 Meg	1.85	1.71	1.54
SPECIAL-PURPOSE																		
HIGH-POWER (2-WATT) HIGH TEMPERATURE WIREWOUND		TRIMPOT	207	100 to 100K	L*	0-0.2⑤	±10	2.00	175	25	No⑧	13/16	9/32	1-1/4	100-50K 100K	10.26 11.88	9.50 11.00	8.55 9.90
HIGH-POWER (3¾-WATT) HUMIDITY-PROOF		TRIMPOT	3020	100 to 50K	L*	0-0.1⑤	±5	3.75	200	25	Yes	21/64	1/4	1-1/4	100-10K 20K-25K 50K	14.04 15.66 16.20	13.00 14.50 15.00	11.70 13.05 13.50
DUAL-ELEMENT WIREWOUND		TWINPOT⑨	209	10 to 1K 2K to 50K	L*	0-0.2④ 0-0.1	±10	0.25 (each element)	105	25	No⑧	5/16	1/2	1-1/4	10 -10K 20K-25K 50K	12.96 14.58 16.20	12.00 13.50 15.00	10.80 12.15 13.50
HIGH-POWER (15-WATT) HIGH TEMPERATURE WIREWOUND		TRIMPOT	3030	10 to 10K	L	0-5.0	±10	15	265	25	No	1-5/64	33/64	1-17/64	10 -10K	12.96	12.00	10.80
RADIATION PROOF WIREWOUND		TRIMPOT	3040	500 to 20K	W	0-1.0	±10	5.00	350	17	No	3/8	9/64	1-1/4	500-20K	27.00	25.00	22.50

① Key to terminal types:
L = Insulated stranded leads.
S = Solder lugs (includes panel mounting bushing on Models 3367S, 3368S, 3300S & 3301S only).
P = Printed circuit pins.
W = Uninsulated wires (edge mounting 3250, 3251, 3280 & 3281).

② Franchised local distributors quote factory prices through 500 pieces. Contact factory for prices in higher quantities.

③ The following resistances are standard if they fall within the limits listed: Wirewound—10, 20, 50, 100, 200, 500, 1K, 2K, 5K, 10K, 25K, 50K, 100K, RESISTON, RESISTALOY—10K, 20K, 50K, 100K, 200K, 500K, 750K, 1 Meg. PALIRIUM—2, 5, 10, 20, 50, 100, 100K, 200K, 500K, 750K. 1 Meg. Other resistances available on special order.

④ Or 0 to 0.5 ohms, whichever is greater.

⑥ Or 0 to 1.0 ohms, whichever is greater.

⑥ Closer tolerances available on request, except commercial models.

⑦ All models are sealed against sand and dust.

⑧ Humidity-proof version available on special order. Contact factory for part number, price and delivery.

⑨ BOURNS, TRIMPOT, TWINPOT, TRIMIT, E-Z-TRIM, RESISTALOY, RESISTON, PALIRIUM, SILVERWELD, KNOBPOT are registered trademarks of Bourns, Inc. Other products made by Bourns, Inc., are identified by trademarks which include: TRIMISTOR, TRIMM, MIL-E-TRIM, CARBOLON, PANLTRIM, MILISEAL, RESISTRON, CLOCKPOT. Bourns, Inc., is the owner, of rights under the following listed United States Letters Patents relating to certain of its adjustment potentiometers: 2,706,230 / 2,777,926 / 2,805,307 / 2,831,949 / 2,873,337 / 2,882,375 / 2,922,976 / 2,935,716 / 2,945,198 / 2,946,975 / 2,952,825 / 2,989,718 / 3,010,092 / 3,018,459 / 2,898,569. Other patents pending. Certain Bourns products are under issued and pending foreign patents.

⑩ End setting varies from 1 to 15% to account for lead resistance.

© 1963 BOURNS, INC. *Panel-mount units available. See next page.

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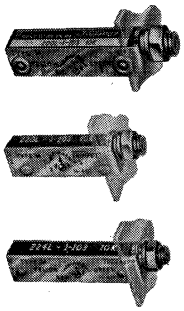
RIVERSIDE, CALIF.

FOR BOURNS® PRECISION POTENTIOMETERS, SEE PAGES 1166, 1167

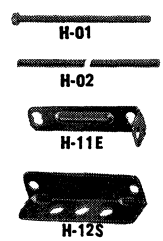
BOURNS TRIMPOT® PANEL-MOUNTING UNITS AND MOUNTING HARDWARE



PANEL MOUNTING

*Models so designated are available with the added convenience of panel mounting. Unique design permits quick factory conversion of "off-the-shelf" units. Clip brackets, mounting brackets and mounting screws are available for other mounting requirements.

	add to price of basic unit		
209	2.16	2.00	1.80
All others	.81	.75	.68

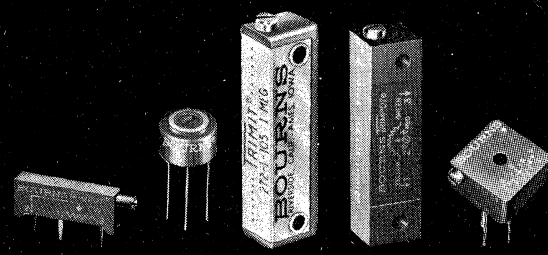


TRIMPOT POTENTIOMETER MOUNTING HARDWARE

H-01 — 1½", 2-56 machine screw
H-02 — 2-56 stainless steel rod stock
H-03 — 2-56 Hex nut, stainless steel for use on H-01 and H-02
H-12S — Stainless steel side bracket for models with 1" mounting centers
H-22S — Stainless steel side bracket for models with ½" mounting centers
H-25 — Stainless steel stacking straps for models with 0.520" mounting centers
H-11E — Stainless steel end bracket for models with 1" mounting centers
H-21E — Stainless steel end bracket for models with ¼" mounting centers
H-26S — Stainless steel side bracket for models with 0.520" mounting centers

IMMEDIATE DELIVERY, TECHNICAL SERVICE—UNITS STOCKED THROUGHOUT THE WORLD

BOURNS TRIMPOT®



POTENTIOMETERS

THE INDUSTRY'S
LARGEST SELECTION OF
ADJUSTMENT POTENTIOMETERS

33 Standard Models / 4 Terminal Types / 3 Mounting Styles

■ Military ■ Industrial ■ Commercial ■ Wirewound
■ RESISTON® Carbon ■ Rectangular ■ Square ■ Precision Rotary
■ Humidity-Proof ■ High-Temperature ■ Special-Purpose

If it's TRIMPOT®, it's BOURNS

BOURNS

BOURNS, INC., TRIMPOT DIVISION
RIVERSIDE, CALIF.

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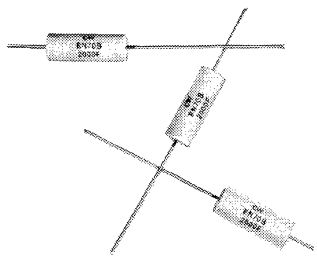
Precision Film Resistors, Composition Resistors, Potentiometers, Spark Suppressors and Switches

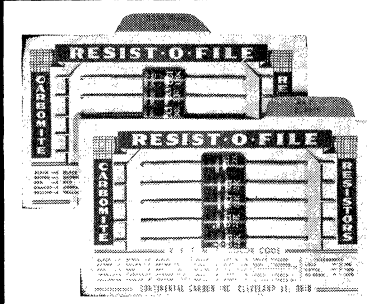
CONTINENTAL WIRT

There's long life and superior performance behind every C-W component — meeting highest quality and reliability standards at a moderate cost.



Molded Deposited Carbon Precision Film Resistors

C-W molded carbon film resistors are designed and manufactured to meet or exceed performance requirements of MIL-R-10509E. Available: ⅛ W. thru 1 W.; 10 ohms thru 50 megohms. Request Bulletin 2023.

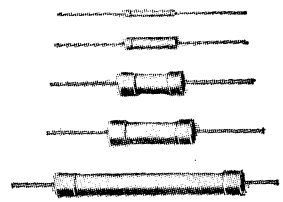


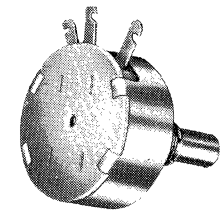
Carbomite Resistors

Insulated fixed composition resistors for replacement and service applications, ¼ thru 2 watts. Available as Type "M" packaged in bulk. Also, Type "MR" consisting of five Type "M" resistors of one resistance value and tolerance mounted on one 3x5 index card, ten cards per package. File drawers and storage cabinets for Type "MR" resistors available. Request Bulletin 2047

Coated Deposited Carbon Precision Film Resistors

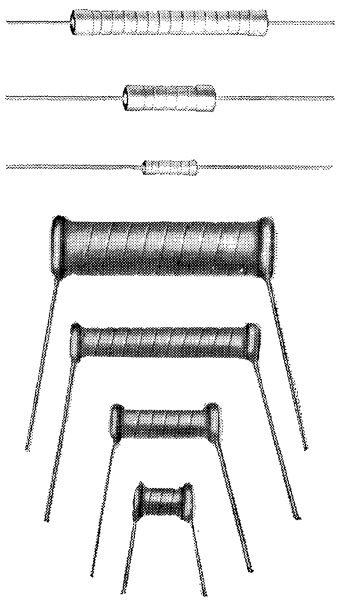
C-W coated deposited carbon film resistors — while being designed and manufactured to meet or exceed characteristic "X" requirements of MIL-R-10509, are more modestly priced than molded resistors. Available: ⅛ W. thru 2 W; 10 ohms thru 100 megohms. Request Bulletin 2045.





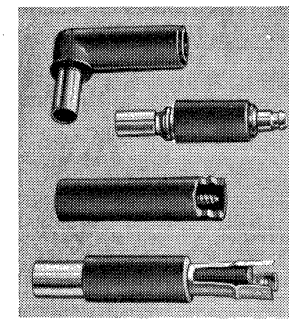
Wire-Wound Controls

Available from ¾" O.D., 2 watt trimmer control thru 5 watt phenolic housed controls. Available with conventional single or dual element for "L" pad and similar applications. Shafts, bushings, mounting hardware and other features available to meet your specific requirements. Request Bulletins 2009 and 2055.



Nobeloy and Nobelette Metal Film Precision Resistors

For applications where fine precision and good stability must be complemented with low extremes in resistance range, or, low noise characteristics, at a moderate cost. Metallic resistance element deposited on low loss ceramic core, is protected by rugged vitreous enamel coating. Available: ½ W. thru 5 W.; less than 1 ohm thru 15 megohms. Request Bulletin 302.

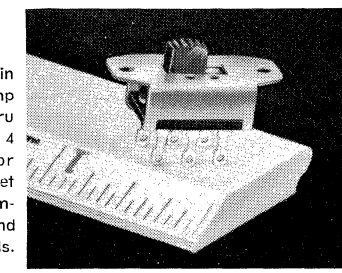


Automotive and Oil Burner Spark Suppressors

For suppression of radio and television noise interference due to ignition spark discharge at plugs and high tension distributor; and due to ignition discharge action of oil burner igniting coil. Complete line of resistive type suppressors. Request Bulletin 125.

Slide Switches

Full line of slide switches in current ratings from .5 amp thru 10.0 amps; one pole thru 4 poles; 2 position thru 4 position; detent action or spring return. Also midget "swidget" where space is limited. Request Bulletins 2039 and 2054 for full technical details.



Your C-W distributor can supply prices, and bulletins mentioned above — also details on the convenient RESIST-O-FILE stocking plan for composition resistors.

CONTINENTAL WIRT

CONTINENTAL-WIRT ELECTRONICS CORP.
Philadelphia, Pa. 19144

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Prize Crop of Precision Potentiometers

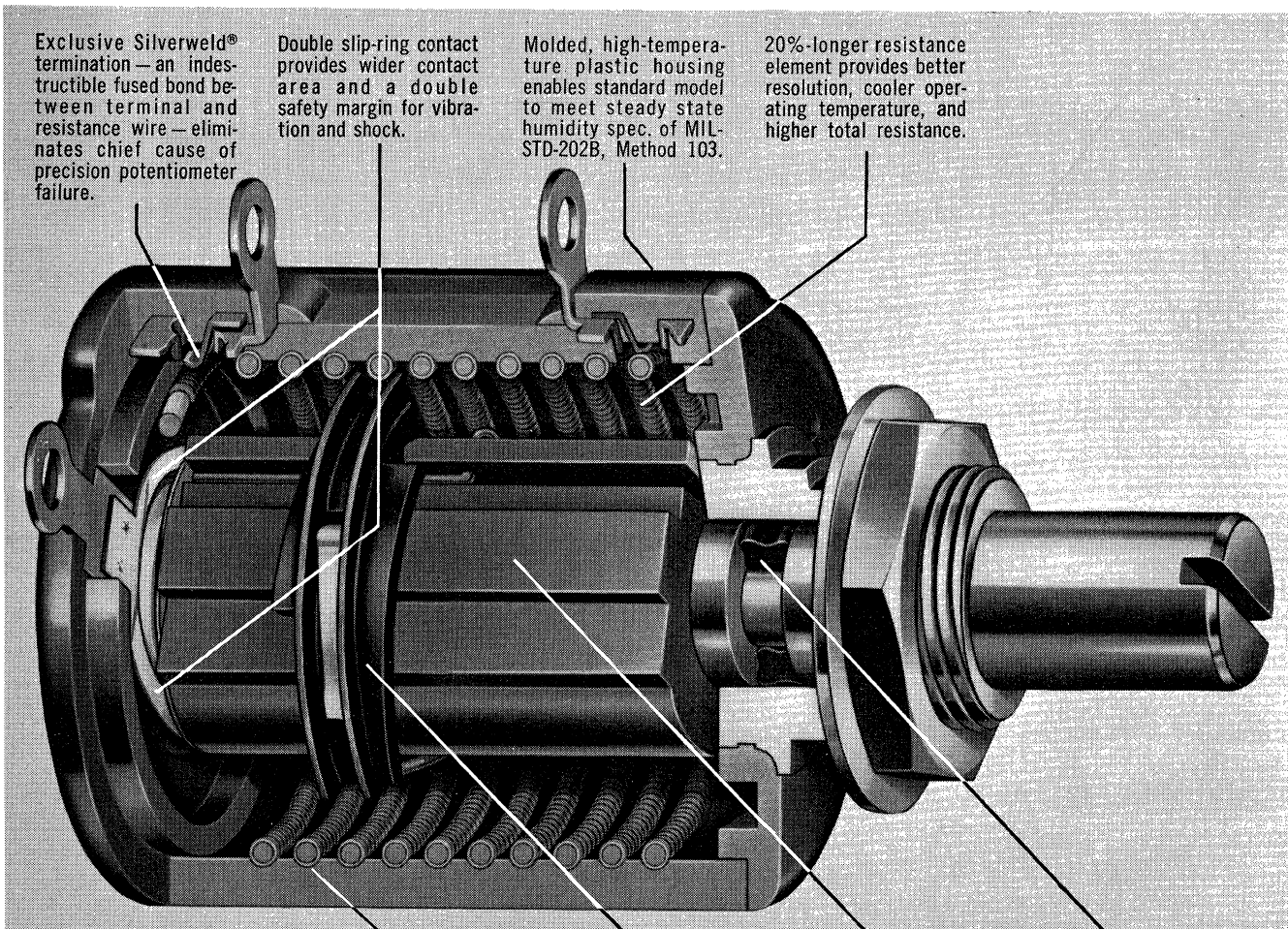
With smaller housings, higher resistances, better linearity, finer resolution, and higher operating temperatures than any other line.

Now you can obtain a 25 to 40% increase in total resistance together with standard linearity as low as 0.2% and resolution as fine as 0.01% — in a potentiometer that's shorter than any competitive unit. Our 10-turn Model 3500, for example, is just 1" long, a full ½" shorter than units available elsewhere. The secret: new design techniques including a thin-wall molded plastic case and reduced helix pitch that let us put a 20%-longer resistance element in a shorter package.

The new case also improves heat dissipation, thus increasing power-handling ability and raising the maximum operating temperature 20°C above most potentiometers available elsewhere. Sealed against humidity, these units exceed steady-state requirements, and most can even be specified to meet MIL-STD-202B, Method 106 (cycling humidity). Reliability is further enhanced by the virtually indestructible Bourns Silverweld® termination.

Units are individually inspected and subjected to the stringent double-check of the Bourns Reliability Assurance Program. Prices are competitive and delivery is immediate. Write today for complete technical data.

Don't MIL-SPECulate — SPECify Bourns!



This cutaway of Model 3500 shows the typical high-quality construction to be found in all Bourns precision potentiometers, although some features may vary from model to model.

FOR BOURNS® ADJUSTMENT POTENTIOMETERS, SEE PAGES 1161-1164

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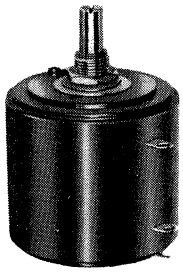
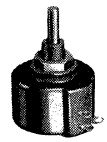
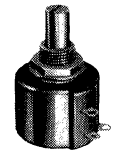
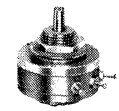

Model 3400

Model 3500


Model 3510

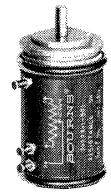

Model 3520


Model 3530

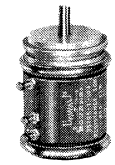
Model 3700

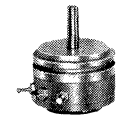
Model 3507

Model 3707


Model 3550

Model 3560


Model 3570


Model 3580

Model 3750

	MODEL NUMBER	BODY DIAMETER (inches)	BODY LENGTH (inches)	NUMBER TURNS	TR RANGE (ohms)	STD. TR TOL. (%)	STD. LINEARITY (%)	POWER (watts)	HUMIDITY PROOF (mil spec)
BUSHING MOUNT	3400	1 13/16	1.75	10	100–500K	±3	±0.25	5.0 @ 40°C	steady state
	3500	⅞	1.00	10	100–500K	±3	±0.20	2.0 @ 70°C	steady state*
	3510	⅞	0.549	3	50– 50K	±3	±0.30	1.0 @ 70°C	steady state*
	3520	⅞	0.678	5	50– 75K	±3	±0.30	1.5 @ 70°C	steady state*
	3530	⅞	0.487	1	50– 50K	±3	±0.50	1.0 @ 70°C	steady state*
	3700	½	1.00	10	100–250K	±5	±0.25	1.0 @ 70°C	steady state*
LOW COST, BUSHING MOUNT	3507	⅞	1.125	10	100–100K	±5	±0.50	2.0 @ 25°C	steady state
	3707	½	1.00	10	100– 50K	±10	±1	1.0 @ 40°C	steady state
SERVO MOUNT	3550	⅞	1.58	10	100– 50K	±3	±0.20	2.5 @ 70°C	steady state*
	3560	⅞	1.046	3	50–100K	±3	±0.25	1.5 @ 70°C	steady state*
	3570	⅞	1.187	5	50–250K	±3	±0.25	2.0 @ 70°C	steady state*
	3580	⅞	0.606	1	100– 50K	±3	±0.50	1.0 @ 70°C	steady state*
	3750	½	1.187	10	100–250K	±5	±0.25	1.0 @ 70°C	steady state*
KNOBPOT®	3600	¾	1.00	10	100–250K	±5	±0.50#	1.5 @ 25°C	steady state
	3640	1¼	1.5	10	500–500K	±3	±0.10#	2.5 @ 25°C	steady state

*Method 106 cycling humidity optional. #Standard dial accuracy, including linearity

KNOBPOT® POTENTIOMETERS

Model 3600

Precision potentiometer, clock readout dial and knob in a single, compact package. Mounts in front of panel. See specs above.

Model 3640

KNOBPOT Sr. Potentiometer—similar to Model 3600, but more accurate and slightly larger. See specs above.

KNOBPOT POTENTIOMETER ACCESSORIES

COLORED PLASTIC SNAP RINGS available in red, yellow, blue, green and white per MIL-STD-595.

STANDARD MIL-SPEC 1"-DIA. SLIP-OVER KNOBS of plastic, available in MIL-SPEC red, yellow, blue, green, black, gray. Available for Model 3600 only.

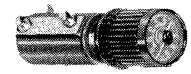
STAINLESS STEEL SKIRTS (for use without brake) to add high-polish glamour.

STAINLESS STEEL LOCKING BRAKE with plastic handles for Model 3600 snaps easily into place between potentiometer and panel. All-plastic friction brake easily slips over Model 3640.

STAINLESS-STEEL, PANEL-RECESSEI MOUNTING BRACKET permits recessio of dial for special panel requirements

TURNS-COUNTING DIALS

Easy-to-read vernier dials requiring only 1" of panel space are available for all Bourns precision potentiometers (except KNOBPOT units, which incorporate their own readout). Easily mounted—no extra panel holes needed; can be set to less than .1% of total travel. Locking device (optional) positively prevents shift in setting. Anodized finish, black or clear.



NEW 10-TURN H-351 SERIES TURNS-COUNTING DIAL measures only ½" dia. by ⅝" long, fits ⅛" or 3/32" diameter shafts. Features unique clock-face readout for higher readability; has continuous, full-gear engagement. Extremely simple to install. Available with or without slip-over lock.

BOURNS

BOURNS, INC., TRIMPOT DIVISIO
RIVERSIDE, CALIF.

MANUFACTURER: TRIMPOT® & PRECISION POTENTIOMETERS, RELAYS; TRANSDUCERS FOR PRESSURE, POSITION, ACCELERATION. PLANTS: RIVERSIDE, CALIFORNIA; AMES, IOWA; TORONTO, CANAI

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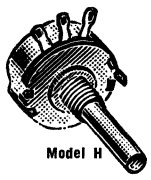
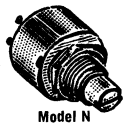
Centralab. Controls, Attenuators


Model H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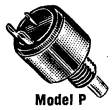
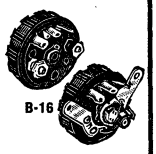

Model P

Model T


B-16

SM

HOT-MOLDED CARBON POTENTIOMETERS

Offer greatly increased high voltage stability due to wide clearance between bushing and collector track. Free from contamination of dirt due to elevated resistance track. Exceptionally long noise-free operation.

MODEL 12 (2-WATT) HOT MOLDED POTENTIOMETERS

Centralab RV4 Style Hot Molded Composition Potentiometers are manufactured to meet the requirements of MIL-R-94B. These "HOT MOLDED" Potentiometers offer greatly increased high voltage stability due to wide clearance between bushing and collector track; greater freedom from contamination from dirt due to elevated resistance track and exceptionally long noise-free operation. Completely enclosed construction permits encapsulation or potting without affecting operation. **CERTIFIED TEST DATA AND LOT IDENTIFICATION AVAILABLE UPON REQUEST.**

MODEL—HMP, HMS, HML (RV4 STYLE)

Molded composition resistance element; Rated 2.25 watts @ 70°C, 500 volts. Tolerance ±10% (except (*) which are ±20%) 1 3/32" diameter, 3/64" deep; mechanical rotation 312°±3°.

HML SERIES

Shaft ¼" diameter, full round, stainless steel, screwdriver slot for locking bushing, 5/8" long from mtg. surface. Bushing 3/8"-32 NEF-2A thd., nickel plated brass, ½" long locking type. Shipping wt. 4 oz. Linear taper on all units.

Ohms	Catalog No.	MIL Desig.	Ohms	Catalog No.	MIL Desig.
		RV4LAYSA	35K	HML—35K	353A
50	HML—50	500A	50K	HML—50K	503A
100	HML—100	101A	75K	HML—75K	753A
150	HML—150	151A	100K	HML—100K	104A
250	HML—250	251A	150K	HML—150K	
350	HML—350	351A	250K	HML—250K	
500	HML—500	501A	350K	HML—350K	
750	HML—750	751A	500K	HML—500K	
1000	HML—1000	102A	750K	HML—750K *	
1500	HML—1500	152A	1 MEG	HML—1 MEG *	
2500	HML—2500	252A	1.5 MEG	HML—1.5 MEG *	
3500	HML—3500	352A	2 Meg	HML—2 MEG *	
5000	HML—5000	502A	2.5 MEG	HML—2.5 MEG *	
7500	HML—7500	752A	3.5 MEG	HML—3.5 MEG *	
10K	HML—10K	103A	5 MEG	HML—5 MEG *	
15K	HML—15K	153A			
25K	HML—25K	253A			

HML SERIES—INDUSTRIAL NET PRICES

Net Each, Lots of				
1-9	10-24	25-49	50-99	100-249
$2.55	$2.30	$2.13	$1.92	$1.35

HMP SERIES

Shaft ¼" diameter, full round, stainless steel with screwdriver slot, 7/8" long from mounting surface. Bushing 3/8"-32 NEF-2A thd. nickel plated brass, 3/8" long. Linear taper on all units.

Ohms	Catalog No.	MIL Desig.	Ohms	Catalog No.	MIL Desig.
		RV4NAYSE	25K	HMP—25K	253A
50	HMP—50	500A	35K	HMP—35K	353A
100	HMP—100	101A	50K	HMP—50K	503A
150	HMP—150	151A	75K	HMP—75K	753A
250	HMP—250	251A	100K	HMP—100K	104A
350	HMP—350	351A	150K	HMP—150K	
500	HMP—500	501A	250K	HMP—250K	
750	HMP—750	751A	350K	HMP—350K	
1000	HMP—1000	102A	500K	HMP—500K	
1500	HMP—1500	152A	750K	HMP—750K *	
2500	HMP—2500	252A	1 MEG	HMP—1 MEG *	
3500	HMP—3500	352A	1.5 MEG	HMP—1.5 MEG *	
5000	HMP—5000	502A	2 MEG	HMP—2 MEG *	
7500	HMP—7500	752A	2.5 MEG	HMP—2.5 MEG *	
10K	HMP—10K	103A	3.5 MEG	HMP—3.5 MEG *	
15K	HMP—15K	153A	5 MEG	HMP—5 MEG *	

HMS SERIES

Shaft ¼" diameter, full round, slotted stainless steel. 2½" long from mtg. surface. Bushing 3/8"-32 NEF-2A thd. nickel plated brass, 3/8" long, includes mtg. nut and lockwasher. Linear taper on all units.

Ohms	Catalog No.	MIL Designation	Ohms	Catalog No.	MIL Designation
50	HMS—50	RV4NAYSK500A	35K	HMS—35K	353A
100	HMS—100	101A	50K	HMS—50K	503A
150	HMS—150	151A	75K	HMS—75K	753A
250	HMS—250	251A	100K	HMS—100K	104A
350	HMS—350	351A	150K	HMS—150K	
500	HMS—500	501A	250K	HMS—250K	
750	HMS—750	751A	350K	HMS—350K	
1000	HMS—1000	102A	500K	HMS—500K	
1500	HMS—1500	152A	750K	HMS—750K *	
2500	HMS—2500	252A	1 MEG	HMS—1 MEG *	
3500	HMS—3500	352A	1.5 MEG	HMS—1.5 MEG *	
5000	HMS—5000	502A	2 MEG	HMS—2 MEG *	
7500	HMS—7500	752A	2.5 MEG	HMS—2.5 MEG *	
10K	HMS—10K	103A	3.5 MEG	HMS—3.5 MEG *	
15K	HMS—15K	153A	5 MEG	HMS—5 MEG *	
25K	HMS—25K	253A			

HMP & HMS SERIES—INDUSTRIAL NET PRICES

Net Each, Lots of			
1-9	10-24	25-49	50-99	100-249
$1.95	$1.76	$1.63	$1.47	$1.20

¾-WATT COMPOSITION MODEL N

Composition potentiometer rated ¾ watt. Plain round shaft 2½" long FMS. Tolerance ±10%. Only 23/32" dia. x ½" d. behind panel. Bushing ¾"-32 NEF-2A thread x 3/8" long.

CRL Number	Resis., Ohms	Taper	CRL Number	Resis., Ohms	Taper
NCP9-501-U	500	C-1	NCP9-104-U	100K	C-1
NCP9-102-U	1000	C-1	NCP9-104-A	100K	C-2
NCP9-252-U	2500	C-1	NCP9-254-U	250K	C-1
NCP9-502-U	5000	C-1	NCP9-254-A	250K	C-2
NCP9-103-U	10K	C-1	NCP9-504-U	500K	C-1
NCP9-103-B	10K	C-3	NCP9-504-A	500K	C-2
NCP9-253-U	25K	C-1	NCP9-105-M*	1 meg.	C-1
NCP9-253-B	25K	C-3	NCP9-105-R*	1 meg.	C-2
NCP9-503-U	50K	C-1	NCP9-255-M*	2.5 meg.	C-1
NCP9-503-B	50K	C-3			

*Tolerance, ±20%.

MIL-R-94B STYLE RV6

½-WATT COMPOSITION MODEL P

Composition ½-watt potentiometer meets MIL-R-94B specifications, Style RV6. Complete sealed shaft and case. Slotted shaft 7/8" long FMS. Tolerance, ±10%. Only ½" dia. x 15/32" d. behind panel. Bushing ¼"-32 NEF-2A thread x ¼" long.

CRL Number	Resis., Ohms	Taper	CRL Number	Resis., Ohms	Taper
PNS7-501-U	500	C-1	PNS7-503-U	50K	C-1
PNS7-102-U	1000	C-1	PNS7-104-U	100K	C-1
PNS7-252-U	2500	C-1	PNS7-254-U	250K	C-1
PNS7-502-U	5000	C-1	PNS7-504-U	500K	C-1
PNS7-103-U	10K	C-1	PNS7-105-M*	1 meg.	C-1
PNS7-253-U	25K	C-1	PNS7-255-M*	2.5 meg.	C-1

*Tolerance, ±20%.

COMPOSITION TRIMMER MODEL T

Composition trimmer potentiometer rated ⅓ watt with special U-shaped shaft. Extremely resistant to shock, vibration and acceleration. Tolerance, ±20%. Mounts by threaded stud through center of unit. Only 1 3/32" dia. x 1 1/32" d.

CRL Number	Resis., Ohms	Taper	CRL Number	Resis., Ohms	Taper
TMX0-501-M	500	C-1	TMX0-503-M	50K	C-1
TMX0-102-M	1000	C-1	TMX0-104-M	100K	C-1
TMX0-252-M	2500	C-1	TMX0-254-M	250K	C-1
TMX0-502-M	5000	C-1	TMX0-504-M	500K	C-1
TMX0-103-M	10K	C-1	TMX0-105-M	1 meg.	C-1
TMX0-253-M	25K	C-1	TMX0-255-M	2.5 meg.	C-1

INDUSTRIAL NET PRICES

All Values CRL Type	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
NCP Potentiometers	$2.10	$1.89	$1.75	$1.66	$1.58
PNS Potentiometers	5.10	4.59	4.25	4.04	3.83
TMX Trimmer Pots	2.10	1.89	1.75	1.66	1.58

1/10 WATT CONTROLS

Designed for transistorized hearing aids, miniature radios and similar applications. **Model B16 Miniature:** Can be reduced to 5/8" dia. by removing knob; with knob is 23/32". Plain type is stud mounted, using two 1-72NF-2thd. x .140" studs on .427" centers. Switch type is bracket mounted. **Model SM Subminiature:** Measures 19/32" with knob, reduced to .502" without knob. Mount is standard 0-80NF-2A thd. x .134" long brass studs on .285" centers. Switch type only. **Tolerance:** ±20% except Types B16-124, B16-127, B16-128, B16-224, and B16-228, ±30%.

MINIATURE TYPE B16 SERIES

CRL No.		Max. Ohms	Taper	CRL No.		Max. Ohms	Taper
Plain	Switch			Plain	Switch		
B16-107		500	C1	B16-119		50K	C1
B16-109		1000	C1	B16-121		100K	C1
B16-111		2500	C1	B16-123		250K	C1
B16-112	B16-212	2500	C2	B16-118	B16-218	½ meg.	C2
B16-113		5000	C1	B16-120	B16-220	1 meg.	C2
B16-114	B16-214	5000	C2	B16-122	B16-222	2 meg.	C2
B16-115		10000	C1	B16-124	B16-224	3 meg.	C2
B16-116	B16-216	10000	C2	B16-127		5 meg.	C1
B16-117	B16-217	25000	C2	B16-128	B16-228	5 meg.	C2
B16-125		25000	C1				

SUBMINIATURE TYPE SM SERIES

CRL No.	Max. Ohms	Taper	CRL No.	Max. Ohms	Taper
SM2-252-S	2500	C2	SM2-103-S	10000	C2
SM2-502-S	5000	C2	SM2-253-S	25000	C2

INDUSTRIAL NET PRICES

All Models Type	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
B16-107 thru -128	$1.50	$1.35	$1.25	$1.19	$1.13
B16-212 thru -228	2.40	2.16	2.00	1.90	1.80
SM	3.75	3.38	3.13	2.97	2.82

ADASHAFT® SHAFTS, COUPLERS, EXTENSIONS

CRL No.	Description	Net Per Package of 5, Lots of				
		1-9	10-24	25-49	50-99	100-249
AK-1	3/8" lg. fingertip knurl sd slot	$0.90	$0.81	$0.75	$0.71	$0.68
AK-2	1¾" lg., .078" w. slot	.90	.81	.75	.71	.68
AK-7	3" lg., full lgth. flat	.90	.81	.75	.71	.68
AK-9	¼" dia., full rd., 3¼" lg.	.90	.81	.75	.71	.68
AK-10	10" lg., flat .216" x 4 5/16"	.90	.81	.75	.71	.68
AK-11	Univ., 4" lg.	.90	.81	.75	.71	.68
AK-16	Cplr: two ¼" or ¼" to a 3/8" shft.	.90	.81	.75	.71	.68
AK-19	Insul. 2 1/16" lg.	.90	.81	.75	.71	.68
AK-21	Shft. ext., 4" lg., ¼" dia., .218" flat	.90	.81	.75	.71	.68
AK-22	Shft. ext., 4" lg., ¼" dia., .154" flat	.90	.81	.75	.71	.68
AK-23	Shft. ext., 4" lg., 3/16" dia., .172" flat	.90	.81	.75	.71	.68
AK-24	½" lg., ¼" dia., full round	.90	.81	.75	.71	.68
AK-25	½" lg., ¼" dia., .218" flat	.90	.81	.75	.71	.68
AK-26	Auto adptr. bshg. 3/8"-32 to 7/16"-28, 1 5/8" lg.; nuts & lockwasher	.45*	.41*	.38*	.36*	.34*
AK-28	Auto adptr. bshng 3/8"-32 to ½"-28, 2¼" lg.; nuts & lockwasher	.45*	.41*	.38*	.36*	.34*
AK-29	2 7/16" lg., .235" dia., full rd.	.90	.81	.75	.71	.68
AK-30	Ground lug	.45†	.41†	.38†	.36†	.34†
AK-31	Adptr. bshg., 3/8"-32 thrd.; extends to 1"	.45*	.41*	.38*	.36*	.34*
AK-33	.187" dia. aluminum double grooved shaft	.90	.81	.75	.71	.68
AK-37	Phenolic 3/8"-32 adptr. bush adjusts to 1"	.45*	.41*	.38*	.36*	.34*
AK-38	Twist-Tab Mtg. Plate	.90	.81	.75	.71	.68
AK-39	PC Mtg. Brkt.	.45*	.41*	.38*	.36*	.34*

*Net each. †Per package of 12.

Net

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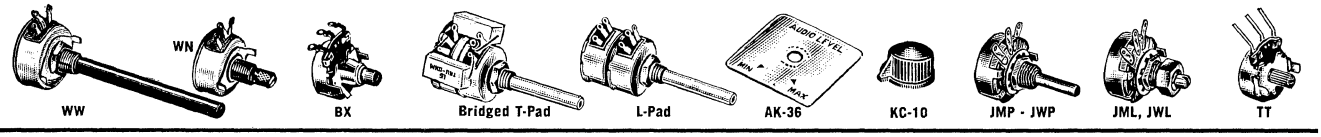
Centralab. Quality Controls



WIRE-WOUND CONTROLS

5-WATT WIRE-WOUND CONTROLS

Packs 5-watt capacity into a 2-watt size unit; linear taper, 1 3/32" diam. x 9/16" deep. Model WW has full round aluminum shaft 1/4" dia. x 3" long. Model WN has fingertip knurled, slotted shaft 1/4" diam. x 3/4" long. Breakdown, 900 v. AC rms to ground. Specify by using WN or WW as prefix. Shipping Weight, 4 oz.

Ohms	CRL No. WW- or WN-	Ohms	CRL No. WW- or WN-	Ohms	CRL No. WW- or WN-	Ohms	CRL No. WW- or WN-
1	010	25	250	400	401	7500	752
2	020	30	300	500	501	10K	103
3	030	40	400	750	751	15K	153
4	040	50	500	1000	102	20K	203
5	050	60	600	1500	152	25K	253
6	060	75	750	2000	202	30K	303
8	080	100	101	2500	252	40K	403
10	100	200	201	3000	302	50K	503
15	150	250	251	4000	402	75K	753
20	200	300	301	5000	502	100K	104

INDUSTRIAL NET PRICES

Values	Net Each, Lots of 1-9	10-24	25-49	50-99	100-249
1 thru 15K	$1.14	$1.03	$0.95	$0.91	$0.86
20K, 25K, 30K	1.50	1.35	1.25	1.19	1.13
40K, 50K	1.80	1.62	1.50	1.43	1.36
75K, 100K	2.46	2.22	2.05	1.95	1.86

L-PAD, T-PAD, AND STEREO ATTENUATORS

Constant impedance L-pads and bridged T-pads provide optimum sound reproduction quality without altering frequency response. Rated 20 watts, audio: 5 watts DC and sine-wave. Breakdown, 900 volts AC rms to ground. Anti-backlash design with force-fit shaft interlock to prevent relative motion between contact springs of front and rear units: assures smooth attenuation in either direction without deterioration. Full round brass shaft, 1/4" dia. x 1 7/8" lg. from mounting surface. Bushing 3/8" lg. x 3/8"-32 thread with nut and lockwasher; can be extended up to 1" adding AK-31 or AK-37 adapter bushing. Size: 1 5/32" dia. x 1 13/64" behind panel. Complete with AK-36 brushed gold-anodized dial plate and KC-10 black pointer knob with set screw.

L-PAD ATTENUATORS

Controls audio level of speakers in PA, intercom and hi-fi sound systems. Shipping Weight, 5 oz.

CRL No.	Imped. Ohms	CRL No.	Imped. Ohms	CRL No.	Imped. Ohms
WL-4	4	WL-500	500	WL-1250	1250
WL-8	8	WL-600	600	WL-2000	2000
WL-16	16	WL-1000	1000	WL-2500	2500

Any Model—Net Each, Lots of 1-9, **$2.97**; 10-24, **$2.67**; 25-49, **$2.48**; 50-99, **$2.36**; 100-249, **$2.23.**

BRIDGED T-PAD ATTENUATORS

Speaker audio level control and sound mixer control for mikes and other circuits requiring constant impedance between input and output circuits. Shipping Weight, 7 oz.

CRL No.	Imped. Ohms	CRL No.	Imped. Ohms	CRL No.	Imped. Ohms
WDT-4	4	WDT-16	16	WDT-600	600
WDT-8	8	WDT-500	500		

Any Model—Net Each, Lots of 1-9, **$3.57**; 10-24, **$3.21**; 25-49, **$2.98**; 50-99, **$2.83**; 100-249, **$2.68.**

STEREO ATTENUATORS

Designed for installation in standard junction or switch boxes where a conventional four-section L-Pad will not fit. Rated at 10 watts, audio; 5 watts, DC. Same basic construction and appearance as L-Pads. Shipping Weight, 5 oz.

CRL No.	Used with*	Net Each, Lots of 1-9	10-24	25-49	50-99	100-249
WST-200	4-ohm speaker	$2.97	$2.67	$2.48	$2.36	$2.23
WST-400	8-ohm speaker	2.97	2.67	2.48	2.36	2.23
WST-800	16-ohm speaker	2.97	2.67	2.48	2.36	2.23

*Can also be used as conventional twin wire-wound controls, linear taper—10% tolerance, 20, 40, and 80 ohms respectively.

ACCESSORIES

CRL No.	Description	Net Each
KC-10	Pkge 5 black set-screw pointer knobs	$0.90
AK-34	4 1/2" x 2 3/4" brushed gold wall-plate	.90
AK-35	4 1/2" x 2 3/4" brushed aluminum wall-plate	.90
AK-36	2" x 2" brushed gold dial-plate; pkge. of 5	1.44

MIL-R-94B STYLE RV1
1/5 -WATT COMPOSITION CONTROLS

Meet MIL-R-94B requirements. Element completely enclosed, permitting further sealing or encapsulation. Linear taper. Rated 1/5 watt at 70°C; derate to 0 watt at 120°C. Resistance tolerance, ±10%. Breakdown, 900 volts AC rms to ground at atmospheric pressure. Only 43/64" dia. **Model JMP:** Stainless steel, screwdriver-slotted shaft 1/8" dia. x 7/8" lg. from mounting surface. Left side locating lug. Mechanical rotation. 260° ±3°. Bushing, 1/4"-32 NEF-2A threaded x 1/4" lg. from mounting surface; with mounting nut and lockwasher. **Model JML:** Same as above, except shaft is 1/2" long from mounting surface and bushing is 3/8" lg. from mounting surface with shaft-locking nut supplied.

Ohms	Stock Values Model JMP CRL No.	Stock Values Model JMP MIL-R-94B Number	Stock Values Model JML CRL No.	Stock Values Model JML MIL-R-94B Number
500	JMP-501	RV1NAXSD501A	JML-501	RV1LAXSB501A
1000	JMP-102	RV1NAXSD102A	JML-102	RV1LAXSB102A
1500	JMP-152		JML-152	
2500	JMP-252	RV1NAXSD252A	JML-252	RV1LAXSB252A
5000	JMP-502	RV1NAXSD502A	JML-502	RV1LAXSB502A
7500	JMP-752		JML-752	
10K	JMP-103	RV1NAXSD103A	JML-103	RV1LAXSB103A
10K	JMP2-103*	RV1NAXSD103C		
25K	JMP-253	RV1NAXSD253A	JML-253	RV1LAXSB253A
50K	JMP-503	RV1NAXSD503A	JML-503	RV1LAXSB503A
100K	JMP-104	RV1NAXSD104A	JML-104	RV1LAXSB104A
250K	JMP-254	RV1NAXSD254A	JML-254	RV1LAXSB254A
500K	JMP-504	RV1NAXSD504A	JML-504	RV1LAXSB504A
500K	JMP2-504*	RV1NAXSD504C		
1 meg.	JMP-105	RV1NAXSD105A	JML-105	RV1LAXSB105A
2500K	JMP-255		JML-255	

*Audio taper C2.

MODELS JMP AND JML INDUSTRIAL NET PRICES

All Values CRL Type	Net Each, Lots of 1-9	10-24	25-49	50-99	100-249
JMP	$4.20	$3.78	$3.15	$2.52	$2.27
JML	4.50	4.05	3.38	2.70	2.43

NOTE: Items requiring certified test data and government source inspection are special; price and information supplied upon request.

COMPOSITION SNAP-TITE* CONTROLS

For hidden or rear TV controls, rated 1/2 watt. Installs simply: Push into mounting hole, tu until locating lugs fit in holes provided; may be used where no locating lugs are neede Breakdown, 900 v. AC rms to ground. Size: 15/16" diam. x 7/16" deep. 1/4" diam. molded plast shaft 1/2" long, knurled and slotted. Linear (C1) taper. *Trademark.

CRL No.	Ohms	Net Each, Lots of 1-9	10-24	25-49	50-99	100-249
BX-10	5K	51c	46c	43c	41c	39c
BX-31	50K	51c	46c	43c	41c	39c
BX-40	100K	51c	46c	43c	41c	39c
BX-46	200K	51c	46c	43c	41c	39c
BX-59	500K	51c	46c	43c	41c	39c
BX-69	1 meg.	51c	46c	43c	41c	39c
BX-742	1.5 meg.	51c	46c	43c	41c	39c
BX-75	2 meg.	51c	46c	43c	41c	39c
BX-83	2.5 meg.	51c	46c	43c	41c	39c
BX-84	3 meg.	51c	46c	43c	41c	39c

TYPE "TT" TWIST TAB CONTROLS

For rear service adjust TV controls and other shock hazard uses. U/L Approved. Phenolic sh 3/4" lg. from mounting surface, knurled full length; screwdriver slot on either end. Compositi element rated 1/2 watt; 15/16" dia. x 7/16" d. Breakdown, 900 v. AC rms to ground. Includes polyethylene shaft extension. Shipping Weight, 2 oz.

CRL No.	Ohms	CRL No.	Ohms	CRL No.	Ohms	CRL No.	Ohms
TT-2	200	TT-26	25K	TT-60*	500K	TT-84	3 meg
TT-4	500	TT-31	50K	TT-66	750K	TT-86	4 meg
TT-411	750	TT-35	75K	TT-69	1 meg.	TT-87	5 meg
TT-511	1500	TT-40	100K	TT-70*	1 meg.	TT-90	7 1/2 meg
TT-8	3000	TT-46	200K	TT-742	1 1/2 meg.		
TT-10	5000	TT-50	250K	TT-75	2 meg.		
TT-14	10K	TT-59	500K	TT-83	2 1/2 meg.		

*C2 taper; all others, C1.

INDUSTRIAL NET PRICES

All Values CRL Type	Net Each, Lots of 1-9	10-24	25-49	50-99	100-249
TT Controls	60c	54c	50c	48c	45c

MINIATURE WIRE-WOUND 1 1/2-WATT CONTROLS

Rugged quality for military and industrial uses. Meet MIL-R-19A specifications. Conservati rated 1 1/2 watts at 40° C; derate to 0 watt at 125° C. Breakdown, 900 volts AC rms atmospheric pressure. Enclosed resistance element permits further sealing or encapsulat Resistance tolerance, ±5%. Linear taper. Left side locating lug. Mechanical rotation, 2 ±3°. Only 43/64" dia. With mounting nut and lockwasher. **Model JWP:** Plain type with stainl steel, screwdriver slotted shaft 1/8" dia. x 7/8" lg. from mounting surface. Bushing, 1/4' NEF-2A threaded x 1/4" long. **Model JWL:** Same, but shaft is 7/16" lg. from mounting surface bushing is 3/8" lg. with shaft locking nut supplied.

Ohms	Model JWP CRL No.	Model JWL CRL No.	Net Each, Lots of 1-9	10-24	25-49	50-99	100-24
50	JWP-500	JWL-500	$6.00	$5.40	$4.50	$3.60	$3.24
100	JWP-101	JWL-101	6.00	5.40	4.50	3.60	3.24
200	JWP-201	JWL-201	6.00	5.40	4.50	3.60	3.24
300	JWP-301	JWL-301	6.00	5.40	4.50	3.60	3.24
500	JWP-501	JWL-501	6.00	5.40	4.50	3.60	3.24
750	JWP-751	JWL-751	6.00	5.40	4.50	3.60	3.24
1000	JWP-102	JWL-102	6.00	5.40	4.50	3.60	3.24
1500	JWP-152	JWL-152	6.00	5.40	4.50	3.60	3.24
2000	JWP-202	JWL-202	6.00	5.40	4.50	3.60	3.24
2500	JWP-252	JWL-252	6.00	5.40	4.50	3.60	3.24
3000	JWP-302	JWL-302	6.00	5.40	4.50	3.60	3.24
4000	JWP-402	JWL-402	6.00	5.40	4.50	3.60	3.24
5000	JWP-502	JWL-502	6.00	5.40	4.50	3.60	3.24
7500	JWP-752	JWL-752	6.00	5.40	4.50	3.60	3.24
10K	JWP-103	JWL-103	6.00	5.40	4.50	3.60	3.24
15K	JWP-153	JWL-153	8.40	7.56	6.30	5.04	4.54
20K	JWP-203	JWL-203	8.40	7.56	6.30	5.04	4.54
25K	JWP-253	JWL-253	8.40	7.56	6.30	5.04	4.54
30K	JWP-303	JWL-303	10.11	9.10	7.59	6.07	5.46

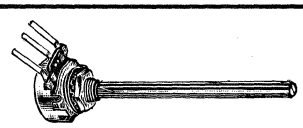
KNOBS FOR SERIES JM and JW

Knobs have pointer, are 11/16" dia. Specify color desired: KC-3, black; KC-4, white; KC-5, re

	Net Each, Lots of 1-9	10-24	25-49	50-99	100-249
KC Knob	18c	17c	15c	15c	14c

Centralab. Composition Controls

UNIVERSAL AND ADASHAFT® CONTROLS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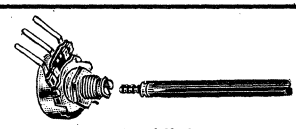
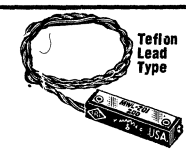
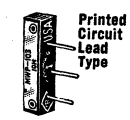

"AB" and Shaft





"SR", "STR"

"KR"

MODEL "B" SWITCH-TYPE CONTROLS

Universal DPST switch type units. Switch rating: 3A., 125V. AC.

CRL No.	Max. Ohms	Taper	Use For
B-60-S	½ meg.	C2	SPST, DPST or 3-wire
B-70-S	1 meg.	C2	SPST, DPST or 3-wire

SINGLE TAPPED "BT" AND "ABT" CONTROLS

Ohms	Taper	Tap	Type B CRL No.	Type AB CRL No.	Ohms	Taper	Tap	Type B CRL No.	Type AB CRL No.
50,000	C-11	25K	BT-33	ABT-33	½ meg.	C-17	50K‡	BT-62	ABT-62
100,000	C-11	50K	BT-39	ABT-39	1 meg.	C-11	500K	BT-71	ABT-71
200,000	C-11	100K	BT-47	ABT-47	1 meg.	C-12	200K	BT-72	ABT-72
250,000	C-11	125K	BT-53	ABT-53	1 meg.	C-13	300K	BT-73	ABT-73
250,000	C-12	50K	BT-54	ABT-54	1 meg.	C-16	500K*	BT-74	ABT-74
250,000	C-13	75K	BT-55	ABT-55	1 meg.	C-17	100K	BT-7417	ABT-7417
250,000	C-16	125K*	BT-56	ABT-56	2 meg.	C-11	1 meg.	BT-78	ABT-78
350,000	C-12	70K	BT-57	ABT-57	2 meg.	C-12	400K	BT-79	ABT-79
¼ meg.	C-11	250K	BT-65	ABT-65	2 meg.	C-13	600K	BT-80	ABT-80
¼ meg.	C-12	100K	BT-66	ABT-66	2 meg.	C-15	200K	BT-81	ABT-81
¼ meg.	C-13	150K	BT-67	ABT-67	2 meg.	C-16	1 meg.*	BT-82	ABT-82
½ meg.	C-15	50K†	BT-63	ABT-63	3 meg.	C-15	300K†	BT-8515	ABT-8515
½ meg.	C-16	250K*	BT-64	ABT-64	3 meg.	C-17	300K‡	BT-8517	ABT-8517

*62½% rotation. †50% rotation. ‡37½% rotation.

TYPE "KR" FASTATCH® SWITCHES

For Model B, AB, SR and FASTATCH II controls.

CRL No.	Use	Amps	Net Each, Lots of 1-9	10-24	25-49	50-99	100-249
KR-1	SPST	5	42c	38c	35c	34c	32c
KR-2	DPST	3	51c	46c	43c	41c	39c
KR-3	DP*	3	51c	46c	43c	41c	39c
KR-4	SPST	15#	66c	60c	55c	53c	50c
KR-6	SPST†	15#	66c	60c	55c	53c	50c
KR-7	DPST	15#	66c	60c	55c	53c	50c
KR-8	SPST**	5	60c	54c	50c	48c	45c

*One pole "off," one "on;" can be used for SPDT. †With dummy lug. #10 v. DC switches; all others 125 v. AC. **Push-pull.

DESCRIPTION OF TAPERS

C-1—Linear; uniform resistance change from either end. **C-2**—Semi-log, (audio) 10% center. **C-3**—Right hand semi-log. Reversed C-2. **C-4**—Modified log, 20% center. **C-5**—Right hand mod. log. Reversed C-4. **C-6**—Mod. log., 40% center. **C-7**—Symet. straight line; slow change. **C-11**—Tapped 50% rotation, 50% resis. **C-12**—Tapped 37½% rotation, 20% resis. **C-13**—Tapped 50% rotation, 30% resistance. **C-14**—Tapped 62% rotation, 30% resistance. **C-15**—Tapped 50% rotation, 10% resistance. **C-16**—Tapped 62% rotation, 50% resistance. **C-17**—Tapped 37½% rotation, 10% resistance.

DUAL TAPPED "BT" AND "ABT" CONTROLS

Ohms	Taps	Type B CRL No.	Type AB CRL No.
15,000	5K and 10K	BT-154	ABT-154
250,000	50K and 125K	BT-155	ABT-155
250,000	41K and 82K	BT-156	ABT-156
½ meg.	82K and 165K	BT-159	ABT-159
½ meg.	100K and 250K	BT-160	ABT-160
1 meg.	165K and 330K	BT-164	ABT-164
1 meg.	200K and 500K	BT-165	ABT-165
1.5 meg.	250K and 500K	BT-167	ABT-167
2 meg.	250K and 500K	BT-174	ABT-174
2 meg.	400K and 1 meg.	BT-175	ABT-175
2.5 meg.	300K and 625K	BT-176	ABT-176
3.3 meg.	330K and 1650K	BT-180	ABT-180

INDUSTRIAL NET PRICES

All Values Type	Net Each, Lots of 1-9	10-24	25-49	50-99	100-249
B Plain	$1.02	$0.92	$0.85	$0.81	$0.77
AB Plain	.84	.76	.70	.67	.63
B Switch	1.44	1.30	1.20	1.14	1.08
BT Tapped	1.35	1.22	1.13	1.07	1.02
ABT Tapped	1.26	1.14	1.05	1.00	.95
KR-5 Sw. Shield*	.72	.65	.60	.57	.54

Priced per package of 5; for use with switch type units only, where AC shielding is needed or specified by U/L.

"SR" AND "STR" ADD-ON CONTROLS

Snap-on rear units provide ganged twin controls for stereo applications. Added to "B" or "AB" controls. Convert to switch type by using snap-on "KR" Fastatch® switches.

TYPE SR

CRL No.	Ohms	Taper	CRL No.	Ohms	Taper
SR-4	500	C-1	SR-59	500K	C-1
SR-6	2000	C-1	SR-60	500K	C-2
SR-13	7500	C-1	SR-613	500K	C-3
SR-26	25K	C-1	SR-58	500K	C-4
SR-25	25K	C-2	SR-617	500K	C-7
SR-31	50K	C-1	SR-69	1 meg.	C-1
SR-32	50K	C-2	SR-70	1 meg.	C-2
SR-323	50K	C-3	SR-68	1 meg.	C-5
SR-40	100K	C-1	SR-75	2 meg.	C-1
SR-41	100K	C-2	SR-76	2 meg.	C-2
SR-42	100K	C-3	SR-84	3 meg.	C-1
SR-50	250K	C-1	SR-85	3 meg.	C-2
SR-51	250K	C-2	SR-87	5 meg.	C-1
SR-513	250K	C-3	SR-88	5 meg.	C-2

TYPE STR TAPPED

CRL No.	Ohms	Taper, Tap	CRL No.	Ohms	Taper, Tap
STR-53	250K	C-11,125K	STR-82	2 meg.	C-16, 1 meg.
STR-56	250K	C-16,125K	STR-159	500K	82K & 165K
STR-65	500K	C-11,250K	STR-160	500K	100K & 250K
STR-66	500K	C-12,100K	STR-167	1.5 meg.	250K & 500K
STR-64	500K	C-16,250K	STR-174	2 meg.	250K & 500K
STR-71	1 meg.	C-11,500K	STR-175	2 meg.	400K & 1 meg.
STR-74	1 meg.	C-16,500K	STR-180	3.3 meg.	330K & 1650K

INDUSTRIAL NET PRICES

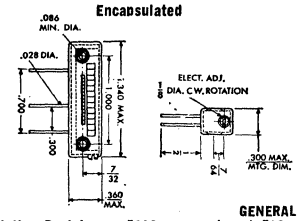
All Values Type	Net Each, Lots of 1-9	10-24	25-49	50-99	100-249
SR "Add-ons"	$1.14	$1.03	$0.95	$0.91	$0.86
STR Tapped	1.14	1.03	.95	.91	.86

MODEL 7 MINIATURE LINEAR MOTION VARIABLE RESISTORS

Unique design of contact arm, wiper carriage and constant torque adjustment screw result in electrically stable, smooth, noise-free unit. Capable of operating under the most severe commercial or military requirements. Assembled under a microscope. Custom adjusted to guarantee no contact bounce when subjected to vibration test of 20-2000 cps at 10G for 10 minutes in each of three planes. Constant quality vigilance from raw stock to final testing guarantees reliability under adverse environments. Reliability in excess of the highest current military specifications, MIL-STD-202A and MIL-R-94B. Used since 1956 for airborne guidance and other military applications. Now available for a wide range of commercial uses.

PHYSICAL DIMENSIONS

Encapsulated



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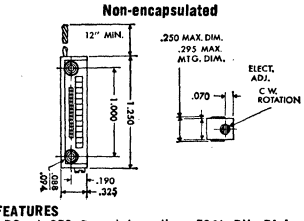

GENERAL FEATURES

Insulation Resistance: 5000 megs min. at 500 v. DC at 25° C and less than 50% RH. **Dielectric Strength:** 1000 v. rms at sea level at 3.4" Hg, 350 v. rms at 50,000 feet for 1 minute. **Stop Strength:** 15 in.-oz. **Temperature Cycling:** No discontinuity or permanent resistance change of more than 5%, −55° C to 85° C. Method 102, Condition A. **No. of Turns:** 25, screw adjustment. **Volume:** .11 cu. in. component density. **Weight:** 16 oz. average, including three 12" leads.

CRL Type	Description	Terminals	Resistance Range	Max. End Resis.	Power Watts	Max. Oper. Temp.	Tol.	Size, Inches H. x W. x L.
GCL	Gen. Purpose Composition	Teflon**/ leads	10K ohms-2.5 meg.	1% of total	0.25 at 50° C	+125° C	±20%	5/16 x ¼x1¼
GCP	Gen. Purpose Composition	P-C leads	10K ohms-2.5 meg.	1% of total	0.25 at 50° C	+125° C	±20%	5/16 x ¼x1¼
GWL	Gen. Purpose Wire-wound	Teflon** leads	10-20K ohms	1% of total	0.25 at 50° C	+125° C	±10%	5/16 x ¼x1¼
GWP	Gen. Purpose Wire-wound	P-C leads	10-20K ohms	1% of total	0.25 at 50° C	+125° C	±10%	5/16 x ¼x1¼
MWL*	High Temp. Wire-wound	Teflon** leads	10-20K ohms	1% of total	1 at 70° C	+175° C	±10%	23/64x1 9/64x1 17/32
MWP*	High Temp. Wire-wound	P-C leads	10-20K ohms	1% of total	1 at 70° C	+175° C	±10%	23/64x1 9/64x1 17/32

*Encapsulated humidity-proof types. **Registered Dupont Trademark.

TYPES GCL, GCP GENERAL PURPOSE COMPOSITION UNITS

Type GCL: Has stranded teflon leads. **Type GCP:** Has printed circuit leads.

Centralab No. Leads Teflon	P-C	Resis., Ohms	Net Each, Lots of 1-9	10-24	25-49	50-99	100-249	250-499	500-999
GCL-103	GCP-103	10K	$4.86	$4.50	$4.05	$3.85	$3.60	$3.42	$3.24
GCL-203	GCP-203	20K	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GCL-503	GCP-503	50K	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GCL-104	GCP-104	100K	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GCL-204	GCP-204	200K	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GCL-504	GCP-504	500K	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GCL-105	GCP-105	1 meg.	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GCL-255	GCP-255	2.5 meg.	4.86	4.50	4.05	3.85	3.60	3.42	3.24

TYPES GWL, GWP GENERAL PURPOSE WIRE-WOUND UNITS

GWL-100	GWP-100	10	$4.86	$4.50	$4.05	$3.85	$3.60	$3.42	$3.24
GWL-200	GWP-200	20	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GWL-500	GWP-500	50	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GWL-101	GWP-101	100	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GWL-201	GWP-201	200	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GWL-501	GWP-501	500	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GWL-102	GWP-102	1000	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GWL-202	GWP-202	2000	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GWL-502	GWP-502	5000	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GWL-103	GWP-103	10K	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GWL-203	GWP-203	20K	6.48	6.00	5.40	5.13	4.80	4.56	4.32

TYPES MWL, MWP ENCAPSULATED, HIGH TEMPERATURE WIRE-WOUND UNITS

MWL-100	MWP-100	10	$7.56	$7.00	$6.30	$5.98	$5.60	$5.32	$5.04
MWL-200	MWP-200	20	7.56	7.00	6.30	5.98	5.60	5.32	5.04
MWL-500	MWP-500	50	7.56	7.00	6.30	5.98	5.60	5.32	5.04
MWL-101	MWP-101	100	7.56	7.00	6.30	5.98	5.60	5.32	5.04
MWL-201	MWP-201	200	7.56	7.00	6.30	5.98	5.60	5.32	5.04
MWL-501	MWP-501	500	7.56	7.00	6.30	5.98	5.60	5.32	5.04
MWL-102	MWP-102	1000	7.56	7.00	6.30	5.98	5.60	5.32	5.04
MWL-202	MWP-202	2000	7.56	7.00	6.30	5.98	5.60	5.32	5.04
MWL-502	MWP-502	5000	7.56	7.00	6.30	5.98	5.60	5.32	5.04
MWL-103	MWP-103	10K	7.56	7.00	6.30	5.98	5.60	5.32	5.04
MWL-203	MWP-203	20K	9.18	8.50	7.65	7.27	6.80	6.46	6.12

Net

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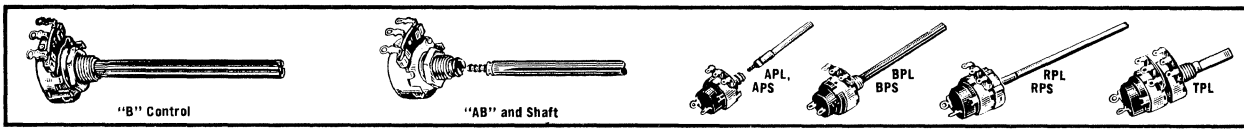
Centralab. Controls and Accessories



FASTATCH® II PLAIN TYPE CONTROLS

Complete exact replacement control coverage for dual concentric single or tandem twins. Snap together assembly, with snap in, permanent locking shafts. Controls are carbon, ½ watt, 1⅝" dia. Rear control ⅞" deep. Front control ⅞" deep, bushing mtd. **¼" x 3/8-32 thd.** Supplied with mtg. nut and universal terminals replacing printed circuit, wire-wrap and hole type terminals. Shafts and switches not included. Anti-backlash construction on duals and twins.

CRL Fastatch® II Dual Controls—Front or rear unit plain. Net Each **90c**

Number preceding dash (-) indicates taper. Number after dash (-) indicates number of ohms in resistance.

CRL No.		CRL No.		CRL No.	
Front Unit	Rear Unit	Front Unit	Rear Unit	Front Unit	Rear Unit
F1-100	R1-100	F5-10K	R5-10K	F1-1MEG	R1-1MEG
F1-200		F1-15K		F2-1MEG	R2-1MEG
F1-300		F1-25K	R1-25K	F3-1MEG	R3-1MEG
F1-500	R1-500	F2-25K	R2-25K	F7-1MEG	R7-1MEG
F4-500		F1-50K	R1-50K	F1-1.5MEG	R1-1.5MEG
F5-500		F2-50K	R2-50K	F1-2MEG	R1-2MEG
F1-750		F3-50K	R3-50K	F2-2MEG	R2-2MEG
F5-750	R5-750	F1-75K	R1-75K	F3-2MEG	R3-2MEG
F1-1000	R1-1000	F1-100K	R1-100K	F7-2MEG	R7-2MEG
F5-1000	R5-1000	F2-100K	R2-100K	F1-2.5MEG	R1-2.5MEG
F1-1500	R1-1500	F3-100K	R3-100K	F1-3MEG	R1-3MEG
F5-1500	R5-1500	F1-150K	R1-150K	F2-3MEG	R2-3MEG
F1-2500	R1-2500	F1-200K	R1-200K	F3-3MEG	R3-3MEG
F2-2500		F1-250K	R1-250K	F1-4MEG	
F5-2500	R5-2500	F2-250K	R2-250K	F1-5MEG	R1-5MEG
F1-5000	R1-5000	F3-250K	R3-250K	F2-5MEG	R2-5MEG
F2-5000	R2-5000	F1-500K	R1-500K	F3-5MEG	R3-5MEG
F5-5000		F2-500K	R2-500K	F7-5MEG	R7-5MEG
F1-7500	R1-7500	F3-500K	R3-500K	F1-7.5MEG	R1-7.5MEG
F1-10K	R1-10K	F7-500K	R7-500K	F1-10MEG	R1-10MEG
F2-10K	R2-10K	F1-750K	R1-750K		

CRL FASTATCH® II Single Tape Controls—Net Each **$1.26**

CRL No.			CRL No.		
Front Unit	Rear Unit	Tap	Front Unit	Rear Unit	Tap
F51-750		500	F11-1MEG	R11-1MEG	500K
	R14-7500	2500	F12-1MEG	R12-1MEG	200K
F51-2000	R16-10K	1500	F14-1MEG	R14-1MEG	300K
F52-2500	R14-25K	625	F16-1MEG	R16-1MEG	500K
F51-30K	R14-50K	20K	F17-1MEG	R17-1MEG	100K
F53-30K	R14-50K	10K	F11-2MEG	R11-2MEG	1 meg.
F11-250K	R11-250K	125K	F12-2MEG	R12-2MEG	400K
F14-250K	R14-250K	75K	F14-2MEG	R14-2MEG	600K
F16-250K	R16-250K	125K	F16-2MEG	R16-2MEG	1 meg.
F11-500K	R11-500K	250K	F17-2MEG	R17-2MEG	200K
F12-500K	R12-500K	100K	F16-3MEG	R16-3MEG	1.5 meg.
F14-500K	R14-500K	150K	F54-3MEG	R54-3MEG	900K
F16-500K	R16-500K	250K			
F17-500K	R17-500K	50K			

CRL Fastatch® II Dual Tap Controls—Net Each **$1.26**

Front Unit	Rear Unit	Taps, Ohms
F60-2000		250Ω and 500Ω
F55-15K		5K and 10K
F56-500K	R56-500K	100K and 250K
F55-1MEG	R55-1MEG	350K and 620K
F56-1MEG	R56-1MEG	200K and 500K
F57-1.5MEG	R57-1.5MEG	250K and 500K
F56-2MEG	R56-2MEG	400K and 1 meg.
F58-2MEG	R58-2MEG	250K and 500K
F59-3.3MEG	R59-3.3MEG	330K and 1650K

FASTATCH® II SHAFTS

Front (sleeve): FFS—Flatted and slotted; **FS**—Double slot; **FK**—Knurled; **FU**—Universal, flatted and slotted.

Any Model—Net Each **27c**

CRL No.	Lgth. In.	CRL No.	Lgth. In.	CRL No.	Lgth. In.	CRL No.	Lgth. In.	CRL No.	Lgth. In.
FFS008	.5	FFS106	1.375	FFS204	2.250	FFS304	3.250	FS109	1.562
FFS009	.562	FFS107	1.437	FFS205	2.312	FFS306	3.375	FS113	1.812
FFS010	.625	FFS108	1.5	FFS206	2.375	FFS308	3.500	FS200	2.000
FFS011	.687	FFS109	1.562	FFS207	2.437	FFS310	3.625	FS204	2.250
FFS012	.750	FFS110	1.625	FFS208	2.500	FFS312	3.750	FS212	2.750
FFS013	.812	FFS111	1.687	FFS209	2.562	FFS314	3.875	FSP014	.875
FFS014	.875	FFS112	1.75	FFS210	2.625	FFS400	4.000	FSP111	1.687
FFS015	.937	FFS113	1.812	FFS211	2.687	FFS402	4.125	FK008	.500
FFS100	1.000	FFS114	1.875	FFS212	2.750	FFS404	4.250	FK010	.625
FFS101	1.062	FFS115	1.937	FFS213	2.812	FS006	.375	FK013	.812
FFS102	1.125	FFS200	2.000	FFS214	2.875	FS010	.625	FK101	1.062
FFS103	1.187	FFS201	2.062	FFS215	2.937	FS015	.937	FK105	1.312
FFS104	1.250	FFS202	2.125	FFS300	3.000	FS101	1.062	FK112	1.750
FFS105	1.312	FFS203	2.187	FFS302	3.125	FS107	1.437	FU404	4.250

Rear (inner shaft): RFS—Flatted and slotted; **RK**—Knurled; **RP**—Push-Pull, flatted & slotted, .187" dia.; **RS008**—.500" long, slot ¼" deep, ¾" wide (used for recessed inner shaft); **RPU**—Push-Pull, universal, flatted & slotted, .187" dia.; **RU**—Universal. Single Controls (solid shaft): **SS**—Slotted, .25" dia., steel; **SN**—Same as SS, nylon; **SK**—Slotted and knurled, .25" dia., steel; **SFS**—Flatted and slotted, .187" dia., steel; **SU**—Universal, steel. Tandem Twin (solid shaft, .187" dia.): **TU**—Universal, steel; **TFS**—Flatted and slotted.

Any Model—Net Each **27c**

No. RFS	Lgth. In.	No. RFS	Lgth. In.	No. RFS	Lgth. In.	CRL No.	Lgth. In.	CRL No.	Lgth. In.	CRL No.	Lgth. In.
014	.875	112	1.750	210	2.625	RFS311	3.687	RK203	2.187	RP213	2.812
015	.937	113	1.812	211	2.687	RFS314	3.875	RK205	2.312	RP215	2.937
100	1.000	114	1.875	212	2.750	RFS400	4.000	RK206	2.375	RPU408	4.500
101	1.062	115	1.937	213	2.812	RFS404	4.250	RK207	2.437	RU413	4.812
102	1.125	200	2.000	214	2.875	RFS407	4.437	RP111	1.687	SFS212	2.75
103	1.187	201	2.062	215	2.937	RFS413	4.812	RP113	1.812	SK010	.625
104	1.250	202	2.125	300	3.000	RK012	.750	RP114	1.875	SN010	.625
105	1.312	203	2.187	301	3.062	RK014	.875	RP200	2.00	SN104	1.250
106	1.375	204	2.250	302	3.125	RK100	1.000	RP202	2.125	SS006	.375
107	1.437	205	2.312	303	3.187	RK104	1.250	RP204	2.250	SS008	.500
108	1.500	206	2.375	304	3.250	RK106	1.375	RP205	2.312	SU204	2.250
109	1.562	207	2.437	306	3.375	RK109	1.562	RP207	2.437	SU308	3.500
110	1.625	208	2.500	307	3.437	RK110	1.625	RP209	2.562	SU500	5.000
111	1.687	209	2.562	309	3.562	RK114	1.875	RP211	2.687	TU304	3.250
										TFS212	2.750

PUSH-PULL, PUSH-PUSH SWITCH CONTROLS

Switch type controls for radio, TV and hi-fi applications. Rated ½ watt, breakdown 900 v. AC rms to ground. Switch rated 3 amps, 125 v. AC; SPST type. Size 1⅝" dia. x 3/32" deep, push-push type; 1¾ deep, push-pull type. Mount using ⅜" lg. x ⅜"-32 threaded bushing with mounting nut except Fastatch types RPL and RPS.

ADASHAFT® TYPE

Any Model **$1.50**

Resis., Ohms	Taper	CRL Number Push-Pull	CRL Number Push-Push
2500	C2	APL-702	
250K	C2		APS-51
500K	C1	APL-59	
500K	C2	APL-60	
500K	*	APL-91	
500K	÷	APL-64	
500K	‡	APL-159	
1 meg.	C2	APL-70	
1 meg.	C7	APL-697	APS-697
1 meg.	*	APL-72	
1 meg.	§	APL-74	
2 meg.	C2	APL-76	APS-76
2 meg.	#	APL-82	

UNIVERSAL SHAFT

Any Model ..... Net Each **$1.77**

Resis., Ohms	Taper	CRL Number Push-Pull	CRL Number Push-Push
2500	C2	BPL-702	
250K	C2		BPS-51
500K	C1	BPL-59	
500K	C2	BPL-60	
500K	*	BPL-91	
500K	÷	BPL-64	
500K	‡	BPL-159	
1 meg.	C2	BPL-70	
1 meg.	C7	BPL-697	BPS-697
1 meg.	*	BPL-72	
1 meg.	§	BPL-74	
2 meg.	C2	BPL-76	BPS-76
2 meg.	#	BPL-82	

*37% tap, 200K, ÷62% tap, 250K. ‡37% tap, 82K; 62% tap, 165K. §62% tap, 500K. #62% tap, 1 meg.

TWIN TYPE

Any Model—Net Each **$2.10**

Resis., Ohms	Taper	Push-Pull	CRL No. Push-Push
250K		88K, 155K	TPL-101
500K	C1		TPL-102
500K		82K, 165K	TPL-103
1 meg.	C1		TPL-104
1 meg.	C2		TPL-105
5 meg.	C2		TPL-106
500K	C2		TPL-107

MODELS "B" AND "AB" CONTROLS

Model B and AB controls are rated at ½ watt. **Size:** 1¾" diameter, ⅞" deep. **Breakdown:** 900 v. AC rms to ground. Mounting: ¾" long ⅜"-32 thread bushing; equipped with mounting nut. Any model converts easily to switch type by merely snapping on "KR" switch. **Model B Shaft:** ¼" dia. x 3⅜" long from mtg. surface. Universal fluted knurled type; fits split knurl, shallow flat, deep flat, slotted, or round applications. **Model AB Shaft:** Patented stub, screwdriver slot shaft ⅝" from mtg. surface. May be extended by adding AK shafts (on another page). Type KR switches may be snapped on B & AB controls. Shpg. Wt., 3 oz.

B AND AB CONTROLS—INDUSTRIAL NET PRICES

	Net each, Lots of				
	1-9	10-24	25-49	50-99	100-249
B plain	$1.02	$.92	$.85	$.81	$.77
AB plain	.84	.76	.70	.67	.63

5-WATT WIRE-WOUND FRONT SECTION CONTROLS

5-Watt WW Fastatch Front Units—Taper, C-1, 1⅜" diameter. Net Each **$1.35**

CRL No.	Max. Ohms	CRL No.	Max. Ohms	CRL No.	Max. Ohms
FW-250	250	FW-1000	1000	FW-2500	2500
FW-300	300	FW-1500	1500	FW-3000	3000
FW-500	500	FW-2000	2000	FW-5000	5000
FW-750	750	FW-2250	2250	FW-10K	10K

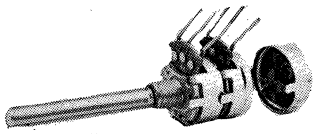
Ohms	Taper	Specify No. B- or AB-	Ohms	Taper	Specify No. B- or AB-	Ohms	Taper	Specify No. B- or AB-	Ohms	Taper	Specify No. B- or AB-
100	C-1	1	10,000	C-4	18	100,000	C-1	40	1 meg.	C-5	68
200	C-1	2	10,000	C-5	17	100,000	C-2	41	1 meg.	C-7	697
500	C-1	4	10,000	C-6	16	150,000	C-1	43	1.5 meg.	C-1	742
750	C-5	415	15,000	C-5	19	150,000	C-2	44	2 meg.	C-1	75
1,000	C-1	5	15,000	C-6	20	200,000	C-1	46	2 meg.	C-2	76
1,000	C-5	505	20,000	C-1	22	250,000	C-1	50	2 meg.	C-5	77
1,500	C-5	515	20,000	C-5	23	250,000	C-2	51	2.5 meg.	C-1	83
2,000	C-1	6	20,000	C-6	24	250,000	C-5	52	3 meg.	C-1	84
2,500	C-1	7	25,000	C-1	26	500,000	C-1	59	3 meg.	C-2	85
2,500	C-2	702	25,000	C-2	25	500,000	C-2	60	3 meg.	C-5	855
2,500	C-5	705	25,000	C-4	29	500,000	C-3	613	4 meg.	C-1	86
3,000	C-1	8	25,000	C-5	27	500,000	C-4	58	4 meg.	C-2	862
4,000	C-1	9	25,000	C-6	28	500,000	C-5	61	5 meg.	C-1	87
5,000	C-1	10	50,000	C-1	31	500,000	C-6	616	5 meg.	C-2	88
5,000	C-2	11	50,000	C-2	32	500,000	C-7	617	7 meg.	C-7	89
5,000	C-5	12	50,000	C-5	34	750,000	C-1	66	7.5 meg.	C-1	90
7,500	C-1	13	75,000	C-1	35	1 meg.	C-1	69	10 meg.	C-1	98
10,000	C-1	14	75,000	C-5	36	1 meg.	C-2	70			
10,000	C-2	15				1 meg.	C-4	744			

PRODUCTS OF
THE HOUSE OF RESISTORS®

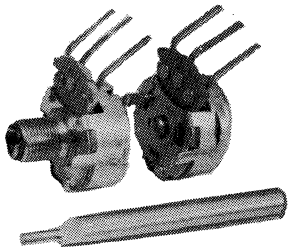
CLAROSTAT®

RESISTORS • CONTROLS
RESISTANCE DEVICES

FIELD-ASSEMBLED CONTROLS



UNI-TITE — RTV



SERIES DA

SERIES DA

A complete line of field-assembled dual controls (operating on a single-shaft) for all those audio requirements — Hi-Fi, Stereo, sound systems, and all others requiring a practical, profitable means of making up the exact combinations required. Offers a wide choice of panel and rear units, plus ON/OFF switches and a virtually unlimited variety of shaft configurations. Use the Series DA to meet customer requirements.

UNI-TITE

The advanced concept in dual concentric universal control replacement. Fast! Simple! Sure! The first and only unit ever offered that provides completely trouble-free assembly. Just 50 panel units, 49 rear units, 5 switches and an assortment of shafts enables you to make up any combination to replace over 2000 TV dual concentric controls.

Uni-Tite controls are supplementary to the RTV controls, providing every replacement unit you'll ever need — the most complete line in the industry.

CODE DESIGNATIONS

EXAMPLE: P — 500 — S

P = Panel Unit; 500 = Ohms; S = Taper

EXAMPLE: F P — 1 13 = Flatted Panel Shaft 1 13/16" long from mounting surface of control.

F = Flat; P = Panel; 1 = Inches; 13 = Sixteenths

SERIES DA

FIELD-ASSEMBLED DUAL CONTROLS

PANEL UNITS (PLAIN)	REAR UNITS (PLAIN) (cont.)
DA-1K-S	R-100K-S
DA-2K-S	R-150K-S
DA-5K-S	R-200K-S
DA-10K-S	R-250K-S
DA-10K-V	R-250K-Z
DA-25K-S	R-300K-S
DA-50K-S	R-350K-Z
DA-100K-S	R-500K-S
DA-100K-Z	R-500K-Z
DA-250K-S	R-750K-S
DA-250K-Z	R-1 Meg-S
DA-500K-S	R-1 Meg-Z
DA-500K-Z	R-1 Meg-V
DA-1 Meg-S	R-1.5 Meg-S
DA-1 Meg-Z	R-2 Meg-S
DA-2 Meg-S	R-2.5 Meg-S
DA-2 Meg-Z	R-3 Meg-S
DA-3 Meg-S	R-5 Meg-S
DA-3 Meg-Z	R-5 Meg-Z
DA-5 Meg-S	R-5 Meg-V
DA-5 Meg-Z	R-7.5 Meg-Z
	(TAPPED)
REAR UNITS (PLAIN)	RF-750
	RF-2.5K
	RF-250K
R-1000-S	RF1-250K
R-1000-V	RF-330K
R-1500-S	RF-500K
R-2000-S	RF1-500K
R-2000-V	RF2-500K
R-3000-V	RF-1 Meg.
R-5000-S	RF1-1 Meg.
R-7500-S	RF2-1 Meg.
R-10K-S	RF-1.5 Meg.
R-10K-V	RF-2 Meg.
R-25K-S	RF1-2 Meg.
R-50K-S	RF-3 Meg.
R-75K-S	

UNI-TITE FIELD-ASSEMBLED CONCENTRIC DUAL CONTROLS

PANEL UNITS (PLAIN)	REAR UNITS (PLAIN)	PANEL SHAFTS (FLATTED)	PANEL SHAFTS (ROUND) (cont)	REAR SHAFTS (FLATTED) (cont)
P-500-S	R-1000-S	FP-013	CSP-214	FR-210
P-750-S	R-1000-V	FP-014	(1/8" Cut-Out)	FR-211
P-750-V	R-1500-S	FP-015	CP-013	FR-213
P-1000-S	R-2000-S	FP-101	CP-014	FR-215
P-1000-V	R-2000-V	FP-104	CP-015	FR-3
P-1500-S	R-3000-V	FP-106	CP-102	FR-302
P-1500-V	R-5000-S	FP-107	CP-104	FR-304
P-2500-S	R-7500-S	FP-109	CP-105	FR-307
P-3000-V	R-10K-S	FP-110	CP-106	FR-309
P-5000-V	R-10K-V	FP-111	CP-107	FR-313
P-10K-S	R-25K-S	FP-112	CP-108	FR-4
P-10K-V	R-50K-S	FP-113	CP-109	FR-404
P-11.5K-V	R-75K-S	FP-115	CP-110	FR-407
P-15K-S	R-100K-S	FP-2	CP-112	FR-409
P-25K-S	R-150K-S	FP-201	CP-113	**(KNURLED)**
P-25K-Z	R-200K-S	FP-203	CP-114	KR-012
P-50K-S	R-250K-S	FP-205	CP-2	KR-014
P-50K-Z	R-250K-Z	FP-206	CP-202	KR-015
P-75K-S	R-300K-S	FP-207	CP-204	KR-105
P-100K-S	R-350K-Z	FP-209	CP-206	KR-106
P-150K-S	R-500K-S	FP-212	CP-208	KR-108
P-200K-S	R-500K-Z	FP-213	CP-210	KR-112
P-250K-S	R-750K-S	FP-305	CP-212	KR-114
P-250K-Z	R-1 Meg-S	FP-306	CP-3	KR-2
P-350K-Z	R-1 Meg-Z	FP-4	CP-304	KR-312
P-500K-S	R-1 Meg-V	**(KNURLED)**	CP-306	
P-500K-Z	R-1.5 Meg-S	KP-013	CP-309	(5/16" Cut-Out)
P-500K-V	R-2 Meg-S	KP-014	CP-401	CSR-014
P-750K-S	R-2.5 Meg-S	KP-101	**REAR SHAFTS (FLATTED)**	CSR-1
P-1 Meg-S	R-3 Meg-S	KP-102	FR-102	CSR-102
P-1 Meg-Z	R-5 Meg-S	KP-104	FR-104	CSR-106
P-1 Meg-V	R-5 Meg-Z	KP-105	FR-106	CSR-108
P-1.5 Meg-S	R-5 Meg-V	KP-108	FR-107	CSR-110
P-2 Meg-S	R-7.5 Meg-Z	KP-111	FR-109	CSR-112
P-2 Meg-Z	**(TAPPED)**	KP-112	FR-110	CSR-115
P-2 Meg-V	RF-750	KP-114	FR-112	CSR-201
P-3 Meg-S	RF-2.5K	KP-308	FR-114	CSR-203
P-3 Meg-Z	RF-250K	**(ROUND)**	FR-115	CSR-205
P-4 Meg-S	RF1-250K	RP-101	FR-2	CSR-206
P-5 Meg-S	RF-330K	RP-105	FR-202	CSR-208
P-5 Meg-Z	RF-500K	RP-209	FR-203	CSR-211
(TAPPED)	RF1-500K	(5/16" Cut-Out)	FR-204	CSR-212
PF-750	RF2-500K	CSP-012	FR-205	CSR-214
PF1-750	RF-1 Meg.	CSP-015	FR-206	CSR-3
PF-1000	RF1-1 Meg.	CSP-101	FR-207	CSR-301
PF-2.5K	RF2-1 Meg.	CSP-107	FR-208	CSR-307
PF-250K	RF-1.5 Meg.	CSP-113	FR-209	CSR-308
PF-500K	RF-2 Meg.	CSP-2		
PF-1 Meg.	RF1-2 Meg.	CSP-204		
PF-2 Meg.	RF-3 Meg.	CSP-212		
PF1-2 Meg.				

Net

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PRODUCTS OF
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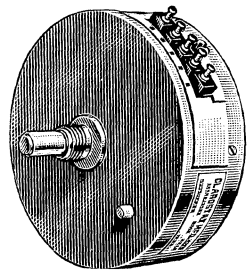
CLAROSTAT®

RESISTORS · CONTROLS
RESISTANCE DEVICES

SERIES 54-48JA

3" Dia. Vari/Phase Single Turn Potentiometer

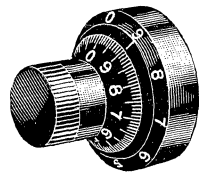


Permits external phasing of electrical rotation to mechanical rotation. Ultra precise unit for professional use. Exclusive Clarostat design eliminates bulky, hard-to-adjust clamping rings. Anodized aluminum housings for minimum weight. Widely used in aircraft instrumentation.

Stock Values	Resolution 100/Total Turns
250,000	.0^3%
100,000	.031%
50,000	.040%
10,000	.061%
1,000	.083%

CLARODIALS

Ten-Turn Concentric Scale Dials

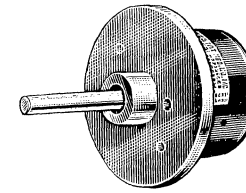


Calibrated dials designed for multi-turn potentiometers up to 10 turns or other rotary devices. CLARODIALS require only one inch of panel space. The knob attaches directly to the shaft, and the body of the dial is mounted rigidly to the panel. As a result, accurate readings with a ratio 1000:1 for ten turns are provided with zero backlash and no reading error. CLARODIALS are made of anodized aluminum for years of attractive use. Mounting requirements are ¼" shaft and ⅜"-32 NEF-2A bushing. Adapters for ⅛" dia. shafts are available.

Cat. No.	Description
411	Commercial 10 turn, black anodize ¼" shaft, no lock
412	Commercial 10 turn, black anodize ¼" shaft, with lock
461	Commercial 10 turn, clear anodize ¼" shaft, no lock
462	Commercial 10 turn, clear anodize ¼" shaft, with lock

SERIES SC42-970 SINE-COSINE

Single-Turn Potentiometer



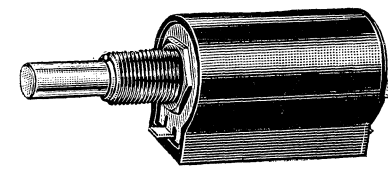
Used in radar, computer and servomechanisms, or any application requiring two output voltages accurately proportioned to the sine and cosine rotation angle. Due to functional use, units are designed and built for exceptionally long rotational life.

SPECIFICATIONS

FUNCTION: Sine-Cosine.
TOTAL RESISTANCE: 16,000 Ω ± 10%.
POWER RATING: 2.46 watts @ 40°C.
(198 volts R.M.S.)
ROTATION: (Eff., Elec., Mech) 360° (Cont.)
MAXIMUM SPEED
RECOMMENDED: 30 RPM (20 gm. contact pressure)
EXPECTED LIFE: 500,000 Cycles.
RESOLUTION: 0.14% maximum of peak to peak voltage.
CONFORMITY: Standard, ± 1% peak to peak voltage.
(Available, ± ½% peak to peak voltage.
Not stocked — must be ordered special price and information on request.)
SHAFT TORQUE: 1 oz. in.
WEIGHT: 6 oz.

SERIES 62JA

Commercial Multi-turn Potentiometer



A 10-turn potentiometer offering electrical operating characteristics comparable to units costing far more. Designed specifically for the industrial instrumentation market, the Series 62JA has the inherent advantages of far greater resolution in trimming, better instrument control and settings for all types of electronic equipment. Brief specifications include: ⅞" diameter, 1 1/16" deep behind panel, bushing and shaft or split-locking bushing with screwdriver slot, 2 watts @ 25°C, derated to zero @ 85°C, 1000 to 100K ohms standard — others available, absolute linearity of ±0.25% standard, closer on order.

Stock Values	Resolution %	Stock Values	Resolution %
100,000	.012	10,000	.024
50,000	.013	5,000	.026
30,000	.016	2,000	.029
20,000	.019	1,000	.030

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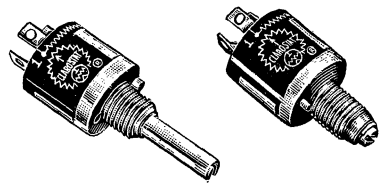
SERIES 57M & 57EJ

½" Single Turn Potentiometers

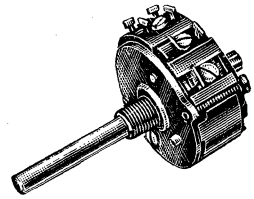


High performance potentiometer packaged in a ½" diameter housing. Quality construction throughout. Available in two models; Series 57M rated at 1.5 watts at 40°C and Series 57EJ rated at 2 watts at 70°C. The high-temperature Series 57EJ features glass-sealed terminals. Both units are corrosion resistant.

SERIES 57M & 57M9 Stock Values	SERIES 57EJA & 57EJB Stock Values	Resistance Ohms	Resolution 100/Total Turns
50 Ω	50 Ω	50,000	0.16%
100 Ω	100 Ω	20,000	0.19%
200 Ω	200 Ω	10,000	0.26%
500 Ω	500 Ω	5,000	0.30%
1000 Ω	1000 Ω	1,000	0.35%
5000 Ω	5000 Ω	500	0.45%
10,000 Ω	10,000 Ω	200	0.58%
20,000 Ω	20,000 Ω	100	0.70%
50,000 Ω	50,000 Ω	50	0.91%

SERIES 42-900

High Versatility Single-Turn Potentiometer



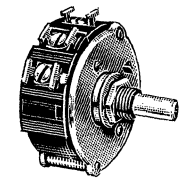
Used and approved by the millions in all types of applications ranging from ultra-critical military systems to ultra-dependable hard-working industrial equipment. Extra tap affords greater electrical versatility. Shaft extension through rear of unit permits addition of switching or other functions actuated by single shaft.

Stock Values	***Terminal Linearity	Resolution 100/Total Turns	Temp. Coefficient of Wire
100,000	±0.25%	.053%	±.00002 Ω/Ω/°C
50,000	±0.25%	.056%	±.00002 Ω/Ω/°C
20,000	±0.25%	.105%	±.00002 Ω/Ω/°C
10,000	±0.25%	.125%	±.00002 Ω/Ω/°C
5,000	±0.25%	.167%	±.00002 Ω/Ω/°C
2,500	±0.25%	.148%	±.00002 Ω/Ω/°C
1,000	±0.25%	.191%	±.00002 Ω/Ω/°C
500	±0.50%	.174%	.00017 Ω/Ω/°C
100	±0.50%	.351%	.00017 Ω/Ω/°C
50	±0.50%	.435%	.00017 Ω/Ω/°C

***Terminal Linearity: The maximum deviation of the actual output characteristic from a straight reference line extending between zero and the total applied voltage over the actual effective rotation.

SERIES 42JA

Single Turn Potentiometer



All the same fine qualities and performance tolerances of the Series 42-900, with the exception of the additional tap, and shaft extension. The ideal unit for extra-dependable potentiometer requirements.

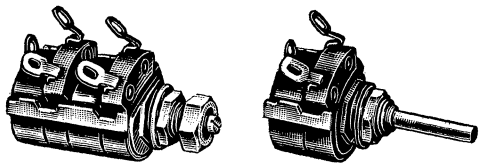
Stock Values	***Absolute Linearity	Resolution 100/Total Turns	Temp. Coefficient of Wire
100,000	±0.5%	.051%	±.00002 Ω/Ω/°C
50,000	±0.5%	.074%	±.00002 Ω/Ω/°C
20,000	±0.5%	.10%	±.00002 Ω/Ω/°C
10,000	±0.5%	.12%	±.00002 Ω/Ω/°C
5,000	±0.5%	.17%	±.00002 Ω/Ω/°C
2,500	±0.5%	.14%	±.00002 Ω/Ω/°C
1,000	±0.5%	.19%	±.00002 Ω/Ω/°C
500	±0.5%	.18%	.00017 Ω/Ω/°C
100	±1.0%	.28%	.00017 Ω/Ω/°C
50	±1.0%	.35%	.00017 Ω/Ω/°C

***Absolute Linearity: The maximum deviation of the actual output characteristic from a straight reference line extending between zero and the total applied voltage over the theoretical effective rotation.

MINIATURIZED POTENTIOMETERS

Consistent with miniaturization in Military and Commercial equipment, such as; Guided Missiles, Aircraft Electronics, Mobile Radio and Radar, Computers, Range Finders, Pocket Radios and Hearing Aids; Clarostat offers miniaturized composition element Series 48M and wire-wound Series 49M Potentiometers, and a Rotary Selector Switch designated as Series BHM to meet the switching requirements of the above mentioned and other applications.

SERIES 48M — 0.2 WATT COMPOSITION ELEMENT



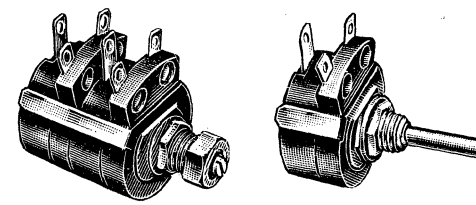
Available in single or dual, standard or shaft locking bushing. Standard bushing potentiometers have ¼" x 32 NEF-2A x ¼" long bushing and ⅛" dia. x ½" long shaft beyond bushing.

Shaft locking bushing potentiometers have ¼" x 32 NEF-2A x ⅜" long bushing and ⅛" dia. x 1/16" long screwdriver slotted shaft.

All potentiometers furnished with mounting nut 1/16" thick x 5/16" across flats, and one internal tooth lockwasher. Potentiometers with split locking bushings furnished with jam nut also.

Insulation:	Breakdown test between terminals and ground for 1 minute 1000v.a.c.; 350v.a.c. @ 3.4" Hg.
Resistance Range (Ohms):	Linear 200 to 5 Meg. Tapered 1500 to 2.5 Meg.
Resistance Tolerance:	Linear ±10%. Above 100,000 ohms ±20%. Tapered ±20% all values.
Tapers:	Linear Left hand — 10% resistance at 50% rotation. "Z"
Mechanical and Electrical Rotation:	300° ±3°
Effective Rotation:	300° ±3°
Torque (oz.-in.):	0.5 to 6
Dual Construction:	Available

SERIES 49M — 1.5 WATT WIRE-WOUND



Available in single or dual, standard or shaft locking bushing. Standard bushing potentiometers have ¼" x 32 NEF-2A x ¼" long bushing and ⅛" dia. x ½" long shaft beyond bushing.

Shaft locking bushing potentiometers have ¼" x 32 NEF-2A x ⅜" long bushing and ⅛" dia. x 1/16" long screwdriver slotted shaft. All potentiometers furnished with mounting nut 1/16" thick x 5/16" across flats, and one internal tooth lock-washer. Potentiometers with shaft locking bushings furnished with jam nut also.

Fabricated in accordance with MIL-R-19

Insulation:	Breakdown test between terminals and ground for 1 minute. 1000v.a.c.; 500v.a.c. @ 3.4" Hg.
Resistance Range (Ohms):	Linear 1 to 20,000
Resistance Tolerance:	Linear ±5% Tapered Linear only
Mechanical and Electrical Rotation:	300° ±3°
Effective Rotation:	300° ±3°
Torque (oz.-in.):	0.3 to 6
Dual Construction:	Available

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MILITARY POTENTIOMETERS

ITEMS IN STOCK FOR IMMEDIATE DELIVERY

RA10 per MIL-R-19 1 WATT WIRE-WOUND POTENTIOMETERS — Commercial Equivalent — Series 49M

RA10NASD150A
RA10NASD250A
RA10NASD500A
RA10NASD750A
RA10NASD101A
RA10NASD151A
RA10NASD201A
RA10NASD251A
RA10NASD351A
RA10NASD501A
RA10NASD751A
RA10NASD102A

RA10NASD152A
RA10NASD202A
RA10NASD252A
RA10NASL150A
RA10NASL250A
RA10NASL500A
RA10NASL750A
RA10NASL101A
RA10NASL151A
RA10NASL201A
RA10NASL251A
RA10NASL351A

RA10NASL501A
RA10NASL751A
RA10NASL102A
RA10NASL152A
RA10NASL202A
RA10NASL252A
RA10LASD150A
RA10LASD250A
RA10LASD500A
RA10LASD750A
RA10LASD101A
RA10LASD151A

RA10LASD201A
RA10LASD251A
RA10LASD351A
RA10LASD501A
RA10LASD751A
RA10LASD102A
RA10LASD152A
RA10LASD202A
RA10LASD252A
RA10LASM150A
RA10LASM250A
RA10LASM500A

RA10LASM750A
RA10LASM101A
RA10LASM151A
RA10LASM201A
RA10LASM251A
RA10LASM351A
RA10LASM501A
RA10LASM751A
RA10LASM102A
RA10LASM152A
RA10LASM202A
RA10LASM252A

RA20 per MIL-R-19 2 WATT WIRE-WOUND POTENTIOMETERS — Commercial Equivalent — Series 43M

RA20NASA3R0A
RA20NASA6R0A
RA20NASA8R0A
RA20NASA100A
RA20NASA150A
RA20NASA200A
RA20NASA250A
RA20NASA350A
RA20NASA500A
RA20NASA750A
RA20NASA101A
RA20NASA151A
RA20NASA201A
RA20NASA251A
RA20NASA351A
RA20NASA501A
RA20NASA751A
RA20NASA102A
RA20NASA152A
RA20NASA202A
RA20NASA252A

RA20NASA352A
RA20NASA502A
RA20NASA752A
RA20NASA103A
RA20NASA153A
RA20NASD3R0A
RA20NASD6R0A
RA20NASD8R0A
RA20NASD100A
RA20NASD150A
RA20NASD200A
RA20NASD250A
RA20NASD350A
RA20NASD500A
RA20NASD750A
RA20NASD101A
RA20NASD151A
RA20NASD201A
RA20NASD251A
RA20NASD351A
RA20NASD501A

RA20NASD751A
RA20NASD102A
RA20NASD152A
RA20NASD202A
RA20NASD252A
RA20NASD352A
RA20NASD502A
RA20NASD752A
RA20NASD103A
RA20NASD153A
RA20LASB3R0A
RA20LASB6R0A
RA20LASB8R0A
RA20LASB100A
RA20LASB150A
RA20LASB200A
RA20LASB250A
RA20LASB350A
RA20LASB500A
RA20LASB750A
RA20LASB101A

RA20LASB151A
RA20LASB201A
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RA20LASB351A
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RA20LASB152A
RA20LASB202A
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RA20LASD3R0A
RA20LASD6R0A
RA20LASD8R0A
RA20LASD100A
RA20LASD150A
RA20LASD200A

RA20LASD250A
RA20LASD350A
RA20LASD500A
RA20LASD750A
RA20LASD101A
RA20LASD151A
RA20LASD201A
RA20LASD251A
RA20LASD351A
RA20LASD501A
RA20LASD751A
RA20LASD102A
RA20LASD152A
RA20LASD202A
RA20LASD352A
RA20LASD502A
RA20LASD752A
RA20LASD103A
RA20LASD153A

RA30 per MIL-R-19 4 WATT WIRE-WOUND POTENTIOMETERS — Commercial Equivalent — Series 58M

RA30NASA3R0A
RA30NASA6R0A
RA30NASA8R0A
RA30NASA100A
RA30NASA150A
RA30NASA200A
RA30NASA250A
RA30NASA350A
RA30NASA500A
RA30NASA750A
RA30NASA101A
RA30NASA151A
RA30NASA201A
RA30NASA251A
RA30NASA351A
RA30NASA501A
RA30NASA751A

RA30NASA102A
RA30NASA152A
RA30NASA202A
RA30NASA252A
RA30NASA352A
RA30NASA502A
RA30NASA752A
RA30NASA103A
RA30NASA153A
RA30NASA203A
RA30NASA253A
RA30NASD3R0A
RA30NASD6R0A
RA30NASD8R0A
RA30NASD100A
RA30NASD150A
RA30NASD200A

RA30NASD250A
RA30NASD350A
RA30NASD500A
RA30NASD750A
RA30NASD101A
RA30NASD151A
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RA30NASD251A
RA30NASD351A
RA30NASD501A
RA30NASD751A
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RA30NASD152A
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RA30NASD352A
RA30NASD502A

RA30NASD752A
RA30NASD103A
RA30NASD153A
RA30NASD203A
RA30NASD253A
RA30LASB3R0A
RA30LASB6R0A
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RA30LASB100A
RA30LASB150A
RA30LASB200A
RA30LASB250A
RA30LASB350A
RA30LASB500A
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RA30LASB201A
RA30LASB251A
RA30LASB351A
RA30LASB501A
RA30LASB751A
RA30LASB102A
RA30LASB152A
RA30LASB202A
RA30LASB252A
RA30LASB352A
RA30LASB502A
RA30LASB752A
RA30LASB103A
RA30LASB153A
RA30LASB203A
RA30LASB253A

RV4 per MIL-R-94 2 WATT CARBON POTENTIOMETERS — Commercial Equivalent — Series 53M

RV4NAYSB101A
RV4NAYSB251A
RV4NAYSB501A
RV4NAYSB102A
RV4NAYSB252A
RV4NAYSB502A
RV4NAYSB103A
RV4NAYSB253A
RV4NAYSB503A
RV4NAYSB104A
RV4NAYSB254A
RV4NAYSB504A
RV4NAYSB105A
RV4NAYSB255B
RV4NAYSB505B
RV4NAYSD500A
RV4NAYSD101A
RVNAYSD151A
RV4NAYSD251A
RV4NAYSD351A
RV4NAYSD501A
RV4NAYSD751A

RV4NAYSD102A
RV4NAYSD152A
RV4NAYSD252A
RV4NAYSD352A
RV4NAYSD502A
RV4NAYSD752A
RV4NAYSD103A
RV4NAYSD153A
RV4NAYSD253A
RV4NAYSD353A
RV4NAYSD503A
RV4NAYSD753A
RV4NAYSD104A
RV4NAYSD154A
RV4NAYSD254A
RV4NAYSD354A
RV4NAYSD504A
RV4NAYSD754A
RV4NAYSD105A
RV4NAYSD155B
RV4NAYSD205B
RV4NAYSD255B

RV4NAYSD355B
RV4NAYSD505B
RV4NAYSK101A
RV4NAYSK251A
RV4NAYSK501A
RV4NAYSK102A
RV4NAYSK252A
RV4NAYSK502A
RV4NAYSK103A
RV4NAYSK253A
RV4NAYSK503A
RV4NAYSK104A
RV4NAYSK254A
RV4NAYSK504A
RV4NAYSK105A
RV4NAYSK255B
RV4NAYSK505B
RV4LAYSA500A
RV4LAYSA101A
RV4LAYSA151A
RV4LAYSA104A
RV4LAYSA351A

RV4LAYSA501A
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RV4LAYSA753A
RV4LAYSA104A
RV4LAYSA154A
RV4LAYSA254A
RV4LAYSA354A
RV4LAYSA504A
RV4LAYSA754A
RV3LAYSA105A
RV4LAYSA155B

RV4LAYSA205B
RV4LAYSA255B
RV4LAYSA355B
RV4LAYSA505B
RV4LAYSD101A
RV4LAYSD501A
RV4LAYSD251A
RV4LAYSD102A
RV4LAYSD252A
RV4LAYSD502A
RV4LAYSD103A
RV4LAYSD253A
RV4LAYSD503A
RV4LAYSD104A
RV4LAYSD254A
RV4LAYSR504A
RV4LAYSD105A
RV4LAYSD255B
RV4LAYSD505B

RV6 per MIL-R-94 0.5 WATT CARBON POTENTIOMETERS — Commercial Equivalent — Series 63M

RV6NAYSD101A
RV6NAYSD251A
RV6NAYSD501A
RV6NAYSD102A
RV6NAYSD252A
RV6NAYSD502A
RV6NAYSD103A
RV6NAYSD153A
RV6NAYSD253A
RV6NAYSD503A
RV6NAYSD104A

RV6NAYSD154A
RV6NAYSD254A
RV6NAYSD504A
RV6NAYSD105A
RV6LAYSA101A
RV6LAYSA251A
RV6LAYSA501A
RV6LAYSA102A
RV6LAYSA252A
RV6LAYSA502A
RV6LAYSA103A

RV6LAYSA153A
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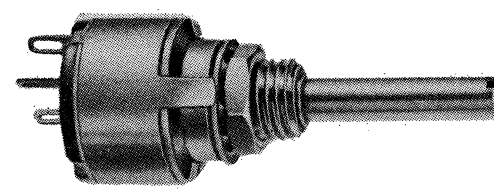
RV6LAYSA154A
RV6LAYSA254A
RV6LAYSA504A
RV6LAYSA105A



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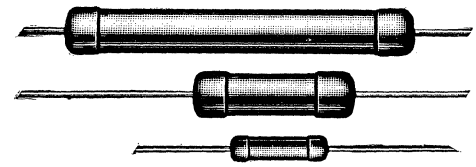
"FIXTOHM*" PRECISION RESISTORS



± 1% TOLERANCE

SERIES CVF **MIL Style RN20X** **½ WATT**	50 ohms to 2 megohms. Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CVC **MIL Style RN25X** **1 WATT**	100 ohms to 4.99 megohms. Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CVD **MIL Style RN30X** **2 WATT**	200 ohms to 10 megohms. Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CML **MIL Style RN60B** **⅛ WATT** **(MOLDED BODY)**	50 ohms to 5 megohms. Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CMH **MIL Style RN65B** **¼ WATT** **(MOLDED BODY)**	50 ohms to 5 megohms. Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CMF **MIL Style RN70B** **½ WATT** **(MOLDED BODY)**	50 ohms to 2.2 megohms. Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CMD **MIL Style RN80B** **2 WATT** **(MOLDED BODY)**	200 ohms to 10 megohms. Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.

Resistance tolerances available from ½ to 10%.
Hermetically sealed resistors available on special order.
Also available—Series CEL ⅛ watt and Series CEH ¼ watt.
Prices and information on request.

MILITARY DECADE VALUES

10.0	13.3	17.8	23.7	31.6	42.2	56.2	75.0
10.2	13.7	18.2	24.3	32.4	43.2	57.6	76.8
10.5	14.0	18.7	24.9	33.2	44.2	59.0	78.7
10.7	14.3	19.1	25.5	34.0	45.3	60.4	80.6
11.0	14.7	19.6	26.1	34.8	46.4	61.9	82.5
11.3	15.0	20.0	26.7	35.7	47.5	63.4	84.5
11.5	15.4	20.5	27.4	36.5	48.7	64.9	86.6
11.8	15.8	21.0	28.0	37.4	49.9	66.5	88.7
12.1	16.2	21.5	28.7	38.3	51.1	68.1	90.9
12.4	16.5	22.1	29.4	39.2	52.3	69.8	93.1
12.7	16.9	22.5	30.1	40.2	53.6	71.5	95.3
13.0	17.4	23.2	30.9	41.2	54.9	73.2	97.6

Other values may be found by using proper decade multiplier.

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PRODUCTS OF
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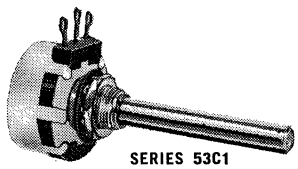
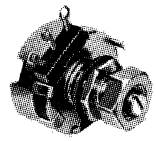
CLAROSTAT®

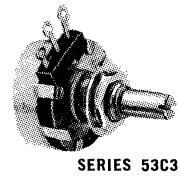
RESISTORS • CONTROLS
RESISTANCE DEVICES

SERIES 53 — 2 WATT

MOLDED COMPOSITION ELEMENT POTENTIOMETERS


SERIES 53C1


SERIES 53C2


SERIES 53C3

A 2-watt molded composition element potentiometer totally enclosed and sealed against moisture and other environmentals. Meets the need for a high quality resistance device incorporating high-stability under extreme climatic and operational conditions. For use in critical applications, such as, test equipment, military requirements, computers, servo systems and industrial metering devices.

1 1/16" diameter and 9/16" deep, wiper assembly of one piece construction; carbon to carbon contact insures exceptionally low noise level; brass nickel plated, gold plated terminals. Electrical tolerances are plus/minus 10% for all values up to 1 meg. 1 meg. and above plus/minus 20%.

Fabricated in accordance with MIL-R-94 Style RV4.

Items not listed are special, prices and information supplied upon request.

The C1 designation indicates a 1 5/8" round shaft beyond bushing; 3/8" long bushing with 3/8-32-NEF-2 thread. The C2 designation is a 1/8" screwdriver slotted shaft with a 1/2" split locking bushing. The C3 designation is a 7/8" round shaft FMS, 3/8" long bushing with 3/8-32-NEF-2 thread.

TAPERED POTENTIOMETERS		DUAL POTENTIOMETERS	
"Z" TAPER	REVERSED "Z" TAPER	Cat. No.	Cat. No.
53C1-100K-Z	53C1-10K-RZ	D53C1-10K-S	D53C1-100K-S
53C1-250K-Z	53C1-25K-RZ	D53C1-25K-S	D53C1-250K-S
53C1-500K-Z	53C1-50K-RZ	D53C1-50K-S	D53C1-500K-S
53C1-1 Meg-Z			D53C1-1 Meg-S
53C1-2.5 Meg-Z			

Cat. No.	Cat. No.	Cat. No.	Res. Ohms	Taper
53C1-50-S	53C2-50-S	53C3-50-S	50	S
53C1-100-S	53C2-100-S	53C3-100-S	100	S
53C1-150-S	53C2-150-S	53C3-150-S	150	S
53C1-250-S	53C2-250-S	53C3-250-S	250	S
53C1-350-S	53C2-350-S	53C3-350-S	350	S
53C1-500-S	53C2-500-S	53C3-500-S	500	S
53C1-750-S	53C2-750-S	53C3-750-S	750	S
53C1-1000-S	53C2-1000-S	53C3-1000-S	1000	S
53C1-1500-S	53C2-1500-S	53C3-1500-S	1500	S
53C1-2000-S	53C2-2000-S	53C3-2000-S	2000	S
53C1-2500-S	53C2-2500-S	53C3-2500-S	2500	S
53C1-3500-S	53C2-3500-S	53C3-3500-S	3500	S
53C1-5000-S	53C2-5000-S	53C3-5000-S	5000	S
53C1-7500-S	53C2-7500-S	53C3-7500-S	7500	S
53C1-10K-S	53C2-10K-S	53C3-10K-S	10K	S
53C1-15K-S	53C2-15K-S	53C3-15K-S	15K	S
53C1-20K-S	53C2-20K-S	53C3-20K-S	20K	S
53C1-25K-S	52C2-25K-S	53C3-25K-S	25K	S
53C1-35K-S	53C2-35K-S	53C3-35K-S	35K	S
53C1-50K-S	53C2-50K-S	53C3-50K-S	50K	S
53C1-7SK-S	53C2-75K-S	53C3-75K-S	75K	S
53C1-100K-S	53C2-100K-S	53C3-100K-S	100K	S
53C1-150K-S	53C2-150K-S	53C3-150K-S	150K	S
53C1-200K-S	53C2-200K-S	53C3-200K-S	200K	S
53C1-250K-S	53C2-250K-S	53C3-250K-S	250K	S
53C1-350K-S	53C2-350K-S	53C3-350K-S	350K	S
53C1-500K-S	53C2-500K-S	53C3-500K-S	500K	S
53C1-750K-S	53C2-750K-S	53C3-750K-S	750K	S
53C1-1 Meg-S	53C2-1 Meg-S	53C3-1 Meg-S	1 Meg	S
53C1-1.5 Meg-S	53C2-1.5 Meg-S	53C3-1.5 Meg-S	1.5 Meg	S
53C1-2 Meg-S	53C2-2 Meg-S	53C3-2 Meg-S	2 Meg	S
53C1-2.5 Meg-S	53C2-2.5 Meg-S	53C3-2.5 Meg-S	2.5 Meg	S
53C1-3 Meg-S	53C2-3 Meg-S	53C3-3 Meg-S	3 Meg	S
53C1-3.5 Meg-S	53C2-3.5 Meg-S	53C3-3.5 Meg-S	3.5 Meg	S
53C1-4 Meg-S	53C2-4 Meg-S	53C3-4 Meg-S	4 Meg	S
53C1-5 Meg-S	53C2-5 Meg-S	53C3-5 Meg-S	5 Meg	S
53C1-7.5 Meg-S	53C2-7.5 Meg-S	53C3-7.5 Meg-S	7.5 Meg	S
53C1-10 Meg-S	53C2-10 Meg-S	53C3-10 Meg-S	10 Meg	S

Standard Packing — Individual Carton.

Field-attached switches are available for the Series 53. The switch is easily and quickly installed on the control, taking less than a minute to install.

Cat. No.	Description
53-12	SPST — 5A-125V. A.C.
53-20	DPST — 3A-125V. A.C.
53-21	(Mod.) DPST — 3A-125V. A.C./D.C.

SERIES "43C1" and "43C2" 2-WATT CONTROLS

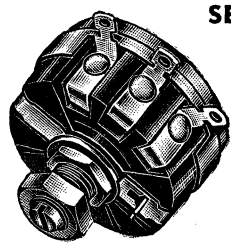
Electrical tolerance is plus/minus 5% for all ohmages. Independent linearity is to plus/minus 2%. All controls rated 2 watts.

43C1 Cat. No.	43C2 Cat. No.	Res. Ohms	43C1 Cat. No.	43C2 Cat. No.	Res. Ohms	43C1 Cat. No.	43C2 Cat. No.	Res. Ohms			
43C1-5	43C2-5	5	43C1-100	43C2-100	100	43C1-1500	43C2-1500	1500	43C1-15K	43C2-15K	15K
43C1-10	43C2-10	10	43C1-150	43C2-150	150	43C1-2000	43C2-2000	2000	43C1-20K	43C2-20K	20K
43C1-20	43C2-20	20	43C1-200	43C2-200	200	43C1-2500	43C2-2500	2500	43C1-25K	43C2-25K	25K
43C1-25	43C2-25	25	43C1-300	43C2-300	300	43C1-3000	43C2-3000	3000	43C1-30K	43C2-30K	30K
43C1-30	43C2-30	30	43C1-400	43C2-400	400	43C1-4000	43C2-4000	4000	43C1-40K	43C2-40K	40K
43C1-40	43C2-40	40	43C1-500	43C2-500	500	43C1-5000	43C2-5000	5000	43C1-50K	43C2-50K	50K
43C1-50	43C2-50	50	43C1-750	43C2-750	750	43C1-7500	43C2-7500	7500			
43C1-75	43C2-75	75	43C1-1000	43C2-1000	1000	43C1-10K	43C2-10K	10K			

NET PRICES

43C1-5 to 43C1-10K $1.35	43C1-30K to 43C1-50K $2.01	43C2-15K to 43C2-25K $2.55
43C1-15K to 43C1-25K 1.80	43C2-5 to 43C2-10K 2.25	43C2-30K to 43C2-50K 3.00

SERIES 58C1 AND 58C2 3-WATT CONTROLS



Electrical tolerance is plus/minus 5% for all ohmages. Independent linearity is to plus/minus 1% All controls rated 3 watts.

58C1 Cat. No.	58C2 Cat. No.	Res. Ohms	58C1 Cat. No.	58C2 Cat. No.	Res. Ohms
58C1-1	58C2-1	1	58C1-500	58C2-500	500
58C1-2	58C2-2	2	58C1-750	58C2-750	750
58C1-4	58C2-4	4	58C1-1000	58C2-1000	1000
58C1-6	58C2-6	6	58C1-1500	58C2-1500	1500
58C1-10	58C2-10	10	58C1-2000	58C2-2000	2000
58C1-15	58C2-15	15	58C1-2500	58C2-2500	2500
58C1-20	58C2-20	20	58C1-3000	58C2-3000	3000
58C1-25	58C2-25	25	58C1-5000	58C2-5000	5000
58C1-30	58C2-30	30	58C1-7500	58C2-7500	7500
58C1-40	58C2-40	40	58C1-10K	58C2-10K	10K
58C1-50	58C2-50	50	58C1-15K	58C2-15K	15K
58C1-60	58C2-60	60	58C1-20K	58C2-20K	20K
58C1-75	58C2-75	75	58C1-25K	58C2-25K	25K
58C1-100	58C2-100	100	58C1-30K	58C2-30K	30K
58C1-200	58C2-200	200	58C1-40K	58C2-40K	40K
58C1-300	58C2-300	300	58C1-50K	58C2-50K	50K
58C1-400	58C2-400	400			

NET PRICES

58C1-1 to 58C1-10K $1.35	58C2-1 to 58C2-10K $2.25
58C1-15K to 58C1-25K 1.80	58C2-15K to 58C2-25K 2.55
58C1-30K to 58C1-50K 2.01	58C2-30K to 58C2-50K 3.00

SERIES "10C1" and "10C2" 4-WATT CONTROLS

Electrical tolerance is plus/minus 5% for all ohmages. Independent linearity to plus/minus 1%. All controls rated 4 watts.

1 to 50K ohms available on special order. Prices and information on request.

10C1 Cat. No.	10C2 Cat. No.	Res. Ohms
10C1-75K	10C2-75K	75K
10C1-100K	10C2-100K	100K

Net Prices

10C1 ..... 2.75 10C2 ..... 3.60

PRODUCTS OF
THE HOUSE OF RESISTORS®

CLAROSTAT®

RESISTORS • CONTROLS
RESISTANCE DEVICES

"GREENOHM V"™ VITREOUS-ENAMEL RESISTORS

Based on years of research and engineering development, these vitreous-enamel wire-wound power resistors offer superlative performance and life as proved by countless tests. "Greenohm V" resistors provide all the outstanding quality which made Clarostat "Greenohm" cement-coated units famous, *plus* a glass-smooth vitreous-enamel coating in a handsome bluish-green for maximum eye appeal. Made to MIL-R-26C specifications.

- Fixed and adjustable
- 5-watt to 200 watt sizes
- ± 5% tolerance, 50 ohms and over. ± 10% tolerance, 49.9 ohms and under. ± 10% for adjustable.

"GREENOHM V"™ FIXED RESISTORS (VITREOUS ENAMEL)

5-WATT SERIES VPR-5-F

Core: 1" x 5/16"
Terminals, wire lead and lug

Resistance Ohms

1	30	350	1250	7000
1.5	35	400	1500	7500
2	40	450	1750	8000
3	50	500	2000	9000
4	75	600	2250	10K
5	100	700	2500	12.5K
7.5	125	750	3000	15K
10	150	800	3500	17.5K
12	200	900	4000	20K
15	225	1000	4500	22.5K
20	250	1100	5000	25K
25	300	1200	6000	

NET PRICES:

1 to 1K	$0.51
1100 to 5K	.54
6K to 10K	.57
12.5K to 15K	.60
17.5K to 20K	.63
22.5K to 25K	.66

10-WATT SERIES VPR-10-F

Core: 1¾" x 5/16"
Terminals, wire lead and lug

Resistance Ohms

0.4	30	500	3000	13.5K
1	35	600	3500	14.3K
1.2	40	700	4000	15K
1.3	50	750	4500	16K
1.5	75	800	5000	17.5K
2	100	900	6000	18K
3	125	1000	7000	20K
4	150	1100	7500	22.5K
5	200	1200	8000	25K
7.5	225	1250	8500	30K
10	250	1500	9000	35K
12	300	1750	10K	40K
15	350	2000	11K	45K
20	400	2250	12K	50K
25	450	2500	12.5K	

Standard Packaging — 10 per Carton

NET PRICES:

0.4 to 1K	$0.57
1100 to 5K	.60
6K to 10K	.69
11K to 20K	.78
22.5K to 25K	.81
30K to 50K	.90

100-WATT SERIES VK-100-N

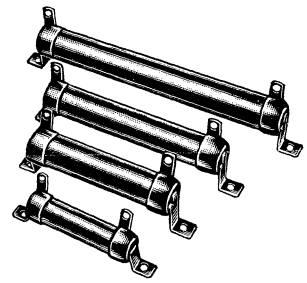
Core: 6½" x ¾"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1	50	750	7500	50K
2	75	1000	10K	60K
3	100	1500	15K	75K
4	125	2000	20K	100K
5	150	2500	25K	
10	250	3000	30K	
25	500	5000	40K	

NET PRICES:

1 to 3	$2.22
4 to 1K	1.59
1500 to 5K	1.68
7500 to 10K	1.80
15K to 20K	1.98
25K to 40K	2.13
50K to 60K	2.22
75K	2.43
100K	2.73



20-WATT SERIES VPR-20-H

Core: 2" x 7/16"
Terminals, wire lead and lug

Resistance Ohms

0.4	350	1850	7500	55K
0.6	400	2000	8000	60K
0.8	500	2250	9000	65K
5	650	2400	10K	70K
10	700	2500	12.5K	75K
25	750	2750	15K	80K
50	800	3000	20K	85K
75	850	3500	25K	90K
100	1000	4000	30K	95K
150	1200	4500	35K	100K
200	1250	5000	40K	
250	1500	6000	45K	
300	1750	7000	50K	

Standard Packing — 5 per Carton

NET PRICES:

0.4 to 1K	$0.66
1200 to 5K	.69
6K to 10K	.81
12.5K to 20K	.84
25K to 40K	.99
45K to 60K	1.14
65K to 80K	1.35
85K to 100K	1.56

160-WATT SERIES VK-160-W

Core: 8½" x 1⅛"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1	50	750	7500	50K
2	75	1000	10K	60K
3	100	1500	15K	75K
4	125	2000	20K	100K
5	150	2500	25K	
10	250	3000	30K	
25	500	5000	40K	

NET PRICES:

1 to 5	$3.18
10 to 1K	2.28
1500 to 5K	2.31
7500 to 10K	2.52
15K to 20K	2.70
25K to 40K	2.79
50K to 60K	2.88
75K	3.06
100K	3.24

25-WATT SERIES VP-25-K

Core: 2" x 9/16"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1	50	800	5000	30K
2	75	1000	6000	35K
3	100	1500	7500	40K
4	150	2000	10K	50K
5	200	2500	12K	60K
10	250	3000	15K	70K
15	500	3500	20K	80K
25	750	4000	25K	100K

Standard Packing — Individually Boxed

NET PRICES:

1 to 1K	$0.72
1500 to 10K	.75
6K to 10K	.84
12K to 20K	.90
25K to 40K	1.02
50K to 60K	1.20
70K to 80K	1.41
100K	1.62

50-WATT SERIES VP-50-K

Core: 4" x 9/16"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1	75	1000	8000	75K
2	100	1500	10K	100K
3	150	2000	12K	125K
4	200	2500	15K	150K
5	250	3000	20K	175K
10	500	4000	25K	200K
25	750	5000	35K	225K
50	800	7500	50K	250K

Standard Packing — Individually Boxed

NET PRICES:

1	$1.53
2 to 1K	1.11
1500 to 5K	1.14
7500 to 10K	1.26
12K to 20K	1.38
25K to 35K	1.53
50K	1.71
75K	1.95
100K	2.13
125K	2.55
150K	2.70
175K	2.79
200K	2.88
225K	3.24
250K	3.24

200-WATT SERIES VK-200-W

Core: 10½" x 1⅛"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1	50	1000	10K	60K
2	75	1500	15K	75K
3	100	2000	20K	100K
4	150	2500	25K	
5	250	3000	30K	
10	500	5000	40K	
25	750	7500	50K	

NET PRICES:

1 to 5	$3.42
10 to 1K	2.46
1500 to 5K	2.52
7500 to 10K	2.70
15K to 20K	2.88
25K to 40K	2.97
50K to 60K	3.06
75K	3.24
100K	3.45

Net

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PRODUCTS OF THE HOUSE OF RESISTORS® — CLAROSTAT® — RESISTORS · CONTROLS RESISTANCE DEVICES

"GREENOHM V"™ ADJUSTABLE RESISTORS (VITREOUS ENAMEL)

10-WATT SERIES VP-10-FA

Core: 1¾" x 5/16"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	25	350	1500	5000
2	50	400	2000	6000
3	75	500	2250	7000
5	100	600	2500	7500
7.5	150	750	3000	8000
10	200	800	3500	8500
15	250	1000	4000	9000
20	300	1250	4500	10K

NET PRICES:

1 to 1K	$1.14
1250 to 5K	1.17
6000 to 10K	1.26

Standard Packing — 10 per Carton

25-WATT SERIES VP-25-KA

Core: 2" x 9/16"

Lug terminals — Mtg. brackets furnished

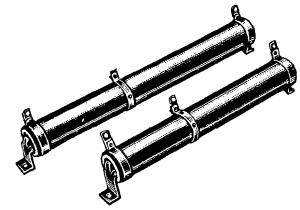
Resistance Ohms

1	50	750	3500	9000
2	75	800	4000	10K
3	100	1000	4500	12K
5	150	1250	5000	15K
7.5	200	1500	6000	20K
10	250	2000	7000	25K
15	300	2250	7200	
20	400	2500	7500	
25	500	3000	8000	

NET PRICES:

1 to 1K	$1.29
1250 to 5K	1.32
6K to 10K	1.41
12K to 20K	1.47
25K	1.59

Standard Packing — Individually Boxed



50-WATT SERIES VP-50-KA

Core: 4" x 9/16"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	150	1500	7000	30K
2	200	2000	7200	40K
3	250	2250	7500	50K
4	300	2500	8000	60K
5	400	3000	9000	80K
10	500	3500	10K	100K
25	750	4000	12K	
50	800	4500	15K	
75	1000	5000	20K	
100	1250	6000	25K	

NET PRICES:

1 ohm	$2.10
2 to 1K	1.68
1250 to 5K	1.71
6K to 10K	1.80
12K to 20K	1.92
25K to 40K	2.10
50K to 60K	2.28
80K	2.52
100K	2.70

Standard Packing — Individually Boxed

75-WATT SERIES VP-75-KA

Core: 6" x 9/16"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	200	2000	7200	35K
2	250	2250	7500	40K
3	300	2500	8000	45K
4	400	3000	9000	50K
5	500	3500	10K	60K
10	750	4000	12K	80K
15	800	4500	15K	100K
25	1000	5000	20K	
50	1250	6000	25K	
100	1500	7000	30K	

NET PRICES

1 to 2	$2.37
3 to 1K	1.86
1250 to 5K	1.92
6000 to 10K	2.01
12K to 20K	2.13
25K to 40K	2.31
45K to 60K	2.52
80K	2.76
100K	2.91

Standard Packaging — Individually Boxed

100-WATT SERIES VK-100-NA

Core: 6½" x ¾"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	10	500	10K	40K
2	25	1000	15K	50K
3	50	1500	20K	75K
4	100	2500	25K	100K
5	250	5000	30K	

NET PRICES:

1 to 3	$3.00
4 to 1K	2.37
1500 to 5K	2.43
10K	2.55
15K to 20K	2.70
25K to 40K	2.88
50K	3.00
75K	3.12
100K	3.27

Standard Packing — Individually Boxed

160-WATT SERIES VK-160-WA

Core: 8½" x 1⅛"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	10	500	10K	40K
2	25	1000	15K	50K
3	50	1500	20K	75K
4	100	2500	25K	100K
5	250	5000	30K	

NET PRICES:

1 to 5	$4.05
10 to 1K	3.15
1500 to 5K	3.18
10K	3.39
15K to 20K	3.57
25K to 40K	3.66
60K	3.75
75K	3.93
100K	4.14

Standard Packing — Individually Boxed

200-WATT SERIES VK-200-WA

Core: 10½" x 1⅛"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	10	500	10K	40K
2	25	1000	15K	50K
3	50	1500	20K	75K
4	100	2500	25K	100K
5	250	5000	30K	

NET PRICES:

1 to 5	$4.32
10 to 1K	3.33
1500 to 5K	3.42
10K	3.57
15K to 20K	3.75
25K to 40K	3.84
50K	3.96
75K	4.14
100K	4.32

Standard Packing — Individually Boxed

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PRODUCTS OF
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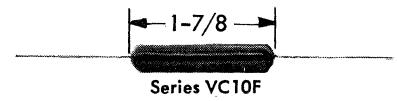
RESISTORS · CONTROLS
RESISTANCE DEVICES

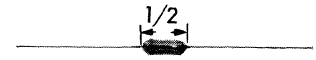
AXIAL LEAD VITREOUS RESISTORS

Available in three sizes 3, 5 and 10 watts, Series VC3D, VC5E and VC10F. Axial lead resistors are particularly adapted to printed circuit, terminal board, and point-to-point wiring applications. These resistors save considerable space because of the elimination of mounting brackets and terminal lugs. Standard resistance tolerance is ± 5% for 1 ohm and higher and tolerance below 1 ohm is ± 10%. Attractively packaged in a newly designed carton particularly adapted to this new axial lead resistor, beautifully finished with Clarostat's new vitreous shade of teal green.



Series VC10F

Series VC5E



Series VC3D

Lead Length: 1½" Lead Diameter: .032

SERIES VC3D

RESISTANCE OHMS

1	20	200	750	2.25K	8K
1.5	25	225	800	2.5K	9K
2	30	250	900	3K	10K
3	35	300	1K	3.5K	K
4	40	350	1.1K	4K	K
5	50	400	1.2K	4.5K	K
7.5	75	450	1.25K	5K	K
10	100	500	1.5K	6K	K
12	125	600	1.75K	7K	K
15	150	700	2K	7.5K	K

Net Prices

1	to 1K	$ .51
1.1K	to 5K	.54
6K	to 10K	.95

Standard Packing—10 per Carton.

SERIES VC5E

RESISTANCE OHMS

1	20	200	750	2.25K	8K
1.5	25	225	800	2.5K	9K
2	30	250	900	3K	10K
3	35	300	1K	3.5K	12.5K
4	40	350	1.1K	4K	15K
5	50	400	1.2K	4.5K	17.5K
7.5	75	450	1.25K	5K	18K
10	100	500	1.5K	6K	20K
12	125	600	1.75K	7K	22.5K
15	150	700	2K	7.5K	25K

Net Prices

1	to 1K	$ .54
1.1K	to 5K	.57
6K	to 10K	.60
12.5K	to 20K	.72
22.5K	to 25K	.75

Standard Packing—10 per Carton.

SERIES VC10F

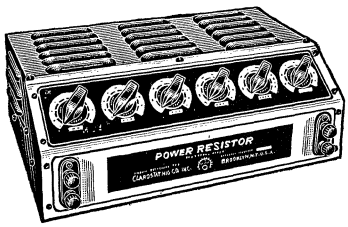
RESISTANCE OHMS

1	20	200	750	2.25K	8K	17.5K
1.5	25	225	800	2.5K	8.5K	18K
2	30	250	900	3K	9K	20K
3	35	300	1K	3.5K	10K	22.5K
4	40	350	1.1K	4K	11K	25K
5	50	400	1.2K	4.5K	12K	30K
7.5	75	450	1.25K	5K	12.5K	35K
10	100	500	1.3K	6K	13.5K	40K
12	125	600	1.75K	7K	15K	45K
15	150	700	2K	7.5K	16K	50K

Net Prices

1	to 1K	$ .60
1.1K	to 5K	.63
6K	to 10K	.72
11K	to 20K	.81
22.5K	to 40K	.84
45K	to 50K	.96

Standard Packing—10 per Carton.



POWER RESISTOR DECADE BOX

The Resistance Decade Box, Model 240-C for bench use — Model 250 for rack mounting, provides any resistance from 1 to 999,999 ohms for working circuits at the flip of a switch. Six front-panel dials enable selection in 1 ohm increments, the total value being read directly from the dial. Each decade has a power rating of 225 watts maximum, 1,000 VDC or 660 VAC maximum.

Resistance changing switches are of the type that prevent a resistance breakdown between steps, thus protecting delicate meters and measuring instruments in the circuit. Knobs indicate the resistance value being used at a glance.

Clarostat GREENOHM Power Resistors are used throughout. These components are wire-wound power resistors on ceramic tubes and coated with an exclusive Clarostat inorganic cold-setting cement, providing the most rugged, long-lasting, trouble-free power resistor available. The resistors are mounted in rigid metal supports.

Overall length: 240C: 13" long x 8½" deep x 5¾" high, weight 11½ lbs. 250: 19" long x 13¾" deep x 7" high (fits in standard 19" relay rack), weight 18½ lbs.

SUGGESTED USES: Resistance determination, Load Resistance, Meter Multiplier, Calibrating Meters, Providing any desired ohmage as a universal power resistor.

Decade No.	1	2	3	4	5	6
Max. Current Rating (amps)	5	1.5	.5	.15	0.5	.005
Resistance Tolerance	5%	2%	2%	2%	2%	2%

NET PRICE: Model 240C $110.00, Model 250 $150.00

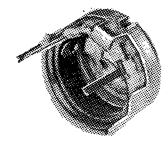
SERIES U39

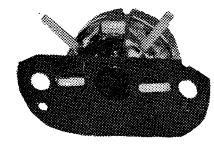
UNIVERSAL "HUMDINGER" CONTROL
2W. WIRE WOUND

Series U39 is a shaftless potentiometer with the contact arm grounded to the housing. The design of terminals and mounting tabs, meets the following requirements: Above chassis mounting, as a potentiometer or rheostat; printed circuit mounting, as a potentiometer or rheostat. The terminal layout meets the popular industry standards. A fiber adapter plate is furnished with each control. Series U39 is ideally suited for radio and television requirements, as well as many industrial applications. Resistance tolerance ±20%. Linear only.

Cat. No.	Total Res. Ohms	Min. Res. Ohms	Cat. No.	Total Res. Ohms	Min. Res. Ohms
U39-1.5	1.5	—	U39-700	700	—
U39-5	5	—	U39-700-200	700	200
U39-8	8	—	U39-800	800	—
U39-15	15	—	U39-800-50	800	50
U39-50	50	—	U39-1000	1000	—
U39-75	75	—	U39-1000-100	1000	100
U39-100	100	—	U39-1500	1500	—
U39-125	125	—	U39-2000	2000	—
U39-150	150	—	U39-2000-100	2000	100
U39-175	175	—	U39-3000	3000	—
U39-200	200	—	U39-3000-700	3000	700
U39-300	300	—	U39-4000	4000	—
U39-500	500	—	U39-4000-350	4000	350
U39-500-100	500	100	U39-4000-1000	4000	1000
U39-600	600	—	U39-5000	5000	—
U39-650	650	—			

NET PRICE $.36 Standard Packing — 10 per carton.


SERIES U39



Net

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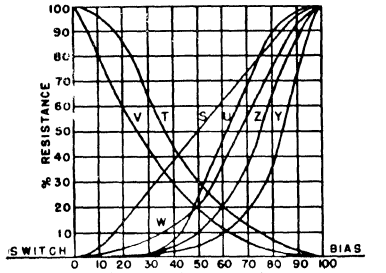
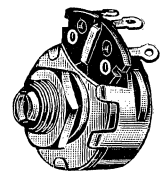
COMPOSITION-ELEMENT CONTROLS



Graph Explanation:
Taper S—Straight or uniform resistance change with rotation.
Taper T — Right-hand 30% resistance at 50% of C.C.W. rotation.
Taper U — Left-hand 1% resistance at 33⅓% of C.W. rotation.
Taper V — Right-hand 20% resistance at 50% of C.C.W. rotation.
Taper W—Left-hand 20% resistance at 50% of C.W. rotation.
Taper Z—Left-hand (Log. audio) 10% resistance at 50% of C.W. rotation.
Taper Y — Left-hand 5% resistance at 50% of C.W. rotation.

SERIES "A47" ½-WATT CONTROLS

Composition-element controls in the popular 15/16" dia. size. Series "A47" controls are field-assembled with the selected "Pick-A-Shaft"* and "Ad-A-Switch"*. These controls are also available with factory-assembled shafts at no extra charge, by omitting prefix "A" from catalog number and designating the type shaft desired when ordering. Example: 47-100K-S with FKS-¼ shaft.



SERIES A47
(INDUSTRIAL)
SERIES 47

CAT No.	OHMS	TAPER	CAT No.	OHMS	TAPER
A47-500-S	500	S	A47-75K-V	75K	V
A47-750-S	750	S	A47-100K-S	100K	S
A47-1000-S	1000	S	A47-100K-Z	100K	Z
A47-1500-S	1500	S	A47-150K-S	150K	S
A47-2000-S	2000	S	A47-200K-S	200K	S
A47-2500-S	2500	S	A47-250K-S	250K	S
A47-3000-S	3000	S	A47-250K-Z	250K	Z
A47-4000-S	4000	S	A47-300K-S	300K	S
A47-5000-S	5000	S	A47-500K-S	500K	S
A47-7500-S	7500	S	A47-500K-Z	500K	Z
A47-10K-S	10K	S	A47-750K-S	750K	S
A47-10K-V	10K	V	A47-750K-Z	750K	Z
A47-10K-W	10K	W	A47-1 Meg-S	1 Meg.	S
A47-10K-Z	10K	Z	A47-1 Meg-Z	1 Meg.	Z
A47-15K-S	15K	S	A47-1.5 Meg-S	1.5 Meg.	S
A47-15K-V	15K	V	A47-2 Meg-Z	2 Meg.	Z
A47-15K-W	15K	W	A47-2 Meg-S	2 Meg.	S
A47-20K-S	20K	S	A47-2.5 Meg-S	2.5 Meg.	S
A47-25K-S	25K	S	A47-3 Meg-S	3 Meg.	S
A47-25K-W	25K	W	A47-3-Meg.-Z	3 Meg.	Z
A47-25K-V	25K	V	A47-4 Meg-S	4 Meg.	S
A47-30K-S	30K	S	A47-4 Meg-Z	4 Meg.	Z
A47-40K-S	40K	S	A47-5 Meg-Z	5 Meg.	Z
A47-50K-S	50K	S	A47-5 Meg-S	5 Meg.	S
A47-50K-W	50K	W	A47-7.5 Meg-S	7.5 Meg.	S
A47-50K-Z	50K	Z	A47-10 Meg-S	10 Meg.	S
A47-75K-S	75K	S			

NET PRICE $.93 Standard Packing—10 per Carton.

SERIES "AD47" ½-WATT DUAL CONTROLS

These are the same as "A47" except that they are dual controls.

Cat. No.	Panel	Taper	Rear	Taper
AD47-50-S	50K	S	50K	S
AD47-100K-S	100K	S	100K	S
AD47-250K-S	250K	S	250K	S
AD47-250K-Z	250K	Z	250K	Z
AD47-500K-Z	500K	Z	500K	Z
AD47-1 Meg.-S	1 Meg.	S	1 Meg.	S
AD47-1 Meg.-Z	1 Meg.	Z	1 Meg.	Z
AD47-2 Meg.-S	2 Meg.	S	2 Meg.	S
AD47-2 Meg.-V	2 Meg.	V	2 Meg.	V
AD47-5 Meg.-S	5 Meg.	S	5 Meg.	S

NET PRICE $2.25 Standard Packing — Individual Carton.

SERIES "C47S" ½-WATT CONTROLS WITH PUSH-PULL SWITCH

Cat. No.	Cat. No.
C47S-1000-V	C47S-750K-Z
C47S-2500-V	C47S-1MEG-S
C47S-250K-S	C47S-1MEG-Z
C47S-250K-Z	C47S-2MEG-S
C47S-500K-S	C47S-2MEG-Z
C47S-500K-Z	C47S-3MEG-Z
C47S-750K-S	

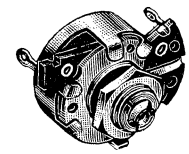
Net Price $1.53 Standard Packing—10 per Carton.

SERIES "C47SF" (TAPPED)

Cat. No.	
C47SF-500K	Tap 250K
C47SF1-500K	Tap 150K
C47SF-1MEG	Tap 500K
C47SF1-1MEG	Tap 250K
C47SF-2MEG	Tap 1MEG
C47SF-3MEG	Tap 1.5MEG

Net Price $1.95 Standard Packing—10 per Carton.

SERIES "A47F"



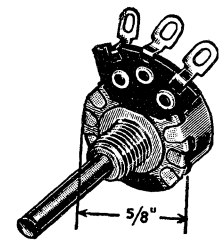
SERIES A47F
(INDUSTRIAL)
SERIES 47F

Series "A47F" controls are field-assembled with the selected "Pick-A-Shaft"* and "Ad-A-Switch"*. "A47F" controls have taps 1, 2, 3 located at 40%, 50% and 60% of rotation, double taps at 35 and 65% of electrical position. These controls are also available with factory-assembled shafts at no extra charge, by omitting prefix "A" from catalog number and designating the type of shaft desired when ordering. Example: 47F-200K with FS-3 shaft.

Cat. No.	Res. Ohms.	Tap No. 1 30%	Tap No. 2 50%	Tap No. 3 70%
A47F-15K	15K	5K		10K
A47F-50K	50K		25K	
A47F-200K	200K			100K
A47F-250K	250K			50K
A47F1-250K	250K		125K	
A47F2-250K	250K	60K		125K
A47F-350K	350K	75K		
A47F1-350K	350K		75K	
A47F-500K	500K			100K
A47F1-500K	500K	25K		
A47F2-500K	500K			200K
A47F3-500K	500K		100K	
A47F4-500K	500K		50K	
A47F5-500K	500K		250K	
A47F6-500K	500K	100K		300K
A47F-1 Meg.	1 Meg.	250K		
A47F1-1 Meg.	1 Meg.			200K
A47F2-1 Meg.	1 Meg.		50K	
A47F3-1 Meg.	1 Meg.		100K	
A47F4-1 Meg.	1 Meg.		225K	
A47F5-1 Meg.	1 Meg.		500K	
A47F-1.5 Meg.	1.5 Meg.	250K		500K
A47F-2 Meg.	2 Meg.	20K		
A47F1-2 Meg.	2 Meg.	5000		
A47F2-2 Meg.	2 Meg.	15K		
A47F3-2 Meg.	2 Meg.		1 Meg.	
A47F4-2 Meg.	2 Meg.		200K	
A47F5-2 Meg.	2 Meg.		400K	
A47F6-2 Meg.	2 Meg.		500K	
A47F7-2 Meg.	2 Meg.	250K		1 Meg.
A47F-2.5 Meg.	2.5 Meg.	250K		500K
A47F-3 Meg.	3 Meg.		250K	

NET PRICE $1.35. Standard Packing—10 per Carton. *Reg. U.S. Pat. Off.

SERIES 44 — 0.02 WATT CONTROLS



Composition Element Controls rated at 0.2 watt, designed specifically for miniaturized applications such as transistorized circuits, pocket radios, hearing aids, etc. Stocked controls have Clarostat "W" taper (20% log audio). Other tapers available on special order. Series 44 is without switch, while Series 44S has factory-attached 0.5 am. 25 v.d.c. DPST switch. Other ohmages available on special order. 200 ohms to 5 meg. linear; 1500 to 2.5 meg. tapered. Also available on special order, controls with 0.5 a. 25 v.d.c. SPST switch. Items not listed are special. Prices and information on request.

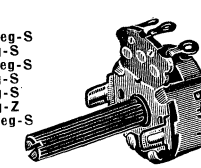
Without Switch Cat. No.		With SPST Switch Cat. No.	
44-500-W	44-50K-W	44S-500-W	44S-50K-W
44-1K-W	44-100K-W	44S-1K-W	44S-100K-W
44-5K-W	44-250K-W	44S-5K-W	44S-250K-W
44-10K-W	44-500K-W	44S-10K-W	44S-500K-W
44-15K-W	44-1 Meg-W	44S-15K-W	44S-1 Meg-W
44-25K-W		44S-25K-W	

LIST PRICE $1.55 **LIST PRICE $2.55**
Standard Packing — 10 Per Carton

SERIES B47 ½-WATT TAB-MOUNT

Composition element controls designed for radio and TV applications, where bushingless controls are required. Phenolic shaft insures insulation if control is used on a "hot" chassis. Items not listed are special, for which information and prices will be supplied on request.

Cat. No.	Cat. No.	Cat. No.	Cat. No.
B47-500-S	B47-10K-S	B47-250K-S	B47-1.5 Meg-S
B47-750-S	B47-25K-S	B47-330K-Z	B47-2 Meg-S
B47-1500-S	B47-50K-S	B47-500K-S	B47-2.5 Meg-S
B47-2500-S	B47-100K-S	B47-500K-Z	B47-3 Meg-S
B47-3000-S	B47-150K-S	B47-1 Meg-S	B47-5 Meg-S
B47-5000-S	B47-200K-S	B47-1 Meg-Z	B47-5 Meg-Z
			B47-7.5 Meg-S



NET PRICE $.60
Standard Packing—10 per Carton.

SERIES B47S ½-WATT TAB MOUNT WITH SWITCH

Cat. No.	Cat. No.
B47S-2500-Z	B47S-1 Meg-S
B47S-250K-S	B47S-1 Meg-Z
B47S-250K-Z	B47S-2 Meg-S
B47S-500K-S	B47S-2 Meg-Z
B47S-500K-Z	

Net Price $1.20 Standard Packing—10 per Carton.

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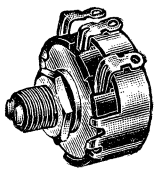
RESISTANCE DEVICES

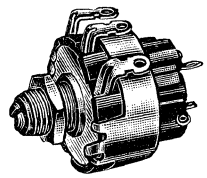
WIRE-WOUND CONTROLS

These are "Pick-A-Shaft"* controls which take any one of 12 shafts listed on page R-24 including High Voltage Coupler and insulated shaft. Your choice of any one of the 12 shafts listed (this does not include insulated shaft) with each control. Tolerances of these controls are in accordance with EIA standards. Overall resistance tolerance of plus/minus 10% for all values. All controls are linear. Available with factory-assembled shafts at no extra charge, by omitting the prefix "A" from the catalog number and designating the type of shaft desired when ordering. Example: 43-500 with FKS-¼ shaft, or 43S-10K with FS-3 shaft and SPST switch.

SERIES "A43" and "A43S" 2-WATT CONTROLS



SERIES A43
(INDUSTRIAL)
SERIES 43



SERIES A43S
(INDUSTRIAL)
SERIES 43S

"A43" is without switch, while "A43S" has factory-attached SPST switch. When ordering "A43S" controls, specify type of switch. Controls with other than SPST switch are special. Prices and information on request.

Without Switch Cat. No.	With SPST Switch Cat. No.	Res. Ohms
A43-5	A43S-5	5
A43-10	A43S-10	10
A43-20	A43S-20	20
A43-25	A43S-25	25
A43-30	A43S-30	30
A43-40	A43S-40	40
A43-50	A43S-50	50
A43-75	A43S-75	75
A43-100	A43S-100	100
A43-150	A43S-150	150
A43-200	A43S-200	200
A43-300	A43S-300	300
A43-400	A43S-400	400
A43-500	A43S-500	500
A43-750	A43S-750	750

Standard Packing: 10 per Carton.

Without Switch Cat. No	With SPST Switch Cat. No.	Res. Ohms
A43-1,000	A43S-1,000	1,000
A43-1,500	A43S-1,500	1,500
A43-2,000	A43S-2,000	2,000
A43-2,500	A43S-2,500	2,500
A43-3,000	A43S-3,000	3,000
A43-4,000	A43S-4,000	4,000
A43-5,000	A43S-5,000	5,000
A43-7,500	A43S-7,500	7,500
A43-10K	A43S-10K	10K
A43-15K		
A43-20K		
A43-25K		
A43-30K		
A43-40K		
A43-50K		

NET PRICES: (Without Switch)
5 to 10KΩ ..... **$ .93**
15K to 25KΩ **1.20**
30K to 50KΩ **1.62**
(With Switch)
5 to 10KΩ **$1.47**

SERIES "A58" and "A58S" 3- WATT CONTROLS

"A58" is without switch, while "A58S" has factory-attached SPST switch. Available with factory-assembled shafts, at no extra charge, by omitting prefix "A" from catalog number, and designating type of shaft desired when ordering. Example: 58-50K with KSS-3 shaft, or 58S-25K with RS-3 shaft and SPST switch. Controls with other than SPST switch are special. Prices and information on request.

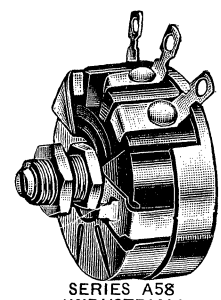
Without Switch Cat. No.	Res. Ohms
A58-1	1
A58-2	2
A58-4	4
A58-6	6
A58-10	10
A58-15	15
A58-20	20
A58-25	25
A58-30	30
A58-40	40
A58-50	50
A58-60	60
A58-75	75
A58-100	100
A58-200	200
A58-300	300
A58-400	400
A58-500	500
A58-750	750
A58-1,000	1,000
A58-1,500	1,500
A58-2,000	2,000
A58-2,500	2,500
A58-3,000	3,000
A58-4000	4,000
A58-5,000	5,000

Without Switch Cat. No.	Res. Ohms
A58-7,500	7,500
A58-10K	10K
A58-15K	15K
A58-20K	20K
A58-25K	25K
A58-30K	30K
A58-40K	40K
A58-50K	50K

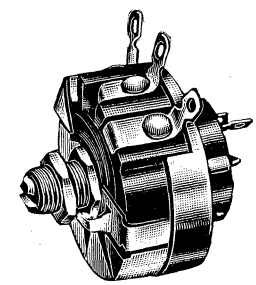
NET PRICES:
1 to 10KΩ ..... **$ .93**
15K to 25KΩ **1.20**
30K to 50KΩ **1.62**

With SPST Switch Cat. No.	Res. Ohms
A58S-1	1
A58S-2	2
A58S-4	4
A58S-6	6
A58S-10	10
A58S-15	15
A58S-20	20
A58S-25	25
A58S-30	30
A58S-40	40

Standard Packing: 10 per Carton.



SERIES A58
(INDUSTRIAL)
SERIES 58



SERIES A58S
(INDUSTRIAL)
SERIES 58S

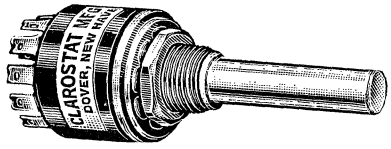
With SPST Switch Cat. No.	Res. Ohms
A58S-50	50
A58S-60	60
A58S-75	75
A58S-100	100
A58S-200	200
A58S-300	300
A58S-400	400
A58S-500	500
A58S-750	750
A58S-1,000	1,000
A58S-1,500	1,500
A58S-30K	30K
A58S-40K	40K
A58S-50K	50K

A58S-2,000	2,000
A58S-2,500	2,500
A58S-3,000	3,000
A58S-4,000	4,000
A58S-5,000	5,000
A58S-7,500	7,500
A58S-10K	10K
A58S-15K	15K
A58S-20K	20K
A58S-25K	25K

NET PRICES:
1 to 10KΩ **$1.47**
15K to 25KΩ **1.71**
30K to 50KΩ **2.16**

Standard Packing: 10 per Carton.

SERIES BHM ROTARY SWITCHES



Series BHM switches are rated at 50 ma. at 300 V. a.c. or d.c., and 500 ma. at 30 V. a.c. or d.c. All moving parts and contact mechanism are totally enclosed, and the switch assembly is sealed for protection from dust and atmospheric conditions. They are particularly adapted to portable radios, receivers and transmitters, X-ray and medical instruments, calculating machines and computers.

Current Rating: 50 Milliamps. at 300 volts a.c. or d.c.
500 Milliamps. at 30 volts a.c. or d.c.
Protection: All moving parts and contact mechanisms are totally enclosed and switch is sealed, which protects it from dust and atmospheric conditions.
Shaft: ¼" diameter round 1" beyond bushing.
Finish: Nickel Plating.
Bushing: ⅜" x 32 NEF-2 Thread. ⅜" Long.
Torque: 30 to 50 oz. in.

BHM-SP12P-S	Single Pole 12 Positions — Shorting
BHM-SP12P-NS	Single Pole 12 Positions — Non Shorting
BHM-2P6P-S	2 Pole 6 Positions — Shorting
BHM-2P6P-NS	2 Pole 6 Positions — Non-Shorting
BHM-3P4P-S	3 Pole 4 Positions — Shorting
BHM-3P4P-NS	3 Pole 4 Positions — Non-Shorting
BHM-4P3P-S	4 Pole 3 Positions — Shorting
BHM-4P3P-NS	4 Pole 3 Positions — Non-Shorting

Meets or exceeds test paragraph 4.5.3 thru 4.5.13 of MIL-S-3786.

Net

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PRODUCTS OF
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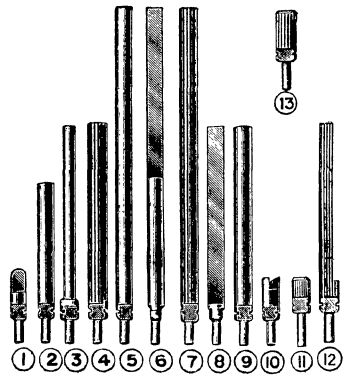
RESISTORS • CONTROLS
RESISTANCE DEVICES

SHAFTS FOR "PICK-A-SHAFT"* CONTROLS

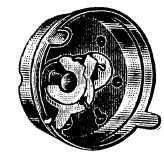
For use with all Clarostat "Pick-A-Shaft"* controls, either carbon or wire-wound. Your choice of shaft furnish with each control.

(1) SS-⅜" length—(Male) to take female fitting.
(2) RS-2 — Round shaft, 2" long.
(3) RS-3/16 — Round shaft 3/16" dia., 3" long.
(4) KSS-3—Knurled, split shaft, 3" long.
(5) RS-5—Round shaft, 5" long.
(6) FS-5—Flatted, 5" long.
(7) KSS-5—Knurled, split shaft, 5" long.
(8) FS-3 — Flatted shaft, 3" long.
(9) RS-3 — Round shaft, 3" long.



Net Price, Each Shaft $0.33

(10) DFS-½—Double flatted Philco Type, ½" long.
(11) FKS-¼—Fine knurled slotted shaft, ¼" long.
(12) KFS-3—Knurled flatted shaft, 3" long.
(13) FKS-½—Fine knurled slotted shaft, ½" long.



U.S. PAT. 2,642,506

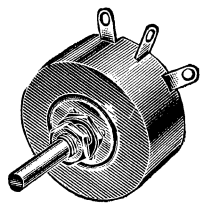
SERIES "SWE" SWITCHES FOR "AD-A-SWITCH"* CONTROLS

For use with "A47" and "A47F" controls. Underwriters' Laboratories Inc. approved.

Cat. No.	Wiring	Net Price
SWE-12	S.P.S.T. — Single Pole Single Throw, 5A.-125V. A.C.	$0.45
SWE-13	S.P.S.T. — Single Pole Single Throw, 15A.-10V. D.C.	.66
SWE-20	D.P.S.T. — Double Pole Single Throw, 3A.-125V. A.C.	.51
SWE-21	Mod. D.P.S.T. one pole on, one off or with Jumper S.P.D.T., 3A.-125V. A.C.-D.C.	.51
SWE-23	D.P.S.T., 15A.-10V. D.C.	.66

(Mod. DPST has one pole "on", one pole "off" or with Jumper it is SPDT.)

Standard Packing: 10 per Carton.



POWER RHEOSTATS

Clarostat Power Rheostats maintain their full power rating at settings as low as one-third rotation without excessive temperature rise. Standard overall resistance tolerance plus/minus 10%. Closer tolerances are available upon special order.

AN Types (aircraft type) are basically the same units mechanically and electrically except that they are encased in a metal housing (versus ceramic). Terminals are screw type lugs to prevent corrosion. Approved under MIL-R-6749.

Units mount through a single hole, a locking pin is provided for rear panel mounting.

SERIES 25 — 25-WATT

Cat. No.	Total Res. Ohms	Net Price
25-1	1	$3.87
25-2	2	3.42
25-3	3	3.42
25-6	6	3.42
25-8	8	3.42
25-10	10	3.42
25-15	15	3.42
25-25	25	3.42
25-35	35	3.42
25-50	50	3.42
25-75	75	3.42
25-100	100	3.42
25-125	125	3.42
25-175	175	3.42
25-250	250	3.42
25-350	350	3.42
25-500	500	3.42
25-750	750	3.42
25-1,000	1,000	3.87
25-1,500	1,500	3.87
25-2,500	2,500	3.87
25-3,500	3,500	4.08
25-5,000	5,000	4.29

SERIES 50 — 50-WATT

Cat. No.	Total Res. Ohms	Net Price
50-0.5	0.5	$4.25
50-1	1	4.25
50-2	2	4.25
50-4	4	3.87
50-6	6	3.87
50-8	8	3.87
50-12	12	3.87
50-16	16	3.87
50-22	22	3.87
50-35	35	3.87
50-50	50	3.87
50-80	80	3.87
50-125	125	3.87
50-150	150	3.87
50-225	225	3.87
50-300	300	3.87
50-500	500	3.87
50-800	800	4.08
50-1,000	1,000	4.08
50-1,600	1,600	4.08
50-2,500	2,500	4.08
50-3,500	3,500	4.29
50-5,000	5,000	4.29
50-8,000	8,000	5.16
50-10K	10K	5.16

AN-3155-25** — 25 WATTS

Cat. No.	Total Res. Ohms	Net Price
AN-3155-25-10	10	$4.80
AN-3155-25-11	11	4.80
AN-3155-25-15	15	4.80
AN-3155-25-25	25	4.80
AN-3155-25-50	50	4.80
AN-3155-25-75	75	4.80
AN-3155-25-100	100	4.80
AN-3155-25-200	200	5.61

AN-3155-50** — 50 WATTS

AN-3155-50-5	5	5.61
AN-3155-50-8	8	5.61
AN-3155-50-10	10	5.61
AN-3155-50-25	25	5.46
AN-3155-50-30	30	5.46
AN-3155-50-50	50	5.46
AN-3155-50-75	75	5.46
AN-3155-50-100	100	5.46
AN-3155-50-150	150	6.12
AN-3155-50-200	200	6.12

Prices include AN-3220 — 2 knob

Standard Packing: Individual Carton.

**25 and 50 watt Power Rheostats when encased in metal housing are derated 50%.

PRODUCTS OF
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CLAROSTAT®

RESISTORS • CONTROLS
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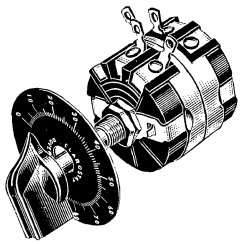
®

SOUND-SYSTEM CONTROLS

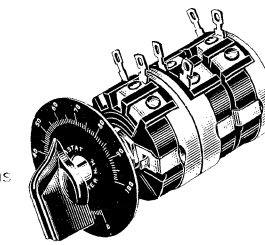
For proper control of volume and tone alike, Clarostat offers a choice of several controls, such as L- and T-pads, output attenuators, and individual-speaker volume controls as used for drive-in theatre installations. These are not ordinary radio controls but rather sound-system controls designed and built for critical requirements.

CONSTANT-IMPEDANCE CONTROLS



Self-compensating volume controls known as L-pads and T-pads for use in sound systems. Rated at 2½ watts DC, but will handle up to 10 watts audio. Continuous range from 0.5 to 30 decibels attenuation in 90% rotation. Last 10% affords infinite attenuation. With Clarostat constant-impedance L-pads and T-pads the input and output impedances of associated circuits can be kept within the limits of a constant required value. Knob and dial plate furnished with each control.

CIT Cat. No.	CIL Cat. No.	Res. Ohms
CIT-4	CIL-4	4
CIT-6	CIL-6	6
CIT-8	CIL-8	8
CIT-15	CIL-15	15
CIT-50	CIL-50	50
CIT-100	CIL-100	100
CIT-200	CIL-200	200
CIT-250	CIL-250	250
CIT-500	CIL-500	500
CIT-600	CIL-600	600
CIT-1,000	CIL-1,000	1,000
CIT-2,000	CIL-2,000	2,000
CIT-3,000	CIL-3,000	3,000
	CIL-4,000	4,000
	CIL-5,000	5,000



U. S. Pat. 2,434,248

CIT—NET PRICE $3.13

CIL—NET PRICE $2.79

Standard Packing: Individual Carton.

CONSTANT IMPEDANCE OUTPUT ATTENUATORS

Series "CIB" rated at 10 watts, but will handle up to 30 watts in audio circuit. Linear attenuation provided in 3 decibel steps up to 24db, then 30db followed by infinity. Equipped with dial plate and bar knob. One-hole mounting, ⅜" bushing diameter. 1" shaft. This control has been developed to meet the need for a constant-impedance attenuator capable of handling considerable power without measurable insertion loss. Recommended as an output level control for power amplifiers, or as an input attenuator for individual or for a group of speakers in a public address system.

Cat. No.	Res. Ohms	Cat. No.	Res. Ohms
CIB-6	6	CIB-200	200
CIB-8	8	CIB-250	250
CIB-15	15	CIB-500	500
CIB-50	50	CIB-600	600

NET PRICE $7.70

Standard Packing: Individual Carton.

SPECIAL DRIVE-IN THEATRE L-PAD

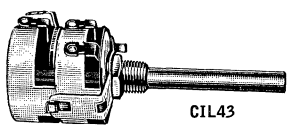
To meet the needs of theater sound systems, more especially those of drive-in theaters, a special 8 ohm L-Pad is now available, containing two separate windings of 5 ohms and 40 ohms. Also 50 ohm linear rheostat and 35 ohm tapered rheostat, as listed. Units have ⅜-32 bushing ¾" long, and 1½" round shaft.

Cat. No. CM8727-1 8 ohm L-Pad
Net Price $1.80

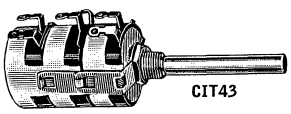
SPACE-SAVER CONSTANT-IMPEDANCE ATTENUATORS

Characterized by reduced depth and diameter, these attenuators are ideal for use in remote control of speakers since they are small enough to be installed in standard electrical boxes in the home, office, stockroom, etc.

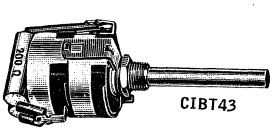
These controls are rated 2 watts D.C., but will handle up to 4 watts of audio, depending upon the type signal being handled. (As the frequency becomes constant, wattage reduces to 2 watts or the same as the D.C. rating).



CIL43



CIT43



CIBT43

Cat. No. CIL43 (L-Pad)	Cat. No. CIT43 (T-Pad)	Cat. No. CIBT43 (Bridged T-Pad)	Impedance
CIL43-4	CIT43-4	CIBT43-4	4 ohms
CIL43-6	CIT43-6	CIBT43-6	6 ohms
CIL43-8	CIT43-8	CIBT43-8	8 ohms
CIL43-15	CIT43-15	CIBT43-15	15 ohms
CIL43-50	CIT43-50	CIBT43-50	50 ohms
CIL43-100	CIT43-100	CIBT43-100	100 ohms
CIL43-200	CIT43-200	CIBT43-200	200 ohms
CIL43-250	CIT43-250	CIBT43-250	250 ohms
CIL43-500	CIT43-500	CIBT43-500	500 ohms
		CIBT43-600	600 ohms

NET PRICE CIL43 $2.79 **NET PRICE CIT43 $3.13**

NET PRICE CIBT43 $3.63
Standard Packing — Individual Carton

- Attenuation range of 0 to 30 db over 90% of rotation, 60 db in remaining 10% of rotation. Attenuation will increase approximately linearly to 30 db with counter-clockwise rotation.
- Insertion loss less than 0.5 db.
- Input impedance within plus/ minus 20%.
- The CIT43 and CIBT43 (Bridged T Pad) have constant input and output impedances, while the CIL43 has constant impedance in the input only.
- Shafts and bushings are insulated from the circuit elements.
- Pads have ⅜-32 x ⅜" long bushing.
- ¼" dia. round shafts 1½" long beyond bushing.
- All pads supplied with bar knob and dial plates, as shown above.
- Dia. 1⅛". Depth of body from mounting surface: CIL43 — 1$\frac{1}{32}$"; CIT43 — 1¾"; CIBT43 — 1½".

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PRODUCTS OF
THE HOUSE OF RESISTORS®

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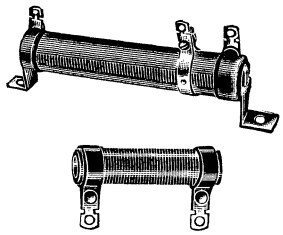
RESISTORS · CONTROLS
RESISTANCE DEVICES

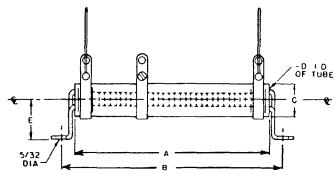
"GREENOHM"* WIRE-WOUND RESISTORS



FIXED TYPES Wire-wound resistors for most rugged applications. Will withstand tremendous overloads and temperature changes without alterating resistance values or appearance. Wire windings on high grade ceramic tubing and coated with special inorganic cement. In accordance with EIA standards, overall tolerances are ± 5% for resistors of 50 ohms and higher. For resistors of 49.9 ohms and lower, overall tolerances are ± 10%.

ADJUSTABLE TYPES Same electrically and mechanically as Fixed types, but incorporating sliding band or bands for tapping any desired resistance values. Slider band tightened by means of screw. In accordance with EIA standards, overall tolerances are ± 10%.

DIMENSIONS BY TYPES



SERIES	WATTS	A	B	C	D	E
PR-5-F	5	1	1 1/16	5/16	3/16	7/16
PR-10-F	10	1 3/4	2 3/16	5/16	3/16	7/16
PR-10-FA	10	1 3/4	2 3/16	5/16	3/16	7/16
PR-20-K	20	2	2 1/2	9/16	3/8	9/16
P-25-K	25	2 1/2	3	9/16	3/8	9/16
P-25-KA	25	2 1/2	3	9/16	3/8	9/16

FIXED RESISTORS

5-WATT SERIES PR-5-F

These resistors conform to E1A specification for type RRW-125 and 128.

Ohms	Ohms	Ohms	Ohms
1	75	800	5,000
2	100	900	6,000
3	125	1,000	7,000
4	150	1,100	7,500
5	200	1,200	8,000
7.5	225	1,250	8,500
10	250	1,500	9,000
12	300	1,750	10K
15	350	2,000	
20	400	2,250	
25	450	2,500	
30	500	3,000	
35	600	3,500	
40	700	4,000	
50	750	4,500	

NET PRICE $0.33
Standard Packing — 10 per Carton.
Mounting brackets supplied at extra cost.

25-WATT SERIES P-25-K

Ohms	Ohms	Ohms	Ohms
1	750	10K	
2	800	12K	
3	1,000	15K	
5	1,250	20K	
7.5	1,500	25K	
10	2,000	30K	
15	2,250	35K	
20	2,500	40K	
25	3,000	45K	
50	3,500	50K	
75	4,000	60K	
100	4,500	70K	
150	5,000	75K	
200	6,000	80K	
250	7,000	85K	
300	7,500	90K	
400	8,000	100K	
500	9,000		

NET PRICES:

1 ohm to 5,000	$0.51
6,000 to 15K ohms	.57
20K to 50K ohms	.66
60K ohms	.75
70K ohms	.84
75K ohms	.87
80K ohms	.90
85K ohms	.99
90K ohms	1.05
100K ohms	1.17

Mounting brackets at no extra cost.
Standard Packing — Individually Boxed.

10-WATT SERIES PR-10-F

These resistors conform to military specifications for type RW29, and E1A type RRW-126 and 129.

Ohms	Ohms	Ohms	Ohms
1	200	2,000	14.5K
2	225	2,250	15K
3	250	2,500	16K
4	300	3,000	17.5K
5	350	3,500	18K
7.5	400	4,000	20K
10	450	4,500	22.5K
12	500	5,000	25K
15	600	6,000	30K
20	700	7,000	35K
25	750	7,500	40K
30	800	8,000	50K
35	900	8,500	
40	1,000	9,000	
50	1,100	10K	
75	1,200	11K	
100	1,250	12K	
125	1,500	12.5K	
150	1,750	13.5K	

NET PRICE $0.36

Mounting brackets supplied at extra cost.
Standard Packing — 10 per Carton.

20-WATT SERIES PR-20-K

These resistors conform to E1A specifications for type RRW-127.

Ohms	Ohms	Ohms	Ohms
5	850	7,000	70K
10	1,000	7,500	75K
25	1,200	8,000	80K
50	1,250	9,000	85K
75	1,500	10K	90K
100	1,750	12.5K	95K
150	1,850	15K	100K
200	2,000	20K	
250	2,250	25K	
300	2,500	30K	
350	2,750	35K	
400	3,000	40K	
500	3,500	45K	
650	4,000	50K	
700	4,500	55K	
750	5,000	60K	
800	6,000	65K	

NET PRICES:

5 ohms to 15K ohms	$0.42
20K to 50K ohms	.57
55K to 100K ohms	.72

Mounting brackets supplied at extra cost.
Standard Packing — 5 per Carton.

ADJUSTABLE RESISTORS

These resistors conform to military specification for type RW-29 and E1A specification for type RRW-226.

10-WATT SERIES PR-10-FA

Res.	Res.	Res.	Res.
1	75	750	4,000
2	100	800	4,500
3	150	1,000	5,000
5	200	1,250	6,000
7.5	250	1,500	7,000
10	300	2,000	7,500
15	350	2,250	8,000
20	400	2,500	8,500
25	500	3,000	9,000
50	600	3,500	10K

NET PRICE $0.57

25-WATT SERIES P-25-KA

Res.	Res.	Res.	Res.
1	75	1,000	5,000
2	100	1,250	6,000
3	150	1,500	7,000
5	200	2,000	7,500
7.5	250	2,250	8,000
10	300	2,500	9,000
15	400	3,000	10K
20	500	3,500	12K
25	750	4,000	15K
50	800	4,500	20K
			25K
			50K

NET PRICES:

1 ohm to 5,000 ohms	$0.63
6,000 to 15K ohms	.72
20K to 25K ohms	.84
50K ohms	.99

Above adjustable resistors supplied with mounting brackets at no extra cost. Extra slider bands — 30¢ each. Standard Packing — individually boxed.

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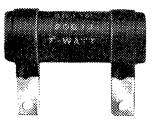
CORNING GLASS TIN OXIDE FILM RESISTORS

Fuse a tin oxide coating into the pure surface of freshly drawn glass, cut a helix in the coating, attach leads and you have a simple, rugged, exceptionally reliable CORNING® resistor. Physically, the perfect matching of the thermal expansions of resistive film and substrate eliminates stressing of the film during sudden overloads and thermal shocking. Continuous process and quality monitoring combine with these high quality inorganic materials to produce resistors with low TC guarantees from ±0.010% to ±0.050% depending on type. Noise levels are typically less than 0.1 uv/v. High frequency characteristics assure non-inductive performance above 280 ohms.

Corning manufactures precision, general purpose and power resistors to meet your circuit function, environment and duty cycle requirements. Their performance and economic advantages will add value to your equipment.

	TYPE AND MIL SPEC	MODEL/MIL MODEL	RESISTANCE (ohms)	WATTAGE	TOLERANCE
C	General purpose, low-cost film type. Prices and sizes comparable to carbon composition type, but with film resistor performance characteristics MIL-R-22684A (Navy)	C07/RL07AD C20/RL20AD C32/RL32AD C42S/RL42AD	51 to 150K 10 to 470K 10 to 1 meg. 10 to 1.5 meg.	¼ @ 70°C ½ @ 70°C 1 @ 70°C 2 @ 70°C	2%, 5% 2%, 5% 2%, 5% 2%, 5%
NA	Especially designed for MIL-R-10509E, Characteristic D applications. Precise and predictable performance with surprising economy for military and space equipment.	NA55D/RN55D NA60D/RN60D NA65D/RN65D NA70D/RN70D	51 to 150K 10 to 249K 10 to 500K 51 to 1 Meg.	⅛ @ 70°C ¼ @ 70°C ½ @ 70°C ¾ @ 70°C	1% 1% 1% 1%
N-20	Proven stability in 40,000 hrs. testing. Uninsulated. MIL-R-10509B. Char. X.	N12 N20/RN20 N25/RN25 N30/RN30	100 to 133K 10 to 500K 10 to 1.5 meg. 30 to 4.2 meg.	¼ @ 70°C ½ @ 70°C 1 @ 70°C 2 @ 70°C	1, 2, and 5% 1, 2, and 5% 1, 2, and 5% 1, 2, and 5%
LPI	Low power resistors with exceptional frequency characteristics and glass stability. New LPI-10 in a substantially smaller package. Construction assures desired performance for rugged environmental duty.	LPI-2 LPI-3 LPI-4 LPI-5 LPI-7 LPI-10	9 to 1.5 Meg 9 to 40K 16 to 90K 19 to 110K 24 to 110K 24 to 90K	2 @ 70°C 3 @ 70°C 4 @ 70°C 5 @ 70°C 7 @ 70°C 10 @ 40°C	5%, 10% 5%, 10% 5%, 10% 5%, 10% 5%, 10% 5%, 10%
S	Fixed-film type for high-temperature operation. Silicone baked lacquer. MIL-R-11804D. Char. P.	S20/RD60P S25/RD65P S30/RD70P	10 to 500K 10 to 1.54 meg. 30.1 to 4.22 meg.	130°C / 25°C ½ / 1 1 / 2 2 / 4	1, 2, 5, 10% 1, 2, 5, 10% 1, 2, 5, 10%
R	Power type, essentially noninductive in high-frequency operations. MIL-R-11804D. 	R31/RD31P R33/RD33P R35/RD35P R37/RD37P R39/RD39P	10 to 70K 19.6 to 150K 19.6 to 301K 19.6 to 500K 30.1 to 1 meg.	7 @ 25°C 13 @ 25°C 25 @ 25°C 55 @ 25°C 115 @ 25°C	2, 5, 10% 2, 5, 10% 2, 5, 10% 2, 5, 10% 2, 5, 10%

STANDARD VALUES*

NA, N, S, R, RESISTORS 1, 2, and 5% Tolerances

1%	2%	5%	1%	2%	5%	1%	2%	5%	1%	2%	5%
1.00	1.00	1.00	1.78	1.78	1.78	3.16	3.16	3.16	5.62	5.62	5.62
1.02			1.82			3.24			5.76		
1.05	1.05		1.87	1.87		3.32	3.32		5.90	5.90	
1.07			1.91			3.40			6.04		
1.10	1.10	1.10	1.96	1.96	1.96	3.48	3.48	3.48	6.19	6.19	6.19
1.13			2.00			3.57			6.34		
1.15	1.15		2.05	2.05		3.65	3.65		6.49	6.49	
1.18			2.10			3.74			6.65		
1.21	1.21	1.21	2.15	2.15	2.15	3.83	3.83	3.83	6.81	6.81	6.81
1.24			2.21			3.92			6.98		
1.27	1.27		2.26	2.26		4.02	4.02		7.15	7.15	
1.30			2.32			4.12			7.32		
1.33	1.33	1.33	2.37	2.37	2.37	4.22	4.22	4.22	7.50	7.50	7.50
1.37			2.43			4.32			7.68		
1.40	1.40		2.49	2.49		4.42	4.42		7.87	7.87	
1.43			2.55			4.53			8.06		
1.47	1.47	1.47	2.61	2.61	2.61	4.64	4.64	4.64	8.25	8.25	8.25
1.50			2.67			4.75			8.45		
1.54	1.54		2.74	2.74		4.87	4.87		8.66	8.66	
1.58			2.80			4.99			8.87		
1.62	1.62	1.62	2.87	2.87	2.87	5.11	5.11	5.11	9.09	9.09	9.09
1.65			2.94			5.23			9.31		
1.69	1.69		3.01	3.01		5.36	5.36		9.53	9.53	
1.74			3.09			5.49			9.76		

C RESISTORS

±2% & ±5%	±10%†
10	10
11	—
12	12
13	—
15	15
16	—
18	18
20	—
22	22
24	—
27	27
30	—
33	33
36	—
39	39
43	—
47	47
51	—
56	56
62	—
68	68
75	—
82	82
91	—

*Standard resistance values are obtained from the decade table by multiplying by multiples of 10. As an example, 1.33 can represent 13.3 ohms, 133 ohms, 1.33k, 13.3k, 133k, 1.33 megohm

*Values not listed are considered non-standard.
†C42 only.

See our complete line of fixed glass capacitors in Section 1500. For more technical data or for fast delivery on top-reliability CORNING resistors, call your CORNING distributor, or contact us directly.

CORNING ELECTRONICS
A DIVISION OF CORNING GLASS WORKS
RALEIGH, N.C.

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LECTROHM

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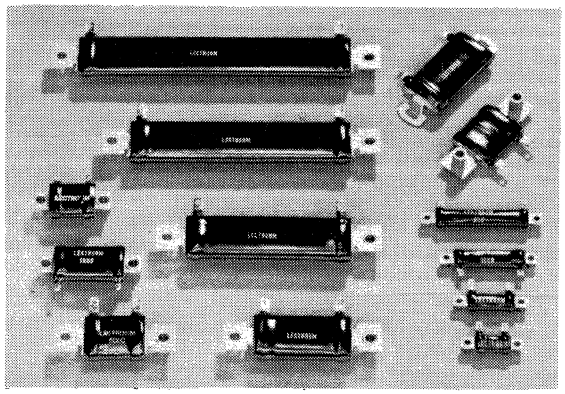
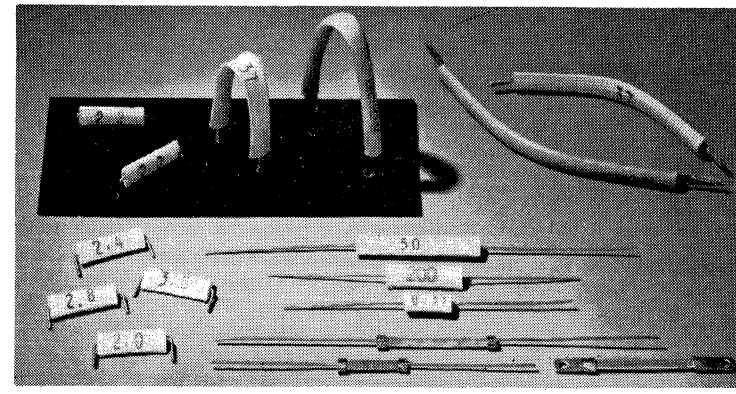
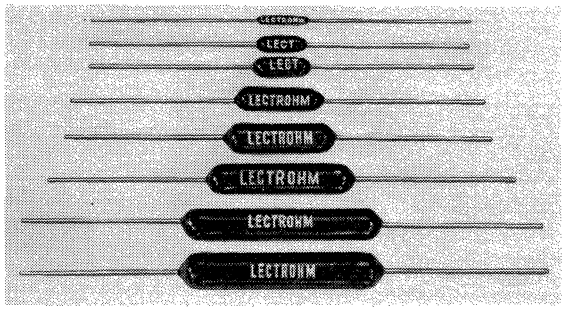


OVALS

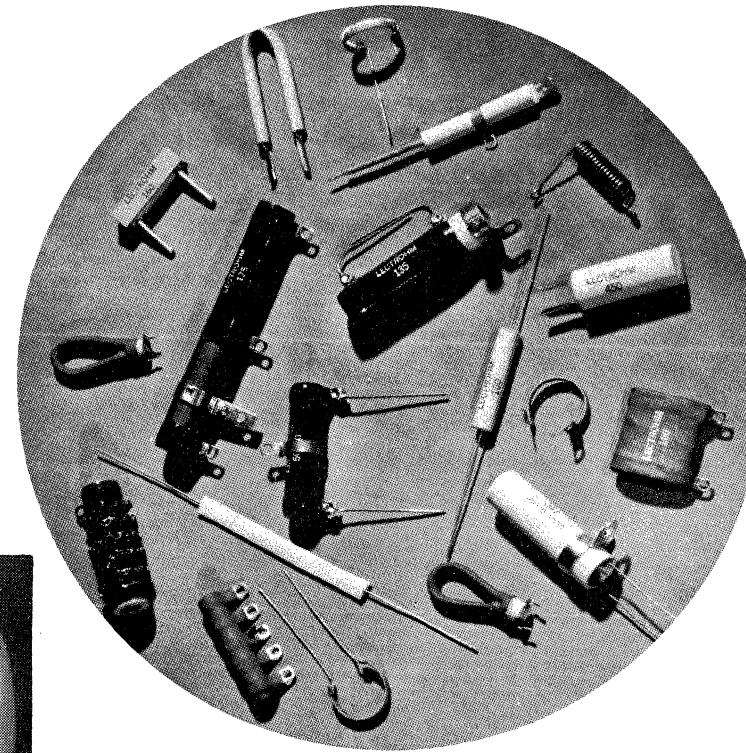


FLEXIBLES

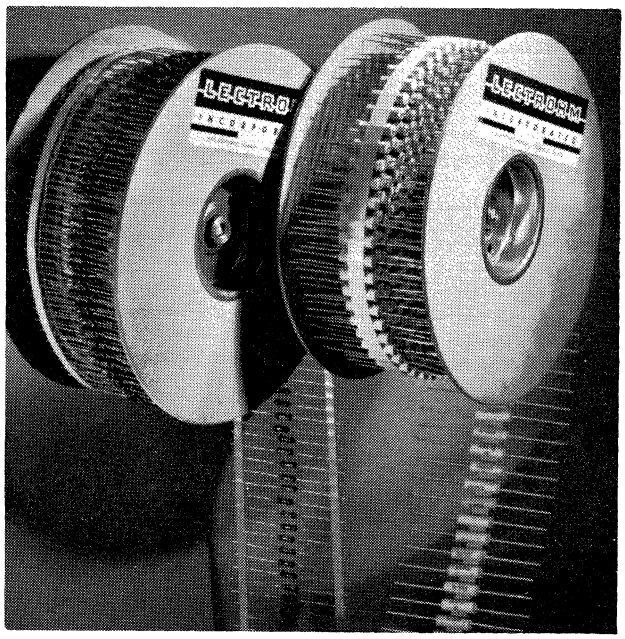


AXIALS

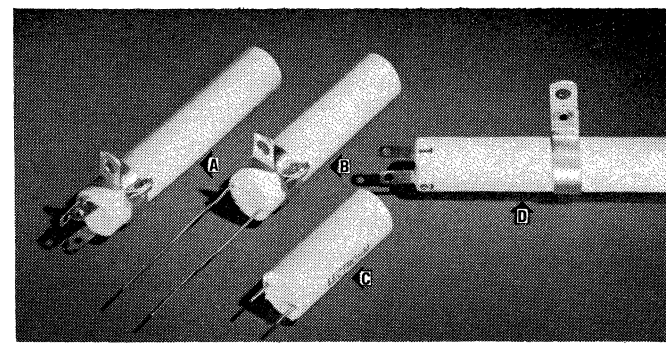
LECTROHM, while manufacturing the standard vitreous line, is also producing whole new groups of types, each designed to solve a special problem. Miniaturization and printed circuit restrictions in space and ventilation no longer are complicated by conventional power resistor size standards. New coating materials and winding methods developed by LECTROHM permit an infinite variety of configurations yet retain operating and life characteristics expected of the finest grade vitreous enameled types. LECTROHM engineers will fit the resistor size and shape to your design.



Some of the many "Special" LECTROHM Resistors



TAPED RESISTORS FOR AUTOMATION



UPRIGHTS **A** SOLDER LUG TYPE. **B** PIGTAIL TYPI
C PRINTED CIRCUIT. **D** HORIZONTAL MOUNTING BRACKE

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LECTROHM

INCORPORATED • CHICAGO, ILLINOIS

VITREOUS ENAMELED RESISTORS

Fixed Wire-Wound Types

C5 SERIES — 5 WATT

DIMENSIONS ..... 5/16 x 3/16 x 1"
TERMINALS ..... Pigtail type leads 1½"
MAXIMUM RESISTANCE ..... 10,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	2240	$ .45	600	91	$ .45
2	1580	.45	700	84	.45
3	1290	.45	750	81	.45
4	1110	.45	800	79	.45
5	1000	.45	900	74	.45
10	707	.45	1000	70	.48
15	575	.45	1100	67	.48
20	500	.45	1200	64	.48
25	447	.45	1250	63	.48
30	408	.45	1500	57	.48
35	374	.45	1750	53	.48
40	346	.45	2000	50	.48
50	316	.45	2250	47	.48
75	258	.45	2500	44	.48
100	222	.45	3000	41	.48
125	200	.45	4000	35	.48
150	182	.45	4500	33	.48
200	158	.45	5000	31	.48
225	149	.45	6000	29	.51
250	141	.45	7000	27	.51
300	129	.45	7500	26	.51
350	119	.45	8000	25	.51
400	111	.45	9000	23	.51
500	100	.45	10000	22	.51

C10 SERIES — 10 WATT

DIMENSIONS ..... 5/16 x 3/16 x 1¾"
TERMINALS ..... Pigtail type leads 1½"
MAXIMUM RESISTANCE ..... 50,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	3150	$ .48	1500	79	$ .54
2	2230	.48	1750	74	.54
3	1825	.48	2000	69	.54
5	1415	.48	2250	64	.54
7.5	1155	.48	2500	61	.54
10	1000	.48	3000	56	.54
15	815	.48	3500	53	.54
20	707	.48	4000	50	.54
25	630	.48	4500	47	.54
50	447	.48	5000	44	.54
75	365	.48	6000	41	.60
100	315	.48	7000	38	.60
150	258	.48	7500	36	.60
200	223	.48	8000	35	.60
225	212	.48	8500	34	.60
250	200	.48	9000	33	.60
300	182	.48	10000	32	.60
350	169	.48	12000	29	.66
400	158	.48	12500	28	.66
450	150	.48	13500	27	.66
500	141	.48	15000	25	.66
600	129	.48	16000	25	.66
700	119	.48	17500	24	.66
750	115	.48	18000	23	.66
800	111	.48	20000	22	.66
900	105	.48	22500	21	.72
1000	100	.48	25000	20	.72
1100	95	.54	30000	18	.81
1200	91	.54	40000	15	.81
1250	89	.54	45000	15	.81
			50000	14	.81

C20 or E20 SERIES — 20 WATT

DIMENSIONS ..... 7/16 x 5/16 x 2"
TERMINALS ..... Pigtail type leads 1½"
(C20)
Solder lug type terminal; hole diameter .1718"
(E20)
MOUNTING BRACKET ..... B-33; Centers 2¾"
MAXIMUM RESISTANCE ..... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	2000	$ .63	2500	89	$ .66
10	1414	.63	3000	81	.66
15	1153	.63	4000	70	.66
20	1000	.63	5000	63	.66
25	894	.63	6000	57	.72
40	707	.63	7000	53	.72
50	633	.63	7500	51	.72
60	574	.63	8000	50	.72
75	517	.63	10000	45	.72
100	448	.63	12500	40	.78
125	400	.63	15000	36	.78
150	365	.63	20000	32	.78
200	316	.63	25000	28	.90
250	283	.63	30000	26	.90
300	258	.63	35000	24	.90
350	238	.63	40000	22	.90
400	223	.63	45000	21	1.05
500	200	.63	50000	20	1.05
600	182	.63	55000	18	1.05
700	169	.63	60000	16	1.05
750	163	.63	65000	15	1.20
800	158	.63	70000	14	1.20
1000	141	.63	75000	13	1.20
1100	134	.66	80000	12	1.20
1250	126	.66	90000	11	1.38
1500	115	.66	95000	10.5	1.38
2000	100	.66	100000	10	1.38

E25 SERIES — 25 WATT

DIMENSIONS ..... 5/16 x 5/16 x 2"
TERMINALS ..... Solder lug type
MOUNTING BRACKET ..... B-33; Centers 2¾"
MAXIMUM RESISTANCE ..... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	5000	$ .66	2500	100	$ .75
3	2890	.66	3000	91	.75
5	2240	.66	3500	84	.75
10	1580	.66	4000	79	.75
15	1290	.66	5000	71	.75
25	1000	.66	6000	64	.75
50	707	.66	7500	57	.75
75	575	.66	10000	50	.75
100	500	.66	12000	46	.75
150	400	.66	15000	41	.78
200	353	.66	20000	35	.78
250	316	.66	25000	32	.90
300	288	.66	30000	29	.90
400	250	.66	35000	27	1.02
500	224	.66	40000	25	1.02
750	182	.66	50000	20	1.20
1000	158	.66	60000	16	1.20
1250	141	.69	70000	14	1.38
1500	129	.69	80000	12	1.38
2000	112	.69	100000	10	1.38

E50 SERIES — 50 WATT

DIMENSIONS ..... 5/16 x 5/16 x 4"
TERMINALS ..... Solder lug type
MAXIMUM RESISTANCE ..... 250,000 ohms
MOUNTING BRACKET ..... B-33; Centers 4¾"

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	3165	$1.08	8000	79	$1.26
10	2230	1.08	10000	71	1.26
25	1414	1.08	12000	65	1.38
50	1000	1.08	12500	63	1.38
100	707	1.08	15000	57	1.38
200	500	1.08	20000	50	1.38
250	440	1.08	25000	45	1.53
500	300	1.08	30000	41	1.53
750	250	1.08	40000	35	1.53
1000	215	1.08	50000	32	1.71
1500	180	1.14	60000	29	1.71
2000	155	1.14	75000	26	1.92
2500	140	1.14	100000	19	2.10
3000	125	1.14	125000	15	2.22
4000	110	1.14	150000	13	2.31
5000	100	1.14	175000	11	2.40
6000	90	1.26	200000	9	2.49
7000	85	1.26	225000	8	2.79
7500	80	1.26	250000	7	2.79

E75 SERIES — 75 WATT

DIMENSIONS ..... 5/16 x 5/16 x 6"
TERMINALS ..... Solder lug type
MAXIMUM RESISTANCE ..... 100,000 ohms
MOUNTING BRACKET ..... B-33; Centers 6¾"

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	8650	$1.32	2500	171	$1.38
2	6120	1.32	3000	160	1.38
3	5010	1.32	4000	135	1.38
4	4340	1.32	5000	121	1.38
5	3870	1.32	6000	111	1.50
10	2740	1.32	7500	100	1.50
25	1730	1.32	8000	96	1.50
50	1220	1.32	10000	86	1.50
100	865	1.32	12000	80	1.62
150	705	1.32	12500	78	1.62
200	610	1.32	15000	70	1.62
250	550	1.32	20000	61	1.62
300	500	1.32	25000	55	1.83
400	430	1.32	30000	50	1.83
500	385	1.32	35000	46	1.83
750	318	1.32	40000	43	1.83
800	305	1.32	45000	41	1.95
1000	270	1.32	50000	39	1.95
1500	225	1.38	75000	31	2.13
2000	192	1.38	100000	27	2.37

E100 SERIES — 100 WATT

DIMENSIONS ..... ¾ x ½ x 6½"
TERMINALS ..... Solder lug type
MOUNTING BRACKET ..... B-34; Centers 7⅜"
MAXIMUM RESISTANCE ..... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	10000	$1.59	2000	222	$1.68
2	7070	1.59	2500	200	1.68
3	5770	1.59	3000	181	1.68
4	5000	1.59	5000	141	1.68
5	4470	1.59	7500	114	1.80
10	3160	1.59	10000	100	1.80
25	2000	1.59	15000	81	1.98
50	1414	1.59	20000	70	1.98
75	1153	1.59	25000	63	2.10
100	1000	1.59	30000	58	2.10
150	816	1.59	40000	50	2.10
250	632	1.59	50000	45	2.22
500	447	1.59	60000	41	2.22
750	365	1.59	75000	36	2.37
1000	316	1.59	100000	32	2.52
1500	257	1.68			

E160 SERIES — 160 WATT

DIMENSIONS ..... 1⅛ x ¾ x 8½"
TERMINALS ..... Solder lug type
MOUNTING BRACKET ..... B-35; Centers 9⅜"
MAXIMUM RESISTANCE ..... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	12650	$2.75	3500	215	$2.01
2	8940	2.75	4000	200	2.01
3	7300	2.75	4500	185	2.01
4	6320	2.75	5000	180	2.01
5	5660	2.75	7500	145	2.16
10	4000	1.98	10000	125	2.16
25	2530	1.98	15000	105	2.34
50	1788	1.98	20000	90	2.34
75	1460	1.98	25000	80	2.40
100	1260	1.98	30000	73	2.40
200	900	1.98	35000	68	2.40
500	570	1.98	40000	64	2.40
1000	400	1.98	50000	57	2.49
1500	330	2.01	60000	52	2.49
2000	280	2.01	70000	48	2.64
2500	250	2.01	80000	45	2.82
3000	230	2.01	100000	40	2.82

E200 SERIES — 200 WATT

DIMENSIONS ..... 1⅛ x ¾ x 10½"
TERMINALS ..... Solder lug type
MOUNTING BRACKET ..... B-35; Centers 11⅜"
MAXIMUM RESISTANCE ..... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	14140	$3.00	3500	240	$2.16
2	10000	3.00	4000	225	2.16
3	8160	3.00	4500	210	2.34
4	7070	3.00	5000	200	2.34
5	6310	3.00			
10	4470	2.13	7500	165	2.34
25	2830	2.13	10000	140	2.34
50	2000	2.13	15000	115	2.49
75	1635	2.13	20000	100	2.49
100	1400	2.13	25000	90	2.58
250	900	2.13	30000	82	2.58
500	630	2.13	35000	76	2.58
1000	450	2.13	40000	71	2.58
1500	365	2.16	50000	63	2.64
2000	315	2.16	60000	58	2.64
2500	280	2.16	75000	52	2.82
3000	260	2.16	100000	45	3.00

ORDER BY SERIES NUMBER AND RESISTANCE REQUIRED.

Net

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LECTROHM

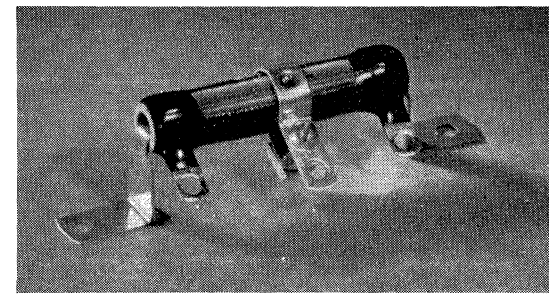
INCORPORATED • CHICAGO, ILLINOIS

VITREOUS ENAMELED RESISTORS

FIXED AND ADJUSTABLE WIRE-WOUND TYPES

Years ahead in manufacturing techniques, LECTROHM Resistors offer absolutely top quality at consistently lower prices. New winding methods and improved enameling processes are the result of continuing research.

Your wire-wound resistor requirements, whether in small or large quantities, are given immediate attention. Large factory stocks of standard types are maintained for your convenience. Special types to fit particular applications are provided quickly and at low cost.



Adjustable Wire-Wound Types

D10 SERIES — 10 WATT

DIMENSIONS ..... 5/16 x 3/16 x 1¾"
MOUNTING BRACKET ..... B-32; Centers 2¼"
TERMINALS ..... Solder lug type
MAXIMUM RESISTANCE ..... 10,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	3150	$ .96	750	115	$ .96
2	2230	.96	800	111	.96
3	1825	.96	1000	100	.96
5	1415	.96	1250	89	1.02
7.5	1155	.96	1500	79	1.02
10	1000	.96	2000	69	1.02
15	815	.96	2250	64	1.02
20	707	.96	2500	61	1.02
25	630	.96	3000	58	1.02
50	447	.96	3500	53	1.02
75	365	.96	4000	50	1.02
100	315	.96	4500	47	1.02
150	258	.96	5000	45	1.02
200	223	.96	6000	41	1.08
250	200	.96	7000	38	1.08
300	182	.96	7500	36	1.08
350	169	.96	8000	35	1.08
400	158	.96	8500	34	1.08
500	141	.96	9000	33	1.08
600	129	.96	10000	31	1.08

D25 SERIES — 25 WATT

DIMENSIONS ..... 1/16 x 5/16 x 2"
MOUNTING BRACKET..... B-33; Centers 2¾"
TERMINALS ..... Solder lug type
MAXIMUM RESISTANCE ..... 25,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	5000	$1.23	1250	141	$1.26
2	3535	1.23	1500	129	1.26
3	2890	1.23	2000	112	1.26
5	2240	1.23	2500	100	1.26
7.5	1825	1.23	3000	91	1.26
10	1580	1.23	3500	84	1.26
15	1290	1.23	4000	79	1.26
20	1117	1.23	4500	74	1.26
25	1000	1.23	5000	71	1.26
50	707	1.23	6000	64	1.32
75	575	1.23	7000	60	1.32
100	500	1.23	7500	57	1.32
150	400	1.23	8000	55	1.32
200	353	1.23	8500	54	1.32
250	316	1.23	9000	52	1.32
300	288	1.23	10000	50	1.32
400	250	1.23	12000	46	1.38
500	224	1.23	15000	41	1.38
750	182	1.23	20000	35	1.38
300	177	1.23	25000	32	1.50
1000	158	1.23			

D50 SERIES — 50 WATT

DIMENSIONS ..... 5/16 x 5/16 x 4"
MOUNTING BRACKET ..... B-33; Centers 4¾"
TERMINALS ..... Solder lug type
MAXIMUM RESISTANCE ..... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	3160	$1.56	3000	129	$1.62
10	2230	1.56	4000	112	1.62
25	1410	1.56	5000	100	1.62
50	1000	1.56	7500	81	1.74
75	816	1.56	10000	70	1.74
100	707	1.56	12000	64	1.86
150	577	1.56	15000	57	1.86
200	500	1.56	20000	50	1.86
250	447	1.56	25000	44	2.04
300	408	1.56	30000	41	2.04
400	354	1.56	40000	35	2.04
500	316	1.56	50000	32	2.16
750	258	1.56	60000	29	2.16
1000	224	1.56	75000	26	2.43
1500	182	1.62	80000	24	2.43
2000	158	1.62	100000	19	2.58
2500	141	1.62			

D75 SERIES — 75 WATT

DIMENSIONS ..... 5/16 x 5/16 x 6"
MOUNTING BRACKET ..... B-33; Centers 6¾"
TERMINALS ..... Solder lug type
MAXIMUM RESISTANCE ..... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	3870	$1.80	3500	146	$1.86
10	2740	1.80	5000	121	1.86
15	2236	1.80	7500	100	1.98
25	1730	1.80	10000	86	1.98
50	1220	1.80	15000	70	2.10
100	865	1.80	20000	61	2.34
250	550	1.80	25000	55	2.34
300	500	1.80	30000	50	2.34
400	430	1.80	40000	43	2.34
500	385	1.80	50000	39	2.40
750	318	1.80	60000	35	2.40
1000	270	1.80	75000	31	2.64
1500	225	1.86	80000	30	2.64
2000	192	1.86	100000	27	2.85
2500	171	1.86			

D100 SERIES — 100 WATT

DIMENSIONS ..... ¾ x ½ x 6½"
MOUNTING BRACKET ..... B-34; Centers 7⅜"
TERMINALS ..... Solder lug type
MAXIMUM RESISTANCE ..... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	4470	$2.37	2500	200	$2.43
10	3162	2.37	3000	180	2.43
25	2000	2.37	5000	140	2.43
50	1414	2.37	7500	115	2.55
75	1155	2.37	10000	100	2.55
100	1000	2.37	15000	80	2.70
150	815	2.37	20000	70	2.70
250	632	2.37	25000	63	2.88
500	447	2.37	30000	58	2.88
750	365	2.37	40000	50	2.88
1000	315	2.37	50000	45	3.00
1250	280	2.43	60000	41	3.00
1500	250	2.43	75000	36	3.12
2000	220	2.43	100000	32	3.27

D160 SERIES — 160 WATT

DIMENSIONS ..... 1⅛ x ¾ x 8½"
MOUNTING BRACKET ..... B-35; Centers 9⅜"
TERMINALS ..... Solder lug type
MAXIMUM RESISTANCE ..... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	5660	$3.51	4500	185	$2.76
10	4000	2.73	5000	180	2.76
25	2530	2.73	7500	145	2.94
50	1788	2.73	10000	125	2.94
75	1460	2.73	15000	105	3.09
100	1260	2.73	20000	90	3.09
200	900	2.73	25000	80	3.18
500	570	2.73	30000	73	3.18
1000	400	2.73	35000	68	3.18
1500	330	2.76	40000	64	3.18
2000	280	2.76	50000	57	3.24
2500	250	2.76	60000	52	3.24
3000	230	2.76	70000	48	3.42
3500	215	2.76	80000	45	3.60
4000	200	2.76	100000	40	3.60

D200 SERIES — 200 WATT

DIMENSIONS ..... 1⅛ x ¾ x 10½"
MOUNTING BRACKET ..... B-35; Centers 11⅜"
TERMINALS ..... Solder lug type
MAXIMUM RESISTANCE ..... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	6310	$3.75	4500	210	$2.94
10	4470	2.88	5000	200	2.94
25	2830	2.88	7500	165	3.12
50	2000	2.88	10000	140	3.12
75	1635	2.88	15000	115	3.24
100	1400	2.88	20000	100	3.24
250	900	2.88	25000	90	3.30
500	630	2.88	30000	82	3.30
1000	450	2.88	35000	76	3.30
1500	365	2.94	40000	71	3.30
2000	315	2.94	50000	63	3.42
2500	280	2.94	60000	58	3.57
3000	260	2.94	75000	52	3.57
3500	240	2.94	100000	45	3.75
4000	225	2.94			

Order by series number and resistance required.

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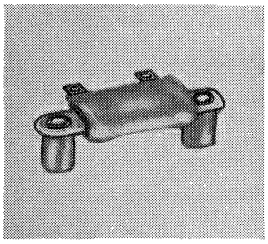
Net

HARDWICK, HINDLE — STOCK BLUE RIBBON RESISTORS

Wirewound Flat Core for Individual and Stack Mounting



- Standard tolerance is ± 5%. Closer tolerance available on order.
- In resistors with values below 10 ohms a special through-bracket construction may be used for greater mechanical strength.
- When stack mounted these resistors should be derated.

10 WATT

Type ¾ BRS-53B
Mounting Centers 1"
Avg. Wt. 0.0083 lbs.

STOCK NO.	OHMS	MAX. AMPS.	STOCK NO.	OHMS	MAX. AMPS.
B348	1	.20	B357	250	3.16
B349	2	.14	B358	500	2.23
B350	5	.10	B359	1000	1.41
B351	10	.081	B360	1500	1.00
B352	15	.063	B361	2500	.82
B353	25	.045	B362	5000	.63
B354	50	.044			
B355	100	.032	B363	10000	.32
B356	150	.026	B364	15000	.26

15 WATT

Type 1 BRS-53B
Mounting Centers 1¼"
Avg. Wt. 0.010 lbs.

STOCK NO.	OHMS	MAX. AMPS.	STOCK NO.	OHMS	MAX. AMPS.
B399	1	3.87	B409	500	.17
B400	2	2.73	B410	1000	.12
B401	5	1.73	B411	1500	.10
B402	10	1.22	B412	2500	.078
B403	15	1.00	B413	5000	.055
B404	25	.78	B414	10000	.039
B405	50	.55			
B406	100	.39	B415	15000	.032
B407	150	.32	B416	20000	.027
B408	250	.25	B417	25000	.025

20 WATT

Type 2 BRS-53B
Mounting Centers 2 5/16"
Avg. Wt. 0.017 lbs.

STOCK NO.	OHMS	MAX. AMPS.	STOCK NO.	OHMS	MAX. AMPS.
B448	1	4.47	B458	500	.20
B449	2	3.16	B459	1000	.14
B450	5	2.00	B460	1500	.12
B451	10	1.41	B461	2500	.089
B452	15	1.16	B462	5000	.063
B453	25	.89	B463	10000	.045
B454	50	.63	B464	15000	.036
B455	100	.45	B465	20000	.032
B456	150	.36	B466	25000	.028
B457	250	.28	B467	50000	.020

20 WATT

Type 1 BRM-37
Mounting Centers 1 5/16"
Avg. Wt. 0.029 lbs.

STOCK NO.	OHMS	MAX. AMPS.	STOCK NO.	OHMS	MAX. AMPS.
B501	5	2.00	B508	250	.28
B502	10	1.41	B509	500	.20
B503	15	1.16	B510	1000	.14
B504	25	.89	B511	1500	.12
B505	50	.63	B512	2500	.089
B506	100	.45	B513	5000	.063
B507	150	.36	B514	8000	.050

30 WATT

Type 1½ BRM-37
Mounting Centers 1 3/4"
Avg. Wt. 0.035 lbs.

STOCK NO.	OHMS	MAX. AMPS.	STOCK NO.	OHMS	MAX. AMPS.
B550	5	2.46	B558	500	.25
B551	10	1.73	B559	1000	.17
B552	15	1.42			
B553	25	1.10	B560	1500	.14
B554	50	.77	B561	2500	.11
B555	100	.55	B562	5000	.076
B556	150	.45	B563	10000	.049
B557	250	.35	B564	15000	.045

30 WATT

Type 1¼ BR-37
Mounting Centers 2"
Avg. Wt. 0.045 lbs.
Military Size RW20

STOCK NO.	OHMS	MAX. AMPS.	STOCK NO.	OHMS	MAX. AMPS.
B100	1.0	5.47	B107	150	.45
B100A	1.2	5.40	B107A	180	.41
B100B	1.5	4.47	B107B	200	.39
B100C	1.8	4.10	B107C	240	.35
B100D	2.0	3.88	B108	250	.35
B100E	2.4	3.53	B108A	300	.32
B100F	3.0	3.16	B108B	360	.28
B100G	3.6	2.88	B108C	430	.26
B100H	4.3	2.64	B109	500	.25
B101	5.0	2.45	B109A	510	.24
B101A	5.1	2.43	B109B	620	.22
B101B	6.2	2.20	B109C	750	.20
B101C	7.5	2.00	B109D	910	.18
B101D	9.1	1.82	B110	1000	.17
B102	10	1.73	B110A	1200	.16
B102A	12	1.58	B111	1500	.14
B103	15	1.42	B111A	1800	.13
B103A	18	1.29	B111B	2000	.12
B103B	20	1.22	B111C	2400	.11
B104	25	1.10	B112	2500	.11
B104A	30	1.00	B112A	3000	.10
B104B	36	.91	B112B	3600	.091
B104C	43	.83	B112C	4300	.083
B105	50	.77	B113	5000	.077
B105A	62	.69	B113A	5100	.076
B105B	75	.63	B113B	6200	.069
B105C	91	.57	B113C	7500	.063
B106	100	.55	B114	10000	.055
B106A	120	.50			

HARDWICK-HINDLE PRODUCTS
HUNTINGTON, INDIANA
MEMCOR/COMPONENTS DIVISION
MODEL ENGINEERING and MANUFACTURING CORP.
MEMCOR®

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STOCK BLUE RIBBON RESISTORS

40 WATT

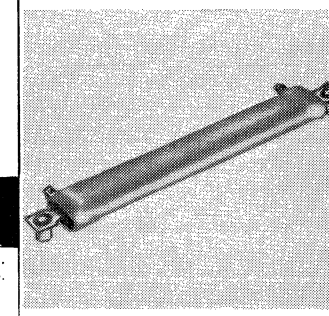
Type 2 BR-37
Mounting Centers 2¾"
Avg. Wt. 0.060 lbs.
Military Size RW21

STOCK NO.	OHMS	MAX. AMPS.	STOCK NO.	OHMS	MAX. AMPS.
B200	1.0	6.32	B207	150	.52
B200A	1.2	5.78	B207A	180	.47
B200B	1.5	5.16	B207B	200	.45
B200C	1.8	4.70	B207C	240	.41
B200D	2.0	4.47	B208	250	.40
B200E	2.4	4.08	B208A	300	.37
B200F	3.0	3.65	B208B	360	.33
B200G	3.6	3.33	B208C	430	.31
B200H	4.3	3.05	B209	500	.28
B201	5.0	2.83	B209A	510	.28
B201A	5.1	2.80	B209B	620	.25
B201B	6.2	2.54	B209C	750	.23
B201C	7.5	2.31	B209D	910	.21
B201D	9.1	2.10	B210	1000	.20
B202	10	2.00	B210A	1200	.18
B202A	12	1.83	B211	1500	.16
B203	15	1.63	B211A	1800	.15
B203A	18	1.49	B211B	2000	.14
B203B	20	1.41	B211C	2400	.13
B204	25	1.26	B212	2500	.13
B204A	30	1.16	B212A	3000	.12
B204B	36	1.05	B212B	3600	.11
B204C	43	.96	B212C	4300	.10
B205	50	.89	B213	5000	.089
B205A	62	.80	B213A	5100	.088
B205B	75	.73	B213B	6200	.080
B205C	91	.66	B213C	7500	.073
B206	100	.63	B214	10000	.063
B206A	120	.58	B215	15000	.051

55 WATT

Type 3½ BR-37
Mounting Centers 4¼"
Avg. Wt. 0.10 lbs.
Military Size RW22

STOCK NO.	OHMS	MAX. AMPS.	STOCK NO.	OHMS	MAX. AMPS.
B300	1.0	.48	B307C	240	7.42
B300A	1.2	.47	B308	250	6.77
B300B	1.5	.43	B308A	300	6.05
B300C	1.8	.39	B308B	360	5.53
B300D	2.0	.36	B308C	430	5.24
B300E	2.4	.33	B309	500	4.78
B300F	3.0	.33	B309A	510	4.28
B300G	3.6	.30	B309B	620	3.91
B300H	4.3	.27	B309C	750	3.58
B301	5.0	.25	B309D	910	3.32
B301A	5.1	.23	B310	1000	3.29
B301B	6.2	.21	B310A	1200	2.98
B301C	7.5	.19	B311	1500	2.72
B301D	9.1	.18	B311A	1800	2.45
B302	10	.17	B311B	2000	2.34
B302A	12	.15	B311C	2400	2.14
B303	15	.15	B312	2500	1.92
B303A	18	.14	B312A	3000	1.75
B303B	20	.12	B312B	3600	1.66
B304	25	.11	B312C	4300	1.48
B304A	30	.10	B313	5000	1.35
B304B	36	.094	B313A	6200	1.23
B304C	43	.086	B313B	7500	1.13
B305	50	.078	B313C	9100	1.05
B305A	62	.074	B314	10000	.94
B305B	75	.068	B314A	12000	.86
B305C	91	.061	B315	15000	.78
B306	100	.055	B315A	18000	.74
B306A	120	.052	B315B	20000	.68
B307	150	.048	B315C	24000	.61
B307A	180	.047	B316	25000	.55
B307B	200	.042	B316A	30000	.52



65 WATT

Type 4¾ BR-37
Mounting Centers 5½"
Avg. Wt. 0.14 lbs.
Military Size RW23

STOCK NO.	OHMS	MAX. AMPS.	STOCK NO.	OHMS	MAX. AMPS.
B649	1.0	8.06	B657	250	.51
B649A	1.2	7.35	B657A	300	.46
B649B	1.5	6.58	B657B	360	.42
B649C	1.8	6.01	B657C	430	.39
B649D	2.0	5.70	B658	500	.36
B649E	2.4	5.20	B658A	510	.36
B649F	3.0	4.66	B658B	620	.32
B649G	3.6	4.25	B658C	750	.29
B649H	4.3	3.88	B658D	910	.27
B650	5.0	3.61	B659	1000	.25
B650A	5.1	3.57	B659A	1200	.23
B650B	6.2	3.24	B660	1500	.21
B650C	7.5	2.94	B660A	1800	.19
B650D	9.1	2.67	B660B	2000	.18
B651	10	2.55	B660C	2400	.16
B651A	12	2.32	B661	2500	.16
B652	15	2.08	B661A	3000	.15
B652A	18	1.90	B661B	3600	.13
B652B	20	1.79	B661C	4300	.12
B652C	24	1.64	B662	5000	.11
B653	25	1.61	B662A	5100	.11
B653A	30	1.47	B662B	6200	.10
B653B	36	1.34	B662C	7500	.093
B653C	43	1.23	B662D	9100	.084
B654	50	1.14	B663	10000	.081
B654A	62	1.02	B663A	12000	.074
B654B	75	.93	B664	15000	.066
B654C	91	.84	B664A	18000	.060
B655	100	.81	B664B	20000	.057
B655A	120	.74	B664C	24000	.052
B656	150	.66	B665	25000	.051
B656A	180	.60	B665A	30000	.046
B656B	200	.57	B665B	36000	.042
B656C	240	.52	B666	50000	.030*

75 WATT

Type 6 BR-37
Mounting Centers 6¾"
Avg. Wt. 0.17 lbs.
Military Size RW24

STOCK NO.	OHMS	MAX. AMPS.	STOCK NO.	OHMS	MAX. AMPS.
B600	1.0	8.66	B607C	240	.56
B600A	1.2	7.91	B608	250	.55
B600B	1.5	7.07	B608A	300	.50
B600C	1.8	6.46	B608B	360	.46
B600D	2.0	6.13	B608C	430	.42
B600E	2.4	5.60	B609	500	.39
B600F	3.0	5.00	B609A	620	.35
B600G	3.6	4.57	B609B	750	.31
B600H	4.3	4.18	B609C	910	.29
B601	5.0	3.87	B610	1000	.27
B601A	5.1	3.84	B610A	1200	.25
B601B	6.2	3.49	B611	1500	.22
B601C	7.5	3.16	B611A	1800	.20
B601D	9.1	2.87	B611B	2000	.19
B602	10	2.74	B611C	2400	.18
B602A	12	2.49	B612	2500	.17
B603	15	2.24	B612A	3000	.15
B603A	18	2.03	B612B	3600	.14
B603B	20	1.93	B612C	4300	.13
B603C	24	1.77	B613	5000	.12
B604	25	1.73	B613A	6200	.11
B604A	30	1.58	B613B	7500	.10
B604B	36	1.44	B613C	9100	.091
B604C	43	1.32	B614	10000	.086
B605	50	1.22	B614A	12000	.079
B605A	51	1.21	B615	15000	.070
B605B	62	1.10	B615A	18000	.065
B605C	75	1.00	B615B	20000	.061
B605D	91	.91	B615C	24000	.056
B606	100	.86	B616	25000	.055
B606A	120	.79	B616A	30000	.050
B607	150	.71	B616B	36000	.046
B607A	180	.65	B617	50000	.033*
B607B	200	.61			

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HARDWICK, HINDLE

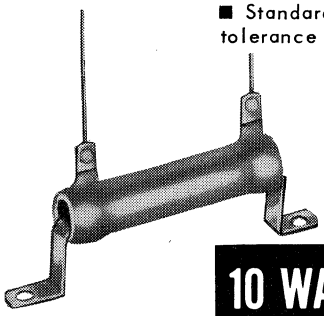
"Gray Line"

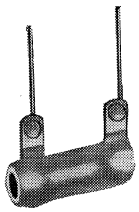
STOCK TAB TYPE FIXED RESISTORS

Sizes: 5 Watts to 200 Watts. 1 Ohm to 100,000 Ohms

■ Features of this widely-used type of resistor, built "better than need be" by Hardwick, Hindle, are welded tabs (lugs) solidly anchored to withstand vibration and hot tin-dipped for easy soldering; shock-absorbing mounting brackets; multi-layer vitreous enamel coating which locks the uniformly-wound resistance wire in position and also locks out moisture; high-temperature stability and compatible coefficient of expansion which prevents crazing and cracking.

■ Standard tolerance is ± 5%. Closer tolerance on special orders.





5 WATT

Type 1Z-34
Core: 1" long x 5/16" o.d.
Avg. Wt. 0.15 lbs.

STOCK NO.	OHMS	MAX. AMPS	STOCK NO.	OHMS	MAX. AMPS
A1	1	2.23	A16	750	.082
A2	3	1.29	A17	1000	.070
A3	5	1.00	A18	1250	.063
A4	7.5	.81	A19	1500	.057
A5	10	.71	A20	2000	.050
A6	15	.58	A21	2500	.045
A7	25	.45	A22	3000	.041
A8	50	.32	A23	4000	.035
A9	75	.26	A24	5000	.032
A10	100	.22	A25	7500	.026
A11	150	.18	A26	10000	.022
A12	200	.16	A27	12500	.020
A13	250	.14	A28	15000	.018
A14	400	.11	A29	20000	.016
A15	500	.10	A30	25000	.014

10 WATT

Type 1¾Z-34
Core: 1¾" long x 5/16" o.d.
Mounting Centers 2 1/8" to 2 3/16" *
Std. mtg. bkt. 5247-1
Avg. Wt. 0.02 lbs.
Military Size RW29

STOCK NO.	OHMS	MAX. AMPS.	STOCK NO.	OHMS	MAX. AMPS.
A101	1.0	3.16	A112	200	.22
A101A	1.2	2.88	A112A	240	.20
A101B	1.5	2.58	A113	250	.20
A101C	1.8	2.35	A113A	300	.18
A101D	2.0	2.24	A113B	360	.17
A101E	2.4	2.03	A114	400	.16
A102	3.0	1.83	A114A	430	.15
A102A	3.6	1.66	A115	500	.14
A102B	4.3	1.52	A115A	510	.14
A103	5.0	1.41	A115B	620	.13
A103A	5.1	1.39	A116	750	.12
A103B	6.2	1.27	A116A	910	.11
A104	7.5	1.16	A117	1000	.10
A104A	9.1	1.05	A117A	1200	.091
A105	10	1.00	A118	1250	.089
A105A	12	.91	A119	1500	.081
A106	15	.82	A119A	1800	.075
A106A	18	.74	A120	2000	.071
A106B	20	.71	A120A	2400	.064
A106C	24	.65	A121	2500	.063
A107	25	.63	A122	3000	.057
A107A	30	.58	A122A	3600	.053
A107B	36	.53	A123	4000	.050
A107C	43	.48	A123A	4300	.048
A108	50	.45	A124	5000	.045
A108A	51	.45	A124A	5100	.045
A108B	62	.40	A125	7500	.036
A109	75	.37	A126	10000	.032
A109A	91	.33	A127	12500	.028
A110	100	.32	A128	15000	.026
A110A	120	.29	A129	20000	.022
A111	150	.26	A130	25000	.020
A111A	180	.24			

20 WATT

Type 2H-34
Core: 2" long x 7/16" o.d.
Mounting Centers 2 5/8" to 2 1/4" *
Std. mtg. bkt. 5247-2
Avg. Wt. 0.03 lbs.
Military Size RW32

STOCK NO.	OHMS	MAX. AMPS.	STOCK NO.	OHMS	MAX. AMPS.
A200	1.0	4.47	A209	250	.28
A200A	1.2	4.08	A209A	300	.26
A200B	1.5	3.64	A209B	360	.24
A200C	1.8	3.33	A210	400	.22
A200D	2.0	3.16	A210A	430	.22
A200E	2.4	2.89	A211	500	.20
A200F	3.0	2.58	A211A	510	.20
A200G	3.6	2.35	A211B	620	.18
A200H	4.3	2.15	A212	750	.16
A201	5.0	2.00	A212A	910	.15
A201A	5.1	1.98	A213	1000	.14
A201B	6.2	1.79	A213A	1200	.13
A201C	7.5	1.63	A214	1250	.12
A201D	9.1	1.48	A215	1500	.12
A202	10	1.41	A215A	1800	.11
A202A	12	1.29	A216	2000	.10
A202B	15	1.15	A216A	2400	.091
A202C	18	1.05	A217	2500	.089
A202D	20	1.00	A218	3000	.081
A202E	24	.91	A218A	3600	.075
A203	25	.89	A219	4000	.070
A203A	30	.82	A219A	4300	.068
A203B	36	.75	A220	5000	.063
A203C	43	.68	A220A	5100	.062
A204	50	.63	A221	6000	.057
A204A	51	.62	A221A	6200	.057
A204B	62	.57	A222	7500	.051
A205	75	.52	A222A	9100	.047
A205A	91	.47	A223	10000	.045
A206	100	.45	A224	12500	.040
A206A	120	.44	A225	15000	.036
A207	150	.36	A226	25000	.028
A207A	180	.33	A227	35000	.024
A208	200	.32	A228	40000	.022
A208A	240	.29	A229	50000	.020

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STOCK TAB TYPE FIXED RESISTORS

"Gray Line"

25 WATT

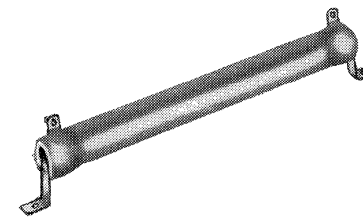
Type 2 JX-35
Core: 2" long x 9/16" o.d.
Mounting Centers
2 5/8" to 2 3/4" *
Std. mtg. bkt. 5247-2
Avg. Wt. 0.05 lbs.

STOCK NO.	OHMS	MAX. AMPS.
1001	5	2.24
1002	10	1.58
1003	25	1.00
1004	50	.71
1005	75	.58
1006	100	.50
1007	150	.41
1008	200	.35
1009	250	.32
1010	500	.22
1011	750	.18
1012	1000	.16
1013	1500	.13
1014	2000	.12
1015	2500	.10
1016	3000	.091
1017	3500	.084
1018	4000	.079
1019	5000	.070
1020	6000	.064
1021	7500	.057
1022	10000	.050
1023	12000	.046
1024	15000	.041
1025	20000	.035
1026	25000	.032

50 WATT

Type 4 JX-35
Core: 4" long x 9/16" o.d.
Mounting Centers
4 5/8" to 4 3/4" *
Std. mtg. bkt. 5247-2
Avg. wt. 0.15 lbs.

STOCK NO.	OHMS	MAX. AMPS.
2000	1	7.07
2001	5	3.16
2002	10	2.23
2003	25	1.41
2004	50	1.00
2005	75	.82
2006	100	.71
2007	150	.58
2008	200	.50
2009	250	.45
2010	500	.32
2011	750	.26
2012	1000	.22
2013	1500	.18
2014	2000	.16
2015	2500	.14
2016	3000	.13
2017	4000	.11
2018	5000	.10
2019	7500	.081
2020	10000	.071
2021	12000	.064
2022	15000	.057
2023	20000	.050
2024	25000	.045
2025	35000	.038
2026	50000	.032



TO ORDER:
Stock items: Specify stock number, type, ohms and quantity.

Mounting brackets: Specify bracket catalog number separately if required. Furnished only on request.

STANDARD PACKAGING:
25 watt and larger sizes packed 1 unit per box.

100 WATT

Type 6 1/2 L-35
Core: 6 1/2" long x 3/4" o.d.
Mounting Centers
7 1/4" to 7 3/8" *
Std. mtg. bkt. 5247-3
Avg. Wt. 0.35 lbs.

STOCK NO.	OHMS	MAX. AMPS.
3000	1	10.00
3001	3	5.77
3002	5	4.47
3003	10	3.16
3004	25	2.00
3005	50	1.41
3006	75	1.15
3007	100	1.00
3008	250	.63
3009	500	.45
3010	1000	.32
3011	1500	.26
3012	2000	.22
3013	2500	.20
3014	3000	.18
3015	4000	.16
3016	5000	.14
3017	7500	.12
3018	10000	.10
3019	15000	.081
3020	20000	.071
3021	25000	.063
3022	30000	.058
3023	35000	.054
3024	40000	.050
3025	50000	.045
3026	60000	.041
3027	75000	.036

160 WATT

Type 8 1/2 FX-57
Core: 8 1/2" long x 1 1/8" o.d.
Mounting Centers
9 1/4" to 9 3/8" *
Std. mtg. bkt. 5247-4
Avg. Wt. 0.53 lbs.

STOCK NO.	OHMS	MAX. AMPS.
4001	5	5.66
4002	10	4.00
4003	25	2.53
4004	50	1.79
4005	75	1.46
4006	100	1.26
4007	150	1.03
4008	250	.80
4009	500	.57
4010	750	.46
4011	1000	.40
4012	1500	.33
4013	2000	.28
4014	2500	.25
4015	3000	.23
4016	5000	.18
4017	7500	.15
4018	10000	.13
4019	15000	.10
4020	20000	.089
4021	25000	.080
4022	30000	.073
4023	40000	.063
4024	50000	.057
4025	75000	.046
4026	100000	.040

200 WATT

Type 10 1/2 FX-57
Core: 10 1/2" long x 1 1/8" o.d.
Mounting Centers
11 1/4" to 11 3/8" *
Std. mtg. bkt. 5247-4
Avg. Wt. 0.65 lbs.

STOCK NO.	OHMS	MAX. AMPS.
5001	5	6.32
5002	10	4.47
5003	25	2.83
5004	50	2.00
5005	75	1.64
5006	100	1.41
5007	150	1.15
5008	250	.89
5009	500	.63
5010	750	.52
5011	1000	.45
5012	1500	.37
5013	2000	.32
5014	2500	.28
5015	3000	.26
5016	5000	.20
5017	7500	.16
5018	10000	.14
5019	15000	.12
5020	20000	.10
5021	25000	.089
5022	30000	.082
5023	40000	.071
5024	50000	.063
5025	75000	.052
5026	100000	.045

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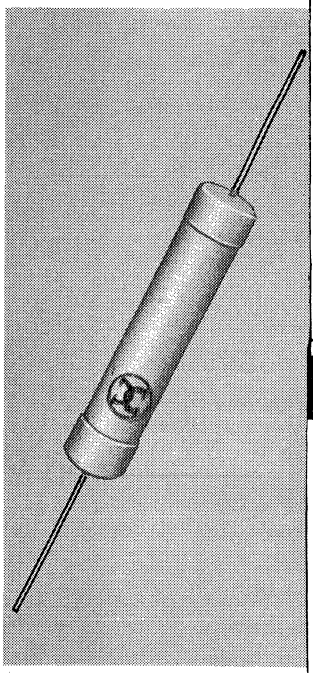
HARDWICK, HINDLE "Gray Line"

STOCK AXIAL LEAD RESISTORS

Gray Vitreous Enameled Fixed Type

These lightweight resistors are designed for mounting by their leads. Special care is taken to provide every element required for making stable trouble-free connections.

■ Stock tolerance is ± 5%. Closer tolerance is available at additional cost.



3 WATT

Type 5/16 GA-46
5/16" long max. x 1/4" o.d. max.
Avg. Wt. 0.003 lbs. Military Size RW59

STOCK NO.	OHMS	MAX. AMPS.	STOCK NO.	OHMS	MAX. AMPS.
701	1.0	1.73	721	200	.12
701A	1.2	1.58	722	225	.12
702	1.5	1.41	723	250	.11
702A	1.8	1.29	724	300	.10
703	2.0	1.22	725	350	.093
703A	2.4	1.12	726	400	.087
704	3.0	1.00	726A	430	.083
704A	3.6	.91	727	450	.082
705	4.0	.86	728	500	.078
705A	4.3	.83	729	600	.071
706	5.0	.78	729A	620	.069
706A	5.1	.77	730	700	.065
706B	6.2	.69	731	750	.063
707	7.5	.63	732	800	.061
707A	9.1	.57	732A	820	.060
708	10	.55	733	900	.058
709	12	.50	734	1000	.055
710	15	.45	735	1100	.052
710A	18	.41	736	1200	.050
711	20	.39	737	1250	.049
711A	24	.35	738	1500	.045
712	25	.35	739	1750	.041
713	30	.32	740	2000	.039
714	35	.29	741	2250	.036
714A	36	.28	742	2500	.035
715	40	.27	743	3000	.032
715A	43	.26	744	3500	.029
716	50	.25	745	4000	.027
716A	51	.24	746	4500	.026
716B	62	.22	747	5000	.025
717	75	.20	748	6000	.022
717A	91	.18	749	7000	.020
718	100	.17	750	7500	.020
718A	120	.16	751	8000	.019
719	125	.16	752	9000	.018
720	150	.14	753	10000	.017
720A	180	.13			

5 WATT

Type 1 WA-46
1" long max. x 11/32" o.d. max.
Avg. Wt. 0.007 lbs. Military Size RW57

STOCK NO.	OHMS	MAX. AMPS.	STOCK NO.	OHMS	MAX. AMPS.
801	1.0	2.23	826A	430	.11
801A	1.2	2.03	827	450	.10
802	1.5	1.82	828	500	.10
802A	1.8	1.66	829	600	.091
803	2.0	1.58	829A	620	.090
803A	2.4	1.44	830	700	.084
804	3.0	1.29	831	750	.081
804A	3.6	1.17	832	800	.079
805	4.0	1.12	833	900	.074
805A	4.3	1.06	834	1000	.070
806	5.0	1.00	835	1100	.067
806A	6.2	.90	836	1200	.064
807	7.5	.81	837	1250	.063
807A	9.1	.74	838	1500	.057
808	10	.71	839	1750	.053
809	12	.65	840	2000	.050
810	15	.58	841	2250	.047
810A	18	.53	841A	2400	.045
811	20	.50	842	2500	.045
812	25	.45	843	3000	.041
813	30	.41	844	3500	.037
814	35	.38	845	4000	.035
815	40	.35	846	4500	.033
815A	43	.34	847	5000	.032
816	50	.32	848	6000	.029
816A	62	.28	849	7000	.027
817	75	.26	850	7500	.026
817A	91	.23	851	8000	.025
818	100	.22	852	9000	.024
819	125	.20	853	10000	.022
820	150	.18	854	12500	.020
820A	180	.17	855	15000	.018
821	200	.16	856	17500	.017
822	225	.15	857	18000	.017
823	250	.14	858	20000	.016
824	300	.13	859	22500	.015
825	350	.12	860	25000	.014
826	400	.11			

10 WATT

Type 1¾ ZA-46
1¾" long max. x 11/32" o.d. max.
Avg. Wt. 0.013 lbs. Military Size RW58

STOCK NO.	OHMS	MAX. AMPS.	STOCK NO.	OHMS	MAX. AMPS.
901	1.0	3.16	930	700	.12
901A	1.2	2.88	931	750	.12
902	1.5	2.58	932	800	.11
902A	1.8	2.35	933	900	.11
903	2.0	2.24	934	1000	.10
903A	2.4	2.03	935	1100	.095
904	3.0	1.83	936	1200	.091
904A	3.6	1.66	937	1250	.089
905	4.0	1.58	938	1500	.081
905A	4.3	1.52	939	1750	.075
906	5.0	1.41	940	2000	.071
906A	5.1	1.39	941	2250	.066
906B	6.2	1.27	941A	2400	.064
907	7.5	1.16	942	2500	.063
907A	9.1	1.05	943	3000	.057
908	10	1.00	944	3500	.053
909	12	.91	945	4000	.050
910	15	.82	945A	4300	.048
910A	18	.74	946	4500	.047
911	20	.71	947	5000	.045
912	25	.63	948	6000	.041
913	30	.58	948A	6200	.040

10 WATT

Type 1¾ ZA-46
1¾" long max. x 11/32" o.d. max.
Avg. Wt. 0.013 lbs. Military Size RW58

STOCK NO.	OHMS	MAX. AMPS.	STOCK NO.	OHMS	MAX. AMPS.
914	35	.54	949	7000	.038
915	40	.50	950	7500	.036
915A	43	.48	951	8000	.035
916	50	.45	952	8500	.034
916A	62	.40	953	9000	.033
917	75	.37	954	10000	.032
917A	91	.33	955	11000	.030
918	100	.32	956	12000	.029
919	125	.28	957	12500	.028
920	150	.26	958	13500	.027
920A	180	.24	959	15000	.026
921	200	.22	960	16000	.025
922	225	.22	961	17500	.024
923	250	.20	962	18000	.023
924	300	.18	963	20000	.022
925	350	.17	964	22500	.021
926	400	.16	965	25000	.020
926A	430	.15	966	30000	.018
927	450	.15	967	35000	.017
928	500	.14	968	40000	.016
929	600	.13	969	45000	.015
929A	620	.13	970	50000	.014

HARDWICK-HINDLE PRODUCTS
HUNTINGTON, INDIANA
MEMCOR/COMPONENTS DIVISION
MODEL ENGINEERING and MANUFACTURING CORP.
MEMCOR®

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STOCK TAB TYPE ADJUSTABLE RESISTORS

Size Range: 10 to 200 Watts. 1 Ohm to 100'000 Ohms

"Gray Line"

10 WATT

Type 1¾ Z 37
Core: 1¾" long x 5/16" o.d.
Mounting Centers 2⅛" to 2⅛"*
Std. mtg. bkts. 5247-1
Avg. Wt. 0.02 lbs.
Adj. band 59E
Military Size RX29

STOCK NO.	OHMS	MAX. AMPS.
C10	1	3.16
C11	3	1.83
C12	5	1.41
C13	7.5	1.16
C14	10	1.00
C15	25	.82
C16	50	.63
C17	75	.45
C18	100	.32
C19	150	.26
C20	200	.22
C21	250	.20
C22	400	.16
C23	500	.14
C24	750	.12
C25	1000	.10
C26	1250	.089
C27	1500	.081
C28	2000	.071
C29	2500	.063
C30	3000	.057
C31	4000	.050
C32	5000	.045
C33	7500	.036
C34	10000	.032

25 WATT

Type 2 JX-35
Core: 2" long x 5/16" o.d.
Mounting Centers 2⅝" to 2¾"*
Std. mtg. bkts. 5247-2
Avg. Wt. 0.06 lbs.
Adj. band 50EA

STOCK NO.	OHMS	MAX. AMPS.
6001	1	5.00
6002	2	3.54
6003	3	2.88
6004	5	2.24
6005	10	1.58
6006	20	1.12
6007	25	1.00
6008	50	.71
6009	75	.58
6010	100	.50
6011	200	.35
6012	300	.29
6013	400	.25
6014	500	.22
6015	750	.18
6016	800	.17
6017	1000	.16
6018	1250	.14
6019	1500	.13
6020	2000	.12
6021	2500	.10
6022	3000	.091
6023	3500	.084
6024	4000	.079
6025	5000	.070
6026	6000	.064
6027	7000	.060
6028	8000	.055
6029	10000	.050
6030	15000	.041
6031	20000	.035
6032	25000	.032

50 WATT

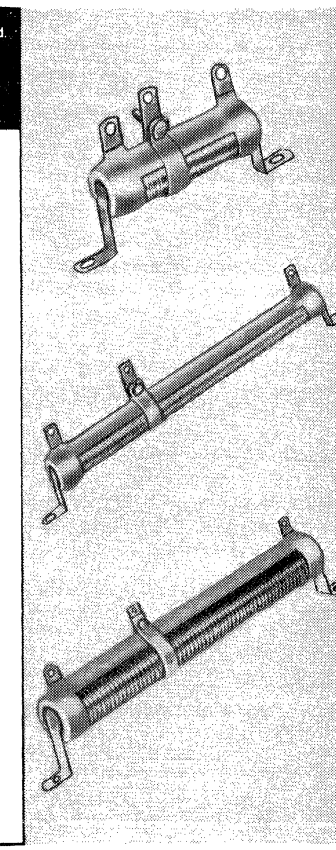
Type 4 JX-35
Core: 4" long x 5/16" o.d.
Mounting Centers 4⅝" to 4¾"*
Std. mtg. bkt. 5247-2
Avg. Wt. 0.13 lbs.
Adj. band 50EA

STOCK NO.	OHMS	MAX. AMPS.
7001	5	3.16
7002	10	2.23
7003	25	1.41
7004	50	1.00
7005	75	.82
7006	100	.71
7007	200	.50
7008	250	.45
7009	300	.41
7010	400	.35
7011	500	.32
7012	750	.26
7013	800	.25
7014	1000	.22
7015	1500	.18
7016	2000	.16
7017	2500	.14
7018	3000	.13
7019	4000	.11
7020	5000	.10
7021	6000	.091
7022	7000	.084
7023	7500	.081
7024	8000	.079
7025	9000	.074
7026	10000	.071
7027	12000	.064
7028	15000	.057
7029	20000	.050
7030	25000	.045
7031	30000	.041
7032	40000	.035
7033	50000	.032

75 WATT

Type 6 JX-35
Core: 6" long x 5/16" o.d.
Mounting Centers 6⅜" to 6¼"*
Std. mtg. bkt. 5247-2
Avg. Wt. 0.17 lbs.
Adj. band 50EA

STOCK NO.	OHMS	MAX. AMPS.
8001	5	3.87
8002	10	2.74
8003	15	2.24
8004	25	1.73
8005	50	1.22
8006	100	.86
8007	200	.61
8008	300	.50
8009	400	.43
8010	500	.39
8011	750	.32
8012	1000	.27
8013	1500	.22
8014	2000	.19
8015	2500	.17
8016	3000	.16
8017	4000	.14
8018	5000	.12
8019	6000	.11
8020	7000	.10
8021	7500	.10
8022	10000	.086
8023	15000	.070
8024	20000	.061
8025	25000	.054
8026	30000	.050
8027	40000	.043
8028	50000	.039
8029	60000	.036
8030	80000	.033
8031	100000	.027



100 WATT

Type 6½ L-35
Core: 6½" long x ¾" o.d.
Mounting Centers 7¼" to 7¾"*
Std. mtg. bkt. 5247-3
Avg. Wt. 0.42 lbs.
Adj. band 50EA

STOCK NO.	OHMS	MAX. AMPS.
9001	5	4.47
9002	10	3.16
9003	25	2.00
9004	50	1.41
9005	100	1.00
9006	250	.63
9007	500	.45
9008	1000	.32
9009	1500	.26
9010	2500	.20
9011	5000	.14
9012	10000	.10
9013	15000	.081
9014	20000	.071
9015	25000	.063
9016	30000	.058
9017	40000	.050
9018	50000	.045
9019	75000	.036
9020	100000	.032

160 WATT

Type 8½ FX-57
Core: 8½" long x 1⅛" o.d.
Mounting Centers 9¼" to 9⅝"*
Std. mtg. bkt. 5247-4
Avg. Wt. 0.58 lbs.
Adj. band 58E

STOCK NO.	OHMS	MAX. AMPS.
9030	5	5.66
9031	10	4.00
9032	25	2.53
9033	50	1.79
9034	100	1.26
9035	250	.80
9036	500	.57
9037	1000	.40
9038	1500	.33
9039	2500	.25
9040	5000	.18
9041	10000	.13
9042	15000	.10
9043	20000	.089
9044	25000	.080
9045	30000	.073
9046	40000	.063
9047	50000	.057
9048	75000	.046
9049	100000	.040

200 WATT

Type 10½ FX-57
Core 10½" long x 1⅛" o.d.
Mounting Centers 11¼" to 11⅝"*
Std. mtg. bkt. 5247-4
Avg. Wt. 0.70 lbs.
Adj. band 58E

STOCK NO.	OHMS	MAX. AMPS.
9060	5	6.32
9061	10	4.47
9062	25	2.83
9063	50	2.00
9064	100	1.41
9065	250	.89
9066	500	.63
9067	1000	.45
9068	2500	.28
9069	5000	.20
9070	10000	.14
9071	15000	.12
9072	20000	.10
9073	25000	.089
9074	30000	.082
9075	40000	.071
9076	50000	.063
9077	75000	.052
9078	100000	.045

"Gray Line" resistors are especially useful in laboratories for experimental work, circuit design, etc.

The wattage rating given here (and the tolerance of ± 10%) is for the entire resistor, without adjustable band. Never exceed the maximum current rating through any portion of the resistor.

TO ORDER

Stock items: Specify stock number, type, ohms, word adjustable and quantity.

Mounting Brackets: Specify bracket catalog number separately, if required. Furnished on request only.

STANDARD PACKAGING: Ten watt size packed 10 units per box. Larger sizes packed one unit per box.

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HUNTINGTON, INDIANA
MEMCOR/COMPONENTS DIVISION
MODEL ENGINEERING and MANUFACTURING CORP.
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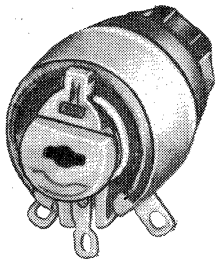
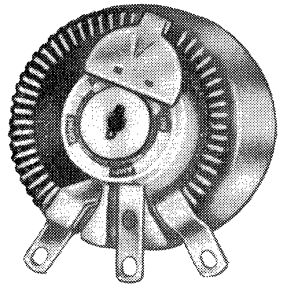
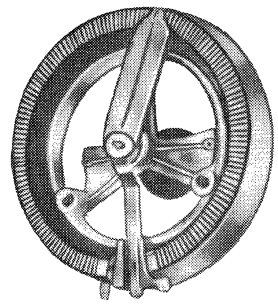
HARDWICK, HINDLE "Gray Line"

STOCK RHEOSTATS POTENTIOMETERS







Type H-12 1/2 (12½ WATT)

CODE: H-12½-R-⅛ _____ (Ohms)

Diameters: Base ⅞", Shaft ⅛"
Military Size RP06

Stock No.	Ohms	Max. Amps *	Approx. No. of Steps
0101	1.0	3.53	32
0102	1.5	2.90	32
0103	2.0	2.50	32
0104	2.5	2.24	32
0105	3.0	2.04	45
0106	5.0	1.58	58
0107	6.0	1.44	55
0108	8.0	1.25	55
0109	10.0	1.12	48
0110	15	.91	60
0111	25	.71	72
0112	35	.60	90
0113	50	.50	90
0114	75	.41	98
0115	100	.35	98
0116	125	.32	130
0117	150	.29	145
0118	175	.27	137
0119	200	.25	150
0120	250	.22	155
0121	350	.19	170
0122	500	.16	200
0123	750	.13	230
0124	1000	.11	235
0125	1500	.091	270
0126	2500	.071	300
0127	3500	.060	358
0128	5000	.050	402

Type H-25 (25 WATT)

CODE: H-25-F-¼ _____ (Ohms)

Diameters: Base 1 9/16", Shaft ¼"
Military Size RP10
U.L. listed for series use.

Stock No.	Ohms	Max. Amps *	Approx. No. of Steps
0201	0.50	7.06	29
0202	0.75	5.77	29
0203	1.0	5.00	29
0204	1.5	4.08	29
0205	2.5	3.16	45
0206	5.0	2.24	53
0207	7.5	1.82	53
0208	10	1.58	53
0209	15	1.29	85
0210	25	1.00	100
0211	50	.706	100
0212	75	.577	116
0213	100	.500	120
0214	150	.408	148
0215	250	.316	170
0216	500	.224	200
0217	750	.182	295
0218	1000	.158	320
0219	1500	.129	380
0220	2500	.100	390
0221	3500	.084	333
0222	5000	.070	494

Type H-50 (50 WATT)

CODE: H-50-F-¼ _____ (Ohms)

Diameters: Base 2⅜", Shaft ¼"
Military Size RP15
U.L. listed for series and potentiometer use.

Stock No.	Ohms	Max. Amps *	Approx. No. of Steps
0301	0.50	10.0	25
0302	0.75	8.16	25
0303	1.0	7.06	52
0304	1.5	5.77	52
0305	2.5	4.48	52
0306	5.0	3.16	52
0307	7.5	2.58	82
0308	10	2.24	98
0309	15	1.82	98
0310	25	1.41	98
0311	50	1.00	129
0312	75	.816	153
0313	100	.706	157
0314	150	.577	187
0315	250	.448	258
0316	500	.316	308
0317	750	.258	294
0318	1000	.224	390
0319	1500	.182	364
0320	2500	.141	485
0321	5000	.100	480
0322	7500	.082	740
0323	10000	.070	750

Type H-75 (75 WATT)

CODE: H-75-F-¼ _____ (Ohms)

Diameters: Base 2¾", Shaft ¼"
Military Size RP20
U.L. listed for series and potentiometer use.

Stock No.	Ohms	Max. Amps *	Approx. No. of Steps
0351	0.5	12.25	27
0352	0.75	10.0	25
0353	1.0	8.66	23
0354	1.5	7.07	25
0355	2.5	5.48	46
0356	5.0	3.87	47
0357	7.5	3.16	48
0358	10	2.74	51
0359	15	2.24	120
0360	25	1.73	101
0361	50	1.22	155
0362	75	1.00	157
0363	100	.866	165
0364	150	.707	198
0365	250	.548	209
0366	500	.387	260
0367	750	.316	314
0368	1000	.274	317
0369	1500	.224	390
0370	2500	.173	516
0371	5000	.122	665
0372	7500	.100	620
0373	10000	.087	630

Type H-100 (100 WATT)

CODE: H-100-F-¼ _____ (Ohms)

Diameters: Base 3⅛", Shaft ¼"
Military Size RP25
U.L. listed for series and potentiometer use.

Stock No.	Ohms	Max. Amps *	Approx. No. of Steps
0401	0.50	14.2	30
0402	0.75	11.6	30
0403	1.0	10.0	30
0404	1.5	8.16	30
0405	2.5	6.34	54
0406	5.0	4.48	54
0407	7.5	3.66	54
0408	10	3.16	54
0409	15	2.58	112
0410	25	2.00	108
0411	50	1.42	127
0412	75	1.16	151
0413	100	1.00	160
0414	150	.816	190
0415	250	.634	250
0416	500	.448	302
0417	750	.366	303
0418	1000	.316	317
0419	1500	.258	375
0420	2500	.200	494
0421	5000	.141	610
0422	7500	.115	700
0423	10000	.100	740

Type H-150 (150 WATT)

CODE: H-150-F-¼ _____ (Ohms)

Diameters: Base 4", Shaft ¼"
Military Size RP30
U.L. listed for series and potentiometer use.

Stock No.	Ohms	Max. Amps *	Approx. No. of Steps
0501	0.50	17.30	26
0502	0.75	14.10	30
0503	1.00	12.25	40
0504	1.5	10.00	37
0505	2.5	7.75	39
0506	5.0	5.48	79
0507	7.5	4.47	75
0508	10	3.88	77
0509	15	3.16	151
0510	25	2.45	151
0511	50	1.73	192
0512	75	1.41	224
0513	100	1.22	204
0514	150	1.00	200
0515	250	.775	252
0516	500	.548	362
0517	750	.447	378
0518	1000	.388	398
0519	1500	.316	483
0520	2500	.245	635
0521	5000	.173	790
0522	7500	.141	940
0523	10000	.122	1020

Type H-225 (225 WATT)

CODE: H-225-F-1¼ _____ (Ohms)

Diameters: Base 5", Shaft ⅜"
Military Size RP35

Stock No.	Ohms	Max. Amps *	Approx. No. of Steps
0530	1	15.00	55
0531	1.5	12.30	55
0532	2	10.60	55
0533	2.5	9.50	55
0534	3	8.66	55
0535	4	7.50	55
0536	5	6.71	55
0537	7.5	5.49	115
0538	10	4.74	115
0539	15	3.87	115
0540	25	3.00	115
0541	50	2.12	256
0542	75	1.73	306
0543	100	1.50	315
0544	150	1.22	385
0545	200	1.06	357
0546	250	.950	350
0547	300	.866	335
0548	400	.750	344
0549	500	.671	450
0550	700	.567	495
0551	750	.549	533
0552	900	.500	500
0553	1000	.474	555
0554	1200	.433	526
0555	1500	.387	630
0556	1750	.358	620
0557	2500	.300	670

Type H-300 (300 WATT)

CODE: H-300-F-1¼ _____ (Ohms)

Diameters: Base 6", Shaft ⅜"
Military Size RP40

Stock No.	Ohms	Max. Amps *	Approx. No. of Steps
0601	1	17.32	49
0602	1.5	14.15	47
0603	2	12.24	49
0604	2.5	10.95	70
0605	3	10.00	73
0606	4	8.66	70
0607	5	7.75	66
0608	7.5	6.32	71
0609	10	5.48	136
0610	15	4.47	144
0611	25	3.46	145
0612	50	2.45	245
0613	75	2.00	310
0614	100	1.73	327
0615	150	1.41	394
0616	200	1.22	420
0617	250	1.09	525
0618	300	1.00	420
0619	400	.866	440
0620	500	.775	440
0621	700	.655	502
0622	750	.633	540
0623	900	.578	521
0624	1000	.548	580
0625	1200	.500	690
0626	1500	.449	680
0627	1750	.414	634
0628	2500	.346	862

Type H-500 (500 WATT)

CODE: H-500-F-1¼ _____ (Ohms)

Diameters: Base 8", Shaft ⅜"
Military Size RP45

Stock No.	Ohms	Max. Amps *	Approx. No. of Steps
0701	1	22.3	70
0702	1.5	18.2	64
0703	2	15.8	68
0704	2.5	14.1	67
0705	3	12.9	65
0706	4	11.2	96
0707	5	10.0	96
0708	7.5	8.17	98
0709	8	7.90	97
0710	10	7.07	105
0711	12.5	6.30	103
0712	15	5.77	202
0713	16	5.60	192
0714	25	4.47	195
0715	40	3.54	205
0716	50	3.16	200
0717	75	2.58	395
0718	80	2.52	425
0719	100	2.24	450
0720	125	2.00	505
0721	150	1.82	544
0722	175	1.69	500
0723	250	1.41	570
0724	325	1.24	515
0725	500	1.00	620
0726	750	.817	740
0727	1000	.707	780
0728	.500	.577	940
0729	2000	.500	986
0730	2500	.447	940

Type H-750 (750 WATT)

CODE: H-750-F-1¼ _____ (Ohms)

Diameters: Base 10", Shaft ⅜"
Military Size RP50

Stock No.	Ohms	Max. Amps *	Approx. No. of Steps
0801	1	27.4	85
0802	1.5	22.3	85
0803	2	19.4	81
0804	2.5	17.3	87
0805	3	15.8	83
0806	4	13.6	87
0807	5	12.2	122
0808	7.5	10.0	129
0809	8	9.65	122
0810	10	8.65	121
0811	12.5	7.75	120
0812	15	7.07	127
0813	16	6.82	120
0814	25	5.47	210
0815	30	3.87	238
0816	75	3.19	250
0817	80	3.06	266
0818	100	2.74	265
0819	150	2.23	500
0820	160	2.17	485
0821	200	1.94	472
0822	250	1.73	470
0823	300	1.58	500
0824	400	1.37	472
0825	500	1.22	565
0826	600	1.12	677
0827	750	1.00	670
0828	1000	.865	715
0829	1200	.791	860
0830	1500	.707	840
0831	1800	.646	1020
0832	2500	.547	1085

Type H-1000 (1000 WATT)

CODE: H-1000-F-1¼ _____ (Ohms)

Diameters: Base 12", Shaft ⅜"
Military Size RP55

Stock No.	Ohms	Max. Amps *	Approx. No. of Steps
0901	1	31.60	81
0902	1.5	25.80	84
0903	2	22.40	109
0904	2.5	20.00	105
0905	3	18.30	113
0906	4	15.80	106
0907	5	14.10	155
0908	7.5	11.50	105
0909	8	11.20	105
0910	10	10.00	105
0911	12.5	8.95	165
0912	15	8.16	156
0913	16	7.90	166
0914	25	6.33	160
0915	50	4.47	331
0916	75	3.65	303
0917	100	3.16	320
0918	150	2.58	306
0919	175	2.39	550
0920	225	2.11	585
0921	250	2.00	640
0922	300	1.83	605
0923	400	1.58	640
0924	500	1.41	635
0925	750	1.15	820
0926	1000	1.00	862
0927	1500	.816	1030
0928	2500	.633	1300

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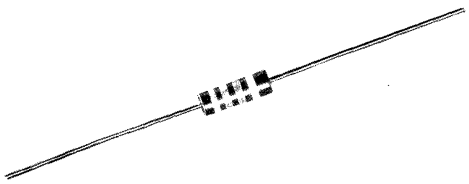
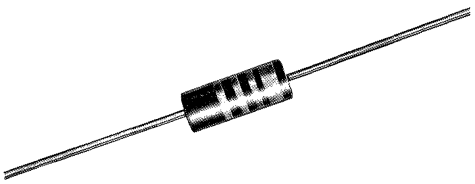
INTERNATIONAL RESISTANCE COMPANY



FIXED COMPOSITION RESISTORS. IRC's unique design of ½- and 1-watt resistors mean better performance and reliability. 50% more molding around the resistance element assures greater moisture protection. The working element is a layer of carbon thermally bonded to an inert glass filament for better resistance and temperature characteristics. Ribbed, shoulder leads are deeply imbedded in the molding to prevent twist or pull-out and act as heat sinks to conduct heat away for cooler operation and longer field life.



VERSATILE WIREWOUND RESISTORS. Type BWH is a new molded wirewound resistor that can be used as a direct replacement for composition resistors at about half the price. In one size (RC32) it covers 3 different wattage requirements and provides substantial cost savings over 1 and 2 watt fixed composition units, and space saving over 2 watt RC42 size units. The BWH has the stability, reliability and long life of a wirewound unit. It meets all the performance requirements of MIL-R-11.

IRC TYPE	SR¼	GBT½	GBT 1	SR 2	BWH
MIL Style	RC07	RC20	RC32	RC42	—
MIL Characteristic	GF	GF	GF	GF	—
Rating	¼w @ 70° amb.	½w @ 70° amb.	1w @ 70° amb.	2w @ 70° amb.	½w @ 137° amb. 1w @ 115° amb. 2w @ 70° amb.
Minimum Resistance	10 ohms	2.7 ohms	10 ohms	10 ohms	0.24 ohm
Maximum Resistance	1 meg	22 meg	22 meg	22 meg	1,000 ohms
Rated Voltage	250V	350V	500V	500V	—
Dimensions—					
Body size	.250" x .090" dia.	.390" x .140" dia.	.562" x .225" dia.	11/16" x 5/16" dia.	.562" x .225" dia.
Lead size	1½" x .025" dia.	1½" x .031" dia.	1½" x .040" dia.	1½" x 3/64" dia.	1½" x .040" dia.

STANDARD STOCK VALUES. 10% and 5% tolerance. 10% in bold type. All values available in 5%. Values are indicated on each resistor by EIA color code.

0.24	1.1	5.1	24	110	510	2,400	11K	51K	240K	1.1 meg.	5.1 meg.
0.27	**1.2**	**5.6**	**27**	**120**	**560**	**2,700**	**12K**	**56K**	**270K**	**1.2 meg.**	**5.6 meg.**
0.30	1.3	6.2	30	130	620	3,000	13K	62K	300K	1.3 meg.	6.2 meg.
0.33	**1.5**	**6.8**	**33**	**150**	**680**	**3,300**	**15K**	**68K**	**330K**	**1.5 meg.**	**6.8 meg.**
0.36	1.6	7.5	36	160	750	3,600	16K	75K	360K	1.6 meg.	7.5 meg.
0.39	**1.8**	**8.2**	**39**	**180**	**820**	**3,900**	**18K**	**82K**	**390K**	**1.8 meg.**	**8.2 meg.**
0.43	2.0	9.1	43	200	910	4,300	20K	91K	430K	2.0 meg.	9.1 meg.
0.47	**2.2**	**10**	**47**	**220**	**1,000**	**4,700**	**22K**	**100K**	**470K**	**2.2 meg.**	**10.0 meg.**
0.51	2.4	11	51	240	1,100	5,100	24K	110K	510K	2.4 meg.	11.0 meg.
0.56	**2.7**	**12**	**56**	**270**	**1,200**	**5,600**	**27K**	**120K**	**560K**	**2.7 meg.**	**12.0 meg.**
0.62	3.0	13	62	300	1,300	6,200	30K	130K	620K	3.0 meg.	13.0 meg.
0.68	**3.3**	**15**	**68**	**330**	**1,500**	**6,800**	**33K**	**150K**	**680K**	**3.3 meg.**	**15.0 meg.**
0.75	3.6	16	75	360	1,600	7,500	36K	160K	750K	3.6 meg.	16.0 meg.
0.82	**3.9**	**18**	**82**	**390**	**1,800**	**8,200**	**39K**	**180K**	**820K**	**3.9 meg.**	**18.0 meg.**
0.91	4.3	20	91	430	2,000	9,100	43K	200K	910K	4.3 meg.	20.0 meg.
1.0	**4.7**	**22**	**100**	**470**	**2,200**	**10K**	**47K**	**220K**	**1.0 meg.**	**4.7 meg.**	**22.0 meg.**

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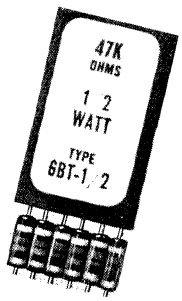
RESISTOR KITS & ASSORTMENTS

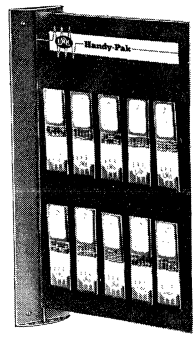
INTERNATIONAL RESISTANCE COMPANY



HANDY-PAKS. The neatest, most compact resistor package available, and it's exclusive from IRC. Slimline plastic sleeve keeps leads straight and in place.

- Easier to identify—Type, resistance value and power rating on every Handy-Pak. Resistor color code is easily seen through the plastic.
- Handier to use—Opens at either end. Simply slide package out of plastic sleeve . . . withdraw the required number of resistors and slide the package into the sleeve.
- Quicker to find—Handy-Paks can be indexed by power rating and resistance. Resistors are always visible for inventory.

3 TYPES AVAILABLE . . . ½ watt contains 6 GBT½ carbon composition resistors; 1 watt package contains 4 GBT1 resistors and the 2 watt Handy-Pak contains 3 SR2 resistors.

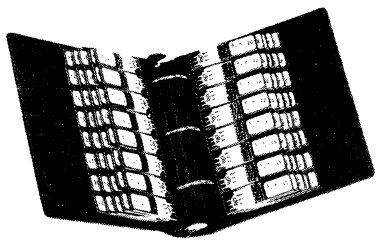


RESIST-O-PANEL. Unique swing panel attaches to wall; measures only 7″ x 12¼″. All-metal construction with slots to hold Handy-Paks. Supplied with 10 Handy-Paks of most popular values, and slots on back for 10 additional. Included FREE with either of two popular assortments.

ASSORTMENT #64
60 GBT½ ½-watt resistors
(10% tolerance)
6 each of 10 values

ASSORTMENT #68
40 GBT1 1-watt resistors
(10% tolerance)
4 each of 10 values

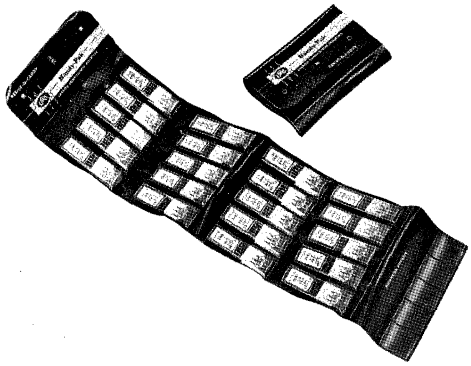
ASSORTMENT #80
30 SR2 2-watt resistors (10% tolerance), 3 each of 10 values



RESIST-O-PEDIA. Attractive, hardback binder with 3-ring "tab" inserts to hold Handy-Paks. Saves searching . . . speeds servicing. Resistors always visible. Resist-O-Pedia FREE with any of 2 assortments.

ASSORTMENT #44
462 GBT½ ½-watt resistors
(10% tolerance)
6 each of the 77 10% values
from 10 ohms to 22 megohms

ASSORTMENT #48
308 GBT1 1-watt resistors
(10% tolerance)
4 each of the 77 10% values
from 10 ohms to 22 megohms



RESIST-O-CADDY. Ideal for in-home servicing. Plastic pouch folds to 6¾″ x 3⅞″ x 1½″ . . . fits easily in tube caddy or tool chest. Individual pockets keep Handy-Paks secure and orderly.

Accurate inventory is always visible. Resist-O-Caddy FREE with either of these two popular assortments:

ASSORTMENT #41
120 GBT½ ½-watt resistors
(10% tolerance)
6 each of 20 values

ASSORTMENT #45
80 GBT1 1-watt resistors
(10% tolerance)
4 each of 20 values

ohms:	47	150	1,000	2,200	10K	27K	100K	270K	1.0 meg	4.7 meg
	100	470	1,500	4,700	22K	47K	220K	470K	2.2 meg	10 meg

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RESISTOR KITS & ASSORTMENTS

INTERNATIONAL RESISTANCE COMPANY

RESIST-O-CHEST. A convenient, sturdy file of Handy-Paks in 6 popular assortments. Metal separators keep Handy-Paks in order at your fingertips. Reference data on inside of lid. Available FREE with any of these 6 fast-moving assortments.

ASSORTMENT #42
204 GBT½ ½-watt resistors
(10% tolerance)
6 each of 34 values

ohms:								
47	470	2,700	8,200	27K	56K	220K	1.0 meg	4.7 meg
100	1,000	3,300	10K	33K	68K	270K	1.5 meg	10 meg
150	1,500	4,700	15K	39K	100K	330K	2.2 meg	—
220	2,200	6,800	22K	47K	150K	470K	3.3 meg	—

ASSORTMENT #43
462 GBT½ ½-watt resistors
(10% tolerance)
6 each of 77 values

ASSORTMENT #46
136 GBT1 1-watt resistors
(10% tolerance)
4 each of 34 values

ohms:								
47	470	2,700	8,200	27K	56K	220K	1.0 meg	4.7 meg
100	1,000	3,300	10K	33K	68K	270K	1.5 meg	10 meg
150	1,500	4,700	15K	39K	100K	330K	2.2 meg	—
220	2,200	6,800	22K	47K	150K	470K	3.3 meg	—

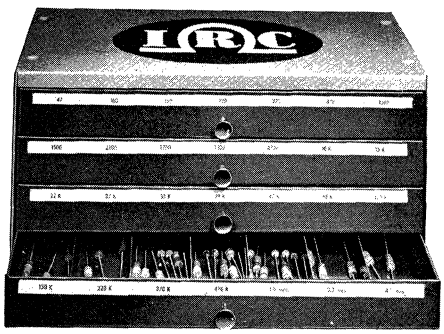
ASSORTMENT #47
308 GBT1 1-watt resistors
(10% tolerance)
4 each of 77 values

ASSORTMENT #50A
231 SR2 2-watt resistors (10% tolerance), 3 each of 77 values

ohms:								
10	56	330	1,800	10K	56K	330K	1.8 meg	10 meg
12	68	390	2,200	12K	68K	390K	2.2 meg	12 meg
15	82	470	2,700	15K	82K	470K	2.7 meg	15 meg
18	100	560	3,300	18K	100K	560K	3.3 meg	18 meg
22	120	680	3,900	22K	120K	680K	3.9 meg	22 meg
27	150	820	4,700	27K	150K	820K	4.7 meg	—
33	180	1,000	5,600	33K	180K	1.0 meg	5.6 meg	—
39	220	1,200	6,800	39K	220K	1.2 meg	6.8 meg	—
47	270	1,500	8,200	47K	270K	1.5 meg	8.2 meg	—

ASSORTMENT #49A
102 SR2 2-watt resistors (10% tolerance), 3 each of 34 values

ohms:								
47	470	2,700	8,200	27K	56K	220K	1.0 meg	4.7 meg
100	1,000	3,300	10K	33K	68K	270K	1.5 meg	10 meg
150	1,500	4,700	15K	39K	100K	330K	2.2 meg	—
220	2,200	6,800	22K	47K	150K	470K	3.3 meg	—



RESIST-O-CABINET. A practical way to give any shop a professional appearance. Sturdy metal Resist-O-Cabinets are FREE with any of four balanced assortments. Designed for stacking, and for tidy stocks of many small parts. Resist-O-Cabinets have four non-spill drawers and 28 compartments. Overall size is 5⅜" x 5 15/16" x 10⅞". Blue and silver finish.

½ WATT ASSORTMENT #4A
150 GBT½ ½-Watt Resistors

QUANTITY	RANGE
3	47 ohms
4	100 ohms
3	220 ohms
3	270 ohms
4	470 ohms
8	1,000 ohms
4	1,500 ohms
4	2,200 ohms
4	2,700 ohms
5	3,300 ohms
7	4,700 ohms
7	10K ohms
5	22K ohms
5	27K ohms
5	33K ohms
8	47K ohms
4	56K ohms
4	68K ohms
8	100K ohms
7	220K ohms
8	270K ohms
5	330K ohms
8	470K ohms
8	1.0 meg.
7	2.2 meg.
4	3.3 meg.
5	4.7 meg.
3	10.0 meg.

1 WATT ASSORTMENT #5A
125 GBT1 1-Watt Resistors

QUANTITY	RANGE
3	47 ohms
3	100 ohms
3	150 ohms
3	220 ohms
3	270 ohms
3	470 ohms
7	1,000 ohms
3	1,500 ohms
5	2,200 ohms
3	2,700 ohms
3	3,300 ohms
5	4,700 ohms
7	10K ohms
3	15K ohms
5	22K ohms
7	27K ohms
4	33K ohms
4	39K ohms
7	47K ohms
4	68K ohms
7	100K ohms
3	150K ohms
3	220K ohms
7	270K ohms
7	470K ohms
7	1.0 meg.
3	2.2 meg.
3	4.7 meg.

2 WATT ASSORTMENT #3A
120 BWH and SR2 2-Watt Resistors

QUANTITY	RANGE
2	4.7 ohms
2	10 ohms
1	15 ohms
2	22 ohms
1	27 ohms
1	33 ohms
1	39 ohms
3	47 ohms
2	68 ohms
3	82 ohms
4	100 ohms
3	150 ohms
3	220 ohms
3	270 ohms
4	330 ohms
4	470 ohms
5	1,000 ohms
4	1,500 ohms
4	2,200 ohms
4	3,300 ohms
3	3,900 ohms
4	4,700 ohms
5	6,800 ohms
7	8,200 ohms
7	10K ohms
5	15K ohms
7	22K ohms
4	27K ohms
7	47K ohms
5	100K ohms
3	220K ohms
3	470K ohms
4	1.0 meg.

COMB. ASSORTMENT #6A
139 Insulated Resistors and Type DCF Precision Film Resistors

RANGE	½ Watt	1 Watt	2 Watt	DCF
47 ohms	2	1	1	—
100 ohms	2	1	1	—
150 ohms	2	1	—	—
220 ohms	2	1	—	—
270 ohms	2	1	—	—
470 ohms	2	1	1	—
1,000 ohms	4	4	—	1
1,500 ohms	2	1	—	—
2,200 ohms	2	1	—	—
2,700 ohms	2	1	—	—
3,300 ohms	2	2	—	—
4,700 ohms	3	1	1	—
10K ohms	3	4	1	1
15K ohms	2	2	—	—
22K ohms	2	2	1	—
27K ohms	2	4	—	—
33K ohms	2	1	—	—
39K ohms	2	1	—	—
47K ohms	4	3	1	—
68K ohms	2	2	—	—
100K ohms	4	4	—	1
150K ohms	2	2	—	—
220K ohms	3	1	—	—
270K ohms	4	2	—	—
470K ohms	4	3	—	—
1.0 meg.	4	4	—	1
2.2 meg.	3	3	—	—
4.7 meg.	2	1	—	—
5.0 meg.	—	—	—	1

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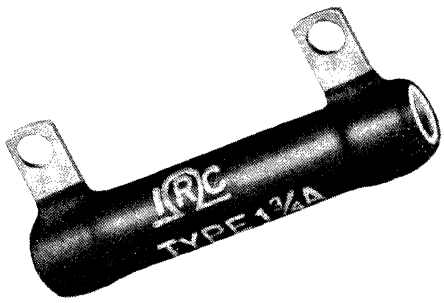
POWER RESISTORS

INTERNATIONAL RESISTANCE COMPANY



RESISTEG COATED POWER RESISTORS need no derating. They operate at full rated power even at high resistance values. Other features include heat resistant terminals for easy soldering, ceramic cores that withstand shock and are impervious to moisture, heavy windings that handle overloads without burnout, and standard size spring loaded push-in brackets for easy mounting.

FIXED TYPES

TYPE 1A—5-8 watts. Resisteg coating. Core Size: 1" long by 5/16" dia. Terminals: 13A. Tolerance: ±5%. Mounting hardware included: none. Standard package: 5.

Ohms					
1	20	200	750	2250	8000
1.5	25	225	800	2500	9000
2	30	250	900	3000	10K
3	35	300	1000	3500	12.5K
4	40	350	1100	4000	15K
5	50	400	1200	4500	17.5K*
7.5	75	450	1250	5000	20K*
10	100	500	1500	6000	22.5K*
12	125	600	1750	7000	25K*
15	150	700	2000	7500	

* No. 1 Terminal.

TYPE 1¾A—10-12 watts. Resisteg coating. Core Size: 1¾" long x 5/16" dia. Terminals: 13A. Tolerance: ±5%. Mounting hardware included: none. Standard package: 5.

Ohms					
1	30	350	1250	7000	17.5K
1.5	35	400	1500	7500	18K
2	40	450	1750	8000	20K
3	50	500	2000	8500	22.5K
4	75	600	2250	9000	25K
5	100	700	2500	10K	30K
7.5	125	750	3000	11K	35K
10	150	800	3500	12K	40K
12	200	900	4000	12.5K	45K
15	225	1000	4500	13.5K	50K
20	250	1100	5000	15K	
25	300	1200	6000	16K	

TYPE 2C—20 watts. Resisteg coating. Core size: 2" long x 7/16" dia. Terminals: 13A. Tolerance: ±5%. Mounting hardware included: none. Standard package: 5.

Ohms					
1	150	800	2750	10K	55K
2	200	900	3000	12.5K	60K
3	250	1000	3500	15K	65K
4	300	1200	4000	20K	70K
5	350	1250	4500	25K	75K
10	400	1500	5000	30K	80K
25	500	1750	6000	35K	85K*
50	650	2000	7000	40K	90K*
75	700	2250	7500	45K	95K*
100	750	2500	8000	50K	100K*
			9000		

* No. 1 Terminal.

TYPE 2D—25 watts. Resisteg coating. Core size: 2" long x 9/16" dia. Terminals: 12A. Tolerance: ±5%. Mounting hardware included: Z-1 brackets. Standard package: 1.

Ohms					
1	25	500	3000	12K	50K
2	50	750	3500	15K	60K
3	75	800	4000	20K	70K
4	100	1000	5000	25K	80K
5	150	1500	6000	30K	100K
10	200	2000	7500	35K	
15	250	2500	10K	40K	

TYPE 4D—50 watts. Resisteg coating. Core size: 4" long x 9/16" dia. Terminals: 12A. Tolerance: ±5%. Mounting hardware included: Z-1 bracket. Standard package: 1.

Ohms					
1	50	750	4000	20K	150K
2	75	800	5000	25K	175K
3	100	1000	7500	35K	200K
4	150	1500	8000	50K	250K
5	200	2000	10K	75K	
10	250	2500	12K	100K	
25	500	3000	15K	125K	

TYPE 6½E—100 watts. Resisteg coating. Core size: 6½" long x ¾" dia. Terminals: 12A. Tolerance: ±5%. Mounting hardware included: Z-2 bracket. Standard package: 1.

Ohms					
1	25	250	2500	20K	75K
2	50	500	3000	25K	100K
3	75	750	5000	30K	
4	100	1000	7500	40K	
5	125	1500	10K	50K	
10	150	2000	15K	60K	

TYPE 8½H—160-175 watts. Resisteg coating Core size: 8½" long x 1⅛" dia. Terminals: 4A Tolerance: ±5%. Mounting hardware included: Z-3 brackets. Standard package: 1

Ohms					
1	25	250	2500	20K	75K
2	50	500	3000	25K	100K
3	75	750	5000	30K	
4	100	1000	7500	40K	
5	125	1500	10K	50K	
10	150	2000	15K	60K	

TYPE 10½H—200-225 watts. Resisteg coating Core size: 10½" long x 1⅛" dia. Terminals 4A. Tolerance: ±5%. Mounting hardware included: Z-3 brackets. Standard package:

Ohms					
1	25	250	2000	10K	40K
2	50	500	2500	15K	50K
3	75	750	3000	20K	60K
4	100	1000	5000	25K	75K
5	150	1500	7500	30K	100K
10					

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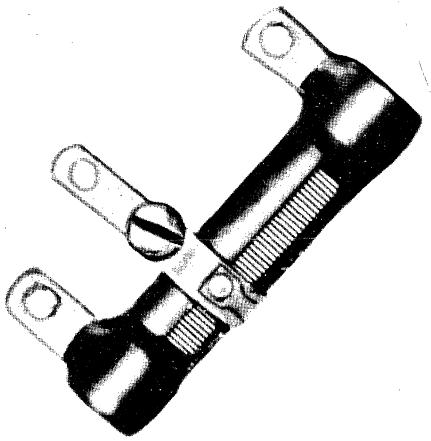
POWER RESISTORS

INTERNATIONAL RESISTANCE COMPANY

ADJUSTABLE TYPES



TYPE 1¾AA—10-12 watts. Core size: 1¾" long x 5/16" dia. Terminals: 12A. One adjustable band: type A. Tolerance: ±10%. Standard package: 1. Mounting hardware included: Z-0 brackets.

Ohms					
1	20	250	800	3000	7500
2	25	300	1000	3500	8000
3	50	350	1250	4000	8500
5	75	400	1500	4500	9000
7.5	100	500	2000	5000	10K
10	150	600	2250	6000	
15	200	750	2500	7000	

TYPE 2DA—25 watts. Core size: 2" long x 9/16" dia. Terminals: 12A. One adjustable band: type X-2. Tolerance: ±10%. Mounting hardware included: Z-1 bracket. Standard package: 1.

Ohms					
1	20	250	1250	4000	9000
2	25	300	1500	4500	10K
3	50	400	2000	5000	12K
5	75	500	2250	6000	15K
7.5	100	750	2500	7000	20K
10	150	800	3000	7500	25K
15	200	1000	3500	8000	

TYPE 4DA—50 watts. Core size: 4" long x 9/16" dia. Terminals: 12A. One adjustable band. Tolerance: ±10%. Mounting hardware included: Z-2 brackets. Standard package: 1.

Ohms					
1	75	750	3000	7500	25K
2	100	800	3500	8000	30K
3	150	1000	4000	9000	40K
4	200	1250	4500	10K	50K
5	250	1500	5000	12K	60K
10	300	2000	6000	15K	80K
25	400	2250	7000	20K	100K
50	500	2500			

TYPE 5EA—75 watts. Core size: 5" long x ¾" dia. Terminals: 12A. One adjustable band. Tolerance: ±10%. Mounting hardware included: Z-2 brackets. Standard package: 1.

Ohms					
1	5	100	1500	15K	40K
2	10	250	2500	20K	50K
3	25	500	5000	25K	75K
4	50	1000	10K	30K	100K

TYPE 6½EA—100 watts. Core size: 6½" long x ¾" dia. Terminals: 12A. One adjustable band. Tolerance: ±10%. Mounting hardware included: Z-2 brackets. Standard package: 1.

Ohms					
1	5	100	1500	15K	40K
2	10	250	2500	20K	50K
3	25	500	5000	25K	75K
4	50	1000	10K	30K	100K

TYPE 8½HA—160-175 watts. Core size: 8½" long x 1⅛" dia. Terminals: 4A. One adjustable band. Tolerance: ±10%. Mounting hardware included: Z-3 brackets. Standard package: 1.

Ohms					
1	5	100	1500	15K	40K
2	10	250	2500	20K	50K
3	25	500	5000	25K	75K
4	50	1000	10K	30K	100K

TYPE 10½HA—200-225 watts. Core size: 10½" long x 1⅛" dia. Terminals: 4A. One adjustable band. Tolerance: ±10%. Mounting hardware included: Z-3 brackets. Standard package: 1.

Ohms					
1	5	100	1500	15K	40K
2	10	250	2500	20K	50K
3	25	500	5000	25K	75K
4	50	1000	10K	30K	100K

MILITARY TYPES

STANDARD MILITARY VALUES

1.0*	1.6*	2.7*	3.6*	5.0	7.1
1.1*	1.8*	2.8	3.9*	5.1*	7.5*
1.2*	2.0*	3.0*	4.0	5.6*	8.0
1.3*	2.2*	3.1	4.3*	6.2*	8.2*
1.4	2.4*	3.3*	4.5	6.3	9.0
1.5*	2.5	3.5	4.7*	6.8*	9.1*

*New values. For other decades multiply by .10, 10, 100, 1000, etc.

MIL Type	Military Characteristic		Military Range—Ohms *Min.	Military Range—Ohms *Max.	MIL Type	Military Characteristic		Military Range—Ohms *Min.	Military Range—Ohms *Max.
RW 29	G	V	1.0	5600	RW 47	G	V	1.0	20K
RW 30	G	V	1.0	2400	RW 55	G	V	.10	5.1K
RW 31	G	V	1.0	10K	RW 56	G	V	.10	9.1K
RW 32	G	V	1.0	10K	RW 57	G	V	.10	3.6K
RW 33	G	V	1.0	18K	RW 58	G	V	.10	8.2K
RW 35	G	V	1.0	18K	RW 59	G	V	.10	910
RW 36	G	V	1.0	20K	RW 67	G	V	.10	3.6K
RW 37	G	V	1.0	20K	RW 68	G	V	.10	8.2K
RW 38	G	V	1.0	20K	RW 69	G	V	.10	910

*In many instances other MIL VALUES are available on special order.

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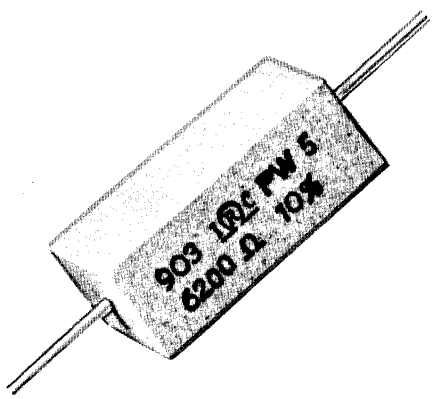
POWER RESISTORS

INTERNATIONAL RESISTANCE COMPANY



PW5 AND PW10 AXIAL LEAD POWER WIREWOUND RESISTORS.

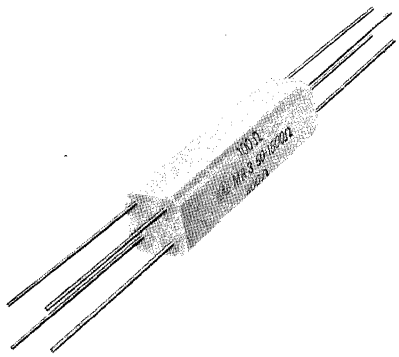
For 5 and 10 watt application, these popular resistors are compact to save space and feature superior solderability. Sealed in a ceramic case. Standard tolerance is 10%.

PW5 available from 1 to 6,000 ohms. PW10 available from 1 to 25K ohms. See stock list.

POPULAR ASSORTMENT #20A PW10 resistors is available for handy bench stock. On plastic covered card with hole for hanging.

STANDARD STOCK VALUES (PW10)

ohms:									
1	10	50	200	600	1000	2250	4000	8000	12.5K
2	15	75	250	700	1200	2500	4500	8200	15K
3	20	100	300	750	1250	3000	5000	8500	20K
4	25	120	350	800	1500	3300	6000	9000	25K
5	30	125	400	820	1750	3500	7000	10K	—
7.5	40	150	500	900	2000	3900	7500	12K	—



MULTI-RANGE POWER RESISTORS. Up to 47 values from a single resistor. 5 multi-range resistors give complete 10 watt coverage . . . 200 values from ½ to 50,000 ohms. No delays for a particular value, and you don't tie up inventory with odd values. Ideal for in-home servicing and weekend shop work.

Four-wire wound elements are sealed in a steatite housing. It's simple to solder a basic interconnection for the required value, and cut off unused terminals. Connection diagrams included.

5 TYPES COVER 200 VALUES

TYPE MR1. 0.5 through 15 ohms. 1, 2, 4, 8 ohm elements. 10 watts 47 values.

TYPE MR2. 5 through 150 ohms. 10, 20, 40, 80 ohm elements. 10 watts 47 values.

TYPE MR3. 50 through 1,500 ohms. 100, 200, 400, 800 ohm elements 10 watts. 47 values.

TYPE MR4. 500 through 15K ohms. 1K, 2K, 4K, 8K ohm elements 10 watts. 47 values.

TYPE MR5. 3K through 50K ohms. 10K, 10K, 15K, 15K ohm element 10 watts. 12 values.

MULTI-RANGE KIT #55. Complete 10 watt power resistor coverage that fits in the palm of your hand. Rigid clear plastic case holds 5 Handy-Pak 2 of each type MR resistor. With these 10 versatile resistors you have finger-tip coverage of 200 values from ½ to 50,000 ohms. Fits easily tool case or tube caddy.

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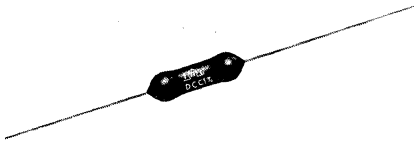
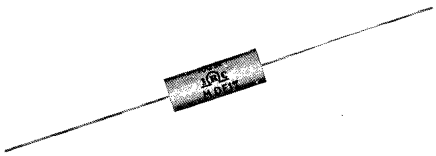
PRECISION RESISTORS

INTERNATIONAL RESISTANCE COMPANY



DEPOSITED CARBON PRECISIONS are available in ½, 1 and 2 watt sizes. The wide range of values, 1% tolerance, economy, low voltage coefficient, excellent frequency characteristics, predictable temperature, high voltage rating, low noise level, and small size make IRC deposited carbon resistors ideal for application in advanced electronic equipment and critical TV circuits.



MOLDED DEPOSITED CARBON RESISTORS are designed for high reliability, stable performance, low voltage coefficient, low capacitive and inductive impedance in high frequency applications. In miniature ⅛, ¼, and ½ watt sizes, plus 1 and 2 watt types.

Standard tolerance is 1%. (2% tolerance on high range units.) The housing gives complete protection, and offers better heat dissipating qualities. This results in improved load life and maximum moisture protection.

STANDARD STOCK VALUES—TYPES DCC, DCF, DCH and MDC

One decade of stock values is as follows:

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
10.0	12.1	14.7	17.8	21.5	26.1	31.6	38.3	46.4	56.2	68.1	82.5
10.2	12.4	15.0	18.2	22.1	26.7	32.4	39.2	47.5	57.6	69.8	84.5
10.5	12.7	15.4	18.7	22.6	27.4	33.2	40.2	48.7	59.0	71.5	86.6
10.7	13.0	15.8	19.1	23.2	28.0	34.0	41.2	49.9	60.4	73.2	88.7
11.0	13.3	16.2	19.6	23.7	28.7	34.8	42.2	51.1	61.9	75.0	90.9
11.3	13.7	16.5	20.0	24.3	29.4	35.7	43.2	52.3	63.4	76.8	93.1
11.5	14.0	16.9	20.5	24.9	30.1	36.5	44.2	53.6	64.9	78.7	95.3
11.8	14.3	17.4	21.0	25.5	30.9	37.4	45.3	54.9	66.5	80.6	97.6

Higher stock values may be determined by multiplying by 10, 100, 1000, etc., up to maximum stated for type.

STANDARD STOCK VALUES

IRC TYPE	MIL TYPE	MINIMUM STOCK VALUE	MAXIMUM STOCK VALUE	IRC TYPE	MIL TYPE	MINIMUM STOCK VALUE	MAXIMUM STOCK VALUE
DCC	RN20X	10 ohms	2.0 meg.	DCH	RN30X	46.4 ohms	10.0 meg.
DCF	RN25X	20 ohms	5.1 meg.	MDC	RN70D	10 ohms	2.49 meg.

NON-STOCK VALUES

IRC TYPE	MIL TYPE	MINIMUM VALUE	MAXIMUM VALUE	IRC TYPE	MIL TYPE	MINIMUM VALUE	MAXIMUM VALUE
DCC	RN20X	10 ohms	25.0 meg.	MDB	RN65D	10 ohms	5.0 meg.
DCF	RN25X	10 ohms	50.0 meg.	MDC	RN70D	10 ohms	25.0 meg.
DCH	RN30X	15 ohms	100.0 meg.	MDF	RN75B	10 ohms	50.0 meg.
MDA	RN60D	10 ohms	5.0 meg.	MDH	RN80B	15 ohms	100.0 meg.

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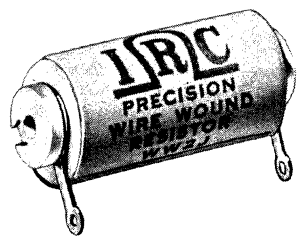
PRECISION RESISTORS

INTERNATIONAL RESISTANCE COMPANY



WIREWOUND PRECISION RESISTORS. For accuracy in critical applications, IRC Precision Wire Wound resistors are produced to exacting standards of reliability. IRC's winding technique prevents shorted turns or strains in the winding, and special insulation gives excellent protection from humidity. Positive electrical connections and easy soldering.

RADIAL LUG TYPE

IRC TYPE NO.	WW2J	WW3J	WW4J	WW5J	WW8J	WW11J
MIL-R-93A Style	RB19	RB16	RB17	RB18	RB15	RB16
Rating in Watts 65°C. Ambient	2	.50	1	1	.50	.50
Maximum Volts	2000	400	700	1000	250	500
No. of Sections	8	2	4	4	1	2
Maximum Resistance .0015 Diameter Wire	4.0 Meg.	0.3 Meg.	0.75 Meg.	1.7 Meg.	0.29 Meg.	0.4 Meg.
Maximum Resistance .0009 Diameter Wire	20.0 Meg.	1.6 Meg.	4.0 Meg.	7.5 Meg.	1.5 Meg.	2.0 Meg.
Minimum Resistance (ohms)						
±0.05% Tolerance	25	25	25	25	25	25
±0.1 % Tolerance	10	10	10	10	10	10
±0.25% Tolerance	5	5	5	5	5	5
±0.50% Tolerance	1	1	1	1	1	1
±1.0 % Tolerance	0.1	0.1	0.1	0.1	0.5	0.1

RADIAL LEAD TYPE

IRC TYPE NO.	WW3J	WW4J	WW8J	WW10J	WW11J	WW20J	WW21J	WW22J (Center Tapped)	WW23J	WW24J (Center Tapped)
Rating in Watts 65°C. Ambient	.50	1	.50	.25	.50	.25	.25	.25†	.50	.50†
Maximum Volts	400	700	250	150	500	150	300	150†	300	400†
No. of Sections	2	4	1	1	2	1	2	2	2	4
Maximum Resistance 0015 Diameter Wire	0.3 Meg.	0.75 Meg.	0.29 Meg.	40K	0.4 Meg.	35K	70K	35K†	225K	350K†
Maximum Resistance 0009 Diameter Wire	1.6 Meg.	4.0 Meg.	1.5 Meg.	0.215 Meg.	2.0 Meg.	150K	500K	250K†	1.5 Meg.	1.5 Meg.†
Minimum Resistance (ohms)										
±0.05% Tolerance	25	25	25	200	25	250	200	200†	25	25 †
±0.10% Tolerance	10	10	10	150	10	200	150	150†	10	10 †
±0.25% Tolerance	5	5	5	75	5	100	75	75†	5	5 †
±0.5 % Tolerance	1	1	1	50	1	75	50	50†	1	1 †
±1.0 % Tolerance	0.1	0.1	0.5	10	0.1	10	10	10†	0.5	0.1†

†signifies per tap section

STANDARD STOCK TYPES and VALUES

TYPE WW2J with lugs—1% Tolerance

600K Ohms	1.0 Megohm
750K Ohms	1.5 Megohms
900K Ohms	2.0 Megohms
	2.5 Megohms

TYPE WW3J with lugs—1% Tolerance

0.1 Ohm	1,500 Ohms	30K Ohms
0.2 Ohm	2,000 Ohms	35K Ohms
0.5 Ohm	2,500 Ohms	40K Ohms
1.0 Ohm	3,000 Ohms	50K Ohms
5 Ohms	3,500 Ohms	60K Ohms
10 Ohms	4,000 Ohms	75K Ohms
25 Ohms	5,000 Ohms	100K Ohms
50 Ohms	7,500 Ohms	125K Ohms
100 Ohms	10K Ohms	150K Ohms
200 Ohms	12.5K Ohms	175K Ohms
250 Ohms	15K Ohms	200K Ohms
300 Ohms	20K Ohms	225K Ohms
500 Ohms	22.5K Ohms	
1,000 Ohms	25K Ohms	

TYPE WW4J with lugs—1% Tolerance

0.1 Ohm	2,000 Ohms	40K Ohms
0.2 Ohm	2,500 Ohms	50K Ohms
0.5 Ohm	3,000 Ohms	60K Ohms
1.0 Ohm	3,500 Ohms	75K Ohms
5 Ohms	4,000 Ohms	100K Ohms
10 Ohms	5,000 Ohms	125K Ohms
25 Ohms	7,500 Ohms	150K Ohms
50 Ohms	10K Ohms	175K Ohms
100 Ohms	12.5K Ohms	200K Ohms
200 Ohms	15K Ohms	225K Ohms
250 Ohms	20K Ohms	250K Ohms
300 Ohms	22.5K Ohms	300K Ohms
500 Ohms	25K Ohms	400K Ohms
1,000 Ohms	30K Ohms	500K Ohms
1,500 Ohms	35K Ohms	

TYPE WW5J with lugs—1% Tolerance

600K Ohms	900K Ohms
750K Ohms	1.0 Megohn

TYPE WW10J with leads—1% Tolerance

10 Ohms	2,000 Ohms	20K Ohm
25 Ohms	2,500 Ohms	25K Ohm
50 Ohms	3,000 Ohms	30K Ohm
100 Ohms	3,500 Ohms	40K Ohm
200 Ohms	4,000 Ohms	50K Ohm
250 Ohms	5,000 Ohms	60K Ohm
300 Ohms	7,500 Ohms	75K Ohm
500 Ohms	10K Ohms	100K Ohm
1,000 Ohms	12.5K Ohms	
1,500 Ohms	15K Ohms	

Special Resistance Tolerances

Standard tolerances ±1%. Other tolerances subject to minimum values shown on specification charts, are available on special order for all WWJ types, as follows:

0.5% 0.25% 0.2% 0.1% 0.05

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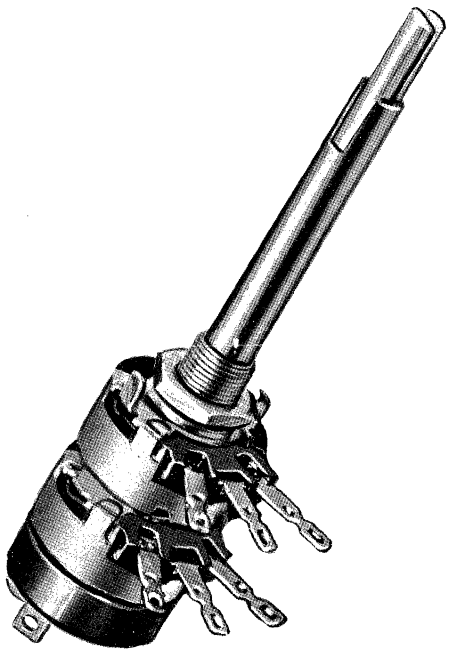
TYPE Q & TYPE 4W CONCENTRIKITS

INTERNATIONAL RESISTANCE COMPANY

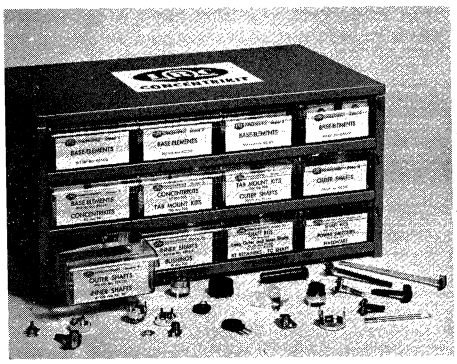


IRC offers the broadest replacement coverage in the industry with its Type Q, ½ watt carbon controls and Type 4W, 4 watt wirewound controls in CONCENTRIKIT form. With the CONCENTRIKIT replacement system, an extremely broad range of electrical and mechanical variations are available as factory assembled controls or as selected control parts for easy field assembly.

Available in CONCENTRIKIT are many types of single controls, ganged multi-section controls, concentric dual controls with combinations of carbon and wirewound sections, and specially matched controls for stereo.

Some of the mechanical variations possible include bushing mountings, tab mountings, printed circuit mountings and printed circuit terminals. A wide choice of shafts, rotary and axially-operated power switches and special tone switches can be selected from CONCENTRIKIT for almost any application.

For more data, write for Catalog S649.



DEALER STOCKS

No. 90. A comprehensive basic selection of CONCENTRIKIT parts provides broad replacement coverage of radio, TV, auto and hi-fi controls. Features the outstanding versatility of the industry's most proven and most widely used replacement system. Includes handsome metal cabinet with 12 "see thru" plastic drawers.

No. 92. A greatly expanded selection of CONCENTRIKIT parts. Covers in depth controls for ADMIRAL-DUMONT-EMERSON-GE-MAGNAVOX-MOTOROLA-MUNTZ-PHILCO-RCA-SILVERTONE-SYLVANIA-TRUETONE-WESTINGHOUSE-ZENITH and 170 other manufacturers. Stock is housed in handsome 12 drawer metal cabinet with "see thru" plastic drawers.

No. 91 CONVERSION STOCK. Conversion Stock No. 91 supplies you with all the items necessary to convert Dealer Stock No. 90 to the broader coverage of Dealer Stock No. 92.

For more information on the above items, write for Catalog S658.

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SNAPTROL

INTERNATIONAL RESISTANCE COMPANY

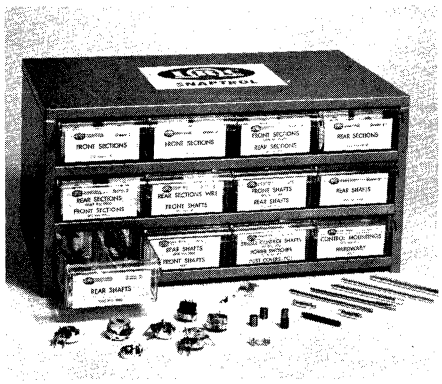
IRC's SNAPTROL replacement system provides great versatility, easy assembly and snap together convenience. With fewer basic components, SNAPTROL gives you broader replacement coverage than any other section-type exact duplicate control system on the market today.

Without cutting or modifications, factory assembled sections quickly and easily snap together to make ganged multiple section and concentric dual controls. A broad variety of carbon and wirewound front and rear sections are available, as well as matched front and rear sections for stereo.

Both universal and exact duplicate shafts snap into the control sections. Rotary and axially-operated power switches snap-on single or concentric controls. Mounting configurations include bushings, tab mountings and printed circuit brackets. Printed circuit terminals are supplied on all carbon sections for universal use.

Carbon sections are rated at ½ watt. Wirewound sections are rated at 5 watts (linear tapers).

For more data, write for Catalog S605.



DEALER STOCKS

No. 87. Features a broad selection of components of IRC's new SNAPTROL replacement system—the fast, snap-together method of replacing controls. Includes many outstanding features unique to the system. Housed in handsome metal cabinet with 12 "see thru" plastic drawers.

No. 89. Includes an expanded selection of SNAPTROL components. Covers greatest variety of control mounting and proven switch types. Broad replacement coverage of ADMIRAL-DUMONT-EMERSON-GE-MAGNAVOX-MOTOROLA-MUNTZ-PHILCO-RCA-SILVERTONE-SYLVANIA-TRUETONE-WESTINGHOUSE-ZENITH—and 170 other manufacturers. Housed in handsome metal cabinet with 12 "see thru" plastic drawers.

No. 88 CONVERSION STOCK. Conversion Stock No. 88 supplies you with all the items necessary to convert Dealer Stock No. 87 to the broader coverage of Dealer Stock No. 89.

For more information on above items, write for Catalog S657.

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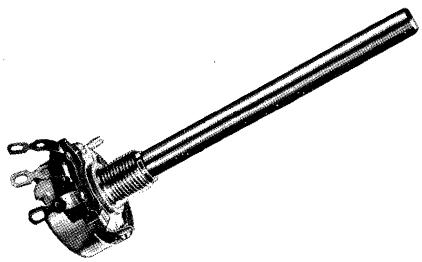
INDUSTRIAL CONTROLS

INTERNATIONAL RESISTANCE COMPANY



TYPES PQ, RQ, RQL and M. High quality ½ watt controls. Resistance tolerance is ±10%.

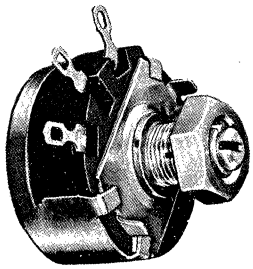
Type PQ has full round ¼" shaft, 3" FMS. In 33 stock values.

Type RQ has ¼" screw-driver slotted shaft, ½" FMS. Supplied in 33 values.

Type RQL has ¼" screw-driver slotted shaft and lock type bushing. ½" FMS. 26 stock values.

Type M Multi-section is a rear section which can be added to PQ, RQ or RQL for dual, triple or quadruple controls. Supplied in 25 stock values.

For more data, write for Catalog S649.



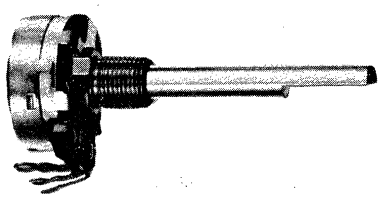
TYPES WP, WPRL and WM. Husky 4 watt controls with heavily tinned terminals for easy soldering. ±10% resistance tolerance.

Type WP has ¼" full round shaft, 3" FMS. Available in 36 stock values.

Type WPRL has ¼" screw-driver slotted shaft and lock type bushing. ½" FMS. In 36 values.

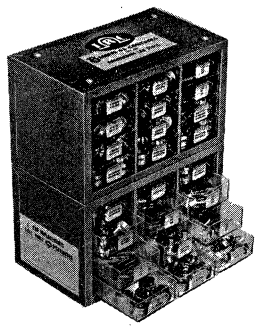
Type WM Multi-section is a rear section which mates to WP and WPRL for dual, triple or quadruple controls. Supplied in a wide assortment of values.

For more data, write for Catalog S649.



SERIES 45. ½ watt controls with resistance tolerance of ±20%. Available as snap-together sections, shafts and power switches to provide up to 12,631,500 different controls for virtually every application. Twenty shaft styles cover the majority of commercial and industrial needs.

For more data, write for Catalog S605.



ENGINEERING LAB STOCKS. Series 45, ½ watt controls to meet more than 12 million requirements. Two IRC engineering lab stocks include snap-together sections, control shafts, switches and dust covers. Ideal for building breadboards and prototypes. Grey metal cabinets stack or hang. Clear plastic drawers are labeled and separated for easy inventory and stock control.

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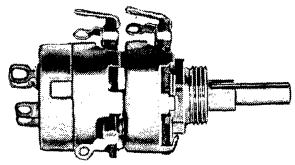
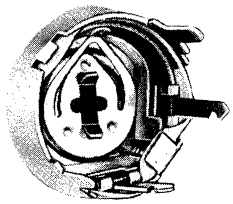
SPECIAL CONTROLS

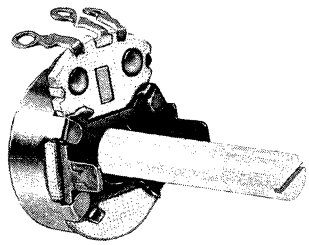
INTERNATIONAL RESISTANCE COMPANY



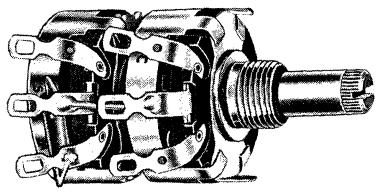
AUTO RADIO CONTROLS for 265 different makes and models. IRC's line of exact duplicate controls includes 127 individual types for every popular auto radio. Faster servicing results from these top-quality controls because of IRC's strict adherence to manufacturer's specifications. For more data, write for Catalog S525.



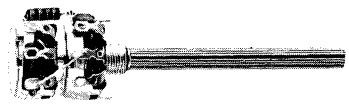
BUZZ AND BIAS CONTROLS for hum balance, centering, holding, locking and other TV uses. These miniature controls are available in two types, both designed for screw-driver adjustment. Type 110 in 17 values from 1.5 to 3,000 ohms. Type 112 supplied in 23 values from 50 to 10,000 ohms. For more data, write for Catalog S655.



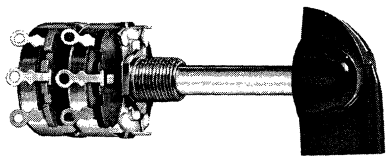
TV HEIGHT CONTROLS for reliable operation in TV and other B + applications such as AGC, noise gate, focus, fringe lock and sync. 1 watt rating. 15/16" diameter. Nylon slotted and knurled shaft can easily be modified. Tab mount design with rear adjustment. In six values from 2.0 megohms to 7.5 megohms. ±30% tolerance. Type HLC. For more data, write for Catalog S655.



TV ATTENUATORS for on-the-spot adjustment of signal input to TV set. In most cases it corrects or reduces adjacent channel interference, back ground picture on weaker stations, poor definition, picture and sound breakover. Type QJ-3 is widely used in service work to duplicate fring area signals when near strong local station.



LOUDNESS CONTROLS that are continuously compensated to boost low and highs as volume is decreased. Maintains depth and brilliance even a whisper level. The LC-2 can easily be wired into most audio circuit Uses types 76-1, 76-2 or 76-4 switches.



L AND T PAD CONTROLS with constant impedance for use in sound systems and for speaker controls. Both types handle up to 15 watts c audio power (5 watts DC). L pad provides constant input impedanc Constant input/output impedances provided by the T pad. Knob ar dial plate included. L and T pads available in 4, 8, 15, and 500 ohm For more data, write for Catalog S656.

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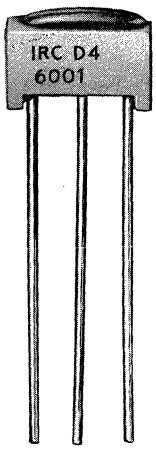
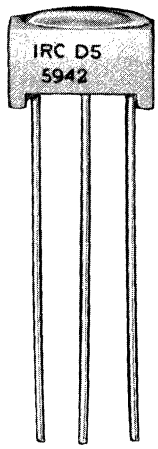
DUAL DIODES & FUSE RESISTORS

INTERNATIONAL RESISTANCE COMPANY





DUAL DIODES. Universal selenium dual diodes for horizontal phase detectors and remote control in TV receivers. Also used in radio control devices for model planes, and other circuits. Available in four basic types.

TYPE D4 COMMON CATHODE

MANUFACTURER	PART NO.	MANUFACTURER	PART NO.
Admiral	93B5-6	Muntz	SR004
	93C26-7, 9	Olympic	RF5465
Airline	66X21	Packard Bell	72053
	296V004H01	Philco	34-8034
Coronado	66X21		34-8037-1, 2
Curtis Mathes	9LR2-S	RCA	1107832-7, 9
Emerson	817074	Silvertone	86-9-1
Federal	K1615		624-0007
GE	6GC1	Sylvania	624-0006
	ET16X10		624-0007
	WT16X7		13-85943-1, 2
	K115J510-1, 2	Tel Rad	TRC-P4
	K117J460-1, 2	Travler	SR6
Hallicrafters	27C226		SR13
	027-300-226	Truetone	66X21
Hoffman	10031	Wells-Gardner	66X21
	744002	Westinghouse	296V004H01
International Rectifier	DD04	Zenith	103-20
Motorola	48C751656		103-32
	48K741255		

TYPE D5 SERIES CONNECTED

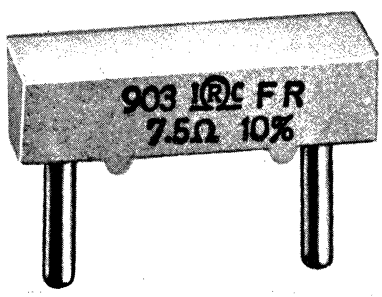
MANUFACTURER	PART NO.	MANUFACTURER	PART NO.
Admiral	93A5-2	Olympic	RF5794
	93B5-3, 4, 5	Packard Bell	72030
Airline	SR15	Silvertone	B-45-110
Coronado	SR15		B-48-110
Citizenship Radio	34-8037		86-3-1
Emerson	817062		86-4-1A
Federal	K1616	Sonora	SR15
GE	6GD1	Sylvania	13-93889
	WT16X9	Tel Rad	TRC-55
	118J966-1	Travler	SR10
International Rectifier	DD05		SR15
Magnavox	530045-1, 2, 3	Truetone	SR10, 15
Motorola	48B742698	Webcor	65P113
	48K741752		65P124-1
	48K754153	Zenith	633977

TYPE D6 COMMON ANODE

MANUFACTURER	PART NO.	MANUFACTURER	PART NO.
GE	66X1	International Rectifier	DD06
	WT16X8	Motorola	48K751724
	118J966-2	Packard Bell	72036

TYPE D7 SPECIAL MOTOROLA SIX CELL DIODE

For Motorola Part No. 48C65831A02



FUSE RESISTORS. This special resistor functions as a resistor under normal conditions, and as a fuse under overload conditions. It is used extensively as a surge-limiting resistor in voltage doubler circuits of TV receivers. Installation of an IRC Type FR fuse resistor in a TV set will prevent overloading of more valuable components and possible fire due to a short circuit. The compact, modern design of IRC fuse resistor measures only $1\frac{25}{64}$" x $1\frac{11}{32}$" x $\frac{3}{8}$". This unit is completely insulated in a rectangular ceramic case, and equipped with plug-in terminals. FR5.0—5 ohms, FR5.6—5.6 ohms, FR7.5—7.5 ohms.

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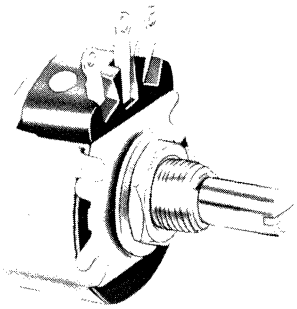
MILITARY CONTROLS, 3-WATT INDUSTRIAL CONTROLS, ROTARY SELECTOR SWITCHES

INTERNATIONAL RESISTANCE COMPANY



MILITARY VARIABLE RESISTORS

WIREWOUND VARIABLE RESISTORS MEET MIL-R-19A

RA20 (Type 252) 2 watt wire wound in 15 resistance values. 2 shaft styles, plain and locking bushings.

RA30 (Type 25) 4 watt wire wound in 15 resistance values. 2 shaft styles, plain and locking bushings.

COMPOSITION VARIABLE RESISTORS MEET MIL-R-94B

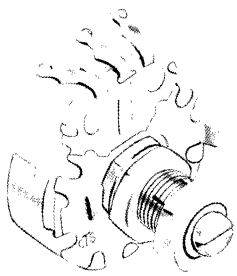
RV2 (Type 90) 1 watt composition resistors in 14 resistance values. 2 shaft styles, plain and locking bushings.

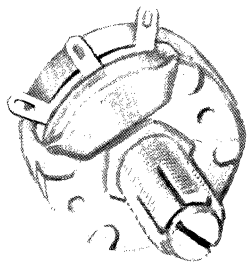
RV4 (Type 96) 2 watt composition resistors in 16 resistance values. 2 shaft styles, plain and locking bushings.

RV5 (Type 65) ½ watt miniature composition resistors in 13 resistance values. 2 shaft styles, plain and locking bushings.

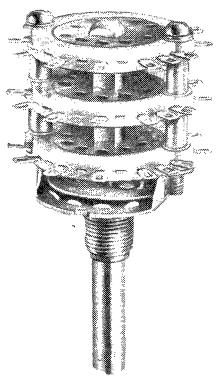
RV6 (Type 300) ½ watt miniature composition resistors in 14 resistance values. 2 shaft styles, plain and locking bushings.

For stock values, write for Catalog S004.





3-WATT INDUSTRIAL CONTROLS. Types 321S and 321LT. Completely enclosed construction features: a carbon-ceramic element, excellent heat sink, long life and low noise characteristics and a large safety factor. Available from 250 ohms through 2.5 megohms. For more data, write for Catalog S631.



ROTARY SELECTOR SWITCHES with unique one-piece molded wafer for high reliability and constant uniformity that eliminates drift.

- Compact 1 1/16" size design allows more circuitry per unit of depth behind panel and closer stacking.
- Superior insulation of molded glass alkyd material.
- 1000% more silver than used by most commercial switches.
- Molded stator will not break or crush during ordinary handling, or if dropped.

Available as assembled switches or as wafers and shaft-detent assemblies. For more data, write for Catalog S607.

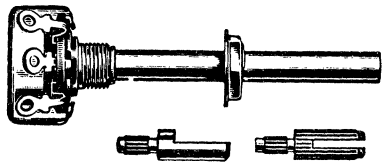
© U.C.P., Inc.

MALLORY CONTROLS

METAL SHAFT MIDGETROLS®

Standard universal replacement 15/16" dia. carbon control. Furnished with 1/4" dia. round brass shaft and adapters for knurled, slotted or flatted knobs (hex nut incl.).

Mallory Midgetrols— Net Each..... **$1.02**



Mall. No.	Resis., Ohms	Taper	Mall. No.	Resis., Ohms	Taper
U1	100	4	U35	50K	4
U2	500	4	U36	75K	1
U52R	500	2	U39	100K	1
U751R	750	2	U40	100K	2
U3	1K	2	U41	100K	4
U4	1K	4	U415	125K	4
U5	1500	2	U42	150K	1
U5L	1500	4	U43	200K	4
U6	2K	4	U44	250K	1
U7	2500	2	U45	250K	2
U8	3K	4	U46	250K	4
U9	3K	2	U48	500K	1
U12	5K	1	U50	500K	4
U14	5K	4	U51	750K	1
U18	10K	1	U52	1 meg	2
U19	10K	2	U53	1 meg	1
U20	10K	4	U54	1 meg	4
U21	15K	1	U155	1.5 meg	4
U22	15K	2	U55	2 meg	1
U24	20K	1	U56	2 meg	4
U26	20K	4	U255	2.5 meg	4
U28	25K	2	U57	3 meg	1
U28A	25K	1	U59	3 meg	4
U29	25K	4	U63	5 meg	2
U30	30K	4	U65	5 meg	1
U33	50K	1	U67	5 meg	4
U34	50K	2	U82	10 meg	4

TAPPED MIDGETROLS

Mallory Tapped Midgetrols— Net Each..... **$1.26**

SINGLE TAPPED

Mall. No.	Resis., Ohms	Tap At	Mall. No.	Resis., Meg	Tap At
UT153	15K	10K	UT440	1	200K
UT415	30K	25K	UT443	1	450K
UT420	250K	50K	UT450	2	125K
UT421	250K	150K	UT448	2	250K
UT425	350K	70K	UT449	2	600K
UT427	500K	100K	UT454	2	400K
UT429	500K	50K	UT451	2	900K
UT430	500K	150K	UT457	3	900K
UT431	500K	225K	UT461	3¼	300K
UT438	1 meg	300K			

DOUBLE TAPPED

Mallory No.	Overall Resistance	Tap Resistance Tap 1	Tap 2
UDT283	500K	100K	200K
UDT289	1 meg	250K	500K
UDT291	1.5 meg	225K	500K
UDT295	2.25 meg	250K	500K
UDT296	2.25 meg	500K	1 meg
UDT303	3.3 meg	300K	1.5 meg

SHAFT EXTENSIONS

Mallory No. DS36—1/4" x 2 13/16". Net.. **33c**
Mallory No. DS37—3/16" x 2 1/4". Net.. **33c**

MIDGETROL SWITCHES

Use with U, UT, UDT or TA controls.

Mallory No.	Description	Net Each
US26	SPST Switch	42c
US26T	SPST Switch with Dummy Terminal	51c
US27	DPST Switch	51c
US28	SPDT Switch	51c

NYLON SHAFT MIDGETROLS

Equipped with knurled and slotted nylon shaft (1/4" FMS).

Mallory Nylon Shaft Midgetrols— Net Each..... **93c**

Mallory No.	Resis., Ohms	Taper	Mallory No.	Resis., Ohms	Taper
SU6	1500	4	SU50	500K	4
SU8	3K	4	SU54	1 meg	4
SU14	5K	4	SU56	2 meg	4
SU20	10K	4	SU565	2.5 meg	4
SU29	25K	4	SU59	3 meg	4
SU35	50K	4	SU67	5 meg	4
SU41	100K	4	SU69	7.5 meg	4
SU46	250K	4			

TAB MOUNT MIDGETROLS

Same as standard Midgetrols, but with twist tabs (no bushing). Dia., 15/16". Nylon and metal shaft types.

PTA NYLON SHAFT TAB MOUNTS

One-inch long nylon shaft.

Mallory PTA Midgetrols— Net Each..... **60c**

Mallory No.	Resis. Ohms	Taper	Mallory No.	Resis. Meg	Taper
PTA52L	500	4	PTA1254L	1.25	4
PTA751L	750	4	PTA26L	2	4
PTA152L	1500	4	PTA355L	3.5	4
PTA252L	2500	4	PTA46A	4	1
PTA53L	5000	4	PTA56R	5	2
PTA352L	3500	4	PTA755L	7.5	4
PTA54L	50K	4	PTA855L	8.5	4
PTA15L	100K	4	PTA754L	750K*	4
PTA35L	300K	4	PTA55L	500K*	4
PTA55R	500K	2	PTA56L	5	4

*Ohms.

TA METAL SHAFT TAB MOUNTS

1/4" x 2" rd. shaft. With 2 knob adapters.

Mallory TA Midgetrols— Net Each..... **75c**

Mallory No.	Resis. Ohms	Taper	Mallory No.	Resis. Ohms	Taper
TA52L	500	4	TA334A	330K	1
TA751L	750	4	TA55R	500K	2
TA13L	1000	4	TA55A	500K	1
TA152L	1500	4	TA55L	500K	4
TA352L	3500	4	TA16A	1 meg	1
TA53L	5000	4	TA16L	1 meg	4
TA14L	10K	4	TA155L	1.5 meg	4
TA153L	15K	4	TA26A	2 meg	1
TA253L	25K	4	TA26L	2 meg	4
TA54A	50K	1	TA26T16	2 meg*	4
TA54L	50K	4	TA255L	2.5 meg	4
TA15L	100K	4	TA36L	3 meg	4
TA184L	180K	4	TA56R	5 meg	2
TA254L	250K	4	TA56L	5 meg	4

*Tap at 1 meg.—Net Each..... **99c**

PUSH-PULL MIDGETROLS

Carbon element controls with a push-pull type SPST switch permanently attached.

Mallory Number	Resis. Ohms	Tap, Ohms	Taper	Net Each
PP13R	1K	.....	2	$1.35
PP252R	2.5K	.....	2	1.35
PP15A	100K	.....	1	1.35
PP16A	1 meg	.....	1	1.35
PP16L	1 meg	.....	4	1.35
PP16T15	1 meg	100K	1	1.59
PP16T25	1 meg	200K	1	1.59
PP16T55	1 meg	500K	2	1.59
PP16DT55	1 meg	250K-500K	4	1.59
PP25L	200K	.....	4	1.35
PP254A	250K	.....	1	1.35
PP254DT154	250K	100K-150K	4	1.59
PP26A	2 meg	.....	1	1.35
PP26T16	2 meg	1 meg	4	1.59
PP26DT16	2 meg	500K-1 meg	1	1.59
PP36DT26	3 meg	1 meg-2 meg	4	1.59
PP55T25	500K	200K	4	1.59
PP46T26	4 meg	2 meg	4	1.59
PP55A	500K	.....	1	1.35
PP55DT1683	500K	48K-168K	4	1.59
PP55L	500K	.....	4	1.35
PP55T254	500K	250K	1	1.59
PP56L	5 meg	.....	4	1.35
PP155L	1.5 meg	.....	4	1.35

PRINTED CIRCUIT MIDGETROLS

Printed circuit tabs and "dog-house". Shaft, universal 1/4" dia. x 3 1/2". **$1.11**

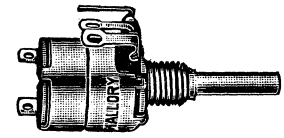
Mallory P2 Plain Control—Net...
Mallory P2 Control—With SPST switch. Net Each..... **$1.53**
Mallory P2 Control—With DPST switch. Net Each..... **$1.62**
Mallory P2 Tapped Control—Net.. **1.35**

Mallory No.	Resis. Ohms	Tap #1	Tap #2	Taper	Sw.
P2-14A-D	10K	.....	.....	1	DPST
P2-16A	1 meg	.....	.....	1	.....
P2-16T35	1 meg	300K	.....	.....	.....
P2-16A-D	1 meg	.....	.....	1	DPST
P2-16A-S	1 meg	.....	.....	1	SPST
P2-16L-D	1 meg	.....	.....	4	DPST
P2-26A	2 meg	.....	.....	1	.....
P2-26A-S	2 meg	.....	.....	1	SPST
P2-26DT65	2 meg	300K	600K	1	.....
P2-36L	3 meg	.....	.....	4	.....
P2-53L-S	5K	.....	.....	4	SPST
P2-55A	500K	.....	.....	1	.....
P2-55A-S	500K	.....	.....	1	SPST
P2-55L-S	500K	.....	.....	4	SPST
P2-55T254	500K	250K	.....	1	.....
P2-153A-D	15K	.....	.....	1	DPST
P2-252A-S	2.5K	.....	.....	1	SPST

TAPERS

1—Logarithmic left hand taper for audio. **2**—Logarithmic right hand taper (reverse audio). **4**—Linear taper.

MLC CARBON CONTROLS



Actual Size

Subminiature 1/2" control for transistor radios. MLC have 1/8" dia. metal shaft; MLCN, 1/8" dia. nylon shaft.

Mallory MLC Plain Control— Net Each..... **$1.14**

Mallory MLC—With SPST switch. Net Each..... **$1.86**

Mallory 1910K—MLC knob. Net.... **20c**

Mallory No.	Ohms	Taper	Switch
MLC13L	1000	4	.....
MLC222L-S	2200	4	SPST
MLC252A	2500	1	.....
MLC252A-S	2500	1	SPST
MLC53A	5000	1	.....
MLC53A-S	5000	1	SPST
MLC53L	5000	4	.....
MLC53L-S	5000	4	SPST
MLC14A-S	10K	1	SPST
MLC14L	10K	4	.....
MLC54L	50K	4	.....
MLC15A	100K	1	.....
MLC15L	100K	4	.....
MLC25L	200K	4	.....
MLC254L	250K	4	.....
MLC55A	500K	1	.....
MLC55A-S	500K	1	SPST
MLC55L-S	500K	4	SPST
MLCN55L	500K	4	.....
MLC16A-S	1 meg	1	SPST
MLC16L-S	1 meg	4	SPST
MLCN16A	1 meg	1	.....
MLCN16L	1 meg	4	.....

THEATER SPEAKER CONTROLS

Mallory Number	Description	Net Each
TSA10	4-ohm L-pad	$1.35
TSA35	35-ohm potentiometer	1.35
TSA6	6-ohm potentiometer	1.14

SENSITIVITY CONTROLS

Screwdriver slot controls for TV, radio, hum, balance, AGC, etc. Two watts. Single terminal can be bent to radial position.

FLANGE MOUNT RHEOSTATS

Mallory No.	Resis. Ohms	Net Ea.	Mallory No.	Resis. Ohms	Net Ea.
FL6	6	42c	FL600S*	600	42c
FL15	15	42c	FL750	750	42c
FL75	75	42c	FL1K	1K	42c
FL100	100	42c	FL2K	2K	42c
FL150	150	42c	FL2KS*	2K	42c
FL200	200	42c	FL3K	3K	42c
FL250	250	42c	FL4K	4K	42c
FL500	500	42c	FL5K	5K	42c
FL600	600	42c			

*Stops at 100 ohms.

FLANGE MOUNT POTENTIOMETERS

FL40P	40	42c	FL200P	200	42c
FL100P	100	42c	FL250P	250	42c

PRINTED CIRCUIT CONTROLS

Tab mount version of FL Series.

RHEOSTATS

Mallory No.	Resis. Ohms	Net Ea.	Mallory No.	Resis. Ohms	Net Ea.
PFL1.5	1.5	60c	PFL3K	3K	60c
PFL15	15	60c	PFL4K	4K	60c
PFL100	100	60c	PFL5K	5K	60c
PFL600	600	60c	PFL60A*	60	60c
PFL1K	1K	60c	PFL100A*	100	60c
PFL1.5K	1.5K	60c			

POTENTIOMETERS*

PFL10PA	10	42c	PFL120PA	120	42c
PFL30PA	30	42c	PFL150PA	150	42c

*Has polyethylene knob.

TV FOCUS CONTROLS

Replacements for TV focus controls, units are 4-watt wire-wound with special taper. Voltage breakdown, 1000 v. DC; mechanical rotation 294°, ±2°; electrical rotation 275°, ±5°. Have 2" round shaft with screwdriver slot; 1 5/16" dia.

Mallory No. TVF140—Max. 1500 ohms resistance. Net Each..... **$1.35**

Mallory No. TVF143—Max. 2500 ohms resistance. Net Each..... **$1.35**

Net

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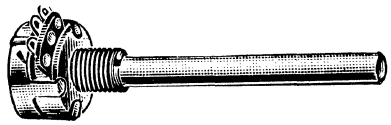
MALLORY CONTROLS

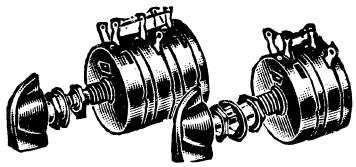
FIVE-WATT SUBMINIATURE CONTROLS



Rated at full 5 watts at 35° C. Only ¾" in diameter. Linear Taper; mechanical rotation 305° ±5°; electrical rotation 275° ±5°. Resistance tolerance, ±10%; voltage breakdown, 900 v. AC rms at sea level. Standard ⅜"-32 x ⅜" bushing with locating lug. Shaft, ¼" dia. x 2" F.M.S. Furnished with mounting nut and washer.

Mallory Number	Resistance, Ohms	Net Each
VW1	1	$1.38
VW2	2	1.38
VW3	3	1.38
VW5	5	1.38
VW6	6	1.38
VW8	8	1.38
VW10	10	1.38
VW15	15	1.38
VW20	20	1.38
VW25	25	1.38
VW30	30	1.38
VW40	40	1.38
VW50	50	1.38
VW60	60	1.38
VW75	75	1.38
VW100	100	1.38
VW200	200	1.38
VW250	250	1.38
VW300	300	1.38
VW400	400	1.38
VW500	500	1.38
VW600	600	1.38
VW750	750	1.38
VW1K	1000	1.38
VW1P5K	1500	1.44
VW2K	2000	1.44
VW2P5K	2500	1.44
VW3K	3000	1.44
VW4K	4000	1.44
VW5K	5000	1.44
VW7P5K	7500	1.50
VW10K	10000	1.50
VW15K	15000	1.56
VW20K	20000	1.56
VW25K	25000	1.65

AUDIO ATTENUATORS



"T" PAD "L" PAD

For controlling levels of audio circuits. Cup Dia.: T, L, LA and LL pads, 1⅝"; RT, RL and RR, 1⁹⁄₃₂". Bushing: T and L, ⅜"-32 x ⅜"; LA, LL, RT, RL and RR, ⅜"-32 x 1" bushing. Shaft: T and L, ¼" dia. x 2", grooved; others, ¼" dia. x ½" round. With knob, nut, washer and dial.

"T" Pad Attenuators— Net Each..... **$3.54**

Mallory No.	Ohms Imped.	Mallory No.	Ohms Imped.
T2	2	T200	200
T4	4	T250	250
T6	6	T500	500
T8	8	T600	600
T15	15	T1000	1000
T50	50	T2000	2000
T100	100	T3000	3000

"L" Pad Attenuators— Net Each..... **$2.73**

"LA" Pad Attenuators—Net Ea... **$2.85**

L2	2	L200	200
L4	4	L250	250
L6	6	L500	500
L8	8	L600	600
L8A	8	L1000	1000
L15	15	L2000	2000
L16A	16	L3000	3000
L50	50	L4000	4000
L100	100		

Tandem LL Pads—Case length, 2⁵⁄₁₆". Net Each..... **$5.70**

LL8	8	LL50	50
LL16	16		

AUDIO ATTENUATORS (CONT'D)

"RT" Pad Attenuators— Net Each..... **$3.33**

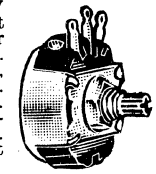
Mallory No.	Ohms Imped.	Mallory No.	Ohms Imped.
RT4	4	RT50	50
RT8	8	RT250	250
RT16	16	RT500	500

"RL" Pad Attenuators— Net Each..... **$2.52**

RL4	4	RL50	50
RL8	8	RL250	250
RL16	16	RL500	500

"RR50" Dual Tandem Stereo Control Dual 59 ohms. Net Each..... **$2.10**

TYPE R WIRE-WOUND POTS



For replacement of TV controls requiring 3 watt unit. Also for V-divider and bias applications. High quality, dust-proof, 1⁹⁄₃₂" overall dia. 900 v. insulation. No. 4 taper. Thumb knurled, screwdriver slotted stub shaft. Bushing, ⅜". One Pal-nut with each control.

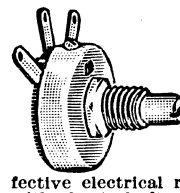
Mallory No.	Ohms	Net Each	Mallory No.	Ohms	Net Each
R2L	2	$0.93	R50CT†	50	$1.32
R3L	3	.93	R100L	100	.93
R5L	5	.93	R250L	250	.93
R6L	6	.93	R500L	500	.93
R8L	8	.93	R750L	750	.93
R10L	10	.93	R1000L	1000	.93
R10CT†	10	1.32	R1500L	1500	.93
R15L	15	.93	R2500L	2500	.93
R20L	20	.93	R3000L	3000	.93
R20CT†	20	1.32	R5000L	5000	.93
R25L	25	.93	R7500L	7500	1.08
R30L	30	.93	R10ML	10000	1.08
R30CT†	30	1.32	R15ML	15000	1.08
R50L	50	.93	R20ML	20000	1.08

†Center-tapped Controls

SWITCHES FOR TYPE R POTS

Mall. No.	Description	Net
US30	Single Pole, Single Throw	42c
US32	Double Pole, Single Throw	54c

TWO-WATT WIRE-WOUND POTENTIOMETERS



1⅛" diameter variable resistor that will dissipate 2 watts over the entire element for continuous operation. For use in test and special instruments, bias control and bridge circuits. Linear taper only. Contact arm is grounded. Total rotation 280°; effective electrical rotation 255°. Provided with short shaft, milled screwdriver slot. Will take standard knobs. Furnished with hex nut. Shipping Weight, 4 oz.

POTENTIOMETERS

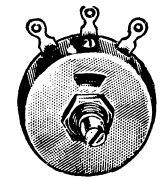
Mallory No.	Ohms Resis.	Carrying Capacity In Amps	Net Each
C6P	6	.58	$1.08
C10P	10	.45	1.08
C15P	15	.37	1.08
C20P	20	.32	1.08
C30P	30	.26	1.08
C40P	40	.22	1.08
C50P	50	.2	1.08
C100P	100	.14	1.08
C200P	200	.1	1.08
C400P	400	.07	1.08
C1MP	1K	.045	1.20
C3MP	3K	.025	1.20
C5MP	5K	.02	1.47
C6MP	6K	.018	1.47
C10MP	10K	.014	1.47
C15MP	15K	.011	1.47

RHEOSTATS*

Mallory No.	Ohms Resis.	Carrying Capacity In Amps	Net Each
C6R	6	.58	93c
C10R	10	.45	93c
C15R	15	.37	93c
C20R	20	.32	93c
C30R	30	.26	93c
C40R	40	.22	93c
C50R	50	.2	93c
C100R	100	.14	93c

*"Open" or "off" position counter-clockwise.

FOUR-WATT WIRE-WOUND POTENTIOMETERS, RHEOSTATS



Used on bias control and voltage dividers; also for replacement of positioning, hold, focus and other controls of TV sets. Rugged. Rheostats feature "off" position (no connection) type of construction. Insulated contact arm. Pots have three, rheostats have two terminals. Total rotation 294°; effective electrical rotation 275° ±5%. **No. 4 linear taper.** Voltage breakdown 1000 v. DC.
One control (with hex nut) to carton.

POTENTIOMETERS

Mallory Number	Ohms Resis.	Capacity In Amps	Net Each
M1PK	1	2.00	$1.35
M3PK	3	1.15	1.35
M6PK	6	.82	1.35
M10PK	10	.63	1.35
M15PK	15	.52	1.35
M20PK	20	.45	1.35
M25PK	25	.40	1.35
M30PK	30	.37	1.35
M40PK	40	.32	1.35
M50PK	50	.28	1.35
M60PK	60	.26	1.35
M75PK	75	.23	1.35
M100PK	100	.20	1.35
M200PK	200	.14	1.35
M300PK	300	.116	1.35
M400PK	400	10	1.35
M500PK	500	.09	1.35
M600PK	600	.082	1.35
M1MPK	1K	.063	1.35
M1.5MPK	1.5K	.052	1.35
M2MPK	2K	.045	1.35
M2.5MPK	2.5K	.04	1.35
M3MPK	3K	.037	1.35
M4MPK	4K	.032	1.35
M5MPK	5K	.028	1.35
M10MPK	10K	.02	1.35
M15MPK	15K	.016	1.47
M20MPK	20K	.014	1.47
M25MPK	25K	.013	1.47
M50MPK	50K	.009	1.74
M70MPK	70K	.0075	1.74
M75MPK	75K	.0073	2.46
M100MPK	100K	.0063	2.46

CENTER-TAPPED POTENTIOMETERS

MT10PK	10	.63	$1.32
MT20PK	20	.45	1.32
MT30PK	30	.37	1.32

RHEOSTATS*

M05RK	0.5	2.80	93c
M1RK	1	2.00	93c
M2RK	2	1.40	93c
M3RK	3	1.15	93c
M4RK	4	1.00	93c
M6RK	6	.82	93c
M10RK	10	.63	93c
M15RK	15	.52	93c
M20RK	20	.45	93c
M25RK	25	.40	93c
M30RK	30	.37	93c
M40RK	40	.32	93c
M50RK	50	.28	93c
M60RK	60	.26	93c
M75RK	75	.23	93c
M100RK	100	.20	93c

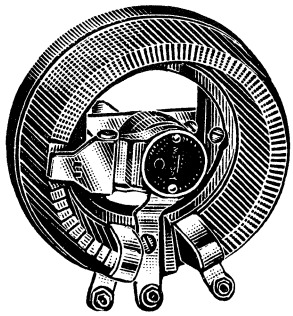
*"Open" or "Off" position counter-clockwise

SEVEN-WATT WIRE-WOUND POTENTIOMETERS

Suitable for precision instruments such as resistance bridges and where a control of medium currents or voltages is required. Supplied with grounded contact arm. 307° total rotation; 295° effective electrical rotation. Will dissipate 7 watts Provided with short shaft, milled screw-driver slot for easy adjustment. Will take standard knobs. Hex nut furnished No. 4 taper.

Mallory Number	Ohms Resis.	Capacity In Amps	Net Each
E5MP	5K	.042	$2.76
E10MP	10K	.03	2.94
E20MP	20K	.021	3.00
E25MP	25K	.019	3.09
E50MP	50K	.0135	3.15
E75MP	75K	.011	3.24
E100MP	100K	.0095	3.30
E125MP	125K	.0085	3.30
E150MP	150K	.0078	3.36

MALLORY POWER RHEOSTATS



Mallory power rheostats (Type K) utilize vitreous enamel construction for maximum environmental protection. All current-carrying parts are electrically insulated by dimensionally stable ceramic. Type K rheostats have been tested to 5,000 volts, without breakdown between electrical and mechanical components. U/L voltage ratings are as follows: 25K, 50K, 75K, 100K and 150K—300 volts; 225K, 300K and 500K—600 volts.

The contact mechanism features the patented spring-hinge arm. This spring loaded assembly ensures constant and correct pressure on the rheostat windings. An added advantage is that the high-purity graphite block may be removed easily for cleaning, or, if necessary, for replacement.

Type K rheostats are furnished in a standard linear taper and with all mounting hardware, dial plate and knob. Special two- and three-section tapers are available on special order. All values shown are for continuous operation in free air.

TYPE 25K 25 WATTS

1 9/16" O.D. 295° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
25K1P	1	5.000	28	$4.40
25K2P	2	3.540	28	3.90
25K3P	3	2.880	53	3.90
25K6P	6	2.040	51	3.90
25K8P	8	1.770	56	3.90
25K10P	10	1.580	54	3.90
25K15P	15	1.290	88	3.90
25K25P	25	1.000	117	3.90
25K35P	35	.845	129	3.90
25K50P	50	.707	149	3.90
25K75P	75	.575	174	3.90
25K100P	100	.500	184	3.90
25K125P	125	.447	187	3.90
25K175P	175	.378	178	3.90
25K250P	250	.316	200	3.90
25K350P	350	.267	227	3.90
25K500P	500	.222	256	3.90
25K750P	750	.182	303	3.90
25K1000P	1000	.155	318	4.40
25K1500P	1500	.129	310	4.40
25K2500P	2500	.100	405	4.40
25K3500P	3500	.084	432	4.66
25K5000P	5000	.070	471	4.66

TYPE 50K 50 WATTS

2 13/32" O.D. 300° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
50K.5P	.5	10.00	25	$4.89
50K1P	1	7.07	37	4.89
50K2P	2	5.00	42	4.89
50K4P	4	3.54	66	4.40
50K6P	6	2.89	79	4.40
50K8P	8	2.50	84	4.40
50K12P	12	2.04	100	4.40
50K16P	16	1.76	106	4.49
50K22P	22	1.50	145	4.40
50K35P	35	1.19	145	4.40
50K50P	50	1.00	163	4.40
50K80P	80	.79	210	4.40
50K125P	125	.63	204	4.40
50K150P	150	.58	244	4.40
50K225P	225	.47	298	4.40
50K300P	300	.41	268	4.40
50K500P	500	.32	205	4.40
50K800P	800	.25	363	4.66
50K1000P	1000	.22	354	4.66
50K1600P	1600	.176	449	4.66
50K2500P	2500	.14	455	4.66
50K3500P	3500	.12	500	4.89
50K5000P	5000	.10	550	4.89
50K8000P	8000	.08	690	4.89
50K10000P	10000	.07	870	4.89

TYPE 75K 75 WATTS

2 25/32" O.D. 300° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
75K.5P	.5	12.20	26	$6.61
75K1P	1	8.66	35	6.61
75K2P	2	6.12	42	6.61
75K4P	4	4.34	64	6.61
75K6P	6	3.54	77	6.09
75K8P	8	3.06	81	6.09
75K12P	12	2.50	97	6.09
75K25P	25	1.73	126	6.09
75K50P	50	1.22	159	6.09
75K75P	75	1.00	188	6.09
75K100P	100	.87	200	6.09
75K200P	200	.61	249	6.09
75K250P	250	.55	252	6.09
75K350P	350	.46	277	6.09
75K500P	500	.39	312	6.09
75K750P	750	.32	330	6.61
75K1MP	1000	.27	365	6.61
75K1500P	1500	.22	407	6.61
75K2500P	2500	.17	428	6.61
75K5MP	5000	.12	550	7.08
75K8MP	8000	.10	670	7.60
75K10MP	10000	.09	660	7.60

TYPE 100K 100 WATTS

3 1/8" O.D. 300° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
100K.5P	.5	14.20	30	$7.32
100K1P	1	10.00	40	7.32
100K2P	2	7.07	42	7.32
100K3P	3	5.77	56	7.32
100K5P	5	4.47	59	7.32
100K7.5P	7.5	3.65	96	6.86
100K10P	10	3.16	101	6.86
100K16P	16	2.50	128	6.86
100K25P	25	2.00	160	6.86
100K50P	50	1.41	200	6.86
100K75P	75	1.15	240	6.86
100K100P	100	1.00	250	6.86
100K200P	200	.71	315	6.86
100K300P	300	.58	302	6.86
100K400P	400	.50	316	6.86
100K500P	500	.45	342	6.86
100K750P	750	.37	406	6.86
100K1000P	1000	.32	435	7.32
100K1500P	1500	.26	520	7.32
100K2000P	2000	.22	544	7.32
100K2500P	2500	.20	535	7.32
100K5000P	5000	.14	692	7.82
100K7500P	7500	.12	820	8.30
100K10000P	10000	.10	840	8.80

TYPE 150K 150 WATTS

4 1/32" O.D. 305° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
150K.5P	.5	17.30	31	$9.28
150K1P	1	12.30	38	9.28
150K2P	2	8.66	51	9.28
150K3P	3	7.07	73	9.28
150K5P	5	5.48	77	9.28
150K7.5P	7.5	4.47	70	9.28
150K10P	10	3.87	145	8.80
150K15P	15	3.16	138	8.80
150K25P	25	2.45	142	8.80
150K35P	35	2.07	198	8.80
150K50P	50	1.73	182	8.80
150K75P	75	1.41	218	8.80
150K100P	100	1.22	229	8.80
150K150P	150	1.00	276	8.80
150K200P	200	.87	289	8.80
150K250P	250	.77	360	8.80
150K350P	350	.66	350	8.80
150K500P	500	.55	400	8.80
150K750P	750	.45	460	9.28
150K1250P	1250	.35	490	9.28
150K1800P	1800	.290	555	9.80
150K2250P	2250	.26	547	9.80
150K3000P	3000	.22	729	9.80
150K4500P	4500	.18	689	10.27
150K7500P	7500	.14	930	10.76
150K10000P	10000	.12	980	11.73

TYPE 225K 225 WATTS

5" O.D. 310° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
225K1P	1	15.00	52	$13.40
225K2P	2	10.60	69	13.40
225K3P	3	8.66	73	13.40
225K4P	4	7.50	91	13.40
225K5P	5	6.71	91	13.40
225K7.5P	7.5	5.48	96	13.40
225K10P	10	4.74	101	13.40
225K15P	15	3.87	147	13.40
225K25P	25	3.00	192	13.40
225K50P	50	2.12	242	13.40
225K75P	75	1.73	290	13.40
225K100P	100	1.50	304	13.40
225K150P	150	1.22	364	13.40
225K200P	200	1.06	382	13.40
225K350P	350	.80	421	13.40
225K500P	500	.67	475	13.40
225K750P	750	.55	577	13.40
225K1MP	1000	.47	605	13.40
225K1500P	1500	.39	715	13.40
225K2500P	2500	.30	660	13.40

TYPE 300K 300 WATTS

6 1/16" O.D. 315° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
300K1P	1	17.30	48	$14.53
300K2P	2	12.25	60	14.53
300K3P	3	10.00	64	14.53
300K4P	4	8.66	80	14.53
300K5P	5	7.75	80	14.53
300K7.5P	7.5	6.32	100	14.53
300K10P	10	5.48	139	14.53
300K15P	15	4.47	128	14.53
300K25P	25	3.46	182	14.53
300K50P	50	2.45	228	14.53
300K75P	75	2.00	271	14.53
300K100P	100	1.73	287	14.53
300K150P	150	1.41	338	14.53
300K200P	200	1.22	361	14.53
300K300P	300	1.00	427	14.53
300K400P	400	.87	460	14.53
300K700P	700	.66	555	14.53
300K900P	900	.58	564	14.53
300K1200P	1200	.50	605	14.53
300K1500P	1500	.45	755	14.53
300K1750P	1750	.41	691	14.53
300K2500P	2500	.35	785	14.53

TYPE 500K 500 WATTS

8" O.D. 325° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
500K1P	1	22.40	73	$20.99
500K2P	2	15.80	68	20.99
500K3P	3	12.90	91	20.99
500K4P	4	11.20	96	20.99
500K5P	5	10.00	127	20.99
500K7.5P	7.5	8.16	134	20.99
500K10P	10	7.07	169	20.99
500K15P	15	5.79	180	20.99
500K25P	25	4.47	230	20.99
500K50P	50	3.16	285	20.99
500K75P	75	2.58	342	20.99
500K100P	100	2.24	362	20.99
500K150P	150	1.82	430	20.99
500K200P	200	1.58	452	20.99
500K250P	250	1.41	563	20.99
500K350P	350	1.20	630	20.99
500K500P	500	1.00	708	20.99
500K750P	750	.82	670	20.99
500K1MP	1000	.71	705	20.99
500K1500P	1500	.58	862	20.99
500K2500P	2500	.45	975	20.99

TYPE "K" RHEOSTAT ACCESSORIES

(Not Illustrated)

Mallory No.	Description	Dia.	Net Each
365-1	Bar knob	2 1/4"	$0.21
366-1	Bar knob	1 1/4"	.15
367-1	Knurled rd. knob	1 1/2"	.21
368-1	Knurled rd. knob	1 1/8"	.20
364	368 w/pointer	11/16"	.09
363-1†	Handwheel*	3 1/2"	2.49
362-1	Handwheel*	3 1/2"	2.03
362-2	Handwheel**	3 1/4"	2.03
361	Finger grip*	1 3/8"	.70
361-1	Finger grip**	1 3/8"	.55
360	Finger grip*	1 5/8"	.99
360-1	Finger grip**	1 5/8"	.89
359†	Finger grip*	2 3/8"	.64
359-1†	Finger grip**	2 3/8"	.50
369	Dial plate, 0–100	.....	.21
370	Dial plate, 0–100	.....	.85
391	Dial plate, vol.	.....	.21

*With pointer. **Without pointer. †3/8" hole dia., others, 1/4".

Net

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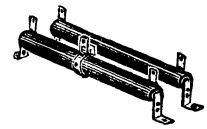
MALLORY RESISTORS

TYPE HJ (FIXED) AND AV (ADJUSTABLE)

Vitreous enamel-coated, wire-wound resistors. Furnished with complete hardware except HHJ, 1HJ and 2HJ which have wire leads.

To Order: Use type number followed by resistance value (i.e., HHJ4000).

Tolerance: ±5% except (*), ±10%.



FIXED VITREOUS TYPES

5-WATT TYPE HHJ

Ohms	Net Each	Ohms	Net Each	Ohms	Net Each	Ohms	Net Each
1*	$0.46	50	$0.46	750	$0.50	4500	$0.50
1.5*	.46	75	.46	800	.50	5000	.50
2*	.46	100	.46	900	.50	6000	.53
3*	.46	125	.46	1000	.50	7000	.53
4*	.46	150	.46	1100	.50	7500	.53
5*	.46	200	.46	1200	.50	8000	.53
7.5*	.46	225	.46	1250	.50	9000	.53
10*	.46	250	.46	1500	.50	10,000	.53
12	.46	300	.46	1750	.50	12,500	.57
15	.46	350	.50	2000	.50	15,000	.57
20	.46	400	.50	2250	.50	20,000	.61
25	.46	450	.50	2500	.50	25,000	.63
30	.46	500	.50	3000	.50		
35	.46	600	.50	3500	.50		
40	.46	700	.50	4000	.50		

10-WATT TYPE 1HJ

1*	$0.51	150	$0.51	1500	$0.53	11,000	$0.71
2*	.51	200	.51	1750	.53	12,000	.71
3*	.51	225	.51	2000	.53	12,500	.71
4*	.51	250	.51	2250	.53	13,500	.71
5*	.51	300	.51	2500	.53	14,300	.71
7.5*	.51	350	.51	3000	.53	15,000	.71
10*	.51	400	.51	3500	.53	16,000	.71
12	.51	450	.51	4000	.53	17,500	.71
15	.51	500	.51	4500	.53	18,000	.71
20	.51	600	.51	5000	.53	20,000	.71
25	.51	700	.51	6000	.63	22,500	.75
30	.51	750	.51	7000	.63	25,000	.75
35	.51	800	.51	7500	.63	30,000	.75
40	.51	900	.51	8000	.63	35,000	.75
50	.51	1000	.51	8200	.63	40,000	.75
75	.51	1100	.53	8500	.63	45,000	.83
100	.51	1200	.53	9000	.63	50,000	.83
125	.51	1250	.53	10,000	.63		

20-WATT TYPE 2HJ

5	$0.61	300	$0.61	2500	$0.63	12,500	$0.77
10	.61	400	.61	2750	.75	15,000	.77
15	.61	500	.61	3000	.75	20,000	.77
25	.61	750	.61	3500	.75	25,000	.77
50	.61	1000	.61	4000	.75	30,000	.77
75	.61	1250	.61	4500	.75	35,000	.90
100	.61	1500	.61	5000	.75	40,000	.90
150	.61	1750	.63	6000	.75	50,000	.90
200	.61	2000	.63	7500	.75	75,000	1.31
250	.61	2250	.63	10,000	.75	100,000	1.34

25-WATT TYPE 2.5HJ

1	$0.65	75	$0.65	2000	$0.68	12,500	$0.81
2	.65	100	.65	2500	.68	15,000	.81
3	.65	150	.65	3000	.78	20,000	.81
5	.65	200	.65	3500	.78	25,000	.81
7.5	.65	250	.65	4000	.78	30,000	.94
10	.65	500	.65	5000	.78	40,000	.94
15	.65	750	.65	6000	.78	50,000	1.09
25	.65	1000	.65	7500	.78	75,000	1.28
50	.65	1500	.65	10,000	.78	100,000	1.47

50-WATT TYPE 5HJ

10	$0.99	750	$0.99	7500	$1.11	30,000	$1.39
25	.99	1000	.99	10,000	1.11	40,000	1.39
50	.99	1500	1.02	12,500	1.21	50,000	1.55
100	.99	2000	1.02	15,000	1.21	75,000	1.77
250	.99	2500	1.02	20,000	1.21	100,000	1.92
500	.99	5000	1.02	25,000	1.39		

75-WATT TYPE 7.5HJ

10	$1.17	750	$1.17	7500	$1.30	30,000	$1.57
25	1.17	1000	1.17	10,000	1.30	40,000	1.57
50	1.17	1500	1.22	12,500	1.40	50,000	1.75
100	1.17	2000	1.22	15,000	1.40	75,000	1.99
250	1.17	2500	1.22	20,000	1.40	100,000	2.12
500	1.17	5000	1.22	25,000	1.57		

100-WATT TYPE 10HJ

25	$1.38	750	$1.38	7500	$1.56	40,000	$1.92
50	1.38	1000	1.38	10,000	1.56	50,000	1.99
100	1.38	1500	1.44	15,000	1.69	75,000	2.20
150	1.38	2000	1.44	20,000	1.69	100,000	2.46
250	1.38	2500	1.44	25,000	1.92		
500	1.38	5000	1.44	30,000	1.92		

160-WATT TYPE 16HJ

25	$2.05	750	$2.05	7500	$2.28	40,000	$2.52
50	2.05	1000	2.05	10,000	2.28	50,000	2.60
100	2.05	1500	2.09	15,000	2.44	75,000	2.77
150	2.05	2000	2.09	20,000	2.44	100,000	2.93
250	2.05	2500	2.09	25,000	2.52		
500	2.05	5000	2.09	30,000	2.52		

*Tolerance ±10%; all others ±5%.

200-WATT TYPE 20HJ (FIXED)

Ohms	Net Each	Ohms	Net Each	Ohms	Net Each	Ohms	Net Each
25	$2.21	750	$2.21	5000	$2.28	50,000	$2.77
50	2.21	1000	2.21	7500	2.44	75,000	2.93
75	2.21	1500	2.28	10,000	2.44	100,000	3.11
100	2.21	2000	2.28	20,000	2.60		
250	2.21	2500	2.28	30,000	2.68		
500	2.21	3000	2.28	40,000	2.68		

ADJUSTABLE VITREOUS TYPES

10-WATT TYPE 1AV

1	$1.00	75	$1.00	750	$1.00	4000	$1.06
2	1.00	100	1.00	800	1.00	4500	1.06
3	1.00	150	1.00	1000	1.00	5000	1.06
5	1.00	200	1.00	1250	1.06	6000	1.14
7.5	1.00	250	1.00	1500	1.06	7000	1.14
10	1.00	300	1.00	2000	1.06	7500	1.14
15	1.00	350	1.00	2250	1.06	8000	1.14
20	1.00	400	1.00	2500	1.06	8500	1.14
25	1.00	500	1.00	3000	1.06	9000	1.14
50	1.00	600	1.00	3500	1.06	10,000	1.14

25-WATT TYPE 2AV

1	$1.57	100	$1.16	1000	$1.16	5000	$1.19
3	1.57	150	1.16	1250	1.19	6000	1.28
5	1.16	200	1.16	1500	1.19	7500	1.28
10	1.16	250	1.16	2000	1.19	10,000	1.28
15	1.16	300	1.16	2500	1.19	12,000	1.32
25	1.16	400	1.16	3000	1.19	15,000	1.32
50	1.16	500	1.16	3500	1.19	20,000	1.32
75	1.16	750	1.16	4000	1.19	25,000	1.45

50-WATT TYPE 5AV

5	$1.51	200	$1.51	2000	$1.54	15,000	$1.72
10	1.51	250	1.51	2500	1.54	20,000	1.72
25	1.51	400	1.51	3000	1.54	25,000	1.90
50	1.51	500	1.51	4000	1.54	30,000	1.90
75	1.51	750	1.51	5000	1.54	40,000	1.90
100	1.51	1000	1.51	7500	1.62	50,000	1.99
150	1.51	1500	1.54	10,000	1.62		

75-WATT TYPE 7.5AV

5	$1.69	200	$1.69	2000	$1.74	15,000	$1.92
10	1.69	250	1.69	2500	1.74	20,000	1.92
25	1.69	400	1.69	3000	1.74	25,000	2.09
50	1.69	500	1.69	4000	1.74	30,000	2.09
75	1.69	750	1.69	5000	1.74	40,000	2.09
100	1.69	1000	1.69	7500	1.81	50,000	2.27
150	1.69	1500	1.74	10,000	1.81		

100-WATT TYPE 10AV

50	$1.95	2500	$2.01	10,000	$2.13	35,000	$2.49
100	1.95	3000	2.01	15,000	2.26	40,000	2.49
500	1.95	4000	2.01	20,000	2.26	50,000	2.57
1000	1.95	5000	2.01	25,000	2.49	75,000	2.81
2000	2.01	7500	2.13	30,000	2.49	100,000	3.01

160-WATT TYPE 16AV

50	$2.85	2500	$2.88	10,000	$3.07	35,000	$3.31
100	2.85	3000	2.88	15,000	3.24	40,000	3.31
500	2.85	4000	2.88	20,000	3.24	50,000	3.40
1000	2.85	5000	2.88	25,000	3.31	75,000	3.56
2000	2.88	7500	3.07	30,000	3.31	100,000	3.72

200-WATT TYPE 20AV

50	$3.19	1500	$3.26	10,000	$3.44	50,000	$3.91
100	3.19	2000	3.26	20,000	3.62	75,000	4.09
500	3.19	2500	3.26	25,000	3.81	100,000	4.29
1000	3.19	5000	3.26	30,000	3.81		

RESISTOR TUBE SIZES

Type	Dia. x L.	Type	Dia. x L.
HHJ	5/16" x 1"	20HJ	1 1/8" x 10 1/2"
1HJ	5/16" x 1 3/4"	1AV	5/16" x 1 3/4"
2HJ	7/16" x 2"	2AV	9/16" x 2"
2.5HJ	7/16" x 2"	5AV	9/16" x 4"
5HJ	9/16" x 4"	7.5AV	9/16" x 6"
7.5HJ	9/16" x 6"	10AV	3/4" x 6 1/2"
10HJ	3/4" x 6 1/2"	16AV	1 1/8" x 8 1/2"
16HJ	1 1/8" x 8 1/2"	20AV	1 1/8" x 10 1/2"

MOUNTING FEET

No.	Fits Type	Net
30V	5-watt, 10-watt	3c
31V	20, 25, 50 and 75-watt	6c
32V	100-watt	10c
33V	200-watt	18c
35V	160-watt	15c

ADJUSTABLE CLIPS

No.	Fits Types	Net
1V	1AV	5c
3V	2AV, 5AV, 7.5AV	18c
4V	10AV	18c
6V	16AV, 20AV	21c

NEW MALLORY "MOL" METAL OXIDE FILM RESISTORS AVAILABLE IN EIA VALUES FROM 30 TO 130K OHMS AND 2, 3, 4, 5, 7 WATTS. ASK FOR BULLETIN 98-42

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VITREOUS ENAMELED RHEOSTATS

Twelve sizes in wirewound, vitreous enameled rheostats are stocked by Ohmite distributors all over the country and at the Ohmite factory. This selection, the most extensive available to industry, covers ratings that meet the major portion of design, production and emergency needs. Ratings of 7½, 12½, 25, 50, 75, 100, 150, 225, 300, 500, 750 and 1000 watts are standard.

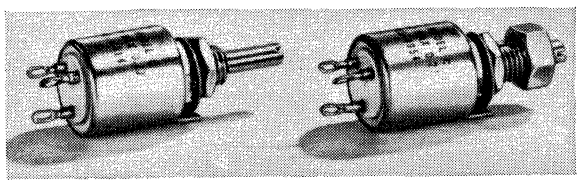
FEATURES OF CONSTRUCTION: Ohmite rheostats are designed to produce permanently smooth, close control. The construction is all ceramic and metal; there is nothing to smoke, char, shrink, or shift. All models have insulated shafts with provision to keep the rheostat from turning on the panel. The resistance wire is wound over a solid ceramic core. Each turn is a separate resistance step and is locked against shifting by vitreous enamel. The core and base are also bonded by vitreous enamel. The pivoted universal-action-mounted contact brush is of copper-graphite or silver-graphite on the heavier current rheostats. It rides upon a large flat surface and assures perfect contact without wear on the wire. Pressure at the contact and at the center lead are independent. Ohmite Rheostat Models H, J, G, K, L, P, and N, all marked Series A, are listed under the Underwriters' Laboratories Reexamination Service.

RATING: The current carrying capacities shown in the tables are for use in *free air;* when units are enclosed, these currents should be reduced possibly as much as 30% to 50%, depending upon the degree of ventilation. The rated current will cause the rheostat to dissipate its rated wattage when the full resistance is in the circuit.

MODEL "C" — MINIATURE RHEOSTAT

In this era of miniaturization and transistorization, the Model C enlarges the horizons of designers by providing greater design flexibility. In addition to its small size, its versatile solder terminals will also plug into common transistor sockets or circuit boards. It is stocked with both standard and locking type bushings.

Actual Size



MODEL "C" — 7½ WATT*
Standard & Locking Bushings

Diameter .515" max. — Depth behind panel ⅞" — Shaft ⅛" diameter, slotted for both types; Std. shaft accommodates knob — Rotation 300° — Mounting for panels up to ⅛" by means of ¼"-32 bushing and hex nut — Non-turn lug requires ⅛" hole ¼" below center of shaft — No. 5151 knob recommended — Solder terminals will fit EIA type TS-E3R100 transistor socket — Wt. 0.27 oz.

Ohms	Amps.	Standard Shaft Stock No.	Standard Shaft Net 1-4	Locking Shaft Stock No.	Locking Shaft Net 1-4
10	.86	4908	**$12.43**	4948	**$14.32**
15	.71	4909	**11.00**	4949	**12.89**
25	.55	4910	**11.00**	4950	**12.89**
35	.46	4911	**11.00**	4951	**12.89**
50	.39	4912	**11.00**	4952	**12.89**
75	.32	4913	**11.00**	4953	**12.89**
100	.27	4914	**11.00**	4954	**12.89**
150	.22	4915	**11.00**	4955	**12.89**
200	.19	4916	**11.00**	4956	**12.89**
250	.17	4917	**11.00**	4957	**12.89**
350	.15	4918	**11.00**	4958	**12.89**
500	.12	4919	**11.00**	4959	**12.89**
750	.10	4920	**11.00**	4960	**12.89**
1000	.086	4921	**12.43**	4961	**14.32**
1500	.071	4922	**12.43**	4962	**14.32**
2500	.055	4923	**12.43**	4963	**14.32**
3500	.046	4924	**13.00**	4964	**14.89**
5000	.039	4925	**13.00**	4965	**14.89**

*Rating on metal panel.
3-Pin Socket for Model C Rheostat: Stock No. 6595, Net 1-4, $.42

MODEL "E" — 12.5 WATT*

Unenclosed and Enclosed

Diameter 7/8"—Depth behind panel 11/16"—Shaft ⅛" Diameter. Rotation 300°—Mounting for panels up to ⅛" by means of ¼"-32 Bushing and Hex. Nut—Non-turn lug requires ⅛" hole ¼" below center of shaft—Stock No. 5151 Knob Recommended.
Enclosure including terminals 1 7/32" long by 1 3/64" diameter.

Total Ohms	Max. Amps.	Unenclosed Stock No.	Unenclosed Net 1-4	Enclosed Stock No.	Enclosed Net 1-4
1	3.53	0101	**$4.63**	W0101	**$6.31**
2	2.50	0102	**4.63**	W0102	**6.31**
2.5	2.24	0102A	**4.63**	W0102A	**6.31**
3	2.04	0103	**4.63**	W0103	**6.31**
5	1.58	0103A	**4.63**	W0103A	**6.31**
6	1.44	0104	**4.63**	W0104	**6.31**
8	1.25	0105	**4.63**	W0105	**6.31**
10	1.12	0106	**4.63**	W0106	**6.31**
15	.91	0107	**4.11**	W0107	**5.79**
25	.71	0108	**4.11**	W0108	**5.79**
35	.60	0109	**4.11**	W0109	**5.79**
50	.50	0110	**4.11**	W0110	**5.79**
75	.41	0111	**4.11**	W0111	**5.79**
100	.35	0112	**4.11**	W0112	**5.79**
125	.32	0113	**4.11**	W0113	**5.79**
150	.29	0113A	**4.11**	W0113A	**5.79**
175	.27	0114	**4.11**	W0114	**5.79**
200	.25	0114A	**4.11**	W0114A	**5.79**
250	.22	0115	**4.11**	W0115	**5.79**
350	.19	0116	**4.11**	W0116	**5.79**
500	.16	0117	**4.11**	W0117	**5.79**
750	.13	0118	**4.11**	W0118	**5.79**
1,000	.11	0119	**4.63**	W0119	**6.31**
1,500	.091	0120	**4.63**	W0120	**6.31**
2,500	.071	0121	**4.63**	W0121	**6.31**
3,500	.060	0122	**4.90**	W0122	**6.58**
5,000	.050	0123	**4.90**	W0123	**6.58**
7,500	.041	4190†	**5.06**	W4190†	**6.74**
10,000	.035	4191†	**5.06**	W4191†	**6.74**
12,500	.031	4192†	**5.50**	W4192†	**7.18**
15,000	.029	4193†	**5.50**	W4193†	**7.18**

†Silicone-ceramic coating, 350 V. max. *Rating on metal panel.

MODEL "H", Series A — 25 WATT

Diameter 1 5/16"—Depth behind panel 1⅜"—Shaft ¼" diameter. Rotation 300°—Mounting for panels up to ¼" by means of ⅜"-32 Bushing and Hex. Nut—Non-turn lug requires 5/16" hole ½" below center of shaft—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
0140	1	5.000	**$4.63**	0154	250	.316	**$4.11**
0141	2	3.540	**4.63**	0155	350	.267	**4.11**
0142	3	2.880	**4.63**	0156	500	.222	**4.11**
0143	6	2.040	**4.63**	0157	750	.182	**4.11**
0144	8	1.770	**4.63**	0158	1,000	.155	**4.63**
0145	10	1.580	**4.63**	0159	1,500	.129	**4.63**
0146	15	1.290	**4.11**	0160	2,500	.100	**4.63**
0147	25	1.000	**4.11**	0161	3,500	.084	**4.90**
0148	35	.845	**4.11**	0162	5,000	.070	**4.90**
0149	50	.707	**4.11**	4200†	7,500	.058	**5.06**
0150	75	.575	**4.11**	4201†	10,000	.050	**5.06**
0151	100	.500	**4.11**	4202†	15,000	.040	**5.50**
0152	125	.445	**4.11**	4203†	20,000	.035	**6.16**
0153	175	.375	**4.11**	4204†	25,000	.032	**6.82**

†Silicone-ceramic coating, 500 V. max. Not listed UL Ser. A.

MODEL "J", Series A — 50 WATT

Diameter 2 5/16"—Depth behind panel 1⅜"—Shaft ¼" Diameter. Rotation 300°—Mounting for panels up to ¼" by means of ⅜"-32 Bushing and Hex Nut—Non-turn lug requires 5/16" hole ½" below center of shaft—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
0308	0.5	10.000	**$5.15**	0324	500	.316	**$4.63**
0309	1	7.070	**5.15**	0325	800	.250	**4.90**
0310	2	5.000	**5.15**	0326	1,000	.224	**4.90**
0311	4	3.530	**5.15**	0327	1,600	.176	**4.90**
0312	6	2.880	**5.15**	0328	2,500	.141	**4.90**
0313	8	2.500	**4.63**	0329	3,500	.119	**5.15**
0314	12	2.040	**4.63**	0330	5,000	.100	**5.15**
0315	16	1.760	**4.63**	0331	8,000	.079	**5.15**
0316	22	1.500	**4.63**	0332	10,000	.070	**5.15**
0317	35	1.190	**4.63**	4210†	15,000	.058	**5.83**
0318	50	1.000	**4.63**	4211†	20,000	.050	**6.60**
0319	80	.790	**4.63**	4212†	25,000	.045	**7.26**
0320	125	.630	**4.63**	4213†	30,000	.041	**8.03**
0321	150	.575	**4.63**	4214†	40,000	.035	**9.35**
0322	225	.470	**4.63**	4215†	50,000	.032	**10.23**
0323	300	.408	**4.63**				

†Silicone-ceramic coating, 750 V. max. Not listed UL Ser. A.

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VITREOUS ENAMELED RHEOSTATS

MODEL "G" — 75 WATT

Diameter 2¾"—Depth behind panel 1¾"—Shaft ¼" Diameter. Rotation 300°—Mounting for panels up to ¼" by means of ⅜"-32 Bushing and Hex. Nut—Non-turn lug requires $\frac{3}{16}$" hole ½" below center of shaft—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
1100	0.5	12.300	$6.97	1112	200	.612	$6.41
1101	1	8.660	6.97	1113	300	.500	6.41
1102	2	6.120	6.97	1114	400	.433	6.41
1103	3	5.000	6.97	1115	500	.388	6.41
1104	5	3.880	6.97	1116	750	.316	6.97
1105	7.5	3.160	6.97	1117	1,000	.274	6.97
1106	10	2.740	6.97	1118	1,500	.224	6.97
1107	16	2.170	6.41	1119	2,000	.194	6.97
1108	25	1.730	6.41	1120	2,500	.173	6.97
1109	50	1.230	6.41	1121	5,000	.123	7.45
1110	75	1.000	6.41	1122	7,500	.100	8.00
1111	100	.866	6.41	1123	10,000	.087	8.00

MODEL "K", Series A — 100 WATT

Diameter 3⅛"—Depth behind panel 1¾"—Shaft ¼" Diameter. Rotation 300°—Mounting for panels up to ¼" by means of ⅜"-32 Bushing and Hex. Nut—Non-turn lug requires $\frac{3}{16}$" hole ½" below center of shaft—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
0440	0.5	14.100	$7.72	0452	200	.707	$7.21
0441	1	10.000	7.72	0453	300	.575	7.21
0442	2	7.070	7.72	0454	400	.500	7.21
0443	3	5.750	7.72	0455	500	.447	7.21
0444	5	4.470	7.72	0456	750	.365	7.21
0445	7.5	3.650	7.72	0457	1,000	.316	7.72
0446	10	3.160	7.72	0458	1,500	.258	7.72
0447	16	2.500	7.21	0459	2,000	.224	7.72
0448	25	2.000	7.21	0460	2,500	.200	7.72
0449	50	1.410	7.21	0461	5,000	.141	8.24
0450	75	1.150	7.21	0462	7,500	.115	8.76
0451	100	1.000	7.21	0463	10,000	.100	9.26

MODEL "L", Series A — 150 WATT

Diameter 4"—Depth behind panel 2"—Shaft ¼" Diameter. Rotation 300°—Mounting for panels up to ¼", ⅜"-32 Bushing and Hex. Nut or two 10-32 x ¾" flat head screws, mounting centers ⅞" each side of center of shaft on line perpendicular to center terminal.—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
0524	0.5	17.300	$9.78	0537	150	1.000	$ 9.26
0525	1	12.300	9.78	0538	200	.865	9.26
0526	2	8.650	9.78	0539	250	.775	9.26
0527	3	7.070	9.78	0540	350	.655	9.26
0528	5	5.480	9.78	0541	500	.548	9.26
0529	7.5	4.470	9.78	0542	750	.447	9.78
0530	10	3.880	9.78	0543	1,250	.346	9.78
0531	15	3.613	9.78	0544	1,800	.288	10.30
0532	25	2.450	9.26	0545	2,250	.259	10.30
0533	35	2.070	9.26	0546	3,000	.224	10.30
0534	50	1.735	9.26	0547	4,500	.182	10.81
0535	75	1.415	9.26	0548	7,500	.141	11.33
0536	100	1.225	9.26	0549	10,000	.122	12.35

MODEL "P" — 225 WATT

Diameter 5"—Depth behind panel 2⅛"—Shaft ⅜" Diameter. Rotation 310°—Mounting for panels up to 1¼", two ¼"-20 x 1½" flat head screws, mounting centers ⅞" each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
1250	1	15.000	$14.11	1261	100	1.500	$14.11
1251	2	10.600	14.11	1262	150	1.220	14.11
1252	3	8.660	14.11	1263	200	1.060	14.11
1253	4	7.500	14.11	1264	300	.866	14.11
1254	5	6.710	14.11	1265	400	.750	14.11
1255	7.5	5.490	14.11	1266	700	.567	14.11
1256	10	4.740	14.11	1267	900	.500	14.11
1257	15	3.870	14.11	1268	1,200	.433	14.11
1258	25	3.000	14.11	1269	1,500	.387	14.11
1259	50	2.120	14.11	1270	1,750	.358	14.11
1260	75	1.730	14.11	1270A	2,000	.336	14.11
				1271	2,500	.300	14.11

MODEL "N", Series A — 300 WATT

Diameter 6"—Depth behind panel 2⅜"—Shaft ⅜" Diameter. Rotation 320°—Mounting for panels up to 1¼", two ¼"-20 x 1½" flat head screws, mounting centers $1\frac{9}{16}$" each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
0650	1	17.320	$15.29	0661	100	1.730	$15.29
0651	2	12.240	15.29	0662	150	1.410	15.29
0652	3	10.000	15.29	0663	200	1.220	15.29
0653	4	8.660	15.29	0664	300	1.000	15.29
0654	5	7.750	15.29	0665	400	.866	15.29
0655	7.5	6.320	15.29	0666	700	.655	15.29
0656	10	5.480	15.29	0667	900	.578	15.29
0657	15	4.470	15.29	0668	1,200	.500	15.29
0658	25	3.460	15.29	0669	1,500	.447	15.29
0659	50	2.450	15.29	0670	1,750	.414	15.29
0660	75	2.000	15.29	0670A	2,000	.387	15.29
				0671	2,500	.346	15.29

MODEL "R" — 500 WATT

Diameter 8"—Depth behind panel 2⅛"—Shaft ⅜" Diameter. Rotation 325°—Mounting for panels up to 1¼", two ¼"-20 x 1½" flat head screws, mounting centers 1½" each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
0849	1.0	22.300	$22.09	0872	50	3.160	$22.09
0850	1.5	18.200	22.09	0861	80	2.520	22.09
0851	2	15.800	22.09	0862	125	2.000	22.09
0852	2.5	14.100	22.09	0863	175	1.690	22.09
0853	3	12.900	22.09	0864	250	1.410	22.09
0854	4	11.200	22.09	0865	325	1.240	22.09
0855	5	10.000	22.09	0866	500	1.000	22.09
0856	8	7.900	22.09	0867	750	.817	22.09
0857	12.5	6.300	22.09	0868	1,000	.707	22.09
0858	16	5.600	22.09	0869	1,500	.577	22.09
0859	25	4.470	22.09	0870	2,000	.500	22.09
0860	40	3.540	22.09	0871	2,500	.447	22.09

MODEL "T" — 750 WATT

Diameter 10"—Depth behind panel 3"—Shaft ⅜" Diameter. Rotation 330°—Mounting for panels up to 1¼", two ¼"-20 x 1½" flat head screws, mounting centers 1⅞" each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
1300	1	27.400	$31.20	1312	50	3.870	$31.20
1301	1.5	22.300	31.20	1313	80	3.060	31.20
1302	2	19.400	31.20	1314	100	2.740	31.20
1303	2.5	17.300	31.20	1315	160	2.170	31.20
1304	3	15.800	31.20	1316	200	1.940	31.20
1305	4	13.600	31.20	1317	300	1.580	31.20
1306	5	12.200	31.20	1318	400	1.370	31.20
1307	8	9.650	31.20	1319	600	1.117	31.20
1308	10	8.650	31.20	1320	750	1.000	31.20
1309	12.5	7.750	31.20	1321	1,200	.791	31.20
1310	16	6.820	31.20	1322	1,800	.646	31.20
1311	25	5.470	31.20	1322A	2,000	.610	31.20
				1323	2,500	.547	31.20

MODEL "U" — 1000 WATT

Diameter 12" — Depth behind panel 3" — Shaft ⅜" Diameter. Rotation 335°—Mounting for panels up to 1¼", two ¼"-20 x 1½" flat head screws, mounting centers 3" each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

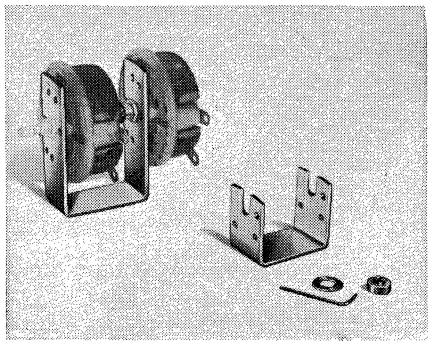
Stock No.	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
1450	1	31.600	$36.45	1462	50	4.470	$36.45
1451	1.5	25.800	36.45	1463	75	3.650	36.45
1452	2	22.400	36.45	1464	100	3.160	36.45
1453	2.5	20.000	36.45	1465	175	2.390	36.45
1454	3	18.300	36.45	1466	225	2.110	36.45
1455	4	15.800	36.45	1467	300	1.830	36.45
1456	5	14.100	36.45	1468	400	1.580	36.45
1457	8	11.200	36.45	1469	500	1.410	36.45
1458	10	10.000	36.45	1470	750	1.150	36.45
1459	12.5	8.950	36.45	1471	1,000	1.000	36.45
1460	16	7.900	36.45	1472	1,500	.816	36.45
1461	25	6.330	36.45	1473	2,500	.633	36.45

CATALOG 50 LISTS ALL RHEOSTATS TO MEET MILITARY SPECIFICATION MIL-R-22B

OHMITE

resistors • rheostats • tap switches • relays
variable transformers • tantalum capacitors
semiconductor diodes • r.f. chokes

RHEOSTAT TANDEM COUPLING KITS



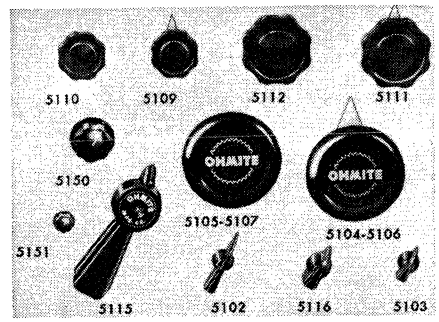
Inexpensive kits assemble standard Ohmite Model G, H, J, K, L or E (miniature) rheostats. Each kit consists of a steel "U" frame, a coupling with set screw, mica washer, Allen wrench and assembly instructions. Rheostat shafts are joined by the coupling which is fastened to the shaft of the rear unit. Projections on the coupling fit a recess in the rear hub of the front unit. Stock No. 6533 kit, mounts Model G, K or L units but accommodates Models H or J in the rear position. Stock No. 6532 unit mounts Models H or J but accommodates Models G, K or L in the rear position. Stock No. 6591 kit assembles only Model E (miniature) rheostats.

Stock No. 6532 — Max Panel 1/8″, ... **Net Each (1-4) $2.01**
Stock No. 6533 — Max Panel 5/32″. . . . . **Net Each (1-4) 2.51**
Stock No. 6591 — Max Panel 1/16″. . . . . **Net Each (1-4) 2.01**

BLACK BAKELITE KNOBS

Stock No.	Description	Knob Dia.	Hole Dia.	Net Ea. 1-2
5102	Bar Knob, 2¼″ long		¼″	$ .50
5103	Bar Knob, 1¼″ long		¼″	.21
5104	Handwheel with Pointer	3¼″	⅜″	1.38
5105	Handwheel without Pointer	3¼″	⅜″	1.16
5106	Handwheel with Pointer	3¼″	¼″	1.38
5107	Handwheel without Pointer	3¼″	¼″	1.16
5109	Finger-Grip with Pointer	1⅝″	¼″	.89
5110	Finger-Grip without Pointer	1⅝″	¼″	.82
5111	Finger-Grip with Pointer	2⅜″	¼″	1.32
5112	Finger-Grip without Pointer	2⅜″	¼″	1.21
*5115	Bar Knob, 4¾″ long		⅜″	3.00
5116	Bar Knob, 1½″ long		¼″	.50
5150	Skirted Finger-Grip	1½″	¼″	.29
5151	Finger-Grip	¾″	⅛″	.29
5152A	Like 5104 but shorter pointer	3¼″	¼″	1.60

*Requires pin and tapped hole in shaft.



MOLDED COMPOSITION POTENTIOMETERS, ½ and 2 WATTS

Used in commercial and military electronic applications where high quality and dependable performance are important. Type AB, 1 5/32″ dia., is rated 2 watts at 70°C ambient and is available with ⅞″ slotted shaft (CMU), 2″ unslotted shaft (CU, CA, CB, CCU dual unit) and locking type slotted shaft (CLU). Type AS, a miniature unit ½″ dia. rated ½ watt, is available with locking type shaft (Style AS) or ⅞″ slotted shaft for knob control (Style ASM).

Because of their molded composition elements, these units outlast and outperform film type units. Noise level is exceedingly low. Single control Type AB units extend ⅝″ behind panel; dual control 1 17/64″. Type AS miniature unit extends 1 1/16″ behind panel. An SPST switch for single Type AB units is available. Units are dust and splash proof, fungus and corrosion resistant and meet the latest requirements of MIL-R-94. Styles CMU, CLU, Styles AS and ASM conform respectively to MIL-R-94 Styles RV4N, RV4L, RV6L, and RV6N.

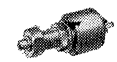
STOCK "POTS" — MIL Units are Stamped with MIL and Commercial Designations

Resistance Ohms Except As Noted Tol. ±10% except *±20%	TYPE AB (1 5/32″ Dia.) Single Unit ⅞″ Shaft: Style CMU Linear	MIL Designation	Single Unit 2″ Shaft: Style CU Linear	Style CA CW log	Style CB CCW log	Locking: Style CLU Linear	MIL Designation	Dual: Style CCU Linear	TYPE AS (½″ Dia.) Miniature Locking: Style AS Linear	MIL Designation	Miniature ⅞″ Shaft: Style ASM Linear	MIL Designation
50	CMU5001	500A	CU5001			CLU5001	500A					
100	CMU1011	101A	CU1011			CLU1011	101A		AS3601	101A	ASM6661	101A
150	CMU1511	151A	CU1511			CLU1511	151A					
250	CMU2511	251A	CU2511			CLU2511	251A		AS3602	251A	ASM6662	251A
350	CMU3511	351A	CU3511			CLU3511	351A					
500	CMU5011	501A	CU5011			CLU5011	501A		AS3603	501A	ASM6663	501A
750	CMU7511	751A	CU7511			CLU7511	751A					
1,000	CMU1021	102A	CU1021			CLU1021	102A		AS3604	102A	ASM6664	102A
1,500	CMU1521	152A	CU1521			CLU1521	152A					
2,500	CMU2521	252A	CU2521			CLU2521	252A		AS3605	252A	ASM6665	252A
3,500	CMU3521	352A	CU3521			CLU3521	352A					
5,000	CMU5021	502A	CU5021			CLU5021	502A		AS3606	502A	ASM6666	502A
7,500	CMU7521	752A	CU7521			CLU7521	752A					
10,000	CMU1031	103A	CU1031		CB1031	CLU1031	103A	CCU1031	AS3607	103A	ASM6667	103A
15,000	CMU1531	153A	CU1531			CLU1531	153A					
25,000	CMU2531	253A	CU2531		CB2531	CLU2531	253A	CCU2531	AS3608	253A	ASM6668	253A
35,000	CMU3531	353A	CU3531			CLU3531	353A					
50,000	CMU5031	503A	CU5031		CB5031	CLU5031	503A	CCU5031	AS3609	503A	ASM6669	503A
75,000	CMU7531	753A	CU7531			CLU7531	753A					
.1 meg.	CMU1041	104A	CU1041	CA1041		CLU1041	104A	CCU1041	AS3610	104A	ASM6670	104A
.15 meg.	CMU1541	154A	CU1541			CLU1541	154A					
.25 meg.	CMU2541	254A	CU2541	CA2541		CLU2541	254A	CCU2541	AS3611	254A	ASM6671	254A
.35 meg.	CMU3541	354A	CU3541			CLU3541	354A					
.5 meg.	CMU5041	504A	CU5041	CA5041		CLU5041	504A	CCU5041	AS3612	504A	ASM6672	504A
.75 meg.*	CMU7542	754B	CU7542			CLU7542	754B					
1.0 meg.*	CMU1052	105B	CU1052	CA1052		CLU1052	105B	CCU1052	AS3613	105B	ASM6673	105B
1.5 meg.*	CMU1552	155B	CU1552			CLU1552	155B					
2.0 meg.*	CMU2052	205B	CU2052			CLU2052	205B		AS3684	205B	ASM6674	205B
2.5 meg.*	CMU2552	255B	CU2552	CA2552		CLU2552	255B		AS3614	255B	ASM6675	255B
3.5 meg.*	CMU3552	355B	CU3552			CLU3552	355B					
5.0 meg.*	CMU5052	505B	CU5052			CLU5052	505B		AS3615	505B	ASM6676	505B
Weight	.064 lb.		.084 lb.			.070 lb.		.123 lb.	.017 lb.		.017 lb.	
Net Price 1-99	$1.95		$1.95	$2.25	$2.25	$2.55		$5.85	$5.10		$5.10	

Resistance Shown is for Each Unit

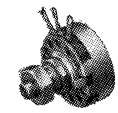
RV4NAYSD — RV4LAYSA — RV6LAYSA — RV6NAYSD

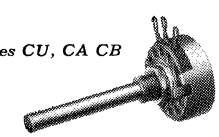
Switch CS-1 (Unmounted) for CMU, CU, CA, CB, CLU. . . . . Net $.66

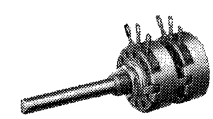

Style AS
MIL Style RV6L

Style ASM
MIL Style RV6N

Style CMU
MIL Style RV4N

Style CLU
MIL Style RV4L


Styles CU, CA CB



Style CCU

Net
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OHMITE

resistors • rheostats • tap switches • relays
variable transformers • tantalum capacitors
semiconductor diodes • r.f. chokes

OHMITE VITREOUS ENAMELED FIXED AND DIVIDOHM® RESISTORS

10 WATT SIZE RESISTOR

Core: 1¾" x 5/16" — Mounting Centers 2 3/16"

Res. Ohms	Max. Amps.	Fixed Resist. Stock No.	Fixed Resist. Net 1-9	Adj. Resist. Stock No.	Adj. Resist. Net 1-9
.51	4.43	3723	$ .57		
1.0	3.16	3730	.57	1001	$1.14
1.5	2.57	3734	.57		
2	2.24			1002	1.14
2.2	2.13	3738	.57		
3	1.83			1003	1.14
3.3	1.74	3742	.57		
4.7	1.46	3746	.57		
5	1.41			1004	1.14
6.8	1.21	3750	.57		
7.5	1.16			1005	1.14
10	1.00	3754	.57	1006	1.14
12	.91	3756	.57		
15	.82	3758	.57	1007	1.14
18	.74	3760	.57		
20	.71			1008	1.14
22	.67	3762	.57		
25	.63			1009	1.14
27	.61	3764	.57		
33	.55	3766	.57		
39	.51	3768	.57		
47	.46	3770	.57		
50	.45			1010	1.14
56	.42	3772	.57		
68	.38	3774	.57		
75	.37			1011	1.14
82	.35	3776	.57		
100	.32	3778	.57	1012	1.14
120	.29	3780	.57		
150	.26	3782	.57	1013	1.14
180	.24	3784	.57		
200	.22			1014	1.14
220	.21	3786	.57		
250	.20			1015	1.14
270	.19	3788	.57		
300	.18			1016	1.14
330	.17	3790	.57		
350	.17			1017	1.14
390	.16	3792	.57		
400	.16			1018	1.14
470	.15	3794	.57		
500	.14			1019	1.14
560	.13	3796	.57		
600	.13			1020	1.14
680	.12	3798	.57		
750	.12			1021	1.14
800	.11			1022	1.14
820	.11	3800	.57		
1,000	.10	3802	.57	1023	1.14
1,200	.091	3804	.61		
1,250	.089			1024	1.18
1,500	.081	3806	.61	1025	1.18
1,800	.075	3808	.61		
2,000	.071			1026	1.18
2,200	.067	3810	.61		
2,250	.066			1027	1.18
2,500	.063			1028	1.18
2,700	.062	3812	.61		
3,000	.057			1029	1.18
3,300	.055	3814	.61		
3,500	.053			1030	1.18
3,900	.051	3816	.61		
4,000	.050			1031	1.18
4,500	.047			1032	1.18
4,700	.046	3818	.61		
5,000	.045			1033	1.18
5,600	.042	3820	.70		
6,000	.041			1034	1.27
6,800	.038	3822	.70		
7,000	.038			1035	1.27
7,500	.036			1036	1.27
8,000	.035			1037	1.27
8,200	.035	3824	.70		
8,500	.034			1038	1.27
9,000	.033			1039	1.27
10,000	.032	3826	.70	1040	1.27
12,000	.029	3828	.79		
15,000	.026	3830	.79		
18,000	.023	3832	.79		
22,000	.021	3834	.83		
27,000	.019	3836	.83		
33,000	.017	3838	.83		
39,000	.016	3840	.83		
47,000	.015	3842	.93		
51,000	.014	3843	.93		

ADJUSTABLE LUGS

Bakelite Knob Res. Dia.	Stock No.	Net 1-9	Screw Driver Type Res. Dia.	Stock No.	Net 1-9
9/16"	0359	$0.31	5/16"	1058	$0.14
3/4"	1959	.31	9/16"	0358	.14
1 1/8"	2159	.40	3/4"	1958	.14
			1 1/8"	2158	.23

25 WATT SIZE RESISTOR

Core: 2" x 9/16" — Mounting Centers 2¾"

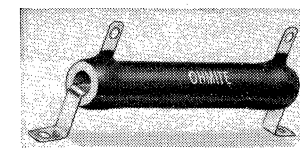
Res. Ohms	Max. Amps.	Fixed Resist. Stock No.	Fixed Resist. Net 1-9	Adj. Resist. Stock No.	Adj. Resist. Net 1-9
1	5.00	0200J	$0.72	0360	$1.29
2	3.54	0200K	.72	0360B	1.29
3	2.88	0200L	.72	0361	1.29
5	2.24	0200A	.72	0362	1.29
7.5	1.82			0362B	1.29
10	1.58	0200B	.72	0363	1.29
15	1.29	0200R	.72	0364	1.29
20	1.12			0364B	1.29
25	1.00	0200C	.72	0365	1.29
50	.71	0200D	.72	0366	1.29
75	.58	0200E	.72	0367	1.29
100	.50	0200F	.72	0368	1.29
150	.41	0200G	.72	0369	1.29
200	.35	0200H	.72	0370	1.29
250	.32	0201	.72	0371	1.29
300	.29			0371B	1.29
400	.25			0371C	1.29
500	.22	0202	.72	0372	1.29
750	.18	0203	.72	0373	1.29
800	.17	0204	.72	0374	1.29
1,000	.16	0205	.72	0375	1.29
1,250	.14			0375B	1.32
1,500	.13	0206	.75	0376	1.32
2,000	.12	0207	.75	0377	1.32
2,250	.11			0377B	1.32
2,500	.10	0208	.75	0378	1.32
3,000	.091	0209	.75	0379	1.32
3,500	.084	0210	.75	0380	1.32
4,000	.079	0211	.75	0381	1.32
4,500	.074			0381B	1.32
5,000	.070	0212	.75	0382	1.32
6,000	.064	0213	.85	0383	1.42
7,000	.060			0383B	1.42
7,500	.057	0214	.85	0384	1.42
8,000	.055			0384B	1.42
9,000	.052			0384C	1.42
10,000	.050	0215	.85	0385	1.42
12,000	.042	0216	.90	0386	1.47
15,000	.036	0217	.90	0387	1.47
20,000	.031	0218	.90	0388	1.47
25,000	.028	0219	1.04	0389	1.61
40,000	.022	0222	1.04		
50,000	.020	0224	1.21		
100,000	.010	0229	1.64		

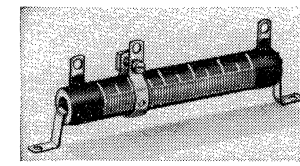
50 WATT SIZE RESISTOR

Core: 4" x 9/16" — Mounting Centers 4¾"

Res. Ohms	Max. Amps.	Fixed Resist. Stock No.	Fixed Resist. Net 1-9	Adj. Resist. Stock No.	Adj. Resist. Net 1-9
5	3.16	0400A	$1.11	0560	$1.68
10	2.23	0400B	1.11	0561	1.68
25	1.41	0400C	1.11	0562	1.68
50	1.00	0400D	1.11	0563	1.68
75	.82	0400E	1.11	0564	1.68
100	.71	0400F	1.11	0565	1.68
150	.58	0400G	1.11	0566	1.68
200	.50	0400H	1.11	0567	1.68
250	.45	0401	1.11	0568	1.68
300	.41			0568B	1.68
400	.35			0568C	1.68
500	.32	0402	1.11	0569	1.68
750	.26	0403	1.11	0570	1.68
1,000	.22	0405	1.11	0572	1.68
1,250	.20			0572B	1.71
1,500	.18	0406	1.14	0573	1.71
2,000	.16	0407	1.14	0574	1.71
2,500	.14	0408	1.14	0575	1.71
3,000	.13	0409	1.14	0576	1.71
3,500	.12			0576B	1.71
4,000	.11	0410	1.14	0577	1.71
4,500	.10			0577B	1.71
5,000	.10	0411	1.14	0578	1.71
6,000	.091			0578B	1.80
7,000	.084			0578C	1.80
7,500	.081	0412	1.23	0579	1.80
8,000	.079	0413	1.23	0580	1.80
9,000	.074			0580B	1.80
10,000	.071	0414	1.23	0581	1.80
12,000	.064	0415	1.35	0582	1.92
15,000	.057	0416	1.35	0583	1.92
20,000	.050	0417	1.35	0584	1.92
25,000	.045	0418	1.54	0585	2.11
30,000	.036			0586	2.11
35,000	.032	0419	1.54		
40,000	.029			0587	2.11
50,000	.026	0420	1.72	0588	2.29
60,000	.024			0589	2.29
75,000	.021	0421	1.97		
80,000	.021			0590	2.54
100,000	.018	0422	2.13	0591	2.70

These all-welded construction resistors have welded high-strength alloy terminals. For perfect electrical connection, the resistance wire is welded to the terminal. Units are wire-wound on ceramic cores and protected by Ohmite Vitreous Enamel. Furnished with mounting brackets and on DIVIDOHM with one adjustable lug.





75 WATT SIZE — Dividohm

Core: 6" x 9/16" — Mounting Centers 6¾"

Adjustable Res. Res. Ohms	Max. Amps.	Stock No.	Adjustable Res. Res. Ohms	Max. Amps.	Stock No.
5	3.87	0769	5,000	.12	0783
10	2.74	0770	6,000	.11	0783B
15	2.24	0771	7,000	.10	0783C
25	1.73	0772	7,500	.10	0784
50	1.22	0773	8,000	.096	0784B
100	.86	0774	9,000	.091	0784C
200	.61	0774B	10,000	.086	0785
250	.55	0775	12,000	.079	0785B
300	.50	0775B	15,000	.070	0786
400	.43	0775C	20,000	.061	0787
500	.39	0776	25,000	.054	0788
750	.32	0777	30,000	.050	0789
1,000	.27	0778	35,000	.046	0790
1,250	.24	0778B	40,000	.043	0791
1,500	.22	0779	45,000	.035	0792
2,000	.19	0780	50,000	.033	0793
2,500	.17	0781	60,000	.030	0794
3,000	.16	0781B	80,000	.026	0795
3,500	.15	0782	100,000	.023	0796
4,000	.14	0782B			

Net (1-9), 5 thru 1,000 ohms..... **$1.87**
Net (1-9), 1,250 thru 5,000 ohms..... **1.92**
Net (1-9), 6,000 thru 10,000 ohms..... **2.01**
Net (1-9), 12,000 thru 20,000 ohms..... **2.13**
Net (1-9), 25,000 thru 40,000 ohms..... **2.32**
Net (1-9), 45,000 thru 60,000 ohms..... **2.52**
Net (1-9), 80,000 ohms..... **2.78**
Net (1-9), 100,000 ohms..... **2.93**

100 WATT SIZE RESISTOR

Core: 6½" x ¾" — Mounting Centers 7⅜"

Res. Ohms	Max. Amps.	Fixed Resist. Stock No.	Fixed Resist. Net 1-9	Adj. Resist. Stock No.	Adj. Resist. Net 1-9
5	4.47	0600A	$1.54	0956	$2.11
10	3.16	0600B	1.54	0957	2.11
25	2.00	0601	1.54	0958	2.11
50	1.41	0602	1.54	0959	2.11
75	1.15	0603	1.54		
100	1.00	0604	1.54	0960	2.11
150	.816	0605	1.54		
250	.63	0606	1.54	0960B	2.11
500	.45	0607	1.54	0961	2.11
750	.365	0608	1.54		
1,000	.32	0609	1.54	0962	2.11
1,500	.26	0610	1.60	0962B	2.17
2,000	.223	0611	1.60		
2,500	.20	0612	1.60	0963	2.17
3,000	.18	0613	1.60		
5,000	.14	0614	1.60	0964	2.17
7,500	.115	0615	1.73		
10,000	.10	0616	1.73	0965	2.30
15,000	.081	0617	1.87	0966	2.44
20,000	.071	0618	1.87	0967	2.44
25,000	.063	0619	2.13	0968	2.70
30,000	.058	0620	2.13	0969	2.70
40,000	.050	0621	2.13	0970	2.70
50,000	.045	0622	2.21	0971	2.78
60,000	.041	0623	2.21		
75,000	.032	0624	2.45	0972	3.02
100,000	.028	0625	2.75	0973	3.32

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Net

OHMITE

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variable transformers • tantalum capacitors
semiconductor diodes • r.f. chokes

FIXED AND DIVIDOHM® RESISTORS (CONT.)

160 WATT SIZE RESISTOR

Core: 8½" x 1⅛" — Mounting Centers 9⅜"

Res. Ohms	Max. Amps.	Fixed Resist. Stock No.	Fixed Resist. Net 1-9	Adj. Resist. Stock No.	Adj. Resist. Net 1-9
5	5.66	0700A	$3.19	1156	$4.07
10	4.00	0700B	2.28	1157	3.16
25	2.53	0701	2.28	1158	3.16
50	1.79	0702	2.28	1159	3.16
75	1.46	0703	2.28		
100	1.26	0704	2.28	1160	3.16
150	1.03	0705	2.28		
250	.80	0706	2.28	1160B	3.16
500	.57	0707	2.28	1161	3.16
750	.46	0708	2.28		
1,000	.40	0709	2.28	1162	3.16
1,500	.33	0710	2.32	1162B	3.20
2,000	.28	0711	2.32		
2,500	.25	0712	2.32	1163	3.20
3,000	.23	0713	2.32		
5,000	.18	0714	2.32	1164	3.20
7,500	.15	0715	2.53		
10,000	.13	0716	2.53	1165	3.41
15,000	.10	0717	2.71	1166	3.59
20,000	.089	0718	2.71	1167	3.59
25,000	.080	0719	2.80	1168	3.68
30,000	.073	0720	2.80	1169	3.68
40,000	.063	0721	2.80	1170	3.68
50,000	.057	0722	2.89	1171	3.77
60,000	.051	0723	2.89		
75,000	.046	0724	3.08	1172	3.96
100,000	.040	0725	3.26	1173	4.14

200 WATT SIZE RESISTOR

Core: 10½" x 1⅛"—Mounting Centers 11⅜"

Res. Ohms	Max. Amps.	Fixed Resist. Stock No.	Fixed Resist. Net 1-9	Adj. Resist. Stock No.	Adj. Resist. Net 1-9
5	6.32	0900A	$3.44	1356	$4.32
10	4.47	0900B	2.46	1357	3.34
25	2.83	0901	2.46	1358	3.34
50	2.00	0902	2.46	1359	3.34
75	1.64	0903	2.46		
100	1.41	0904	2.46	1360	3.34
150	1.15	0905	2.46		
250	.89	0906	2.46	1360B	3.34
500	.63	0907	2.46	1361	3.34
750	.52	0908	2.46		
1,000	.45	0909	2.46	1362	3.34
1,500	.37	0910	2.53	1362B	3.41
2,000	.32	0911	2.53		
2,500	.28	0912	2.53	1363	3.41
3,000	.258	0913	2.53		
5,000	.20	0914	2.53	1364	3.41
7,500	.16	0915	2.71		
10,000	.14	0916	2.71	1365	3.59
15,000	.12	0917	2.89	1366	3.77
20,000	.10	0918	2.89	1367	3.77
25,000	.089	0919	2.98	1368	3.86
30,000	.082	0920	2.98	1369	3.86
40,000	.071	0921	2.98	1370	3.86
50,000	.063	0922	3.08	1371	3.96
60,000	.058	0923	3.08		
75,000	.052	0924	3.26	1372	4.14
100,000	.045	0925	3.46	1373	4.34

8 Watt—1" x 5/16" Core Size

Ohms	Amps	Ohms	Amps	Ohms	Amps
1	2.83	200	.20	2,250	.059
1.5	2.30	225	.18	2,500	.056
2	2.00	250	.17	3,000	.051
3	1.63	300	.16	3,500	.047
4	1.41	350	.15	4,000	.044
5	1.26	400	.14	4,500	.042
7.5	1.00	450	.13	5,000	.040
10	.89	500	.12	6,000	.036
12	.81	600	.11	7,000	.033
15	.73	700	.11	7,500	.032
20	.63	750	.10	8,000	.031
25	.56	800	.10	9,000	.029
30	.51	900	.094	10,000	.028
35	.47	1,000	.089	12,500	.025
40	.44	1,100	.085	15,000	.023
50	.40	1,200	.081	17,500	.021
75	.32	1,250	.080	20,000	.020
100	.28	1,500	.073	22,500	.018
125	.25	1,750	.067	25,000	.017
150	.23	2,000	.063		

Net (1-9), 1 thru 1,000 ohms..... **$0.52**
Net (1-9), 1,100 thru 5,000 ohms..... **.55**
Net (1-9), 6,000 thru 10,000 ohms..... **.58**
Net (1-9), 12,500 thru 20,000 ohms..... **.65**
Net (1-9), 22,500 and 25,000 ohms..... **.68**

Popular OHMITE "BROWN DEVIL"® RESISTORS

High quality, small size, wire-wound resistors ideal for voltage dropping, bias units, bleeders, etc. They're extra-sturdy, all-ceramic, vitreous enameled. These all-welded construction units have welded high-strength alloy terminals. For perfect electrical connection, the resistance wire is welded to the terminal. They give time-proved protection against shock, vibration, heat and humidity. Their long record of continuous trouble-free service—their wide use in all climates of the world—prove their complete reliability and economy. All units can be conveniently mounted by means of their 1½" tinned wire leads. Standard resistance tolerance is ±5%.

3 Watt—7/16" x .20" Core Size

Ohms	Amps	Ohms	Amps	Ohms	Amps
1.0	1.73	24	.35	510	.077
1.1	1.65	27	.33	560	.073
1.2	1.58	30	.32	620	.070
1.3	1.52	33	.30	680	.067
1.5	1.41	36	.29	750	.063
1.6	1.37	39	.28	820	.060
1.8	1.29	43	.26	910	.057
2.0	1.22	47	.25	1,000	.055
2.2	1.17	51	.24	1,100	.052
2.4	1.12	56	.23	1,200	.050
2.7	1.05	62	.22	1,300	.048
3.0	1.00	68	.21	1,500	.045
3.3	.95	75	.20	1,600	.043
3.6	.91	82	.19	1,800	.042
3.9	.88	91	.18	2,000	.039
4.3	.83	100	.17	2,200	.037
4.7	.80	110	.16	2,400	.035
5.1	.77	120	.16	2,700	.033
5.6	.73	130	.15	3,000	.032
6.2	.69	150	.14	3,300	.030
6.8	.66	160	.14	3,600	.029
7.5	.63	180	.13	3,900	.028
8.2	.60	200	.12	4,300	.026
9.1	.57	220	.12	4,700	.025
10	.55	240	.11	5,100	.024
11	.52	270	.11	5,600	.023
12	.50	300	.10	6,200	.022
13	.48	330	.095	6,800	.021
15	.45	360	.091	7,500	.020
16	.43	390	.088	8,200	.019
18	.42	430	.083	9,100	.018
20	.39	470	.080	10,000	.017
22	.37				

Net (1-9), 1 thru 1,000 ohms..... **$0.49**
Net (1-9), 1,100 thru 4,700 ohms..... **.52**
Net (1-9), 5,100 thru 10,000 ohms..... **.55**

5¼ Watt—⅝" x ¼" Core Size

Ohms	Amps	Ohms	Amps	Ohms	Amps
1.0	2.29	30	.42	820	.080
1.1	2.19	33	.40	910	.076
1.2	2.09	36	.38	1,000	.072
1.3	2.01	39	.37	1,100	.069
1.5	1.87	43	.35	1,200	.066
1.6	1.81	47	.33	1,300	.064
1.8	1.71	51	.32	1,500	.059
2.0	1.62	56	.31	1,600	.057
2.2	1.54	62	.29	1,800	.054
2.4	1.48	68	.28	2,000	.051
2.7	1.39	75	.27	2,200	.049
3.0	1.32	82	.25	2,400	.047
3.3	1.24	91	.24	2,700	.044
3.6	1.21	100	.23	3,000	.042
3.9	1.16	110	.22	3,300	.040
4.3	1.10	120	.21	3,600	.038
4.7	1.06	130	.20	3,900	.037
5.1	1.01	150	.19	4,300	.035
5.6	.97	160	.18	4,700	.033
6.2	.92	180	.17	5,100	.032
6.8	.88	200	.16	5,600	.031
7.5	.84	220	.16	6,200	.029
8.2	.80	240	.15	6,800	.028
9.1	.76	270	.14	7,500	.027
10	.72	300	.13	8,200	.025
11	.69	330	.12	9,100	.024
12	.66	360	.12	10,000	.023
13	.64	390	.12	11,000	.022
15	.59	430	.11	12,000	.021
16	.57	470	.11	13,000	.020
18	.54	510	.10	15,000	.019
20	.51	560	.097	16,000	.018
22	.49	620	.092	18,000	.017
24	.47	680	.088	20,000	.016
27	.44	750	.084		

Net (1-9), 1 thru 1,000 ohms..... **$0.52**
Net (1-9), 1,100 thru 4,700 ohms..... **.55**
Net (1-9), 5,100 thru 10,000 ohms..... **.58**
Net (1-9), 11,000 thru 20,000 ohms..... **.65**

12 Watt—1¾" x 5/16" Core Size

Ohms	Amps	Ohms	Amps	Ohms	Amps
0.5	4.90	300	.20	6,000	.044
1	3.46	350	.18	7,000	.041
1.5	2.82	400	.17	7,500	.040
2	2.45	450	.16	8,000	.038
3	2.00	500	.15	8,500	.037
4	1.73	600	.14	9,000	.036
5	1.54	700	.13	10,000	.035
7.5	1.26	750	.12	11,000	.033
10	1.09	800	.12	12,000	.031
12	1.00	900	.11	12,500	.031
15	.89	1,000	.11	13,500	.029
20	.77	1,100	.10	15,000	.028
25	.69	1,200	.10	16,000	.027
30	.63	1,250	.097	17,500	.026
35	.58	1,500	.089	18,000	.025
40	.54	1,750	.082	20,000	.024
50	.49	2,000	.077	22,500	.023
75	.40	2,250	.073	25,000	.022
100	.34	2,500	.069	30,000	.020
125	.31	3,000	.063	35,000	.018
150	.28	3,500	.058	40,000	.017
200	.24	4,000	.054	45,000	.016
225	.23	4,500	.051	50,000	.015
250	.22	5,000	.049		

Net (1-9), 0.5 thru 1,000 ohms..... **$0.57**
Net (1-9), 1,100 thru 5,000 ohms..... **.61**
Net (1-9), 6,000 thru 10,000 ohms..... **.70**
Net (1-9), 11,000 thru 20,000 ohms..... **.79**
Net (1-9), 22,500 thru 40,000 ohms..... **.83**
Net (1-9), 45,000 and 50,000 ohms..... **.93**

20 Watt—2" x 7/16" Core Size

Ohms	Amps	Ohms	Amps	Ohms	Amps
0.5	6.32	800	.15	10,000	.043
1.0	4.47	850	.15	12,500	.035
2.0	3.16	1,000	.14	15,000	.032
3.0	2.58	1,200	.13	20,000	.027
4.0	2.24	1,250	.12	25,000	.024
5	2.00	1,500	.12	30,000	.022
10	1.41	1,750	.11	35,000	.021
25	.89	2,000	.10	40,000	.019
50	.63	2,250	.094	45,000	.018
75	.52	2,500	.089	50,000	.017
100	.45	2,750	.085	55,000	.016
150	.36	3,000	.081	60,000	.016
200	.32	3,500	.075	65,000	.015
250	.28	4,000	.070	70,000	.014
300	.26	4,500	.066	75,000	.013
350	.24	5,000	.063	80,000	.012
400	.22	6,000	.057	85,000	.012
500	.20	7,000	.053	90,000	.011
650	.18	7,500	.051	95,000	.010
700	.17	8,000	.050	100,000	.010
750	.16	9,000	.047		

Net (1-9), 0.5 ohms..... **$0.95**
Net (1-9), 1.0 thru 1,000 ohms..... **.68**
Net (1-9), 1,200 thru 5,000 ohms..... **.70**
Net (1-9), 6,000 thru 10,000 ohms..... **.83**
Net (1-9), 12,500 thru 20,000 ohms..... **.85**
Net (1-9), 25,000 thru 40,000 ohms..... **.99**
Net (1-9), 45,000 thru 60,000 ohms..... **1.15**
Net (1-9), 65,000 thru 80,000 ohms..... **1.37**
Net (1-9), 85,000 thru 100,000 ohms..... **1.57**

Net
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OHMITE

resistors • rheostats • tap switches • relays
variable transformers • tantalum capacitors
semiconductor diodes • r.f. chokes

OHMITE Series 99 Resistors

SERIES 99 MOLDED VITREOUS AXIAL LEAD RESISTORS

All welded resistors with 1000 v. AC insulation. They meet general requirements of specification MIL-R-26C for RW57, RW58, RW59, RW67, RW68 and RW69. Chip and break resistant, uniformly molded white vitreous enamel protects against moisture, salt spray and immersion. Vitrified markings resist high temperatures, solvents and abrasion. Can be mounted on component clips. **Tolerance:** ±5%, standard. **Size:** 1.5-watt, 0.422″ lg. x 0.125″ dia.; 2-watt, 0.375″ lg. x 0.188″ dia.; 3-watt, 0.547″ lg. x 0.203″ dia.; 5-watt, 0.938″ lg. x 0.203″ dia.; 11-watt, 1.781″ lg. x 0.312″ dia. Tinned leads 1½″ lg., #20 AWG except 1-watt, #24 AWG.

STYLE 995-1A 1.5-WATT AND STYLE 995-2A 2-WATT

Ohms	Stock Number 1.5 Watts	2 Watts	Ohms	Stock Number 1.5 Watts	2 Watts
1.0	4030	3860	75	4087	3918
1.1	4031	3861	82	4089	3920
1.2	4032	3862	91	4091	3922
1.3	4033	3863	100	4092	3923
1.5	4034	3864	110	4093	3924
1.6	4035	3865	120	4094	3925
1.8	4036	3866	130	4095	3926
2.0	4037	3867	150	4096	3927
2.2	4038	3868	160	4097	3928
2.4	4039	3869	180	4098	3929
2.7	4041	3871	200	4099	3930
3.0	4042	3872	220	4100	3931
3.3	4043	3873	240	4101	3932
3.6	4044	3874	250	4102	3933
3.9	4045	3875	270	4103	3934
4.0	4046	3876	300	4104	3935
4.3	4047	3877	330	4105	3936
4.7	4048	3878	350	4105A	3937
5.0	4049	3879	360	4106	3938
5.1	4050	3880	390	4107	3939
5.6	4051	3881	400	4108	3940
6.2	4053	3883	430	4109	3941
6.8	4054	3884	450	4109A	3942
7.5	4056	3886	470	4110	3943
8.2	4058	3888	500	4111	3944
9.1	4060	3890	510	4112	3945
10	4061	3891	560	4113	3946
11	4062	3892	600	4114	3947
12	4063	3893	620	4115	3948
13	4064	3894	680	4116	3949
15	4065	3895	700	4117	3950
16	4066	3896	750	4118	3951
18	4067	3897	800	4119	3952
20	4068	3898	820	4120	3953
22	4069	3899	900	4121	3954
24	4070	3900	910	4122	3955
25	4071	3901	1000	4123	3956
27	4072	3902	1100	4124	3957
30	4073	3903	1200	4125	3958
33	4074	3904	1300	4126	3959
35	4074A	3905	1400	4126A	3960
36	4075	3906	1500	4127	3961
39	4076	3907	1600	4128	3962
40	4077	3908	1800	4129	3963
43	4078	3909	2000	4130	3964
47	4079	3910	2200	4131	3965
50	4080	3911	2400	4132	3966
51	4081	3912	2500	4133	3967
56	4082	3913	2700	4134	3968
62	4084	3915	3000	4135	3969
68	4085	3916			

Values Ohms*	Style 995-1A 1.5 Watt Net Each, Lots of 1-9	10-24	25-99	100-249	Style 995-2A 2-Watt Net Each, Lots of 1-9	10-24	25-99	100-249
1–1000	62c	53c	43c	37c	60c	51c	42c	36c
1100–3000	66c	56c	46c	40c	64c	54c	45c	38c

STYLE 995-10A 11-WATT

Ohms	Stock No.	Ohms	Stock No.	Ohms	Stock No.	Ohms	Stock No.
1.0	4730	10	4761	82	4789	600	4814
1.1	4731	11	4762	91	4791	620	4815
1.2	4732	12	4763	100	4792	680	4816
1.3	4733	13	4764	110	4793	700	4817
1.5	4734	15	4765	120	4794	750	4818
1.6	4735	16	4766	130	4795	800	4819
1.8	4736	18	4767	150	4796	820	4820
2.0	4737	20	4768	160	4797	900	4821
2.2	4738	22	4769	180	4798	910	4822
2.4	4739	24	4770	200	4799	1000	4823
2.7	4741	25	4771	220	4800	1100	4824
3.0	4742	27	4772	240	4801	1200	4825
3.3	4743	30	4773	250	4802	1300	4826
3.6	4744	33	4774	270	4803	1400	4826A
3.9	4745	35	4774A	300	4804	1500	4827
4.0	4746	36	4775	330	4805	1600	4828
4.3	4747	39	4776	350	4805A	1800	4829
4.7	4748	40	4777	360	4806	2000	4830
5.0	4749	43	4778	390	4807	2200	4831
5.1	4750	47	4779	400	4808	2400	4832
5.6	4751	50	4780	430	4809	2500	4833
6.2	4753	51	4781	450	4809A	2700	4834
6.8	4754	56	4782	470	4810	3000	4835
7.5	4756	62	4784	500	4811	3300	4836
8.2	4758	68	4785	510	4812	3500	4836A
9.1	4760	75	4787	560	4813	3600	4837

***Restricted to those values shown in the table of stock numbers.**

STYLE 995-3A 3-WATT AND STYLE 995-5B 5-WATT

Ohms	Stock Number 3 Watts	5 Watts	Ohms	Stock Number 3 Watts	5 Watts
1.0	4330	4530	330	4405	4605
1.1	4331	4531	350	4405A	4605A
1.2	4332	4532	360	4406	4606
1.3	4333	4533	390	4407	4607
1.5	4334	4534	400	4408	4608
1.6	4335	4535	430	4409	4609
1.8	4336	4536	450	4409A	4609A
2.0	4337	4537	470	4410	4610
2.2	4338	4538	500	4411	4611
2.4	4339	4539	510	4412	4612
2.7	4341	4541	560	4413	4613
3.0	4342	4542	600	4414	4614
3.3	4343	4543	620	4415	4615
3.6	4344	4544	680	4416	4616
3.9	4345	4545	700	4417	4617
4.0	4346	4546	750	4418	4618
4.3	4347	4547	800	4419	4619
4.7	4348	4548	820	4420	4620
5.0	4349	4549	900	4421	4621
5.1	4350	4550	910	4422	4622
5.6	4351	4551	1000	4423	4623
6.2	4353	4553	1100	4424	4624
6.8	4354	4554	1200	4425	4625
7.5	4356	4556	1300	4426	4626
8.2	4358	4558	1400	4426A	4626A
9.1	4360	4560	1500	4427	4627
10	4361	4561	1600	4428	4628
11	4362	4562	1800	4429	4629
12	4363	4563	2000	4430	4630
13	4364	4564	2200	4431	4631
15	4365	4565	2400	4432	4632
16	4366	4566	2500	4433	4633
18	4367	4567	2700	4434	4634
20	4368	4568	3000	4435	4635
22	4369	4569	3300	4436	4636
24	4370	4570	3500	4436A	4636A
25	4371	4571	3600	4437	4637
27	4372	4572	3900	4438	4638
30	4373	4573	4000	4439	4639
33	4374	4574	4300	4440	4640
35	4374A	4574A	4500	4440A	4640A
36	4375	4575	4700	4441	4641
39	4376	4576	5000	4442	4642
40	4377	4577	5100	4443	4643
43	4378	4578	5600	4444	4644
47	4379	4579	6000	4445	4645
50	4380	4580	6200	4446	4646
51	4381	4581	6800	4447	4647
56	4382	4582	7000	4448	4648
62	4384	4584	7500	4449	4649
68	4385	4585	8000	4450	4650
75	4387	4587	8200	4451	4651
82	4389	4589	9000	4452	4652
91	4391	4591	9100	4453	4653
100	4392	4592	10,000	4454	4654
110	4393	4593	11,000	.....	4655
120	4394	4594	12,000	.....	4656
130	4395	4595	13,000	.....	4657
150	4396	4596	14,000	.....	4657A
160	4397	4597	15,000	.....	4658
180	4398	4598	16,000	.....	4659
200	4399	4599	17,000	.....	4659B
220	4400	4600	18,000	.....	4660
240	4401	4601	20,000	.....	4661
250	4402	4602	22,000	.....	4662
270	4403	4603	24,000	.....	4663
300	4404	4604	25,000	.....	4664

Values Ohms*	Style 995-3A 3-Watt Net Each, Lots of 1-9	10-24	25-99	100-249	Style 995-5B 5-Watt Net Each, Lots of 1-9	10-24	25-99	100-249
1–1000	59c	50c	41c	35c	62c	53c	43c	37c
1100–5000	62c	53c	43c	37c	66c	56c	46c	40c
5100–10,000	66c	56c	46c	40c	70c	60c	49c	42c
11,000–20,000	....	....	....	....	78c	66c	55c	47c
22,000–25,000	....	....	....	....	82c	70c	57c	49c

STYLE 995-10A 11-WATT (CONTINUED)

Ohms	Stock No.	Ohms	Stock No.	Ohms	Stock No.	Ohms	Stock No.
3900	4838	7000	4848	15,000	4858	35,000	4867A
4000	4839	7500	4849	16,000	4859A	36,000	4868
4300	4840	8000	4850	17,000	4859C	39,000	4869
4500	4840A	8200	4851	18,000	4860	40,000	4870
4700	4841	9000	4852	20,000	4861	43,000	4871
5000	4842	9100	4853	22,000	4862	45,000	4871A
5100	4843	10,000	4854	24,000	4863	47,000	4872
5600	4844	11,000	4855A	25,000	4864	50,000	4873
6000	4845	12,000	4856	27,000	4865	51,000	4874
6200	4846	13,000	4857	30,000	4866		
6800	4847	14,000	4857B	33,000	4867		

Values Ohms*	Net Each, Lots of 1-9	10-24	25-99	100-249
1–1000	$0.68	$0.58	$0.48	$0.41
1100–5000	.73	.62	.51	.44
5100–10,000	.84	.71	.59	.50
11,000–20,000	.95	.81	.67	.57
22,000–40,000	1.00	.85	.70	.60
43,000–51,000	1.12	.95	.78	.67

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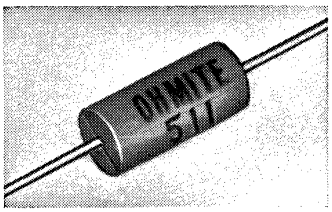
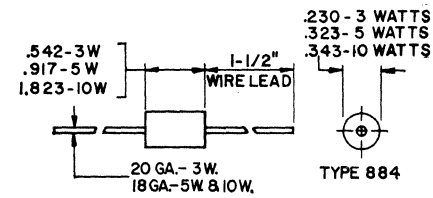
RITEOHM® TYPE 884 MOLDED WIREWOUND RESISTORS ± 1% TOLERANCE



These precision power resistors are furnished from stock in power ratings of 3, 5 and 10 watts depending upon resistance. Single layer wound on ceramic core, Type 884 units feature a pressure-molded jacket of tough, resilient, silicone-ceramic material. Negligible inductance at audio frequencies. Temperature coefficient of resistance is 0±20ppm/°C. Values shown are selected from MIL Standard MS90169, MIL-R-10509 and Bell Tel. Labs.



Ohms	Max. Volts	Ohms	Max. Volts	Ohms	Max. Volts	Ohms	Max. Volts	Ohms	Max. Volts	Ohms	Max. Volts	Ohms	Max. Volts
3 WATT		3 WATT (Cont.)		3 WATT (Cont.)		3 WATT (Cont.)		3 WATT (Cont.)		3 WATT (Cont.)		3 WATT (Cont.)		5 WATT (Cont.)	
.100	.547	3.40	3.19	16.9	7.12	84.5	15.9	422	35.6	2100	79.4	10,500*	170	49,900*	450
.121	.602	3.48	3.23	17.4	7.22	86.6	16.1	432	36.1	2150	80.3	10,700*	170	51,100*	450
.150	.670	3.57	3.27	17.8	7.30	88.7	16.3	442	36.4	2210	81.4	11,000*	170	52,300*	450
.182	.739	3.65	3.31	18.2	7.39	90.9	16.5	453	36.9	2260	82.3	11,300*	170	53,600*	450
.200	.774	3.74	3.35	18.7	7.49	93.1	16.7	464	37.3	2320	83.4	11,500*	170	54,900*	450
.221	.814	3.83	3.39	19.1	7.57	95.3	16.9	475	37.7	2370	84.3	11,800*	170	56,200*	450
.249	.864	3.92	3.43	19.6	7.66	97.6	17.1	487	38.2	2430	85.4	12,100*	170	57,600*	450
.274	.906	4.02	3.47	20.0	7.74	100	17.3	499	38.7	2490	86.4	12,400*	170	59,000*	450
.332	.998	4.12	3.51	20.5	7.84	102	17.5	511	39.1	2550	87.4	12,700*	170	60,400*	450
.392	1.08	4.22	3.56	21.0	7.94	105	17.7	523	39.6	2610	88.4	13,000*	170	61,900*	450
.475	1.19	4.32	3.60	21.5	8.03	107	17.9	536	40.1	2670	89.5	13,300*	170	63,400*	450
.499	1.22	4.42	3.64	22.1	8.14	110	18.2	549	40.6	2740	90.6	13,700*	170	64,900*	450
.562	1.30	4.53	3.69	22.6	8.23	113	18.4	562	41.0	2800	91.6	14,000*	170	66,500*	450
.681	1.43	4.64	3.73	23.2	8.34	115	18.6	576	41.6	2870	92.8	14,300*	170	68,100*	450
.750	1.50	4.75	3.77	23.7	8.43	118	18.8	590	42.0	2940	93.9	14,700*	170	69,800*	450
.825	1.57	4.87	3.82	24.3	8.54	121	19.1	604	42.5	3010	95.0	15,000*	170	71,500*	450
1.00	1.73	4.99	3.87	24.9	8.64	124	19.3	619	43.1	3090	96.2	15,400*	170	73,200*	450
1.02	1.75	5.11	3.91	25.5	8.74	127	19.5	634	43.6	3160	97.4	15,800*	170	75,000*	450
1.05	1.77	5.23	3.96	26.1	8.84	130	19.7	649	44.1	3240	98.6	16,200*	170	76,800*	450
1.07	1.79	5.36	4.01	26.7	8.95	133	20.0	665	44.6	3320	99.8	16,500*	170	78,700*	450
1.10	1.82	5.49	4.06	27.4	9.06	137	20.3	681	45.2	3400	101	16,900*	170	80,600*	450
1.13	1.84	5.62	4.10	28.0	9.16	140	20.5	698	45.7	3480	102	17,400*	170	10 WATT	
1.15	1.86	5.76	4.16	28.7	9.28	143	20.7	715	46.3	3570	103	17,800*	170		
1.18	1.88	5.90	4.20	29.4	9.39	147	21.0	732	46.8	3650	105	18,200*	170	82,500	908
1.21	1.91	6.04	4.25	30.1	9.50	150	21.2	750	47.4	3740	106	18,700*	170	84,500	919
1.24	1.93	6.19	4.31	30.9	9.62	154	21.5	768	48.0	3830	107	19,100*	170	86,600	930
1.27	1.95	6.34	4.36	31.6	9.74	158	21.8	787	48.6	3920	108	19,600*	170	88,700	942
1.30	1.97	6.49	4.41	32.4	9.86	162	22.0	806	49.2	4020	110	20,000*	170	90,900	952
1.33	2.00	6.65	4.46	33.2	9.98	165	22.2	825	49.7	4120	111	20,500*	170	93,100	965
1.37	2.03	6.81	4.52	34.0	10.1	169	22.5	845	50.4	4220	112	21,000*	170	95 300	976
1.40	2.05	6.98	4.57	34.8	10.2	174	22.8	866	51.0	4320	114	21,500*	170	97,600	988
1.43	2.07	7.15	4.63	35.7	10.3	178	23.1	887	51.6	4420	115	22,100*	170	100,000	1000
1.47	2.10	7.32	4.68	36.5	10.5	182	23.4	909	52.2	4530	117	5 WATT		102 000*	1000
1.50	2.12	7.50	4.74	37.4	10.6	187	23.7	931	52.8	4640	118			105.000*	1000
1.54	2.15	7.68	4.80	38.3	10.7	191	23.9	953	53.4	4750	119	22,600	337	107,000*	1000
1.58	2.18	7.87	4.86	39.2	10.8	196	24.2	976	54.1	4870	121	23,200	341	110.000*	1000
1.62	2.20	8.06	4.92	40.2	11.0	200	24.5	1000	54.7	4990	122	23,700	344	113.000*	1000
1.65	2.22	8.25	4.97	41.2	11.1	205	24.8	1020	55.3	5110	124	24,300	347	115,000*	1000
1.69	2.25	8.45	5.04	42.2	11.2	210	25.1	1050	56.1	5230	125	24,900	353	118,000*	1000
1.74	2.28	8.66	5.10	43.2	11.4	215	25.4	1070	56.6	5360	127	25,500	357	121.000*	1000
1.78	2.31	8.87	5.16	44.2	11.5	221	25.7	1100	57.4	5490	128	26,100	361	124,000*	1000
1.82	2.34	9.09	5.22	45.3	11.7	226	26.0	1130	58.2	5620	130	26,700	365	127.000*	1000
1.87	2.37	9.31	5.28	46.4	11.8	232	26.4	1150	58.7	5760	131	27,400	370	130.000*	1000
1.91	2.39	9.53	5.34	47.5	11.9	237	26.7	1180	59.5	5900	133	28,000	374	133,000*	1000
1.96	2.42	9.76	5.41	48.7	12.1	243	27.0	1210	60.2	6040	134	28,700	379	137.000*	1000
2.00	2.45	10.0	5.47	49.9	12.2	249	27.3	1240	61.0	6190	136	29,400	383	140,000*	1000
2.05	2.48	10.2	5.53	51.1	12.4	255	27.7	1270	61.7	6340	138	30,100	388	143,000*	1000
2.10	2.51	10.5	5.61	52.3	12.5	261	28.0	1300	62.4	6490	140	30,900	393	147,000*	1000
2.15	2.54	10.7	5.66	53.6	12.7	267	28.3	1330	63.2	6650	141	31,600	397	150,000*	1000
2.21	2.57	11.0	5.74	54.9	12.8	274	28.7	1370	64.1	6810	143	32,400	402	154.000*	1000
2.26	2.60	11.3	5.82	56.2	13.0	280	29.0	1400	64.8	6980	145	33,200	407	158.000*	1000
2.32	2.64	11.5	5.87	57.6	13.1	287	29.3	1430	65.5	7,150	146	34,000	412	162,000*	1000
2.37	2.67	11.8	5.95	59.0	13.3	294	29.7	1470	66.4	7,320	148	34,800	417	165.000*	1000
2.43	2.70	12.1	6.02	60.4	13.4	301	30.0	1500	67.0	7,500	150	35,700	422	169.000*	1000
2.49	2.73	12.4	6.10	61.9	13.6	309	30.4	1540	68.0	7,680	152	36,500	427	174.000*	1000
2.55	2.77	12.7	6.17	63.4	13.8	316	30.8	1580	68.8	7,870	154	37,400	432	178,000*	1000
2.61	2.80	13.0	6.24	64.9	13.9	324	31.2	1620	69.7	8,060	155	38,300	437	182,000*	1000
2.67	2.83	13.3	6.32	66.5	14.1	332	31.6	1650	70.3	8,250	157	39,200	442	187,000*	1000
2.74	2.87	13.7	6.41	68.1	14.3	340	31.9	1690	71.2	8,450	159	40,200	448	191,000*	1000
2.80	2.90	14.0	6.48	69.8	14.5	348	32.3	1740	72.2	8,660	161	41,200*	450	196,000*	1000
2.87	2.93	14.3	6.55	71.5	14.6	357	32.7	1780	73.0	8,870	163	42,200*	450	200,000*	1000
2.94	2.97	14.7	6.64	73.2	14.8	365	33.1	1820	73.9	9,090	165	43,200*	450		
3.01	3.00	15.0	6.70	75.0	15.0	374	33.5	1870	74.9	9,310	167	44,200*	450		
3.09	3.04	15.4	6.80	76.8	15.2	383	33.9	1910	75.7	9,530	169	45.300*	450		
3.16	3.08	15.8	6.88	78.7	15.4	392	34.3	1960	76.6	9,760*	170	46,400*	450		
3.24	3.12	16.2	6.97	80.6	15.5	402	34.7	2000	77.4	10 000*	170	47.500*	450		
3.32	3.16	16.5	7.03	82.5	15.7	412	35.1	2050	78.4	10 200*	170	48 700*	450		

TYPE 884 NET PRICES

.10 thru .99 ohms	Net 1-24	$1.98	15,001 thru 20K ohms	Net 1-24	.88	100,001 thru 125K ohms	Net 1-24	1.33
1.0 thru 1K ohms	Net 1-24	.71	20,001 thru 40K ohms	Net 1-24	.93	125,001 thru 150K ohms	Net 1-24	1.45
1,001 thru 5K ohms	Net 1-24	.78	40,001 thru 55K ohms	Net 1-24	1.00	150,001 thru 175K ohms	Net 1-24	1.59
5,001 thru 10K ohms	Net 1-24	.82	55,001 thru 75K ohms	Net 1-24	1.10	175,001 thru 200K ohms	Net 1-24	1.73
10,001 thru 15K ohms	Net-1-24	.84	75,001 thru 100K ohms	Net 1-24	1.21			

esistance values marked * are derated in wattage because of maximum voltage gradient considerations. Even with these voltage limitations, however, the wattage ıtings are still adequate for most precision applications. However, where wattage requirements dictate, the same value shown in a derated area for either the 3 or watt sizes can be supplied in the next higher wattage as the case may be.

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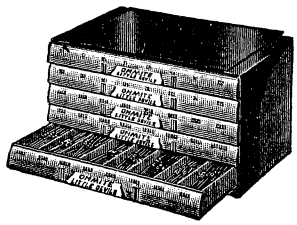
OHMITE

resistors • rheostats • tap switches • relays
variable transformers • tantalum capacitors
semiconductor diodes • r.f. chokes

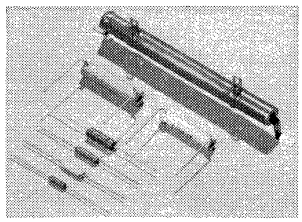
LITTLE DEVIL® RESISTOR ASSORTMENTS FOR SERVICE USE



Serviceman's assortments of 150 Ohmite "Little Devil," ¼-watt or ½-watt, or 125, 1-watt or 2-watt insulated composition resistors, in the 40 values (10 ohms to 10 megohms) most frequently used by servicemen. CAB-4 has 37 resistance values. The assortment is offered at the price of the resistors alone—the cabinet is furnished without extra cost! Cabinet is only 9" long, 4¾" high, and 5¼" deep.

Assortment	Stock No.	Quantity of Resistors	Wattages	Net Price
SERVICE ±10% tolerance (40 resistance values)	**CAB-4**	150	¼ watt	$19.50
	CAB-10	150	½ watt	18.00
	CAB-2	125	1 watt	22.50
	CAB-3	125	2 watt	30.00

OHMITE R.F. PLATE CHOKES



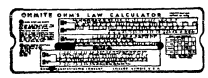
This series of seven Ohmite single layer wound solenoid radio frequency plate chokes covers the entire frequency range of 3 to 520 megacycles. The four highest frequency chokes are wound on low power factor plastic cores while the other three units are wound on steatite tubes. The single layer winding is designed to avoid adverse harmonic effects within the recommended operating range and also prevents breakdown from high r.f. potentials.

Stock Number	Operating Range Megacycles	Micro-henries	Core Dimensions	Net Each 1-9
Z-7	3 to 20 Mc.	84.0	6" x 9/16"	$1.37
Z-14	7 to 35 Mc.	44.0	2" x 7/16"	.68
Z-28	20 to 60 Mc.	21.0	1¾" x 5/16"	.57
Z-50	35 to 110 Mc.	7.0	⅛" x 5/32"	.46
Z-144	80 to 200 Mc.	1.8	¾" x 3/16"	.43
Z-235	160 to 350 Mc.	0.84	¾" x 3/16"	.43
Z-460	320 to 520 Mc.	0.20	½" x 5/32"	.43

Non-magnetic Brackets Furnished with Z-7. The Z-14 and Z-28 are rated at 600 ma. All others 1000 ma.

NEW OHM'S LAW CALCULATOR

Redesigned! This new, improved version of the famous Ohmite Ohm's Law Calculator — popular the world over with servicemen, engineers and students — now has scales for solving parallel resistance problems, AND a standard slide rule. More useful than ever! With one setting of the scale the calculator gives the answer to any Ohm's Law problem—reading directly in ohms, volts, amperes, and watts. Three of the new scales on the back provide a quick, one-setting means of solving parallel resistance problems. The slide rule scales will multiply, divide, find squares, and square roots.



Ohm's Law Calculator (Cardboard) ..... **Net Price $0.25**

Ohm's Law Calculator (Plastic) ..... **Net Price 1.50**

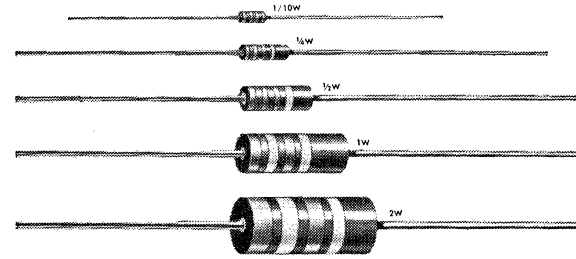
LITTLE DEVIL COLOR CODER

Here is a handy little device that makes it easy to determine the resistance and tolerance values of EIA color coded composition resistors. Just turn the color wheels until the color corresponds to the color band on the resistor and read the resistance value directly in ohms in the windows.

Little Devil Color Coder.... Net Price $ .10

OHMITE LITTLE DEVIL RESISTORS

MOLDED COMPOSITION TYPE



on Tally Tape

Now Includes MIL-R-11 Types

Ohmite's famous molded composition resistors, in the ¼, ½, 1 and 2-watt sizes, conform respectively to Styles RC07, RC20, RC32 and RC42 of MIL-R-11E and meet all the requirements of this military specification.

Little Devils have molded insulation except for the 1/10 watt size which is coated with insulating material. Features: Great stability, low noise level, low voltage coefficient, high insulation breakdown voltage and rapid heat dissipation. They may be used at full rated wattage at 70°C (158°F) ambient temperature.

Available from stock in the standard EIA resistance values in the tolerances and resistance ranges shown in the price table below. Ratings for maximum continuous RMS voltage drop are high: 150 volts for 1/10 watt units, 250 volts for ¼ watt, 350 volts for ½ watt, 500 volts for 1 watt and 750 volts for 2 watt units.

STANDARD EIA VALUES

Figures in large, bold type are ±10% EIA values. *All* values listed are ±5% values. Price table lists the various "Little Devil" sizes and indicates the tolerances and resistance ranges in which they are supplied.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Megs.	Megs.
1.0	9.1	**82**	**680**	**5600**	**47000**	0.36	3.0
1.1	**10**	91	750	6200	51000	**0.39**	**3.3**
1.2	11	**100**	**820**	**6800**	**56000**	0.43	3.6
1.3	**12**	110	910	7500	62000	**0.47**	**3.9**
1.5	13	**120**	**1000**	**8200**	**68000**	0.51	4.3
1.6	**15**	130	1100	9100	75000	**0.56**	**4.7**
1.8	16	**150**	**1200**	**10000**	**82000**	0.62	5.1
2.0	**18**	160	1300	11000	91000	**0.68**	**5.6**
2.2	20	**180**	**1500**	**12000**		0.75	6.2
2.4	**22**	200	1600	13000	Megs.	**0.82**	**6.8**
2.7	24	**220**	**1800**	**15000**	**0.1**	0.91	7.5
3.0	**27**	240	2000	16000	0.11	**1.0**	**8.2**
3.3	30	**270**	**2200**	**18000**	**0.12**	1.1	9.1
3.6	**33**	300	2400	20000	0.13	**1.2**	**10.0**
3.9	36	**330**	**2700**	**22000**	**0.15**	1.3	11.0
4.3	**39**	360	3000	24000	0.16	**1.5**	**12.0**
4.7	43	**390**	**3300**	**27000**	**0.18**	1.6	13.0
5.1	**47**	430	3600	30000	0.20	**1.8**	**15.0**
5.6	51	**470**	**3900**	**33000**	**0.22**	2.0	16.0
6.2	**56**	510	4300	36000	0.24	**2.2**	**18.0**
6.8	62	**560**	**4700**	**39000**	**0.27**	2.4	20.0
7.5	**68**	620	5100	43000	0.30	**2.7**	**22.0**
8.2	75				**0.33**		

PRICES, RESISTANCE RANGES, DIMENSIONS

Size Watts	Size Lgth.	Size Dia.	Resistance Range From	Resistance Range Thru	MIL Type	±5% Net 1-4	±5% Net 5-49	±10% Net 1-4	±10% Net 5-49
1/10	.140"	.067"	10 ohms	1.0 meg	—	—	—	24c LIDVS	20c LIDV
1/4	¼"	.090"	2.7 ohms	24 ohms	RC 07*	29c LIDED	24c LIDED	14c LIDSM	12c LIDS
			27 ohms	22 megs	RC 07	26c LIDED	22c LIDED	13c LIDSM	11c LIDS
1/2	⅜"	9/64"	1 ohm	2.4 ohms	RC 20*	26c LIDFA	22c LIDFA	13c LIDLO	11c LIDL
			2.7 ohms	22 megs		24c LIDFA	20c LIDFA	12c LIDLO	10c LIDL
1	9/16"	7/32"	2.7 ohms	22 megs	RC 32	36c LIDBU	30c LIDBU	18c LIDME	15c LIDN
2	11/16"	5/16"	10 ohms	22 megs	RC 42	48c LIDOC	40c LIDOC	24c LIDHI	20c LIDI

*Minimum resistance under MIL-R-11E is 2.7 ohms. Leads 1½" lo

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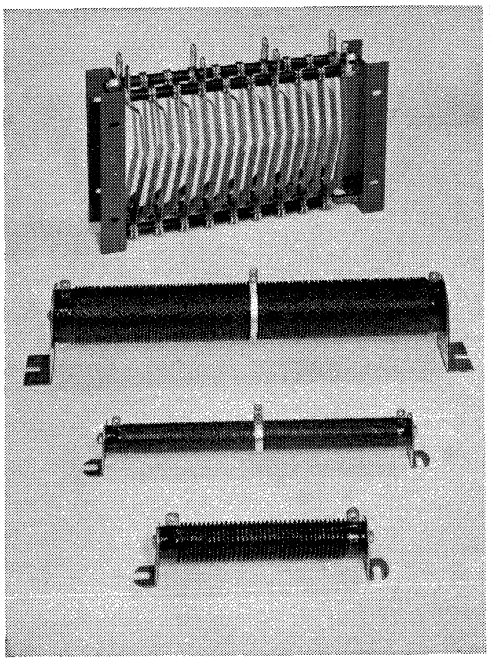
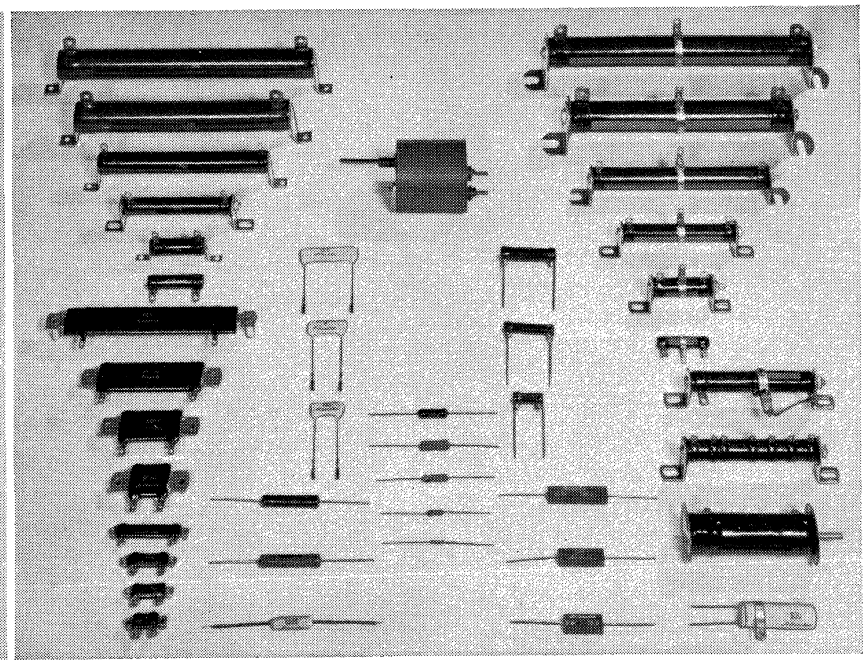
MILWAUKEE "Fire-tested" RESISTORS





TUBULAR—Round Wire: Vitreous Enamel—Fixed and Adjustable—5 thru 1500 Watts. Taps and non-inductive winding available.

TUBULAR—Ribwound: Vitreous Enamel—Fixed and Adjustable—35 thru 2000 Watts. Taps and non-inductive winding available.

OVAL: Vitreous Enamel—Fixed and Adjustable—10 thru 75 Watts. Taps and non-inductive winding available.

AXIAL LEADS: Vitreous Enamel—Fixed only—1 thru 30 Watts. Non-inductive winding available.

"W" SERIES: Silicone Coat—Fixed only—5 thru 30 Watts. Taps and non-inductive winding available.

"BATHTUB": Ceramic Case—Fixed only—4 thru 20 Watts.

"ENCAPSULATED": (in Ceramic Core)—Fixed only—5 thru 100 Watts.

"TOPSIDE": Ceramic Outer Tube—Fixed only—10 thru 25 Watts.

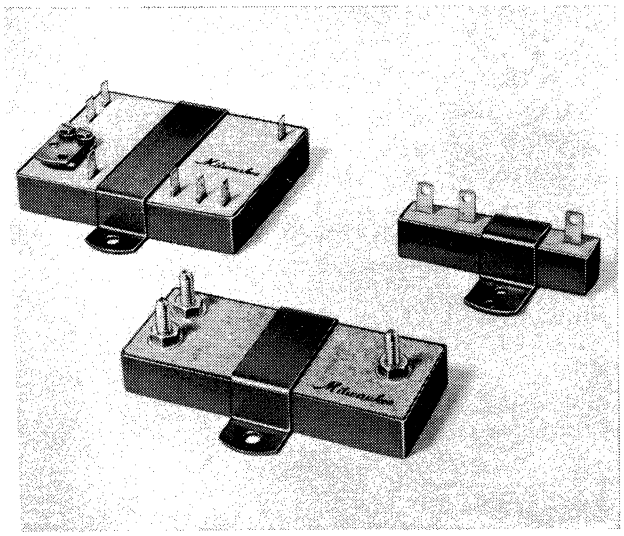
STRIP: Cement and Sand or Silicone Coat—Fixed—2 thru 30 Watts. Taps available.

FUSE RESISTORS: Strip Type—Cement and Sand Coat 4.7 thru 150 Ohms. Patented no-flame construction.

HEAVY-DUTY GRID RESISTORS: For Motor Control, Non-inductive Load Banks, Welders, etc.

RHEOSTATS: Heavy-duty push-pull type.

ALSO MIL-R-26C and NAVY TYPE 15109A RESISTORS



Heat-Sink Type Resistors with Potted Winding in Metal Casing

25 watts and up

Heavy duty resistors with the resistance winding imbedded in a high grade potting compound. The resistors are especially useful where extremely heavy-duty operation is required and where one or more resistors are desired in one case. Ratings start at 25 watts. The resistors can be furnished with quick-connect terminals, standard tabs, or studs.

MILWAUKEE RESISTOR COMPANY

Milwaukee, Wisconsin

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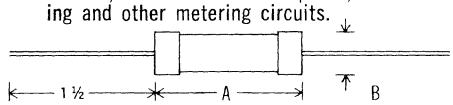
PENN RESISTOR CORP.

PENN RESISTOR CORP. designs and produces Fixed Film and Precision Power Wire Wound Resistors to deliver total performance under all operating conditions. Each step of manufacture, from the selection of materials through final testing and inspection, contributes to PENN's consistent delivery of the most quality, reliability and stability for the price. Whatever your application, it will pay you to contact PENN. Write, or call 215-855-9516.

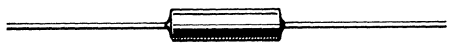
FIXED FILM FCA — ELECTRICAL & MECHANICAL DIMENSIONS

FCA Deposited Carbon Coated Type Resistors offer great stability and extended reliability and accuracy, particularly in high frequency circuits where wire wound or other resistors are not applicable. Widely used in amplifier and computer circuits, voltohmmeter multipliers, filtering and other metering circuits.

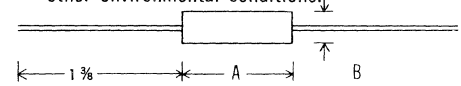


TYPE	WATTS @ 70°C	W.V. D.C.	RESISTANCE		DIMENSIONS	
			MIN.	MAX.	"A"	"B"
FCA05	⅛	250	2.7	1 M	5/16" ± 1/16"	3/32" + 1/16" — 1/32"
FCA10	¼	300	2.7	2 M	3/8" ± 1/16"	1 1/64" + 1/16" — 1/32"
FCA15	½	350	2.7	5 M	5/8" ± 1/16"	1 1/64" + 1/16" — 1/32"
FCA25	1	500	2.7	10 M	1 5/16" ± 1/16"	1 9/64" + 1/16" — 1/32"
FCA30	2	750	5	50 M	2 1/16" ± 1/16"	1 9/64" + 1/16" — 1/32"

FIXED FILM FCE — ELECTRICAL & MECHANICAL DIMENSIONS



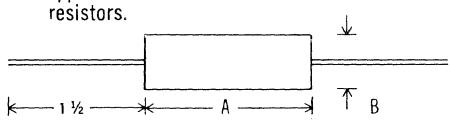
Series FCE Deposited Carbon Insulated Resistors deliver high stability and accuracy, meet MIL-R-10509D requirements. Resistance element encased in molded epoxy sleeve and end-sealed, completely protected from moisture, salt spray, and other environmental conditions.



TYPE	WATTS @ 70°C	W.V. D.C.	RESISTANCE		DIMENSIONS	
			MIN.	MAX.	"A" ± .031"	"B" ± .015"
FCE05	⅛	250	2.7	1 M	.375"	.140"
FCE10	¼	300	2.7	2 M	.531"	.203"
FCE15	½	350	2.7	5 M	.750"	.203"
FCE25	1	500	2.7	10 M	1.062"	.375"
FCE30	2	750	5	50 M	2.187"	.375"

HERMETIC SEALED FCH — ELECTRICAL & MECHANICAL DIMENSIONS

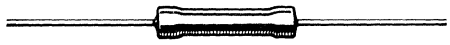
Type FCH Hermetic Sealed Carbon Film Resistors provide extra stability under adverse conditions in critical circuits; meet MIL-R-10509D specifications for characteristic B, and fit high frequency applications not suited to wire wound resistors.



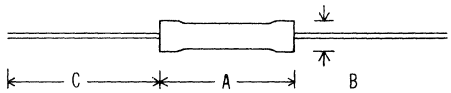
TYPE	WATTS @ 70°C	W.V. D.C.	RESISTANCE		DIMENSIONS	
			MIN.	MAX.	"A"	"B"
FCH05	⅛	250	10	1 M	3/8" + 1/16" — 1/32"	1/8" + .040 — .01
FCH10	¼	300	10	2 M	5/8" + 1/16" — 1/32"	3/16" + 1/16" — 1/32"
FCH15	½	350	10	2.37 M	3/4" ± 1/16"	1/4" + 1/16" — 1/32"
FCH25	1	500	50	10 M	1 1/16" ± 1/16"	3/8" + 1/16" — 1/32"
FCH30	2	750	100	20 M	2 3/16" ± 1/16"	3/8" + 1/16" — 1/32"

Leads: #22 AWG Tinned Copper on ⅛ watt, #2 AWG on others.

WIRE WOUND WS — ELECTRICAL & MECHANICAL DIMENSIONS



Type WS Fixed Wire Wound Precision Power Resistors are supplied for lead mounting, and meet all applicable MIL-R-26C requirements. Impervious to moisture and salt spray, and highly resistant to abrasion, they are wound on special ceramic cores and coated with multiple layers of specially formulated silicone.



TYPE	WATTS @ 25°C	W.V. D.C.	RESISTANCE RANGE	DIMENSIONS		
				"A"	"B"	"C"
WS15	½	20	0.5 Ω to 5 K	1 3/32" ± 1/32"	3/32" ± 1/64"	#24—1½
WS25	1	35	0.5 Ω to 20 K	1 7/32" ± 1/32"	3/32" ± 1/32"	#24—1½
WS30	2	100	0.5 Ω to 25 K	1 3/16" ± 1/16"	3/16" ± 1/32"	#20—1½
WS35	2.5	100	0.5 Ω to 10 K	½" ± 1/16"	3/16" ± 1/32"	#20—1½
WS40	3	130	0.5 Ω to 30 K	5/8" ± 1/16"	¼" ± 1/32"	#18—2"
WS50	5	250	0.5 Ω to 50 K	7/8" ± 1/16"	5/16" ± 1/32"	#18—2"
WS70	7	350	0.5 Ω to 75 K	1 7/32" ± 1/16"	5/16" ± 1/32"	#18—2"
WS100	10	650	0.5 Ω to 250 K	1 25/32" ± 1/16"	3/8" ± 1/32"	#18—2"

PENN RESISTOR CORP. Lansdale, Pennsylvania

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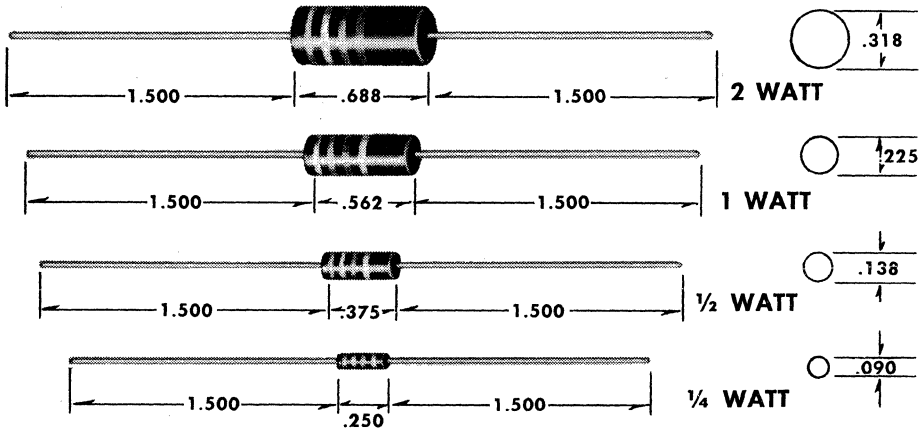
STACKPOLE

FIXED COMPOSITION RESISTORS



Stackpole Coldite 70+ Resistors offer superior performance in terms of load life, moisture resistance, shelf life, and other important characteristics. Available in ¼, ½, 1, and 2 watt insulated types in resistance values with 5%, 10% and 20% tolerances as shown below.

EASIEST SOLDERING

is assured thanks to an exclusive extra solder coating applied after the usual tin dipping. Leads of Stackpole Coldite 70+ Resistors solder readily by any method—dip or iron—stay tarnish free even after months in storage. And, their baked-on color codes resist solvent scrubbing operations . . . maintain uniform, attractive appearance.

269 STANDARD VALUES FOR MODERN CIRCUITRY

±20%	±10%	±5%	±20%	±10%	±5%	±20%	±10%	±5%	±20%	±10%	±5%
10	10	10		390	390	15000	15000	15000		560000	560000
		11			430			16000			620000
	12	12	470	470	470		18000	18000	680000	680000	680000
		13			510			20000			750000
15	15	15		560	560	22000	22000	22000		820000	820000
		16			620			24000			910000
	18	18	680	680	680		27000	27000	1.0 Meg	1.0 Meg	1.0 Meg
		20			750			30000			1.1 Meg
22	22	22		820	820	33000	33000	33000		1.2 Meg	1.2 Meg
		24			910			36000			1.3 Meg
	27	27	1000	1000	1000		39000	39000	1.5 Meg	1.5 Meg	1.5 Meg
		30			1100			43000			1.6 Meg
33	33	33		1200	1200	47000	47000	47000		1.8 Meg	1.8 Meg
		36			1300			51000			2.0 Meg
	39	39	1500	1500	1500		56000	56000	2.2 Meg	2.2 Meg	2.2 Meg
		43			1600			62000			2.4 Meg
47	47	47		1800	1800	68000	68000	68000		2.7 Meg	2.7 Meg
		51			2000			75000			3.0 Meg
	56	56	2200	2200	2200		82000	82000	3.3 Meg	3.3 Meg	3.3 Meg
		62			2400			91000			3.6 Meg
68	68	68		2700	2700	100000	100000	100000		3.9 Meg	3.9 Meg
		75			3000			110000			4.3 Meg
	82	82	3300	3300	3300		120000	120000	4.7 Meg	4.7 Meg	4.7 Meg
		91			3600			130000			5.1 Meg
100	100	100		3900	3900	150000	150000	150000		5.6 Meg	5.6 Meg
		110			4300			160000			6.2 Meg
	120	120	4700	4700	4700		180000	180000	6.8 Meg	6.8 Meg	6.8 Meg
		130			5100			200000			7.5 Meg
150	150	150		5600	5600	220000	220000	220000		8.2 Meg	8.2 Meg
		160			6200			240000			9.1 Meg
	180	180	6800	6800	6800		270000	270000	10.0 Meg	10.0 Meg	10.0 Meg
		200			7500			300000			11.0 Meg
220	220	220		8200	8200	330000	330000	330000		12.0 Meg	12.0 Meg
		240			9100			360000			13.0 Meg
	270	270	10000	10000	10000		390000	390000	15.0 Meg	15.0 Meg	15.0 Meg
		300			11000			430000			16.0 Meg
330	330	330		12000	12000	470000	470000	470000		18.0 Meg	18.0 Meg
		360			13000			510000			20.0 Meg
									22.0 Meg	22.0 Meg	22.0 Meg

AVAILABLE THROUGH LEADING INDUSTRIAL ELECTRONIC PARTS DISTRIBUTORS

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SPECTROL

PRECISION POTENTIOMETERS

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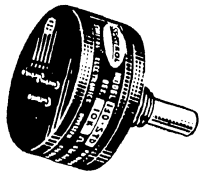
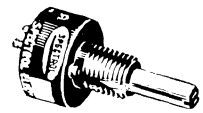
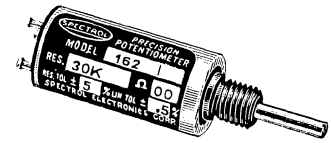


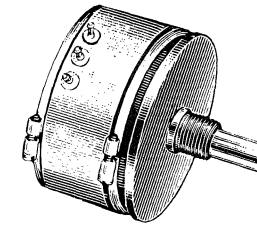
MODEL 130
1 5/16" Diam.



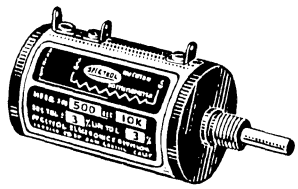
MODEL 140
1/2" Diam.



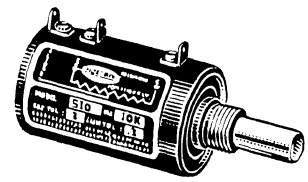
MODEL 162
1/2" Diam.



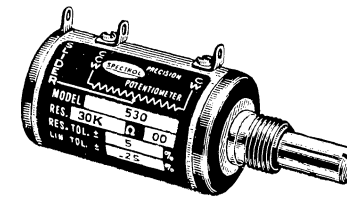
MODEL 230
1 3/4" Diam.



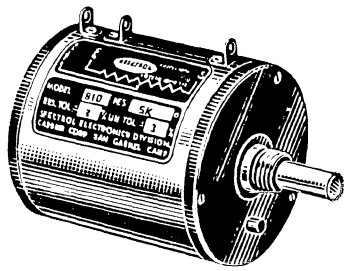
MODEL 500
7/8" Diam.



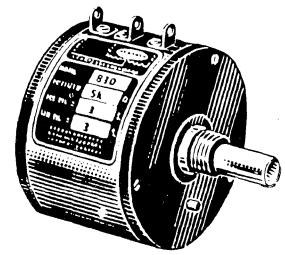
MODEL 510
7/8" Diam.



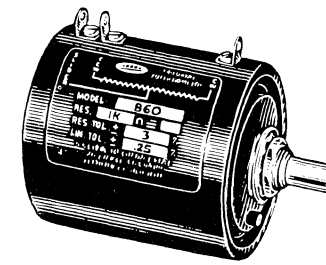
MODEL 530
7/8" Diam.



MODEL 810
1 13/16" Diam.



MODEL 830
1 13/16" Diam.



MODEL 860
1 13/16" Diam.

Model	Diameter (inches)	Turns	Standard Resistance Range (ohms)	Standard Linearity Tolerance (%)	Standard Electrical Rotation (degrees)	Power Rating (watts)	Max. Starting Torque (in./oz.)	Max. Weight (oz.)	Standard Operating Temperature (degrees C)	Approx. Base Price (1-9)
130	1.312	1	100-30K	0.5	352	2.75	1.0	1.5	−55 to +105	$ 9.00
140	0.500	1	50-70K	1.0	325	2.0	2.0	0.15	−55 to +150	$10.00
162	0.500	10	100-50K	0.5	3600	1.0	0.8	1.0	−55 to +125	$10.00
230	1.750	1	100-50K	0.3	354	3.0	1.0	3.0	−55 to +105	$15.00
500	0.875	10	100-100K	0.25	3600	3.0	0.5	1.0	−55 to +125	$15.00
510	0.875	10	100-100K	0.25	3600	3.0	0.5	1.5	−55 to +105	$10.00
530	0.875	10	500-100K	0.25	3600	3.0	0.5	1.5	−55 to +105	$ 7.00
810	1.812	10	25-300K	0.25	3600	8.0	1.75	4.5	−55 to +105	$12.00
830	1.812	3	100-50K	0.25	1080	3.0	1.75	3.0	−55 to +105	$10.00
860	1.812	10	25-400K	0.25	3600	8.0	1.75	4.5	−55 to +105	$10.00

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PLAINVIEW, L.I., NEW YORK
BRAMPTON (TORONTO), ONTARIO, CANADA

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ALL UNITS SHOWN ACTUAL SIZE

MODEL 42 Rectangular-Military

Meets MIL-R-27208

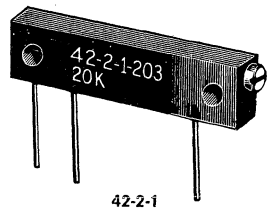
Electrical Specifications

Standard Resistance Range	50Ω to 100K
Resistance Tolerance	±5.0% (±1% available)
Power Rating	1.0 watt at 70°C

Mechanical Specifications

Number of Turns	25 ±2
Operating Temperature Range	−65°C to +175°C
Case Dimensions	.190 x .320 x 1.250
Weight	4.3 grams max.
Price in 1-9 Quantities	$6.45 (42-x-1)
	$6.95 (RT12C2 L or P)

42-1-1
Teflon insulated leads
RT12C2L



42-2-1
Printed circuit pins
RT12C2P

MODEL 44 Rectangular-Military

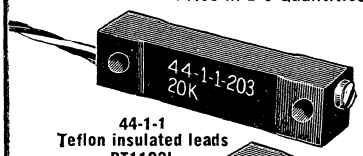
Meets MIL-27208

Electrical Specifications

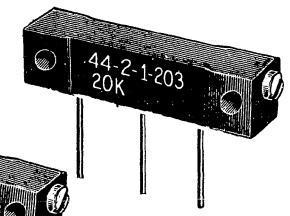
Standard Resistance Range	50Ω to 100K
Resistance Tolerance	±5.0% (±1% available)
Power Rating	1.0 watt at 70°C

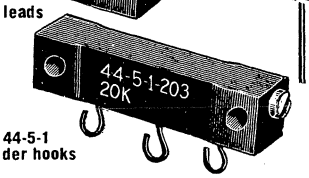
Mechanical Specifications

Number of Turns	25 ±2
Operating Temperature Range	−65°C to +175°C
Case Dimensions	.280 x .312 x 1.250
Weight	4.5 grams max.
Price in 1-9 Quantities	$5.95 (44-x-1)
	$6.45 (RT11C2 L or P)



44-1-1
Teflon insulated leads
RT11C2L





44-5-1
Solder hooks

44-2-1
Printed circuit pins
RT11C2P

MODEL 46 Rectangular-Military

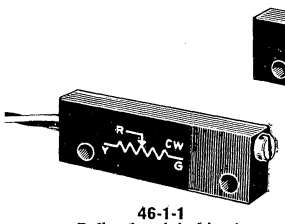
Meets MIL-R-27208

Electrical Specifications

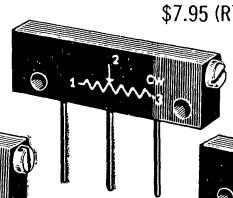
Standard Resistance Range	50Ω to 50K
Resistance Tolerance	±5.0% (±1% available)
Power Rating	1.0 watt at 70°C

Mechanical Specifications

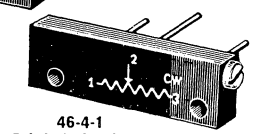
Number of Turns	15 ±2
Operating Temperature Range	−65°C to +175°C
Case Dimensions	.185 x .315 x 1.000
Weight	3.6 grams max.
Price in 1-9 Quantities	$7.45 (46-x-1)
	$7.95 (RT 10C2 L or P)



46-1-1
Teflon insulated leads
RT10C2L



46-2-1
Printed circuit pins



46-4-1
Printed circuit pins
RT10C2P

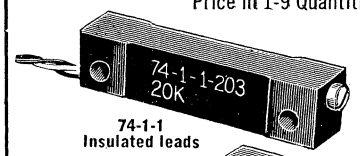
MODEL 74 Rectangular-Industrial

Electrical Specifications

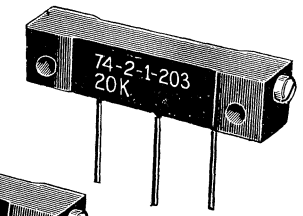
Standard Resistance Range	50Ω to 100K
Resistance Tolerance	±10%
Power Rating	1.0 watt at 70°C

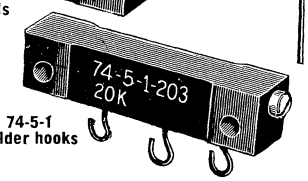
Mechanical Specifications

Number of Turns	22 ±5
Operating Temperature Range	−65°C to +175°C
Case Dimensions	.280 x .312 x 1.250
Weight	4.5 grams max.
Price in 1-9 Quantities	$4.80



74-1-1
Insulated leads





74-5-1
Solder hooks

74-2-1
Printed circuit pins

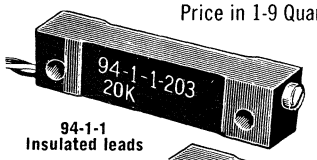
MODEL 94 Rectangular-Industrial

Electrical Specifications

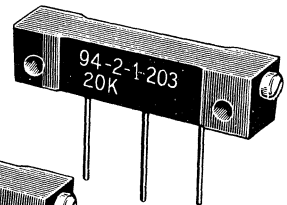
Standard Resistance Range	50Ω to 20K
Resistance Tolerance	±10%
Power Rating	0.5 Watt at 50°C

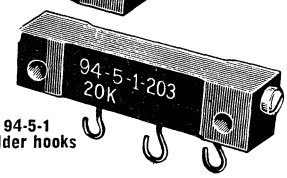
Mechanical Specifications

Number of Turns	22 ±5
Operating Temperature Range	−65°C to +105°C
Case Dimensions	.280 x .312 x 1.250
Weight	4.5 grams max.
Price in 1-9 Quantities	$3.15



94-1-1
Insulated leads





94-5-1
Solder hooks

94-2-1
Printed circuit pins

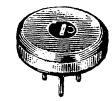
MODEL 84 Round-Military/Industrial

Electrical Specifications

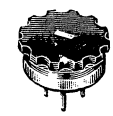
Standard Resistance Range	50Ω to 100K
Resistance Tolerance	±5.0% (±1% available)
Power Rating	1.5 watt @ 50°C

Mechanical Specifications

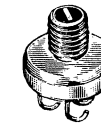
Number of Turns	1
Rotation	320° min. between stops (continuous rotation available)
Operating Temperature Range	−65°C to +175°C
Case Dimensions	0.500″ diameter x 0.170″ height
Price in 1-9 Quantities	$3.95 (84-3-8)



84-3-8



84-3-10
Knob Adjust



84-5-6
Bushing Panel Mount
Solder hooks

3/16″ Printed circuit pins

Net

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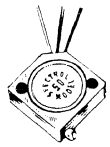
MODEL 50 Square-Military

Electrical Specifications

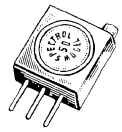
Standard Resistance Range	50Ω to 50K
Resistance Tolerance	±5.0% (±1.0% available)
Power Rating	1.0 watt at 50°C

Mechanical Specifications

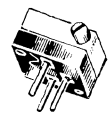
Number of Turns	25 ±2
Rotation	Continuous
Operating Temperature Range	−65°C to +150°C
Case Dimensions	⅜″ x ⅜″ x 3/16″ (50-1-1)
Weight	1.75 grams
Price in 1-9 Quantities	$7.50 (50-1-1)



50-1-1
Teflon insulated leads



50-3-1
Printed circuit pins, 180°



50-4-1
Printed circuit pins, base

50-1-1P
Panel mt.

MODEL 55 Square-Military

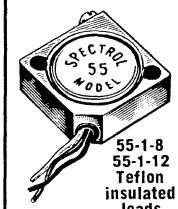
Meets MIL-R-27208

Electrical Specifications

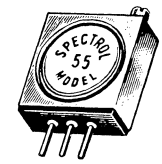
Standard Resistance Range	50Ω to 50K
Resistance Tolerance	±5.0% (±1.0% available)
Power Rating	1.5 watts at 70°C

Mechanical Specifications

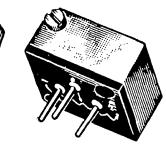
Number of Turns	25 nominal (42 available)
Rotation	Stops, clutch standard (continuous rotation available)
Operating Temperature Range	−65°C to +150°C
Case Dimensions	½″ x ½″ x 3/16″ (55-1-8)
Weight	2.5 grams
Price in 1-9 Quantities	$6.35 (55-1-8) $6.85 (RT22C2L)



55-1-8
55-1-12
Teflon insulated leads
RT22C2L



55-3-8
55-3-12
PC pins 180°



55-4-8
55-4-12
PC pins, base
RT22C2P

55-1-8-XXP
55-1-8XXXP
Panel mt.

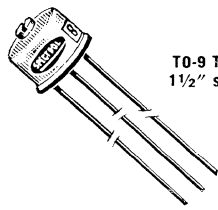
MODEL 80 Round-Military

Electrical Specifications

Standard Resistance Range	50Ω to 50K
Resistance Tolerance	±5.0% (±1% available)
Power Rating	1.0 watt at 50°C

Mechanical Specifications

Number of Turns	1
Rotation	320° between stops (continuous rotation or stops/clutch available)
Operating Temperature Range	−65°C to +105°C
Case Dimensions	.345″ diameter to .241″ height
Price in 1-9 Quantities	$6.00



80-3-4
TO-9 Transistor Type
1½″ solid wire leads

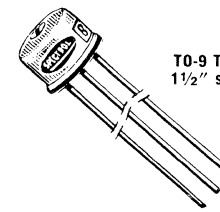
MODEL 82 Round-Industrial

Electrical Specifications

Standard Resistance Range	50Ω to 10K
Resistance Tolerance	±10%
Power Rating	0.5 watt at 50°C

Mechanical Specifications

Number of Turns	1
Rotation	320° between fixed stops (stops/clutch available)
Operating Temperature Range	−65°C to +105°C
Case Dimensions	.345″ diameter to .241″ height
Price in 1-9 Quantities	$4.00



82-3-8
TO-9 Transistor Type
1½″ solid wire leads

SPECTROL

MANUFACTURERS OF
PRECISION POTENTIOMETERS
TRIMMING POTENTIOMETERS
TURNS-COUNTING DIALS

SPECTROL ELECTRONICS CORPORATION

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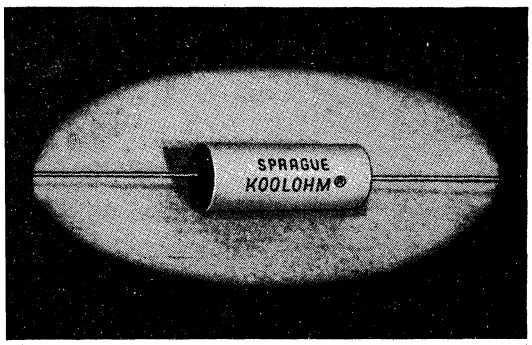
SPRAGUE RESISTORS

KOOLOHM® AXIAL-LEAD WIREWOUND RESISTORS
FOR INDUSTRIAL APPLICATIONS



- Types 450E, 452E, 454E, 456E and 458E are Standard Resistors. Types 451E, 453E, 455E, 457E and 459E are Non-Inductive Resistors

- Insulated-Shell Design for Easy Mounting
- Feature Improved Internal Construction in Which Windings and Leads are Welded to End-Cap for Superior Mechanical Strength
- Ceramic-Insulated Wire is Space Wound and Cemented, to Prevent Turn-to-Turn Shorting. Permits Higher Resistance Values in a Given Size Than in Conventional Resistors
- Non-Porous Tubular Ceramic Shells Sealed With High Temperature Silicone Cement
- Unexcelled Insulation and Mechanical Protection. Can be Mounted in Direct Contact With Chassis
- Call Your Sprague Industrial Distributor for Quantity Prices.
- For Complete Technical Details, Refer to Latest Issue of Sprague Engineering Bulletin 7300

	Type 450E 3 WATTS ¼" x 9/16"		Type 452E 5 WATTS ¼" x 1"		Type 454E 7 WATTS 15/32" x 15/16"		Type 456E 10 WATTS 15/32" x 1 29/32"		Type 458E 14 WATTS 15/32" x 1 29/32"	
Ohms	Cat. No.		Cat. No.		Cat. No.		Cat. No.		Cat. No.	
1	450E1R05	Call Your Sprague Industrial Distributor for Current Quantity Prices	452E1R05	Call Your Sprague Industrial Distributor for Current Quantity Prices	454E1R05	Call Your Sprague Industrial Distributor for Current Quantity Prices	456E1R05	Call Your Sprague Industrial Distributor for Current Quantity Prices	458E1R05	Call Your Sprague Industrial Distributor for Current Quantity Prices
1.5	450E1R55		452E1R55		454E1R55		456E1R55		458E1R55	
2	450E2R05		452E2R05		454E2R05		456E2R05		458E2R05	
3	450E3R05		452E3R05		454E3R05		456E3R05		458E3R05	
4	450E4R05		452E4R05		454E4R05		456E4R05		458E4R05	
5	450E5R05		452E5R05		454E5R05		456E5R05		458E5R05	
7.5	450E7R55		452E7R55		454E7R55		456E7R55		458E7R55	
10	450E1005		452E1005		454E1005		456E1005		458E1005	
12	450E1205		452E1205		454E1205		456E1205		458E1205	
15	450E1505		452E1505		454E1505		456E1505		458E1505	
18	450E1805		———		———		———		———	
20	450E2005		452E2005		454E2005		456E2005		458E2005	
22	450E2205		———		———		———		———	
25	450E2505		452E2505		454E2505		456E2505		458E2505	
27	450E2705		———		———		———		———	
30	450E3005		452E3005		454E3005		456E3005		458E3005	
33	450E3305		———		———		———		———	
35	———		452E3505		454E3505		456E3505		458E3505	
39	450E3905		———		———		———		———	
40	450E4005		452E4005		454E4005		456E4005		458E4005	
47	450E4705		———		———		———		———	
50	450E5005		452E5005		454E5005		456E5005		458E5005	
56	450E5605		———		———		———		———	
68	450E6805		———		———		———		———	
75	450E7505		452E7505		454E7505		456E7505		458E7505	
82	450E8205		———		———		———		———	
100	450E1015		452E1015		454E1015		456E1015		458E1015	
120	450E1215		452E1215		454E1215		456E1215		458E1215	
150	450E1515		452E1515		454E1515		456E1515		458E1515	
180	450E1815		———		———		———		———	

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SPRAGUE RESISTORS

KOOLOHM AXIAL-LEAD WIREWOUND RESISTORS, continued

Ohms	Type 450E 3 WATTS ¼" x 9/16" Cat. No.	Type 452E 5 WATTS ¼" x 1" Cat. No.	Type 454E 7 WATTS 15/32" x 15/16" Cat. No.	Type 456E 10 WATTS 15/32" x 1 29/32" Cat. No.	Type 458E 14 WATTS 15/32" x 1 29/32" Cat. No.
200	450E2015	452E2015	454E2015	456E2015	458E2015
220	450E2215	452E2215	454E2215	456E2215	458E2215
250	450E2515	452E2515	454E2515	456E2515	458E2515
270	450E2715	———	———	———	———
300	450E3015	452E3015	454E3015	456E3015	458E3015
330	450E3315	———	———	———	———
350	———	452E3515	454E3515	456E3515	458E3515
390	450E3915	———	———	———	———
400	450E4015	452E4015	454E4015	456E4015	458E4015
450	———	452E4515	———	———	———
470	450E4715	———	———	———	———
500	450E5015	452E5015	454E5015	456E5015	458E5015
560	450E5615	———	———	———	———
600	450E6015	452E6015	454E6015	456E6015	458E6015
680	450E6815	———	———	———	———
700	450E7015	452E7015	454E7015	456E7515	458E7015
750	———	452E7515	454E7515	———	458E7515
800	450E8015	452E8015	454E8015	456E8015	458E8015
820	450E8215	———	———	———	———
900	450E9015	452E9015	454E9015	456E9015	458E9015
1000	450E1025	452E1025	454E1025	456E1025	458E1025
1100	———	452E1125	454E1125	456E1125	458E1125
1200	450E1225	452E1225	454E1225	456E1225	458E1225
1400	450E1425	452E1425	454E1425	456E1425	458E1425
1500	450E1525	452E1525	454E1525	456E1525	458E1525
1800	450E1825	452E1825	454E1825	456E1825	458E1825
2000	450E2025	452E2025	454E2025	456E2025	458E2025
2200	450E2225	452E2225	454E2225	465E2225	458E2225
2500	450E2525	452E2525	454E2525	456E2525	458E2525
2700	450E2725	———	———	———	———
3000	450E3025	452E3025	454E3025	456E3025	458E3025
3300	450E3325	———	454E3325	456E3325	458E3325
3500	———	452E3525	454E3525	456E3525	458E3525
3900	450E3925	———	454E3925	456E3925	458E3925
4000	450E4025	452E4025	454E4025	456E4025	458E4025
4500	———	452E4525	454E4525	456E4525	458E4525
4700	450E4725	———	———	———	———
5000	450E5025	452E5025	454E5025	456E5025	458E5025
5600	450E5625	———	———	———	———
6000	450E6025	452E6025	454E6025	456E6025	458E6025
6800	450E6825	———	———	———	———
7000	———	452E7025	454E7025	456E7025	458E7025
7500	450E7525	452E7525	454E7525	456E7525	458E7525
8000	450E8025	452E8025	454E8025	456E8025	458E8025
8200	450E8225	———	———	———	———
9000	450E9025	452E9025	454E9025	456E9025	458E9025
10000	450E1035	452E1035	454E1025	456E1035	458E1035
11000	———	———	454E1135	456E1135	458E1135
12000	———	452E1235	454E1235	456E1235	458E1125
14000	———	452E1435	454E1435	456E1435	458E1435
15000	———	452E1535	454E1535	456E1535	458E1535
16000	———	———	454E1635	456E1635	458E1635
18000	———	452E1835	454E1835	456E1835	458E1835
20000	———	452E2035	454E2035	456E2035	458E2035
22000	———	———	454E2235	456E2235	———
25000	———	———	454E2535	456E2535	———
30000	———	———	454E3035	456E3035	———
35000	———	———	454E3535	456E3535	———
40000	———	———	454E4035	456E4035	———
45000	———	———	———	456E4535	———
50000	———	———	———	456E5035	———
60000	———	———	———	456E6035	———
70000	———	———	———	456E7035	———

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SPRAGUE RESISTORS

NON-INDUCTIVE KOOLOHM AXIAL-LEAD WIREWOUND RESISTORS

Ohms	Type 451E 3 WATTS 1/4" x 9/16" Cat. No.	Type 453E 5 WATTS 1/4" x 1" Cat. No.	Type 455E 7 WATTS 15/32" x 1 5/16" Cat. No.	Type 457E 10 WATTS 15/32" x 1 29/32" Cat. No.	Type 459E 14 WATTS 15/32" x 1 29/32" Cat. No.
1	451E1R05	453E1R05	455E1R05	457E1R05	459E1R05
1.5	451E1R55	453E1R55	455E1R55	457E1R55	459E1R55
2	451E2R05	453E2R05	455E2R05	457E2R05	459E2R05
3	451E3R05	453E3R05	455E3R05	457E3R05	459E3R05
4	451E4R05	453E4R05	455E4R05	457E4R05	459E4R05
5	451E5R05	453E5R05	455E5R05	457E5R05	459E5R05
7.5	451E7R55	453E7R55	455E7R55	457E7R55	459E7R55
10	451E1005	453E1005	455E1005	457E1005	459E1005
12	451E1205	453E1205	455E1205	457E1205	459E1205
15	451E1505	453E1505	455E1505	457E1505	459E1505
18	451E1805	———	———	———	———
20	451E2005	453E2005	455E2005	457E2005	459E2005
22	451E2205	———	———	———	———
25	451E2505	453E2505	455E2505	457E2505	459E2505
27	451E2705	———	———	———	———
30	451E3005	453E3005	455E3005	457E3005	459E3005
33	451E3305	———	———	———	———
35	451E3505	453E3505	455E3505	457E3505	459E3505
39	451E3905	———	———	———	———
40	451E4005	453E4005	455E4005	457E4005	459E4005
47	451E4705	———	———	———	———
50	451E5005	453E5005	455E5005	457E5005	459E5005
56	451E5605	———	———	———	———
68	451E6805	———	———	———	———
75	451E7505	453E7505	455E7505	457E7505	459E7505
82	451E8205	———	———	———	———
100	451E1015	453E1015	455E1015	457E1015	459E1015
120	451E1215	453E1215	455E1215	457E1215	459E1215
150	451E1515	453E1515	455E1515	457E1515	459E1515
180	451E1815	———	———	———	———
200	451E2015	453E2015	455E2015	457E2015	459E2015
220	451E2215	453E2215	455E2215	457E2215	459E2215
250	451E2515	453E2515	455E2515	457E2515	459E2515
270	451E2715	———	———	———	———
300	451E3015	453E3015	455E3015	457E3015	459E3015
330	451E3315	———	———	———	———
350	451E3515	453E3515	455E3515	457E3515	459E3515
390	451E3915	———	———	———	———
400	451E4015	453E4015	455E4015	457E4015	459E4015
450	451E4515	453E4515	———	———	———
470	451E4715	———	———	———	———
500	451E5015	453E5015	455E5015	457E5015	459E5015
560	451E5615	———	———	———	———
600	451E6015	453E6015	455E6015	457E6015	459E6015
680	451E6815	———	———	———	———
700	451E7015	453E7015	455E7015	457E7015	459E7015
750	451E7515	453E7515	455E7515	457E7515	459E7515
800	451E8015	453E8015	455E8015	457E8015	459E8015
820	451E8215	———	———	———	———
900	451E9015	453E9015	455E9015	457E9015	459E9015
1000	451E1025	453E1025	455E1025	457E1025	459E1025
1100	———	453E1125	455E1125	457E1125	459E1125
1200	451E1225	453E1225	455E1225	457E1225	459E1225
1400	451E1425	453E1425	455E1425	457E1425	459E1425
1500	451E1525	453E1525	455E1525	457E1525	459E1525
1800	451E1825	453E1825	455E1825	457E1825	459E1825
2000	451E2025	453E2025	455E2025	457E2025	459E2025
2200	———	453E2225	455E2225	457E2225	459E2225
2500	———	453E2525	455E2525	457E2525	459E2525
3000	———	453E3025	455E3025	457E3025	459E3025
3300	———	———	455E3325	457E3325	459E3325
3500	———	453E3525	455E3525	457E3525	459E3525
3900	———	———	455E3925	457E3925	459E3925
4000	———	453E4025	455E4025	457E4025	459E4025
4500	———	———	455E4525	457E4525	459E4525
5000	———	———	455E5025	457E5025	459E5025
6000	———	———	———	457E6025	459E6025
7000	———	———	———	457E7025	459E7025
7500	———	———	———	457E7525	459E7525
8000	———	———	———	457E8025	459E8025
9000	———	———	———	457E9025	459E9025
10000	———	———	———	457E1035	459E1035

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SPRAGUE RESISTORS

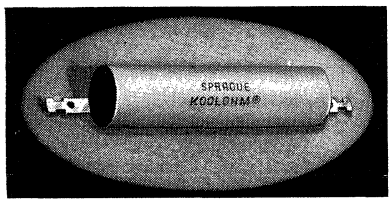
TYPE RW55, RW56 KOOLOHM® RESISTORS

- Axial-Lead Koolohm Resistors to Military Specification MIL-R-26C, Characteristics V and G
- See Your Sprague Industrial Distributor for Quantity Prices

Ohms	Type RW55 7 WATTS 15/32" x 1 7/8" Cat. No.	Type RW56 14 WATTS 15/32" x 2" Cat. No.
1.0	RW55V1R0	RW56V1R0
1.1	RW55V1R1	RW56V1R1
1.3	RW55V1R3	RW56V1R3
1.5	RW55V1R5	RW56V1R5
1.6	RW55V1R6	RW56V1R6
1.8	RW55V1R8	RW56V1R8
2.0	RW55V2R0	RW56V2R0
2.2	RW55V2R2	RW56V2R2
2.4	RW55V2R4	RW56V2R4
2.7	RW55V2R7	RW56V2R7
3.0	RW55V3R0	RW56V3R0
3.3	RW55V3R3	RW56V3R3
3.6	RW55V3R6	RW56V3R6
3.9	RW55V3R9	RW56V3R9
4.3	RW55V4R3	RW56V4R3
4.7	RW55V4R7	RW56V4R7
5.1	RW55V5R1	RW56V5R1
5.6	RW55V5R6	RW56V5R6
6.2	RW55V6R2	RW56V6R2
6.8	RW55V6R8	RW56V6R8
7.5	RW55V7R5	RW56V7R5
8.2	RW55V8R2	RW56V8R2
9.1	RW55V9R1	RW56V9R1
10	RW55V100	RW56V100
11	RW55V110	RW56V110
12	RW55V120	RW56V120
13	RW55V130	RW56V130
15	RW55V150	RW56V150
16	RW55V160	RW56V160
18	RW55V180	RW56V180
20	RW55V200	RW56V200
22	RW55V220	RW56V220
24	RW55V240	RW56V240
27	RW55V270	RW56V270
30	RW55V300	RW56V300
33	RW55V330	RW56V330
36	RW55V360	RW56V360
39	RW55V390	RW56V390
43	RW55V430	RW56V430
47	RW55V470	RW56V470
51	RW55V510	RW56V510
56	RW55V560	RW56V560
62	RW55V620	RW56V620
68	RW55V680	RW56V680
75	RW55V750	RW56V750
82	RW55V820	RW56V820
91	RW55V910	RW56V910
100	RW55V101	RW56V101
110	RW55V111	RW56V111
120	RW55V121	RW56V121
130	RW55V131	RW56V131
150	RW55V151	RW56V151
160	RW55V161	RW56V161
180	RW55V181	RW56V181
200	RW55V201	RW56V201
220	RW55V221	RW56V221
240	RW55V241	RW56V241
270	RW55V271	RW56V271
300	RW55V301	RW56V301
330	RW55V331	RW56V331
360	RW55V361	RW56V361
390	RW55V391	RW56V391
430	RW55V431	RW56V431
470	RW55V471	RW56V471
510	RW55V511	RW56V511
560	RW55V561	RW56V561
620	RW55V621	RW56V621
680	RW55V681	RW56V681
750	RW55V751	RW56V751
820	RW55V821	RW56V821
910	RW55V911	RW56V911
1000	RW55V102	RW56V102
1100	RW55V112	RW56V112
1200	RW55V122	RW56V122
1300	RW55V132	RW56V132
1500	RW55V152	RW56V152
1600	RW55V162	RW56V162
1800	RW55V182	RW56V182
2000	RW55V202	RW56V202
2200	RW55V222	RW56V222
2400	RW55V242	RW56V242
2700	RW55V272	RW56V272
3000	RW55V302	RW56V302
3300	RW55V332	RW56V332
3600	RW55V362	RW56V362
3900	RW55V392	RW56V392
4300	RW55V432	RW56V432
4700	RW55V472	RW56V472
5100	RW55V512	RW56V512
5600	RW55V562	RW56V562
6200	RW55V622	RW56V622
6800	RW55V682	RW56V632
7500	RW55V752	RW56V752
8200	RW55V822	RW56V822
9100	RW55V912	RW56V912
10000	———	RW56V103
11000	———	RW56V113
12000	———	RW56V123
13000	———	RW56V133
15000	———	RW56V153
16000	———	RW56V163

Call Your Sprague Industrial Distributor for Quantity Prices

Commercial Tab-Terminal KOOLOHM® Wirewound Resistors



- These Resistors Are Also Available in 5 and 10 Watt Ratings, Axial-Lead Style. See Latest Issue of Sprague Catalog C-616

Ohms	Type 25KT 25 Watts Cat. No.	Type 50KT 50 Watts Cat. No.	Type 120KT 120 Watts Cat. No.
TYPE KT STANDARD RESISTORS			
5	25KT5R05	50KT5R05	120KT5R05
10	25KT1005	50KT1005	120KT1005
25	25KT2505	50KT2505	120KT2505
50	25KT5005	50KT5005	120KT5005
75	25KT7505	50KT7505	120KT7505
100	25KT1015	50KT1015	120KT1015
150	25KT1515	50KT1515	120KT1515
200	25KT2015	50KT2015	120KT2015
250	25KT2515	50KT2515	120KT2515
390	———	———	120KT3915
500	25KT5015	50KT5015	120KT5015
600	25KT6015	50KT6015	120KT6015
750	25KT7515	50KT7515	120KT7515
1000	25KT1025	50KT1025	120KT1025
1500	25KT1525	50KT1525	120KT1525
2000	25KT2025	50KT2025	120KT2025
2500	25KT2525	50KT2525	120KT2525
3000	25KT3025	50KT3025	120KT3025
4000	25KT4025	50KT4025	———
5000	25KT5025	50KT5025	120KT5025
7500	25KT7525	50KT7525	120KT7525
10000	25KT1035	50KT1035	120KT1035
12000	25KT1235	50KT1235	120KT1235
15000	25KT1535	50KT1535	120KT1535
20000	25KT2035	50KT2035	120KT2035

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Ohms	Type 25NIT 25NIT Watts Cat. No.	Type 50NIT 50NIT Watts Cat. No.	Type 120NIT 120NIT Watts Cat. No.
TYPE KT STANDARD RESISTORS, continued			
25000	25KT2535	50KT2535	120KT2535
40000	25KT4035	———	———
50000	25KT5035	50KT5035	120KT5035
75000	25KT7535	50KT7535	120KT7535
100000	25KT1045	50KT1045	120KT1045
TYPE NIT NON-INDUCTIVE RESISTORS			
5	25NIT5R05	50NIT5R05	120NIT5R05
10	25NIT1005	50NIT1005	120NIT1005
25	25NIT2505	50NIT2505	120NIT2505
50	25NIT5005	50NIT5005	120NIT5005
75	25NIT7505	50NIT7505	120NIT7505
100	25NIT1015	50NIT1015	120NIT1015
150	25NIT1515	50NIT1515	120NIT1515
200	25NIT2015	50NIT2015	120NIT2015
250	25NIT2515	50NIT2515	120NIT2515
390	———	———	120NIT3915
500	25NIT5015	50NIT5015	120NIT5015
600	25NIT6015	50NIT6015	120NIT6015
750	25NIT7515	50NIT7515	120NIT7515
1000	25NIT1025	50NIT1025	120NIT1025
1500	25NIT1525	50NIT1525	120NIT1525
2000	25NIT2025	50NIT2025	120NIT2025
2500	25NIT2525	50NIT2525	120NIT2525
3000	25NIT3025	50NIT3025	120NIT3025
4000	25NIT4025	50NIT4025	———
5000	25NIT5025	50NIT5025	120NIT5025
7500	25NIT7525	50NIT7525	120NIT7525
10000	25NIT1035	50NIT1035	120NIT1035
12000	25NIT1235	50NIT1235	———
15000	25NIT1535	50NIT1535	120NIT1535
20000	25NIT2035	50NIT2035	120NIT2035
25000	25NIT2535	50NIT2535	120NIT2535
50000	———	50NIT5035	120NIT5045

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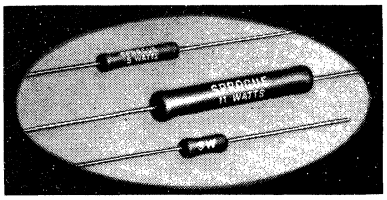
SPRAGUE RESISTORS

BLUE JACKET® INDUSTRIAL WIREWOUND RESISTORS



- Improved Minified Resistors Designed for Thorough Reliability and Stability Under Extreme Operating Conditions
- Matched Coefficient of Expansion Allows Uniform Expansion of Vitreous Enamel Coating, Ceramic Base, and End Caps, Eliminating Crazing, Cracks, and Protects From Fumes and Humidity
- Windings and Leads Welded to End-Caps for Superior Mechanical Strength
- For 2BJ, 3BJ, 5BJ and 10BJ Commercial or Service Equivalents to These Resistors, Refer to the Latest issue of Sprague Catalog C-616
- See Your Sprague Industrial Distributor for Quantity Prices

Ohms	Type 239E, 1 WATT 1/8" x 3/8" Cat. No.	Type 240E, 2 WATTS 3/16" x 3/8" Cat. No	Type 242E, 3 WATTS 13/64" x 17/32" Cat. No.	Type 243E, 5 WATTS 13/64" x 15/16" Cat. No.	Type 244E, 7 WATTS 5/16" x 1" Cat. No.	Type 247E, 10 WATTS 5/16" x 1 3/4" Cat. No.
1	239E1R05	240E1R05	242E1R05	243E1R05	244E1R05	247E1R05
1.2	239E1R25	———	———	———	———	———
1.5	239E1R55	240E1R55	242E1R55	243E1R55	244E1R55	247E1R55
1.8	239E1R85	———	———	———	———	———
2	239E2R05	240E2R05	242E2R05	243E2R05	244E2R05	247E2R05
2.2	239E2R25	———	———	———	———	———
2.7	239E2R27	———	———	———	———	———
3	239E3R05	240E3R05	242E3R05	243E3R05	244E3R05	247E3R05
3.3	239E3R35	———	———	———	———	———
3.9	239E3R95	———	———	———	———	———
4	239E4R05	240E4R05	242E4R05	243E4R05	244E4R05	247E4R05
4.7	239E4R75	———	———	———	———	———
5	239E5R05	240E5R05	242E5R05	243E5R05	244E5R05	247E5R05
5.6	239E5R65	———	———	———	———	———
6.8	239E6R85	———	———	———	———	———
7.5	239E7R55	240E7R55	242E7R55	243E7R55	244E7R55	247E7R55
8.2	239E8R25	———	———	———	———	———
10	239E1005	240E1005	242E1005	243E1005	244E1005	247E1005
12	239E1205	240E1205	242E1205	243E1205	244E1205	247E1205
15	239E1505	240E1505	242E1505	243E1505	244E1505	247E1505
18	239E1805	240E1805	242E1805	———	———	———
20	239E2005	240E2005	242E2005	243E2005	244E2005	247E2005
22	239E2205	240E2205	242E2205	———	———	———
25	239E2505	240E2505	242E2505	243E2505	244E2505	247E2505
27	239E2705	240E2705	242E2705	———	———	———
30	239E3005	240E3005	242E3005	243E3005	244E3005	247E3005
33	239E3305	240E3305	242E3305	———	———	———
35	———	———	———	243E3505	244E3505	247E3505
39	239E3905	240E3905	242E3905	———	———	———
40	239E4005	240E4005	242E4005	243E4005	244E4005	247E4005
47	239E4705	240E4705	242E4705	———	———	———
50	239E5005	240E5005	242E5005	243E5005	244E5005	247E5005
56	239E5605	240E5605	242E5605	———	———	———
68	239E6805	240E6805	242E6805	———	———	———
75	239E7505	240E7505	242E7505	243E7505	244E7505	247E7505
82	239E8205	240E8205	242E8205	———	———	———
100	239E1015	240E1015	242E1015	243E1015	244E1015	247E1015
120	239E1215	240E1215	242E1215	243E1215	244E1215	247E1215
150	239E1515	240E1515	242E1515	243E1515	244E1515	247E1515
180	239E1815	240E1815	242E1815	———	———	———
200	239E2015	240E2015	242E2015	243E2015	244E2015	247E2015
220	239E2215	240E2215	242E2215	243E2215	244E2215	247E2215
250	239E2515	240E2515	242E2515	243E2515	244E2515	247E2515
270	239E2715	240E2715	242E2715	———	———	———
300	239E3015	240E3015	242E3015	243E3015	244E3015	247E3015
330	239E3315	240E3315	242E3315	———	———	———
350	———	———	———	243E3515	244E3515	247E3515
390	239E3915	240E3915	242E3915	———	———	———
400	239E4015	240E4015	242E4015	243E4015	244E4015	247E4015
450	———	———	———	243E4515	———	———
470	239E4715	240E4715	242E4715	———	———	———
500	239E5015	240E5015	242E5015	243E5015	244E5015	247E5015
560	239E5615	240E5615	242E5615	———	———	———
600	239E6015	240E6015	242E6015	243E6015	244E6015	247E6015
680	239E6815	240E6815	242E6815	———	———	———
700	239E7015	240E7015	242E7015	243E7015	244E7015	247E7015
750	———	———	———	243E7515	244E7515	247E7515
800	239E8015	240E8015	242E8015	243E8015	244E8015	247E8015
820	239E8215	240E8215	242E8215	———	———	———
900	239E9015	240E9015	242E9015	243E9015	244E9015	247E9015
1000	239E1025	240E1025	242E1025	243E1025	244E1025	247E1025
1100	———	———	———	243E1125	244E1125	247E1125
1200	239E1225	240E1225	242E1225	243E1225	244E1225	247E1225
1400	239E1425	240E1425	242E1425	243E1425	244E1425	247E1425
1500	239E1525	240E1525	242E1525	243E1525	244E1525	247E1525
1800	239E1825	240E1825	242E1825	243E1825	244E1825	247E1825
2000	239E2025	240E2025	242E2025	243E2025	244E2025	247E2025
2200	239E2225	240E2225	242E2225	243E2225	244E2225	247E2225
2500	239E2525	240E2525	242E2525	243E2525	244E2525	247E2525
2700	———	240E2725	242E2725	———	———	———
3000	———	240E3025	242E3025	243E3025	244E3025	247E3025
3300	———	240E3325	242E3325	———	244E3325	247E3325
3500	———	240E3525	———	243E3525	244E3525	247E3525
3900	———	———	242E3925	———	244E3925	247E3925
4000	———	———	242E4025	243E4025	244E4025	247E4025
4500	———	———	———	243E4525	244E4525	247E4525
4700	———	———	242E4725	———	———	———
5000	———	———	242E5025	243E5025	244E5025	247E5025
5600	———	———	242E5625	———	———	———
6000	———	———	242E6025	243E6025	244E6025	247E6025
6800	———	———	242E6825	———	———	———
7000	———	———	———	243E7025	244E7025	247E7025
7500	———	———	242E7525	243E7525	244E7525	247E7525
8000	———	———	242E8025	243E8025	244E8025	247E8025
8200	———	———	242E8225	———	———	———

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

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SPRAGUE RESISTORS

BLUE JACKET INDUSTRIAL WIREWOUND RESISTORS, continued

Ohms	Type 239E, 1 WATT 1/8" x 3/8" Cat. No.	Type 240E, 2 WATTS 3/16" x 3/8" Cat. No.	Type 242E, 3 WATTS 13/64" x 17/32" Cat. No.	Type 243E, 5 WATTS 13/64" x 15/16" Cat. No.	Type 244E, 7 WATTS 5/16" x 1" Cat. No.	Type 247E, 10 WATTS 5/16" x 1 3/4" Cat. No.
9000			242E9025	243E9025	244E9025	247E9025
10000			242E1035	243E1035	244E1035	247E1035
11000					244E1135	247E1135
12000				243E1235	244E1235	247E1235
14000				243E1435	244E1435	247E1435
15000				243E1535	244E1535	247E1535
16000					244E1635	247E1635
17000					244E1735	
18000				243E1835	244E1835	247E1835
20000				243E2035	244E2035	247E2035
22000				243E2235	244E2235	247E2235
25000				243E2535	244E2535	247E2535
30000				243E3035	244E3035	247E3035
35000						247E3535
40000						247E4035
45000						247E4535
50000						247E5035

Call Your Sprague Industrial Distributor for Quantity Prices

TYPE RW57, RW58, RW59 BLUE JACKET® WIREWOUND RESISTORS

- This Series of Blue Jacket Wirewound Resistors Meet All Performance Characteristics of Military Specification MIL R-26C, Characteristics V and G
- Contact Your Sprague Industrial Distributor for Quantity Price

Ohms	Type RW59 3 WATTS 3/16" x 1/2" Cat. No.	Type RW57 6.5 WATTS 5/16" x 1" Cat. No.	Type RW58 11 WATTS 11/32" x 1 7/8" Cat. No.
1.0	RW59V1R0	RW57V1R0	RW58V1R0
1.1	RW59V1R1	RW57V1R1	RW58V1R1
1.2	RW59V1R3	RW57V1R2	RW58V1R2
1.3	RW59V1R2	RW57V1R3	RW58V1R3
1.5	RW59V1R5	RW57V1R5	RW58V1R5
1.6	RW59V1R6	RW57V1R6	RW58V1R6
1.8	RW59V1R8	RW57V1R8	RW58V1R8
2.0	RW59V2R0	RW57V2R0	RW58V2R0
2.2	RW59V2R2	RW57V2R2	RW58V2R2
2.4	RW59V2R4	RW57V2R4	RW58V2R4
2.7	RW59V2R7	RW57V2R7	RW58V2R7
3.0	RW59V3R0	RW59V3R0	RW58V3R0
3.3	RW59V3R3	RW57V3R3	RW58V3R3
3.6	RW59V3R6	RW57V3R6	RW58V3R6
3.9	RW59V3R9	RW57V3R9	RW58V3R9
4.3	RW59V4R3	RW57V4R3	RW58V4R3
4.7	RW59V4R7	RW57V4R7	RW58V4R7
5.1	RW59V5R1	RW57V5R1	RW58V5R1
5.6	RW59V5R6	RW57V5R6	RW58V5R6
6.2	RW59V6R2	RW57V6R2	RW58V6R2
6.8	RW59V6R8	RW57V6R8	RW58V6R8
7.5	RW59V7R5	RW57V7R5	RW58V7R5
8.2	RW59V8R2	RW57V8R2	RW58V8R2
9.1	RW59V9R1	RW57V9R1	RW58V9R1
10	RW59V100	RW57V100	RW58V100
11	RW59V110	RW57V110	RW58V110
12	RW59V120	RW57V120	RW58V120
13	RW59V130	RW57V130	RW58V130
15	RW59V150	RW57V150	RW58V150
16	RW59V160	RW57V160	RW58V160
18	RW59V180	RW57V180	RW58V180
20	RW59V200	RW57V200	RW58V200
22	RW59V220	RW57V220	RW58V220
24	RW59V240	RW57V240	RW58V240
27	RW59V270	RW57V270	RW58V270
30	RW59V300	RW57V300	RW58V300
33	RW59V330	RW57V330	RW58V330
36	RW59V360	RW57V360	RW58V360
39	RW59V390	RW57V390	RW58V390
43	RW59V430	RW57V430	RW58V430
47	RW59V470	RW57V470	RW58V470
51	RW59V510	RW57V510	RW58V510
56	RW59V560	RW57V560	RW58V560
62	RW59V620	RW57V620	RW58V620
68	RW59V680	RW57V680	RW58V680
75	RW59V750	RW57V750	RW58V750
82	RW59V820	RW57V820	RW58V820
91	RW59V910	RW57V910	RW58V910
100	RW59V101	RW57V101	RW58V101
110	RW59V111	RW57V111	RW58V111
120	RW59V121	RW57V121	RW58V121
130	RW59V131	RW57V131	RW58V131

Call Your Sprague Industrial Distributor For Current Quantity Prices

Ohms	Type RW59 3 WATTS 3/16" x 1/2" Cat. No.	Type RW57 6.5 WATTS 5/16" x 1" Cat. No.	Type RW58 11 WATTS 11/32" x 1 7/8" Cat. No.
150	RW59V151	RW57V151	RW58V151
160	RW59V161	RW57V161	RW58V161
180	RW59V181	RW57V181	RW58V181
200	RW59V201	RW57V201	RW58V201
220	RW59V221	RW57V221	RW58V221
240	RW59V241	RW57V241	RW58V241
270	RW59V271	RW57V271	RW58V271
300	RW59V301	RW57V301	RW58V301
330	RW59V331	RW57V331	RW58V331
360	RW59V361	RW57V361	RW58V361
390	RW59V391	RW57V391	RW58V391
430	RW59V431	RW57V431	RW58V431
470	RW59V471	RW57V471	RW58V471
510	RW59V511	RW57V511	RW58V511
560	RW59V561	RW57V561	RW58V561
620	RW59V621	RW57V621	RW58V621
680	RW59V681	RW57V681	RW58V681
750	RW59V751	RW57V751	RW58V751
820	RW59V821	RW57V821	RW58V821
910	RW59V911	RW57V911	RW58V911
1000	RW59V102	RW57V102	RW58V102
1100	RW59V112	RW57V112	RW58V112
1200	RW59V122	RW57V122	RW58V122
1300	RW59V132	RW57V132	RW58V132
1500	RW59V152	RW57V152	RW58V152
1600	RW59V162	RW57V162	RW58V162
1800	RW59V182	RW57V182	RW58V182
2000	RW59V202	RW57V202	RW58V202
2200		RW57V222	RW58V222
2400		RW57V242	RW58V242
2700		RW57V272	RW58V272
3000		RW57V302	RW58V302
3300		RW57V332	RW58V332
3600		RW57V362	RW58V362
3900		RW57V392	RW58V392
4300		RW57V432	RW58V432
4700		RW57V472	RW58V472
5100		RW57V512	RW58V512
5600		RW57V562	RW58V562
6200		RW57V622	RW58V622
6800		RW57V682	RW58V682
7500		RW57V752	RW58V752
8200		RW57V822	RW58V822
9100			RW58V912
10,000			RW58V103
11,000			RW58V113
12,000			RW58V123
13,000			RW58V133
15,000			RW58V153
16,000			RW58V163
18,000			RW58V183
20,000			RW58V203

Call Your Sprague Industrial Distributor For Current Quantity Prices

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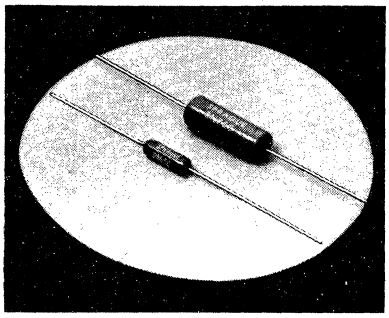
SPRAGUE RESISTORS

FILMISTOR® METAL-FILM RESISTORS



- Filmistor® C Series Resistors are Ideal for Circuits Requiring High Accuracy, Reliability, and Stability with Low Temperature Coefficients.
- Physical Size of Types RN55 and RN60 is Compatible With Those of Other Resistors, Capacitors, and Diodes for "Cordwood" Packaging.
- Designed to Meet the Stringent Performance Requirements of Spec. MIL-R-10509-D.
- Low Self-inductance, Low Distributed Capacitance. Equal or Surpass the Characteristics of Precision Wirewound Resistors, Yet Are Smaller in Size.
- Metallic Resistive Film is Firmly Bonded to Special Ceramic Core, Automatically Spiralled to Desired Resistance Value.
- Tough Molded Shell Provides Protection Against Mechanical Damage as Well as Catastrophic Failures From Electrolysis Caused by Moisture Penetration.
- Standard Resistance Tolerance, ±1%
- For Complete Technical Data, Refer to Latest Issue of Engineering Bulletin 7025
- **Call Your Sprague Industrial Distributor For Quantity Prices.**

STANDARD RESISTANCE VALUES (Ohms)

49.9	147	432	1.27 K	3.74 K	10.7 K	30.9 K	88.7 K	255 K	750 K
51.1	150	442	1.30 K	3.83 K	11.0 K	31.6 K	90.9 K	261 K	768 K
52.3	154	453	1.33 K	3.92 K	11.3 K	32.4 K	93.1 K	267 K	787 K
53.6	158	464	1.37 K	4.02 K	11.5 K	33.2 K	95.3 K	274 K	806 K
54.9	162	475	1.40 K	4.12 K	11.8 K	34.0 K	97.6 K	280 K	825 K
56.2	165	487	1.43 K	4.22 K	12.1 K	34.8 K	100 K	287 K	845 K
57.6	169	499	1.47 K	4.32 K	12.4 K	35.7 K	102 K	294 K	866 K
59.0	174	511	1.50 K	4.42 K	12.7 K	36.5 K	105 K	301 K	887 K
60.4	178	523	1.54 K	4.53 K	13.0 K	37.4 K	107 K	309 K	909 K
61.9	182	536	1.58 K	4.64 K	13.3 K	38.3 K	110 K	316 K	931 K
63.4	187	549	1.62 K	4.75 K	13.7 K	39.2 K	113 K	324 K	953 K
64.9	191	562	1.65 K	4.87 K	14.0 K	40.2 K	115 K	332 K	976 K
66.5	196	576	1.69 K	4.99 K	14.3 K	41.2 K	118 K	340 K	1.00 meg.
68.1	200	590	1.74 K	5.11 K	14.7 K	42.2 K	121 K	348 K	1.02 meg.
69.8	205	604	1.78 K	5.23 K	15.0 K	43.2 K	124 K	357 K	1.05 meg.
71.5	210	619	1.82 K	5.36 K	15.4 K	44.2 K	127 K	365 K	1.07 meg.
73.2	215	634	1.87 K	5.49 K	15.8 K	45.3 K	130 K	374 K	1.10 meg.
75.0	221	649	1.91 K	5.62 K	16.2 K	46.4 K	133 K	383 K	1.13 meg.
76.8	226	665	1.96 K	5.76 K	16.5 K	47.5 K	137 K	392 K	1.15 meg.
78.7	232	681	2.00 K	5.90 K	16.9 K	48.7 K	140 K	402 K	1.18 meg.
80.6	237	698	2.05 K	6.04 K	17.4 K	49.9 K	143 K	412 K	1.21 meg.
82.5	243	715	2.10 K	6.19 K	17.8 K	51.1 K	147 K	422 K	1.24 meg.
84.5	249	732	2.15 K	6.34 K	18.2 K	52.3 K	150 K	432 K	1.27 meg.
86.6	255	750	2.21 K	6.49 K	18.7 K	53.6 K	154 K	442 K	1.30 meg.
88.7	261	768	2.26 K	6.65 K	19.1 K	54.9 K	158 K	453 K	1.33 meg.
90.9	267	787	2.32 K	6.81 K	19.6 K	56.2 K	162 K	464 K	1.37 meg.
93.1	274	806	2.37 K	6.98 K	20.0 K	57.6 K	165 K	475 K	1.40 meg.
95.3	280	825	2.43 K	7.15 K	20.5 K	59.0 K	169 K	487 K	1.43 meg.
97.6	287	845	2.49 K	7.32 K	21.0 K	60.4 K	174 K	499 K	1.47 meg.
100	294	866	2.55 K	7.50 K	21.5 K	61.9 K	178 K	511 K	1.50 meg.
102	301	887	2.61 K	7.68 K	22.1 K	63.4 K	182 K	523 K	1.54 mee.
105	309	909	2.67 K	7.87 K	22.6 K	64.9 K	187 K	536 K	1.58 meg.
107	316	931	2.74 K	8.06 K	23.2 K	66.5 K	191 K	549 K	1.62 meg.
110	324	953	2.80 K	8.25 K	23.7 K	68.1 K	196 K	562 K	1.65 meg.
113	332	976	2.87 K	8.45 K	24.3 K	69.8 K	200 K	576 K	1.69 meg.
115	340	1.0 K	2.94 K	8.66 K	24.9 K	71.5 K	205 K	590 K	1.74 meg.
118	348	1.02 K	3.01 K	8.87 K	25.5 K	73.2 K	210 K	604 K	1.78 meg.
121	357	1.05 K	3.09 K	9.09 K	26.1 K	75.0 K	215 K	619 K	1.82 meg.
124	365	1.07 K	3.16 K	9.31 K	26.7 K	76.8 K	221 K	634 K	1.87 meg.
127	374	1.10 K	3.24 K	9.53 K	27.4 K	78.7 K	226 K	649 K	1.91 meg.
130	383	1.13 K	3.32 K	9.76 K	28.0 K	80.6 K	232 K	665 K	1.96 meg.
133	392	1.15 K	3.40 K	10.00 K	28.7 K	82.5 K	237 K	681 K	2.00 meg.
137	402	1.18 K	3.48 K	10.2 K	29.4 K	84.5 K	243 K	698 K	
140	412	1.21 K	3.57 K	10.5 K	30.1 K	86.6 K	249 K	715 K	
143	422	1.24 K	3.65 K					732 K	

1/10 WATT METAL FILM
TYPE 416E/RN55C
.095" Dia. x .250" Long
49.9 ohms thru .1 meg.

1/8 WATT METAL FILM
TYPE 418E/RN60C
.135" Dia. x .400" Long
49.9 ohms thru 499 K

1/4 WATT METAL FILM
TYPE 419E/RN65C
.200" Dia. x .600" Long
49.9 ohms thru 1 meg.

1/2 WATT METAL FILM
TYPE 420E/RN70C
.250" x Dia. .750" Long
49.9 ohms thru 1 meg.

1 WATT METAL FILM
TYPE 421E/RN75C
.375" Dia. x 1.062" Long
49.9 ohms thru 2 meg.

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VICTORY ENGINEERING CORPORATION

SPRINGFIELD, NEW JERSEY

THERMISTORS • VARISTORS

VECO DESIGNER'S KITS

A variety of Thermistors or Varistors to simplify the selection of the proper unit to use. Each kit contains schematics and technical characteristics.

KD25	13 THERMISTOR DISKS	$10.50
KP50	6 THERMISTOR PROBES	14.50
KR75	8 THERMISTOR RODS	8.75
KTB1	8 THERMISTOR BEADS	19.50
KW125	12 THERMISTOR WASHERS (6 TYPES WITH MTG. KIT)	13.50
KV1001	9 VARISTOR DISKS	7.50

PRODUCT

RELIABILITY

VECO TECHNICAL LITERATURE

V 42 ..... **Price $1.00**
VECO Thermistor-Varistor Data Book: Contains historical background, technical data, typical circuits, curves, and a complete bibliography.

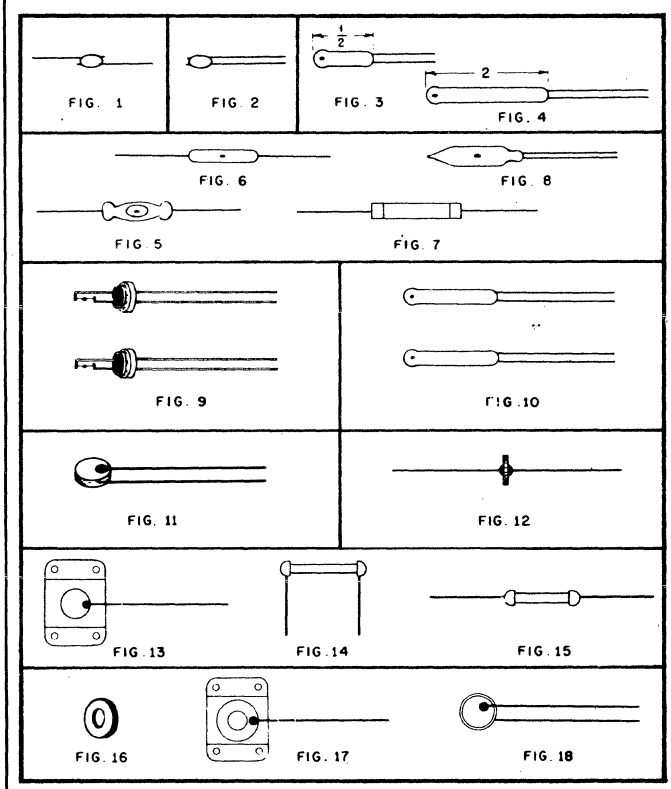
V 1133 ..... **Price $2.00**
VECO Thermistor Circuit Applications and Characteristics: A "must" for designing and developing circuits requiring the use of VECO Thermistors. Described, step by step, are schematics covering zero-power, voltage-current, and current time applications using VECO Thermistors.

V 1166 ..... **Price $1.00**
The Theory concerning VECO Thermistor type hypsometers: A treatise concerning the use of VECO Thermistors to measure altitude by means of pressure. (VECO thermistors act as transducers, converting pressure measurement to an electrical resistance output.

VECO EXPERIMENTOR'S KITS

Each kit includes forms showing typical circuitry and specific characteristics of units in kit.
M168 Experimentors' Kit, 7 assorted units for **$ 5.00 net, ppd.**
M168A Experimentors' Kit, 10 assorted units for **$10.00 net, ppd.**

VECO Number	Resistance @ 25°C (Ohms)	Net Price	Fig.
BEAD THERMISTORS .043" Dia. 5/16" Min. Leads			
21A2	100 ± 20%	$ 3.00	2
25A5	500 ± 20%	2.40	2
32A12	2,000 ± 20%	1.95	2
51A2	100,000 ± 15%	1.95	2
65A5	5 MEG ± 20%	3.30	2
.014" Dia. 5/16" Min. Leads			
32A5	2,000 ± 25%	3.00	1
32A48	2,000 ± 25%	2.60	1
34A2	3,500 ± 15%	4.20	1
51A30	100,000 ± 25%	3.20	1
61A9	1 MEG ± 25%	3.90	1
.010" Dia. 1/4" Min. Leads			
31A7	1,000 ± 25%	5.70	1
32A50	2,000 ± 25%	5.70	1
41A5	10,0000 ± 25%	5.40	1
51A22	100,000 ± 25%	5.50	1
61A5	1 MEG ± 25%	6.40	1
.005" Dia. 1/4" Min. Leads			
31A401C	1,000 ± 25%	20.00	1
32A401C	2,000 ± 25%	20.00	1
51A401C	100,000 ± 25%	20.00	1
GLASS PROBE THERMISTORS			
13A13	30 ± 20%	4.00	4
22A31	200 ± 20%	3.00	4
32A11	2,000 ± 20%	1.95	3
45A11	50,000 ± 20%	2.25	3
72A10	15 MEG ± 20%	3.80	4
GLASS ROD & BULB THERMISTORS			
32A3	2,000 ± 25%	4.20	5
37A1	7,000 ± 20%	3.60	6
44A1	35,000 ± 25%	1.90	7
45B2	50,000 ± 40%	2.25	7
46A2	60,500 ± 29%	2.25	7
MATCHED THERMISTORS			
A33	2,000 ± 25%	15.00	9
A59	100,000 ± 15%	7.00	10
A60	2,000 ± 20%	7.00	10
ROD THERMISTORS .05" Dia.			
41S2	10,000 ± 10%	1.35	14
51R2	100,000 ± 10%	1.35	14
ROD THERMISTORS .110" Dia.			
33S1	3,150 ± 10%	1.10	15
36S1	6,300 ± 10%	1.10	15
41R1	10,000 ± 10%	1.10	15
45R1	50,000 ± 10%	1.10	15
51R1	100,000 ± 10%	1.10	15
ROD THERMISTORS .172" Dia.			
32S2	2,000 ± 10%	1.20	15
35S3	5,000 ± 10%	1.20	15
42R5	20,000 ± 10%	1.20	15
43R6	30,000 ± 10%	1.20	15
45R9	50,000 ± 10%	1.20	15



VECO VARISTORS

VECO Number	Exponent n	V ± 30% @ 5 ma, D.C.	Net Price	Fig.
023L9	3	6V	1.00	18
063L9	3	10V	1.00	18
114L2	4	15V	1.00	18
124L1	4	25V	1.00	18
124L2	4	35V	1.00	18
134L1	4	50V	1.00	18
155L3	5	75V	1.00	18
175L1	5	100V	1.00	18
195L1	5	120V	1.00	18

This listing represents a small portion of the many thermistors and varistors available. See your jobber for complete information.

VECO Number	Resistance @ 25°C (Ohms)	Net Price	Fig.
DISC THERMISTORS .1" Dia.			
25E2	500 ± 10%	.80	11
31E2	1,000 ± 10%	.80	11
33D7	3,000 ± 10%	.80	11
35D2	5,000 ± 10%	.80	11
41D2	10,000 ± 10%	.80	11
DISK THERMISTORS .2" Dia.			
21E23	100 ± 10%	.80	11
23E16	300 ± 10%	.80	11
31D10	1,000 ± 10%	.80	11
33D16	3,000 ± 10%	.80	11
35D6	5,000 ± 10%	.80	11
DISK THERMISTORS .3" Dia.			
15E4	50 ± 10%	.80	11
21E21	100 ± 10%	.85	11
25D5	500 ± 10%	.85	11
31D32	1,000 ± 10%	.80	11
33D10	3,000 ± 10%	.80	11
DISK THERMISTORS .4" Dia.			
13E3	25 ± 10%	.85	11
21E2	100 ± 10%	.85	11
23D18	300 ± 10%	.85	11
31D3	1,000 ± 10%	.85	11
32D12	2,000 ± 10%	.85	11
DISK THERMISTORS .5" Dia.			
12E2	20 ± 10%	.85	11
15E3	50 ± 10%	.85	11
21E22	100 ± 10%	.85	11
25D4	500 ± 10%	.85	11
31D33	1,000 ± 10%	.85	11
DISK THERMISTORS .7" Dia.			
11E2	10 ± 10%	.85	11
13E19	30 ± 10%	.85	11
18D2	75 ± 10%	.85	11
21D2	100 ± 10%	.85	11
23D34	300 ± 10%	.85	11
DISK THERMISTORS 1.0" Dia.			
05E1	5 ± 10%	1.20	11
11E1	10 ± 10%	1.20	11
15D1	50 ± 10%	1.20	11
21D5	100 ± 10%	1.20	11
22D10	200 ± 10%	1.20	11
WASHER THERMISTORS .2" Dia.			
22X1	150 ± 10%	1.15	16
31W1	1,100 ± 10%	1.15	16
WASHER THERMISTORS .7" Dia.			
11X1	10 ± 10%	1.05	16
12X10	15 ± 10%	1.05	16
21W1	100 ± 10%	1.05	16
22W6	200 ± 10%	1.05	16
32Y3	1,800 ± 10%	1.05	16
MOUNTING ACCESSORIES			
A816	Mtg. Kit	1.25	
A819	Packing Gland	4.00	
A828	Mtg. Kit w/Bracket	1.75	

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

THERMISTORS

THERMAL CONDUCTIVITY CELLS • COMBUSTION ANALYZERS • MATCHED THERMISTORS • THERMISTOR HYPODERMIC NEEDLES
ELECTRONIC CONTROLS • HYPSOMETERS CHOPPERETTES • TEMPERATURE SENSING DEVICES

VARISTORS

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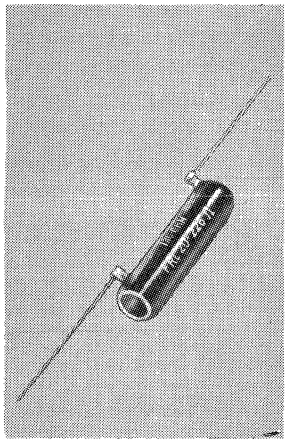
VITREOUS ENAMELED FIXED RESISTORS

Fixed wire wound, vitreous enameled resistors. Stock resistance values range from 1 o thru 250,000 Ω Standard tolerance of ±5%. Closer resistance tolerances available on order.

The sturdy terminals are hot-tinned for soldering ease, and the holes in the terminal are of suitable size to accommodate screws.

Values of resistance listed are in stock for immediate delivery. Special resistance values or terminal dimensions are given prompt attention and Tru-Ohm's famous delivery is assured.



5 WATT

Type FR-5
Terminal – #10
Type FRL-5
Terminal – #107

Core Size: 5/16" x 3/16" x 1" Weight: .012 lbs.

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	2,230	2.2	750	81	61
1.5	1,820	2.7	800	79	63
2	1,580	3.2	900	74	67
3	1,290	3.9	1,000	71	71
4	1,120	4.5	1,100	67	74
5	1,000	5.0	1,200	64	77
7.5	816	6.1	1,250	63	79
10	707	7.1	1,500	58	87
12	646	7.8	1,750	53	93
15	576	8.6	2,000	50	100
20	500	10	2,250	47	106
25	447	11	2,500	45	112
30	409	12	3,000	41	123
35	378	13	3,500	38	133
40	353	14	4,000	35	140
50	316	16	4,500	33	149
75	258	19	5,000	32	160
100	223	22	6,000	29	174
125	200	25	7,000	27	189
150	182	27	7,500	26	195
200	158	32	8,000	25	200
225	149	33	9,000	23	207
250	141	35	10,000	22	220
300	129	39	12,500	20	250
350	119	42	15,000	18	275
400	112	45	17,500	17	295
450	105	47	20,000	16	320
500	100	50	22,500	14	360
600	91	55	25,000	13	390
700	84	59			

10 WATT

Type FR-10
Terminal – #10
Type FRL-10
Terminal – #107

Core Size: 5/16" x 3/16" x 1-3/4" Weight: .019 lbs.
Mounting Centers – 2-5/32"
With Brackets – P-4989

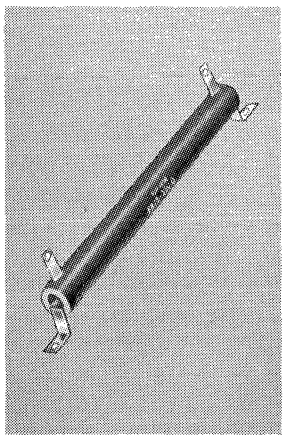
Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	3,160	3.1	1,200	91	109
1.5	2,580	3.8	1,250	89	111
2	2,230	4.4	1,500	82	123
3	1,820	5.4	1,750	76	133
4	1,580	6.3	2,000	71	142
5	1,410	7.0	2,250	67	151
7.5	1,150	8.6	2,500	63	158
10	1,000	10	3,000	57	171
12	914	11	3,500	53	185
15	816	12	4,000	50	200
20	707	14	4,500	47	212
25	631	16	5,000	45	225
30	577	17	6,000	41	246
35	535	19	7,000	38	266
40	500	20	7,500	36	270
50	447	22	8,000	35	280
75	365	27	8,500	34	289
100	316	31	9,000	33	297
125	283	35	10,000	32	316
150	254	38	11,000	30	332
200	223	44	12,000	29	346
225	211	47	12,500	28	353
250	200	50	13,500	27	365
300	182	54	15,000	26	385
350	169	59	16,000	25	400
400	158	63	17,500	24	417
450	149	67	18,000	23	434
500	141	70	20,000	22	454
600	129	77	22,500	21	472
700	120	84	25,000	20	500
750	115	86	30,000	18	540
800	112	89	35,000	17	595
900	105	94	40,000	16	638
1,000	100	100	45,000	15	668
1,100	95	104	50,000	14	707

20 WATT

Type FR-20
Terminal – #10
Type FRL-20
Terminal – #107

Core Size: 7/16" x 1/4" x 2" Weight: .033 lbs.
Mounting Centers – 2-17/32"
With Brackets – P-3749

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	4,480	4.4	2,400	91	218
3	2,580	7.7	2,500	89	222
5	2,000	10	2,750	85	234
10	1,410	14	3,000	81	243
15	1,150	17	3,500	75	262
25	895	22	4,000	70	280
50	633	31	4,500	67	301
75	516	39	5,000	63	315
100	447	44	6,000	57	342
150	365	54	7,000	53	371
175	338	59	7,500	51	382
200	316	63	8,000	50	400
250	283	71	10,000	44	440
300	258	77	12,500	36	450
350	239	84	15,000	31	465
400	223	89	20,000	27	520
500	200	100	25,000	24	600
650	175	114	30,000	22	660
700	169	118	35,000	21	735
750	164	123	40,000	19	760
800	158	126	45,000	18	810
850	154	131	50,000	17	850
1,000	141	141	55,000	16	880
1,200	129	155	60,000	15	900
1,250	126	157	65,000	15	970
1,500	115	172	70,000	14	980
1,750	107	187	75,000	13	990
1,850	104	192	80,000	12	990
2,000	100	200	85,000	11	990
2,250	94	211	90,000	10.5	990
			95,000	10	990
			100,000	10	990



25 WATT

Type FR-25
Terminal – #12

Core Size: 9/16" x 5/16" x 2"
Weight: .051 lbs.
Mounting Centers – 2-3/4"
With Brackets – P-3747

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	5,000	5.0	1,500	129	193
2	3,535	7.0	2,000	111	222
3	2,885	8.6	2,500	100	250
4	2,500	10	3,000	91	273
5	2,236	11	3,500	84	294
10	1,580	15	4,000	79	316
15	1,291	19	5,000	70	350
25	1,000	25	6,000	64	384
50	707	35	7,500	57	427
75	577	43	10,000	50	500
100	500	50	12,000	42	505
150	408	61	15,000	36	540
200	353	70	20,000	31	620
250	316	79	25,000	28	700
300	289	86	30,000	26	780
400	250	100	35,000	24	840
500	223	111	40,000	22	880
750	182	136	50,000	20	950
800	177	141	60,000	16	960
850	171	145	70,000	15	960
1,000	158	158	80,000	12	990
1,250	141	176	100,000	10	990

50 WATT

Type FR-50
Terminal – #12

Core Size: 9/16" x 5/16" x 4"
Weight: .082 lbs.
Mounting Centers – 4-3/4"
With Brackets – P-3747

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	7,070	7	4,000	111	444
2	5,000	10	5,000	100	500
3	4,070	12	6,000	91	545
4	3,535	14	7,500	81	608
5	3,160	15	8,000	79	632
10	2,236	22	10,000	70	700
25	1,414	35	12,000	64	768
50	1,000	50	12,500	63	787
75	816	61	15,000	57	855
100	707	70	20,000	50	1,000
150	577	86	25,000	44	1,090
200	500	100	30,000	37	1,100
250	447	111	35,000	32	1,120
300	408	122	40,000	29	1,140
400	353	141	50,000	26	1,300
500	316	158	75,000	21	1,575
750	258	193	100,000	18	1,800
800	250	200	125,000	16	1,950
1,000	223	223	150,000	13	1,950
1,500	182	273	175,000	11	1,950
2,000	158	316	200,000	10	1,950
2,500	141	350	225,000	9	1,950
3,000	129	384	250,000	8	1,950

75 WATT

Type FR-75
Terminal – #12

Core Size: 9/16" x 5/16" x 6"
Weight: .140 lbs.
Mounting Centers – 6-3/4"
With Brackets – P3747

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	8,660	8	2,500	173	432
2	6,120	12	3,000	158	474
3	5,000	15	4,000	137	548
4	4,330	17	5,000	122	610
5	3,875	19	6,000	111	666
10	2,740	27	7,500	100	750
25	1,732	43	8,000	96	769
50	1,225	61	10,000	86	860
100	866	86	12,000	79	948
150	707	106	12,500	77	962
200	612	122	15,000	70	1,050
250	548	137	20,000	61	1,220
300	500	150	25,000	49	1,225
400	433	173	30,000	42	1,260
500	387	193	35,000	36	1,270
750	316	237	40,000	32	1,280
800	306	242	45,000	29	1,310
1,000	274	274	50,000	26	1,320
1,500	223	334	75,000	18	1,340
2,000	193	386	100,000	13	1,360

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VITREOUS ENAMELED FIXED RESISTORS

100 WATT

Type FR-100
Terminal #12

Core Size: 3/4" x 1/2" x 6-1/2"
Weight: .200 lbs.
Mounting Centers: 7-3/8"
With #P3689 Brackets

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	10,000	10	3,000	181	543
2	7,070	14	3,500	170	595
3	5,770	17	4,000	160	640
4	5,000	20	4,500	150	675
5	4,470	22	5,000	141	705
10	3,160	31	7,500	115	864
25	2,000	50	10,000	100	1,000
50	1,414	70	15,000	81	1,215
75	1,150	86	20,000	70	1,400
100	1,000	100	25,000	60	1,500
125	895	112	30,000	57	1,720
150	816	122	40,000	50	2,000
250	630	157	50,000	45	2,250
500	447	223	60,000	40	2,400
750	365	274	70,000	38	2,400
1,000	316	316	75,000	32	2,400
1,250	285	356	100,000	28	2,400
1,500	259	388			
2,000	224	448			
2,500	200	500			

Wattage rating in free air – thru 60,000 Ω

160 WATT

Type FR-160
Terminal #14

Core Size: 1-1/8" x 3/4" x 8-1/2"
Weight: .445 lbs.
Mounting Centers: 9-3/8"
With #P-4898 Brackets

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	12,650	12	3,000	231	693
2	8,940	18	3,500	215	753
3	7,300	21	4,000	200	800
4	6,320	25	4,500	185	832
5	5,650	28	5,000	179	895
10	4,000	40	7,500	15	1,070
15	3,265	49	10,000	13	1,230
25	2,525	63	15,000	10	1,570
50	1,786	89	20,000	089	1,780
75	1,460	109	25,000	08	2,000
100	1,265	126	30,000	73	2,090
150	1,033	155	35,000	67	2,370
200	894	178	40,000	63	2,540
250	800	200	50,000	57	2,800
500	565	282	60,000	52	3,080
750	461	346	75,000	46	3,470
1,000	400	400	100,000	40	4,000
1,500	326	489			
2,000	282	564			
2,500	252	630			

Wattage rating in free air – All values listed

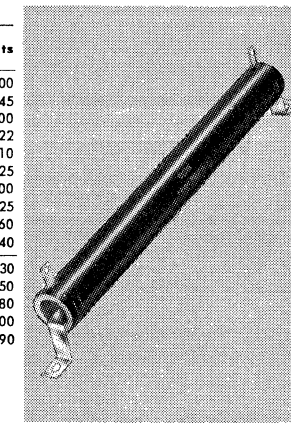
200 WATT

Type FR-200
Terminal #14

Core Size: 1-1/8" x 3/4" x 10-1/2"
Weight: .740 lbs.
Mounting Centers: 11-3/8"
With #P-4898 Brackets

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	14,140	14	4,000	225	900
2	10,000	20	4,500	210	945
3	8,162	24	5,000	200	1,000
4	7,070	28	7,500	163	1,222
5	6,325	31	10,000	14	1,410
10	4,470	44	15,000	12	1,725
25	2,828	70	20,000	10	2,000
50	2,000	100	25,000	089	2,225
75	1,635	122	30,000	082	2,460
100	1,414	141	35,000	075	2,640
150	1,152	173	40,000	070	2,830
250	895	224	50,000	063	3,150
500	632	316	60,000	058	3,480
750	516	387	75,000	052	3,900
1,000	447	447	100,000	045	4,490
1,500	365	547			
2,000	316	632			
2,500	283	707			
3,000	259	776			
3,500	240	840			

Wattage rating in free air – All values listed



VITREOUS ENAMELED ADJUSTABLE RESISTORS

These resistors are used in applications where it is necessary to make adjustment in resistance periodically; where intermediate values of resistance are required; or when provided with more than one adjustable lug as multiple tap resistors.

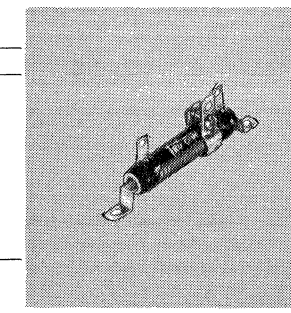
The wattage rating between the adjustable band and either end terminal is proportional to the distance between the terminal and the band and should be considered when figuring any maximum section wattage dissipation.

Type AR-10

10 WATT

Core Size: 5/16" x 3/16" x 1-3/4" Weight: .019 lbs.
Mounting Centers – 2-3/16"
With Bracket #P-4989
Standard Lug #10

Catalog No.	Ohms	Milliamps	Catalog No.	Ohms	Milliamps
AR-10	1	3,160	AR-10	750	115
AR-10	2	2,230	AR-10	800	112
AR-10	3	1,820	AR-10	1,000	100
AR-10	5	1,410	AR-10	1,250	89
AR-10	7.5	1,150	AR-10	1,500	82
AR-10	10	1,000	AR-10	2,000	71
AR-10	15	816	AR-10	2,250	67
AR-10	20	707	AR-10	2,500	63
AR-10	25	631	AR-10	3,000	57
AR-10	50	447	AR-10	3,500	53
AR-10	75	365	AR-10	4,000	50
AR-10	100	316	AR-10	4,500	47
AR-10	150	254	AR-10	5,000	45
AR-10	200	223	AR-10	6,000	41
AR-10	250	200	AR-10	7,000	38
AR-10	300	182	AR-10	7,500	36
AR-10	350	169	AR-10	8,000	35
AR-10	400	158	AR-10	8,500	34
AR-10	500	141	AR-10	9,000	33
AR-10	600	129	AR-10	10,000	32



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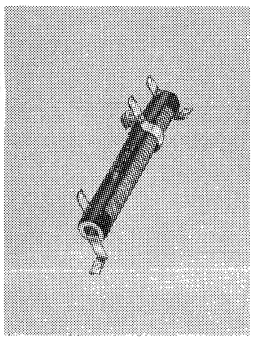
VITREOUS ENAMELED ADJUSTABLE RESISTORS



Type AR-25

25 WATT

Core Size: 9/16" x 5/16" x 2"
Mounting Centers – 2-3/4"
With Bracket #P-3747
Standard Lug #12
Weight: .057 lbs.

Catalog No.	Ohms	Milli-Amps	Catalog No.	Ohms	Milli-Amps
AR-25	1	5,000	AR-25	4,500	74
AR-25	2	3,535	AR-25	5,000	70
AR-25	3	2,885	AR-25	6,000	64
AR-25	5	2,236	AR-25	7,000	60
AR-25	7.5	1,825	AR-25	7,200	59
AR-25	10	1,580	AR-25	7,500	57
AR-25	15	1,291	AR-25	8,000	55
AR-25	20	1,117	AR-25	9,000	52
AR-25	25	1,000	AR-25	10,000	50
AR-25	50	707	AR-25	12,000	42
AR-25	75	577	AR-25	15,000	36
AR-25	100	500	AR-25	20,000	31
AR-25	150	408	AR-25	25,000	28
AR-25	200	353			
AR-25	250	316			
AR-25	300	289			
AR-25	400	250			
AR-25	500	223			
AR-25	750	182			
AR-25	800	177			
AR-25	850	171			
AR-25	1,000	158			
AR-25	1,250	141			
AR-25	1,500	129			
AR-25	2,000	120			
AR-25	2,250	105			
AR-25	2,500	100			
AR-25	3,000	91			
AR-25	3,500	84			
AR-25	4,000	79			

Type AR-50

50 WATT

Core Size: 9/16" x 5/16" x 4"
Mounting Centers – 4-3/4"
With Bracket #P-3747
Standard Lug #12
Weight: .096 lbs.

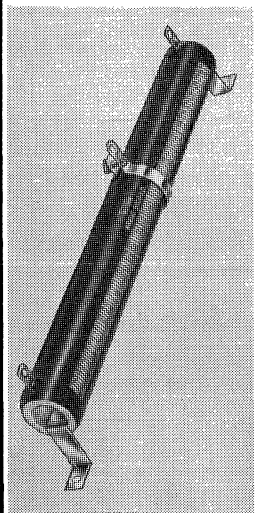
Catalog No.	Ohms	Milli-Amps	Catalog No.	Ohms	Milli-Amps
AR-50	1	7,070	AR-50	7,000	84
AR-50	2	5,000	AR-50	7,200	83
AR-50	3	4,070	AR-50	7,500	81
AR-50	4	3,535	AR-50	8,000	79
AR-50	5	3,160	AR-50	9,000	74
AR-50	10	2,236	AR-50	10,000	70
AR-50	25	1,414	AR-50	12,000	64
AR-50	50	1,000	AR-50	15,000	57
AR-50	75	816	AR-50	20,000	50
AR-50	100	707	AR-50	25,000	45
AR-50	150	577	AR-50	30,000	36
AR-50	200	500	AR-50	40,000	29
AR-50	250	447	AR-50	50,000	26
AR-50	300	408	AR-50	60,000	24
AR-50	400	353	AR-50	75,000	22
AR-50	500	316	AR-50	80,000	21
AR-50	750	258	AR-50	100,000	18
AR-50	800	250			
AR-50	1,000	223			
AR-50	1,250	200			
AR-50	1,500	182			
AR-50	2,000	158			
AR-50	2,250	149			
AR-50	2,500	141			
AR-50	3,000	129			
AR-50	3,500	119			
AR-50	4,000	111			
AR-50	4,500	105			
AR-50	5,000	100			
AR-50	6,000	91			

Type AR-75

75 WATT

Core Size: 9/16" x 5/16" x 6'
Mounting Centers – 6-3/4"
With Bracket #P-3747
Standard Lug #12
Weight: .150 lbs.

Catalog No.	Ohms	Milli-Amps	Catalog No.	Ohms	Milli-Amps
AR-75	1	8,660	AR-75	7,000	103
AR-75	2	6,120	AR-75	7,200	102
AR-75	3	5,000	AR-75	7,500	100
AR-75	4	4,330	AR-75	8,000	96
AR-75	5	3,875	AR-75	9,000	91
AR-75	10	2,740	AR-75	10,000	86
AR-75	15	2,236	AR-75	12,000	79
AR-75	25	1,732	AR-75	15,000	70
AR-75	50	1,225	AR-75	20,000	61
AR-75	75	1,000	AR-75	25,000	54
AR-75	100	866	AR-75	30,000	50
AR-75	200	612	AR-75	35,000	46
AR-75	250	548	AR-75	40,000	42
AR-75	300	500	AR-75	45,000	35
AR-75	400	433	AR-75	50,000	33
AR-75	500	387	AR-75	60,000	29
AR-75	750	316	AR-75	70,000	27
AR-75	800	306	AR-75	80,000	25
AR-75	1,000	274	AR-75	100,000	22
AR-75	1,250	244			
AR-75	1,500	223			
AR-75	2,000	193			
AR-75	2,250	182			
AR-75	2,500	173			
AR-75	3,000	158			
AR-75	3,500	146			
AR-75	4,000	137			
AR-75	4,500	129			
AR-75	5,000	122			
AR-75	6,000	111			



Type AR-100

100 WATT

Core Size: 3/4" x 1/2" x 6-1/2"
Mounting Centers – 7-3/8"
With Brackets #P-3689
Standard Lug #12
Weight: .200 lbs.

Catalog No.	Ohms	Milli-Amps	Catalog No.	Ohms	Milli-Amps
AR-100	1	10,000	AR-100	5,000	141
AR-100	2	7,070	AR-100	6,000	129
AR-100	3	5,770	AR-100	7,500	115
AR-100	4	5,000	AR-100	10,000	100
AR-100	5	4,470	AR-100	15,000	81
AR-100	10	3,160	AR-100	20,000	70
AR-100	25	2,000	AR-100	25,000	62
AR-100	50	1,414	AR-100	30,000	57
AR-100	100	1,000	AR-100	40,000	49
AR-100	200	707	AR-100	50,000	44
AR-100	250	630	AR-100	60,000	24
AR-100	400	500	AR-100	75,000	30
AR-100	500	447	AR-100	100,000	28
AR-100	750	365			
AR-100	1,000	316			
AR-100	1,500	259			
AR-100	2,000	224			
AR-100	2,500	200			
AR-100	3,000	181			
AR-100	4,000	160			

Type AR-160

160 WATT

Core Size: 1-1/8" x 3/4" x 8-1/2"
Mounting Centers – 9-3/8"
With Brackets #P-4898
Standard Lug #14
Weight: .460 lbs.

Catalog No.	Ohms	Milli-Amps	Catalog No.	Ohms	Milli-Amps
AR-160	1	12,650	AR-160	4,500	185
AR-160	2	8,940	AR-160	5,000	179
AR-160	3	7,300	AR-160	7,500	146
AR-160	4	6,320	AR-160	10,000	126
AR-160	5	5,650	AR-160	15,000	104
AR-160	10	4,000	AR-160	20,000	89
AR-160	15	3,265	AR-160	25,000	80
AR-160	25	2,525	AR-160	30,000	72
AR-160	50	1,786	AR-160	40,000	62
AR-160	100	1,265	AR-160	50,000	56
AR-160	200	894	AR-160	60,000	52
AR-160	250	800	AR-160	75,000	46
AR-160	500	565	AR-160	80,000	44
AR-160	1,000	400	AR-160	100,000	40
AR-160	1,500	326			
AR-160	2,000	282			
AR-160	2,500	252			
AR-160	3,000	231			
AR-160	3,500	215			
AR-160	4,000	200			

Type AR-200

200 WATT

Core Size: 1-1/8" x 3/4" x 10-1/2"
Mounting Centers – 11-3/8"
With Brackets #P-4898
Standard Lug #14
Weight: .670 lbs.

Catalog No.	Ohms	Milli-Amps	Catalog No.	Ohms	Milli-Amps
AR-200	1	14,140	AR-200	7,500	163
AR-200	2	10,000	AR-200	10,000	141
AR-200	3	8,162	AR-200	15,000	115
AR-200	4	7,070	AR-200	20,000	100
AR-200	5	6,325	AR-200	25,000	89
AR-200	10	4,470	AR-200	30,000	82
AR-200	25	2,828	AR-200	40,000	71
AR-200	50	2,000	AR-200	50,000	62
AR-200	100	1,414	AR-200	60,000	57
AR-200	250	895	AR-200	75,000	52
AR-200	500	632	AR-200	100,000	45
AR-200	1,000	447			
AR-200	1,500	365			
AR-200	2,000	316			
AR-200	2,500	283			
AR-200	3,000	259			
AR-200	3,500	240			
AR-200	4,000	225			
AR-200	4,500	210			
AR-200	5,000	200			

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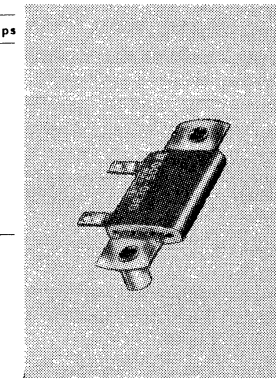
VITREOUS ENAMELED FIXED RESISTORS

Midget Oval Type MOR-Series

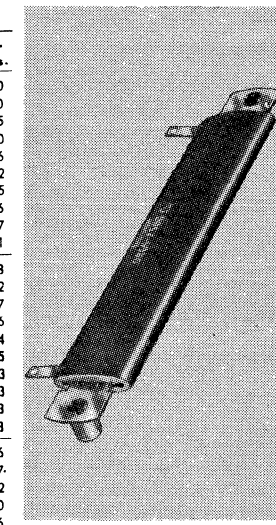
These units are very desirable for applications where the size of components must be kept to a minimum. Integral mounting brackets are supplied as standard and are designed for stack mounting of the resistors. Three standard sizes are available. Ratings are based on metal panel mounting, on plate 10" x 10" x .040".



Type MOR-10				Type MOR-15				Type MOR-20			
10 WATT				**15 WATT**				**20 WATT**			
Core: 3/8" x 3/4"				Core: 3/8" x 1"				Core: 3/8" x 2"			
Ohms	Max. Amps	Ohms	Max. Amps	Ohms	Max. Amps	Ohms	Max. Amps	Ohms	Max. Amps	Ohms	Max. Amps
1	3.16	600	0.13	1	3.81	2,000	0.087	1	4.47	2,000	0.10
2	2.24	750	0.12	2	2.73	2,500	0.077	2	3.16	2,500	0.09
5	1.41	1,000	0.10	5	1.73	3,000	0.072	5	2.00	3,000	0.081
7.5	1.15	1,250	0.089	10	1.23	3,500	0.065	10	1.41	3,500	0.075
10	1.00	1,500	0.081	15	1.00	4,000	0.059	15	1.16	4,000	0.070
15	0.82	1,750	0.075	25	0.77	5,000	0.054	25	0.89	5,000	0.063
20	0.70	2,000	0.071	40	0.61	6,000	0.050	40	0.71	6,000	0.058
25	0.63	2,500	0.063	50	0.54	7,500	0.044	50	0.63	7,500	0.052
30	0.57	3,000	0.057	75	0.44	10,000	0.038	75	0.52	10,000	0.044
40	0.50	4,000	0.050	100	0.38	12,500	0.034	100	0.45	12,500	0.040
50	0.46	5,000	0.045	150	0.31	15,000	0.032	150	0.36	15,000	0.036
75	0.36	6,000	0.041	200	0.27	20,000	0.028	200	0.32	20,000	0.032
100	0.32	7,000	0.038	250	0.24	25,000	0.024	250	0.28	25,000	0.028
125	0.28	7,500	0.036	300	0.22			300	0.26	30,000	0.026
150	0.26	10,000	0.032	400	0.18			400	0.22	35,000	0.024
200	0.22	12,500	0.208	500	0.17			500	0.20	40,000	0.022
250	0.20	15,000	0.026	750	0.14			800	0.16	50,000	0.020
300	0.18			1,000	0.12			1,000	0.14		
400	0.16			1,250	0.11			1,250	0.12		
500	0.14			1,500	0.10			1,500	0.11		

Oval Type OR-Series

This line of oval resistors was designed particularly for applications where the available space is limited.



Type OR-30			Type OR-40			Type OR-55			Type OR-65			Type OR-75		
30 WATT			**40 WATT**			**55 WATT**			**65 WATT**			**75 WATT**		
Core: 5/16" x 1" x 1-1/4" Weight: .055 lbs.			Core: 5/16" x 1" x 2" Weight: .075 lbs.			Core: 5/16" x 1" x 3-1/2" Weight: .130 lbs.			Core: 5/16" x 1" x 4-3/4" Weight: .160 lbs.			Core: 5/16" x 1" x 6" Weight: .195 lbs.		
Ohms	Max. Volts	Max. Amps.	Ohms	Max. Volts	Max. Amps.	Ohms	Max. Volts	Max. Amps.	Ohms	Max. Volts	Max. Amps.	Ohms	Max. Volts	Max. Amps.
1	5.4	5.480	1	6.3	6.330	1	7.4	7.410	1	8	8.060	1	8.6	8.660
3	9.4	3.160	3	10	3.645	3	12	4.280	3	14	4.655	3	15	5.000
5	12	2.455	5	14	2.830	5	16	3.318	5	18	3.605	5	19	3.875
10	17	1.732	10	20	2.000	10	23	2.345	10	25	2.550	10	27	2.740
15	21	1.414	15	24	1.637	15	28	1.917	15	31	2.080	15	33	2.236
25	27	1.097	25	31	1.265	25	37	1.482	25	40	1.612	25	43	1.732
50	38	.775	50	44	.895	50	52	1.050	50	57	1.140	50	61	1.225
100	54	.548	100	63	.633	100	74	.741	100	80	.805	100	86	.866
150	67	.447	150	77	.516	150	90	.605	150	98	.658	150	106	.707
200	77	.387	200	89	.447	200	104	.524	200	114	.570	200	118	.591
250	86	.346	250	100	.400	250	117	.469	250	127	.510	250	137	.548
400	109	.274	400	126	.316	400	148	.370	400	161	.403	400	173	.432
500	122	.245	500	141	.282	500	165	.331	500	180	.360	500	193	.387
750	150	.200	750	173	.231	750	203	.271	750	220	.294	750	237	.316
1,000	173	.173	1,000	200	.200	1,000	234	.234	1,000	255	.255	1,000	274	.274
1,250	193	.155	1,250	223	.179	1,250	259	.207	1,250	285	.228	1,250	306	.245
1,500	211	.141	1,500	244	.163	1,500	286	.191	1,500	312	.208	1,500	334	.223
2,000	244	.122	2,000	282	.141	2,000	332	.166	2,000	360	.180	2,000	386	.193
2,500	272	.109	2,500	315	.126	2,500	370	.148	2,500	402	.161	2,500	432	.173
3,000	300	.100	3,000	345	.115	3,000	405	.135	3,000	444	.147	3,000	474	.158
3,500	322	.092	3,500	374	.107	3,500	437	.125	3,500	475	.136	3,500	510	.146
4,000	344	.086	4,000	400	.100	4,000	469	.117	4,000	508	.127	4,000	548	.137
5,000	385	.077	5,000	445	.089	5,000	525	.105	5,000	570	.114	5,000	611	.122
7,500	526	.057	7,500	547	.073	7,500	638	.085	7,500	698	.093	7,500	750	.100
10,000	610	.049	10,000	630	.063	10,000	740	.074	10,000	800	.080	10,000	860	.086
			15,000	765	.051	15,000	900	.060	15,000	975	.065	15,000	1,050	.070
			20,000	1,000	.039	20,000	1,040	.052	20,000	1,140	.057	20,000	1,220	.061
			25,000	1,140	.035	25,000	1,150	.046	25,000	1,275	.051	25,000	1,350	.054
						30,000	1,260	.042	30,000	1,380	.046	30,000	1,500	.050
									35,000	1,505	.043	35,000	1,610	.046
									40,000	1,600	.040	40,000	1,720	.043
									50,000	1,800	.036	50,000	1,900	.038

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HUNTINGTON, INDIANA
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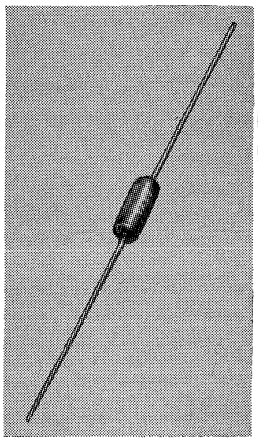
TRU-OHM® VITREOUS ENAMELED RESISTORS

Axial Lead Val-Type

The cores are of a high grade ceramic material to which are affixed lead and cup assemblies of low expansion alloys. After winding, the units are coated with high temperature vitreous enamel which makes them resistant to humidity. This type unit is capable of continuous operation at 340° C.

This type resistor lends itself to applications where size is a factor in the design and miniaturization of equipment. They are capable of dissipating power equal to their larger counterpart tab type terminal resistors, but because of the axial lead construction they require less space for mounting.



WATTS	DIAMETER "D"	LENGTH "L"	LENGTH "A" ± 1/16*	LEAD SIZE A.W.G.**	MIN. RES.	RES. MAX.
3	1/4	9/16	1-1/2	#20	0.1 Ω	10,000 Ω
5	11/32	1-1/16	1-1/2	#19	0.4 Ω	25,000 Ω
10	3/8	1-27/32	1-1/2	#19	0.75 Ω	50,000 Ω

*Lengths shown are standard and can be supplied up to 2-1/2 inches long.
**Sizes shown are standard and can be supplied with #18, #19, or #20 A.W.G.

VAL-3 — 3 WATT

Core: 1/4" x 9/16" Weight: .002 lbs.

Ohms	Amps	Volts	Ohms	Amps	Volts
1	1.73	1.73	750	.063	47.4
1.5	1.41	2.12	800	.061	49.0
2	1.22	2.45	900	.058	52.0
3	1.00	3.00	1,000	.055	54.8
4	.87	3.46	1,100	.052	57.4
5	.77	3.87	1,200	.050	60.0
7.5	.63	4.74	1,250	.049	61.1
10	.55	5.48	1,500	.045	67.0
12	.50	6.00	1,750	.041	72.3
15	.45	6.70	2,000	.039	77.4
20	.39	7.74	2,250	.037	82.3
25	.35	8.66	2,500	.035	86.6
30	.32	9.50	3,000	.032	95.0
35	.29	10.2	3,500	.029	103
40	.27	11.0	4,000	.027	110
50	.25	12.2	4,500	.026	116
75	.20	15.0	5,000	.025	122
100	.17	17.3	6,000	.022	134
125	.16	19.4	7,000	.020	145
150	.14	21.2	7,500	.020	150
200	.13	24.5	8,000	.019	155
225	.12	26.0	9,000	.018	163
250	.11	27.4	10,000	.017	172
300	.10	30.0			
350	.093	32.4			
400	.087	34.6			
450	.082	36.7			
500	.077	38.7			
600	.071	42.4			
700	.065	45.8			

VAL-5 — 5 WATT

Core: 11/32" x 1-1/16" Weight: .006 lbs.

Ohms	Amps	Volts	Ohms	Amps	Volts
1	2.23	2.23	750	.082	61.5
1.5	1.82	2.74	800	.078	63.0
2	1.58	3.16	900	.074	67.0
3	1.29	3.87	1,000	.070	70.0
4	1.12	4.47	1,100	.067	74.0
5	1.00	5.00	1,200	.064	77.0
7.5	.81	6.12	1,250	.063	79.0
10	.71	7.07	1,500	.057	86.0
12	.64	7.74	1,750	.053	93.0
15	.58	8.66	2,000	.050	100
20	.50	10.0	2,250	.047	106
25	.45	11.2	2,500	.045	112
30	.41	12.3	3,000	.041	123
35	.38	13.3	3,500	.037	132
40	.35	14.0	4,000	.035	141
50	.32	16.0	4,500	.033	149
75	.25	19.5	5,000	.032	156
100	.22	22.0	6,000	.029	172
125	.20	25.0	7,000	.027	189
150	.18	27.0	7,500	.026	195
200	.16	32.0	8,000	.025	200
225	.15	33.8	9,000	.024	212
250	.14	35.0	10,000	.022	220
300	.13	39.0	12,500	.020	250
350	.12	42.0	15,000	.018	270
400	.11	44.0	17,500	.017	295
450	.10	45.0	18,000	.017	302
500	.10	50.0	20,000	.016	320
600	.09	54.0	22,500	.015	335
700	.085	60.0	25,000	.014	350

VAL-10 — 10 WATT

Core: 3/8" x 1- 27/32" Weight: .014 lbs.

Ohms	Amps	Volts	Ohms	Amps	Volts
1.0	3.16	3.16	2,250	.066	149
1.5	2.57	3.86	2,500	.063	158
2.0	2.24	4.47	3,000	.057	173
3.0	1.83	5.47	3,500	.053	187
4.0	1.58	6.33	4,000	.050	200
5.0	1.41	7.07	4,500	.047	212
7.5	1.16	8.65	5,000	.045	223
10	1.00	10.0	6,000	.041	245
12	.91	10.9	7,000	.038	265
15	.82	12.2	7,500	.036	274
20	.71	14.1	8,000	.035	283
25	.63	15.8	8,500	.034	291
30	.58	17.3	9,000	.033	300
35	.53	18.7	10,000	.032	316
40	.50	20.0	11,000	.030	332
50	.45	22.4	12,000	.029	346
75	.37	27.4	12,500	.028	353
100	.32	31.6	13,500	.027	367
125	.28	35.4	15,000	.026	387
150	.26	38.7	16,000	.025	400
200	.22	44.7	17,500	.024	418
225	.21	47.4	18,000	.023	424
250	.20	50.0	20,000	.022	447
300	.18	54.7	22,500	.021	474
350	.17	59.1	25,000	.020	500
400	.16	63.2	30,000	.018	548
450	.15	66.8	35,000	.017	591
500	.14	70.7	40,000	.016	632
600	.13	77.4	45,000	.015	670
700	.12	83.6	50,000	.014	707
750	.11	86.6			
800	.11	89.4			
900	.11	94.8			
1,000	.10	100			
1,100	.095	104			
1,200	.091	109			
1,250	.090	113			
1,500	.081	122			
1,750	.075	132			
2,000	.071	142			

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VITREOUS ENAMELED POWER RHEOSTATS

All Values Listed are in Stock for Immediate Shipment.

Type R-12½-12½ Watts

CAT. NO.	TOTAL OHMS	MAX. AMPS	APPROX. STEPS	CAT. NO.	TOTAL OHMS	MAX. AMPS	APPROX. STEPS
600	1	3.53	27	611	100	.35	102
601	2	2.50	38	612	125	.32	102
602	3	2.04	36	613	175	.27	112
603	6	1.44	45	614	250	.22	124
604	8	1.25	49	615	350	.19	150
605	10	1.12	42	616	500	.16	164
606	15	.91	49	617	750	.13	188
607	25	.71	65	618	1000	.11	196
608	35	.60	72	619	1500	.091	235
609	50	.50	81	620	2500	.071	260
610	75	.41	98	621	3500	.060	285
				622	5000	.050	315

Type R-75-75 Watts

CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS	CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS
300	0.5	12.300	27	312	200	.612	180
301	1	8.660	18	313	300	.500	227
302	2	6.120	30	314	400	.433	232
303	3	5.000	30	315	500	.388	250
304	5	3.880	45	316	750	.316	260
305	7.5	3.160	47	317	1,000	.274	290
306	10	2.740	50	318	1,500	.224	350
307	16	2.170	87	319	2,000	.194	380
308	25	1.730	92	320	2,500	.173	425
309	50	1.230	118	321	5,000	.123	630
310	75	1.000	135	322	7,500	.100	715
311	100	.866		323	10,000	.087	820

Type R-25-25 Watts

CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS	CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS
100	1	5.000	26	112	125	.445	145
101	2	3.540	28	113	175	.375	153
102	3	2.880	44	114	250	.316	170
103	6	2.040	50	115	350	.267	180
104	8	1.770	54	116	500	.222	215
105	10	1.580	60	117	750	.182	230
106	15	1.290	78	118	1000	.155	270
107	25	1.000	80	119	1500	.129	325
108	35	.845	100	120	2500	.100	410
109	50	.707	105	121	3500	.084	440
110	75	.575	120	122	5000	.070	480
111	100	.500	140				

Type R-100-100 Watts

CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS	CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS
400	0.5	14.100	30	412	200	.707	190
401	1	10.000	20	413	300	.575	260
402	2	7.070	32	414	400	.500	262
403	3	5.750	32	415	500	.447	270
404	5	4.470	50	416	750	.365	280
405	7.5	3.650	52	417	1,000	.316	316
406	10	3.160	58	418	1,500	.258	370
407	16	2.500	97	419	2,000	.224	420
408	25	2.000	105	420	2,500	.200	460
409	50	1.410	140	421	5,000	.141	650
410	75	1.150	155	422	7,500	.115	740
411	100	1.000	168	423	10,000	.100	850

Type R-50-50 Watts

CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS	CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS
200	0.5	10.000	22	213	150	.574	175
201	1	7.070	36	214	225	.470	215
202	2	5.000	38	215	300	.408	225
203	4	3.540	38	216	500	.316	295
204	6	2.880	75	217	800	.250	360
205	8	2.500	70	218	1000	.223	375
206	12	2.040	80	219	1600	.176	465
207	16	1.760	90	220	2500	.141	560
208	22	1.500	95	221	3500	.119	585
209	35	1.190	120	222	5000	.100	600
210	50	1.000	120	223	8000	.079	710
211	80	.790	135	224	10,000	.070	720
212	125	.630	185				

Type R-150-150 Watts

CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS	CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS
500	0.5	17.300	28	513	150	1.000	230
501	1	12.300	37	514	200	.865	242
502	2	8.650	38	515	250	.775	250
503	3	7.070	67	516	350	.655	280
504	5	5.480	68	517	500	.548	330
505	7.5	4.470	71	518	750	.447	370
506	10	3.880	70	519	1,250	.346	460
507	15	3.163	138	520	1,800	.288	550
508	25	2.450	140	521	2,250	.259	570
509	35	2.070	133	522	3,000	.224	600
510	50	1.735	160	523	4,500	.182	680
511	75	1.415	185	524	7,500	.141	980
512	100	1.225	190	525	10,000	.122	990

Type R-300-300 Watts

CAT. NO.	TOTAL OHMS	MAX. AMPS	APPROX. STEPS	CAT. NO.	TOTAL OHMS	MAX. AMPS	APPROX. STEPS	CAT. NO.	TOTAL OHMS	MAX. AMPS	APPROX. STEPS	CAT. NO.	TOTAL OHMS	MAX. AMPS	APPROX. STEPS
700	1	17.32	50	706	10	5.48	76	712	150	1.41	272	718	1,200	.50	446
701	2	12.24	50	707	15	4.47	130	713	200	1.22	251	719	1,500	.45	460
702	3	10.00	71	708	25	3.47	88	714	300	1.00	300	720	1,750	.41	500
703	4	8.66	65	709	50	2.45	225	715	400	.87	290	721	2,500	.35	508
704	5	7.75	61	710	75	2.00	315	716	700	.66	450				
705	7.5	6.32	80	711	100	1.73	258	717	900	.58	470				

Type R-225-225 Watts

Stock Cat. No.	Ohms	Max Amps*	Approx. No. of Steps
4001	1	15.00	55
4002	1.5	12.30	55
4003	2	10.60	55
4004	2.5	9.50	55
4005	3	8.66	55
4006	4	7.50	55
4007	5	6.71	55
4008	7.5	5.49	115
4009	10	4.74	115
4010	15	3.87	115
4011	25	3.00	115
4012	50	2.12	256
4013	75	1.73	306
4014	100	1.50	315
4015	150	1.22	385
4016	200	1.06	357
4017	250	.950	350
4018	300	.866	335
4019	400	.750	344
4020	500	.671	450
4021	700	.567	495
4022	750	.549	533
4023	900	.500	500
4024	1000	.474	555
4025	1200	.433	526
4026	1500	.387	630
4027	1750	.358	620
4028	2500	.300	670

Type R-500-500 Watts

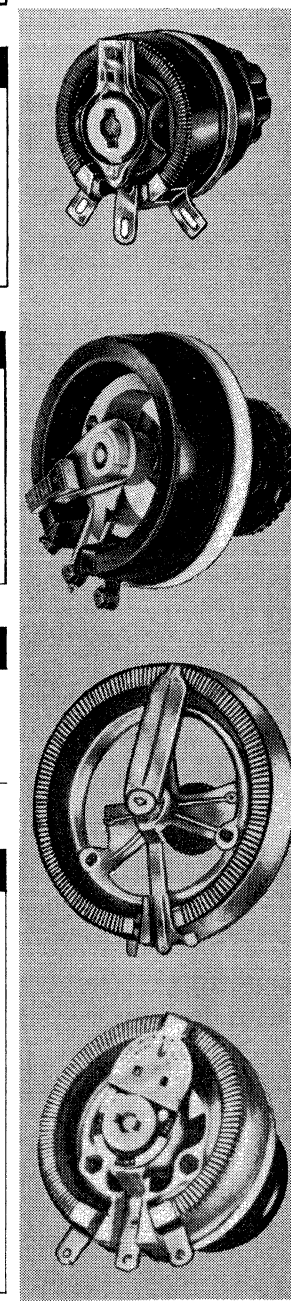
Stock Cat. No.	Ohms	Max Amps*	Approx. No. of Steps
4101	1	22.3	70
4102	1.5	18.2	64
4103	2	15.8	68
4104	2.5	14.1	67
4105	3	12.9	65
4106	4	11.2	96
4107	5	10.0	96
4108	7.5	8.17	98
4109	8	7.90	97
4110	10	7.07	105
4111	12.5	6.30	103
4112	15	5.77	202
4113	16	5.60	192
4114	25	4.47	195
4115	40	3.54	205
4116	50	3.16	200
4117	75	2.58	395
4118	80	2.52	425
4119	100	2.24	450
4120	125	2.00	505
4121	150	1.82	544
4122	175	1.69	500
4123	250	1.41	570
4124	325	1.24	515
4125	500	1.00	620
4126	750	.817	740
4127	1000	.707	780
4128	1500	.577	940
4129	2000	.500	986
4130	2500	.447	940

Type R-750-750 Watts

Stock Cat. No.	Ohms	Max Amps*	Approx. No. of Steps
4201	1	27.4	85
4202	1.5	22.3	85
4203	2	19.4	81
4204	2.5	17.3	87
4205	3	15.8	83
4206	4	13.6	87
4207	5	12.2	122
4208	7.5	10.0	129
4209	8	9.65	122
4210	10	8.65	121
4211	12.5	7.75	120
4212	15	7.07	127
4213	16	6.82	120
4214	25	5.47	210
4215	50	3.87	238
4216	75	3.19	250
4217	80	3.06	266
4218	100	2.74	265
4219	150	2.23	500
4220	160	2.17	485
4221	200	1.94	472
4222	250	1.73	470
4223	300	1.58	500
4224	400	1.37	472
4225	500	1.22	565
4226	600	1.12	677
4227	750	1.00	670
4228	1000	.865	715
4229	1200	.791	860
4230	1500	.707	840
4231	1800	.646	1020
4232	2500	.547	1085

Type R-1000-1000 Watts

Stock Cat. No.	Ohms	Max Amps*	Approx. No. of Steps
4301	1	31.60	81
4302	1.5	25.80	84
4303	2	22.40	109
4304	2.5	20.00	105
4305	3	18.30	113
4306	4	15.80	106
4307	5	14.10	155
4308	7.5	11.50	105
4309	8	11.20	105
4310	10	10.00	105
4311	12.5	8.95	165
4312	15	8.16	156
4313	16	7.90	166
4314	25	6.33	160
4315	50	4.47	331
4316	75	3.65	303
4317	100	3.16	320
4318	150	2.58	306
4319	175	2.39	550
4320	225	2.11	585
4321	250	2.00	640
4322	300	1.83	605
4323	400	1.58	640
4324	500	1.41	635
4325	750	1.15	820
4326	1000	1.00	862
4327	1500	.816	1030
4328	2500	.633	1300



*Through all or any part of winding

TRU-OHM® PRODUCTS
HUNTINGTON, INDIANA
MEMCOR/COMPONENTS DIVISION
MODEL ENGINEERING and MANUFACTURING CORP.
MEMCOR®

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WARD LEONARD

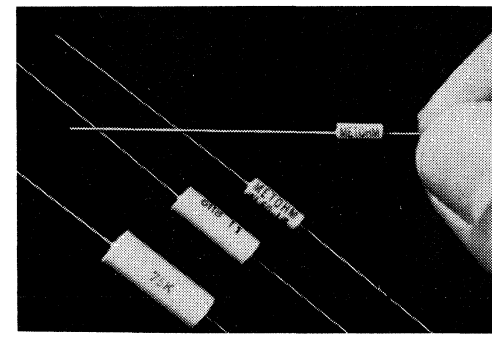
Metohm® RESISTORS
Metal Film Precision Type

THE STANDARD OF QUALITY FOR MILITARY AND INDUSTRIAL PURPOSES

FEATURES

- **High stability and reliability**
- **Designed to exceed MIL-R-10509E**
- **Close resistance tolerance**
- **Wide range of resistance values**
- **Stock or made-to-order types**
- **1/10, 1/8, 1/4 and 1/2 watt sizes**

Exceeds MIL-R-10509E



In critical space-age electronic circuitry, METOHM metal film precision resistors guarantee high reliability, high stability, close accuracy, low TC and miniature size. Metohms are precision made under "white-room" conditions in the industry's most modern plant.

MIL SPECS. — All Metohm precision resistors are designed to exceed MIL-R-10509E char. C, D and E.

POWER RATING — is based on full rated load in an ambient of 125°C.

WELDABLE LEADS—gold plated Dumet leads and nickel "270" leads are available for weldable applications.

STOCK METOHMS — RN55, 60, 65 and 70 Metohm resistors, char .C, TC Code T2 (±50PPM) are stocked in MIL standard values listed below. Standard tolerance is ±1%.

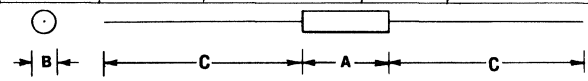
MADE-TO-ORDER TYPES — see data in accompanying tables for non-stock resistors available in production order quantities.

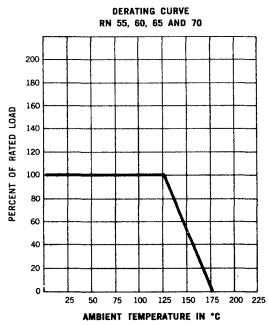
CONFORMAL COATED TYPES—also available in 1/20, 1/10, 1/8, 1/4 and 1/2 w. sizes. Durable solvent resistant coating allows smaller size. Ideal for micro module circuitry where space is at a premium.

RATINGS AND SIZES — METOHM Metal Film Precision Resistors

METOHM Type	MIL Type	Watt Rating†	Resistance Values		Max. Voltage Rating (Continuous)	Standard Resistance Tolerance	Temperature Coefficient	A Length	B Diameter	C Axial Lead	
			Max. Ohms	Min. Ohms						Length	Diameter
WL 55	RN 55	1/10	20	301K	200v	1%*	**	.260 ± .010	.120 +.005 −.015	1½ ± ⅛	.025 ±.002 (#22 AWG)
WL 60	RN 60	1/8	20	500K	250v	1%*	**	.406 ± .015	.130 ±.015	1½ ± ⅛	.025 ±.002 (#22 AWG)
WL 65	RN 65	1/4	20	1.3 meg.	300v	1%*	**	.594 ± .015	.203 ±.015	1½ ± ⅛	.025 ±.002 (#22 AWG)
WL 70	RN 70	1/2	20	1.5 meg.	350v	1%*	**	.719 ± .020	.261 ±.020	1½ ± ⅛	.032 ±.002 (#20 AWG)

† Based on 125°C ambient and maximum operating temperature of 175°C
* Closer tolerances to order. See MIL Resistance Tolerance table below.
** See Temperature Coefficient Code Table below.





RESISTANCE TOLERANCE

MIL Designation	Tolerance
F	± 1%
D	± 0.5%
C	± 0.25%
B	± 0.1%
—	± 0.05%

TEMPERATURE COEFFICIENT CODE

T.C. Code**	MIL Char.	Temperature Coefficient Range***	Temperature Range
T-0	D	±100 PPM/°C	−55°C to +175°C
T-2	C	± 50 PPM/°C	−55°C to +175°C
T-3	—	0 to + 100 PPM/°C	−55°C to +175°C
T-4	—	0 to − 100 PPM/°C	−55°C to +175°C
T-5	—	± 25 PPM /°C	+25°C to +145°C
T-6	—	0 to + 50 PPM/°C	−55°C to +175°C
T-7	—	0 to − 50 PPM/°C	−55°C to +175°C
T-8	—	± 35 PPM/°C	−55°C to + 25°C
		± 25 PPM/°C	+25°C to +175°C
T-9	E	± 25 PPM/°C	−55°C to +175°C

** For other temperature coefficients consult Home Office for price.
*** Parts per Million Per Degree Centigrade (100 PPM equals 0.01%)

MIL STANDARD RESISTANCE VALUES FOR STOCK METOHM RESISTORS

30.1	43.2	61.9	88.7	127	182	261	374	536	768	1100	1580	2260	3240	4640	6810	9760	14.0K	20.0K	28.7K	41.2K	59.0K	84.5K	121K	174K	249K	357K	511K	732K
30.9	44.2	63.4	90.9	130	187	267	383	549	787	1130	1620	2320	3320	4750	6980	10.0K	14.3K	20.5K	29.4K	42.2K	60.4K	86.6K	124K	178K	255K	365K	523K	750K
31.6	45.3	64.9	93.1	133	191	274	392	562	806	1150	1650	2370	3400	4870	7150	10.2K	14.7K	21.0K	30.1K	43.2K	61.9K	88.7K	127K	182K	261K	374K	536K	768K
32.4	46.4	66.5	95.3	137	196	280	402	576	825	1180	1690	2430	3480	4990	7320	10.5K	15.0K	21.5K	30.9K	44.2K	63.4K	90.9K	130K	187K	267K	383K	549K	787K
33.2	47.5	68.1	97.6	140	200	287	412	590	845	1210	1740	2490	3570	5110	7500	10.7K	15.4K	22.1K	31.6K	45.3K	64.9K	93.1K	133K	191K	274K	392K	562K	806K
34.0	48.7	69.8	100	143	205	294	422	604	866	1240	1780	2550	3650	5230	7680	11.0K	15.8K	22.6K	32.4K	46.4K	66.5K	95.3K	137K	196K	280K	402K	576K	825K
34.8	49.9	71.5	102	147	210	301	432	619	887	1270	1820	2610	3740	5360	7870	11.3K	16.2K	23.2K	33.2K	47.5K	68.1K	97.6K	140K	200K	287K	412K	590K	845K
35.7	51.1	73.2	105	150	215	309	442	634	909	1300	1870	2670	3830	5490	8060	11.5K	16.5K	23.7K	34.0K	48.7K	69.8K	100K	143K	205K	294K	422K	604K	866K
36.5	52.3	75.0	107	154	221	316	453	649	931	1330	1910	2740	3920	5620	8250	11.8K	16.9K	24.3K	34.8K	49.9K	71.5K	102K	147K	210K	301K	432K	619K	887K
37.4	53.6	76.8	110	158	226	324	464	665	953	1370	1960	2800	4020	5760	8450	12.1K	17.4K	24.9K	35.7K	51.1K	73.2K	105K	150K	215K	309K	442K	634K	909K
38.3	54.9	78.7	113	162	232	332	475	681	976	1400	2000	2870	4120	5900	8660	12.4K	17.8K	25.5K	36.5K	52.3K	75.0K	107K	154K	221K	316K	453K	649K	931K
39.2	56.2	80.6	115	165	237	340	487	698	1000	1430	2050	2940	4220	6040	8870	12.7K	18.2K	26.1K	37.4K	53.6K	76.8K	110K	158K	226K	324K	464K	665K	953K
40.2	57.6	82.5	118	169	243	348	499	715	1020	1470	2100	3010	4320	6190	9090	13.0K	18.7K	26.7K	38.3K	54.9K	78.7K	113K	162K	232K	332K	475K	681K	976K
41.2	59.0	84.5	121	174	249	357	511	732	1050	1500	2150	3090	4420	6340	9310	13.3K	19.1K	27.4K	39.2K	56.2K	80.6K	115K	165K	237K	340K	487K	698K	1 Meg.
42.2	60.4	86.6	124	178	255	365	523	750	1070	1540	2210	3160	4530	6490	9530	13.7K	19.6K	28.0K	40.2K	57.6K	82.5K	118K	169K	243K	348K	499K	715K	1.5 Meg.
														6650										

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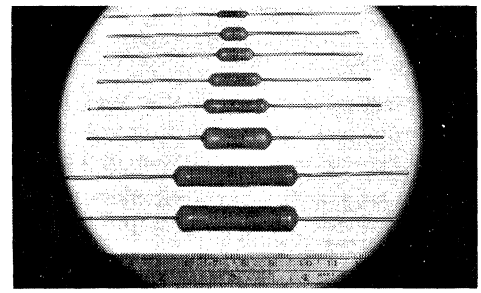
WARD LEONARD

Axiohm® RESISTORS
Vitreous Enamel Wire-Wound Power Type

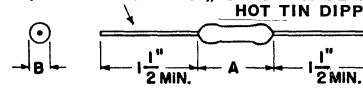


Axiohm, the miniaturized, space-saving power resistor line is designed for automation, printed circuits and advanced miniaturization use. Recommended for electronic and industrial use where high O.L. capacity and high stability are a "must". Four stock sizes and seven made-to-order sizes. Order by Stock Type and Ohms.

AXIOHM FEATURES

- **Vitrohm enamel construction**
- **Space saving design**
- **5 stock sizes; 8 made-to-order sizes**
- **Wide range of resistance values**
- **Standard tolerance ±5%**

1 WATT #24 B & S GAGE WIRE
2, 3, 4 AND 5 WATT #20 B & S GAGE WIRE
7, 10 AND 12.5 WATT #18 B & S GAGE WIRE
HOT TIN DIPPED



1 WATT — TYPE 1X
Dims. A = 13/32; B = 3/32

Ohms	m.a.	Ohms	m.a.
1	1000	220	68
1.5	817	240	64
2	707	250	63
3	577	270	61
4	500	300	57
5	447	330	55
7.5	361	360	53
10	316	390	51
11	302	430	48
12	289	470	46
13	277	510	45
15	258	560	42
16	250	620	40
18	236	680	37
20	224	750	36
22	213	820	35
24	204	910	33
27	192	1000	32
30	182	1100	30
33	174	1200	28
36	167	1300	27
39	160	1500	26
43	153	1600	25
47	146	1800	24
51	140	2000	22
56	134	2200	21
62	127	2400	20
68	121	2500	20
75	115	2700	19
82	110	3000	18
91	105	3300	17
100	100	3900	16
110	95	4300	15
120	91	4700	15
130	87	5100	14
150	82	5600	13
160	79	6200	13
180	75	6800	12
200	71	7500	12

2 WATTS — TYPE 2X
Dims. A = 3/8; B = 3/16

Ohms	m.a.	Ohms	m.a.
1	1414	180	105
1.5	1155	200	100
2	1000	220	95
3	816	240	91
4	707	250	89
5	632	270	86
7.5	517	300	82
10	447	330	78
11	426	360	75
12	408	390	72
13	392	430	68
15	365	470	65
16	354	510	63
18	333	560	60
20	316	620	57
22	302	680	54
24	289	750	52
27	272	820	49
30	258	910	47
33	246	1000	45
36	235	1100	43
39	228	1200	41
43	216	1300	39
47	206	1500	37
51	198	1600	35
56	189	1800	33
62	179	2000	32
68	172	2200	30
75	163	2400	29
82	156	2500	28
91	148	2700	27
100	141	3000	26
110	135	3300	25
120	129	3900	23
130	124	4300	22
150	116	4700	21
160	112	5100	20

3 WATTS — TYPE 3X
Dims. A = 1/2; B = 3/16

Ohms	m.a.	Ohms	m.a.
1	1732	470	80
1.5	1414	500	77
2	1225	560	73
3	1000	600	71
4	866	680	66
5	775	700	66
7.5	632	750	63
10	548	800	61
12	500	820	60
15	447	900	58
18	408	1000	55
20	387	1100	52
22	369	1200	50
25	346	1250	49
27	333	1500	45
30	316	1750	41
33	301	1800	40
35	293	2000	39
40	274	2200	37
47	252	2250	37
50	245	2500	35
56	231	2700	33
68	210	3000	32
75	200	3300	30
82	191	3500	29
100	173	3900	28
120	158	4000	27
125	155	4500	26
150	141	4700	25
180	129	5000	25
200	122	5600	23
220	117	6000	22
225	115	6500	21
250	110	6800	21
270	105	7000	21
300	100	7500	20
330	95	8000	20
350	93	8200	19
390	88	9000	18
400	87	10000	17
450	82		

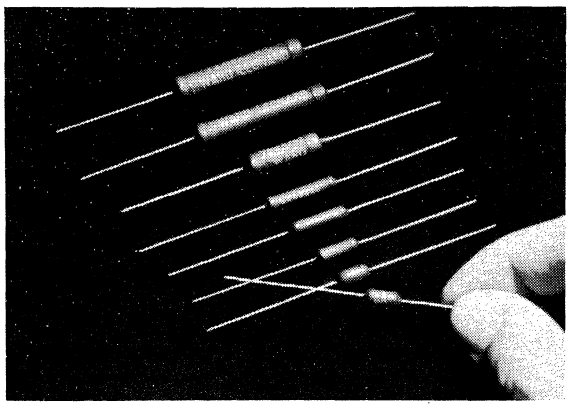
5 WATTS — TYPE 5XM
Dims. A = 15/16; B = 3/16

Ohms	m.a.	Ohms	m.a.	Ohms	m.a.
1	2230	200	158	2500	45
1.5	1820	220	151	2700	43
2	1580	225	148	3000	40
3	1290	250	141	3300	39
4	1117	270	136	3500	37
5	1000	300	129	3900	36
7.5	811	330	123	4000	35
8	790	350	119	4500	33
10	707	390	113	4700	32
12	644	400	112	5000	31
15	577	450	105	5600	30
20	500	470	103	6000	28
22	477	500	100	6800	27
25	450	560	94	7000	26
27	430	600	91	7500	25
30	408	680	86	8000	25
33	389	700	84	8200	24
35	378	750	81	9000	23
39	358	800	79	10000	22
40	353	820	78	11000	21
47	326	900	74	12000	20
50	316	1000	70	12500	20
56	299	1100	67	13500	19
68	271	1200	64	15000	18
75	257	1250	63	16000	18
82	247	1500	57	17500	17
100	223	1750	53	18000	17
120	204	1800	52	20000	16
125	200	2000	50	22000	15
150	182	2200	48	25000	14
180	167	2250	47	27000	13

Order by Type Number and Resistance Value.

10 WATTS — TYPE 10XM
Dims. A = 1 3/4; B = 5/16

Ohms	m.a.	Ohms	m.a.
1	3160	1200	91
1.5	2580	1250	89
2	2235	1500	81
3	1825	1750	75
4	1580	2000	70
5	1415	2250	66
7.5	1155	2500	63
10	1000	3000	58
12	913	3500	53
15	815	4000	50
20	707	4500	47
25	630	5000	45
30	577	6000	41
35	534	7000	38
40	500	7500	36
50	450	8000	35
75	365	8500	34
100	316	9000	33
125	283	10000	32
150	258	11000	30
200	224	12000	29
225	211	12500	28
250	200	13500	27
300	182	15000	25.5
350	169	16000	25
400	158	17500	24
450	149	18000	23
500	142	20000	22
600	129	22500	21
700	120	25000	20
750	115	30000	18
800	112	35000	17
900	105	40000	16
1000	100	45000	15
1100	95	50000	14

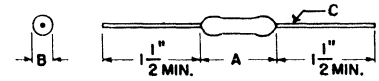


S-COAT RESISTORS
Silicone Precision Power Type

S-Coat resistor line represents the latest advance in silicone coated wire-wound power resistor design. S-Coat resistors are precision-made for precision applications requiring characteristics such as low TC, close tolerance, no noise, low drift, high O.L. capacity, vibration resistant and zero voltage coefficient. Order by Type Designation, Ohms and Accuracy if other than ±1%.

S-COAT FEATURES

- **Low TC: ± 20PPM**
- **Close accuracy: ±1% standard, to ±0.1% special**
- **1000 volt dielectric—"V" block test**
- **Wide resistance ranges**
- **8 space-saving sizes**



RATINGS and SIZES — Standard Tolerance ±1%

Watts	Type	MIL-R-26C Type	Minimum Ohms 1%	.5%	.25%	.1%	Max. Ohms	Dimensions (in inches) A±1/16	B max.	C B&S ga.
1	1S	.....	.1	.1	2.5	5	12K	7/16	1/8	#24
1	1SX	.....	.2	.2	2.5	5	10K	3/8	7/32	#20
1.5	1.5S	.....	.2	.2	2.5	5	15K	9/16	1/8	#24
2	2SX	.....	.2	.2	2.5	5	10K	3/8	7/32	#20
3	3SX	RW69V	.1	.1	2.5	5	18K	1/2	7/32	#20
3.25	3.2S	.....	.1	.1	2.5	5	25K	5/8	7/32	#20
3.3	3S	.....	.1	.1	2.5	5	25K	9/16	1/4	#20
3.5	3.5S	.....	.1	.1	2.5	5	50K	7/8	7/32	#20
4	4SX	.....	.1	.1	2.5	5	31K	11/16	7/32	#20
4.5	4S	.....	.1	.1	2.5	5	40K	11/16	9/32	#18
5	5SX	.....	.1	.1	2.5	5	40K	7/8	7/32	#20
7	7SX	RW67V	.1	.1	2.5	5	80K	61/64	11/32	#18
8	7S	.....	.1	.1	2.5	5	125K	1 1/4	11/32	#18
10	10SX	.....	.1	.1	2.5	5	135K	1 11/16	13/32	#18
12.5	12/5SX	.....	.1	.1	2.5	5	200K	1 11/16	13/32	#18
13	13S	.....	.1	.1	2.5	5	250K	1 15/64	13/32	#18

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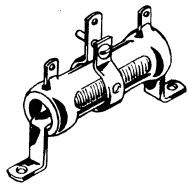
WARD LEONARD

Vitrohm® RESISTORS
Vitreous Enamel Wire-Wound Power Type

Types 5F, 10F, and 20F. Furnished with wire terminal leads. Brackets supplied on request.



Types 10A, 25A, 50A, 80A, 100A, 160A, 200A. Furnished with mounting brackets and one adjustable band.

Vitrohm fixed and adjustable power type resistors from 5 to 200 watts are designed and produced for high reliability. All cores, terminals and vitreous enamels are manufactured by W/L to guarantee top quality.

5 WATT • TYPE 5F

Size—1" x 5/16"

Ohms	m.a.	Ohms	m.a.	Ohms	m.a.
1	2230	100	223	1200	64
1.5	1820	125	200	1250	63
2	1580	150	182	1500	57
3	1290	200	158	1750	53
4	1117	225	148	2000	50
5	1000	250	141	2250	47
7.5	811	300	129	2500	45
10	707	350	119	3000	40
12	644	400	112	3500	37
15	577	450	105	4000	35
20	500	500	100	4500	33
25	450	600	91	5000	31
30	408	700	84	6000	28
35	378	750	81	7000	26
40	353	800	79	7500	25
50	316	900	74	8000	25
75	257	1000	70	9000	23
		1100	67	10000	22

10 WATT

Type 10F—Fixed **Type 10A—Adj.**

Size—1¾" x 5/16" Mtg. Centers—2⅛"

Fixed Ohms	Adj. Ohms	m.a.	Fixed Ohms	Adj. Ohms	m.a.
1	1	3160	1200		91
1.5		2580	1250	1250	89
2	2	2235	1500	1500	81
3	3	1825	1750		75
4		1580	2000	2000	70
5	5	1415	2250		66
7.5	7.5	1155	2500	2500	63
10	10	1000	3000	3000	58
12		913	3500	3500	53
15	15	815	4000	4000	50
20	20	707	4500	4500	47
25	25	630	5000	5000	45
30		577	6000	6000	41
35		534	7000	7000	38
40		500	7500	7500	36
50	50	450	8000	8000	35
75	75	365	8500	8500	34
100	100	316	9000	9000	33
125		283	10000	10000	32
150	150	258	11000		30
200	200	224	12000		29
225		211	12500		28
250	250	200	13500		27
300	300	182	15000		25.5
350	350	169	16000		25
400	400	158	17500		24
450		149	18000		23
500	500	142	20000		22
600	600	129	22500		21
700		120	25000		20
750	750	115	30000		18
800	800	112	35000		17
900		105	40000		16
1000	1000	100	45000		15
1100		95	50000		14

20 WATT • TYPE 20F

Size—2" x 5/16" Mtg. Centers—2⅝"

Ohms	m.a.	Ohms	m.a.	Ohms	m.a.
1	4480	850	153	10000	45
3	2580	1000	141	12500	40
5	2000	1200	130	15000	36
10	1410	1250	125	20000	32
15	1150	1500	115	25000	28
25	900	1750	107	30000	26
50	630	1850	104	35000	24
75	517	2000	100	40000	22
100	450	2250	94	45000	21
150	365	2400	91	50000	20
175	340	2500	90	55000	18
200	320	2750	85	60000	16
250	285	3000	81	65000	15
300	258	3500	76	70000	14
350	240	4000	70	75000	13
400	224	4500	67	80000	12
500	200	5000	63	85000	11.5
650	175	6000	57	90000	11
700	169	7000	53	95000	10.5
750	163	7500	51	100000	10
800	155	8000	50		

25 WATT

Type 25F—Fixed **Type 25A—Adj.**

Size—2" x 5/8" Mtg. Centers—2⅝"

Fixed Ohms	Adj. Ohms	m.a.	Fixed Ohms	Adj. Ohms	m.a.
1	1	5000	2500	2500	100
2	2	3535	3000	3000	90
3	3	2890	3500	3500	85
4		2500	4000	4000	80
5	5	2230		4500	74
	7.5	1825	5000	5000	70
10	10	1580	6000	6000	65
15	15	1290		7000	60
	20	1115	7500	7500	58
25	25	1000		8000	56
50	50	710	8500	8500	54
75	75	580		9000	52
100	100	500	10000	10000	50
150	150	410	12000	12000	46
200	200	354	15000	15000	41
250	250	315	20000	20000	34
300	300	289	25000	25000	32
400	400	250	30000		29
500	500	224	35000		27
750	750	182	40000		25
800	800	177	50000		20
850	850	170	60000		17
1000	1000	158	70000		14
1250	1250	140	75000		13
1500	1500	129	80000		12
2000	2000	112	100000		10
	2250	105			

50 WATT

Type 50F—Fixed **Type 50A—Adj.**

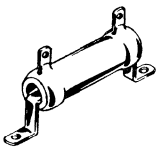
Size—4½" x ¾" Mtg. Centers—5¼"

Fixed Ohms	Adj. Ohms	m.a.	Fixed Ohms	Adj. Ohms	m.a.
1	1	7070	5000	5000	100
2	2	5000	6000	6000	91
3	3	4080		7000	85
4	4	3535	7500	7500	82
5	5	3160	8000	8000	79
10	10	2235	9000	9000	75
25	25	1415	10000	10000	71
50	50	1000	12000	12000	65
75	75	815	12500		63
100	100	707	15000	15000	58
150	150	575	20000	20000	50
200	200	500	25000	25000	45
250	250	445	30000	30000	41
300	300	408	35000		38
400	400	353	40000	40000	35
500	500	316	45000		33
750	750	258	50000	50000	32
800	800	250		60000	29
1000	1000	224	75000	75000	23
	1250	200		80000	21
1500	1500	180	100000	100000	17
2000	2000	160	125000		14
	2250	150	150000		12
2500	2500	141	175000		10
3000	3000	130	200000		9
	3500	120	225000		8
4000	4000	110	250000		7
	4500	105			

80 WATTS • TYPE 80A

Size—6½" x ¾" Mtg. Centers—7¼"

Ohms	m.a.	Ohms	m.a.	Ohms	m.a.
1	8940	750	325	7500	103
2	6320	800	316	8000	100
3	5160	1000	282	9000	94
4	4470	1250	253	10000	89
5	4000	1500	231	15000	73
10	2830	2000	200	20000	63
15	2310	2250	188	25000	57
25	1790	2500	178	30000	51
50	1260	3000	161	35000	48
75	1030	3500	151	40000	45
100	894	4000	141	45000	41
200	632	4500	133	50000	40
250	565	5000	126	60000	36
300	515	6000	115	70000	33
400	447	7000	107	80000	31
500	400			100000	28



HEAVY DUTY RESISTORS

Types 25F, 50F, 100F, 160F, 200F Furnished with lug terminals and mounting brackets.

100 WATT

Type 100F—Fixed **Type 100A—Adj.**

Size—6½" x 1⅛" Mtg. Centers—7¼"

Fixed Ohms	Adj. Ohms	m.a.	Fixed Ohms	Adj. Ohms	m.a.
1	1	10000	2000	2000	225
2	2	7070	2500	2500	200
3	3	5770	3000	3000	180
4	4	5000	3500		170
5	5	4470	4000	4000	158
10	10	3160	4500	4500	150
25	25	2000	5000	5000	141
50	50	1410		6000	130
75		1150	7500	7500	115
100	100	1000	10000	10000	100
125		895	15000	15000	80
150		815	20000	20000	70
	200	707	25000	25000	63
250	250	630	30000	30000	58
	400	500	35000		54
500	500	447	40000	40000	50
750	750	365	50000	50000	45
1000	1000	316	60000	60000	41
1250		285	70000		38
1500	1500	260	75000	75000	36
			100000	100000	32

160 WATT

Type 160F—Fixed **Type 160A—Adj.**

Size—8½" x 1⅛" Mtg. Centers—9¼"

Fixed Ohms	Adj. Ohms	m.a.	Fixed Ohms	Adj. Ohms	m.a.
1	1	12650	2500	2500	252
2	2	8940	3000	3000	230
3	3	7300	3500	3500	215
4	4	6320	4000	4000	200
5	5	5650	4500	4500	185
10	10	4000	5000	5000	178
15	15	3265	7500	7500	146
25	25	2525	10000	10000	126
50	50	1785	15000	15000	105
75		1460	20000	20000	90
100	100	1265	25000	25000	80
150		1035	30000	30000	73
200	200	894	35000		68
250	250	800	40000	40000	64
500	500	565	50000	50000	57
750		460	60000	60000	52
1000	1000	400	75000	75000	46
1500	1500	326	80000	80000	45
2000	2000	280	100000	100000	40

200 WATT

Type 200F—Fixed **Type 200A—Adj.**

Size—10½" x 1⅛" Mtg. Centers—11¼"

Fixed Ohms	Adj. Ohms	m.a.	Fixed Ohms	Adj. Ohms	m.a.
1	1	14140	3500	3500	240
2	2	10000	4000	4000	225
3	3	8162	4500	4500	210
4	4	7070	5000	5000	200
5	5	6320	7500	7500	163
10	10	4470	10000	10000	141
25	25	2825	15000	15000	115
50	50	2000	20000	20000	100
75		1630	25000	25000	90
100	100	1414	30000	30000	82
150		1150	35000		76
250	250	900	40000	40000	71
500	500	632	50000	50000	63
750		515	60000	60000	58
1000	1000	447	75000	75000	52
1500	1500	365	100000	100000	45
2000	2000	315		125000	40
2500	2500	282		150000	35
3000	3000	260			

ADJUSTABLE BANDS

Screw Driver Type

Size of Resistor	Cat. No.
10 Watts	609Z
25 Watts	612A
50 Watts	612B
80 Watts	612B
100 Watts	615D
160 Watts	615D
200 Watts	615D

Bakelite Knob Type

25 Watts	610A
50 Watts	610B
80 Watts	610B
100 Watts	619D
160 Watts	619D
200 Watts	619D

ORDER BY TYPE NUMBER AND RESISTANCE VALUE.

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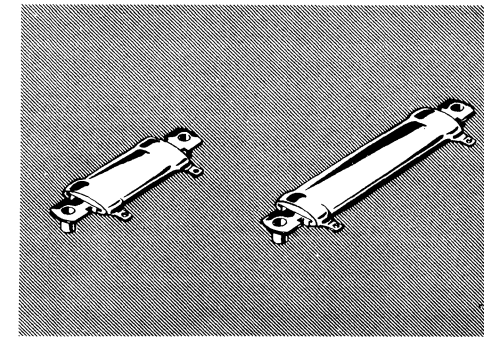
WARD LEONARD

Vitrohm RESISTORS
Vitreous Enamel Wire-Wound Power Type

STRIPOHMS
Order by Type Number and Resistance Value

features
- 6 space-saving sizes
- low mounting brackets
- strong flatted cores
- suitable for multiple stacking
- Vitrohm construction

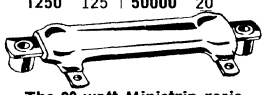
Vitreous enameled wire-wound resistors built on a strong refractory core, and provided with low mounting brackets. Particularly suited for applications where space is limited. Specially adapted to stacking for networks.



20 WATTS • TYPE 20S

2" Long—Mtg. Centers 2 5/16"
Width 7/16"

Ohms	m.a.	Ohms	m.a.
1	4480	1500	115
3	2580	2000	100
5	2000	2500	90
10	1410	3000	81
15	1150	3500	76
25	900	4000	70
50	630	5000	63
100	450	7500	51
150	365	10000	45
200	320	15000	36
250	285	20000	32
400	224	25000	28
500	200	30000	26
750	163	35000	24
1000	141	40000	22
1250	125	50000	20



The 20 watt Ministrip resistor is smaller in size than the standard Strip-ohms. They may be stacked by using 1/32" washers.

30 WATTS • TYPE 30S

1¼" Long—Mtg. Centers 2"

Ohms	m.a.	Ohms	m.a.
1	5480	500	244
3	3160	750	200
5	2450	1000	173
10	1730	1250	154
15	1420	1500	142
25	1095	2000	122
50	774	2500	109
100	547	3000	100
150	447	3500	92
200	387	4000	86
250	346	5000	77
400	273		

40 WATTS • TYPE 40S

2" Long—Mtg. Centers 2¾"

Ohms	m.a.	Ohms	m.a.
1	6320	750	230
3	3650	1000	200
5	2830	1250	180
10	2000	1500	163
15	1630	2000	141
25	1270	2500	126
50	894	3000	114
100	632	3500	106
150	510	4000	100
200	447	5000	88
250	400	7500	73
400	315	10000	63
500	283	15000	51

55 WATTS • TYPE 55S

3½" Long—Mtg. Centers 4¼"

Ohms	m.a.	Ohms	m.a.
1	7420	1250	209
3	4280	1500	191
5	3320	2000	165
10	2350	2500	148
15	1910	3000	135
25	1480	3500	129
50	1050	4000	117
100	741	5000	104
150	604	7500	84
200	522	10000	74
250	469	15000	60
400	370	20000	52
500	331	25000	47
750	270	30000	42
1000	234		

65 WATTS • TYPE 65S

4¾" Long—Mtg. Centers 5½"

Ohms	m.a.	Ohms	m.a.
1	8060	1500	208
3	4650	2000	180
5	3610	2500	161
10	2550	3000	146
15	2080	3500	136
25	1610	4000	127
50	1140	5000	114
100	806	7500	92
150	658	10000	80
200	570	15000	65
250	509	20000	57
400	403	25000	51
500	360	30000	46
750	294	35000	43
1000	254	40000	40
1250	228	50000	36

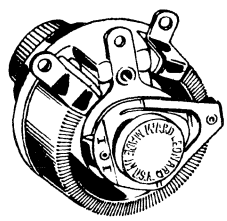
75 WATTS TYPE 75S

6" Long—Mtg. Centers 6¾"

Ohms	m.a.	Ohms	m.a.
1	8660	2500	173
3	5000	3000	158
5	3870	3500	146
10	2740	4000	137
15	2235	5000	122
25	1730	7500	100
50	1220	10000	87
100	866	15000	71
150	707	20000	61
200	612	25000	55
250	550	30000	50
400	433	35000	46
500	387	40000	43
750	315	50000	37
1000	274	60000	35
1250	245	65000	33
1500	224		
2000	193		

Vitrohm® RING RHEOSTATS

TYPE 25R

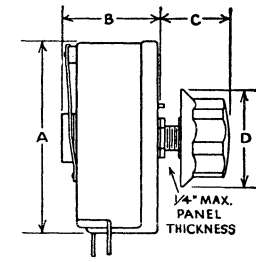


TYPE 50R

Ward Leonard Ring Rheostats are especially suited for use in electronic and electrical circuits where gradual and positive resistance change is essential. Balanced contact arms, self-lubricating metal graphite contact shoes, and no backlash in the drive shaft combine to assure uniform contact pressure and smooth operation.

Standard shaft length for back-of-board mounting on ¼" panel.

Standard Resistance Tolerance ±10%.



25 WATTS
Dimensions: A-1 1/16" B-1⅛" C-1" D-1½"

Ohms	Current M.A.	Approx. No. of Steps
1	5000	32
2	3540	32
3	2880	51
4	*	*
6	2040	85
8	1770	95
10	1580	95
15	1280	102
25	1000	102
35	840	102
50	707	97
75	574	129
100	500	162
150	407	190
250	316	200
350	267	220
500	223	245
750	181	292
1000	158	315
1500	128	369
2500	100	388
3500	84	388
5000	70	595
7500	*	*
10000	*	*

TYPE 25R

50 WATTS
Dimensions: A-2 5/16" B-1⅛" C-1" D-1½"

Current M.A.	Approx. No. of Steps
7070	45
5000	56
*	*
3540	56
2880	94
2500	94
2230	94
1810	113
1415	144
1190	144
1000	180
812	144
707	216
574	252
447	245
374	288
316	324
256	373
223	390
181	396
141	547
119	547
100	786
81	905
70	947

TYPE 50R

100 WATTS
Dimensions: A-3 3/32" B-1½" C-1" D-1½"

Ohms	Current M.A.	Approx No. of Steps
1	10000	30
2	7070	56
3	5740	66
5	4470	56
7.5	3640	66
10	3160	104
15	2560	113
25	2000	144
50	1415	180
75	1150	180
100	1000	216
200	707	252
300	574	252
400	500	252
500	447	324
750	364	396
1000	316	410
2000	223	410
2500	200	410
5000	141	685
7500	115	820
10000	100	820

TYPE 100R

150 WATTS
Dimensions: A-4" B-1¾" C-1" D-1½"

Current M.A.	Approx. No. of Steps
12240	39
8660	39
7070	70
5470	73
4470	70
3870	70
3160	120
2440	152
1730	190
1415	228
1224	228
866	265
707	303
612	342
547	342
447	418
387	432
273	575
244	456
173	865
141	1000
122	1000

TYPE 150R

300 WATTS
Dimensions A-6" B-2 3/16"
Shaft ⅜" x 2"

Ohms	Current m.a.	Approx. No. of Steps
1	17.320	40
1.5	14.142	58
2	12.247	78
2.5	10.954	78
3	10.000	73
4	8.660	78
5	7.745	78
7.5	6.324	148
10	5.477	154
15	4.472	147
25	3.464	155
35	2.927	231
50	2.449	267
75	2.000	308
100	1.732	326
150	1.414	270
200	1.224	308
300	1.000	340
500	.774	455
750	.632	514
1000	.547	578
1500	.447	675
2500	.346	720

TYPE 300R

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REPLACEMENT COMPONENTS

WORKMAN Electronic PRODUCTS, INC.
SARASOTA, FLORIDA

GLOBAR RESISTORS

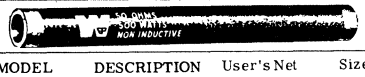
THERMISTORS

MODEL	DESCRIPTION	LIST	DLR.
FR .49	.49 at 3 amps.	1.60	.96
FR1.3	1.3Ω cold	1.00	.60
FR1M	600KΩ hot 1 MegΩ cold	1.75	1.05
FR2	Replaces filament res'trs	3.00	1.80
FR3.5	3.5Ω cold	1.00	.60
FR3.8	3.8Ω cold	1.00	.60
FR4.5	4.5Ω cold	1.00	.60
FR5-8	5-8Ω at 450ma	1.65	.99
FR6	6Ω Hot-600ma	1.65	.99
FR9	9Ω Hot-600ma	1.65	.99
FR10	10Ω cold	1.00	.60
FR11	11Ω Hot-600ma	2.50	1.50
FR11P	11Ω-450ma 9.2Ω-600ma	1.65	.99
FR12.9	12.9Ω cold	1.00	.60
FR13	13Ω cold	1.00	.60
FR19	19Ω Hot - 600ma	1.50	.90
FR19-3	As above 3 pk. with Stone	—	2.00
FR19A	19Ω Hot - 600ma	2.20	1.32
FR31	31Ω Hot - 300ma	1.90	1.14
FR35	35Ω Hot - 600ma	1.90	1.14
FR43	43Ω Hot - 600ma	2.50	1.50
FR50	50Ω Hot - 150ma	1.60	.96
FR041	75Ω Hot – 300ma	2.20	1.32
FR051	20Ω Hot - 600ma	1.50	.90
FR051-2	As above - 2 in pack	2.50	1.50
FR051-3	As above 3 pk. with Stone	—	2.00
FR052	10.5Ω at 125 volts	3.20	1.92
FR054	35Ω Hot -600ma	3.20	1.92
FR088	14KΩ at 140 volts	3.20	1.92
FR100	10 0Ω Hot-150ma	1.60	.96
FR191	120Ω cold	1.60	.96
FR291	79Ω cold -.47Ω hot	1.20	.72
FR5K	500KΩ at 25° C	1.50	.90
FRT 1	100Ω hot to 20Ω hot	1.85	1.11
FRT 1-2	As above - 2 in pack	3.00	1.80
GM	1/5 Watt ±20% 40 vals.	.65	.39

AUTO RADIO RESISTORS

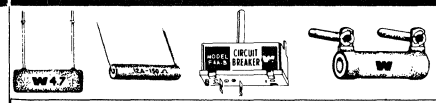
MODEL	DESCRIPTION	LIST	DLR.
WT22	0.22Ω - 5 Watt	.48	.29
WT27	0.27Ω - 5 Watt	.48	.29
WT33	0.33Ω - 5 Watt	.48	.29
WT47	0.47Ω - 5 Watt	.48	.29
WT51	0.51Ω - 5 watt	.48	.29
WT56	5.6Ω - 5 Watt	.48	.29
WT68	0.68Ω - 5 Watt	.48	.29
WT82	0.82Ω - 5 Watt	.48	.29
7W	1800Ω - 7 Watt	.38	.23
FT2.8	2.8Ω cold	.65	.39
FT3.3	3.3Ω cold	.65	.39
FT4.5	4.5Ω cold	.65	.39
FT7.5	7.5Ω cold	.65	.39
FT10	10Ω cold	.65	.39
FT28	28Ω cold	.65	.39
FT35	35Ω cold	.65	.39
FT150	150Ω cold	1.30	.78
GD1	For 6 V. in 12V. systems	5.50	3.30
GD2	2, 4, or 6 amp loads	3.30	1.98
GD3	5 to 6 amp loads	2.50	1.50
GD4	7 to 8 amp loads	2.50	1.50

Non Inductive DUMMY LOADS



MODEL	DESCRIPTION	User's Net	Size
DL10W	10 Watt	3.80	2-1/2"x3/4"
DL25W	25 Watt	4.80	5" x 3/4"
DL75W	75 Watt	9.75	8" x 1"
DL100W	100 Watt	13.70	12" x 1"
DL500W	500 Watt	46.20	18" x 2"
DLSP-50	150 Watt	26.25	13-1/2" x 1"

FUSED RESISTORS

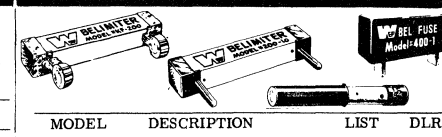


MODEL	DESCRIPTION	LIST	DLR.
F4.7	4.7Ω - 5 Watts	.55	.33
F5	5Ω - 5 Watts	.55	.33
F5.6	5.6Ω - 5 Watts	.55	.33
F6	6Ω - 5 Watts	.55	.33
F7	7.5Ω - 3 amperes	.72	.43
F80	7.5Ω - 3 amperes	.55	.33
F9	9Ω - 5 Watts	.55	.33
F10	10Ω - 5 Watts	.55	.33
F10-45	4.5Ω - 10 Watts	.75	.45
F18	18Ω - 5 Watts	.55	.33
F22	22Ω - 5 Watts	.55	.33
F47	47Ω - 5 Watts	.55	.33
F100	100Ω - 5 Watts	.55	.33
F150	150Ω - 5 Watts	.55	.33
F12A	150Ω - 0.12 amperes	.55	.33
FRK	Kit of 10 Resistors	5.00	3.00
FZ4.7	4.7Ω - 3 amperes	.36	.22
FZ5.6	5.6Ω - 3 amperes	.36	.22
FZ7.5	7.5Ω - 3 amperes	.36	.22
FZ9	9Ω - 3 amperes	.36	.22
FZ4.7-5	Pk. of 5, 4.7Ω-3 amps	1.60	.99
FZ5.6-5	Pk. of 5, 5.6Ω-3 amps	1.60	.99
FZ7.5-5	Pk. of 5, 7.5Ω-3 amps	1.60	.99
FZ9-5	Pk. of 5, 9Ω-3 amps	1.60	.99
FB1	Universal replacement	2.00	1.20
F28	No. AWG 28 Wire, 5 pcs.	.25	.16
F15-7.5	7.5Ω - 15 Watts	.96	.58
F7-5	5Ω - 7 Watts	.72	.43

CIRCUIT BREAKERS

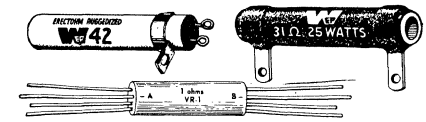
F0.65A	Admiral	1.35	.81
F0.8A	Admiral	1.35	.81
F1.0A	Warwick	1.35	.81
F1.0A-B	Sylvania	1.35	.81
F1.5A	Warwick	1.35	.81
F1.6A	Zenith	1.35	.81
F1.625A	Sylvania	1.35	.81
F1.65A	Motorola	1.35	.81
F1.75A	RCA	1.35	.81
F1.75A-B	Travler	1.35	.81
F1.8A	Warwick	1.35	.81
F1.8A-B	Revere	1.35	.81
F2.0A	Westinghouse	1.35	.81
F2.0A-B	Revere	1.35	.81
F2.0A-C	Motorola	1.35	.81
F2.1A	Warwick ,Silvertone	1.35	.81
F2.2A	Admiral	1.35	.81
F2.2A-B	Motorola	1.35	.81
F2.25A	Curtis Mathes, Wells G.	1.35	.81
F2.3A	General Electric	1.35	.81
F2.32A	Sylvania	1.35	.81
F2.5A	Beckwith, Dominion, Fleetwood, Warwick, Montgomery Ward, Silvertone, Wells G.	1.35	.81
F2.5A-B	Zenith	1.35	.81
F2.75A	Silvertone, Warwick	1.35	.81
F2.75A-B	Motorola	1.35	.81
F2.75A-C	Motorola	1.35	.81
F2.75A-D	Philco	1.35	.81
F2.75A-E	Admiral, G. E., RCA, Magnavox, Olympic, Philco	1.35	.81
F2.75A-F	Zenith	1.35	.81
F2.75A-G	Sylvania	1.35	.81
F3.0A	Magnavox	1.35	.81
F3.0A-B	Motorola	1.35	.81
F3.0A-C	Motorola	1.35	.81
F3.0A-D	Magnavox, Zenith	1.35	.81
F3.0A-E	Magnavox, Philco, RCA	1.35	.81
F3.1A	Curtis Mathes, Emerson, G. E., Magnavox, Muntz, RCA, Sylvania, Travler, Warwick, Wells Gardner	1.35	.81
F3.2A	Admiral	1.35	.81
F3.25A	Zenith	1.35	.81
F3.25A-B	Motorola	1.35	.81
F3.5A	Motorola	1.35	.81
F3.75A	Packard Bell	1.35	.81
F3.78A	Motorola	1.35	.81
F3.9A	Andrea	1.35	.81
F4.0A	Emerson, Philco	1.35	.81
F4.0A-B	Motorola	1.35	.81
F4.5A	Motorola	1.35	.81
F7.0A	Packard Bell	1.35	.81
F2A	Universal	1.35	.81

CHEMICAL FUSES



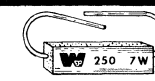
MODEL	DESCRIPTION	LIST	DLR
200-10	RCA #945309-1	.85	.51.
KF-200	RCA #105041	1.00	.60
LC-200	For "C" type (limited cur.)	1.00	.60
1200-1	Emerson #808236	.75	.45
500-1	RCA, Emerson, Olympic	.75	.45
400-1	RCA #945392-2	.80	.48
3-1	RCA #045392-3	.63	.38
BL-5	Pk. of 5 chem. Fuses	3.95	2.37

WIREWOUND RESISTORS



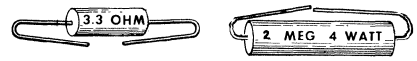
MODEL	DESCRIPTION	LIST	DLR.
6W-B	6W Bendohms, 34 values	.49	.30
6WB-34	6W Bend. 34 vals. on card	16.60	9.95
148	41Ω - 25 watt	.85	.51
151	51Ω - 30 watt	.95	.57
MO1	59Ω - 25 watt	.85	.51
E10	10 watt - 8 values	1.40	.84
30W	30W - 18 values	1.60	.96
25W	31Ω or 2250Ω - 25 watt	.85	.51
25W-3	3 pk. Dropping 41, 51, 59	2.50	1.50
25W-DR	3-25W - 42 values	1.10	.66
VR1	10W 48 values, .5 to 15Ω	1.10	.66
VR2	10W 48 vals. -5 to 150Ω	1.10	.66
VR3	10W 48 vals. -50 to 1500Ω	1.10	.66
VR4	10W 48 vals. -500 to 15KΩ	1.10	.66
VR5	10W 12 vals. -3K to 50KΩ	1.10	.66
WR-50	5-15W 50 values Each	.55	.33
WR-50C	Card of 50 values	27.50	16.50
WS	2W 21 vals. -.22 to 10.Ω	.36	.22

SQUARE OHMS



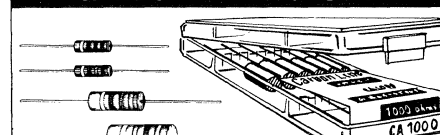
MODEL	DESCRIPTION	LIST	DLR.
5W-SQ	5W 69 Values 1-6KΩ	.36	.22
10W-SQ	10W 85 Values 1-25KΩ	.40	.24
15W-SQ	15W 87 Values 1-35KΩ	.50	.30
20W-SQ	20W 87 Values 1-35KΩ	.65	.39
25W-SQ	25W 121 Values 1-50KΩ	.75	.45

CARBON BAR RESISTORS



MODEL	DESCRIPTION	LIST	DLR.
2M	2 meg - 4 watts	1.10	.66
2L	2 meg - 4 watts	1.50	.90
1W	2.2Ω, 3.3Ω, 4.4Ω, 5.5Ω kit	1.10	.66
1W2	2.2Ω -4 resistors 1 watt	1.10	.66
1W3	3.3Ω -4 resistors 1 watt	1.10	.66
1W4	4.4Ω -4 resistors 1 watt	1.10	.66
1W5	5.5Ω -4 resistors 1 watt	1.10	.66

CARBON RESISTORS



MODEL	DESCRIPTION	LIST	DLR.
CA	1/2W ± 10% 77 vals. bulk	.20	.12
CB	1W ± 10% 77 vals. bulk	.30	.18
CC	2W ± 10% 77 vals. bulk	.40	.24
CE	1/2W ± 5% 153 vals. bulk	.40	.24
CA-6	1/2W ± 10% 77 vals. 6 pk.	.70	.42
CB-4	1W ± 10% 77 vals. 4 pk.	.80	.48
CC-3	2W ± 10% 77 vals. 3 pk.	.85	.51

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FOR A COMPLETE LISTING OF EXACT REPLACEMENT COILS ASK YOUR JOBBER FOR OUR COIL CROSS REFERENCE.

WORKMAN PART NUMBERS FOR COILS, FUSING DEVICES, WIREWOUND AND SPECIAL PURPOSE RESISTORS ARE LISTED IN HOWARD SAM'S PHOTOFACTS AND COUNTER FACTS.

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Amperex Semiconductors

TYPE NO.	(See Notes Below) (1)	(2)	(3)
A130	P	Si	T
A132	P	Si	T
A301	P	Si	T
A306	P	Si	T
A307	P	Si	T
A310	P	Si	T
A311	P	Si	T
A344	P	Si	T
A345	P	Si	T
A346	P	Si	T
A569	PE	Si	T
A570	PE	Si	T
A1379	A	Si	T
A1380	A	Si	T
A1381	P	Si	T
A1383	A	Ge	T
A1390	—	Si	V
R AC107	A	Ge	T
AC107M	A	Ge	T
AC172	UL	Ge	T
ASY26	A	Ge	T
ASY27	A	Ge	T
ASY28	A	Ge	T
ASY29	A	Ge	T
BA114	A	Si	D
R BCY10	A	Si	T
R BCY11	A	Si	T
R BCY12	A	Si	T
BCY30	A	Si	T
BCY31	A	Si	T
BCY32	A	Si	T
BCY33	A	Si	T
BCY34	A	Si	T
R BCZ10	A	Si	T
R BCZ11	A	Si	T
R BCZ12	A	Si	T
BY100	DJ	Si	R
BYY10	DD	Si	R
BYY15/16	DD	Si	R
BYY20/21	DD	Si	R
BYY22/23	DD	Si	R
BYY24/25	DD	Si	R
BYY67/68	DD	Si	R
BYY73/74	DD	Si	R
BYY75/76	DD	Si	R
BYY77/78	DD	Si	R
BYY93/94	DD	Si	R
BYY95/96	DD	Si	R
BYZ10/16	DD	Si	R
BYZ11/19	DD	Si	R
BYZ12/18	DD	Si	R
BYZ13/19	DD	Si	R
BYZ14/15	DD	Si	R
BZY56	AJ	Si	Z
BZY57	AJ	Si	Z
BZY58	AJ	Si	Z
BZY59	AJ	Si	Z
BZY60	AJ	Si	Z
BZY61	AJ	Si	Z
BZY62	AJ	Si	Z
BZY63	AJ	Si	Z
BZY64	AJ	Si	Z
BZY65	AJ	Si	Z
BZY66	AJ	Si	Z
BZY67	AJ	Si	Z
BZY68	AJ	Si	Z
BZY69	AJ	Si	Z
R BZZ10	AJ	Si	Z
R BZZ11	AJ	Si	Z

TYPE NO.	(See Notes Below) (1)	(2)	(3)
R BZZ12	AJ	Si	Z
R BZZ13	AJ	Si	Z
BZZ14	AJ	Si	Z
BZZ15	AJ	Si	Z
BZZ16	AJ	Si	Z
BZZ17	AJ	Si	Z
BZZ18	AJ	Si	Z
BZZ19	AJ	Si	Z
H4A	—	Si	V
ME209	PE	Si	T
ME213	P	Si	T
ME213A	PE	Si	T
ME214	PE	Si	T
ME216	P	Si	T
ME217	P	Si	T
ME501	P	Si	T
ME503	P	Si	T
ME504	P	Si	T
ME900	P	Si	T
ME900A	P	Si	T
ME901	P	Si	T
ME901A	P	Si	T
R OA5	GB	Ge	D
R OA7	GB	Ge	D
R OA9	GB	Ge	D
R OA31	J	Si	R
OA200	A	Si	D
OA202	A	Si	D
OAP12	A	Ge	P
R OAZ200	AJ	Si	Z
R OAZ201	AJ	Si	Z
R OAZ202	AJ	Si	Z
R OAZ203	AJ	Si	Z
R OAZ204	AJ	Si	Z
R OAZ205	AJ	Si	Z
R OAZ206	AJ	Si	Z
R OAZ207	AJ	Si	Z
R OAZ208	AJ	Si	Z
R OAZ209	AJ	Si	Z
R OAZ210	AJ	Si	Z
R OAZ211	AJ	Si	Z
R OAZ212	AJ	Si	Z
R OAZ213	AJ	Si	Z
R OC22	A	Ge	T
R OC23	A	Ge	T
R OC24	A	Ge	T
OC26	A	Ge	T
R OC30	A	Ge	T
R OC44	A	Ge	T
R OC45	A	Ge	T
OC58	A	Ge	T
OC59	A	Ge	T
OC60	A	Ge	T
OC71N	A	Ge	T
R OC74	A	Ge	T
OC75N	A	Ge	T
R OC79	A	Ge	T
R OC80	A	Ge	T
OCP70	A	Ge	P
OCP71	A	Ge	P
ORP10	—	—	P
R ORP11	—	CS	P
R ORP30	—	CS	P
ORP50	—	CS	P
ORP60	—	CS	P
ORP61	—	CS	P
ORP62	—	CS	P
ORP63	—	CS	P
R ORP90	—	CS	P

TYPE NO.	(See Notes Below) (1)	(2)	(3)
R PADT40	AD	Ge	T
PADT50	AD	Ge	T
PADT51	—	Ge	T
PADT60	AD	Ge	T
RPY14	—	CS	P
RPY17	—	CS	P
RPY18	—	CS	P
RPY19	—	CS	P
RPY20	—	CS	P
RPY27	—	CS	P
S100	A	Si	R
S262	PC	Ge	D
1N34	PC	Ge	D
1N34A	PC	Ge	D
1N38	PC	Ge	D
1N38A	PC	Ge	D
1N54	PC	Ge	D
1N54A	PC	Ge	D
1N58	PC	Ge	D
1N58A	PC	Ge	D
1N60	PC	Ge	D
1N63	PC	Ge	D
1N67A	PC	Ge	D
1N68A	PC	Ge	D
1N87	PC	Ge	D
1N87A	PC	Ge	D
1N88	PC	Ge	D
1N89	PC	Ge	D
1N90	PC	Ge	D
1N95	PC	Ge	D
1N99	PC	Ge	D
1N116	PC	Ge	D
1N117	PC	Ge	D
1N119	PC	Ge	D
1N120	PC	Ge	D
1N126	PC	Ge	D
1N126A	PC	Ge	D
1N128	PC	Ge	D
1N191	PC	Ge	D
1N192	PC	Ge	D
1N198	PC	Ge	D
1N270	GB	Ge	D
1N277	GB	Ge	D
1N295	PC	Ge	D
1N456	A	Si	D
1N457	A	Si	D
1N458	A	Si	D
1N459	A	Si	D
1N461	A	Si	D
1N462	A	Si	D
1N463	A	Si	D
1N464	A	Si	D
1N476	PC	Ge	D
1N477	PC	Ge	D
1N478	PC	Ge	D
1N479	PC	Ge	D
1N480	PC	Ge	D
1N490	PC	Ge	D
1N541	PC	Ge	D
1N542	PC	Ge	D
1N616	PC	Ge	D
1N617	PC	Ge	D
1N618	PC	Ge	D
1N698	GB	Ge	D
1N3121	GB	Ge	D
1N3122	GB	Ge	D
1N3182	A	Si	D
1N3483	GB	Ge	D
1N3484	GB	Ge	D

TYPE NO.	(See Notes Below) (1)	(2)	(3)
1N3944	GB	Ge	D
1N4095	A	Si	Z
R 2N279	A	Ge	T
R 2N280	A	Ge	T
R 2N281	A	Ge	T
R 2N282	A	Ge	T
R 2N284	A	Ge	T
R 2N284A	A	Ge	T
2N404	A	Ge	T
2N404A	A	Ge	T
2N497	P	Si	T
2N497 (JAN)	P	Si	T
2N498	P	Si	T
2N498 (JAN)	P	Si	T
2N656	P	Si	T
2N656 (JAN)	P	Si	T
2N657	P	Si	T
2N657 (JAN)	P	Si	T
2N657A	P	Si	T
2N683	—	Si	S
2N685	—	Si	S
2N687	—	Si	S
2N688	—	Si	S
2N696	P	Si	T
2N696 (JAN)	P	Si	T
2N697	P	Si	T
2N697 (JAN)	P	Si	T
2N698	P	Si	T
2N699	P	Si	T
2N706	PE	Si	T
2N706 (JAN)	PE	Si	T
2N708	PE	Si	T
R 2N711	PA	Ge	T
2N743	—	Si	T
2N744	—	Si	T
2N753	P	Si	T
2N783	P	Si	T
2N834	P	Si	T
2N835	P	Si	T
2N914	—	Si	T
2N929	P	Si	T
2N929A	P	Si	T
2N930	P	Si	T
2N930A	P	Si	T
2N957	P	Si	T
2N987	PA	Ge	T
2N987 MIL	PA	Ge	T
2N990	PA	Ge	T
2N993	PA	Ge	T
2N1066	PA	Ge	T
2N1224	PA	Ge	T
USA2N1224	PA	Ge	T
2N1225	PA	Ge	T
USA2N1225	PA	Ge	T
2N1226	PA	Ge	T
2N1302	A	Ge	T
2N1303	A	Ge	T
2N1304	A	Ge	T
2N1305	A	Ge	T
2N1306	A	Ge	T
2N1307	A	Ge	T
2N1308	A	Ge	T
2N1309	A	Ge	T
2N1314	A	Ge	T
2N1395	PA	Ge	T
2N1396	PA	Ge	T
2N1397	PA	Ge	T
2N1420	P	Si	T
R 2N1515	PA	Ge	T

TYPE NO.	(See Notes Below) (1)	(2)	(3)
R 2N1516	PA	Ge	T
R 2N1517	PA	Ge	T
2N1613	P	Si	T
2N1613 (USA)	P	Si	T
2N1666/OC28	A	Ge	T
2N1667/OC29	A	Ge	T
2N1668/OC35	A	Ge	T
2N1669/OC36	A	Ge	T
2N1711	P	Si	T
2N1773	—	Si	S
2N1844	—	Si	S
2N1846	—	Si	S
2N1848	—	Si	S
2N1849	—	Si	S
2N1889	P	Si	T
2N1890	P	Si	T
2N1893	P	Si	T
2N1911	—	Si	S
2N1913	—	Si	S
2N1915	—	Si	S
2N1916	—	Si	S
2N1972	P	Si	T
2N1973	P	Si	T
2N1974	P	Si	T
2N1975	P	Si	T
2N1983	P	Si	T
2N1984	P	Si	T
2N1985	P	Si	T
2N1986	P	Si	T
2N1987	P	Si	T
2N1990	P	Si	T
2N2084	PA	Ge	T
USN2N2084	PA	Ge	T
R 2N2089	PA	Ge	T
R 2N2092	PA	Ge	T
2N2207	PA	Ge	T
2N2428	UL	Ge	T
2N2429	UL	Ge	T
2N2430	UL	Ge	T
2N2431	UL	Ge	T
2N2431 MP	UL	Ge	T
2N2483	P	Si	T
2N2484	P	Si	T
2N2494	PA	Ge	T
2N2495	PA	Ge	T
2N2496	PA	Ge	T
2N2509	P	Si	T
2N2510	P	Si	T
2N2511	P	Si	T
2N2512	PA	Ge	T
2N2569	PE	Si	T
2N2570	PE	Si	T
2N2586	P	Si	T
R 2N2617	A	Si	T
2N2654	PA	Ge	T
2N2671	PA	Ge	T
2N2672	PA	Ge	T
2N2706	UL	Ge	T
2N2706 MP	UL	Ge	T
2N2707	UL	Ge	T
2N2786	PA	Ge	T
2N2786A	PA	Ge	T
2N2835	A	Ge	T
2N2836	A	Ge	T
2N3074	PA	Ge	T
2N3075	PA	Ge	T
2N3077	P	Si	T
2N3078	P	Si	T
2N3399	M	Ge	T
61SV	—	PbS	P

R—For Replacement—not for new design.

Note: (1) A—alloy
P—planar
E—epitaxial
DJ—diffused junction
GB—gold bonded
J—junction
PA—PADT
UL—ULT
M—Mesa
PC—point contact
DD—double diffused

Note: (2) Si—Silicon
Ge—Germanium
CS—Cadmium sulfide
PbS—Lead sulfite

Note: (3) T—transistor
D—diode S—SCR
Z—zener diode
P—photosensitive device
R—rectifier
V—varactor diode

The following is a brief cross-index list of Amperex and other type numbers.

AC125	see	2N2428
AC126	see	2N2429
AC127	see	2N2430
AC127/132	see	2N2707
AC128	see	2N2431
AC132	see	2N2706
AF102	see	2N2494
AF114	see	2N2089
AF115	see	2N2089
AF116	see	2N2092
AF117	see	2N2092
BCZ11	see	2N2617
OC26	see	2N1314
OC28	see	2N1666
OC29	see	2N1667
OC35	see	2N1668
OC36	see	2N1669
OC70	see	2N279
OC71	see	2N280
OC72	see	2N281

2-OC72	see	2N282
OC76	see	2N284
OC77	see	2N284A
OC169	see	2N1515
OC170	see	2N1516
OC171	see	2N1517
OC201	see	2N2617
PADT35	see	2N2207
PADT20	superseded by	2N2089
PADT21	superseded by	2N2089
PADT22	superseded by	2N2092
PADT23	superseded by	2N2092
PADT24	superseded by	2N2092
PADT25	superseded by	2N2091 or 2N2084
PADT26	superseded by	2N2089 or 2N2084
PADT27	superseded by	2N2092
PADT28	superseded by	2N2494
PADT30	superseded by	2N2494
PADT31	superseded by	2N2090 or 2N2084

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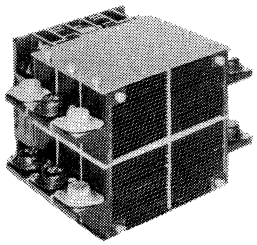
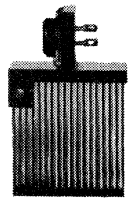
ASTRO DYNAMICS, INC. HEAT SINKS

forced convection


2401-12B


2401

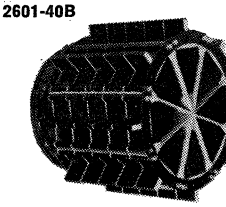
2402

2403

The **Models 2401, 2402,** and **2403** utilize a light compact integrated blower, which maintains the transistor shelves at minimum temperature even under conditions of high heat load. This modern highly efficient concept is achieved by means of a revolutionary production method which permits the attachment of many fins to a base, giving a large surface area for cooling. Banks of four, eight, twelve or sixteen heat sinks may be provided with each sink electrically insulated from the other.

PRICES START AT $1.50

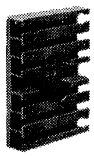
2601-40B

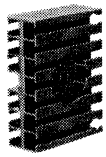


PRICES START AT $5.10

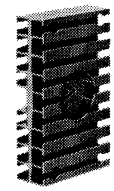
The **2601 Series** employs the same unique design of the **2401.** Within a relatively small physical area, up to 64 sinks may be mounted to one fan, insulated electrically, separated physically, with each mounted component completely accessible for servicing, replacement, or experimental monitoring.

natural convection


2501


2502

The **2501. 2502,** and **2503 Heat Sinks,** as a result of the patented "T" construction, have unusually large surface areas providing the same dissipation as commercial units twice the size. They are designed to be used where the maximum dissipation is needed in the smallest physical area. A variety of semi-conductor hole patterns, lengths, and mounting kits are available on request.


2503

PHYSICAL SPECIFICATIONS	2501	2502	2503
Overall Dimensions	4 x 3 x 11/16	4 x 3 x 1¼	5⅛ x 3 x 1¼
Weight	.3 lbs.	.4 lbs	.56 lbs.
Surface Area	62 sq. in.	100 sq. in.	127 sq. in.

PRICES START AT $1.04

2504

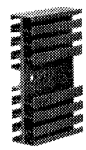
2505

2513

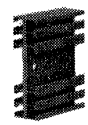
2518

The **2504, 2505, 2506, 2510, 2513, 2515,** and **2518** are designed to answer the need of versatile, inexpensive, highly efficient heat sinks. They incorporate a number of design features including universal transistor hole patterns. More efficient than their commercial counterparts, the low selling prices of these units make it unnecessary and undesirable to utilize standard commercial units or design your own units. These models are also available in a variety of lengths and hole patterns.

PRICES START AT $.65


2506

2510


2515

PHYSICAL SPECIFICATIONS	2504	2505	2506
Overall dimensions in inches	11/16 x 4 x 3	1¼ x 4 x 3	1¼ x 5⅛ x 3
Weight lbs.	.254	.377	.465
Surface area sq. in.	54.8	85.8	117.2

	2510	2513	2515	2518
Overall dimensions in inches	11/16 x 2⅞ x 3	1¼ x 5⅛ x 3	1¼ x 4 x 3	2 x 6¼ x 3
Weight lbs.	.195	.493	.35	.800
Surface area sq. in.	32.8	102	74.6	163

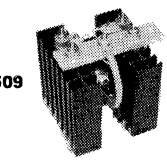
2507

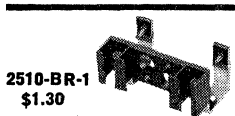
The **Model 2507 Heat Sink** is designed to be used in systems where the efficient operation of high power components demands a superior system of free convection cooling. It is ideally suited for use with high power silicon rectifiers with a mounting surface wide enough to fit all of the larger semiconductor devices. The mounted components remain completely accessible for wiring, monitoring, or replacement.

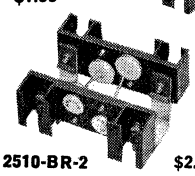
The versatility and high thermal efficiency of the **2509** heat sink stack simplifies the majority of problems in circuit design and component packaging.

Units are available, assembled or unassembled, to suit the customers needs.

PRICES START AT $3.00


2509

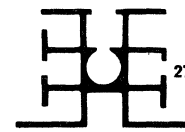

2510-BR-1 $1.30


2510-BR-2 $2.30

The **2510-BR** bridge assembly provides high thermal efficiency in a new compact inexpensive package. The flexibility of various components and mounting hardware permit a wide selection of assembly combinations. The special fin design optimizes the effect of the heat transfer coefficient available in free convection flow.

2701....$.65

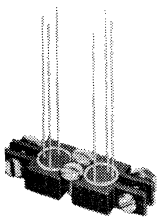
2702....$.70


2703....$.70

2704....$.70

This new series of small, light natural convection heat sinks provide the maximum ratio of heat dissipation to volume occupied. Their configuration a major improvement over conventional designs, — the fins are designed to permit optimum free air flow and minimum conduction losses.

Model 2700 heat sinks will accommodate both the TO-5 and the TO-9 transistor cases. Mounting holes for other transistors are also made to customer specifications.


2802....$.85

2801....$.65

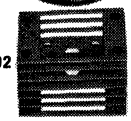
The **Model 2800** series heat sinks provide a combination of effective heat dissipation with easy, secure mounting in a compact space.

Unlike conventional transistor mounting clips which cannot function adequately as heat sinks, the **Model 2800** series effectively conduct heat from the transistor by providing sufficiently large surface contact with the chassis or other metallic mounting area.

Both **Model 2801** (1 transistor heat sink) and **Model 2802** (2 transistor heat sink) are designed to accommodate TO-5 and TO-9 transistor cases, but mounting holes for other sizes are available to customer specifications.

2201 $.12

2901


2902

Although the **Model 2201** retains the proven reliability of the "gear" design, it has by virtue of its angled fins, increased the area which can be used in natural convection. This additional area results in an efficiency increase of approximately 10% without increasing the overall size of the Heat Sink.

The **2900** series heat sinks were designed to be used either as natural convection heat dissipators or with forced air in very compact assemblies. These units are easily mounted and extremely well suited for very high packing densities. In particular, they are suited for circuit board applications. The **2900** series heat sinks are manufactured of copper with a black ebanol surface finish.

Physical dimensions: 2901 9/16 x 1 13/16 dia.
2902 1 x 1 1/16 x 1 1/2

ASTRO DYNAMICS, inc.

BURLINGTON, MASSACHUSETTS

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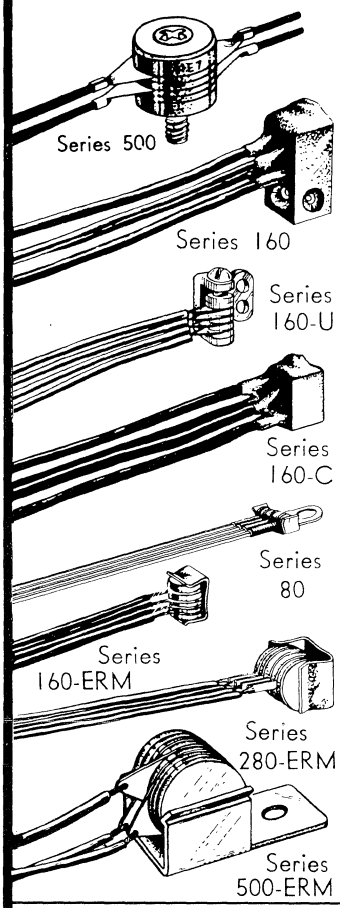
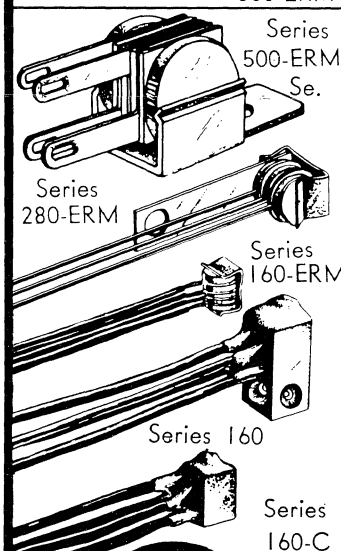
CONANT Miniature Metallic Rectifiers

STANDARD SINCE 1933

Illustrations approx. actual size





CONANT MINIATURE METALLIC RECTIFIERS

All Conant rectifiers are manufactured to the highest quality standards from individually tested and graded cells. Copper oxide cells are produced by the exclusive Conant Process and have 24K gold contacts applied in high vacuum.

The Conant Complete Color Code permits identification of rectifier type by color and physical form.

Only basic standard rectifier types are listed below. Many other standard catalog items are available and we are prepared to produce special items to meet customers' special requirements.

COPPER OXIDE TYPES WITH INSULATED LEAD WIRES

TYPE	CIRCUIT		CELL SIZE	ACTIVE AREA	INPUT	OUTPUT	MOUNTING	FINISH	PRICE
M		1	.500"	.125 sq. in.	5V	100 ma.	6-32 stud	Lacquer	$2.10
TH	Series	2	"	" "	"	75 ma.	" "	"	1.86
HS	500	3	"	" "	"	50 ma.	" "	"	1.53
T		4	"	" "	"	100 ma.	" "	"	1.53
H		5	"	" "	"	50 ma.	" "	"	1.20
B		1	.166"	.012 sq. in.	"	10 ma.	#2 screw	Solid fill	2.10
BTH	Series	2	"	" "	"	7 ma.	" "	"	1.86
BHS	160	3	"	" "	"	5 ma.	" "	"	1.53
BT		4	"	" "	"	10 ma.	" "	"	1.53
BH		5	"	" "	"	5 ma.	" "	"	1.20
B-U		1	"	" "	"	10 ma.	#2 screw	"	1.98
BTH-U		2	"	" "	"	7 "	" "	"	1.74
BHS-U	Series	3	"	" "	"	5 "	" "	"	1.41
BT-U	160-U	4	"	" "	"	10 "	" "	"	1.41
BH-U		5	"	" "	"	5 "	" "	"	1.08
B-C		1	"	" "	"	10 ma.	Fuse clip	"	2.10
BTH-C	Series	2	"	" "	"	7 ma.	" "	"	1.86
BHS-C	160-C	3	"	" "	"	5 ma.	" "	"	1.53
BT-C		4	"	" "	"	10 ma.	" "	"	1.53
BH-C		5	"	" "	"	5 ma.	" "	"	1.20
A		1	.080"	.0012 sq. in.	5V	1 ma.	#2 screw	Bonded vinyl	2.10
ATH	Series	2	.080"	.0012 sq. in.	"	1 ma.	#2 screw	Bonded vinyl	1.86
AHS	80	3	.080"	.0012 sq. in.	"	500 ua.	#2 screw	Bonded vinyl	1.53
AT		4	.080"	.0012 sq. in.	"	500 ua.	#2 screw	Bonded vinyl	1.53
AH		5	.080"	.0012 sq. in.	"	500 ua.	#2 screw	Bonded vinyl	1.20
B-ERM*		1	"	" "	"	10 ma.	Leads	Lacquer	1.59
BTH-ERM*	Series	2	"	" "	"	7 ma.	" "	"	1.35
BHS-ERM*	160-	3	"	" "	"	5 ma.	" "	"	1.05
BT-ERM*	ERM	4	"	" "	"	10 ma.	" "	"	1.05
BH-ERM*		5	"	" "	"	5 ma.	" "	"	.75
I-ERM*		1	.280"	.035 sq. in.	"	30 ma.	" "	"	1.59
ITH-ERM*	Series	2	"	" "	"	20 ma.	" "	"	1.35
IHS-ERM*	280	3	"	" "	"	15 ma.	" "	"	1.05
IT-ERM*	ERM	4	"	" "	"	30 ma.	" "	"	1.05
IH-ERM*		5	"	" "	"	15 ma.	" "	"	.75
M-ERM*		1	.500"	.123 sq. in.	"	100 ma.	#6 screw	"	1.59
TH-ERM*	Series	2	"	" "	"	75 ma.	" "	"	1.35
HS-ERM*	500	3	"	" "	"	50 ma.	" "	"	1.05
T-ERM*	ERM	4	"	" "	"	100 ma.	" "	"	1.05
H-ERM*		5	"	" "	"	50 ma.	" "	"	.75

SELENIUM TYPES, wire leads or lugs as shown

TYPE	CIRCUIT		CELL SIZE	ACTIVE AREA	INPUT	OUTPUT	MOUNTING	FINISH	PRICE
SeM-ERM*	Series	1	.500"	.15 sq. in.	25V	60 ma.	#6 screw	Lacquer	$1.23
SeTH-ERM*	500	2	"	" "	"	40 ma.	" "	"	1.08
SeHS-ERM*	ERM	3	"	" "	"	30 ma.	" "	"	.87
SeT-ERM*	Se.	4	"	" "	"	60 ma.	" "	"	.87
SeH-ERM*		5	"	" "	"	30 ma.	" "	"	.66
SeI*		1	.280"	.06 sq. in.	"	20 ma.	Bracketerminal	"	.66
SeITH*	Series	2	"	" "	"	15 ma.	" "	"	.60
SeIHS*	280	3	"	" "	"	10 ma.	" "	"	.51
SeIT*	ERM	4	"	" "	"	20 ma.	" "	"	.51
SeIH*		5	"	" "	"	10 ma.	" "	"	.42
SeB-ERM*		1	.166"	.02 sq. in.	"	10 ma.	Leads	"	.87
SeBTH-ERM*	Series	2	"	" "	"	7 ma.	" "	"	.81
SeBHS-ERM*	160	3	"	" "	"	5 ma.	" "	"	.69
SeBT-ERM*	ERM	4	"	" "	"	10 ma.	" "	"	.69
SeBH-ERM*		5	"	" "	"	5 ma.	" "	"	.57
SeB		1	"	" "	"	10 ma.	#2 screw	Solid fill	1.38
SeBTH	Series	2	"	" "	"	7 ma.	" "	"	1.32
SeBHS	160	3	"	" "	"	5 ma.	" "	"	1.17
SeBT		4	"	" "	"	10 ma.	" "	"	1.17
SeBH		5	"	" "	"	5 ma.	" "	"	1.02
SeB-C		1	"	" "	"	10 ma.	Fuse clip	"	1.38
SeBTH-C	Series	2	"	" "	"	7 ma.	" "	"	1.32
Se-BHS-C	160-C	3	"	" "	"	5 ma.	" "	"	1.17
SeBT-C		4	"	" "	"	10 ma.	" "	"	1.17
SeBH-C		5	"	" "	"	5 ma.	" "	"	1.02

*Resilient structure (U. S. Pat No. 2,656,493) maintains optimum stack pressure independent of temperature changes, as well as providing the lowest price and smallest size.

CONANT LABORATORIES **Lincoln, Nebraska**

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Net

SILICON RECTIFIERS — FULL WAVE BRIDGE

Type	AC Input Volts up to	Volts up to DC Output	Max. Amps Self Cooled	Max. Amps fan Cooled	User Net Price
Center-Tap	18-0-18	16	40	80	$ 13.00
Center-Tap	36-0-36	32	40	80	$ 18.00
Center-Tap	72-0-72	64	50	100	$ 33.00
Center-Tap	140-0-140	125	50	100	$ 43.50
Center-Tap	18-0-18	16	100	200	$ 29.50
Center-Tap	36-0-36	32	100	200	$ 33.50
Center-Tap	72-0-72	64	100	200	$ 36.50
Center-Tap	140-0-140	125	100	200	$ 43.00
Center-Tap	18-0-18	16	200	400	$ 40.00
Center-Tap	36-0-36	32	200	400	$ 54.00
Center-Tap	72-0-72	64	200	400	$ 55.00
Center-Tap	140-0-140	125	200	400	$ 70.00
Center-Tap	36-0-36	32	400	800	$ 90.00
1φ Bridge	140	125	1	—	$ 5.50
1φ Bridge	280	250	1	—	$ 5.75
1φ Bridge	140	125	2	—	$ 8.50
1φ Bridge	280	250	2	—	$ 10.50
1φ Bridge	36	32	6	12	$ 15.50
1φ Bridge	140	125	6	12	$ 27.50
1φ Bridge	280	250	6	12	$ 36.50
1φ Bridge	36	32	10	20	$ 20.50
1φ Bridge	140	125	10	20	$ 35.50
1φ Bridge	280	250	10	20	$ 43.50
1φ Bridge	36	32	20	40	$ 23.50
1φ Bridge	140	125	20	40	$ 39.50
1φ Bridge	280	250	20	40	$ 47.50
1φ Bridge	36	32	50	100	$ 30.00
1φ Bridge	72	64	50	100	$ 34.00
1φ Bridge	140	125	50	100	$ 64.00
1φ Bridge	280	250	50	100	$ 95.00
1φ Bridge	36	32	70	140	$ 35.00
1φ Bridge	72	64	70	140	$ 45.00
1φ Bridge	140	125	70	140	$ 70.00
1φ Bridge	280	250	70	140	$110.00
1φ Bridge	36	32	40	80	$ 28.00
1φ Bridge	72	64	40	80	$ 33.00
1φ Bridge	140	125	40	80	$ 58.00
1φ Bridge	280	250	40	80	$ 85.00
1φ Bridge	36	32	100	200	$ 55.00
1φ Bridge	72	64	100	200	$ 61.00
1φ Bridge	140	125	100	200	$ 80.00
1φ Bridge	280	250	100	200	$135.00
1φ Bridge	36	32	200	400	$ 95.00
1φ Bridge	72	64	200	400	$105.00
1φ Bridge	140	125	200	400	$160.00
1φ Bridge	280	250	200	400	$240.00
1φ Bridge	72	64	400	800	$250.00
1φ Bridge	28	250	400	800	$545.00
1φ Bridge	36	48	75	150	$ 55.00
1φ Bridge	72	96	95	150	$ 80.00
1φ Bridge	105	144	75	150	$110.00
1φ Bridge	140	188	75	150	$165.00
1φ Bridge	220	220	75	150	$205.00
1φ Bridge	220	220	100	200	$225.00
1φ Bridge	220	220	200	400	$270.00
1φ Bridge	220	220	400	800	$340.00

SELENIUM RECTIFIERS — FULL WAVE, HIGH DENSITY, SMALL SIZE

Max. Amps.	18v In 14v Out	36v In 28v Out	54v In 42v Out	130v In 100v Out
½	$ .75	$ 1.15	$ 2.05	$ 3.45
1	.85	1.75	2.75	7.25
2	1.75	2.35	3.75	8.75
3	2.25	3.45	5.25	12.75
4	3.15	5.75	8.25	21.75
6	3.65	7.30	9.75	29.00
10	5.85	11.45	14.75	36.00
12	$ 7.75	$14.00	$19.00	$40.00
15	8.00	17.00	23.00	51.00
20	11.00	20.00	33.00	66.00
24	14.00	28.00	39.00	73.00
30	18.00	35.00	50.00	—
36	19.00	43.00	—	—

PANEL METERS — 3½" RECTANGULAR. ACCURACY ±2% FULL SCALE. COMPENSATED FOR STEEL PANEL MOUNTNG

DC AMMETERS	
0-50 μA	$13.50
0-50 MA	5.50
0-1 A	10.25
0-5 A	10.25

DC AMMETERS (Cont'd.)	
0-10 A	$10.25
0-25 A	10.25
0-50 A	10.25
0-100 A	10.25

DC AMMETERS (Cont'd.)	
0-200 A	$10.25
DC VOLTMETERS	
0-25 VDC	10.25
0-50 VDC	10.25

TRANSFORMERS

* Primary 115 vac 60C, tapped to deliver 36, 38 and 40 vac. ** Provide two 18V secondary windings. (taps 9, 18, 27, 36 V.) Primary tapped for 100, 105, 110, and 115 V on 12, 24, 30, and 50 amp models. *** Center tapped secondary.

36, 38 and 40 VOLTS*

MODEL NO.	AMPS	PRICE
GT 36-2	2	6.00
GT 36-5	5	7.60
GT 36-8	8	13.00
GT 36-10	10	14.75
GT 36-12	12	15.00
GT 36-15	15	21.50
GT 36-20	20	28.50
GT 36-30	30	41.00
GT 36-50	50	55.00

36V. CENTER TAPPED**

MODEL NO.	AMPS	PRICE
XF 36-1	1	4.75
XF 36-2	2	6.45
XF 36-4	4	7.75
XF 36-8	8	14.10
XF 36-12	12	15.50
XF 36-24	24	34.05
XF 36-30	30	42.50
XF 36-50	50	56.75

56V. CENTER TAPPED***

MODEL NO.	AMPS	PRICE
AM 56-2	2	7.50
AH 56-4	4	11.50
AH 56-6	6	21.50
AH 56-12	12	29.00
SEC 165, 160, 150, 125V @ 5A		$ 50.
SEC 165, 160, 150, 125V @10A		$ 80.
SEC 330, 320, 300, 250V @ 5A		$ 70.
SEC 330, 320, 300, 250C @10A		$115.

CHOKES

MODEL NO.	AMPS	HY	OHMS	PRICE
GH-1	1	.1	1.5	4.75
GH-2	2	.04	.9	5.50
GH-4	4	.07	.6	6.45
GH-5	5	.03	.02	6.60
GH-8	8	.03	.3	11.00
GH-10	10	.015	.05	12.50
GH-12	12	.01	.1	14.20
GH-15	15	.006	.01	14.75
GH-20	20	.004	.05	15.00
GH-24	24	.004	.025	25.00
GH-30	30	.003	.01	35.00
GH-50	50	.001	.001	43.00
GH-100	100	.0005	.005	53.00

GATES ELECTRONIC CO., INC. • Bronx, New York See Two Pages in Section 4000 for GATES Power Supplies

Net

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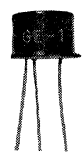
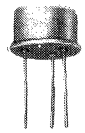
GE ELECTRONICS

SERVICE-DESIGNED ENTERTAINMENT SEMICONDUCTORS

UNIVERSAL REPLACEMENT TRANSISTORS


GE-1


GE-2, GE-5, GE-8

GE-3

GE-4

GE-6

GE-7

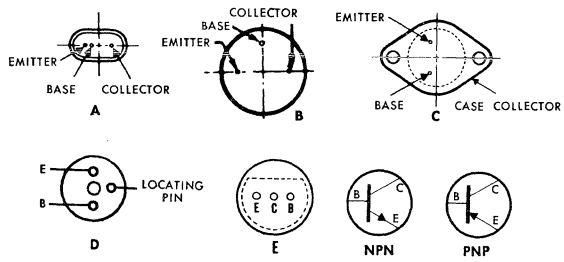
GE-9

GE-10

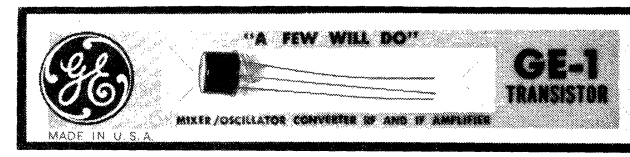
Highly dependable low-cost transistors especially designed as general replacements for most types of transistors used in Radio and TV Sets and other home entertainment devices. The nine transistors listed cover the vast majority of applications that a radio or TV serviceman will encounter. They permit a service shop to reduce to a minimum the number of different types of transistors that it must stock. Average weight: 2 oz.

Catalog No.	Outline Drawing	Use	Application	List Price
GE-1	B	PNP	Mixer/Oscillator Converter • RF and IF Amplifier	$2.10
GE-2	B	PNP	AF Amplifier	2.00
GE-3	C	PNP	AF Power Amplifier	3.75
GE-4	D	PNP	AF High Power Amplifier	7.40
GE-5	B	NPN	Mixer/Oscillator Converter • RF and AF Amplifier	2.75
GE-6	A	NPN	Mixer/Oscillator Converter • RF Amplifier	2.90
GE-7	A	NPN	IF Amplifier	2.65
GE-8	B	NPN	AF Amplifier	2.00
GE-9	*B	PNP	Mixer/Oscillator Converter • RF and IF Amplifier	2.00
GE-10	E	NPN	AF Amplifier-Driver-Output	1.95

* GE-9 Smaller size than GE-1 (GE-9 .209 diameter — GE-1 .335 diameter)



EACH TRANSISTOR IS SKIN PACKAGED WITH INTERCHANGEABILITY ON BACK OF CARD



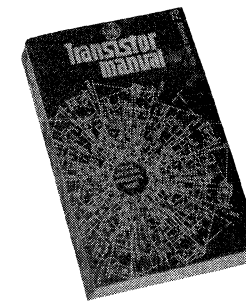
FRONT

P N P TYPE GE-1 INTERCHANGEABLE WITH THE FOLLOWING									
2N111	2N139	2N271	2N412	2N415A	2N485	2N1109	GT-761	2S45	2SA52
2N111A	2N140	2N271A	2N413	2N416	2N486	2N1110	GT-761R	2S52	SYL-1536
2N112	2N218	2N273	2N413A	2N417	2N614	2N1111	GT-762R	2S53	SYL-1537
2N112A	2N219	2N274	2N414	2N481	2N616	2N1266	GT-766	2SA37	SYL-1583
2N113	2N247	2N409	2N414A	2N482	2N617	GT-759R	CK-760	2SA38	SYL-1608
2N135	2N252	2N410	2N414B	2N483	2N1107	GT-760	CK-766	2SA39	SYL-1621
2N136	2N267	2N411	2N415	2N484	2N1108	GT-760R	2S30	2SA49	

BACK

TRANSISTOR MANUAL

19 fact-filled chapters containing transistor theory, specifications, characteristics, and applications. Valuable information needed by every engineer, hobbyist, experimenter. Price $2.00.



NEW G.E. GE-504 UNIVERSAL RECTIFIER

A silicon rectifier with a 45-amp surge rating. Recommended as a replacement for all selenium, germanium and silicon rectifiers used in TV receivers. The 45-amp surge rating eliminates the need for the surge limiting resistors normally required when silicon rectifiers are used.
PIV is 400 volts; max. I_{DC}, 750 ma. Shipping weight: 2 oz. List Price $2.00

G.E. CRYSTAL DIODES

Type	Description	Average Forward Current (ma)	Peak Reverse Voltage (volts)	List Price
1N34AS	General Purpose	50	75	$0.60
1N60	Video Detector	50	30	.85
1N28A	Silicon UHF Mixer	—	5	1.45
1N295	50 MC Detector	30	50	.55

G.E. VAC-U-SEL® DOUBLE DIODES

Miniature double diodes for TV horizontal phase detector, replacement and other applications. 7/16 x 9/16 x 3/16". Shipping weight: 2 oz.

Type No.	Ifwd	Imr	Description	Max. Case Temp.	List Price
6GC1	1.1 @ 2.5V	4 @ 20V	Common cathode	85°C	$0.99
6GD1	1.1 @ 2.5V	4 @ 20V	Series connected	85°C	.99
6GX1	1.1 @ 2.5V	4 @ 20V	Common anode	85°C	.99

G.E. SILICON AND GERMANIUM RECTIFIERS

These top hat, hermetically sealed rectifiers are designed for general-purpose applications requiring maximum economy.

Type	PIV	Max IDC	List Price	Type	PIV	Max IDC	List Price
1N91	100	150	$1.20	1N1695	400	600	1.1
1N1692	100	600	.75	1N1696	500	600	1.2
1N1693	200	600	.80	1N1697	600	600	1.5
1N1694	300	600	.95				

G.E. SELENIUM RECTIFIERS FOR COLOR TV SETS

Cat. No.	Type	List Price
GECR-1	Focus Rect.	$4.85
GECR-2	Boosted Boost	2.25
GECR-3	Convergence	1.60

G.E. SEMICONDUCTOR REPLACEMENT KIT

Model K-915A convenient kit covers a majority of entertainment-type semiconductor replacement needs — an ideal a for radio and TV servicemen. Contains 22 units of servic designed semiconductors including 7 universal transistor 3 silicon rectifiers, 6 crystal diodes, 5 dual diodes, and power transistor. Units are housed in a sturdy cabinet wit 15 clearly labeled drawers. Every unit always within har reach. Cabinet size, 8½ x 12⅛ x 9". Shipping weight: 4 lb List Price $38.83.

GENERAL ELECTRI

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INTERNATIONAL RECTIFIER

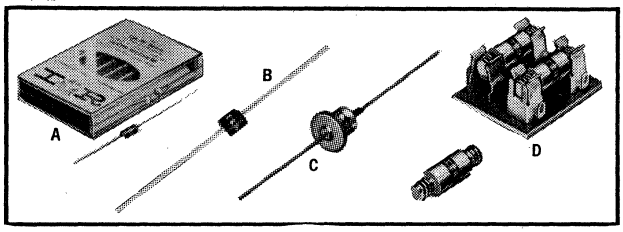
EL SEGUNDO, CALIFORNIA

RADIO—TV—AUDIO RECTIFIERS AND DIODES

Rectifier Stacks & Solar Power Paks

SEMICONDUCTORS

IOR



"5A" SERIES SILICON RECTIFIERS FIG. A

The Universal combines high power capability (to 1000 ma) and peak surge current capacity to 50 amps (about 10 times standard units) in a rugged miniaturized package. It will replace virtually any rectifier, selenium or silicon, in all circuits drawing up to 1000 ma dc, including TV, radio, hi-fi systems, filament supplies and motor control. Type 5A4D is recommended for radio, TV and other systems not equipped with a power transformer. For color TV, citizens band radios and similar systems equipped with transformer, the Type 5A6D is recommended.

Cat. No.	Packaging	Dealer Net
5A4-D	10 per Box	.69 ea.*
5A4D-C	Indiv. Carded	.71 ea.
5A4D-95	Plastic Kit, cont. 5	3.45 per kit
5A6-D	10 per Box	.79 ea.
5A6D-C	Indiv. Carded	.89 ea.

RATINGS @ 40°C

Type No.	Peak Reverse Voltage	RMS Input Volts**	DC Output Current, ma	Max. Surge Current, Amps
5A4-D	400	140	1000	50
5A6-D	600	210	1000	50

For industrial high reliability types and lower and higher rated devices in this series, see Industrial section. **Capacitive load

"10D" SERIES SILICON RECTIFIERS FIG. B

Full Rated 1,000 ma @ 25°C subminiature silicon rectifiers. Incorporate completely new diffusion and encapsulation techniques to provide higher current ratings for their size than any device in the field. Pure silver leads assure easy soldering and increased heat dissipation.

Cat. No.	Packaging	Distrib. Std. Pack	Dealer Net
804	10 per box	Multiples of 10 pc.	.69 ea.
806	10 per box	Multiples of 10 pc.	.72 ea.

RATINGS @ 50°C

Type No.	Peak Reverse Voltage	RMS Input Volts**	DC Output Current, ma	Max. Surge Current, Amps
804	400	140	1000	50
806	600	210	1000	50

For industrial high reliability types and lower and higher rated devices in this series, see Industrial section. **Capacitive load

SD-500 SILICON "TOPHAT" RECTIFIER FIG. C

Cut your rectifier stock and cut your callbacks with the premium quality SD-500 kit . . . the hermetically sealed replacement rectifier that is specifically designed for speedy installation in radio-TV, hi-fi, intercoms, phonographs, and other audio and control circuits. It WIRES IN . . . to directly replace axial lead units or CLIPS IN . . . a 10-second conversion permits plug-in into existing clip-type sockets (kit contains all needed parts). Where high humidity or other severe environmental conditions are encountered, the hermetically sealed SD-500 provides real protection, and long, dependable operation.

RATED @ 400 and 600 PIV, 750 MA resistive and 650 MA capacitive load on D.C. output.

Cat. No.	Packaging	Dealer Net
SD500	10 per box	.75 ea.
SD500-C	Indiv. Carded	.84 ea.
SD500-92	Kit of 2 Rectif. with Conv. Hdwe.	1.58 per kit
SD500-95	Kit of 5 Rectif. with Conv. Hdwe.	3.90 per kit
SD600	10 per box	.87 ea.*
SD600-C	Indiv. Carded	.98 ea.

*In lots of 10

"PLUG IN" ALL-CIRCUIT SILICON RECTIFIER FIG. D

Ruggedized silicon diffused junction "plug-in" rectifiers may be rapidly snapped into radio-TV, motor control, audio-amplifier, industrial power supply and other circuits utilizing clip-type rectifier holders.

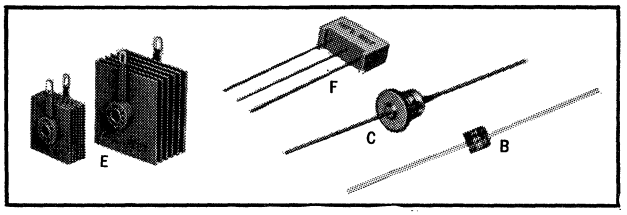
Cat. No.	Packaging	Dealer Net
1MA4	10 per box	.79 ea.*
5MA4-D	10 per box	.92 ea.
5MA4D-C	Indiv. Carded	1.14 ea.
5MA4D-95	Plastic Box of 5	5.00 per box
5MA4-D-K	Kit of 2 rect. with holder	2.43 per kit

*in lots of 10

Cat. No.	Peak Reverse Voltage	RMS Input Volts	DC Output Ma @ 50°C		Max. Surge Current, Amps
			Res.	Cap.	
1MA4	400	140	350	250	2
5MA4-D	400	140	1000	800	50

*For capacitive load use one-half of value shown. Figure indicated is for resistive and inductive loads.

**Current rating shown is for resistive and inductive load at 50°C. For capacitive load use 80% of value.



SELENIUM RECTIFIER STACKS FIG. E

Combine reliability with economy and small size

Compact, high density types designed for long life and reliability in radio, TV, record players, amplifiers and experimental applications. Output ratings from 50 ma to 650 ma at 130 volts RMS input. Economy, stable characteristics, and negligible leakage and aging of selenium provides long, economical rectifier operation. Replacement type rectifiers are individually boxed and are furnished with mounting bracket and hardware.

Cat. No.	Replaces Old	DC Output Current, Ma	Max. RMS Volts	Dimensions, Nom. Plate Size (Inch)	Max. Mounting Dim. (Inch)	Distr. Std. Pack	Dealer Net 1-9	Dealer Net 10 & up
E075L	T065/075	to 75	130	0.67 x 0.67	2 1/32	10	.59	.44
E150L	T075/150	75-150	130	1 x 1	3/4	10	.74	.62
E300L	T200/300	150-300	130	1.25 x 1.25	1 5/16	10	1.10	.92
E500L	T450/500	400-500	130	1.5 x 1.5	1 5/16	10	1.22	1.02
E650L	T550/650	500-650	130	2 x 2	2	10	2.08	1.73

SELENIUM DUAL DIODES FIG. F

Dual diodes are for TV Phase Detector Circuits. These diodes are of superior quality and packaged for easy identification. Connecting diagram and complete interchangeability table is supplied with each unit.

DUAL DIODES

Cat. No.	Type	Equivalent to			Packaging	Dlr. Net
		GE	IRC	IT&T		
DD04	Com. Cathode	6GC1	D4	K1615	Carded	.49 ea.
DD04-C	"		"		Blister Pk.	.55 ea.
DD05	Ser. Connect.	6GD1	D5	K1616	Carded	.49 ea.
DD05-C	"		"		Blister Pk.	.55 ea.
DD06	Com. Anode	6GX1	D6	K1617	Carded	.49 ea.
DD07	Com. Anode	—	D7	—	Carded	1.25 ea.

½ TO 1 AMP RATED TOP HAT RECTIFIERS FIG. C

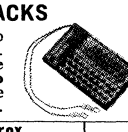
These low power general purpose silicon rectifier cells are of the highest quality. In all cases, they exceed Jedec number, military specifications and may be used to replace over 100 specific 1N types. These popular case styles are listed below.

Cat No.	Peak Reverse Voltage Volts	RMS Input Voltage Volts	Cont. DC Voltage Volts	Rectified DC Output Current (M.A.) @ 50°C	Rectified DC Output Current (M.A.) @ 100°C	Max. Surge Current (1 cycle) Amps	Max. Voltage Drop Volts	Max. Leakage Current (MA.) Full Cycle Average	Net Price
10B1	100	70	100	1800	—	40	1.10	0.05	.56
10B2	200	140	200	1800	—	40	1.10	0.05	.60
10B3	300	210	300	1800	—	40	1.10	0.05	.77
10B4	400	280	400	1800	—	40	1.10	0.05	.98
10B5	500	350	500	1800	—	40	1.10	0.05	1.13
10B6	600	420	600	1800	—	40	1.10	0.05	1.35
10B8	800	560	800	1800	—	40	1.10	0.02	2.43
10B10	1000	700	1000	1800	—	40	1.10	0.02	3.15
SD-91	100	70	100	550	300	10	1.5	1.0	.53
SD-92	200	140	200	550	300	10	1.5	1.0	.63
SD-93	300	210	300	550	300	10	1.5	1.0	.73
SD-94	400	280	400	550	300	10	1.5	0.80	.89
SD-95	500	350	500	550	300	10	1.5	0.65	.99
SD-96	600	420	500	550	300	10	1.5	0.65	1.08
SD-91A	100	70	100	750	500	15	1.3	0.5	.59
SD-92A	200	140	200	750	500	15	1.3	0.5	.68
SD-93A	300	210	300	750	500	15	1.3	0.5	.86
SD-94A	400	280	400	750	500	15	1.3	0.4	.96
SD-95A	500	350	500	750	400	15	1.3	0.3	1.06
SD-96A	600	420	500	750	400	15	1.3	0.3	1.16

SUBMINIATURE ENCAPSULATED 10D SERIES 1,000 MA @ 50°C —200 to 1,000 Volts PRV FIG. B

Cat. No.	Jedec No.	Peak Reverse Voltage	RMS Input Voltage*	DC Output Current MA**	Max. Surge Amp	Net Price
10D2	IN2069,A	200	140	1000	50	.50
10D3		300	210	1000	50	.55
10D4	IN2070,A	400	280	1000	50	.68
10D5		500	350	1000	50	.78
10D6	IN2071,A	600	420	1000	50	.87
10D8		800	560	1000	50	2.00
10D10		1000	700	1000	50	2.45

TRANSISTOR RADIO SOLAR PACKS



I.R.'s Transistor Radio Solar Packs are available in two of the most popular voltage ratings: 4.5 volts and 9 volts. **Both types are designed to feed a constant charge to the batteries while the Solar Packs are supplying the radio with its power.** Both types are housed in a handsome plastic case which protects the solar cells from damage.

Part No.	Nominal DC Output Volt	Nominal DC Output MA	Operating Temp.	Approx. Dimensions Inches	List Price
SP5G26C	4.5	26	28°C	3" x 1¾" x ⅜"	9.95
SP9G113C	9.0	13	28°C	3" x 1¾" x ⅜"	9.95

Light Intensity: 100 MW/CM2 of sunlight or tungsten equivalent

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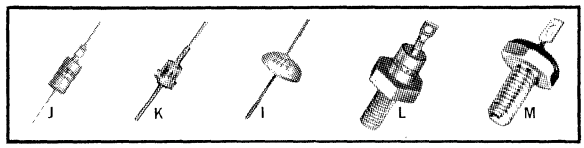
INTERNATIONAL RECTIFIER

EL SEGUNDO, CALIFORNIA

ZENER DIODES — ALL-PURPOSE TRANSISTORS, SCR'S

Battery Charger Stacks

SEMICONDUCTORS



IR COMMERCIAL ZENER DIODES

The Zener diodes listed are a "commercial version" of the JEDEC—military types. Their performance is comparable for practically all commercial application where environmental temperature extremes do not prevail. All devices listed are selected to plus and minus 10% tolerances. Five percent tolerance values are available on special order at an additional charge of 50c per unit.

1 WATT ZENER VOLTAGE REGULATORS FIG. I, J, K

Cat. No.	Nom. Voltage (EZ)	Test Current (IT) MA	Net Price	
			1-9	10-99
Z-1100	3.9	50	1.90	1.60
Z-1102	4.7	40	1.90	1.60
Z-1104	5.6	35	1.90	1.60
Z-1106	6.8	30	1.90	1.60
Z-1108	8.2	25	1.90	1.60
Z-1110	10	20	1.90	1.60
Z-1112	12	15	1.90	1.60
Z-1114	15	13	1.90	1.60
Z-1116	18	10	1.90	1.60
Z-1118	22	9	1.90	1.60
Z-1120	27	7	1.90	1.60
Z-1122	33	5	1.90	1.60
Z-1124	39	5	1.90	1.60
Z-1126	47	5	1.90	1.60
Z-1128	56	5	1.90	1.60
Z-1130	68	5	1.90	1.60
Z-1132	82	5	1.90	1.60
Z-1134	100	5	1.90	1.60
Z-1136	120	5	2.25	1.85
Z-1138	150	5	2.25	1.85
Z-1140	180	5	2.25	1.85

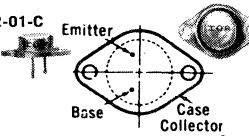
10 WATT ZENER VOLTAGE REGULATORS FIG. L, M

Cat. No.	Nom. Voltage (EZ)	Test Current (IT) MA	Net Price	
			1-9	10-99
Z-1300	3.9	500	3.50	2.95
Z-1302	4.7	400	3.50	2.95
Z-1304	5.6	350	2.90	2.45
Z-1306	6.8	300	2.90	2.45
Z-1308	8.2	250	2.90	2.45
Z-1310	10.0	200	2.90	2.45
Z-1312	12	170	2.90	2.45
Z-1314	15	140	2.90	2.45
Z-1316	18	110	2.90	2.45
Z-1318	22	90	2.90	2.45
Z-1320	27	70	2.90	2.45
Z-1322	33	60	2.90	2.45
Z-1324	39	50	2.90	2.45
Z-1326	47	45	2.90	2.45
Z-1328	56	35	2.90	2.45
Z-1330	68	30	2.90	2.45
Z-1332	82	25	2.90	2.45
Z-1334	100	20	2.90	2.45
Z-1336	120	15	2.90	2.45
Z-1338	150	15	2.90	2.45
Z-1340	180	10	4.00	3.40

GENERAL PURPOSE TRANSISTORS

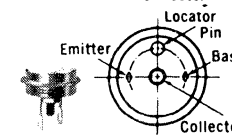
The transistors listed on this page are designed as entertainment types and universal replacements for over 700 JEDEC and house number types. They are also ideal for commercial applications, experimental and hobby projects. Handy cross-reference and substitution guide is available at no charge (request Form #JD-61).

PNP Audio High Power Transistor TR-01-C
TO-3 (Diamond) Case. Audio Frequency power transistor for automobile radio and amplifier out put stages.
Cat. No. TR01-C $3.75 List, Net $2.25

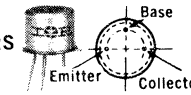


PNP Medium Power TR-02C
TO-3 (Diamond) case. Power transistor for use in commercial, experimental and hobby applications as a switch, replacement of relay, amplifier, etc.
Cat. No. TR-02C List $1.65, Net $.99

PNP Audio High Power TR-03-C
TO-36 (Doorknob) case. Audio frequency power transistor for automobile radio and amplifier output stages.
Cat. No. TR03-C List $5.50, Net $3.30



PNP TRANSISTORS



PNP Audio Amplifier TR-04-C
A general purpose PNP type audio transistor for all voltage supplies of 6 volts or less.
Cat. No. TR04-C List $1.10, Net $.66

PNP Audio Amplifier TR-05-C
A general purpose PNP type audio transistor for all applications with voltage supplies of 12 volts or less.
Cat. No. TR05-C List $1.65, Net $.99

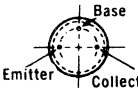
PNP Universal RF TR-06-C
A general purpose RF transistor for use in mixer-oscillator, converter and RF amplifier circuits.
Cat. No. TR06-C List $2.00, Net $1.20

PNP Universal IF TR-07-C
IF Transistor, PNP type for use in IF amplifier stages in radios, etc.
Cat. No. TR07-C List $1.65, Net $.99

NPN TRANSISTORS

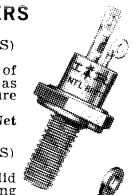
NPN Universal RF TR-08-C
A general purpose NPN type RF transistor for use in mixer-oscillator, converter and RF amplifier circuits.
Cat. No. TR08-C List $2.00, Net $1.20

NPN Audio Amplifier TR-09-C
A general purpose NPN type audio transistor for radios, amplifiers, etc.
Cat. No. TR09-C List $2.00, Net $1.20



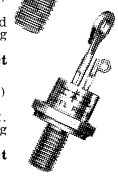
NPN UNIVERSAL IF TR-10-C
IF transistor, NPN type for use in IF amplifier stages in radios, etc.
Cat. No. TR10-C List $2.00, Net $1.20

SILICON CONTROLLED RECTIFIERS



Silicon Controlled Rectifier SCR-01
Rating: 5 Amp; 50 PIV. (Max. Input Voltage 35V AC. RMS)
Similar to JEDEC Type 2N1771
Solid state switch for low voltage controls replacement of relay, battery charging, operation of timing circuits such as flashers, remote switching etc. Max. operating temperature 185°F.
Cat. No. SCR-01 $3.90 Net

Silicon Controlled Rectifier SCR-02
Rating: 5 Amp; 200 PIV. (Max. Input Voltage 140V AC. RMS)
Similar to JEDEC Type 2N1774
For light dimmers, home appliance speed controls and solid state switching, including remote controls. Max. operating temperature 185°F.
Cat. No. SCR-02 $5.75 Net



Silicon Controlled Rectifier SCR-03
Rating: 16 Amp; 50 PIV. (Max. Input Voltage 35V AC. RMS)
Similar to JEDEC Type 2N682
Solid state switch for battery chargers, relay replacement, timing device, remote power switching etc. Max. operating temperature 185°F.
Cat. No. SCR-03 $5.75 Net

Silicon Controlled Rectifier SCR-04
Rating: 16 Amp; 200 PIV. (Max. Input Voltage 140V. AC. RMS)
Similar to JEDEC Type 2N685
For motor speed controls oven controls, high power lamp dimmers, remote control of power circuits, etc. Max. operating temperature 185°F.
Cat. No. SCR-04 $7.50 Net

Unijunction Transistor
Rating: 400 MW; 30V Max.
Provides accurate timing and triggering for SCR (Silicon Controlled Rectifier) circuits.
Cat. No. 2N2160 $1.49 Net

SELENIUM BATTERY CHARGER RECTIFIER

Type JD 4346B is the most universal rectifier for commercial "fast chargers" as used in service stations. It fits most models without circuit or mechanical modifications.
Single plate rectifiers are used for replacement of low-current chargers such as used at home, as "trickle" type in garages and for constant current models. By using single plates of proper size, any current rating and circuit configuration (e.g. center tap, bridge, etc.) may be assembled.

Cat. No.	Output		Max. Input AC Volts	Circuit Connecting Diag. Fig.	Dimensions							Net Price
	DC Volt	DC Amp			Fig.	A	B	MD	X	Y	Stud	
JD4346B*	6-12	30-100**	16.5-0-16.5	1A	A	6	5	4⅛	¾	1⅛	⅜-16	19.03
JD4346D	6-12	30-100**	16.5-0-16.5	1	A	6	5	4⅛	¾	1⅛	⅜-16	19.03
JD116K	6-12	2 (Note A)	16.5-0-16.5	1 or 2	B	3	3	½	—	—	—	1.75
JD117K	6-12	3 (Note A)	16.5-0-16.5	1 or 2	B	4	4	½	—	—	—	2.34
JD241K	6-12	6 (Note A)	16.5-0-16.5	1 or 2	B	6	5	½	—	—	—	3.35
JD240K	6-12	9 (Note A)	16.5-0-16.5	1 or 2	B	7⅛	6⅛	½	—	—		4.91

*Most popular type. **30 without fan—100 with fan rated @ 800 LFM. Note A: Ratings shown for half wave. Two plates in center-tap circuit have twice this rating.

Circuit and Connecting Diagrams

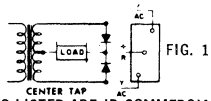


FIG. 1

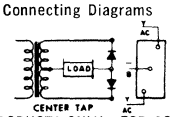


FIG. 1A

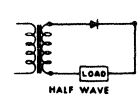


FIG. 2

Diagrams of Dimensions

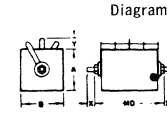


FIG. A

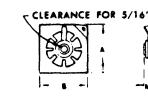


FIG. B

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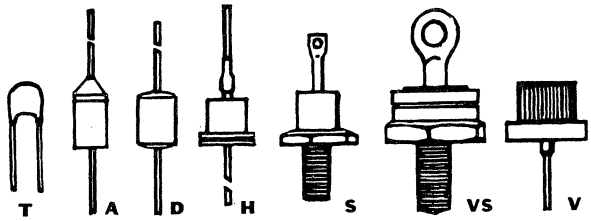
Trade Discount Applies To List Prices Only

MALLORY SILICON RECTIFIERS

DIFFUSED JUNCTION SILICON RECTIFIERS



LOW CURRENT TYPES

25° C

Mallory Type	Fig.	PRV Volts	Max. DC Amps	ICY Surge Amps	Max. Oper. Temp.	Net Each, Lots 1-99	Net Each, Lots 100-999
1N2090	T	50	.75	15	100° C	$0.46	$0.36
1N2091	T	100	.75	15	100° C	.48	.38
1N2092	T	200	.75	15	100° C	.52	.40
1N2093	T	300	.75	15	100° C	.57	.45
1N2094	T	400	.75	15	100° C	.59	.47
1N2095	T	500	.75	15	100° C	.65	.51
1N2096	T	600	.75	15	100° C	.69	.54
A50	A	50	.75	15	100° C	.54	.42
A100	A	100	.75	15	100° C	.56	.44
1N2069	A	200	.75	15	100° C	.59	.47
A300	A	300	.75	15	100° C	.65	.51
1N2070	A	400	.75	15	100° C	.67	.53
A500	A	500	.75	15	100° C	.74	.58
1N2071	A	600	.75	15	100° C	.77	.61
1N3193	D	200	.75	40	100° C	.69	.54
1N3194	D	400	.75	40	100° C	.80	.63
1N3195	D	600	.75	40	100° C	.93	.73
1N1487	H	100	.75	15	140° C	.52	.34
1N1488	H	200	.75	15	140° C	.62	.41
1N1489	H	300	.75	15	140° C	.65	.43
1N1490	H	400	.75	15	140° C	.80	.53
1N1491	H	500	.75	15	140° C	.89	.59
1N1492	H	600	.75	15	140° C	1.18	.78
1N1763	H	400	.75	.....	150° C	.58	.39
1N1764	H	500	.75	.....	150° C	.69	.46
50° C							
1N1100	H	100	.75	15	165° C	$0.52	$0.34
1N1101	H	200	.75	15	165° C	.62	.41
1N1102	H	300	.75	15	165° C	.65	.43
1N1103	H	400	.75	15	165° C	.80	.53
1N1104	H	500	.75	15	165° C	2.46	1.64
1N1105	H	600	.75	15	165° C	2.91	1.94
1N1692	H	100	.6	20	115° C	.50	.33
1N1693	H	200	.6	20	115° C	.58	.38
1N1694	H	300	.6	20	115° C	.62	.41
1N1695	H	400	.6	20	115° C	.77	.51
1N1696	H	500	.6	20	115° C	.88	.58
1N1697	H	600	.6	20	115° C	1.15	.76
100° C							
1N440	H	100	.3	15	150° C	$0.71	$0.47
1N441	H	200	.3	15	150° C	.76	.50
1N442	H	300	.3	15	150° C	.86	.57
1N443	H	400	.3	15	150° C	1.09	.72
1N444	H	500	.3	15	150° C	1.11	.74
1N445	H	600	.3	15	150° C	1.60	1.06
1N440B	H	100	.5	15	165° C	.71	.47
1N441B	H	200	.5	15	165° C	.76	.50
1N442B	H	300	.5	15	165° C	.86	.57
1N443B	H	400	.5	15	165° C	1.09	.72
1N444B	H	500	.5	15	165° C	1.11	.74
1N445B	H	600	.5	15	165° C	1.60	1.06
1N599	H	50	.4	10	150° C	.46	.30
1N600	H	100	.4	10	150° C	.52	.34
1N601	H	150	.4	10	150° C	.53	.35
1N602	H	200	.4	10	150° C	.62	.41
1N603	H	300	.4	10	150° C	.65	.43
1N604	H	400	.4	10	150° C	.80	.53
1N605	H	500	.4	10	150° C	.89	.59
1N606	H	600	.4	10	150° C	1.18	.78
1N599A	H	50	.4	10	150° C	.92	.61
1N600A	H	100	.4	10	150° C	1.04	.69
1N601A	H	150	.4	10	150° C	1.07	.71
1N602A	H	200	.4	10	150° C	1.25	.83
1N603A	H	300	.4	10	150° C	1.31	.87
1N604A	H	400	.4	10	150° C	1.61	1.07
1N605A	H	500	.4	10	150° C	1.76	1.17
1N606A	H	600	.4	10	150° C	2.36	1.57
1N2858	H	50	.5	40	125° C	.40	.26
1N2859	H	100	.5	40	125° C	.45	.30
1N2860	H	200	.5	40	125° C	.48	.32
1N2861	H	300	.5	40	125° C	.56	.37
1N2862	H	400	.5	40	125° C	.66	.44
1N2863	H	500	.5	40	125° C	.73	.48
1N2864	H	600	.5	40	125° C	.92	.62
150° C							
1N536	H	50	.25	15	165° C	$0.44	$0.29
1N537	H	100	.25	15	165° C	.49	.32
1N538	H	200	.25	15	165° C	.52	.34
1N539	H	300	.25	15	165° C	.58	.39
1N540	H	400	.25	15	165° C	.67	.44
1N1095	H	500	.25	15	165° C	.75	.50
1N1096	H	600	.25	15	165° C	1.13	.75

MEDIUM CURRENT TYPES

25° C

Mallory Type	Fig.	PRV Volts	Max. DC Amps	ICY Surge Amps	Max. Oper. Temp.	Net Each, Lots 1-99	Net Each, Lots 100-999
1N1115	S	100	1.5	15	170° C	$1.08	$0.72
1N1116	S	200	1.5	15	170° C	1.20	.80
1N1117	S	300	1.5	15	170° C	1.52	1.02
1N1118	S	400	1.5	15	170° C	1.79	1.20
1N1119	S	500	1.5	15	155° C	1.84	1.26
1N1120	S	600	1.5	15	155° C	2.76	1.84
S50	S	50	3	25	150° C	2.00	1.34
S100	S	100	3	25	150° C	2.14	1.43
1N1124	S	200	3	25	150° C	2.43	1.62
1N1124A	S	200	3.3	25	150° C	2.43	1.62
1N1125	S	300	3	25	150° C	2.84	1.89
1N1126	S	400	3	25	150° C	4.64	3.09
1N1126A	S	400	3.3	25	150° C	4.64	3.09
1N1127	S	500	3	25	150° C	6.75	5.55
1N1128	S	600	3	25	150° C	8.31	6.79
1N1128A	S	600	3.3	25	150° C	8.31	6.79
1N1537	S	50	1.6	16	175° C	1.74	1.09
1N1538	S	100	1.6	16	175° C	2.24	1.49
1N1539	S	150	1.6	16	175° C	2.31	1.54
1N1540	S	200	1.6	16	175° C	2.54	1.69
1N1541	S	300	1.6	16	175° C	2.99	1.99
1N1542	S	400	1.6	16	175° C	3.96	2.64
1N1543	S	500	1.6	16	175° C	5.16	3.44
1N1544	S	600	1.6	16	175° C	6.29	4.19
1N3569	S	100	3.5	35	165° C	1.48	.98
1N3570	S	200	3.5	35	165° C	1.79	1.19
1N3571	S	300	3.5	35	165° C	2.31	1.54
1N3572	S	400	3.5	35	165° C	2.84	1.89
1N3573	S	500	3.5	35	165° C	4.24	2.84
1N3574	S	600	3.5	35	165° C	6.14	4.09
100° C							
1N607	S	50	.8	3	150° C	$1.11	$0.74
1N607A	S	50	.8	3	150° C	1.23	.82
1N608	S	100	.8	3	150° C	1.18	.78
1N608A	S	100	.8	3	150° C	1.28	.85
1N609	S	150	.8	3	150° C	1.20	.80
1N609A	S	150	.8	3	150° C	1.32	.88
1N610	S	200	.8	3	150° C	1.23	.82
1N610A	S	200	.8	3	150° C	1.35	.90
1N611	S	300	.8	3	150° C	1.55	1.03
1N611A	S	300	.8	3	150° C	1.71	1.14
1N612	S	400	.8	3	150° C	1.94	1.29
1N612A	S	400	.8	3	150° C	2.13	1.42
1N613	S	500	.8	3	150° C	1.94	1.29
1N613A	S	500	.8	3	150° C	2.13	1.42
1N614	S	600	.8	3	150° C	2.79	1.86
1N614A	S	600	.8	3	150° C	3.06	2.04
150° C							
1N253	S	95	1.0	20	175° C	$1.04	$0.69
1N254	S	190	.4	10	175° C	1.23	.82
1N255	S	380	.4	10	175° C	1.95	1.31
1N256	S	570	.2	5	175° C	2.69	1.79
1N332	S	400	.4	10	175° C	1.94	1.29
1N333	S	400	.2	5	175° C	1.94	1.29
1N334	S	300	.4	10	175° C	1.56	1.04
1N335	S	300	.2	5	175° C	1.56	1.04
1N336	S	200	.4	10	175° C	1.23	.82
1N337	S	200	.2	5	175° C	1.23	.82
1N339	S	100	.4	10	175° C	1.17	.78
1N340	S	100	.2	5	175° C	1.17	.78
1N341	S	400	.4	10	175° C	1.94	1.29
1N342	S	400	.2	5	175° C	1.94	1.29
1N343	S	300	.4	10	175° C	1.56	1.04
1N344	S	300	.2	5	175° C	1.56	1.04
1N345	S	200	.4	10	175° C	1.23	.82
1N346	S	200	.2	5	175° C	1.23	.82
1N348	S	100	.4	10	175° C	1.17	.78
1N349	S	100	.2	5	175° C	1.17	.78

HIGH CURRENT TYPES 150° C

Mallory Type	Fig.	PRV Volts	Max. DC Amps	ICY Surge Amps	Max. Oper. Temp.	Net Each, Lots 1-99	Net Each, Lots 100-999
1N3208	VS	50	15	250	175° C	$1.15	$0.79
1N3209	VS	100	15	250	175° C	1.30	.89
1N3210	VS	200	15	250	175° C	1.75	1.19
1N3211	VS	300	15	250	175° C	2.40	1.60
1N3212	VS	400	15	250	175° C	2.90	1.93
1N3213	VS	500	15	250	175° C	3.53	2.35
1N3214	VS	600	15	250	175° C	4.20	2.80
1N3491	V	50	18	300	175° C	.63	.47
1N3492	V	100	18	300	175° C	.68	.51
1N3493	V	200	18	300	175° C	1.03	.76
1N3494	V	300	18	300	175° C	1.31	.98
1N3495	V	400	18	300	175° C	1.65	1.23
V500	V	500	18	300	175° C	1.88	1.41
V600	V	600	18	300	175° C	1.98	1.49
1N3659	V	50	25	400	175° C	1.26	.94
1N3660	V	100	25	400	175° C	1.36	1.02
1N3661	V	200	25	400	175° C	2.06	1.52
1N3662	V	300	25	400	175° C	2.62	1.96
1N3663	V	400	25	400	175° C	3.30	2.46
1N3664	V	500	25	400	175° C	3.76	2.82
1N3665	V	600	25	400	175° C	3.96	2.98

SEMICONDUCTOR HARDWARE KITS

Mallory No.	Description	Net Each
HD04	Fits all EIA DO4 rectifiers	13c
HD05	Fits all EIA DO5 rectifiers	23c

Net

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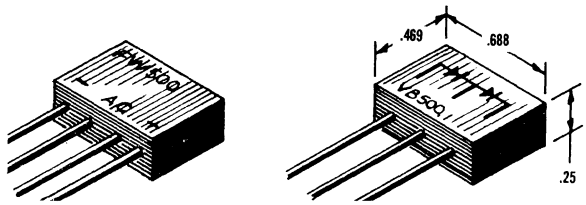
MALLORY SILICON RECTIFIERS

PRE-PACKAGED RECTIFIER CIRCUITS

Mallory pre-packaged rectifier circuits are available in three basic styles: voltage doubler, full-wave rectifier, and full-wave bridge rectifier. Supplied in pre-formed molded case (.688" L x .469" H x .25" T) with 1½" (min.) leads. Pel-Cel® rectifiers are mounted on heat sinks before encapsulation. Individual cells are rated at 750 ma @ 25° C (full-wave circuits rated 1.5 amps @ 25° C).



Mallory No.	PRV	Max. DC Amps @ 25° C*	1 Cyc. Surge (Amps)	Max. Op. Temp.	Net Each, Lots of 1-99	Net Each, Lots of 100-999
VOLTAGE DOUBLER						
VB50	50	.75	15	100° C	$ .93	$ .75
VB100	100	.75	15	100° C	.97	.78
VB200	200	.75	15	100 °C	1.08	.86
VB300	300	.75	15	100° C	1.20	.95
VB400	400	.75	15	100° C	1.21	.96
VB500	500	.75	15	100° C	1.35	1.08
VB600	600	.75	15	100° C	1.45	1.15

Mallory No.	PRV	Max. DC Amps @ 25° C*	1 Cyc. Surge (Amps)	Max. Op. Temp.	Net Each, Lots of 1-99	Net Each, Lots of 100-999
FULL-WAVE, CENTER TAP NEGATIVE						
CTN50	50	1.5	15	100° C	$ .93	$ .75
CTN100	100	1.5	15	100° C	.97	.78
CTN200	200	1.5	15	100° C	1.08	.86
CTN300	300	1.5	15	100° C	1.20	.95
CTN400	400	1.5	15	100° C	1.21	.96
CTN500	500	1.5	15	100° C	1.35	1.08
CTN600	600	1.5	15	100° C	1.45	1.15
FULL-WAVE, CENTER TAP POSITIVE						
CTP50	50	1.5	15	100° C	.93	.75
CTP100	100	1.5	15	100° C	.97	.78
CTP200	200	1.5	15	100° C	1.08	.86
CTP300	300	1.5	15	100° C	1.20	.95
CTP400	400	1.5	15	100° C	1.21	.96
CTP500	500	1.5	15	100° C	1.35	1.08
CTP600	600	1.5	15	100° C	1.45	1.15
FULL-WAVE BRIDGE						
FW50	50	1.5	15	100° C	1.82	1.40
FW100	100	1.5	15	100° C	1.86	1.43
FW200	200	1.5	15	100° C	2.04	1.57
FW300	300	1.5	15	100° C	2.26	1.74
FW400	400	1.5	15	100° C	2.35	1.81
FW500	500	1.5	15	100° C	2.53	1.95
FW600	600	1.5	15	100° C	2.65	2.04

*Rating shown for package.

REPLACEMENT SELENIUM RECTIFIERS SINGLE-PLATE ASSEMBLIES

Mallory Number †	AC Input Volts RMS ** Design #	AC Input Volts RMS ** Max. #	Approximate DC Output* Full-Wave Center Tap‡ Res.-Ind. Load DC Volts	Res.-Ind. Load DC* Amps.	Cap.-Btry. Load DC Volts	Cap.-Btry. Load DC* Amps.	Full-Wave Bridge‡ Res.-Ind. Load DC Volts	Res.-Ind. Load DC* Amps.	Cap.-Btry. Load DC Volts	Cap.-Btry. Load DC* Amps.	Approximate Overall Dimensions In Inches L. W. T.	Replacement In Mallory (No. of Assemblies Per Unit)	Net Each
K30L	28	30	10.5	5.7	14.5	4.6	21	5.7	29	4.6	3 x 3 x ¼	12SAC5 (2) 6SAC4 (2) 6SAC6 (2) 12RS5 (2) 12RS6D (4) 12RS6DF (4)	**$1.50**
K26N	24	26	9	11.0	12.5	8.8	18	11.0	25	8.8	4 x 4 x ¼	6SAC10 (2)	**1.87**
K26W	24	26	9	34.0	12.5	28.0	18	34.0	25	28.0	6 x 7 x ¼	6RS25 (2) 6RS25-1 (2)	**3.56**
K27WT	24	26	8	34.0	12.5	28.0	18	34.0	25	28.0	6½ x 7½ x ½	6SAC20 (2) 12RS14D (2)	**8.56**
R26T	24	26	9	10.0	12.5	8.0	18	10.0	12.5	8.0	5 x 6 x ¼	12SAC10D (2)	**3.23**

*DC current ratings based on conduction cooling—plates not more than 1/32" from cabinet wall or other large area member.

**Reduces by 55% for ½-wave capacitive and battery load.

#In center-tap, full-wave circuits, AC voltages shown are for full transformer secondary.

†One insulated and eyeleted cell per plate assembly; R26T has two.

‡Two plate assemblies per circuit for full-wave center tap, four per circuit for full wave bridge except R26T has one per circuit center tap, one and two for bridge.

MAGNESIUM-COPPER SULFIDE RECTIFIERS

Mallory magnesium-copper sulfide rectifiers are assembled in stacks under extreme pressure for maximum resistance to physical and thermal shock. They contain no temperature sensitive films and may be operated continuously over a very wide temperature range from —90° to +265° F. Unlike other rectifiers, MgCuS types will "self-heal" after exposure to overvoltage surges. MgCuS rectifiers are ideal for electroplating and other heavy-duty industrial applications where reliability is mandatory and operating conditions are severe. They are also widely used where momentary or inadvertent short circuits are to be expected such as in battery chargers, model railroads, and model automobile courses. Types shown are available from stock. Hundreds of other ratings and mounting arrangements are available on special order. MgCuS stacks should always be mounted so that the individual plates are vertical.

Mallory No.	Max. VAC No Load	Max. VAC Full Load	VDC Ind.	VDC Resis.	VDC Cap.	Max. DC Amps.† Cont.	Max. DC Amps.† Int.	Size, Inches L	Size, Inches W	Size, Inches H	Net Each
1B4R	3.6	3.2	1.5	1.7	2.5	1.5	5.0	1	9/16	7/8	**$ 4.65**
1B8R	7.2	6.4	3.1	3.4	5.1	1.5	5.0	1 3/8	9/16	7/8	**5.49**
1B12R	10.8	9.7	4.8	5.2	7.8	1.3	5.0	1 3/4	9/16	7/8	**6.54**
1B12L5	10.8	9.7	4.5	5.0	7.6	4.5	15.0	2 1/2	2 1/8	2 5/8	**10.08**
1B12C1J	10.8	9.8	4.6	5.1	7.7	3.2	24.0	2 3/4	1 1/4	1 5/8	**16.17**
1B12C3	10.8	9.7	4.5	5.0	7.6	4.5	24.0	2 3/4	1 3/4	2 1/8	**14.76**
1B12C5	10.8	9.7	4.5	5.0	7.6	5.3	24.0	3.0	2 1/8	2 5/8	**11.79**
F16C3	14.4	13.0	6.1	6.8	10.2	3.9	24.0	3.0	1 3/4	2 1/8	**16.17**
1F16CB7M	14.4	12.8	5.9	6.6	9.9	6.0	24.0	3.0	2 1/2	3 3/16	**19.71**
1S16CB7	14.4	12.8	5.9	6.6	9.9	6.0	24.0	3 3/4	2 1/2	3.0	**18.84**
1S16B7	14.4	12.8	5.8	6.5	9.8	8.3	24.0	5 1/2	2 1/2	3.0	**19.17**
1S16B9	14.4	12.7	5.7	6.4	9.7	11.6	24.0	5 1/2	3 1/2	4 1/4	**24.84**
F20C7	18.0	16.2	7.6	8.4	12.6	4.8	24.0	4 3/8	2 1/2	3 3/16	**19.38**
1S24C7J	21.6	19.4	9.0	10.1	15.1	4.0	24.0	4 3/4	2 1/2	3 3/16	**23.25**
1S24B9	21.6	19.1	8.5	9.6	14.4	11.0	24.0	7 1/2	3 1/2	4 1/4	**32.97**
1S28C7J	25.2	22.7	10.7	11.7	17.8	4.3	24.0	6.0	2 1/2	3.0	**26.25**

Mounting Prefix: IB = Insulated Bolt; F = Grounded Foot; IF = Insulated Foot; IS = Insulated Stud. P suffix designates reverse polarity stacking. Center terminal is DC positive. J suffix designates universal construction with loose mounting feet for foot, bolt or stud mounting replacement.

†To determine AC Amps: Multiply the DC amps by the following factors: Inductive load by 1.1; resistive load by 1.2; capacitive load by 1.4.

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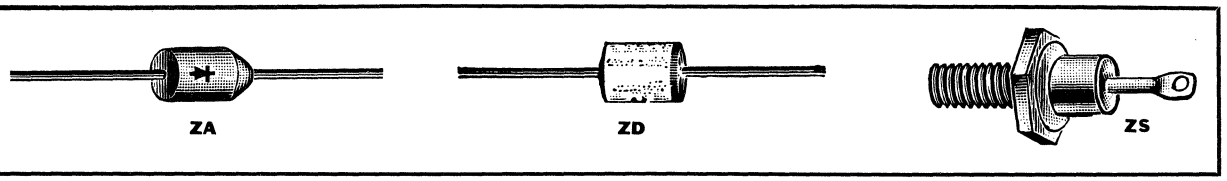
MALLORY ZENER DIODES



Diffused silicon junction zener diodes in two power ratings (1 and 10 watts) and three standard case styles. Offer low thermal resistance and excellent forward characteristics. Exceed military requirements. Rugged cell construction for exceptional surge handling capability. **Tolerance:** No suffix (1N3016), ±20%; suffix **A** (1N3016**A**), ±10%; suffix **B** (1N3016**B**), ±5%.

• TYPE ZA

High temperature regulator meets commercial, industrial, computer and home instrument requirements. Transfer molded for moisture-resistant, high strength package. Non-conductive, eliminating need for insulating sleeves. Low forward voltage drop and high temperature operation. **Power Dissipation:** 1 watt. **Size:** .220″ dia. x .375″ l., max.; leads 1¼″ lg. minimum.

TYPE ZD

EIA standard DO-13, flangeless hermetically-sealed package. **Power Dissipation:** 1 watt. **Temperature Range:** −65° C to +175° C, operating and storage. **Size:** .235″ dia. x .357″ l., max.; leads 1.4″ lg., minimum.

TYPE ZS

Series 1N2970 thru 1N3015 EIA standard DO-4, all-welded package for heavy-duty stud mounting. Very low thermal resistance characteristics. **Power Dissipation:** 10 watts. **Temperature Range:** −65° C to +175° C. **Polarity:** Cathode to stud as listed. Anode to stud available on special order, add suffix **R** (example: 1N2970**R**, 1N2970**RA**, etc.); same price. **Size:** 7/16″ hex x ¾″ h. from base; #10-32 NF threaded stud 7/16″ lg. HDO-4 hardware kit supplied.

Nom. Zener (Vz) Volts	• Type ZA Cold Case Mall. No.	IZT Ma	Net Ea.*	Type ZD DO-13 Case Mall. No.	IZT Ma	Net Ea.*	Type ZS DO-4 Case Mall. No.	IZT Ma	Net Ea.*
6.8	ZA6.8	37	$0.99	1N3016	37	$1.95	1N2970	370	$3.71
	ZA6.8A	37	1.12	1N3016A	37	2.25	1N2970A	370	4.58
	ZA6.8B	37	1.60	1N3016B	37	3.23	1N2970B	370	5.93
7.5	ZA7.5	34	.99	1N3017	34	1.95	1N2971	335	3.71
	ZA7.5A	34	1.12	1N3017A	34	2.25	1N2971A	335	4.58
	ZA7.5B	34	1.60	1N3017B	34	3.23	1N2971B	335	5.93
8.2	ZA8.2	31	.99	1N3018	31	1.95	1N2972	305	3.71
	ZA8.2A	31	1.12	1N3018A	31	2.25	1N2972A	305	4.58
	ZA8.2B	31	1.60	1N3018B	31	3.23	1N2972B	305	5.93
9.1	ZA9.1	28	.99	1N3019	28	1.95	1N2973	275	3.71
	ZA9.1A	28	1.12	1N3019A	28	2.25	1N2973A	275	4.58
	ZA9.1B	28	1.60	1N3019B	28	3.23	1N2973B	275	5.93
10	ZA10	25	.99	1N3020	25	1.95	1N2974	250	3.71
	ZA10A	25	1.12	1N3020A	25	2.25	1N2974A	250	4.58
	ZA10B	25	1.60	1N3020B	25	3.23	1N2974B	250	5.93
11	ZA11	23	.99	1N3021	23	1.95	1N2975	230	3.71
	ZA11A	23	1.12	1N3021A	23	2.25	1N2975A	230	4.58
	ZA11B	23	1.60	1N3021B	23	3.23	1N2975B	230	5.93
12	ZA12	21	.99	1N3022	21	1.95	1N2976	210	3.71
	ZA12A	21	1.12	1N3022A	21	2.25	1N2976A	210	4.58
	ZA12B	21	1.60	1N3022B	21	3.23	1N2976B	210	5.93
13	ZA13	19	.99	1N3023	19	1.95	1N2977	190	3.71
	ZA13A	19	1.12	1N3023A	19	2.25	1N2977A	190	4.58
	ZA13B	19	1.60	1N3023B	19	3.23	1N2977B	190	5.93
15	ZA15	17	.99	1N3024	17	1.95	1N2979	170	3.71
	ZA15A	17	1.12	1N3024A	17	2.25	1N2979A	170	4.58
	ZA15B	17	1.60	1N3024B	17	3.23	1N2979B	170	5.93
16	ZA16	15.5	.99	1N3025	15.5	1.95	1N2980	155	3.71
	ZA16A	15.5	1.12	1N3025A	15.5	2.25	1N2980A	155	4.58
	ZA16B	15.5	1.60	1N3025B	15.5	3.23	1N2980B	155	5.93
18	ZA18	14	.99	1N3026	14	1.95	1N2982	140	3.71
	ZA18A	14	1.12	1N3026A	14	2.25	1N2982A	140	4.58
	ZA18B	14	1.60	1N3026B	14	3.23	1N2982B	140	5.93
20	ZA20	12.5	.99	1N3027	12.5	1.95	1N2984	125	3.71
	ZA20A	12.5	1.12	1N3027A	12.5	2.25	1N2984A	125	4.58
	ZA20B	12.5	1.60	1N3027B	12.5	3.23	1N2984B	125	5.93
22	ZA22	11.5	.99	1N3028	11.5	1.95	1N2985	115	3.71
	ZA22A	11.5	1.12	1N3028A	11.5	2.25	1N2985A	115	4.58
	ZA22B	11.5	1.60	1N3028B	11.5	3.23	1N2985B	115	5.93
24	ZA24	10.5	.99	1N3029	10.5	1.95	1N2986	105	3.71
	ZA24A	10.5	1.12	1N3029A	10.5	2.25	1N2986A	105	4.58
	ZA24B	10.5	1.60	1N3029B	10.5	3.23	1N2986B	105	5.93
27	ZA27	9.5	.99	1N3030	9.5	1.95	1N2988	95	3.71
	ZA27A	9.5	1.12	1N3030A	9.5	2.25	1N2988A	95	4.58
	ZA27B	9.5	1.60	1N3030B	9.5	3.23	1N2988B	95	5.93
30	ZA30	8.5	1.10	1N3031	8.5	2.21	1N2989	85	3.71
	ZA30A	8.5	1.52	1N3031A	8.5	3.11	1N2989A	85	4.58
	ZA30B	8.5	2.03	1N3031B	8.5	4.09	1N2989B	85	5.93
33	ZA33	7.5	1.10	1N3032	7.5	2.21	1N2990	75	3.71
	ZA33A	7.5	1.52	1N3032A	7.5	3.11	1N2990A	75	4.58
	ZA33B	7.5	2.03	1N3032B	7.5	4.09	1N2990B	75	5.93
36	ZA36	7.0	1.10	1N3033	7.0	2.21	1N2991	70	3.71
	ZA36A	7.0	1.52	1N3033A	7.0	3.11	1N2991A	70	4.58
	ZA36B	7.0	2.03	1N3033B	7.0	4.09	1N2991B	70	5.93
39	ZA39	6.5	1.10	1N3034	6.5	2.21	1N2992	65	3.71
	ZA39A	6.5	1.52	1N3034A	6.5	3.11	1N2992A	65	4.58
	ZA39B	6.5	2.03	1N3034B	6.5	4.09	1N2992B	65	5.93
43	ZA43	6.0	$1.10	1N3035	6.0	$2.21	1N2993	60	$3.71
	ZA43A	6.0	1.52	1N3035A	6.0	3.11	1N2993A	60	4.58
	ZA43B	6.0	2.03	1N3035B	6.0	4.09	1N2993B	60	5.93
47	ZA47	5.5	1.10	1N3036	5.5	2.21	1N2995	55	3.71
	ZA47A	5.5	1.52	1N3036A	5.5	3.11	1N2995A	55	4.58
	ZA47B	5.5	2.03	1N3036B	5.5	4.09	1N2995B	55	5.93
51	ZA51	5.0	1.10	1N3037	5.0	2.21	1N2997	50	3.71
	ZA51A	5.0	1.52	1N3037A	5.0	3.11	1N2997A	50	4.58
	ZA51B	5.0	2.03	1N3037B	5.0	4.09	1N2997B	50	5.93
56	ZA56	4.5	1.10	1N3038	4.5	2.21	1N2999	45	3.71
	ZA56A	4.5	1.52	1N3038A	4.5	3.11	1N2999A	45	4.58
	ZA56B	4.5	2.03	1N3038B	4.5	4.09	1N2999B	45	5.93
62	ZA62	4.0	1.10	1N3039	4.0	2.21	1N3000	40	3.71
	ZA62A	4.0	1.52	1N3039A	4.0	3.11	1N3000A	40	4.58
	ZA62B	4.0	2.03	1N3039B	4.0	4.09	1N3000B	40	5.93
68	ZA68	3.7	1.10	1N3040	3.7	2.21	1N3001	37	3.71
	ZA68A	3.7	1.52	1N3040A	3.7	3.11	1N3001A	37	4.58
	ZA68B	3.7	2.03	1N3040B	3.7	4.09	1N3001B	37	5.93
75	ZA75	3.3	1.10	1N3041	3.3	2.21	1N3002	33	3.71
	ZA75A	3.3	1.52	1N3041A	3.3	3.11	1N3002A	33	4.58
	ZA75B	3.3	2.03	1N3041B	3.3	4.09	1N3002B	33	5.93
82	ZA82	3.0	1.10	1N3042	3.0	2.21	1N3003	30	3.71
	ZA82A	3.0	1.52	1N3042A	3.0	3.11	1N3003A	30	4.58
	ZA82B	3.0	2.03	1N3042B	3.0	4.09	1N3003B	30	5.93
91	ZA91	2.8	1.10	1N3043	2.8	2.21	1N3004	28	3.71
	ZA91A	2.8	1.52	1N3043A	2.8	3.11	1N3004A	28	4.58
	ZA91B	2.8	2.03	1N3043B	2.8	4.09	1N3004B	28	5.93
100	ZA100	2.5	1.10	1N3044	2.5	2.21	1N3005	25	3.71
	ZA100A	2.5	1.52	1N3044A	2.5	3.11	1N3005A	25	4.58
	ZA100B	2.5	2.03	1N3044B	2.5	4.09	1N3005B	25	5.93
110	ZA110	2.3	1.22	1N3045	2.3	2.40	1N3007	23	4.13
	ZA110A	2.3	1.79	1N3045A	2.3	3.56	1N3007A	23	4.58
	ZA110B	2.3	2.74	1N3045B	2.3	5.36	1N3007B	23	5.93
120	ZA120	2.0	1.22	1N3046	2.0	2.40	1N3008	20	4.13
	ZA120A	2.0	1.79	1N3046A	2.0	3.56	1N3008A	20	4.58
	ZA120B	2.0	2.74	1N3046B	2.0	5.36	1N3008B	20	5.93
130	ZA130	1.9	1.22	1N3047	1.9	2.40	1N3009	19	4.13
	ZA130A	1.9	1.79	1N3047A	1.9	3.56	1N3009A	19	4.58
	ZA130B	1.9	2.74	1N3047B	1.9	5.36	1N3009B	19	5.93
150	ZA150	1.7	1.22	1N3048	1.7	2.40	1N3011	17	4.13
	ZA150A	1.7	1.79	1N3048A	1.7	3.56	1N3011A	17	4.58
	ZA150B	1.7	2.74	1N3048B	1.7	5.36	1N3011B	17	5.93
160	ZA160	1.6	1.22	1N3049	1.6	2.40	1N3012	16	4.13
	ZA160A	1.6	1.79	1N3049A	1.6	3.56	1N3012A	16	6.26
	ZA160B	1.6	2.74	1N3049B	1.6	5.36	1N3012B	16	9.53
180	ZA180	1.4	1.22	1N3050	1.4	2.40	1N3014	14	4.13
	ZA180A	1.4	1.79	1N3050A	1.4	3.56	1N3014A	14	6.26
	ZA180B	1.4	2.74	1N3050B	1.4	5.36	1N3014B	14	9.53
200	ZA200	1.2	1.22	1N3051	1.2	2.40	1N3015	12	4.13
	ZA200A	1.2	1.79	1N3051A	1.2	3.56	1N3015A	12	6.26
	ZA200B	1.2	2.74	1N3051B	1.2	5.36	1N3015B	12	9.53

★QUANTITY PRICING

For quantity orders on a given type, find price shown in tables above, and compare it in table below to find your best price for a larger quantity order.

Reg. Net Each (Lots 1-24)	Quantity Order Net Each, Lots 25-99	100-999	Reg. Net Each (Lots 1-24)	Quantity Order Net Each, Lots 25-99	100-999
$0.99	$0.92	$0.75	$2.74	$2.54	$2.05
1.10	1.02	.83	3.11	2.93	2.36
1.12	1.05	.85	3.23	3.04	2.40
1.22	1.13	.91	3.56	3.34	2.66
1.52	1.46	1.18	3.71	3.49	2.81
1.60	1.50	1.22	4.09	3.83	3.08
1.79	1.66	1.34	4.13	3.86	3.08
1.95	1.88	1.50	4.58	4.31	3.45
2.03	1.88	1.52	5.36	4.98	4.01
2.21	2.06	1.65	5.93	5.59	4.46
2.25	2.10	1.69	6.26	5.85	4.69
2.40	2.29	1.84	9.53	9.00	7.16

ZENER DIODE HARDWARE

Mallory Number	Description	Pieces Per Pkg.	Net Each
HDO-4	Kit of two HDO-4A's, one each HDO-4B, HDO-4C, HDO-4D and HDO-4E	.....	$0.13
HDO-4A	Mica washer	25	.012
HDO-4B	Brass washer	25	.017
HDO-4C	Teflon washer	25	.017
HDO-4D	Solder lug	25	.02
HDO-4E	#10-32 lock nut	25	.025

ZENER DIODES AVAILABLE IN ±1% TOLERANCE OR MATCHED PAIRS FOR SPECIAL USES.

Net

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OHMITE

resistors · rheostats · tap switches · relays
variable transformers · tantalum capacitors
semiconductor diodes · r.f. chokes

DIODES, GERMANIUM AND SILICON LOW POWER

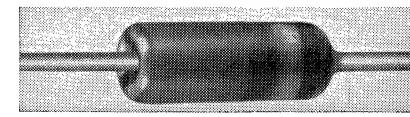
A wide choice of popular characteristics in low power germanium and silicon diodes is available immediately from Ohmite stock. Both the germanium and silicon types are supplied in the subminiature, hermetically sealed glass envelope (see diagram). The silicon envelope is light-shielded.

High stability is achieved through temperature cycling and aging. All units must meet severe environmental, electrical and mechanical requirements with a liberal safety factor. Stock listings include JAN types meeting the requirements of military specifications MIL-E-1D and MIL-S-19500C.

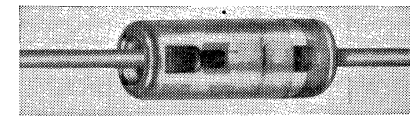
GERMANIUM DIODES—Ohmite supplies the gold-bonded variety. Power rating is 80 mw at 20°C except where otherwise indicated. Operating temperature range is −65°C to +90°C.

SILICON DIODES—Employ either the alloy or diffusion method of junction formation. Power rating is 400 milliwatts at 20°C except where otherwise indicated. Operating temperature range is −65°C to +150°C.

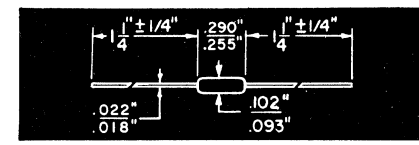
Hundreds of other diodes are available on ten day delivery (request Ohmite bulletin 802). Request Catalog 801 for germanium diodes and Catalog 804 for silicon diodes.



SILICON DIODE



GERMANIUM DIODE



STOCK GERMANIUM DIODES

Stock No.	PIV	Max. Rev. μa at 25°C	Min. Fwd. ma at 1V	Net 1/99
1N34	75	500 @ 50V	5	$ .29
1N34A	75	500 @ 50V	5	.29
1N35⑦	75	500 @ 50V	5	1.42
1N38	125	500 @ 100V	5	.68
1N38A	125	500 @ 100V	5	.68
1N38B	125	500 @ 100V	5	.68
1N39	220	600 @ 200V	5	1.53
1N39A	250	65 @ 100V	5	1.65
1N39B	200	600 @ 200V	5	1.53
1N43	75	800 @ 50V	5	.41
1N44	145	1000 @ 50V	5	.56
1N47	145	500 @ 100V	5	.50
1N48	85	800 @ 50V	5	.30
1N51	75	1500 @ 50V	5	.30
1N54	75	100 @ 50V	5	.50
1N54A	75	100 @ 50V	5	.50
1N55	170	500 @ 150V	5	.95
1N55A	170	500 @ 150V	5	.95
1N56	50	300 @ 30V	15	.38
1N56A	50	300 @ 30V	15	.38
1N58	125	600 @ 100V	5	.69
1N58A	125	600 @ 100V	5	.69
1N60①	25	20 @ 10V	5	.39
1N60A①	25	20 @ 10V	5	.39
1N63	125	50 @ 50V	5	.81
1N64①	25	25 @ 10V	50	.27
1N64A①	25	25 @ 10V	50	.27
1N65	110	200 @ 50V	5	.43
1N66	75	800 @ 50V	5	.36
1N67	100	50 @ 50V	5	.55
1N67A	100	50 @ 50V	5	.55
1N68A	130	625 @ 100V	5	.63
1N69	75	500 @ 50V	5	.34
1N69A	75	500 @ 50V	5	.34
1N70	125	300 @ 50V	5	.43
1N70A	125	300 @ 50V	5	.43
1N87	25	30 @ 1.5V	.1*	.39
1N87A	25	30 @ 1.5V	.1*	.39
1N90	75	500 @ 50V	5	.32
1N95	75	500 @ 50V	5	.40
1N96	75	500 @ 50V	40	.53
1N96A	75	500 @ 50V	40	.53
1N97	100	100 @ 50V	20	.55
1N98	100	100 @ 50V	40	.43
1N98A	100	100 @ 50V	40	.43
1N99	100	50 @ 50V	20	.45
1N99A	100	50 @ 50V	20	.45
1N100	100	50 @ 50V	40	.46
1N100A	100	50 @ 50V	40	.46
1N116	75	100 @ 50V	5	.48
1N118	75	100 @ 50V	40	.55
1N126	75	300@50V	5	$ .39
1N126A	75	300@50V	5	.39
JAN-1N126A	75	750@50V	5	.43
1N127A	125	200@50V	5	.80
JAN-1N127A	125	200@50V	5	.88
1N128	50	10@10V	3	.43
JAN-1N128	50	10@10V	3	.47
1N135	75	850@50V	5	.29
1N144	50	200@20V	100	.35
1N191③	90	25@10V⑨	5	.46
1N192③	90	250@50V⑨	5	.41
1N198	100	250@50V⑥	5	.50
1N270	100	100@50V	200⑧	.45
JAN-1N270	100	100@50V	200⑧	.50
1N273	40	20@20V	100	.46
1N276	100	100@50V	40	.39
JAN-1N276⑤	100	100@50V	40	.43
1N277	125	250@50V⑥	100	.53
JAN-1N277	125	250@50V⑥	100	.58
1N279	50	200@20V	100	.43
1N281	75	500@50V	100	.46
JAN-1N281	75	500@50V	100	.51
1N294	75	10@10V	5	.31
1N295①	25	200@10V	5	.32
1N295A①	25	200@10V	5	.32
1N298	90	200@40V	40	.43
1N305	75	20@50V	100†	2.34
1N497	30	20@20V	120†	.41
1N498	50	25@40V	120†	.45
1N616	40	150@30V	10	.25
1N695⑤	35	20@10V⑥	100	1.35
1N774	75	150@50V	100	.58
OMC26	50	150@50V	200⑧	.45
OMC28	50	25@50V	200⑧	.45
OMC37	150	200@10V	200⑧	.58
OMC550	30	100@10V	500⑧	.25
OMC635	75	4@10V	100	.54
OMC646	150	4@10V	200⑧	.82
OMC678	75	75@50V	50	.41
OMC688	100	75@50V	100	.63
OMC769④	50	25@50V	200⑧	2.03
OMC1133④	150	25@50V	100	1.02
OMC1137②	75	150@50V	200⑧	.54

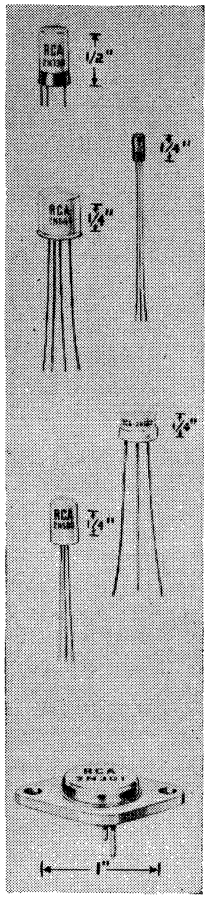
STOCK SILICON DIODES

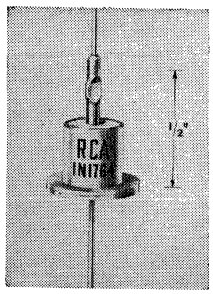
Stock No.	PIV	Max. Rev. μa at 25°C	Min. Fwd. ma at 1V	Net 1/99
1N456	35	.025 @ 25V	40	$ .37
1N456A	35	.025 @ 25V	100	.37
1N457	75	.025 @ 60V	20	.45
1N457A	70	.025 @ 60V	100	.45
1N458	150	.025 @ 125V	7	.51
1N458A	150	.025 @ 125V	100	.51
1N459	220	.025 @ 175V	3	.66
1N459A	220	.025 @ 175V	100	.66
1N461	35	.5 @ 25V	15	.35
1N462	80	.5 @ 60V	5	.38
1N462A	80	.5 @ 60V	100	.38
1N463	220	.5 @ 175V	1	.46
1N464	150	.5 @ 125V	3	.72
1N482‡	45	.25 @ 30V	100	.59
1N482A	45	.025 @ 30V	100	.65
1N482B	45	.025 @ 30V	100	.65
1N483‡	90	.25 @ 60V	100	.67
1N483A	90	.025 @ 60V	100	.68
1N483B	90	.025 @ 60V	100	.69
1N484‡	160	.25 @ 125V	100	.71
1N484A	160	.025 @ 125V	100	.79
1N484B	150	.025 @ 125V	100	.79
1N485‡	230	.25 @ 175V	100	.79
1N485A	230	.025 @ 175V	100	1.06
1N485B	230	.025 @ 175V	100	1.06
1N486‡	280	.25 @ 225V	100	1.25
1N486A	280	.05 @ 225V	100	1.54
1N486B	280	.05 @ 225V	100	1.71
1N487‡	375	.25 @ 300V	100	2.50
1N487A	375	.10 @ 300V	100	2.75
1N488‡	460	.25 @ 380V	100	2.50
1N488A	460	.10 @ 380V	100	2.95
1N645	260	.2 @ 225V	400	1.50
1N645A#	260	.2 @ 225V	400	1.65
1N646#	375	.2 @ 300V	400	1.65
1N647#	500	.2 @ 400V	400	1.80
1N648#	600	.2 @ 500V	400	2.55
1N649#	720	.2 @ 600V	400	3.30

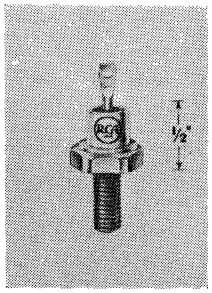
①Video Detector Test ②0.2 μsec. ③0.5 μsec. ④0.4 μsec. ⑤0.3 μsec. ⑥75°C ⑦Consists of two matched diodes shipped as a pair with the forward current at 1 volt of the lower resistance diode within 10% of the current of the higher resistance diode. ⑧Duty cycle must be adjusted in testing at these high forward currents so that average power dissipated does not exceed 80 mw. ⑨55°C ⑩0.6 μsec. *At 0.25 volts. †At 0.8 volts. ‡At 1.1 volts. #600 mw.

SEMICONDUCTOR PRODUCTS

AUG., 1964







TRANSISTORS, THYRISTORS, GERMANIUM DIODES & TUNNEL DIODES

Type	RCA Equipment Manufacturers Price 1-99	100-999
1N2326	.50	.33
1N3128	6.35	4.24
1N3129	7.59	5.06
1N3130	8.17	5.45
1N3847	4.95	3.30
1N3848	4.95	3.30
1N3849	4.95	3.30
1N3850	4.95	3.30
1N3851	4.95	3.30
1N3852	6.35	4.24
1N3853	5.94	3.96
1N3854	7.59	5.06
1N3855	8.17	5.45
1N3856	8.17	5.45
1N3857	8.58	5.72
1N3858	6.52	4.35
1N3859	8.17	5.45
1N3860	10.73	7.15
1N3861	6.19	4.13
1N3862	7.67	5.12
1N3863	9.41	6.27
2N104	1.65	1.10
2N109	.59	.40
2N139	1.16	.77
2N140	1.24	.83
2N173	3.75	2.50
2N174	4.01	2.67
JAN2N174	4.77	3.18
2N175	1.63	1.09
2N176	1.88	1.25
2N215	1.73	1.16
2N217	.56	.37
2N218	1.16	.77
2N219	1.24	.83
2N220	1.52	1.01
JAN2N220	2.06	1.38
2N270	.83	.55
2N274	1.24	.83
USA2N274	2.48	1.65
2N277	2.72	1.82
2N278	3.10	2.07
2N307	1.49	.99
2N351	2.03	1.35
2N357	6.53	4.36
2N370	.81	.54
2N371	.79	.53
2N372	.79	.53
2N373	1.24	.83
(For New Equipment Design, Use Type 2N1638)		
2N374	1.32	.88
(For New Equipment Design, Use Type 2N1639)		
2N376	2.10	1.40
2N384	1.65	1.10
JAN2N348	3.30	2.20
2N388	.59	.40
JAN2N388	.61	.41
2N388A	1.09	.73
2N395	.66	.44
2N396	.61	.41
3N396A	.61	.41
2N397	1.34	.89
2N398	1.12	.75
USN2N398	1.16	.77
2N398A	1.12	.75
2N398B	1.16	.77
2N404	.41	.28
JAN2N404	.50	.33
2N404A	.58	.39
3907/2N404	1.07	.72
2N405	.36	.24
2N406	.33	.22
2N407	.41	.28
2N408	.38	.25
2N409	.43	.29
2N410	.40	.26
2N411	.46	.31
2N412	.43	.29
2N414	.41	.28
2N441	2.23	1.49
2N442	2.31	1.54
2N443	2.39	1.60
2N578	.99	.66
2N579	1.57	1.05
2N580	2.06	1.38
2N581	.50	.33
2N582	.91	.61
2N583	.83	.55
2N584	3.22	2.15
2N585	.99	.66
2N586	1.73	1.16
2N591	.53	.35
(For New Equip. Design, Use Type 2N1637)		
2N641	1.37	.91
(For New Equip. Design, Use Type 2N1638)		
2N642	1.40	.94
(For New Equip. Design, Use Type 2N1639)		
2N643*	1.40	.94
(For New Equip. Use 2N960)		
2N644*	1.65	1.10
(For New Equip. Use 2N960)		
2N645*	2.64	1.76
(For New Equip. Use 2N960)		
2N646*	1.82	1.21
(For New Equip. Use 2N960)		
2N647	1.07	.72
2N649	.86	.57
2N697	2.06	1.38
2N699	2.64	1.76
2N705	1.98	1.32
2N706	.99	.66
USA2N706	2.23	1.49
2N706A	1.19	.79
2N708	1.32	.88
2N709	2.48	1.65
2N710	1.73	1.16
2N711	1.16	.77
2N718A	2.15	1.43
2N720A	3.30	2.20
2N794*	1.49	.99
(For New Equip. Use 2N1300)		
2N796*	1.98	1.32
(For New Equip. Use 2N730)		
2N796	2.89	1.93
2N828	1.32	.88
2N834	3.05	2.04
2N914	1.57	1.05
2N934	6.60	4.40
2N955	4.31	2.87
2N955A	4.82	3.21
2N960	.96	.64
2N961	.91	.61
2N962	.86	.57
2N963	.83	.55
2N964	.99	.66
2N965	.94	.63
2N966	.89	.59
2N967	.87	.58
2N1010	2.89	1.93
2N1023	2.72	1.82
2N1066	1.98	1.32
2N1067	20.95	13.95
2N1068	21.95	14.65
2N1069	49.90	33.30
2N1070	64.95	43.30
2N1090	1.11	.74
2N1091	1.40	.94
2N1092	10.75	7.15
2N1099	4.31	2.87
2N1100	5.02	3.34
2N1169	1.98	1.32
2N1170	3.71	2.48
2N1177	.83	.55
2N1178	.81	.54
2N1179	.81	.54
2N1180	.68	.45
2N1183	1.82	1.21
USA2N1183	2.64	1.76
2N1183A	2.31	1.54
USA2N1183A	3.30	2.20
2N1183B	2.89	1.93
USA2N1183B	3.88	2.59
2N1184	2.48	1.65
USA2N1184	3.71	2.48
2N1184A	2.81	1.87
USA2N1184A	4.04	2.70
2N1184B	4.13	2.75
USA2N1184B	5.36	3.58
2N1213	4.54	3.03
2N1214	4.54	3.03
2N1215	4.54	3.03
2N1216	2.97	1.98
2N1224	1.24	.83
USA2N1224	1.40	.94
2N1225	1.40	.94
USA2N1225	1.57	1.05
2N1226	1.49	.99
2N1300	.91	.61
2N1301	1.07	.72
2N1302	.50	.33
USN2N1302	.51	.34
2N1303	.50	.33
USN2N1303	.51	.34
2N1304	.61	.41
USN2N1304	.64	.43
2N1305	.63	.42
USN2N1305	.64	.43
2N1306	.79	.53
USN2N1306	.86	.57
2N1307	.79	.53
USN2N1307	.86	.57
2N1308	1.11	.74
USN2N1308	1.19	.79
2N1309	1.07	.72
USN2N1309	1.19	.79
2N1319	1.65	1.10
2N1358	4.59	3.06
USA2N1358	6.25	4.17
2N1384	2.06	1.38
2N1395	1.49	.99
2N1396	1.65	1.10
2N1397	2.15	1.43
2N1412	5.76	3.84
USN2N1412	6.52	4.32
2N1450*	2.06	1.38
2N1479	2.64	1.76
USA2N1479	3.47	2.31
2N1480	2.97	1.98
USA2N1480	3.80	2.53
2N1481	3.30	2.20
USA2N1481	4.13	2.75
2N1482	4.13	2.75
USA2N1482	4.95	3.30
2N1483	3.63	2.42
USA2N1483	5.28	3.52
2N1484	4.62	3.08
USA2N1484	6.27	4.18
2N1485	5.45	3.63
USA2N1485	7.10	4.73
2N1486	8.42	5.61
USA2N1486	10.07	6.71
2N1487	5.94	3.96
USA2N1487	8.00	5.34
2N1488	6.60	4.40
USA2N1488	8.66	5.78
2N1489	9.08	6.05
USA2N1489	11.14	7.43
2N1490	10.73	7.15
USA2N1490	12.79	8.53
2N1491	4.13	2.75
2N1492	6.60	4.40
2N1493	9.90	6.60
2N1511	8.25	5.50
USA2N1511	10.31	6.88
2N1512	9.90	6.60
USA2N1512	11.96	7.98
2N1513	12.40	8.25
USA2N1513	14.44	9.63
2N1514	16.50	11.00
USA2N1514	18.56	12.38
2N1524	.40	.26
2N1525	.43	.29
2N1526	.43	.29
2N1527	.46	.31
2N1605	1.24	.83
2N1605A	1.50	1.00
2N1613	2.15	1.43
2N1631	.53	.35
2N1632	.50	.33
(For Types 2N1633, 2N1634, New Equip. Design, Use Type 2N1638)		

Prices shown do not include any state or local taxes. All prices are subject to change or withdrawal without notice.

*See price schedule for new equipment types.

Net

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SEMICONDUCTOR PRODUCTS

Type	RCA Equipment Manufacturers Price 1-99	100-999
2N1635	1.32	.88
2N1636	1.32	.88
(For Types 2N1635, 2N1636, New Equip. Design, Use Type 2N1639)		
2N1637	.59	.40
2N1638	.53	.35
2N1639	.56	.37
2N1683	1.65	1.10
2N1700	2.23	1.49
2N1701	2.97	1.98
2N1702	5.53	3.69
2N1703	7.43	4.95
2N1708	3.30	2.20
2N1711	2.81	1.87
2N1768	8.25	5.50
2N1769	10.73	7.15
2N1853	1.32	.88
USN2N1853	1.32	.88
2N1854	1.65	1.10
USN2N1854	1.65	1.10
2N1893	3.30	2.20
2N1905	4.13	2.75
2N1906	6.60	4.40
2N2015	11.55	7.70
2N2016	14.85	9.90
2N2102	3.30	2.20
2N2147	2.06	1.38
2N2148	1.24	.83
2N2205	1.24	.83
2N2206	3.71	2.48
2N2208	1.98	1.32
2N2210	10.13	6.75
2N2270	1.82	1.21
2N2273	2.31	1.54
USA2N2273M	2.31	1.54
2N2304	4.29	2.86
2N2305	6.44	4.29
2N2338	8.66	5.78
2N2339	4.95	3.30
2N2405	4.13	2.75
2N2475	5.94	3.96
2N2476	2.89	1.93
2N2477	3.30	2.20
2N2482	6.19	4.13
2N2594	2.48	1.65
2N2613	.54	.36
2N2614	.50	.33
2N2631	33.00	22.00
2N2708	7.84	5.23
2N2857	24.75	16.50
2N2869/2N301	1.52	1.01
2N2870/2N301A	3.71	2.48
2N2873	2.89	1.93
2N2876	49.50	33.00
2N2895	3.30	2.20
2N2896	4.95	3.30
2N2897	2.06	1.38
2N2898	5.36	3.58
2N2899	7.43	4.95
2N2900	2.64	1.76
2N2938	2.15	1.43
2N2953	.50	.33
2N3053/40053	1.24	.83
2N3054	2.48	1.65
2N3055	4.95	3.30
2N3118	4.95	3.30
2N3119	5.36	3.58
40022	.83	.55
40050	1.12	.75
40051	1.29	.86
40053*	1.24	.83
40054	14.00	9.35
40055	16.00	10.65
40056	18.00	12.00
40057	20.00	13.20
40058	9.90	6.60
40059	8.66	5.78
40060	9.90	6.60
40061	8.66	5.78
40062	9.90	6.60
40063	8.66	5.78
40064	9.90	6.60
40065	8.66	5 78
40066	35.00	23.30
40067	50.00	33.35
40068	57.00	38.00
40069	70.00	46.65
40070	120.00	79.85
40076	100.00	66.65
40077	24.75	16.50
40078	7.00	4.70
40079	480.00	320.00
40080	1.65	1.10
40081	3.30	2.20
40082	16.50	11.00
40084	1.40	.94

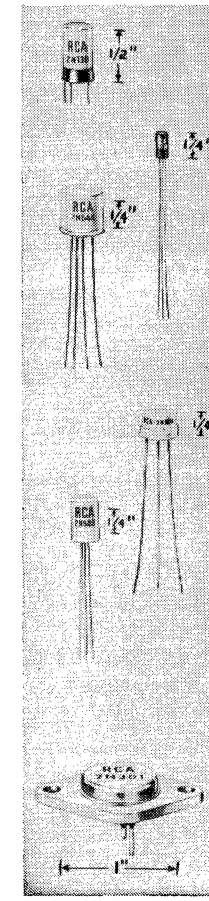
Type	RCA Equipment Manufacturers Price
MEMORY PLANES	
N7097-1	160.00
N7165-1	65.00
N7166-1	75.00
N7190-1	175.00
N7412-1	225.00

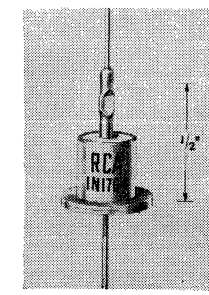
Type	1-99	100-999
SILICON RECTIFIERS		
1N248C;RC	1.82	1.21
USA1N249B	3.30	2.20
1N294C;RC	2.31	1.54
USA1N250B	4.54	3.03
1N250C;RC	3.30	2.20
1N440B	.73	.48
1N441B	.76	.51
1N442B	.87	.58
1N443B	1.09	.73
1N444B	1.24	.83
1N445B	1.60	1.07
1N536	.45	.30
1N537	.50	.33
1N538	.53	.35
JAN1N538	.91	.61
1N539	.59	.40
1N540	.68	.45
JAN1N540	1.22	.81
1N547	.96	.64
JAN1N547	1.45	.97
1N1095	.86	.58
USAF1N1183	3.30	2.20
1N1183A; RA	2.56	1.71
USAF1N1184	3.75	2.50
1N1184A; RA	3.22	2.15
USAF1N1185	5.10	3.40
USAF1N1186	6.45	4.30
1N1186A; RA	4.70	3.14
USAF1N1187	9.75	6.50
1N1187; A; R; RA	7.01	4.68
USAF1N1188	11.63	7.75
1N1188; A; R; RA	8.66	5.78
USAF1N1189	13.12	8.75
1N1189; A; R; RA	10.31	6.88
USAF1N1190	16.12	10.75
1N1190; A; R; RA	12.38	8.25
1N1195A; RA	5.36	3.58
1N1196A; RA	6.60	4.40
1N1197A;RA	8.25	5.50
1N1198A;RA	9.90	6.60
1N1199A;RA	1.24	.83
USAF1N1199	2.06	1.38
1N1200A;RA	1.40	.94
USAF1N1200	2.72	1.82
USAF1N1201	3.30	2.20
1N1202A;RA	2.72	1.82
USAF1N1202	3.96	2.64
1N1203A;RA	4.13	2.75
USAF1N1203	5.12	3.41
1N1204A;RA	5.12	3.41
USAF1N1204	6.27	4.18
1N1205A;RA	6.19	4.13
USAF1N1205	7.43	4.95
1N1206A;RA	7.43	4.95
USAF1N1206	8.66	5.78
1N1341B;RB	1.16	.77
1N1342B; RB	1.32	.88
1N1343B; RB	1.65	1.10
1N1344B; RB	2.48	1.65
1N1345B; RB	3.71	2.48
1N1346B; RB	4.54	3.03
1N1347B; RB	4.95	3.30
1N1348B; RB	6.19	4.13
1N1612 ;R	1.07	.72
1N1613 ;R	1.24	.83
1N1614 ;R	1.90	1.27
1N1615 ;R	4.13	2.75
1N1616 ;R	6.02	4.02
1N1763	.41	.28
1N1764	.58	.39
USA1N2135A	7.84	5.23
1N2858	.36	.24
1N2859	.38	.25
1N2860	.40	.26
1N2861	.43	.29
1N2862	.61	.41
1N2863	.66	.44
1N2864	.83	.55
1N3193	.38	.25
1N3194	.41	.28
1N3195	.66	.44
IN3196	.91	.61
1N3253	.41	.28
1N3254	.45	.30
1N3255	.69	.46
1N3256	.94	.63
1N3563	1.65	1.10
1N3754	.31	.21
1N3755	.33	.22
1N3756	.35	.23
40108 ;R	.99	.66
40109 ;R	1.16	.77

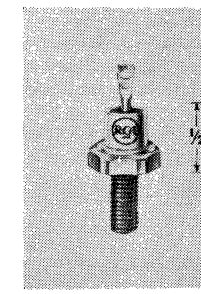
Type	RCA Equipment Manufacturers Price 1-99	100-999
40110 ;R	1.57	1.05
40111 ;R	2.15	1.43
40112 ;R	2.48	1.65
40113 ;R	3.14	2.09
40114 ;R	3.71	2.48
40115 ;R	10.75	7.15
40116 ;R	14.05	9.35
40208 ;R	1.32	.88
40209 ;R	1.40	.94
40210 ;R	1.90	1.27
40211 ;R	2.39	1.60
40212 ;R	2.89	1.93
40213 ;R	3.80	2.53
40214 ;R	4.21	2.81

Type	1-29	30 & Up
SILICON RECTIFIER ASSEMBLIES		
CR101	5.75	5.30
CR102	7.20	6.60
CR103	8.15	7.50
CR104	9.60	8.80
CR105	10.55	9.70
CR106	12.00	11.00
CR107	12.95	11.90
CR108	13.90	12.75
CR109	15.35	14.10
CR110	16.30	14.95
CR201	3.10	2.85
CR203	4.80	4.40
CR204	5.75	5.30
CR206	6.95	6.40
CR208	8.40	7.70
CR210	10.10	9.25
CR212	12.00	11.00
CR301	28.00	25.60
CR302	44.00	40.40
CR303	60.00	55.00
CR304	76.00	69.60
CR305	92.00	84.40
CR306	108.00	99.00
CR307	124.00	113.60
CR311	32.00	29.40
CR312	48.00	44.00
CR313	64.00	58.60
CR314	80.00	73.40
CR315	98.00	89.90
CR316	116.00	106.40
CR317	132.00	121.00
CR321	36.00	33.00
CR322	56.00	51.40
CR323	76.00	69.60
CR324	96.00	88.00
CR325	116.00	106.40
CR331	42.00	38.50
CR332	62.00	56.90
CR333	82.00	75.10
CR334	104.00	95.40
CR335	126.00	115.50
CR341	52.00	47.60
CR342	74.00	67.90
CR343	100.00	91.60
CR344	130.00	119.10
CR351	60.00	55.00
CR352	82.00	75.10
CR353	110.00	100.90
CR354	140.00	128.40

Type	1-99	100-999
SILICON CONTROLLED RECTIFIERS		
2N681	8.60	5.70
2N682	9.40	6.25
2N683	10.50	7.00
2N684	12.70	8.45
2N685	14.85	9.90
2N686	18.00	12.00
2N687	20.95	14.00
2N688	26.25	17.50
2N689	31.85	21.25
2N1770	5.36	3.58
2N1771	5.78	3.85
2N1772	7.43	4.95
2N1773	9.49	6.33
2N1774	11.96	7.98
2N1775	14.03	9.35
2N1776	16.09	10.73
2N1777	20.65	13.75
2N1778	24.75	16.50
2N1842A	7.75	5.15
2N1843A	8.50	5.65
2N1844A	9.40	6.25
2N1845A	11.45	7.65
2N1846A	13.50	9.00
2N1847A	16.10	10.75
2N1848A	18.75	12.50
2N1849A	23.60	15.75
2N1850A	27.00	18.00
2N3228	1.62	1.08
40216	48.00	32.00
40230	4.95	3.30







*See price schedule for new equipment types.

DIRECTRON

Industrial Selenium Rectifiers, Transformers, Chokes and Power Supplies

FULL WAVE BRIDGE RECTIFIERS, SINGLE PHASE, RESISTIVE-INDUCTIVE LOADS

ALL PRICES SHOWN ARE USER NET PRICES

Max. Amps.	18v. in— 14v. out		36v: in— 28v. out		54v. in— 42v. out		130v. in— 100v. out	
	No.	Price	No.	Price	No.	Price	No.	Price
½	A 18	$ 1.05	A 36	$ 1.50	A 54	$ 2.50	A 130	$ 5.00
1	B 18	1.20	B 36	2.20	B 54	3.20	B 130	8.00
2	C 18	2.10	C 36	3.00	C 54	4.50	C 130	10.00
3	D 18	2.70	D 36	4.00	D 54	6.00	D 130	14.00
4	E 18	3.60	E 36	7.50	E 54	10.00	E 130	24.00
6	F 18	4.50	F 36	9.00	F 54	12.00	F 130	32.00
10	G 18	6.60	G 36	12.00	G 54	18.00	G 130	39.00
12	H 18	8.20	H 36	16.00	H 54	22.00	H 130	44.00
15	J 18	10.50	J 36	20.00	J 54	27.00	J 130	54.00
20	K 18	12.50	K 36	25.00	K 54	36.00	K 130	77.00
24	L 18	15.00	L 36	30.00	L 54	42.00	L 130	82.00
30	M 18	19.10	M 36	37.00	M 54	55.00		
36	P 18	24.00	P 36	48.00				
50	R 18	30.00	R 36	60.00				

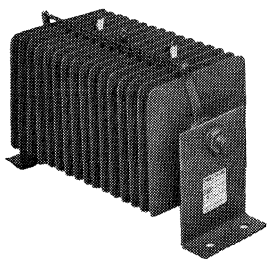
C36

220 v. Single Phase available . . . up to 1000 amps.

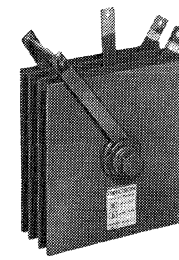
HALF-WAVE, CENTER-TAP, DOUBLER,

TRIPLER or 3-PHASE

Quotations on request



E130

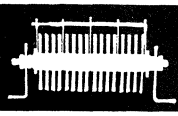


F18

24 HOUR SERVICE

on Custom Built Stacks

SEE OUR AD UNDER "TRANSFORMERS" IN SECTION 5600 FOR RECTIFIER TRANSFORMERS AND HIGH CURRENT CHOKES



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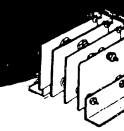
DIRECTRON

SILICON POWER RECTIFIERS

HY-A-SIL
High - Ampere - Silicon



FEATURES

- High operating temperature, 190°C (Up to 120°C ambient)
- High operating voltage (Up to 600 p.i.v.)
- High efficiency (99% compared to about 75% for selenium)
- Excellent regulation (4% compared to about 15% for selenium)

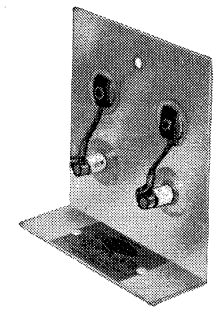
Stock No.	Type	AC Input Volts up to	DC Output Volts up to	Max. Amps Self Cooled	Max. Amps Fan Cooled	Size And Weight	User Net Price
SI-CT-A	Center-Tap	18-0-18	16	40	80	B	$ 15.00
SI-CT-B	Center-Tap	36-0-36	32	40	80	B	20.00
SL-CT-A	Center-Tap	18-0-18	16	50	100	B	17.50
SL-CT-B	Center-Tap	36-0-36	32	50	100	B	22.50
SL-CT-D	Center-Tap	72-0-72	64	50	100	B	36.00
SL-CT-F	Center-Tap	140-0-140	125	50	100	B	44.00
SK-CT-A	Center-Tap	18-0-18	16	100	200	C	30.00
SK-CT-B	Center-Tap	36-0-36	32	100	200	C	34.00
SK-CT-D	Center-Tap	72-0-72	64	100	200	C	37.00
SK-CT-F	Center-Tap	140-0-140	125	100	200	C	48.00
SM-CT-A	Center-Tap	18-0-18	16	200	400	D	45.00
SM-CT-B	Center-Tap	36-0-36	32	200	400	D	60.00
SM-CT-D	Center-Tap	72-0-72	64	200	400	D	62.00
SM-CT-F	Center-Tap	140-0-140	125	200	400	D	76.00
SO-CT-B	Center-Tap	36-0-36	32	400	800	E	100.00
SA-BR-D	1φ Bridge	140	125	1	*	—	9.00
SA-BR-F	1φ Bridge	280	250	1	*	—	10.50
SC-BR-D	1φ Bridge	140	125	2	*	—	10.50
SC-BR-F	1φ Bridge	280	250	2	*	—	12.00
SD-BR-A	1φ Bridge	36	32	6	12	F	18.00
SD-BR-D	1φ Bridge	140	125	6	12	F	30.00
SD-BR-F	1φ Bridge	280	250	6	12	F	39.00
SE-BR-A	1φ Bridge	36	32	10	20	G	21.00
SE-BR-D	1φ Bridge	140	125	10	20	G	36.00
SE-BR-F	1φ Bridge	280	250	10	20	G	44.00
SF-BR-A	1φ Bridge	36	32	20	40	H	24.00
SF-BR-D	1φ Bridge	140	125	20	40	H	40.00
SF-BR-F	1φ Bridge	280	250	20	40	H	48.00
SI-BR-A	1φ Bridge	36	32	40	80	J	30.00
SI-BR-B	1φ Bridge	72	64	40	80	J	36.00
SI-BR-D	1φ Bridge	140	125	40	80	J	63.00
SI-BR-F	1φ Bridge	280	250	40	80	J	95.00
SL-BR-A	1φ Bridge	36	32	50	100	J	33.00
SL-BR-B	1φ Bridge	72	64	50	100	J	39.00
SL-BR-D	1φ Bridge	140	125	50	100	J	70.00
SL-BR-F	1φ Bridge	280	250	50	100	J	110.00
SG-BR-A	1φ Bridge	36	32	70	140	J	40.00
SG-BR-B	1φ Bridge	72	64	70	140	J	50.00
SG-BR-D	1φ Bridge	140	125	70	140	J	80.00
SG-BR-F	1φ Bridge	280	250	70	140	J	130.00
SK-BR-A	1φ Bridge	36	32	100	200	K	60.00
SK-BR-B	1φ Bridge	72	64	100	200	K	68.00
SK-BR-D	1φ Bridge	140	125	100	200	K	90.00
SK-BR-F	1φ Bridge	280	250	100	200	K	150.00
SM-BR-A	1φ Bridge	36	32	200	400	L	100.00
SM-BR-B	1φ Bridge	72	64	200	400	L	120.00
SM-BR-D	1φ Bridge	140	125	200	400	L	180.00
SM-BR-F	1φ Bridge	280	250	200	400	L	260.00
SO-BR-B	1φ Bridge	72	64	400	800	M	270.00
SO-BR-F	1φ Bridge	280	250	400	800	M	480.00
SL-PH-A	3φ Bridge	36	48	75	150	N	60.00
SL-PH-B	3φ Bridge	72	96	75	150	N	85.00
SL-PH-C	3φ Bridge	105	144	75	150	N	120.00
SL-PH-D	3φ Bridge	140	188	75	150	N	180.00
SL-PH-E	3φ Bridge	220	290	75	150	M	220.00
SK-PH-E	3φ Bridge	220	290	100	200	M	240.00
SM-PH-E	3φ Bridge	220	290	200	400	M	300.00
SO-PH-E	3φ Bridge	220	290	400	800	M	375.00

All above ratings based on 30°C ambient. Fan-cooled ratings based on air velocity of 1000 linear ft/minute. For resistive or inductive loads, as rated. For capacitive or battery loads, derate amperage 20%. Doublers, triplers, 3 phase half wave and 3 phase center-tap also available. Custom-built stacks, 24 hour service.

DIMENSIONS WITH BRACKETS

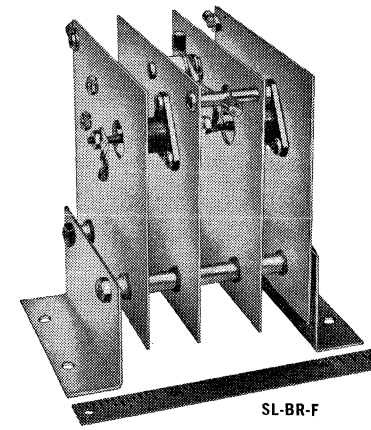
Size	Length	Height	Width	Weight
B	3″	6″	5″	12 oz.
C	3″	6″	6″	1 lb.
D	4″	8″	7″	2 lbs.
E	4″	9″	8″	6 lbs.
F	6″	5″	5″	1¼ lbs.
G	6″	6″	5″	1½ lbs.
H	6″	6″	6″	2 lbs.
J	6″	6″	5″	1½ lbs.
K	7″	8″	7″	4 lbs.
L	8″	9″	8″	6 lbs.
M	8″	11″	10″	6 lbs.
N	8″	6″	5″	4 lbs.

*Not suitable for fan-cooling

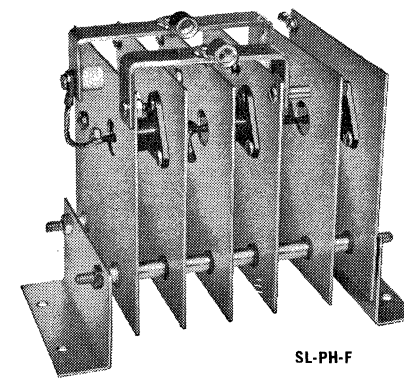


SC-BR-F

SA-BR-D



SL-BR-F



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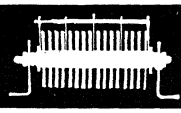

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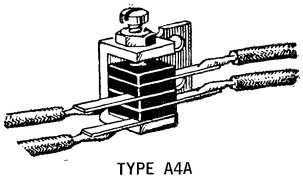
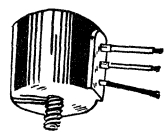
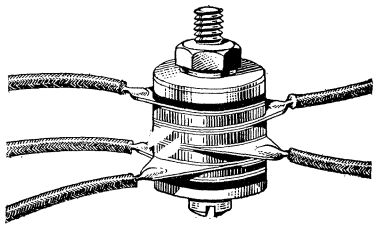
SCHAUER INSTRUMENT RECTIFIERS



TYPE A4A



TYPE BP2B



TYPE C4A

Schauer copper oxide rectifiers for instrument and other uses are processed and individually tested to meet the requirements of the user. Versatile processing techniques make possible variations in characteristics for special or unusual applications. Each rectifier is rated conservatively for long life and dependable operation. Lead lengths to customer specifications.

"A" SIZE CELLS have good frequency response above the audio range and can be used at higher frequencies. Recommended for meter applications needing 1MA or less for operation. Can be used for other applications requiring up to 5MA.

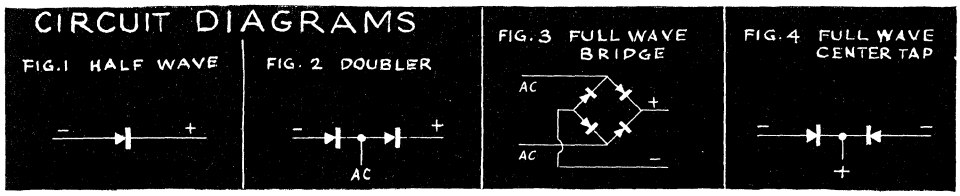
"B" SIZE CELLS (encapsulated) are for meter, relay and other applications requiring 1MA up to their maximum rating. Recommended for commercial and low audio frequency operation.

"C" SIZE CELLS are for general applications requiring larger output currents, and operation of meters, relays and other apparatus. Special process cells for varistor applications.

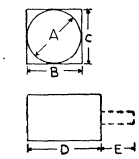
Write, wire or telephone for complete information. We welcome your inquiries concerning any special rectification problem. Schauer has been manufacturing high quality, dry-disc rectifiers since 1930.

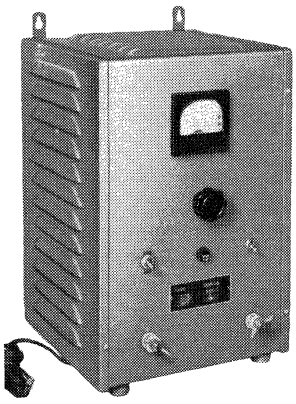
NOTE: The Schauer Manufacturing Corp. is the exclusive manufacturer of replacement Westinghouse copper oxide rectifiers

Max. Cont. Rating			Circuit Diagram Fig.	Cell Dia. Inches	No. of Cells	Leads	Mounting Screw Size	DIMENSIONS*					Type
D.C. M.A.	D.C. Volts	Max. RMS Volts						(Dia.) A	B	C	D	E	
3	6.0		2	3/16 sq.	2	3	Hole for 2-56		3/8	1/4	9/16		A2C
5	3.0	5.0	3	3/16 sq.	4	4	Hole for 2-56		3/8	1/4	9/16		A4A
13	3.0		1	7/16	1	2	6-32	9/16			7/16	9/32	BP1C
13	6.0		4	7/16	2	3	6-32	9/16			1/2	5/16	BP2B
26	1.5	2.5	2	7/16	2	3	6-32	9/16			1/2	5/16	BP2C
26	3.0	5.0	3	7/16	4	5	6-32	9/16			23/32	5/16	BP4A
32	3.0		1	3/4	1	0	10-32	3/4			11/16	5/16	C1C
32	6.0		2	3/4	2	0	10-32	3/4			3/4	5/16	C2C
32	9.0		1	3/4	3	0	10-32	3/4			7/8	1/4	C3C
64	3.0	5.0	3	3/4	4	5	10-32	3/4			31/32	5/16	C4A



*Dimensions





MODEL SA-48006

SCHAUER ADJUSTABLE 6 VOLT and 12 VOLT BATTERY ELIMINATORS

MODEL AR 5612

MODEL SA-48006 — 6 volt and 12 volt adjustable battery eliminator for AM and FM 2-way and marine radios. A.C. input: 115 volts, 60 cycle, single-phase. D.C. output: either 6 volts D.C. up to a maximum of 48 amperes; or 12 volts D.C. up to a maximum of 24 amperes. To maintain required voltage output under various load conditions, a dial-type tap switch provides adjustment from less than 1 ampere up to maximum rated output. Case is 10" wide x 9½" deep x 15" high, arranged for either bench or wall mounting.

MODEL AR 5612 — 6 volt and 12 volt adjustable battery eliminator for servicing auto radios. Output adjustable by rugged, silver contact tap switch. Low range output: 7½ volts at 12 amps., continuous; 20 amps., intermittent. High range: 15 volts at 6 amps., continuous; 11 amps., intermittent. Housed in sturdy steel case 7½" wide x 9½" deep x 9" high.

Semiconductor Division

SCHAUER MANUFACTURING CORP. • CINCINNATI, OHIO

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SCHAUER SEMICONDUCTORS

HEAVY DUTY ½ WATT ZENER DIODES

A 10 watt Silicon Junction in a ½ watt package for maximum surge capacity and stability. 25 watt-ms surge from 1.0 to 10ms.

Cool operation for maximum reliability and freedom from temperature drift and thermal fatigue. (Rated for a 100°C. junction temperature at maximum current.)

Mass-produced on automatic equipment for lowest cost and maximum similarity.

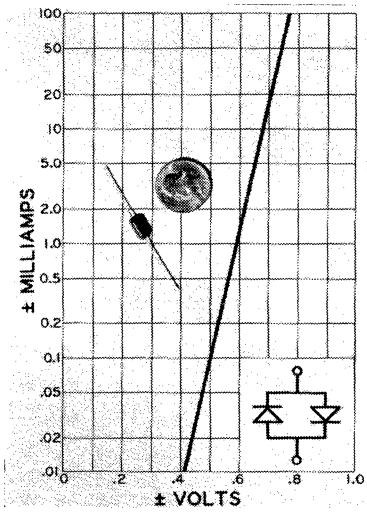
ELECTRICAL CHARACTERISTICS

Schauer Type No. 10% Tolerance (Note 1)	Nominal Zener Voltage V_Z @ I_{ZT} = 20 ma T_A = 25°C.	Dynamic Impedence Z_D @ I_{ZT} = 20 ma		Maximum Recommended Zener Current I_{ZM}	Typical Temperature Coefficient of Voltage %/°C.	Price 1-99 10% Tol.
		Max.	Typical			
SZ 2.4	2.4 Volts	40 Ohms	14 Ohms	210 ma	−.054	$.81
SZ 2.7	2.7	40	16	185	−.055	.81
SZ 3.0	3.0	40	17	170	−.055	.64
SZ 3.3	3.3	40	17	150	−.054	.64
SZ 3.6	3.6	40	18	140	−.050	.64
SZ 3.9	3.9	40	17	130	−.045	.64
SZ 4.3	4.3	30	17	120	−.037	.64
SZ 4.7	4.7	30	12	110	−.029	.64
SZ 5.1	5.1	20	10	100	−.019	.64
SZ 5.6	5.6	20	6	90	−.009	.64
SZ 6.2	6.2	10	2	80	+.018	.64
SZ 6.8	6.8	10	1.5	75	+.035	.64
SZ 7.5	7.5	10	1.5	70	+.044	.64
SZ 8.2	8.2	10	2	60	+.049	.64
SZ 9.1	9.1	10	4	55	+.053	.81
SZ 10.00	10.00	10	6	50	+.055	.81

NOTE 1. Add suffix "A" for 5% tolerance (i.e., SZ4.7A) for 4.7 ±5% volts.

NOTE 2. Series strings to close voltage tolerances available at low prices.

NOTE 3. Temperature compensated high voltage assemblies available.



SV1 Silicon Varistor as compared in size to 25¢ piece. Chart shows its I vs E characteristics over four decades.

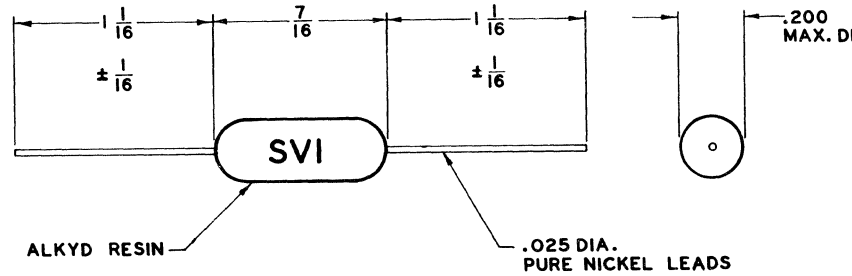
NOTE: Prices subject to change without notice.

SCHAUER SV1 SILICON VARISTOR

SV1 Varistor consists of matched silicon junctions connected in parallel and oppositel poled. This voltage variable resistance goes through four decades of current for a ha volt change in signal and makes possible its use as a single component to conve linear AC or DC information into logarithmic information following the curv $I_{ma} = e^{26(E-.59)}$ between the range I = .02 ma to 200 ma.

ELECTRICAL CHARACTERISTICS — Test limits: 50 microamperes max. at .2V D.C., 22 milliamperes min. at 1.0V D.C. Dissipation: ¾ watt at 25°C, ¼ watt at 100°C. Maximu ½ cycle surge current, 25 amps. peak.

SV1 is encapsulated with an alkyd molding compound. An inner epoxy seal, lor leakage paths, and high pressure molding assure reliable performance in a environments. Prices, 1-99: $0.45 each.



Dimensions of SV1 Varistor. Also applies to Schauer ½ watt Zener Diodes. Zener cathode terminal is marked by red dot.

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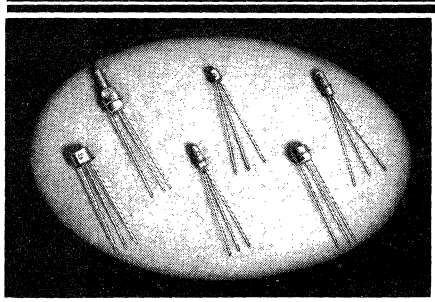
SPRAGUE TRANSISTORS



GERMANIUM AND SILICON TRANSISTORS

- Sprague Transistors are Produced by Advanced Equipment and the Latest Manufacturing Techniques.
- Excellent Design Flexibility and Electrical Properties Meet the Most Rigid Performance and Reliability Standards.
- Highest Quality and Outstanding Economy.
- For Complete Technical Data, Refer to Latest Issue of the Applicable Engineering Bulletin.
- Call your Sprague Industrial Distributor for current quantity prices.

Type Number	Case Size	Description
2N128	TO-24	Ge Switch SBT
JAN-2N128	TO-24	Ge Switch SBT
2N240	TO-24	Ge Switch SBT
JAN-2N240	TO-24	Ge Switch SBT
2N344	TO-24	Ge Ampl. SBT
2N345	TO-24	Ge Ampl. SBT
2N346	TO-24	Ge Ampl. SBT
2N393	TO-24	Ge Switch MAT*
USA-2N393	TO-24	Ge Switch MAT
JAN-2N393	TO-24	Ge Switch MAT
2N495	TO-1	Si Switch SPAT*
†2N495/18	TO-18	Si Switch SPAT
2N496	TO-1	Si Switch SPAT
††2N496/18	TO-18	Si Switch SPAT
2N499	TO-1	Ge Amplifier MADT*
USA-2N499	TO-1	Ge Amplifier MADT
2N499A	TO-1	Ge Amplifier MADT
USA-2N499A	TO-1	Ge Amplifier MADT
2N501	TO-1	Ge Switch MADT
2N501A	TO-1	Ge Switch MADT
USA-2N501A	TO-1	Ge Switch MADT
JAN-2N501A	TO-1	Ge Switch MADT
2N502	TO-9	Ge Ampl. MADT
2N502A	TO-9	Ge Ampl. MADT
USA-2N502A	TO-9	Ge Ampl. MADT
2N502B	TO-9	Ge Ampl. MADT
USA-2N502B	TO-9	Ge Ampl. MADT
2N503	TO-9	Ge Ampl. MADT
2N504	TO-1	Ge Ampl. MADT
2N588	TO-1	Ge Ampl. MADT
2N768	TO-18	Ge Switch ECDC®
2N769	TO-18	Ge Switch ECDC
2N779A	TO-18	Ge Switch MADT
2N794	TO-18	Ge Switch ECDC
2N795	TO-18	Ge Switch ECDC
2N796	TO-18	Ge Switch ECDC
2N846A	TO-18	Ge Switch ECDC
2N858	TO-18	Si Switch SPAT
2N859	TO-18	Si Switch SPAT
2N860	TO-18	Si Switch SPAT
2N861	TO-18	Si Switch SPAT
2N862	TO-18	Si Switch SPAT
2N863	TO-18	Si Switch SPAT
2N864	TO-18	Si Switch SPAT
2N865	TO-18	Si Switch SPAT
2N976	TO-18	Ge Switch ECDC
2N979	TO-18	Ge Switch MADT
2N980	TO-18	Ge Switch MADT
2N982	TO-18	Ge Switch MADT
2N983	TO-18	Ge Switch MADT
2N984	TO-18	Ge Switch MADT
2N1118	TO-5	Si Ampl. SPAT
SA-2N1118	TO-5	Si Ampl. SPAT
SN-2N1118	TO-5	Si Ampl. SPAT
2N1118A	TO-5	Si Ampl. SPAT
2N1119	TO-5	Si Switch SPAT
SA-2N1119	TO-5	Si Switch SPAT
SN-2N1119	TO-5	Si Switch SPAT
2N1122	TO-24	Ge Switch MAT
2N1122A	TO-24	Ge Switch MAT
2N1300	TO-5	Ge Switch ECDC
2N1301	TO-5	Ge Switch ECDC
2N1411	TO-24	Ge Switch MAT
USA-2N1411	TO-24	Ge Switch MAT
2N1427	TO-24	Ge Switch MAT
2N1429	TO-5	Si Switch SPAT
2N1499A	TO-9	Ge Switch ECDC
USA-2N1499A	TO-9	Ge Switch ECDC
2N1499B	TO-9	Ge Switch ECDC
2N1500	TO-9	Ge Switch MADT
USA-2N1500	TO-9	Ge Switch MADT
2N1676	TO-5	Si Chopper SPAT
2N1677	TO-5	Si Chopper SPAT
2N1683	TO-5	ECDC Switch
2N1726	TO-9	MADT Communication
2N1727	TO-9	MADT Communication
2N1728	TO-9	MADT Communication
2N1742	TO-9	MADT Communication
2N1743	TO-9	MADT Communication
2N1744	TO-9	MADT Communication
2N1745	TO-9	MADT Amplifier
2N1746	TO-9	MADT Amplifier
2N1747	TO-9	MADT Amplifier
2N1748	TO-9	MADT Amplifier
2N1748A	TO-9	MADT Amplifier
2N1749	TO-9	MADT Amplifier
2N1752	TO-9	MADT Amplifier
2N1754	TO-9	ECDC Switch
2N1785	TO-9	MADT Amplifier
2N1786	TO-9	MADT Amplifier
2N1787	TO-9	MADT Amplifier
2N1788	TO-9	MADT Amplifier
2N1789	TO-9	MADT Communication
2N1790	TO-9	MADT Communication
2N1864	TO-9	MADT Communication
2N1865	TO-9	MADT Communication
2N1866	TO-9	MADT Communication
2N1867	TO-9	MADT Communication
2N1868	TO-9	MADT Communication
2N2048	TO-9	ECDC Switch
2N2048A	TO-9	ECDC Switch
2N2095	TO-31	Ge Amplifier ECDC
2N2096	TO-31	Ge Core Driver ECDC
2N2097	TO-31	Ge Core Driver ECDC
2N2098	TO-9	Ge Amplifier ECDC
2N2099	TO-9	Ge Core Driver ECDC
2N2100	TO-9	Ge Core Driver ECDC
2N2162	TO-5	Si Chopper SPAT
2N2163	TO-5	Si Chopper SPAT
2N2164	TO-5	Si Chopper SPAT
2N2165	TO-5	Si Chopper SPAT
2N2166	TO-5	Si Chopper SPAT
2N2167	TO-5	Si Chopper SPAT
2N2168	TO-9	Ge Switch MADT
2N2169	TO-9	Ge Switch MADT
2N2170	TO-9	Ge Switch MADT
2N2185	TO-18	Si Chopper SPAT
2N2186	TO-18	Si Matched Pair SPAT
2N2187	TO-18	Si Matched Pair SPAT
2N2217	TO-5	NPN Si Switch SEPT
2N2218	TO-5	NPN Si Switch SEPT
2N2219	TO-5	NPN Si Switch SEPT
USA-2N2219	TO-5	NPN Si Switch SEPT®
2N2220	TO-18	NPN Si Switch SEPT
2N2221	TO-18	NPN Si Switch SEPT
2N2222	TO-18	NPN Si Switch SEPT
USA-2N2222	TO-18	NPN Si Switch SEPT
2N2274	TO-18	Si Chopper SPAT
2N2275	TO-18	Si Matched Pair SPAT
2N2276	TO-18	Si Chopper SPAT
2N2277	TO-18	Si Matched Pair SPAT
2N2278	TO-18	Si Chopper SPAT
2N2279	TO-18	Si Matched Pair SPAT
2N2280	TO-18	Si Chopper SPAT
2N2281	TO-18	Si Matched Pair SPAT
2N2360	TO-12	Ge Amplifier MADT
2N2361	TO-12	Ge Amplifier MADT
2N2362	TO-12	Ge Amplifier MADT
2N2377	TO-18	Si Amplifier SPAT
2N2378	TO-18	Si Switch SPAT
2N2398	TO-12	Ge Amplifier MADT
2N2399	TO-12	Ge Amplifier MADT
2N2400	TO-18	Ge Switch ECDC
2N2401	TO-18	Ge Switch ECDC
2N2402	TO-18	Ge Switch ECDC
2N2451	TO-24	Ge Switch MAT
2N2487	TO-18	Ge Switch MADT
2N2488	TO-18	Ge Switch MADT
2N2489	TO-18	Ge Switch MADT
2N2537	TO-5	NPN Si Switch SEPT
2N2538	TO-5	NPN Si Switch SEPT
2N2539	TO-18	NPN Si Switch SEPT
2N2540	TO-18	NPN Si Switch SEPT
2N2787	TO-5	NPN Si Switch SEPT
2N2788	TO-5	NPN Si Switch SEPT
2N2789	TO-5	NPN Si Switch SEPT
2N2790	TO-18	NPN Si Switch SEPT
2N2791	TO-18	NPN Si Switch SEPT
2N2792	TO-18	NPN Si Switch SEPT
2N2795	TO-18	Ge Switch ECDC
2N2796	TO-18	Ge Switch ECDC
2N2797	TO-18	Ge Switch ECDC
2N2798	TO-18	Ge Switch ECDC
2N2799	TO-9	Ge Switch ECDC
2N2942	TO-9	Ge Switch ECDC
2N2943	TO-9	Ge Switch ECDC
2N2958	TO-5	NPN Si Switch SEPT
2N2959	TO-5	NPN Si Switch SEPT
2N2962	S-31	ECDC VHF Pwr. Ampl.
2N2963	S-31	ECDC VHF Amplifier
2N2964	S-31	ECDC VHF Pwr. Ampl.
2N2965	S-31	ECDC VHF Pwr. Ampl.
2N2968	TO-5	Si Symmetrical SPAT
2N2969	TO-18	Si Symmetrical SPAT
2N2970	TO-5	Si Symmetrical SPAT
2N2971	TO-18	Si Symmetrical SPAT
2N3.15	TO-18	NPN Si Switch SEPT
2N3116	TO-18	NPN Si Switch SEPT
2N3117	TO-18	Si Switch SPAT
2N3318	TO-18	Si Switch SPAT
2N3319	TO-18	Si Switch SPAT
2N3320	TO-18	Ge Switch MADT
2N3321	TO-18	Ge Switch MADT
2N3322	TO-18	Ge Switch MADT

†Electrically interchangeable with 2N495 but in TO-18 case.
†Electrically interchangeable with 2N496 but in TO-18 case.

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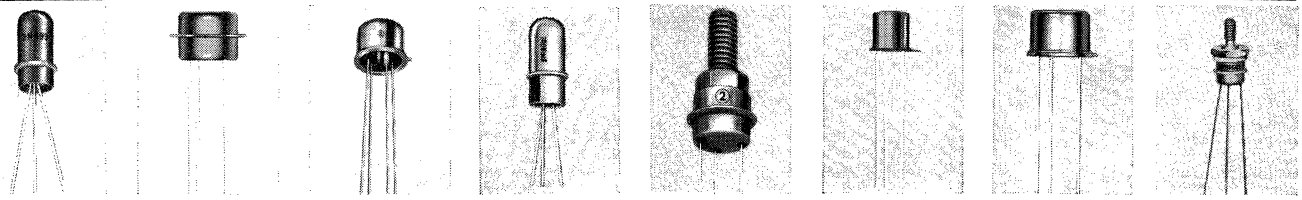
®Trademark of Sprague Electric Co.



TO-1 TO-9 TO-12 TO-24 TO-31 TO-18 TO-5 S-31

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TECHNICAL APPARATUS BUILDERS

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SILTAB

SILTAB® SILICON BRIDGE RECTIFIER FINNED STACKS Up to 125°C & CONVECTION COOLED

	SINGLE PHASE		FULL WAVE BRIDGE				SINGLE PHASE			CENTER TAP	
DC AMP	36VAC 32VDC	72V 62V	140V 125V	280V 250V	540V 500V	840V 750V	1120 1000	1400 1250	2800 2500	36V.C.T. 16VDC	72V.C.T. 32VDC
1.2	$ 2.45	$ 2.90	$ 3.75	$ 5.75	$ 9.60	$ 14.30	$ 24.15	$ 30.00	$ 59.75	$ 1.80	$ 2.15
2	3.75	4.60	5.15	6.90	13.90	22.75	42.85	48.75	97.00	2.70	3.45
3	4.45	5.45	6.00	9.90	19.75	32.45	89.00	99.45	188.00	3.15	4.15
6	6.60	8.90	11.90	13.60	25.45	41.60	129.75	161.90	336.00	4.00	6.00
12	7.75	12.90	19.45	33.15	42.15	51.30				4.60	6.60
18	8.15	13.75	20.00	38.00	50.60	63.90	FAST REPLACEMENT DELIVERIES ON			5.00	7.00
24	10.90	15.75	21.60	43.90	77.75	90.75	VICKERS - KOTRON - FEDERAL -			6.75	8.15
35	13.60	20.30	30.90	81.45	117.90	135.15	CHATHAM - G. E. - WESTINGHOUSE -			7.90	10.90
50	21.90	27.75	63.75	108.00	139.45	188.30	MALLORY - I.R.C. - S.C.A. - R. R. -			12.75	15.75
70	25.75	44.15	72.00	126.00	153.15	201.45	I. T. T. - B. L. & Others! OTHER			14.90	22.30
160	30.60	57.45	81.00	144.90	189.90	252.60	SIZE & TYPES AVAILABLE. SPECIFY			21.60	30.45
240	60.00	80.00	153.90	243.75	333.30	399.00	YOUR NEEDS!			28.90	39.30

"SURGTAB"® DIODE TRANSIENT PEAK VOLTAGE CLIPPER CLAMP!

MFGR. TYPE	— VOLTS — RMS	PEAK	USER NET	MFGR. TYPE	— VOLTS — RMS	PEAK	USER NET	MFGR. TYPE	— VOLTS — RMS	PEAK	USER NET	MFGR. TYPE	— VOLTS — RMS	PEAK	USER NET
SB18	18	27	$.50	SB54	54	76	$.70	SB150	150	215	$1.00	SB250	250	340	$1.30
SB22	22	31	.50	SB70	70	100	.80	SB180	180	260	1.05	SB266	266	380	1.45
SB26	26	37	.50	SB75	75	108	.80	SB200	200	290	1.15	SB300	300	430	1.60
SB40	40	58	.60	SB100	100	145	.80	SB210	210	300	1.15	SP320	320	460	3.00
SB50	50	71	.70	SB125	125	180	.90	SB225	225	320	1.30	SP630	630	900	6.15

Other sizes & types available. Send data for correct type & size "Surgtab" clipper for diode protection from input & output transients!

SELENIUM "TEKSEL" RECTIFIER STACKS — ALL TYPES! SIZES & CURRENT CONVECTION COOLED RATINGS!

D.C. AMP	FWB 18VAC 14VDC	FWB 36VAC 28VDC	FWB 54VAC 42VDC	FWB 72VAC 58VDC	FWB 130VAC 100VDC	FWB 144VAC 118VDC	FWB 266VAC 217VDC	F.W.C.T. 26V.C.T. 12VDC
0.5	$ 1.00	$ 1.45	$ 2.30	$ 3.85	$ 4.90	$ 5.45	$ 9.75	$ 1.30
1	1.40	2.15	3.00	4.90	7.15	8.00	15.75	1.75
2	2.00	2.90	4.45	6.25	9.30	12.45	19.45	2.15
3	2.60	3.90	5.75	8.60	13.00	17.25	27.30	3.00
4	3.50	6.15	9.60	10.90	16.75	21.90	47.60	Query
6	4.40	8.30	11.45	14.00	21.90	25.15	63.45	3.75
10	6.35	10.75	17.60	18.15	29.00	33.60	75.15	4.30
12	8.00	11.45	21.95	25.60	41.75	47.75	86.75	6.00
15	10.30	12.90	22.75	32.75	48.90	52.60	106.90	7.00
20	12.45	20.45	24.30	40.90	69.60	75.90	152.00	8.00
24	14.75	29.15	35.00	48.30	80.90	90.00	162.30	10.30
30	19.00	36.30	53.60	66.45	117.30	125.75	249.60	14.90
36	23.75	47.15	69.30	81.00	132.00	153.90	299.45	16.45
50	33.45	63.75	121.50	108.75	172.45	207.60	398.90	Query

DC AMP	FWB 36VAC 42VDC	THREE PHASE 130VAC 160VDC	234VAC 282VDC	FWB 420VAC 460VDC
1	$ 4.90	$17.90	$33.75	$63.20
2	7.45	21.75	39.90	66.90
4	9.90	33.15	62.15	99.75
6	12.90	46.90	81.75	108.60
10	16.60	62.45	116.00	197.45
12	18.45	66.60	132.15	212.60

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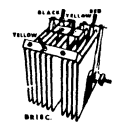
COP-OX ALL GOV'T TYPES LOW PRICES!



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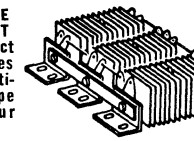

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"TABTRAN" RECTIFIER TRANSFORMERS — F.W.B., C.T. & H.W. — ISOLATED PRI. & SECD!

Part No.	User Net	Primary 50-500Cps	Sec. Volts Series	Sec. Volts Parallel	Sec. Amps Series	Sec. Amps Parallel	Approximate Dimensions L	W	H	ML	MW	Mtg/H	Lbs.
TR4000R	$ 3.00	115	2x16(32v)	0-16v	1	2	2¾	2	2 5/16	3⅛	—	#10	1.5
36 Volts (A) Series = 0-3-6-9-12-15-18-27-30-33-36 Volts (A) Parallel 0-9-15-18V x Two (2) Secondaries													
TR4001	4.15	115	Two Sec'ds	0-9-15-18	1	2	3	2	2½	2½	1¾	#10	1.8
TR4002	5.90	115	0-9-15-18	0-9-15-18	2	4	3	3⅛	2½	2½	2 5/16	#10	3.3
TR4003	8.00	115	See (A)	0-9-15-18	5	10	4⅛	3½	3½	3½	2 5/16	#10	6.3
TR4005	15.15	115	ABOVE	0-9-15-18	12	24	4½	5⅜	3¾	3¾	3 15/16	#10	13
TR4006	27.00	115	"	0-9-15-18	25	50	5¼	6¼	4⅜	4⅜	4 1/16	¼	20
TR4007	60.00	115&230	"	0-9-15-18	50	100	9½	8½	7⅜	7⅜	6	5/16	62
TR4008	108.00	115&230	"	0-9-15-18	100	200	8⅝	12½	7⅛	7⅛	9	5/16	112
TR3607	43.00	115&230	0-9-18	0-9-18	50	100	6½	7¾	5⅝	5 5/16	5⅛	¼	40
TR3608	85.00	115&230	27-36v	0-9-18	100	200	7⅝	8 5/16	6⅜	6¾	5 7/16	¼	62
56 VOLTS 0-14-28-42-56V = 56V.C.T. or Parallel = 28V.C.T. @ 2x Current													
TR5602	$ 7.25	115		0-14-28	2	4	3⅞	3¼	3⅜	3⅛	2½	#10	8
TR5604	11.25	115		0-14-28	4	8	4¼	3¾	3¾	3 7/16	3	#10	12
TR5606	18.00	115	0-14	0-14-28	6	12	5⅜	4¼	4⅝	4⅜	2⅞	#10	18
TR5608	22.00	105,115,125	28	0-14-28	8	16	5⅜	5	4⅝	4⅜	3⅝	#10	22
TR5612	27.00	105,115,125	42	0-14-28	12	24	6½	5½	5⅝	5 5/16	3⅜	#10	27
TR5625	45.00	105,115,125	56	0-14-28	25	50	6½	7⅛	5⅝	5 5/16	5⅛	¼	45
TR5650	85.00	115/230		0-14-28	50	100	7⅝	7¼	6⅜	6¾	4⅞	5/16	85
TR561C	125.00	115/230		0-14-28	100	200	7⅝	11	6⅜	6¾	8⅛	5/16	125
160 VOLTS 0-40-80-120-160V = 160V.C.T. or Parallel = 80V.C.T. @ 2x Current													
TR16002	$ 14.50	115			2	4	4 5/16	4⅜	4	3¾	3⅜	#10	11
TR16004	26.00	105-115-125	0-40 and	0-40	4	8	6½	5	5 5/16	5 5/16	3¼	#10	19
TR16008	41.00	105-115-125	80-120-160	and 80	8	16	6½	6⅝	5 5/16	5 5/16	4⅞	¼	36
TR16012	55.00	115-230			12	24	7⅝	6½	6⅜	6¾	3⅞	¼	40

CHOKES	NET	(M/Hy)	AMP	OHM	L	W	H	ML	MW	Mtg/H	Lbs.
CR6001	$ 2.70	100	1	1.4	2¾	2	2 5/16	3⅛	—	#8	1.!
CR6002	4.50	100	2	0.67	3¾	2¼	3⅛	3 3/16	2	#10	3.!
CR6007	5.45	10	4	0.1	3⅜	2½	2 13/16	2 13/16	2 5/16	#10	4
CR6003	8.70	70	6	0.6	4⅛	3¾	3½	3 7/16	3 1/16	#10	9
CR6008	5.45	10	10	0.1	3⅜	2½	2 13/16	2 13/16	2 5/16	#10	3.!
CR6004	12.30	15	12	0.1	4⅛	3⅞	3 1/16	3 1/16	2⅞	#10	7.
CR6005	18.00	5	24	.025	4½	4 5/16	3¾	3¾	3 5/16	#10	11
CR6006	30.00	1	50	.001	6¾	5½	5⅞	4½	4½	¼	30
CR6009	34.00	0.5	100	.005	6½	6½	5 5/8	5 5/16	4⅛	5/16	32
CR6010	50.00	0.3	200	.0025	7 1/16	7	6⅜	6¾	4⅛	5/16	45

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TPP050/50W	$11.00	TPP150/150W	$17.00	TPP750/750W	$40.00
TPP075/75W	13.00	TPP250/250W	22.00	TPP1000/1000W	49.00
TPP100/100W	14.00	TPP500/500W	32.00	TPP2000/2KW	73.00

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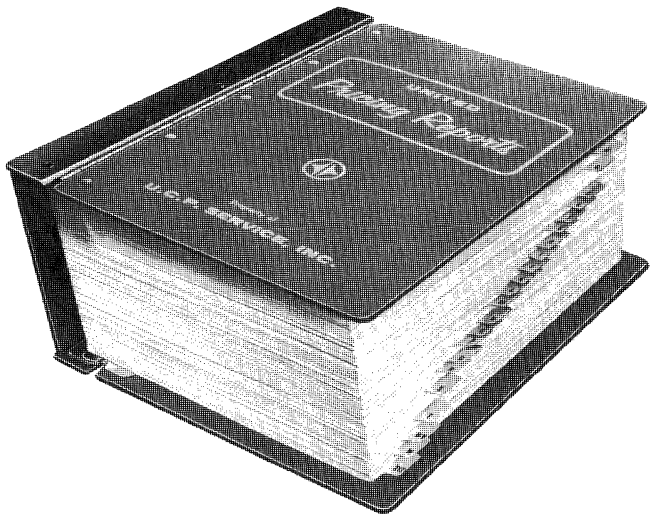

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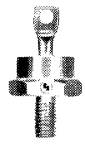
Tung-Sol silicon power rectifiers offer distinct advantages over similar competitive types. Exclusive design features combine with Tung-Sol's historically rigid quality control to assure designers unmatched operational reliability. Wide interchangeability permits specification of these outstanding components for most commercial and military applications

■ **All the types shown are available in reverse polarity which may be ordered by the addition of the suffix 'R' to the indicated type number.**



MEDIUM CURRENT TYPES JEDEC DO-5 OUTLINE

Type	PRV V	I_o@150°C. case A	LI_o mA	iS A
1N248	50	10	5	200
1N249	100	10	5	200
1N250	200	10	5	200
1N248A-1N248B	50	20	5	350
1N249A-1N249B	100	20	5	350
1N250A-1N250B	200	20	5	350

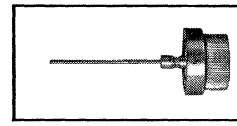
Type	PRV V	I_o@140°C. case A	LI_o mA	iS A
1N1183	50	35	10	500
1N1184	100	35	10	500
1N1185	150	35	10	500
1N1186	200	35	10	500
1N1187	300	35	10	500
1N1188	400	35	10	500
1N1189	500	35	10	500
1N1190	600	35	10	500

Type	PRV V	I_o@150°C. case A	LI_o mA	iS A
1N1191	50	18	5	250
1N1192	100	18	5	250
1N1193	150	18	5	250
1N1194	200	18	5	250
1N1195	300	18	5	250
1N1196	400	18	5	250
1N1197	500	18	5	250
1N1198	600	18	5	250

Type	PRV V	I_o@150°C. case A	LI_o mA	iS A
1N2154	50	25	5.0	350
1N2155	100	25	4.5	350
1N2156	200	25	4.0	350
1N2157	300	25	3.5	350
1N2158	400	25	3.0	350
1N2159	500	25	2.5	350
1N2160	600	25	2.0	350

Type	PRV V	I_o @ 150°C. case A	LI_o mA	iS A
1N3208	50	15	10	250
1N3209	100	15	10	250
1N3210	200	15	10	250
1N3211	300	15	10	250
1N3212	400	15	10	250
1N3213	500	15	10	250
1N3214	600	15	10	250

Type	PRV V	I_o @ 140°C. case A	LI_o mA	iS A
1N4136	200	50	16	750
1N4137	400	50	12	750
1N4138	600	50	8	750



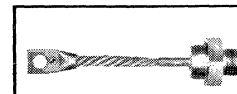
MEDIUM CURRENT TYPES JEDEC DO-21 OUTLINE

Type	PRV V	I_o @ 150°C. case A	LI_o mA	iS A
1N3491	50	18	10	300
1N3492	100	18	10	300
1N3493	200	18	8	300
1N3494	300	18	6	300
1N3495	400	18	4	300
1N3659	50	25	5	400
1N3660	100	25	4.5	400
1N3661	200	25	4.0	400
1N3662	300	25	3.5	400
1N3663	400	25	3.0	400
1N3664	500	25	2.5	400
1N3665	600	25	2.0	400

Type	PRV V	I_o @ 140°C. case A	LI_o mA	iS A
PZ140B*	200	25	4.0	400
PZ140D*	400	25	3.0	400
PZ140F*	600	25	2.0	400
PZ140H*	800	25	2.0	400

HIGH CURRENT TYPES JEDEC DO-8 OUTLINE

Type	PRV V	I_o @ 150°C. case A	LI_o mA	iS A
1N1396	50	70	15	1500
1N1397	100	70	15	1500
1N1398	150	70	15	1500
1N1399	200	70	15	1500
1N1400	300	70	15	1500
1N1401	400	70	15	1500
1N1402	500	70	15	1500
1N1403	600	70	15	1500
CH119Z	50	125	15	4000
CH119A	100	125	15	4000
CH119AZ	150	125	15	4000
CH119B	200	125	15	4000
CH119C	300	125	15	4000
CH119D	400	125	15	4000
CH119E	500	125	15	4000
CH119F	600	125	15	4000



HIGH CURRENT TYPES JEDEC DO-9 OUTLINE

Type	PRV V	I_o @ 130°C. case A	LI_o mA	iS A
CS131Z	50	250	16	4000
CS131A	100	250	16	4000
CS131AZ	150	250	16	4000
CS131B	200	250	16	4000
CS131C	300	250	16	4000
CS131D	400	250	16	4000
CS131E	500	250	15	4000
CS131F	600	250	12.5	4000

*Reverse power rated types exhibiting controlled avalanche characteristics.
iS—Peak one-cycle surge current, under same conditions as I_o rating. (μA=Microamperes)
I_o—Max. rectified avg. DC output current, resistive or inductive load, 60 cps sine wave input.
LI_o—Max. avg. reverse current measured over full sine wave cycle with max. rated reverse voltage and forward current applied.

Full field technical consultation or complete up-to-date listings on all Tung-Sol products are available through: Atlanta, Ga.; Columbus, Ohio; Culver City, Calif.; Dallas, Texas; Denver, Colo.; Detroit, Mich.; Melrose Park, Ill.; Newark, N.J.; Seattle, Wash. IN CANADA: Abbey Electronics, Toronto, Ont.; Canadian Electronics Ltd., Edmonton, Alta.

CENTER LINE QUALITY

TUNG-SOL

TUNG-SOL ELECTRIC INC., NEWARK, N. J. 0710

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DELTA DIVISION

WAKEFIELD ENGINEERING INC.

A COMPLETE LINE OF SEMICONDUCTOR COOLERS

FIG. 1

FIG. 2

FIG. 3

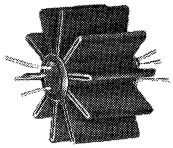


FIG. 4

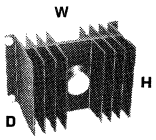


FIG. 6

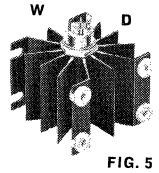


FIG. 5

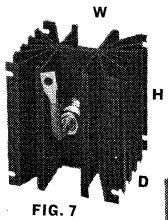


FIG. 7

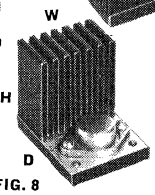


FIG. 8

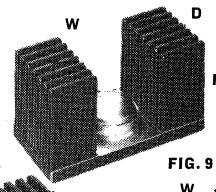


FIG. 9

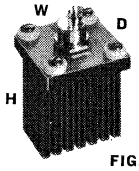


FIG. 10

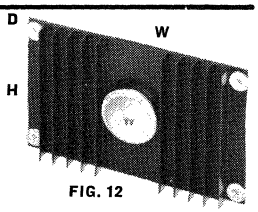


FIG. 12

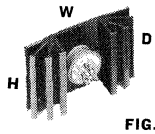
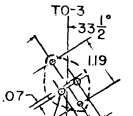
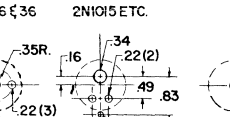
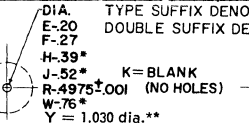


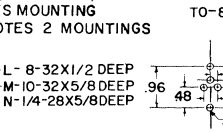
FIG. 11

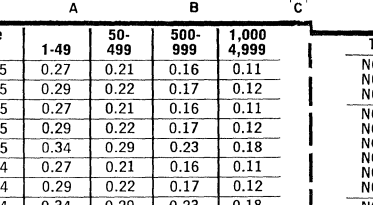
Type	Rise (°C) For 1 Watt Nat Conv	250 Ft /Min	Fits JEDEC Case Styles
201	66	27	TO 18, 24, 28
203	56	19	(222 accepts
222	56	19	2 cases)
205	61	24	TO 5, 9, 11, 12, 16
207	49	17	29, 33, 39, 42, 43
209	34	10	(224 accepts
224	49	17	2 cases)
211	56	20	TO 8
213	44	13	
215	31	8	







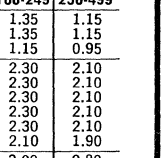




DIA.
E-20
F-27
H-39*
J-52*
R-4975 ±.001
W-76*
Y = 1.030 dia.**
Z = .75 dia. **

TYPE SUFFIX DENOTES MOUNTING
DOUBLE SUFFIX DENOTES 2 MOUNTINGS

K = BLANK (NO HOLES)
L - 8-32X1/2 DEEP
M-10-32X5/8 DEEP
N-1/4-28X5/8 DEEP



*H, J & W holes free of anodize, 1⅛, 1⅛, 1⁵⁄₁₆ dias. respectively, both sides.
**Y & Z holes free of anodize, 1¹³⁄₁₆ dia. both sides.

Type	Fig	Dia.	Lgth.	Fits Case Dia.	1-49	50-499	500-999	1,000 4,999
NF 201	1	.64	.19	.161/.195	0.27	0.21	0.16	0.11
NF 203	2	.64	.38	.161/.195	0.29	0.22	0.17	0.12
NF 205	1	.72	.19	.275/.335	0.27	0.21	0.16	0.11
NF 207	2	.72	.38	.275/.335	0.29	0.22	0.17	0.12
NF 209	3	1.26	.44	.275/.335	0.34	0.29	0.23	0.18
NF 211	1	.82	.19	.444/.524	0.27	0.21	0.16	0.11
NF 213	2	.82	.38	.444/.524	0.29	0.22	0.17	0.12
NF 215	3	1.38	.44	.444/.524	0.34	0.29	0.23	0.18
NF 222	4	.64	.38	.161/.195	0.38	0.30	0.24	0.19
NF 224	4	.72	.44	.275/.335	0.38	0.30	0.24	0.19

Series 200 #160 for Models 201, 3, 5, 7, 9, 22, 24 ..... $1.00 EA.
INSTALLATION TOOLS: #161 for Models 211, 13, 15 ..... $1.00 EA.

Type	Fig.	H	W	D	1-49	50-99	100-249	250-499
NC301L	5	.75	2.00	2.00	1.55	1.30	1.05	0.90
NC301M	5	.75	2.00	2.00	1.55	1.30	1.05	0.90
NC301N	5	.75	2.00	2.00	1.55	1.30	1.05	0.90
NC301R	5	.75	2.00	2.00	1.55	1.30	1.05	0.90
NC301RR	5	.75	2.00	2.00	1.85	1.55	1.25	1.10
NC301K	5	.75	2.00	2.00	1.25	1.05	0.85	0.70
NC302L	5	1.50	2.00	2.00	1.65	1.40	1.15	1.00
NC302M	5	1.50	2.00	2.00	1.65	1.40	1.15	1.00
NC302N	5	1.50	2.00	2.00	1.65	1.40	1.15	1.00
NC302R	5	1.50	2.00	2.00	1.65	1.40	1.15	1.00
NC302K	5	1.50	2.00	2.00	1.35	1.15	0.95	0.80
NC302MM	5	1.50	2.00	2.00	1.95	1.65	1.35	1.20
NC302NN	5	1.50	2.00	2.00	1.95	1.65	1.35	1.20
NC302RR	5	1.50	2.00	2.00	1.95	1.65	1.35	1.20
NC303L	5	3.00	2.00	2.00	1.90	1.60	1.30	1.15
NC303M	5	3.00	2.00	2.00	1.90	1.60	1.30	1.15
NC303N	5	3.00	2.00	2.00	1.90	1.60	1.30	1.15
NC303R	5	3.00	2.00	2.00	1.90	1.60	1.30	1.15
NC303K	5	3.00	2.00	2.00	1.60	1.35	1.10	0.95
NC303MM	5	3.00	2.00	2.00	2.20	1.85	1.50	1.35
NC303NN	5	3.00	2.00	2.00	2.20	1.85	1.50	1.35
NC303RR	5	3.00	2.00	2.00	2.20	1.85	1.50	1.35
NC401A	6	1.50	4.81	1.25	1.90	1.55	1.30	1.10
NC401B	6	1.50	4.81	1.25	1.90	1.55	1.30	1.10
NC401E	6	1.50	4.81	1.25	1.90	1.55	1.30	1.10
NC401F	6	1.50	4.81	1.25	1.90	1.55	1.30	1.10
NC401K	6	1.50	4.81	1.25	1.60	1.30	1.10	0.90
NC403A	6	3.00	4.81	1.25	2.10	1.70	1.35	1.15
NC403B	6	3.00	4.81	1.25	2.10	1.70	1.35	1.15
NC403C	6	3.00	4.81	1.25	2.10	1.70	1.35	1.15
NC403F	6	3.00	4.81	1.25	2.10	1.70	1.35	1.15
NC403K	6	3.00	4.81	1.25	1.80	1.45	1.15	0.95
NC421A	6	3.00	4.81	2.63	3.05	2.75	2.30	2.10
NC421B	6	3.00	4.81	2.63	3.05	2.75	2.30	2.10
NC421C	6	3.00	4.81	2.63	3.05	2.75	2.30	2.10
NC421H	6	3.00	4.81	2.63	3.05	2.75	2.30	2.10
NC421J	6	3.00	4.81	2.63	3.05	2.75	2.30	2.10
NC421K	6	3.00	4.81	2.63	2.75	2.50	2.10	1.90
NC423A	6	5.50	4.81	2.63	4.15	3.55	3.00	2.80
NC423B	6	5.50	4.81	2.63	4.15	3.55	3.00	2.80
NC423C	6	5.50	4.81	2.63	4.15	3.55	3.00	2.80
NC423H	6	5.50	4.81	2.63	4.15	3.55	3.00	2.80
NC423J	6	5.50	4.81	2.63	4.15	3.55	3.00	2.80
NC423W	6	5.50	4.81	2.63	4.15	3.55	3.00	2.80
NC423K	6	5.50	4.81	2.63	3.85	3.30	2.80	2.60
NC441H	7	5.50	4.75	4.50	5.75	4.95	4.25	3.95
NC441J	7	5.50	4.75	4.50	5.75	4.95	4.25	3.95
NC441W	7	5.50	4.75	4.50	5.75	4.95	4.25	3.95
NC441K	7	5.50	4.75	4.50	5.45	4.70	4.05	3.75
FC501A	8	1.75	1.75	2.25	5.10	4.55	4.25	4.00
FC501B	8	1.75	1.75	2.25	4.95	4.40	4.10	3.85
FC501K	8	1.75	1.75	2.25	4.60	4.10	3.85	3.60
FC502A	9	1.75	3.50	1.75	7.30	6.55	6.15	5.70
FC502B	9	1.75	3.50	1.75	7.15	6.40	6.00	5.55
FC502K	9	1.75	3.50	1.75	6.80	6.10	5.75	5.30
FC503A	9	1.75	3.50	3.50	12.20	10.95	10.25	9.50
FC503B	9	1.75	3.50	3.50	12.05	10.80	10.10	9.35
FC503K	9	1.75	3.50	3.50	11.70	10.50	9.85	9.10
FC504K	10	1.75	1.75	1.75	4.20	3.80	3.50	3.35
FC505K	10	1.75	1.75	2.00	6.10	5.35	5.00	4.75
NC601T	11	1.25	2.24	.56	1.40	1.15	0.90	0.75
NC601K	11	1.25	2.24	.56	1.10	0.90	0.70	0.55
NC603T	11	2.00	2.24	.56	1.50	1.20	0.95	0.80
NC603K	11	2.00	2.24	.56	1.20	0.95	0.75	0.60
NC621A	12	1.50	4.81	.46	1.65	1.35	1.10	0.95
NC621B	12	1.50	4.81	.46	1.65	1.35	1.10	0.95
NC621K	12	1.50	4.81	.46	1.35	1.10	0.90	0.75
NC623A	12	3.00	4.81	.46	1.80	1.50	1.20	1.05
NC623B	12	3.00	4.81	.46	1.80	1.50	1.20	1.05
NC623K	12	3.00	4.81	.46	1.50	1.25	1.00	0.85
NC641A	11	3.00	4.12	1.00	1.95	1.60	1.30	1.10
NC641B	11	3.00	4.12	1.00	1.95	1.60	1.30	1.10
NC641K	11	3.00	4.12	1.00	1.65	1.35	1.10	0.90

ulate heat sinks
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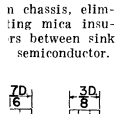
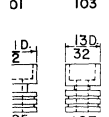




TEFLON INSULATORS

Type	For Heat Sink Type	No.Req'd.	Price
101	501	3 Pr.	.07 Pr.
101	502, 503, 504, 505	4 Pr.	.07 Pr.
103	301	2	.05 Ea.
103	302, 303	4	.05 Ea.
103	401	3	.05 Ea.
103	403, 421, 423	4	.05 Ea.
103	621, 623, 641	4	.05 Ea.
105	441, 1244, 1245, 1541	4	.20 Ea.
107 (New high voltage version of 103)	301	2	.20 Ea.
	302, 303	4	.20 Ea.
	401	3	.20 Ea.
	403, 421, 423	4	.20 Ea.
	621, 623, 641	4	.20 Ea.

THERMAL JOINT COMPOUND

Improved thermal conductance from semiconductor to cooler may be obtained by applying a light coating of WAKEFIELD Thermal Joint Compound on the mounting surface. This Compound has a thermal conductivity approximately four times that of silicone grease.

Type	Quantity	Price
120	2 oz.	1.95
128	8 oz.	5.10
1280	5 lbs.	30.00

Net

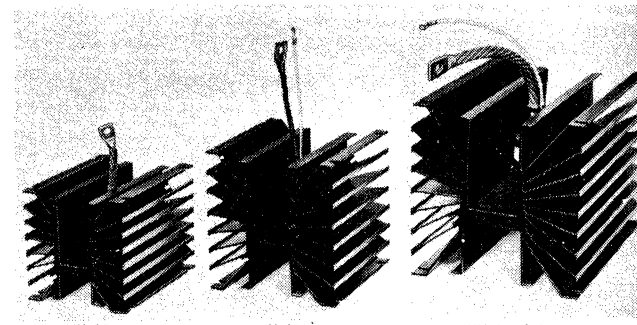
© U.C.P., Inc.

DELTA DIVISION

WAKEFIELD Delta-T KING SIZE HEAT SINKS for High Power Rectifiers and SCRs.

WAKEFIELD Series GN and WN Natural Convection Heat Sinks are used in systems requiring high reliability such as telephone power supplies, mine equipment rectifiers, etc. These units replace forced convection flat plate techniques, which eliminate fans and the reliability problem introduced. A radial fin design is used to decrease conductor path length and thereby increase fin efficiency.

HEAT SINK Model No.	Hex Size of SCR or Rectifier	Wattage Dissipated for stud rise above ambient of 70°C
GN-1157-5	1 1/16"	100
GN-1251-5.5	1 1/4"	140
WN-1244-5	1 1/16"	100
WN-1245-6	1 1/4"	140
WN-1541-6	1 3/4"	190
WN-1541-9	1 3/4"	230



WN-1244-5 4" x 4" x 5" | WN-1245-6 5" x 5" x 6" | WN-1541-9 6 1/4" x 6 1/4" x 9"

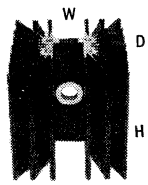


Fig. 13

Masked areas on one end and four 1/4-20 tapped holes on each end permit mounting and electrical connection.

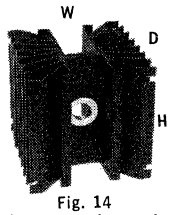
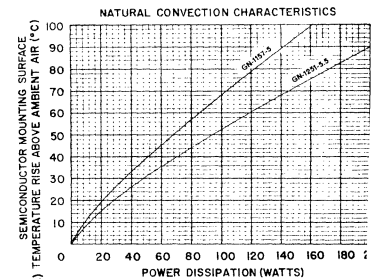
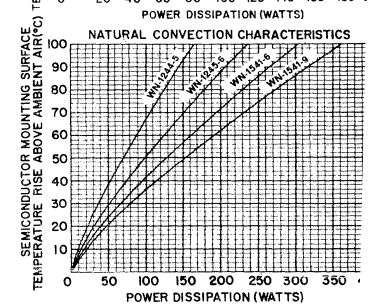


Fig. 14

A masked area on the semiconductor mounting surface permits bussing. Sinks may be electrically isolated from mounting with Type 105 Insulators.

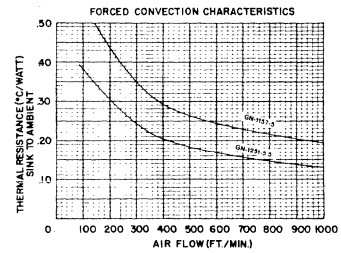
Type	Fig.	H	W	D	PRICE 1-24	25-49	50-99	100-199
GN-1157-5-H	13	5.00	4.125	4.125	5.55	4.75	4.20	3.75
GN-1157-5-J	13	5.00	4.125	4.125	5.55	4.75	4.20	3.75
GN-1157-5-K	13	5.00	4.125	4.125	5.20	4.45	3.95	3.55
GN-1251-5.5-W	13	5.50	5.00	5.00	7.00	6.00	5.30	4.75
GN-1251-5.5-K	13	5.50	5.00	5.00	6.65	5.70	5.00	4.55
WN-1244-5-H	14	5.00	4.00	4.00	4.85	4.15	3.70	3.30
WN-1244-5-J	14	5.00	4.00	4.00	4.85	4.15	3.70	3.30
WN-1244-5-K	14	5.00	4.00	4.00	4.50	3.85	3.40	3.10
WN-1245-6-W	14	6.00	5.00	5.00	6.15	5.25	4.65	4.15
WN-1245-6-K	14	6.00	5.00	5.00	5.80	4.95	4.40	3.95
WN-1541-6-Z	14	6.00	6.25	6.25	9.55	8.20	7.25	6.50
WN-1541-6-Y	14	6.00	6.25	6.25	9.55	8.20	7.25	6.50
WN-1541-6-K	14	6.00	6.25	6.25	9.00	7.75	6.85	6.15
WN-1541-9-Z	14	9.00	6.25	6.25	13.40	11.50	10.20	9.20
WN-1541-9-Y	14	9.00	6.25	6.25	13.40	11.50	10.20	9.20
WN-1541-9-K	14	9.00	6.25	6.25	13.10	11.25	9.90	8.90

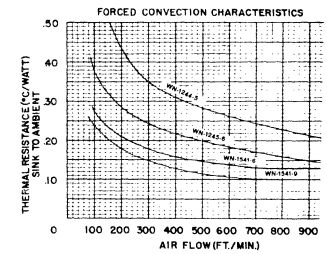




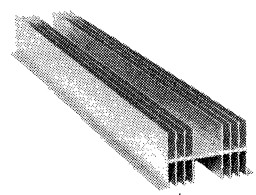
SERIES GN and WN HEAT SINKS with FORCED CONVECTION

If high ambient temperatures or unusually high power dissipations mandate thermal impedances lower than those obtainable by natural convection, forced air may be used. The flow velocity can be quite low permitting use of low speed, quiet, reliable fans, because the surface area of these sinks is so much greater than the flat plates formerly recommended for large rectifiers and SCRs.





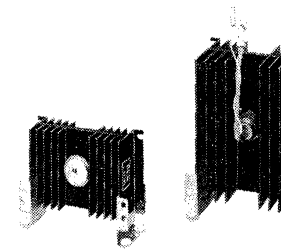
EXTRUSION



Type	EXTRUSION IN 3 FT. LENGTHS (±1/4") For Cooler Type	W	Dpth.	NET EA. PER 3 FT. LENGTH 1-4	5-9	10-25
300	NC-301-303	2.00	2.00	6.00	5.00	4.50
400	NC-401-403	4.81	1.25	7.75	6.50	5.75
420	NC-421-423	4.81	2.63	12.75	11.00	9.50
440	NC-441	4.75	4.50	20.50	17.50	15.50
600	NC-601-603	2.24	.56	3.25	2.75	2.50
620	NC-621-623	4.81	.46	5.75	5.00	4.25
640	NC-641	4.12	1.00	7.50	6.50	5.75
1157	GN-1157-5	4.12	4.12	25.50	22.00	19.25
1251	GN-1251-5.5	5.00	5.00	32.25	27.75	24.50
1244	WN-1244-5	4.00	4.00	25.50	22.00	19.25
1245	WN-1245-6	5.00	5.00	32.50	28.00	24.50
1541	WN-1541-6 & 9	6.25	6.25	51.00	43.75	38.75

VERTICAL MOUNTING BRACKETS

Meet vibration of MIL 202B. For NC-401 and 403 use #111, for NC-421 and 423 use #113. Two brackets required per sink. To insulate, use #103 or #107.



Type	Prices 1-49	100-499
111	0.15	0.12
113	0.18	0.15

WAKEFIELD
ENGINEERING, INC.
WAKEFIELD, MASS.

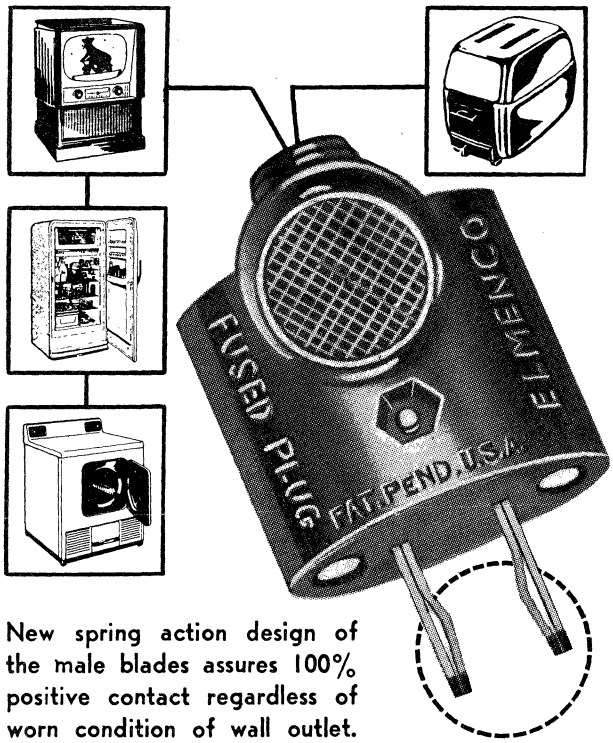
Announcing an important NEW Feature

OF THE

ELMENCO
Fused Plug

Spring Action

For
POSITIVE CONTACT
plus
Impact Resistant Cover



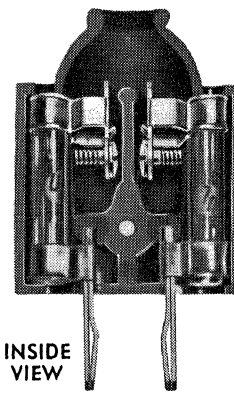
New spring action design of the male blades assures 100% positive contact regardless of worn condition of wall outlet.

LIST PRICE **75¢** LESS FUSES

OFFERS COMPLETE PROTECTION AGAINST CURRENT SURGES & SHORT CIRCUITS PROTECTS ELECTRICAL APPLIANCES!

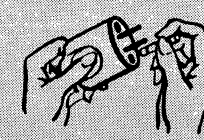
Conveniently Packed 10 to a Box In Colorful Self-merchandising displays. Easy to handle for resale

The Elmenco Fused Plug is like any standard plug, is light in weight, but easier to handle because of finger grips. However, it contains 2 small fuses which provide complete protection against damage to the appliance and to the main line. The blown fuse is easy to remove and simple to replace. Fits any standard wall outlet.



INSIDE VIEW

REPLACE FUSE Instantly!



Fuses are replaced instantly without need of opening plug. Can be used with standard 3AG and 3AB glass tubular fuses up to 20 amps.

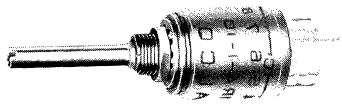
ARCO *electronics inc.* NEW YORK, N. Y.

BRANCHES: Dallas 7, Texas, Los Angeles 35, California

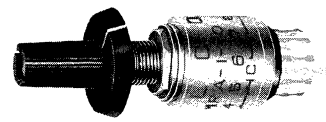
Trade Discount Applies To List Prices Only
© U.C.P., Inc.

ALCOSWITCH MANUFACTURED TO MEET HIGH STANDARDS OF QUALITY AND MINIATURIZATION REQUIREMENTS

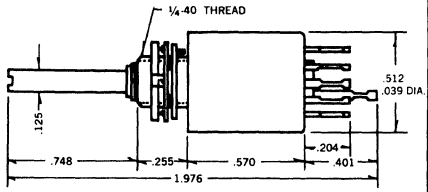
ADJUSTABLE-STOP ROTARY

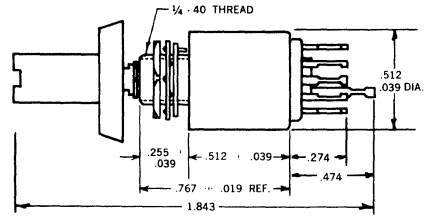


MRA-1-10S, LESS KNOB, ⅛" DIA. SHAFT



MRA-1-10, WITH KNOB, 5/32" DIA. SHAFT





First, new ultra-miniature rotary switches with the invaluable feature of an adjustable-stop. Ideal for installations where size and space limitations are a factor including applications in aircraft, computers, and all types of electronic equipment. The only one of its kind, the adjustable-stop miniature rotary switch has these additional features • non-shorting • 36° spacing • up to 4 poles on single deck.

SPECIFICATIONS

Current Rating:
500 ma @ 125 VAC.
Initial Contact Resistance:
Below 20 milliohm at 2-4 VDC and at rated current.
Insulating Resistance:
Over 100 megohms between terminals and case ground (when measured with a megger of 500 VDC at room temp.)
Voltage Breakdown:
1000 VAC between terminals and case ground for a duration of one minute.
Life Cycle:
Over 10,000 switching operations at the rate of 15 to 20 full rotations per minute at the rated current.
Contacts and Terminals:
Solid silver.
Bushing Size:
¼ - 40.
Shaft:
See Below

Humidity: Models MRA-S Only (⅛" shaft)
Tested at a temperature of 40°C and relative humidity of 90-95% for 10 hours. Resistance between terminals and case ground will be more than 10 megohms.

Stop Guide Strain: Models MRA-S Only
The stop guide which limits rotation shall not be subjected to a force of not more than 2 Kg-cm.

INDUSTRIAL NET PRICE SCHEDULES

LESS KNOB — ⅛" DIA. SHAFT

MODEL	USABLE	One-24	25-99	100-499	500-999
MRA-1-10S	2-10 pos.	3.85	2.57	2.31	1.925
MRA-2-5S	2- 5 pos.	3.85	2.57	2.31	1.925
MRA-3-3S	2- 3 pos.	3.85	2.57	2.31	1.925
*MSRA-4-2S	2 pos.	3.85	2.57	2.31	1.925

*Fixed

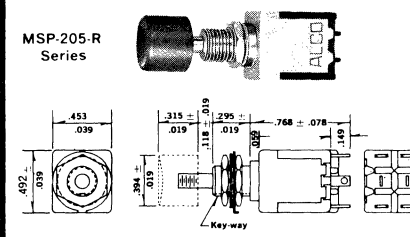
WITH KNOB — 5/32" DIA. SHAFT

MODEL	USABLE	One-24	25-99	100-499	500-999
MRA-1-10	2-10 pos.	3.85	2.57	2.31	1.925
MRA-2-5	2- 5 pos.	3.85	2.57	2.31	1.925
MRA-3-3	2- 3 pos.	3.85	2.57	2.31	1.925
*MSRA-4-2	2 pos.	3.85	2.57	2.31	1.925

*Fixed

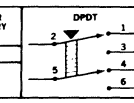
PUSH BUTTON

MSP-205-R Series



High current capacity in this new compact momentary push button switch designed for reliable control in aviation, military and industrial "miniature" requirements. Contact pressure is greatest at point of make and break. An audible click is produced by the snap-action mechanism. Available only as DPDT, usable as either a Normally Open or Normally Closed switch.

NORMAL CONTACT	PUSH FOR MOMENTARY CONTACT	DPDT
ON	ON	
(1) — (2)	(2) — (3)	
(4) — (5)	(5) — (6)	



SPECIFICATIONS

Current Rating:
5 amperes, 115 volts
Initial Contact Resistance:
Below 10 milliohms at 2-4 VDC 1 amp
Insulating Resistance:
Over 100 megohms between terminals and case ground (when measured with a megger of 500VDC.)
Voltage Breakdown:
1000 VAC between terminals and case ground for a duration of one minute.
Life Cycle:
Well over 20,000 on-off switching actions at rated current.
Contacts and Terminals:
Solid Silver
Case Material:
Black phenolic resin
Bushing Size:
¼"-40

MODEL	COLOR	ONE-24	25-99	100-499	500-999
MSP-205R *	(RED-BLACK)	2.85	1.90	1.71	1.42
C-12 BUTTON	(RED-BLACK)	.05	.036	.03	.027

*One red or black button supplied — state color

DIMENSIONED DRAWINGS

ENGINEERS: If dimensions or specifications are critical, obtain drawings from **ALCOSWITCH**, Lawrence, Mass.

ALCOSWITCHES are high-quality, reliable units, which have been proved by laboratory tests.

24-HOUR DELIVERY FROM STOCK

AUXILIARY PUSH BUTTONS

The MSP-205 series push button **ALCOSWITCHES** are normally supplied with black buttons and are also available in red when requested. Additional push buttons can also be obtained. When ordering state choice of color, special markings, i. e. letters, numerals, symbols which are available for quantity users above 5000 pieces.

ALCOSWITCH LAWRENCE MASS.

© U.C.P., Inc.

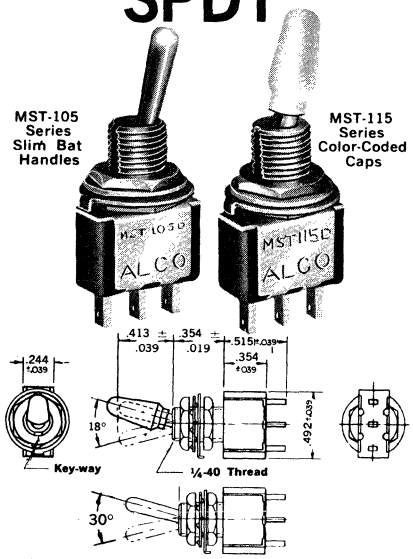
ALCOSWITCH

MANUFACTURED TO MEET HIGH STANDARDS OF QUALITY

SPDT

MST-105 Series Slim Bat Handles

MST-115 Series Color-Coded Caps



Ultra-miniaturized **ALCOSWITCH** has an exceptionally high current capacity in a tiny case. The ¼" thin toggle switch can be mounted in extremely close areas for aircraft and electrical equipment. Over 80,000 on-off operations. Solid silver contacts and terminals. Simple one-hole mounting.

SPECIFICATIONS

Insulating Resistance:
Over 1000 megohms @ 500 VDC.
Voltage Breakdown:
Over 1000 volts @ 60 cycles.
Life Cycle:
Well over 80,000 on-off actions.
Moisture Resistance:
Over 8 megohms after 48 hours at 40°C, and humidity of 95%.
Heat Resistance:
One Hour @ 140°C.
Case Material:
Black phenolic resin.
Contacts:
Solid silver.
Bushing Size:
Standard ¼-40, usable up to ¼" panel thickness.

INDUSTRIAL NET PRICE SCHEDULE

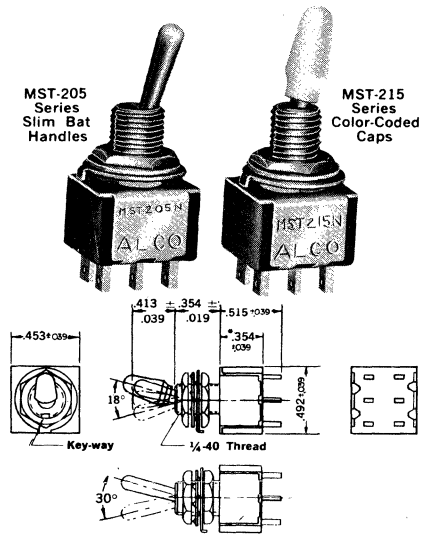
MODEL	DESCRIPTION	One-24	25-99	100-499	500-999
MST-115D	On-None-On	1.65	1.12	.99	.83
MST-105D	On-None-On	1.65	1.12	.99	.83
MST-105E	On-Off-On	1.95	1.33	1.17	.975
MST-105F	On-None-(On)	1.95	1.33	1.17	.975
MST-105G	(On)-Off-(On)	1.95	1.33	1.17	.975
MST-105H	On-Off-(On)	1.95	1.33	1.17	.975

(On) (Off) Indicates Momentary Positions

DPDT

MST-205 Series Slim Bat Handles

MST-215 Series Color-Coded Caps



Combines high capacity, ultra-miniature size and long life with **ALCOSWITCH** precision. Rated at 5 amperes @ 115 VAC. Contacts and terminals are of solid silver. ½" sq. case size makes it ideal for miniature equipment with critical applications and rear panel space limitations.

SPECIFICATIONS

Insulating Resistance:
Over 1000 megohms @ 500 VDC.
Voltage Breakdown:
Over 1000 volts @ 60 cycles.
Life Cycle:
Well over 80,000 on-off actions.
Moisture Resistance:
Over 8 megohms after 48 hours at 40°C, and humidity of 95%.
Heat Resistance:
One Hour @ 140°C.
Case Material:
Black phenolic resin.
Contacts:
Solid silver.
Bushing Size:
Standard ¼-40, usable up to ¼" panel thickness.

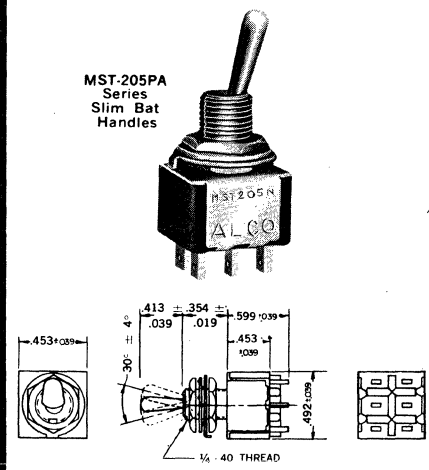
INDUSTRIAL NET PRICE SCHEDULE

MODEL	DESCRIPTION	One-24	25-99	100-499	500-999
MST-215N	On-None-On	2.15	1.43	1.29	1.08
MST-205N	On-None-On	2.15	1.43	1.29	1.08
MST-205P	On-Off-On	2.55	1.72	1.53	1.28
MST-205R	On-None-(On)	2.55	1.72	1.53	1.28
MST-205S	(On)-Off-(On)	2.55	1.72	1.53	1.28
MST-205T	On-Off-(On)	2.55	1.72	1.53	1.28

(On) (Off) Indicates Momentary Positions

SPECIAL

MST-205PA Series Slim Bat Handles



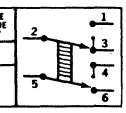
DPDT ON-ON-ON

New ON-ON-ON toggle switch made for applications where the Center-ON position is desired. The DPDT circuit is designed to have "ON" positions at opposite sides of the lever throw with the Center-ON operational when either circuit is used. 5 amperes @ 115 VAC. Ultra-miniature size is only ½".

SPECIFICATIONS

Initial Contact Resistance:
Below 20 milliohms at 2-4 VDC, ¹ amp.
Insulating Resistance:
Over 1000 megohms between terminals and case ground @ 500 VDC.
Voltage Breakdown:
1000 VAC between terminals and case ground for a duration of one minute.
Life Cycle:
Well over 15,000 on-off switching actions at rated current.

WITH HANDLE TO THE KEY WAY	CENTER	WITH HANDLE OPPOSITE SIDE OF KEY WAY
ON	ON	ON
1-2 4-5	2-3 4-5	2-3 5-6

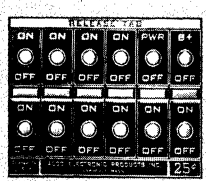


INDUSTRIAL NET PRICE SCHEDULE

MODEL	DESCRIPTION	ONE-24	25-99	100-499	500-999
MST-205PA	On On On	2.85	1.90	1.71	1.42

ALCOSWITCH

ALUMINUM FOIL SWITCH PLATES

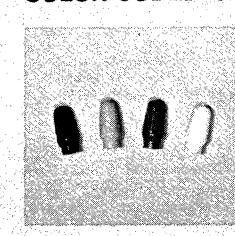


Pressure sensitive "on-off" plates for **ALCOSWITCHES** and other miniature switches having ¼" bushing; and for standard switches requiring 15/32" hole.

(Prices Per Card of 12 Plates) MODEL	DESCRIPTION	One-49	50-99	100 Over
SP-1	Miniature type	25c	20c	18c
SP-2	Standard type	25c	20c	18c

COLOR-CODED CAPS

Caps will fit only MST-115D, MST-215N, MST-315D, MST-415N series switches.



The revolutionary feature of color-coded plastic caps for toggle switches has already proved to be an invaluable aid in aircraft installations and hazardous applications. Caps are removable from handle, and are normally supplied in white, but are also available in optional colors of red, blue, black.

MODEL	DESCRIPTION	One-24	25-99	100-499	500-999
C-11	(White, Red, Blue, Black)	.04	.028	.025	.022

LAWRENCE MASS. **ALCOSWITCH** CABLE ADDRESS: ALTRONICS

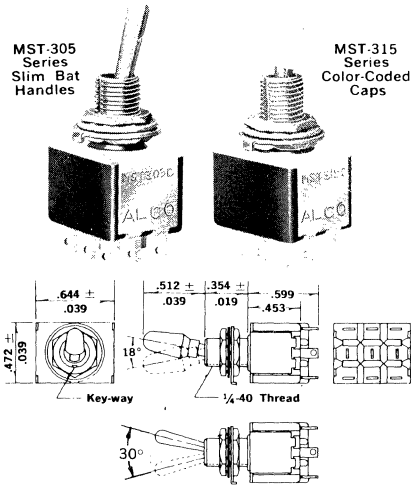
Net

© U.C.P., Inc.

ALCOSWITCH

MANUFACTURED TO MEET MINIATURIZATION REQUIREMENTS

3PDT



Features one-piece body construction for ultra-miniature space requirements. Has unusually high current rating, and is capable of handling multiple circuits simultaneously. Has high voltage barriers between terminals and contacts firmly anchored to base.

SPECIFICATIONS

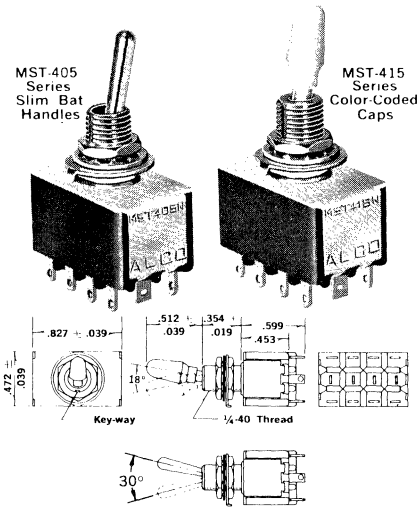
Initial Contact Resistance:
Below 20 milliohms at 2·4 VDC, 1 amp.
Insulating Resistance:
Over 1000 megohms between terminals and case ground @ 500 VDC.
Voltage Breakdown:
1000 VAC between terminals and case ground for a duration of one minute.
Life Cycle:
Well over 25,000 on-off switching actions at rated current.
Contacts and Terminals:
Solid silver.
Case Material:
Black phenolic resin.
Bushing Size:
Standard ¼-40 • Nut , 5/16 across flats

INDUSTRIAL NET PRICE SCHEDULE

MODEL	DESCRIPTION	One-24	25-99	100-499	500-999
MST 305D	On-None-On	3.85	2.57	2.31	1.925
MST 315D	On-None-On	3.85	2.57	2.31	1.925

ALCOSWITCH

4PDT



The world's first 4-Pole toggle switch with a one-piece miniaturized body construction. Includes high voltage barriers, solid silver terminals and contacts. Can be easily mounted in compact aircraft and electronic equipment.

SPECIFICATIONS

Initial Contact Resistance:
Below 20 milliohms at 2·4 VDC, 1 amp.
Insulating Resistance:
Over 1000 megohms between terminals and case ground @ 500 VDC.
Voltage Breakdown:
1000 VAC between terminals and case ground for a duration of one minute.
Life Cycle:
Well over 25,000 on-off switching actions at rated current.
Contacts and Terminals:
Solid silver.
Case Material:
Black phenolic resin.
Bushing Size:
Standard ¼-40 • Nut , 5/16 across flats

INDUSTRIAL NET PRICE SCHEDULE

MODEL	DESCRIPTION	One-24	25-99	100-499	500-999
MST 405N	On-None-On	4.85	3.29	2.96	2.55
MST 415N	On-None-On	4.85	3.29	2.96	2.55

ALCOSWITCH

ALCOSWITCH

With the coming of the space age, weight, size, precision, stability, and difficult operating conditions place a mighty "squeeze" on electronic design. Along with miniature circuit components, engineers have to fit switches into exceedingly small areas. Today, new materials, new manufacturing techniques, new components and new switches enter into the final engineering product requiring miniaturization.

As a result, modern **ALCOSWITCHES** have been created to reduce size and weight to a minimum and bear little physical resemblance to the older switches designed during the 1930's and 1940's. These **ALCOSWITCHES** are the new shape of miniature switching devices, not of the future, but what is currently available in quantity for laboratory testing and production use.

SPDT AND DPDT SERIES

A new **ALCOSWITCH SERIES** of high quality ultra-miniature toggle switches is ideally suited for limited space requirements. Conservatively rated at 5 amperes @ 115 VAC.

3PDT AND 4PDT SERIES

The feature of the one-piece body construction is to ultra-miniaturize the case size and still be consistent with good engineering specifications. In the switch mechanism, the toggle is linked directly to the movable contact member, providing positive make and break. The switch is designed to obtain positive detent action for improved "operator feel". Solid silver contacts and terminals are well-spaced for clearance, easy wiring, and good soldering ability.

SPECIAL ON-ON-ON

This unique switching arrangement is completely enclosed in a compact black phenolic housing, and in certain applications takes the place of a 3-position rotary switch. Features a slim miniature bat handle, solid silver contacts and terminals.

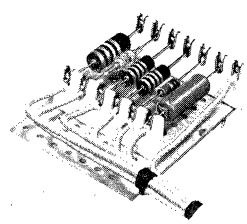
ENGINEERS: If dimensions or specifications are critical, obtain drawings from ALCOSWITCH, Lawrence, Mass.

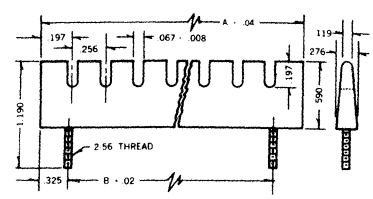
24-HOUR DELIVERY FROM STOCK

NEW CERAMIC TERMINAL STRIPS

Ceramic base terminal strips have copperplate inserts that are silverplated and tinned for good soldering ability. Bond between metal and ceramic is not just an adhesion, but "fired" to prevent metal from falling off.

MODEL	TERMINALS	One-9	10-99	100 Over
MEP-2	2	36¢	24¢	21¢
MEP-4	4	45¢	30¢	25¢
MEP-6	6	60¢	40¢	34¢
MEP-8	8	75¢	50¢	42¢
MEP-10	10	87¢	58¢	49¢
MEP-12	12	99¢	66¢	56¢





MODEL	NO. SLOTS	"A"	"B"
MEP-2	2	.650	—
MEP-4	4	1.161	.512
MEP-6	6	1.673	1.024
MEP-8	8	2.185	1.535
MEP-10	10	2.697	2.047
MEP-12	12	3.209	2.560

ALCOSWITCH

LAWRENCE MASS.

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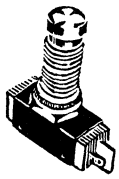
Birnbach

ARROW H&H SWITCHES

TOGGLE • PUSH BUTTON • ROTARY • KNIFE • POWER • SLIDE

BIRNBACH

1



1 MOMENTARY CONTACT PUSH BUTTON

Solder lugs; laminated type. Has 9/16" slotted sleeve, 15/32-32 TPI Complete with hex and knurled nut; nickel plated; all accept snap on button. Supplied less insulating button.

QUICK MAKE AND BREAK

Cat. No.	Descrip.	Type	Current Rating 250 V
6184	.SPST	.Normally Closed (On)	.3 amps
6184A	SPST.	Normally Open (Off)	.3 amps
6185A	SPDT	.Normally Closed (On)	.1 amp
6185	.SPDT	.Normally Open (Off)	.1 amp
6186	.2 Circ	.Normally Closed (On)	.1 amp
6231A	DPST	.Normally Closed (On)	.1 amp
6231	.DPST	.Normally Open (Off)	.1 amp
6231B	DPDT.	Normally Closed (On)	.1 amp
6232	.Button only, red or black		

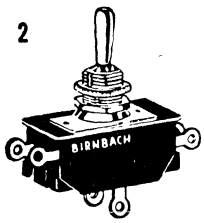
Std. Pkg. 25

SLOW MAKE AND BREAK

Cat. No.	Descrip.	Type	Current Rating 125 V
6180	..SPST..	Normally Closed (On)	.1 amp
6230	..SPST..	Normally Open (Off)	..1 amp
6224	..2 Circ..	Normally Closed (On)	.1 amp

Std. Pkg. 25

2



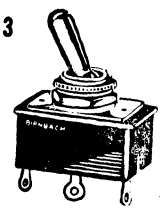
3 INTERMEDIATE SIZE TOGGLE-BAT

Molded phenolic base; back connected silver plated solder lug contacts; supplied with hex nut and knurled nut. SPDT rated at 1 amp.-250V, 6 amps.-125 volts AC-DC; others rated at 3 amps-250V, 6 amps.- 125V AC-DC.

Std. Pkg. 25

Cat. No.	Description	Type Action
6280	... SPST ...	POSITIVE
6280A	... SPST ...	MOM.—NORM. OFF
6281	... SPDT ...	POSITIVE
6281A	... SPDT ...	MOMENTARY
6284	...2 CIRC...	POSITIVE
6282	... DPST ...	POSITIVE
6282A	... DPST ...	MOM.—NORM. OFF
6283	... DPDT ...	POSITIVE
6283A	... DPDT ...	MOMENTARY

3



2 THREE POSITION—CENTER OFF

Rated 3 amps-250 V, 6 amps-125 V AC-DC

Cat. No.	
6261	..... SPDT
6262	.....2 CIRC
6263	..... DPDT

Std. Pkg. 25

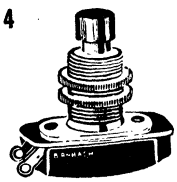
2 BAKELITE MOLDED MOMENTARY CONTACT SWITCHES

Same as above except momentary. SPST Normally Off. 3 A., 250 V. UL approved. Rated 6 A., 125 V.

Cat. No.	Description	Shank Length
6241	.....SPST	3/8"
6240	.....SPDT	3/8"
6242	.....DPDT	3/8"

Std. Pkg. 25

4



4 MOMENTARY PUSH BUTTON

Molded momentary, solder lugs. Rated 1 A., 125 V. With 9/16" shank, normally OFF—push to make. Nickel plated. UL approved.

Cat. No.	Descrip.	Std. Pkg.
6233	SPST	25
6234	SPDT	25
6235	DPST	25
6236	DPDT	25

6 MIDGET SIZE TOGGLE POS. ACTION

SPST Rated 3 Amps—250 Volts, 6 amps—125 Volts. Others Rated 1 Amp—250 Volts, 6 amps—125 Volts. Molded Phenolic base. 15/32—32 x 15/32" long slotted sleeve, Nickel finish; solder lugs.

Cat. No.	Description	Type
6244	....SPST	.....Ball Handle
6244A	....SPST	.....Bat Handle
6244B	....SPDT	.....Ball Handle
6244C	....SPDT	.....Bat Handle
6244D	....2 circ.	.....Ball Handle
6244E	....2 circ.	.....Bat Handle

Std. Pkg. 25

6

16 ROTARY SWITCHES CANOPY TYPE—ROTO LOCK

Laminated phenolic sections—solder lugs; sleeve 11/32" diam. 32 threads per inch; nickel finish; Rotary switches supplied with two hex nuts; roto lock key types have 15/32" diam. 32 threads per inch; key removable in off position only on SPST and DPST—key removable in both positions on all others.

SPST rated at 3 amps-250 V AC-DC, others rated at 1 amp-250 V, 3 amps-125 volts AC-DC.

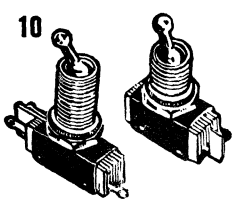
Roto Lock (Key Type)

Cat. No.	Description	Std. Pkg.
6110	..... SPST	12
6111	..... SPDT	12
6112	..... DPST	12
6113	..... DPDT	12
6114	....Key—Rem. Off Pos.	100
6115	....Key—Rem. Both Pos.	100

Canopy type rotary

6210	..... SPST	3/8"	1½"
6211	..... SPST	1"	2½"
6212	..... SPDT	3/8"	1½"
6213	..... SPDT	1"	2½"
6214	..... DPST	3/8"	1½"
6215	..... DPST	1"	2½"
6216	..... DPDT	3/8"	1½"
6217	.....DPDT	1"	2½"

10



BALL HANDLE TOGGLE SWITCHES 10 POSITIVE ACTION

UL approved. Ball lever switches nickel plated; laminated type; ring and mounting nuts.

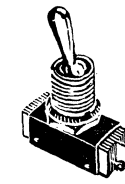
Std. Pkg. 25

Cat. No.	Descrip.	Shank Length	Current Rating 125 V.	250 V
6200	....SPST..	.15/32"..		..3 amps
6201	....SPST..	.3/4"....		..3 amps
6202	....SPDT..	.15/32"..	.3 amps..	.1 amp
6202A	.. 2 Cir. ..	.15/32"..	.3 amps..	.1 amp
6203	....SPDT..	.3/4"....	.3 amps..	.1 amp
6204	....DPST..	.15/32"..	.3 amps..	.1 amp
6205	....DPST..	.3/4"....	.3 amps..	.1 amp
6206	....DPDT..	.15/32"..	.3 amps..	.1 amp
6207	....DPDT..	.3/4"....	.3 amps..	.1 amp

NAME PLATE .....Std. Pkg. 100

6208 —On-Off—Fits 15/32" Sleeves
6208A—Hi-Low—Fits 15/32" Sleeves

11



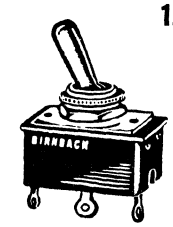
BAT HANDLE TOGGLE SWITCHES 11 POSITIVE ACTION

UL approved. Laminated type. Nickel plated finish; supplied with ring and mounting nuts. 15/32" shank.

Std. Pkg. 25

Cat. No.	Descrip.	Current Rating 125 V	250 V
6220	.....SPST.....		....3 amps
6221	.....SPDT.....	.3 amps....	.1 amp
6221A	... 2 Cir.	.3 amps....	.1 amp
6222	.....DPST.....	.3 amps....	.1 amp
6223	.....DPDT.....	.3 amps....	.1 amp

12

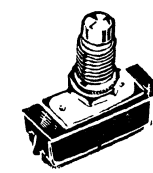


BAT HANDLE MOMENTARY ACTION 11

UL approved. Laminated type. Nickel plated finish; supplied with ring and mounting nuts; 15/32" shank; solder terminals; SPST rated at 3 amps 250V AC-DC, others rated at 1 amp 250V, 3 amps 125V AC-DC. Std. Pkg. 25.

Cat. No.	Descrip.	Type
6190	... SPST	...Normally Closed (On)
6191	... SPST	...Normally Open(Off)
6192	... SPDT	...Normally Closed (On)
6193	... DPST	...Normally Closed (On)
6194	... DPST	...Normally Open (Off)
6195	...DPDT	...Normally Closed (On)

13



ST TYPE PER SPEC. JAN-S-23 12

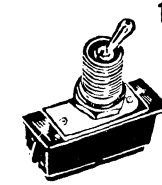
Std. Pkg. 25

Bat handle, back connected, silver plated solder lug contacts; slotted sleeve. Supplied with two hex nuts. Molded phenolic base; 15/32-32 x 15/32" long, nickel finish. They meet, where applicable. All Jan-S-23 and Mil-S-6745 Specs.

Cat. No.	Aws No.	Description
6250	.....ST-12A	SPST
6251	.....ST-12D	SPDT
6251C	.....ST-12C	SPST
6251V	.....ST-12V	2 Circ.
6252	.....ST-22K.....	DPST
6252M	.....ST-22M.....	DPST
6253	.....ST-22N.....	DPDT

Cur. rate 125V 6A, 250V 3A, Std. Pkg. 25.

14



6270*	.....ST-42A	SPST
6271*	.....ST-42D	SPDT
6249*	.....ST-42E	SPDT
6272**	.....ST-52K.....	DPST
6273**	.....ST-52N.....	DPDT
6274**	.....ST-52P.....	DPDT

*Cur. rate 125V 15A, 250V 6A.
**Cur. rate 125V 25A, 250V 9A.
Std. Pkg. 25.

STANDARD DUTY MOM. PUSH BUTTON 13

Molded phenolic base; 15/32-32x7/16" long slotted sleeve; nickel finish; screw terminals; complete with two hex nuts. All accept snap on button; supplied less insulating button. Cur. rate 125V 12A, 250V 6A.

Std. Pkg. 10

Cat. No.	Description	Type
6238	... SPST	...Normally Closed
6238B	... SPDT	...Normally Closed (on)
6238C	...2 Circ.**	.Normally Closed (on)
6226	... DPST*	..Normally Open (off)
6238D	... DPST*	..Normally Closed (on)

*1 H.P. 250 V.A.C.-D.C.
**Cur. rating ½.

15

STANDARD DUTY TOGGLE SWITCHES 14

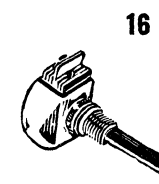
Molded phenolic base; 15/32-32 x 7/16" long slotted sleeve; nickel finish; screw terminals; complete with one hex nut, one knurled nut.

QUICK MAKE AND BREAK BAT

Cat. No.	Descrip.	Current Rating AC-DC 125 V	250 V
6225A	.... SPST	....12 amps....	6 amps
6225B	.... SPDT	....12 amps....	6 amps
6225C	....2 Circ.....	6 amps....	3 amps
6225	....DPST*	...12 amps....	6 amps

*1 HP 250 V. Std. Pkg. 10.

16



EXTRA HEAVY DUTY POWER SWITCHES 15 3 POSITION—POSITIVE CENTER OFF

Molded phenolic base; screw terminals; slotted sleeve ¾-32; nickel finish; with two hex nuts. Rated at 5 Amps—250 V, 10 Amps—125 V.

Cat. No.	Descrip-tion	Circuit
6227	DPDT	¾ H.P. 250 V.A.C.-D.C.
6228	3PDT	½ H.P. 115/230 V.A.C. 3 phase
6229	4PDT	½ H.P. 115/230 V.A.C. 2 phase

Std. Pkg. 10.

See Pages 1660-1665 for Birnbach Prices for Above Items

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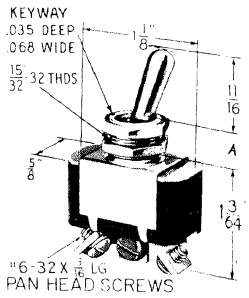
Birnbach CUTLER-HAMMER SWITCHES

ST-40 SERIES

The following switches conform to JAN-S-23, MIL-S-3950A, MIL-S-3950, MIL-S-6745.



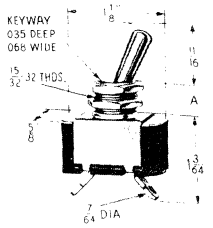
ST40

ST-40 Series — Single Pole with Screw Terminals

Nominal Rating per Pole:
10 amps. 115 V. AC
20 amps. 28 V DC

Birnbach No.	C-H	JAN-S-23 No.	MIL-S-6745 No.	Type	Circuit	Net Ea.
5360	8801K13	ST40A	AN3021-2	SPST	On-None-Off	1.68
5361	8813K12	ST40B	AN3021-9	SPST	On-None-Mom.Off	1.86
5362	8811K12	ST40C	AN3021-8	SPST	On-None-Mom.On	1.86
5363	8810K12	ST40D	AN3021-3	SPDT	On-None-On	2.04
5364	8800K13	ST40E	AN3021-1	SPDT	On-Off-On	2.04
5365	8804K12	ST40F	—	SPDT	On-None-Mom.On	2.19
5366	8812K13	ST40G	AN3021-7	SPDT	Mom.On-Off-Mom.On	2.19
5367	8809K13	ST40H	AN3021-5	SPDT	On-Off-Mom.On	2.19

Std. Pkge. 10



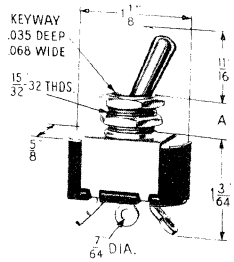
ST42

ST-42 Series — Single Pole with Solder Lugs

Nominal Rating per Pole:
10 amps. 115 V. AC
20 amps. 28 V. DC

5370	8803K6	ST42A		SPST	On-None-Off	1.26
5371	8819K5	ST42B		SPST	On-None-Mom.Off	1.38
5372	8817K5	ST42C		SPST	On-None-Mom.On	1.38
5373	8816K5	ST42D		SPDT	On-None-On	1.47
5374	8802K6	ST42E		SPDT	On-Off-On	1.47
3375	8805K6	ST42F		SPDT	On-None-Mom.On	1.62
5376	8818K5	ST42G		SPDT	Mom.On-Off-Mom.On	1.62
5377	8815K6	ST42H		SPDT	On-Off-Mom.On	1.62

Std. Pkge. 10



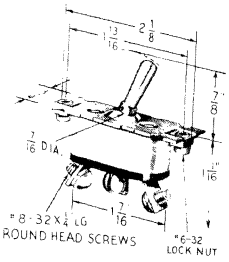
ST45

ST-45 Series per JAN-S-23 and MIL-S-6745 — Single Pole

Nominal Rating per Pole:
15 amps. 115 V. AC
20 amps. 28 V. DC

5440	8201K6	ST45A	AN3022-2	SPST	On-None-Off	1.95
5441	8213K6	ST45B	AN3022-9	SPST	On-None-Mom.Off	2.16
5442	8211K7	ST45C	AN3022-8	SPST	Mom.On-None-Off	2.16
5443	8210K7	ST45D	AN3022-3	SPDT	On-None-On	2.37
5444	8200K7	ST45E	AN3022-1	SPDT	On-Off-On	2.37
5445	8215K4	ST45F	AN3022-11	SPDT	On-None-Mom.On	2.55
5446	8212K6	ST45G	AN3022-7	SPDT	Mom.On-Off-Mom.On	2.55
5447	8209K6	ST45H	AN3022-5	SPDT	On-Off-Mom.On	2.55

Std. Pkge. 10



ST50

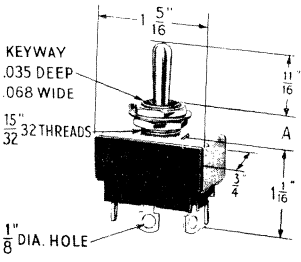
ST-50 Series per JAN-S-23 — Double Pole with Screw Terminals

Nominal Rating per Pole:
10 amps. 115 V. AC
20 amps. 28 V. DC

5380	8822K8	ST50K	AN3027-2	*DPST	On-None-Off	2.25
5381	8828K5	ST50L	—	DPST	On-None-Mom.Off	2.70
5382	8826K5	ST50M	—	DPST	Off-None-Mom.Off	2.70
5383	8824K8	ST50N	AN3027-3	*DPDT	On-None-On	2.70
5384	8820K10	ST50P	AN3027-1	*DPDT	On-Off-On	2.70
5385	8830K5	ST50R	—	DPDT	On-None-Mom.On	2.94
5386	8834K4	ST50S	AN3027-7	*DPDT	Mom.On-Off-Mom.On	2.94
5387	8832K4	ST50T	AN3027-8	*DPDT	On-Off-Mom.On	2.94

Std. Pkge. 25

*Denotes switches equipped with sealed lever per MIL-S-6745



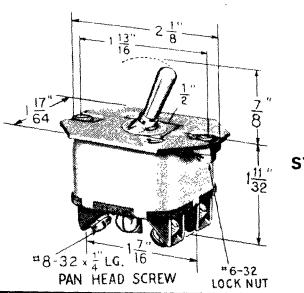
ST52

ST-52 Series per JAN-S-23 — Double Pole with Solder Lugs

Nominal Rating per Pole:
10 amps. 115 V. AC
20 amps. 28 V. DC

5390	8823K5	ST52K	DPST	On-None-Off	1.50
5391	8829K5	ST52L	DPST	On-None-Mom.Off	1.68
5391A	8827K5	ST52M	DPST	Off-None-Mom.On	1.68
5392	8825K5	ST52N	DPDT	On-None-On	1.68
5393	8821K5	ST52P	DPDT	On-Off-On	1.68
5394	8831K5	ST52R	DPDT	On-None-Mom.On	1.95
5395	8835K3	ST52S	DPDT	Mom.On-Off-Mom.On	1.95
5396	8833K3	ST52T	DPDT	On-Off-Mom.On	1.95

Std. Pkge. 25



ST55

ST-55 Series per JAN-S-23 and MIL-S-6745 — Double Pole

Nominal Rating per Pole:
20 amps. 115 V. AC
25 amps. 28 V. DC

All ST-55 Switches Have Sealed Levers

5450	8701K14	ST55K	AN3023-2	DPST	On-None-Off	4.11
5451	8713K14	ST55L	AN3023-9	DPST	On-None-Mom.Off	4.50
5452	8711K14	ST55M	AN3023-8	DPST	Off-None-Mom.On	4.50
5453	8710K14	ST55N	AN3023-3	DPDT	On-None-On	4.92
5454	8700K14	ST55P	AN3023-1	DPDT	On-Off-On	4.92
5455	8715K14	ST55R	AN3023-10	DPDT	On-None-Mom.On	5.34
5456	8712K14	ST55S	AN3023-7	DPDT	Mom.On-Off-Mom.On	5.34
5457	8709K14	ST55T	AN3023-5	DPDT	On-Off-Mom.On	5.34
5458*	8708K14	ST55U	AN3023-6	*DPDT	On-Off-Mom.On	5.43

Std. Pkge. 10

*Same as ST55T with added jumper across terminals to control one circuit.

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See Pages 1660-1665 for Birnbach Prices for Above Items

Birnbach CUTLER-HAMMER SWITCHES

ONE HOLE MOUNTING TOGGLE SWITCHES

Approved Under MIL-S-3950A Spec.

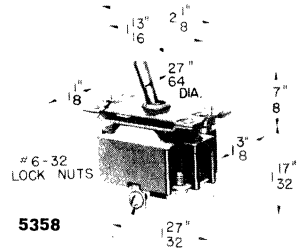
These switches are lever sealed with special silicone rubber between lever and bushing which will retain flexibility and reliability against sand, dust, water and other environmental conditions. They are unaffected by ozone or sunlight and do not absorb oil or water, meeting 15 ft. water submersion test. Pliability or firmness not affected by extremes in temperature, high or low. Terminals plated.

Rating: Current Capacity (amps.)
Nom. Ratings 10 amps. 115 V. AC
20 amps. 28 V. DC

One Pole per MS 35058 — Sealed Lever (Screw Terminal)

Birnbach No.	C-H	"MS" No.	Type	Circuit	Net Ea.
5358-21	8800K16	MS35058-21	SPDT	On-Off-On	2.01
5358-22	8801K22	MS35058-22	SPST	On-None-Off	1.68
5358-23	8810K15	MS35058-23	SPDT	On-None-On	2.04
5358-24	8801K23	MS35058-24	SPST	On-Off-None	1.68
5358-25	8813K18	MS35058-25	SPST	On-Mom. Off-None	1.86
5358-26	8804K13	MS35058-26	SPDT	On-None-Mom. On	2.19
5358-27	8812K14	MS35058-27	SPDT	Mom. On-Off-Mom. On	2.19
5358-28	8811K18	MS35058-28	SPST	None-Off-Mom. On	1.86
5358-29	8813K17	MS35058-29	SPST	On-None-Mom. Off	1.86
5358-30	8811K17	MS35058-30	SPST	Off-None-Mom. On	1.86
5358-31	8809K16	MS35058-31	SPDT	On-Off-Mom. On	2.19

Std. Pkge. 10

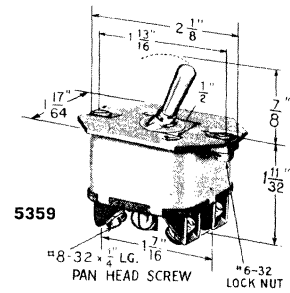


Nom. Rating per Pole:
10 amps. 115 V. AC
20 amps. 28 V. DC

Two Pole per MS 35059A Sealed Lever — (Screw Terminal)

5359-21	8820K16	MS35029-21	DPDT	On-Off-On	2.70
5359-22	8822K20	MS35059-22	DPST	On-None-Off	2.25
5359-23	8824K14	MS35059-23	DPDT	On-None-On	2.70
5359-24	8822K21	MS35059-24	DPST	On-Off-None	2.25
5359-25	8828K12	MS35059-25	DPDT	On-Mom. Off-None	2.70
5359-26	8830K13	MS35059-26	DPDT	On-None-Mom. Off	2.97
5359-27	8834K5	MS35059-27	DPDT	Mom.-On-Off-Mom.On	2.94
5359-28	8826K14	MS35059-28	DPST	None-Off-Mom. On	2.70
5359-29	8828K13	MS35059-29	DPST	On-None-Mom. Off	2.70
5359-30	8826K15	MS35059-30	DPST	Off-None-Mom. On	2.70
5359-31	8832K6	MS35059-31	DPDT	On-Off-Mom. On	2.94

Std. Pkge. 10



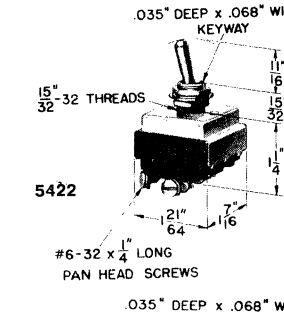
MS and AN types use internal sand and dust toggle seals. MS25098 and MS25100 series call for solder terminals only. MS types to MIL-S-3950A (recommended) have internal toggle seals to meet 15 ft. water submersion test. For heavy duty switches, MIL-S-3950A (-21 and higher) in MS25061, MS35058 and MS35059 series call for screw terminals only. These terminals are prepared for soldering and can be soldered when screw is removed.

Nom. Rating per Pole:
10 amps. 115 V. AC
20 amps. 28 V. DC

Four Pole—Sealed Lever — Screw Terminals Per MIL-S-3950A—Series MS25068

5422-1	7662K5	MS25068-1	4PDT	On-Off-On	6.18
5424-3	7664K3	MS25068-3	4PDT	On-None-On	6.18
5430-5	7670K4	MS25068-5	4PDT	On-Off-Mom. On	7.44
5432-7	7672K4	MS25068-7	4PDT	Mom. On-Off-Mom. On	7.44
5340-10	7674K4	MS25068-10	4PDT	On-None-Mom. On	7.44
5420-11	7660K9	MS25068-11	4PST	On-Off-None	4.95
5426-12	7666K7	MS25068-12	4PST	None-Off-Mom. On	6.69
5428-13	7668K5	MS25068-13	4PST	On-Mom. Off-None	6.69
			HEAVY DUTY		
5422-21	7662K7	MS25068-21	4PDT	On-Off-On	6.18
5424-23	7664K5	MS25068-23	4PDT	On-None-On	6.18
5420-24	7660K13	MS25068-24	4PST	On-Off-None	4.95
5428-25	7668K7	MS25068-25	4PST	On-Mom. Off-None	6.69
5434-26	7674K5	MS25068-26	4PDT	On-None-Mom. On	7.44
5432-27	7672K5	MS25068-27	4PDT	Mom. On-Off-Mom. On	7.44
5426-28	7666K9	MS25068-28	4PST	On-Off-Mom.On	6.69
5430-31	7670K6	MS25068-31	4PDT	On-Off-Mom.On	7.44

Std. Pkge. 12

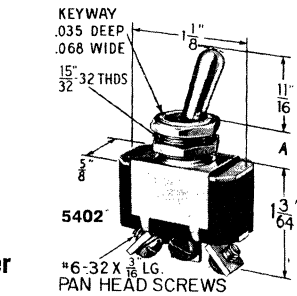


Nom. Rating per Pole:
15 amps. 115 V. AC
25 amps. 28 V. DC

Double Pole Per MIL-S-3950A Spec. — Sealed Lever Switch — Flush Mounted

5405-21	8700K15	MS25103-21	DPDT	On-Off-On	4.98
5405-23	8710K15	MS25103-23	DPDT	On-None-On	4.98
5405-24	8716K7	MS25103-24	DPST	On-Off-None	4.14
5405-25	8717K5	MS25103-25	DPST	On-Mom. Off-None	4.89
5405-26	8715K15	MS25103-26	DPDT	On-None-Mom. On	5.37
5405-27	8712K15	MS25103-27	DPDT	Mom. On-Off-Mom. On	5.37
5405-28	8718K5	MS25103-28	DPST	None-Off-Mom. On	4.86
5405-31	8709K15	MS25103-31	DPDT	On-Off-Mom. On	5.37

Std. Pkge. 10



Nom. Rating per Pole:
20 amps. 115 V. AC
25 amps. 28 V. DC

Three Pole—Flush Mounting (Screw Terminals)—Per MIL-S-3950A—Sealed Lever

5402	8742K10	MS25105-21	3PDT	On-Off-On	4.59
5400	8740K12	MS25105-24	3PST	On-None-Off	3.84
5401	8744K10	MS25105-23	3PDT	On-None-On	4.59

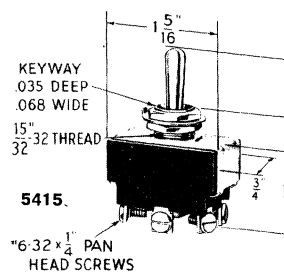
Std. Pkge. 12

Nom. Rating per Pole:
10 amps. 115 V. AC
20 amps. 28 V. DC

Four Pole—Flush Mounting—Sealed Lever per MIL-S-6745—(Screw Terminals)

5415	8880K5	AN3227-1	4PDT	On-Off-On	6.18
5410	8882K5	AN3227-2	4PST	On-None-Off	4.95
5413	8884K5	AN3227-3	4PDT	On-None-On	6.18
5418	8887K5	AN3227-5	4PDT	On-Off-Mom.On	7.44
5417	8888K5	AN3227-7	4PDT	Mom.On-Off-Mom.On	7.44
5412	8886K5	AN3227-8	4PST	Off-None-Mom.On	6.69
5412A	8882K6	AN3227-9	4PST	On-Off-None	4.95
5412B	8886K6	AN3227-10	4PST	None-Off-Mom.On	6.69

Std. Pkge. 12



See Pages 1660-1665 for Birnbach Prices for Above Items

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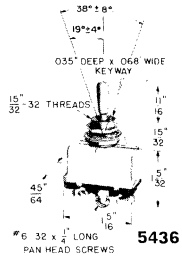
Birnbach CUTLER-HAMMER SWITCHES

POSITIVE ACTION SWITCHES

Especially designed for aircraft, missile and electronic applications. Made in two types—one with lever seals, the other environment sealed. Lever seal is bonded to the bushing and lever—will withstand a 15 ft. head of water, or between 6.5 to 7 lbs. per sq. inch. The environment sealed switches have seals under each contact and also a seal between switch base and the shell and are designed to pass a glycol temp. cycling test submerged for 20,000 operations per minute. The contact wiping action keeps contacts clean and smooth. Superior design, smooth operation. Screw terminals are tin-dipped to facilitate soldering if required.



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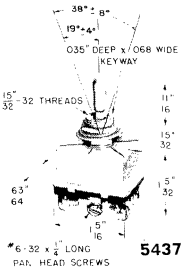

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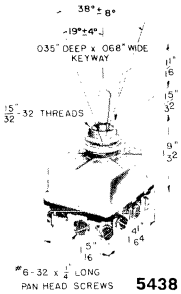


5438

Current Rating, All Switches

Current Capacity (Amps. per Pole) 28 V. D-C	Current Capacity (Amps. per Pole) 115 V. — 400 cycles A-C	Current Capacity (Amps. per Pole) 115 V. — 60 cycles A-C

One Pole—Environment Sealed—Per MIL-S-8834 Specification

Birnbach No.	C-H	"MS" No.	Type	Circuit	Net Ea.
5436-21	8836K1	MS25306-21	SPDT	On-Off-On	6.93
5436-22	8836K9	MS25306-22	SPST	On-None-Off	6.42
5436-23	8836K4	MS25306-23	SPDT	On-None-On	6.93
5436-24	8836K6	MS25306-24	SPST	On-Off-None	6.42
5436-25	8836K8	MS25306-25	SPST	On-Mom. Off-None	6.93
5436-26	8836K5	MS25306-26	SPDT	On-None-Mom. On	7.44
5436-27	8836K2	MS25306-27	SPDT	Mom. On-Off-Mom. On	7.44
5436-28	8836K7	MS25306-28	SPST	None-Off-Mom. On	6.93
5436-29	8836K10	MS25306-29	SPST	On-None-Mom. Off	6.93
5436-30	8836K11	MS25306-30	SPST	Off-None-Mom. On	6.93
5436-31	8836K3	MS25306-31	SPDT	On-Off-Mom. On	7.44

Std. Pkg. 10

Environment Sealed—Two Pole

5437-21	8837K1	MS25307-21	DPDT	On-Off-On	11.94
5437-22	8837K9	MS25301-22	DPST	On-None-Off	10.92
5437-23	8837K4	MS25307-23	DPDT	On-None-On	11.94
5437-24	8837K6	MS25307-24	DPST	On-Off-None	10.92
5437-25	8837K8	MS25307-25	DPST	On-Mom.Off-None	11.94
5437-26	8837K5	MS25307-26	DPDT	On-None-Mom.On	12.93
5437-27	8837K2	MS25307-27	DPDT	Mom.On-Off-Mom.On	12.93
5437-28	8837K7	MS25307-28	DPST	None-Off-Mom.On	11.94
5437-29	8837K10	MS25307-29	DPST	On-None-Mom.Off	11.94
5437-30	8837K11	MS25307-30	DPST	Off-None-Mom.On	11.94
5437-31	8837K3	MS25307-31	DPDT	Ou-Off-Mom.On	12.93

Std. Pkg. 10

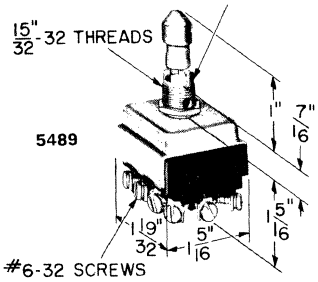
FOUR POLE

5438-21	8838K1	MS25308-21	4PDT	On-Off-On	28.80
5438-22	8838K9	MS25308-22	4PST	On-None-Off	28.80
5438-23	8838K4	MS25308-23	4PDT	On-None-On	28.80
5483-24	8838K6	MS25308-24	4PST	On-Off-None	27.54
5438-25	8838K8	MS25308-25	4PST	On-Mom.Off-None	28.80
5438-26	8838K5	MS25308-26	4PDT	On-None-Mom.On	31.02
5438-27	8838K2	MS25308-27	4PDT	Mom.On-Off-Mom.On	31.02
5438-28	8838K7	MS25308-28	4PST	None-Off-Mom.On	28.80
5438-29	8838K10	MS25308-29	4PST	On-None-Mom.Off	28.80
5438-30	8838K11	MS25308-30	4PST	Off-None-Mom.On	28.80
5438-31	8838K3	MS25308-31	4PDT	On-Off-Mom.On	31.02

Std. Pkg. 10

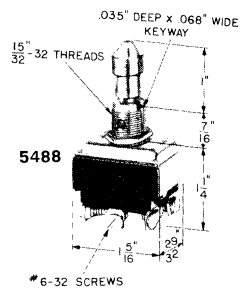
Lever Lock Switches—One, Two, Four Pole—Sealed Lever—MS 25125-6-7 Series— Per MIL-S-3950A

This series incorporates a lever lock mechanism designed to prevent accidental operation, thereby eliminating need for switch guards. The assembly of 2 die cast caps and a retaining clip spring assembled after the switch is mounted makes possible the locking feature. Switch is locked into position by the lever falling in position into deep slots in die cast caps. To operate switch from locked position the lever must be pulled straight out and moved to desired position.



5489

Nominal Rating per Pole
10 amps. 115V. AC
20 amps. 28V. DC



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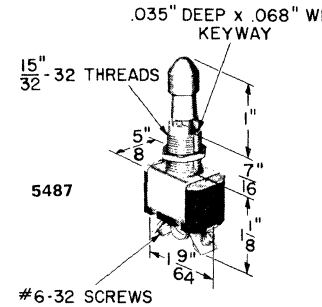

5487

					Net Ea.
ONE POLE					
5487-1	8857K39	MS25125-1	SPDT	On-Off-On	4.59
5487-2	8857K40	MS25125-2	SPDT	On-Off-On	4.59
5487-3	8857K41	MS25125-3	SPDT	On Off-On	4.59
5487-4	8857K45	MS25125-4	SPDT	On None-On	4.59
5487-5	8857K42	MS25125-5	SPDT	On-Off On	4.59
5487-6	8857K46	MS25125-6	SPDT	On-Off On*	4.77
5487-7	8857K43	MS25125-7	SPDT	On- Off-On	4.59
5487-8	8857K44	MS25125-8	SPDT	On- None-On	4.59
5487-9	8857K49	MS25125-9	SPST	On-Off None	4.26

Std. Pkg. 10

TWO POLE					
5488-1	8858K39	MS25126-1	DPDT	On-Off-On	5.28
5488-2	8858K40	MS25126-1	DPDT	On-Off-On	5.28
5488-3	8858K41	MS21126-3	DPDT	On Off-On	5.28
5488-4	8858K45	MS25126-4	DPDT	On None-On	5.28
5488-5	8858K42	MS25126-5	DPDT	On-Off On	5.28
5488-6	8858K46	MS25126-6	DPDT	On-Off On*	5.52
5488-7	8858K43	MS25126-7	DPDT	On- Off-On	5.28
5488-8	8858K44	MS25126-8	DPDT	On- None-On	5.28
5488-9	8858K49	MS25126-9	DPST	On-Off None	4.80

Std. Pkg. 10

Lever Lock Switches—Four Pole—Per MIL-S-3950A

5489-1	8859K39	MS25127-1	4PDT	On-Off-On	8.73
5489-2	8859K40	MS25127-2	4PDT	On-Off-On	8.73
5489-3	8859K41	MS25127-3	4PDT	On Off-On	8.73
5489-4	8859K45	MS25127-4	4PDT	On None-On	8.73
5489-5	8859K42	MS25127-5	4PDT	On-Off On	8.73
5489-6	8859K46	MS25127-6	4PDT	On-Off On*	10.02
5489-7	8859K43	MS25127-7	4PDT	On- Off-On	8.73
5489-8	8859K44	MS25127-8	4PDT	On- None-On	8.73
5489-9	8859K49	MS25127-9	4PST	On-Off None	7.53

Std. Pkg. 10

Arrow indicates direction of movement against which lever is locked.

*Momentary Contact

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See Pages 1660-1665 for Birnbach Prices for Above Items

Birnbach CUTLER-HAMMER SWITCHES

Complete line of Cutler-Hammer quality switches available from our warehouse stocks. Includes commercial, industrial, aircraft and Gov't spec.

LIGHT DUTY TOGGLE SWITCHES

1 BACK CONNECTED LUG TERMINALS

Quick make-break; bakelite; small, compact size AC-DC UL approved

Cat. No.	C-H No.	Descrip.	Shank	Current 125V	Rating 250V
5300	8280K16	SPST	15/32"		3 amps
5301	8381K8	SPST	15/32"	6 amps	3 amps
5302	8282K14	SPDT	15/32"	3 amps	1 amp
5303	8284K14	2 circ	15/32"	3 amps	1 amp
5304	8360K7	DPST	15/32"		3 amps
5305	8370K7	DPST	15/32"	6 amps	3 amps
5306	8363K7	DPDT	15/32"		3 amps
5307	8373K7	DPDT	15/32"	6 amps	3 amps

STD. PKG. 25

2 SIDE CONNECTED SCREW TERMINALS

Cat. No.	C-H No.	Descrip.	Shank	Current 125V	Rating 250V
5308	8295K8	SPST	15/32"		3 amps
5309	8396K8	SPST	15/32"	6 amps	3 amps
5310	8297K8	SPDT	15/32"	3 amps	1 amp
5311	8372K7	DPST	15/32"	6 amps	3 amps
5312	8365K7	DPDT	15/32"		3 amps
5313	8375K7	DPDT	15/32"	6 amps	3 amps

STD. PKG. 25

3 SIX INCH LONG WIRE LEADS

Cat. No.	C-H No.	Descrip.	Shank	Current 125V	Rating 250V
5335	8290K16	SPST	15/32"		3 amps
5336	8391K8	SPST	15/32"	6 amps	3 amps

STD. PKG. 25

4 PUSH BUTTON MOMENTARY SWITCHES

Door operated switches, used wherever it is desired to control current by opening or closing of refrigerated doors, telephone booths, closets, vaults, etc. AC-DC. UL approved; 15/32" shank; rated at .75 AMP., 125 volts—.75 AMPS, 250 volts.

Cat. No.	C-H No.	Description	Terminals
5337	8411K4	SP norm. open	lug
5338	8411K3	SP norm. open	screw
5339	8411K8	SP norm. closed	lug
5340	8411K7	SP norm. closed	screw

STD. PKG. 25

8, 9 HEAVY DUTY TOGGLE SWITCHES

Quick make—quick break; 15/32" shank (No. 8680 11/32" shank); AC-DC, UL approved; bakelite case; screw terminals.

Cat. No.	C-H No.	Descrip.	Current 125V	Rating 250V
5341	@7321K3	SPST	12 amps	6 amps
5342	@7320K3	DPST	12 amps	6 amps
5343	*7361K5	SPST	15 amps	10 amps
5344	*7360K8	DPST	15 amps	10 amps
5345	**7402K4	DPST		20 amps
5346	8680K1	DPDT	10 amps	5 amps
5347	8690K2	DPDT	15 amps	10 amps

@ 1 HP—125/250V * 1½ HP—125/250V
**1½ HP—125V, 2 HP—250V

STD. PKG. 12

A MULTI-POLE, MULTI-POSITION, ROTARY SWITCHES

Nos. 7260 thru 7266 and Nos. 7271 thru 7276

B PUSHBUTTON OPERATED AIRCRAFT SWITCHES

Nos. 8911K525, 8874, 8875

STANDARD DUTY TOGGLE SWITCHES

5 BACK CONNECTED LUG TERMINALS

Slow make and break; bakelite; AC rated for longer life, greater capacity. 15 amps. 125 volts—10 amps. 250 volts.

Cat. No.	C-H No.	Description	Shank
5314	7501K13	SPST	15/32"
5315	7505K4	SPDT	15/32"
5316	7561K4	DPST	15/32"
5317	7565K5	DPDT	15/32"
5318	7611K2	3PST	15/32"
5319	7615K2	3PDT	15/32"

STD. PKG. 25

6 BACK CONNECTED SCREW TERMINALS

Cat. No.	C-H No.	Description	Shank
5320	7500K14	SPST	15/32"
5321	7504K4	SPDT	15/32"
5322	7560K5	DPST	15/32"
5323	7564K6	DPDT	15/32"
5324	7610K2	3PST	15/32"
5325	7614K2	3PDT	15/32"

STD. PKG. 25

4 PUSH BUTTON SWITCHES PUSH TO MAKE—PUSH TO BREAK

Push-push switches; AC-DC. UL approved, bakelite case; rated 6 amps. 125V—3 amps. 250V. Pushing the button once closes the contacts; pushing it again opens the contacts. 11/16" shank.

Cat. No.	C-H No.	Description	Terminals
5326	7206K4	SPST	lug
5327	7208K4	SPST	screw
5328	7207K4	SPST	wire

STD. PKG. 25

5 CENTER OFF STANDARD DUTY TOGGLE SWITCHES

BACK CONNECTED LUG TERMINALS

Cat. No.	C-H No.	Description	Shank
5329	7503K13	SPDT	15/32"
5330	7563K4	DPDT	15/32"
5331	7613K2	3PDT	15/32"

STD. PKG. 25

7 BACK CONNECTED SCREW TERMINALS

Cat. No.	C-H No.	Description	Shank
5332	7502K13	SPDT	15/32"
5333	7562K4	DPDT	15/32"
5334	7612K2	3PDT	15/32"

STD. PKG. 12

C MISCELLANEOUS AIRCRAFT SWITCHES

Pistol grip trigger movement switches Nos. 8895, 8896, 8897

D LEVER EXTENSIONS and ATTACHABLE TIPS

To meet requirements for luminous identification on switches and circuit breakers these tips snap over the standard levers and are held in place by a cup shaped spring member.
Nos. 24-1939, 24-1939-2, 24-1997, 24-1997-2, 24-1164, 24-1164-2, 24-1164-3.

E AIRCRAFT SWITCH GUARDS

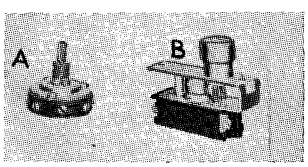
IT IS USED TO PREVENT INADVERTENT OPERATION OF THE LEVER

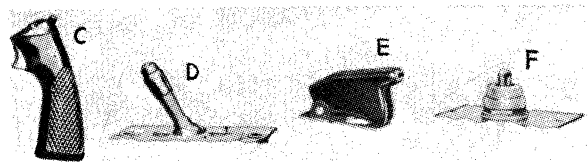
BOOTS FOR WATER and DUST RESISTANT APPLICATIONS

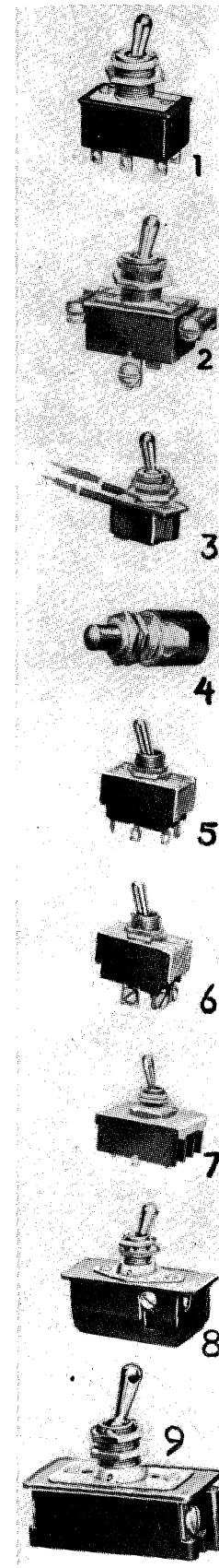
Gray silastic flexible designed to obstruct water and dust from entering switch interior. Remains flexible at minus 67°F. with stand exposure to sunlight without deterioration. For all applications. Advise which Specific Switch guard is to be used.

F BUSHING SEAL No. 32-341

ADDITIONAL CUTLER-HAMMER EQUIPMENT AVAILABLE







All Prices Subject to Change or Withdrawal without Notice.

See Pages 1660-1665 for Birnbach Prices for Above Items

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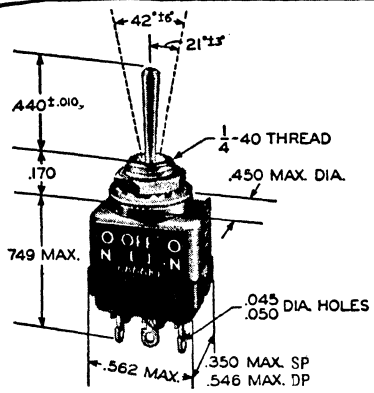
Birnbach

C-H • MURRAY • CONTINENTAL • WIRT

MISCELLANEOUS SWITCHES



POSITIVE ACTION MINIATURE MILITARY SWITCHES

"As Small As A Dime"

Especially designed for aircraft, missile and electronic application

EXTREMELY COMPACT — highly reliable power or dry circuit switch, usable as a pre-set switch in aircraft recognition systems, for walkie-talkies, electronic instruments and communication systems.

NEW DESIGN — Toggle is linked directly with movable contact member, insuring positive make and break.

NEW TOGGLE LEVER SEAL — Protects switch enclosure under adverse environmental conditions; includes panel bushing seal.

NEW GOLD PLATED CONTACTS — Open and close with wiping action, for good contact even on low energy circuits. Contact bounce is extremely low.

NEW SUPERIOR MATERIAL—In molded parts, provides higher arc-tracking resistance and excellent recovery voltage.

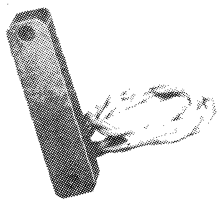
NEW POSITIVE DETENT ACTION—For improved operator "feel."

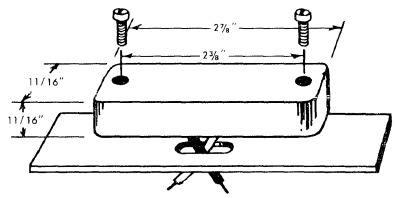
BUILT TO MIL-S-8834 SPECS

Cat. No.	C-H No.	Type	CIRCUIT Up Position	Center Position	Down Position	Net Ea.
5480K1	8866K1	SPDT	On	Off	On	**$6.06**
5480K2	8866K2	SPDT	Mom.-On	Off	Mom.-On	**6.84**
5480K3	8866K3	SPDT	On	Off	Mom.-On	**6.84**
5480K4	8866K4	SPDT	On	None	On	**6.06**
5480K5	8866K5	SPST	On	Off	None	**6.06**
5480K6	8866K6	SPST	None	Off	Mom.-On	**6.84**
5480K7	8866K7	SPST	On	None	Off	**6.06**
5480K8	8866K8	SPDT	None	On	Mom.-On	**6.84**
5481K1	8867K1	DPDT	On	Off	On	**7.56**
5481K2	8867K2	DPDT	Mom.-On	Off	Mom.-On	**8.82**
5481K3	8867K3	DPDT	On	Off	Mom.-On	**8.82**
5481K4	8867K4	DPDT	On	None	On	**7.56**
5481K5	8867K5	DPST	On	Off	None	**7.56**
5481K6	8867K6	DPST	None	Off	Mom.-On	**8.82**
5481K7	8867K7	DPST	On	None	Off	**7.56**
5481K8	8867K8	DPDT	None	On	Mom.-On	**8.82**

Ratings: 2 Amps., 28 V. DC; 1 Amp., 50 V. DC; 2 Amps., 115 V. AC.

MAGNETIC PROXIMITY SWITCHES





Precision, fast-acting devices, adaptable to sequential control functions on machine tools, packaging, material handling and equipment or for similar industrial devices. Rugged construction, encapsulated to assure freedom from contamination by cutting oils, dust, powder, metal chips, etc., this series will operate up to hundreds of millions of cycles at temperature ranges from —30°C to +105°C. Switches will actuate when brought into proximity with ferrous metals or other magnetic materials. Operating sensitivity in nom. ⅛" make, ½" break. No mechanical linkage is required for operation. Typical actuators include rotating cams, wheels and indexing tables, reciprocating arms, push rods, die sets, jaws and assembly line objects such as food and beverage cans, stampings and components. Speed (max.): 200 cycles/sec., repeatability within .005". Switch elements are hermetically sealed in glass, then unit is potted in epoxy resin. Case is special rubber and plastic compounding which is impervious to oil, water, gas and all common solvents.

COUNTING — POSITION LIMITING — SEQUENCE CONTROL HERMETICALLY SEALED—MOUNTS IN ANY POSITION—NO MECHANICAL LINKAGE NECESSARY.

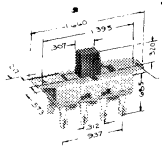
ELECTRICAL (Max. Contact Ratings)	RESISTIVE LOAD No. 5499 -128, -138	RESISTIVE LOAD No. 5499 -139	INDUCTIVE LOAD No. 5499 -128, -138	INDUCTIVE LOAD No. 5499 -139
Amps	.5	2	.1	1
Volts AC or DC	125	125	125	125
Watts	15	50	5	15

MAGNETIC PROXIMITY SWITCHES

Typical actuators include rotating objects, swinging objects, reciprocating objects, assembly line objects, vehicles.

Birnbach Cat. No.	MS No.	Type	Less than Std. pkge	10 Lots Ea. Switch	25 Lots Ea. Switch	50 Lots Ea. Switch
5499-128	PD-128	SPST Norm. open	Net 14.50	13.05	10.88	9.70
5499-138	PD-138	SPDT	Net 20.50	18.45	15.38	13.75
5499-139	PD-139	SPST, Norm. open (high load)	Net 17.50	15.75	13.13	11.75

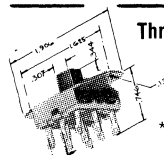
BIRNBACH CONTINENTAL-WIRT SLIDE SWITCHES



Three & Four Position Slide Switches with Detent

6294	SW729	SP3 Pos.	.5	.5	**.29**
6295	SW728	DP3 Pos.	.5	.5	**.30**
6295A	SW628	DP3 Pos.	6.0	1.0	**.54**
***6295F**	SW738*	DP4 Pos.	.5	.5	**.60**

Std. Pkg. 25



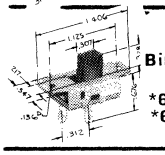
Three and Four Pole Slide Switches with Detent

Easy wiring, compact, all poles in the same plane

6298	SW769	3PDT	.5	.5	**.54**
6299	SW742	4PDT	.5	.5	**.66**

*6299 width of switch 1.005", short terminals—distance from mounting surface to terminal tip .595"

Std. Pkg. 25



Spring Return Slide Switches

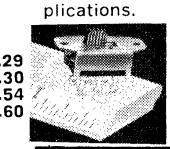
Birnbach No.	Cont. Wirt. No.	Type	Rating at 125 V Circuit DC Amps	AC Amps	Net Ea.
***6245S**	SW731	SPST	.5	.5	**.24**
***62456**	SW732	SPDT	.5	.5	**.29**

Std. Pkg. 25

6239	Slide Switch Shield		**.06**

UL APPROVED

NEW "SWIDGET"— occupies ⅓rd the cubic volume of a conventiona slide switch with the same circuitry. Overall mounting areas is ½ c standard DPDT slide switch. Quality switch, ideal for compact ap plications.



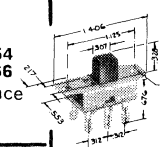
Cat. No.	Cont.-Wirt No.	Type	125V AC-DC Rating	Net Ea.
6248M	SW126	DPDT	.5 amp.	**.36**

Std. Pkg. 25

For use in wide varieties of applications and electroni fields.

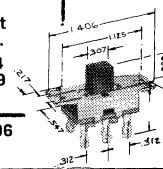
Slide Switches with Standard Detent

UL APPROVED



Birnbach No.	Cont.-Wirt No.	Type	Rating at 125 V Circuit DC Amps	AC Amps	Net Ea.
6245	SW724	SPST	.75	.75	**.11**
6246	SW724	SPDT	.75	.75	**.12**
6247	SW725	DPST	.5	.5	**.15**
6248	SW726	DPDT	.5	.5	**.18**
6290	SW623	SPST	6.0	1.0	**.14**
6291	SW624	SPDT	6.0	1.0	**.15**
6292	SW625	DPST	6.0	1.0	**.24**
6293	SW626	DPDT	6.0	1.0	**.27**

Std. Pkg. 25



Slide Switches with Detent — Center Off

***6296**	SW734	SPDT	.5	.5	**.29**
***6297**	SW736	DPDT	.5	.5	**.30**

*Not UL Appr.

Std. Pkg. 25

It's so easy to order from this catalog . . .

When ordering products shown in this book or writing for additional information, please be sure to specify:

1. **Manufacturer's Catalog Numbers and Page Numbers.**
2. **The Year and Edition of This MASTER.**

This will avoid confusion and expedite delivery.

Thank you!

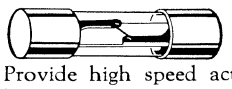
The
RADIO-ELECTRONIC
MASTER

BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

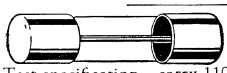
for Protection of TV, Radios, Instruments and Electronic Equipment

FAST ACTING FUSES for PROTECTION OF INSTRUMENTS, Etc.



Formerly called 8AG.
Dimension ¼ x 1 inch, Glass tube.
Provide high speed action necessary to protect sensitive instruments.
Listed by Underwriters' Laboratories Inc.
Test specification—carry 100%, open at 200% in 5 seconds.

Voltage	Symbol	Amperes	List Price
250 or less	AGX	1/500	$1.46
"	AGX	1/200	.61
"	AGX	1/100	.55
"	AGX	1/32	.48
250 or less	AGX	1/16	.30
"	AGX	1/10, 1/8, 3/16, 2/10	.22
"	AGX	1/4, 3/8, 4/10, 1/2 or 3/4	.14
"	AGX	1	.088
"	MKB	1/16 or 1/8	.48
125 or less	AGX	1½ or 2	.088



Formerly called 8AG
Dimension ¼ x 1 inch, Glass tube.
Test specification—carry 110%, open at 135% within 1 hour.
125 volt sizes are listed by Underwriters' Laboratories Inc.

Voltage	Symbol	Amperes	List Price
125 or less	AGX	3, or 4	$0.088
"	AGX	5	.056
32 or less	AGX	8, 10, 15 or 20	.056
"	AGX	25 or 30	.066

MJB & MJW FUSES NOW CALLED AGX

BUSS GLASS TUBE FUSES, ¼ x 1¼ inch

Formerly called 3AG

Test specification—carry 110%, open at 135% within 1 hour.
Listed by Underwriters' Laboratories Inc. for 250 volts or less.

Symbol	Amperes	List Price	Symbol	Amperes	List Price
AGC	1/500	$1.46	AGC	175/1000	$0.22
AGC	1/200	.61	AGC	3/16, 2/10	.22
AGC	1/100	.55	AGC	1/4, 3/10, 3/8	.14
AGC	1/32	.48	AGC	45/100, 1/2, 3/4	.14
AGC	1/16	.22	AGC	1, 1¼, 1½, 2	.088
AGC	1/8	.22	MGB	1/16 or 1/8	.48
AGC	15/100	.22	AGC	3	.078
			MTH	4, 5 or 6	.113

Formerly called 3AG

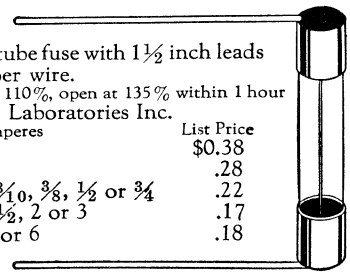
Test specification—carry 110%, open at 135% within 1 hour.

Voltage	Symbol	Amperes	List Price
125 or less	GLH	8 or 10	$0.17
32 or less	AGC	4	.078
"	AGC	5, 6, 7½, 8, 10 or 15	.056
"	AGC	20	.05
"	AGC	25 or 30	.066

20 ampere size is an SFE 20 fuse.
Sizes larger than 30 ampere are not recommended as clips or fuse holders would not permit fuse to carry such high currents. If surges or starting currents make heavier fuse necessary, use MDL Fusetron dual-element fuses.

MBW & MBB FUSES NOW CALLED AGC

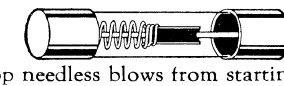
BUSS PIG-TAIL FUSES



¼ x 1¼ inch Glass tube fuse with 1½ inch leads of No. 20 tinned copper wire.
Test specifications—carry 110%, open at 135% within 1 hour
Listed by Underwriters' Laboratories Inc.

Voltage	Symbol	Amperes	List Price
250 or less	GJV	1/16	$0.38
"	GJV	1/8	.28
"	GJV	1/4, 3/10, 3/8, 1/2 or 3/4	.22
"	GJV	1, 1½, 2 or 3	.17
"	GJV	4, 5 or 6	.18

FUSETRON FUSES, ¼ x 1¼ inch



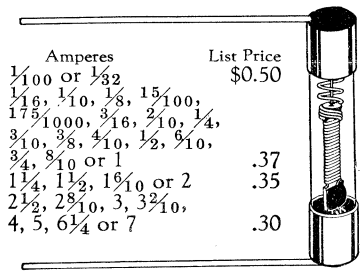
DUAL-ELEMENT SLOW BLOWING TYPE

Stop needless blows from starting currents or surges. Fuse link operates only on very high overloads or short-circuits. Thermal cutout functions on low overloads — cannot operate quickly at any load, so long time-lag is obtained. Yet protection is afforded against short-circuits or continued overloads.
Test specification—carry 110%, open at 135% within 1 hour.
Approximate blowing time: at 200% load **MDL** 25 sec. **MDX** 12 sec.
at 300% " " 8 " " 3 "
at 500% " " 3 " " ½ "
125 and 250 volt sizes listed by Underwriters' Laboratories Inc.

Voltage	Symbol	Amperes	List Price
250 or less	MDL	1/100 or 1/32	$0.41
250 or less	MDL	1/16, 1/10, 1/8, 15/100, 175/1000, 3/16, 2/10, 1/4, 3/10, 3/8, 4/10, ½, 6/10, 7/10, ¾, 8/10 or 1	.30
"	MDX	1¼, 1½, 1 6/10 or 2	.33
125 or less	MDL	1 2/10, 1¼, 1½, 1 6/10 or 2	.28
"	MDL	2½ or 2 8/10	.22
"	MDX	3, 3 2/10, 4 or 5	.22
"	MDX	6¼ or 7	.25
32 or less	MDL	3, 3 2/10, 4, 5, 6¼, 8, 10, 15, 20, 25 or 30	.22

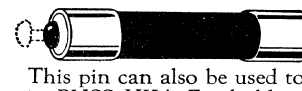
FUSETRON PIG-TAIL FUSES

Leads are No. 20 tinned wire 1½ inch long. Listed by Underwriters' Laboratories Inc. Test specifications and performance, MDV 1/100 to 2 8/10 amps. same as MDL fuses. 3 to 7 amps. same as MDX fuses.



Voltage	Symbol	Amperes	List Price
250 or less	MDV	1/100 or 1/32	$0.50
"	MDV	1/16, 1/10, 1/8, 15/100, 175/1000, 3/16, 2/10, 1/4, 3/10, 3/8, 4/10, ½, 6/10, ¾, 8/10 or 1	.37
125 or less	MDV	1¼, 1½, 1 6/10 or 2	.35
"	MDV	2½, 2 8/10, 3, 3 2/10, 4, 5, 6¼ or 7	.30

BUSS INDICATING FUSES, ¼ x 1¼ inch



Fibre Tube. Silverplated indicating pin extends from end of fuse when fuse is blown. This pin can also be used to actuate a signal by using fuses in BUSS HKA Fuseholders or BUSS Signal Fuse Blocks. GLD fuses in sizes larger than 5 amperes have dual tube construction. They can be used in BUSS Signal Fuse Blocks but not in HKA Fuseholders.
125 volt sizes listed by Underwriters' Laboratories Inc.
Test specifications—carry 110%, open at 135% in one hour or less.

Voltage	Symbol	Amperes	List Price
125 or less	GLD	¾	$0.66
"	GLD	1, 2, 3, or 5	.50
32 or less	GLD	8, 10, 12 or 15	.70

GBA FUSES

GBA fuses are the same as BUSS GLD fuses EXCEPT that the indicating pin is RED. This results in a more vivid indication of an open fuse when the fuses are used in BUSS HLD fuseholders.

GBA fuses have same electrical and physical characteristics as BUSS GLD fuses. They are made in the same ampere sizes up to 5 ampere, and are also priced the same.

To specify; give symbol **GBA** and amperes.

BUSSMANN MFG. DIVISION McGraw-Edison Co. **St. Louis 7, Mo.**

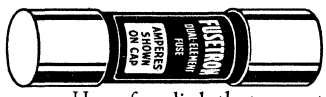
BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

FUSETRON FIBRE TUBE FUSES

13/32 x 1½ inch



Dual-Element — Slow Blowing Type. Avoid needless blows from starting currents or surges. Have fuse link that operates only on very high overloads or short-circuits, and thermal cutout on low overloads. Thermal cutout cannot operate quickly at any load, hence long time-lag is obtained. Yet protection is provided against short-circuits or continued overloads.

Test specification—carry 110%, open at 135% within 1 hour.
Approximate blowing time: at 200% load 25 seconds.
at 300% load 8 seconds.
at 500% load 5 seconds.

125 and 250 volt sizes listed by Underwriters' Labs., Inc.

Voltage	Symbol	Amperes	List Price
250 or less	**FNM**	1/10, 15/100, 2/10, 3/10, 4/10, ½, 6/10, 8/10, 1, 1⅛, 1¼, 1 4/10, 1 6/10, 1 8/10, 2, 2¼, 2½, 2 8/10, 3 2/10, 3½, 4, 4½, 5, 5 6/10, 6¼, 7, 8, 9 or 10	$0.37
125 or less	**FNM**	12 or 15	.37
32 or less	**FNM**	20, 25 or 30	.37

SIGNAL OR VISUAL INDICATING TYPE

FNA are FNM Fusetron fuses with silverplated indicating pin that extends from fuse when fuse blows. Pin can also be used to actuate a signal by using fuse in BUSS Signal Fuse Block. Fuses in sizes larger than 10 ampere have a dual tube construction. They can be used in BUSS Signal fuse blocks but not in the HPC-C fuseholder.

Voltage	Symbol	Amperes	List Price
250 or less	**FNA**	1/10, 15/100, 2/10, 3/10, 4/10, ½, 6/10, 8/10	$0.688
125 or less	**FNA**	1, 1⅛, 1¼, 1 4/10, 1 6/10, 1 8/10, 2, 2¼, 2½, 2 8/10, 3, 3 2/10, 3½, 4, 4½, 5, 5 6/10, 6, 6¼, 7, 8, 10	.688
"	**FNA**	12 or 15	.758
32 or less	**FNA**	20, 25 or 30	.758

BUSS FUSES 600 Volt. UL Listed. 13/32 x 1⅜ inch.

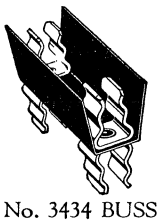
Fibre tube. For protection of control circuits or wherever a fuse with "quick-blowing" characteristics is desirable. Listed by Underwriters' Laboratories Inc.

Voltage	Symbol	Amperes	List Price
600 or less	**BBS**	1/10, ¾ or 8/10	$0.24
600 or less	**BBS**	1, 2, 3, 4 or 5	.22

Fuseholder for BBS fuses. Use HPC-L fuseholder or No. 3845 single pole, side barrier porcelain fuse block. Only BBS fuses (or others with exact same dimensions) will fit these holders. This assures replacement of proper size fuse.

BUSS Insulated TWIN-CLIPS

For ¼ inch FUSES.



Make it easy to replace blown pigtail fuses without cutting or unsoldering pigtails. Just snap Twin-Clips on blown fuse and insert ordinary or Fusetron fuse of same amperage as blown fuse.

Strong spring clip pressure assures good contact.

	List Price
No. 3434 BUSS Insulated Twin Clips	One pair $0.21

HIGH INTERRUPTING CAPACITY FUSES

13/32 x 1½ inch

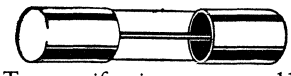
Glass fibre melamine tube with sand filler surrounding a silver fuse element. For use on circuits capable of delivering currents as high as 100,000 amperes at voltages of 600 or less. AC only.

Test specification—carry 110%, open at 135% in 1 hour or less.

Voltage	Symbol	Amperes	List Price
600 or less	**KTK**	1/10, ⅛, 2/10, ¼, 3/10, ½, ¾, 1, 1½, 2, 3, 4, 5, 6, 8, 10, 15, 20, 25, 30	$1.33

BUSS GLASS TUBE FUSES

9/32 x 1¼ inch



Formerly called 4 AG.

Test specifications — carry 110%, open at 135% within 1 hour except 35 and 40 ampere which open at 300% in 2 to 4 seconds when tested in a standard 30 ampere test circuit.

Voltage	Symbol	Amperes	List Price
250 or less	**AGS**	1/16	$0.46
	AGS	⅛	.32
	AGS	¼, or ½	.16
	AGS	1, 2, 2½ or 3	.14
32 or less	**AGS**	5, 10, 15, 20, 25, 30	.13
	AGS	35, 40 or 50	.14

BUSS HIGH VOLTAGE FUSES

HVA and HVB

HVJ and HVL

Designed for protection of circuits up to 20 KW on DC and 30 KVA on AC.

Test specification—carry 110%, open at 135% within 1 hour.

Voltage	Symbol	Amperes	Diameter of caps	Length inches	List Price
1000 or less	**HVA**	⅜, ½, ¾, 1, 1½, 2	13/32	3	$0.30
2500 or less	**HVB**	½, ¾, 1, 1½ or 2	13/32	4½	.39
5000 or less	**HVJ**	1/16, ⅛, ¼, ⅜, ½, ¾, 1, 1½ or 2	13/16	5	.74
10000 or less	**HVL**	1/16, ⅛, ¼, ⅜, ½, ¾, 1, 1½ or 2	13/16	10	1.47

13/32 x 1½ inch INDICATING FUSES

Has silver plated indicating pin that extends from fuse when open — gives visual indication or can actuate signal.

250 or less	**MIC**	1, 2, 3, 5, 10 or 15	$0.61
32 or less	**MIC**	20, 25 or 30	.61

250 volt sizes listed by Underwriters' Laboratories Inc.

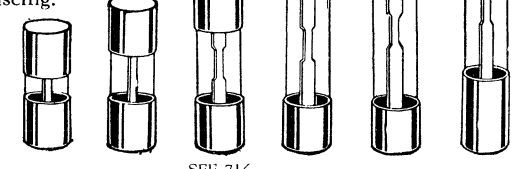
Fuses made in accordance with Military Specifications.

Red button on indicating pin extends from end of fuse when fuse opens.

			List Price
250 or less	**MIN**	1, 2, 3, 5, 10 or 15	$0.53
125 or less	**MIN**	20, 25 or 30	.53

BUSS FUSES — SFE STANDARD

All cuts actual size. Fuses of different amperages are of different lengths — to make it impossible to insert too large a size — thereby preventing over-fuseing.



SFE 4 SFE 6 SFE 7½ & SFE 9 SFE 14 SFE 20 SFE 30

Glass tube — diameter ¼ inch. Length as per table below.

Test specification—carry 110%, open at 135% within 1 hour.

Listed by Underwriters' Laboratories Inc.

Made according to specifications of Society of Automotive Engineers.

Voltage	Symbol & Amperes	Length Inches	Pounds per 100	List Price
32 or less	**SFE 4**	⅝	.73	$0.063
"	**SFE 6**	¾	.75	.063
"	**SFE 7½**	⅞	.80	.056
"	**SFE 9**	⅞	.80	.056
"	**SFE 14**	1 1/16	.82	.05
"	**SFE 20**	1¼	.87	.05
"	**SFE 30**	1 7/16	1.60	.066

BUSSMANN MFG. DIVISION McGraw-Edison Co. **St. Louis 7, Mo.**

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BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

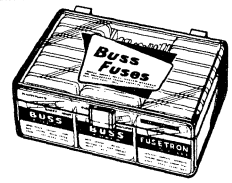
for Protection of TV, Radios, Instruments and Electronic Equipment

BUSS GRASSHOPPER FUSES

Give a visible signal or activate an alarm circuit when blown Color coded to indicate type and amperage.

Symbol	Amps	Volts	Color Code	List Price
35A	1⅓	90 or less	White	$0.36
35B	1⅓	90 or less	White	.36
35B	2	90 or less	Orange	.36
35C	2	90 or less	Orange	.36
35D	1⅓	90 or less	White	.72
35E	3	90 or less	White	.39
35F	½	90 or less	Red	.36
35G	3	90 or less	Blue	.36
35H	5	90 or less	Green	.36
35R	1 8/100	90 or less	Yellow	.46
35T	6 5/100	90 or less	Tan	.53
35J	½	160 or less	Red	.53
35K	1⅓	160 or less	White	.72
35L	2	160 or less	Orange	.72
35M	3	160 or less	Blue	.66
35N	5	160 or less	Green	.66
35P	¾	160 or less	Tan	.46
35S	¼	160 or less	Pink	.53

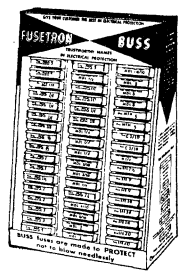
BUSS FUSE TV Service Kit Assortment



Contains 101 of the most popular fuses — 20 slide-cover boxes — and five pairs of BUSS No. 4121 Twin Clips for use in replacing blown pigtail fuses. All packed in a clear plastic box.

Symbol, **TV-STD** List Price $20.19

BUSS ELECTRONIC FUSE ASSORTMENTS



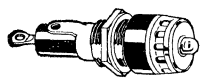
. . . with handy inventory feature

Helps serviceman have fuse he needs right in front of him . . . no delay in work to find a fuse. Keeps all the fuse stock normally needed for complete servicing of TV sets in smallest possible space.

Each 5-in box has its own shelf . . . Size and type of fuse shown on label at back of shelf . . . when shelf is empty label shows what fuses need to be immediately reordered.

	List Price
No. 255 Full-Service Electronic Fuse Assortment (255 fuses — 30 different sizes)	$40.81
No. 130 Special Electronic Fuse Assortment (130 fuses — 26 different sizes)	$20.61

PANEL MOUNTED VISUAL INDICATING FUSEHOLDER for ¼ x 1¼ inch GBA Fuse (or GLD fuse)



Has transparent, bayonet type knob that permits indicating pin of open fuse to be readily seen.

Gives positive identification of open circuit even if power is off.

Vibration cannot cause failure because terminals are held mechanically and by solder.

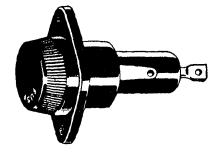
Neoprene washer and steel locking nut furnished with each holder.

Body is molded phenolic, can be used on panels up to 5/16 inch thick.

Normal current carrying capacity; 30 ampere.

	List Price
HLD takes any size GBA fuse (or GLD fuse)	$0.62
No. 5487 Knob Only — will fit HKP holder, makes it visual indicating when used with GBA fuse	.26

PANEL MOUNTED HOLDERS for 13/32 x 1½ inch Fuses



Screw type knob. Molded phenolic body. Holder attached to panel by screws or rivets. Strong coil spring provides contact pressure on ends of fuse. Normal current carrying capacity 30 amperes. Listed by Underwriters' Laboratories for 15 ampere rating for any voltage up to 250.

HPC (for FNM and KTK fuses) ..... List Price $0.84

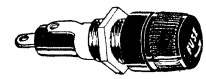
HPC-C (Same as above, but has transparent knob) ..... List Price $1.05

HPC-L Holder for 13/32 x 1⅜ inch Fuses.

Like **HPC** Holder. Has Underwriters' Laboratories approved listing for 5 ampere rating and any voltage up to 600.

HPC-L (for BBS fuses) ..... List Price $0.84

PANEL MOUNTED HOLDERS for ¼ inch Fuses



Can be used on panels up to 5/16 inch thick. Bayonet type knob. No screw driver is needed.

Side terminal is held mechanically as well as by solder. Heat of soldering wire to it will not cause it to loosen.

Vibration will not cause failure of terminals as they are designed to stand severe service.

Neoprene washer and steel locking nut furnished with each holder.

Wire hole in terminals; .115 inch.

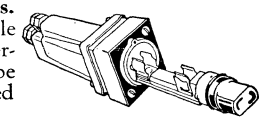
Normal current carrying capacity; 30 amperes.

Listed by Underwriters' Laboratories Inc.

	List Price
HJM for ¼ x 1 inch fuses (AGX, SFE 14)	$0.54
HJM-CC (Same as HJM but projects shorter distance behind panel)	.54
HKP for ¼ x 1¼ inch fuses (ABC, AGC, SFE20, MDL. MDX, MTH)	.54
HKP-CC (Same as HKP but projects shorter distance behind panel)	.54

PANEL MOUNTED, LAMP INDICATING FUSEHOLDERS for ¼ x 1¼ and 13/32 x 1½ inch fuses

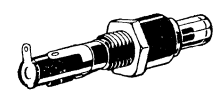
Made to Military Specifications.



Available as single or two pole units. Transparent knob permits neon indicating light to be readily seen. Body of molded alkyd.

Type	Pole	Fuse Size Inches	Circuit Voltage	Max. Amp. Rating	List Prices
HGB-C	Single	¼ x 1¼	90 to 250	30	Prices
HGA-C	Two	¼ x 1¼	90 to 250	30	on
HGC	Single	13/32 x 1½	90 to 500	30	Request

LAMP INDICATING FUSEHOLDERS



For panel mounting ¼ x 1 and ¼ x 1¼ inch fuses. Bayonet type knob. Molded phenolic body. Strong coil spring provides contact pressure at ends of fuse. Transparent knob permits indicating light to be readily seen.

Type	Fuse Size Inches	Circuit Voltage	Max. Amp Rating	Type Lamp	List Price
HKL	¼ x 1¼	90 to 300	20	Neon	$2.26
HKL-X	¼ x 1¼	90 to 300	20	Neon	2.26
HKR	¼ x 1¼	22 to 33	20	Incand.	3.69
HKX	¼ x 1¼	22 to 33	20	Incand.	3.69
HKT	¼ x 1¼	13 to 22	20	Incand.	3.69
HKU	¼ x 1¼	4 to 6	20	Incand.	3.69
HJL	¼ x 1	90 to 300	20	Neon	2.26

BUSSMANN MFG. DIVISION McGraw-Edison Co. **St. Louis 7, Mo.**

BUSS Fuses
FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

TRON PIGTAIL FUSES

Sub-miniature — hermetically sealed

Tron fuses can easily be incorporated into miniaturized devices or components without sacrifice of space. Designed for installation in high shock and vibration ambients.

They may be potted or encapsulated. Are self-protecting and operate without exterior flash or venting.

Available in ratings from 1/20 to 5 amperes — for use on circuits of 125 volts or less where available fault current is not over 50 amperes. Color coded to indicate ampere rating.

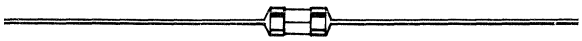
Made with 1½ inch axial pigtails or with 1 inch right angle pigtails of No. 24 tinned copper wire.

Test specifications —

Characteristic A — Carry 100% load, open within 10 seconds at 200% load.

Characteristic B — Carry 100% load, open within 10 seconds at 150% load.

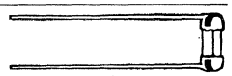
GFA TRON Fuses



Body size only .145 x .300 inches

Symbol & Amperes	Test Specification	Color Code One End	Color Code Other End	*Approximate Resistance in Ohms	List Price
GFA 1/20	A	Yellow	Yellow	20.0	$1.89
GFA 1/16	A	Brown	Brown	9.0	1.89
GFA 1/10	A	Red	Red	4.0	1.89
GFA 1/8	A	Orange	Orange	3.0	1.89
GFA 15/100	B	Red	Yellow	2.1	1.89
GFA 2/10	B	Red	Blue	1.8	1.89
GFA 1/4	B	Red	Purple	0.9	1.89
GFA 3/10	A	Green	Green	0.7	1.89
GFA 4/10	A	Blue	Blue	0.48	1.89
GFA 1/2	B	Orange	Green	0.35	1.89
GFA 6/10	B	Orange	Blue	0.25	1.89
GFA 3/4	B	Orange	Purple	0.22	1.89
GFA 1	B	Yellow	Green	0.17	1.89
GFA 1½	B	Yellow	Purple	0.12	1.89
GFA 2	B	Green	Blue	0.07	1.89
GFA 3	B	Blue	Purple	0.05	1.89
GFA 4	B	Purple	Brown	0.040	1.89
GFA 5	B	Brown	Black	0.035	1.89

GLN and GLX TRON Fuses



Body size only .140 x .300 inches

Symbol & Amperes	Test Specification	Color Code One End	Color Code Other End	*Approximate Resistance in Ohms	List Price
GLN 1/20	A	Yellow	Yellow	20.0	$1.46
GLN 1/16	A	Brown	Brown	9.0	1.46
GLN 1/10	A	Red	Red	4.0	1.46
GLN 1/8	A	Orange	Orange	3.0	1.46
GLN 3/10	A	Green	Green	0.7	1.46
GLN 4/10	A	Blue	Blue	0.48	1.46
GLX 15/100	B	Red	Yellow	2.1	1.89
GLX 2/10	B	Red	Blue	1.8	1.89
GLX 1/4	B	Red	Purple	0.9	1.89
GLX 1/2	B	Orange	Green	0.35	1.89
GLX 6/10	B	Orange	Blue	0.25	1.89
GLX 3/4	B	Orange	Purple	0.22	1.89
GLX 1	B	Yellow	Green	0.17	1.89
GLX 1½	B	Yellow	Purple	0.12	1.89
GLX 2	B	Green	Blue	0.07	1.89
GLX 3	B	Blue	Purple	0.05	1.89
GLX 4	B	Purple	Brown	0.040	1.89
GLX 5	B	Brown	Black	0.035	1.89

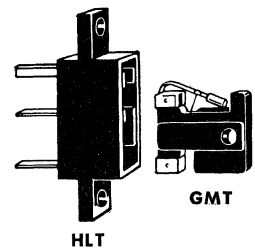
*Cold resistance obtained on Wheatstone Bridge. Other ratings are available with a nominal test charge.

Approximate Unit weight 0.33 grams. Shipping weight 0.116 lbs. per 100.

BUSS GMT Fuses — HLT Fuseholders

Signal Indicating

Alarm Activating



For multiple circuit apparatus where space is at a premium

GMT fuses and HLT fuseholders permit multiple mounting of fuses in limited space, for protection of communication equipment, business machines, computers, control circuits or any equipment operating at 300 volts or less.

Holders take panel mounting space of only ¼ inch horizontal by $1\frac{15}{32}$ inches vertical.

Fuses give visual indication when blown by release of a spring indicator. The spring carries a colored plastic flag, in a different color for each fuse ampere rating.

The indicator spring when released makes contact with an alarm terminal in the fuseholder, which can be connected to activate a signal circuit.

Blown fuses are readily replaced without use of insulated tools. When mounted on minimum centers, removal of fuse is easy by use of a wire hook.

Buss GMT Fuses

Available Ratings and Color Code

300 volts or less

Test specification — carry 100% for 10 minutes; open at 150% within 5 minutes.

Symbol & Amperes	Color of Indicator	Symbol & Amperes	Color of Indicator
GMT 18/100	YELLOW	GMT 1⅓	WHITE
GMT ¼	VIOLET	GMT 2	ORANGE
GMT ½	RED	GMT 3	BLUE
GMT 65/100	BLACK	GMT 5	GREEN
GMT ¾	BROWN	GMT 7½	BLACK-WHITE
GMT 1	GRAY	GMT 10	RED-WHITE

Symbol **GMT** (All Sizes) — List Price $0.62

Buss HLT Fuseholders

Buss HLT fuseholders take all sizes of GMT fuses.

HLT — List Price $0.66

GMW Fuse and HWA Fuseholder

Sub-miniature fuseholder combination

Body size only .270 x .250 inches

Offering a light weight, space-saving protective device for space-tight applications in multiple circuit apparatus. GMW fuse has transparent window for visual inspection of element. Fuse may be used alone for mounting into printed circuit boards.

HWA holder can be panel mounted easily — or soldered on printed circuit boards.

AF knob for holder makes holder water-proof from front of panel.

Test specifications — carry 100%, open at 200% within 10 seconds or less.

Interrupting rating — 300 ampere at 125 volts

Symbo	Ampere	List Price
GMW	1/200, 1/100, 1/64, 1/32 and 1/16	$1.05
GMW	1/10, 2/10, ¼, 3/10, 4/10, ½, 6/10, ¾, 1, 1½, 2, 3, 4, and 5	.81
HWA	fuseholder takes all sizes of GMW fuses	1.03
AF	knob for HWA fuseholder	.12

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BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

BUSS MINIATURE GLASS TUBE FUSES

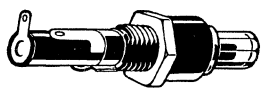
5 mm x 20 mm (.197 x .769 inches)

Designed for protection of miniaturized circuits or equipment. Commonly used in equipment of foreign make.

Test specifications — Carry 100% load indefinitely.
Open at 200% load within 10 seconds.

Voltage	Symbol	Amperes	List Price
125 volts or less if available fault current is not over 50 amps.	GMA	1/8	$0.45
	GMA	1/4, 1/2, or 7/10	.34
	GMA	1, 1 2/10, 1 1/2, or 2	.28
	GMA	3, 4, 5, 6, or 10	.28

GJU fuses now called GMA.



HKA SERIES

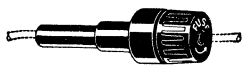
Lamp Indicating, Signal Activating holders for 1/4 x 1 1/4 inch BUSS type GLD fuses

Used on circuits of 125 volts or less. Flashes a light, rings a bell, trips a relay or gives other signals to tell you when and where a fuse blows.

Symbol		List Price
HKA	for 1/4 x 1 1/4 inch GLD fuses, 3/4 to 5 amps. GLD fuses listed under Indicating fuses.	$4.94

IN-THE-LINE HOLDERS for 1/4 inch fuses

For mounting fuse in wire. Holders consist of body and bayonet type knob — two contacts ready to be staked on ends of wire — and a contact pressure spring.



Holders can also be mounted in panel up to 5/16 inch thick by means of a No. 9969 Spring nut (Nut not furnished). Flat area on holder permits locking against rotation.

Normal current carrying capacity: 15 amperes. Maximum Voltage: 250.

Contacts designed to take different size wire. For 18 to 22 wire add "-A" to symbol. For 14 to 16 wire add "-B" to symbol. (Example HHJ-A).

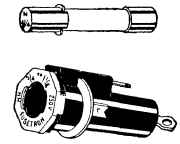
Symbol	Fuse Size Inches	List Price
HHJ	1/4 x 1 1/4	$0.26
HHI	1/4 x 1 or 1 1/16	.26
HHH	1/4 x 7/8	.26
HIG	1/4 x 3/4	.26
HIF	1/4 x 5/8	.26

SERIES HD and HA

These holders are the same in all details and dimensions as the HH and HI series — EXCEPT that the holding ears in the bayonet knob are of molded phenolic instead of being of metal.

Symbol	Fuse Size Inches	List Price
HDJ	1/4 x 1 1/4	$0.21
HDI	1/4 x 1 or 1 1/16	.21
HDH	1/4 x 7/8	.21
HAG	1/4 x 3/4	.21
HAF	1/4 x 5/8	.21
No. 9969	Spring nut for panel mounting above holders	.038

FUSETRON and BUSS MATCHED FUSES and FUSEHOLDERS



Safeguard against use of wrong size and type of fuse. FUSETRON Type N are "slow-blowing" fuses for use where harmless surges or starting currents might cause ordinary fuses to open needlessly. Use in Type HN fuseholder.

BUSS Type C are "quick-blowing" fuses for fast interruption of fault current. Use in Type HC fuseholder. Listed by Underwriters' Laboratories Inc.

FUSETRON FUSE Symbol & Amperes	List Price	FUSEHOLDER Symbol & Range	List Price
N 1/100	$0.43		
N 1/32	.43		
N 1/16	.309		
N 1/10	.309	HN	
N 15/100	.309	0 to 3/10	$0.22
N 2/10	.309		
N 1/4	.309		
N 3/10	.309		
N 4/10	.309	HN	
N 1/2	.309	3/10 to 1/2	.22
N 6/10	.309		
N 7/10	.309	HN	
N 3/4	.309	1/2 to 3/4	.22
N 8/10	.309		
N 1	.309	HN	
N 1 1/4	.28	3/4 to 1 1/4	.22
N 1 6/10	.28	HN	
N 1 3/4	.28	1 3/10 to 1 3/4	.22
N 2	.28	HN	
N 2 1/2	.27	1 3/4 to 2 1/2	.22
N 2 8/10	.27		
N 3 2/10	.27	HN	
N 3 1/2	.27	2 1/2 to 3 1/2	.22
N 4	.27	HN	
N 5	.27	3 1/2 to 5	.22
N 6 1/4	.27	HN	
N 7	.27	5 to 7	.22

BUSS FUSE Symbol & Amperes	List Price	FUSEHOLDER Symbol & Range	List Price
C 1/32	$0.46		
C 1/16	.30		
C 1/8	.23	HC	
C 3/16	.23	0 to 3/10	$0.22
C 1/4	.18		
C 3/10	.18		
C 3/8	.18	HC	
C 1/2	.18	3/10 to 1/2	.22
C 3/4	.18	HC 1/2 to 3/4	.22
C 1	.10	HC	
C 1 1/4	.10	3/4 to 1 1/4	.22
C 1 1/2	.10	HC	
C 1 3/4	.10	1 1/4 to 1 3/4	.22
C 2	.10	HC	
C 2 1/2	.10	1 3/4 to 2 1/2	.22
C 3	.10	HC	
C 3 1/2	.13	2 1/2 to 3 1/2	.22
C 4	.13	HC	
C 5	.13	3 6/10 to 5	.22
C 6	.13	HC	
C 7	.13	5 to 7	.22
C 8	.19	HC	
C 10	.20	7 to 10	.22

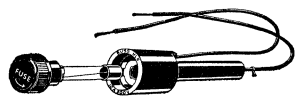
BUSSMANN MFG. DIVISION McGraw-Edison Co. **St. Louis 7, Mo.**

BUSS Fuses
FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

BUSS In-the-Line or Panel Mounted FUSE and HOLDER COMBINATIONS

For voltages up to 300



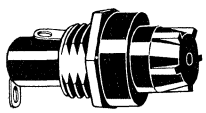
Safeguards against use of wrong type and size of fuse. Fuse and knob are in one piece — when fuse opens, entire fuse-knob assembly is replaced.

Fuseholder can be mounted in-the-line — or panel mounted for which a snap-in steel clip is available for mounting on any panel 1/32 to 1/16 inch thick.

Holders come with 6 inch leads of No. 18 solid copper insulated wire, unless specified otherwise.

		List Price
HLR	holder safeguards against use of wrong type of fuse — takes all ampere sizes of GLR and GMF fuses	$0.23
HLQ	holder is size limiting type and are made in 6 fuse ranges. Takes either GLQ or GMQ fuses up to the largest ampere size marked in holder	.26

SPACE SAVER Panel Mounted FUSEHOLDER For 1/4 x 1 1/4 inch fuses or 9/32 x 1 1/4 inch fuses



A compact, space saver fuseholder only 1 5/8 inches long — extends just 29/32 inches behind front of panel.

Takes 1/4 x 1 1/4 inch fuses and can easily be converted to take 9/32 x 1 1/4 inch fuses simply by changing the screw type knob.

Knob is designed for easy gripping even with gloves.

Fuseholder is of molded phenolic and will withstand sever vibration, shock and other environmental conditions.

Neoprene washer and zinc plated, chromate dipped steel fastening nut furnished with each holder.

Normal current carrying capacity; 30 amperes for any voltage up to 250.

Symbol		List Price
HLF	for 1/4 x 1 1/4 inch fuses	$0.54
HCL	for 9/32 x 1 1/4 inch fuses	.54

BUSS Add-On Fuse Blocks for 13/32 x 1 1/2 inch Fuses

Single-pole fuseblock and separate end barrier assemble into unit of one or more poles. Units lock together. New poles can be added to either end of existing block. Made of molded phenolic. Marking strips to identify each circuit available.

Type	Description	List Price
3742	End-Barrier Only	$0.172
3743	One-Pole Block Only	1.20
Marking Strip in 50 inch length		.578

When ordering, specify number of end barriers and one-pole blocks desired. Only one end barrier needed for each assembled fuse block of any number of poles.

BUSS STANDARD FUSE BLOCKS

Available from 1 to 12 poles. Have laminated black phenolic base. Clips of strong spring, Albaloy plated, highly resistant to corrosion with great gripping strength. Types 3823 and 3828 have solder terminals firmly seated in small base. Type 3833 has screw terminals on full base that provides ample insulation around terminals.

Cat. No.	Type	Base Dim.	No. Poles	List Each
		For 1/4 x 1 1/4" Fuses		
3823-1		1/2 x 1 5/8	1	$0.23
3823-2		1 1/8 x 1 5/8	2	.46
3823-3		1 3/4 x 1 5/8	3	.69
3823-4		2 3/8 x 1 5/8	4	.92
3823-5		3 x 1 5/8	5	1.15
3823-6		3 5/8 x 1 5/8	6	1.38
3823-7		4 1/4 x 1 5/8	7	1.61
3823-8		4 7/8 x 1 5/8	8	1.84
3823-9		5 1/2 x 1 5/8	9	2.07
3823-10		6 1/8 x 1 5/8	10	2.30
3823-11		6 3/4 x 1 5/8	11	2.53
3823-12		7 3/8 x 1 5/8	12	2.76
		For 1/4 x 1" Fuses		
3828-1		1/2 x 1 3/8	1	$0.23
3828-2		1 1/8 x 1 3/8	2	.46
3828-3		1 3/4 x 1 3/8	3	.69
3828-4		2 3/8 x 1 3/8	4	.92
3828-5		3 x 1 3/8	5	1.15
3828-6		3 5/8 x 1 3/8	6	1.38
3828-7		4 1/4 x 1 3/8	7	1.61
3828-8		4 7/8 x 1 3/8	8	1.84
3828-9		5 1/2 x 1 3/8	9	2.07
3828-10		6 1/8 x 1 3/8	10	2.30
3828-11		6 3/4 x 1 3/8	11	2.53
3828-12		7 3/8 x 1 3/8	12	2.76
		For 1/4 x 1 1/4" Fuses		
3833-1		2 5/32 x 2 3/8	1	$0.49
3833-2		1 11/16 x 2 3/8	2	.98
3833-3		2 19/32 x 2 3/8	3	1.47
3833-4		3 1/3 x 2 3/8	4	1.96
3833-5		4 13/16 x 2 3/8	5	2.45
3833-6		5 11/16 x 2 3/8	6	2.94
3833-7		6 7/32 x 2 3/8	7	3.43
3833-8		7 1/8 x 2 3/8	8	3.92
3833-9		8 1/32 x 2 3/8	9	4.41
3833-10		8 15/16 x 2 3/8	10	4.90
3833-11		9 27/32 x 2 3/8	11	5.39
3833-12		10 3/4 x 2 3/8	12	5.88

Other standard and special fuses, fuse blocks, fuse clips and fuse holders

If the fuses, fuse blocks, fuse clips and holders shown do not fit your requirements ask for information on other types.

Fuses and fuse mountings to meet JAN and Military specifications also are available.

If you have a special problem in protection send description or sketch giving number of circuits, type of fuse, terminals, etc., desired. We welcome such inquiries.

BUSSMANN MFG. DIVISION McGraw-Edison Co. **St. Louis 7, Mo.**

Trade Discount Applies To List Prices Only

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BUSS LIMITRON FUSES

For Protection of Semi-Conductor Rectifiers

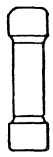
These BUSS Limitron fuses are especially designed for the protection of semi-conductor rectifiers. They provide extremely fast opening on overload and fault currents, with a high degree of restriction of the let-thru current.

If each diode is protected by a BUSS Limitron fuse, the fuse will open very quickly when the current drawn exceeds the rating of the diode.

Thus when a short-circuit occurs in a diode the fuse opens and takes that diode out of the circuit. This protects other good diodes in the rectifier which might otherwise be damaged.

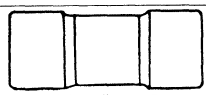
For time-current characteristic charts ask for BUSS Limitron fuse bulletin HLS.

Test specification for all types of BUSS rectifier fuses — carry 100% of rating; open at 1000 seconds on overloads between 120% and 180% of rating; open within 1 second at 250% of rating.



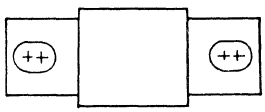
$^{13}/_{32}$" x 1½"

Symbol & Ampere	Volts	Price Each
KAA 1	130	$0.80
KAA 2	"	.80
KAA 3	"	.80
KAA 4	"	.80
KAA 5	"	.80
KAA 6	"	.80
KAA 7	"	.80
KAA 8	"	.80
KAA 9	"	.80
KAA 10	"	.80
KAA 12	"	.80
KAA 15	"	.80
KAA 20	"	.80
KAA 25	"	.80
KAA 30	"	.80



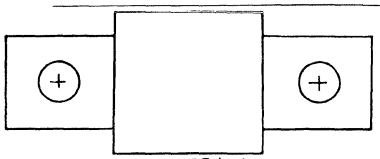
$^{13}/_{16}$" x 2"

KAH 35	130	$1.97
KAH 40	"	1.97
KAH 45	"	1.97
KAH 50	"	1.97
KAH 60	"	1.97



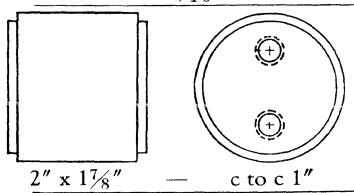
c to c $2^{3}/_{16}$" — $1^{29}/_{32}$"

KAA 70	130	$3.85
KAA 80	"	3.85
KAA 100	"	3.85
KAA 150	"	3.85
KAA 200	"	3.85
KAA 225	"	3.85
KAA 250	"	3.85
KAA 300	"	3.85
KAA 350	"	3.85
KAA 400	"	3.85



c to c $2^{7}/_{16}$"

KAA 450	130	$12.50
KAA 500	"	12.50
KAA 600	"	12.50
KAA 650	"	12.50
KAA 800	"	12.50
KAA 1000	"	12.50



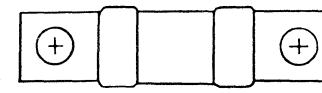
2" x $1^{7}/_{8}$" — c to c 1"

KAA 1200	130	$14.10
KAA 1500	"	14.10
KAA 2000	"	14.10

Symbol & Ampere	Volts	Price Each
KAB 1	250	$0.95
KAB 2	"	.95
KAB 3	"	.95
KAB 4	"	.95
KAB 5	"	.95
KAB 6	"	.95
KAB 7	"	.95
KAB 8	"	.95
KAB 9	"	.95
KAB 10	"	.95
KAB 12	"	.95
KAB 15	"	.95
KAB 17½	"	.95
KAB 20	"	.95
KAB 25	"	.95
KAB 30	"	.95

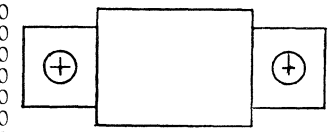
$^{9}/_{16}$" x 2"

KAB 35	250	$3.75
KAB 40	"	3.75
KAB 45	"	3.75
KAB 50	"	3.75
KAB 60	"	3.75



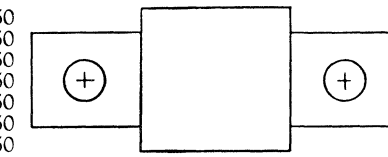
c to c $2^{7}/_{16}$"

KAB 70	250	$5.80
KAB 80	"	5.80
KAB 90	"	5.80
KAB 100	"	5.80
KAB 150	"	5.80
KAB 175	"	5.80
KAB 200	"	5.80



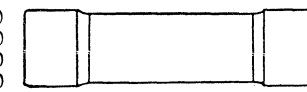
c to c $2^{3}/_{8}$"

KAB 225	250	$7.50
KAB 250	"	7.50
KAB 300	"	7.50
KAB 350	"	7.50
KAB 400	"	7.50
KAB 500	"	7.50
KAB 600	"	7.50
KAB 800	"	21.50



c to c $2^{25}/_{32}$"

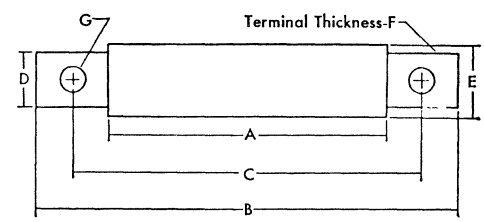
KAJ 35	600	$2.20
KAJ 40	"	2.20
KAJ 45	"	2.20
KAJ 50	"	2.20
KAJ 60	"	2.20



$^{5}/_{8}$" x 3"

Symbol & Ampere	Volts	Price Each
KAC 1	600	$1.20
KAC 2	"	1.20
KAC 3	"	1.20
KAC 4	"	1.20
KAC 5	"	1.20
KAC 6	"	1.20
KAC 7	"	1.20
KAC 8	"	1.20
KAC 9	"	1.20
KAC 10	"	1.20
KAC 12	"	1.20
KAC 15	"	1.20
KAC 17½	"	1.20
KAC 20	"	1.20
KAC 25	"	1.20
KAC 30	"	1.20
KAC 35	"	4.60
KAC 40	"	4.60
KAC 45	"	4.60
KAC 50	"	4.60

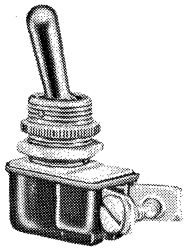
Symbol & Ampere	Volts	Price Each
KAC 60	600	$ 4.60
KAC 70	"	7.00
KAC 80	"	7.00
KAC 90	"	7.00
KAC 100	"	7.00
KAC 110	"	9.00
KAC 125	"	9.00
KAC 150	"	9.00
KAC 175	"	9.00
KAC 200	"	9.00
KAC 225	"	14.00
KAC 250	"	14.00
KAC 300	"	14.00
KAC 350	"	14.00
KAC 400	"	14.00
KAC 425	"	16.00
KAC 450	"	16.00
KAC 500	"	16.00
KAC 600	"	16.00
KAC 800	"	16.00



Ampere Rating	A	B	C	D	E	F	G
0-30	$1^{7}/_{8}$	$2^{7}/_{8}$	$2^{1}/_{2}$	$^{13}/_{32}$	$^{9}/_{16}$	$^{1}/_{16}$	$^{1}/_{4}$
35-60	$2^{27}/_{32}$	$4^{3}/_{8}$	$3^{5}/_{8}$	$^{1}/_{2}$	$^{13}/_{16}$	$^{3}/_{32}$	$^{9}/_{32}$
65-100	3	5	4	$^{3}/_{4}$	1	$^{1}/_{8}$	$^{13}/_{32}$
110-200	3	5½	$4^{3}/_{8}$	$1^{1}/_{8}$	1½	$^{3}/_{16}$	$^{13}/_{32}$
225-400	3	$6^{1}/_{4}$	$4^{3}/_{4}$	$1^{5}/_{8}$	2	$^{1}/_{4}$	$^{9}/_{16}$
425-800	$3^{1}/_{16}$	$6^{1}/_{4}$	$4^{3}/_{4}$	2	2½	$^{1}/_{4}$	$^{9}/_{16}$

BUSSMANN MFG. DIVISION McGraw-Edison Co. **St. Louis 7, Mo.**

Carling PUSH • SLIDE • TOGGLE • ROTARY • TRIGGER • TIPPETTE SWITCHES

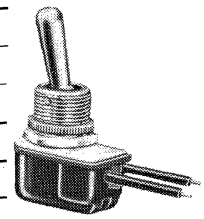


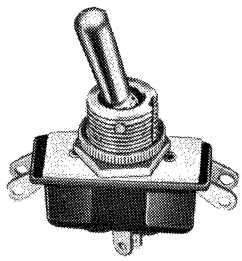
SINGLE POLE

Screw Terminals 15/32". Threaded Bushing, 15/32". Dia. Ball Toggle 3/8" long. Bat Toggle 11/16" long. U.L. Appd.

Catalog No.	Rating	Toggle
110-S-73	6A.-125V.	Bat
110-S-23	6A.-125V.	Ball
160-S-73	10A.-125V.	Bat
WIRE LEADS		
111-16-73	6A.-125V.	Bat

6" Leads Stripped ½" 105C. TFF. Wire.



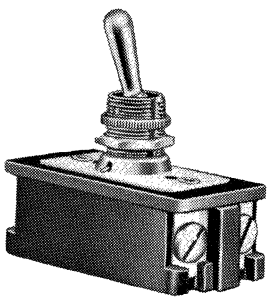


SINGLE POLE — DOUBLE POLE

SOLDER LUGS 15/32"

Threaded Bushing 15/32" Dia. Bat Toggle 11/16" long. U.L. Appd. All Have 250V. Ratings.

Catalog No.	Action	Rating
110-73	SP - ST	6A. - 125V.
112-73	SP - DT	3A. - 125V.
216-73	DP - ST	3A. - 125V.
316-73	DP - DT	3A. - 125V.
2BB62-73	SP - DT	6A. - 125V.
2BK62-73	DP - ST	6A. - 125V.
2BL62-73	DP - DT	6A. - 125V.
160-73	SP - ST	10A. - 125V.



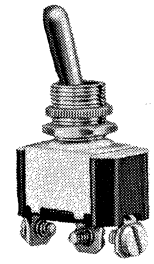
SINGLE POLE DOUBLE POLE

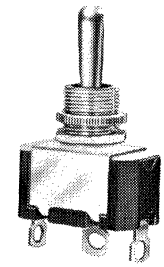
Heavy Duty AC-DC Type. 15/32" Bushing. 11/16" Bat Toggle. All Have Horsepower Ratings.

Catalog No.	RATINGS 125V.	250V.	Action
DA284*	16A.	8A.	SP - ST
DK284*	16A.	8A.	DP - ST
EA204**	20A.	10A.	SP - ST
EK204**	20A.	10A.	DP - ST

*1 H.P. 125-250V. rating.
**1½ H.P. 125-250V. rating.

SINGLE POLE





SCREW TERMINALS OR SOLDER LUGS.

Rated 15 Amps.* 125V. 10 Amps. 250VAC. 3/4 HP. 125-250V. AC. except SPST is 1 HP. Rated 15/32" Dia. Threaded Bushing 15/32" Dia. Threaded Bushing 15/32" long. 11/16" Bat Toggle. U.L. Appd. Heavy Duty.

*Applicable to low voltage D.C. requirements.

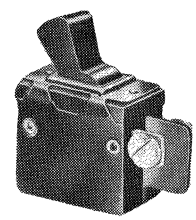
Catalog No.	Terminals	Action
2FA54-73	Screw	SP - ST
2FB54-73	Screw	SP - DT
2FC54-73	Screw	SP - DT, Center Off
2FA53-73	Lugs	SP - ST
2FB53-73	Lugs	SP - DT
2FA53-73	Lugs	SP - DT, Center Off

MOMENTARY ACTION

Same Specifications as above Except SPST. 3/4HP. Rated.

SCREW TERMINALS

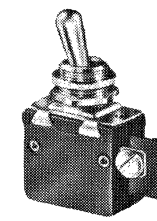
Catalog No.	ACTION Up	Center	Down
SINGLE POLE SINGLE THROW			
6FA54-73	Off	None	Mom. On
6FA58-73	On	None	Mom. Off
SINGLE POLE DOUBLE THROW			
6FB54-73	On	None	Mom. Off
6FC54-73	Mom. On	Off	Mom. On
6FC58-73	On	Off	Mom. On



SINGLE POLE

20 AMP.

20 Amp. 125V.
10 Amp. 250V.
AC-DC



Catalog No.	Terminals	Toggle
600-C	Screw	Nickel-Bat
600-20		Plastic

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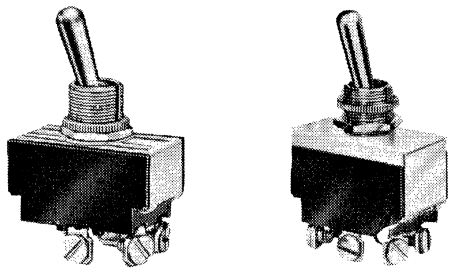
Carling PUSH • SLIDE • TOGGLE • ROTARY • TRIGGER • TIPPETTE SWITCHES

DOUBLE POLE



SCREW TERMINALS OR SOLDER LUGS

Rated 15 Amps.* 125V 10 Amps. 250V. AC. 3/4HP. 125-250V. AC. Threaded Bushing 15/32" Dia. Threaded Bushing 15/32" long. 11/16" Bat Toggle. U.L. Appd. Heavy Duty.

*Applicable to low voltage D.C. requirements.

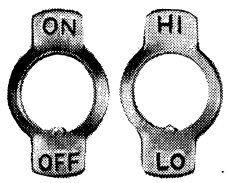
Catalog No.	Terminals	Action
2GK54-73	Screw	DP - ST
2GL54-73	Screw	DP - DT
2GM54-73	Screw	DP - DT, Center Off
2GK50-73	Lugs	DP - ST
2GL50-73	Lugs	DP - DT
2GM50-73	Lugs	DP - DT, Center Off

MOMENTARY ACTION

Same Specifications As Above.

SCREW TERMINALS

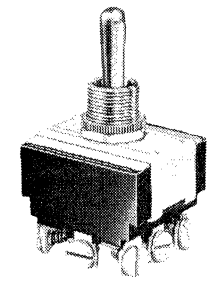
Catalog No.	ACTION		
	Up	Center	Down
DOUBLE POLE SINGLE THROW			
6GK5E-73	Off	None	Mom. On
6GK5S-73	On	None	Mom. Off
	DOUBLE POLE		DOUBLE THROW
6GL5E-73	On	None	Mom. On
6GM5S-73	Mom. On	Off	Mom. On
6GM5E-73	On	Off	Mom. On



INDICATOR PLATES NICKEL PLATED

Catalog No.	Indication
YO1	ON - OFF
YO2	HI - LO

An extensive variety of indications and plate styles available for use with Carling Switches. Also a complete line of Hardware and Switch Accessories available.



THREE POLE SCREW TERMINALS

Rated 17 Amps.* 125V. AC. 12 Amps. 250V. AC. 1 HP. 1-2-3 Phase 120-600V. AC. 15/32" Dia. Bushing 15/32" long. 11/16" Bat Toggle.

*Applicable to low voltage D.C. requirements.

Catalog No.	Action
HK274-73	3P - ST
HL274-73	3P - DT
HM274-73	3P - DT, Center Off

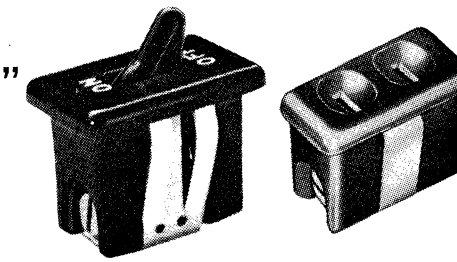
FOUR POLE SCREW TERMINALS

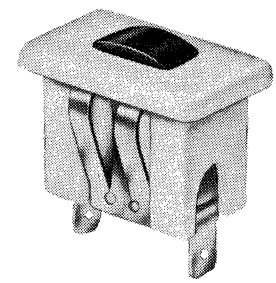
The Four Pole Switch has the same physical appearance as the Three Pole Switch pictured above. Only dimensional difference is in the width when the Fourth pole is added.

Rating 15A. 125V. 10A. 250V. AC. 15/32" Dia. Bushing 15/32" long. 11/16" Bat Toggle. Heavy Duty.

Catalog No.	Action
1K254-13	4P - ST
IL254-73	4P - DT
1M254-73	4P - DT, Center Off

"SNAP-IN" LINE





Catalog No.	Type	Rating
215-BL	Switch	20 Amp 125V. A.C. 10 Amp 250V. A.C. ½ H.P. 125-250V. A.C
215-WH		
222-BL-RC	Pilot Light	110-250V.
222-WH-RC		
220-BL	Outlet	15 Amp 125V. 10 Amp 250V.
220-WH		

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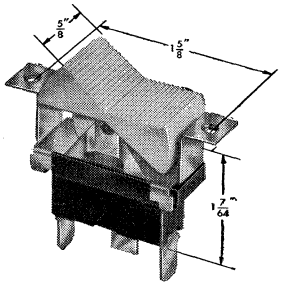
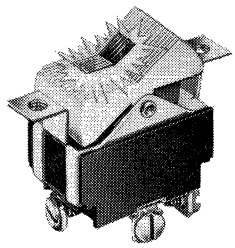
SWITCHES-TIPPETTE* LIGHTED-TIPPETTE

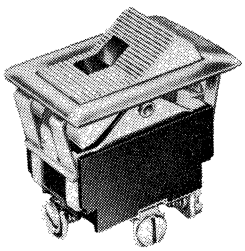
*Tippette is a Carling Trademark



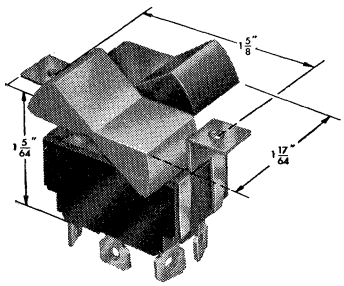
TILA61



LTILA64



LTIL SERIES W/ SNAP-IN BRACKET



TIG SERIES W/ DOUBLE ACTUATORS

TIL Series

CATALOG NUMBERS NOMINAL RATINGS RATING 6 AMP—125V A.C. 3 AMP—250V A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						SINGLE POLE SINGLE THROW		
TILA60	TILA61	TILA62	TILA63	TILA64	TILA65	On	None	Off
TILA6A	TILA6B	TILA6C	TILA6D	TILA6E	TILA6F	Off	None	Mom. On
TILA6L	TILA6M	TILA6Q	TILA6R	TILA6S	TILA6T	On	None	Mom. Off
						SINGLE POLE DOUBLE THROW		
TILB60	TILB61	TILB62	TILB63	TILB64	TILB65	On	None	On
TILB6A	TILB6B	TILB6C	TILB6D	TILB6E	TILB6F	On	None	Mom. On
TILC60	TILC61	TILC62	TILC63	TILC64	TILC65	On	Off	On
TILC6A	TILC6B	TILC6C	TILC6D	TILC6E	TILC6F	On	Off	Mom. On
TILC6L	TILC6M	TILC6Q	TILC6R	TILC6S	TILC6T	Mom. On	Off	Mom. On
RATING 15 AMP—125V A.C.** 10 AMP—250V A.C. ¾ H.P. 125-250V. A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						SINGLE POLE SINGLE THROW		
TILA50	TILA51	TILA52	TILA53	TILA54	TILA55	On	None	Off
TILA5A	TILA5B	TILA5C	TILA5D	TILA5E	TILA5F	Off	None	Mom. On
TILA5L	TILA5M	TILA5Q	TILA5R	TILA5S	TILA5T	On	None	Mom. Off
						SINGLE POLE DOUBLE THROW		
TILB50	TILB51	TILB52	TILB53	TILB54	TILB55	On	None	On
TILB5A	TILB5B	TILB5C	TILB5D	TILB5E	TILB5F	On	None	Mom. On
TILC50	TILC51	TILC52	TILC53	TILC54	TILC55	On	Off	On
TILC5A	TILC5B	TILC5C	TILC5D	TILC5E	TILC5F	On	Off	Mom. On
TILC5L	TILC5M	TILC5Q	TILC5R	TILC5S	TILC5T	Mom. On	Off	Mom. On

TIG Series (With *ONE* Tippette Lever)

CATALOG NUMBERS NOMINAL RATINGS RATING 6 AMP—125V A.C. 3 AMP—250V A.C. ¼ H.P. 125-250V. A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						DOUBLE POLE SINGLE THROW		
TIGK60	TIGK61	TIGK62	TIGK63	TIGK64	TIGK65	On	None	Off
TIGK6A	TIGK6B	TIGK6C	TIGK6D	TIGK6E	TIGK6F	Off	None	Mom. On
TIGK6L	TIGK6M	TIGK6Q	TIGK6R	TIGK6S	TIGK6T	On	None	Mom. Off
						DOUBLE POLE DOUBLE THROW		
TIGL60	TIGL61	TIGL62	TIGL63	TIGL64	TIGL65	On	None	On
TIGL6A	TIGL6B	TIGL6C	TIGL6D	TIGL6E	TIGL6F	On	None	Mom. On
TIGM60	TIGM61	TIGM62	TIGM63	TIGM64	TIGM65	On	Off	On
TIGM6A	TIGM6B	TIGM6C	TIGM6D	TIGM6E	TIGM6F	On	Off	Mom. On
TIGM6L	TIGM6M	TIGM6Q	TIGM6R	TIGM6S	TIGM6T	Mom. On	Off	Mom. On
RATING 15 AMP—125V A.C. 10 AMP—250 V.A.C. ¾ H.P. 125-250V. A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						DOUBLE POLE SINGLE THROW		
TIGK50	TIGK51	TIGK52	TIGK53	TIGK54	TIGK55	On	None	Off
TIGK5A	TIGK5B	TIGK5C	TIGK5D	TIGK5E	TIGK5F	Off	None	Mom. On
TIGK5L	TIGK5M	TIGK5Q	TIGK5R	TIGK5S	TIGK5T	On	None	Mom. Off
						DOUBLE POLE DOUBLE THROW		
TIGL50	TIGL51	TIGL52	TIGL53	TIGL54	TIGL55	On	None	On
TIGL5A	TIGL5B	TIGL5C	TIGL5D	TIGL5E	TIGL5F	On	None	Mom. On
TIGM50	TIGM51	TIGM52	TIGM53	TIGM54	TIGM55	On	Off	On
TIGM5A	TIGM5B	TIGM5C	TIGM5D	TIGM5E	TIGM5F	On	Off	Mom. On
TIGM5L	TIGM5M	TIGM5Q	TIGM5R	TIGM5S	TIGM5T	Mom. On	Off	Mom. On

**These switches are applicable to low voltage D.C. requirements. Available in 3 and 4 Pole Series. For Lighted Tippette add Prefix "L" to above numbers.

Actuator - Suffix # — 1L 5/8" Long Lined (Standard)
— 1C 5/8" Cross Serrated
— 1S 5/8" Smooth
— 2L 5/16" Long Narrow
— 2S 5/16" Short Narrow s/ears
— 3L Offset 5/8" Long Lined
— 3C Offset 5/8" Cross Serrated
— 3S Offset 5/8" Smooth

For Double Actuator Add "D" to end of above number.

For Double Actuator with interlock, Add "DI" to end of above number.

Standard Colors are WHITE, -WH and BLACK, -BL, Other colors available upon request.

Imprinting on Actuators may be had upon request.

Brackets — In addition to the illustrations shown, we offer a variety of brackets — offset, flat, angled, open ear, snap-in, etc. Specials can be made upon request. Snap-in style is designed for panel thickness of approximately .040" to .100". For mounting information and dimensions consult factory. This model bracket is available on single, double and three pole Tippettes — Single pole lighted Tippettes.

Wire Lead Enclosures — W10 This Snap-On enclosure is available in the double pole, Tippette and single pole Lighted Tippette series. It is designed to protect and provide safer insulation for normally exposed lead connections.

LIGHTED TIPPETTE FEATURES

Actuators, Brackets & Accessories — Available in the same styles as listed in the Tippette Series. Lenses are Red, Amber, Clear and White. Special variations and colors available.

Lamp Characteristics

Neon (Standard)		Incandescent	
120*-240 Volts	.02 Amps	6 Volts	.02 Amps
		12 Volts	.08 Amps
		24 - 28 Volts	.04 Amps

*Available with "High Brightness" in 120.

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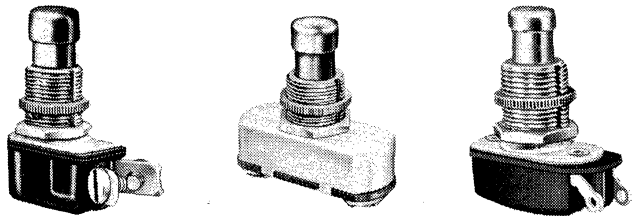
Carling PUSH • SLIDE • TOGGLE • ROTARY • TRIGGER • TIPPETTE SWITCHES

PUSH SWITCHES

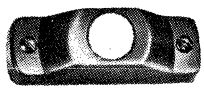
MAINTAINED CONTACTS OR MOMENTARY CONTACTS



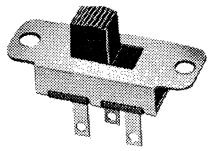
Type: PP-Push, On-Push, Off. Maintained. NO Normally Open. Momentary NC Normally Closed. Momentary. All Have 15/32" Dia. Bushing *Screw Terminals. Others Have Solder Lugs.

Catalog No.	Rating	Type
110-SP*	6A. 125V.	P.P.
110-PM-OFF	6A. 125V.	N.O.
172*	10A. 250V.	N.O.
170	10A. 250V.	N.C.
16-3P-OFF	3A. 125V.	N.O.
16-3P-ON	3A. 125V.	N.C.

PUSH BUTTONS



Catalog	Base	Button
90	Black	Ivory
91	Ivory	Black



SLIDE SWITCHES

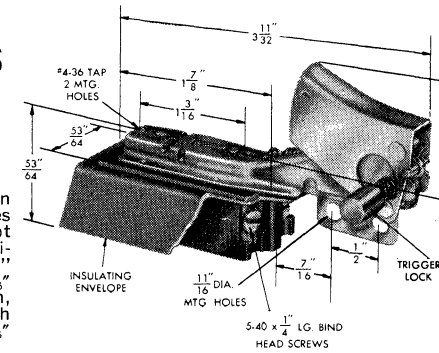
1⅛" Mounting Centers Single Poles Rated 4A 125V. AC.

Catalog No.	Action	Terminals
S60A-BL	SP - ST	Solder Lugs — 13/64" long
S60B-BL	SP - DT	

TRIGGER SWITCHES

SINGLE & DOUBLE POLE SERIES

*Note: Illustration shows "TRD" Series dimensions except for base. For base dimensions of "TRE" Series substitute 15/16" for 53/64 height shown, 1" for 53/64 width shown, and 5/16 for 7/16" dimension shown.



TRD Series Rated
16A. 125V.-8A. 250V. 1 HP. 125-250V.

Catalog No.	Action	Has Lock	Has Envelope
TRDA284-00	SP - ST	No	No
TRDA284-06	SP --ST	Yes	Yes
TRDK284-00	DP - ST	No	No
TRDK284-06	DP - ST	Yes	Yes

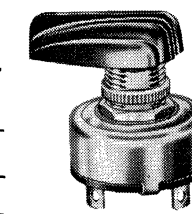
TRE Series Rated
20A. 125V.-10A. 250V. 1½ HP. 125-250V.

TREA204-00	SP - ST	No	No
TREA204-06	SP - ST	Yes	Yes
TREK204-00	DP - ST	No	No
TREK204-06	DP - ST	Yes	Yes

Additional Trigger Switch Series Available.

ROTARY SWITCHES

4 Position Rotary Switch Rated 4A. 125V. AC. 1A. 125V. DC.



Catalog No.	Action Position 1 - 2 - 3 - 4
700-BL	Off-On-On-On

Knob variations and colors available. Up to 8 positior rotary switch series available. Consult Factory.

In addition to the items included in this listing are thousands of variations and adaptations designed for our customers' specific needs. We are constantly engaged in the development of new products and welcome the opportunity to serve your needs.

If you do not find an item on the following pages that meets your specific requirements, please contact us and we will have one of our own sales representatives discuss your requirements in detail with you. Ask them about Carling's delivery schedules which are set up to assure you of getting your switches when you need them

COMPLETE CUSTOMER SERVICE & SATISFACTION

ENGINEERED INTO EACH PRODUCT & EVERY SALE

Carling ELECTRIC, INC. WEST HARTFORD 10, CONN.

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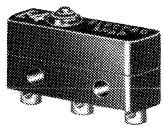
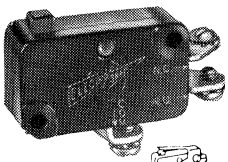
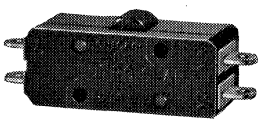
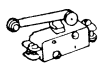
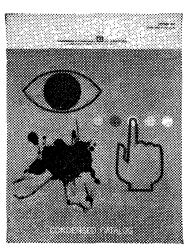
OVER 60,000 OFF-THE-SHELF ANSWERS

ALWAYS AVAILABLE FOR IMMEDIATE DELIVERY

Basic Switches	DESCRIPTION	MODEL NUMBER	LIST PRICES 1-9
SUB-SUBMINIATURE T type			
Exceptionally high current capacity in tiny case. Only ½" x ¼" x ⅜" yet UL listed at 7.5 amps. 125/250 VAC. Also rated at 7.5 amps, 30 VDC resistive, 3 amps. 30 VDC inductive. Mounts side-by-side, four switches to the inch. ACTUATORS ROLLER LEAF LEAF	SPDT solder terminals	T3	2.00
	SPDT solder terminals, U.L.	T12	2.00
	leaf actuator	A5-71**	.20
	roller leaf actuator	A5-73**	.50
SUBMINIATURE E4 type			
 Ideal for compact electrical and electronic equipment. Low movement differential and operating force gives precision control in critical applications. Can be stacked and gang mounted. Meets MIL Specs. MS-25085 and is UL listed at 5 amps, 125/250 VAC. Also handles 4 amps, 30 VDC resistive, 2.5 amps, 30 VDC inductive. Size: 25/32" x ¼" x 23/64". ACTUATORS TOGGLE PUSHBUTTON LEAF ROLLER LEAF	SPDT, solder terminals	E4-103	1.50
	SPDT, turret terminals	E4-110	1.50
	DPDT maintained toggle switch, 15/32" bushing	A3-32-103*	5.70
	TPDT maintained toggle switch, 15/32" bushing	A3-33-103*	7.80
	DPDT maintained toggle switch, ¼" bushing	A3-41-103*	5.70
	SPDT maintained toggle switch, ¼" bushing	A3-42-103*	3.49
	DPDT momentary push-button switch, 15/32" bushing	A4-86-103*	6.10
	DPDT push-on, push-off, push-button switch, 15/32" bushing	A4-87-103*	7.40
	leaf actuator	A5-9**	.20
	roller leaf actuator	A5-10**	.50
MINIATURE F type			
 Low cost precision switch that meets military specs and is UL listed. Rugged design—positive over-travel stop protects mechanism from damaging over-actuation. Easy to mount. Size: 1 3/32" x 13/32" x ⅝". Rating: 10 amps 125/250 VAC / 28 VDC resistive, 6 amps, 30 VDC inductive. ACTUATORS LEAF ROLLER LEAF	SPDT basic switch, screw terminals, U.L. MS-15253-1	F2-13	1.00
	roller leaf actuator	A5-47**	.40
	leaf actuator	A5-49**	.20
2-CIRCUIT S type			
 Combines high capacity, small size and long life with extreme precision. Rated at 10,000,000 operations at full load, tested to 30,000,000. Good for power circuits as well as precision control applications. Meets military specs. Several models UL listed. Reset model maintains circuit until reset button actuated; can be used as inexpensive two-way limit switch. Size: 1¼" x ½" x ½". Rating: 10 amps, 125/250 VAC. 30 VDC inductive. ACTUATORS  ROLLER LEVER PUSHBUTTON EXTENDED LEAF ROLLER LEAF	SPDT, end solder terminals	S1-4	1.40
	SPDT, (reset) end solder terminals	S1-304	1.65
	SPDT, end screw terminals	S2-4	1.50
	SPDT, (reset) end screw terminals	S2-304	1.75
	SPDT, side solder terminals	S3-4	1.47
	roller lever actuator	A2-2**	.80
	push-button switch, solder terminals 15/32" bushing	A4-1/S1-4* N.P.	2.40
	push-button switch, detachable plastic button	A4-25-1/S1-4*	3.32
	red plastic button for A4-25-1	1109-SA11-1*	.60
	black plastic button for A4-25-1	1109-SA11-2	.60
	1" dia. push-button actuator	A4-102**	3.50
	roller leaf actuator	A5-5**	.40
	extended leaf actuator	A5-7**	.50

*Designates actuator assembled with switch. **Order these actuators separately. Assemble on switch when mounting.
NOTE: ALL SWITCHES MOMENTARY CONTACT UNLESS OTHERWISE NOTED



ASK FOR CATALOG No. 100
from your distributor. Contains short-form specification details, engineering drawings, descriptions and suggested application data. The above illustrations are only a few of the more popular items in the over 60,000 switches and indicators manufactured by Control Switch Division. For facts on the many others available, ask for Catalog 100.

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CONTROL SWITCH DIVISION
Folcroft, Pa.

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to your switching problems... CONTROLS COMPANY OF AMERICA

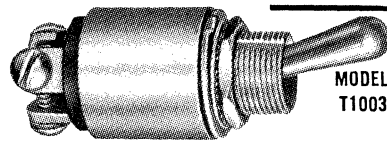
CONTROL SWITCH DIVISION
Folcroft, Pa.

AT YOUR CONTROL SWITCH DISTRIBUTOR

Toggle Switches

Space-Saving Cylindrical Types

Exceptionally rugged, cam-roller Hetherington Toggle Switches positively cannot be teased off contact. Cylindrical anodized aluminum cases reduce size by 25% over conventional rectangular switches. Firmly anchored terminals separated by heavy insulation barrier. All are 2-position, snap-action.

		CIRCUIT	RATINGS (Resistive Loads) 28v. dc.	RATINGS (Resistive Loads) 115v. ac.	MTG. HOLE DIA.	SPECIAL FEATURES	LIST PRICES
	MODEL T1003	SPDT	20 amps.	10 amps.	15/32"	Designed to MIL-S-6745 specs.	3.22
	MODEL T2104	2-circuit	10 amps.	5 amps.	1/4"	Designed to JAN-S-23, Amend. 3.	3.94
	MODEL T2150	DPDT	1 amp.	1 amp.	1/4"	Miniaturized	5.32
	MODEL T3103	SPDT	5 amps.	2½ amps.	1/4"	Anodized aluminum case	4.06

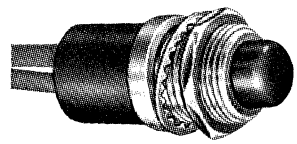
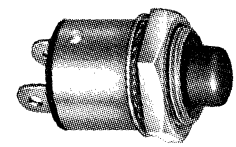
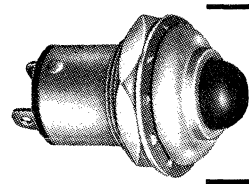
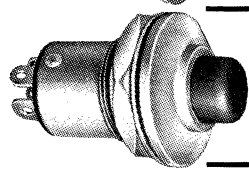
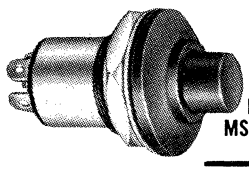
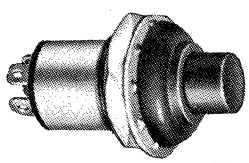
Pushbutton Switches

Snap-Action, Momentary Contact

The exclusive Hetherington snap-action mechanism reduces arcing and contact wear...provides far greater current capacity than the small sizes of these switches would indicate. Mechanism enclosed in dust and moisture-resistant anodized aluminum housings (phenolic in B2001 & B2002). 1-piece terminals and contacts firmly anchored to bases. Many types meet JAN and MIL Specs for aviation and military requirements.

Features and dimensions are subject to change based on engineering refinements. If dimensions or specifications are critical, obtain drawings from Control Switch engineering department.

* Inspected by Underwriters' Laboratories, Inc.

		CIRCUIT	RATINGS (Resistive Loads) 28v. dc.	RATINGS (Resistive Loads) 115v. ac.	MTG. HOLE DIA.	SPECIAL FEATURES	LIST PRICES
	MODEL B2001	SPST (N.O.)	——	8 amps.*	½"	Phenolic body	2.09
	MODEL B2002	SPST (N.C.)					
	MODEL C1006	SPST (N.O.)	17 amps.	15 amps.*	½"	Anodized aluminum cases	3.01
	MODEL C2006	2-circuit	10 amps.				3.61
	MODEL C100U4	SPST (N.O.)	17 amps.	15 amps.*	5/8"	Anodized aluminum cases & mounting flanges	3.76
	MODEL C200P3	2-circuit	10 amps.	15 amps.*	5/8"	Anodized aluminum cases & mounting flanges	4.36
	MODEL MS25089-3C	2-circuit	10 amps.	——	5/8"	Conforms to MS25089-3C (MIL-S-6743). Black flange.	3.80
	MODEL W103UB6	2-circuit	10 amps.	——	5/8"	Black flange.	5.43

More Switches on the Next Page

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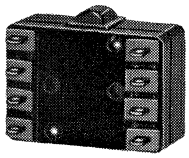
CONTROLS COMPANY OF AMERICA
CONTROL SWITCH DIVISION
Folcroft, Pa.

MORE PRECISION SNAP-ACTION SWITCHES

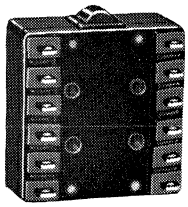
DOUBLE POLE **D type**



Multi-Circuit

High capacity basic switches permit simultaneous switching of multiple circuits and precision control of three phase motors. Military and UL listed models available. Reset model maintains circuit until reset button is actuated. Can be used as inexpensive two-way limit switches. Sizes: D type, 1¼" x ½" x ⅞"—K type, 1¼" x .491" x 1⁹⁄₁₆".

TRIPLE POLE **K type**



ACTUATORS

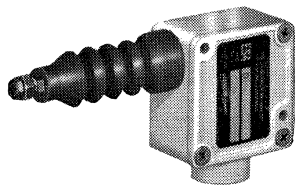
ROLLER LEVER

EXTENDED LEAF

PUSHBUTTON

BASIC SWITCH SERIES	DESCRIPTION	MODEL NUMBER	LIST PRICES 1-9
	DPDT, side solder terminals	**4-Circuit**	
	DPDT, (reset) side solder terminals	D8-4	6.25
		D8-304 N.P.	6.75
	TPDT, side solder terminals	**6-Circuit**	
	Actuators for Type D & K Basic Switches	K3-4	7.45
	Roller lever		
	Push-button, 15⁄32" bushing	A2-5**	1.05
	Push-button, w/o detachable plastic button, 15⁄32" bushing	A4-2**	2.00
	Red plastic button for A4-24-1	A4-24-1**	1.71
	Black plastic button for A4-24-1	1109-SA11-1	.60
	1" dia. push-button	1109-SA11-2	.60
	Extended leaf	A4-102**	3.50
		A5-18**	.75

LIMIT SWITCHES **ES4 type**

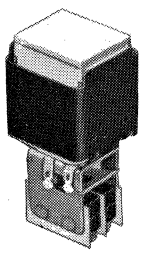


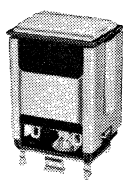
Especially designed for machine control, automation circuitry and sequencing operation. Aluminum diecast housing protects switch from damage, dirt and corrosion, simplifies mounting on equipment. Some models available with neoprene boot on plunger for protection from dirt, oil and metal chips. Impulse models eliminate need for one-way dogs, complicated relays and timers. As plunger is depressed, switch completes electrical circuit during pre-set section of travel ("ON" period), but does not make circuit on return stroke. Case size: 2" (plus plunger length) x 1½" x 2⅜". Rating: 10 amps, 125/250 VAC. Circuit: SPNO.

		OVER-TRAV-EL	"ON" PE-RIOD	1-19
STANDARD ACTION				
	ES4-N	5⁄16"		8.50
Red 1¾" push-button	ES4-J	5⁄16"		9.80
Neoprene boot plunger	ES4-K	7⁄16"		9.50
IMPULSE ACTION				
	ES4-NM1	¼"	1⁄16"	9.50
	ES4-NM2	3⁄16"	⅛"	9.50
	ES4-NM3	⅛"	3⁄16"	9.50
	ES4-NM4	1⁄16"	¼"	9.50
Red 1¾" push-button	ES4-JM3	⅛"	3⁄16"	10.80
Neoprene boot plunger	ES4-KM1	⅜"	1⁄16"	10.50
" " "	ES4-KM2	5⁄16"	⅛"	10.50
" " "	ES4-KM3	¼"	3⁄16"	10.50
" " "	ES4-KM4	3⁄16"	¼"	10.50
" " "	ES4-KM6	1⁄16"	⅜"	10.50
Replacement basic switch for ES4 Series	S1-25			1.75

LIGHTED PUSH-BUTTON PANEL SWITCHES

C6 type





Combine lighting, legend, and electrical control in one compact unit. Save panel space, simplify operation. Units can be stacked or mounted individually on control panels or consoles. Plastic push-button is available in colors, can be hot-stamped with words or symbols, button size ¾" x 1". Light is provided by two separate 6- or 28-volt lamps wired in parallel. Switching component is DPDT, rated at 5 amps, 125 VAC or 4 amps, 30 VDC, resistive each pole. Either alternate action (push-on, push-off) or momentary action is available. Unit is also available without switch for use as pilot light. Two lamps included with each unit. Solid plastic or two-piece plastic button with clear slip-in insert for legend.

NEW M-SERIES
Mounts without hardware. Switch modules snap on. See description on Control Switch Division page in Section 3900—Indicator Lights.

		1-24
Momentary, w/2 clear 6V lamps	C6-52-22	9.60
Momentary, w/2 clear 28V lamps	C6-56-22	10.40
Push-push, w/2 clear 6V lamps	C6-53-22	11.70
Push-push, w/2 clear 28V lamps	C6-57-22	12.50
Pilot light, w/2 clear 6V lamps	C6-50-22	5.25
Pilot light, w/2 clear 28V lamps	C6-54-22	6.05
Solid blue button	1117-229-BB	.50
2/pc. blue button	1117-SA19-11-B	.50
Solid green button	1117-229-GG	.50
2/pc. green button	1117-SA19-11-G	.50
Solid red button	1117-229-RR	.50
2/pc. red button	1117-SA19-11-R	.50
Solid white button	1117-229-WW	.50
2/pc. white button	1117-SA19-11-W	.50
Solid yellow button	1117-229-YY	.50
2/pc. yellow button	1117-SA19-11-Y	.50
Mounting barrier (use one more barrier than number of units ganged)	1117-SA-19-4	.75

NOTE: Order buttons and mounting barriers separately

**Order these actuators separately. Assemble on switch when mounting.
NOTE: ALL SWITCHES MOMENTARY CONTACT UNLESS OTHERWISE NOTED

Trade Discount Applies To List Prices Only
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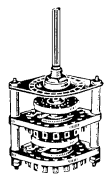
Centralab

Miniature Switches, Parts



JV-9000 Series

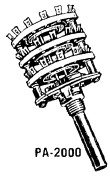
SERIES PA-2000 1½" DIAMETER CERAMIC SWITCHES

Insulated with L-533 steatite; only 1½" dia. (⅜" smaller than standard switches). Same ratings as larger switches. Features maximum voltage flashover; high Q, low loss steatite body; minimum intercircuit capacity; insulated front-back clips. Metal parts, except clips and contacts, cadmium plated; withstand 25-hour salt spray test. Rated: 2.75 amps, 15 v. DC; 230 ma, 115 v. AC, make-break resistive load. Breakdown, 1500 v. AC rms between critical parts. One-piece shaft for accurate indexing. Adjustable stop or continuous rotation mtg. using single hole with locating lug. Bushing ⅜"-32 thread, ⅜" long. Shaft, full round ¼" dia. x 2½" long from mtg. surface. With mtg. nut, lockwasher and knob. Shpg. Wt., 3 oz. per section.

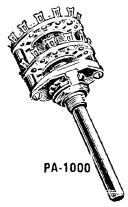
For switches to meet military specifications, write for prices and information.

SERIES PA-1000 1½" DIAMETER PHENOLIC SWITCHES

Insulated with type PBE laminated phenolic per MIL-3115-B. Same size as PA-2000 ceramic switches. Rated: 2 amps, 15 v. DC, 150 ma, 110 v. AC. Breakdown, 1000 v. AC. Positive, adjustable stop or continuous rotation; 30° or 60° detents available. Withstand 25-hour salt spray test. With knob. Shpg. Wt., 3 oz. per section. **Military specifications available as above.**



PA-2000



PA-1000

MINIATURE ROTARY SWITCHES

No. Sect.	Total No. Poles	PA-2000 Ceramic CRL No. PA- Shtg.	Non-Shtg.	Total Pos.	PA-1000 Phenolic CRL No. PA- Shtg.	Non-Shtg.	Total Pos.
1	1	2000	2001	2—12	1000	1001	2—11
1	2	2002	2003	2—6	1002	1003	2—5
2	2	2004	2005	2—12	1004	1005	2—11
1	3	2006	2007	2—5	1006	1007	2—3
3	3	2008	2009	2—12	1008	1009	2—11
1	4				1010	1011	2
2	4	2010	2011	2—6	1012	1013	2—5
4	4	2012	2013	2—12	1014	1015	2—11
1	5	2014	2015	2—3			
5	5	2016	2017	2—12	1016	1017	2—11
1	6	2018	2019	2			
2	6	2020	2021	2—5	1018	1019	2—3
3	6	2022	2023	2—6	1020	1021	2—5
6	6	2024	2025	2—12	1022	1023	2—11
2	8				1024	1025	2
4	8	2026	2027	2—6	1026	1027	2—5
3	9	2028	2029	2—5			
3	12				1028	1029	2
2	10	2030	2031	2—3			
5	10	2032	2033	2—6	1030	1031	2—5
2	12	2034	2035	2			
6	12	2036	2037	2—6	1032	1033	2—5
3	15	2038	2039	2—3			
3	18	2040	2041	2			

SPECIAL CIRCUIT AND 60° INDEXING SWITCHES

1	1	2052*		2—10	1034*		2—10
1	1	2042†		2—10	1040†		2—10
2	2	2048‡	2049‡	2—12			
2	2	2050§		4			
1	1		2043††	2—6		1035††	2—6
2	2		2045††	2—6		1037††	2—6

*All shorted to common in full CCW, progressively opened and dropped with CW rotation. †All open in full CCW, progressively picked up and shorted to common with CW rotation. ‡Silver clips and contacts. §For switching dual lines. ††60° Indexing; 1½" spacing between sections.

SEPARATE SECTIONS

For use with 30° index assemblies No. PA-300, PA-301 and PA-302, except Nos. PA-17, PA-20 and PA-45, for use with 60° Index assemblies PA-304 and PA-305.

No. Poles	Index-ing	PA-2000 Ceramic CRL No. PA- Shtg.	Non-Shtg.	Total Pos.	PA-1000 Phenolic CRL No. PA- Shtg.	Non-Shtg.	Total Pos.
1	30°	0	1	2—12	30	31	2—11
2	30°	2	3	2—6	32	33	2—5
3	30°	4	5	2—5	34	35	2—3
4	30°				36	37	2
5	30°	6	7	2—3			
6	30°	8	9	2			
1	30°	10*	19*	2—5	38*	39*	2—5
2	30°	11**	18**	2—11	40**	41**	2—11
1	30°	12††		2—10	43†		2—10
1	30°	13‡		2—10	49††		2—10
1	60°	20	17	2—6		45	2—6

*Unused contacts one side of common connected and shorted out. **All unused contacts connected and shorted out. †Active contacts shorted to common in full CCW, progressively opened and dropped with CW rotation. ††All active contacts open in full CCW, progressively picked up and shorted to common with CW rotation.

SERIES JV-9000 HEAVY-DUTY POWER SWITCHES

Rotary power switch insulated with Grade L-533 steatite. Rated: 9 amps, 110v. AC; 30 amps, 5 v. DC; 15 ma, 2500 v. AC. Breakdown, 3000 v. AC rms between critical parts. Coin silver contacts; 20° indexing adjustable stop. Mtg. bushing ⅜"-32 thread, ⅜" long. Sections 2⅜6" dia. Shipping Wt., 6 oz. per section.

SERIES JV-9000 ROTARY SWITCHES

CRL Number Shorting	Non-Shorting	Poles to Section	No. Sections	No. Poles	No. Positions
JV-9000	JV-9001	1	1	1	2—17
JV-9002	JV-9003	3	1	3	2—5
JV-9004	JV-9005	1	2	2	2—17
JV-9006	JV-9007	3	2	6	2—5
JV-9008	JV-9009	1	3	3	2—17
JV-9010	JV-9011	3	3	9	2—5
JV-9012	JV-9013	1	4	4	2—17
JV-9014	JV-9015	3	4	12	2—5
JV-9016	JV-9017	1	5	5	2—17
JV-9018	JV-9019	3	5	15	2—5
JV-9020	JV-9021	1	6	6	2—17
JV-9032	JV-9033	2	1	2	2—8
JV-9034	JV-9035	2	2	4	2—8
JV-9036	JV-9037	2	3	6	2—8
JV-9038	JV-9039	2	4	8	2—8

SERIES JV-9000 SEPARATE SECTIONS

CRL Number Shorting	Non-Shorting	Number Poles	Number Positions
JV-8	JVN-8	1	2—17
JV-9	JVN-9	3	2—5
JV-10	JVN-10	2	2—8
JV-18*	JVN-18*	1	2—18

*Rotor has 17 fingers making contact with 17 contacts on stator, leaving one contact open. By cutting off unwanted fingers this section can be adapted to special circuits, e.g., one off, nine progressively shorting positions.

SILVER CLIPS AND CONTACTS

CRL Number Shorting	Non-Shorting	Index	No. of Poles	No. of Positions
PA-16	PA-21	30°	1	2—12
PA-14	PA-23	30°	2	2—6
PA-15	PA-24	30°	4	2

INDUSTRIAL NET PRICES
SERIES PA-2000 CERAMIC

CRL No. PA- Shtg.	Non-Shtg.	Net Each, lots of 1-4	5-9	10-24	25-49	50-99	100-249
2000	2001	$2.37	$1.98	$1.78	$1.69	$1.58	$1.42
2002	2003	2.37	1.98	1.78	1.69	1.58	1.42
2004	2005	3.39	2.83	2.55	2.42	2.26	2.03
2006	2007	2.37	1.98	1.78	1.69	1.58	1.42
2008	2009	4.32	3.60	3.24	3.08	2.88	2.59
2010	2011	3.39	2.83	2.55	2.42	2.26	2.03
2012	2013	5.19	4.33	3.90	3.71	3.46	3.11
2014	2015	2.37	1.98	1.78	1.69	1.58	1.42
2016	2017	6.21	5.18	4.66	4.43	4.14	3.73
2018	2019	2.37	1.98	1.78	1.69	1.58	1.42
2020	2021	3.39	2.83	2.55	2.42	2.26	2.03
2022	2023	4.32	3.60	3.24	3.08	2.88	2.59
2024	2025	7.20	6.00	5.40	5.13	4.80	4.32
2026	2027	5.19	4.33	3.90	3.71	3.46	3.11
2028	2029	4.32	3.60	3.24	3.08	2.88	2.59
2030	2031	3.39	2.83	2.55	2.42	2.26	2.03
2032	2033	6.21	5.18	4.66	4.43	4.14	3.73
2034	2035	3.39	2.83	2.55	2.42	2.26	2.03
2036	2037	7.20	6.00	5.40	5.13	4.80	4.32
2038	2039	4.68	3.90	3.51	3.33	3.12	2.81
2040	2041	4.68	3.90	3.51	3.33	3.12	2.81
2042		2.16	1.80	1.62	1.54	1.44	1.30
2048	2049	4.68	3.90	3.51	3.33	3.12	2.81
2050		2.37	1.98	1.78	1.69	1.58	1.42
2052		2.16	1.80	1.62	1.54	1.44	1.30
	2043	2.16	1.80	1.62	1.54	1.44	1.30
	2045	3.03	2.53	2.28	2.17	2.02	1.82
0	1	1.20	1.00	.90	.86	.80	.72
2	3	1.20	1.00	.90	.86	.80	.72
4	5	1.20	1.00	.90	.86	.80	.72
6	7	1.20	1.00	.90	.86	.80	.72
8	9	1.20	1.00	.90	.86	.80	.72
10	19	1.20	1.00	.90	.86	.80	.72
11	18	1.20	1.00	.90	.86	.80	.72
12		1.20	1.00	.90	.86	.80	.72
13		1.20	1.00	.90	.86	.80	.72
20	17	1.20	1.00	.90	.86	.80	.72
14	23	1.98	1.65	1.49	1.42	1.32	1.19
15	24	1.98	1.65	1.49	1.42	1.32	1.19
16	21	1.98	1.65	1.49	1.42	1.32	1.19

SERIES PA-1000 PHENOLIC

1000	1001	$1.80	$1.50	$1.35	$1.28	$1.20	$1.08
1002	1003	1.80	1.50	1.35	1.28	1.20	1.08
1004	1005	2.58	2.15	1.94	1.84	1.72	1.55
1006	1007	1.80	1.50	1.35	1.28	1.20	1.08
1008	1009	3.24	2.70	2.43	2.31	2.16	1.94
1010	1011	1.80	1.50	1.35	1.28	1.20	1.08
1012	1013	2.58	2.15	1.94	1.84	1.72	1.55
1014	1015	3.81	3.18	2.86	2.72	2.54	2.29
1016	1017	4.47	3.73	3.36	3.19	2.98	2.68
1018	1019	2.58	2.15	1.94	1.84	1.72	1.55
1020	1021	3.24	2.70	2.43	2.31	2.16	1.94
1022	1023	5.04	4.20	3.78	3.59	3.36	3.02
1024	1025	2.58	2.15	1.94	1.84	1.72	1.55
1026	1027	3.81	3.18	2.86	2.72	2.54	2.29
1028	1029	3.24	2.70	2.43	2.31	2.16	1.94
1030	1031	4.47	3.73	3.36	3.19	2.98	2.68
1032	1033	5.04	4.20	3.78	3.59	3.36	3.02
1034		1.80	1.50	1.35	1.28	1.20	1.08
	1035	1.80	1.50	1.35	1.28	1.20	1.08
	1037	2.58	2.15	1.94	1.84	1.72	1.55
1040		1.80	1.50	1.35	1.28	1.20	1.08
30	31	.87	.73	.66	.63	.58	.52
32	33	.87	.73	.66	.63	.58	.52
34	35	.87	.73	.66	.63	.58	.52
36	37	.87	.73	.66	.63	.58	.54
38	39	.87	.73	.66	.63	.58	.52
40	41	.87	.73	.66	.63	.58	.52
43		.87	.73	.66	.63	.58	.52
	45	.87	.73	.66	.63	.58	.52
49		.87	.73	.66	.63	.58	.52

SEPARATE INDEX ASSEMBLIES

Index assemblies for series PA-1000 and PA-2000 interchangeable.

CRL No. PA-300 Assembly—Contains PA-300 (30°) index, P-120 pointer knob, adjustable stop plate, two ⅛" spacers, two 3/32" spacers, four 7/16" spacers, 2½" tie bolts, nuts, lockwashers and fiber spacer washers. Rear shaft length 2". Use with 1 to 3 sections.

CRL No. PA-301 Assembly—Contains PA-301 index (30°), P-120 pointer knob, adjustable stop plate, two ⅛" spacers, two 3/32" spacers, ten 7/16" spacers, four 15/16" spacers, 5" tie bolts and hardware. Rear shaft length 4". Use with 4 to 6 sections.

CRL No. PA-302 Assembly—Contains PA-302 (30°) index, P-120 pointer knob, adjustable stop plate, four ⅜" spacers, two 3/32" spacers, sixteen 7/16" spacers, eight 15/16" spacers, 7" tie bolts, and hardware. Rear shaft length 6". Use with 7 to 9 sections.

CRL No. PA-304 Assembly—Contains PA-304 (60°) index and hardware same as PA-300. Rear shaft length 2". Use with 1 to 3.

CRL No. PA-305 Assembly—Contains PA-305 (60°) index and hardware same as PA-301. Rear shaft length 4". 4 to 6 sections.

CRL No.	Index-ing	Net Each, Lots of 1-4	5-9	10-24	25-49	50-99	100-249
PA-300	30°	$1.38	$1.15	$1.04	$0.99	$0.92	$0.83
PA-301	30°	1.80	1.50	1.35	1.28	1.20	1.08
PA-302	30°	2.37	1.98	1.78	1.69	1.58	1.42
PA-304	60°	1.44	1.20	1.08	1.03	.96	.86
PA-305	60°	1.89	1.58	1.42	1.35	1.26	1.13

SERIES JV-9000 DIAL PLATES, INDEX ASSEMBLY

CRL Nos. P-230, P-231 or P-232—2¾" dia., etched aluminum on black background; 20°; marked 1-5 for P-230, 1-8 for P-232, and 1-17 for P-231. Packaged 5 of a number.

CRL No. JV-7 Index Assembly—Includes shaft, tie rods, spacers, nuts and lockwashers, adjustable stop pin, 2" black bar knob and dial plate.

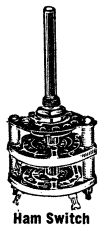
INDUSTRIAL NET PRICES

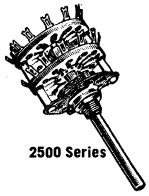
CRL Number	Net Each, Lots of 1-4	5-9	10-24	25-49	50-99
JV-9000 thru JV-9003	$10.50	$ 8.75	$ 7.88	$ 7.49	$ 7.00
JV-9004 thru JV-9007	17.40	14.50	13.05	12.40	11.60
JV-9008 thru JV-9011	24.30	20.25	18.23	17.32	16.20
JV-9012 thru JV-9015	31.20	26.00	23.40	22.23	20.80
JV-9016 thru JV-9019	38.10	31.75	28.58	27.15	25.40
JV-9020 and JV-9021	45.30	37.75	33.98	32.28	30.20
JV-9032 and JV-9033	10.50	8.75	7.88	7.49	7.00
JV-9034 and JV-9035	17.40	14.50	13.05	12.40	11.60
JV-9036 and JV-9037	24.30	20.25	18.23	17.32	16.20
JV-9038 and JV-9039	31.20	26.00	23.40	22.23	20.80
JV-8 thru JV-10	6.80	5.75	5.18	4.92	4.60
JVN-8 thru JVN-10	6.80	5.75	5.18	4.92	4.60
JV-18 and JVN-18	7.50	6.25	5.63	5.35	5.00
JV-7 Index	4.50	3.75	3.38	3.21	3.00
P-230 thru P-232	1.08*	.90*	.81*	.77*	.72*

*Package of 5.

Centralab®

Rotary, Lever Switches


Ham Switch


2500 Series

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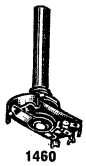
1461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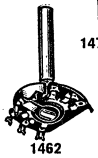
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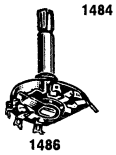
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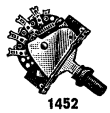
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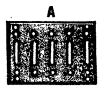

B

Lever Action

SERIES 2500 1⅞" DIAMETER ROTARY SWITCHES

Made of highest quality (grade L-533) Steatite insulation. Meet critical requirements of RF circuit applications. Bushing ⅜"-32 thread ⅜" long. Shaft 1⅞" long, ¼" full round. Sections 1⅞" dia. Positive index 30° with adjustable stop. Index assemblies and hardware are identical and interchangeable with those of the 1400 Series. Switches include pointer knob, nut and lockwasher. Rated: 2.75 amps. 15 v. DC; 230 ma, 115 v. AC. Breakdown, 1500 v. AC between critical parts. Shipping Weight, 5 oz. per section.

SERIES 1400 1⅞" DIAMETER ROTARY SWITCHES

Extremely compact design. Mounting bushings ¾"-32 thread, ⅜" long. Shafts 1⅞" from end of bushing; ¼" full round. Sections 1⅞" dia. Positive 30° index with adjustable stop. With mounting nut, lockwasher and pointer knob. Index assemblies and hardware are identical and interchangeable with those of 2500 series. Rated: 2.75 amps at 15 v. DC; 230 ma at 115 v. AC. Breakdown, 1000 v, AC rms. Shipping Weight, 4 oz. per section.

COMPLETE ROTARY SWITCHES

Ceramic Types CRL Number		No. Sections	No. Poles	No. Positions	Phenolic Types CRL Number	
Shorting	Non-Short.				Shorting	Non-Short.
2500	2501	1	1	2—6	1400	1401
2502	2503	1	1	2—11	1402	1403
2504	2505	1	2	2—5	1404	1405
2510	2511	2	2	2—6	1410	1411
2512	2513	2	2	2—11	1412	1413
2506	2507	1	3	2—3	1406	1407
2520	2521	3	3	2—6	1420	1421
2522	2523	3	3	2—11	1422	1423
		1	4	2	1408	1409
2514	2515	2	4	2—5	1414	1415
		4	4	2—6	1426	1427
		4	4	2—11	1428	1429
2516	2517	2	6	2—3	1416	1417
2524	2525	3	6	2—5	1424	1425
		2	8	2	1418	1419
		4	8	2—5	1430	1431

SEPARATE SECTIONS

Deluxe Types: .187" rotor slot, use P-270, P-271, P-272 indexes.

Ceramic Types CRL Number				Phenolic Types CRL Number	
Shorting	Non-Short.	No. Poles	No. Positions	Shorting	Non-Short.
TD	XD	1	2—6	AD	HD
UD	YD	1	2—11	BD	JD
RD	RRD	2	2—5	CD	KD
SD	SSD	3	2—3	DD	LD
VD	ZD	4	2	ED	MD
		4	2—3	EED	BBD
		1	2—5	FD**	AAD**
GGD*	FFD*	1	2—11	GD*	CCD*
PISD‡		1	2—10	PID‡	
NSD and PSD		Resistance Decade†		ND and PD	
QSD		Capacitance Decade		QD	

*All unused contacts connected and shorted out. ‡19 contacts, open in full CW, progressively picked up and shorted to common with CCW rotation. †Combine for resistance decade switch. **Unused contacts one side of common connected and shorted out.

SEPARATE INDEX ASSEMBLIES

Deluxe Type: 1-piece shaft .187" thick flat; use deluxe 1400 or 2500 Series sections. Units include index, pointer knob and hardware for complete assembly.

CRL No. P-270—For 1—3 sections; 2" rear shaft.
CRL No. P-271—For 3—5 sections; 4" rear shaft.
CRL No. P-272—For 5—10 sections; 8" rear shaft.

INDUSTRIAL NET PRICES

CERAMIC SWITCHES, SECTIONS

CRL Model Number	Net Each, Lots of					
	1-4	5-9	10-24	25-49	50-99	100-249
2500 thru 2507	$2.82	$2.35	$2.12	$2.01	$1.88	$1.69
2510 thru 2517	4.02	3.35	3.02	2.87	2.68	2.41
2520 thru 2525	5.16	4.30	3.87	3.68	3.44	3.10
All Sections	1.35	1.13	1.02	.97	.90	.81

PHENOLIC SWITCHES, SECTIONS

1400 thru 1409	$2.52	$2.10	$1.89	$1.80	$1.68	$1.51
1410 thru 1419	3.06	2.55	2.30	2.19	2.04	1.84
1420 thru 1425	3.90	3.25	2.93	2.78	2.60	2.34
1426 thru 1431	4.50	3.75	3.38	3.21	3.00	2.70
AD, BD, CD, DD, ED	1.05	.88	.79	.75	.70	.63
HD, JD, KD, LD, MD	1.05	.88	.79	.75	.70	.63
EED and BBD	1.35	1.13	1.02	.97	.90	.81
FD, GD, PID, ND, PD	1.05	.88	.79	.75	.70	.63
QD, AAD, CCD	1.05	.88	.79	.75	.70	.63

INDEX ASSEMBLIES

P-270	$1.65	$1.38	$1.24	$1.18	$1.10	$0.99
P-271	2.10	1.75	1.58	1.50	1.40	1.26
P-272	2.85	2.38	2.14	2.03	1.90	1.71

STEATITE HAM-TYPE SWITCHES

Heavy-duty Grade L-533 steatite insulation for ham applications. Available in 60° and 90° index. All metal parts except clips and contacts are cadmium plated steel; all units have phenolic shaft through switch sections. Positive index with adjustable stop; 60° units have 2—6 active positions; 90° units, 2—4. Single hole mounting: ⅜"-32 thread bushing ⅜" long. Shaft ¼" dia., 2¼" long, full round. Rated: 250 milliamps at 115 v. AC; 5 milliamps at 1500 v. AC; 1.75 amps at 24 v. DC, will handle 15 watts; for tubes operating at voltages up to 1 kv and inputs to 150 watts. Unit complete includes mounting nut, lockwasher, pointer knob, and dial plate. Shipping Weight, 4 oz. per section.

NON-SHORTING HAM SWITCHES

CRL Number		No.	Net Each, Lots of					
60°	90°	Poles*	1-4	5-9	10-24	25-49	50-99	100-249
2542	2550	1	$2.37	$1.98	$1.78	$1.69	$1.58	$1.42
2543	2551	2	3.36	2.80	2.52	2.39	2.24	2.02
2544	2552	3	4.32	3.60	3.24	3.08	2.88	2.59
2545	2553	4	5.34	4.45	4.01	3.81	3.56	3.21
2546	2554	5	6.30	5.25	4.73	4.49	4.20	3.78
XXD†	ZZD†	1	1.20	1.00	.90	.86	.80	.72

*One pole per section. †Separate sections; use with "P" Series index assemblies.

ROTARY ACTION FLAT SWITCHES

Laminated phenolic insulation. Rated: 5.5 amps, 6 v. DC; 230 ma, 110 v. AC. Breakdown, 1000 v. AC rms. Bushing ⅜"-32 thread, ⅜" long. Shaft ¼" dia., 2¼" long. Shipping Weight, 3 oz.

CRL No.	No. Poles	No. Pos.	Net Each, Lots of					
			1-4	5-9	10-24	25-49	50-99	100-249
1448†‡	6	3	$2.37	$1.98	$1.78	$1.69	$1.58	$1.42
1449†§	6	3	2.37	1.98	1.78	1.69	1.58	1.42
1450*†	4	2	1.65	1.38	1.24	1.18	1.10	.99
1451†‡	4	2	1.98	1.65	1.19	1.42	1.32	1.19
1488‡	6	3	3.60	3.00	2.70	2.57	2.40	2.16
1489§	6	3	3.60	3.00	2.70	2.57	2.40	2.16

*Positive index. †Non-shorting. ‡Spring return. §Combination positive and spring return index.

GENERAL PURPOSE SWITCHES

Laminated phenolic insulation. Rated: 1.75 amps, 24 v. DC; 230 ma. 115 v. AC. Breakdown, 1000 v. AC rms. Bushing ⅜"-32 thread, ⅜" long except 1484, ¼". Positive index unless otherwise noted.

CRL No.	No. Poles	No. Pos.	Net Each, Lots of					
			1-4	5-9	10-24	25-49	50-99	100-249
1460	1	2	$1.08	$0.90	$0.81	$0.77	$0.72	$0.65
1461	1	3	1.08	.90	.81	.77	.72	.65
1462	2	2	1.08	.90	.81	.77	.72	.65
1463*†	1	2	1.08	.90	.81	.77	.72	.65
1464*†	2	2	1.08	.90	.81	.77	.72	.65
1465‡	1	4‡	1.80	1.50	1.35	1.28	1.20	1.08
1472*	2	3	1.08	.90	.81	.77	.72	.65
1473	2	3	1.08	.90	.81	.77	.72	.65
1483§	1	3	.75	.63	.57	.54	.50	.45
1484#	1	3	.90	.75	.68	.65	.60	.54
1486•	2	3	1.08	.90	.81	.77	.72	.65

*Non-shorting; all others shorting. †Spring return indexing. ‡3 active with AC-DPST line switch. §Remote speaker switch. #Remote auto radio speaker switch. •Remote stereo speaker switch.

ECONOMY LEVER ACTION SWITCHES

REPLACES PA-7000 SERIES

New nylon rotor design results in low cost for use singly or in groups. Have positive and/or spring return index design with shorting or non-shorting contacts. High quality laminated phenolic insulation, clips and contacts silver plated brass. Two hole type mounting bracket supplied with 6—32 thd tapped holes. Dimensions of single switch 1⅞" high x ¾" wide x 1¼" deep behind panel. Supplies with knob and mounting hardware. Rated 2.75 amps at 15 VDC, 230 MA at 115 VAC. Shipping Weight 4 oz.

CRL No.		No. Poles	No. Pos.	Index
Shorting	Non-Shorting			
1452	1454	2	3	Positive
1453	1455	2	3	Sp. Ret.
1466	1467	2	3	Pos. & Spr.
1456	1457	4	2	Sp. Ret.
1459	1458	4	2	Positive

Mounting Plates for Lever Switches—Type A made of .035" die cut steel, black crackle finish. Provides ¾" spacing between switches. Type B for use in electrical outlet boxes. Satin chrome steel with mounting holes 3⅝" between centers. Shpg. Wt., 4 oz.

CRL No.	Type	No. Switches	Size, Inches	CRL No.	Type	No. Switches	Size, Inches
P-1755	A	1	¾ x 2⅝	P-1759	A	5	3¾ x 2⅝
P-1756	A	2	1½ x 2⅝	P-221	B	2	2¾ x 4½
P-1757	A	3	2¼ x 2⅝	P-222	B	1	2¾ x 4½
P-1758	A	4	3 x 2⅝				

INDUSTRIAL NET PRICES

CRL Number	Net Each, Lots of					
	1-4	5-9	10-24	25-49	50-99	100-249
1452/4	$1.26	$1.05	$ .95	$ .90	$ .84	$ .76
1453/5	1.26	1.05	.95	.90	.84	.76
1466/7	1.26	1.05	.95	.90	.84	.76
1456/7	1.44	1.20	1.08	1.03	.96	.86
1459/8	1.44	1.20	1.08	1.03	.96	.86
Type A Plates	.30	.25	.23	.22	.20	.18
Type B Plates	.63	.53	.48	.46	.42	.38

SEPARATE INDEX ASSEMBLIES

Deluxe 90° and 60° Types: 2-piece shaft with phenolic rear, metal front; for high voltage operation; use XXD section for 90°; use ZZD section for 60°.

CRL No. 90°	CRL No. 60°	Rear Shaft	Suggested No. Sections
P-278	P-273	2"	1 to 2
P-279	P-274	4¼"	3 to 4
P-280	P-275	7"	5 to 8

CRL Number Index Assembly	Net Each, Lots of					
	1-4	5-9	10-24	25-49	50-99	100-249
P-273 and P-278	$1.38	$1.15	$1.04	$0.99	$0.92	$0.83
P-274 and P-279	1.74	1.45	1.31	1.25	1.16	1.04
P-275 and P-280	2.16	1.80	1.62	1.54	1.44	1.40

DUAL SPEAKER SWITCH KIT

((Not Illustrated). Primarily designed for rear seat auto radio speaker applications. It is adaptable, however, to many commercial applications. Contains: 1484 switch, P-216 bracket-dial plate, P-401 knob, two self-tapping metal screws and instruction sheet.

CRL No. PK-300—
Net Each $1.05

Net

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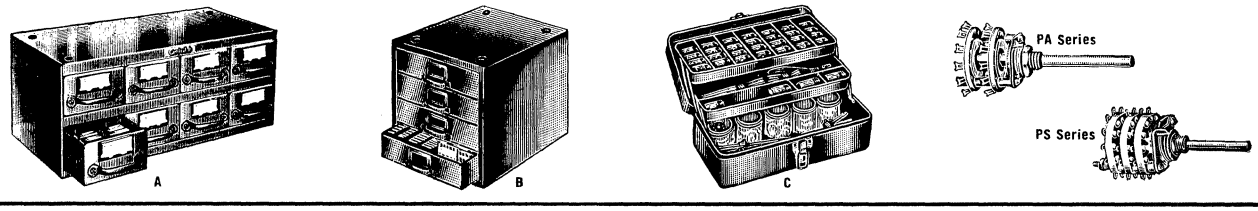
Centralab®

Switches, Hardware and Kits



MIL-S-3786A STYLE SR03 MINIATURE CERAMIC SWITCHES

Designed to meet MIL-S-3786A. Insulated with Grade L-533 steatite, Dow Corning 200 silicone treated against surface moisture. Breakdown, 1000 v. AC rms between critical parts. Coin silver clips and contacts; hot tin-dipped terminals. Adjustable stops or continuous rotation on 30° index. Ceramic sections 1$\frac{3}{32}$" dia. x .125" th. Single hole mounting with locating lug at 1$\frac{1}{32}$" radius. Bushing, $\frac{3}{8}$"-32NEF-2A threaded, $\frac{3}{8}$" lg. from mtg. surface. Shaft $\frac{1}{4}$" dia. full round, 2$\frac{1}{4}$" lg. from mtg. surface. With nut, lockwasher and P-120 pointer knob. Ratings: 450 ma at 115v. AC; 8 amps, 6 v. DC; 5.5 amps, 12 v. DC (make-break resistive load).

SERIES PA-6000 SWITCHES

CRL Number		Poles to Section	No. Sections	No. Poles	No. Positions
Shorting	Non-Short.				
PA-6000	PA-6001	1	1	1	2-11
PA-6002	PA-6003	2	1	2	2-5
PA-6004	PA-6005	1	2	2	2-11
PA-6006	PA-6007	3	1	3	2-3
PA-6010*	PA-6011*	4	1	4	2
PA-6012	PA-6013	2	2	4	2-5
PA-6018	PA-6019	3	2	6	2-3
PA-6024*	PA-6025*	4	2	8	2

*Fixed, 2-position stop.

SEPARATE INDEX ASSEMBLY

CRL No. PA-600—Used with PA-60, PA-70 or PA-80 separate sections to assemble special units of 1 to 4 sections; 30° indexing. Rear shaft 2" long.

SEPARATE SECTIONS, 30° INDEXING

Used with PA-600 index assembly. Hot solder-dipped terminals. Coin silver clips and contacts. Sections 1$\frac{3}{32}$" dia. Phenolic types rated 1000 v. AC rms breakdown between critical parts. Phenolic units .062" thick; others .125" thick.

Total Poles	No. Pos.	Phenolic Secs.		Mycalex Secs.		Ceramic Secs.	
		Short-ing	Non-Short	Short-ing	Non-Short	Short-ing	Non-Short
1	2-11	PA-60	PA-61	PA-70	PA-71	PA-80	PA-81
2	2-5	PA-62	PA-63	PA-72	PA-73	PA-82	PA-83
3	2-3	PA-64	PA-65	PA-74	PA-75	PA-84	PA-85
4	2	PA-66	PA-67	PA-76	PA-77	PA-86	PA-87

INDUSTRIAL NET PRICES

CRL Number	Net Each, Lots of					
	1-4	5-9	10-24	25-49	50-99	100-249
PA-6000 thru PA-6003	$3.39	$2.83	$2.55	$2.42	$2.26	$2.03
PA-6004 and PA-6005	5.19	4.33	3.90	3.71	3.46	3.11
PA-6006 thru PA-6011	3.39	2.83	2.55	2.42	2.26	2.03
PA-6012 thru PA-6025	5.19	4.33	3.90	3.71	3.46	3.11
PA-600	1.50	1.25	1.13	1.07	1.00	.90
PA-60 thru PA-67	1.35	1.13	1.02	.97	.90	.81
PA-70 thru PA-77	1.98	1.65	1.49	1.42	1.32	1.19
PA-80 thru PA-87	1.98	1.65	1.49	1.42	1.32	1.19

NOTE: Items requiring certified test data and government source inspection are special. Prices and information supplied on request.

18 AND 24 POSITION SWITCHES

Laminated phenolic insulation, type PBE per MIL-P-3115B. Voltage breakdown between critical parts 1000 v. AC, rms. Bushing $\frac{3}{8}$" thd., $\frac{3}{8}$" lg. Shaft $\frac{1}{4}$" dia., 2$\frac{1}{4}$" lg. from mtg. surface. Rated 5.5 amps, 6 v. DC; 2.75 amps, 15 v. DC; 1.75 amps, 24 v. DC; 230 ma, 115 v. AC, rms. Shpg. Wt., 4 oz. per section. **PA-3000 Series**—18-position. Provides accurate crisp indexing in both single and multiple-section versions through the use of new hill-and-dale index. Sections 2$\frac{11}{64}$" w. x 2$\frac{3}{16}$" h. x $\frac{1}{16}$" thick. Positive 20° indexing. Adjustable stops or continuous rotation. **PA-4000 Series**—24-position. Sections 1$\frac{3}{4}$" w. x 2$\frac{5}{8}$" h. x $\frac{1}{16}$" thick.

CRL No. PA-		*	No. Pos.	Net Each, Lots of					
Short.	Non-Short.			1-4	5-9	10-24	25-49	50-99	100-249
3000	3001	1	2-17	$2.04	$1.70	$1.53	$1.45	$1.36	$1.22
3002	3003	2	2-17	2.94	2.45	2.21	2.09	1.96	1.76
3004	3005	3	2-17	3.84	3.20	2.88	2.74	2.56	2.30
3006	3007	4	2-17	4.68	3.90	3.51	3.33	3.12	2.81
4000	4001	1	2-23	2-16	1.80	1.62	1.54	1.44	1.30
4002	4003	2	2-23	3.18	2.65	2.39	2.27	2.12	1.91
4004	4005	3	2-23	4.17	3.48	3.13	2.97	2.78	2.50
4006	4007	4	2-23	4.98	4.15	3.74	3.55	3.32	2.99

*Number of poles and number of sections.

SERIES PS $\frac{15}{16}$" SUBMINIATURE ROTARY SWITCHES

Deluxe, ceramic insulated rotary switches that are ultra-small. Weigh less than 1 oz. each, yet have the same electrical ratings as switches much heavier and larger. Ideally suited for band switching, transistor circuits, aircraft instruments, etc. Insulation is Dow-Corning 200 Silicone treated L-533 steatite; resistance exceeds 10,000 megohms. **Size:** Ceramic sections $\frac{1}{4}$" thick spaced $\frac{1}{4}$" apart with ceramic spacing; spacing between front plate and first section, $\frac{3}{32}$". All hardware except clips, contacts, and index spring are of cadmium plated steel. **Mounting:** Single hole with optional locating lug on $\frac{3}{4}$" radius. Bushing $\frac{1}{4}$-32 thread, $\frac{1}{4}$" long. Shaft $\frac{1}{8}$" dia. x 1$\frac{1}{4}$" long. **Rated:** Make and break, resistance load 3.5 amps at 6 volts DC, 160 milliamps at 110 v. AC. **Index:** Positive 30°; fixed stop.

CRL Number		Total Poles	No. of Positions	Poles Per Sec.	No. of Sections
Shorting	Non-Shorting				
PS-100	PS-101	1	11	1	1
PS-102	PS-103	2	11	1	2
PS-104	PS-105	2	5	2	1
PS-106	PS-107	3	11	1	3
PS-108	PS-109	3	3	3	1
PS-110	PS-111	4	5	2	2
PS-112	PS-113	4	2	4	1
PS-114	PS-115	6	5	2	3
PS-116	PS-117	6	3	3	2
PS-118	PS-119	8	2	4	2
PS-120	PS-121	9	3	3	3
PS-122	PS-123	12	2	4	3

SERIES PS (CONTINUED) SEPARATE SECTIONS

Ceramic* CRL No.		Phenolic† CRL No.		Total Poles	No. Pos.	Fixed Stop Indexing
Short.	Non-Short.	Short.	Non-Short.			
PS-20	PS-21	PS-40	PS-41	1	11	
PS-22	PS-23	PS-42	PS-43	2	5	Use P-501
PS-24	PS-25	PS-44	PS-45	3	3	thru P-511
PS-26	PS-27	PS-46	PS-47	4	2	

Breakdown Voltage: *1500 v. AC rms; †1000 v. AC rms.

SEPARATE INDEX ASSEMBLIES

Designed for maximum of three sections. Includes: Index and shaft assembly; P-106 knob; six $\frac{3}{32}$" spacers; two $\frac{1}{16}$" spacers; two $\frac{1}{8}$" spacers; two $\frac{3}{16}$" spacers; two 1$\frac{1}{8}$" tie bolts; nuts, lockwashers, washers; and 16 plastic spacer washers.

CRL Number	No. of Positions	CRL Number	No. of Positions
P-501	2	P-507	8
P-502	3	P-508	9
P-503	4	P-509	10
P-504	5	P-510	11
P-505	6	P-511	Continuous Rotation
P-506	7		

INDUSTRIAL NET PRICES

CRL Number		Net Each, Lots of					
Shorting	Non-Short.	1-4	5-9	10-24	25-49	50-99	100-249
PS-100	PS-101	$4.80	$4.00	$3.60	$3.42	$3.20	$2.88
PS-102	PS-103	6.00	5.00	4.50	4.28	4.00	3.60
PS-104	PS-105	4.80	4.00	3.60	3.42	3.20	2.88
PS-106	PS-107	7.20	6.00	5.40	5.13	4.80	4.32
PS-108	PS-109	4.80	4.00	3.60	3.42	3.20	2.88
PS-110	PS-111	6.00	5.00	4.50	4.28	4.00	3.60
PS-112	PS-113	4.80	4.00	3.60	3.42	3.20	2.88
PS-114	PS-115	7.20	6.00	5.40	5.13	4.80	4.32
PS-116	PS-117	6.00	5.00	4.50	4.28	4.00	3.60
PS-118	PS-119	6.00	5.00	4.50	4.28	4.00	3.60
PS-120	PS-121	7.20	6.00	5.40	5.13	4.80	4.32
PS-122	PS-123	7.20	6.00	5.40	5.13	4.80	4.32
PS-20 thru	PS-27	2.10	1.75	1.58	1.50	1.40	1.26
PS-40 thru	PS-47	1.68	1.40	1.26	1.20	1.12	1.01
P-501 thru	P-511	1.95	1.63	1.47	1.40	1.30	1.17

PACKAGED SWITCH HARDWARE

FOR 1400 AND 2500 SERIES SWITCHES

CRL No.	Description	Pkg. 100	CRL No.	Description	Pkg. 100
P-124	$\frac{1}{4}$" metal spacer	$1.80	P-145	7" screw	$ 8.40
P-125	$\frac{3}{8}$" metal spacer	1.80	P-146	9" screw	12.00
P-126	$\frac{1}{2}$" metal spacer	1.80	P-147	Nut	1.80
P-127	$\frac{3}{4}$" metal spacer	1.80	P-148	Lockwasher	1.80
P-128	1" metal spacer	1.80	P-177	Phenol. spacer wshr.	1.80
P-136	1" screw	1.80	P-181	$\frac{1}{16}$" steatite spacer	4.80
P-137	1$\frac{1}{2}$" screw	1.80	P-187	$\frac{1}{4}$" steatite spacer	4.80
P-138	2" screw	4.80	P-188	$\frac{3}{8}$" steatite spacer	4.80
P-139	2$\frac{1}{2}$" screw	4.80	P-189	$\frac{1}{2}$" steatite spacer	4.80
P-149	4$\frac{1}{4}$" screw	8.40	P-190	$\frac{3}{8}$" steatite spacer	4.80
P-143	5" screw	8.40	P-192	1"steatite spacer	8.40

FOR PA-6000 SERIES MILITARY SWITCHES

P-395	Min. MIL screw	$8.40	P-397	Min. MIL lockwasher	$1.80
P-396	Min. MIL nut	1.80	P-398	MIL spacer washer	1.80

FOR PS-100 SERIES SUBMINIATURE SWITCHES

P-515	1$\frac{1}{8}$" screw	$8.40	P-520	$\frac{1}{8}$" steatite spacer	$1.80
P-516	Nut	1.80	P-521	$\frac{3}{32}$" steatite spacer	1.80
P-517	Lockwasher	1.80	P-522	$\frac{1}{16}$" steatite spacer	1.80
P-518	Flat washer	1.80	P-523	$\frac{3}{16}$" steatite spacer	1.80
P-519	Spacer washer	1.80	P-524	$\frac{3}{32}$" steatite spacer	1.80

FOR PA-1000 & PA-2000 SERIES MINIATURE SWITCHES

CRL No.	Description	Pkg. 100	CRL No.	Description	Pkg. 100
P-319	Min. stop plate	$4.80	P-348	$\frac{7}{8}$" steatite spacer	$ 4.80
P-325	$\frac{1}{8}$" steatite spacer	4.80	P-350	$\frac{15}{16}$ steatite spacer	4.80
P-326	$\frac{3}{16}$" steatite spacer	4.80	P-352	1" steatite spacer	4.80
P-328	$\frac{1}{4}$" steatite spacer	4.80	P-362	1" screw	1.80
P-329	$\frac{3}{32}$" steatite spacer	4.80	P-370	2" screw	4.80
P-330	$\frac{1}{16}$" steatite spacer	4.80	P-374	2$\frac{1}{2}$" screw	4.80
P-332	$\frac{3}{8}$" steatite spacer	4.80	P-382	4" screw	8.40
P-334	$\frac{7}{16}$" steatite spacer	4.80	P-384	5" screw	8.40
P-336	$\frac{1}{2}$" steatite spacer	4.80	P-388	7" screw	12.00
P-340	$\frac{5}{8}$" steatite spacer	4.80	P-390	Nut	1.80
P-342	1$\frac{11}{16}$" steatite spacer	4.80	P-392	Lockwasher	1.80
P-344	$\frac{3}{4}$" steatite spacer	4.80	P-394	Phen. spacer washer	1.80

CENTRALAB SWITCH KITS

STANDARD KITS (FIG. A)

Convenient, ready source of stock sections, indexes and hardware. Packed in heavy gauge steel, 8-drawer Equipto cabinet, 23$\frac{1}{4}$" w. x 9$\frac{1}{2}$" h. x 12" d. with blue, baked enamel finish.

CRL No. SWK-810 Kit—PA-1000 series miniature phenolic parts: 106 pieces of 1$\frac{1}{2}$" dia. phenolic sections, 32 index assemblies with spacers, nuts, washers, knobs and dial plates. Makes up to 32 regular or special switches. Net Each **$162.00**

CRL No. SWK-820 Kit—PA-2000 series miniature ceramic parts: 102 pieces of 1$\frac{1}{2}$" dia. steatite sections, 32 index assemblies with spacers, washers, nuts, knobs and dial plates. Makes up to 32 regular or special switches. Net Each **$192.00**

JUNIOR SIZE SWITCH KITS (FIG. B)

Packed in attractive light blue and gray 4-drawer steel cabinets 10" x 11$\frac{1}{2}$" x 10". With balanced stock of index assemblies and separate sections for every application.

CRL No. SWK-410 Kit—PA-1000 series miniature phenolic parts: 48 phenolic 1$\frac{1}{2}$" dia. sections, 13 index assemblies and hardware for making 13 phenolic regular or special switches. Net Each **$67.00**

CRL No. SWK-420 Kit—PA-2000 series miniature ceramic parts: 52 ceramic 1$\frac{1}{2}$" dia. switch sections, 13 complete index assemblies and hardware for making 13 ceramic regular or special switches. Net Each **$87.40**

CUSTOM SWITCH KIT (FIG. C)

Contains parts and tools necessary for any prototype designer to construct the special switch he needs. Packed in metal cabinet, set up and ready to use. Makes 25 four-section miniature rotary phenolic or ceramic switches with factory precision. Contact nibbling tool can cut any contact arrangement you need.

CRL No. PK-20-S Kit—Complete. Net Each **$125.00**

CUTLER-HAMMER SWITCHES

See your local C-H representative for prices and accessory information.

"Commercial Application"

ONE HOLE MOUNTING

QUICK MAKE, QUICK BREAK A-C, D-C SWITCHES

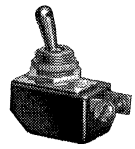
UTILITY TYPE

They have a quick make and quick break over center arrangement on the movable contact which permits exceptionally fast contact action minimizing pitting and erosion of the contact surfaces.

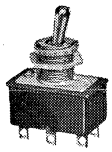
Available with screw terminals, solder lug terminals or with 6" lead wires stripped ¾". Bushing dia. 15/32". Available with bushing lengths of ¼", 11/32", 15/32", ¾" and 1" — ¾" and 1" bushings furnished with ball type lever only.

Parts visable when switch is mounted are bright nickel plated.

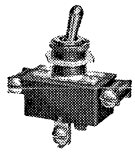
Cat. No. 8383



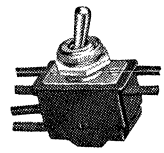
Cat. No. 8396



Cat. Nos. 8363, 8373



Cat. No.s 8365, 8375



Cat. Nos. 8364, 8374

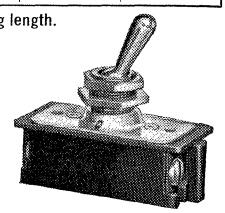
Nominal Ratings (Amps.)		Poles and Throws	Catalog Numbers		
250 V. A-c, D-c	125 V. A-c, D-c		Screw Terminals	Solder Lug Terminals	Wire Lead Terminals
1	3	SPDT (3 Way)	8297	8282	8292
3	....	SPST	8295	8280	8290
3	....	DPST	8362	8360	8361
3	....	DPDT	8365	8363	8364
3	6	SPST	8396	8381	8391
3	6	DPST	8372	8370	8371
3	6	DPDT	8375	8373	8374

When ordering, specify (1) catalog number and (2) bushing length.

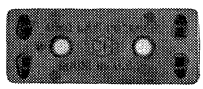
HEAVY DUTY TYPE

Screw terminals or plug-in terminals (connection made by plugging wire into switch body) are available. Plug-in type switches have 3/32" square hole to accept #14, 16 or 18 ga., stranded, tin dipped wire leads skinned 7/32".

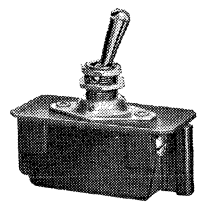
Bushing dia. 15/32". Available with 11/32" or 15/32" bushing length.



Cat. Nos. 7320, 7321, 7322



Rear view of 7343 showing holes for plug-in wire leads.



Cat. No. 7402

Nominal Ratings (Amperes)		Max Hp Ratings (250 V.)		Poles and Throws	Catalog Numbers	
250 V. A-c, D-c	125 V. A-c, D-c	A-c	D-c		Screw Terminals	Plug-in Terminals
5	....	....	....	DPDT w/o Center Off	8680	.....
5	10	½	½	SPST	....	7347
5	10	½	½	DPST	....	7343
8	16	1	1	SPST	7321	....
8	16	1	1	DPST	7320	7443
10	15	1	½	DPST	....	7354
10	15	1	1½	SPST	7361	....
10	15	1	1½	DPST	7360	....
10	15	....	....	DPDT w/o Center Off	8690	....
20	..	2	2	SPST	7403	....
20	....	2	2	DPST	7402	....

When ordering, specify (1) catalog number and (2) bushing length.

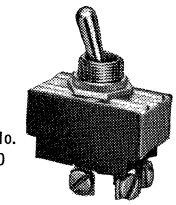
SLOW MAKE, SLOW BREAK A-C ONLY SWITCHES

3-6, 10-15 AMP. A-c LINE

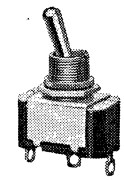
Features include: heavy duty independent springs for positive contact pressure, solid silver to silver contacts and strong substantial terminal construction.

Bushing dia. 15/32". Bushing length 15/32" on all single pole switches. Double pole switches available with 11/32" or 15/32" bushings.

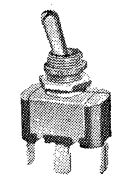
Available with screw, solder lug or spade type terminals.



Cat. No. 7560



Cat. Nos. 7503, 7505



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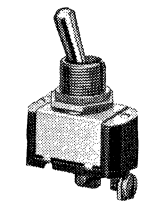


Cat. No. 7500

Circuit Arrangement (A — B — C) Keyway on "C" Side of Switch			Throws	Catalog Number	
				Single Pole	Double Pole
3 AMP. — 250 V. A-C, 6 AMP. — 125 V. A-C					
ON	OFF	ON	DT	7581	7591
ON	OFF	ON*	DT	7586	7596
ON*	OFF	ON*	DT	7587	7597
ON	NONE	ON	DT	7582	7592
ON	NONE	ON*	DT	7585	7595
ON	NONE	OFF	ST	7580	7590
ON	NONE	OFF*	ST	7584	7594
OFF	NONE	ON*	ST	7583	7593
10 AMP. — 250 V. A-C, ½ MAX. H.P. — 250 V. A-C					
ON	OFF	ON*	DT	7508	7568
ON*	OFF	ON*	DT	7509	7569
ON	NONE	ON*	DT	7510	7570
ON	NONE	OFF*	ST	7507	7567
OFF	NONE	ON*	ST	7506	7566
10 AMP. — 250 V. A-C, 15 AMP. — 125 V. A-C, ¾ MAX. H.P. — 250 V. A-C					
ON	OFF	ON	DT	7502†	7562†
ON	NONE	ON	DT	7504†	7564†
ON	NONE	OFF	ST	7500†	7560†

*Momentary contact
†Screw terminals. For solder lug or spade type terminals add one (1) to mode. number. Example: 7502 is screw type — for same switch with solder lugs or spades order 7503.
When ordering, specify (1) catalog number, (2) type of terminals and (3) bushing length.

SLIDE BUTTON SWITCHES

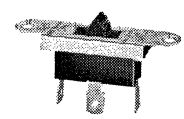
FLUSH MOUNTING

SPST and SPDT, flush mounting slide switches.

Mounting centers — 2 3/16"—8303, 1½"—8746 and 8477, 1⅛" on all others.

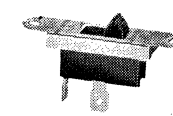
Operating buttons are red plastic on 8476-77, black phenolic on all others.

Cat. Nos. 8476 and 8477



Cat. No. 8631

Cat. No. 8303



Cat. No. 8486

Ampere Rating A-c		Maximum Hp Ratings A-c Only		Poles and Throw	Circuit Arrangement (A — B — C)			Catalog Numbers			
125 V.	250 V.	125 V.	250 V.					Screw Term.	.250" Spade Term.	Solder Lug Term.	Plug-In Term.
6	3	...	...	SPST	On	None	Off	.....	.....	.....	8476
6*	3*	...	...	SPST	On	None	Off	8303	.....	.....	.....
7	3	...	¼	SPST	On	None	Off	.....	8486	8486	.....
7	3	...	¼	SPDT	On	Off	On	.....	8487	8487	.....
7	3	...	¼	SPDT	On	None	On	.....	8488	8488	.....
10	5	½	½	SPST	On	None	Off	.....	.....	.....	8477

*A-c and d-c rating.
When ordering, specify (1) catalog number and (2) type of terminals.

CUTLER-HAMMER, Inc., Milwaukee, Wis.

Most C-H switches are available with optional features for special applications. See your local Sales Office or Distributor for complete accessory and optional feature listings.

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See your local C-H representative for prices and accessory information.

CUTLER-HAMMER SWITCHES

"Commercial Application"

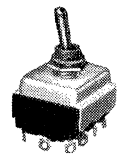
ONE HOLE MOUNTING — Cont'd

SLOW MAKE, SLOW BREAK—A-C ONLY SWITCHES

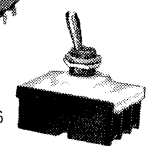
10-15 AMP, LINE — THREE OR FOUR POLE

Bushing dia. 15/32". Bushing length — 15/32" (7610 and 7615 also available with 11/32" bushing).

Ratings — Three pole switches — 10 amp. — 250 V. A-c, 15 Amp. — 125 V. A-c, 1 hp polyphase — 115-575 V. A-c. Four pole switches — 10 Amp. — 250 V. A-c, ½ hp — 230 V. A-c.



Cat. Nos. 7693, 7695



Cat. Nos. 7610, 7616

Circuit Arrangement (A, B, C — Keyway on "C" Side of Switch)			Throws	Catalog Number				
				Three Pole			Four Pole	
				Screw Terminals	Solder Lug Terminals	Spade Terminals	Screw Terminals	Solder Lug Terminals
ON	OFF	ON	DT	7612	7613	7613	7692	7693
ON*	OFF	ON	DT	7617	....	7617	....	....
ON	NONE	ON	DT	7614	7615	7615	7694	7695
ON*	NONE	ON	DT	7618	....	7618	....	....
ON	NONE	OFF	ST	7610	7611	7611	7690	7691
ON*	NONE	OFF	ST	7616	....	7616	....	....
ON*	NONE	OFF	ST	....	....	....	7696	7697

*Momentary contact.
When ordering, specify (1) catalog number, (2) type of terminals and (3) bushing length.

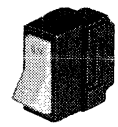
ROCKETTE SWITCHES — A-C ONLY

3-6, 10-15 AMP., A-C LINE

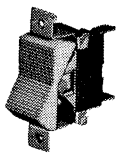
Rockers can be furnished on special order in any color to harmonize with the appliance color. Standard color of rocker is white.

Switches are flush mounting.

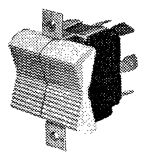
Spade terminals available in sizes .250", .205" and .187".



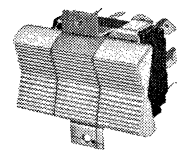
Cat. No's. 8326, 8329



Cat. No's. 8134 & 8144



Double actuator, double pole. Cat. No's. 8133 and 8143



Triple actuator, four pole. Cat. No's. 8131 and 8141

Circuit Arrangement (A, B, C)			Poles and Throws	Number of Rockers	Catalog Numbers: 3 Amp. 250 V. A-c 6 Amp. 125 V. A-c	Catalog Numbers: 10 Amp. 250 V. A-c 15 Amp. 125 V. A-c ¾ Hp. 250 V. A-c
ON	OFF	ON	SPDT	One	8134	8144
ON*	OFF	ON*	SPDT	One	8136	8146
ON	NONE	OFF	SPST	One	8134	8144
ON	NONE	OFF	SPST	One	8326	8329△
ON*	NONE	OFF	SPST	One	8135	8145
ON	OFF	ON	DPDT	One	8132	8142
ON	OFF	ON	DPDT	Two	8133	8143
ON*	OFF	ON*	DPDT	One	8138	8148
ON	NONE	OFF	DPST	One	8132	8132
ON	NONE	OFF	DPST	Two	8133	8133
ON*	NONE	OFF	DPST	One	8137	8147
ON	OFF	ON	4PDT	Two	8130	8140
ON	OFF	ON	4PDT	Three	8131	8141
ON	NONE	OFF	4PST	Two	8130	8140
ON	NONE	OFF	4PST	Three	8131	8141

*Momentary contact.
△Rated ½ hp — 250 V. A-c. Both 8326 and 8329 are nest mounted.
When ordering, specify (1) catalog number, (2) width of spade terminals and (3) poles and throws.

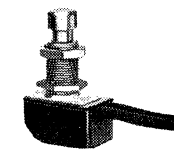
PUSHBUTTON SWITCHES

ONE HOLE MOUNTING—A-C, D-C AND A-C ONLY TYPES

Bushing dia. 15/32". Bushing length; 8411—¼", 7190 and 7196—½", all others 11/16".

All switches are momentary contact type except 7208 and 7206 which are push push type.

8442 and 8444 available with standard 17/32" button or with short ¼" button.



Cat. No. 7207

Ratings (Amperes) 125 V.	Ratings (Amperes) 250 V.	Poles and Throws	Contacts	Catalog Numbers: Screw Term.	Solder Lug Term.	Spade Term.	Wire Leads
A-C, D-C SWITCHES							
.075	.025	SPST	N.O. or N. C.	8411	8411	8411*	....
6	3	SPST	N. O.	7196	7190	....	7193
6	3	SPST	N. O., N. C.	7208	7206	....	7207
A-C ONLY SWITCHES							
6	3	SPST	N. O.	8442	....	8442△	..
15	10	SPST	N. O.	8444	....	8444△	....
15†	10†	SPDT	N. O., N. C.	8446	....	8446	....

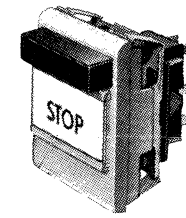
*Spade terminals available on N. C. types only.
†Applies to N. O. circuit only. Rated 10 A. @ 125 V. and 5 A. @ 250 V. on N. C. circuit.
△Available with angle or flat type spade terminals.
When ordering, specify (1) catalog number, (2) type of terminals, (3) N. O. or N. C. operation and (4) button extension (if variable).

ILLUMINATED COMPUTER TYPE

Switches are of the snap in variety requiring a panel opening of 1⅝" high by 1 29/64" wide (add 1½" to width per switch for ganged installation).

Indicating lamp unit (8457K2) is a 10 V. bulb. Other voltage bulbs on special order.

Tab type (.110") terminals for solder or spade connection.



Cat. Nos. 8455 & 8456K2

Nominal Ratings (Amperes) 250 V. A-c, D-c	Nominal Ratings (Amperes) 125 V. A-c, D-c	Poles and Throws	Operation	Catalog Number: Silver Contacts	Catalog Number: Gold Plted. Silver Contacts
3	5	DPDT	Maintained Contact—N.O.	8455K2	8456K2*
3	5	DPDT	Momentary Contact—N.O.	8455K3	8456K3*
....	....	.....	Lamp unit only	8457K2	.....

*Switches having gold plated silver contacts are rated at 5 millivolts — 25 microamps o dry circuit applications.
When ordering, specify (1) catalog number.

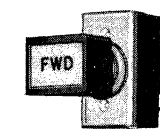
ILLUMINATED PUSHBUTTON TYPE

SPST momentary action.

Available with removable lamp or with an integral non-removable type lamp. Removable lamp types supplied with 14 V. bulbs. Integral lamp types furnished with 28 V. bulbs.

Tab type (.110") terminals for solder or spade connection.

One hole mounting — bushing dia. 15/32", bushing length ¼". Rated 3 Amp. — 250 V. A-c, 6 Amp. — 125 V. A-c.



Unit with Legend Plate and Cap Assembly.

Contacts	Removable Lamp Type	Integral Lamp Type	Terminals
N. O.	8452K6	8452K4	.110 tab or solder lug
N. C.	8453K6	8453K5	.110 tab or solder lug
Lamp Only	8454K7	8454K5	.110 tab or solder lug

When ordering, specify (1) catalog number.

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CUTLER-HAMMER SWITCHES

See your local C-H representative for prices and accessory information.

"Military Application"

ONE HOLE MOUNTING

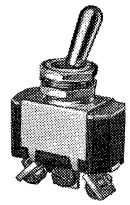
SEALED LEVER

Built to satisfy and exceed military specifications, these switches feature a silicone rubber seal between bushing and lever for sand and dust protection, heavy gauge silver to silver contacts and extra strong terminal construction.

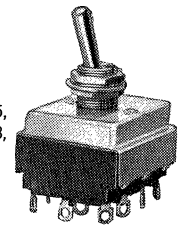
Metal parts visible when switch is mounted are dull nickel plated.

Switch guards and attachable tips are available as accessory items.

Nominal ratings — 10 Amp. — 115 V. A-c, 20 Amp. — 28 V. D-c. For specific ratings for various loads and voltages see your C-H representative. Max. weight 0.081 to 0.14 lb.



Cat. Nos. 8800, 8804, 8808, 8809, 8810, 8812



Cat. Nos. 7663, 7665, 7671, 7673, 7675

Circuit Arrangement (A, B, C) Keyway on "C" Side of Switch. Circuit is made on side opposite throw of lever.			Throws	Catalog Number					
				Single Pole		Double Pole		Four Pole	
				Screw Terminal	Solder Lug Terminal	Screw Terminal	Solder Lug Terminal	Screw Terminal	Solder Lug Terminal
ON	ON	ON	DT	....	....	8860	....	....	....
ON	ON	ON*	DT	....	....	8860	....	....	....
ON*	ON	ON*	DT	....	....	8860	....	....	....
ON	ON*	NONE	DT	....	....	†8830	†8831	....	....
ON	OFF	ON	DT	8800	8802	8820	8821	7662	7663
ON	OFF	ON*	DT	•8809	8815	8832	8833	7670	7671
ON*	OFF	ON*	DT	8812	8818	8834	8835	7672	7673
△ON	OFF	NONE	ST	8801	8803	8822	8823	7660	7661
△ON	OFF*	NONE	ST	8813	8819	†8828	†8829	7668	7669
ON	NONE	ON	DT	8810	8816	8824	8825	7664	7665
ON	NONE	ON*	DT	8804	8805	8830	†8831	7674	7675
ON	NONE	OFF	ST	8801	8803	8822	8823	7660	7661
ON	NONE	OFF*	ST	8813	8819	8828	†8829	7668	7669
OFF	NONE	ON*	ST	8811	8817	8826	†8827	7666	7667
NONE	OFF	△ON*	ST	8811	8817	†8826	†8827	7666	7667

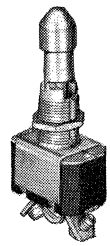
*Momentary contact.
△Indicates location where terminals are omitted.
•Available with jumper across outside terminals, order Cat. No. 8808.
†Not lever sealed.
When ordering, specify (1) catalog number and (2) circuit arrangement.

LEVER LOCK TYPE

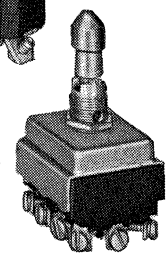
These switches feature the same rugged construction as the standard switches listed above except that in addition they have a lever lock feature which permits the lever to be locked in the desired position. This feature prevents the switch from being tripped accidentally.

In order to operate the lever from a locked position, an upward pull must be exerted on the operating lever to disengage the lever from the milled slot.

Nominal ratings — 10 Amp. — 115 V. A-c, 20 Amp. — 28 V. D-c. For specific ratings for various loads and voltages see your C-H representative.



Cat. No. 8857



Cat. No. 8859

LEVER LOCK TYPE (Cont'd)

Circuit Arrangement (A, B, C) Keyway on "C" side of switch. Circuit is made on side opposite throw of lever.			Catalog Number					
			Single Pole	MS No.	Double Pole	MS No.	Four Pole	MS No.
			8857-	25125-	8858-	25126-	8859-	25127-
ON	OFF	←ON	K-41	-3	K-40	-3	K-41	-3
ON	←OFF	ON	K-42	-5	K-42	-5	K-42	-5
ON→	OFF	←ON	K-43	-7	K-43	-7	K-43	-7
ON	←OFF→	ON	K-40	-2	K-40	-2	K-40	-2
ON→	←OFF→	←ON	K-39	-1	K-39	-1	K-39	-1
ON	←OFF	ON*	K-46	-6	K-46	-6	K-46	-6
ON	OFF→	ON*	K-51	...	K-51	...	K-51	...
ON*	←OFF	ON*	K-52	...	K-52	...	K-52	...
ON→	←OFF	ON*	K-55	...	K-55	...	K-55	...
ON	←OFF→	ON*	K-56	...	K-56	...	K-56	...
ON*	←OFF→	ON*	K-50	...	K-50	...	K-50	...
ON	←OFF	NONE	K-54	...	K-54	...	K-54	...
ON→	←OFF	NONE	K-49	-9	K-49	-9	K-49	-9
ON	NONE	←ON	K-45	-4	K-45	-4	K-45	-4
ON→	NONE	←ON	K-44	-8	K-44	-8	K-44	-8
ON	NONE	←OFF	K-47	...	K-47	...	K-47	...
ON→	NONE	←OFF	K-48	...	K-48	...	K-48	...
NONE	OFF→	ON*	K-53	...	K-53	...	K-53	...

→ Indicates direction of movement against which lever is locked.
*Momentary contact.
When ordering, specify (1) catalog number and (2) circuit arrangement.

FLUSH MOUNTING

Two screw, flush mounting switches manufactured to meet current military specifications.

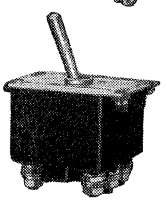
All switches have a formed steel support plate with integral 6-32 lock nuts, silver inlay on movable contact, fixed contacts of coin silver and extra heavy operating spring to insure positive contact pressure.

Attachable tips and switch guards, available as accessory items.

Metal parts visible when switch is mounted are dull nickel plated.

Max. weight — 0.10 - 0.19 lb.

Cat. Nos. 8201, 8211, 8213



Cat. No. 8791

Circuit Arrangement (A, B, C) C-H Insignia on "A" side of switch. Circuit is made on side opposite throw of lever.			Throws	Catalog Number — Nominal Ratings (per pole)			
				Single Pole			Double Pole
				15 Amp. 125 V. A-c 20 Amp. 28 V. D-c	60 Amp. 28 V. D-c ‡	55 Amp. 115 V. A-c 175 Amp. 28 V. D-c	20 Amp. 115 V. A-c 30 Amp. 28 V. D-c
ON	OFF	ON	DT	8200	8783	8780	8700
ON	OFF	ON*	DT	8209	8787	....	8709
ON*	OFF	ON*	DT	8212	8786	....	8712
△ON	OFF	NONE	ST	....	....	....	8716
△ON	OFF*	NONE	ST	....	....	....	8717
ON	NONE	ON	DT	8210	8785	8782	8710
ON	NONE	ON*	DT	8215	....	....	8715
ON	NONE	OFF	ST	8201	8784	8781	8701
ON*	NONE	OFF	ST	8211	....	....	....
ON	NONE	OFF*	ST	8213	8789	....	8713
OFF	NONE	ON	ST	....	....	....	8711
OFF	NONE	ON*	ST	....	8788	....	....
NONE	OFF	△ON*	ST	....	....	....	8718

				Three Pole		Four Pole	Six Pole
				20 Amp. 115 V. A-c 25 Amp. 28 V. D-c	15 Amp. 240 V. A-c 80 Amp. 28 V. D-c	10 Amp. 115 V. A-c 20 Amp. 28 V. D-c	10 Amp. 115 V. A-c 20 Amp. 28 V. D-c
							8862-
ON	OFF	ON	DT	8742	8790	8880	K-3
ON	OFF	ON*	DT	....	....	8887	....
ON*	OFF	ON*	DT	....	....	8888	....
ON	OFF	NONE	ST	....	....	....	K-2
△ON	OFF	NONE	ST	8740	....	8882	....
ON	NONE	ON	DT	8744	8792	8884	K-4
ON	NONE	OFF	ST	8740	8791	8882	K-1
OFF	NONE	ON*	ST	....	....	8886	....
NONE	OFF	△ON*	ST	....	....	8886	....

*Momentary contact.
△Indicates location where terminals are omitted.
‡Momentary rating. Non-momentary rating — 80 amp. — 28 V. D-c.
When ordering, specify (1) catalog number and (2) circuit arrangement.

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See your local C-H representative for prices and accessory information.

CUTLER-HAMMER SWITCHES

"Military Application"

FLUSH MOUNTING—Cont'd

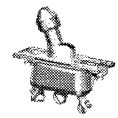
LEVER LOCK TYPE

This line of switches is identical to the standard flush mounting types as listed on the previous page except that they have, in addition to the standard features, a lever lock design which permits the lever to be locked into position. The operating lever must be pulled upward before it can be moved from a locked position.

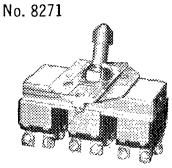
All switches have screw type terminals.

Nominal Rating — 10 Amp. — 115 V. A-c, 20 Amp. — 28 V. D-c. For specific ratings for various loads and voltages see your C-H representative.

Max. weight 0.14 - 0.24 lb.



Cat. No. 8271



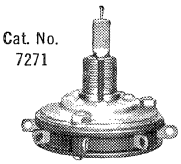
Cat. No. 8863

Circuit Arrangement (C-H Insignia on "A" side of switch. Circuit is made on side opposite throw of lever.)			Throw	Catalog Numbers		
				Single Pole	Double Pole	Six Pole
						8863-
ON	←OFF	ON	DT	8272	8772	K-3
ON	OFF	←ON	DT	8276	8776	K-7
ON	←OFF	ON*	DT	8273	8773	....
ON	←OFF→	ON	DT	8270	8770	K-1
ON→	←OFF→	←ON	DT	....	8778	K-9
ON→	NONE	←ON	DT	8275	8775	K-6
ON	NONE	←OFF	ST	8271	8771	K-2
ON	NONE	OFF	ST	8277	8777	K-8
ON→	NONE	←OFF	ST	8274	8774	K-5
NONE	OFF→	ON△	ST	....	8771	....

*Momentary contact. △Indicates location where terminals are omitted.
→Indicates direction of movement against which lever is locked.
When ordering, specify (1) catalog number.

ROTARY SELECTOR SWITCH

The C-H single or multi wafer selector switch is designed for applications where a large number of circuits must be controlled in consecutive steps. Switches have an indexing action which gives a positive "feel" as the shaft is rotated. Switches can be furnished with from 1 to 6 wafers with each wafer having 8 positions — 7 "on" and 1 "off". A total of 42 circuits can be controlled by one 6 wafer switch.



Cat. No. 7271

Nominal Rating — 5 Amp. — 28 V. D-c, 115 V. A-c
For specific ratings for various loads and voltages see your C-H representative. One hole mounting. Bushing length — 15/32". Bushing dia. 15/32". Flatted shaft has ½" extension.

Cat. No. 53-635

Number of Wafers	Catalog Number			
	Screw Terminals	Max. Wt.—Lbs.	Solder Lug Terminals	Max. Wt.—Lbs.
One	7260	0.28	....	....
One	7261	0.16	7271	0.16
Two	7262	0.26	7272	0.21
Three	7263	0.32	7273	0.26
Four	7264	0.38	7274	0.31
Five	7265	0.45	7275	0.36
Six	7266	0.51	7276	0.41

When ordering, specify (1) catalog number.

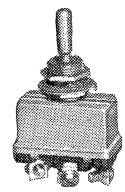
Cat. No. 7266

POSITIVE ACTION

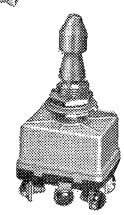
ONE HOLE MOUNTING

The operating mechanism employed in the C-H line of "positive action" switches has a direct coupling arrangement between the operating lever and moving contacts which permit positive breaking action and still allows the contacts to move independently of the operating lever. The switching action takes place in less than 1° of movement on the operating lever. Once the contact movement is started the motion cannot be stopped until the switching is completed.

Switches are available with either the lever seal or environment seal. Both feature a silicone rubber seal bonded to the bushing and operating lever.



Cat. No. 8836, 8840



Cat. No. 8844, 8847

They also are available in standard lever models or lever lock types. The lever lock switches have an integral bushing design which permits the operating lever to be locked into position. In order to move the lever from a locked position it must be pulled upward.

Nominal Rating — 25 Amp. — 28 V. D-c, 115 V. A-c on resistive loads. Max weight 0.1 - 0.2 lb. Bushing dia. 15/32". Bushing length 15/32".

CURRENT RATINGS FOR ALL SWITCHES (Amperes per pole								
28 Volts D-c			115 V. 400 Cy A-c			115 V. 60 Cy. A-c		
Lamp Load	Resistive	Inductive	Lamp Load	Resistive	Inductive	Lamp Load	Resistive	Inductive
7	25	15	7	25	15	7	20	15

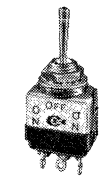
Circuit Arrangement (Keyway on "C" side of switch. Circuit is made on side opposite throw of lever.)			Catalog Number					
			Environment Sealed			Lever Sealed		
			Single Pole	Double Pole	Four Pole	Single Pole	Double Pole	Four Pole
			8836-	8837-	8838-	8840-	8841-	8842-
ON	OFF	ON	K-1	K-1	K-1	K-1	K-1	K-1
ON	OFF	ON*	K-3	K-3	K-3	K-3	K-3	K-3
ON*	OFF	ON*	K-2	K-2	K-2	K-2	K-2	K-2
ON	OFF	NONE	K-6	K-6	K-6	K-6	K-6	K-6
ON	OFF*	NONE	K-8	K-8	K-8	K-8	K-8	K-8
ON	NONE	ON	K-4	K-4	K-4	K-4	K-4	K-4
ON	NONE	ON*	K-5	K-5	K-5	K-5	K-5	K-5
ON	NONE	OFF	K-9	K-9	K-9	K-9	K-9	K-9
ON	NONE	OFF*	K-10	K-10	K-10	K-10	K-10	K-10
OFF	NONE	ON*	K-11	K-11	K-11	K-11	K-11	K-11
NONE	OFF	ON*	K-7	K-7	K-7	K-7	K-7	K-7
		LEVER LOCK TYPE						
			8843-	8844-	8845-	8846-	8847-	8848-
ON→	←OFF→	←ON	K-1	K-1	K-1	K-1	K-1	K-1
ON	OFF	←ON	K-3	K-3	K-3	K-3	K-3	K-3
ON	←OFF	ON	K-4	K-4	K-4	K-4	K-4	K-4
ON	←OFF	ON*	K-8	K-8	K-8	K-8	K-8	K-8
ON	OFF→	ON*	K-13	K-13	K-13	K-13	K-13	K-13
ON*	←OFF	ON*	K-14	K-14	K-14	K-14	K-14	K-14
ON	←OFF→	ON	K-2	K-2	K-2	K-2	K-2	K-2
ON	←OFF→	ON*	K-18	K-18	K-18	K-18	K-18	K-18
ON*	←OFF→	ON*	K-12	K-12	K-12	K-12	K-12	K-12
ON→	←OFF	ON*	K-17	K-17	K-17	K-17	K-17	K-17
ON→	OFF	←ON	K-5	K-5	K-5	K-5	K-5	K-5
ON	←OFF	NONE	K-16	K-16	K-16	K-16	K-16	K-16
ON→	OFF*	NONE	K-22	K-22	K-22	K-22	K-22	K-22
ON→	←OFF	NONE	K-11	K-11	K-11	K-11	K-11	K-11
ON	NONE	←ON	K-7	K-7	K-7	K-7	K-7	K-7
ON→	NONE	ON*	K-20	K-20	K-20	K-20	K-20	K-20
ON→	NONE	←ON	K-6	K-6	K-6	K-6	K-6	K-6
ON	NONE	←OFF	K-9	K-9	K-9	K-9	K-9	K-9
ON→	NONE	OFF*	K-21	K-21	K-21	K-21	K-21	K-21
ON→	NONE	←OFF	K-10	K-10	K-10	K-10	K-10	K-10
OFF→	NONE	ON*	K-19	K-19	K-19	K-19	K-19	K-19
NONE	OFF→	ON*	K-15	K-15	K-15	K-15	K-15	K-15

*Momentary contact. **When ordering,** specify (1) catalog number.
→Indicates direction of movement against which lever is locked.

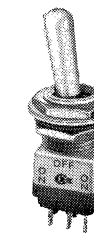
MINIATURE

These switches combine all of the construction and operating features of the standard size positive action switches plus ultra miniature size and light weight.

Nominal Rating — Wet Circuit, 4 Amp. — 28 V. D-c, Dry Circuit, 25 Micro Amp. — 5 Milli V. or less. For specific ratings for various loads and voltages see your C-H representative. Total weight — 5.0 - 6.5 grams. Bushing dia. ¼" for .440" lever and 15/32" for .667" lever switches.



Cat. No. 8866



Cat. No. 886

Gold plated solder lug terminals.

Circuit Arrangement (Keyway on "C" side of switch. Circuit is made on side opposite throw of lever.)			Catalog Numbers			
			Single Pole		Double Pole	
			.440" Lever	.687" Lever	.440" Lever	.687" Lever
			8866-	8868-	8867-	8869-
ON	OFF	ON	K-1	K-1	K-1	K-1
ON	OFF	ON*	K-3	K-3	K-3	K-3
ON*	OFF	ON*	K-2	K-2	K-2	K-2
ON	OFF	NONE	K-5	K-5	K-5	K-5
ON	NONE	ON	K-4	K-4	K-4	K-4
ON	NONE	OFF	K-7	K-7	K-7	K-7
NONE	ON	ON*	K-8	K-8	K-8	K-8
NONE	OFF	ON*	K-6	K-6	K-6	K-6

*Momentary contact. **When ordering,** specify (1) catalog number.

The switches listed on these pages represent only a small fraction of the total number of small motor and appliance switches manufactured by C-H. Contact your local Sales Office or Distributor for more complete listings.

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Milwaukee, Wi

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DABURN

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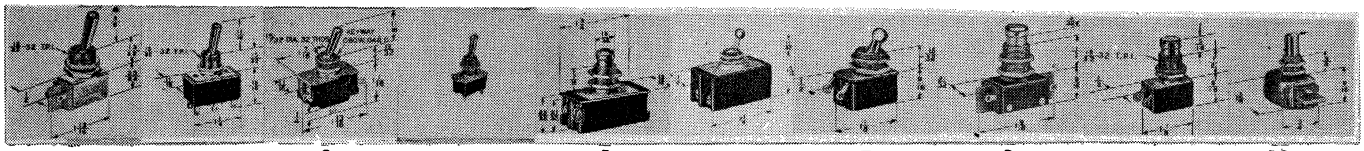
ARROW H & H SWITCHES

PUSH-BUTTON, TOGGLE, ROTARY, POWER



1 2 3 4 5 6 7 8 9 10

1 BALL LEVER TOGGLE SWITCHES

POSITIVE ACTION — 3 AMP.

UL approved. Laminated bakelite base. Nickel plated. Ring and mounting nuts.

15/32" SLEEVE LENGTH

DABURN No.	Description	Current 125V	Rating 250V
5200	SPST		3 Amp.
5202	SPDT	3 Amp.	1 Amp.
5202A	2 circ	3 Amp.	1 Amp.
5204	DPST	3 Amp.	1 Amp.
5206	DPDT	3 Amp.	1 Amp.
3/4" SLEEVE LENGTH — 3 AMP.			
5201	SPST		3 Amp.
5203	SPDT	3 Amp.	1 Amp.
5205	DPST	3 Amp.	1 Amp.
5207	DPDT	3 Amp.	1 Amp.

Std. Pkg. 25

BAT LEVER TOGGLE SWITCHES

1 POSITIVE ACTION — 3 AMP.

UL approved. Laminated, nickel finish.

15/32" SLEEVE LENGTH

5220	SPST		3 Amp.
5221	SPDT	3 Amp.	1 Amp.
5221A	2 circ.	3 Amp.	1 Amp.
5222	DPST	3 Amp.	1 Amp.
5223	DPDT	3 Amp.	1 Amp.

Std. Pkg. 25

BAT LEVER TOGGLE SWITCHES

1 MOMENTARY ACTION — 3 AMP.

UL approved. Laminated type, nickel plated finish. Supplied with ring and mounting nut; solder term. SPST rated at 3 Amp.-250V, AC-DC. Others: 1 Amp.-250V, 3 Amp.-125V AC-DC.

15/32" SLEEVE LENGTH

5190	SPST	Normally closed (on)
5191	SPST	Normally open (off)
5192	SPDT	Normally closed (on)
5193	DPST	Normally closed (on)
5194	DPST	Normally open (off)
5195	DPDT	Normally closed (on)

Std. Pkg. 25

INTERMEDIATE SIZE TOGGLE SWITCHES

2 BAT HANDLE

IL approved. Molded phenolic base. Back connected solder lugs silver plated. SPST 1 Amp.-250V, 6 Amp.-25V AC-DC. Others: 3 Amp.-250V, 6 Amp.-125V C-DC.

15/32" SLEEVE LENGTH — 6 AMP.

DABURN No.	Description	Type Action
5280	SPST	Positive
5280A	SPST	Mom.-Norm. Off
5281	SPDT	Positive
5281A	SPDT	Momentary
5284	2 circ.	Positive
5282	DPST	Positive
5282A	DPST	Mom.-Norm. Off
5283	DPDT	Positive
5283A	DPDT	Momentary

Std. Pkg. 25

3 THREE POSITION — CENTER OFF 3 Amp-250V; 6 Amp.-125V AC-DC

5261	SPDT	—
5262	2 circ.	—
5263	DPDT	—

Std. Pkg. 25

NEW COMPACT TOGGLE SWITCH

4 BAT LEVER

UL approved. 1 Amp.-250V, 3 Amp.-125V AC-DC. Molded bakelite case, nickel finish. Suitable for missile, aircraft, electronic application. Solder lugs.

15/32" SLEEVE LENGTH — 3 AMP.

DABURN No.	Description	BASE DIMENSIONS L	W	H
5130	SPST	1 1/64"	4 1/64"	13/16"
5131	SPDT	1 1/64"	4 1/64"	13/16"
5232	DPST	1 1/64"	4 1/64"	13/16"
5133	DPDT	1 1/64"	4 1/64"	13/16"

Std. Pkg. 25

3 MOMENTARY CONTACT SWITCHES

UL approved. SPST normally off. 3 Amp.-250V, 6 Amp.-125V.

BAT HANDLE 15/32" SLEEVE LENGTH

DABURN No.	Description	Std. Pkg.
5241	SPST	25
5240	SPDT	25
5242	DPDT	25

STANDARD DUTY TOGGLE SWITCHES

5 BAT HANDLE

Quick Make and Break

Molded phenolic base 15/32 x 7/16" long slotted sleeve; Nickel finish; screw term. Complete with two hex nuts. Accept snap-on button; supplied less ins. button. 125V-12 Amp., 250V-6 Amp.

15/32" SLEEVE LENGTH — 12 AMP.

DABURN No.	Descr.	Type
5238	SPST	Norm. Closed (on)
5238B	SPDT	Norm. Closed (on)
5238C	2 circ.**	Norm. Closed (on)
5226	DPST*	Norm. Open (off)
5238D	DPST*	Norm. Closed (on)

**Current Rating 1/2 *1 H.P. 250/V AC-DC

Std. Pkg. 10

6 EXTRA HEAVY DUTY POWER SWITCHES

3 POSITION—POSITIVE—CENTER OFF

UL approved. Molded base, screw terminals, slotted sleeve 3/4-32, nickel finish. Supplied with two hex nuts.

DABURN No.	Descr.	Circuit
5227	DPDT	3/4 H.P. 250V AC-DC
5228	3PDT	1/2 H.P. 115/230V AC 3 Phase
5229	4PDT	1/2 H.P. 115/230V AC 2 Phase

Std. Pkg. 10

7 MIDGET SIZE TOGGLE SWITCHES

POSITIVE ACTION

UL approved. SPST 3 Amp.-250V., 6 Amp.-125V. Others rated 1 Amp.-250V., 6 Amp.-125V. Molded phenolic base. Nickel finish; solder lugs.

DABURN No.	Description	Type
5244	SPST	Ball Handle
5244A	SPST	Bat Handle
5244B	SPDT	Ball Handle
5244C	SPDT	Bat Handle
5244D	2 circ.	Ball Handle
5244E	2 circ.	Bat Handle

8 MOMENTARY PUSH BUTTON SWITCHES

UL approved, laminated type. 15/32 x 9/16" slotted sleeve, nickel finish. Complete with hex and knurled nut. Nickel plated. All accept snap-on button. Supplied less ins. button (order separately No. 5132). SPST 3 Amp.-250V AC-DC. Others: 1 Amp.-250V., 3 Amp.-125V AC-DC.

Quick Make and Break

DABURN No.	Descr.	Type
5184	SPST	Norm. Closed (on)
5184A	SPST	Norm. Open (off)
5185A	SPDT	Norm. Closed (on)
5185	SPDT	Norm. Open (off)
5186	2 circ.	Norm. Closed (on)
5231A	DPST	Norm. Closed (on)
5231	DPST	Norm Open (off)
5131B	DPDT	Norm. Closed (on)

Std. Pkg. 25

Slow Make and Break

5180	SPST	Norm. Closed (on)
5230	SPST	Norm. Open (off)
5224	2 circ.	Norm. Closed (on)

Std. Pkg. 25

9 MOMENTARY PUSH BUTTON SWITCHES

UL approved. Molded phenolic base, solder lugs, normally off — push to make. Nickel plated. Supplied with nuts. 1 Amp.-125V.

DABURN No.	Description	Std. Pkg.
5233	SPST	25
5234	SPDT	25
5235	DPST	25
5236	DPDT	25

10 ROTARY SWITCHES

CANOPY TYPE

UL approved. Laminated type, solder lugs, 11/32-32 x 15/32" sleeve, nickel plated. Supplied with hex and dress nut. Key type has key removable in off position only on SPST and DPST — Key removable in both positions on all others. SPST 3 Amp.-250V AC-DC. Others: 1 Amp.-250V, 3 Amp.-125V AC-DC.

ROTARY TYPE 1 1/8" SHAFT

DABURN No.	Description 3/8" Shank 1 1/8" Shaft
5210	SPST
5212	SPDT
5214	DPST
5216	DPDT
KEY TYPE	
5110	SPST
5111	SPDT
5112	DPST
5113	DPDT

Std. Pkg. 12

SWITCH ACCESSORIES

DABURN No.	Description	Std. Pkg.
5208	—Name Plate—On-Off—Fits 15/32" Sleeve	100
5208A	—Name Plate—On-Off—Fits 15/32" Sleeve	100
5132	—Snap Button (Red or Black)	100
5114	—Key—Rem. Off Position	100
5115	—Key—Rem. Both Positions	100

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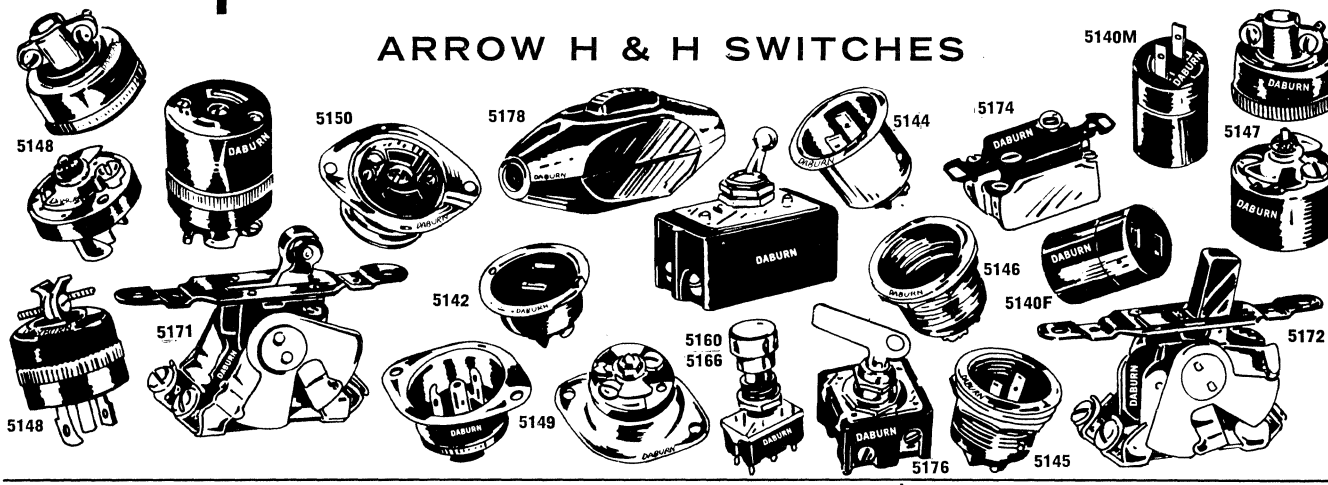
ARROW H & H SWITCHES



DOUBLE ACTION COMPACT PUSH-PUSH SHALLOW

QUICK MAKE AND BREAK

$^{45}/_{32}$" sleeve diameter, 3 amp., UL approved. Molded phenolic base. Complete with hex and knurled nut; nickel plated. All accept snap button; supplied less insulating button (#5132). (Order separately, red or black.) 1 amp., 250V 3 amp. 125V AC-DC. Solder lug terminals with double wiping blades.

Daburn No.	Descrip.	Sleeve	Width	Lgth.	Hgt.
5160	SPST	9/16"	41/64"	1-1/32"	13/16"
5161	SPDT	9/16"	41/64"	1-1/32"	13/16"
5162	DPST	9/16"	41/64"	1-1/32"	13/16"
5163	DPDT	9/16"	41/64"	1-1/32"	13/16"

Std. Pkg. 25

MOMENTARY ACTION COMPACT PUSH SWITCH

QUICK MAKE AND BREAK

$^{15}/_{32}$" Sleeve Diameter — 3 Amp.

UL approved. Molded base. Complete with hex and knurled nut; nickel plated. All accept snap button; supplied less insulating button (#5132). (Order separately, red or black.) Solder lug terminals with double wiping blades.

Daburn No.	Descrip.	Sleeve	Width	Lgth.	Hgt.
*5166	SPST	9/16"	41/64"	1-1/32"	13/16"
5167	SPDT	9/16"	41/64"	1-1/32"	13/16"
*5168	DPST	9/16"	41/64"	1-1/32"	13/16"
5169	DPDT	9/16"	41/64"	1-1/32"	13/16"

*SPST and DPST — normally off.

Std. Pkg. 25

HEAVY DUTY SWITCHES

TOGGLE TYPE 30 AMP

UL approved. 30 Amp, 250 Volts, AC-DC, 2HP, 115V-230V AC; 1 HP, 460V AC. Used on machine tools, pumps, food machines, sanders, grinders, etc.

DABURN No.	Description	Std. Pkg.
5171	DPST	5
5172	DPST	5

METAL PUSH BUTTON TYPE

NORMALLY OPEN — 20 AMP

UL approved. 20 Amp.-250V, 2 HP 230V AC, 2 HP 250V DC. Used on floor sander, foot switch etc.

DABURN No.	Description	Std. Pkg.
5174	DPST	5

ROTO-LOCK SWITCH

20 AMP.

UL approved. 20 Amp., 120V, 240V AC.
1½ HP — 120V AC
2 HP — 120V AC

Key removable in off position only.

DABURN No.	Description	Sleeve	Std. Pkg
5176	DPST	9/16"	5
5176KO	Key only for above		5

FEED-THRU CORD SWITCH

10 AMP.

UL approved, sliding lever, black case. 10 Amp.-125V, 5 Amp.-250V. Cord hole—$^{5}/_{16}$".

DABURN No.	Description	Std. Pkg.
5178	SP	6

FEED-THRU CORD SWITCH

15 AMP.

UL approved for appliance use only. 10 Amp-250V, 15 Amp.-125V.

DABURN No.	Description	Std. Pkg.
5179	DP (3rd Wire Gd.)	5

CORD CONNECTORS

10 AMP.

Complete brown bakelite cord connector. 10 Amp.-250 Volts, end opening for wire size up to ⅜" O.D.

DABURN No.	Description	Std. Pkg.
5140	Complete	10
5140F	Female Part Only	10
5140M	Male Part Only	10

DABURN H & H RECEPTACLES

10 AMP.

SHORT FEMALE FLUSH RECEPTACLE

UL approved. 10 Amp.-250 Volts AC.

DABURN No.	Description	Std. Pkg.
5143	Lock Nut Mounting	5
5142	2 Screw Mounting	5

RECESSED MALE RECEPTACLE

10 AMP.

DABURN No.	Description	Std. Pkg.
5144	2 Screw Mounting	5
5145	Lock Nut Mounting	5

RECESSED FEMALE RECEPTACLE

10 AMP.

DABURN No.	Description	Std. Pkg.
5146	Lock Nut Mounting	5

COMPACT RECEPTACLES — TURN TO LOCK

3 WIRE GROUNDING TYPE

FEMALE CONNECTOR — 15 AMP.-125 VOLT

Brass metal casings, corrosion resistant finish. Blac bakelite.

DABURN No.	Description	Std. Pkg
5147	Female Connector	5

MALE CONNECTOR

15 AMP.-125 VOLT

DABURN No.	Description	Std. Pkg
5148	Male Connector	5

MALE RECEPTACLES

MALE RECEPTACLES
15 AMP.-125 VOLT

DABURN No.	Description	Std. Pkg
5149	Male Receptacle	5

FEMALE RECEPTACLE

15 AMP.-125 VOLT

DABURN No.	Description	Std. Pk
5150	Female Receptacle	5

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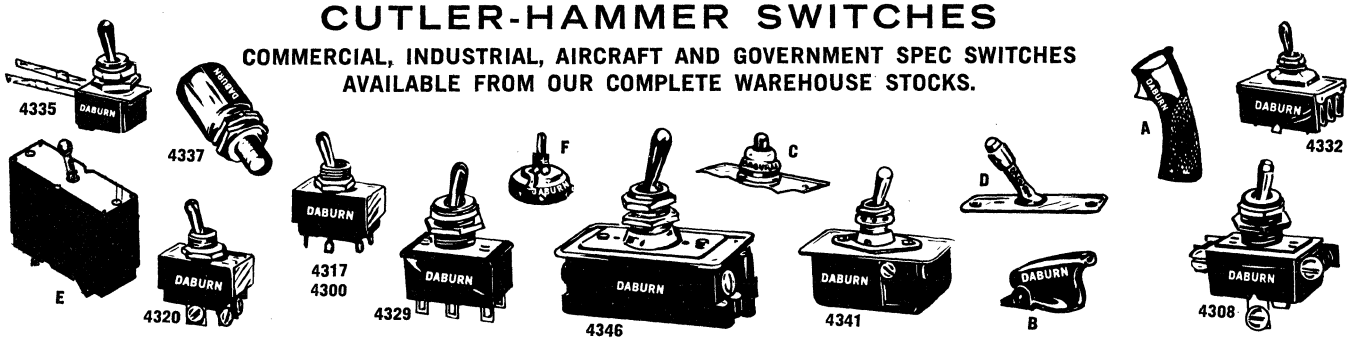
CUTLER-HAMMER SWITCHES

COMMERCIAL, INDUSTRIAL, AIRCRAFT AND GOVERNMENT SPEC SWITCHES AVAILABLE FROM OUR COMPLETE WAREHOUSE STOCKS.



STANDARD DUTY — TOGGLE SWITCHES

BACK CONNECTED LUG TERMINALS

UL approved. Slow make and break. AC rated for long life and greater capacity. 15/32 shank length. Bakelite case 15 Amp.-125 Volt, 10 Amp.-250 Volt.

DABURN No.	CH No.	Description	Net Ea.
4314	7501K13	SPST	$ .69
4315	7505K4	SPDT	.81
4316	7561K4	DPST	1.05
4317	7565K5	DPDT	1.26
4318	7611K2	3PST	2.19
4319	7615K2	3PDT	2.70

Std. Pkg. 25

BACK CONNECTED SCREW TERMINALS

DABURN No.	CH No.	Description	Net Ea.
4320	7500K14	SPST	$ .81
4321	7504K4	SPDT	.96
4322	7560K5	DPST	1.26
4323	7564K6	DPDT	1.56
4324	7610K2	3PST	2.55
4325	7614K2	3PDT	3.24

Std. Pkg. 25

CENTER OFF STANDARD DUTY SWITCHES

BACK CONNECTED LUG TERMINALS

DABURN No.	CH No.	Description	Net Ea.
4329	7503K13	SPDT	$ .81
4330	7563K4	DPDT	1.26
4331	7613K2	3PDT	2.70

Std. Pkg. 25

ACK CONNECTED SCREW TERMINALS

DABURN No.	CH No.	Description	Net Ea.
4332	7502K13	SPDT	$ .96
4333	7562K4	DPDT	1.56
4334	7612K2	3PDT	3.24

Std. Pkg. 25

LIGHT DUTY — TOGGLE SWITCHES

BACK CONNECTED LUG TERMINALS

UL approvd. Quick make-Quick break. Bakelite case. Small compact. 15/32" shank length.

DABURN No.	C-H No.	Descr.	Current 125V	Rating 250V	Net Ea.
4300	8280K16	SPST		3 amp	$ .69
4301	8381K8	SPST	6 amp	3 amp	.81
4302	8282K14	SPDT	3 amp	1 amp	.87
4303	8284K14	2 circ.	3 amp	1 amp	.93
4304	8360K7	DPST		3 amp	1.26
4305	8370K7	DPST	6 amp	3 amp	1.38
4306	8363K7	DPDT		3 amp	1.44
4307	8373K7	DPDT	6 amp	3 amp	1.56

Std. Pkg. 25

SIDE CONNECTED SCREW TERMINALS

DABURN No.	C-H No.	Descr.	Current 125V	Rating 250V	Net Ea.
4308	8295K8	SPST		3 amp	$ .84
4309	8396K8	SPST	6 amp	3 amp	.96
4310	8297K8	SPDT	3 amp	1 amp	1.11
4311	8372K7	DPST	6 amp	3 amp	1.65
4312	8365K7	DPDT		3 amp	1.89
4313	8375K7	DPDT	6 amp	3 amp	2.01

Std. Pkg. 25

WIRE LEADS — SIX INCH LONG

DABURN No.	C-H No.	Descr.	Current 125V	Rating 250V	Net Ea.
4335	8290K16	SPST		3 amp	$ .84
4336	8391K8	SPST	6 amp	3 amp	.96

PUSH BUTTON SWITCHES

PUSH TO MAKE — PUSH TO BREAK

UL approved AC-DC. Bakelite case. Pushing the button once closes the contacts; pushing it again opens the contacts. 11/16" shank.

DABURN No.	C-H No.	Descr.	Term.	Net Ea.
4326	7206K4	SPST	Lug	$ .96
4327	7208K4	SPST	Screw	1.08
4328	7207K4	SPST	Wire	1.08

Std. Pkg. 25

HEAVY DUTY — TOGGLE SWITCHES

UL approved. Quick make-quick break. Bakelite case, screw term. 15/32" shank (except #4346 11/32" shank).

Daburn No.	C-H No.	Descr.	Current 125V	Rating 250V	Net Ea.
4341	@7321K3	SPST	12 amp	6 amp	$1.32
4342	@7320K3	DPST	12 amp	6 amp	1.32
4343	*7361K5	SPST	15 amp	10 amp	2.31
4344	*7360K8	DPST	15 amp	10 amp	2.31
4345	**7402K4	DPST		20 amp	3.24
4346	8680K1	DPDT	10 amp	5 amp	4.29
4347	8690K2	DPDT	15 amp	10 amp	5.16

@ 1 HP—125/250V. * 1½ HP—125/250V
** 1½ HP—125V, 2 HP—250V
Std. Pkg. 12

PUSH BUTTON MOMENTARY SWITCHES

UL approved. 15/32" shank AC-DC. Rated at 3/4 Amp.-125V, ¼ Amp.-250V. Door operated switches.

Daburn No.	C-H No.	Description	Term.	Net Ea.
4337	8411K4	SP norm open	Lug	$.48
4338	8411K3	SP norm open	Screw	.54
4339	8411K8	SP norm closed	Lug	.36
4340	8411K7	SP norm closed	Screw	.39

Std. Pkg. 25

Additional numbers in Cutler-Hammer Equip. Available.

(A) MISCELLANEOUS AIRCRAFT

Pistol grip trigger movement switches C-H numbers 8895, 8896, 8897.

(B) AIRCRAFT SWITCH GUARDS

Used to prevent inadvertent operation of the lever.

(C) BUSHING SEAL NO. 32-341

Boots for water and dust applicators.

(D) LEVER EXTENSIONS AND ATTACHABLE TIPS

Tips snap over standard levers and are held in place by a cup shaped spring member.

(E) MANUAL TYPE CURRENT BREAKERS

(F) ROTARY SWITCHES per MIL-S-6807 spec

Net

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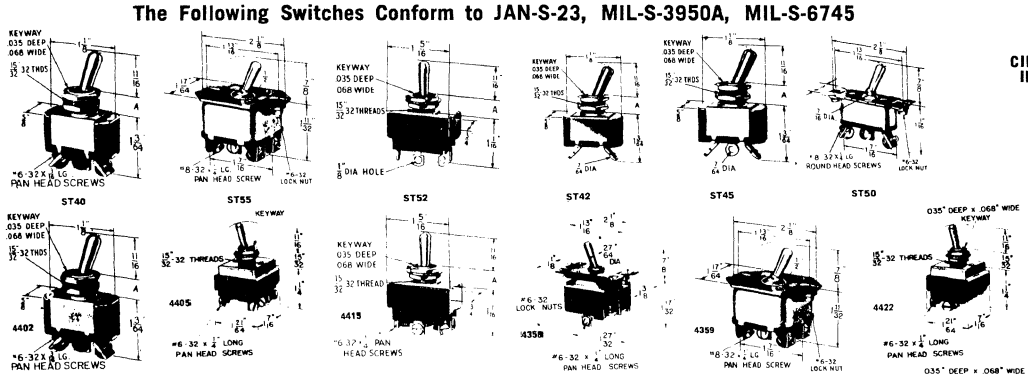
DABURN

DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

CUTLER HAMMER SWITCHES

The Following Switches Conform to JAN-S-23, MIL-S-3950A, MIL-S-6745



CIRCUIT IDENT. NO.	CIRCUIT
1	On-Off-On
2	On-None-Off
3	On-None-On
4	On-Off-None
5	On-On-None
6	On-None-Off (Mom.)
7	On-Off-On (Mom.)
8	Off-None-On (Mom.)
9	On (Mom.) Off-On (Mom.)
10	On-None-On (Mom.)
11	On-Off (Mom.)-None
12	On (Mom.)-On-None
13	None-Off-On (Mom.)

ST-40 SERIES
Single Pole with Screws

All **ST-40** Series equipped with sealed lever.

Nom. Rating Per Pole: 10 Amp.-115V AC, 20 Amp.-28V DC. Std. Pkg. 10

DABURN No.	CH	JAN-S-23 No.	MIL-S-6745 No.	Type	Circuit Code No.	Net Ea.
4360	8801K13	ST40A	AN3021-2	SPST	2	$1.68
4361	8813K12	ST40B	AN3021-9	SPST	6	1.86
4362	8811K12	ST40C	AN3021-8	SPST	10	1.86
4363	8810K12	ST40D	AN3021-3	SPDT	3	2.04
4364	8800K13	ST40E	AN3021-1	SPDT	1	2.04
4365	8804K12	ST40F	—	SPDT	10	2.19
4366	8812K13	ST40G	AN3021-7	SPDT	9	2.19
4367	8809K13	ST40H	AN3021-5	SPDT	7	2.19

ST-42 SERIES
Single Pole with Solder Lugs

Nom. Rating Per Pole: 10 Amp.-115V AC, 20 Amp.-28V DC. Std. Pkg. 10

4370	8803K6	ST42A	—	SPST	2	1.26
4371	8819K5	ST42B	—	SPST	6	1.38
4372	8817K5	ST42C	—	SPST	10	1.38
4373	8816K5	ST42D	—	SPDT	3	1.47
4374	8802K6	ST42E	—	SPDT	1	1.47
4375	8805K6	ST42F	—	SPDT	10	1.62
4376	8818K5	ST42G	—	SPDT	9	1.62
4377	8815K6	ST42H	—	SPDT	7	1.62

ST-45 SERIES
Per JAN-S-23 and MIL-S-6745
Single Pole

Nom. Rating Per Pole: 15 Amp.-115V AC, 20 Amp.-28V DC. Std. Pkg. 10

4440	8201K6	ST45A	AN3022-2	SPST	2	1.95
4441	8213K6	ST45B	AN3022-9	SPST	6	2.16
4442	8211K7	ST45C	AN3022-8	SPST	10	2.16
4443	8210K7	ST45D	AN3022-3	SPDT	3	2.37
4444	8200K7	ST45E	AN3022-1	SPDT	1	2.37
4445	8215K4	ST45F	AN3022-11	SPDT	10	2.55
4446	8212K6	ST45G	AN3022-7	SPDT	9	2.55
4447	8209K6	ST45H	AN3022-5	SPDT	7	2.55

ST-50 SERIES PER JAN-S-23
2 Pole with Screw Terminals

Nom. Rating Per Pole: 10 Amp.-115V AC, 20 Amp.-28V DC.

4380	8822K8	ST50K	AN3027-2	*DPST	2	$2.25
4381	8828K5	ST50L	—	DPST	6	2.70
4382	8826K5	ST50M	—	DPST	10	2.70
4383	8824K8	ST50N	AN3027-3	*DPDT	3	2.70
4384	8820K10	ST50P	AN3027-1	*DPDT	1	2.70
4385	8830K5	ST50R	—	DPDT	10	2.94
4386	8834K4	ST50S	AN3027-7	*DPDT	9	2.94
4387	8832K4	ST50T	AN3027-8	*DPDT	7	2.94

*Equipped with sealed lever per MIL-S-6745. Std. Pkg. 10

ST-52 SERIES PER JAN-S-23
2 Pole with Solder Lugs

Nom. Rating Per Pole: 10 Amp., 115V AC, 20 Amp., 28V DC. Std. Pkg. 10

4390	8823K5	ST52K	—	DPST	2	1.50
4391	8829K5	ST52L	—	DPST	6	1.68
4391A	8827K5	ST52M	—	DPST	10	1.68
4392	8825K5	ST52N	—	DPDT	3	1.68
4393	8821K5	ST52P	—	DPDT	1	1.68
4394	8831K5	ST52R	—	DPDT	10	1.95
4395	8835K3	ST52S	—	DPDT	9	1.95
4396	8833K3	ST52T	—	DPDT	7	1.95

ONE HOLE MOUNTING TOGGLE SWITCHES
Approved Under MIL-S-3950A Spec

Nom. Rating Per Pole: 10 Amp.-115V AC, 20 Amp.-28V DC.

Temperature Range: −85°F to +250°F

ONE POLE
Per MS 35050 — Sealed Lever
(Screw Terminal)

DABURN No.	CH	MS No.	Type	Circuit Code No.	Net Ea.
4358-21	8800K16	MS35058-21	SPDT	1	$2.01
4358-22	8801K22	MS35058-22	SPST	2	1.68
4358-23	8810K15	MS35058-23	SPDT	3	2.04
4358-24	8801K23	MS35058-24	SPST	4	1.68
4358-25	8813K18	MS35058-25	SPST	11	1.86
4358-26	8804K13	MS35058-26	SPDT	10	2.19
4358-27	8812K14	MS35058-27	SPDT	9	2.19
4358-28	8811K18	MS35058-28	SPST	13	1.86
4358-29	8813K17	MS35058-29	SPST	6	1.86
4358-30	8811K17	MS35058-30	SPST	8	1.86
4358-31	8809K16	MS35058-31	SPDT	7	2.19

Std. Pkg. 10

2 POLE
Per MS 35059A Sealed Lever
(Screw Terminal)

Nom. Rating Per Pole: 10 Amp.-115V AC, 20 Amp.-28V DC.

DABURN No.	CH	MS No.	Type	Circuit Code No.	Net Ea.
4359-21	8820K16	MS35029-21	DPDT	1	2.70
4359-22	8822K20	MS35029-22	DPST	2	2.25
4359-23	8824K14	MS35029-23	DPDT	3	2.70
4359-24	8822K21	MS35029-24	DPST	4	2.25
4359-25	8828K12	MS35029-25	DPDT	11	2.70
4359-25	8830K13	MS35029-26	DPDT	10	2.97
4359-27	8834K5	MS35029-27	DPDT	9	2.94
4359-28	8826K14	MS35029-28	DPST	13	2.70
4359-29	8828K13	MS35029-29	DPST	6	2.70
4539-30	8826K15	MS35029-30	DPST	8	2.70
4359-31	8832K6	MS35029-31	DPDT	7	2.94

Std. Pkg. 10

ST-55 SERIES
Per JAN-S-23 and MIL-S-6745
2 POLE

All **ST-55** Switches have sealed levers.

Nom. Rating Per Pole: 20 Amp., 115V AC, 25 Amp., 28V DC.

DABURN No.	CH	JAN-S-23 No.	MIL-S-6745 No.	Type	Circuit Code No.	Net Ea.
4450	8701K14	ST55K	AN3023-2	DPST	2	4.11
4451	8713K14	ST55L	AN3023-9	DPST	6	4.50
4452	8711K14	ST55M	AN3023-8	DPST	10	4.50
4453	8710K14	ST55N	AN3023-3	DPDT	3	4.92
4454	8700K14	ST55P	AN3023-1	DPDT	1	4.92
4455	8715K14	ST55R	AN3023-10	DPDT	10	5.34
4456	8712K14	ST55S	AN3023-7	DPDT	9	5.34
4457	8709K14	ST55T	AN3023-5	DPDT	7	5.34
4458	8708K14	ST55U	AN3023-6	*DPDT	7	5.43

*Equipped with added jumper across terminals to control one circuit.

Std. Pkg. 10

4 POLE
Sealed Lever — Screw Terminals
Per MIL-S-3950A — Series MS 25068

Nom. Rating Per Pole: 10 Amp.-115V AC, 20 Amp.-28V DC.

DABURN No.	CH	MS No.	Type	Circuit Code No.	Net Ea.
4422-1	7662K5	MS25068-1	4PDT	1	$6.18
4424-3	7664K3	MS25068-3	4PDT	3	6.18
4430-5	7670K4	MS25068-5	4PDT	7	7.44
4432-7	7672K4	MS25068-7	4PDT	9	7.44
4440-10	7674K4	MS25068-10	4PDT	10	7.44
4420-11	7660K9	MS25068-11	4PST	4	4.95
4426-12	7666K7	MS25068-12	4PST	13	6.69
4428-13	7668K5	MS25068-13	4PST	11	6.69

HEAVY DUTY

4422-21	7662K7	MS25068-21	4PDT	1	6.18
4424-23	7664K5	MS25068-23	4PDT	3	6.18
4424-24	7660K13	MS25068-24	4PST	4	4.95
4424-25	7668K7	MS25068-25	4PST	11	6.69
4424-26	7674K5	MS25068-26	4PDT	10	7.44
4424-27	7672K5	MS25068-27	4PDT	9	7.44
4424-28	7666K9	MS25068-28	4PST	7	6.69
4424-31	7670K6	MS25968-31	4PDT	7	7.44

Std. Pkg. 10

2 POLE
Per MIL-S-3950 — Sealed Lever
Flush Mounted

Nom. Rating Per Pole: 15 Amp.-115V AC, 20 Amp.-28V DC.

4405-21	8700K15	MS25103-21	DPDT	1	5.23
4405-23	8710K15	MS25103-23	DPDT	3	5.23
4405-24	8716K7	MS25103-24	DPST	4	5.23
4405-25	8717K5	MS25103-25	DPST	11	8.52
4405-26	8715K15	MS25103-26	DPDT	10	5.94
4405-27	8712K15	MS25103-27	DPDT	9	5.94
4405-28	8718K5	MS25103-28	DPST	13	5.94
4405-31	8709K15	MS25103-31	DPDT	7	5.94

Std. Pkg. 10

3 POLE
Per MIL-S-3950A — Sealed Lever
Flush Mounted

Nom. Rating Per Pole: 15 Amp.-115V AC, 20 Amp.-28V DC.

4402	8742K10	MS25105-21	3PDT	1	4.59
4400	8740K12	MS25105-24	3PST	2	3.84
4401	8744K10	MS25105-23	3PDT	3	4.59

Std. Pkg. 10

4 POLE
Per MIL-S-6745 — Sealed Lever
Flush Mounted

Nom. Rating Per Pole: 10 Amp.-115V AC, 20 Amp.-28V DC.

4415	8880K5	AN3227-1	4PDT	1	6.18
4410	8882K5	AN3227-2	4PST	2	4.95
4413	8884K5	AN3227-3	4PDT	3	6.18
4418	8887K5	AN3227-5	4PDT	7	7.44
4417	8888K5	AN3227-7	4PDT	9	7.44
4412	8886K5	AN3227-8	4PST	8	6.69
4412A	8882K6	AN3227-9	4PST	4	4.95
4412B	8886K6	AN3227-10	4PST	13	6.69

Std. Pkg. 10

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Net

DABURN

DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

CUTLER HAMMER POSITIVE ACTION SWITCHES

1 POLE PER MIL-S-8834
ENVIRONMENT SEALED

DABURN No.	CH	MS No.	Type	Circuit Code No.	Net Ea.
4436-21	8836K1	MS25306-21	SPDT	1	$6.93
4436-22	8836K9	MS25306-22	SPST	2	6.42
4436-23	8836K4	MS25306-23	SPDT	3	6.93
4436-24	8836K6	MS25306-24	SPST	4	6.42
4436-25	8836K8	MS25306-25	SPST	11	6.93
4436-26	8836K5	MS25306-26	SPDT	10	7.44
4436-27	8836K2	MS25306-27	SPDT	9	7.44
4436-28	8836K7	MS25306-28	SPST	13	6.93
4436-29	8836K10	MS25306-29	SPST	6	6.93
4436-30	8836K11	MS25306-30	SPST	8	6.93
4436-31	8836K3	MS25306-31	SPDT	7	7.44

Std. Pkg. 10

2 POLE PER MIL-S-8834
ENVIRONMENT SEALED

4437-21	8837K1	MS25307-21	DPDT	1	$11.94
4437-22	8837K9	MS25307-22	DPST	2	10.92
4437-23	8837K4	MS25307-23	DPDT	3	11.94
4437-24	8837K6	MS25307-24	DPST	4	10.92
4437-25	8837K8	MS25307-25	DPST	11	11.94
4437-26	8837K5	MS25307-26	DPDT	10	12.93
4437-27	8837K2	MS25307-27	DPDT	9	12.93
4437-28	8837K7	MS25307-28	DPST	13	11.94
4437-29	8837K10	MS25307-29	DPST	6	11.94
4437-30	8837K11	MS25307-30	DPST	8	11.94
4437-31	8837K3	MS25307-31	DPDT	7	12.93

Std. Pkg. 10

4 POLE PER MIL-S-8834
ENVIRONMENT SEALED

4438-21	8838K1	MS25308-21	4PDT	1	$28.80
4438-22	8838K9	MS25308-22	4PST	2	28.80
4438-23	8838K4	MS25308-23	4PDT	3	28.80
4438-24	8838K6	MS25308-24	4PST	4	27.54
4438-25	8838K8	MS25308-25	4PST	11	28.80
4438-26	8838K5	MS25308-26	4PDT	10	31.02
4438-27	8838K2	MS25308-27	4PDT	9	31.02
4438-28	8838K7	MS25308-28	4PST	13	28.80
4438-29	8838K10	MS25308-29	4PST	6	28.80
4438-30	8838K11	MS25308-30	4PST	8	28.80
4438-31	8838K3	MS25308-31	4PDT	7	31.02

Std. Pkg. 10

MURRAY MAGNETIC PROXIMITY SWITCH
For Counting • Position Limiting
Sequence Control Mounts in Any Position

Precision, fast acting, suitable to sequential control functions on machine tools, packaging, material handling and similar industrial devices.

Strong, encapsulated, assures freedom from contamination by cutting oils, dust, powder, chips, etc. Operates up to hundreds of millions of cycles — temperature range −30°C to +105°C.

Switch actuates when brought into proximity with ferrous metals or other magnetic materials. No mechanical linkage necessary for operation. Operating sensitivity in nom. ⅛" make, ½" break. Switch elements sealed in glass, unit is potted in epoxy resin. Case is impervious to oil, water, gas, all common solvents.

Typical actuators include indexing tables, cams, wheels, push rods, die sets, line objects such as food and beverage cans, components, parts, vehicles, rotating and swinging objects, etc.

1/16" H x 1 1/16" D x 2 7/8" W DABURN No.	Type	Less than Std. Pkg.	10 Lots Ea. Sw.	25 Lots Ea. Sw.	50 Lots Ea. Sw.
499-128	SPST Norm. Open	$14.50	$13.05	$10.88	$ 9.70
499-138	SPDT	20.50	18.45	15.38	13.75
499-139	SPST Norm. Open (Hi-Load)	17.50	15.75	13.13	11.75

Electrical	Resistive Load		Inductive Load	
Max. Contact Rating)	−128, −138	−139	−128, −138	−139
mps	.5	.2	.1	1
olt AC or DC	125	125	125	125
Vatts	15	50	5	15

LEVER LOCK SWITCHES PER MIL-S-3950A
ONE POLE

Nom. Rating Per Pole: 10 Amp., 115V AC, 20 Amp., 28V DC.

DABURN No.	C-H	"MS" No.	Type	Net Ea.
4487-1	8857K39	MS25125-1	SPDT	$4.59
4487-2	8857K40	MS25125-2	SPDT	4.59
4487-3	8857K41	MS25125-3	SPDT	4.59
4487-4	8857K45	MS25125-4	SPDT	4.59
4487-5	8857K42	MS25125-5	SPDT	4.59
4487-6	8857K46	MS25125-6	*SPDT	4.77
4487-7	8857K43	MS25125-7	SPDT	4.59
4487-8	8857K44	MS25125-8	SPDT	4.59
4487-9	8857K49	MS25125-9	SPST	4.26

* Momentary Contact — Std. Pkg. 10

2 POLE — LEVER LOCK PER MIL-S-3950A

DABURN No.	C-H	"MS" No.	Type	Net Ea.
4488-1	8858K39	MS25126-1	DPDT	$5.28
4488-2	8858K40	MS25126-2	DPDT	5.28
4488-3	8858K41	MS25126-3	DPDT	5.28
4488-4	8858K45	MS25126-4	DPDT	5.28
4488-5	8858K42	MS25126-5	DPDT	5.28
4488-6	8858K46	MS25126-6	*DPDT	5.52
4488-7	8858K43	MS25126-7	DPDT	5.28
4488-8	8858K44	MS25126-8	DPDT	5.28
4488-9	8858K49	MS25126-9	DPST	4.80

Std. Pkg. 10

4 POLE — LEVER LOCK PER MIL-S-3950A

4489-1	8859K39	MS25127-1	4PDT	$8.73
4489-2	8859K40	MS25127-2	4PDT	8.73
4489-3	8859K41	MS25127-3	4PDT	8.73
4489-4	8859K45	MS25127-4	4PDT	8.73
4489-5	8859K42	MS25127-5	4PDT	8.73
4489-6	8859K46	MS25127-6	*4PDT	10.02
4489-7	8859K43	MS25127-7	4PDT	8.73
4489-8	8859K44	MS25127-8	4PDT	8.73
4489-9	8859K49	MS25127-9	4PST	7.53

* Momentary Contact. — Std. Pkg. 10

MINIATURE MILITARY SWITCHES
"As Small As A Dime"
Built To MIL-S-8834 Specs

Designed for aircraft, missile, electronic application it is extremely compact, highly reliable, power or dry circuit switch, usable as a pre-set switch in aircraft recognition systems, walkie-talkies, instrument and communication systems. Toggle lever seal and panel bushing seal for adverse environmental conditions. Gold plated contacts.

RATINGS: 3 amps., 28V DC; 1 amp., 50V DC
2 amps., 115V AC

WEIGHT: Single pole 5.0 grams, Double pole 6.5 grams

SINGLE POLE

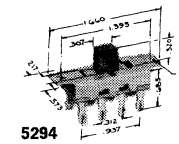
DABURN No.	C-H	Type	Circuit	Net Ea.
4480K1	8866K1	SPDT	on-off-on	$6.00
4480K2	8866K2	SPDT	Mom. on-off-Mom. on	6.84
4480K3	8866K3	SPDT	on-off-Mom. on	6.84
4480K4	8866K4	SPDT	on-none-on	6.00
4480K5	8866K5	SPST	on-off-none	6.00
4480K6	8866K6	SPDT	None-off-Mom. on	6.84
4480K7	8866K7	SPST	on-none-off	6.00
4480K8	8866K8	SPDT	None-on-Mom. off	6.84

DOUBLE POLE

4481K1	8867K1	DPDT	on-off-on	7.53
4481K2	8867K2	DPDT	Mom. on-off-Mom. on	8.76
4481K3	8867K3	DPDT	on-off-Mom. on	8.76
4481K4	8867K4	DPDT	on-none-on	7.53
4481K5	8867K5	DPST	on-off-none	7.53
4481K6	8867K6	DPST	none-off-Mom. on	8.76
4481K7	8867K7	DPST	on-none-off	7.53
4481K8	8867K8	DPDT	none-on-Mom. off	8.76

Std. Pkg. 10

CONTINENTAL-WIRT SLIDE SWITCHES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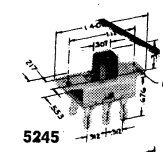
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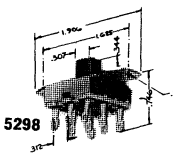
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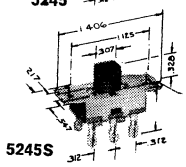
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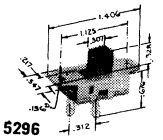
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5248M

New "Swidget" Miniature Slide Switch

Mounting area is ½ of standard DPDT slide. Suitable for compact applications. UL approved.

DABURN No.	Type	Rating 125V AC-DC	Net Ea.	Std. Pkg.
5248M	DPDT	5 Amp.	$.36	25

UL APROVED SLIDE SWITCH
STANDARD DETENT

General purpose switch for hi-fi equipment, instruments, etc. Black phenolic buttons, steel cadmium plated housing.

DABURN No.	Type	Rating at 125V Circuit DC Amp.	AC Amp.	Net Ea.
5245	SPST	.75	.75	$.11
5246	SPDT	.75	.75	.12
5247	DPST	.5	.5	.15
5248	DPDT	.5	.5	.18
5290	SPST	6.0	1.0	.14
5291	SPDT	6.0	1.0	.15
5292	DPST	6.0	1.0	.24
5293	DPDT	6.0	1.0	.27

Std. Pkg. 25

SLIDE SWITCHES WITH DETENT
CENTER OFF

5296	SPDT	.5	.5	$.29
*5297	DPDT	.5	.5	.30

Std. Pkg. 25

3 AND 4 POSITION SLIDE SWITCH
WITH DETENT

5294	SP 3 Pos.	.5	.5	$.29
5295	DP 3 Pos.	.5	.5	.30
5295A	DP 3 Pos.	6.0	1.0	.54
5295F	DP 4 Pos.	.5	.5	.60

Std. Pkg. 25

3 AND 4 POLE SLIDE SWITCH
WITH DETENT
ALL POLES IN SAME PLANE

5298	3 PDT	.5	.5	.54
5299*	4PDT	.5	.5	.66

*5299 — width of switch 1.005", short terminals. Distance from mounting surface to terminal tip .595".

Std. Pkg. 25

SLIDE SWITCH — SPRING RETURN

5245S	SPST	.5	.5	$.24
5246S	SPDT	.5	.5	.29

Std. Pkg. 25

SLIDE SWITCH SHIELD
Suitable for Electrastatic Shielding

Terminal protection. Shield is steel cadmium plated with fibre insulation.

5249	Std. Pkg. 25	$.10

* Not UL Approved.

Net

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PRICES

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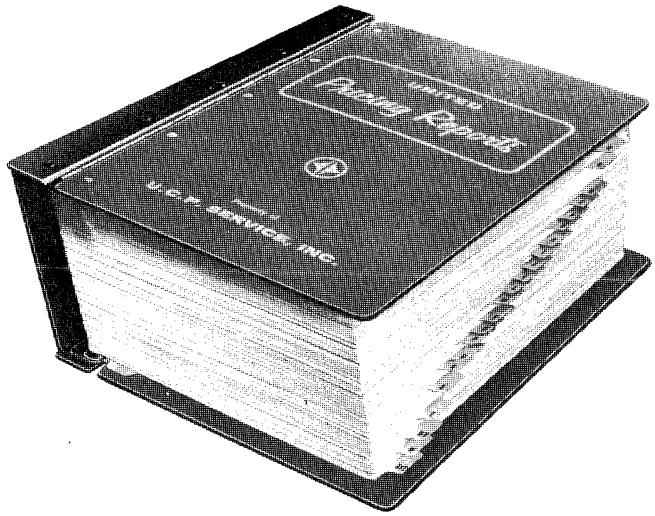

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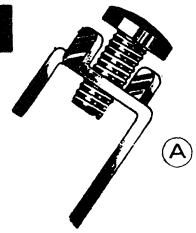
DELIVERY

Delivery is often dependent on availability of raw materials. Check with your distributor for delivery information at the time you place your order.

GC ELECTRONICS ELECTROCRAFT COMPONENTS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Cat. No. 33-900		Net $ .13
Cat. No. 33-901		Net $ .13
Cat. No. 33-902		Net $ .13
Cat. No. 33-903		Net $ .14
Cat. No. 33-930		Net $ .24
Cat. No. 33-931		Net $ .32
Cat. No. 33-932		Net $ .38
Cat. No. 33-934		Net $ .45
Cat. No. 33-935		Net $ .51
Cat. No. 33-936		Net $ .58
Cat. No. 33-937		Net $ .65
33-930-BU	2 Terminal	$20.40/C
33-931-BU	3 Terminal	$28.20/C
33-932-BU	4 Terminal	$34.20/C
33-934-BU	5 Terminal	$40.20/C
33-935-BU	6 Terminal	$46.20/C
33-936-BU	7 Terminal	$52.20/C
33-937-BU	8 Terminal	$58.80/C

(A) TERMINAL LUGS AND SCREWS—Designed for heavy duty terminal strips. Brass hot tinned lugs with screw inserted.
Cat. No. 33-940-BU Net $ 5.40/C

PUSH-BUTTON SWITCHES

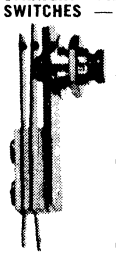
All styles are momentary (non-locking) design, and are made with long-wearing nickel silver springs, carefully adjusted. Insulation is high grade phenolic.

STANDARD SMALL PUSH BUTTON SWITCHES—Can also be supplied with silver contacts for 3 amp, 115/V. AC rating (on special orders in production quantities).

Single "make"; black button.
Cat. No. 34-000 Net $ .57
Cat. No. 34-000-BU Net $51.66/C
Single "make"; red button.
Cat. No. 34-002 Net $ .57
Cat. No. 34-002-BU Net $51.66/C
Single "break"; black button.
Cat. No. 34-004 Net $ .57
Cat. No. 34-004-BU Net $51.66/C
Single "break"; red button.
Cat. No. 34-006 Net $ .57
Cat. No. 34-006-BU Net $51.66/C
Single "break-make"; black button.
Cat. No. 34-008 Net $ .63
Cat. No. 34-008-BU Net $57.51/C
Single "break-make"; red button.
Cat. No. 34-010 Net $ .63
Cat. No. 34-010-BU Net $57.51/C

(B) MIN. PUSH BUTTON SWITCHES—Made of the same materials and to the same specifications as standard small switches listed above.
Single "make"; black button.
Cat. No. 34-020 Net $ .57
Cat. No. 34-020-BU Net $51.66/C
Single "make"; red button.
Cat. No. 34-022 Net $ .57
Cat. No. 34-022-BU Net $51.66/C
Single "break" black button.
Cat. No. 34-024 Net $ .57
Cat. No. 34-024-BU Net $51.66/C
Single "break-make"; black button.
Cat. No. 34-026 Net $ .63
Cat. No. 34-026-BU Net $57.51/C

STRAIGHT FRAME PUSH BUTTON SWITCHES — Fine silver contacts with minimum resistance rated at 3 amp, 115/V, AC, non-inductive load. Standard push button is black.



Single "make-break".
Cat. No. 34-032 Net $ .75
Cat. No. 34-032-BU Net $69.00/C
Double "make".
Cat. No. 34-034 Net $ .82
Cat. No. 34-034-BU Net $75.00/C
Double "break".
Cat. No. 34-036 Net $ .82
Cat. No. 34-036-BU Net $75.00/C
Double "break-make"
Cat. No. 34-038 Net $ .97
Cat. No. 34-038-BU Net $90.00/C

ARROW-HART SWITCHES

These switches, made by A. H. & H. for GC Electrocraft, are UL approved. The threaded sleeves are slotted to positively prevent turning of switch if used in keyed hole.

(C) BALL HANDLE TOGGLE SWITCH—Light duty; SPST types rated 3 amps, 250/V; all others 1 amp, 250/V, 3 amps, 125/V, AC-DC.
SPST — ½" Shank.
Cat. No. 34-050 Net $ .75
SPST — 1" Shank.
Cat. No. 34-052 Net $ .90
SPDT — ½" Shank.
Cat. No. 34-054 Net $ .93
SPDT — 1" Shank.
Cat. No. 34-056 Net $1.15
DPST — ½" Shank.
Cat. No. 34-058 Net $1.32
DPST — 1" Shank.
Cat. No. 34-060 Net $1.50
DPDT — ½" Shank.
Cat. No. 34-062 Net $1.50
DPDT — 1" Shank.
Cat. No. 34-064 Net $1.65

(D) MEDIUM DUTY, NEUTRAL CENTER TOGGLE SWITCH—Rating 10 amps 250/V; 15 amps 125/V; ¾ horsepower.
SPDT — 15/32" Shank.
Cat. No. 34-066 Net $1.02
DPDT — 15/32" Shank.
Cat. No. 34-068 Net $1.57

(E) ROTARY SWITCH—Laminated insulation; rating — SPST models, 3 amps, 25/V; all others 1 amp, 250/V-3 amps, 125/V, AC-DC.
SPST — ⅜" Shank.
Cat. No. 34-070 Net $ .93
SPST — 1" Shank.
Cat. No. 34-072 Net $1.12
SPDT — ⅜" Shank.
Cat. No. 34-074 Net $1.12
SPDT — 1" Shank.
Cat. No. 34-076 Net $1.20
DPST — 1" Shank.
Cat. No. 34-078 Net $1.62
DPDT — ⅜" Shank.
Cat. No. 34-080 Net $1.68
DPDT — 1" Shank.
Cat. No. 34-082 Net $1.68
ON-OFF PLATE—Fits all switches except slide and small canopy type.
Cat. No. 30-084 Net $ .08

(F) BAT HANDLE TOGGLE SWITCH—Light duty, laminated phenolic insulation. Rating SPST types, 3 amps, 250/V; all others 1 amp, 250/V — 3 amps, 125/V; AC-DC.
SPST — 15/32" Shank.
Cat. No. 34-086 Net $ .75
SPDT — 15/32" Shank.
Cat. No. 34-088 Net $ .93
DPST — 15/32" Shank.
Cat. No. 34-090 Net $1.32
DPDT — 15/32" Shank.
Cat. No. 34-092 Net $1.50

(G) WIRE LEAD TOGGLE SWITCH—Same switch as series listed above but with 6" wire leads.
SPST — ½" Shank.
Cat. No. 34-094 Net $ .97
SPST — ⅜" Shank.
Cat. No. 34-096 Net $ .97

(H) PUSH "ON" — PUSH "OFF" SWITCH—Laminated phenolic insulation; rating 3 amps, 250/V; 6 amps, 125/V, AC-DC. SPST.
Cat. No. 34-098 Net $1.32

(J) PUSH BUTTON, MOMENTARY SWITCH—2-circuit type; one circuit is normally "on" — the other is "off". Laminated phenolic insulation, rated at 1 amp, 125/V. Solder terminals.
Cat. No. 34-100 Net $1.02

(K) Red plastic push button for above switch.
Black plastic push button for above switch.
Cat. No. 34-102 Net $ .27
Cat. No. 34-104 Net $ .27

(L) MEDIUM DUTY TOGGLE SWITCH—Quick, make and break design, rating 6 amp, 250/V; 12 amp, 125/V; 12 amps, 125/V; 1 HP. DPST.
Cat. No. 34-106 Net $1.38

(M) HEAVY DUTY PUSH BUTTON SWITCH: MOMENTARY ACTION — Molded plastic housing; rating 8 amps, 25/V; 16 amps, 125-250V; 1 HP. Push button switch.
Cat. No. 34-108 Net $2.05

(N) HEAVY DUTY TOGGLE SWITCH—240/V AC; transmitters, etc. Rating SPDT model 10 amps, 250/V; 15 amps, 125/V; other two types 5 amps, 250/V; 10 amps, 125/V.
DPDT.
Cat. No. 34-110 Net $ 4.95
3 PDT.
Cat. No. 34-112 Net $ 7.60
4 PDT.
Cat. No. 34-114 Net $10.11

(O) DELUXE TOGGLE SWITCH—1000/V rms — 60 cycle is desired. Rating SPDT model, 1 amp, 250/V; 6 amps, 125/V. All others 3 amp, 250/V; 6 amp, 125/V.
SPST — 15/32" Shank.
Cat. No. 34-120 Net $1.30
SPDT — 15/32" Shank.
Cat. No. 34-122 Net $1.47
DPST — 15/32" Shank.
Cat. No. 34-124 Net $1.83
DPDT — 15/32" Shank.
Cat. No. 34-126 Net $1.98

(P) LOCK SWITCH—Removable key; sleeve length 27/32"; rating 3 amps, 250/V; 6 amps, 125/V.
With key removable in open position only.
Cat. No. 34-150 Net $2.17
With key removable in open or closed position.
Cat. No. 34-152 Net $2.17
Key only.
Cat. No. 34-154 Net $ .22

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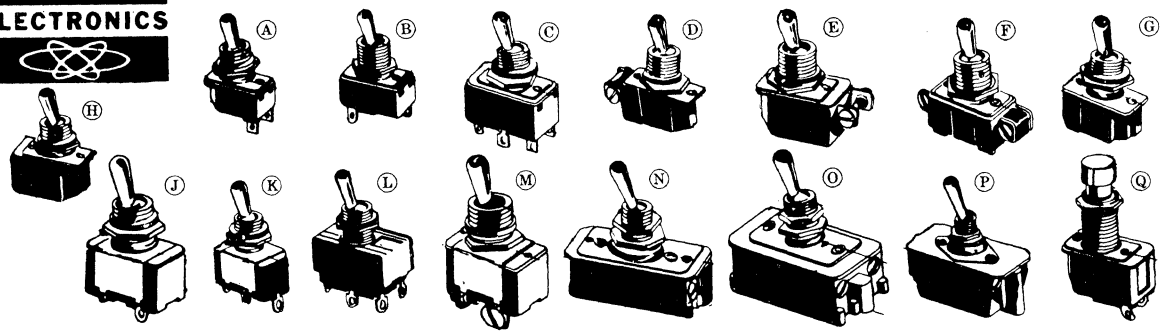
GC ELECTRONICS ELECTROCRAFT COMPONENTS

SWITCHES • CABLE CLAMPS



These switches, made by Cutler Hammer Inc., for GC-Electrocraft, are all single hole mounting, UL Approved and supplied with threaded shank 15/32" long. Shanks are milled with keway to prevent any possible turning when used with a keyed hole in the panel.

(A) LIGHT DUTY, SMALL SIZE TOGGLE SWITCH—rating 3 amps, 250/V.

Cat. No. 34-180 SPST Net **$ .75**
Cat. No. 34-182 DPST Net **1.32**
Cat. No. 34-184 DPDT Net **1.50**

(B) "THREE WAY" AND "TWO CIRCUIT" SWITCH—Three way switch handles 2 circuits with common line; 3 terminals, with one terminal "common". Two circuit model 4 terminals, with no connections between circuits.

Cat. No. 34-186 SPDT (3-way) Net **$ .93**
Cat. No. 34-188 DPST (2-circuit) Net **$1.13**

CUTLER HAMMER SWITCHES

(C) MEDIUM DUTY TOGGLE SWITCH—solder lug connections; 3 amp, 250/V; 6 amp, 125/V, AC-DC.

Cat. No. 34-190 DPST Net **$1.45**
Cat. No. 34-192 DPDT Net **$1.62**

(D) LIGHT DUTY TOGGLE SWITCH—screw terminals, rating 3 amp, 250/V AC-DC.

Cat. No. 34-194 SPST Net **$ .90**
Cat. No. 34-196 DPST (2 pos. no "off") Net **$1.72**
Cat. No. 34-198 DPDT (2 pos. w/ off) Net **$2.07**

(E) MEDIUM DUTY TOGGGLE SWITCH—rating 6 amp, 125/V; 3 amp, 250/V.

Cat. No. 34-200 SPST Net **$1.02**
Cat. No. 34-202 DPDT (2 pos. w/ "off") Net **$1.95**

(F) LIGHT DUTY, 3-WAY SWITCH—rating 1 amp, 250/V; 3 amps, 125/V.

Cat. No. 34-204 SPDT Net **$1.17**

(G) LIGHT DUTY, WIRE LEAD SWITCH—rating 3 amps, 250/V, AC-DC.

Cat. No. 34-206 SPST **.90**

(H) MEDIUM DUTY WIRE LEAD SWITCH—rating 6 amp, 125/V; 3 amp, 250/V.

Cat. No. 34-208 SPST Net **$1.02**

(J) MEDIUM-HEAVY DUTY TOGGLE SWITCH—rating 10 amp, 250/V, 15 amp, 125/V and ¾ HP.

Cat. No. 34-210 SPST Net **$ .75**
Cat. No. 34-212 DPST (2 pos. on-off) Net **$1.15**

(K) MEDIUM-HEAVY DUTY TOGGLE SWITCH—rating 10 amp, 250/V; 15 amp, 125/V and 1 HP.

Cat. No. 34-214 SPDT (2 pos. no "off") Net **$ .87**
Cat. No. 34-216 3 PST (2 pos. on-off) Net **$2.25**
Cat. No. 34-218 3 PDT (no "off" pos.) Net **$2.77**

(L) MEDIUM-STD DUTY TOGGLE SWITCH—Designed for applications where rugged bat handle switch is required.

Cat. No. 34-220 DPDT lug (2 pos. w/ "off") Net **$1.32**
Cat. No. 34-222 DPST screw (2 pos. on-off) Net **$1.32**
Cat. No. 34-224 DPDT screw (2 pos. w/ "off") Net **$1.62**
Cat. No. 34-226 DPDT lug (3 pos. center off) Net **$1.32**

(M) MEDIUM-HEAVY DUTY TOGGLE SWITCH—Designed for applications where rugged bat handle switch is required.

Cat. No. 34-228 SPST screw (on-off) Net **$ .87**
Cat. No. 34-230 SPDT screw (no "off pos.) Net **$1.02**
Cat. No. 34-232 3 PST screw (2 pos. on-off) Net **$2.62**
Cat. No. 34-234 3 PDT screw (2 pos. w/ "off") Net **$3.30**
Cat. No. 34-236 SPDT (3 pos. center off) Net **$ .87**
Cat. No. 34-238 3 PDT (3 pos. center off) Net **$2.77**
Cat. No. 34-240 3 PDT (3 pos. center. off) Net **$3.30**

(N) MEDIUM-HEAVY DUTY TOGGLE SWITCH—rating 6 amp, 250/V; 12 amp, 125/V, 1 HP.

Cat. No. 34-242 SPST Net **$1.38**
Cat. No. 34-244 DPST Net **$1.38**

(O) HEAVY DUTY TOGGLE SWITCH—rating 10 amp, 250/V; 15 amp, 125/V, 1½ HP.

Cat. No. 34-246 SPST Net **$2.33**
Cat. No. 34-248 DPST Net **$2.33**

(P) EXTRA-HEAVY DUTY TOGGLE SWITCH—rating 20 amps, 250/V, 1½ HP, 125/250 V.

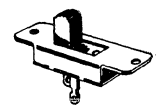
Cat. No. 34-250 DPST Net **$3.30**

(Q) PUSH BUTTON, ON-PUSH-OFF SWITCHES—rating 3 amp, 250/V; 6 amp, 125/V; 11/16" shank length, single pole, single throw type.

Cat. No. 34-252 SPST with lug terminal Net **$1.20**
Cat. No. 34-254 SPST with screw terminal Net **$1.15**
Cat. No. 34-256 SPST with wire leads Net **$1.15**

MISCELLANEOUS SMALL SWITCHES

The switches listed below are widely used on electronic equipment, automotive applications and small electrical appliances.



SLIDE SWITCHES—UL approved for 1, ½ amp, 125/V. Mount with 2 screws #6 or rivets ⅛" with 1⅛" spacing.

1 amp.
Cat. No. 34-160 SPDT Net **$ .18**

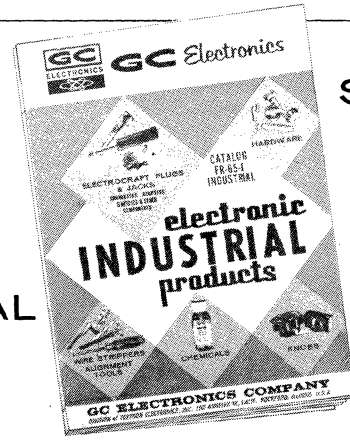
½ amp.
Cat. No. 34-162 DPDT Net **$ .22**

ROTARY CANOPY SWITCH—With wire leads and 13/32" shank length. Rating 3 amps, 125/V, 1 amp, 250/V. Mounts in ⅜" hole.

Cat. No. 34-166 Net **$ .32**

GC ELECTRONICS

GC INDUSTRIAL CATALOG



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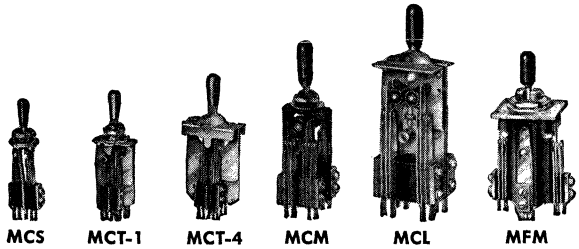
A complete line of LEVER SWITCHES by GENERAL CONTROL COMPANY



RATINGS

Type	*Amps.**	*High*	*Wide*	*Long***
MCS	1 or 3	7/8"	7/8"	2-1/16"
MCT-1	1 or 3	1 1/4"	3/4"	2-5/16"
MCT-4	1 or 3	1 1/2"	3/4"	2-17/32"
MCM	5	1 1/4"	1 1/4"	2-25/32"
MCL	10	1 3/4"	1 3/8"	3-15/16"
MFM	5	1 3/4"	1 3/4"	3"

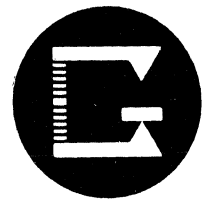
**125 volts, 60 cycles, non-inductive.*
***From back panel to end of terminals.*

Write for data Sheet CLRM

LEVER OPERATION

Symbol		Three-Position			Two-Position	Half Throw	Two-Position	Full Throw
Lock (Stays put)	Non-lock Spring return							
Designation	MCS	S1	*S2	S3	*S4	*S5		
	MCT1 MCT4	T1	*T2	T3	*T4	*T5		
	MCM	M1	*M2	M3	*M4	*M5	M6	*M7
	MCL	L1	*L2	L3	*L4	*L5		

*Lock and non-lock positions may be reversed. To reverse designate as RS2, RM4, RL5, etc.



SPECIAL MCM LEVER
(A) waterproof lever
$4.05 EACH, LIST

MFM

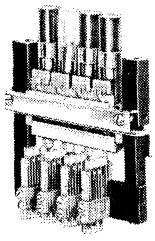
Description		Lock	Non-Lock	Four-Position
SYMBOL				
OPERATION				
Operation No.	M8	M9	M10	M11	M12

CONTACTS

To obtain list price:— add contact prices to frame price.

Frame Types and Prices	Contact Forms / Circuit	A	B	C	D	E	F	G	H	O (No Contacts)
MCS $ 1.65	MCS 1 amp.	0.50	0.50	0.60	—	—	0.60	—	0.60	—
	MCS 3 amp.	.60	.60	.72	—	—	.72	—	.72	—
MCT-4 $ 1.95	MCT-4 1 amp.	.50	.50	.60	0.75	0.85	.60	—	.60	—
	MCT-4 3 amp.	.60	.60	.72	.90	1.02	.72	—	.72	—
MCT-1 $ 2.45	MCT-1 1 amp.	.50	.50	.60	.75	.85	.60	—	.60	—
	MCT-1 3 amp.	.60	.60	.72	.90	1.02	.72	—	.72	—
MCM $ 3.65	MCM 5 amp.	.75	.75	.90	1.15	1.45	.90	0.90	.90	—
MFM $16.80	MFM 5 amp.	.75	.75	.90	1.15	1.45	.90	.90	.90	—
MCL $ 4.90	MCL 10 amp.	1.15	1.15	1.30	1.60	2.45	1.30	1.30	1.30	—

PUSH-BUTTON SWITCHES by GENERAL CONTROL COMPANY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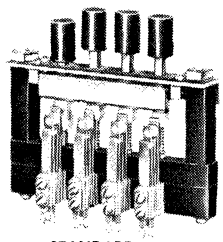

STANDARD

SPS-LPS FRAME PRICES — 5/8" or 3/4" Button Centers

BUTTONS		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
B12	SPS	$10.90	$12.85	$15.00	$17.65	$20.30	$22.95	$25.60	$28.25	$31.15	$34.05	$36.95	$39.85	$42.75	$ 45.65	$ 48.55
	LPS	19.35	24.10	28.90	34.55	40.20	45.85	51.50	57.15	64.05	70.20	77.75	82.50	88.65	94.80	100.95
B13	SPS	9.95	11.90	13.85	16.50	19.15	21.80	24.45	27.10	29.75	32.65	35.55	38.45	41.35	44.25	47.15
	LPS	18.40	23.15	27.75	33.40	39.05	44.70	50.35	56.00	62.90	69.05	76.60	81.35	87.50	93.65	99.80
B14	SPS	9.40	10.60	12.00	13.90	15.80	17.70	19.60	21.50	23.65	25.80	27.95	30.10	32.25	34.40	36.55
	LPS	17.85	21.85	25.90	30.80	35.70	40.60	45.50	50.40	56.80	62.20	67.60	73.00	78.40	83.80	89.20
B15	SPS	8.45	9.65	10.85	12.75	14.65	16.55	18.45	20.35	22.25	24.40	26.55	28.70	30.85	33.00	35.15
	LPS	16.90	20.90	24.75	29.65	34.55	39.45	44.35	49.25	55.40	60.80	66.20	71.60	77.00	82.40	87.80
B16	SPS	7.45	8.40	9.35	11.20	13.05	14.90	16.75	18.60	20.45	22.50	24.60	26.70	28.80	30.90	33.00
	LPS	15.90	19.65	23.25	28.10	32.95	37.80	42.65	47.50	53.60	58.90	64.25	69.60	74.95	80.30	85.65
B17	SPS	8.40	9.35	10.50	12.35	14.20	16.05	17.90	19.75	21.85	23.90	26.00	28.10	30.20	32.30	34.40
	LPS	16.85	20.60	24.40	29.25	34.10	38.95	43.80	48.65	55.00	60.30	65.65	71.00	76.35	81.70	87.05
B18	SPS	10.55	13.05	15.55	18.95	22.35	25.75	29.15	32.55	35.95	39.55	43.20	46.85	50.50	54.15	57.80
	LPS	19.00	24.30	29.45	35.85	42.25	48.65	55.05	61.45	69.10	75.95	82.85	89.75	96.65	103.55	110.45
B19	SPS	11.50	14.00	16.70	20.10	23.50	26.90	30.30	33.70	37.35	40.95	44.60	48.25	51.90	55.55	59.20
	LPS	19.95	25.25	30.60	37.00	43.40	49.80	56.20	62.60	70.50	77.35	84.25	91.15	98.05	104.95	111.85

Note: Additional frame operations available. Contact General Control.

OPERATIONS

B12 POSITIVE LOCK-IN LOCK-OUT
Only one button can be depressed at a time. The Momentary Release button must be actuated to release any previously depressed button before any other button can be actuated.

B13 ACCUMULATIVE LOCK
Buttons pushed in remain locked in position until released by pushing reset button.

B14 NO-TWO-INTERLOCK
Only one button can be pushed in at one time, and releases any other button.

B15 LOCK-RELEASE
Any button pushed in releases any previously pushed in button.

B16 NON-LOCK
Has no locking action; returns to normal position on release of finger pressure.

B17 NON-LOCK, NO-TWO-OPERATIVE
The same as B16 except that no two buttons can be operated simultaneously.

B18 PUSH-LOCK, PUSH-RELEASE
Any button depressed remains locked in until that button is depressed again.

B19 PUSH-LOCK, PUSH-RELEASE, (WITH LOCK-OUT)
This is the same as B18 except that only one button can be depressed at a time.

CONTACTS

CONTACT FORMS	A	B	C	D	H
1 amp silver	.50	.50	.60	.80	.60
3 amps paladium alloy	.60	.60	.72	.95	.72
↑ Direction of Throw				*	

Ratings at 125 volts A. C. n.i. * In place of a "D" contact we can offer a "C" contact adjusted to provide make before break operation.

WRITE FOR DATA SHEET SLRM

ORDERING INFORMATION

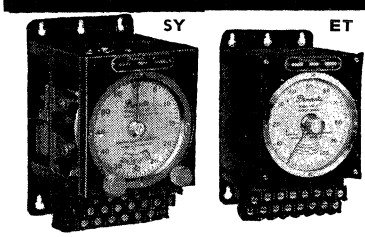
1. Frame Type	2. Operation	3. Contacts	4. Contact Location	5. Rating	6. Button Centers
SPS4	B14	A-C-2A-2C	TOP Mounted	3 amps.	5/8"
$12.00	—	.60+.72+1.20+1.44			= $15.96

"Footrol" FOOT SWITCHES

MA — $5.60 MI — $11.95 MC — $7.95

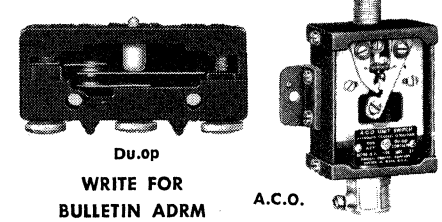
WRITE FOR BULLETIN FSRM

"Promatic" TIMERS



WRITE FOR BULLETIN SERM

LIMIT SWITCHES


Du.op

WRITE FOR BULLETIN ADRM

A.C.O.

ENERAL CONTROL COMPANY
BOSTON, MASSACHUSETTS

*ALL PRICES SUBJECT TO 1962 DISCOUNT SCHEDULE

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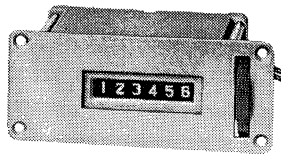
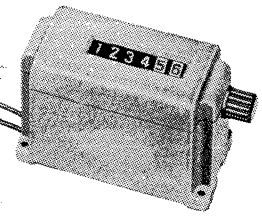
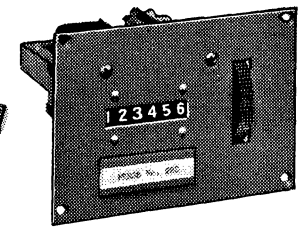
ELECTRIC COUNTERS & ACTUATORS



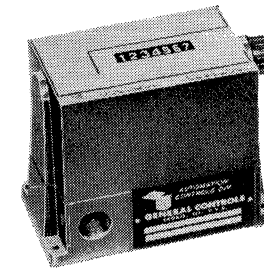
CE-600B Panelmount



CE-600A Basemount



CE-800B Panelmount



CE-800C Standard, CE-800A Dustproof

PIC Electric Counters are actuated by electric impulses (12 to 150 AC or 12 to 220 DC) which may come from any suitable switch, relay, photoelectric unit or other circuit breaking device. Counters rated for 1000 counts per minute (cpm) require .030 second minimum closed period and .030 second minimum open period for each count. Counters rated at 600 cpm require .040 second minimum closed period and .060 second minimum open period for each count. Models are available for 12 to 230 v. AC and DC. Send for literature or write us for prices and deliveries.

Also available in coin counting models.

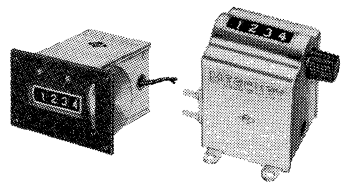
CE-600 COUNTERS
TO 999,999, WITH RESET

Count life of 50 million; 1000 cpm (with suitable actuation); seven watts power consumption. Built-in rectification provides reliable operation on all AC voltages to 150 v. Quiet operation; no AC hum when energized. Continuous duty coils and balanced armature. White figures on black wheels are easy to read; die cast, dust resistant enclosure. No. CE600AS602, 1.668" w. x 3.5" d. x 2.5" h.; No. CE600BS602, 4.4375" x 1.875" panel x 2.6875" d.; No. CE600BK602, 5.5" x 2.125" panel x 2.812" d. Models listed are for 115 v. AC, 60 cps.

CE-600AS602 Basemount with knob reset. 1 to 9 Net **$22.40**
CE-600BS602 Panelmount with knob reset. 1 to 9 Net **24.00**
CE-600BK602 Panelmount with key reset. 1 to 9 Net **33.00**

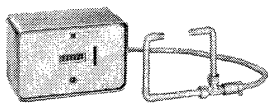
MERCURY COUNTERS
TO 9,999, WITH RESET

For laboratory use and industrial service where duty is moderate. Estimated life six million counts. Counting rate 600 cpm, higher with electronic actuation. Has white figures on black wheels. Coils consume three watts. Tamper-proof metal enclosure has plastic window. Size: Basemount model, 2¼" x 1 23/32" x 2 13/64" h.; panelmount model, 2 13/16" x 1 15/16" panel x 2 27/64" d. For 115 v. AC, 60 cps.



CE-40AS402 Basemount. 1 to 9 Net **$15.25**
CE-40BS402 Panelmount. 1 to 9 Net **15.95**

CE 650 PHOTOELECTRIC COUNTER
WITH REMOTE PHOTO HEADS

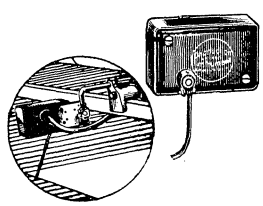


High speed 6 digit counter. A matched component package. Photoelectric actuation keyed to counter response thru transistorized amplifier. Operates reliably at high speeds (up to 2400 cpm). 50,000,000 count life. Photo heads furnished assembled and wired. Min. light time .0125 sec.; min. dark time .0125 sec.; min. speed of object thru beam 1.86 inches/sec. Prices on request.

CE 605 REMOTE DATA READOUT COUNTER
MANUAL RESET — 4 OR 5 DIGITS

Building block of system. Eliminates human error, reduces cost of manually reading and recording. Transmits counter reading electrically and visually. External circuits used to transmit accumulated totals in binary international or digital form. Manual reset knob or non-reset available. Max. speed 1000 counts per minute. Pulse 50 milliseconds, 50% on, 50% off. Low power consumption. 3/16" high numerals. Prices on request.

SENSITIVE ACTUATOR ES-41



Widely used on folding machines. Requires only ¾ in.-oz. torque. Arm motion: 24° min., 59° max. reciprocal; 10° to 45° overthrow. Arm position adjustable, easily shortened or bent. Rated speed, 300 cpm. SPST contacts rated 2 amps; 120 v. AC. Body size, 2½" x 1 5/8" x 1 5/8" d. Furnished with straight spring steel arm 2 13/16" long.

ES-41 Actuator. 1 to 9 Net **$8.40**

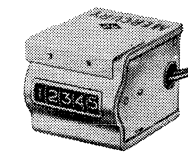
CE-800 SUPER-WIZARD COUNTER
TO 999,999, WITH RESET

Has 200 million count life; 1000 cpm (with suitable actuation); only five watts power consumption. Built-in rectification provides top reliability from all AC voltages to 230 v. Continuous duty coils and balanced armatures for dependability. Large, white-on-black figures are easy to read. Standard enclosure has tamper-proof, die cast aluminum housing with staked window of unbreakable plastic; separate wiring compartment with independent cover is tapped for conduit. Dustproof enclosure has same housing with dustproof gasket seal and cement sealed window. Size: Standard and dustproof models, 3.12" w. x 5.94" l. x 4.69" h.; panelmount model, 5.19" x 3.50" panel x 4.39" d. Models listed are for 115 v. AC, 60 cps.

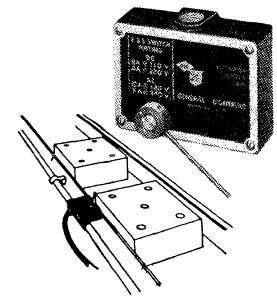
CE-800CS602 Std. enclosure, knob reset. 1 to 9 Net **$43.00**
CE-800AS602 Dustproof enclosure, knob reset. 1 to 9 Net . **47.25**
CE-800BS602 Panelmount, knob reset. 1 to 9 Net **41.50**

MERCURY COUNTERS
TO 99,999, NO RESET

Counts to 99,999 and then repeats. Widely used in vending machines and similar applications where duty is moderate. Estimated life, three million counts. Counting rate, 600 cpm. Coil consumes three watts. Has white figures on black wheels. Tamper-proof metal enclosure with plastic window. Size: Basemount model, 2¼" x 1 23/32" x 2 27/64" h.; panelmount model, 1 23/32" x 2 23/64" x 1 1/16" h. For 120 v. AC, 60 cps operation.



CE-40BN502 Basemount. 1 to 9 Net **$7.75**
CE-40AN502 Panelmount. 1 to 9 Net **8.35**



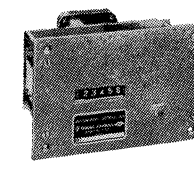
HEAVY DUTY ACTUATOR ES-5

Arm has spring return. For operation by boxes, cans, packages, etc. Minimum torque of 3 oz.-in. Arm motion: 31° min., 65° max., reciprocal; 10° to 42° overthrow. Arm position adjustable. Rated speed 300 cpm. SPST contacts rated 10 amps, 120 v. AC. Size: 3 3/16" x 2 5/16" x 1 17/32". Furnished with lever as shown in upper illustration.

ES-5 Actuator. 1 to 9 Net... **$9.85**

CE-620 ELECTRIC RESET ELECTRIC COUNTER

Developed to provide remote reset through manually, mechanically, electrically or electronically operated contacts. The CE620 includes a 6 digit CE600 electric counter with electrically operated reset mechanism mounted on a subpanel. Available with push button reset built into panel or with terminals provided for connecting remote contactor furnished by user. Also available in 7 digit and coin counting models.



CE-620BA602 Remote reset 120v 60 cy. 60 cy. 1 to 9 Net **$67.00**
CE-602BB602 Pushbutton reset 120v 60 cy. 1 to 9 Net **72.00**

Dimensions, overall 6" wide, 4" high, by 1/8" deep.

ITT GENERAL CONTROLS INC. G C

A SUBSIDIARY OF INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION

GLENDALE, CALIFORN

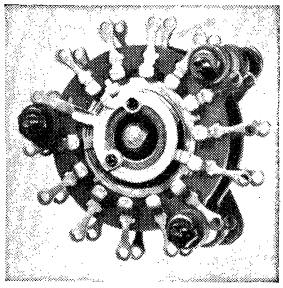
J-B-T®

25 YEARS OF INTEGRITY IN MANUFACTURING.....

J-B-T INSTRUMENTS, INC. NEW HAVEN 8, CONN.

LAMINATED ROTARY SWITCHES, INSTRUMENT AND TESTER TYPE

• 14- and 20-Position • Single and Multi-Deck, Military or Commercial

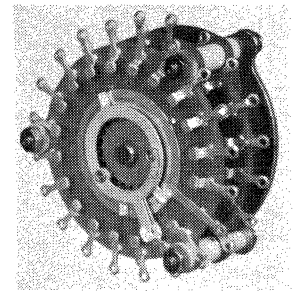


SS-14-2 Laminated

• **USES** — J-B-T Instrument-type Rotary Selector Switches are extensively used in quality test equipment, portable instruments, inspection setups, military or civilian avionics wherever trouble-free, dependable performance is of major importance. Available as a 14- or 20-position in laminated construction shown here or molded types described on opposite page—the design gives extra contacts in minimum space. One to six decks.

• FEATURES

Reliability — Rigid, 3-post deck suspension, instead of the usual 2; all current carrying parts are brass or phosphor bronze, silver flashed and then heavily plated with fine silver to meet 100 hour salt spray test; ball bearing action, beryllium-copper balanced spring (SS-14); leaf type (SS-20), and sharp detent assure positive indexing. Springs are replaceable without disturbing soldered connections. Laminated plastic decks and rotors are selected for maximum mechanical and dielectric strength. Insulation resistance above 50,000 megohms.



SS-20-2 Laminated

Low Contact Loss — Double-grip collector arms, and large-area contacts, silver to silver, result in an average contact resistance of .007 ohms or less.

Ample Dielectric (Conservatively Rated) — Carries 1 amp., 125 volts VAC, inductive load; maximum momentary capacity (not make-and-break), 5 amp, AC or DC; maximum voltage between contacts 1500 volts AC, R.M.S.; between decks and ground, 2000 volts AC, R.M.S.

Military or Commercial Variations — The following are typical of switches supplied on special order at extra cost: (a) laminated plastic, Type PBE-P per Spec. MIL-P-3115B; (b) fungus-proofing by vacuum impregnation of rotors, decks, spacers, and ceramic spacers using approved fungicides; (c) hot tin dip on contact surfaces to be soldered; (d) 14 or 20 live positions, no off (add suffix F, as SS-14-2F or SS-20-1F); (e) common position in non-standard location. For description of SS-14 materials, finishes, and government-quality features, see Print SK-42, Rev. B and Print SK-116 Rev. A for SS-20.

BASIC 14-POSITION (SS-14): 13 circuits and "off" per deck in 2" circle for compactness, angular indexing 25°43'. **1¼" Bar Knob (KN-14)** supplied only on individually boxed units—not on bulk orders unless specified. **Collector arm** normally placed directly opposite to flat of shaft so that knob pointer points to live contact. **Contact lugs** and common lugs positioned as shown below, 13 contacts per deck. **One to six decks;** for each additional deck (or gang) add 5/16" to depth. **Continuous rotation type** supplied unless otherwise specified. **Adjustable Stop** normally is supplied on standard cataloged switches. **Fixed Stops** can be supplied on quantity orders at moderate cost. **Panel locator** positioned as shown unless otherwise specified on bulk orders.

BASIC 20-POSITION (SS-20): 19 Circuits and "off" per deck in 2-23/32" circle for compactness, angular indexing 18°. **2" Bar Knob (KN-16)** supplied on individually boxed units—not on bulk orders unless specified. **Collector arm** normally placed directly opposite to flat of shaft so that knob pointer points to live contact. **Contact lugs** and common lugs positioned as shown below, 19 live positions per deck, standard. **One to six decks:** for each additional deck or gang add 5/16" to depth. **Continuous rotation** type supplied unless otherwise specified. **Panel locator** positioned as shown; can be modified on bulk orders.

COMBINATIONS IN SS-14 and SS-20 SERIES: Besides the military and commercial variations listed above, shorting and non-shorting decks can be assembled on the same switch shaft. Reference to the sketch below will be helpful in numbering decks and contacts when ordering non-standard assemblies. Specialized requirements for stainless steel shafts, no flats or double-flats on shaft, longer projections beyond bushing, and other variations can also be supplied, with necessarily longer delivery time and additional cost.

LAMINATED SWITCHES, SS-14 TYPE

14-POSITION, 25°43' INDEXING

Pos. Per Circ.	Circ. (Poles) Per Deck	Decks or Gangs	Short Non-Shorting	Standard Model	Max. (d) Depth Behind Panel	Boxed Incl. Knob
14	1	1	N-S	**SS-14-1**	27/32"	**$2.30**
5 (a)	2	1	N-S	**SS-14-1A (b)**	27/32"	**2.45**
14	1	1	S	**SS-14-1S (b)**	27/32"	**2.35**
14	1	1	C-S	**SS-14-1CS (c) (b)**	27/32"	**2.80**
14	1	2	N-S	**SS-14-2**	1 5/32"	**2.90**
5 (a)	2	2	N-S	**SS-14-2A (b)**	1 5/32"	**3.20**
14	1	2	S	**SS-14-2S (b)**	1 5/32"	**3.00**
14	1	2	C-S	**SS-14-2CS (c) (b)**	1 5/32"	**3.95**
14	1	3	N-S	**SS-14-3**	1 7/16"	**3.50**
14	1	3	S	**SS-14-3S (b)**	1 7/16"	**3.65**
14	1	4	N-S	**SS-14-4**	1 23/32"	**4.40**
14	1	6	N-S	**SS-14-6**	2 13/32"	**6.30**

LAMINATED SWITCHES, SS-20 TYPE

20-POSITION, 18° INDEXING

20	1	1	N-S	**SS-20-1**	23/32"	**$4.00**
6 (e)	2	1	N-S	**SS-20-1A (b)**	23/32"	**4.15**
20	1	1	S	**SS-20-1S (b)**	23/32"	**4.05**
20	1	2	N-S	**SS-20-2**	1 1/32"	**4.75**
20	1	2	S	**SS-20-2S (b)**	1 1/32"	**4.85**
20	1	3	N-S	**SS-20-3**	1 11/32"	**5.85**
20	1	4	N-S	**SS-20-4**	1 23/32"	**7.10**
20	1	6	N-S	**SS-20-6**	2 11/32"	**9.40**

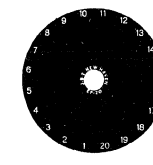
(a) 5 positions include 4 "live" and 1 "off".
(b) Standard items, but not regularly stocked; check with your electronic parts distributor.
(c) Complete shorting—all contacts shorted except one in use.
(d) When SS-14 adjustable stops are used, increase switch length behind panel by 3/32"; decrease effective bushing length by 3/32".
(e) 6 positions include 5 "live" and 1 "off".

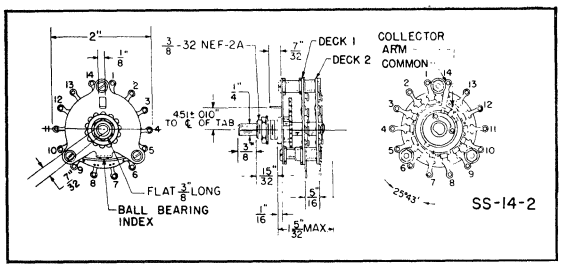
Non-Shorting—Break before make. **Shorting**—Make before break.

ETCHED DIAL PLATES FOR ROTARY SWITCHES

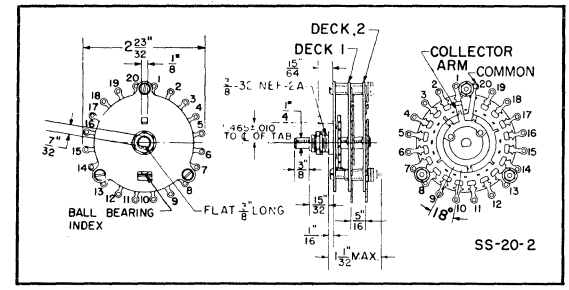
For SS-14, MS-14, MS-14B, MAS-14, MAS-14B, SS-20, MS-20, or MS-20B Series. Dull black finish —with raised bright metal numerals, 2¾" diameter.

EP-13 off thru 13 ..... **$0.23**
EP-14 1 thru 14 ..... **.23**
EP-19 off thru 19 ..... **.23**
EP-20 1 thru 20 ..... **.23**





NOTE: Minor revisions in dimensioning of panel locator tab, length of threaded bushing, and overall depth have been made in this edition, and include drawings on opposite page.



PRICES NET, F.O.B., New Haven, Conn. Individually Boxed, Domestic Packed, Effective September 1, 1964

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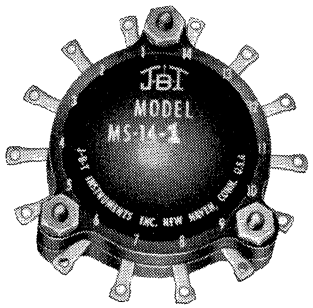
.....25 YEARS OF INTEGRITY IN MANUFACTURING
J-B-T INSTRUMENTS, INC. NEW HAVEN 8, CONN.

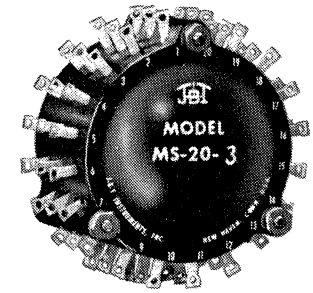
MOLDED ROTARY SWITCHES, INSTRUMENT AND TESTER TYPE

- **14- AND 20-POSITION • STANDARD OR BONDED RUGGEDIZED TYPES • SHORTING AND NON-SHORTING**
- **All moving contacts enclosed—minimizes dirt and corrosion; 3-post deck suspension for rigidity; double-grip collector arms for positive contact; and rectangular drive shaft for precision indexing.**
- **Interchangeable, electrically and mechanically, with SS-14 and SS-20 laminated switches.**



MS-14-1 Molded

FEATURES AND USES: These switches have values as stated for laminated switches on opposite page. Besides fully enclosing all moving parts, the molded switches differ in the design of the detent mechanism, but both types provide rigid 3-post construction and positive indexing. Test results are available on request covering certain procedures of MIL-E-5272A on insulation resistance; high and low temperature and temperature shock; humidity; altitude; salt spray; vibration; fungus resistance; rain; sand and dust; explosion; shock; and endurance values. (Ratings for MS-20-6DTS Types differ somewhat.



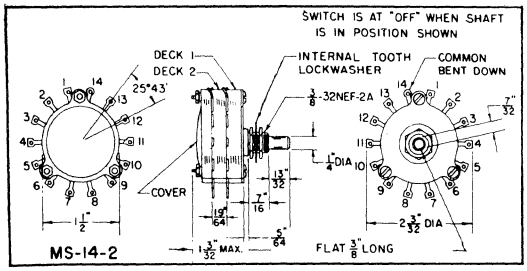
MS-20-3 Molded

★★★ **BONDED RUGGEDIZED TYPES**—As indicated in the tables, all molded rotary switches may be ordered with bonded construction as MS-14B or MS-20B types using cured laminations for ruggedization, shockproofing and further enclosure. Add cost of 35¢ per deck to catalog price of basic switch. Thus, 2-deck switch is MS-14B-2 at $3.80. Bonding adds approximately 1/64" per deck.

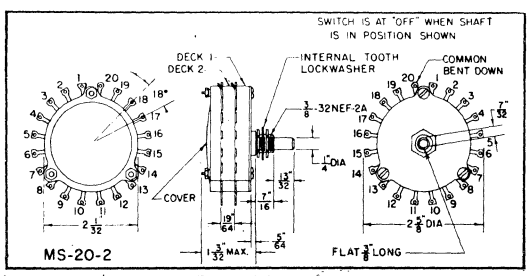
BASIC 14-POSITION MOLDED (MS-14): 13 circuits and "off" per deck in 2 3/32" circle for compactness.

BASIC 20-POSITION MOLDED (MS-20): 19 circuits and "off" per deck in 2 5/8" circle.

Molded end cover regularly supplied. 1 1/2" **Bar knob (KN-14)** included with individually boxed MS-14 units, 2" **Bar knob (KN-16)** with MS-20 units, but not on bulk orders unless specified. **Collector arm** placed directly opposite to flat of shaft, so that knob pointer points to live contact. **Common or "off" contact lug** is rounded and bent down for ready identification. **Extra decks** add 19/64" per deck to depth; for 7 decks and over, add 5/16" for shaft support and 1/64" per deck for bonding. **Continuous rotation** type supplied. **Permanent stop** (MPS types) with pre-set fixed stops are available on special orders. **Adjustable stop** (MAS type) available only on MS-14 Series. **Panel locator** available at extra cost on quantity orders when specified. On MS-14-4, MS-14-6, MS-20-4 and MS-20-6, extra hex nut and longer screw can be supplied for inverting supporting screw nearest common, thus converting into panel locator. **Complete dimensions:** for MS-14, MAS-14, MPS-14 switches, 1 to 6 decks, request Print SK-111 Rev. D; for 7 decks and over, SK-112 Rev. C. For MS-20 and MPS-20, 1 to 6 decks, request Print SK-113 Rev. D; for 7 decks and over SK-114 Rev. C.



MS-14-2



MS-20-2

MOLDED SWITCHES, MS-14 TYPE
14-POSITION, 25° 43' INDEXING

Pos. Per Circ.	Circ. (Poles) Per Deck	Decks or Gangs	Shorting Non-Shorting	STANDARD TYPE Standard Model	Max. Depth Behind Panel	Boxed Incl. Knob	BONDED-RUGGEDIZED Bonded Model	Max. Depth Behind Panel	Boxed Incl. Knob
14	1	1	N-S	MS-14-1	27/32"	$2.45	MS-14B-1	7/8"	$2.80
14	1	1	S	MS-14-1S	27/32"	2.50	MS-14B-1S	7/8"	2.85
14	1	2	N-S	MS-14-2	1 3/32"	3.10	MS-14B-2	1 1/8"	3.80
14	1	2	S	MS-14-2S*	1 3/32"	3.20	MS-14B-2S*	1 1/8"	3.90
14	1	3	N-S	MS-14-3	1 13/32"	3.75	MS-14B-3	1 15/32"	4.80
14	1	4	N-S	MS-14-4	1 23/32"	4.85	MS-14B-4	1 25/32"	6.25
14	1	6	N-S	MS-14-6	2 13/32"	7.05	MS-14B-6	2 1/2"	9.15

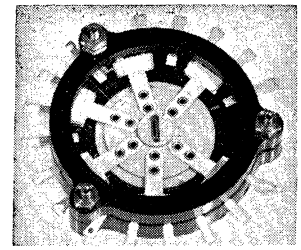
MOLDED SWITCHES, MS-20 TYPE
20-POSITION, 18° INDEXING

20	1	1	N-S	MS-20-1	27/32"	$3.10	MS-20B-1	7/8"	$3.45
2	6	1	N-S	MS-20-1-6DT	27/32"	3.90	MS-20B-1-6DT	7/8"	4.25
2	6	1	S	MS-20-1-6DTS	27/32"	4.00	MS-20B-1-6DTS	7/8"	4.35
20	1	1	S	MS-20-1S	2 1/32"	3.15	MS-20B-1S	7/8"	3.50
20	1	2	N-S	MS-20-2	1 3/32"	3.90	MS-20B-2	1 1/8"	4.60
2	6	2	N-S	MS-20-2-6DT	1 3/32"	5.50	MS-20B-2-6DT	1 1/8"	6.20
20	1	2	S	MS-20-2S*	1 3/32"	4.00	MS-20B-2S*	1 1/8"	4.70
20	1	3	N-S	MS-20-3	1 13/32"	5.00	MS-20B-3	1 15/32"	6.05
20	1	4	N-S	MS-20-4	1 23/32"	6.20	MS-20B-4	1 25/32"	7.60
20	1	6	N-S	MS-20-6	2 13/32"	8.60	MS-20B-6	2 1/2"	10.70

ADJUSTABLE STOP MOLDED SWITCHES, MAS-14 TYPE

14	1	1	N-S	MAS-14-1	31/32"	$3.10	MAS-14B-1	1"	$3.45
14	1	1	S	MAS-14-1S	31/32"	3.20	MAS-14-B-1S	1"	3.55
14	1	2	N-S	MAS-14-2	1 7/32"	3.80	MAS-14B-2	1 1/4"	4.50
14	1	2	S	MAS-14-2S*	1 7/32"	3.95	MAS-14B-2S*	1 1/4"	4.65
14	1	3	N-S	MAS-14-3	1 17/32"	4.60	MAS-14B-3	1 19/32"	5.65
14	1	4	N-S	MAS-14-4	1 27/32"	5.70	MAS-14B-4	1 15/16"	7.10
14	1	6	N-S	MAS-14-6	2 17/32"	8.00	MAS-14B-6	2 19/32"	10.10

IMPORTANT: Enclosed adjustable stop mechanism of MAS-14 type increases switch length by 5/32" behind panel; decreases effective bushing length by 3/32"; and shortens shaft extending from bushing by 1/16". Rings RI-23 and RI-24 are supplied.
For more than 6 decks, request prices.
*Standard items, but not regularly stocked; check with your electronic parts distributor.
Non-Shorting—Break before make. **Shorting**—Make before break.



6-POLE DOUBLE-THROW PER DECK—1 OR 2 DEC

6-Pole Switches (DT Series). Double-throw switch of 6 circuits per deck through two positions (throw) becomes easy with this unique rotary-t molded switch. It is fully enclosed and similar appearance to other molded MS-20 switches. (Il tration shows protective cover cut away.) Cir arrangement is designated on the metal front of switch. Quality features include .007 ohm aver contact resistance; heavy, fine-silver plating 100-hour salt spray test; double-grip collector ar Made in non-shorting (break before make) shorting (make before break) 2 5/8" max. diame one deck 27/32" behind panel; two deck, 1 3/32" bel panel. DTS Shorting Types are rated 1500 volts R.M.S. between contacts and grou 1000 volts R.M.S. between contacts. See **MS-20-1-6DT, MS-20-16DTS,** and **MS-20-2-6**

PRACTICAL NEW IDEA: RING-CONTACT SWITCH

Use the unique J-B-T ring-type (suffix R) molded switch to avoid the possibility cold-soldered joints and the cost of assembling jumper wires when adjacent extern contacts are to be joined. An integral ring holds all the contacts on a deck togeth and can be snipped where wanted. This feature adds 7/32" o.d. to the MS-14 or MS- models. Additional cost is nominal; for example, 2-deck MS-14R-2 is $3.65 catal price. Ask for Print SK-88 Rev. C on 14-position and SK-89 Rev. C on 20-positic

PRICES NET, F.O.B., New Haven, Conn. Individually Boxed, Domestic Packed, Effective September 1, 1964

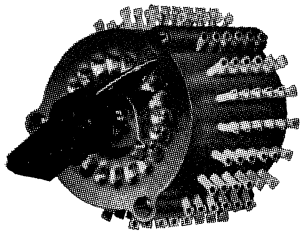
J-B-T®

25 YEARS OF INTEGRITY IN MANUFACTURING.....

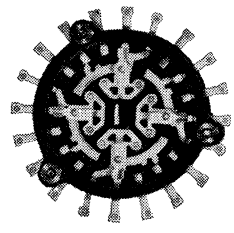
J-B-T INSTRUMENTS, INC. NEW HAVEN 8, CONN.

NEW MULTI-POLE MOLDED ROTARY SWITCHES, SERIES 20M.

• Superior Molded Material • All Models Bonded & Ruggedized • Panel Seal Available



Front View Showing Panel Locator which is Normally at 3 o'clock Position.



Rear View with Back Cover Cut Away to Show 4-Pole Construction with 4 Live Switching Contacts.

Although the new 20M- Series is ¼" longer behind the panel than the 20-position molded switches described on the preceding page, the two styles are otherwise interchangeable in dimensions. Providing 19 live positions and off, the 20M- offers these additional features:

1. **Increased Versatility of Circuitry** — up to and including four poles per deck;
2. **Upgraded Insulation Resistance and Dielectric Qualities** — by use of melamine stators and rotors (or other MIL-M-14 molded materials when specially ordered);
3. **Built-in Panel Locator or Non-Turn Device;**
4. **Extended Switch Life** — new contact design with rotor brushes of phosphor bronze heavily silver-plated;
5. **Bonded and Ruggedized Construction;**
6. **Radial Alignment of Multi-Pole Contact Surfaces** — by means of newly-designed double-ball detent with diaphragm-type springs.

VARIATIONS OF 20M- — Please request SK-142 for full dimensions and circuit diagrams. Besides the condensed listing in the accompanying table, various combinations of **shorting and non-shorting contacts for each deck** may be made. **Fixed stops** are built-in but may be provided for single-pole switches when specially ordered. **Over six decks** can be supplied for a reasonable number of poles; extra decks add 5/16" per deck and 5/16" per switch for rear support SU-3. **Ring-contact** (suffix R) may be specially ordered.

PANEL SEAL PS20M- SERIES — Sealed shaft and bushing meet the requirements of MIL-S-3786A for sealing. For details ask for SK-143. The seal (prefix PS) adds $1.75 per switch to catalog price.

SPECIFICATIONS AND TEST DATA — Available on request.

No. of Decks	Depth Behind Panel	Poles Per Deck	Model Number	Circuitry Per Pole	Rotation-Positions*	Boxed Incl. Knob
1	1-3/16	1	**20M-1201N**	19 live, 1 off	Continuous	**$3.75**
		1	**20M-1191N**	19 live, no off	1 thru 19	**3.75**
		2	**20M-2101N**	9 live, 1 off	20 thru 9	**4.15**
		3	**20M-3051N**	4 live, 1 off	20 thru 4	**4.50**
		4	**20M-4051N**	4 live, 1 off	20 thru 4	**4.85**
2	1½	1	**20M-1202N**	19 live, 1 off	Continuous	**5.00**
		2	**20M-2102N**	9 live, 1 off	20 thru 9	**5.80**
		3	**20M-3052N**	4 live, 1 off	20 thru 4	**6.50**
		4	**20M-4052N**	4 live, 1 off	20 thru 4	**7.20**
3	1-13/16	1	**20M-1203N**	19 live, 1 off	Continuous	**6.25**
		2	**20M-2103N**	9 live, 1 off	20 thru 9	**7.45**
		3	**20M-3053N**	4 live, 1 off	20 thru 4	**8.50**
		4	**20M-4053N**	4 live, 1 off	20 thru 4	**9.55**
4	2-2/16	1	**20M-1204N**	19 live, 1 off	Continuous	**7.70**
		2	**20M-2104N**	9 live, 1 off	20 thru 9	**9.30**
		3	**20M-3054N**	4 live, 1 off	20 thru 4	**10.70**
		4	**20M-4054N**	4 live, 1 off	20 thru 4	**12.10**
6	2-13/16	1	**20M-1206N**	19 live, 1 off	Continuous	**10.80**
		2	**20M-2106N**	9 live, 1 off	20 thru 9	**13.20**

* See MS-20 drawing on preceding page for location of positions.

Notes: (1) NON-shorting (N) type — (break-before-make) — is shown. For shorting type (S), add $.05 per pole per deck to catalog price. Example: 3 pole, 3 deck 20M-3053S is $8.95.

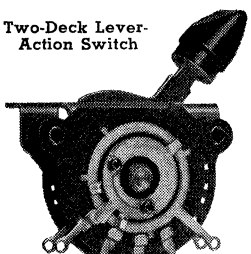
(2) Switch with all live positions per pole or less than maximum live positions can be provided by fixed stops.

(3) **Panel Seal** is available including shaft seal within bushing. Use suffix PS. Example: PS20M-1203N. See Print SK-143.

LEVER ACTION SWITCHES — 6, 5, 4, 3, and 2-Position — LAMINATED, MOLDED, & SUB-MINIATURE

LAMINATED 3- AND 4-POSITION, POSITIVE INDEXING. These lever switches are derived from the J-B-T SS-14 instrument-type rotaries. Specified for tube checkers, inspection equipment, communications systems, control consoles, and other uses where quality is important. 4-position types are interchangeable with 3-position except in length of throw — mounting holes for both, 1⅝" between centers. Individually-boxed switches come with mounting hardware and KN-17 knob as illustrated; bulk shipments, without knobs. **SINGLE DECK-** spacing between centers: recommended, ¾"; minimum, 9/16". **TWO DECK-** spacing: recommended, 15/16"; minimum, 13/16". ⅜" between decks matches TV twinlead wires. **SPRING RETURN TYPE-** single deck, 3-position switches may be ordered with spring return. Lever returns to position 11, giving momentary action at position 9 and 10. For dimensions, ask for marking SK-138.

Two-Deck Lever-Action Switch

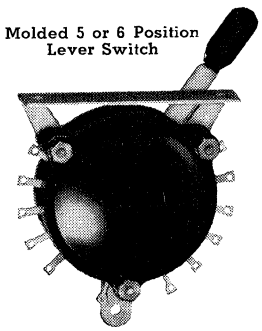


SS-14-1L4F-2

Positions Per Circuit	Circ. (Poles) Per Deck	Decks or Gangs	Short. Non-Short	Stand.* Contact Pos.	Model	Boxed Incl. Knob
no "off"	1	1	N-S	A	**SS-14-1L3**	**$1.00**
no "off"	2	1	N-S	B	**SS-14-1L3A**	**1.15**
no "off"	1	1	S	A	**SS-14-1L3S**	**1.05**
no "off"	1	1	N-S	A	**SS-14-1L3R†**	**1.15**
no "off"	1	1	S	A	**SS-14-1L3S-R†**	**1.20**
no "off"	1	2	N-S	A	**SS-14-1L3-2**	**1.70**
& "off"	1	1	N-S	C	**SS-14-1L4**	**1.10**
no "off"	1	1	N-S	D	**SS-14-1L4F**	**1.10**
no "off"	1	2	N-S	D	**SS-14-1L4F-2**	**1.90**
& "off"	1	1	S	C	**SS-14-1L4S**	**1.15**

*—common at 12, contacts at 9, 10, 11; B—common at 9, 10, contacts 6, 7, 8, 12, 13 14; C—common and off at 12, contacts at 9, 10, 11; D—mmon at 12, contacts at 8, 9, 10, 11.
†-Spring Return.

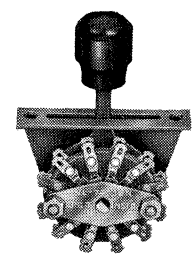
Molded 5 or 6 Position Lever Switch



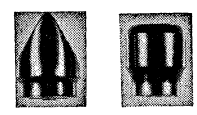
MOLDED 5- and 6-POSITION, POSITIVE-INDEXING. 5 or 6 live positions, two circuits per deck, in enclosed lustrous black molded construction; adapted from the MS-20 series with electrical characteristics as shown on previous page. These models can simplify circuitry for sound systems, control, inspection, test, experimental, and hobby purposes. Individually-boxed switches come with KN-20 threaded black molded knob; bulk shipments, without knobs. For mounting data see SK-64, Rev. H on 5-position and SK-119, Rev. B on 6-position.

MS-20-1L5A-1, 5-position, 2-circuit (1 deck) **$3.25**

MS-20-1L6A-1, 6-position, 2-circuits (1 deck) **3.50**



Sub-Miniature 1 Dual Duty Deck



2 AND 3 POSITION, 1 TO 4 DECKS, 2 TO 8 POLES PER DECK.

SUB-MINIATURE LEVER SWITCHES — Derived from the high-performance sub-miniature switches described on the next page, the VL-7000 and the VL-5000 positive indexing series and the VSRL-7000 and VSRL-5000 spring return types provide excellence in lever switches. MIL materials throughout; crisp 30° indexing. Max. depth behind panel 1.250"; panel slot .962" x 0.62"; other details to SK-139, Rev. A and Catalog SM-32C. Typical switches are:

VL-71031N, single-pole, 3-position, one-deck, non-shorting **$4.80**

VSRL-71031N, same as above, with spring return to center position from either side **5.80**

VL-71032N, single-pole, 3-position, two-deck, non-shorting **7.05**

LEVER KNOBS

KN-17, black pointed with metal insert **$0.19**
KN-18, walnut, same as KN-17 ..... **0.06**
KN-19, black, round, flat-type, push-on **0.06**
KN-20, black, threaded, for MS-20-IL **0.14**

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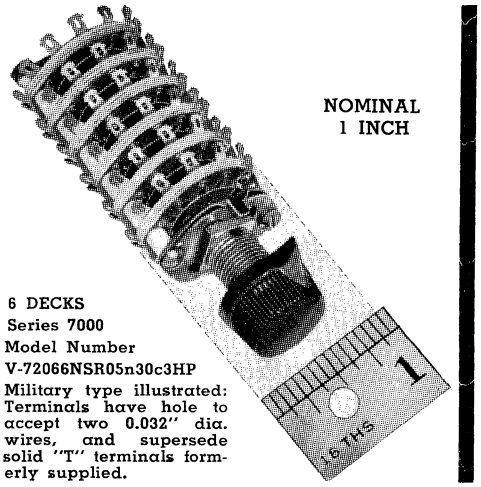
.....25 YEARS OF INTEGRITY IN MANUFACTURING
J-B-T INSTRUMENTS, INC. NEW HAVEN 8, CONN.

SUB-MINIATURE SWITCHES

New! SUB-MINIATURE SWITCHES—TO ALL PERFORMANCE LEVELS OF MIL-S-3786A, TYPE SR05; ALSO NON-MILITARY X AND V VERSIONS.

SERIES 7000, FULL 12 LIVE SWITCHING CONTACTS PER DECK; SERIES 5000, UP TO 8 POLES PER DUAL-DUTY DECK.



6 DECKS
Series 7000
Model Number
V-72066NSR05n30c3HP
Military type illustrated: Terminals have hole to accept two 0.032" dia. wires, and supersede solid "T" terminals formerly supplied.

- **Precision built for Low-Current Usage where Size, Weight, Reliability are Important**
- **Unusual Versatility — More Contacts per Deck**
- **Accelerated Snap-Action Detent**
- **MIL Materials Throughout for Military & Non-Military Applications**

CAUTION—MIL-S-3786A, a sophisticated specification, spells out more than one performance level in each of several categories, such as Temperature-Life, Vibration, and Shock, with each level designated by its own symbol. Only J-B-T SR05 Switches meet the highest (and all other) levels.

USES — For test equipment, airborne and transistorized equipment, geophysical apparatus, and other miniaturized electrical and electronic devices.
TWO BASIC SERIES — Full 12 live switching contacts per deck are available in **Series 7000** using a patented wafer design feature where rotor contacts are on the front, and switching contacts are on the rear of the same deck. 1 to 4 poles per deck 1 to 6 decks, standard.
Up to 8 poles per dual-duty deck are available in **Series 5000** which has up to 12 contacts including common on the front, and up to 12 contacts including common on the rear of the same deck. 1 to 4 poles on each side of dual-duty decks; 1 to 4 decks, standard.
THREE ROTARY TYPES — Both Basic Series are made in 3 types: **MILITARY STYLE SR05,** numbered for specific performance levels of MIL-S-3786A; **V TYPE,** of similar construction to SR05, but not ordinarily subjected to full military test procedures; and X TYPE, using the same materials as V type switches, but intended as replacements for previous models or as original components for non-military devices where requirements are similarly exacting.
LEVER SERIES (L Types) — Made as VL-7000 or VL-5000 Series, 1 to 4 decks. Illustrated on preceding page.
KNOBS — Supplied with individually boxed switches on V and X types; not supplied on SR05 because separate military specification applies.

DIFFERENCES BETWEEN SR05 MILITARY, V, and X — Switches other than X types use extra rugged index mechanisms and rotor construction.

ITEM	X-7000 X-5000	V-7000 V-5000	MIL-S-3786A V-7000 SR05 V-5000 SR05
Terminals	Hole-type not bent	Hole-type not bent	Hole-type; may be bent at 75° ±15°
Shaft Bushing	⅛" dia. ¼" -32NEF-2A, ¼" long	¼" dia. ⅜" -32NEF-2A, ⅜" long	¼" dia. only ⅜" -32NEF-2A, ⅜" long
Rear Bridge	Black Identification	Red Identification	Stainless steel, full number
Non-Turn Device	Normally supplied	Normally supplied	Supplied - Spec. requires

FOR ADDITIONAL MODELS AND FULL SPECIFICATIONS, ASK FOR BULLETINS SM-32C AND LAYOUT SHEETS WITH CONTACT ARRANGEMENTS. ALSO, TO AID IN VISUALIZING CIRCUIT CONFIGURATIONS, J-B-T'S NEW 3-D SWITCH RESOLVER IS AVAILABLE ON REQUEST.

MOST FREQUENTLY ORDERED MODELS

DECKS	Circ. (Poles) per Deck	Pos. per Pole	Shorting, Non-Shorting	SHAFT DIA.	V-TYPE OR X-TYPE Model	Price	SR05-TYPE Model	Price
ONE DECK	1	12	N-S	¼"	**V-71121N**	$4.90	**V-71121N-SR05***	$5.25
	1	12	S	¼"	**V-71121S**	4.90	**V-71121S-SR05***	5.25
	1	12	N-S	⅛"	**X-71121N**	4.70	—	—
	1	12	S	⅛"	**X-71121S**	4.70	—	—
	2	6	N-S	¼"	**V-72061N**	5.00	**V-72061N-SR05***	5.35
	4	3	N-S	¼"	**V-74031N**	5.20	**V-74031N-SR05***	5.50
ONE DUAL DUTY DECK	2	11	N-S	¼"	**V-52111N**	5.25	**V-52111N-SR05***	5.60
	2	11	S	¼"	**V-52111S**	5.25	**V-52111S-SR05***	5.60
	4	5	N-S	¼"	**V-54051N**	5.35	**V-54051N-SR05***	5.70
	4	5	S	¼"	**V-54051S**	5.35	**V-54051S-SR05***	5.70
	8	2	N-S	¼"	**V-58021N**	5.55	**V-58021N-SR05***	5.90
TWO DECKS	1	12	N-S	¼"	**V-71122N**	6.75	**V-71122N-SR05***	7.20
	1	12	S	¼"	**V-71122S**	6.75	**V-71122S-SR05***	7.20
	1	12	N-S	⅛"	**X-71122N**	6.45	—	—
	2	6	N-S	¼"	**V-72062N**	6.95	**V-72062N-SR05***	7.40
	4	3	N-S	¼"	**V-74032N**	7.40	**V-74032N-SR05***	7.90
TWO DUAL DUTY DECKS	2	11	N-S	¼"	**V-52112N**	8.10	**V-52112N-SR05***	8.65
	2	11	N-S	⅛"	**X-52112N**	7.75	—	—
	4	5	N-S	¼"	**V-54052N**	8.30	**V-54052N-SR05***	8.85
THREE DECKS	1	12	N-S	¼"	**V-71123N**	8.85	**V-71123N-SR05***	9.45
	2	6	N-S	¼"	**V-72063N**	9.15	**V-72063N-SR05***	9.70
	4	3	N-S	¼"	**V-74033N**	9.85	**V-74033N-SR05***	10.45
FOUR DECKS	1	12	N-S	¼"	**V-71124N**	11.95	**V-71124N-SR05***	12.70
	1	12	N-S	⅛"	**X-71124N**	11.40	—	—
SIX DECKS	1	12	N-S	¼"	**V-71126N**	16.05	**V-71126N-SR05***	17.10
ONE DECK	4	3	N-S	—	**VL-74031N**	$5.15	Levers not in Specs.	
	2	3	N-S	—	**VL-72031N**	5.05	" " " "	
LEVER	8	2	N-S	—	**VL-58021N**	5.35	" " " "	

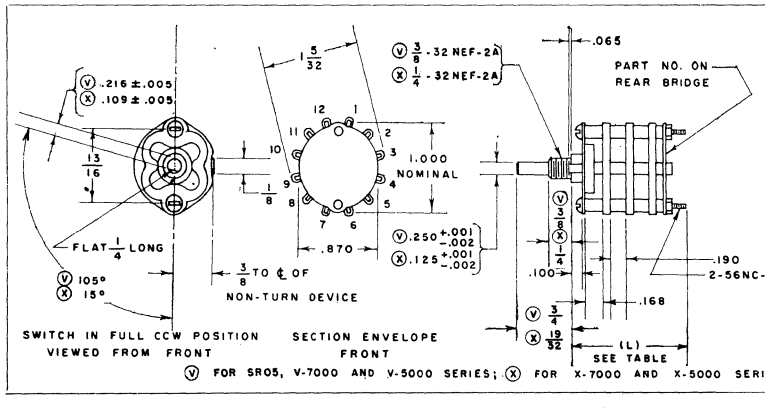
* Typical MIL-S-3786A complete number is V-71121N-SRO5N30C3HP, unless specifically ordered otherwise. Temperature-Life Characteristic C also will meet Characteristic A or B requirements; Vibration Grade Symbol 3 will also meet Symbol 1 or 2 requirements. Shock Type H for High Impact does not automatically cover Type M, Medium Impact, which can be supplied upon order.

SPECIFICATIONS & TEST DATA ON SR05 MILITARY STYLE

NOTE: Most of the values shown here are given in the Specification and do not indica the extent to which the test results of J-B-T switches were more favorable.
Current-carrying capacity: 5 amps at standard ambient conditions.
Current-breaking capacity: 750 MA at 30 VDC; 300 MA at 120 VDC; 1 AMP at 115 VA Non-Inductive.
Initial Contact Resistance: .005 ohms max.
Contact Resistance: To MIL-STD-202B-Method 307, which requires Initial—10 milliohm After Moisture Resistance Test—15 milliohms; After Life Test—20 milliohms.
Materials: Terminals (double-wiping): gold-plated 90% silver alloy. **Rotor Contac** 90% Silver Alloy. **Shaft & Frame:** Stainless steel, passivated.
Insulation: Wafer, glass epoxy laminate to MIL-P-18177C Type GEB, NEMA G-11; Rotc ceramic to MIL-I-10A, Grade L-623.
Life Rotational; Temperature-Life Characteristic C, 25,000 rotational cycles at 10 cp: Temperature —65°C to +125°C; 25,000 cycles at 70,000'.
Vibration: Grade 3 of Table III MIL-S-3786A 10 to 2000 cps. Tested in accordance wi MIL-STD-202B, Method 204, Test Condition B.
SHOCK: Shock type H, High Impact per Table IV, MIL-S-3786A. Tested in accordan with MIL-STD 202B, Method 207. Mating contact did not open for more than 5 mil seconds; for Shock type M, Medium Impact, not more than 10 microseconds.

MAXIMUM DEPTH (L) BEHIND PANEL, INCHES

	1-Deck	2-Decks	3-Decks	4-Decks	5-Decks	6-Dec
Series V-7000-SR05 or X-7000	0.640	0.918	1.196	1.474	1.752	2.03
Series V-5000-SR05 or X-5000	0.640	0.918	1.196	1.474	—	—



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J-B-T®

25 YEARS OF INTEGRITY IN MANUFACTURING.....

J-B-T INSTRUMENTS, INC. NEW HAVEN 8, CONN.

TOGGLE SWITCHES — HEAVY DUTY — SINGLE-, DOUBLE-, & 4-POLE — GOVERNMENT QUALITY

Series MS25068, MS35058, and MS35059 to MIL-S-3950A; Series ST40A-H, ST42A-H, ST50K-T, ST52K-T to JAN-S-23, MIL-S-21195A (Ships), or DDAX Drawings

OVER 130 MODELS FOR USES WHERE DEPENDABILITY COUNTS

• **ALL HEAVY DUTY MS and AN** models use solid **coin silver contacts and rocker arms,** exclusive in J-B-T construction, to add overload protection and keep contact resistance under .005 ohms. These and other features more than pay for themselves in trouble-free operation whether in normal use or exceptional environments.

MIL-S-3950A SERIES — Single-pole MS35058 with suffix —21 and above, and double-pole MS35059 types with suffix —21 and above are recommended when maximum reliability is required. Temperature, endurance, and altitude requirements exceed earlier MS types (suffix —1 to —19), AN3021 and AN3027 switches to MIL-S-6745, and ST styles to JAN-S-23 and MIL-S-21195A-(Ships). All MS switches contain a silicone rubber bushing seal to meet sand and dust and 15-foot head of water submersion tests.

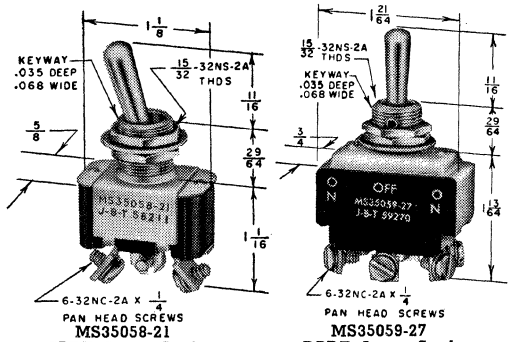
NOMINAL RATINGS: 20 Amp. at 125 VAC, 10 Amp. at 250 VAC.

SINGLE AND DOUBLE POLE HEAVY DUTY WITH LEVER SEAL					
MIL-S-3950A	Model No.	1	2-9	10-29	30-99
SPST — 2 term.					
On-X-Off	MS35058-22	$2.06	$1.65	$1.24	$1.01
On-Off-X	MS35058-24	2.14	1.71	1.28	1.05
On-Off*-X	MS35058-25	2.44	1.95	1.46	1.20
X-Off-On*	MS35058-28	2.45	1.96	1.47	1.20
On-X-Off*	MS35058-29	2.35	1.88	1.41	1.15
Off-X-On*	MS35058-30	2.35	1.88	1.41	1.15
SPDT — 3 term.					
On-Off-On	MS35058-21	2.44	1.95	1.46	1.20
On-X-On	MS35058-23	2.44	1.95	1.46	1.20
On-X-On*	MS35058-26	2.63	2.10	1.58	1.29
On*-Off-On*	MS25058-27	2.63	2.10	1.58	1.29
On-Off-On*	MS35058-31	2.68	2.14	1.61	1.31
DPST — 4 term.					
On-X-Off	MS35059-22	2.68	1.85	1.70	1.33
On-Off-X	MS35059-24	2.68	1.85	1.70	1.33
On-Off*-X	MS35059-25	3.54	2.44	2.23	1.77
X-Off-On*	MS35059-28	3.32	2.29	2.09	1.66
On-X-Off*	MS35059-29	3.32	2.29	2.09	1.66
Off-X-On*	MS35059-30	3.11	2.15	1.96	1.55
DPDT — 6 term.					
On-Off-On	MS35059-21	3.11	2.15	1.96	1.55
On-X-On	MS35059-23	3.11	2.15	1.96	1.55
On-X-On*	MS35059-26	3.54	2.44	2.23	1.77
On*-Off-On*	MS35059-27	3.54	2.44	2.23	1.77
On-Off-On*	MS35059-31	3.54	2.44	2.23	1.77

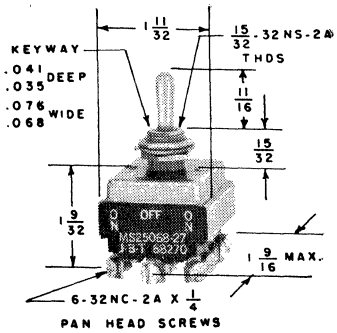
SINGLE AND DOUBLE POLE HEAVY DUTY					
JAN-S-23	Model No.	1	2-9	10-29	30-99
SPST—2 term.					
On-X-Off	ST40A	$1.68	$1.34	$1.01	$ .87
On-X-Off*	ST40B	1.88	1.50	1.13	.97
Off-X-On*	ST40C	1.88	1.50	1.13	.97
SPDT—3 term.					
On-X-On	ST40D	2.02	1.62	1.21	1.04
On-Off-On	ST40E	2.02	1.62	1.21	1.04
On-X-On*	ST40F	2.22	1.78	1.33	1.14
On*-Off-On*	ST40G	2.22	1.78	1.33	1.14
On-Off-On*	ST40H	2.22	1.78	1.33	1.14
SPST—2 term.					
On-X-Off	ST42A	1.58	1.26	.95	.76
On-X-Off*	ST42B	1.76	1.41	1.06	.84
Off-X-On*	ST42C	1.76	1.41	1.06	.84

Ask for Bulletin TS-6D for Full Technical Data

Note: X No Position
* Momentary Position



SINGLE AND DOUBLE POLE HEAVY DUTY (Cont'd.)					
SPDT—3 term.					
On-X-On	ST42D	$1.87	$1.50	$1.12	$ .90
On-Off-On	ST42E	1.87	1.50	1.12	.90
On-X-On*	ST42F	2.09	1.67	1.25	1.00
On*-Off-On*	ST42G	2.09	1.67	1.25	1.00
On-Off-On*	ST42H	2.09	1.67	1.25	1.00
DPST—4 term.					
On-X-Off	ST50K	2.12	1.70	1.27	1.06
On-X-Off*	ST50L	2.49	1.99	1.49	1.25
Off-X-On*	ST50M	2.49	1.99	1.49	1.25
DPDT—6 term.					
On-X-On	ST50N	2.49	1.99	1.49	1.25
On-Off-On	ST50P	2.49	1.99	1.49	1.25
On-X-On*	ST50R	2.83	2.26	1.70	1.42
On*-Off-On*	ST50S	2.83	2.26	1.70	1.42
On-Off-On*	ST50T	2.83	2.26	1.70	1.42
DPST—4 term.					
On-X-Off	ST52K	1.93	1.54	1.16	.97
On-X-Off*	ST52L	2.16	1.73	1.30	1.08
Off-X-On*	ST52M	2.16	1.73	1.30	1.08
DPDT—6 term.					
On-X-On	ST52N	2.16	1.73	1.30	1.08
On-Off-On	ST52P	2.16	1.73	1.30	1.08
On-X-On*	ST52R	2.51	2.01	1.51	1.26
On*-Off-On*	ST52S	2.51	2.01	1.51	1.26
On-Off-On*	ST52T	2.51	2.01	1.51	1.26



OUTSTANDING 4-POLE SERIES

• There is no mistaking the light brown color and silver printing of these distinctive J-B-T 4-pole heavy-duty switches. The superior molded body, chosen after extensive tests, features high arc resistance and low shrinkage. As a result the switches exceed the rigorous electrical endurance requirements of MS-25068.

Equally important, the internal construction uses rocker arms and contacts made of solid coin silver (not clad or brazed). The 8 models listed here have silicone rubber bushing seals and solderable 6-32 screw terminals, the same as other heavy-duty MS switches.

4-POLE HEAVY DUTY WITH LEVER SEAL					
MIL-S-3950A	Model No.	1	2-9	10-29	30-99
4PST—8 term.					
On-Off-X	MS25068-24	$5.25	$4.20	$3.31	$2.78
On-Off*-X	MS25068-25	6.20	4.96	3.91	3.29
X-Off-On*	MS25068-28	6.20	4.96	3.91	3.29
4PDT—12 term.					
On-Off-On	MS25068-21	6.10	4.88	3.84	3.23
On-X-On	MS25068-23	6.20	4.96	3.72	3.10
On-X-On*	MS25068-26	6.58	5.26	4.15	3.49
On*-Off-On*	MS25068-27	6.58	5.26	4.15	3.49
On-Off-On*	MS25068-31	6.58	5.26	4.15	3.49

Note: X No Position * Momentary Position

AN, MS, AND ST MODEL NUMBERS WITH SIMILAR CIRCUITRY

SCREW TERMINAL				SOLDER LUG	
MIL-S-3950A See Notes A & B	JAN-S-23 & MIL-S-21195A	MIL-S-6745 See Note A	MIL-S-3950 See Notes A & B	JAN-S-23 & MIL-S-21195A (Ships)	MIL-S-3950 See Note A
SPST					
MS35058-22	ST40A	AN3021-2	#	ST42A	MS35058-9
MS35058-29	ST40B	AN3021-9	#	ST42B	MS35058-10
MS35058-30	ST40C	AN3021-8	#	ST42C	MS35058-11
MS35058-24	#	AN3021-10	MS35058-1	#	MS35058-12
MS35058-28	#	AN3021-11	MS35058-2	#	MS35058-13
MS35058-25	#	AN3021-12	MS35058-3	#	MS35058-14
SPDT					
MS35058-23	ST40D	AN3021-3	MS35058-4	ST42D	MS35058-15
MS35058-21	ST40E	AN3021-1	MS35058-5	ST42E	MS35058-16
MS35058-26	ST40F	#	MS35058-6	ST42F	MS35058-17
MS35058-27	ST40G	AN3021-7	MS35058-7	ST42G	MS35058-18
MS35058-31	ST40H	AN3021-5	MS35058-8	ST42H	MS35058-19
#	#	AN3021-6†	#	#	#

SCREW TERMINAL				SOLDER LUG	
MIL-S-3950A See Notes A & B	JAN-S-23 & MIL-S-21195A	MIL-S-6745 See Note A	MIL-S-3950 See Notes A & B	JAN-S-23 & MIL-S-21195A (Ships)	MIL-S-3950 See Note A
DPST					
MS35059-22	ST50K	AN3027-2	#	ST52K	MS35059-9
MS35059-29§	ST50L	AN3027-4§	#	ST52L	MS35059-10§
MS35059-30§	ST50M	AN3027-5§	#	ST52M	MS35059-11§
MS35059-24	#	AN3027-9	MS35059-1	#	MS35059-12
MS35059-28	#	AN3027-11	MS35059-2	#	MS35059-13
MS35059-25§	#	AN3027-10§	MS35059-3§	#	MS35059-14§
DPDT					
MS35059-23	ST50N	AN3027-3	MS35059-4	ST52N	MS35059-15
MS35059-21	ST50P	AN3027-1	MS35059-5	ST52P	MS35059-16
MS35059-26§	ST50R	AN3027-6§	MS35059-6§	ST52R	MS35059-17§
MS35059-27	ST50S§	AN3027-7§	MS35059-7§	ST52S§	MS35059-18§
MS35059-31§	ST50T§	AN3027-8§	MS35059-8§	ST52T§	MS35059-19§

 # Not included in this specification. **† AN3021-6 same as AN3021-5 with jumper.** **§ Same dimensions as MS35059-27.**

NOTE A: MS and AN types use internal sand and dust toggle seal and other high performance features involving extra cost over ST types. MS types to MIL-S-3950A have internal toggle seal to meet 15 ft. water submersion test. MIL-S-3950 models are superseded by MIL-S-3950A models.
NOTE B: For heavy-duty switches in the MS25068, MS35058, and MS35059 Series, MIL-S-3950A calls for SCREW TERMINALS ONLY. These terminals have SOLDERABLE FINISH and may be soldered after removal of screw.

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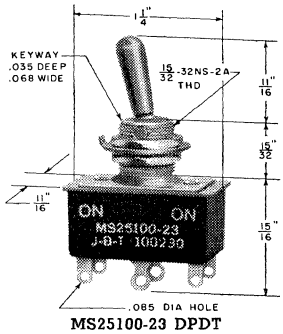
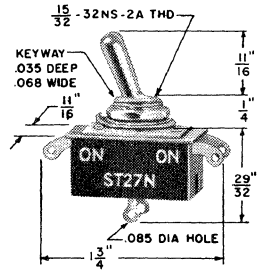
TOGGLE SWITCHES — MEDIUM DUTY — SINGLE & DOUBLE POLE — GOVERNMENT QUALITY



MS25100-23 DPDT
Rear Conn.,
Lever Seal



ST27N, DPDT
Side and Rear Conn.
¼" Bushing

Series MS25098 and MS25100 to MIL-S-3950A; Series ST12-27 to JAN-S-23, MIL-S-21195A(Ships), or DDAX Drawings.

● **MEDIUM DUTY** describes the current-carrying capacity—nominally 6 amp. at 125 VAC, 3 amp, at 250 VAC—rather than the life characteristics. Self-wiping heavily silver-plated double-grip contacts provide exceptional reliability. Typical uses: instruments, data processing, and communications circuits.

NEW DESIGN FOR MS25098 & MS25100—Significant internal changes now provide fast break, wide gap, and increased insulation values, to surpass the severe endurance tests of MIL-S-3950A. For example, after 20,000 cycles of operation at 65,000′ altitude with resistive load of 5 amps. at 125 VDC, contact resistance was well within the permissible limits. This development is especially important for the double-throw models MS25098-23 and MS25100-23. All MS medium-duty models contain: (a) silicone rubber bushing seal for sand, dust, and 15-foot head of water submersion tests, and (b) case-to-terminal sealing.

SIZE AND TERMINALS—Whether MS series to latest MIL-S-3950A, or ST series to prior Specifications JAN-S-23, MIL-S-21195A(Ships), or DDAX drawings, all have solder terminals. Bushings are 15/32" (except as noted †).

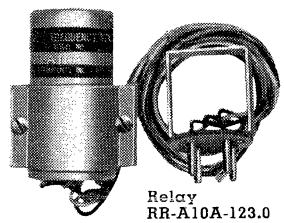
SINGLE AND DOUBLE POLE MEDIUM DUTY WITH LEVER SEAL					
MIL-S-3950A	Model No.	1	2-9	10-29	30-99
SPST-2 term.					
On-X-Off	MS25098-22	$2.30	$1.38	$1.10	$1.04
On-X-Off*	MS25098-29	2.96	1.78	1.42	1.33
Off-X-On*	MS25098-30	2.96	1.78	1.42	1.33
SPDT—3 term.					
On-X-On	MS25098-23	2.64	1.58	1.27	1.19
DPST—4 term.					
On-X-Off	MS25100-22	3.30	1.98	1.58	1.49
On-X-Off*	MS25100-29	3.84	2.30	1.84	1.73
Off-X-On*	MS25100-30	3.84	2.30	1.84	1.73
DPDT—6 term.					
On-X-On	MS25100-23	3.58	2.15	1.72	1.60

SINGLE AND DOUBLE POLE MEDIUM DUTY					
JAN-S-23	Model No.	1	2-9	10-29	30-99
SPST—2 term.					
On-X-Off	ST12A	$1.52	$ .91	$ .73	$ .68
On-X-Off*	ST12B	1.73	1.04	.83	.78
Off-X-On*	ST12C	1.73	1.04	.83	.78
On-X-Off	ST13A†	1.52	.91	.73	.68
On-X-Off	ST16A‡	1.52	.91	.73	.68
On-X-Off*	ST16B‡	1.73	1.04	.83	.78
Off-X-On*	ST16C‡	1.73	1.04	.83	.78
On-X-Off	ST17A†‡	1.52	.91	.73	.68
SPDT—3 term.					
On-X-On	ST12D	1.73	1.04	.83	.7
On-X-On	ST13D†	1.73	1.04	.83	.7
On-X-On	ST16D‡	1.73	1.04	.83	.7
On-X-On	ST17D†‡	1.73	1.04	.83	.7
DPST—4 term.					
On-X-Off	ST22K	2.06	1.26	1.01	.9
On-X-Off*	ST22L	2.26	1.38	1.11	1.0
Off-X-On*	ST22M	2.26	1.38	1.11	1.0
On-X-Off	ST23K†	2.06	1.26	1.01	.9
On-X-Off	ST26K‡	2.06	1.26	1.01	.9
On-X-Off*	ST26L‡	2.26	1.38	1.11	1.0
Off-X-On*	ST26M‡	2.26	1.38	1.11	1.0
On-X-Off	ST27K†‡	2.06	1.26	1.01	.9
DPDT—6 term.					
On-X-On	ST22N	2.26	1.38	1.11	1.0
On-X-On	ST23N†	2.26	1.38	1.11	1.0
On-X-On	ST26N‡	2.26	1.38	1.11	1.0
On-X-On	ST27N†‡	2.26	1.38	1.11	1.0

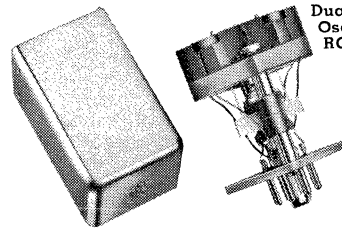
NOTES TO TABLES: X No position; * Momentary position; † Bushing ¼" high; ‡ Side connected terminals.
Ask for Bulletin TS-6D concerning additional models and full technical data.

RELAYS & OSCILLATOR CONTROLS

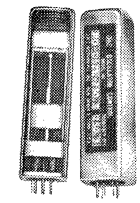
FREQUENCY-SENSITIVE RESONANT REED RELAYS AND OSCILLATOR CONTROLS



Relay
RR-A10A-123.0

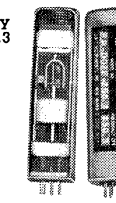


Dual-Reed
Oscillator Control
RO-B10B-188.0



Single-Reed
Oscillator Control
RO-D62E-250.3

Relay
RR-002E-250.3



Applications: selective-calling mobile communication equipment, remote data transmission, and simultaneous or sequential coding and decoding. For further data ask for Bulletins 162R and D664.

RR-A11-and RR-A10-types frequency sensitive electro-mechanical relays (decoders) are highly stable control devices. They intermittently make and break contacts when a signal of the same frequency as the tuned reed is received. Although the reed has a high Q, the bandwith at which the relay responds will be proportional to the input signal level. Type RR-A10 with clamp is recommended for mobile uses.

RO-B Oscillator Controls (sometimes known as tone generators or encoders) are dual-reed units internally shock mounted and of sea construction. These units control the frequency of oscillation in vacu tube or transistor oscillator circuits. The RO-B Type oscillator con is recommended where accurate and stable AC signals are requir

RR-D Types are internally shock mounted resonant reed relays. Th types are square, sealed, plug-in units with 7 pin miniature plug.

RO-D Types are single reed, internally shock mounted oscillator cont for applications where space saving is of importance. Dimension these units are identical to RR-D relays and are plug-in types of 7-pin miniature.

TYPICAL REED RELAY AND OSCILLATOR CONTROL SPECIFICATIONS

Model	Enclosure	Mounting & Connections	Frequency Range CPS	DC Coil Resistance (Standard)	Accuracy to	Change per °C —40° to + 100°C	Individual Boxed
RR-A-10A-Reed Relay	1" round x 2" long	Clamp & Harness* 4 Pin Fits Cinch Socket #9804	67 to 600	200 ohms	±0.3%	±0.005 %	$15.00
RR-A11A-Reed Relay	1" round x 2" long	Plug In 4 Pin Fits Cinch Socket # 9804	67 to 600	200 ohms	±0.3%	±0.005 %	14.50
RR-D02E-Reed Relay	25/32" sq. x 3 1/32" lg sealed	7 Pin Miniature Plug In	67 to 1600	600 ohms	±0.1%	±0.0025%	19.0
RO-B10B-Oscillator Control†	1 33/64" sq x 2 1/16" long sealed	Octal Plug In	67 to 600	2200 ohms/coil	±0.1%	±0.003 %	26.00
RO-D62E-Oscillator Control	25/32" sq. x 3 1/32" lg sealed	7 Pin Miniature Plug In	67 to 1600	600 ohms	±0.1%	±0.0025%	18.0

* Supplied with 2-piece clamp and 4-wire cable terminated in a 4-pin base. ** Specify frequency with order. † Dual reed construction.

PRICES NET, F.O.B., New Haven, Conn. Individually Boxed, Domestic Packed, Effective September 1, 1964

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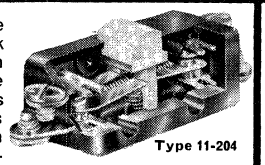
LICON® PRECISION SNAP-ACTION SWITCHES

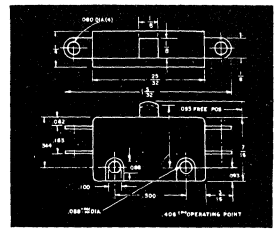
LICON® "DOUBLE-BREAK" ACTION

A unique approach to the concept of double-break switching is the common denominator in a wide line of Licon miniature switches that speak for themselves . . . well over 20 million times. The Licon difference is in design and materials. Dual non-stressed blades and low-rate simple coil springs put life in the snap action. Double-break contacts increase the interrupting ability by providing eight surfaces and two gaps to boost capacity and life. Long-stroke wiping keeps the action alive, "cleans" contacts every actuation, minimizes chances of contact weld.



Type 11-204

TYPE 16 SUB-MINIATURE SWITCHES



Type 16-104

Lever, roller lever, push button and toggle actuators available.

CHARACTERISTICS

Electrical Rating:
U.L. Listed; 10 amps at 125/250 V a-c 30 V d-c ratings (at S.L.):
SPNO or SPNC Res..15 amps
SPNO or SPNC Ind...10 amps
SPDT
(ext. common) Res...15 amp
SPDT
(ext. common) Ind...7.5 amps
SPDT
(int. common) Res..7.5 amps
SPDT
(int. common) Ind.....5 amps
Pretravel.....050 Max.
Overtravel.....012 Min.
Operating Force...5 Oz. +3 Oz. −2
Release Force.....2 Oz. Min.
Movement Diff.....020± .005

Type 16-104
Solder End Terminals (Also available with Screw End Terminals as Type 16-204)

Type 16-404
Solder Bottom Terminals (Also available with Taper Tabs as Type 16-504)

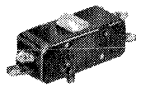
Type 16-304
Solder Side Terminals

Type 16-114
Reset Action

TYPE 11 GENERAL PURPOSE SWITCHES

Type 11-104 End Solder Terminals

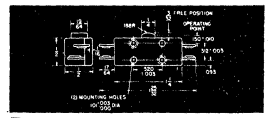
Type 11-204
Screw Terminals



Type 11-114
Reset Model

Type 11-304 Side Solder Terminals

Lever, roller lever, push button and toggle actuators available.

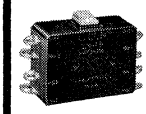


Type 11-104

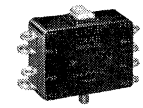
CHARACTERISTICS

Contact Arrangement.....SPDT
Electrical Rating:
U.L. Listed; 10 amps at 125/250 V a-c
30 V d-c ratings:
SPNO or SPNC Res.....15 amps
SPNO or SPNC Ind.....10 amps
Pretravel .....050 Max.
Overtravel.....015 Min.
Movement Diff..... .020 ± .005
Operating Force.....8 ± 3 oz.
Release Force..... .... 4 Oz. Min.

TYPE 22 DOUBLE-POLE DOUBLE-THROW SWITCHES



Type 22-104
Solder End Terminals



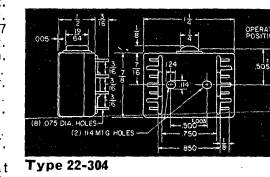
Type 22-114
Reset/Solder End Terminals

Type 22-304
Solder Side Terminals

CHARACTERISTICS

Pretravel.....060 Max.
Overtravel.....015 Min.
Move. Diff.....028± .007
Oper. Force...17 ± 5 Oz.
Release Force..4 Oz. Min.
Prob. Mech. Life.....
10,000,000 Oper.
Prob. Elect. Life.....
750,000 Ops.
Ambient Temp. Range...
−100°F. to 275°F.

U.L. Listed; 10 amps at 125/250 V a-c 30 V d-c ratings:
DPNO or DPNC
Res.....15 amps
DPNO or DPNC
Ind.....10 amps



Type 22-304

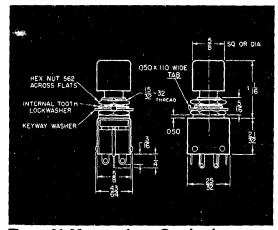
Lever, roller lever, push button and toggle actuators available.

TYPE 01 LIGHTED PUSHBUTTON SWITCHES

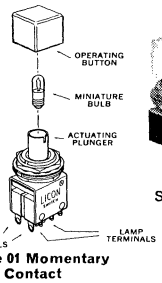
CHARACTERISTICS

	Momentary	Maintained
Operating Force		
1 Pole	14±4 Oz.	3 Lb. Max.
2 Pole	14±4 Oz.	3 Lb. Max.
Pretravel	.062 Max.	.062 Max.
Overtravel	.012 Min.	.012 Min.
Movement Differential	+.005 −.010	

Electrical Rating
Single Circuit: 10 Amps, 250 V a-c
10 Amps, 30 V d-c IND.
Two Circuit: 10 Amps, 250 V a-c
7 Amps, 30 V d-c IND.



Type 01 Momentary Contact

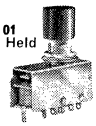


Type 01 Momentary Contact

Type 01
Indicator Units

Type 01
Maintained Contact

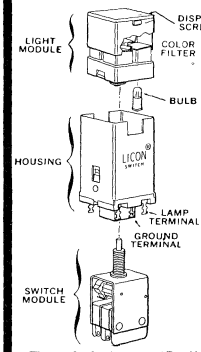
Type 01
Transistor Driven Neon Indicator/ Switch



Type 01
Solenoid Held

¼" round or square button, sealed or unsealed available. Engraved legend optional.

TYPE 04 LIGHTED PUSHBUTTON SWITCHES

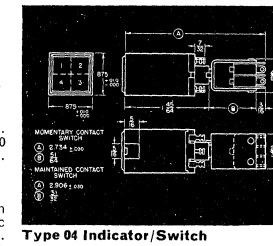


Type 04 Indicator/Switch

CHARACTERISTICS

	Maintained Contact	Momentary Contact
Operating Force	96 Oz. Max.	60 Oz. Max.
Pretravel	.125±.060	.125±.060
Overtravel	.005 Min.	.012 Min.
Movement Differential		.020+.005 −.010

Electrical Rating.....Each Switch
Single Circuit: 10 Amps, 125/250 V a-c
10 Amps, 30 V d-c, IND.
Two Circuit: 10 Amps, 125/250 V a-c
7 Amps, 30 V d-c, IND.

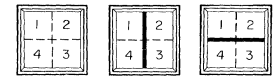


Type 04 Indicator/Switch

Type 04
Indicator

Type 04
Solenoid Held

Insertable Legends



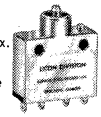
Three Display Screen Styles

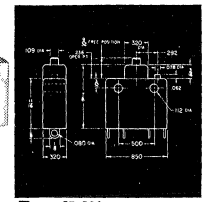
TYPE 65 ENVIRONMENT-FREE SUB-MINIATURE SWITCHES

HARACTERISTICS

SINGLE CIRCUIT RATINGS
Amps, 125/250 V a-c
Amps, 30 V d-c, Ind.
Amps, 30 V d-c, Res.
DOUBLE CIRCUIT
Amps, 125/250 V a-c
Amps, 30 V d-c, Ind.

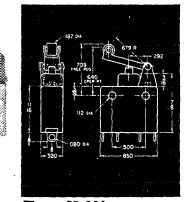
Type 65-201
Pin Plunger
Pretravel, 045 Max.
Overtravel, .012 Min.
Operating Force 1.5± .5 Lb.
Release Force, 8 Oz. Min.
Move. Differential, .020 ±.010





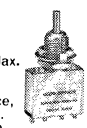
Type 65-201

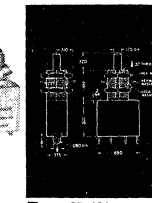
Type 65-301
Roller-Lever
Pretravel, .10 Max.
Overtravel, .025 Min.
Operating Force, 16 Oz. Max.
Release Force, 5 Oz. Min.
Move. Differential, .058 Max.



Type 65-301

Type 65-401
Overtravel Plunger
Pretravel, .070 Max.
Overtravel, .187 Min.
Operating Force, 2.25 Lbs. Max.
Release Force, 10 Oz. Min.
Full Overtravel Force, 5 Lb. Max.





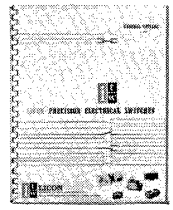
Type 65-401

TYPE 63 ENVIRONMENT-FREE SWITCHES

Type 63-26306 Plunger Actuated

CHARACTERISTICS

Operating Force .9 ± Lbs.
Full Overtravel Force.....
30 Lbs. Max.
Release Force .4 Lbs. Min.
Pretravel.....040 Max.
Diff. Travel.....030 Max.
Overtravel.....250 Min.
Current Capacity.....
@28 V d-c
4 amp res...4 amp motor
2 amp ind.



Licon Catalog-Available On Request

If this listing does not describe the switches you require, detailed data is shown in the new Licon catalog. Copy available on request.

LICON
DIVISION ILLINOIS TOOL WORKS INC.
CHICAGO, ILLINOIS

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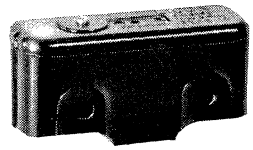
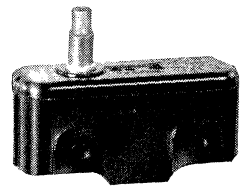
LICON®
SWITCHES not only meet standards . . . they set them!

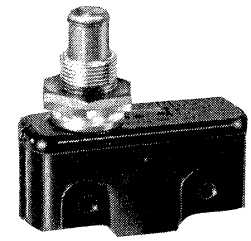
TYPE 10 BASIC SWITCHES



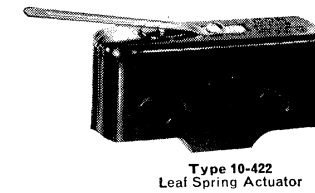
Type 10-122
Basic Switch



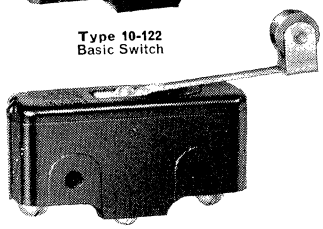
Type 10-222
Overtravel Plunger



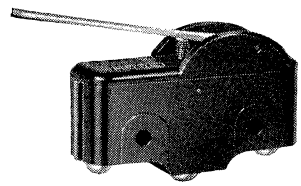
Type 10-322
Panel Mounting



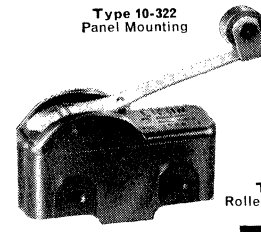
Type 10-422
Leaf Spring Actuator



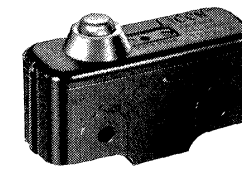
Type 10-522
Roller Leaf Actuator



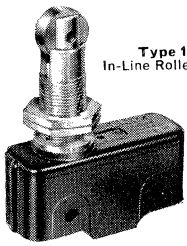
Type 10-622
Hinge-Type Lever



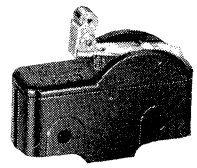
Type 10-722
Roller Lever Actuator



Type 10-822
Cam Actuation



Type 10-922
In-Line Roller Actuator

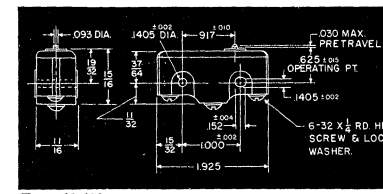


Type 10-72237
One Way Actuator

CHARACTERISTICS

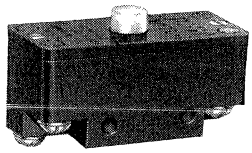
Electrical Rating 15A, 125/250 V a-c,
460 V a-c
15A Res 5A Ind. 5A motor, 30 V d-c
UL APPROVED CSA APPROVED

Splash-proof sealing against moisture, dirt, dust and other harmful elements can be provided for most models. Preloaded reverse action actuator available.

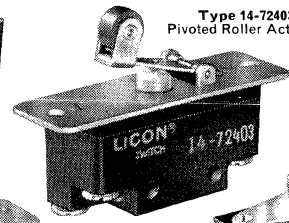


Type 10-122

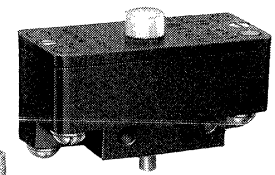
TYPE 14 HEAVY DUTY BASIC SWITCHES



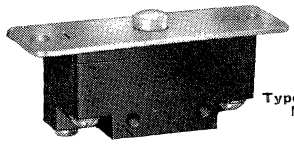
Type 14-124
Basic Switch



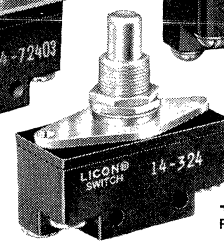
Type 14-72403
Pivoted Roller Actuator



Type 14-1241 Maintained Contact, Reset.



Type 14-12403 Auxiliary Mounting Plate



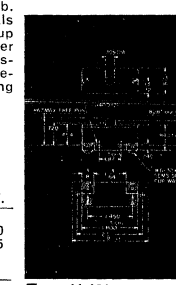
Type 14-324
Panel Mount

Movement differential available from .101" to over .040". 100 gram to 2 lb. operation force available. Terminals available with a No. 6 screw and cup washer, No. 6 screw and lockwasher or No. 8 screw with these same fastener choices. Custom terminal designs available. Auxiliary mounting plate available for panel mount.

ELECTRICAL RATING

Volts	A.C. Steady	A.C. In-Rush	D.C. D.T.	D.C. S.T.
30	20	80	10	25
110	20	80	.5	2.0
220	20	80	.2	.5
440	15	50		
600	5	10		

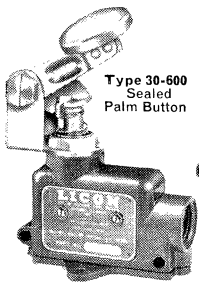
UL APPROVED



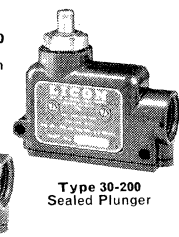
Type 14-124

TYPE 30 INDUSTRIAL ENCLOSED SWITCHES

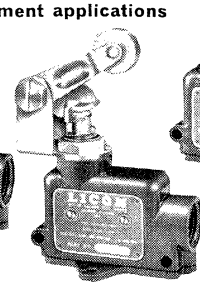
SEALED SWITCHES for environment applications



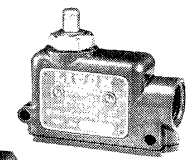
Type 30-600
Sealed
Palm Button



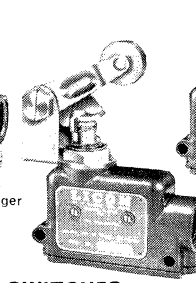
Type 30-200
Sealed Plunger



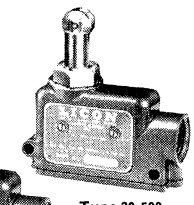
Type 30-400
Sealed Roller Arm



Type 30-100
Overtravel Plunger

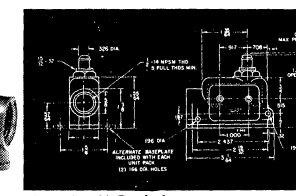


Type 30-300
Roller Arm



Type 30-500
Roller Plunger

UNSEALED SWITCHES for general purpose applications



Type 30-200 Sealed

CHARACTERISTICS

ELECTRICAL RATING: 15 Amps. 125/
460 V a-c; ½ Amp. 125 V d-c; ¼ A
250 V d-c.
UL APPROVED CSA APPRO

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There is an authorized Licon Distributor in your a
that can provide immediate delivery of standard Lic
switches from a complete stock. His inventory sa
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saves you time. For fast, efficient service review y
needs with your Licon Distributor salesman.

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LINEMASTER

AMERICA'S FOOT SWITCH LEADER

LINEMASTER

HERCULES

HEAVY DUTY

FOOT SWITCH LINE

- Rugged
- Cast Iron Enclosure
- Safety-Guarded

Finish:
Machine Grey Enamel
Wt.: 7 lbs. 2 oz.
Size: 8-7/16" x 4-5/16" x 4-1/2"

Interior steel parts are cadmium plated or otherwise treated to resist corrosion. All terminals face up for easy wiring upon unfastening cover guard. Casing has 3/4 inch threaded hole for conduit pipe. Pedal position trip point is minutely adjustable. Two and three stage switches have distinct "FEEL" between stages. Special circuit combinations can be supplied in addition to those listed below.

Class—Voltage Rating	Contact Type	Single Stage SP DT	DP DT	TP DT	2-Stage SP DT	3-Stage SP-DT
Water Tight NEMA Type 4	Maintained	571-DW	572-DW	573-DW	574-DW	575-DW
125-480 V. AC 20 amps	Momentary	531-SW	532-SW	533-SW	534-SW	535-SW
Explosion-Proof Class I Group C & D Class II Group E, F & G NEMA Type 7 125-480 V. AC-20 amps	Maintained	581-DX	582-DX	583-DX	584-DX	585-DX
	Momentary	541-SX	542-SX	543-SX	544-SX	545-SX

Tip-Toe Control for Tip-Top Production!

LINEMASTER, Jr.

FOOT SWITCH

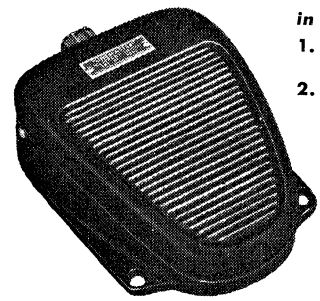
#121-S & #122-S

Lightweight, sensitive... ideal for women workers! Needs only a touch of the toe, while heel remains comfortably on the floor.

Aluminum housing, black crackle finish. Weight 1 lb. 5½" long, 3¼" wide, 1¼" high. Rated at 15 amps., 115 volts A.C.; 15 amps., 250 volts A.C. Can be wired to operate as single pole, normally open; single pole, normally closed; or single pole double throw. Momentary Contact only.
#122-S—Rated at 20 amps., 115-250 volts A.C.

The LINEMASTER

CLIPPER SWITCH



in two models:

1. **Momentary contact** (press to start—release to stop)
2. **Maintained contact** (press to start—press to release)

Rugged Momentary Contact Clipper has proved invaluable to product engineers and machine operators. Maintained Contact Clipper is now available for heavy duty applications. Molded nylon actuating cams; rugged cast iron housings, sponge rubber skid pads. Weight: 2½ lbs. Size: 4½" x 3½" x 1½".

#632-S—AC Rating: 20-A, 125-250V, Momentary Contact, Single Pole, Double Throw.

#634-S—AC Rating: 10-A, 125-250V, Momentary Contact, Double Pole, Double Throw.

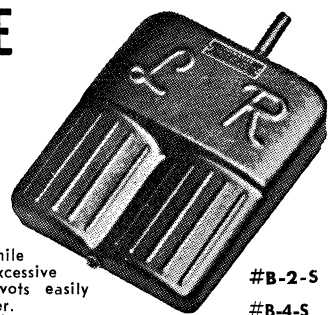
#632-D—AC Rating: 20-A, 125-250V, Maintained Contact, Single Pole, Double Throw.

#634-D—AC Rating: 10-A, 125-250V, Maintained Contact, Double Pole, Double Throw.

The LINEMASTER

EXECUTIVE

Two Switches in One • "On-Center" Mechanical Interlock!



#B-2-S
#B-4-S

This handsome switch is fool-proof and easy-to-operate! Selective circuits and guaranteed interlock eliminate possibility of accidentally tripping both circuits simultaneously, while low, wide casing saves excessive leg movement — foot pivots easily from one side to the other. Easy to wire—remove only one screw and switch is ready. Either interior (or both) may be wired as normally open or normally closed—single pole—double throw.

Heavy steel housing, baked hammertone grey finish. Wt., 14 oz., 4⅝" long, 4" wide, 1¼" high. Each interior rated at 15 amps at 125-250 volts A.C.

The B-4-S has a DPDT circuit on each side and is rated at 10 amps 125 VAC, 5 amps 250 VAC.

The LINEMASTER

CADET

the "little giant" in foot switches that operates from *any angle*

#HB-2

Small, only 1⅛" high, 3⅝" in diameter . . .
Lightweight, just 11 oz. including cordset . . .
Rugged, with heavy steel housing and unbreakable plastic actuating cap, the Cadet is an extremely compact foot switch that will give years of service in hundreds of different applications. It is well designed with an attractive grey hammertone effect casing, maroon cap and non-skid sponge rubber base for perfect positioning. The slightest pressure on the actuating cap from any angle puts the switch in operation. The operator has better control of work resulting in better production. Single pole, double throw, momentary contact only. Wired normally open. Rating 5A at 110V and 250V. Furnished with heavy duty 6 ft. 18-2SV black rubber cordset, series plug and molded strain relief grommet.

MANY OTHER STANDARD MODELS ARE AVAILABLE—WRITE FOR CATALOG

"When awkward jobs hold you up—a LINEMASTER FOOT SWITCH is your third hand!"

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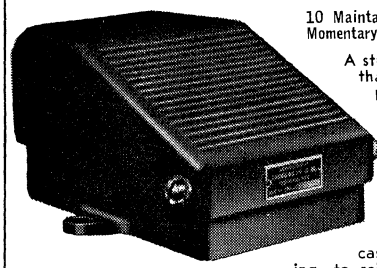
LINEMASTER

PRECISION-BUILT • DEPENDABLE • RUGGED • ECONOMICAL • OVER 1000 APPLICATIONS

LINEMASTER "SENIOR" 4000 SERIES



10 Maintained and Momentary Contact Models

A sturdy industrial-type switch that operates with light pressure from foot or knee, leaving both hands free for work. Economical and built to give years of trouble-free service — fully enclosed and hooded for protection against dirt and chips, with additional heavy spring and cast stop under cover casting, to relieve pressure and strain on spring inside switch proper.

Heavy-duty cast iron housing; black crackle enamel finish. 7" long, 4" wide, 3¼" high. Weight, 5¼ lbs.

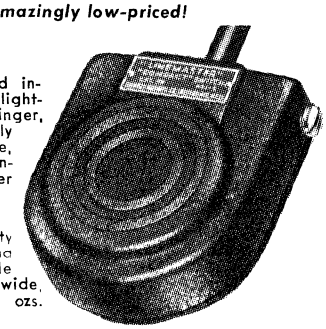
MAINTAINED CONTACT MODELS: Press to start—press to stop.
MOMENTARY CONTACT MODELS: Press to start—release to stop.

ELECTRICAL CHARACTERISTICS						MAINTAINED CONTACT	MOMENTARY CONTACT
Descrip.	Amperes AC	Amperes DC	Volts	Horse-power	Ph.	Cat. No.	Cat. No.
D-P	20	20	125	1	1		
S-T	20	20	250	1	1	4141-D	4141-S
D-P	10	10	125	½	1		
D-T	5	5	250	½	1	4142-D	4142-S
S-P	15	15	125	½	1		
D-T	10	10	250	½	1	4143-D	4143-S
D-P	15		115	1	1		
S-T	15		230	2	1	4151-D	4151-S
	5		575	2	1		
Three	15		115-230	2	3		
Pole	5		575	2	3	4351-D	4351-S

Safety guard available for all above models.

The LINEMASTER COMPACT

Amazingly versatile—amazingly low-priced!

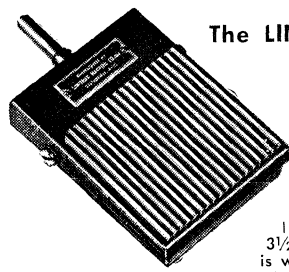


Small, lightweight — and instantly responsive to the slightest pressure of foot, finger, knee or elbow! Substantially built to insure long life, with an actuating mechanism superior to any other on the market today.

Available in a wide variety of wiring plans. Strong steel housing, black crackle finish. 2¾" long, 2½" wide, ⅞" high. Weight, 6½ ozs. Momentary contact only.

Cat. No.	DESCRIPTION	RATING
491-S	Single Pole, Double Throw A.C. only	10A at 115V 10A at 230V
491-SC	SPDT. Wired N.O. with 6 ft. cord and 2 prong series plug. A.C. only.	10A at 125V ½HP at 115V
491-S Twin	Two 491-S switches mounted on a twin base	10A at 115V ½HP at 115V
492-S	Single Pole, Double Throw A.C. only	20A at 115V 20A at 230V
493-S	Single Pole, Single Throw A.C. only, double break	10A at 115V 5A at 230V
494-S	2 interiors so arranged as to simulate D-P-D-T	10A at 115V 5A at 230V
496-S	Foto with cord & light, Single Pole, Double Throw A.C.	20A at 115V 20A at 230V

The LINEMASTER TREADLITE



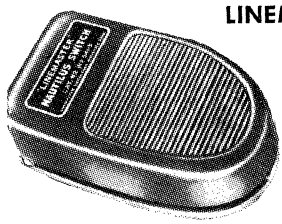
Trim, small, lightweight, instantaneous!

MODEL T-51-S — Accurate control in a modern, minute, treadle switch! Single pole, double throw, momentary contact interior, that can be wired open or closed. Rubber base pad and rubber-ribbed treadle, formed steel casing with black crackle finish. Interior rated at 7 amps., 110 volts and 250 volts A.C. Weight 7 ozs.; 3½" long, 2⅝" wide, 1" high (model T-51-SC is wired with 6' cord and series plugs.)

MODEL T-51-D — Rocker type maintained contact action.

MODEL T-52-S — ONE treadle activates TWO switching operations! A partial downward stroke opens or closes one circuit, added pressure actuates the second circuit. Both interiors, as well as exterior, meet specifications for single-switching Model T-51-S.

LINEMASTER "NAUTILUS" FOOT SWITCH



waterproof • dustproof oilproof • rustproof

A truly great development by Linemaster. The Nautilus is waterproof, dustproof, oilproof, rustproof. Rugged Aluminum casting for long life. Piston type actuator sealed with "O" ring. Electrical interior "well" sealed with "O" ring.

Size: 8" x 4" x 2¼" Wt.: 2 lbs., 8½ ozs.

Cat. No. WP541-S 20 Amp. 125-250 VAC SPDT momentary
Cat. No. WP541-D 12 Amp. 125 VAC SPDT maintained

The LINEMASTER LEKTRO-LOK SWITCH

Small, sensitive, automatically safe

Particularly ideal for transmission equipment!

#L-2-S

#L-4-S

Mechanical Interlock allows only one circuit to function at a time—and you can depend on it! LEKTRO-LOK operates on the teeter-totter system, with selective circuits. Pressure on one side actuates one circuit, release of pressure automatically returns switch to normal "off" position. Pressure on the other side is required before second switch is actuated, independent of first. Yet LEKTRO-LOK requires only a single cord—eliminates costly harness assemblies! Rugged stamped metal housing, black crackle finish. Weight, 10 ozs. 5" long, 2¾" wide, 1¼" high. Single pole, double throw. Rating (A.C. only) 15 amps at 125 volts, 15 amps. at 250 volts.

The L-4-S has a DPDT circuit on each side and is rated at 10 amps 125 VAC, 5 amps 250 VAC.

LINEMASTER SWITCH CORPORATION

WOODSTOCK, CONNECTICUT

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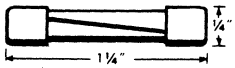
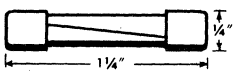
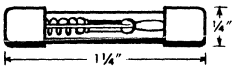
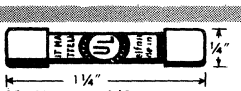
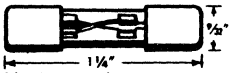
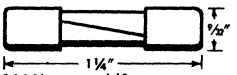
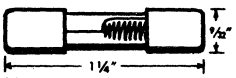
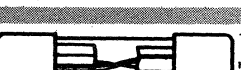
LITTELFUSE DES PLAINES, ILLINOIS, U.S.A. LITTELFUSE

Percentage of rating	Blow Time	Description	Amperes	Optional Resale Price Per Box of 5 Less than Std. Pkg.	Optional Resale Price Per 100 Fuses Std. Pkg. of 100 Fuses or More
		**3AG Fuses (42 volts or less) 311(000) Series** Quick to medium blowing fuses. Designed with straight type element positioned to center of fuse.	4 amp.	.24/5	3.90/c
			5, 6, 7½, 10, 15 amp.	.17/5	2.80/c
			(Note: For 3AG 20 amp. now obsolete, use SFE 20A)		
			25, 30 amp.	.20/5	3.30/c
110%	Life				
135%	0-1 hour				
200%	0-2 minutes				
		**3AG Fuses (250 volts or less) 312(000)** Quick acting fuses for low time lag applications. 312(000) Series approved by Underwriters' Laboratories.	1/100 amp.	1.65/5	27.50/c
			1/32 amp.	1.44/5	24.00/c
			1/16, 1/10, 3/16, 1/8, 15/100, .175, 2/10 amp.	.66/5	11.00/c
			1/4, 3/10, 3/8, 1/2, 6/10, 3/4 amp.	.42/5	7.00/c
			1, 1¼, 1½, 1 6/10, 2, 2½ amp.	.27/5	4.40/c
			3 amp.	.24/5	3.90/c
			4, 5, 6 amp.	.34/5	5.65/c
			8 amp. at 125 volts	.51/5	8.50/c
110%	Life	**318(000) Series** Available under this series with 1½" No. 20 tinned copper leads in comparable amperages as shown. Series approved by Underwriters' Laboratories through 3 amps.	1/100, 1/16 amp.	1.14/5	19.00/c
135%	0-1 hour		1/8, 15/100, 2/10, 3/16 amp.	.84/5	14.00/c
200%	0-2 minutes		1/4, 3/8, 1/2, 3/4 amp.	.66/5	11.00/c
			1, 1½, 2, 2½, 3 amp.	.51/5	8.50/c
			4, 5, 6 amp.	.54/5	9.00/c
			8 amp.	.69/5	11.50/c
		**3AG Slo-Blo Fuses (125 volts or less) 313(000)** Slow blow fuses with high time lag to withstand heavy current surges. Blows quickly on shorts. 313(000) series approved by Underwriters' Laboratories through 5 amperes.	1/100, 1/32 amp.	1.23/5	20.50/c
			1/16, 1/10, 1/8, 15/100, .175, 3/16, 2/10, 1/4, 3/10, 3/8, 4/10, 1/2, 6/10, 7/10, 3/4, 8/10, 1 amp.	.90/5	15.00/c
			1 3/10, 1¼, 1½, 1 4/10, 2 amp.	.84/5	14.00/c
			2½, 2 8/10, 3, 3 2/10, 4, 5 amp.	.66/5	11.00/c
			6¼, 7, 8, 10, 15, 20, 25, 30 amps. at 32 volts	.66/5	11.00/c
110%	Life	**315(000) Series** Available under this series with 1½" No. 20 tinned copper wire leads in comparable amperages as shown. Series approved by Underwriters' Laboratories through 3.2 amps.	1/100, 1/32 amp.	1.50/5	25.00/c
135%	0-1 hour		1/16, 1/10, 1/8, 15/100, 3/16, 2/10, 1/4, 3/10, 3/8, 4/10, 1/2, 6/10, 7/10, 3/4, 8/10, 1 amp.	1.11/5	18.50/c
200%	60 sec. max. 5 sec. min.		1 2/10, 1¼, 1½, 1 6/10, 2 amp.	1.05/5	17.50/c
			2½, 2 8/10, 3, 3 2/10, 4, 5 amp.	.90/5	15.00/c
		3AG Indicating Fuses (125 volts or less) 334(000) Series Medium acting fuses. Pin "pops out" when fuse is blown providing visual indication or the pin can strike a bus bar actuating an audible alarm circuit or a light-alarm circuit.	¾ amp.	2.00/5	33.00/c
			1, 1½, 2, 3, 4, 5 amp.	1.50/5	25.00/c
			6, 8, 10, 12, 15, 20 amp.	2.10/5	35.00/c
110%	4 hour min.				
135%	1 hour max.				
Length 1¼", Dia. ¼"					
		**3AB Fuses (250 volts or less) (steatite) 314(000) Series** Medium time lag steatite enclosed arc quenching powder filled fuses. Approved by Underwriters' Laboratories through 15 amperes.	1/8, ¼, 3/8, ½, ¾ amp.	.60/5	10.00/c
			1, 2, 3 amp.	.57/5	9.50/c
			5, 6, 7, 8, 10 amp.	.54/5	9.00/c
			12, 15, 20, 25 amp.	.57/5	9.50/c
			30 amp.	.66/5	11.00/c
110%	Life				
135%	0-1 hour				
200%	0-2 minutes				
		**4AG Aircraft Fuses (32 volts or less) (anti-vibration) 411(000) Series** Medium to slow fuses especially developed for aircraft use. Designed to withstand vibration, shock, fatigue and repeated off and on circuit operating conditions encountered in aircraft operation.	10, 15, 20, 25, 30 amp.	.39/5	6.50/c
			35, 40 amp.	.42/5	7.00/c
110%	Life				
135%	0-1 hour				
200%	0-2 minutes				
		**4AG Aircraft Fuses (250 volts or less) (anti-vibration) 412(000) Series** Quick acting fuses—for low time lag applications. Developed for aircraft use. Designed to withstand shock and fatigue and afford maximum protection.	1/16 amp.	1.38/5	23.00/c
			1/8, 15/100 amp.	.96/5	16.00/c
			¼, ½ amp.	.48/5	8.00/c
			1, 1½, 2, 2½, 3 amp.	.42/5	7.00/c
			5, 8 amp.	.39/5	6.50/c
110%	Life				
135%	0-1 hour				
200%	0-2 minutes				
		**4AG Slo-Blo Fuses (250 volts or less) 413(000) Series** High time lag fuses for extra protection against sustained overloads. Designed to meet aircraft vibration test requirements. Spring-and-link element construction takes up thermal expansion and contraction and eliminates cyclic fatigue, crystallization and resulting fracture of link.	1/16, 1/10, 1/8, 15/100, 2/10, ¼, 3/10, 4/10, ½, 6/10, ¾, 8/10, 1, 1¼, 1½, 1 6/10, 2 2½, 3, 3 2/10	1.17/5	19.50/c
			4, 5, 6¼, 8, 10, 15, 20, 25, 30 at 32 volts	.90/5	15.00/c
110%	Life				
135%	0-1 hour				
200%	60 sec. max. 5 sec. min.				
		4AB Fuses (250 volts or less) (steatite) 414(000) Series Medium lag, steatite-enclosed, shatterproof fuses. Spring and link construction under 5 amperes. Mechanical depolarization, non-crystallizing features incorporated into ratings over 5 amperes.	1, 2, 3 amp.	.87/5	14.50/c
			5, 6, 8, 10, 15, 20 at 125 volts	.81/5	13.50/c
			25, 30 at 32 volts	.81/5	13.50/c
			35, 40 at 32 volts	.87/5	14.50/c
110%	Life				
135%	0-1 hour				
200%	0-2 minutes				
		**5AG Aircraft Fuses (32 volts or less) 511(000) Series** Medium to slow fuses for general aircraft applications. Design incorporates anti-vibration type element, twisted to 90° angle and mechanically depolarized construction.	10, 15, 20, 25, 30 amp.	.51/5	8.50/c
			35, 40, 50, 60 amp.	.54/5	9.00/c
110%	Life				
135%	0-1 hour				
200%	0-2 minutes				

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LITTELFUSE DES PLAINES, ILLINOIS, U.S.A. LITTELFUSE

Percentage of rating	Blow Time	Description	Amperes	Optional Resale Price Per Box of 5 Less than Std. Pkg.	Per 100 Fuses Std. Pkg. of 100 Fuses or More
110%	4 hour min.	**5AG Quick Acting Fuses (250 volts or less) 512(000) Series** Low time lag fuses where a larger and more rugged construction is desirable. Built with diagonally aligned fuse elements which assure accurate blowing even when the fuse element is expanded by heat.	1, 2, 3, 4 amp.	.54/5	9.00/c
135%	1 hour max.		5, 8 amp.	.51/5	8.50/c
200%	10 sec. max.				
Length 1½", Dia. 13/32"					
110%	Life	**5AG Slo-Blo Fuses (250 volts or less) 513(000) Series** High time lag fuses. Designed to withstand heavy current surges while affording maximum protection against shorts and damaging overloads.	½, 1, 2 amp.	1.50/5	25.00/c
135%	0-1 hour		3 amp	1.17/5	19.50/c
200%	60 sec. max.		5, 10, 15, 20 amp. at 32 volts	1.17/5	19.50/c
	5 sec. min.		25, 30 amp. at 32 volts	1.32/5	22.00/c
110%	Life	**5AB Aircraft Fuses (250 volts or less) 514(000) Series** Medium time lag, bakelite enclosed, shatterproof fuses. Spring-link construction under 5 amperes. Mechanical depolarization, non-crystallizing features incorporated in ratings over 5 amperes. Recommended for applications where excessive shock and vibration are encountered.	1, 2, 3, 3½ amp.	.99/5	16.50/c
135%	0-1 hour		5, 6, 6¼, 7, 8, 10, 15, 20, 25, 30 amp. at 32 volts	.93/5	15.60/c
200%	0-2 minutes		35, 40 amp. at 32 volts	.99/5	16.50/c
100%	Life	**8AG Instrument Fuses (250 volts or less) 361(000) Series** Designed for high speed action to insure maximum protection of delicate electrical equipment.	1/500 amp.	4.38/5	73.00/c
150%	0-10 sec.		1/200 amp.	1.83/5	30.50/c
			1/100 amp.	1.65/5	27.50/c
			1/32 amp.	1.44/5	24.00/c
			1/16 amp.	.90/5	15.00/c
			1/10, 1/8, 3/16, 2/10 amp.	.66/5	11.00/c
			¼, ⅜, 4/10, ½, ¾ amp.	.42/5	7.00/c
			1, 1½, 2, 3, 4, 5 20 amp. at 32 volts	.30/5	5.00/c
110%	Life	**8AG Fuses (250 volts or less) 362(000) Series** Medium time lag fuses for applications where size is a factor because of space limitation or the need to differentiate physically between two fuses in close proximity. Designed to standard N.E.C. blowing specifications. Approved by Underwriters' Laboratories.	1/8 amp.	.57/5	9.50/c
135%	0-1 hour		¼, ⅜, ½, ¾ amp.	.42/5	7.00/c
200%	0-2 minutes		1 amp.	.26/5	4.40/c
			1½, 2, 3 amp. at 125 volts	.26/5	4.40/c
			5, 6, 8, 10, 12, 15, 20 amp. at 125 volts	.17/5	2.80/c
			25, 30 amp.	.20/5	3.30/c

LIMITED CURRENT FUSES & HOLDERS

A new approach to circuit protection completely eliminating the possibility of overfusing circuits. This has been accomplished by a combination of three different fuse lengths and seven different widths of bayonet locking tabs on the fuse caps.

The Limited Current Fuse Holder is designed to accept only the size, amperage, range and type (regular or slo blo) in its amperage range. The fuse locks into the holder by means of a bayonet lock which permits easy and quick insertion and removal of fuses.

110%	Life	**Limited Current LC fuses 250V type C 332(000) Series** Quick acting—low time lag fuses, incorporating design features which adapt easily to television and similar applications.	1/32 amp.	1.38/5	23.00/c
135%	0-1 hour		1/16 amp.	.90/5	15.00/c
200%	0-2 minutes		1/8, 3/16 amp.	.69/5	11.50/c
			¼, 3/10, ⅜, ½, 4/10, 7/10, ¾ amp.	.54/5	9.00/c
			1, 1¼, 1½, 1¾, 2, 2½, 3 amp.	.30/5	5.00/c
			3½, 4, 5, 6 amp.	.39/5	6.50/c
			7 amp. at 125 volts	.39/5	6.50/c
			8 amp. at 125 volts	.57/5	9.50/c
			10 amp. at 125 volts	.60/5	10.00/c
110%	Life	**Limited current LC Slo Blo fuses 125V type N 333(000) Series** Slo Blo fuses for high tmie lag applications. Construction incorporates design features similar to 332(000) series.	1/100, 1/32 amp.	1.29/5	21.50/c
135%	0-1 hour		1/16, 1/10, 1/100, 2/10, ¼, 3/10, 4/10, ½, 6/10, 7/10, ¾, 8/10, 1 amp.	.93/5	15.45/c
200%	60 sec. max.		1¼, 1 4/10, 1¾, 2 amp.	.84/5	14.00/c
	5 sec. min.		2½, 2 8/10, 3, 3 2/10, 3½, 4, 5, 6¼, 7 amp. at 32 volts	.81/5	13.50/c

Limited Current Fuse Holders 346(000) Series)

Catalog Number	Type	Amperage Range	Opt. Less Than Std.	Net Price Std. Pkg. of 100	Catalog Number	Type	Amperage Range	Opt. Less Than Std.	Net Price Std. Pkg. of 100
346001	Regular	(C 1/32-3/10)	$.13 ea.	$.11 ea.	346008	Slo-Blo	(N 1/100-3/10)	$.13 ea.	$.11 ea.
346002	Regular	(Over C 3/10-½)	.13	.11	346009	Slo-Blo	(Over N 3/10-½)	.13	.11
346003	Regular	(Over C ½-¾)	.13	.11	346010	Slo-Blo	(Over N ½-¾)	.13	.11
346004	Regular	(Over C ¾-1¼)	.13	.11	346011	Slo-Blo	(Over N ¾-1¼)	.13	.11
346005	Regular	(Over C 1¼-1¾)	.13	.11	346016	Slo-Blo	(Over N 1¼-1¾)	.13	.11
346006	Regular	(Over C 1¾-2½)	.13	.11	346017	Slo-Blo	(Over N 1¾-2½)	.13	.11
346007	Regular	(Over C 2½ 3½)	.13	.11	346018	Slo-Blo	(Over N 2½-3½)	.13	.11
346012	Regular	(Over C 3½-5)	.13	.11	346019	Slo-Blo	(Over N 3½-5)	.13	.11
346013	Regular	(Over C 5-7)	.13	.11	346020	Slo-Blo	(Over N 5-7)	.13	.11
346014	Regular	(Over C 7-10)	.13	.11					

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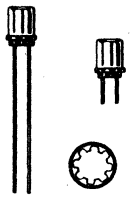
LITTELFUSE DES PLAINES, ILLINOIS, U.S.A. LITTELFUSE



MICROFUSE

A completely different development in circuit protection for sub miniature applications.

The PIGTAIL VARIETY (278000 series) is especially adaptable for soldered connections in minimum space.

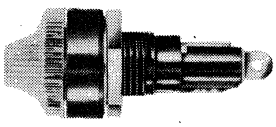
The PLUG-IN VARIETY (272000 series) is designed for use with the No. 281001 sub-miniature fuse holder which is easily mounted to chassis or printed circuit board.

The SUB-MINIATURE FUSE HOLDER #281001 allows fast simple fuse replacement, will handle continuous currents up to 5 amps at 125V or less.

Size: 1¾₆₄" Dia. x 1¹⁄₃₂". Available from 1/500 amp. through 5 amps. Maximum voltages—125V. Blowing Specifications: Series 272000—278000. 110% Life; 200% 0-10 Seconds.

Amperes	Optional Resale Price Per Box of 5 Less than Std. Pkg.	Per 100 Fuses Std. Pkg. of 100 Fuses or More
0 through .031 amp.	5.15/5	86.00/c
.050A through 5 amp.	4.29/5	71.00/c
281001 plug-in holder	.26 each	.22 each

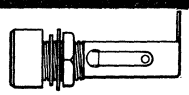
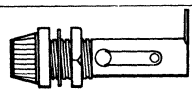
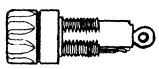
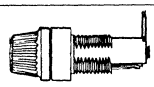
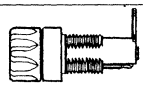
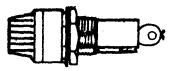
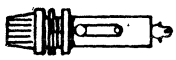
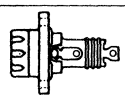
3AG INDICATING FUSE POST



Catalog Number	Voltage Range	Net Resale Price Less than Std. Pkg.	Std. Pkg. of 100
344006	2½-7V	$2.21 ea.	$1.84 ea.
344012	7-16V	2.21 ea.	1.84 ea.
344024	16-32V	2.21 ea.	1.84 ea.
344125	100-125V	1.35 ea.	1.13 ea.
344250	200-250V	1.35 ea.	1.13 ea.

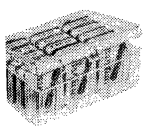
PHYSICAL CHARACTERISTICS

High temperature styrene knob (amber with incandescent bulbs—2½ thru 32 volts—and clear with high degree vacuum neon bulbs 90-250 volts). Maximum current rating 20 amperes. Size: Overall Length 2⅜"; front of Panel ¹³⁄₁₆"; back of Panel 1½"; mounting hole ⅝" Dia.; flat on one side.

Style	Catalog Number	Fuse Size	Description	Physical Size fuse	Mounting Hole Dia.	Overall Length	Back of Panel	Net Resale Price Less than Std. Pkg.	Std. Pkg. of 100
	341001 371001	3AG 8AG	Screwdriver Slot Knob Screwdriver Slot Knob	1¼ x 1¼ Dia. 1 x ¼ Dia.	.505D .505D	2⁷⁄₃₂ 2⁷⁄₃₂	1²³⁄₃₂ 1²³⁄₃₂	.43 ea. .43 ea.	.36 ea. .36 ea.
	342001 372001	3AG 8AG	Finger Operated Knob Finger Operated Knob	1¼ x 1¼ Dia. 1 x ¼ Dia.	.505D .505D	2⁷⁄₃₂ 2⁷⁄₃₂	1²³⁄₃₂ 1²³⁄₃₂	.43 ea. .43 ea.	.36 ea. .36 ea.
	342014		Miniature post with finger operated knob	1¼ x 1¼ Dia.	.510D	2⁵⁄₆₄	1¹¹⁄₃₂	.32 ea.	.27 ea.
	342022		Miniature post with finger operated knob	1¼ x 1¼ Dia.	.510D	1⁵³⁄₆₄	1¼	.37 ea.	.31 ea.
	342004		Miniature post with finger operated knob	1¼ x 1¼ Dia.	.510D	1¾	1¹⁄₆₄	.37 ea.	.31 ea.
	342012	3AG	Miniature post with finger operated knob	1¼ x 1¼ Dia.	.510D	2⁵⁄₃₂	1¹¹⁄₃₂	.32 ea.	.27 ea.
	442001	4AG	Fuse extractor post	1¼ x ⁹⁄₃₂ Dia.	.635D	2²⁹⁄₃₂	2¼	.96 ea.	.80 ea.
	570001	5AG	Finger operated knob —flange Mount	1½ x ¹³⁄₃₂ Dia.	.865D	2⁹⁄₃₂	1¹⁵⁄₃₂	1.29 ea.	1.08 ea.

FUSE CADDY Part 094037

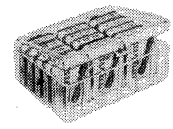
A handy fuse kit for instant accessibility—correct fuse at your fingertips every time. 18 individual compartments. Fuse caddy comes with 75 fuses, 15 different types, plus 3 spare compartments.



3AG ¼A	3AG 5A	N ¼ LC
3AG ½A	3AG ¼A SB	N 1 LC
3AG 1A	3AG ½A SB	N 1¼ LC
3AG 2A	8AG ¼	C 2½ LC
3AG 3A	8AG ½	

Net Resale Price
$6.97 ea.

LC FUSE CADDY Part 094041



A handy all inclusive LC (Limited Current) Fuse Caddy for servicemen's tube caddy. One call is all. 18 individual compartments. LC Fuse Caddy comes with 75 fuses; 15 different types plus three spare compartments.

Net Resale Price
$9.40 ea.

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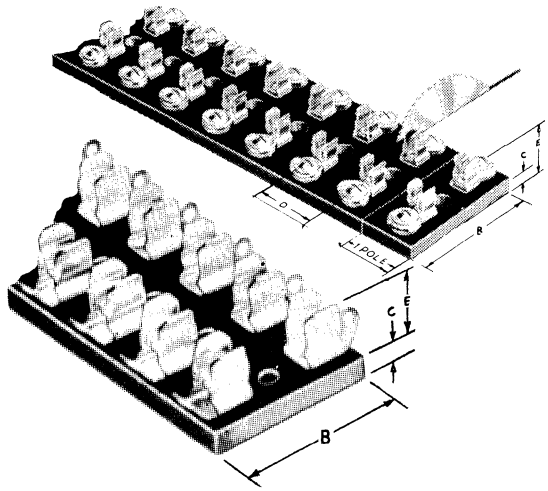
LITTELFUSE DES PLAINES, ILLINOIS, U.S.A. LITTELFUSE

FUSE MOUNTING PANELS



MOUNTINGS WITH SOLDER TERMINALS — TYPE "S" Phosphor-Bronze, bright-dipped finish Lug Clips are firmly anchored to black Bakelite base—have non-turning anchors. For 8AG (387000 series) and 3AG (357000 series) fuses.

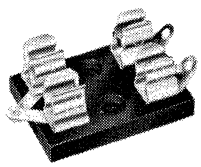
MOUNTINGS WITH SCREW TERMINALS—TYPE "T" Spaced to U/L requirements for equipment circuit protection. Nickel plated brass screw terminals, nickel plated fuse clips. For 3AG(356000 series), 4AG(456000 series) and 5AG(556000 series) fuses.

Open type fuse panels, stocked in 12-pole units as shown—we cut them to 2, 3, 4 or more poles as ordered, or you may cut them in your plant (⅛" allowance for saw cut).

Cat. No.	Fuse Type	Mtg. Type	Dim. "B"	Dim. "C"	Dim. "D"	Dim. "E"	Each less than 100	Each over 100
387001	8AG	S	1 3/8	3/16	5/8	21/32	.14	.12
357001	3AG	S	1 5/8	3/16	5/8	21/32	.14	.12
356001	3AG	T	2 3/8	7/32	29/32	1 1/16	.29	.25
456001	4AG	T	2 3/8	7/32	29/32	13/16	.37	.31
556001	5AG	T	2 3/4	9/32	31/32	1 1/32	.43	.36

Note: Above are single pole mountings. Prices and delivery by quotation for multiple pole types.

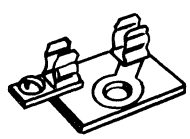
RECTIFIER MOUNTINGS



Mountings custom designed for Sarkes Tarzian silicon rectifiers series M500 and L1250. Mountings designed to your specifications are available upon request. Let our engineers assist you.

Cat. No.		Each less than 100	Each over 100
099062	1 pole	.14 each	.12 each
099063	2 poles	.28 each	.23 each

METER BACK MOUNTING Cat. No. 383002 (1059)—



Mounts directly on meter binding post. Will not touch other posts on smallest standard meter. Linen bakelite base, 1" x 1⅛". Length over screw terminal, 1½".

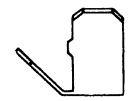
Net Resale Price	
Less than Std. Pkg.	Std. Pkg. of 10
.264 ea.	.22 ea.

STANDARD FUSE CLIPS

For the exacting performance often required in the electronics communications, radio, television, aircraft and marine equipment industries, we recommend our beryllium copper fuse clip. Beryllium copper clips have lower contact resistance and higher conductivity than ordinary fuse clips. They are silver plated, a finish well suited to fuse applications.

Ears

Earless



Lug

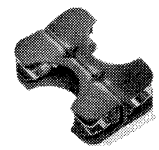
FUSE CLIPS
(Phosphor Bronze Bright Nickel Plated)

		Net Resale Price Less than Std. Pkg. ea.	Std. Pkg of 100 ea.
3AG Fuse Clip	101001	.018	.015
3AG Fuse Clip (Earless)	101002	.018	.015
3AG Solder Terminal Clip Bright dip	101003	.026	.022
4AG Fuse Clip	103001	.0336	.028
4AG Fuse Clip (Earless)	104002	.0336	.028
5AG Fuse Clip	105001	.0432	.036
5AG Fuse Clip (Earless)	105002	.0432	.036
9/16" Dia. Fuse Clip	107001	.066	.055
9/16" Dia. Fuse Clip (Earless)	107002	.066	.055
13/16" Dia Fuse Clip	109001	.156	.130
13/16" Dia. Fuse Clip (Earless)	109002	.156	.130

FUSE CLIPS
(Beryllium Copper Silver Plated)

3AG Fuse Clip	121001	.0432	.036
3AG Fuse Clip (Earless)	121002	.0432	.036
3AG Solder Terminal Clip	121004	.09	.075
4AG Fuse Clip	123001	.066	.055
4AG Fuse Clip (Earless)	123002	.066	.055
5AG Fuse Clip	125001	.102	.085
5AG Fuse Clip (Earless)	125002	.102	.085
9/16" Dia. Fuse Clip	127001	.198	.165
9/16" Dia. Fuse Clip (Earless)	127002	.198	.165
13/16" Dia. Fuse Clip	129001	.486	.405
13/16" Dia. Fuse Clip (Earless)	129002	.486	.405

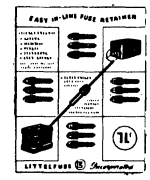
SNAP-ON MOUNTINGS



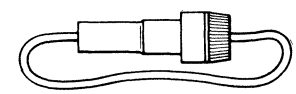
Time saver for pigtail replacement. Snap on blown pigtail, then use regular fuse in other side. No soldering. This Snap-On mounting has a cut out on both sides which makes the fuse accessible for replacement from both sides. They are available in bulk, on display cards of 24, or in handy merchandising plastic boxes of ten.

		Net Resale Price Less than Std. Pkg.	Std. Pk
Card of 24	No. 094024	$4.54 ea.	$3.78 ea
Box of 10	No. 094025	1.89 ea.	1.58 ea
Bulk	No. 350130	.92/5	14.00/

IN-LINE FUSE RETAINER Assortment 094020

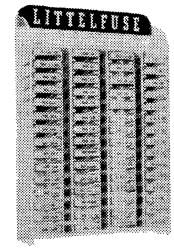


comes complete with 8-inch loop of wire and fuse inserted under spring tension. Assortment consists of 6 SFE 14 units, 3 SFE 9 and 3 SFE 20.



Net Resale Pri
$4.94 ea.

FUSEMASTER 094047



Versatile clear plastic fuse wall rack with 60 individual compartments for 60 different fuse types. Index inventory control card, pressure sensitive blank inventory labels for easy index adjustment; and an assortment of 100 popular fuses are furnished as a package under Fusemaster Assortment 094047.

Net Resale Pri
$10.72 ea.

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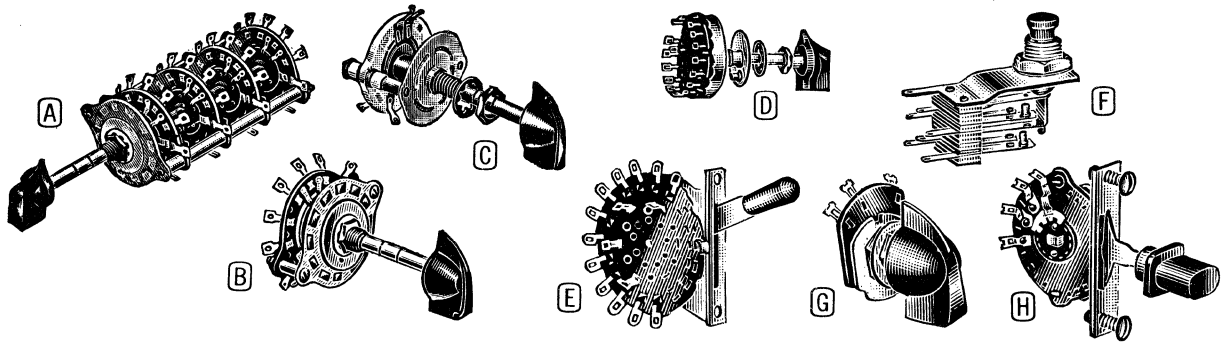
MALLORY SWITCHES



PHENOLIC WAFER ROTARY SWITCHES (FIG. A)

MIL grade phenolic wafers with self-cleaning silver-plated contacts. Adjustable stops, 30° index. Max. O.D., 1¾"; ⅜"-32 x ⅜" bushing; ¼" dia. x 2" shaft grooved for cutting. Space between index and #1 wafer, ½"; spacing between other wafers, 1". Ratings: .6 amp at 300 v. DC, 8 amps at 60 v. DC, 1 amp at 300 v. AC, 10 amps at 6 v. AC; max. non-breaking resistive load, 10 amps; breakdown, 1000 v. DC or AC. With hex nut, lockwasher and 366-1 knob.

Mallory Number		No. of Circuits Per Section	No. of Circuits Per Switch	No. of Positions	No. of Sections or Gangs	Net Each
Shorting Type	Non-Shorting Type					
1211L	1311L	1	1	2 to 11	1	$2.10
1215L*	1315L*	2	2	2 to 5	1	2.10
1213L*	1313L*	3	3	2 to 3	1	2.10
1212L*	1312L*	4	4	2 to 2	1	2.10
1221L	1321L	1	2	2 to 11	2	2.58
1225L*	1325L*	2	4	2 to 5	2	2.58
1223L*	1323L*	3	6	2 to 3	2	2.58
1222L*	1322L*	4	8	2 to 2	2	2.58
1231L	1331L	1	3	2 to 11	3	3.24
1235L*	1335L*	2	6	2 to 5	3	3.24
1241L	1341L	1	4	2 to 11	4	3.81
1245L*	1345L*	2	8	2 to 5	4	3.81
1251L	1351L	1	5	2 to 11	5	4.11
1256L	1356L	2	10	2 to 6	5	4.53
1261L	1361L	1	6	2 to 11	6	4.83
1266L	1366L	2	12	2 to 6	6	5.52

*These switches are provided with an "off" position which is in addition to the number of positions listed in the fifth column.

24 POSITION TAP SWITCH (FIG. B)

Ratings same as 12/1300 Series. Continuous rotation, 15° index. With nut, washer, 366-1 knob and 394 dial.

Mallory No. 13124L Switch—Net Each..... $2.76

5 POSITION HAMSWITCH® (FIG. B)

For measuring up to five circuits on single meter. Same ratings as 12/1300 Series plus conservative 1000 v. AC rms or 1500 v. DC rating. 60° index; adjustable stop.

Mallory No. 151L Hamswitch—Net Each..... $2.70

CIRCUIT OPENING SWITCH (FIG. B)

For meter switching or inserting resistors, capacitors, etc. Ratings same as 12/1300 Series. Adjustable stop; 30° index.

Mallory No. 1400L Circuit Opening Switch—Net Each.. $4.68

DECADE SWITCHES (FIG. B)

Requires only four resistors or capacitors for full decade. Ratings same as 12/1300 Series. 36° indexing.

Mallory No. 153L Capacitor Decade Switch—Net Each.. $2.70

Mallory No. 154L Resistor Decade Switch—Net Each... $2.94

CERAMIC WAFER SWITCHES (FIG. C)

MIL grade ceramic wafers for RF switching. Non-shorting. Indexes: 170/180 Series, 30°; 160 Series, 90°. Bushing, shaft and wafer spacing same as on 12/1300 Series. Ratings: 5 amps, 300 v. AC or DC; 6 amps, 6 v. AC or DC (160 Series 1000 v. DC and up to 100 watts). Series 170/180 breakdown, 500 v. AC or DC. Max. non-breaking resistive load, 5 amps. With nut, washer and 366-1 knob.

Mallory No.	No. of Sections	Circuits	Spacing Between Sections	Contacts Per Circuit	Net Each
161C	1	1	.....	4	$2.16
162C	2	2	1⅞"	4	3.06
163C	3	3	1"	4	3.96
164C	4	4	1"	4	4.86
165C	5	5	1"	4	5.76

Mallory No.	Number of Gangs	Number of Circuits Per Gang	Number of Positions	Net Each
172C	1	1	2 to 11	$2.37
173C*	1	2	2 to 5	2.37
174C*	1	3	2 to 3	2.37
176C	2	1	2 to 11	3.39
177C*	2	2	2 to 5	3.39
178C*	2	3	2 to 3	3.39
180C	3	1	2 to 11	4.32
181C*	3	2	2 to 5	4.32

*Has additional "off" switch preceding numbered positions.

SINGLE SECTION ROTARY SWITCHES (FIG. D)

Multi-purpose phenolic switches. Index: 1¼" dia., 30°; 1 11/16" dia., 20°. Ratings: .125 amp, 300 v. DC; 3 amps, 6 v. DC; .2 amp, 300 v. AC; 5 amps, 6 v. AC; breakdown 500 v. AC or DC; max. non-breaking resistive load, 5 amps. Bushing, ⅜"-32 x ⅜"; shaft, ¼" x 2". With nut, lockwasher and 366-1 knob.

Mallory Number		No. of Circuits	No. of Positions	Dia. of Base	Adjustable Stop	Net Each
Shorting Type	Non-Shorting Type					
3115J	3215J	1	5	1¼"	No	$1.02
31112J	32112J	1	12	1¼"	No	1.02
3122J	3222J	2	2	1¼"	No	1.02
3123J	3223J	2	3	1¼"	No	1.02
3126J	3226J	2	6	1¼"	No	1.02
3134J	3234J	3	4	1¼"	No	1.05
3142J	3242J	4	2	1¼"	No	1.05
3143J	3243J	4	3	1¼"	No	1.05
31117J	32117J	1	2 to 17	1 11/16"	Yes	1.56
3129J	3229J	2	2 to 9	1 11/16"	Yes	1.56
3136J	3236J	3	2 to 6	1 11/16"	Yes	1.65
3163J	3263J	6	2 to 3	1 11/16"	Yes	1.65

ANTENNA SWITCH (FIG. D)

For switching two separate TV or FM antennas on single set. Dia., 1¼". With bracket, self-tapping screws, all hardware and 366-1 knob.

Mallory No. 3122TV Antenna Switch—Net Each..... $1.31

LEVER ACTION SWITCHES (FIG. E)

Phenolic wafers for audio systems. Positive indexing. Mtg.: 5000 Series, elongated holes on 29/32" ctrs.; 6000 Series, rd. holes on 1⅝" ctrs. Multiple mtg. spacing, ¾". Ratings: .125 amp, 300 v. DC; 3 amps, 6 v. DC; .2 amp, 300 v. AC; 5 amps, 6 v. AC; breakdown, 500 v. AC or DC. With two #6-32 screws, nuts and knob.

Mallory Number		No. of Poles or Circuits	No. of Positions or Contacts	Net Each
Shorting Type	Non-Shorting Type			
5124	5224	2	4	$1.38
6142	6242	4	2	1.20
6143	6243	4	3	1.20

PUSHBUTTON SWITCHES (FIG. F)

Non-locking for test panels, etc., in eight circuits. Silver contacts on alloy springs. Breakdown, 500 v. DC. Bushing, ⅜"-32 x ⅜". Integral phenolic knob. With nut and washer.

Mallory No.	Circuit Arrangement	Net Each
1011	SPST—Make	$0.69
1012	SPST—Break	.69
1013	SPDT	.78
1014	DPST—Make 2	.87
1015	DPST—Break 2	.87
1016	DPDT	1.05
1017	DP—Make 2, Break 1	1.05
1018	DPDT—Make before break	1.44

GENERAL PURPOSE AND LEVER ACTION SWITCHES

Miniature phenolic switches. Series 4M, 5M for tone control, radio-phone, etc.; Series 6M for audio switching. Series 4M and 5M with nut, washer and 366-1 knob; 6M with GS5149 knob and two #6-30 screws. Suffixes: **D,** has AC line switch; **K,** knurled shaft (others ¼" dia. rd.); **S,** spring return; **U,** spring return and positive index.

GENERAL PURPOSE ROTARY SWITCHES (FIG. G)

Mallory Number		Circuits Per Section	No. of Sections	No. of Positions	Net Each
Shorting Type	Non-Shorting Type				
4M1114D	.....	1	1	4	$1.80
.....	4M2412S	4	1	2	1.44
5M1112	.....	1	1	2	1.08
5M1113	.....	1	1	3	1.08
5M1113K	.....	1	1	3	.75
5M1213	5M2213	2	1	3	1.08
.....	● 42L2212S	2	1	2	1.08

MINIATURE PHENOLIC LEVER ACTION SWITCHES (FIG. H)

Mallory Number		Circuits Per Section	No. of Sections	No. of Positions	Net Each
Shorting Type	Non-Shorting Type				
6M1213	6M2213	2	1	3	$1.26
6M1213S	6M2213S	2	1	3	1.26
6M1213U	6M2213U	2	1	3	1.26
6M1412S	6M2412S	4	1	2	1.44
.....	6M2412	4	1	2	1.26

Net

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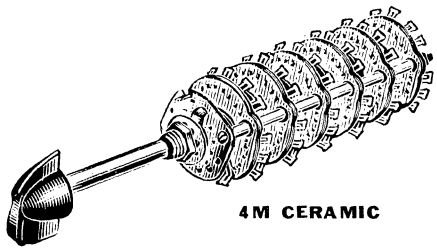
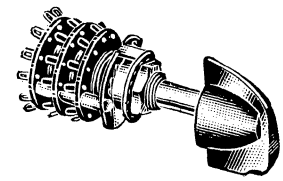
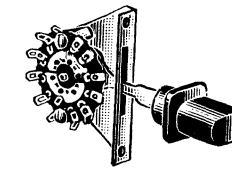
MALLORY SWITCHES



4M CERAMIC



12M



12L

MALLORY-GRIGSBY MINIATURE SWITCHES

Mallory-Grigsby miniature rotary switches feature exclusive Wedgelock contacts which insure positive alignment, avoids frame and contact distortion and wide insulating path between adjacent contacts. Max. wafer dia., 1⅜". Index: Phenolic types, 30°; ceramic types, 30°, 60° (H), and 90° (N). Phenolic types use Richardson T725 grade phenolic; ceramics, MIL grade L5 Steatite treated with Dow-Corning 200. Ratings: 350 ma, 500 v. rms resistive; breakdown, 1700 v. rms, 60 cps; max. initial contact resistance, .005 ohm. Bushing, ⅜"-32 x ⅝"; shaft, ¼" dia. x 2". With nut, washer and 366-1 knob.

30° INDEXING PHENOLIC WAFER

Mallory Number		Circuits per Section	Number of		Net Each
Shorting Type	Non-Shorting		Sections	Positions	
4M11111	4M21111	1	1	11	$1.80
4M1215	4M2215	2	1	5	1.80
4M11211	4M21211	1	2	11	2.58
4M1313	4M2313	3	1	3	1.80
4M11311	4M21311	1	3	11	3.24
4M1412	4M2412	4	1	2	1.80
4M1225	4M2225	2	2	5	2.58
4M11411	4M21411	1	4	11	3.81
4M11511	4M21511	1	5	11	4.47
4M1323	4M2323	3	2	3	2.58
4M1235	4M2235	2	3	5	3.24
4M11611	4M21611	1	6	11	5.04
4M1422	4M2422	4	2	2	2.58
4M1245	4M2245	2	4	5	3.81
4M1255	4M2255	2	5	5	4.47
4M1432	4M2432	4	3	2	3.24
4M1265	4M2265	2	6	5	5.04

30° INDEXING CERAMIC WAFER

4M11112C	4M21112C	1	1	12	$2.37
4M1216C	4M2216C	2	1	6	2.37
4M11212C	4M21212C	1	2	12	3.39
4M1315C	4M2315C	3	1	5	2.37
4M11312C	4M21312C	1	3	12	4.32
4M1226C	4M2226C	2	2	6	3.39
4M11412C	4M21412C	1	4	12	5.19
4M1513C	4M2513C	5	1	3	2.37
4M11512C	4M21512C	1	5	12	6.18
4M1612C	4M2612C	6	1	2	2.37
4M1325C	4M2325C	3	2	5	3.39
4M1236C	4M2236C	2	3	6	4.32
4M11612C	4M21612C	1	6	12	7.20
4M1246C	4M2246C	2	4	6	5.19
4M1335C	4M2335C	3	3	5	4.32
4M1523C	4M2523C	5	2	3	3.39
4M1256C	4M2256C	2	5	6	6.18
4M1622C	4M2622C	6	2	2	3.39
4M1266C	4M2266C	2	6	6	7.20
4M1533C	4M2533C	5	3	3	4.68
4M1632C	4M2632C	6	3	2	4.68

60° INDEXING CERAMIC WAFER

Non-Shorting Mallory No.	Circuits per Section	Number of		Net Each
		Sections	Positions	
4M2116H	1	1	6	$2.16
4M2126H	1	2	6	3.06
4M2136H	1	3	6	3.96
4M2146H	1	4	6	4.86
4M2156H	1	5	6	5.76

90° INDEXING CERAMIC WAFER

4M2114N	1	1	4	$2.16
4M2124N	1	2	4	3.06
4M2134N	1	3	4	3.96
4M2144N	1	4	4	4.86
4M2154N	1	5	4	5.76

MALLORY-GRIGSBY SUBMINIATURE SWITCHES

Glass-epoxy wafers per MIL-P-18177. Only ⅞" diameter. Series 12M rotary types available with up to three sections (3/16" spacing); Series 12L are lever action type. Index, 30°. Ratings: 150 ma at 150 v.; max. voltage, 225 v.; max. current, 2.5 amps at 6 v. AC rms (all resistive load). Bushing (12M), ⅜"-32 x ¼"; shaft ¼" dia. x 1¼". Rotary types furnished with nut, washer and 366-1 knob; lever types with two #4-40 screws and GS5149 knob. Suffixes (12L): **S**, spring return; **U**, spring return and positive index.

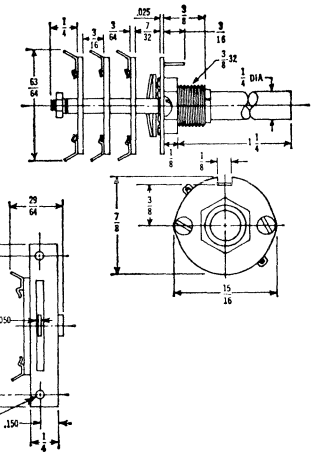
12M ROTARY—30° INDEX

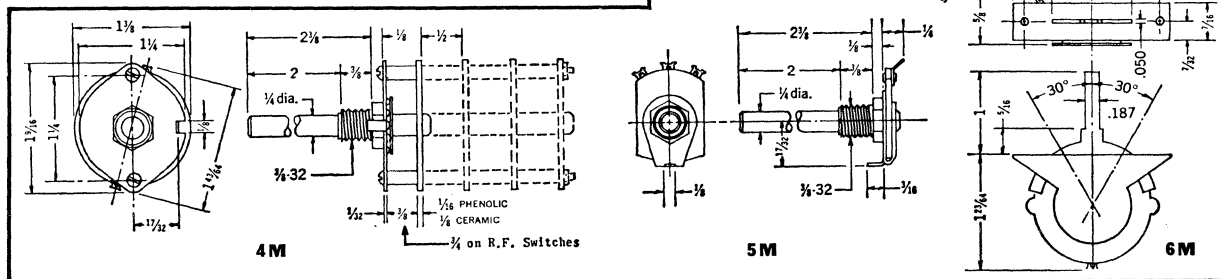
Mallory Number		Circuits per Section	Number of		Net Each
Shorting Type	Non-Shorting		Sections	Positions	
12M11111G	12M21111G	1	1	11	$4.52
12M11211G	12M21211G	1	2	11	5.58
12M1215G	12M2215G	2	1	5	4.52
12M11311G	12M21311G	1	3	11	6.64
12M1313G	12M2313G	3	1	3	4.52
12M1225G	12M2225G	2	2	5	5.58
12M1412G	12M2412G	4	1	2	4.52
12M1235G	12M2235G	2	3	5	6.64
12M1323G	12M2323G	3	2	3	5.58
12M1422G	12M2422G	4	2	2	5.58
12M1333G	12M2333G	3	3	3	6.64
12M1432G	12M2432G	4	3	2	6.64

12L LEVER ACTION—30° INDEX

Mallory Number		Circuits per Section	Number of		Net Each
Shorting Type	Non-Shorting		Sections	Positions	
12L1612	12L2612	6	1	2	$4.24
12L1612S	12L2612S	6	1	2	4.47
12L1213	12L2213	2	1	3	3.12
12L1213S	12L2213S	2	1	3	3.38
12L1213U	12L2213U	2	1	3	3.38
12L1413	12L2413	4	1	3	3.63

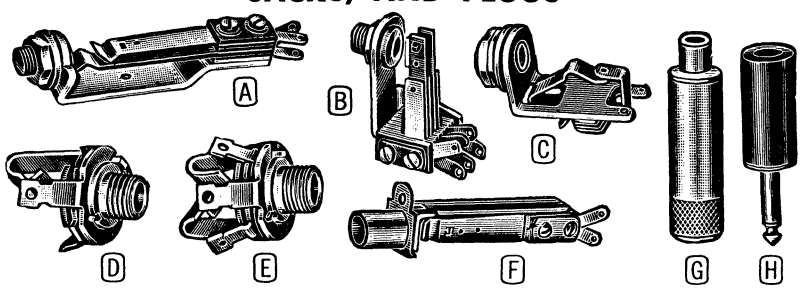
DIMENSIONS





MALLORY JACKS, PLUGS, HARDWARE

JACKS, AND PLUGS



PHONE JACKS

Four configurations meet a wide range of applications. Circuit arrangements shown in chart. Supplied with nut and washer. Bushing 3/8"-32 x 3/8". Nickel-plated alloy springs, silver contacts, cadmium-plated frames.

Long Fr. (Fig. A)		Junior (Fig. B)		Infant and Midget (Fig. C)		
Mal. No.	Net Ea.	Mal. No.	Net Ea.	Mal. No.	Net Ea.	Schem.
1	45c	701	45c	A-1	33c	
2	57c	702	51c	A-2	48c	
2A	57c	702A	57c	A-2A	57c	
2B	57c	702B	57c			
3	60c	703	60c			
		703A	60c	A-3A	66c	
3B	60c	703B	60c			
		703C	60c			
		704	69c			
4A	75c	704A	69c			
4B	75c	704B	69c			
5	90c	705	75c			
6	1.05					

COMPACT JACKS (FIGS. D AND E)

JJ-033 and JJ-034 meet all requirements of JAN-J-641.

Mallory Number	No. Cond.	Circuit Type	Net Each
LA1	2	Open	36c
LA2	2	Closed	42c
LA2A	3	Closed	48c
SC-1A	2	Open	36c
JJ-034	2	Open	39c
SCA-2B	3	Open	42c
JJ-033	3	Open	48c

GROUNDING JACK

For aircraft grounds and similar applications.

Mallory No. GJ-1—Net Each..... **36c**

TELEPHONE JACKS (FIG. F)

For close strip mounting in switchboards; plain round bushing. Mounts by screw through mounting plate.

Mallory No. XP1—Open circuit type. Net Each..... **63c**

Mallory No. XP2B—Three circuit microphone type. Net Each..... **75c**

Mallory No. XP3B—Single circuit, make before break type. Net Each.. **90c**

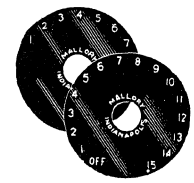
EXTENSION JACKS (FIG. G)

Mallory No.	Circuit	Shell	Net Each
100	2-way	Fiber	$1.08
100N	2-way	1-piece nickel	1.08
100A	2-way	2-piece nickel, built-in clamp	1.50

PHONE PLUGS (FIG. H)

Mal. No.	Circuit	Shell	Net Each
55	.. ....	Adapts mike con. to stand. jack	$0.30
75	2-way	Phenolic tie-cord anchor, shielded	.45
75A	2-way	Nickel, 2-piece, tie-cord anchor, built-in cble. clp.	1.05
75N	2-way	Nickel, tie-cord anchor, shielded	.66
76	3-way	Phenolic	.90
76A	3-way	Nickel, 2-piece, built-in cble. clp.	1.17
85	2-way	Miniature phone plug, shielded	.36

DIAL PLATES

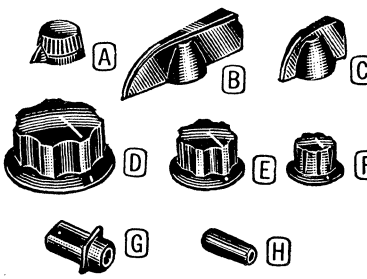


Aluminum dial plates with figures etched on solid black background. 1 13/16" dia., 7/16" hole, figures 7/64" high, .020" thick.

Mallory No. -20° Spacing	Mallory No. -30° Spacing	Marking	Net Each
.....	372	1 to 2	12c
453	373	1 to 3	12c
454	374	1 to 4	12c
455	375	1 to 5	12c
456	376	1 to 6	12c
457	377	1 to 7	12c
458	378	1 to 8	12c
459	379	1 to 9	12c
460	380	1 to 10	12c
461	381	1 to 11	12c
462	382	1 to 12	12c
463	.....	1 to 13	12c
464	.....	1 to 14	12c
465	.....	1 to 15	12c
466	.....	1 to 16	12c
467	.....	1 to 17	12c
468	.....	1 to 18	12c
472	.....	Off 1 to 2	12c
473	383	Off 1 to 3	12c
474	384	Off 1 to 4	12c
475	385	Off 1 to 5	12c
476	386	Off 1 to 6	12c
477	387	Off 1 to 7	12c
478	388	Off 1 to 8	12c
479	389	Off 1 to 9	12c
480	390	Off 1 to 10	12c
481	.....	Off 1 to 11	12c
482	.....	Off 1 to 12	12c
483	.....	Off 1 to 13	12c
484	.....	Off 1 to 14	12c
485	.....	Off 1 to 15	12c
486	.....	Off 1 to 16	12c
.....	394*	1 to 24	12c
	Special		
.....	487†	1 to 5	12c
	Special		
.....	488‡	1 to 4	12c
	Special		

Spacing between numerals: *15°, †60°, ‡90°.

SWITCH AND CONTROL KNOBS



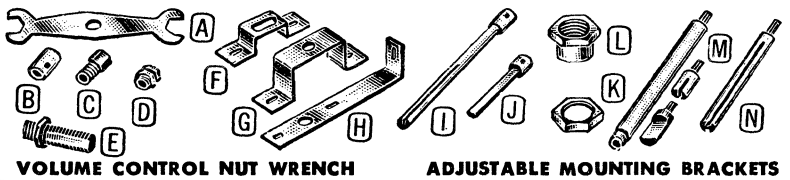
Mallory Number	Fig.	Description	Net Ea.
364	A	11/16" dia. black; pointer, 1/4" shaft	9c
365-1	B	2 1/4" blk bar; 1/4" shft	21c
366-1	C	1 1/4" blk bar; 1/4" shft	15c
366-R-1	C	1 1/4" red bar; 1/4" shft	15c
367-1	D	1 1/2" black; 1/4" shaft	21c
368-1	E	1" dia. blk; 1/4" shaft	20c
1910K	F	3/4" black; 1/8" shaft	20c
GS5149A	G	9/16" x 13/16" for lever switches; black	10c
LK171-1	H	5/16" dia. x 3/4" thd. for lever switch; black	10c

SHAFT EXTENSIONS

Mallory No. DS-36 (Fig. M)—1/4" dia. x 2 13/16" round for U, UT, UDT and TA controls. With one knurled and slotted, and one flatted shaft end knob adapters. Net Each..... **33c**

Mallory No. DS-37 (Fig. N)—3/16" dia. x 2 1/4" double slotted for use with U, UT, UDT and TA controls. Net Each.... **33c**

CONTROL AND SWITCH HARDWARE



VOLUME CONTROL NUT WRENCH

Mal. No.	Fig.	Description	Net Ea.
178	A	For 1/2" and 9/16" hex nuts	51c

COUPLERS, BUSHINGS

EC240	B	Univ. coupling and reducer	43c
EB247	C	Univ. extension bushing	13c
UB241	D	Univ. bushing and nut	12c
EB158	E	7/16" dble. flat. bushg.	32c
EB214	E	1/2" flatted bushing	75c

CONTROL AND SWITCH WASHERS

Mal. No.	Description	Pkg. 10
203	Extruded fiber; 3/4" O.D., 3/8" I.D.	18c
212	Flat phenolic; 3/4" O.D., 3/8" I.D.	10c
225	Nickel finish metal, 3/8" I.D.*	21c
226	Nickel finish metal, 7/16" I.D.*	21c
227	Cadmium plated lock washer‡	9c

*5/8" O.D. ‡11/16" O.D. 25/64" I.D.

ADJUSTABLE MOUNTING BRACKETS

Mal. No.	Fig.	Description	Net Ea.
RB248	F	1 3/4" mounting centers	5c
RB249	G	2 1/2" mounting centers	5c
RB254	H	Universal	5c

UNIVERSAL EXTENSION SHAFTS

Mal. No.	Fig.	Description	Net Ea.
RS242	I	4" long, 1/4" dia., 1/2" flat	57c
RS243	I	4" long, 1/4" dia., 3/32" flat	57c
RS244	I	4" long, 5/16" dia., 1/4" flat	57c
RS245	J	2" long, 1/4" dia., 3/32" slot	81c

HEX NUTS

Mal. No.	Fig.	Description	Net
232	K	7/16" hex, 3/8"-32	1c
255	L	1/4" panel shoulder	8c
A11260-12	L	1/2" panel shoulder	8c
A11260-2	L	3/4" panel shoulder	8c

Net

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NATIONAL TEL-TRONICS CORP.
YONKERS, N. Y.

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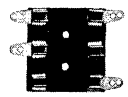
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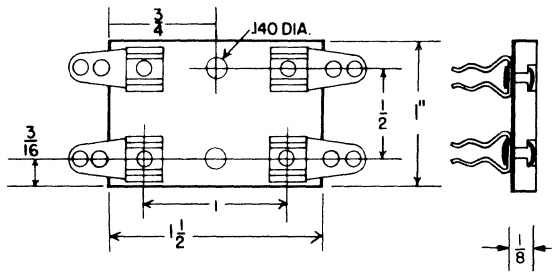
450

FUSE MOUNTING BASES

Fuse Mounting Bases to accommodate the 3AG Cartridge type auto fuses. Bases are made from 1/16", 1/8" and 3/16" thick XP laminated phenolic. Clips are made from spring brass nickel plated terminals .018 brass hot tinned.

Rectifier mounting bases made from XP laminated phenolic, clips are made from .020 spring brass cadmium or silver plated. Stops are lanced in clips and are assembled in a manner to insure polarization.

Diode clip base assemblies made to suit your specific needs. The diode clip employed, cuts soldering costs and insures good electrical connection.



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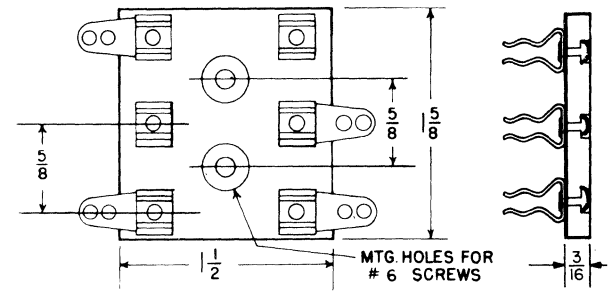

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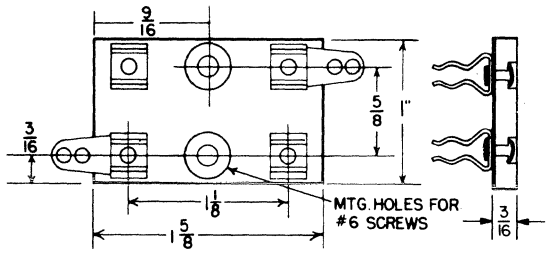

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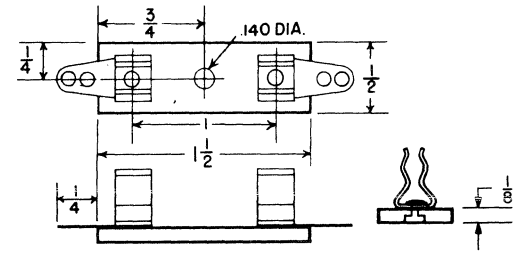

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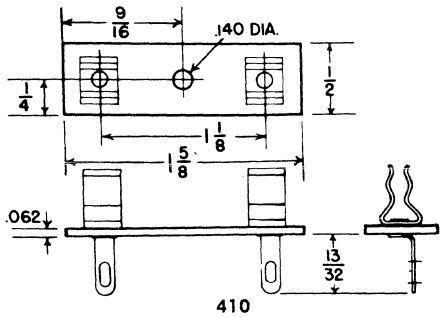

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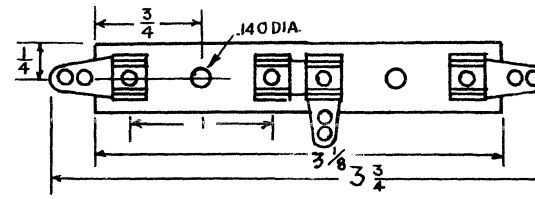

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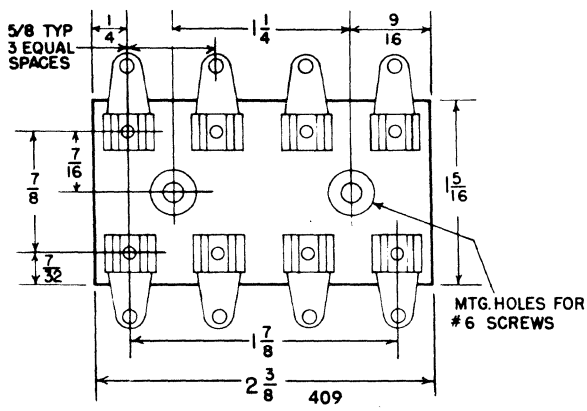

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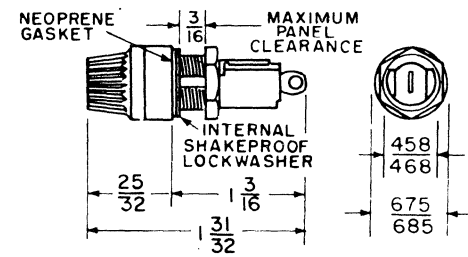

#450 cartridge panel mount fuse holder is molded from black general purpose phenolic powder. All metal parts are plated to resist corrosion and solder lugs plated to facilitate production soldering. Rated at 15 Amps .250 volts and is underwriter laboratories approved.

Photos shown are not to size or scale

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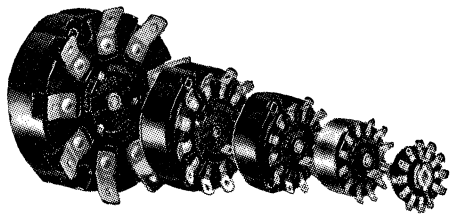
OHMITE resistors • rheostats • tap switches • relays
variable transformers • tantalum capacitors
semiconductor diodes • r.f. chokes

POWER TAP SWITCHES NON-SHORTING TYPE



Each switch is a non-shorting, single pole, rotary, multi-position unit, but switches can be ordered assembled 2 or 3 in tandem (2 maximum, for Model 111) to form multipole assemblies. All ceramic insulation, large, solid silver-to-silver contacts, and "slow-break" action especially designed for alternating current use establish new standards of dependability and performance. Switch shafts are electrically "dead"—insulated by strong ceramic hubs. Contacts and mechanism are entirely enclosed and protected (except for the Model 111).

MODEL 111 TAP SWITCH

Alternating Current Rating *10 Amps. 150 Volts* — Diameter 1¾" — Shaft Diameter ¼" — Standard Mounting: For ¼" panel maximum, by means of ⅜"-32 threaded bushing and hex. nut.

Depth Behind Panel		Single Unit 1⅛"		2 in Tandem 2¾"	
No. of Taps	Total Rotation	Stock Number	*Net 1-4	Stock Number	*Net 1-2
11	300°	111-11	$4.78	111-11-T2	$12.86
10	270°	111-10	4.66	111-10-T2	12.62
9	240°	111- 9	4.54	111- 9-T2	12.38
8	210°	111- 8	4.42	111- 8-T2	12.14
7	180°	111- 7	4.30	111- 7-T2	11.90
6	150°	111- 6	4.18	111- 6-T2	11.66
5	120°	111- 5	4.06	111- 5-T2	11.42
4	90°	111- 4	3.94	111- 4-T2	11.18
3	60°	111- 3	3.82	111- 3-T2	10.94
2	30°	111- 2	3.70	111- 2-T2	10.70
Recommended Knobs		Stock No. 5150 or 5116		Stock No. 5109 or 5110	

*Without Knob.

MODEL 212 TAP SWITCH

Alternating Current Rating *15 Amps. 150 Volts* — Diameter 2¼" — Shaft Diameter ¼" — Standard Mounting: For ¼" panel maximum, by means of ⅜"-32 threaded bushing and hex. nut. Tandem Mounting: For ¼" panel maximum, three No. 10-32 flat-head machine screws ⅜" long.

Depth Behind Panel		Single Unit 1¾"		2 in Tandem 4 3/16"		3 in Tandem 6 3/16"	
No. of Taps	Total Rotation	Stock No.	*Net 1-4	Stock No.	*Net 1-2	Stock No.	*Net Each
12	330°	212-12	$ 9.04	212-12-T2	$21.38	212-12-T3	$32.12
11	300°	212-11	8.86	212-11-T2	21.02	212-11-T3	31.58
10	270°	212-10	8.68	212-10-T2	20.66	212-10-T3	31.04
9	240°	212- 9	8.50	212- 9-T2	20.30	212- 9-T3	30.50
8	210°	212- 8	8.32	212- 8-T2	19.94	212- 8-T3	29.96
7	180°	212- 7	8.14	212- 7-T2	19.58	212- 7-T3	29.42
6	150°	212- 6	7.96	212- 6-T2	19.22	212- 6-T3	28.88
5	120°	212- 5	7.78	212- 5-T2	18.86	212- 5-T3	28.34
4	90°	212- 4	7.60	212- 4-T2	18.50	212- 4-T3	27.80
3	60°	212- 3	7.42	212- 3-T2	18.14	212- 3-T3	27.26
2	30°	212- 2	7.24	212- 2-T2	17.78	212- 2-T3	26.72
Recommended Knobs		Stock No. 5150 or 5116		Stock No. 5111 or 5112		Stock No. 5111 or 5112	

*Without Knob.

MODEL 312 TAP SWITCH

Alternating Current Rating *25 Amps. 300 Volts*, 150 V. A.C. between taps — Diameter 3 1/16" — Shaft Diameter ¼" — Standard Mounting: For ¼" panel maximum, three No. 10-32 flat-head machine screws ⅜" long.

Depth Behind Panel		Single Unit 2¼"		2 in Tandem 4⅝"		3 in Tandem 7"	
No. of Taps	Total Rotation	Stock No.	*Net 1-4	Stock No.	*Net 1-2	Stock No.	*Net Each
12	330°	312-12	$11.62	312-12-T2	$27.24	312-12-T3	$41.46
11	300°	312-11	11.44	312-11-T2	27.28	312-11-T3	40.92
10	270°	312-10	11.26	312-10-T2	26.92	312-10-T3	40.38
9	240°	312- 9	11.08	312- 9-T2	26.56	312- 9-T3	39.84
8	210°	312- 8	10.90	312- 8-T2	26.20	312- 8-T3	39.30
7	180°	312- 7	10.72	312- 7-T2	25.84	312- 7-T3	38.76
6	150°	312- 6	10.54	312- 6-T2	25.48	312- 6-T3	38.22
5	120°	312- 5	10.36	312- 5-T2	25.12	312- 5-T3	37.68
4	90°	312- 4	10.18	312- 4-T2	24.76	312- 4-T3	37.14
3	60°	312- 3	10.00	312- 3-T2	24.40	312- 3-T3	36.60
2	30°	312- 2	9.82	312- 2-T2	24.04	312- 2-T3	36.06
Recommended Knobs		Stock No. 5109 or 5110		Stock No. 5111 or 5112		Stock No. 5111 or 5112	

*Without Knob.

MODEL 412 TAP SWITCH

Alternating Current Rating *50 Amps. 300 Volts*, 150 V. A.C. between taps — Diameter 4 1/16" — Shaft Diameter ¼" — Standard Mounting: For ¼" panel maximum three No. 10-32 flat-head machine screws ⅜" long.

Depth Behind Panel		Single Unit 2 7/16"		2 in Tandem 5 1/32"		3 in Tandem 7⅝"	
No. of Taps	Total Rotation	Stock No.	*Net 1-4	Stock No.	*Net 1-2	Stock No.	*Net Each
12	330°	412-12	$15.46	412-12-T2	$35.32	412-12-T3	$52.98
11	300°	412-11	15.20	412-11-T2	34.80	412-11-T3	52.20
10	270°	412-10	14.94	412-10-T2	34.28	412-10-T3	51.42
9	240°	412- 9	14.68	412- 9-T2	33.76	412- 9-T3	50.64
8	210°	412- 8	14.42	412- 8-T2	33.24	412- 8-T3	49.86
7	180°	412- 7	14.16	412- 7-T2	32.72	412- 7-T3	49.08
6	150°	412- 6	13.90	412- 6-T2	32.20	412- 6-T3	48.30
5	120°	412- 5	13.64	412- 5-T2	31.68	412- 5-T3	47.52
4	90°	412- 4	13.38	412- 4-T2	31.16	412- 4-T3	46.74
3	60°	412- 3	13.12	412- 3-T2	30.64	412- 3-T3	45.96
2	30°	412- 2	12.86	412- 2-T2	30.12	412- 2-T3	45.18
Recommended Knobs		Stock No. 5111 or 5112		Stock No. 5111 or 5112		Stock No. 5111 or 5112	

*Without Knob.

MODEL 608 TAP SWITCH

Alternating Current Rating *100 Amps. 300 Volts* — Diameter 6" —Shaft Diameter ⅜"—Standard Mounting: For 1" panel maximum, three flat-head machine screws ¼"-20 x 1¼".

Depth Behind Panel		Single Unit 3 5/16"		2 in Tandem 6 13/16"		3 in Tandem 10 5/16"	
No. of Taps	Total Rotation	Stock No.	*Net 1-4	Stock No.	*Net 1-2	Stock No.	*Net Each
8	280°	608-8	$25.54	608-8-T2	$57.68	608-8-T3	$85.42
7	240°	608-7	25.20	608-7-T2	57.00	608-7-T3	84.40
6	200°	608-6	24.86	608-6-T2	56.32	608-6-T3	83.38
5	160°	608-5	24.52	608-5-T2	55.64	608-5-T3	82.36
4	120°	608-4	24.18	608-4-T2	54.96	608-4-T3	81.34
3	80°	608-3	23.84	608-3-T2	54.28	608-3-T3	80.32
2	40°	608-2	23.50	608-2-T2	53.60	608-2-T3	79.30
Recommended Knobs		Stock No. 5104 or 5115 or 5105		Stock No. 5104 or 5115 or 5105		Stock No. 5115	

*Without Knob.

Net

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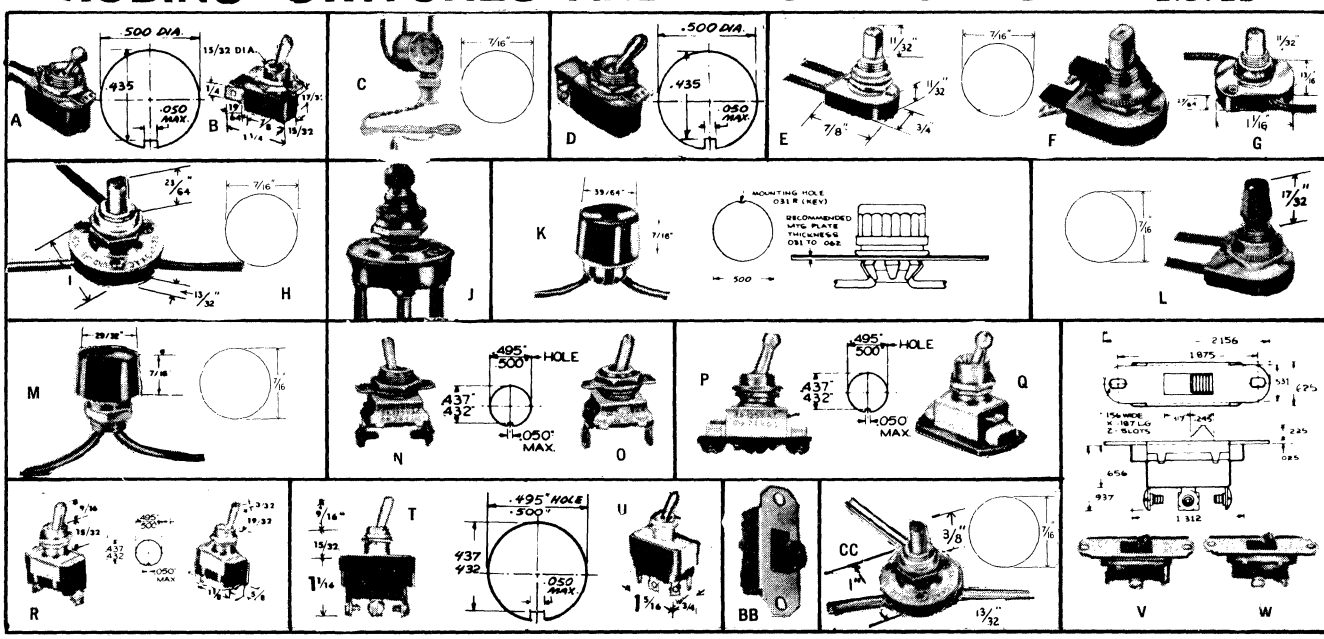
ROBINS® SWITCHES AND PILOT LIGHTS

U.L. AND C.S.A. LISTED



SWITCHES

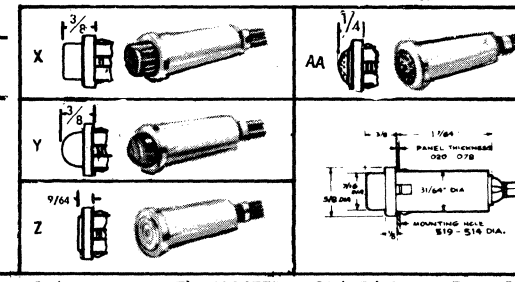
Fig.	Part No.	Type	Action	Rating (Amps) 125V. D.C. or T	Rating (Amps) A.C. 250V/120V.	Nipple Thread and Length	Leads or Connect	Supplied with	Handle Type	List
A	S-100	Toggle Canopy	On/Off	3	3 - 6	15/32-32 x 7/16	6"x 18 ga.	2 L/N & Ind. Plt.	Bat.	$1.00
B	S-101	Toggle Canopy	On/Off	3	3 - 6	15/32-32 x 7/16	Solder Lug	2 L/N & Ind. Plt.	Bat.	1.00
D	S-103	Toggle Canopy	On/Off	3	3 - 6	15/32-32 x 7/16	Screw	2 L/N & Ind. Plt.	Bat.	1.00
E	S-110	Push Canopy	Push On — Push Off	3	3 - 6	3/8-27 x 5/8	6"x 18 ga.	2 L/N —	Bakelite	.75
F	S-112	Push Canopy	Push On — Push Off	3	3 - 6	3/8-27 x 13/32	Solder Lug	2 L/N —	Bakelite	.75
G	S-120	Momentary Push	Normally On	—	3	3/8-27 x 5/8	6"x 18 ga.	2 L/N —	Bakelite	.75
G	S-122	Momentary Push	Normally Off	—	6	3/8-27 x 5/8	6"x 18 ga.	2 L/N —	Bakelite	.75
H	S-130	Push Two Speed	Off/1 On/2 On	—	6	3/8-27 x 13/32	6"x 18 ga.	2 L/N —	Metal	1.00
CC	S-131	Rotary Two Speed	Off/1 On/2 On	—	6	3/8-27 x 13/32	6"x 18 ga.	2 L/N —	Bakelite	1.00
J	S-132	Rotary 2 Circuit Canopy	Off 1 On/2 On/1 & 2 On	1	1	3/8-27 x 13/32	6"x 18 ga.	2 L/N —	Metal	1.00
K	S-140	Snap-In Rotary	On/Off	1	1 - 6	1/2" Hole	6"x 18 ga.	— —	Bakelite	.75
L	S-142	Rotary Canopy	On/Off	1	1 - 6	3/8-27 x 5/8	6"x 18 ga.	2 L/N —	Rem. Bakelite	.75
M	S-144	Rotary Canopy	On/Off	1	1 - 6	1/8-27 x 3/16	6"x 18 ga.	1 L/N —	Bakelite	.75

Fig.	Part No.	Type	Action	D.C. 24V—125V.	A.C. 250V/120V.					
N	S-150	Toggle	SPST On/Off	6¾	3	H.P. Rating for Motors	15/32-32 x 9/32	Screw	2 L/N & Ind. Plt.	Bat. .75
O	S-152	Toggle	SPST On/Off	6¾	3		15/32-32 x 9/32	Solder Lug	2 L/N & Ind. Plt.	Bat. .75
P	S-154	Toggle	SPDT On/Off/On	10	3		15/32-32 x 13/32	Screw	2 L/N & Ind. Plt.	Ball 1.00
Q	S-156	Toggle	SPDT On/Off/On	10	3		15/32-32 x 13/32	Solder Lug	2 L/N & Ind. Plt.	Ball 1.00
R	S-160	Toggle	SPST On/Off	8	10-15	-¾ H.P.	15/32-32 x 13/32	Screw	2 L/N —	Bat. 1.50
S	S-162	Toggle	SPST On/Off	8	10-15	-¾ H.P.	15/32-32 x 13/32	Amp/Solder	2 L/N —	Bat. 1.25
R	S-164	Toggle	SPST Momentary Off	8	10-15	-¾ H.P.	15/32-32 x 13/32	Screw	2 L/N —	Bat. 1.50
S	S-166	Toggle	SPST Momentary Off	8	10-15	-¾ H.P.	15/32-32 x 13/32	Amp/Solder	2 L/N —	Bat. 1.50
R	S-168	Toggle	SPST Momentary On	8	10-15	-¾ H.P.	15/32-32 x 13/32	Screw	2 L/N —	Bat. 1.50
S	S-170	Toggle	SPST Momentary On	8	10-15	-¾ H.P.	15/32-32 x 13/32	Amp/Solder	2 L/N —	Bat. 1.50
R	S-172	Toggle	SPDT On/Off/On	8	10-15	-¾ H.P.	15/32-32 x 13/32	Screw	2 L/N —	Bat. 1.50
S	S-174	Toggle	SPDT On/Off/On	8	10-15	-¾ H.P.	15/32-32 x 13/32	Amp/Solder	2 L/N —	Bat. 1.50
T	S 180	Toggle	DPST On/Off	8	10-15	-¾ H.P.	15/32-32 x 13/32	Screw	2 L/N —	Bat. 2.25
U	S-182	Toggle	DPST On/Off	8	10-15	-¾ H.P.	15/32-32 x 13/32	Amp/Solder	2 L/N —	Bat. 1.75
T	S-184	Toggle	DPST Momentary Off	8	10-15	-¾ H.P.	15/32-32 x 13/32	Screw	2 L/N —	Bat. 2.50
U	S-186	Toggle	DPST Momentary Off	8	10-15	-¾ H.P.	15/32-32 x 13/32	Amp/Solder	2 L/N —	Bat. 2.25
T	S-188	Toggle	DPST Momentary On	8	10-15	-¾ H.P.	15/32-32 x 13/32	Screw	2 L/N —	Bat. 2.50
U	S-190	Toggle	DPST Momentary On	8	10-15	-¾ H.P.	15/32-32 x 13/32	Amp/Solder	2 L/N —	Bat. 2.25
T	S-192	Toggle	DPDT On/On	8	10-15	-¾ H.P.	15/32-32 x 13/32	Screw	2 L/N —	Bat. 2.50
U	S-194	Toggle	DPDT On/On	8	10-15	-¾ H.P.	15/32-32 x 13/32	Amp/Solder	2 L/N —	Bat. 2.00
T	S-196	Toggle	DPDT On/Off/On	8	10-15	-¾ H.P.	15/32-32 x 13/32	Screw	2 L/N —	Bat. 2.50
U	S-198	Toggle	DPDT On/Off/On	8	10-15	-¾ H.P.	15/32-32 x 13/32	Amp/Solder	2 L/N —	Bat. 2.00
C	S-200	Pull Chain	Off/On	—	6		3/8-27 x 3/8	6"x 18 ga.	1 L/N with Chain & Cord	— .75
C	S-202	Pull — 2 Circuit	Off/1 On/2 On/1 & 2 On	—	3 - 6		3/8-27 x 3/8	6"x 18 ga.	1 L/N with Chain & Cord	— 1.25
W	S-210	Slide A.C. Only	SPST On/Off	—	3 - 6		—	Screw	—	Bakelite 1.00
W	S-212	Slide A.C. Only	SPST On/Off	—	3 - 6		—	Solder Lug	—	Bakelite 1.00
V	S-214	Slide A.C. Only	SPDT On/On	—	3 - 6		—	Screw	—	Bakelite 1.25
V	S-216	Slide A.C. Only	SPDT On/On	—	3 - 6		—	Solder Lug	—	Bakelite 1.00
V	S-218	Slide A.C. Only	SPDT On/Off/On	—	3 - 6		—	Screw	—	Bakelite 1.25
V	S-220	Slide A.C. Only	SPDT On/Off/On	—	3 - 6		—	Solder Lug	—	Bakelite 1.00
BB †	S-240	Slide	SPST On/Off	.3	.5		—	Solder Lug	—	Bakelite .50
BB †	S-242	Slide	SPDT On/On	.3	.5		—	Solder Lug	—	Bakelite .50
BB †	S-244	Slide	DPST On Off	.3	.5		—	Solder Lug	—	Bakelite .50
BB †	S-246	Slide	DPDT On/On	.3	.5		—	Solder Lug	—	Bakelite .50

KEY: Amp/Solder — Amp Lug with hole used as Solder Lug, L/N — Lock Nut, Ind. Plt. — Indicator Plate On/Off. † No C. S. A. List

PILOT LIGHTS

Fig.	Part No.	Style	Color	125 V Rating Amps	Leads	Supplied With	List
X	S-300	Cylindrical Lucite	Clear	¾ Watt	6" #18 ga.	Speed Nut	$1.25
X	S-302	Cylindrical Lucite	Amber	¾ Watt	6" #18 ga.	Speed Nut	1.25
X	S-304	Cylindrical Lucite	Red	¾ Watt	6" #18 ga.	Speed Nut	1.25
Y	S-306	Hemispherical Lucite	Clear	¾ Watt	6" #18 ga.	Speed Nut	1.25
Y	S-308	Hemispherical Lucite	Amber	¾ Watt	6" #18 ga.	Speed Nut	1.25
Y	S-310	Hemispherical Lucite	Red	¾ Watt	6" #18 ga.	Speed Nut	1.25
Z	S-312	Flat Lucite	Clear	¾ Watt	6" #18 ga.	Speed Nut	1.25
Z	S-314	Flat Lucite	Amber	¾ Watt	6" #18 ga.	Speed Nut	1.25
Z	S-316	Flat Lucite	Red	¾ Watt	6" #18 ga.	Speed Nut	1.25
AA	S-318	Faceted Glass	Red	¾ Watt	6" #18 ga.	Speed Nut	1.25



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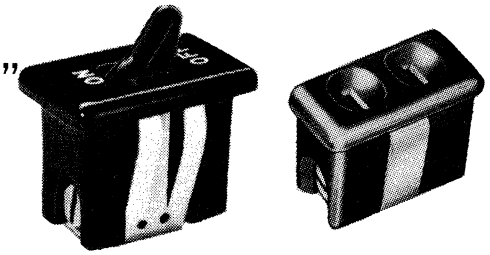
Trade Discount Applies To List Prices Only

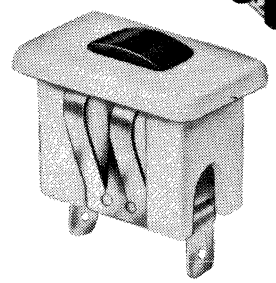
PACIFIC SWITCH CONTROLS, INC.

Carling SWITCHES

Distributor for the eleven Western States.

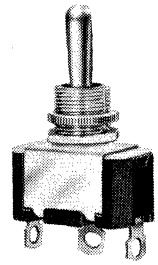
"SNAP-IN" LINE





Catalog No.	Type	Rating
215-BL	Switch	20 Amp 125V. A.C. 10 Amp 250V. A.C. ½ H.P. 125-250V. A.C.
215-WH		
222-BL-RC	Pilot Light	110-250V.
222-WH-RC		
220-BL	Outlet	15 Amp 125V. 10 Amp 250V.
220-WH		

SINGLE POLE



SCREW TERMINALS OR SOLDER LUGS.

Rated 15 Amps.* 125V. 10 Amps. 250VAC. 3/4 HP. 125-250V. AC. except SPST is 1 HP. Rated 15/32" Dia. Threaded Bushing 15/32" Dia. Threaded Bushing 15/32" long. 11/16" Bat Toggle. U.L. Appd. Heavy Duty.

*Applicable to low voltage D.C. requirements.

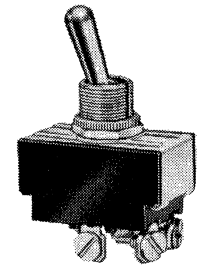
Catalog No.	Terminals	Action
2FA54-73	Screw	SP - ST
2FB54-73	Screw	SP - DT
2FC54-73	Screw	SP - DT, Center Off
2FA53-73	Lugs	SP - ST
2FB53-73	Lugs	SP - DT
2FA53-73	Lugs	SP - DT, Center Off

MOMENTARY ACTION

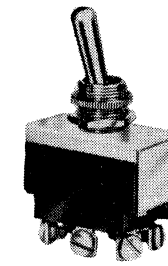
Same Specifications as above. Except SPST. 3/4HP. Rated.

SCREW TERMINALS

Catalog No.	ACTION		
	Up	Center	Down
SINGLE POLE SINGLE THROW			
6FA54-73	Off	None	Mom. On
6FA58-73	On	None	Mom. Off
SINGLE POLE DOUBLE THROW			
6FB54-73	On	None	Mom. Off
6FC54-73	Mom. On	Off	Mom. On
6FC58-73	On	Off	Mom. On



DOUBLE POLE



SCREW TERMINALS OR SOLDER LUGS

Rated 15 Amps.* 125V. 10 Amps. 250V. AC. 3/4HP. 125-250V. AC. Threaded Bushing 15/32" Dia. Threaded Bushing 15/32" long. 11/16" Bat Toggle. U.L. Appd. Heavy Duty.

*Applicable to low voltage D.C. requirements.

Catalog No.	Terminals	Action
2GK54-73	Screw	DP - ST
2GL54-73	Screw	DP - DT
2GM54-73	Screw	DP - DT, Center Off
2GK50-73	Lugs	DP - ST
2GL50-73	Lugs	DP - DT
2GM50-73	Lugs	DP - DT, Center Off

MOMENTARY ACTION

Same Specifications As Above. Screw Terminals

Catalog No.	ACTION		
	Up	Center	Down
DOUBLE POLE SINGLE THROW			
6GK5E-73	Off	None	Mom. On
6GK5S-73	On	None	Mom. Off
DOUBLE POLE DOUBLE THROW			
6GL5E-73	On	None	Mom. On
6GM5S-73	Mom. On	Off	Mom. On
6GM5E-73	On	Off	Mom. On

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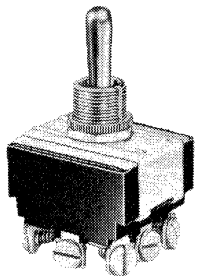
PACIFIC SWITCH CONTROLS, INC.

Carling SWITCHES



THREE POLE SCREW TERMINALS

Rated 17 Amps.* 125V. AC. 12 Amps. 250V. AC. 1 HP. 1-2-3 Phase 120-600V. AC. 15/32" Dia. Bushing 15/32" long. 11/16" Bat Toggle.

*Applicable to low voltage D.C. requirements.

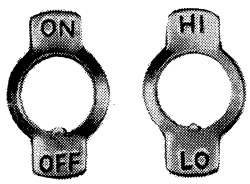
Catalog No.	Action
HK274-73	3P - ST
HL274-73	3P - DT
HM274-73	3P - DT, Center Off

FOUR POLE — SCREW TERMINALS

The Four Pole Switch has the same physical appearance as the Three Pole Switch pictured above. Only dimensional difference is in the width when the Fourth pole is added.

Rating 15A. 125V. 10A. 250V. AC. 15/32" Dia. Bushing. 15/32" long. 11/16" Bat Toggle. Heavy Duty.

Catalog No.	Action
1K254-13	4P - ST
IL254-73	4P - DT
1M254-73	4P - DT, Center Off

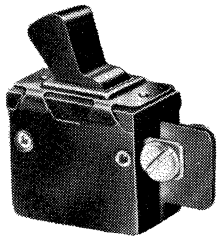


INDICATOR PLATES

NICKEL PLATED

Catalog No.	Indication
YO1	ON - OFF
YO2	HI - LO

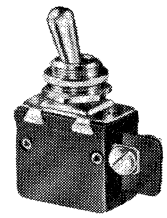
An extensive variety of indications and plate styles available for use with Carling Switches. Also a complete line of Hardware and Switch Accessories available.



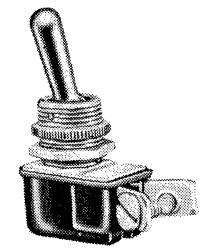
SINGLE POLE

20 AMP.

20 Amp. 125V.
10 Amp. 250V.
AC-DC



Catalog No.	Terminals	Toggle
600-C	Screw	Nickel-Bat
600-20		Plastic

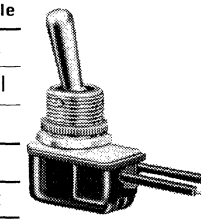


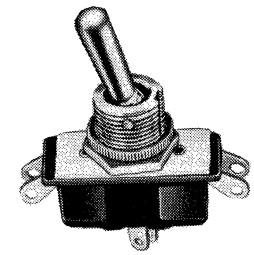
SINGLE POLE

Screw Terminals 15/32". Threaded Bushing, 15/32". Dia. Ball Toggle 3/8" long. Bat Toggle 11/16" long. U.L. Appd.

Catalog No.	Rating	Toggle
110-S-73	6A.-125V.	Bat
110-S-23	6A.-125V.	Ball
160-S-73	10A.-125V.	Bat
WIRE LEADS		
111-16-73	6A.-125V.	Bat

6" Leads Stripped ½" 105C. TFF. Wire.



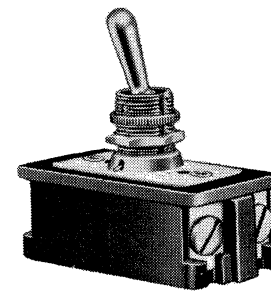


SINGLE POLE — DOUBLE POLE

SOLDER LUGS 15/32"

Threaded Bushing 15/32" Dia. Bat Toggle 11/16" long. U.L. Appd. All have 250V. Ratings.

Catalog No.	Action	Rating
110-73	SP - ST	6A. - 125V.
112-73	SP - DT	3A. - 125V.
216-73	DP - ST	3A. - 125V.
316-73	DP - DT	3A. - 125V.
2BB62-73	SP - DT	6A. - 125V.
2BK62-73	DP - ST	6A. - 125V.
2BL62-73	DP - DT	6A. - 125V.
160-73	SP - ST	10A. - 125V.



SINGLE POLE DOUBLE POLE

Heavy Duty AC-DC Type. 15/32' Bushing. 11/16" Bat Toggle. Al Have Horsepower Ratings.

Catalog No.	RATINGS 125V.	250V.	Action
DA284*	16A.	8A.	SP - ST
DK284*	16A.	8A.	DP - ST
EA204**	20A.	10A.	SP - ST
EK204**	20A.	10A.	DP - ST

*1 H.P. 125-250V. rating. **1½ H.P. 125-250V. rating.

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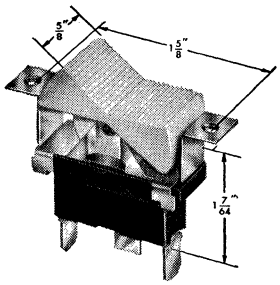
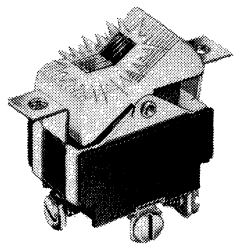
PACIFIC SWITCH CONTROLS, INC. | **Carling SWITCHES**

CARLING TIPPETTE* AND

*Tippette is a Carling Trademark



TILA61



LTILA64

TIL Series

CATALOG NUMBERS NOMINAL RATINGS RATING 6 AMP—125V A.C. 3 AMP—250V A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						SINGLE POLE SINGLE THROW		
TILA60	TILA61	TILA62	TILA63	TILA64	TILA65	On	None	Off
TILA6A	TILA6B	TILA6C	TILA6D	TILA6E	TILA6F	Off	None	Mom. On
TILA6L	TILA6M	TILA6Q	TILA6R	TILA6S	TILA6T	On	None	Mom. Off
						SINGLE POLE DOUBLE THROW		
TILB60	TILB61	TILB62	TILB63	TILB64	TILB65	On	None	On
TILB6A	TILB6B	TILB6C	TILB6D	TILB6E	TILB6F	On	None	Mom. On
TILC60	TILC61	TILC62	TILC63	TILC64	TILC65	On	Off	On
TILC6A	TILC6B	TILC6C	TILC6D	TILC6E	TILC6F	On	Off	Mom. On
TILC6L	TILC6M	TILC6Q	TILC6R	TILC6S	TILC6T	Mom. On	Off	Mom. On
RATING 15 AMP—125V A.C.** 10 AMP—250V A.C. ¾ H.P. 125-250V. A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						SINGLE POLE SINGLE THROW		
TILA50	TILA51	TILA52	TILA53	TILA54	TILA55	On	None	Off
TILA5A	TILA5B	TILA5C	TILA5D	TILA5E	TILA5F	Off	None	Mom. On
TILA5L	TILA5M	TILA5Q	TILA5R	TILA5S	TILA5T	On	None	Mom. Off
						SINGLE POLE DOUBLE THROW		
TILB50	TILB51	TILB52	TILB53	TILB54	TILB55	On	None	On
TILB5A	TILB5B	TILB5C	TILB5D	TILB5E	TILB5F	On	None	Mom. On
TILC50	TILC51	TILC52	TILC53	TILC54	TILC55	On	Off	On
TILC5A	TILC5B	TILC5C	TILC5D	TILC5E	TILC5F	On	Off	Mom. On
TILC5L	TILC5M	TILC5Q	TILC5R	TILC5S	TILC5T	Mom. On	Off	Mom. On

Actuator - Suffix # — 1L 5/8" Long Lined (Standard)
— 1C 5/8" Cross Serrated
— 1S 5/8" Smooth
— 2L 5/16" Long Narrow
— 2S 5/16" Short Narrow s/ears
— 3L Offset 5/8" Long Lined
— 3C Offset 5/8" Cross Serrated
— 3S Offset 5/8" Smooth

For Double Actuator Add "D" to end of above number.
For Double Actuator with interlock, Add "DI" to end of above number.
Standard Colors are WHITE, -WH and BLACK, -BL, Other colors available upon request.
Imprinting on Actuators may be had upon request.

Brackets — In addition to the illustrations shown, we offer a variety of brackets — offset, flat, angled, open ear, snap-in, etc. Specials can be made upon request. Snap-in style is designed for panel thickness of approximately .040" to .100". For mounting information and dimensions consult factory. This model bracket is available on single, double and three pole Tippettes — Single pole lighted Tippettes.

Wire Lead Enclosures — W10 This Snap-On enclosure is available in the double pole, Tippette and the single pole Lighted Tippette series. It is designed to protect and provide safer insulation for normally exposed lead connections.

LIGHTED TIPPETTE FEATURES

Actuators, Brackets & Accessories — Available in the same styles as listed in the Tippette Series. Lenses are Red, Amber, Clear and White. Special variations and colors available.

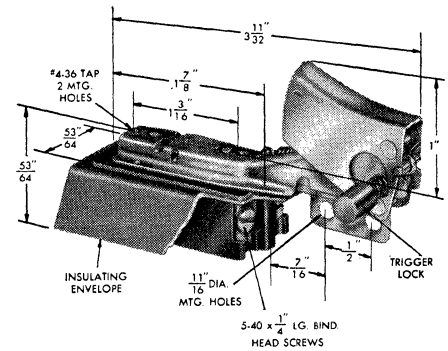
Lamp Characteristics

Neon (Standard)		Incandescent	
120*-240 Volts	.02 Amps	6 Volts	.02 Amps
		12 Volts	.08 Amps
		24-28 Volts	.04 Amps

*Available with "High Brightness" in 120.

TRIGGER SWITCHES SINGLE & DOUBLE POLE SERIES

*Note: Illustration shows "TRD" Series dimensions except for base. For base dimensions of "TRE" Series substitute 15/16" for 53/64 height shown, 1" for 53/64 width shown, and 5/16 for 7/16" dimension shown.



TRD Series Rated 16A. 125V.-8A. 250V. 1 HP. 125-250V.

Catalog No.	Action	Has Lock	Has Envelope
TRDA284-00	SP - ST	No	No
TRDA284-06	SP --ST	Yes	Yes
TRDK284-00	DP - ST	No	No
TRDK284-06	DP - ST	Yes	Yes

TRE Series Rated 20A. 125V.-10A. 250V. 1½ HP. 125-250V.

TREA204-00	SP - ST	No	No
TREA204-06	SP - ST	Yes	Yes
TREK204-00	DP - ST	No	No
TREK204-06	DP - ST	Yes	Yes

Additional Trigger Switch Series Available.

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PACIFIC SWITCH CONTROLS, INC.

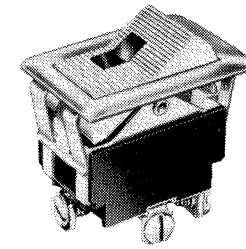
Carling SWITCHES

LIGHTED TIPPETTE SWITCHES

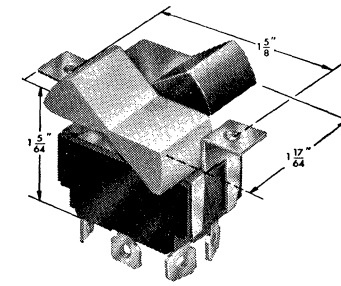
TIG Series (With *ONE* Tippette Lever)

CATALOG NUMBERS — RATING 6 AMP—125V A.C. 3 AMP—250V A.C. ¼ H.P. 125-250V. A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						DOUBLE POLE SINGLE THROW		
TIGK60	TIGK61	TIGK62	TIGK63	TIGK64	TIGK65	On	None	Off
TIGK6A	TIGK6B	TIGK6C	TIGK6D	TIGK6E	TIGK6F	Off	None	Mom. On
TIGK6L	TIGK6M	TIGK6Q	TIGK6R	TIGK6S	TIGK6T	On	None	Mom. Off
						DOUBLE POLE DOUBLE THROW		
TIGL60	TIGL61	TIGL62	TIGL63	TIGL64	TIGL65	On	None	On
TIGL6A	TIGL6B	TIGL6C	TIGL6D	TIGL6E	TIGL6F	On	None	Mom. On
TIGM60	TIGM61	TIGM62	TIGM63	TIGM64	TIGM65	On	Off	On
TIGM6A	TIGM6B	TIGM6C	TIGM6D	TIGM6E	TIGM6F	On	Off	Mom. On
TIGM6L	TIGM6M	TIGM6Q	TIGM6R	TIGM6S	TIGM6T	Mom. On	Off	Mom. On
RATING 15 AMP—125V A.C.** 10 AMP—250 V.A.C. ¾ H.P. 125-250V. A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						DOUBLE POLE SINGLE THROW		
TIGK50	TIGK51	TIGK52	TIGK53	TIGK54	TIGK55	On	None	Off
TIGK5A	TIGK5B	TIGK5C	TIGK5D	TIGK5E	TIGK5F	Off	None	Mom. On
TIGK5L	TIGK5M	TIGK5Q	TIGK5R	TIGK5S	TIGK5T	On	None	Mom. Off
						DOUBLE POLE DOUBLE THROW		
TIGL50	TIGL51	TIGL52	TIGL53	TIGL54	TIGL55	On	None	On
TIGL5A	TIGL5B	TIGL5C	TIGL5D	TIGL5E	TIGL5F	On	None	Mom. On
TIGM50	TIGM51	TIGM52	TIGM53	TIGM54	TIGM55	On	Off	On
TIGM5A	TIGM5B	TIGM5C	TIGM5D	TIGM5E	TIGM5F	On	Off	Mom. On
TIGM5L	TIGM5M	TIGM5Q	TIGM5R	TIGM5S	TIGM5T	Mom. On	Off	Mom. On

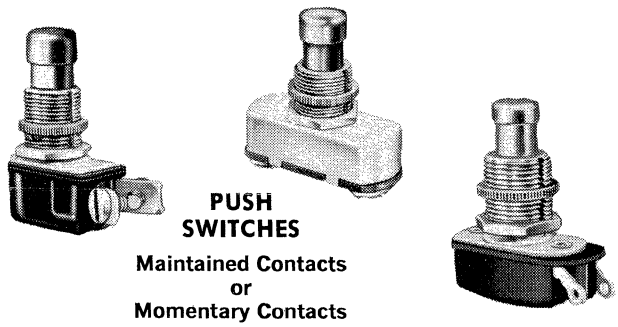
**These switches are applicable to low voltage D.C. requirements.
Available in 3 and 4 Pole Series. For Lighted Tippette add Prefix "L" to above numbers.



LTIL SERIES W/ SNAP-IN BRACKET



TIG SERIES W/ DOUBLE ACTUATORS



PUSH SWITCHES

Maintained Contacts or Momentary Contacts

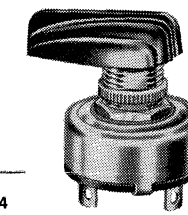
Type: PP-Push, On-Push, Off. Maintained. NO Normally Open. Momentary NC Normally Closed. Momentary. All Have 15/32" Dia. Bushing *Screw Terminals. Others Have Solder Lugs.

Catalog No.	Rating	Type
110-SP*	6A. 125V.	P.P.
110-PM-OFF	6A. 125V.	N.O.
172*	10A. 250V.	N.O.
170	10A. 250V.	N.C.
16-3P-OFF	3A. 125V.	N.O.
16-3P-ON	3A. 125V.	N.C.

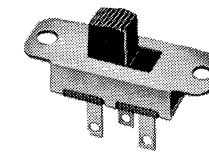
ROTARY SWITCHES

4 Position Rotary Switch Rated 4A. 125V. AC. 1A. 125V. DC.

Knob variations and colors available. Up to 8 position rotary switch series available. Consult Factory.



Catalog No.	Action Position 1 - 2 - 3 - 4
700-BL	Off-On-On-On



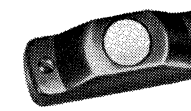
SLIDE SWITCHES

1⅛" Mounting Centers Single Poles Rated 4A 125V. AC.

Catalog No.	Action	Terminals
S60A-BL	SP - ST	Solder Lugs — 13/64" long
S60B-BL	SP - DT	

PUSH BUTTONS

Catalog	Base	Button
90	Black	Ivory
91	Ivory	Black



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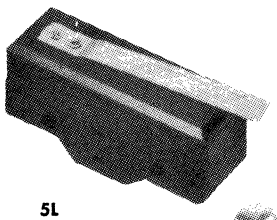
PACIFIC SWITCH CONTROLS, INC.

Acro SWITCHES



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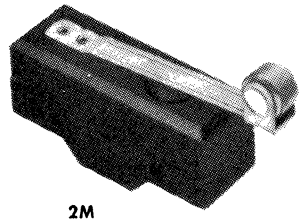
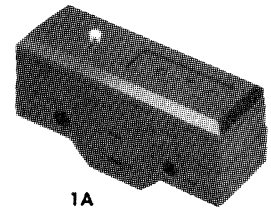
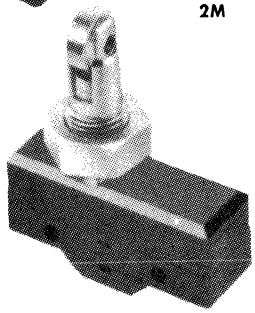


2M



1A



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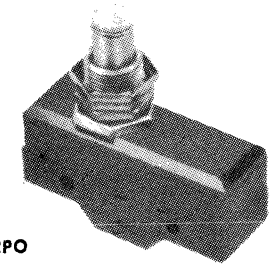


1P

GENERAL PURPOSE MODEL B

TERMINALS — "1S" Screw — No. 6-32 x 7/32" binder head screw and cup washer is standard. No. 8-32 can be supplied.

"5S" Screw — Same binder head screw is used with lock washer #034-0030-06.

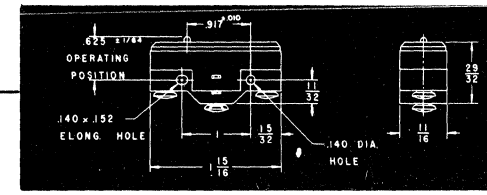
SOLDER — Will accept No. 14 wire. No. 4-36 screw is used to mount terminal.

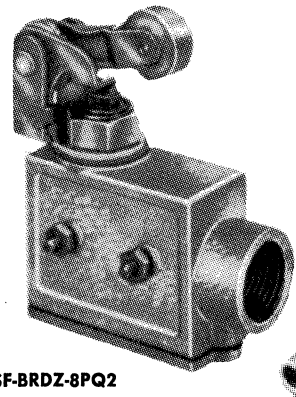
ELECTRICAL — 15 amps, 120-240-480 volts A.C. ½ amp, 120 VDC, ¼ amp, 240 VDC. Listed by U.L. and C.S.A.

HEAVY DUTY GENERAL PURPOSE — MODEL F

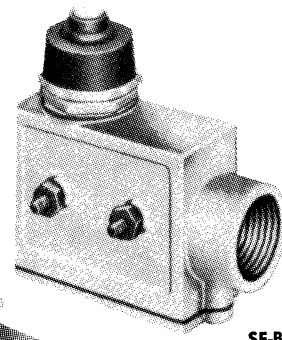
TERMINALS — same as model B

ELECTRICAL — 21 amps, 120-240-480 VAC 1 Hp. 120 VAC, 2 Hp. 240 VAC. Listed by U.L. and C.S.A.

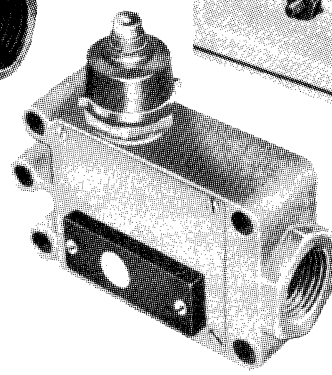




SF-BRDZ-8PQ2



SF-BRD2-7PN



L-FHDZ-7PN

METAL ENCLOSED — MODEL BH

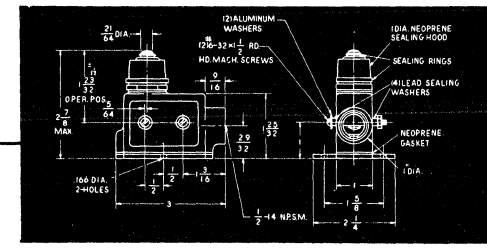
SIDE & FLANGE MOUNTING

Each switch is packaged so it can be used for either side of flange mounting. Flanged switch is mounted with #8 screws (not supplied). Side mounted switch has 6-32 x 1½ Rd. Hd. machine screws supplied.

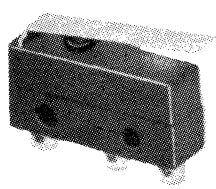
ELECTRICAL — The step base screw terminal Model B switch is U.L. listed and rated 15 amps at 120-240-480 VAC, ½ amp at 120 VDC and ¼ amp at 240 VDC. Switch will handle control circuits.

INDICATOR LIGHT

Integral Acro-Lite is internally wired to switch and is used to indicate either open or closed position of internal switch. Light can be mounted three places on housing or remotely.



SUB-MINIATURE MODEL Z



ZLD-0036

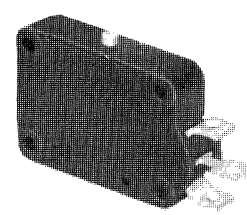
ELECTRICAL RATING
5 AMP 120-240 VAC
3 AMP sea level and 2.5 AMP 50,000 ft. — 30 VDC Inductive
4 AMP sea level and 4 AMP 50,000 ft. — 30 VDC Resistive

CONTACT GAP
.010 gap all AC and Low DC Loads
.020 gap High DC Load

MECHANICAL LIFE
One million cycles with .010 gap and .005 overtravel

TEMPERATURE
190°F . . . standard
250°F . . . high temperature

TERMINALS
Post, turret, double turret, baton and tab are available.



IMDI-1A

MINIATURE — MODEL M

U.L. ELECTRICAL RATING
10 AMPS 125-250 VAC

MECHANICAL LIFE
Up to 10 million cycles

ENVIRONMENTAL
Temperature — 90°F to 250°F
Vibration Resistance to 10 G's
Shock 50 G's Min.

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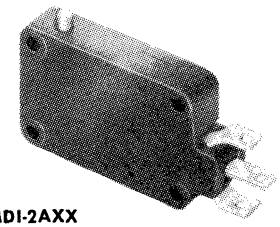
PACIFIC SWITCH CONTROLS, INC.

Acro SWITCHES



ICMDI-2AXX

MINIATURE — MODEL CM

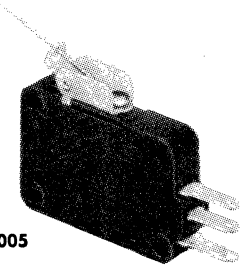
ELECTRICAL RATING
3 AMP 125-250 VAC
3 AMP 28 VDC

U.L. LISTING
3 AMP 125-250 VAC

ENVIRONMENTAL
Temperature — 90°F to 250°F.
Vibration Resistance up to 10 G's.
Shock 50 G's Min.

LIGHT OPERATING FORCE

MECHANICAL LIFE
Up to 50 million cycles



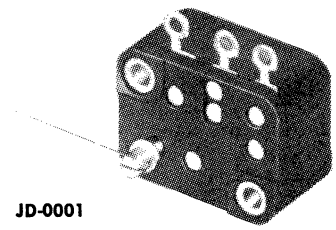
TMD-0005

MINIATURE — MODEL TM

U.L. ELECTRICAL RATING
6 AMP 125-250 VAC

MECHANICAL LIFE
Up to 50 million

TERMINALS
Taper Tab and Faston



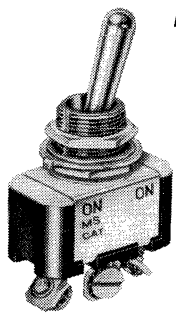
JD-0001

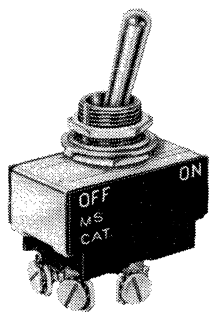
MINIATURE ROTARY

ELECTRICAL RATING
5 amp— 120-240 VAC
U.L. and C.S.A. listed.

MECHANICAL LIFE
Tests indicate one million minimum cycles.

ACTUATOR LEVER INSTALLATION
1. Insert .024 inch diameter stainless steel wire thru hole in brass shaft.
2. Bend wire to fit into slot.
3. Twist end of wire around shaft.
4. Crimp ends of slot to lock wire in place.





MILITARY SWITCHES

HEAVY DUTY — SINGLE-, DOUBLE-, & 4-POLE — GOVERNMENT QUALITY

OVER 130 MODELS OF MIL (MS), AN, AND JAN (ST) TYPES

• **ALL HEAVY DUTY MS and AN** models use solid **coin silver contacts and rocker arms,** exclusive in J-B-T construction, to add overload protection and keep contact resistance under .005 ohms. These and other features more than pay for themselves in trouble-free operation whether in normal use or exceptional environments.

MIL-S-3950A SERIES — Single-pole MS35058 with suffix —21 and above, and double-pole MS35059 types with suffix —21 and above are recommended when maximum reliability is required. Temperature, endurance, and altitude requirements exceed earlier MS types (suffix —1 to —19), AN3021 and AN3027 switches to MIL-S-6745, and ST styles to JAN-S-23 and MIL-S-21195A- (Ships). All MS switches contain a silicone rubber bushing seal to meet sand and dust and 15-foot head of water submersion tests.

SINGLE AND DOUBLE POLE HEAVY DUTY WITH LEVER SEAL

MIL-S-3950A	Model No.
SPST — 2 term.	
On-X-Off	MS35058-22
On-Off-X	MS35058-24
On-Off*-X	MS35058-25
X-Off-On	MS35058-28
On-X-Off*	MS35058-29
Off-X-On*	MS35058-30
SPDT — 3 term.	
On-Off-On	MS35058-21
On-X-On	MS35058-23
On-X-On*	MS35058-26
On*-Off-On*	MS25058-27
On-Off-On*	MS35058-31
DPST — 4 term.	
On-X-Off	MS35059-22
On-Off-X	MS35059-24
On-Off*-X	MS35059-25
X-Off-On*	MS35059-28
On-X-Off*	MS35059-29
Off-X-On*	MS35059-30
DPDT — 6 term.	
On-Off-On	MS35059-21
On-X-On	MS35059-23
On-X-On*	MS35059-26
On*-Off-On*	MS35059-27
On-Off-On*	MS35059-31

4-POLE HEAVY DUTY WITH LEVER SEAL

MIL-S-3950A	Model No.
4PST — 8 term.	
On-Off-X	MS25068-24
On-Off*-X	MS25068-25
X-Off-On*	MS25068-28
4PDT — 12 term.	
On-Off-On	MS25068-21
On-X-On	MS25068-23
On-X-On*	MS25068-26
On*-Off-On*	MS25068-27
On-Off-On*	MS25068-31

Pacific Switch Controls is a California Corporation specializing in distributing electric switches, relays, pilot lights, and related control devices to the electrical and electronic industry.

Being oriented toward manufacturers and distributors, Pacific Switch Controls has available adequate inventory to fully satisfy needs at factory prices. We also have a switch circuit design and circuit engineering service. Facilities will include a model shop for building prototypes of special switches and switching circuits as needed.

For further information, please contact Shepard Goodman, Vice Pres., at Pacific Switch Controls.

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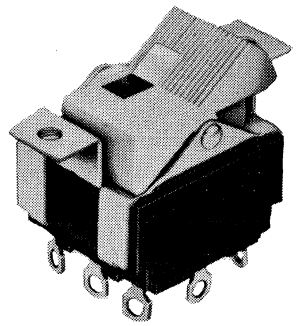
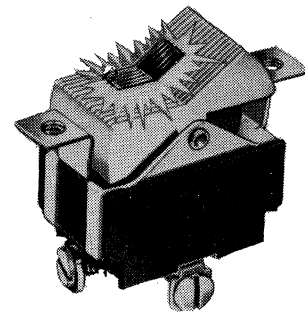
TIPPALITE SWITCHES

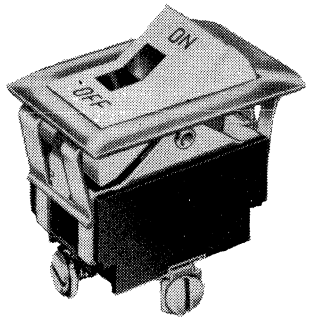
PATENTED



SL 2 SERIES
WITH SPLIT LENS



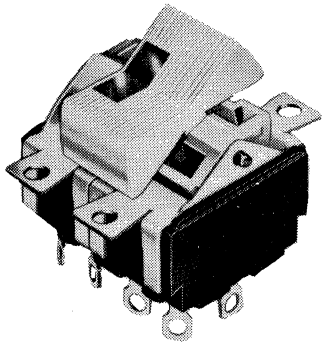
SL1 SERIES



SL1 SERIES WITH SNAP-IN BRACKET

SINGLE POLE A.C. ONLY

CATALOG NUMBERS NOMINAL RATINGS RATING 6 AMP — 125 V. A.C. 3 AMP — 250 V. A.C. ¼ H.P. 125 — 250 V. A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						SINGLE POLE SINGLE THROW		
SL1A6A	SL1A6B	SL1A6C	SL1A6D	SL1A6E	SL1A6F	On	None	Off
						SINGLE POLE DOUBLE THROW		
SL1B6A	SL1B6B	SL1B6C	SL1B6D	SL1B6E	SL1B6F	On	None	On
SL1C6A	SL1C6B	SL1C6C	SL1C6D	SL1C6E	SL1C6F	On	Off	On
RATING 15 AMP — 125 V. A.C. 10 AMP — 250 V. A.C. ¾ H.P. 125 — 250 V. A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						SINGLE POLE SINGLE THROW		
SL1A5A	SL1A5B	SL1A5C	SL1A5D	SL1A5E	SL1A5F	On	None	Off
						SINGLE POLE DOUBLE THROW		
SL1B5A	SL1B5B	SL1B5C	SL1B5D	SL1B5E	SL1B5F	On	None	On
SL1C5A	SL1C5B	SL1C5C	SL1C5D	SL1C5E	SL1C5F	On	Off	On



SL3 SERIES

DOUBLE POLE A.C. ONLY

CATALOG NUMBERS NOMINAL RATINGS RATING 6 AMP — 125 V. A.C. 3 AMP — 250 V. A.C. ¼ H.P. 125 — 250 V. A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						DOUBLE POLE SINGLE THROW		
SL2A6A	SL2A6B	SL2A6C	SL2A6D	SL2A6E	SL2A6F	On	None	Off
						DOUBLE POLE DOUBLE THROW		
SL2B6A	SL2B6B	SL2B6C	SL2B6D	SL2B6E	SL2B6F	On	None	On
SL2C6A	SL2C6B	SL2C6C	SL2C6D	SL2C6E	SL2C6F	On	Off	On
RATING 15 AMP — 125 V. A.C. 10 AMP — 250 V. A.C. ¾ H.P. 125 — 250 V. A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						DOUBLE POLE SINGLE THROW		
SL2A5A	SL2A5B	SL2A5C	SL2A5D	SL2A5E	SL2A5F	On	None	Off
						DOUBLE POLE DOUBLE THROW		
SL2B5A	SL2B5B	SL2B5C	SL2B5D	SL2B5E	SL2B5F	On	None	On
SL2C5A	SL2C5B	SL2C5C	SL2C5D	SL2C5E	SL2C5F	On	Off	On

ACTUATORS—Suffix: —L ⅝″ Long Lined (Standard)
—C ⅝″ Cross Serrated
—S ⅝″ Smooth

Standard Colors Are WHITE, —WH and BLACK, —BL. Other colors available upon request. Imprinting on Actuators may be had upon request.

WIRE LEAD ENCLOSURE—W-10. This snap on enclosure is available in the single pole series and is designed to protect and provide safer insulation for exposed leads.

LAMP CHARACTERISTICS—

Neon (Standard)	— 120*-240 Volts	.02 Amps
Incandescent	— 6 Volts	.02 Amps
	— 12 Volts	.08 Amps
	— 24-28 Volts	.04 Amps

Lenses are RED, AMBER, CLEAR and WHITE. Special variations and colors available.

*Available with "High Brightness" in 120 Volt only.

ADDITIONAL CIRCUIT CHARACTERISTICS—
Three pole series (see illustration SL3) available in same circuit styles as listed in tables above. Momentary and progressive circuits also available.

SORENSON LIGHTED CONTROLS, INC. WEST HARTFORD, CONNECTICUT

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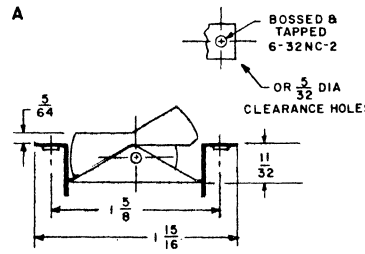
BRACKETS & PILOT LIGHTS

TIPPALITE BRACKETS

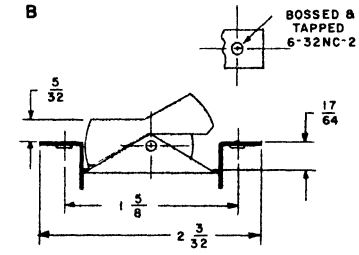
Standard bracket styles for Tippalites are shown below. Various designs and sizes for your specific application can be made to order.

FIGURE	BRACKET DIMENSIONS
A	SL1, SL2, SL3
B	SL1, SL3
C	SL1, SL2, SL3
D	SL1, SL3
E	SL1, SL3

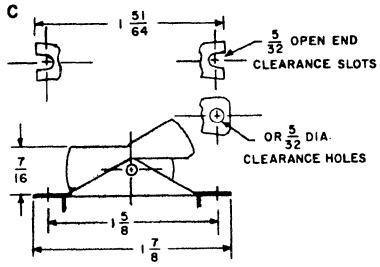
A



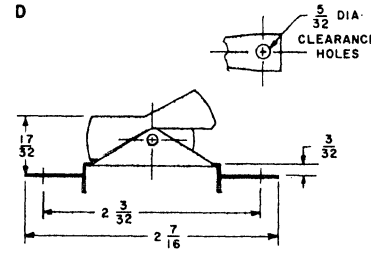
B



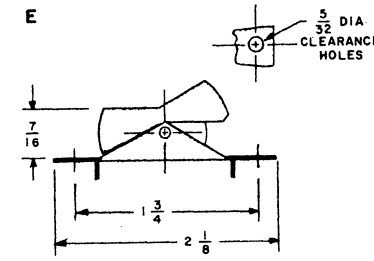
C



D

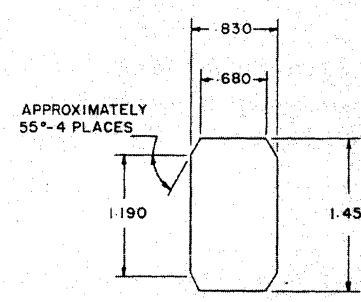


E

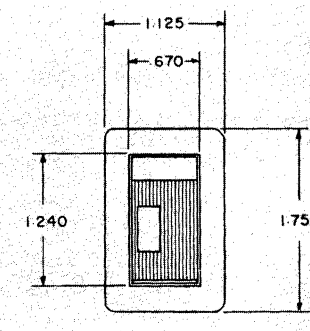


SNAP-IN BRACKET

Snap-in Bracket — Fits SLI Switch series. Bracket designed for snapping into panel thickness of approximately .040″ to .100″. Narrow flanged bracket also available —consult factory.



MOUNTING HOLE



TOP VIEW OF SWITCH & BRACKET

SNAP-IN PILOT LIGHT A.C. or D.C.

CATALOG NUMBERS			ITEM		NOMINAL RATING	
SCREW TERMINALS	WIRE LEADS	TAB TERMINALS				
SL222	SL222-A	SL222-B	Pilot Light		110 — 250 V. A.C. — D.C.	
For **COLOR** of **CASE**		BROWN	WHITE	BLACK	GRAY	RED
Add **SUFFIX NO.**		**—BR**	**—WH**	**—BL**	**—GY**	**—RD**
For **COLOR** of **LENS**		RED NYLON	WHITE NYLON		RED CLEAR	COLORLESS
Add Additional **SUFFIX NO.**		**—NR**	**—ML**		**—RC**	**—CL**

MOUNTING: The only provision necessary for mounting these units is a rectangular opening (1 1/32″ x 2 1/32″) in a .045″ to .065″ thick panel or base into which the unit can be snapped.

Standard Flange (Face) on these items 7/8″ **WIDE.**

SL 222-B

For additional pilot light and indicator light styles—consult factory.

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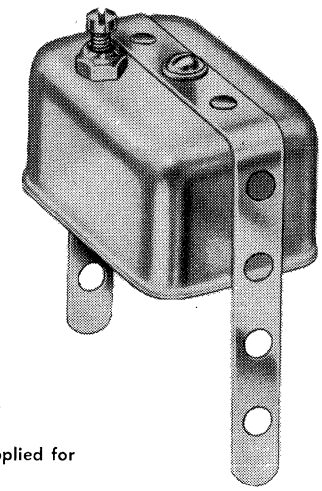
MOTOR STARTING SWITCH



FEATURING . . . . . .

- Universal application—only two switches needed to service all single phase, split phase, or capacitor motors of 1/6 to 1/3 hp inclusive.
- Quickly and easily installed—internally, externally, or remote...in any position.
- Simple, but rugged and foolproof.
- Fully enclosed—dust and dirt proof.
- Long, dependable life.
- Dimensions: 1-11/16" long x 1" wide x 1-1/8" deep.
- The Sorenson switch is designed to replace the conventional centrifugal type switch on single phase, split phase, or capacitor motors, ranging from 1/6 to 1/3 hp inclusive, 110/220 volts, 50/60 cycles. The switch will start motors in the above range within any standard rpm rating, even under the heaviest starting loads, plus or minus 15% to 30% voltage variations, according to the design of the motor.

CATALOG Nos.

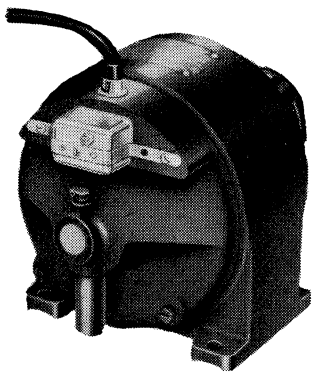
- RM 01620 (1/6 to 1/5 HP)
- RM 02533 (1/4 to 1/3 HP)

Patented No. 2,629,792, others applied for

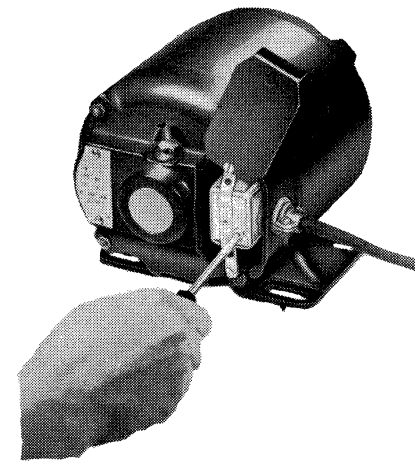
HOW THE SORENSON SWITCH OPERATES

The switch operates on the magnetic principle. It is simply connected in series with the working winding of any type motor. It operates by the momentum of the starting current, and responds to open the starter winding circuit at the pre-determined rpm rating. No internal adjustment required. An adjusting screw (externally operated) provides a means of universal application of the switch to all motors within the above mentioned hp ratings, under all voltage conditions. Specific instructions for making this adjustment are included with each switch.

QUICKLY AND EASILY INSTALLED INTERNALLY, EXTERNALLY or REMOTE



The slotted metal strap attached to the switch case provides the means for extremely flexible mounting, internally, externally or remote.



SORENSON LIGHTED CONTROLS, INC. WEST HARTFORD, CONNECTICUT

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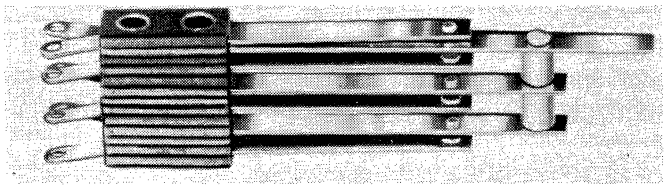
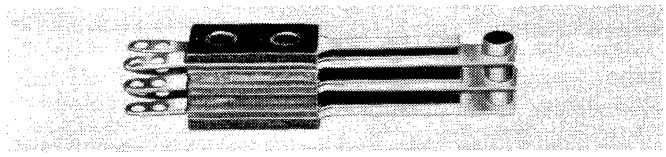
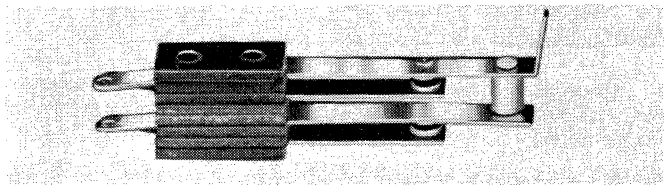
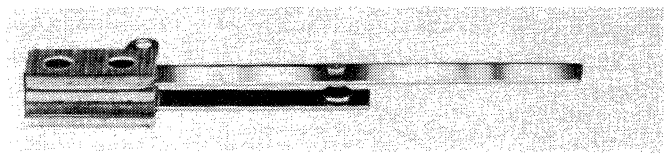
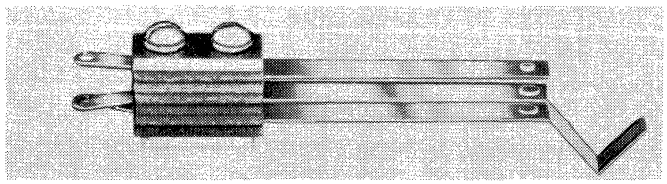
SoLiCo

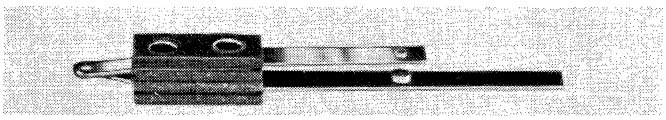


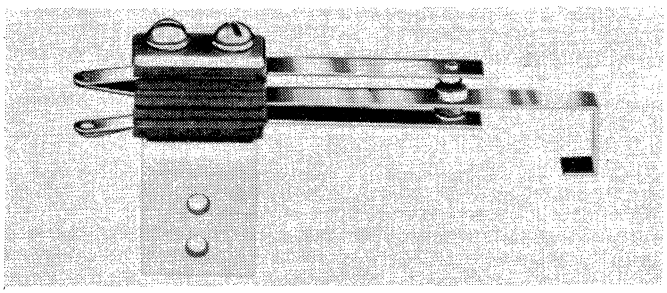


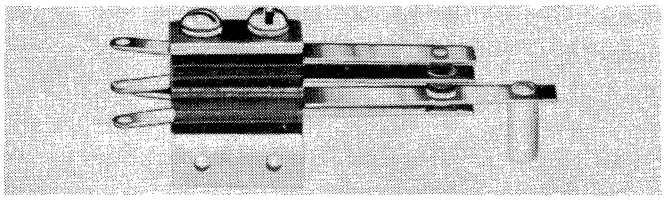












Versatile, low cost
STACK SWITCHES
TO THE CUSTOMERS' REQUIREMENTS

An unlimited number of switch blade combinations and circuit arrangements, including Push Button types are available. Precision construction and expert factory adjustment to meet your specific needs.

COMBINATIONS—

Switches with ¼" and ⅜" mounting centers offered in a variety of combinations, such as those illustrated.

BLADE MATERIALS—

Phosphorous Bronze is standard. Other materials available upon request.

BLADE LENGTHS—

Up to 1⅞" max. from center of first hole with ¼" mounting centers. Up to 2⅝" max. from center of first hole with ⅜" mounting centers.

CONTACT MATERIALS AND RATINGS—

Fine silver contacts are standard. Contact ratings to users particular application.

SEPARATORS—

XP Bakelite standard—Military and U/L types available upon request.

LIFTERS—

Available in nylon and black hard fibre in various lengths and diameters.

TERMINALS—

Solder lugs are standard. Lug adaptors are also available with both ¼" and ⅜" mounting centers.

MOUNTING BRACKET—

Reversible bracket provides either ¼" or ⅜" mounting. (See illustration)

Send us your complete requirements, so that we can give you a prompt quotation and engineering sample for your specific needs.

SORENSON LIGHTED CONTROLS, INC. WEST HARTFORD, CONNECTICUT

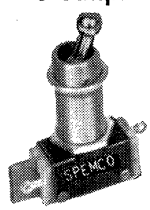
© U.C.P., Inc.

SPEMCO H & H SWITCHES

BALL LEVER TOGGLE SWITCHES

Underwriters' approved, 1 amp. 250 V 3 amp. 125 volts. AC/DC. Laminated bakelite base. Nickel plated finish, except 1120 and 1121.

3 Amp.



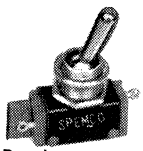
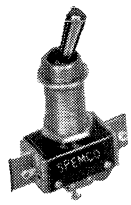
No.	Description	Sleeve	L.	W.	H.	Net Price
*1120	SPST	15/32"	1 3/16"	1/2"	35/64"	.63 ea.
1122	SPDT	15/32"	1 9/16"	1/2"	35/64"	.81 ea.
1124	DPST	15/32"	1 9/16"	21/32"	35/64"	1.11 ea.
1126	DPDT	15/32"	1 9/16"	21/32"	29/32"	1.29 ea.
*1121	SPST	1"	1 3/16"	1/2"	35/64"	.81 ea.
1123	SPDT	1"	1 9/16"	1/2"	35/64"	.96 ea.
1125	DPST	1"	1 9/16"	21/32"	35/64"	1.32 ea.
1127	DPDT	1"	1 9/16"	21/32"	29/32"	1.44 ea.

Sleeve Diameter—15/32"
*3 amp. 250 V AC/DC.

BAT LEVER TOGGLE SWITCHES

3 Amp.

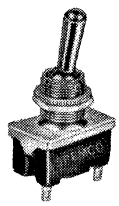
Underwriters' approved, 1 amp. 250 V 3 amp. 125 volts. AC/DC. Laminated bakelite base. Nickel plated finish, except 1135 and 1121B

No.	Description	Sleeve	L.	W.	H.	Net Price
*1135	SPST	15/32"	1 3/16"	1/2"	35/64"	.63 ea.
1136	SPDT	15/32"	1 9/16"	1/2"	35/64"	.81 ea.
1137	DPST	15/32"	1 9/16"	21/32"	35/64"	1.11 ea.
1138	DPDT	15/32"	1 9/16"	21/32"	29/32"	1.29 ea.
*1121-B	SPST	1"	1 3/16"	1/2"	35/64"	.81 ea.
1123-B	SPDT	1"	1 9/16"	1/2"	35/64"	.96 ea.
1125-B	DPST	1"	1 9/16"	21/32"	35/64"	1.32 ea.
1127-B	DPDT	1"	1 9/16"	21/32"	29/32"	1.44 ea.

Sleeve Diameter—15/32"
*3 amp. 250 V AC/DC.

NEW "COMPACT" SWITCH



3 Amp.

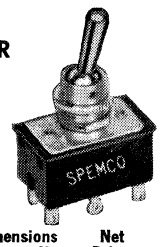
Ideal for aircraft, missile, and electronic applications. Underwriter's approved 1 amp. 250 v., 3 amp. 125 v., AC-DC. Bakelite base. Bright nickel finish.

No.	Description	Sleeve	L.	W.	H.	Net Price
1205	SPST	15/32"	1 1/64"	41/64"	13/16"	.84 ea.
1206	SPDT	15/32"	1 1/64"	41/64"	13/16"	.99 ea.
1207	DPST	15/32"	1 1/64"	41/64"	13/16"	1.23 ea.
1208	DPDT	15/32"	1 1/64"	41/64"	13/16"	1.41 ea.

Sleeve Diameter—15/32"

MOLDED BAKELITE SWITCH, BAT LEVER

U.L. approved for 6 amp. 125 volts, 3 amp. 250 volts. *Except for 1143 which is rated at 1 amp. 250 volts, 6 amp. 125 volts. All back connected, slotted sleeve.



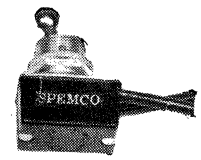
6 Amp.

No.	Description	Sleeve	L.	W.	H.	Net Price
1142	SPST	15/32"	1 1/4"	1 1/16"	15/16"	.84 ea.
*1143	SPDT	15/32"	1 1/4"	1 1/16"	15/16"	.99 ea.
1144	DPST	15/32"	1 1/4"	1 1/16"	15/16"	1.23 ea.
1145	DPDT	15/32"	1 1/4"	1 1/16"	15/16"	1.41 ea.

Sleeve Diameter—15/32"
*1 amp. 250 volts, 6 amp. 125 volts

BALL LEVER TOGGLE SWITCH

6 Amp.



Underwriters' approved 3A 250V, 6A 125V, molded bakelite base. Nickel plated finished. WITH 6" WIRE LEADS

No.	Description	Sleeve	L.	W.	H.	Net Price
1154	SPST	3/8"	7/8"	1/2"	9/16"	.87 ea.

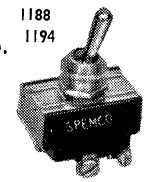
Sleeve Diameter—15/32"

UTILITY SWITCHES—Toggle Type For AC Uses

1185
1186

15 Amp.

1188
1194



Underwriters' approved, 10 amp. 250 volts AC, 15 amp. 125 volts AC, ¾ H.P. 115V-230V AC.

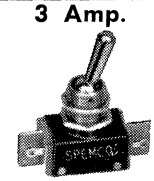
No.	Description	Sleeve	L.	W.	H.	Net Price
1185	SPST	15/32"	1 1/8"	5/8"	15/16"	.72 ea.
1186	SPDT	15/32"	1 1/8"	5/8"	15/16"	.87 ea.
1188	DPST	15/32"	1 5/16"	3/4"	1 1/16"	1.14 ea.
1194	DPDT	15/32"	1 5/16"	3/4"	1 1/16"	1.38 ea.

Sleeve Diameter—15/32"

MOMENTARY BAT LEVER TOGGLE SWITCHES

3 Amp.

Underwriters' approved, 3 amp. 125 volts, laminated bakelite base. Nickel plated finished.



No.	Description	Sleeve	L.	W.	H.	Net Price
*1166	SPST	15/32"	1 3/16"	1/2"	35/64"	1.05 ea.
1167	SPDT	15/32"	1 9/16"	1/2"	35/64"	1.14 ea.
*1155	DPST	15/32"	1 9/16"	21/32"	35/64"	1.44 ea.
1150	DPDT	15/32"	1 9/16"	21/32"	29/32"	1.65 ea.

Sleeve Diameter—15/32"
*1166 Normally Off *1155 Normally Off
*3 Amp 250V

15 Amp.

Underwriters' approved, 10 amp. 250 volts AC, 15 amp. 125 volts AC, ¾ H.P. 115V-230V AC.

No.	Description	Sleeve	L.	W.	H.	Net Price
*1196	SPST	15/32"	1 1/8"	5/8"	15/16"	.93 ea.
*1197	DPST	15/32"	1 5/16"	3/4"	1 1/16"	1.50 ea.

*Normally Off Sleeve Diameter—15/32"

NEUTRAL CENTER MOMENTARY BOTH ENDS

15 Amp.

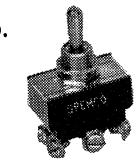
Underwriters' approved, 10 amp. 250 volts AC, 15 amp. 125 volts AC, ¾ H.P. 115V-230V AC.

No.	Description	Sleeve	L.	W.	H.	Net Price
1193	DPDT	15/32"	1 5/16"	3/4"	1 1/16"	1.80 ea.
1195	SPDT	15/32"	1 1/8"	5/8"	15/16"	1.11 ea.

Sleeve Diameter—15/32"

NEUTRAL CENTER

15 Amp.



Underwriters' approved, 10 amp. 250 volts AC, 15 amp. 125 volts AC, ¾ H.P. 115V-230V AC.

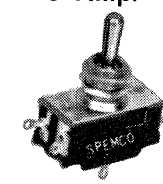
No.	Description	Sleeve	L.	W.	H.	Net Price
1187	SPDT	15/32"	1 1/8"	5/8"	15/16"	.87 ea.
1189	DPDT	15/32"	1 5/16"	3/4"	1 1/16"	1.38 ea.

Sleeve Diameter—15/32"

BAT LEVER TOGGLE SWITCH Neutral Center

6 Amp.

Underwriters' approved, 6 amp. 125 volts, either AC or DC. A 3 position switch, on-off-on. Black bakelite case.



No.	Description	Sleeve	L.	W.	H.	Net Price
1175	SPDT	15/32"	1 13/16"	1 1/16"	1 1/16"	1.53 ea.
1176	DPDT	15/32"	1 13/16"	1 1/16"	1 1/16"	1.83 ea.

Sleeve Diameter—15/32"

PUSH BUTTON DOUBLE ACTION SWITCH

6 Amp.

Underwriters' approved, 6 amp. 125 volts. Press lever to make contact, press lever to break contact. Nickel plated finish or snap-on plastic button, in red or black.

No.	Description	Sleeve	L.	W.	H.	Net Price
1156	Nickel Plated	9/16"	1 1/8"	1/2"	9/16"	.90 ea.
1156-A	Red	9/16"	1 1/8"	1/2"	9/16"	1.11 ea.
1156-B	Black	9/16"	1 1/8"	1/2"	9/16"	1.11 ea.

Sleeve Diameter—15/32"

"COMPACT" DOUBLE ACTION (PUSH-PUSH) SWITCH QUICK MAKE AND BREAK ACTION

3 Amp.

Rated at 1 Amp. 250 Volts and 3 Amps. 125 Volts, A.C. and D.C.

Solder lug terminals with double wiping blade mechanism.

No.	Description	Sleeve	L.	W.	H.	Net Price Each
1215	SPST	9/16"	1 1/32"	41/64"	13/16"	1.11
1215-B	SPST	9/16"	1 1/32"	41/64"	13/16"	1.32
1215-R	SPST	9/16"	1 1/32"	41/64"	13/16"	1.32
1216	SPDT	9/16"	1 1/32"	41/64"	13/16"	1.26
1216-B	SPDT	9/16"	1 1/32"	41/64"	13/16"	1.53
1216-R	SPDT	9/16"	1 1/32"	41/64"	13/16"	1.53
1217	DPST	9/16"	1 1/32"	41/64"	13/16"	1.62
1217-B	DPST	9/16"	1 1/32"	41/64"	13/16"	1.77
1217-R	DPST	9/16"	1 1/32"	41/64"	13/16"	1.77
1218	DPDT	9/16"	1 1/32"	41/64"	13/16"	1.71
1218-B	DPDT	9/16"	1 1/32"	41/64"	13/16"	1.92
1218-R	DPDT	9/16"	1 1/32"	41/64"	13/16"	1.92

Sleeve Diameter—15/32"
(B, means black button, R, means Red button and just the number, nickel.)

Net

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SPEMCO H & H SWITCHES

"COMPACT" MOMENTARY ACTION PUSH SWITCH QUICK MAKE AND BREAK ACTION

3 Amp.

Rated at 1 Amp. 250 Volts
3 Amps. 125 Volts A.C.-D.C.

Solder lug terminals with double wiping bade mechanism

No.	Description	Sleeve	L.	W.	H.	Net Price Each
*1219	SPST	9/16"	1 1/32"	41/64"	13/16"	1.35
*1219-B	SPST	9/16"	1 1/32"	41/64"	13/16"	1.56
*1219-R	SPST	9/16"	1 1/32"	41/64"	13/16"	1.56
1220	SPDT	9/16"	1 1/32"	41/64"	13/16"	1.62
1220-B	SPDT	9/16"	1 1/32"	41/64"	13/16"	1.83
1220-R	SPDT	9/16"	1 1/32"	41/64"	13/16"	1.83
*1221	DPST	9/16"	1 1/32"	41/64"	13/16"	1.89
*1221-B	DPST	9/16"	1 1/32"	41/64"	13/16"	2.07
*1221-R	DPST	9/16"	1 1/32"	41/64"	13/16"	2.07
1222	DPDT	9/16"	1 1/32"	41/64"	13/16"	2.04
1222-B	DPDT	9/16"	1 1/32"	41/64"	13/16"	2.19
1222-R	DPDT	9/16"	1 1/32"	41/64"	13/16"	2.19

Sleeve Diameter—15/32"

(B, means black button, R, means Red button and just the number, nickel.)
*SPST & DPST—Normally Off.

MIDGET MOMENTARY PUSH BUTTON SWITCHES

3 Amp.

Underwriters' approved, 3 amp. 120 volts, AC. Molded bakelite base, nickel plated finish.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1141	SP Norm. Closed	9/16"	1 1/32"	9/16"	2 9/64"	.54 ea.
1141-A	SP Norm. Open	9/16"	1 1/32"	9/16"	2 9/64"	.54 ea.

Sleeve Diameter—15/32"

3 Amp.

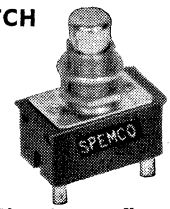
Underwriters' approved, 3 Amp. 120v, AC, Nickel plated finish, Molded bakelite base, Single Pole, slow make and slow break with bakelite snap-On button in red or black.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1157-A	Open—Red	9/16"	1 1/32"	9/16"	2 9/64"	.93 ea.
1157-B	Open—Black	9/16"	1 1/32"	9/16"	2 9/64"	.93 ea.
1157-C	Closed—Red	9/16"	1 1/32"	9/16"	2 9/64"	.93 ea.
1157-D	Closed—Black	9/16"	1 1/32"	9/16"	2 9/64"	.93 ea.

Sleeve Diameter—15/32"

INTERMEDIATE MOMENTARY PUSH SWITCH

6 Amp.



U.L. approved for 6 amp. 125 volts, 3 amp. 250 volts. *Except for 1147 which is rated at 1 amp. 250 volts, 6 amp. 125 volts. All back connected, slotted sleeve.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
**1146	SPST	1/2"	1 1/4"	1 1/16"	15/16"	1.41 ea.
*1147	SPDT	1/2"	1 1/4"	1 1/16"	15/16"	1.59 ea.
**1148	DPST	1/2"	1 1/4"	1 1/16"	15/16"	1.83 ea.
1149	DPDT	1/2"	1 1/4"	1 1/16"	15/16"	2.01 ea.

*1 amp. 250 volts, 6 amp 125 volts
**1146 & 1148 Normally off. Sleeve Diameter—15/32"

MOMENTARY "SLOW-MAKE & BREAK" NORMALLY OFF

15 Amp.

Rated at 10 Amps. 250 Volts
15 Amps. 125 Volts
1/4 H.P. 250 V. AC ONLY

Solder lug, double slotted sleeve, 3/16" travel plus 1/16" overtravel. Operating pressure 6 ozs. increasing to 2 lbs. 6 ozs. when plunger is fully depressed.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1225	DPST	15/32"	1 5/16"	3/4"	1"	1.71 ea.

Sleeve Diameter—15/32"

MOMENTARY PUSH BUTTON SWITCH, NORMALLY OFF

16 Amp.

Underwriters' approved, 16 amp. 125 V., 8 amp. 250 V., 1 H.P. 125-250 V. AC-DC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1160	DPST	15/32"	1 3/4"	1 3/16"	2 5/32"	1.80 ea.

Sleeve Diameter—15/32"

1 Amp.

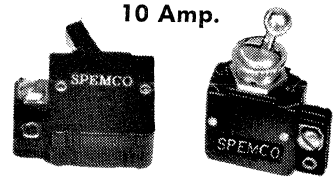
Two circuit, slow make and slow break, momentary switch. One circuit normally on, the other off, with snap-on plastic button, in red or black. (Pushing the button reverses the contact.) 1 Amp. 125 Volts AC.
Underwriters' Approved

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1158-A	Red	7/16"	1 19/32"	15/32"	17/32"	1.11 ea.
1158-B	Black	7/16"	1 19/32"	15/32"	17/32"	1.11 ea.

Sleeve Diameter—15/32"

POWER SWITCHES

10 Amp.



Underwriters' approved, 10 amp. 125 volts. 5 amp. 250 A.C., 3/4 H.P. 250V. A.C. 1/2 H.P. 250V A.C.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1133	SPST	11/32"	1 5/16"	1 7/32"	1 5/16"	1.08 ea.
1133-B	Bakelite lever	1 5/16"	1 7/32"	1 5/16"		.69 ea.

*15/32" sleeve diameter

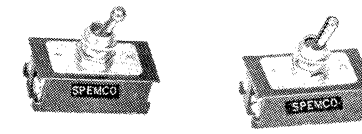
16 Amp.

Underwriters' approved, 16 amp. 125V., 8 amp. 250V. A.C.-D.C.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1159	DPST	15/32"	1 3/4"	1 3/16"	2 5/32"	1.23 ea.
1159-B	DPST	15/32"	1 3/4"	1 3/16"	2 5/32"	1.23 ea.

1159—Ball Lever 1159-B—Bat Lever
Sleeve Diameter—15/32"

POWER SWITCHES 20 Amp.

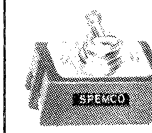


Underwriters' approved 20 amp, 125 V., 10 amp. 250 V. 1 1/2 H.P. 125-250 V. AC-DC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1134	DPST	15/32"	2"	1"	7/8"	2.07 ea.
1134-B	DPST	15/32"	2"	1"	7/8"	2.07 ea.

1134—Ball Lever 1134-B Bat Lever
Sleeve Diameter—15/32"

20 Amp.

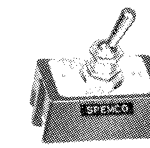


Fully enclosed tumbler switch, 20 amp. 250V., 1 1/2 H.P. 125V., 2 H.P. 250V.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1170-S	DPST	11/32"	2 1/4"	1 1/8"	1 5/32"	3.00 ea.

Sleeve Diameter—1/2"

20 Amp.



Fully enclosed tumbler switch, 20 amp. 250V., 1 1/2 H.P. 125V., 2 H.P. 250V.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1170	DPST	17/32"	2 1/4"	1 1/8"	1 5/32"	3.00 ea.

Sleeve Diameter—15/32"

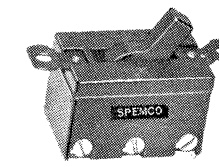
EXTRA HEAVY DUTY SWITCH NEUTRAL CENTER 10 Amp.

Used in heavy current circuits, such as transmitters, power amplifiers, motors, etc. Contacts have fast 'break' which reduces the tendency to arc. Rated at 10 amp. 125 volts, 5 amp, 250 volts, 3/4 HP 250 volts.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1161-A	DPDT	11/32"	2"	1 5/16"	1"	4.65 ea.
1161	DPDT	11/32"	2"	1 5/16"	1"	4.65 ea.

Straight thru, no off-center* Sleeve Diameter—3/4

20 Amp. & 30 Amp.

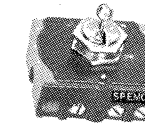


3-9/32" mounting centers
1161-B
10 Amp. 250 Volts
20 Amp. 125 Volts
1161?C
20 Amp. 250 Volts
30 Amp. 125 Volts
Both AC-DC

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1161-B	DPDT	2 1/2"	1 19/32"	1 21/32"		7.05
1161-C	DPDT	2 7/8"	1 13/16"	2"		9.45
*1161-D	DPDT	2 1/2"	1 19/32"	1 21/32"		7.05

*20 Amp. Straight thru-no off center.

10 Amp.



Rated 10 amp. 125 volts, 1/2 HP, 115-230 volts AC. 5 amp. 250 volts.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1177	3 PDT	13/32"	2 5/16"	2"	1 1/8"	7.05
1178	4 PDT	13/32"	2 5/16"	2"	1 1/8"	8.85

Sleeve Diameter—3/4"

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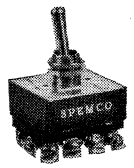
SPEMCO H & H SWITCHES

THREE & FOUR POLE AC UTILITY SWITCHES



15 amp. 125V., 10 amp. 250V. AC., except Nos. 1200 and 1201 which is 10 amp. 250V. AC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1198	3PST On-None-Off	15/32"	1 7/16"	1 5/16"	1 1/16"	2.40 ea.
1199	3PDT On-Off-On	15/32"	1 7/16"	1 5/16"	1 1/16"	3.00 ea.
*1200	4PST On-None-Off	15/32"	1 7/16"	1 5/16"	1 1/16"	3.45 ea.
*1201	4PDT On-Off-On	15/32"	1 7/16"	1 5/16"	1 1/16"	4.20 ea.

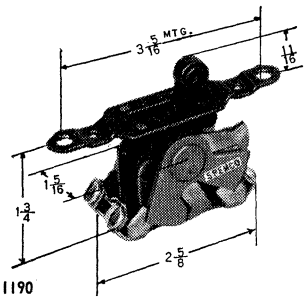
Sleeve Diameter—15/32"

*10 amp. 250 V. A.C.
*1/2 H.P. 115-230 V. A.C.

HEAVY DUTY SWITCHES Toggle Type

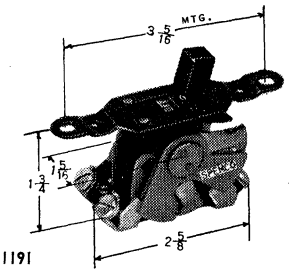
Underwriters' approved, 30 amp. 250 volts, AC DC. 2 H.P., 115V-230V AC; 1 H.P., 460V AC
For use on Food Machines, Grinders, Sanders, Machine Tools, Gasoline Pumps, etc.

Roller Type Lever — 30 Amp.



1190

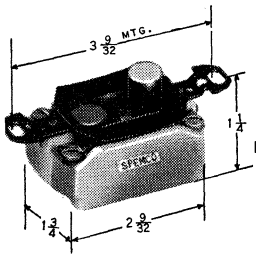
Square Bakelite Lever — 30 Amp.



1191

No.	Description	Net Price
1190	DPST	2.85 ea.
1191	DPST	2.85 ea.

METAL PUSH BUTTON TYPE NORMALLY OPEN 20 Amp.



No. 1192

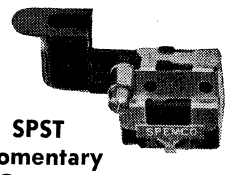
Description DPST — Net Price 2.85 ea.

Underwriters' approved, 20 amp. 250 volts, 2 H.P. 230V AC, 2 H.P. 250V DC.
For use on Floor Sander, as a foot switch, etc.

PORTABLE TOOL HANDLE SWITCHES 12 Amp.

Tool handle switch, fully enclosed, normally OFF with locking latches. Rated and approved by the Underwriters' for 6 amp. 250 volts, 12 amp. 125 volts, 1 H.P. 250 volts, 1 3/4" long, 1 3/16" wide, 7/8" high.

No.	Description	Net Price
1168	DPST	2.01 ea.



4 Amp.

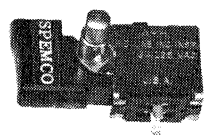
Direct Pull Trigger with Latch.
2 amp., 250 volts.
4 amp., 125 volts.

SPST Momentary Contact

NO.	BASE DIMENSIONS L.	W.	H.	Net Price
1169	1 5/64"	21/32"	1 5/64"	1.14 ea.

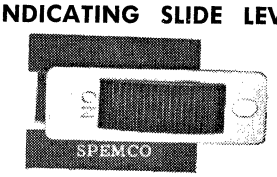
S. P. MOMENTARY CONTACT 3 Amp.

Pressure lever switch with Holding Latch rated at;
3 Amp.—
125 volts A.C.



NO.	BASE DIMENSIONS L.	W.	H.	Net Price
1171	7/8"	3/16"	1 1/8"	.63 ea.

INDICATING SLIDE LEVER SWITCH



6 Amp.

Rated at
3 Amp.—250 volts
6 Amp.—125 volts

SINGLE POLE Screw Terminal

NO.	L.	W.	H.	Net Price
1174	7/8"	1/2"	17/32"	1.26 ea.

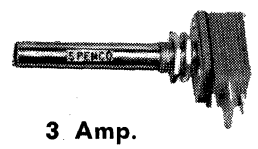
ROTARY CANOPY SWITCH With Fixed Plastic Handle

3 Amp.

Underwriters' approved, 3 amp. 125 volts. 1 amp. 250 volts.

No.	Stem	Wire Lead	Net Price
1179	7/16"	6"	.42 ea.

ROTARY SWITCHES



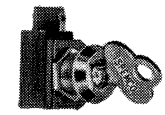
3 Amp.

Underwriters' approved, 1 amp. 250 V., 3 amp. 125 V. AC-DC (Except #1128). Nickel plated finish. Laminated bakelite base.

No.	Description	Shaft	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1128	SPST	1 1/8"	3/8"	3/16"	3/4"	9/16"	.81 ea.
1129	SPDT	1 1/8"	3/8"	9/16"	3/4"	9/16"	.99 ea.
1130	DPST	1 1/8"	3/8"	9/16"	3/4"	11/16"	1.32 ea.
1131	DPDT	1 1/8"	3/8"	9/16"	3/4"	1 1/8"	1.62 ea.

*1128 rated 3 amp. 250 V. AC-DC. 1/32"
Sleeve Diameter—11/32"

3 Amp. ROTO-LOCK SWITCH

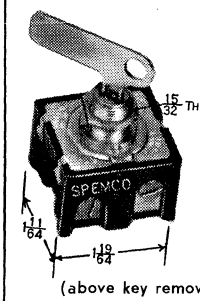


Underwriters' Approved, 3 amp. 250 volts.
Except #1129-K & 1131-K

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1128-K	SPST (With Key) (above key removable in off position only)	15/32"	1 3/16"	3/4"	9/16"	1.44 ea.
1128-KA	Key only for above					.21 ea.
1128-KE	SPST (With Key) (above key removable in either position)	15/32"	1 3/16"	3/4"	9/16"	1.44 ea.
*1129-K	SPDT (With Key) (above key removable in either position)	15/32"	1 9/16"	1/2"	3/4"	1.56 ea.
*1131-K	DPDT (With Key) (above key removable in either position)	15/32"	1 9/16"	3/4"	3/4"	2.07 ea.
1128-KEA	Key—fits 1128-KE, 1129-K, and 1131-K					.21 ea

*1129-K & 1131-K—U.L. approved, 1 amp. 250 V., 3 amp. 125V., AC-DC. Sleeve Diameter—15/32"

ROTO-LOCK SWITCH



20 Amp.

Underwriters' approved.
20 amp. 120 volts, 240 volts AC.

1 1/2 H.P.—120 volts AC
2 H.P.—120 volts AC
(with key)
(above key removable in off position only)

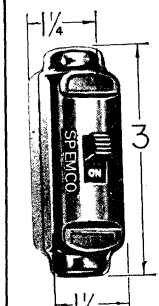
No.	Description	Sleeve	Net Price
1130-K	DPST (With Key)	9/16"	2.64 ea.
1130-KA	Key Only for above		.27 ea.

FEED THROUGH CORD SWITCH

10 Amp.

Underwriters' approved, black bakelite case sliding lever, 10 amp. 125 volts, 5 amp. 250 volts. 5/16" cord hole.

No.	Description	Net Price
1163	SP	1.38 ea.



FEED THROUGH CORD SWITCH 15 Amp.

13/32 (.406) Inch Cord Hole

For Appliance Use Only:

Rated at 10 Amp.—250 volts
15 Amp.—125 volts

		Net Price
1164	DP (with 3rd wire ground)	4.65 ea.

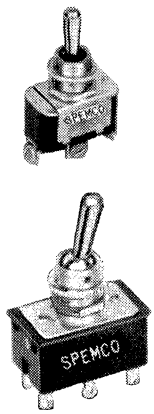
Net

© U.C.P., Inc.

SPEMCO H & H SWITCHES

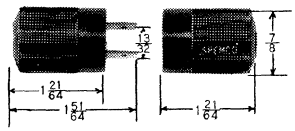
MILITARY TYPE TOGGLE SWITCHES

Manufactured of materials and in accordance with specification Mil-S-3950
MS-25098 and MS-35058—Single Pole MS-25100 and MS-35059—Double Pole



MS Part No.	Up Position	Center Position	Down Position Keyway Side	Net Price
MS-25098-22	On	None	Off	$216.75C
MS-25098-23	On	None	On	233.25C
MS-25100-22	On	None	Off	266.25C
MS-25100-23	On	None	On	283.50C
MS-35058-21	On	Off	On	195.75C
MS-35058-22	On	None	Off	162.75C
MS-35058-23	On	None	On	195.75C
MS-35058-24	On	Off	None	162.75C
MS-35058-25	On	Mom. Off	None	179.25C
MS-35058-26	On	None	Mom. On	212.25C
MS-35058-27	Mom. On	Off	Mom. On	212.25C
MS-35058-28	None	Off	Mom. On	179.25C
MS-35058-29	On	None	Mom. Off	179.25C
MS-35058-30	Off	None	Mom. On	179.25C
MS-35058-31	On	Off	Mom. On	230.25C
MS-35059-21	On	Off	On	261.75C
MS-35059-22	On	None	Off	217.50C
MS-35059-23	On	None	On	261.75C
MS-35059-24	On	Off	None	217.50C
MS-35059-25	On	Mom. Off	None	261.75C
MS-35059-26	On	None	Mom. On	283.50C
MS-35059-27	Mom. On	Off	Mom. On	283.50C
MS-35059-28	None	Off	Mom. On	261.75C
MS-35059-29	On	None	Mom. Off	261.75C
MS-35059-30	Off	None	Mom. On	261.75C
MS-35059-31	On	Off	Mom. On	283.50C

CORD CONNECTORS 10 Amp.



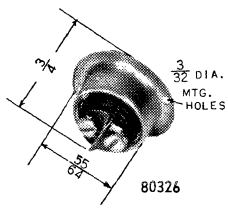
Brown Bakelite Cord Connector Complete, 7/8" O.D. x 2½" long. 10 amps. 250 volts. End opening for wire size up to 3/16" O.D.

No.	Description	Net Price
1162	Complete	1.86 ea.
1162-F	Female Part	1.02 ea.
1162-M	Male Part	1.02 ea.

RECEPTACLES

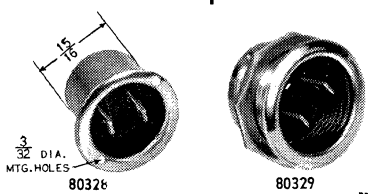
Underwriters' approved, 10 amp. 250 volts AC.

Short Female Flush Receptacle 10 Amp.



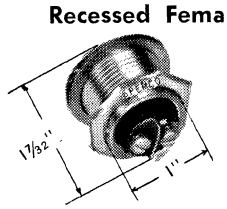
No.	Description	Net Price
80326	2 Screw Mounting	1.14 ea.
80327	Lock Nut Mounting	1.86 ea.

Recessed Male Receptacle 10 Amp.



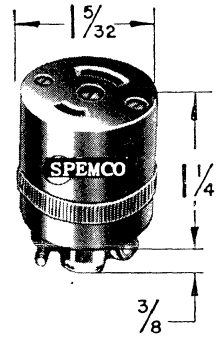
No.	Description	Net Price
80328	2 Screw Mounting	1.32ea.
80329	Lock Nut Mounting	1.86 ea.

Recessed Female Receptacle 10 Amp.



No. 80331
Description Lock Nut Mounting
Net Price 1.86 ea.

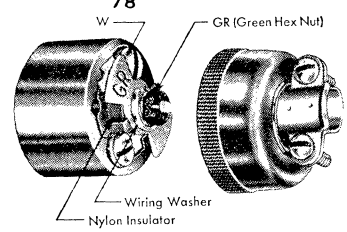
TURN TO LOCK COMPACT RECEPTACLES 3-WIRE GROUNDING TYPE 15 Amp. 125 Volt

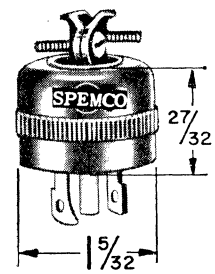


Brass metal casings, finished to resist corosion. Black bakelite is standard.

Female Connector No. 1250

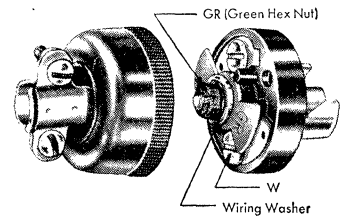
Net Price $2.10 ea.



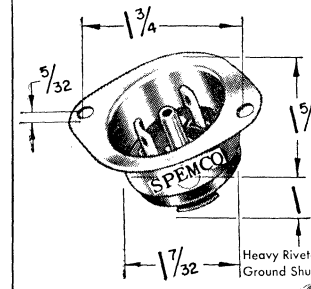


Male Connector No. 1251

Net Price $1.65 ea.

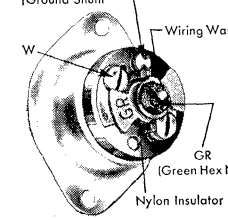


Male Receptacle

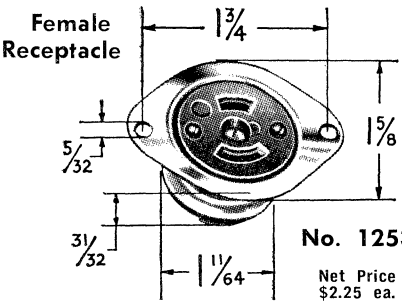


No. 1252

Net Price $1.95 ea.



Female Receptacle



No. 1253

Net Price $2.25 ea.

HARDWARE

for 15/32" diameter sleeve.

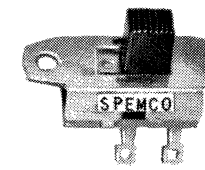
No.	Description	Price
1132-HL	Hi-Lo Plate	.036 ea
1132	On and Off Plate	.036 ea
1132-H	Hex Nut	.024 ea
1132-K	Knurled Nut	.024 ea
1210	Lockwasher	1.80
1211	Locking Ring	2.40

PHENOLIC SNAP-ON BUTTON

No.	Color	Net Price
1212-B	Black	.21 e
1212-R	Red	.21 e
1212-W	White	.21 e

All aforementioned switches, connectors and receptacles are manufactured by H&H for Specialti Manufacturing Company.

SLIDE SWITCHES



Housings are made of steel and are cadmium plated 1 13/32" long, 35/64" wide and 1⅛" mounting centers.

No.	Description	Net Pr
1180	SPST .75A-125V AC-DC	.156
1181	SPDT .75A-125V AC-DC	.168
1182	DPST .50A-125V AC-DC	.216
1183	DPDT .50V-125V AC-DC	.258

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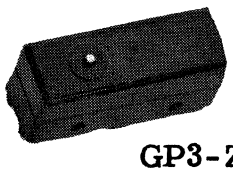
SPEMCO

H & H PRECISION SWITCHES


GP3-Z1

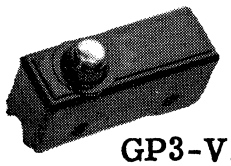
GP3-T1

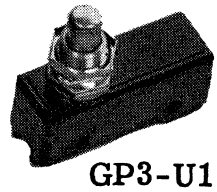
GENERAL PURPOSE PRECISION SWITCHES SPDT

H & H General Purpose Precision Switches feature high electrical rating combined with very low operating force and long life. SPDT units may be wired normally open or normally closed. UL and CSA approved: 15 amp. 480 V AC, 1/2 amp. 125 V DC, 1/4 amp. 250 V DC.

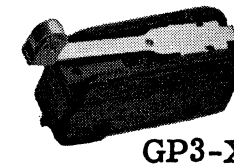
GP3-W1

GP3-Y1


GP3-V1


GP3-U1

GP3-Q1

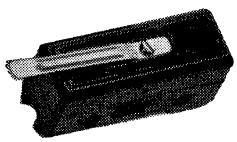

GP3-X1

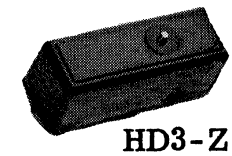
SPEMCO NUMBER Solder Lug	SPEMCO NUMBER Screw Term.	*1 ACTUATOR	OPERATING FORCE	PRETRAVEL	OVERTRAVEL	LIST PRICE Solder Lug	LIST PRICE Screw Term.
GP3-Z1	GP3-Z2	Pin Type	9 to 13 oz.	.015" max.	.005" min.	$155.00 C.	$165.00 C.
GP3-T1	GP3-T2	Flexible Leaf	5 oz. max.	5/32" max.	Not over 1/16"	170.00 C.	180.00 C.
GP3-Q1	GP3-Q2	Std. Roller Leaf	5 oz. max.	5/32" max.	Not over 1/16"	215.00 C.	220.00 C.
GP3-Y1	GP3-Y2	Rigid Hinge Lever	2 1/2 oz.	3/8" max.	.219" min.	200.00 C.	205.00 C.
GP3-X1	GP3-X2	Std. Roller Lever	3 1/2 oz. max.	9/32" max.	.156" min.	250.00 C.	260.00 C.
GP3-W1	GP3-W2	Short Roller Lever	6 oz. max.	9/64" max.	3/32" min.	250.00 C.	260.00 C.
GP3-V1	GP3-V2	Short Overtravel Button	9 to 13 oz.	1/64" max.	1/16" min.	190.00 C.	195.00 C.
GP3-U1	GP3-U2	Panel Mounted Plunger	9 to 13 oz.	1/64" max.	7/32" min.	345.00 C.	350.00 C.

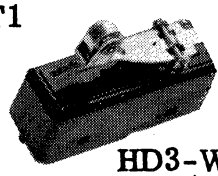
*1 Switches are mounted by two .140 inch diameter holes on one inch centers. Discount: 1-9, none; 10-19, 10%; 20-49, 20%; 50-99, 30%.

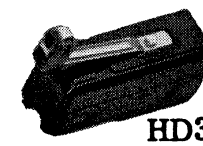
HEAVY DUTY PRECISION SWITCHES SPDT

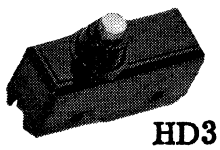
H & H Heavy Duty Precision Switches provide high inrush capacity and retain similar performance and actuating characteristics found in the General Purpose units. SPDT switches can be wired normally open or normally closed. UL and CSA approved: 20 amp. 480 V AC, 10 amp. 125 V AC "L" load, 1/2 amp. 125 V DC, 1/4 amp. 250 V DC, 1 H.P. 120 V AC, 2 H.P. 240 V AC.

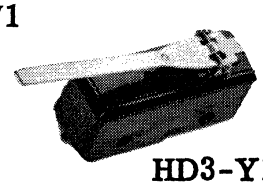

HD3-T1


HD3-Z1


HD3-W1


HD3-Q1


HD3-V1


HD3-Y1

HD3-U1

HD3-X1

SPEMCO NUMBER Solder Lug	SPEMCO NUMBER Screw Term.	*1 ACTUATOR	OPERATING FORCE	PRETRAVEL	OVERTRAVEL	LIST PRICE Solder Lug	LIST PRICE Screw Term.
HD3-Z1	HD3-Z2	Pin Type	14 to 22 oz.	.050" max.	.010" min.	$160.00 C.	$170.00 C.
HD3-T1	HD3-T2	Flexible Leaf	9 oz. max.	11/32" max.	Not over 1/16"	180.00 C.	185.00 C.
HD3-Q1	HD3-Q2	Std. Roller Leaf	9 oz. max.	11/32" max.	Not over 1/16"	225.00 C.	230.00 C.
HD3-Y1	HD3-Y2	Rigid Hinge Lever	2 1/2 oz. max.	5/8" max.	.078" min.	205.00 C.	210.00 C.
HD3-X1	HD3-X2	Std. Roller Lever	2 1/2 oz. max.	15/32" max.	1/16" min.	260.00 C.	265.00 C.
HD3-W1	HD3-W2	Short Roller Lever	6 oz. max.	1/4" max.	1/32" min.	260.00 C.	265.00 C.
HD3-V1	HD3-V2	Short Overtravel Button	14 to 22 oz.	.050" max.	.093" min.	195.00 C.	200.00 C.
HD3-U1	HD3-U2	Panel Mounted Plunger	14 to 22 oz.	.050" max.	.219" min.	355.00 C.	360.00 C.

*1 Switches are mounted by two .140 inch diameter holes on one inch centers. Discount: 1-9, none; 10-19, 10%; 20-49, 20%; 50-99, 30%.

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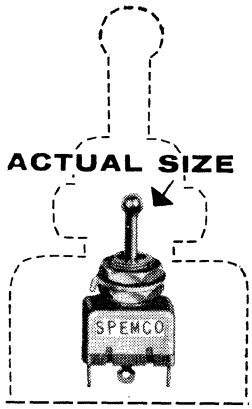
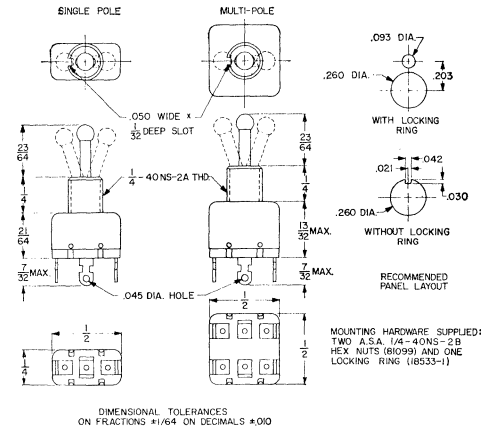
SPEMCO H & H SUBMINIATURE SWITCHES



SUBMINIATURE TOGGLE SWITCHES

Meeting requirements of MIL-S-3950 as applicable to SCL-6305

Spemco Subminiature Switches are 1/10 the volume of the standard switch shown in dotted outline.



OPERATING CHARACTERISTICS

CONTACT RATINGS: 5 amp resistive at 29 volts DC or 115 volts AC.

DIELECTRIC STRENGTH: 1000 volts RMS at sea level.

VIBRATION: 5-28 CPS at 0.5 inch double amplitude; 28-2000 CPS at 20 G.

SHOCK: 50 G for 11 milliseconds.

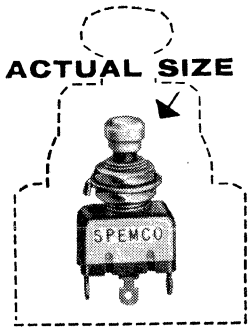
ELECTRICAL LIFE (minimum): 20,000 make and break cycles.

SEAL: Low temperature rubber boot for panel is available.

WEIGHT: From 3.0 to 5.0 grams maximum.

TERMINALS: Solder lugs.

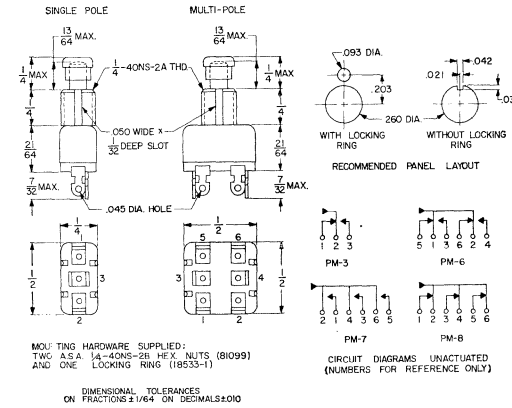
Spemco Number	Description	CIRCUIT ARRANGEMENT			Net Price
		Down Position Keyway Side	Center Position	Up Position	
TS-3	SPDT	On	None	On	$3.00 ea.
TC-3	SPDT	On	Off	On	3.20 ea.
TE-3	SPDT	Mom. On	Off	On	3.20 ea.
TG-3	SPDT	Mom. On	Off	Mom. On	3.20 ea.
TM-3	SPDT	Mom. On	None	On	3.20 ea.
TS-6	DPDT	On	None	On	3.90 ea.
TC-6	DPDT	On	Off	On	4.28 ea.
TG-6	DPDT	Mom. On	Off	Mom. On	5.00 ea.



SUBMINIATURE PUSH BUTTON SWITCHES, MOMENTARY

Featuring gold plated coin silver contacts and gold plated brass terminals. Ideal for aircraft, missile, electronic and other applications demanding small size and dependability.

Spemco Subminiature Switches are 1/10 the volume of the standard switch shown in dotted outline.



OPERATING CHARACTERISTICS

CONTACT RATING: 2 amp resistive at 29 volts DC or 1 amp at 115 volts AC.

DIELECTRIC STRENGTH: 1000 volts RMS at sea level.

VIBRATION: 5-28 CPS at 0.5 inch double amplitude; 28-2000 CPS at 20 G.

SHOCK: 50 G for 11 milliseconds.

ELECTRICAL LIFE (minimum): 20,000 make and break cycles.

WEIGHT: From 2.5 to 4.0 grams maximum.

TERMINALS: Solder lugs.

PUSH BUTTON: White nylon button shown in photo is snap-on type. On request, buttons can be colored black, blue, brown, green, red or yellow.

Spemco Number	CIRCUIT DESCRIPTION	Net Price
PM-3	SPDT — Momentary	$2.86 ea.
PM-6	DPDT — Momentary	3.51 ea.
PM-7	3PST — Normally Open	3.31 ea.
PM-8	3PST — Normally Closed	4.65 ea.

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SWITCH TO TECH LABS for the Most Versatile Line of Precision Switches & Attenuators

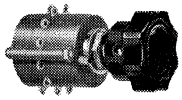
FOUNDED 1935

These switches are representative of the many types produced by TECH LABS meeting applicable Government Specs. Wire or teletype for further information.

TEL: 201 - WI 4-2221
TWX: 201-947-4730

TAP SWITCHES

TYPE 3A MINIATURE TAP SWITCH



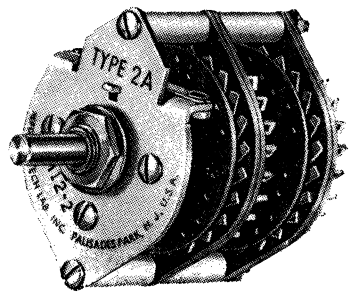
Molded from Diallyl Phthalate

$3.00 List

Specifications

Size: 1" diameter. 1¼" with terminals. 1 deck, 1 1/16" long, ½" for each additional deck.
Rating: 1200 volts rms, 2000 VDC, 5 amps. (carrying) 115 V.
Insulating resistance: 100 megohms minimum at 500 volts DC.
Life: 1.5 — 2 million revolutions.
Temperature range: —65°C to 100°C.
Mounting: single hole.

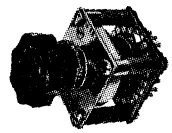
TYPE 2A & 2M



The Type 2A, a standard control switch for precision instruments and equipments, comes in 2-24 positions and 1-4 poles per deck, with phenolic insulation. The 2M is identical except for Melamine insulation. Both are rated for 3 AMP.

Code "S" denotes "shorting" and "N" "non-shorting".

Type	Code	No.Pos.	No.Decks	Poles/Deck	Price
2A	1S24	24	1	1	$4.50
2A	4S5	4	1	5	$6.00
2A	N10-2	10	2	1	$7.00
2M	1S24	24	1	1	$5.50
2M	4N3	3	1	4	$7.00

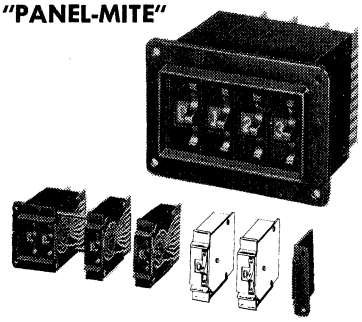


TYPE 10A TAP SWITCH

A multi-deck switch of small dimensions, 1 5/16" sq. This is a precision switch designed to meet high requirements in smallest possible space. Up to 24 positions, shorting. Price approx. $10 per deck, plus frame $5.

THUMBWHEEL SWITCHES

"PANEL-MITE"



A compact, molded, printed-circuit wafer switch for limited space and in line readout. **Modular type for either front or back of panel mounting:** modules ½" between center lines, height 2". Single or double pole, 10 position, binary or complementary codes, standard. Other codes available on request.

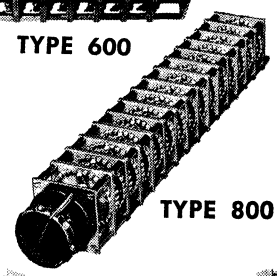
CAM SWITCHES

TYPE 8A CAM SWITCH

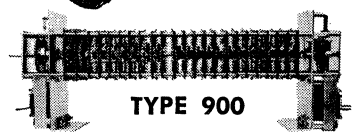
A new development of great interest. Small size, long life and great flexibility. Have been made with from one to 30 contact springs. Will carry 3 amp. Standard unit has four contact springs and 10 positions, price $12.50.

SQUARE SWITCHES

TYPE 600



TYPE 800



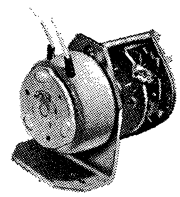
TYPE 900

These standard rugged control switches are the standby for equipment calling for dependable switches in a hurry. Will meet all standard government specs. All parts carried in stock. An infinite number of combinations possible. Teletype your specs.

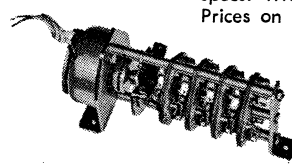
The price of the basic frame is the same for all, viz. $4.00 each. The type 600 and 800 are priced at $8.00 per deck plus frame price, and the type 900 switches are $9.50 per deck plus frame $4.00.

Type	Size	Rating	Max. Pos. Short.	Max. Pos. Non-Short.
600	1¾" sq.	5A.	24	12
800	2¼" sq.	5A.	32	16
900	2¾" sq.	10A.	48	24

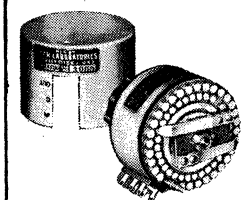
STEPPING SWITCHES

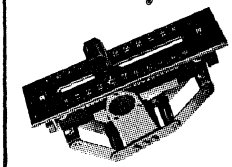


TECH LABS switches are now standard equipment in missiles as well as in ground controls. Furnished sealed to meet all specs. Write for details. Prices on request.



ATTENUATORS





A complete line of audio and r.f. attenuators with both manual and REMOTE CONTROL. We will design components to meet your specific requirements, if standard units are inadequate. Please write for catalogue and send us your specs for estimate.

WRITE FOR NEW BULLETINS ON SWITCHES • DECADE RESISTORS • POTENTIOMETERS

TECH LABORATORIES INC. • Palisades Park, New Jersey

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AMERICAN BEAUTY ELECTRIC SOLDERING IRONS

American Beauty is known throughout the world as the quality-standard for electric soldering tools. Stocked in all models and watt-inputs—plus tips, parts and accessories.

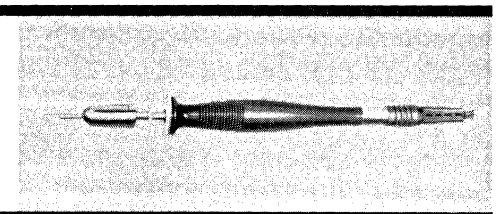
B-SERIES MINIATURES

Newest advance in truly miniature irons. Precise balance. Cool handle. Long-life, "floating", heating element. Anti-roll baffle. Simple three-piece assembly. Boxed with 6′ detachable cord set, 3 assorted tips. Packed 6 to case.

CAT. NO.	TIP DIA.	WATTS	NET WT.	LIST
B-2000-L	1/8″	22½	3 oz.	$12.00
B-2500-L	3/16″	30	3 oz.	$12.00

Two-wire cord is standard. For same irons equipped with 3-wire grounding cord and NEMA type plug, add "S3" to CAT. NO. and $1.00 to list price.

*Other options available

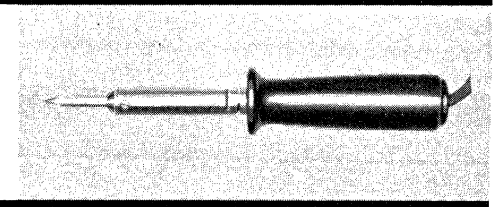


BANTAMS

Small American Beauty irons in wide range of watt-inputs and tip diameters to cover entire range of fine and medium-fine jobs on electronic and electrical production lines.

CAT. NO.	TIP DIA.	WATTS	NET WT.	LIST
3114	1/4″	60	8 oz.	$10.40
3118	1/8″	30	6 oz.	7.20
3120	3/16″	30	6½ oz.	7.20
3118-X	1/8″	50	6 oz.	8.00

*Other models & options available

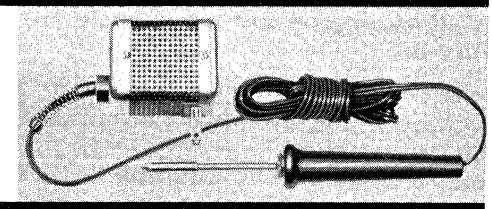


TRANSFORMER TYPES

Made in two series. Extremely light-weight, hi-heat, slim-casing irons of very small tip-diameter. For use where transformer type irons (providing complete isolation from line voltage) are desirable or necessary.

CAT. NO.	TIP DIA.	WATTS	NET WT.	LIST
T-12	1/16″	17	1 lb. 3 oz.	$20.00
T-30	1/16″	30	1 lb. 12 oz.	22.00

*Other options available

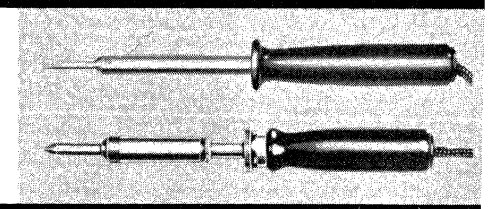


STANDARD SERIES

Hundreds of thousands of these models of American Beauty irons are on production lines all over the world. Stocked in tip sizes from 1/4″ to 1⅛″, input wattages from 60 W to 550 W.

CAT. NO.	TIP DIA.	WATTS	NET WT.	LIST
3125	1/4″	60	7½ oz.	$ 9.00
3138	3/8″	100	16 oz.	12.10
3158	5/8″	200	28 oz.	14.50
3178	7/8″	300	42 oz.	19.30
3198	1⅛″	550	60 oz.	24.20

*Nine models available

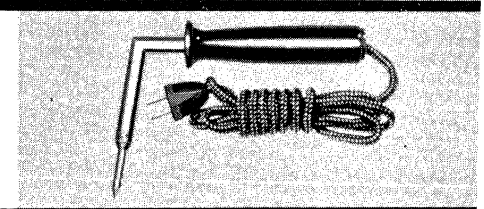


ANGLE TYPES

Conventional irons but with casings angled for work on hard-to-reach jobs. Balanced. Available in tip-sizes from 1/8″ to 3/8″ diameter, watt inputs from 30W to 100W.

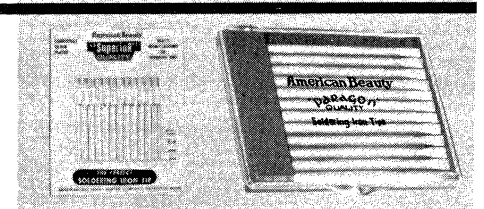
CAT. NO.	TIP DIA.	WATTS	NET WT.	LIST
3118-A	1/8″	30	6¼ oz.	$ 8.20
3125-A	1/4″	60	10 oz.	10.20
3138-A	3/8″	100	16 oz.	13.20

*Other options available



SOLDERING TIPS—THREE GRADES

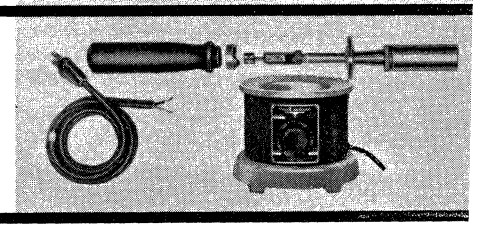
Made of commercially pure copper rod. Shapes and sizes for all AB irons and other makes as well. Three grades: (1) Nickel-Plated. (2) "SuperioR" Quality—iron-clad working end silver-plated overall. (3) "Paragon" Quality—best tips made for high-spec. soldering; iron-clad; chrome-plated; pre-tinned; maintenance-free; for extra clean work. (Ask for FREE American Beauty Tip Chart.)



PARTS AND ACCESSORIES

You can always get original-equipment-quality parts for any American Beauty Soldering Iron—standardized for quick, easy repair. Also: AB cord sets; spooled and bulk heater cord in 250′ lengths; branding irons; soldering iron temperature regulating stands; safety guards for same; general-purpose solder pots; melting cups or ladles.

*Request American Beauty Catalog for complete selection.



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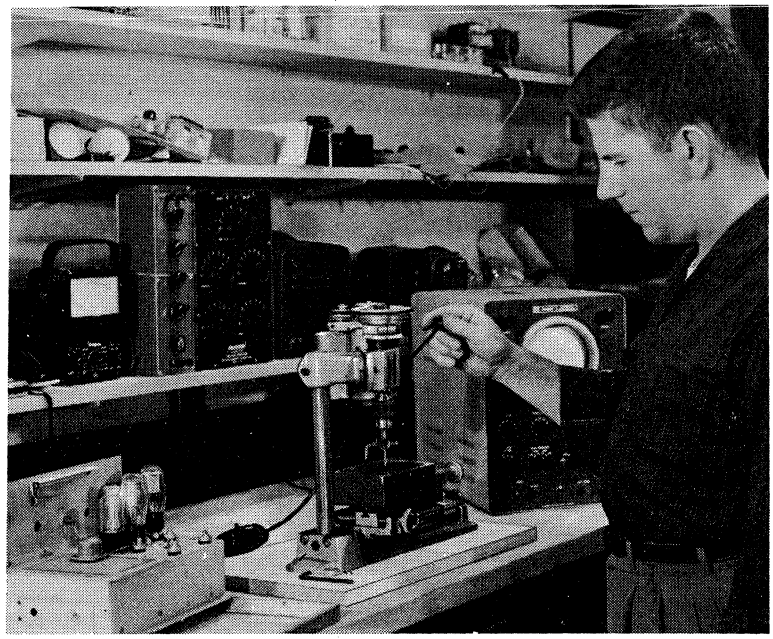
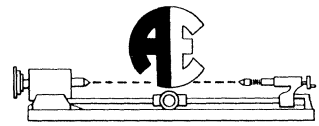


Busy designer/author/inventor Brice Ward uses his UNIMAT to machine printed circuit boards, drill chassis holes, and wind special coils. UNIMAT takes less space than the average oscilloscope.

A CUSTOM ELECTRONICS WORKSHOP
...for Metals • Plastics • Wood • *in just 16" of bench space!*

With UNIMAT you're always ready to originate or duplicate that one-of-a-kind component that so often holds up a job. UNIMAT's versatility and machine tool precision do away with makeshift improvisation . . . give your breadboards and prototypes that clean, professional look. Nine quick change setups handle metals, plastics, wood with toolmaker precision. UNIMAT turns, drills, bores, mills, threads, cuts gears, grinds, sharpens, saws, files, divides, buffs, polishes. Eleven-speed self-contained motor drive provides the ideal spindle speed for each tool and material. Thousands are now in use by top electronic manufacturers, defense contractors, radio/electronic service firms and advanced hobbyists. ■ Get complete details before you order. The free UNIMAT catalog contains closeups of the various setups, plus a variety of in-use photos. Or, send $1.00 for the new MINIATURE MACHINING TECHNIQUES, a general handbook and operator's manual that is packed with shop tips and tells the UNIMAT story in step-by-step detail, including 180 photographs!



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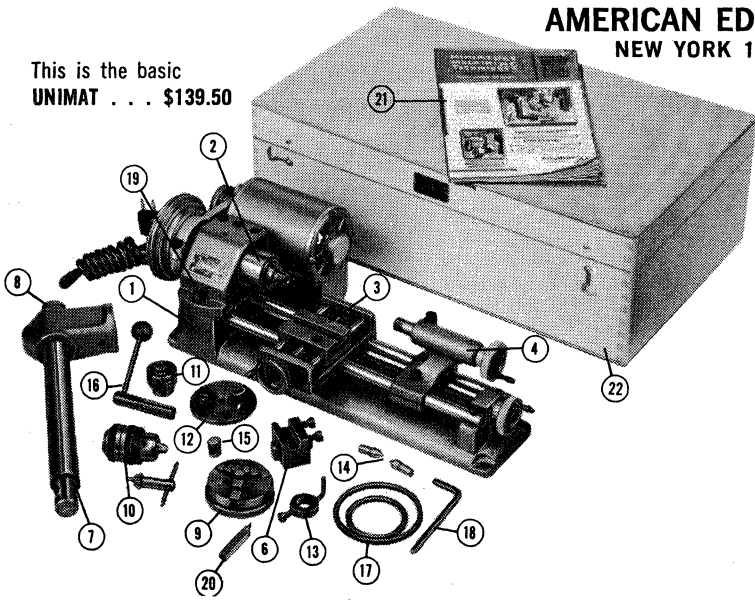
NEW YORK 13, NEW YORK

This is the basic
UNIMAT . . . $139.50



1. Ribbed, cast-iron Lathe Bed
2. Ball Bearing Headstock Spindle
3. Carriage Assembly
4. Tailstock
5. Ball Bearing Idler Pulley (not shown)
6. Tool Post
7. Steel Vertical Column
8. Vertical Column Headstock Adapter
9. 3-Jaw Universal Lathe Chuck
10. Jacobs-type Drill Chuck and Key
11. Grinding Wheel Arbor
12. Face Plate
13. Lathe Dog
14. Dead Centers (two)
15. Slotted Adapter
16. Spindle-feed Hand Lever
17. Set of Drive Belts
18. Allen Wrench
19. Headstock Alignment Pin
20. Roughing Tool Bit
21. 40 Page Instruction Manual
22. Wood Storage Chest

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CAIG LABORATORIES INC.

New Hyde Park, L. I., N. Y.

ERSA® SOLDERING TOOLS

TECHNICAL DESCRIPTION	ERSA IRON COMPLETE CAT. NO. (Add 'D' to No. for ERSADUR)	WATTAGE	PRICE WITH COPPER BIT	PRICE WITH ERSADUR BIT*	SOLDERING BIT CAT. NO. (Add 'D' to No. for ERSADUR)	BIT FORM	PRICE COPPER	PRICE ERSADUR*	SPARE ELEMENT CAT. NO.	SPARE ELEMENT PRICE
ERSA-MICROTYP 6 VOLT 8 WATTS—15 WATTS Subminiature soldering iron for pinpoint soldering on miniaturized printed circuits and other micromodulation techniques. Provided with ERSADUR long life bit. Good for 100,000 soldering operations. Built-in solid heater element. Weight under 3 ozs. Length of 8 watt unit 6.3", length of 15 watt unit 9.8". Temp. range 240°C to 380°C. For use with 6 volt transformer or battery, 5 foot cable & banana plugs. Temp. can be regulated with **Control Transformer ERSA R30.** For more details ask for Bulletin #E-500.	20L/8W (Short Heating Unit)	8		$9.50		Sloping 1/16" ϕ			22L/8W (Element & Bit)	$5.50
	20B/8W (Short Heating Unit)	8		$9.50		Pencil Form 1/16" ϕ			22B/8W (Element & Bit)	$5.50
	20K/15W (Extra Long Heating Unit)	15		$9.90		Chisel Form 3/32" Wide			22K/15W (Element & Bit)	$5.90
	20L/15W (Extra Long Heating Unit)	15		$9.90		Sloping 1/8" ϕ			22L/15 (Element & Bit)	$5.90
ERSA-MINIATURE 6 VOLT 10 WATTS—20 WATTS—30 WATTS Miniature soldering iron for modern electronics—exchangeable heater elements—heating up time 40 sec.—weight under 3 ozs. Length 8"—for use with 6 volt transformer or battery, 5 foot cable & banana plugs—push on copper bits, easily exchanged—soldering temperature can be regulated with the **Control Transformer ERSA R30.** Temp. range 300°C. to 480°C. For more details ask for Bulletin #E-500.	10/10W	10	$5.00	$6.90	12/10	Sloping 1/16" ϕ	$0.50	$2.40	11/10W	$3.60
	10/20W	20	5.00	6.90	12/20	Sloping 1/8" ϕ	0.50	2.40	11/20W	3.60
	10/30W	30	5.00	6.90	12/30	Sloping 3/32" ϕ	0.50	2.40	11/30W	3.60
ERSA MODEL 30 20 WATTS—30 WATTS—40 WATTS For radio, television and electronics—heating up time 2 min.—elements and copper bits easily exchangeable. Tip shank dia. 13/64" for all, 13/64" x 3/32" for S-bit. Bit temperatures 340°C—360°C—390°C. 5 foot cable & plug. 110 volts std. (220 volts special). Weight approx. 7¾ ozs. Length 7¾". Equipped with hex. shield. For more details ask for Bulletin #E-200.	30K/20W	20	$5.75	$7.75	32K/20		$0.50	$2.50	31/20W	$3.75
	30K/30W	30	5.75	7.75	32K/20	32K	0.50	2.50	31/30W	3.75
	30J/30W	30	5.75	7.75	32J/30		0.50	2.50	31/40W	3.75
	30S/30W	30	5.75		32S/30	32S	0.50			
	30K/40W	40	5.75	7.75	32K/40		0.50	2.50		
	30J/40W	40	5.75	7.75	32J/40	32J	0.50	2.50		
	30S/40W	40	5.75		32S/40		0.50			
ERSA MODEL 80A 80 WATTS For assembly line and repair shops. Equipped with a **New Type Element** with high quality steel core, maximum heat transfer, longer life. Heating up time 2½ minutes. Tip 5/16" O.D. Bit temperature 440°C (824°F). 5 foot cable and plug. 110 volts standard (220 volts special). Weight approx. 1 lb. Length 11". For more details ask for Bulletin #E-300.	80AJ/80W	80	$11.35	$15.05	82J		$0.85	$4.55	81A/80W	$4.3
	80AK/80W	80	11.35	15.05	82K		0.85	4.55		
	80AL/80W	80	11.85		82L		1.35			
	80AH/80W	80	11.85		82H		1.35			
	80AS/80W	80	11.85		82S		1.35			
ERSA MODEL 150A 130 WATTS For assembly line, repair and workshops—equipped with a **New Type Element** with high quality steel core, maximum heat transfer, longer life. Heating up time 2½ minutes. Tip 23/64" O.D. Bit temperature 470°C (878°F). 5 foot cable and plug. 110 volts standard (220 volts special). Weight approx. 1.2 lbs. Length 11". For more details ask for Bulletin #E-300.	150AJ/130W	130	$14.10	$18.80	152J		$1.10	$5.80	151A/130W	$5.7
	150AK/130W	130	14.10	18.80	152K		1.10	5.80		
	150AL/130W	130	15.40		152L		2.45			
	150AH/130W	130	15.40		152H		2.45			
	150AS/130W	130	15.40		152S		2.45			
ERSA ISOTYPE SPECIAL SAFETY INSULATED SOLDERING IRONS 65 WATTS and 90 WATTS For work on **Live** television and telecommunication installations. Element of non-corrosive special steel, not exchangeable, fixed into housing. Plastic handle. 6½ foot cable—no plug. 110 volts standard (220 volts special). Weight approx. 20 ozs. and 25 ozs. respectively. Length about 11½".	KZ/65W	65	$22.20		62KZ		$1.35			
	JZ/65W	65	22.20		62JZ		1.35			
	KZ/90W	90	23.75		82KZ		1.90			
	JZ/90W	90	23.75		82JZ		1.90			

ERSA CONTROL TRANSFORMER MODELS R30 AND R10

R30
R10

Both transformer models have a primary voltage regulator for 110, 125, 150, 220 and 240 volts. The secondary voltage is also variable within the range of 5 to 6.5 volts, thus making it possible to select a temperature range between 240 to 480°C. When not in use, the ERSA iron rests on a special nozzle provided on the transformer. This protects against overheating.

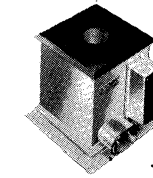
Control Transformer R10 was solely made for use with the ERSA-MINIATURE Iron Model 10W. The R30, with a greater output, permits universal use of all the various ERSA irons with their different capacities.

Price
MODEL R30, rated 30 VA, 5.1# $25.00
MODEL R10, rated 10 VA, 3.5# $15.00

T2 SOLDERING BATH

Rated 240 watts, temp. approx. 600°C. Holds approx. 23 cc, internal dimen. 13/16" dia. x 1 5/8". Weight with cord 3 lbs. 5 foot cord and plugs, switch. (Other solder pots available.)

PRICE $25.00



T2

'ERSADUR'-DURABLE IRON-CLAD COPPER BITS

Made of pure electrolytic copper with an iron coating. Soldering surface of bit pre-tinned ready for use. Shaft is chromium plated to prevent baking in. ERSADUR bits in normal use last for more than 100,000 solderings. Ask for Bulletin on ERSADUR.

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BOKER U.S.A. IN-DUS-TRONIC TOOLS QUALITY SINCE 1837 ®

DESIGN IN-DUS-TRONIC tools are more streamlined, with slender jaws and fine points, to reach into the tight spots and perform the specific work required of the electronics technician.

TEST AND INSPECTION Individually tested for hardness, each tool must maintain highest standards for handle strength and cutting ability. To assure perfect jaw alignment, pliers must cleanly cut single bond paper strips and snip cotton-covered lamp cord without fraying. Each tool is guaranteed against defects in workmanship and materials.

WORKMANSHIP IN-DUS-TRONIC tools are hot drop-forged from special analysis alloy steel, machined and finished with the same care and precision which have made world-famous BOKER TREE BRAND Fine Cutlery and surgical instruments for over a century. Individually fitted and adjusted, each is accurately heat-treated by HYDRIZING, which minimizes "carburization" and "decarb". Cutting blades are precision-hardened with electronic controls, and honed by hand for keen edges that retain their sharpness.

Individually Boxed

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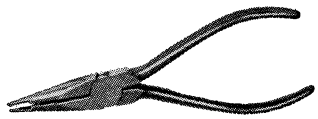
RADIO AND TV NOSE CUTTING PLIERS

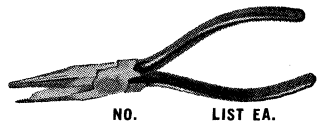
Reaches into tight spots to cut small wires, and to grip at the tips.



NO.	LIST EA.	NO.	LIST EA.
539-4½"	3.95	639-4½"	4.35
539-6"	3.95	639-6"	4.35
939-4½"	4.00	739-4½"	4.45
939-6"	4.00	739-6"	4.45

SIDE TIP NOSE CUTTING PLIERS

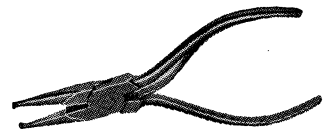
Cuts flush at left side of tips. Turn tool over to cut flush at right side.



NO.	LIST EA.	NO.	LIST EA.
S539-4½"	4.20	S639-4½"	4.60
S539-6"	4.20	S639-6"	4.60
S939-4½"	4.25	S739-4½"	4.75
S939-6"	4.25	S739-6	4.75

TRANSVERSE END CUTTING PLIERS

For clean, flush cutting of small wires where ordinary cutters are too bulky.



NO.	LIST EA.	NO.	LIST EA.
532-6"	4.00	632-6"	4.15
932-6"	4.00	732-6"	4.35

SHORT JAW, LONG HANDLE NOSE CUTTING PLIERS

Extra long, narrow handles provide maximum reach of the slender jaws to cut and grip.

NO.	LIST EA.	NO.	LIST EA.
579-8"	4.35	679-8"	4.85
979-8"	4.30	779-8"	4.95

STOCK NUMBER CODE IDENTIFICATION ON PLIERS

First Digit in Pliers Stock No.	DESCRIPTION OF FINISH	
"5"	Polished Head, Standard Gunmetal Finish Handles — i.e.	51-6"
"9"	Polished Head, Factory molded Red Cushion Grip Plastisol Handles — i.e.	91-6"
"6"	Fully Nickel and Chrome Plated Head and Handles — i.e.	61-6"
"7"	Nickel and Chrome Plated Head, Factory molded Red Cushion Grip Plastisol Handles — i.e.	71-6"

SHORT CHAIN NEEDLE NOSE PLIERS

Sturdy, tapered jaws provide more positive grip. Checker-milled tips.

WITH SIDE CUTTERS

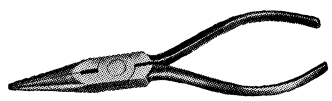
NO.	LIST EA.	NO.	LIST EA.
53-5"	3.30	63-5"	3.75
93-5"	3.30	73-5"	3.85

WITHOUT SIDE CUTTERS

NO.	LIST EA.	NO.	LIST EA.
530-5"	2.80	630-5"	3.15
930-5"	2.80	730-5"	3.30

LONG CHAIN NEEDLE NOSE PLIERS

Slender, checker-milled jaws taper to 1/32" at tips.



WITH SIDE CUTTERS

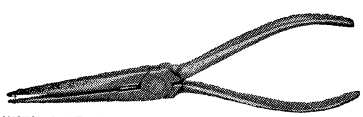
NO.	LIST EA.	NO.	LIST EA.
53-6"	3.60	63-6"	4.05
93-6"	3.60	73-6"	4.15

WITHOUT SIDE CUTTERS

NO.	LIST EA.	NO.	LIST EA.
530-6"	2.85	630-6"	3.20
930-6"	2.85	730-6"	3.35

EXTRA LONG CHAIN NOSE PLIERS

2¾" long jaws add extra reach to checker-milled tips.



WITH SIDE CUTTERS

NO.	LIST EA.	NO.	LIST EA.
53-7"	4.35	63-7"	4.80
93-7"	4.35	73-7"	4.90

WITHOUT SIDE CUTTERS

NO.	LIST EA.	NO.	LIST EA.
530-7"	3.25	630-7"	3.60
930-7"	3.25	730-7"	3.75

HEAVY DUTY DIAGONAL CUTTING PLIERS

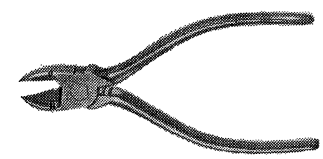
NO.	LIST EA.	NO.	LIST EA.
591-7"	3.50	691-7"	4.00
991-7"	3.70	791-7"	4.20

DIAGONAL CUTTING PLIERS

NO.	LIST EA.	NO.	LIST EA.
51-4½"	2.95	61-4½"	3.40
91-½"	2.95	71-4½"	3.50
51-5"	3.20	61-5"	3.65
91-5"	3.20	71-5"	3.75
51-5½"	3.45	61-5½"	3.90
91-5½"	3.45	71-5½"	4.00
51-6"	3.60	61-6"	3.75
91-6"	3.60	71-6"	4.15
51-7½"	3.95	61-7½"	4.40
91-7½"	3.95	71-7½"	4.50

WIRE STRIPPING CUTTERS WITH INSULATION CRUSHER

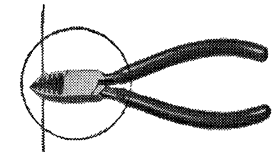
"W" notches slit acetate cellulose and other thin insulations. Notch in blades strips heavier insulation. Grooves in handles crush insulation.



NO.	LIST EA.
517-5½"	4.15
917-½"	4.20
617-5½"	4.50
717-5½"	4.70

"THROAT-HOLD" DIAGONAL PLIERS

Plastisol inserts back of the blades tightly grip the cut-off end of wire after cut is made, preventing shorts, machine failures, and eye injuries.



NO.	LIST EA.	NO.	LIST EA.
TH51-4½"	4.50	TH91-5"	4.75
TH91-4½"	4.50	TH51-7½"	5.65
TH51-5"	4.75		

Trade Discount Applies To List Prices Only

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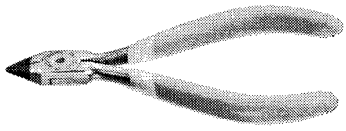


NO.		LIST EA.
XC1-4″	Cushion Grip Handles	$20.60

NEW! INLAID TIP CUTTING PLIERS

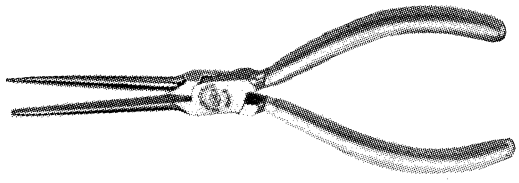
Special high-speed inserts provide diamond-honed cutting edges of extreme hardness, extending service life in continuous cutting of abrasive wires and ribbons of nickel, silver, gold and copper. Will cut and dress medium diameters of Nichrome, Kovar, Dumet, and fine diameters of full hard wires. Special joint assembly assures precise cutting of component leads and wires in confined areas.

BOKER U.S.A. IN-DUS-TRONIC TOOLS QUALITY SINCE 1837 ®

H. BOKER & CO., INC. • NEW YORK, N. Y.

EXTRA FINE FLAT NOSE PLIERS

Flat, very thin, smooth jaws, spring tempered.



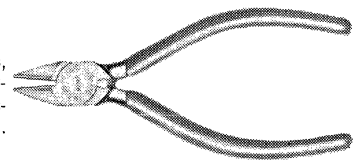
NO.	LIST EA.	NO.	LIST EA.
504-6″	3.70	604-6″	4.10
904-6″	3.70	704-6″	4.10

WITH STABILIZED TIPS

NO.	LIST EA.	NO.	LIST EA.
ST504-6″	4.10	ST604-6″	4.45
ST904-6″	4.10	ST704-6″	4.50

NEEDLE POINT DIAGONAL CUTTING PLIERS

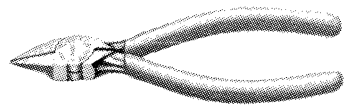
Narrow, pointed nose, semi-flush edges, for close cutting. Lightweight, easy-to-use, in electronics and light assembly. Coil spring keeps jaws open.



NO.	LIST EA.	NO.	LIST EA.
513-5½″	4.40	613-5½″	4.75
913-5½″	4.40	713-5½″	4.95

THIN, NARROW, POINTED DIAGONAL CUTTING PLIERS

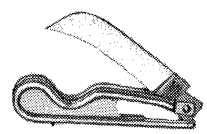
Jaws relief-ground back of blades, to cut in confined areas. Also used for removal of I. F. Cans.



NO.	LIST EA.	NO.	LIST EA.
RA51-5½″	4.75	RA61-5½″	5.30
RA91-5½″	4.75	RA71-5½″	5.30

WIRE JACK POCKET KNIFE

Rugged construction, unbreakable spring. Chrome Vanadium steel blade.



NO.	LIST EA.
75-3¾″	1.25

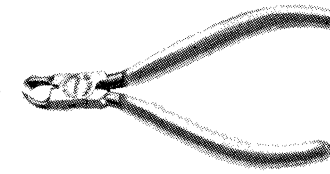
ELECTRICIANS' UTILITY KNIFE

One blade and one self-locking Screwdriver and Insulation Scraper.

NO.	LIST EA.	
9229	2.50	3¾″ long

ELECTRONIC DIAGONAL END NIPPERS

Flush-cutting blades, with extremely fine points, set at 22.5° angle. For very fine subminiature work.



NO.	LIST EA.	NO.	LIST EA.
XA582-4½″	6.25	XA682-4½″	6.50
XA982-4½″	6.25	XA782-4½″	6.60

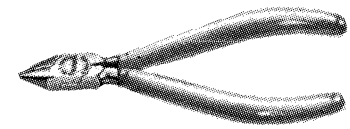
ANGLE JAW DIAGONAL NIPPERS

Flush cutting blades set at 22½° angle. Fine, pointed tips for precision work in confined areas.

NO.		LIST EA.
AJ-982-4½″	Polished Head. Cushion-grip Handles.	8.80
AJ-482-4½″	Full Polished Head and Handles.	8.80

THIN HEAD, FLUSH CUTTING MIDGET DIAGONALS

Head is ground thinner, narrower. Flush edges.



NO.	LIST EA.	
XA981-4½″	4.20	Pointed jaws
XC981-4½″	3.90	Standard shape jaws, slightly shortened

THIN, ALLOY STEEL ADJUSTABLE WRENCHES

Nickel and Chrome Plated		Polished Head, Gunmetal Handles	
NO.	LIST EA.	NO.	LIST EA.
6W-4″	2.68	5W-4″	2.12
6W-6″	2.76	5W-6″	2.20
6W-8″	3.16	5W-8″	2.60
6W-10″	3.90	5W-10″	3.22
6W-12″	5.80	5W-12″	4.90
6W-15″	8.98	5W-15″	7.68
6W-18″	14.80	5W-18″	11.40

Nickel, Chrome-Plated, Cushion-Grip Handles

NO.	LIST EA.	NO.	LIST EA.
P6W-4″	2.80	P6W-10″	4.62
P6W-6″	2.82	P6W-12″	6.50
P6W-8″	3.70	P6W-15″	9.48

LOCKING ADJUSTABLE WRENCHES

Nickel and Chrome Plated		Nickel Chrome Plated Cushion-Grip Handles	
L6W-4″	2.68	PL6W-4″	2.80
L6W-6″	2.76	PL6W-6″	2.82
L6W-8″	3.16	PL6W-8″	3.70
L6W-10″	3.90	PL6W-10″	4.60
L6W-12″	5.80	PL6W-12″	6.50

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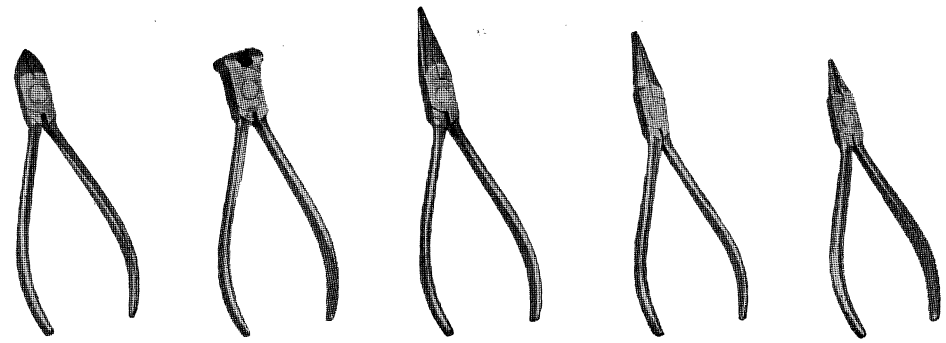
BOKER U.S.A. IN-DUS-TRONIC TOOLS QUALITY SINCE 1837 ®

JEWELERS' 4½" PRECISION PLIERS



JEWELERS' PLIERS SETS

Crystal Case, 5" x 7", lined to nest 4½" Pliers.

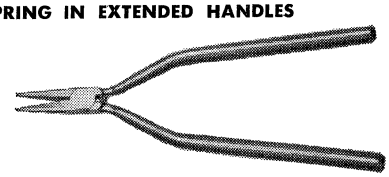
NO.	CONTENTS	LIST
C63	One ea. 681, 683, 684	11.75
C64	One ea. 681, 683, 684, 6517	14.25
C65	One ea. 681, 682, 683, 684, 865	19.50
C73	One ea. 781, 783, 784	11.85
C93	One ea. 981, 983, 984	10.95
C95	One ea. 981, 982, 983, 984, 985	18.00

	POLISHED HEAD, GUN METAL HANDLES		POLISHED HEAD, CUSHION-GRIP HANDLES		FULL NICKEL AND CHROME PLATED		NICKEL, CHROME-PLATED CUSHION-GRIP HANDLES	
	Tool No.	List Ea.	Tool No.	List Ea.	Tool No.	List Ea.	Tool No.	List Ea.
Diagonal Cutting Pliers	581	3.25	981	3.25	681	3.50	781	3.60
End Cutting Nippers	582	3.75	982	4.00	682	4.15	782	4.25
*Needle Nose Pliers	583	3.00	983	3.10	683	3.40	783	3.50
*Flat Nose Pliers	584	3.00	984	3.10	684	3.40	784	3.50
*Round Nose Pliers	585	3.00	985	3.10	685	3.40	785	3.50

*Note: Inside jaws are smooth. Supplied with milled jaws at no extra cost.

PRECISION PLIERS WITH SPRING IN EXTENDED HANDLES

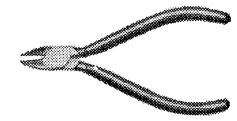
Midget jaws, extra long handles, to reach into deep areas normally inaccessible.



NO.	LIST EA.	DESCRIPTION
L903S-8"	6.25	Extra Fine Needle-Nose Pliers (as 903-4½")
L981S-8"	6.30	Diagonal Cutters
L983S-8"	6.25	Needle Nose Pliers
L984S-8"	6.25	Flat-Nose Pliers
L781S-8"	6.50	Diagonal Cutters
L783S-8"	6.50	Needle-Nose Pliers
L784S-8"	6.50	Flat-Nose Pliers
L703S-8"	6.50	Extra Fine Needle-Nose Pliers (as 703-4½")

TAPERED JAWS, FLUSH CUTTING DIAGONALS

Midget pliers with sharply tapered jaws and very fine flush cutting edges.



NO.	LIST EA.
A981-4½"	3.75

STANDARD SHAPE JAWS, FLUSH CUTTING DIAGONALS

NO.	LIST EA.
C981-4½"	3.45

SHORT NOSE, FLUSH CUTTING DIAGONALS

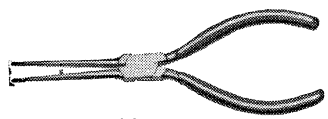
NO.	LIST EA.
E981-4½"	3.65

STOCK NUMBER CODE IDENTIFICATION ON PLIERS

First Digit in Pliers Stock No.	DESCRIPTION OF FINISH	
"5"	Polished Head, Standard Gunmetal Finish Handles — i.e.	51-6"
"9"	Polished Head, Factory molded Red Cushion Grip Plastisol Handles — i.e.	91-6"
"6"	Fully Nickel and Chrome Plated Head and Handles — i.e.	61-6"
"7"	Nickel and Chrome Plated Head, Factory molded Red Cushion Grip Plastisol Handles — i.e.	71-6"

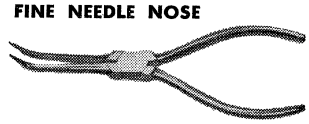
EXTRA FINE NEEDLE NOSE PLIERS WITH STABILIZED TIPS

Dowel pin in jaw engages hole in other jaw when closed, stabilizing tips and maintaining perfect alignment.



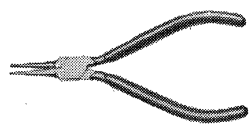
NO.	LIST EA.	NO.	LIST EA.
ST903-6"	3.75	ST703-6"	4.20

CURVED EXTRA FINE NEEDLE NOSE



NO.	LIST EA.
508-6"	4.05
908-6"	4.10
608-6"	4.40
708-6"	4.60

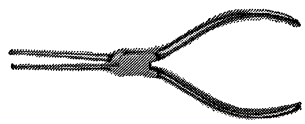
SHORT JAW, EXTRA FINE NEEDLE NOSE PLIERS



NO.	LIST EA.
503-4½"	3.25
903-4½"	3.25
603-4½"	3.60
703-4½"	3.75

EXTRA FINE NEEDLE NOSE PLIERS

Long, very slim, spring tempered jaws for assembling miniature parts.



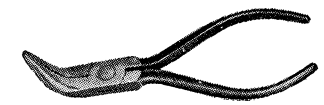
NO.	LIST EA.	NO.	LIST EA.
503-6"	3.25	603-6"	3.60
903-6"	3.25	703-6"	3.75

LONG NEEDLE NOSE PLIERS

Unusual gripping ability without distortion for such long, slender jaws. Checker-milled at tips.

No.	LIST EA.	No.	LIST EA.
533-6"	3.30	633-6"	3.65
933-6"	3.30	733-6"	3.80

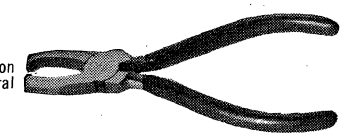
CURVED NEEDLE NOSE PLIERS



NO.	LIST EA.
538-6"	3.65
938-6"	3.65
638-6"	4.00
738-6"	4.15

END CUTTERS AND LEAD-IN STRIPPERS

Quickly strips TV transmission cable. Full throat for general purpose cutting.



NO.	LIST EA.	NO.	LIST EA.
902-6"	4.20	702-6"	4.75
602-6"	4.65		

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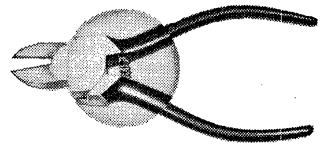
PLIERS WITH SPRING IN HANDLES

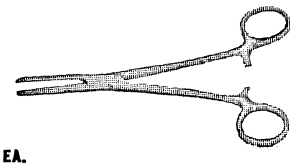
Bauer type coil spring keeps pliers in open position, ready-to-work.



Specify "S" as a Suffix to tool number (i.e., **91S-5"**)
Additional List Ea. .30

HOLDING FORCEPS

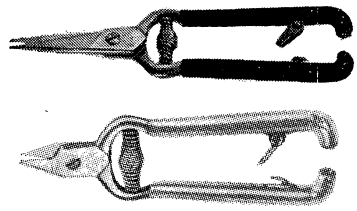
Slender, long-reaching, with ratchet type lock. Acts as third hand, and as heat sink. Box joint, polished stainless spring steel.



NO.	LIST EA.	
HF-5¼"	4.80	Straight Pattern
HF-6¼"	4.95	Straight pattern
HFC-6¼"	5.25	Curved pattern

ELECTRONIC SNIPS

Pointed, serrated blades cut wire, filament, sheet metal, insulating materials, plastics, fabrics. spring keeps blades open, ready-to-work.



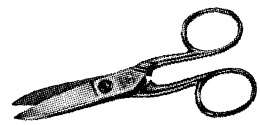
NO.	LIST EA.	
P4-7⅛"	3.75	Long Blades
P4E-6½""	4.45	**Short Blades**

ELECTRICIANS' SNIPS

Scraper, file on back of blade.

NO.	LIST EA.
709-5"	2.75

Nickel Plated



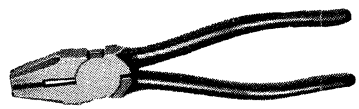
SHORT JAW, LONG HANDLE, NEEDLE NOSE PLIERS

NO.	LIST EA.	NO.	LIST EA
573-8"	3.35	673-8"	3.75
973-8"	3.35	773-8"	3.85

SHORT JAW, LONG HANDLE DUCKBILL PLIERS

No.	LIST EA.	No.	LIST EA.
574-8"	3.30	974-8"	3.30

ELECTRICIANS' SIDE CUTTING PLIERS

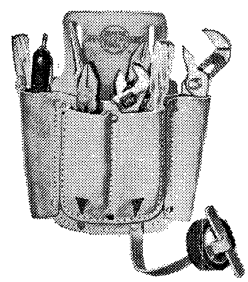


NO.	LIST EA.	NO.	LIST EA.
92-6"	3.40	52-6"	3.25
92-7"	3.80	52-7"	3.75
92-8"	4.15	52-8"	4.10

LEATHER TOOL HOLSTER

Five pockets of pliable form-fitting Russet leather. Stitched with 7-cord linen hot waxed thread, locked to solid leather back with steel rivets. Handy tape holder is of leather, not chain, an extra safety insulation feature.

NO.	LIST EA.
99	5.25



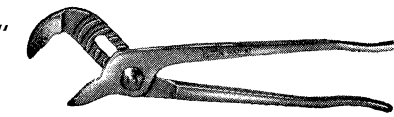
BOKER USA IN-DUS-TRONIC TOOLS QUALITY SINCE 1837 ®

MIDGET "GROOVE-GRIP" PLIERS

Slender and wiry, indispensable for gripping small nuts and other objects in tight spots.

NO.	LIST EA.	
6517-5"	2.40	Nickel, Chrome Plated
P6517-5"	2.50	Nickel, Chrome Plated, Cushion Grips

"GROOVE-GRIP" 5-ADJUSTMENT PLIERS



NO.	LIST EA.	
6507-6½"	2.80	Nickel and Chrome Plated
6507-8"	3.00	
6507-10"	3.40	
P5507-6½"	2.75	Polished Head Cushion-Grip Handles
P5507-8"	3.00	
P5507-10"	3.25	
P5507-14" 7 Adjustment	4.40	

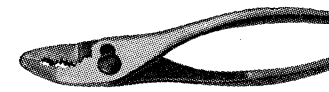
COMBINATION SLIP-JOINT PLIERS

NO.	LIST EA.	
6041-6½"	1.60	Nickel and Chrome Plated
6041-8"	1.95	
6041-10"	2.80	

THIN NOSE COMBINATION PLIERS

NO.	LIST EA.	
6042-6½"	1.70	Nickel, Chromed

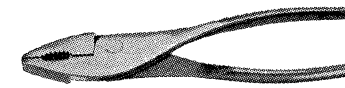
BENT THIN NOSE COMBINATION PLIERS



NO.	LIST EA.	
6043-6½"	2.00	Nickel, Chromed

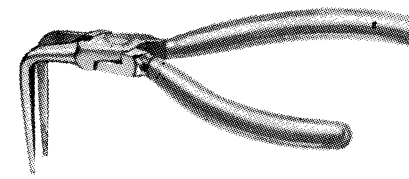
PROFESSIONAL SLIP-JOINT SIDE CUTTERS

Flat, serrated nose for gripping. Curved inner section to grip round shapes. Keen-cutting knives.



NO.	LIST EA.	
6395-7½"	3.95	Nickel, Chromed

BENT EXTRA FINE NEEDLE NOSE PLIERS



NO.	LIST EA.	NO.	LIST EA.
B508-6"	4.05	P608-6"	4.40
908-6"	4.10	B708-6"	4.60

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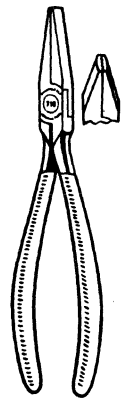
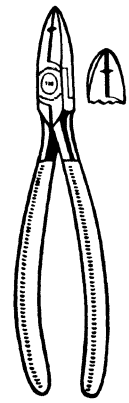
Pliers by CHANNEL LOCK®

Specially Designed **ELECTRONICS PLIERS**

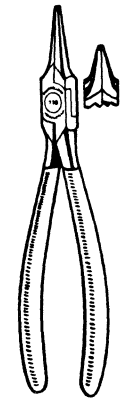
You'll do hundreds of jobs easier, faster with these Channellock Pliers because they are **specially designed** for all types of electronics work. You'll like the long reach . . . the precision-matched jaws . . . the hand-honed, specially hardened cutting edges . . . the easy-to-handle "feel" of the blue plastic grips. And you'll appreciate the top quality of Channellock Pliers . . . they're forged from high grade steel, properly heat treated. Best of all, because they are specially designed for fine electronics work, these four pliers will satisfy more than 90% of your Service and Repair needs. Ask your Electronics Equipment Supplier for Channellock Electronics Pliers . . . by name.



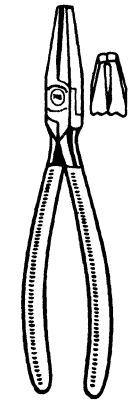
No. 718G FLAT-NOSE PLIER
Watchmaker's precision PLUS a bull-dog grip in hard-to-reach places.



No. 728G DIAGONAL CUTTER
A wire-stripping notch (Patent Pending) that **really works!**

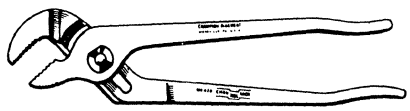


No. 738G ROUND-NOSE PLIER
You can **pick up a human hair** with these precision-machined points.



No. 748G END CUTTER
Fine enough to cut a human hair — sturdy enough to cut 12 gauge copper wire.

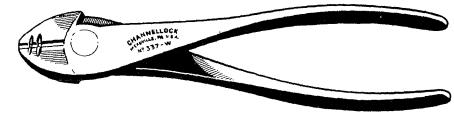
TONGUE AND GROOVE PLIERS



The **original** tongue and groove pliers. Patented, non-slip undercut channels. Patented reinforcing rib for extra strength Dipped plastic grips optional at slight extra cost.

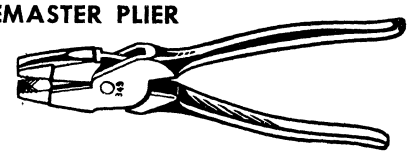
No.	Size	Capacity	No.	Size	Capacity
420	9½″	1½″	430	10″	2″
424	4½″	½″	440	12″	2¼″
426	6½″	⅞″			

ELECTRICIAN'S WIRING PLIER



Triple-use wiring plier: cuts, strips insulation, loops wire. Patented wire stripping notches strip insulation from 14 and 12 guage wire quickly, cleanly. Length 7″. No. 337-W. Dipped plastic grips optional at slight extra cost.

WIREMASTER PLIER

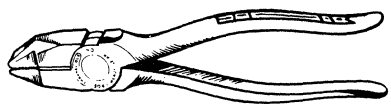


Finest wire-cutting plier ever made. Joint rivet closer to cutting edges, provides 40% more cutting power than standard design pliers. Special enclosed-joint construction holds cutter in perfect alignment for life of plier. Length 9″. No. 349. Dipped plastic grips optional at slight extra cost.

HEATSORB CLAMP

A specially designed "heat sink" that prevents heat damage to electronic components during soldering. Also a handy, self-gripping "third hand" that holds and retrieves small parts in close work. Length 5″. No. 46.

LINEMEN'S PLIER — Bevel Nose



Polished steel finish. Knurled grips. Side cutter. Dipped plastic grips optional at slight extra cost.

No.	Size	No.	Size
3046	6″	3048½	8½″
3047	7″		

LINEMEN'S PLIER — Rounded Nose

Polished steel finish. Knurled grips. Side cutter. Dipped plastic grips optional at slight extra cost.

No.	Size	No.	Size
346	6″	348½	8½″
347	7″		

CHANNELLOCK TOOLS Are Made Only By CHANNELLOCK, INC. • Meadville, Pa.

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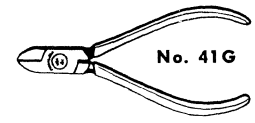
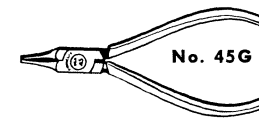
Pliers by CHANNELLOCK®

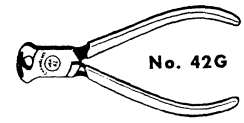
Little Champ PRECISION PLIERS

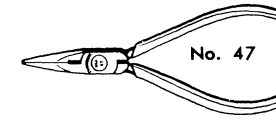
Finest quality, small pliers specially designed for delicate bench work. Widely used in electronics work, model making, jewelry and watch repair. Drop forged from high grade steel. Precision made and polished to a jeweler's finish. Dipped blue plastic cushion grip handles only. Packed six per carton.

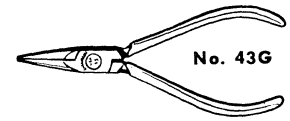
No.	Style	Length
41G	Diagonal Cutter	4¼″
41GS	Diagonal Cutter, Coiled Spring	4¼″
42G	End Cutting Nipper	4″
43G	Needle Nose, No Side Cutter, Plain Nose	4¾″
43GS	Needle Nose, No Side Cutter, Plain Nose, Coiled Spring	4¾″
44G	Flat Nose	4¾″
45G	Round Nose	4½″
47G	Needle Nose, Side Cutter, Nose Serrations	4¾″
47GS	Needle Nose, Side Cutter, Nose Serrations, Coiled Spring	4¾″
48G	Transverse End Cutter	4¾″
49G	Curved Needle Nose	4½″

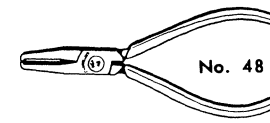


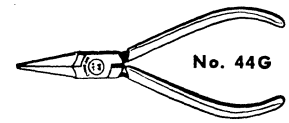


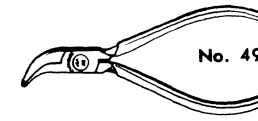










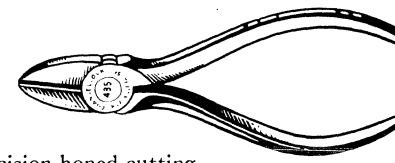


LONG NOSE PLIER

Point 3/32″ round. Polished steel finish. Knurled grips. Dipped plastic grips optional at slight extra cost.

No.	Size	Side-Cutter	No.	Size	Side-Cutter
317½	7½″	With	326	6″	With
3017½	7½″	Without	3026	6″	Without

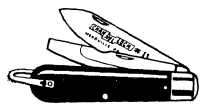
DIAGONAL CUTTING PLIER



Precision-honed cutting edges. Polished steel finish. Knurled grips. Dipped plastic grips optional at slight extra cost.

No.	Size	No.	Size
435	5″	437	7″
436	6″		

ELECTRICIAN'S KNIFE



2½″ precision-honed blade. 3″ self-locking screwdriver. Unbreakable phenolic handles. Closed length 3¾″ No. 11.

SKINNING KNIFE

3″ precision-honed blade. Self-locking. Unbreakable phenolic plastic handles. Closed length 4″ No. 10.

"SUPERIOR" PLASTIC GRIPS

For maximum hand comfort, durable plastic grips. Light blue color for good visibility, reduces plier loss. Easy to install. Order by desired grip size:

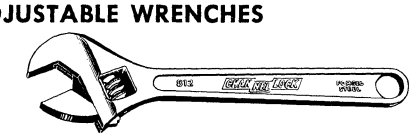
Plier Size	Grip Size	Plier Size	Grip Size
6″	Small	8″, 9½″, 10″	Large
7″	Medium		

TOOL HOLSTERS

Highest quality top grain leather. Stress points reinforced with rivets. Convenient knife or wrench snap.

No.	Size	No. of Pockets
1	9¼″ x 8½″	5
2	9¼″ x 10½″	5

ADJUSTABLE WRENCHES



Drop forged of special analysis steel. Chrome plated. Dipped plastic grips optional at slight extra cost.

No.	Size	Capacity	No.	Size	Capacity
804	4″	½″	810	10″	1⅛″
806	6″	¾″	812	12″	1 15/16″
808	8″	15/16″	815	15″	1 11/16″

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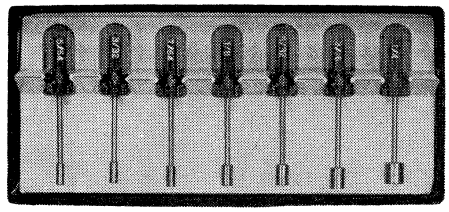
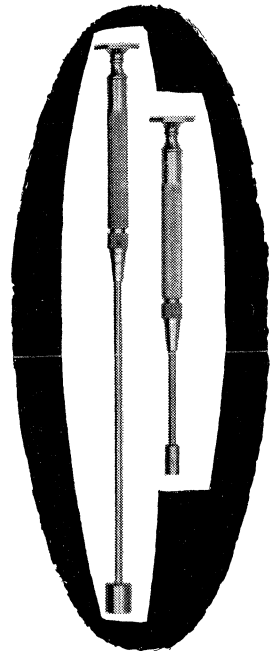
PROPERLY PROPORTIONED MINIATURE TOOLS

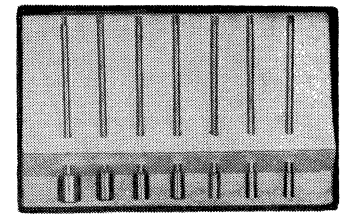
For precision instrument and model work use Desco "7" Miniature Nut Drivers. Available with Tenite handles, or for use with jewelers' screw driver handles. Also made with 5½" long shanks for those hard-to-get-to places.

DESCO "7" Sizes across flats
5/64 3/32 7/64 1/8 5/32 3/16 1/4

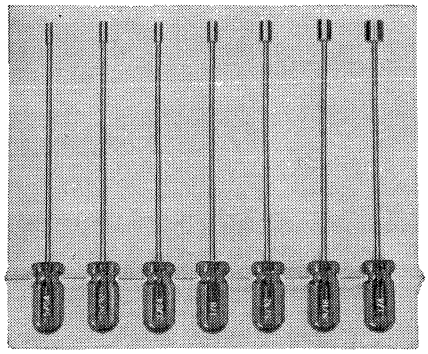


Set HS 7 List $5.95

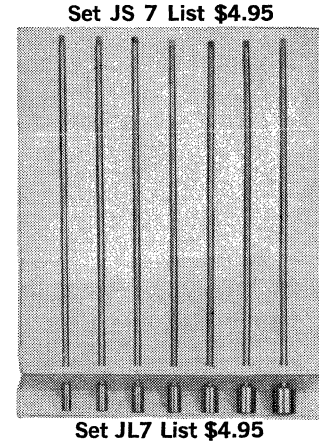




Set JS 7 List $4.95



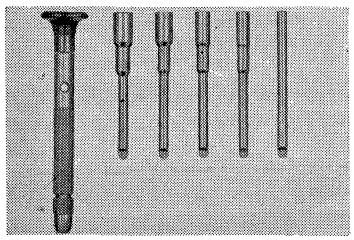
Set HL 7 List $5.95



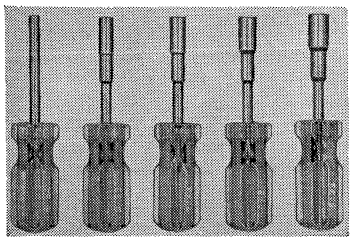
Set JL7 List $4.95

NON-MAGNETIC NUT DRIVERS available in HL7 and HS 7 series only. Specify "No-Mag" with the code number — same prices.

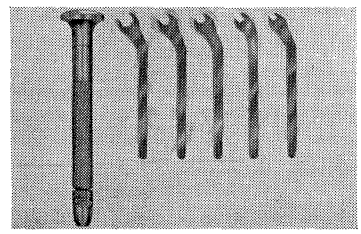
INTRODUCING THE DESCO "5" Series of Miniature Tools



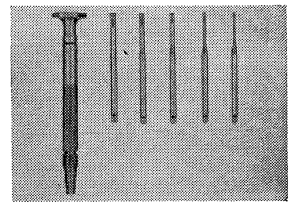
Set JD 5 List $3.50



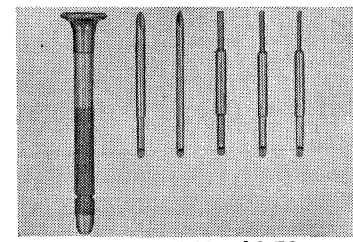
Set HD 5 List $4.50
Deeper and more rugged than the "7" Series. Made only in 5/64, 3/32, 7/64, 1/8 and 5/32.



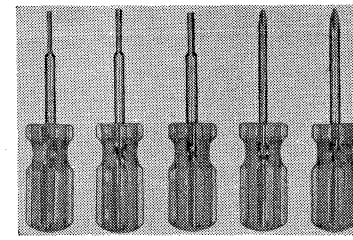
Set EW 5 Steel List $2.50
Set EWN 5 Non-Magnetic List $2.50
A practical miniature end wrench to fit the smallest nuts made 5/64 3/32 7/64 1/8 5/32.



Set SS 5 List $1.98
Contains four screw driver blades and a fine scriber.



Set PA 5 List $2.50



Set PAH 5 List $3.50
Includes the two smallest Phillips drivers and the three smallest Allen wrenches.

* T. M.

All of the DESCO "5" and "7" Series are complete as shown.

DESCO MFG. CO., GLENDALE, CALIF.

Trade Discount Applies To List Prices Only
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Made to last under constant use

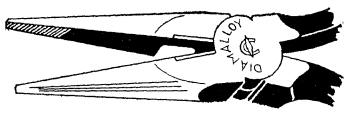
Designed to meet Industrial Users requirements . . . electronically hardened and hand honed cutting edges stay sharp longer . . . remain snug and true on the points . . . firm joints exactingly fitted to resist wear. Available with or without coil springs or plastic handles.

Ask your industrial or electronic distributor for Diamalloy Pliers or write for a Diamond Tool catalog.

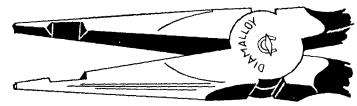
"There is nothing finer than a DIAMOND"

ELECTRONIC PLIERS *by* DIAMALLOY®

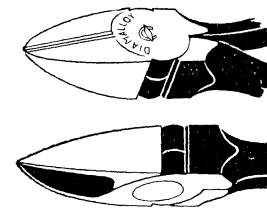
STYLES FOR MANY JOBS . . .



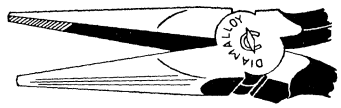
Long Nose Side Cutting Plier—SN54, SN56, SN57.



Radio Ignition Long Nose Plier—SC54.

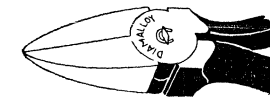


Diagonal Cutting Plier—MS54, S54, S55, S56, S57.

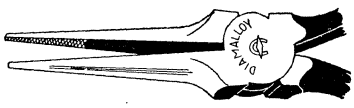


Long Nose Plier—LN54, LN56, LN57.

Curved Long Nose Plier—CN54, CN56.

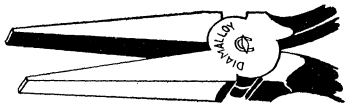


Diagonal Cutting Plier (Flush ground-Tapered Nose) —MS54RG, S54RG, S55RG, S56RG, S57RG.



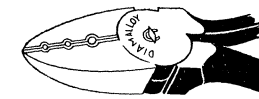
Needle Nose Plier — NN54, NN56, NN57

Long Nose Duck Bill Wiring Plier—DB58.

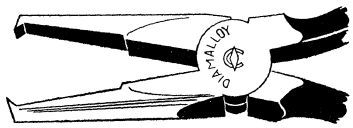


Duck Bill Plier—DN54, DN56.

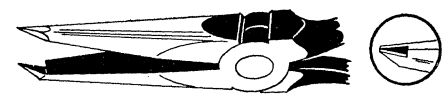
End Cutting Long Nose Plier—LC56.



Wire Stripper Diagonal Plier—ST55.



Transverse End Cutting Plier—EC54.



End Cutting Long Nose Plier (Angle Cut) —LC56 Angle Cut.

Stub Nose Diagonal Plier—MS54SF.

DIAMOND TOOL *and Horseshoe Co.*

DULUTH, MINNESOTA • TORONTO, ONTARIO EST. 1908

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Norseman ELECTRONIC TOOLS

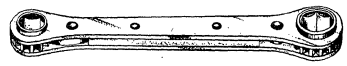
STICKLE-BACK DRILSAWS

TEC IMPORTS STICKLEBACK

Made in Germany, this tool will drill holes in wood, plaster board, etc. and saw in any direction.

#0—5 x 5/32" dia.	$ .98 net
#1—7 x 3/16" dia.	1.85 net
#2—10 x 1/4" dia.	2.45 net
#3—13 x 5/16" dia.	2.95 net
#4—15 x 3/8" dia.	3.25 net
#5—13 x 1/2" dia. (saw rasp)	2.25 net

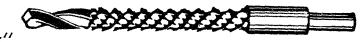
REVERSIBLE RATCHETS



A rugged ratcheting box wrench. No buttons, no levers — just turn it over to reverse the ratchet.

1/4" x 5/16"	$2.35 net	5/8" x 11/16"	$3.90 net
3/8" x 7/16"	2.65 net	5/8" x 3/4"	3.90 net
1/2" x 9/16"	3.60 net	3/4" x 7/8"	4.50 net

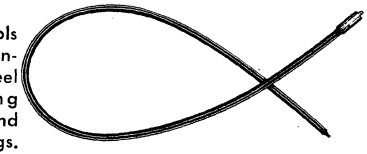
DRILL ROUTERS



Another "Stickle-back" tool, similar to the Drilsaw, but for use in electric drills.

#318-1 2 3/8" x 1/4" dia.	$1.40 net
#318-2 4 1/2" x 1/4" dia.	1.60 net

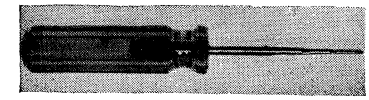
TIPPY STICKS



Flexible alignment tools of tenite II with a non-magnetic stainless steel tip. Permits snaking around obstructions and still turn screws and slugs.

ST-186	6" long	.40 net
ST-1810	10" long	.45 net
ST-1814	14" long	.50 net

TRI-TAPS

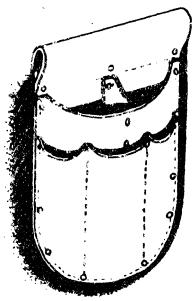


The original 3-in-1 tool with 6/32", 8/32" and 10/32" taps to clean or cut three of the most common threads used in electronic work.

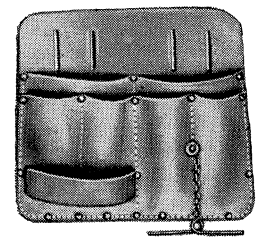
T-3 ..... $2.25 net T-4 tap only for HT-24 1.65 net

HT-24 with replaceable tap ..... $2.85 net

TOOL POUCHES



#14 Telephone lineman's pouch of chrome-tanned cowhide. One large separated pocket with three smaller ones in front. Riveted and stitched with linen thread. 6" x 9 1/4" ..... $4.95 net



Electrician's Pouch. Bark-tanned top grain cowhide, riveted and stitched with linen thread. 7 pockets, loop for hammer, T-chain for roll of tape.

#17 10" x 9" ..... $4.95 net

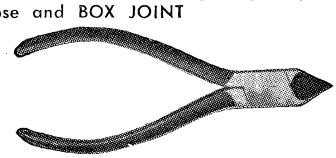
12 OTHER POUCHES AVAILABLE

Berg SWEDISH STEEL PLIERS

MADE IN ESKILSTUNA, SWEDEN, BY E. A. BERG MFG. CO. LTD. • EST. 1880

Only the best Swedish Charcoal Steel is used in the manufacture of Berg Pliers. Produced under exacting standards of control, they embody the most modern techniques of heat treatment and manufacture. Each plier is carefully engineered and designed to afford the greatest practical utility; lightness and ease of operation; and strength coupled with durability.

Special Electronic Diagonal Cutting Pliers with extra thin cutting edges, pointed nose and BOX JOINT

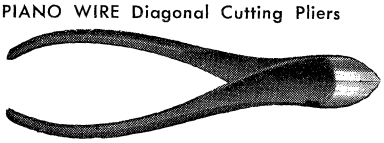


No. 525 - 5" 4.95

ANGLE NOSE Diagonal Cutting Pliers

No. 2528 ..... 6 1/2" 4.25 7 1/2" 4.95

PIANO WIRE Diagonal Cutting Pliers

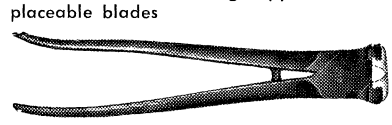


	4 1/2"	5 1/2"	6 1/2"	7 1/2"
No. 1528	2.95	3.65	4.15	4.65

PIANO WIRE Side Cutting Nippers with replaceable blades

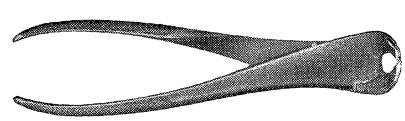
No. 1518	9"	6.50	10"	7.50
Extra Blades	9"	2.30	10"	2.55

PIANO WIRE End Cutting Nippers with replaceable blades



No. 1519 - 9" 8.50
Extra Blades 2.90

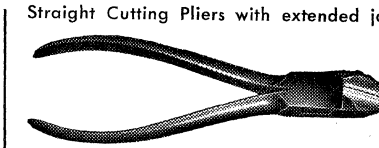
PIANO WIRE End Cutting Nippers



No. 527 ..... 6" 3.50 7" 3.95

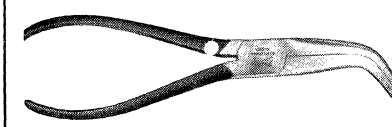
50 OTHER SIZES AND TYPES AVAILABLE

Straight Cutting Pliers with extended jaws



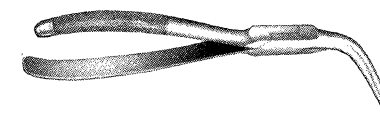
No. 1529 - 6 1/2" 3.95

Special Bent Nose Pliers



No. 2533-B - 8" 4.95

Curved Nose Pliers



No. 1631 - 5 1/2" 3.85

ERIKSON SPECIALIZED TOOL COMPANY, PICO RIVERA, CALIF.

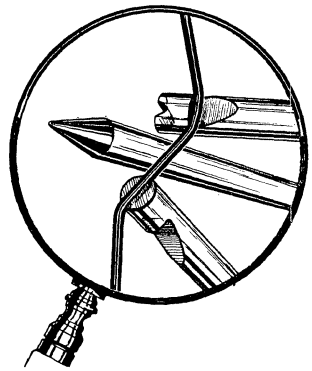
© U.C.P., Inc.

Norseman
ELECTRONIC TOOLS

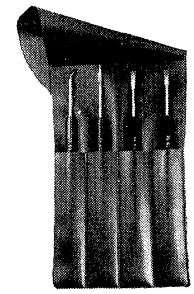
JIGGLE STICKS

Probes of Lucite, 1 end forked for pushing other end pointed for probing, notched on side for pulling wires.

PR 532-6 5/32" dia. .30 net
PR 316-8 3/16" dia. .35 net



NORSEMAN SOLDERING AID KIT

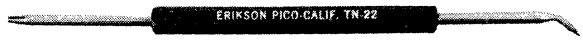


MTSA-4 miniature soldering aid kit with 4 tools M2T, M3T, M4T, M5T in vinyl kit complete .....$4.35 net

Vinyl plastic kit, packed with 4 Norseman Soldering Aids (TN-22, TN-33, TN-44, TN-55) as illustrated.
TNSA-4 complete kit .....$4.35 net

Kit with 4 Norseman Soldering Aids with unbreakable aluminum handles (AL-22, AL-33, AL-44 & AL-55).
ALSA-4 complete kit .....$4.35 net

NORSEMEN SOLDERING AIDS



Red Handle

TN-22 Tenite II Handle .....7⅝" Long.....$ .75 net
M2T Tenite II Handle .....5¼" Long.....$ .75 net
AL-22 Aluminum Handle.....7⅝" Long.....$ .75 net

Green Handle

TN-33 Tenite II Handle .....7⅝" Long.....$ .75 net
M3T Tenite II Handle .....5¼" Long.....$ .75 net
AL-33 Aluminum Handle .....7⅝" Long.....$ .75 net

Black Handle

TN-44 Tenite II Handle .....7½" Long.....$ .90 net
M4T Tenite II Handle.....5¼" Long.....$ .90 net
AL-44 Aluminum Handle .....7½" Long.....$ .90 net

Blue Handle

TN-55 Tenite II Handle .....6¾" Long.....$ .90 net
M5T Tenite II Handle.....5¼" Long.....$ .90 net
AL-55 Aluminum Handle .....6¾" Long.....$ .90 net

PLASTIC HANDLES— (TN-22, TN-33, TN-44, TN-55) (M2T, M3T, M4T, M5T) are of Tenite II, hex and will not roll off the work bench. Shock-proof, practically unbreakable and will stand rough use on industrial production lines.

METAL HANDLES—(AL-22, AL-33, AL-44, AL-55) are aluminum alloy 4" x ⅜" hex and won't roll off the work bench. Being metal, are NOT SHOCK-PROOF and hence not recommended for ordinary radio-TV service work, especially on a 'live' unit. However, these handles are practically unbreakable and were designed to take rough use on industrial assembly lines and can be used as PRY BARS in lining up components.

METAL ENDS—(separated from each other) non-magnetic stainless steel, to which solder won't adhere. Are firmly seated in handles and are twist-proof.

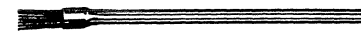
FORKED END—straddles the wire and with a slight twist, grips it for easy unwinding and removal, or guides it into another lug for soldering. Since plastic handles act as insulation, there is no danger of shock when working on sets in operation. ⅛" forks are made especially for use on printed circuits and transistors.

SPADE END—is a reamer to clean lug holes of solder.

CURVED END—can be used as a scriber for marking chassis. As a circuit tracer when looking for loose connections. As a dial cord stringer. Hook can be bent to a 90 degree angle if desired.

KNIFE & SCRAPER—for cutting and repairing printed circuits.

WIRE BRUSH — has approx. 200 bristles of stainless wire .0035 in dia. to which solder will not adhere. For use in cleaning connections before soldering, brushing out splattered solder and in repairing printed circuits.



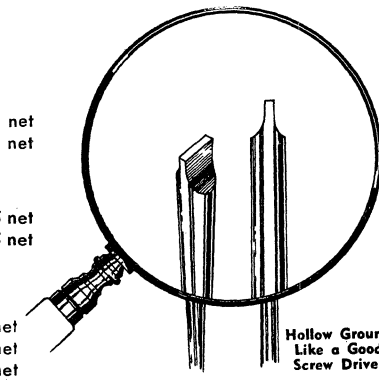
STAINLESS STEEL WIRE BRUSHES
on steel shaft approximately 2" long overall. Can be used in a regular pin vise. **.33 net**
Packed 25 or 50 per box

DIDDLE STICKS

Alignment tools —
Lucite 5/32" dia.
LU-53210 10" long ....25 net
LU-53214 14" long ....35 net

Rigid Vinyl 3/16" dia.
RV-31610 10" long.....25 net
RV-31614 14" long.....35 net

Fibre Glass ⅛" dia.
FG-1810 10" long....35 net
FG-1814 14" long....50 net
FG-1818 18" long....65 net

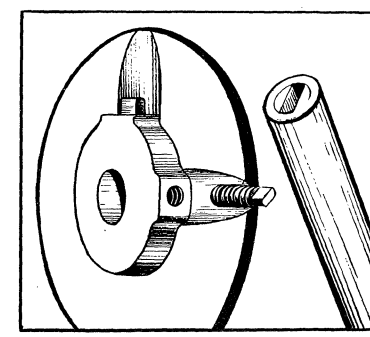


Hollow Ground Like a Good Screw Driver

SLAB-HEAD DRIVERS

Drivers for SLAB-HEAD screws as used in Delco auto radios, Zenith & Arvin TV and 1956 models of Webcor recorders.

246-P .... $1.80 net

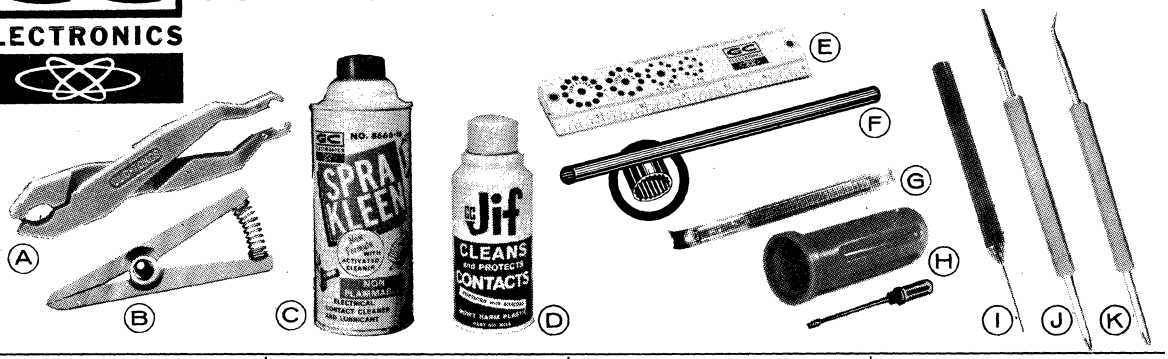


Clutch Head Screw and Driver

ERIKSON SPECIALIZED TOOL COMPANY, PICO RIVERA, CALIF.

GC ALIGNMENT TOOLS and Service Aids

GC ELECTRONICS



(A) GC DUO-TONGS — Universal Fuse Pullers . . . They're brand new . . . GC Duo-Tongs, these amazing new nylon fuse pullers will accommodate all kinds and types of fuses, including household screw-in plug type, industrial cartridge fuses up to ¾" or 100 amp. capacity, as Automotive, Aircraft, Television and Electronic Industries. New GC Duo-Tongs are non-conductive, non-inflammable, and virtually unbreakable thus exceeding all Military Specifications.
Cat. No. 9356 Net $ .89

(B) HEAT SINK — Protects Transistors and Diodes when Soldering...Lightweight, first quality, firm grip. Aluminum will not stick to solder.
Cat. No. 9077 Net $ .36

(C) NEW 16-OZ. SIZE SPRA-KLEEN —Works upside down, as well as right-side up! Now servicemen can get to those hard-to-reach places. Stops radio and TV control noise. No need to dismantle the chassis to get at the parts when you use Spra-Kleen. Both cleans and lubricates con tacts, controls, relays, switches, and other sliding contact devices in one fast operation.
Cat. No. 8666-16 Net $1.95

(D) GC JIF—Contact and Control Cleaner... Cleans—Lubricates—Long-lasting protection. Jif away noise due to dust, dirt and corrosion on Electronic/Electrical contacts, switches, controls with this NEW siliconized contact-control cleaner. Jif cleans and lubricates plus providing contacts and controls with the longest possible protection. Fast and efficient Jif saves the serviceman time and money in this new three-in-one operation, CLEAN—LUBRICATE — PROTECT. Simply apply and work controls a few times. Jif contains no solvents to harm plastics. Safe, quick, easy to use—Jif will do an excellent job for the serviceman.
Cat. No. 8670-6 Net $1.79

(E) GC RULER AND TUBE PIN STRAIGHTENER — Unique, double purpose service aid . . . This new GC item will prove to be the serviceman's constant companion. A plastic 6" ruler and a Tube Pin Straightener to accommodate Compactron, Large 7 Pin, 9 and 10 Pin, and 7 Pin Tubes.
Cat. No. 9135 Net $ .59

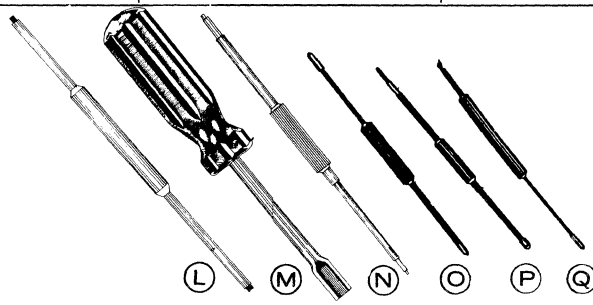
(F) SHAFT EXTENSION INSULATOR —Standard TV control—21 Suregrip ribs . . . Fits all shafts. Cut off worn ends, or to desired length.
Cat. No. 5150 Net $ .36

(G) HI-VOLTAGE GAUGE — Measures TV Voltage Pulse . . . No current drain during operation. Snaps directly to plate cap of any listed tubes. Push plunger in slowly till neon light glows. Voltage read on calibrated rod.
Cat. No. 8840 Net $2.30

(H) TWISTMASTER — Twice the Leverage of the Bare Hand . . . Slips easily on any standard screwdriver. Insulates against shock, prevents blisters.
Cat. No. 9320 Net $ .29

(I) PIGTAILER — Makes connections quickly and easily... For lengthening pigtails, repairing broken leads, connections, tuners, printed circuits, to hold a part, until solder is applied, or for making solderless connections, for testing and reconnecting, for replacing resistors and condensers. Will wind a pigtail that slips over 18-gauge wire. (Used in most Radio and TV work.)
Cat. No. 5077 Net $1.20

(J) and (K) SOLDERING AID TOOLS —Won't Stick to Solder...Heat-treated tool steel, chrome-plated, won't stick to solder. Wraps or disconnects wire-wrapped soldered joints quickly. Double ended to ream solder from lug holes as well as for holding or prying parts to be soldered.
Cat. No. 9075 Straight Net $ .80
Cat. No. 9076 Angled Net $ .80



(L) CAPACITOR AND TUNER ADJUSTING TOOL — New adjuster for trimmer capacitors, sealed capacitors, and miniature L. C. Tuners. Made of white Delrin with .050" hex head one end and screwdriver tip on the other end. Overall length of tool is 5⅛".
Cat. No. 8605 Net $ .63

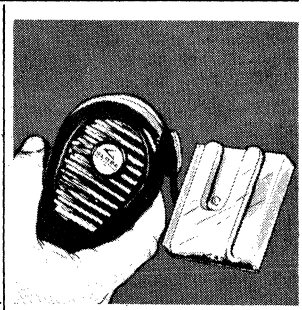
(M) GC CAPACITOR TAB TWIST TOOL — For replacing twist lock condensors. This handy Service Aid is easier to use than needle-nose pliers — saves time on service calls and at the bench. The slotted end fits over capacitor tabs; won't slip off. A quick twist locks or unlocks the tabs. 8" long; plastic handle. One of the most useful Service-Designed tools for the bench.
Cat. No. 9446 Net $ .89

(N) GC MAGNAVOX TUNING TOOL — Head for Magnavox chassis Nos. 201 and 202, Delrin hex wrench alignment tool for Magnavox and other sets. Hex wrench on both ends, one end under-cut so it will reach bottom slugs in iron coils.
Cat. No. 8284 Net $ .48

(O) DOUBLE END HEX CORE ALIGNER—Adjusts Coil Slugs... General purpose alignment tool as well as a coil slug adjuster. Both ends are .075" Hex, with one end undercut.
Cat. No. 9300 Net $ .48

(P) 3-IN-1 HEX CORE ALIGNER— Adjusts Coil Slugs . . . For Magnavox sets and others. Hex ends, one .100" with under-cut shaft; other end is .075" and .100".
Cat. No. 9302 Net $ .55

(Q) DOUBLE END ALIGNER — Adjusts Coil Slugs . . . For coil slugs on Webcor and other sets. One end .075" Hex shaped with under-cut shaft; other is a handy screwdriver.
Cat. No. 9304 Net $ .48

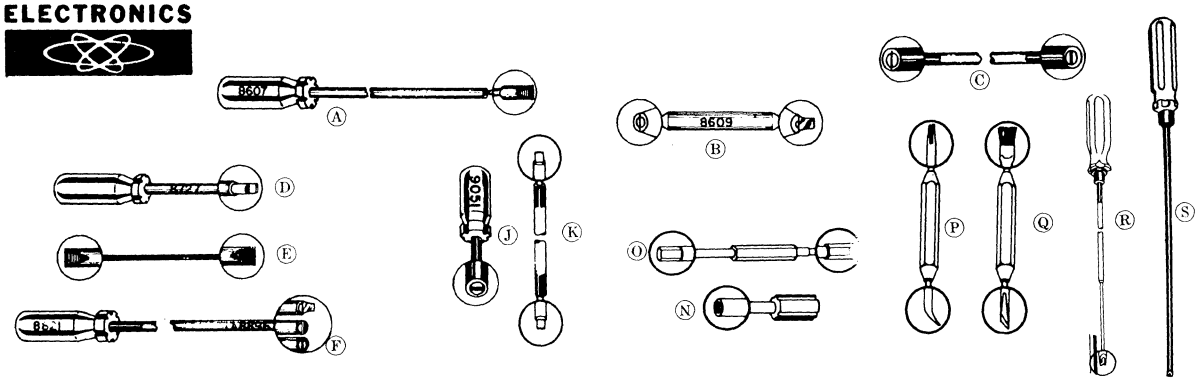


MAGNETIC MICROPHONE HOLDER

— for Citizens Band and other Mobile Radio units . . . Puts the microphone where you want it... when you want it. Here one day, there the next. Move it all you want, yet you know it's always safe. No holes to drill, no brackets to mount. Attach to any steel surface. Capable of holding up to 12 lbs. Clip to Microphone and have ready made magnetic microphone or attach magnet to steel surface and clip phone. Designed to fit most microphones, goes wherever you want it, easily, quickly, conveniently.
Cat. No. 65-525 Net $ 99

Net
© U.C.P., Inc.

GC ELECTRONICS ALIGNMENT TOOLS . . .



(A) G-C NEW NYLON TV LONG-REACH ALIGNER—Handy new long-reach TV aligner with insulated metal shaft and nylon tip. 12¼" long overall, .195 Shaft Dia.
Cat. No. 8607 TV Tool Net **$1.60**

(B) G-C ALIGNMENT TOOL—Handy to align and adjust TV sets, radio sets, etc. Made of clear plastic 5" long x ⅜" dia.
Cat. No. 8609 Net $ **.63**

(C) G-C TV 2-IN-1 LONG-REACH DUPLEX ALIGNER—Made of clear, unbreakable plastic material. Ends colored red and blue for size identification. Tips are made of spring steel recessed for easy location of stud.
Cat. No. 8721 9" long, 7/32" Shaft Dia. Net $ **.78**
8722 7" long, 7/32" Shaft Dia. Net $ **.67**

(D) NEW G-C K-TRAN TELEVISION ALIGNER—Specially made for K-Tran I.F. Transformer tuner slugs. Precision made of bone fibre.
Cat. No. 8727 6¼" long, 5/32" Tip Dia. Net $ **.65**

(E) TV LONG REACH ALIGNMENT SCREW DRIVERS—Made of bone fibre, extra thin ⅛" diameter screw drivers for adjustment of TV receivers. Screw drivers tip on both ends—can be re-ground and used over.
Cat. No. 8728A ⅛"x7" long Net $ **.43**
8728 ⅛"x12" long **.53**
8729 ⅛"x16" long **.70**

(F) G-C LONG ARM TV TOOL PLASTIC SHAFT—New, extra-long-reach alignment tool for Zenith sets and others where adjustments are had to get at. Tool is 18" long overall. 18" long, 7/32" Shaft Dia.
Cat. No. 8821 TV Tool (Type A) Net **1.00**
8896 TV Tool (Type B) **1.00**
8897 TV Tool (Type C) **1.00**

(J) NEW ZENITH-RCA ALIGNING TOOL WITH HANDLE—Handle affords a better grip and easier adjustments. Length is 2½" with a 1½" shaft length. 7/32" diameter blade with recessed slot in blade end.
Cat. No. 9051 Net $ **.58**

(K) NEW G-C STANDARD COIL SLUG TUNER ADJUSTING TOOL—A new special slug tuning tool especially made for adjusting Standard Tuners, etc. Completely insulated. 7½" long, ¼" shaft diameter, shaft ends .170 diameter.
Cat. No. 9087 Net $ **.75**

(N) G-C ADJUSTABLE SHORTY—Recessed tip TV alignment tool. Adjustable from 1¼" to 2" in length, for those hard-to-get-at places.
Cat. No. 9090 Net $ **.65**

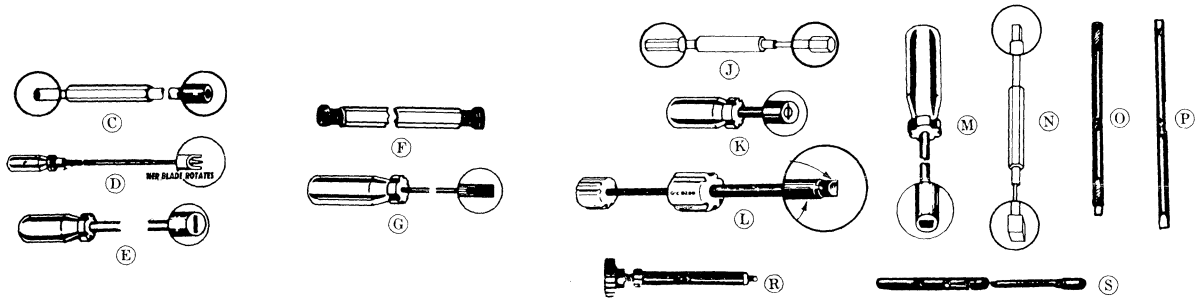
(O) G-C DOUBLE END IRON CORE TOOL—All nylon hex tool made to fit cores with .125 hex opening. One end of tool undercut so it can reach the bottom slug in coils without turning the top slug.
Cat. No. 9091 5" long Net $ **.48**
9091-L 11" long **.70**

(P) G-C PRINT-KOTE SOLDER AID PROBE—Handy, fine point probe specially designed to aid in probing and soldering printed circuits.
Cat. No. 9093 8" Length Net **$1.00**

(Q) G-C PRINT-KOTE BRUSH AND SCRAPER—Fine Stainless Steel brush and hardened steel scraper are required to scrape and clean the Silicone Resin from printed circuits.
Cat. No. 9094 8" Length Net $ **.98**

(R) G-C SLUG RETRIEVER TOOL—A precision made tool with hardened steel tips made for removing lost TV tuner slugs in Standard Coil tuners. Ends ground to fit standard coils.
Cat. No. 9096 12" Retreiver Net **$2.70**
9097 15" Retreiver **3.25**

(S) G-C MINI-HOLD SCREWDRIVERS—Speeds replacing of phono cartridges. Designed with exclusive "Wedge Action" enabling secure gripping of tiny screws. (Nos. 0, 1, 2, 3 and No. 8 set screws and smaller) Special short length (2⅞" when in use).
Cat. No. 9346 3¼" long, 2⅞" in use Net **$2.14**
9347 7" long, 6¾" in use **2.40**



(C) G-C RCA TV ALIGNMENT TOOL—Double end nylon tool with a recessed metal tip on one end and a plastic slot on the other end.
Cat. No. 9150 6" Length Net $ **.93**

(D) G-C SCREW STARTER SCREW DRIVER—A handy screw holding screwdriver that will start screws in hard-to-get-at places. Holds the screw securely while it starts it.
Cat. No. 9148 12" Net **$2.75**

(E) G-C TV AND AUTO RADIO WRENCH—Special female slotted wrench to remove screws and stud screws from auto radios and backs of TV sets, etc.
Cat. No. 9211 Net **$1.20**

(F) G-C DUAL NUT STARTER—New tool that holds and starts hex nuts or hex head screws in hard-to-get-at places. Fits ¼" and 5/16" hex nuts. Pat. 2664021.
Cat. No. 9147 Net **$1.85**

(G) G-C FIBREGLASS SCREWDRIVER—Gives full protection on hot chassis when adjusting high potentials. For close-up hard-to-reach places. Cat. No. 9291 7" Net $ **.85**

(J) G-C NYLON HEX TOOLS—For the adjustment of iron cores inside mounted chassis, and the tuner adjustment of iron and brass slugs with hex heads. Has .100" hex and 5/32" handle.
Cat. No. 9295 11"x.100" Hex Net $ **.63**
9296 11"x.075" Hex **.63**
9297 11"x.075" Hex **.63**

(K) G-C SHORTY ALIGNMENT TOOL—A convenient tool for hard-to-get-at places. Has 3/16" shaft, 2" length. Overall length of tool 4".
Cat. No. 9298 Net $ **.48**

(L) G-C COLOR TV TOOL—Used on convergence controls and others in color sets. The outer sleeve fits into the O.D. adjusting slot and the inner drive penetrates to the inside slot. Cat. No. 9299 Net **$1.45**

(M) G-C RCA WRENCH FOR VHF CHANNEL SELECTOR—Tool is made to fit square headed set screws in RCA VHF Channel Selector gear assembly without removing chassis.
Cat. No. 6035 Net **$1.20**

(N) G-C NEW TRANSISTOR I.F. CORE ALIGNMENT TOOL—One end square .055, opposite end rectangle nib. .047 x .078 to reach bottom slugs in iron cores.
Cat. No. 9440 11¾" long Net $ **.63**

(O) G-C RCA ALIGNING TOOL—Made of 7/32" Butyrate rod, narrow screwdriver on one end and screw nib inserted on other end.
Cat. No. 5003 Net $ **.53**

(P) G-C NO-METAL INSULATING ADJUSTMENT SCREW DRIVER—Made of black bone fibre. Indispensable for aligning all-wave sets.
Cat. No. 5004 7" long Net $ **.48**
LOW-LOSS POLYSTYRENE TYPE—Ideal for U.H.F. Sets.

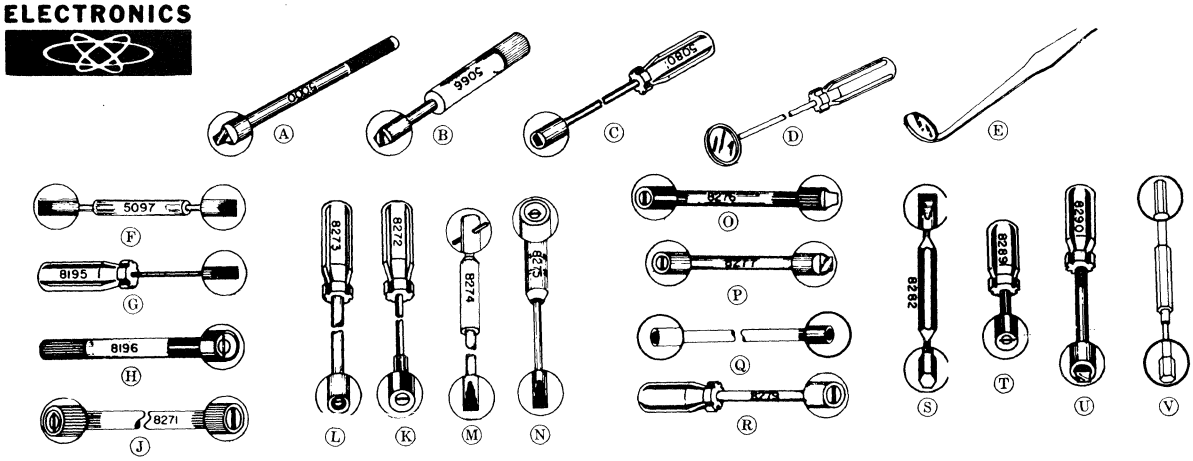
(R) G-C NEUTRALIZING TOOL—Combination screw driver and 5/16" hex wrench. Approved by U. S. Army Signal Corps.
Cat. No. 5027 Net **$2.10**

(S) G-C 4-in-1 ALIGNMENT TOOL—Consists of screw driver with metal nib, ¼" hex wrench slotted and 5/16" hex wrench on other end.
Cat. No. 5014 Net **$1.00**

G-C 5-in-1 ALIGNMENT TOOL—Consists of screw driver with metal nib, 5/16" hex wrench, ¼" hex wrench slotted, with metal screw driver on one end.
Cat. No. 5015 Net **$1.27**

G-C 6-in-1 ALIGNMENT TOOL—Consists of screw driver with metal nib, 5/16" hex wrench, ¼" hex side wrench and ¼" hex end wrench slotted.
Cat. No. 5016 Net **$1.57**

GC ELECTRONICS ALIGNMENT TOOLS . . .



(A) G-C ALIGNMENT SCREWDRIVER—Low inductance metal tip screwdriver made of Butyrate material.
Cat. No. 5000 1/4" Diameter x 6" Tool
Net $ .42

(B) G-C TV ALIGNMENT TOOL—Very short, sturdy tool with a fine metal screwdriver blade.
Cat. No. 5066 2½" long, 3/16" Shaft Dia.
Net $ .40

(C) G-C TV ALIGNING WRENCH—New tool with 1/8" square socket wrench, 7/32" shaft with insulated handle.
Cat. No. 5080 Net $ .60

(D) G-C INSPECTION MIRROR—Handy inspection mirror to inspect parts, coils, wiring, etc. Made of metal shaft with glass mirror and a plastic handle.
Cat. No. 5090 7 7/8" Inspection Mirror
Net $ .42

(E) G-C NEW ALL-PLASTIC INSPECTION MIRROR—Use to inspect coils, resistors, sockets, etc. while the chassis is hot. No danger of shorting.
Cat. No. 5090-P 7 7/8" Plastic Mirror Net $ .38

(F) G-C K-TRAN TOOL — Specially designed for K-tran and I.F. transformers. Butyrate material, screwdriver on both ends.
Cat. No. 5097 6" long, 5/32" Delrin Tip, 1/8" metal Tip Net $ .78

(G) G-C TV CHANNEL TUNING TOOL—Completely insulated, non-metallic tool with long 1/8" narrow blade. Made of bone fibre.
Cat. No. 8195 7¼" long, 1/8" shaft dia.
Net $ .72

(H) G-C TV AND FM TUNING TOOL—Special short tool with fine recessed screwdriver top for Television and FM adjustments. Made of Butyrate.
Cat. No. 8196 2½" long, 7/32" shaft dia.
Net $ .42

(J) G-C TV CORE ALIGNER—For Motorola and other sets using Stackpole or other stud type cores that are not slotted. Milled steel insert on one end, thin screwdriver blade on other end.
Cat. No. 8271 6" long, 7/32" shaft dia.
Net $ .60

(K) G-C TV I.F. OSCILLATOR ALIGNER—Specially made for I.F. and oscillator adjustments. Will fit all makes of sets—R.C.A., G.E., Philco, Admiral and others.
Cat. No. 8272 6½" long, ¼" tip dia.
Net $1.20

(L) G-C TV ALL-PURPOSE ALIGNER — Specially made for TV I.F. adjustments. Very thin spring steel tip is recessed so the tool will guide itself over the screws.
Cat. No. 8273 8" long, 7/32" shaft dia.
Net $ .92

(M) G-C TV LONG REACH ALIGNER—Specially made for Admiral, Zenith, R.C.A. and other sets for adjustments of nested iron cores that are hard to reach.
Cat. No. 8274 9" long, 1/8" shaft dia.
Net $ .90

(N) G-C TV ZENITH UNIVERSAL ALIGNER—Specially designed for Zenith and other sets. Made of bone fibre and plastic handle.
Cat. No. 8275 5" long, 1/8" shaft dia., ¼"
Net $ .52

(O) G-C TV DUPLEX ALIGNER—An all-purpose TV aligner for trimmers and I.F. transformers. Made of Butyrate material with extra thin spring steel tips.
Cat. No. 8276 6" long, 7/32" shaft dia.
Net $ .52

(P) G-C TV "SHORTY" DUPLEX ALIGNER—Specially made for trimmer and I.F. transformers where space does not permit the use of a longer tool.
Cat. No. 8277 2½" long, 7/32" shaft dia.
Net $ .52

(Q) G-C TV TUNING WAND—Brass insert on end reduces inductance and iron core on other end increases the inductance.
Cat. No. 8278 6" long, 7/32" shaft dia.
Net $ .60

(R) G-C TV CORE ALIGNER—Tool has a recessed steel milled slot to fit over the Stackpole and other type stud cores that are not slotted.
Cat. No. 8279 7½" long, 7/32" shaft dia.
Net $ .75

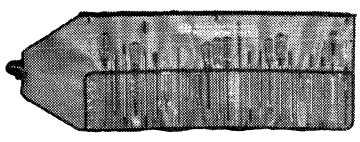
(S) G-C NEW ZENITH TV WRENCH & ALIGNER—New nylon plastic molded special tool made specially for Zenith TV sets.
Cat. No. 8282 5 7/16" long, .100 Dia. Hex Wrench, .109 Screw Driver Dia. Net $ .37

(T) G-C "SHORTY" TV ALIGNMENT SCREW DRIVER—Only 2" long overall to adjust hard-to-get-at places under TV tubes, etc.
Cat. No. 8289 2" long, 7/32" shaft dia.
Net $ .60

(U) G-C UNIVERSAL SCREW DRIVER ALIGNER—Made of unbreakable flexible clear plastic shaft and an amber plastic handle.
Cat. No. 8290 7" long, 7/32" shaft dia.
Net $ .70

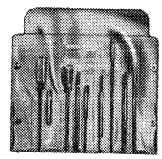
(V) G-C ZENITH-ADMIRAL NYLON HEX WRENCH—New nylon hex wrench alignment tool for Zenith, Admiral and other sets.
Cat. No. 8606 5" wrench, 11" long Net $ .48
8606-L 11" wrench, 11" long .63

GC ALIGNMENT TOOL KITS

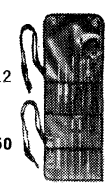


MASTER DELUXE TOOL KIT—A super-deluxe kit in a superior leatherette roll type case. Contains 25 tools and includes all TV alignment tools except the extra long ones (over 9") which would not fit in the case.
Cat. No. 8283 Net $14.17

DELUXE ALIGNMENT TOOL KIT—Case is made of durable leatherette that will give long service. The steel tips are all extra thin and are of the best grade hardened spring steel that will give you service. Kit contains one each of 16 tools you need.
Cat. No. 8280 Net $8.63



STANDARD ALIGNMENT TOOL KIT—Made to last and wear—a quality kit. Kit contains 9 essential tools in roll type case.
Cat. No. 8455 Net $4.77



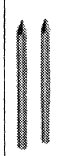
G-C No. 5040 TOP 12 TOOL KIT—12 most popular TV alignment tools. Plastic roll-up case.
Cat. No. 5040 Net $7.50

G-C CONTACT BURNISHING TOOL KIT—A complete kit for the servicing of relays, switches, etc. where critical contact points must be kept clean for ideal operation conditions.
Cat. No. 9339 Net $ .75

NEW TINNERMAN NUT REMOVER—The new G-C Tinnerman Nut Remover is a handy dual purpose tool for removing large or small tinnerman nuts with just a twist. Eliminates fumbling with hard-to-remove nuts.
Cat. No. 9355 Net $ .93

G-C ILLUMINATED INSPECTION AND SERVICE MIRROR—A hinge-mounted mirror fastens to a 6" transparent lucite rod which transmits light from a small anodized aluminum flashlight.
Cat. No. 8725 7/8" Mirror, frame O.D. 1 1/16"
Net $2.02

G-C SPEEDEX SLIM-TYPE SOLDER IRON TIPS—A new high-heat, turned-down tip made of one-piece copper. Will fit 3/8" irons. Tips 4½" long.
Cat. No. 8741 Net $ .73



G-C SOLDER IRON TIPS—Bright plated to resist corrosion. These tips are made of best grade hard-drawn copper.

		Dia.	Long	
Cat. No.	724	1/4"	x3"	Net $ .50
	725	5/16"	x4½"	.55
	726	3/8"	x4½"	.62

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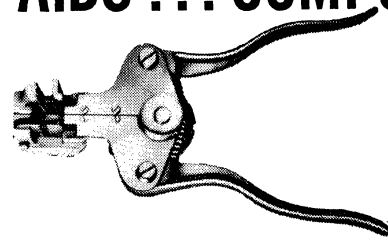
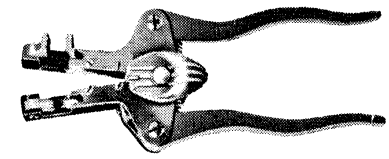
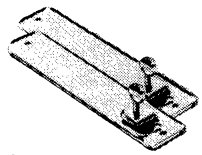
GC ELECTRONICS SERVICE AIDS . . . COMPONENTS







G-C TV CHASSIS SUPPORT. Prop chassis to easy working position on your bench or in the home. Simply slip it on the flange of chassis, tighten thumb screws and tilt chassis to position desired.

Cat. No. 9176 Per Pair Net **$1.80**

SPEEDEX STANDARD WIRE STRIPPER. This is the popular inexpensive Speedex model that will work on 90% of all stripping jobs. Blades are inter-changeable, hardened and precision ground to razor sharp edges.

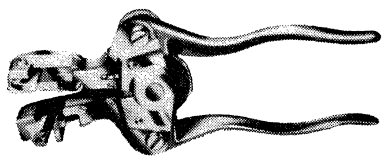
No.	For Sizes Listed Below
733	12 to 20 Wire
733-A	14 to 30 Wire
733-B	10 to 18 Wire
733-C	8 to 10 Wire
733-D	16, 18, 20, 22 Wires
733-E	14, 16, 18 Wires
733-F	10, 12, 14 Wires
733-G	For No. 18 POSJ or Parallel Wire
733-H	For 300 ohm TV and FM twin transmission line
733-I	10, 12, 14, 16, 18, 20, 22 Wire
733-M	10 to 20 Wire
733-N	Straight Cutter Blades

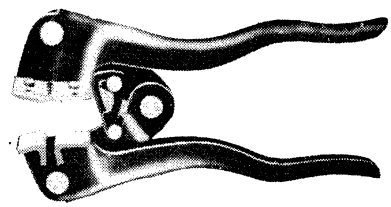
Cat. No. 733 Net **$4.77**

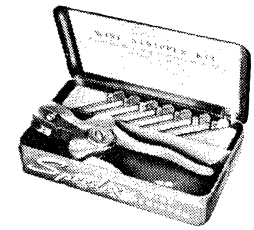
SPEEDEX AUTOMATIC WIRE STRIPPER. Equipped with "Trig-O-Matic" Stay-Open feature. Stay-Open features keeps wires from being crushed.

No.	For Sizes Listed Below
744	12 to 20 Wire
744-A	14 to 30 Wire
744-B	10 to 18 Wire
744-C	8 to 10 Wire
744D	16, 18, 20, 22 Wire
744-E	14, 16, 18 Wire
744-F	10, 12, 14 Wire
744-G	For No. 18 POSJ or Parallel Wire
744-H	For 300 ohm TV and FM twin transmission line
744-1	10, 12, 14, 16, 18, 20, 22 Wire
744-M	10 to 20 Wire
744-N	Straight Cutter Blades

Cat. No. 744 Net **$5.93**







SPEEDEX SPEED-O-MATIC WIRE STRIPPER. Fully automatic delayed return action to prevent crushing fine wires. The Speed-O-Matic combines the features of all Speedex Wire Strippers.

No.	For Sizes Listed Below
766	12 to 20 Wire
766-A	14 to 30 Wire
766-B	10 to 18 Wire
766-C	8 to 10 Wire
766-D	16, 18, 20, 22 Wire
766-E	14, 16, 18 Wire
766-F	10, 12, 14 Wire
766-G	For No. 18 POSJ or Parallel Wire
766-H	For 300 ohm TV and FM twin transmission line
766-I	10, 12, 14, 16, 18, 20, 22 Wire
766-M	10 to 20 Wire
766-N	Straight Cutter Blades

Cat. No. 766 Net **$5.93**

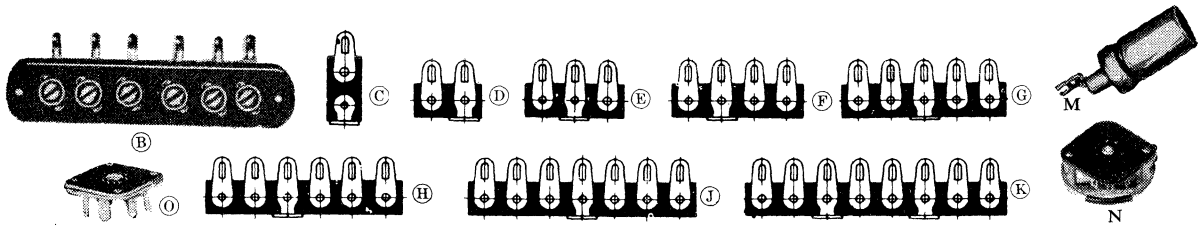
SPEEDEX WHIZ WIRE STRIPPER. All new economy model—a perfect all round general use wire stripper. Precision milled, hardened steel cutters.

Cat. No. 788 3 Hole Blade, Gauges 12 thru 22
788-B 3 Hole Blade, Gauges 10 thru 16
788-D 4 Hole Blade, Gauges 14 thru 24
788-H 300 ohm Blade forT win Lead-In
Cat. No. 788 Net **$3.97**

SPEEDEX WIRE STRIPPER KITS. Kits complete with Wire Strippers and seven different size blades neatly put up in a special permanent plasitc box. Very handy kit for the tool box, home workshop, maintenance and production.

Cat. No. 733-K Standard Stripper Kit Net **$10.83**
744-K Automatic Stripper Kit Net **$13.16**
766-K Speed-O-Matic Stripper Kit Net **$13.16**

ELECTRONIC COMPONENTS



(B) G-C SCREW TYPE TERMINAL STRIPS. Mounted on laminated bakelite strips, rigidly constructed, terminals will not turn and short.

Contacts		
Cat. No. 1772	2	Net $ **.09**
1772-C	(100-1772)	**8.10**
1773	3	**.12**
1773-C	(100-1773)	**10.05**
1774	4	**.15**
1774-C	(100-1774)	**13.20**
1775	5	**.20**
1775-C	(100-1775)	**18.67**
1776	6	**.22**
1776-C	(100-1776)	**20.17**
1777	7	**.25**
1777-C	(100-1777)	**23.85**
1778	8	**.30**
1778-C	(100-1778)	**27.00**
1779	9	**.33**
1779-C	(100-1779)	**30.00**
1780	10	**.37**
1780-C	(100-1780)	**33.45**

G-C STANDARD TERMINAL STRIPS. Insulation 1/16" Thick, 3/8" Spacing.

(C)
Cat. No. 1781 1 Lug Net $ **.03**
1781-C 100 No. 1781 **2.70**

(D)
Cat. No. 1782 2 lugs Net $ **.03**
1782-C 100 No. 1782 **2.70**

(E)
Cat. No. 1783 3 lugs Net $ **.05**
1783-C 100 No. 1783 **2.82**

(F)
Cat. No. 1784 4 lugs Net $ **.05**
1784-C 100 No. 1784 **3.90**

(G)
Cat. No. 1785 5 lugs Net $ **.07**
1785-C 100 No. 1785 **4.50**

(H)
Cat. No. 1786 6 lugs Net $ **.08**
1786-C 100 No. 1786 **4.80**

(J)
Cat. No. 1787 7 lugs Net $ **.13**
1787-C 100 No. 1787 **$8.70**

(K)
Cat. No. 1788 8 lugs Net $ **.15**
1788-C 100 No. 1788 **9.60**

SPECIAL TERMINALS AVAILABLE IN QUANTITIES. SEND PRINTS FOR QUOTATIONS

(M) G-C EXTENSION JACK & CONNECTOR. Special jack used in extending radio antenna cables and phonograph attachments.

Cat. No. 1744 Net $ **.10**
1744-C 100 **$8.93**

(N) G-C HIGH VOLTAGE ANTI-CORONA TV SOCKETS. Eight-prong octal and nine-pin miniature sockets for use in high voltage circuits using the 1B3, 1AX2, 1AX2A, etc.

Cat. No. 9070 8-prong octal Net $ **.53**
9071 9-pin miniature **.53**

(O) G-C 9-PIN MINIATURE WAFER SOCKET. High quality plastic wafer socket, 9-pin type with phosphor bronze contacts. Standard 1 1/8" mounting centers.

Cat. No. 1543 9-pin Wafer Sockets Net $ **.12**
1544 9-pin Wafer Socket with Grounding Strap Net $ **.13**

FREE

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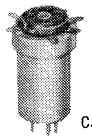
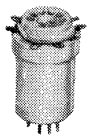
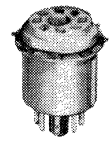
GC ELECTRONICS SERVICE AIDS



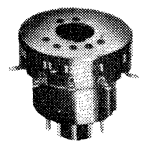
G-C 7-PIN MINIATURE TEST SOCKET ADAPTER
Cat. No. 9247 Net **$1.65**



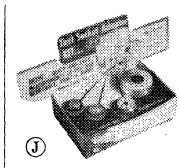
G-C 9-PIN MINIATURE TEST SOCKET ADAPTER
Cat. No. 9249 Net **$1.87**



G-C 8-PIN OCTAL TEST SOCKET ADAPTER
Cat. No. 9248 Net **$1.57**



G-C DUO-DECAL TV TUBE TEST SOCKET ADAPTER — Designed for making measurements of voltage, resistance and video from the base of the picture tube. It is inserted between C.R. tube base and its socket.
Cat. No. 9251 Net **$1.95**



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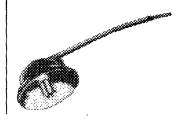
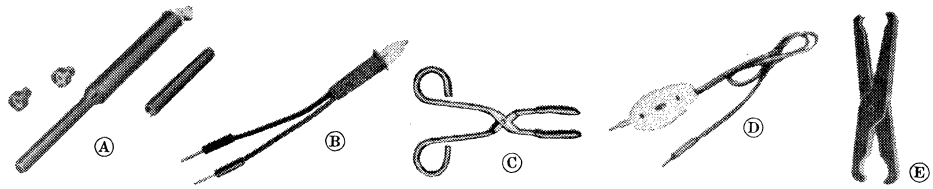
G-C TEST SOCKET ADAPTER KIT—This handy kit contains all 4 of G-C's Test Socket Adapters.
Cat. No. 9250 Net **$6.98**



G-C ANGLE ANODE LEAD—A better anode lead with special "Ozone Proof" rubber. Cat. No. 8637 Net **$.42**



(A) G-C CONTROL GUN KIT—Cleans and lubricates noisy volume controls. Constructed of solid aluminum—will not rust. Complete kit includes Gun, Adapter for extra long shanks, Adapter for ½-28 thread, and Auto Adapter for 7/16-28 thread.
Cat. No. 9285 Net **$4.50**
Uses G-Control Kleener.
Cat. No. 65-16 16 oz. Bottle Net **$1.95**
65-G 1 Gallon Net **$9.00**

G-C CONTROL GUN—Designed to clean and lubricate noisy volume controls in one sure, fast and easy operation. Gun nozzle fits over the control shaft and screws securely over the control base threads.
Cat. No. 9280 Net **$3.75**

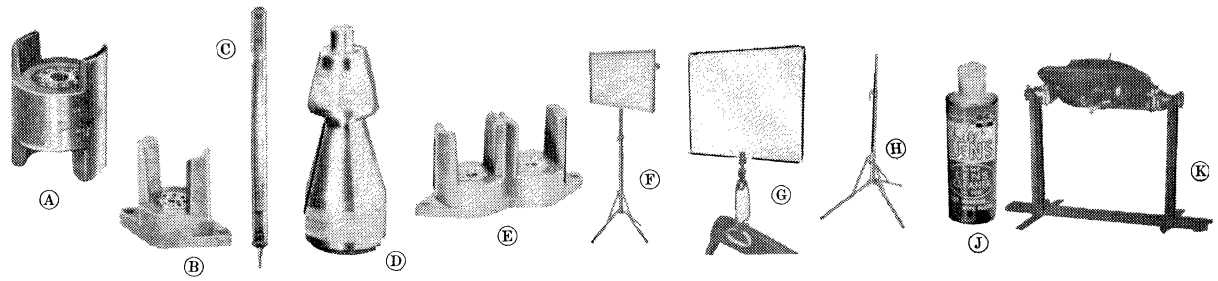
G-C CONTROL GUN ADAPTERS—Aluminum—won't rust when used with normal electronic chemicals.
Cat. No. 9281 To fit control shafts with ½-28 thread. Net **$ .50**
9283 To fit control shafts with 7/16-28 thread. Net **$ .50**
9282 For use on controls with extra long shanks Net **$ .50**

(B) G-C NE-O-LITE—A simple, safe, dependable electrical circuit tester—easy to use with a Neon Glow Lamp which varies in light intensity according to voltages. Traces all types of trouble, such as grounded lines, open circuits, short circuits, etc.
Cat. No. 5100 Net **$ .45**

(C) G-C TUBE & PARTS EXTRACTOR—Originally designed by the U. S. Signal Corps. as standard equipment. Skillfully constructed of spring steel, cadmium plated. Has rubber cushion on the prongs.
Cat. No. 5092 Net **$ .98**

(D) G-C DANDY LITE TESTER—Your hand touches the lead to only one side of the line for extra safety. A simple, dependable tester for tracing electrical circuits, grounded lines, shorts, etc.
Cat. No. 8585 Net **$ .90**

(E) G-C SPEEDEX FUSE PULLERS—Inexpensive—non-slip, fuse puller. Safe and handy for cartridge fuses.
Cat. No. 5525 Midget Size—for fuses ¼" to ½" dia. Net **$ .60**
5526 Pocket Size—for fuses ½" to 1½" dia. Voltages to 200 amps at 250 volts and 100 amps at 600 volts Net **$1.30**



(A) G-C DUAL TUBE PIN STRAIGHTENER—A handy, miniature pin straightener for 7-pin and 9-pin miniature tubes. Accurately machined metal inserts on either end of the tool body, each made of hardened metal to assure accuracy and long life.
Cat. No. 9092 Net **$1.27**

(B) G-C MINIATURE TUBE PIN STRAIGHTENER—Precision-constructed steel die, designed for straightening pins on fragile miniature tubes of the 1S5, 6AK5, 9002 variety.
Cat. No. 5191 For 7-pin Min. Tubes (red base) Net **$ .75**
8105 For 9-pin Jumbo Tubes (blue base) Net **$ .75**

(C) G-C TV "HIGH-VOLT" SAFETY PROBE & TESTER—A new handy tester for quickly checking TV high voltage circuits. Tester will glow when high voltage is okay.
Cat. No. 8836 Net **$2.13**

(D) G-C AMO MINIATURE TUBE PULLER—AMO makes it possible to easily remove or insert miniature tubes such as 6AG5, 50B5, etc. It works on the suction and vacuum principle.
Cat. No. 5093 For 7-Pin Tubes Net **$1.30**
8106 For 9-Pin Tubes Net **$1.30**

(E) G-C DUPLEX TUBE PIN STRAIGHTENER—The handiest tube pin straightener for both miniature and jumbo miniature tubes of the 7- and 9-pin types.
Cat. No. 8655 Net **$1.50**

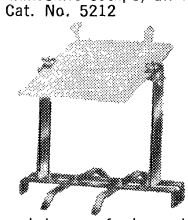
(F) G-C THIRD EYE DELUXE GLASS TV MIRROR—Here's a deluxe TV service mirror for adjusting and servicing TV sets. It is made with an adjustable and collapsible telescoping stand and 12" x 10" glass mirror that avoids distortion of the image.
Cat. No. 8390 Third Eye Mirror, Stand Net **$5.91**
8391 Glass Mirror Only **2.97**
8199 Soft Bag for Mirror **1.30**

(G) G-C TV PORTO MIRROR—TV service mirror for adjusting rear controls and settings of TV sets. Supplied with a rubber lined spring clamp.
Cat. No. 8198 TV Metal Mirror, Spring Clamp Net **$2.83**
8199 Soft Bag for Mirror Net **$1.30**

(H) G-C TELEVISION MIRROR & EXTENSION LAMP COLLAPSIBLE STAND—Handy metal collapsible and adjustable stand for No. 8391 mirror or for clamping on metal mirrors or extension lamps.
Cat. No. 8392 Net **$3.30**

(J) G-C KLEER LENS—A superior lens cleaning fluid packaged in a handy plastic spray type container. This cleaner will make the transparent protection shield in front of the picture tube crystal clear.
Cat. No. 9081 6-oz. Net **$ .75**

(K) G-C "QUICK-RIG RADIO-PHONO CHASSIS REPAIR CRADLE — Complete 360° rotation to lock chassis at best working angle. Clamps securely, makeshift setups, all metal.
Cat. No. 5212 Net **$7.50**



G-C PHONO TURNTABLE STAND—Stand raises the turntable about 15 inches above the bench so you can easily look under the mechanism to check it while in operation. Easily adjusted to all sizes and types of phono turntables. Sturdily made of steel.
Cat. No. 5205 Net **$4.95**

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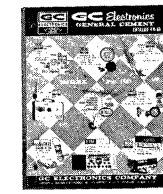

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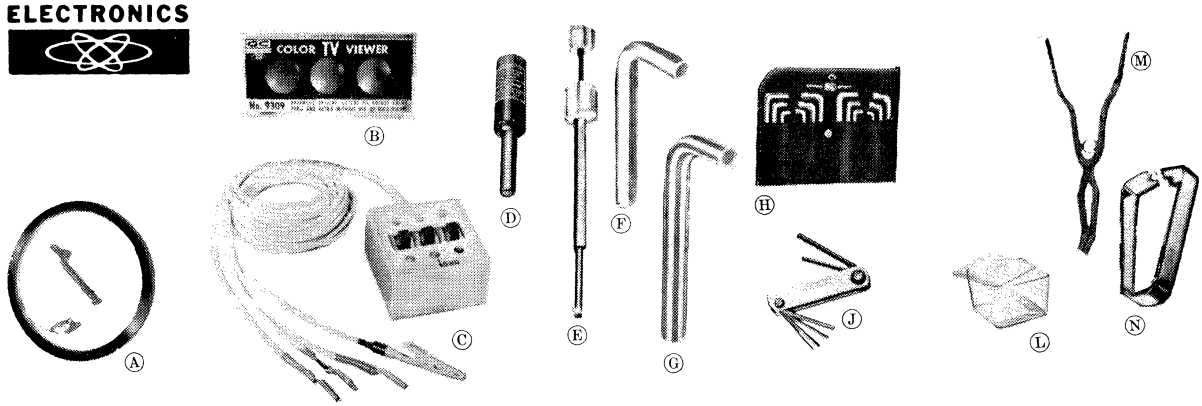
GC ELECTRONICS SERVICE AIDS



(A) DEGAUSSING COIL—For Color TV receivers. The G-C Degaussing Coil serves to demagnetize the magnetic fields set up in the color CRT due to the sensitivity of the tube.
Cat. No. 9317 Net **$17.97**

(B) NEW G-C COLOR TV VIEWER—Has three transparent optical filters sealed in permanent plastic. Simplifies phase and matrix adjustments on color TV sets using a saturated color for signal. Makes adjustments possible in the home.
Cat. No. 9309 Net **$1.50**

(C) G-C COLOR TV TEST BOX—Test color tubes with black-and-white test equipment. Extra long leads allow test box to be placed in front or rear of set.
Cat. No. 9318 Net **$5.10**

(D) G-C COLOR TV CHEATER—A safety device for color TV receiver work. Used when applying Hi-voltage Probe through cheater.
Cat. No. 5650 Net **$ .75**

(E) COLOR TV TOOL—Used on convergence controls and others in color sets. The outer sleeve fits into the O.D. adjusting slot and the inner-drive penetrates to the inside slot.
Cat. No. 9299 Net **$1.45**

(F) G-C HEXAGON KEY WRENCHES KITS and ASSORTMENTS

Cat. No. H1600-F	Plastic Box of 4	Net **$ .36**
5029	Kit 5 Assorted Wrenches in Leatherette Case.	**$ .63**

(G) SPLINE KEY WRENCHES KITS and ASSORTMENTS

Cat. No. H1602-F	Plastic Box of 4	Net **$ .36**
5070	Kit of 6 Assorted Wrenches in Leatherette Case	**.80**

INDIVIDUAL WRENCHES

Cat. No. 5071	No. 4 Set Screw	Net **$ .12**
5071-A	No. 5 Set Screw	**.12**
5072	No. 6 Set Screw	**.12**
5073	No. 8 Set Screw, No. 4 Cap Screw	**.12**
5074	No. 10 Set Screw, No. 5-6 Cap Screw	**.13**

(H) G-C HEX-KEY AND SPLINE WRENCH KIT—A complete wrench kit for both hex and spline type screws. Twelve wrenches in an attractive leatherette case.
Cat. No. 5028 Net **$1.35**

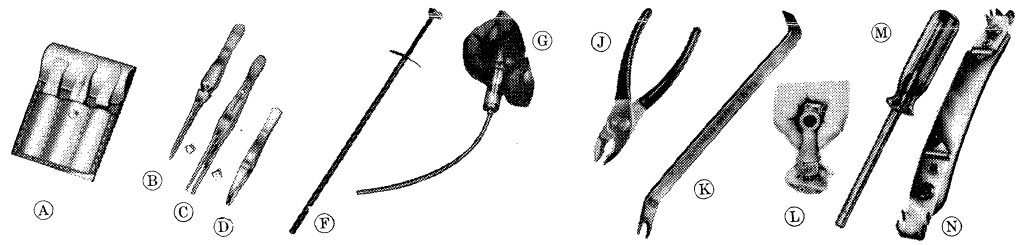
(J) G-C POCKET HEX KEY WRENCH SET— Seven popular size wrenches. .050 to 3/16" fitted in a steel case-like pocket knife blades.
Cat. No. 9124 Net **$1.83**

(L) G-C PLASTIC BOXES—Clear plastic boxes for stocking small parts, screws, nuts, bolts, condensers, resistors, etc.

Cat. No. 8022	4"x4"x2½" deep	Net **$ .40**
8023	4"x4"x8" deep	Net **$ .77**

(M) G-C LONG NOSE CLAMP PLIERS—Like an extra hand. Spring tension keeps the jaws closed unless handles are squeezed.

(N) G-C TV-RADIO KNOB PULLER—Simply slip the G-C Puller behind the knob and pull it off. Saves time, the cabinet and the knob.
Cat. No. 23-954 Net **$ .30**



(A) G-C TWEEZER KIT—For the shop or laboratory to pick up and examine small parts, start screws and nuts, etc.
Cat. No. 7950 Net **$2.28**

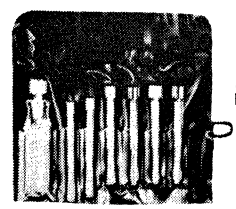
(B) G-C TWEEZERS
Cat. No. 7946 6½" Self-closing tweezer opens when squeezed; serrated, blunt points. Net **$ .78**

(C) G-C TWEEZERS
Cat. No. 7947 6½" Heavy-duty type, with slide lock feature; holds wires or parts tight like an extra finger; serrated, blunt points. Net **$ .90**

(D) G-C TWEEZERS
Cat. No. 7948 4½" Precision tweezer, narrow pointed ends for delicate work. Net **$ .52**

(F) G-C HANDY PICK-UP TOOL—One of the handiest tools you can have in your home, shop, office or farm. Tool is 15 inches long.
Cat. No. 5089 Net **$1.15**

G-C TV 3-WAY ANTENNA KLIP — Buy them by the bag and have clips ready to sell and ready to install on TV sets.
Cat. No. 9015-X Bag of 10 Net **$1.43**



G-C INTERCHANGEABLE HEX NUT DRIVER KIT—6 assorted nut drivers in a handy plastic case. Handle is non-inflammable amber plastic with a quick change chuck.
Cat. No. 9206 Net **$3.30**

(G) G-C LONG-REACH TV AND RADIO LUBRICATOR—For radio and TV controls, bearings, phono motors, etc. Buy them by the pair—one for grease and one for light oil.
Cat. No. 8690 Net **$ .53**

(J) G-C NO-JOLT TOOL GRIPS—Modernizes old tools with new safety grip handles. Grease and oil resistant.

Cat. No. 5647	Small No-Jolt Plastic Tool Grips (1 pair)	Net **$ .23**
5648	Medium No-Jolt Plastic Tool Grips (1 pair)	**.27**
5649	Large No-Jolt Plastic Tool Grips (1 pair)	**.33**

(K) G-C PRY-UP TUBE LIFTER—Handy tool for removing tight tubes. Saves the fingers and the tubes.
Cat. No. 9213 Net **$ .30**

(L) G-C 4-in-1 TUBE GADGET—Four tools in one. Pure rubber, will not break.
Cat. No. 9130 Net **$ .92**

(M) G-C NEW TV AND AUTO RADIO WRENCH—Special female slotted wrench to remove screws and stud screws from auto radios and backs of TV sets, etc.
Cat. No. 9211 Net **$1.20**

(N) G-C NEW LOW LOSS TV LINE KLIP—A new all plastic clip with metal ends only. The best for UHF or fringe areas. Made of genuine polyethylene.

Cat. No. 9055		Net **$ .15**
9055-X	Bag of 10	**1.47**

6. G-C DUAL SHEET METAL PUNCH—Punches holes for Tube Sockets and Condensers for hand or power operation. Two punches 7/8" and 1 5/32" for one price.
Cat. No. 9260 Net **$4.93**

7. G-C DUAL SHEET METAL PUNCH JR.—Punch neat, clean holes in chassis for tube sockets, condensers and for mounting other components. For ½" and ¾" holes.
Cat. No. 9261 Net **$4.00**

8. NEW G-C PRECISION 300-OHM TOOL—This specially designed tool cuts, slots, strips and crimps. Has shockproof, oil resistant plastic grips.
Cat. No. 9220 Net **$3.95**

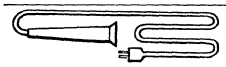
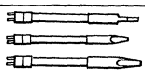
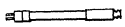
SOLDERING IRONS

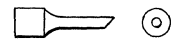
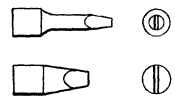
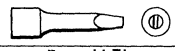
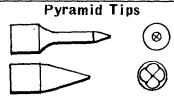
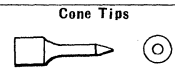
6 to 230 VOLTS 12 to 140 WATTS

A complete line of high quality soldering irons specifically designed for production-line soldering in the electronic, instrument, and communications industries—including irons for soldering miniature and subminiature components. Also ideally suited for intermittent operations such as repair, maintenance, laboratory work, and electronic kit construction. Irons up to 1250 watts are available.

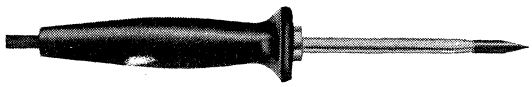
PENLINE-120 SOLDERING IRONS — 120 VOLTS; 25, 30, 40, AND 45 WATTS — UL LISTED

Lowest cost G-E iron; ideally suited for light to medium production in electronics, communications, and allied industries, for repair and maintenance operations, and by the "do-it-yourself" electronics kit builder. Choice of 30- and 45-watt low-cost, easy-to-change tip and heater assemblies; or 25-, 30-, and 40-watt heater assemblies with 20 different interchangeable ironclad or copper threaded tips.

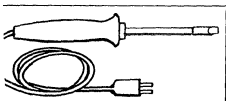
Description		Cat. No.	List Price Each‡
Handle and Cordset			
 Two-conductor		6D400	$3.00
Three-conductor, with NEMA standard plug		6D400G2	4.00
Tip and Heater Assemblies — Ironclad			
 3/16" Chisel Tip	30 watts	6D410	$4.70
9/32" Chisel Tip	30 watts	6D411	4.80
3/8" Chisel Tip	45 watts	6D412	4.90
Heater Assemblies for Threaded Tips			
	25 watts	6D415	$4.00
	30 watts	6D414	4.00
	40 watts	6D413	4.00

Description		Cat. No.	List Price Each‡
Threaded Tips for Penline-120, Pistol-Grip, Midget, and Lightweight Heater Assemblies			
Spade Tips 	1/16" Dia—Copper	6D4P1	$0.50
	1/16" Dia—Ironclad	6D4P2	1.40
	1/8" Dia—Copper	6D4P3	0.50
	1/8" Dia—Ironclad	6D4P4	1.40
Chisel Tips 	1/16" Dia—Copper	6D4P5	0.50
	1/16" Dia—Ironclad	6D4P6	1.40
	1/8" Dia—Copper	6D4P7	0.50
	1/8" Dia—Ironclad	6D4P8	1.40
	3/16" Dia—Copper	6D4P9	0.50
	3/16" Dia—Ironclad	6D4P10	1.40
	3/8" Dia—Copper	6D4P11	0.50
	3/8" Dia—Ironclad	6D4P12	1.40
Long Chisel Tips 	3/16" Dia—Copper	6D4P13	0.55
	3/16" Dia—Ironclad	6D4P14	1.50
Pyramid Tips 	1/8" Dia—Copper	6D4P15	0.50
	1/8" Dia—Ironclad	6D4P16	1.40
	3/8" Dia—Copper	6D4P17	0.50
	3/8" Dia—Ironclad	6D4P18	1.40
Cone Tips 	1/8" Dia—Copper	6D4P19	0.50
	1/8" Dia—Ironclad	6D4P20	1.40

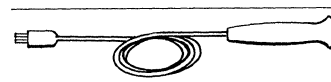
LIGHTWEIGHT SOLDERING IRONS — 120 VOLTS; 40 AND 60 WATTS — UL LISTED



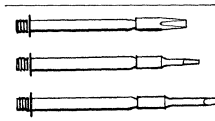
Ideal for light and medium production-line soldering and maintenance and repair operations in electronics and communications industries. Tip and heater assemblies can be changed in seconds.

Description	Cat. No.	List Price Each‡
Complete Iron — Includes handle and 6-foot cordset, and 60-watt tip and heater assembly		
 1/4" Ironclad Chisel Tip	6A273	$14.20
3/16" Ironclad Pyramid Tip	6A283	14.20
3/16" Ironclad Chisel Tip	6A283G23	14.20

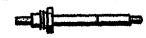
Handle and Cordset

 Two-conductor	6A273G62	$7.25
Three-conductor with NEMA standard plug	6A273G63	8.45

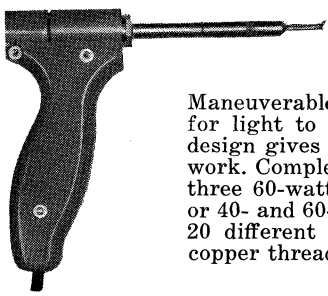
Tip and Heater Assemblies — 60 watts

 1/4" Ironclad Chisel Tip		6A300	$6.95
3/16" Ironclad Pyramid Tip		6A301	6.95
3/16" Ironclad Chisel Tip		6A301G4	6.95

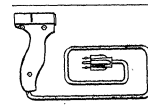
Heater Assemblies for Threaded Tips (Use Penline-120 Tips listed above)

 40 watts		6A304	$6.05
60 watts		6A301G7	6.70

PISTOL-GRIP SOLDERING IRONS — 120 VOLTS; 40 AND 60 WATTS



Maneuverable and comfortable, excellent for light to medium production. Unique design gives operator a clear view of the work. Complete versatility with choice of three 60-watt tip and heater assemblies; or 40- and 60-watt heater assemblies with 20 different interchangeable ironclad or copper threaded tips.

Description	Cat..No.	List Price Each‡
 Handle and cordset, three-wire with NEMA plug	6A303	$8.50

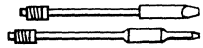
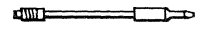
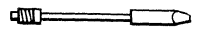
Can be used with Lightweight tip and heater assemblies above, or with Lightweight heater assemblies and Penline-120 tips listed above.

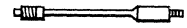
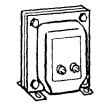
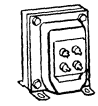
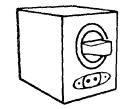
‡Manufacturer's suggested resale price.

© U.C.P., Inc.

MIDGET SOLDERING IRONS — 6 VOLTS; 25 and 45 WATTS (Also tapped transformers) — UL LISTED

A versatile iron for light production in electronics, and communication industries — handles like a pencil, weighs but 1¾ oz. Tip renewal is easy and fast — complete tip and heater assembly can be changed in a few seconds. Heat output can be varied from 18 to 45 watts with standard G-E transformers.

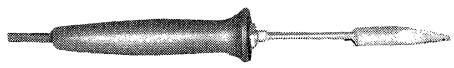
Description		Cat. No.	List Price Each‡
Handle and Cord Set			
	For single- and 4-tap transformers	6A203	$3.65
	For transformer with 3-heat switch	6A203G2	4.15
Tip and Heater Assemblies — All ironclad tips			
	¼" Chisel Tip 25 watts	6A211	$4.05
	⅛" Cone Tip 25 watts	6A213	4.05
	3/16" Pyramid Tip 25 watts	6A215	4.05
	3/16" Chisel Tip 25 watts	6A217	4.05
	⅜" Chisel Tip 45 watts	6A211G31	4.60

Description		Cat. No.	List Price Each‡
Heater Assembly for Threaded Tips (Use Penline-120 Tips)			
	25 watts	6A221	$4.05
Transformers for Midget Iron — 115-volt Primary*			
	Single Tap—35 watts	6A362G2	$6.90
	Four Tap—for 26/29/32/35 watts	6A364G2	9.20
	With Three-heat Switch —18 to 35 watts, for use only with 6A203G2 Handle and Cordset	6A434	17.00

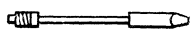
* Single- and four-tap transformers are available with 240-volt primary in quantities 36 or more. Specify Cat. No. desired and note on order, "except with 240-volt primary". primary."

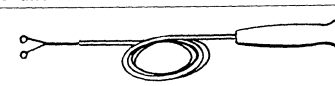
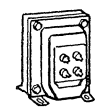
† Suitable for use only with Handle and Cordset 6A203G2.

MIGHTY MIDGET SOLDERING IRON — 12 VOLTS; 100 WATTS

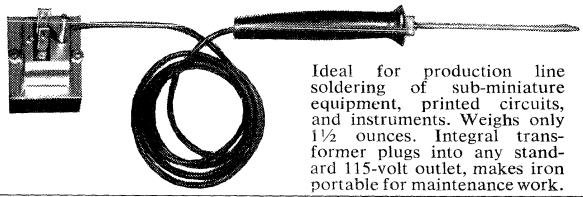


A lightweight iron with high heat capacity for heavy soldering where larger irons, up to 200 watts, prove unwieldy for rapid repetitive soldering, such as production soldering of tuner chassis, tinware, can seams, etc.

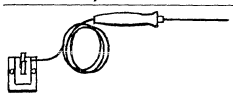
Tip and Heater Assembly			
	½" Ironclad Chisel Tip	6A211G33	$4.50

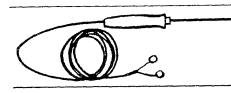
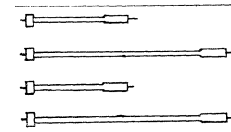
Handle and Cordset — Two-conductor			
		6A210G61	$8.00
Transformer for Mighty Midget — 115-volt primary			
	Four Tap — for 55/70/85/100 watts	6A364G7	16.00

MINIATURE SOLDERING IRONS — 6 VOLTS; 12 WATTS

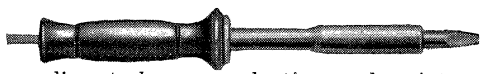


Ideal for production line soldering of sub-miniature equipment, printed circuits, and instruments. Weighs only 1½ ounces. Integral transformer plugs into any standard 115-volt outlet, makes iron portable for maintenance work.

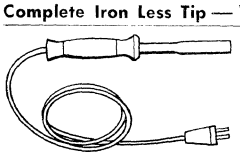
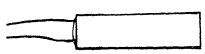
Complete Iron — Includes handle and 6-foot cordset, tip and heater assembly, and transformer			
	⅛" Chisel Tip 3" Shank	6A428G3	$15.00
	⅛" Chisel Tip 6" Shank	6A428G4	15.00
	⅛" Pyramid Tip 3" Shank	6A428G7	15.00
	⅛" Pyramid Tip 6" Shank	6A428G8	15.00

Complete Iron Less Transformer — Includes handle and 6-foot cordse with terminals, and tip and heater assembly			
	⅛" Chisel Tip 3" Shank	6A428G5	$9.00
	⅛" Chisel Tip 6" Shank	6A428G6	9.00
Renewal Tip and Heater Assembly			
	⅛" Chisel Tip 3" Shank	6A429G3	$5.50
	⅛" Chisel Tip 6" Shank	6A429G4	5.50
	⅛" Pyramid Tip 3" Shank	6A429G5	5.50
	⅛" Pyramid Tip 6" Shank	6A429G6	5.50

6A160 SERIES SOLDERING IRONS — 115 VOLTS §, 75 TO 140 WATTS — UL LISTED

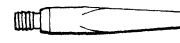
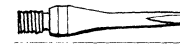
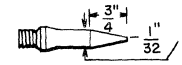
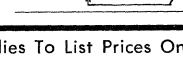


Ideal for medium to heavy production, and maintenance and repair operations. Available with any of 12 different tips, calorized or ironclad.

Description		Cat. No.	List Price Each‡
Complete Iron Less Tip — Includes 6-foot two-conductor cordset			
	75 Watts	6A161	$14.95
	100 Watts	6A162	14.95
	110 Watts	6A162G6	14.95
	125 Watts	6A162G3	14.95
	140 Watts	6A162G12	14.95
Renewal Heater — 115 Volts§			
	75 Watts	6A31	$4.50
	100 Watts	6A32	4.50
	110 Watts	7C342	4.50
	125 Watts	8A88	4.50
	140 Watts	7C474	4.50

§ Also available for 230-volt operation. Order 115-volt Cat. No. desired, and note on order "except for 230-volt operation." No change in price.

‡ Manufacturer's suggested resale price.

Tips — fit all catalog numbers			
	¼" Short Chisel—Calorized	6D1P1	$1.0
	¼" Short Chisel—Ironclad	6D1P2	1.8
	¼" Long Chisel—Calorized	6D1P3	1.7
	¼" Long Chisel—Ironclad	6D1P4	3.5
	⅛" Chisel—Ironclad	6D1P5	1.7
	⅜" Chisel—Calorized	6D1P6	1.0
	⅜" Chisel—Ironclad	6D1P7	1.8
	3/16" Chisel—Ironclad	6D1P8	1.8
	⅜" Short Taper Chisel—Ironclad	6D1P9	2.3
	⅜" Long Taper Chisel—Ironclad	6D1P10	2.7
	¼" Blunt Chisel—Ironclad	6D1P11	2.3
	Long Taper Cone—Ironclad	6D1P12	1.5

ELECTRIC SOLDERING IRONS

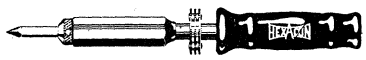
HEXACON

VOLTAGE RANGE: 6 to 250 OPERATES IDENTICALLY ON A.C. OR D.C., ANY CYCLE
STANDARD VOLTAGES 110/120, 121/130, 220/250 SPECIFY VOLTAGE ON ORDER

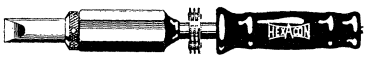
HEXACON

Equipped with flexible 6-ft. approved Neoprene rubber heater cord, which is water-proof, kink-free, and resistant to oil, abrasion and heat. Nickel-chromium replaceable heating elements, insulated with finest mica, protected by rugged outer housing. Replaceable tips.

PLUG-TIP IRONS



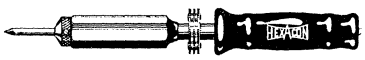
Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
P70	80	3/8"	1 1/8 lbs.	7.35	6.93
P100	100	3/8"	1 1/8 lbs.	8.05	7.56
P125	130	5/8"	1 5/8 lbs.	9.52	8.43
P150	150	3/8"	1 1/2 lbs.	8.82	8.33
P153	175	3/8"	1 1/2 lbs.	9.17	8.68
P151	175	1/2"	1 5/8 lbs.	9.52	8.68
P200	200	5/8"	2 3/8 lbs.	9.94	8.78
P250	250	5/8"	2 3/8 lbs.	11.41	10.25



P300	300	7/8"	3 lbs.	13.51	11.27
P550	550	1 1/8"	4 3/8 lbs.	17.43	13.23

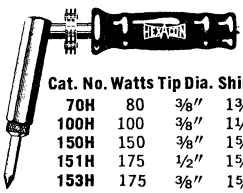
SUPER-POWERED IRONS

HIGHER SPEED SMALLER TIPS



Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
P114	100	1/4"	1 3/8 lbs.	8.40	8.05
P154	150	1/4"	1 1/2 lbs.	9.17	8.82
P214	200	1/4"	2 1/8 lbs.	10.29	9.94
P238	200	3/8"	2 1/4 lbs.	10.29	9.80
P212	200	1/2"	2 1/4 lbs.	10.29	9.45
P338	300	3/8"	2 3/4 lbs.	14.14	13.65

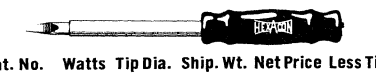
HATCHET TYPE IRONS



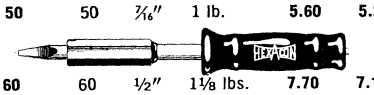
Perfect Balance
Less Fatigue
See What You Solder

Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
70H	80	3/8"	1 3/8 lbs.	8.96	8.54
100H	100	3/8"	1 1/2 lbs.	9.73	9.24
150H	150	3/8"	1 5/8 lbs.	10.50	10.01
151H	175	1/2"	1 5/8 lbs.	10.99	10.15
153H	175	3/8"	1 5/8 lbs.	10.85	10.36
200H	200	5/8"	2 1/4 lbs.	11.41	10.25
300H	300	7/8"	3 lbs.	14.70	12.46

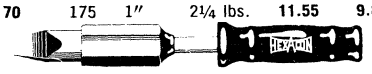
SCREW TIP IRONS



Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
50	50	7/16"	1 lb.	5.60	5.21



60	60	1/2"	1 1/8 lbs.	7.70	7.14
85	90	1/2"	1 1/8 lbs.	8.26	7.70
120	120	5/8"	1 3/8 lbs.	9.10	8.26
130	130	7/8"	1 1/2 lbs.	10.43	9.10
170	175	1"	2 1/4 lbs.	11.55	9.80



225	250	1 1/8"	2 3/4 lbs.	13.65	11.34
350	350	1 3/8"	3 1/2 lbs.	15.96	12.46
500	500	1 5/8"	4 3/8 lbs.	18.20	13.19
700	700	1 3/4"	5 5/8 lbs.	33.11	26.60

SUPER-PENCIL IRONS

HOT TIP — COOL HANDLE

Weighs only 2 oz.

Short Reach 3"

All the advantages of a Soldering Pencil, but a full-fledged industrial soldering iron with nickle-chromium mica-wound element. Tiny tips outperform irons with larger tips and higher wattages.

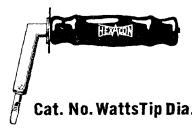
Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
25S	25	1/8"	1/2 lb.	4.90	4.70
25S20	20	1/8"	1/2 lb.	4.90	4.70
25S30	30	1/8"	1/2 lb.	4.90	4.70
25S35	35	1/8"	1/2 lb.	4.90	4.70
*25S50	50	1/8"	1/2 lb.	7.01*	5.40
26S	30	3/16"	1/2 lb.	4.97	4.74
26S35	35	3/16"	1/2 lb.	4.97	4.74
26S40	40	3/16"	1/2 lb.	7.12*	5.44
*26S50	50	3/16"	1/2 lb.	7.12*	5.44

FASTEST AND MOST DURABLE PENCIL IRON. Weighs but 2 oz.

*24S	50	1/4"	1/2 lb.	7.56*	5.63
*24S40	40	1/4"	1/2 lb.	7.56*	5.63
*24S60	60	1/4"	1/2 lb.	7.56*	5.63

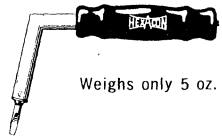
BANTAM HATCHET IRONS

PERFECT BALANCE
FOR INACCESSIBLE PLACES



Weighs only 3 oz.

Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
25H	25	1/8"	1/2 lb.	5.95	5.75
25H35	35	1/8"	1/2 lb.	5.95	5.75
*25H50	50	1/8"	1/2 lb.	7.36*	5.75
26H	30	3/16"	1/2 lb.	6.02	5.79
26H35	35	3/16"	1/2 lb.	6.02	5.79
*26H50	50	3/16"	1/2 lb.	7.47*	5.79
24H	50	1/4"	1/2 lb.	7.84*	5.91
24H40	40	1/4"	1/2 lb.	7.84*	5.91
*24H60	60	1/4"	1/2 lb.	7.84*	5.91



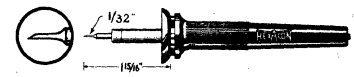
Weighs only 5 oz.

**30H	60	1/4"	7/8 lb.	6.51	6.19
**30H40	40	1/4"	7/8 lb.	6.51	6.19
**30H50	50	1/4"	7/8 lb.	6.51	6.19
**30H70	70	1/4"	7/8 lb.	6.51	6.19
**30H75	75	1/4"	7/8 lb.	6.51	6.19

**Extra 1/8" tip furnished with each iron.

*STANDARD EQUIPMENT **DUROTHERM** NON-STICKING LONG-LIFE TIPS.

HEXACON HORNET Model H10



World's Smallest Industrial Soldering Iron for Micro-Electronic Soldering

Cat. No. H10K Kit
(H10 Iron, 2 Tips and Sponge†).....**Net $6.93**
Cat. No. H11K Kit
(H11 Iron, 2 Tips and Sponge†).....**Net $6.93**
Cat. No. H14K Kit
(H14 Iron, 2 Tips and Sponge†).....**Net $6.93**
†Tip Cleaning Sponge in Container

Cat. No. H10 Iron less tip, 12 Watts.....**Net $5.25**
Cat. No. H11 Iron Less tip, 17 Watts.....**Net $5.25**
Cat. No. H14 Iron less tip, 20 Watts.....**Net $5.25**
Iron with 3-wire cord and Nema plug available

Cat. No. 91 Package of 12 tip cleaning sponges in container.....**Net $2.10**

- Smallest Iron — Only 5 7/8"
- Lowest Wattage — 12 Watts
- Hot tip Gets In and Out Fast
- No Damage to Insulation
- Lightweight • Cool Handle‡

DUROTHERM NON-FREEZING TIP — 1/32" and 1/16' diameters

XTRADUR LONG-LIFE TIPS — 1/8"diameter

‡Plastic handle, cooled thru ventilated design and stainless steel mirror, reflects heat away from hand.

PINPOINT SOLDERING IRONS

FOR PINPOINT ACCURACY
ON PRECISION SOLDERING
Long Reach 4 1/2" (Weigh Only 3 oz.)

Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
P25	25	1/8"	1/2 lb.	4.90	4.70
P2530	30	1/8"	1/2 lb.	4.90	4.70
P2535	35	1/8"	1/2 lb.	4.90	4.70
*P2550	50	1/8"	1/2 lb.	6.31*	4.70
P26	30	3/16"	1/2 lb.	4.97	4.74
P2635	35	3/16"	1/2 lb.	4.97	4.74
P2640	40	3/16"	1/2 lb.	6.42*	4.74
*P2650	50	3/16"	1/2 lb.	6.42*	4.74
*P24	50	1/4"	1/2 lb.	7.21*	5.28
*P2440	40	1/4"	1/2 lb.	7.21*	5.28
*P2460	60	1/4"	1/2 lb.	7.21*	5.28
**P30	60	1/4"	7/8 lb.	5.95	5.63
**P3040	40	1/4"	7/8 lb.	5.95	5.63
**P3050	50	1/4"	7/8 lb.	5.95	5.63
**P3070	70	1/4"	7/8 lb.	5.95	5.63
**P3075	75	1/4"	7/8 lb.	5.95	5.63

**Extra 1/8" tip furnished with each iron.

*STANDARD EQUIPMENT **DUROTHERM** NON-STICKING LONG-LIFE TIPS.

STANT LDER GUNS

ders in seconds. Weight only 8 oz.
etime tip, cannot bend or wear. Ideal intermittent soldering. 120 volts, AC-DC.

del G14 150 watts has 1/4" tip.**$5.70 Net**
del G148 150 watts has 1/8" tip.**$5.70 Net**
del 614K Kit has Model G14 solder gun cutting tip, smoothing tip, core solder, sandpaper. **$6.43 Net**

CORD AND CORD SETS

2 WIRE 18 GAUGE, 2 CONDUCTOR 18/2

Cord Assembled to Iron Cat. No.	Extra Net	Cord and Plug Only Cat. No.	Net
*SP2S	No	SP2S	.98
**PN2S	Extra	PN2S	.98
SJ2S	Charge	SJ2S	.98
HD2S	.46	HD2S	1.33
KSJ2S	2.10	KSJ2S	2.80
KSV2S	2.10	KSV2S	2.80
KPN2S	.84	KPN2S	1.54

3 WIRE 18 GAUGE, 3 CONDUCTOR 18/3

Cord Assembled to Iron Cat. No.	Net	Cord and Plug Only Cat. No.	Net
*SP3N	.98	SP3N	1.68
SP3C	.98	SP3C	1.68
**SJ3N	.98	SJ3N	1.68
SJ3C	.98	SJ3C	1.68
HD3N	1.05	HD3N	1.75
HD3C	1.05	HD3C	1.75
KSJ3N	2.94	KSJ3N	3.64
KSV3N	2.94	KSV3N	3.64

*Standard on INSTRUMENT IRONS **Standard on LARGE IRONS

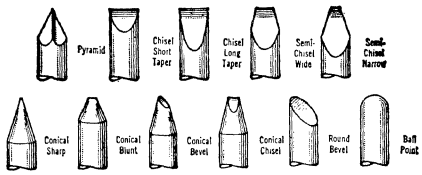
HEXACON ELECTRIC COMPANY • ROSELLE PARK, N. J.

© U.C.P., Inc.

HEXACON LONG-LIFE SOLDERING TIPS
OUTLAST COPPER TIPS UP TO 20 TO 1

DUROTHERM NON-FREEZING TIPS: Iron coated and immunized. Absolutely prevents tips from sticking. Minimum loss of heat delivery.

Note: Also available; XTRADUR Iron-coated Pretinned Tips. Multi-coated for extra long wear which immunizes shank of tip from solder, thus preventing adhering of solder, except on working surface of tip — prevents creeping and spilling of solder.

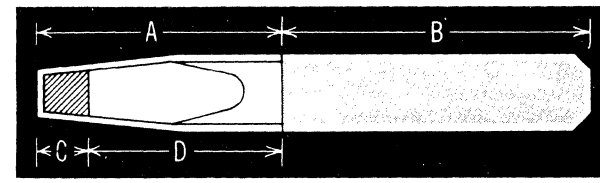


BASIC TIP SHAPES

YOUR SPECIAL TIPS QUOTED ON REQUEST
FIT ALL MAKES

CONSTRUCTION OF DUROTHERM NON-FREEZING TIP — U.S. Pat. No. 3,109,231

A — Heavy Iron Coating
B — Scale-Resistant **DUROTHERM COATING** Bonded to Base Copper
C — Pretinned Section
D — Multi-coated and immunized



LONGEST WEARING AND BEST PERFORMING TIP EVER PRODUCED

HEXCLAD, XTRADUR AND DUROTHERM TIPS AVAILABLE IN ALL CATALOG NUMBERS LISTED BELOW

Tip No.	Style of Point	Net Price
1/8" x 2 1/4" Fit Iron Nos. 25S, P25, 25H		
Tip No.	**Style of Point**	**Net Price**
HT248D	Pyramid	$1.61
HT249D	Chisel, short	1.61
HT376D	Chisel, long	1.61
HT560D	Semi-chisel	1.61
HT222D	Conical, blunt	1.61
HT331D	Conical, sharp	1.61
HT638D	Round,bevel	1.61
HT361D	Chisel, TT 1/16"	2.00
HT693D	R. B., TT 1/16"	2.00
HT104D	R. B., TT 1/32"	2.00
HT609	Chisel, long	1.61
HT610	Semi-chisel	1.61
3/16" x 2 1/4" Fit Iron Nos. 26S, P26, 26H		
HT251D	Pyramid	1.68
HT294D	Chisel, short	1.68
HT195D	Chisel, long	1.68
HT207D	Semi-chisel,N	1.68
HT190D	Semi-chisel, W	1.68
HT214D	Conical, blunt	1.68
HT281D	Conical, sharp	1.68
HT288D	Pryramid, TT 1/8"	1.79
HT290D	Chisel, TT 1/8"	1.79
HT548D	S-Chisel, N, TT 1/8"	1.79
HT479D	Conical TT 1/8"	1.79
HT220D	R.B., TT 1/16"	2.07
HT392D	Chisel, long	1.68
HT423D	Semi-chisel	1.68
1/4" x 2 1/4" Fit Iron Nos. 24S, P24, 24H		
HT325D	Pyramid	1.93
HT553D	Chisel, short	1.93
HT313D	Semi-chisel, W	1.93
HT397D	Semi-chisel, M	1.93
HT417D	Semi-chisel, N	1.93
HT418D	Conical, blunt	1.93
HT102D	Round, bevel	1.93
HT586D	Conical, S-chisel	2.00
HT691D	Chisel, TT 1/16"	2.17
HT699D	S-chisel, Lg. TT 1/8"	2.00
HT451D	Chisel, L, TT 1/8"	2.00
HT324D	Chisel, S, TT 1/8"	2.00
HT513D	Conical, TT 1/8"	2.00
HT463D	Chisel, L, TT 3/16"	2.00
HT841D	S-chisel, N, TT 1/8"	2.00
HT692D	Chisel, L, TT 1/8"	2.17
HT552D	S-chisel, 3/8" Shank	2.42
1/4" x 2 3/4" Fit Iron Nos. P30, 30H		
HT252D	Pyramid	1.93
HT253D	Chisel, short	1.93
HT202D	S-chisel, Wide	1.93
HT426D	S-chisel, N	1.93
HT131D	Conical, sharp	1.93
HT263D	Pyramid, TT 1/8"	2.00
HT264D	Chisel, Sh, TT 1/8"	2.00
HT356D	Chisel, M, TT 1/8"	2.00
HT685D	Chisel, Lg, TT 1/8"	2.00
HT452D	Conical, TT 1/8"	2.00
HT580D	Conical, TT 3/16"	2.00
HT473D	Chisel, TT 3/16"	2.00
HT130D	Round,bevel	1.93
1/4" x 3" Extra long for P30, 30H Also for competitive makes		
HT413D	Pyramid, long	1.68
HT468D	Chisel, long	1.93
HT299D	Semi-chisel, W	1.93
HT328D	Semi-chisel, N	2.00
HT708D	S-chisel, N, Lg	2.00
HT453D	Conical, bevel	2.00
HT234D	Chisel, Lg, TT 5/32"	2.00
HT487D	Chisel, Lg, TT 1/8"	2.00
HT519D	Chisel, Lg, TT 1/8"	2.00
HT362D	Conical groove	2.21
1/4" x 3 3/4" Extra long for P30, 30H Also for competitive makes		
HT563D	Pyramid, long	1.93
HT188D	Chisel, long	1.93
HT382D	Semi-chisel, W	1.93
HT626D	Pyramid, TT 1/8"	2.00
HT698D	S-chisel, TT 1/8"	2.00
HT603D	Chisel, Lg, TT 1/8"	2.00
HT391D	Semi-chisel, N	2.00
HT277D	Chisel, Lg, TT 3/16"	2.00
1/4" x 4" Fit Irons P114, P154, P214		
HT496D	Chisel, long	2.14
HT494D	Semi-chisel, N	2.14
HT495D	Chisel, Lg, TT 3/16"	2.24
1/4" x 4 1/2" Fit Irons P114, P154, P214		
HT258D	Pyramid	2.21
HT259D	Chisel, short	2.21
HT230D	Semi-chisel, W	2.21
HT460D	Conical, bevel	2.31
3/8" x 4 5/16" Fit Iron Nos. P100, P150, P238, P338, 100H, 150H		
HT255D	Pyramid	2.07
HT493D	Chisel, short	2.07
HT151D	Semi-chisel, W	2.07
HT183D	Semi-chisel, N	2.07
HT108D	Conical,sharp	2.07
HT114D	Conical, blunt, Sm	2.07
HT240D	Conical, blunt M	2.07
HT374D	Semi-chisel, W	2.07
HT265D	Pyramid, TT 1/4"	2.42
HT266D	Chisel, Sh, TT 1/4"	2.42
HT335D	Chisel, Lg, TT 1/4"	2.42
HT177D	S-chisel, W, TT 1/4"	2.42
HT577D	S-chisel, N, TT 1/4"	2.42
HT145D	Chisel, Sh, TT 3/16"	2.42
HT475D	S-chisel, N, TT 3/16"	2.42
HT289D	Pyramid, TT 1/8"	2.42
HT528D	S-chisel,bent	2.42
3/8" x 4" Fit Iron Nos. P100, P150, P238, 100H, 150H; Extra long for P70, 70H; Also other makes		
HT566D	Pyramid	2.07
HT198D	Chisel, short	2.07
HT918D	S-chisel, Sh, M	2.07
HT365D	Semi-chisel, thin	2.07
HT370D	S-chisel, Lg, N	2.42
HT140D	Semi-chisel, W	2.07
HT430D	Round,bevel	2.07
HT319D	S-chisel, N, TT 1/4"	2.42
HT481D	Chisel, N, Sh, TT 1/8"	2.42
3/8" x 3 3/4" Fit Iron Nos. P70, 70H; Also fit other makes		
HT254D	Pyramid	2.07
HT488D	Chisel, short	2.07
HT129D	Semi-chisel, W	2.07
HT510D	Conical, sharp	2.07
HT309D	Conical, blunt	2.07
HT464D	Conical, chisel	2.21
HT339D	S-chisel, N, TT 1/4"	2.42
HT581D	Chisel, Sh, TT 1/4"	2.42
HT498D	Chisel, Lg, TT 1/4"	2.42
HT291D	S-chisel, W, TT 1/4"	2.42
HT497D	Chisel, Lg, TT 3/16"	2.42
1/2" x 4 1/8" Fit Iron Nos. P151, 151H, P212		
HT257D	Pyramid	3.26
HT293D	Chisel, short	3.26
HT323D	Chisel, short, blunt	3.26
HT163D	S-chisel, N	3.26
HT194D	Semi-chisel, thin	3.40
HT444D	S-chisel, Lg, Taper	3.50
HT203D	Conical, blunt	3.26
HT446D	S-chisel, Lg, Taper	3.50
HT123D	S-chisel, N, TT 3/8"	3.50
5/8" x 4" Fit Iron Nos. P125, P200, 200H, P250		
HT256D	Pyramid	3.43
HT891D	Chisel, long	3.43
HT178D	Semi-chisel, W	3.43
5/8" x 4 5/16" Fit Iron Nos.		
HT260D	Pyramid	3.43
HT499D	Chisel, long	3.43
HT371D	Semi-chisel, N	3.57
HT180D	Semi-chisel	3.43
HT802D	S-chisel, TT 3/8"	3.71
HT766D	Shisel, TT 1/16"	3.71
HT539D	Pyramid, 3/8"	3.71
7/8" x 4 3/4" Fit Iron Nos. P300, 300H		
HT261D	Chisel, short	5.53
HT179D	Semi-chisel, W	5.32
1 1/8" x 5 1/4" Fits No. 500		
HT262X	Chisel	7.74
HT229X	Semi-chisel	7.74
HT233X	Pyramid	7.74

SCREW TIPS

All Conventional Semi-chisel Types

Tip No.	Dia.	Thread	Fits All Makes Iron No.	Net	Net
HT267X	7/16"	1/4-20	50	1.82	1.40
HT263X	1/2"	5/16-18	60 and 85	2.35	1.96
HT269X	5/8"	3/4-18	120	2.94	2.56
HT271X	1"	1/2-13	170	4.87	4.45
HT270X	7/8"	1/2-13	130	4.27	3.89
HT272X	1 1/8"	5/8-11	225	6.48	6.09
HT273X	1 3/8"	5/8-11	350	9.10	8.75
HT274X	1 5/8"	5/8-11	500	12.29	11.90
HT275X	1 3/4"	5/8-11	700	14.60	14.00

HORNET TIPS

TIPS FOR IRONS Nos. H10 and H11

No.	Dia.	Duotherm Net	Xtradur Net
HT866D	1/32"	.84	
HT867D	1/32"	.84	
HT868D	1/16"	.84	
HT869D	1/16"	.84	
HT864X	1/8"		.63
HT870X	1/8"		.63
HT871X	1/8"		.63
HT873X	1/8"		.63

TIPS FOR IRON No. H14

No.	Dia.	Xtradur Net
HT654X	1/8"	.84
HT655X	1/8"	.84
HT656X	3/16"	.63
HT657X	3/16"	.63
HT658X	1/8"	.84
HT659X	1/8"	.63

CATALOG NOS. shown are for DUROTHERM. For HEXCLAD drop 'D"; cost approximately 30% less than DUROTHERM. For XTRADUR substitute "X' for "D"; cost approximately 10% less than DUROTHERM.

ABBREVIATIONS: TT, Turned to; S-chis, Semi-chisel; W. Wide; N, Narrow; Lg, Long; Sh, Short; L, Large; M, Medium; Sm, Small; RB, Round Bevel

SAMPLE TIPS for your evaluation. Ask for new Tip Sketch Catalog with detailed sketches of 180 Standard Coated Tips.

SOLDERING ACCESSORIES

HEAT SINKS — Copper Tipped Clips

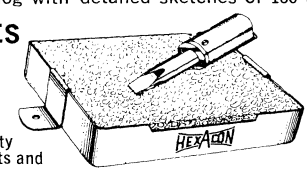
Net Price $.53
No. 34A
1 1/8" Long

Net Price $1.40
No. 60A 2 1/2" long

Net Price $1.40
No. 30A 1 1/2" long

Protect heat sensitive components such as transistors and diodes from thermal damage.

TIP CLEANING SPONGE IN METAL TRAY



Insures reliability of soldered joints and extends tip life. Eliminates contamination. Pure cellulose sponge contains no harmful acids.

PRICES

Sponge in Metal Tray	#810.....	$1.05 Net
Sponge only	#8101....	.39 Net
Tray only	#8102....	.67 Net

ANTI-WICKING TWEEZERS Solid Berillium Copper

Cat. No.	Gauge	Net Price	Cat. No.	Gauge	Net Price
817	16-18	$5.25	820N	20*	$5.25
821	20-22	5.25	822N	22*	5.25
825	24-26	5.25	824N	24*	5.25
830	28-30	5.25	826N	26*	5.25

Prevents harmful effects of excess capillary action of solder along stranded wire beneath insulation. Order tool number by wire size being used.

*"N" Type Tweezers are made for one gauge wire only (not for a range of sizes). Therefore give better fit on wire for greater efficiency. Shorter tip hole provides for close inspection gap on precision soldering such as called for in current NASA specifications.

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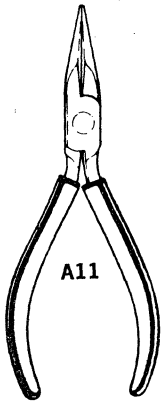
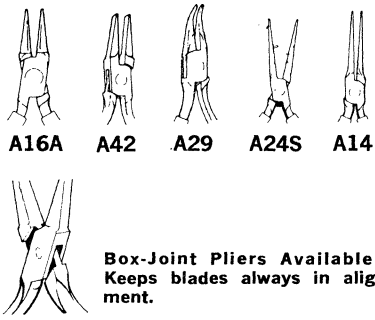
HUNTER TOOLS ...the name to watch

America's most diversified

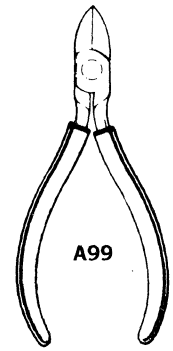
PLIERS


A11


A16A A42 A29 A24S A14

Box-Joint Pliers Available— Keeps blades always in alignment.

CUTTERS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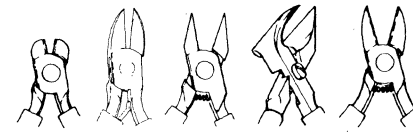
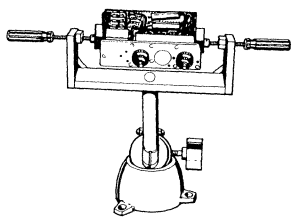

A85 A98L A95S A46 A97S

Box-Joint Cutters Available— Stop play in joints, feather touch opening and closing.

Special "Anti-Shock" cutters made to order.

WORK POSITIONERS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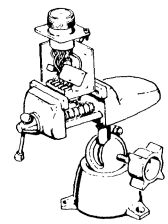
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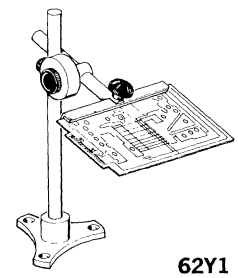
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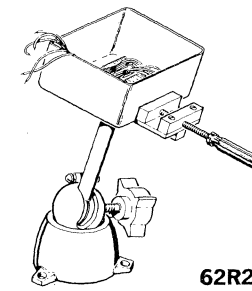
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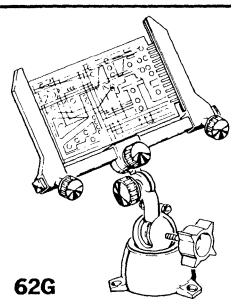
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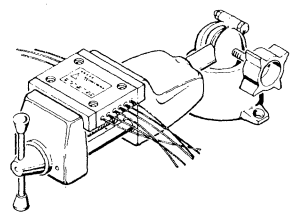
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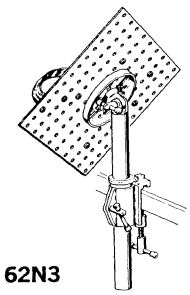
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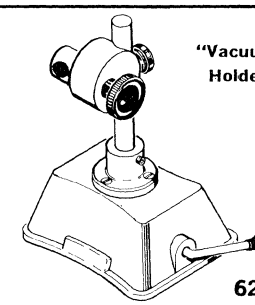
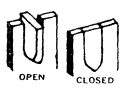
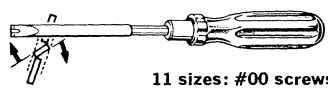

"Vacuum Holder"
62A2

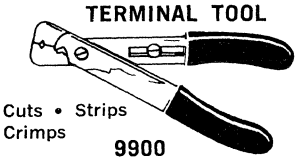
Magic-Tip SCREWHOLDING SCREWDRIVER





11 sizes: #00 screws to #10; 2½" length to 11¼"

TERMINAL TOOL



Cuts • Strips
Crimps

9900

SOLDERING AIDS

51

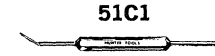
51A

51B

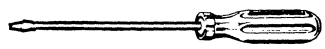
51C

MICRO MODELS

51C1


51C2

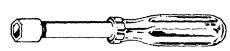
Dura-Tip SCREWDRIVER



40 models: 2" blades up to 10", square blades available

NUT DRIVERS

Sizes down to #00.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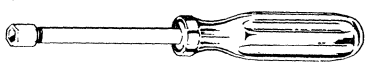
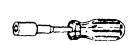
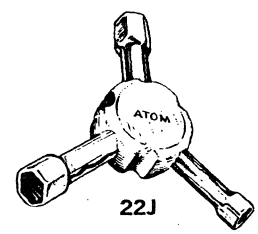

20B


24G

ATOM 3-IN-1 NUT DRIVER



22J

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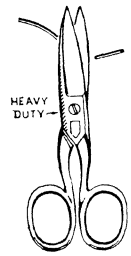
line of electronic tools!

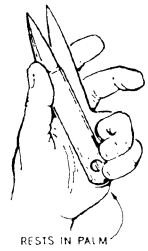
HUNTER TOOLS — the name to watch

SCISSORS



F15

SNIPPERS



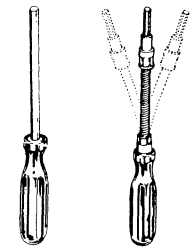
F213

"SMITTY"

Hex Socket Key Set

1P5
7 Models

HEX DRIVERS

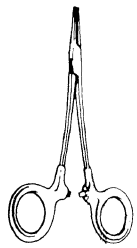


5G, 5T
From 1/16" to 5/32"

CIRCUITRACER

54
5 Models

SCISSOR-CLAMP

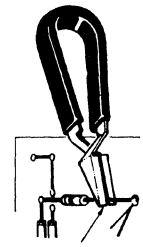


F35

TRI-TAP

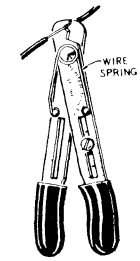
47
5 combinations

HEAT SINK



51E
6 Models

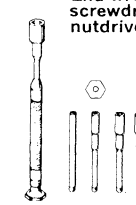
WIRE STRIPPER



55BB
4 Models

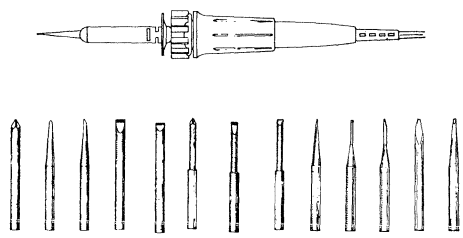
SUB-MINIATURE KITS

End wrenches, screwdrivers, nutdrivers



K24R

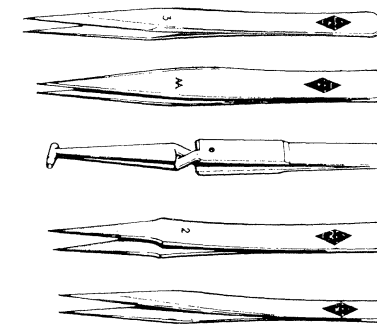
SOLDERING IRONS AND TIPS



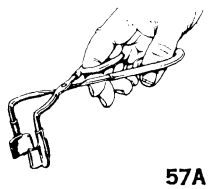
ALL PURPOSE KNIFE

E20D
4 Models

TWEEZERS 100 Models



HOT TUBE PULLERS

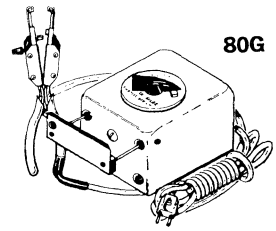


57A

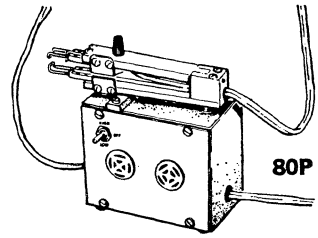
TENSION TWEEZIE

56A

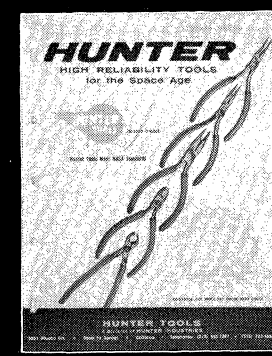
THERMAL WIRE STRIPPERS



80G



80P



Send for our complete tool catalog!

HUNTER TOOLS
Santa Fe Springs, California

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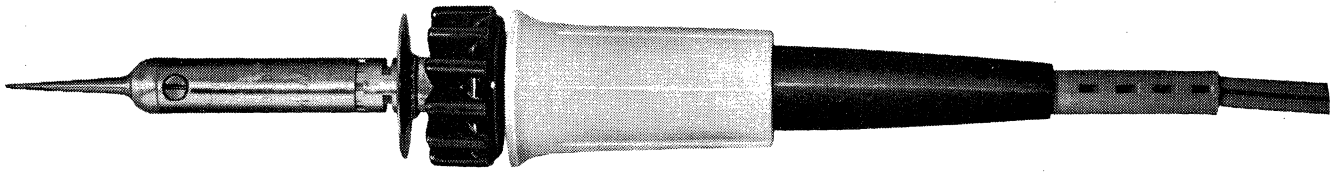
Featherlite SOLDERING PENCILS AND HEAVY-DUTY IRONS

kwikheat

"KWIKIE" TYPE 4000



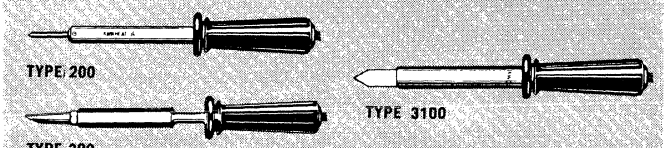
PENCIL IRONS *(Non-thermostatic)*
7 STANDARD TEMPERATURES AVAILABLE

This newest Kwikie provides unexcelled efficiency and economy with its interchangeable plug-in tips, and unparalleled versatility with its standard irons in wattages and temperatures ranging from 10 watts (450°F) through 50 watts (1000°F). This selection permits easy standardization as well as precise temperatures for exacting production requirements without added cost of transformers.

Small, (7") lightweight (1¾ oz.) and finely balanced, the new models are provided with a comfortably sized, extra-cool grip of rugged plastic, allowing their use in minimum contamination work areas (no cork). Though designed for prolonged high production precision soldering of miniature components, the Kwikie is small enough for safe fast work in densely packed circuitry with power in reserve. Engineered to melt more solder by comparison with other interchangeable tip type irons of comparable wattage.

All models available with 3 conductor safety-grounded 6' cord sets and irons in 3 smart colors . . . green, white, and black. All irons and temperatures rate at 115V.

DEPENDABLE PRODUCTION IRONS



TYPES 200 and 300-THERMOSTATIC MODELS
(Vanatta Automatic Thermostat)
Lightweight and heavy duty irons for high-speed work. Dependable and rugged. Interchangeable tips are easily replaced. Preset to 700°F for intermittent standby or to 800°F for constant high-speed soldering. Can be preset from 275° to 875° for additional charge of $1.00 each for 1 to 49 irons; 50¢ each for 50 to 99. No extra charge for 100 or more. Temperature creep reduced by the use of special alloys.

TYPE 3100-TEMPERATURE CONTROLLED MODEL
Rugged, lightweight, and economical general purpose iron for continuous or intermittent soldering. One-piece shell and heating element attached to air-cooled plastic handle by 2 screws for rapid replacement. Temperature allows wattage increase as demand increases. Forged tellurium copper core. Screw type tips easily changed or replaced.

SPECIFICATIONS

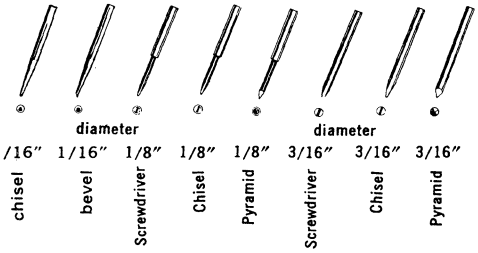
	Model 200	Model 300	Model 3100	Model 4100	Model 4150	Model 4200	Model 4250	Model 4350	Model 4400	Model 4500
Wattage	150	225	225-75	10	15	20	25	35	40	50
Voltage	115-230 AC	115-230 AC	115 AC-DC	100-125 AC-DC	100-125 AC-DC	100-125 AC-DC	100-125 AC-DC	100-125 AC-DC	100-125 AC-DC	100-125 AC-DC
Tip Temperature (Max.)	875°F.	875°F.	850°F.	450°F.	550°F.	650°F.	750°F.	850°F.	950°F.	1000°F.
Heating Time (Max.)	90 sec.	90 sec.	100 sec.	70 sec.	70 sec.	70 sec.	70 sec.	60 sec.	50 sec	60 sec.
Weight (with tip)	7½ oz.	14 oz.	8 oz.	1¾ oz.	1¾ oz.	1¾ oz.	1¾ oz.	1¾ oz.	1¾ oz.	2¼ oz.
Length (with tip)	12¾"	13"	12¾"	7"	7"	7"	7"	7"	7"	7"
Ship. Weight	1 lb. 2 oz.	1½ lbs.	1½ lbs.	6 oz.	6 oz.	6 oz.	6 oz.	6 oz.	6 oz.	6 oz.
Heater Cord Length	6 ft.	6 ft.	6 ft.	6 ft.	6 ft.	6 ft.	6 ft.	6 ft.	6 ft.	6 ft.

NEW KWIKIE FEATURE

Kwikie pencil irons now have a Kwik-Disconnect element which provides complete interchangeability and assures positive electrical contact. Cord/handle assemblies can now be readily converted to 2 or 3 conductor cords, and any one of the 7 different heating elements can be quickly changed to handle new jobs.

Interchangeable copper (C), iron clad (K), and iron clad immunized (K-I) tips available for all Kwikie irons.

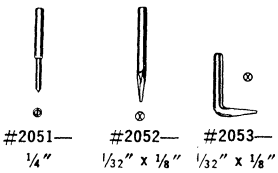
Kwikie INTERCHANGEABLE TIPS



		diameter			diameter		
1/16"	1/16"	1/8"	1/8"	1/8"	3/16"	3/16"	3/16"
chisel	bevel	Screwdriver	Chisel	Pyramid	Screwdriver	Chisel	Pyramid

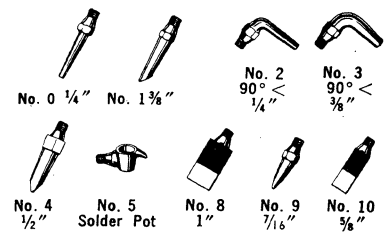
All tips available with 30°, 60° or 90° bends
Space limits illustrations of all tip styles

TYPE 200 TIPS



#2051— 1/4"
#2052— 1/32" x 1/8"
#2053— 1/32" x 1/8" 90° <

TYPE 300 AND TYPE 3100 INTERCHANGEABLE SCREW TIPS



No. 0 1/4" | No. 1 3/8" | No. 2 90° < 1/4" | No. 3 90° < 3/8"
No. 4 1/2" | No. 5 Solder Pot | No. 8 1" | No. 9 7/16" | No. 10 3/8"

#20 ANTIFREEZE COMPOUND
A lubricant for all soldering iron tips. Prevents sticking, increases conductivity between tip and core.

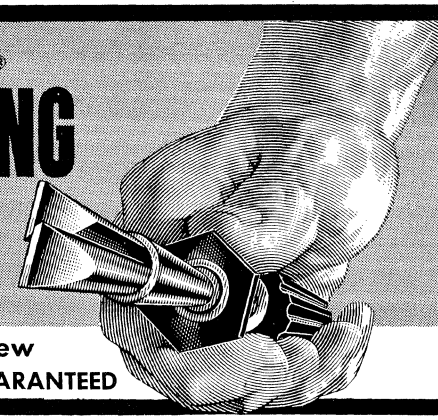
K-Lube
New space-age formula, high temperature lubricant for all pencil iron tips, set screws and threaded tips.

Represented by **HUNTER INDUSTRIES**
Santa Fe Springs, California

© U.C.P., Inc.

Quick-Wedge® SCREW-HOLDING Screwdrivers

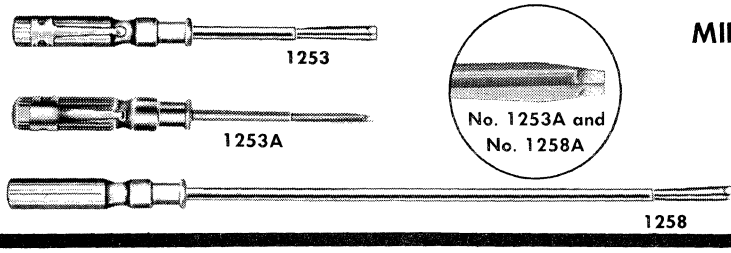
14 Different Sizes Handle Every Screwdriving Job!



Hold - Start - Drive the Screw
AND THEY'RE UNCONDITIONALLY GUARANTEED

- One screwdriver drives many sizes of screws
- Shockproof, unbreakable Tenite II handle
- Hollow-ground bit fits any slotted screw
- Use instead of conventional screwdriver
- Tough, durable spring steel blades. Positively will not mar screw slot
- Fast, positive action — easy to use
- No pressure wedge to wear out
- Foolproof construction.

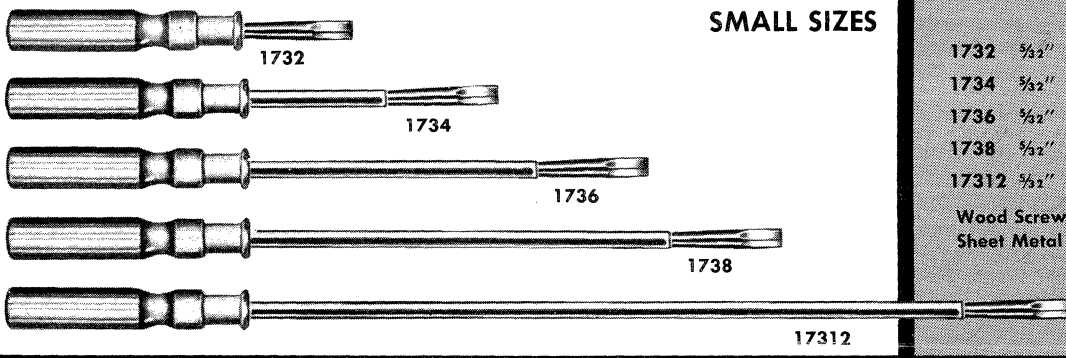
MIDGET SIZES



NO.	DIAM.	BLADE WT. LBS. PER DOZ.	DOZ.	EACH
1253	1/8"	9 oz.	$15.00	$1.25
1253A	1/8"	9 oz.	16.80	1.40
1258	1/8"	15 oz.	18.00	1.50
1258A	1/8"	15 oz.	20.00	1.65

Wood Screws, Bolts—No. 0 to No. 4
Sheet Metal Screws—No. 2 to No. 4

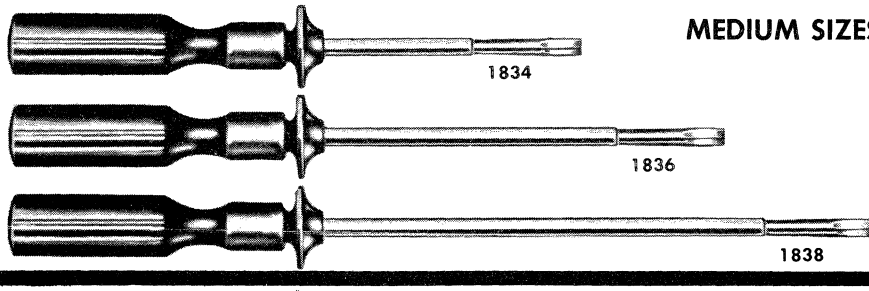
SMALL SIZES



1732	5/32"	1	$14.40	$1.20
1734	5/32"	1¼	15.00	1.25
1736	5/32"	1½	15.60	1.30
1738	5/32"	1¾	16.20	1.35
17312	5/32"	2	18.00	1.50

Wood Screws, Bolts—No. 3 to No. 7
Sheet Metal Screws—No. 3 to No. 6

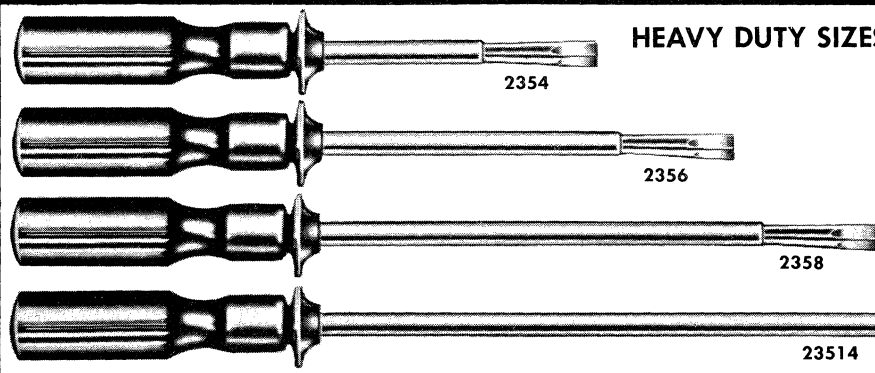
MEDIUM SIZES



1834	3/16"	2	$20.40	$1.70
1836	3/16"	2¼	21.00	1.75
1838	3/16"	2½	21.60	1.80

Wood Screws, Bolts—No. 6 to No. 12
Sheet Metal Screws—No. 6 to No. 12

HEAVY DUTY SIZES



2354	¼"	2¾	$21.60	$1.80
2356	¼"	3¼	22.20	1.85
2358	¼"	3¾	22.80	1.90
23514	¼"	5	27.00	2.25

Wood Screws, Bolts—No. 8 to No. 24
Sheet Metal Screws—No. 8 to ⅜"

Prices Effective July 1, 1964

Quick-Wedge Reg. U.S. Pat. Off.

Blade length is indicated by last digit(s) of model number.
("17312" has a 12" blade — "23514" has a 14" blade)

ELECTRICAL SIZES

All but No. 1732 (above) available with shockproof, Vinyl covered tubing, 15¢ additional per screwdriver. Specify "E" after number.

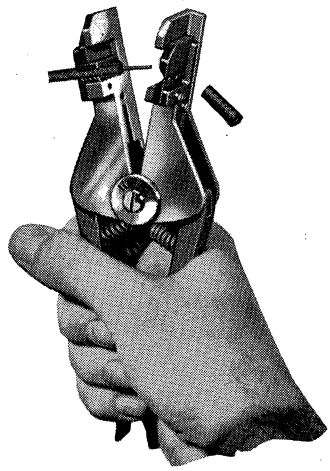
KEDMAN COMPANY • Salt Lake City, Utah

© U.C.P., Inc.

IDEAL Stripmaster®

2 SECOND "ONE SQUEEZE" OPERATION

Unexcelled for fast assembly work, this 10 oz. stripper can be used all day without fatigue. Exclusive "automatic" feature holds jaws open after stripping to permit removal of wire and to prevent crushing. No nicking, fraying, or cutting of wire ends possible. 7 models for all wire gauges from 8 to 30.



MODELS FOR ALL WIRE GAUGES — FROM 8 TO 30

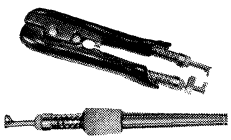
Catalog No.	Wire Gauge	No. of Holes	List Price◆	Suggested Resale
45-090	8 to 12	3	$9.60	$5.75
45-091	10 to 18	4	9.60	5.75
45-092	10 to 22	6	9.60	5.75
45-093	14 to 22	4	9.60	5.75
*45-095	16 or 18, SP & SPT Slot		9.60	5.75
45-097	16 to 26	6	9.60	5.75
45-098	20 to 30	6	9.60	5.75

***Also strips 2 and 3-conductor low-voltage wire used in G.E. and Touchplate remote control wiring systems.**

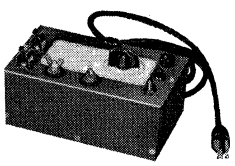
SWING-GRIP (TM) THERMAL STRIPPER

One squeeze automatically melts and removes all thermoplastic insulations — even Teflon — without nicking or scraping wires. Exclusive one-piece heating element melts insulation all the way around wire without twisting tool. Separate grippers remove insulation. Element doesn't scrape wire or drag-out insulation. Adjustable wire depth-stop. Replaceable heating elements for 30 to 12 AWG wire. Tool is furnished with 16 to 28 ga. element as standard. Use with 45-133, 45-135, or 45-136 Power Units.

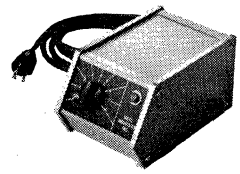
THERMO-STRIP (TM) THERMAL STRIPPERS



Choice of tools: plier-type Pincer Tool for normal production use; probe-type Single Loop Tool for miniaturized or crowded assemblies. For Pincer Tool, use 45-133 Power Unit only. For single Loop Tool, use 45-133, 45-135, or 45-136 Power Units.



Model 45-133



Model 45-134
Model 45-135

POWER UNITS

Model 45-133 operates on 115v, 60cy current. Has pilot light, thermal over-load protection, and infinitely variable heat control.

Model 45-135 operates on 115v, 60cy current; and Model 45-136 on 230v, 50-60cy current. Both have an 8-step temperature control, pilot light, and thermal over-load protector.

Cat. No.	Item	List Price	Sugg. Resale
45-133	Power Unit, 115v (for 45-140, 45-141, 45-143)	$75.75	$45.45
45-135	Power Unit, 115v (for 45-141, 45-143)	58.35	35.00
45-136	Power Unit, 230v (for 45-141, 45-143)	72.50	43.50
45-140	Pincer Tool only	36.15	21.70
45-141	Single Loop Tool only	17.50	10.50
45-143	Swing-Grip Tool only	36.15	21.70

IDEAL WIRE STRIPPERS

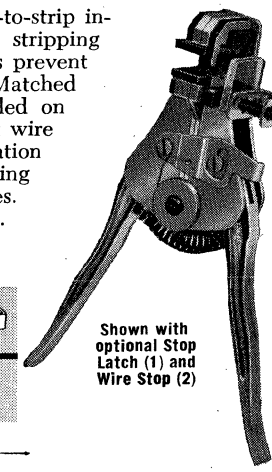
FOR ALL TYPES OF THERMO-PLASTIC INSULATIONS . . . EVEN TOUGH TEFLONS*

IDEAL CUSTOM Stripmaster®

Patented No. 2,889,728

FOR PRECISION WIRE STRIPPING

Removes Teflon* and other hard-to-strip insulation. New "concentric hole" stripping blades and special design of jaws prevent damage to insulation and wires. Matched sets of blades are precision drilled on watchmaker's equipment to exact wire sizes. Chucking action on insulation guides conductor through stripping hole, preventing nicks and scrapes. 3 models, wire sizes from 10 to 30.

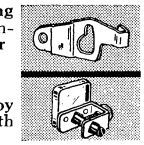


Shown with optional Stop Latch (1) and Wire Stop (2)

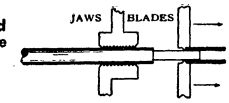
EXTRA FEATURES (optional)

"SHORT-STOP" LATCH protects wire by limiting stroke to 5/32" — disengages without removal for full 7/8" strip.

"SEE-THRU" WIRE STOP assures uniform lengths by adjusting to strip length desired.



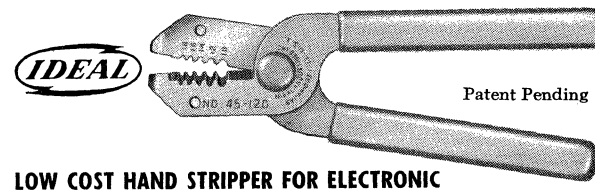
Counterbored stripping hole "chucks" insulation



FOR GENERAL PURPOSE STRIPPING OF PLASTIC, FIBRE GLASS AND OTHER HARD-TO-STRIP INSULATIONS

WIRE GAUGE	NO. OF HOLES	CATALOG NO. (without stop latch and wire-stop)	CATALOG NO. (with stop latch and wire-stop)
		List $28.25 Suggested Resale $16.95	List $34.60 Suggested Resale $20.75
10 to 14	3	45-170	45-180
16 to 26	6	45-171	45-181
26 to 30	3	45-172	45-182
FOR TYPE EE — 1000 VOLT TEFLON* WIRE			
10 to 14	3	45-173	45-183
16 to 26	6	45-174	45-184
26 to 30	3	45-175	45-185
FOR TYPE E — 600 VOLT TEFLON* WIRE			
10 to 14	3	45-176	45-186
16 to 26	6	45-177	45-187
26 to 30	3	45-178	45-188

*Reg. Trademark of DuPont



Patent Pending

LOW COST HAND STRIPPER FOR ELECTRONIC AND APPLIANCE PRODUCTION STRIPPING

For quick, easy, clean stripping of wires used in electronic instruments and appliances. Sturdy, compact, constructed of hardened steel for rugged duty and long service. Comfortable plastic grips for sure handling and safety.

	Cat. No.	List	Sugg. Resale
T-5 MODEL, strips 10, 12, 14, 16 and 18 gauge wires	45-120	$3.25	$1.95
T-6 MODEL, strips 16, 18, 20, 22, 24 and 26 gauge wires	45-121	$3.25	$1.95

IDEAL INDUSTRIES Inc., Sycamore, Illinois

Trade Discount Applies To List Prices Only

© U.C.P., Inc.

RESISTANCE SOLDERING TOOLS

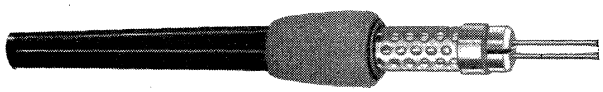
IDEAL

Because Ideal Thermo-Tip soldering equipment uses the resistance heat principle, you can get more work done faster and safer at lower cost and still achieve higher quality, stronger, more uniform joints. Cold flow is practically impossible. High amperage, low voltage current passes through and heats work only. Burning of nearby parts, or operators, never occurs because heat is concentrated at point of contact. No setup or pre-heating is necessary. Solder adheres instantly all around, making the strongest possible joint.

A wide range of Pencil-Grip attachments are available. You select from double or single metal or carbon electrode styles to fit your soldering needs. A perforated aluminum sleeve dissipates heats and provides exceptionally cool operation. Three different power units provide from 2 to 9 heat variations. All units come equipped with a 5-ft. power cord.

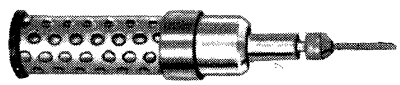
COMPLETE THERMO-TIP ATTACHMENTS AND POWER UNITS

DOUBLE METAL ATTACHMENTS



"Pencil" Type attachment with double metal electrodes. "Feed-thru" electrodes, adjustable for length.

Cat. No. 12-167 with double metal electrodes. List Price $18.35 ◆ Suggested Resale $11.00.



SINGLE METAL ATTACHMENT

Collet chuck holds feed-thru electrode. For smallest work. Complete with ground clamp and lead assembly for jig-soldering.

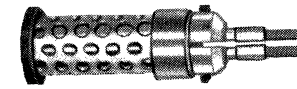
Cat. No. 12-169 Pencil Grip. List Price $18.35 ◆ Suggested Resale $11.00.

Cat. No. L-5241 Replacement Electrodes for **12-169,** packaged 6 per tube. Shipping wt., 2 oz. List Price $.90 ◆ Suggested Resale $.55.

FOOT SWITCH Cat. No. 12-146

List Price $11.90 ◆ Suggested Resale $7.15

Used to eliminate arcing at point of electrode contact. Also permits the use of electrodes to position or hold work after heat has been applied. Small and convenient to use (3⅝" dia. x 1⅛" high). Wired normally open (with series plug). Rated 5 amps., 115V. Shipping Wt., 12 oz.



DOUBLE CARBON ATTACHMENTS

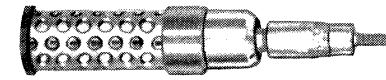
Carbons provide more heat than metal tips. Available in two sizes – 1/8" for small work, 3/16" for larger work.

Cat. No. 12-166 Pencil Grip with 1/8" carbons. List Price $18.35 ◆ Suggested Resale $11.00.

Cat. No. 12-165 Pencil Grip with 3/16" carbons. Lits Price $18.35 ◆ Suggested Resale $11.00.

Cat. No. L-4866 3/16" dia. replacement carbons for **12-165,** six per pkg. Shipping wt., 2 oz. List Price $2.10 ◆ Suggested Resale $1.25.

Cat. No. L-4848 1/8" dia. replacement carbons for **12-166,** six per pkg. Shipping wt., 2 oz. List Price $1.15 ◆ Suggested Resale $.70.



SINGLE CARBON ATTACHMENTS

Collet chuck holds feed-thru carbon. Permits adjustment. Complete with ground-clamp and lead assembly for jig-soldering.

Cat. No. 12-168 Pistol Grip. List Price $18.35 ◆ Suggested Resale $11.00.

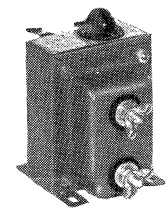
Cat. No. L-5202 Replacement Carbons 1/8"x3" for **12-168,** packaged 6 per tube. Shipping wt., 2 oz. List Price $3.90 ◆ Suggested Resale $2.35.

REPLACEMENT CARBON HOLDERS

Cat. No. L-5246 – 3/16" Dia. List Price $1.15 ◆ Suggested Resale $.70.

Cat. No. L-5247 – 1/8" Dia. List Price $.60 ◆ Suggested Resale $.35.

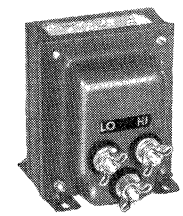
Provides easy replacement of only part attacked by corrosive fluxes. Holders can be used interchangeably with either the 12-165 or 12-166, depending on diameter of carbons desired.



POWER UNITS

125-Watt Power Unit. **Cat. No. 12-124**
List Price $31.85 ◆ Sug. Resale $19.10

For light production and intermittent work. Selector switch for choice of three heats. Complete with power cord and clip for holding pencil style attachments. 115V – 60 cy.



250-Watt Power Unit. **Cat. No. 12-123**
List Price $46.15 ◆ Sug. Resale $27.70

For heavier production work. Faster. Handles larger components than 12-124. Choice of two heats through "high" and "low" secondary connections. Complete wih power cord. 115V – 60 cy.

500-Watt Power Unit
Cat. No. 12-163
List Price $76.00
Suggested Resale $45.60

For continuous production work. Widest selection of heats – nine choices through 3-position selector switch plus "high", "medium" and "low" secondary terminals. Complete with power cord and pilot light. 115V – 60 cy.

IDEAL INDUSTRIES, Inc. Sycamore, Illinois

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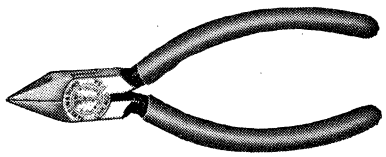
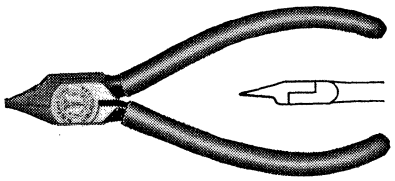
Mathias KLEIN & Sons
Established 1857 — Chicago, Ill., U.S.A.
CHICAGO 45, ILLINOIS
INCORPORATED

OBLIQUE CUTTING PLIER
Lightweight Pointed Nose
Flush Cutting



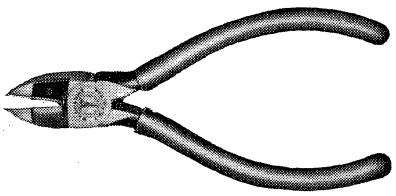
No. D209-4 Red plastisol handles — Size 4 3/16 in.
No. 209-5 — Size 5 in.
Available with coil spring

OBLIQUE CUTTING PLIER
Flush Cutting
Handles red plastisol covered



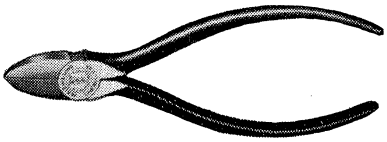
No. D219-4 — Size 4 3/16 in.
No. D219-5 — Size 5 in.
Available with coil spring

OBLIQUE SHEAR CUTTING PLIER
Pat. No. 2,848,810
Handles red plastisol covered



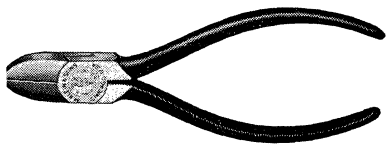
No. D207-5C — Size 5 1/2 in.
No. 077-K Replacement Blade
Supplied with coil spring

OBLIQUE CUTTING PLIER
Flush Cutting



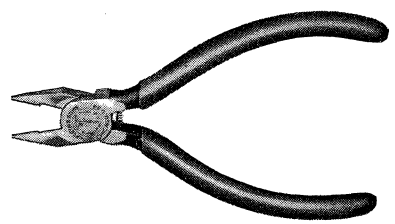
No. 210-5 — Size 5 1/2 in.
No. 210-6 — Size 6 1/16 in.
Available with coil spring

OBLIQUE CUTTING PLIER



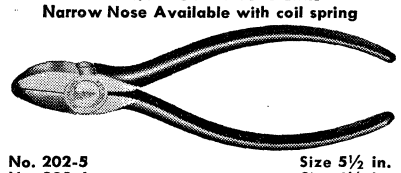
No. 245-5 — Size 5 in.
Available with coil spring

HIGH HARDNESS PLIER
For Cutting Nickel Ribbon Wire



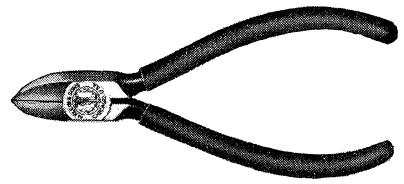
No. D230-4C — Size 4 in.
Cutting knives have Rockwell hardness C60. Supplied with coil spring. Handles red plastisol covered.

OBLIQUE CUTTING PLIER
Narrow Nose Available with coil spring



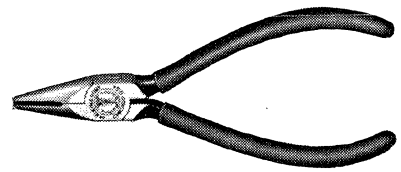
No. 202-5 — Size 5 1/2 in.
No. 202-6 — Size 6 1/16 in.

OBLIQUE CUTTING PLIER
Handles red plastisol covered



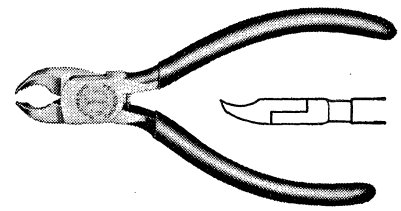
No. D257-4 — Size 4 3/16 in.
Available with coil spring

TRANSVERSE END CUTTING PLIER
Semi-Flush Cutting Handles green plastisol covered



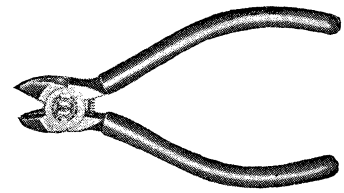
No. D224-4 1/2 — Size 4 3/8 in.
Available with coil spring

CUTTER FOR MINIATURE ASSEMBLIES



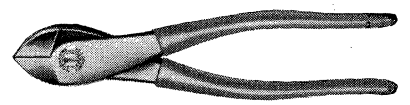
Combines desirable characteristics of End Cutter and Diagonal. High hardness blades. Handles yellow plastisol covered. Supplied with coil spring.
No. D263-4C — Size 4 in.
No. D263-5C — Size 5 in.

PRINTED CIRCUIT PLIER
Handles red plastisol covered



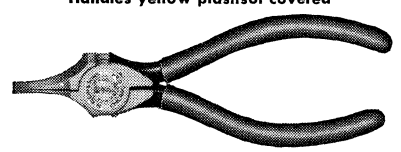
No. D052-C — Size 5 1/8 in.
Supplied with coil spring

HIGH LEVERAGE OBLIQUE CUTTING PLIER



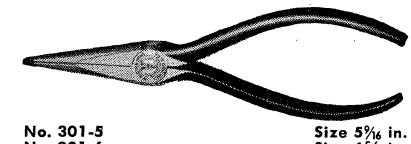
Handles red plastisol covered.
No. D228-8 — Size 8 in.

RELAY SPRING ADJUSTING PLIER
Inside jaws smooth
Handles yellow plastisol covered



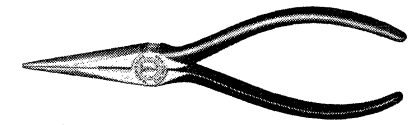
No. D325-5 — Size 5 1/16 in.

LONG NOSE PLIER



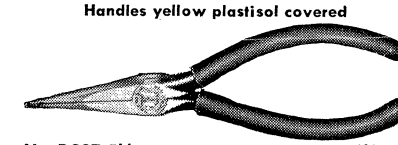
No. 301-5 — Size 5 1/16 in.
No. 301-6 — Size 6 3/8 in.
No. 301-7 — Size 7 1/8 in.
Available with coil spring

LONG NOSE SIDE CUTTING PLIER



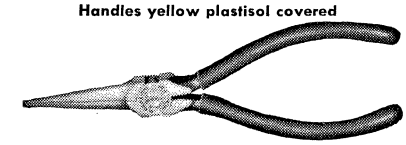
No. 203-5 — Size 5 1/16 in.
No. 203-6 — Size 6 3/8 in.
No. 203-7 — Size 7 1/8 in.
Available with coil spring

SLIM LONG NOSE PLIER
Handles yellow plastisol covered



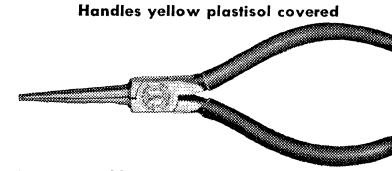
No. D307-5 1/2 — Size 5 13/16 in.
Available with coil spring
No. D221-5 1/2 C with side cutting knives (1/32" point) — Size 5 13/16 in.
Supplied with coil spring.
No. D327-5 1/2 C — Size 5 13/16 in.
Similar to D307-5 1/2 but inside jaws are smooth. Supplied with coil spring.

SLIM LONG NOSE PLIER
Handles yellow plastisol covered



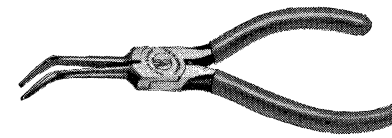
No. D310-6 — Size 6 3/8 in.
Available with coil spring

LONG NEEDLE NOSE PLIER
Handles yellow plastisol covered



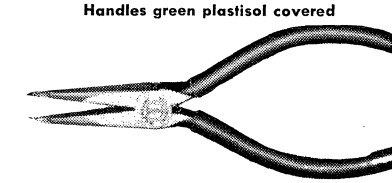
No. D318-5 1/2 — Size 5 25/32 in.
Available with coil spring
No. 328-5 1/2 C — Size 5 25/32 in.
Similar to D318-5 1/2 but jaws are smooth. Supplied with coil spring.

CURVED NEEDLE NOSE PLIER



No. D338-5 1/2 C — Size 5 1/2 in.
Similar to D318-5 1/2 but nose is curved. Supplied with coil spring.

END CUTTING TRIMMER PLIER
Handles green plastisol covered



Cutting edges at tip set at 45° angle.
Supplied with coil spring
No. D211-6C — Size 6 1/2 in.

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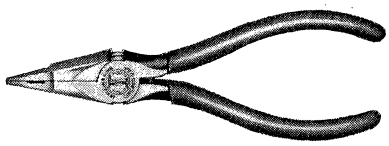
Mathias Established 1857 **KLEIN** & Sons Chicago, Ill., U.S.A. — CHICAGO 45, ILLINOIS

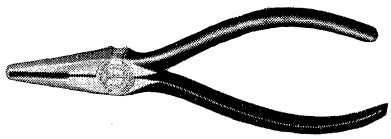
INCORPORATED

LONG NOSE PLIER, KNIFE AT POINT



No. D317-6PC — Size 6 in.
Similar to D301-6P but nose is slimmed down to permit reaching into confined spaces. Supplied with coil spring and yellow plastisol handles.

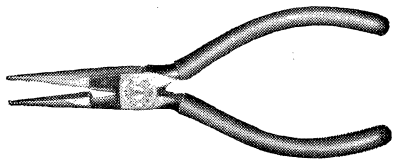
TRANSVERSE END CUTTING PLIER



No. 204-6 — Size 6¼ in.
Available with coil spring

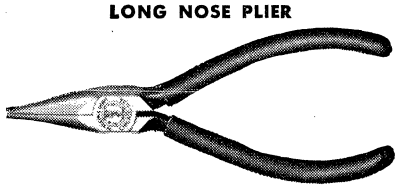
LONG NOSE SHEAR CUTTING PLIER

Pat. No. 2,848,810
Handles yellow plastisol covered



No. D208-6C — Size 6⅝ in.
078-K Replacement Blade
Supplied with coil spring

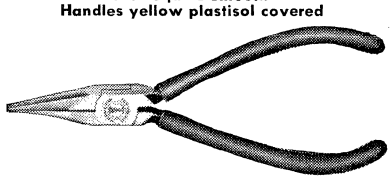
LONG NOSE PLIER



Yellow Plastisol Handles
No. D321-4½ — Size 4¾ in.
No. D322-4½ Without Knurl
Blue Plastisol Handles Size 4¾ in.
Available with coil spring

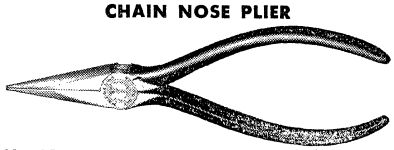
FLAT NOSE PLIER

Inside jaws smooth
Handles yellow plastisol covered



No. D323-4½ — Size 4¾ in.
Available with coil spring

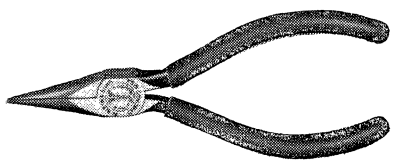
CHAIN NOSE PLIER



No. 317-6 — Size 5 5/16 in.
No. 217-6 with side cutting knives — Size 5 5/16 in.

CHAIN NOSE PLIER

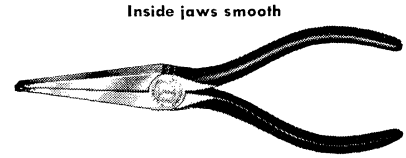
Handles yellow plastisol covered



No. D317-5 — Size 5¼ in.
Available with coil spring

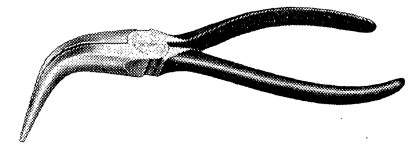
DUCK BILL PLIER

Inside jaws smooth



No. 304-6 — Size 6½ in.
No. 205-6 with side cutting knives — Size 6½ in.

CURVED NOSE PLIER



No. 302-6 — Size 6¼ in.

SIDE CUTTING PLIER

NE Type (Streamlined)

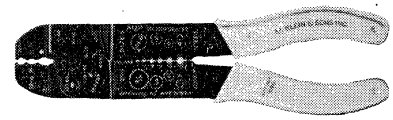
No. 201-5NE — Size 5 in.
No. 201-6NE — Size 6 in.
No. 201-7NE — Size 7 in.
No. 201-8NE — Size 8 in.
No. 201-9NE — Size 9 in.

KLEIN KUT* HIGH LEVERAGE PLIER

Pat. No. 2,746,145

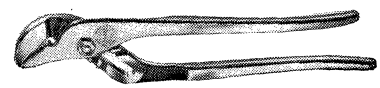
No. 213-8NE — Size 8½ in.
No. 213-9NE — Size 9¼ in.

ALL-PURPOSE ELECTRICIAN'S TOOL



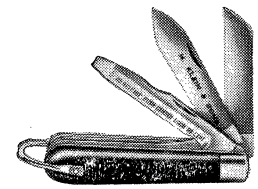
Shears bolts, cuts wire, strips wire, measures stud sizes, gauges wire sizes, crimps terminals. Handles red plastisol covered.
No. 1000 — Size 7½ in.

NEW KLEIN PUMP PLIER



Design permits jar opening up to 1¾ in. Jaws are parallel in every position. Six different jaw positions. Individually packed in plastic bags.
No. 512-10 — Size 10 in.

"XELA" 3-BLADE KNIFE

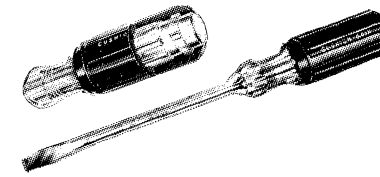


Spearpoint blade, sheepsfoot blade and screwdriver blade. Handle special plastic.
No. 1550-6 — Length Closed 3¾ in.

*Trade Mark

"CUSTOM" CUSHION-GRIP SCREWDRIVERS

Patent No. 2871899



Designed for electricians who want something better than the usual commercial screwdriver. Made of alloy steel heat-treated. Chrome-plated finish. Cushion-grip for comfort.

Heavy-Duty Square Shank	
No. 600-4	Blade 4 x ¼ in.
No. 600-6	Blade 6 x 5/16 in.
No. 600-8	Blade 8 x ⅜ in.
Heavy-Duty Round Shank	
No. 602-3	Blade 3 x 3/16 in.
No. 602-4	Blade 4 x ¼ in.
No. 602-6	Blade 6 x 5/16 in.
No. 602-8	Blade 8 x ⅜ in.
Electricians Round Shank	
No. 601-3	Blade 3 x 3/16 in.
No. 601-6	Blade 6 x 3/16 in.
No. 601-8	Blade 8 x 3/16 in.
No. 601-10	Blade 10 x 3/16 in.
Super-Hard Phillips	
No. 603 #1 point	Blade 3 x 3/16 in.
No. 603 #2 point	Blade 4 x ¼ in.
Plastic Handle Screwdriver (without Cushion Grip)	
No. 604-3	Blade 3 x 3/16 in

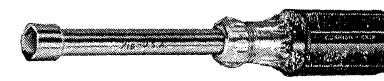
KLEIN INSULATED SCREWDRIVER

Shank insulated with an extremely hard plastic highly resistant to cutting, cracking and chipping Has excellent dielectric properties. Tip is exposed 1/8 in. beyond the plastic.

No. 620-3	Blade 3 x 3/16 in
No. 620-4	Blade 4 x ¼ in
No. 620-6	Blade 6 x 5/16 in
No. 620-8	Blade 8 x ⅜ in

CUSHION-GRIP NUT DRIVER

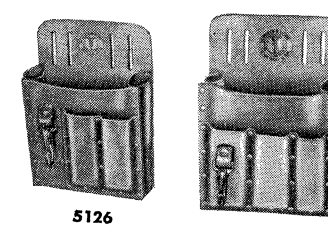
Patent No. 2871899



The finest nut driver made. Cushion grip give tremendous turning power. Only nut driver mad with shank and hex forged in one piece.

No. 630-3/16	Nut Size 3/16 in
No. 630-¼	Nut Size ¼ in
No. 630-5/16	Nut Size 5/16 in
No. 630-11/32	Nut Size 11/32 in
No. 630-⅜	Nut Size ⅜ in
No. 630-7/16	Nut Size 7/16 in
No. 630-½	Nut Size ½ in

KLEIN COMBINATION TOOL POCKETS



5126 — 5127

Two of the many leather tool pockets availabl in the Klein line. See Klein catalog for othe pockets.
No. 5126 Leather Size 8½ in. high, 6½ in. wid
5127 Leather 10 in. high, 7 in. wide

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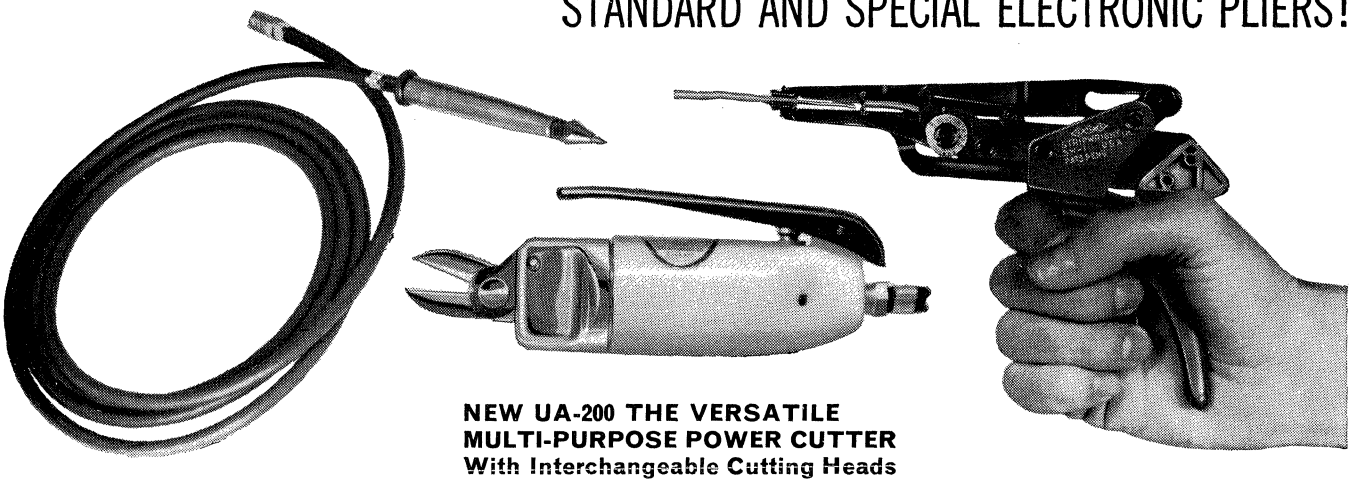
KELSEY-HAYES TOOL DIVISION • ORANGEBURG, S. C.

WORLD'S MOST COMPLETE LINE OF STANDARD AND SPECIAL ELECTRONIC PLIERS!



NEW UA-300 POWER WRITER

Just as the name implies, the UA-300 Power Writer is a power writing tool. It's a pencil styled, air-activated tool for inscribing, coding, labeling or marking all types of materials such as hard and soft metals, plastics, ceramics and glass.

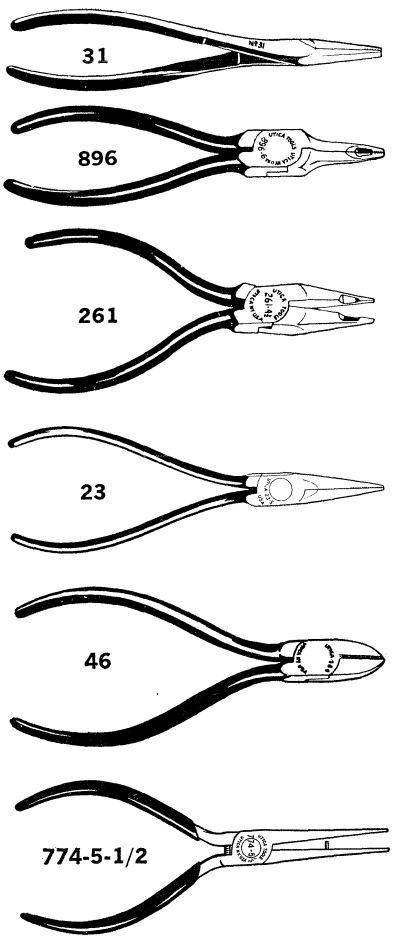
NEW UA-200 THE VERSATILE MULTI-PURPOSE POWER CUTTER

With Interchangeable Cutting Heads

This latest and most versatile addition to the Utica line of production tools is available with four optional, interchangeable cutting heads. Each head is designed for a specific cutting purpose and all have electronically induction hardened jaws.

A REVOLUTIONARY NEW WIRE STRIPPER

Strip fast and clean! Eliminate nicking! Reduce insulation marking! Handle any wire size from #12 to #26 . . . and do it all with Stripwright® . . . Utica's revolutionary new wire stripper.



No. 31 DUCK BILL WIRING PLIERS
Long reach duck bill pliers. Serrated jaws. Size: 8″.

No. 896 RADIO AND IGNITION CUTTING PLIERS
For cutting and forming wire. Center cutter near tip of jaws. Size: 6″.

No. 261 SPECIAL SHORT CHAIN NOSE CUTTING PLIERS
Flush cutter near tip of jaws for close cuts. Size: 4½″ (formerly custom tool No. B801).

No. 23 NEW MIDGET SHORT CHAIN NOSE PLIERS
Very thin nose for delicate electronic subminiature assembly. Sizes: 4″, 4½″, 5″.

No. 46 MIDGET DIAGONAL PLIERS
Small, light, sturdy diagonal for work on small electronic assemblies. Size: 4″.

No. 774-5-1/2 PICK-UP AND WIRING PLIERS
Ideal for looping, twisting, bending and picking up finest wires.

No. 1033 LONG CHAIN NOSE PLIERS
For general wiring. 3/32″ nose and deep serrated jaws. Sizes: 6″, 7″.

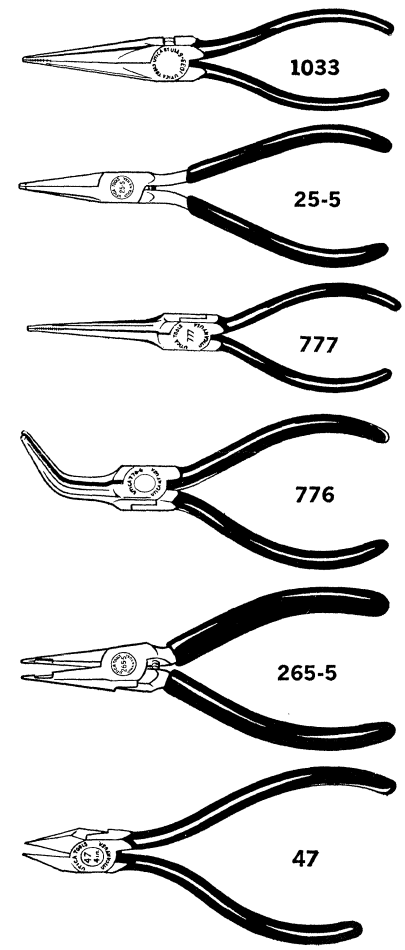
No. 25-5 BENT CHAIN NOSE PLIERS
Finely serrated jaws for sensitive circuit wiring. Size: 5″.

No. 777 LONG NEEDLE NOSE PLIERS
Long, spring tempered jaws for very fine work in assembling small electronic apparatus. Size: 6″.

No. 776 CURVED LONG NEEDLE NOSE PLIERS
Fine, spring tempered pliers with bent nose for offset work. Size: 6″.

No. 265-5 WIRING PLIERS
Cutter designed to snap-cut, loop or twist. Size: 5″.

No. 47 MIDGET DIAGONAL PLIERS
Fine tapered nose for delicate work in confined areas. Flush jaws for close cutting. Size: 4″.



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kraeuter
TOOLS FOR TECHNICIANS

FOR OVER 100 YEARS THE FINEST IN HAND TOOLS

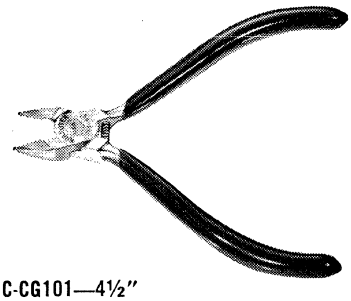
KRAEUTER PRECISION AND PROFESSIONAL PLIERS—FULL POLISHED FINISH

Extra fine pliers designed for exacting work. Drop forged from selected tool steel, accurately machined and carefully heat treated. In the hands of skilled radio and electronics technicians, these tools may be depended upon for exceptional service. Precision and Professional Pliers illustrated show vinyl cushion grips (prefix "CG" with stock number) which are furnished at NO extra cost (factory bonded). Color: G-Green; O-Orange; R-Red; LB-Light Blue; DB-Dark Blue.

KRAEUTER VINYL CUSHION GRIP "CG" HANDLES AT NO EXTRA COST

All the "CG" Kraeuter tools listed on these pages have the Cushion Grips bonded on at the factory . . . actually become part of the tool. Won't crack, peel or chip. They're brightly colored to help you find them when you need them . . . easier to hold, easier to use . . . cushion your hand so you do the job with less effort. Cushion Grips give pliers the "feel" of comfortable, more accurate control. And they come to you at no extra cost.

NEW ELECTRONIC COMPONENT ASSEMBLY PLIERS

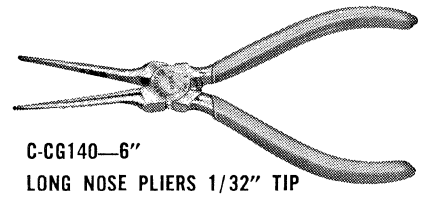


C-CG101—4½"

PRECISION NEEDLE POINT DIAGONAL CUTTING PLIERS (ELECTRONICS) "FOR SOFT WIRE ONLY"

Needle point designed specifically for fine, exact tip cutting. Flush edge for close square cut. Specially designed cutting edge to facilitate re-sharpening and maintaining of tip cutting alignment. Furnished only with cross coil spring in handle.

4½" LB List ea. 5.00



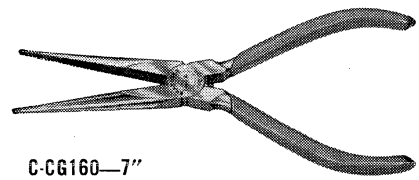
C-CG140—6"

LONG NOSE PLIERS 1/32" TIP

(Electronics)

Fine milled jaws, inside length 2"—tapering to 1/32" at the tip, reach areas inaccessible to other pliers. Furnished only with cross coil spring in handle.

6" LB List ea. 4.50

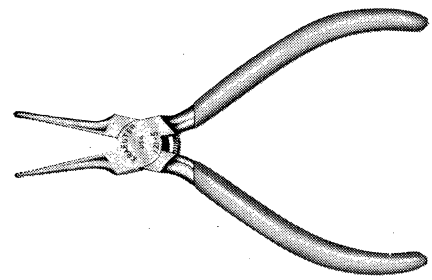


C-CG160—7"

EXTRA FINE LONG NOSE PLIERS 1/16" POINT (Electronics)

Extra fine long nose pliers, milled jaws, inside length 2-5/8" tapering to 1/16" at the point. Fine point designed to reach areas inaccessible to other pliers. Furnished only with cross coil spring in handle.

7" LB List ea. 3.80



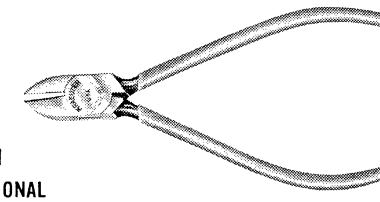
C-CG121

(Cross Coil Spring)

PRECISION SLIM NOSE PLIERS MILLED JAWS—NO CUTTER

Standard serrated tips. Slim nose 1¼" length permits forming or squeezing wire to component with NO springing tip movement.

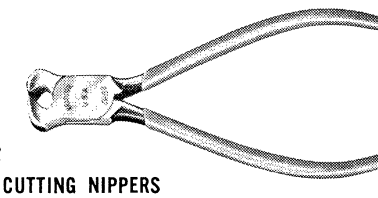
5" O List ea. 3.50



CG81

DIAGONAL CUTTING PLIERS

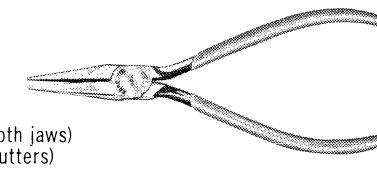
4½" R List ea. 3.60



CG82

END CUTTING NIPPERS

4½" G List ea. 4.24

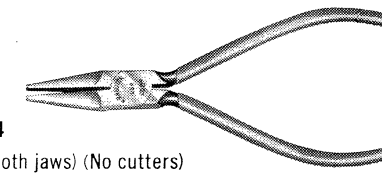


CG83

(Smooth jaws)
(No cutters)

CHAIN NOSE PLIERS

4½" R List ea. 3.40

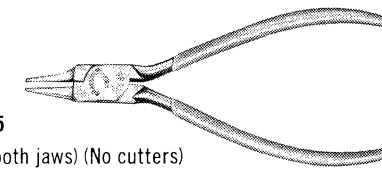


CG84

(Smooth jaws) (No cutters)

FLAT NOSE PLIERS

4½" DB List ea. 3.40

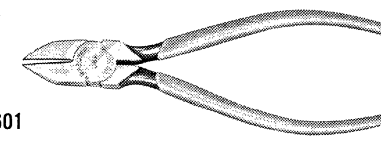


CG85

(Smooth jaws) (No cutters)

ROUND NOSE ROUND JAW PLIERS

4½" G List ea. 3.40



CG5601

NEEDLE POINT DIAGONAL CUTTING PLIERS

4½" R List ea. 4.00
5" DB List ea. 4.25
6" G List ea. 5.00

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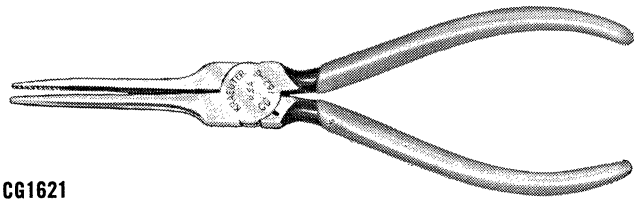
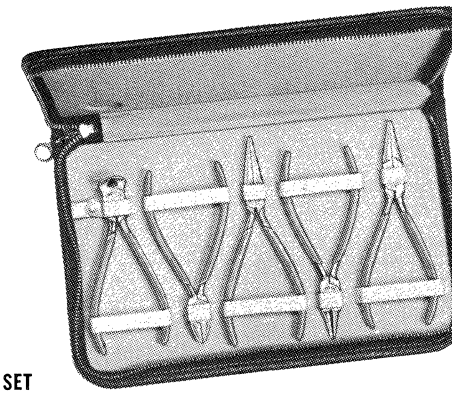
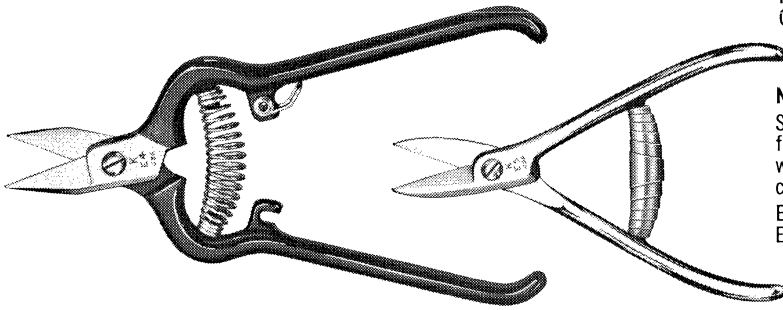


CG1621
(No Cutters)
LONG NEEDLE OR SNIPE NOSE PLIERS
Slender milled jaws; inside length 2-3/32" tapering to 1/16" at points.

6"	LB	List ea. 3.64



CG90
PLIER SET
Five pliers in black zipper case. Size 5¾" x 9¼" when closed. One each Nos. CG81, CG82, CG83, CG84 and CG85.
List ea. 20.00

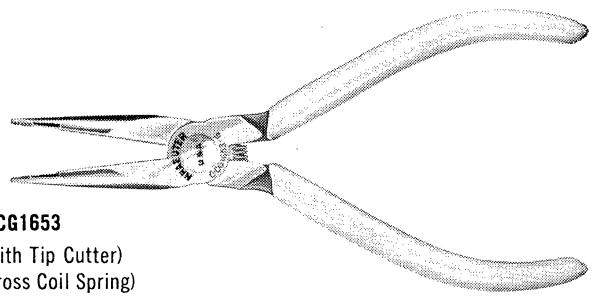


NEW ELECTRONIC SNIPS
Short-bladed electronic snips designed for cutting fine wires and filaments, removing insulation coverings. Eliminates peaks on cut wires and damaging shocks to components. Return spring increases efficiency, reduces hand fatigue.

E-4	6½"	¾" Cut	List ea. 4.75
E-5	5"	¾" Cut	List ea. 4.25

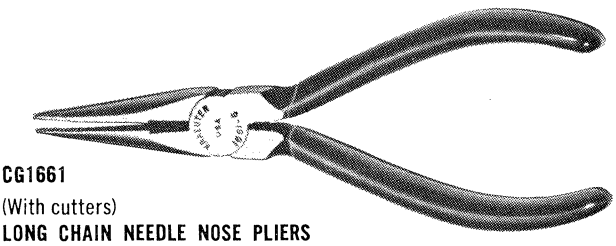
KRAEUTER INDUSTRIAL PLIERS FULL POLISHED HEADS—VINYL CUSHION GRIP HANDLES

Designed for use in the Radio and Electronics fields. Hammer forged from high grade tool steel, individually fitted, tempered, adjusted and tested. Furnished with Cushion Grips (factory bonded) at no extra cost. Colors: G-Green; O-Orange; R-Red; DB-Dark Blue; LB-Light Blue.



C-CG1653
(With Tip Cutter)
(Cross Coil Spring)
GRIP WIRE AT TIP OF NOSE FORM AND CUT (NOT A FLUSH CUTTER)
Designed to reach into tight spots and grip or cut small wires. Milled tip.

5"	O	List ea. 4.80

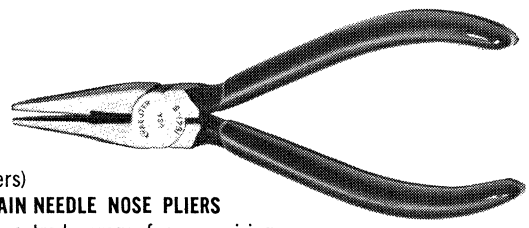


CG1661
(With cutters)
LONG CHAIN NEEDLE NOSE PLIERS
Radio and TV's most extensively used pliers.

6"	DB	List ea. 4.00

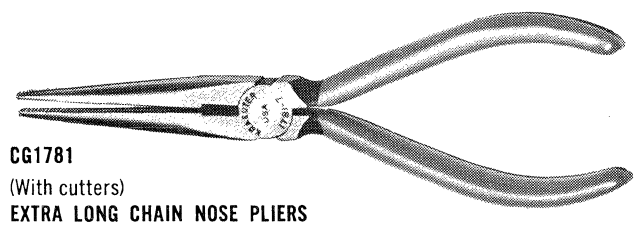
CG1671
(No cutters)

6"	G	List ea. 3.00



CG1641
(With cutters)
SHORT CHAIN NEEDLE NOSE PLIERS
Short nose, extra leverage, for open wiring.

5"	R	List ea. 3.60



CG1781
(With cutters)
EXTRA LONG CHAIN NOSE PLIERS
Jaw length reaches 2¾", narrow pointed nose.

7"	O	List ea. 4.80

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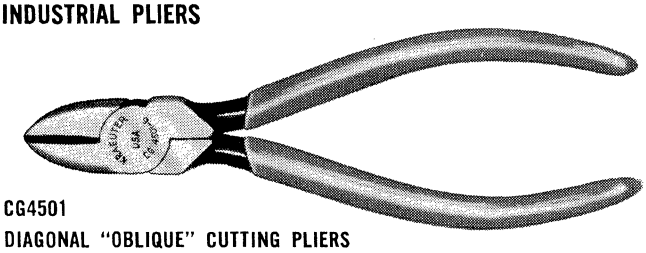
INDUSTRIAL PLIERS

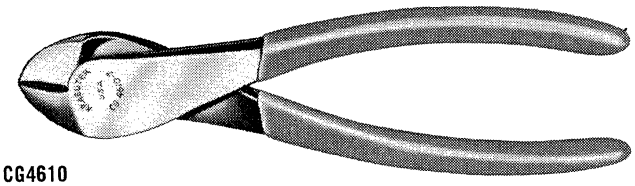


CG4501

DIAGONAL "OBLIQUE" CUTTING PLIERS

For close cutting in radio, TV, telephone work.

		List ea.
4½"	DB	3.24
5"	O	3.50
6"	R	4.00

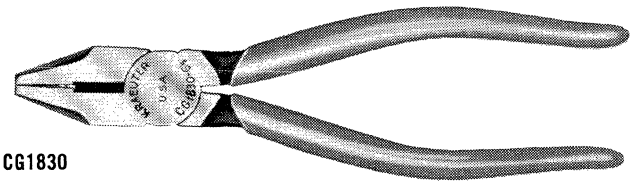


CG4610

HEAVY DUTY DIAGONAL CUTTING PLIERS

Added leverage for easier cutting.

7" G List ea. 4.00



CG1830

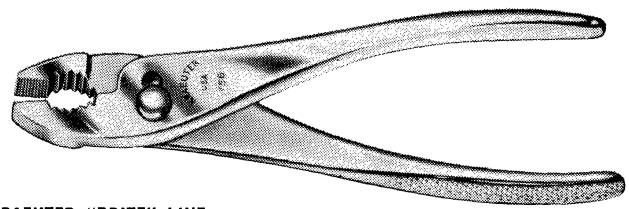
ELECTRICIAN'S SIDE CUTTING PLIERS

For electric wiring and repair work.

		List ea.
6½"	O	3.50
7"	LB	4.00
8"	DB	4.50

COMBINATION PLIERS

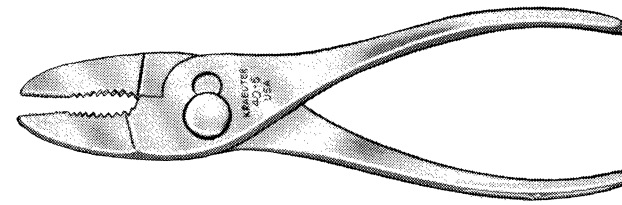
Drop forged from special analysis steel, KRAEUTER slip joint pliers have sharp, milled teeth and notches for better gripping and wire cutting. Knurled handles are shaped to fit the hand comfortably and provide maximum leverage. Studs and nuts are machined from solid bar steel and carefully hardened for longer wear.



KRAEUTER "BRITE" LINE

Fine quality slip joint pliers in 2 different finishes.

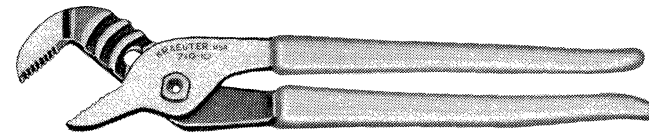
			List ea.
056—	6"	Satin Chrome Plated Finish	.98
	8"	Satin Chrome Plated Finish	1.24
156—	6"	Chrome Plated Finish	1.40
	8"	Chrome Plated Finish	1.75
	10"	Chrome Plated Finish	2.15



THIN NOSE COMBINATION PLIERS

Tapered thin jaws for confined areas.

40—6" Nickel Plated ..... List ea. 2.20

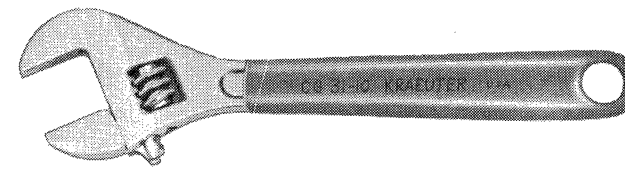


TONGUE-N-GROOVE JOINT PLIERS

POLISHED FACES—"CG" VINYL CUSHION GRIP HANDLES

Parallel adjustments make these pliers extremely versatile with maximum utility, leverage and strength. Furnished with Cushion Grip handles.

			List ea.
CG707—	6½" G	Max. Jaw Capacity 1"	3.00
CG710—	10" R	Max. Jaw Capacity 1½"	3.74
CG714—	14" O	Max. Jaw Capacity 2-13/16"	4.50

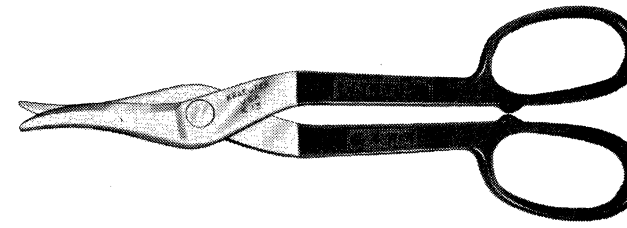


ALLOY STEEL ADJUSTABLE WRENCH

THIN PATTERN—SMOOTH—CHROME PLATED

With "CG" VINYL Cushion Grip

		List ea.
CG31—	4" R	2.84
CG31—	6" DB	2.84
CG31—	8" O	3.70
CG31—	10" G	4.64
CG31—	12" LB	6.50
CG31—	15" R	9.50



COMBINATION PATTERN SNIP

Cuts straight, curved shapes in metal, etc. Polished Blades, Hard Blac Enameled Handles.

K13—7" Pocket Size, Cut 2" ..... List ea. 2.5

THIS IS ONLY A PARTIAL LISTING OF KRAEUTER TOOLS . . . SEND FOR CATALOG

© U.C.P., Inc.

Available in 7 lb. reel & 1 lb. dispenser carton

ERSIN Multicore 5-CORE SOLDER WORLD'S FINEST

TECHNICAL ADVANTAGES

Ersin Flux is exclusive to Multicore and will not be found in any other solder. It is a high-grade, water white resin, homogeneously activated.

Ersin Flux has a vigorous fluxing action and possesses the non-corrosive and protective features of the original resin. Soldered joints made with Ersin Flux do not corrode, even after prolonged exposure to any degree of humidity. It has been tested under climatic conditions ranging from the Arctic to the tropics.

Ersin Flux reduces the surface tension of molten solder causing it to wet metals rapidly, increasing speed of operation with resultant production economies.

Free from objectionable odors. Non-toxic in use.

Leaves nothing but pure resin on the work after soldering and may be used whenever plain resin is specified.

Complies with all pertinent federal specifications.

Multicore construction. 5 separate cores of flux eliminate possibility of no flux in a portion of the wire, which may occur in single cored solder.

Guaranteed continuity of the flux stream prevents dry joints, i.e., those having high electrical resistance.

Although there are 5 cores of flux in Multicore, the total percentage of flux to solder is less than many single cored solders.

Very rapid melting results from the multiple core construction, which provides thinner walls of solder, than are found in same gauge single cored solder.

Multicore's unique properties make perfect joints possible on difficult metals and alloys, even if oxidized.

Ability to tin rapidly produces perfect joints with less solder. Greater coverage per pound.

Ersin Multicore Solder is non-toxic in use. Cadmium is completely eliminated. The quantity of antimony is less than government standards allow. There is no danger of harmful effects caused by such impurities.

Every package of Ersin Multicore is labelled with the exact tin/lead content. This precise labelling results from Multicore's precise manufacturing methods.

SPECIAL ALLOYS

ONLY from ERSIN Multicore — For IMMEDIATE OFF-THE-SHELF DELIVERY*

ALLOY	S.W.G.	CHARACTERISTICS
COMSOL	16-18	High Melting Point—565°F
L.M.P.	16-18-22	Low Melting Point—354°F
63/37	16-18-20	Eutectic—361°F
SAVBIT	14-16-18-20-22	Copper-Loaded—419°F

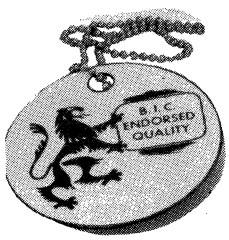
NOTE: Bit of soldering iron used should always be 108°F above melting point of alloy.

*ERSIN Multicore's national network of industrial distributors—in 50 states—facilitates prompt off-the-shelf delivery at factory-low prices.

STANDARD GAUGES TIN/LEAD ALLOYS

For the finest wire cored solder— SPECIFY ERSIN MULTICORE 5-CORE

ALLOY	14	16	18	20	21	22	S.W.G.
60/40	●	●	●	●	●	●	
50/50	●	●	●				
45/55	●	●	●				
40/60	●	●	●				



MULTICORE tin/lead alloys conform to latest Federal Specification QQ-S-571

COPPER-LOADED SAVBIT ALLOY

Multicore's SAVBIT Alloy is entirely new and different—it is patented.

Copper-loaded **SAVBIT** stops the wear and erosion of copper soldering iron tips . . . increases tip life by 1,000%.

Characteristics and specifications:

Savbit Alloy is available in Ersin Multicore 5-Core Solder containing non-corrosive extra fast Ersin flux in 14, 16, 18, 20 and 22 gauge.

Melting point: Virtually the same as standard tin/lead alloys.

Excellent conductivity, tensile and shear strength.

Available in 7 lb. reel & 1 lb. dispenser carton

MULTICORE SALES CORPORATION • PORT WASHINGTON, NEW YORK

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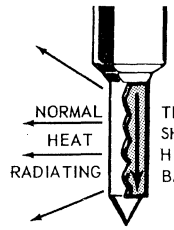
COMPARE
- QUALITY
- PRICE
- WARRANTY*

INSIST ON SIDCO

SIDCO®
INTERCHANGEABLE INDUSTRIAL SOLDERING TIPS
Manufactured by Electronic IDEAS Incorporated, Wyncote, Penna.

PATENT NO. 2,997,684 (UL) (CSA) **MADE IN U.S.A.** / Meets Spec. W-S-570a / Choice of major Missile & Industrial Mfrs.

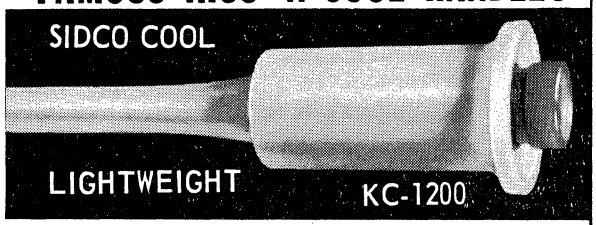
ANOTHER NEW SIDCO PRODUCT!!



THERMOSHIELD™ catches the heat normally radiated from the metal body and SQUEEZES it out the end thru the tips' working surface. Available on all 50W tips.+ Tests indicate 25% greater soldering efficiency with THERMOSHIELD. EXTRA BONUS – No burned insulation in tight spots – only the working surface is hot.

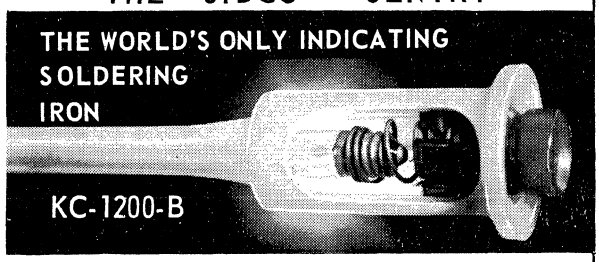
+Add TH to Model No. & .60 to unit price.

FAMOUS KISS 'N COOL HANDLES



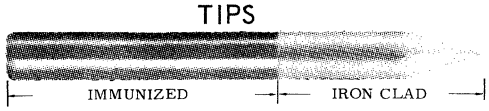
Special heat stabilized Nylon—will not crack or break (if dropped). Boilable – dust repellent – Patented – self-adjusting spring socket holds tip in perfect contact. Cannot loosen. KC-1200 – $1.44 complete with cord. Ivory color Standard (also available in other colors on quantity orders).

THE SIDCO "SENTRY"



Built-in lamp gauges tip temperature and wattage. Lights brightly on 50W. – dimly on 40W., plus same outstanding features as on standard SIDCO handles. KC-1200B—Cool Pastel Blue—only $1.98, complete with cord.

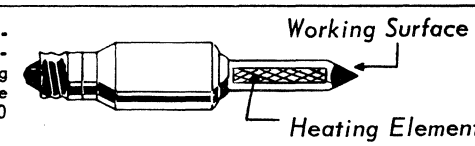
TIPS

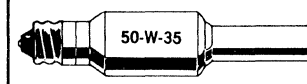
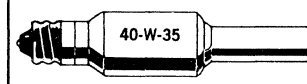
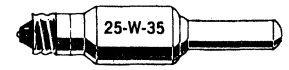
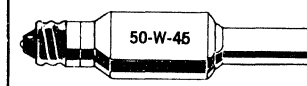
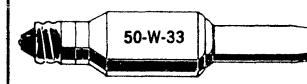
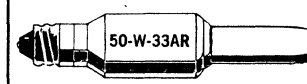
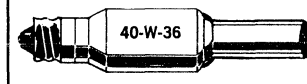
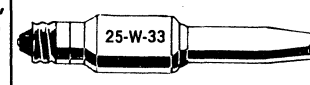
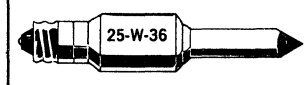


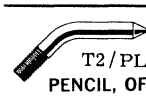
- Resists freezing and oxidizing.
- Pre-tinned soldering surface.
- Ready to use, no filing or reshaping
- No need to remove from iron during life of tip
- Pyramid, chisel, needle shapes available

SIZE	PRICE
1/8" Dia. x 1 1/4" Length	$ 1.44
3/16" Dia. x 2 1/4" Length	1.60
1/4" Dia. x 2 1/4" Length	1.80

Super efficient heat transfer—heating element located right at working surface. Thermal time constant approx. 80 seconds.



DESCRIPTION	MODEL All Ratings at 115 V-AC or DC	Heat Capacity	Heat Trans. Rate	Unit Price (Net)
50 watt, plated steel body tapped for 1/8" tiplet; 1¼" long x 3/8" diam.	 50-W-35	3800 Joules	120 watts (with T-1 tiplet)	$1.98
40 watt, plated steel body tapped for 1/8" tiplet; 1¼" long x 3/8" diam.	 40-W-35	3300 Joules	100 watts (with T-1 tiplet)	$1.20
25 watt, plated steel body tapped for 1/8" tiplet; 1-1/8" long x 5/16" diam.	 25-W-35	1750 Joules	60 watts (with T-1 tiplet)	$1.00
Same as 50W35, except tapped for 3/16" tiplet	 50-W-45	4500 Joules	240 watts (with T-57 tiplet)	$1.98
50 watt chisel tip, premium quality, heavy iron plated, solid copper; 1-5/8" long x 3/8" diam.	 50-W-33	3400 Joules	970 watts	$2.40
50 watt chisel tip, solid iron, plated, 1-5/8" long x 3/8" diam.	 50-W-33AR	4300 Joules	80 watts	$1.60
40 watt pyramid tip, solid iron, plated; 1-1/8" long x 3/8" diam.	 40-W-36	3000 Joules	80 watts	$1.20
25 watt chisel tip, unplated tellurium copper; 1-5/8" long x 5/16" diam.	 25-W-33	2500 Joules	450 watts	$1.00
25 watt pyramid tip, unplated tellurium copper; 1-1/8" long x 5/16" diam.	 25-W-36	1400 Joules	450 watts	$1.00



TIPLETS

Chemically Treated – positively will not bind or freeze. Pure copper – pretinned. PRICES: 1/8" T-Series .16 each; PL Series, (Iron & Silver plated) will last more than 10 times as long, .48 each.

T-57 – 3/16" Desoldering Tiplet fits 50W45 Tip only—priced at .48

* We unconditionally guarantee User Satisfaction on all SIDCO Products.

ALL PRICES SHOWN ARE USERS NET

O. E. M. 's -- contact your distributor for special quantity discounts. Iron Plated Tips available for all makes.

ORYX PRECISION SOLDERING INSTRUMENTS

FIVE REASONS WHY PRODUCTION MANAGERS CHOOSE ORYX SOLDERING IRONS

1. MINIATURE SIZE

ORYX soldering irons are small and easy to handle as pencils. Their miniature size helps to speed any precision soldering operation. Damage to adjacent components is eliminated. If you can see it, you can solder it with ORYX!

2. FEATHER WEIGHT

A standard, utility-type 100 watt soldering iron weighs about 2 lbs. The so-called pencil-type irons typically weigh between 2 and 6 ounces. ORYX soldering irons, by contrast, weigh as little as ¼ ounce. This true feather weight virtually eliminates hand fatigue. Workers can turn out many more joints per hour with fewer rejects.

3. HIGH EFFICIENCY

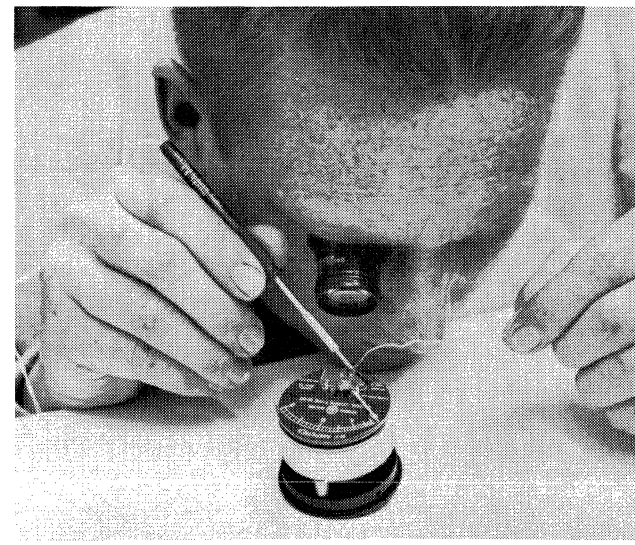
All ORYX soldering irons utilize a unique element-in-the-tip design principle. By generating the heat **within** the tip, far fewer watts are needed to achieve results comparable to much larger irons. This principle also provides quicker heat recovery because the heat path between element and joint is so very short. The need for large insulating handles is eliminated.

4. SAFETY

ORYX low-voltage irons are polarized, making it possible to directly ground the shaft, tip, and one side of the heating element. This provides a maximum degree of safety, both to the operator and to delicate circuitry. The ORYX line of 115 V. plug-in models includes 3-wire styles whose shafts and tips may be connected to ground for safety.

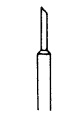
5. ECONOMY

A standard ORYX low-voltage industrial iron costs less than $5 in production quantities.

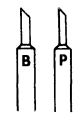


LOW-VOLTAGE , MINIATURE PRODUCTION SOLDERING IRONS

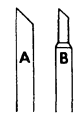
MODEL 6—A precision Oryx soldering tool with fixed 1/16" solid nickel tip. Solders hair-spring movements, semiconductors, rf coils, fine assemblies. Nominal temperature 625° F. Weighs only ¼ oz. 6-volts, 6-watts.....Net **$5.45** ea. (12 or more **$4.95** ea.)



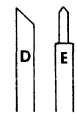
MODEL 6A—The most popular Oryx soldering iron. Designed for printed circuit soldering. Weighs only ¼ oz. Nominal temperature 690°F. Furnished with 3/32" removable B tip. Also takes 1/16" P tip and new long-life V tip. 6-volts, 6-watts... Net **$5.45** ea. (12 or more **$4.95** ea.)



MODEL 9-6—Similar to model 6A, but greater heat capacity. Weighs ¼ ounce. Nominal temperature 750°F. Furnished with 5/32" A tip. Also takes B tip. 6-volts, 8.3 watts. Also available for 12 volts (model 9-12) and 24 volts (model 9-24). Net **$5.45** ea. (12 or more **$4.95** ea.)



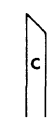
MODEL 11-6—Special model for high-temperature solders. Temperature 835° F. Weighs ¼ oz. Furnished with 5/32" solid nickel D tip. Also takes new 3/32" E tip. Nickel tips provide long life at high temperatures. 6-volts, 10-watts ..... Net **$6.95** ea. (12 or more **$6.45** ea.)



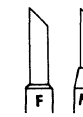
MODEL 5A—Microcircuit model for joints with negligible heat loads. Weighs only 8 grams. Nominal temperature 600°F. Furnished with 1/16" P tip. Also takes S tip and new T and U gold tips. 6-volts, 5-watts Net **$5.45** ea. (12 or more **$4.95** ea.)

MODEL 5-S—(As shown in photograph). Eyepiece model less than 5" long, for precise finger control. Weighs 7 grams. Nominal temperature 575°F. Furnished with 1/16" S tip. Also takes T and U tips. 4.5-volts, 4.5-watts (Use 54204-T tapped transformer for 4.5 volts)....Net **$5.45** ea. (12 or more **$4.95** ea.)

MODEL 12-6—Standard model for production soldering of radio, TV, radar, telephone, and switchboard assemblies. Weighs ½ oz. Nominal temperature 700° F. Furnished with 3/16" C tip. 6-volts, 12-watts. Also available for 12 volts (model 12-12) and 24 volts (model 12-24) ..... Net **$5.45** ea. (12 or more **$4.95** ea.)



MODEL 18-6—A heavy-duty production iron equal in performance to conventional 80 watt irons. Weighs ¾ oz. Nominal temperature 800° F. Furnished with 3/16" F. tip. Also takes new 3/32" M tip. 6-volts, 18-watts ..... Net **$7.50** ea. (12 or more **$7.05** ea.)



MODEL 25-12—Heavy-duty, high-temperature iron for large loads. Weighs 1 oz. Develops nominal tip temperature of 1000° F. Furnished with 3/16" G tip with solid nickel end. Also takes H tip. 12-volts, 25-watts ..... Net **$8.00** ea. (12 or more **$7.55** ea.)

REPLACEMENT TIPS for low-voltage soldering irons.

Type	Material	Plating	Diameter	For Model	Net Ea.
A	Copper alloy	Nickel	5/32"	9-6	$ .50
B	Copper alloy	Nickel	3/32"	6A, 9-6	.50
C	Copper alloy	Nickel	1/16"	12-6	.50
D	Solid nickel	—	5/32"	11-6	1.80
E	Solid nickel	—	3/32"	11-6	1.80
F	Copper alloy	Nickel	3/16"	18-6	1.25
G	Solid nickel end	Nickel	3/16"	25-12	1.85
H	Copper alloy	Nickel	1/4"	25-12	2.35
M	Solid nickel end	Nickel	3/32"	18-6	$1.85
N	Copper alloy	Nickel	1/8"	TW-12	1.25
P	Copper alloy	Nickel	1/16"	5A, 6A	.60
S	Copper alloy	Nickel	1/16" (short)	5-S	.60
T	Gold end, copper body	Nickel	1/25"	5A, 6A	2.35
U	Gold end, nickel body	—	1/25"	5A, 6A	2.35
V	Copper alloy	Iron	3/32"	6A, 9-6	1.50
W	Copper alloy	Bare (NASA)	3/32"	6A, 9-6	.45

ACCESSORIES

TW-6E REPLACEMENT ASSEMBLY—Includes element, tip, and bushing (for one TW-6 tweezer arm only) ..... Net **$5.30** ea.

ST-6E REPLACEMENT ASSEMBLY—Includes element, blade, and bushing (for one ST-6 stripper arm only) ..... Net **$5.30** ea.

S-1 SOLDERING IRON STAND ..... Net **$1.50** ea.

6-VOLT TRANSFORMER—Model 54203-6V. Output 6-volts, 18-watts, For use with all 6-volt Oryx tools. Operates on 115 V. AC. With 4½' cord set — ready to plug in. Clip-holder on top for iron ..... Net **$5.50** ea.

12-VOLT TRANSFORMER—Model 5420-12V. Output 12-volts, 25-watts. For all 12-volt Oryx tools. Operates on 115 V. AC. With 4½' cord set—ready to plug in. Net **$6.45** ea.

TAPPED TRANSFORMER—Output 4½ to 6-volts in ½ v. steps. For exact temperature control on all ORYX 6-volt tools. Operates on 115 V. AC—ready to plug in. Model 54204-T..... Net **$6.50** ea.

Net

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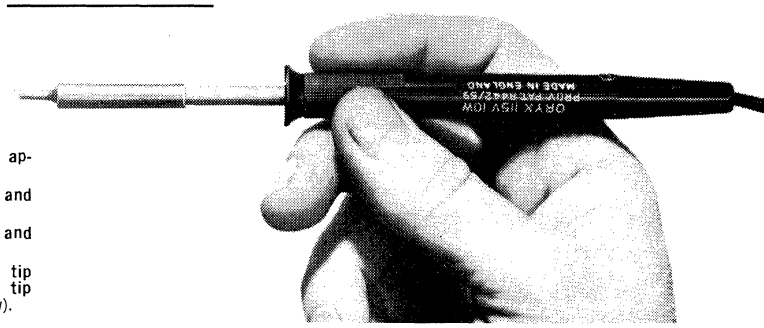
PLUG-IN 115 V. MINIATURE IRONS



- **NO TRANSFORMER.** Standard models furnished with U/L approved 4½′ cord set. Ready to plug in!
- **COMPACT DESIGN** for light production, laboratory, and service use. Irons weigh only 1 oz., plus cord.
- **HEAT QUICKLY** (about 1 minute) to 675° F. (10 W.) and 725° F. (15 W.)
- **REPLACEABLE TIPS.** 10 W. model furnished with 3/32″ J tip (also takes K tip). 15 W. model furnished with 3/16″ K tip (also takes L, Q, and R tips and solder cups listed below).

MODEL 115-10J*—Complete with J tip and cord set. Ready to plug in ..... **Net $6.95** ea. (12 or more **$6.45** ea.)
MODEL 115-15K*—Complete with K tip and cord set. Ready to plug in ..... **Net $6.95** ea. (12 or more **$6.45** ea.)
MODEL 115-10X (no tip)—Complete with cord set. Ready to plug in. Less tip ..... **Net $5.50** ea. (12 or more **$5.00** ea.)
MODEL 115-15X (no tip)—Complete with cord set. Ready to plug in. Less tip ..... **Net $5.50** ea. (12 or more **$5.00** ea.)
MODEL 115-10J-3—Complete with J tip and 3-wire grounding-type cord. Less plug ..... **Net $6.95** ea. (12 or more **$6.45** ea.)
MODEL 115-15K-3—Complete with K tip and 3-wire grounding-type cord. Less plug ..... **Net $6.95** ea. (12 or more **$6.45** ea.)
MODEL 115-10X-3 (no tip)—With 3-wire grounding-type cord. Less plug and tip ..... **Net $5.50** ea. (12 or more **$5.00** ea.)
MODEL 115-15X-3 (no tip)—With 3-wire grounding-type cord. Less plug and tip ..... **Net $5.50** ea. (12 or more **$5.00** ea.)

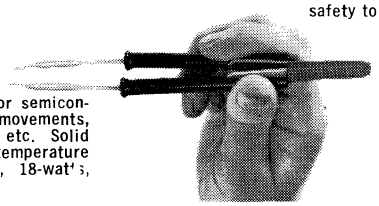
*Approved by Department of Building and Safety, City of Los Angeles.

REPLACEMENT TIPS AND ELEMENTS for 115 V. irons. All tips are nickel plated.

Type	Material	Diameter	Use with	Net ea.
J	Copper alloy	3/32″	115-10	$1.55
K	Copper alloy	3/16″	115-10, 115-15	1.70
L	Copper alloy	1/4″	115-15	2.25
Q	Solid nickel end	3/32″	115-15	1.85
R	Solid nickel end	1/16″	115-15	$1.85
115-10E	Replacement element for model 115-10			3.60
115-15E	Replacement element for model 115-15			3.60

SOLDERING TWEEZERS

Unique tools with heating elements in each arm. Speed soldering time by heating both sides of joint. Tweezer action conducts heat quickly into joint. Low-voltage operation assures safety to circuitry and to operator.



MODEL TW-6—Precision model for semiconductors, solid state, hairspring movements, miniature relays, thermostats, etc. Solid nickel 3/32″ fixed tips. Nominal temperature 550° F. Weighs 1 oz. 6-volts, 18-watts, AC or DC.

MODEL TW-6, complete with 4½′ cord ..... Net **$14.95** ea.
(12 or more **$14.95** ea.)

MODEL TW-12
Heavy duty model for regular production-line soldering of radio, TV, radar, telephone, and switchboard assemblies. Furnished with replaceable 1/8″ N tips. Nominal temperature 625° F. Weighs 2 oz. 12-volts, 25-watts, AC or DC.

MODEL TW-12, complete with 4½′ cord ..... Net **$14.95** ea.
(12 or more **$14.45** ea.)

Spare tip N for model TW-12 ..... Net **$1.25** ea.

Wire stripper heads for TW-12 (kit of 2 heads and 2 screws). Cat. No. SK-12. **Net $1.35 kit**

THERMAL WIRE STRIPPERS

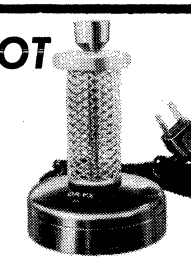
Reach those hard-to-get-at spots. Miniature tweezer design.

Ideal for repair and prototype work where a bench stripper is unsuitable. Strips Nylon, rubber, PVC, Kel-F, Polystyrene, and similar medium-temperature insulations. Stainless steel stripping heads are abrasive-tumbled to eliminate sharp edges which might damage conductors. Operating temperature 400°F (ST-6) and 550°F. (ST-18). Furnished with 4½′ cord.

MODEL ST-6. For 6-volts, AC or DC, 12 watts
MODEL ST-18. For 12-volts, AC or DC, 25 watts.
EITHER MODEL ..... Net **$14.95** ea.
(12 or more **$14.45** ea.)

MINIATURE SOLDER POT

Quick-heating, miniature solder pot for production, service, or laboratory use. Heats to 550°F in just 4 minutes. For tinning wires and component leads; heating waxes and potting compounds. Capacity 2.5 cc. For 115 V. AC or DC.



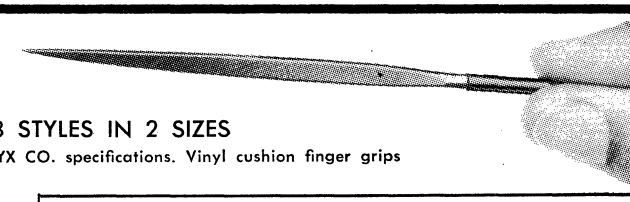
SP-115. With cord set ready to plug in.
SP-115-3. 3-wire grounding model, less plug.
EITHER MODEL ..... Net **$14.95** ea.
60/40 Solder Slugs for above..... **Net $.30 ea.**

SOLDER CUPS

Solder cups replace tips on Oryx model 18 and 115-15 soldering irons. For tinning wires and component leads. Hold 2.5 cc. Nominal temperature 550-600°F.

SC-18 (Use with Oryx 18-6 soldering iron.)
SC-115 (Use with Oryx 115-15 soldering iron.)
EITHER MODEL ..... Net **$2.25** ea.

TELVAC PRECISION FILES



- FINEST SWISS QUALITY
- VINYL CUSHION FINGER GRIPS
- 8 STYLES IN 2 SIZES

High-quality precision needle files for delicate work. Made in Switzerland to ORYX CO. specifications. Vinyl cushion finger grips reduce fatigue. Available in other lengths and cuts on special order.

Cat. No.	Style	Length	Cut Symbol
1000	Round	4″	
1100	Round	6¼″	
1001	Square	4″	
1101	Square	6¼″	
1002	Triangular	4″	
1102	Triangular	6¼″	
1003	Knife	4″	
1103	Knife	6¼″	

Net price ea.—4″ styles, $.59 (10 or more, $.53)—6¼″ styles, $.72 (10 or more, $.65)

Cat. No.	Style	Length	Cut Symbol
1004	Equalling	4″	
1104	Equalling	6¼″	
1005	Oval	4″	
1105	Oval	6¼″	
1006	Flat	4″	
1106	Flat	6¼″	
1007	Half round	4″	
1107	Half round	6¼″	

8 files in case—4″ styles, Cat. No. 2000, $4.75—6¼″ styles, Cat. No. 2100, $5.75.

THE ORYX COMPANY **TARZANA, CALIFORNIA**

© U.C.P., Inc.

Ungar® STANDARD LINE SOLDERING IRON

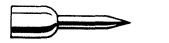
New UNGAR HEATING UNITS AND THREAD-ON TIPS for Hi-Speed Repeat Soldering

Ungar's exclusive new development provides these important advantages...

- New thread-on copper tips, iron clad, silver plated or plain copper.
- 100% increase in heat recovery rate.
- 4 times greater heat transfer.
- Positive seal between heating unit and tip.
- New passivated plating reduces barrel oxidation and surface flaking of heating units.

#4037 Hi-Speed Heating Unit—850°-900°F. 47½ Watts.
#1237 Hi-Speed Heating Unit—750°-800°F. 37½ Watts

All electrical components are for use on 115 v. AC-DC.

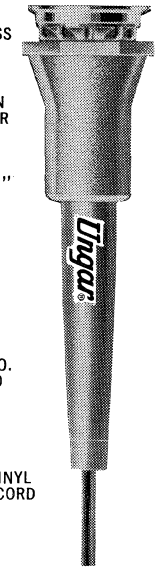


#PL 111 PENCIL TIP. ⅛" x ¾" iron clad, Silver Plated. **#111** Plain Copper

#PL 113 CHISEL TIP. ⅛" x ¾" iron clad, Silver Plated. **#113** Plain Copper.

#8001 ANTI-SEIZE. 2 oz. can
New Ungar Anti-Seize guards against "freezing," protects against corrosion and aids heat transfer to tip.

Improved #776 handle



NEW MICRO-TIPLETS

#7154 Stepped Pencil, 1/16" pencil tip. Iron clad, silver plated. Fits #535, 1235 and 4035.

#7155 Stepped Chisel, 1/16" chisel tip. Iron clad, silver plated. Fits #535, 1235 and 4035.

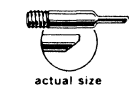
UNGAR fast, safe De-Soldering Tips

Helps remove components 70% faster. Melts solder on all terminals at once. For use with **#4045** Heating Unit.

#270 UNGAR De-Soldering Kit. Complete, 7 pieces including handle, Heating Unit **#4045** and five De-Soldering Tips in metal case.

#856 5/8" Cup Tip
#855 3/4" Cup Tip
#854 1" Cup Tip
#858 Bar Tip
New **#862** Offset Slotted Tip
#857 Slotted Tip
New **#863** Cube Tip
New **#861** Triangle Tip

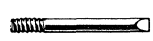
UNGAR TIPLET Soldering Tips for Heating Units shown below



#PL 340 Micro-Needle. 3/64"x3/4", for microscopic soldering, iron clad, Silver Plated—Actual size.

#PL 331 Pencil Tip. ⅛" x 1", iron clad, Silver Plated. **#331** Plain Copper.

#PL 332 Pencil Offset. ⅛" x 1", iron clad, Silver Plated. **#332** Plain Copper.

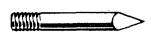


#PL 333 Chisel, Long Taper. ⅛" x 1", iron clad, Silver Plated. **#333** Plain Copper.

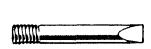
#PL 338 Tapered Needle. 1/16" x 1¾", iron clad. Silver Plated.

#PL 833 Chisel, Long Taper. 3/16" x 1¾", iron clad. Silver Plated.

#PL 834 Chisel, Long Taper, Offset. 3/16" x 1¾", iron clad, Silver Plated.



#PL 823 Pyramid, 3/16" x 1", iron clad, Silver Plated. **#823** Plain Copper.

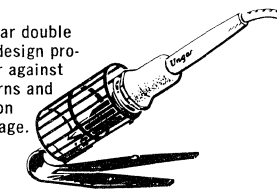


#PL 824 Chisel, Long Taper. 3/16" x 1", iron clad. Silver Plated. **#824** Plain Copper.

800 Series TIPLETS fits Ungar **#4045** heating unit only.

#8000 Soldering Iron Holder

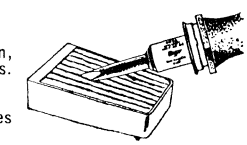
Exclusive Ungar double safety guard design protects operator against accidental burns and 2) protects iron against breakage. Individually boxed



KLEEN-TIP SPONGE

Removes oxidation, doubles life of tips. **#400** with tray.

#455 refill sponges



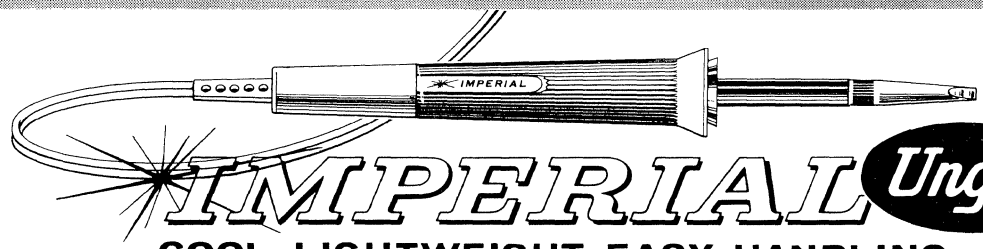
Ungar Interchangeable Tips... the right tip at the right temperature.

TIP TEMPERATURES	CHISEL TIP LONG TAPER	PYRAMID TIP	CHISEL TIP SHORT TAPER	THREAD-IN HEATING UNITS
850° to 1000° F. #4000 Super Hi-Heat Series 47-1/2 Watt	**#4033** Tip 1-5/8" long, 1/4" wide. New copper alloy, iron clad, silver plated.	**#4036** Tip 1-1/8" long, 3/8" diameter. Copper, iron clad, silver plated.	**#4039** Tip 1-1/8" long, 3/8" diameter. Copper, iron clad, silver plated.	**#4035** Steel body, nickel plated. For use with 300 Series Tiplets. **#4045.** For use with 800 Series Tiplets.
750° to 800° F. #1200 Hi-Heat Series 37-1/2 Watt	**#1233** Tip 1-5/8" long, 1/4" wide. Copper, unplated.	**#1236** Tip 1-1/8" long, 5/16" diameter. Pure solid Armco iron, silver plated.	**#1239** Tip 1-1/8" long, 3/8" diameter. Pure solid Armco iron, silver plated.	**#1235** 37½ watt. Hi-Temperature steel body specially treated for corrosion resistance.
650° to 750° F. #500 Standard Series 23-1/2 Watt	**#533** Tip 1-5/8" long, 3/16" wide. Copper, unplated.	**#536** Tip 1-1/8" long, 5/16" diameter. Copper, unplated.	**#539** Tip 1-1/8" long, 5/16" diameter. Copper, unplated.	**#535** 23½ watt. Hi-Temperature steel body specially treated for corrosion resistance.

UNGAR ELECTRIC TOOLS
HAWTHORNE, CALIFORNIA

© U.C.P., Inc.

MOST VERSATILE SOLDERING IRON EVER INVENTED



IMPERIAL Ungar®

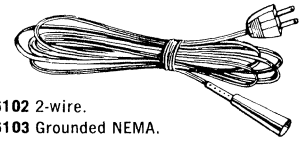
COOL, LIGHTWEIGHT, EASY-HANDLING

Ungar... developers of the industry's first miniature, low wattage, high temperature, pencil type iron... now brings you the ultimate in time-saving, money-saving soldering irons.

PERMA COOL COLORED HANDLES

#6100 Turquoise, Beige, Ivory*

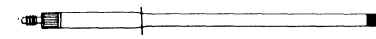
INTERCHANGEABLE CORD SETS
2-wire or grounded 3-wire



#6102 2-wire.
#6103 Grounded NEMA.

*NOTE: Designate color for handles and cord sets by adding suffix (-1 for Turquoise; -2 for Beige; -3 for Ivory).

NEW 60 WATT



"Long Life" Interchangeable Heat Cartridges.

#6203 60 Watt (850-1050°F temperature range)
#6200 40 Watt (750-950°F temperature range)
#6201 30 Watt (650-850°F temperature range)
#6202 25 Watt (600-800°F temperature range)
#6206 15 Watt (700-750°F temperature range)

IMPERIAL MINI-TIP®

Thread-on soldering tips

All easy-thread tips are completely interchangeable.

#6304 Micro-Chisel, Iron Clad, Gold Plated (24 kt.) 3/64 x ½

#6305 Micro-Spade, Iron Clad, Gold Plated (24 kt.) 3/64 x ½

#6482 Micro-Spade, Stepped, Iron Clad, Gold Plated (24 kt.) 3/64 x ½

#6481 Tapered Screwdriver, Iron Clad, Gold Plated (24 kt.) ¾ x 3/32.

#6312 Pencil, Rugged Copper Alloy, ⅛ x ¾

#6313 Pencil, Iron Clad, Gold Plated (24 kt.) ⅛ x ¾

#6316 Pencil, Offset, Iron Clad, Gold Plated (24 kt.)

#6318 Long Taper Chisel, Rugged Copper Alloy, ⅛ x ¾

#6319 Long Taper Chisel, Iron Clad, Gold Plated (24 kt.) ⅛ x ¾

#6324 Long Taper Pyramid, Rugged Copper Alloy, ⅛ x ¾

#6325 Long Taper Pyramid, Iron Clad, Gold Plated (24 kt.) ⅛ x ¾

#6331 Screwdriver, Iron Clad, Gold Plated (24 kt.) ⅛ x ¾

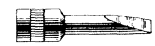
#6333 Needle, Iron Clad, Gold Plated (24 kt.) ⅛ x ¾

#6336 Spade, Iron Clad, Gold Plated (24 kt.) ⅛ x ¾

#6366 Long Taper Chisel, Iron Clad, Gold Plated (24 kt.) 3/16 x ¾

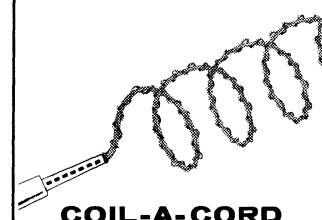
#6372 Screwdriver, Iron Clad, Gold Plated (24 kt.) 3/16 x ¾

#6390 Screwdriver, Iron Clad, Gold Plated (24 kt.) 3/16 x 1½



#6424 Long Taper Chisel, Iron Clad, Gold Plated (24 kt.) ¼ x ¾

#6474 Long Taper Chisel, Iron Clad, Gold Plated (24 kt.) ⅜ x ¾



COIL-A-CORD

#7625. Eliminates tangled and twisted cords... Automatically keeps cord coiled and out of the way. Use it with either the standard or grounded Imperial Cord sets ...Slips on Easily...Can also be used on many electrical hand tools and appliance cords.

NEW MICRO-TIPS

For use with Imperial 15 watt cartridges only.

#6550 Tapered Screwdriver, Iron Clad, Gold Plated (24 kt.) .040 x .40

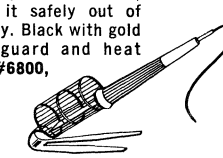
#6551 Stepped Spade, Iron Clad, Gold Plated (24 kt.) .050 x .40

#6553 Stepped Chisel, Iron Clad, Gold Plated (24 kt.) .050 x .40

#6554 Stepped Pencil, Iron Clad, Gold Plated (25 kt.) .050 x .40

Specially Designed IMPERIAL HOLDER

Rugged holder, built especially for the IMPERIAL, protects iron, keeps it safely out of the way. Black with gold cage guard and heat sink. **#6800,**



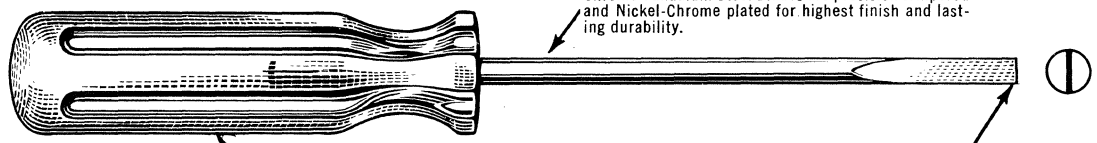
VACO®
PRODUCTS CO.
Chicago 11, Illinois

Precision Ground, Unconditionally Guaranteed

SCREW DRIVERS • NUT DRIVERS • HAND TOOLS

- **Nickel-Chrome Plated #6150 Steel Blades will not rust or corrode**
- **Comfordome Slo-Burn S/B® Amberyl® Handles are easy on the hands**

Vaco Amberyl® S/B® Handles bear the Underwriters' Laboratories Re-examination Service Marker.



Chrome Vanadium Steel Blades are precision tempered and Nickel-Chrome plated for highest finish and lasting durability.

Vaco Amberyl® Handles are a dense, resilient, thermal plastic material that is break-proof, shock-proof, fire-safe, non-absorbent and therefore impervious to most acids and alkalies.

Blade Tips are precision ground and designed to perfectly fit the screw slot.

ROUND BLADE

1/8" Cabinet Style—Round Blades

Stock Number	Blade Diameter and Length	Price
A 216-4	1/8"x4"	$ .70
A 216-6	1/8"x6"	.72
A 216-8	1/8"x8"	.78
A 216-10	1/8"x10"	.86

3/16" Cabinet Style—Round Blades

A 316-4	3/16"x4"	.92
A 316-5	3/16"x5"	.98
A 316-6	3/16"x6"	1.02
A 316-8	3/16"x8"	1.08
A 316-10	3/16"x10"	1.18

1/4" General Service—Round Blades

A 416-4	1/4"x4"	1.12
A 416-5	1/4"x5"	1.14
A 416-6	1/4"x6"	1.18
A 416-8	1/4"x8"	1.24
A 416-10	1/4"x10"	1.36

5/16" Heavy Duty—Round Blades

A 516-6	5/16"x6"	1.50
A 516-8	5/16"x8"	1.58
A 516-10	5/16"x10"	1.78

Stubbys

A 132	1/4"x1-1/4"	.84
A 135	5/16"x1-3/4"	1.10

PHILLIPS DRIVERS

Stock Number	Point No.	Blade Diameter and Length	Price
P 01	0	1/8"x2-1/2"	$ .74
P 1	1	3/16"x3"	1.00
P 2	2	1/4"x4"	1.26
P 3	3	5/16"x6"	1.72
P 5 (Stub)	2	1/4"x1-3/4"	1.10
P 6 (Stub)	1	3/16"x1-1/4"	1.00
P 12 (Pocket Clip)	1	1/8"x2-1/2"	.76

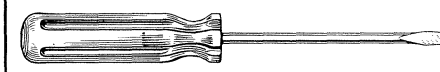
CLUTCH HEAD DRIVERS

Stock Number	Bit Point Diameter and Blade Length	Price
CH 43	1/8"x3"	$1.30
CH 54	5/32"x4-1/4"	1.30
CH 64	3/16"x4-1/4"	1.30
CH 86	1/4"x6"	1.72
CH 106	5/16"x6"	2.22
	Stub Styles	
CH 51	5/32"x1-1/2"	1.16
CH 61	3/16"x1-1/2"	1.16

SCREW HOLDING DRIVERS

Stock Number	Blade Diameter and Length	Price
OK 23	1/8"x3"	$ .98
OK 24	1/8"x4"	1.02
OK 26	1/8"x6"	1.08
OK 28	1/8"x8"	1.12
OK 34	3/16"x4"	1.30
OK 36	3/16"x6"	1.36
OK 38	3/16"x8"	1.42

BULL DRIVERS® FOR EXTRA POWER

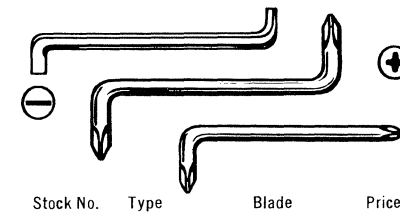


A man's size driver for a man's size job. 35% larger handle provides 35% more power and 100% more comfort.

Round Blade (Keystone Blade)

Stock Number	Blade Diameter and Length	Price
BD 144	1/4"x4"	$1.48
BD 146	1/4"x6"	1.58
BD 156	5/16"x6"	1.98
BD 158	5/16"x8"	2.08
Phillips Blade		
BD 122	#2 Phillips	1.48
BD 133	#3 Phillips	1.98

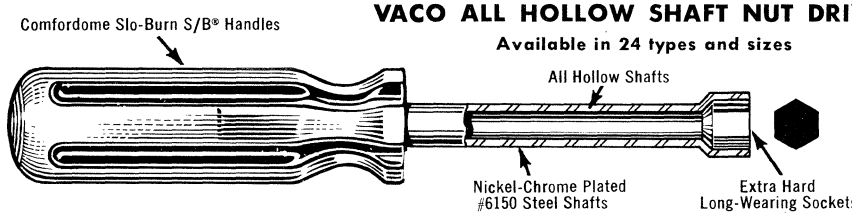
OFFSET SCREW DRIVERS

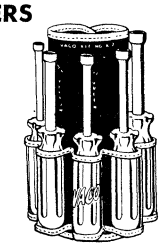


Stock No.	Type	Blade	Price
VO 1	Regular	5/32" x 3"	$ .48
VO 2	Regular	1/4" x 4"	.78
P 120	Phillips	#1 point one end, #2 point other end	.68
P 111	Phillips	#1 point both ends	.54
P 222	Phillips	#2 point both ends	.60

VACO ALL HOLLOW SHAFT NUT DRIVERS

Available in 24 types and sizes





K-7 Self-Standing Kit $8.60
Includes 7 nut drivers (3" shaft lengths) each in own pocket marked for size and color.

COLOR CODED HANDLES FOR QUICK IDENTIFICATION

Standard 3" Shaft Lengths

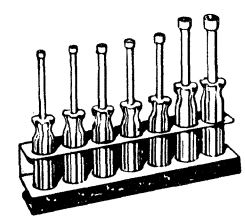
Stock No.	Hex Size	Overall Length	Color Key	Price
S 6	3/16"	6-5/8"	Black	$ .96
S 8	1/4"	6-5/8"	Red	.96
S 10	5/16"	6-5/8"	Yellow	.96
S 11	11/32"	6-5/8"	Green	.96
S 12	3/8"	6-5/8"	Blue	.96
S 14	7/16"	7"	Brown	1.18
S 16	1/2"	7"	Orange	1.18

ALSO AVAILABLE

Stubby sizes 1/4", 5/16", 3/8"

Odd sizes 7/32", 9/32"

Extra Large sizes 9/16", 5/8"



S-700 Bench Stand $8.00
All metal for permanent attachment to bench or wall. 7 drivers.

Trade Discount Applies To List Prices Only

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Chicago 11, Illinois

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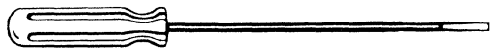
SPECIALTY SCREW DRIVERS • KITS

- **Nickel-Chrome Plated #6150 Steel Blades will not rust or corrode**
- **Comfordome Slo-Burn S/B® Amberyl® Handles are easy on the hands**

BERYLLIUM COPPER DRIVERS



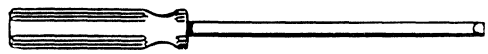
Round Blade, Non-Spark, Non-Magnetic

Stock Number	Blade Diameter and Length	Price
VB 26	1/8" x 6"	$1.34
VB 210	1/8" x 10"	1.48
VB 38	3/16" x 8"	2.36
VB 46	1/4" x 6"	2.94
VB 48	1/4" x 8"	3.24

INSULATED BLADE SCREW DRIVERS

VR 241	1/8" x 4"	.84
VR 261	1/8" x 6"	.96
VR 281	1/8" x 8"	1.00
VR 361	3/16" x 6"	1.12
VR 381	3/16" x 8"	1.16

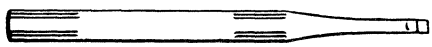
NON-METALLIC RADIO AND TV ALIGNERS



Bone Fiber Blade

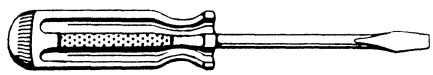
AT 55	5/32" x 5"	.74
AT 510	5/32" x 10"	.86

NON-MAGNETIC METAL TIP RADIO AND TV ALIGNER



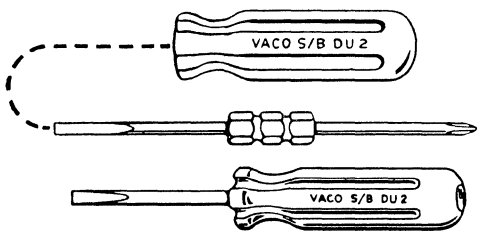
Stock Number	Body Size	Bit Diameter	Capacitance	Price
AT 45	3/8" x 5-1/2"	3/16"	Slight	$ .60

NEON LIGHT SCREW DRIVERS



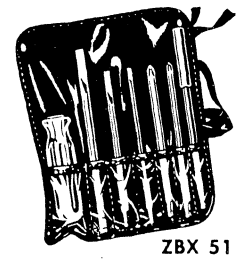
Stock Number	Blade Diameter and Length	Price
AN 44	1/4" x 4"	$1.78
AN 2 (Pocket Clip)	1/8" x 3"	1.08

DUPLEX "REVERSIBLE" DRIVERS



Stock Number	Blade Size and Type	Price
DU 2	No. 1 Phillips, One End 3/16" Regular, Other End	$1.46
DUH 4	No. 2 Phillips, One End 1/4" Regular, Other End	1.76
DUP 12	No. 1 Phillips, One End No. 2 Phillips, Other End	1.94

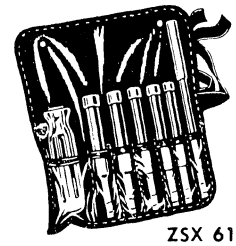
VACO RADIO and TV KITS



ZBX 51

ZBX 51 Screw Driver Kit.....$5.22

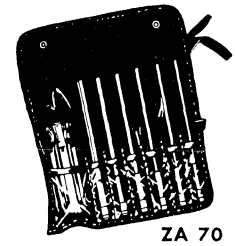
A fine, all-purpose kit of interchangeable regular and Phillips blades that fit same handle. 6" extension makes 10 combinations possible. In durable leatherette bag.



ZSX 61

ZSX 61 Nut Driver Kit.....$6.30

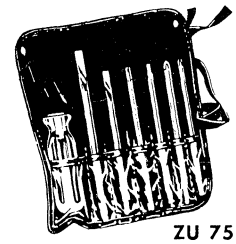
A most versatile and complete hexagon wrench kit for radio, television or any other work requiring speedy nut setting. All sockets are super hard for maximum utility and long life. 6" extension makes 10 blade lengths possible. In handy leatherette tool roll.



ZA 70

ZA 70 Allen Driver Kit.....$5.12

This useful kit consists of 6 hexagon drivers, handle and bag. Will service hexagon recessed opening screws Nos. 4, 5, 6, 8, 10, 1/4", 5/16", and 3/8". Each bit is extra long and may ground back as wear occurs.



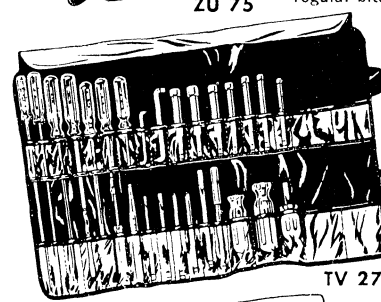
ZU 75

ZU 75 Universal Driver Kit.....$5.22

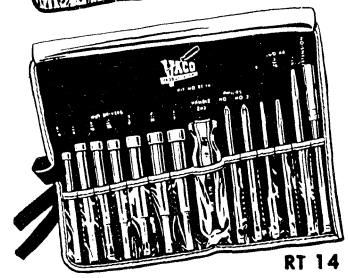
Here is a kit that is universal in its applications since it will serve all three types of the most popular screws in use today—regular slotted, Phillips, and clutch head. All popular size blades are included—3/16", and 1/4" for regular slotted screws; No. 1 and No. 2 Phillips; 5/32" x 3/16" clutch head.

27-Piece TV and Radio Kit.....$26.42

NO. TV 27 KIT—Contains practically every hand tool necessary for television and radio work, plus extra pockets for pliers and other personal tools according to individual preferences. Contains one each of the following: ZH 1 medium duty handle; ZH 2 heavy duty handle; ZX 56 extension; A 132 1/4" stub; 1/4", 3/16", 1/8" regular bits; No. 1 Phillips and No. 2 Phillips bits; 3/16", 1/4", 5/16", 11/32", 3/8", 7/16" and 1/2" hex. wrenches; AT 45 metal tip aligner; A 116-2 3/32" pocket clip; P 01 #0 Phillips thin blade; OK 24 1/8" screw holding; VR 261 1/8" insulated blade; OK 38 3/16" screw holding; VR 381 3/16" insulated blade; VB 210 1/8" x 10" non-magnetic adjuster; AT 510 5/32" fiber aligner; VO 2 medium offset; VO 1 small offset.



TV 27



RT 14

14-Piece TV and Radio Kit $11.98

NO. RT 14 KIT—Here's a handy, convenient kit for radio and TV service men. Contains nut drivers, Phillips and regular drivers, plus ZH 2 heavy duty handle and famous Vaco 6" extension which doubles the usefulness of each driver. In durable leatherette tool roll.

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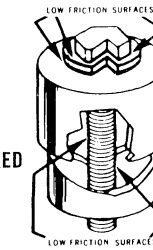
Walsco ELECTRONICS CHASSIS PUNCHES

NEW *"LT" (LOW TORQUE) CHASSIS PUNCHES

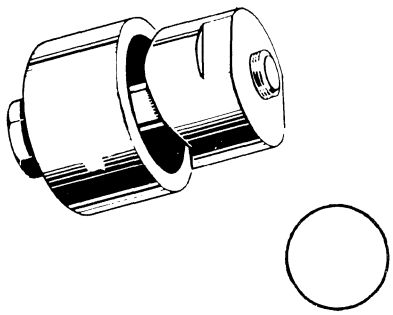
A brand-new electro-coating process (which can't wear off) reduces friction, thus lowers torque. You get a much cleaner hole with much less effort. The Walsco "L.T." Chassis Punch requires no lubrication of any kind and will give perfect service almost indefinitely.

50% LESS EFFORT REQUIRED THAN COMPETITIVE PUNCHES



ROUND CHASSIS PUNCHES

Made of hardened, precision-ground, tool steel. Quick and easy to operate. Saves hours of hard work.

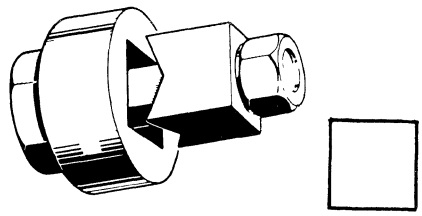


Cat. No.	Punch Size	Pilot Bolt Size	Pilot Hole Drill Size	Net
3050-R	1/2"	1/4	5/16"	$2.80
3062-R	5/8"	5/16	3/8"	2.63
3069-R	11/16"	3/8	7/16"	2.60
3075-R	3/4"	3/8	7/16"	2.60
3087-R	7/8"	3/8	7/16"	2.60
3100-R	1"	3/8	7/16"	2.85
3106-R	1 1/16"	3/8	7/16"	3.00
3112-R	1 1/8"	3/8	7/16"	3.00
3116-R	1 5/32"	3/8	7/16"	3.00
3117-R	1 11/64"	3/8	7/16"	3.00
3119-R	1 3/16"	3/8	7/16"	3.00
3125-R	1 1/4"	3/8	7/16"	3.00
3137-R	1 3/8"	1/2	9/16"	4.17
3150-R	1 1/2"	1/2	9/16"	4.92
3225-R	2 1/4"	3/4	7/8"	9.92

* LOW TORQUE

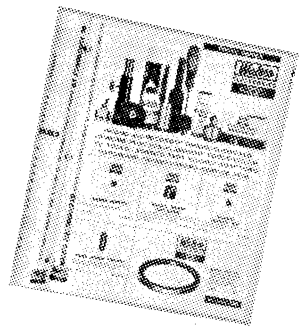
SQUARE CHASSIS PUNCHES

Very handy for mounting I.F. transformers, or for "nibbling" larger square holes such as may be required for power transformers, tuning condensers, etc. Finest quality steel.



Cat. No.	Punch Size	Pilot Bolt Size	Pilot Hole Drill Size	Net
3062-S	5/8"	3/8	1/2"	$5.95
3075-S	3/4"	3/8	1/2"	6.50
3087-S	7/8"	3/8	1/2"	6.55
3100-S	1"	3/8	1/2"	8 25

* LOW TORQUE



JUST OFF THE PRESS

The all new Walsco Catalog containing the very latest in Phono Drives, Chassis Punches, service aids, chemicals and hardware.

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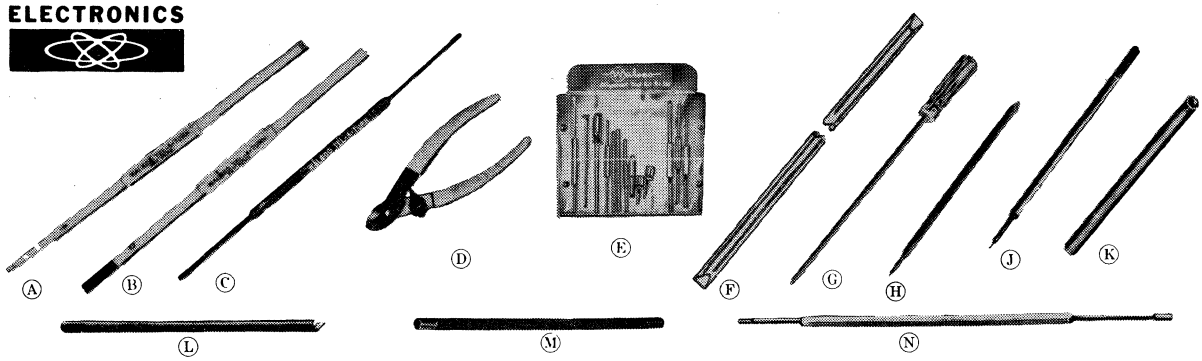
Walsco ELECTRONICS ALIGNMENT AND SPECIAL TOOLS



(A) I.F. Aligner and also double-ended. One end fits a #4 stud, the other end fits a #6 stud.
Cat. No. 2586 Tel-A-Turn Tool Net **$1.05**

(B) An alignment screwdriver with a standard metal tip at one end. The other end has a very thin 7/64" wide metal blade for small can openings.
Cat. No. 2587 Tel-A-Turn Tool Net **$1.05**

(C) A double ended Hex Aligner that turns both top and bottom slugs. One end has .100" hex, the other end is .125" hex.
Cat. No. 2588 Tel-A-Turn Tool Net **$1.05**

(D) WALSCO STRIP-ER-CLIP. A brand new precision tool with an exclusive safeguard that prevents accidental nicking or cutting while wires are being stripped. Strips and clips all wires ranging from 14 to 26 gauge.
Cat. No. 595-X Net **$1.38**

(E) "LUCKY 13" ALIGNMENT TOOL KIT. Carefully selected as the most needed tools, for the Service-Technician in Electronics, TV, Hi-Fi and Printed Circuit Work.
Cat. No. 582 Net **$8.73**

(F) NEW "SLIM-FIBREGLASS STICKS." New precision made Walsco Slim-Sticks are made of durable fibreglass. Completely non-metallic.
Cat. No. 2531-X 1/8" Dia. x 12" Long Net **$ .42**
2532-X 1/8" Dia x 16" Long **.57**
2534-X 5/32" Dia. x 12" Long **.48**
2535-X 5/32" Dia. x 16" Long **.72**

(G) WALSCO "GLAS-STICKS." Precision made machined fiberglas reinforced polyester alignment screwdriver.
Cat. No. 2537 5/32" Dia., 7" blade Net **$ .85**
2538 5/32" Dia., 14" blade **1.15**

(H) DUPLEX ALIGNMENT SCREWDRIVER. Large end is 7/32" wide; small end, 5/32" wide. Tip thickness conforms to standard slot dimensions, 7" long.
Cat. No. 2520 Net **$ .62**

(J) ALIGNMENT TOOL FOR WESTINGHOUSE, ETC. Especially designed to fit Westinghouse and other sets. Very thin tip for small can openings.
Cat. No. 2541 5¾" long Net **$ .57**

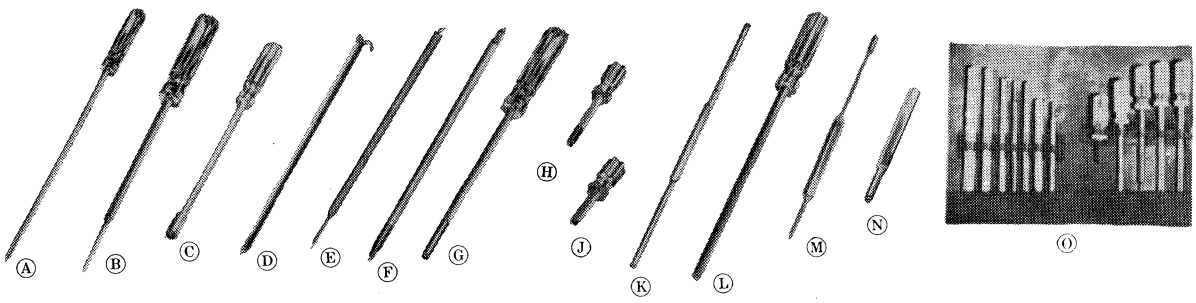
¼" HEX I.D. NEUTRALIZING WRENCH. Made of tough, flexible, Lo-loss plastic. If corners wear round, just trim back, 7½" long, ⅜" round O.D.
Cat. No. 2503 Net **$ .37**

(K) 5/16" HEX I.D. NEUTRALIZING WRENCH. Durable Lo-loss plastic gives long service life. 7½" long, 5/16" O.D.
Cat. No. 2508 Net **$ .37**

(L) METAL TIP ALIGNMENT SCREWDRIVER. Combines low capacitance desirable in alignment tool with mechanical strength of metal screwdriver. Plastic handle, 7/32" diameter, 6" long over all.
Cat. No. 2525 Net **$ .42**

(M) WALSCO TUNING WAND. Rod with one end made of brass, the other loaded with powdered iron—for checking coils.
Cat. No. 2540 Net **$ .53**

(N) DOUBLE END NYLON HEX IRON CORE TOOLS—For .075", .100" and .125" Cores. Turn both top and bottom coil slugs with this one handy tool. One end under cut for turning bottom slug separately.
Cat. No. 2542 .125" Hex, 5" long, Hex Handle Net **$ .48**
2543 .100" Hex, 5" long, Hex Handle **.48**
2544 .100" Hex, 11" long, knurled ¼" Handle **.63**
2545 .100" Hex, 11" long, thin, 5/32" Handle **.63**
2546 .075" Hex, 11" long, knurled ¼" Handle **.63**
2547 .075" Hex, 11" long, thin, 5/32" Handle **.63**



(A) "THE LONG RANGER." A full 12", slim, completely insulated tuner alignment tool. Features tough, replaceable, molded nylon tip.
Cat. No. 2523 Net **$1.60**

(B) TURRET TUNER TOOL. A tool for adjusting all sets using "Standard Coil" and similar turret-type tuners.
Cat. No. 2522 Net **$ .92**

(C) PHILCO TUNER TOOL. A special tool for 1946-48 front-end tuners.
Cat. No. 2518 Net **$1.20**

(D) WIRE DRESSING & ALIGNMENT TOOL. A handy dual-purpose tool with a thin 7/32" Butyrate handle. One end is a special tool for dressing wires in hard-to-reach places. Other end with a low capacitance metal screwdriver tip.
Cat. No. 2512 Net **$ .45**

(E) K-TRAN ALIGNMENT TOOL. This tough, double-use tool is machined at one end to fit the slots on all K-Tran miniature I.F. transformers.
Cat. No. 2515 Net **$ .60**

(F) "SLUG SAVER" TUNER TOOL. New patented tool for aligning "Standard Coil" front ends. Prevents "loosing" slugs, thru ingenious "step" design.
Cat. No. 2528 7½" long Net **$ .67**

(G) SLOTTED STUD DRIVER. An 8¼" long precision screwdriver with blade to fit No. 6 studs.
Cat. No. 2516 Net **$ .92**

(H) I.F. ALIGNER. 2½" long molded high-impact styrene . . . for RCA, Zenith and others.
Cat. No. 2527 Net **$ .58**

(J) STUBBY STUD DRIVER. The only screwdriver only 2" long overall. Fits No. 6 studs.
Cat. No. 2517 Net **$ .60**

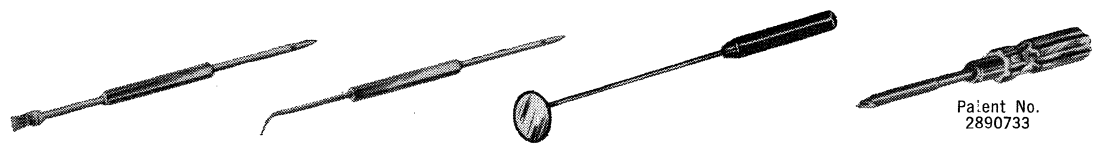
(K) STANDARD ALIGNMENT TOOL. Screwdriver blades are made with extra-thin tempered Swedish steel and are recessed so that they will slide easily over a stud and will not slip off.
Cat. No. 2519 Net **$ .67**

(L) SLOTTED SCREWDRIVER. Instead of a blade, this tool has a slot to fit No. 6 studs. For many of the older TV sets.
Cat. No. 2524 Net **$1.00**

(M) DOUBLE ENDER. A 5½" long, molded-nylon tool, with one end to fit hex studs, the other end being a very small screwdriver.
Cat. No. 2526 Net **$ .37**

(N) I.F. ALIGNER TOOL. Designed for I.F. Alignment of Zenith, RCA and other similar types. Made of molded nylon. 5½" long.
Cat. No. 2521 Net **$ .53**

(O) WALSCO TV-FM ALIGNMENT TOOL KIT. Kit contains 12 tools. These are all standard Walsco tools and come in a handy leatherette case or wall rack for mounting above work bench.
Cat. No. 580 Leatherette case. Net **$7.20**
581 in wall rack **7.50**



Patent No. 2890733

WALSCO SPECIAL TOOLS

SOLDER-AID TOOL. Wire brush makes removing of solder a cinch. Forked tool end and brush made of special stainless steel to which solder will not stick.
Cat. No. 2529 8"long plastic handle Net **$1.00**

SOLDER-AID TOOL. Similar to #2529 but has very thin curved hook in place of brush. Designed for use in delicate printed circuit work.
Cat. No. 2530 8" long plastic handle Net **$1.00**

INSPECTION MIRROR. High-visibility polished glass reflection mirror is protected against breakage by a heavy gauge plated metal backing. Has plastic, insulated grip.
Cat. No. 554 Net **$ .42**

MINI-HOLD SCREWDRIVERS. Designed primarily to speed replacing phono cartridges. Exclusive "wedge-action" securely grips extremely small screws (#1 to #4) "Mini-hold" measures just 2⅞" when in use.
Cat. No. 2568 2⅞" long, "Open" length 3¼" Net **$2.14**
2569 7" long **2.40**

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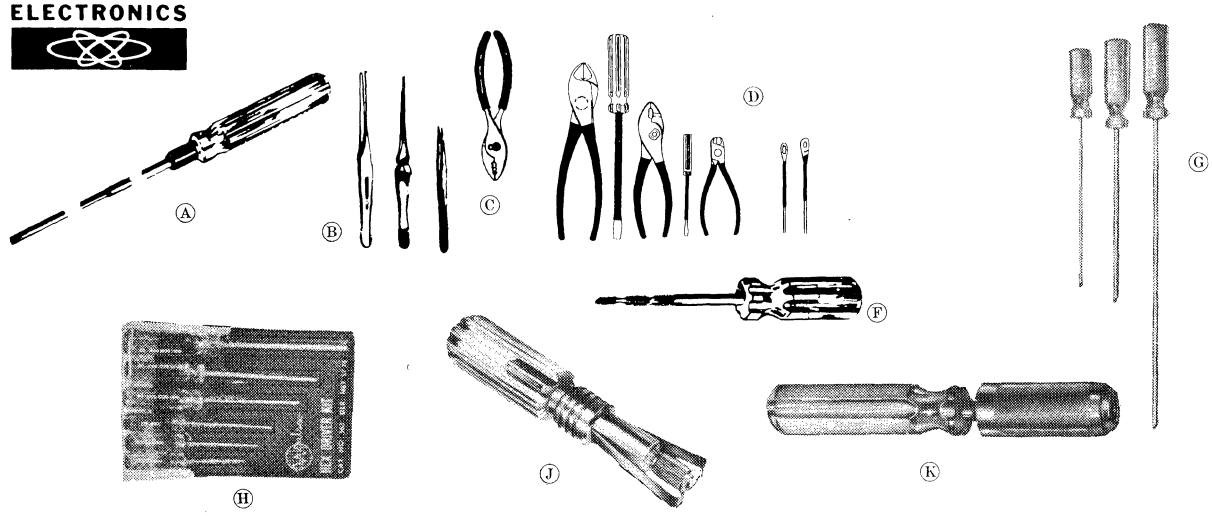
Walsco ELECTRONICS ALIGNMENT AND SPECIAL TOOLS



(A) WALSCO SLUG RETRIEVING & SCREW HOLDING TOOL — Especially designed for removing "lost" TV Tuner slugs in Standard Coil Tuners. Excellent screw holding tool. End is precision-ground of hardened steel.

Cat. No. 2565 11" Lgh. Net **$2.70** ea.
Cat. No. 2566 15" Lgh. Net **$3.25** ea.
Cat. No. 2567 19" Lgh. Net **$4.30** ea.

(B) WALSCO SERVICE TWEEZERS — For handling small parts in crowded spaces. Walsco Tweezers are indispensable. They are made of forged steel, polished nickel-plated.

Cat. No. 570 Self-Closing Tweezer with cross-over action, 6½" long, serrated, blunt points. Net **$ .78**

Cat. No. 571 Heavy-Duty Tweezer with slide-lock feature. 6½" length, serrated, blunt points. Net **$ .90**

Cat. No. 572 Precision Tweezer with narrow, pointed ends especially suitable for delicate work. Over-all length 4½". Net **$ .52**

Cat. No. 575 Tweezer Kit, made of durable leatherette, containing one each of the above listed tweezers. Net **$2.42**

(C) EASY-ON TOOL GRIP — Designed for pliers, cutters, diagonals, wire, snippers, etc. Made of flexible, elastic plastic. Gives superior insulation and protection against electrical shock.

Cat. No. 521 Small Net **$ .23** per pr.
Cat. No. 522 Med. Net **$ .27** per pr.
Cat. No. 523 Large Net **$ .33** per pr.

(D) WALSCO PROTECTO TUBE — Insulate the handles of your pliers, wire cutters, screwdriver shanks neatly and effectively with Walsco Protecto Tube.

Cat. No. 18K Net **$1.20**

(F) 3-STEP TAP — Eliminates the need for carrying 3 separate taps and handle. Designed for reaming holes, tapping new holes, etc. Sizes are 6/32, 8/32 and 10/32.

Cat. No. 2574 Net **$3.50**

(G) NON-MAGNETIC BERYLLIUM SCREWDRIVERS — Ideal for making adjustments near magnetic fields such as in focalizers of TV sets. Does not affect TV picture as a steel tool would.

Cat. No. 2560 ⅛" Dia., 9" Overall Length Net **$ .87**
Cat. No. 2561 ⅛" Dia., 13" Overall Length Net **$ .93**
Cat. No. 2562 3/16" Dia., 9" Overall Length Net **$1.48**
Cat. No. 2564 3/16" Dia., 13" Overall Length Net **$1.65**

(H) HEX DRIVERS — Blades are made of high torque, heat treated, alloy steel and are permanently embedded in shock and chip-proof plastic handles.

(J) TWISTO WIRE STRIPPER — A low-cost, pocket-size, precision stripper. Operating on an entirely new principle, the Walsco Twisto Wire Stripper permits stripping insulation right up next to a soldered connection, plug or socket.

Cat. No. 592-00 Net **$3.00**
Cat. No. 592-03
Replacement Blades **$ .67** per set

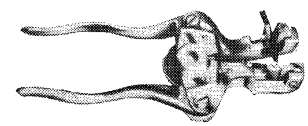
(K) WALSCO KNURL-TITE WRENCH — Tighten or loosen knurled finish nuts quickly and easily. The knurled nut is slipped into the collet-type pressure jaws. A quarter turn of the handle results in a positive vise-like grip.

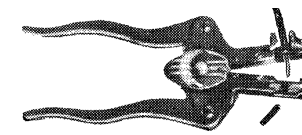
Cat. No. 2581 ⅜" Dia. nut Net **$4.83**
Cat. No. 2582 ½" Dia. nut Net **$4.83**
Ca. No. 2583 ⅝" Dia. nut Net **$4.83**

FREE CATALOG

Send for the Big New Catalog of the Complete Walsco Line

Walsco Electronics Co.
Div. GC-Textron Electronics, Inc.
Rockford, Ill., U.S.A.





SPEED-O-MATIC WIRE STRIPPERS—With fully automatic—delayed-action return that prevents the crushing of fine stranded wires. Completes the stripping operation with one simple squeeze of the handles. Strips all types of wire insulation from #10 to #30 wires by easy exchange of cutter blades.

Cat. No. 594-01 For #8 to #22 Net **$5.93**
Cat. No. 594-02 For #10 to #18 **5.93**
Cat. No. 594-03 For #14 to #30 **5.93**
Cat. No. 594-04 For #16 to #22 **5.93**
Extra Blades for Above set **1.43**

TRIG-O-MATIC WIRE STRIPPERS — Similar to 594 but has a Trig-O-Matic action that holds jaws open until released. Especially desirable for stripping of fine stranded wire.

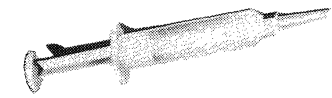
Cat. No. 593-01 For #10 to #22 Net **$5.93**
Cat. No. 593-02 For #10 to #18 **5.93**
Cat. No. 593-03 For #14 to #30 **5.93**
Cat. No. 593-04 For #16 to #22 **5.93**
Extra Blades for Above set **1.35**

NEW WALSCO VIBRA-PULL — The quickest, easiest safest way to pull auto radio vibrators. Exclusive design offers absolute protection against damage to vibrator prongs, sockets and adjacent electronic components.

Cat. No. 566 Net **$1.70**

WALSCO OILETTE — Filled with high grade Walsco oil. Dispenses accurately one drop at a time. For use on electronic and electrical devices, clocks, office machines, sporting goods, etc.

Cat. No. 986 Net **$ .83**
Cat. No. 986-22 Refill for Oilette Net **$ .33**



NEW WALSCO CHEM-O-JECTOR — A new type applicator for lubricants, greases, certain adhesives and many cleaning fluids used in electronics. Uses the "hypodermic" plunger principal, which makes it possible to reach "hard-to-get-at" places.

Cat. No. 987 Net **$ .30**

Weller DUAL HEAT Soldering Guns

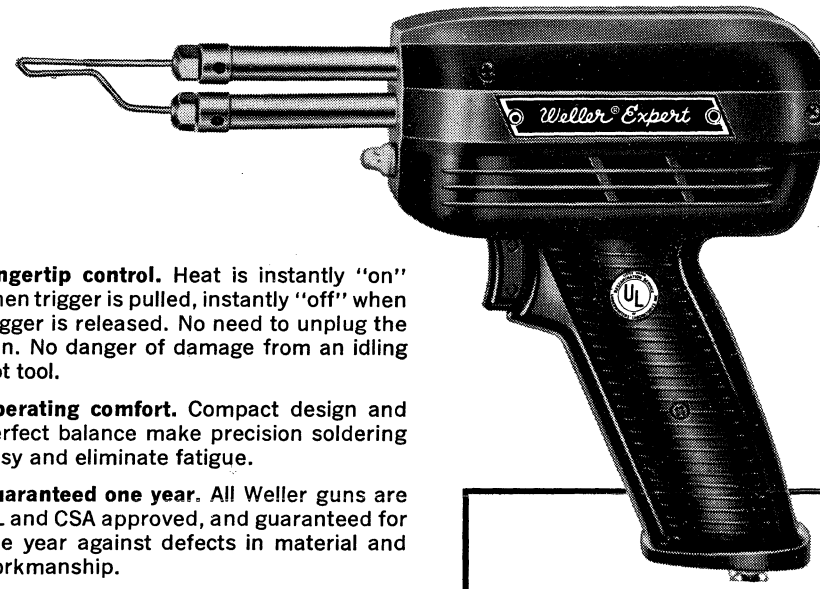
Dual heat. All Weller guns offer Dual Heat, an original Weller feature that provides two tip temperatures from the same gun. Two trigger positions permit instant switching to high or low heat, whichever is best suited for the job. The use of low heat prevents damage when soldering near heat-sensitive components and prolongs tip life. High heat is instantly available when needed.

Instant heat. Solders in seconds. No waiting for the tip to heat. No wasted current.

High-Efficiency Tip. Made of copper for superior heat transfer and optimum soldering results. Slips easily into difficult places.

Exclusive Tip Grip. Wiping action of tip fastening nuts eliminates contact resistance and oxidation. This assures full, constant heat.

Spotlight. Illuminates the work and eliminates shadows.



Fingertip control. Heat is instantly "on" when trigger is pulled, instantly "off" when trigger is released. No need to unplug the gun. No danger of damage from an idling hot tool.

Operating comfort. Compact design and perfect balance make precision soldering easy and eliminate fatigue.

Guaranteed one year. All Weller guns are UL and CSA approved, and guaranteed for one year against defects in material and workmanship.

3 Dual Heat Models

MODEL 8200—100/140 watts
MODEL D-440—145/210 watts
MODEL D-550—240/325 watts

KITS WITH ACCESSORIES

MODEL 8200PK—Dual heat 100/140 watt gun, 3 soldering tips, tip-changing wrench, flux brush, soldering aid, solder, plastic case.

MODEL D-550PK—Heavy-duty 240/325 watt dual heat gun; soldering, cutting and smoothing tips; tip-changing wrench; solder; plastic case.

Accessory and Replacement Tips for Weller Dual Heat Guns

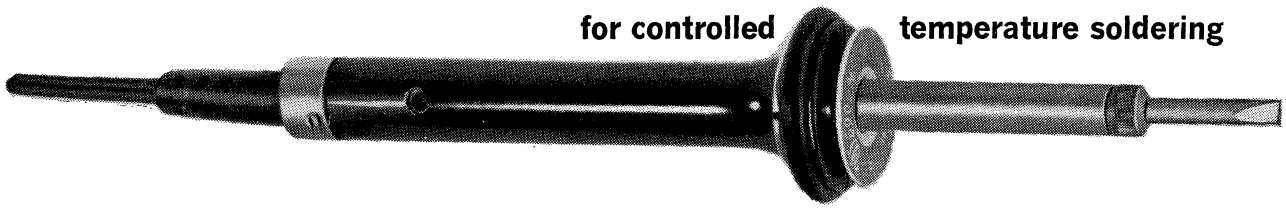
SOLDERING
For gun model 8200—Tip 7135N
For gun model D-440—Tip 7135N
For gun model D-550—Tip 7250N

SMOOTHING
For gun models D-440 and 8200—Tip 6120
For gun model D-550—Tip 6140

CUTTING
For gun models D-440 and 8200—Tip 6110
For gun model D-550—Tip 6130

Weller MAGNASTAT® Soldering Irons

for controlled temperature soldering



Only Weller brings you soldering irons with temperature control in the tip. One Magnastat iron with 3 different controlled temperature tips does the work of 3 different irons. And it maintains proper temperature for secure, reliable soldered connections.

- Tip temperature will not vary more than ±3% when idling.
- A Magnastat iron provides efficient soldering temperature under load and excellent recovery.
- Your choice of 3 different controlled temperatures by interchanging Magnastat tips.
- Weller Magnastat irons do the work of uncontrolled irons that require much higher wattage and weigh twice as much.
- The light weight of a Weller Magnastat iron reduces operator fatigue. Handle remains cool.

Over 90 Magnastat Wellertips are available. Tips come in 3 controlled temperature ranges—600°F, 700°F and 750°F—and in many different shapes.

STANDARD WELLER MAGNASTAT IRONS

MODEL NO.	WATTS	TIP
TC552 STD	55	5-CIN—750°F
TC602 STD	75	6-EIN—750°F
TC1202 STD	120	12-G4N—750°F

Furnished with standard two-wire cord and tip number designated.

OTHER COMBINATIONS AND SPECIFICATIONS

MODEL NO.	COMBINATION	WATTS	NET WEIGHT
TC552	No cord	55	3 oz.
TC552-2	2-wire cord	55	6¾ oz.
TC552-3	3-wire cord	55	7½ oz.
TC552-TL3	Twist-lock cord	55	9½ oz.
TC602	No cord	75	3½ oz.
TC602-2	2-wire cord	75	7¼ oz.
TC602-3	3-wire cord	75	8⅛ oz.
TC602-TL3	Twist-lock cord	75	10⅛ oz.
TC1202	No cord	120	6 oz.
TC1202-2	2-wire cord	120	9¾ oz.
TC1202-3	3-wire cord	120	10½ oz.
TC1202-TL3	Twist-lock cord	120	12½ oz.

WELLER ELECTRIC CORP., EASTON, PA.

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Weller® PENCIL Soldering Irons

Temperature Controlled "Low Voltage" Soldering Pencil with 3/16" 700°F tip and power unit—**MODEL W-TCP**

SPECIFICATIONS

Wattage	Voltage	Weight with Tip, Less Power Unit and Cord	Overall Length of Iron with Tip	Tip Retainer O. D.
60	120 V.* 50/60 Cycles	1¼ oz.	7½"	5/16"

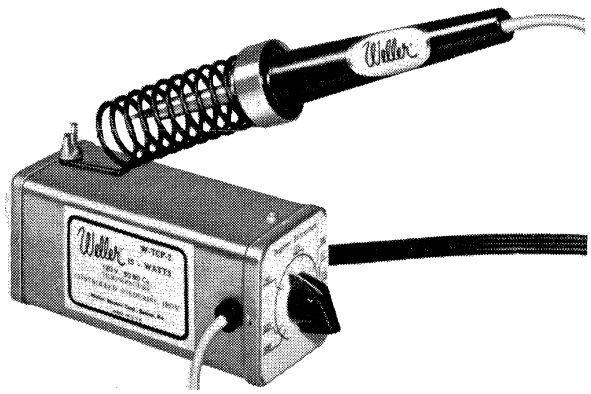
*220 V., 50/60 Cycles available upon request at same price.

Temperature Controlled "Low Voltage" Soldering Pencil

For production line and research laboratory use where accurate control of tip temperature is essential to meet rigid soldering specifications. Choice of 3 different tip temperatures from one soldering pencil merely by interchanging 3 different controlled temperature tips.

- Temperature control is in the tip. Choice of 500°F, 600°F and 700°F tip temperatures.
- Extremely small and light in weight. Easy to control.
- Suitable for miniature or general soldering.
- High efficiency and rapid recovery. Packed with plenty of reserve power.
- Low 24 volt operation for component and user protection.
- Isolated for elimination of leakage current.
- Handle of high-impact plastic remains cool.
- Interchangeable tips are premium plated.
- Soldering iron stand attached to power unit.
- Power cord is silicon rubber covered, extremely flexible and easy to maneuver. Doesn't break or burn.

Interchangeable tips available: 1/16", 3/32", 1/8" and 3/16" screwdriver with choice of 500°F, 600°F and 700°F controlled temperatures.



Continuously Variable Temperature Controlled Soldering Pencil with 1/16" tip and power unit—**MODEL W-TCP-2**

SPECIFICATIONS

Wattage	Voltage	Weight with Tip, Less Power Unit and Cord	Overall Length of Iron with Tip	Tip Retainer O. D.
15	120 V.* 50/60 Cycles	1¼ oz.	7½"	5/16"

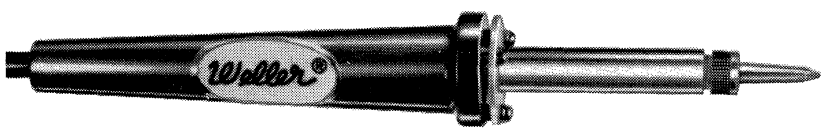
*220 V., 50/60 Cycles available on request at same price.

Continuously Variable Temperature Controlled Soldering Pencil with SCR and Thermistor Control Circuit

Has exclusive features found in no other soldering iron. Offers a wide range of controlled tip temperatures via Electronics SCR and Thermistor circuitry, and is designed for low temperature, miniature soldering applications.

- Continuously variable temperature controlled at the tip from 200°F to 450°F.
- Dial the tip temperature that's best suited for the job.
- Extremely small and light in weight.
- Operates at 24 volts from an isolated secondary winding for complete operator and equipment safety.
- Handle of impact resistant plastic remains cool.
- Interchangeable tips are premium plated.
- Soldering iron stand attached to power unit.
- Power cord is silicon rubber covered, extremely flexible and easy to maneuver. Doesn't break or burn.

Interchangeable tips: 1/16" screwdriver and 1/32" conical flat. Others available on special request.



"Industrial Rated" Pencil Soldering Iron

- Low cost 115 volt iron has tip temperature of 860°F with 25 watt input. Ideal for miniature type soldering.
- High efficiency and rapid recovery.
- Does the work of irons that require much higher wattage.
- Lightweight design reduces operator fatigue, provides accurate control.
- Rugged heating element designed for durability, long service.
- Readily replaceable parts. Change your own heating element or cord set.

Interchangeable tips available: 1/16", 3/32" and 1/8" screwdriver. Premium plated for long life.

WELLER ELECTRIC CORP., EASTON, PA.

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NATIONALLY ADVERTISED WEN HAND POWER TOOLS

SOLDERING all GUN MODEL 450 NEW

Long reach, single post, long life rigid copper tip; Instant heat, fast cooling; lightweight, perfect balance; pre-focused spotlight.

No. 45F7 25-100 watt heat power for printed circuit boards **$1.30**

No. 45M7 100-200 watt power for home wiring, appliances **$1.30**

No. 45A7 200-450 watt heat power for gutters, plumbing **$1.30**

$13.95 includes heavy duty tip

No. 45P7 Flat iron attachment removes wood dents, seals plastic bags **$.60**

No. 45S7 Plastic cutting attachment cuts plastic, tile **$.60**

The new Wen "All" Gun does any soldering job you can think of from delicate kit work and printed circuits to appliance repair to heavy jobs formerly requiring an industrial type soldering iron. Convenient trigger on/off switch, shock resistant black case. A full range of heat power . . . just select the proper tip.

SOLDERING PISTOL WITH ATR

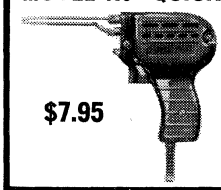
MODEL 75 $4.95

Perfectly sized and balanced for work normally done by a soldering "pencil" yet with plenty of capacity for heavy jobs. Use of a new space-age metal produces heat of 100 watt device from a peak surge rating of 50 watts and a normal draw of only 30 watts. Heavy copper tip permits repeated dressing down for long life. Convenient trigger switch, spotlight, pistol grip with perfect balance. Operates on 110-120 volts, 60 AC.

MODEL 100 SOLDERING GUN KIT $7.95

All the plus features of the 100 watt Model 100 Soldering Gun in a convenient, colorful book-fold carton. An extra plastic tile cutting tip and rosin solder included.

MODEL 199 "QUICK HOT" SOLDERING GUN



$7.95

Low priced, general purpose. An electronic gun ideal for soldering wires, connection light gauge metals, 130 watts 1½ lbs. wt., has new type Long Nose-Long Life tip. Melts solder in 2½ seconds.

$9.95 **MODEL 199K HOME UTILITY KIT**

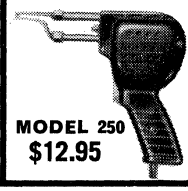
Includes Model 199 Soldering Gun with long-life, long nosed Soldering tip; plastic tile cutting and putty removing tip; flat iron tip for removing dents from wood and sealing plastic bags.

HEAVY DUTY 200 W. SOLDERING GUN

MODEL 288 $9.95

Has modern long-nose, long life tip. Melts solder in less than 5 seconds. Perfect balance. Spotlight and shatter proof case. Transfers more heat volume, yet weighs less than other comparable guns.

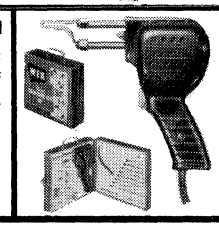
HEAVY DUTY 250 W. SOLDERING GUN



MODEL 250 $12.95

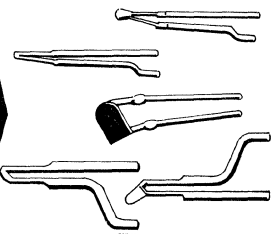
This "quick hot" electronic gun is the standard one of the industry. Greater volume of heat enables it to solder relatively heavy materials, handle production jobs, and do intermittent soldering.

MODEL 250K KIT $15.95



Includes the famous heavy duty "quick hot" 250 watt soldering gun with feroloy tip for heavy soldering, a plastic cutting tip, a flat iron tip for furniture dent removal.

EXTRA TIPS FOR WEN SOLDERING GUNS



UNIVERSAL TIPS FOR MODELS 100, 288 AND 250 SOLDERING GUNS

No. U4—Universal Tip complete with adapters for light duty **$.70**

EXTRA TIPS FOR MODEL 75 PISTOL
No. 75A7 Standard Soldering Tip Assembly **$1.00**
No. 75B7 Fine Point Tip Assembly **$1.00**

EXTRA TIPS FOR 100 AND 199 GUNS
No. 19B4 Soldering Tip **$.50**
No. 19C1 Plastic Tile Cutting Tip **$.60**
No. 19F33 Flat Iron Tip (dent removing) **$.60**

EXTRA TIPS FOR 288 GUN
No. 28C4 Soldering Tip **$.60**
No. 28C1 Plastic Tile Cutting Tip **$.60**
No. 19F33 Flat Iron Tip (dent removing) **$.60**

EXTRA TIPS FOR 250 GUN
No. 25A4 Soldering Tip **$.25**
No. 25X20 "Feroloy" long-life soldering Tip **$.50**
No. 25C1 Plastic Tile Cutting Tip **$.50**
No. 25F33 Flat Iron Tip (dent removing) **$.60**

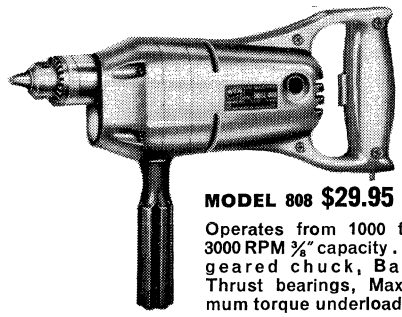
MULTI-SPEED ALL-DRILL

MODEL 950 $44.95

Light weight, easy to handle Brite Finish aluminum die castings; perfect balance heavy duty auxiliary handle. Built for heavy duty continuous operation.

This four-speed range, (plus reversible) drill assures perfect workability in any material—alloy and cold rolled steel, cast iron, brass aluminum, bronze, plastics and masonry. Two-gear reduction speed positions, with lever action gear shift; two-electronic reduced speeds in each gear position; ½" geared Jacobs chuck; tremendous torque, without heat, in low gear position; ample torque in high gear position; 6 amp. ½ HP motor, welded burnout proof armature; safety switch motor reverse; rugged needle and ball thrust spindle bearings; heavy duty gear train; locking trigger switch.

2-SPEED POWER DRILL



MODEL 808 $29.95

Operates from 1000 to 3000 RPM ⅜" capacity . . . geared chuck, Ball Thrust bearings, Maximum torque underload.

Drill in steel, masonry . . . sand, polish, drill. Here's the double duty drill that solves all drilling problems for home and professional craftsmen. It has two power takeoffs to handle both heavy duty and light precision jobs. Simply change speeds . . . 3000 RPM for boring into steel, brass, copper, aluminum—even masonry and concrete. Wen accessories come with it . . . allowing you to wax, buff, polish, mix paint—even sharpen knives and tools. Finest stressproof steel cut gears, ⅜" Jacobs geared chuck, on-off switch and lock button, lightweight cast aluminum housing.

TOTER DRILL ACCESSORY KIT

MODEL 80 K 35 $9.95

The perfect supplement to your drill: every attachment operates at the correct speed. It buffs, polishes, scratch-brushes, sands, drills, grinds, sharpens, stirs paint—has literally a hundred other uses. Drill holder, included, allows you to have both hands free. A whole workshop in one kit! Components include paint mixer, 3" wire brush, 3" buffing wheel, 3x¾" grinding wheel, 9 drills (1/16 to ¼") in plastic case, 15-5" sandpaper discs, and other extras.

BEST BUY WEN FOR YOUR MONEY

PRODUCTS INC.
CHICAGO, ILLINOIS 60631
ALL TOOLS U.L. AND C.S.A. LISTED.

Trade Discount Applies To List Prices Only
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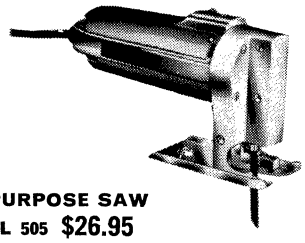
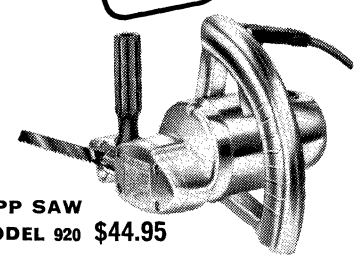
NATIONALLY ADVERTISED WEN HAND POWER TOOLS



ALL PURPOSE SAW
MODEL 505 $26.95

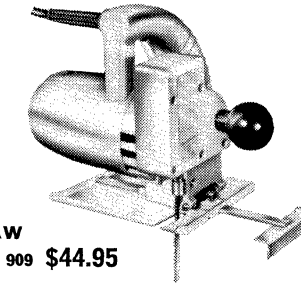
Cuts wood, plastics, metals, composition board, hard rubber and leather. Sawdust-free due to a motor fan air stream blower. Powered by a 115 volt A.C. 1.8 amp motor which delivers 2650 ⅝" strokes per minute under load. Saw is 7¼" long, 5" high.

ALL PURPOSE SAW KIT—includes 505 saw rip guide with circle cutter, 5 extra blades and metal carrying case. **$29.95**



ZIPP SAW
MODEL 920 $44.95

Specially designed for awkward angles and hard-to-reach cutting jobs. Cuts flush to corner . . . to floor. Tremendously versatile, it comes with seven blade attachments that cut everything from delicate scrollwork to plastics, metals, and 6" logs. 3200 one-inch strokes per minute, 3-wire cord.



ALL-SAW
MODEL 909 $44.95

Heavy duty, precision designed to do the job of several saws. With seven blade attachments, the All-Saw does fancy scrollwork on wood, cuts metal (up to 2" pipe), bakelite, tile, wallboard, asphalt—6-inch logs, you name it. Starts inside cut. 3400 1-inch strokes per minute.

EXTRA SAW BLADE ITEMS

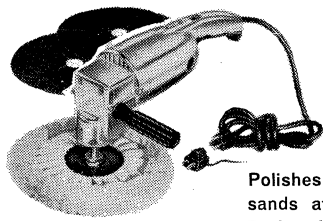
EXTRA BLADES FOR 505 SAW

	List Price	Three or More
No. 50A34—Blade package containing one each 7-10-18 teeth per inch (for coarse medium and fine cutting).	$1.20	$ .84
No. 50A35—Blade package containing three blades, all with 7 teeth per inch (coarse).	1.00	.70
No. 50A36—Blade package containing three blades, all with 10 teeth per inch (medium).	1.00	.70
No. 50A37—Blade package containing three blades, all with 18 teeth per inch. (For high speed metal cutting).	1.80	1.26
No. 50K5—Blade package containing one each 7-10-14-18-32 teeth per inch.	2.10	1.47

Extra Blades for the 909 and 920 Saws.	List Price	Three or More
No. 900—Blade package containing one each—Nos. 91, 92, 93, 94, 95, 96, 97.	$3.40	$2.38
No. 901—Blade package containing three blades all with 3 teeth per inch (very fast rough cuts).	1.80	1.26
No. 902—Blade package containing. three blades all with 5 teeth per inch (fast rough cuts).	1.50	1.05
No. 903—Blade package containing three blades all with 8 teeth per inch (medium cuts).	1.20	.84
No. 904—Blade package containing three blades all with 14 teeth per inch (fine scroll work).	1.20	.84
No. 905—Blade package containing three No. 95 Knife Blades	1.20	.84
No. 906—Blade package containing three No. 96 Blades — 14 teeth per inch (high speed steel).	1.80	1.26

	List Price	Three or More
No. 907—Blade package containing three No. 97 blades — 24 teeth per inch (high speed steel — extra fine cuts).	$1.80	$1.26
Extra Blades for the 5T1 Saw Table		
No. 50T70—Package of five blades—one of each 5 blades described below.	1.80	1.26
No. 50T71 — Package of three blades—14 teeth per inch	1.00	.70
No. 50T72 — Package of three blades—10 teeth per inch	1.00	.70
No. 50T73 — Package of three blades — 8 teeth per inch	1.00	.70
No. 50T74 — Package of three knife blades	1.00	.70
No. 50T75 — Package of three blades — 32 teeth per inch — metal.	1.80	1.26

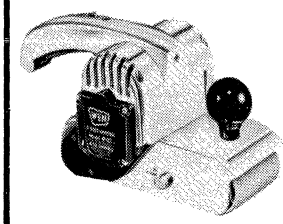
2-SPEED 7" SANDER/POLISHER



MODEL 940
$44.95

Polishes at 1800 RPM; sands at 3400 RPM. Perfect for any material. Metal, wood, plastic, fibreglass are no strangers to this remarkable tool. Sands cars, boats, floors, walls, etc. Buffs car, floor, furniture finishes to perfection. Heavy duty construction.

3" BELT SANDER



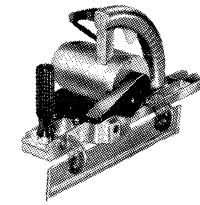
MODEL 910
$44.95

Extra-power ⅓ HP Motor, with oversize needle and oilite bearings, fingertip slide switch, and adjustable knobs.

Tough sanding jobs are now easy with this heavy duty belt sander. Removes paint, finishes rough and worn floors, smooths walls. Ideal for rough and finish work on furniture, framing, boats, metal. Sealed, permanently lubricated gear train.

ELECTRIC HAND PLANE

MODEL 930
$44.95



A fully integrated tool, not an attachment.

Ruggedly built for years of precision work. Big 16" shoe eliminates rounding over. Convenient saw grip. Powerful ½ HP burnout-proof motor runs cool for hours. Cutting width 2⅛"; depth adjustable from 0 to 1/16". Exclusive air stream chip ejector. Ideal for surface and flush planing, precise edging and beveling.

SANDER, SANDING BELT AND SANDER/POLISHER ACCESSORIES

Model 940 Sander / Polisher Paper Back Sanding Discs—Aluminum Oxide Open Coat 7" x ⅞" Hole.

Part No.		Grit	Packed to Box	LIST Price per Box
94A57	Extra Fine	120	25	$ 3.75
94A44	Fine	80	25	5.00
94A43	Medium	50	25	6.50

Fibre Back — Heavy Duty Sanding Discs Aluminum Oxide, Rosin 7" x ⅞" Hole.

94A64	Fine	80	25	$15.00
94A63	Medium	50	25	18.50
94A62	Coarse	36	25	17.50
94A65	Extra Coarse	24	25	17.65

WOOL POLISHING BONNETS

Part No.		LIST
94A29	7" Washable Bonnet with draw strings, ea.	$1.60
94A67	⅝" adapter for automotive back plates	$1.00

Sanding Belts—Paper Back, Garnet 3" x 18".

Part No.		Grit	Packed to Box	LIST Price per Box
913	Extra Fine	120	10	$ 4.80
912	Fine	80	10	4.80

Sanding Belts—Cloth Back, Heavy Duty, Aluminum Oxide.

915	Fine	80	10	$ 6.20
911	Medium-Fine	60	10	6.20
914	Medium	50	10	6.20

Model 202 Sander

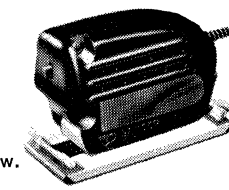
Part No.		LIST Price For Ass't
20G78	Sander Package (2 sheets each 6/0—3/0—1/0) Garnet Finishing Paper	$ .20
30G82	Sandpaper Package (2 sheets each 6/0—3/0—1/0) Aluminum Oxide Paper	.20
20G80	Felt Polishing Cloth	.15

Model 303 Sander

40G78	Sandpaper Package (5 sheets each 6/0—3/0—1/0) Aluminum Oxide Paper	.60
40G80	Felt Polishing Cloth	.20

ECONOMY SUPER SANDER/POLISHER

MODEL 202
$13.95



Straight line action gets into corners, leaves no scratches. 14,400 strokes per minute, with approximately ⅛" throw.

MODEL 404 $19.95 — HEAVY DUTY ELECTRIC POWER SANDER KIT
Amazing power development drives big sandin pad 3¼" x 6⅛"—20 sq. inches of working area.

MODEL 303 $16.95
SUPER POWER ELECTRIC SANDER KI
2½" x 5½" Sanding pad. Unbelievable concer tration of power. Covered with unbreakabl plastic case, 12 sheets of sandpaper and polishing cloths.

BEST BUY WEN FOR YOUR MONEY

PRODUCTS INC.
CHICAGO, ILLINOIS 60631
ALL TOOLS U.L. AND C.S.A. LISTED.

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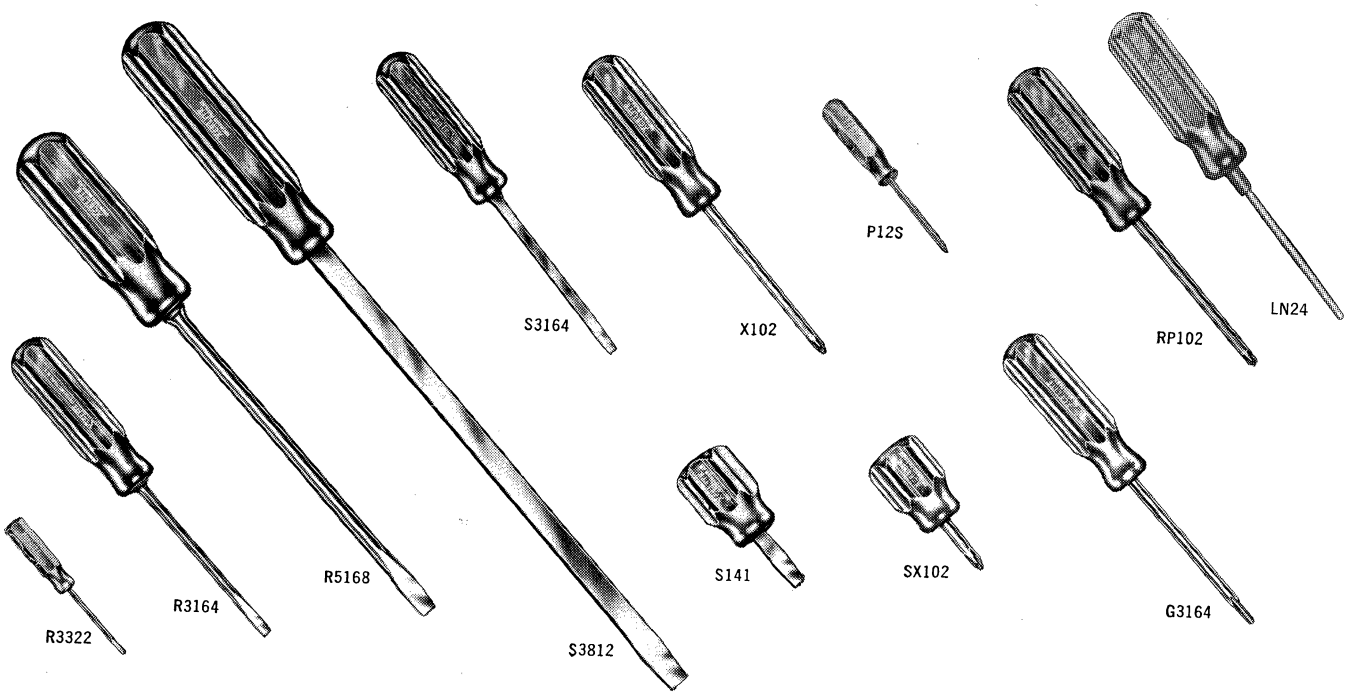
XCELITE® QUALITY PROFESSIONAL TOOLS

SCREWDRIVERS

SAE 6150 chrome vanadium steel blades. Shockproof, breakproof, plastic (UL) handles.



ROUND BLADE

Number	Size Blade	Net
	Regular	
R182	1/8″ x 2″	$ .37
R184	1/8″ x 4″	.43
R186	1/8″ x 6″	.47
R188	1/8″ x 8″	.60
R1810	1/8″ x 10″	.67
R5323	5/32″ x 3″	.50
R5324	5/32″ x 4″	.50
R5325	5/32″ x 5″	.50
R5328	5/32″ x 8″	.67
R3163	3/16″ x 3″	.63
R3164	3/16″ x 4″	.70
R3166	3/16″ x 6″	.80
R3168	3/16″ x 8″	.93
R31610	3/16″ x 10″	1.00
R142	1/4″ x 2″	.77
R144	1/4″ x 4″	.87
R146	1/4″ x 6″	.93
R148	1/4″ x 8″	1.00
R1410	1/4″ x 10″	1.07
R5164	5/16″ x 4″	.97
R5166	5/16″ x 6″	1.10
R5168	5/16″ x 8″	1.20
	Pocket Clip Style	
R3322	3/32″ x 2″	.32
R3323	3/32″ x 3″	.30
R3324	3/32″ x 4″	.30
R181	1/8″ x 2″	.32
R183	1/8″ x 3″	.30
R184½	1/8″ x 4″	.30

SQUARE BLADE

Number	Size Blade	Net
	Regular	
S3163	3/16″ x 3″	$ .73
S3164	3/16″ x 4″	.77
S3166	3/16″ x 6″	.90
S3168	3/16″ x 8″	1.00
S31610	3/16″ x 10″	1.10
S142	1/4″ x 2″	.83
S144	1/4″ x 4″	.97
S146	1/4″ x 6″	1.03
S148	1/4″ x 8″	1.13
S5162	5/16″ x 2″	.90
S5164	5/16″ x 4″	1.10
S5166	5/16″ x 6″	1.17
S5168	5/16″ x 8″	1.27
S51610	5/16″ x 10″	1.40
S51612	5/16″ x 12″	1.53
S388	3/8″ x 8″	1.53
S3812	3/8″ x 12″	2.29
S3818	3/8″ x 18″	2.37
S7166	7/16″ x 6″	1.80
S71612	7/16″ x 12″	2.20
S71618	7/16″ x 18″	2.37
S1424	1/4″ x 24″	2.00
	Stubby	
S3161	3/16″ x 1″	.50
S141	1/4″ x 1″	.57
S5161	5/16″ x 1″	.57

PHILLIPS

Number	Point Size	Size Blade	Net
		Extra Long	
X1010	1	3/16″ x 10″	$1.17
X1020	2	1/4″ x 10″	1.30
		Regular	
X100	0	1/8″ x 2″	.50
X101	1	3/16″ x 3″	.77
X108	1	3/16″ x 6″	.83
X102	2	1/4″ x 4″	.97
X103	3	5/16″ x 6″	1.30
X104	4	3/8″ x 8″	1.63
		Stubby	
SX101	1	3/16″ x 1 3/8″	.70
SX102	2	1/4″ x 1 3/8″	.77
		Pocket Clip Style	
P12S	0	1/8″ x 2″	.43

ALLEN TYPE

Number	Hex Size	Blade Length	Net
LN20	.050″	4″	$ .67
LN21	1/16″	4″	.67
LN22	5/64″	4″	.67
LN23	3/32″	4″	.67
LN764	7/64″	4″	.67
LN24	1/8″	4″	.77
LN964	9/64″	4″	.77
LN25	5/32″	6″	.77
LN26	3/16″	6″	.77
LN27	7/32″	6″	.87
LN28	1/4″	6″	.87

REED & PRINCE

Number	Point Size	Size Blade	Net
RP101	1	3/16″ x 3″	$ .73
RP102	2	1/4″ x 4″	.93
RP103	3	5/16″ x 6″	1.23
RP104	4	3/8″ x 8″	1.57

CLUTCH HEAD

Type G No.	Tip Size	Size Blade	Net
G3324	3/32″	1/8″ x 4″	$ .80
G183	1/8″	3/16″ x 3″	.80
G5324	5/32″	1/4″ x 4″	.90
G3164	3/16″	1/4″ x 4″	.90
G146	1/4″	5/16″ x 6″	1.17
G5166	5/16″	3/8″ x 6″	1.43

BERYLLIUM-COPPER

Non-sparking. Non-magnetic.
Higher fatigue resistance than steel.

Number	Size Blade Regular	Net
BR186	1/8″ x 6″	$ .83
BR1810	1/8″ x 10″	.90
BR3168	3/16″ x 8″	1.47
BR146	1/4″ x 6″	1.83
BR148	1/4″ x 8″	1.97
	Pocket-Clip Style	
BR181	1/8″ x 2″	.33

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Net

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XCELITE® QUALITY PROFESSIONAL TOOLS

COMBINATION-REVERSIBLE SCREWDRIVERS

SAE 6150 chrome vanadium steel blades. Shockproof, breakproof, plastic (UL) handles. Patented spring holds blades securely. 7/16" hex opening doubles as a nutdriver.

COMPLETE UNITS

Regular Type	Net
CR1—No. 25 handle & RB1 blade	$1.53
CR2—No. 25 handle & RB2 blade	1.53
CR3—No. 25 handle & RB3 blade	1.53
Stubby Type	
CS1—No. 26 handle & SB1 blade	1.37
CS2—No. 26 handle & SB2 blade	1.37

HANDLES ONLY

25—Regular	.67
26—Stubby	.60

BLADES ONLY

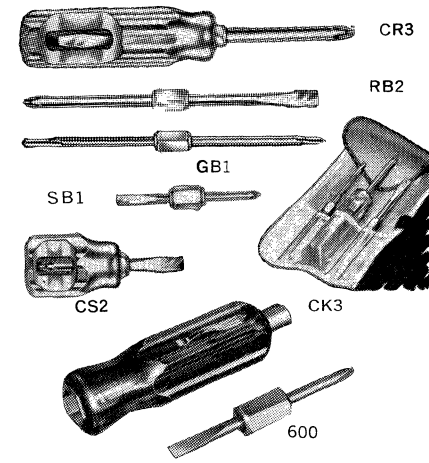
Regular Type	
RB1 — No. 1 Phillips & 3/16" Slotted	.87
RB2 — No. 2 Phillips & 1/4" Slotted	.87
RB3 — No. 3 Phillips & 5/16" Slotted	.87
RB12—No. 1 & No. 2 Phillips	.97
GB1—3/16"G & 5/32"G Clutch	$ .97
GB2—5/16"G & 1/4"G Clutch	.97
Stubby Type	
SB1—No. 1 Phillips & 3/16" Slotted	.77
SB2—No. 2 Phillips & 1/4" Slotted	.77
GS1—3/16"G & 5/32"G Clutch	.85

ROLL KIT COMBINATIONS

	Net
CK2 with No. 25 combination handle and RB1 and RB2 reversible blades	$3.00
CK3 Same as CK2, plus RB3 blade	3.87
CK5 Same as CK2, plus RB3, GB1, and GB2 blades	5.80

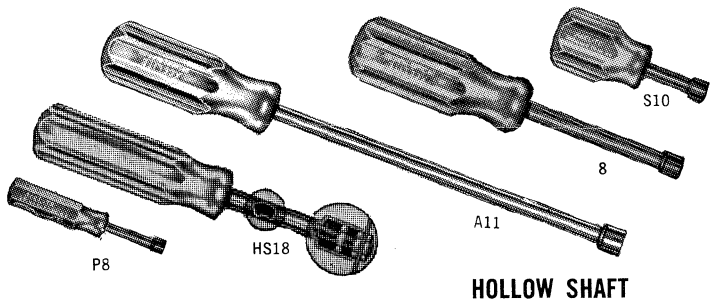
COMBINATION SCREW AND NUTDRIVER TOOL

600—Handy 4-way tool with pocket clip. 1/4" and 7/16" hex openings. Reversible SB1 blade ... Net $1.53



NUTDRIVERS (Color-Coded Handles)

Polished-plated, High Carbon Steel shafts. Shockproof, breakproof, plastic (UL) handles. Precision, cold drawn, case hardened sockets.



REGULAR (6" Overall Length)

Number	Handle Color	Hex Opening	Net
5	Amber	5/32"	$ .83
6	Black	3/16"	.83
7	Brown	7/32"	.83
8	Red	1/4"	.83
9	Orange	9/32"	.83
10	Amber	5/16"	.83
11	Green	11/32"	.83
12	Blue	3/8"	.83
14	Brown	7/16"	1.07
16	Red	1/2"	1.07

EXTRA LONG (9" Overall Length)

A6	Black	3/16"	$ .97
A7	Brown	7/32"	.97
A8	Red	1/4"	.97
A9	Orange	9/32"	.97
A10	Amber	5/16"	.97
A11	Green	11/32"	.97
A12	Blue	3/8"	.97

STUBBY (3 1/4" Overall Length)

S6	Black	3/16"	$ .70
S8	Red	1/4"	.70
S10	Amber	5/16"	.70
S11	Green	11/32"	.70
S12	Blue	3/8"	.70

HOLLOW SHAFT

Number	Handle Color	Hex Opening	Net
HS6	Black	3/16"	$1.03
HS7	Brown	7/32"	1.03
HS8	Red	1/4"	1.03
HS9	Orange	9/32"	1.03
HS10	Amber	5/16"	1.03
HS11	Green	11/32"	1.03
HS12	Blue	3/8"	1.03
HS13	Amber	13/32"	1.05
HS14	Brown	7/16"	1.05
HS15	Amber	15/32"	1.08
HS16	Red	1/2"	1.08
HS17	Amber	17/32"	1.14
HS18	Orange	9/16"	1.14
HS19	Amber	19/32"	1.26
HS20	Amber	5/8"	1.26
HS22	Amber	11/16"	1.59
HS24	Amber	3/4"	1.59

POCKET CLIP STYLE

P3	Amber	3/32"	$ .53
P4	Red	1/8"	.53
P5	Amber	5/32"	.53
P6	Black	3/16"	.53
P7	Brown	7/32"	.53
P8	Red	1/4"	.53
P9	Orange	9/32"	.53
P10	Amber	5/16"	.53
P11	Green	11/32"	.53
P12	Blue	3/8"	.53

NUTDRIVER SETS

Choice of heavy gage steel stands and racks with large readable size indexes, or pebble-grain carrying case for bench or wall. Color-coded, shockproof, breakproof, plastic (UL) handles. Polished-plated shafts.

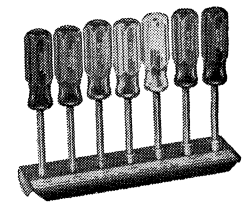
No. 17 BENCH STAND TYPE Net $6.30
Contains Nos. 6, 8, 10, 11, 12, HS16, and HS18 color-coded drivers.

No. 77 CARRYING CASE Net $6.45
Contains Nos. 6, 7, 8, 9, 10, 11, and 12 color-coded nutdrivers.

No. 137 BENCH STAND TYPE Net $7.17
Contains Nos. 6, 8, 10, 11, 12, HS16, and HS18 color-coded nutdrivers.

No. 127 LOCKABLE WALL RACK TYPE Net $6.45
Contains Nos. 6, 7, 8, 9, 10, 11, and 12 color-coded nutdrivers.

No. 147 BENCH STAND TYPE (Hollow Shaft) Net $7.9
Contains Nos. HS8, HS9, HS10, HS11, HS12, HS14, and HS16 hollow shaft, color-coded nutdrivers.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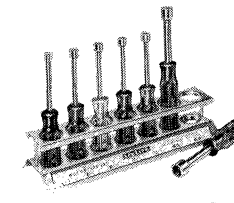
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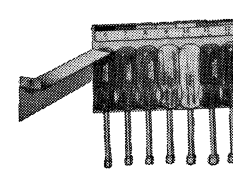
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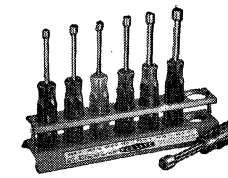
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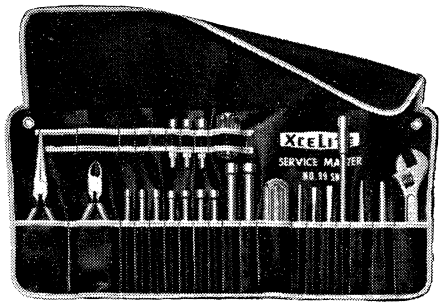
XCELITE® QUALITY PROFESSIONAL TOOLS

SERIES "99" SERVICE KITS, BLADES, AND HANDLES



No. 99SM SERVICE MASTER — Net $22.89

Contains 52CG long nose cushion grip plier, 55CG 5″ diagonal cushion grip plier, 99-3 handle (Stubby) with three nutdrivers (¼″, 5/16″, ⅜″), 46C adjustable wrench, 99-1 handle (Regular) with nine interchangeable nutdrivers (99-6 thru 99-16), one Phillips and two slotted screwdrivers, 99-X10 extension shaft, and two chrome-plated reamers.

99SMK, Kit only ..... **Net $1.92**

No. 99PR ROLL KIT — Net $8.67

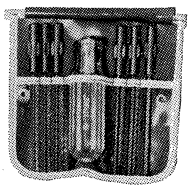
Contains nine nutdrivers (99-6 thru 99-16), 99-81 (Slotted) and 99-82 (Phillips) reversible screwdriver blades, 99-1 handle (Regular).

99K, Kit only ..... **Net $ .96**

No. 99JR ROLL KIT — Net $7.50

Contains seven nutdrivers (99-6 thru 99-12) four screwdriver blades 99-811 and 99-812 (slotted), and 99-821 and 99-822 (Phillips), 99-2 handle (Junior).

99KJR, Kit only ..... **Net $.96**



No. 99LN ROLL KIT — Net $4.47

Contains six Allen type screwdriver blades (99-21 thru 99-26) and 99-1 handle (Regular).

No. 99-30 CLEAR PLASTIC POUCH — Net $3.24

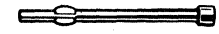
Heat sealed plastic snap case with size numbers on pockets for convenient selecting and storing. Contains six Allen type screwdriver blades (99-21 thru 99-26).

Net

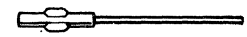
99-1 (1 1/16″ x 4⅛″) Regular Handle (for all blades, single-end and reversible) $ .77

99-2 (1″ x 3⅛″) Junior Handle (for single-end blades only) ..... .67

99-3 (1 1/16″ x 2″) Stubby Handle (for single-end blades only) ..... .60



Nutdriver Blades: 99-6 (3/16″), 99-7 (7/32″), 99-8 (¼″), 99-9 (9/32″), 99-10 (5/16″), 99-11 (11/32″), 99-12 (⅜″) ..... .60
99-14 (7/16″), 99-16 (½″) ..... .80

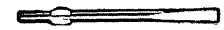


Allen Type Screwdriver Blades: 99-21 (1/16″), 99-22 (5/64″), 99-23 (3/32″) 99-764 (7/64″), 99-24 (⅛″), 99-964 (9/64″), 99-25 (5/32″), 99-26 (3/16″) .60

99-81 Slotted Screwdriver Reversible Blade (3/16″ & 9/32″) 1.00

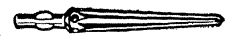
99-82 Phillips Screwdriver Reversible Blade (#1 & #2) 1.00
99-83 Reed & Prince Screwdriver Reversible Blade (3/16″ & 9/32″) 1.00

99-84 Clutch "G" Screwdriver Reversible Blade (3/16″ & 5/32″) 1.00



Slotted Screwdriver Blades: 99-811 (3/16″), 99-812 (9/32″) ..... .60

Phillips Screwdriver Blades: 99-821 (#1), 99-822 (#2) ..... .60



Reamers: 99-38 (⅛″-⅜″) 1.47
99-39 (¼″-½″) 1.83

99-X10 Extension Shaft. Adds 7″ reach to single-end blades ..... .97

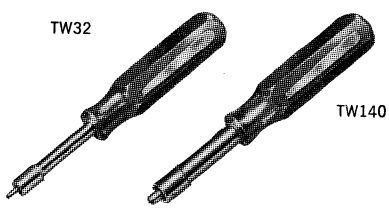
Stubby Nutdriver Blades: 99-S8, 99-S10, 99-S12 ..... .53

TERMINAL WRENCHES

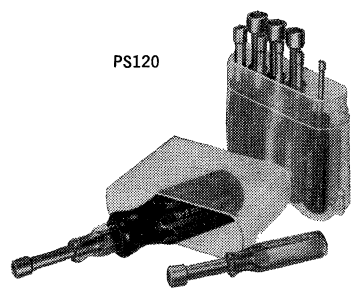
Removes spanner nut on external antenna and earphone jacks of transistor radios. Convenient pocket clip.

No. TW32 (.086″ guide pin for ¼″ O.D. spanner nut) ..... **Net $ .53**

No. TW140 (.140″ guide pin for 5/16″ O.D. spanner nut) ..... **Net $ .53**



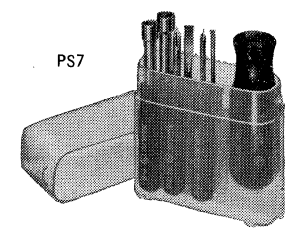
COMPACT, CONVERTIBLE NUTDRIVER AND SCREWDRIVER SETS



No. PS120 NUTDRIVER SET
Contains ten color coded nutdrivers (3/32″ thru ⅜″), hollow handle, and case. **Net $4.95**

Black plastic torque amplifier handle (1″ x 3-18″) slips over handles of pocket size (3½″) nutdrivers and screwdrivers . . . provides larger grip, extends reach and increases driving power to that of standard size tools. See-through plastic case fits pocket, stands upright on bench.

No. PS88 SCREWDRIVER SET
Contains 5 slot tip screwdrivers (3/32″, ⅛″, 5/32″, 3/16″, ¼″), 3 Phillips screwdrivers (#0, #1, #2), hollow handle, and case. **Net $3.75**



No. PS7 NUTDRIVER/SCREWDRIVER SET
Contains 2 nutdrivers (¼″ and 5/16″), 2 slot tip screwdrivers (3/16″ and 3/32″), 2 Phillips screwdrivers (#0 and #1), hollow handle, and case. **Net $3.15**

SUBJECT TO CHANGE WITHOUT NOTICE

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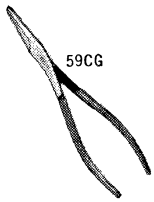
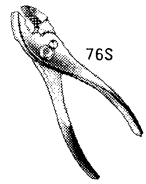
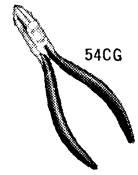
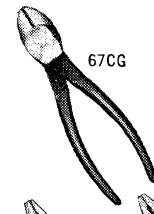
XCELITE® QUALITY PROFESSIONAL TOOLS

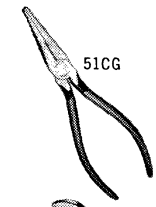
PLIERS

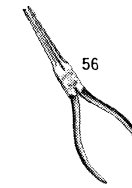




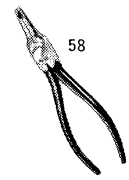


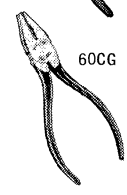


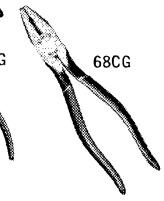


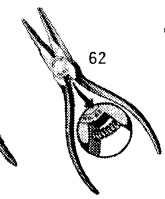


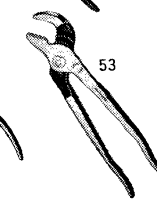
Precision-machined forged alloy steel. Perfectly aligned jaws. Hand-honed, mated cutting edges. Polished heads.

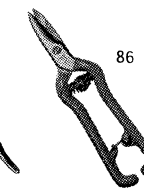










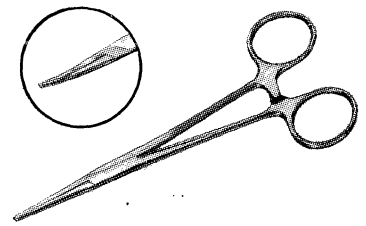


		Net
59CG	—CHAIN NOSE ELECTRICIANS PLIER (8″)—Cushion Grip	$3.30
75C	—COMBINATION SLIP JOINT PLIER (5″)—Chrome-Plated	1.22
76C	—COMBINATION SLIP JOINT PLIER (6″)—Chrome-Plated	1.22
76S	—Satin Finish	.71
78C	—COMBINATION SLIP JOINT PLIER (8″)—Chrome-Plated	1.62
54	—DIAGONAL PLIER (Midget 4″)	2.76
54CG	—Cushion Grip	3.08
55	—DIAGONAL PLIER (5″)	2.55
55CG	—Cushion Grip	2.93
66	—DIAGONAL PLIER (6″)	2.93
66CG	—Cushion Grip	3.30
67	—DIAGONAL PLIER (7″)	3.00
67CG	—Cushion Grip	3.53
86CG	—ELECTRONIC SNIPS (6½″)—Cushion Grip	2.90
41CG	—LONG NOSE PLIER (Midget 4″)—Without Side Cutters—Cushion Grip	2.76
52	—LONG NOSE PLIER (6″)—Without Side Cutters	2.33
52CG	—Cushion Grip	2.63
51	—LONG NOSE PLIER (6″)—With Side Cutters	$ 2.93
51CG	—Cushion Grip	3.30
56	—NEEDLE NOSE PLIER (6″)	2.70
56CG	—Cushion Grip	3.00
58	—RADIO AND TV PLIER (6″)	3.38
58CG	—Cushion Grip	3.68
60	—SIDE CUTTING PLIER (6″)	2.70
60CG	—Cushion Grip	3.08
68	—SIDE CUTTING PLIER (8″)	3.30
68CG	—Cushion Grip	3.68
62	—TRAVERSE CUTTING PLIER (6″)	3.30
62CG	—Cushion Grip	3.68
53	—UTILITY PLIER (6″)—Forged Rib-Lock	1.95
53CG	—Cushion Grip	2.25
63	—UTILITY PLIER (10″)—Forged Rib-Lock	2.55
63CG	—Cushion Grip	3.24

SEIZER

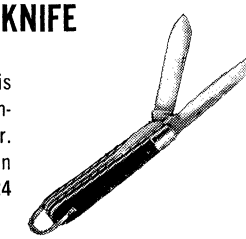
Outreaches, outholds needle nose pliers. Clamps tightly. Holds wires for soldering, retrieves small parts from hard-to-reach places. It's a heat sink. Two-position snap-lock. Stainless steel, box-joint construction. 6″ length. Precision machined and tempered.

42H Straight Nose ..... **Net $4.27**
43H Curved Nose ..... **Net 4.42**



No. K22 ELECTRICIAN'S KNIFE

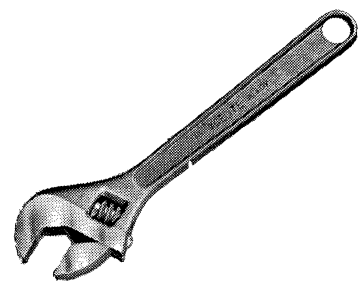
Two blades. One is combination insulation-scraper and screwdriver. Has positive lock when open ..... **Net $2.24**



ADJUSTABLE WRENCHES

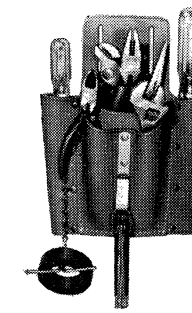
Thin-pattern permits access to close-quarter work. Chrome-plated forged alloy steel. Polished heads.

Plain Handle			Cushion Grip	
No.	**Net**	**Size**	**No.**	**Net**
44C	**$2.16**	4″	**44CG**	**$2.40**
46C	**2.16**	6″	**46CG**	**2.55**
48C	**2.48**	8″	**48CG**	**2.85**
40-10C	**3.15**	10″	**40-10CG**	**3.68**
40-12C	**4.65**	12″	**40-12CG**	**5.18**



No. 150 TOOL HOLSTER

Has tape holder, knife clip, and 5 tool pockets. Durably made of pliable saddle leather with natural cowhide finish. Features comfortable hip-contoured back, hot-waxed stitching, and brass rivets ....**Net $3.15**



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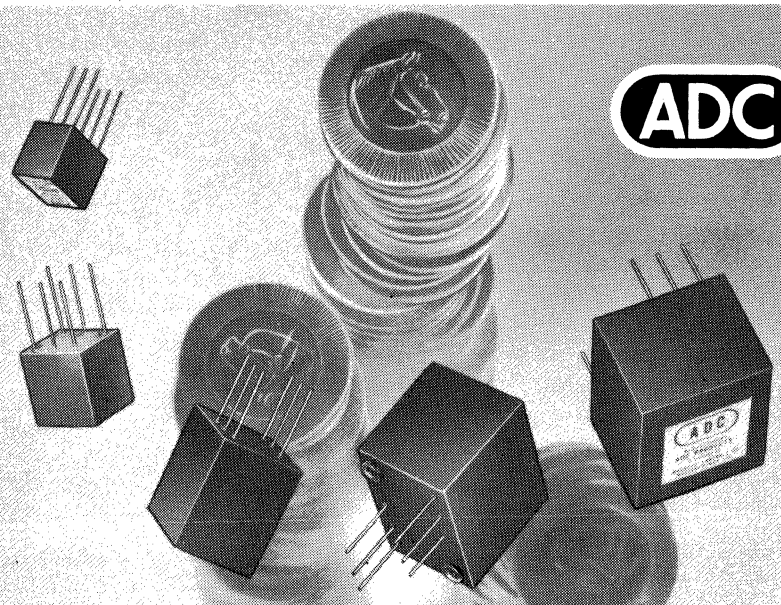


"BLUE CHIP" TRANSFORMERS

62 TYPES
5 DIFFERENT SIZES

Tiny, plastic cased, Blue Chip transformers for printed circuit applications, are available for a wide choice of power ratings.

Five different sizes, from .10 to 1.2 cubic inches with a total of 62 new ratings are listed below to indicate the available power levels for both voice frequency range and extended frequency operation. These ratings take into account not only power handling capacities at minimum frequencies, but also total harmonic distortion under stated conditions. Within the limits shown on the rating charts, variations in both power and distortion levels are possible depending upon the minimum operating frequency.

Blue Chip transformers meet Mil-T-27A, Grade 5, Class S requirements. These versatile transformers are available from ADC, or through your distributor.

CATALOG NUMBER	PRIMARY IMPED.—OHMS	SECONDARY IMPED.—OHMS	PRIMARY-SECONDARY DC RESISTANCE-OHMS		MAX. DC IN PRIM. MA.
324–6A	★100K–CT	1000–CT	3300	70	0
324–6B	25K–CT	1000–CT	2800	150	0
124–6C	10K–CT	10K–CT	1100	1400	1
324–6D	10K–CT	1500–CT	1100	180	1
324–6E	10K–CT	600–CT	1100	75	1
224–6F	4000–CT	10K–CT	440	1400	1.5
324–6G	1000–CT	600–CT	110	75	3
324–6H	1000–CT	4	110	0.5	3
224–6J	600–CT	25K–CT	65	3500	4
124–6K	600–CT	600–CT	65	75	4
324–6L	600–CT	60	65	7	4
324–6M	600–CT	4	65	0.5	4
★Max. power level: 10 mw at 300 cps.					
324–5A	100K–CT	1000–CT	6000	60	0
324–5B	25K–CT	1000–CT	2800	120	0
124–5C	10K–CT	10K–CT	1100	1200	1
324–5D	10K–CT	1500–CT	1100	200	1
324–5E	10K–CT	600–CT	1100	75	1
224–5F	4000–CT	10K–CT	440	1200	1.5
324–5G	1000–CT	600–CT	100	60	3
324–5H	1000–CT	4	100	0.4	3
224–5J	600–CT	25K–CT	65	3500	4
124–5K	600–CT	600–CT	65	75	4
324–5L	600–CT	60	65	7	4
324–5M	600–CT	4	65	0.5	4
324–4B	25K–CT	1000–CT	2800	120	0
124–4C	10K–CT	10K–CT	1100	1200	1
324–4D	10K–CT	1500–CT	1100	180	1
324–4E	10K–CT	600–CT	1100	75	1
324–4F	10K–CT	4	1100	0.5	1
224–4G	4000–CT	10K–CT	440	1200	1.5
324–4H	1500–CT	15	165	2	2.5
324–4J	1000–CT	600–CT	110	75	3
324–4K	1000–CT	4	110	0.5	3
224–4L	600–CT	25K–CT	65	3000	4
124–4M	600–CT	600–CT	65	75	4
324–4N	600–CT	60	65	7	4
324–4P	600–CT	15	65	2	4
324–4Q	600–CT	4	65	0.5	4
224–4R	250	600–CT	30	75	7
324–3A	10K–CT	10K–CT	800	1100	1
324–3B	10K–CT	600–CT	800	65	1
324–3C	10K–CT	4	800	0.5	1
324–3D	1500–CT	15	110	1.6	2.5
324–3E	1000–CT	600–CT	75	65	3
324–3F	1000–CT	4	75	0.5	3
224–3G	★600–CT	25K–CT	45	2800	4
124–3H	600–CT	600–CT	45	65	4
324–3J	600–CT	60	45	7	4
324–3K	600–CT	15	45	1.6	4
324–3L	600–CT	4	45	0.5	4
224–3M	250	600–CT	20	65	7
★Max. power level: 2.5 w.					
124–2A	★10K–CT	10K–CT	700	900	1
324–2B	★10K–CT	600–CT	700	55	1
324–2C	★10K–CT	4	700	0.4	1
324–2D	1500–CT	15	100	1.5	2.5
324–2E	1000–CT	600–CT	65	55	3
324–2F	1000–CT	4	65	0.4	3
124–2H	600–CT	600–CT	40	55	4
324–2J	600–CT	60	40	6	4
324–2K	600–CT	15	40	1.5	4
324–2L	600–CT	4	40	0.4	4
224–2M	250	600–CT	16	55	7

★Max. power level: 6 w.

Pin Diameter: .030"
Pin Length: ½"
Weight: 0.15 oz.

RESPONSE: ± 2 DB 300 to 100,000 CPS.
DISTORTION: 10% at 30 MW, 300 to 100,000 CPS, except as noted.

Pin Diameter: .030"
Pin Length: ½"
Weight: 0.4 oz.

RESPONSE: ± 1 DB 200 to 50,000 CPS.
DISTORTION: 10% at 150 MW, 200 to 50,000 CPS.

Pin Diameter: .030"
Pin Length: ½"
Weight: 0.9 oz.

RESPONSE: ± 1 DB 200 to 20,000 CPS.
DISTORTION: 10% at 750 MW, 200 to 20,000 CPS.

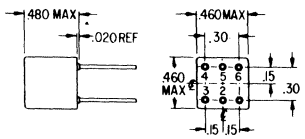
Pin Diameter: .030"
Pin Length: ½"
Weight: 1.5 oz.
Mounting: 2—4x40 inserts, 0.6"x0.8"

RESPONSE: ± 1 DB 100 to 10,000 CPS.
DISTORTION: 1.5% at 60 MW, 100 to 10,000 CPS, or 10% at 3.5 W, 200 to 10,000 CPS, except as noted.

Pin Diameter: .030"
Pin Length: ½"
Weight: 2.5 oz.
Mounting: 2—4x40 inserts, 0.8"x0.8"

RESPONSE: ± 1 DB 60 to 10,000 CPS.
DISTORTION: 1% at 250 MW, 60 to 10,000 CPS or 10% at 7.5 W, 200 to 10,000 CPS, except as noted.

6 SIZE CASE DATA



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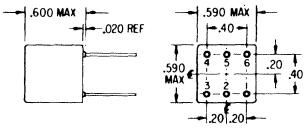

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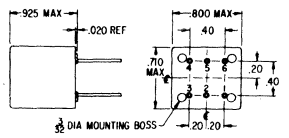

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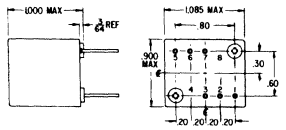

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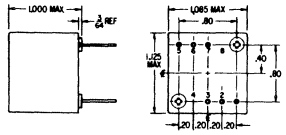

ALL RATINGS BASED UPON MAXIMUM UNBALANCED DC IN PRIMARY AS LISTED

ALL CASED DIMENSIONS ARE MAXIMUM

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ADC PRODUCTS, INC.

MINNEAPOLIS, MINNESOTA

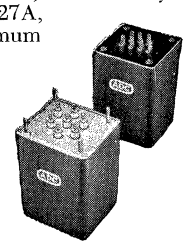
POWER TRANSFORMERS *FOR MILITARY AND INDUSTRIAL APPLICATIONS*

Reliability, minimum size and long life under rugged environmental conditions are prime requisites in today's military electronic equipment. To meet these modern standards, ADC offers a complete line of hermetically sealed power transformers. Designed to meet MIL-T-27A specifications and utilizing MIL cases and mounting dimensions, these units offer our customers a ready source for prototype and production applications. All military contractors and commercial electronic engineers with stringent environmental conditions will find these carefully rated units ideally suited. For those applications where hermetic sealing is not necessary, we offer the conservative transformer designs of our hermetically sealed line, in drawn steel cases of MIL size and mounting dimensions with phenolic terminal plates and solder lug terminals.

POWER TRANSFORMERS—60 Cycle

ADC offers these standard power transformer designs to cover a wide range of requirements for electronic circuit application. They are available in standard MIL case sizes, hermetically sealed to meet all requirements of MIL-T-27A, Grade 4, Class R, life expectancy X. Maximum operating altitude is 10,000 feet.

The same electrical ratings are also available as commercial grade fully enclosed units for non-military applications in the same MIL case sizes. This version is furnished with a phenolic terminal board and heavy duty solder lug terminals. Mounting screws and tapped inserts provide the same mounting centers as MIL-T-27A versions.



COMBINATION PLATE AND FILAMENT TRANSFORMERS

PRIMARY: 105/115/125 V., 50-60 CPS

Catalog No. Comm'l Case	Catalog No. Hermetic Seal	Plate Winding AC Volts	Plate Winding DC Ma	Plate Winding DC Volts	Filament Windings Volts/Amps		MIL Case
522A	523A	250-0-250 C Input	20	300	6.3 CT/5	2	FA
522B	523B	300-0-300 C Input	60	310	5	2	HA
					6.3 CT	2	
522C	523C	350-0-350 C Input	110	355	5	2	JA
		L Input		265	6.3 CT	4	
522D	523D	375-0-375 C Input	150	380	5	3	LA
		L Input		280	6.3 CT	5	
522E	523E	385-0-385 C Input	200	360	5	3	
		L Input		280	6.3 CT	5	
					6.3 CT	2	MA
522F	523F	500-0-500 L Input	300	400	6.3/5	6	
					6.3 CT	6	NA

FILAMENT TRANSFORMERS

PRIMARY: 105/115/125 V., 50-60 CPS

Catalog No. Commercial Case	Catalog No. Hermetic Seal	Sec. Volts	Sec. Amps.	Insulation Volts RMS	MIL Case
522FA	523FA	2.5 CT	5.5	3,500	FA
522FB	523FB	2.5 CT	10.0	7,500	GA
522FC	523FC	2.5 CT	15.0	10,000	JA
522FD	523FD	5.0 CT	4	3,500	GA
522FE	523FE	5.0 CT	10	5,000	HA
522FF	523FF	5.0 CT	20	10,000	MA
522FG	523FG	6.3 CT	3.0	2,500	FA
522FH	523FH	6.3 CT	5.5	2,500	GA
522FJ	523FJ	6.3 CT	10	2,500	JB
522FK	523FK	6.3 CT	20	2,500	KA
522FL	523FL	12.6 CT	2	2,500	GA

POWER TRANSFORMERS—400 Cycle

These items are especially designed for maximum performance in 380 to 1500 CPS applications, with maximum altitude ratings of 50,000 feet. They are hermetically sealed to meet all requirements of MIL-T-27A, Grade 4, Class R. Standard MIL case sizes and construction are used.

COMBINATION PLATE AND FILAMENT TRANSFORMERS

PRIMARY: 115 V., 380-1500 CPS

Catalog No. Comm'l Case	Catalog No. Hermetic Seal	Plate Winding AC Volts	Filament Windings DC Ma	Volts / Amps		MIL Case
512A	513A	240-0-240 C Input	20	6.3 CT	1.5	AJ
512B	513B	250-0-250 C Input	40	6.3 CT	2.5	EA
512C	513C	300-0-300 C Input	80	6.3 CT	5	GA
				6.3/5V	2	
512D	513D	350-0-350 C Input	150	6.3 CT	4	HA
				6.3/5V	3	
512E	513E	450-0-450 C Input	200	6.3 CT	8	JA
				6.3/5V	3	

FILAMENT TRANSFORMERS

PRIMARY: 115 V., 380-1500 CPS

Catalog No. Commercial Case	Catalog No. Hermetic Seal	Sec. Volts	Sec. Amps	Insulation Volts RMS	MIL Case
512FA	513FA	6.3 CT	1	1,500	AH
512FB	513FB	6.3 CT	3	1,500	AJ
512FC	513FC	6.3 CT	5.5	2,500	EA
512FD	513FD	6.3 CT	10	2,500	FA
512FE	513FE	6.3 CT	20	2,500	GA
512FF	513FF	26 CT	1	2,500	EA
512FG	513FG	26 CT	3	2,500	FA

MILITARY STANDARD TRANSFORMERS

These Military Standard transformers have been specified by ASESA and are established by the three Military Services and the transformer industry as standards for Military transformer applications. Each item is available as either Grade 1 or Grade 4 (ruggedized) as requested. Tests have been conducted in ADC's environmental laboratory which indicate that these units will meet the requirements of MIL-T-27A, Grade 4, Class R operating temperature; life expectancy X 10,000 hours minimum).

MILITARY STANDARD POWER TRANSFORMERS

Military Part No.	Catalog No.	Type Designation	Secondary AC Volts	#1 DC Ma	#1 DC Volts	Sec #2 Volts/ Amps	Sec. #3 Volts/ Amps
MS-90026	521A	TF 4RX 03HA001	200-100-0-100-200	70	140	6.3/5 2	6.3 3
MS-90027	521B	TF 4RX 03JB002	325-0-325	70	250	6.3/5 2	6.3 4
MS-90028	521C	TF 4RX 03KB006	325-0-325	150	240	6.3 5	5 3
MS-90029	521D	TF 4RX 03LB003	400-0-400	175	290	5 3	6.3 8
MS-90030	521E	TF 4RX 03MB004	450-0-450	250	320	5 3	6.3 8
MS-90031	521F	TF 4RX 02KB001	350-0-350	250	250	-- --	-- --
MS-90032	521G	TF 4RX 02LB002	550-0-550	250	400	-- --	-- --
MS-90036	521H	TF 4RX 02NB003	800-0-800	250	575	-- --	-- --

NOTE: 1. Primaries 105/115/125V., 54-66 CPS.
2. Secondary #1 DC voltage based upon inductive input filter.
3. Max. operating altitude 10,000 ft.
4. These items are also available as Grade 1 components.

MILITARY STANDARD FILAMENT TRANSFORMERS

Military Part No.	Catalog No.	Type Designation	Secondary Volts	Secondary Amps	Insulation Volts RMS
MS-90016	521M	TF 4RX 01EB002	2.5	3.0	2500
MS-90017	521N	TF 4RX 01GB003	2.5	10	2500
MS-90018	521P	TF 4RX 01FB004	5.0	3.0	2500
MS-90019	521Q	TF 4RX 01HB005	5.0	10	2500
MS-90020	521R	TF 4RX 01FB006	6.3	2.0	2500
MS-90021	521S	TF 4RX 01GB007	6.3	5.0	2500
MS-90022	521T	TF 4RX 01JB008	6.3	10	2500
MS-90023	521U	TF 4RX 01KB009	6.3	20	2500
MS-90024	521V	TF 4RX 01JB012	2.5	10	10000
MS-90025	521W	TF 4RX 01KB013	5.0	10	10000

NOTE: 1. Primaries 105/115/125 V., 54-66 CPS.
2. Max. operating altitude 10,000 ft.
3. These items are also available as Grade 1 components.

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ADC PRODUCTS, INC.

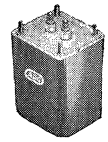
MINNEAPOLIS, MINNESOTA

INDUCTORS *FOR MILITARY AND INDUSTRIAL APPLICATIONS*

ADC's line of inductors are circuit running mates to ADC's power transformers. They are available hermetically sealed, to meet MIL-T-27A requirements Grade 4, Class R, life expectancy X. For commercial applications, where hermetic sealing is not necessary, these same ratings are available in MIL cases and mounting dimensions, but with phenolic terminal board and solder lug terminals.

FOR 50-60 CYCLE POWER SUPPLIES

Catalog No. Commercial Case	Catalog No. Hermetic Seal	Inductance Henries	DC Current MA	DC Resistance Ohms	Insulation Volts RMS	MIL Case
422A	423A	15	20	700	1000	AJ
422B	423B	20	40	475	2500	EB
422C	423C	15	60	230	2500	FA
422D	423D	12	80	175	2500	FA
422E	423E	10	110	175	2500	GA
422F	423F	8	150	100	2500	HA
422G	423G	8	200	85	2500	JA
422H	423H	8	250	85	2500	KB
422J	423J	8	325	55	2500	LA
422K	423K	4	500	30	2500	LA
422L	423L	5/25	250/25	160	2500	KB
422M	423M	5/25	325/30	110	2500	LA



FOR 380-1500 CYCLE POWER SUPPLIES

Catalog No. Commercial Case	Catalog No. Hermetic Seal	Inductance Henries	DC Current Ma	DC Resistance Ohms	Insulation Volts RMS	MIL Case
422V	423V	2.5	50	175	2500	AH
422W	423W	5	50	350	2500	AJ
422X	423X	2	80	250	2500	AJ
422Y	423Y	2	150	100	2500	EB
422Z	423Z	2	200	100	2500	EA

MILITARY STANDARD INDUCTORS (power)

These Military Standard inductors have been specified by ASESA and are established by the three military services and the transformer industry as standards for military inductor applications. They are hermetically sealed to meet all MIL-T-27A requirements Grade 1, Class R, life expectancy X.

Military Part No.	Catalog No.	Type Designation	Inductance Series	Inductance Parallel	DC Resistance Ohms		Insulation Volts RMS
MS90009	421A	TF 1RX 04FA001	16 hy .08 a	4 hy .16 a	1-2 3-4	295 350	2400
MS90010	421B	TF 1RX 04GA002	25 hy .08 a	6.25 hy .16 a	1-2 3-4	300 370	2400
MS90011	421C	TF 1RX 04HA003	40 hy .08 a	10 hy .16 a	1-2 3-4	450 570	2400
MS90013	421D	TF 1RX 04HA005	16 hy .125 a	4 hy .25 a	1-2 3-4	145 135	3800
MS90014	421E	TF 1RX 04JB006	25 hy .125 a	6.25 hy .25 a	1-2 3-4	225 235	3800
MS90037	421F	TF 1RX 04KA007	40 hy .125 a	10 hy .25 a	1-2 3-4	240 295	5900
MS75000	421G	TF 1RX 04LA009	16 hy .20 a	4 hy .40 a	1-2 3-4	80 100	5900
MS75001	421H	TF 1RX 04MA010	25 hy .20 a	6.25 hy .40 a	1-2 3-4	90 120	5900
MS75002	421J	TF 1RX 04NA012	16 hy .315 a	4 hy .63 a	1-2 3-4	45 60	5900
MS75003	421K	TF 1RX 04YY013	25 hy .315 a	6.25 hy .63 a	1-2 3-4	70 80	5900

NET PRICE LIST (Prices subject to change without notice)

CAT. NO.	NET PRICE
108A	8.25
103A	3.15
103B	3.39
103C	3.30
104A	8.70
104B	9.54
114A	23.85
114B	19.80
114C	23.85
114E	23.85
114F	23.85
114G	18.00
121A	14.40
121B	14.40
122A	24.30
122B	25.20
122C	24.30
122D	16.80
122E	19.80
122F	15.90
122G	22.20
123A	26.40
123B	27.30
123C	26.40
123D	17.40
123E	21.30
123F	16.80
124-2A	8.10
124-2H	7.20
124-3A	7.80
124-3H	6.90
124-4C	7.20
124-4M	6.60
124-5C	6.90
124-5K	6.90
124-6C	6.60
124-6K	6.00
208A thru F	7.50
208G	9.00
214A	23.70
214B	16.20
214C	23.70
214H	15.45
214J	16.80
214L	16.80
220A thru D	20.85
221A	15.45
221B	13.20
222A	22.50
222B	22.50
222C	25.20
222D	19.80
222E	19.80
222F	17.40
222G	17.40
223A	24.90
223B	24.90
223C	28.20
223D	21.60
223E	21.60
223F	18.30
223G	18.30
224-2M	6.60
224-3G	7.80
224-3M	6.30
224-4G	7.20
224-4L	7.80
224-4R	6.00
224-5F	6.90
224-5J	7.80
224-6F	6.60
224-6J	7.20
308E, F	7.50
308G, H	9.00
314A	20.40
314B	18.00
320A thru F	20.85
320Y, Z	20.85
321A thru E	12.90
322A	11.70
322B	16.80
322C	15.90
322D	17.40
322E	17.40
322F	19.80
322G	21.00
322H	20.40
322J	22.80
322K	31.50
322L	33.90
322M	23.70
322N	21.60
322P	17.10
323A	13.50
323B	20.70
323C	17.40
323D	21.60
324-2B	7.80
324-2C	7.20
324-2D	6.60
324-2E	7.20
324-2F	6.60
324-2J	6.60
324-2K	6.60
324-2L	6.60
324-3B	7.50
324-3C	6.90
324-3D	6.30
324-3E	6.90
324-3F	6.30
324-3J	6.30
324-3K	6.30
324-3L	6.30
324-4B	7.80
324-4D	7.20
324-4E	7.20
324-4F	6.60
324-4H	6.00
324-4J	6.60
324-4K	6.00
324-4N	6.00
324-4P	6.00
324-5A	8.70
324-5B	7.80
324-5D	6.90
324-5E	6.90
324-5G	6.90
324-5H	5.70
324-5L	5.70
324-5M	5.70
324-6A	7.50
324-6B	7.20
324-6D	6.60
324-6E	6.60
324-6G	6.00
324-6H	5.40
324-6L	5.40
324-6M	5.40
408D	6.75
419AL thru AW	6.75
419AY thru BE	7.50
419BG thru BN	8.25
419BQ thru BS	9.00
419BU	9.00
419BW	10.50
419CE thru CS	8.25
419CU thru DA	8.70
419DC thru DG	9.00
419DJ	9.75
419DL	10.50
419EA thru EN	6.75
419EQ thru EY	7.50
419FA thru FC	8.25
419FE	8.70
419FG	9.00
419FJ	9.75
419GL thru GY	7.50
419HA thru HG	8.25
419HJ thru HN	8.70
419HQ thru HS	9.00
419HU	9.75
419HW	10.50
419HY	11.25
419KL thru LC	9.75
419LE thru LJ	10.50
419LL thru LN	11.25
419LQ thru LS	12.00
419LU	12.45
419LW	12.90
420A thru H	17.64
421A	11.10
421B	12.30
421C	13.20
421D	14.10
421E	14.70
421F	20.10
421G	21.30
421H	24.90
421J	36.90
421K	30.00
422A	5.40
422B	6.00
422C	6.45
422D	6.45
422E	6.90
422F	7.95
422G	9.60
422H	10.20
422J	12.90
422K	12.00
422L	10.20
422M	12.90
422V	7.05
422W	6.00
422X	6.00
422Y	6.90
422Z	7.20
423A	6.60
423B	7.65
423C	8.10
423D	8.10
423E	9.15
423F	10.20
423G	12.00
423H	12.90
423J	15.90
423K	14.70
423L	12.90
423M	15.90
423V	7.80
423W	7.50
423X	7.50
423Y	8.70
423Z	9.00
512A	11.70
512B	12.60
512C	17.10
512D	18.90
512E	20.55
512FA	9.00
512FB	9.60
512FC	10.35
512FD	10.80
512FE	12.90
512FF	10.65
512FG	11.25
513A	12.60
513B	14.25
513C	21.45
513D	23.70
513E	25.65
513FA	11.25
513FB	12.15
513FC	12.90
513FD	13.50
513FE	16.20
513FF	13.20
513FG	13.80
521A	22.20
521B	21.30
521C	23.70
521D	26.70
521E	30.90
521F	19.80
521G	24.90
521H	29.70
521M	13.80
521N	14.10
521P	12.90
521Q	15.60
521R	13.20
521S	15.60
521T	18.00
521U	22.05
521V	21.30
521W	22.20
522A	13.50
522B	15.00
522C	17.40
522D	18.30
522E	26.70
522F	26.70
522FA	10.80
522FB	13.20
522FC	14.40
522FD	11.70
522FE	12.90
522FF	21.30
522FG	10.80
522FH	11.70
522FJ	14.10
522FK	18.30
522FL	11.70
523A	15.90
523B	19.80
523C	21.00
523D	21.60
523D	21.60
523E	32.80
523F	32.80
523FA	12.90
523FB	16.20
523FC	20.10
523FD	14.70
523FE	15.90
523FF	27.60
523FG	12.60
523FH	14.70
523FJ	17.10
523FK	21.30
523FL	14.70

Net

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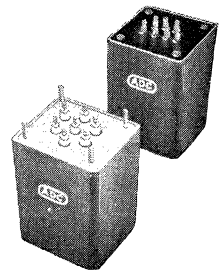
ADC PRODUCTS, INC.

MINNEAPOLIS, MINNESOTA

AUDIO TRANSFORMERS *FOR MILITARY AND COMMERCIAL APPLICATIONS*

ADC offers the following designs to cover a wide range of standard audio applications, from low power transistors through heavy duty output circuits. They are conservatively rated at ±½ db from 30 to 15,000 cycles at the maximum rated power. Each is designed for minimum insertion loss, is fully impregnated before potting and rated for dependable continuous duty operation.



These audio transformers are available in standard MIL cases, hermetically sealed to meet all requirements of MIL-T-27A. THE SAME RATINGS ARE ALSO AVAILABLE AS COMMERCIAL GRADE COMPONENTS, featuring the lower cost construction of a phenolic terminal board with solder lug terminals in the same drawn MIL cases.

INPUT TRANSFORMERS Response ±½ db, 30-15,000 cps

Catalog No. Commercial Case	Hermetic Seal	Application	Primary Impedance Rating (Ohms)	Secondary Impedance Rating (Ohms)	Max. Level	Hum Reduction	Case Size
222A	223A	Line to Single or Push Pull Grids.	600[1]	60,000[1] Split	+ 10 dbm	—65 db	AJ
222B	223B	Low Impedance Line to Grid.	12.5/50/200	80,000	+ 10 dbm	—65 db	AJ
222C	223C	Line and Bridging to Single or Push Pull Grids. [3-4]	150/600/15,000	60,000[1] Split	+ 10 dbm	—65 db	AJ
222D	223D	High Impedance Pickup or Plate to Push Pull Grids.	10,000 (10MA DC)	80,000[1] Split	+ 22 dbm	—35 db	EA
222E	223E	Push Pull Plates to Push Pull Grids.	20,000[1] Split	90,000[1] Split	+ 24 dbm	—35 db	EA

MILITARY STANDARD AUDIO TRANSFORMERS

These Military Standard audio transformers have been specified by ASESA and are established by the three Military Services and the transformer industry as standards for Military transformer applications. Tests have been conducted in ADC's environmental laboratory which indicate that these units will meet the requirements of MIL-T-27A, Grade 1, Class R operating temperature, life expectancy X (10,000 hours minimum).

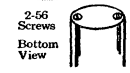
Catalog No.	MIL-T-27A Classification	MIL-T-27A Part No.	Application	Impedance (Ohms)	Operating Level	Pri. DCMA Bal.	Pri. DCMA Unbal.
221A	TF 1RX 15AJ001	MS-90000	Push Pull Plates to Push Pull Grids	Pri. 10,000 CT Sec. 90,000 CT 22,500 CT	15 dbm	--	10
121A	TF 1RX 16AJ002	MS-90001	Line to Voice Coil	Pri. 600 CT (150) Sec. 4/8/16	2 W	--	--
221B	TF 1RX 10AJ001	MS-90002	Line to Push Pull Grids	Pri. 600 CT (150) Sec. 135,000 CT	15 dbm	--	--
121B	TF 1RX 16AJ001	MS-90003	Line to Line	Pri. 600 CT (150) Sec. 600 CT (150)	15 dbm	--	--
321A	TF 1RX 13AJ001	MS-90004	Plate to Line	Pri. 7600/4800 Sec. 600 CT (150)	2 W	--	40
321B	TF 1RX 13AJ002	MS-90005	Plate to Voice Coil	Pri. 7600/4800 Sec. 4/8/16	2 W	--	40
321C	TF 1RX 13AJ003	MS-90006	Push Pull Plates to Line	Pri. 15,000 CT Sec. 600 CT (150)	2 W	--	10
321D	TF 1RX 13AJ004	MS-90007	Push Pull Plates to Line	Pri. 24,000 CT Sec. 600 CT (150)	1 W	20	1
321E	TF 1RX 13AJ005	MS-90008	Push Pull Plates to Line	Pri. 60,000 CT Sec. 600 CT (150)	.5 W	20	1

OUTPUT TRANSFORMERS Response ±½ db, 30-15,000 cps (Power Response at Rated Output)

Catalog No. Commercial Case	Hermetic Seal	Application	Primary Impedance Rating (Ohms)	Secondary Impedance Rating (Ohms)	Max. Level	Case Size
322A	323A[6]	Plate to Line	15,000 (10 MA DC)	600/250 (150/62.5)[2]	+ 20 dbm (.1 W)	EB
322B[5]	323B[5]	Plate to Voice Coil	5,000 (40 MA DC)	16/8/4	+ 37 dbm (5 W)	FA
322C	323C	Push Pull Plates to Line	20,000 CT	600/250 (150/62.5)[2]	+ 30 dbm (1 W)	EB
322D	323D	Push Pull Plates to Line and Voice Coil	10,000 CT	600 (150)[2] 16/8/4	+ 40 dbm (10 W)	GA
322E	323E[1]	Push Pull Plates to Voice Coil[4]	9,000/2,250 Split[2]	16/8/4	+ 40 dbm (10 W)	GA
322F	323F[1]	Push Pull Plates to Voice Coil[3]	10,000 Split[2]	16/8/4	+ 43 dbm (20 W)	JA
322G	322G[1]	Push Pull Plates to Voice Coil[4]	8,000/1,600 Split[2]	16/8/4	+ 42 dbm (15 W)	JB
322H	323H[1]	Push Pull Plates to Voice Coil[4]	5,000/3,000 Split[2]	16/8/4	+ 43 dbm (20 W)	JA
322J	323J[1]	Push Pull Plates to Voice Coil[4]	6,600/1,650 Split[2]	16/8/4	+ 45 dbm (30 W)	KA
322K	323K[1]	Push Pull Plates to Voice Coil[4]	3,500/700 Split[2]	16/8/4	+ 48 dbm (70 W)	LA
322L	323L[1]	Push Pull Par Plates to Voice Coil	2,500/1,500 Split[2]	16/8/4	+ 49 dbm (80 W)	MA
322M	323M[1]	Push Pull Class A Transistors to Voice Coil	48/16/8 Split[2]	16/8/4	+ 47 dbm (50 W)	KA
322N	323N[1]	Class A Transistor to Voice Coil	10 (1.25a. DC)	16/8/4	+ 38 dbm (7 W)	JB
322P	323P[1]	Push Pull Transistors to Voice Coil	48/32 CT	16/8/4	+ 40 dbm (10 W)	GA

NOTES:
[1]These items are not normally carried in stock.
[2]"Split" indicates 2 separate, symmetrical windings. Impedances shown are for series connection. Where impedances are shown in parenthesis, they indicate the impedances resulting when windings are connected in parallel.
[3]Balanced, for Williamson type circuit operation.
[4]Has primary taps suitable for Screen loading
[5]Power response ±½ db, 50-15,000 cps.
[6]Response is ±1 db, 30-15,000 cps.

All of these designs are available on special order with output impedances of other values than shown above.



MINIATURE AUDIO TRANSFORMERS

These transformers offer a variety of special design features on a catalog basis for particular circuit and chassis applications. They are available for plug-in and printed circuit applications as well as standard installations. The special cases shown allow the maximum of electrical performance for each type as wel as variety and flexibility in mechanical arrangement. Al electrical ratings are shown for continuous duty at ful specified power levels. Dia. ⅞", Ht. 1⅜", 2-56 Mtg screws on 11/16" centers.

MINIATURE SERIES

Cat. No.	Type	Application	Primary Impedance (Ohms)	Secondary Impedance (Ohms)	Max. Level	Response
108A	Impedance	Line to Line	50/250/600	50/250/600	+ 8 dbm	±1 db 30-15,00
208A	Input	Line to Single Grid	50/250/600	80,000	+ 10 dbm	±1 db 30-15.00
208B	Input	Line to Push Pull Grids	50/250/600	80,000CT	+ 10 dbm	±1 db 30-15,00
208C	Input	Low Impedance to Grid	7.5/30	80,000	+ 8 dbm	±1 db 30-15.00
208D	Interstage	Plate (O DC) to Push Pull Grids	15,000	60,000CT	+ 10 dbm	±1 db 30-10,00
208E	Interstage	Plate (3MA DC) to Push Pull Grids	15,000	60,000CT	+ 10 dbm	±2 db 200-10,000
208F	Input	Line to Single Grid	50/250/600	500,000	+ 10 dbm	±3 db 200-300
208G	Interstage	Transistor to Transistors (20 MA DC)	10,000 (2500) Split	4000/1000CT	+ 10 dbm	±2 db 100-10,000
308E	Output	Plate to Line (O DC)	15,000	50/250/600	+ 10 dbm	±1 db 40-15.0
308F	Output	Plate to Line (3MA DC)	15,000	50/250/600	+ 10 dbm	±2 db 100-15,000
308G	Output	Push Pull Plates to Line	30,000CT	50/250/6600	+ 10 dbm	±1 db 30-15,0
308H	Output	Class B Transistors to Voice Coil	2000/500CT	16/8/4	+ 23 dbm	±1 db 100-10,00
408D	Inductor	200 Hy @ 0 DC; 100 Hy @ 2MA DC; 50 Hy @ 4MA D 16 Hy @ 10MA DC; 6000 Ohms Resistance				

NOTE: These items are also available, on special request, as plug-in transformers with:

1. Mumetal case 15/16" dia. by 1-5/16" high. 35 db shielding.
2. Mumetal case plus 1 Mumetal shield 1-1/16" dia. by 1½" high. 65 db shielding.

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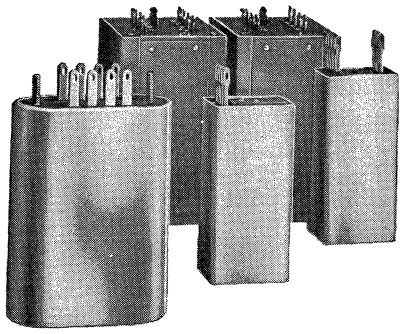
ADC PRODUCTS, INC.

MINNEAPOLIS, MINNESOTA

TELEPHONE COILS



For many years, ADC has been a dependable source of transformers and filters for the telephone and telegraph industry. Recently, we have designed and tooled for additional items in a series of "coils" which are electrically and physically interchangeable with similar components made by Western Electric. These items are listed below with the equivalent Western Electric number. All items in this series can be supplied in MIL cases if desired.

ADC Inductors	W.E. Indr. or Ret.	Fig.
409BB	149B	2
409BC	149C	2
409BD	149D	2
409E	149E	2
409G	149G	2
409H	149H	2
409J	149J	2
409K	149K	2
409M	149M	2
409N	149N	2
409P	149P	2
409R	149R	2
405A	152B	*
405H	225A	*
405E	250C	*
412AC	274C	1A
412AD	274D	1A
412AG	274G	1A
412AH	274H	1A
412AJ	274J	1A
412AL	274L	1A
412AR	274R	1A
412AS	274S	1A
412BB	274AB	1A
412T	307B	1A
412C	307C	1A
412F	307F	1A
412G	307G	1A
412H	307H	1A
412J	307J	1A
412K	307K	1A
412L	307L	1A
412M	307M	1A
412B	307N	1A
412A[1]	307P	1A
412R	307R	1A

ADC Imped. Trans.	W.E. Repeat Coil	Fig.
118A	67E	*
113A	91A	5
113A	93A	5
113B	93B	5
113F	93F	5
113G	93G	5
113H	93H	5
113J	93J	5
109S[1]	94E	2
109T	94F	2
109J	94G	2
109K[1]	93H	2
109V	94K	2
109W	94L	2
109Y	94N	2
109Z	94P	2
109BB	94S	2
109BC	94T	2
109BD	94U	2
109BE	94W	2
109BF	94Y	2
109BG[1]	94AA	2
118F	106A	*
118S	119C	*
118U	119E	*
109B[1]	120C	2
109C[1]	120D	2
109D[1]	120E	2
109E[1]	120F	2
109F[1]	120H	2
109G[1]	120J	2
109H[1]	120K	2
109P[1]	120L	2
109L	146A	*
109M	146U	*
119P	170A	*

ADC Imped. Trans.	W.E. Repeat Coil	Fig.
119C	177C	*
119D	177D	*
112G	189A	1
112B	189D	1A
112C	189E	1A

ADC Imped. Trans.	W.E. Auto Trans.	Fig.
109A	23A	*
112A[1]	181B	1
112E	181C	1
112H	D166840	1A

[1]These represent most commonly used items and are normally carried in stock.
*Space did not permit outline drawings for all types. Dimensions will be sent on your request.

Fig. 1 and 1A

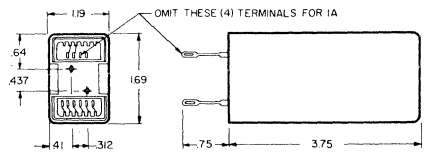


Fig. 2

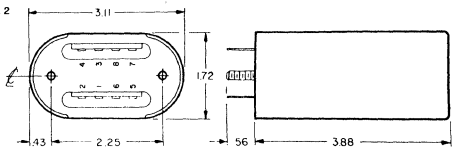
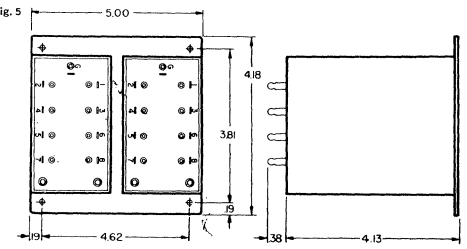
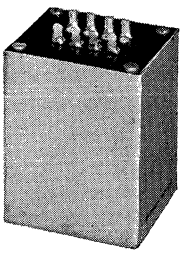


Fig. 5



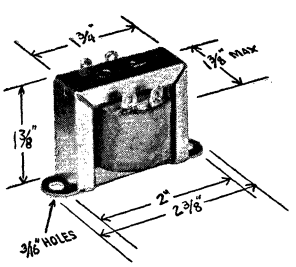


ADC REPEATING COILS

104A—Cord Circuit. This repeating coil is designed to have good transmission efficiency for voice frequencies. Low frequency ringing currents are attenuated and circuit will not ring through. Case is heavy steel to eliminate all crosstalk. Core will not saturate at maximum normal current.

104B—Phantom. The 104B Repeating Coil is a 4-winding coil, for use in phantom circuits. The phantom winding (5-6-7-8) is parallel wound. Heavy Formvar wire is used for maximum surge voltage or lightning protection. This coil has good transmission efficiency at both ringing and voice frequencies.

Type	PRI. DCR 1-2	PRI. DCR 3-4	SEC. DCR 5-6	SEC. DCR 7-8	Case	Mounting Screw	Mounting Centers
104A	10.3	16.5	12.5	14.5	2¼x1 11/16x3½ high	(4) 6-32	1¾x1⅜
104B	16.5	20	24	24	2¾x2⅜x3½ high	(4) 8-32	1⅞x2¼



INDUCTION COILS

103A—Induction Coil is a 2-winding coil for local battery telephones.

103B—Anti-Sidetone Induction Coil is similar to 103A, but with an additional winding for anti-sidetone connection.

103C—Anti-Sidetone Induction Coil is designed for common battery telephone use.

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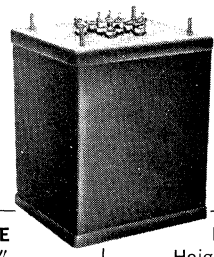
FREED TRANSFORMER CO., INC.

BROADCAST QUALITY COMPONENTS

CASE DIMENSIONS

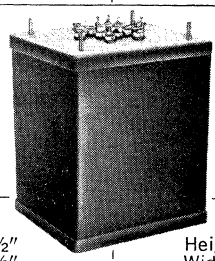


DC-2B CASE

Height:	3½″
Width:	2⅝″
Depth:	2¼″
Mtg. Cen.:	2″x1¾″
Studs:	4 8-32
Knockout:	1½″ dia.

DC-4A CASE

Height:	3¾″
Width:	3⅛″
Depth:	3″
Mtg. Cen.:	2½″x2½″
Studs:	4 8-32
Knockout:	2″ dia.



DC-2B CASE

Height:	3½″
Width:	2⅝″
Depth:	2¼″
Mtg. Cen.:	2″x1¾″
Studs:	4 8-32
Knockout:	1½″ dia.

DC-4A CASE

Height:	3¾″
Width:	3⅛″
Depth:	3″
Mtg. Cen.:	2½″x2½″
Studs:	4 8-32
Knockout:	2″ dia.

DC-4B CASE
Same as 4A—4″ high

DC-5B CASE

Height:	4½″
Width:	4⅛″
Depth:	3½″
Mtg. Cen.:	3″x2⅝″
Studs:	4 10-32
Knockout:	3″ dia.

DC-6A CASE

Height:	4⅞″
Width:	5″
Depth:	4⅛″
Mtg. Cen.:	3¾″x3″
Studs:	4 10-32
Knockout:	3″ dia.

DC-6B CASE

Height:	6″
Width:	5″
Depth:	4⅛″
Mtg. Cen.:	3¾″x3″
Studs:	4 10-32
Knockout:	3″ dia.

DC-7 CASE

Height:	5⅜″
Width:	5½″
Depth:	5″
Mtg. Cen.:	4⅜″x3¾″
Studs:	4 ¼″-20
Knockout:	3″ dia.

INPUT TRANSFORMERS
Frequency Response 20-20,000 C.P.S. ±1.0 DB

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level DBM	Ratio	Equivalent Shielding D.B.	Maximum Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 1	Universal 500 ohm line to push-pull grids	U-500	100,000 split	+10	1:14.1	70	0	0	DC-2B
QGA 2	Universal 500 ohm line to push-pull grids	U-500	100,000 split	+10	1:14.1	90	0	0	DC-2B
QGA 3	Universal 500 ohm line to single or push-pull grids	U-500	60,000 split	+10	1:11	70	0	0	DC-2B
QGA 4	Universal 500 ohm line to single or push-pull grids	U-500	60,000 split	+10	1:11	90	0	0	DC-2B
QGA 5	Universal low impedance microphone, pickup or line to single or push-pull grids	U-60	60,000 split	+10	1:31.6	70	0	0	DC-2B
QGA 6	Universal low impedance microphone, pickup or line to single or push-pull grids	U-60	60,000 split	+10	1:31.6	90	0	0	DC-2B

U-60 IMPEDANCES IN OHMS:
2.5, 5, 10, 15, 20, 30, 40, 60

U-500 IMPEDANCES IN OHMS:
50, 125, 200 CT, 250, 330, 500 CT.
125 and 500 ohms can be used for 150 and 600 ohms.

HYBRID AND REPEAT COILS
Frequency Response 20-20,000 C.P.S. ±1.0 DB

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level DBM	Ratio	Equivalent Shielding D.B.	Maximum Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 7	Hybrid. Unbalanced 500/600 ohm lines to 600 ohms.	Total Pri 1200/1000 split 300/250 300/250	600/150 or 500/125 split	+10	1.41:1	70	0	0	DC-2B
QGA 8	Hybrid. Balanced 500/600 ohm lines to 600 ohms. Longitudinal balance 70 DB	Total Pri 1200/1000 split 300/250 C.T. 300/250 C.T.	600/150 or 500/125 split	+10	1.41:1	70	0	0	DC-2B
QGA 9	Hybrid. Unbalanced 500/600 ohm lines to triode plate. No. D.C. in secondary	Total Pri 1200/1000 split 300/250 300/250	15,000 or 12,500	+10	1:3.54	70	0	0	DC-2B
QGA 10	Hybrid. Balanced 500/600 ohm lines to triode plate. No. D.C. in secondary. Longitudinal balance 70 DB.	Total Pri 1200/1000 split 300/250 C.T. 300/250 C.T.	15,000 or 12,500	+10	1:3.54	70	0	0	DC-2B
QGA 11	Repeat coil for low frequency ringing. Longitudinal balance 70 DB.	600/500 split	600/500 split Balanced		1:1	90	0	0	DC-4A

INTERSTAGE TRANSFORMERS
Frequency Response 20-20,000 C.P.S. ±10 D.B. *50-20,000 C.P.S. ±1.0 D.B.

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level DBM	Ratio	Equivalent Shielding D.B.	Maximum Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 12	Bridging line to single or push-pull grids.	10,000	60,000 split	+10	1:2.45	70	0	0	DC-2B
QGA 13	Single 6C4, 6J5 ½ 6SN7 triode to push-pull grids. Shunt feed.	15,000	60,000 split	+18	1:2	45	0	0	DC-2B
QGA 14*	Single 6C4, 6J5 ½ 6SN7 triode to push-pull grids.	15,000	60,000 split	+18	1:2	45	8	8	DC-2B
QGA 15	Push-pull triode plates to push-pull class A grids.	20,000 split	45,000 split	+25	1:1.5	30	8	0.5	DC-4A

HIGH LEVEL OUTPUT TRANSFORMERS
Frequency Response 20-30,000 C.P.S. ±0.5 DB

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level DBM	Watts	Ratio	Maximum D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 25	PP 5881, 6B4, 6L6, 300A, 275A to Universal 500 ohm line.	5,000 split	U-500	+42	15	3.16:1	70	7	DC-5E
QGA 26	As above to Universal voice coil.	5,000 split	U-16	+42	15	17.7:1	70	7	DC-5E
QGA 27	Push-pull 6V6, 6AQ5, 7C5, 6N7 to Universal 500 ohm line.	8,000 split	U-500	+42	15	4:1	50	5	DC-5E
QGA 28	As above to Universal voice coil.	8,000 split	U-16	+42	.5	22.4:1	50	5	DC-5E
QGA 29	P.P. 6F6, 6V6, 6AQ5, 7C5, 7B5, 6AR5, 6K6, 6L6 to Universal 500 ohm line.	10,000 split	U-500	+42	15	4.47:1	40	4	DC-5I
QGA 30	As above to Universal voice coil.	10,000 split	U-16	+42	15	25:1	40	4	DC-5I
QGA 31	P.P. 807, 1614, KT-66, (Williamson Amplifier) to Universal 500 ohm line.	10,000 split	U-500	+45.5	36	4.47:1	60	6	DC-6A
QGA 32	As above to Universal voice coil.	10,000 split	U-16	+45.5	36	25:1	60	6	DC-6A
QGA 33	P.P. Parallel, 6A5G, 300A to Universal 500 ohm line.	2,500 split	U-500	+45.5	36	2.24:1	100	10	DC-6
QGA 34	As above to Universal voice coil.	2,500 split	U-16	+45.5	36	12.5:1	100	10	DC-6
QGA 35	P.P. 6L6 or P.P. Parallel 6L6 to Universal 500 ohm line.	3,800 split	U-500	+47	50	2.75:1	140	14	DC-6
QGA 36	As above to Universal voice coil.	3,800 split	U-16	+47	50	15.4:1	140	14	DC-6
QGA 37	High level multiple line to Universal voice coil.	U-500	U-16	+42	15	5.6:1	0	0	DC-5
QGA 38	High level multiple line to Universal voice coil.	U-500	U-16	+47	50	5.6:1	0	0	DC-6
QGA 39*	5881 or 6146 Class AB1 to Universal 500 ohm line.	6,600 split	U-500	+45.5	36	3.64:1	70	7	DC-6
QGA 40*	5881 or 6146 Class AB1 to Universal voice coil.	6,600 split	U-16	+45.5	36	20:1	70	7	DC-6
QGA 41	6550 AB1 or 6146 AB2 to Universal 500 ohm line.	5,000 split	U-500	+50	100	3.16:1	140	14	DC-7
QGA 42	6550AB1 or 6146AB2 to Universal voice coil.	5,000 split	U-16	+50	100	17.7:1	140	14	DC-7

*These units supplied with taps for applying screen feedback
U-16 IMPEDANCES IN OHMS: 2, 4, 8, 12, 16.

U-500 IMPEDANCES IN OHMS. 50, 125, 200, C.T., 250, 330, 500 C
125 and 500 ohms can be used for 150 and 600 ohms.

LOW LEVEL OUTPUT, MIXING, MATCHING TRANSFORMERS
Frequency Response 20-20,000 C.P.S. ±1.0 DB *50-20,000 C.P.S. ±1.0 DB

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level DBM	Ratio	Equivalent Shielding D.B.	Maximum Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 16	Single plate or bridging line to Universal 500 ohm line. Shunt feed.	15,000	U-500	+18	5.5:1	70	0	0	DC-2B
QGA 17*	Single plate to Universal 500 ohm line.	15,000	U-500	+18	5.5:1	70	8	8	DC-2B
QGA 18	Push-pull triode plates to Universal 500 ohm line.	20,000 C.T.	U-500	+25	6.3:1	70	8	0.5	DC-2B
QGA 19	Mixing, low impedance microphone or line to Universal 500 ohm line.	U-500	U-500	+12	1:1	70	0	0	DC-2B
QGA 20	Line level mixing and matching.	U-500	U-500	+30	1:1	70	0	0	DC-2B
QGA 21	High mu-triode photo-cell to Universal 500 ohm line.	100,000	U-500	+12	14.1:1	70	0	0	DC-2B

DRIVER TRANSFORMERS
Frequency Response 20-20,000 C.P.S. ±1.0 DB

Catalog No.	Application	Primary Impedance Ohms	Maximum Power Level DBM	Turn Ratio Pri.: ½ Sec.	Maximum Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 22	Universal 500 ohm line to Class B grids.	U-500	+40	1:1	0	0	DC-4A
QGA 23	Push-pull 6J5, etc. to push-pull 2A3's, 6L6's, etc.	20,000 C.T.	+30	3.2:1	8	0.5	DC-2B
QGA 24	Push-pull 2A3, 6B4 to push-pull 809, T2-40, 4/125A.	5,000 C.T.	+40	3.1:1	50	5	DC-4B

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See Freed Price Pages 1431 and 1432

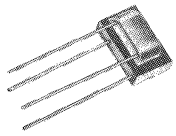
FREED TRANSFORMER CO., INC.

MINIATURE TRANSISTOR AUDIO TRANSFORMERS

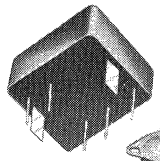
These high quality miniature transformers are high efficiency audio components featuring hermetic sealing for maximum protection against electrolysis and subsequent corrosion of fine wires caused by moisture penetration. The units are constructed in accordance with MIL-T-27A Specifications. Transistor transformers can also be supplied in an open or encapsulated type of construction.

TYPE		TSA	TNA	TPA	TTA
MAX. POWER		500 MW	1 W	3 W	5 W
FREQ. RESPONSE		.3 — 15 KC ± 2DB	.2 — 15 KC ± 2 DB	.15 — 15 KC ± 2 DB	.15 — 15 KC ± 2 DB
SIZE	UNCASED	——	——	3/16 x 13/32 x 3/4	1 3/16 x 13/16 x 13/16
	CASED MIL-T-27A-4RX	5/16 D., 13/32 H.	5/16 D. x 23/32 H.	13/4 D. x 1 3/16 H.	1 5/16 D. x 1 3/16 H.
	MOLDED MIL-T-27A-5RX	1/2 D. x 1/2 H.	13/32 x 13/32 x 17/32	7/8 x 25/32 x 17/32	1 29/32 x 1 x 31/32

MATCHING IMP. Pri.	MATCHING IMP. Sec.	TSA Cat. No.	TSA Max. I (MA) Total Pri.	TSA Max I dc (MA) Unbal. 1/2 Pri.	TNA Cat. No.	TNA Max. I (MA) Total Pri.	TNA Max I dc (MA) Unbal. 1/2 Pri.	TPA Cat. No.	TPA Max. I (MA) Total Pri.	TPA Max I dc (MA) Unbal. 1/2 Pri.	TTA Cat. No.	TTA Max. I (MA) Total Pri.	TTA Max I dc (MA) Unbal. 1/2 Pri.
150 (CT)	3.2	28	35	12	28	40	16	30	45	20	15	130	50
150 (CT)	12	29	35	12	29	40	16	31	45	20	17	130	50
150 (CT)	50	30	35	12	30	40	16	32	45	20	18	130	50
300 (CT)	3.2	31	30	8	31	32	14	33	35	16	20	100	35
300 (CT)	12	32	30	8	32	32	14	34	35	16	21	100	35
300 (CT)	50	33	30	8	33	32	14	35	35	16	22	100	35
500 (CT)	500	34	20	6	34	22	10	36	25	12	1	80	25
600 (SP)	3.2	1	16	6	1	18	8	1	20	10	23	65	25
600 (SP)	12	2	16	6	2	18	8	2	20	10	24	65	25
600 (SP)	50	35	16	6	35	18	8	3	20	10	25	65	25
600 (SP)	600 (SP)	3	16	6	3	18	8	4	20	10	26	65	25
600 (SP)	1.2K (CT)	22	16	6	22	18	8	37	20	10	7	65	25
1K (CT)	3.2	36	14	4	36	15	6	38	16	8	19	50	20
1K (CT)	12	37	14	4	37	15	6	39	16	8	27	50	20
1K (CT)	50	26	14	4	26	15	6	40	16	8	13	50	20
1.2K (SP)	3.2	4	12	4	4	14	6	5	16	8	28	40	15
1.2K (SP)	12	5	12	4	5	14	6	6	16	8	29	40	15
1.2K (SP)	50	38	12	4	38	14	6	7	16	8	30	40	15
1.2K (SP)	600 (SP)	6	12	4	6	14	6	8	16	8	31	40	15
2K (SP)	3.2	7	9	3	7	10	5	9	14	6	10	25	12
2K (SP)	12	8	9	3	8	10	5	10	14	6	32	25	12
2K (SP)	600 (SP)	9	9	3	9	10	5	11	14	6	33	25	12
4K (SP)	3.2	10	6.5	2	10	8	3	12	9	4	11	20	10
4K (SP)	12	11	6.5	2	11	8	3	13	9	4	34	20	10
4K (SP)	600 (SP)	12	6.5	2	12	8	3	14	9	4	9	20	10
10K (SP)	3.2	13	5	1	13	6	2	15	7	3	35	15	9
10K (SP)	12	14	5	1	14	6	2	16	7	3	36	15	9
10K (SP)	50	39	5	1	39	6	2	17	7	3	37	15	9
10K (SP)	600 (SP)	15	5	1	15	6	2	18	7	3	38	15	9
10K	1K	40	5	1	40	6	1.5	19	7	1.8	39	15	5
10K	10K (SP)	16	5	1	16	6	1.5	20	7	1.8	40	15	5
20K (CT)	50	25	2.5	.8	25	3	1	21	5	2	12	8	6
20K (CT)	600 (CT)	41	2.5	.8	41	3	1	22	5	2	16	8	6
25K (CT)	600 (CT)	23	2.5	.8	23	3	1	23	5	2	8	6	4
25K (CT)	1.2K (CT)	21	2.5	.8	21	3	1	24	5	2	5	6	4
50K (CT)	6 (CT)	18	2	.6	18	2.5	1	25	3.5	1	3	5	3
50K (CT)	500 (CT)	17	2	.6	17	2.5	1	26	3.5	1	2	5	3
50K (CT)	1.2K (CT)	20	2	.6	20	2.5	1	27	3.5	1	6	5	3
100K (CT)	1K (CT)	27	2	.4	27	2	.8	28	2	1	14	4	2
100K (CT)	1.2K (CT)	19	2	.4	19	2	.8	29	2	1	4	4	2

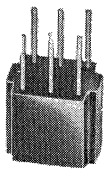


TTA, TPA UNCASED

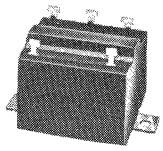


TPA MOLDED

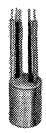
TTA, TPA CASED



TNA MOLDED



TTA MOLDED



TUA, TSA, TNA CASED
TSA MOLDED

TYPE		TUA
MAX. POWER		500 MW
FREQ. RESPONSE		.4 — 15 KC ± 2 DB
SIZE	UNCASED	——
	CASED MIL-T-27A-4RX	11/32 D. x 1/2 H.
	MOLDED	——

MATCHING IMP. Pri.	MATCHING IMP. Sec.	TUA Cat. No.	TUA Max. I (MA) Total Pri.	TUA Max. I dc (MA) Unbal. 1/2 Pri.	MATCHING IMP. Pri.	MATCHING IMP. Sec.	TUA Cat. No.	TUA Max. I (MA) Total Pri.	TUA Max. I dc (MA) Unbal. 1/2 Pri.
150 (CT)	3.2	16	15	10	2K (CT)	3.2	28	3.5	2.5
150 (CT)	12	17	15	10	2K (CT)	12	29	3.5	2.5
150 (CT)	50	21	15	10	2K (CT)	600	30	3.5	2.5
300 (CT)	3.2	20	9	7	4K (CT)	3.2	8	3.5	1.5
300 (CT)	12	19	9	7	4K (CT)	12	9	3.5	1.5
300 (CT)	50	22	9	7	4K (CT)	600	10	3.5	1.5
500 (CT)	500	23	7	5	10K (CT)	3.2	7	2	1
600 (CT)	3.2	1	7	5	10K (CT)	12	11	2	1
600 (CT)	12	2	7	5	10K (CT)	50	12	2	1
600 (CT)	50	13	7	5	10K (CT)	600	15	2	1
600 (CT)	600	3	7	5	10K (CT)	1K	18	2	1
600 (CT)	1.2K	24	7	5	10K	10K (CT)	31	2	1
1K (CT)	3.2	4	6	3.5	20K (CT)	50	32	2	.8
1K (CT)	12	25	6	3.5	20K (CT)	600 (CT)	33	2	.8
1K (CT)	50	14	6	3.5	25K (CT)	600 (CT)	34	2	.8
1.2K (CT)	3.2	26	6	3.5	25K (CT)	1.2K (CT)	35	2	.8
1.2K (CT)	12	5	6	3.5	50K (CT)	6 (CT)	36	2	.6
1.2K (CT)	50	27	6	3.5	50K (CT)	500 (CT)	37	2	.5
1.2K (CT)	600	6	6	3.5	50K (CT)	1.2K (CT)	38	2	.5

CT = Center Tap. SP = Split Winding.

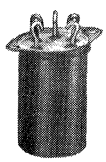
MINIATURE AUDIO TRANSFORMERS

These high quality, miniature transformers feature hermetically sealing for maximum protection from moisture penetration with subsequent electrolysis and corrosion of fine wires. While primarily intended for non-military equipment, these units are constructed in accordance with MIL-T-27A Specifications.

Frequency response: ± 2DB 30-20,000 CPS *± 2DB 200-10,000 CPS.

Catalog No.	Application	MIL Type	Impedance Level Ohms Primary	Impedance Level Ohms Secondary	Max. Power Level DBM	Ratio	Equivalent Shielding D.B.	Max. Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
PMA 1	Line or microphone to single or push-pull grids.	TF4RX10YY	50/200/500	60,000 C.T.	+8	1:11		0	0	DM-20
PMA 2	Dynamic microphone or speaker voice coil to single or P.P. grid.	TF4RX10YY	4/8	60,000 C.T.	+8	1:86.6		0	0	DM-20
PMA 3	Line or microphone to single or push-pull grids. Magnetically shielded.	TF4RX10YY	50/200/500	60,000 C.T.	+8	1:11	30	0	0	DM-20
PMA 4	Single triode plate to single or push-pull grids.	TF4RX10YY	15,000	60,000 C.T.	+8	1:2		0	0	DM-20
PMA 5*	Single triode plate to push-pull grids.	TF4RX12YY	15,000	60,000 C.T.	+8	1:2		2	2	DM-20
PMA 6	Single triode plate to multiple line.	TF4RX16YY	15,000	50/200/500	+8	5.48:1		0	0	DM-20
PMA 7*	Single triode plate to multiple line.	TF4RX12YY	15,000	50/200/500	+8	5.48:1		2	2	DM-20
PMA 8	Push-pull triode plates to multiple line.	TF4RX12YY	30,000 C.T.	50/200/500	+8	7.75:1		2	0.25	DM-20
PMA 9	Crystal mike or pickup to multiple line.	TF4RX16YY	60,000 C.T.	50/200/500	+8	11:1		0	0	DM-20
PMA 10	Mixing or matching.	TF4RX16YY	50/200	50/200/500	+8	1:1.50		0	0	DM-20
PMA 11	Parallel Feed Reactor.	TF4RX20YY	40 hy, 3 ma dc, 3500 ohms d.c. resistance							DM-20
PMA 12	Microphone or line to grid.	TF4RX10YY	50/200/500 C.T.	60,000 C.T.	+5	1.11		0	0	DM-20
PMA 13	Mixing and matching.	TF4RX16YY	150/600	600 C.T.	+8	1.1		0	0	DM-20
PMA 14	Single triode plate to push-pull grids.	TF4RX15YY	15,000	95,000 Split	+5	1:2.5		0	0	DM-20
PMA 15*	Single triode plate to push-pull grids.	TF4RX15YY	15,000	95,000 Split	15	1:2.5		4	4	DM-20

CASE DIMENSIONS



DM-20 CASE

Height: 1 9/16"
Dia.: 15/16"
Mtg. Cen.: 1 1/8" to 1 7/32"
Mtg. 2 holes: 166 x .120
Flange Lgth.: 1 13/32"
Flange D.: .975"

See Freed Price Pages 1431 and 1432

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FREED TRANSFORMER CO., INC.

MINIATURE TRANSISTOR TRANSFORMERS

These high quality miniature transformers are high efficiency audio components featuring hermetically sealing for maximum protection against electrolysis and subsequent corrosion of fine wires caused by moisture penetration. The units are constructed in accordance with MIL-T-27A Specifications.

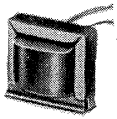
Transistor Transformers can also be supplied in an open or encapsulated type of construction.

CASE DIMENSIONS

DM-01 CASE

Height: 2″
Width: 1½″
Depth: 1½″
Mtg. Cen.: 1⅛″x1⅛″
Studs: 4 6-32
Knockout: 1⅜″ dia.

UNCASED DIMENSIONS



TMO 1 TO 14

Height: 1⅜″
Width: 1 1/16″
Depth: 21/32″
Mtg. Cen.: 1⅜″
2 Mtg. Holes: .120 dia.
Flange Lgth: 1⅝″

TMO 15 TO 18

Height: 21/32″
Width: 9/16″
Depth: 1 3/16″

TMO-19

Height: 1⅜″
Width: 1 15/32″
Depth: 1¼″
Mtg. Cen.: 1¾″
2 Mtg. Holes: 3/16″ dia.
Flange Lgth: 2 1/16″

Catalog No.	MIL Type	Impedance Ohms Pri.	Ct.	Sec.	Ct.	D.B.	Frequency Response C.P.S.	Unbalance Primary Current M.A./D.C.	D.C. Resistance Ohms Pri.	Sec.	Max. Power Output M.W.	Case No.
TMA 1*	TF4RX16YY	500		500		1	200 to 15,000	0	18	24	250	DM-20
TMA 2*	TF4RX12YY	50K		500		2	300 to 15,000	3	2,200	49	250	DM-20
TMA 3*	TF4RX13YY	50K		6		2	300 to 15,000	3	2,200	.55	250	DM-20
TMA 4*	TF4RX12YY	100K		1.2K	✓	3	300 to 15,000	1	2,790	95	100	DM-20
TMA 5*	TF4RX12YY	25K		1.2K	✓	2	200 to 15,000	3	1,740	110	250	DM-20
TMA 6*	TF4RX12YY	50K		1.2K	✓	2	300 to 15,000	3	2,200	106	250	DM-20
TMA 7*	TF4RX17YY	600/150		1.2K	✓	1	200 to 15,000	4	30	95	250	DM-20
TMA 8*	TF4RX12YY	25K		600		2	200 to 15,000	3	1,740	61	250	DM-20
TMA 9*	TF4RX12YY	4K	✓	600/150	✓	1	200 to 15,000	1	274	43	250	DM-20
TMA 10*	TF4RX13YY	2K		3.2		2	200 to 15,000	10	160	.28	250	DM-20
TMA 11*	TF4RX13YY	4K	✓	3.2		1	200 to 15,000	1	274	.26	250	DM-20
TMA 12*	TF4RX13YY	20K		50		2	300 to 15,000	4	1,340	2.9	250	DM-20
TMA 13*	TF4RX17YY	1K		50		2	300 to 15,000	8	42.6	2.5	250	DM-20
TMA 14*	TF4RX16YY	100K		1K		2	300 to 15,000	0	1,550	16.8	100	DM-20
TMO 15		20K		50		2	300 to 15,000	1	2,215	7.25	40	open
TMO 16		20K		600		2	300 to 15,000	1	2,215	102	40	open
TMO 17		1K		50		2	300 to 15,000	3	93	5.6	60	open
TMO 18		100K		1K		2	300 to 15,000	0	3,000	57.5	100	open
TMA 19*	TF4RX13YY	1K		3.2		2	200 to 15,000	20	38	.19	1000	DM-01

*When ordering open units specify TMO -- when ordering encapsulated units specify TMC.

PROFESSIONAL GRADE COMPONENTS

This group of components has been designed for use in high fidelity and professional equipment and for public address service. Freed has developed this series of units employing the latest design techniques and the best commercially available materials. Except for units carrying unbalanced direct current the frequency response is ± 1 DB from 30 to 15,000 cps. All units feature excellent performance characteristics with minimum size and weight.

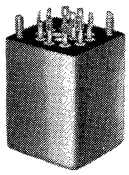
All units are vacuum varnished and then potted in compound to insure long life and trouble free performance.

Professional Grade components are supplied cased. Upon request these units can be supplied open or in shell type construction.

All cased Professional Grade Components supplied with terminals meet "EIA" standards.

Transformers PGA 1 through PGA 10 are supplied in hermetically sealed cases.

CASE DIMENSIONS



DM-01 CASE

Height: 2¼″
Width: 1½″
Depth: 1½″
Mtg. Cen.: 1 1/16″x1 1/16″
Studs: 2 6-32
Knockout: 1⅜″ dia.

DC-1A CASE

Height: 2½″
Width: 2 1/16″
Depth: 1 13/16″
Mtg. Cen.: 1½″x1¼″
Studs: 4 8-32

DC-2A CASE

Height: 3″
Width: 2⅝″
Depth: 2¼″
Mtg. Cen.: 2″x1¾″
Studs: 4 8-32

INPUT TRANSFORMERS

Frequency Response 30-15,000 C.P.S. ±1.0 DB

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level DBM	Ratio	Equivalent Shielding D.B.	Max. Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
PGA 1	Universal 500 ohm line to single grid.	U-500	50,000	+12	1:10	50	0	0	DM-01
PGA 2	Universal 500 ohm line to push-pull grids.	U-500	60,000 split	+12	1:11	50	0	0	DM-01
PGA 3	Universal 500 ohm line to push-pull grids.	U-500	100,000 split	+12	1:14.1	50	0	0	DM-01
PGA 4	Bridging line to single grid.	10,000	60,000	+12	1:2.45	50	0	0	DM-01
PGA 5	Bridging line to push-pull grids.	10,000	60,000 center tap	+12	1:2.45	50	0	0	DM-01
PGA 6	Low level line matching.	U-500	U-500	+18	1:1	50	0	0	DM-01

LOW LEVEL OUTPUT AND MIXING TRANSFORMERS

Frequency Response 30-15,000 C.P.S. ±1.0 DB

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level DBM	Ratio	Max. Pri. D.C. Per Side Ma.	D.C. Unbalance Ma.	Case Number
PGA 7	Single triode plate to Universal 500 ohm line. Shunt feed.	15,000	U500	+18	5.48:1	0	0	DM-01
PGA 8	Single triode plate to Universal 500 ohm line.	15,000	U500	+18	5.48:1	8	8	DM-01
PGA 9	Push-pull triode plates to Universal 500 ohm	20,000 CT	U500	+30	6.32:1	8	0.5	DM-01
PGA 10	Low level line matching.	U500	U500	+18	1:1	0	0	DM-01

U-500 IMPEDANCES IN OHMS: 50, 125, 200 CT, 250, 330, 500 CT. 125 and 500 ohms can be used for 15 and 600 ohms.

DRIVER TRANSFORMERS

Frequency Response 30-15,000 C.P.S. ±1.0 DB

Catalog No.	Application	Primary Impedance Ohms	Turn Ratio Pri: ½ Sec.	Max. Level DBM	Max. Pri. D.C. Per Side Ma.	Max. D.C. Unbalance Ma.	Case Numbe
PGA 11	Universal 500 ohm line to push-pull grids.	U500	1:1	+40	0	0	DC-2/
PGA 12	Push-pull 6C4, 6SN7 triodes to push-pull 2A3, 6L6 grids.	20,000 C.T.	3.0:1	+30	10	1	DC-1/
PGA 13	Push-pull 2A3, 6B4, 6A5G to push-pull 809, TZ-40, 4/125A	5,000 C.T.	3.2:1	+40	50	5	DC-2

All units supplied with leads.

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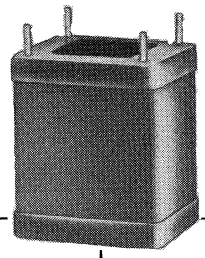
See Freed Price Pages 1431 and 1432

FREED TRANSFORMER CO., INC.

PROFESSIONAL GRADE COMPONENTS

CASE DIMENSIONS



DC-1A CASE
Height: 2½″
Width: 2 1/16″
Depth: 1 13/16″
Mtg. Cen.: 1½″x1¼″
Studs: 4 8-32
Knockout: 1¼″ dia.

DC-4A CASE
Height: 3¾″
Width: 3⅛″
Depth: 3″
Mtg. Cen.: 2½″x2½″
Studs: 4 8-32
Knockout: 2″x1¾″

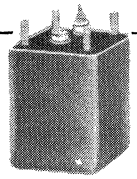
DC-2A CASE
Height: 3″
Width: 2⅝″
Depth: 2¼″
Mtg. Cen.: 2″x1¾″
Studs: 4 8-32
Knockout: 1½″x1⅜″

DC-5A CASE
Height: 3⅞″
Width: 4⅛″
Depth: 3½″
Mtg. Cen.: 3⅛″x2⅝″
Studs: 4 10-32
Knockout: 2½″x2″

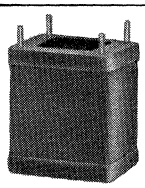
DC-2B CASE
Height: 3½″
Width: 2⅝″
Depth: 2¼″
Mtg. Cen.: 2″x1¾″
Studs: 4 8-32
Knockout: 1½″x1⅜″

DC-6A CASE
Height: 4⅞″
Width: 5″
Depth: 4½″
Mtg. Cen.: 3¾″x3″
Studs: 4 10-32
Knockout: 3″x2½″

CASE DIMENSIONS



DM-01 CASE
Height: 2″
Width: 1½″
Depth: 1½″
Mtg. Cen.: 1 1/16″x1 1/16″
Studs: 4 6-32



DC CASE STYLE

DC-2B
Height: 3½″
Width: 2⅝″
Depth: 2¼″
Mtg. Cen.: 2″x1¾″
Studs: 4 8-32

DC-1A
Height: 2½″
Width: 2 1/16″
Depth: 1 13/16″
Mtg. Cen.: 1½″x1¼″
Studs: 4 8-32

DC-4A
Height: 3¾″
Width: 3⅛″
Depth: 3″
Mtg. Cen.: 2½″x2½″
Studs: 4 8-32

DC-2A
Height: 3″
Width: 2⅝″
Depth: 2¼″
Mtg. Cen.: 2″x1¾″
Studs: 4 8-32

DC-5A CASE
Height: 3⅞″
Width: 4⅛″
Depth: 3½″
Mtg. Cen.: 3⅛″x2⅝″
Studs: 4 10-32

DC-5B
Height: 4½″
Width: 4⅛″
Depth: 3½″
Mtg. Cen.: 3⅛″x2⅝″
Studs: 4 10-32

HIGH LEVEL OUTPUT TRANSFORMERS

Frequency Response 30-15,000 C.P.S. ±1.0 DB

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level DBM	Watts	Ratio	Max. Pri. D.C. Per Side Ma	DC Unbalance Ma	Case Number
PGA 14	P.P. 6K6, 6AR5, 7B5 Class A to Universal voice coil.	12,000 C.T.	U16	+40	10	27.4:1	40	4	DC-2B
PGA 15	P.P. 6F6 Cl. AB_2, P.P. 6V6, 6AQ5, 7C5, Cl. AB_1, 6L6 or 5881 Triode to Universal voice coil.	10,000 C.T.	U16	+43	20	25:1	50	5	DC-4A
PGA 16	P.P. 6L6 Cl. AB_2, self bias to Universal 500 ohm line.	9,000	U500	+44.8	30	4.23:1	50	5	DC-4A
PGA 17	As above to Universal voice coil.	9,000	U16	+44.8	30	23.7:1	50	5	DC-4A
PGA 18	P.P. 6N7 Cl. B, P.P. 6V6, 6AQ5, 7C5, Cl. AB_1 to Universal voice coil.	8,000 C.T.	U16	+41.8	15	22.3:1	45	5	DC-4A
PGA 19*	P.P. 6L6, fixed bias, Cl. AB_1, to Universal 500 ohm line.	6,600 C.T.	U500	+44.8	30	3.63:1	70	7	DC-4A
PGA 20	As above to Universal voice coil.	6,600 C.T.	U16	+44.8	30	20.3:1	70	7	DC-4A
PGA 21	P.P. 6L6 Cl. A, P.P. 2A3, 6A5G, 6B4 self bias P.P. Par. 6V6 Cl. AB_1 to Universal voice coil.	5,000 C.T.	U16	+43	20	17.7:1	80	8	DC-4A
PGA 22	P.P. Par 6L6 Cl. AB_1, self bias P. P. 6L6 Cl. AB_2 fixed bias PP807 Cl. AB_2 to Universal 500 ohm line.	4000 C.T.	U500	+47	50	2.83:1	100	10	DC-5A
PGA 23	As above to Universal voice coil.	4000 C.T.	U16	+47	50	15.8:1	100	10	DC-5A
PGA 24	P.P. 6A5G, 6B4, 2A3, fixed bias Universal voice coil.	3000 C.T.	U16	+41.8	15	13.7:1	75	7.5	DC-4A
PGA 25	P.P. Par. 807 Cl. AB_2 to Universal 500 ohm line.	2100 C.T.	U500	+51.8	150	2.05:1	240	12	DC-6A
PGA 26	P.P. Par 2A3, 6A5G, fixed bias 6B4, 300A Cl. AB_1, P.P. Par 6L6 Cl. A to Universal 500 ohm line.	1500 C.T.	U500	+44.8	30	1.73:1	180	15	DC-4A
PGA 27	As above to Universal voice coil.	1500 C.T.	U16	+44.8	30	9.7:1	150	15	DC-4A
PGA 28	Matching line to Universal voice coil.	U500	U16	+44.8	30	5.6:1	0	0	DC-4A
PGA 29	Matching line to Universal voice coil.	U500	U16	+47	50	5.6:1	0	0	DC-5A
PGA 30	Matching line to Universal voice coil.	U500	U16	+50	100	5.6:1	0	0	DC-6A

†Available with taps to apply screen feedback.

U-16 IMPEDANCES IN OHMS:
2, 4, 8, 12, 16
U-500 IMPEDANCES IN OHMS:
50, 125, 200 C.T., 250, 330, 500 C.T., 125 and 500 ohms can be used for 150 and 600 ohms.

*PGA 28, 29 & 30 supplied with terminals, all other units with leads.

A 70 volts level can be obtained for the following impedances:
500 ohms — 10 watts +40 DBM
330 ohms — 15 watts +42 DBM
250 ohms — 20 watts +43 DBM
200 ohms — 25 watts +44 DBM
125 ohms — 40 watts +46 DBM
50 ohms — 100 watts +50 DBM

FILTER REACTORS

Inductance measured at 50V, 60 cycles with rated direct current in the winding

Catalog No.	Inductance in Henries	Rated Current D.C. Ma.	D.C. Resistance Ohms	Dielectric Test Voltage VRMS	Case Number
PGC 1	40	15	2000	1000	DM-01
PGC 2	12	40	400	1000	DC-1A
PGC 3	8	50	300	1000	DC-1A
PGC 4	20	50	425	2500	DC-2A
PGC 5	10	70	250	2500	DC-2A
PGC 6	6	100	160	2500	DC-2A
PGC 7	6	150	115	2500	DC-2B
PGC 8	10	150	160	2500	DC-4A
PGC 9	5.5	200	95	2500	DC-4A
PGC 10	10	200	150	2500	DC-4A
PGC 11	10	250	135	2500	DC-5B
PGC 12	8	300	95	2500	DC-5B
PGC 13	7	400	60	2500	DC-5B
		PARALLEL FEED	AUDIO CHOKES		
PGC 14	100	10	3500	1000	DM-01
PGC 15	30	50	650	1500	DC-2A
PGC 16	400	1	6000	1000	DM-01

SWINGING INPUT REACTORS

Catalog No.	Inductance in Henries*	Rated Current D.C. Ma.	D.C. Resistance Ohms	Dielectric Test Voltage VRMS	Case Number
PGC 17	5-20	150	160	1500	DC-4A
PGC 18	5-20	250	135	1500	DC-5B
PGC 19	3-15	300	95	1500	DC-5B
PGC 20	3-15	400	60	1500	DC-5B

*Inductance values for 100% and 10% of rated Direct Current.

See Freed Price Pages 1431 and 1432
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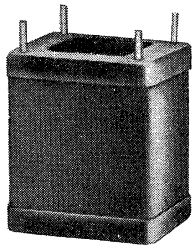
FREED TRANSFORMER CO., INC.

PROFESSIONAL GRADE COMPONENTS



DC-2B	DC-5B
Height: 3½″ Width: 2⅝″ Depth: 2¼″ Mtg. Cen.: 2″x1¾″ Studs: 4 8-32	Height: 4½″ Width: 4⅛″ Depth: 3½″ Mtg. Cen.: 3⅛″x2⅝″ Studs: 4 10-32
DC-4A	**DC-6A CASE**
Height: 3¾″ Width: 3⅛″ Depth: 3″ Mtg. Cen.: 2½″x2½″ Studs: 4 8-32	Height: 4⅞″ Width: 5″ Depth: 4⅛″ Mtg. Cen.: 3¾″x3″ Studs: 4 10-32
DC-5A CASE	**DC-7B CASE**
Height: 3⅞″ Width: 4⅛″ Depth: 3½″ Mtg. Cen.: 3⅛″x2⅝″ Studs: 4 10-32	Height: 6¾″ Width: 5½″ Depth: 5″ Mtg. Cen.: 4⅜″x3¾″ Studs: 4½-20

POWER TRANSFORMERS

ALL PRIMARIES ARE FOR 115V., 50/60 c.p.s. — Temperature rises range from 45° to 50°C.

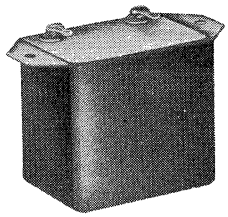
Catalog No.	Py Va	Hi Volt	Choke Input D.C.V.	D.C. Ma	Con. Input D.C.V.	D.C. Ma.	Bias Tap.	Rectifier	Fil. No. 1	Fil. No. 2	Fil. No. 3	Case No.
PGP 1	15	440V C.T.	Low flux density, hum-bucking. For Preamplifier service.		270	15		6X4	6.3VCT @ 0.6A	6.3V @ 0.3A		DC-2B
PGP 2	30	550V C.T.	Low flux density, hum-bucking. For Preamplifier service.		310	35		6X4	6.3VCT @ 0.6A	6.3VCT@0.9A		DC-4A
PGP 3	45	500V C.T.			270	40		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 2A		DC-4A
PGP 4	57	600V C.T.			330	50		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 2.5A		DC-4A
PGP 5	64	650V C.T.			370	50		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 3A		DC-4A
PGP 6	73	600V C.T.			320	70		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 3A		DC-4A
PGP 7	110	650V C.T.	225	140	330	100		5Y3, 5U4	5V @ 3A	6.3V @ 5A		DC-5B
PGP 8	76	700V C.T.	260	100	385	70		5Y3	5V @ 2A	6.3V @ 2.5A		DC-5A
PGP 9	108	700V C.T.	250	125	370	90		5Y3, 5U4	5V @ 3A	6.3V @ 5A		DC-5B
PGP 10	127	700V C.T.	260	170	350	120		5U4	5V @ 3A	6.3V @ 5A		DC-5B
PGP 11	146	700V C.T.	260	210	350	150		5U4	5V @ 3A	6.3V @ 5A	6.3V @ 1A	DC-6A
PGP 12	207	800V C.T.	295	280	400	200		5U4, 2-5Y3	5V @ 4A	6.3V @ 6A		DC-6A
PGP 13	225	800V C.T.	295	280	400	200	80	5U4, 2-5Y3	5V @ 4A	6.3V @ 6A	5/6.3V @ 2A	DC-6A
PGP 14	268	840V C.T.	330	350	450	250	80	2-5U4	5V @ 6A	6.3V @ 6A	5/6.3V @ 2A	DC-6A
PGP 15	320	900V C.T.	340	420	490	300	80	2-5U4	5V @ 6A	6.3V @ 6A	5/6.3V @ 2A	DC-7B
PGP 16	127	900V C.T.	360	150				5U4	5V @ 3A	6.3V @ 5A		DC-6A
PGP 17	150	900V C.T.	350	200				5U4	5V @ 3A	6.3V @ 5A		DC-6A
PGP 18	203	1100V C.T.	400	250				5R4GY	5V @ 3A	6.3V @ 5A		DC-6A
PGP 19	248	1100V C.T.	420	300				2-5R4GY	5V @ 4A	6.3V @ 7A		DC-6A
PGP 20	310	1280V C.T.	480	350				2-5R4GY	5V @ 4A	6.3V @ 7A		DC-7B

All units supplied with leads.

PQC HIGH Q REACTORS

PQC-Reactors are low-priced High Q components designed for use in selective circuits such as wave filters, wave traps, and noise suppressors.

CASE DIMENSIONS



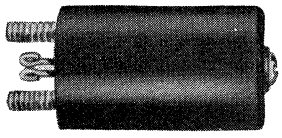
DM-02 CASE
Height: 1 21/32″
Width: 1 21/32″
Depth: 1 13/32″
Flange L: 2⅜″
Mtg. Cen.: 2″

Catalog No.	Application	Rated Ind. in Henries	Q	Tuning Capacitor (MF)	Case Size
PQC 1	60 cps resonant trap	14.00	10	.5	DM-02
PQC 2	400 cps resonant trap	1.58	15	.1	DM-02
PQC 3	1000 cps resonant trap	1.00	20	.025	DM-02
PQC 4	Dynamic noise suppression inductor	2.40	20 @ 4 KC		DM-02
PQC 5	Dynamic noise suppression inductor	2.00	15 @ 4 KC		DM-02
PQC 6	Dynamic noise suppression inductor	1.30	15 @ 4 KC		DM-02
PQC 7	Dynamic noise suppression inductor	.80	15 @ 4 KC		DM-02
PQC 8	Dynamic noise suppression inductor	.60	15 @ 4 KC		DM-02
PQC 9	Dynamic noise suppression inductor	.40	15 @ 4 KC		DM-02

MINIATURE VARIABLE HIGH FREQUENCY INDUCTORS

- Continuous variation of inductance
- Q practically constant over whole range of variation
- Hermetically sealed
- Inductances other than those listed can be supplied to special order

CASE DIMENSIONS



VI-1
Height: 1″
Diameter: ¾″
2 Studs: 4-40
Mtg. Cen.: ⅜″

Catalog No.	Test Freq. (MC)	Inductance Min.	Inductance Max.	Variations of Q @ L Min.	Variations of Q @ L Max.	RDC (Ω) Nominal	Self Res. Freq. (MC) @ L Max.	Max. Non Destruct Current (MA)	Case Size
VHI-1	.1	1.1 MH	1.75 MH	93.5	100.5	.75	2.2	250	VI-1
VHI-2	.1	1.7 MH	2.5 MH	94.5	96.5	1.1	1.9	200	VI-1
VHI-3	.1	2.3 MH	3.7 MH	94.5	97.2	1.4	1.6	200	VI-1
VHI-4	.1	3. MH	4.5 MH	100.7	101.7	1.9	1.4	160	VI-1
VHI-5	.1	4. MH	5.7 MH	107.	108.	2.2	1.3	160	VI-1
VHI-6	.1	5.5 MH	7.5 MH	112.	119.	3.1	1.	130	VI-1
VHI-7	.1	7. MH	10.5 MH	116.	120.5	4.5	.9	100	VI-1
VHI-8	.1	10. MH	15. MH	106.	109.	6.6	.85	80	VI-1
VHI-9	.1	14.5 MH	20.5 MH	101.	101.5	9.2	.6	60	VI-1
VHI-10	.1	20. MH	30. MH	105.	115.	13.7	.55	50	VI-1
VHI-11	1.	9.50 μH	11.0 μH	104.	114.	.24	>10	150	VI-1
VHI-12	1.	14.0 μH	15.6 μH	113.	127.	.29	>10	150	VI-1
VHI-13	1.	24.5 μH	28.0 μH	145.	156.	.37	>10	150	VI-1
VHI-14	1.	47.0 μH	52.0 μH	178.	195.	.46	>10	150	VI-1
VHI-15	.5	71.0 μH	79.5 μH	152.	168.	.56	>10	150	VI-1
VHI-16	.5	94.0 μH	105.0 μH	165.	173.	.64	>10	150	VI-1
VHI-17	.5	145.0 μH	165.0 μH	200.	222.	.75	9.7	150	VI-1
VHI-18	.5	191.0 μH	218.0 μH	204.	229.	.9	9.4	150	VI-1
VHI-19	.5	234.0 μH	265.0 μH	216.	238.	1.0	8.3	150	VI-1
VHI-20	.5	279.0 μH	318.0 μH	219.	236.	1.1	7.	150	VI-1
VHI-21	.5	380.0 μH	416.0 μH	216.	230.	1.3	6.5	150	VI-1
VHI-22	.5	480.0 μH	545.0 μH	220.	237.	1.5	7.	150	VI-1

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See Freed Price Pages 1431 and 1432

FREED TRANSFORMER CO., INC.

HIGH "Q" REACTORS

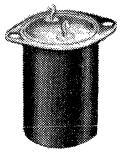
QGC—are hermetically sealed, MIL-T-27A, Grade 4, Class R, High Q Reactors for low audio frequency application with an excellent inductance stability with variations of A.C. and D.C. currents, frequencies and temperatures.

SPECIAL REACTORS:
(1) with a center tap
(2) with a split winding
(3) with inductances other than those listed can be supplied.

DC-2A CASE
Height: 3″
Width: 2⅝″
Depth: 2¼″
Mtg. Cen.: 2″ x 1¾″
Studs: 4 8-32
Knockout: 1½″ x 1⅜″

AJ CASE
Height: 2⅜″
Width: 1⅝″
Depth: 1⅝″
Mtg. Cen: 1⅜″ x 1⅜″
Studs: 4 6-32

AH CASE
Height: 1¾″
Width: 1⅜″
Depth: 1⅝″
Mtg. Cen.: 1¼″
Studs: 2 6-32



DM-20 CASE
Height: 1⅜″
Diameter: ⅜″
Flange L: 1³²⁄₃₂″
Flange D: 0.975″
Mtg. Cen.: 1⅛″ x 1³²⁄₃₂″
2 Slots: .166″ x .120″
Knockouts: .875″

DM-30 CASE
Height: ²⁹⁄₃₂″
Diameter: 1⅝″
Flange L: 1³²⁄₃₂″
Flange D: 0.975″
Mtg. Cen.: 1⅛″ to 1³²⁄₃₂″
2 Slots: .166″ x .120″
Knockouts: .875″

DM-40 CASE
Height: ²¹⁄₃₂″
Diameter: ⅜″
Pig Tails:

Catalog No.	Ind. H (±2%)	Ω/H Max.	Max. Norm DC*	Max. Norm AC**	Self Res. Freq. ±25%	Case	"Q" Max.	@ Freq.
QGC-1	100						40	250
QGC-2	75						48	280
QGC-3	50						51	300
QGC-4	25	20	85	0.58	$F_O = 22/\sqrt{L_H}$	DC-2A	53	320
QGC-5	10						58	350
QGC-6	5						59	400
QGC-7	1						60	400
QGC-8	75						32	600
QGC-9	50						37	600
QGC-10	25						39	700
QGC-11	10	55	60	0.5	$F_O = 7.2/\sqrt{L_H}$	AJ	43	700
QGC-12	5						46	700
QGC-13	1						53	800
QGC-14	50						29.5	500
QGC-15	25						31.5	500
QGC-16	10	70	40	0.25	$F_O = 35/\sqrt{L_H}$	AH	32	600
QGC-17	5						33	600
QGC-18	1						36	700
QGC-19	10						23	700
QGC-20	7.5						23	730
QGC-21	5	110	15	0.15	$F_O = 34/\sqrt{L_H}$	DM-20	24	730
QGC-22	2.5						24	750
QGC-23	1						25	750
QGC-24	.5						25	750
QGC-25	5						23	1500
QGC-26	2.5						23	1550
QGC-27	1						24	1600
QGC-28	.75	250	13	0.11	$F_O = 35/\sqrt{L_H}$	DM-30	24	1650
QGC-29	.5						24	1700
QGC-30	.2						25	1750
QGC-31	.1						25	1800
QGC-32	2						15	1500
QGC-33	1.5						15	1500
QGC-34	1						15	1800
QGC-35	.75						15	1800
QGC-36	.5						16	2000
QGC-37	.25	500	10	0.04	$F_O = 45/\sqrt{L_H}$	DM-40	16	2000
QGC-38	.1						16	2000
QGC-39	.075						17	2200
QGC-40	.05						17	2200
QGC-41	.025						17	2500
QGC-42	.01						17	2500

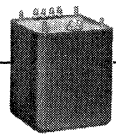
*Max. Norm. D.C. = I D.C. (MA) $\sqrt{L_H}$ } at which the inductance
**Max. Norm. A.C. = V/F ~ $\sqrt{L_H}$ } will decrease by 20%.

STANDARD MILITARY TRANSFORMERS

The group comprises audio and power units designed to meet MIL-T-27 A specifications.
The functional characteristics of these transformers were established by the Armed Service Standardization Program. These units are supplied in standard MIL cases.

CASE DIMENSIONS

AJ CASE
Height: 2⅜″
Width: 1⅝″
Depth: 1⅝″
Mtg. Cen.: 1¾″x1¾″
Studs: 4 6-32
Cut Out: 1⅛″ D



HA CASE
Height: 4¼″
Width: 3¹⁄₁₆″
Depth: 2⅝″
Mtg. Cen.: 2¹⁹⁄₆₄″x1⁵⁵⁄₆₄″
Studs: 4 8-32

LB CASE
Height: 4½″
Width: 4⅝″
Depth: 3¹¹⁄₁₆″
Mtg. Cen.: 3⅝″x2¹¹⁄₁₆″
Studs: 4 10-32

JB CASE
Height: 3⅞″
Width: 3⅜″
Depth: 3¹⁄₁₆″
Mtg. Cen.: 2⅝″x2⅛″
Studs: 4 8-32

MB CASE
Height: 4¹⁵⁄₁₆″
Width: 4¹¹⁄₁₆″
Depth: 4″
Mtg. Cen.: 3¹¹⁄₁₆″x3″
Studs: 4 ¼-20

KB CASE
Height: 4⁵⁄₁₆″
Width: 3¹⁵⁄₁₆″
Depth: 3⅜″
Mtg. Cen.: 3″x2⁷⁄₁₆″
Studs: 4 10-32

NB CASE
Height: 5½″
Width: 5¼″
Depth: 4⅝″
Mtg. Cen.: 4¼″x3⅝″
Studs: 4 ¼-20

Transformers meeting MIL-T-27A specifications Grade 1 through 6 with temperature characteristics of Class S, T, or U can be supplied on special order.
Encapsulated units using either Epoxy-Resins or Fosterite can be supplied for Grade 2 and 5.
Class U components can be supplied molded in special high temperature Freed resin.

STANDARD MILITARY AUDIO TRANSFORMERS

Frequency Response 300-10,000 C.P.S. ±2 DB

Catalog No.	Application	Type Designation	Impedance Level in Ohms Primary	Impedance Level in Ohms Secondary	Ratio	Max. Power Level DBM	Pri. D.C. Per Side in Ma	Max. D.C. unbalance	Case
MGA 1	Transformer; interstage, single or P.P. plates to single or P.P. grid	TF4RX15AJ	10,000 C.T.	90,000 split and C.T.	1:3 overall	+15	10	10	AJ
MGA 2	Transformer; matching 600 ohm line to voice coil.	TF4RX16AJ	600 split	4, 8, 16	6.12:1 overall	+33	0	0	AJ
MGA 3	Transformer; input, 600 ohm line to single or P.P. grids.	TF4RX10AJ	600 split	135,000 C.T.	1:15	+15	0	0	AJ
MGA 4	Transformer; matching, 600 ohm line to 600 ohm line.	TF4RX16AJ	600 split	600 split	1:1	+15	0	0	AJ
MGA 5	Transformer; output, single plate 7,600 ohm, 4,800 ohm to 600 ohm line.	TF4RX13AJ	7,600 tap @ 4,800	600 split	3.56:1	+33	40	40	AJ
MGA 6	Transformer; output, single plate 7,600 ohm, 4,800 ohm to voice coil.	TF4RX13AJ	7,600 tap @ 4,800	4, 8, 16	21.8:1	+33	40	40	AJ
MGA 7	Transformer; output, single or P.P. plates to 600 ohm line.	TF4RX13AJ	15,000 C.T.	600 split	5:1	+33	10	10	AJ
MGA 8	Transformer; output, P.P. plates to 600 ohm line.	TF4RX13AJ	24,000 C.T.	600 split	6.32:1	+30	10	1	AJ
MGA 9	Transformer; output, P.P. plates to 600 ohm line.	TF4RX13AJ	60,000 C.T.	600 split	10:1	+27	10	1	AJ

STANDARD MILITARY POWER TRANSFORMERS

Primary 105/115/125V 60~

SINGLE PHASE 400 CPS, AND THREE PHASE 60 AND 400 CPS TRANSFORMERS CAN BE SUPPLIED ON SPECIAL ORDER.

Catalog No.	MIL-T-27 Type Designation	Hi Volt	D.C. Volts	D.C. Amps	Fil. No. 1	Fil. No. 2	Case
MGP 1	TF4RX03HA001	200/100/0/100/200	185	.070	5/6. 3V @ 2A	6. 3V @ 3A	HA
MGP 2	TF4RX03JB002	650 C.T.	260	.070	5/6. 3V @ 2A	6. 3V @ 4A	JB
MGP 3	TF4RX03KB006	650 C.T.	245	.150	6. 3V @ 5A	5V @ 3A	KB
MGP 4	TF4RX03LB003	800 C.T.	318	.175	5V @ 3A	6. 3V @ 8A	LB
MGP 5	TF4RX03MB004	900 C.T.	345	.250	5V @ 3A	6. 3V @ 8A	MB
MGP 6	TF4RX02KB001	700 C.T.	255	.250			KB
MGP 7	TF4RX02LB002	1100 C.T.	419	.250			LB
MGP 8	TF4RX02NB003	1600 C.T.	640	.250			NB

See Freed Price Pages 1431 and 1432
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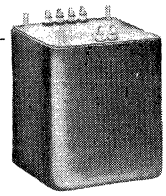
FREED TRANSFORMER CO., INC.

STANDARD MILITARY TRANSFORMERS



EB CASE
Height: 2 7/16"
Width: 1 15/16"
Depth: 1 13/16"
Mtg. Cen.: 1 3/8" x 1 1/4"
Studs: 4 6-32

FB CASE
Height: 2 1/2"
Width: 2 5/16"
Depth: 2 1/16"
Mtg. Cen.: 1 11/16" x 1 7/16"
Studs: 4 6-32

GB CASE
Height: 2 13/16"
Width: 2 3/4"
Depth: 2 3/8"
Mtg. Cen.: 2 1/8" x 1 3/4"
Studs: 4 6-32

HB CASE
Height: 3 3/16"
Width: 3 1/16"
Depth: 2 5/8"
Mtg. Cen.: 2 19/64" x 1 55/64"
Studs: 4 8-32

STANDARD MILITARY FILAMENT TRANSFORMERS

Primary 105/115/125V 60~

SINGLE PHASE 400 CPS, AND THREE PHASE 60 AND 400 CPS TRANSFORMERS CAN BE SUPPLIED ON SPECIAL ORDER.

Catalog No.	MIL-T-27 Type Designation	Secondary Volts	Secondary Current Amps	Secondary Test Volts RMS	Case
MGF 1	TF4RX01EB002	2.5	3.0	2,500	EB
MGF 2	TF4RX01GB003	2.5	10.0	2,500	GB
MGF 3	TF4RX01FB004	5.0	3.0	2,500	FB
MGF 4	TF4RX01HB005	5.0	10.0	2,500	HB
MGF 5	TF4RX01FB006	6.3	2.0	2,500	FB
MGF 6	TF4RX01GB007	6.3	5.0	2,500	GB
MGF 7	TF4RX01JB008	6.3	10.0	2,500	JB
MGF 8	TF4RX01KB009	6.3	20.0	2,500	KB
MGF 9	TF4RX01JB012	2.5	10.0	10,000	JB
MGF 10	TF4RX01KB013	5.0	10.0	10,000	KB

*Standard Military Filament and Power Transformers are also available in Grade 4.

HERMETICALLY SEALED PULSE TRANSFORMERS

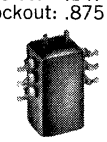
Hermetically sealed Pulse Transformers for use in blocking oscillator, low level interstage coupling, and modulator output circuits. These components meet MIL-T-27 A specifications. The pulse transformers are designed for maximum power, efficiency, and optimum pulse performance. Balanced coil structures permit series or parallel connection of windings for turn ratios other than unity. Pulse characteristics, voltages and impedance levels will depend upon the interconnections made.

CASE DIMENSIONS

DM-8 CASE
Height: 1 1/2"
Width: 13/32"
Flange D.: 1 1/4"

DM-01 CASE
Height: 2"
Width: 1 1/2"
Depth: 1 1/2"
Mtg. Cen.: 1 1/16" x 1 1/16"
Studs: 4 6-32
Knockout: 1 1/4 dia.

DM-20 CASE
Height: 1 9/16
Diameter: 1 1/16"
Flange L: 1 13/32"
Flange D: 0.975"
Mtg. Cen.: 1 1/8" x 1 7/32"
2 Holes: .147 wide
Knockout: .875



DM-18 CASE
Height: 1"
Width: 2 1/4"
Depth: 1 1/4"
Mtg. Cen.: 9/16"
Studs: 2 6-32

MM-1
Length: 3/4"
Diameter: 1/2"

MM-2
Length: 23/32"
Width: 23/32"
Height: 1/2"

MM-3
Length: 1 1/4"
Width: 1 1/4"
Height: 1/2"
Mtg. Cen.: 1 1/2"
Mtg. Flange: 1 11/16"

MM-4
Length: 1 13/16"
Depth: 1 1/4"
Height: 1/2"
Mtg. Cen.: 2 1/8"
Mtg. Flange: 2 1/2"

MOLDED DIMENSIONS

MMO-1
Diameter: 11/16"
Thickness: 29/64"

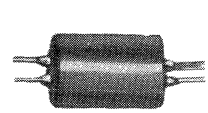
MMO-2
Diameter: 13/16"
Thickness: 19/32"

PULSE TRANSFORMERS

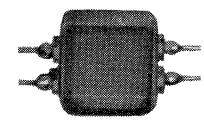
Catalog No.	MIL Type	Blocking Osc.	Interstage Coupling	Low Power Output	Pulse Voltage Kilovolts	Pulse Duration Microseconds	Duty Date	No. of Windings	Test Voltage KV, RMS	Characteristic Impedance Ohms	Case No.
MPT-1	TF4RX35YY	✓	✓		0.25/0.25/0.25	0.2-1.0	.004	3	0.7	250	DM-20
MPT-2	TF4RX35YY	✓	✓		0.25/0.25	0.2-1.0	.004	2	0.7	250	DM-20
MPT-3	TF4RX35YY	✓	✓		0.5/0.5/0.5	0.2-1.5	.002	3	1.0	250	DM-18
MPT-4	TF4RX35YY	✓	✓		0.5/0.5	0.2-1.5	.002	2	1.0	250	DM-18
MPT-5	TF4RX35YY	✓	✓		0.5/0.5/0.5	0.5-2.0	.002	3	1.0	500	DM-20
MPT-6	TF4RX35YY	✓	✓		0.5/0.5	0.5-2.0	.002	2	1.0	500	DM-20
MPT-7	TF4RX35YY	✓	✓	✓	0.7/0.7/0.7	0.5-1.5	.002	3	1.5	200	DM-18
MPT-8	TF4RX35YY	✓	✓	✓	0.7/0.7	0.5-1.5	.002	2	1.5	200	DM-18
MPT-9	TF4RX35YY	✓	✓	✓	1.0/1.0/1.0	0.7-3.5	.002	3	2.0	200	DM-18
MPT-10	TF4RX35YY	✓	✓	✓	1.0/1.0	0.7-3.5	.002	2	2.0	200	DM-18
MPT-11	TF4RX35YY	✓	✓	✓	1.0/1.0/1.0	1.0-5.0	.002	3	2.0	500	DM-0
MPT-12	TF4RX35YY	✓	✓	✓	0.15/0.15/0.3/0.3	0.2-1.0	.004	4	0.7	700	DM-8

ULTRA MINIATURE PULSE TRANSFORMERS

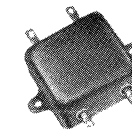
- Meet all requirements of MIL-T-27 A.
- Negligible weight.
- Exceedingly small size.
- Encapsulated or hermetically sealed.



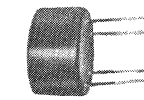
MM-1



MM-2



MM-3
MM-4



MMO-1
MMO-2

Catalog No.	MIL Type	Application	Pulse Volts	Pulse Width usec	Rise time usec	Inductance Prin. uhy	Inductance Leakage uhy	PPS. Mcs	Turns Ratio	Zo ohms	Ca De
EPT-1	TF4RX31YY	Impedance matching & Interstage coupling	20	.07	.03	125	12	2	1:1	200	MM
EPT-2	TF4RX31YY		20	.07	.03	150	15	2	2:1	200	MM
EPT-3	TF4RX31YY		20	.07	.03	160	15	2	3:1	100	MM
EPT-4	TF4RX31YY		20	.07	.03	200	20	2	4:1	100	MM
EPT-5	TF4RX31YY		17	.10	.04	200	6	2	4:1	100	MM
EPT-6	TF4RX31YY		15	.10	.04	200	5	2	5:1	100	MI
EPT-7	TF4RX31YY		25	.50	.05	1,200	20	1	7:1:1		MI
EPT-8	TF4RX31YY		10	10	.04	12,000	70	.01	5:1		M
EPT-9	TF4RX31YY		10	5	.04	7,500	22	.01	3:1	100	M
EPT-11	TF4RX35YY	Blocking oscillator	100	.25	.02	200	2	.012	1:1		M
EPT-12	TF4RX35YY		50	.33	.07	240	2	.002	1:1		M
EPT-13	TF4RX35YY		40	.5	.07	6,000	15		2:1		M
EPT-14	TF4RX35YY		15	6	.1	16,000	15	.0004	1:1.4		M
EPT-15	TF4RX36YY	Memory core &	5	1.5	.25	4,000	300		5:5:1PP	10	M
EPT-16	TF4RX36YY	Current driver	2.5	2.4	.2	2,800	200		3.3:3.3:1PP	6	M
EPT-17	TF4RX32YY	Current driver	21	1.4	.22	18,000	800	.250	6:1	200	M
EPT-18	TF4RX32YY	Current transformer	10	6	.2	90,000	200	.05	11:1	75	M
EPT-19	TF4RX36YY	Pulse inversion	22	1.7	.25	55,000	300	.05	6:1.1	400	M

When ordering encapsulated units add "M" to the catalog number.

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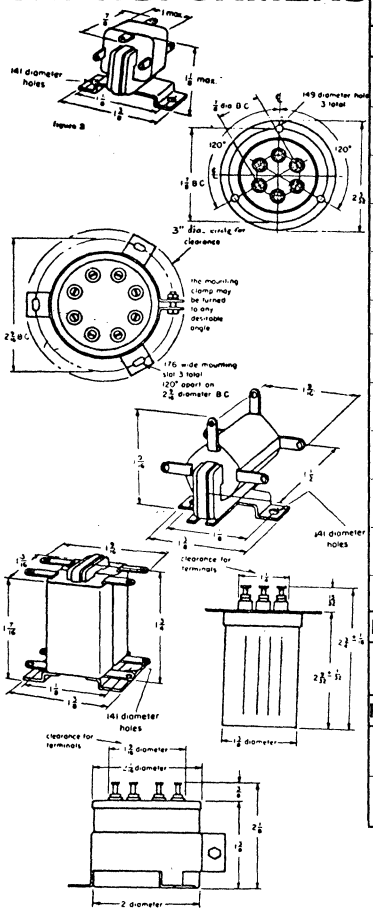
See Freed Price Pages 1431 and 1432

FREED TRANSFORMER CO., INC.

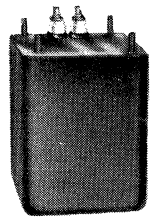
PULSE TRANSFORMERS



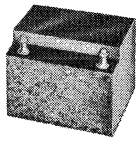
Freed No.	Radiation Laboratory No.	Westinghouse No.	Dimension Figure	GUIDANCE VALUES: Pulse Voltage (KV)	Pulse Duration (Microseconds)	Maximum Duty Ratio	Load Impedance (Ohms)	Test Voltage (60 Cycle RMS)
BLOCKING OSCILLATOR, REGENERATIVE DRIVER OR COUPLING TRANSFORMERS								
MPT-13C MPT-13M MPT-13H	132AW2 132AW2F 132AW2P	1P1 7P1 4P101	1 1 4	1.0/1.0/1.0	0.3 to 1.5	0.002	250	1000
MPT-14C MPT-14M MPT-14H	132BW2 132BW2F 132BW2P	1P2 7P2 4P102	1 1 5	0.5/0.5/0.5/0.15	0.3 to 1.5	0.002	200	1000
MPT-15C MPT-15M MPT-15H	132DW2 132DW2F 132DW2P	1P3 7P3 4P103	1 1 4	0.5/0.5/0.5	0.1 to 0.5	0.002	300	1000
MPT-16C MPT-16M MPT-16H	134BW2 134BW2F 134BW2P	1P4 7P4 4P104	3 3 5	2.5/2.5; 2.5/1.25 1.5/1.5; 1.5/0.75	1 to 2.5 1 to 5	0.002 0.002	1500 1500	1500
MPT-17C MPT-17M MPT-17H	134CW2 134CW2F 134CW2P	1P5 7P5 4P105	1 1 4	2.0/2.0/1.0 1.5/1.5/0.75	1 to 2.5 1 to 5	0.002 0.002	1200 1200	1000
MPT-18C MPT-18M	134EW2 134EW2F	1P6 7P6	2 2	2.0/2.0/1.0 1.5/1.4/0.75	0.3 to 1 0.3 to 1.5	0.002 0.002	800 800	750
MPT-19C MPT-19M MPT-19H	145CW2 145CW2F 145CW2P	1P7 7P7 4P107	1 1 4	0.5/0.5/0.5	1.0 to 5	0.002	500	1000
MPT-20C MPT-20M MPT-20H	145EW2 145EW2F 145EW2P	1P8 7P8 4P108	1 1 4	1.0/1.0/1.0	1.0 to 5	0.002	800	1000
MPT-21C MPT-21M MPT-21H	166AW2 166AW2F 166AW2P	1P9 7P9 4P109	1 1 4	1.0/0.67/0.67	1.0 to 5	0.002	800	1000
MPT-22C MPT-22M MPT-22H	176AW2 176AW2F 176AW2P	1P10 7P10 4P110	1 1 4	2.0/1.0/1.0 1.5/0.75/0.75	1 to 2.5	0.002 0.002	1000 1000	1000
MPT-23C MPT-23M MPT-23H	187AW2 187AW2F 187AW2P	1P11 7P11 4P111	1 1 4	1.0/0.5/0.5	0.5 to 2	0.002	400	1000
MPT-24C MPT-24M	224AW2 224AW2F	1P12 7P12	2 2	1.0/1.0/1.0/0.3	0.1 to 0.5	0.002	1000	750
PULSE TRIGGERING OR CURRENT TRANSFORMERS								
MPT-25C MPT-25M MPT-25H	139DW2 139DW2F 139DW2P	1P13 7P13 4P113	1 1 4		0.25 to 5	0.002		1000
PULSE OUTPUT TRANSFORMERS								
MPT-26C MPT-26M MPT-26H	148CW2 148CW2F 148CW2P	1P14 7P14 4P114	3 3 5	0.2/2.0 0.4/2.0 0.4/2.0	0.6 to 3 0.25 to 1.25 0.5 to 2.5	0.002 0.002 0.002	1600 1000 2000	1500
MPT-27C MPT-27M MPT-27H	148DW2 148DW2F 148DW2P	1P15 7P15 4P115	3 3 5	0.29/2.0 0.57/2.0 0.57/2.0	0.5 to 2.5 0.2 to 1.0 0.4 to 2.0	0.002 0.002 0.002	1200 800 1500	1500

C Indicates—varnish impregnated commercial construction.
M Indicates—encapsulated or molded construction to MIL-T-27A Grade 5 Class R.
H Indicates—hermetically sealed to MIL-T-27A Grade 4 Class R.

HERMETICALLY SEALED FILTER REACTORS



Case	Height	Depth	Width	Mtg. Centers	Studs
AJ	2 3/8	1 5/8	1 5/8	1 3/16 x 1 3/16	4 6-32
EB	2 1/16	1 13/16	1 13/16	1 3/8 x 1 1/4	4 6-32
FA	3 1/8	2 1/16	2 5/16	1 11/16 x 1 7/16	4 6-32
GA	3 13/16	2 3/8	2 3/4	2 1/8 x 1 3/4	4 6-32
HB	3 3/16	3 1/16	2 5/8	2 13/64 x 1 53/64	4 8-32
JA	3 3/16	3 1/16	4 7/8	2 5/8 x 2 1/8	4 8-32
JB	3 7/8	3 1/16	3 5/16	2 5/8 x 2 1/8	4 8-32
KB	4 5/16	3 3/8	3 13/16	3 x2 7/16	4 10-32
LA	5 5/16	3 11/16	4 5/16	3 5/16 x 2 11/16	4 10-32
LB	4 1/2	3 11/16	4 5/16	3 5/16 x 2 11/16	4 10-32
MB	4 15/16	4	4 11/16	3 11/16 x 3	4 1/4-20



MC-10 CASE
Height: 1 5/16"
Width: 1 1/4"
Depth: 1 5/16"
Mtg. Cen.: 5/16" x 7/8"
Mtg.: 2 4-40 threaded inserts

MEET MIL-T-27A SPECIFICATIONS

Catalog No.	MIL Type	Inductance Henry	Rat. Current DC Ma.	DC Res. Ohms	Test Volt Kilovolts	Case No.
MGC 1	TF4RX04AJ	100	10	3,500	1.	AJ
MGC 2	TF4RX04AJ	4	50	230	1.	AJ
MGC 3	TF4RX04EB	10	50	325	1.	EB
MGC 4	TF4RX04FA	20	50	475	1.5	FA
MGC 5	TF4RX04FA	30	50	650	1.5	FA
MGC 6	TF4RX04AJ	3	75	175	1.	AJ
MGC 7	TF4RX04EB	6	75	235	1.5	EB
MGC 8	TF4RX04FA	12	75	265	1.5	FA
MGC 9	TF4RX04EB	3.5	100	145	1.	EB
MGC 10	TF4RX04FA	8	100	180	1.5	FA
MGC 11	TF4RX04GA	12	100	190	2.	GA
MGC 12	TF4RX04EB	2	150	92	1.5	EB
MGC 13	TF4RX04FA	4	150	115	1.5	FA
MGC 14	TF4RX04GA	8	150	125	2.	GA
MGC 15	TF4RX04JB	11	150	120	2.5	JB
MGC 16	TF4RX04FA	2.5	200	70	1.5	FA
MGC 17	TF4RX04GA	4	200	80	2.	GA
MGC 18	TF4RX04HB	7	200	135	2.	HB
MGC 19	TF4RX04JA	10	200	125	2.5	JA
MGC 20	TF4RX04GA	2.5	300	50	2.	GA
MGC 21*	TF4RX04HB	4	300	62	2.5	HB
MGC 22	TF4RX04JB	6	300	85	2.5	JB
MGC 23*	TF4RX04KB	8	300	65	2.5	KB
MGC 24	TF4RX04LA	10	300	100	2.5	LA
MGC 25*	TF4RX04HB	2	400	37	2.5	HB
MGC 26	TF4RX04KB	6	400	60	2.5	KB
MGC 27*	TF4RX04JA	2	500	35	2.5	JA
MGC 28	TF4RX04KB	4	500	45	2.5	KB
MGC 29*	TF4RX04MB	7	500	50	2.5	MB
MGC 30*	TF4RX04LB	2	700	20	2.5	LB
MGC 31*	TF4RX04MB	1.75	1,000	12.5	2.5	MB

*Not stocked, available on short delivery.
Above units available in Grade 4.

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FREED TRANSFORMER CO., INC.

HERMETICALLY SEALED, MIL-T-27A, GRADE 5, CLASS S FILTER REACTORS

These reactors have a split winding for series or parallel connections.

When using two sections in parallel, double the Idc. Both inductance and resistance are divided by 4.

Catalog No.	Min. Inductance @ Idc (Series Connection)				Max. Rdc	Test Voltage	Case No.
MGC-32	3.2 H @ 0dc	2.1 H @ 25 MA	1.70 H @ 35 MA	1.4 H @ 45 MA	220 Ohms	1000 V	MC-10
MGC-33	1.3 H @ 0dc	1.1 H @ 50 MA	0.8 H @ 70 MA	0.5 H @ 90 MA	100 Ohms	1000 V	MC-10
MGC-34	400 MH @ 0dc	300 MH @ 100 MA	240 MH @ 130 MA	190 MH @ 160 MA	35 Ohms	1000 V	MC-10
MGC-35	105 MH @ 0dc	100 MH @ 200 MA	80 MH @ 250 MA	50 MH @ 300 MA	10 Ohms	1000 V	MC-10
MGC-36	25 MH @ 0dc	23.5 MH @ 400 MA	15 MH @ 500 MA	11 MH @ 600 MA	2 Ohms	1000 V	MC-10
MGC-37	5.7 MC @ 0dc	4.5 MH @ 0.8 A	3.9 MH @ 1 A	3 MH @ 1.2 A	0.5 Ohms	1000 V	MC-10

TOROIDAL INDUCTORS

Using the latest developments in the field of magnetic materials and new impregnation and molding techniques the Freed Transformer Co. makes available to the industry the most extensive line of toroidal inductors.

Freed toroids are available in three types of constructions. Open units coated with a special high temperature extremely low loss compound, hermetically sealed in metal cases or molded in special **Freed Epoxy Resin.** Both hermetically sealed and molded units meet the latest military specification MIL-T-27A(graded 1 or 4 and 2 or 5 respectively.)Freed toroidal inductors are supplied with either molypermalloy or carbonyl iron powder cores

1. Temperature Stabilization:

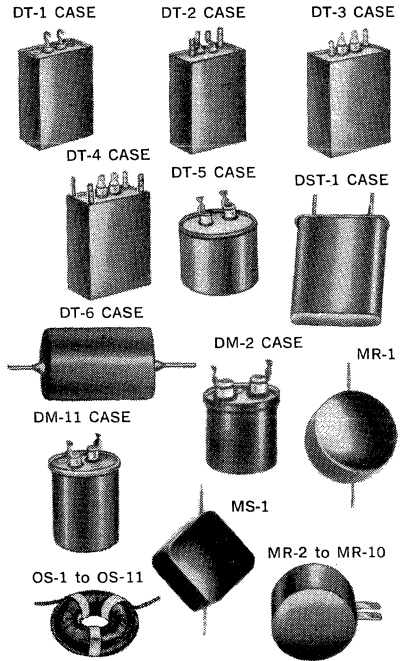
The molypermalloy and carbonyl iron powder cores have a temperature coefficient of inductance. Depending on the degree of temperature stabilization the cores have different temperature coefficients. The degree of stabilization is denoted by a two-letter code.

SF Non-stabilized cores, ±2½% inductance variations from —55°C to +85°C.
SN Non-stabilized cores, +2% inductance variations from —55°C to +85°C.
SE Temperature stabilized cores, +0.1% to —0.4% inductance variations from —1.5°C to +54°C.
SB Temperature stabilized cores, ±0.1% inductance variations from +13°C to +35°C.
SD Temperature stabilized cores, ±0.1% inductance variations from —1.5°C to +54°C.
SW Temperature stabilized cores, ±0.25% inductance variations from —54°C to +85°C.
SM Temperature stabilized cores, ±.25% —65°C to +125°C.
SP Temperature stable carbonyl iron cores, ±0.3% inductance variations from —55°C to +85°C.

The temperature (stabilization) coefficient of an inductor will depend upon the nominal inductance value, operating frequency and A.C. voltage across the coil. Under some unfavorable working conditions the temperature coefficient of inductance corresponding to a given stability characteristic may be exceeded.

Toroids with special requirements such as tapped toroids, toroidal transformers, molded and cased units with dimensions other than standard sizes and high temperature toroids can be supplied on request. Our engineering and laboratory facilities are available for consultation, research and development.

CASED, UNCASED AND MOLDED UNITS



TOROIDAL INDUCTORS

Type	Ω/H	Max. Norm. Idc	Max. Norm. Iac	Max. Norm. Vac	Type	Ω/H	Max. Norm. Idc	Max. Norm. Iac	Max. Norm. Vac
TI- 1	70	55	73.5	0.46	TI-19	4,500	25	29	0.18
TI- 1A	68	75	90.5	0.57	TI-20	2,750	100	*	*
TI- 2	160	90	135	0.85	TI-21	1,200	350	*	*
TI- 3	600	100	67	0.42	TI-22	5,600	210	*	*
TI- 3A	310	150	240	1.5	TI-23	7,000	250	*	*
TI- 4	110	55	67	0.42	TI-24	330	15	18	0.11
TI- 5	260	28	35	0.22	TI-25	200	20	24	0.15
TI- 6	230	75	125	0.80	TI-26	150	25	32	0.20
TI- 7	480	40	53	0.33	TI-27	76.5	50	62	0.39
TI- 8	1,500	50	80	0.5	TI-28	48.5	50	64	0.40
TI- 9	150	200	240	1.5	TI-29	33.5	70	88	0.55
TI-10	430	125	270	1.7	TI-30	28	100	135	0.84
TI-11	30	120	190	1.2	TI-31	19.5	100	136	0.85
TI-12	45	100	160	1	TI-32	48.5	6	14.5	0.09
TI-13	55	140	175	1.1	TI-33	2,150	8	13	0.08
TI-14	580	150	—	—	TI-34	1,700	8	9.5	0.06
TI-15	900	100	—	—	TI-35	4,100	10	18	0.11
TI-16	600	16	21	0.13	TI-36	3,950	10	11	0.07
TI-17	1,200	20	29	0.18	TI-37	23.5	10	32	0.20
TI-18	2,600	30	40	0.25	TI-38	100	4	9.5	0.06

*TI-20 through TI-23 have a very low voltage coefficient and inductance will change very little with voltage. Because of high frequency application, the maximum voltage is limited rather by breakdown than by saturation.

UNCASED		
Type	O.D.	Hi.
OS-1	5/8"	5/16"
OS-2	7/8"	3/8"
OS-3	1"	3/8"
OS-4	1"	7/16"
OS-5	1 5/16"	5/8"
OS-6	1 5/8"	7/8"
OS-7	1 11/16"	5/8"
OS-8	1 7/8"	11/16"
OS-9	2 1/4"	1 1/8"
OS-10	2 3/8"	1 1/4"
OS-11	2 5/8"	1 1/8"
OS-12	13/16"	3/8"
OS-13	3/8"	1/4"
OS-14	7/16"	7/32"

CASE							
Type	Hi.	Dia.	Length	Width	Mtg.	Mtg. Cen.	Cutout
DT-1	1 7/32"		1 1/16"	1/2"	2 4-40 inserts	3/4"	5/16" x 1/2"
DT-2	1 3/4"		1 7/16"	13/16"	2 6-32 studs	7/8" x 9/32"	3/8" x 1 1/16"
DT-3	2"		1 25/32"	7/8"	2 6-32 studs	1 1/4" x 3/8"	3/8" x 3/4"
DT-4	3 1/8"		2 3/4"	1 5/16"	4 8-32 studs	2 1/16" x 1 1/16"	3/4" x 3/8"
DT-5	1 3/16"	1 13/16"			2 6-32 inserts	1 1/8"	3/8" x 1"
DT-6	5/8"	1/2"			Pig Tails		
DM-2	1"	1 1/8"			2 4-40 inserts	5/8"	3/8" x 7/8"
DM-11	1 1/2"	1 3/8"			2 6-32 inserts	7/8"	3/8" x 7/8"
DST-1	25/32"		3/4"	11/32"	1/4" long pins	To fit 1/2" crystal socket	

MOLD			
Type	O.D.	Hi.	Clearance Hole Mountin
MR-1	7/8"	13/32"	Pig Tai
MR-2	1 1/16"	1/2"	No. 4
MR-3	1 3/16"	1/2"	No. 6
MR-3A	1 3/16"	11/16"	No. 6
MR-4	1 1/2"	3/4"	No. 8
MR-5	1 7/8"	1"	No. 8
MR-6	2 1/8"	7/8"	No. 8
MR-7	2 3/8"	1 5/16"	No. 10
MR-8	2 1/2"	1 3/8"	No. 1C
MR-9	2 5/8"	1 7/16"	No. 1C
MR-10	2 7/8"	1 3/8"	No. 1C
MR-11	7/16"	1/4"	Pig T
MS-1	25/32" x 25/32"	13/32"	Pig Ta

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FREED TRANSFORMER CO., INC.

LOW FREQUENCY TOROIDAL INDUCTORS

Freq. Range	100 ~ to 10 KC			200 ~ to 12 KC								Freq. Range
TYPE	TI-38	TI-32	TI-37	TI-24	TI-25	TI-26	TI-27	TI-28	TI-29	TI-30	TI-31	TYPE
Temp. Stability	SF	SF	SF	SN	SN	SN	SN	SN	SN	SN	SN	Temp. Stability
Size / Uncased Case Mold	OS1 DST1 MR1, MS1	OS3 DT1, DM2 MR3	OS5 DT2, DM11 MR4	OS1 DST1 MR1, MS1	OS12 DT1 MR2	OS3 DT1, DM2 MR3	OS5 DT2, DM11 MR4	OS8 DT3, DT5 MR6	OS9 DT4 MR7	OS9 DT4 MR8	OS11 DT4 MR10	Size / Uncased Case Mold
Nominal Inductance	CATALOG NUMBER											Nominal Inductance
1 MH				F2400	F2450	F2500	F2550	F2600	F2650	F2700	F2750	1 MH
2 MH				F2401	F2451	F2501	F2551	F2601	F2651	F2701	F2751	2 MH
3 MH				F2402	F2452	F2502	F2552	F2602	F2652	F2702	F2752	3 MH
5 MH	F3550			F2403	F2453	F2503	F2553	F2603	F2653	F2703	F2753	5 MH
7.5 MH	F3551			F2404	F2454	F2504	F2554	F2604	F2654	F2704	F2754	7.5 MH
10 MH	F3552			F2405	F2455	F2505	F2555	F2605	F2655	F2705	F2755	10 MH
15 MH	F3553			F2406	F2456	F2506	F2556	F2606	F2656	F2706	F2756	15 MH
20 MH	F3554			F2407	F2457	F2507	F2557	F2607	F2657	F2707	F2757	20 MH
30 MH	F3555			F2408	F2458	F2508	F2558	F2608	F2658	F2708	F2758	30 MH
50 MH	F3556	F2800	F4000	F2409	F2459	F2509	F2559	F2609	F2659	F2709	F2759	50 MH
75 MH	F3557	F2801	F4001	F2410	F2460	F2510	F2560	F2610	F2660	F2710	F2760	75 MH
100 MH	F3558	F2802	F4002	F2411	F2461	F2511	F2561	F2611	F2661	F2711	F2761	100 MH
150 MH	F3559	F2803	F4003	F2412	F2462	F2512	F2562	F2612	F2662	F2712	F2762	150 MH
200 MH	F3560	F2804	F4004	F2413	F2463	F2513	F2563	F2613	F2663	F2713	F2763	200 MH
300 MH	F3561	F2805	F4005	F2414	F2464	F2514	F2564	F2614	F2664	F2714	F2764	300 MH
400 MH	F3562	F2806	F4006	F2415	F2465	F2515	F2565	F2615	F2665	F2715	F2765	400 MH
500 MH	F3563	F2807	F4007	F2416	F2466	F2516	F2566	F2616	F2666	F2716	F2766	500 MH
750 MH	F3564	F2808	F4008	F2417	F2467	F2517	F2567	F2617	F2667	F2717	F2767	750 MH
1 H	F3565	F2809	F4009	F2418	F2468	F2518	F2568	F2618	F2668	F2718	F2768	1 H
1.25 H	F3566	F2810	F4010	F2419	F2469	F2519	F2569	F2619	F2669	F2719	F2769	1.25 H
1.5 H	F3567	F2811	F4011	F2420	F2470	F2520	F2570	F2620	F2670	F2720	F2770	1.5 H
1.75 H	F3568	F2812	F4012	F2421	F2471	F2521	F2571	F2621	F2671	F2721	F2771	1.75 H
2 H	F3569	F2813	F4013	F2422	F2472	F2522	F2572	F2622	F2672	F2722	F2772	2 H
2.25 H	F3570	F2814	F4014		F2473	F2523	F2573	F2623	F2673	F2723	F2773	2.25 H
2.5 H	F3571	F2815	F4015		F2474	F2524	F2574	F2624	F2674	F2724	F2774	2.5 H
3 H	F3572	F2816	F4016		F2575	F2525	F2575	F2625	F2675	F2725	F2775	3 H
3.5 H	F3573	F2817	F4017		F2476	F2526	F2576	F2626	F2676	F2726	F2776	3.5 H
4 H	F3574	F2818	F4018		F2477	F2527	F2577	F2627	F2677	F2727	F2777	4 H
4.5 H	F3575	F2819	F4019		F2478	F2528	F2578	F2628	F2678	F2728	F2778	4.5 H
5 H	F3576	F2820	F4020		F2479	F2529	R2579	F2629	F2679	F2729	F2779	5 H
7.5 H	F3577	F2821	F4021		F2480	F2530	F2580	F2630	F2680	F2730	F2780	7.5 H
10 H	F3578	F2822	F4022		F2481	F2531	F2581	F2631	F2681	F2731	F2781	10 H
15 H		F2823	F4023			F2532	F2582	F2632	F2682	F2732	F2782	15 H
20 H		F2824	F4024			F2533	F2583	F2633	F2683	F2733	F2783	20 H
25 H			F4025									25 H
30 H									F2684	F2734	F2784	30 H
40 H									F2685	F2735	F2785	40 H
50 H									F2686	F2736	F2786	50 H
75 H											F2787	75 H
100 H											F2788	100 H

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FREED TRANSFORMER CO., INC.

LOW FREQUENCY TOROIDAL INDUCTORS

Freq. Range	1 KC to 15 KC									Freq. Range
TYPE	TI-33	TI-34	TI-16	TI-5	TI-4	TI-1	TI-1A	TI-12	TI-11	TYPE
Temp. Stability	SN	SN	SN	SN, SE SD	SN, SD, SW	SN	SN, SD SW	SN, SD, SW	SN, SD, SW	Temp. Stability
Size / Uncased Case Mold	OS13 DT6 MR11	OS14 DT6 MR11	OS1 DST1 MR1, MS1	OS3 DT1, DM2, MR3	OS5 DT2, DM11, MR4	OS8 DT3, DT5, MR6	OS9 DT4 MR7	OS9 DT4 MR8	OS11 DT4 MR10	Size / Uncased Case Mold
Nominal Inductance	Catalog Number									Nominal Inductance
.25 MH	F2850	F2900								.25 MH
.5 MH	F2851	F2901								.5 MH
.75 MH	F2852	F2902								.75 MH
1 MH	F2853	F2903	F2050				F1500	F1655	F1747	1 MH
1.5 MH	F2854	F2904								1.5 MH
2 MH	F2855	F2905					F1501	F1656	F1748	2 MH
2.5 MH	F2856	F2906								2.5 MH
3 MH	F2857	F2907	F2051				F1502	F1657	F1749	3 MH
4 MH	F2858	F2908					F1503	F1658	F1750	4 MH
5 MH	F2859	F2909	F2052	F1700	F850	F800	F1504	F1659	F1751	5 MH
7.5 MH	F2860	F2910					F1505	F1660		7.5 MH
10 MH	F2861	F2911	F2053	F1701	F851	F801	F1506	F1661	F1752	10 MH
12.5 MH	F2862	F2912								12.5 MH
15 MH	F2863	F2913	F2054	F1702	F852	F802	F1507	F1662	F1753	15 MH
17.5 MH	F2864	F2914								17.5 MH
20 MH	F2865	F2915								20 MH
25 MH	F2866	F2916								25 MH
30 MH	F2867	F2917	F2055	F1703	F853	F803	F1508	F1663	F1754	30 MH
50 MH		F2918	F2056	F1704	F854	F804	F1509	F1664	F1755	50 MH
75 MH		F2919	F2057	F1705	F855	F805	F1510	F1665	F1756	75 MH
100 MH		F2920	F2058	F1706	F856	F806	F1511	F1666	F1757	100 MH
150 MH			F2059	F1707	F857	F807	F1512	F1667	F1758	150 MH
200 MH			F2060	F1708	F858	F808	F1513	F1668	F1759	200 MH
300 MH			F2061	F1709	F859		F1514	F1669	F1760	300 MH
400 MH			F2062	F1710	F860		F1515	F1670	F1761	400 MH
500 MH			F2063	F1711	F861	F809	F1516	F1671	F1762	500 MH
600 MH				F1712	F862		F1517	F1672		600 MH
700 MH				F1713	F863					700 MH
750 MH			F2064			F810	F1518	F1673	F1763	750 MH
800 MH				F1714	F864					800 MH
900 MH				F1715	F865					900 MH
1.0 HY			F2065	F1716	F866	F811	F1519	F1674	F1764	1.0 HY
1.25 HY			F2066	F1717	F867	F812				1.25 HY
1.5 HY			F2067	F1718	F868	F813	F1520	F1675	F1765	1.5 HY
1.75 HY			F2068	F1719	F869	F814				1.75 HY
2 HY			F2069	F1720	F870	F815	F1521	F1676	F1766	2 HY
2.25 HY					F871	F816				2.25 HY
2.5 HY					F872	F817	F1522	F1677	F1767	2.5 HY
2.75 HY					F873	F818				2.75 HY
3 HY					F874	F819	F1523	F1678	F1768	3 HY
3.5 HY					F875	F820	F1524	F1679	F1769	3.5 HY
4 HY					F876	F821	F1525	F1680	F1770	4 HY
4.5 HY					F877	F822	F1526	F1681	F1771	4.5 HY
5 HY					F878	F823	F1527	F1682	F1772	5 HY
6 HY						F824	F1528	F1683		6 HY
7 HY						F825	F1529	F1684		7 HY
7.5 HY									F1773	7.5 HY
8 HY						F826	F1530	F1685		8 HY
9 HY						F827	F1531	F1686		9 HY
10 HY						F828	F1532	F1687	F1774	10 HY
12 HY							F1533	F1688		12 HY
15 HY						F829	F1534	F1689	F1775	15 HY
17 HY							F1535	F1690		17 HY
20 HY						F830	F1536	F1691	F1776	20 HY
25 HY							F1537	F1692	F1777	25 HY
30 HY							F1538	F1693	F1778	30 HY
40 HY									F1779	40 HY
50 HY									F1780	50 HY

MEDIUM FREQUENCY TOROIDAL INDUCTORS

Freq. Range	10 KC to 50 KC							30 KC to 75 KC				Freq. Range
TYPE	TI-35	TI-36	TI-17	TI-7	TI-6	TI-2	TI-13	TI-18	TI-8	TI-10	TI-9	TYPE
Temp. Stability	SN	SN	SN	SN	SN, SD SW	SD	SN	SN	SN, SD	SB	SB	Temp. Stability
Size / Uncased Case Mold	OS13 DT6 MR11	OS14 DT6 MR11	OS1 DST1 MR1, MS1	OS3 DT1, DM2 MR3	OS5 DT2, DM11 MR4	OS6 DT3, DT5 MR5	OS9 DT4 MR8	OS1 DST1 MR1, MS1	OS3 DT1, DM2 MR3	OS7 DT3, DT5 MR5	OS10 DT4 MR9	Size / Uncas Case Mold
Nominal Inductance	Catalog Number											Nominal Inductance
.1 MH			F2100					F2140	F1821			.1 MH
.2 MH			F2101					F2141	F1822			.2 MH
.25 MH	F2950	F3000										.25 MH
.3 MH			F2102					F2142	F1823			.3 MH
.4 MH			F2103					F2143	F1824			.4 MH
.5 MH	F2951	F3001	F2104	F1781				F2144	F1825			.5 MH
.75 MH	F2952	F3002										.75 MH
1 MH	F2953	F3003	F2105	F1782	F1726	F1800	F1629	F2145	F1826	F1579	F1554	1 MH
1.5 MH	F2954	F3004										1.5 MH
2 MH	F2955	F3005	F2106	F1783	F1727	F1801	F1630	F2146	F1827	F1580	F1555	2 MH
2.5 MH	F2956	F3006										2.5 MH
3 MH	F2957	F3007	F2107	F1784	F1728	F1802	F1631	F2147	F1828	F1581	F1556	3 MH
4 MH	F2958	F3008	F2108		F1729	F1803	F1632	F2148	F1829	F1582	F1557	4 MH
5 MH	F2959	F3009	F2109	F1785	F1730	F1804	F1633	F2149	F1830	F1583	F1558	5 MH
7.5 MH	F2960	F3010	F2110	F1786	F1731		F1634	F2150	F1831	F1584	F1559	7.5 MH
10 MH	F2961	F3011	F2111	F1787	F1732	F1805	F1635	F2151	F1832	F1585	F1560	10 MH
12.5 MH	F2962	F3012										12.5 MH
15 MH	F2963	F3013	F2112	F1788	F1733	F1806	F1636	F2152	F1833	F1586	F1561	15 MH
17.5 MH		F3014										17.5 MH
20 MH		F3015	F2113	F1789	F1734			F2153	F1834			20 MH
25 MH		F3016		F1790					F1835			25 MH
30 MH		F3017	F2114	F1791	F1735	F1807	F1637	F2154	F1836	F1587	F1562	30 MH
40 MH				F1792					F1837			40 MH
50 MH			F2115	F1793	F1736	F1808	F1638	F2155	F1838	F1588	F1563	50 MH
75 MH			F2116	F1794	F1737	F1809	F1639	F2156	F1839	F1589	F1564	75 MH
100 MH			F2117	F1795	F1738	F1810	F1640	F2157	F1840	F1590	F1565	100 MH
150 MH				F1796	F1739	F1811	F1641			F1591	F1566	150 MH
200 MH				F1797	F1740	F1812	F1642			F1592	F1567	200 MH
250 MH					F1741							250 MH
300 MH					F1742	F1813	F1643				F1568	300 MH
400 MH						F1814	F1644				F1569	400 MH
500 MH					F1743	F1815	F1645				F1570	500 MH

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FREED TRANSFORMER CO., INC.

HIGH FREQUENCY TOROIDAL INDUCTORS

Freq. Range	10 KC to 100 KC		50 KC to 200 KC			20 KC to 2 MC	50 KC to 5 MC		100 KC to 10 MC	Freq. Range
TYPE	TI-15	TI-14	TI-19	TI-3	TI-3A	TI-20	TI-22	TI-23	TI-21	TYPE
Temp. Stability	SN	SN	SN	SD	SB	SP	SP	SP	SP	Temp. Stability
Size / Uncased Case Mold	OS3 DT1, DM2 MR3	OS5 DT2, DM11 MR4	OS1 DST 1 MR1, MS1	OS6 DT3, DT5 MR5	OS10 DT4 MR8	OS4 DT2 MR3A	OS2 DT1 MR2	OS2 DT1 MR2	OS1 DT1 MR1, MS1	Size / Uncased Case Mold
Nominal Inductance	Catalog Number									Nominal Inductance
.010 MH							F2270	F2301	F2240	.010 MH
.015 MH							F2271	F2302	F2241	.015 MH
.020 MH							F2272	F2303	F2242	.020 MH
.030MH							F2273	F2304	F2243	.030MH
.040 MH							F2274	F2305	F2244	.040 MH
.050 MH						F2201	F2275	F2306	F2245	.050 MH
.075 MH							F2276	F2307	F2246	.075 MH
.100 MH	F1870		F2180	F1846		F2202	F2277	F2308	F2247	.100 MH
.125 MH									F2248	.125 MH
.150 MH							F2278	F2309	F2249	.150 MH
.200 MH	F1871		F2181	F1847		F2203	F2279	F2310		.200 MH
.300 MH	F1872		F2182	F1848		F2204	F2280	F2311		.300 MH
.400 MH	F1873		F2183	F1849			F2281	F2312		.400 MH
.500 MH	F1874		F2184	F1850		F2205	F2282	F2313		.500 MH
.600 MH			F2185				F2283			.600 MH
.700 MH			F2186				F2284			.700 MH
.750 MH						F2206				.750 MH
.800 MH			F2187							.800 MH
.900 MH			F2188							.900 MH
1 MH	F1875	F1920	F2189	F1851		F2207				1 MH
1.5 MH						F2208				1.5 MH
2 MH	F1876	F1921	F2190	F1852		F2209				2 MH
2.5 MH						F2210				2.5 MH
3 MH	F1877	F1922	F2191	F1853		F2211				3 MH
3.5 MH						F2212				3.5 MH
4 MH	F1878	F1923	F2192	F1854		F2213				4 MH
4.5 MH						F2214				4.5 MH
5 MH	F1879	F1924	F2193	F1855		F2215				5 MH
7.5 MH	F1880	F1925		F1845						7.5 MH
10 MH	F1881	F1926		F1844	F1856					10 MH
15 MH	F1882	F1927			F1857					15 MH
20 MH	F1883	F1928			F1858					20 MH
25 MH	F1884									25 MH
30 MH	F1885	F1929			F1659					30 MH
40 MH	F1886				F1860					40 MH
50 MH	F1887	F1930			F1861					50 MH
75 MH	F1888	F1931			F1862					75 MH
00 MH	F1889	F1932			F1863					100 MH
50 MH		F1933								150 MH
00 MH		F1934								200 MH
50 MH		F1935								250 MH
00 MH		F1936								300 MH

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FREED TRANSFORMER CO., INC.

MAGNETIC AMPLIFIERS AND SATURABLE TRANSFORMERS

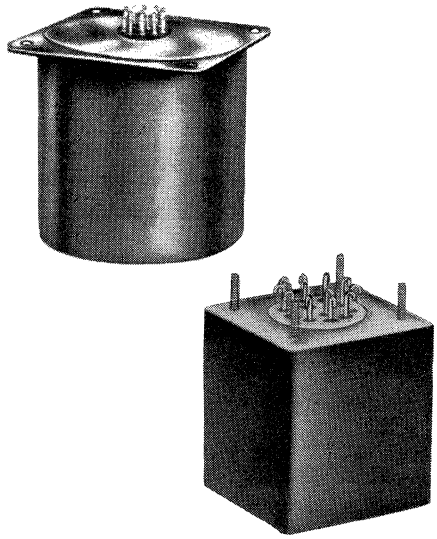
The ever increasing demand for reliability, ruggedness, miniaturization and high performance has made the magnetic amplifier an indispensable component of many military and industrial automatic control and servo systems. Recent advances in materials and techniques permit an ever greater utilization of the well-known inherent advantages of magnetic amplifiers such as direct operation from line voltage, no warm-up time, long life components, ease of signal mixing and hermetic sealing.

Freed Transformer Co. manufactures an extensive line of magnetic amplifiers, ranging from saturable transformers to half-wave type, fast-response servo amplifiers. Choice of catalog amplifiers assures standardization, lowest possible cost and rapid delivery.

All standard units are designed for continuous operation and will operate in an ambient temperature range of —55°C to +75°C.

In addition to standard items, Freed Transformer Co. has extensive facilities for the design and production of special amplifiers, saturable reactors and magnetic components.

ALL ITEMS LISTED ARE AVAILABLE FROM STOCK.



FAST RESPONSE MAGNETIC AMPLIFIERS

The MAF Type of fast response magnetic amplifier combines high power gain, ruggedness, and reliability with a maximum 2 cycle response. All MAF units are phase-reversible.

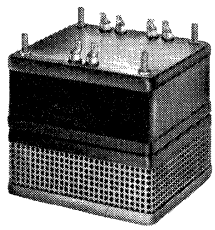
Freed No.	MAF-4*	MAF-5*	MAF-6	MAF-7
Power Supply	115V 400 cps	115V 400 cps	115V 400 cps	115V 400 cps
Maximum Output Wattage	10	15	10	15
Output Voltage	57.5V RMS	57.5V RMS	57.5V RMS	57.5V RMS
Typical Load	Kearfott R110-2 Kearfott R111-2	Kearfott R112-2	Kearfott R110-2 Kearfott R111-2	Kearfott R111-2 Kearfott R112-2
Input Signal Required for Full Output	8V AC	8V AC	R110-2 10K 1K 1.2V .4V R111-2 10K 1K 1.6V .6V	R111-2 10K 1K 1.2V .6V R112-2 10K 1K 2.5V 1.0V
Control Winding Resistance	60 Ohms CT 150 Ohms CT	60 Ohms CT 150 Ohms CT	AC or DC 10,000 Ohms Min. 1,000 Ohms Min.	AC or DC 10,000 Ohms Min. 1,000 Ohms Min.
Physical Dimensions	2 3/16" O.D. x 2 3/8" H	2 1/2" O.D. x 2 1/2" H	4 3/8" x 4 1/4" x 2 7/8" H	4 3/8" x 4 1/4" x 2 7/8" H
Weight	13 oz.	18 oz.	4 1/2 lbs.	4 1/2 lbs.

*Designed for use with MAT-1 Transistor Preamplifier.

PUSH-PULL MAGNETIC AMPLIFIERS

The map line of push-pull magnetic amplifiers features high gain, polarity-sensitive amplification and a phase-reversible output.

Freed No.	MAP-1	MAP-2	MAP-3	MAP-301
Power Supply	115V A.C. 60 Cycles (To MAPT-1)	115V A.C. 60 Cycles (To MAPT-2)	115V A.C. 60 Cycles (To MAPT-3)	115V A.C. 60 Cycles (To MAPT-301)
Maximum Output Wattage	2.8 Watts	15 Watts	50 Watts	50 Watts
Voltage	140V	150V	120V	140V
Typical Load	Kollsman 951-0160	Diehl FPE 25-11	Diehl FPF 49-9	Diehl FPF 49-9
Input Signal Required for Full Output	1.2 ma.	1 ma.	2 ma.	4.5 ma.
Resp. Time	ON OFF 15 cycles 60	ON OFF 5 cycles 38	ON OFF 3 cycles 15	ON OFF 5 cycles 20
Control Winding Resistance	620 ohms each	1230 ohms each	250 ohms each	1700 ohms each
Physical Dimensions	3 3/8"x3 1/2"x5 7/8"H M.A. 2 5/8"x2 1/4"x3"H T.	3 7/8"x4 5/8"x7"H M.A. 2 5/16"x2 3/4"x3 3/4"H T.	5 1/8"x6 7/8"x8"H M.A. 3 5/16"x3 7/8"x4 1/4"H T.	5 1/2"x5"x8"H M.A. 3 5/8"x4 1/4"x3 3/8"H T
Weight	6 lbs. M.A. 3 lbs. T.	11 lbs. M.A. 3 1/2 lbs. T.	26 1/2 lbs. M.A. 8 lbs. T.	20 lbs. M A. 8 lbs. T.



Freed No.	MAP-4	MAP-7	MAP-8	MAP-11
Power Supply	115V A.C. 60 Cycles (To MAPT-4)	115V A.C. 400 Cycles	115V A.C. 400 Cycles (To MAPT-8)	115V A.C. 400 Cycles
Maximum Output Wattage	175 Watts	15 Watts	50 Watts	10 Watts
Voltage	130V	125V	115V	115V
Typical Load	Diehl FPF 85-18-1	Kearfott R112-2A	Bendix CK-3000-1-A	Kearfott R111-2A
Input Signal Required for Full Output	8 ma.	.5 ma.	1.8 ma.	.9 ma.
Resp. Time	ON OFF 17 cycles 66	ON OFF 5 cycles 15	ON OFF 45 cycles 60	ON OFF 4 cycles 75
Control Winding Resistance	3000 ohms each	4,400 ohms each	320 ohms each	3300 ohms each
Physical Dimensions	7 1/4"x5"x7 7/8"H M.A. 4"x4 3/4"x5 5/8"H T.	3 1/4"x3 5/8"x7"H	3 7/8"x3 7/8"x7 7/8"H M.A. 2 15/16"x2 3/4"x3 3/4"H T.	4 1/8"x3 1/2"x5 1/4"H
Weight	35 lbs. M.A. 12 lbs. T.	7 lbs.	7 1/2 lbs. M.A. 4 lbs. T.	5 lbs.

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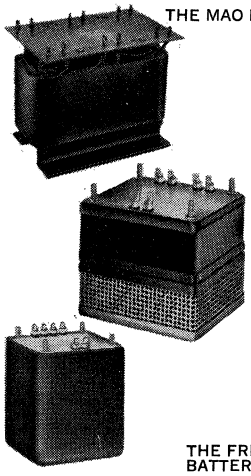
See Freed Price Pages 1431 and 1432

FREED TRANSFORMER CO., INC.

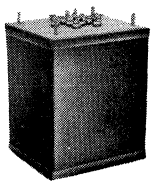
SINGLE ENDED MAGNETIC AMPLIFIERS



THE MAO LINE OF SINGLE-ENDED MAGNETIC AMPLIFIERS PROVIDES A SINGLE STAGE OF DC CONTROLLED AMPLIFICATION, UTILIZING POSITIVE FEEDBACK TO OBTAIN MUCH HIGHER GAIN THAN THAT OF A SATURABLE REACTOR.

Freed No.	MAO-1	MAO-2	MAO-3	MAO-4	MAO-5
Power Supply	115V A.C. 60 Cycles	115V A.C. 60 Cycles	115V A.C. 60 Cycles	115V A.C. 60 Cycles	115V A.C. to the MAO-T-5 Transformer 60 Cycles
Maximum Output Wattage	4 watts	20 watts	100 watts	400 watts	575 watts
Voltage	120V	120V	100V	100V	135V
Typical Load	4000 ohms	700 ohms	100 ohms	25 ohms	25 ohms
Input Signal Req. for Full Output	3 ma.	1.8 ma.	9 ma.	9 ma.	6 ma.
Control Winding Resistance	300 ohms each	700 ohms each	5600 ohms each	4500 ohms each	4,500 ohms
Physical Dimensions	3¾"x4"x3½" H	4¼"x3⅝"x6⅜" H	3¼"x5½"x4 13/16"H	5"x7½"x6" H	5"x7½"x6" H Trans. 3⅞"x3⅞"x3¾" H
Weight	4 lbs.	7 lbs.	8½ lbs.	21 lbs.	21 lbs. Trans. 7¼ lbs.

TRANSISTOR CONVERTERS



THE FREED LINE OF DC TO AC AND DC TO DC TRANSISTOR CONVERTERS PROVIDE A HIGH EFFICIENCY VOLTAGE CONVERSION FROM BATTERY SOURCES TO AN AC LINE VOLTAGE OR HIGH DC VOLTAGE WITHOUT THE USE OF MOVING PARTS.

Freed Transformer Co. maintains a stock line of reliable, highly efficient static DC to DC and DC to AC converters. DC to DC converters in hermetically sealed cans. RF filters included inside case.

The MAC Line of Static DC to AC Converters provide a highly efficient voltage conversion from battery sources to AC voltage without the use of moving parts.

The output voltage and/or frequency is directly proportional to source voltage variation.

Special regulators can be supplied to compensate for this variation.

- **RUGGED, QUIET, MAINTENANCE FREE, LONG LIFE OPERATION.**
- **HIGH POWER TO WEIGHT RATIO, ARC-FREE OPERATION.**

DC TO DC CONVERTERS

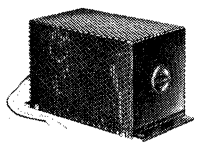
All TDC units are Hermetically Sealed, Oil Filled. Mtg. base plate must be mounted on a sink of sufficient area to maintain a base temperature of 70°C. Maximum output regulation 5% from half load to full load. Ripple frequency 4 to 5 KC; Ripple content 0.1%.

UNREGULATED TDC STOCK UNITS

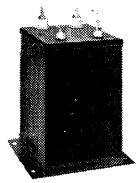
Type No.	NOM. V in	V out	MAX 1 out MA	Case Size	Type No.	NOM. V in	V out	MAX 1 out MA	Case Size
TDC 12-30-15	12v	300	150	2⅝ x 2¼ x 3½	TDC 28-30-15	28v	300	150	2⅝ x 2¼ x 3½
TDC 12-25-12	12v	250	120	2⅝ x 2¼ x 3½	TDC 28-25-12	28v	250	120	2⅝ x 2¼ x 3½
TDC 12-30-05	12v	300	50	2 x 2¼ x 3½	TDC 28-30-05	28v	300	50	2 x 2¼ x 3⅛
TDC 12-20-05	12v	200	50	2 x 2¼ x 3⅛	TDC 28-20-05	28v	200	50	2 x 2¼ x 3⅛

DC TO AC TRANSISTOR CONVERTERS

Input Voltage—12 VDC Output Frequency—60 CPS.—Square Wave

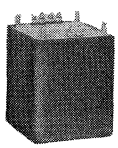


OPEN CASE



SEALED CASE

Freed No.	Output Voltage	Power	Type of Case	Dimensions
MAC 12-3-60	115 VRMS	30 VA	Cased	7¼" x 3⅛" x 4⅜"
MAC-12-10-1	115 VRMS	100 VA	Cased	7¼" x 4" x 5"
MAC 12-10-2	115 VRMS	100 VA	Herm. Sealed	7¼" x 4⅛" x 4 3/16"
MAC 12-20-1	115 VRMS	180 VA	Cased	6" x 4⅛" x 6"
MAC 12-20-2	115 VRMS	180 VA	Herm. Sealed	6" x 4⅛" x 6"
MAC 12-30-1	115 VRMS	250 VA	Cased	5⅞" x 6⅛" x 7 1/16"
MAC 12-30-2	115 VRMS	250 VA	Herm. Sealed	5⅞" x 6⅛" x 7 1/16"

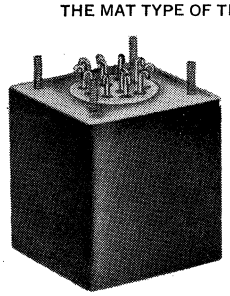


- Output Waveform—Square Wave
- Output Frequency—60 cps (Adjustment Control)
- Frequency Stability ±3%
- Hermetically Sealed
- Maximum Ambient Temperature 50°C
- Temperature of Base Mounting Plate must not exceed 70°C
- Output Voltage Variation—Varies Directly with Input Voltage

	Nominal Input V.D.C.	Output @ 115V VA	Unregulated
TAC-12-50	12	50	4⅛" x 3½" x 4½" H
TAC-12-90	12	90	4⅛" x 3½" x 4⅞" H
TAC-12-175	12	175	5" x 4⅛" x 6" H
TAC-28-50	28	50	4⅛" x 3½" x 4½" H
TAC-28-100	28	100	4⅛" x 3½" x 4⅞" H
TAC-28-175	28	175	5" x 4⅛" x 6" H
TAC-28-250	28	250	5½" x 5" x 6¾" H

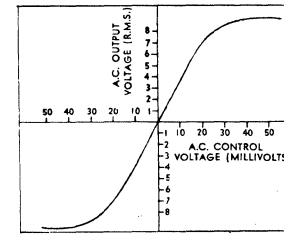
MINIATURIZED SILICON TRANSISTOR PREAMPLIFIER

THE MAT TYPE OF TRANSISTOR PREAMPLIFIER COMBINES LOW POWER CONSUMPTION, HIGH POWER GAIN AND SMALL SIZE AND WEIGHT.



Freed No.	MAT-1-1
Power Supply	115V 400~
Voltage Gain	400
Maximum Output Voltage	10V (RL = 1.5K)
Typical Load	Freed MAF-4 and MAF-5 Magnetic Amplifiers
Input Signal Required for Full Output	50MV
Input Impedance	>10,000 OHMS
Physical Dimensions	1¾" x 1⅞" x 2⅝" H
Weight	10 oz.

TRANSFER CHARACTERISTIC CURVE



See Freed Price Pages 1431 and 1432

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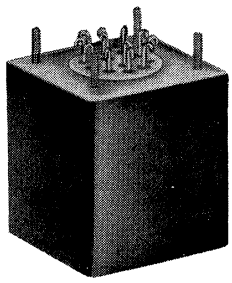
FREED TRANSFORMER CO., INC.

FREED SATURABLE TRANSFORMERS

DC CONTROLLED

The MAS line of saturable transformers, commonly controlled by dual-triodes or transistors, emphasizes low cost, small size, extreme reliability (no rectifiers) and phase-reversible output.



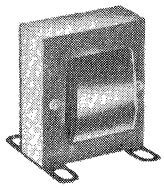
Freed No.	MAS-1	MAS-101	MAS-2	MAS-3	MAS-4	MAS-5	MAS-6	MAS-7	MAS-8
Power Supply	115V A.C. 60 Cycles	115V A.C. 60 Cycles	115V A.C. 400 Cycles	115V A.C. 60 Cycles	115V A.C. 60 Cycles	115V A.C. 400 Cycles	115V A.C. 400 Cycles	115V A.C. 400 Cycles	115V A.C. 400 Cycles
Maximum Output	15 watts	15 watts	6 watts	30 watts	60 watts	2.7 watts	30 watts	40 watts	10 watts
Wattage Voltage	130V	120V	120V	120V	120V	26V	120V	115V	125V
Typical Load	Diehl FPE 25-11	Diehl FPE 25-11	Kearfott R-110	Diehl FPE 49-7	250 ohms	Kearfott R-118	Diehl FPE 49-13-1	Bendix CK-3000-1A	Kearfott R-110, R-111
Input Signal Required for Full Output	6 ma.	9 ma.	3 ma	8 ma.	20 ma.	4 ma.	4 ma.	6 ma.	11 ma.
Resp. Time	ON OFF 2 cycles 5	ON OFF 3 cycles 6	ON OFF 3 cycles 6	ON OFF 3 cycles 30	ON OFF 5 cycles 35	ON OFF 10 cycles 35	ON OFF 12 cycles 9	ON OFF 12 cycles 9	ON OFF 6 cycles 3
Control Winding Resistance	14 K ohms each	3200 ohms each	2000 ohms each	6800 ohms each	2000 ohms each	1500 ohms each	4000 ohms each	4000 ohms each	7000 ohms each
Physical Dimensions	3½"x4¼" x5½" H	3½"x4¼" x5½" H	1¾"x2⅜" 2⅜" H	4¾"x5⅞" x5½" H	7"x5¼" x7" H	2¼"x2⅛" x2¼" H	3¾"x3¼" x4" H	3¹³⁄₁₆"x3¼" x4" H	1⅝"x2¾" x3⅛" H
Weight	9 lbs.	9.75 lbs.	2 lbs.	18.5 lbs.	29 lbs.	1.25 lbs.	6 lbs.	6 lbs.	21 oz.

CONSTANT VOLTAGE TRANSFORMERS

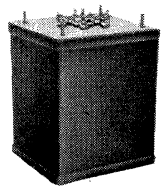
The MCV line of constant voltage transformers provides accurate regulation against line and/or load variations, without the use of tubes or moving parts.

- MILITARY SPECIFICATIONS
- NO TUBES
- COMMERCIAL
- NO MOVING PARTS
- ACCURATE REGULATIONS
- FAST RESPONSE
- FULLY AUTOMATIC

Rated output within ±2% of nominal value. Regulation automatically maintained within ±1%. Regulation from 25% to full load ±2%.



COMMERCIAL



MILITARY

Reg. Output in R.M.S. Volts	Input Range in R.M.S. Volts	Output in V.A. P.F-1	CATALOG NUMBERS 60 Cycles Comm.	60 Cycles Military*	400 Cycles Comm.*	400 Cycles Military*
115	95-130	5	MCV65LC	MCV65LM	MCV45LC	MCV45LM
115	95-130	25	MCV625LC	MCV625LM	MCV425LC	MCV425LM
115	95-130	75	MCV675LC	MCV675LM	MCV475LC	MCV475LM
115	95-130	125	MCV6125LC	MCV6125LM	MCV4125LC	MCV4125LM
115	95-130	175	MCV6175LC	MCV6175LM	MCV4175LC	MCV4175LM
115	95-130	250	MCV6250LC	MCV6250LM	MCV4250LC	MCV4250LM
115	95-130	375	MCV6375LC	MCV6375LM	MCV4375LC	MCV4375LM
115	95-130	500	MCV6500LC	MCV6500LM	MCV4500LC	MCV4500LM
115	95-130	750	MCV6750LC	MCV6750LM	MCV4750LC	MCV4750LM
115	95-130	1000	MCV61000LC	MCV61000LM	MCV41000LC	MCV41000LM
26	95-130	5	MCV654FC	MCV654FM	MCV454FC	MCV454FM
26	95-130	25	MCV6254FC	MCV6254FM	MCV4254FC	MCV4254FM
26	95-130	75	MCV6754FC	MCV6754FM	MCV4754FC	MCV4754FM
26	95-130	125	MCV61254FC	MCV61254FM	MCV41254FC	MCV41254FM
6.4	95-130	5	MCV65FC	MCV65FM	MCV45FC	MCV45FM
6.4	95-130	25	MCV625FC	MCV625FM	MCV425FC	MCV425FM
6.4	95-130	75	MCV675FC	MCV675FM	MCV475FC	MCV475FM
6.4	95-130	125	MCV6125FC	MCV6125FM	MCV4125FC	MCV4125FM

*Condensers are not provided with units. Where condensers are provided they are external to units.

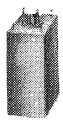
TELEMETERING COMPONENTS

A complete line of Band Pass Filters, Low Pass Filters and Discriminators is available for multi-channel telemetering applications. These components cover the frequency range from 400 cps to 70,000 cps. The filters feature **exceptional phase linearity,** excellent selectivity characteristics and plug-in construction. The Discriminators, either fixed or slug tuned, have exceptional linearity, high amplification, and utmost stability.

TELEMETERING BAND PASS FILTERS

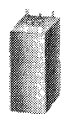
Hermetically sealed to MIL-T-27A and MIL-F-18327

These filters cover the frequencies from 400 c.p.s. to 70KC. Narrow frequency B.P.F. have a band width of ±9¾% of center frequency and 45 DB (minimum) points at ±7½% of center frequency of higher or lower adjacent channels. Wide frequency B.P.F. have a band width of ±19½% of center frequency and 50 D.B. points at ±15% of center frequencies of higher or lower second adjacent channels.



FA-5 CASE

Height: 4½"
Width: 3½"
Depth: 2⅛"
Mtg. Cen.: 2⁷⁄₁₆"x1⁹⁄₁₆"
Studs: 5 8-32x½"
Octal Header



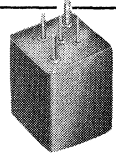
FA-10 CASE

Height: 4½"
Width: 3½"
Depth: 2⅛"
Mtg. Cen.: 1¹¹⁄₁₆"x1⁹⁄₁₆"
Studs: 4 8-32x½"
Knockout: 1½" dia.

FA-15 CASE

Height: 4½"
Width: 2⅞"
Depth: 2⅛"
Mtg. Cen.: 1¹¹⁄₁₆x1⁹⁄₁₆"
Studs: 4 8-32x½"
Knockout: 1½" dia.

CASE SIZES



DF-01
¾ x ¾ x 1⅜
MTN-2.3 Thru MTW-70

DF-02
1 x 1 x 1⅜
MTN-4 Thru MTN 1.7

Characteristic Impedance 500 Ω Catalog No.	Center Frequency c.p.s.	3 DB Band Width % of C.F.	Case No.
FBP-10	400	± 9¾	FA-10
FBP-11	560	± 9¾	FA-10
FBP-12	730	± 9¾	FA-10
FBP-13	960	± 9¾	FA-10
FBP-14	1,300	± 9¾	FA-10
FBP-15	1,700	± 9¾	FA-10
FBP-16	2,300	± 9¾	FA-10
FBP-17	3,000	± 9¾	FA-15
FBP-18	3,900	± 9¾	FA-15
FBP-19	5,400	± 9¾	FA-15
FBP-20	7,350	± 9¾	FA-15
FBP-21	10,500	± 9¾	FA-15
FBP-22	12,300	± 9¾	FA-15
FBP-23	14,500	± 9¾	FA-15
FBP-24	22,000	± 9¾	FA-15
FBP-25	22,000	±19½	FA-15
FBP-26	30,000	± 9¾	FA-15
FBP-27	30,000	±19½	FA-15
FBP-28	40,000	± 9¾	FA-15
FBP-29	40,000	±19½	FA-15
FBP-30	52,500	± 9¾	FA-15
FBP-31	52,500	±19½	FA-15
FBP-32	70,000	± 9¾	FA-15
FBP-33	70,000	±19½	FA-15

Characteristic Impedance 2,500 Ω Catalog No.	Center Frequency c.p.s.	3 DB Band Width % of C.F.	Case No.
FBP-34	400	± 9¾	FA-5
FBP-35	560	± 9¾	FA-5
FBP-36	730	± 9¾	FA-5
FBP-37	960	± 9¾	FA-5
FBP-38	1,300	± 9¾	FA-5
FBP-39	1,700	± 9¾	FA-5
FBP-40	2,300	± 9¾	FA-5
FBP-41	3,000	± 9¾	FA-5
FBP-42	3,900	± 9¾	FA-5
FBP-43	5,400	± 9¾	FA-5
FBP-44	7,350	± 9¾	FA-5
FBP-45	10,500	± 9¾	FA-5
FBP-46	12,300	± 9¾	FA-5
FBP-47	14,500	± 9¾	FA-5
FBP-48	22,000	± 9¾	FA-5
FBP-49	22,000	±19½	FA-5
FBP-50	30,000	± 9¾	FA-5
FBP-51	30,000	±19½	FA-5
FBP-52	40,000	± 9¾	FA-5
FBP-53	40,000	±19½	FA-5
FBP-54	52,500	± 9¾	FA-5
FBP-55	52,500	±19½	FA-5
FBP-56	70,000	± 9¾	FA-5
FBP-57	70,000	±19½	FA-5

SUBMINIATURE TELEMETERING BAND PASS FILTERS

Manufactured to Specification MIL-F-18327A—Type FR-4RX22YY
RBD Standard Frequency Channels

Input and Output Impedance 10K ohms

Type No.	Center Frequency Fo- in KC	Band Width <3DB	Stop Band Attenuation	Type No.	Center Frequency Fo- in KC	Band Width <3DB	Stop Band Attenuation
MTN-.4	.4	±7½%	7/38 DB @ 1.76 + .58 Fo	MTN-14.5	14.5	±7½%	7/38 DB @ 1.75 + .58 I
MTN-.56	.56	±7½%	7/38 DB @ 1.76 + .58 Fo	MTW-22	22	±7½%	7/38 DB @ 1.75 + .58 I
MTN-.73	.73	±7½%	7/38 DB @ 1.76 + .58 Fo	MTW-30	30	±7½%	7/38 DB @ 1.75 + .58 I
MTN-.96	.96	±7½%	7/38 DB @ 1.76 + .58 Fo	MTW-40	40	±7½%	7/38 DB @ 1.75 + .58 I
MTN-1.3	1.3	±7½%	7/38 DB @ 1.76 + .58 Fo	MTW-52.5	52.5	±7½%	7/38 DB @ 1.75 + .58
MTN-1.7	1.7	±7½%	7/38 DB @ 1.76 + .58 Fo	MTW-70	70	±7½%	7/38 DB @ 1.75 + .58
MTN-2.3	2.3	±7½%	7/38 DB @ 1.76 + .58 Fo	MTW-22	22	±15%	7/40 DB @ 2.5 + .4 F
MTN-3.0	3.0	±7½%	7/38 DB @ 1.76 + .58 Fo	MTW-30	30	±15%	7/40 DB @ 2.5 + .4 F
MTN-3.9	3.9	±7½%	7/38 DB @ 1.76 + .58 Fo	MTW-40	40	±15%	7/40 DB @ 2.5 + .4 F
MTN-5.4	5.4	±7½%	7/38 DB @ 1.76 + .58 Fo	MTW-52.5	52.5	±15%	7/40 DB @ 2.5 + .4 F
MTN-7.35	7.35	±7½%	7/38 DB @ 1.76 + .58 Fo	MTW-70	70	±15%	7/40 DB @ 2.5 + .4 F
MTN-10.5	10.5	±7½%	7/38 DB @ 1.76 + .58 Fo				

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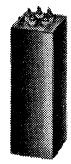
See Freed Price Pages 1431 and 1432

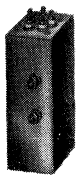
FREED TRANSFORMER CO., INC.

CASE DIMENSIONS

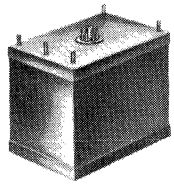
FA-1 CASE
Height: 4½″
Width: 1½″
Depth: 1½″
Mtg. Cen.: 31/32″ sq.
4 Inserts: 6-32
Knockout: 1″



FA-185 CASE
Height: 4½″
Width: 1⅞″
Depth: 1⅝″
Mtg. Cen.: 1 15/64″x1 1/16″
4 Inserts: 6-32
Knockout: 1½″



FA-190 CASE
Height: 4½″
Width: 2¼″
Depth: 1⅝″
Mtg. Cen.: 1 1/32″x1 1/16″
4 Inserts: 6-32
Knockout: 1½″



FA-410 CASE
Height: 4½″
Width: 6″
Depth: 4″
Mtg. Cen.: 5¼″x3¼″
5 Studs: 10-32
Octal Header

DISCRIMINATOR INPUT LOW PASS FILTER

HERMETICALLY SEALED TO MIL-T-27A AND MIL-F-18327 SPECIFICATIONS

Catalog No.	Fo Center Freq. in c.p.s.	Characteristic Impedance Ohms	Case No.
LPI-10	400	30,000	FA-1
LPI-11	560	30,000	FA-1
LPI-12	730	30,000	FA-1
LPI-13	960	30,000	FA-1
LPI-14	1,300	30,000	FA-1
LPI-15	1,700	30,000	FA-1
LPI-16	2,300	30,000	FA-1
LPI-17	3,000	30,000	FA-1
LPI-18	3,900	30,000	FA-1

Band Pass Attenuation: 0.05 DB ±9¾% of Center Frequency
30 DB at second harmonic of Pass Band Frequencies
50 DB at third harmonic of Pass Band Frequencies
40 DB above third harmonic of Pass Band Frequencies

Catalog No.	Fo Center Freq. in c.p.s.	Characteristic Impedance Ohms	Case No.
LPI-19	5,400	30,000	FA-1
LPI-20	7,350	30,000	FA-1
LPI-21	10,500	30,000	FA-1
LPI-22	12,300	30,000	FA-1
LPI-23	14,500	30,000	FA-1
LPI-24	22,000	5,100	FA-1
LPI-25	30,000	5,100	FA-1
LPI-26	40,000	5,100	FA-1
LPI-27	52,500	5,100	FA-1
LPI-28	70,000	5,100	FA-1

Band Pass Attenuation: 0.05 DB ±15% of Center Frequency
30 DB at second harmonic of Pass Band Frequencies
50 DB at third harmonic of Pass Band Frequencies
40 DB above third harmonic of Pass Band Frequencies

DISCRIMINATOR OUTPUT LOW PASS FILTER

HERMETICALLY SEALED TO MIL-T-27A AND MIL-F-18327 SPECIFICATIONS

Catalog No.	Fo c.p.s.	Characteristic Impedance Ohms	Case No.
LPO-10	6	330	FA-410
LPO-11	8	330	FA-410
LPO-12	11	330	FA-410
LPO-13	14	330	FA-410
LPO-14	20	330	FA-410
LPO-15	25	330	FA-410
LPO-16	35	330	FA-410
LPO-17	45	330	FA-410
LPO-18	60	330	FA-410
LPO-19	81	330	FA-410
LPO-20	110	330	FA-410
LPO-21	160	330	FA-410
LPO-22	185	330	FA-410

Catalog No.	Fo c.p.s.	Characteristic Impedance Ohms	Case No.
LPO-23	220	330	FA-410
LPO-24	330	330	FA-410
LPO-25	450	330	FA-410
LPO-26	600	330	FA-410
LPO-27	660	330	FA-410
LPO-28	790	330	FA-410
LPO-29	900	330	FA-410
LPO-30	1,050	330	FA-410
LPO-31	1,200	330	FA-410
LPO-32	1,600	330	FA-410
LPO-33	2,100	330	FA-410
LPO-34	7,200	330	FA-410
LPO-35	10,000	330	FA-410

Attenuation: <0.2 DB up to 0.5 times Fo
<0.7 DB from 0.5 to 1. times Fo
>20 DB at 2 Fo to 2.5 Fo
>30 DB from 2.5 times Fo to 100 Kc

FIXED DISCRIMINATORS

HERMETICALLY SEALED TO MIL-T-27A AND MIL-F-18327 SPECIFICATIONS

Catalog No.	Center Frequency (cps)	% Deviation of Fo	Linearity	D.C. Output Volts	Case No.
DST-10	400	±8½	±0.5%	32.5	FA-185
DST-11	560	±8½	±0.5%	32.5	FA-185
DST-12	730	±8½	±0.5%	32.5	FA-185
DST-13	960	±8½	±0.5%	32.5	FA-185
DST-14	1,300	±8½	±0.5%	32.5	FA-185
DST-15	1,700	±8½	±0.5%	32.5	FA-185
DST-16	2,300	±8½	±0.5%	32.5	FA-185

SLUG TUNED DISCRIMINATORS

Catalog No.	Center Frequency (Kc.)	% Deviation of Fo	Linearity	D.C. Output Volts	Case No.
DST-17	3.0	±8½	±0.5%	32.5	FA-190
DST-18	3.9	±8½	±0.5%	32.5	FA-190
DST-19	5.4	±8½	±0.5%	32.5	FA-190
DST-20	7.35	±8½	±0.5%	32.5	FA-190
DST-21	10.5	±8½	±0.5%	32.5	FA-190
DST-22	12.3	±8½	±0.5%	32.5	FA-190
DST-23	14.5	±8½	±0.5%	32.5	FA-190
DST-24	22.0	±8½	±0.5%	32.5	FA-190
DST-25	30.0	±8½	±0.5%	32.5	FA-190

Catalog No.	Center Frequency (Kc)	% Deviation of Fo	Linearity	D.C. Output Volts	Case No.
DST-26	40.0	±8½	±0.5%	32.5	FA-190
DST-27	52.5	±8½	±0.5%	32.5	FA-190
DST-28	70.0	±8½	±0.5%	32.5	FA-190
DST-29	22.0	±15	±1.0%	26.0	FA-190
DST-30	30.0	±15	±1.0%	26.0	FA-190
DST-31	40.0	±15	±1.0%	26.0	FA-190
DST-32	52.5	±15	±1.0%	26.0	FA-190
DST-33	70.0	±15	±1.0%	26.0	FA-190

FREED FILTERS

To MIL-T-27A and MIL-F-18327

Freed Standard Filters are **Hermetically Sealed Miniature and Sub-Miniature** high performance components designed for both production and laboratory applications in the Communications and Electronic industry. In order to achieve attenuation requirements not obtainable with one single filter, one can combine several standard filters of different transmission characteristics. Wide Band Pass characteristics are obtainable by combining low and high Pass Units. The astatic construction of inductive components together with special shielding reduces the hum pick-up of the standard filters.

The standard filters are available in Low Pass, High Pass and Band Pass Filters.

Low Pass Filters: The attenuation characteristics of Low Pass Filters are 6db or less at cut-off frequency, 35db or more at 1.5 cut-off frequency and 40db or more at 2 cut-off frequency.

ILP Interstage Low Pass Filter. Characteristic Impedance 10,000 ohms, in and out.

LLP Line Low Pass Filter. Characteristic Impedance 500 to 600 Ω, in and out.

High Pass Filters: The attenuation characteristics of High Pass Filters are 6db or less at cut-off frequency, 35db and 40db or more at 0.67 and 0.5 cut-off frequency.

IHP Interstage High Pass Filter. Characteristic Impedance 10,000 ohms, in and out.

LHP Line High Pass Filter. Characteristic Impedance 500 to 600 Ω, in and out.

Band Pass Filters: The attenuation characteristics of Band Pass Filters are 2db or less at plus or minus 3% of center frequency 40db or more at 0.5 and 2 center frequency.

IBP Interstage Band Pass Filter. Nominal input impedance—10,000 ohms. Nominal output impedance 5 megohms or grid of vacuum tube. Effective voltage step-up 2:1. (Output voltage to source voltage.)

LBP Line Band Pass Filter. Nominal input impedance 500 to 600 ohms. Nominal output impedance 5 megohms or grid of vacuum tube. Effective voltage step-up 1. (Output voltage to source voltage.)

See Freed Price Pages 1431 and 1432
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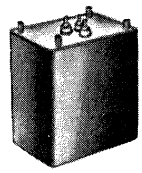
FREED TRANSFORMER CO., INC.

FREED FILTERS
TO MIL-T-27A AND MIL-F-18327



DF-1 CASE

Height: 2½″
Width: 1¹⁵⁄₁₆″
Depth: 1³⁄₁₆″
Mtg. Cen.: 1¼″x¾″
Studs: 4 6-32x⅜″
Knockout: ⅞″ dia.

Catalog No.	Cut-off Frequency c.p.s.
ILP- 100	100
ILP- 200	200
ILP- 300	300
ILP- 500	500
ILP- 750	750
ILP- 1,000	1,000
ILP- 1,500	1,500
ILP- 2,000	2,000
ILP- 2,500	2,500
ILP- 3,000	3,000
ILP- 5,000	5,000
ILP- 7,000	7,000
ILP- 10,000	10,000
ILP- 15,000	15,000
ILP- 20,000	20,000
ILP- 23,000	23,000
ILP- 25,000	25,000
ILP- 32,000	32,000
ILP-130,000	130,000
ILP-150,000	150,000

Special filters in all six types are available for any frequency from 100 to 20,000 cycles

Catalog No.	Cut-off Frequency c.p.s.
LLP- 500	500
LLP- 1,000	1,000
LLP- 1,500	1,500
LLP- 1,600	1,600
LLP- 2,000	2,000
LLP- 2,500	2,500
LLP- 3,000	3,000
LLP-16,000	16,000
LLP-20,000	20,000
LLP-70,000	70,000
LLP-80,000	80,000
IHP- 200	200
IHP- 250	250
IHP- 300	300
IHP- 400	400
IHP- 500	500
IHP- 1,000	1,000
IHP- 2,000	2,000
IHP- 3,000	3,000
IHP-10,000	10,000
IHP-15,000	15,000
LHP- 200	200
LHP- 300	300
LHP- 400	400
LHP- 500	500
LHP- 800	800
LHP- 1,000	1,000
LHP- 2,000	2,000
LHP- 6,000	6,000
LHP-10,000	10,000

Catalog No.	Cut-off Frequency c.p.s.
IBP- 100	100
IBP- 200	200
IBP- 250	250
IBP- 400	400
IBP- 500	500
IBP- 700	700
IBP- 800	800
IBP- 900	900
IBP- 1,000	1,000
IBP- 1,500	1,500
IBP- 2,000	2,000
IBP- 3,000	3,000
IBP- 5,000	5,000
IBP- 7,200	7,200
IBP-10,000	10,000
IBP-12,000	12,000
IBP-15,000	15,000
IBP-30,000	30,000
IBP-57,600	57,600
LBP- 100	100
LBP- 300	300
LBP- 400	400
LBP- 600	600
LBP- 800	800
LBP- 1,000	1,000
LBP- 1,500	1,500
LBP- 2,000	2,000
LBP- 3,000	3,000
LBP- 7,200	7,200
LBP-10,000	10,000
LBP-14,400	14,400
LBP-20,000	20,000
LBP-28,800	28,800

HERMETICALLY SEALED SUB-MINIATURE FILTERS

Low Pass Filters: The attenuation characteristics of Low Pass Filters are 6db or less at cut-off frequency, 30db or more at 1.5 cut-off frequency and 40db or more at 2 cut-off frequency.

ILM Interstage Low Pass Filter. Characteristic impedance 10,000 ohms, in and out.

LLM Line Low Pass Filter. Characteristic Impedance 500 to 600 ohms, in and out.

High Pass Filters: The attenuation characteristics of High Pass Filters are 6db or less at cut-off frequency, 30db and 40db or more at 0.67 and 0.5 cut-off frequency.

IHM Interstage High Pass Filter. Characteristic Impedance 10,000 ohms, in and out.

LHM Line High Pass Filter. Characteristic Impedance 500 to 600 ohms, in and out.

Band Pass Filters: The attenuation characteristics of Band Pass Filters are 2db or less at plus or minus 3% of center frequency 35db or more at 0.5 and 2 center frequency.

IBM Interstage Band Pass Filter. Nominal input impedance—10,000 ohms. Nominal output impedance 5 megohms or grid of vacuum tube. Effective voltage step-up 2:1. (Output voltage to source voltage.)

LBM Line Band Pass Filter. Nominal input impedance 500 to 600 ohms. Nominal output impedance 5 megohms or grid of vacuum tube. Effective voltage step-up 5:1. (Output voltage to source voltage.)

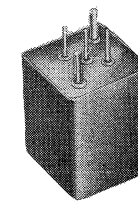
Special filters in all six types are available for any frequency from 200 to 20,000 cycles.

Catalog No.	Cut-off Freq. c.p.s.	Case No.
IBM- 400	400	DF-02
IBM- 500	500	DF-02
IBM- 700	700	DF-02
IBM- 800	800	DF-02
IBM- 900	900	DF-02
IBM- 1,000	1,000	DF-02
IBM- 1,500	1,500	DF-02
IBM- 2,000	2,000	DF-01
IBM- 3,000	3,000	DF-01
IBM- 5,000	5,000	DF-01
IBM- 7,200	7,200	DF-01
IBM-10,000	10,000	DF-01
IBM-12,000	12,000	DF-01
IBM-15,000	15,000	DF-01
IBM-30,000	30,000	DF-01
IBM-57,600	57,600	DF-01
IHM- 300	300	DF-01
IHM- 400	400	DF-01
IHM- 500	500	DF-01
IHM- 1,000	1,000	DF-01
IHM- 2,000	2,000	DF-01
IHM- 3,000	3,000	DF-01
IHM-10,000	10,000	DF-01
IHM-15,000	15,000	DF-01

Catalog No.	Cut-off Freq. c.p.s.	Case No.
ILM- 300	300	DF-01
ILM- 500	500	DF-01
ILM- 750	750	DF-01
ILM- 1,000	1,000	DF-01
ILM- 1,500	1,500	DF-01
ILM- 2,000	2,000	DF-01
ILM- 2,500	2,500	DF-01
ILM- 3,000	3,000	DF-01
ILM- 5,000	5,000	DF-01
ILM- 7,000	7,000	DF-01
ILM- 10,000	10,000	DF-01
ILM- 15,000	15,000	DF-01
ILM- 20,000	20,000	DF-01
ILM- 23,000	23,000	DF-01
ILM- 25,000	25,000	DF-01
ILM- 32,000	32,000	DF-01
ILM-130,000	130,000	DF-01
ILM-150,000	150,000	DF-01
LHM- 300	300	DF-03
LHM- 400	400	DF-03
LHM- 500	500	DF-03
LHM- 800	800	DF-03
LHM- 1,000	1,000	DF-02
LHM- 2,000	2,000	DF-02
LHM- 6,000	6,000	DF-02
LHM-10,000	10,000	DF-02

Catalog No.	Cut-off Freq. c.p.s.	Case No.
LBM- 300	300	DF-02
LBM- 400	400	DF-02
LBM- 600	600	DF-02
LBM- 800	800	DF-02
LBM- 1,000	1,000	DF-01
LBM- 1,500	1,500	DF-01
LBM- 2,000	2,000	DF-01
LBM- 3,000	3,000	DF-01
LBM- 7,200	7,200	DF-01
LBM-10,000	10,000	DF-01
LBM-14,400	14,400	DF-01
LBM-20,000	20,000	DF-01
LBM-28,800	28,800	DF-01
LLM- 500	500	DF-03
LLM- 1,000	1,000	DF-03
LLM- 1,500	1,500	DF-02
LLM- 1,600	1,600	DF-02
LLM- 2,000	2,000	DF-02
LLM- 2,500	2,500	DF-02
LLM- 3,000	3,000	DF-02
LLM-16,000	16,000	DF-02
LLM-20,000	20,000	DF-02
LLM-70,000	70,000	DF-02
LLM-80,000	80,000	DF-02

CASE DIMENSIONS



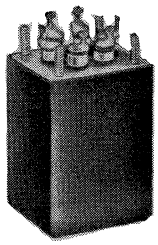
DF CASE STYLE

DF-01
Height: 1⅜″
Width: ¾″
Depth.: ¾″
Mtg. Cen.: ⅝″ Diag.
Studs: 2 ÷ 4-40

DF-02
Height: 1⅜″
Width: 1″
Depth.: 1″
Mtg. Cen.: ¾″ Diag.
Studs: 2 ÷ 4-40

DF-03
Height: 1¾″
Width: 1″
Depth.: 1″
Mtg. Cen.: ¾″
Studs: 2 ÷ 4-40

SERIES 1950 NULL "T" FILTERS



The Freed Series 1950 Null T networks consist of two resistance capacitance networks, whose outputs completely cancel each other at the balance frequency. They may be used as rejection networks particularly at low frequencies where LC filters become excessively large and unstable.

Standard models are available for 30, 60 and 120 cycles in a wide range of impedances. Each network will give a minimum of 50 db attenuation at the null frequency.

The null frequency is adjusted to a tolerance of ±2%.

All Null T Filters are hermetically sealed.

Prices on request.

Catalog No.	Frequency
NTF- 30	30 cps
NTF- 60	60 cps
NTF-120	120 cps

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See Freed Price Pages 1431 and 1432

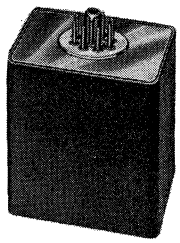
FREED TRANSFORMER CO., INC.

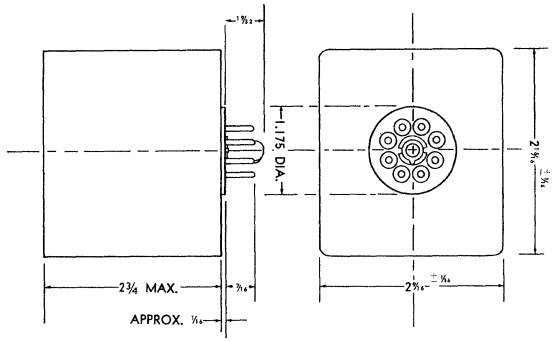
TELEGRAPH TONE CHANNEL FILTERS

HERMETICALLY SEALED TO MIL-T-27A AND MIL-F-18327 SPECIFICATIONS

Freed Band Pass Filters are extensively used in multiplex frequency shift transmitting and receiving. Stock filters cover all narrow and wide band channels. All units are built with a standard octal socket.

FBT Transmitting Filters are built for a 600 ohm in and out characteristic impedance. Filter configuration allows paralleling of channel outputs. 10db adjacent channel crossover attenuation.

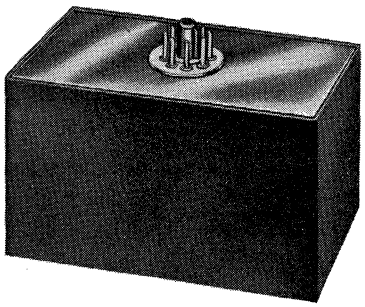


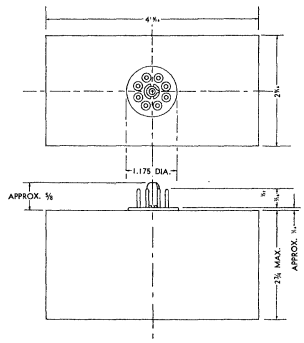


RECEIVING FILTERS

Catalog No. Case FA-950	Center Frequency (c.p.s.) Insertion Loss 6db	Pass Band (c.p.s.) Attenuation 2db	Stop Band (c.p.s.) Attenuation 33db
FBR-10	425	±42.5	±130
FBR-11	595	±42.5	±130
FBR-12	765	±42.5	±130
FBR-13	935	±42.5	±130
FBR-14	1,105	±42.5	±130
FBR-15	1,275	±42.5	±130
FBR-16	1,445	±42.5	±130
FBR-17	1,615	±42.5	±130
FBR-18	1,785	±42.5	±130
FBR-19	1,955	±42.5	±130
FBR-20	2,125	±42.5	±130
FBR-21	2,295	±42.5	±130
FBR-22	2,465	±42.5	±130
FBR-23	2,635	±42.5	±130
FBR-24	2,805	±42.5	±130
FBR-25	2,975	±42.5	±130
FBR-26	1,955	±85	±260
FBR-27	2,380	±85	±260
FBR-28	2,805	±85	±260
FBR-29	3,230	±85	±260

FBR Receiving Filters are designed for a characteristic impedance of 600 ohms in and out. Filter configuration permits paralleling of channel inputs. 20db adjacent channel crossover attenuation.



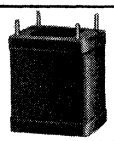


TRANSMITTING FILTERS

Catalog No. Case FA-955	Center Frequency (c.p.s.) Insertion Loss 5db	Pass Band (c.p.s.) Attenuation 2db	Stop Band (c.p.s.) Attenuation 20db
FBT-10	425	±42.5	±130
FBT-11	595	±42.5	±130
FBT-12	765	±42.5	±130
FBT-13	935	±42.5	±130
FBT-14	1,105	±42.5	±130
FBT-15	1,275	±42.5	±130
FBT-16	1,445	±42.5	±130
FBT-17	1,615	±42.5	±130
FBT-18	1,785	±42.5	±130
FBT-19	1,955	±42.5	±130
FBT-20	2,125	±42.5	±130
FBT-21	2,295	±42.5	±130
FBT-22	2,465	±42.5	±130
FBT-23	2,635	±42.5	±130
FBT-24	2,805	±42.5	±130
FBT-25	2,975	±42.5	±130
FBT-26	1,955	±85	±260
FBT-27	2,380	±85	±260
FBT-28	2,805	±85	±260
FBT-29	3,230	±85	±260

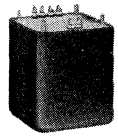
ULTRASONICS

CASE DIMENSIONS



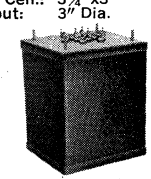
DC-4B CASE
Height: 4¾″
Width: 3⅛″
Length: 3″
Mounting: 4 8-32 Studs
Mtg. Cen.: 2½″x2½″
Cutout: (2) 1⅜″x⅝″

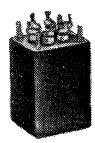
OL-112-1 CASE
Height: 6″
Width: 5⅞″
Length: 4¾″
Mounting: 4 ¼-20 Studs
Mtg. Cen.: 4¾″x3⅝″
Cutout: 3″ dia.



DC-6B CASE
Height: 6″
Width: 5″
Length: 4⅛″
Mounting: 4 10-32 Studs
Mtg. Cen.: 3¾″x3″
Cutout: 3″ Dia.

EA CASE
Height: 2 11/16″
Width: 1⅞″
Length: 1¾″
Mounting: 4 6-32 Studs
Mtg. Cen.: 1⅜″x1¼″
Cutout: 1 5/16″





MA-2 CASE
Height: 4″
Width: 4⅝″
Length: 3 15/16″
Mounting: 4 10-32 Studs
Mtg. Cen.: 2½″x3¾″
Cutout: (2) 2¾″x¾″

DM-03 CASE
Height: 2¼″
Width: 1½″
Length: 1½″
Mounting: 4 6-32 Studs
Mtg. Cen.: 1 1/16″x1 1/16″
Cutout: 1¼″ Dia.

New developments and applications of ultrasonics for industrial cleaning, soldering, welding, and mixing have created a demand for generators and components specifically designed for ultrasonic applications.

Using the latest developments in the field of special magnetic materials the FREED ultrasonic transformers are designed for greatest efficiency and maximum reliability. They feature small size excellent performance and long life under continuous duty operation.

Transformers with an extended frequency range (frequencies up to 2 MC) can be supplied upon request.

ULTRASONIC DRIVER AND INPUT TRANSFORMERS
Frequency Response: ±1 DB 10 KC to 60 KC.

Catalog No.	Application	Primary Impedance Ohms	Ratio	Maximum Power Watts	Maximum Primary D.C. per Side Ma.	Case Size
ULI-20	Transducer to PP 811A	1, 2, 4	1:17.3	5		DM-03
ULD-20	PP 6CM6 to PP 811A	10,000	4.4:1	5	50	DM-03
ULD-50	PP 5881 to PP 8000	7,200	1.7:1	25	90	EA

ULTRASONIC OUTPUT TRANSFORMERS
Frequency response: ±1 DB 20 KC to 60 KC.

Catalog No.	Application	Impedance in Ohms Primary	Secondary	Maximum Power Watts	Maximum Primary D.C. per Side Ma.	Case Size
ULO-10	PP 6083 to transducer	7,600	1/4	100	120	DC-4B
ULO-11	Same	7,600	2/8	100	120	DC-4B
ULO-12	Same	7,600	4/16	100	120	DC-4B
ULO-13	Same	7,600	7.5/30	100	120	DC-4B
ULO-30	PP 811A to transducer	12,400	1/4	300	170	DC-4B
ULO-31	Same	12,400	2/8	300	170	DC-4B
ULO-32	Same	12,400	4/16	300	170	DC-4B
ULO-33	Same	12,400	7.5/30	300	170	DC-4B
ULO-34	Same	12,400	25	300	170	DC-4B
ULO-35	Same	12,400	125/500	300	170	DC-4B
ULO-36	Same	12,400	250/1000	300	170	DC-4B
ULO-37	Same	12,400	75/300	300	170	DC-4B
ULO-52	PP 8000 to transducer	10,800	4/16	500	230	MA-2
ULO-53	Same	10,800	7.5/30	500	230	MA-2
ULO-54	Same	10,800	25/100	500	230	MA-2
ULO-55	Same	10,800	125/500	500	320	MA-2
ULO-56	Same	10,800	250/1000	500	230	MA-2
ULO-101	PP. Par. 8000 to transducer	5,400	25/100	1000	430	DC-6B
ULO-104	Same	5,400	75/300	1000	430	DC-6B
ULO-110	PP 4-250A to transducer	10,900	18.8/75/300	800	250	OL-112-1

See Freed Price Pages 1431 and 1432
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FREED TRANSFORMER CO., INC.

COMMERCIAL GRADE COMPONENTS

These components are designed to meet the demand for low-cost replacement parts for commercial electronic equipment.

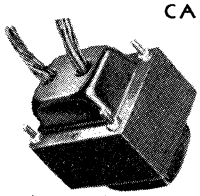
The best commercially available materials have been utilized in the design of these units, to insure reliability and excellent performance characteristics. Vacuum impregnation with a non-hygroscopic varnish to prevent penetration of humidity are employed to give these units long life and trouble-free performance.

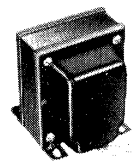
230-115 V, 50-60 C.P.S. Stepdown Transformers rated from 25 V A up to 5,000 V A Rating and line booster transformers are included in this series.

All units, with only a few exceptions, are uncased or of shell-type construction.

Isolation transformers and Stepdown transformers are equipped with line cord and receptacle.

CASE DIMENSIONS





Case No.	Height	Width	Depth	Mtg. Centers	Mtg. Studs
HS300	2⅝	3	2½	2½x2	(4) 3/16x3/8
HS303	2⅞	3	2½	2½x2	(4) 3/16x3/8
HS306	3¼	3	2½	2½x2	(4) 3/16x3/8
HS307	3⅜	3	2½	2½x2	(4) 3/16x3/8
HS503	3½	3¾	3⅛	3⅛x2½	(4) 3/16x3/8
HS505	3¾	3¾	3⅛	3⅛x2½	(4) 3/16x3/8
HS603	3¾	4½	3¾	3¾x3	(4) 3/16x3/8
HS605	4	4½	3¾	3¾x3	(4) 3/16x3/8
HS606	4⅝	4½	3¾	3¾x3	(4) 3/16x3/8
HS610	4⅝	4½	3¾	3¾x3	(4) 3/16x3/8
HS612	4⅞	4½	3¾	3¾x3	(4) 3/16x3/8
HS708	5⅞	5¼	4⅜	4⅜x3½	(4) 9/32x21/32
HS709	6	5¼	4⅜	4⅜x3½	(4) 9/32x21/32

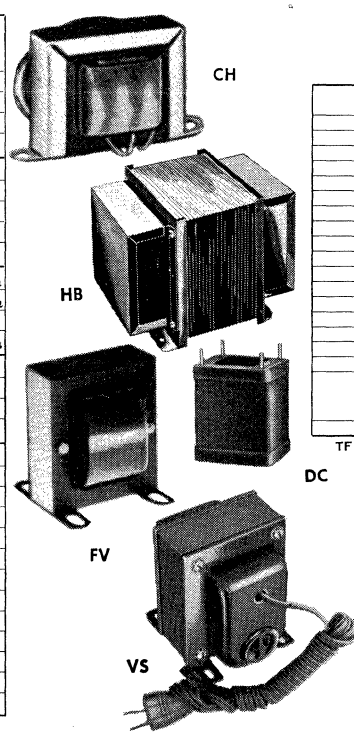
Case No.	Height	Width	Depth	Mtg. Centers	Mtg. Holes
VS300	3 5/32	2⅝	2¾	2x1 11/16	(4) 3/16x3/8
VS303	3 5/32	2⅝	3	2x1 15/16	(4) 3/16x3/8
VS304	3 29/32	4¼	3¼	2½x3	(4) 3/16x3/8
VS306	3 5/32	2⅝	3⅜	2x2 1/16	(4) 3/16x3/8
VS307	3 5/32	2⅝	3½	2x2 1/16	(4) 3/16x3/8
VS503	3 29/32	3¼	3⅜	2½x2 5/16	(4) 3/16x3/8
VS505	3 29/32	3¼	3⅞	2½x2 5/8	(4) 3/16x3/8
VS506	3 29/32	3¼	4¼	2¼x3	3/16x3/8
VS508	3 5/8	2 5/8	3⅛	2x2 1/8	(4) 3/16x3/8
VS603	4 21/32	3⅞	3⅞	3x2 11/16	(4) 3/16x3/8
VS605	4 21/32	3⅞	4⅛	3x2 15/16	(4) 3/16x3/8
VS606	4 21/32	3⅞	4¼	3x3⅛	(4) 3/16x3/8
VS610	4 21/32	3⅞	4¾	3x3⅜	(4) 3/16x3/8
VS612	4 21/32	3⅞	5	3x3 15/16	(4) 3/16x3/8
VS708	5 7/16	4 9/16	5¾	3½x4	(4) 9/32x21/32
VS709	5 7/16	4 9/16	5⅞	3½x4⅛	(4) 9/32x21/32

POWER TRANSFORMERS

All primaries designed for 115-volt, 50-60 cycle operation.

Catalog No.	Py Va	Hi Volt	Choke Input D.C.V.	Choke Input D.C.Ma.	Cond. Input D.C.V.	Cond. Input D.C.Ma.	Bias Tap	Rectifier	Fil. No.1	Fil. No. 2	Fil. No. 3	Case No.
RGP 1 RGP 2	45 45	500V CT 500V CT			270 270	40 40		6X4,5Y3 6X4,5Y3	5/6.3V @ 2A 5/6.3V @ 2A	6.3V @ 2A 6.3V @ 2A		VS300 HS300
RGP 3 RGP 4	57 57	600V CT 600V CT			330 330	50 50		6X4,5Y3 6X4,5Y3	5/6.3V @ 2A 5/6.3V @ 2A	6.3V @ 2.5A 6.3V @ 2.5A		VS303 HS303
RGP 5 RGP 6	64 64	650V CT 650V CT			370 370	50 50		6X4,5Y3 6X4,5Y3	5/6.3V @ 2A 5/6.3V @ 2A	6.3V @ 3A 6.3V @ 3A		VS303 HS303
RGP 7 RGP 8	73 73	600V CT 600V CT			320 320	70 70		6X4,5Y3 6X4,5Y3	5/6.3V @ 2A 5/6.3V @ 2A	6.3V @ 3A 6.3V @ 3A		VS306 HS306
RGP 9 RGP 10	110 110	650V CT 650V CT	225 225	140 140	330 330	100 100		5Y3,5U4 5Y3,5U4	5V @ 3A 5V @ 3A	6.3V @ 5A 6.3V @ 5A		VS503 HS503
RGP 11 RGP 12	76 76	700V CT 700V CT	260 260	100 100	385 385	70 70		5Y3 5Y3	5V @ 2A 5V @ 2A	6.3V @ 2.5A 6.3V @ 2.5A		VS307 HS307
RGP 13 RGP 14	108 108	700V CT 700V CT	250 250	125 125	370 370	90 90		5Y3,5U4 5Y3,5U4	5V @ 3A 5V @ 3A	6.3V @ 5A 6.3V @ 5A		VS503 HS503
RGP 15 RGP 16	127 127	700V CT 700V CT	260 260	170 170	350 350	120 120		5U4 5U4	5V @ 3A 5V @ 3A	6.3V @ 5A 6.3V @ 5A		VS505 HS505
RGP 17 RGP 18	146 146	700V CT 700V CT	260 260	210 210	350 350	150 150		5U4 5U4	5V @ 3A 5V @ 3A	6.3V @ 5A 6.3V @ 5A	6.3V @ 1A 6.3V @ 1A	VS603 HS603
RGP 19 RGP 20	207 207	800V CT 800V CT	295 295	280 280	400 400	200 200		5U4,2-5Y3 5U4,2-5Y3	5V @ 4A 5V @ 4A	6.3V @ 6A 6.3V @ 6A		VS606 HS606
RGP 21 RGP 22	225 225	800V CT 800V CT	295 295	280 280	400 400	200 200	80 80	5U4,2-5Y3 5U4,2-5Y3	5V @ 4A 5V @ 4A	6.3V @ 6A 6.3V @ 6A	5/6.3V @ 2A 5/6.3V @ 2A	VS606 HS606
RGP 23 RGP 24	268 268	840V CT 840V CT	330 330	350 350	450 450	250 250	80 80	2-5U4 2-5U4	5V @ 6A 5V @ 6A	6.3V @ 6A 6.3V @ 6A	5/6.3V @ 2A 5/6.3V @ 2A	VS612 HS612
RGP 25 RGP 26	320 320	900V CT 900V CT	340 340	420 420	490 490	300 300	80 80	2-5U4 2-5U4	5V @ 6A 5V @ 6A	6.3V @ 6A 6.3V @ 6A	5/6.3V @ 2A 5/6.3V @ 2A	VS708 HS708
RGP 27 RGP 28	127 127	900V CT 900V CT	360 360	150 150				5U4 5U4	5V @ 3A 5V @ 3A	6.3V @ 5A 6.3V @ 5A		VS603 HS603
RGP 29 RGP 30	150 150	900V CT 900V CT	350 350	200 200				5U4 5U4	5V @ 3A 5V @ 3A	6.3V @ 5A 6.3V @ 5A		VS605 HS605
RGP 31 RGP 32	203 203	1100V CT 1100V CT	400 400	250 250				5R4GY 5R4GY	5V @ 3A 5V @ 3A	6.3V @ 5A 6.3V @ 5A		VS610 HS610
RGP 33 RGP 34	248 248	1100V CT 1100V CT	420 420	300 300				2-5R4GY 2-5R4GY	5V @ 4A 5V @ 4A	6.3V @ 7A 6.3V @ 7A		VS612 HS612
RGP 35 RGP 36	310 310	1280V CT 1280V CT	480 480	350 350				2-5R4GY 2-5R4GY	5V @ 4A 5V @ 4A	6.3V @ 7A 6.3V @ 7A		VS709 HS709

Case No.	Height	Width	Depth	Mtg. Centers	Mtg. Studs
DC2B	3½	2⅝	2¼	2x1¾	(4) 8-32
DC4A	3¾	3⅛	3	2½x2½	(4) 8-32
DC5C	4⅞	4⅛	3½	3⅛x2⅝	(4) 10-32
DC6A	4⅞	5	4⅛	3¾x3	(4) 10-32
CH50	1 11/16	2 13/16	1¾	2⅜	(2) 3/16
CH60	2	3¼	1¾	2 13/16	(2) 3/16
CH62	2	3¼	2⅛	2 13/16	(2) 3/16
CH70	2 5/16	3 11/16	2¼	3⅛	(2) 3/16
CH80	2⅝	4	2⅝	3 9/16	(2) 3/16
FV10	3 1/16	2½	2 9/16	2x2	(4) 13/64x21/64
FV12	3 1/16	2½	2 11/16	2x2 1/8	(4) 13/64x21/64
FV22	3 7/16	2 13/16	2⅝	2¼x2¼	(4) 3/16x3/8
FV30	4 1/32	3 1/8	3	2½x2¼	(4) 13/64x21/64
HB718	6¼	6½	8½	4¾x4½	(4) 9/32x21/32
HB728	6½	6½	9¾	4¾x5¾	(4) 9/32x21/32
HB828	6⅝	7⅝	9⅞	5⅝x5¾	(4) 9/32x21/32
HB920	6⅝	7⅞	10¼	6½x7 5/16	(4) 9/32x21/32
VS300	3 5/32	2⅝	3	2x2	(4) 3/16x3/8
VS401	3 9/16	2 15/16	3¼	2¼x1 13/16	(4) 3/16x3/8
VS501	3 29/32	3¼	3⅜	2½x2 1/16	(4) 3/16x3/8
VS503	3 29/32	3¼	3⅝	2½x2 5/16	(4) 3/16x3/8
VS601	4 21/32	3⅞	3⅝	3x2 7/16	(4) 3/16x3/8
VS604	4 21/32	3⅞	4	3x2 7/8	(4) 3/16x3/8
VS611	4 21/32	3⅞	4⅞	3x3 11/16	(4) 3/16x3/8
VS612	4 21/32	3⅞	5	3x3 15/16	(4) 3/16x3/8
VS700	5 7/16	3⅞	5	3½x3¼	(4) 3/16x3/8
VS706	5 7/16	4 9/16	5½	3½x3¾	(4) 3/16x3/8
VS714	5 7/16	4 9/16	6½	3½x4¾	(4) 3/16x3/8
VS718	5 7/16	4 9/16	7	3½x5¼	(4) 9/32x21/32
VS728	5 7/16	4 9/16	8¼	3½x6½	(4) 3/16x3/8



FILAMENT TRANSFORMERS

All primaries are for 115V, 50/60 c.p.s.

Catalog No.	Secondary Voltage	Secondary Current Amps	Secondary Test Voltage RMS	Case Size
TF 1	2.5 (C.T.)	7.5	1500	CH60
TF 2	2.5 (C.T.)	10	1500	CH70
TF 3	2.5 (C.T.)	5	7500	DC2B
TF 4	2.5 (C.T.)	10	7500	DC4A
TF 5	5.0 (C.T.)	4	1500	CH60
TF 6	5.0 (C.T.)	6	1500	CH70
TF 7	5.0 (C.T.)	10	1500	CH80
TF 8	5.0 (C.T.)	10	1500	FV10
TF 9	5.0 (C.T.)	20	2500	FV30
TF 10	5.0 (C.T.)	20	10,000	DC6A
TF 11	6.3 (C.T.)	1.35	1500	CH50
TF 12	6.3 (C.T.)	3	1500	CH60
TF 13	6.3 (C.T.)	5	1500	CH70
TF 14	6.3 (C.T.)	7	1500	FV12
TF 15	6.3 (C.T.)	10	1500	FV22
TF 16	10 (C.T.)	5	2500	CH80
TF 17	10 (C.T.)	5	2500	FV10
TF 18	10 (C.T.) or 11 (C.T.) (tapped primary)	12 or 11	7500	DC-5C
TF 19	12.6 (C.T.)	2	1500	CH62

TF 3, 4, 10 & 18 supplied with terminals. All others with leads.

AUTO TRANSFORMERS

To be used as step-down transformer. Equipped with standard receptacle and line cord

Catalog No.	Transformation	VA Rating	Weight (lbs.)	Case Size
SDT 1*	230/115 V. 50/60 c.p.s.	25	1	CH-60
SDT 2*	230/115 V. 50/60 c.p.s.	50	1¼	CH-62
SDT 3	230/115 V. 50/60 c.p.s.	50	2½	VS-300
SDT 4	230/115 V. 50/60 c.p.s.	100	3	VS-401
SDT 5	230/115 V. 50/60 c.p.s.	200	5	VS-501
SDT 6	230/115 V. 50/60 c.p.s.	300	6½	VS-601
SDT 7	230/115 V. 50/60 c.p.s.	400	8	VS-604
SDT 8	230/115 V. 50/60 c.p.s.	500	11	VS-611
SDT 9	230/115 V. 50/60 c.p.s.	750	15	VS-706
SDT 10	230/115 V. 50/60 c.p.s.	1000	23	VS-718
SDT 11	230/115 V. 50/60 c.p.s.	1500	29½	VS-728
SDT 12*	230/115 V. 50/60 c.p.s.	2000	37	HB-718
SDT 13*	230/115 V. 50/60 c.p.s.	2500	47	HB-728
SDT 14*	230/115 V. 50/60 c.p.s.	3000	58	HB-828
SDT 15*	230/115 V. 50/60 c.p.s.	5000	72	HB-920

*Supplied with leads without line cord and receptacle.

ISOLATION TRANSFORMERS

Electrostatic shield between primary and secondary. Equipped with standard receptacle and line cord.

Catalog Number	Primary Voltage 50/60 c.p.s.	Secondary Voltage	VA Rating	Case Size
IT 1	115	115	50	VS-401
IT 2	115	115	100	VS-503
IT 3	115	115	300	VS-700
IT 4	115	115	500	VS-714
IT 5*	220/440	110/220	250	VS-612
IT 6*	220/440	110/220	500	VS-714

*Supplied with leads without line cords and receptacle.

LINE BOOSTER TRANSFORMERS

Operates from 90 to 110 volts input to provide 10% step-up.

Catalog Number	Primary Voltage	Secondary Voltage	VA Rating	Case Size
LB-1	90-110	1.1 x input	350	VS-300
LB-2	90-110	1.1 x input	2000	VS-611

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See Freed Price Pages 1431 and 1432

FREED TRANSFORMER CO., INC.

COMMERCIAL GRADE COMPONENTS

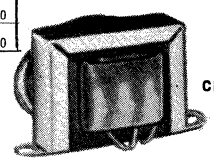
AUDIO TRANSFORMERS

Catalog No.	Application	Impedance Level Ohms Primary	Impedance Level Ohms Secondary	Max. Power Level DBM or Power in Watts	Ratio	Max. Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Freq. Response C.P.S.	Case No.
RGA 1	Input; multiple line or double button mike to single or push-pull grids.	500 CT 200 CT	100.000 CT	+20	1:14.1	50	5	±2DB 200-5000	CH-40
RGA 2	Input; single button mike to single or push-pull grids.	100	100.000 CT	+20	1:31.6	50		±2DB 200-5000	CH-40
RGA 3	Input; voice coil to grid. Intercom	3.2	100,000	+20	1:179			±2DB 200-5000	CH-40
RGA 4	Mixing and matching line to line	600 CT 500 CT 200 CT 150/125/50	600 CT 500 CT 200 CT 150/125/50	+20	1:1			±2DB 100-5000	CH-40
RGA 5	Interstage; single triode plate to single or P.P. grids.	10.000	90.000 CT	+30	1:3	10		±2DB 200-5000	CH-40
RGA 6	Output; single plate to line or mixer.	10.000	600 CT 500 CT 200 CT 150/125/50	+30	4.8:1	10		±2DB 200-5000	CH-40
RGA 7	Output; Push-pull plate to line or mixer.	20.000 CT	600 CT 500 CT 200 CT 150/125/50	+30	6.32:1	10	1	±2DB 200-5000	CH-40
RGA 8	Output; plate to V.C. 6AL6, 6L6, 6Y6, 25B6, 25C6, 35A5, 35B5, 35C5, 50B5, 50C5, 50C6, 50L6, 117N7.	2500	3.2	5W		70		±3DB 200-10000	CH-40
RGA 9	Output; plate to V.C. 6V6, 6AQ5, 6AS5, 7C5.	5000	3.2	5W		50		±3DB 200-10000	CH-40
RGA 10	Output; plate to V.C. 6AR5, 6K6, 6V6, 7B5, 14A5, 3S4, 3U4, 3Q4, 3Q5, 3C5, 3A4.	10.000 or 7500	3.2	5W		30		±3DB 200-10000	CH-40
RGA 11	Output; P.P. plates to V.C. P.P. 6V6, PP6K6.	12.000 CT or 8000 CT	3.2	15W		50	5	±2DB 200-8000	CH-60
RGA-12	Output: TP to V.C. 6V6, 6AQ5, 7C5. C1AB.	10,000 CT	3.2	10W	5.6:1	40	4	±3DB 200-10000	CH-60

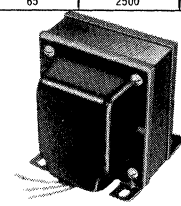
COMMERCIAL GRADE CHOKES

Catalog No.	Inductance in Henries	Rated Current D.C. Ma.	D.C. Resistance	Dielectric Test Voltage	Case Number
RGC 17	40	15	2000	1000	CH-40
RGC 1	4	40	200	1000	CH-40
RGC 2	9	40	400	1000	CH-40
RGC 3	6	50	400	1000	CH-40
RGC 18	20	50	425	1500	CH-60
RGC 4	10	55	400	1500	CH-50
RGC 19	3	75	200	1500	CH-40
RGC 5	10	75	250	1500	CH-60
RGC 6	10	75	250	1500	VS-100
RGC 7	6	100	150	1500	CH-60
RGC 8	6	100	150	1500	VS-100
RGC 9	3.5	150	100	1500	CH-60
RGC 10	3.5	150	100	1500	VS-100
RGC 20	12	160	180	2500	VS-306
RGC 11	2	200	60	1500	CH-60
RGC 12	2	200	60	1500	VS-100
RGC 13	3.7	200	65	1500	CH-80
RGC 21	7	200	100	2500	VS-303
RGC 14	3.7	200	65	1500	VS-300
RGC 15	2.8	300	65	1500	CH-80
RGC 16	2.8	300	65	1500	VS-300
RGC 22	5	300	65	2500	VS-308

CASE DIMENSIONS



CH CASE



VS CASE

CH-40 CASE
Height: 1 7/16"
Width: 2 9/16"
Depth: 1 5/16"
Mtg. Cen.: 2"

CH-50 CASE
Height: 1 11/16"
Width: 2 13/16"
Depth: 1 3/4"
Mtg. Cen.: 2 5/8"

CH-60 CASE
Height: 2"
Width: 3 1/4"
Depth: 1 3/4"
Mtg. Cen.: 2 13/16"

CH-80 CASE
Height: 2 5/8"
Width: 4"
Depth: 2 5/8"
Mtg. Cen.: 3 9/16"

VS-100 CASE
Height: 2 1/32"
Width: 1 7/8"
Depth: 2 1/4"
Mtg. Cen.: 1 1/2"x1 7/16"

VS-300 CASE
Height: 3 3/32"
Width: 2 5/8"
Depth: 2 3/4"
Mtg. Cen.: 2"x1 11/16"

VS-303 CASE
Height: 3 3/32"
Width: 2 3/4"
Depth: 3"
Mtg. Cen.: 2x1 15/16"
Mtg. Hole: (4) 3/16x3/8"

VS-306 CASE
Height: 3 3/32"
Width: 2 5/8"
Depth: 3 1/8"
Mtg. Cen.: 2x2 5/16"
Mtg. Hole: (4) 3/16x3/8"

VS-308 CASE
Height: 3 33/64"
Width: 2 27/32"
Depth: 3 3/4"
Mtg. Cen.: 2"x2 9/16"

PRICE LIST

Catalog No.	Net Price
EPT-1	7.50
EPT-2	7.50
EPT-3	7.50
EPT-4	7.50
EPT-5	7.50
EPT-6	7.50
EPT-7	7.50
EPT-8	9.50
EPT-9	9.50
EPT-11	7.50
EPT-12	7.50
EPT-13	9.50
EPT-14	9.50
EPT-15	12.50
EPT-16	12.50
EPT-17	11.50
EPT-18	11.50
EPT-19	11.50
Note—Molded Units $1.00 additional.	
IT-1	7.25
IT-2	10.55
IT-3	26.40
IT-4	31.95
IT-5	26.40
IT-6	34.95
KA-10	16.50
KP-11	9.05
KC-10	4.30
KC-11	1.45
LB-1	6.60
LB-2	19.20
MAC-5-2-F1	42.50
MAC-5-1-F2	42.50
MAC-5-3F2	42.50
MAC-5-4-F	42.50
MAC-12-3-60	29.95
MAC-12-10-1	36.50
MAC-12-10-2	44.20
MAC-12-20-1	46.50
MAC-12-20-2	57.00
MAC-12-30-1	63.70
MAC-12-30-2	77.50
MAF-4	78.00
MAF-5	80.00
MAF-6	180.00
MAF-7	180.00
MAO-1	70.00
MAO-2	102.00
MAO-3	110.00
MAO-4	155.00
MAO-5	175.00
MAP-1	90.00
MAP-2	150.00
MAP-3	225.00
MAP-301	175.00
MAP-4	280.00
MAP-7	105.00
MAP-8	133.00
MAP-11	95.00

Catalog No.	Net Price
MAS-1	55.00
MAS-2	37.00
MAS-3	65.00
MAS-4	73.00
MAS-5	33.00
MAS-6	50.00
MAS-7	60.00
MAS-8	24.00
MAS-101	62.50
MAT-1-1	148.50
MCV-4-5LC	14.00
MCV-4-25LC	20.00
MCV-4-75LC	30.00
MCV-4-125LC	38.00
MCV-4-175LC	45.00
MCV-4-250LC	54.00
MCV-4-375LC	69.00
MCV-4-500LC	85.00
MCV-4-750LC	115.00
MCV-4-1000LC	143.00
MCV-4-5-4FC	14.00
MCV-4-25-4FC	20.00
MCV-4-75-4FC	30.00
MCV-4-125-4FC	38.00
MCV-4-5FC	15.00
MCV-4-25FC	21.00
MCV-4-75FC	31.00
MCV-4-125FC	39.00
MCV-4-5LM	22.00
MCV-4-25LM	28.00
MCV-4-75LM	39.00
MCV-4-125LM	48.00
MCV-4-175LM	55.00
MCV-4-250LM	66.00
MCV-4-375LM	81.00
MCV-4-500LM	100.00
MCV-4-750LM	131.00
MCV-4-1000LM	160.00
MCV-4-5-4FM	22.00
MCV-4-25-4FM	28.00
MCV-4-75-4FM	39.00
MCV-4-125-4FM	48.00
MCV-4-5FM	23.00
MCV-4-25FM	29.00
MCV-4-75FM	40.00
MCV-4-125FM	49.00
MCV-6-5LC	11.00
MCV-6-25LC	17.00
MCV-6-75LC	27.00
MCV-6-125LC	34.00
MCV-6-175LC	41.00
MCV-6-250LC	50.00
MCV-6-375LC	64.00
MCV-6-500LC	76.00
MCV-6-750LC	104.00
MCV-6-1000LC	128.00
MCV-6-54FC	11.00
MCV-6-25-4FC	17.00
MCV-6-75-4FC	27.00
MCV-6-125-4FC	34.00
MCV-6-5FC	12.00

Catalog No.	Net Price
MCV-6-25FC	18.00
MCV-6-75FC	28.00
MCV-6-125FC	35.00
MCV-6-5LM	20.00
MCV-6-25LM	26.00
MCV-6-75LM	37.00
MCV-6-125LM	45.00
MCV-6-175LM	53.00
MCV-6-250LM	62.00
MCV-6-375LM	76.00
MCV-6-500LM	90.00
MCV-6-750LM	123.00
MCV-6-1000LM	150.00
MCV-6-54FM	20.00
MCV-6-25-4FM	26.00
MCV-6-75-4FM	37.00
MCV-6-125-4FM	45.00
MCV-6-5FM	21.00
MCV-6-25FM	27.00
MCV-6-75FM	38.00
MCV-6-125FM	46.00
MGA-1	10.15
MGA-2	10.15
MGA-3	10.65
MGA-4	10.65
MGA-5	9.90
MGA-6	9.90
MGA-7	9.90
MGA-8	10.15
MGA-9	10.15
MGC-1	7.50
MGC-2	6.15
MGC-3	6.50
MGC-4	7.25
MGC-5	7.50
MGC-6	6.15
MGC-7	6.50
MGC-8	7.00
MGC-9	6.50
MGC-10	7.00
MGC-11	8.75
MGC-12	6.50
MGC-13	7.00
MGC-14	8.75
MGC-15	9.50
MGC-16	7.00
MGC-17	8.75
MGC-18	10.00
MGC-19	12.50
MGC-20	8.75
MGC-21	*
MGC-22	9.50
MGC-23	*
MGC-24	18.00
MGC-25	*
MGC-26	16.00
MGC-27	*
MGC-28	16.00
MGC-29	*
MGC-30	*
MGC-31	*

Catalog No.	Net Price
MGC-32	6.80
MGC-33	6.80
MGC-34	6.80
MGC-35	6.80
MGC-36	6.80
MGC-37	6.80
*Not stocked, available on short delivery. Prices on request.	
MGF-1	9.30
MGF-2	12.90
MGF-3	10.50
MGF-4	14.25
MGF-5	10.50
MGF-6	12.00
MGF-7	14.85
MGF-8	20.70
MGF-9	16.50
MGF-10	21.00
MGP-1	18.60
MGP-2	17.40
MGP-3	20.40
MGP-4	24.00
MGP-5	27.60
MGP-6	18.60
MGP-7	23.40
MGP-8	32.70
MPT-1	17.50
MPT-2	15.00
MPT-3	22.50
MPT-4	20.00
MPT-5	17.50
MPT-6	15.00
MPT-7	17.50
MPT-8	15.00
MPT-9	22.50
MPT-10	20.00
MPT-11	17.50
MPT-12	27.50
MPT-13C	11.60
MPT-13M	15.40
MPT-13H	19.20
MPT-14C	16.90
MPT-14M	20.90
MPT-14H	26.30
MPT-15C	15.60
MPT-15M	19.50
MPT-15H	26.50
MPT-16C	18.90
MPT-16M	22.90
MPT-16H	28.10
MPT-17C	19.50
MPT-17M	22.60
MPT-17H	26.60
MPT-18C	12.80
MPT-18M	16.60
MPT-19C	19.50
MPT-19M	22.60
MPT-19H	22.60
MPT-20C	14.80

Catalog No.	Net Price
MPT-20M	18.60
MPT-20H	24.00
MPT-21C	20.80
MPT-21M	23.50
MPT-21H	24.00
MPT-22C	19.50
MPT-22M	22.60
MPT-22H	26.60
MPT-23C	20.80
MPT-23M	23.50
MPT-23H	26.60
MPT-24C	13.70
MPT-24M	16.80
MPT-25C	14.00
MPT-25M	18.10
MPT-25H	23.10
MPT-26C	20.80
MPT-26M	22.00
MPT-26H	30.00
MPT-27C	20.30
MPT-27M	22.00
MPT-27H	30.00
PGA-1	15.00
PGA-2	15.00
PGA-3	15.00
PGA-4	12.75
PGA-5	13.50
PGA-6	16.50
PGA-7	11.25
PGA-8	11.25
PGA-9	11.25
PGA-10	12.00
PGA-11	12.75
PGA-12	12.75
PGA-13	15.00
PGA-14	15.00
PGA-15	18.75
PGA-16	18.75
PGA-17	18.75
PGA-18	17.25
PGA-19	18.75
PGA-20	18.75
PGA-21	18.75
PGA-22	20.55
PGA-23	20.55
PGA-24	18.75
PGA-25	33.00
PGA-26	18.75
PGA-27	18.75
PGA-28	18.75
PGA-29	18.75
PGA-30	33.00
PGC-1	5.25
PGC-2	5.25
PGC-3	5.25
PGC-4	5.85
PGC-5	5.85
PGC-6	5.85
PGC-7	6.36
PGC-8	7.20
PGC-9	7.20

Catalog No.	Net Price
PGC-10	7.50
PGC-11	10.20
PGC-12	10.20
PGC-13	11.55
PGC-14	7.25
PGC-15	7.85
PGC-16	7.60
PGC-17	7.20
PGC-18	10.20
PGC-19	10.20
PGC-20	11.55
PGP-1	13.50
PGP-2	15.00
PGP-3	8.01
PGP-4	8.40
PGP-5	8.40
PGP-6	9.00
PGP-7	10.50
PGP-8	9.00
PGP-9	10.50
PGP-10	10.95
PGP-11	13.85
PGP-12	16.50
PGP-13	18.15
PGP-14	21.80
PGP-15	25.35
PGP-16	12.60
PGP-17	13.50
PGP-18	18.15
PGP-19	21.80
PGP-20	27.00
PMA-1	9.90
PMA-2	8.10
PMA-3	11.40
PMA-4	8.10
PMA-5	8.10
PMA-6	9.90
PMA-7	9.90
PMA-8	9.90
PMA-9	9.90
PMA-10	9.30
PMA-11	7.20
PMA-12	9.90
PMA-13	9.00
PMA-14	10.10
PMA-15	9.90
PQC-1	7.50
PQC-2	7.50
PQC-3	7.50
PQC-4	7.50
PQC-5	7.50
PQC-6	7.50
PQC-7	7.50
PQC-8	7.50
PQC-9	7.50
QGA-1	18.60
QGA-2	23.10
QGA-3	16.50
QGA-4	23.10
QGA-5	21.00
QGA-6	24.30

Catalog No.	Net Price
QGA-7	16.50
QGA-8	23.10
QGA-9	23.10
QGA-10	26.40
QGA-11	19.80
QGA-12	19.80
QGA-13	16.50
QGA-14	17.10
QGA-15	21.00
QGA-16	17.10
QGA-17	17.10
QGA-18	18.30
QGA-19	17.10
QGA-20	21.90
QGA-21	19.80
QGA-22	33.00
QGA-23	23.10
QGA-24	23.10
QGA-25	23.10
QGA-26	23.10
QGA-27	23.10
QGA-28	23.10
QGA-29	23.10
QGA-30	23.10
QGA-31	29.70
QGA-32	29.70
QGA-33	29.70
QGA-34	29.70
QGA-35	32.70
QGA-36	32.70
QGA-37	19.80
QGA-38	32.70
QGA-39	23.10
QGA-40	23.10
QGA-41	32.70
QGA-42	32.70
QGC-1	22.50
QGC-2	22.50
QGC-3	22.50
QGC-4	22.50
QGC-5	22.50
QGC-6	22.50
QGC-7	22.50
QGC-8	15.00
QGC-9	15.00
QGC-10	15.00
QGC-11	15.00
QGC-12	15.00
QGC-13	15.00
QGC-14	13.50
QGC-15	13.50
QGC-16	13.50
QGC-17	13.50
QGC-18	13.50
QGC-19	11.50
QGC-20	11.50
QGC-21	11.50
QGC-22	11.50
QGC-23	11.50
QGC-24	11.50
QGC-25	10.50

See Freed Price Pages 1431 and 1432

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FREED TRANSFORMER CO., INC.

PRICE LIST

Catalog No.	Net Price
QGC-26	10.50
QGC-27	10.50
QGC-28	10.50
QGC-29	10.50
QGC-30	10.50
QGC-31	10.50
QGC-32	10.50
QGC-33	10.50
QGC-34	10.50
QGC-35	10.50
QGC-36	10.50
QGC-37	10.50
QGC-38	10.80
QGC-39	10.50
QGC-40	10.50
QGC-41	10.50
QGC-42	10.50
RGA-1	3.60
RGA-2	2.90
RGA-3	2.90
RGA-4	3.60
RGA-5	2.90
RGA-6	3.45
RGA-7	3.60
RGA-8	1.65
RGA-9	1.65
RGA-10	1.98
RGA-11	2.90
RGA-12	3.60
RGC-1	1.47
RGC-2	1.47
RGC-3	1.47
RGC-4	1.65
RGC-5	1.98
RGC-6	2.97
RGC-7	1.98
RGC-8	2.97
RGC-9	1.98
RGC-10	2.97
RGC-11	1.98
RGC-12	2.97
RGC-13	3.15
RGC-14	4.50
RGC-15	3.15
RGC-16	4.50
RGC-17	1.80
RGC-18	2.25
RGC-19	1.47
RGC-20	5.10
RGC-21	5.10
RGC-22	72.60
RGP-1	5.76
RGP-2	5.76
RGP-3	6.12
RGP-4	6.12
RGP-5	6.12
RGP-6	6.12
RGP-7	6.75
RGP-8	6.75
RGP-9	8.25
RGP-10	8.25
RGP-11	6.75
RGP-12	6.75
RGP-13	8.25
RGP-14	8.25
RGP-15	8.70
RGP-16	8.70
RGP-17	10.20
RGP-18	10.20
RGP-19	10.80
RGP-20	10.80
RGP-21	14.04
RGP-22	14.04
RGP-23	18.96
RGP-24	18.96
RGP-25	22.80
RGP-26	22.80
RGP-27	8.40
RGP-28	8.40
RGP-29	10.20
RGP-30	10.20
RGP-31	15.15
RGP-32	15.15
RGP-33	18.96
RGP-34	18.96
RGP-35	22.80
RGP-36	22.80
SDT-1	2.25
SDT-2	2.64
SDT-3	4.50
SDT-4	6.12
SDT-5	6.93
SDT-6	8.82
SDT-7	11.04
SDT-8	12.03
SDT-9	16.05
SDT-10	22.56
SDT-11	33.00
SDT-12	39.60
SDT-13	53.61
SDT-14	84.00
SDT-15	112.50
TAC-12-50	65.55
TAC-12-90	73.00
TAC-12-175	88.50
TAC-28-50	73.50
TAC-28-100	81.50
TAC-28-175	95.50
TAC-28-250	105.50
TDC-12-30-15	51.70
TDC-12-25-12	50.55
TDC-12-30-05	42.50
TDC-12-20-05	39.50
TDC-28-30-15	56.45
TDC-28-25-12	54.80
TDC-28-30-05	45.30
TDC-28-20-05	42.90
TF-1	2.97
TF-2	3.96
TF-3	9.90
TF-4	12.15
TF-5	2.97
TF-6	3.96
TF-7	4.35
TF-8	4.62
TF-9	7.59
TF-10	15.84
TF-11	1.98
TF-12	2.97
TF-13	3.96
TF-14	4.80
TF-15	5.85
TF-16	4.35
TF-17	4.62
TF-18	15.84
TF-19	3.30
TMA-1	7.50
TMA-2	9.60
TMA-3	7.80
TMA-4	9.90
TMA-5	9.90
TMA-6	9.90
TMA-7	8.10
TMA-8	9.60
TMA-9	7.80
TMA-10	7.50
TMA-11	7.80
TMA-12	9.90
TMA-13	7.50
TMA-14	9.90
TMO-15	3.90
TMO-16	3.90
TMO-17	3.30
TMO-18	3.90
TMA-19	7.50
TNA-1	6.30
TNA-2	6.30
TNA-3	6.70
TNA-4	6.10
TNA-5	6.10
TNA-6	6.70
TNA-7	6.30
TNA-8	6.30
TNA-9	7.30
TNA-10	6.80
TNA-11	6.80
TNA-12	7.30
TNA-13	7.30
TNA-14	7.30
TNA-15	7.50
TNA-16	6.70
TNA-17	6.70
TNA-18	6.70
TNA-19	7.20
TNA-20	6.70
TNA-21	6.10
TNA-22	6.60
TNA-23	6.30
TNA-25	6.30
TNA-26	5.90
TNA-27	7.20
TNA-28	5.80
TNA-29	5.80
TNA-30	6.00
TNA-31	5.80
TNA-32	5.80
TNA-33	6.00
TNA-34	6.30
TNA-35	6.30
TNA-36	5.90
TNA-37	5.90
TNA-38	6.30
TNA-39	6.80
TNA-40	6.30
TNA-41	6.50
TPA-1	7.60
TPA-2	7.60
TPA-3	7.60
TPA-4	8.05
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TPA-13	7.60
TPA-14	8.05
TPA-15	8.30
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TPA-17	7.80
TPA-18	8.50
TPA-19	7.50
TPA-20	8.30
TPA-21	7.80
TPA-22	8.30
TPA-23	8.30
TPA-24	8.30
TPA-25	8.30
TPA-26	8.30
TPA-27	8.30
TPA-28	8.80
TPA-29	8.80
TPA-30	7.30
TPA-31	7.30
TPA-32	7.30
TPA-33	7.30
TPA-34	7.30
TPA-35	7.30
TPA-36	7.30
TPA-37	7.95
TPA-38	7.30
TPA-39	7.30
TPA-40	7.30
TSA-1	6.50
TSA-2	6.50
TSA-3	7.00
TSA-4	6.30
TSA-5	6.30
TSA-6	7.00
TSA-7	6.50
TSA-8	6.50
TSA-9	7.50
TSA-10	7.00
TSA-11	7.00
TSA-12	7.50
TSA-13	7.50
TSA-14	7.50
TSA-15	8.00
TSA-16	7.00
TSA-17	7.00
TSA-18	7.00
TSA-19	7.50
TSA-20	7.00
TSA-21	6.50
TSA-22	6.75
TSA-23	6.50
TSA-25	6.50
TSA-26	6.00
TSA-27	7.50
TSA-28	6.00
TSA-29	6.00
TSA-30	6.30
TSA-31	6.00
TSA-32	6.00
TSA-33	6.30
TSA-34	6.50
TSA-35	6.50
TSA-36	6.00
TSA-37	6.00
TSA-38	6.50
TSA-39	7.00
TSA-40	6.50
TSA-41	6.75
TTA-1	8.10
TTA-2	6.60
TTA-3	8.60
TTA-4	9.10
TTA-5	8.60
TTA-6	6.60
TTA-7	8.75
TTA-8	8.60
TTA-9	8.90
TTA-10	8.45
TTA-11	8.45
TTA-12	8.50
TTA-13	8.10
TTA-14	9.10
TTA-15	8.10
TTA-16	8.60
TTA-17	8.10
TTA-18	8.10
TTA-19	8.10
TTA-20	8.10
TTA-21	8.10
TTA-22	8.10
TTA-23	8.45
TTA-24	8.45
TTA-25	8.45
TTA-26	8.90
TTA-27	8.10
TTA-28	8.45
TTA-29	8.45
TTA-30	8.45
TTA-31	8.90
TTA-32	8.45
TTA-33	8.90
TTA-34	8.45
TTA-35	8.60
TTA-36	8.60
TTA-37	8.50
TTA-38	9.10
TTA-39	8.35
TTA-40	8.60
TUA-1	6.00
TUA-2	6.00
TUA-3	6.00
TUA-4	6.00
TUA-5	6.00
TUA-6	6.00
TUA-7	6.30
TUA-8	6.30
TUA-9	6.30
TUA-10	6.60
TUA-11	6.30
TUA-12	6.50
TUA-13	5.40
TUA-14	6.30
TUA-15	6.60
TUA-16	5.70
TUA-17	5.70
TUA-18	6.60
TUA-19	5.70
TUA-20	5.70
TUA-21	5.75
TUA-22	5.75
TUA-23	6.00
TUA-24	6.10
TUA-25	6.00
TUA-26	6.00
TUA-27	5.40
TUA-28	6.00
TUA-29	6.00
TUA-30	6.60
TUA-31	7.50
TUA-32	6.60
TUA-33	6.90
TUA-34	6.90
TUA-35	6.90
TUA-36	6.90
TUA-37	6.90
TUA-38	6.90
ULD-20	10.00
ULD-50	15.65
ULI-20	10.00
ULO-10	25.00
ULO-11	25.00
ULO-12	25.00
ULO-13	25.00
ULO-30	32.50
ULO-31	32.50
ULO-32	32.50
ULO-33	32.50
ULO-34	32.50
ULO-35	32.50
ULO-36	32.50
ULO-37	32.50
ULO-52	75.00
ULO-53	75.00
ULO-54	75.00
ULO-55	75.00
ULO-56	75.00
ULO-101	145.00
ULO-104	145.00
ULO-110	145.00
VHI-1	9.50
VHI-2	9.50
VHI-3	9.50
VHI-4	9.50
VHI-5	9.50
VHI-6	9.50
VHI-7	9.50
VHI-8	9.50
VHI-9	9.50
VHI-10	9.50
VHI-11	9.50
VHI-12	9.50
VHI-13	9.50
VHI-14	9.50
VHI-15	9.50
VHI-16	9.50
VHI-17	9.50
VHI-18	9.50
VHI-19	9.50
VHI-20	9.50
VHI-21	9.50
VHI-22	9.50

Filters & Discriminators

MTN .4 TO 7.35	35.00
MTN 10.5 to MTW 70	38.00
IBM*	25.00 / 35.00
IBP*	25.00 / 35.00
IHM*	25.00 / 35.00
IHP*	25.00 / 35.00
ILM*	25.00 / 35.00
ILP*	25.00 / 35.00
LBM*	25.00 / 35.00
LBP*	25.00 / 35.00
LHM*	25.00 / 35.00
LHP*	25.00 / 35.00
LLM*	25.00 / 35.00
LLP*	25.00 / 35.00

*Stock Frequencies are $25.00 Net.

Special Frequencies are $35.00 Net

DSF-10	39.50
DSF-11	39.50
DSF-12	39.50
DSF-13	39.50
DSF-14	39.50
DSF-15	39.50
DSF-16	39.50
DSF-17	39.50
DSF-18	39.50
DSF-19	39.50
DSF-20	39.50
DSF-21	39.50
DSF-22	39.50
DSF-23	39.50
DSF-24	39.50
DSF-25	39.50
DSF-26	39.50
DSF-27	39.50
DSF-28	39.50
DSF-29	39.50
DST-10	50.00
DST-11	50.00
DST-12	50.00
DST-13	50.00
DST-14	50.00
DST-15	50.00
DST-16	60.00
DST-17	50.00
DST-18	50.00
DST-19	50.00
DST-20	50.00
DST-21	50.00
DST-22	50.00
DST-23	50.00
DST-24	60.00
DST-25	60.00
DST-26	60.00
DST-27	50.00
DST-28	60.00
DST-29	60.00
DST-30	60.00
DST-31	60.00
DST-32	60.00
DST-33	60.00
FBP-10	86.00
FBP-11	86.00
FBP-12	86.00
FBP-13	86.00
FBP-14	70.80
FBP-15	70.80
FBP-16	70.80
FBP-17	70.80
FBP-18	70.80
FBP-19	70.80
FBP-20	70.80
FBP-21	70.80
FBP-22	70.80
FBP-23	70.80
FBP-24	86.00
FBP-25	70.80
FBP-26	86.00
FBP-27	86.00
FBP-28	86.00
FBP-29	86.00
FBP-30	86.00
FBP-31	86.00
FBP-32	86.00
FBP-33	86.00
FBP-34	73.00
FBP-35	73.00
FBP-36	73.00
FBP-37	73.00
FBP-38	73.00
FBP-39	80.00
FBP-40	88.00
FBP-41	88.00
FBP-42	88.00
FBP-43	88.00
FBP-44	88.00
FBP-45	88.00
FBP-46	88.00
FBP-47	88.00
FBP-48	88.00
FBP-49	88.00
FBP-50	88.00
FBP-51	88.00
FBP-52	88.00
FBP-53	88.00
FBP-54	88.00
FBP-55	88.00
FBP-56	88.00
FBP-57	88.00
FBR-10	89.50
FBR-11	89.50
FBR-12	89.50
FBR-13	89.50
FBR-14	89.50
FBR-15	89.50
FBR-16	89.50
FBR-17	89.50
FBR-18	89.50
FBR-19	89.50
FBR-20	89.50
FBR-21	89.50
FBR-22	89.50
FBR-23	89.50
FBR-24	89.50
FBR-25	89.50
FBR-26	89.50
FBR-27	89.50
FBR-28	89.50
FBR-29	89.50
FBT-10	42.50
FBT-11	42.50
FBT-12	42.50
FBT-13	42.50
FBT-14	42.50
FBT-15	42.50
FBT-16	42.50
FBT-17	42.50
FBT-18	42.50
FBT-19	42.50
FBT-20	42.50
FBT-21	42.50
FBT-22	42.50
FBT-23	42.50
FBT-24	42.50
FBT-25	42.50
FBT-26	42.50
FBT-27	42.50
FBT-28	42.50
FBT-29	42.50
LPI-10	43.25
LPI-11	43.25
LPI-12	43.25
LPI-13	43.25
LPI-14	43.25
LPI-15	43.25
LPI-16	43.25
LPI-17	43.25
LPI-18	43.25
LPI-19	43.25
LPI-20	43.25
LPI-21	43.25
LPI-22	43.25
LPI-23	43.25
LPI-24	43.25
LPI-25	43.25
LPI-26	43.25
LPI-27	43.25
LPI-28	43.25
LPO-10	93.30
LPO-11	85.50
LPO-12	81.30
LPO-13	85.00
LPO-14	72.00
LPO-15	68.85
LPO-16	64.50
LPO-17	62.50
LPO-18	61.60
LPO-19	62.80
LPO-20	61.15
LPO-21	55.60
LPO-22	55.60
LPO-23	48.20
LPO-24	47.10
LPO-25	47.10
LPO-26	47.10
LPO-27	48.20
LPO-28	47.10
LPO-29	47.10
LPO-30	47.10
LPO-31	48.20
LPO-32	47.10
LPO-33	47.10
LPO-34	47.10
LPO-35	47.10
NTF-30	25.00
NTF-60	25.00
NTF-120	25.00

Toroidal Inductors

Prices shown are Net for Hermetically Sealed. Deduct $1.50 from Net for Uncased units. Add $1.00 to Net for Encapsulated units.

Type TI-1

F-800	6.65
F-801	6.65
F-802	6.65
F-803	7.10
F-804	6.60
F-805	6.60
F-806	8.50
F-807	8.50
F-808	8.50
F-809	9.50
F-810	9.50
F-811	10.50
F-812	10.50
F-813	10.50
F-814	10.50
F-815	10.50
F-816	11.00
F-817	11.50
F-818	12.00
F-819	12.35
F-820	12.65
F-821	12.75
F-822	13.00
F-823	13.30
F-824	13.75
F-825	14.25
F-826	14.50
F-827	14.80
F-828	15.20
F-829	16.15
F-830	17.10

Type TI-4 and 4s

F-850	7.90
F-851	7.90
F-852	7.90
F-853	7.90
F-854	7.90
F-855	7.90
F-856	8.25
F-857	8.60
F-858	8.80
F-859	8.95
F-860	9.05
F-861	9.20
F-862	9.35
F-863	9.50
F-864	9.80
F-865	10.35
F-866	10.65
F-867	10.65
F-868	10.65
F-869	11.15
F-870	11.15
F-871	11.15
F-872	11.50
F-873	11.50
F-874	12.00
F-875	12.45
F-876	12.90
F-877	13.40
F-878	13.90

Type TI-IA and As

F-1500	7.50
F-1501	7.50
F-1502	7.50
F-1503	7.50
F-1504	7.50
F-1505	7.50
F-1506	7.50
F-1507	7.75
F-1508	7.75
F-1509	7.75
F-1510	7.75
F-1511	7.75
F-1512	7.75
F-1513	7.90
F-1514	7.90
F-1515	7.90
F-1516	8.10
F-1517	8.10
F-1518	8.10
F-1519	8.35
F-1520	8.35
F-1521	8.55
F-1522	8.55
F-1523	8.75
F-1524	8.75
F-1525	9.05
F-1526	9.05
F-1527	9.25
F-1528	9.75
F-1529	10.10
F-1530	10.10
F-1531	10.35
F-1532	10.75
F-1533	11.25
F-1534	11.75
F-1535	11.75
F-1536	12.75
F-1537	13.10
F-1538	13.60

Type TI-9s

F-1554	16.60
F-1555	16.80
F-1556	17.00
F-1557	17.30
F-1558	17.40
F-1559	17.50
F-1560	17.60
F-1561	17.80
F-1562	18.05
F-1563	18.30
F-1564	18.50
F-1565	18.50
F-1566	19.00
F-1567	19.50
F-1568	19.95
F-1569	20.40
F-1570	21.40

Type TI-10s

F-1579	14.15
F-1580	14.15
F-1581	14.35
F-1582	14.45
F-1583	14.50
F-1584	14.60
F-1585	14.70
F-1586	14.80
F-1587	14.90
F-1588	15.00
F-1589	15.10
F-1590	15.30
F-1591	15.40
F-1592	15.60

Type TI-13

F-1629	16.60
F-1630	16.80
F-1631	17.00
F-1632	17.30
F-1633	17.40
F-1634	17.50
F-1635	17.60
F-1636	17.80
F-1637	18.05
F-1638	18.30
F-1639	18.50
F-1640	18.50
F-1641	19.00
F-1642	19.50
F-1643	19.95
F-1644	20.40
F-1645	21.40

Type TI-12 and 12s

F-1655	13.60
F-1656	13.60
F-1657	13.60
F-1658	14.05
F-1659	14.05
F-1660	14.05
F-1661	14.65
F-1662	14.65
F-1663	15.10
F-1664	15.10
F-1665	13.75
F-1666	13.75
F-1667	14.15
F-1668	14.15
F-1669	14.65
F-1670	14.65
F-1671	14.65
F-1672	15.10
F-1673	15.60
F-1674	16.05
F-1675	16.05
F-1676	16.50
F-1677	16.50
F-1678	17.00
F-1679	17.00
F-1680	17.50
F-1681	17.50
F-1682	17.50
F-1683	17.90
F-1684	17.90
F-1685	17.90
F-1686	18.40
F-1687	18.90
F-1688	19.50
F-1689	19.90
F-1690	20.40
F-1691	20.90
F-1692	21.40
F-1693	21.80

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FREED TRANSFORMER CO., INC.

PRICE LIST

Catalog No.	Net Price
Type TI-5	
F-1700	5.70
F-1701	5.70
F-1702	5.70
F-1703	6.20
F-1704	6.65
F-1705	6.90
F-1706	7.10
F-1707	7.35
F-1708	7.60
F-1709	7.85
F-1710	8.05
F-1711	8.30
F-1712	9.00
F-1713	9.60
F-1714	9.80
F-1715	10.25
F-1716	10.60
F-1717	10.95
F-1718	11.20
F-1719	11.50
F-1720	11.90
Type TI-5s	
F-1700s	7.90
F-1701s	7.90
F-1702s	7.90
F-1703s	7.90
F-1704s	7.90
F-1705s	8.15
F-1706s	8.25
F-1707s	8.50
F-1708s	8.80
F-1709s	8.95
F-1710s	9.05
F-1711s	9.20
F-1712s	9.30
F-1713s	9.60
F-1714s	9.80
F-1715s	10.25
F-1716s	10.65
F-1717s	10.85
F-1718s	11.20
F-1719s	11.50
F-1720s	11.90
Type TI-6 and 6s	
F-1726	8.15
F-1727	8.15
F-1728	8.15
F-1729	8.15
F-1730	8.15
F-1731	8.15
F-1732	8.45
F-1733	8.45
F-1734	8.55
F-1735	8.55
F-1736	8.55
F-1737	9.00
F-1738	10.00
F-1739	10.00
F-1740	10.00
F-1741	10.00
F-1742	10.45
F-1743	11.90
Type TI-11s	
F-1747	14.20
F-1748	14.20
F-1749	14.20
F-1750	14.20
F-1751	14.20
F-1752	15.20
F-1753	15.20
F-1754	15.20
F-1755	15.20
F-1756	15.20
F-1757	14.20
F-1758	14.20
F-1759	14.65
F-1760	14.65
F-1761	15.20
F-1762	15.85
F-1763	16.15
F-1764	16.65
F-1765	17.10
F-1766	17.60
F-1767	17.80
F-1768	18.05
F-1769	18.45
F-1770	18.45
F-1771	18.45
F-1772	19.00
F-1773	19.50
F-1774	19.95
F-1775	20.40
F-1776	20.90
F-1777	21.85
F-1778	22.80
F-1779	23.75
F-1780	24.70
Type TI-7	
F-1781	7.90
F-1782	7.90
F-1783	7.90
F-1784	7.90
F-1785	7.90
F-1786	7.90
F-1787	8.05
F-1788	8.05
F-1789	8.25
F-1790	8.25
F-1791	8.45
F-1792	8.65
F-1793	8.65
F-1794	8.65
F-1795	9.00
F-1796	9.45
F-1797	10.00
Type TI-2s	
F-1800	14.20
F-1801	14.20
F-1802	14.20
F-1803	14.20
F-1804	14.20
F-1805	14.65
F-1806	14.65
F-1807	14.65
F-1808	14.65
F-1809	14.65
F-1810	14.65
F-1811	14.90
F-1812	14.90
F-1813	14.90
F-1814	14.90
F-1815	14.90
Type TI-8 and 8s	
F-1821	8.65
F-1822	8.65
F-1823	8.65
F-1824	8.65
F-1825	8.65
F-1826	8.65
F-1827	8.65
F-1828	8.65
F-1829	8.65
F-1830	8.65
F-1831	8.65
F-1832	8.75
F-1833	8.85
F-1834	9.00
F-1835	9.00
F-1836	9.00
F-1837	9.10
F-1838	9.40
F-1839	9.50
F-1840	9.90
Type TI-3s	
F-1844	14.25
F-1845	14.25
F-1846	14.25
F-1847	14.25
F-1848	14.25
F-1849	14.25
F-1850	14.25
F-1851	14.25
F-1852	14.25
F-1853	14.25
F-1854	14.25
F-1855	14.25
Type TI-3As	
F-1856	20.00
F-1857	20.50
F-1858	20.50
F-1859	22.30
F-1860	22.80
F-1861	22.80
F-1862	23.30
F-1863	23.30
Type TI-15	
F-1870	7.25
F-1871	7.25
F-1872	7.25
F-1873	7.25
F-1874	7.25
F-1875	7.25
F-1876	7.25
F-1877	7.25
F-1878	7.25
F-1879	7.25
F-1880	7.25
F-1881	7.45
F-1882	7.45
F-1883	7.65
F-1884	7.65
F-1885	7.85
F-1886	8.05
F-1887	8.05
F-1888	8.05
F-1889	8.45
Type TI-14	
F-1920	7.40
F-1921	7.40
F-1922	7.40
F-1923	7.40
F-1924	7.40
F-1925	7.40
F-1926	7.85
F-1927	7.85
F-1928	7.95
F-1929	7.95
F-1930	7.95
F-1931	8.40
F-1932	8.75
F-1933	8.75
F-1934	9.00
F-1935	9.25
F-1936	9.75
Type TI-16	
F-2050	6.05
F-2051	6.05
F-2052	6.05
F-2053	5.85
F-2054	5.85
F-2055	6.30
F-2056	6.80
F-2057	7.05
F-2058	7.25
F-2059	7.35
F-2060	7.70
F-2061	8.00
F-2062	8.20
F-2063	8.45
F-2064	9.75
F-2065	10.80
F-2066	11.00
F-2067	11.40
F-2068	11.65
F-2069	12.00
Type TI-17	
F-2100	7.90
F-2101	7.90
F-2102	7.90
F-2103	7.90
F-2104	7.90
F-2105	7.90
F-2106	7.90
F-2107	7.90
F-2108	7.90
F-2109	7.90
F-2110	7.90
F-2111	8.05
F-2112	8.05
F-2113	8.25
F-2114	8.25
F-2115	8.65
F-2116	8.65
F-2117	9.05
Type TI-18	
F-2140	8.65
F-2141	8.65
F-2142	8.65
F-2143	8.65
F-2144	8.65
F-2145	8.65
F-2146	8.65
F-2147	8.65
F-2148	8.65
F-2149	8.65
F-2150	8.65
F-2151	8.75
F-2152	8.85
F-2153	9.00
F-2154	9.00
F-2155	9.20
F-2156	9.50
F-2157	9.70
Type TI-19	
F-2180	7.90
F-2181	7.90
F-2182	7.90
F-2183	7.90
F-2184	7.90
F-2185	7.90
F-2186	7.90
F-2187	7.90
F-2188	7.90
F-2189	7.90
F-2190	7.90
F-2191	7.90
F-2192	7.90
F-2193	7.90
Type TI-20s	
F-2201	6.40
F-2202	6.40
F-2203	6.95
F-2204	6.95
F-2205	6.95
F-2206	7.15
F-2207	7.45
F-2208	8.10
F-2209	8.10
F-2210	8.10
F-2211	8.10
F-2212	8.10
F-2213	8.10
F-2214	8.10
F-2215	8.10
Type TI-21s	
F-2240	6.00
F-2241	6.00
F-2242	6.00
F-2243	6.00
F-2244	6.00
F-2245	6.00
F-2246	6.40
F-2247	6.40
F-2248	6.40
F-2249	6.40
Type TI-22s	
F-2270	6.00
F-2271	6.00
F-2272	6.00
F-2273	6.00
F-2274	6.00
F-2275	6.00
F-2276	6.40
F-2277	6.40
F-2278	6.40
F-2279	6.40
F-2280	7.15
F-2281	7.15
F-2282	7.15
F-2283	7.15
F-2284	7.15
Type TI-23s	
F-2301	6.25
F-2302	6.25
F-2303	6.25
F-2304	6.25
F-2305	6.25
F-2306	6.25
F-2307	6.75
F-2308	6.75
F-2309	6.75
F-2310	6.75
F-2311	7.50
F-2312	7.50
F-2313	7.50
Type TI-24	
F-2400	5.90
F-2401	5.90
F-2402	5.90
F-2403	5.90
F-2404	6.05
F-2405	6.05
F-2406	6.05
F-2407	6.05
F-2408	6.30
F-2409	6.30
F-2410	6.80
F-2411	7.05
F-2412	7.25
F-2413	7.35
F-2414	7.70
F-2415	8.00
F-2416	8.20
F-2417	8.45
F-2418	9.75
F-2419	10.50
F-2420	10.80
F-2421	11.00
F-2422	11.40
Type TI-25	
F-2450	7.90
F-2451	7.90
F-2452	7.90
F-2453	7.90
F-2454	7.70
F-2455	7.70
F-2456	7.50
F-2457	7.50
F-2458	7.30
F-2459	7.30
F-2460	7.20
F-2461	7.10
F-2462	7.10
F-2463	7.05
F-2464	7.00
F-2465	7.00
F-2466	7.05
F-2467	7.10
F-2468	7.20
F-2469	7.20
F-2470	7.40
F-2471	7.40
F-2472	7.60
F-2473	7.80
F-2474	8.00
F-2475	8.40
F-2476	8.80
F-2477	9.50
F-2478	9.80
F-2479	9.95
F-2480	10.20
F-2481	10.50
Type TI-26	
F-2500	5.70
F-2501	5.70
F-2502	5.70
F-2503	5.70
F-2504	5.70
F-2505	5.70
F-2506	5.70
F-2507	5.70
F-2508	6.05
F-2509	6.20
F-2510	6.60
F-2511	6.80
F-2512	7.10
F-2513	7.35
F-2514	7.60
F-2515	7.80
F-2516	8.05
F-2517	8.30
F-2518	8.50
F-2519	8.70
F-2520	8.90
F-2521	9.20
F-2522	9.50
F-2523	9.90
F-2524	10.30
F-2525	10.80
F-2526	11.05
F-2527	11.30
F-2528	11.50
F-2529	11.90
F-2530	12.20
F-2531	12.60
F-2532	13.05
F-2533	13.80
Type TI-27	
F-2550	7.90
F-2551	7.90
F-2552	7.90
F-2553	7.90
F-2554	7.90
F-2555	8.10
F-2556	8.10
F-2557	8.20
F-2558	8.40
F-2559	8.20
F-2560	8.30
F-2561	8.50
F-2562	8.60
F-2563	8.80
F-2564	8.95
F-2565	9.10
F-2566	9.30
F-2567	9.50
F-2568	9.90
F-2569	10.50
F-2570	10.70
F-2571	10.90
F-2572	11.40
F-2573	11.60
F-2574	12.10
F-2575	12.40
F-2576	12.90
F-2577	13.40
F-2578	13.70
F-2579	13.90
F-2580	14.20
F-2581	14.20
F-2582	14.50
F-2583	14.50
Type TI-28	
F-2600	6.75
F-2601	6.85
F-2602	6.90
F-2603	6.95
F-2604	7.05
F-2605	7.10
F-2606	7.30
F-2607	7.40
F-2608	7.60
F-2609	7.80
F-2610	7.20
F-2611	7.60
F-2612	8.40
F-2613	8.50
F-2614	8.70
F-2615	9.20
F-2616	9.40
F-2617	9.55
F-2618	9.70
F-2619	9.90
F-2620	10.05
F-2621	10.10
F-2622	10.20
F-2623	10.30
F-2624	10.50
F-2625	10.80
F-2626	11.80
F-2627	12.20
F-2628	12.35
F-2629	12.65
F-2630	13.30
F-2631	14.65
F-2632	15.20
F-2633	16.15
Type TI-29	
F-2650	8.05
F-2651	8.10
F-2652	8.20
F-2653	8.20
F-2654	8.20
F-2655	8.20
F-2656	8.20
F-2657	8.30
F-2658	8.10
F-2659	8.10
F-2660	7.90
F-2661	7.60
F-2662	7.70
F-2663	7.75
F-2664	7.80
F-2665	7.90
F-2666	7.90
F-2667	8.00
F-2668	8.00
F-2669	8.10
F-2670	8.15
F-2671	8.20
F-2672	8.25
F-2673	8.30
F-2674	8.35
F-2675	8.40
F-2676	8.50
F-2677	8.60
F-2678	8.75
F-2679	8.75
F-2680	9.25
F-2681	10.10
F-2682	10.75
F-2683	11.75
F-2684	12.75
F-2685	13.60
F-2686	13.80
Type TI-30	
F-2700	12.05
F-2701	12.30
F-2702	12.50
F-2703	12.80
F-2704	12.95
F-2705	13.20
F-2706	13.50
F-2707	13.70
F-2708	13.90
F-2709	14.20
F-2710	14.50
F-2711	13.60
F-2712	13.75
F-2713	14.10
F-2714	14.20
F-2715	14.30
F-2716	14.50
F-2717	14.70
F-2718	15.10
F-2719	15.20
F-2720	15.30
F-2721	15.50
F-2722	15.70
F-2723	15.80
F-2724	15.95
F-2725	16.05
F-2726	16.20
F-2727	16.50
F-2728	16.70
F-2729	17.00
F-2730	17.50
F-2731	17.95
F-2732	18.90
F-2733	19.45
F-2734	20.40
F-2735	21.85
F-2736	22.50
Type TI-31	
F-2750	14.40
F-2751	14.80
F-2752	14.90
F-2753	14.90
F-2754	14.90
F-2755	14.90
F-2756	14.90
F-2757	14.90
F-2758	15.05
F-2759	15.10
F-2760	15.20
F-2761	15.20
F-2762	14.50
F-2763	14.80
F-2764	15.10
F-2765	15.50
F-2766	15.80
F-2767	16.05
F-2768	16.10
F-2769	16.20
F-2770	16.40
F-2771	16.60
F-2772	16.80
F-2773	17.00
F-2774	17.10
F-2775	17.40
F-2776	17.60
F-2777	17.90
F-2778	18.05
F-2779	18.45
F-2780	19.00
F-2781	19.50
F-2782	19.95
F-2783	20.90
F-2784	21.80
F-2785	22.80
F-2786	23.80
F-2787	24.70
F-2788	27.50
Type TI-32	
F-2800	7.40
F-2801	7.60
F-2802	7.80
F-2803	8.40
F-2804	8.60
F-2805	8.70
F-2806	8.80
F-2807	8.90
F-2808	9.60
F-2809	9.80
F-2810	10.20
F-2811	10.40
F-2812	10.60
F-2813	10.80
F-2814	11.05
F-2815	11.20
F-2816	11.40
F-2817	11.65
F-2818	12.10
F-2819	12.20
F-2820	12.30
F-2821	12.50
F-2822	12.70
F-2823	13.05
F-2824	13.30
Type TI-33	
F-2850	5.90
F-2851	6.00
F-2852	6.10
F-2853	6.30
F-2854	6.40
F-2855	6.70
F-2856	6.90
F-2857	7.10
F-2858	7.30
F-2859	7.40
F-2860	7.60
F-2861	7.70
F-2862	7.80
F-2863	8.10
F-2864	8.20
F-2865	8.30
F-2866	8.50
F-2867	8.60
Type TI-34	
F-2900	5.60
F-2901	5.60
F-2902	5.60
F-2903	5.60
F-2904	5.60
F-2905	5.80
F-2906	5.80
F-2907	6.00
F-2908	6.00
F-2909	6.00
F-2910	6.30
F-2911	6.60
F-2912	6.60
F-2913	7.30
F-2914	8.30
F-2915	8.30
F-2916	8.40
F-2917	8.60
F-2918	8.80
F-2919	8.80
F-2920	8.90
Type TI-35	
F-2950	6.60
F-2951	6.90
F-2952	7.20
F-2953	7.40
F-2954	7.60
F-2955	7.80
F-2956	8.00
F-2957	8.10
F-2958	8.30
F-2959	8.50
F-2960	8.70
F-2961	8.90
F-2962	9.05
F-2963	9.20
Type TI-36	
F-3000	5.90
F-3001	5.90
F-3002	5.90
F-3003	6.00
F-3004	6.00
F-3005	6.15
F-3006	6.30
F-3007	6.30
F-3008	6.60
F-3009	6.60
F-3010	6.80
F-3011	7.20
F-3012	7.40
F-3013	7.70
F-3014	8.20
F-3015	8.50
F-3016	8.80
F-3017	8.90
Type TI-38	
F-3550	7.50
F-3551	7.50
F-3552	7.50
F-3553	7.45
F-3554	7.40
F-3555	7.35
F-3556	7.30
F-3557	7.25
F-3558	7.75
F-3559	8.00
F-3560	8.25
F-3561	8.50
F-3562	8.65
F-3563	8.85
F-3564	9.00
F-3565	9.10
F-3566	9.30
F-3567	9.60
F-3568	9.80
F-3569	10.20
F-3570	10.60
F-3571	10.90
F-3572	11.15
F-3573	11.50
F-3574	11.90
F-3575	12.30
F-3576	12.70
F-3577	13.10
F-3578	13.50
Type TI-37	
F-4000	9.30
F-4001	9.30
F-4002	9.30
F-4003	9.30
F-4004	9.10
F-4005	9.10
F-4006	9.05
F-4007	9.00
F-4008	8.80
F-4009	8.70
F-4010	8.60
F-4011	8.80
F-4012	8.90
F-4013	9.20
F-4014	9.30
F-4015	9.50
F-4016	9.70
F-4017	9.90
F-4018	10.30
F-4019	10.60
F-4020	11.10
F-4021	11.70
F-4022	12.50
F-4023	13.10
F-4024	13.50
F-4025	13.90

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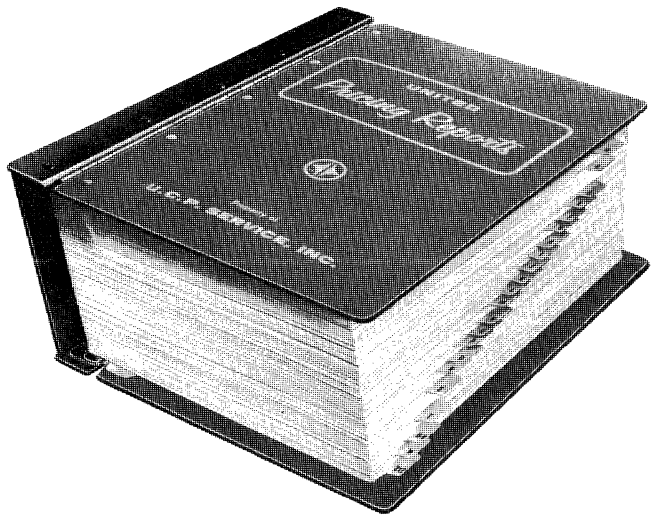

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VARIABLE TRANSFORMERS

DOLLAR SAVINGS . . .
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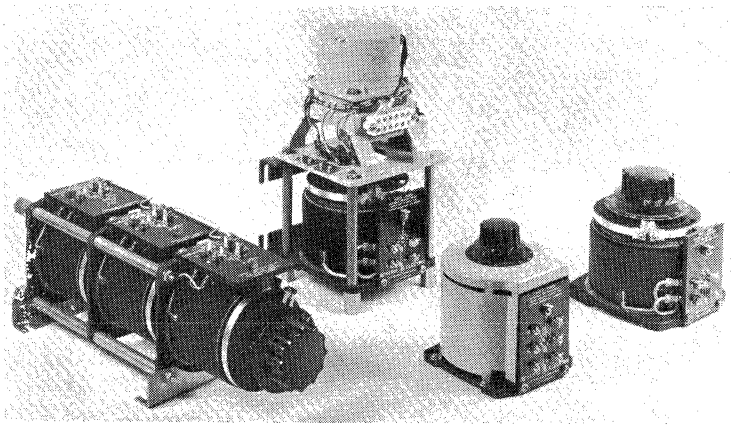
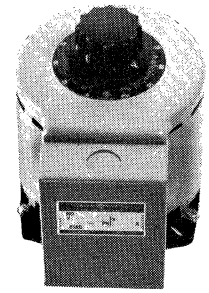
30-100% Greater Overload Capability

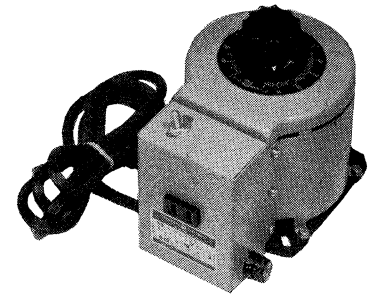
SPACE SAVINGS . . .
Up to 33% Greater Over-all Capacity in Same Physical Size



Typical volt-pac variable transformers. On the left is a manual, three-phase, 240-volt, 10-amp unit; second from the left is a motor-operated, single-phase, 120-volt, 15-amp unit; third from the left is a cased, manual, single-phase, 120/240-volt, 4-amp unit; and on the right is a manual, single-phase, 120 volt, 20-amp unit. All are for 50/60-cycle operation.



Manual, single-phase, cased — terminals enclosed



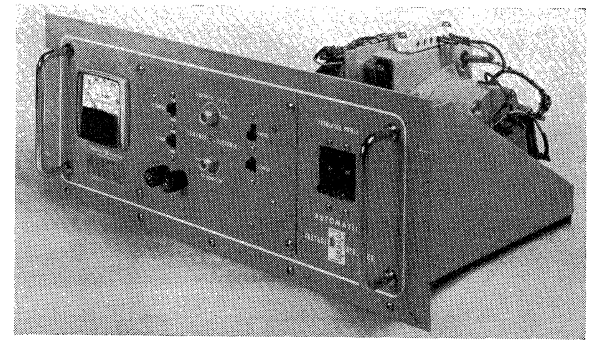
Plug-in unit, 120-volt, 7.5-amp. Available with NEMA standard 2- or 3-blade plug and receptacle

STANDARD RATINGS

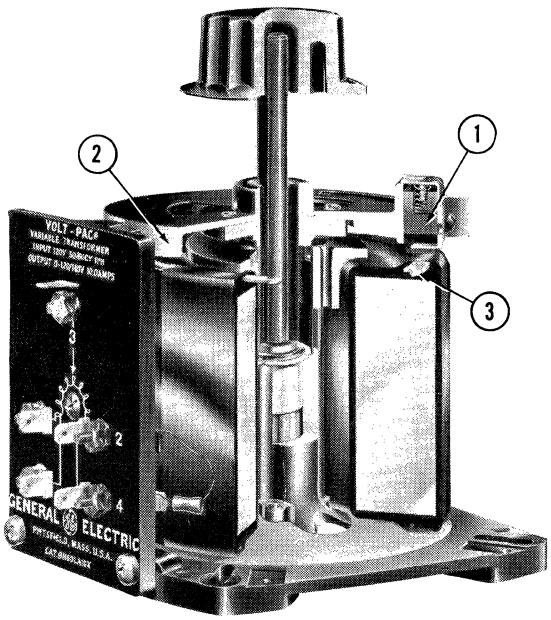
Single-core construction: 120 or 240 volts, 2 to 65 amp
Multiple-core construction: 120, 240, or 480 volts; up to 390 amp
Single-phase, three-phase; 50/60 cycles

AVAILABLE DESIGNS

Manual: for variable output from stable input voltage
Plug-in: for laboratory or shop source of adjustable a-c voltage
Motor-operated: for variable output from stable input voltage
Automatic: for closely regulated output from varying input voltage



Single-phase automatic unit rated 115 volts, 8.5 amp



NEW EXCLUSIVE FEATURES

The volt-pac design incorporates many important new features which provide new levels of performance for users. Significant among these are the heat-sink ring, quick-transfer current collector, and grain-oriented solid-carbon brush. These three exclusive features help increase the load capacity of present core sizes as much as 33 percent. The ability to pack more capacity in less volume is of vital importance in many applications where space is very limited.

(1) Brush design, with solid-carbon brush, eliminates carbon-to-metal soldering, keeps brush temperature down by lowering resistance to load currents

(2) Quick transfer current collector increases performance and reliability by eliminating hidden contact surfaces and providing a direct low-resistance past for load current

(3) New unique heat-sink ring located beneath the gold-plated brush track quickly dissipates heat from the hot spot

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volt-pac® VARIABLE TRANSFORMERS

GENERAL ELECTRIC

SINGLE-PHASE — MANUAL OPERATION

OUTPUT CURRENT					UNCASED MODEL		CASED MODEL	
Line-voltage Connection		Overvoltage Connection	Freq. †	No. of Cores	Catalog Number	Approx. Net Wt. (lb.)	Catalog Number	Approx. Net Wt. (lb.)
Rated Amp	Max Amp	Amperes *						
120-VOLT INPUT (SINGLE CORE): OUTPUT — 0-120 V (Line-voltage Conn.); 0-140 V (Overvoltage Conn.)								
2.0	2.9	2.0‡	50/60†	1	9H30AA10X	2¼	———	———
2.25	3.2	2.25‡	50/60†	1	9H30LA10X	2¼	———	———
4.0	5.8	4.0	50/60†	1	9H40AA10X	4¼	———	———
7.5	10.8	7.5	50/60†	1	9H60AA10X	9¼	9H60AA13X	10
10.0	14.5	——	60	1	9H60BA10X¶	9¼	9H60BA13X¶	10
10.0	14.5	10.0	50/60†	1	9H60LA10X	9¼	9H60LA13X	10
13.0	18.8	——	60	1	9H60NA10X¶	9¼	9H60NA13X¶	10
15.0	21.7	15.0	50/60†	1	9H75AA10X	15¼	9H75AA13X	16¼
20.0	29.0	20.0	50/60†	1	9H75LA10X	15¼	9H75LA13X	16¼
30.0	30.0	30.0	50/60†	1	9H85AA10X	30	9H85AA13X	32½
40.0	40.0	40.0	50/60†	1	9H85LA10X	30	9H85LA13X	32½
50.0	50.0	50.0	50/60	1	9H95AA10X	60	9H95AA13X	63½
65.0	65.0	65.0	50/60	1	9H95LA10X	60	9H95LA13X	63½
120-VOLT INPUT (MULTIPLE CORE): OUTPUT — 0-120 V (Line-voltage Conn.); 0-140 V (Overvoltage Conn.)								
80.0	80.0	80.0	50/60†	2	9H85LB50X	67	9H85LB53X	72
100.0	100.0	100.0	50/60	2	9H95AB50X	131	9H95AB53X	140
130.0	130.0	130.0	50/60	2	9H95LB50X	131	9H95LB53X	140
150.0	150.0	150.0	50/60	3	9H95AV50X	211	9H95AC53X	224½
195.0	195.0	195.0	50/60	3	9H95LC50X	211	9H95LC53X	224½
260.0	260.0	260.0	50/60	4	9H95LD50X	278	9H95LD53X	296
325.0	325.0	325.0	50/60	5	9H95LE50X	347	9H95LE53X	369½
390.0	390.0	390.0	50/60	6	9H95LF50X	413	9H95LF53X	440
120/240-VOLT INPUT§ (SINGLE CORE): OUTPUT — 0-240 V (Line-voltage Conn.); 0-280 V (Overvoltage Conn.)								
3.0	4.3	3.0	50/60†	1	9H60CA10X	9¼	9H60CA13X	10
4.0	5.8	——	60	1	9H60DA10X■	9¼	9H60DA13X■	10
4.0	5.8	4.0	50/60†	1	9H60MA10X	9¼	9H60MA13X	10
5.5	7.9	——	60	1	9H60PA10X■	9¼	9H60PA13X■	10
7.0	10.1	7.0	50/60†	1	9H75BA10X	15¼	9H75BA13X	16¼
9.5	13.7	9.5	50/60†	1	9H75MA10X	15¼	9H75MA13X	16¼
14.0	14.0	14.0	50/60†	1	9H85BA10X	30	9H85BA13X	32½
16.0	16.0	19.0	50/60†	1	9H85MA10X	30	9H85MA13X	32½
30.0	30.0	30.0	50/60	1	9H95BA10X	60	9H95BA13X	63½
40.0	40.0	40.0	50/60	1	9H95MA10X	60	9H95MA13X	63½
120/240-VOLT INPUT§ (MULTIPLE CORE: OUTPUT — 0-240 V (Line-voltage Conn.); 0-280 V (Overvoltage Conn.)								
60.0	60.0	60.0	50/60	2	9H95BB50X	131	9H95BB53X	140
80.0	80.0	80.0	50/60	2	9H95MB50X	131	9H95MB53X	140
90.0	90.0	90.0	50/60	3	9H95BC50X	211	9H95BC53X	224½
120.0	120.0	120.0	50/60	3	9H95MC50X	211	9H95MC53X	224½
160.0	160.0	160.0	50/60	4	9H95MD50X	278	9H95MD53X	296
200.0	200.0	200.0	50/60	5	9H95ME50X	347	9H95ME53X	369½
240.0	240.0	240.0	50/60	6	9H95MF50X	413	9H95MF53X	440
240/480-VOLT INPUT§ (MULTIPLE CORE): OUTPUT — 0-480 V (Line-voltage Conn.); 0-560 V (Overvoltage Conn.)								
3.0	4.3	3.0	50/60†	2	9H60CB40X	21¾	9H60CB43X	23¼
4.0	5.8	——	60	2	9H60DB40X•	21¾	9H60DB43X•	23¼
4.0	5.8	4.0	50/60†	2	9H60MB40X	21¾	9H60MB43X	23¼
5.5	7.9	——	60	2	9H60PB40X•	21¾	9H60PB43X•	23¼
7.0	10.1	7.0	50/60†	2	9H75BB40X	34	9H75BB43X	36
9.5	13.7	9.5	50/60†	2	9H75MB40X	34	9H75MB43X	36
14.0	14.0	14.0	50/60†	2	9H85BB40X	67	9H85BB43X	72
16.0	16.0	16.0	50/60†	2	9H85MB40X	67	9H85MB43X	72
30.0	30.0	30.0	50/60	2	9H95BB40X	131	9H95BB43X	140
40.0	40.0	40.0	50/60	2	9H95MB40X	131	9H95MB43X	140
60.0	60.0	60.0	50/60	4	9H95BD60X	278	9H95BD63X	296
80.0	80.0	80.0	50/60	4	9H95MD60X	278	9H95MD63X	296
90.0	90.0	90.0	50/60	6	9H95BF60X	413	9H95BF63X	440
120.0	120.0	120.0	50/60	6	9H95MF60X	413	9H95MF63X	440

* When Overvoltage Connection is used, rated current should not be exceeded. Output kva for Overvoltage Connection is maximum output voltage times rated current.
† When using extended tap connections, operation is for 60 cycles per second only.
‡ Output at Overvoltage Connection is 0-132 volts.

THREE-PHASE — MANUAL OPERATION

OUTPUT CURRENT					UNCASED MODEL		CASED MODEL	
Line-voltage Connection		Overvoltage Connection	Freq. †	No. of Cores	Catalog Number	Approx. Net Wt. (lb.)	Catalog Number	Approx. Net Wt. (lb.)
Rated Amp	Max Amp	Amperes *						
240-VOLT INPUT: OUTPUT — 0-240 V (Line-voltage Conn.); 0-280 V (Overvoltage Conn.)								
2.0	2.9	——	60	3	9H30AC30X¶	8½	———	———
2.25	3.2	——	60	3	9H30LC30X¶	8½	———	———
4.0	5.8	——	60	3	9H40AC30X¶	13¾	———	———
7.5	10.8	7.5	50/60	3	9H60AC30X	30	9H60AC33X	32¼
10.0	14.5	——	60	3	9H60BC30X¶	30	9H60BC33X¶	32¼
10.0	14.5	10.0	50/60	3	9H60LC30X	30	9H60LC33X	32¼
13.0	18.8	——	60	3	9H60NC30X¶	30	9H60NC33X¶	32¼
15.0	21.7	15.0	50/60	3	9H75AC30X	51	9H75AC33X	54
20.0	29.0	20.0	50/60	3	9H75LC30X	51	9H75LC33X	54
30.0	30.0	30.0	50/60	3	9H85AC30X	99½	9H85AC33X	107
40.0	40.0	40.0	50/60	3	9H85LC30X	99½	9H85LC33X	107
50.0	50.0	50.0	50/60	3	9H95AC30X	211	9H95AC33X	224½
65.0	65.0	65.0	50/60	3	9H95LC30X	211	9H95LC33X	224½
80.0	80.0	80.0	50/60	6	9H85LF30X	347	9H85LF33X	369½
100.0	100.0	100.0	50/60	6	9H95AF30X	413	9H95AF33X	440
130.0	130.0	130.0	50/60	6	9H95LF30X	413	9H95LF33X	440
240/480-VOLT INPUT§: OUTPUT — 0-480 V (Line-voltage Conn.); 0-560 V (Overvoltage Conn.)								
3.0	4.3	3.0	50/60	3	9H60CC30X	30	9H60CC33X	32¼
4.0	5.8	——	60	3	9H60DC30X•	30	9H60DC33X•	32¼
4.0	5.8	4.0	50/60	3	9H60MC30X	30	9H60MC33X	32¼
5.5	7.9	——	60	3	9H60PC30X•	30	9H60PC33X•	32¼
7.0	10.1	7.0	50/60	3	9H75BC30X	51	9H75BC33X	54
9.5	13.7	9.5	50/60	3	9H75MC30X	51	9H75MC33X	54
14.0	14.0	14.0	50/60	3	9H85BC30X	99½	9H85BC33X	107
16.0	16.0	16.0	50/60	3	9H85MC30X	99½	9H85MC33X	107
30.0	30.0	30.0	50/60	3	9H95BC30X	211	9H95BC33X	224¼
40.0	40.0	40.0	50/60	3	9H95MC30X	211	9H95MC33X	224¼
60.0	60.0	60.0	50/60	6	9H95BF30X	413	9H95BF33X	440
80.0	80.0	80.0	50/60	6	9H95MF30X	413	9H95MF33X	440

PLUG-IN SETS

OUTPUT CURRENT						OVER-ALL DIMENSIONS (Inches)			
Line-Voltage Connection		Overvoltage Connection	Freq. †	Catalog Number	Fuse Rating	Ht.	Width	Depth	Approx Net Wt (lb)
Rated Amp	Amp Max	(Amp) *							
120-VOLT INPUT: OUTPUT — 0-120 V (Line-Conn.); 0-140 V (Overvoltage Conn.)									
7.5	10.8	7.5	50/60	9H60AA17XB	8	6¼	5	7	11
7.5	10.8	7.5	50/60	9H60AA17XA	8	6¼	5	7	11
10.0	14.5	10.0	50/60	9H60LA17XB	10	6¼	5	7	11
10.0	14.5	10.0	50/60	9H60LA17XA	15	6¼	5	7	11
15.0	21.7	15.0	50/60	9H75AA17XA	10	6¼	6¼	8¼	17
20.0	29.0	20.0	50/60	9H75LA17XA	20	6¼	6¼	8¼	17
120/240-VOLT INPUT§: OUTPUT — 0-240 V (Line Conn.); 0-280 V (Overvoltage Conn.)									
3.0	4.3	3.0	50/60	9H60CA17XB	3	6¼	5	7	11
3.0	4.3	3.0	50/60	9H60CA17XC	3	6¼	5	7	11
4.0	5.8	4.0	50/60	9H60MA17XB	4	6¼	5	7	11
4.0	5.8	4.0	50/60	9H60MA17XC	4	6¼	5	7	11
7.0	10.1	7.0	50/60	9H75BA17XC	8	6¼	6¼	8¼	17
9.5	13.7	9.5	50/60	9H75MA17XC	10	6¼	6¼	8¼	17

§ When operated on lower input-voltage tap, rated current must be reduced when output voltage exceeds 140 percent of input voltage.
¶ For Line-voltage Connection only — No Overvoltage Connection provided.
■ For 240-volt input, 0-240-volt output, application only.
• For 480-volt input, 0-480-volt output, application only.

MOTOR-OPERATED AND AUTOMATIC UNITS ALSO AVAILABLE FROM STOCK

For the full story on G-E's manual and motor-operated volt-pac lines, and the automatic line with solid-state SCR control, ask your G-E Supplier for Bulletin GEC-1559. Or write to General Electric Company, Schnectady, N. Y.

Leader in... VOLTAGE REGULATION

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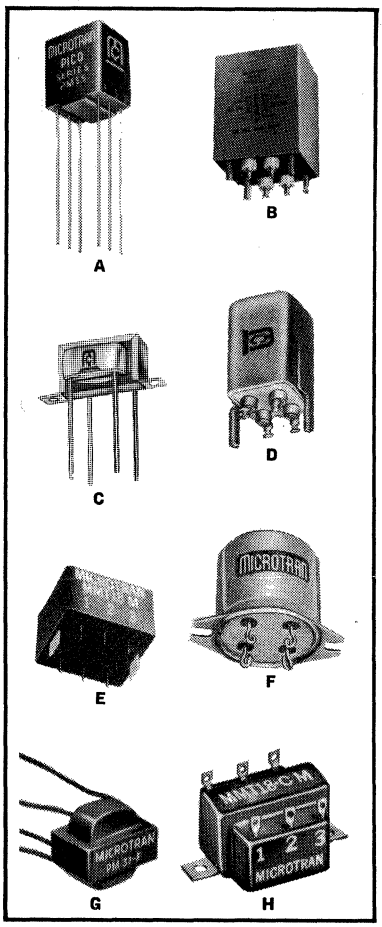
MICROTRAN Miniaturized Transformers



COMPLETE SCHEMATICS SHOWING CONNECTIONS AND PARTS LIST SUPPLIED WITH ALL DC TO DC CONVERTER TRANSFORMERS.

PICO MINIATURE TRANSFORMERS — PM SERIES (FIG. A)

PM-M (fig. A) Epoxy molded finish with gold plated leads, 0.020″ x ¾″. Frequency Response ±2db, 300 cps to 100 kc, except PM3 and PM5, to 45 kc. Power level given for 15% max. distortion, except PM35, 20% and PM37, 25%. Maximum size, .465″ x .310″. Weight, 0.1 oz. MIL type TF5RX-ZZ (Insert MIL No. from table). PM-F (fig. G) Open Frame 4 inch #30 plastic leads, resin impregnated. Size .250″ x .375″ x .406″ MIL type TF5RX-ZZ (Insert MIL No. from table).

Microtran No.	Application	Impedance Primary	Impedance Secondary	Pri DC Ma*	DC Resist., Ohms Pri.	DC Resist., Ohms Sec.	Power Level Mw	MIL No.	Net Each Lots of 1 - 9* —M	Net Each Lots of 1 - 9* —F
PM3	Input	200K CT	1K CT	0	5300	110	10	16	$7.65	——
PM5	Input	200K	1K	0	5300	110	10	16	6.60	——
PM7	Interstage	50K CT	1K CT	0	3300	75	10	16	7.50	——
PM9	Interstage	50K	1K/250‡	0	3300	75	10	16	8.10	——
PM11	Interstage	25K CT	1K CT	0.5	1700	110	40	12	7.05	——
PM13	Interstage	25K	1K/250‡	0.25	1700	110	40	12	7.65	——
• PM15	Interstage	25K	1K	0.25	1700	110	40	12	6.15	5.10
PM17	Isolation	10K CT	10K CT	1	1000	1300	50	12	7.65	——
PM19	Driver	10K CT	2K CT	1	1000	300	50	12	6.75	——
PM21	Driver	10K	2K/500‡	0.5	1000	300	50	12	7.35	——
PM23	Driver	10K CT	1200 CT	1						
PM25	Driver	10K	1200/300‡	0.5	1050	280	50	12	6.75	——
• PM27	Driver	10K	1200	0.5	1050	280	50	12	6.00	4.80
PM29	Driver	10K CT	500 CT	1	1050	80	50	12	6.75	——
• PM31	Isolation	2500	2500 CT	1	250	325	50	12	6.30	5.25
• PM33	Output	1500 CT	600	3	170	95	50	12	6.15	4.95
• PM35	Output	500	50	3	60	8	50	17	5.40	4.35
• PM37	Output	120 CT	3.2	10	16	0.75	50	17	5.70	4.65
• PM39	Audio Choke	6 hys.	.....	2	1800	.....	....	20	5.40	4.20
• PM41	Audio Choke	.3 hys.	.....	42	43	.....	....	20	4.65	3.90

*Unbalanced. ‡Split. •These items available in open frame construction.

DC TO DC CONVERTER TRANSFORMERS

SWITCHING TYPE

Provides improved reliability and efficiency over vibrator and rotary power converters. Approx. 800 cps repetition rate. Full wave and CT loads may be drawn simultaneously, but VA output should not be exceeded for continuous duty. Fig. B except M8072, Fig. C.

Microtran No.	Input VDC	VA Output	Transistors Suggested	DC Output V.	DC Output Ma	CT FW V.	CT FW Ma	Size, Inches W. x D. x H.	Mtg. Ctrs., In. ML	Mtg. Ctrs., In. MW	MIL Case	Net Each, 1-9*
M8034	28	125	Delco 2N174	500	250	250	420	2⅜ x2¾ x3 13/16	2⅛	1¾	GA	$26.70
M8035	13.6	125	Delco 2N442	500	250	250	420	2⅜ x2¾ x3 13/16	2⅛	1¾	GA	26.70
M8036	13.6	40	Delco 2N442	450	90	225	155	2 1/16 x2 5/16 x3⅛	1 1/16	1 1/16	FA	24.90
M8072	2.7	190†	Delco 2N1307	480*	400‡	.....	.....	13/16x1 1/16x 27/32	1⅜	.....	ZZ	5.40

*Output when used with half wave cap. input rectifier. ‡μa. †Mw.

BLOCKING OSCILLATOR TYPE

Approx. 400 cps repetition rate. Fig. C, except M8051, Fig. D.

Microtran No.	Turns Ratio HV: Coll.: Feedback	Input DC V.	Input DC Ma	Output DC Volts	Output DC μa	Sizes, Inches W. x D. x H.	Mtg. Ctr., In.	Net Each, 1-9*
M8050	600:12:1	3	20	1000*	25	13/16x1 1/16x 27/32	1⅜	$ .555
M8051	600:12:1	3	20	1000*	25	1 x1 x1⅜	1⅛	11.85
M8073	44:1:1	4	2—15‡	425—500‡	50‡●	7/16 x ½ x 1/16	.....	5.25
M8074	65.5:.33:1	3	45	535*	90	13/16x1 1/16x 27/32	1⅜	5.10

*When used in blocking oscillator circuit with single cap. input rectifier. ‡Varies with load and bias conditions. Frequency varies from 100 to 2800 cps. •Maximum.

MICRO-MINIATURE AUDIO AND TRANSISTOR TRANSFORMERS — MM AND MMT SERIES

MM-M (Fig. E): Molded, for plug-in printed circuit applications. Cast epoxy resin for high resistance to extremes of ambient temperature. MIL Type TF6RX — ZZ (Insert MIL No. from table). Size ⅞″ x 25/32″ x 17/32″ with 5/32″ pins, .020″ dia. Weight, ½ oz. **MM-H (Fig. F):** Hermetically sealed with high compression glass terminals. Gray enamel finish. MIL Type TF4RX — YY. Size, 15/16″ dia. x 1 1/16″. Weight, ¾ oz. **MM-FB (Fig. C):** Open frame with channel on special order. MIL Type TF6RX — ZZ. Size, 1 3/16″ x 13/32″ x 15/32″, plus tabs. **MM-CM (Fig. H):** Contour molded on special order only, size ⅞″ x 9/16″ x 25/32″. Designed for chassis mounting with solder terminals on top of transformer.

Microtran No. †	Application	Impedance Pri.	Impedance Sec.	Pri. Unbal. DC Ma	Oper. Level, dbm	Freq. Resp. ±2 db CPS	MIL No.	Net Each, Lots of 1-9* -FB	-H	-M, -CM
MM1-	Input	200/50	250K/62.5K	0	4	200—10K	10	$4.50	$7.35	$8.55
MM2-	Interstage 3:1	10K	90K	0	4	150—10K	10	4.80	7.50	8.70
MM3-	Plate to line	10K	200	3	20	150—10K	13	4.20	7.20	8.40
MM4-	Output	30K	50	1	20	150—10K	13	4.05	7.05	8.25
MM5-	Reactor 50 hy. at 1 mil DC	4.7K ohms	DC Res.	....	....	.....	20	4.05	6.90	8.10
MM6-	Output	100K	60	0.5	20	250—10K	13	4.20	7.20	8.40
MM7-	Output	30K	1200	0.5	20	200—10K	13	3.30	6.45	7.65
MMT1-	Line to base	600	600	8	22	200—15K	17	3.90	7.35	8.55
MMT3-	Coll. to base or line	50K	600	0.7	20	200—15K	13	4.05	7.50	8.70
MMT4-	P-p coll. to p-p base	50K CT	600 CT	1.4	20	200—15K	13	4.80	8.55	9.75
MMT5-	Coll. to speaker	50K	6	1	20	200—15K	13	4.35	7.95	9.15
MMT7-	Coll. to p-p base	25K	1200 CT	1	20	200—15K	13	4.50	8.40	9.60
MMT8-	P-p coll. to p-p base	50K CT	1200 CT	1.4	20	200—15K	13	4.65	8.55	9.75
MMT9-	Line to p-p base	600 CT	1200 CT	16	22	200—15K	17	4.20	7.65	8.85
MMT10-	Coll. to base	25K	600	1	20	200—15K	13	3.45	7.20	8.40
MMT11-	P-p coll. to p-p base or line	4K CT	600 CT	5	28	200—15K	12	4.35	7.80	9.00
MMT12-	Coll. to speaker	2K	3.4	5	28	200—15K	13	3.90	7.35	8.55
MMT13-	Output p-p coll. to speaker	4K CT	3.4	5	28	200—15K	13	4.05	7.50	8.70
MMT16-	Coll. to p-p base	10K	1500 CT	1	20	200—15K	13	4.50	8.40	9.60
MMT17-	P-p coll. to p-p base	10K CT	200 CT	6	20	200—15K	13	4.50	8.10	9.30
MMT18-	P-p coll. to p-p base	25K CT	1200 CT	2	20	200—15K	13	4.65	8.55	9.75
MMT19-	Coll. to p-p base	2500	2500 CT	2	23	200—15K	13	4.05	7.50	8.70
MMT21-	P-p coll. to p-p base	4K CT	600/150 Split	5	28	200—15K	13	4.65	8.55	9.75
MMT25-	P-p coll. to p-p base	7500 CT	600 CT	4	22	200—15K	13	4.35	7.80	9.00
MMT26-	Line to base	600 CT	600 CT	16	22	200—15K	17	4.20	7.65	8.85
MMT27-	P-p coll. to p-p base	25K CT	600 CT	2	20	200—15K	13	4.50	8.40	9.60
MMT28-	P-p coll. to p-p base	10K CT	1500 CT	2	20	200—15K	13	4.65	8.55	9.75
MMT29-	Driver/Isolation	10K CT	10K CT	2	20	200—15K	13	4.65	8.55	9.75
MMT30-	P-p coll. to p-p base	7500 CT	1200 CT	4	22	200—15K	13	4.50	8.40	9.60
MMT31-	P-p coll. to p-p base	2K CT	500 CT	10	28	200—15K	13	4.35	8.25	9.45
MMT32-	Line to p-p base	600 CT	1200/300 Split	16	22	200—15K	17	4.65	8.55	9.75

-CM $12.50 setup charge

★SEE FOURTH MICROTRAN PAGE FOR QUANTITY PRICING AND MIL CASE SIZES

†ORDER BY COMPLETE MICROTRAN NUMBER; EXAMPLE MM1-FB.

Also see EEM pages for additional items and list of franchised distributors.

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MICROTRAN — Miniaturized Transformers

ULTRA-MINIATURE TRANSISTOR TRANSFORMERS — UM SERIES

Frequency Response: ±2 db, 300-10K cps. Leads supplied, 4" #27 color-coded. Power Levels given for 7½% max. distortion. **UM-F (Fig. A):** Size, ⅜" x ⅜" x 1⅓2". Weight, 0.08 oz. MIL type TF6RX — ZZ (Insert MIL No. from table). **UMM-M (Fig. B):** Size, ½" dia. x ½". Wt., 0.14 oz. MIL type TF5RX — ZZ.

Microtran No.†	Application	Impedance Primary	Impedance Sec.	Unbal. Pri., DC Ma	DC Resist., Ohms Pri.	DC Resist., Ohms Sec.	Level at 1 kc, mw	MIL No.	Net Each, 1-9* -F	Net Each, 1-9* -M
UM21-	Input	100K	1K	0	1900	135	70	16	$6.00	$6.60
UM22-	Driver	20K	1K	0.5	1100	100	300	13	4.35	5.40
UM23-	Driver	20K	1200 CT	0.5	1100	110	300	13	4.65	6.00
UM24-	Output	1K	50	3	65	10	500	17	3.90	4.95
UM25-	Output	400	50	3	35	5	500	17	3.90	4.95
UM26-	Output	400	11	3	35	1.5	500	17	3.90	4.95
UM27-	Output	400 CT	11	6	35	1.5	500	17	4.20	5.25
UM28-	Choke	10 hy., (0 DC)	.....	8 hy., (0.5 ma)	650	.....	.....	20	3.75	5.25
UM29-	Interstage	600 CT	600 CT	7	45	60	400	21	4.65	5.70
UM30-	Choke	1.5 hy., (0 DC)	.....	7 hy., (2 ma)	100	.....	.....	20	3.60	4.50
UM31-	Interstage	10K CT	1200 CT	2	850	120	500	21	4.80	5.85
UM32-	Output	1500 CT	600	5	135	65	500	17	4.35	5.40
UM33-	Output	1K CT	600	6	80	65	500	17	4.35	5.40
UM34-	Driver	10K CT	600 CT	2	850	40	500	13	4.50	5.55
UM35-	Isolation	15K CT	15K CT	1	930	1210	300	15	4.95	6.15

UM-90: Shield can for all UM-M Series, UM90 (Fig. J).

VERI-MINIATURE TRANSISTOR TRANSFORMERS — VM SERIES

Frequency Response: ±2 db, 200-10K cps. Leads supplied, 4" #27 color-coded. Power levels given for 7½% max. distortion. **VM-M (Fig. C):** For plug-in printed circuit applications. Cast Epoxy resin provides high resistance. Size, ⅝" x 9⁄16" x ½". Weight, 0.25 oz. MIL type TF2RX—ZZ (Insert MIL No. from table). **VM-FPB (Fig. D):** Plug-in tab mounted channel. Size, 17⁄32" x 15⁄32" x 7⁄16". Weight, 0.2 oz. MIL type TF6RX—ZZ.

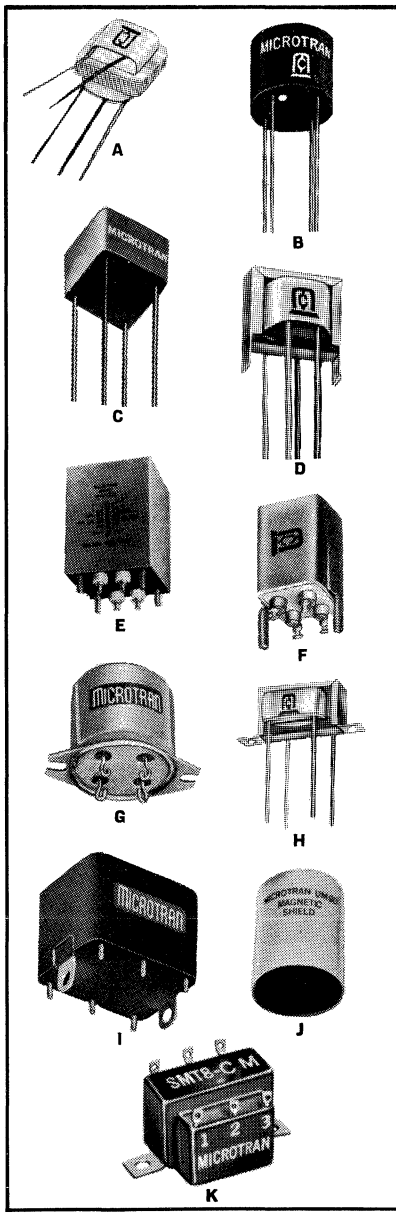
Micro-No.†	Application	Impedance Primary	Impedance Secondary	DCR, Ohms Pri.	DCR, Ohms Sec.	Level, mw	MIL No.	Net Ea., 1-9* -FPB	Net Ea., 1-9* -M
VM1-	Input	50	600, (1.5 ma)	7	90	15	21	$4.20	$5.55
VM2-	Input or intrstg.	200K	600, (1.0 ma)	3000	110	5	21	5.70	7.20
VM3-	Interstage	25K	600, (1.0 ma)	720	45	5	21	4.50	6.30
VM4-	Input or intrstg.	200K	1200, (.72 ma)	3100	165	5	21	5.70	7.20
VM5-	Interstage	50K	600, (1.0 ma)	830	55	5	21	4.65	6.60
VM6-	Interstage	100K	1200‡, (.72 ma)	2000	150	5	21	5.85	7.35
VM7-	Output	500, (3.5 ma)	3.4	50	0.5	15	21	4.20	5.55
VM8-	Output	1250, (2.0 ma)	3.4	135	0.5	15	21	4.35	5.70
VM9-	Output	1250, (2.0 ma)	50	135	6.5	15	21	4.35	5.70
VM10-	Interstage	2500, (1.5 ma)	2500 CT	225	215	3	21	4.65	6.90
VM11-	Choke	20 hy., (0 ma)	12 hy., .5 ma)	1000	.....	....	21	4.05	5.10
VM12-	Interstage	20K	1000, (.75 ma)	625	85	5	21	4.50	6.30
VM13-	Interstage	20K	1000‡, (.75 ma)	625	85	5	21	4.65	6.90
VM14-	Interstage	600‡, (7 ma)	600 CT	50	65	15	17	4.50	6.75
VM15-	Isolation	50K CT	50K CT	2000	2600	5	15	6.00	8.40
VM16-	Driver	500‡, (7.5 ma)	250 CT	40	13	15	17	4.50	6.75

TRANSISTOR DRIVER AND OUTPUT TRANSFORMERS (FIG. E)

Hermetically sealed and magnetically shielded with MIL-T-27B construction. MIL Type TF4RX—(Add MIL No. 17 and Case from table). MIL No. 17 except where noted.

Micro. No.	Application	Impedance Pri.	Impedance Sec.	Pri. Unb. DC Ma	Level Watts	Freq. Resp. ±2 db, cps	MIL Case	Net Ea., 1-9*
M8002*	Coll. to p-p base	560	400 CT	18	0.15	200—20K	AJ	$11.25
M8003*	Coll. to p-p base	625 CT	100 CT	20	1.5	200—20K	AJ	12.30
M8004	Coll. to p-p base	5400	600 CT	15	0.075	200—15K	AH#	14.85
M8005	Coll. to p-p base	7000	320 CT	7	0.040	70—15K	AH#	14.85
M8006	Coll. to p-p base	10K	6500 CT	0.75	0.005	200—15K	YY#	9.45
M8008	Coll. to speaker	25	3—4	600	3	200—20K	AJ	11.10
M8007*	P-p auto transformer	30 CT	3—4	200	2	100—20K	AJ	11.40
M8009	P-p output to spkr.	48 CT	3.2/8	50	5	200—20K	AJ	11.70
M8010	P-p coll. to servo	120 CT	1K	40	6	300—15K	AJ	11.55
M8011	P-p output to spkr.	125 CT	3—4	20	1.5	200—15K	AH	14.55
M8012*	P-p coll. to servo	140 CT	500	50	6	300—15K	AJ	11.25
M8013*	P-p output to spkr.	250 CT	3—4	20	0.4	70—15K	AH	14.55
M8014	P-p output to spkr.	400 CT	11	2	0.25	300—15K	YY	9.15
M8015	P-p coll. to servo	1600 CT	800	5	2.5	150—20K	AJ	12.00
M8016	P-p output to spkr.	2500 CT	12	4	0.10	300—15K	YY	9.30
M8054	P-p output to servo	250 CT	130	20	3	200—15K	AH	14.55

‡CT. *Bi-filar wound to minimize switching transients. #MIL No. 13.



SUBMINIATURE AUDIO AND TRANSISTOR TRANSFORMERS — SM, SMT and SM-CM SERIES

SM-AF (Fig. F): MIL-T-27B-AF modified case with compression sealed ceramic terminals. Gray enamel finish. MIL Type TF4RX—YY (Insert MIL No. from table). Max. Size, ¾" x ¾" x 1⅛" with two 4-40NC-2 spade mtg. bolts. Weight, 1⅛ oz. **SM-H (Fig. G):** Hermetically sealed with high compression glass terminals, gray enamel finish. MIL Type TF4RX—YY. Size, 15⁄16 dia. x 15⁄16" h. Weight, 1 oz. **SM-FB (Fig. H):** Open frame with channel. Available with plug-in tab mounted channel or without channel on special order. MIL Type TF6RX — ZZ. Size, 15⁄16" x 15⁄32" x ¾", plus tabs. Weight, 0.710 oz. **SM-M (Fig. 1):** Molded, for plug-in printed circuit applications. MIL Type TF5RX — ZZ. Size, 1⅓2" max. x ⅞" x ¾". Weight, 1½ oz. **SM-CM (Fig. K):** Contour molded, not stocked — on special order only.

Microtran No.†	Application	Impedance Pri.	Impedance Sec.	Pri. Unbal. DC Ma	Oper-Level, dbm	Frequency Resp., ±2 db, cps	MIL No.	Net Each, Lots of 1-9* AF-	-FB	-H	-M, -CM
SM1-	Input	200/50	250K/62.5K	0	6	80—10K	10	$9.00	$4.35	$7.20	$9.00
SM2-	Interstage 3:1	10K	90K	0	8	100—10K	10	8.70	3.90	6.90	9.00
SM3-	Plate-to-line	10K	200	3	21	150—10K	13	8.70	3.90	6.90	9.00
SM4-	Output	30K	50	1	21	150—10K	13	8.70	3.90	6.90	9.00
SM5-	Reactor 50 hy. at 1 mil DC	3K ohms	DC Resis.	.....	....	.....	20	7.20	3.30	6.30	8.40
SM6-	Output	100K	60	0.5	21	150—10K	13	8.70	4.35	7.05	9.00
SMT1-	Line to base	600	600	9	23	200—15K	17	6.75	3.90	6.00	7.20
SMT3-	Coll. to base or line	50K	600	1	20	300—15K	13	7.35	4.50	6.60	7.80
SMT4-	P-p coll to p-p base	50K CT	600 CT	2	20	200—15K	13	.....	4.95	7.05	8.25
SMT5-	Coll. to speaker	50K	6	1	20	300—15K	13	7.20	4.35	6.45	7.65
SMT7-	Coll. to p-p base	25K	1200 CT	1.5	20	200—15K	13	7.50	4.65	6.75	7.95
SMT8-	P-p coll. to p-p base	50K CT	1200 CT	2	20	200—15K	13	.....	4.95	7.05	8.25
SMT9-	Line to p-p base	600 CT	1200 CT	18	23	200—15K	17	.....	4.20	6.30	7.50
SMT10-	Coll. to base	25K	600	2	20	200—15K	13	7.05	4.20	6.30	7.50
SMT12-	Output coll. to speaker	2K	3.4	5	30	200—15K	13	6.75	3.90	6.00	7.20
SMT13-	Output p-p coll. to speaker	4K CT	3.4	5	30	200—15K	13	6.90	4.05	6.15	7.35
SMT16-	Coll. to p-p base	10K	1500 CT	1	23	200—15K	13	7.50	4.65	6.75	7.95
SMT17-	P-p coll. to p-p base	10K CT	200 CT	6	20	200—15K	13	.....	4.80	6.90	8.10
SMT18-	P-p coll. to p-p base	25K CT	1200 CT	3	20	200—15K	13	.....	4.95	7.05	8.25
SMT19-	Coll. to p-p base	2500	2500 CT	2.5	26	200—15K	13	7.50	4.65	6.75	7.95
SMT26-	Line to base	600 CT	600 CT	18	23	200—15K	17	.....	4.50	6.60	7.80

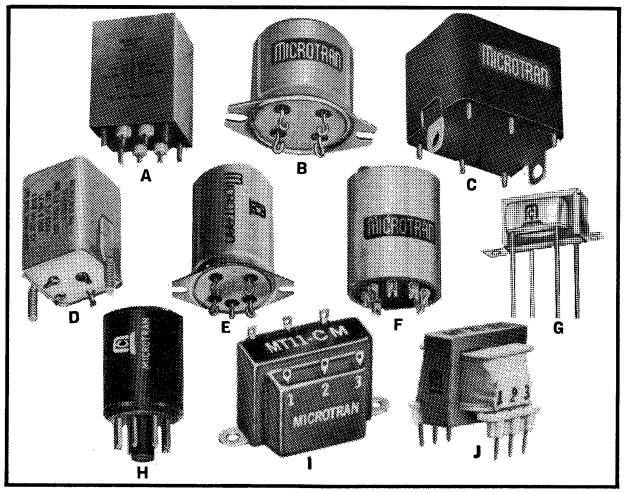
-CM $12.50 setup charge

★SEE FOURTH PAGE FOR QUANTITY PRICING AND MIL CASE SIZES

†ORDER BY COMPLETE MICROTRAN NO. EXAMPLE, UM21-M

Also see EEM pages for additional items and list of franchised distributors.

MICROTRAN Miniaturized Transformers



POWER SUPPLY TRANSFORMERS

For silicon rectifier circuitry and filament applications. Hermetically sealed. Primary, 105/115/125 v. Output voltage given for resistive or inductive loads, based on approx. 1 v. drop per rectifier. MIL Type TF4RX01—(Add MIL Case Type from table) per MIL-T-27B. Fig. A except M8063 and M8069, Fig. B.

400 CYCLE TYPE

Micro. No.	Secondary VAC	Secondary RMS	Rect. Cir. VDC‡	Rect. Cir. VDC#	Size, Inches W. x D. x H.	MIL Case	Net, 1-9*
M8063§	2.85	.045 a.	1.5	3	1⁵⁄₁₆ dia. x 1¹⁄₁₆	YY	$10.56
	2.85	.045 a.					
M8064§	6.3 CT	.6 a.	1.9	3.8	1⁵⁄₁₆ x1⁵⁄₁₆ x1¾	AH	11.10
M8039	12.6 CT	.8 a.	10.5	21	1⅝ x1⅝ x2⅜	AJ	15.15
	12.6 CT	.8 a.					
M8018	18.5 CT	1 a.	7	14	1¹³⁄₁₆x1¹⁵⁄₁₆x2¾	EA	15.30
M8019	18.5 CT	3 a.	7	14	2¹⁄₁₆ x2⁵⁄₁₆ x3⅛	FA	15.90
M8065	26 CT	1.5 a.	10.7	21.5	1¹³⁄₁₆x1¹⁵⁄₁₆x2¾	EA	15.60
M8066	26 CT	3	10.7	21.5	2¹⁄₁₆ x2⁵⁄₁₆ x3⅛	FA	16.05
M8067	30 CT	.5 a.	12.5	25	2¹⁄₁₆ x2⁵⁄₁₆ x2½	FB	15.00
M8020	35 CT	3	14.5	29	2⅜ x2¾ x3¹³⁄₁₆	GA	18.00
M8068	40 CT	.2 a.	17	34	1⅝ x1⅝ x2⅜	AJ	13.20
M8041§	50 CT	.25 a.	21.5	43	1⁵⁄₁₆ x1⁵⁄₁₆ x1¾	AH	11.10
M8069§	60 CT	.003 a.	26	52	1⁵⁄₁₆ dia.x1¹⁄₁₆	YY	9.75
M8070§	65 CT	.170 a.	28.4	56.8	1⁵⁄₁₆ x1⁵⁄₁₆ x1¾	AH	11.25
M8021	70 CT	1 a.	30	60	2¹⁄₁₆ x2⁵⁄₁₆ x3⅛	FA	16.05
M8071	80 CT	.90 a.	35.2	70.4	2¹⁄₁₆ x2⁵⁄₁₆ x3⅛	FA	16.20

60 CYCLE TYPE

M8042	6.3 CT	.6 a.	1.9	3.8	1⅝ x1⅝ x2⅜	AJ	$10.20
M8043	6.3 CT	2 a.	1.9	3.8	2¹⁄₁₆ x2⁵⁄₁₆ x2½	FB	12.00
M8044	12.6 CT	2 a.	10.5	21	3¹⁄₁₆ x3¹⁄₁₆ x3⅞	JB	21.60
	12.6 CT	2 a.					
M8022	18.5 CT	3 a.	7	14	3¹⁄₁₆ x3¹⁄₁₆ x3⅞	JB	20.25
M8045	28 CT	.6 a.	11.7	23.4	2¹⁄₁₆ x2⁵⁄₁₆ x3⅛	FA	16.35
M8055	30 CT	2.5 a.	12.5	25	3¹⁄₁₆ x3¹⁄₁₆ x4⅞	JA	25.65
M8023	35 CT	3 a.	14.5	29	3⅜ x3¹³⁄₁₆x5¼	KA	26.10
M8046	49 CT	2.5 a.	21	42	3¹¹⁄₁₆x4⁵⁄₁₆ x5⁹⁄₁₆	LA	28.20
M8024	70 CT	1 a.	30	60	3¹⁄₁₆ x3¹⁄₁₆ x4⅞	JA	25.65
M8056	80 CT	.6 a.	35	70.5	2⅝ x3¹⁄₁₆ x4¼	HA	16.65
M8057	115 CT	.9 a.	51	102	3⅜ x3¹³⁄₁₆x5¼	KA	25.35

‡CT full wave. #F.W. bridge. §Pri. 115v. only.

400 CYCLE ISOLATION TRANSFORMERS

Electrostatic shielding. Also for use in either F.W. bridge or F.W. CT circuit. MIL Type TF4RX01—. Fig. A except M8058, Fig. B.

No. Micro.	Volts Input	Volts Output	Amps RMS	VA	Size, Inches W. x D. x H.	MIL Case	Net, 1-9*
M8058	115	115 CT	.017	2	1⁵⁄₁₆xdia.x1⁷⁄₁₆	YY	$ 9.60
M8059	115	115 CT	.35	40	1¹³⁄₁₆x1¹⁵⁄₁₆x2¹⁄₁₆	EB	14.70
M8060	115	115 CT	1.3	150	2⅜ x2¾ x3¹³⁄₁₆	GA	18.45
M8061	115*	115 CT	2.6	300	3¹⁄₁₆ x3¹⁄₁₆ x4⅞	JA	24.90
M8062	115*	115 CT	4.4	500	3⅜ x3¹⁵⁄₁₆x5¼	KA	26.85

*Primary 105/115/125v.

MINIATURE TRANSISTOR AND AUDIO TRANSFORMERS—MT AND M SERIES

M-M (Fig. C): Molded, for plug-in printed circuit use. Cast epoxy resin provides highest resistance to temperature extremes. MIL Type TF5RX—ZZ (Insert MIL No. from table). Max. Size, 1³⁄₃₂" x ⅞" x ⅞". Weight, 1¾ oz. **M-AG (Fig. D):** Enclosed in modified MIL-T-27 BG case with compression sealed ceramic terminals. MIL Type TF4RX—YY. Max. Size, 1" x 1" x 1⅜". Weight, 2⅜ oz. **M-H (Fig. E):** Hermetically sealed with high compression glass terminals, gray enamel finish. Available on special order with .120" holes. MIL Type TF4RX—YY. Size ⁵⁄₁₆" dia. x 1⁷⁄₁₆" max. Weight, 1¼ oz. **M-A (Fig. F):** Aluminum case with 2-56 screws. MIL Type TF6RX—ZZ. Size, .875" dia. x 1¾". Weight, 1.25 oz. **M-FB (Fig. G):** Open frame with channel. Available with plug-in tab channel or without channel on special order. MIL Type TF6RX—ZZ. Size, 1¾₄" x 1¾₆" x 2⁷⁄₃₂" max., plus tabs. Weight, 1.13 oz. **M-P (Fig. H):** Octal plug-in type in sealed plastic housing. MIL Type TF6RX—ZZ. Size, 1³⁄₃₂" dia. x ¹⁵⁄₃₂". Weight, 2 oz. **M-A-Sh Shield:** 25 db magnetic shield to match Type M-A. Two clearance holes on 1¹⁄₁₆" centers. **M-PC (fig. J)** Open Frame printed circuit with terminals molded into bobbin to maintain accurate dimensions for printed circuit board, weight 1.2 oz. size ⅞" x 1½₃₂" x 1", terminals ³⁄₁₆" below bobbin, MIL type TF6RX—ZZ. **M-CM (fig. I)** Contour molded, not stocked-on special order only. Size 1³⁄₃₂" x ⅞" x ⅞". $12.50 setup charge.

MINIATURE AUDIO TRANSFORMERS — M SERIES

Microtran No.†	Application	Impedance Pri.	Impedance Sec.	Pri. DC Ma*	Oper. Level, dbm	Freq. Resp. ± 2 db, cps	MIL No.	Net Each, Lots of 1-9* -A	-AG	-FB, -PC	-H	-M, -CM	-P
•M1-	Mike or line to 1 grid	‡	50K	0	5	20—20K	10	$ 7.50	$ 9.90	$ 4.05	$ 9.00	$ 9.90	$ 8.85
•M2-	Mike or line to 2 grids	‡	50K CT	0	5	20—20K	10	7.65	10.35	4.20	9.45	10.20	8.85
M3-	Dynamic mike to 1 grid	7.5/30	50K	0	5	20—20K	10	7.50	9.90	3.90	9.00	9.75	8.40
M4-	Single plate to 1 grid	15K	60K	0	6	20—15K	10	6.45	8.55	3.45	7.65	8.55	7.50
M5-	Single plate to 1 grid	15K	60K	4	14	200—20K	15	6.45	8.55	3.45	7.65	8.55	7.50
M6-	Single plate to 2 grids	15K	95K CT	0	5	20—15K	10	7.35	9.45	3.60	8.55	9.45	8.25
M7-	Single plate to 2 grids	15K	95K CT	4	11	200—20K	15	7.35	9.75	3.75	8.85	9.75	8.25
M8-	Single plate to line	15K	‡	0	8	20—20K	16	7.65	10.50	3.75	9.60	10.50	8.85
M9-	Single plate to line	15K	‡	0	21	150—20K	13	7.65	10.50	3.75	9.60	10.50	8.85
•M10-	Push-pull plate to line	30K, p-p	‡	0	8	30—50K	16	8.25	10.80	3.90	9.60	10.80	9.00
•M11-	Crystal mike to line	50K	‡	0	5	20—20K	16	7.65	10.50	3.75	9.30	10.50	8.85
•M12-	Mixing and matching	§	‡	0	8	20—20K	16	7.50	10.50	3.75	9.30	10.50	9.00
M13-	Reactor	300#	¶	.....	....	6K ohms DCR	20	6.15	8.25	3.30	7.35	8.25	7.50
M14-	50:1 mike to grid	200	½ meg.	0	9	80— 3K	10	7.35	9.90	3.90	9.00	10.20	8.85
M15-	10:1 plate to grid	10K	1 meg.	0	11	100—2500	10	7.35	9.30	3.60	8.40	9.30	8.85

MINIATURE TRANSISTOR TRANSFORMERS — MT SERIES

MT1-	Line to base	600	600	10	23	200—15K	17	$7.20	$8.70	$3.60	$7.80	$9.00	$7.35
•MT2-	Coll. to p-p base 2N57	100	10 CT/ 40 CT	100	27	200—20K	17	8.10	9.60	4.20	8.70	9.90	8.25
MT3-	Coll. to base or line	50K	600	3	20	300—15K	13	7.80	9.30	3.90	8.40	9.60	7.95
MT5-	Coll. to speaker	50K	6	3	20	300—15K	13	7.80	9.30	3.90	8.40	9.60	7.95
MT6-	Coll. to p-p base	100K	1200 CT	1.4	17	200—15K	13	7.95	9.45	4.05	8.55	9.75	8.10
MT7-	Coll. to p-p base	25K	1200 CT	3	22	200—15K	13	7.95	9.45	4.05	8.55	9.75	8.10
MT8-	P-p coll. to p-p base	50K CT	1200 CT	3	20	300—15K	13	8.10	9.60	4.20	8.70	9.90	8.25
MT9-	Line to p-p base	600 CT	1200 CT	4	23	200—15K	17	8.10	9.60	4.20	8.70	9.90	7.80
MT10-	Coll. to base	25K	600	3	22	200—15K	13	7.80	9.30	3.90	8.40	9.60	7.95
MT11-	P-p coll. to p-p base	4K CT	600 CT	3	32	200—15K	13	8.10	9.60	4.20	8.70	9.90	8.25
MT12-	Output coll. to spkr.	2K	3.4	10	32	200—15K	13	7.80	9.30	3.90	8.40	9.60	7.95
MT13-	P-p coll. to spkr.	4K CT	3.4	3	32	200—15K	13	7.95	9.45	4.05	8.55	9.75	8.10
MT14-	Coll. to spkr. 2N179	400	10	50	25	200—20K	13	7.20	8.70	3.60	7.80	9.00	7.35
MT15-	P-p servo output 2N57	500 CT	210	30	27	300—20K	17	7.80	9.30	3.90	8.40	9.60	7.95
MT18-	P-p coll. to p-p base	25K CT	1200 CT	6	22	200—15K	13	8.10	9.60	4.20	8.70	9.90	8.25
•MT20-	P-p coll. to p-p base	50K CT	△	3	20	300—15K	13	8.40	9.90	4.50	9.00	10.20	8.55
•MT21-	P-p coll. to p-p base	4K CT	■	3	32	200—15K	13	8.25	9.75	4.35	8.85	10.05	8.40
•MT22-	Line to p-p base	■	1200 CT	4	23	200—15K	17	8.25	9.75	4.35	8.85	10.05	8.40
MT23-	P-p coll. to servo	250 CT	1000	10	30	200—15K	17	7.80	9.30	3.90	8.40	9.60	7.95
MT24-	Coll. to p-p base	2500	600 CT	10	32	200—15K	17	7.80	9.30	3.90	8.40	9.60	7.95
MT25-	P-p coll. to p-p base	7500 CT	600 CT	8	32	200—15K	12	8.10	9.60	4.20	8.70	9.90	8.25
MT26-	Line to p-p base	600 CT	600 CT	20	23	200—15K	17	7.95	9.45	4.05	8.55	9.75	8.10
MT29-	P-p coll. to servo	1600 CT	450	15	30	200—15K	17	7.80	9.30	3.90	8.40	9.60	7.95
MT30-	P-p coll. to servo	250 CT	500	10	30	200—15K	17	7.80	9.30	3.90	8.40	9.60	7.95
M-A-Sh	Shield can for M-A	.....	.....	.....	....	.....	....	1.35	.....	.....	.....	.....	.....

*Unbalanced. ‡50/250/600 CT. §50/250 CT. #Hy. 0 DC. ¶50 h. at 3 ma. △1200/300 split. ■600/150 split. •These items are not available in —PC construction.

★SEE FOURTH PAGE FOR QUANTITY PRICING. **†ORDER BY COMPLETE MICROTRAN NUMBER: EXAMPLE M1-A.**
Also see EEM pages for additional items and list of franchised distributors.

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MICROTRAN Miniaturized Transformers

LOW LEVEL CHOPPER INPUT TRANSFORMERS

Efficiently transfers 30—500 cps. Transducer or thermocouple signals to instrument amplifiers. Resin impregnated to minimize mechanical vibration noise signal. Three mu-metal and two copper shields insure low hum pickup. Accurate center taps and external electrostatic shield connection improve low level operation. Signal level range. 0.5 μv to 0.5 v. 90 db magnetic shielding. Size, 1⅜" dia. x 1 25/32" h. with two 6-32 x ⅜" mtg. studs on 1½" centers. Weight, 4.5 oz.

Micro-tran No.	Turn Ratio: Full Pri.- Full Sec.	Turn Ratio: ½ Pri.- Full Sec.	Full Pri. Hys*	Full Pri. Imped.*	DC Resis.: Full Pri.	DC Resis.: Sec.	Fig. No.	Net Each, 1-9*
M8025	1:7.7	1:15.4	17.5	6,600	365Ω	4140Ω	A	$13.80
M8026	1:3.2	1:6.4	60 hy	22,500	455Ω	3500Ω	A	13.80
M8052	1:4.53	1:9.06	90	34,000	760Ω	5220Ω	A	14.25
M8053	1:0.5	1:1	140	53,000	920Ω	653Ω	A	13.65

*At 0.5 v., 60 cps.

Micro-tran No.	Turn Ratio: Full Pri.- Full Sec.	Turn Ratio: ½ Pri.- Full Sec.	Full Pri. Hys*	Full Pri. Imped.*	DC Resis.: Full Pri.	DC Resis.: Sec.	Fig. No.	Net Each, 1-9*
M8525	1:7.7	1:15.4	17.5	6,600	365Ω	4140Ω	AA	$16.65
M8526	1:3.2	1:6.4	60 hy	22,500	455Ω	3500Ω	AA	16.55
M8552	1:4.53	1:9.06	90	34,000	760Ω	5220Ω	AA	17.10
M8553*	1:0.5	1:1	140	53,000	920Ω	653Ω	AA	16.50

*Secondary is center tapped.

PLUG-IN TRANSFORMERS (FIG. B)

Broadcast fidelity type, double mu-metal shielded. Octal base, except M8032 and M8033, 9-pin.
M8030 is designed as a replacement for Ampex No. 1733-1; M8032 and M8033 mate with sockets on many RCA amplifiers. Frequency Response: ±2 db, 20-20K. (M8031, ±2 db, 30-20K.) Magnetic shielding, 65 db. Level, +5 dbm.

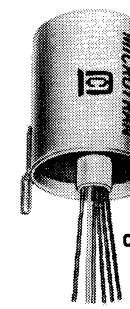
Micro No.	Impedance: Pri.	Impedance: Sec.	Size, In. H. x Dia.	Wt., Oz.	Net Ea., 1-9*
M8030	200/50 CT	50K	2⅛ x 1⅛ dia.	6	$13.50
M8031	600 CT/150	50K	2⅛ x 1⅛ dia.	6	13.35
M8032	250 CT	50K	2⅛ x 1⅛ dia.	6	13.05
M8033	50 CT	50K	2⅛ x 1⅛ dia.	6	13.05

MODEL 400K TRANSISTOR TRANSFORMER SELECTOR KIT (FIG. C)

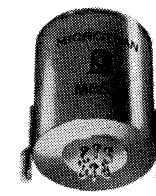
- **IDEAL FOR BREADBOARD CIRCUITRY**
- **FULL DESIGN DATA**

Set of nine transistor transformers covers impedance range of 150 through 200K ohms, matching most new transistor impedance ratings. Sizes range from a ⅜" cube to ¾" x ¾" x 1". All units vacuum resin impregnated for long, reliable life and for protection against rough handling. Each type has 4" color-coded leads. Includes full design data: nomographs and circuitry for determining correct impedances for Class A and B transistor amplifiers; power versus dbm chart; terminal connection sheet; guide to MIL-T-27B; cross reference index; outline drawings for later selection of stock items with same electrical ratings in many other mechanical constructions. Individually boxed in transparent plastic case. **Model 400K Transistor Transformer Selector Kit** Net Each $29.50*
*Standard quantity discounts do **not** apply.

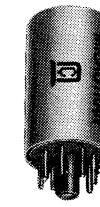
MICROTRAN TRANSFORMERS ARE AVAILABLE IN MANY OTHER MECHANICAL AND ELECTRICAL TYPES ON SPECIAL ORDER. WRITE FOR COMPLETE INFORMATION.



A CASED



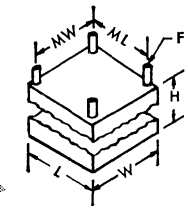
AA HERMETIC



B

(Same mechanical size — see chart on this page)

C



Case Sizes

STANDARD MIL-T-27B CASE SIZES

Case Type	Size, Inches W. x L. x H.	Mtg. Centers, In. ML	Mtg. Centers, In. MW	Stud Type F
AF	¾ x ¾ x 1⅛	1 3/16*	.....	4-40 x ⅜
AG	1 x 1 x 1⅜	1⅛*	.....	6-32 x ⅜
AH	1 5/16 x 1 5/16 x 1¾	1¼†	.....	6-32 x ⅜
AJ	1⅝ x 1⅝ x 2⅜	1⅜	1⅜	6-32 x ⅜
EA	1 13/16 x 1 13/16 x 2¾	1⅜	1¼	6-32 x ⅜
EB	1 13/16 x 1 13/16 x 2 7/16	1⅜	1¼	6-32 x ⅜
FA	2 1/16 x 2 5/16 x 3⅛	1 11/16	1 7/16	6-32 x ⅜
FB	2 1/16 x 2 5/16 x 2½	1 11/16	1 7/16	6-32 x ⅜
GA	2⅜ x 2¾ x 3 13/16	2⅛	1¾	6-32 x ⅜
HA	2⅝ x 3 1/16 x 4¼	2 13/64	1 55/64	8-32 x ⅜
JA	3 1/16 x 3⅝ x 4⅞	2⅝	2⅛	8-32 x ⅜
JB	3 1/16 x 3⅝ x 3⅞	2⅝	2⅛	8-32 x ⅜
KA	3⅜ x 3 15/16 x 5¼	3	2 7/16	10-32 x ½
LA	3 11/16 x 4 5/16 x 5 5/16	3 5/16	2 11/16	10-32 x ½
YY	All metal not included above or with non-std. mtg. ctrs.			
ZZ	Open type and encapsulated			

*Not in conformance with MIL-T-27B. †Two studs in a diagonal.

★QUANTITY PRICING

Net Each, 1-9	Net Each, Lots of 10-49	50-99	100-249
$ 1.35	$ 1.22	$ 1.13	$ 0.90
3.30	2.97	2.75	2.20
3.45	3.10	2.88	2.30
3.60	3.24	3.00	2.40
3.75	3.38	3.13	2.50
3.90	3.51	3.25	2.60
4.05	3.64	3.38	2.70
4.20	3.78	3.50	2.80
4.35	3.91	3.63	2.90
4.50	4.05	3.75	3.00
4.65	4.18	3.88	3.10
4.80	4.32	4.00	3.20
4.95	4.45	4.13	3.30
5.10	4.59	4.25	3.40
5.25	4.73	4.38	3.50
5.40	4.86	4.50	3.60
5.55	4.99	4.63	3.70
5.70	5.13	4.75	3.80
5.85	5.27	4.88	3.90
6.00	5.40	5.00	4.00
6.15	5.54	5.13	4.10
6.30	5.67	5.25	4.20
6.45	5.81	5.38	4.30
6.60	5.94	5.50	4.40
6.75	6.08	5.63	4.50
6.90	6.21	5.75	4.60
7.05	6.35	5.88	4.70
7.20	6.48	6.00	4.80
7.35	6.61	6.13	4.90
7.50	6.75	6.25	5.00

Net Each, 1-9	Net Each, Lots of 10-49	50-99	100-249
$ 7.65	$ 6.89	$ 6.38	$5.10
7.80	7.02	6.50	5.20
7.95	7.15	6.63	5.30
8.10	7.29	6.75	5.40
8.25	7.42	6.88	5.50
8.40	7.56	7.00	5.60
8.55	7.69	7.13	5.70
8.70	7.83	7.25	5.80
8.85	7.97	7.38	5.90
9.00	8.10	7.50	6.00
9.15	8.24	7.63	6.10
9.30	8.37	7.75	6.20
9.45	8.51	7.88	6.30
9.60	8.64	8.00	6.40
9.75	8.77	8.13	6.50
9.90	8.91	8.25	6.60
10.05	9.04	8.38	6.70
10.20	9.18	8.50	6.80
10.35	9.32	8.63	6.90
10.50	9.45	8.75	7.00
10.80	9.72	9.00	7.20
11.10	9.99	9.25	7.40
11.25	10.12	9.38	7.50
11.40	10.26	9.50	7.60
11.55	10.39	9.63	7.70
11.70	10.53	9.75	7.80
11.85	10.66	9.88	7.90
12.00	10.80	10.00	8.00
12.30	11.07	10.25	8.20
13.05	11.74	10.88	8.70

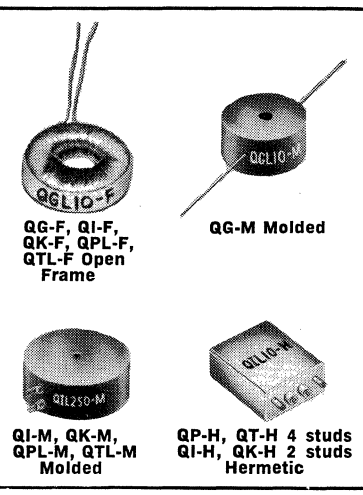
Net Each, 1-9	Net Each, Lots of 10-49	50-99	100-249
$13.20	$11.88	$11.00	$ 8.80
13.35	12.01	11.13	8.90
13.50	12.15	11.25	9.00
13.65	12.28	11.38	9.10
13.80	12.42	11.50	9.20
14.25	12.82	11.88	9.50
14.55	13.09	12.13	9.70
14.70	13.23	12.25	9.80
14.85	13.36	12.38	9.90
15.00	13.50	12.50	10.00
15.15	13.63	12.63	10.10
15.30	13.77	12.75	10.20
15.60	14.04	13.00	10.40
15.90	14.31	13.25	10.60
16.05	14.44	13.38	10.70
16.20	14.58	13.50	10.80
16.35	14.71	13.63	10.90
16.65	14.98	13.88	11.10
18.00	16.20	15.00	12.00
18.45	16.60	15.37	12.30
20.25	18.22	16.87	13.50
21.60	19.44	18.00	14.40
24.90	22.41	20.75	16.60
25.35	22.81	21.12	16.90
25.65	23.09	21.38	17.10
26.10	23.49	21.75	17.40
26.70	24.03	22.25	17.80
26.85	24.16	22.38	17.90
28.20	25.38	23.50	18.80

ORDER BY COMPLETE MICROTRAN NUMBER
Also see EEM pages for additional items and list of franchised distributors.

MICROTRAN Toroidal Inductors

MICRO-MINIATURE TOROIDAL INDUCTORS — QG SERIES

QG-F: Open frame microcrystalline wax dipped with 4" #27 plastic leads. Size, 5/8" dia. x 9/32". **QG-M:** Molded in high temperature epoxy resin with .020" x 2" gold plated nickel alloy leads. Leads may be bent downward for plug-in printed circuit use. Size, 7/8" dia. x 3/8".



QG-F, QI-F, QK-F, QPL-F, QTL-F Open Frame

QG-M Molded

QI-M, QK-M, QPL-M, QTL-M Molded

QP-H, QT-H 4 studs
QI-H, QK-H 2 studs
Hermetic

QGL SERIES

Frequency range, to 20 kc; accuracy, ±2%.

Microtran No.†	Inductance	Typ. DC Res., Ohms	Typ. Dist. Cap. μμf	-F Open Frame Net Each, Lots of 1-9	10-49	50-99	100-249	-M Molded Net Each, Lots of 1-9	10-49	50-99	100-249
QGL5-	5 mh	2.5	30	$4.35	$3.92	$3.63	$2.90	$5.70	$5.13	$4.75	$3.80
QGL10-	10 mh	5	33	4.35	3.92	3.63	2.90	5.70	5.13	4.75	3.80
QGL15-	15 mh	8	34	4.50	4.05	3.75	3.00	5.85	5.27	4.88	3.90
QGL50-	50 mh	28	40	4.80	4.32	4.00	3.20	6.30	5.67	5.25	4.20
QGL100-	100 mh	50	42	4.95	4.46	4.13	3.30	6.45	5.81	5.38	4.30
QGL500-	500 mh	290	48	5.40	4.86	4.50	3.60	7.20	6.48	6.00	4.80
QGL1000-	1 hy.	530	51	6.15	5.54	5.13	4.10	7.95	7.16	6.63	5.30
QGL1500-	1.5 hys.	825	53	6.30	5.67	5.25	4.20	8.70	7.83	7.25	5.80

QGM SERIES

Frequency range, 2-100 kc; accuracy, ±2%.

QGM1-	1 mh	1.4	22	$4.80	$4.32	$4.00	$3.20	$6.45	$5.81	$5.38	$4.30
QGM5-	5 mh	6	28	5.10	4.59	4.25	3.40	6.60	5.94	5.50	4.40
QGM10-	10 mh	12	31	5.25	4.73	4.38	3.50	6.75	6.08	5.63	4.50
GM15-	15 mh	18	32	5.40	4.86	4.50	3.60	6.90	6.21	5.75	4.60
QGM25-	25 mh	30	35	5.70	5.13	4.75	3.80	7.05	6.35	5.88	4.70
QGM50-	50 mh	52	37	6.30	5.67	5.25	4.20	7.35	6.62	6.13	4.90

SUBMINIATURE TOROIDAL INDUCTORS — QIL SERIES

Frequency range to 20 kc; accuracy ±2%. **QIL-M:** Molded in high temperature epoxy with silver plated turret lugs. Size, 1 3/16" dia. x 1/2". **QIL-H:** Hermetically sealed in metal case with Teflon® terminals. Size, 1 1/16" x 1/2" x 1 1/32". **QIL-F:** Open frame. Microcrystalline wax dipped with 4" #27 plastic leads. Size, 1" dia. x 13/32".

®Registered DuPont trademark.

Microtran No.†	Inductance	Type. DC Res., Ohms	Type. Dist. Cap., μμf	-F Open Frame Net Each, Lots of 1-9	10-49	50-99	100-249	-H Hermetic Net Each, Lots of 1-9	10-49	50-99	100-249	-M Molded Net Each, Lots of 1-9	10-49	50-99	100-249
QIL5-	5 mh	1.1	38	$3.90	$3.51	$3.25	$2.60	$6.75	$6.08	$5.63	$4.50	$5.25	$4.73	$4.38	$3.50
QIL10-	10 mh	2.1	40	3.90	3.51	3.25	2.60	6.75	6.08	5.63	4.50	5.25	4.73	4.38	3.50
QIL25-	25 mh	5.3	45	4.05	3.65	3.38	2.70	7.20	6.48	6.00	4.80	5.40	4.86	4.50	3.60
QIL50-	50 mh	11	47	4.05	3.65	3.38	2.70	7.20	6.48	6.00	4.80	5.40	4.86	4.50	3.60
QIL100-	100 mh	22	49	4.20	3.78	3.50	2.80	7.65	6.89	6.38	5.10	5.70	5.13	4.75	3.80
QIL250-	250 mh	55	53	4.50	4.05	3.75	3.00	8.25	7.43	6.88	5.50	6.00	5.40	5.00	4.00
QIL500-	500 mh	95	55	4.80	4.32	4.00	3.20	8.55	7.70	7.13	5.70	6.30	5.67	5.25	4.20
QIL1000-	1 hy.	210	57	5.10	4.59	4.25	3.40	9.00	8.10	7.50	6.00	6.75	6.08	5.63	4.50
QIL2500-	2.5 hys.	550	61	6.75	6.08	5.63	4.50	10.80	9.72	9.00	7.20	8.70	7.83	7.25	5.80

MINIATURE TOROIDAL INDUCTORS — QK SERIES

QK-F: Open frame, microcrystalline wax dipped; 4" # 27 plastic leads. Size, 1 1/4" dia. x 5/8". **QK-H:** Hermetic with Teflon terminals. Size, 1 15/32" x 25/32" x 1 47/64". **QK-M:** Molded in high temperature epoxy resin; silver plated turret lugs. Size, 1 3/8" dia. x 3/4².

QKL SERIES

Frequency range, 10 kc; accuracy, ±2%.

Microtran No.†	Inductance	Type. DC Res., Ohms	Type. Dist. Cap., μμf	-F Open Frame Net Each, Lots of 1-9	10-49	50-99	100-249	-H Hermetic Net Each, Lots of 1-9	10-49	50-99	100-249	-M Molded Net Each, Lots of 1-9	10-49	50-99	100-249
QKL10-	10 mh	1.1	66	$4.50	$4.05	$3.75	$3.00	$7.20	$6.48	$6.00	$4.80	$6.15	$5.54	$5.13	$4.10
QKL25-	25 mh	2.8	72	4.65	4.19	3.88	3.10	7.50	6.75	6.25	5.00	6.15	5.54	5.13	4.10
QKL50-	50 mh	6	76	4.65	4.19	3.88	3.10	7.80	7.02	6.50	5.20	6.15	5.54	5.13	4.10
QKL100-	100 mh	11	81	4.80	4.32	4.00	3.20	8.40	7.56	7.00	5.60	6.60	5.94	5.50	4.40
QKL250-	100 mh	28	87	4.95	4.46	4.13	3.30	8.85	7.97	7.38	5.90	6.75	6.08	5.63	4.50
QKL500-	500 mh	63	91	5.10	4.59	4.25	3.40	9.15	8.24	7.63	6.10	6.90	6.21	5.75	4.60
QKL1000-	1 hy.	110	96	5.25	4.73	4.38	3.50	9.60	8.64	8.00	6.40	7.20	6.48	6.00	4.80
QKL5000-	5 hys.	645	106	6.75	6.08	5.63	4.50	11.10	9.99	9.25	7.40	8.40	7.56	7.00	5.60
QKL10,000-	10 hys.	1175	112	7.50	6.75	6.25	5.00	12.45	11.20	10.38	8.30	9.60	8.64	8.00	6.40

QKM SERIES

Frequency range, 5-50 kc; accuracy, ±2%.

QKM2-	2 mh	0.45	52	$5.10	$4.59	$4.25	$3.40	$8.25	$7.43	$6.88	$5.50	$6.30	$5.67	$5.25	$4.20
QKM5-	5 mh	1.1	58	5.25	4.73	4.38	3.50	8.40	7.56	7.00	5.60	6.45	5.81	5.38	4.30
QKM10-	10 mh	2.5	62	5.25	4.73	4.38	3.50	8.55	7.70	7.13	5.70	6.60	5.94	5.50	4.40
QKM25-	25 mh	6.5	70	5.40	4.86	4.50	3.60	8.85	7.97	7.38	5.90	6.75	6.08	5.63	4.50
QKM50-	50mh	11	74	5.55	5.00	4.63	3.70	9.00	8.10	7.50	6.00	6.90	6.21	5.75	4.60

HIGH-Q TOROIDAL INDUCTORS — QPL SERIES

Frequency range to 10 kc; accuracy ±2%. **QPL-F:** Open frame, microcrystalline wax dipped; 4" #24 leads. Size, 1 15/16" dia. x 7/8". **QPL-H:** Hermetically sealed with Teflon terminals. Size, 1 15/16" x 1 1/16" x 2 3/32". **QPL-M:** Molded in high temperature epoxy resin; silver plated turret lugs. Size, 2" dia. x 1".

Microtran No.†	Inductance	Type. DC Res., Ohms	Type. Dist. Cap., μμf	-F Open Frame Net Each, Lots of 1-9	10-49	50-99	100-249	-H Hermetic Net Each, Lots of 1-9	10-49	50-99	100-249	-M Molded Net Each, Lots of 1-9	10-49	50-99	100-249
QPL25-	25 mh	1.5	100	$ 6.90	$ 6.21	$ 5.75	$ 4.60	$10.35	$ 9.32	$ 8.63	$ 6.90	$ 8.55	$ 7.70	$ 7.13	$ 5.70
QPL50-	50 mh	2.5	105	7.05	6.35	5.88	4.70	10.50	9.45	8.75	7.00	8.70	7.83	7.25	5.80
QPL100-	100 mh	6	110	7.20	6.48	6.00	4.80	10.65	9.58	8.88	7.10	8.85	7.97	7.38	5.90
QPL500-	500 mh	25	120	7.50	6.75	6.25	5.00	10.95	9.82	9.13	7.30	9.60	8.64	8.00	6.40
QPL1000-	1 hy.	60	125	7.80	7.02	6.50	5.20	11.40	10.26	9.50	7.60	9.90	8.91	8.25	6.60
QPL5000-	5 hys.	350	138	9.45	8.51	7.88	6.30	13.20	11.88	11.00	8.80	11.10	9.99	9.25	7.40
QPL10,000-	10 hys.	600	142	11.10	9.99	9.25	7.40	15.00	13.50	12.50	10.00	12.90	11.61	10.75	8.60
QPL25,000-	25 hys.	1500	150	13.05	11.74	10.88	8.70	17.55	15.80	14.63	11.70	15.45	13.90	12.88	10.30

HIGH-Q TOROIDAL INDUCTORS — QTL SERIES

Frequency range to 15 kc; accuracy, ±2%. **QTL-F:** Open frame, microcrystalline wax dipped with 4" #24 leads. Size 2 1/16" dia. x 1". **QTL-H:** Hermetic, Teflon terminals. Size, 2 9/16" x 1 5/16" x 2 13/16". **QTL-M:** Molded in epoxy resin. Size, 2 7/8" dia. x 1 3/8".

QTL50-	50 mh	1.5	136	$10.95	$ 9.85	$ 9.13	$ 7.30	$13.65	$12.28	$11.38	$ 9.10	$12.75	$11.47	$10.63	$ 8.50
QTL100-	100 mh	2.8	144	11.25	10.12	9.38	7.50	13.95	12.55	11.63	9.30	13.05	11.74	10.88	8.70
QTL500-	500 mh	15	164	11.85	10.66	9.88	7.90	14.85	13.36	12.38	9.90	13.05	11.74	10.88	8.70
QTL1000-	1 hy.	27	173	12.15	10.93	10.13	8.10	15.15	13.63	12.63	10.10	13.95	12.55	11.63	9.30
QTL2500	2.5 hys.	70	184	13.05	11.74	10.88	8.70	16.05	14.44	13.38	10.70	14.85	13.36	12.38	9.90
QTL5000-	5 hys.	140	192	13.05	11.74	10.88	8.70	16.65	14.98	13.88	11.10	15.00	13.50	12.50	10.00
QTL10,000-	10 hys.	270	200	14.25	12.82	11.88	9.50	17.25	15.53	14.38	11.50	16.20	14.58	13.50	10.80
QTL25,000-	25 hys.	850	212	16.50	14.85	13.75	11.00	19.50	17.55	16.25	13.00	18.45	16.61	15.38	12.30
QTL50,000-	50 hys.	1500	221	22.20	19.98	18.50	14.80	25.20	22.68	21.00	16.80	24.15	21.74	20.13	16.10

†ORDER BY COMPLETE MICROTRAN NUMBER; EXAMPLE QGL5-F.
Also see EEM pages for additional items and list of franchised distributors.

Net

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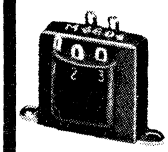


Figure E
Encapsulated
Channel Mtd.

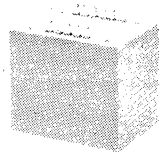


Figure Q
Hermetic
with Inserts

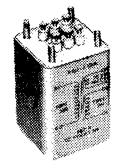


Figure MIL
Hermetic
MIL-T-27B Case

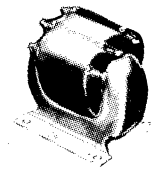


Figure R
Encapsulated
Hipersil

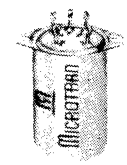


Figure H
Miniature
Hermetic

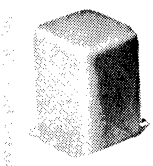


Figure V
Rectangular with
rectangular
flange

Figure X
Hipersil with
terminal board

Separate Sampling Department for quick delivery. Immediate service assured by large stocks of high temperature insulation and other specialized materials. IN-PLANT TESTING assures full compliance with military requirements and often saves weeks on contract completion. Units can be supplied to meet MIL-T-27B, MIL-T-9219, CAA-R-9786, MIL-E-5400, MIL-E-16400, MIL-E-4158, MIL-E-8189A, MCREE-553, MIL-T-21200, MIL-Q-9858.

NOT STOCK, CUSTOM BUILT TO ORDER ONLY

400 CYCLE POWER SUPPLY TRANSFORMERS

Part No.	Secondary A.C. Volts	Secondary R.M.S. Amps.	Test Volts R.M.S.	Figure
M3144	1	3	1000	AG
M2655	6.3/6.3#	1.5/1.5	1500	MIL
M2810	6.3C.T./6.3C.T.#	2.0/2.0	100	MIL-EA
M2611	6.3C.T./6.3C.T.#	2.0/10.0	100	Q
M4282*†	6.3C.T.	10.0	2500	MIL-FA
M4076††	6.3	20.0	2000	MIL-JB
M4042	12.6	0.25	1000	MIL-AH
M2724	12.6C.T./6.3#	3.0/1.2	1000	MIL
M2830	12.6C.T./12.6C.T.#	5.0/5.0	500	MIL-JA
M4017	26C.T./6.3C.T.#	0.1/1.7	1000	FB
M3142	26	6.5	1500	MIL-JA
M2880**	32	5.5	500	MIL-KA

400 CYCLE PLATE/FILAMENT POWER TRANSFORMERS

Part No.	Plate Supply A.C. Volts	Plate Supply D.C. Ma.	Rectifier Volts	Filament Amps	Figure
M2751	115	5	6.3	0.35	W
M2448	128/26	20/800	6.3	2.6	MIL-FA
M1092-2	800C.T.	60	12.6C.T.	1.0	R
M1144	40	180	26.0	1.2	MIL-FA

*105/115/125 Pri. **110/115/120 Pri. †MS 16472 ††MS 16402
#Separate Wdgs

60 CYCLE POWER SUPPLY TRANSFORMERS

Part No.	Secondary A.C. Volts	Secondary R.M.S. Amps	Test Volts R.M.S.	Figure
M1606	2.5	.01	500	H
M2229	6.3C.T./6.3C.T.#	0.6	1,000	FB
M2551	6.3	2.0	1,500	FB
M1395*	24.0	1.0	1,500	MIL-GA
M2530	25.0/25.0#	.23/.23	1,000	MIL-GB
M2808	34.0	15.0	500	MIL
M2531	40.0/40.0#	.4/.4	1,000	MIL-HB

*117V Primary

60 CYCLE ISOLATION TRANSFORMER

Part No.	Input Voltage	Output Voltage	V.A. Rating	Figure
M2787†	110	110	0.8	FB
M2901	115	115	6.0	V
M2294†	105/115/125	118C.T.	90.	MIL
M2595	117	117	250.	K

*117V Primary. #Separate Winding. †Electrostatic Shielding.

FILTER REACTORS

Part No.	Current D.C. Ma.	Inductance Henries	D.C.R. Ohms	Test Volts	Figure
FR-2	60	10	230	2,000	MIL-FA
M2490	85	15	300	2,500	V
M2243	500	2	30	1,500	MIL-KA
M2278	1A	0.05	2	500	MIL-FA
M2909	1.75A	0.016	0.5	500	MIL-GA
M2474	5A	0.005	0.03	500	MIL
M3494	6.5A	0.04	0.5	1,000	MIL-NA
M2473	25A	0.005	0.032	500	MIL

400 CYCLE SERVO DRIVER & OUTPUT TRANSFORMERS

Part No.	Primary Impedance	Pri. Unbal. D.C. Ma.	Secondary Impedance	Power Level	Figure
M2996	†20 K	3.	25	25 Mw.	MIL-AG
M2956	1,000 C.T.	0.	1,000 C.T.	150 Mw.	FPB
M2477	8,000 C.T.	4.	500 C.T.	500 Mw.	FB
M1378	6,000	38.	180	1.3 Watts	H
M2254	200 C.T.	20.	1,000	3.0 Watts	F
M2769	10,000 C.T.	9.	500	7 Watts	E
M2795	48 C.T.	30.	176	9 Watts	FB
M2849	62 C.T.	75.	510 C.T.	16 Watts	MIL-FB

†40 db Magnetic Shielding

400 CYCLE DEMODULATOR SUPPLY TRANSFORMERS

Part No.	Primary Volts	Secondary A.C. Volts	Secondary R.M.S. Ma.	Figure
M4035	6.3	2.2/2.2	10/10	M
M4284	26	3.5/3.5	15/15	F
M3434	115/57.5	5/5	1/1	R
M3472	115	30 C.T./0.5	4/50	E

AUDIO REACTORS

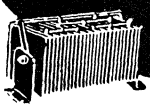
Part No.	Inductance Henries	Current D.C. Ma.	D.C.R. Ohms.	Figure
M2495	1.0	0	50	F
M1812	2.0	3.0	780	F
M2501	10.0	0	318	FPB
M3285	30.0	0	390	F
M2402	100.0	0	1,700	FB
M2180	25/50/250	1/0.5/0	770	F

LOW LEVEL CHOPPER INPUT TRANSFORMERS

Part No.	Freq.	Turns Ratio ½ Pri. to Full Sec.	Ind. of Full Pri.	Imped. of Full Pr.	Magnetic Shielding	Figure
M3297	400	15.8/1	.65 Hy.	1 MEG	45 db	G
M3174	100	1/1	50	30 K	90 db	S
M2988	55	1/1	140	10 K	90 db	S
M2057	400	1/2.81	100	250 K	None	H

Also see EEM pages for additional items and list of franchised distributors.

DIRECTRON

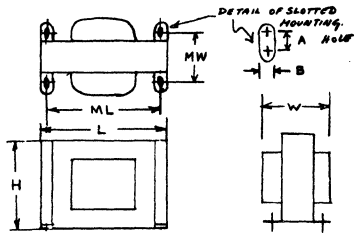


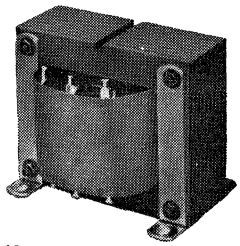
Industrial Transformers, Selenium and Silicon Rectifiers, Chokes and Power Supplies

RECTIFIER TRANSFORMERS

Transformers are with 2 — 18 volt center-tapped windings. Connected in series delivers 36 volts as rated. Connected in parallel — delivers 18 volts at twice rated current. (Taps 9, 18, 27, 36 V.)

Primary taps at 100, 105, 110 and 115 volts available on 12 amp, 24 amp, 30 amp and 50 amp transformers. No extra charge.





12 amp. Transformer 18T12

Part No.	Amp.	Users Net Price	L (MAX)	W (MAX)	H (MAX)	ML ±1/16	MW ±1/8	A ±1/64	B ±1/64	Weight
18 T 1	1	$ 5.25	2 31/32	3	2 3/4	2 1/2.	2 1/4	1/8	13/64	2.5
18 T 2	2	7.20	3 13/16	3	2 3/8	3 1/8	2	↓	↓	3.4
18 T 4	4	8.75	4 7/16	3	3 3/4	3 7/16	2 3/8	↓	↓	5.5
18 T 8	8	15.00	4 7/16	3 5/8	4	3 3/4	3	↓	↓	9.5
18 T 12	12	16.75	5 5/16	4 1/4	4 1/2	4 3/8	3 3/8	↓	9/32	14.5
18 T 24	24	35.75	6 1/2	4 5/8	5 1/2	5 5/16	3 3/8	9/32	↓	22
18 T 30	30	45.00	6 1/2	5	5 1/2	5 5/16	3 5/8	↓	↓	25
18 T 50	50	54.00	6 1/2	5 3/4	5 1/2	5 5/16	4 3/8	↓	↓	33

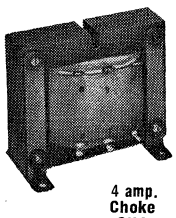
WITH 2-28 CENTER TAP WINDINGS

28 T 2	2	8.50	3 7/8	3 1/4	3 1/8	2 1/2	2 3/8	1/8	13/16	5
28 T 4	4	12.50	4 1/4	3 3/4	3 7/16	3	3	↓	↓	8
28 T 6	6	22.50	5 5/16	4 1/4	4 1/2	4 3/8	3 5/8	3/8	9/32	14
28 T 12	12	30.00	6 1/2	5	5 1/2	5 5/16	3 3/8	↓	↓	21
28 T 24	24	67.50	6 1/2	6 1/2	5 1/2	5 3/8	3 1/2	↓	↓	24.5

STEP UP TRANSFORMERS

PRIMARY WINDINGS — 100-105-110-115 VOLT			SECONDARY WINDINGS — 130-135-140 VOLT		
Part No.	Amps.	Users Net Price	Part No.	Amps.	Users Net Price
SU 10	10	65.00	SU 25	25	120.00
SU 15	15	80.00	SU 30	30	150.00
SU 20	20	105.00	SU 35	35	175.00

HIGH CURRENT CHOKES



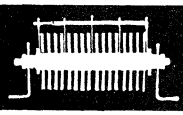
4 amp. Choke CK4

Part No.	Amps.	Hy.	Ohms	Users Net Price	L (MAX)	W (MAX)	H (MAX)	ML ±1/16	MW ±1/8	A ±1/64	B ±1/64	Weight
CK 1	1	.1	1.5	$ 4.95	31/32	2 3/4	2 3/4	2 1/2	2	1/8	13/64	2
CK 2	2	.04	.9	6.00	3 7/16	3 3/4	3 1/8	2 13/16	2 1/8	↓	↓	3.1
CK 4	4	.07	.6	7.95	3 13/16	3 1/8	3 3/8	3 1/8	2 1/2	↓	↓	5
CK 8	8	.03	.3	12.00	4 3/16	3 5/8	3 3/4	3 7/16	3	↓	↓	8
CK 12	12	.01	.1	14.95	5 5/16	3 3/4	4 1/2	4 3/8	2 7/8	↓	9/32	11.5
CK 20	20	.004	.05	18.00	5 1/4	5	4 1/2	4 1/2	4	1/2	↓	14
CK 24	24	.004	.025	27.00	5 5/16	4 3/4	4 1/2	4 3/8	3 7/8	↓	↓	17.5
CK 30	30	.003	.01	36.00	6 1/2	4 5/8	5 1/2	5 5/16	3 3/8	↓	↓	22
CK 50	50	.001	.001	45.00	6 1/2	4 7/8	5 1/2	5 1/16	3 3/8	↓	↓	23
CK 100	100	.0005	.005	54.00	6 1/2	6	5 1/2	5 5/16	4 1/8	↓	↓	30

CUSTOM BUILT TRANSFORMERS AND CHOKES — 48 HOUR SERVICE

POWER SUPPLIES TO **YOUR** SPECIFICATIONS, QUOTATIONS ON REQUEST

SEE OUR AD UNDER "RECTIFIERS" IN SECTION 4800 FOR SELENIUM AND SILICON STACKS



Mfd. by SANFORD MILLER CORP. BROOKLYN 6, N. Y.

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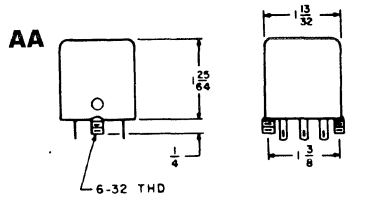
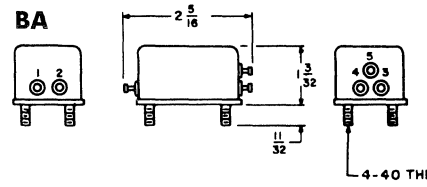
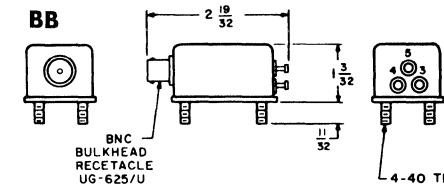
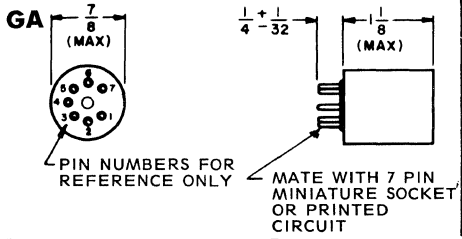
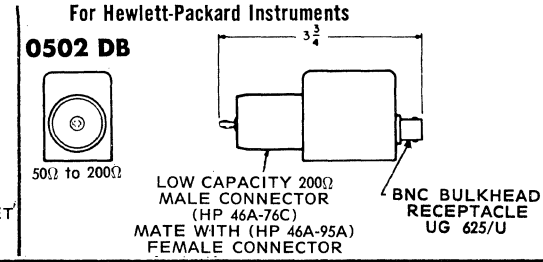
NORTH HILLS WIDE BAND TRANSFORMERS

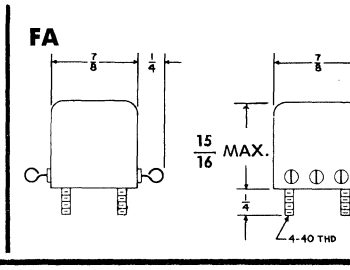












- **Antenna Matching**
- **Interstage Coupling**
- **Impedance Matching**
- **Computer Drive Circuits**
- **Signal Distribution**
- **Pulse Applications**
- **Voltage Step-Up**
- **DC Isolation**
- **Phase Detectors**
- **Balanced Modulators**

Type Number	Impedance Ratio	Type Number	Impedance Ratio
1100	75 Unb/75 Bal	0100	50 Unb/100 Bal
1300	75 Unb/100 Bal	0300	50 Unb/100 Bal
1400	75 Unb/150 Bal	0400	50 Unb/150 Bal
1500	75 Unb/200 Bal	0500	50 Unb/200 Bal
1501	75 Unb/300 Bal	0501	50 Unb/300 Bal
1600	75 Unb/450 Bal	0600	50 Unb/450 Bal
1700	75 Unb/600 Bal	0700	50 Unb/600 Bal
1701	75 Unb/600 Bal	0800	50 Unb/800 Bal
1702	75 Unb/600 Bal	0900	50 Unb/1200 Bal
1703*	75 Unb/600 Bal	7700	600 Unb/600 Bal
1800	75 Unb/800 Bal		
1900	75 Unb/1200 Bal		
1901	75 Unb/1850 Bal	* 10 watts	

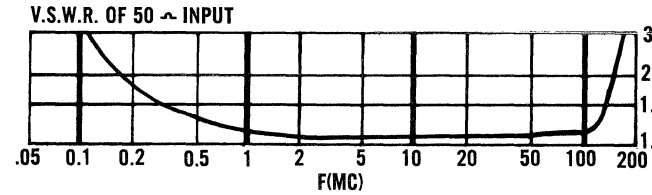
Data sheets for all types on request.

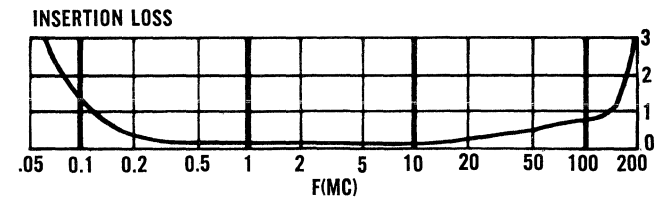
Frequency range on most of these units is contained within 100 kc to 100 mc band except for the 1702 and 1901 which cover from 20 kc to 8 mc. Data sheets with individual curves are available upon request.

North Hills wideband transformers have been designed for low insertion loss (less than 1 db) and good matching characteristics over wide frequency ranges. Balanced windings feature extremely low unbalanced voltages and have a center tap. Complete specifications are available upon request.

Several case styles are offered. Series AA models are potted in metal cases with a terminal board on the bottom and two 6-32 spade mounting bolts. Series BA are hermetically sealed with glass terminals at the case ends and two 4-40 studs on the bottom for mounting. Series BB is similar to BA except that the unbalanced connection is provided by a BNC connector. The above three styles are rated at 2 watts and the GA and the FA package are rated at ½ watt. Both GA and FA packages are hermetically sealed. Note that the types AA, BA and BB feature lower cut-off frequency than that of type GA and FA because of the larger core dimensions.

TYPICAL CHARACTERISTICS (0501)*





*Data sheets for all types on request.

Custom units designed to your specifications include power wideband transformers, pulse transformers, filters and adjustable inductors. See Radio Masters for standard line of inductors.

See Section 4000 for Precision AC and DC Power Sources in current edition of eem.
See Section 2900 for Bridges, Potentiometers, Galvanometers, etc. in current edition of eem.
See Variable Inductors in Section 1800 of current edition of Radio-Electronic Master.

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ELECTRONICS, INCORPORATED
GLEN COVE, LONG ISLAND, N.Y.

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Prices in this *MASTER* should not be considered as final.
Inquire about latest prices and delivery.

DISCOUNTS

Trade discounts apply in most cases
where *list prices* are shown.

ORDERING

Since previous editions of The MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.

OHMITE

resistors • rheostats • tap switches • relays
variable transformers • tantalum capacitors
semiconductor diodes • r.f. chokes

"V.T." VARIABLE TRANSFORMERS

Toroidal core type autotransformers providing distortion-free continuously adjustable voltage from fixed AC input. Highly advanced Ohmite design. Sizeable bonus in current available in all units where output greater than line volts ("overvoltage") is not required ("N" suffix); "LN" suffix indicates low input (40V max.) and very high current output: positive current transfer achieved with direct brush to slip spring shunt. **Mounting:** VT2 panel mounting by ⅜-32 bushing; VT2 tandem units by ¼-20 bolts; all VT4 and VT8 types panel or table mounting by ¼-20 bolts; VT20, VT20B, panel or table mounting by four ⅜" dia. bolts or three ⅜-24 bolts. Shafts of VT4, VT8, VT20 units slide to brush or base side. Units not cased except where indicated. Over-all dimensions include shaft. Suffixes "-2" and "-3" indicate number of units in tandem assembly (shipped with connection instructions).

SINGLE-PHASE

Input Volts	Freq.[1] cps. from	Maximum Output Amps	Volts	Feature or Connection	Size, Inches	Stk. No.	Weight Lbs.[7]	Net $ [7] 1-5
SINGLE TRANSFORMERS — UNCASED								
40	60	5	0-40	Hi-amps, low volts	2-13/16 dia. x 3	**VT2LN**	2.4	9.75
40	50	12.0	0-40	Hi-amps, low volts	4-5/32 x 4-13/16 x 4¾	**VT4LN**	5.25	14.50
40	50	22.0	0-40	Hi-amps, low volts	4⅞ x 5-11/16 x 5⅝	**VT8LN**	10.25	20.50
120	60 [8]	1.75	0-120/132	Basic 1.75A Model	2-13/16 dia. x 3	**VT2**	2.4	8.50
120	60	2.0	0-120	No overvoltage	2-13/16 dia. x 3	**VT2N**	2.4	9.00
120	50	3.5	0-120/140	Basic 3.5A Model	4-5/32 x 4-13/16 x 4¾	**VT4**	5.25	12.50
120	50	4.75	0-120	No overvoltage	4-5/32 x 4-13/16 x 4¾	**VT4N**	5.25	13.00
120	50	7.5	0-120/140	Basic 7.5A Model	4⅞ x 5-11/16 x 5⅝	**VT8**	10.25	18.00
120	50	10.0	0-120	No overvoltage	4⅞ x 5-11/16 x 5⅝	**VT8N**	10.25	18.50
120	50	20.0	0-120/140	Basic 20A Model	7½ x 8-1/16 x 5⅝	**VT20**	22.0	45.00
120	50	25.0	0-120	No overvoltage	7½ x 8-1/16 x 5⅝	**VT20N**	22.0	45.50
240 [2]	50	3.0	0-240/280	240V Input [2]	4⅞ x 5-11/16 x 5⅝	**VT8H**	10.25	20.00
240 [2]	50	4.0	0-240	240V In. No ovrvlt. [2]	4⅞ x 5-11/16 x 5⅝	**VT8HN**	10.25	21.00
SINGLE TRANSFORMERS — CASED								
120	60 [8]	1.4	0-132 [4]	Fixed Mtg.	3⅜ x 2½* x 4¼	**VT2E**	2.8	12.50
120	60 [8]	1.75	0-132 [3]	Portable	3⅜ x 2½* x 4¼	**VT2F**	3.2	14.50
120	60	1.60	0-120	Fixed Mtg.	3⅜ x 2½* x 4¼	**VT2NE**	2.8	13.00
120	60	2.0	0-120	Portable	3⅜ x 2½* x 4¼	**VT2NF**	3.2	15.00
120	50	2.8	0-140 [4]	Fixed Mtg.	4½ x 4½* x 6-3/16	**VT4E**	7.4	17.50
120	50	3.5	0-140 [3]	Portable	4⅞ x 4½* x 6¼	**VT4F**	7.8	18.50
120	50	3.5	0-140 [3]	VT4F w/gnd. in. & out.	4⅞ x 4½* x 6¼	**VT4FC**	7.8	21.00
120	50	3.8	0-120	Fixed Mtg.	4½ x 4½* x 6-3/16	**VT4NE**	7.4	18.00
120	50	4.75	0-120	Portable	4⅞ x 4½* x 6¼	**VT4NF**	7.8	19.00
120	50	4.75	0-120	VT4NF w/gnd. in. & out.	4⅞ x 4½* x 6¼	**VT4NFC**	7.8	21.50
120	50	6.0	0-140 [4]	Fixed Mtg.	5-3/16 x 5¼† x 7-3/16	**VT8E**	13.5	23.00
120	50	7.5	0-140 [3]	Portable	5-17/32 x 5¼† x 7⅜	**VT8F**	13.8	24.00
120	50	7.5	0-140 [3]	VT8F w/gnd. in. & out.	5-17/32 x 5¼† x 7⅜	**VT8FC**	13.8	26.50
120	50	6.0	0-120/140 [3]	Deluxe Portable	5-3/16 x 5¼† x 7⅜	**VT8G**	14.2	28.50
120	50	6.0	0-120/140 [3]	VT8G w/gnd. in. & out.	5-3/16 x 5¼† x 7⅜	**VT8GC**	14.2	31.00
120	50	8.0	0-120	Fixed Mtg.	5-3/16 x 5¼† x 7-3/16	**VT8NE**	13.5	23.50
120	50	10.0	0-120	Portable	5-17/32 x 5¼† x 7⅜	**VT8NF**	13.8	24.50
120	50	10.0	0-120	VT8NF w/gnd. in. & out.	5-17/32 x 5¼† x 7⅜	**VT8NFC**	13.8	27.00
120	50	20.0	0-120/140	Basic Case	7⅝ x 8⅛ x 4⅞‡	**VT20B**	22.5	50.00
120	50	25.0	0-120	Basic Case	7⅝ x 8⅛ x 4⅞‡	**VT20NB**	22.5	50.50
120	50	16.0	0-120/140 [4]	Fixed Mtg.	7¾ x 5½‡ x 10-15/16	**VT20E**	29.0	61.00
120	50	20.0	0-140	Portable	8¼ x 5½‡ x 11¼	**VT20FC**	31.0	65.00
120	50	16.0	0-120/140 [3]	Portable	7¾ x 5½‡ x 11¼	**VT20GC**	31.0	80.00
120	50	20.0	0-120	Fixed Mtg.	7¾ x 5½‡ x 10-15/16	**VT20NE**	29.0	61.50
120	50	25.0	0-120	Portable	8¼ x 5½‡ x 11¼	**VT20NFC**	31.0	65.50
SINGLE TRANSFORMERS — CASED WITH METERS								
120	50	6.0	0-120/140 [3]	w/voltmeter, gnd. conn.	7 x 5¼† x 10½	**VT8GCV**	15.2	58.00
120	50	6.0	0-120/140 [3]	w/volt. & ammtr., gnd. conn.	7 x 5¼† x 10½	**VT8GCVA**	15.5	91.00
120	50	6.0	0-120/140 [3]	w/volt. & wattmtr., gnd. conn.	7 x 5¼† x 10½	**VT8GCVW**	15.5	118.00
120	50	10.0	0-120	w/voltmeter, gnd. conn.	7⅜ x 5¼† x 10½	**VT8NFCV**	14.8	53.00
120	50	10.0	0-120	w/volt. & ammtr., gnd. conn.	7⅜ x 5¼† x 10½	**VT8NFCVA**	15.2	86.00
120	50	10.0	0-120	w/volt. & wattmtr., gnd. conn.	7⅜ x 5¼† x 10½	**VT8NFCVW**	15.2	113.00
120	50	16.0	0-120/140 [3]	w/voltmeter, gnd. conn.	8¼ x 5½‡ x 14	**VT20GCV**	32.0	118.50
120	50	16.0	0-120/140 [3]	w/volt. & ammtr., gnd. conn.	8¼ x 5½‡ x 14	**VT20GCVA**	32.2	145.50
120	50	16.0	0-120/140 [3]	w/volt. & wattmtr., gnd. conn.	8¼ x 5½‡ x 14	**VT20GCVW**	32.2	216.50
120	50	25.0	0-120	w/voltmeter, gnd. conn.	8¼ x 5½‡ x 14	**VT20NFCV**	32.0	103.00
120	50	25.0	0-120	w/volt. & ammtr., gnd. conn.	8¼ x 5½‡ x 14	**VT20NFCVA**	32.2	130.00
120	50	25.0	0-120	w/volt. & wattmtr., gnd. conn.	8¼ x 5½‡ x 14	**VT20NFCVW**	32.2	201.00
TWO-IN-TANDEM ASSEMBLIES [5] [10]								
240	60 [8]	1.75	0-240/264	Series Conn. [6]	3-13/16 dia. x 6⅜	**VT2-2**	5.25	25.00
240	60	2.0	0-240	Series Conn. [6]	3-13/16 dia. x 6⅜	**VT2N-2**	5.25	26.00
240	50	3.5	0-240/280	Series Conn. [6]	4-5/32 x 4-13/16 x 8-15/16	**VT4-2**	11.3	37.00
240	50	4.75	0-240	Series Conn. [6]	4-5/32 x 4-13/16 x 8-15/16	**VT4N-2**	11.3	38.00
240	50	7.5	0-240/280	Series Conn. [6]	4⅞ x 5-11/16 x 10-7/16	**VT8-2**	20.6	44.50
240	50	10.0	0-240	Series Conn. [6]	4⅞ x 5-11/16 x 10-7/16	**VT8N-2**	20.6	45.50
240	50	20.0	0-240/280	Series Conn. [6]	7½ x 8-1/16 x 11⅛	**VT20-2**	45.0	107.00
240	50	20.0	0-240/280	Above unit, B case	7½ x 8-1/16 x 11⅝	**VT20-2B**	46.0	117.00
240	50	25.0	0-240	Series Conn. [6]	7½ x 8-1/16 x 11⅛	**VT20N-2**	45.0	108.00
240	50	25.0	0-240	Above unit, B case	7½ x 8-1/16 x 11⅝	**VT20N-2B**	46.0	118.00
480	50	3.0	0-480/560	Series Conn. [6]	4⅞ x 5-11/16 x 10-7/16	**VT8H-2**	20.6	49.00
480	50	4.0	0-480	Series Conn. [6]	4⅞ x 5-11/16 x 10-7/16	**VT8HN-2**	20.6	51.00

THREE-PHASE

TWO-IN-TANDEM ASSEMBLIES [5] [10]

120	60	1.75	0-120/132	**Open Delta Conn.**	3-13/16 dia. x 6⅜	**VT2-2**	5.25	25.00
120	60	2.0	0-120	**Open Delta Conn.**	3-13/16 dia. x 6⅜	**VT2N-2**	5.25	26.00
120	50	3.5	0-120/140	Open Delta **Conn.**	4-5/32 x 4-13/16 x 8-15/16	**VT4-2**	11.3	37.00
120	50	4.75	0-120	Open Delta **Conn.**	4-5/32 x 4-13/16 x 8-15/16	**VT4N-2**	11.3	38.00
120	50	7.5	0-120/140	Open Delta Conn.	4⅞ x 5-11/16 x 10-7/16	**VT8-2**	20.6	44.50
120	50	10.0	0-120	Open Delta Conn.	4⅞ x 5-11/16 x 10-7/16	**VT8N-2**	20.6	45.50
120	50	20.0	0-120/140	Open Delta Conn.	7½ x 8-1/16 x 11⅛	**VT20-2**	45.0	107.00
120	50	20.0	0-120/140	Above unit, B case	7½ x 8-1/16 x 11⅝	**VT20-2B**	46.0	117.00
120	60	25.0	0-120	**Open Delta Conn.**	7½ x 8-1/16 x 11⅛	**VT20N-2**	45.0	108.00
120	60	25.0	0-120	Above unit, B case	7½ x 8-1/16 x 11⅝	**VT20N-2B**	46.0	118.00
240	50	3.0	0-240/280	Open Delta Conn.	4⅞ x 5-11/16 x 10-7/16	**VT8H-2**	20.6	49.00
240	50	4.0	0-240	Open Delta Conn.	4⅞ x 5-11/16 x 10-7/16	**VT8HN-2**	20.6	51.00

THREE-IN-TANDEM ASSEMBLIES [5] [10]

240	60	1.75	0-240 [9]	"Y" Conn.	3-13/16 dia. x 9-1/16	**VT2-3**	8.0	40.00
240	60 [8]	3.5	0-240/280	"Y" Conn.	4-5/32 x 4-13/16 x 13	**VT4-3**	17.0	59.50
240	60 [8]	7.5	0-240/280	"Y" Conn.	4⅞ x 5-11/16 x 15¼	**VT8-3**	31.0	61.50
240	60 [8]	6.0	0-240/280	Above unit, E case	5-3/16 x 7-3/16 x 15¾†	**VT8-3E**	40.0	77.00
240	60 [8]	20.0	0-240/280	"Y" Conn.	7½ x 8-1/16 x 16-3/16	**VT20-3**	68.0	155.00
240	60 [8]	20.0	0-240/280	Above unit, B case	7½ x 8-1/16 x 16-15/16	**VT20-3B**	69.5	170.00
240	60	25.0	0-240	"Y" Conn.	7½ x 8-1/16 x 16-3/16	**VT20N-3**	68.0	156.50
240	60	25.0	0-240	Above unit, B case	7½ x 8-1/16 x 16-15/16	**VT20N-3B**	69.5	171.50
480	60 [8]	3.0	0-480/560	"Y" Conn.	4⅞ x 5-11/16 x 15¼	**VT8H-3**	31.0	69.50

ACCESSORIES, PARTS

Brush-Contact Assemblies for . . .

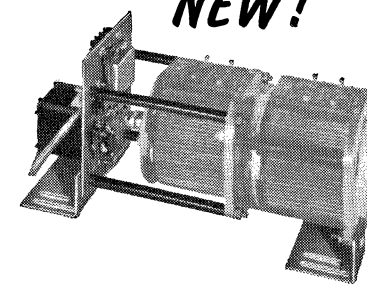
	Stk. No.	Net 1-5
VT2 Types except VT2LN	6514	$1.00
VT2LN	6517	2.00
VT4 Types except VT4LN	6515	1.00
VT4LN	6518	2.00
VT8 Types except VT8H, HN, LN	6516	1.25
VT8H, HN only	6516H	1.25
VT8LN only	6519	2.50
VT20 Types except VT20N	6590	1.75
VT20N	6594	1.75

Extra Dials or Dials with C.C.W. Calibration

"v.t."	Dial Calibration	Stk. No.	Net 1-5
VT2	0-120, 0-132 C.W.	5005	$ .25
	0-100, 100-0* C.W.	5011	.25
VT4 and VT8	0-120, 0-140 C.W.	5006	.50
	0-120, 0-140 C.C.W.	5008	.50
	0-240, 0-280 C.W.	5009	.50
	0-240, 0-280 C.C.W.	5010	.50
	0-100, 100-0* C.W.	5012	.50
VT20	0-120, 0-140 C.W.	5013	1.20
	0-120, 0-140 C.C.W.	5014	1.20
	0-240, 0-280 C.W.	5015	1.20
	0-240, 0-280 C.C.W.	5016	1.20
	0-100, 100-0 C.W.	5017	1.20

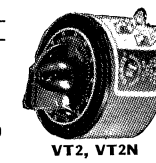
*Percent-of-output dial furnished with "LN" series units.

NEW!

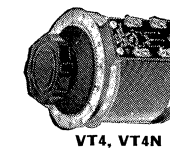


MOTOR MODULE PACKAGE

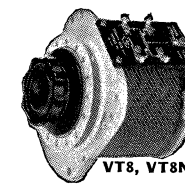
For VT4, VT8 or VT20, single or ganged, unenclosed models. Attaches in 15 minutes with everyday tools. Five speeds in stock for VT4 and VT8. Four speeds for VT20. **Call your distributor or the factory.**



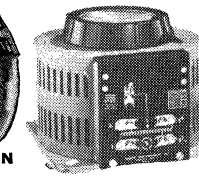
VT2, VT2N



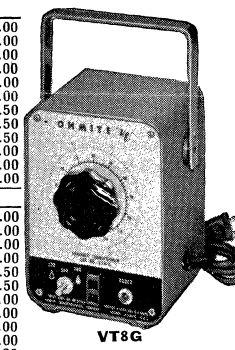
VT4, VT4N



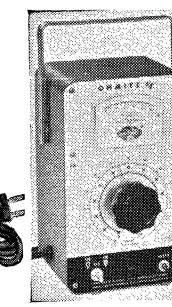
VT8, VT8N



VT20B



VT8G



VT8GCV

[1] Frequency shown is a minimum—units may be used to well over 400 cps.

[2] VT8H and VT8HN also have taps for 120V input with 280V output for VT8H and 240V output for VT8HN. With use of 120V input the max. current rating applies up to 120V output but reduces to approx. 50% at max output voltage.

[3] Connected at factory for overvoltage output —easily reconnected by user for no-over voltage output. On VT8G and VT20G, switc selects overvoltage or no-overvoltage.

[4] User wires for desired output. Dial normall calibrated for overvoltage.

[5] Tandem assemblies normally furnished with out interconnection between units.

[6] When transformers are series connected load cannot be grounded.

[7] Includes knob and dial and mounting hard ware.

[8] May be used at 50 cps if connected for n overvoltage output.

[9] Overvoltage connection must not be used.

[10] Specify 240 volt dial if desired, except VT series.

* Add ⅞" for knob thickness.

† Add 1" for knob thickness.

‡ Add 1¼" for knob thickness.

ACCESSORIES, PARTS

Adapter Plate for 4-hole mtg. of VT4—match other popular 4-hole mtgs.; dimensions sar as shown for front plate of VT4 tandems, (Ca 500).

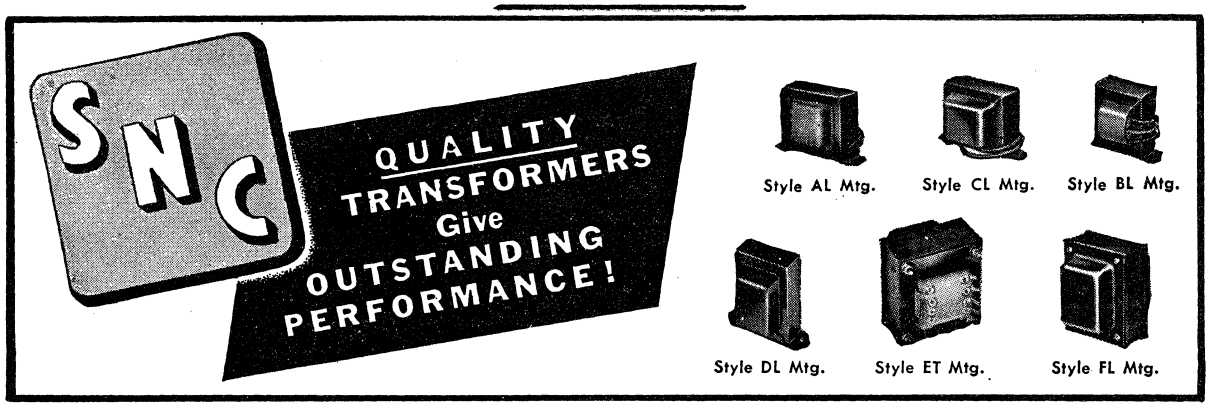
Stk. No. **6512**.....Net 1-5 **$0.**

Extra Knobs for Uncased Units

	Stk. No.	Net 1
For VT2 types	5158	$ .3
For VT4, VT8 types	5155	1.0
For VT20 types	5157	1.7

Adjustable stop for limiting rotational arc transformers.

	Stk. No.	Net 1
Stop for VT4 types	6536	$ .5
Stop for VT8 types	6537	.5



Skillful Engineering, latest production techniques and highest quality materials . . . backed by careful workmanship, exacting step-by-step inspection and rigorous final testing . . . are combined in every SNC transformer to provide a quality product that gives MORE in dollar value.

AUDIO TRANSFORMERS — THE "ONE" SERIES

AUDIO INPUT

Type Number	Application	Impedance		Pri. Mils (D.C.)	Max. Turns Ratio	Frequency Characteristics—c. p. s.					Mtg. Style	Dimensions				Net. Wt.	Net. Price
		Primary	Secondary			50	200	1M	5M	10M		A	B	C	C		
1P121	P.M. Speaker to Grid	4	100,000	0	1:58	−4.0	−1.0	0	0	0	BL	1-7/8	1-9/16	1-1/2	2	.5	2.55
1P124	S.B. Mic. to Sgl. or P.P. Grids	100	400,000 C.T.	50	1:63		−6.0	0	−2.0	−6.0	BL	1-7/8	1 9/16	1-1/2	2	.5	2.67
1P125	Low Z to Sgl. or P.P. Grids	50	100,000 C.T.	0	1:45		−3.0	0	0	0	BL	1-7/8	1-9/16	1-1/2	2	.5	2.49
1P128	Sgl. or D.B. Mic. or Line to Sgl. or P.P. Grids	200*/50	100,000 C.T.	50	1:45	−2.0	−0.3	0	−0.7	−2.0	DL	2-5/8	2-3/16	2-1/8	2-13/16	1.3	3.93
1P138	Line to Sgl. or P.P. Grids	500*/125	100,000 C.T.	0	1:28	−3.0	−0.4	0	−0.4	−1.5	DL	2-5/8	2-3/16	2-1/8	2-13/16	1.4	3.93
1P145	Sgl. or P.P. Plates to Line	20,000 C.T.	500*/125	8	12.6:1	−3.5	−1.0	0	0	0	DL	2-1/4	1-7/8	1-13/16	2-3/8	.9	3.24
1P152	Sgl. or P.P. Plates to Line	20,000 C.T.	200*/50	8	20:1	−4.0	−1.0	0	0	0	DL	2-1/4	1-7/8	1-13/16	2-3/8	.9	3.24
1P161	Line to Line	500	500*/125	0	2:1	−0.4	−0.1	0	−0.4	−1.0	DL	2-1/4	1-7/8	1-13/16	2-3/8	.9	3.51

*Indicates Balanced Center Tap

AUDIO INTERSTAGE

1P323	Sgl. Plate to Sgl. Grid	10,000	90,000	8	1:3	−5.0	−1.5	0	0	0	BL	1-7/8	1-9/16	1-1/2	2	.5	2.37
1P331	Sgl. Plate to P.P.Grids	10,000	90,000 C.T.	8	1:3	−6.0	−2.0	0	0	−1.0	BL	1-7/8	1-1/16	1-1/2	2	.5	2.55
1P339	Sgl. Plate to P.P. Grids	10,000	90,000 C.T.	8	1:3	−3.0	−0.5	0	±0.1	+0.5	BL	2-1/4	1-7/8	1-13/16	2-3/8	.9	2.85
1P342	Sgl. Plate to P.P. Grids	10,000	90,000 C.T.	8	1:3	−2.5	−0.5	0	0	0	DL	2-5/8	2-3/16	2-1/8	2-13/16	1.5	3.66
1P346	P.P. Plates to P.P. Grids	20,000 C.T.	45,000 C.T.	10	1:1.5	−1.0	−0.2	0	0	0	DL	2-5/8	2-3/16	2-1/8	2-13/16	1.5	3.75
1P351	Universal	Universal		8	1:3	−2.0	−0.4	0	0	0	BL	2-1/4	1-7/8	1-13/16	2-3/8	.9	3.00
3P363	Sgl. Type 30 to 19, 1J5 or P.P 30 Class B	10,000	7,000 C.T.	8	2.4:1	−0.5	0	0	−0.2	−1.0	BL	1-7/8	1-9/16	1-1/2	2	.5	2.04

TELEVISION REPLACEMENT (VERTICAL BLOCKING OSCILLATOR)

Type Number	Primary Inductance	Leakage Inductance	Turns Ratio	Mounting Style	Mounting	Dimensions				Net Wt.	Net Price
						H	W	D	Ctrs.		
1P412	1.15 Hy.±20%	.008 Hy.±25−15%	1:42	Comp. Filled Case	Flange	1-7/8	2-5/16	1-1/2	1-15/16	.5	2.64
1P416	1.15 Hy.±20%	.008 Hy.±25−15%	1:42	Comp. Filled Case	Studs	1-5/8	1-3/16	1-3/16	1-13/64	.4	2.43

CHOKES AND REACTORS — THE "TWO" SERIES

AUDIO REACTORS

Type Number	D.C. Mils		Inductance				Insul. Test Voltage	D.C. Res.	Mtg. Style	Dimensions					Net Weight	Net Price
	Nom.	Max.	0-D.C.	50% Nom. D.C.	Nom. D.C.	Max. D.C.				A	B	C	D	E		
2P123	5-0.5	15	550	—	300-500	80	2000	5500	AL	1-7/8	2-1/4	1-5/8	2-13/16		.9	2.55
2P124	5-0.5	15	550	—	300-500	80	2000	5500	CL	1-7/8	2-1/4	1-3/4	2-13/16		.9	2.85
2P126	35-15	45	65	—	25-35	20	2000	800	AL	1-7/8	2-1/4	1-5/8	2-13/16		.9	2.01
2P127	35-15	45	65	—	25-35	20	2000	800	CL	1-7/8	2-1/4	1-3/4	2-13/16		.9	2.37

FILTER AND SWINGING CHOKES

2P132	40	50	22	13	8	6	2000	450	AL	1-5/16	1-5/8	1-1/8	2		.3	1.32
2P135	65	80	18	11	8	7	2000	300	AL	1-9/16	1-7/8	1-3/8	2-3/8		.5	1.56
2P138	85	100	30	16	8	7	2000	350	AL	1-7/8	2-1/4	1-7/8	2-13/16		1.2	1.98
2P141	110	135	20	10.5	8	7	2000	200	BL	2-5/8	2-3/16	1-7/8	2-13/16		1.5	2.67
2P142	110	135	20	10.5	8	7	2000	200	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	2.85
2P144	150	180	26	13	8	5.5	2000	190	BL	3	2-1/2	2-1/8	3-1/8		2.1	2.67
2P145	150	180	26	13	8	5.5	2000	190	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.2	3.66
2P147	200	250	16	10	8	6.5	3500	110	GL	3-1/2	2-7/8	3-1/8	2-1/4	2	3.2	4.71
2P148	200-20	—	—	—	3-15	—	3500	110	GL	3-1/2	2-7/8	3-1/8	2-1/4	2	3.2	4.71
2P151	300	350	18	11	8	7	5000	75	GL	4-5/8	3-3/4	3-7/8	3	2-13/16	7.5	8.04
2P152	300-30	—	—	—	3-15	—	5000	75	GL	4-5/8	3-3/4	3-7/8	3	2-13/16	7.5	8.04
2P155	500	600	16	10	8	5.5	5000	55	HT	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	22.8	22.65
2P156	500-50	—	—	—	3-15	—	5000	55	HT	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	22.8	22.65

DRIVER TRANSFORMERS — THE "THREE" SERIES

Type Number	Primary Impedance	Watts	Ratio, Pri. to 1/2 Sec. or Sec. Z	Pri. D.C. Mils	Frequency Characteristics—c. p. s.					Mtg. Style	Dimensions					Net Wt.	Net Price
					50	200	1M	5M	10M		A	B	C	D	E		
3P323	6,000 C.T. to 10,000 C.T.	25	6, 5.5, 5:1	60	−0.5	0	0	0	−0.3	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	8.22
3P328	3,000 C.T. to 5,000 C.T.	25	6, 5.5, 5:1	60	−0.4	0	0	0	−0.1	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	8.22
3P334	6,000 C.T. to 10,000 C.T.	25	4.5, 4, 3.5:1	60	−1.0	−0.3	0	+0.1	+0.6	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	8.10
3P338	3,000 C.T. to 5,000 C.T.	25	4.5, 4, 3.5:1	60	−1.7	−0.5	0	0	0	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	8.25
3P342	6,000 C.T. to 10,000 C.T.	25	3, 2, 1:1	60	−0.7	−0.1	0	+0.1	+0.4	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	8.55
3P347	3,000 C.T. to 5,000 C.T.	25	3, 2, 1:1	60	−0.8	0	0	0	−0.8	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	8.43
3P353	6,000 C.T. to 10,000 C.T.	25	500 Ohms	60	−1.1	−0.3	0	0	+0.3	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	8.28
3P358	3,000 C.T. to 5,000 C.T.	25	500 Ohms	60	−0.9	−0.1	0	−0.4	−1.0	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	8.28
3P363	10,000	5	2.4:1	10	−0.5	0	0	−0.2	−1.0	BL	1-7/8	1-9/16	1-1/2	2		.5	2.04

Net

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SNC

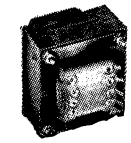
QUALITY TRANSFORMERS Give OUTSTANDING PERFORMANCE!

Style AL Mtg.

Style CL Mtg.

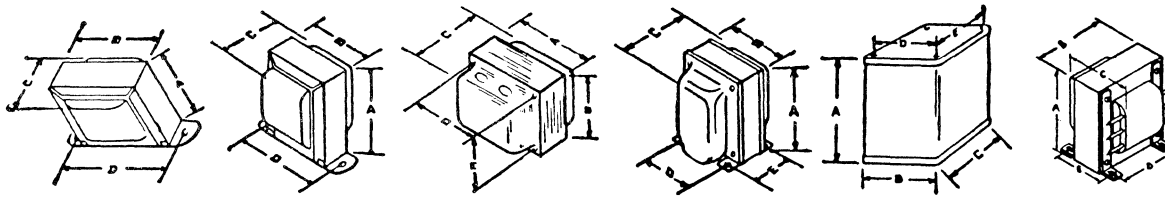
Style BL Mtg.

Style DL Mtg.


Style ET Mtg.

Style FL Mtg.

DIMENSIONAL ILLUSTRATIONS



OUTPUT TRANSFORMERS — THE "SIX" SERIES

SPECIFIC DUTY REPLACEMENT TYPES—TUBE TO VOICE COIL

Type Number	Primary Imp.—Ohms		Pri. D.C. Mils	Sec. Z—Ohms	Watts	Mtg. Style	Dimensions				Net Wt.	Net Price
							A	B	C	D		
6P300	Single	2,000 Plate	50	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	1.32
6P306	Single	4,000 Plate	35	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	1.32
6P312	Single or P.P.	7,500 Plates	35	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	1.74
6P316	Single or P.P.	10,000 Plates	35	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	1.74
6P319	Push-Pull	15,000 Plates	35	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	1.77
6P321	Push-Pull	20,000 Plates	30	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	1.77
6P323	Push-Pull	25,000 Plates	20	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	1.77

UNIVERSAL REPLACEMENT TYPES—TUBE TO VOICE COIL—TUBE TO LINE—LINE TO VOICE COIL

Type Number	Primary Imp.—Ohms	Pri. D.C. Mils	Sec. Z—Ohms	Watts	Mtg. Style	Dimensions				Net Wt.	Net Price
						A	B	C	D		
6P165	Sgl. or P.P. 4M to 14M Plates	40	1.1 to 14	4	ATL	1-5/16	1-5/8	1-3/8	2	.3	2.04
6P166	Sgl. or P.P. 4M to 14M Plates	50	1.1 to 14	8	ATL	1-9/16	1-7/8	1-5/8	2-3/8	.5	2.04
6P167	Sgl. or P.P. 3M to 10M Plates	50	1.2 to 13	15	BTL	1-7/8	1-9/16	1-3/4	2	.5	2.55
6P169	Sgl. 1500 to 7M Plate	55	.8 to 19	10	ATL	1-9/16	1-7/8	1-5/8	2-3/8	.5	2.04
6P172	P.P. 3500 to 12M Plates	60	1.3 to 14	20	BTL	2-5/8	2-3/16	2-1/8	2-13/16	1.5	3.69
6P701	Single 2500 to 7500 Plate	45	165 to 1500	10	BTL	2-1/4	1-7/8	1-7/8	2-3/8	.9	3.24
6P710	P.P. 7500 to 15M Plates	45	250 to 1000	10	BTL	2-1/4	1-7/8	1-7/8	2-3/8	.9	3.66
6P714	Sgl. or P.P. 2500 to 12M Plates	45	150 to 2400	10	BTL	2-1/4	1-7/8	1-7/8	2-3/8	.9	3.87
6P717	125 to 500 Line	0	1 to 32	35	BTL	2-5/8	2-3/16	2-1/8	2-13/16	1.5	3.93
6P722	500 to 3M Line in 500-Ohm Steps	0	1.3 to 48	10	BTL	2-1/4	1-7/8	1-7/8	2-3/8	.9	3.69

AMPLIFIER AND EQUIPMENT TYPES—TUBE TO LINE AND VOICE COIL

Type Number	Primary Imp.—Ohms	Pri. D.C. Mils	Secondary Imp.—Ohms	Watts	Frequency Characteristics—c. p. s.					Mtg. Style	Dimensions					Net Wt.	Net Price
					50	200	1M	5M	10M		A	B	C	D	E		
6P726	P.P. 3300 or 3800 Plates	90	4-8-16-250-500	60	−0.3	0	0	+0.1	+0.5	GL	3-3/4	3-1/16	3-3/8	2-1/2	2-3/16	4.4	7.77
6P731	P.P. 4500 or 6800 Plates	90	4-8-16-250-500	60	−0.3	0	0	+0.2	0	GL	3-3/4	3-1/16	3-3/8	2-1/2	2-3/16	4.4	7.77
6P736	P.P. 5000 Plates	70	4-8-16-250-500	25	−0.9	−0.2	0	+0.2	+0.5	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	5.22
6P740	P.P. 4300 Plates	70	4-8-16-250-500	25	−0.9	−0.3	0	+0.3	+0.5	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	5.22
6P743	P.P. 6600 Plates	70	4-8-16-250-500	25	−0.7	−0.1	0	+0.2	+0.5	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	5.22
6P746	P.P. 8000 Plates	70	4-8-16-250-500	25	−0.7	−0.1	0	+0.1	+0.3	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	5.22
6P749	P.P. 10,000 Plates	60	4-8-16-250-500	25	−0.4	−0.1	0	+0.2	+0.3	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	5.49
6P752	Sgl. 2500 Plate	60	4-8-16-250-500	10	−3.0	−0.4	0	+0.3	+0.5	DL	2-1/4	1-7/8	2-1/8	2-3/8		1.0	4.14

TELEVISION REPLACEMENT (VERTICAL DEFLECTION)

Type Number	Ratio Pri. to Sec.	Primary Imp.—Ohms	Leakage Inductance	Mounting Style	Dimensions					Net Wt.	Net Price
					A	B	C	D	E		
6P860	10:1	19,000 Min.	0.33 Hy. Max.	B x L	3-3/16	2-3/4	2-9/16	1-19/32	2	2.2	4.86

MODULATION TRANSFORMERS — THE "FIVE" SERIES

SNC universal modulation transformers are specifically designed to provide maximum application possibilities per type. All units are provided with two identical secondary windings, permitting series or parrallel operation. Changes in the ratio can be readily accomplished, when desired, without removing the unit from the chassis. Most units available in either air cooled or compound filled cases.

UNIVERSAL TYPES

Type Number	Watts	Primary Current Mils	Secondary Characteristics				Primary Impedance Ohms	Mtg. Style	Dimensions					Net Weight	Net Price
			Series Sec.		Parallel Sec.				A	B	C	D	E		
			Impedance	Mils.	Impedance	Mils									
5P341	15	60	3M to 8M	50	1000 to 5000	100	3M to 8M	DL	2-5/8	2-3/16	2-3/8	2-13/16		1.5	6.54
5P346	50	80	2M to 18M	75	500 to 4500	150	3M to 15M	GTL	3-7/8	3-1/8	3-3/8	2-1/2	2-3/16	4	10.23
5P352	100	120	2M to 18M	100	500 to 4500	200	3M to 15M	GTL	4-5/8	3-3/4	3-7/8	3	2-13/16	9.7	16.35
5P354								HT						24	37.47
5P355	200	200	2M to 18M	150	500 to 4500	300	3M to 15M	JT	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	32	40.95
5P357								HT						33	45.30
5P358	300	250	2M to 18M	250	500 to 4500	500	3M to 15M	JT	7-1/8	6-1/2	7-1/4	5-3/8	6-1/8	41	48.78
5P363								HT						51	91.47
5P364	500	300	2M to 18M	300	500 to 4500	600	3M to 15M	JT	10-3/4	6-1/2	7-1/4	5-3/8	6-1/8	64	100.20

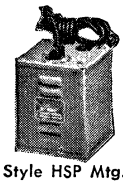
Style GL Mtg.

Style HP Mtg.

Style ATL Mtg.

Style BTL Mtg.

Style BxL Mtg.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Style GTL Mtg.

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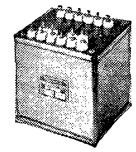
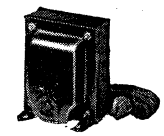

Style JT Mtg.


Style GP Mtg.

NOTE

Basic mounting types are classified as "A," "B," "C," "D," "E," "F," "G," "H," "J," and Bx.

Explanation of Suffix Symbols

L = Leads
T = Lugs
P = Cord and Plug
SP = Switch, Cord and Plug

POWER TRANSFORMERS — THE "EIGHT" SERIES

All units conservatively rated for operation on either 50 or 60 cycles and contain an electrostatic shield between primary and all other windings.

REPLACEMENT TYPES (6.3 Volt Heater Winding)

Type Number	Primary Voltage	R.M.S.—High Volt. Secondary	Sec. D.C. Mils	Rectifier Filament	Heater Winding Center Tapped	Mtg. Style	Dimensions A	B	C	D	E	Net Wt.	Net Price
8P040	117	265-0-265	40	5V. @ 2A.	6.3V. @ 2A.	FL	3	2-1/2	2-3/4	2-1/2	2	2.3	3.93
8P055	117	300-0-300	55	5V. @ 2A.	6.3A. @ 2.5A.	FL	3	2-1/2	3-1/8	2-1/2	2	2.8	3.96
8P070	117	325-0-325	70	5V. @ 2A.	6.3V. @ 3A.	FL	3	2-1/2	3-1/2	2-1/2	2	3.2	5.01

HEAVY DUTY REPLACEMENT AND NEW EQUIPMENT TYPES (6.3 Volt Heater Winding)

Type Number	Primary Voltage	R.M.S.—High Volt. Secondary	Sec. D.C. Mils	Rectifier Filament	Heater Winding Center Tapped	Mtg. Style	Dimensions A	B	C	D	E	Net Wt.	Net Price
8P180	117	265-0-265	40	5V. @ 2A.	6.3V. @ 2A.	FL	3	2-1/2	3-1/4	2-1/2	2	3.2	5.37
8P180G						GL	3-1/16	2-7/32	3-1/8	2	2-3/16		
8P183	117	300-0-300	50	5V. @ 2A.	6.3V. @ 2A.	FL	3-3/8	2-13/16	3-7/16	2-13/16	2-1/4	3.5	5.67
8P183G						GL	3-7/16	2-27/32	3-1/4	2-1/4	2-1/8		
8P186	117	325-0-325	60	5V. @ 2A.	6.3V. @ 3A.	FL	3-3/8	2-13/16	3-11/16	2-13/16	2-1/4	4.0	5.94
8P186G						GL	3-7/16	2-27/32	3-1/2	2-1/4	2-3/8		
8P189	117	350-0-350	70	5V. @ 3A.	6.3V. @ 3.5A.	FL	3-3/4	3-1/8	3-3/4	3-1/8	2-1/2	5.0	6.53
8P186G						GL	3-13/16	3-5/32	3-5/8	2-1/2	2-7/16		
8P192	117	350-0-350	90	5V. @ 3A.	6.3A. @ 4A.	FL	3-3/4	3-1/8	4	3-1/8	2-1/2	5.7	7.20
8P192G						GL	3-13/16	3-5/32	3-7/8	2-1/2	2-11/16		
8P194	117	375-0-375	110	5V. @ 3A.	6.3A. @ 4A.	FL	3-3/4	3-1/8	4-1/8	3-1/8	2-1/2	6.0	8.05
8P194G						GL	3-13/16	3-5/32	4	2-1/2	2-13/16		
8P196	117	350-0-350	150	5V. @ 3A.	6.3V. @ 4.8A.	FL	4-1/8	3-7/16	4-3/8	3-7/16	2-3/4	7.7	8.49
8P196G						GL	4-3/16	3-15/32	4-3/8	2-3/4	3-5/16		
8P199	117	400-0-400	70	5V. @ 3A.	6.3V. @ 3.5A.	FL	3-3/4	3-1/8	4	3-1/8	2-1/2	5.8	7.62
8P199G						GL	3-13/16	3-5/32	3-7/8	2-1/2	2-11/16		
8P202	117	450-0-450	200	5V. @ 3A.	6.3V. @ 5A.	FL	4-1/2	3-3/4	4-3/4	3-3/4	3	10.7	10.89
8P202G						GL	4-9/16	3-25/32	4-3/8	3	3-11/16		
8P205	117	450-0-450	325	5V. @ 6A.	6.3V. @ 8A.	HT	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	22.3	29.64
8P208	117	550-0-550	275	5V. @ 6A.	6.3V. @ 6A.	HT	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	23.3	29.64

REPLACEMENT TYPES (2.5 Volt Heater Winding)

8P287	117	350-0-350	70	5V. @ 3A.	2.5V. @ 6A.	FL	3-3/4	3-1/8	3-3/4	3-1/8	2-1/2	5.0	6.53
8P293	117	350-0-350	90	5V. @ 3A.	2.5V. @ 8A.	FL	3-3/4	3-1/8	4	3-1/8	2-1/2	5.6	7.14
8P295	117	350-0-350	150	5V. @ 3A.	2.5V. @ 12A.	FL	4-1/8	3-7/16	4-3/8	3-7/16	2-3/4	7.3	8.49

REPLACEMENT TYPES (Two 2.5 Volt Heater Windings)

8P487	117	350-0-350	70	5V. @ 3A.	No. 1=2.5V.@3.5A.	FL	3-3/4	3-1/8	4	3-1/8	2-1/2	5.8	7.86
8P487G					No. 2=2.5V.@8A.	GL	3-13/16	3-5/32	3-7/8	2-1/2	2-11/16		
8P494	117	375-0-375	110	5V. @ 3A.	No. 1=2.5V.@3.5A.	FL	3-3/4	3-1/8	4-1/4	3-1/8	2-1/2	6.2	8.58
8P494G					No. 2=2.5V.@10A.	GL	3-13/16	3-5/32	4-1/8	2-1/2	2-15/16		

GENERAL PURPOSE TYPES WITH CONVENIENT LUG TERMINALS (6.3 Volt Heater Winding)

Type Number	Primary Voltage	R.M.S.—High Volt. Secondary	Sec. D.C. Mils	Rectifier Filament	Heater Winding Center Tapped	Mtg. Style	Dimensions A	B	C	D	E	Net Wt.	Net Price
8P382	117	300-0-300	50	5V. @ 2A.	6.3V. @ 2A.	ET	3-3/8	2-13/16	3-7/16	2-13/16	2-1/4	3.2	5.16
8P385	117	325-0-325	60	5V. @ 2A.	6.3V. @ 3A.	ET	3-3/8	2-13/16	3-11/16	2-13/16	2-1/4	4.0	5.51
8P388	117	350-0-350	70	5V. @ 3A.	6.3V. @ 3.5A.	ET	3-3/4	3-1/8	3-3/4	3-1/8	2-1/2	4.7	6.03

BIAS TYPES

8P510	117	40-0-40	25	5V. @ 2A.		CL	1-7/8	2-1/4	1-3/4	2-13/16		1.0	3.27
8P511	117	0-90-150-200-250	50	5V. @ 2A.		GL	3-1/16	2-7/32	2-5/8	2	1-11/16	2.0	4.74

VIBRATOR TYPES

8P610	6	225-0-225	40			AL	2-3/16	2-5/8	2	3-1/8		1.3	3.69
8P611	6	320-0-320	40			GL	3-1/16	2-7/32	2-1/2	2	1-9/16	2.1	4.41
8P612	6	390-0-390	60			GL	3-7/16	2-27/32	3-5/16	2-1/4	2-3/16	3.7	5.01

TELEVISION REPLACEMENT TYPES

8P803	117	375-0-375	210	5V. @ 3A.	No. 1=5V.@2A. No. 2=6.3V.@5.6A.	FL	4-1/2	3-3/4	4-3/4	3-3/4	3	10.7	12.90
8P805	117	235-0-235	90	5V. @ 2A.	6.3V. @ 5.5A.	FL	3-3/8	2-13/16	4	2-13/16	2-1/4	5.1	7.44
8P807	117	365-0-365	300	5V. @ 6A.	No. 1=12.6V.@5A. No. 2=5V.@2A	FL	4-23/32	3-27/32	6-3/4	4-1/16	3-3/16	16.0	22.38

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Style GL Mtg.

Style HP Mtg.

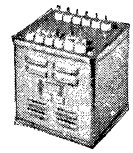
Style ATL Mtg.

Style BTL Mtg.

Style BxL Mtg.

Style HSP Mtg.

Style GTL Mtg.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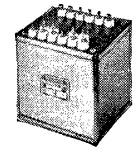
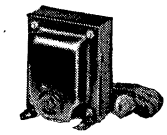

Style JT Mtg.


Style GP Mtg.

NOTE

Basic mounting types are classified as "A," "B," "C," "D," "E," "F," "G," "H," "J," and Bx.

Explanation of Suffix Symbols

L = Leads
T = Lugs
P = Cord and Plug
SP = Switch, Cord and Plug

PLATE TRANSFORMERS — THE "SEVEN" SERIES

All SNC plate transformers have dual secondary ratings. Most units available in either air cooled or compound filled cases. All units electrostatic shields between primary and high voltage windings. 50/60 Cycle Operation

Type Number	Primary Voltage	Pri. V.A.	Secondary R.M.S. Voltage	D.C. Voltage From Filter*	D.C. Current	Mtg. Style	Dimensions A	B	C	D	E	Net Wt.	Net Price
7P530	115-230	220	920-0-920 or 740-0-740	750 or 600	200MA	GL	4-3/4	3-3/4	5-1/8	3	4-1/16	12	13.08
7P535	115-230	320	930-0-930 or 750-0-750	750 or 600	300MA	HT JT	7-1/8	5-1 2	5-15/16	4-3/8	4-13/16	22 30	30.48 34.86
7P542 7P543	115-230	530	1470-0-1470 or 1220-0-1220	1250 or 1000	300MA	HT JT	7-1/8	6-1/2	7-1/4	5-3/8	6-1/8	33 41	36.60 40.65
7P551 7P552	115-230	750	2050-0-2050 or 1740-0-1740	1750 or 1500	300MA	HT JT	7-1/8	6-1/2	7-1/4	5-3/8	6-1/8	43 51	39.21 47.93
7P557 7P558	115-230	1060	2880-0-2880 or 2350-0-2350	2500 or 2000	300MA	HT JT	10-3/4	6-1/2	7-1/4	5-3/8	6-1/8	53 69	54.03 58.38
7P563 7P564	115-230	1760	2900-0-2900 or 2370-0-2370	2500 or 2000	500MA	HT JT	10-3/4	9	7-1/4	7	5-13/16	96 126	78.42 108.90

*All units may be operated with simultaneous loads—provided the total D.C. Current of the two loads does not exceed the rating listed.

FILAMENT TRANSFORMERS — THE "FOUR" SERIES

Most SNC Filament Transformers are constructed to provide two identical center tapped secondary windings and offer a minimum of three applications. They provide three-fold the number of possible applications of ordinary filament types. A few are single secondary units and are so designed. All have 117 V. 50/60 cycle primary.

Type Number	Applications: Parallel Secondaries	Series Secondaries	Independent Identical Secondaries	Test Voltages	Mtg. Style	Dimensions A	B	C	D	E	Net Wt.	Net Price
4P222	2.5V. C.T. @ 5 A.	5 V. C.T. @ 2.5 A.	Two of 2.5V. C.T.@ 2.5 A.	2000	BL	2-1/4	1-7/8	1-3/4	2-3/8		1.0	2.58
4P226*	2.5V. C.T. @ 10 A.*			7500	BL	3	2-1/2	2-3/8	3-1/8		2.0	3.93
4P227	2.5V. C.T. @ 10 A.	5 V. C.T. @ 5 A.	Two of 2.5V. C.T.@ 5 A.	2000	BL	2-5/8	2-3/16	2	2-13/16		1.5	3.51
4P234	2.5V. C.T. @ 15 A.	5 V. C.T. @ 7.5 A.	Two of 2.5V. C.T.@ 7.5 A.	2000	BL	3	2-1/2	2-1/4	3-1/8		2.2	4.14
4P239	5 V. C.T. @ 6.5A.	10 V. C.T. @ 3.25A.	Two of 5 V. C.T.@ 3.25A.	2000	BL	3	2-1/2	2-1/4	3-1/8		2.2	3.69
4P242*	5 V. C.T. @ 20 A.*			10000	BxL	4-1/8	3-7/16	2-3/4	2-3/4	2-1/8	4.6	7.38
4P243	5 V. C.T. @ 20 A.	10 V. C.T. @ 10 A.	Two of 5 V. C.T.@ 10 A.	2000	BxL	3-3/4	3-1/8	2-3/4	2-1/2	2-1/4	4.3	6.54
4P244*	6.3V. C.T. @ 0.6A.*			2000	BL	1-7/8	1-9/16	1-1/2	2		.6	2.55
4P245*	6.3V. C.T. @ 1.2A.*			2000	BL	1-7/8	1-9/16	1-5/8	2		.7	2.76
4P246	6.3A. C.T. @ 2 A.	12.6V. C.T. @ 1 A.	Two of 6.3V. C.T.@ 1 A.	2000	BL	2-1/4	1-7/8	1-3/4	2-3/8		1.0	3.03
4P251	6.3V. C.T. @ 6 A.	12.6V. C.T. @ 3 A.	Two of 6.3V. C.T.@ 3 A.	2000	BL	3	2-1/2	2-1/4	3-1/8		2.0	3.54
4P256	6.3V. C.T. @ 10 A.	12.6V. C.T. @ 5 A.	Two of 6.3V. C.T.@ 5 A.	2000	BxL	3-3/8	2-13/16	2-1/2	2-1/4	2-1/8	2.9	4.59
4P260	7.5V. C.T. @ 3 A.	15 V. C.T. @ 1.5 A.	Two of 7.5V. C.T.@ 1.5 A.	2000	BL	2-5/8	2-3/16	2	2-13/16		1.5	3.69
4P267	7.5V. C.T. @ 4.5A.	15 V. C.T. @ 2.3 A.	Two of 7.5V. C.T.@ 2.3 A.	2000	BL	3	2-1/2	2-1/4	3-1/8		2.0	4.59
4P272	11 V. C.T. @ 10 A.	22 V. C.T. @ 5 A.	Two of 11 V. C.T.@ 5 A.	2000	BxL	3-3/4	3-1/8	2-3/4	2-1/2	2-1/4	4.1	6.54

*Single Secondary Units.

VOLTAGE CHANGER AND ISOLATION — THE "NINE" SERIES

All Units Have Primary Cord and Secondary Plug and Are For 50/60 Cycle Operation.

VOLTAGE CHANGER (ISOLATION)

Type Number	Primary Voltage	Secondary Voltage	Capacity in V. A.	Mtg. Style	Dimensions A	B	C	D	E	Net Wt.	Net Price
9P707	220-250	110-125	75	GP	3-13/16	3-5/32	3-1/8	2-1/2	1-15/16	3.9	6.90
9P713	220-250	110-125	150	GP	4-9/16	3-25/32	3-7/8	3	2-13/16	8.0	10.02
9P718	220-250	110-125	360	HP	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	23.3	26.13

ISOLATION TYPES

9P721	110-250	110-250	150	GP	4-9/16	3-25/32	4-5/8	3	3-9/16	12.1	13.80
9P725	110-250	110-250	250	HP	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	23.3	21.36
9P728	110-250	110-250	500	HP	7-1/8	6-1/2	7-1/4	5-3/8	6-1/8	34.8	30.06

VOLTAGE ADJUSTMENT TYPES WITH TAP CHANGE SWITCH

9P732	95-130 in 5V. Steps	115	150	HSP	4-7/8	3-7/8	3-7/8	3-1/8	3-1/8	4.7	18.74
9P737	95-130 in 5V. Steps	115	250	HSP	5-3/8	4-3/8	4-1/4	3-5/8	3-1/2	8.0	24.00
9P739	80-130 in 5V. Steps	115	500	HSP	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	23.3	35.70

All list prices given are subject to regular trade discounts and may be changed without notice.

S N C MANUFACTURING CO., INC., OSHKOSH, WISCONSIN

SOLA

A DIVISION OF
BASIC PRODUCTS CORPORATION

BPC

In Canada: Sola-Basic Products Ltd.,
377 Evans Avenue, Toronto 18, Ontario

SECTION 5600

CV Transformers

AUTOMATIC, INSTANTANEOUS VOLTAGE REGULATION FOR A WIDE VARIETY OF ELECTRIC AND ELECTRONIC DEVICES

Constant-voltage Sola transformers provide a stabilized output voltage even though the input voltage varies over a considerable range. Their applications are numerous and varied. CV's are especially ideal for high-accuracy requirements such as in computers and data-processing equipment.

Another advantage in CV transformers is their ability to prolong the life of electronic components by eliminating injurious over- and under-voltages. The Sola transformer's current-limiting factor protects semiconductors and other components from excessive inrush and fault currents.

Sola Sinusoidal Type (CVS) *LESS THAN 3% HARMONIC CONTENT*

ELECTRICAL SPECIFICATIONS • 60 CYCLE SINGLE PHASE — **MECHANICAL SPECIFICATIONS**

Voltage Rating				Price	Nominal Dimensions		Approximate	*
Regulated Output	Input Range	VA	Catalog Number	Ind'l & Govt. Users	Outline	Mounting	Shipping Weight Lbs.	Structure Code
118	95-130	30	23-13-030(a)	$25.00	6⅛ x 4 x 5⅜₁₆	3 x 3½	9	W
	190-260X 380-520	30	23-23-030(a)	27.00	6⅛ x 4 x 5⅜₁₆	3 x 3½	9	W
	95-130	60	23-13-060(a)	30.00	6¹⁵⁄₁₆ x 4 x 5⅜₁₆	3 x 3½	10	W
	190-260X 380-520	60	23-23-060(a)	32.00	6¹⁵⁄₁₆ x 4 x 5⅜₁₆	3 x 3½	10	W
	95-130X 190-260	120	23-22-112(a)	38.00	8 x 4 x 5⅜₁₆	3 x 3½	14	W
	190-260X 380-520	120	23-23-112(a)	41.00	8 x 4 x 5⅜₁₆	3 x 3½	14	W
	95-130X 190-260	250	23-22-125(b)	52.00	9⅝ x 5⅜ x 7⁷⁄₁₆	4⅛ x 4¾	28	W
	190-260X 380-520	250	23-23-125(b)	56.00	10 x 5⅜ x 7⁷⁄₁₆	4⅛ x 4¾	28	W
	95-130X 190-260	500	23-22-150(c)	81.00	12⁷⁄₁₆ x 9 x 6⁷⁄₁₆	5⅝ x 8⅛	47	W
118 x 236	190-260X 380-520 95-130X 175-235X	500	23-26-150(c)	86.00	12⁷⁄₁₆ x 9 x 6⁷⁄₁₆	5⅝ x 8⅛	47	W
	190-260	1000	23-25-210(c)	135.00	17¹⁵⁄₁₆ x 9 x 6⁷⁄₁₆	5⅝ x 8⅛	80	W
	190-260X 380-520	1000	23-26-210(c)	135.00	17¹⁵⁄₁₆ x 9 x 6⁷⁄₁₆	5⅝ x 8⅛	80	W
	95-130X 175-235X 190-260	2000	23-25-220	245.00	19¹⁵⁄₁₆ x 12¾ x 10¹¹⁄₁₆	4½ x 11¾	145	W
	190-260X 380-520	2000	23-26-220	245.00	19¹⁵⁄₁₆ x 12¾ x 10¹¹⁄₁₆	4½ x 11¾	145	W
	95-130X 175-235X 190-260	3000	23-25-230-3	330.00	21⅞ x 12¾ x 10¹¹⁄₁₆	6⁷⁄₁₆ x 11¾	192	W
	190-260X 380-520	3000	23-26-230	330.00	21⅞ x 12¾ x 10¹¹⁄₁₆	6⁷⁄₁₆ x 11¾	192	W
	95-130X 175-235X 190-260	5000	23-25-250	515.00	20⁹⁄₁₆ x 25¹³⁄₁₆ x 10¹¹⁄₁₆	5⁷⁄₁₆ x 24¹³⁄₁₆	475	Y
	190-260X 380-520	5000	23-26-250	515.00	20⅞ x 25¹³⁄₁₆ x 10¹¹⁄₁₆	5⁷⁄₁₆ x 24¹³⁄₁₆	475	Y
	190-260X 380-520	7500	23-28-275	765.00	20⁹⁄₁₆ x 38¼ x 11⅛	5⁷⁄₁₆ x 37¼	710	Z

An adjustable CVS, the ac Solavolt is available with output range from 0-130 v. 500 va. Write for Solavolt bulletin.

Normal Harmonic Type (CVN)

ELECTRICAL SPECIFICATIONS • 60 CYCLE SINGLE PHASE — **MECHANICAL SPECIFICATIONS**

Voltage Rating		Output Capacity in VA	Catalog Numbers	Approx. Net Price Each to Industrial, Commercial or Govt. Users	Nominal Dimensions (Inches)		Approx. Ship. Wt. in Lbs.	* Structure Code
Regulated Output	Input Range				Outline	Mounting		
118	95-130	15	20-10-015	$15.00	5⁹⁄₁₆ x 2⅝ x 3½	5⅛ x 1⅛	4	D
			20-11-015	20.00	5¼ x 3½ x 2¼	3 x 1½	4	S
			20-14-015	14.00	4⁵⁄₁₆ x 2⅜ x 2⁷⁄₁₆	1¾ x 1⅞	3	E
		30	20-14-030	16.00	4⁵⁄₁₆ x 2⅜ x 3⁵⁄₁₆	1⅞ x 2⅜	5	E
			20-13-030(a)	20.00	6 x 4 x 5⅜₁₆	3 x 3½	7	W
		60	20-13-060(a)	25.00	6¹³⁄₁₆ x 4 x 5⅜₁₆	3 x 3½	10	W
			20-14-060	21.00	4¹³⁄₁₆ x 3⅛ x 3⅞	2½ x 3⅞	8	E
118	95-130	120	20-14-112	29.00	4¹³⁄₁₆ x 3⅛ x 4¹⁵⁄₁₆	2½ x 3⅞	11	E
			20-13-112(a)	33.00	7⅛ x 4 x 5⅜₁₆	3 x 3½	13	W
236	190-260	120	20-21-112(a)	33.00	7⅛ x 4 x 5⅜₁₆	3 x 3½	13	W
118	95-130	150	20-13-115(b)	40.00	8⅛ x 5⅜ x 7⁷⁄₁₆	4⅛ x 4¾	22	W
	190-260x 380-520	250	20-13-125(c)	49.00	11⅛ x 6¹⁵⁄₁₆ x 6⁷⁄₁₆	4⅝ x 6⅛	25	W
			20-23-125(c)	49.00	11⅛ x 6¹⁵⁄₁₆ x 6⁷⁄₁₆	4⅝ x 6⅛	25	W
	95-130	500	20-13-150(c)	77.00	12⁵⁄₁₆ x 6¹⁵⁄₁₆ x 6⁷⁄₁₆	4⅝ x 6⅛	36	W
	190-260x 380-520		20-23-150(c)	77.00				
236			20-24-150(c)	77.00	12½ x 6¹⁵⁄₁₆ x 6⁷⁄₁₆			
118	95-130	1000	20-13-210	128.00	15⅛ x 6¹⁵⁄₁₆ x 6⁷⁄₁₆	4⅝ x 6⅛	54	W
	190-260		20-20-210	128.00				
118x 236	95-130x 175-235x 190-260	2000	20-25-220	232.00	20 x 10½ x 10¹¹⁄₁₆	4⁹⁄₁₆ x 9½	166	W
		3000	20-25-230	315.00	22 x 10½ x 10¹¹⁄₁₆	6⁹⁄₁₆ x 9½	230	W
	190-260x 380-520	5000	20-27-250	490.00	21 x 14½ x 14³⁄₈	7 x 13	279	W
		10000	20-26-310	925.00	21 x 29⁹⁄₁₆ x 14³⁄₈	7 x 27¹⁵⁄₁₆	590	Y

Letter following a catalog number designates units which may be converted to cord input and receptacle output. See Adapter Kit table on page 3.

Outline dimensions are the overall outside dimensions of the unit, not including separate capacitor where employed. Dimensions are subject to manufacturing tolerances of ±1/32 to ±1/8 inch.

For more information on the SOLATRON Voltage Regulator, see page 1066 in Sec. 4000.

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SOLA

A DIVISION OF
BASIC PRODUCTS CORPORATION

B P C

In Canada: Sola-Basic Products Ltd.,
377 Evans Avenue, Toronto 18, Ontario

SECTION 5600

Electronic-Power Types

± 1% REGULATION FOR FILAMENT TYPE,
± 3% FOR PLATE-FILAMENT TYPE

The electronic-power type of Sola transformer is designed as a component for simple assembly into many kinds of electronic equipment. The filament type (CVF) provides 6.0 or 6.3 volts of output regulated within ± 1% over line variations of ± 15%; the combination plate-and-filament type (CVE) regulates within ± 3%.

for filament service (Type CVF)

ELECTRICAL SPECIFICATIONS • 60 CYCLE SINGLE PHASE — **MECHANICAL SPECIFICATIONS**

Voltage Rating		Output Capacity in Amps.	Catalog Number	Approx. Net Price Each to Industrial Users	Nominal Dimensions (Inches)		Approx. Ship. Wt. in Lbs.	* Structure Code
Regulated ±1% Output	Input Range				Outline	Mounting		
6.0	95-130	2.50	20-01-015	$15.00	5 5/16 x 2 5/8 x 3 1/2	5 1/16 x 1 1/8	6	D
			20-06-015	14.00	4 15/16 x 2 3/8 x 2 7/16	1 3/4 x 1 7/8	4	E
6.3	95-130	2.38	20-02-015	15.00	5 5/16 x 2 5/8 x 3 1/2	5 1/16 x 1 1/8	6	D
			20-03-015	20.00	4 15/16 x 2 3/8 x 2 7/16	1 3/4 x 1 7/8	4	S
			20-04-015	14.00	4 15/16 x 2 3/8 x 2 7/16	1 3/4 x 1 7/8	4	E
	95-130X 190-260	5.0	20-04-030	16.00	4 13/16 x 3 1/8 x 3 1/8	2 1/2 x 2 1/16	6	E
		10.0	20-04-065	20.00	4 13/16 x 3 1/8 x 3 3/4	2 1/2 x 2 11/16	7	E
		15.0	20-04-095	24.00	4 13/16 x 3 1/8 x 4 11/16	2 1/2 x 3 5/8	11	E
		25.0	20-04-116	35.00	7 x 4 1/2 x 5 11/16	3 5/8 x 4 1/8	23	E

for plate filament service (Type CVE)

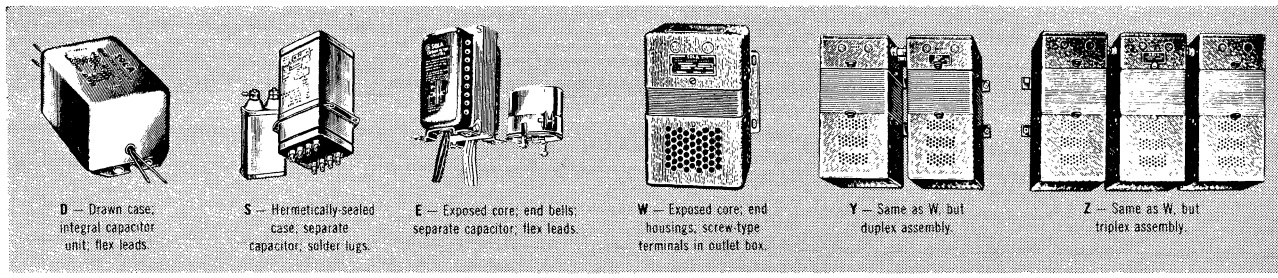
ELECTRICAL SPECIFICATIONS • 60 CYCLE SINGLE PHASE — **MECHANICAL SPECIFICATIONS**
Input range, 100-130 volts

Typical Rectifier Tube	Average D.C. Input Volts to Filter*	Filament Windings		Catalog Number	Approx. Net Price Each to Industrial Users	Nominal Dimensions (Inches)		Approx. Ship. Wt. in Lbs.	* Structure Code
		6.3 Volts	5.0 Volts			Outline	Mounting		
5Y3	275v D.C. @ 50 M.A.	2.5 amps C.T.	2.0 amps	7104	$12.00	4 13/16 x 3 1/8 x 3 3/16	2 1/2 x 2 1/8	6	E
5Y3	385v D.C. @ 110 M.A.	3.0 amps C.T.	2.0 amps	7106	15.00	4 13/16 x 3 1/8 x 3 15/16	2 1/2 x 2 7/8	8	E
5U4	380v D.C. @ 250 M.A.	No. 1: 4.0 amps No. 2: 8.0 amps unregulated	3.0 amps	7107	27.00	7 x 4 1/2 x 4 7/8	3 5/8 x 3 3/8	19	E

**Voltage values are taken at output of 5Y3GT rectifier for No. 7104 and No. 7106 transformers and at output of 5U4GA-GB for No. 7107. Guaranteed regulation of ±3% on plate voltage output is contingent on the use of Sola-regulated 5.0v filament supply winding for the rectifier tube.*

*Mechanical Structures

"STRUCTURE CODE" LETTER REFERS TO ONE OF THESE GENERAL TYPES OF MECHANICAL ASSEMBLIES:



D — Drawn case; integral capacitor unit; flex leads.

S — Hermetically-sealed case; separate capacitor; solder lugs.

E — Exposed core; end bells; separate capacitor; flex leads.

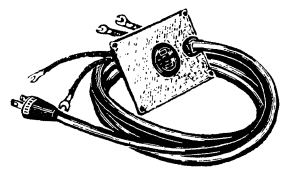
W — Exposed core; end housings; screw-type terminals in outlet box.

Y — Same as W, but duplex assembly.

Z — Same as W, but triplex assembly.

Cord/Receptacle Adapter Kits

Adapter kits may be used when the convenience of input plug and output receptacle is preferred to the standard arrangement of terminals in the transformer housing. See accompanying chart.



Code	Adapter Kit Catalog No.	Input Cord	Output-Connections	Net price each to industrial users
(a)	999-004	2-wire	2-wire receptacle	$1.75
	999-018	3-wire	3-wire receptacle	2.50
(b)	999-005	2-wire	2-wire receptacle	1.75
	999-019	3-wire	3-wire receptacle	2.50
(c)	999-009	2-wire	2-wire receptacle	2.00
	999-020	3-wire	3-wire receptacle	2.50

The transformers described in this folder are manufactured under one c more of the following United States Patents: Nos. 2,694,177; 2,753,513 2,806,199, and patents pending.

For more information on the SOLATRON Voltage Regulator, see page 1066 in Sec. 4000.

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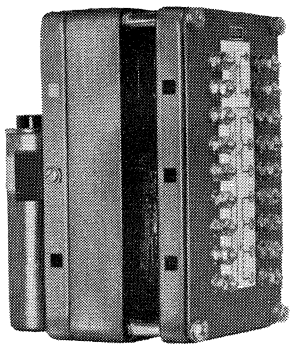


All-New From Sola!

112 REGULATED OUTPUT VOLTAGES IN ONE OFF-THE-SHELF UNIT!

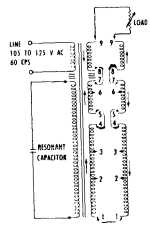
Sola's Multi-Tap constant voltage transformer is so completely new that it gives your electronics lab, prototype shop, service or repair department the boon of real voltage versatility — all in one new package. It is the equivalent of having 112 different special-output constant-voltage transformers immediately available — and at less cost. **One** unit covers the entire output range.

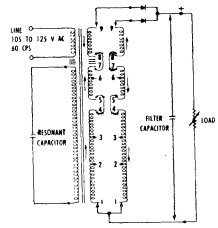
Typical AC & DC Output Voltages

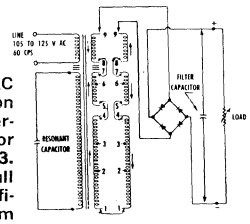
SPECIFICATIONS: Input range for all units: 105-125 volts.

CATALOG NUMBER	AC LOAD	DC LOAD							
		Full-wave Center Tap				Full-wave Bridge			
		Resistive Load		Capacitive Load*		Resistive Load		Capacitive Load**	
		Secondary vac	Output vdc	Secondary vac	Output vdc	Secondary vac	Output vdc	Secondary vac	Output vdc
73-13-115 150 va.	31.4	30.8	13.0	31.0	14.5	30.8	27.8	31.2	32.9
	27.2	27.2	11.4	28.3	12.6	27.4	24.4	27.6	28.6
	24.0	24.0	9.9	25.0	10.9	24.3	21.4	24.2	24.8
VAC Output at 5 amp.	22.0	22.0	9.0	23.0	9.9	22.2	19.5	22.3	22.6
	20.2	20.4	8.3	21.0	8.8	20.2	17.8	20.3	20.4
FW-CT Output at 8 amp.	18.4	18.7	7.4	19.2	7.9	18.6	16.0	18.4	18.3
	16.0	16.5	6.3	16.8	6.6	16.4	13.9	16.1	15.8
FW-Bridge Output at 4 amp.	14.9	15.0	6.0	15.7	6.3	15.0	12.8	15.1	14.0
	13.4	13.6	5.3	14.0	5.4	13.6	11.4	13.6	12.5
	12.6	12.8	4.9	13.0	5.0	12.8	10.6	12.8	11.6
*4000 mfd. **2000 mfd.	11.6	11.6	4.4	12.0	4.5	11.6	9.6	11.8	10.4
	10.8	10.8	4.0	11.0	4.0	10.8	8.8	10.8	9.5

Catalog No.	VA rating
73-13-040	40 VA
73-13-075	75 VA
73-13-115	150 VA
73-13-122	225 VA
73-13-130	300 VA
73-13-145	450 VA



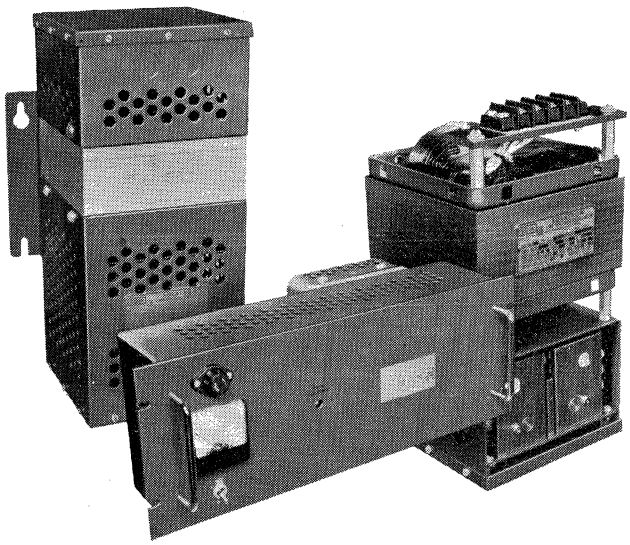




1. Connections for AC output; **2.** Connection for full-wave, center-tap rectification (for maximum output); **3.** Connections for full wave, bridge rectification (for maximum output).

NEW compact 1-kva SOLATRON VOLTAGE REGULATOR

(static-magnetic principle)



The new 1-kva Solatron is designed for use as an OEM component, or for applications where size and weight are critical factors. One-fourth the size, one-third the weight of previous Solatron models — yet it provides closer regulation and lower harmonic distortion.

The new compact Solatron is available in three separate versions: external mounting, rack-panel mounting, and open core-and-coil for component installation. A wide range of styles ranging from .5 kva upwards are available in these three styles, in controlling fluctuation ranges of ±10%, ±20% and +10%, −20%. For complete information on the compact Solatron regulator, please write for bulletin No. VR-200.

SOLA

DIVISION OF
ASIC PRODUCTS CORPORATION

BPC

In Canada: Sola-Basic Products Ltd., 377 Evans Avenue, Toronto 18, Ontario
A DIVISION OF BASIC PRODUCTS CORPORATION

For more information on the SOLATRON Voltage Regulator, see page 1066 in Sec. 4000.

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IGNAL

MOST COMPLETE LINE IN THE INDUSTRY

HIGH CURRENT TRANSFORMERS

ALL ITEMS AVAILABLE IMMEDIATELY FROM STOCK

12.8 or 6.4 VOLTS

0-3.2-6.4-9.6-12.8 V
12.8 V C.T. or parallel
6.4 V C.T. @ 2 x current

24 or 12 VOLTS

0-6-12-18-24 V
24 V C.T. or Parallel
12 V C.T. @ 2 x current

36 or 18 VOLTS

0-9-18-27-36 V
36 V C.T. or Parallel
18 V C.T. @ 2 x current

56 or 28 VOLTS

0-14-28-42-56 V
56 V C.T. or Parallel
28 V C.T. @ 2 x current

68 or 34 VOLTS

0-17-34-51-68 V
68 V C.T. or parallel
34 V C.T. @ 2 x current

80 or 40 VOLTS

0-20-40-60-80 V
80 V C.T. or Parallel
40 V C.T. @ 2 x current

160 or 80 VOLTS

0-40-80-120-160 V
160 V C.T. or Parallel
80 V C.T. @ 2 x current

230 or 115 VOLTS

0-57½-115-172½ V
230 V C.T. or Parallel
115 V C.T. @ 2 x current

PART NO.	PRIMARY 50-500 cps	SECONDARY VOLTS SERIES	SECONDARY VOLTS PARALLEL	SECONDARY AMPS SERIES	SECONDARY AMPS PARALLEL	APPROX. DIMENSIONS L	W	H	ML	MW	APX. LBS.	USERS NET PRICE
12.8-2	115V	0-3.2 6.4-9.6-12.8	0-6.4-12.8	2	4	3 1/16	2 1/2	2 5/8	2 1/2	2	2.2	$ 4.65
12.8-4	115	"	"	4	8	3 1/16	3	2 5/8	2 1/2	2 3/8	3	6.00
12.8-6	115	"	"	6	12	3 1/2	3 1/4	3 1/4	2 13/16	2 1/2	4.2	6.90
12.8-8	115	"	"	8	16	3 13/16	2 5/8	3	3 1/8	2 1/4	4.5	7.20
12.8-12	115	"	"	12	24	4 3/16	3 1/4	3 5/8	3 7/16	2 3/8	6	8.50
12.8-25	115	"	"	25	50	5 3/8	4 1/4	4 5/8	4 3/8	2 7/8	12	18.00
12.8-50	105, 115, 125	"	"	50	100	5 5/16	5 3/4	4 5/8	4 3/8	4 1/8	20	25.00
12.8-100	105, 115, 125	"	"	100	200	6 1/2	6 3/8	5 5/8	5 5/16	4 3/8	32	37.00
24-1	115V	0-6 12-18-24	0-6-12	1	2	3 1/16	2 1/2	2 5/8	2 1/2	2	2.2	$ 4.65
24-2	115	"	"	2	4	3 1/16	3	2 5/8	2 1/2	2 3/8	3	5.90
24-4	115	"	"	4	8	3 13/16	2 5/8	3	3 1/8	2 1/4	4.5	7.20
24-6	115	"	"	6	12	4 3/16	3 1/4	3 5/8	3 7/16	2 3/8	6	8.45
24-8	115	"	"	8	16	4 3/16	3 7/8	3 5/8	3 7/16	3	8	12.00
24-12	105, 115, 125	"	"	12	24	4 5/16	4 1/2	4	3 3/4	3 3/8	11.5	15.00
24-20	105, 115, 125	"	"	20	40	5 1/4	4 3/4	4 5/8	4 3/8	3 3/8	15	18.00
24-25	105, 115, 125	"	"	25	50	5 5/16	5 3/4	4 5/8	4 3/8	4 1/8	20	24.00
24-50	105, 115, 125	"	"	50	100	6 1/2	6 3/8	5 5/8	5 5/16	4 3/8	32	36.00
24-100A	115/230	"	"	100	200	7 5/8	7	6 3/8	6 3/4	4 1/8	45	52.00
36-1	115 V	0-9-18-27-36	0-9-18	1	2	3 1/16	2 3/4	2 5/8	2 1/2	2 1/4	2.5	4.60
36-2	115	"	"	2	4	3 1/2	3	3 1/4	2 13/16	2 3/8	3.8	6.25
36-4	115	"	"	4	8	4 3/16	3 3/4	3 3/4	3 7/16	2 5/8	6.7	7.70
36-6	115	"	"	6	12	4 5/16	3 3/4	4	3 3/4	2 3/4	8.6	12.60
36-8	115	"	"	8	16	4 5/16	4 1/8	4	3 3/4	3 3/8	11	13.90
36-12	105, 115, 125	"	"	12	24	5 5/16	4 7/8	4 5/8	4 3/8	3 3/8	14.5	15.25
36-20	105, 115, 125	"	"	20	40	6 1/2	5 1/2	5 5/8	5 5/16	3 3/8	23	27.60
36-25	105, 115, 125	"	"	25	50	6 1/2	6	5 5/8	5 5/16	3 3/4	27	29.75
36-30	105, 115, 125	"	"	30	60	6 1/2	6 1/2	5 5/8	5 5/16	4 3/8	32	36.00
36-50	115/230	"	"	50	100	6 1/2	7 3/4	5 5/8	5 5/16	5 1/8	40	43.00
36-100A	115/230	"	"	100	200	7 5/8	8 5/16	6 3/8	6 3/4	5 7/16	62	85.00
56-1	115	0-14 28-42-56	0-14-28	1	2	3 1/2	2 3/4	3	2 13/16	2 1/4	3.8	6.75
56-2	115	"	"	2	4	3 7/8	3 1/4	3 3/8	3 1/8	2 1/2	5	7.25
56-4	115	"	"	4	8	4 1/4	3 3/4	3 3/4	3 7/16	3	8	11.25
56-6	115	"	"	6	12	5 3/8	4 1/4	4 5/8	4 3/8	2 7/8	12	18.00
56-8	105, 115, 125	"	"	8	16	5 3/8	5	4 5/8	4 3/8	3 5/8	17	22.00
56-12	105, 115, 125	"	"	12	24	6 1/2	5 1/2	5 5/8	5 5/16	3 3/8	22	27.00
56-25	105, 115, 125	"	"	25	50	6 1/2	7 1/8	5 5/8	5 5/16	5 1/8	38	45.00
56-50A	115/230	"	"	50	100	7 5/8	7 1/4	6 3/8	6 3/4	4 7/8	54	85.00
56-100	115/230	"	"	100	200	7 5/8	11	6 3/8	6 3/4	8 1/8	100	125.00
68-½	115V	0-17-34-51-68	0-17-34	½	1	3 1/16	2 3/4	2 5/8	2 1/2	2 1/4	2.5	$ 5.00
68-1	115	"	"	1	2	3 1/2	3	3 1/4	2 13/16	2 3/8	3.8	6.50
68-2	115	"	"	2	4	4 3/16	3 3/4	3 3/4	3 7/16	2 5/8	6.7	8.35
68-4	115	"	"	4	8	4 5/16	4 1/8	4	3 3/4	3 3/8	11	14.25
68-6	105, 115, 125	"	"	6	12	5 5/16	4 7/8	4 5/8	4 3/8	3 3/8	14.5	16.00
68-8	105, 115, 125	"	"	8	16	5 5/16	5 1/2	4 5/8	4 3/8	3 7/8	19	23.00
68-12	105, 115, 125	"	"	12	24	6 1/2	6	5 5/8	5 5/16	3 3/4	27	31.00
68-25	115/230	"	"	25	50	6 1/2	7 3/4	5 5/8	5 5/16	5 1/8	40	45.00
68-50	115/230	"	"	50	100	7 5/8	8 5/16	6 3/8	6 3/4	5 7/16	62	85.00
80-½	115	0-20 40-60-80	0-20-40	0.5	1	3 1/16	2 3/4	2 5/8	2 1/2	2 1/4	3	4.80
80-1	115	"	"	1	2	3 1/2	3 1/4	3 1/4	2 13/16	2 1/2	4.2	7.00
80-2	115	"	"	2	4	4 1/4	3 5/8	3 3/4	3 7/16	2 5/8	7	10.50
80-4	115	"	"	4	8	5 3/8	4 1/4	4 5/8	4 3/8	2 7/8	13	18.00
80-6	105, 115, 125	"	"	6	12	5 3/8	5 1/8	4 5/8	4 3/8	3 7/8	19	23.00
80-8	105, 115, 125	"	"	8	16	6 1/2	5 1/4	5 5/8	5 5/16	3 1/4	22	26.00
80-12	105, 115, 125	"	"	12	24	6 1/2	6	5 5/8	5 5/16	4 1/8	29	34.00
80-25	115/230	"	"	25	50	7 5/8	6 1/2	6 3/8	6 3/4	3 7/8	40	55.00
80-50	115/230	"	"	50	100	7 5/8	9	6 3/8	6 3/4	6 1/2	78	105.00
160-½	115	0-40 80-120-160	0-40-80	0.5	1	3 1/2	3 1/4	3 1/4	2 13/16	2 1/2	4.2	7.25
160-1	115	"	"	1	2	4 1/4	3 1/2	3 3/4	3 7/16	2 5/8	6.4	10.50
160-2	115	"	"	2	4	4 5/16	4 3/8	4	3 3/4	3 3/8	11	14.50
160-4	105, 115, 125	"	"	4	8	6 1/2	5	5 5/8	5 5/16	3 1/4	19	26.00
160-8	105, 115, 125	"	"	8	16	6 1/2	6 5/8	5 5/8	5 5/16	4 7/8	36	41.00
160-12	115/230	"	"	12	24	7 5/8	6 1/2	6 3/8	6 3/4	3 7/8	40	55.00
230-½	115	0-57.5 115-172½-230	0-57.5-115	0.5	1	3 7/8	4	3 1/4	3 1/8	3	7	8.70
230-1	115	"	"	1	2	4 5/16	4	4	3 3/4	3	10	12.50
230-2	115	"	"	2	5	5 3/8	4 3/4	4 5/8	4 3/8	3 3/8	14.5	16.75
230-4	105, 115, 125	"	"	4	8	6 1/2	6	5 5/8	5 5/16	4 1/8	30	34.00

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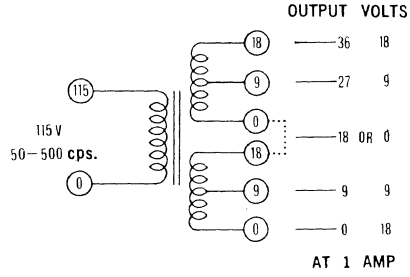
MOST COMPLETE LINE IN THE INDUSTRY

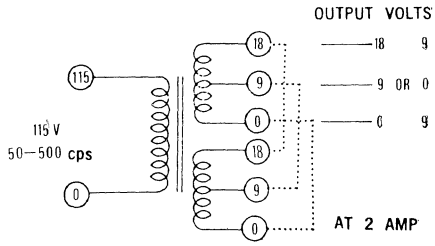
HIGH CURRENT TRANSFORMERS & CHOKES

ALL ITEMS AVAILABLE IMMEDIATELY FROM STOCK

SERIES CONNECTED SECONDARIES



PARALLEL CONNECTED SECONDARIES

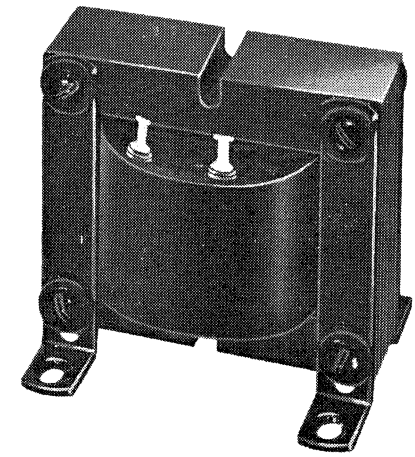


The line is designed conservatively for a max of 50° C rise above ambient, for use on 115V power line from 50-500 cps. Only prime raw materials are used. Units are thoroughly impregnated and baked with Signal's own high gloss black baking varnish. The transformers and chokes are rugged in construction, well-insulated, and have a consistently uniform appearance. All ratings are at full load current continuous operation.

Electrical ratings have been chosen to cover a wide range of applications. All transformers have two center-tapped secondary windings. This is indicated on the schematic diagram below.

It is possible to make connections for many different voltage and current combinations. A number of possible applications are illustrated in the diagrams to the left. It should be noted that Part No. 36-1 is used in these specific examples. Since the user can choose from a line having 12.8, 24, 36, 56, 68, 80, 160 or 230 volt output with current ratings from ½ to 100 amperes, it is apparent that an almost limitless number of combinations can be selected.

If you should have any questions regarding these or any of the possible combinations which may occur to you, our engineering staff will be pleased to furnish prompt answers.

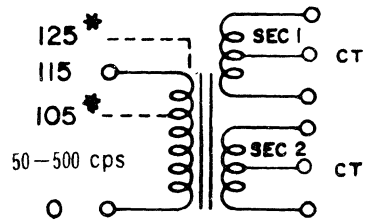


METHOD OF DETERMINING SECONDARY CURRENT RATING

Since our transformers may be used in many possible configurations, the current shown is rms secondary winding current. Secondary current ratings are rms ac values, NOT dc values. When selecting the "Secondary Amp" rating, the conversion chart at the right should be used.

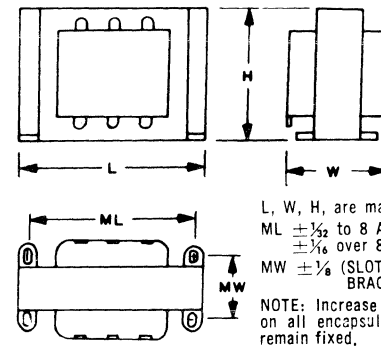
RECTIFIER TYPE	FILTER TYPE	SECONDARY CURREN
Full Wave Center-Tap	Choke Input	.7 times DC currer
Full Wave Center-Tap	Capacitor Input	1.2 times DC currer
Full Wave Bridge	Choke Input	Equal to DC currer
Full Wave Bridge	Capacitor Input	1.8 times DC currer

SCHEMATIC DIAGRAM



*Taps are standard on higher current units, consult chart above.

MECHANICAL DIMENSIONS



L, W, H, are maximum dimensions
ML ±1/32 to 8 AMP
±1/16 over 8 AMP
MW ±1/8 (SLOTTED HOLE IN BRACKET)
NOTE: Increase L, W, H by 1/4 inch on all encapsulated units. ML, MW remain fixed.

HIGH CURRENT CHOKES

Signal's line of High Current Chokes is designed to complement the selection of rectifier transformers, so that a set may be specified for power supplies using choke input filters.

Inductance ratings are minimum guaranteed at full rated dc current. Resistances are maximum values.

Special variations or intermediate values of inductance, current, or resistance can be supplied promptly and accurately.

PART NO.	INDUCTANCE (Milli-hy.)	CURRENT (amps)	RESIS. (ohms)	DIMENSIONS L	W	H	ML	MW	APPR. WT.	USERS NET
CH-1	100	1	1.5	3 1/16	2 1/2	2 3/4	2 1/2	2	2.5	$ 4.25
CH-2	70	2	0.9	3 7/16	2 3/4	3 1/8	2 13/16	2 1/8	3.5	5.00
CH-4	70	4	0.6	3 13/16	3 3/8	3 3/8	3 1/8	2 1/2	5.5	6.25
CH-6	40	6	0.4	3 13/16	3 3/4	3 3/8	3 1/8	3	7	8.70
CH-8	30	8	0.3	4 3/16	3 5/8	3 3/4	3 7/16	3	8	10.80
CH-12	15	12	0.1	5 5/16	4	4 5/8	4 3/8	3 1/8	13	14.00
CH-20	7	20	0.05	5 5/16	4	4 5/8	4 3/8	3 1/8	13	14.90
CH-25	5	25	0.025	5 5/16	4 3/4	4 5/8	4 3/8	3 7/8	18	22.00
CH-30	4	30	0.01	6 1/2	5 1/2	5 5/8	5 5/16	3 3/8	25	27.00
CH-50	1.4	50	0.01	6 1/2	5 3/4	5 5/8	5 5/16	3 3/4	27	30.00
CH-100	0.5	100	0.005	6 1/2	6 1/2	5 5/8	5 5/16	4 1/8	32	34.00
CH-200	0.3	200	0.0025	7 5/16	7	6 3/8	6 3/4	4 1/8	45	50.00

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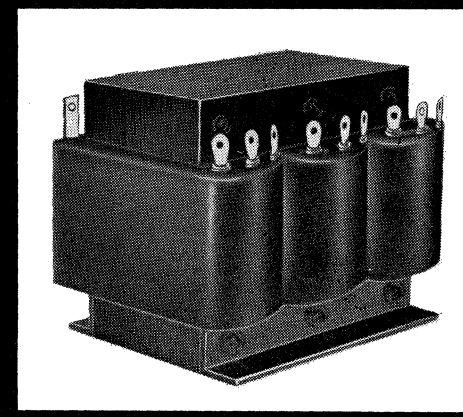
AVAILABLE IMMEDIATELY FROM STOCK

3 PHASE

HIGH CURRENT RECTIFIER TRANSFORMERS



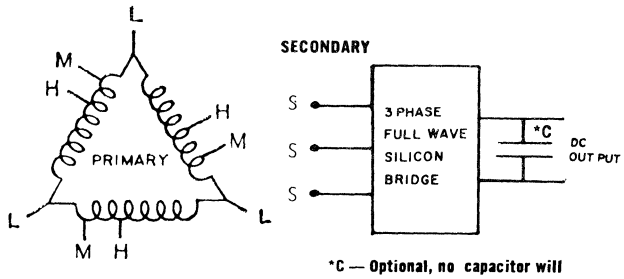
DC OUTPUT VOLTAGE

PART NO.	PRI TAP "L" SUPPLY VOLTAGE 208	PRI TAP "L" SUPPLY VOLTAGE 220	PRI TAP "M" SUPPLY VOLTAGE 208	PRI TAP "M" SUPPLY VOLTAGE 220	PRI TAP "H" SUPPLY VOLTAGE 208	PRI TAP "H" SUPPLY VOLTAGE 220	DC RATED AMPS	APPROX. DIMENSIONS L	W	H	ML	MW	APX. LBS.	NET PRICE
3PH 24-50	24	25	26	27.5	28	30	50	7¾	6	5½	4.8	4⅞	35	70.00
3PH 24-100	24	25	26	27.5	28	30	100	11½	5	8¼	7.2	4	42	100.00
3PH 24- 00	24	25	26	27.5	28	30	200	11½	8⅝	8¼	7.2	6¼	90	165.00
3PH 48-30	42	44	47	50	52	55	30	7¾	6	5½	4.8	4⅞	35	70.00
3PH 48-60	42	44	47	50	52	55	60	11½	5	8¼	7.2	4	42	100.00
3PH 48-120	42	44	47	50	52	55	120	11½	8⅝	8¼	7.2	6¼	90	165.00

At higher power loads (above 2-3 KVA) it becomes inefficient to use single phase 115 or 230 volt standard lines. With this in mind, our engineering staff has developed a line of 3 phase transformers for use off 208 or 220V 3 phase power lines. These offer the significantly higher conversion efficiency and lighter power line drain of 3 phase systems.

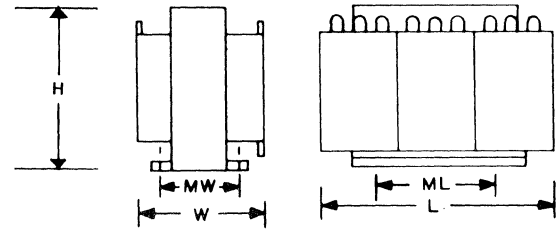
Since the principal application of these items is in high power dc power supplies, output ratings are given in dc voltage and current assuming the use of a 3 phase full wave rectifier.

SCHEMATIC DIAGRAM

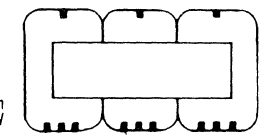


*C — Optional, no capacitor will give DC output shown at approx. 5% ripple.

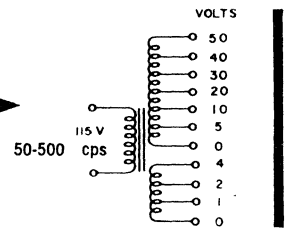
MECHANICAL DIMENSIONS



L, W, H, are maximum dimensions
ML ±1/32 to 8 AMP
±1/16 over 8 AMP
MW ±1/8 (SLOTTED HOLE IN BRACKET)
NOTE: Increase L, W, H by ¼ inch on all encapsulated units. ML, MW remain fixed.

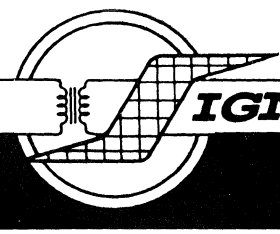


MULTI-VOLT
1 to 54 VOLTS
in 1 VOLT STEPS



MV (multi-voltage) secondaries may be series connected for any output from 1 to 54 volts, in 1 volt steps, at rated current. This is accomplished by using the small buck-boost secondary.

PART NO.	SECONDARY AMPS	DIMENSIONS L	W	H	ML	MW	APPR. WT.	USERS NET
MV-2	2	4⅛	3⅛	3¼	3⅛	2⅜	5	12.00
MV-4	4	5¼	3⅝	4	3¾	2½	7.5	16.00



IGNAL TRANSFORMER CO., INC

ENGINEERS • DESIGNERS • MANUFACTURERS

BROOKLYN, NEW YORK

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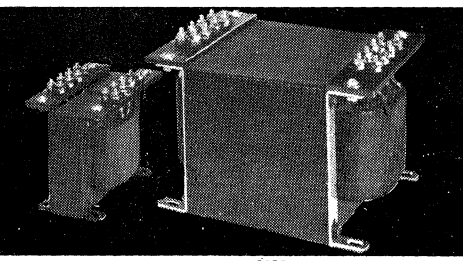
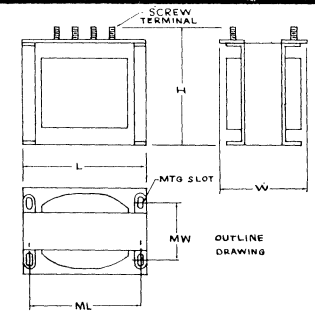
INDUSTRIAL GRADE
STEP-UP OR STEP-DOWN
POWER ISOLATION OR AUTO-TRANSFORMERS
HIGH DEGREE OF VERSATILITY OFFERS MANY POSSIBLE VOLTAGE RATINGS



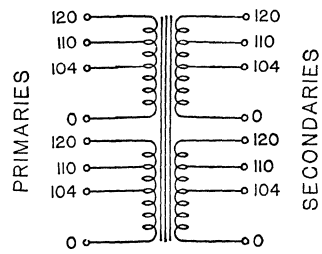
AVAILABLE FROM STOCK FOR IMMEDIATE SHIPMENT

The "DU" and "UP" lines are designed for a maximum of 55°C rise above ambient, for use on standard power lines from 50 to 500 Cps. Only prime raw materials are used. Units are thoroughly impregnated and baked with Signal's own high gloss black baking varnish. The transformers are rugged in construction, well-insulated, and have a consistently uniform appearance. All ratings are at full load current, continuous operation.

Heavy ¼ inch phenolic terminal boards are provided with plated brass screws and flat washers. Connections can be easily made with a nut driver. It is also simple to alter the inter-connections to change transformer ratings.



"DU SERIES" 110/220 Dual Primary To 110/220 Dual Sec.

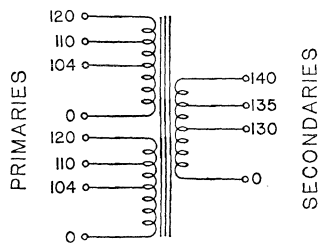


As shown on the schematic diagram the "DU" line is designed with dual primaries and secondaries. All four windings are identically rated at 0/104/110/120 volts. This permits series or parallel connections on either primary or secondary. Therefore, a nominal 110 to 110 volt, 220 to 220 volt, 110 to 220 volt, or 220 to 110 volt transformer can be set up. The winding taps permit intermediate series ratings such as 208, 214, or 230 volts.

It is also possible to make auto-transformer connections by connecting a primary group in series with a secondary group. Such nominal ratings as 440 to 220 volts or 220 to 440 volts can be set-up, in addition to the standard ratings described above. A further advantage to auto-transformer connection is the fact that the KVA rating of a particular type is **doubled.**

Part No.	KVA	Series Secondaries Volts	Series Secondaries Max. Amps	Parallel Secondaries Volts	Parallel Secondaries Max. Amps	Mechanical Dimensions L (Max.)	W (Max.)	H (Max.)	ML ± 1/32	MW ± 1/16	Mtg. Screw	Appr. Lbs.	User Net Price
DU-¼	¼	0/208/220/240	1.1	0/104/110/120	2.2	5 5/16	4¼	5¼	4⅜	2½	#10	12	$23.00
DU-½	½	0/208/220/240	2.3	0/104/110/120	4.6	5 5/16	5 5/16	5¼	4⅜	3⅝	#10	18	28.50
DU-1	1	0/208/220/240	4.5	0/104/110/120	9	7 9/16	6¼	7¼	6¾	4⅛	¼	33	45.00
DU-2	2	0/208/220/240	9	0/104/110/120	18	7 9/16	8¼	7¼	6¾	6	¼	56	60.00
DU-3	3	0/208/220/240	14	0/104/110/120	28	7 9/16	9¼	7¼	6¾	7	¼	70	82.00
DU-5	5	0/208/220/240	23	0/104/110/120	46	7 9/16	10¾	7¼	6¾	8½	¼	89	125.00

"UP SERIES" 110/220 Dual Primary To 0/130/135/140 V. Sec.



The "UP" line utilizes the same dual primary as the "DU" line. It has, however, a single secondary rated at 0/130/135/140 volts.

This type is quite useful to boost low line voltages or raise line voltages to compensate for drops in series elements. It also finds application in bridge rectifiers for DC voltage outputs of approximately 115 to 130 volts.

Part No.	KVA	Secondary Volts	Max. Secondary Amps	L (Max.)	W (Max.)	H (Max.)	ML ± 1/32	MW ± 1/16	Mtg. Screw	Appr. Lbs.	User Net Price
UP-2	¼	0/130/135/140	2	5 5/16	4¼	5¼	4⅜	2½	#10	12	$21.50
UP-4	½	0/130/135/140	4	5 5/16	5 5/16	5¼	4⅜	3⅝	#10	18	27.00
UP-8	1	0/130/135/140	8	7 9/16	6¼	7¼	6¾	4⅛	¼	33	42.00
UP-15	2	0/130/135/140	15	7 9/16	8¼	7¼	6¾	6	¼	56	58.00
UP-25	3	0/130/135/140	25	7 9/16	9¼	7¼	6¾	7	¼	70	80.00
UP-40	5	0/130/135/140	40	7 9/16	10¾	7¼	6¾	8½	¼	89	120.00

SIGNALS CUSTOM SERVICE

Many of our customers do not realize that the major portion of our shipments consists of "special" or "custom" items.

Usually, the final application of one of our stock transformers does not require the full number of taps or windings provided. These naturally are part of the cost of the item. If we are advised as to the specific taps used as to what intermediate voltage or current required we can begin production quickly on t variation of our stock item. If we define prod tion quantities as roughly over 25 pieces, customer will do better price-wise on his cust made item than on the standard.

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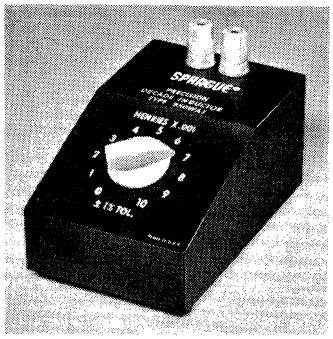
SPRAGUE PULSE TRANSFORMERS AND DECADE INDUCTORS

TYPE 850W PRECISION DECADE INDUCTORS



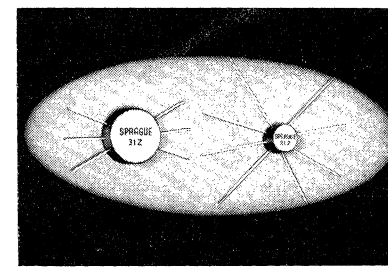
- Indispensable For Design and Experimental Work on Audio Filters, Equalizers, and Tuned Circuits. Frequency Range is 150 to 20,000 Cycles per Second
- Excellent Stability With Respect to Current and Ambient Temperature Changes
- All Four Decade Inductors May Be Connected in Series to Provide 11,110 Steps of Inductance
- Housed in Blue Aluminum Case with Sloping Front to Facilitate Bench-Top Readings. Measures 3" Wide, 2½" High, 5½" Long. Fitted with Five-way Binding Posts.

Cat. No.	Inductance Steps	Optimum Freq. Range in cps	Average Q Factor at 1000 cps	Average Q Factor at 4500 cps	Max. Milliamperes D-C	Max. Milliamperes A-C	Net Each
850WA1	10 x 0.001H	400 to 20,000	40	75	250	700	$31.90
850WA2	10 x 0.01H	400 to 20,000	60	125	79	220	31.90
850WA3	10 x 0.1H	400 to 20,000	60	125	25	70	31.90
850WA4	10 x 1.0H	400 to 5,000	60	125	8	22	31.90

- For Complete Technical Data, Refer to Latest Issue of Engineering Bulletin 90,500.

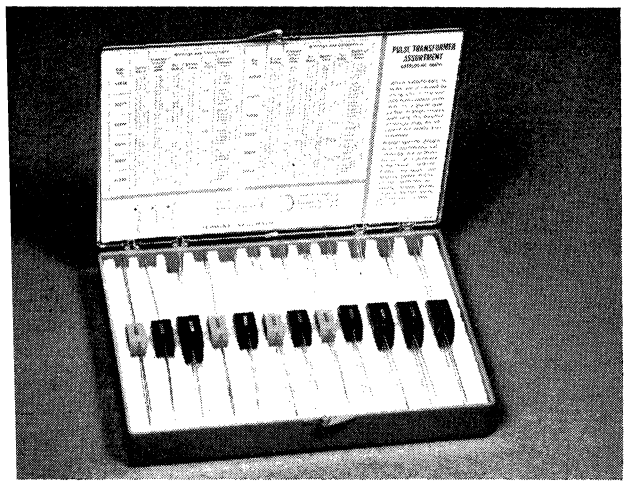
TYPE 31Z 'PANCAKE' PULSE TRANSFORMERS

- Miniature Units with Transformer Section Embedded in Epoxy Resin Inside a Pre-molded Outer Shell.
- "Pancake" Design is Excellent for Mounting on Printed Wiring Boards as Well as On Conventional Chassis.
- For Complete Technical Data, Refer to Latest Issue of Engineering Bulletin 40,230.
- 31Z382 Is Recommended for Pulse Voltages up to 200 Volts at Average Power Rating of 1.0 Watt. Maximum Suggested Volt-microsecond Product is 1200.
- 31Z204 and 31Z286 Are Recommended for Pulse Voltages up to 100 Volts at Average Power Rating of 0.5 Watt. Maximum Suggested Volt-microsecond Product is 340.



Cat. No.	Turns Ratio	L_P (mH)	L_L (μH)	C_I (μμF)	C_C (μμF)	Typical Pulse Width Range and Impedance Level for 10% Droop: Width at 100Ω (μsec)	Width at 250Ω (μsec)	Width at 500Ω (μsec)	Net, ea.
31Z204	1 : 1	6.0	10.0	14	29	13.0	4.80	2.6	$5.00
31Z286	1 : 1 : 1	6.0	10.0	14	29	13.0	4.80	2.6	6.80
31Z382	1 : 1 : 1	15	25	24	49	33	12	6.4	6.20

PULSE TRANSFORMER ASSORTMENT No. 100Z41



at. No. 100Z41 .....Net, $65.00

- A Special Selection of Pulse Transformers for Low-Power High-speed Computer Circuitry
- Covers a Wide Range of Turns Ratios and Primary Inductance Combinations
- Ideal for Experimental Circuit Design on Transistorized or Electron Tube Circuits.
- Transformer Cores and Windings are Potted in Pre-Molded Epoxy Cases for Mechanical and Moisture Protection
- Can Be Mounted Flush on Printed Wiring Boards or Used in Conventional Point-to-Point Wiring
- For Complete Technical Data on Assortment 100Z41, Refer to Latest Issue of Engineering Bulletin 40,002.
- Packed in Clear, Hinged-Lid Reusable Plastic Case

pyright 1963, Sprague Products Company

All prices and sizes subject to change without notice.

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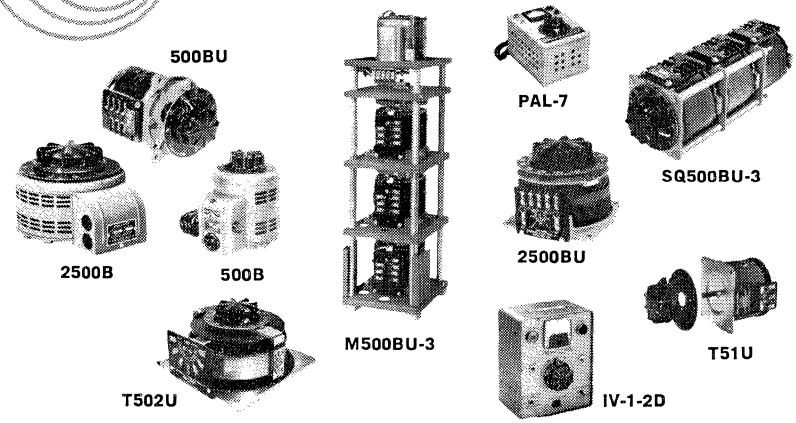
STACO® Adjust-A-Volt® VARIABLE AUTO-TRANSFORMERS



Industries widest selection of adjustable variable auto-transformers designed to deliver variable output voltages with high efficiency, reliability and minimum maintenance. Ratings from .165 to 265 KVA. Bench and panel mounting. Manual or motor driven. Single or ganged assemblies. Military designs, specials, 36 volt types. All Adjust-A-Volts feature zero wave form distortion with high voltage resolution, and regulation with conservative ratings. Design features rugged mechanical construction and precious metal-plated commutators.

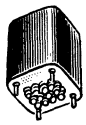
Brush design provides smooth flow of input current and voltage and ease of brush replacement which is seldom required. All Adjust-A-Volts operate on 50/60 cycle current except certain SQ models which are 60 cycle*. Operation is permissible at 50% of rated power output. Bench models are housed in grey wrinkle painted die-cast aluminum cases equipped with pilot light, switch, line cord, and an output receptacle. Write for complete catalog.

MFR. MODEL NO.	MAX. INPUT KVA	VOLT.	OUTPUT VOLTS	AMPS	DESCRIPTION	SIZE	WGT. LBS.	PRICE
100BU	.165	120	0-132/0-120	1.25	Panel type for panels to 1/4" thick	2-3/32 x 2-13/16"	2	$ 8.25
PA-1	.165	120	0-132	1.25	Portable; fused w/switch; pilot light, line cord	3⅞ x 3⅞ x 3½"	3	15.75
175BU	.23	120	0-132/0-120	1.75	Panel type for panels to 1/4" thick	2-3/32 x 2-13/32"	2	8.50
PA-175	.23	120	0-132	1.75	Portable; fused w/switch; pilot light, line cord	3⅞ x 3⅞ x 3½"	3	16.00
250BU	.33	120	0-132/0-120	2.5	Panel type for panels to 1/4" thick	2-1/16 x 2-13/16"	2.5	9.50
PA-2	.33	120	0-132	2.5	Portable; fused w/switch; pilot light, line cord	3⅞ x 3⅞ x 3¼"	3.5	18.50
T21U	.33	120	0-140/0-120	2.4	Panel type for panels to 3/8" thick	3¼ x 3¼ x 3-15/16"	3	15.00
300BU	.42	120	0-140/0-120	3.0	Panel type for panels to ½" thick	3-11/16 x 4"	4	12.50
PA-3	.42	120	0-140	3.0	Portable; fused w/switch; pilot light, line cord	6¼ x 6⅛ x 5½"	5	23.00
375BU	.53	120	0-140/0-120	3.75	Panel type for panels to ½" thick	3¾ x 3¾ x 3¼"	5	12.50
PA-375	.53	120	0-140	3.75	Portable: fused w/switch; pilot light, line cord	6½" x 6⅛ x 6½"	6	23.50
T51U	.84	120	0-140/0-120	6.0	Panel type for panels to 3/8" thick	4½ x 4½ x 3-15/16"	7	18.00
500BU	1.05	120	0-140/0-120	7.5	Panel type for panels to ½" thick	5-11/16 x 5"	8	18.00
SQ500BU	1.05	120	0-140/0-120	7.5	Panel type for panels to ½" thick	4½ x 4½ x 3-15/16"	9	16.00
500B	1.05	120	0-140	7.5	Enclosed; fused w/switch & pilot light, line cord	7¼ x 6½"	9	23.00
3PN500B	1.05	120	0-140	7.5	Enclosed; 3 prong plug & outlet, fused w/switch, pilot light	7¼ x 6½"	10	30.00
T101U	1.4	120	0-140/0-120	10.0	Panel type for panels to ½" thick	5¾ x 5¾ x 4-1/16"	12.5	31.00
T1500U	2.1	120	0-140/0-120	15.0	Panel type for panels to ½" thick	6⅛ x 6⅝ x 4⅜"	16	36.00
1500B	2.1	120	0-140/0-120	15.0	For panels to ½" or bench use, enclosed	8-1/16 x 8¼"	17	44.00
3PN1500B	2.1	120	0-140	15.0	Enclosed, 2 blade & U blade, receptacle, fuse	9 x 8¼"	17	56.00
SQ510BU	1.2	120	0-120	10.0	Panel type for panels to ½" thick	4¼ x 4¼ x 3-15/16"	9	16.50
510BU	1.2	120	0-120	10.0	Panel type for panels to ½" thick	5-11/16 x 5"	9	18.50
3PN510B	1.2	120	0-120	10.0	Enclosed, 3 prong plug & outlet, receptacle, fuse	7¼ x 6½"	9	31.50
520BU	.84	240	0-280/0-240	3.0	Panel type for panels to ½" thick	5-11/16 x 5"	9	20.00
SQ520BU	.84	240	0-280/0-240	3.0	Panel type for panels to ½" thick	4¼ x 4¼ x 3-15/16"	9	18.00
520B	.84	240	0-280	3.0	Enclosed, fused with switch, pilot light, line cord	5-11/16 x 5"	9	26.00
3PN520B	.84	240	0-280	3	Enclosed, 2 blade & U blade, receptacle,fuse	7¼ x 6½"	9	30.00
530BU	.96	240	0-240	4	Panel type for panels to ½" thick	5-11/16 x 5"	9	21.00
SQ530BU	.96	240	0-240	4	Panel type for panels to ½" thick	4¼ x 4¼ x 3-15/16"	9	18.50
3PN530B	.96	240	0-240	4	Enclosed, 2 blade & U blade, receptacle, fuse	7¼ x 6½"	9	31.50
F1500B	2.1	120	0-140	15	With fuse & conduit box, panel or bench use	9 x 8¼"	17	50.00
1520B	2.5	240	0-280	9	Panel type to ½" panel or bench use	8-1/16 x 8¼"	17	46.00
F1520B	2.5	240	0-280	9	With fuse & conduit box, panel or bench use	9 x 8¼"	17	50.00
3PN1520B	2.5	240	0-280	9	Enclosed, 2 blade & U blade, receptacle, fuse	9 x 8¼"	17	56.00
1500BD	2.1	120	0-140	15.0	Cased; output voltmeters, cord, receptacle; fused	9½ x 8¼"	17	69.00
1520BD	2.5	240	0-280	9.0	Cased; output voltmeters, cord, receptacle; fused	9½ x 8¼"	17	69.00
2500BU	3.5	120	0-140/0-120	25	Panel type for panels to ½" thick	8-3/16 x 7⅝ x 5-21/32"	17	49.00
F2500BU	3.5	120	0-140/0-120	25	Panel type for panels to ½" thick with fuse	8-3/16 x 7⅝ x 5-21/32"	17	54.00
2500B	3.5	120	0-140/0-120	25	Enclosed; with junction box	9-9/16 x 7⅝ x 5-21/32"	17	55.00
F2500B	3.5	120	0-140/0-120	25	Enclosed; with junction box and fuse	9-9/16 x 7⅝ x 5-21/32"	17	60.00
2520BU	2.8	240	0-280/0-240	10	Panel type for panels to ½" thick	8-3/16 x 7⅝ x 5-21/32"	17	49.00
F2520BU	2.8	240	0-280/0-240	10	Panel type for panels to ½" thick with fuse	8-3/16 x 7⅝ x 5-21/32"	17	54.00
2520B	2.8	240	0-280/0-240	10	Enclosed with junction box	9-9/16 x 7⅝ x 5-21/32"	17	55.00
F2520B	2.8	240	0-280/0-240	10	Enclosed with junction box with fuse	9-9/16 x 7⅝ x 5-21/32"	17	60.00
T501U	7.0	120	0-140	50	For panels to 5/8" thick or bench use	12½ x 12½ x 5½"	5.2	115.00
T501U-25	14	240	0-280	50	Panel type to 5/8" thick or bench use 2 stack	12½ x 12½ x 14⅝"	120	255.00
T501U-2P	14.0	120	0-140	100	Panel type to 5/8" thick or bench use 2 stack	12½ x 12½ x 14⅝"	120	263.00
T501U-2D	12	120	0-140	50	Panel type to 5/8" thick or bench use 2 stack	12½ x 12½ x 14⅝"	120	255.00
T501U-3P	21	120	0-140	150	Panel type to 5/8" thick or bench use 3 stack	12½ x 12½ x 20¾"	181	409.00
T502U	7.8	240	0-280/0-240	28	Panel type to 5/8" thick or bench use	12½ x 12⅝ x 5½"	52	115.00
175BU-36	0.22	36	0-36	6	Panel type for panels to 1/4" thick	2-13/16 x 2⅝"	3.5	10.00
375BU-36	0.55	36	0-36	15	Panel type for panels to ½" thick	3¾ x 3¾ x 2⅞"	6	14.50
500BU-36	0.9	36	0-36	25	Panel type for panels to ½" thick	5-11/16 x 5	10	20.50
THREE PHASE TYPES								
100BU-3	.52	240	0-240UG	1.25	3 stack panel type for panels to 1/4" thick	3⅞ x 7⅜"	6	39.7
175BU-3	.73	240	0-240UG	1.75	3 stack panel type for panels to 1/4" thick	3⅞ x 7⅜"	6	40.0
250BU-3	1.04	240	0-240UG	2.5	3 stack panel type for panels to 1/4" thick	3⅞ x 9½"	7.5	42.5
T21U-3	1.15	240	0-280UG/0-240	2.4	3 stack panel type for panels to 3/8" thick	3¼ x 3¼ x 11-31/32"	12	48.0
300BU-3	1.25	240	0-240UG	3	3 stack panel type for panels to ½" thick	3⅞ x 3⅞ x 12-3/8"	13	59.5
375-BU-3	1.6	240	0-240UG	3.75	3 stack panel type for panels to ½" thick	3¾ x 3¾ x 11⅝"	15	59.5
T51U-3	2.9	240	0-280UG/0-240UG	6	3 stack panel type for panels to 3/8" thick	4½ x 4½ x 12-3/32"	21	61.0
510BU-2	2.1	120	0-120	10	2 stack panel type for panels to ½" thick	5-11/16 x 10-9/16"	18	45.5
510BU-3	4.2	240	0-240UG	10	3 stack panel type for panels to ½" thick	5-11/16 x 15½"	28	63.0
500BU-3	3.6	240	0-280UG/0-240UG	7.5	3 stack panel type for panels to ½" thick	5-11/16 x 15½"	28	60.7
500B-3	3.6	240	0-280UG/0-240UG	7.5	3 stack panel type for panels to ½" thick	7¼" x 16¾"	28	60.7
500B-2	1.8	120	0-140/0-120	7.5	2 stack panel type for panels to ½" thick	7¼ x 11⅞"	18	49.0
500BU-2	1.8	120	0-140/0-120	7.5	2 stack panel type for panels to ½" thick	5-11/16 x 10-9/16"	18	44.0
1500B-2	3.6	12	0-140	15	2 stack panel type for panels to ½" thick	8-1/16 x 12-15/32"	39	96.0
1500B-3	7.3	240	0-280UG	15	3 stack panel type for panels to ½" thick	8-1/16 x 15-15/32"	60	147.0
2500BU-2	6	120	0-140/0-120	25	2 stack panel type for ½" panel thickness	8-3/16 x 7⅝ x 10-1/16"	43	114.0
2500B-2	6	120	0-140/0-120	25	2 stack bench type, enclosed, with terminal cover	9-9/16 x 7⅝ x 10-1/16"	46	126.0
2500B-3	12	240	0-28UG/0-240UG	25	2 stack bench type, enclosed, with terminal cover	9-9/16 x 7⅝ x 14-7/8"	66	126.0
2500BU-3	12	240	0-28UG/0-240UG	25	2 stack panel type for ½" panel thickness	8-3/16 x 7⅝" x 14⅞"	66	164.7
1520B-3	8.7	480	0-560UG	9	3 stack bench type, enclosed, with terminal board	8-1/16 x 15-15/32"	60	147.0
F1520B-3	8.7	480	0-560UG	9	3 stack bench type, with conduit box and use	9 x 15-15/32	60	—
2520BU-3	9.7	480	0-560/0-480UG	10	3 stack panel type for ½" panel thickness	8-3/16 x 7⅝ x 14-7/8"	68	164.0
2520B-3	9.7	480	0-560UG/0-480UG	10	3 stack bench type, enclosed with terminal cover	9-9/16 x 7⅝ x 14⅞"	71	182.0

STANDARD ELECTRICAL PRODUCTS DIV., Dayton, Ohio

CHICAGO STANCOR

MIL-T-27A Transformers, Audio, Power & Rectifier Power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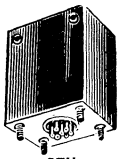
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C

PUBLIC ADDRESS RANGE AUDIO TRANSFORMERS

DRIVER TRANSFORMERS

Designed and built in accordance with MIL-T-27A; Grade 4, Class R operating temperature; life expectancy, 10,000 hours (minimum). Maximum operating altitude, 10,000 feet. Frequency response, ±1 db, 50–10,000 cps. Mounting type H.

Part No.	Typical Driver Tubes	Pri. Imped.	Max. DC in Pri.	Watts	Case Size	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
PHD-10	P-p 6N7's, 6A6's, 6J5's, 6C4's	20K CT	10 ma	3	14	$15.84	$14.52	$13.00	$11.61	$10.89
PHD-25	Same as PHD-10	20K CT	25 ma	5	15	14.96	13.72	12.28	10.92	10.29

Note: PHD-10 and PHD-25 have a ratio of 3:1 pri./½ sec.

COMMUNICATIONS RANGE AUDIO TRANSFORMERS

Designed and built in accordance with MIL-T-27A; Grade 4, Class R operating temperature. Life expectancy, 10,000 hours (minimum). Maximum operating altitude, 10,000 feet. Frequency response, ±1 db, 200–3,500 cps. Mounting type H.

INPUT TRANSFORMER

Part No.	Application	Impedance Primary	Impedance Secondary	Case Size	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
CIH-2	Low level SB or DB mike to single, or p-p grids	125/50†	125K CT	12	$11.45	$10.50	$9.40	$8.40	$7.88

† At 80 ma.

OUTPUT TRANSFORMERS

Single plate to line or voice coil, 5 watts. Mounting type H.

Part No.	Typical Output Tubes	Class	Impedance Pri.	Impedance Sec.	Max. DC*	Case Size	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
COH-1	Sgl., 6L6, 6V6, 25A6	A	5K	600/150 16/8/4	55 ma	14	$14.93	$13.68	$12.25	$10.95	$10.26
COH-2	Sgl., 6F6, 6V6, 6N6, 6K6, 7B5	A	8K	Same as COH-1	55 ma	14	16.56	15.18	13.60	12.15	11.39

* In primary.

WIDE RANGE INPUT TRANSFORMERS

Designed and built according to MIL-T-27A requirements. Transformers have an operating level of +15 dbm. Reference level of 0 dbm equals one mw. Hum reduction is −70 dbm. Maximum operating altitude, 10,000 feet; frequency response, ±1 db, 30–15,000 cps. Case size, 13. Shipping Weight, 1½ lbs. Mounting type H.

Part No.	Application	Impedance Primary	Impedance Secondary	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
BIH-1	Line to single or p-p grids	600/150 CT†	50K CT†	$28.55	$26.17	$23.43	$20.93	$19.63
BIH-4	Line-to-line	600/150 CT	600/150 CT	28.80	26.40	23.64	21.12	19.80
BIH-8	Plate to p-p grids	10K	50K CT†	24.64	22.58	20.22	18.07	16.94

† Split and balanced windings.

MS (MILITARY STANDARD) TRANSFORMERS

Housed in one-piece steel cases, dimensions for case and mountings within tolerances of MS specifications. All units meet requirements of Grade 4, MIL-T-27A for Class R operation. All secondary AC voltages, ±3%. Maximum operating altitude, 10,000 feet.

POWER TRANSFORMERS—REACTOR INPUT SYSTEMS (PRIMARY 105/115/125 V., 54–66 CYCLES) Mounting Type H

Part Number	MIL-T-27A Classification	MIL-T-27A Part No.	High Voltage Secondary AC Volts	High Voltage Secondary DC Ma	DC, V. Output	Rectifier Filament Volts	Rectifier Filament Amps	Filament No. 2 Volts	Filament No. 2 Amps	Wt., Lbs.	Case Size	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
PMS-70	TF4RX03HA001	MS-90026	200–100–0–100–200	70	156	6.3/5	2	6.3	3	4	HA	$29.91	$22.83	$20.45	$18.27	$17.13
PMS-70A	TF4RX03JB002	MS-90027	325–0–325	70	260	6.3/5	2	6.3	4	5	JB	24.40	22.37	20.03	17.89	16.78
PMS-150	TF4RX03KB006	MS-90028	325–0–325	150	245	6.3	5	5	3	7¼	KB	26.38	24.18	21.66	19.35	18.14
PMS-175	TF4RX03LB003	MS-90029	400–0–400	175	318	5	3	6.3	8	10	LB	31.56	28.93	25.91	23.15	21.70
PMS-250	TF4RX03MB004	MS-90030	450–0–450	250	345	5	3	6.3	8	13	MB	37.80	34.65	31.03	27.72	25.99
PMS-550	TF4RX02LB002	MS-90032	550–0–550	250	419	.....				11	LB	28.55	26.17	23.43	20.93	19.63

FILAMENT TRANSFORMERS (PRIMARY 105–115–125 V., 54–66 CYCLES) Mounting Type H

Part Number	MIL-T-27A Classification No.	MIL-T-27A Part No.	Secondary Volts	Secondary Amps	Insulation Volts RMS	Weight, Lbs.	Case Size	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
FMS-210	TF4RX01GB003	MS-90017	2.5	10	2500	2½	GB	$15.22	$13.95	$12.49	$11.16	$10.46
FMS-53	TF4RX01FB004	MS-90018	5.0	3.0	2500	1¾	FB	13.36	12.25	10.97	9.80	9.19
FMS-510	TF4RX01HB005	MS-90019	5.0	10	2500	4	HB	18.22	16.70	14.96	13.36	12.53
FMS-62	TF4RX01FB006	MS-90020	6.3	2.0	2500	1¾	FB	13.71	12.57	11.25	10.05	9.43
FMS-65	TF4RX01GB007	MS-90021	6.3	5.0	2500	2¾	GB	15.60	14.30	12.81	11.44	10.73
FMS-610	TF4RX01JB008	MS-90022	6.3	10	2500	5	JB	19.31	17.70	15.85	14.16	13.28
FMS-620	TF4RX01KB009	MS-90023	6.3	20	2500	8	KB	23.64	21.67	19.40	17.33	16.25
FMS-210H	TF4RX01JB012	MS-90024	2.5	10	10000	4¾	JB	23.51	21.55	19.30	17.24	16.16

CASE SIZES

Case Type	Dim. in Inches D. × W. × H.	Stud Size	Case Type	Dim. in Inches D. × W. × H.	Stud Size
FB	2 3/16 × 2 1/16 × 2 1/8	6–32	JB	3 9/16 × 3 1/16 × 3 7/8	8–32
GB	2 3/4 × 2 3/8 × 2 13/16	6–32	KB	3 15/16 × 3 3/8 × 4 5/16	10–32
HB	3 1/16 × 2 5/8 × 3 9/16	8–32	LB	4 5/16 × 3 1/16 × 4 1/2	10–32
HA	3 1/16 × 2 5/8 × 4 1/4	8–32	MB	4 1/16 × 4 × 4 15/16	¼–20

SATURABLE TRANSFORMER (MAGNETIC AMPLIFIER)

For use with two-phase, 115 v. AC, 400-cycle servo-motors. All primaries are 115 v. AC, 400 cycles. Maximum operating altitude, 50,000 feet. Control current, 8 ma. Control coil bypass capacitors must be .1 μf. MIL-T-27A specification TF4RX40YY. Mounting Type STH. Size: 2 7/16" × 1 15/16" × 1 13/16".

Part No.	Out. Watts	Out. Volts	Load Res., Ohms	Cap.* μf	Pri. Amps	Coil Res., Ohms†	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
STH-3	2.7‡	26§	250♯	.28●	.085▲	2900	$29.45	$27.00	$24.18	$21.60	$20.25

* Tuning. † Per coil. ‡ Other, 3.5. § Other, 115. ♯ Other, 3800. ● Other, .19. ▲ Other, 0.1.

SILICON RECTIFIER POWER TRANSFORMERS

COMMERCIAL GRADE

Combination plate and filament power transformers bridge the gap between low voltage, high current output for use with transistor power amplifiers and the lower range of plate voltages used with electronic tubes. Two 6.3 v. filament windings, on each unit supply heater power for tubes or low voltage DC for many applications when used with suitable rectifier. Mtg. type C. Size: 4 5/16" × 3 5/8" × 4 1/4".

Part No.	Secondary No. 1 Volts	Secondary No. 1 DC Ma	Secondaries 2 & 3 Volts	Secondaries 2 & 3 Amps	Base Area, Inches	Wt., Lbs.	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
RP-400	400 CT	400	6.3	3.0	3 5/8 × 4 5/16	7.1	$13.38	$12.27	$10.99	$9.81	$7.36
RP-600	300 CT	600	6.3	2.5	3 5/8 × 4 5/16	7.1	13.35	12.23	10.96	9.79	7.35
RP-800	200 CT	800	6.3	2.0	3 5/8 × 4 3/16	6.9	13.31	12.20	10.93	9.76	7.32
RP-1600	100 CT	1600	6.3	1.5	3 5/8 × 3 15/16	6.0	11.82	10.83	9.70	8.67	6.51
RP-2000	80 CT	2000	6.3	1.5	3 5/8 × 4 1/16	6.5	12.87	11.80	10.57	9.44	7.08
RP-2500	60 CT	2500	6.3	1.5	3 5/8 × 3 15/16	6.0	12.91	11.83	10.60	9.47	7.11

MILITARY GRADE

Same electrical specifications as commercial units, above. Mounting Type H; Size: 3 11/16" × 4 5/16" × 5 9/16". Hermetically sealed. Manufactured to meet MIL-T-27A; military type No. TF4RX03LA.

Part No.	Secondary No. 1 Volts	Secondary No. 1 DC Ma	Secondaries 2 & 3 Volts	Secondaries 2 & 3 Amps	Wt., Lbs.	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
HRP-400	400 CT	400	6.3	3.0	10.5	$29.73	$27.25	$24.40	$21.80	$20.44
HRP-600	300 CT	600	6.3	2.5	10.5	29.64	27.17	24.33	21.73	20.38
HRP-800	200 CT	800	6.3	2.0	10.0	29.64	27.17	24.33	21.73	20.38
HRP-1600	100 CT	1600	6.3	1.5	10.5	29.64	27.17	24.33	21.73	20.38
HRP-2000	80 CT	2000	6.3	1.5	9.6	28.64	26.25	23.51	21.00	19.69
HRP-2500	60 CT	2500	6.3	1.5	9.0	28.73	26.33	23.58	21.07	19.75

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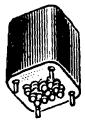
CHICAGO STANCOR

MIL-T-27A Transformers, 400 Cycle



H

S

400-CYCLE TRANSFORMERS, MILITARY STANDARD CASES

POWER TRANSFORMERS—MOUNTING TYPE H

Designed and built in accordance with MIL-T-27A specifications, Grade 4, Class S, for high temperature operation at 85° C ambient, 45° C rise. Life expectancy, 10,000 hours; maximum operating altitude, 70,000 feet.

All Primaries 105/115/125 Volts, 380–1000 Cycles.

Part Number	High Volt. Sec. AC Volts	High Volt. Sec. DC Ma	Rectifier Filament V.	Rectifier Filament Amps	Other Filament V.	Other Filament Amps	Case Size, In., W. × D. × H.	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
4PMS-70	335–0–335	70	5	2	6.3 CT	3	2⅜ × 2¾ × 2 13/16	$30.20	$27.80	$24.85	$22.20	$20.80
4PMS-150	370–0–370	150	5	3	6.3 CT	4	3 1/16 × 3 9/16 × 3⅞	43.50	39.90	35.70	31.95	29.90
					6.3 CT	1						

FILTER REACTORS—MOUNTING TYPE H

Part Number	Inductance (Henries)	Max. DC Ma	DC Res. Ohms	Insulation Volts RMS	Case Size, In., W. × D. × H.	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
4RMS-285	2	85	135	2500	1 5/16 × 1 5/16 × 1¾	$8.90	$8.20	$7.32	$6.55	$6.15
4RMS-2200	2	200	73	2500	2 1/16 × 2 5/16 × 3⅛	12.15	11.15	10.00	8.95	8.35

FILAMENT TRANSFORMERS—MOUNTING TYPE H

All Primaries 105/115/125 Volts, 380–1000 Cycles.

Part Number	Secondary Volts	Secondary Amps	Insulation Volts RMS	Case Size, In., W. × D. × H.	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
4FMS-63	6.3 CT	3	2500	1 13/16 × 1 15/16 × 2 7/16	$18.60	$17.00	$15.25	$13.65	$12.75
4FMS-65	6.3 CT	5.5	2500	1 13/16 × 1 15/16 × 2¾	19.35	18.20	16.30	14.60	13.65
4FMS-610	6.3 CT	10	2500	2 1/16 × 2 5/16 × 3⅛	21.60	19.75	17.75	15.85	14.85
4FMS-620	6.3 CT	20	2500	2⅜ × 2¾ × 3 13/16	26.20	24.00	21.50	19.20	18.00
4FMS-2415*	24 CT	1.5	1500	1 13/16 × 1 15/16 × 2¾	16.30	14.70	13.20	12.20	11.60
4FMS-1208*	12.6 CT	0.8	1500	1⅝ × 1⅝ × 2⅜	16.00	14.40	13.85	12.00	11.40
	12.6	0.8	1500						
4FMS-122*	12.6 CT	2.0	1500	1 13/16 × 1 15/16 × 2¾	19.00	17.00	15.40	14.25	13.45
	12.6	2.0	1500						

*Class R

ISOLATION TRANSFORMERS—MOUNTING TYPE H

All primaries 115 v., 380–1000 cycles. Insulation test, 1500 VRMS. Class R. 1:1 Ratio.

Part No.	Sec. Amps	VA	Size, In., W. × D. × H.	Wt., Lbs.	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
4IMS-40	0.35	40	1 13/16 × 1 15/16 × 2¾	1.5	$13.65	$12.25	$11.05	$10.20	$9.65
4IMS-160	1.39	160	2⅜ × 2¾ × 3 13/16	3.1	18.50	16.65	14.95	13.80	13.00

400-CYCLE TRANSFORMERS, YY ALTERNATE CASES

Meet MIL-T-27A, Grade 4, Class S specifications for operation, etc. Temperature Ratings: 85° C ambient, 45° C rise. Maximum operating altitude, 10,000 feet.

POWER TRANSFORMERS (ALL PRIMARIES 105/115/125 V., 380–1000 CYCLES)—MOUNTING TYPE H

Part Number	High Volt. Sec. AC Volts	High Volt. Sec. DC Ma	Rectifier Filament V.	Rectifier Filament Amps	Other Filament V.	Other Filament Amps	Case Size, In., W. × D. × H.	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
4PHC-55	270–0–270	55	5.0	2	6.3 CT	2	2⅛ × 2¼ × 2 15/16	$23.00	$21.10	$18.90	$16.85	$15.80
4PHC-70	335–0–335	70	5.0	2	6.3 CT	3	2⅛ × 2¼ × 2 15/16	26.85	24.60	22.00	19.70	18.45
4PHC-120	375–0–375	120	5.0	3	6.3 CT	4	2 11/16 × 2⅞ × 3¾	32.90	30.10	27.00	24.10	22.60

FILAMENT TRANSFORMERS (ALL PRIMARIES 105/115/125 V., 380–1000 CYCLES)—MOUNTING TYPE H

Part Number	Secondary Volts	Secondary Amps	Insulation VRMS	Case Size, Inches D.	W.	H.	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
4FH-63	6.3 CT	3	2500	1 7/16	1¾	2 3/16	$15.95	$14.60	$13.10	$11.70	$10.95
4FH-65	6.3 CT	5.5	2500	1⅞	1¾	2 7/16	17.42	15.95	14.30	12.75	12.00
4FH-610	6.3 CT	10	2500	2¼	2⅛	2 15/16	19.35	17.75	15.90	14.20	13.30
4FH-620	6.3 CT	20	2500	2½	2⅜	3 15/16	24.30	22.30	20.00	17.80	16.70

FILAMENT TRANSFORMERS 50/60 CPS.

HERMETICALLY SEALED

Conform to MIL-T-27A specification TF4RX01YY. Provide voltages and currents for heating a wide range of receiving and transmitting tubes. All primaries 115/230 volts. All secondary AC voltages, ±3%. Mounting type H.

Part No.	Sec. V. (CT)	Sec. A	Test V. RMS	Case Size, In., W. × D. × H.	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
FH-25	2.5	5.25	3500	2⅜ × 2 1/16 × 3 5/16	$15.38	$14.10	$12.63	$11.28	$10.58
FH-58	5	10	2500	2 11/16 × 2⅞ × 3¾	17.91	16.42	14.70	13.13	12.31
FH-615	6.3	1.5	2500	2 1/16 × 2¼ × 2 11/16	13.78	12.63	11.31	10.11	9.48
FH-63	6.3	3	2500	2⅜ × 2 1/16 × 3 1/16	14.18	13.00	11.64	10.40	9.75
FH-65	6.3	5.5	2500	2 11/16 × 2⅞ × 3 1/16	15.69	14.38	12.88	11.51	10.79
FH-610	6.3	10	2500	3 × 3 1/4 × 4 1/4	17.18	15.75	14.10	12.60	11.82
FH-104	10	4	2500	2 11/16 × 2⅞ × 3¾	16.60	15.22	13.63	12.17	11.41

MULTIPLE FILAMENT TRANSFORMERS 50/60 CPS.

Meet MIL-T-27A, Grade 4, for Class R operation. All primaries are 105/115/125 v. AC. Insulation test voltage is 2500 for all except No. FMS-8, 5000 v. Mounting type H.

Part No.	Secondary Windings Sect. No. 1	Sect. No. 2	Sect. No. 3	Case Size, In., W. × D. × H.	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
FMS-1	5 v., 2 a.	6.3 v., 2.5 a.*	.....	2⅜ × 2¾ × 3 13/16	$19.45	$17.83	$15.97	$14.27	$13.38
FMS-2	5 v., 2 a.	12.6 v., 1.25 a.*	.....	2⅜ × 2¾ × 3 13/16	19.42	17.80	15.94	14.24	13.35
FMS-3	5 v., 3 a.	6.3 v., 5 a.*	.....	2⅝ × 3 1/16 × 4¼	21.40	19.62	17.57	15.69	14.71
FMS-4†	5 v., 3 a.	6.3 v., 3 a.*	6.3 v., 3 a.*	3 1/16 × 3 9/16 × 3⅞	28.62	26.23	23.49	20.99	19.68
FMS-5	5 v., 3 a.	6.3 v., 1 a.*	6.3 v., 5 a.*	3 1/16 × 3 9/16 × 3⅞	30.36	27.83	24.93	22.27	20.88
FMS-6‡	6.3 v., 3 a.*	6.3 v., 3 a.*	.....	2⅝ × 3 1/16 × 4¼	19.67	18.03	16.15	14.43	13.53
FMS-7§	6.3 v., 6 a.*	6.3 v., 6 a.*	.....	3⅜ × 3 15/16 × 5¼	26.04	23.92	21.42	19.13	17.94
FMS-8	5 v., 3 a.*	5 v., 3 a.*	5 v., 6 a.*	3⅜ × 3 15/16 × 5¼	37.85	34.70	31.07	27.76	26.03

* Center Tapped. † Secondaries 2 and 3 also tapped, 12.6 v. CT at 3 amps. ‡ Secondaries 1 and 2 also tapped at 12.6 v. CT at 3 amps. § Secondaries 1 and 2 also tapped 12.6 v. CT at 6 amps.

SPECIAL POWER TRANSFORMERS ALL PRIMARIES: 115 V. AC, 50/60 CPS.

FOR REGULATED POWER SUPPLIES

MIL-T-27A—"H" TYPE MOUNTING

Part No.	High Volt. Secondary AC Volts	DC Ma	Out. VDC	Rect. V.	Rect. A.	Filament No. 2 V.	Filament No. 2 Amps	Filament No. 3 V.	Filament No. 3 A.	Case Size	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
PHC-165	440–0–440	165	430	5	3	6.3	7.5, 0.6	6.3	3.3	4 9/16 × 4 1/8 × 5 5/16	$37.33	$34.22	$30.64	$27.37	$25.66

SEMI-SEALED—"S" TYPE MOUNTING

Part No.	High Volt. Secondary AC Volts	DC Ma	Out. VDC	Rect. V.	Rect. A.	Filament No. 2 V.	Filament No. 2 Amps	Filament No. 3 V.	Filament No. 3 A.	Case Size	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
PSC-165	440–0–440	165	430	5	3	6.3	7.5, 0.6	6.3	3.3	4 9/16 × 4 1/8 × 5 5/16	$32.80	$30.07	$26.93	$24.02	$18.04

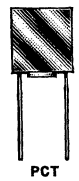
COMBINATION PLATE AND FILAMENT
MIL-T-27A—"H" TYPE MOUNTING

Part No.	Pri. Volts	High Volt. Secondary AC Volts	DC Ma	Rect. Fila. Volts	Rect. Fila. Amps	Case Size	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
IBH-150	115	180–160–140–120–0–120–140–160–180	150	5.0	3.0	3¼ × 3 × 4¼	$22.75	$20.80	$18.60	$16.65	$15.60

STANCOR ELECTRONICS, INC.

CHICAGO STANCOR

Transistor Transformers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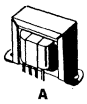
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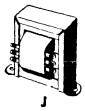
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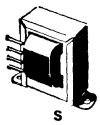
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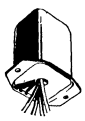
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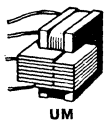
TAMS


UM

UME

TS

MIL-T-27A PRINTED CIRCUIT "POLYCHROMATRANS"

Printed circuit board transistor transformers. Test volts, 500 rms. Color-coded by application. Up to 50% reduction in distortion over other brands. Improved lower-end frequency response. Leads are fatigue resistant nickel-iron alloy, .020" dia., .563" long, gold-plated to MIL-G-45204, Class 1. Size: .405" w. × .305" d. × .460" h.

Part No.	MIL Type Number	Max. Pwr. Mw	Use	Matching Impedance		Max. DC Ma*	Net Each, Quantities of				Bulk
				Primary	Secondary		1–9	10–24	25–49	50–99	100–249
PCT-14	TF5SX16ZZ	15	Input	200K CT	1K CT	0	$7.80	$7.41	$7.02	$6.50	$5.85
PCT-15	TF5SX16ZZ	35	Input	50K CT	1K CT	0	7.65	7.27	6.89	6.38	5.75
PCT-17	TF5SX16ZZ	15	Input	200K	1K	0	6.75	6.41	6.08	5.63	5.07
PCT-21	TF5SX13ZZ	55	Interst.	25K	1K	.5	6.30	5.99	5.67	5.25	4.73
PCT-23	TF5SX13ZZ	55	Interst.	25K CT	1K CT	.5	7.20	6.84	6.48	6.00	5.40
PCT-25	TF5SX13ZZ	75	Interst.	10K CT	1.5K CT	1	7.20	6.84	6.48	6.00	5.40
PCT-30	TF5SX13ZZ	75	Driver	10K CT	1.2K CT	1	6.90	6.56	6.21	5.75	5.18
PCT-31	TF5SX13ZZ	75	Driver	10K CT	2K CT	1	6.90	6.56	6.21	5.75	5.18
PCT-39	TF5SX13ZZ	75	Driver	10K CT	500 CT	1	6.90	6.56	6.21	5.75	5.18
PCT-43	TF5SX17ZZ	75	Output	1K	50	3	5.85	5.56	5.27	4.88	4.39
PCT-54	TF5SX17ZZ	75	Output	600 CT	12	4.5	6.00	5.70	5.40	5.00	4.50
PCT-60	TF5SX17ZZ	75	Output	500 CT	600	3	6.00	5.70	5.40	5.00	4.50
PCT-61	TF5SX17ZZ	75	Output	900 CT	600	4	6.15	5.84	5.54	5.13	4.62
PCT-62	TF5SX13ZZ	75	Output	1.5K CT	600	3	6.30	5.99	5.67	5.25	4.73
PCT-70	TF5SX17ZZ	75	Output	320 CT	3.2	6	5.85	5.56	5.27	4.88	4.39
PCT-71	TF5SX17ZZ	75	Output	600 CT	3.2	4.5	6.00	5.70	5.40	5.00	4.50
PCT-76	TF5SX13ZZ	75	Output-Isolation	10K CT	10K CT	1	7.80	7.41	7.02	6.50	5.85
PCT-77	TF5SX17ZZ	75	Output-Isolation	600 CT	600 CT	3	7.20	6.84	6.48	6.00	5.40
PCT-116	TF5SX20ZZ	.....	Choke	6 hys.	.....	2	5.70	5.42	5.13	4.75	4.28
PCT-117	TF5SX20ZZ	.....	Choke	1.25 hys.	.....	2	4.80	4.58	4.32	4.00	3.60
PCT-118	TF5SX20ZZ	.....	Choke	3.5 hys.	.....	2	4.80	4.58	4.32	4.00	3.60
PCT-128	TF5SX20ZZ	.....	Choke	.3 hy.	.....	4	4.80	4.58	4.32	4.00	3.60

* Max. Ma, DC unbalanced in primary.
Part No. SPCT-10—Magnetic alloy shield for all PCT transformers. Net Each: 1–9, **84c;** 10–24, **80c;** 25–49, **76c;** 50–99, **70c;** 100–249, **67c.**

ULTRA-MINIATURE MIL-T-27A ENCAPSULATED TYPES

Excellent for use with printed circuitry, etc., as lead spacing is 1/10" grid type for easy mounting on punched boards. **Dimensions:** .312" × .400" × .426". Weight (Approx.), .125 oz. Mtg. Type UME.

Part No.	Application	DC Ma#	Impedance, Ohms		DC Res. Ohms		Net Each, Quantities of				
			Primary	Secondary	Pri.	Sec.	1–9	10–24	25–49	50–99	100–249
UME-20	Driver	1	10K 12.5K	1200 CT 1500 CT	1000	100	$6.67	$6.12	$5.48	$4.89	$4.59
UME-23	Single†	7	300 CT 400 CT	12 16	35	2.5	5.95	5.45	4.88	4.36	4.09
UME-34	Input	0	200K CT	1000 CT	6500	250	7.67	7.03	6.30	5.63	5.28
UME-37	Reactor	2	1 hy.*	.....	190	.....	5.25	4.82	4.31	3.85	3.61

* At 2 DC ma. † Or p-p output. # In primary.

MIL-T-27A AUDIO TRANSFORMERS

Maximum operating altitude, 50,000 feet. Mounting Type TAMS. Size: 1 3/8" × 1" × 1", Weight: 2 oz.

Part No.	Application	Impedance, Ohms		Pri. DC Ma	DC Ohms		Net Each, Quantities of				
		Primary	Secondary		Pri.	Sec.	1–9	10–24	25–49	50–99	100–249
TAMS-5	Driver	1000	200 CT	10	400	115	$15.60	$14.30	$12.81	$11.44	$10.73
TAMS-6	Driver	2000	200 CT	5	720	115	12.71	11.65	10.43	9.32	8.74

IRON CORE AUDIO TRANSFORMERS

Small iron core weighing only 1/10 of an ounce. Useful range is below 1 mw. Mtg. Type, UM.

Part No.	Application	Imped., Ohms		DC Ohms		Wt. Lbs.	Net Each, Quantities of				Bulk
		Pri.	Sec.	Pri.	Sec.		1–9	10–24	25–49	50–99	100–249
UM-110	Interstage	20K	1000	1675	285	.07	$6.22	$5.70	$5.10	$4.56	$3.43
UM-112	Hi-Z Mic. In.	200K	1000	4000	195	.10	6.87	6.30	5.64	5.04	3.79
UM-113	Interstage	20K	1000	1350	205	.10	4.75	4.35	3.90	3.48	2.61
UM-114	Out. or Mtchg.	500	50/60	70	9.0	.10	4.25	3.90	3.49	3.12	2.35

Dimensions: UM-110 1/4" × 3/8" × 3/8"; others, 3/8" × 3/8" × 3/8", ±.015".

TRANSISTOR POWER TRANSFORMERS

Primary, 117 v., 60 cycle operation.

Part No.	Plate Supply		Size, In., W. × D. × H.	Mtg. Type	Net Each, Quantities of				Bulk
	AC Volts	DC Ma			1–9	10–24	25–49	50–99	100–249
TP-1*	13 or 18	900	3 × 2 1/2 × 3	C	$4.87	$4.47	$4.00	$3.57	$2.75
P-8196	80 CT	1200	2 7/8 × 3 1/2 × 3 1/2	C	6.55	6.00	5.37	4.80	3.69
TP-2†	10/20 CT/40 CT	100	2 13/16 × 1 5/8 × 1 5/8	A	4.00	3.80	3.20	3.00	2.20
TP-3†	10/20 CT/40 CT	300	3 3/4 × 2 × 2 1/4	A	5.20	4.60	4.20	3.90	2.88
TP-4†	10/20 CT/40 CT	1000	2 5/8 × 3 × 3 3/16	C	8.50	7.60	6.80	6.30	4.72

* For bridge rectifier systems, has 2 identical plate supplies. † Tapped primary to obtain lower secondary voltages.

SPECIAL TRANSISTOR TRANSFORMERS

Special transformers for transistor applications. Mtg. Types: TA-56, J; TA-57 and TA-61, S; TA-13 and TA-14, TD; TA-60, TS; all others, Mtg. Type A.

Part Number	Impedance, Ohms		DC Res., Ohms		Max. Pri. DC Ma	Watts	Net Each, Quantities of				Bulk
	Pri.	Sec.	Pri.	Sec.			1–9	10–24	25–49	50–99	100–249
TA-1*	600 CT	10	42	.8	20	.05	$1.89	$1.73	$1.55	$1.39	$1.11
TA-2†	100 CT	10 CT	4.3	.8	100	.25	1.89	1.73	1.55	1.39	1.07
TA-3†	100	1000 CT	5.8	45	100	.25	1.89	1.73	1.55	1.39	1.07
TA-4†	500 CT	5000 CT	37	250	12	.03	2.49	2.28	2.04	1.83	1.41
TA-5‡	1000	200 CT	400	115	10	.05	4.71	4.32	3.86	3.45	2.60
TA-6‡	2000	200 CT	720	115	10	.05	5.33	4.88	4.37	3.91	2.93
TA-7‡	100	100 CT	12	12	100	.5	1.89	1.73	1.55	1.39	1.07
TA-9§	1000	4/8/16	180	3.5	10	.2	4.87	4.49	4.00	3.57	2.84
TA-10§	2000 CT	4/8/16	250	4	.....	.2	5.33	4.88	4.37	3.91	2.93
TA-11§	48 CT	8/16	5	1.5	275	5	3.65	3.35	3.00	2.68	2.01
TA-12§	20 CT	8	.55	.35	500	10	1.89	1.73	1.55	1.39	1.07
TA-52†	500 CT	500 CT	40	55	.....	.30	3.00	2.75	2.46	2.20	1.69
TA-56§	48 CT	3.2/8/16	3.6	1.4	550	10	3.04	2.78	2.49	2.23	1.68
TA-57§	100 CT	3.2/8/16	6.6	1.5	500	10	3.00	2.75	2.46	2.20	1.65
TA-58‡	100	200 CT	6.5	15.5	200	.5	2.13	1.95	1.75	1.56	1.20
TA-59‡	500 CT	200 CT	36.5	15.5	50	.5	2.36	2.17	1.94	1.73	1.34
TA-61‡	1:1●	●	1.8▲	.....	.....	.....	2.60	2.38	2.13	1.91	1.47
TA-63‡	20K CT	2K CT	2140	325	.....	.....	4.47	4.10	3.67	3.28	2.48

* Input. † Interstage. ‡ Driver. § Output. # CT, 2 secondaries 16 ohm series, 4 ohms parallel. ● Turns ratio: primary to 1/2 secondary, 1:1. ▲ Per winding.

MINIATURE AUDIO TRANSFORMERS (MTG. TYPE A)

.150-Watt Group—Dimensions: 13/16" w. × 5/8" d. × 21/32" h. Mtg. tabs; 25/32" centers, 3/16" w. Wt., .65 oz.
Net Each, 1–9 ..... **$3.65**
Net Each, 10–24 ..... **$3.35**
Net Each, 25–49 ..... **3.00**
Net Each, 50–99 ..... **2.68**
Net Each, 100–249 ..... **2.51**

Part No.	Application	Impedance, Ohms		DC Resis., Ohms	
		Primary	Secondary	Pri.	Sec.
TA-20*	Output	350 CT	4, 12	38	1.45
TA-21†	Output	500 CT	4, 8, 16	75.3	3.55
TA-23†	Output	600 CT	4, 8, 16	73.2	3.2
TA-26*	Output	1,250	4, 12	132.5	1.4
TA-27*	Interstage	1,200	20,000 CT	142	1860
TA-28*	Interstage	1,500	500 CT	104	46.5
TA-30*	Interstage	5,000 CT	7,500 CT	650	790
TA-31*	Interstage	5,000 CT	10,000 CT	635	825
TA-32†	Interstage	5,000 CT	80,000 CT	573	5740
TA-33†	Output	10,000 CT	4, 8, 16	1174	2.6
TA-34*	Interstage	10,000	200 CT	1200	33.4

* 100–249 Bulk packed $2.01 ea. † 100–249 Bulk packed $2.06 ea.

Part No.	Application	Impedance, Ohms		DC Resis., Ohms	
		Primary	Secondary	Pri.	Sec.
TA-35*	Interstage	10,000	2,000 CT	1200	257
TA-36*	Interstage	10,000	3,000 CT	1200	385
TA-38*	Interstage	500 CT	150 CT	62	21.2

.300-Watt Group—Dimensions: 15/16" w. × 3/4" d. × 13/16" h. Mtg. Centers, 13/16". Weight, 1.2 oz.
Net Each, 1–9 ..... **$3.65**
Net Each, 10–24 ..... **$3.35**
Net Each, 25–49 ..... **3.00**
Net Each, 50–99 ..... **2.68**
Net Each, 100–249 ..... **2.51**

TA-39*	Output	100 CT	4, 8, 16	10.9	1.45
TA-41†	Output	400 CT	4, 8, 16	34	1.5
TA-42†	Output	500 CT	4, 8, 16	47	.85
TA-43†	Output	700 CT	4, 8, 16	77	1.15
TA-46*	Interstage	100,000	1,500 CT	3250	143
TA-47†	Input	1,000 CT	200,000 CT	123	1815

STANCOR ELECTRONICS, INC.

Net
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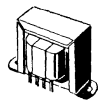
CHICAGO STANCOR

Power, Plate & Rectifier Transformers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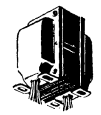
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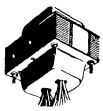
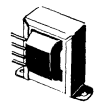

PM, M


PS

C1

BV

PLATE AND FILAMENT SUPPLIES

All primary windings for 117 v., 60 cps operation. All plate supplies center-tapped. PC Series—Type PC Mtg.; PM Series—Type PM Mtg.; Series PA—Type PA Mtg.; Series PS—Type PS. Provide approximately 260 v. DC to condenser input filter.

Part No.	Plate A.C. V..C.T	Plate DC Ma	Rec. Fil. V.	Rec. Fil. A.	Amp. Fil. V.	Amp. Fil. A.	Base Area, Inches	Wt., Lbs.	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
PC8401	470	40	5	2	6.3 CT	2.0	2⅝ × 2⅝	2.2	$5.42	$4.97	$4.45	$3.97	$3.06
PM8401	470	40	5	2	6.3 CT	2.0	2⅛ × 3	2.2	5.69	5.38	4.67	4.17	3.21
PC8402	480	55	5	2	6.3 CT	2.0	2⅝ × 2¾	2.4	5.38	4.93	4.42	3.95	3.04
PM8402	480	55	5	2	6.3 CT	2.0	2⅛ × 3	2.4	5.53	5.07	4.54	4.05	3.12
PC8403	500	70	5	2	6.3 CT	2.5	2⅝ × 3⅛	3.2	6.25	5.73	5.13	4.59	3.53
PM8403	500	70	5	2	6.3 CT	2.5	2½ × 3	3.2	6.25	5.73	5.13	4.59	3.53
PC8404	520	90	5	2	6.3 CT	3.0	3 × 3⅛	4.0	6.93	6.35	5.69	5.08	3.91
PM8404	520	90	5	2	6.3 CT	3.0	2⅞ × 3⅜	4.0	6.93	6.35	5.69	5.08	4.05
PC8405	540	120	5	3	6.3 CT	3.5	3¼ × 3½	4.9	9.04	8.28	7.42	6.63	4.97
PM8405	540	120	5	3	6.3 CT	3.5	3⅛ × 3¾	4.9	9.04	8.28	7.42	6.63	4.97
Use with choke input, VR supply, Spkr. field or Hi-V. with condenser input filter.													
PM8423	600	90	5	2	6.3 CT	3.5	2 13/16 × 3⅜	4	$ 7.98	$ 7.32	$ 6.55	$ 5.85	$4.40
PC8406	650	40	5	2	6.3 CT	2.0	2⅝ × 2¾	2.4	5.65	5.18	4.64	4.15	3.19
PM8406	650	40	5	2	6.3 CT	2.0	2½ × 3	2.4	5.65	5.18	4.64	4 15	3.19
PC8407	650	55	5	2	6.3 CT	2.0	2⅝ × 3⅛	3.2	5.89	5.40	4.84	4.32	3.45
PM8407	650	55	5	2	6.3 CT	2.0	2½ × 3	3.2	5.89	5.40	4.84	4.32	3.45
PC8422	650	150	5	3	6.3 CT	5.0	3¼ × 3⅞	5.8	9.40	8.62	7.72	6.89	5.50
PM8422	650	150	5	3	6.3 CT	5.0	3⅛ × 3¾	5.8	9.42	8.63	7.73	6.91	5.32
PC8408	680	70	5	2	6.3 CT	2.5	3 × 3⅜	3.8	7.36	6.75	6.04	5.40	4.15
PM8408	680	70	5	2	6.3 CT	2.5	2⅞ × 3⅜	3.8	7.36	6.75	6.04	5.40	4.31
PC8409	700	90	5	2	6.3 CT	3.0	3 × 3⅝	4.5	7.76	7.12	6.37	5.69	4.54
PM8409	700	90	5	2	6.3 CT	3.0	2⅞ × 3⅝	4.5	7.76	7.16	6.37	5.69	4.54
PC8410	720	120	5	3	6.3 CT	3.5	3¼ × 3¾	5.5	8.82	8.08	7.24	6.47	4.97
PM8410	720	120	5	3	6.3 CT	3.5	3⅛ × 3¾	5.5	9.18	8.42	7.54	6.73	5.37
PC8411	750	150	5	3	6.3 CT	4.5	3⅝ × 4	5.8	11.82	10.83	9.70	8.67	6.67
PM8411	750	150	5	3	6.3 CT	4.5	3½ × 4⅛	5.8	12.31	11.28	10.10	9.03	6.77
PC8412	800	200	5	3	6.3 CT	5.0	4 × 4	8.2	12.31	11.28	10.10	9.03	7.20
PM8412	800	200	5	3	6.3 CT	5.0	3¾ × 4½	8.2	12.35	11.32	10.13	9.05	6.97
PC8413	800	250	5	4	6.3 CT	5.0	4 × 4½	10.0	14.07	12.90	11.55	10.32	8.23
PC8414	1200	200	5	3	6.3 6.3	3.0 3.0	4 × 4¼	8.3	14.47	13.27	11.88	10.61	8.16
For use with 6AX5, 6X4, 6X5, or selenium rectifiers. * Half-Wave Rectifier Type													
PS8415	125*	15	‡	.....	6.3	0.6	2⅜ × 1⅜	0.7	$2.33	$2.13	$1.91	$1.71	$1.36
PS8416	250	25	.....	.....	6.3	1.0	2⅞ × 1¾	1.0	2.80	2.57	2.30	2.05	1.65
PA8421	125*	50	‡	.....	6.3	2.0	3¾ × 2⅛	1.5	3.76	3.45	3.09	2.76	2.08
PC8417	440	50	6.3	.6	25.2	0.5	2⅝ × 2⅝	2.2	6.29	5.77	5.16	4.61	3.47
PC8418	460	50	.....	.....	6.3	2.5	2⅝ × 2⅝	2.2	4.71	4.32	3.87	3.45	2.66
PM8418	460	50	.....	.....	6.3	2.5	2⅛ × 3	2.2	4.71	4.32	3.87	3.45	2.76
PC8419	480	70	.....	.....	6.3	3.0	2⅝ × 2⅞	2.6	5.42	4.97	4.45	3.97	3.06
PM8419	480	70	.....	.....	6.3	3.0	2½ × 3	2.6	5.42	4.97	4.45	3.97	3.06
PC8420	520	90	.....	.....	6.3	4.0	3 × 3½	3.5	6.29	5.77	5.16	4.61	3.56
PM8420	520	90	.....	.....	6.3	4.0	2⅞ × 3⅜	3.5	6.56	6.02	5.39	4.81	3.70
Special or combination filament windings.													
P-8359†	▲	70	.....	.....	6.3 6.3 CT	0.6 3.0	2½ × 2⅝	2.8	$ 7.55	$ 6.80	$ 6.15	$ 5.65	$4.08
P-6348*	480	60	.....	.....	6.3 CT	2.75	2 3/16 × 2 11/16	2.3	5.47	5.02	4.49	4.01	3.01
P-6358†	600	65	.....	.....	6.3 CT	2.7	2⅝ × 2½	3	5.84	5.35	4.79	4.28	3.21
P-8173††	500	10	.....	.....	6.3 6.3	0.6 1.2	2⅞ × 2⅛	1.0	4.58	4.20	3.76	3.36	2.52
P-8174††	500	20	.....	.....	6.3 6.3	0.6 1.2	3 5/16 × 2¼	1.5	4.75	4.35	3.90	3.48	2.61
P-8175†	600	70	5.0	3	6.3 CT	3.0	2⅞ × 3⅛	4.0	7.71	7.07	6.33	5.65	4.35
P-8177†	600	120	5	3	6.3 CT	3.0	3 5/16 × 3⅝	5.75	9.40	8.62	7.72	6.89	5.30
P-8176†	700	110	5	2	6.3 CT 6.3 CT	3.0 3.0	3 5/16 × 3⅞	5.5	10.36	9.50	8.51	7.60	6.07
P-6007*	800	110	5 CT	3	2.5 CT 2.5 CT	15.0 3.5	3⅛ × 3¾	5.4	11.16	10.23	9.16	8.19	6.53
P-8360†	875■	185	5.0■	3.0	6.3 6.3	3.0 4.0	4 × 4½	9.5	16.00	14.40	12.95	12.00	9.27
P-6143†	880	130	5	3	6.3 CT	3.5	3⅝ × 4⅛	7.0	11.07	10.15	9.09	8.12	6.47
P-5059†#	675	200	5 CT	3	6.3 CT	5.0	3¾ × 4⅛	9.6	13.07	11.98	10.73	9.59	7.38
P-6315*	740	275	5 CT	3	6.3 CT	7.0	3¾ × 4½	9.3	13.69	12.55	11.24	10.04	7.72

* Type M Mtg. † Type C Mtg. †† Type C1 mounting. # 117/107 primary. ‡ ½ wave. ▲ 190/160-0-160/190. ■ 2000 v. rms test.

PLATE TRANSFORMERS

DC output rated CCS at load terminals of single-action, reactor-input filter, ICAS with single-section capacitor-input filter (secondary CT must be grounded). Primary, 117 volts, AC. Mounting PC.

Part No.	Secondary AC Volts	DC Output Volts	DC Output Ma	Filter Input	Rectifier	Wt., Lbs.	Size—Inches	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
PC-8301	415–0–415	300 425	200 160	Reactor Capacitor#	5U4G 5U4G	5	4 × 3¼ × 3 7/16	$ 7.89	$ 7.23	$ 6.48	$ 5.79	$4.46
PC-8302	515–0–515	385 500	235 200	Reactor Capacitor#	5U4G 5R4GY	7	4 5/16 × 3⅝ × 4⅛	10.33	9.47	8.48	7.57	5.83
PC-8303	665–0–665	500 750	250 200	Reactor Capacitor#	5R4GY 5R4GY	10	4¾ × 4 × 4⅜	13.11	12.02	10.76	9.61	7.66
PC-8304	750–0–750	600 850	265 200	Reactor Capacitor#	2-5R4GY 5R4GY	12	4¾ × 4 × 4⅞	14.76	13.53	12.12	10.83	8.63
PC-8305	920–0–920	750 1000	250 200	Reactor Capacitor#	2-5R4GY 5R4GY	12	4¾ × 4 × 5	15.36	14.08	12.61	11.27	8.98

Capacitor input rating is for intermittent duty.

SILICON AND SELENIUM RECTIFIER TRANSFORMERS

For nominal input of 117 v. AC, 50–60 cps. Mtg. Type BV.

Part No.	Applied VAC under Load	Output, Max. DC Resistive/Induct. Load Volts	Resistive/Induct. Load Amps	Capacitative Load* Volts	Capacitative Load* Amps	Filter Cap., μf	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249	Wt., Lbs.	Size—Inches
RT-201#	11.7–29.4	11.2	2.0	13.8	2.0	1 K	$ 4.98	$ 4.57	$ 4.09	$ 3.63			
RT-201†	11.1–28.5	23.0	1.25	30.0	1.25	.5 K	4.98	4.57	4.09	3.63	$ 3.02	3	3⅛ × 2½ × 3⅜
RT-202#	12.0–29.8	11.1	4.0	14.7	4.0	2 K	6.70	6.20	5.55	4.96			
RT-202†	12.0–29.8	24.3	2.0	33.0	2.0	1 K	6.70	6.20	5.55	4.96	4.10	4	3⅝ × 2⅞ × 3½
RT-204#	11.7–29.2	12.0	8.0	14.5	8.0	4 K	8.75	8.02	7.18	6.41			
RT-204†	11.6–29.2	24.0	4.0	32.4	4.0	2 K	8.75	8.02	7.18	6.41	5.29	6	4 × 3¼ × 4⅛
RT-206#	12.0–29.7	11.5	12.0	14.4	12.0	6 K	11.87	10.88	9.75	8.71			
RT-206†	12.0–29.7	24.0	6.0	32.0	6.0	3 K	11.87	10.88	9.75	8.71	7.35	9	4¼ × 3 7/16 × 5⅛
RT-208#	12.1–29.2	11.4	15.0	14.8	15.0	7.5 K	14.96	13.72	12.28	10.97			
RT-208†	12.1–29.2	23.7	8.0	32.5	8.0	4 K	14.96	13.72	12.28	10.97	9.06	13	4¾ × 3¾ × 5¼
RT-2012#	12.2–29.0	11.4	22.5	14.3	22.5	12 K	22.07	20.23	18.12	16.19			
RT-2012†	12.2–29.0	23.5	12.0	33.0	12.0	6 K	22.07	20.23	18.12	16.19	13.67	21	5⅜ × 4⅜ × 6⅜
RT-408†	25.0–53.5	44.0	8.0	63.0	8.0	4 K	32.64	29.92	26.79	23.93	20.20	27	5⅜ × 4⅜ × 7⅛
RT-4012†	25.0–53.0	43.5	12.0	60.0	12.0	6 K	42.98	39.40	35.28	31.52	26.60	34	7⅛ × 5⅜ × 6¼
P-8193‡	17 or 18	.....	.....	.....	.....	.....	8.45	7.75	6.94	6.20	4.77	6	3¾ × 3⅛ × 3⅜
P-8194§	36 at 3A	.....	.....	.....	.....	.....	14.36	13.17	11.79	10.53	7.91	10	4½ × 3¾ × 4

CT Rectifier Circuit. † Bridge Rectifier Circuit. * For complete details and instructions, write for Stancor Bulletin No. 518R. ‡ Sec., 6 amps rms. § Dual Sec., rms rated.

STANCOR ELECTRONICS, INC.

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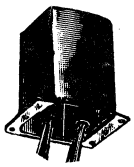
CHICAGO STANCOR — Power, Bias & CRT Transformers

SPECIAL POWER TRANSFORMERS

POWER TRANSFORMERS AND FILTER REACTORS

Three types of construction are available: Hermetically sealed, semi-sealed, and compound sealed. All units have high grade magnet wire coils wound on non-aging, silicon steel cores. Core and coil are vacuum-impregnated with varnish and baked at high temperatures to achieve a vibration-proof unit. Housed in seamless, drawn-steel cases and sealed with a special moisture-resistant compound. Hermetically sealed units, H-Type meet the rigid standards of Grade 4, MIL-T-27A specifications for Class R operation. One-piece steel covers are bonded by deep-seal soldering. Semi-sealed units, S-Type have steel base covers fitted with phenolic terminal boards, numbered solder lugs. Compound-sealed units, C-type, have fiber-board covers and 10" color-coded leads.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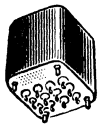
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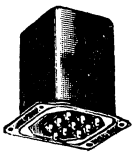
S

CD

PC

FOR CAPACITOR INPUT SYSTEMS—PRIMARY 117 VOLTS, 50–60 CYCLES
MIL-T-27A—"H" TYPE MOUNTING

High Volt. Second. Volts, AC	DC Ma	Out. V. DC	Filaments Rect. V.	Rect. A.	Others Volts	Others Amps	Part No.	Case No.	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
250-0-250	10	320	.....	.....	6.3	1.2	PHC-10	14	$16.91	$15.50	$13.88	$12.40	$11.63
			.....	.....	6.3	0.6							
250-0-250	20	300	.....	.....	6.3	1.2	PHC-20	15	16.05	14.72	13.18	11.77	11.04
			.....	.....	6.3	0.6							
225-0-225	40	210	5	2	6.3 CT	2	PHC-40	17	18.38	16.85	15.09	13.48	12.64
270-0-270	55	260	5	2	6.3 CT	2	PHC-55	17	19.45	17.83	15.97	14.27	13.38
300-0-300	60	285	5	2	6.3 CT	3	PHC-60	19	19.95	18.28	16.37	14.63	13.71
335-0-335	70	320	5	2	6.3 CT	3	PHC-70	19	20.73	19.00	17.01	15.20	14.25
330-0-330	85	320	5	2	6.3 CT	3	PHC-85	20	22.16	20.32	18.19	16.25	15.24
345-0-345	105	320	5	2	6.3 CT	3.5	PHC-105	21	24.44	22.40	20.06	17.92	16.80
375-0-375	120	380	5	3	6.3 CT	4	PHC-120	21	25.27	23.17	20.75	18.53	17.38
370-0-370	150	390	5	3	6.3 CT	4	PHC-150	22	30.12	28.07	25.13	22.45	21.05
					6.3 CT	1							

SEMI-SEALED "S" TYPE MOUNTING

High Volt. Second. Volts, AC	DC Ma	Out. V. DC	Filaments Rect. V.	Rect. A.	Others Volts	Others Amps	Part No.	Case No.	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
225-0-225	40	210	5	2	6.3 CT	2	PSC-40	17	$14.80	$13.57	$12.55	$11.21	$ 8.41
270-0-270	55	260	5	2	6.3 CT	2	PSC-55	17	15.13	13.87	12.42	11.09	8.32
335-0-335	70	320	5	2	6.3 CT	3	PSC-70	19	17.16	15.73	14.09	12.59	9.44
330-0-330	85	320	5	2	6.3 CT	3	PSC-85	20	17.95	16.45	14.73	13.16	9.87
345-0-345	105	320	5	2	6.3 CT	3.5	PSC-105	21	19.33	17.72	15.87	14.17	10.63
385-0-385	200	390	5	3	6.3 CT	4.5	PSC-200	22	27.27	25.00	22.39	20.00	15.00
					6.3 CT	1							

SEMI-SEALED "C" TYPE MOUNTING

High Volt. Second. Volts, AC	DC Ma	Out. V. DC	Filaments Rect. V.	Rect. A.	Others Volts	Others Amps	Part No.	Case No.	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
225-0-225	40	210	5	2	6.3 CT	2	PCC-40	16	$ 9.73	$ 8.92	$ 7.99	$ 7.13	$ 5.36
270-0-270	55	260	5	2	6.3 CT	2	PCC-55	16	10.42	9.55	8.55	7.64	5.73
300-0-300	60	285	5	2	6.3 CT	3	PCC-60	18	11.62	10.65	9.54	8.52	6.40
335-0-335	70	320	5	2	6.3 CT	3	PCC-70	18	12.00	11.00	9.85	8.80	6.60
330-0-330	85	320	5	2	6.3 CT	3	PCC-85	20	13.02	11.93	10.69	9.55	7.16
345-0-345	105	320	5	2	6.3 CT	3.5	PCC-105	20	13.53	12.40	11.10	9.92	7.44
385-0-385	200	390	5	3	6.3 CT	4.5	PCC-200	22	20.89	19.15	17.15	15.32	11.49
					6.3 CT	1							

FOR REACTOR INPUT SYSTEMS—PRIMARY 117 VOLTS, 50–60 CYCLES
MIL-T-27A—"H" TYPE MOUNTING

High Volt. Second. Volts, AC	DC Ma	Out. V. DC	Filaments Rect. V.	Rect. A.	Others Volts	Others Amps	Part No.	Case No.	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
350-0-350	55	260	5	2	6.3 CT	2	PHR-55	17	$19.64	$18.00	$16.12	$14.40	$13.50
425-0-425	70	320	5	2	6.3 CT	3	PHR-70	19	20.29	18.60	16.66	14.88	13.95
450-0-450	105	320	5	2	6.3 CT	3.5	PHR-105	21	23.16	21.23	19.01	16.99	15.93
500-0-500	120	390	5	3	6.3 CT	4	PHR-120	21	23.75	21.77	19.49	17.41	16.33

SEMI-SEALED "S" TYPE MOUNTING

350-0-350	55	260	5	2	6.3 CT	2	PSR-55	17	$16.09	$14.75	$13.21	$11.80	$ 8.85*
425-0-425	70	320	5	2	6.3 CT	3	PSR-70	19	17.65	16.18	14.49	12.95	9.71*
450-0-450	105	320	5	2	6.3 CT	3.5	PSR-105	21	18.91	17.33	15.52	13.87	10.40*
520-0-520	200	390	5	3	6.3 CT	4.5	PSR-200	22	31.38	28.77	25.76	23.01	17.26*
					6.3 CT	1							

* Bulk packed.

SEMI-SEALED "C" TYPE MOUNTING

350-0-350	55	260	5	2	6.3 CT	2	PCR-55	16	$11.24	$10.30	$ 9.22	$ 8.24	$ 6.19*
425-0-425	70	320	5	2	6.3 CT	3	PCR-70	18	12.58	11.53	10.33	9.23	6.92*
450-0-450	105	320	5	2	6.3 CT	3.5	PCR-105	20	13.64	12.50	11.19	10.00	7.51*
550-370-75-0-75-370-550	300	420	5	6	6.3 CT	5	PCR-300	24	29.53	27.07	24.24	21.65	16.24*
					6.3 CT	1							

* Bulk packed.

CASE SIZES

Case	Depth	Width	Height
8	1½"	1½"	1 15/16"
9	1½"	1½"	2 1/8"
12	2 1/4"	2 1/8"	2 11/16"
13	2 1/4"	2 1/8"	2 15/16"
14	2½"	2⅜"	3 3/64"
15	2½"	2⅜"	3 5/16"
16	2⅞"	2 11/16"	3½"
17	2⅞"	2 11/16"	3⅝"
18	3 1/4"	3"	3⅞"
19	3 1/4"	3"	4 1/4"
20	3 11/16"	3 5/16"	4 5/16"
21	3 11/16"	3 5/16"	4 11/16"
22	4⅛"	4 1/8"	5 5/16"
24	5 5/16"	4 13/16"	6 1/16"
26	6⅛"	5¼"	7 1/16"

BIAS SUPPLY TRANSFORMERS

Rectifier Filament, 5 v., 3 amps. Type CD mounting.

Part No.	High Voltage Supply (CT) VAC at DC Milliamps	H. × W. × D. Inches	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
P-6317*	200/170/130/90 @ 200 ma.	4 × 3 1/4 × 3 5/8	$11.25	$10.32	$ 9.24	$8.25	$6.35
P-6318†	450/400/350/250 @ 200 ma.	4 5/16 × 3 5/8 × 4 1/8	13.38	12.27	10.99	9.81	7.55

Shipping Weight: *4.9 lbs. † 7 lbs.

CATHODE-RAY TUBE POWER TRANSFORMER

For use with type 2 × 2 rectifier tubes in half-wave high voltage supply circuit. Primary, 117 v. AC, 50–60 cps. Mtg. Type PC. Supplies 1,800 v. AC at 2.0 ma DC: 2.5 v. rect. fil. at 1.8 amps; and 2.5 v. at 2.2 amps or 6.3 v. at 0.6 amp other winding. Size: 3⅜" w. × 3¼" d. × 3 7/8" h. Shipping Weight, 5 lbs.

Part No. P-8178—Net Each, 1–9 ..... **$9.04**
Net Each, 10–24 ..... **$8.28** Net Each, 25–49 ..... **7.42**
Net Each, 50–99 ..... **6.63** Net Each, 100–249 Bulk packed **5.10**

STANCOR ELECTRONICS, INC.

Net
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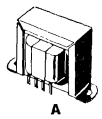
CHICAGO STANCOR Filament Transformers

COMMERCIAL GRADE FILAMENT TRANSFORMERS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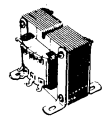
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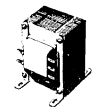
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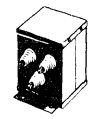
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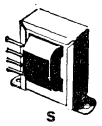
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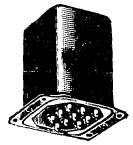
F-SERIES

SINGLE SECONDARY

Primary 50 or 60 cycle operation.

Part No.	Secondary Volts	Secondary Amps	H. × W. × D. Inches	Wt.‡ Lbs.	Mtg. Type	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
P-4026*	2.5	1.5	1⅝ × 2⅞ × 1½	0.7	A	$ 2.71	$ 2.48	$ 2.22	$ 1.99	$ 1.49
P-4082†	2.5 CT	2.5	2 11/16 × 2¾ × 2¼	1.5	TD	4.75	4.35	3.90	3.48	2.61
P-6133*	2.5 CT	5.0	2 11/16 × 3 5/16 × 2¼	1.5	S	3.73	3.42	3.06	2.73	2.18
P-3024†§	2.5 CT	10.0	3 3/16 × 2⅝ × 2⅝	2.5	C	4.91	4.50	4.03	3.60	2.78
P-6454†	2.5 CT	10.0	3⅛ × 3⅝ × 2½	2.5	S	3.93	3.60	3.22	2.85	2.22
P-3060*	2.5 CT	10.0	3½ × 2⅞ × 2½	2.5	BV	6.60	6.05	5.42	4.84	3.73
P-3026†§	5.0 CT	3.0	3 3/16 × 2⅝ × 2⅝	2.4	C	4.91	4.50	4.03	3.60	2.78
P-4088*§	5.0 CT	3.0	3⅛ × 2½ × 2½	1.8	BV	4.16	3.82	3.42	3.05	2.35
P-6467*	5.0 CT	3.0	2 × 3 5/16 × 2	1.4	A	3.15	2.88	2.58	2.31	1.73
P-6455†	5.0 CT	6.0	2⅝ × 3 5/16 × 2¼	2.0	S	4.25	3.90	3.49	3.12	2.35
P-3062*	5.0 CT	6.0	3⅛ × 2½ × 2½	2.3	BV	5.04	4.62	4.13	3.69	2.95
P-5000†§	5.0 CT	6.0	3 3/16 × 2½ × 3	3.1	C	5.69	5.22	4.67	4.17	3.21
P-6135*	5.0 CT	10.0	3⅛ × 2½ × 2⅞	3.0	BV	5.49	5.03	4.51	4.03	3.22
P-4086†§	5.0 CT	14.0	5⅛ × 4⅝ × 8⅛	12.3	FA	22.45	20.58	18.43	16.47	13.59
P-6432*§	5.0 CT	21.0	3⅞ × 3 × 3⅛	4.5	BV	8.18	7.50	6.72	6.00	4.62
P-6433*§	5.0 CT	15.0	3⅛ × 2½ × 2⅞	3	BV	7.02	6.43	5.76	5.15	3.97
P-6302†§	5.0 CT	22.0	5⅛ × 4⅝ × 8½	13.5	FA	32.69	29.97	26.84	23.97	18.44
P-6492*§	5.0 CT	30.0	4¾ × 3¾ × 3⅞	7.5	C	10.73	9.83	8.81	7.87	6.28
P-6468†§	5.0 CT	30.0	4 5/16 × 3 9/16 × 3⅞	6.3	D	12.55	11.50	10.30	9.20	7.34
P-6305†§	5.0 CT	30.0	5⅛ × 4⅝ × 10	18.3	FA	30.36	27.83	24.93	22.27	18.38
P-6134*	6.3 CT	1.2	1⅝ × 2¾ × 1 3/4	0.8	A	2.05	1.88	1.69	1.51	1.16
P-8190*	6.3	1.2	2 × 3¼ × 1 3/4	1.0	A	2.71	2.48	2.22	1.99	1.53
P-8191#	6.3	1.2	2 × 3¼ × 1¾	1.0	A	2.91	2.67	2.39	2.13	1.60
P-5014*§	6.3 CT	3.0	3⅛ × 2½ × 2½	2.0	BV	4.58	4.20	3.76	3.36	2.68
P-6466*	6.3 CT	3.0	2 × 3 5/16 × 2	1.4	A	3.33	3.05	2.73	2.44	1.88
P-6462†	6.3	3.0	3 × 3½ × 2⅝	2.0	S	5.49	5.03	4.51	4.03	3.03
P-4019†§	6.3 CT	4.0	3 3/16 × 2⅝ × 2⅝	2.7	C	4.95	4.53	4.06	3.63	2.89
P-6465*	6.3 CT	0.6	1⅝ × 2⅞ × 1⅝	0.4	A	1.95	1.78	1.60	1.43	1.10
P-3064*	6.3 CT	6.0	3⅛ × 2½ × 2⅞	2.4	BV	5.31	4.87	4.36	3.89	3.00
P-4089†§	6.3 CT	6.0	3⅝ × 3 × 3⅛	3.5	C	6.49	5.95	5.33	4.76	3.66
P-6456†	6.3 CT	6.0	2¼ × 3⅝ × 2½	2.0	A	3.75	3.43	3.07	2.75	2.12
P-6308†§	6.3 CT	10.0	3½ × 2⅞ × 2⅞	3.4	BV	6.45	5.92	5.30	4.73	3.75
P-6464*	6.3 CT	10.0	3½ × 3 × 3¼	3.5	C	6.80	6.23	5.58	4.99	3.84
P-6309†§	6.3 CT	20.0	4⅝ × 3¾ × 3	6.7	NV	10.02	9.18	8.22	7.35	5.86
P-5015*§	7.5 CT	4.0	3⅛ × 2½ × 2⅞	2.7	BV	4.65	4.27	3.82	3.41	2.82
P-4091†§	7.5 CT	5.0	3⅝ × 3 × 3	3.4	C	6.58	6.03	5.40	4.83	3.72
P-6138*	7.5 CT	8.0	3⅞ × 3⅛ × 2⅞	4.7	BV	7.15	6.55	5.87	5.24	4.18
P-6457†	7.5 CT	2.1	4⅛ × 3¾ × 4	8.0	C	12.47	11.43	10.24	9.15	7.30
P-5016*§	10.0 CT	4.0	3½ × 2⅞ × 2⅝	3.3	BV	5.95	5.45	4.88	4.36	3.36
P-6458†§	10.0 CT	5.0	3 1/16 × 2½ × 2⅞	3.0	NV	4.62	4.23	3.79	3.39	2.71
P-4096†§	10.0 CT	5.0	4 × 3¼ × 3⅛	4.0	C	7.09	6.50	5.82	5.20	4.15
P-6139*§	10.0 CT	8.0	3⅞ × 3⅛ × 3⅛	4.9	BV	7.36	6.75	6.04	5.40	4.31
P-4097†§	10.0 CT	8.0	4 × 3¼ × 3 5/8	5.2	C	7.67	7.03	6.30	5.63	4.49
P-6461*	10.0 CT	10.0	3⅞ × 3¼ × 3⅝	5.0	C	8.62	7.90	7.07	6.32	4.87
P-3020†§	11.0 CT	10.0	4¾ × 4 × 3½	7.7	C	9.78	8.97	8.03	7.17	5.52
P-8130*	12.6 CT	2.0	2 × 3¼ × 2	1.4	A	3.36	3.08	2.76	2.47	1.85
P-6469*	25.2	1.0	2 × 3¼ × 2	1.4	A	3.20	2.93	2.63	2.35	1.76

MULTIPLE SECONDARY

P-6333*	5.0 5.0 6.3 CT 7.5/6.3 CT	3.0 3.0 4.0 3.0	2⅞ × 2⅞ × 3⅜	4.7	BH	$9.24	$8.47	$7.58	$6.77	$5.21
P-6428*§	6.3 6.3 6.3 6.3 CT	1.75 1.75 1.75 1.75	3⅛ × 2½ × 3	3.0	C	6.09	5.58	5.00	4.47	3.44
P-6429*§	6.3 6.3 6.3 6.3 CT	3.5 3.5 3.5 3.5	3⅞ × 3⅛ × 3½	4.8	C	8.25	7.57	6.78	6.05	4.66
P-6430*§	6.3 CT 6.3 CT	3.0 3.0	3⅛ × 2½ × 2⅞	2.8	C	5.40	4.95	4.43	3.96	3.05
P-6431*§	6.3 CT 6.3 CT	6.0 6.0	3⅞ × 3⅛ × 3½	4.8	C	8.18	7.50	6.72	6.00	4.62

Primary Volts: * 117 v.; † 117/107 v.; # 6.3 v. ‡ Shipping. § Has electrostatic shield.

F-SERIES FILAMENT TRANSFORMERS

Units with secondaries rated for less than 6 amps have solder-lug terminals; those with secondaries rated at more than 6 amps have screw-type terminals. Numbers F-210, F-210H and F-520HB are for high voltage rectifier supply. All primaries: 115/230 v. AC, 50/60 cps.

Part No.	Secondary Volts	Secondary Amps	Insul. VRMS	Size, Inches H. × W. × D.	Wt., Lbs.	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
F-210	2.5 CT	10	5000	3¾ × 2 11/16 × 2⅞	3	$10.64	$ 9.75	$ 8.73	$ 7.80	$ 6.22
F-210H	2.5 CT	10	9000	4¼ × 3 × 3¼	4	12.93	11.85	10.61	9.48	8.01
F-54	5.0 CT	4	2500	3 5/16 × 2⅜ × 2¼	2¼	7.11	6.52	5.84	5.21	4.31
F-58	5.0 CT	10	2500	3¾ × 2 11/16 × 2⅞	3½	14.75	13.52	12.10	10.81	8.12
F-516	5.0 CT	20	2500	4 11/16 × 3 5/16 × 3 11/16	6½	18.64	17.08	15.30	13.67	10.25
F-520HB	5.0 CT	20	10,000	5 5/16 × 4⅛ × 4 9/16	13	18.49	16.95	15.18	13.56	12.08
F-530	5.0 CT	30	2500	5 5/16 × 4⅛ × 4 9/16	10½	23.91	21.92	19.63	17.53	13.16
F-615	6.3 CT	1.5	2500	2 11/16 × 2⅛ × 2¼	1	11.71	10.73	9.61	8.59	6.44
F-63	6.3 CT	3	2500	3 1/16 × 2⅜ × 2½	2	6.87	6.30	5.64	5.04	3.79
F-65	6.3 CT	5.5	2500	3¾ × 2 11/16 × 2⅞	3	12.24	11.22	10.04	8.97	6.73
F-610	6.3 CT	10	2500	4¼ × 3 × 3¼	5	16.47	15.10	13.52	12.08	10.60
F-725	7.5 CT	25	2500	5 5/16 × 4⅛ × 4 9/16	12	26.45	24.25	21.72	19.40	14.56
F-104	10 CT	4	2500	3¾ × 2 11/16 × 2⅞	3¼	12.11	11.10	9.94	8.88	6.67

CASE SIZES

Case	Depth	Width	Height
8	1½"	1½"	1 15/16"
9	1½"	1½"	2⅛"
12	2¼"	2⅛"	2 11/16"
13	2¼"	2⅛"	2 15/16"
14	2½"	2⅜"	3 3/64"
15	2½"	2⅜"	3 5/16"
16	2⅞"	2 11/16"	3½"
17	2⅞"	2 11/16"	3¾"
18	3¼"	3"	3⅞"
19	3¼"	3"	4¼"
20	3 11/16"	3 5/16"	4 9/16"
21	3 11/16"	3 5/16"	4 11/16"
22	4 9/16"	4⅛"	5 5/16"
24	5 5/16"	4 13/16"	6 1/16"
26	6⅛"	5¼"	7 1/16"

F-SERIES MULTIPLE FILAMENT TRANSFORMERS

All primaries: 105/115/125 v., 50/60 cycles. Insul. test, 2500 v., except F-8, 5000 v.

Part Number	Secondary Windings Section No. 1	Section No. 2	Section No. 3	Case Size	Wt., Lbs.	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
F-1	5 v., 2 a.	6.3 v., 2.5 a.*	.....	15	2¾	$17.64	$16.17	$14.48	$12.93	$ 9.71
F-2	5 v., 2 a.	12.6 v., 1.25 a.*	.....	15	2¾	15.05	13.80	12.36	11.04	8.28
F-3	5 v., 3 a.	6.3 v., 5 a.*	.....	17	3½	17.95	16.45	14.73	13.16	9.88
F-4†	5 v., 3 a.	6.3 v., 3 a.*	6.3 v., 3 a.*	18	4¾	20.64	18.92	16.94	15.13	11.64
F-5	5 v., 3 a.	6.3 v., 1 a.*	6.3 v., 5 a.*	18	4¾	22.09	20.25	18.13	16.20	12.16
F-6‡	6.3 v., 3 a.*	6.3 v., 3 a.*	.....	17	3½	18.16	16.65	14.91	13.32	10.00
F-7§	6.3 v., 6 a.*	6.3 v., 6 a.*	.....	21	6½	20.36	18.67	16.72	14.93	11.48
F-8	5 v., 3 a.*	5 v., 3 a.*	5 v., 6 a.*	21	7	25.13	23.03	20.63	18.42	13.83

* Center Tapped. † Sections 2 and 3 also tapped, 12.6 v. CT at 3 amps. ‡ Sections 1 and 2 also tapped at 12.6 v. CT at 3 amps. § Sections 1 and 2 also tapped 12.6 v. CT at 6 amps.

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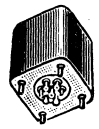
CHICAGO STANCOR

Audio Transformers: MIL-T-27A, Commercial Grade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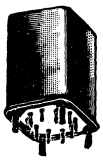
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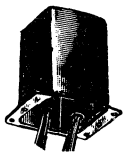
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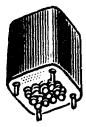
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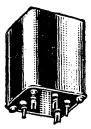
WF

PC

WIDE RANGE OUTPUT TRANSFORMERS

Maximum operating altitude, 10,000 feet. Frequency Response: ±1 db, 30–15,000 cps. Designed and built according to MIL-T-27A requirements. Mounting type B.

Part No.	Application	Impedance Primary	Impedance Sec.	Oper. Lev.*	Case Size	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
BOH-2	P-p plates to line, 6C5's or equiv.	20K CT†	600/150 CT†	+30	16	$19.38	$17.77	$15.91	$14.21	$13.33
BOH-4	P-p plates to line, 6L6's or equiv.	7500 CT	600/150 CT†‡	+43	20	25.04	22.95	20.55	18.36	17.21
BOH-5	P-p plates to line or VC, 6V6's, equiv.	10K CT†	600/16/8 CT† 150/4†	+37	18	24.40	22.37	20.03	17.89	16.78

* Reference level of 0 dbm equals 1 mw. † Split and balanced windings. ‡ Tertiary winding for 15% inv. feedback.

MS (MILITARY STANDARD) AUDIO TRANSFORMERS

Maximum operating altitude, 50,000 feet. Frequency Response: ±2 db, 300–10,000 cps. Case size, 1⅝" sq. × 2⅜" h., Type AMS. Weight, 0.6 lbs. (max.).

Part No.	MIL-T-27A Classification	Application	Impedance Primary	Impedance Secondary	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
AMS-2	TF1RX16AJ002	Line to VC	600 CT 150	4/8/16	$16.05	$14.70	$13.15	$11.75	$11.00
AMS-3	TF1RX10AJ001	Line to p-p grids	600 CT 150	135K CT	18.65	17.10	15.30	13.70	12.80
AMS-4	TF1RX16AJ001	Line to line	600 CT 150	600 CT 150	18.22	16.70	14.96	13.36	12.53
AMS-5	TF1RX13AJ001	Single pl. to line	7600/4800	600 CT 150	13.10	12.02	10.76	9.61	9.01
AMS-6	TF1RX13AJ002	Single pl. to VC	7600/4800	4/8/16	12.71	11.65	10.43	9.32	8.74

FULL FREQUENCY RANGE OUTPUT TRANSFORMERS

Frequency Response: ±1.5 db, 30–20,000 cps. Mounting type B semi-sealed.

Part No.	Application	Impedance, Ohms Primary	Impedance, Ohms Secondary	Oper. Level*	Mtg. Type	Case Size	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
BO-1	Sing. Pl. to line	15K†	600/150 CT‡	+15 dbm	B	14	$15.56	$14.27	$12.78	$11.41	$ 8.56
BO-2	Push-pull plates to line	20K CT‡	600/150 CT‡	+30 dbm	B	16	18.80	17.23	15.43	14.77	10.35
BO-5	P-p plates to line or VC	10K CT‡	600/16/8 CT and 150/4‡	5 watts	B	18	22.27	20.42	18.28	16.33	12.25

* 0 dbm, reference level, 1 mw. † 0–10 DCMa. ‡ Split and balanced windings

FULL FREQUENCY RANGE INPUT TRANSFORMERS

Frequency Response: ±1 db, 30–15,000 cps. Primary and secondary windings split and balanced. Mounting type B semi-sealed.

Part No.	Application	Impedance, Ohms Primary	Impedance, Ohms Secondary	Oper. Level	Mtg. Type	Case Size	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
BI-2	Line to single or p-p grids	600/150 CT	50K CT	+15 dbm	B	12	$36.33	$33.30	$29.82	$26.64	$19.99
BI-3	Line bridging to p-p grids	8K/6K CT	50K CT	+15 dbm	B	12	32.64	29.92	26.79	23.93	18.41

PUBLIC ADDRESS RANGE DRIVER TRANSFORMER

Frequency Response: ±½ db, 50–10,000 cps. Ratio of primary to ½ secondary, 3:1. Mounting type C semi-sealed. Weight, 2¼ lbs.

Part No.	Typical Driver Tubes	Primary Imped.	Max. DC in Pri.	Case Size	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
PCD-25	P-p 6N7's, 6A6's, 6J5's, 6C4's, etc.	20K CT	25 ma	15	$7.82	$7.17	$6.42	$5.73	$4.31

OUTPUT TRANSFORMERS

PUSH-PULL

Power level, 15 watts. Max. DC in pri., 200 ma. Mtg. type C semi-sealed. Case Size 19. Wt., 5 lbs.

Part No.	Typical Output Tubes	Class	Impedance, Ohms Primary	Impedance, Ohms Secondary	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
PCO-150	6V6's, 6F6's	AB	10K CT	600/150/16/8/4	$13.18	$12.08	$10.82	$ 9.67	$7.25
PCO-150A	6V6's, 6F6's	AB	12K CT	600/150/16/8/4	14.05	12.88	11.54	10.31	7.73

SINGLE-PLATE TO LINE OR VOICE COIL

Power level, 5 watts. Max. DC in pri., 55 ma. Mtg. type C semi-sealed. Case size, 14. Wt., 2¼ lbs.

COC-1	6L6, 6V6, 25A6	A	5K	600/150/16/8/4	$8.29	$7.60	$6.81	$6.08	$4.56
COC-2	6F6, 6V6, 6N6, 6K6, 7B5	A	8K	600/150/16/8/4	9.93	9.10	8.15	7.28	5.47

COMMUNICATIONS RANGE INPUT TRANSFORMERS

Frequency Response: 1 db, 200–3500 cps. Mtg. type C semi-sealed. Case size 9. Wt., ¾ lbs.

Part No.	Application	Impedance, Ohms Primary	Impedance, Ohms Secondary	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
CIC-1	Low level line to single or p-p grids	600/150 CT	100K CT	$16.40	$15.03	$13.46	$12.03	$ 9.03
CIC-2	Low level SB or DB mic. to sgl. or p-p grids	125/50, 80 ma	125K CT	7.29	6.68	5.99	5.35	4.01

WF SERIES FULL FREQUENCY RANGE AUDIO TRANSFORMERS

Frequency Response: ±2 db, 30–20,000 cps. Maximum operating level, +7 db. Mtg. type WF. Size, 1½" sq. × 2". Weight, 0.6 lbs.

Part No.	Application	Impedance, Ohms Primary	Impedance, Ohms Secondary	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
WF-20	Low imped. mic., pick-up or line to grid	50, 125/150, 200, 250, 333, 500/600	50K	$13.09	$12.00	$10.75	$9.60	$9.00
WF-21*	Low imp. mic., pickup or line to sgl. or p-p grids	50, 200, 500	50K	11.91	10.92	9.78	8.73	8.19
WF-22	Low imp. mic., pickup or line to p-p grids	50, 125/150, 200, 250, 333, 500/600	80K overall, 2 sections	11.91	10.92	9.78	8.73	8.19
WF-30	Low imp. mixer, mic., pickup or line to line	50, 125/150, 200 250, 333, 500/600	50, 125/150, 200, 250, 333, 500/600	13.62	12.48	11.18	9.99	9.36
WF-36†	P-p low level plates to line (output)	30,000 plate-to-plate	50, 125/150, 200, 250, 333, 500/600	13.09	12.00	10.75	9.60	9.00

* Frequency Response: ±2 db. 50–20,000 cps, magnetic shield. † Use shunt plate feed to keep DC out of primary winding.

HIGH FIDELITY OUTPUT TRANSFORMERS

Frequency response excellent from 20 to 20,000 cps. Extremely low level of intermodulation distortion over entire range and at any power level. **Type PC** upright shell mounting for all units. Shipping Weight, 6.5 lbs. Size: 4⅝₁₆" h. × 3⅜₁₆" w. × 4¼" d.

Part No.	Pri. Imp. (PP) Ohms	Sec. Imp. Ohms*	Max. Watts	Max. Pri. DCMa†	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
A-8053	5000	8, 16	50	150	$13.38	$12.27	$10.99	$ 9.81	$7.36
A-8056	6600	8, 16	50	125	13.38	12.27	10.99	9.81	7.36
A-8054	9000	8, 16	50	100	13.38	12.27	10.99	9.81	7.36
A-8072**	7600	4, 8, 16	25	100	16.36	15.00	13.43	12.00	9.00

* Where more than one secondary impedance is shown, only one value is to be used at any time. ** Primary provided with screen taps for ultra-linear use. † DCMa per half of primary.

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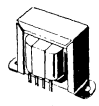
CHICAGO STANCOR

Audio, Special Purpose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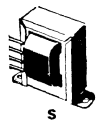
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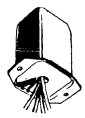
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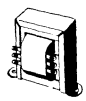
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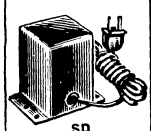
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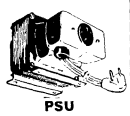
PSU

IS

SINGLE PLATE TO VOICE COIL

Part No.	Impedance in Ohms Primary	Secondary	Max. Watts	Mtg. Type	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
A-3332	2,000	3.2	3	A	$1.36	$1.25	$1.12	$1.00	$ .78
A-3876	2,000	4	5	A	1.45	1.33	1.19	1.07	.85
A-3328	4,000	3.5	3	A	1.35	1.23	1.10	.99	.77
A-2203	4,000	8	5	A	2.42	2.22	1.99	1.77	1.33
A-3877	5,000	4	5	A	1.45	1.33	1.19	1.07	.85
A-8092	5,000	3–4	8	A	2.05	1.88	1.69	1.51	1.13
A-3337	5,000	6–8	10	S	2.29	2.10	1.88	1.68	1.30
A-3310	5,000	500, 15, 8, 4	20	C	5.60	5.13	4.60	4.11	3.16
A-3878	7,000	4	5	A	1.49	1.37	1.22	1.09	.88
A-2313	7,000	8	10	A	2.51	2.30	2.06	1.84	1.39
A-8114	7,600	3.2	5	A	1.73	1.58	1.42	1.27	.98
A-3329	8,000	3.5	3	A	1.35	1.23	1.10	.99	.80
A-3879	10,000	4	5	A	1.45	1.33	1.19	1.07	.58
A-3881	15,000	4	5	A	1.60	1.47	1.31	1.17	.91
A-3327	25,000	4	5	A	1.80	1.65	1.48	1.32	1.05

PUSH-PULL PLATES TO VOICE COIL

Part No.	Impedance in Ohms Primary, CT	Secondary	Max. Watts	Mtg. Type	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
A-8098†	2,000	8, 16, 32	15	C	$ 7.98	$ 7.32	$6.55	$5.85	$4.40
A-3802	3,800/3,300	500, 250, 8, 4	75	C	11.78	10.80	9.67	8.64	6.65
A-8094†	4,000	8, 16, 32	7½	A	4.00	3.67	3.28	2.93	2.26
A-3851*	4,400	500, 250, 15, 8, 4	30	C	7.27	6.67	5.60	5.33	4.25
A-3872	5,000	15, 8, 4	18	TD	4.58	4.20	3.76	3.36	2.59
A-3800	5,000	500, 250, 15, 8, 4	30	C	6.75	6.18	5.54	4.95	3.81
A-3307	6,000	500, 15, 8, 4	30	C	7.76	7.12	6.37	5.69	4.28
A-3801	6,600	500, 250, 15, 8, 4	35	C	8.58	7.87	7.04	6.29	4.84
A-3885	9,000	500, 250, 15, 8, 4	35	C	8.51	7.80	6.99	6.24	4.80
A-4432	10,000	4	10	S2	2.42	2.22	1.99	1.77	1.47
A-3304	10,000/7,000	500, 15, 8, 4	25	C	6.31	5.78	5.18	4.63	3.56
A-3311	10,000	500, 15, 8, 4	25	C	6.78	6.22	5.57	4.97	3.83
A-3831	10,000	8, 4, 2	5	A	2.65	2.43	2.18	1.95	1.51
A-8093	10,000	3–4	10	A	2.13	1.95	1.75	1.56	1.17
A-3335	10,000	6–8/3.2–4	10	S	3.09	2.83	2.54	2.27	1.71
A-3839	10,000	2,000, 15, 8, 4	10	TD	4.75	4.35	3.90	3.48	2.61
A-2312	14,000	4	10	A	2.80	2.57	2.30	2.05	1.59
A-3496	14,000	4	5	A	2.65	2.43	2.18	1.95	1.47
A-3303	14,000	500, 15, 8, 4	20	C	6.42	5.88	5.27	4.71	3.53
A-3857	25,000	4	5	A	2.36	2.17	1.94	1.73	1.31

* Has tertiary winding to provide 10% inverse feedback. † For use in "Twin-Coupled" amplifier.

SINGLE PLATE TO PUSH-PULL GRIDS

Single Plate (7,000 to 15,000 ohms) to p-p class "A" grid; rated 10 ma DC. A-53 Single Plate to Single Grid (7,000–20,000 ohms).

Part No.	Turns Ratio	H. × W. × D. Inches	Mtg. Type	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
A-53	1:3	1⅜ × 2⅜ × 1⅛	A	$1.98	$1.82	$1.63	$1.45	$1.12
A-53-C	1:3	1⅜ × 2⅜ × 1⅜	A	2.36	2.17	1.94	1.73	1.34

VIBRATOR TRANSFORMER

Part No.	Secondary VAC	Filter Input VDC*	DC Ma	Recom. Buffer Capac.	Mtg. Type	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
P-6166†	350–0–350	6.3‡	135	.01 μf	C	$11.87	$10.88	$9.75	$8.71	$6.94

* When used with sync vibrator. † 6 v. DC and 117 v. AC primaries. ‡ Filament, at 2.25 amps.

AUTOMATION CONTROL TRANSFORMERS

Primary, 115/230 v. AC, 50/60 cps on all models.

Part No.	Secondary Parallel	Series	VA Rating	Mtg. Type	Wt., Lbs.	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
P-6375	6 v. at 2 amps	12 v. at 1 amp	12	J	1	$ 3.42	$ 3.13	$ 2.81	$2.51	$1.93
P-6376	6 v. at 4 amps	12 v. at 2 amps	24	J	1½	3.71	3.40	3.04	2.72	2.10
P-6377	12 v. at 4 amps	24 v. at 2 amps	48	J	2⅛	4.69	4.30	3.85	3.44	2.65
P-6378	12 v. at 8 amps	24 v. at 4 amps	96	BV	4¼	7.58	6.95	6.22	5.65	4.28
P-6379	12 v. at 16 amps	24 v. at 8 amps	192	BV	8	13.07	11.98	10.73	9.59	7.65

MOBILE OR FIXED TRANSISTOR POWER TRANSFORMER

Part Number	Primaries	Secondaries	RMS V. Test	Mtg. Type	Size, In. H.	W.	D.	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
P-8195	12 v. DC or 117 v. AC 60 cycles	280 v. DC at 150 ma* and 12.6 v. AC at 3 amps†	1500	C	3⅜	3⅜	3⅛	$13.60	$12.47	$11.16	$9.97	$7.48

* Continuous duty, 250 ma intermittent. † With 117 v. AC primary only.

STEPUP-STEPDOWN TRANSFORMERS

Use with air conditioners. 60 cps; 208/230 v.; 230/208 v.

Part No.	Output, KVA	For Motor Size	Size, Inches H. × W. × D.	Shpg. Wt., Lbs.	Mtg. Type	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
PSU-2000	2.3	.5–1 hp	3½ × 3¾ × 6⅛	9	PSU	$16.40	$15.03	$13.46	$12.03	$ 9.93
PSU-3000	3	1–2 hp	4 × 4⅛ × 6	10	PSU	19.71	18.07	16.18	14.45	11.93

STEP-DOWN TRANSFORMERS (PRIMARY, 50/60 CYCLES)

Input side is provided with an eight-foot covered cord and plug for use in wall receptacle, etc; output side has standard female receptacle. Mounting type SD.

Part Number	Input Voltage	Output Voltage	Rating, Cont. Duty	Wt., Lbs.	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
SD-50	220–250	110–125	50 watts	2¾	$ 5.96	$ 5.47	$ 4.90	$ 4.37	$ 3.49
SD-100	220–250	110–125	100 watts	4¼	7.47	6.85	6.13	5.48	4.37
SD-150	220–250	110–125	150 watts	7	9.47	8.68	7.78	6.95	5.54
SD-250	220–250	110–125	250 watts	8¾	11.24	10.30	9.22	8.24	6.58
SD-500	220–250	110–125	500 watts	14½	16.96	15.55	13.93	12.44	9.92
SD-1000	220–250	110–125	1000 watts	22½	24.09	22.08	19.78	17.67	14.08

ISOLATION TRANSFORMERS (PRIMARY, 50/60 CYCLES)

Eight-foot rubber-covered cord with plug is provided on the primary, secondary has standard female receptacle. Mounting type IS.

Part Number	Input Voltage†	Output Voltage	Rating, Cont. Duty	Wt., Lbs.	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
IS-50	105/115/125	125/115/105*	50 watts	5	$11.20	$10.27	$ 9.19	$ 8.21	$ 6.78
IS-100	105/115/125	125/115/105*	100 watts	8½	14.69	13.47	12.06	10.77	8.59
IS-150	105/115/125	125/115/105*	150 watts	12½	17.29	15.85	14.19	12.68	10.11
IS-250	105/115/125	125/115/105*	250 watts	18¼	23.44	21.48	19.24	17.19	13.70

* With 115 v. AC primary only. † Switch selected.

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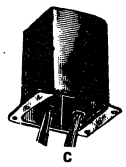
CHICAGO STANCOR

Filter Reactors; Isolation, Line Adjusting Transformers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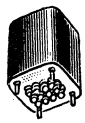
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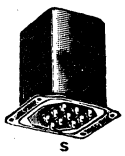
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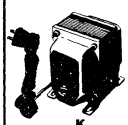
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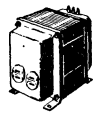
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PV

FILTER REACTORS

Units have high grade magnet wire coils wound on non-aging, silicon steel cores; housed in seamless, drawn steel cases and sealed with special moisture-resistant compound. Hermetically sealed units, H-Type meet the rigid standards of Grade 4, MIL-T-27A specifications for Class R operation. One-piece steel covers are bonded by deep-seal soldering. Semi-sealed units, S-Type, have steel base covers fitted with phenolic terminal boards, numbered solder lugs. Compound sealed units, C-Type have fiber board covers and 10" color-coded leads.

MIL-T-27A "H" TYPE MOUNTING UNITS

Part No.	Inductance in Henries	Max. Cur. DC Ma	DC Resist. in Ohms	Insul. Test Volts RMS	Wt., Lbs.	Case No.	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
RH-1510	15	10	680	1,000	1	8	$ 8.91	$ 8.17	$ 7.31	$ 6.53	$ 6.13
RH-1520	15	20	680	1,000	1	8	7.16	6.57	5.88	5.25	4.93
RH-1540	15	40	475	2,500	1 1/2	12	8.78	8.05	7.21	6.44	6.04
RH-1555	15	55	420	2,500	2	13	8.82	8.08	7.24	6.47	6.06
RH-1585	15	85	285	2,500	2 3/4	14	9.76	8.95	8.01	7.16	6.71
RH-12105	12	105	170	2,500	4	17	11.76	10.78	9.66	8.63	8.09
RH-12150	12	150	150	2,500	5 1/2	19	13.49	12.37	11.07	9.89	9.28
RH-12200	12	200	140	2,500	7	20	15.60	14.30	12.81	11.44	10.73
RH-1055	10	55	230	2,500	1 3/4	13	8.75	8.02	7.18	6.41	6.01
RH-1085	10	85	175	2,500	2 1/2	14	9.60	8.80	7.88	7.04	6.60
RH-8105	8	105	100	2,500	3 3/4	17	11.89	10.90	9.76	8.72	8.18
RH-8150	8	150	100	2,500	5 1/4	18	13.00	11.92	10.67	9.53	8.94
RH-8200	8	200	85	2,500	7	20	15.45	14.17	12.69	11.33	10.63
RH-8250	8	250	90	2,500	10 1/2	22	17.78	16.30	14.60	13.04	12.23
RH-8300	8	300	60	3,500	12 1/2	22	22.45	20.58	18.43	16.47	15.44

SEMI-SEALED "S" TYPE MOUNTING UNITS WITH LUGS

Part No.	Inductance in Henries	Max. Cur. DC Ma	DC Resist. in Ohms	Insul. Test Volts RMS	Wt., Lbs.	Case No.	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
RS-1540	15	40	475	2,500	1 1/2	12	$ 7.22	$ 6.62	$ 5.93	$ 5.29	$ 3.97
RS-1555	15	55	421	2,500	2	12	7.53	6.90	6.18	5.52	4.15
RS-1585	15	85	285	2,500	2 3/4	15	8.69	7.97	7.13	6.37	4.79
RS-12105	12	105	170	2,500	4	17	10.38	9.52	8.52	7.61	5.72
RS-12150	12	150	150	2,500	5 1/2	19	11.69	10.72	9.60	8.57	6.44
RS-12200	12	200	140	2,500	7	21	13.71	12.57	11.25	10.05	7.74
RS-1055	10	55	230	2,500	1 3/4	12	7.47	6.85	6.13	5.48	4.12
RS-1085	10	85	175	2,500	2 1/2	15	8.29	7.60	6.81	6.08	4.56
RS-8105	8	105	100	2,500	3 3/4	17	10.51	9.63	8.63	7.71	5.79
RS-8150	8	150	100	2,500	5 1/4	19	12.42	11.38	10.19	9.11	6.84
RS-8200	8	200	85	2,500	7	21	8.51	7.80	6.99	6.24	5.27
RS-8300	8	300	60	3,500	12 1/2	22	12.93	11.85	10.61	9.48	8.01

SEMI-SEALED "C" TYPE MOUNTING UNITS WITH LEADS

Part No.	Inductance in Henries	Max. Cur. DC Ma	DC Resist. in Ohms	Insul. Test Volts RMS	Wt., Lbs.	Case No.	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
RC-1540	15	40	475	2,500	1 1/2	12	$ 5.15	$ 4.72	$ 4.22	$ 3.77	$ 2.84
RC-1555	15	55	421	2,500	2	12	5.89	5.40	4.84	4.32	3.24
RC-1585	15	85	285	2,500	2 3/4	14	6.78	6.22	5.57	4.97	3.73
RC-12105	12	105	170	2,500	4	16	10.38	9.52	8.52	7.61	5.72
RC-12200	12	200	140	2,500	7	20	11.11	10.18	9.12	8.15	6.12
RC-1055	10	55	230	2,500	1 3/4	12	5.42	4.97	4.45	3.97	2.99
RC-1085	10	85	175	2,500	2 1/2	14	6.16	5.65	5.06	4.52	3.40
RC-8150	8	150	100	2,500	5 1/4	18	9.58	8.78	7.87	7.03	5.28
RC-8200	8	200	85	2,500	7	20	10.85	9.95	8.91	7.96	5.97
RC-8300	8	300	60	3,500	12 1/2	22	14.49	13.28	11.90	10.63	8.47

CASE SIZES

Case	Depth	Width	Height	Case	Depth	Width	Height	Case	Depth	Width	Height
8	1 1/2"	1 1/8"	1 15/16"	15	2 1/8"	2 3/16"	3 5/16"	20	3 11/16"	3 5/16"	4 5/16"
9	1 1/2"	1 1/8"	2 1/16"	16	2 7/8"	2 11/16"	3 1/2"	21	3 11/16"	3 5/16"	4 11/16"
12	2 1/4"	2 1/8"	2 11/16"	17	2 7/8"	2 11/16"	3 3/4"	22	4 9/16"	4 1/8"	5 5/16"
13	2 1/4"	2 1/8"	2 15/16"	18	3 1/4"	3"	3 7/8"	24	5 5/16"	4 13/16"	6 1/16"
14	2 1/2"	2 3/8"	3 33/64"	19	3 1/4"	3"	4 1/4"	26	6 1/8"	5 1/4"	7 1/16"

ISOLATION TRANSFORMERS

Built-in electrostatic shields grounded to core internally.

STRAIGHT ISOLATION (125/115/105 V. 50/60 cps. TO 115 V.)

Part No.	Watts	Mtg. Type	H. × W. × D. Inches	Shpg. Wt., Lbs.	Net Each, Quantities 1–9	10–24	25–49	50–99	Bulk 100–249
P-6410*	50	K	3 9/16 × 2 15/16 × 3 1/16	3.7	$ 7.78	$ 7.13	$ 6.39	$ 5.71	$ 4.39
P-6160	100	KA	4 3/4 × 4 × 3 7/8	7	14.22	13.03	11.67	10.43	8.61
P-6161	250	KA	4 3/4 × 4 × 5 3/8	14.2	21.02	19.27	17.25	15.41	12.29
P-6298	500	KA	7 5/8 × 6 1/8 × 7 5/8	28	42.31	38.78	34.73	31.03	25.60
P-6125	1000	FK	7 3/4 × 5 5/8 × 7 3/4	34.8	66.53	60.98	54.61	48.79	38.88
P-6123	1500	FK	7 3/4 × 5 5/8 × 9	49.8	92.64	84.92	76.05	67.93	54.14
P-6371†	175	TE	5 5/16 × 4 9/16 × 5 1/4	9	18.98	17.40	15.58	13.92	10.44

* Primary 115 v. only. † Specifically designed for AC-DC Portable TV Receivers. Primary 117 v. only.

STEP-DOWN ISOLATION (250/230/210 V. 50/60 cps. TO 115 V.)

P-6383	100	KA	4 3/4 × 4 × 3 3/4	7.3	$14.36	$13.17	$11.79	$10.53	$ 8.40
P-6385	250	KA	4 3/4 × 4 × 5 3/8	14.2	23.40	21.45	19.21	17.16	13.68

ISOLATION TESTING (117 V. 50/60 cps. TO 105/115/125 V.)

P-6415	350	KC	5 3/8 × 4 1/2 × 5 3/4	17	$23.07	$21.15	$18.94	$16.92	$13.49

AUTOTRANSFORMERS

115 v. secondary; 230 v. primary. 50/60 cps.

Part No.	Watts	H. × W. × D. Inches	Shpg. Wt., Lbs.	Mtg. Type	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
P-6287	40	3 1/2 × 2 11/16 × 2 7/16	2.2	K2	$ 6.36	$ 5.83	$ 5.22	$ 4.67	$ 3.73
P-5062	80	3 5/8 × 3 × 3 1/4	3.8	K	7.78	7.13	6.39	5.71	4.55
P-5063	100	4 × 3 1/4 × 3 1/4	4.5	K	8.25	7.57	6.78	6.05	4.83
P-5064	150	4 5/16 × 3 5/8 × 3 5/8	5.2	K	9.73	8.92	7.99	7.13	5.69
P-5065	300	4 3/4 × 4 × 4 1/8	8.8	K	13.51	12.38	11.09	9.91	7.62
P-6141	500	4 3/4 × 4 × 5 1/8	13.7	K	17.78	16.30	14.60	13.04	10.41

LINE ADJUSTING TRANSFORMERS

Nominal output, 115 v. Input (50–60 cps); 65/75/90/100/115/130/145 v. Type PV case with output meter.

Part No.	Watts	H. × W. × D. Inches	Shpg. Wt., Lbs.	Mtg. Type	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
PV-6441	150†	5 1/2 × 3 7/8 × 5 3/8	6.4	PV	$19.44	$17.82	$15.96	$14.25	$11.36
PV-6442	350†	5 1/2 × 3 7/8 × 6 1/8	10.5	PV	22.38	20.52	18.37	16.41	13.09
PV-6443	500†	5 1/2 × 3 7/8 × 6 7/8	15.0	PV	24.75	22.68	20.31	18.15	14.46

† Watts to pure resistive load. To other types of loads, multiply rating of line adjuster by power factor of load for actual wattage.

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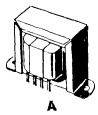
CHICAGO STANCOR

Chokes, Filters, Toroids

Voltage Stabilizers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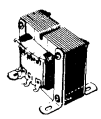
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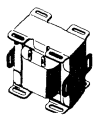
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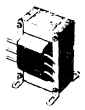
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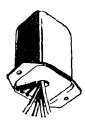
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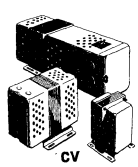
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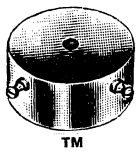
TM

SMOOTHING CHOKES

For DC power supplies. Rated 10 v., 60 cps. with max. DC in windings. Tolerance of −15% + 50% on all ratings.

Part No.	Hys.	Ma	Ohms	H. × W. × D. Inches	Mtg. Type	Wt., Lbs.	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
C-2707	2.0	15	70	1 3/16 × 2 3/16 × 1 1/4	A	0.4	$ 1.50	$ 1.35	$ 1.22	$ 1.13	$ .86
C-2344	1.5	10	85	1 1/4 × 2 1/4 × 1 3/8	A	0.5	1.09	1.00	.90	.80	.66
C-1515	20.0	15	900	1 5/8 × 2 7/8 × 1 1/2	A	0.7	2.11	1.93	1.73	1.55	1.19
C-2318	12.0	30	400	1 3/8 × 2 3/8 × 1 3/8	A	0.5	1.80	1.65	1.48	1.32	1.00
C-1706	4.5	50	300	1 3/8 × 2 3/8 × 1 3/8	A	0.4	1.25	1.15	1.03	.92	.74
C-1707	7.0	50	550	1 3/8 × 2 3/8 × 1 3/8	A	0.4	1.38	1.27	1.13	1.01	.78
C-1003	16.0	50	580	2 × 3 1/4 × 1 3/4	A	1.1	2.13	1.95	1.75	1.56	1.25
C-1708	13.0	65	500	2 × 3 1/4 × 1 3/4	A	1.0	2.36	2.17	1.94	1.73	1.34
C-1355	8.0	75	290	2 1/16 × 2 5/16 × 1 3/4	L	1.0	2.60	2.38	2.13	1.91	1.53
C-1002	15.0	75	400	2 1/4 × 3 3/4 × 2 1/4	A	1.7	2.84	2.60	2.33	2.08	1.60
C-1420	16.0	80	360	3 3/16 × 2 5/8 × 2 5/8	C	2.5	4.55	4.17	3.73	3.33	2.67
C-1709	8.0	85	250	2 × 3 1/4 × 2	A	1.4	2.36	2.17	1.94	1.73	1.34
C-2305	5.0	100	300	2 11/16 × 2 3/4 × 2 3/16	TD	1.5	3.38	3.10	2.78	2.48	1.93
C-1001	10.5	110	225	2 5/8 × 4 × 2 1/4	A	2.3	3.50	3.22	2.88	2.57	2.05
C-2704	9	125	250	2 1/4 × 3 5/8 × 1 7/8	A	1.8	3.02	2.77	2.48	2.21	1.71
C-2303	2.5	130	100	2 × 3 1/4 × 1 3/4	A	1.0	2.20	2.02	1.81	1.61	1.24
C-1421	7.0	140	165	3 3/16 × 2 5/8 × 2 5/8	C	2.5	4.55	4.17	3.73	3.33	2.67
C-2304	2.3	150	60	2 × 3 1/4 × 1 3/4	A	1.0	2.20	2.02	1.81	1.61	1.24
C-2309	3.0	150	90	2 1/4 × 3 3/4 × 2 1/4	A	1.7	2.53	2.32	2.07	1.85	1.43
C-1710	7.0	150	200	2 5/8 × 4 × 2 1/4	A	2.2	3.53	3.23	2.90	2.59	2.07
C-2335	7.0	150	170	3 × 2 1/8 × 3	TD	2.3	4.91	4.50	4.03	3.60	2.71
C-1410	4.0	175	100	3 3/16 × 2 5/8 × 2 5/8	C	2.4	4.45	4.08	3.66	3.27	2.51
C-2327	1.5	200	85	1 5/8 × 2 7/8 × 1 1/2	A	0.8	1.76	1.62	1.45	1.29	1.00
C-2325	2.0	200	60	2 1/4 × 3 3/4 × 2 1/4	A	1.8	2.80	2.57	2.30	2.05	1.59
C-1646	5.0	200	90	4 × 3 1/4 × 3 3/8	C	4.5	6.67	6.12	5.48	4.89	3.77
C-1411	4.5	200	80	3 5/8 × 3 × 3 1/8	C	3.5	5.56	5.10	4.57	4.08	3.15
C-1721	8.5	200	120	3 7/8 × 3 1/8 × 3	NV	4.4	7.36	6.75	6.04	5.54	4.31
C-2705	10	200	150	3 9/16 × 3 × 3 1/2	C	4.5	7.11	6.52	5.84	5.21	4.01
C-1703	4.0	250	60	3 1/2 × 2 7/8 × 3 9/16	BV	4.2	6.09	5.58	5.00	4.47	3.57
C-1412	4.0	250	60	3 5/8 × 3 × 3 1/2	C	4.3	6.84	6.27	5.61	5.01	3.86
C-2326	1.0	300	43	2 1/4 × 3 3/4 × 2 1/4	A	1.7	2.85	2.62	2.34	2.09	1.61
C-2334	2.8	300	60	2 5/8 × 2 1/4 × 4	A	2.5	3.47	3.18	2.85	2.55	2.04
C-1722	8.0	300	80	4 5/8 × 3 3/4 × 3 1/2	NV	7.3	10.84	9.93	8.90	7.95	6.11
C-1413	8.0	300	80	4 3/4 × 4 × 4 1/8	D	7.8	11.25	10.32	9.24	8.25	6.58
C-2308	8.0	300	80	4 3/4 × 4 × 3 7/8	C	7.8	10.84	9.93	8.90	7.95	6.34
C-2328	0.8	375	25	2 1/4 × 3 3/4 × 2	A	1.5	3.53	3.23	2.90	2.59	1.95
C-1414	7.5	400	60	4 3/4 × 4 × 5 1/8	D	11.8	15.40	14.12	12.64	11.29	9.01
C-2708	0.32	600	10	1 15/16 × 3 5/16 × 2	A	1.3	2.87	2.40	2.16	2.00	1.52
C-1723	4.5	50	325	1 3/8 × 2 3/8 × 1 3/8	A	0.4	1.38	1.27	1.13	1.01	.78

SWINGING CHOKES

For AC-DC power supplies. Rated at 10 v., 60 cps, with max. DC in winding. Tolerance of −15% + 50% on all ratings.

Part No.	Hys.	Ma	Ohms	H. × W. × D. Inches	Mtg. Type	Wt., Lbs.	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
C-1718	13.5–3.5	15–150	130	3 3/16 × 2 3/4 × 2 1/2	C	2.3	$ 4.35	$ 3.98	$ 3.57	$ 3.19	$ 2.46
C-1400	12–2	17.5–175	100	3 5/16 × 2 5/8 × 2 5/8	C	2.4	4.65	4.27	3.82	3.41	2.63
C-1401	12–2	20–200	80	3 5/8 × 3 × 3 1/8	C	3.5	5.84	5.35	4.79	4.28	3.29
C-1402	12–2	25–250	60	3 5/8 × 3 × 3 1/2	C	4.3	6.84	6.27	5.61	5.01	3.86
C-2307	20–4	30–300	80	4 3/4 × 4 × 3 7/8	C	7.9	11.22	10.28	9.21	8.23	6.56
C-1404	17–3	40–400	60	4 3/4 × 4 × 5 1/8	D	11.7	14.95	13.70	12.27	10.96	8.74

AUDIO FILTER

SPLATTER SUPPRESSOR FILTER

For use between the Modulator and RF Amplifier.

Part No.	Ind. Range Henries*	Max. DC Ma	Mtg. Type	H. × W. × D. Inches	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
C-2317	0.048–0.9	300	BH	2 5/8 × 3 × 3	$5.47	$5.02	$4.49	$4.01	$3.01

* Taps provided to obtain various amounts of inductance.

AUDIO CHOKE

Rated at 2 v., 200 cps. with max. DC in windings. Tolerance of −15% + 50% on rating.

Part No.	Hys.	Ma	Ohms	H. × W. × L. Inches	Mtg. Type	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
C-1003	16	50	580	2 × 3 1/4 × 1 3/4	A	$2.13	$1.95	$1.75	$1.56	$1.25

HIGH CURRENT FILTER CHOKES

Inductance values rated at 1 v. rms, 60 cps.

Part No.	Hys.	Amps	Ohms	H. × W. × D. Inches	Mtg. Type	Wt., Lbs.	Net Each, Quantities of 1–9	10–24	25–49	50–99	Bulk 100–249
C-2685	.035	2.0	.75	2 3/8 × 2 5/8 × 2 3/4	NH	1.9	$ 3.49	$ 3.20	$ 2.87	$2.56	$2.04
C-2686	.025	4.0	.425	3 × 3 3/8 × 2 7/8	NH	3.4	5.95	5.45	4.88	4.36	3.36
C-2687	.01	8.0	.15	3 1/4 × 3 3/4 × 3 3/16	NH	5.3	7.82	7.17	6.42	5.73	4.58
C-2688	.01	12.5	.11	3 1/2 × 4 1/8 × 3 1/16	NH	5.9	9.00	8.27	7.39	6.60	5.08
C-2689	.005	22.5	.03	3 7/8 × 4 1/2 × 4 1/2	NH	11.9	13.20	12.10	10.84	9.68	7.72
C-2690	0.3†	1‡	3§	3 7/16 × 2 7/8 × 3 1/4	NV	5	7.87	7.22	6.46	5.77	4.44
C-2691	80#	2.5●	0.6▲	3 3/4 × 3 1/8 × 3 3/4	NV	7	10.04	9.20	8.24	7.36	5.66

† Series, 0.075 hy parallel. ‡ Series, 2 parallel. § Series, .75 parallel. # Mh, series, 20 mh parallel. ● Series, 5 parallel. ▲ Series, 0.15 parallel.

POWERGUARD VOLTAGE STABILIZERS—60 Cps. Single Phase, AC—Mounting Type CV

Automatically provide stable output voltages (±1%) for input voltage variations of ±15%. No moving parts and compact, shock resistant construction insure maintenan free operation. Regulation occurs within 25 milli-seconds or 1½ cycles. Safeguard and improve the operation, efficiency and life of equipment being regulated. Complet integrated construction except* units below have separate capacitors.

Part No.	VA Rating	Input Volts	Output Volts	Wt., Lbs.	Size—Inches H	W	D	Net Each, Quantities of 1–4	5–9	10–24	25–49
CV15D	15	95–130	117	4 1/2	3 1/2	2 5/8	5 9/16	$ 15.00	$ 13.00	$ 12.75	$ 12.00
CV30H	30	95–130	117	7	5 1/8	3 1/8	6	20.00	18.00	17.00	16.00
CV30S*	30	95–130	117	7	5 1/8	3 1/8	3 1/8	16.00	14.40	13.60	12.80
CV60H	60	95–130	117	9	5 1/8	3 1/8	6 5/8	25.00	22.50	21.25	20.00
CV60S*	60	95–130	117	9	5 1/8	3 1/8	3 11/16	21.00	18.90	17.85	16.80
CV120H	120	95–130	117	11 1/4	5 1/8	3 1/8	7 3/8	33.00	29.75	28.00	26.50
CV120S*	120	95–130	117	11 1/2	5 1/8	3 1/8	5 9/16	29.00	26.20	24.60	23.30
CV250H	250	95–130	117	26	6 1/4	5 3/4	12 5/8	49.00	44.00	41.50	39.00
CV500H	500	95–130	117	33	6 1/4	5 3/4	13 7/8	77.00	69.00	65.50	61.50
CV750H	750	95–130	117	46	6 1/4	5 3/4	14 3/4	97.00	87.00	82.50	77.50
CV1000H	1000	95–130	117	57	6 1/4	5 3/4	16 3/4	128.00	115.00	109.00	102.50
CV1500H	1500	#	117/234	85	9	8 1/4	17 3/4	173.00	155.00	147.00	138.00
CV2000H	2000	#	117/234	105	9	8 1/4	19 3/8	232.00	208.00	197.00	185.00
CV3000H	3000	#	117/234	138	9	8 1/4	22 1/2	315.00	282.00	266.00	250.00

* Separate capacitor unit. # 95–130, 175–235, 200–260.

ADAPTER KITS—3 conductor input cord and 3 way receptacle.

Part No. A-18K, 30–120 VA range, $2.00 net.
Part No. A-16K, 250–1000 VA range, $2.50 net.

MOLDED TOROIDAL INDUCTORS

Tolerance ±1% on inductance. Temperature range, −55° C to +85° C. Size: 1 1/16" dia. × ½" h. Shpg. Wt., 1½ oz.

Part Number	Ind. Mh	DC Ω	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249	Part Number	Ind. Mh	DC Ω	Net Each, Quantities of 1–9	10–24	25–49	50–99	100-
TM-2A	2	.72	$4.91	$4.50	$4.03	$3.60	$3.38	TM-50A	50	18.5	$4.91	$4.50	$4.03	$3.60	$3.
TM-5A	5	1.85	4.91	4.50	4.03	3.60	3.38	TM-100A	100	32.5	4.91	4.50	4.03	3.60	3.
TM-10A	10	3.25	4.91	4.50	4.03	3.60	3.38	TM-1000A	1000	340	6.22	5.70	5.10	4.56	4
TM-20A	20	7.0	4.91	4.50	4.03	3.60	3.38								

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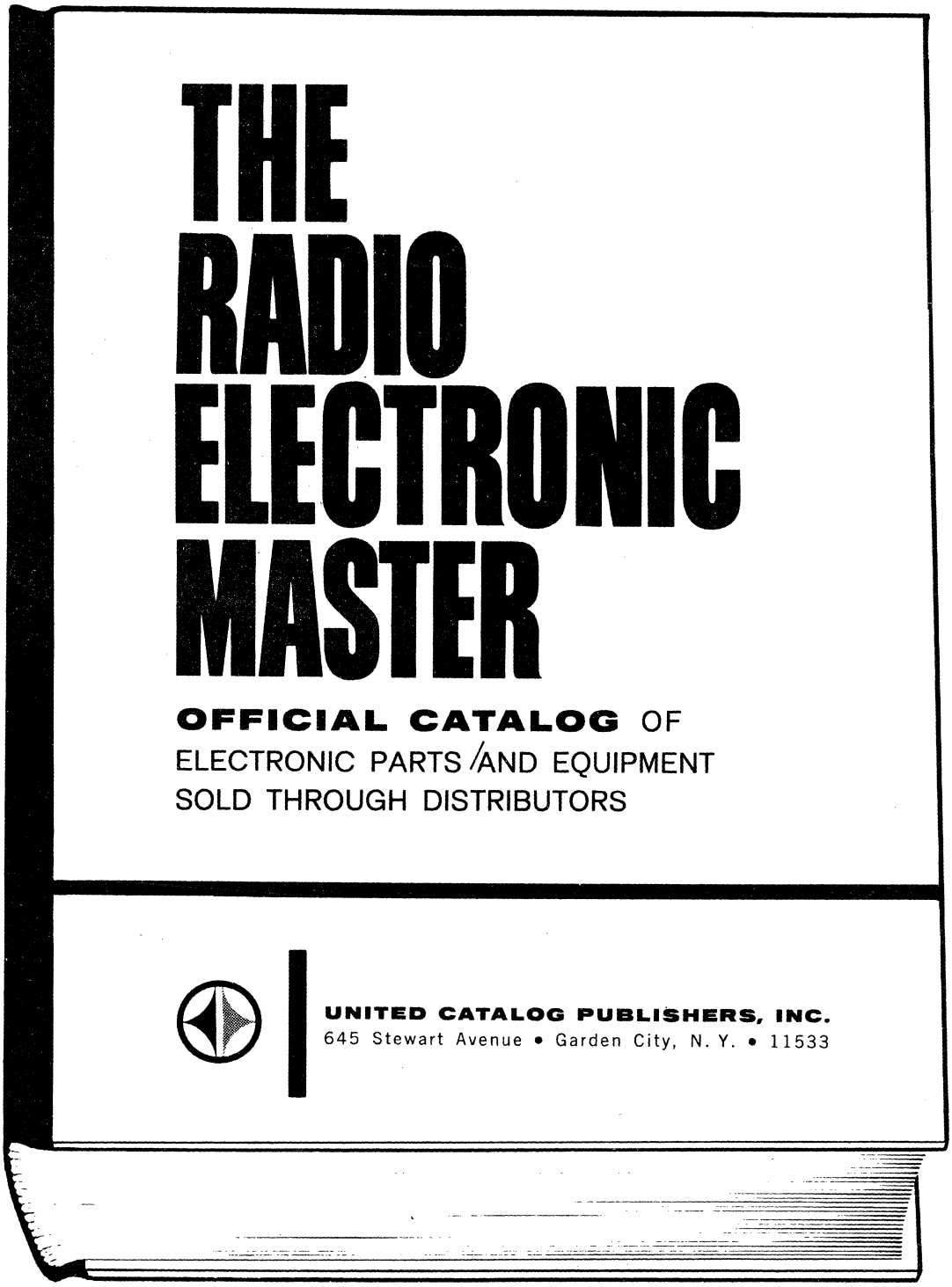

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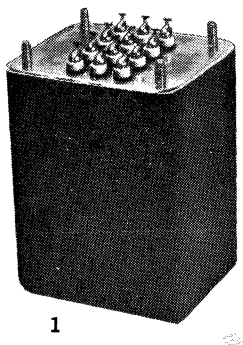
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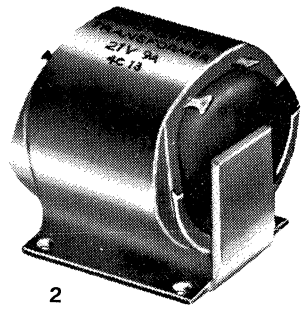
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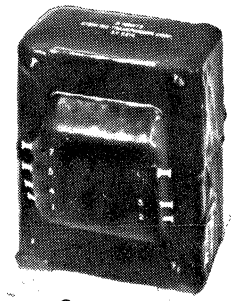
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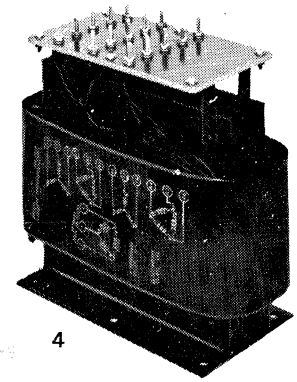
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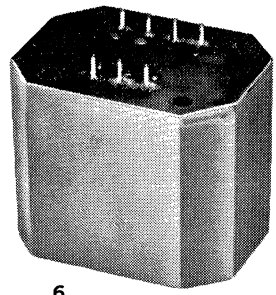
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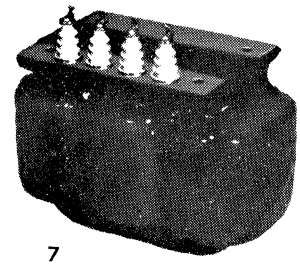
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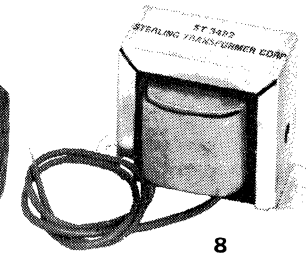

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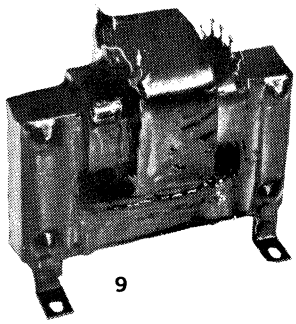
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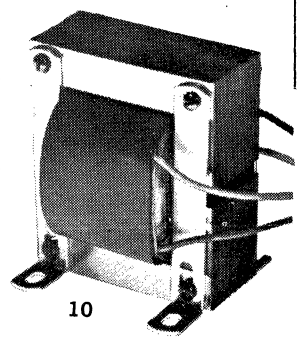
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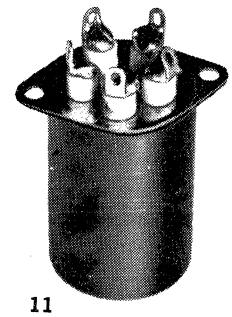
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6. Space Saving Molded Transformer for printed circuit board plug-in application. Provides the necessary power and longevity needed to operate precise computer circuits.
7. Encapsulated Transformer for Military Applications. Heavy duty, high voltage, three phase, multi-output autotransformer for use in radar tracking stations.
8. Commercial Channel-Mount Transformer. Useful in industrial applications such as boiler control operation, commercial receivers, and entertainment consoles.
9. High voltage Dip Encapsulated Low Capacitance Filament Transformer. For special test equipment. Provides ocnstant voltage output for precision operation of specialized test equipment.
10. Commercial Open Frame Transformer. Sturdy, high power unit for use in spot welding and induction heating equipment.
11. Lightweight Miniature Military Transformer. Ruggedly constructed to withstand shock and handling encountered in mobile communication systems.

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STERLING TRANSFORMER

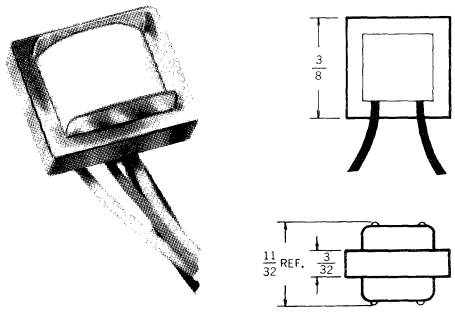
DENSE-PAK *miniature transformers*

DP SERIES

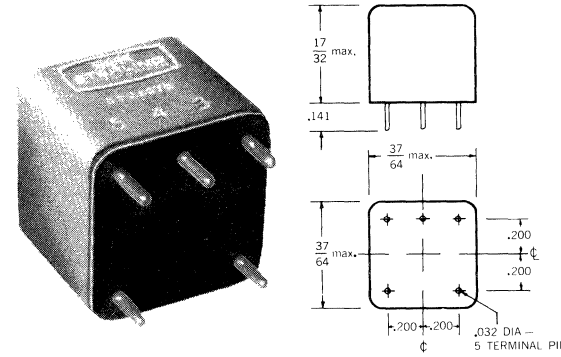
(manufactured to **MIL T 27A**)

On this page are listed units designed for the extremes in miniaturization. The 4 inch #28 color coded leads (DP-F type) supplied, are suitable for dip soldering in printed circuits. The M type use rugged terminals (.032 dia.) which assure easy plug-in and positive location. Finished in polished epoxy case.

Thorough baking and resin impregnation assure reliable life. Insulating materials used are compatible for later epoxy potting of complete assemblies. Highest efficiency — space factor obtained by use of high permeability Nickel-Alloy Cores, Nylon Bobbins, Formvar Wire. Available from stock.



OPEN FRAME DP-F
ULTRA MINIATURE SIZE Weight .08 oz.
To order add -F to Part Number
i.e. DPOI-F
MIL DESIGNATION TF6RX††ZZ
††See Family Designation in Chart



MOLDED DP-M VERI-MINIATURE SIZE
Designed for plug-in printed circuit applications. Cast Epoxy resin provides highest resistance to extremes of ambient. Wt. .25 oz.
To order add -M to Part Number.
i.e. DPOI-M, DPIO-M
MIL DESIGNATION TF5RX††ZZ
††See Family Designation in Chart

ULTRA-MINIATURE TRANSISTOR TRANSFORMERS - DP Series

Frequency Response ± 2 db 300 to 10,000 Cycles, Measured at level stated for 300 Cy.

Part No.	Application	Primary Impedance	Secondary Impedance	Unbal. Pri. DC Ma	Pri. D.C.R.	Sec. D.C.R.	Level @ 300 cy.	Level @ 1 kc	†† Family	NET EACH 1-9 Style-F	NET EACH 1-9 Style-M
DP01-(*)	Input	100,000	1,000	0	1900	135	5mw	70mw	16	$6.00	$6.60
DP02-(*)	Driver	20,000	1,000	0.5	1100	100	5mw	300mw	13	5.40	6.00
DP03-(*)	Driver	20,000	1,200 C.T.	0.5	1100	110	5mw	300mw	13	5.40	6.00
DP04-(*)	Output	1,000	50	3	65	10	5mw	500mw	17	4.30	4.95
DP05-(*)	Output	400	50	3	35	5	15mw	500mw	17	4.30	4.95
DP06-(*)	Output	400	11	3	35	1.5	15mw	500mw	17	4.30	4.95
DP07-(*)	Output	400 C.T.	11	6	35	1.5	15mw	500mw	17	4.60	5.25
DP08-(*)	Choke	10 hy (0 dc)		8hy (0.5ma)	650				20	4.60	5.25
DP09-(*)	Interstage	600 C.T.	600 C.T.	7	45	60	5mw	400mw	21	5.10	5.70
DP10-(*)	Choke	1.5 hy (0 dc)		0.7hy (2ma)	100				20	3.90	4.50
DP11-(*)	Interstage	10,000 C.T.	1,200 C.T.	2	850	120	5mw	500mw	21	5.40	6.00
DP12-(*)	Output	1,500 C.T.	600	5	135	65	5mw	500mw	17	4.70	5.40
DP13-(*)	Output	1,000 C.T.	600	6	80	65	5mw	500mw	17	4.70	5.40
DP14-(*)	Driver	10,000 C.T.	600 C.T.	2	850	40	5mw	500mw	13	5.00	5.60
DP15-(*)	Isolation	15,000 C.T.	15,000 C.T.	1	930	1210	5mw	300mw	15	5.40	6.00

*Add either -F, or -M to Part No. to designate construction. See Photos.
Power levels shown are for 7½% maximum distortion.

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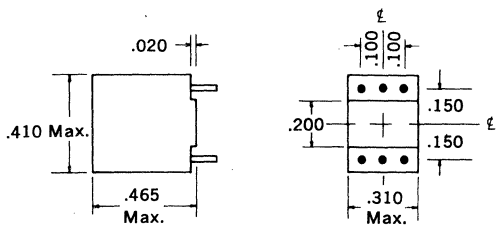
STERLING TRANSFORMER

transistor transformers

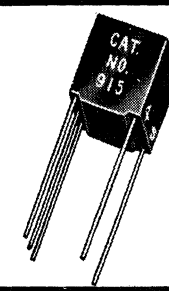
NANOSPEC TRANSISTOR TRANSFORMERS — 900 SERIES
Frequency Response ± 2 db 300 Cycles to 90 KC

Part No.	Application	Color Application Guide	Primary Impedance	Secondary Impedance	Unbal. Pri. DC Ma.	Power Level MW.	DC Resistance		Net Price
							Primary	Secondary	1-9 Pcs.
901	Input	Brown	200,000 CT	1,000 CT	0	10	5300	110	7.65
902	Input	Brown	200,000	1,000	0	10	5300	110	6.60
903	Interstage	Red	50,000 CT	1,000 CT	0	10	3300	75	7.50
904	Interstage	Red	50,000	1000/250 Split	0	10	3300	75	8.10
905	Interstage	Red	25,000 CT	1,000 CT	0.5	40	1700	115	7.05
906	Interstage	Red	25,000	1000/250 Split	0.25	40	1700	115	7.65
907	Interstage	Red	25,000	1,000	0.25	40	1700	115	6.50
908	Isolation	Green	10,000 CT	10,000 CT	1	50	1200	1300	7.65
909	Driver	Orange	10,000 CT	2,000 CT	1	50	1050	300	6.75
910	Driver	Orange	10,000	2000/500 Split	0.5	50	1050	300	7.35
911	Driver	Orange	10,000 CT	1,200 CT	1	50	1050	280	6.75
912	Driver	Orange	10,000	1200/300 Split	0.5	50	1050	280	7.20
913	Driver	Orange	10,000	1,200	0.5	50	1050	280	6.00
914	Driver	Orange	10,000 CT	500 CT	1	50	1050	80	6.75
915	Isolation	Green	2,500	2,500 CT	1	50	250	325	6.30
916	Output	Yellow	1,500 CT	600	3	50	170	135	6.15
917	Output	Yellow	500	50	3	50	60	8	5.40
918	Output	Yellow	120 CT	3.2	10	50	17	.75	5.70
919	Audio Choke	Blue	6 HY.	DCR 1800 OHMS	2				5.40
920	Audio Choke	Blue	.3 HY.	DCR 45 OHMS	4				4.65
921	Audio Choke	Blue	1.25 H	DCR 180 OHMS	2				4.80
922	Audio Choke	Blue	3.5 H	DCR 1040 OHMS	2				4.80
923	Audio Choke	Blue	.9 H	DCR 110 OHMS	2				4.80
924	Audio Choke	Blue	.1 H	DCR 15 OHMS	5				4.80
925	Interstage	Red	10,000 CT	1,500 CT	1	50	1050	300	7.20
926	Isolation	Green	600 CT	600 CT	3	50	72	92	7.20
927	Output	Yellow	1,000	50	3	50	145	8	5.85
928	Output	Yellow	300 CT	600	7	50	41	98	6.00
929	Output	Yellow	500 CT	600	3	50	67	98	6.00
930	Output	Yellow	900 CT	600	4	50	104	96	6.15
931	Output	Yellow	150 CT	12	10	50	18	3.5	5.85
932	Output	Yellow	300 CT	12	7	50	42	3.4	5.85
933	Output	Yellow	600 CT	12	4.5	50	77	3	6.00
934	Output	Yellow	1,000 CT	12	3.5	50	120	3	6.15
935	Output	Yellow	1,500 CT	12	3	50	179	2.9	6.30
936	Output	Yellow	7,500 CT	12	1	50	796	2.9	6.75
937	Output	Yellow	320 CT	3.2	6	50	44	.77	5.85
938	Output	Yellow	600	3.2	3	50	70	.76	5.55
939	Output	Yellow	600 CT	3.2	4.5	50	70	.85	6.00
940	Output	Yellow	800 CT	3.2	4	50	107	.86	6.15
941	Output	Yellow	1,200	3.2	2	50	131	.76	5.55
942	Output	Yellow	1,200 CT	3.2	3	50	131	.87	6.15
943	Output	Yellow	1,600 CT	3.2	2.5	50	186	.8	6.30
944	Output	Yellow	10,000	3.2	1	50	1160	.81	6.15
945	Output	Yellow	8,000 CT	3.2	1	50	790	.76	6.75



NANOSPEC 900 SERIES

Designed for printed circuit transistor use in high component density applications. Nickel alloy leads on 0.1 inch centers and stepped mounting face to insure ease of installation. Epoxy resin encapsulated.



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transistor transformers

STERLING TRANSFORMER

MINISPEC TRANSISTOR TRANSFORMERS — 300 SERIES

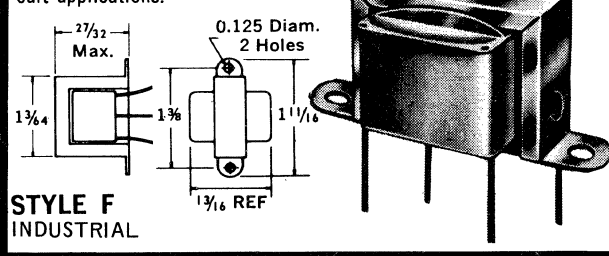
Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbal. Ma.	Oper. Lev. DBM	Freq. Response ±2 db.	Net Price 1–9 pcs. F	H
300	Line to Base	600	600	10	23	200–15,000	$3.60	$7.80
301	Coll. to P.P. Base	100	10 C.T./40 C.T.	100	27	200–20,000	4.20	8.70
302	Coll. to Base or line	50,000	600	3	20	300–15,000	3.90	8.40
303	Collector to speaker	50,000	6	3	20	300–15,000	3.90	8.40
304	Coll. to P.P. Base	100,000	1,200 C.T.	1.4	17	200–15,000	4.05	8.55
305	Coll. to P.P. Base	25,000	1,200 C.T.	3	22	200–15,000	4.05	8.55
306	P.P. Coll. to P.P. Base	50,000 C.T.	1,200 C.T.	3	20	300–15,000	4.20	8.70
307	Line to P.P. Base	600 C.T.	1,200 C.T.	4	23	200–15,000	4.20	8.70
308	Collector to Base	25,000	600	3	22	200–15,000	3.90	8.40
309	P.P. Coll. to P.P. Base	4,000 C.T.	600 C.T.	3	32	200–15,000	4.20	8.70
310	Output Coll. to speaker	2,000	3.4	10	32	200–15,000	3.90	8.40
311	P.P. Coll. to speaker	4,000 C.T.	3.4	3	32	200–15,000	4.05	8.55
312	Coll. to Speaker	400	10	50	25	200–20,000	3.60	7.80
313	P.P. Servo Output	500 C.T.	210	30	27	300–20,000	3.90	8.40
314	P.P. Coll. to P.P. Base	25,000 C.T.	1,200 C.T.	6	22	200–15,000	4.20	8.70
315	P.P. Coll. to P.P. Base	50,000 C.T.	1200/300 Split	3	20	300–15,000	4.50	9.00
316	P.P. Coll. to P.P. Base	4,000 C.T.	600/150 Split	3	32	200–15,000	4.35	8.85
317	Line to P.P. Base	600/150 Split	1,200 C.T.	4	23	200–15,000	4.35	8.85
318	P.P. Coll. to Servo	250 C.T.	1,000	10	30	200–15,000	3.90	8.40
319	Coll. to P.P. Base	2,500	600 C.T.	10	32	200–15,000	3.90	8.40
320	P.P. Coll. to P.P. Base	7,500 C.T.	600 C.T.	8	32	200–15,000	4.20	8.70
321	Line to P.P. Base	600 C.T.	600 C.T.	20	23	200–15,000	4.05	8.55
322	P.P. Coll. to Servo	1,600 C.T.	450	15	30	200–15,000	3.90	8.40
323	P.P. Coll. to Servo	250 C.T.	500	10	30	200–15,000	3.90	8.40

MINISPEC AUDIO TRANSFORMERS — 300 SERIES

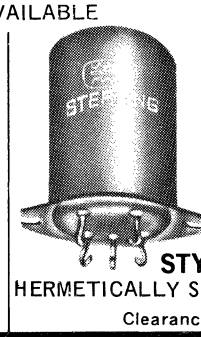
Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbal. Ma.	Oper. Lev. DBM	Freq. Response ±2 db.	Net Price 1–9 pcs. F	H
375	Mike or line to 1 grid	50/250/600 C.T.	50,000	0	5	20–20,000	$4.05	$9.00
376	Mike or line to 2 grids	50/250/600 C.T.	50,000 C.T.	0	5	20–20,000	4.20	9.45
377	Dynamic mike to 1 grid	7.5/30	50,000	0	5	20–20,000	3.90	9.00
378	Single plate to 1 grid	15,000	60,000	0	6	20–15,000	3.45	7.65
379	Single plate to 1 grid	15,000	60,000	4	14	200–20,000	3.45	7.65
380	Single plate to 2 grids	15,000	95,000 C.T.	0	5	20–15,000	3.60	8.55
381	Single plate to 2 grids	15,000	95,000 C.T.	4	11	200–20,000	3.75	8.85
382	Single plate to line	15,000	50/250/600 C.T.	0	8	20–20,000	3.75	9.60
383	Single plate to line	15,000	50/250/600 C.T.	4	21	150–20,000	3.75	9.60
384	Push pull plates to line	30,000 C.T.	50/250/600 C.T.	0	8	30–50,000	3.90	9.60
385	Crystal mike to line	50,000	50/250/600 C.T.	0	5	20–20,000	3.75	9.30
386	Mixing and matching	50/250 C.T.	50/250/600 C.T.	0	8	20–20,000	3.75	9.30
387	Reactor	300 hy. 0 d.c.	50 hy. @ 3 ma.			DCR 6,000	3.30	7.35
388	50:1 mike to grid	200	½ Megohm	0	9	80–3,000	3.90	9.00
389	10:1 plate to grid	10,000	1 Megohm	0	11	100–2,500	3.60	8.40

MINISPEC 300 SERIES
Highest efficiency miniature transformer for transistor and audio circuit applications.

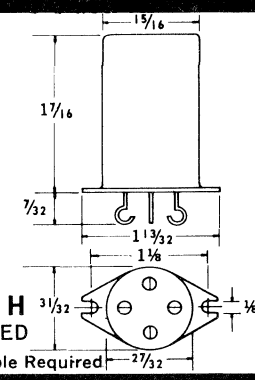
MILITARY STYLE ENCAPSULATED VERSIONS ARE AVAILABLE



STYLE F
INDUSTRIAL



STYLE H
HERMETICALLY SEALED



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transistor transformers

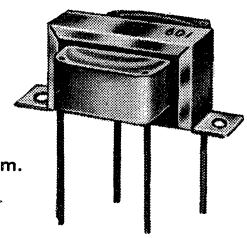
MICROSPEC TRANSISTOR TRANSFORMERS — 600 SERIES

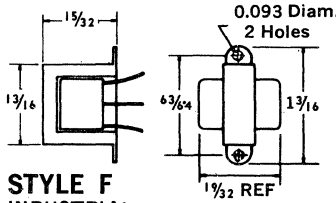
Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbal. Ma.	Oper. Lev. DBM	Freq. Response ±2 db.	Net Price 1–9 pcs. F	H
601	Line to Base	600	600	8	22	200–15,000	$3.90	$7.35
602	Coll. to Base or line	50,000	600	0.7	20	200–15,000	4.05	7.50
603	P.P. coll. to P.P. Base	50,000 C.T.	600 C.T.	1.4	20	200–15,000	4.80	8.55
604	Collector to speaker	50,000	6	1	20	200–15,000	4.35	7.95
605	Coll. to P.P. Base	25,000	1,200 C.T.	1	20	200–15,000	4.50	8.40
606	P.P. coll. to P.P. Base	50,000 C.T.	1,200 C.T.	1.4	20	200–15,000	4.65	8.55
607	Line to P.P. Base	600 C.T.	1,200 C.T.	16	22	200–15,000	4.20	7.65
608	Collector to Base	25,000	600	1	20	200–15,000	3.45	7.20
609	P.P. coll. to P.P. Base or line	4,000 C.T.	600 C.T.	5	28	200–15,000	4.35	7.80
610	Coll. to Spkr.	2,000	3.4	5	28	200–15,000	3.90	7.35
611	Output P.P. coll. to spkr.	4,000 C.T.	3.4	5	28	200–15,000	4.05	7.50
612	Coll. to P.P. Base	10,000	1,500 C.T.	1	20	200–15,000	4.50	8.40
613	P.P. Coll. to P.P. Base	10,000 C.T.	200 C.T.	6	20	200–15,000	4.50	8.10
614	P.P. Coll. to P.P. Base	25,000 C.T.	1,200 C.T.	2	20	200–15,000	4.65	8.55
615	Coll. to P.P. Base	2,500	2,500 C.T.	2	23	200–15,000	4.05	7.50
616	P.P. Coll. to P.P. Base	4,000 C.T.	600/150 split	5	28	200–15,000	4.65	8.55
617	P.P. Coll. to P.P. Base	7,500 C.T.	600 C.T.	4	22	200–15,000	4.35	7.80
618	Line to Base	600 C.T.	600 C.T.	16	22	200–15,000	4.20	7.65
619	P.P. Coll. to P.P. Base	25,000 C.T.	600 C.T.	2	20	200–15,000	4.50	8.40
620	P.P. Coll. to P.P. Base	10,000 C.T.	1,500 C.T.	2	20	200–15,000	4.65	8.55
621	Driver/Isolation	10,000 C.T.	10,000 C.T.	2	20	200–15,000	4.65	8.55
622	P.P. Coll. to P.P. Base	7,500 C.T.	1,200 C.T.	4	22	200–15,000	4.50	8.40
623	P.P. Coll. to P.P. Base	2,000 C.T.	500 C.T.	10	28	200–15,000	4.35	8.25
624	Line to P.P. Base	600 C.T.	1200/300 split	16	22	200–15,000	4.65	8.55

MICROSPEC AUDIO TRANSFORMERS — 600 SERIES

Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbal. Ma.	Oper. Lev. DBM	Freq. Response ±2 db.	Net Price 1–9 pcs. F	H
675	Input	200/50	250,000/62,500	0	4	200–10,000	$4.50	$7.35
676	Interstage 3:1	10,000	90,000	0	4	150–10,000	4.80	7.50
677	Plate to line	10,000	200	3	20	150–10,000	4.20	7.20
678	Output	30,000	50	1	20	150–10,000	4.05	7.05
679	Reactor 50 HY at 1 madc				4700	ohms DCR	4.05	6.90
680	Output	100,000	60	0.5	20	250–10,000	4.20	7.20
681	Output	30,000	1,200	0.5	20	200–10,000	3.30	6.45

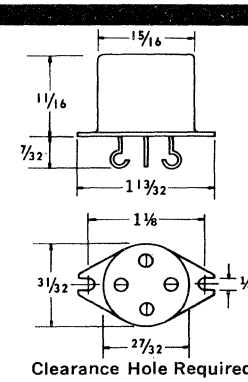
MICROSPEC 600 SERIES
Subminiature transformers for high efficiency circuits.





STYLE F
INDUSTRIAL

MILITARY STYLE ENCAPSULATED VERSIONS ARE AVAILABLE



Clearance Hole Required

STYLE H
HERMETICALLY SEALED

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transistor transformers

STERLING TRANSFORMER

TRANSISTOR POWER MODULE TRANSFORMERS — 7K SERIES

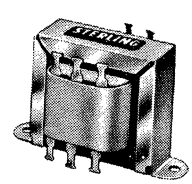
PRIMARY 115V, 50/60 CYCLES (Tapped for dual secondary voltages) The chart below shows the secondary voltages available and the approximate DC voltages which result in typical silicon rectifier circuits (at MIL currents shown). Primary taps can modify nom. AC voltages by −6%, ±6%, and ±12%. Since the capacitor following the rectifier affects the DC voltage, values used (in 1000 mfd) are shown, in parenthesis ( ), after each current rating. *Nom. AC and DC volts are at 115 volt input . . . primary taps can modify −6%, ±6%, and ±12%. 50/60 CPS

		MIL-T-27A RATINGS IN REGULAR TYPE, *INDUSTRIAL RATINGS IN ITALICS*											HERM. SEALED MIL STYLE H TF4SX02		INDUSTRIAL, OPEN STYLE TYPE F OR L	
		FULL WAVE BRIDGE SILICON RECTIFIER								FULL WAVE CT						
Type No.	Nom. AC Volts* / Appr. DC Volts*	40.5 / 53	32.25 / 41	28.5 / 34	24 / 25	20.25 / 24	16.5 / 18	12 / 12	8.25 / 6	40.5 CT / 24	24 CT / 12	16.5 CT / 6.6	Case Size	Net Price	Style	Net Price 1-9 pcs.
7K1	MIL – DC Amp.	.02 (.1)	.023(.1)	.025(.1)	.027(.1)	.042(.2)	.035(.2)	.055(.2)	.065(.2)	.035(.2)	.040(.2)	.055(.2)	AH	11.70	F	7.15
	IND – DC Amp.	*.025(.1)*	*.035(.1)*	*.040(.1)*	*.042(.1)*	*.055(.2)*	*.042(.2)*	*.070(.2)*	*.085(.2)*	*.042(.2)*	*.055(.2)*	*.068(.2)*				
7K2	MIL – DC Amp.	.07 (.1)	.08 (.1)	.085(.1)	.09 (.1)	.14 (.2)	.11 (.2)	.18 (.2)	.22 (.2)	.11 (.2)	.13 (.2)	.17 (.2)	AJ	12.90	L	8.35
	IND – DC Amp.	*.085(.1)*	*.12 (.1)*	*.13 (.1)*	*.14 (.1)*	*.18 (.2)*	*.14 (.2)*	*.23 (.2)*	*.28 (.2)*	*.14 (.2)*	*.17 (.2)*	*.21 (.2)*				
7K3	MIL – DC Amp.	.4 (.5)	.44 (.5)	.48 (.5)	.52 (.5)	.8 (1.0)	.6 (1.0)	1.0 (2.0)	1.2 (2.0)	.6 (1)	.72 (1)	.92 (2)	FA	14.40	F	7.40
	IND – DC Amp.	*.48 (.5)*	*.6 (.5)*	*.6 (.5)*	*.64 (.5)*	*1.0 (1.0)*	*.8 (1.0)*	*1.2 (2.0)*	*1.52 (2)*	*.8 (1)*	*.88 (1)*	*1.12 (2)*				
7K4	MIL – DC Amp.	1 (.5)	1.1 (.5)	1.2 (.5)	1.3 (.5)	2 (1)	1.5 (1)	2.5 (2)	3 (2)	1.5 (1)	1.8 (1)	2.3 (2)	HA	19.80	L	12.15
	IND – DC Amp.	*1.2 (.5)*	*1.5 (.5)*	*1.5 (.5)*	*1.6 (.5)*	*2.5 (1)*	*2 (1)*	*3 (2)*	*3.8 (2)*	*2 (1)*	*2.2 (1)*	*2.8 (2)*				
7K5	MIL – DC Amp.	2.5 (1)	3 (1)	3 (1)	3.5 (1)	5 (2)	3.7 (2)	6 (4)	7.5 (4)	3.7 (2)	4.5 (2)	5.5 (4)	KA	28.80	L	20.55
	IND – DC Amp.	*3 (1)*	*3.5 (1)*	*3.8 (1)*	*4 (1)*	*6 (2)*	*4.5 (2)*	*7.5 (4)*	*9 (4)*	*4.5 (2)*	*5.5 (2)*	*6.7 (4)*				
7K6	MIL – DC Amp.	6 (4)	7 (4)	7.5 (4)	8 (4)	12 (6)	9 (6)	15 (12)	18 (12)	9 (6)	11 (6)	13.5 (12)	OA	48.00	L	36.15
	IND – DC Amp.	*7.5 (4)*	*8.5 (4)*	*9.5 (4)*	*10 (4)*	*15 (6)*	*11 (6)*	*19 (12)*	*23 (12)*	*11 (6)*	*13.5 (6)*	*17 (12)*				
Type No.	Nom. AC Volts* / Appr. DC Volts*	81 / 106	64.5 / 82	57 / 68	48 / 50	40.5 / 48	33 / 36	24 / 24	16.5 / 12	81 CT / 48	48 CT / 24	33 CT / 13				
7K7	MIL – DC Amp.	0.5 (.125)	0.55 (.125)	0.6 (.125)	0.65 (.125)	1.0 (.25)	0.75 (.25)	1.25 (.5)	1.5 (.5)	0.75 (.25)	0.9 (.25)	1.15 (.5)	HA	20.40	L	12.75
	IND – DC Amp.	*0.6 (.125)*	*0.75 (.125)*	*0.75 (.125)*	*0.8 (.125)*	*1.25 (.25)*	*1.0 (.25)*	*1.5 (.5)*	*1.9 (.5)*	*1.0 (.25)*	*1.1 (.25)*	*1.4 (.5)*				

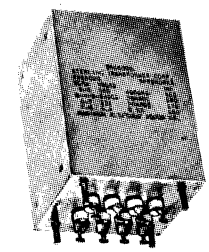
PRIMARY 115V, 50/60 CYCLES (tapped on 7K10 thru 7K13 for dual secondary voltages). DC ratings are approximate, based on silicon bridge rectifier (except 7K8, 7K9, also shown F.W.CT.). Choke input DCV is based on 10% voltage drop in choke. Condenser value, C, is in 1000 mfd. 7K8, 7K9, 7K14 listing under "Secs in parallel" is single winding.

					Sec. in Parallel				Sec. in Series					HERM. SEALED MIL STYLE H TF4SX02		INDUSTRIAL, OPEN STYLE TYPE F OR L	
Type No.	Application	Sec.V Rms	Sec.A Rms	Choke DCV	Input DCA	Cond. DCV	Input DCA	C	Choke DCV	Input DCA	Cond. DCV	Input DCA	C	Case Size	Net Price	Style	Net Price 1-9 pcs.
7K8	F.W. Bridge	20 CT	.3	16.5	.3	26	.2	.2						EB	10.20	F	5.15
	Full Wave CT			8	.43	12	.3	.5									
7K9	F.W. Bridge	20 CT	.6	16.5	.6	26	.4	.4						EA	12.90	F	7.85
	Full Wave CT			9	.85	13	.6	1									
7K10	Full Wave Bridge	17/21.5 / 17/21.5	1.5 / 1.5	14/17.5	3	18.5/25	2	1	28/35	1.5	43/56	1	.5	HA	18.60	L	12.15
7K11	Full Wave Bridge	17/21.5 / 17/21.5	4 / 4	14/17.5	8	18.5/25	5	2	28/35	4	43/56	2.5	1	LA	30.00	L	21.45
7K12	Full Wave Bridge	17/21.5 / 17/21.5	9 / 9	14/17.5	18	18.5/25	12	6	28/35	9	43/56	6	4	4¾x6x7H	45.90	L	33.70
7K13	Full Wave Bridge	34/43 / 34/43	4.5 / 4.5	28/35	9	43/56	6	4	56/70	4.5	85/110	3	1	4¾x6x7H	45.90	L	33.70
7K14	F.W. Bridge	10	20	8.2	20	10	13	12						KA	27.00	L	20.85

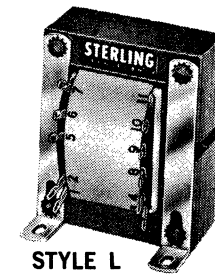
Universal transistor power supply module transformers with output voltage selection by varied secondary connections. Designed for silicon rectifier application with choke or capacitor input filters.



STYLE F



STYLE H
HERMETICALLY SEALED



STYLE L

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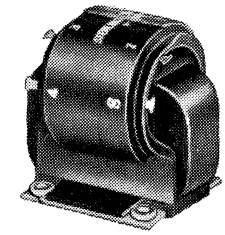
STERLING TRANSFORMER

ENCAPSULATED 400 cps transformers

CLIPPER SERIES

	Cat. No.	Secondary Volts	Secondary Amps.	Rms. V Insulation	Primary Volts	Mold Size	Maximum Operating Ambient	Net Price 1-9 pcs.
FILAMENT	4C1	6.3 CT	.8	1500	115	SM3	100°C	12.52
	4C2	6.3 CT	1.2	1500	115	SM2	100°C	12.52
	4C3	6.3 CT	6.75	1500	110/115/120	2	100°C	20.11
	4C4	6.3 6.3	4.9 2.7	1500 1500	115	3	90°C	17.99
	4C5	6.3 CT	7.2	1500	115	35	120°C	20.87
	4C6	6.3 6.3 6.3	7 7 1.5	1500 1500 1500	120	35	80°C	20.34
	4C7	6.3 CT 6.3 CT	7 7	1500 1500	120	4	100°C	24.21
	4C8	6.3 6.3 6.3	13.7 2.93 0.3	1500 1500 1500	115	4	90°C	24.21
	4C9	6.3 CT	12.3	1500	115	5	100°C	22.39
	4C10	20 CT	0.6	1500	115	SM1	100°C	15.94
	4C11	6.3 6.3 6.3	2.4 2.5 2.7	1500 1500 1500	115	3	100°C	22.39
	4C26	6.3 CT	2	1500	115	SM1	100°C	15.94
	4C27	6.3 CT	3	1500	115	1A	100°C	16.55
	4C28	6.3 CT	5	1500	115	2	100°C	17.16
	4C29	5.0 CT	3	2500	115	SM1	100°C	15.94
	4C30	5.0 CT	6	2500	115	2	100°C	17.16
POWER	4C12	14.1	3	1500	115	3	100°C	17.08
	4C13	21	9	1500	115	4	65°C	18.98
	4C14	26	0.5	1500	115	SM1	55°C	15.56
	4C15	26 CT	1.5	1500	115	3	65°C	16.09
	4C16	28 CT 6.3 CT	0.75 7A	1500 1500	115	2	65°C	24.14
	4C17	52 CT	.192	1500	115	SM1	100°C	17.27
	4C18	90 CT	4.5	1500	115	9	100°C	32.64
	4C19	115	.05	1500	115	SM2	100°C	12.75
	4C20	105/115/125	0.4	1500	105/115/125	2	90°C	18.45
	4C21	115	2.83	1500	115	8	100°C	26.57
	4C22	334	.025	1500	115	SM1	120°C	14.65
	4C23	26 CT	3	1500	115	4	100°C	19.35
	4C24	26 CT	5	1500	115	6	100°C	22.31
	4C25	52 CT	2	1500	115	5	100°C	21.33



FOR MINIMUM SIZE & MINIMUM WEIGHT
- CONTOUR MOLDED
- HIPERSIL CORES

Built to pass MIL-T-27A specifications, including Grade 2 humidity tests, and to operate continuously at 150° C. Result: Savings up to 50% in space and weight without sacrifice in performance.

HIGH SHOCK
EXTREME ENVIRONMENT CONDITIONS
LIGHT WEIGHT FOR AIRBORNE USE
10,000 HOUR PLUS-LIFE
SERVO APPLICATIONS
ISOLATION
POWER SUPPLIES
AIRBORNE CONTROL CIRCUITS
MISSILE CIRCUITS

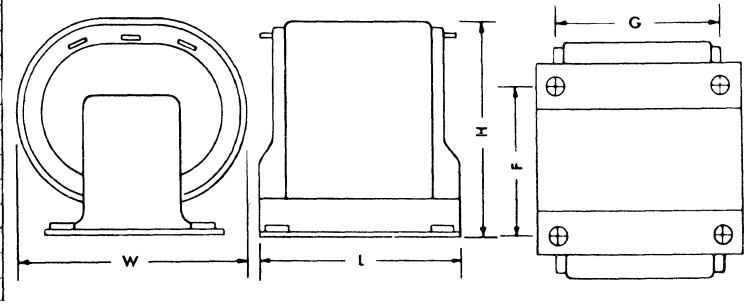
MOLD NO.	OVERALL DIMENSIONS L	W	H	MTG. DIMENSIONS F	G	APP. WT. (LBS.)	MTG. METH.
SM3	1	1 -1/4	1-3/16	1	Note 1	0.06	Note 1
SM2	1 -1/2	1 -1/4	1-11/16	1	Note 1	0.10	Note 1
SM1	1 -1/2	1 -1/2	1-11/16	1 -1/8	Note 1	0.16	Note 1
1	1-13/16	1 -7/8	1-13/16	1 -1/4	1-7/16	0.25	Note 2
1A	1-11/16	1-17/32	1-13/16	1-5/32	1 -1/8	0.25	Note 2
2	2	1-15/16	2 -1/8	1-9/32	1 -1/4	0.40	Note 2
3	2-5/16	1-13/16	2 -1/8	1-9/32	1-7/16	0.45	Note 2
35	2-1/16	2 -3/8	2-3/16	1-17/32	1-11/16	0.70	Note 2
4	2-5/16	2 -3/8	2-9/16	1-17/32	1-11/16	0.90	Note 2
5	2 -3/4	2 -3/8	2 -7/8	1-17/32	2-3/16	1.20	Note 2
6	2 -3/4	2 -5/8	3 -1/8	1-17/32	2-3/16	1.50	Note 2
7	3	2 -7/8	3 -3/8	1-25/32	2 -1/2	2.00	Note 2
8	3 -3/8	2 -7/8	3 -3/8	1-25/32	2 -1/2	2.50	Note 2
83	3 -3/4	3 -1/4	3 -3/8	2 -1/4	3	3.25	Note 3
86	3 -3/4	3 -3/4	3 -3/8	2 -3/4	3 -1/8	4.25	Note 3
9	4-1/16	3 -3/8	3 -7/8	2-3/16	3 -1/2	5.00	Note 3
10	4-1/2	3-15/16	3-15/16	2 -3/4	3 -1/8	6.00	Note 3

Note 1—SM series are two hole mounting with holes on center line. #4-40 Pem nuts are fastened to the bracket.

Note 2—#6-32 Pem nuts on bracket are standard.

Note 3—#8-32 Pem nuts on bracket are standard.

- All primaries 380-1000 cps
- Dielectric test voltages:
  PRIMARIES 1000 Volts RMS
  SECONDARIES 1500 Volts RMS
- Epoxy resin used as encapsulant
- Prices subject to change without notice



STERLING TRANSFORMER CORP. BROOKLYN 11, N. Y.

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transformers for electronically regulated power supplies

STERLING TRANSFORMER

2K SERIES

PLATE AND FILAMENT TRANSFORMERS

Cat. No.	Supply Rating	High Voltage Secondary AC Volts	DC MA	Rectifier Fil. V	Rectifier Fil. A	Pass Tube Fil. V	Pass Tube Fil. A	Regulator Fil. V	Regulator Fil. A	Auxiliary Fil. V	Auxiliary Fil. A	Overall L	Overall W	Overall H	Mtg. Dim. ML	Mtg. Dim. MW	Rec. Mtg. Screw	Wt Lbs.	Net Price 1-9 pcs
2K6	300/250VDC 400MADC	550-480-0 480-550V	440		Use with 2K20				Use with 2K20			6	4 5/8	5 1/2	4 1/2	3 1/2	#10	19	$18.48
2K8	300/250VDC 300MADC	540-475-0 475-540V	340	5	6	6.3	6	6.3	1.2	6.3CT	6	6 1/4	4 5/8	5 1/2	4 3/4	3 1/2	#10	20	21.62
2K10	300/250VDC 200MADC	500-440-0 440-500V	240	5	3	6.3	3	6.3	1.2	6.3CT	6	5	4 5/8	5 1/2	3 1/2	3 1/2	#10	14	17.66
2K12	300/250VDC 100MADC	540-465-0 465-540V	140	5	3	6.3	3	6.3	1.2	6.3CT	3	4 3/4	4 5/8	5 1/2	3 1/4	3 1/2	#10	12	15.18
2K13	150/100VDC 400MADC	370-310-0 310-370V	440		Use with 2K20				Use with 2K20			4 3/4	4 5/8	5 1/2	3 1/4	3 1/2	#10	12	15.18
2K14	150/100VDC 300MADC	375-320-0 320-375V	340	5	6	6.3	6	6.3	1.2	6.3CT	6	5 1/2	4 5/8	5 1/2	4	3 1/2	#10	16	17.82
2K15	150/100VDC 200MADC	355-300-0 300-355V	240	5	3	6.3	3	6.3	1.2	6.3CT	6	4 3/4	4 5/8	5 1/2	3 1/4	3 1/2	#10	12	15.18
2K16	150/100VDC 100MADC	350-310-0 310-350V	140	5	3	6.3	3	6.3	1.2	6.3CT	3	4 3/8	3 7/8	4 5/8	3 5/16	3	#8	10	13.20
2K17	300/250VDC 600MDC	565-500-0 500-565V	640		Use with 2K20				Use with 2K20			6 1/4	4 1/2	6	4 1/2	3 7/16	#10	22	27.19
2K18	300/250VDC 800MADC	580-520-0 520-580V	840		Use with 2K21				Use with 2K21			6	6 1/8	7 1/4	4	4 25/32	1/4	33	35.64
2K19	300/250VDC 1.0 Amp.	590-525-0 525-590V	1040		Use with 2K21				Use with 2K21			7 1/2	6 1/8	7 1/4	5 1/2	4 25/32	1/4	48	50.16
2K20	(Filament Transformer for 400MA and 600MA Supplies)			5	6	6.3	6	6.3	1.2	6.3CT	6	3 7/8	3 7/8	4 5/8	2 13/16	3	#8	7.5	11.22
2K21	(Filament Transformer for 800MA and 1 Amp. Supplies)			5	10	6.3	10	6.3	2	6.3CT	10	4 7/8	3 7/8	4 5/8	3 13/16	3	#8	12	15.51

2K SERIES

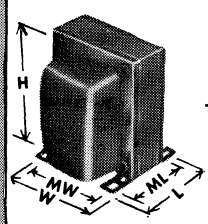
CHOKES

Cat. No.	Inductance	Rated Current MADC	DC Resist.	Dielectric Test Volt.	Overall L	Overall W	Overall H	Mtg. Dim. ML	Mtg. Dim. MW	Rec. Mtg. Screw	Wt Lbs	Net Price 1-9 pcs.
2K5	4 hys. min.	440	50	2500V RMS	3 3/4	3 9/16	4 1/4	2 5/8	2 3/4	#8	6	$ 7.66
2K7	4 hys. min.	340	60	2500V RMS	3 1/8	2 15/16	3 1/2	2	2 1/4	#8	3.3	5.15
2K9	4 hys. min.	240	90	2500V RMS	2 5/8	2 5/8	3 1/8	1 11/16	2	#8	2.3	3.89
2K11	4 hys. min.	140	185	2500V RMS	3 11/16	2 3/16	2 5/16	3 1/8	Chan.	#8	1.5	2.64
2K22	4 hys. min.	.64A	52	2500V RMS	4 3/4	4 5/8	5 1/2	3 1/4	3 1/2	#10	12	13.20
2K23	4 hys. min.	.84A	25	2500V RMS	5 1/2	4 5/8	5 1/2	4	3 1/2	#10	17	16.96
2K24	4 hys. min.	1.04A	20	2500V RMS	7	4 5/8	5 1/2	5 1/2	3 1/2	#10	25	23.56

6K SERIES

SPECIALS

Cat. No.	Secondary Volts	Secondary Amperes	RMS Volts Insulation	Primary Volts	Overall Dim. L	Overall Dim. W	Overall Dim. H	Mtg. Dim. ML	Mtg. Dim. MW	Rec. Mtg. Screw	Wt Lbs.	Net Price 1-9 pcs.
6K1	6.3	4	1000	115/230	3 11/16	2 1/2	2 5/16	3 1/8	Chan.	8	1 3/4	$ 5.61
6K2	6.3	12	1500	115/230	3 3/4	3 1/4	4	2 7/16	2 1/2	8	6	10.30
6K3	6.3 CT	16	3000	115	3 7/8	3 1/4	4	2 9/16	2 1/2	8	6 1/2	10.96
6K4	5	3	2000	115/230	3 1/2	3 1/4	4	1 3/16	2 1/2	8	5	10.89
	6.3 CT	4	2000									
	6.3 CT	4	2000									
6K5	6.3	1.5	1000	115/230	4	2 1/2	2 5/8	3 9/16	Chan.	8	2 1/4	6.14
	6.3	1.5	1000									
6K6	800 CT	.036 DC	4000	115/230	3 1/2	2 5/8	3 3/16	2 7/16	2	8	4	6.93
6K7	28 CT	7 DC	1000	115	4 1/4	3 1/4	4	2 15/16	2 1/2	8	8	10.43
6K8	660 CT	.25 DC	1500	115/230	3 7/8	3 7/8	4 5/8	2 13/16	3	8	8	12.67
	5	4.5	1500									
6K9	1130 CT	.062 DC	3300	115/230	3 7/8	3 7/8	4 5/8	2 13/16	3	8	8	12.67
	5	2	3300									



- ONE UNIT PROVIDES PLATE AND FILAMENT POWER FOR ENTIRE SUPPLY.
- RATINGS BASED ON D.C. OUTPUT OF SUPPLY.
- APPLICATION BULLETIN WITH EACH UNIT.

Standard Color Code

Primary: Black
High Voltage: Center Tap: Red-Yellow
High Voltage: High Tap: Red
High Voltage: Low Tap: Blue
Rectifier Filaments: Yellow
Pass Tube Filaments: Brown
Regulator Filaments: Green
Auxiliary Filaments: Slate

NOTES

1. All Primaries 115 Volts 50/60 Cps
2. Ratings Based On Capacitor Input Filters
3. Dielectric Test Voltages: Primaries: 1500 V. RMS All Secondaries: 2500 V. RMS

STERLING TRANSFORMER CORP. BROOKLYN 11, N. Y.

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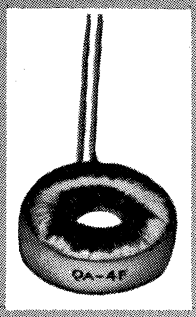
STERLING TRANSFORMER

hi-Q toroidal inductors

MANUFACTURED TO MIL-T-27A. ALL HERMETICALLY SEALED UNITS (STYLE H) ARE MIL TYPE TF4RX20YY

- ALL MOLDED UNITS STYLE M ARE MIL TYPE TF5RX20ZZ
- ALSO TOROIDAL INDUCTORS IN OTHER SIZES AND VALUES AVAILABLE ON SPECIAL ORDER.
- MOLYBDENUM PERMALLOY POWDER CORES USED IN ALL UNITS.

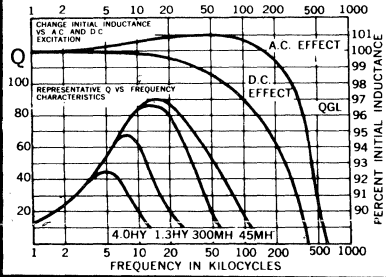


STYLE F
• ALL INDUCTORS SHOWN AVAILABLE IN OPEN STYLE F.

QA SERIES

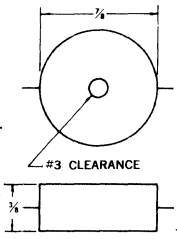
FREQUENCY TO 20KC•ACCURACY ± 1%

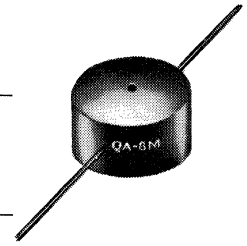
The QA series is designed to optimize small size and high "Q" for miniaturized applications. These units are available on special order with stabilized cores and inductance from 1MH to 4.0H.



AVAILABLE ON SPECIAL ORDER
HERMETICALLY SEALED

Part No.	Inductance	Approx. DCR Ohms	Approx. Distributed Capacity PF	Net Price 1–9 pcs. Style F	Style M
QA-1	5MH	2.5	30	4.35	5.70
QA-2	10	5	33	4.35	5.70
QA-3	15	8	34	4.50	5.85
QA-4	20	11.2	36	4.60	6.00
QA-5	30	17	37	4.65	6.15
QA-6	50	28	40	4.80	6.30
QA-7	100	50	42	4.95	6.45
QA-8	150	80	44	5.10	6.60
QA-9	200	120	45	5.20	6.70
QA-10	300	150	46	5.30	6.95
QA-11	500	290	48	5.40	7.20
QA-12	1.00H	530	51	6.15	7.95
QA-13	1.50	825	53	6.30	8.70





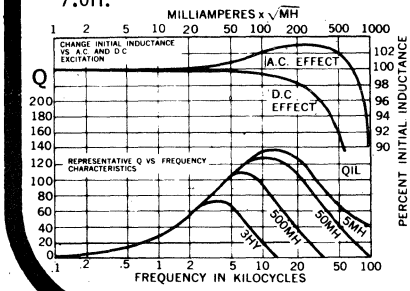
MOLDED STYLE M

Encapsulated in Epoxy Resin. Pigtail leads for printed circuit applications.

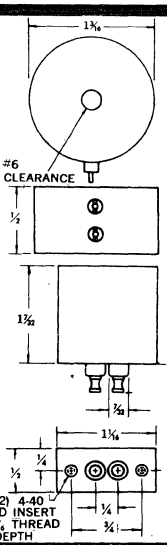
QB SERIES

FREQUENCY TO 20KC•ACCURACY ± 1%

The QB series is designed for airborne applications where stable high "Q" is needed with minimized size and weight. Available on special order with stabilized cores and inductance to 7.0H.



Part No.	Inductance	Approx. DCR Ohms	Approx. Distributed Capacity PF	Net Price 1–9 pcs. Style F	Style H	Style M
QB-1	5MH	1.1	38	3.90	6.75	5.25
QB-2	10	2.1	40	3.90	6.75	5.25
QB-3	15	3.3	42	3.90	6.75	5.40
QB-4	20	3.7	43	3.95	6.85	5.50
QB-5	30	5.8	45	4.00	7.00	5.55
QB-6	50	11	47	4.05	7.20	5.65
QB-7	100	22	49	4.20	7.65	5.70
QB-8	150	34	50	4.35	7.80	5.85
QB-9	200	47	52	4.55	8.15	6.05
QB-10	300	60	53	4.65	8.40	6.15
QB-11	500	95	55	4.80	8.55	6.30
QB-12	1.00H	213	57	5.10	9.00	6.75
QB-13	1.50	335	59	5.85	9.45	7.35



MOLDED STYLE M

Encapsulated in Epoxy Resin. Silver plated turret lugs.

HERMETIC STYLE H

Hermetically sealed in metal case. Teflon terminals assure permanent seal at temperature extremes.

Net
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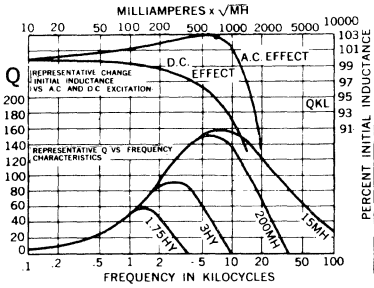
hi-Q toroidal inductors

STERLING TRANSFORMER

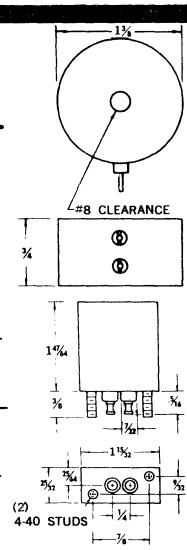
QC SERIES

FREQUENCY TO 10KC
ACCURACY ± 1%

The QC series is designed for high "Q", increased power level & stability. Available on spe-order with stabilized cores and inductance to 20H.



Part No.	Inductance	Approx. DCR Ohms	Approx. Distributed Capacity PF	Net Price 1–9 pcs. Style F	Style H	Style M
QC-1	5MH	0.62	60	4.35	7.05	6.15
QC-2	10	1.1	66	4.50	7.20	6.15
QC-3	15	1.7	68	4.50	7.35	6.15
QC-4	20	1.9	70	4.55	7.50	6.15
QC-5	30	3	72	4.60	7.65	6.15
QC-6	50	6	76	4.65	7.80	6.15
QC-7	100	11	81	4.80	8.40	6.60
QC-8	150	17	83	4.95	8.55	6.60
QC-9	200	24	85	5.00	8.75	6.70
QC-10	300	37	88	5.05	8.90	6.80
QC-11	500	63	91	5.10	9.15	6.90
QC-12	1.00H	110	96	5.25	9.60	7.20
QC-13	1.50	185	98	5.40	9.75	7.35
QC-14	2.00	250	100	5.90	10.15	7.60
QC-15	3.00	380	103	6.40	10.55	8.00
QC-16	5.00	645	106	6.75	11.10	8.40
QC-17	7.50	950	109	7.25	11.80	9.10
QC-18	10.00	1175	112	7.50	12.45	9.60



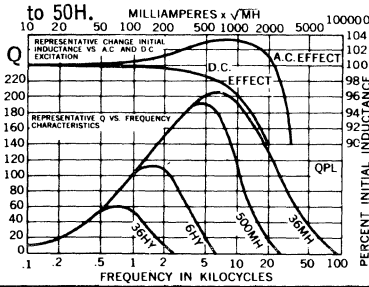
MOLDED STYLE M
Encapsulated in Epoxy Resin. Silver plated turret lugs.

HERMETIC STYLE H
Hermetically sealed in metal case. Teflon terminals assure permanent seal at temperature extremes.

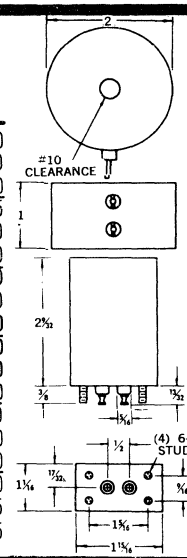
QD SERIES

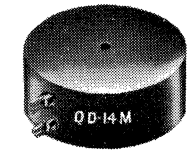
FREQUENCY TO 10KC•ACCURACY ± 1%

The QD series is designed for very high "Q" in the audio band allowing for application in sharp frequency filters with high power levels and low losses. They are excellent for tuned transformers and oscillators. Available on special order with stabilized cores and inductance to 50H.



Part No.	Inductance	Approx. DCR Ohms	Approx. Distributed Capacity PF	Net Price 1–9 pcs. Style F	Style H	Style M
QD-1	20MH	1.0	97	7.05	10.50	8.70
QD-2	30	1.5	100	7.05	10.50	8.70
QD-3	50	2.5	105	7.05	10.50	8.70
QD-4	100	6	110	7.20	10.65	8.85
QD-5	150	7	113	7.35	10.75	9.40
QD-6	200	10	115	7.35	10.75	9.40
QD-7	300	15	117	7.50	10.95	9.60
QD-8	500	25	121	7.50	10.95	9.60
QD-9	1.00H	60	126	7.80	11.40	9.90
QD-10	1.50	90	130	8.10	11.70	10.20
QD-11	2.00	100	131	8.95	12.60	10.60
QD-12	3.00	155	134	9.25	13.00	10.90
QD-13	5.00	275	138	9.45	13.20	11.10
QD-14	7.50	400	140	10.05	14.10	12.00
QD-15	10.00	600	142	11.10	15.00	12.90
QD-16	15.00	900	146	12.00	15.75	13.80
QD-17	20.00	1100	148	12.85	17.35	15.25
QD-18	25.00	1500	150	13.05	17.55	15.45





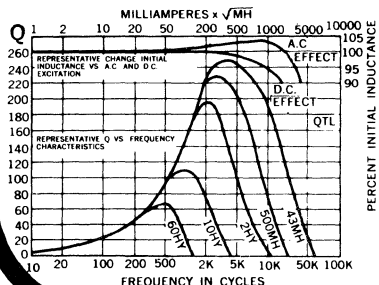
MOLDED STYLE M
Encapsulated in Epoxy Resin. Silver plated turret lugs.

HERMETIC STYLE H
Hermetically sealed in metal case. Teflon terminals assure permanent seal at temperature extremes.

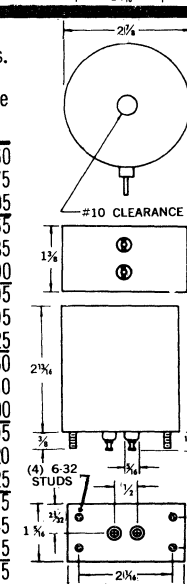
QE SERIES

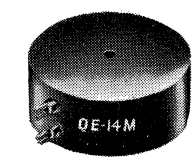
FREQUENCY TO 15KC
ACCURACY ± 1%

The QE series is most widely used in low audio frequency applications where high "Q" is essential. They are used where inductance stability over a wide voltage range is required. Available on special order with inductance to 75H.



Part No.	Inductance	Approx. DCR Ohms	Approx. Distributed Capacity PF	Net Price 1–9 pcs. Style F	Style H	Style M
QE-1	25MH	0.85	127	10.80	13.50	12.60
QE-2	50	1.6	136	10.95	13.65	12.75
QE-3	100	3	144	11.25	13.95	13.05
QE-4	150	3.9	149	11.70	14.25	13.65
QE-5	200	5.9	153	11.75	14.75	13.85
QE-6	300	8.5	158	11.80	14.80	13.90
QE-7	500	15	164	11.85	14.85	13.95
QE-8	1.00H	30	173	12.15	15.15	13.95
QE-9	1.50	40	177	12.45	15.45	14.25
QE-10	2.00	60	181	12.80	16.30	14.60
QE-11	3.00	85	185	12.90	16.40	14.80
QE-12	5.00	142	192	13.05	16.65	15.00
QE-13	7.50	215	196	14.00	17.00	15.95
QE-14	10.00	300	200	14.25	17.25	16.20
QE-15	15.00	430	205	15.30	18.30	17.25
QE-16	20.00	550	209	16.25	19.25	18.15
QE-17	25.00	800	212	16.50	19.50	18.45
QE-18	30.00	850	214	20.00	23.00	21.95
QE-19	50.00	1500	221	22.20	25.20	24.15





MOLDED STYLE M
Encapsulated in Epoxy Resin. Silver plated turret lugs.

HERMETIC STYLE H
Hermetically sealed in metal case. Teflon terminals assure permanent seal at temperature extremes.

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STERLING TRANSFORMER

STANDARD INTERSTAGE AND LINE TRANSISTOR AND TUBE APPLICATIONS *filters*

Hermetically Sealed — Manufactured to MIL-F-18327B Available in Other Frequencies

LOW PASS

INTERSTAGE

LI units have a loss of approximately 3 db at cutoff frequency, and an attenuation of 35 db at 1.5 cutoff frequency. Input and output 10,000 ohms. LI units are MIL type FR4RX11YY.

Part No.	Frequency	Case Size	Net Price
LI-60	60 cps	A	31.50
LI-100	100 cps	A	31.50
LI-200	200 cps	B	31.50
LI-400	400 cps	B	31.50
LI-500	500 cps	B	31.50
LI-800	800 cps	B	31.50
LI-1,000	1,000 cps	B	31.50
LI-1,500	1,500 cps	B	31.50
LI-2,000	2,000 cps	B	31.50
LI-2,500	2,500 cps	B	31.50
LI-3,000	3,000 cps	B	31.50
LI-4,000	4,000 cps	B	31.50
LI-5,000	5,000 cps	B	31.50
LI-10,000	10,000 cps	B	31.50

LINE

LL units have a loss of approximately 3 db at cutoff frequency, and an attenuation of 35 db at 1.5 cutoff frequency. Input and output 500/600 ohms. LL units are MIL type FR4RX11YY.

Part No.	Frequency	Case Size	Net Price
LL-600	600 cps	A	31.50
LL-1,000	1,000 cps	A	31.50
LL-1,500	1,500 cps	A	31.50
LL-2,000	2,000 cps	A	31.50
LL-2,500	2,500 cps	A	31.50
LL-4,000	4,000 cps	A	31.50
LL-8,000	8,000 cps	A	31.50
LL-10,000	10,000 cps	A	31.50
LL-12,000	12,000 cps	A	31.50

HIGH PASS

INTERSTAGE

HI units have a loss of less than 6 db at cutoff frequency, and an attenuation of 35 db at .67 cutoff frequency. Input and output 10,000 ohms. HI units are MIL type FR4RX33YY.

Part No.	Frequency	Case Size	Net Price
HI-100	100 cps	A	31.50
HI-200	200 cps	A	31.50
HI-300	300 cps	A	31.50
HI-400	400 cps	A	31.50
HI-500	500 cps	A	31.50
HI-800	800 cps	A	31.50
HI-1,000	1,000 cps	A	31.50
HI-2,000	2,000 cps	A	31.50
HI-3,000	3,000 cps	A	31.50

LINE

HL units have a loss of less than 6 db at cutoff frequency, and an attenuation of 35 db at .67 cutoff frequency. Input and output 500/600 ohms. HL units are MIL type FR4RX33YY.

Part No.	Frequency	Case Size	Net Price
HL-200	200 cps	A	39.00
HL-300	300 cps	A	39.00
HL-500	500 cps	A	39.00
HL-1,000	1,000 cps	A	39.00

FOR WIDE BAND PASS FILTERS THE LI & HI OR LL & HL MAY BE CONNECTED IN SERIES.

BAND PASS

INTERSTAGE

BI units have 2:1 voltage gain. They are sharply peaked, having approximately 2 db attenuation at plus or minus 3% from center frequency and attenuation greater than 40 db at 1/2 and twice center frequency. Input 10,000 ohms, output to grid. BI units are MIL type FR4RX22YY.

Part No.	Frequency	Case Size	Net Price
BI-50	50 cps	A	30.00
BI-60	60 cps	A	30.00
BI-100	100 cps	A	30.00
BI-120	120 cps	B	30.00
BI-200	200 cps	B	30.00
BI-240	240 cps	B	30.00
BI-400	400 cps	B	30.00
BI-500	500 cps	B	30.00
BI-750	750 cps	B	30.00
BI-800	800 cps	B	30.00
BI-1,000	1,000 cps	B	30.00
BI-1,500	1,500 cps	B	30.00
BI-2,000	2,000 cps	B	30.00
BI-3,000	3,000 cps	B	30.00
BI-4,000	4,000 cps	B	30.00
BI-5,000	5,000 cps	B	30.00
BI-10,000	10,000 cps	B	30.00

LINE

BL units have 9:1 voltage gain. They are sharply peaked, having approximately 2 db attenuation at plus or minus 3% from center frequency and attenuation greater than 40 db at 1/2 and twice center frequency. Input 500/600 ohms, output to grid. BL units are MIL type FR4RX22YY.

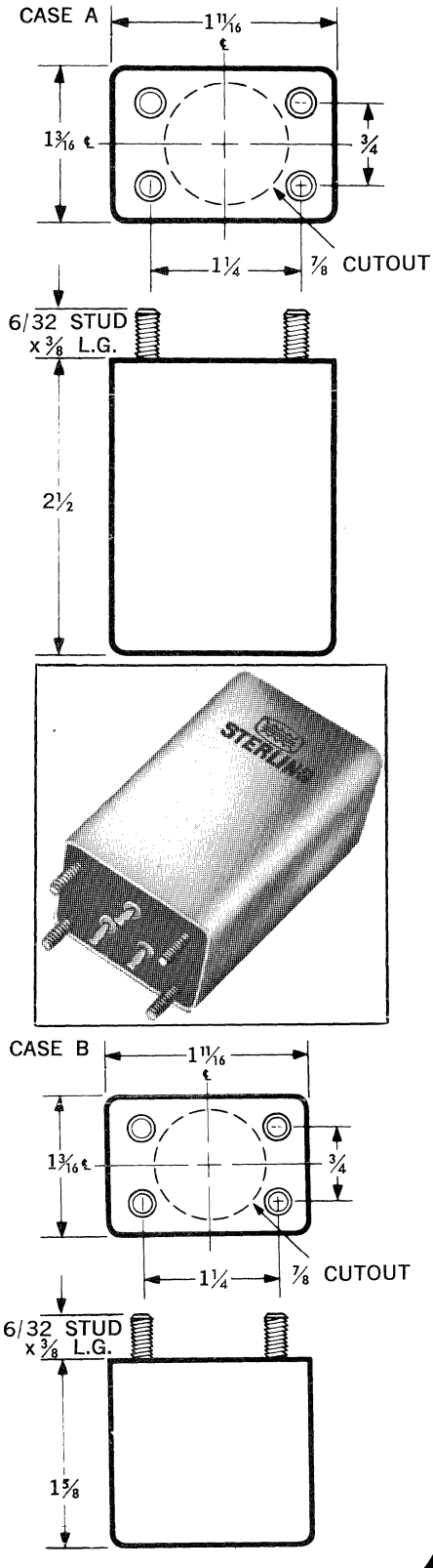
Part No.	Frequency	Case Size	Net Price
BL-400	400 cps	B	30.00
BL-1,000	1,000 cps	B	30.00

TRANSISTOR INTERSTAGE

They are sharply peaked, having approximately 2 db attenuation at plus or minus 3% from center frequency and attenuation greater than 40 db at 1/2 and twice center frequency. Input 10,000 ohms, output 10,000 ohms. BIT units are MIL type FR4RX22YY.

Part No.	Frequency	Case Size	Net Price
BIT-60	60 cps	A	36.00
BIT-100	100 cps	A	36.00
BIT-120	120 cps	B	36.00

CASE DETAIL



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filters

TELEGRAPH TONE CHANNEL TELEMETERING

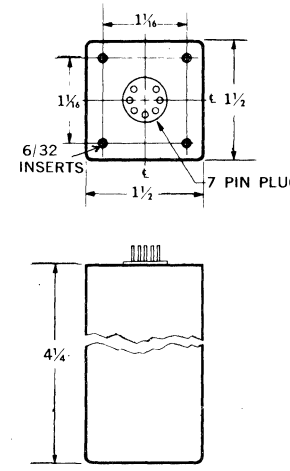
Available in Other Frequencies

STERLING TRANSFORMER

TELEGRAPH TONE CHANNEL – RECEIVING

- Attenuation at ± 42.5 cps from center frequency—less than 3 db.
- Attenuation at cross-over with adjacent channels—at least 15 db.
- Attenuation at ± 170 cps from center frequency—at least 35 db.
- Impedance: 600 ohms; units are MIL type FR4RX22YY.

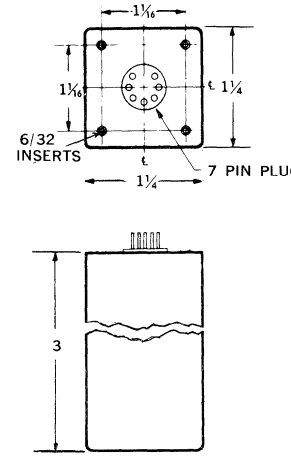
Part No.	Frequency	Net Price
TR-425	425 cps	72.00
TR-595	595 cps	72.00
TR-765	765 cps	72.00
TR-935	935 cps	72.00
TR-1105	1105 cps	63.00
TR-1275	1275 cps	63.00
TR-1445	1445 cps	63.00
TR-1615	1615 cps	63.00
TR-1785	1785 cps	60.00
TR-1955	1955 cps	60.00
TR-2125	2125 cps	60.00
TR-2295	2295 cps	60.00
TR-2465	2465 cps	57.00
TR-2635	2635 cps	57.00
TR-2805	2805 cps	57.00
TR-2975	2975 cps	57.00
TR-3145	3145 cps	57.00
TR-3315	3315 cps	57.00



TELEGRAPH TONE CHANNEL – TRANSMITTING

- Attenuation at ± 42.5 cps from center frequency—less than 3 db.
- Attenuation at cross-over with adjacent channels—at least 10 db.
- Attenuation at ± 170 cps from center frequency—at least 25 db.
- Impedance: 600 ohms; units are MIL type FR4RX22YY.

Part No.	Frequency	Net Price
TT-425	425 cps	42.00
TT-595	595 cps	42.00
TT-765	765 cps	42.00
TT-935	935 cps	42.00
TT-1105	1105 cps	36.00
TT-1275	1275 cps	36.00
TT-1445	1445 cps	36.00
TT-1615	1615 cps	36.00
TT-1785	1785 cps	33.00
TT-1955	1955 cps	33.00
TT-2125	2125 cps	33.00
TT-2295	2295 cps	33.00
TT-2465	2465 cps	30.00
TT-2635	2635 cps	30.00
TT-2805	2805 cps	30.00
TT-2975	2975 cps	30.00
TT-3145	3145 cps	30.00
TT-3315	3315 cps	30.00



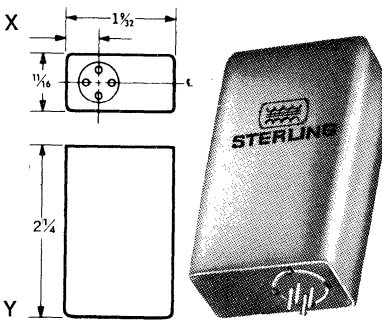
TELEMETERING FILTERS

- Impedance: 100K ohms input and output.
  Insertion loss: less than 6 DB.
- Attenuation Characteristics for ± 7.5% Bandwidth Filters
  At ± 7.5% of center frequency—less than 3 db.
  At ± 25% of center frequency—more than 20 db.
  At 1.75 times center frequency and above—greater than 40 db.
  At 0.57 times center frequency and below—greater than 40 db.
  Attenuation characteristics for ± 15% Bandwidth filters is proportional.
  ... all units MIL type FR4RX22YY.

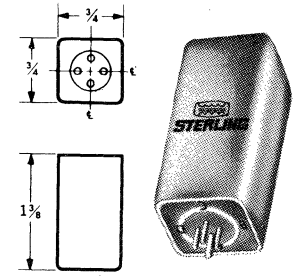
Part No.	Channels	Frequency	Bandwith ±	Case Size	Price
TM-1	1	400 cps	7½%	X	39.00
TM-2	2	560 cps	7½%	X	39.00
TM-3	3	730 cps	7½%	X	39.00
TM-4	4	960 cps	7½%	X	39.00
TM-5	5	1.3 KC	7½%	X	39.00
TM-6	6	1.7 KC	7½%	X	39.00
TM-7	7	2.3 KC	7½%	Y	39.00
TM-8	8	3.0 KC	7½%	Y	39.00
TM-9	9	3.9 KC	7½%	Y	39.00
TM-10	10	5.4 KC	7½%	Y	39.00
TM-11	11	7.35 KC	7½%	Y	39.00
TM-12	12	10.5 KC	7½%	Y	42.00
TM-13	13	14.5 KC	7½%	Y	42.00
TM-14	14	22.0 KC	7½%	Y	42.00
TM-15	15	30.0 KC	7½%	Y	42.00
TM-16	16	40.0 KC	7½%	Y	42.00
TM-17	17	52.5 KC	7½%	Y	42.00
TM-18	18	70.0 KC	7½%	Y	42.00
TM-A	A	22.0 KC	15%	Y	42.00
TM-B	B	30.0 KC	15%	Y	42.00
TM-C	C	40.0 KC	15%	Y	42.00
TM-D	D	52.5 KC	15%	Y	42.00
TM-E	E	70.0 KC	15%	Y	42.00

4 Pin Plugs for Printed Circuit Application

CASE X



CASE Y



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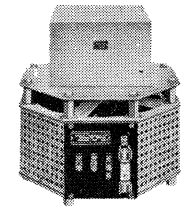
POWERSTAT® *Variable Transformers*

● ZERO WAVEFORM DISTORTION ● RUGGED CONSTRUCTION ● GOLD-ALLOY PLATED COMMUTATORS

Deliver continuously-adjustable voltage from a-c power lines. All manually-operated types listed in charts except 10B, EN116-EN216 and EN117-EN217 Series are also available with motor-drives if desired. Motor-driven speeds are 5, 15, 30 or 60 seconds for full range travel except types suffixed 4P, 4PS, 4D, 5P, 6P, 6PS, 6D and 6Y which do not offer the 5 second speed. 117-217, 126-226 and 136B-236B types are also available with 2- or 3-wire cord-plug sets. 1156D-1256D Series types are available in ratings up to 244 KVA.



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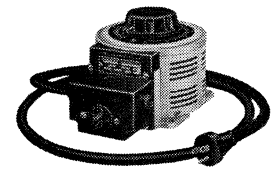
TYPE 116



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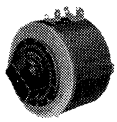

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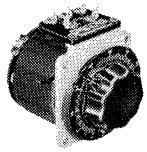

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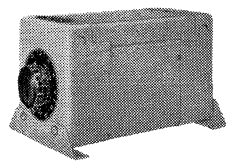

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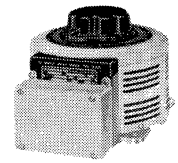
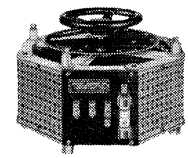


TYPE 136BT



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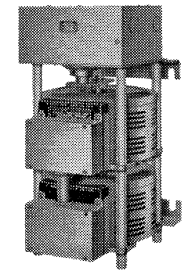

TYPE 15MD136BT-2

RATINGS AND SPECIFICATIONS

10B SERIES

INPUT		OUTPUT						
			Const. Current Load		Const. Impedance Load			
Volts	Cycles	Volts	Max. Amps.	Max. KVA	Max. Amps.	Max. KVA	TYPE	Ship. Wt. Lbs.
Single Phase								
120	60	0-132	1	0.13	—	—	2PF10	3.3
120	50/60	0-120	2.25*	0.27	3‡	0.36	10B	2.4
120	60	0-132	2.25*	0.30	—	—		
240	50/60	0-240	2.25*	0.54	3‡	0.72	10B-2	5.6
240	60	0-264	2.25*	0.59	—	—		
Three Phase								
120	50/60	0-120	2.25*	0.47	3‡	0.62	10B-2	5.6
120	60	0-132	2.25*	0.51	—	—		
240	60	0-240	2.25*	0.94	3‡	1.2	10B-3	8.3

21-22 SERIES

Single Phase								
120	50/60	0-120	3.75	0.45	5.5	0.66	21	6
120	50/60	0-140	3.75	0.53	—	—		
240	50/60	0-240	2.25	0.54	3.25	0.78	22	6
240	50/60	0-280	2.25	0.63	—	—		
240	50/60	0-240	3.75	0.90	5.5	1.3	21-2	12
240	50/60	0 280	3.75	1.0	—	—		
480	50/60	0-480	2.25	1.1	3.25	1.6	22-2	12
480	50/60	0-560	2.25	1.3	—	—		
Three Phase								
120	50/60	0-120	3.75	0.78	5.5	1.1	21-2	12
120	50/60	0-140	3.75	0.91	—	—		
240	50/60	0-240	2.25	0.94	3.25	1.4	22-2	12
240	50/60	0-280	2.25	1.1	—	—		
240	50/60	0-240	3.75	1.6	5.5	2.3	21-3	17
240	60	0-280	3.75	1.8	—	—		
480	50/60	0-480	2.25	1.9	3.25	2.7	22-3	17
480	60	0-560	2.25	2.2	—	—		

116-216 and 117-217 SERIES†

Single Phase								
120	50/60	0-120	7.5	0.90	10	1.2	116 ‡‡	12
120	50/60	0-140	7.5	1.0	—	—		
120	60	0-120	10	1.2	13	1.6	117T ‡‡	12
240	50/60	0-240	3	0.72	4.5	1.1	216 ‡‡	12
240	50/60	0-280	3	0.84	—	—		
240	60	0-240	4	1.0	6.3	1.5	217T ‡‡	12
240	50/60	0-240	7.5	1.8	10	2.4	116T-2	24
240	50/60	0-280	7.5	2.1	—	—		
240	60	0-240	10	2.4	13	3.1	117T-2	24

116-216 and 117-217 SERIES† (contd.)

INPUT		OUTPUT						
			Const. Current Load		Const. Impedance Load			
Volts	Cycles	Volts	Max. Amps.	Max. KVA	Max. Amps.	Max. KVA	TYPE	Ship. Wt. Lbs.
Single Phase								
480	50/60	0-480	3	1.4	4.5	2.2	216T-2	24
480	50/60	0-560	3	1.7	—	—		
480	60	0-480	4	1.9	6.3	3.0	217T-2	24
Three Phase								
120	50/60	0-120	7.5	1.6	10	2.1	116T-2	24
120	50/60	0-140	7.5	1.8	—	—		
120	60	0-120	10	2.1	13	2.7	117T-2	24
240	50/60	0-240	3	1.2	4.5	1.9	216T-2	24
240	50/60	0-280	3	1.5	—	—		
240	60	0-240	4	1.7	6.3	2.6	217T-2	24
240	50/60	0-240	7.5	3.1	10	4.2	116T-3	36
240	60	0-280	7.5	3.6	—	—		
240	60	0-240	10	4.2	13	5.4	117T-3	36
480	50/60	0-480	3	2.5	4.5	3.7	216T-3	36
480	60	0-560	3	2.9	—	—		
480	60	0-480	4	3.3	6.3	5.2	217T-3	36

EN116-EN216 and EN117-EN217 SERIES

Single Phase								
120	50/60	0-120	6.5	0.78	10	1.2	EN116	15
120	50/60	0-140	6.5	0.91	—	—		
120	60	0-120	8.5	1.0	12.5	1.5	EN117	15
240	50/60	0-240	2.6	0.62	4	0.96	EN216	15
240	50/60	0-280	2.6	0.73	—	—		
240	60	0-240	3.5	0.84	5.2	1.2	EN217	15
240	50/60	0-240	6.5	1.6	10	2.4	EN116-2	28
240	50/60	0-280	6.5	1.8	—	—		
240	60	0-240	8.5	2.0	12.5	3.0	EN117-2	28
480	50/60	0-480	2.6	1.2	4	1.9	EN216-2	28
480	50/60	0-560	2.6	1.5	—	—		
480	60	0-480	3.5	1.7	5.2	2.5	EN217-2	28
Three Phase								
120	50/60	0-120	6.5	1.4	10	2.1	EN116-2	28
120	50/60	0-140	6.5	1.6	—	—		
120	60	0-120	8.5	1.8	12.5	2.6	EN117-2	28
240	50/60	0-240	2.6	1.1	4	1.7	EN216-2	28
240	50/60	0-280	2.6	1.3	—	—		
240	60	0-240	3.5	1.5	5.2	2.2	EN217-2	28
240	50/60	0-240	6.5	2.7	10	4.2	EN116-3	39
240	60	0-280	6.5	3.2	—	—		
240	60	0-240	8.5	3.5	12.5	5.2	EN117-3	39
480	50/60	0-480	2.6	2.2	4	3.3	EN216-3	39
480	60	0-560	2.6	2.5	—	—		
480	60	0-480	3.5	2.9	5.2	4.3	EN217-3	39

FOOTNOTES

*Rating if mounted on a metal panel. When mounted on a bracket or nonmetallic panel, derate to 1.75 amperes with corresponding reduction in maximum KVA.

‡Rating if mounted on a metal panel. When mounted on a bracket or nonmetallic panel, derate to 2.5 amperes with corresponding reduction in maximum KVA.

†Also available with open construction for back-of-panel mounting (suffix U when ordering). Prefix Q if square frame is desired instead of round frame on open construction (U) types.

‡‡Also available with metered knobs. Add prefix V when ordering.

THE SUPERIOR ELECTRIC COMPANY
Bristol, Connecticut, U.S.A.
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POWERSTAT® *Variable Transformers*

● **EXCELLENT REGULATION** ● **HIGH EFFICIENCY** ● **CONSERVATIVE RATINGS**

126-226 SERIES**

INPUT		OUTPUT						
			Const. Current Load		Const. Impedance Load			
Volts	Cycles	Volts	Max. Amps.	Max. KVA	Max. Amps.	Max. KVA	TYPE	Ship. Wt. Lbs.
Single Phase								
120	50/60	0-120	12.5	1.5	18	2.2	126†‡	17
120	50/60	0-140	12.5	1.8				
240	50/60	0-240	6	1.4	9	2.2	226†‡	17
240	50/60	0-280	6	1.7				
240	50/60	0-240	12.5	3.0	18	4.3	126-2	32
240	50/60	0-280	12.5	3.5				
480	50/60	0-480	6	2.9	9	4.3	226-2	32
480	50/60	0-560	6	3.4				
Three Phase								
120	50/60	0-120	12.5	2.6	18	3.7	126-2	32
120	50/60	0-140	12.5	3.0				
240	50/60	0-240	6	2.5	9	3.7	226-2	32
240	50/60	0-280	6	2.9				
240	50/60	0-240	12.5	5.2	18	7.5	126-3	49
240	60	0-280	12.5	6.1				
480	50/60	0-480	6	5.0	9	7.5	226-3	49
480	60	0-560	6	5.8				

136B-236B SERIES**

Single Phase								
120	50/60	0-120	20	2.4	25	3.0	136B‡‡	25
120	50/60	0-140	20	2.8				
120	50/60	0-120	40	4.8	50	6.0	136B-2§	52
120	50/60	0-140	40	5.6				
240	50/60	0-240	9	2.2	12.5	3.0	236B‡‡	25
240	50/60	0-280	9	2.5				
240	50/60	0-240	20	4.8	25	6.0	136B-2	52
240	50/60	0-280	20	5.6				
480	50/60	0-480	9	4.3	12.5	6.0	236B-2	52
480	50/60	0-560	9	5.0				
Three Phase								
120	50/60	0-120	20	4.2	25	5.2	136B-2	52
120	50/60	0-140	20	4.8				
240	50/60	0-240	9	3.7	12.5	5.2	236B-2	52
240	50/60	0-280	9	4.4				
240	50/60	0-240	20	8.3	25	10.4	136B-3	76
240	60	0-280	20	9.7				
480	50/60	0-480	9	7.5	12.5	10.4	236B-3	76
480	60	0-560	9	8.7				

LW136B SERIES**

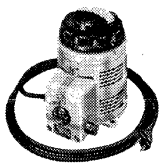
INPUT		OUTPUT††				
Volts	Cycles	Volts	Max. Amps.	Max. KVA	TYPE	Ship. Wt. Lbs.
Single Phase						
120/240	50/60	15-0-15	35	0.52	LW136B	25
120/240/480	50/60	30-0-30	35	1.0	LW136B-2	52
120/240	50/60	45-0-45	35	1.6	LW136B-3	76
120/240	50/60	0-30	25	0.75	LW136B	25
120/240/480	50/60	0-60	25	1.5	LW136B-2	52
120/240	50/60	0-90	25	2.2	LW136B-3	76
Three Phase						
120/240	50/60	0-30	25	1.3	LW136B-2	52
120/240	50/60	0-30	43.3	2.2	LW136B-3	76
120/240	50/60	0-52	25	2.2	LW136B-3	76
240/480	60	0-35	43.3	2.6	LW136B-3	76
240/480	60	0-60	25	2.6	LW136B-3	76

1156D-1256D SERIES§§

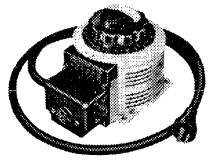
Single Phase						
120	50/60	0-140	45	6.3	1156D	79
120	50/60	0-140	90	12.6	1156D-2P	158
120	50/60	0-140	135	18.9	1156D-3P	274
120	50/60	0-140	180	25.2	1156D 4P	395
120	50/60	0-140	225	31.5	1156D 5P	490
120	50/60	0-140	270	37.8	1156D 6P	584
240	50/60	0-280	28	7.8	1256D	79
240	50/60	0-280	45	12.6	1156D 2S	152
240	50/60	0-280	56	15.7	1256D-2P	158
240	50/60	0-280	84	23.5	1256D 3P	274
240	50/60	0-280	90	25.2	1156D 4PS	386
240	50/60	0-280	112	31.4	1256D 4P	391
240	50/60	0-280	140	39.2	1256D 5P	490
240	50/60	0-280	135	37.8	1156D 6PS	583
240	50/60	0-280	168	47.0	1256D 6P	588
480	50/60	0-560	28	15.7	1256D 2S	152
480	50/60	0-560	56	31.4	1256D 4PS	386
480	50/60	0-560	84	47.0	1256D 6PS	583
Three Phase						
120	50/60	0-140	45	10.9	1156D 2D	152
120	50/60	0-140	90	21.8	1156D 4D	386
120	50/60	0-140	135	32.7	1156D 6D	583
240	50/60	0-280	28	13.6	1256D 2D	152
240	60	0-280	45	21.8	1156D 3Y	225
240	50/60	0-280	56	27.2	1256D 4D	386
240	50/60	0-280	84	40.7	1256D 6D	583
240	60	0-280	90	43.6	1156D 6Y	569
480	60	0-560	28	27.2	1256D 3Y	225
480	60	0-560	56	54.3	1256D 6Y	569

FOOTNOTES

§Requires also one paralleling choke type T5000.
**126-226, 136B-236B and LW136B Series also available with open construction for back-of-panel mounting (suffix U when ordering).
††LW136B Series ratings are for use as low voltage isolated output transformer. Also permits connection for use as limited range transformer or as a line corrector. Full connections and ratings on request.
§§1156D-1256D Series types also have terminals for limiting output voltage to line voltage.
‡‡Also available with metered knobs. Add prefix V when ordering.



TYPE V116



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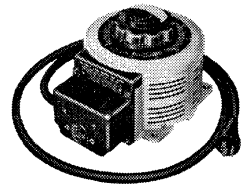
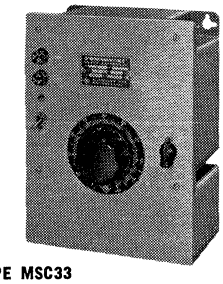


TYPE V3PN136B

METERED KNOB TYPES

POWERSTATS of the V116-V216, V117-V217, V126-V226 and V136B-V236B Series have an accurate voltmeter integral with the knob. They have the same ratings and mounting dimensions as single types with enclosed construction (with and without cord-plugs) in the 116-216, 117-217, 126-226 and 136B-236B Series listed in the charts. Voltmeter is insensitive to stray magnetic fields. Conversion kits also available to modify currently cataloged types not having metered knobs.

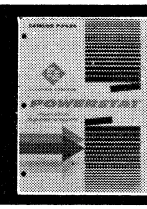


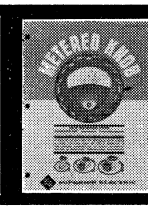
TYPE MSC33

POWERSTAT® DC MOTOR SPEED CONTROLLERS

Provide continuously adjustable speed control of d-c shunt-wound or series motors from a-c power lines. Full rated torque available at any speed. Instant start, stop and reverse; dynamic braking in "stop" position. Type MSC16 designed for motors up to ⅛ hp and type MSC33 for motors up to ⅓ hp. Rated for 120 volt, 60 cycle single phase input. NEMA frame 56, 1725 rpm, d-c motors in ⅛ and ⅓ hp also available.

COMPLETE LITERATURE on all standard and special use POWERSTATS is available on request. Specify whether 50/60 cycle, 400/800 cycle or complete file is desired.





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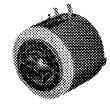
POWERSTAT® Variable Transformers

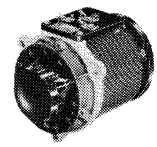
40-VOLT SERIES

Meet high current, low voltage requirements of low voltage power supplies and a wide range of transistor circuit applications. Manually-operated and motor-driven single, 2- and 3-gang single phase types available.



TYPE 10B-40

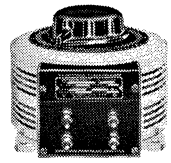
TYPE 21-40

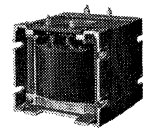


TYPE 116U-40

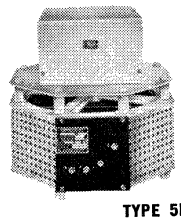
LINE CORRECTORS

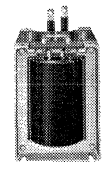
Used to correct line voltage variations to maintain a constant output voltage or to supply a limited range of output voltage from a stable a-c source. Manually operated and motor-driven types available.





TYPE LC2106C

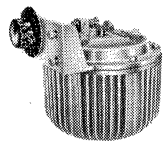




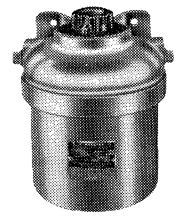
TYPE 5MLC2115C

OIL-COOLED AND EXPLOSION-PROOF

Oil-cooled POWERSTATS substantially increase ratings above equivalent air-cooled types and provide a measure of safety; Explosion-proof POWERSTATS are Underwriters' Laboratories Approved for Class 1, Group D service. Both types are manually operated only.



OIL-COOLED
TYPE 0-116



EXPLOSION-PROOF
TYPE X-116

40-VOLT SERIES

INPUT VOLTS	INPUT CYCLES	OUTPUT VOLTS	OUTPUT MAX. AMPS.	OUTPUT MAX. KVA	TYPE	SHIP. WT. LBS.
Single Phase						
40	60	0-40	6	0.24	10B-40	3.3
			15	0.6	21-40	6
			25	1.0	116U-40	11

LINE CORRECTOR SERIES

INPUT VOLTS	INPUT CYCLES	OUTPUT VOLTS	OUTPUT MAX. AMPS.	OUTPUT MAX. KVA	TYPE	SHIP. WT. LBS.
Used as Line Correctors — SINGLE PHASE						
95-135	50/60	115	17.5	2.0	LC2102C	55
95-135	50/60	115	52	6.0	LC2106C	80
95-135	50/60	115	130	15.0	LC2115C	200
195-255	50/60	230	32.5	7.5	LC2207C	85
205-250	50/60	230	120	27.5	LC2228C	205
400-520	50/60	460	15	6.6	LC2407C	85
400-520	50/60	460	40	17.6	LC2418C	205
Used as Line Correctors — THREE PHASE						
195-255	50/60	230	25	10.0	LC3210YC	211
195-255	50/60	230	38	15.0	LC3215YC	226
195-255	50/60	230	50	20.0	LC3220YC	241
195-255	50/60	230	113	45.0	LC3245YD	615
195-255	50/60	230	175	70.0	LC3270DD	795
400-520	50/60	460	16	12.5	LC3412YC	200
400-520	50/60	460	22	17.5	LC3417YC	215
400-520	50/60	460	33	25.0	LC3425YC	230
400-520	50/60	460	66	50.0	LC3450YD	580
400-520	50/60	460	100	75.0	LC3475YD	630
420-500	50/60	460	131	100.0	LC34100YD	630

When units of the LC series are used as limited range adjustable transformers, the input voltage is the output voltage shown in the above chart and the output voltage is the input voltage shown in the above chart.

EXPLOSION-PROOF

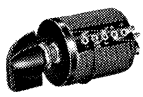
INPUT VOLTS	INPUT CYCLES	OUTPUT VOLTS	OUTPUT MAX. AMPS.	OUTPUT MAX. KVA	TYPE	SHIP. WT. LBS.
120	50/60	0-120	7.5	0.90	X-116	47
120	50/60	0-140	7.5	1.0		
120	50/60	0-140	12	1.7	X-1126	142
240	50/60	0-240	3	0.72	X-216	47
240	50/60	0-280	3	0.84		
240	50/60	0-280	6	1.7	X-1226	142

OIL-COOLED

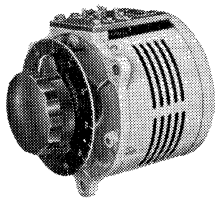
INPUT VOLTS	INPUT CYCLES	OUTPUT VOLTS	OUTPUT MAX. AMPS.	OUTPUT MAX. KVA	TYPE	SHIP. WT. LBS.
120	50/60	0-120	15.0	1.8	0-116	32
120	50/60	0-140	15.0	2.1		
120	50/60	0-140	30.0	4.2	0-1126	100
240	50/60	0-240	6.0	1.4	0-216	32
240	50/60	0-280	6.0	1.7		
240	50/60	0-280	18.0	5.0	0-1226	105

OTHER TYPES AVAILABLE ON SPECIAL ORDER

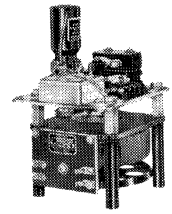
High Frequency POWERSTATS



TYPE 5-1011



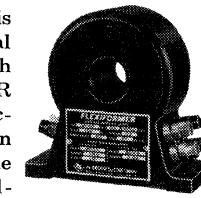
TYPE 1HMD07CKI



TYPE AM1HMS07U

Standard types designed to meet applicable military specifications are available: manually operated and motor-driven types for 28, 120, 240 and 480 volt, 400/800 cycle single and three phase operation in ratings from 56 VA to 8.7 KVA; manually operated types for 115 volt, 400/800 cycle single phase service with outputs of 0-28 volts, 2.5, 5 or 8 amperes and 0-5 volts, 6 or 12 amperes; manually operated types for 400/1600 cycle service as limited range variable transformers, low voltage output variable transformers or line correctors.

FLEXIFORMER® Packaged Transformer Primary



TYPE TP150

This "do-it-yourself" transformer is essentially a self-contained toroidal primary coil encased in durable high impact plastic. Colored SUPERIOR 5-WAY Binding Posts for connections are integrally mounted. When used as a source of a-c voltage, the center opening permits hand-threading the correct number of secondary winding turns to obtain the desired output voltage. When used as a current transformer, the FLEXIFORMER winding is shunted by an ammeter which indicates the current flow in a conductor hand-threaded through the center opening.

TYPE	AS A SOURCE OF A-C VOLTAGE: NOMINAL PRIMARY VOLTS	VOLTS PER SECONDARY TURN	MAXIMUM VA	AS A CURRENT TRANSFORMER: INPUT/OUTPUT RATIO	MAXIMUM PRIMARY AMPERES	MAXIMUM SECONDARY AMPERES
TP150	120	0.3	150	400/1	400	1.0
TP1000	120	0.75	1000	160/1	800	5.0
TP152	240	0.3	150	800/1	400	0.5
TP1020	240	0.75	1000	320/1	800	2.5

THE SUPERIOR ELECTRIC COMPANY
Bristol, Connecticut, U.S.A.
SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES IN SECTIONS 2100, 3500 AND 4000

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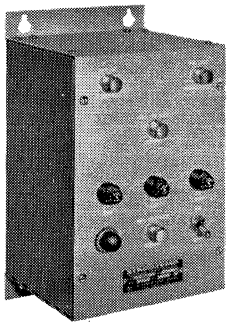
STABILTEMP Proportioning Temperature Coupler

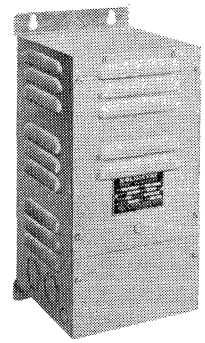


TYPE PTC5

Automatically maintains voltage required to keep electric furnaces and ovens at correct temperature when incorporated into control systems using most commercially available current proportioning temperature controllers. Designed for use with cataloged motor-driven POWERSTAT Variable Transformers rated for 120 or 240 volt, 50/60 cycle single phase service. For three phase operation, the unit can be used to monitor one line-to-neutral or one line-to-line voltage depending on POWERSTAT used. To maintain the desired temperature a STABILTEMP will regulate the voltage at any point within the range of the POWERSTAT as determined by the controller current command signal regardless of variations in line voltage or load current. STABILTEMP type PTC5 is designed for 5 milliamperes maximum command signal; shunting resistors must be provided by user for 20 or 50 milliampere command signals.

SOLIDSTAT® Variable Voltage Controls

Solid-state, semiconductor type variable a-c voltage controls for all loads from unity power factor to zero power factor lagging inductive load. Can be controlled by small indicating potentiometer, current feedback sensing or voltage sensing circuits. For 60 cycle service.

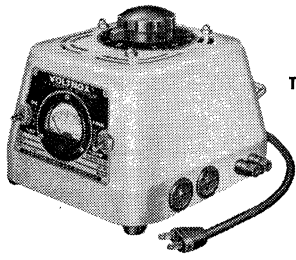


TYPE CSR106

INPUT		OUTPUT				
VOLTS*	FREQUENCY (CYCLES)	VOLTS	MAX. AMPS AT MAX. VOLTS	MAX. KVA	TYPE	APPROXIMATE NET WEIGHT (POUNDS)
120	60	0-115	50	6.0	CSR106	16
240	60	0-230	50	12.0	CSR212	16
480	60	0-470	50	24.0	CSR424	18
120	60	0-115	100	12.0	CSR112	34
240	60	0-230	100	24.0	CSR224	34
480	60	0-470	100	48.0	CSR448	38

*208 and 277 volt types available on special order.

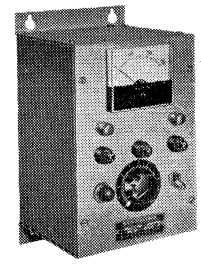
VOLTBOX® A-C Power Supply



TYPE UC1M

Compact versatile instrument containing all the necessary components for tests involving a-c voltage: POWERSTAT Variable Transformer, direct reading voltmeter, three output receptacles; two SUPERIOR 5-WAY Binding Posts, "on-off" switch, line-load meter switches, fuse and 6-foot cord-plug. Designed for 50/60 cycle service. Type UC1M ratings are 120 volt input and 0-140 volt, 7.5 ampere, 1.0 KVA output; type UC2M ratings are 240 volt input and 0-280 volt, 3 ampere, 0.84 KVA output. Other types available on special order.

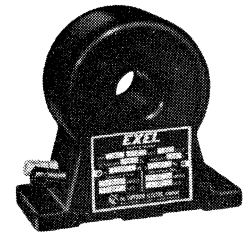
STABILINE® Full Range Regulator Controller



TYPE FR500MP

Designed for use with motor-driven POWERSTAT Variable Transformers to maintain constant output voltage, adjustable to any value within the full range of the POWERSTAT used. Can regulate output voltage from any motor-driven POWERSTAT rated for 120 or 240 volt, 50/60 cycle single phase duty. Depending on the POWERSTAT used, the unit may be used for three phase applications to maintain one line-to-neutral or one line-to-line voltage. It can also be used in 480 volt, 50/60 cycle, three phase applications but an auxiliary step-down transformer is required when sensing line-to-line voltage. Output voltage will remain within a 2 volt band when used with 120 volt POWERSTATS and within a 4 volt band when used with 240 volt types. Has 0-300 voltmeter mounted on front panel to monitor POWERSTAT output voltage.

EXEL Loading Reactor

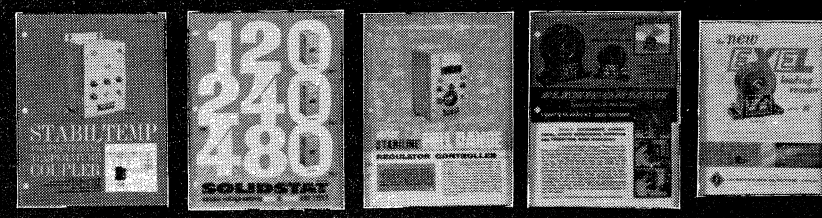


TYPE LR2

Designed to provide a convenient inductive load which can be made adjustable when used with a POWERSTAT Variable Transformer. Used primarily for testing apparatus at various lagging power factor loads, i.e. to simulate an inductive load. Ratings: 120 volts, 60 cycles; 2.0 amperes at 120 volts; inductive reactance 60 ohms; d-c resistance 4.0 ohms; inductance 0.16 henrys. At 60 cycles, the EXEL has essentially a linear current curve from 0 to nominal 2.0 amperes for continuous duty and up to 3.0 amperes for intermittent duty.

REQUEST BULLETINS AND DATA SHEETS

giving complete information on
STABILTEMP Proportioning Temperature Coupler,
SOLIDSTAT Variable Voltage Controls,
STABILINE Full Range Regulator Controller,
FLEXIFORMER Packaged Transformer Primaries
and EXEL Loading Reactors



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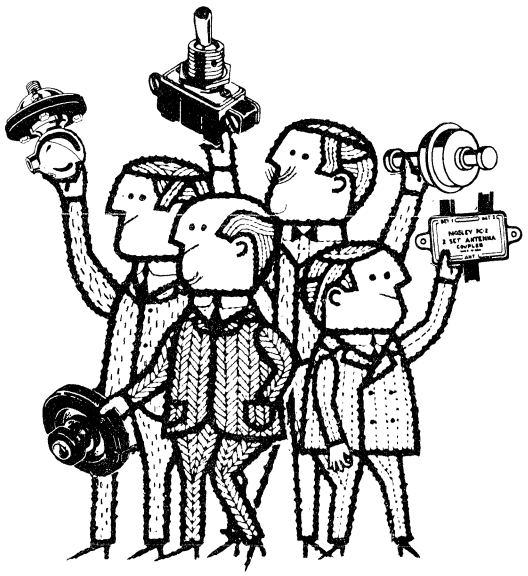

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- *Speedy purchasing — one order does the job*

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for all your requirements!

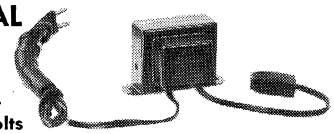
STEP-DOWN AUTO TRANSFORMER | MICROPHONE PLUG-IN | LINE ISOLATION

STEP-DOWN AUTO TRANSFORMERS
50/60 CYCLES

HEAVY DUTY MODEL
220/240 — 110/120 volts

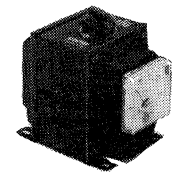
Catalog Number	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
SD-15	75	2¼	3 3/16	2¾	3 3/16	$ 7.90
SD-16	100	2⅓	3 3/16	2¾	3 5/16	8.10
SD-17	150	3⅔	3 3/16	2¾	3 15/16	9.60
SD-12	250	6	4 5/8	3 7/8	3 5/8	13.20
SD-18	350	6⅔	4 5/8	3 7/8	3¾	14.25
SD-11	500	10⅔	4 5/8	3 7/8	4 7/8	17.10
SD-19	750	12	4 5/8	3 7/8	5 1/8	21.80
SD-13	1000	15⅔	4 5/8	3 7/8	6 1/8	28.50
SD-14	1500	20	4 5/8	3 7/8	7 1/8	37.20
SD-20	2000	24	6	4½	6 5/8	70.00

NORMAL DUTY MODEL
220/240 — 110/120 volts



Catalog Number	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
SD-24	50	1½	2 3/8	3¾	2¼	$4.90
SD-21	65	1⅔	2 3/8	3¾	2¼	5.15
SD-25	80	1⅔	2 3/8	3¾	2¼	5.40
SD-23	100	1⅔	2 3/8	3¾	2 3/8	5.70
SD-26	125	2	2 1/16	4	2 5/8	6.35
SD-27	150	2¼	2 1/16	4	2 5/8	6.90

HEAVY DUTY VOLTAGE REGULATOR



Type	Input Taps								Sec.
11	84	92	100	108	115	122	130	138	115
12	84	92	100	108	115	122	130	138	230
21	170	185	200	215	230	245	260	275	115
22	170	185	200	215	230	245	260	275	230

Catalog Number	Type	Rating W.	WT. Lbs.	Dimension (") H	W	D	List Price
TC-17	11 or 22	150	6	5 13/32	3 25/32	5	$ 25.20
TC-18	11 or 22	350	7	5 13/32	3 25/32	5 3/8	35.60
TC-11	11 or 22	500	11	5 13/32	3 25/32	5 3/4	41.00
TC-19	11 or 22	750	15	5 13/32	3 25/32	6 3/8	51.30
TC-13	11 or 22	1000	20	5 13/32	3 25/32	7 1/8	62.25
TC-14	11 or 22	1500	25	5 13/32	3 25/32	8 1/8	81.50
TC-20	11 or 22	2000	30	6 21/32	4 3/32	8 3/4	155.00
TC-17	12 or 21	150	6	5 13/32	3 25/32	5 1/4	29.50
TC-18	12 or 21	350	7	5 13/32	3 25/32	5 3/4	41.15
TC-11	12 or 21	500	11	5 13/32	3 25/32	6	47.30
TC-19	12 or 21	750	15	5 13/32	3 25/32	6 3/4	60.50
TC-13	12 or 21	1000	20	6 21/32	4 3/32	7 3/4	75.00
TC-14	12 or 21	1500	25	6 21/32	4 3/32	8 3/4	92.25
TC-20	12 or 21	2000	30	6 21/32	4 3/32	9 3/4	178.00

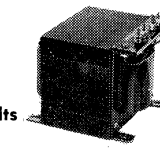
PANEL MOUNTED VOLTAGE REGULATOR

Type	Input Taps								Sec.
11	84	92	100	108	115	122	130	138	115
12	84	92	100	108	115	122	130	138	208/230
22	170	185	200	215	230	245	260	275	115
21	170	185	200	215	230	245	260	275	208/230

Catalog Number	Type	Rating W.	WT. Lbs.	Dimension (") H	W	D	List Price
TA-20	11 or 22	2000	40	6⅞	7½	17⅜	$182.00
TA-28	11 or 22	3000	50	6⅞	7½	17⅜	208.00
TA-29	11 or 22	4000	60	6⅞	7½	17⅜	253.00
TA-22	11 or 22	5000	70	6⅞	7½	17⅜	293.00
TA-30	11 or 22	6000	85	6⅞	7½	17⅜	348.00
TA-20	12 or 21	2000	40	6⅞	7½	17⅜	198.00
TA-28	12 or 21	3000	50	6⅞	7½	17⅜	222.00
TA-29	12 or 21	4000	60	6⅞	7½	17⅜	270.00
TA-22	12 or 21	5000	70	6⅞	7½	17⅜	313.00
TA-30	12 or 21	6000	85	6⅞	7½	17⅜	370.00

Packed One Per Carton

INDUSTRIAL MODEL
208/220/240 — 110/120 volts
Step-up or Step-down



Catalog Number	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
SD-28	3000	38	6⅛	7 1/16	6¼	$171.00
SD-29	4000	47	6⅛	7 1/16	6¼	200.00
SD-22	5000	58	6⅛	7 1/16	6¼	233.00
SD-30	6000	70	6⅛	7 1/16	6¼	283.00

INDUSTRIAL PANEL MODEL
208/220/240 — 110/120 volts
Step-up or Step-down

Catalog Number	Rating Watts	Wt. Lbs.	Dimension Inches H	W	D	List Price
SD-28TA	3000	50	6⅞	7½	17⅜	$198.00
SD-29TA	4000	60	6⅞	7½	17⅜	229.00
SD-22TA	5000	72	6⅛	7½	17⅜	265.00
SD-30TA	6000	85	6⅞	7½	17⅜	316.00

ALL IN STOCK... same day shipment!

MICROPHONE PLUG-IN

INPUT TRANSFORMERS

• 9 pin novel plug • Triple mu-metal shielded • Completely molded case and plug

Model	Type	Pri Z	Sec Z	Oper. Level	Freq. Response	Shield @ 60cy	Size	Net Price
MI-10	Low Z Micro	50	50K	.5mw	±2.5DB 20 - 20KC	55db	1 x 1 23/32	$10.20
MI-20	Low Z Micro	200	50K	.5mw	±2.5DB 20 - 20KC	55db	1 x 1 23/32	9.50
MI-30	Micro	500	50K	.5mw	±2.5DB 20 - 20KC	55db	1 x 1 23/32	12.00
MI-40	Line	500/600	10K	1.0mw	±1.0DB 20 - 15KC	40db	1 x 1 23/32	9.25
MI-50	Bridging	10K	50K	1.0mw	± .5DB 20 - 15KC	40db	1 x 1 23/32	11.85

• Standard 9 pin octal type • Aluminum cased, triple mu-metal shielded

IT-41	Low Z Micro	50	50K	.5mw	±2.5DB 20 - 20KC	55db	1½ x 2⅜	8.15
IT-42	Low Z Micro	200	50K	.5mw	±1.0DB 20 - 20KC	55db	1½ x 2⅜	7.80
IT-43	Micro	500	50K	.5mw	±1.0DB 20 - 20KC	55db	1½ x 2⅜	9.60
IT-45	Line	500/600	10K/12K	1.0mw	± .5DB 20 - 20KC Hum-bucking const	40db	1½ x 3¼	10.95
IT-48	Line	500/600	10K/12K	1.0mw	±1.0DB 20 - 15KC	40db	1½ x 2⅜	7.40
IT-50	Bridging	10K	50K	1.0mw	± .5DB 20 - 15KC	40db	1½ x 2⅜	9.50

LINE ISOLATION TRANSFORMERS

230/115V : 115V

• 45°C Temp rise. • Minimum Regulation. • Fully Encased. • Supplied with standard 2-prong line cord and receptacle. • "U" type grounded receptacle and line cord available.

Cat. No.	Rating Va	H	W	D	Approx. Wt. Lbs.	Net Price
LI-50	50	3 3/16	2¾	3 3/16	2.3	$ 5.25
LI-100	100	4 5/8	3 7/8	3 5/8	5.5	6.25
LI-175	175	4 5/8	3 7/8	3¾	6.7	9.20
LI-250	250	4 5/8	3 7/8	4 7/8	10.7	11.00
LI-500	500	4 5/8	3 7/8	6 1/8	15.7	18.15
LI-1000	1000	6	4½	6 5/8	24.0	45.15
LI-1500	1500	6 1/8	7 1/16	6¼	38.0	87.60
LI-2000	2000	6 1/8	7 1/16	7¼	47.0	102.90

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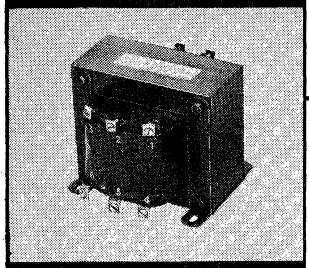
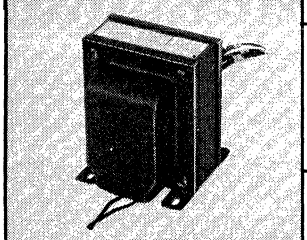
Net

HIGH CURRENT TRANSFORMERS & CHOKES
ELECTRICAL SPECIFICATIONS

SHIP



SAME



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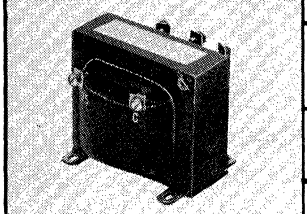
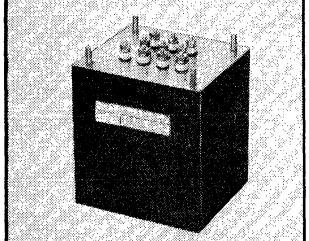
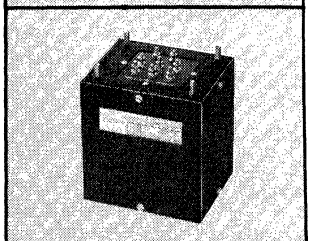






50-500 cy ALL UNITS	PART NO.	PRIMARY VOLTS	SECONDARY AMPS FOR OPTIONAL HOOKUPS SERIES	PARALLEL
24 VOLTS Series 6-12-18-24 Parallel 6-12	24 01	115	1	2
	24 02	115	2	4
	24 04	115	4	8
	24 06	115	6	12
	24 08	115	8	16
	24 12	105. 115, 125	12	24
	24 20	105. 115, 125	20	40
	24 25	105. 115, 125	25	50
	24 50	105. 115, 125	50	100
	24 100	115, 230	100	200
36 VOLTS Series 9-18-27-36 Parallel 9-18	36 01	115	1	2
	36 02	115	2	4
	36 04	115	4	8
	36 06	115	6	12
	36 08	105. 115, 125	8	16
	36 12	105. 115, 125	12	24
	36 20	105. 115, 125	20	40
	36 25	105. 115, 125	25	50
	36 30	105. 115, 125	30	60
	36 50	115, 230	50	100
	36 100	115, 230	100	200
56 VOLTS Series 14-28-42-56 Parallel 14-28	56 01	115	1	2
	56 02	115	2	4
	56 04	115	4	8
	56 06	115	6	12
	56 08	105. 115, 125	8	16
	56 12	105. 115, 125	12	24
	56 25	105. 115, 125	25	50
	56 50	115, 230	50	100
	56 100	115, 230	100	200
80 VOLTS Series 20-40-60-80 Parallel 20-40	80 005	115	0.5	1
	80 01	115	1	2
	80 02	115	2	4
	80 04	115	4	8
	80 06	105. 115, 125	6	12
	80 08	105. 115, 125	8	16
	80 12	105. 115, 125	12	24
	80 25	115, 230	25	50
	80 50	115, 230	50	100
120 VOLTS Series 30-60-90-120 Parallel 30-60	120 005	115	0.5	1
	120 01	115	1	2
	120 02	115	2	4
	120 04	115	4	8
	120 06	105, 115, 125	6	12
	120 08	105, 115, 125	8	16
	120 12	105, 115, 125	12	24
	120 20	105, 115, 125	20	40
180 VOLTS Series 45-90-135-180 Parallel 45-90	180 005	115	0.5	1
	180 01	115	1	2
	180 02	115	2	4
	180 04	115	4	8
	180 06	115	6	12
	180 08	105, 115, 125	8	16
	180 12	105, 115, 125	12	24
230 VOLTS 57.5-115-172.5-230 Series Parallel 57.5-115	230 005	115	0.5	1
	230 01	115	1	2
	230 02	115	2	4
	230 04	105, 115, 125	4	8
	230 06	105, 115, 125	6	12
300 VOLTS Series 75-150-225-300 Parallel 75-150	300 005	115	0.5	1
	300 01	115	1	2
	300 02	115	2	4
	300 04	105, 115, 125	4	8

Transformer Current = DC Current × Factor Below

	Choke Input Filter or Inductive Load	Resistive Load	Capacitor Input Filter or Capacitive Load
FULL WAVE BRIDGE	1.0	1.0	1.8
FULL WAVE C.T.	.7	.7	1.1

This series of high current transformers and chokes are most widely used for high power rectifier and high current A.C. applications. It is one of the industries most popular items. All types are designed for a nominal temperature rise of 45°C at full load and will easily withstand unusual overloads. The regulation is extremely low, varying from 5% on the smallest unit to 1% on the largest. All units have name plates and wiring diagrams for installation ease, future reference and permanent identification.

Five constructional types are available for maximum flexibility for use in either the laboratory or production.

HORIZONTAL BRACKET MOUNT (STYLE B) is an "open" unit, double vacuum varnish impregnated to insure long life and give maximum protection against humidity.

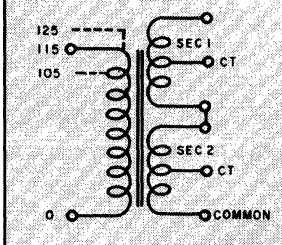
EPOXY UNITS (STYLE BE) are electrically and mechanically identical to style B and are vacuum encapsulated to withstand environmental conditions per MIL-T-27B, Grade 5, Class S.

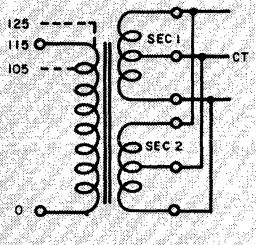
SHELL ENCLOSED (STYLE V) offers excellent mechanical protection to the coil. This is in addition to functional appearance and the ease of "wiring with leads." Double vacuum varnish impregnation further assures adequate moisture protection and long life.

CAN ENCLOSED (STYLE C) units are ruggedly constructed and embedded in a rigid potting compound to insure maximum heat transfer. Professional Todd finish enhances any chassis.

HERMETICALLY SEALED (STYLE CM) units are manufactured to MIL-T-27B, Grade S to withstand the most rigorous environmental conditions.

CONTACT TODD FOR CUSTOM VARIATIONS





CHOKES 50-400 ~ line frequency

PART NO.	INDUCTANCE	CURRENT (D.C.)	RESISTANCE
CH-01	100 MILLIHENRIES	1 AMPS	1.5 OHMS
CH-02	80	2	.9
CH-04	70	4	.6
CH-06	40	6	.4
CH-08	30	8	.3
CH-12	20	12	.1
CH-20	10	20	.05
CH-25	7	25	.025
CH-30	5	30	.01
CH-50	2	50	.01
CH-100	1.0	100	.005
CH-200	.3	200	.003

• ENGINEERING • RELIABILITY • SERVICE
TODD ELECTRIC CO., INC., YONKERS, N. Y.

Net
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All units have name plates and wiring diagrams for installation ease, future reference and permanent identification.

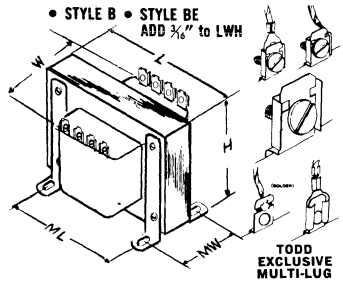
MECHANICAL SPECIFICATIONS
FOR HIGH CURRENT TRANSFORMERS & CHOKES
SPECIFY STYLE DESIRED WHEN ORDERING

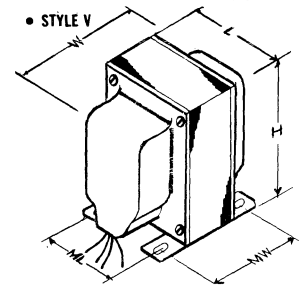
45° TEMPERATURE RISE MINIMUM REGULATION

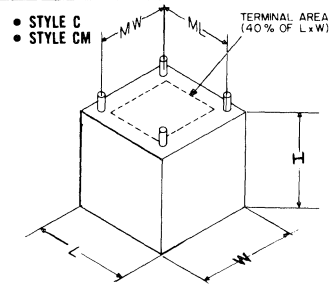
• BRACKET MTD (STYLE) B) • ENCAPSULATED (STYLE BE)						STYLE B	STYLE BE
L	W	H	MW	MH	WT	Price	Price
3	2 3/32	2 1/2	2 1/2	2	2.6	$ 4.54	$ 5.81
3	2 3/4	2 1/2	2 1/2	2	2.8	5.94	7.38
3 3/4	2 3/4	3 1/8	3 1/8	2 1/4	5.0	7.03	9.00
4 1/8	3 1/2	3 7/16	3 7/16	2 3/8	6.5	8.51	10.56
4 1/8	4 1/4	3 7/16	3 7/16	3	8.7	11.79	15.00
4 1/2	4 1/2	3 3/4	3 3/4	3 3/8	11.0	15.08	18.75
5 1/4	5 3/4	4 3/8	4 3/8	3 1/2	15.4	17.70	22.50
5 1/4	5 3/4	4 3/8	4 3/8	4 1/2	22.0	24.28	30.00
6 3/8	6 3/8	6 5/16	5 5/16	4 3/8	32.0	35.15	45.00
7 1/2	7	6 1/4	6 3/4	4 1/8	38.0	51.10	65.00
3	2 1/2	2 1/2	2 1/2	2 1/8	2.5	5.24	6.50
3 3/8	3 1/8	2 13/16	2 13/16	2 1/4	3.6	6.74	8.63
4 1/8	4	3 7/16	3 7/16	2 5/8	6.9	8.52	10.56
4 1/2	3 7/8	3 3/4	3 3/4	2 3/4	9.0	12.41	15.94
4 1/2	4 1/2	3 3/4	3 3/4	3 1/2	12.0	14.63	18.13
5 1/4	5 3/4	4 3/8	4 3/8	3 1/2	17.2	15.97	20.31
6 3/8	5 3/4	5 5/16	5 5/16	3 5/16	25.5	27.80	34.50
6 3/8	6 1/4	5 5/16	5 5/16	4 1/4	32.2	29.20	37.19
6 3/8	6 3/8	5 5/16	5 5/16	4 1/2	36.0	36.15	45.00
6 3/8	6 11/16	5 5/16	5 5/16	4 5/16	41.0	41.80	53.75
7 1/2	8 1/4	6 1/4	5 1/2	6	70.0	85.45	106.25
3 3/8	2 25/32	2 13/16	2 13/16	2 1/8	3.6	7.05	9.06
3 3/4	3 1/2	3 1/8	3 1/8	2 1/2	5.6	8.89	11.00
4 1/8	4 5/16	3 7/16	3 11/16	3	8.4	12.27	15.63
5 1/4	4 1/2	4 3/8	4 3/8	2 1/4	10.7	18.41	22.50
5 1/4	5 1/4	4 3/8	4 3/8	3 3/4	17.3	21.60	27.50
6 3/8	5 1/2	5 5/16	5 5/16	3 3/4	24.5	27.12	33.75
6 3/8	7 7/32	5 5/16	5 5/16	5 1/4	39.7	43.60	46.25
7 1/2	7 1/4	6 1/4	5 1/2	5	54.0	86.60	106.25
7 1/2	10	6 1/4	5 1/2	8 1/8	100.0	154.76	169.50
3	2 1/2	2 1/2	2 1/2	2 1/4	2.6	4.74	6.00
3 3/8	3 1/4	2 13/16	2 13/16	2 1/2	4.4	7.05	8.75
4 1/8	4	3 7/16	3 7/16	2 3/4	7.8	10.20	13.13
5 1/4	4 1/4	4 3/8	4 1/4	3	13.00	18.08	22.50
5 1/4	5 7/8	4 3/8	4 1/4	4	18.3	22.54	28.75
6 3/8	5 3/8	5 5/16	5 5/16	3 1/2	22.0	26.44	32.50
6 3/8	6 1/8	5 5/16	5 5/16	4 3/8	29.0	33.50	42.50
7 1/2	6 3/4	6 1/4	5 1/2	4 1/2	40.0	104.80	131.50
7 1/2	9	6 1/4	5 1/2	7 1/8	60.0	125.40	173.00
3 3/8	2 3/4	2 13/16	2 13/16	2 1/4	3.6	6.75	8.66
3 3/4	3 1/2	3 1/8	3 1/8	2 13/16	6.0	9.05	11.13
4 1/2	4	3 3/4	3 3/4	2 3/4	9.0	12.34	13.33
5 1/4	6 11/32	4 3/8	4 1/4	4	18.5	22.60	28.87
6 3/8	6	5 5/16	5 5/16	4 1/8	32.0	27.90	34.65
6 3/8	7 1/16	5 5/16	5 5/16	5 1/4	40.0	33.55	42.70
6 3/8	7 1/4	5 5/16	5 5/16	5 3/8	42.0	44.10	47.60
7 1/16	10 1/2	5	6 1/8	5 1/8	60.0	51.30	65.25
3 3/4	2 3/4	3 1/8	3	2	5.4	6.97	8.83
4 1/8	4 3/4	3 1/16	3 7/16	2 3/8	6.6	11.73	14.95
5 1/4	5 1/2	4 3/8	4 3/8	3 3/4	17.3	18.90	24.10
6 3/8	6	5 5/16	5 5/16	4 1/8	32.0	27.85	34.60
6 3/8	7 7/32	5 5/16	5 5/16	5 5/32	34.0	36.22	45.10
6 3/8	7 1/2	5 5/16	5 5/16	5 13/32	41.0	43.90	46.50
7 1/2	8 1/4	6 1/4	5 1/2	6	65.0	49 80	63.25
3 3/4	3 3/16	3 3/16	3 1/8	2 1/2	5.0	8.47	10.40
4 1/8	4 1/4	3 7/16	3 7/16	3	6.5	12.33	15.75
5 1/4	5 5/8	4 3/8	4 3/8	3 7/8	17.3	21.90	27 85
5 1/4	6	3 3/8	4 3/4	4	19.0	37.95	70.20
6 3/8	7 1/2	5 5/16	5 5/16	5 13/32	41.0	42.90	45.50
4 1/2	4 1/4	3 3/4	3 3/4	2 3/4	7.0	8.65	10.75
5 1/4	4 1/4	4 3/8	4 3/4	3	15.0	16 65	21.20
5 1/4	6	4 5/8	4 1/2	4 1/2	21.0	24.87	30.75
6 3/8	6 3/8	5 5/8	5 5/16	4 3/8	36.0	35.33	45.25

• FULLY MTD. SHELLS STYLE V						STYLE V
L	W	H	ML	MW	WT	Price
2 19/32	2 11/16	3 1/8	2	1 11/16	2.6	$ 4.88
2 19/32	2 11/16	3 1/8	2	1 11/16	2.8	6.20
3 7/32	3 7/16	3 27/32	2 1/2	2 3/16	5.0	7.56
3 17/32	3 13/16	4 7/32	2 3/4	2 11/16	6.5	8.87
3 17/32	4 7/16	4 7/32	2 3/4	3 5/16	8.7	12.60
3 27/32	4 13/16	4 9/16	3	3 11/16	11.0	15.75
4 1/2	5 1/16	5 5/16	3 1/2	3 7/8	15.4	18.90
4 1/2	6 7/16	5 5/16	3 1/2	4 7/8	22.0	25.20
2 19/32	2 13/16	3 1/8	2	1 13/16	2.5	5.46
2 29/32	3 5/16	3 15/32	2 1/4	2 1/8	3.6	7.25
3 17/32	4 1/16	4 7/32	2 3/4	2 13/16	6.9	8.87
3 27/32	4 3/16	4 9/16	3	3 1/16	9.0	13.39
3 27/32	4 15/16	4 9/16	3	3 13/16	12.0	15.23
4 1/2	5 7/16	5 5/16	3 1/2	3 3/4	17.2	17.06
2 29/32	3 3/16	3 15/32	2 1/4	2	3.6	7.61
3 7/32	3 11/16	3 27/32	2 1/2	2 7/16	5.6	9.24
3 17/32	4 7/16	4 7/32	2 3/4	3 5/16	8.4	13.13
4 1/2	5 3/16	5 5/16	3 1/2	3 5/8	10.7	18.90
4 1/2	5 11/16	5 5/16	3 1/2	4 1/8	17.3	23.10
2 19/32	2 13/16	3 1/8	2	1 13/16	2.6	5.04
2 29/32	3 5/16	3 5/32	2 1/4	2 5/16	4.4	7.35
3 17/32	4 3/16	4 7/32	2 3/4	3 1/16	7.8	11.03
4 1/2	4 15/16	5 5/16	3 1/2	3 3/8	13.0	18.90
4 1/2	5 13/16	5 5/16	3 1/2	4 3/8	18.3	24.15
2 29/32	2 15/16	3 15/32	2 1/4	1 15/16	3.6	7.43
3 7/32	3	3 27/32	2 1/2	2 3/4	6.0	9.87
3 27/32	4 3/16	4 9/16	3	3 1/16	9.0	13.45
4 1/2	5 13/16	5 5/16	3 1/2	4 3/8	18.5	24.40
3 7/32	3	3 27/32	2 1/2	2 3/4	5.4	7.68
3 17/32	4 5/16	4 7/32	2 3/4	3 3/16	6.6	12.87
4 1/2	5 3/16	5 5/16	3 1/2	3 5/8	17.3	19.95
3 7/32	3 3/16	3 27/32	2 1/2	2 3/4	5.0	9.24
3 17/32	3 13/16	4 7/32	2 3/4	2 11/16	6.5	13.45
4 1/2	5 11/16	5 5/16	3 1/2	4 1/8	17.3	23.65
4 1/2	5 13/16	5 5/16	3 1/2	4 1/4	19.0	33.85
3 27/32	3 15/16	4 9/16	3	2 13/16	7.0	9.44
4 1/2	4 15/16	5 5/16	3 1/2	2 5/8	15.0	17.95
4 1/2	6 7/16	5 5/16	3 1/2	4 7/8	21.0	26.40

• ENCASED COMMERCIAL (STYLE C) • HERMETIC SEALED MIL-T (STYLE CM)						STYLE C	STYLE CM
L	W	H	MW	MH	WT	Price	Price
3	3 1/2	4 13/16	2 1/8	2 5/8	3.1	$ 9.77	$13.49
3	3 1/2	4 13/16	2 1/8	2 5/8	4.0	12.39	17.11
3 5/8	4 1/4	5 1/2	2 11/16	3 5/16	5.5	15.12	20.88
3 15/16	4 5/8	5 15/16	3	3 11/16	6.6	17.75	24.51
3 15/16	4 7/8	5 15/16	3	3 11/16	8.8	25.20	34.80
4 1/4	5	6 3/4	3 5/16	4 1/16	14.7	31.50	43.50
5 3/4	4 7/8	6 1/4	3 1/2	4 3/8	17.6	37.80	52.20
5 3/4	4 7/8	6 1/4	3 1/2	4 3/8	21.0	50.40	69.60
6 7/8	5 13/16	8 3/8	4 1/4	5 3/16	37.0	75.60	109.40
6 3/4	8	10 1/2	5 1/2	6 3/4	60.0	109.20	150.80
3	3 1/2	4 13/16	2 1/8	2 5/8	3.4	10.92	15.08
3 5/16	3 7/8	5 3/16	2 7/16	3	4.8	14.49	20.01
3 15/16	4 5/8	5 15/16	3	3 11/16	7.8	17.75	24.51
4 1/4	5	6 3/4	3 5/16	4 1/16	10.7	26.78	36.98
4 1/4	5	6 3/4	3 5/16	4 1/16	13.1	30.45	42.05
4 7/8	5 3/4	6 1/4	3 1/2	4 3/8	16.9	34.13	47.13
5 13/16	6 7/8	8 3/8	4 1/4	5 5/16	27.0	57.96	80.04
5 13/16	6 7/8	8 3/8	4 1/4	5 5/16	29.5	62.48	86.28
5 13/16	6 7/8	8 3/8	4 1/4	5 5/16	39.5	75.60	104.40
5 13/16	6 7/8	8 3/8	4 1/4	5 5/16	43.7	90.30	124.70
6 3/4	8	10 1/2	5 1/2	6 3/4	58.0	178.50	246.50
3 5/16	3 7/8	5 3/16	2 7/16	3	4.8	15.23	21.03
3 5/8	4 1/4	5 1/2	2 11/16	3 5/16	6.3	18.48	25.52
3 15/16	4 5/8	5 15/16	3	3 11/16	10.1	26.25	36.25
5 3/4	4 7/8	6 1/4	3 1/2	4 3/8	15.6	37.80	52.20
5 3/4	4 7/8	6 1/4	3 1/2	4 3/8	18.6	46.20	63.80
5 13/16	6 7/8	8 3/8	4 1/4	5 5/16	26.3	56.70	78.30
5 13/16	6 7/8	8 3/8	4 1/4	5 5/16	43.0	94.50	130.50
6 3/4	8	10 1/2	5 1/2	6 3/4	65.0	178.50	246.50
3	3 1/2	4 13/16	2 1/8	2 5/8	4.0	10.08	13.92
3 5/16	3 7/8	5 3/16	2 7/16	3	5.6	14.70	20.30
3 15/16	4 5/8	5 15/16	3	3 11/16	8.7	22.05	30.45
3 5/8	4 1/4	5 1/2	2 11/16	3 5/16	14.4	37.80	52.20
3 5/8	4 1/4	5 1/2	2 11/16	3 5/16	20.0	48.30	66.70
5 13/16	6 7/8	8 3/8	4 1/4	5 5/16	24.0	54.60	75.40
5 13/16	6 7/8	8 3/8	4 1/4	5 5/16	32.0	71.40	98.60
6 3/4	8	10 1/2	5 1/2	6 3/4	46.0	114.50	124.65
3 5/16	3 7/8	5 3/16	2 7/16	3	4.2	14.74	30.45
3 5/8	4 1/4	5 1/2	2 11/16	3 5/16	7.0	18.85	25.10
4 1/4	5	6 3/4	3 5/16	4 1/16	10.5	25.50	35.24
5 3/4	4 7/8	6 1/4	3 1/2	4 3/8	20.0	48.55	67.20
5 13/16	6 7/8	8 3/8	4 1/4	5 5/16	36.0	58.25	80.60
5 13/16	6 7/8	8 3/8	4 1/4	5 5/16	44.0	71.80	99.10
5 13/16	6 7/8	8 3/8	4 1/4	5 5/16	48.0	95.70	133.00
6 11/32	7 5/16	10 1/2	4 25/32	5 13/16	69.0	110.00	151.50
3 5/8	4 1/4	5 1/2	2 11/16	3 5/16	6.2	15.07	20.75
3 15/16	4 5/8	5 15/16	3	3 11/16	7.6	25.10	34.60
5 1/4	6 11/32	4 3/8	4 1/4	4	20.3	38.80	53.90
5 13/16	6 7/8	8 3/8	4 1/4	5 5/16	34.0	58.10	80.40
5 13/16	6 7/8	8 3/8	4 1/4	5 5/16	39.0	76.00	105.00
5 13/16	6 7/8	8 3/8	4 1/4	5 5/16	46.0	98.50	136.50
6 3/4	8	10 1/2	5 1/2	6 3/4	70.0	106.50	146.50
3 5/8	4 1/4	5 1/2	2 11/16	3 5/16	6.0	17.65	23.50
3 15/16	9 5/8	5 15/16	3	3 11/16	8.0	24.45	34.00
5 3/4	4 7/8	6 1/4	3 1/2	4 3/8	21.0	47.90	66.10
5 3/4	4 7/8	6 1/4	3 1/2	4 3/8	21.0	70.20	97.30
6 7/8	5 13/16	8 3/8	4 1/4	5 5/16	47.0	93.00	128.50
4 1/4	5	6 3/4	3 5/16	4 1/16	8.0	18.00	24.85
5 3/4	4 7/8	6 1/4	3 1/2	4 3/8	17.0	35 60	48.90
5 3/4	4 7/8	6 1/4	3 1/2	4 3/8	23.0	51.60	71.50
6 7/8	5 13/16	8 5/8	4 1/4	5 5/16	42.0	76.00	110.00







• BRACKET MTD (STYLE) B) • ENCAPSULATED (STYLE BE)						STYLE B	STYLE BE
L	W	H	MW	MH	WT	Price	Price
3	2 1/2	2 3/4	2 1/2	2	2.6	4.65	6.00
3	2 1/2	2 3/4	2 1/2	2	2.6	5.91	7.25
3 3/4	4 1/4	3 1/8	3 1/8	2 3/4	6.0	7.58	9.75
3 3/4	4 1/4	3 1/8	3 1/8	2 3/4	6.0	9.30	11.50
4 1/8	4	3 7/16	3 7/16	3	8.7	11.35	14.63
5 1/4	4 1/4	4 5/8	4 3/8	3 1/8	13.0	14.48	18.38
5 1/4	4 1/4	4 5/8	4 3/8	3 1/8	13.0	14.98	18.63
5 1/4	5	4 5/8	4 3/8	3 7/8	18.0	21.40	27.50
6 3/8	5	4 5/8	4 3/8	3 1/4	21.5	26.90	33.75
6 3/8	5 1/2	5 5/8	5 5/16	3 3/4	24.0	30.30	37.50
6 3/8	6 1/2	5 5/8	5 5/16	4 1/8	32.0	33.35	42.50
7 1/2	7	6 1/4	6 3/4	4 1/8	45.0	49.60	63.20

• FULLY MTD. SHELLS STYLE V						STYLE V
L	W	H	ML	MW	WT	Price
2 19/32	2 11/16	3 1/8	2	1 11/16	2.6	5.04
2 11/32	2 11/16	3 1/8	2	1 11/16	3.2	6.09
3 7/32	3 15/16	3 27/32	2 1/2	2 11/16	6.0	8.19
3 7/32	3 15/16	3 27/32	2 1/2	2 11/16	6.0	9.66
3 17/32	4 7/16	4 7/32	2 3/4	3 5/16	8.7	12.29
4 1/2	5 3/16	5 5/16	3 1/2	3 5/8	13.0	15.44
4 1/2	5 3/16	5 5/16	3 1/2	3 5/8	13.0	15.65
4 1/2	6 1/16	5 5/16	3 1/2	4 1/2	18.0	23.10

• ENCASED COMMERCIAL (STYLE C) • HERMETIC SEALED MIL-T (STYLE CM)						STYLE C	STYLE CM
L	W	H	MW	MH	WT	Price	Price
3	3 1/2	4 13/16	2 1/8	2 5/8	3.0	10.08	13.92
3	3 1/2	4 13/16	2 1/8	2 5/8	3.8	12.18	16.82
3 5/8	4 1/4	5 1/2	2 11/16	3 5/16	7.0	16.38	22.62
3 5/8	4 1/4	5 1/2	2 11/16	3 5/16	7.0	19.32	26.68
3 15/16	4 5/8	5 15/16	3	3 11/16	10.0	24.57	33.93
4 7/8	5 3/4	6 1/4	3 1/2	4 3/8	16.0	30.87	42.63
4 7/8	5 3/4	6 1/4	3 1/2	4 3/8	16.0	31.29	43.21
4 7/8	5 3/4	6 1/4	3 1/2	4 3/8	21.0	46.20	63.80
5 13/16	6 7/8	8 3/8	4 1/4	5 5/16	25.0	56.70	78.30
5 13/16	6 7/8	8 3/8	4 1/4	5 5/16	30.0	63.00	87.00
5 13/16	6 7/8	8 3/8	4 1/4	5 5/16	37.0	71.40	98.60

• ENGINEERING • RELIABILITY • SERVICE

TODD ELECTRIC CO., INC., YONKERS, N. Y.

Transistor

Output-Transistor To Voice Coil

LISTED IN ORDER OF THE PRIMARY IMPEDANCE

Part No.	Impedance Primary	Impedance Secondary	Primary MADC	Resistance Primary	Resistance Secondary	Power In Watts	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D
TR 199	6CT	4/8/16	5A	.17	.24	40	GGV	2 1/2 x 2 1/4	3 7/8	3 9/32	3 1/8
TR 161	9	3.5	750	1.1	.7	5	BAH	2	1 3/8	2 7/16	1 3/8
TR 160	9 §	3.5	750	1.9	1.2	8	BCH-1	1 5/8 x 11/16	1 5/8	2	1 1/4
TR 162	9	3.5	750	1.3	.48	8	BAH	2 3/8	1 5/8	2 7/8	1 3/8
TR 163	9 §	3.5	920	1.5	1.0	10	BCH-1	1 15/16 x 13/16	2	2 5/16	1 1/2
TR 164	12 §	3.5/8	750	1.6	.9	5	BAH	2	1 3/8	2 3/8	1 1/8
TR 165	18 §	6-8	425	2.8	1.0	8	BAH	2 3/8	1 5/8	2 7/8	1 1/4
	Feedback-168:1 Pri. to Tap										
TR 300	20CT	8	500	.55	.35	10	BAH	2	1 3/8	2 7/16	1 1/2
TR 166	22 §	3.5	400	2.23	.8	5	† BCV-2	1 3/16	1 3/4	1 3/8	1 1/4
TR 167	22	3.5	400	2	.6	5	BAH	2	1 3/8	2 3/8	1 3/8
TR 168	22 §	3.5	425	2.5	.6	5	BAH	2	1 3/8	2 3/8	1 3/8
TR 169	22 §	8-10	375	3.5	1.8	5	BAH	2	1 3/8	2 3/8	1 1/8
TR 191	24CT	4/8	500	2.6	2.2	8	BAH	2 13/16	1 15/16	3 5/16	1 15/16
25581	24CT	16CT*	200	2	1.2	10	TAV	3 7/8 x 2-3/4	4 1/4	3 3/8	3 9/16
TR 304	25	4	400	1.5	.4	4	BAH	2 3/8	1 5/8	2 13/16	1 1/2
TR 170	30 §	3.5	400	1.8	.7	5	BAH	2	1 3/8	2 3/8	1 5/16
TR 171	30CT	3.5 Tapped	350	2	.3	8	BAV	2	2		1 1/2
	Feedback-3.16:1 Pri. to Tap										
TR 57	32CT	1.6/4	575			10	BAH	2 13/16	2	3 5/16	1 7/8
TR 58	32CT	3.5/8/16	575			10	BAH	2 13/16	2	3 5/16	1 7/8
TR 172	40 §	3.5	300	2.5	.7	5	BAH	2	1 3/8	2 3/8	1 1/4
TR 173	45CT	3.5	350	1.3	.4	8	BAH	2 3/8	1 5/8	2 7/8	1 1/4
TR 8	48CT	4/8		4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16
TR 318	48CT	4/8		4	1.2	.3	PCT-3	See Dwg.	13/16	1	7/8
TR 110	48CT	4/8/16		4.1	.78	.3	BAH	1 3/8	3/4	1 5/8	13/16
TR 348	48CT	8	550	2.4	1	5	BAH	2	1 3/8	2 3/8	1 1/4
TR 61	48CT	3.2/8/16	550			5	BHV	1 3/4	1 3/4	2	1 1/4
25514	48CT	4/8/16CT*	750			5	UTV	1 5/32 x 1-5/32	2	1 1/2	1 1/2
TR 196	48CT	8/16	275	4.5	1.4	8	BAH	2 13/16	1 15/16	3 5/8	1 3/8
TR 59	48CT	1.6/4	550			10	BAV	2 3/8	2 5/16	2 7/8	2
TR 60	48CT	3.2/8/16	550			10	BHV	2 3/8	2 5/16	2 7/8	2
TR 111	100CT	4/8/16		11	1.5	.3	BAH	1 3/8	3/4	1 5/8	13/16
TR 193	100CT	4/8	100	14.4	1.1	2	BAH	1 3/4	1 3/16	2 1/16	1 1/4
TR 62	100	3.2/8/16	150			3	BAV	1 1/2	1 1/2	1 7/8	1 1/4
TR 63	100CT	3.2/8/16	500			10	BAV	2 3/8	2 5/16	2 7/8	2
TR 43	125CT	10		11	1	.05	MAH		7/16	1/2	7/16
TR 67	125CT	8	50#			1.5	XAV	1 1/4	1 3/4	1 1/4	1 1/4
TR 21	160CT	4/8		12	1	.3	BAH	1-3/8	3/4	1 5/8	13/16
TR 331	160CT	4/8		12	1	.3	PCT-3	See Dwg.	13/16	1	7/8
TR 112	160	4/8/16		19	1.5	.3	BAH	1 3/8	3/4	1 5/8	13/16
TR 50	200CT	3.2		18	.36	.05	MAH		7/16	1/2	7/16
TR 46	200CT	10		18		.05	MAH		7/16	1/2	7/16
TR 192	200CT	4/8	50	27	1.4	2	BAH	1 3/4	1 3/16	2 1/16	1 1/4
TR 265	250CT	4/8/16	10	34	3.7	.2	BAH	1-3/8	13/16	1 5/8	1
TR 51	300CT	3.2		27	.36	.05	MAH		7/16	1/2	7/16
TR 47	300CT	10		27	1	.05	MAH		7/16	1/2	7/16
TR 15	300CT	15		21	2.5	.15	BCH	13/16	11/16	13/16	5/8
TR 325	300CT	15		21	2.5	.15	PCT	See Dwg.	11/16	3/4	9/16
TR 101	350CT	4/12		38	1.45	.15	BCH	13/16	11/16	13/16	5/8
TR 174	360CT	10	100	56	1.3	.3	BCH	1 1/16	5/8	1 9/32	3/4
TR 450	400	10	50			.2	BAH	1 3/8	3/4	1 5/8	13/16
TR 364	400	11	3	35	1.5	.015	MAH		3/8	3/8	3/8
TR 365	400CT	11	6	35	1.5	.015	MAH		3/8	3/8	3/8
TR 19	400CT	11		27	1.3	.15	BCH	13/16	11/16	13/16	5/8
TR 329	400CT	11		27	1.3	.15	PCT	See Dwg.	11/16	3/4	9/16
TR 16	400CT	16		28	2	.15	BCH	13/16	11/16	13/16	5/8
TR 326	400CT	16		28	2	.15	PCT	See Dwg.	11/16	3/4	9/16
TR 22	400CT	4/8		26	1.1	.3	BAH	1 3/8	3/4	1 5/8	13/16
TR 332	400CT	4/8		26	1.1	.3	PCT-3	See Dwg.	13/16	1	7/8
TR 113	400CT	4/8/16		32	1.5	.3	BAH	1 3/8	3/4	1 5/8	13/16
TR 389	500	3.4	3.5	50	.5	.015	BCH	17/32	15/32	17/32	7/16
TR 53	500CT	3.2		40	.36	.05	MAH		7/16	1/2	7/16
TR 49	500CT	10		40	1	.05	MAH		7/16	1/2	7/16
TR 27	500CT	3.2		30	.3	.15	BCH	13/16	11/16	13/16	5/8
TR 337	500CT	3.2		30	.3	.150	PCT	See Dwg.	11/16	3/4	9/16
TR 102	500CT	4/8/16		75	3.5	.15	BCH	13/16	11/16	13/16	5/8
TR 18	500CT	16.4		30	1.7	.15	BCH	13/16	11/16	13/16	5/8
TR 328	500CT	16.4		30	1.7	.15	PCT	See Dwg.	11/16	3/4	9/16
TR 220	500CT	3.2	0#	15	.35	.25	MAH		19/32	7/8	43/64
TR 114	500CT	4/8/16		47	.85	.3	BAH	1 3/8	3/4	1 5/8	13/16
25511	500CT	16CT*	20	36		1	UTV	1 5/32 x 1 5/32	2	1 1/2	1 1/2
TR 103	600CT	4/8/16		73	3.2	.15	BCH	13/16	11/16	13/16	5/8
TR 20	650CT	16.8		38	1.4	.15	BCH	13/16	11/16	13/16	5/8
TR 330	650CT	16.8		38	1.4	.150	PCT	See Dwg.	11/16	3/4	9/16
TR 115	700CT	4/8/16		77	1.15	.300	BAH	1 3/8	3/4	1 5/8	13/16
TR 29	825CT	3.4		40	.25	.15	BCH	13/16	11/16	13/16	5/8
TR 339	825CT	3.4		40	.25	.15	PCT	See Dwg.	11/16	3/4	9/16
TR 104	825CT	4/8/16		74	2.7	.15	BCH	13/16	11/16	13/16	5/8
TR 116	1,000	4/8/16		120	1.6	.3	BAH	1 3/8	3/4	1 5/8	13/16
TR 209	1,200 to 1,500	3.2 to 4	3#	70	.45	.1	MAH		7/16	3/4	5/8
TR 390	1,250	3.4	2	135	.5	.015	BCH	17/32	15/32	17/32	7/16
TR 105	1,250	4/12		132	1.4	.15	BCH	13/16	11/16	13/16	5/8
TR 408	2,000	3.4	5			.6	BAH	1	15/32	1 3/16	19/32
TR 431	2,000	3.4	5			1	BAH	1 5/32	5/8	1 13/32	3/4
TR 448	2,000	3.4	10			1.5	BAH	1 3/8	3/4	1 5/8	13/16
TR 258	2,000CT	4/8/16	10	260	4	.2	BAH	1 3/8	3/4	1 5/8	13/16
TR 221	2,000 to 4,000CT	8 to 16	4#	290	2	.25	MAH		19/32	7/8	43/64
TR 107	2,500	4/16		370	2.3	.15	BCH	13/16	11/16	13/16	5/8
TR 117	2,500	4/8/16		172	1.15	.3	BAH	1 3/8	3/4	1 5/8	13/16
TR 118	3,000	4/8/16		192	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16
TR 409	4,000CT	3.4	5			.6	BAH	1	15/32	1 3/16	19/32
TR 432	4,000CT	3.4	5			1.	BAH	1 5/32	5/8	1 13/32	3/4
TR 449	4,000CT	3.4	3			1.5	BAH	1 3/8	3/4	1 5/8	13/16
TR 252	4,000CT	4/8/16		333	1.8	.2	BAH	1 3/8	13/16	1 5/8	1
TR 211	7,500 to 9,400CT	3.2 to 4	4#	770	.73	.1	MAH		7/16	3/4	5/8
TR 239	9,800	15	2#	855	1.73	1MW	BAH	1 1/16	5/8	1 9/32	11/16
TR 299	9,800	15	2#	640	2	.5	BAH	2	1 3/8	2 7/16	1 3/8
TR 32	9,800	15		1,070	2.5	.15	BCH	13/16	11/16	13/16	5/8
TR 342	9,800	15		1,070	2.5	.15	PCT	See Dwg.	11/16	3/4	9/16
TR 268	10,000	4	2	709	1.5	.1	BAH	1 1/16	5/8	1 9/32	11/16
TR 203	10,000	3.2	2	800	.65	.1	MAH		7/16	3/4	5/8
TR 202	10,000	16	2	800	2.7	.1	MAH		7/16	3/4	5/8
TR 109	10,000CT	4/8/16		1,174	2.6	.150	BCH	13/16	11/16	13/16	5/8
TR 255	20,000	4/8	.5#	1,440	1	.1	BAH	1 1/16	5/8	1 9/32	11/16
TR 402	50,000	6	1			.01	BAH	1	15/32	1 3/16	19/32
TR 426	50,000	6	1			.01	BAH	1 5/32	5/8	1 13/32	3/4
TR 441	50,000	6	3			.01	BAH	1 3/8	3/4	1 5/8	13/16

Chokes-Transistor Auto Radio

Part No.	Inductance Rating Millihenrys	Inductance Rating Amps DC	Resistance in Ohms	Test Volts RMS	Mtg Type	Mtg Centers	Dimensions H	Dimensions W	Dimensions D
TR 152	12	.6	.58	500	BAH	1-3/4	1 1/4	2 1/8	1-1/16
TR 153	3	1.0	.25	1,000	BCH-1	1-1/4 x 7/16	1 1/4	1 1/2	1
TR 154	11	1.0	.75	1,000	BCH-1	1-1/4 x 7/16	1 1/4	1 1/2	1
TR 155	8	1.9	.5	500	BAH	1-3/4	1 1/4	2 1/8	1 1/8
TR 156	5	2.0	.33	500	BAH	1-3/4	1 1/4	2 1/8	7/8
TR 157	5	2.0	.35	500	BAH	1-3/8	3/4	1 5/8	3/4
TR 158	5	2.0	.33	500	BAV	1-1/2	1 3/8	1 1/4	1 1/8
TR 159	3	3.0	.22	500	BAH	1-3/8	3/4	1 5/8	3/4

§ Autoformer

* Split CT Winding

\# Maximum Unbalanced Primary Current

† BCV-2 — Exact Replacement for Ford (Bendix) 2090260-1

Audio Transistor-Open Frame

INCLUDES: (A) INPUT, (J) INTERSTAGE, (D) DRIVER AND (S) OUTPUT TO LINE.

Part No.	Appli-cation	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Resistance Primary	Resistance Secondary	Power Milli-Watts	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D
TR 303	D	30	120*		1.8	3.6	4W	BAV	2	2	2 3/8	1 1/2
TR 226	A	30/12/4	1,000		5	480	1	MAH		7/16	1/2	7/16
TR 383	A	50	600	1.5	7	90	15	BCH	17/32	15/32	17/32	7/16
TR 305	A	50/100	10	50†			5	BAH	1 3/8	3/4	1 5/8	15/16
TR 225	J	80CT	32*	16	4.9	3.2	250	MAH		19/32	7/8	43/64
		100CT	40*									
TR 12	J	100CT	10CT	10	13	1.5	150	BCH	13/16	11/16	13/16	5/8
TR 322	J	100CT	10CT	10	13	1.5	150	PCT	See Dwg.	11/16	3/4	9/16
TR 349	J	100CT	10CT	100†	10	3	300	BAH	1 3/8	3/4	1 5/8	13/16
TR 296	J	100CT	10CT	100†	4.3	.8	250	BAH	1 3/4	1 1/4	2 1/8	1 1/16
TR 439	J	100	40*	100†			500	BAH	1 3/8	3/4	1 5/8	13/16
TR 64	D	100	100CT	200	6.5	8.5	500	BAH	1 3/4	1 1/4	2 1/8	1
TR 195	D	100	100CT	100†	9.1	10	4W	BAH	2 3/8	1 5/8	2 13/16	1 1/2
TR 65	D	100	200CT	200	6.5	16.5	500	BAH	1 3/4	1 1/4	2 1/8	1
TR 257	J	100	1,000CT	100†	5.5	60	1W	BAH	2	1 3/8	2 3/8	1 1/2
TR 366	A	100	78,000		20	1,700	10	MAH		15/32	25/32	19/32
TR 301	D	200CT	400CT	10†			600	TAV	2 3/8 x 1/2	3	2 11/16	2 5/16
TR 194	D	200CT	400CT	10	26.5	58.6	6W	BAH	2 13/16	1 15/16	3 5/16	1 3/4
TR 246	J	200CT	2,000CT	2	29	233	200	BAH	1 3/8	3/4	1 5/8	
TR 461	S,J	250CT	500	10			1	BAH	1 3/8	3/4	1 5/8	13/16
TR 456	S,J	250CT	1,000	10			1	BAH	1 3/8	3/4	1 5/8	13/16
TR 15	J	300CT	15	2	21	2.5	150	BCH	13/16	11/16	13/16	5/8
TR 325	J	300CT	15	2	21	2.5	150	PCT	See Dwg.	11/16	3/4	9/16
TR 224	J	400CT	40*	8	20	4.5	250	MAH		19/32	7/8	43/64
		500CT	50*									
TR 223	J	400CT	120*	8	20	12.6	250	MAH		19/32	7/8	43/64
		500CT	150*									
TR 222	J	400CT	400*	8	20	45	250	MAH		19/32	7/8	43/64
		500CT	500*									
TR 247	J	400CT	2,000CT	5	41	128	200	BAH	1 3/8	3/4	1 5/8	1
TR 5	D	490CT	150CT	0	30	16	150	BCH	13/16	11/16	13/16	5/8
TR 315	D	490CT	150CT	0	32	14	150	PCT	See Dwg.	11/16	3/4	9/16
TR 41	D,S	500	50	2	35	4.6	50	MAH		7/16	1/2	7/16
TR 11	D,S	500CT	50	3	30	5	150	BCH	13/16	11/16	13/16	5/8
TR 321	D,S	500CT	50	3	30	5	150	PCT	See Dwg.	11/16	3/4	9/16
TR 204	D,S	500	50	3.5	50	5	100	MAH		7/16	3/4	5/8
		600	60									
TR 248	J	500CT	150CT	2	57	32	100	BAH	1 1/16	5/8	1 9/32	11/16
TR 232	J	500CT	200CT	2	38	25	10	BCH	9/16	1/2	9/16	1/2
TR 66	D	500CT	200CT	50	37	17	500	BAH	1 3/4	1 1/4	2 1/8	1
TR 451	S	500CT	210	30			500	BAH	1 5/8	3/4	1 5/8	13/16
TR 398	D	500CT	250CT	7.5	40	13	15	BCH	17/32	15/32	17/32	7/16
TR 233	S	500CT	500CT	2	37	51	10	BCH	9/16	1/2	9/16	1/2
TR 240	S	500CT	500*	5	50	55	20	BAH	1	5/8	1 7/32	3/4
TR 37	S	500CT	500CT	3	34	42	50	MAH		7/16	1/2	7/16
TR 1	D,S	500CT	500CT	4	40	55	300	BAH	1 3/8	3/4	1 5/8	13/16
TR 311	D,S	500CT	500CT	4	40	55	300	PCT-3	See Dwg.	13/16	1	7/8
TR 212	S	500CT	600CT	10	26	70	100	MAH		7/16	3/4	5/8
TR 259	J	500CT	5,000CT	12†	40	245	1W	BAH	2	1 3/8	2 3/8	1 3/8
TR 295	J	600CT	10	20†	40	.8	50	BAH	1 3/8	13/16	1 9/16	15/16
TR 438	D,J	600	600	10			200	BAH	1 3/8	3/4	1 5/8	13/16
TR 423	D,J	600	600	9			200	BAH	1 5/32	5/8	1 13/32	3/4
TR 399	D,J	600	600	8			150	BAH	1	15/32	1 3/16	19/32
TR 376	J	600CT	600CT	7	45	60	5	MAH		3/8	3/8	3/8
TR 396	J	600CT	600CT	7	50	65	15	BCH	17/32	15/32	17/32	7/16
TR 373	J	600CT	600CT	16	30	45	100	MAH		1/2	17/32	1/2
TR 416	J	600CT	600CT	16			150	BAH	1	15/32	1 3/16	19/32
TR 437	J	600CT	600CT	18			200	BAH	1 5/32	5/8	1 13/32	3/4
TR 459	J	600CT	600CT	20			200	BAH	1 3/8	3/4	1 5/8	13/16
TR 359	J, S	600CT	600*	5	35	60	250	MAH		19/32	7/8	11/16
TR 405	J	600CT	1,200CT	16			150	BAH	1	15/32	1 3/16	19/32
TR 422	J	600CT	1,200*	16			150	BAH	1	15/32	1 3/16	19/32
TR 424	J	600CT	1,200CT	18			200	BAH	1 5/32	5/8	1 13/32	3/4
TR 445	J	600CT	1,200CT	4			200	BAH	1 3/8	3/4	1 5/8	13/16
TR 455	J	600*	1,200CT	4			200	BAH	1 3/8	3/4	1 5/8	13/16
TR 241	J	600CT	2,000*		60	200	20	BAH	1	5/8	1 7/32	3/4
TR 180	D	660	16		49	2.2	1W	BAH	1 3/4	1 1/4	2	1 1/8
TR 182	D	720	20		180	3	1W	BCH-1	1 5/8 x 11/16	1 3/16	2	1
TR 178	D	950	45CT		120	5.2	2W	BAV	1 3/4	1 11/16	2	1 1/8
TR 184	D	960	15		350	5	2W	BCH	1 11/16	1 3/8	1 3/4	1 1/4
TR 186	D	1,000	10		160	1	2W	BCV-1	1 3/32 x 17/32	1 11/16	1 1/2	1 3/8
TR 179	D	1,000	40		130	2.8	2W	BCV-1	1 3/32 x 17/32	1 11/16	1 1/2	1 1/4
TR 360	S	1,000	50/50	3	155	9.7		MAH		3/8	3/8	19/64
TR 234	D,S	1,000	50		355	20	1	MAH		7/16	1/2	7/16
TR 45	D,S	1,000	50		73	4.6	50	MAH		7/16	1/2	7/16
TR 205	S	1,000	50	3	90	5	100	MAH		7/16	3/4	5/8
		1,200	60									
TR 177	D	1,000	100		210	20	2W	BCH11	1 11/16	1 3/8	1 3/4	1 1/4
TR 238	D	1,000	200CT	10	428	128	1	BAH	1 1/16	5/8	1 9/32	11/16
TR 380	S	1,000CT	600	6	80	65	5	MAH		3/8	3/8	3/8
TR 391	S	1,250	50	2	135	6.5	15	BCH	17/32	15/32	17/32	7/16
TR 181	D	1,500	30		200	5.5	300	BAH	1 3/8	3/4	1 5/8	3/4
TR 4	D,S	1,500	500CT		100	45	150	BCH	13/16	11/16	13/16	5/8
TR 314	D,S	1,500	500CT		100	45	150	PCT	See Dwg.	11/16	3/4	9/16
TR 379	S	1,500CT	600CT	5	135	65	5	MAH		3/8	3/8	3/8
TR 231	J,S	1,500CT	600*		160	65	10	BCH	17/32	7/16	17/32	7/16
TR 257	J,S	1,500CT	600*	6	150	60	20	BAH	1	5/8	1 7/32	3/4
TR 213	J,S	1,500CT	600CT	7	70	65	100	MAH		7/16	3/4	5/8
TR 460	S	1,600CT	450	15			1,000	BAH	1 3/8	3/4	1 5/8	13/16
TR 85	D	2,000	20		220	5	1W	BAH	1 3/4	1 3/16	2 1/8	15/16
TR 260	D	2,000CT	200CT	10	748	120	100	BAH	1 1/16	5/8	1 9/32	11/16
TR 176	D	2,000	250		880	9	300	BAH	1 3/8	3/4	1 5/8	3/4
TR 421	J	2,000CT	500CT	10			600	BAH	1	15/32	1 3/16	19/32
TR 263	J	2,000CT	500CT	2	140	65	200	BAH	1 3/8	3/4	1 5/8	1
TR 249	J	2,000CT	1,500CT	2	165	140	200	BAH	1 3/8	3/4	1 5/8	1
TR 250	J	2,000CT	8,000CT	4	200	550	200	BAH	1 3/8	3/4	1 5/8	1
TR 183	D	2,250	40		420	3.7	2W	BAV	1 3/4	1 5/8	2 1/8	1 1/8
TR 457	J	2,500	600CT	10			1.5W	BAH	1 3/8	3/4	1 5/8	13/16
TR 358	J	2,500CT	2,500*	4	140	300	250	MAH		19/32	7/8	11/16
TR 392	J	2,500	2,500CT	1.5	225	215	3	BCH	17/32	15/32	17/32	7/16
TR 413	J	2,500	2,500CT	2			200	BAH	1	15/32	1 3/16	19/32
TR 436	J	2,500	2,500CT	2.5			400	BAH	1 5/32	5/8	1 13/32	3/4
TR 251	J	3,000CT	1,000CT	4	263	105	200	BAH	1 3/8	3/4	1 5/8	1
TR 188	D	3,400	10		270	1.6	1W	BAH	1 3/4	1 1/4	2 1/8	1
TR 356	D,S	4,000CT	600*	2.5	155	47	10	MAH		7/16	3/4	43/64
TR 407	J	4,000CT	600CT	5			600	BAH	1	15/32	1 3/16	19/32
TR 414	J	4,000CT	600*	5			600	BAH	1	15/32	1 3/16	19/32
TR 447	D,J	4,000CT	600CT	3			1.5W	BAH	1 3/8	3/4	1 5/8	13/16
TR 454	D,J	4,000CT	600*	3			1.5W	BAH	1 3/8	3/4	1 5/8	13/16
TR 39	D,J	4,000	2,600CT		330	220	50	MAH		7/16	1/2	7/16
TR 187	D	4,500	20		150	1.6	2W	BAH	2	1 3/8	2 3/8	1 1/8
TR 190	D	5,000	50		900	8	300	BAH	1 3/8	3/4	1 5/8	13/16
TR 253	J	5,000	200CT	1	440	27	100	BAH	1 1/16	5/8	1 9/32	11/16
TR 68	D	5,000	3,000CT	20	185	103	200	XAV	1 1/4	1 3/4	1 1/4	1 1/4
TR 2	D,J	5,000CT	7,500CT	1	550	980	150	BCH	13/16	11/16	13/16	5/8
TR 312	D,J	5,000CT	7,500CT	1	550	980	150	PCT	See Dwg.	11/16	3/4	9/16
TR 3	D,J	5,000CT	10,000CT	1	550	1,100	150	BCH	13/16	11/16	13/16	5/8
TR 313	D,J	5,000CT	10,000CT	1	550	1,100	150	PCT	See Dwg.	11/16	3/4	9/16
TR 9	A,J	5,000	30,000CT	3	370	1,300	150	BCH	13/16	11/16	13/16	5/8
TR 319	A,J	5,000	30,000CT	3	370	1,300	150	PCT	See Dwg.	11/16	3/4	9/16
TR 10	A,J	5,000CT	45,000	2	310	1,400	150	BCH	13/16	11/16	13/16	5/8
TR 320	A,J	5,000CT	45,000	2	310	1,400	150	PCT	See Dwg.	11/16	3/4	9/16
TR 266	J	5,000CT	50,000CT	1	378	6,410	200	BAH	1 3/8	13/16	1 5/8	1
TR 13	A,J	5,000CT	80,000	2	260	1,520	150	BCH	13/16	11/16	13/16	5/8
TR 323	A,J	5,000CT	80,000	2	260	1,520	150	PCT	See Dwg.	11/16	3/4

Audio Transistor-Open Frame

INCLUDES: (A) INPUT, (J) INTERSTAGE, (D) DRIVER, (S) OUTPUT TO LINE . Continued

Part No.	Application	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Resistance Primary	Resistance Secondary	Power Milliwatts	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D
TR 207	J	10,000CT	200CT	2	650	22	100	MAH		7/16	3/4	5/8
		25,000CT	500CT	1								
TR 210	D,S	10,000	500CT	2	800	95	100	MAH		7/16	3/4	5/8
		12,500	600CT									
TR 381	D	10,000CT	600CT	2	850	40	5	MAH		3/8	3/8	3/8
TR 378	J	10,000CT	1,200CT	2	850	120	5	MAH		3/8	3/8	3/8
TR 374	J	10,000CT	1,200CT	3	850	120	10	MAH		13/32	27/64	5/16
TR 215	J	10,000CT	1,500CT	4	800	300	100	MAH		7/16	3/4	5/8
		12,800CT	1,800CT									
TR 410	J	10,000	1,500CT	1			100	BAH	1	15/32	1 3/16	19/32
TR 418	J	10,000CT	1,500CT	2			100	BAH	1	15/32	1 3/16	19/32
TR 433	J	10,000	1,500CT	1			200	BAH	1 5/32	5/8	1 13/32	3/4
TR 229	J	10,000CT	2,000CT	0	1,000	250	1	BCH	17/32	7/16	17/32	7/16
TR 235	J	10,000CT	2,000CT	0	1,000	200	10	BAH	1	5/8	1 7/32	3/4
TR 40	J	10,000	2,000CT	2	295	147	50	MAH		7/16	1/2	7/16
TR 201	J	10,000	2,000CT	1	1,200	45	100	MAH		7/16	3/4	5/16
TR 7	J	10,000	2,000CT	2	740	300	150	BCH	13/16	11/16	13/16	5/8
TR 317	J	10,000	2,000CT	2	740	300	150	PCT	See Dwg.	11/16	3/4	9/16
TR 219	J	10,000	2,000CT	1	1,000	40	200	MAH		19/32	7/8	43/64
TR 264	J	10,000	2,000CT	1	1,034	334	250	BAH	1 3/8	13/16	1 5/8	
TR 175	D	10,000	2,000CT		1,600	310	300	BCH‡	1 1/16	13/16	1 1/8	7/8
TR 6	D,J	10,000	3,000CT	3	820	660	150	BCH	13/16	11/16	13/16	5/8
TR 316	D,J	10,000	3,000CT	3	820	660	150	PCT	See Dwg.	11/16	3/4	9/16
TR 369	J	10,000	10,000	0	730	1,000	150	BCH	13/16	11/16	13/16	5/8
TR 419	J	10,000CT	10,000CT	2			100	BAH	1	15/32	1 3/16	19/32
TR 230	††	10,000CT	10,000CT	0	1,100	1,400	1	BCH	17/32	7/16	17/32	7/16
TR 216	††	10,000CT	1,000CT	1	560	650	100	MAH		7/16	3/4	5/8
		12,000CT	12,000CT									
TR 361	J	10,000	250,000	2	1,020	7,100	150	BCH	13/16	11/16	13/16	5/8
TR 25	J,S	15,000	200CT	2	1,100	11	150	BCH	13/16	11/16	13/16	5/8
TR 335	J,S	15,000	200CT	2	1,100	11	150	PCT	See Dwg.	11/16	3/4	9/16
TR 262	J,S	15,000	200CT	1.5	2,130	30	200	BAH	1 3/8	13/16	1 5/8	1
TR 382	J,S	15,000CT	15,000CT	1	930	1,200	5	MAH		3/8	3/8	3/8
TR 254	J	16,000	4,000	1	1,373	330	100	BAH	1 1/16	5/8	1 9/32	11/16
TR 48	A,J	20,000	600	1	560	43	50	MAH		7/16	1/2	7/16
TR 256	J	20,000	800CT	.5	1,435	82	100	BAH	1 1/16	5/8	1 9/32	11/16
TR 17	J	20,000	800CT	1	1,350	95	150	BCH	13/16	11/16	13/16	5/8
TR 327	J	20,000	800CT	1	1,350	95	150	PCT	See Dwg.	11/16	3/4	9/16
TR 200	J	20,000	800	.5	800	110	100	MAH		7/16	3/4	5/8
		30,000	1,200									
TR 218	J	20,000	800	.5	450	32	200	MAH		19/32	7/8	43/64
		30,000	1,200									
TR 208	J	20,000CT	800CT	1	800	110	100	MAH		7/16	3/4	5/8
		30,000CT	1,200CT									
TR 371	A	20,000	1,000	.5	1,700	274	1	MAH		17/64	25/32	25/32
TR 394	J	20,000	1,000	.75	625	85	5	BCH	17/32	15/32	17/32	7/16
TR 395	J	20,000	1,000CT	.75	625	85	5	BCH	17/32	15/32	17/32	7/16
TR 363	D	20,000	1,200CT	.5	1,100	110	5	MAH		3/8	3/8	3/8
TR 44	A,J	20,000	1,200	1	560	72	50	MAH		7/16	1/2	7/16
TR 14	A,J	20,000	1,200	2	1,250	94	150	BCH	13/16	11/16	13/16	5/8
TR 324	A,J	20,000	1,200	2	1,250	94	150	PCT	See Dwg.	11/16	3/4	9/16
TR 106	A,J	20,000CT	1,200	2	1,860	142	150	BCH	13/16	11/16	13/16	5/8
TR 372	A,J	20,000CT	1,200	2	1,860	142	150	PCT	See Dwg.	11/16	3/4	9/16
TR 227	J	20,000	1,200/600/100	.5	2,700	350	1	MAH		7/16	1/2	7/16
TR 42	A,J	20,000	2,000CT	2	560	140	50	MAH		7/16	1/2	7/16
TR 261	D	20,000CT	2,000CT	1	2,140	327	200	BAH	1 3/8	13/16	1 5/8	1
TR 367	A,J	20,000	3,000CT	1	675	483	300	BAH	1 3/8	3/4	1 5/8	3/4
TR 228	J,S	25,000CT	500CT		2,000	60	1	BCH	17/32	7/16	17/32	7/16
TR 385	J	25,000	600	1	720	45	5	BCH	17/32	15/32	17/32	7/16
TR 406	J	25,000	600	1			100	BAH	1	15/32	1 3/16	19/32
TR 417	J	25,000CT	600CT	2			100	BAH	1	15/32	1 3/16	19/32
TR 430	J	25,000	600	2			100	BAH	1 5/32	5/8	1 13/32	3/4
TR 446	J	25,000	600	3			150	BAH	1 3/8	3/4	1 5/8	13/16
TR 403	J	25,000	1,200CT	1			100	BAH	1	15/32	1 3/16	19/32
TR 412	J	25,000CT	1,200CT	2			100	BAH	1	15/32	1 3/16	19/32
TR 427	J	25,000	1,200CT	1.5			100	BAH	1 5/32	5/8	1 13/32	3/4
TR 435	J	25,000CT	1,200CT	3			100	BAH	1 5/32	5/8	1 13/32	3/4
TR 452	J	25,000CT	1,200CT	6			150	BAH	1 3/8	3/4	1 5/8	13/16
TR 443	J	25,000	1,200CT	3			150	BAH	1 3/8	3/4	1 5/8	13/16
TR 31	A,S	40,000	100	1	1,150	5	150	BCH	13/16	11/16	13/16	5/8
TR 341	A,S	40,000	100	1	1,150	5	150	PCT	See Dwg.	11/16	3/4	9/16
TR 217	J	40,000CT	400*	.5	1,900	43	100	MAH		7/16	3/4	5/8
		50,000CT	500*									
TR 34	A	50,000	30CT	0	1,400	2.5	150	BCH	13/16	11/16	13/16	5/8
TR 344	A	50,000	30CT	0	1,400	2.5	150	PCT	See Dwg.	11/16	3/4	9/16
TR 30	A,S	50,000	200CT	1	1,400	9	150	BCH	13/16	11/16	13/16	5/8
TR 340	A,S	50,000	200CT	1	1,400	9	150	PCT	See Dwg.	11/16	3/4	9/16
TR 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	13/16	13/16
TR 242	A,D	50,000	500CT	.5	6,090	47.5	100	BAH	1 1/16	5/8	1 9/32	11/16
TR 26	A,D	50,000	500CT	1	1,300	30	150	BCH	13/16	11/16	13/16	5/8
TR 336	A,D	50,000	500CT	1	1,300	30	150	PCT	See Dwg.	11/16	3/4	9/16
TR 387	A,J	50,000	600	1	830	55	5	BCH	17/32	15/32	17/32	7/16
TR 400	A,J	50,000	600	.7			100	BAH	1	15/32	1 3/16	19/32
TR 236	J,S	50,000	600*	.5	3,800	60	10	BAH	1	5/8	1 7/32	3/4
TR 424	A,J	50,000	600	1			100	BAH	1 5/32	5/8	1 13/32	3/4
TR 401	A,J	50,000CT	600CT	1.4			100	BAH	1	15/32	1 3/16	19/32
TR 425	A,J	50,000CT	600CT	2			100	BAH	1 5/32	5/8	1 13/32	3/4
TR 440	A,J	50,000	600	3			100	BAH	1 3/8	3/4	1 5/8	13/16
TR 444	A,J	50,000CT	1,200CT	3			100	BAH	1 3/8	3/4	1 5/8	13/16
TR 453	A,J	50,000CT	1,200*	3			100	BAH	1 3/8	3/4	1 5/8	13/16
TR 428	A,J	50,000CT	1,200CT	2			100	BAH	1 5/32	5/8	1 13/32	3/4
TR 404	A,J	50,000CT	1,200CT	1.4			100	BAH	1	15/32	1 3/32	19/32
TR 243	D	50,000	3,000CT	.5	3,720	250	200	BAH	1 3/8	13/16	1 5/8	1
TR 397	††	50,000CT	50,000CT	0	2,000	2,600	5	BCH	17/32	15/32	17/32	7/16
TR 55	A	100,000	50	0	1,170	1.7	50	MAH		7/16	1/2	7/16
TR 35	A	100,000	50	0	3,100	5	300	BAH	1 3/8	3/4	1 5/8	13/16
TR 345	A	100,000	50	0	3,100	5	300	PCT-3	See Dwg.	13/16	1	7/8
TR 244	D	100,000	200CT	.5	9,900	19.5	200	BAH	1 3/8	3/4	1 5/8	1
TR 362	A	100,000	1,000	0	1,900	135	5	MAH		3/8	3/8	3/8
TR 388	J	100,000	1,200CT	.72	2,000	150	5	BCH	17/32	15/32	17/32	7/16
TR 442	J	100,000	1,200CT	1.4			50	BAH	1 3/8	3/4	1 5/8	13/16
TR 24	A,J	100,000	1,500CT	.5	3,000	45	300	BAH	1 3/8	3/4	1 5/8	13/16
TR 334	A,J	100,000	1,500CT	.5	3,000	45	300	PCT-3	See Dwg.	13/16	1	7/8
TR 245	D	100,000	3,000CT	.5	9,880	318	200	BAH	1 3/8	13/16	1 5/8	1
TR 384	A,J	200,000	600	1	3,000	110	5	BCH	17/32	15/32	17/32	7/16
TR 386	A	200,000	1,000	0	4,000	190	5	MAH		7/16	3/4	5/8
TR 386	A,J	200,000	1,200	.72	3,100	165	5	BCH	17/32	15/32	17/32	7/16
TR 214	J	200,000CT	1,000CT	0	4,000	200	5	MAH		7/16	3/4	5/8
TR 54	A,J	200,000	1,000	0	1,330	20	50	MAH		7/16	1/2	7/16
TR 267	A	200,000	1,000	0	840	195	100	BAH	1 1/16	5/8	1 9/32	11/16
TR 28	A	200,000	1,000	0	3,000	30	300	BAH	1 3/8	3/4	1 5/8	13/16
TR 338	A	200,000	1,000	0	3,000	30	300	PCT-3	See Dwg.	13/16	1	7/8
TR 119	A	200,000CT	1,000CT	0	1,815	123	300	BAH	1 3/8	3/4	1 5/8	13/16
TR 33	A	250,000	200CT	0	4,400	8.5	300	BAH	1 3/8	3/4	1 5/8	13/16
TR 343	A	250,000	200CT	0	4,400	8.5	300	PCT-3	See Dwg.	13/16	1	7/8
TR 36	A	500,000	200CT	0	7,000	8.5	300	BAH	1 3/8	3/4	1 5/8	13/16
TR 346	A	500,000	200CT	0	7,000	8.5	300	PCT-3	See Dwg.	13/16	1	7/8
TR 377	Choke	1.5 Hy. @ 0 MADC, .7 Hy. @ 2 MADC, 100 Ohms						MAH		3/8	3/8	3/8
TR 375	Choke	10 Hy. @ 0 MADC, 8 Hy. @ .5 MADC, 650 Ohms						MAH		3/8	3/8	3/8
TR,357	Split Inductor	Series - 16 Hy. @ 2 MADC, 8 Hy. @ 4 MADC, 1,100 Ohms Parallel - 4 Hy. @ 4 MADC, 2 Hy. @ 8 MADC, 275 Ohms						MAH		19/32	7/8	11/16
TR 393	Choke	20 Hy. @ 0 MADC, 12 Hy. @ .5 MADC, 1,000 Ohms						BCH	17/32	15/32	17/32	7/16
TR 56	Choke	30 Hy. @ 1 MADC 4,000 Ohms						MAH		7/16	1/2	7/16

Special Purpose-Transistor

Complete instructions supplied with each unit.

Part No.	Typical Application		Impedance Primary	Impedance Secondary	Pri. MADC	Power In Watts	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D
TR 305	Input	Used in 30 Watt	50/100	10	50	5 MW	BAH	1 3/8	13/16	1 5/8	15/16
TR 306	Driver	Mobile Transistor	20	36CT	400	1	BAH	1 3/4	1 3/16	2 1/16	1 1/8
TR 307	Modulation	Modulator	8CT	7500/5000 @ 120 MADC		35	GGV	1 15/16 x 2	3 1/8	3	2 1/2
TR 197	Modulation – PP (Class B) to Modulator		32CT	6000/4000/ 3000 @ 100 MADC (Bal)	575	10	BAV	2 3/8	2 5/16	2 7/8	2
TR 198	Modulator – PP (Class B) to Modulator		6CT	6000/4000/ 3000 @ 200 MADC (Bal)	5A	40	GGV	2 1/2 x 2 1/4	3 7/8	3 9/32	3 1/8
TR 309	Universal Driver Ideal for Lab substitutions or determining the correct turns ratio required for specific applications		Turns Ratio: 1:1CT 6:1 2:1CT 7:1 3:1CT 8:1 4:1CT 9:1 5:1CT 10:1		10	1	BAV	1 3/4	1 3/16	2 1/8	1

‡ Printed circuit type leads — replaces Buick, Olds, Pontiac 7273764 & 7270811 * Split CT Winding

Printed Circuit -Open Frame -Transistor

300 Milliwatt

MOUNTING PCT-3 WEIGHT .08 LBS.

INCLUDES: (A) INPUT, (J) INTERSTAGE, (L) LINE TO TRANSISTOR, (S) OUTPUT.

This new line of printed circuit transformers has been developed to fill the gap between the wire-in units and the molded-printed circuit type transistor transformers. The lug numbers on the schematic to the right corresponds to the lug numbers on the PCT & PCT-3 drawings. Windings with no taps will have lugs #2 and #5 blank.

LISTED IN ORDER OF THE TURNS RATIO

Part No.	Turns Ratio	Impedance Pri.	Impedance Sec.	Resistance Pri.	Resistance Sec.	Application
TR 311	1:1	500CT	500CT	35	52	D,J
TR 318	2.45:1	48CT	4/8	4	1.2	S
TR 331	4.47:1	160CT	4/8	12	1	S
TR 332	7.07:1	400CT	4/8	26	1.1	S
TR 334	8.17:1	100,000	1,500CT	3,000	45	A,J
TR 338	14.1:1	200,000	1,000	3,000	30	A
TR 343	35.4:1	250,000	200CT	4,400	8.5	A
TR 345	44.7:1	100,000	50	3,100	5	A
TR 346	50:1	500,000	200CT	7,000	8.5	A

LISTED IN ORDER OF THE PRIMARY IMPEDANCE

Part No.	Impedance Pri.	Impedance Sec.	Resistance Pri.	Resistance Sec.	Application
TR 318	48CT	4/8	4	1.2	S
TR 331	160CT	4/8	12	1	S
TR 332	400CT	4/8	26	1.1	S
TR 311	500CT	500CT	35	52	D,J
TR 345	100,000	50	3,100	5	A
TR 334	100,000	1,500CT	3,000	45	A,J
TR 338	200,000	1,000	3,000	30	A
TR 343	250,000	200CT	4,400	8.5	A
TR 346	500,000	200CT	7,000	8.5	A

150 Milliwatt

MOUNTING PCT WEIGHT .05 LBS.

LISTED IN ORDER OF THE TURNS RATIO

Part No.	Turns Ratio	Impedance Pri.	Impedance Sec.	Resistance Pri.	Resistance Sec.	Application
TR 312	1.23:1	5,000CT	7,500CT	550	980	D,J
TR 313	1.41:1	5,000CT	10,000CT	550	1,100	D,J
TR 314	1.73:1	1,500	500CT	100	45	D,J,S
TR 315	1.81:1	490CT	150CT	32	14	D,S
TR 316	1.82:1	10,000	3,000CT	820	660	D,J
TR 317	2.24:1	10,000	2,000CT	740	300	D,J
TR 319	2.45:1	5,000	30,000CT	370	1,300	A,J
TR 320	3:1	5,000CT	45,000	310	1,400	A,J
TR 321	3.16:1	500CT	50	30	5	D,S
TR 322	3.16:1	100CT	10CT	13	1.3	D,S
TR 323	4:1	5,000CT	80,000	260	1,520	A,J
TR 308	4:1	5,000CT	80,000CT	573	5,740	A,J
TR 324	4.08:1	20,000	1,200	1,250	94	A,J
TR 372	4.08:1	20,000CT	1,200	1,860	142	A,J
TR 325	4.47:1	300CT	15	21	2.5	S
TR 326	5:1	400CT	16	28	2	S
TR 327	5:1	20,000	800CT	1,350	95	A,D,J
TR 328	5.52:1	500CT	16.4	30	1.7	S
TR 329	6.04:1	400CT	11	27	1.3	S
TR 330	6.22:1	650CT	16.8	38	1.4	S
TR 333	7.07:1	10,000	200CT	900	11	S
TR 335	8.66:1	15,000	200CT	1,100	11	J,S
TR 336	10:1	50,000	500CT	1,300	30	A,D
TR 337	12.5:1	500CT	3.2	30	.3	S
TR 339	15.6:1	825CT	3.4	40	.25	S
TR 340	15.8:1	50,000	200CT	1,400	9	A
TR 341	20:1	40,000	100	1,150	5	A
TR 342	25.5:1	9,800	15	1,070	2.5	S
TR 344	40.8:1	50,000	30CT	1,400	2.5	A

LISTED IN ORDER OF THE PRIMARY IMPEDANCE

Part No.	Impedance Pri.	Impedance Sec.	Resistance Pri.	Resistance Sec.	Application
TR 322	100CT	10CT	13	1.5	D,S
TR 325	300CT	15	21	2.5	S
TR 329	400CT	11	27	1.3	S
TR 326	400CT	16	28	2	S
TR 315	490CT	150CT	32	14	D,S
TR 337	500CT	3.2	30	.3	S
TR 328	500CT	16.4	30	1.7	S
TR 321	500CT	50	30	5	D,S
TR 330	650CT	16.8	38	1.4	S
TR 339	825CT	3.4	40	.25	S
TR 314	1,500	500CT	100	45	D,J,S
TR 312	5,000CT	7,500CT	550	980	D,J
TR 313	5,000CT	10,000CT	550	1,100	D,J
TR 319	5,000	30,000CT	370	1,300	A,J
TR 320	5,000CT	45,000	310	1,400	A,J
TR 323	5,000CT	80,000	260	1,520	A,J
TR 308	5,000CT	80,000CT	573	5,740	A,J
TR 342	9,800	15	1,070	2.5	S
TR 333	10,000	200CT	900	11	S
TR 317	10,000	2,000CT	740	300	D,J
TR 316	10,000	3,000CT	820	660	D,J
TR 335	15,000	200CT	1,100	11	J,S
TR 327	20,000	800CT	1,350	95	A,D,J
TR 324	20,000	1,200	1,250	94	A,J
TR 372	20,000CT	1,200	1,860	142	A,J
TR 341	40,000	100	1,150	5	A
TR 344	50,000	30CT	1,400	2.5	A
TR 340	50,000	200CT	1,400	9	A
TR 336	50,000	500CT	1,300	30	A,D

Audio Reactor

MOUNTING PCT-3 WEIGHT .08 LBS.

Part No.	Inductance Millihenrys	Inductance MADC	DC Res. In Ohms	Test Volts RMS	Mtg Type
TR 347	150	0	14	500	PCT-3

Encased-Transistor Transformers

INCLUDES: (A) INPUT, (J) INTERSTAGE, (L) LINE TO TRANSISTOR, (S) OUTPUT.

The high performance characteristics such as frequency response, high permeability lamination, and low insertion losses equal those of the more costly hermetically sealed units. The mounting type of the units appearing in the second column under "Part No." are as listed in the last column on the page, while the otherwise identical units listed in the first column are mounted by means of an octal plug-in socket

Part No. Octal Plug-In	Part No. As Listed	Application	Impedance Primary	Impedance Secondary	Unbalanced Primary MADC	Resistance Primary	Power In Watts	Frequency Response ±2 DB	Mtg. Type
	25S111	S	8*	500*			.50	6–70,000	UTV
	25S81	S	24CT	16/4*	200§	2	10	50–15,000	TAV-7
	25S14	S	48CT	16/8/4*	750§	5	5	40–20,000	UTV
	25S56	S	48CT	16/8/4*	750§		5	50–15,000	NTV-4
25A187	25A175	J	100	40CT*	100		.5	200–20,000	RTV
	25A106	J	100CT*	40CT*	30	10	1	30–15,000#	TAJ
	25A49	J	100CT*	40CT*	40	9	1	100–20,000†	RTV
	25A71	J	100CT*	40CT*	40	6.2	1	40–20,000	UTV
25S129	25S122	S§§	250CT	500	10		1	200–15,000	RTV
25S127	25S120	S§§	250CT	1,000	10		1	200–15,000	RTV
	25S06	S	400CT	3.2	20	35	1	100–20,000	RTV
25S125	25S118	S	400	10	50		300MW	200–20,000	RTV
	25S67	S	500CT*	16CT*	20	50	100MW	30–15,000#	TAJ
	25S11	S	500CT	16CT*	20	36	1	40–20,000	UTV
	25S55	S	500CT*	16CT*	20		1	50–15,000	NTV-4
	25A48	J	500CT*	50CT*	20	33	1	100–20,000†	RTV
	25A70	J	500CT*	50CT*	20	36	1	40–20,000	UTV
	25A107	J	500CT*	100CT*	15	50	100MW	30–15,000#	TAJ
	25A47	J	500CT*	150CT*	20	35	1	100–20,000†	RTV
	25A69	J	500CT	150CT*	20	36	1	40–20,000	UTV
25S126	25S119	S§§	500CT	210	30		.5	300–20,000	RTV
	25A127	J	500	500	1	34	50MW	300–15,000	MI
	25S10	S	500CT*	500CT*	20	36	1	40–20,000	UTV
	25A46	J	500CT*	500CT*	20	37	1	100–20,000†	RTV
	25A128	J	500CT*	500CT*	20		1	50–15,000	NTV-4
	25A105	J	500CT*	2,000CT*	20	50	100MW	30–15,000#	TAJ
	25A99	J	500CT*	2,000CT*	20		1	50–15,000	NTV-4
	25A126	J	500	5,000	1	84	50MW	300–15,000	MI
25A186	25A174	J	600	600	10		200MW	200–15,000	RTV
25A202	25A206	J	600CT	600CT	20		200MW	200–15,000	RTV
	25A112	L	600/250/50	600/250/50	0	40	50MW	30–15,000	TAJ
	25A104	L	600/300/200CT*	600CT*	0	62	1MW	30–15,000#	TAJ
	25A63	L	600CT*	600CT*	0	45	30MW	20–30,000	UTV##
25A193	25A180	L	600CT	1,200CT	4		200MW	200–15,000	RTV
25A199	25A203	L	600CT*	1,200CT	4		200MW	200–15,000	RTV
	25A34	A,L	600CT*	2,000CT*	0	70	30MW	50–20,000†	RTV
	25A62	A,L	600CT*	2,000CT*	0	70	10MW	20–20,000	UTV##
	25A108	J	1,000	200CT*	10	302	200MW	20–15,000#	TAJ
	25S04	S	1,500CT	500CT*	8	100	100MW	100–20,000†	RTV
25S128	25S121	S§§	1,600CT	450	15		1	200–15,000	RTV
25S123	25S116	S	2,000	3.4	10		1.5	200–15,000	RTV
	25S05	S	2,000/4,000CT	8/16	4	200	100MW	100–20,000†	RTV
25A200	25A204	J	2,500	600CT	10		1.5	200–15,000	RTV
	25S74	S	2,000CT	600CT	0	112	100MW	30–15,000#	TAJ
25S124	25S117	S	4,000CT	3.4	3		1.5	200–15,000	RTV
25A195	25A182	J	4,000CT	600CT	3		1.5	200–15,000	RTV
25A198	25A185	J	4,000CT	600CT*	3		1.5	200–15,000	RTV
	25A154	J,L	4,000CT*	600CT*	4	395	1	100–20,000†	RTV
	25A135	J,L	4,000CT*	600CT*	12	310	1	30–20,000	UTV
25A201	25A205	J	7,500CT	600CT	8		1.5	200–15,000	RTV
	25A43	J	10,000CT	500CT*	4	750	100MW	100–20,000†	RTV
	25A68	J	10,000CT*	500CT*	8	610	1	30–20,000	UTV
	25A109	J	10,000CT*	2,000CT*	4	1,000	100MW	30–15,000#	TAJ
	25A40	J	10,000CT*	2,000CT*	4	800	100MW	100–20,000†	RTV
	25A64	J	10,000CT*	2,000CT*	8	600	1	50–15,000	UTV
	25A98	J	10,000CT*	2,000CT*	8	600	1	50–15,000	NTV-4
	25A41	J	10,000CT*	4,000CT*	4	800	100MW	100–20,000†	RTV
	25A42	J	10,000CT	10,000CT	4	700	100MW	100–20,000†	RTV
	25A125	J	24,000	600	5	2,660	1MW	350–3,500†	RTV▲
	25A67	J	25,000CT*	500CT*	3	1,620	1	30–20,000	UTV
25A194	25A181	J	25,000	600	3		150MW	200–15,000	RTV
25A191	25A178	J	25,000	1,200CT	3		150MW	200–15,000	RTV
25A196	25A183	J	25,000CT	1,200CT	6		150MW	200–15,000	RTV
25S189	25S115	S	50,000	6	3		100MW	300–15,000	RTV
	25A44	J	50,000CT	500CT*	2	3,200	100MW	100–20,000†	RTV
25A188	25A176	J,L	50,000	600	3		100MW	300–15

Miniature Audio Inductors

OPEN FRAME AND ENCASED

Similar in operation to the military units above these units are ideally suited for coupling inductors, filters or audio suppresser applications in either transistor or tube type circuitry.

Part No.	Series Connected Inductance Henrys	MADC	Resistance In Ohms	Parallel Connected Inductance Henrys	MADC	Resistance In Ohms	Mtg. Type	Mtg. Centers	Dimensions H	W x D
MIT 140	3.5	2	160	1.5	5	40	MAH		7/16	3/4 x 5/8
MIT 152	4	0	400	1	0	100	BCH	9/16	1/2	9/16 x 1/2
MIT 139	8	2	650	4	5	162	MAH		7/16	3/4 x 5/8
MIT 168	8/6	3/6	720				BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 19	12	0	830				MAH		3/8	3/8 x 11/32
MIT 39	20	1	2,200				MAH		3/8	3/8 x 3/8
MIT 65	30	1	4,000				MAH		7/16	1/2 x 7/16
MIT 173	50	1	4,200				BAH	1	1/2	1 3/16 x 19/32
MIT 82	50	1	4,500				MAH		7/16	3/4 x 5/8
MIT 83	50	1	4,500				RAV-3	1 5/32	29/32	7/8 Dia.
MIT 100	50	1	3,200				BAH	1 1/16	5/8	1 1/4 x 19/32
MIT 101	50	1	3,200				RAV-3	1 5/32	1 3/32	7/8 Dia.
MIT 145	50	1	2,675				MAH		19/32	7/8 x 43/64
MIT 180	50	1	3,000				BAH	1 5/32	5/8	1 3/32 x 3/4
MIT 130	50	3	500				BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 131	50	3	500				NAV-2	1 1/8	1 7/16	1 5/16 Dia.
MIT 194	300/50	0/3	6,000				BAH	1 3/8	3/4	1 5/8 x 13/16

Miniature Transformers

INCLUDES: (A) INPUT, (J) INTERSTAGE, (S) OUTPUT, (C) REACTOR, (L) LINE TO LINE.

The most complete line of top efficiency miniature transformers ever made available. These Miniature transformers are designed for a wide range of civilian and goverment applications. Used by many manufacturers of hearing aids and a variety of miniature electronic devices where maximum efficiency is necessary. Ideally suited for installation in original equipment and for replacement.

Part No.	Typical Application	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Power In MW	Resistance Primary	Resistance Secondary	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W x D
MIT 106	A	8/4	50,000CT	0	20	.35	2,600	BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 107	A	8/4	50,000CT	0	20	.35	2,600	NTV-2	1 1/8	1 7/16	15/16 Dia.
MIT 149	A	30/12/4	50,000	0	4	11.5	3,800	MAH		7/16	1/2 x 7/16
MIT 156	A	30/12/4	50,000	0	12	7	3,500	BAH	1 1/16	5/8	1 7/32 x 3/4
MIT 184	A	30/7.5	50,000	0	3			BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 141	A	50 to 200	62,500 to 250,000	0	12	16	2,500	MAH		19/32	7/8 x 43/64
MIT 121	S	160	4/8	35	20	13.7	.72	BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 122	S	160	4/8	35	20	13.7	.72	NAV-2	1 1/8	1 7/16	15/16 Dia.
MIT 148	A	200CT	200,000	0	4	35	5,000	BCH	9/16	1/2	9/16 x 7/16
MIT 169	A	200CT*	250,000CT*	0	4			BAH	1	1/2	1 3/16 x 19/32
MIT 176	A	200CT*	250,000CT*	0	5			BAH	1 5/32	5/8	1 13/32 x 3/4
MIT 67	A	200	250,000	0	9	13.4	3,580	MAH		7/16	3/4 x 5/8
MIT 68	A	200	250,000	0	9	13.4	3,580	RAV-3	1 5/32	29/32	7/8 Dia.
MIT 85	A	200	250,000	0	12	21.5	2,650	BAH	1 1/16	5/8	1 1/4 x 19/32
MIT 86	A	200	250,000	0	12	21.5	2,650	RAV-3	1 5/32	1 3/32	7/8 Dia.
MIT 160	A	200	500,000	0	12	63	4,900	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 133	A	200	500,000	0	20	17.5	4,800	BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 134	A	200	500,000	0	20	17.5	4,800	NAV-2	1 1/8	1 7/16	15/16 Dia.
MIT 196	A	200	500,000	0	20			BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 127	A	250/50	600/250/50	0	20	17.5	33.5	BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 193	L	250/50CT	600/250/50CT		0	6		BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 128	A	250/50	600/250/50	0	20	17.5	33.5	NAV-2	1 1/8	1 7/16	15/16 Dia.
MIT 109	S	400CT	4/8	0	20	37	1	BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 110	S	400CT	4/8	0	20	37	1	NAV-2	1 1/8	1 7/16	15/16 Dia.
MIT 10	S	400	50	3	1	70	9.3	MAH		3/8	3/8 x 11/32
MIT 11	S	400	50	3	1	70	9.3	RAV-1		27/64	7/16 Dia.
MIT 24	S	400	50	3	2.5	54	6.3	MAH		3/8	3/8 x 3/8
MIT 25	S	400	50	3	2.5	54	6.3	RAV-2		41/64	17/32 Dia.
MIT 41	J	500	500	0	4	45	45	MAH		7/16	1/2 x 7/16
MIT 42	J	500	500	0	4	45	45	RAV-2		23/32	21/32 Dia.
MIT 7	S	600	50	3	1	66	7.7	MAH		3/8	3/8 x 11/32
MIT 8	S	600	50	3	1	66	7.7	RAV-1		27/64	7/16 Dia.
MIT 27	S	600	50	3	2.5	64	7.5	MAH		3/8	3/8 x 3/8
MIT 28	S	600	50	3	2.5	64	7.5	RAV-2		41/64	17/32 Dia.
MIT 44	S	600	50	3	4	58	5.4	MAH		7/16	1/2 x 7/16
MIT 45	S	600	50	3	4	58	5.4	RAV-2		23/32	21/32 Dia.
MIT 166	L	600/250/50	600/250/50	2	12	80	85	BAH	1 1/16	5/8	1 7/32 x 3/4
MIT 56	A	600CT	1,200CT	.5	4	55	109	MAH		7/16	1/2 x 7/16
MIT 57	A	600CT	1,200CT	.5	4	55	109	RAV-2		23/32	21/32 Dia.
MIT 153	A	600/250/50	50,000	0	12	80	3,200	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 182	A	600/250/50CT	50,000	0	3			BAH	1 3/4	3/4	1 5/8 x 13/16
MIT 183	A	600/250/50CT	50,000CT	0	3			BAH	1 3/4	3/4	1 5/8 x 13/16
MIT 103	A	600/250/50	50,000CT	0	20	24.5	2,480	BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 104	A	600/250/50	50,000CT	0	20	24.5	2,480	NAV-2	1 1/8	1 7/16	15/16 Dia.
MIT 147	A	600/250/50	60,000	0	4	350	4,100	MAH		7/16	1/2 x 7/16
MIT 155	A	600/250/50	60,000CT	0	12	100	3,600	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 154	A	600/250/50	250,000	0	12	44	3,600	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 16	S	1,000	50/60	3	1	160	9	MAH		3/8	3/8 x 11/32
MIT 17	S	1,000	50/60	3	1	160	9,600	RAV-1		27/64	7/16 Dia.
MIT 33	S	1,000	50	3	2.5	163	11.7	MAH		3/8	3/8 x 3/8
MIT 34	S	1,000	50	3	2.5	163	11.7	RAV-2		41/64	17/32 Dia.
MIT 62	S	4,000	3.2	0	4	488	.5	MAH		7/16	1/2 x 7/16
MIT 63	S	4,000	3.2	0	4	488	.5	RAV-2		23/32	21/32 Dia.
MIT 167	J	5,000CT	5,000CT	0	12	1,710	2,425	BAH	1 1/16	5/8	1 7/32 x 3/4
MIT 151	S	10,000	200	1	4	1,500	120	MAH		7/16	1/2 x 7/16
MIT 171	S	10,000	200	3	100			BAH	1	1/2	1 3/16 x 19/32
MIT 178	S	10,000	200	3	120			BAH	1 5/32	5/8	1 13/32 x 3/4
MIT 143	S	10,000 to 25,000	200 to 500	3 1.5	200	1,225	30	MAH		19/32	7/8 x 43/64
MIT 170	J	10,000	90,000	0	3			BAH	1	1/2	1 3/16 x 19/32
MIT 70	J	10,000	90,000	.25	9	820	3,500	MAH		7/16	3/4 x 5/8
MIT 71	J	10,000	90,000	.25	9	820	3,500	RAV-3	1 5/32	29/32	7/8 Dia.
MIT 88	J	10,000	90,000	.25	12	222	2,800	BAH	1 1/16	5/8	1 1/4 x 19/32
MIT 89	J	10,000	90,000	.25	12	222	2,800	RAV-3	1 5/32	1 3/32	7/8 Dia.
MIT 177	J	10,000	90,000	0	9			BAH	1 5/32	5/8	1 13/32 x 3/4
MIT 142	J	10,000	90,000	0	200	215	1,850	MAH		19/32	7/8 x 43/64
MIT 192	J	10,000	1 MEG	0	12			BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 136	J	10,000	1 MEG	0	20	377	5,400	BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 137	J	10,000	1 MEG	0	20			NAV-2	1 1/8	1 7/16	15/16 Dia.
MIT 165	J	12,000CT	600CT*	2	12	1,000	60	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 163	S	15,000	600/250/50	3	12	1,450	59	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 162	S	15,000	600/250/50	4	12	1,330	58	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 118	S	15,000	600/250/50	4	20	1,250	32	BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 119	S	15,000	600/250/50	4	20	1,250	32	NAV-2	1 1/8	1 7/16	15/16 Dia.
MIT 189	S	15,000	600/250/50CT	0	8			BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 190	S	15,000	600/250/50CT	21	4			BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 157	J	15,000	50,000	3	12	1,100	2,860	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 158	J	15,000	60,000CT	3	12	1,350	2,700	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 185	J	15,000	60,000	0	4			BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 186	J	15,000	60,000	4	25			BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 112	S	15,000	60,000	2	20	1,250	3,450	BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 113	J	15,000	60,000	2	20	1,250	3,450	NAV-2	1 1/8	1 7/16	15/16 Dia.
MIT 115	J	15,000	90,000	0	20	1,250	5,900	BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 116	J	15,000	90,000	0	20	1,250	5,900	NAV-2	1 1/8	1 7/16	15/16 Dia.
MIT 159	J	15,000	95,000CT	3	12	1,330	3,330	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 187	J	15,000	95,000CT	0	3			BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 188	J	15,000	95,000CT	4	12			BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 150	J	15,000	135,000	1	4	985	4,400	MAH		7/16	1/2 x 7/16
MIT 161	J	15,000	1 MEG	1	12	550	4,450	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 164	S	20,000CT	600/250/50	2	12	2,000	70	BAH	1 1/16	5/8	1 1/4 x 3/4
MIT 4	J	20,000	1,000	.5	1	930	95	MAH		3/8	3/8 x 11/32
MIT 5	J	20,000	1,000	.5	1	930	95	RAV-1		27/64	7/16 Dia.
MIT 1	J	20,000	1,000	.5	1	1,150	175	MAH		3/8	3/8 x 11/32
MIT 2	J	20,000	1,000	.5	1	1,150	175	RAV-1		27/64	7/16 Dia.
MIT 21	J	20,000	1,000	.5	2.5	1,080	125	MAH		3/8	3/8 x 3/8
MIT 22	J	20,000	1,000	.5	2.5	1,080	125	RAV-2		41/64	17/32 Dia.
MIT 73	S	25,000	500	.5	9	1,750	30	MAH		7/16	3/4 x 5/8
MIT 74	S	25,000	500	.5	9	1,750	30	RAV-3	1 5/32	29/32	7/8 Dia.
MIT 91	S	25,000	500	1.5	12	1,750	29	BAH	1 1/16	5/8	1 1/4 x 19/32
MIT 92	S	25,000	500	1.5	12	1,750	29	RAV-3	1 5/32	1 3/32	7/8 Dia.
MIT 59	J	25,000	600	.5	4	1,620	36	MAH		7/16	1/2 x 7/16
MIT 60	J	25,000	600	.5	4	1,620	36	RAV-2		23/32	21/32 Dia.
MIT 53	J	25,000CT	1,200	.5	4	1,580	97	MAH		7/16	1/2 x 7/16

Miniature Transformers (Continued)

INCLUDES: (A) INPUT, (J) INTERSTAGE, (S) OUTPUT, (C) REACTOR, (L) LINE TO LINE.

The most complete line of top efficiency miniature transformers ever made available. These Miniature transformers are designed for a wide range of civilian and government applications. Used by many manufacturers of hearing aids and a variety of miniature electronic devices where maximum efficiency is necessary. Ideally suited for installation in original equipment and for replacement.

Part No.	Typical Application	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Power In MW	Resistance Primary	Resistance Secondary	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W x D
MIT 54	J	25,000CT	1,200	.5	4	1,580	97	RAV-2		23/32	21/32 Dia.
MIT 76	S	30,000	50	1	9	2,600	4.7	MAH		7/16	3/4 x 5/8
MIT 77	S	30,000	50	1	9	2,600	4.7	RA'-3	1 5/32	29/32	7/8 Dia.
MIT 94	S	30,000	50	1	12	1,900	3.9	BAH	1 1/16	5/8	1 1/4 x 19/32
MIT 95	S	30,000	50	1	12	1,900	3.9	RAV-3	1 5/32	1 3/32	7/8 Dia.
MIT 172	S	30,000	50	1	100			BAH	1	1/2	1 3/16 x 19/32
MIT 179	S	30,000	50	1	100			BAH	1 5/32	5/8	1 13/32 x 3/4
MIT 144	S	30,000	50	1	200	1,850	3.8	MAH		19/32	7/8 x 43/64
MIT 36	J	30,000	150	.5	2.5	1,610	15	MAH		3/8	3/8 x 3/8
MIT 37	J	30,000	150	.5	2.5	1,610	15	RAV-2		41/64	17/32 Dia.
MIT 191	J	30,000CT	600/250/50CT	0	8			BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 175	S	30,000	1,200	.5	100			BAH	1	1/2	1 3/16 x 19/32
MIT 47	S	50,000	3.4	.5	4	2,270	.9	MAH		7/16	1/2 x 7/16
MIT 48	S	50,000	3.4	.5	4	2,270	.9	RAV-2		23/32	21/32 Dia.
MIT 192	L	50,000	600/250/50CT	0	3			BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 124	L	50,000CT	600/250/50	0	20	2,480	24.5	BAH	1 3/8	3/4	1 5/8 x 13/16
MIT 125	L	50,000CT	600/250/50	0	20	2,480	24.5	NAV-2	1 1/8	1 7/16	15/16 Dia.
MIT 79	S	100,000	60	.25	9	4,800	3.5	MAH		7/16	3/4 x 5/8
MIT 80	S	100,000	60	.25	9	4,800	3.5	RAV-3	1 5/32	29/32	7/8 Dia.
MIT 97	S	100,000	60	.25	12	4,000	4.3	BAH	1 1/16	5/8	1 1/4 x 19/32
MIT 98	S	100,000	60	.25	12	4,000	4.3	RAV-3	1 5/32	1 3/32	7/8 Dia.
MIT 174	S	100,000	60	.5	100			BAH	1	1/2	1 3/16 x 19/32
MIT 181	S	100,000	60	.5	120			BAH	1 5/32	5/8	1 13/32 x 3/4
MIT 146	S	100,000	60	.5	200	3,400	3.7	MAH		19/32	7/8 x 43/64
MIT 50	J	100,000	1,200	0	4	2,850	94	MAH		7/16	1/2 x 7/16
MIT 51	J	100,000	1,200	0	4	2,850	94	RAV-2		23/32	21/32 Dia.
MIT 13	A	200,000	1,000	0	1	2,600	135	MAH		3/8	3/8 x 11/32
MIT 14	A	200,000	1,000	0	1	2,600	135	RAV-1		27/64	7/16 Dia.
MIT 30	A	200,000	1,000	0	2.5	3,200	181	MAH		3/8	3/8 x 3/8
MIT 31	A	200,000	1,000	0	2.5	3,200	181	RAV-2		41/64	17/32 Dia.

Inverters-DC to AC

Recent developments in the power transistor field have made possible the design or circuits which are efficient and rugged converters of low voltage DC to high voltage AC or DC power. These transistorized power supplies are ideally suited for powering all kinds of battery operated equipment such as mobile communication systems, aircraft and marine navigational systems, photoflash, ultrasonic applications and even 117V 60 CPS from an automobile battery so as to operate 117V radio, television, electric shavers, etc. These transistor power supply transformers give a wide range of voltage and power to choose from. Complete instructions supplied with each transformer.

Part No.	DC Supply Voltage	Output Voltage	Power In Watts	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D
TR 69	6	117 V @ 60 CPS	50†	GGV	1 5/8 x 2	3 1/8	2 5/8	2 5/8
TR 70	12	117 V @ 60 CPS	50†	GGV	1 5/8 x 2	3 1/8	2 5/8	2 5/8
TR 354	12	110/115/125 V @ 60 CPS	60†	GGV	2 x 1 7/8	3 1/8	2 5/8	2 5/8
TR 288	12	110/115/125 V @ 400 CPS	60†	TYL	1 7/8 x 1 3/8	1 7/8	2 1/4	2
TR 71	12	117 V @ 60 CPS	110†	GGV	2 3/16 x 2 1/2	3 7/8	3 3/16	3 1/2
TR 355	12	110/115/125 V @ 60 CPS	115†	GGV	2 1/2 x 2 3/8	3 7/8	3 9/32	3 1/4
TR 72	12	117 V @ 60 CPS	250†	GGV	3 1/16 x 3	4 5/8	3 13/16	4 9/16
TR 73	24	117 V @ 60 CPS	400†	GGV	3 5/8 x 3 7/8	5 7/8	4 3/8	6
TR 287	28	110/115/125 V @ 400 CPS	60†	TYL	1 7/8 x 1 3/8	1 7/8	2 1/4	2

Converter-Epoxy Molded Toroid DC to DC

Part No.	DC Supply Voltage	DC Output Voltage	Output Current In MADC	Power Output In Watts	Mtg. Type	Mtg. Hole Diameter	Dimensions H	Dimensions Dia.
TR 269	12.6	250/125	100/200	25	TM1	11/64	11/16	1 3/4
TR 270	12.6	300/150	200/400	60	TM1	11/64	1	1 3/4
TR 271	12.6	325/162.5	150/300	49	TM1	11/64	1	1 3/4
TR 272	12.6	375/187.5	200/400	75	TM1	11/64	1	2
TR 273	12.6	450/225	150/300	68	TM1	11/64	1	2
TR 274	12.6	500/250	250/500	125	TM1	3/16	1 3/8	2 3/4
TR 275	12.6	600/300	200/400	120	TM1	3/16	1 3/8	2 3/4
TR 276	28	250/125	80/160	20	TM1	7/64	9/16	1 5/16
TR 277	28	300/150	100/200	30	TM1	11/64	11/16	1 3/4
TR 278	28	325/162.5	200/400	65	TM1	11/64	1	1 3/4
TR 279	28	375/187.5	200/400	75	TM1	11/64	1	2
TR 280	28	450/225	200/400	90	TM1	11/64	1	2
TR 281	28	500/250	250/500	125	TM1	3/16	1 3/8	2 3/4
TR 282	28	600/300	200/400	120	TM1	3/16	1 3/8	2 3/4
TR 283	6	300/150	100/200	30	TM1	11/64	1	1 3/4
TR 284	6	325/162.5	150/300	49	TM1	11/64	1	2
TR 285	6	375/187.5	200/400	75	TM1	3/16	1 3/8	2 3/4
TR 286	6	450/225	150/300	68	TM1	3/16	1 3/8	2 3/4

Converter-Encased-DC to DC-MIL-T-27B

Part No.	DC Supply Voltage	DC Output Voltage	Output Current In MADC	Power Output In Watts	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D
27R167	3	1,000 (1/2 Wave)	.025	.025	AG-2	1 1/8	1 3/8	1	1
TR 463	2.7	480 (1/2 Wave)	.4	.195	BAH	1 3/8	1 11/16	13/16	2 7/32
27R20	12/14 or 24/28	250	60	15	AH	1 1/4	1 3/4	1 5/16	1 5/16
27R21	12/14 or 24/28	375	100	37.5	AJ	1 3/16 x 1 3/16	2 3/8	1 5/8	1 5/8
27R166	12/14	450/225	90/155	40	FA	1 11/16 x 1 7/16	3 1/8	2 5/16	2 1/16
27R22	12/14 or 24/28	425	175	53	FA	1 11/16 x 1 7/16	3 1/8	2 5/16	2 1/16
27R165	12/14	500/250	240/420	125	GA	2 1/8 x 1 3/4	3 13/16	2 3/4	2 3/8
27R23	12/14 or 24/28	550	200	110	GB	2 1/8 x 1 3/4	2 13/16	2 3/4	2 3/8
27R164	28	500/250	250/420	125	GA	2 1/8 x 1 3/4	3 13/16	2 3/4	2 3/8

† Power Rating for Resistive Loads.

* Split C T Winding

For Mounting Illustrations, Cross References and Pricing Information See Pages 1518-1530

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Converter- DC to DC

POTTED & OPEN FRAME

Part No.	DC Supply Voltage	DC Output Voltage	Output Current In MADC	Power Output In Watts	Mtg. Type	Mtg. Centers	Dimensions H	W	D
TR 78	12	250/125	65/130	16.5	DAH	1 1/2	1 3/4	1 3/4	1 3/8
TR 79	6	250	200	50	TAV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16
TR 80	12	250	200	50	TAV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16
TR 81	12	250/125	400/800	100	TAV	1 3/4 x 2 11/16	3 5/16	2 1/2	3
TR 99	6 or 12	275-250 225-200	72	20	TAV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16
TR 74	12	300/150	67/133	20	TAV	1 1/4 x 2 1/8	2 1/4	1 7/8	2 7/16
TR 83	12	300/150	100/200	30	DAH	1 1/2	1 7/8	2 3/8	1 7/8
TR 84	12	300/150	400/800	120	TAV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16
TR 85	12	325/162	150/300	50	DAH	1 1/2	2	2 3/8	2 7/16
TR 87	12	375/187	200/400	75	DAH	1 1/2	2	2 3/8	2 7/16
TR 88	4.5	390/195	30/60	12	DAH	1 1/2	1 3/4	1 3/4	1 11/32
TR 75	12	400/200	50/100	20	TAV	1 1/4 x 2 1/8	2 1/4	1 7/8	2 7/16
TR 89	12	400	125	50	TAV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16
TR 76	6	450/225	40/80	18	TAV	1 1/4 x 2 1/8	2 1/4	1 7/8	2 7/16
TR 77	12	450/225	40/80	18	TAV	1 1/4 x 2 1/8	2 1/4	1 7/8	2 7/16
TR 90	12	450/225	89/178	40	TAV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16
TR 91	12	450/225	270/540	120	TAV	1 3/4 x 2 11/16	3 5/16	2 1/2	3
TR 92	12	500/250	165/275	50	TAV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16
TR 93	12	500/250	200/400	100	TAV	1 3/4 x 2 11/16	3 5/16	2 1/2	3
TR 94	12	500/250	300/600	150	TAV	1 3/4 x 2 11/16	3 5/16	2 1/2	3
TR 82	12	500/275	62.5/125	35	TAV	1 1/4 x 2 1/8	2 1/4	1 7/8	2 7/16
TR 95	12	600/300	200/400	120	DAH	3 11/16	2	4 1/8	3
TR 86	12	700/350	43/86	30	TAV	1 1/4 x 2 1/8	2 1/4	1 7/8	2 7/16
TR 96	12	800/400	150/300	120	TAV	1 3/4 x 2 11/16	3 5/16	2 1/2	3
TR 97	12	1,000/500	100/200	100	TAV	1 3/4 x 2 11/16	3 5/16	2 1/2	3
TR 98	12	3,000/1,500	6.5/13	20	TAV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16

Converter

MOBILE OR FIXED POWER SUPPLY

Part No.	Primaries	Secondaries	Mtg. Type	Mtg. Centers	Dimensions H	W	D
TR 294	12.6 Volts DC or 117 Volts AC @ 60 Cycles	280 Volts DC @ 150 MADC and 12.6 Volts AC @ 3 Amps (With 117 Volt Pri. only)	GGV	2 1/2 x 2 11/16	3 7/8	3 7/8	3 1/8

Converter-Photoflash Power Supply

Part No.	Primary	Secondary	Mtg. Type	Mtg. Centers	Dimensions H	W	D
25R58	Discharge for .25 MFD at 225 or 250 Volts DC Trigger Type Transformer	6 KV Peak	RTV		15/16	7/8 Dia.	
25R57	4.5 V DC (Inverter Type)	Output to Feed 25R56	RTV	11/16	1 3/16	7/8 Dia.	
25R56	115 V, 50/60 CPS or 4.5 Volts DC. Battery switched with 25R57 Inverter.	400 Volts DC from Voltage Doubler Circuit.	KTH-A	2 3/8	1 7/8	2 13/16	1 3/4

Blocking Oscillator-Converters

Designed specifically for use in single transistor blocking oscillator circuits. The DC output voltage of TR 464 is rated for a quadruple rectifier circuit and may vary some from these ratings due to bias and component value. All other DC voltage ratings are with 1/2 wave single capacitor input filter.

Part No.	DC Supply Voltage	DC Output Voltage	Output Current In Micro Amps	Turns Ratio Pri.	Sec.	Feed-back	Mtg. Type	Mtg. Centers	Dimensions H	W	D
TR 464	4	425/500	50	44	1	1	MAH		7/16	7/16	1/2
TR 465	3	535 (1/2 Wave)	90	65.5	.33	1	BAH	1 3/8	3/4	1 5/8	13/16
TR 462	3	1,000 (1/2 Wave)	25	600	12	1	BAH	1 3/8	3/4	1 5/8	13/16
27R167	3	1,000 (1/2 Wave)	25	600	12	1	AG-2	1 1/8	1 3/8	1	1

TRANSFORMERS — Mil-T-27B Steel Jacket Line

Mil-T-27B Case Dimensions

AS DESIGNATED IN MIL-T-27B SPECIFICATIONS

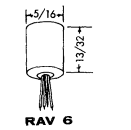
Mtg. Type	-A-	-B-	-C-	D. x E.	Stud Size
AF	3/4	3/4	1 1/8	9/16	4-40 x 3/8
AG	1	1	1 3/8	3/4	4-40 x 3/8
AH	1 5/16	1 5/16	1 3/4	1 1/4	6-32 x 3/8
AJ	1 5/8	1 5/8	2 3/8	1 3/16 x 1 3/16	6-32 x 3/8
EA	1 15/16	1 13/16	2 3/4	1 3/8 x 1 1/4	6-32 x 3/8
EB	1 15/16	1 13/16	2 7/16	1 3/8 x 1 1/4	6-32 x 3/8
FA	2 5/16	2 1/16	3 1/8	1 11/16 x 1 7/16	6-32 x 3/8
FB	2 5/16	2 1/16	2 1/2	1 11/16 x 1 7/16	6-32 x 3/8
GA	2 3/4	2 3/8	3 13/16	2 1/8 x 1 3/4	6-32 x 3/8
GB	2 3/4	2 3/8	2 13/16	2 1/8 x 1 3/4	6-32 x 3/8
HA	3 1/16	2 5/8	4 1/4	2 19/64 x 1 55/64	8-32 x 3/8
HB	3 1/16	2 5/8	3 3/16	2 19/64 x 1 55/64	8-32 x 3/8
JA	3 9/16	3 1/16	4 7/8	2 5/8 x 2 1/8	8-32 x 3/8
JB	3 9/16	3 1/16	3 7/8	2 5/8 x 2 1/8	8-32 x 3/8
KA	3 15/16	3 3/8	5 1/4	3 x 2 7/16	10-32 x 1/2
KB	3 15/16	3 3/8	4 5/16	3 x 2 7/16	10-32 x 1/2
LA	4 5/16	3 11/16	5 9/16	3 5/16 x 2 11/16	10-32 x 1/2
LB	4 5/16	3 11/16	4 1/2	3 5/16 x 2 11/16	10-32 x 1/2
MA	4 11/16	4	6	3 11/16 x 3	1/4-20 x 5/8
MB	4 11/16	4	4 15/16	3 11/16 x 3	1/4-20 x 5/8
NA	5 1/16	4 5/16	6 13/16	4 1/16 x 3 5/16	1/4-20 x 5/8
NB	5 1/16	4 5/16	5 1/2	4 1/16 x 3 5/16	1/4-20 x 5/8
OA	5 1/2	4 1/2	6 3/4	3 3/4 x 3	1/4-20 x 5/8

YY and ZZ Case Types

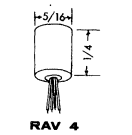
	A	B	C	D	E
YY-1	1.198	1.198	2	1 5/32	
YY-2	1 1/4	1 1/16	2 1/4	1 3/16	
YY-3	1 5/16	1 5/16	1 3/4	1 11/32	
YY-4	1 7/16	1 7/16	2 1/2	1 3/8	
YY-5	1 7/16	1 7/16	2 1/2	1	1
YY-6	1.361	1.361	2.037	1 5/16	
YY-7	1 1/2	1 1/4	2 3/8	1 15/32	
YY-8	1 1/2	1 1/2	2	1	1
YY-9	1 1/2	1 1/2	2 1/2	1	1
YY-10	1 35/64	1 35/64	2 9/64	1	1
YY-11	1 9/16	1 9/16	3	1	1
YY-12	1 3/4	1 7/16	2 1/2	1 1/2	
YY-13	2	1 5/8	2 3/4	1 1/2	
YY-14	1 5/8	1 5/8	2 3/8	1 5/8	
YY-15	1.901	1.791	2.205	1 5/16	1 1/16
YY-16	1.901	1.791	2.424	1 5/16	1 1/16
YY-17	2.241	2.101	2.680	1 9/16	1 3/8
YY-18	2.241	2.101	2.930	1 9/16	1 3/8
YY-19	2 5/16	2 1/16	3 1/8	1 13/16	1 3/8
YY-20	2 1/2	2 3/16	1 7/8	1 3/4	1 3/8
YY-21	2.521	2.381	3.049	1 13/16	1 11/16
YY-22	2.521	2.381	3.299	1 13/16	1 11/16
YY-23	2 13/32	2 17/32	3 1/16	1 3/4	1 5/8
YY-24	2 9/16	2 3/16	4	1 3/4	1 3/4
YY-25	2 3/4	2 3/8	3 3/16	2 1/8	1 11/16
YY-26	1 13/16	1 11/16	2 1/8	2 1/8	1/2

	A	B	C	D	E
YY-27	2.861	2.711	3.492	2	1 7/8
YY-28	2.861	2.711	3.742	2	1 7/8
YY-29	3	2 1/2	3 5/16	2 11/16	1 3/4
YY-30	3 1/16	2 11/16	3 5/8	2 7/8	1 15/16
YY-31	3.245	2.979	3.867	2 3/8	2 1/8
YY-32	3.245	2.979	4.242	2 3/8	2 1/8
YY-33	3.667	3.292	4.305	2 5/8	2 3/8
YY-34	3.667	3.292	4.680	2 5/8	2 3/8
YY-35	3 17/32	2 27/32	4	2 1/2	2 1/16
YY-36	3 9/16	2 13/16	3 1/2	2 1/2	2 1/16
YY-37	2 23/32	3 15/32	4 15/32	2 3/4	2 1/2
YY-39	3 15/16	3 3/8	5	2 3/4	2 1/2
YY-40	3 17/32	3 1/32	4 1/2	2 5/8	2 1/8
YY-41	4 1/8	3	5	3 1/8	3 5/8
YY-42	4.573	4.120	5.318	3 3/8	3
YY-43	5.323	4.792	6.068	3 3/8	3
YY-44	5	4	5	3 3/4	2 3/4
YY-45	5 7/8	4 3/4	6 5/8	4 7/8	3 3/4
YY-46A	6	5 1/8	6 3/4	5	4 3/16
YY-47	6 1/4	5 3/4	6 3/4	5 1/8	4 1/4
YY-47A	6 1/4	5 3/4	6 3/4	4-1/4	4 1/2
YY-49	6 1/2	5 1/2	7 3/4	5 3/8	4 3/8
YY-50	6 3/4	6 1/2	8	5 5/8	5 3/8
YY-51	7	5 3/16	7 5/8	5	5 7/8
YY-52	6 1/2	5 1/2	7 3/4	5 3/8	4 1/8
YY-53	5 1/16	5 1/16	5 7/16	4 1/8	4 1/8

NSV NTV	MTG. CENTERS	H	W	D
-3	1 1/8 x 1 1/8	1 5/8	1 3/8	1 3/8
-4	1 5/16 x 1 5/16	2 1/4	1 5/8	1 5/8
-5	1 1/2 x 1 1/2	2 1/2	1 13/16	1 13/16
-6	1 13/16 x 1 13/16	2 7/8	2 3/16	2 3/16
-7	2 3/32 x 2 3/32	3 1/4	2 9/16	2 9/16
-8	2 3/8 x 2 3/8	3 3/4	3	3
-9	2 11/16 x 2 11/16	4 1/8	3 7/16	3 7/16
-10	3 x 3	4 1/2	3 3/4	3 3/4
-11	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2
-12	4 1/8 x 4 1/8	5 1/2	5 1/8	5 1/8
-13	4 7/8 x 4 7/8	7	5 3/4	5 3/4



RAV 6



RAV 4

Miniature Transistor Transformers

INCLUDES: (A) INPUT, (J) INTERSTAGE, (D) DRIVER, (M) MIXING OR MATCHING, (P) HAS PULSE APPLICATIONS, (S) OUTPUT.

Designed and built to meet MIL-T-27B Grade 4, Class R specifications. Ruggedly constructed, these units have exceptional reliability along with the highest ratings available today for their size. They can be used for different impedances than specified, the impedance ratio being constant. Useable frequency range is 100 cycles to 20,000 cycles. The dimensions shown in the RAV-6 drawing are optimum.

Part No.	MIL-T-27B Classification	Application	Overall Turns Ratio	Impedance Primary	Secondary	Unbal. Pri. MADC	Primary Resistance	Power In Milliwatts
MIT 241	TF4RX17YY	J, S, P	1:1	400/500CT	400/500*	8/6	47	500
MIT 296	TF4RX13YY	J, P	1:1	2,000/2,500CT	2,000/2,500*	3	200	100
MIT 247	TF4RX13YY	J	1:1	9,000/10,000CT†	9,000/10,000CT	1	801	100
MIT 226	TF4RX13YY	J, P	1:1	10,000/12,000CT	10,000/12,000CT	1	872	100
MIT 220	TF4RX17YY	S, M	1:1.1	500CT	600	5.6	35	500
MIT 221	TF4RX17YY	S	1.22:1	900CT	600	4	61	500
MIT 219	TF4RX17YY	S, M	1:1.41	300CT	600	7	20.1	500
MIT 297	TF4RX13YY	J	1:1.41	4,000/5,000CT†	8,000/10,000CT	2	320	100
MIT 244	TF4RX17YY	J, M, S	1.57:1	80/100CT	32/40*	12/10	10.9	500
MIT 222	TF4RX13YY	S, M	1.58:1	1,500CT	600	3	85	500
MIT 242	TF4RX17YY	D, J	1.82:1	400/500CT	120/150*	8/6	47	500
MIT 237	TF4RX13YY	J, P	1:2	2,000/2,500CT	8,000/10,000*	3	228	100
MIT 211	TF4RX13YY	D, J	2.21:1	10,000/12,500	2,000/2,500CT	1	820	100
MIT 238	TF4RX13YY	D, J	2.23:1	10,000/12,000CT	2,000/2,400*	1	612	100
MIT 225	TF4RX13YY	D, J	2.58:1	10,000/12,000CT	1,500/1,800CT	1	822	100
MIT 248	TF4RX13YY	J	2.58:1	8,000/10,000CT	1,200/1,500CT	1	640	100
MIT 210	TF4RX13YY	D, J	2.88:1	10,000/12,500	1,200/1,500CT	1	822	100
MIT 243	TF4RX17YY	J, M, S	3.15:1	400/500CT	40/50*	8/6	42	500
MIT 202	TF4RX17YY	S, M	3.17:1	500/600	50/60	3	73	100
MIT 212	TF4RX17YY	S	3.54:1	150/200CT	12/16	10	11	500
MIT 245	TF4RX12YY	J, P	4:1	1,000/1,250CT	16,000/20,000*	3.5	105	100
MIT 203	TF4RX13YY	S, M	4.47:1	1,000/1,200	50/60	3	114	100
MIT 209	TF4RX13YY	D, S	4.5:1	10,000/12,000	500/600CT	1	708	100
MIT 239	TF4RX13YY	D, J	4.5:1	20,000/30,000CT	1,000/1,500*	.5	780	100
MIT 213	TF4RX17YY	S	5:1	300/400CT	12/16	7	20	500
MIT 201	TF4RX13YY	D, J	5:1	20,000/30,000	800/1,200	.5	915	50
MIT 223	TF4RX13YY	D, J	5:1	20,000/30,000CT	800/1,200CT	.5	915	100
MIT 229	TF4RX17YY	S	6.35:1	120/150CT	3.2/4	10	10	500
MIT 214	TF4RX17YY	S	7.06:1	600/800CT	12/16	5	42	500
MIT 215	TF4RX17YY	S	8.2:1	800/1,070CT	12/16	4	51	500
MIT 216	TF4RX13YY	S	9.12:1	1,000/1,330CT	12/16	3.5	70	500
MIT 230	TF4RX17YY	S	10:1	320/400CT	3.2/4	7	20.1	500
MIT 217	TF4RX13YY	S	11.2:1	1,500/2,000CT	12/16	3	110	500
MIT 204	TF4RX17YY	S, M	13.7:1	600	3.2	3	60.2	100
MIT 231	TF4RX17YY	S	14.1:1	640/800CT	3.2/4	5	42	500
MIT 246	TF4RX16YY	A	14.6:1	100,000CT†	500CT	0	7,500	25
MIT 207	TF4RX16YY	A	14.6:1	200,000	1,200	0	8,200	25
MIT 224	TF4RX16YY	A	14.6:1	200,000CT	1,000CT	0	8,200	25
MIT 232	TF4RX17YY	S	15.8:1	800/1,000CT	3.2/4	4	53	500
MIT 233	TF4RX13YY	S	18.2:1	1,060/1,330CT	3.2/4	3.5	71	500
MIT 205	TF4RX13YY	S	19.3:1	1,200	3.2	2	125	100
MIT 234	TF4RX13YY	S	20.3:1	1,600/2,000CT	3.2/4	3	110	500
MIT 218	TF4RX13YY	S	25:1	7,500/10,000CT	12/16	1	500	100
MIT 240	TF4RX13YY	J, S	31.6:1	40,000/50,000CT	400/500*	.25	1,700	50
MIT 235	TF4RX13YY	S	50:1	8,000/10,000CT	3.2/4	1	425	500
MIT 206	TF4RX13YY	S	56:1	10,000	3.2	1	795	100
MIT 249	TF4RX20YY	Inductor	Series Connected: 8H @ 3MADC Parallel Connected: 2H @ 6MADC				5,100 1,270	
MIT 226	TF4RX20YY	Inductor	1.5H @ 5MADC				2,160	
MIT 208	TF4RX20YY	Inductor	1H @ 5MADC				617	
MIT 227	TF4RX20YY	Inductor	.5H @ 11MADC				103	
MIT 228	TF4RX20YY	Inductor	.15H @ 20MADC				24	
MIT 250	TF4RX20YY	Inductor	Series Connected: .06H @ 30MADC Parallel Connected: .015H @ 60MADC				10 2.5	
MIT 200	TF4RX03YY	Filament	Primary: 28 Volts @ 380 to 1,000 Cycles Secondary: 6.3 Volts @ 60MADC					
MIT 298	TF4RX03YY	Filament	Primary: 28 Volts @ 380 to 1,000 Cycles Secondary: 6.3 Volts @ 30MADC and 6.3 Volts @ 30MADC					
MIT 299	TF4RX03YY	Isolation	Primary: 28 Volts @ 380 to 1,000 Cycles Secondary: 28 Volts @ 20MADC					
MIT 300		Shield	High Permeability cover and shield, providing 25 to 30DB shielding					

† Static Shielded.
* Split Winding.

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For Mounting Illustrations, Cross References and Pricing Information See Pages 1518-1530

Miniature Transistor Transformers

RAV 5

INCLUDES: (A) INPUT, (J) INTERSTAGE, (D) DRIVER, (S) OUTPUT, (M) MIXING OR MATCHING, (P) HAS PULSE APPLICATIONS.

Designed and built to meet MIL-T-27B Grade 4, Class R specifications. The same rugged construction used in the manufacture of the units on the preceding page has been followed and these units have been reduced in height by almost 40%. They can be used for different impedances than specified, the impedance ratio being constant. Useable frequency range is 200 to 20,000 Cycles. The dimensions shown in the RAV-4 drawing are optimum.

Part No.	MIL-T-27B Classification	Application	Overall Turns Ratio	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Primary Resistance	Power In Milliwatts
MIT 271	TF4RX17YY	J, S, P	1:1	400/500CT	400/500*	8/6	51	500
MIT 274	TF4RX13YY	J, P	1:1	2,000/2,500CT	2,000/2,500*	3	180	100
MIT 268	TF4RX13YY	J, P	1:1	10,000/12,000CT	10,000/12,000CT	1	970	100
MIT 262	TF4RX17YY	S, M	1:1.1	500CT	600	5	31	500
MIT 263	TF4RX17YY	J, S	1.22:1	900CT	600	4	52	500
MIT 261	TF4RX17YY	J, S	1:1.41	300CT	600	7	20	500
MIT 275	TF4RX13YY	J	1:1.41	4,000/5,000CT†	8,000/10,000CT	2	300	100
MIT 273	TF4RX17YY	J, S	1.58:1	80/100CT	32/40*	12/10	12	500
MIT 252	TF4RX13YY	S	1.58:1	1,500CT	600	3	90	500
MIT 269	TF4RX13YY	J, P	1:2	2,000/2,500CT	8,000/10,000*	3	180	100
MIT 270	TF4RX13YY	J	2.23:1	10,000/12,000CT	2,000/2,400*	1	620	100
MIT 260	TF4RX13YY	D	2.23:1	10,000/12,500	2,000/2,500CT	1	875	100
MIT 264	TF4RX13YY	J	2.58:1	10,000/12,000CT	1,500/1,800CT	1	875	100
MIT 259	TF4RX13YY	D	2.9:1	10,000/12,500	1,200/1,500CT	1	875	100
MIT 272	TF4RX17YY	J, S	3.16:1	400/500CT	40/50*	8/6	51	500
MIT 255	TF4RX17YY	S	3.16:1	500/600	50/60	3	65	100
MIT 256	TF4RX17YY	S	4.47:1	1,000/1,200	50/60	3	111	100
MIT 251	TF4RX13YY	D, S	4.47:1	10,000/12,000	500/600CT	1	880	100
MIT 254	TF4RX13YY	J	5:1	20,000/30,000	800/1,200	.5	705	50
MIT 253	TF4RX13YY	D, J	5:1	20,000/30,000CT	800/1,200CT	.5	705	50
MIT 257	TF4RX13YY	S	19.4:1	1,200	3.2	2	111	100
MIT 265	TF4RX20YY	Inductor	1.2H @ 4MADC				2,300	
MIT 258	TF4RX20YY	Inductor	.9H @ 4MADC				635	
MIT 266	TF4RX20YY	Inductor	.5H @ 6MADC				105	
MIT 267	TF4RX20YY	Inductor	.08H @ 10MADC				25	
MIT 295		High Permeability cover and shield providing 25 to 30 DB shielding						

Designed and built to meet MIL-T-27B Grade 4, Class R specifications. Rugged construction, exceptional reliability, high power rating — all have been maintained in the design of these units. Provided with non-insulated .017 diameter, 1 1/4" long, gold plated lead wire, these units may be welded or soldered in the circuitry. Standardized with the semiconductor industry, the leads are spaced on a .2" diameter circle. These units can be used for different impedances than shown, the impedance ratio being constant. Useable frequency range is 200 to 20,000 Cycles. The dimensions shown in the RAV-5 drawing are optimum.

Part No.	MIL-T-27B Classification	Application	Overall Turns Ratio	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Primary Resistance	Power In Milliwatts
MIT 283	TF4RX17YY	J, S, P	1:1	400/500CT	400/500*	8/6	50	500
MIT 293	TF4RX13YY	J, P	1:1	10,000/12,000CT	10,000/12,000CT	1	975	100
MIT 285	TF4RX17YY	S, M	1:1.1	500CT	600CT	5	34	500
MIT 281	TF4RX17YY	J, S, M	1:1.41	300CT	600CT	7	20	500
MIT 280	TF4RX17YY	J, S	1.58:1	80/100CT	32/40*	12/10	10	500
MIT 287	TF4RX13YY	S, M	1.58:1	1,500CT	600CT	3	91	500
MIT 288	TF4RX13YY	J, P	1:2	2,000/2,500CT	8,000/10,000*	3	185	100
MIT 291	TF4RX13YY	D, J	2.23:1	10,000/12,000CT	2,000/2,400CT	1	875	100
MIT 292	TF4RX13YY	D, J	2.23:1	10,000/12,500CT	2,000/2,500*	1	620	100
MIT 290	TF4RX13YY	D, S	2.9:1	10,000/12,500CT	1,200/1,500CT	1	87	100
MIT 282	TF4RX17YY	J, S	3.16:1	400/500CT	40/50*	8/6	50	500
MIT 284	TF4RX17YY	S, M	3.16:1	500/600CT	50/60CT	3	65	500
MIT 286	TF4RX13YY	S, M	4.47:1	1,000/1,200CT	50/60CT	3	111	500
MIT 289	TF4RX13YY	D, S	4.47:1	10,000/12,000CT	500/600CT	1	87	100
MIT 294	TF4RX13YY	D, J	5:1	20,000/30,000CT	800/1,200CT	.5	875	50
MIT 279	TF4RX20YY	Split Inductor	Series Connected: 1.2H @ 4MADC Parallel Connected: .3H @ 8MADC				2,300 .575	
MIT 278	TF4RX20YY	Split Inductor	Series Connected: .9H @ 4MADC Parallel Connected: .2H @ 8MADC				635 155	
MIT 277	TF4RX20YY	Split Inductor	Series Connected: .5H @ 6MADC Parallel Connected: .1H @ 12MADC				100 25	
MIT 276	TF4RX20YY	Split Inductor	Series Connected: .08H @ 10MADC Parallel Connected: .02H @ 20MADC				25 6	

* Split winding. † Static Shielded.

Input-Interstage-Driver

INCLUDES: TRANSISTOR AND TUBE TYPE — MOLDED AND ENCASED

Designed and built to meet all the requirements of MIL-T-27B specifications for their specified class of operations. Listed in order of the primary impedance — this complete list of Input-Interstage & Driver Transformers make available an almost endless variety of high quality-miniature and compact audio transformers. Both Transistor (Tr.) and tube type transformers may be used at slightly different impedances than specified, the impedance ratio being constant. The dimensions shown in the RAV-4, RAV-5, and RAV-6 drawings are optimum.

Part No. Molded	Part No. Encased	MIL-T-27B Classification	Application	Impedance Primary	Impedance Secondary	Pri. MADC	Power In MW	Frequency Response ±2DB	Case Size
	27A96	TF4QX16YY	Mike or V.C. to Tr.	30/12/4	1,000	0	1	40-24,000§	TJZ
	27A95	TF4QX10YY	Mike or V.C. to Grid	30/12/4	50,000	0	1	70-20,000§	TJZ
	27A841	TF4RX10YY	Mike or V.C. to Grid	30/12/4	50,000	0	1	50-15,000§	AF-1
	27A22	TF4RX10YY	Mike or V.C. to Grid	30/12/4	50,000	0	1	50-12,000	NSV-2
27A282		TF5RX10ZZ	Mike to Grid	30/7.5	50,000	0	3	20-20,000	M-11
	27A271	TF4RX10YY	Mike to Grid	30/7.5	50,000	0	3	20-20,000	NSV-2
	27A258	TF4RX10YY	Mike to Grid	30/7.5	50,000	0	3	20-20,000	AG-2
	27A75▲	TF4RX10YY	Mike to Grid	30	127,500	0	1	40-12,000§	YY-12
27A170		TF5RX21ZZ	TR. Input	50	600	1.5	15	200-10,000	MB
	27A143	TF4RX11YY	Mike to Grid	50	50,000	1	1	200-5,000	NSV-2**
	27A16	TF4RX10YY	Input to Grid	50	62,500	0	20	100-15,000§	TSM
27A68		TF5RX17ZZ	Tr. Interstage	80CT to 100CT	32CT to * 40CT*	16	250	50-20,000	M2
		MIT 273	TF4RX17YY	Tr. Interstage	80CT to 100CT	32CT to * 40CT*	12 10	500	††	RAV-4
		MIT 280	TF4RX17YY	Tr. Interstage	80CT to 100CT	32CT to* 40CT*	12 10	500	††	RAV-5
		MIT 244	TF4RX17YY	Tr. Interstage	80CT to 100CT	32CT to* 40CT*	12 10	500	††	RAV-6
	27A36	TF4RX11YY	Mike to Grid	82	135,000	50	63	250-8,000	NSV-2
	27A114	TF4RX17AH	Tr. Interstage	100CT	10CT		250		AH
	27A149	TF4RX17YY	Tr. Interstage	100CT*	40CT*	40	250	100-20,000	NSV-2
27A328		TF5RX17ZZ	Tr. Interstage	100	40CT*	100	500	200-20,000	M-11
	27A312	TF4RX17YY	Tr. Interstage	100	40CT*	100	500	200-20,000	NSV-2
	27A296	TF4RX17YY	Tr. Interstage	100	40CT*	100	500	200-20,000	AG-2
	27A119	TF4RX17EB	Tr. Interstage	100	100CT	100	500		EB
	27A115	TF4RX17AJ	Tr. Interstage	100	1,000CT	100	250		AJ
	27A142	TF4RX11YY	Tr. Input	100CT	90,000CT	1	1		NSV-2**
	27A131	TF4SY21AG	Tr. Input or Interstage	125	500CT	4	300	100-8,000	AG
	27A145	TF4RX10YY	Line to Grid	125	120,000	0	3	400-5,000§§	NSV-4
	27A10	TF4RX11FA	Mike to Grid	125/50	125,000CT	0	10	200-3,500§§	FA
	27A127	TF4RX11YY	Mike to Grid	125/50	125,000CT	0	10	200-3,500§§	YY-17
	27A138	TF4QX11AH	Input	150	100,000CT	0	10	300-3,000§§	AH
	27D36	TF4RX12YY	Tr. Driver	200CT	400CT*	20	1W	40-20,000	NSV-4
27A183		TF5RX10ZZ	Input	200/50	250,000/62,500	0	3	200-10,000	M-9
	27A180	TF4RX10YY	Input	200/50	250,000/62,500	0	3	200-10,000	NSV-2B
27A347		TF5RX10ZZ	Input	200/50	250,000/62,500	0	4	80-10,000	M-10
	27A345	TF4RX10YY	Input	200/50	250,000/62,500	0	4	80-10,000	NSV-2C
	27A343	TF4RX10YY	Input	200/50	250,000/62,500	0	4	80-10,000	AF-2
27A50		TF5RX10ZZ	Input	200/50	250,000/62,500	0	5		M2A
27A61		TF5RX10ZZ	Input	200/50	250,000/62,500	0	10	50-20,000	M-2
27A293		TF5RX10ZZ	Mike to Grid	200	500,000	0	8	80-3,000	M-11
	27A279	TF4RX10YY	Mike to Grid	200	500,000	0	8	80-3,000	NSV-2
	27A269	TF4RX10YY	Mike to Grid	200	500,000	0	8	80-3,000	AG-2
	27A87	TF4QX10YY	Mike to Grid	200	500,000	0	10	200-10,000§	AF-1
27A291		TF5RX16ZZ	Mixing or Matching	250/50CT	600/250/50CT	0	6	20-20,000	M-11
	27A278	TF4RX16YY	Mixing or Matching	250/50CT	600/250/50CT	0	6	20-20,000	NSV-2
	27A267	TF4RX16YY	Mixing or Matching	250/50CT	600/250/50CT	0	6	20-20,000	AG-2
	27A99	TF4RX10YY	Line to Grid	250CT	50,000	0	6.3	30-20,000§§	Plug-In
	27A43	TF4RX10YY	Line to Grid	250 to 500CT	50,000 to 100,000CT	0	4	30-20,000	NSV-4
	MIT 261	TF4RX17YY	Mixing or Matching	300CT	600	7	500	††	RAV-4
	MIT 281	TF4RX17YY	Mixing or Matching	300CT	600CT	7	500	††	RAV-5

§ Response at ±3 DB §§ Response at ±1 DB ** Height = 1 11/16
‡ Static Shielded * Split C.T. Winding
▲ This unit is shielded for - 90 DB hum reduction †† Average useable frequency range from 100 to 20,000 Cycles

Input-Interstage-Driver

INCLUDES: TRANSISTOR AND TUBE TYPE — MOLDED AND ENCASED

Part No. Molded	Part No. Encased	MIL-T-27B Classification	Application	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Power In MW	Frequency Response ±2DB	Case Size
	MIT 219	TF4RX17YY	Mixing or Matching	300CT	600	7	500	††	RAV-6
27A67		TF5RX17ZZ	Interstage	400CT to 500CT	40CT to* 50CT*	8	250	50-20,000§	M2
	MIT 272	TF4RX17YY	Interstage	400CT to 500CT	40CT to* 50CT*	8 6	500	††	RAV-4
	MIT 282	TF4RX17YY	Interstage	400CT to 500CT	40CT to* 50CT*	8 6	500	††	RAV-5
	MIT 243	TF4RX17YY	Interstage	400CT to 500CT	40CT to* 50CT*	8 6	500	††	RAV-6
27A66		TF5RX17ZZ	Interstage	400CT to 500CT	120CT to* 150CT*	8	250		M2
	MIT 242	TF4RX17YY	Interstage	400CT to 500CT	120CT to* 150CT*	8 6	500	††	RAV-6
27A65		TF5RX17ZZ	Interstage	400CT to 500CT	400CT to* 500CT*	8	250	50-20,000	M2
	MIT 271	TF4RX17YY	Interstage	400CT to 500CT	400CT to* 500CT*	8 6	500	††	RAV-4
	MIT 283	TF4RX17YY	Interstage	400CT to 500CT	400CT to* 500CT*	8 6	500	††	RAV-5
	MIT 241	TF4RX17YY	Interstage	400CT to 500CT	400CT to* 500CT*	8 6	500	††	RAV-6
	MIT 255	TF4RX17YY	Matching	500 to 600	50 to 60	3	500	††	RAV-4
	MIT 284	TF4RX17YY	Matching	500CT to 600CT	50CT to 60CT	3	500	††	RAV-5
	MIT 202	TF4RX17YY	Matching	500 to 600	50 to 60	3	500	††	RAV-6
	27A42	TF4RX17YY	Tr. Interstage	500CT*	150CT*	20	250††	100-20,000	NSV-2
27D50		TF5RX17ZZ	Tr. Driver	500CT	250CT	7.5	15	200-10,000	M8
	27A46	TF4RX17YY	Tr. to Line	500CT	500CT*	20	1	40-20,000	NSV-4
	27A92	TF4QX17YY	Tr. to Line	500CT	500CT*	20	25	50-20,000§	AF-1
	27A41	TF4RX17YY	Tr. Interstage	500CT*	500CT*	20	250‡	100-20,000	NSV-2
	27A132	TF4RX17AG	Tr. Interstage	500CT	500CT*	3	300		AG
TR 121		TF5RX17ZZ	Tr. Driver	500CT*	600	5.5	500	100-100,000‡	M1
	MIT 262	TF4RX17YY	Tr. to Line	500CT	600	5.5	500	††	RAV-4
	MIT 285	TF4RX17YY	Tr. to Line	500CT	600CT	5.5	500	††	RAV-5
	MIT 220	TF4RX17YY	Tr. to Line	500CT	600	5.5	500	††	RAV-6
	27A116	TF4RX17AJ	Tr. Interstage	500CT	5,000CT	0	30		AJ
	27A136	TF4RX17YY	Input	500CT/330/ 250/200CT/ 125/50	60,000CT*	0	63	30-20,000	YY-19
	27A20	TF4RX10YY	Mike, Line to Grid	500CT/200CT/50	50,000	0	3.2	50-15,000	NSV-2
	27A21	TF4RX10YY	Mike, Line to Grid	500CT/200CT/50*	50,000CT	0	3.2	50-15,000	NSV-2
	27D51	TF4RX17AJ	Tr. Interstage	560	400CT	18	150	200-20,000	AJ
	27A113	TF4RX17AG	Tr. Interstage	600CT	10	0	50		AG
	27A90‡	TF4QX16YY	Tr. Interstage	600/250/50	600/250/50	0	10	50-50,000§	AF-1
	27A29	TF4RX16YY	Tr. Interstage	600/250/50	600/150/50	0	10	50-15,000	NSV-2
	27A05■	TF4RX16FA	Tr. Interstage	600/150CT	600/150CT	0	31	30-15,000	FA
	27A12■	TF4RX16YY	Tr. Interstage	600/150CT	600/150CT	0	31	30-15,000	YY-18
	27A48	TF4RX16YY	Tr. Interstage	600,500/333/ 250,200/150, 125/50	600,500/333/ 250,200/150 125/50	0	30	20-50,000	NSV-4
27A207		TF5RX17ZZ	Tr. Interstage	600	600	8	150	200-15,000	M9
	27A186	TF4RX17YY	Tr. Interstage	600	600	8	150	200-15,000	NSV-2B
27A327		TF5RX17ZZ	Tr. Interstage	600	600	10	200	200-15,000	M11
27A244		TF5RX17ZZ	Tr. Interstage	600	600	9	200	200-15,000	M10
	27A233	TF4RX17YY	Tr. Interstage	600	600	9	200	200-15,000	NSV-2C
	27A311	TF4RX17YY	Tr. Interstage	600	600	10	200	200-15,000	NSV-2
	27A228	TF4RX17YY	Tr. Interstage	600	600	9	200	200-15,000	AF-2
	27A295	TF4RX17YY	Tr. Interstage	600	600	10	200	200-15,000	AG-2
27A167		TF5RX21ZZ	Tr. Interstage	600CT	600CT	7	5	300-10,000	M7A
	27A37	TF4RX16YY	Mixing or Matching	600CT*	600CT	0	6.3	50-10,000	NSV-2
27A178		TF5RX17ZZ	Tr. Interstage	600CT	600CT	7	15	200-10,000	M8
27A221		TF5RX17ZZ	Tr. Interstage	600CT	600CT	16	150	200-15,000	M9
	27A200	TF4RX17YY	Tr. Interstage	600CT	600CT	16	150	200-15,000	NSV-2B
27A255		TF5RX17ZZ	Tr. Interstage	600CT	600CT	18	200	200-15,000	M10
27A342		TF5RX17ZZ	Tr. Interstage	600CT	600CT	20	200	200-15,000	M11
	27A243	TF4RX17YY	Tr. Interstage	600CT	600CT	18	200	200-15,000	NSV-2C
	27A326	TF4RX17YY	Tr. Interstage	600CT	600CT	20	200	200-15,000	NSV-2
	27A310	TF4RX17YY	Tr. Interstage	600CT	600CT	20	200	200-15,000	AG-2
27A148		TF5RX17ZZ	Tr. Interstage	600CT	600CT*	5	250	200-15,000	M2
27A212		TF5RX17ZZ	Tr. Interstage	600CT	1,200CT	16	150	200-15,000	M9
	27A191	TF4RX17YY	Tr. Interstage	600CT	1,200CT	16	150	200-15,000	NSV-2B
27A333		TF5RX17ZZ	Tr. Interstage	600CT	1,200CT	4	200	200-15,000	M11
27A249		TF5RX17ZZ	Tr. Interstage	600CT	1,200CT	18	200	200-15,000	M10
	27A317	TF4RX17YY	Tr. Interstage	600CT	1,200CT	4	200	200-15,000	NSV-2
	27A238	TF4RX17YY	Tr. Interstage	600CT	1,200CT	18	200	200-15,000	NSV-2C
	27A301	TF4RX17YY	Tr. Interstage	600CT	1,200CT	4	200	200-15,000	AG-2
27A227		TF5RX17ZZ	Tr. Interstage	600CT	1,200CT*	16	150	200-15,000	M9
	27A206	TF4RX17YY	Tr. Interstage	600CT	1,200CT*	16	150	200-15,000	NSV-2B
27A339		TF5RX17ZZ	Tr. Interstage	600CT*	1,200CT	4	200	200-15,000	M11
	27A323	TF4RX17YY	Tr. Interstage	600CT*	1,200CT	4	200	200-15,000	NSV-2
	27A307	TF4RX17YY	Tr. Interstage	600CT*	1,200CT	4	200	200-15,000	AG-2
	27A93	TF4QX17YY	Tr. Interstage	600CT	2,000CT*	0	25	50-20,000§	AF-1
	27A38	TF4RX16YY	Tr. Input	600CT*	2,000CT*	0	31	50-20,000§	NSV-2
	27A81	TF4QX10YY	Line or Mike to Grid	600/250/50	15,000	0	1	60-15,000§	AF-1
	27A130	TF4SY11AG	Tr. Input	600/50	20,000	0	60	400-7,500§	AG
	27A74■	TF4QX11YY	Line or Mike to Grid	600*/250*	38,400CT	10	100	30-90,000§	YY-13
27A280		TF5RX10ZZ	Line or Mike to Grid	600CT/250/50	50,000	0	3	20-20,000	M11
27A281		TF5RX10ZZ	Line or Mike to Grid	600CT/250/50	50,000CT	0	3	20-20,000	M11
	27A256	TF4RX10YY	Line or Mike to Grid	600CT/250/50	50,000	0	3	20-20,000	AG-2
	27A257	TF4RX10YY	Line or Mike to Grid	600CT/250/50	50,000CT	0	3	20-20,000	AG-2
	27A04■	TF4RX10FA	Line or Mike to Grid	600CT*	50,000CT*	0	31	30-15,000	FA
	27A120■	TF4RX10YY	Line or Mike to Grid	600CT*	50,000CT*	0	31	30-15,000	YY-18
	27A07■	TF4RX10FA	Line or Mike to Grid	600/250/150/50	50,000CT*	0	31	30-15,000	FA
	27A123■	TF4RX10YY	Line or Mike to Grid	600/250/150/50	50,000CT*	0	31	30-15,000	YY-18
	27A94	TF4QX10YY	Line or Mike to Grid	600/250/50	60,000	0	1	70-20,000§	TJZ
	27A83	TF4QX10YY	Line or Mike to Grid	600/250/50	60,000CT	0	1	60-15,000§	AF-1
	27A71‡	TF4QX10YY	Line or Mike to Grid	600*/250*/ 150/62.5	77,000	0	10	20-20,000§	YY-2
	27A70▲	TF4QX10YY	Line or Mike to Grid Static Shielded	600*/250*/ 150/62.5	77,000	0	10	20-20,000§	YY-12
	27A09	TF4RX10AJ	Line or Mike to Grid	600/150	100,000CT*	0	10	200-3,500	AJ
	27A126	TF4RX10YY	Line or Mike to Grid	600/150	100,000CT*	0	10	200-3,500	YY-10
	27A139	TF4RX10YY	Line or Mike to Grid	600,500CT /333 250,250CT/ 150,125/50	100,000CT*	0	15	30-15,000	YY-8
	27A14	TF4RX10YY	Line or Mike to Grid	600*/250CT*/ 150/62.5	117,600CT	0	10	30-15,000	YY-8
	27A76	TF4QX10YY	Line or Mike to Grid	600*/250CT*/ 150/62.5	117,600CT	0	10	20-20,000§	YY-12
	27A73■	TF4QX10YY	Line or Mike to Grid Static Shielded	600*/250CT*/ 150/62.5	117,600CT	0	10	20-20,000§	YY-12
	27A72▲	TF4QX10YY	Line or Mike to Grid Static Shielded	600*/250CT*/ 150/62.5	117,600CT	0	10	20-20,000§	YY-13
	27A82‡	TF4QX10YY	Line or Mike to Grid	600/250/50	250,000	0	1	100-15,000§	AF-1
	27A32	TF4RX10YY	Line or Mike to Grid	600/150CT*	1 MEG	0	10	300-2,500	NSV-2
	27D52	TF4RX17AJ	Tr. Interstage	625CT	100CT	20	1.5W	200-20,000	AJ
	27A137	TF4RX17YY	Tr. Interstage	800CT	600	50	250	300-3,000	NSV-2
	MIT 263	TF4RX17YY	Tr. Interstage	900CT	600	4	500	††	RAV-4
	MIT 221	TF4RX17YY	Tr. Interstage	900CT	600	4	500	††	RAV-6
TR 123		TF5RX17ZZ	Tr. Interstage	900CT*	600	4	500	100-100,000	M1
	27587	TF4QX21YY	Tr. to Line	1,000	50	5	1	100-10,000§	TJZ
	MIT 256	TF4RX13YY	Tr. to Line	1,000/1,200	50/60	3	100	††	RAV-4
	MIT 286	TF4RX13YY	Tr. to Line	1,000/1,200CT	50/60CT	3	500	††	RAV-5
	MIT 203	TF4RX13YY	Tr. to Line	1,000/1,200	50/60	3	100	††	RAV-6
	27A117	TF4RX17AG	Tr. Interstage	1,000	200CT	10	50		AG
27A133		TF2RX17ZZ	Tr. Interstage	1,000	5,000	1	10		BCH
	MIT 245	TF4RX12YY	Tr. Interstage	1,000CT to 1,250CT	16,000CT to* 20,000CT*	3.5 3.5	100	††	RAV-6
	27A146	TF4RX10AJ	Input	1,000	225,000	0	1	12-5,000	AJ
TR 124		TF5RX13ZZ	Driver	1,500CT*	600	3	500	100-10,000	M1
	MIT 252	TF4RX13YY	Driver	1,500CT	600	3	500	††	RAV-4
	MIT 287	TF4RX13YY	Driver	1,500CT	600CT	3	500	††	RAV-5
	MIT 222	TF4RX13YY	Driver	1,500CT	600	3	500	††	RAV-6
	27A118	TF4RX12AG	Tr. Interstage	2,000	200CT	5	50		AG
27A226		TF5RX13ZZ	Tr. Interstage	2,000CT	500CT	10	600	200-15,000	M-9
	27A205	TF4RX13YY	Tr. Interstage	2,000CT	500CT	10	600	200-15,000	NSV-2B
	MIT 274	TF4RX13YY	Tr. Interstage	2,000/2,500CT	2,000/2,500CT*	3	100	††	RAV-4

For Mounting Illustrations, Cross References and Pricing Information See Pages 1518-1530

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Input-Interstage-Driver INCLUDES: TRANSISTOR AND TUBE TYPE — MOLDED AND ENCASED

Part No. Molded	Part No. Encased	MIL-T-27B Classification	Application	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Power In MW	Frequency Response ±2DB	Case Size
	MIT 296	TF4RX13YY	Tr. Interstage	2,000/2,500CT	2,000/2,500CT*	3	100	††	RAV-6
	MIT 269	TF4RX13YY	Tr. Interstage	2,000/2,500CT	8,000/10,000CT*	3	100	††	RAV-4
	MIT 288	TF4RX13YY	Tr. Interstage	2,000/2,500CT	8,000/10,000CT*	3	100	††	RAV-5
	MIT 237	TF4RX13YY	Tr. Interstage	2,000/2,500CT	8,000/10,000CT*	3	100	††	RAV-6
27A340		TF5RX12ZZ	Tr. Interstage	2,500	600CT	10	1.5W	200-15,000	M11
	27A324	TF4RX12ZZ	Tr. Interstage	2,500	600CT	10	1.5W	200-15,000	NSV-2
	27A308	TF4RX12ZZ	Tr. Interstage	2,500	600CT	10	1.5W	200-15,000	AG-2
27A176		TF5RX21ZZ	Tr. Interstage	2,500	2,500CT	1.5	3	200-10,000	M8
27A165		TF5RX12ZZ	Tr. Interstage	2,500	2,500CT	1	50	300-100,000	M7
27A156		TF5RX12ZZ	Tr. Interstage	2,500	2,500CT	1	50	300-100,000	M3
27A218		TF5RX13ZZ	Tr. Interstage	2,500	2,500CT	2	200	200-15,000	M9
	27A197	TF4RX13YY	Tr. Interstage	2,500	2,500CT	2	200	200-15,000	NSV-2B
27A254		TF5RX13ZZ	Tr. Interstage	2,500	2,500CT	2.5	400	200-15,000	M10
	27A242	TF4RX13YY	Tr. Interstage	2,500	2,500CT	2.5	400	200-15,000	NSV-2C
	27A232	TF4RX13YY	Tr. Interstage	2,500	2,500CT	2.5	400	200-15,000	AF-2
27A214		TF5RX12ZZ	Tr. Interstage	4,000CT	600CT	5	600	200-15,000	M9
	27A193	TF4RX12YY	Tr. Interstage	4,000CT	600CT	5	600	200-15,000	NSV-2B
27A219		TF5RX13ZZ	Tr. Interstage	4,000CT	600CT*	5	600	200-15,000	M9
	27A198	TF4RX13YY	Tr. Interstage	4,000CT	600CT*	5	600	200-15,000	NSV-2B
27A335		TF5RX13ZZ	Tr. Interstage	4,000CT	600CT	3	1.5W	200-15,000	M11
	27A319	TF4RX13YY	Tr. Interstage	4,000CT	600CT	3	1.5W	200-15,000	NSV-2
	27A303	TF4RX13YY	Tr. Interstage	4,000CT	600CT	3	1.5W	200-15,000	AG-2
27A338		TF5RX13ZZ	Tr. Interstage	4,000CT	600CT*	3	1.5W	200-15,000	M11
	27A322	TF4RX13YY	Tr. Interstage	4,000CT	600CT*	3	1.5W	200-15,000	NSV-2
	27A306	TF4RX13YY	Tr. Interstage	4,000CT	600CT*	3	1.5W	200-15,000	AG-2
	MIT 275	TF4RX13YY	Tr. Interstage Static Shielded	4,000CT to 5,000CT	8,000CT to 10,000CT	2 2	100	††	RAV-4
	MIT 297	TF4RX13YY	Tr. Interstage Static Shielded	4,000CT to 5,000CT	8,000CT to 10,000CT	2	100	††	RAV-6
	27A91‡	TF4QX21YY	Isolation	5,000CT	5,000CT	1	10	60-15,000§	AF-1
	27D53	TF4RX13AH	Driver	5,400	600CT	15	75	200-15,000	AH
	27D54	TF4RX13AH	Driver	7,000	320CT	7	40	70-15,000	AH
27A220		TF5RX13ZZ	Tr. Interstage	7,500CT	600CT	4	150	200-15,000	M9
	27A199	TF4RX13YY	Tr. Interstage	7,500CT	600CT	4	150	200-15,000	NSV-2B
27A341		TF5RX12ZZ	Tr. Interstage	7,500CT	600CT	8	1.5W	200-15,000	M11
	27A325	TF4RX12YY	Tr. Interstage	7,500CT	600CT	8	1.5W	200-15,000	NSV-2
	27A309	TF4RX12YY	Tr. Interstage	7,500CT	600CT	8	1.5W	200-15,000	AG-2
27A225		TF5RX13ZZ	Tr. Interstage	7,500CT	1,200CT	4	150	300-15,000	M9
	27A204	TF4RX13YY	Tr. Interstage	7,500CT	1,200CT	4	150	300-15,000	NSV-2B
	27A151	TF4RX13YY	Chopper	8,000CT/2,000CT	312,000	(Pri.Ind.=30 Hy.@ 1 V.60 N)			NSV-5
	MIT 248	TF4RX13YY	Tr. Interstage Static Shielded	8,000CT to 10,000CT	1,200CT to 1,500CT	1	100	††	RAV-6
	MIT 247	TF4RX13YY	Tr. Interstage Static Shielded	9,000Ct to 10,000CT	9,000CT to 10,000CT	1	100	††	RAV-6
27A185		TF5RX13ZZ	Plate to Line	10,000	200	3	100	150-10,000	M9
	27A182	TF4RX13YY	Plate to Line	10,000	200	3	100	150-10,000	NSV-2B
27A216		TF5RX13ZZ	Interstage	10,000CT	200CT	6	100	200-15,000	M9
27A252		TF5RX13ZZ	Interstage	10,000CT	200CT	6	100	200-15,000	M10
	27A195	TF4RX13YY	Interstage	10,000CT	200CT	6	100	200-15,000	NSV-2B
	27A240	TF4RX13YY	Interstage	10,000CT	200CT	6	100	200-15,000	NSV-2C
	27A28‡	TF4RX13YY	Interstage	10,000CT*	200CT*	2	100	250-20,000§	TFH
27A55		TF5RX13ZZ	Interstage	10,000CT to 20,000CT	200CT to 500CT	2 1	100	80-20,000§	M2A
27D39		TF5RX13ZZ	Driver	10,000CT	500CT	1	50	100-100,000	M3
27D46		TF5RX13ZZ	Driver	10,000CT	500CT	1	50	100-100,000	M7
	MIT 251	TF4RX13YY	Driver	10,000 to 12,000	500CT to 600CT	1	100	††	RAV-4
	MIT 289	TF4RX13YY	Driver	10,000CT to 12,000CT	500CT to 600CT	1 1	100	††	RAV-5
	MIT 209	TF4RX13YY	Driver	10,000 to 12,000	500CT to 600CT	1 1	100	††	RAV-6
TR 133		TF5RX13ZZ	Driver	10,000CT*	500CT*	1	100	100-100,000	M1
	27A39	TF4RX13YY	Tr. Interstage	10,000CT	500CT*	4	100	100-10,000	NSV-2
27D49		TF5RX13ZZ	Driver	10,000CT	600CT	2	5	300-10,000	M7A
27A168		TF5RX13ZZ	Driver	10,000CT	1,200CT	2	5	300-10,000	M7A
	27A18	TF4RX13YY	Tr. Interstage	10,000CT	1,200CT	2	30	250-15,000	TSM
27D45		TF5RX13ZZ	Driver	10,000	1,200	.5	50	300-10,000	M7
27D41		TF5RX13ZZ	Driver	10,000	1,200	.5	50	300-10,000	M3
27D37		TF5RX13ZZ	Driver	10,000CT	1,200CT	1	50	100-100,000	M3
27D43		TF5RX13ZZ	Driver	10,000CT	1,200CT	1	50	100-100,000	M7
27D44		TF5RX13ZZ	Driver	10,000	1,200CT*	.5	50	100-100,000	M7
27D40		TF5RX13ZZ	Driver	10,000	1,200CT*	.5	50	100-100,000	M3
TR 127		TF5RX13ZZ	Driver	10,000	1,200CT*	1	100	100-100,000	M1
	MIT 259	TF4RX13YY	Driver	10,000 to 12,500	1,200CT to 1,500CT	1	100	††	RAV-4
	MIT 290	TF4RX13YY	Driver	10,000CT to 12,500CT	1,200CT to 1,500CT	1	100	††	RAV-5
	MIT 210	TF4RX13YY	Driver	10,000 to 12,500	1,200CT to 1,500CT	1	100	††	RAV-6
27A112		TF5RX13ZZ	Tr. Interstage	10,000CT	1,500CT●	1	50	100-100,000§	M3
27A215		TF5RX13ZZ	Tr. Interstage	10,000	1,500CT	1	100	200-15,000	M9
27A58		TF5RX13ZZ	Tr. Interstage	10,000CT to 12,000CT	1,500CT to 1,800CT	4	100	80-20,000§	M2A
	MIT 264	TF4RX13YY	Tr. Interstage	10,000CT to 12,000CT	1,500CT to 1,800CT	1	100	††	RAV-4
	MIT 225	TF4RX13YY	Tr. Interstage	10,000CT to 12,000CT	1,500CT to 1,800CT	1	100	††	RAV-6
	27A194	TF4RX13YY	Tr. Interstage	10,000	1,500CT	1	100	200-15,000	NSV-2B
27A223		TF5RX13ZZ	Tr. Interstage	10,000CT	1,500CT	2	100	200-15,000	M9
TR 130		TF5RX13ZZ	Tr. Interstage	10,000CT*	1,500CT*	1	100	100-100,000	M1
27A251		TF5RX13ZZ	Tr. Interstage	10,000	1,500CT	1	200	200-15,000	M10
	27A239	TF4RX13YY	Tr. Interstage	10,000	1,500CT	1	200	200-15,000	NSV-2C
	27A350	TF4RX13YY	Tr. Interstage	10,000	1,500CT	1	200	200-15,000	AF-2
	27A202	TF4RX13YY	Tr. Interstage	10,000CT	1,500CT	2	100	200-15,000	NSV-2B
27A164		TF5RX12ZZ	Tr. Interstage	10,000	2,000CT*	.5	50	100-100,000§	M7
27A155		TF5RX12ZZ	Tr. Interstage	10,000	2,000CT*	.5	50	100-100,000§	M3
27A53		TF5RX13ZZ	Tr. Interstage	10,000	2,000CT	1	100	80-20,000	M2A
	MIT 260	TF4RX13YY	Driver	10,000 to 12,500	2,000CT to 2,500CT	1 1	100	††	RAV-4
TR 125		TF5RX13ZZ	Driver	10,000	2,000CT*	1	100	100-100,000	M1
	27A129	TF4RX21AG	Tr. Interstage	10,000	2,000	5	150	100-8,000§	AG
27A64		TF5RX13ZZ	Tr. Interstage	10,000	2,000CT	1	200	50-20,000§	M2
	27A47	TF4RX13YY	Tr. Interstage	10,000CT*	2,000CT*	8	1	40-20,000	NSV-4
	27A89	TF4QX13YY	Tr. Interstage	10,000CT	2,000CT	2	10	50-20,000§	AF-1
	27A19	TF4RX13YY	Tr. Interstage	10,000CT	2,000CT	2	30	250-15,000§	TSM
27D38		TF5RX13ZZ	Driver	10,000CT	2,000CT	1	50	300-100,000§	M3
27D42		TF5RX12ZZ	Driver	10,000CT	2,000CT	1	50	300-100,000	M7
	MIT 291	TF4RX13YY	Tr. Interstage, Driver	10,000CT to 12,000CT	2,000CT to 2,400CT	1	100	††	RAV-5
	MIT 211	TF4RX13YY	Tr. Interstage, Driver	10,000 to 12,500	2,000CT to 2,500CT	1	100	††	RAV-6
	MIT 270	TF4RX13YY	Tr. Interstage, Driver	10,000 to 12,000CT	2,000CT* to 2,400CT*	1	100	††	RAV-4
	MIT 292	TF4RX13YY	Tr. Interstage, Driver	10,000 to 12,000CT	2,000CT* to 2,400CT*	1	100	††	RAV-5
	MIT 238	TF4RX13YY	Tr. Interstage, Driver	10,000CT to 12,000CT	2,000CT* to* 2,400CT*	1	100	††	RAV-6
	27A33	TF4RX13YY	Tr. Interstage	10,000CT*	2,000CT*	4	100	100-10,000	NSV-2
	27A34	TF4RX13YY	Tr. Interstage	10,000CT*	4,000CT*	4	100	100-10,000	NSV-2
	27D55	TF4RX13YY	Tr. Interstage	10,000	6,500CT	.75	5	200-15,000§	AF-1
27A59		TF5RX15ZZ	Interstage	10,000CT to 12,000CT	10,000CT to 12,000CT	1	100	80-20,000§	M2A
27A224		TF5RX13ZZ	Interstage	10,000CT	10,000CT	2	100	200-15,000	M9
	27A203	TF4RX13YY	Interstage	10,000CT	10,000CT	2	100	200-15,000	NSV-2B
	27A27	TF4RX13YY	Interstage	10,000CT	10,000CT	1	100	250-15,000§	TSM
	MIT 268	TF4RX13YY	Interstage	10,000CT to 12,000CT	10,000CT to 12,000CT	1	100	††	RAV-4
	MIT 293	TF4RX13YY	Interstage	10,000CT to 12,000CT	10,000CT to 12,000CT	1	100	††	RAV-5
	MIT 236	TF4RX13YY	Interstage	10,000CT to 12,000CT	10,000CT to 12,000CT	1	100	††	RAV-6
	27A141	TF4RX15YY	Interstage	10,000CT to 20,000CT	20,000CT* to 40,000CT*	10	50	100-10,000§§	RSV##
	27A08■	TF4RX10FA	Interstage	10,000	50,000CT*	0	31	30-15,000	FA
	27A124■	TF4RX10YY	Interstage	10,000	50,000CT*	0	31	30-15,000	YY-18
27A184		TF5RX10ZZ	Interstage	10,000	90,000	0	3	150-10,000	M9
	27A181	TF4RX10YY	Interstage	10,000	90,000	0	3	150-10,000	NSV-2B
27A348		TF5RX10ZZ	Interstage	10,000	90,000	0	6	100-10,000	M10
	27A344	TF4RX10YY	Interstage	10,000	90,000	0	6	100-10,000	AF-2
	27A346	TF4RX10YY	Interstage	10,000	90,000	0	6	100-10,000	NSV-2C
	27518	TF4RX15YY	Plate to Grid	10,000	90,000	0	20	250-15,000§	TSM

Input-Interstage-Driver

Part No. Molded	Part No. Encased	MIL-T-27B Classification	Application	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Power In MW	Frequency Response ±2DB	Case Size
27A51		TF5RX15ZZ	Interstage	10,000	90,000	.25	30	80-20,000§	M2A
27A62		TF5RX15ZZ	Interstage	10,000	90,000	.25	100	50-20,000§	M2
	27A140	TF4RX10AJ	Interstage	10,000	90,000CT	0	2W	50-10,000§	AJ
	27A150▲	TF4RX10YY	Chopper (Pri.Inductance 90 Hy.	10,000† Min. 1 V 60 CPS)	100,000	0	2.75V		NSV-4
	27A30	TF4RX15YY	Interstage	10,000	1 Meg.	0	10	300-2,500	NSV-2
27A294		TF5RX10ZZ	Interstage	10,000	1 Meg.	0	12	100-2,500	M11
	27A270	TF4RX10YY	Interstage	10,000	1 Meg.	0	12	100-2,500	AG-2
27A287		TF5RX16ZZ	Plate to Line	15,000	50/250/600CT	0	6	20-20,000	M11
	27A274	TF4RX16YY	Plate to Line	15,000	50/250/600CT	0	6	20-20,000	NSV-2
	27A263	TF4RX16YY	Plate to Line	15,000	50/250/600CT	0	6	20-20,000	AG-2
27A288		TF5RX13ZZ	Plate to Line	15,000	50/250/600CT	4	120	150-20,000	M11
	27A275	TF4RX13YY	Plate to Line	15,000	50/250/600CT	4	120	150-20,000	NSV-2
	27A264	TF4RX13YY	Plate to Line	15,000	50/250/600CT	4	120	150-20,000	AG-2
27A169		TF5RX13ZZ	Isolation or Interstage	15,000CT	15,000CT	1	3	300-10,000	M7A
	27A85	TF4QX10YY	Plate to Grid	15,000	50,000	0	10	60-15,000§	AF-1
27A283		TF4RX10ZZ	Plate to Grid	15,000	60,000	0	4	20-15,000	M11
	27A259	TF4RX10YY	Plate to Grid	15,000	60,000	0	4	20-15,000	AG-2
27A284		TF5RX15ZZ	Plate to Grid	15,000	60,000	4	25	200-20,000	M11
	27A272	TF4RX15YY	Plate to Grid	15,000	60,000	4	25	200-20,000	NSV-2
	27A260	TF4RX15YY	Plate to Grid	15,000	60,000	4	25	200-20,000	AG-2
	27A23	TF4RX15YY	Plate to Grid	15,000	60,000	0	10	50-15,000	NSV-2
	27A13	TF4RX10YY	Plate to Grid	15,000	60,000CT*	6	25	30-15,000§§	YY-12
	27A24	TF4RX15YY	Plate to Grid	15,000	60,000CT	4	25	200-10,000	NSV-2
	27A86	TF4QX10YY	Plate to Grid	15,000	60,000CT	4	10	60-15,000§	AF-1
	27A44	TF4RX15YY	Plate to Grid	15,000	80,000CT*	0	15	30-20,000	NSV-4
	27A45	TF4RX15YY	Plate to Grid	15,000	80,000CT*	8	200	100-20,000	NSV-4
27A285		TF5RX10ZZ	Plate to Grid	15,000	95,000CT	0	3	20-15,000	M11
	27A261	TF4RX10YY	Plate to Grid	15,000	95,000CT	0	3	20-15,000	AG-2
	27A25	TF4RX10YY	Plate to Grid	15,000	95,000CT	0	3.2	50-10,000	NSV-2
	27A15	TF4QX15YY	Plate to Grid	15,000	95,000CT	3	10	250-55,000§	AF-1
27A286		TF5RX15ZZ	Plate to Grid	15,000	95,000CT	4	12	200-20,000	M11
	27A273	TF4RX15YY	Plate to Grid	15,000	95,000CT	4	12	200-20,000	NSV-2
	27A26	TF4RX15YY	Plate to Grid	15,000	95,000CT*	4	12	200-10,000	NSV-2
	27A262	TF4RX15YY	Plate to Grid	15,000	95,000CT	4	12	200-20,000	AG-2
	27A27	TF4QX10YY	Plate to Grid	15,000	110,000	0	40	20-20,000§	YY-12
	27A79	TF4QX10YY	Plate to Grid	15,000	111,000CT	0	26	20-20,000§	YY-2
	27A78	TF4QX10YY	Plate to Grid	15,000	111,000CT*	0	75	20-20,000§	YY-12
	27A97	TF4QX15YY	Plate to Grid	15,000	135,000CT	1	1	70-15,000	TJZ
	27A88	TF4QX10YY	Plate to Grid	15,000	1 Meg.	0	10	150-15,000§	AF-1
	MIT 254	TF4RX13YY	Interstage	20,000 to 30,000	800 to 1,200	.5	50	††	RAV-4
	MIT 201	TF4RX13YY	Interstage	20,000 to 30,000	800 to 1,200	.5	50	††	RAV-6
27A52		TF5RX13ZZ	Interstage	20,000 to 30,000	800 to 1,200	.5	100	80-20,000§	M2A
27A63		TF5RX13ZZ	Interstage	20,000 to 30,000	800 to 1,200	.5	200	50-20,000§	M2
	MIT 294	TF4RX13YY	Interstage or Driver	20,000CT to 30,000CT	800CT to 1,200CT	.5	50	††	RAV-4
	MIT 223	TF4RX13YY	Interstage or Driver	20,000CT to 30,000CT	800CT to 1,200CT	.5	100	††	RAV-6
27A56		TF5RX13ZZ	Interstage or Driver	20,000CT to 30,000CT	800CT to 1,200CT	1	100	80-20,000§	M2A
	27A35‡	TF4RX13YY	Tr. Interstage	20,000CT*	800CT*	1	100	250-20,000§	TFH
27D47		TF5RX15ZZ	Tr. Driver	20,000	1,000	.5	5	300-10,000	M7A
27A349		TF5RX21ZZ	Tr. Interstage	20,000	1,000	.75●	5	200-10,000	M8
TR132		TF5RX13ZZ	Tr. Interstage	20,000	1,000	1	100	100-100,000	M1
27A134		TF5RX21ZZ	Tr. Interstage	20,000	1,000	.5	10	200-10,000	M3†
27A177		TF5RX21ZZ	Tr. Interstage	20,000	1,000CT	.75●	5	200-10,000§	M8
	MIT 239	TF4RX13YY	Tr. Interstage	20,000CT to 30,000CT	1,000CT to* 1,500CT*	.5	100	††	RAV-6
	27A98	TF4QX15YY	Tr. Interstage	20,000	1,200/600/100	.5	1	70-15,000§	TJZ
27D48		TF5RX13ZZ	Driver	20,000	1,200CT	.5	5	300-10,000	M7A
	27A80	TF4RX21FA	Plate to Grid	20,000CT*	20,000CT*		3W	20-20,000	FA
	27A125	TF4RX21FA	Plate to Grid	20,000CT*	20,000CT*	.5	3.1W	30-15,000	FA
	27A144	TF4RX21FA	Plate to Grid	20,000CT*	38,500CT		10		RSV##
	27A06■	TF4RX15FA	Plate to Grid	20,000CT*	50,000CT*		31	30-15,000	FA
	27A122■	TF4RX15YY	Plate to Grid	20,000CT*	50,000CT*		31	30-15,000	YY-18
	27A11	TF4RX15YY	Plate to Grid	20,000CT*	60,000CT*		125	30-15,000	YY-9
	27A12A	TF4RX15YY	Plate to Grid	20,000CT*	80,000CT*		31	30-15,000	YY-9
27A172		TF5RX21ZZ	Interstage	25,000	600	1●	3	200-10,000	M8
27A213		TF5RX13ZZ	Interstage	25,000	600	1	100	200-15,000	M9
27A250		TF5RX13ZZ	Interstage	25,000	600	2●	100	200-15,000	M10
27A334		TF5RX13ZZ	Interstage	25,000	600	3	150	200-15,000	M11
	27A192	TF4RX13YY	Interstage	25,000	600	1	100	200-15,000	NSV-2B
	27A351	TF4RX13YY	Interstage	25,000	600	2	100	200-15,000	NSV-2C
	27A318	TF4RX13YY	Interstage	25,000	600	3	150	200-15,000	NSV-2
	27A231	TF4RX13YY	Interstage	25,000	600	2	100	200-15,000	AF-2
	27A302	TF4RX13YY	Interstage	25,000	600	3	150	200-15,000	AG-2
27A222		TF5RX13ZZ	Interstage	25,000CT	600CT	2	100	200-15,000	M9
	27A201	TF4RX13YY	Interstage	25,000CT	600CT	2	100	200-15,000	NSV-2B
	27A17	TF4RX15YY	Tr. Interstage	25,000	1,000	.5	10	250-15,000	TSM
27A163		TF5RX12ZZ	Tr. Interstage	25,000	1,000	.25	40	300-100,000§	M7
27A110		TF5RX12ZZ	Tr. Interstage	25,000	1,000	.5	40	300-100,000§	M3
27A111		TF5RX12ZZ	Tr. Interstage	25,000CT	1,000CT	.5	40	300-100,000§	M3
27A161		TF5RX12ZZ	Tr. Interstage	25,000CT	1,000CT	.5	40	300-100,000§	M7
27A162		TF5RX12ZZ	Tr. Interstage	25,000	1,000CT*	.25	40	300-100,000§	M7
27A154		TF5RX12ZZ	Tr. Interstage	25,000	1,000CT*	.25	40	300-100,000§	M3
27A210		TF5RX13ZZ	Tr. Interstage	25,000	1,200CT	1	100	200-15,000	M9
27A247		TF5RX13ZZ	Tr. Interstage	25,000	1,200CT	1.5	100	200-15,000	M10
27A331		TF5RX13ZZ	Tr. Interstage	25,000	1,200CT	3	150	200-15,000	M11
	27A189	TF4RX13YY	Tr. Interstage	25,000	1,200CT	1	100	200-15,000	NSV-2B
	27A236	TF4RX13YY	Tr. Interstage	25,000	1,200CT	1.5	100	200-15,000	NSV-2C
	27A315	TF4RX13YY	Tr. Interstage	25,000	1,200CT	3	150	200-15,000	NSV-2
	27A230	TF4RX13YY	Tr. Interstage	25,000	1,200CT	1.5	100	200-15,000	AF-2
	27A299	TF4RX13YY	Tr. Interstage	25,000	1,200CT	3	150	200-15,000	AG-2
27A217		TF5RX13ZZ	Interstage	25,000CT	1,200CT	2	100	200-15,000	M9
27A253		TF5RX13ZZ	Interstage	25,000CT	1,200CT	3	100	200-15,000	M10
27A336		TF5RX13ZZ	Interstage	25,000CT	1,200CT	6	150	200-15,000	M11
	27A196	TF4RX13YY	Interstage	25,000CT	1,200CT	2	100	200-15,000	NSV-2B
	27A241	TF4RX13YY	Interstage	25,000CT	1,200CT	3	100	200-15,000	NSV-2C
	27A320	TF4RX13YY	Interstage	25,000CT	1,200CT	6	150	200-15,000	NSV-2
	27A304	TF4RX13YY	Interstage	25,000CT	1,200CT	6	150	200-15,000	AG-2
27A289		TF5RX16ZZ	Plate to Line	30,000CT	50/250/600CT	0	6	30-50,000	M11
	27A276	TF4RX16YY	Plate to Line	30,000CT	50/250/600CT	0	6	30-50,000	NSV-2
	27A265	TF4RX16YY	Plate to Line	30,000CT	50/250/600CT	0	6	30-50,000	AG-2
TR 134		TF5RX13ZZ	Interstage	30,000	1,200	.5	50	100-100,000	M1
TR 135		TF5RX13ZZ	Interstage	30,000CT*	1,200CT*	.5	100	100-100,000	M1
	27A152	TF4RX12YY	Chopper	4,000CT/10,000CT	50,000	(Pri.Ind.=200 Hy.@ 1V.60N)			NSV-3
	MIT 240	TF4RX13YY	Interstage	40,000CT to 50,000CT	400CT to* 500CT*	.25	50	††	RAV-6
27A60		TF5RX13ZZ	Interstage	50,000CT	500CT*	.5	100	80-20,000	M2A
27A290		TF5RX16ZZ	Input	50,000	50/250/600CT	0	3	20-20,000	M11
	27A277	TF4RX16YY	Input	50,000	50/250/600CT	0	3	20-20,000	NSV-2
	27A266	TF4RX16YY	Input	50,000	50/250/600CT	0	3	20-20,000	AG-2
	27A40	TF4RX13YY	Tr. Interstage	50,000CT	500CT*	2	100	100-20,000	NSV-2
27A174		TF4RX21ZZ	Tr. Interstage	50,000	600	1	5	200-10,000	M8
27A208		TF5RX13ZZ	Tr. Interstage	50,000	600	.7	100	200-15,000	M9
27A245		TF5RX13ZZ	Tr. Interstage	50,000	600	1	100	300-15,000	M10
27A329		TF5RX13ZZ	Tr. Interstage	50,000	600	3	100	300-15,000	M11
	27A187	TF4RX13YY	Tr. Interstage	50,000	600	.7	100	200-15,000	NSV-2B
	27A234	TF4RX13YY	Tr. Interstage	50,000	600	1	100	300-15,000	NSV-2C
	27A313	TF4RX13YY	Tr. Interstage	50,000	600	3	100	300-15,000	NSV-2
	27A297	TF4RX13YY	Tr. Interstage	50,000	600	3	100	300-15,000	AG-2
	27A229	TF4RX13YY	Tr. Interstage	50,000	600	1	100	300-15,000	AF-2
27A246		TF5RX13ZZ	Tr. Interstage	50,000CT	600CT	2	100	200-15,000	M10
27A209		TF5RX13ZZ	Tr. Interstage	50,000CT	600CT	1.4	100	200-15,000	M9
	27A235	TF4RX13YY	Tr. Interstage	50,000CT	600CT	2	100	200-15,000	NSV-2
	27A188	TF4RX13YY	Tr. Interstage	50,000CT	600CT	1.4	100	200-15,000	NSV-2
27A160		TF5RX16ZZ	Tr. Interstage	50,000	1,000CT*	0	10	300-100,000	M7
27A153		TF5RX16ZZ	Tr. Interstage	50,000	1,000CT*	0	10	300-100,000	M3
27A108		TF5RX16ZZ	Tr. Interstage	50,000CT	1,000CT	0	25	300-100,000	M3
27A159		TF5RX16ZZ	Tr. Interstage	50,000CT	1,000CT	0	25	300-100,000	M7
27A211		TF5RX13ZZ	Tr. Interstage	50,000CT	1,200CT	1.4	100	200-15,000	M9

▲ This unit is shielded for 70 DB hum reduction
‡ Static Shielded
§ Response at #3 DB
* Split CT Winding
§§ Response at #1 DB
● Secondary Current rating
†† Average useable frequency range from 100 to 20,000 Cycles
† Width - .421, Depth - .377, Height - .310
Height - 2", Diameter - 1 5/8, Mounting Centers 1 5/16 x 1 5/16
■ This unit is shielded for - 70 DB hum reduction

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Input-Interstage-Driver

INCLUDES: TRANSISTOR AND TUBE TYPE — MOLDED AND ENCASED

Part No. Molded	Part No. Encased	MIL-T-27B Classification	Application	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Power In MW	Frequency Response ±2DB	Case Size
27A248		TF5RX13ZZ	Tr. Interstage	50,000CT	1,200CT	2	100	200-15,000	M10
27A332		TF5RX13ZZ	Tr. Interstage	50,000CT	1,200CT	3	100	300-15,000	M11
	27A316	TF4RX13YY	Tr. Interstage	50,000CT	1,200CT	3	100	300-15,000	NSV-2
	27A190	TF4RX13YY	Tr. Interstage	50,000CT	1,200CT	1.4	100	200-15,000	NSV-2B
	27A237	TF4RX13YY	Tr. Interstage	50,000CT	1,200CT	2	100	200-15,000	NSV-2C
	27A300	TF4RX13YY	Tr. Interstage	50,000CT	1,200CT	3	100	300-15,000	AG-2
27A337		TF5RX13ZZ	Tr. Interstage	50,000CT	1,200CT*	3	100	300-15,000	M11
	27A321	TF4RX13YY	Tr. Interstage	50,000CT	1,200CT*	3	100	300-15,000	NSV-2
	27A305	TF4RX13YY	Tr. Interstage	50,000CT	1,200CT*	3	100	300-15,000	AG-2
27A179		TF5RX15ZZ	Isolation	50,000CT	50,000CT		5	200-10,000	M8
27A147		TF5RX15ZZ	Interstage	80,000	5,000	3	150	300-10,000§	MAH
	27A135	TF4RX21YY	Tr. Input	100,000	50	0	300	200-10,000	NSV-2
	MIT 246	TF4RX16YY	Input or Chopper	100,000CT	500CT	0	25	††	RAV-6
27A166		TF5RX16ZZ	Input	100,000	1,000	0	5	300-10,000	M7A
27A175		TF5RX21ZZ	Input or Interstage	100,000	1,200CT	.75	5	200-10,000	M8
27A330		TF5RX13ZZ	Input or Interstage	100,000	1,200CT	1.4	50	200-15,000	M11
	27A314	TF4RX13ZZ	Input or Interstage	100,000	1,200CT	1.4	50	200-15,000	NSV-2
	27A298	TF4RX13ZZ	Input or Interstage	100,000	1,200CT	1.4	50	200-15,000	AG-2
27A171		TF5RX21ZZ	Input or Interstage	200,000	600	1●	5	200-10,000	M8
27A54		TF5RX16ZZ	Input	200,000	1,000	0	5	80-20,000§	M2A
27A158		TF5RX16ZZ	Input	200,000	1,000	0	10	300-45,000	M7
27A109		TF5RX16ZZ	Input	200,000	1,000	0	10	300-45,000	M3
TR 142		TF5RX16ZZ	Input	200,000	1,000	0	25	100-45,000§	M1
	MIT 207	TF4RX16YY	Input	20,000	1,000	0	25	100-20,000§	RAV-6
27A57		TF5RX16ZZ	Input or Chopper	200,000CT	1,000CT	0	5	80-20,000	M2A
27A157		TF5RX16ZZ	Input or Chopper	200,000CT	1,000CT	0	10	300-45,000	M7
27A107		TF5RX16ZZ	Input or Chopper	200,000CT	1,000CT	0	10	300-45,000	M3
TR 143		TF5RX16ZZ	Input or Chopper	200,000CT	1,000CT	0	25	100-45,000§	M1
	MIT 224	TF4RX16YY	Input or Chopper	200,000CT	1,000CT	0	25	††	RAV-6
27A173		TF5RX21ZZ	Input or Chopper	200,000	1,200	.72	5	200-10,000	M8
27A69		TF5RX16ZZ	Input or Chopper	200,000	1,000	0	10	200-20,000	TAM

Drivers

Part No.	MIL-T-27B Classification	Application	Primary Impedance	Primary MADC	Power Output In Watts	Turns Ratio Pri: 1/2 Sec.	Frequency Response ± 1 DB	Case Size	Wt. Lbs.
27D32	TF4RX12GA	PP Plates to Grid 6N7,6A6,6J5,6C4, etc.	20,000CT	10	3	3 : 1	50-10,000	GA	2.25
27D30	TF4RX12YY	PP Plates to Grid 6N7,6A6,6J5,6C4, etc.	20,000CT	10	3	3 : 1	50-10,000	YY-21	2.25
27D33	TF4RX12GA	PP Plates to Grid 6N7,6A6,6J5,6C4, etc.	20,000CT	25	5	3 : 1	50-10,000	GA	2.5
27D31	TF4RX12YY	PP Plates to Grid 6N7,6A6,6J5,6C4, etc.	20,000CT	25	5	3 : 1	50-10,000	YY-22	2.5
27D35	TF4RX12HA	PP Plates to PP Grids 2A3,6B4G, etc.	5,000CT	100	10	3 : 1	200- 3,500	HA	3.5
27D34	TF4RX12JA	PP Plates to Grid 6B4,4S,2A3,6L6, etc.	10,000/ 5,000CT	100	10	5 : 1	50-10,000	JA	4.5

● Secondary Current rating

Output

INCLUDES: TRANSISTOR AND TUBE TYPE — MOLDED AND ENCASED

Designed and built to meet all the requirements of MIL-T-27B specifications for their specified class of operation. Listed in order of the primary impedance—this complete list of output transformers makes available under one listing a wide variety of high quality output transformers for both transistor and tube type circuitry.

Part No. Molded	Part No. Encased	MIL-T-27B Classification	Application	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Power In MW	Frequency Response ±2DB	Case Size
27S124		TF2RX16ZZ	70.7V Line Matching Autoformer 50V to 70.7V				125		LHH
	27S30	TF4RX17YY	Tr. to V.C.	20CT	4/8/16	1A(Bal.)	10	70-20,000	NSV-5
	27S116	TF4RX17AJ	Tr. to V.C.	20CT	8	500	10W		AJ
	27S204	TF4RX17AJ	Tr. to V.C.	25	3.4	600	3W	200-20,000	AJ
	27S203	TF4RX17AJ	Output Autoformer	30CT●	3.4	200	2W	100-20,000	AJ
	27S205	TF4RX17AJ	Tr. to V.C.	48CT	3.2/8	50	5W	200-20,000	AJ
	27S115	TF4RX17FA	Tr. to V.C.	48CT	8/16	275	5W		FA
	27S29	TF4RX17YY	Tr. to V.C.	48CT	4/8/16	750(Bal.)	5W	40-20,000	NSV-4
27S103		TF5RX17ZZ	Tr. to V.C.	120CT	3.2	10	50	100-100,000§	M3
27S139		TF5RX17ZZ	Tr. to V.C.	120CT	3.2	10	50	100-100,000§	M7
	MIT 229	TF4RX17YY	Tr. to V.C.	120CT to 150CT	3.2 to 4	10 10	500	††	RAV-6
	27S206	TF4RX17AJ	Tr. to Servo	120CT	1,000	40	6W	300-15,000	AJ
	27S207	TF4RX17AH	Tr. to V.C.	125CT	3.4	20	1.5W	200-15,000	AH
	27S208	TF4RX17AJ	Tr. to Servo	140CT●	500	50	6W	300-15,000	AJ
27S93		TF5RX17ZZ	Tr. to V.C.	150CT	12	10	50	100-100,000§	M3
	MIT 212	TF4RX17YY	Tr. to V.C.	150CT to 200CT	12 to 16	10	500	††	RAV-6
TR 129		TF5RX17ZZ	Tr. to V.C.	200CT	16	10	500	100-100,000§	M1
	27S209	TF4RX17AH	Tr. to Servo	250CT	3.4	20	400	70-15,000	AH
	27S213	TF4RX17AH	Tr. to Servo	250CT	130	20	3W	200-15,000	AH
27S202		TF5RX17ZZ	Tr. to Servo	250CT	500	10	1W	200-15,000	M9
	27S194	TF4RX17YY	Tr. to Servo	250CT	500	10	1W	200-15,000	NSV-2
	27S191	TF4RX17YY	Tr. to Servo	250CT	500	10	1W	200-15,000	AG-2
27S200		TF5RX17ZZ	Tr. to Servo	250CT	1,000	10	1W	200-15,000	M11
	27S192	TF4RX17YY	Tr. to Servo	250CT	1,000	10	1W	200-15,000	NSV-2
	27S189	TF4RX17YY	Tr. to Servo	250CT	1,000	10	1W	200-15,000	AG-2
27S94		TF4RX17ZZ	Tr. to V.C.	300CT	12	7	50	100-100,000§	M3
	MIT 213	TF4RX17YY	Tr. to V.C.	300CT to 400CT	12CT to 16	7 7	500	††	RAV-6
27S99		TF4RX17YY	Tr. to Line	300CT	600	7	50	100-100,000§	M3
	MIT 261	TF4RX17YY	Tr. to Line	300CT	600	7	500	††	RAV-4
	MIT 281	TF4RX17YY	Tr. to Line	300CT	600	7	500	††	RAV-5
	MIT 219	TF4RX17YY	Tr. to Line	300CT	600	7	500	††	RAV-6
TR 122		TF5RX17ZZ	Tr. to Line	300CT*	600	7	500	100-100,000§	M1
27S104		TF5RX17ZZ	Tr. to V.C.	320CT	3.2	6	50	100-100,000§	M3
	MIT 230	TF4RX17YY	Tr. to V.C.	320CT to 400CT	3.2 to 4	7	500	††	RAV-6
27S198		TF5RX17ZZ	Tr. to V.C.	400	10	50	300	200-20,000	M11
	27S187	TF4RX17YY	Tr. to V.C.	400	10	50	300	200-20,000	NSV-2
	27S182	TF4RX17YY	Tr. to V.C.	400	10	50	300	200-20,000	AG-2
27S142		TF5RX17ZZ	Tr. to V.C.	400	11	3	15	300-10,000	M7A
27S143		TF5RX17ZZ	Tr. to V.C.	400CT	11	6	15	300-10,000	M7A
	27S210	TF4RX17YY	Tr. to V.C.	400CT	11	2	250	300-15,000	AF-1
TR 136		TF5RX17ZZ	Tr. to V.C.	400CT*	16	7	500	100-100,000§	M1
27S141		TF5RX17ZZ	Tr. to Line	400	50	3	15	300-10,000§	M7A
TR 126		TF5RX17ZZ	Tr. to Line	400	50	3	100	100-100,000§	M1
	MIT 271	TF4RX17YY	Tr. to Line & 2:1:1 Pulse	400CT to 500CT	400CT* to 500CT*	8 6	500	††	RAV-4
	MIT 283	TF4RX17YY	Tr. to Line & 2:1:1 Pulse	400CT to 500CT	400CT* to 500CT*	8 6	50	††	RAV-5
	MIT 241	TF4RX17YY	Tr. to Line & 2:1:1 Pulse	400CT to 500CT	400CT* to 500CT*	8 6	50	††	RAV-6
	27S26	TF4RX17YY	Tr. to V.C.	500CT	4/16CT*	20	1	40-20,000	NSV-4
27S146		TF5RX17ZZ	Tr. to V.C.	500	3.2	3.5	15	200-10,000	M8
27S52		TF5RX17ZZ	Tr. to V.C.	500CT	3.2	0	250	50-20,000§	M2
	27S21	TF5RX17YY	Tr. to Line	500CT	50	3.5	30	250-15,000§	TSM
27S88		TF5RX17ZZ	Tr. to Line	500	50	3	50	300-100,000§	M3
27S138		TF5RX17ZZ	Tr. to Line	500	50	3	50	300-100,000	M7
TR 128		TF5RX17ZZ	Tr. to Line	500	50	3	100	100-100,000§	M1
27S42		TF5RX17ZZ	Tr. to Line	500-600	50-60	3.5	100	80-20,000§	M2A
	MIT 202	TF4RX17YY	Tr. to Line	500/600	50-60	3	100	††	RAV-6
	MIT 255	TF4RX17YY	Tr. to Line	500-600	50-60	3	100	††	RAV-4
	MIT 284	TF4RX17YY	Tr. to Line	500-600CT	50-60CT	3	500	††	RAV-5
27S199		TF5RX17ZZ	Tr. to Servo	500CT	210	30	500	300-20,000	M11
	27S188	TF4RX17YY	Tr. to Servo	500CT	210	30	500	300-20,000	NSV-2
	27S183	TF4RX17YY	Tr. to Servo	500CT	210	30	500	300-20,000	AG-2
	27S22	TF4RX17YY	Output or Mixing	500CT	600CT	10	30	250-15,000§	TSM
27S100		TF5RX17ZZ	Output or Mixing	500CT	600	3	50	100-100,000§	M3
27S47		TF5RX17ZZ	Output or Mixing	500CT	600CT	10	100	80-20,000§	M2A
	MIT 262	TF4RX17YY	Output or Mixing	500CT	600	5.5	500	††	RAV-4
	MIT 285	TF4RX17YY	Output or Mixing	500CT	600CT	5.5	500	††	RAV-5
	MIT 220	TF4RX17YY	Output or Mixing	500CT	600	5.5	500	††	RAV-6
27S90		TF5RX17ZZ	Tr. to V.C.	600	3.2	3	50	100-100,000§	M3
TR 141		TF5RX17ZZ	Tr. to V.C.	600	3.2	3	100	100-100,000§	M1
	MIT 204	TF4RX17YY	Tr. to V.C.	600	3.2	3	100	††	RAV-6
27S105		TF5RX17ZZ	Tr. to V.C.	600CT	3.2	4.5	50	100-100,000§	M3

Outputs

INCLUDES: TRANSISTOR AND TUBE TYPE — MOLDED AND ENCASED

Part No. Molded	Part No. Encased	MIL-T-27 B Classification	Application	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Power In MW	Frequency Response ±2DB	Case Size
27S95		TF5RX17ZZ	Tr. to V.C.	600CT	12	4.5	50	100-100,000§	M3
	MIT 214	TF4RX17YY	Tr. to V.C.	600-800CT	12/16	5	500	††	RAV-6
	27S78	TF4QX16YY	Output-Line to Line	600*/250*/ 150/62.5	600*/250*/ 150/62.5	0	100	10-30,000§	YY-7
	27S77■	TF4QX16YY	Output-Line to Line	600*/250*/ 150/62.5	600*/250*/ 150/62.5	0	100	10-30,000§	YY-12
	27S79■	TF4QX16YY	Bal. R&C Output Static Shielded	600*/250*/ 150/62.5	600*/250*/ 150/62.5	0	50	20-20,000§§	YY-13
27S111		TF5RX17ZZ	Tr. or Line to Line	600CT	600CT	3	50	100-100,000§	M3
	MIT 231	TF4RX17YY	Tr. to V.C.	640-800CT	3.2-4	5	500	††	RAV-6
27S106		TF5RX17ZZ	Tr. to V.C.	800CT	3.2	4	50	100-100,000§	M3
	MIT 232	TF4RX13YY	Tr. to V.C.	800-1,000CT	3.2-4	4	500	††	RAV-6
	MIT 215	TF4RX17YY	Tr. to V.C.	800-1,070CT	12-16	4	500	††	RAV-6
TR137		TF5RX17ZZ	Tr. to V.C.	800CT	16	5	500	100-100,000§	M1
27S101		TF5RX17ZZ	Tr. to Line	900CT	600	4	50	100-100,000§	M3
	MIT 263	TF4RX17YY	Tr. to Line	900CT	600	4	500	††	RAV-4
	27S113	TF4RX17AG	Tr. to V.C.	1,000	4/8/16	10	200		AG
27S96		TF5RX17ZZ	Tr. to V.C.	1,000CT	12	3.5	50	100-100,000§	M3
	MIT 216	TF4RX17YY	Tr. to V.C.	1,000-1,330CT	12-16	3.5	500	††	RAV-5
	27S87	TF4QX21YY	Tr. to Line	1,000	50	5	1	100-10,000§	TJZ
27S140		TF5RX17ZZ	Tr. to Line	1,000	50	3	5	300-10,000	M7A
27S89		TF5RX17ZZ	Tr. to Line	1,000	50	3	5	100-100,000§	M3
TR 131		TF5RX13ZZ	Tr. to Line	1,000	50	3	100	100-100,000§	M1
27S43		TF5RX13ZZ	Tr. to Line	1,000-1,200	50-60	3	100	80-20,000§	M2A
	MIT 256	TF4RX13YY	Output or Matching	1,000-1,200	50-60	3	100	††	RAV-4
	MIT 286	TF4RX13YY	Output or Matching	1,000-1,200CT	50-60CT	3	100	††	RAV-5
	MIT 203	TF4RX13YY	Output or Matching	1,000-1,200	50-60	3	100	††	RAV-6
27S145		TF5RX17ZZ	Tr. to Line	1,000CT	600	6	5	300-20,000	M7A
	MIT 233	TF4RX13YY	Tr. to V.C.	1,060-1,330CT	3.2-4	3.5	500	††	RAV-6
TR 138		TF5RX13ZZ	Tr. to V.C.	1,070CT	16	4	500	100-100,000§	M1
27S91		TF5RX13ZZ	Tr. to V.C.	1,200	3.2	2	50	100-100,000§	M3
TR 144		TF5RX13ZZ	Tr. to V.C.	1,200	3.2	2	100	100-100,000§	M1
27S44		TF5RX13ZZ	Tr. to V.C.	1,200-1,500	3.2-4	3	100	80-20,000	M2A
	MIT 257	TF4RX13YY	Tr. to V.C.	1,200	3.2	2	100	††	RAV-4
	MIT 205	TF4RX13YY	Tr. to V.C.	1,200	3.2	2	100	††	RAV-6
27S107		TF5RX13ZZ	Tr. to V.C.	1,200CT	3.2	3	50	100-100,000§	M3
27S147		TF5RX13ZZ	Tr. to V.C.	1,250	3.4	2	15	200-10,000	M8
27S148		TF5RX13ZZ	Tr. to Line	1,250	50	2	15	200-10,000	M8
TR 139		TF5RX13ZZ	Tr. to V.C.	1,330CT*	16	3.5	500	100-100,000§	M1
27S97		TF5RX13ZZ	Tr. to V.C.	1,500CT	12	3	50	100-100,000§	M3
	MIT 217	TF4RX13YY	Tr. to V.C.	1,500-2,000CT	12-16	3	500	††	RAV-6
27S128		TF2RX13ZZ	Tr. to Line	1,500	200	3	500	100-20,000	BHH
	27S35	TF5RX13YY	Tr. to Line	1,500CT	500CT*	8	100	100-10,000	NSV-2
27S144		TF5RX13ZZ	Tr. to Line	1,500CT	600	5	5	300-10,000	M7A
	27S23	TF5RX13YY	Tr. to Line	1,500CT	600CT	7	30	250-15,000§	TSM
27S102		TF5RX13ZZ	Tr. to Line	1,500CT	600	3	50	300-100,000	M3
27S137		TF5RX13ZZ	Tr. to Line	1,500CT	600	3	50	300-100,000	M7
27S48		TF5RX13ZZ	Tr. to Line	1,500CT	600CT	7	100	80-20,000§	M2A
TR 124		TF5RX13ZZ	Tr. to V.C.	1,500CT*	600	3	500	100-100,000§	M1
	MIT 252	TF4RX13YY	Tr. to Line	1,500CT	600	3	500	††	RAV-4
	MIT 287	TF4RX13YY	Tr. to Line	1,500CT	600CT	3	500	††	RAV-5
	MIT 222	TF4RX13YY	Tr. to Line	1,500CT	600	3	500	††	RAV-6
27S108		TF5RX12ZZ	Tr. to V.C.	1,600CT	3.2	2.5	50	100-100,000§	M3
	MIT 234	TF5RX13ZZ	Tr. to V.C.	1,600-2,000CT	3.2-4	3	500	††	RAV-6
27S201		TF5RX12ZZ	Tr. to Line	1,600CT	450	15	1W	200-15,000	M11
	27S193	TF4RX12ZZ	Tr. to Line	1,600CT	450	15	1W	200-15,000	NSV-2
	27S190	TF4RX12ZZ	Tr. to Line	1,600CT	450	15	1W	200-15,000	AG-2
	27S211	TF4RX12AJ	Tr. to Servo	1,600CT	800	5	2.5W	150-20,000	AJ
27S159		TF5RX13ZZ	Tr. to V.C.	2,000	3.4	5	600	200-15,000	M9
	27S156	TF4RX13YY	Tr. to V.C.	2,000	3.4	5	600	200-15,000	NSV-2B
27S177		TF5RX13ZZ	Tr. to V.C.	2,000	3.4	5	1W	200-15,000	M9
	27S174	TF4RX13YY	Tr. to V.C.	2,000	3.4	5	1W	200-15,000	NSV-2C
	27S171	TF4RX13YY	Tr. to V.C.	2,000	3.4	5	1W	200-15,000	AF-2
27S196		TF5RX13ZZ	Tr. to V.C.	2,000	3.4	10	2W	200-15,000	M11
	27S185	TF4RX13YY	Tr. to V.C.	2,000	3.4	10	2W	200-15,000	NSV-2
	27S180	TF4RX13YY	Tr. to V.C.	2,000	3.4	10	2W	200-15,000	AG-2
	27S114	TF4RX12AG	Tr. to V.C.	2,000	4/8/16		200		AG
	27S36	TF4RX13YY	Tr. to V.C.	2,000-4,000CT	8-16	4	100	100-100,000§	NSV-2
27S53		TF5RX13ZZ	Tr. to V.C.	2,000-4,000CT	8-16	4-2	250	50-20,000§	M2
TR 140		TF5RX13ZZ	Tr. to V.C.	2,000CT*	16	3	500	100-100,000§	M1
	27S212	TF4RX12YY	Tr. to V.C.	2,500CT	12	4	100	300-15,000	AF-1
	27S129	TF4RX21YY	Output: with added 4:1 Tertiary Winding	3,000CT	600	0	500		YY-81
27S160		TF5RX13ZZ	Tr. to V.C.	4,000CT	3.4	5	600	200-15,000	M9
	27S157	TF4RX13YY	Tr. to V.C.	4,000CT	3.4	5	600	200-15,000	NSV-2B
27S178		TF5RX13ZZ	Tr. to V.C.	4,000CT	3.4	5	1W	200-15,000	M10
	27S172	TF4RX13YY	Tr. to V.C.	4,000CT	3.4	5	1W	200-15,000	AF-2
	27S175	TF4RX13YY	Tr. to V.C.	4,000CT	3.4	5	1W	200-15,000	NSV-2C
27S197		TF5RX13ZZ	Tr. to V.C.	4,000CT	3.4	3	2W	200-15,000	M11
	27S186	TF4RX13YY	Tr. to V.C.	4,000CT	3.4	3	2W	200-15,000	NSV-2
	27S181	TF4RX13YY	Tr. to V.C.	4,000CT	3.4	3	2W	200-15,000	AG-2
	27S135	TF4RX16YY	Tr. to V.C.	4,000	8	0	2W	250-5,000§§	NSV1
	27S67	TF4RX13LA	Hi-Fi Output with Screen Taps	4,000* 1,000/445*	4/8/16	200	65W	15-30,000§	LA
	27S68	TF4RX13LA	Hi-Fi Output with Screen Taps	4,000* 1,000/445*	125/250/500	200	65W	15-30,000§	LA
	27S66	TF4RX13LA	Hi-Fi Output with Screen Taps	4,500CT*	4/8/16	180	55W	15-30,000§	LA
	27S70	TF4RX13YY	Plate to Line or Voice Coil	5,000	4/8/16/ 250/500	40	5W	70-15,000§	YY-14
	27S15	TF4RX13GA	Plate to Line or Voice Coil	5,000	4/8/16/ 150/600	55	5W	200-3,500§	GA
	27S122	TF4RX13YY	Plate to Line or Voice Coil	5,000	4/8/16/ 150/600	55	5W	200-3,500§	YY-21
	27S12	TF4RX13JA	PP Plate to Line or V.C. 10% Feedback Winding	5,000CT	4/8/16/ 150/600	120	20W	50-10,000§§§	JA
	27S60	TF4RX13JB	PP Plate to Voice Coil	5,000CT*	4/8/16/	80	20W	15-30,000§	JB
	27S11	TF4RX13JA	PP Plate to Line or Voice Coil	5,000/3,000*	4/8*/16*/ 150/600*		.5W	30-15,000§	JA
	27S121	TF4RX13YY	PP Plate to Line or Voice Coil	5,000/3,000*	4/8*/16*/ 150/600*		15W	30-15,000§§	YY-33
	27S14	TF4RX13MA	PP Plate to Line or V.C. †10%Feedback Winding	6,000CT	4/8/16/ 150/600	250	30W	50-10,000§§§	MA
27S131		TF5RX13ZZ	Plate to Line or V.C.	6,500	8/500	75	20W	30-15,000§	DAF
	27S64	TF4RX13KB	Hi-Fi Output with Screen Taps	6,600CT* or 1,650	4/8/16	80	25W	10-50,000§	KB
	27S65	TF4RX13KB	Hi-Fi Output with Screen Taps	6,600CT* or1,650	125/150/500	80	25W	10-50,000§	KB
27S130		TF4RX13EA	Plate to Line	7,200	50 and 500	42	2W	250-5,000	EA
27S46		TF5RX13ZZ	Plate to V.C.	7,500CT to 9,400CT	3.2 to 4	4	100	80-20,000§	M2A
27S98		TF5RX13ZZ	Plate to V.C.	7,500CT	12	1	50	100-100,000§	M3
	MIT 218	TF4RX13YY	Plate to V.C.	7,500CT to 10,000CT	12 to 16	1	100	††	RAV-6
	27S09	TF4RX13JA	PP Plate to Line	7,500CT	600/150*	0	20W	30-15,000§§	JA
	27S119	TF4RX13YY	PP Plate to Line	7,500CT	600/150*	0	20W	30-15,000§§	YY-33
27S109		TF5RX13ZZ	Tr. to V.C.	8,000CT	3.2	1	50	100-100,000§	M3
	MIT 235	TF4RX13YY	Tr. to V.C.	8,000CT to 10,000CT	3.2 to 4	1	100	††	RAV-6
27S133		TF2RX13ZZ	Plate to V.C.	8,000	3.2	10	3W	200-4,000§	BAH
	27S16	TF4RX13GA	Plate to Line or V.C.	8,000	4/8/16/ 150/600	55	5W	200-3,500§	GA
	27S123	TF4RX13YY	Plate to Line or V.C.	8,000	4/8/16/ 150/600	55	5W	200-3,500§	YY-21
	27S56	TF4RX13JB	PP Plate to V.C.	8,000CT*	4/8/16	50	15W	15-30,000§§	JB
	27S57	TF4RX13JB	PP Plate to Line	8,000CT*	125/250/600	50	15W	15-30,000§§	JB
	27S58	TF4RX13JB	PP Plate to V.C. with Screen Taps	8,000CT*/ 2,000CT*	4/8/16	50	15W	15-30,000§	JB
	27S59	TF4RX13JB	PP Plate to V.C. with Screen Taps	8,000CT*/ 2,000CT*	125/150/600	50	15W	15-30,000§	JB
	27S134	TF4RX13YY	PP Plate to 70.7V line ‡ 15V Tertiary	8,000CT	70.7V & 15V	130	20W	200-8,000§§	YY-78
	27S61	TF4RX13KB	PP Plate to V.C. with Screen Taps	8,000CT*	4/8/16*	100	25W	10-50,000§	KB

†† Useable frequency range from 100 to 100,000 cycles
§ Frequency response at ± 3DB
* Split CT Winding
† Unit has inserts instead of studs
§§ Frequency response at ± 1DB
‡ 1-5/8 High, 1-5/16 Diameter, 1-19/32 Mounting Centers
§§§ Frequency response at ± 1/2DB
■ This unit shielded for −70DB hum reduction
§§§ Frequency response at ± 1/2DB
● Bifilar wound

For Mounting Illustrations, Cross References and Pricing Information See Pages 1518-1530

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Output INCLUDES: TRANSISTOR AND TUBE TYPE — MOLDED AND ENCASED

Part No. Molded	Part No. Encased	MIL-T-27 B Classification	Application	Impedance Primary	Impedance Secondary	Unbal. Pri. MADC	Power In MW	Frequency Response ±2DB	Case Size
	27S72	TF4RX13GA	PP Plate to Line or V.C.	9,000CT	4/8/16/ 250/500	120	25W	70-20,000§	GA
	27S125	TF4RX13GA	PP Plate to Line	9,000CT	500	90	20W	50-10,000§§	GA
	27S112	TF4RX12AG	Tr. to V.C.	9,800	15	12	50		AG
27S92		TF5RX13ZZ	Tr. to V.C.	10,000	3.2	1	50	100-100,000§	M3
27S41		TF5RX13ZZ	Tr. to V.C.	10,000	3.2	2	100	80-20,000§	M2A
TR 146		TF5RX13ZZ	Tr. to V.C.	10,000	3.2	1	100	100-100,000§	M1
	MIT 206	TF4RX13YY	Tr. to V.C.	10,000	3.2	1	100	††	RAV-6
27S40		TF5RX13ZZ	Tr. to V.C.	10,000	16	2	100	80-20,000§	M2A
TR 145		TF5RX13ZZ	Tr. to V.C.	10,000CT*	16	1	500	100-100,000§	M1
	27S10	TF4RX13HA	PP Plate to Line or Voice Coil	10,000CT*	4/8*/16* 150/600*		5W	30-15,000§§	HA
	27S120	TF4RX13HA	PP Plate to Line or Voice Coil	10,000CT*	4/8*/16* 150/600*		5W	30-15,000§§	HA
	27S71	TF4RX13EB	PP Plate to Line or Voice Coil	10,000CT	4/8/16/ 250/500	50	10W	100-25,000§§	EB
	27S13	TF4RX13JA	Plate to Line or V.C. ± 10% Feedback Winding	10,000CT	4/8/16/ 150/600	200	15W	50-10,000§§§	JA
	27S62	TF4RX13KB	Plate to V.C. with Screen Taps	10,000CT*	4/8/16	100	25W	15-30,000§	KB
	27S63	TF4RX13KB	Plate to Line with Screen Taps	10,000CT*	125/250/500	100	25W	15-30,000§	KB
27S126		TF5RX16ZZ	Plate to Line	10,000CT	150CT	0	63	300-3,000§§§	ZZ1
	27S86	TF4RX13YY	Plate or Tr. to Tr.	10,000	200	1	1	70-20,000§	TJZ
	27S19	TF4RX13YY	Plate to Line	10,000 to 25,000	200 to 500	3 to 1.5	20	250-15,000§	TSM
27S37		TF5RX13ZZ	Plate to Line	10,000 to 25,000	200 to 500	3 to 1.5	100	80-20,000§	M2A
27S49		TF5RX13ZZ	Plate to Line	10,000 to 25,000	200 to 500	3 to 1.5	200	50-20,000§	M2
27S167		TF5RX13ZZ	Plate to Line	10,000	200	3	120	150-10,000	M10
	27S164	TF4RX13YY	Plate to Line	10,000	200	3	120	150-10,000	NSV-2C
	27S161	TF4RX13YY	Plate to Line	10,000	200	3	120	150-10,000	AF-2
27S45		TF5RX13ZZ	Output or Driver	10,000 to 12,500	500CT to 600CT	2	100	80-20,000§	M2A
	MIT 251	TF4RX13YY	Output or Driver	10,000 to 12,500	500CT to 600CT	1	100	††	RAV-4
	MIT 289	TF4RX13YY	Output or Driver	10,000 to 12,500	500CT to 600CT	1	100	††	RAV-5
	MIT 209	TF4RX13YY	Output or Driver	10,000 to 12,500	500CT to 600CT	1	100	††	RAV-6
	27S69	TF4QX13YY	Plate to Line	10,000	600*	10	2W	150-15,000§§	YY-3
	MIT 290	TF4RX13YY	Output or Driver	10,000CT to 12,500CT	1,200CT to 1,500CT	1	100	††	RAV-4
	MIT 210	TF4RX13YY	Output or Driver	10,000 to 12,500	1,200CT to 1,500CT to	1	100	††	RAV-6
	27S132	TF4RX13FA	Plate to Line	10,000	2,000	40	5W	200-5,000§	FA
27S110		TF5RX13ZZ	Output or Isolation	10,000CT	10,000CT	1	50	300-100,000§	M3
27S136		TF5RX13ZZ	Output or Isolation	10,000CT	10,000CT	1	50	300-100,000§	M7
27S127		TF5RX13ZZ	Plate to Line	15,000CT	30	5	15		BHV
	27S80	TF4QX16YY	Plate to Line	15,000	50/250/600	0	10	60-15,000§	AF-1
	27S27	TF4RX16YY	Plate to Line	15,000	50/250/600	0	10	50-15,000	NSV-2
	27S28	TF4RX12YY	Plate to Line	15,000	50/250/600	3	10	200-10,000	NSV-2
	27S81	TF4QX13YY	Plate to Line	15,000	50/250/600	3	10	100-50,000§	AF-1
	27S83	TF4QX13YY	Tr. to Tr. or Line	15,000CT	600CT*	1	15	50-15,000§	AF-1
	27S85	TF4QX13YY	Tr. to Tr. or Line	15,000CT	600CT*	2	25	50-15,000§	AF-1
	27S07	TF4RX13FA	Plate to Line	15,000	600CT*	10	31	30-50,000§§	FA
	27S117	TF4RX13YY	Plate to Line	15,000	600CT*	10	31	30-50,000§§	YY-21
	27S24	TF4RX13YY	Plate to Line	15,000	50/125/ 200/500	8	200	50-20,000	NSV-4
	27S73	TF4QX16YY	Plate to Line	15,000	62.5/150/ 250*/500*	0	20	20-20,000§	YY-2
	27S74	TF4QX13YY	Plate to Line	15,000	62.5/150/ 250*/500*	5	200	40-15,000§§	YY-13
	27S17■	TF4RX13YY	Plate to Line	15,000	62.5/150/ 250/600	10	400	30-15,000§§	YY-9
	27S82	TF4QX13YY	Plate to Line	20,000CT	50/250/600	0	10	40-30,000§	AF-1
	27S76▲	TF4QX13YY	Plate to Line	20,000CT*	62.5/150/ 250*/600*		30	20-20,000§	YY-12
	27S75	TF4QX13YY	Plate to Line	20,000CT*	62.5/150 250*/600*		400	20-20,000§	YY-12
	27S31	TF4RX13YY	Plate to Line	20,000CT	600CT*	4	125	200-10,000	NSV-2
	27S08	TF4RX13GA	Plate to Line	20,000CT*	600CT*		1W	30-15,000§§	GA
	27S118	TF4RX13YY	Plate to Line	20,000CT*	600CT*		1W	30-15,000§§	YY-27
	27S54	TF4RX13FA	PP Plate to V.C.	20,000CT*	4/8/16	20	5W	40-20,000§	FA
	27S55	TF4RX13FA	PP Plate to Line	20,000CT*	62.5/150/ 250CT/600CT	20	5W	40-20,000§	FA
	27S20	TF4RX13YY	Plate to low Imp.	30,000	50	1	30	250-15,000§	TSM
27S38		TF5RX13ZZ	Plate to low Imp.	30,000	50	1	100	80-20,000§	M2A
27S152		TF5RX13ZZ	Plate to low Imp.	30,000	50	1	100	150-10,000	M9
	27S149	TF4RX13YY	Plate to low Imp.	30,000	50	1	100	150-10,000	NSV-2B
27S168		TF5RX13ZZ	Plate to low Imp.	30,000	50	1	120	150-10,000	M10
	27S165	TF4RX13YY	Plate to low Imp.	30,000	50	1	120	150-10,000	NSV-2C
	27S162	TF4RX13YY	Plate to low Imp.	30,000	50	1	120	150-10,000	AF-2
27S50		TF5RX13ZZ	Plate to low Imp.	30,000	50	1	200	50-20,000§	M2
	27S25	TF4RX13YY	Plate to low Imp.	30,000CT*	50/125/ 200/500	0	80	30-20,000	NSV-4
27S154		TF5RX13ZZ	Plate to Line	30,000	1,200	.5	100	200-10,000	M9
	27S151	TF4RX13YY	Plate to Line	30,000	1,200	.5	100	200-10,000	NSV-2B
27S158		TF5RX13ZZ	Tr. to V.C.	50,000	6	1	100	200-15,000	M9
	27S155	TF4RX13YY	Tr. to V.C.	50,000	6	1	100	200-15,000	NSV-2B
27S176		TF5RX13ZZ	Tr. to V.C.	50,000	6	1	100	300-15,000	M10
	27S173	TF4RX13YY	Tr. to V.C.	50,000	6	1	100	300-15,000	NSV-2C
	27S170	TF4RX13YY	Tr. to V.C.	50,000	6	1	100	300-15,000	AF-2
27S195		TF5RX13ZZ	Tr. to V.C.	50,000	6	3	100	300-15,000	M11
	27S184	TF4RX13YY	Tr. to V.C.	50,000	6	3	100	300-15,000	NSV-2
	27S179	TF4RX13YY	Tr. to V.C.	50,000	6	3	100	300-15,000	AG-2
	27S84	TF4RX13YY	Tr. to Tr. or Line	50,000CT	600CT*	.5	10	100-15,000	AF-1
27S153		TF5RX13ZZ	Output	100,000	60	.5	100	250-10,000	M9
27S39		TF5RX13ZZ	Output	100,000	60	.5	100	80-20,000§	M2A
	27S150	TF4RX13YY	Output	100,000	60	.5	100	250-10,000	NSV-2B
27S169		TF5RX13ZZ	Output	100,000	60	.5	120	150-10,000	M10
	27S166	TF4RX13YY	Output	100,000	60	.5	120	150-10,000	NSV-2C
	27S163	TF4RX13YY	Output	100,000	60	.5	120	150-10,000	AF-2
27S51		TF5RX13ZZ	Output	100,000	60	.5	200	50-20,000§	M2
	27S18	TF4RX15YY	Plate to Grid	10,000	90,000	0	20	250-15,000§	TSM

* Split CT Winding
§ Frequency response at ±3DB
§§ Frequency response at ± 1DB
■ This unit shielded for −70DB hum reduction
▲ This unit shielded for −90DB hum reduction

Chokes

Designed and built to meet MIL-T-27B specifications. These units provide the maximum inductance at the given current rating in a minimum size. All AJ, FA, GA, etc. case sizes are identical to MIL-T-27B specifications

Part No.	MIL-T-27B Classification	Inductance In Henrys	MADC	Resistance In Ohms	Test Volts RMS	Case Size	Wt. Lbs
27C11	TF4RX04AJ	15	10	680	1,000	AJ	1
27C85	TF4RX04YY	15	10	680	1,000	YY-10A	1
27C158	TF4RX04YY	120	12	2,600	2,500	TSV-5	1.8
27C111	TF4RX04LA	95	14	1,600	12,500	LA	10.5
27C162	TF4RX04YY	35	15	1,850	1,200	AJ§	1
27C12	TF4RX04AJ	15	20	680	1,000	AJ	1
27C86	TF4RX04YY	15	20	680	1,000	YY-10A	1
27C170	TF5RX04ZZ Dual Choke	20 20	20 20	400 400	700 700	DHF-3	2.3
27C35	TF4RX04EB	30	20	1,000	2,500	EB	1.25
27C47	TF4RX04AH	20 or 18 or 14.5 or 10	20 25 30 35	925	1,000	AH	.25
27C231	TF55X04ZZ	2.5 2 1.5	25 35 45	225	1,000	ZZ-2	.1
27C175‡	TF5RX04ZZ	3	30	400	6,000	BHH	.2
27C176	TF5RX04ZZ	6	30	145	500	BHV	.4
27C112	TF4RX04YY	10	30	350	1,500	YY-5	1

Chokes

Part No.	MIL-T-27 B Classification	Inductance In Henrys	MADC	Resistance In Ohms	Test Volts RMS	Case Size	Wt. Lbs
27C100	TF4SX04AH	2*	40	190	2,500	AH	.25
27C70	TF4RX04YY	4	40	375	1,500	YY-3	.35
27C113	TF4RX04YY	8	40	400	1,780	YY-11	1
27C13	TF4RX04FB	15	40	475	2,500	FB	1.5
27C87	TF4RX04YY	15	40	475	2,500	YY-17	1.5
27C32	TF4RX04FB	20	40	350	2,500	FB	1.75
27C114	F4RX04YY	20	40	350	2,500	YY 5	1.75
27C118	TF4RX04YY	5.5 or 4	50 75	360	1,500	YY-4	1.25
27C155	TF4RX04YY	10	50	160	1,765	YY-69	1
27C115	TF4RX04YY	10	50	300	5,000	YY-41	3.5
27C33	TF4RX04EB	12	50	385	2,500	EB	1.25
27C26	TF4SX04AH	2*	55	160	2,500	AH	.25
27C105	TF4SX04YY	2*	55	160	2,500	YY-1	.25
27C167	TF5RX04ZZ	3.2	55	360	2,000	BHV	.2
27C14	TF4RX04FB	10	55	230	2,500	FB	1.75
27C116	TF4RX04EB	10	55	250	1,500	EB	1.12
27C88	TF4RX04YY	10	55	230	2,500	YY-18	1.75
27C15	TF4RX04FB	15	55	420	2,500	FB	2
27C89	TF4RX04YY	15	55	420	2,500	YY-18	2
27C154	TF55X04ZZ	2.25 1.75 1.25	60 80 100	110	1,000	ZZ-2	.28
27C161	TF4RX04AJ	6	65	450	1,500	AJ	1
27C27	TF4SX04AH	2*	70	165	2,500	AH	.5
27C101	TF4SX04AJ	2*	70	165	2,500	AJ	.75
27C117	TF4SY04EB	2*	70	100	1,500	EB	1.12
27C106	TF4SX04YY	2*	70	165	2,500	YY-6	.5
27C71	TF4RX04YY	3*	70	225	1,500	YY-14	.75
27C48	TF4RX04GB	13 or 11.5 or 9.5 or 7	70 85 105 125	215	2,500	GB	2.5
27C72	TF4RX04GB	15	70	300	2,500	GB	2.4
27C119	TF4RX04YY	6	75	280	500	YY-26	1.2
27C120	TF4RX04GA	15	75	270	1,500	GA	2.5
27C121	TF4RX04YY	12	80	300	1,500	YY-24	2.5
27C148	TF5RX04ZZ	12	80	325	2,200	BHH	.4
27C160	TF4RX04YY	12 8	80 100	325	1,500	FA§	1.5
27C102	TF4SX04AH	2*	85	135	2,500	AH	.375
27C16	TF4RX04GB	10	85	175	2,500	GB	2.5
27C90	TF4RX04YY	10	85	175	2,500	YY-21	2.5
27C17	TF4RX04GB	15	85	285	2,500	GB	2.75
27C91	TF4RX04YY	15	85	285	2,500	YY-21	2.75
27C159	TF4RX04YY	15	85	365	1,600	YY-70	1.8
27C122	TF4RX04ZZ	7	90	270	1,500	ZZ-3	1
27C123	TF4RX04GB	10†	90	175	1,500	GB	2
27C124	TF4RX04YY	3.8	100	105	1,750	YY-25	2
27C125	TF4RX04YY	10	100	200	2,500	YY-36	2.5
26C126	TF4RX04LB	25	100	380	7,500	LB	11
27C103	TF4SX04EB	2*	105	110	2,500	EB	.5
27C18	TF4RX04HB	8	105	100	2,500	HB	3.75
27C92	TF4RX04YY	8	105	100	2,500	YY-28	3.75
27C19	TF4RX04HB	12	105	170	2,500	HB	4
27C93	TF4RX04YY	12	105	170	2,500	YY-28	4
27C28	TF4SX04EB	2*	120	100	2,500	EB	1
27C127	TF4SY04FB	2*	120	75	1,500	FB	1.2
27C107	TF4SX04YY	2*	120	100	2,500	YY-16	1
27C73	TF4RX04EB	3	120	150	1,500	EB	1.12
27C179	TF4RX04YY	10	120	200	2,000	NSV-7	2
27C74	TF4RX04JB	15	120	185	2,500	JB	5.25
27C232	TF5SX04ZZ	2 1.5 1	120 160 200	55	2,500	ZZ-2	.9
27C128	TF2SY04ZZ	7	125	300	1,000	ZZ-3	.7
27C129	TF1RX04YY	8	125	135	2,700	YY-35	4
27C130	TF4RX04GA	10	125	200	2,000	GA	3
27C131	TF4RX04YY	10	136	100	2,500	YY-38	4
27C104	TF4SX04EB	2*	150	95	2,500	EB	1
27C157	TF4RX04YY	2	150	165	1,500	EB§	1
27C20	TF4RX04JB	8	150	100	2,500	JB	5.25
27C94	TF4RX04YY	8	150	100	2,500	YY-31	5.25
27C21	TF4RX04JB	12	150	150	2,500	JB	5.5
27C95	TF4RX04YY	12	150	150	2,500	YY-32	5.5
27C174	TF2RX04ZZ	4	160	64	1,700	LHV	2
27C29	TF4SX04EB	2*	165	90	2,500	EB	1.5
27C108	TF4SX04YY	2*	165	90	2,500	YY-16	1.5
27C133	TF4RX04GA	7.5	165	200	1,500	GA	2.25
27C156	TF4RX04YY	6	190	150	500	YY-71	2.5
27C173	TF5RX04ZZ	.5‡	200	63	2,500	ZZ-1	.5
27C172	TF5RX04ZZ	1.5ç	200	63	2,500	ZZ-1	.6
27C30	TF4SX04FB	2*	200	73	2,500	FB	1.75
27C109	TF4SX04YY	2*	200	73	2,500	YY-18	1.75
27C75	TF4RX04FB	3*	200	105	2,000	FB	1.75
27C169	TF4RX04YY	4	200	70	1,500	GB(a)	2
27C163	TF4RX04GA	4.5	200	67	2,500	GA	3
27C164	TF4RX04YY	4.5	200	67	2,500	GA§	3
27C22	TF4RX04JB	8	200	85	2,500	JB	7
27C96	TF4RX04YY	8	200	85	2,500	YY-33	7
27C76	TF4RX04JA	10	200	100	2,500	JA	6.6
27C49	TF4RX04KB	11 or 10 or 8.5	200 230 250	90	2,500	KB	7
27C50	TF4RX04LB	11 or 10 or 8.5	200 230 250	85	4,500	LB	8.5
27C23	TF4RX04JB	12	200	140	2,500	JB	7
27C97	TF4RX04YY	12	200	140	2,500	YY-33	7
27C60	TF5SX04ZZ	2 or 1.5 or 1	220 270 325	35	2,500	ZZ-3	1.7
27C24	TF4RX04MB	8	250	90	2,500	MB	10.5
27C98	TF4RX04YY	8	250	90	2,500	YY-42	10.5
27C134	TF4RX04JA	10	250	110	1,500	JA	4.5
27C135	TF4RX04YY	10	275	120	2,500	YY-37	7
27C31	TF4SX04HB	2*	300	47	2,500	HB	3.25
27C34	TF4RX04GB	2*	300	48	2,500	GB	2.5
27C110	TF4SX04YY	2*	300	47	2,500	YY-27	3.25
27C136	TF4RX04JA	6	300	68	1,500	JA	4.5
27C25	TF4RX04MB	8	300	60	3,500	MB	12.5
27C99	TF4RX04YY	8	300	60	3,500	YY-42	12.5
27C36	TF1RX04LA	10	300	85	2,500	LA	10.5
27C51	TF4RX04MB	10 or 9	300 350	60	5,500	MB	12.5
27C137	TF4RX04KB	3	400	50	1,500	KB	7
27C166	TF4RX04YY	3	400	18.6	2,000	YY-72	6.1
27C52	TF4RX04QA	7	400	48	7,000	QA	21
27C138	TF4RX04YY	1	420	16	2,000	YY-30	3
27C139	TF4SY04JB	2*	500	40	1,500	JB	4
27C140	TF1RX04YY	11	500	60	10,000	YY-48	25
27C141	TF4RX04JA	.5	800	3	1,500	JA	6
27C142	TF4RX04AJ	.01	900	1.7	1,000	AJ	.5
27C143	TF4RX04YY	.04	1 Amp.	1.7	1,500	YY-20	1.2
27C144	TF4RX04GB	.2	1 Amp.	5	1,680	GB	2.5
27C145	TF4RX04JA	.5	1 Amp.	5	2,000	JA	4.5
27C146	TF4RX04KB	.025	4 Amp.	.25	500	KB	5.5
27C147	TF4RX04KB	.85	12 Amp.	.015	900	KB	6
27C148	TF1RX04YY	.005	30 Amp.	.05	900	YY-51	25

* Designed for 400 Cycle Operation
# Tolerance ± 10% @ 200 V. 4,500 CPS
(a) Mounting Centers are 1 3/4 x 2 1/16
† Constructed with Hum Bucking Windings
‡ Charging Choke
§ This unit has terminals opposite end of mounting studs.
ç Tolerance ± 3% @ 200 V. 4,500 CPS

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For Mounting Illustrations, Cross References and Pricing Information See Pages 1518-1530

Dual Winding - Chokes and Inductors

Designed and built to meet MIL-T-27B specifications. These units provide the maximum inductance at the given current ratings in a minimum size. All AJ, FA, GA, etc. case sizes are identical to MIL-T-27B specifications

Part No.	MIL-T-27B Classification	Series Connected: Inductance In Henrys	Series Connected: MADC	Series Connected: Resistance In Ohms	Parallel Connected: Inductance In Henrys	Parallel Connected: MADC	Parallel Connected: Resistance In Ohms	Case Size	Wt. Lbs.
27C44	TF4RX20YY	450 or 250	0 5	6,000	65	10	1,500	NSV-4	.5
27C66	TF5RX20ZZ	20 40	2 1	2,675	5 10	4 2	670	M2	.05
MIT 249	TF4RX20YY	20 or 8	1 3	5,100	5 or 2	2 6	1,270	RAV-6	.1 oz.
27C41	TF4RX04YY	2.4	2	160	.6	4	40	TFH	.8 oz.
MIT 278	TF4RX20YY	.90 2.5	4 2	635	.20 .60	8 4	155	RAV-5	.07 oz.
MIT 279	TF4RX20ZZ	1.2 4.5	4 2	2,300	.30 1.1	8 4	575	RAV-5	.07 oz.
27C234	TF4RX20YY	8 16	4 2	1,100	2 4	8 4	275	M2	.05
TR 357	TF4RX20YY	8 16	4 2	1,100	2 4	8 4	275	MAH	.03
27C65	TF5RX20ZZ	1.5 3.5	5 2	160	.40 .90	10 4	40	M2A	.04
27C64	TF5RX20ZZ	4 8	5 2	600	1 2	10 4	150	M2A	.04
MIT 277	TF4RX20YY	.50 .90	6 2	100	.10 .20	12 4	25	RAV-5	.07 oz.
MIT 276	TF4RX20YY	.08 .10	10 4	25	.02 .025	20 8	6	RAV-5	.07 oz.
27C62	TF5SX04ZZ	1 or .2 or .16	5 50 100	40	1.25 or .05 or .04	10 100 200	10	ZZ-3	.05
27C40	TF4RX04YY	1	8	100	.25	10	25	TFH	.8 oz.
MIT 250	TF4RX20YY	75 MH or 60 MH	10 30	10	18 MH or 15 MH	20 60	2.5	RAV-6	.1 oz.
27C46	TF4RX04YY	40	15	1,000	10	30	250	NSV-4	.5
27C43	TF4RX04YY	1	20	60	.25	40	15	NSV-2	.1
27C170	TF4RX20YY	20 20 Dual Choke	200	400				DHF	2.5
27C39	TF4RX04YY	60 MH	32	6	15 MH	64	1.5	TFH	.8 oz.
27C53	TF4RX04AG	52 MH or 40 MH or 18 MH or 9 MH	35 75 350 750	1	13 MH or 10 MH or 4.5 MH or 2.25 MH	70 150 70 1.5 Amp.	.25	AG	.1
27C54‡	TF4RX04AH	125 MH or 80 MH or 20 MH or 12 MH	50 100 500 1 Amp.	1.2	31 MH or 20 MH or 5 MH or 3 MH	100 200 1 Amp. 2 Amp.	.3	AH	.4
27C45	TF4RX04YY	4	50	100	1	100	25	NSV-4	.5
27C149	TF4RX04FA	10	60	300	2.5	120	75	FA	1
27C57■	TF4RX04JA	9 MH or 5 MH or 2.2 MH or 1.6 MH	75 1.5 Amp. 7.5 Amp. 15 Amp.	.03	2.25 MH or 1.5 MH or .55 MH or .4 MH	1.5 Amp. 3 Amp. 15 Amp. 30 Amp.	.0075	JA	4.5
27C42	TF4RX04YY	60 MH	80	4	15 MH	160	1	NSV-2	.1
27C151●	TF4RX04HA	4	90	50	1	180	12.5	HA	4
27C55★	TF4RX04AJ	68 MH or 52 MH or 20 MH or 14 MH	100 200 1 Amp. 2 Amp.	.8	17 MH 13 MH 5 MH 3.5 MH	200 400 2 Amp. 4 Amp.	.2	AJ	.6
27C56	TF4RX04GB	180 MH or 140 MH or 25 MH or 11 MH	125 250 1.25 Amp. 2.5 Amp	.6	45 MH or 35 MH or 6.5 MH or 3 MH	250 500 2.5 Amp. 5 Amp.	15	GB	1.75
27C150●	TF4RX04JA	10	140	100	2.5	280	25	JA	5
27C61	TF5SX04ZZ	200 MH or 25 MH or 11 MH	150 1.25 Amp. 2.5 Amp.	.6	55 MH or 6.2 MH or 2.7 MH	250 2.5 Amp. 5 Amp.	.15	ZZ-3	1.7
27C152Δ	TF4RX04KA	10	210	140	2.5	420	35	KA	5.2
27C58■	TF4RX04HA	70 MH or 65 MH or 20 MH or 9 MH	250 400 2 Amp. 4 Amp.	.22	12.5 MH 16 MH 5 MH 2.25 MH	500 800 4 Amp. 8 Amp.	.055	HA	2.5
27C59	TF4RX04KA	90 MH or 80 MH or 18 MH or 8 MH	500 800 4 Amp. 8 Amp.	.15	22.5 MH or 20 MH or 4.5 MH or 2.25 MH	1 Amp. 1.6 Amp. 8 Amp. 16 Amp.	.035	KA	5.2

‡ 500 Volts RMS Test § 1,700 Volts RMS Test ■ 1,000 Volts RMS Test
★ 750 Volts RMS Test ● 1,500 Volts RMS Test Δ 1,875 Volts RMS Test

Audio Inductors

Designed and built to provide a full range of inductance and current ratings in epoxy molded, encased, and encapsulated units from .06 Hy. to 450 Hy. at tolerances of less than ± 5%. Units marked * have a tolerance ± 3% and a Q of 22 or more at approximately 1,000 cycles. Units marked # have an inductance tolerance of ± 2% and a Q of 25 or more at 1,700 cycles for low inductance units and 400 cycles for high inductance units. Stable operation is provided from .1 to 30 volts and over the full MIL temperature range.

Part No. Molded	Part No. Encased	MIL-T-27B Classification	Series Connected: Inductance Henrys	Series Connected: MADC	Series Connected: Resistance Ohms	Parallel Connected: Inductance Henrys	Parallel Connected: MADC	Parallel Connected: Resistance Ohms	Mtg. Type
	MIT 250	TF4RX20YY	.06/.075	30/10	10	.015/.018	60/20	2.5	RAV-6
	MIT 267	TF4RX20YY	.08/.10	10/4	25				RAV-4
	MIT 276	TF4RX20YY	.08/.10	10/4	25	.02/.025	20/8	6	RAV-5
27C265		TF5RX20ZZ	.10#	55§	13.5				M2B
27C84		TF5RX20ZZ	.10	5	15				M3
27C236		TF5RX20ZZ	.15*	12§	33				TAM
27C267		TF5RX20ZZ	.15#	45§	22				M2B
	MIT 228	TF4RX20YY	.15/.30	20/4	24				RAV-6
27C237		TF5RX20ZZ	.25*	9§	55				TAM
27C266		TF5RX20ZZ	.30#	28§	34				M2B
27C83		TF5RX20ZZ	.30	4	44				M3
27C506		TF5RX20ZZ	.30	4	44				M7
27C238		TF5RX20ZZ	.40*	7§	90				TAM
27C269		TF5RX20ZZ	.50#	23§	54				M2B
	MIT 266	TF4RX20YY	.50/.90	6/2	105				RAV-4
	MIT 277	TF4RX20YY	.50/.90	6/2	100	.10/.20	12/4	25	RAV-5
	MIT 227	TF4RX20YY	.50/1.25	11/2	103				RAV-6
27C239		TF5RX20ZZ	.70*	5§	130				TAM
27C512		TF5RX20ZZ	.70/1.5	2/0	100				M7A
27C82		TF5RX20ZZ	.90	2	110				M3
	MIT 258	TF4RX20YY	.90/2.5	4/2	635				RAV-4
	MIT 278	TF4RX20YY	.90/2.5	4/2	635	.20/.60	8/4	155	RAV-5
27C268		TF5RX20ZZ	1#	16§	130				M2B
TR 147		TF5RX20ZZ	1	2	130				M1
	MIT 208	TF4RX20ZZ	1/3.5	5/2	617				RAV-6
	MIT 265	TF4RX20ZZ	1.2/4.5	4/2	2,300				RAV-4
	MIT 279	TF4RX20ZZ	1.2/4.5	4/2	2,300	.30/1.1	8/4	575	RAV-5
27C80		TF5RX20ZZ	1.25	2	180				M3
27C242		TF5RX20ZZ	1.4*	3§	210				TAM
	MIT 226	TF4RX20YY	1.5/6	5/2	2,160				RAV-6
27C65		TF5RX20ZZ	1.5/3.5	5/2	160	.40/.90	10/4	40	M2A
27C270		TF5RX20ZZ	2#	8§	130				M2B
	27C68	TF4QX20YY	2/8	6/3	220				AF-1
27C241		TF5RX20ZZ	2.5*	1§	210				TAM
TR 148		TF5RX20ZZ	3	2	330				M1
27C81		TF5RX20ZZ	3.5	2	1,040				M3
27C240		TF5RX20ZZ	4*	.7§	340				TAM
27C64		TF5RX20ZZ	4/8	5/2	600	1/2	10/4	150	M2A
27C271		TF5RX20ZZ	5#	5§	340				M2B
27C243		TF5RX20ZZ	6*	.6§	530				TAM
27C79		TF5RX20ZZ	6	2	1,800				M3
27C505		TF5RX20ZZ	6	2	1,800				M7
TR 149		TF5RX20ZZ	6	2	1,180				M1
27C273		TF5RX20ZZ	7.5#	4.5§	517				M2B
27C511		TF5RX20ZZ	8/10	.5/0	650				M7A
27C234		TF5RX20ZZ	8/16	4/2	1,100	2/4	8/4	275	M2
	MIT 249	TF4RX20YY	8/20	3/1	5,100	2/5	6/2	1,270	RAV-6
27C244		TF5RX20ZZ	10*	.5§	850				TAM
	MIT 20	TF5RX20YY	12	0	830				RSV-1
TR 150		TF5RX20ZZ	12	0	1,880				M1
27C513		TF5RX20ZZ	12	.5	1,000				M8
27C272		TF5RX20ZZ	20#	2.7§	1,300				M2B

Audio Inductors

Part No. Molded	Part No. Encased	MIL-T-27B Classification	Series Connected: Inductance Henrys	Series Connected: MADC	Series Connected: Resistance Ohms	Parallel Connected: Inductance Henrys	Parallel Connected: MADC	Parallel Connected: Resistance Ohms	Mtg. Type
TR 151		TF5RX20ZZ	20	0	2,850				M1
	MIT 40	TF4RX20YY	20	1	2,200				RSV-1A
27C66		TF5RX20ZZ	20/40	2/1	2,675	5/10	4/2	670	M2
27C246		TF5RX20ZZ	25*	.3§	2,300				TAM
	MIT 66	TF4RX20YY	30	1	4,000				RSV-1B
27C178		TF2RX20ZZ	41	0	1,500				BAH
	27C67	TF4QX20YY	50	.75	4,000				AF-1
27C509		TF5RX20ZZ	50	1	3,000				M10
	27C507	TF4RX20YY	50	1	3,000				AF-2
	27C508	TF4RX20YY	50	1	3,000				NSV-2C
	MIT 102	TF4RX20YY	50	1	3,200				RSV-2A
27C63		TF5RX20ZZ	50	1	4,400				M2A
	27C38	TF4RX20YY	50	1	4,400				TSM
	MIT 84	TF4RX20YY	50	1	4,500				RSV-2
27C515		TF5RX20ZZ	50	1	4,700				M9
	27C514	TF4RX20YY	50	1	4,700				NSV-2B
27C275		TF5RX20ZZ	50#	1.4§	3,180				M2B
	MIT 132	TF5RX20ZZ	50	3	500				NSV-2
27C447		TF5RX20ZZ	50/300	3/0	6,000				M11
	27C37	TF4RX20YY	50/300	3/0	6,000				NSV-2
	27C510	TF4RX20YY	50/300	3/0	6,000				AG-2
27C245		TF5RX20ZZ	60*	.2§	5,160				TAM
27C276		TF5RX20ZZ	100#	1.1§	8,550				M2B
	27C44	TF4RX20YY	250/450	5/0	6,000	60	10	1,500	NSV-4

§ Maximum MADC.Inductance rating for 0 MADC # Inductance tolerance ± 2% * Inductance tolerance ± 3%

Alignaire Inductors-Variable

These Alignaire Inductors are ideally suited for hard to align or frequently changed circuits such as low frequency oscillators, attenuators, low frequency tuned amplifiers, filters and delay lines. The high frequency and temperature stability built into these units make them most applicable to mid-audio tuned frequency circuits.

Provided in a wide range of inductance values, these units require only a simple screw driver adjustment to achieve the exact inductance required for the circuit. Less than three turns of the alignment screw are necessary to move the internal piston through its complete range.

Internal construction of the AL-3 units is similar to the AL-1 and AL-2 but have an allen alignment screw on the side of the case.

Part No.	MIL-T-27B Classification	Inductance * In Henrys: Maximum	Inductance * In Henrys: Minimum	Max. MADC	Resistance In Ohms	Case Type	Mtg. Centers	Dimensions: H	Dimensions: W	Dimensions: D
27C288	TF4RX20YY	.0065	.0053	200	.45	AL-1	27/32	1 7/32	1 1/8	25/32
27C203	TF3RX20YY	.015	.0046	75	.91	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C287	TF4RX20YY	.016	.013	125	1.00	AL-1	27/32	1 7/32	1 1/8	25/32
27C180	TF4RX20YY	.020	.002	100	.51	AL-1	27/32	1 7/32	1 1/8	25/32
†27C191	TF4RX20YY	.020	.002	100	.51	AL-2	17/32	1 7/32	1 1/8	25/32
27C204	TF3RX20YY	.024	.007	60	1.35	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C205	TF3RX20YY	.039	.011	50	2.35	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C289	TF4RX20YY	.044	.035	82	2.80	AL-1	27/32	1 7/32	1 1/8	25/32
27C181	TF4RX20YY	.050	.005	60	1.42	AL-1	27/32	1 7/32	1 1/8	25/32
†27C192	TF4RX20YY	.050	.005	60	1.42	AL-2	17/32	1 7/32	1 1/8	25/32
27C206	TF3RX20YY	.063	.019	40	3.6	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C207	TF3RX20YY	.098	.029	36	6.0	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C290	TF4RX20YY	.111	.091	50	7.0	AL-1	27/32	1 7/32	1 1/8	25/32
27C182	TF4RX20YY	.111	.011	40	3.5	AL-1	27/32	1 7/32	1 1/8	25/32
†27C193	TF4RX20YY	.111	.011	40	3.5	AL-2	17/32	1 7/32	1 1/8	25/32
27C208	TF3RX20YY	.155	.046	30	9.3	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C209	TF3RX20YY	.240	.071	25	15.5	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C292	TF4RX20YY	.275	.225	30	18.0	AL-1	27/32	1 7/32	1 1/8	25/32
27C183	TF4RX20YY	.300	.030	30	8.7	AL-1	27/32	1 7/32	1 1/8	25/32
†27C194	TF4RX20YY	.300	.030	30	8.7	AL-2	17/32	1 7/32	1 1/8	25/32
27C210	TF3RX20YY	.390	.115	20	24	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C211	TF3RX20YY	.628	.187	20	36	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C291	TF4RX20YY	.660	.540	20	43	AL-1	27/32	1 7/32	1 1/8	25/32
27C184	TF4RX20YY	.700	.070	20	22	AL-1	27/32	1 7/32	1 1/8	25/32
†27C195	TF4RX20YY	.700	.070	20	22	AL-2	17/32	1 7/32	1 1/8	25/32
27C212	TF3RX20YY	1.00	.300	15	58	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C213	TF3RX20YY	1.57	.467	13	94	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C293	TF4RX20YY	1.65	.135	14	103	AL-1	27/32	1 7/32	1 1/8	25/32
27C185	TF4RX20YY	2.00	.200	16	55	AL-1	27/32	1 7/32	1 1/8	25/32
†27C196	TF4RX20YY	2.00	.200	16	55	AL-2	17/32	1 7/32	1 1/8	25/32
27C214	TF3RX20YY	2.40	.716	10	150	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C215	TF3RX20YY	4.07	1.2	8	235	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C294	TF4RX20YY	4.40	3.60	7	270	AL-1	27/32	1 7/32	1 1/8	25/32
27C153	TF4RX20YY	5.00	.500	10	140	AL-1	27/32	1 7/32	1 1/8	25/32
†27C197	TF4RX20YY	5.00	.500	10	140	AL-2	17/32	1 7/32	1 1/8	25/32
27C216	TF3RX20YY	6.28	1.87	6.5	375	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C217	TF3RX20YY	10.0	3.00	6	585	AL-3	13/16 x 29/32	1 7/16	1 7/32	1 11/32
27C295	TF4RX20YY	11.0	9.00	5	720	AL-1	27/32	1 7/32	1 1/8	25/32
27C186	TF4RX20YY	11.0	1.10	7	365	AL-1	27/32	1 7/32	1 1/8	25/32
†27C198	TF4RX20YY	11.0	1.10	7	365	AL-2	17/32	1 7/32	1 1/8	25/32
27C218	TF3RX20YY	15.7	4.65	5	955	AL-3	13/32 x 29/32	1 7/16	1 7/32	1 11/32
27C219	TF3RX20YY	24.0	7.16	4	1,500	AL-3	13/32 x 29/32	1 7/16	1 7/32	1 11/32
27C296	TF4RX20YY	27.5	22.4	3	1,760	AL-1	27/32	1 7/32	1 1/8	25/32
27C187	TF4RX20YY	30.0	3.00	5	945	AL-1	27/32	1 7/32	1 1/8	25/32
†27C199	TF4RX20YY	30.0	3.00	5	945	AL-2	17/32	1 7/32	1 1/8	25/32
27C220	TF3RX20YY	39.0	11.5	3.5	2,300	AL-3	13/32 x 29/32	1 7/16	1 7/32	1 11/32
27C221	TF3RX20YY	61.0	18.0	3	3,580	AL-3	13/32 x 29/32	1 7/16	1 7/32	1 11/32
27C297	TF4RX20YY	66.0	54.0	2	4,325	AL-1	27/32	1 7/32	1 1/8	25/32
27C188	TF4RX20YY	70.0	7.0	3.6	2,200	AL-1	27/32	1 7/32	1 1/8	25/32
†27C200	TF4RX20YY	70.0	7.0	3.6	2,200	AL-2	17/32	1 7/32	1 1/8	25/32
27C222	TF3RX20YY	96.0	28.6	2	5,840	AL-3	13/32 x 29/32	1 7/16	1 7/32	1 11/32
27C223	TF3RX20YY	154	45.7	1.5	9,340	AL-3	13/32 x 29/32	1 7/16	1 7/32	1 11/32
27C298	TF4RX20YY	165	135	1.3	10,500	AL-1	27/32	1 7/32	1 1/8	25/32
27C189	TF4RX20YY	200	20	2.1	5,500	AL-1	27/32	1 7/32	1 1/8	25/32
†27C201	TF4RX20YY	200	20	2.1	5,500	AL-2	17/32	1 7/32	1 1/8	25/32
27C224	TF3RX20YY	240	71.6	1	14,900	AL-3	13/32 x 29/32	1 7/16	1 7/32	1 11/32
27C190	TF4RX20YY	500	50	1.5	15,500	AL-1	27/32	1 7/32	1 1/8	25/32
†27C202	TF4RX20YY	500	50	1.5	15,500	AL-2	17/32	1 7/32	1 1/8	25/32

* Inductance Range given for 0 MADC † Winding Tapped at 30% and 50%

Filament Single Secondary

50/60 CYCLES

These transformers have been designed and built to meet MIL-T-27B specifications. All EB, GA, GB, etc. case sizes are identical to MIL-T-27B specifications

See next page for multiple secondary filament transformers.

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary: Volts	Secondary: Amps.	Test Volts RMS	Case Size	Wt. Lbs.
27F36	TF4RX01EB002	105/115/125	2.5	3	2,500	EB	1.5
27F46	TF4RX01GA	115/230	2.5CT	5.25	3,500	GA	2
27F24	TF4RX01YY	115/230	2.5CT	5.25	3,500	YY-22	2
27F37	TF4RX01GB003	105/115/125	2.5	10	2,500	GB	2.5
27F88	TF4RX01GB	105/115/210/230	2.5	10	4,000	GB	2.5
27F47	TF4RX01GA	115/230	2.5CT	10	5,000	GA	3
27F25	TF4RX01YY	115/230	2.5CT	10	5,000	YY-22	3
27F48	TF4RX01JA	115/230	2.5CT	10	9,000	JA	4
27F26	TF4RX01YY	115/230	2.5CT	10	9,000	YY-32	4
27F89	TF4RX01JB	105/115/210/230	2.5	10	10,000	JB	5
27F44	TF4RX01JB012	105/115/125	2.5	10	10,000	JB	4.75
27F49	TF4RX01KA	115/230	2.5CT	15	9,000	KA	5.25
27F27	TF4RX01YY	115/230	2.5CT	15	9,000	YY-34	5.25
27F63	TF4RX01KB	105/115/210/230	2.5	20	10,000	KB	7.25
27F134	TF4RX01JA	100/115	2.6CT	10	10,000	JA	4
27F38	TF4RX01FB004	105/115/125	5.0	3	2,500	FB	1.75
27F65	TF4RX01FB	105/115/210/230	5.0	3	2,000	FB	1.75
27F50	TF4RX01GA	115/230	5.0CT	4	2,500	GA	2.25
27F28	TF4RX01YY	115/230	5.0CT	4	2,500	YY-22	2.25
27F39	TF4RX01HB005	105/115/125	5.0	10	2,500	HB	4
27F51	TF4RX01HA	115/230	5.0CT	10	2,500	HA	3.5
27F29	TF4RX01YY	115/230	5.0CT	10	2,500	YY-28	3.5
27F52	TF4RX01KA	115/230	5.0CT	10	8,000	KA	6
27F30	TF4RX01YY	115/230	5.0CT	10	8,000	YY-34	6

† Static Shielded ‡ Terminals located opposite mounting studs # @ 60 Cycles only
(a) Width: 2-5/8; Depth: 2; Height: 2-1/8; Mtg.Ctrs: 2-1/32

For Mounting Illustrations, Cross References and Pricing Information See Pages 1518-1530

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Filament Single Secondary

50/60 CYCLES

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary Volts	Secondary Amps.	Test Volts RMS	Case Size	Wt. Lbs.
27F66	TF4RX01KB	105/115/210/230	5.0	10	10,000	KB	7.5
27F45	TF4RX01KB013	105/115/125	5.0	10	10,000	KB	7.5
27F109	TF4RX01YY	115#	5.0CT	20	2,500	YY-62	4.5
27F53	TF4RX01MA	115/230	5.0CT	20	10,000	MA	13
27F31	TF4RX01YY	115/230	5.0CT	20	10,000	YY-43	13
27F67	TF4RX01LA	105/115/210/230	5.0	20	10,000	LA	10.5
27F68	TF4RX01NA	105/115/210/230	5.0	20	21,000	NA‡	18
27F69	TF4RX01YY	105/115/210/230	5.0	60	21,000	YY-52	34
27F110	TF4RX01YY	105/115/125†	5.25CT	14	2,500	YY-39	4
27F71	TF4RX01AH	115	6.3CT	.3	1,500	AH	.5
27F72	TF4RX01AJ	115	6.3CT	.6	1,500	AJ	1
27F01	TF4RX01YY	115	6.3	.6	1,500	YY-14	.75
27F113	TF4RX01EA	115#	6.3CT	1	1,600	EA	1
27F116	TF2RX01ZZ	117	6.3CT	1	1,600	BHV(a)	.4
27F125	TF4RX01YY	115#	6.3	1	1,780	YY-63	1
27F54	TF4RX01FA	115/230	6.3CT	1.5	2,500	FA	1
27F32	TF4RX01YY	115/230	6.3CT	1.5	2,500	YY-17	1
27F111	TF4RX01YY	120#	6.3	1.6	1,500	YY-64	2
27F33	TF4RX01EA	105/115/125	6.3CT	2	2,000	EA	1
27F40	TF4RX01FB006	105/115/125	6.3	2	2,500	FB	1.75
27F73	TF4RX01FB	115/230	6.3CT	2	2,500	FB	1.75
27F112	TF4RX01EA	115#	6.3CT	3	1,600	FA	1
27F133	TF4RX01YY	115#†	6.3	3	1,600	YY-65	1.3
27F55	TF4RX01GA	115/230	6.3CT	3	2,500	GA	2
27F90	TF4RX01YY	115/230	6.3CT	3	2,500	YY-21	2
27F34	TF4RX01FA	105/115/125	6.3CT	3.6	2,000	FA	1.75
27F41	TF4RX01GB007	105/115/125	6.3	5	2,500	GB	2.75
27F56	TF4RX01HA	115/230	6.3CT	5.5	2,500	HA	3
27F02	TF4RX01HB	105/115/125	6.3CT	5.5	2,000	HB	4
27F91	TF4RX01YY	115/230	6.3CT	5.5	2,500	YY-27	3
27F75	TF4RX01HB	105/115/210/230	6.3CT	7	2,500	HB	4
27F05	TF4RX01JB	105/115/125	6.3CT	8	2,500	JB	5
27F57	TF4RX01JA	115/230	6.3CT	10	2,500	JA	5
27F42	TF4RX01JB008	105/115/125	6.3	10	2,500	JB	5
27F76	TF4RX01HA	105/115/210/230	6.3CT	10	2,500	HA	3.5
27F92	TF4RX01YY	115/230	6.3CT	10	2,500	YY-32	5
27F107	TF4SX01YY	105/115/125	6.3CT	10	2,500	YY-18	1.75
27F43	TF4RX01KB009	105/115/125	6.3	20	2,500	KB	8
27F58	TF4RX01HA	115/230	10.0CT	4	2,500	HA	3.25
27F93	TF4RX01YY	115/230	10.0CT	4	2,500	YY-28	3.25
27F77	TF4RX01JB	105/115/210/230	10.0CT	10	2,500	JB	5
27F117	TF4RX01YY	115#	10.7	1.5	2,700	YY-66	2.1
27F78	TF4RX01LA	105/115/210/230	11/12/14CT	10	2,500	LA	10.5
27F06	TF4RX01EA	105/115/125	12.6CT	.8	1,500	EA	1.25
27F07	TF4RX01FA	105/115/125	12.6CT	2	2,000	FA	2
27F08	TF4RX01FA	105/115/125	24CT	.8	1,500	FA	2
27F09	TF4RX01GA	105/115/125	24CT	1.5	1,500	GA	3.25

† Static Shielded ‡ Terminals located opposite mounting studs # @ 60 Cycles only
(a) Width: 2-5/8; Depth: 2; Height: 2-1/8; Mtg.Ctrs: 2-1/32

Filament-Multiple Secondary

These transformers have been designed and built to meet all requirements of MIL-T-27B for their specific class of operation. All EB, GA, GB, etc. case sizes are identical to MIL-T-27B specifications

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary Volts	Secondary Amps.	Test Volts RMS	Case Size	Wt. Lbs.
27F64	TF4RX01NB	105/115/210/230	2.5 2.5 2.5	5 5 10	10,000	NB	15
27F101	TF4RX01KA	105/115/125	5.0CT 5.0CT 5.0CT	3 3 6	5,000	KA	7
27F70	TF4RX01YY	105/115/210/230	5.0 5.0 5.0	10 10 20	21,000	YY-49	28
27F94	TF4RX01GA	105/115/125	5.0 6.3CT	2 2.5	2,500	GA	3.5
27F123	TF4RX01YY	115 57/63CPS	5.0 5.0 6.3 6.3 6.3	2 2 .6 1.185 1.2 14	1,780	JA‡	5.5
27F96	TF4RX01HA	105/115/125	5.0 6.3CT	3 5	2,500	HA	4
27F13	TF4RX01JB	105/115/125	5.0CT 6.3CT	3 5	2,500	JB	4.75
27F97	TF4RX01JB	105/115/125	5.0 6.3CT 6.3CT	3 3 3	2,500	JB	4.75
27F98	TF4RX01JB	105/115/125	5.0 6.3CT 6.3CT	3 1 5	2,500	JB	4.75
27F119	TF4RX01KA	115 60CPS	5.0CT 6.3CT 6.3CT 6.3 6.3	6 1 1.2 2 6	1,500	KA	7
27F118	TF4RX01YY	105/115/125/210/230/250 60CPS	5.0 6.3 6.5	3 3 20	1,600	YY-67	12.3
27F95	TF4RX01GA	105/115/125	5.0 12.6CT	2 1.25	2,500	GA	3.5
27F132	TF4RX01YY	105/115/125	5.25CT 5.25CT	14.5 14.5	2,500	YY-44	5
27F115	TF4RX01YY	115§ 45 to 60 CPS	5.3/5.5/ 5.7CT Plus 85% Tap from CT 5.3/5.5/ 5.7CT Plus 85% Tap from CT	4.75 26.5	500	YY-68‡	10
27F79	TF4RX01EB	115	6.3CT 6.3CT	.6 .6	1,500	EB	.8
27F127	TF4RX01YY	115	6.3 6.3	.75 .75	2,000	YY-23	1.2
27F126	TF4RX01JA	115	6.3 6.3 6.3	1.2 3 10	2,700	JA	5.5
27F128	TF4RX01GA	115†	6.3 6.3	3 .6	1,000 2,500	GA	2
27F04	TF4RX01GA	105/115/125	6.3 6.3CT	3 3	2,500 Pri. 1,500	GA	2.25
27F99	TF4RX01HA	105/115/125	6.3CT 6.3CT	3 3	2,500	HA	4
27F131	TF4RX01JA	115	6.3 6.3 6.3 6.3	3 3 3 3	2,500	JA	4
27F18	TF4RX01FA	105/115/125	6.3 6.3CT 6.3/5.0	3.5 3.5 3	2,000	FA	1.85
27F17	TF4RX01FA	105/115/125	6.3 6.3CT	5 5	2,500 Pri. 1,500	FA	2
27F12	TF4RX01JA	105/115/125	6.3CT 6.3	6 6	2,500 Pri. 1,500	JA	6.3
27F100	TF4RX01KA	105/115/125	6.3CT 6.3CT	6 6	2,500	KA	8
27F74	TF4RX01JA	105/115/210/230	6.3CT 6.3CT	6 6	2,500	JA	6.3
27F03	TF4RX01KA	105/115/125	6.3CT 6.3	10 10	2,500 Pri. 1,500	KA	8
27F130	TF4RX01GA	115 60 CPS	6.3 12.6	2.5 2.5	1,500	GA	2.75
27F129	TF4RX01EA	115 60 CPS	12.6 12.6	.25 .25	500	EA	1
27F10	TF4RX01GA	105/115/125	12.6CT 12.6CT	1.5 1.5	1,500	GA	3.25
27F11	TF4RX01JB	105/115/125	12.6CT 12.6	2 2	2,500	JB	6.5

§ Secondary Voltage changed by means of primary taps † Static Shielded ‡ Terminals located opposite mounting studs

Filament-Multiple Secondary

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary Volts	Secondary Amps.	Test Volts RMS	Case Size	Wt. Lbs.
27F80	TF4RX01GA	115	12.6CT 12.6CT	2 2	1,500	GA	3.5
27F23	TF4RX01JA	105/115/125	26CT 26	2 2	2,000	JA	6.3

Filament 400 CPS OPERATION

These transformers have been designed and built to meet all requirements of MIL-T-27B for their specific class of operation. All EB, GA, GB, etc. case sizes are identical to MIL-T27B specifications

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary Voltage	Secondary Amps.	Test Volts RMS	Case Size	Wt. Lbs.
27F87	TF5RX01ZZ	105/115	6.3CT	.3	500	M-2	.05
27F82	TF4RX01YY	115	6.3	.6	500	NSV-2	.1
27F14	TF4RX01AH	115	6.3CT	1	1,500	AH	.3
27F124	TF5RX01ZZ	115	6.3	1.2	500	CHH(a)	.1
27F121	TF2SX01ZZ	115	6.3CT	2	1,500	ZZ-1	.33
27F35	TF4SX01YY	105/115/125	6.3CT	2	2,000	YY-14	.75
27F135	TF4SX01AH	105/115/125	6.3CT	2c	2,500	AH	.3
27F59	TF4SX01AJ	105/115/125	6.3CT	3	2,500	AJ	.75
27F102	TF4SX01EB	105/115/125	6.3CT	3	2,500	EB	1
27F105	TF4SX01YY	105/115/125	6.3CT	3	2,500	YY-15	.75
27F83	TF5SX01ZZ	105/115	6.3CT	3.5	2,500	ZZ-1	.3
27F122	TF2SX01ZZ	115	6.3CT	4	1,500	ZZ-1	.45
27F120	TF4RX01FB	105/115/125	6.3	5	2,500	FB	.75
27F60	TF4SX01EA	105/115/125	6.3CT	5.5	2,500	EA	1
27F84	TF5SX01ZZ	105/115	6.3CT	5.5	2,500	ZZ-1	.44
27F106	TF4SX01YY	105/115/125	6.3CT	5.5	2,500	YY-16	1
27F61	TF4SX01FA	105/115/125	6.3CT	10	2,500	FA	1.75
27F85	TF5SX01ZZ	105/115	6.3CT	10	2,500	ZZ-1	.8
27F136	TF4SX01FA	105/115/125	6.3CT	10	2,500	FA	1.75
27F108	TF4SY01YY	105/115/125	6.3CT	20	2,500	YY-22	2.5
27F62	TF4SX01GA	105/115/125	6.3CT	20	2,500	GA	2.5
27F86	TF5SX01ZZ	105/115	6.3CT	25	2,500	ZZ-1	1.5
27F15	TF4RX01EA	105/115/125	12.6CT	2.5	2,000	EA	1.2
27F16	TF4RX01EA	105/115/125	24CT	1.5	1,500	EA	1.2
27F19	TF4RX01HA	105/115/125	2.5CT 5.0CT 5.0	10 10 10	7,500 Pri. 2,000	HA	4
27F114	TF2SX01ZZ	115†	6.3 6.3 6.3 7.5	1.8 2.5 3.2 .6	1,500 4,000 1,500 1,500	ZZ-1(d)	.8
27F137	TF4SX01GB	105/115/125	6.3CT 6.3CT	6†† 6	2,500	GB	2.5
27F103	TF4RX01AJ	105/115/125	12.6CT 12.6	.8 .8	1,500	AJ	.8
27F20	TF4RX01YY	105/115/125	12.6CT 12.6	.8 .8	1,500	YY-14	.75
27F104	TF4RX01EA	105/115/125	12.6CT 12.6	2 2	1,500	EA	1.3
27F21	TF4RX01EA	57.5/99.7/115/120*	12.6CT 12.6	2 2	1,500	EA	1.25
27F81	TF4RX01FA	57.5/99.7/115*	12.6CT 12.6	2 2	1,500	FA	1.75
27F22	TF4RX01FA	57.5/99.7/115/120*	26CT 26CT	2 2	2,000	FA	1.9

†† Both windings rated 7 Amps. for industrial applications ¢ Rated 2.5 Amps. for industrial application
* Two units Scott connected provide 26 Volts two phase from 115 Volts 3 – phase, 400 cycle input. † Static Shielded
(a) Width: 1 5/16; Depth: 1 1/2; Height: 1 7/16; Mtg. Ctrs: 1.687 x 1 1/2
(d) Width: 2 1/2; Depth: 2 1/8; Height: 2 1/4 Max; Mtg. Ctrs: 1.687 x 1 1/2

Power Transformers

PRIMARY 117 VOLTS 50/60 CYCLES

These units have been designed and built to all requirements of MIL-T-27B for their specific class of operation. All EB, GA, GB, etc. case sizes are identical to MIL-T-27B specifications. These units meet the requirements for circuit and mobile communications, control equipment, guided missile controls as well as marine equipment and any field where maximum sealing quality is a prime requisite.

Part No.	MIL-T-27B Classification	PLATE SUPPLY M.A.D.C.† Volts	C	L	RECTIFIER Volts	Amps.	FILAMENT Volts	Amps.	Case Size	Wt. Lbs.
27R18	TF4RX03FA	120	100	127			6.3CT	1.6	FA	2
▲27R149	TF5RX03ZZ	125(c)	100				6.3	2	DHF-1	2.3
■27R150	TF4RX02YY	220(a)		1.15A					YY-53	9.6
27R17	TF4RX03HA	*800/1,600/ 2,400	5‡		1.25 (Autoformer on H.V.Sec.)	.2	6.3 (5.2KV Test)	.6	HA	4
27R127	TF4RX03KA	3,200	3		1.25 (Autoformer on H.V.Sec.)	.2	1.25 (13KV Test)	.2	KA	8
★27R105	TF4RX03LA	30-0-30	2.5A	3.9A	3.9A		6.3 6.3	1.5 1.5	LA	9
★27R104	TF4RX03LA	40-0-40	2A	2.9A			6.3 6.3	1.5 1.5	LA	9.6
★27R103	TF4RX03LA	50-0-50	1.6A	2.6A			6.3 6.3	1.5 1.5	LA	10.5
27R13	TF4RX03HA	100-0-100 or 117-0-117	85‡ 75	140 125			6.3	3.5	HA	4
★27R102	TF4RX03LA	100-0-100	800	1.34A			6.3 6.3	2 2	LA	10
27R14	TF4RX031A	108-0-108 or 232-0-232	180‡ 150	285 240			6.3	5	JA	5
27R15	TF4RX03KA	115-0-115 or 142-0-142	280‡ 235	445 380			6.3 6.3	5 1.5	KA	8
27R16	TF4RX03MB	130-0-130 or 160-0-160	320‡ 260	500 420			6.3 6.3	6 2	MB	14
★27R101	TF4RX03LA	150-0-150	600	1A			6.3 6.3	2.5 2.5	LA	10.5
27R85	TF4RX03JA	180-0-180 160-0-160 140-0-140 120-0-120	150		5.0	3			JA	5
27R60	TF4RX03YY	180-0-180 160-0-160 140-0-140 120-0-120	150		5.0	3			YY-32	5
★27R100	TF4RX03LA	200-0-200	400	540			6.3 6.3	3 3	LA	10.5
27R86	TF4RX03HA001	200-100-0 100-200		70	6.3/5	2	6.3	3	HA	4
27R01	TF4RX03FA	225-0-225	30‡				6.3CT	2	FA	2
27R65	TF4RX03HA	225-0-225	40		5.0	2	6.3CT	2	HA	2
27R40	TF4RX03YY	225-0-225	40		5.0	2	6.3CT	2	YY-28	3.25
●27R143	TF4RX03YY	225-0-225	40		5.0	4	6.3	3.8	TSV-12	4.9
††27R154	TF5RX03ZZ	230-0-230	20		6.3	6	6.3	1.25	DHF-2	1.6
27R63	TF4RX03GA	250-0-250	10		6.3	.6	6.3	1.2	GA	2
27R38	TF4RX03YY	250-0-250	10		6.3	.6	6.3	1.2	YY-21	2
27R64	TF4RX03GA	250-0-250	20		6.3	.6	6.3	1.2	GA	2
27R39	TF4RX03YY	250-0-250	20		6.3	.6	6.3	1.2	YY-22	2
27R19	TF4RX03GA	250-0-250	20	25.4			6.3CT	2	GA	2
27R128	TF4RX03GA	250-0-250	45		6.3	.6	6.3	.8	GA	2
27R02	TF4RX03HA	250-0-250 or 275-0-275	55‡ 50	95 85	5.0	2	6.3CT	3	HA	4
27R66	TF4RX03HA	270-0-270	55		5.0	2	6.3CT	2	HA	3.5
27R41	TF4RX03YY	270-0-270	55		5.0	2	6.3CT	2	YY-28	3.5
27R129	TF4RX03YY	275-0-275	90		5.0	2	6.3	3.5	YY-40	6
27R03	TF4RX03YY	275-0-275 or 300-0-300	90 85	145 135	5.0	2	6.3CT	4	JB	5
27R141	TF4RX03YY	280-0-280	400		5.0	6	6.3 6.3	4.5 8.5	YY-56	10.5

★ Silcon Rectifier Power Transformer – See Yellow Pages for Voltage and Circuit (c) Voltage Doubler Circuit
▲ Primary 115 V @ 60 Cycles ■ Primary 110 V @ 60 Cycles ● Primary 115 V @ 50/60 Cycles
‡ Reduce secondary current by 10% for 50 Cycle operation (a) To be used with full wave bridge; choke input
†† Primary 115/230V @ 50 to 1,000 Cycles * Highly shielded scope transformers † C – Capacitor Input Filter
L – Choke Input Filter

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Power

PRIMARY 117 VOLTS 50/60 CYCLES

Part No.	MIL-T-27B Classification	PLATE SUPPLY Volts	MADCT C	MADCT L	RECTIFIER Volts	RECTIFIER Amps.	FILAMENT Volts	FILAMENT Amps.	Case Size	Wt. Lbs
27R24	TF4RX03JB	300-0-300	50	63.5	5.0	2	6.3CT	2.5	JB	5
27R67	TF4RX03JA	300-0-300	60		5.0	2	6.3CT	3	JA	5.5
27R42	TF4RX03YY	300-0-300	60		5.0	2	6.3CT	3	YY-32	5.5
27R04	TF4RX03JA	300-0-300 or 335-0-335	100‡ 90	165 150	5.0	2	6.3CT	5	JA	5.5
27R87	TF4RX03JB002	325-0-325		70	6.3/5	2	6.3	4	JB	5
27R88	TF4RX03KB006	325-0-325		150	5.0	3	6.3	5	KB	7.25
27R69	TF4RX03JA	330-0-330	85		5.0	2	6.3CT	3	JA	6
27R44	TF4RX03YY	330-0-330	85		5.0	2	6.3CT	3	YY-33	6
27R68	TF4RX03JA	335-0-335	70		5.0	2	6.3CT	3	JA	4.5
27R43	TF4RX03YY	335-0-335	70		5.0	2	6.3CT	3	YY-32	4.5
27R134	TF4RX03KB	340-0-340	75		5.0	3			KB	2.6
27R70	TF4RX03KA	345-0-345	105		5.0	2	6.3CT	3.5	KA	6.5
▲27R145	TF4RX03YY	350-0-350	40				6.3	2.6	YY-57	2.5
27R45	TF4RX03YY	345-0-345	105		5.0	2	6.3CT	3.5	YY-34	6.5
27R75	TF4RX03HA	350-0-350	55		5.0	2	6.3CT	2	HA	3.25
27R50	TF4RX03YY	350-0-350	55		5.0	2	6.3CT	2	YY-28	3.25
27R61	TF4RX03JA	350-0-350	70		5.0	3	6.3CT	3	JA	4.5
▲27R147	TF4RX03YY	350-0-350	70		5	3	6.3CT	3	YY-54	4.2
27R25	TF4RX03KA	350-0-350	120	153	5.0	3	6.3CT	5	KA	8.75
27R05	TF4RX03KA	350-0-350 or 375-0-375	135‡	225 205	5.0	3	6.3CT	1	KA	8.75
27R26	TF4RX03LA	350-70-0-350	150	190	5.0	3	6.3CT 6.3	6 2	LA	10.75
27R06	TF4RX03LA	350-0-350 or 375-0-375	190	300	5.0	3	6.3CT 6.3CT	6 1.5	LA	10.75
27R28	TF4RX03MA	350-0-350 or 400-0-400 0-70	200 Bias	254	5.0	6	6.3CT 6.3	6 4	MA	15
27R30	TF4RX03YY	350-0-350 or 400-0-400 0-70	300 Bias	380	5.0	6	6.3CT 6.3	8 4	YY-45	21.75
27R07	TF4RX03MB	360-0-360 or 385-0-385	180‡ 160	310 300	5.0	3	6.3CT 6.3CT	2 6	MB	14
27R08	TF4RX03NB	365-0-365 or 400-0-400	275‡ 250	420 400	5.0	4	6.3CT 6.3CT	2 6	NB	15
27R72	TF4RX03MA	370-0-370	150		5.0	3	6.3CT 6.3CT	4 1	MA	11.5
27R47	TF4RX03YY	370-0-370	150		5.0	3	6.3CT 6.3CT	4 1	YY-42	11.5
27R82	TF4RX03NA	370-0-370 or 550-0-550 75-0-75	Bias	300	5.0	6	6.3CT 6.3CT	5 1	NA	17.5
27R57	TF4RX03YY	370-0-370 or 550-0-550 75-0-75	Bias	300	5.0	6	6.3CT 6.3CT	5 1	YY-43	17.5
27R71	TF4RX03KA	375-0-375	120		5.0	3	6.3CT	4	KA	9.5
27R46	TF4RX03YY	375-0-375	120		5.0	3	6.3CT	4	YY-34	9.5
27R73	TF4RX03MA	385-0-385	200		5.0	3	6.3CT 6.3CT	4.5 1	MA	12
27R48	TF4RX03YY	385-0-385	200		5.0	3	6.3CT 6.3CT	4.5 1	YY-42	12
27R27	TF4RX03LA	400-0-400 500-0-500	150	190	6.3/5	4	6.3CT 6.3	4 4	LA	11
▲27R144	TF4RX03YY	400-0-400	175		5	3	6.3CT 6.3CT	2.5 2.5	YY-55	11.7
27R89	TF4RX03LB003	400-0-400		175	5.0	3	6.3	8	LB	10
27R29	TF4RX03MA	400-0-400 500-0-500	200	254	6.3/5	4	6.3CT	5	MA	14.5
27R74	TF4RX03NA	400-0-400 80-0-80	250 Bias		5.0 5.0	6 2	6.3CT	7	NA	15
27R49	TF4RX03YY	400-0-400 80-0-80	250 Bias		5.0 5.0	6 2	6.3CT	7	YY-43	15
ç27R162	TF4SX02JA	406(b)	170						JA	6
27R76	TF4RX03JA	425-0-425		70	5.0	2	6.3CT	3	JA	4.5
27R51	TF4RX03YY	425-0-425		70	5.0	2	6.3CT	3	YY-32	4.5
27R135	TF4RX03LB	425-0-425	80		5.0	3	6.3 6.3	5 2	LB	8
§27R159	TF4RX03NA	425-0-425	310				6.3CT 6.3CT	5.5 18	NA	17.5
27R09	TF4RX03OA	425-0-425 or 525-0-525	280‡ 260	430 400	5.0	6	6.3 6.3	8 4	OA	21
27R77	TF4RX03JA	440-0-440		85	5.0	2	6.3CT	3	JA	6
27R52	TF4RX03YY	440-0-440		85	5.0	2	6.3CT	3	YY-33	6
27R83	TF4RX03MA	440-0-440	165		5.0 6.3	3 .6	6.3 6.3 6.3	7.5 3 3	MA	12
27R58	TF4RX03YY	440-0-440	165		5.0 6.3	3 .6	6.3 6.3 6.3	7.5 3 3	YY-42	12
27R131	TF4RX03KB	450-0-450	100		5.0	3			KB	4
27R78	TF4RX03KA	450-0-450		105	5.0	2	6.3CT	3.5	KA	6.5
27R53	TF4RX03YY	450-0-450		105	5.0	2	6.3CT	3.5	YY-34	6.5
##27R163	TF4RX03NB	450-0-450	180		5	3	6.3	6	NB	15
27R84	TF4RX03MA	450-0-450	200		5.0 6.3	2 .6	6.3 6.3	4 4	MA	12
27R59	TF4RX03YY	450-0-450	200		5.0 6.3	2 .6	6.3 6.3	4 4	YY-42	12
27R10	TF4RX03KA	450-0-450 500-0-500		200 190	5.0	3	6.3CT 6.3CT	5 1	KA	6.5
27R90	TF4RX03MB004	450-0-450	250		5.0	3	6.3	8	MB	13
27R11	TF4RX03MB	450-0-450 525-0-525		265 240	5.0	4	6.3 6.3	6 2	MB	13
27R132	TF4RX03HB	500-0-500	55		5.0CT	3			HB	3.8
27R79	TF4RX03KA	500-0-500		120	5.0	3	6.3CT	4	KA	9.5
27R54	TF4RX03YY	500-0-500		120	5.0	3	6.3CT	4	YY-34	9.5
27R12	TF4RX03OA	500-0-500 600-0-600		300‡ 265	5.0	6	6.3	8	OA	21
27R80	TF4RX03MA	510-0-510		150	5.0	3	6.3CT 6.3CT	4 1	MA	11.5
27R55	TF4RX03YY	510-0-510		150	5.0	3	6.3CT 6.3CT	4 1	YY-42	11.5
27R81	TF4RX03MA	520-0-520		200	5.0	3	6.3CT 6.3CT	4.5 1	MA	12.5
27R56	TF4RX03YY	520-0-520		200	5.0	3	6.3CT 6.3CT	4.5 1	YY-42	12.5
27R133	TF4RX03GA	600-0-600	15		5.0CT	3			GA	2.2
ç¢ 27R152	TF4RX02JA	1,050‡‡	25						JA	6
▲27R158	TF4RX03YY	1,050‡‡ 625‡‡	10 5				2.5 2.5 6.3 26.3	3 3 3.5 4.5	YY-58	11
●27R161	TF4RX03EB	1,550‡‡	1.5						EB	1.5
▲27R148	TF4RX03YY	2,900‡‡	30				2.5	5	YY-59	6.9

Power

PRIMARY 105/115/125 VOLTS 380-1,000 CYCLES

These transformers have been designed to meet all requirements of MIL-T-27B for their specific class of operation. All EB, GA, GB, etc. case sizes are identical to MIL-T-27B specifications. These units meet the rigid requirements for aircraft and mobile communication, control equipment, ballistic and guided missile control, marine equipment, as well as any field where maximum sealing quality is a prime requisite.

Part No.	MIL-T-27B Classification	PLATE SUPPLY Volts	MADCT C	MADCT L	RECTIFIER Volts	RECTIFIER Amps.	FILAMENT Volts	FILAMENT Amps	Case Size	Wt. Lbs
●27R153	TF4RX01AG	10.8(a)	200						AG	.1
●27R142▪	TF4RX03YY	57.5-0-57.5	200		5	2			YY-60	.3
●27R155	TF5RX01ZZ	115(a)	7						CHV-1	.05
●27R156	TF4RX03AJ	220(a)	4				6.3CT 6.3CT 6.3	1.4 .150 .045	AJ	.75

Power

PRIMARY 105/115/125 VOLTS 380-1,000 CYCLES

Part No.	MIL-T-27B Classification	PLATE SUPPLY Volts	MADCT C	MADCT L	RECTIFIER Volts	RECTIFIER Amps	FILAMENT Volts	FILAMENT Amps	Case Size	Wt. Lbs.
●27R35	TF4RX03JA	225-0-225	200	254	6.3/5	4	6.3CT 6.3	6 6	JA	5.5
●27R31	TF4RX03AJ	238-0-238	20	25.4			6.3CT	1.5	AJ	.75
●27R62	TF4RX03EB	250-0-250	40				6.3CT 6.3	2 1	EB	1.5
27R106	TF4SX03GB	255-0-255	40		5.0	2	6.3CT	2	GB	1.5
27R94	TF4SX03FA	270-0-270	55		5.0	2	6.3CT	2	FA	1.5
27R107	TF4SX03GB	270-0-270	55		5.0	2	6.3CT	2	GB	1.75
27R114	TF4SX03YY	270-0-270	55		5.0	2	6.3CT	2	YY-18	1.5
●27R139	TF2RX03ZZ	270-0-270(b)	400		5	2	6.3CT 50	2.3 .001	DAF-2	.80
●27R32	TF4RX03GA	300-0-300	70	89	6.3/5	2	6.3CT 6.3	2 2	GA	2.7
●27R33	TF4RX03JB	300-0-300	120	152	6.3/5	3	6.3CT 6.3	3.5 3.5	JB	4.6
●27R36	TF4RX03KB	300-0-300 or 400-0-400	200	254	6.3/5	6	6.3CT 6.3	6 6	KB	7.5
●27R37	TF4RX03LA	300-0-300 or 400-0-400	300	380	6.3/5	6	6.3CT 6.3	6 6	LA	10
●27R151	TF5RX03ZZ	330-0-330 308-0-308* 505-0-505* 2,200*	35 250 30 7				2.5 2.5*	1.75 1.75	LHH-1	3.8
27R109	TF4SX03GA	330-0-330	85		5.0	2	6.3CT	3	GA	2.5
27R95	TF4SX03FA	335-0-335	70		5.0	2	6.3CT	3	FA	1.75
27R108	TF4SX03GB	335-0-335	70		5.0	2	6.3CT	3	GB	1.75
27R115	TF4SX03YY	335-0-335	70		5.0	2	6.3CT	3	YY-18	1.75
●27R140▪	TF4RX03YY	340(a) 340(a)	50 50		10* 10*	.250 .250	26# 15* 15*	.5 .100 .100	YY-61	1.5
27R110	TF4SX03GA	345-0-345	105		5.0	2	6.3CT	3.5	GA	2.25
27R121	TF4SY03HA	350-0-350	70		5.0	3	6.3	3	HA	2.25
27R124	TF4SX03JA	350-0-350 or 450-0-450	120		5.0	3	6.3	4	JA	3.8
●27R34	TF4RX03HA	350-0-350	150	190	6.3/5	3	6.3CT	4	HA	3.75
27R122	TF4SX03KB	350-0-350	300		5.0	3	6.3	5	KB	5.2
27R111	TF4SX03JB	370-0-370	150		5.0	3	6.3CT 6.3CT	4 1	JB	4.25
27R99	TF4SX03KA	370-0-370 or 550-0-550 75-0-75	Bias	300	5.0	6	6.3CT 6.3CT	5 1	KA	6.5
27R119	TF4SX03YY	370-0-370 or 550-0-550 75-0-75	Bias	300	5.0	6	6.3CT 6.3CT	5 1	YY-34	6.5
27R96	TF4SX03HA	375-0-375	120		5.0	3	6.3CT	4	HA	2.5
27R116	TF4SX03YY	375-0-375	120		5.0	3	6.3CT	4	YY-28	2.5
27R97	TF4SX03JA	440-0-440	165		5.0	3	6.3 6.3/6.3 6.3	7.5 3/3 .6	JA	6
27R112	TF4SX03KB	440-0-440	165		5.0	3	6.3 6.3/6.3 6.3	7.5 3/3 .6	KB	6.5
27R117	TF4SX03YY	440-0-440	165		5.0	3	6.3 6.3/6.3 6.3	7.5 3/3 .6	YY-33	6
27R98	TF4SX03JA	450-0-450	200		5.0	2	6.3/6.3 6.3	4/4 .6	JA	5.75
27R113	TF4SX03KB	450-0-450	200		5.0	2	6.3/6.3 6.3	4/4 .6	KB	6.5
27R118	TF4SX03YY	450-0-450	200		5.0	2	6.3/6.3 6.3	4/4 .6	YY-33	6
27R123	TF4SX03MB	450-0-450		500	5.0	6	6.3	6	MB	7
●27R138▪	TF2SX02ZZ	500-325-0-325-500	50/175 (1,000 V.CT @ 50 MADC)						ZZ-1	2
●27R136▪	TF2RX02ZZ	640/660/680#	12						ZZ-1	.6
●27R137▪	TF2RX02ZZ	640/660/680	25						ZZ-1	.7
●27R160	TF2RX02ZZ	125/1,300/1,350§	12						ZZ-1	3

Low Voltage Rectifier Transformers

DUAL SECONDARY — TAPPED PRIMARY

For transistor supply, bias supply, battery chargers, and similar applications. Designed and built to MIL-T-27B specifications. Industrial ratings are also given.

PRIMARY 115 VOLTS 50/60 CYCLES

Part No.	MIL-T-27B Classification	Military DC Range	Industrial DC Range	MIL Case	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
27V60	TF4RX02AH	6V - .065A to 53V - .025A	6V - .085A to 53V - .025A	AH	1 1/4	1 3/4	1 5/16	1 5/16	.37
27V61	TF4RX02AJ	6V - .22A to 53V - .07A	6V - .028A to 53V - .085A	AJ	1 3/16 x 1 3/16	2 3/8	1 5/8	1 5/8	.6
27V62	TF4RX02FA	6V - 1.2A to 53V - .4A	6V-1.52A to 53V - .48A	FA	1 11/16 x 1 7/16	3 1/8	2 1/16	2 5/16	1.75
27V63	TF4RX02HA	6V - 3A to 53V - 1A	6V 3.8A to 53V - 1.2A	HA	2 19/64 x 1 55/64	4 1/4	2 5/8	2 5/8	4.5
27V64	TF4RX02KA	6V - 7.5A to 53V - 3A	6V - 9A to 53V - 3A	KA	3 x 2 7/16	5 1/4	3 3/8	3 15/16	8.5
27V65	TF4RX02OA	6V - 18A to 53V - 6A	6V - 23A to 53V - 7.5A	OA	3 3/4 x 3	6 3/4	4 1/2	5 1/2	21
27V66	TF4RX02HA	12V - 1.5A to 106V - .5A	12V - 1.9A to 105V - .6A	HA	2 19/64 x 1 55/64	4 1/4	2 5/8	3 1/16	4.5

Low Voltage Rectifier Transformers

PRIMARY 117 VOLT 50/60 CYCLES DUAL SECONDARY

These units have been designed and built to meet MIL-T-27B, Grade 4, Class R specifications. Ideally suited for Selenium or Silicon rectifier power supplies used for transistor circuits.

Part No.	MIL-T-27B Classification	Secondary Volts	Secondary Amps.	SECONDARY IN PARALLEL Choke Input DC V	Choke Input DC A	Condenser Input DC V	Condenser Input DC A	SECONDARY IN SERIES Choke Input DC V	Choke Input DC A	Condenser Input DC V	Condenser Input DC A	C	Case Size
27V69	TF4RX02HA	17/21.5 17/21.5	1.5 1.5	14/17.5	3	18.5/25	2	28/35	1.5	43/56	1	.5	HA
27V70	TF4RX02LA	17/21.5 17/21.5	4 4	14/17.5	8	18.5/25	5	28/35	4	43/56	2.5	1	LA
27V71	TF4RX02YY	17/21.5 17/21.5	9 9	14/17.5	18	18.5/25	12	28/35	9	43/56	6	4	NSV-13
27V72	TF4RX02YY	34/43	4.5	28/35	9	43/46	6	56/70	4.5	85/110	3	1	NSV-13

Low Voltage Rectifier Transformers

60 CYCLES

Silicon rectifiers, bias, and filament supply, and all 60 cycle low voltage power supply applications. All units hermetically sealed, designed and constructed to MIL-T-27B, Grade 4, Class R specifications.

Part No.	MIL-T-27B Classification	# @ 50/66 CPS. Volts Primary	Secondary Volts	Secondary Amps.	Approx. DC Volts Res. or Ind. load Full Wave	Approx. DC Volts Res. or Ind. load Bridge	Case Size	Wt. Lbs.
27V93	TF4RX02AJ	105/115/125	6.3CT	.6	1.9	3.8	AJ	.75
27V94	TF4RX02FB	105/115/125	6.3CT	2	1.9	3.8	FB	1.75
27V73	TF4RX02KA	117	10	20			KA	9.25
27V74	TF4RX02GB	117	17	1			GB	1.75
27V89	TF4RX02JB	105/115/125	18.5CT	3	7	14	JB	4.7
27V67	TF4RX02EB	117	20CT	.3	8	16.5	EB	.8
27V68	TF4RX02EA	117	20CT	.6	8	16.5	EA	1
27V95	TF4RX02FA	105/115/125	28CT	.6	11.7	23.4	FA	17.5
27V97	TF4RX02NA	105/115/125	30CT	2.5	12.5	25	JA	6.25
27V90	TF4RX02KA	105/115/125	35CT	3	14.5	29	KA	8.75
27V96	TF4RX02LA	105/115/125	49CT	2.5	21	42	LA	10
27V79	TF4RX02MB	115	58/62/66/70	3			MB	13
27V81	TF4RX09MA	107/111/115/119/123/127#	64.4CT	.4	28.5	57	MA	11.5
27V91	TF4RX02JA	105/115/125	70CT	1	30	60	JA	6.25
27V98	TF4RX02HA	105/115/125	80CT	.6	35	70.5	HA	3.75
27V99	TF4RX02KA	105/115/125	115CT	.9	51	102	KA	9.25

(a) Half-Wave Application (b) Intermittent operation pulsed, 8 times per second; on time: 3 Milli-seconds
● Primary 115 Volts 380 - 1,000 Cycles * Autoformer Winding † C - Capacitor Input Filter
Primary Tapped § Voltage Doubler ▪ Static Shielded L - Choke Input Filter
‡ Reduce secondary current by 10% for 50 Cycle operation ‡‡ Half-Wave application
çç Primary 110/112/115/117/120 V @ 60 Cycles ç Primary 115 V @ 57-63 Cycles
§ Primary 107/117 V @ 50/2,000 Cycles ▲ Primary 115 V @ 60 Cycles
Primary 115 V @ 50 to 1,000 Cycles (b) Bridge Application

For Mounting Illustrations, Cross References and Pricing Information See Pages 1518-1530

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Line Isolation Transformers

50/60 CYCLES

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary Voltage	VA Output	Case Size	Wt. Lbs.
27V20	TF4RX01YY	440	220	25	YY-29	2
27V44	TF4RX01JB	115/230	105/115/125	50	JB	4.7
27V23	TF4RX01KB	115	115	115	KB	6
27V45	TF4RX01KA	115/230	105/115/125	125	KA	9.25
27V46	TF4RX01NB	115/230	105/115/125	250	NB	17.25
27V24	TF4SX01YY	115	115	600	YY-47	27
27V78	TF4RX01YY	115/230	106/110/120/126	650	YY-77	13.9
27V21	TF2RX01ZZ	115/230	115/230†	670	ZZ-2	21
27V25	TF4SX01YY	115	115*	1,000	YY-47A	35
27V19	TF4RX01YY	440	115*	1,000	YY-47	40
	AUTOFORMER					
27V22	TF4RX01YY	105/115/125	25/35/45/65/ 75/85/95/ 105/115/125	2,000	TSV	20

† Secondary windings may be used independently to supply two isolated 115 Volt windings at 2.9 Amps. each
* Static Shielded

Multi Shielded-Line Isolation

50/60 CYCLES

These Multi-shielded line isolation transformers have been specifically designed for critical circuitry where minimum coupling capacity is imperative and battery-type isolation is desired. 27V47, 27V48, 27V49 are vacuum potted with epoxy resin in standard MIL-T-27 cases and have less than .03 MMFD capacity coupling between windings. Other units in YY cases have coupling capacitance of less than .1 MMFD. 27V43 is for 400 cycle operation only.

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary Voltage	VA Output		Case Size	Wt. Lbs.
				Military	Industrial		
27V47	TF2RX01GA	115	115	25	30	GA	3
27V50	TF4RX01YY	115	115	50	60	YY-73	5.5
27V43	TF4RX01YY	115 @ 400 CPS	115	80	100	YY-73	5.5
27V48	TF2RX01KA	115	115	115	140	KA	8.5
27V51	TF4RX01YY	115	115	120	150	YY-74	13
27V52	TF4RX01YY	115	115	160	200	YY-75	15.5
27V49	TF2RX01NB	115	115	300	360	NB	20
27V53	TF4RX01YY	115	115	400	480	YY-76	35

Signaling and Power Circuit Transformers

50/60 CYCLES

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary Voltage	VA Output	Case Size	Wt. Lbs.
27V31	TF4RX01AJ	115	6	7.2	AJ	.75
27V75	TF2RX01ZZ	115/230	12 12	48	CHV	2
27V28	TF4RX01JB	115	6,8,10,12,14	50	JB	5
27V32	TF4RX01MB	115	26	250	MB	13

Low Voltage Rectifier Transformers

400 CYCLES

These units have been designed and built for 400 cycle power supply applications. Full Wave, Bridge, Rectifier, and Filament circuitry values are specified. All units meet MIL-T-27B, Grade 4, Class R specifications.

Part No.	MIL-T-27B Classification	Primary Volts	Secondary		Approx. DC Volts Res. or Ind. Load		Case Size	Wt. Lbs.
			Volts	Amps	Full Wave	Bridge		
27V36	TF4RX02AH	115	6.3CT	.6	1.9	3.8	AH	.37
27V37	TF4RX02YY	115	2.85 2.85	.045 .045	1.5	3	NSV-2B	.1
27V85	TF4RX02EA	105/115/125	18.5CT	1	7	14	EA	1.5
27V86	TF4RX02FA	105/115/125	18.5CT	3	7	14	FA	2
27V35	TF4RX02EA	105/115/125	26CT	1.5	10.7	21.5	EA	1.5
27V34	TF4RX02FA	105/115/125	26CT	3	10.7	21.5	FA	2
27V33	TF4RX02FB	105/115/125	30CT	.5	12.5	25	FB	1.75
27V87	TF4RX02GA	105/115/125	35CT	3	14.5	29	GA	3.1
27V16	TF4RX02AJ	105/115/125	40CT	.2	17	34	AJ	.75
27V92	TF4RX02AH	115	50CT	.25	21.5	43	AH	.37
27V15	TF4RX02YY	115	60CT	.003	26	52	NSV-2B	.1
27V14	TF4RX02AH	115	65CT	.170	28.4	56.8	AH	.37
27V88	TF4RX02FA	105/115/125	70CT	1	30	60	FA	2
27V13	TF4RX02FA	105/115/125	80CT	.9	35.2	70.4	FA	2
27V77	TF4RX02YY	115	122CT	.04	53	106	RSV	.2
27V82	TF4RX02AJ	115	6 to 53	1.2 .4			AJ	.75
27V83	TF4RX02FA	115	6 to 53	3 1			FA	2
27V84	TF4RX02HA	115	6 to 53	7.5 2.5			HA	3

Line Isolation Transformers

380 TO 1,500 CYCLES

These units have been designed and built to MIL-T-27B, Grade 4, Class R specifications. Applicable to communications, lighting, and equipment systems requiring isolation. All units are static shielded.

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary Voltage	VA Output	Case Size	Wt. Lbs.
27V42	TF4RX01YY	115	115CT#	2	NSV-2	.1
27V54	TF4RX01EA	115	115	40	EA	1.5
27V41	TF4RX01EB	115	115CT#	40	EB	1.5
27V55	TF4RX01FA	115	115	80	FA	2
27V40	TF4RX01GA	115	115CT#	150	GA	3.1
27V56	TF4RX01GA	115	115	160	GA	3.1
27V57	TF4RX01JA	115	115	300	JA	6.25
27V39	TF4RX01JA	105/115/125	115CT#	300	JA	6.25
27V38	TF4RX01KA	105/115/125	115CT#	500	KA	8.75
27V58	TF4RX01KA	115	115	505	KA	8.75
▲27V43	TF4RX01YY	115	115	801	YY-73	5.5

May be used for Full Wave Bridge or Full Wave Center tap applications
† 100 VA output for industrial applications
▲ Multi-shielded; Less than .1 MMFD coupling between windings.

Step Down Transformers

THREE PHASE — 400 CYCLES

These transformers are designed primarily for airborne communication and control equipment. 27V17 and 27V18 are YY connected 400 cycle, three-phase, Primary – 115 volts per phase. 27V80 is delta-delta connected, Primary – 200 volts per phase.

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary Voltage	VA Output	Case Size	Wt. Lbs
27V17	TF4RX01HA	115	28.5	140	HA	3
27V18	TF4RX01YY	115	28.5	140	YY-28	3
27V80	TF4SY01JA	200	115	500	JA	6

Chopper Input Transformers

STATIC SHIELDED

Part No.	Impedance In Ohms		Primary Inductance	DC Resistance		Turns Ratio	Case Type	Wt. In Oz.
	Primary	Secondary		Primary	Secondary			
GEO 68	10,000CT or 2,500	640,000CT	120 h.	370	21,000	1:8	3A	5.25
GEO 69	20,000CT	12,500CT	1,200 h.	4,000	1,300	4:1	3A	5.25
GEO 70	50,000CT	800,000CT	1,000 h.	2,200	19,000	1:4	4A	7.75
GEO 71■	50,000CT	800,000CT	1,000 h.	2,200	19,000	1:4	6A	1 lbs.
GEO 72	40,000CT	1,000CT	1,000 h.	4,400	160	6.32:1	3A	5.25
GEO 73	40,000CT or 10,000CT	10,000CT	800 h.	3,200	2,200	2:1	3A	5.25

Input

ALL UNITS HAVE HUMBUCKING CORE AND COIL CONSTRUCTION

Part No.	Impedance In Ohms		Primary Inductance	DC Resistance		Turns Ratio	Case Type	Wt. In Oz.
	Primary	Secondary		Primary	Secondary			
GEO 1	500§-333-233-200§-125*-67.5§-50*-17*	157,000§CT	8.7 h.	50	10,400	1:17.7	3	5.25
GEO 74★	500§-333-233-200§-125*-67.5§-50*-17*	157,000§CT	8.7 h.	50	10,400	1:17.7	4A	8
GEO 2■	500§-333-233-200§-125*-67.5§-50*-17*	157,000§ or 39,250	8.7 h.	50	10,400	1:17.7	5	11.5
GEO 3	60§-44-30§-25-15*-7.5*-5§-1.25	157,000§CT	.9 h.	9	10,400	1:51	4	5.25
GEO 75★	60§-44-30§-25-15*-7.5*-5§-1.25	157,000§CT	.9 h.	9	10,400	1:51	4A	8
GEO 4■	60§-44-30§-25-15*-7.5*-5§-1.25	157,000§CT or 39,250	.9 h.	9	10,400	1:51	5	11.5
GEO 5	1,000§-666-466-400§-250*-135§-100*-34*	137,000§ or 34,250*	55 h.	225	15,500	1:11.75	4	7.75
GEO 76■	1,000§-666-466-400§-250*-135§-100*-34*	137,000§ or 34,250*	55 h.	225	15,500	1:11.75	6A	1 lbs.
GEO 6	500§-333-233-200§-125*-67.5§-50*-17*	315,000§ or 78,750*	11.5 h.	58	16,200	1:25	4	7.75
GEO 7■	500§-333-233-200§-125*-67.5§-50*-17*	315,000§ or 78,750*	11.5 h.	58	16,200	1:25	6	1 lb.
GEO 8	500§-333-233-200§-125*-67.5§-50*-17*	712,000§ or 178,000*	8 h.	72	20,000	1:37.7	4	7.75
GEO 9■	500§-333-233-200§-125*-67.5§-50*-17*	712,000§ or 178,000*	8 h.	72	20,000	1:37.7	6	1 lbs.
GEO 10	500§ or 125*	50,000§CT	10 h.	150	20,000	1:10	3	5.25
GEO 11	500§-333-233-200§-125*-67.5§-50*-17*	450,000§CT	6.8 h.	54	12,500	1:30	3	5.25
GEO 77■	500§-333-233-200§-125*-67.5§-50*-17*	145,000 CT Bal.	8.3 h.	120	10,000	1:17	4A	10
GEO 12■	500§CT	200,000§CT	12 h.	80	9,800	1:20	6	1 lbs.
GEO 13	500§ or 125*	50,000§CT	10 h.	200	36,000	1:10	4	7.75
GEO 14★	200§ or 50*	442,000§CT	4 h.	17	26,000	1:47	4	8

Input

MINIATURE AND SUB MINIATURE
ALL UNITS HAVE HUMBUCKING CORE AND COIL CONSTRUCTION

Part No.	Impedance In Ohms		Primary Inductance	DC Resistance		Turns Ratio	Case Type	Wt. In Oz.
	Primary	Secondary		Primary	Secondary			
GEO 15	500§-333-233-200§-125*-67.5§-50*-17*	145,000§CT	8.8 h.	100	10,000	1:17	2	3.2
GEO 16	500*-125*	145,000§CT	8.8 h.	100	10,000	1:17	2	3.2
GEO 17	500§-125*	145,000§CT	3 h.	106	5,860	1:17	1	1.5
GEO 18	500§-125*	60,000§CT	7 h.	140	5,600	1:11	1	1.5
GEO 19	500§-125*	36,000§CT	10.5 h.	320	5,300	1:8.5	1	1.5
GEO 20	500§-125*	114,000§CT	5.2 h.	210	6,200	1:15.1	1	1.5
GEO 21	500§-125*	157,000§CT	8	100	9,500	1:17.7	2	3.2

Interstage

ALL UNITS HAVE HUMBUCKING CORE AND COIL CONSTRUCTION

Part No.	Impedance In Ohms		Primary Inductance	DC Resistance		Turns Ratio	Case Type	Wt. In Oz.
	Primary	Secondary		Primary	Secondary			
GEO 22	10,000§ or 2,500*	100,000§ or 25,000*	350 h.	1,540	10,000	1:3.16	3	5.25
GEO 23■	10,000§ or 2,500*	100,000§ or 25,000*	350 h.	1,540	10,000	1:3.16	5	11.5
GEO 24	10,000§ or 2,500*	90,000§ or 25,000*	725 h.	2,100	14,000	1:3	4	7.75
GEO 25■	10,000§ or 2,500*	90,000§ or 22,500*	725 h.	2,100	14,000	1:3	6	1 lbs.
GEO 26	10,000§ or 2,500*	483,000§ or 120,700*	230 h.	1,100	17,000	1:7	4	7.75
GEO 84	10,000§ or 2,500*	483,000§ or 120,700*	230 h.	1,100	17,000	1:7	6A	1 lbs.
GEO 27●	10,000§ or 2,500*	22,500* or 5,625*	135 h.	1,600	2,350	1:1.5	2	2.75
GEO 83■	10,000§ or 2,500*	22,500* or 5,625*	135 h.	1,600	2,350	1:1.5	4A	10
GEO 28●	10,000§ or 2,500*	250§ or 62.5*	18 h.	165	40	2:1	2	2.75
GEO 85■	10,000§ or 2,500*	250§ or 62.5*	18 h.	165	40	2:1	4B	10
GEO 29	10,000§ or 2,500*	75,000§ or 18,750*	300 h.	2,500	8,500	1:2.75	2	3.2
GEO 30	10,000§ or 2,500*	75,000§CT	80 h.	1,700	5,400	1:2.72	1	1.5
GEO 31	10,000§ or 2,500*	22,500§CT	160 h.	2,600	3,900	1:1.5	1	1.5
GEO 32	10,000§ or 2,500*	90,000§CT	285 h.	2,600	9,500	1:3	2	3.2
GEO 86●	10,000§ or 2,500*	90,000§CT	285 h.	2,600	9,500	1:3	4A	10
GEO 33	10,000§ or 2,500*	22,500*CT	375 h.	2,000	3,650	1:1.5	2	3.2
GEO 87●	10,000§ or 2,500*	22,500*CT	375 h.	2,000	3,650	1:1.5	4B	10

Output

ALL UNITS HAVE HUMBUCKING CORE AND COIL CONSTRUCTION

Part No.	Impedance In Ohms		Primary Inductance	DC Resistance		Turns Ratio	Case Type	Wt. In Oz
	Primary	Secondary		Primary	Secondary			
GEO 34	15,000§ or 3,750*	500§-125*	915 h.	2,600	80	5.5:1	3	5.25
GEO 35	15,000§ or 3,750*	500§-125* Hi Level	65 h.	2,600	80	5.5:1	3	5.25
GEO 36	20,000§ or 5,000*	165-1*-85-6.5-4*-2*-1-1.5§-.35*	1,750 h.	4,000	3.2	35.5:1	4	7.75
GEO 37	16,000§ or 4,000*	500§-333-233-200§-125*-67.5-50*-17*	1,600 h.	3,500	100	5.65:1	4	7.75
GEO 38	15,000§ or 4,000*	500§-333-233-200§-125*-67.5-50*-17* Hi Level	94 h.	3,500	100	5.65:1	4	8.25
GEO 39	20,000§ or 5,000*	605-45-30§-24-15*-7.5*-5§-1.3*	1,750 h.	4,000	12.5	18.25:1	4	7.75
GEO 40	600*-150*	600*-150*	15 h.	36	52	1:1 or 2:1 or 1:2	4	7.75
GEO 41	18,000CT	500§-333-233-200§-125*-67.5§-50*-17*	280 h.	2,500	137	6:1	2	2.75
GEO 42	500 or 125	500 or 125	3 h.	70	70	1:1	2	2.75
GEO 43	500 or 125	16 or 4	3 h.	72	3.9	5.6:1	2	2.75
GEO 44	15,000§CT	16§-12-8§-6.5-4*-2*-1.5§-.35*	1,000 h.	5,000	4	30.5:1	2	3.25
GEO 45	15,000§CT	605-45-30§-24-15*-7.5*-5§-1.3*	1,000 h.	5,000	18	15.8:1	2	3.25
GEO 46	15,000§CT	16§ or 4*	400 h.	3,800	7	30.6:1	1	1.25
GEO 47	15,000§CT	45§ or 11*	400 h.	3,800	11	18.25:1	1	1.25
GEO 48	20,000§ or 5,000*	50§-25-12.5-3	1,450 h.	4,000	20	20:1	2	3.25

§ Balanced, two windings
● Constructed with Single Coil
★ Constructed with 3 Interleaved Cases
■ Constructed with 5 Interleaved Cases
* Balanced, parallel windings

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For Mounting Illustrations, Cross References and Pricing Information See Pages 1518-1530

Output

FOR AUTOMATIC VOLUME CONTROL CIRCUITS
ALL UNITS HAVE HUMBUCKING CORE AND COIL CONSTRUCTION

Part No.	Impedance In Ohms Primary	Impedance In Ohms Secondary	Primary Inductance	DC Resistance Primary	DC Resistance Secondary	Turns Ratio	Case Type	Wt. In. Oz.
GEO 49	16,000§ or 4,000*	256,000§ or 64,000* and 150§ or 37.5*	500 h.	1,900	16,000 32	1:4 10.3:1	4	7.75
GEO 50	15,000§	240,000§CT and 140§ or 35*	300 h.	2,100	12,000 35	1:4 10.2:1	3	5.25
GEO 51	10,000§ or 2,500*	10,000§CT and 10,000§	150 h.	700	1,220 1,440	1:1:1	2	3.2
GEO 52	15,000§	240,000§CT and 140§ or 35*	200 h.	2,000	9,800 55	1:4 10.3:1	2	3.2
GEO 53	15,000§CT	240,000§CT and 35	200 h.	2,000	9,800 13.5	1:4 20.6:1	2	3.2
GEO 54	20,000§CT	240,000§CT and 24§CT	230 h.	2,400	10,000 5	1:3.46 28.8:1	2	3.2
GEO 55	15,000§CT	240,000§CT and 35*	230 h.	2,400	11,000 10	1:4 20.6:1	2	3.2

Reactor

ALL UNITS HAVE HUMBUCKING CORE AND COIL CONSTRUCTION

Part No.	Inductance In Henrys	D.C. Resistance In Ohms	Low Percentage Taps	Mtg. Type	Wt. In Oz.
GEO 56	1,050§-800§-550§-400§-280§	13,000	None	3	5.5
GEO 57	1,000§-250*	10,000	4 — 2-1/2% 2 — 5%	4	8.25
GEO 58	500§-125*	6,000	4 — 3% 2 — 6%	4	8.25
GEO 59	50§ to 53	750	6 — 1/2 h. Taps From one end	3	5.5
GEO 60	1,050§-800§-550§-400§-280§-245§-153§-133§-80§-68§-45§	11,500	None	2A	3.4
GEO 61	1,000§-250*	13,000	4 — 2%	2A	3.4
GEO 62	500§-125*	10,500	4 — 2-1/2%	2A	3.4
GEO 63•	1,090-770-555-385-275	12,000	None	2	3.2
GEO 64	1,000	12,000	2 — 2%	1	1.5
GEO 65	500	12,000	2 — 2%	1	1.5
GEO 66	300	5,400	2 — 2%	1	1.5
GEO 67	100	11,950	2 — 2%	1	1.5

Low Frequency Transistor Transformers

Part No.	Impedance In Ohms Primary	Impedance In Ohms Secondary	Primary Inductance	DC Resistance Primary	DC Resistance Secondary	Turns Ratio	Freq. Resp. @ 5 MADC ±3DB	Case Type
GEO 78	1,000§ or 250*	125§ or 31*	60 h.	500	44	2.83:1	7 to 20,000	2
GEO 79▪	1,000§ or 250*	125§ or 31*	60 h.	500	44	2.83:1	7 to 20,000	4B
GEO 80	1,000§ or 250*	1,000§ or 250*	65 h.	540	230	1:1	20 to 7,000	3A
GEO 81	1,000CT	2,500CT	20 h.	350	1,800	1:1.58	70 to 8,000	2

§ Balanced, two windings
* Balanced, parallel windings
• Single coil construction
▪ Constructed with 5 Interleaved Cases

Band Pass Filters

These units have been designed and built to meet MIL-F-18327B for their specific class of operation and are high performance units applicable to production or laboratory communication and electronic equipment. They have been carefully adjusted to the specified frequencies with proper input and output impedances.
Output impedances indicated as "To Grid" should be terminated in a open grid circuit. Tapped outputs — marked (*) — provide for either 10,000 ohm transistor termination or high impedance grid termination.

Part No.	MIL-F-18327B Classification	Center Frequency (Fc)	Approximately 2 DB Attenuation At: (In Cycles)	Attenuation At Fc/2 & 2 Fc	Impedance Input	Impedance Output	Case Type	Mtg. Centers	Dimensions H	W	D
27C386	FR4RX22YY	30	29-31	40DB	10,000	To Grid	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C387	FR4RX22YY	50	48.5-51.6	40DB	10,000	To Grid	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C313	FR4RX22YY	60	58-62	40DB	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C300	FR4RX22YY	60	58-62	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C388	FR4RX22YY	90	87.4-92.8	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C314	FR4RX22YY	100	97-103	40DB	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C301	FR4RX22YY	100	97-103	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C315	FR4RX22YY	120	116.5-123.6	40DB	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C302	FR4RX22YY	120	116.5-123.6	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C389	FR4RX22YY	150	145.5-154.5	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C390	FR4RX22YY	200	194-206	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C391	FR4RX22YY	240	233-247	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C349	FR4RX22AF	400	388-412	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C303	FR4RX22YY	400	388-412	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C335	FR4RX22YY	400	388-412	40DB	500/600	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C395	FR4RX22AF	440	427-458	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C396	FR4RX22AF	500	485-515	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C304	FR4RX22YY	500	485-515	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C397	FR4RX22AF	600	580-620	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C350	FR4RX22AF	750	728-772	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C305	FR4RX22YY	750	728-772	40DB	10,000	To Grid	YY	3/4 x 11/4	1 5/8	1 3/16	1 11/16
27C398	FR4RX22AF	800	776-825	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C392	FR4RX22YY	800	776-825	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C351	FR4RX22AF	1,000	970-1,030	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C306	FR4RX22YY	1,000	970-1,030	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C336	FR4RX22YY	1,000	970-1,030	40DB	500/600	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C399	FR4RX22AF	1,200	1,165-1,236	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C352	FR4RX22AF	1,500	1,455-1,545	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C307	FR4RX22YY	1,500	1,455-1,545	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C400	FR4RX22AF	1,600	1,550-1,650	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C353	FR4RX22AF	2,000	1,940-2,060	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C308	FR4RX22YY	2,000	1,940-2,060	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C401	FR4RX22AF	2,500	2,420-2,570	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C402	FR4RX22AF	3,000	2,910-3,090	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C309	FR4RX22YY	3,000	2,910-3,090	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C403	FR4RX22AF	3,200	3,100-3,290	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C404	FR4RX22AF	4,000	3,880-4,120	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C310	FR4RX22YY	4,000	3,880-4,120	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C405	FR4RX22AF	4,800	4,650-4,940	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C406	FR4RX22AF	5,000	4,850-5,150	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C311	FR4RX22YY	5,000	4,850-5,150	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C407	FR4RX22AF	6,400	6,200-6,600	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C408	FR4RX22AF	8,000	7,760-8,250	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C354	FR4RX22AF	10,000	9,500-10,500	36DB	10,000	To Grid*	AF	9/16	1 1/8	3/4	3/4
27C312	FR4RX22YY	10,000	9,500-10,500	40DB	10,000	To Grid	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C393	FR4RX22AF	50,000	47,500-52,500	40DB	500	500	AF	9/16	1 1/8	3/4	3/4
27C394	FR4RX22AF	100,000	95,000-105,000	40DB	500	500	AF	9/16	1 1/8	3/4	3/4

Telemetering Band Pass Filters

These units have been designed and built to meet MIL-F-18327B for their specific class of operation. The Steel Jacket filters in YY cases are designed with 4 pin plug-in type terminals and the Molded (ZZ) units have straight wire terminals. Twenty-three separate channels are provided with a choice of either Molded or Steel jacket case types.

Part No.	MIL-F-18327B Classification	Center Frequency (Fc)	3DB Bandwidth % of Fc	Approx. Attenuation Fc/2 & 2Fc	Impedance Input	Impedance Output	Case Type	Mtg. Centers	Dimensions H	W	D
27C363	FR4RX22YY	400	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C421	FR5RX22ZZ	400	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C364	FR4RX22YY	560	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C423	FR5RX22ZZ	560	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C365	FR4RX22YY	730	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C422	FR5RX22ZZ	730	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C366	FR4RX22YY	960	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4

* Output tapped for 10,000 ohm transistor or high impedance grid.

Telemetering Band Pass Filters (Continued)

Part No.	MIL-F-18327B Classification	Center Frequency (Fc)	3DB Bandwidth % of Fc	Approx. Attenuation Fc/2 & 2Fc	Impedance Input	Impedance Output	Case Type	Mtg. Centers	Dimensions H	W	D
27C424	FR5RX22ZZ	960	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C367	FR4RX22YY	1,300	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C425	FR5RX22ZZ	1,300	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C368	FR4RX22YY	1,700	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C426	FR5RX22ZZ	1,700	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C369	FR4RX22YY	2,300	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C427	FR5RX22ZZ	2,300	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C370	FR4RX22YY	3,000	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C429	FR5RX22ZZ	3,000	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C371	FR4RX22YY	3,900	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C428	FR5RX22ZZ	3,900	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C372	FR4RX22YY	5,400	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C430	FR5RX22ZZ	5,400	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C373	FR4RX22YY	7,350	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C431	FR5RX22ZZ	7,350	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C374	FR4RX22YY	10,500	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C433	FR5RX22ZZ	10,500	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C375	FR4RX22YY	14,500	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C432	FR5RX22ZZ	14,500	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C376	FR4RX22YY	22,000	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C435	FR5RX22ZZ	22,000	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C381	FR4RX22YY	22,000	±15.1%	45DB	100,000	100,000	YY	4 Pin Plug	2	1 9/32	11/16
27C440	FR5RX22ZZ	22,000	±15.1%	45DB	10,000	10,000	M4	4 Leads	1/2	1 3/16	1 3/16
27C377	FR4RX22YY	30,000	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C436	FR5RX22ZZ	30,000	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C382	FR4RX22YY	30,000	±15.1%	45DB	100,000	100,000	YY	4 Pin Plug	2	1 9/32	11/16
27C442	FR5RX22ZZ	30,000	±15.1%	45DB	10,000	10,000	M4	4 Leads	1/2	1 3/16	1 3/16
27C378	FR4RX22YY	40,000	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C437	FR5RX22ZZ	40,000	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C383	FR4RX22YY	40,000	±15.1%	45DB	100,000	100,000	YY	4 Pin Plug	2	1 9/32	11/16
27C441	FR5RX22ZZ	40,000	±15.1%	45DB	10,000	10,000	M4	4 Leads	1/2	1 3/16	1 3/16
27C379	FR4RX22YY	52,500	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C438	FR5RX22ZZ	52,500	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C384	FR4RX22YY	52,500	±15.1%	45DB	100,000	100,000	YY	4 Pin Plug	2	1 9/32	11/16
27C443	FR5RX22ZZ	52,500	±15.1%	45DB	10,000	10,000	M4	4 Leads	1/2	1 3/16	1 3/16
27C380	FR4RX22YY	70,000	± 7.6%	45DB	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C439	FR5RX22ZZ	70,000	± 7.6%	45DB	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C385	FR4RX22YY	70,000	±15.1%	45DB	100,000	100,000	YY	4 Pin Plug	2	1 9/32	11/16
27C444	FR5RX22ZZ	70,000	±15.1%	45DB	10,000	10,000	M4	4 Leads	1/2	1 3/16	1 3/16

Band Pass Filters — 400 Cycle Power Filters

These Power filters eliminate harmonic distortion and interference caused by generator loading or external influences. Designed and built to meet all requirements of MIL-F-18327B Grade 4, Class R, these units are ideally suited for airborne or mobile application.

Part No.	MIL-F-18327B Classification	Band Pass Filter Description
27C446	FR4RX22LB	The output of the 27C446 is 115 Volts, 13 Watts at a frequency of 375 to 425 Cycles (Within ±1DB). Attenuation at other frequencies include: 30DB at 60 Cycles, 20DB at 120 Cycles, 14DB at 800 Cycles, and 44DB at 1,200 Cycles and above. This unit operates from any 115 Volt — 400 Cycle source.

Low Pass Filters — 400 Cycle Power Filters

Part No.	MIL-F-18327B Classification	Low Pass Filter Description
27C445	FR4RX11NB	The output of the 27C445 is 115 Volts, 26 Watts at a frequency of 375 to 425 Cycles (Within ±1DB). Attenuation of the second harmonic (800 Cycles) is 30DB and is 50DB at the third harmonic (1,200 Cycles) and above. The filter operates from any 115 Volt — 400 Cycle source.

Low Pass Filters

These units have been designed and built to meet MIL-F-18327B for their specified class of operation. These low pass filters may be connected in conjunction with the high pass filters below to obtain almost any band pass desired. Attenuation is less than 6DB at the cut off frequency and is 40DB at approximately 1.6 of FC as shown.

Part No.	MIL-F-18327B Classification	Cut-off Frequency (Fc)	Attenuation 40DB AT: (Freq. In Cycles)	Impedance Input	Impedance Output	Case Type	Mtg. Centers	Dimensions H	W	D
27C414	FR4RX11FA	10*	20	100,000	100,000	FA	1 7/16 x 1 11/16	3 1/8	2 1/16	2 5/16
27C415	FR4RX11YY	100	160	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C323	FR4RX11YY	200	320	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C355	FR4RX11AG	200	330	10,000	10,000	AG	3/4	1 3/8	1	1
27C417	FR4RX11AG	300	495	10,000	10,000	AG	3/4	1 3/8	1	1
27C324	FR4RX11YY	400	640	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C325	FR4RX11YY	500	800	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C356	FR4RX11AG	500	825	10,000	10,000	AG	3/4	1 3/8	1	1
27C326	FR4RX11YY	800	1,280	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C327	FR4RX11YY	1,000	1,600	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C357	FR4RX11AG	1,000	1,650	10,000	10,000	AG	3/4	1 3/8	1	1
27C341	FR4RX11YY	1,000	1,600	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C328	FR4RX11YY	1,500	2,400	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C274	FR4RX11AG	1,500	2,470	10,000	10,000	AG	3/4	1 3/8	1	1
27C342	FR4RX11YY	1,500	2,400	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C329	FR4RX11YY	2,000	3,200	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C358	FR4RX11AG	2,000	3,300	10,000	10,000	AG	3/4	1 3/8	1	1
27C343	FR4RX11YY	2,000	3,200	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C330	FR4RX11YY	2,500	4,000	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C344	FR4RX11YY	2,500	4,000	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C331	FR4RX11YY	3,000	4,800	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C359	FR4RX11AG	3,000	4,950	10,000	10,000	AG	3/4	1 3/8	1	1
27C416	FR4RX11YY	3,000	4,800	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C332	FR4RX11YY	4,000	6,400	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C345	FR4RX11YY	4,000	6,400	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C333	FR4RX11YY	5,000	8,000	10,000	10,000	YY	3/4 x 1 1/4	1 5/8	1 3/16	1 11/16
27C360	FR4RX11AG	5,000	8,250	10,000	10,000	AG	3/4	1 3/8	1	1
27C418	FR4RX11AF	6,000	9,900	10,000	10,000	AF	9/16	1 1/8	3/4	3/4
27C346	FR4RX11YY	8,000	12,800	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C334	FR4RX11YY	10,000	16,000	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C419	FR4RX11AF	10,000	16,500	10,000	10,000	AF	9/16	1 1/8	3/4	3/4
27C347	FR4RX11YY	10,000	16,000	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C348	FR4RX11YY	12,000	19,200	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C420	FR4RX11AF	15,000	24,700	10,000	10,000	AF	9/16	1 1/8	3/4	3/4

High Pass Filters

These units have been designed and built to meet MIL-F-18327B for their specified class of operation and are high performance units applicable to production or laboratory communications and electronic equipment. These high pass filters are carefully adjusted to specified frequencies with the proper terminating input and output loads. Attenuation is less than 6DB at the cut off frequency and is 40DB at approximately .6 to .63 of Fc as shown.

Part No.	MIL-F-18327B Classification	Cut-off Frequency (FC)	Attenuation 40DB AT: (Freq. In Cycles)	Impedance Input	Impedance Output	Case Type	Mtg. Centers	Dimensions H	W	D
27C409	FR4RX33YY	50	33	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C410	FR4RX33YY	100	63	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C316	FR4RX33YY	200	126	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C337	FR4RX33YY	200	126	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C411	FR4RX33YY	300	189	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C338	FR4RX33YY	300	189	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C317	FR4RX33YY	400	250	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C361	FR4RX33AG	500	300	10,000	10,000	AG	3/4	1 3/8	1	1
27C318	FR4RX33YY	500	315	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C339	FR4RX33YY	500	315	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C319	FR4RX33YY	800	500	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C362	FR4RX33AG	1,000	600	10,000	10,000	AG	3/4	1 3/8	1	1
27C320	FR4RX33YY	1,000	630	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C340	FR4RX33YY	1,000	630	500/600	500/600	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C412	FR4RX33AG	1,500	900	10,000	10,000	AG	3/4	1 3/8	1	1
27C321	FR4RX33YY	2,000	1,260	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C322	FR4RX33YY	3,000	1,890	10,000	10,000	YY	3/4 x 1 1/4	2 1/2	1 3/16	1 11/16
27C413	FR4RX33AG	4,000	2,400	10,000	10,000	AG	3/4	1 3/8	1	1

* Less than 3DB attenuation at the cut-off frequency

For Mounting Illustrations, Cross References and Pricing Information See Pages 1518-1530
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MIL-T-27B Low Frequency High Q Inductors

These inductors have been designed and built to meet the requirements of MIL-T-27B for their specific class of operation. Constructed with only the highest grade materials these units have magnetic shielding as well as humbucking construction. Designed to a Q of 40 or more on frequencies ranging from 60 to 300 cycles. Split winding termination permits series, parallel or series center tap connections, such as might be used in filters, tuned circuits or coupling inductors.

Part No.	MIL-T-27B Classification	Series Inductance ±2%	Series Resistance ±20%	Parallel Inductance ±2%	Parallel Resistance ±20%	Mtg. Type
27C225	TF4RX20YY	1	5	.25	1.25	NSV-5
27C500	TF4SX20YY	2	21	.5	5.25	NSV-3
27C226	TF4RX20YY	10	50	2.5	12.5	NSV-5
27C501	TF4SX20YY	16	143	4	36	NSV-3
27C227	TF4RX20YY	20	82	5	20	NSV-5
27C503	TF4SX20YY	40	365	10	91	NSV-3
27C228	TF4RX20YY	200	820	50	205	NSV-5
27C502	TF4SX20YY	300	3,750	75	937	NSV-3
27C229	TF4RX20YY	400	2,100	100	525	NSV-5
27C504	TF4SX20YY	600	5,700	150	1,425	NSV-3
27C230	TF4RX20YY	2,500	13,100	625	3,275	NSV-5

Pulse Transformers — DESIGNED AND BUILT TO MEET MIL-T-21038B

Tube Type

When used as coupling transformers this group of units have the following additional parameters: Overshoot ranges from 5 to 30 micro-seconds with the lower overshoot at the higher pulse widths; Output voltages of 15 to 25 volts may be expected with a normal droop of 10 to 15 %; Blocking oscillator overshoots are held to less than 2%.

Part No.	MIL-T-21038B Classification	Turns Ratio	COUPLING CIRCUIT Pulse Width (Micro-Sec.)	Rise Time (Micro-Sec.)	Impedance (In/Out)	BLOCKING OSC. Pulse Width (Micro-Sec.)	Rise Time (Micro-Sec.)	Case Type	Dimensions Dia.	H
PUL 10	TP7SX1110AZ	1:1:1	.05	.010	250/250	05	.020	M6	3/8	3/8
PUL 11	TP7SX1110AZ	1:1:1	.10	.010	250/250	.10	.020	M6	3/8	3/8
PUL 23	TP7SX5310AZ	5:3:1	.10	.020	700/250	.10	.022	M6	3/8	3/8
PUL 12	TP7SX1110AZ	1:1:1	.20	.010	500/500	.20	.025	M6	9/16	9/16
PUL 13	TP7SX1110AZ	1:1:1	.50	.010	500/500	.50	.030	M6	9/16	9/16
PUL 14	TP7SX1110AZ	1:1:1	1.0	.02	500/500	1.0	.042	M6	9/16	9/16
PUL 15	TP7SX1110AZ	1:1:1	2.0	.05	500/500	2.0	.050	M6	9/16	9/16
PUL 24	TP7SX5310AZ	5:3:1	2.0	.062	1,400/500	2.0	.075	M6	9/16	9/16
PUL 16	TP7SX1110AZ	1:1:1	3.0	.071	500/500	3.0	.11	M6	9/16	9/16
PUL 17	TP7SX1110AZ	1:1:1	5.0	.15	1,000/1,000	5.0	.14	M6	9/16	9/16
PUL 18	TP7SX1110AN	1:1:1	7.0	.21	1,000/1,000	7.0	.27	M6	5/8	5/8
PUL 25	TP7SX5310AN	5:3:1	7.0	.22	2,800/1,000	7.0	.31	M6	5/8	5/8
PUL 19	TP7SX1110AN	1:1:1	10.0	.24	1,000/1,000	10.0	.31	M6	5/8	5/8
PUL 20	TP7SX1110AN	1:1:1	16.0	.40	1,000/1,000	16.0	.74	M6	5/8	5/8
PUL 21	TP7SX1110AN	1:1:1	20.0	.62	1,000/1,000	20.0	1.20	M6	5/8	5/8
PUL 26	TP7SX5310AN	5:3:1	20.0	.71	2,800/1,000	20.0	1.70	M6	5/8	5/8
PUL 22	TP7SX1110AN	1:1:1	25.0	1.52	1,000/1,000	25.0	2.1	M6	5/8	5/8

Pulse Transformers — DESIGNED AND BUILT TO MEET MIL-T-21038B

Transistor Type

Additional parameters for these transistor type pulse transformers are: 0% overshoots in almost all of these units, Output voltage of approximately 8 volts may be expected with no droop on units below .5 micro-seconds pulse width and approximately 15% droop on units above .5 micro-seconds pulse width. The average backswing will be 20-30% when connected in the transistor blocking oscillator circuit.

Part No.	MIL-T-21038B Classification	Turns Ratio	COUPLING CIRCUIT Pulse Width (Micro-Sec.)	Rise Time (Micro-Sec.)	Impedance (In/Out)	BLOCKING OSC. Pulse Width (Micro-Sec.)	Rise Time (Micro-Sec.)	Case Type	Dimensions Dia.	H.
PUL 39	TP6RX4410CZ	4:4:1	.05	.017	50/50	.05	.02	RAV-7	5/16	3/16
PUL 27	TP7SX4410AZ	4:4:1	.05	.013	50/50	.05	.017	M5	3/8	3/8
PUL 40	TP6RX4410CZ	4:4:1	.10	.024	50/50	.10	.022	RAV-7	5/16	3/16
PUL 28	TP7SX4410AZ	4:4:1	.10	.020	50/50	.10	.016	M5	3/8	3/8
PUL 48	TP6RX5310CZ	5:3:1	.10	.010	145/50	.10	.010	RAV-7	5/16	3/16
PUL 36	TP7SX5310AZ	5:3:1	.10	.021	145/50	.10	.020	M5	3/8	3/8
PUL 41	TP6RX4410CZ	4:4:1	.20	.035	100/100	.20	.033	RAV-7	5/16	3/16
PUL 29	TP7SX4410AZ	4:4:1	.20	.035	100/100	.20	.025	M5	3/8	3/8
PUL 42	TP6RX4410CZ	4:4:1	.50	.061	100/100	.50	.052	RAV-7	5/16	3/16
PUL 30	TP7SX4410AZ	4:4:1	.50	.046	100/100	.50	.029	M5	3/8	3/8
PUL 43	TP6RX4410CZ	4:4:1	1.0	.150	100/100	1.0	.09	RAV-7	5/16	3/16
PUL 31	TP7SX4410AZ	4:4:1	1.0	.079	100/100	1.0	.035	M5	3/8	3/8
PUL 49	TP6RX5310CZ	5:3:1	1.0	.050	285/100	1.0	.022	RAV-7	5/16	3/16
PUL 37	TP7SX5310AZ	5:3:1	1.0	.070	285/100	1.0	.042	M5	3/8	3/8
PUL 44	TP6RX4410CZ	4:4:1	2.0	.181	100/100	2.0	.110	RAV-7	5/16	3/16
PUL 32	TP7SX4410AZ	4:4:1	2.0	.142	100/100	2.0	.070	M5	3/8	3/8
PUL 45	TP6RX4410CZ	4:4:1	3.0	.210	100/100	3.0	.210	RAV-7	5/16	3/16
PUL 33	TP7SX4410AZ	4:4:1	3.0	.180	100/100	3.0	.088	M5	3/8	3/8
PUL 46	TP6RX4410CZ	4:4:1	5.0	.230	200/200	5.0	.31	RAV-7	5/16	3/16
PUL 34	TP7SX4410AZ	4:4:1	5.0	.210	200/200	5.0	.095	M5	3/8	3/8
PUL 50	TP6RX5310CZ	5:3:1	5.0	.091	565/200	5.0	.051	RAV-7	5/16	3/16
PUL 38	TP7SX5310AZ	5:3:1	5.0	.21	565/200	5.0	.061	M5	3/8	3/8
PUL 47	TP6RX4410CZ	4:4:1	10.0	.41	200/200	10.0	.351	RAV-7	5/16	3/16
PUL 35	TP7RX4410AZ	4:4:1	10.0	.41	200/200	10.0	.141	M5	3/8	3/8

Pulse Transformers — DESIGNED AND BUILT TO MEET MIL-T-21038B

Part No.	MIL-T-21038B Classification	Turns Ratio	Pulse Width (Micro-Sec.)	Rise Time (Micro-Sec.)	Impedance (In/Out)	Case Type	Dimensions Diameter	H
PUL 63	TP6RX1100BZ	1:1	.07	.030	200/200	RSV-1C	1/2	3/4
PUL 64	TP6RX1100EQ	1:1	.07	.030	200/200	RSV-1E	3/4	3/4
PUL 65	TP7RX1100CZ	1:1	.07	.030	200/200	M7B	5/8	3/8
PUL 60	TP6RX2100BZ	2:1	.07	.030	200/200	RSV-1C	1/2	3/4
PUL 61	TP6RX2100EQ	2:1	.07	.030	200/200	RSV-1E	3/4	3/4
PUL 62	TP7RX2100CZ	2:1	.07	.030	200/200	M7B	1/2	3/8
PUL 57	TP6RX3100BC	3:1	.08	.030	100/100	RSV-1C	1/2	3/4
PUL 58	TP6RX3100EQ	3:1	.08	.030	100/100	RSV-1E	3/4	3/4
PUL 59	TP7 RX3100CZ	3:1	.08	.030	100/100	M7B	1/2	3/8
PUL 54	TP6RX4100BC	4:1	.08	.030	100/100	RSV-1C	1/2	3/4
PUL 55	TP6RX4100EQ	4:1	.08	.030	100/100	RSV-1E	3/4	3/4
PUL 56	TP7RX4100CZ	4:1	.08	.030	100/100	M7B	1/2	3/8
PUL 51	TP6RX5100BC	5:1	.08	.03	100/100	RSV-1C	1/2	3/4
PUL 52	TP6RX5100EQ	5:1	.08	.03	100/100	RSV-1E	3/4	3/4
PUL 53	TP7RX5100CZ	5:1	.08	.03	100/100	M7B	1/2	3/8
PUL 23	TP7SX5310AZ	5:3:1	.10	.020	700/250	M6	3/8	3/8
PUL 72	TP7QX1100CZ	1:1	.3 to 1.5		250/250	ZZ-4	1 1/16 x 11/16	1 1/8
PUL 73	TP6QX1100BZ	1:1	.3 to 1.5		250/250	YY-79	1 1/8 x 9/32	1 7/8
PUL 74	TP6QX1100CR	1:1	.3 to 1.5		250/250	AF	See Page 35	
PUL 67	TP6QX1110BZ	1:1:1	.36 to .54		2,000/2,000	RSV-1D	1/2	11/16
PUL 68	TP6QX1110CZ	1:1:1	.36 to .54		2,000/2,000	RSV-1B	11/16	3/4
PUL 66	TP6QX1100BZ	1:1	.54 to .66		500/500	RSV-1C	13/32	5/8
PUL 78	TP7QX1110CZ	1:1:1	.6 to 5		150/150	ZZ-4	1 1/16 x 11/16	1 1/8
PUL 79	TP6QX1110BZ	1:1:1	.6 to 5		150/150	YY-79	1 1/8 x 9/32	1 7/8
PUL 75	TP7QX1410CZ	1:4:1	.6 to 5		175/175	ZZ-4	1 1/16 x 11/16	1 1/8
PUL 76	TP6QX1410BZ	1:4:1	.6 to 5		175/175	YY-79	1 1/8 x 9/32	1 7/8
PUL 77	TP6QX1410CZ	1:4:1	.6 to 5		175/175	AG	See Page 35	
PUL 69	TP7QX1100CZ	1:1	.6 to 5		250/250	ZZ-4	1 1/16 x 11/16	1 1/8
PUL 70	TP6QX1100BZ	1:1	.6 to 5		250/250	YY-79	1 1/8 x 9/32	1 7/8
PUL 71	TP6QX1100CZ	1:1	.6 to 5		250/250	AG	See Page 35	

TRANSFORMERS — Output

Single Plate to Line or Voice Coil

Part No.	Primary Impedance	Secondary Impedance	Primary MADC	Watts	*Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
24S41	900	4/8	120	10	BAH	2 13/16	2	3 1/8	2	1.2
24S78	1,500	2/4/6	55	5	BAH	2	1 3/8	2 3/8	1 3/4	.5
22S45	1,500-3,000	3.5	55	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
22S20	2,000	3.5	50	3	BAV	1 1/2	1 7/16	1 7/8	1 1/4	.2
24S53	2,000	3.5	50	3	BAH	1 3/4	1 3/16	2 1/8	1	.2
24S50	2,000	3.5	55	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
24S50A	2,000†	3.5	55	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
24S85	2,000*	3.5	60	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
24S95	2,000 or 6,000	3.5	60 5 10	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
22S46	2-3,000	3.5	35	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
26S58	2,500	3.5	50	3	BAV	1 1/2	1 3/8	1 7/8	1 1/4	.2
24S87	2,500*	3.5	50	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
22S34	2,500	3.5	60	6	BAH	2 3/8	1 5/8	2 13/16	1 1/2	.6
22S15	2,500	4/8/16/500	80	8	GGV	1 3/4 x 1 5/8	2 3/4	2 3/8	2 3/8	1.75
24S88	2,500	4/8/16	60	10	BAH	2 13/16	2	3 1/8	1 3/4	1
22S22	3,000#	3.5	50	3	BAH	1 3/4	1 3/16	2 1/16	1 1/4	.21
24S89	3,000†	3.5	50	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
22S38	3,000	3.5	70	8	BAH	2 13/16	2	3 1/8	1 3/4	1
26S50	3,500	3.5	60	8	BAH	2 3/8	1 5/8	2 7/8	1 5/8	.75
22S23	4,000	3.5	50	3	BAV	1 1/2	1 7/16	1 7/8	1 1/4	.2
24S48	4-5,000	3.5	40	3	BAH	1 3/4	1 1/4	2 1/8	1	.4
22S32	4,000	3.5	50	5	BAV	1 3/4	1 5/8	2	1 3/8	.45
22S31	4,000	3.5	50	5	BAH	2	1 3/8	2 3/8	1 3/8	.45
24S115	4,000	8	40	5	BAH	2 3/8	1 5/8	2 7/8	1 5/8	.7
24S90	4,000	4/8/16	40	10	BAH	2 13/16	2	3 1/8	1 3/4	1
24S133	4,500	3.5	35	3	BCH	2	1 3/8	2 3/8	1 1/4	.3
22S24	5,000	3.5	35	3	BAV	1 1/2	1 7/16	1 7/8	1 1/4	.21
24S30	5,000	3.5	30	3	BCV‡	1 3/16	1 7/16	1 3/16	1	.2
24S51	5,000	3.5	40	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
24S51A	5,000†	3.5	40	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
22S17	5,000	4/8/16/500	45	5	BAH	2 13/16	2	3 5/16	1 3/4	1
25S38	5,000	4/8/16/150/500	55	5	TAV	1 3/4 x 2 11/16	3 1/8	2 1/4	3	2.25
25S43	5,000	4/8/16/150/500	55	5	TTV	1 3/4 x 2 11/16	3 1/8	2 1/4	3	2.25
26S49	5,000	3.5	50	8	BAH	2 3/8	2 5/8	1 7/8	1 5/8	.75
22S35	5,000	3.5	50	5	BAH	2 13/16	2	3 1/8	1 3/4	1
24S92	5,000	4/8/16	50	10	BAH	2 13/16	2	3 1/8	1 3/4	1
24S91	5,000	4/8/16/500	55	10	GGV	2 x 1 11/16	3 1/8	2 5/8	2 5/8	2.5
22S26	6,000	3.5	35	3	BAV	1 1/2	1 7/16	1 7/8	1 1/4	.21
24S94	6,000	3.5	10	3	BAH	1 3/4	1 3/16	2 1/8	1 7/8	.3
24S116	6,000	3.5	35	5	BCH	1 9/16 x 5/8	1 5/8	2	1 3/8	.8
22S25	6,500	3.5	35	3	BAH	1 3/4	1 3/16	2 1/8	1 1/4	.21
22S33	6,500	3.5	35	5	BAH	2	1 3/8	2 3/8	1 3/8	.45
24S49	7-8,000	3.5	30	3	BAH	1 3/4	1 3/16	2 1/8	1	.4
24S32	7,000	3.5	20	3	BCH	1 7/16	1 3/16	1 7/16	1	.25
24S33	7,000	3.5	30	5	BCV	1 3/8	1 7/16	1 3/8	1 1/4	.3
24S31	7,000	3.5	30	5	BCH	1 11/16	1 3/8	1 11/16	1 1/4	.3
24S52	7-10,000	3.5	30	5	BAH	2	1 5/8	2 3/8	1 1/4	.5
26S48	7,000	3.5	40	8	BAH	2 3/8	1 5/8	2 7/8	1 5/8	.75
24S96	7,000	4/8/16	40	10	BAH	2 13/16	2	3 1/8	1 3/4	1
22S16	7,500	4/8/16/500	40	5	BHH	2 13/16	2	3 1/8	1 3/4	1
24S81	8,000	3.5	30	3	BAV	1 1/2	1 3/8	1 7/8	1	.25
24S82	8,000	3.5	30	3	BAH	1 3/4	1 3/16	2 1/8	1	.25
24S34	8,000	3.5	30	5	BCH	1 11/16	1 3/8	1 11/16	1 1/4	.3
27S123	8,000	4/8/16/150/600	55	5	YY	1 13/16 x 1 11/16	3.049	2.521	2.381	2.25
25S39	8,000	4/8/16/150/600	55	5	TAV	1 3/4 x 2 11/16	3 1/8	2 1/2	3	2.25
25S44	8,000	4/8/16/150/600	55	5	TTV	1 3/4 x 2 11/16	3 1/8	2 1/2	3	2.25
22S36	8,000	4/8/16/150/600	45	6	BAV	2	2	2 3/8	2	.6
24S35	9,000	3.5	30	5	BCH	1 11/16	1 3/8	1 11/16	1 1/4	.3
24S97	9,000/2,500	3.5	10 40	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
24S36	10,000	3.5	30	3	BCH	1 7/16	1 3/16	1 7/16	1	.2
24S37	10,000	3.5	30	3	BCV	1 3/16	1 7/16	1 3/16	1	.2
24S83	10,000	3.5	30	3	BAH	1 3/4	1 3/16	2 1/8	1 1/4	.2
24S84	10,000	3.5	30	3	BAV	1 1/2	1 3/8	1 7/8	1 1/4	.2
24S38	10,000	3.5	30	5	BCH	1 11/16	1 3/8	1 11/16	1 1/4	.3
24S39	10,000	3.5	30	5	BCV‡	1 3/8	1 11/16	1 3/8	1 1/4	.3
24S98	10,000	3.5	30	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
22S37	10,000	3.5	45	6	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.6
25S96	15,000	50/125-150/200-250/333/500-600	8	.2	UTV	1 15/16 x 2 5/16	3 1/4	3 1/8	2 5/8	.5
25S97	15,000	50/125-150/200-250/333/500/600	0	.2	UTV	1 15/16 x 2 5/16	3 1/4	3 1/8	2 5/8	.5
25S61	15,000	200/500	10	4	KTH-8	2 7/8 x 2 3/8	2 5/16	3 3/8	1 5/16	1.5
24S54	15-20,000	3.5	10	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
22S28	16,000	3.5	15	3	BAV	1 1/2	1 7/16	1 7/8	1 1/4	.21
22S27	16,000	3.5	15	3	BAH	1 3/4	1 3/16	2 1/8	1 1/4	.21
25S122	20,000	500CT	10	1	BHH	2 13/16	2	3 1/16	2 1/8	1
22S19	25,000	3.5	4	.25	BAH	1 3/8	13/16	1 5/8	1	.08
22S30	25,000	3.5	10	3	BAV	1 1/2	1 7/16	1 7/8	1 1/4	.21
22S29	25,000	3.5	10	3	BAH	1 3/4	1 3/16	2 1/8	1 1/4	.21
24S99	25,000	3.5	5	5	BAH	2	1 3/8	2 3/8	1 1/4	.5

Push Pull Plates to Line or Voice Coil

Part No.	Impedance Primary	Secondary	Balanced Pri. MADC	Watts	*Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
22S106	1,500CT	8/16	200	50	GGV	2 3/4 x 3 1/16	4 5/16	3 9/16	4 1/4	6.5
25S103▲	1,500/2,500	1.2/2.5/5/7.5/10/15/20/30/50/125-150/200-250/333/500-600		40	UTV	4 3/16 x 5 1/32	4 11/16	5 13/16	5	15
24S117	2,000CT	8/16/32	140	15	GGV	2 x 2 1/4	3 3/16	2 5/8	3 1/4	3.3
22S60	2,500/4,000CT	3.5/8	60	10	BAH	2 13/16	2	3 1/8	1 3/4	1.25
25S29	2,500/3,000CT**	8/16/600CT** and 4/150	130	40	UTV	2 11/16 x 3 5/16	5 9/16	3 11/16	4 5/16	9.5
22S107	2,500CT	8/16	150	50	GGV	2 3/4 x 3 1/16	4 5/16	3 9/16	4 1/4	6.5
25S27	3,000/5,000CT**	8/16/600CT** and 4/150	100	15	UTV	2 1/8 x 2 5/8	4 7/8	3 1/16	3 9/16	6
22S96	3,000/5,000CT	3.5/8/16	60	15	WTV	2 3/4 x 2 3/8	4 3/8	3	3 3/8	9.25
25S19*	3,000/5,000CT	1.2/2.5/5/7.5 10/15/20/30		18	UTV	2 x 2 3/4	3 1/2	2 13/16	3 9/16	5
25S46	3,000/5,000CT	1.5/3/5/8/16/200/500		20	NTV	2 3/8 x 2 3/8	3 3/4	3	3	3.5
22S72	3,000CT	3.5/8/16/250/500	90	25	GGV	1 3/4 x 2 USE 250 OHM TAP FOR 70.7 VOLT LINE @ 20 WATTS	3 1/8	2 5/8	2 5/8	2.5
22S95	3,000/5,000CT	3.5/8/16	60	25	GGV	1 3/4 x 2	3 1/8	2 5/8	2 5/8	2.5
22S41	3,000CT	8/16	175	50	GGV	2 3/4 x 3 1/16	4 5/16	3 1/2	4 1/4	7.5

▲ SPECIFIC APPLICATIONS:

255101 } PP 6A57G, 6L6, 300B, 6080
255102 } 7027, 7355, 7581, 7868.
255103 }

** Split Center Tap

† 3% and 6% Primary humbucking tap
* 5% Primary Humbucking tap
‡ Twist leg mounting for slotted chassis or speaker housi
# 6% Primary Humbucking ta

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For Mounting Illustrations, Cross References and Pricing Information See Pages 1518-1530

Push Pull Plates to Line or Voice Coil

Part No.	Impedance Primary	Impedance Secondary	Balanced Pri. MADC	Watts	★Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
25S102▲	3,000/5,000CT	1.2/2.5/5/7.5/10/15/20/30		20	UTV	2 11/16 x 3 11/16	4 3/16	4 7/16	3 1/2	7.5
25S101▲	3,000/5,000CT	1.2/2.5/5/7.5/10/15/20/30/50/125-150/200-250/333/500-600		20	UTV	2 11/16 x 3 11/16	4 3/16	4 7/16	3 1/2	7.5
25S66	3,000/6,000/9,000/10,000CT	2/8/15/500		30	KTH-D	3 5/8 x 3 1/8	2 15/16	4 1/8	2 5/16	3
22S10	3,300CT	4/8/16	130	50	GGV	3 x 3 3/8	4 5/8	4	4 1/2	8
	WITH SCREEN TAPS									
25S51	3,300CT	4/8/16	90	50	NTV	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2	11
	WITH SCREEN TAPS									
22S78	3,300CT	3.5/8/16/250/500	180	60	GGV	2 1/2 x 2 1/2	3 7/8	3 1/4	3 3/4	5.25
24S142	3,300CT	4/8/16/25V./70V.	140	60	GGV	2 3/4 x 3 1/4	4 5/16	3 1/2	4 3/8	8
24S79	3,300/3,800CT	4/8/250/500	125	75	GGV	3 x 2 13/16	4 3/4	4	3 7/8	8
22S52	3,400CT	3.5	90	18	BAV	2 13/16	2 3/4	3 1/8	2	1.6
25S124	3,500CT	4/6/8/16/125/150/500	130	50	GGV	2 1/2 x 2 1/2	3 3/4	3 1/8	2 5/8	4
24S141	3,800CT	4/8/16/25V./70V.	130	50	GGV	2 3/4 x 3 1/4	4 5/16	3 1/2	4 3/8	8
25S109□	3,800/4,500CT	1.2/2.5/5/7.5/10/15/20/30/50/125-150/200-250/333/500-600		55	UTV	4 3/16 x 5 1/32	4 11/16	5 13/16	5	15
25S88	3,800/4,500/5,000CT	2/8/15/500		55	KTH-E	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
24S134	4,000CT	6-8	80	5	BAH	2	1 3/8	2 3/8	1 1/4	.45
22S21	4,000CT	8/16/32	75	7.5	BAH	3 1/8	2 1/4	3 3/4	2	2.2
22S12	4,000CT	4/8/16	200	65	GGV	2 3/4 x 3 1/2	4 1/4	3 5/8	4 5/8	9.7
	WITH SCREEN TAPS									
25S80	4,000CT	4/8/16	100	65	TTV	2 1/2 x 4 3/4	5 5/16	5 1/4	4 1/2	10
	WITH SCREEN TAPS									
22S13	4,000CT	4/8/16	210	70	GGV	3 x 3 7/8	4 5/8	4	5	12.5
	WITH SCREEN TAPS									
25S65	4,000/5,000/10,000CT	2/8/15/500		12	KTH-B	2 7/8 x 2 3/8	2 5/16	3 3/8	1 15/16	1.5
25S76	4,300CT■	8/16		65	TAV	2 1/2 x 4 3/4	5 5/16	5 1/4	4 9/16	12
	WITH SCREEN TAPS									
24S77	4,400CT##	4/8/16/250/500	70	30	GGV	2 x 2 1/4	3 5/8	3	3 1/8	3.5
22S11	4,500CT	4/8/16	140	50	GGV	2 3/4 x 3 1/2	4 1/4	3 5/8	4 5/8	8.25
22S14	4,500CT		120	100	GGV	3 1/2 x 4 1/8	5 5/16	4 9/16	5 1/8	14.7
	WITH SCREEN TAPS									
22S58	5,000/7,000CT	3.5/8	45	10	BAH	2 13/16	2	3 1/8	1 3/4	1.25
24S17	5,000CT	4/8/16	80	15	BAV	2 3/8	2 3/8	2 7/8	1 3/4	1
22S54	5,000CT	3.5	60	18	BAV	2 13/16	2 3/4	3 1/8	2	1.6
25S77	5,000CT	4/8/16	75	18	TAV	1 1/2 x 2 3/8	1 1/2	2 11/16	2 1/4	1.75
24S43	5,000CT	2/4/8/16/250/500	70	20	BHH	3 1/8	2 3/16	3 11/16	2	1.5
22S04	5,000CT	4/8/16	80	20	GGV	2 x 2 7/8	3 1/8	2 3/4	3 5/8	4.3
22S05	5,000CT	125/250/500	80	20	GGV	2 x 2 7/8	3 1/8	2 3/4	3 5/8	4.3
25S35	5,000CT	4/8/16/150/600	120	20	TAV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6.5
25S40	5,000CT	4/8/16/150/600	120	20	TTV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6.5
22S70	5,000CT	3.5/8/16/250/500	80	25	GGV	1 3/4 x 2	3 1/8	2 5/8	2 5/8	2.5
	USE 250 OHM TAP FOR 70.7 VOLT LINE @ 20 WATTS									
25S50	5,000CT	4/8/16/70V	90	25	NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5
	WITH SCREEN TAPS									
22S71	5,000CT	4/8/16/250/500	80	30	GGV	2 x 2 1/4	3 5/8	3	3 3/8	3.7
22S63	5,000CT	8/16	150	50	GGV	2 3/4 x 3 1/6	4 5/16	3 1/2	4 1/4	6
25S75	5,000CT■	8/16/70V.		100	TAV	3 1/2 x 5 3/8	6 1/16	5 7/8	5 5/16	16
	WITH SCREEN TAPS									
22S47	6,000/7,000CT	3.5	35	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
25S47	6,000/10,000CT	1.5/3/5/8/16/200/500		20	NTV	2 3/8 x 2 3/8	3 3/4	3	3	3.5
25S20	6,000CT	4/8/16		20	UTV	2 x 2 3/4	3 1/2	2 13/16	3 9/16	5
	WITH SCREEN TAPS									
22S98	6,000CT	3.5/8/16/250/500	60	20	WTV	2 3/4 x 2 3/8	4 3/4	3	3 3/8	7.25
22S97	6,000CT	3.5/8/16/250/500	60	25	GGV	2 x 1 3/4	3 1/8	2 5/8	2 5/8	2.5
	USE 250 OHM TAP FOR 70.7 VOLT LINE @ 20 WATTS									
22S108★	6,000CT	4/8/16		40	GGH	3 1/4 x 2 7/16	3 7/16	3 3/4	3 5/8	6
24S119	6,000CT	4/8/16/500	100	30	GGV	2 1/4 x 2	3 5/8	3	3 1/8	3.5
25S37	6,000CT	4/8/16/150/600	250	30	TAV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	9
25S42	6,000CT	4/8/16/150/600	250	30	TTV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	9
25S107★	6,000/10,000CT	1.2/2.5/5/7.5/10/15/20/30		20	UTV	2 11/16 x 3 11/16	4 7/16	4 7/16	3 1/2	7.5
25S106★	6,000/10,000CT	1.2/2.5/5/7.5/10/15/20/30/50/125-150/200-250/333/500-600		20	UTV	2 11/16 x 3 11/16	4 3/16	4 7/16	2 1/2	7.5
22S68	6,500CT	3.5/8/16/250/500	70	25	GGV	1 3/4 x 2	3 1/8	2 5/8	2 5/8	2.5
	USE 250 OHM TAP FOR 70.7 VOLT LINE @ 20 WATTS									
22S39	6,600CT	4/8/16	100	20	TAV	2 3/4 x 3 7/8	4 1/4	3 9/16	4 7/16	4
	WITH SCREEN TAPS									
22S07	6,600CT	4/8/16	80	25	GGV	2 1/4 x 3 1/8	3 1/2	3	4 1/4	5.75
	WITH SCREEN TAPS									
24S138	6,600CT	4/8/16/25V./70V.	80	25	GGV	2 x 2	3 1/8	2 5/8	3	3
22S09	6,600CT	4/8/16	80	30	GGV	2 1/4 x 2 5/8	3 1/2	3	3 3/4	5
	WITH SCREEN TAPS									
24S139	6,600CT	4/8/16/25V./70V.	80	30	GGV	2 1/4 x 2 1/4	3 1/2	3	3 3/8	4.5
24S140	6,600CT	4/8/16/25V./70V.	100	35	GGV	2 1/4 x 2 5/8	3 1/2	3	3 3/4	5
24S57	6,600CT	4/8/16/250/500	150	35	GGV	2 1/2 x 2 3/16	4	3 1/4	3 1/8	4
24S18	6,600CT##	4/8/16/500	150	35	GGV	2 1/2 x 2 3/16	4	3 1/4	3 3/8	4.8
22S67	6,600CT	8/16	125	50	GGV	2 3/4 x 3 1/16	4 5/16	3 9/16	4 1/4	6
24S58	7,000/10,000CT	3.5/8/16/500	60	25	GGV	2 x 1 11/16	3 3/16	2 5/8	2 5/8	2.7
22S42	7,400CT	4/8/16	100	40	GGV	2 1/2 x 2 7/8	3 7/8	3 1/4	3 7/8	6
	WITH SCREEN TAPS									
22S43	7,400CT	4/8/16	100	40	TAV	2 3/4 x 3 7/8	4 1/4	4 7/16	3 5/8	7.5
	WITH SCREEN TAPS									
25S26	7,500CT	8/20	120	20	UTV	2 5/8 x 2 1/8	4 7/8	3 1/16	3 9/16	5.75
25S82	7,500CT**	600CT/250CT	0	1	RTV	2 1/8 x 2 1/8	3 17/32	2 15/16	DIA.	.3
22S65	7,600CT	4/8/16	100	25	GGV	2 3/4 x 3 1/16	4 5/16	3 9/16	4 1/4	6
24S143	8,000CT	8	60	10	BAH	2 13/16	2	3 1/8	2 1/8	1
22S56	8,000/10,000CT	3.5/8	35	10	BAH	2 13/16	2	3 1/8	1 3/4	1.2
22S01	8,000CT	4/8/16	40	15	GGV	2 x 2 5/8	3 1/8	2 5/8	3 3/8	3.8
22S02	8,000CT	125/250/500	40	15	GGV	2 x 2 5/8	3 1/8	2 5/8	3 3/8	3.8
22S03	8,000CT	4/8/16	50	15	GGV	2 x 2 5/8	3 1/8	2 5/8	3 3/8	3.8
	WITH SCREEN TAPS									

▲ SPECIFIC APPLICATIONS:
25S101, 25S102, 25S103 } PP 6AS7G, 6L6, 3008, 6080 7027, 7355, 7581, 7868.

● SPECIFIC APPLICATIONS:
25S104, 25S105 } PP 6L6, 6V6, 6AQ5, 6BQ5, 12BA5, 5881, 7189A.
25S108 PP 6146, 6159, 6L6 Fixed Or Self Bias

★ SPECIFIC APPLICATIONS:
25S106 PP TRIODE, KT66, 6AS7G, 6L6, 807, 1614, 5881, 6080

□ SPECIFIC APPLICATIONS:
25S108 PP 6146, 6159, 6L6 Fixed Or Self Bias.

■ Has cathode feedback winding
Has extra 10% feedback winding
** Split Center Tap

Push Pull Plates to Line or Voice Coil (Continued)

Part No.	Impedance Primary	Impedance Secondary	Balanced Pri. MADC	Watts	★Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
22S57	8,000CT	3.5	55	18	BAV	2 13/16	2 3/4	3 1/8	2	1.6
24S144	8,000CT	8	80	18	BAH	3 1/8	2 1/4	3 11/16	2 1/8	1.5
22S55	8,000CT	3.5	55	18	GGV	1 3/4 x 1 5/8*	2 13/16	2 3/8	2 3/8	1.75
24S145	8,000CT	8/25V./70V.	100	20	BAH	3 1/8	2 1/4	3 11/16	3 1/8	1.5
25S105●	8,000CT	1.2/2.5/5/7.5/10/15/20/30		20	UTV	2 11/16 x 3 11/16	4 3/16	4 7/16	3 1/2	7.5
25S104●	8,000CT	1.2/2.5/5/7.5/10/15/20/30/50/125-150/200-250/333/500-600		20	UTV	2 11/16 x 3 11/16	4 3/16	4 7/16	3 1/2	7.5
25S45	8,000CT	1.5/3/5/8/16/200/500		20	NTV	2 3/8 x 2 3/8	3 3/4	3	3	3.5
24S137	8,000CT	4/8/16/25V./70V.	80	25	GGV	2 x 2	3 1/8	2 5/8	3	3
22S06	8,000CT		100	25	GGV	2 1/4 x 3 1/8	3 1/2	4	4 1/4	6
	WITH SCREEN TAPS									
22S66	8,000CT	3.5/8/16/250/500	60	25	GGV	1 3/4 x 2	3 1/8	2 5/8	2 5/8	2.5
	USE 250 OHM TAP FOR 70.7 VOLT LINE @ 20 WATTS									
24S120	9,000CT	3.2	40	5	BCH	1 13/16 x 11/16	2	2 3/8	1 5/8	1
25S108●	9,000CT	1.2/2.5/5/7.5/10/15/20/30/50/125-150/200-250/333/500-600		30	UTV	4 3/16 x 5 1/32	4 11/16	5 13/16	5	15
25S49	9,000CT	1.5/3/5/8/16/200/500		30	NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5
24S121	9,000CT	4/8/15/500	150	35	GGV	2 1/2 x 2 3/16	4	3 1/4	3 3/8	4.8
22S69	9,000CT	8/16	100	50	GGV	2 3/4 x 3 1/16	4 5/16	3 9/16	4 1/4	6
22S44	9,500CT	3.5/8/16	35	12	VAV	1 7/8 x 2	3	2 1/2	2 3/8	2.5
24S136	9,500CT	4/8/16/25V./70V.	40	15	GGV	2 x 1 3/4	3 1/8	2 5/8	2 5/8	2.5
22S49	9,500CT	4/8/16	100	15	TAV	2 3/4 x 3 7/8	4 1/4	3 9/16	4 7/16	4
	WITH SCREEN TAPS									
22S94	9,500CT	3.5/8/16	50	20	WTV	2 3/4 x 2 3/8	4 3/8	3	3 3/8	7.25
22S93	9,500CT	3.5/8/16	50	25	GGV	2 x 1 3/4	3 1/8	2 5/8	2 5/8	2.5
25S68	10,000CT	4/8		750MW TAI		3/8 HOLE	1 3/4	1 3/8 DIA.		.35
24S93	10,000CT	3.5	40	5	BAH	2	1 3/8	2 3/8	1 1/4	.4
22S48	10,000/12,000CT	3.5	8	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
25S25	10,000CT**	8/16/600CT** and 4/150	80	5	UTV	2 19/64 x 1 55/64	4 1/4	3 1/16	2 5/8	4
25S30	10,000CT	8/16/600CT**	80	5	UTV	2 5/8 x 2 1/8	4 7/8	3 1/16	3 9/16	6
24S56	10,000CT	2/4/8	75	8	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.7
24S122	10,000CT	4	50	10	BCV	1 9/16 x 5/8	2 3/8	2	1 5/8	1
25S78	10,000CT	4/8/15 and 2,000	30	10	TAV	1 1/2 x 2 3/8	2 7/8	2 11/16	2 1/4	1.5
26S59	10,000CT	4/8/16	30	12	BAH	2 13/16	2	3 1/8	1 3/4	1
24S19	10,000CT	4/8/16	60	12	BAV	2 3/8	2 3/8	2 7/8	1 3/4	1
24S44	10,000CT	2/4/8/16/250/500	45	15	BHH	2 13/16	2	3 1/4	1 3/4	1
	USE 500 OHM TAP FOR 70.7 VOLT LINE @ 10 WATTS									
25S36	10,000CT■	4/8/16/150/600	200	15	TAV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5
25S41	10,000CT■	4/8/16/150/600	200	15	TTV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5
25S31	10,000CT	4/8/16	130	20	UTV	2 1/8 x 2 5/8	4 7/8	3 1/16	3 9/16	7
	WITH SCREEN TAPS									
22S64	10,000CT	3.5/8/16/250/500	50	25	GGV	1 3/4 x 2	3 1/8	2 5/8	2 5/8	2.5
22S08	10,000CT	4/8/16	80	25	GGV	2 1/4 x 3 1/8	3 1/2	3	4 1/4	6
	WITH SCREEN TAPS									
22S50	12,000CT	3-4	30	4	BAH	2	1 3/8	2 3/8	1 3/8	.45
26S47	14,000CT	3.5	35	12	BAH	2 13/16	2	3 1/8	2	1
24S20	14,000CT	4/8/16	60	15	BAV	2 3/8	2 3/8	2 7/8	1 3/4	1
25S48	14,000/20,000CT	1.5/3/5/8/16/200/500		20	NTV	2 3/8 x 2 3/8	3 3/4	3	3	3.5
24S26	20,000CT	4/8/16	50	15	BAV	2 3/8	2 3/8	2 7/8	1 3/4	1
22S123	20,000CT	125/500	8	10	FGV	2 3/8	2 3/8	2 27/32	2 1/8	
24S59	25,000CT	3.5	20	5	BAH	2	1 3/8	2 3/8	1 3/8	.4
25S100	30,000CT	50/125-150/200/250/333/500-600	1	.25	UTV	1 15/16 x 2 7/16	3 1/4	3 1/8	2 5/8	3
24S28	50,000CT	3.5	20	5	BAH	2	1 3/8	2 3/8	1 1/4	.4
24S29	50,000CT	3.5	20	8	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.6

Universal Output

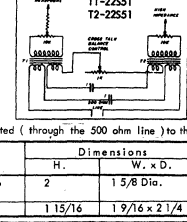
SINGLE OR PUSH-PULL PLATES TO VOICE COIL

Part No.	Primary Impedance	Secondary Impedance	Primary MADC	Watts	Mtg. Type	Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
22S61	2,000 to 10,000CT	.64 to 26.3	30	2	BAH	1 3/4	1 3/16	2 1/16	1 1/4	.21
22S86	2,000 to 14,000CT	3,5/8	50	3	BAH	2	1 3/8	2 3/8	1 1/4	.5
24S04	4,000 to 14,000CT	.1 to 50	35	4	BHH	2	1 3/8	2 3/8	1 1/4	.5
24S05	2,000 to 13,000CT	.1 to 50	50	4	BHH	2	1 3/8	2 3/8	1 1/4	.5
24S60	4,000 to 14,000CT	.1 to 30	35	4	BHH	2	1 3/8	2 3/8	1 1/4	.5
22S73	4,000 to 24,000CT	1.3 to 24.5	25	4	BAH	2	1 3/8	2 3/8	1 3/8	.5
22S87	2,000 to 14,000CT	3.5/8	50	6	BAH	2	1 3/8	2 3/8	1 3/8	1
24S09	2,500 to 13,000CT	.1 to 50	70	8	BHV	2	2	2 3/8	2 1/8	.75
24S08	4,000 to 20,000CT	.5 to 50	50	8	BHV	2	2	2 3/8	2 1/8	.75
24S07	4,000 to 10,000	3 to 8	40	8	BHH	2 3/8	1 5/8	2 7/8	1 1/2	.75
24S06	4,000 to 14,000CT	.1 to 50	40	8	BHH	2 3/8	1 5/8	2 7/8	1 1/2	.75
24S61	4,000 to 14,000CT	.1 to 30	40	8	BHH	2 3/8	1 5/8	2 7/8	2	1
24S63	1,500 to 4,500	.1 to 7.2	75	8	BHH	2 13/16	2	3 1/8	1 5/8	1
22S62	1,500 to 4,000CT	.1 to 30	50	8	BHH	2 13/16	2	3 1/8	2 1/8	1.25
22S88	2,000 to 14,000CT	3.5/8	50	8	BAH	2 13/16	2	3 1/8	1 3/8	1
24S64	1,500 to 10,000	.02 to 30	55	10	BHH	2 3/8	1 5/8	2 7/8	1 1/2	.7
24S11	2,500 to 14,000CT	.1 to 30	50	10	BHV	2 3/8	2 3/8	2 7/8	1 1/2	1
25S52	3,000 to 14,000CT	1.5/3/5/8/16/50/200/500		12	NTV	2 3/8 x 2 3/8	3 3/4	3	3	3.5
22S79	6,000 to 15,000	.35 to 24	85	12	BAV	2 13/16	2 3/4	3 1/8	2	1.6
24S13	2,500 to 13,000CT	.1 to 50	75	15	BHV	2 3/8	2 3/8	2 7/8	2 3/8	1.5
22S89	1,500 to 6,000CT	.8 to 25.4	87	15	BAV	2 13/16	2 3/4	3 1/8	2	1.6
24S12	3,500 to 14,000CT	.1 to 50	40	18	BHV	2 3/8	2 3/8	2 7/8	2	1.33
26S46	4,000 to 14,000CT	.1 to 30	40	18	BHV	2 3/8	2 3/8	2 7/8	2 1/4	1.5
24S14	4,000 to 14,000CT	.1 to 50	50	18	BHH	2 13/16	2	3 1/8	2	1.25
24S15	8,000 to 14,000CT	4/8/16/500	60	18	GGV	2 x 1 7/16	3 1/8	2 5/8	2 1/2	2.25
24S55	3,000 to 10,000CT	1 to 30	60	20	BHV	2 13/16	2 5/8	2 1/4	3 5/16	1.8
24S16	4,000 to 14,000CT	.1 to 5	60	20	BHV	3 1/8	3 1/8	3 5/8	2 1/2	3
24S42	3,000 to 10,000CT	.17 to 32	70	24	BHH	3 1/8	2 1/4	3 11/16	2 1/8	1.8
22S74	2,500 to 14,000CT	1 to 30	80	25	BHH	3 5/8	2 1/2	4	2 5/8	2.5
25S53	3,000 to 14,000CT	1.5/3/5/8/16/50/200/500		30	NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5
25S54	3,000 to 14,000CT	1.5/3/5/8/16/50/200/500		60	NTV	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2	11
25S86	3,000 to 14,000CT	1.5/3/5/8/16/50/200/500		125	NTV	4 1/8 x 4 1/8	5 1/2	5 1/8	5 1/8	15.5
25S87	3,000 to 14,000CT	1.5/3/5/8/16/50/200/500		300	NTV	4 7/8 x 4 7/8	7	5 3/4	5 3/4	22

Hybrid Circuit Output

The circuit shown at the right is a typical "Patch" hybrid circuit using two 22S51 transformers.

This circuit is ideally suited for use in duplex radio communications where two way communication to and from a remote point is desired. It may also be adopted to operate sound distribution systems or speech amplifier and modulator for transmission from remote point. The output from a radio receiver may then be connected to the transformer marked T2 so that the received signal may be transmitted (through the 500 ohm line) to the remote point.



Part No.	Impedance In Ohms Primary	Impedance In Ohms Secondary	Mtg. Type	Mtg. Centers	Dimensions H.	Dimensions W. x D.	Wt. Lbs.
25S84	300CT 300CT	10,000 25 Ω Monitor	RTV	1 5/16 x 1 5/16	2	1 5/8 Dia.	.15
22S51	10,000	500 each	TAV-1	1 15/16	1 15/16	1 9/16 x 2 1/4	1.0

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For Mounting Illustrations, Cross References and Pricing Information See Pages 1518-1530
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Line To Voice Coil

Part No.	Impedance Primary	Impedance Secondary	Output Watts	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
TR 141	600	3.2	.025	Mi		.312	.426	.400	.1
TR 53	500CT	3.2	.050	MAH		7/16	1/2	7/16	.1 oz.
TR 49	500CT	10	.050	MAH		7/16	1/2	7/16	.1 oz.
25S67	500**	4/16**	.100	TAJ	3/8 Hole	1 3/4	1 3/8 Dia.		.35
TR 27	500CT	3.2	.150	BCH	13/16	11/16	13/16	5/8	.05
TR 337	500CT	3.2	.150	PCT	Printed Ckt.	11/16	3/4	9/16	.05
TR 18	500CT	16.4	.150	BCH	13/16	11/16	13/16	5/8	.05
TR 328	500CT	16.4	.150	PCT	Printed Ckt.	11/16	3/4	9/16	.05
TR 102	500CT	4/8/16	.150	BCH	13/16	11/16	13/16	5/8	.05
TR 103	600CT	4/8/16	.150	BCH	13/16	11/16	13/16	5/8	.05
TR 220	500CT	3.2	.250	MAH		19/32	7/8	43/64	.03
TR 110	48CT(50)	4/8/16	.300	BAH	1 3/8	3/4	1 5/8	13/16	.1
TR 8	48CT(50)	4/8	.300	BAH	1 3/8	3/4	1 5/8	13/16	.1
TR 114	500CT	4/8/16	.300	BAH	1 3/8	3/4	1 5/8	13/16	.1
TR 18	500CT	16.4	.300	BAH	1 3/8	3/4	1 5/8	13/16	.1
22S100	50■	3.5	1	BAH	1 3/4	1 3/16	2 1/16	1 1/4	.21
25S55	125/500**	4/16**	1	NTV	1 5/16 x 1 5/16	2 1/4	1 5/8	1 5/8	.5
25S83	250	14	1	TTV	3 1/8 x 2	3 1/2	3 1/2	2 25/32	1.5
25S06	400-500CT	3.2-4	1	RTV	11/16	1 3/16	7/8 Dia.		.06
25S11	500CT	4/16**	1	UTV	1 5/32 x 1 5/32	2	1 1/2	1 1/2	.5
22S118	45-50	3.5/6-8	3	BHH	2	1 3/8	2 3/8	1 1/2	.5
22S102	500	4/8/16	3	BAH	2	1 3/8	2 3/8	1 3/8	.45
22S126	600	3.2	3	BHH	2	1 3/8	2 3/8	1 5/8	.25
22S101	50/500	3.5	4	BAH	1 3/4	1 3/16	2 1/16	1 1/4	.21
TR 61	48CT(50)	3.2/8/16	5	BHV	1 3/4	1 3/4	2	1 1/4	.5
25S125	50/250/500	6/8	5	BHH	2 13/16	2	3 1/16	2 1/8	.75
22S103	500	4/8	5	BAH	2	1 3/8	2 3/8	1 3/8	.45
24S75	500	4/8	5	BHH	2	1 3/8	2 3/8	1 1/4	.45
22S81	45/50	3.5/8	8	BAH	2 3/8	1 5/8	2 7/8	1 5/8	1
22S127	45-50	8/16	8	BAH	2 13/16	2	3 1/16	2 1/8	.6
22S80	500/600	3.5/8/16	8	BHH	3 1/8	2 1/4	3 3/4	2 1/4	1.5
22S84	500/1,000/1,500/2,000	3.5/8/16	8	BAH	2 13/16	2	3 1/8	1 3/4	1
24S46	500/1,000/1,500/2,000	3.5/8	8	BHH	2 3/8	1 5/8	2 7/8	1 5/8	1.2
22S85	500/1,000/1,500/2,000	3.5/8/16	8	BAH	2 3/8	1 5/8	2 7/8	1 5/8	1.2
22S104	31/62.5/125/250	4/8/16	10	BHV	2 13/16	2 23/32	3 1/8	2 1/8	1.8
24S66	500/1,000/1,500/2,000	3.5/8	10	BAH	2	2	2 1/2	1 5/8	1
22S109	500/1,000/1,500/2,000/3,000	4/8/16	10	BHV	2 3/8	2 5/16	2 15/16	1 3/4	1.5
22S64	2,500/4,000/7,000/10,000	2/8/15/500	10	KTH	2 7/8 x 2 3/8	2 5/16	3 3/8	1 15/16	1.5
24S47	500/1,000/1,500/2,000	3.5/8	12	BHV	2 3/8	2 5/16	2 7/8	1 7/8	1.2
24S10	2,500/4,000/6,000/8,000	6-8	12	BAV	2 3/8	2 5/16	2 7/8	1 3/4	1.1
25S57	500	.2 to 75	15	NTV	2 3/32 x 2 3/32	3 1/4	2 9/16	2 9/16	2.5
24S45	500	4/6/8/15	15	BHV	2 3/8	2 5/16	2 7/8	1 3/4	1.2
22S83	500/1,000/1,500/2,000	3.5/8/16	15	BAH	3 1/8	2 1/4	3 3/4	2	2.25
25S62	500/2,000/4,000	2/4/8/15	15	KTH	2 7/8 x 2 3/8	2 5/16	3 3/8	1 15/16	1.5
24S67	500/1,000/1,500/2,000	3.5/8	18	BHV	2 3/8	2 5/16	2 7/8	2	1.7
25S82	500/1,000/1,500/2,000	3.5/8	25	BHH	3 5/8	2 1/2	4	2 5/8	2.25
24S00	500/1,000/1,500	4/8/16	25	BHV	3 1/8	3 1/8	3 5/8	2 1/4	2.5
22S105	500**	2/4/8/16/32	30	LHV	2 1/4 x 3 1/8	3 7/16	2 13/16	4 9/16	5
25S63	500/2,000/4,000	2/4/8/15	30	KTH	3 5/8 x 3 1/8	2 15/16	4 1/8	2 5/16	3
25S58	500	.2 to 75	40	NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5
25S79	4	.01/.05/.1 .25/.5/1 VOICE COIL TO MULTIPLE VOICE COIL	50	KTV	2 5/8 x 3 1/8	4 7/16	4 7/16	3 5/16	6
22S59	500	.2 to 75	75	NTV	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2	11

Line To Multiple Voice Coil

Part No.	Impedance In Ohms	Output Watts	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
24S76	Pri. 500/1,000/1,500/2,000/2,500/3,000 Sec. .06 to 8 ohms when pri. is 500 ohms .12 to 16 ohms when pri. is 1,000 ohms, etc.	15	BHV	2 3/8	2 5/16	2 7/8	2	1.4
24S62	Pri. 500/1,000/1,500/2,000/2,500/3,000 Sec. .06 to 8 ohms when pri. is 500 ohms .12 to 16 ohms when pri. is 1,000 ohms, etc.	25	BAV	3	3	3 3/8	2 1/8	2

Tube To Line Or Line Mixer

Part No.	Impedance Primary	Impedance Secondary	Primary MADC	Output Watts	★ Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D
25S01	15,000	50/200-250/500-600	0	.006	RTV	11/16	1 3/16	7/8 Dia.	
25S07	15,000	50/200-250/500-600	0	.006	Plug-In	8 Pin Octal	1 15/32	1 3/32 Dia.	
25S02	15,000	50/200-250/500-600	4	.006	RTV	11/16	1 3/16	7/8 Dia.	
25S08	15,000	50/200-250/500-600	4	.006	Plug In	8 Pin Octal	1 15/32	1 3/32 Dia.	
25S03	30,000CT	50/200-250/500-600	0*	.006	RTV	11/16	1 3/16	7/8 Dia.	
25S09	30,000CT	50/200-250/500-600	0*	.006	Plug-In	8 Pin Octal	1 15/32	1 3/32 Dia.	
22S53	8,000 to 15,000CT**	50/125/200/250/333/500	1	.01	RAV	2 1/4	2 5/8	1 3/4	
25S23	15,000	150/600**	10	.031	UTV	1 3/8 x 1 9/16	3 1/8	2 1/16	2 5/16
25S12	15,000**	50/125-150/200-250/333/500-600	0*	.031	UTV	1 5/32 x 1 5/32	2	1 1/2	1 1/2
25S13	15,000	50/125-150/200-250/333/500-600	8	.031	UTV	1 5/32 x 1 5/32	2	1 1/2	1 1/2
25S69	15,000	50/250/600		.1	TAJ	3/8 Hole	1 3/4	1 3/8 Dia.	
25S71	15,000	50/250/600	5	.1	TAJ	3/8 Hole	1 3/4	1 3/8 Dia.	
25S70	15,000CT	150/600**		.1	TAJ	3/8 Hole	1 3/4	1 3/8 Dia.	
25S72	15,000CT	150/600**	4	.1	TAJ	3/8 Hole	1 3/4	1 3/8 Dia.	
25S15	15,000**	50/125-150/200-250/333/500-600	0	.125	UTV	1 3/8 x 1 13/16	3 1/8	1 15/16	2 3/8
25S17	15,000**	50/125-150/200-250/333/500-600	8	.160	UTV	1 3/8 x 1 13/16	3 1/8	1 15/16	2 3/8
25S96	15,000	50/125-150/200-250/333/500-600	8	.12	UTV1	1 15/16 x 2 5/16	3 1/4	3 1/8	2 5/8
25S73	25,000**	500**	3	.2	TAJ	3/8 Hole	29/32	1/2	11/16
25S16	30,000CT	50/125-150/200-250/333/500-600	1	.2	UTV	1 3/8 x 1 13/16	3 1/8	1 15/16	2 3/8
25S97	15,000	50/125-150/200-250/333/500-600	0	.2	UTV1	1 5/16 x 2 7/16	3 1/4	3 1/8	2 5/8
25S32	15,000	50/150/200/250/333/500	0	.5	UTV-1	1 1/8 x 1 1/8	2	1 1/2	1 1/2
25S34	15,000	50/150/200/250/333/500	0	.5	UTV-1	1 1/8 x 1 1/8	2	1 1/2	1 1/2
25S33	30,000CT	50/150/200/250/333/500	5	.5	UTV-1	1 1/8 x 1 1/8	2	1 1/2	1 1/2
25S21	15,000	50/200/500	8	1	NTV	1 5/16 x 1 5/16	2 1/4	1 5/8	1 5/8
25S122	20,000	500CT	10	1W	BHH	2 13/16	2	3 1/16	2 1/8
25S24	20,000CT	150/600**	0	1	UTV	2 1/8 x 1 3/4	3 13/16	2 3/8	2 3/4
25S22	30,000CT	50/200/500	0	1.5	NSV	1 5/16 x 1 5/16	2 1/4	1 5/8	1 5/8
24S80	10,000	50 and 2,000		2	BAH	2	1 3/8	2 3/8	1 3/8
25S61	15,000	200/500	10	2	KTH	2 7/8 x 2 3/8	2 5/16	3 3/8	1 15/16
22S75	7,000	50	30	3	BAH	1 3/4	1 3/16	2 1/8	1 1/4
25S60	20,000CT	125/500**	10	3	RTV	1 3/8 x 1 3/8	2	1 5/8 Dia.	
22S92	20,000CT	125/200/500	10	3	RTV	1 3/8 x 1 3/8	2	1 5/8 Dia.	
22S59	15,000	500CT	10	4	BGH	2 3/8	1 5/8	2 7/8	1 5/8
22S119	10,000	50 and 2,000▪		5	BAH	2 3/8	1 5/8	2 7/8	1 1/2
25S25	10,000CT	8/16/600**	60	5	UTV	1 7/8 x 2	4 1/4	2 5/8	3 1/16
24S114	18,000CT	50/250/600	20	5	BAH	2 3/8	1 5/8	2 13/16	1 1/2
22S91	20,000CT	125/200/500	25	8	BAH	2 13/16	2	3 1/8	2
22S90	20,000CT	125/200/500	25	8	FGV	2 3/8	2 3/8	2 7/8	1 7/8
22S77	2,500 to 7,000	500	60	10	BHV	2 13/16	2 11/16	3 1/8	2 1/4
24S27	5,000/10,000/20,000CT	50/125/333/500	15	10	BHH	2 13/16	2	3 1/8	1 3/4
24S25	8,000 14,000CT	500	55	10	BHV	2 13/16	2 3/4	3 1/8	2 1/4
25S18	5,000/9,400CT	50/125-150/200-250/333/500-600		15	UTV	2 x 2 3/4	3 1/2	2 13/16	3 9/16
22S02	8,000CT	125/250/500	40	15	GGV	2 x 2 5/8	3 1/8	2 5/8	3 3/8
22S116	2,500/4,000/5,000/6,000/7,000	500	60	20	BHV	3 1/8	3 1/8	3 5/8	2 1/4
22S05	5,000CT	125/250/500	80	20	GGV	2 x 2 7/8	3 1/8	2 5/8	3 5/8
22S76	3,000 to 14,000CT	500	60	25	BHH	3 5/8	2 1/2	4	2 5/8

10KC to 50KC Output Transformers

FREQUENCY RANGE 10KC TO 50KC

Ideally suited for Ultrasonic generators and amplifiers for use in military and industrial cleaning, degreasing, mixing and other ultrasonic applications.

Part No.	Application	Impedance Primary	Impedance Secondary	Output Watts	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D
25S89	PP 6550	5,000CT	18.75/75/170/300	100	NTV-5	1 1/2 x 1 1/2	2 1/2	1 13/16	1 13/16
25S90	PP 6155, PP 4-125.	7,200CT	18.75/75/170/300	300	NTV-7	2 3/32 x 2 3/32	3 1/4	2 9/16	2 9/16
25S91	PP 6155, PP 4-125	7,200CT	1.88/7.5/17/30	300	NTV-7	2 3/32 x 2 3/32	3 1/4	2 9/16	2 9/16
25S92	PP 6156, PP 250TH	4,500CT	18.75/75/170/300	600	NTV-10	3 x 3	4 1/2	3 3/4	3 3/4
25S93	PP 6156, PP 250TH	4,500CT	1.88/7.5/17/30	600	NTV-10	3 x 3	4 1/2	3 3/4	3 3/4
25S94	PP 6156	9,200CT	18.75/75/170/300	1,000	NTV-13	4 7/8 x 4 7/8	7	5 3/4	5 3/4
25S95	PP 5868	10,200CT	18.75/75/170/300	2,000	SYV		5 1/4	5 9/16	8

Speaker Matching

AUTOFORMER

For use in speaker voice coil impedance matching applications. Frequency response 100 to 20,000 cycles ± 1 DB.

Part No.	Impedance Primary and Secondary	Power Watts	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D
25S114	0/4/8/16	1	RTV	11/16	1 3/16	7/8 Dia.	
25S85	4/8/16	4	UTV	1 5/32 x 1 5/32	2	1 1/2	1 1/2

High Fidelity Output Transformers

Part No.	Impedance Primary	Impedance Secondary	Primary MADC Each Side CT	Output Watts	★ Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
22S106	1,500CT	8/16	200	50	GGV	2 3/4 x 3 1/16	4 5/16	3 9/16	4 1/4	6.5
25S29	2,500/3,000*	8/16/600* 4/150	130	40	UTV	2 11/16 x 3 5/16	5 9/16	3 11/16	4 5/16	9.5
22S107	2,500CT	8/16	150	50	GGV	2 3/4 x 3 1/16	4 5/16	3 9/16	4 1/4	6.5
22S41	3,000CT	8/16	175	50	GGV	2 3/4 x 3 1/16	4 5/16	3 9/16	4 1/4	6.5
25S27	3,000/5,000*	8/16/600* 4/150	100	50	UTV	2 5/8 x 2 1/8	4 7/8	3 9/16	3 1/16	6
25S19	3,000/5,000CT	1.2/2.5/5/7.5/10/15/20/30		18	UTV	2 x 2 3/4	3 1/2	2 13/16	3 9/16	5
22S10	3,300CT WITH SCREEN TAPS	4/8/16	130	50	GGV	3 x 3 3/8	4 5/8	3 15/16	4 1/2	8
22S51	3,300CT WITH SCREEN TAPS	4/8/16/70V	90	50	NTV	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2	11
25S112	3,300CT WITH SCREEN TAPS	4/8/16		60	UTV	4 3/16 x 5 1/32	4 11/16	5 13/16	5	15
22S12	4,000CT WITH SCREEN TAPS	4/8/16	209	65	GGV	2 3/4 x 3 1/2	4 1/4	3 5/8	4 5/8	9.75
22S80	4,000CT WITH SCREEN TAPS	4/8/16	100	65	TTV	2 1/2 x 4 3/4	5 5/16	5 1/4	4 1/2	10
22S13	4,000CT WITH SCREEN TAPS	4/8/16	210	70	GGV	3 x 3 7/8	4 5/8	3 15/16	5	12.5
22S121	4,250CT WITH SCREEN TAPS	4/8/16/125/250/500	100	40	HFF	2 3/4 x 3 7/16	2 3/4	4 1/8	3 7/16	6
25S76	4,300▪ WITH SCREEN TAPS	8/16▪		65	TAV	2 1/2 x 4 3/4	5 9/16	4 9/16	5 1/4	12.5
22S11	4,500CT	4/8/16	140	50	GGV	2 3/4 x 3 1/2	4 1/4	3 5/8	4 5/8	8.25
22S14	4,500CT WITH SCREEN TAPS	4/8/16	120	100	GGV	3 1/2 x 4 1/8	5 5/16	4 9/16	5 1/8	14.7
22S04	5,000CT	4/8/16	80	20	GGV	2 x 2 7/8	3 1/8	2 5/8	3 5/8	4.3
22S05	5,000CT	125/250/500	80	20	GGV	2 x 2 7/8	3 1/8	2 5/8	3 5/8	4.3
22S63	5,000CT	8/16	150	50	GGV	2 3/4 x 3 1/16	4 5/16	3 1/2	4 1/4	6
25S113	5,000CT WITH SCREEN TAPS	4/8/16		35	UTV	4 3/16 x 5 1/32	4 11/16	5 13/16	5	7.5
22S50	5,000CT WITH SCREEN TAPS	4/8/16/70V.	90	25	NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5
25S75	5,000CT▪ WITH SCREEN TAPS	8/16/70V.	100	TAV	5 3/8 x 3 1/2	6 1/16	5 7/8	5 5/16	21	
22S39	6,600CT WITH SCREEN TAPS	4/8/16	100	20	TAV	2 3/4 x 3 7/8	4 1/4	3 9/16	4 7/16	4
25S20	6,600CT WITH SCREEN TAPS	4/8/16	80	20	UTV	2 x 2 3/4	3 1/2	2 13/16	3 9/16	5
22S07	6,600CT WITH SCREEN TAPS	4/8/16	80	25	GGV	2 1/4 x 3 1/8	3 1/2	3	4 1/4	5.7
22S09	6,600CT WITH SCREEN TAPS	4/8/16	80	30	GGV	2 1/4 x 2 5/8	3 1/2	3	3 3/4	5
22S67	6,600CT	8/16	125	50	GGV	2 3/4 x 3 1/16	4 5/16	3 9/16	4 1/4	6
22S42	7,400 WITH SCREEN TAPS	4/8/16	100	40	GGV	2 1/2 x 2 7/8	3 7/8	3 1/4	3 7/8	6
22S43	7,400CT WITH SCREEN TAPS	4/8/16	100	40	TAV	2 3/4 x 3 7/8	4 1/4	4 7/16	3 5/8	7.5
25S26	7,500CT	8/20	120	20	UTV	2 1/8 x 2 3/8	4 7/8	3 9/16	3 1/16	5.7
22S65	7,600CT WITH SCREEN TAPS	4/8/16	100	25	GGV	2 3/4 x 3 1/16	4 5/16	3 9/16	4 1/4	6
22S01	8,000CT	4/8/16	40	15	GGV	2 x 2 5/8	3 1/8	2 5/8	3 3/8	3.8
22S02	8,000CT	125/250/500	40	15	GGV	2 x 2 5/8	3 1/8	2 5/8	3 3/8	3.8
22S03	8,000CT WITH SCREEN TAPS	4/8/16	50	15	GGV	2 x 2 5/8	3 1/8	2 5/8	3 3/8	3.8

25V Line To Voice Coil

Part No.	Power Steps In Watts	Impedance In Ohms Primary	Impedance In Ohms Secondary	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wts. Lbs.
24S126	2/1/.5	312/625/1,250	4/8	BHH	1 3/4	1 1/4	2 1/8	1 3/8	.3
24S109	2/1/.5	312/625/1,250	4/8	BAH	2	1 3/8	2 3/8	1 3/8	.45
24S24	5/2.5/1.25/.625/.312	125/250/500/1,000/2,000	4/8	BHV	1 3/4	1 3/4	2	1 1/4	.4
24S110	5/2.5/1.25/.625	125/250/500/1,000	4/8/16	BAH	2 3/8	1 5/8	2 13/16	1 5/8	.8
24S21	8/4/2/1/.5	78/156/312.5/625/1,250	4/8/16	BHV	2	2	2 5/8	1 3/4	1
24S23	10/5/2.5/1.25 AUTOFORMER	62.5/125/250/500	4/8	BHV	2 3/8	2 3/8	2 7/8	1 3/4	1.4
24S111	10/5/2.5/1.25§	62.5/125/250/500	4/8/16	BAV	3 1/8	3 1/16	3 5/8	2	1.6
24S22	16/8/4/2/1/.5	39/78/156/312.5/625/1,250	4/8/16	BHV	2 13/16	2 3/4	3 1/4	2 1/8	1.75
24S148	32/16/8/4/2/1/.5/.25 WITH TAP SWITCH	4/8/16 625/1,250/2,500/5,000/10,000/20,000	Special Plate Mounting To Fit 4 x 4 Junction Box						7.5

Matching Lines

25 VOLT LINE TO 70.7 VOLT LINE OR 70.7 VOLT LINE TO 25 VOLT LINE

Part No.	Application	Impedance In Ohms	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt Lbs
24S112	25 V. Line to 70.7 V. Line or 70 V. Line to 25 V. Line 10 Watts	62.5CT to 500CT§ or 500CT to 62.5CT§	BAV	2 3/8	2 5/16	2 7/8	1 3/4	1
24S113	25 V. Line to 70.7 V. Line or 70 V. Line to 25 V. Line 30 Watts	20.8CT to 166CT§ or 166CT to 20.8CT§	BAV	3 1/8	3 1/16	3 5/8	2 1/4	2.2

Frequency Response ± 3DB - 20-20,000 Cycles

* Unbalanced Primary Current ** Split Center Tap § 5 Interleaved Cases – 90 DB Shielding

▪ Autoformer † See page 35 for case # Has Cathode Feedback Winding

† Multiple Static Shielding §§ Has Extra 15% feedback Winding

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For Mounting Illustrations, Cross References and Pricing Information See Pages 1518-1530

70.7V Line To Voice Coil

Part No.	Power Steps In Watts	Impedance In Ohms Primary	Secondary	Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
24S01	2 1/.5/.25/.125	2,500/5,000/10,000 20,000/40,000	4/8	BHV	1 3/4	1 5/8	2	1 1/4	.5
24S100	5/2.5/1.25/.62/.31 AUTOFORMER	1,000/2,000/4,000 8,000/16,000	4/8	BAV	1 3/4	1 5/8	2	1 3/8	.5
24S74	5/2.5/1.25/.62/.31	1,000/2,000/4,000/ 8,000/16,000	4/8	BHH	2	1 3/8	2 3/8	1 1/4	.5
24S125	5/4/3/2/1	1,000/1,250/1,667 2,500/5,000	8/16	BHH	2	1 3/8	2 3/8	1 3/8	.5
24S71	8/4/2/1/.5	625/1,250/2,500/ 5,000/10,000	4/8/16	BHV	2	2	2 1/2	1 5/8	1
24S73	10/5/2.5/1.25 AUTOFORMER	500/1,000/2,000/ 4,000	4/8/16	BAV	2	2	2 3/8	1 1/2	.6
24S101	10/5/2.5/1.25	500/1,000/2,000/ 4,000	4/8/16	BAV	2	2	2 3/8	1 1/2	.6
24S124	10/9/8/7/6	500/555/625/715/ 833	8/16	BHV	2	2	2 3/8	1 5/8	.7
24S102	10/5/2.5/1.25 AUTOFORMER	500/1,000/2,000/ 4,000	4/8/16	BAV	2	2	2 3/8	1 1/2	.6
24S103	10/5/2.5/1.25§ AUTOFORMER	500/1,000/2,000/ 4,000	4/8/16	BAV	2 13/16	2 3/4	3 1/8	2 1/8	1.8
24S104	10/5/2.5/1.25§ WEATHER PROOF AUTOFORMER	500/1,000/2,000/ 4,000	4/8/16	TTV	1 3/4 x 2 11/16	3 5/16	3	2 1/2	2.25
24S123	15/14/13/12/11	333/357/384/ 417/455	8/16	BHV	2 3/8	2 5/16	2 7/8	1 3/4	1.2
24S72	16/8/4/2/1/.5	312.5/625/1,250/ 2,500/5,000/10,000	4/8/16	BHV	2 13/16	2 5/8	3 1/8	2 1/4	1.75
24S70	16/8/4/2/1/.5 WITH WATTAGE SELECTION SWITCH	312.5/625/1,250/ 2,500/5,000/10,000	4/8/16	TAV Special	3 1/8 x 2	3 9/16	3 1/2	2 7/8	2.5
24S107	20/10/5/2.5 AUTOFORMER	250/500/1,000/ 2,000	4/8/16	BAV	2 3/8	2 3/8	2 7/8	1 3/4	1
24S105	20/10/5/2.5	250/500/1,000/ 2,000	4/8/16	BAV	2 3/8	2 3/8	2 7/8	1 3/4	1
24S108	20/10/5/2.5§ AUTOFORMER	250/500/1,000/ 2,000	4/8/16	GGV	2 x 2 5/8	3 1/8	2 5/8	3 3/8	4
24S106	20/10/5/2.5§ WEATHER PROOF AUTOFORMER	250/500/1,000/ 2,000	4/8/16	TTV	2 3/4 x 3 7/8	4 5/16	3 11/16	4 7/16	6
24S02	24/12/6/3/1.5	208/416/832/ 1,664/3,330	4/8/16	BHV	3 1/8	3 1/16	3 5/8	2	2.5
24S148	32/16/8/4/ 2/1/.5/.25 WITH TAP SWITCH	156/312/ 625/1,250/ 2,500/5,000/ 10,000/20,000	4/8/16	Special Plate Mounting To Fit 4 x 4 Junction Box.					7.5

Molded And Plastic Coated Toroid Inductors

These high Q Toroid inductors have the highest inductive stability available to the industry. Each coil has an inductance tolerance of plus or minus 2%. Available in either plastic coated units with leads, (TOR 800 and TOR 900 series) or in epoxy molded MIL-T-27B encapsulation (TOR 700 and TOR 7100 and up).

Part No.	Inductance In MH ± 2%	Resistance In Ohms	MADC For 5% Ind. Drop	Typical Q @	Typical Center Frequency	Mtg. Type	Dimensions Diameter	Height	Hole Dia.
TOR 7257	.6	1.5	91*	100	100KC	TM2	7/16	1/4	
TOR 940	1	1.4	110	120	60KC	TO	5/8	9/32	
TOR 7310	1	1.4	110	120	60KC	TM3	7/8	3/8	.100
TOR 800	1	1.25	150	75	25KC	TO	3/4	3/8	
TOR 700	1	1.25	150	75	25KC	TM	3/4	3/8	.116
TOR 848	1	.40	270	110	18KC	TO	1	3/8	
TOR 748	1	.40	270	110	18KC	TM	1 1/16	1/2	.144
TOR 875	1	.40	520	160	10KC	TO	1 1/4	5/8	
TOR 775	1	.40	520	160	10KC	TM	1 5/16	23/32	.173
TOR 824	1	.20	680	180	20KC	TO	1 1/4	5/8	
TOR 724	1	.20	680	180	20KC	TM	1 5/16	23/32	.173
TOR 7258	1.5	4.1	55*	98	100KC	TM2	7/16	1/4	
TOR 941	2	2.5	95	120	75KC	TO	5/8	9/32	
TOR 7311	2	2.5	95	120	75KC	TM3	7/8	3/8	.100
TOR 801	2	1.7	108	75	25KC	TO	3/4	3/8	
TOR 701	2	1.7	108	75	25KC	TM	3/4	3/8	.116
TOR 849	2	.58	192	110	18KC	TO	1	3/8	
TOR 749	2	.58	192	110	18KC	TM	1 1/16	1/2	.144
TOR 876	2	.56	368	160	20KC	TO	1 1/4	5/8	
TOR 776	2	.56	368	160	20KC	TM	1 5/16	23/32	.173
TOR 825	2	.50	480	180	20KC	TO	1 1/4	5/8	
TOR 725	2	.50	480	180	20KC	TM	1 5/16	23/32	.173
TOR 7259	2.5	6.75	45*	98	100KC	TM2	7/16	1/4	
TOR 7249	3	4.1	51*	60	25KC	TM2	7/16	1/4	
TOR 802	3	2.25	87	70	20KC	TO	3/4	3/8	
TOR 702	3	2.25	87	70	20KC	TM	3/4	3/8	.116
TOR 850	3	.73	157	110	18KC	TO	1	3/8	
TOR 750	3	.73	157	110	18KC	TM	1 1/16	1/2	.144
TOR 877	3	.70	300	160	10KC	TO	1 1/4	5/8	
TOR 777	3	.70	300	160	10KC	TM	1 5/16	23/32	.173
TOR 826	3	.68	396	160	20KC	TO	1 1/4	5/8	
TOR 726	3	.68	396	160	20KC	TM	1 5/16	23/32	.173
TOR 803	4	2.6	76	70	20KC	TO	3/4	3/8	
TOR 703	4	2.6	76	70	20KC	TM	3/4	3/8	.116
TOR 851	4	.85	135	110	18KC	TO	1	3/8	
TOR 751	4	.85	135	110	18KC	TM	1 1/16	1/2	.144
TOR 878	4	.82	260	160	10KC	TO	1 1/4	5/8	
TOR 778	4	.82	260	160	10KC	TM	1 5/16	23/32	.173
TOR 827	4	.81	342	180	20KC	TO	1 1/4	5/8	
TOR 727	4	.81	342	180	20KC	TM	1 5/16	23/32	.173
TOR 7250	5	6.8	40*	60	22KC	TM2	7/16	1/4	
TOR 942	5	6	40	110	50KC	TO	5/8	9/30	
TOR 7312	5	6	40	110	50KC	TM3	7/8	3/8	.100
TOR 804	5	3.1	68	70	20KC	TO	3/4	3/8	
TOR 704	5	3.1	68	70	20KC	TM	3/4	3/8	.116
TOR 930	5	2.4	80	90	18KC	TO	5/8	9/32	
TOR 7284	5	2.4	80	90	18KC	TM3	7/8	3/8	.100
TOR 852	5	1.1	121	110	15KC	TO	1	3/8	
TOR 752	5	1.1	121	110	15KC	TM	1 1/16	1/2	.144
TOR 879	5	.90	233	160	10KC	TO	1 1/4	5/8	
TOR 779	5	.90	233	160	10KC	TM	1 5/16	23/32	.173
TOR 828	5	1.1	306	180	22KC	TO	1 1/4	5/8	
TOR 728	5	1.1	306	180	22KC	TM	1 5/16	23/32	.173
TOR 7260	6	15	28*	85	75KC	TM2	7/16	1/4	
TOR 805	7	4.5	57	70	20KC	TO	3/4	3/8	
TOR 705	7	4.5	57	70	20KC	TM	3/4	3/8	.116
TOR 853	7	1.35	102	105	15KC	TO	1	3/8	
TOR 753	7	1.35	102	105	15KC	TM	1 1/16	1/2	.144
TOR 829	7	1.5	260	175	20KC	TO	1 1/4	5/8	
TOR 729	7	1.5	260	175	20KC	TM	1 5/16	23/32	.173
TOR 880	7	1.05	195	155	10KC	TO	1 1/4	5/8	
TOR 780	7	1.05	195	155	10KC	TM	1 5/16	23/32	.173
TOR 7251	8	10.5	30*	60	22KC	TM2	7/16	1/4	
TOR 854	8	2	95	105	15KC	TO	1	3/8	
TOR 754	8	2	95	105	15KC	TM	1 1/16	1/2	.144
TOR 7261	10	26.5	22*	65	90KC	TM2	7/16	1/4	
TOR 943	10	12	30	110	45KC	TO	5/8	9/32	
TOR 7313	10	12	30	110	45KC	TM3	7/8	3/8	.100
TOR 806	10	6.5	48	70	20KC	TO	3/4	3/8	
TOR 706	10	6.5	48	70	20KC	TM	3/4	3/8	.116
TOR 931	10	5	50	85	10KC	TO	5/8	9/32	
TOR 7285	10	5	50	85	10KC	TM3	7/8	3/8	.100
TOR 855	10	2.1	86	110	12KC	TO	1	3/8	
TOR 755	10	2.1	86	110	12KC	TM	1 1/16	1/2	.144
TOR 881	10	1.3	165	155	9KC	TO	1 1/4	5/8	
TOR 781	10	1.3	165	155	9KC	TM	1 5/16	23/32	.173
TOR 830	10	2	217	180	19KC	TO	1 1/4	5/8	
TOR 730	10	2	217	180	19KC	TM	1 5/16	23/32	.173
TOR 904	10	.92	262	220	8KC	TO	1 15/16	7/8	
TOR 7104	10	.92	262	220	8KC	TM	2	1	.173
TOR 7252	12.5	15.5	24*	60	22KC	TM2	7/16	1/4	
TOR 7262	15	40	18.5*	65	90KC	TM2	7/16	1/4	

Molded And Plastic Coated Toroid Inductors

Part No.	Inductance In MH ± 2%	Resistance In Ohms	MADC For 5% Ind. Drop	Typical Q @	Typical Center Frequency	Mtg. Type	Dimensions Diameter	Height	Hole Dia.
TOR 944	15	18	20	110	50KC	TO	5/8	9/32	
TOR 7314	15	18	20	110	50KC	TM3	7/8	3/8	.100
TOR 807	15	10	39	70	18KC	TO	3/4	3/8	
TOR 707	15	10	39	70	18KC	TM	3/4	3/8	.116
TOR 932	15	8	40	85	15KC	TO	5/8	9/32	
TOR 7286	15	8	40	85	15KC	TM3	7/8	3/8	.100
TOR 856	15	3.1	70	130	11KC	TO	1	3/8	
TOR 756	15	3.1	70	130	11KC	TM	1 1/16	1/2	.144
TOR 831	15	2.85	177	160	13KC	TO	1 1/4	5/8*	
TOR 731	15	2.85	177	160	13KC	TM	1 5/16	23/32	.173
TOR 882	15	1.6	134	160	10KC	TO	1 1/4	5/8	
TOR 782	15	1.6	134	160	10KC	TM	1 5/16	23/32	.173
TOR 7253	20	25	20.5*	65	30KC	TM2	7/16	1/4	
TOR 808	20	11	34	70	20KC	TO	3/4	3/8	
TOR 708	20	11	34	70	20KC	TM	3/4	3/8	.116
TOR 857	20	4.25	60	105	13KC	TO	1	3/8	
TOR 757	20	4.25	60	105	13KC	TM	1 1/16	1/2	.144
TOR 832	20	4	153	160	12KC	TO	1 1/4	5/8	
TOR 732	20	4	153	160	12KC	TM	1 5/16	23/32	.173
TOR 883	20	1.85	116	150	9KC	TO	1 1/4	5/8	
TOR 783	20	1.85	116	150	9KC	TM	1 5/16	23/32	.173
TOR 7105	20	1.1	185	200	5KC	TM	2	1	.173
TOR 7263	25	67	15*	65	90KC	TM2	7/16	1/4	
TOR 945	25	30	18	98	40KC	TO	5/8	9/32	
TOR 7315	25	30	18	98	40KC	TM3	7/8	3/4	.100
TOR 809	25	16.5	30	70	20KC	TO	3/4	3/8	
TOR 709	25	16.5	30	70	20KC	TM	3/4	3/8	.116
TOR 958	25	6.5	140	200	15KC	TO	1 1/4	5/8	
TOR 7360	25	6.5	140	200	15KC	TM	1 5/16	23/32	.173
TOR 858	25	4.8	54	100	11KC	TO	1	3/8	
TOR 758	25	4.8	54	100	11KC	TM	1 1/16	1/2	.144
TOR 833	25	4.8	137	140	11KC	TO	1 1/4	5/8	
TOR 733	25	4.8	137	140	11KC	TM	1 5/16	23/32	.173
TOR 955	25	2.8	150	145	8KC	TO	1 1/4	5/8	
TOR 7344	25	2.8	150	145	8KC	TM	1 5/16	23/32	.173
TOR 960	25	1.5	220	200	7KC	TO	1 15/16	7/8	
TOR 7276	25	1.5	220	200	7KC	TM	2	1	.173
TOR 970	25	.85	200	250	4KC	TO	2 7/16	1	
TOR 7403	25	.85	200	250	4KC	TM	2 7/8	1 3/8	.173
TOR 7254	30	40	15*	60	30KC	TM2	7/16	1/4	
TOR 810	30	18	27	70	20KC	TO	3/4	3/8	
TOR 710	30	18	27	70	20KC	TM	3/4	3/8	.116
TOR 933	30	17	30	90	18KC	TO	5/8	9/32	
TOR 7287	30	17	30	90	18KC	TM	7/8	3/8	.100
TOR 859	30	6.7	50	100	11KC	TO	1	3/8	
TOR 759	30	6.7	50	100	11KC	TM	1 1/16	1/2	.144
TOR 834	30	6.5	125	160	18KC	TO	1 1/4	5/8	
TOR 734	30	6.5	125	160	18KC	TM	1 5/16	23/32	.173
TOR 884	30	2.85	95	150	7KC	TO	1 1/4	5/8	
TOR 784	30	2.85	95	150	7KC	TM	1 5/16	23/32	.173
TOR 906	30	1.4	150	200	5KC	TO	1 15/16	7/8	
TOR 7106	30	1.4	150	200	5KC	TM	2	1	.173
TOR 7417	40	110	10*	60	80KC	TM2	7/16	1/4	
TOR 811	40	27	24	70	18KC	TO	3/4	3/8	
TOR 711	40	27	24	70	18KC	TM	3/4	3/8	.116
TOR 860	40	9.5	43	100	15KC	TO	1	3/8	
TOR 760	40	9.5	43	100	15KC	TM	1 1/16	23/32	.144
TOR 835	40	9.2	108	140	10KC	TO	1 1/4	5/8	
TOR 735	40	9.2	108	140	10KC	TM	1 5/16	23/32	.173
TOR 885	40	4.2	82	150	9KC	TO	1 1/4	5/8	
TOR 785	40	4.2	82	150	9KC	TM	1 5/16	23/32	.173
TOR 907	40	1.9	130	200	5KC	TO	1 15/16	7/8	
TOR 7107	40	1.9	130	200	5KC	TM	2	1	.173
TOR 946	50	52	15	90	30KC	TO	5/8	9/32	
TOR 7316	50	52	15	90	30KC	TM3	7/8	3/8	.100
TOR 812	50	30	22	65	19KC	TO	3/4	3/8	
TOR 712	50	30	22	65	18KC	TM	3/4	3/8	.116
TOR 934	50	28	20	90	18KC	TO	5/8	9/32	
TOR 7288	50	28	20	90	18KC	TM3	7/8	3/8	.100
TOR 7418	50#	26.5	25*	90	18KC	TM2	23/32	13/32	
TOR 861	50	11	38	100	11KC	TO	1	3/8	
TOR 761	50	11	38	100	11KC	TM	1 1/16	1/2	.144
TOR 959	50	11	100	160	11KC	TO	1 1/4	5/8	
TOR 7361	50	11	100	160	11KC	TM	1 5/16	23/32	.173
TOR 836	50	10.3	97	140	10KC	TO	1 1/4	5/8	
TOR 736	50	10.3	97	140	10KC	TM	1 5/16	23/32	.173
TOR 886	50	5.5	74	160	10KC	TO	1 1/4	5/8	
TOR 786	50	5.5	74	160	10KC	TM	1 5/16	23/32	.173
TOR 908	50	2.5	116	200	5KC	TO	1 15/16	7/8	
TOR 7108	50	2.5	116	200	5KC	TM	2	1	.173
TOR 971	50	1.5	130	240	4KC	TO	2 7/16	1	
TOR 7404	50	1.5	130	240	4KC	TM	2 7/8	1 3/8	.173
TOR 7255	60	75	11.5*	60	30KC	TM2	7/16	1/4	
TOR 813	60	40	20	65	18KC	TO	3/4	3/8	
TOR 713	60	40	20	65	18KC	TM	3/4	3/8	.116
TOR 837	60	14.5	88	140	10KC	TO	1 1/4	5/8	
TOR 737	60	14.5	88	140	10KC	TM	1 5/16	23/32	.173
TOR 909	60	2.6	106	200	4KC	TO	1 15/16	7/8	
TOR 7109	60	2.6	106	200	4KC	TM	2	1	.173
TOR 814	70	43	18	70	18KC	TO	3/4	3/8	
TOR 714	70	43	18	70	18KC	TM	3/4	3/8	.116
TOR 862	70	16	32	100	15KC	TO	1	3/8	
TOR 762	70	16	32	100	15KC	TM	1 1/16	1/2	.144
TOR 838	70	15	82	120	8KC	TO	1 1/4	5/8	
TOR 738	70	15	82	120	8KC	TM	1 5/16	23/32	.173
TOR 887	70	8.3	62	150	10KC	TO	1 1/4	5/8	
TOR 787	70	8.3	62	150	10KC	TM	1 5/16	23/32	.173
TOR 863	80	23	29	95	7KC	TO	1	3/8	
TOR 763	80	23	29	95	7KC	TM	1 1/16	1/2	.144
TOR 910	80	3.1	92	200	5KC	TO	1 15/16	7/8	
TOR 7110	80	3.1	92	200	5KC	TM	2	1	.173
TOR 947	100	115	30	80	20KC	TO	5/8	9/32	
TOR 7317	100	115	30	80	20KC	TM3	7/8	3/8	.100
TOR 815	100	66	18	70	15KC	TO	3/4	3/8	
TOR 715	100	66	18	70	15KC	TM	3/4	3/8	.116
TOR 7419	100#	50	18*	90	15KC	TM2	23/32	13/32	
TOR 935	100	50	18	85	15KC	TO	5/8	9/32	
TOR 7289	100	50	18	85	15KC	TM3	7/8	3/8	.100
TOR 839	100	24	68	140	7KC	TO	1 1/4	5/8	
TOR 739	100	24	68	140	7KC	TM	1 5/16	23/32	.173
TOR 864	100	23	27	95	8KC	TO	1	3/8	
TOR 764	100	23	27	95	8KC	TM	1 1/16	1/2	.144
TOR 948	100	22	30	120	10KC	TO	1	13/32	
TOR 7334	100	22	30	120	10KC	TM	1 1/16	1/2	.144
TOR 888	100	13	52	150	7KC	TO	1 1/4	5/8	
TOR 788	100	13	52	150	7KC	TM	1 5/16	23/32	.173
TOR 911	100	5	82	190	9KC	TO	1 15/16	7/8	
TOR 7111	100	5	82	190	9KC	TM	2	1	.173
TOR 972	100	2.8	100	220	7KC	TO	2 7/16	1	
TOR 7405	100	2.8	100	220	7KC	TM	2 7/8	1 3/8	.173
TOR 7256	120	160	8*	60	30KC	TM2	7/16	1/4	
TOR 912	120	4.8	75	200	4KC	TO	1 15/16	7/8	
TOR 7112	120	4.8	75	200	4KC	TM	2	1	.173
TOR 816	150	100	12.5	68	15KC	TO	3/4	3/8	
TOR 716	150	100	12.5	68	15KC	TM	3/4	3/8	.116
TOR 865	150	37	22	100	10KC	TO	1	3/8	
TOR 765	150	37	22	100	10KC	TM	1 1/16	1/2	.144
TOR 840	150	35	56	120	9KC	TO	1 1/4	5/8	
TOR 740	150	35	56	120	9KC	TM	1 5/16	23/32	.173
TOR 949	150	34	23	130	10KC	TO	1	1 13/32	
TOR 7335	150	34	23	130	10KC	TM	1 1/16	1/2	.144
TOR 956	150	17	60	150	7KC	TO	1 1/4	5/8	
TOR 7347	150	17	60	150	7KC	TM	1 5/16	23/32	.173
TOR 913	150	6.2	67	180	3KC	TO	1 15/16	7/8	
TOR 7113	150	6.2	67	180	3 KC	TM	2	1	.173
TOR 973	150	4	70	220	3KC	TO	2 7/16	1	
TOR 7406	150	4	70	220	3KC	TM	2 7/8	1 3/8	.173
TOR 817	200	115	11	68	15KC	TO	3/4	3/8	

* Maximum current rating
# Inductance tolerance ± 1%
§ Frequency Response ±3DB 20 to 20,000 Cycles

For Mounting Illustrations, Cross References and Pricing Information See Pages 1518-1530
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Molded And Plastic Coated Toroid Inductors

Part No.	Inductance In MH ± 2%	Resistance In Ohms	MADC For 5% Ind. Drop	Typical Q @	Typical Center Frequency	Mtg. Type	Dimensions Diameter	Dimensions Height	Dimensions Hole Dia.
TOR 717	200	115	11	68	15KC	TM	3/4	3/8	.116
TOR 866	200	42	19	90	8KC	TO	1	3/8	
TOR 766	200	42	19	90	8KC	TM	1 1/16	1/2	.144
TOR 841	200	44	48	100	8KC	TO	1 1/4	5/8	
TOR 741	200	44	48	100	8KC	TM	1 5/16	23/32	.173
TOR 889	200	23	37	150	10KC	TO	1 1/4	5/8	
TOR 789	200	23	37	150	10KC	TM	1 5/16	23/32	.173
TOR 914	200	7.5	58	180	3KC	TO	1 15/16	7/8	
TOR 7114	200	7.5	58	180	3KC	TM	2	1	.173
TOR 818	250	155	9.6	65	15KC	TO	3/4	3/8	
TOR 718	250	155	9.6	65	15KC	TM	3/4	3/8	.116
TOR 7420	250#	135	11*	80	14KC	TM2	23/32	13/32	
TOR 936	250	130	12	85	12KC	TO	5/8	9/32	
TOR 7290	250	130	12	85	12KC	TM3	7/8	3/8	.100
TOR 842	250	64	43	100	7KC	TO	1 1/4	5/8	
TOR 742	250	64	43	100	7KC	TM	1 5/16	23/32	.173
TOR 867	250	60	17	90	7KC	TO	1	3/8	
TOR 767	250	60	17	90	7KC	TM	1 1/16	1/2	.144
TOR 950	250	55	20	120	10KC	TO	1	13/32	
TOR 7336	250	55	20	120	10KC	TM	1 1/16	1/2	.144
TOR 890	250	33	33	140	7KC	TO	1 1/4	5/8	
TOR 790	250	33	33	140	7KC	TM	1 5/16	23/32	.173
TOR 961	250	15	40	190	7KC	TO	1 15/16	7/8	
TOR 7379	250	15	40	190	7KC	TM	2	1	.173
TOR 915	250	10.3	52	180	3KC	TO	1 15/16	7/8	
TOR 7115	250	10.3	52	180	3KC	TM	2	1	.173
TOR 974	250	7	55	220	3KC	TO	2 7/16	1	
TOR 7407	250	7	55	220	3KC	TM	2 7/8	1 3/8	.173
TOR 819	300	180	8.8	62	12KC	TO	3/4	3/8	
TOR 719	300	180	8.8	62	12KC	TM	3/4	3/8	.116
TOR 843	300	72	40	80	6KC	TO	1 1/4	5/8	
TOR 743	300	72	40	80	6KC	TM	1 5/16	23/32	.173
TOR 868	300	70	16	80	7KC	TO	1	3/8	
TOR 768	300	70	16	80	7KC	TM	1 1/16	1/2	.144
TOR 891	300	38	30	120	5KC	TO	1 1/4	5/8	
TOR 791	300	38	30	120	5KC	TM	1 5/16	23/32	.173
TOR 916	300	12	47	200	3KC	TO	1 15/16	7/8	
TOR 7116	300	12	47	200	3KC	TM	2	1	.173
TOR 820	400	265	7.6	60	10KC	TO	3/4	3/8	
TOR 720	400	265	7.6	60	10KC	TM	3/4	3/8	.116
TOR 869	400	95	14	80	7KC	TO	1	3/8	
TOR 769	400	95	14	80	7KC	TM	1 1/16	1/2	.144
TOR 844	400	94	34	80	5KC	TO	1 1/4	5/8	
TOR 744	400	94	34	80	5KC	TM	1 5/16	23/32	.173
TOR 892	400	44	26	120	4KC	TO	1 1/4	5/8	
TOR 792	400	44	26	120	4KC	TM	1 5/16	23/32	.173
TOR 917	400	14.5	41	180	3KC	TO	1 5/16	7/8	
TOR 7117	400	14.5	41	180	3KC	TM	2	1	.173
TOR 821	500	295	7	60	12KC	TO	3/4	3/8	
TOR 721	500	295	7	60	12KC	TM	3/4	3/8	.116
TOR 937	500	290	8	80	12KC	TO	5/8	9/32	
TOR 7291	500	290	8	80	12KC	TM3	7/8	3/8	.100
TOR 7421	500#	250	8*	80	12KC	TM2	23/32	13/32	
TOR 870	500	115	12	80	7KC	TO	1	3/8	
TOR 770	500	115	12	80	7KC	TM	1 1/16	1/2	.144
TOR 845	500	108	31	80	5KC	TO	1 1/4	5/8	
TOR 745	500	108	31	80	5KC	TM	1 5/16	23/32	.173
TOR 951	500	95	15	100	7KC	TO	1	13/32	
TOR 7337	500	95	15	100	7KC	TM	1 1/16	1/2	.144
TOR 893	500	63.5	23	120	4KC	TO	1 1/4	5/8	
TOR 793	500	63.5	23	120	4KC	TM	1 5/16	23/32	.173
TOR 918	500	19	37	180	3KC	TO	1 15/16	7/8	
TOR 7118	500	19	37	180	3KC	TM	2	1	.173
TOR 975	500	15	38	200	2KC	TO	2 7/16	1	
TOR 7408	500	15	38	200	2KC	TM	2 7/8	1 3/8	.173
TOR 871	600	150	11	70	6KC	TO	1	3/8	
TOR 771	600	150	11	70	6KC	TM	1 1/16	1/2	.144
TOR 894	600	71	21	120	4KC	TO	1 1/4	5/8	
TOR 794	600	71	21	120	4KC	TM	1 5/16	23/32	.173
TOR 922	700	440	5.8	60	11KC	TO	3/4	3/8	
TOR 722	700	440	5.8	60	11KC	TM	3/4	3/8	.116
TOR 846	700	173	26	60	3KC	TO	1 1/4	5/8	
TOR 746	700	173	26	60	3KC	TM	1 5/16	23/32	.173
TOR 872	700	160	10	80	7KC	TO	1	3/8	
TOR 772	700	160	10	80	7KC	TM	1 1/16	1/2	.144
TOR 895	700	80	19.5	120	5KC	TO	1 1/4	5/8	
TOR 795	700	80	19.5	120	5KC	TM	1 5/16	23/32	.173
TOR 919	700	30	31	180	2.5KC	TO	1 15/16	7/8	
TOR 7119	700	30	31	180	2.5KC	TM	2	1	.173
TOR 7422	750#	350	7*	60	10KC	TM2	23/32	13/32	
TOR 873	800	300	9	60	5KC	TO	1	3/8	
TOR 773	800	300	9	60	5KC	TM	1 1/16	1/2	.144
TOR 823	1,000	650	4.8	55	10KC	TO	3/4	3/8	
TOR 723	1,000	650	4.8	55	10KC	TM	3/4	3/8	.116
TOR 938	1,000	530	5.5	60	7KC	TO	5/8	9/32	
TOR 7292	1,000	530	5.5	60	7KC	TM3	7/8	3/8	.100
TOR 7423	1,000#	500	6*	60	10KC	TM2	23/32	13/32	
TOR 874	1,000	260	8.6	60	5KC	TO	1	3/8	
TOR 774	1,000	260	8.6	60	5KC	TM	1 1/16	1/2	.144
TOR 847	1,000	230	22	50	3KC	TO	1 1/4	5/8	
TOR 747	1,000	230	22	50	3KC	TM	1 5/16	23/32	.173
TOR 952	1,000	210	25	80	5KC	TO	1	13/32	
TOR 7338	1,000	210	25	80	5KC	TM	1 1/16	1/2	.144
TOR 896	1,000	128	16.5	80	3KC	TO	1 1/4	5/8	
TOR 796	1,000	128	16.5	80	3KC	TM	1 5/16	23/32	.173
TOR 962	1,000	60	20	160	3KC	TO	1 15/16	7/8	
TOR 7381	1,000	60	20	160	3KC	TM	2	1	.173
TOR 920	1,000	45	26	160	2.5KC	TO	1 15/16	7/8	
TOR 7120	1,000	45	26	160	2.5KC	TM	2	1	.173
TOR 976	1,000	27	50	200	2KC	TO	2 7/16	1	
Tor 7409	1,000	27	50	200	2KC	TM	2 7/8	1 3/8	.173
TOR 7424	1,200#	560	5*	60	10KC	TM2	23/32	13/32	
TOR 7293	1,500	825	3	60	7KC	TM3	7/8	3/8	.100
TOR 953	1,500	335	6	80	5KC	TO	1	13/32	
TOR 7339	1,500	335	6	80	5KC	TM	1 1/16	1/2	.144
TOR 897	1,500	200	13.5	80	2.5KC	TO	1 1/4	5/8	
TOR 797	1,500	200	13.5	80	2.5KC	TM	1 5/16	23/32	.173
TOR 963	1,500	90	30	140	2.5KC	TO	1 15/16	7/8	
TOR 7382	1,500	90	30	140	2.5KC	TM	2	1	.173
TOR 977	1,500	40	33	200	3KC	TO	2 7/16	1	
TOR 7410	1,500	40	33	200	3KC	TM	2 7/8	1 3/8	.173
TOR 7425	2,000#	875	4#	55	8KC	TM2	23/32	13/32	
TOR 898	2,000	220	11.6	80	2KC	TO	1 1/4	5/8	
TOR 798	2,000	220	11.6	80	2KC	TM	1 5/16	23/32	.173
TOR 921	2,000	100	18.4	160	2KC	TO	1 15/16	7/8	
TOR 7121	2,000	100	18.4	160	2KC	TM	2	1	.173
TOR 954	2,500	550	5	80	5KC	TO	1	13/32	
TOR 7340	2,500	550	5	80	5KC	TM	1 1/16	1/2	.144
TOR 957	2,500	275	10	85	3KC	TO	1 1/4	5/8	
TOR 7352	2,500	275	10	85	3KC	TM	1 5/16	23/32	.173
TOR 964	2,500	150	15	140	2.5KC	TO	1 15/16	7/8	
TOR 7383	2,500	150	15	140	2.5KC	TM	2	1	.173
TOR 978	2,500	70	18	200	3KC	TO	2 7/16	1	
TOR 7411	2,500	70	18	200	3KC	TM	2 7/8	1 3/8	.173
TOR 7426	3,000#	1,350	3.6*	50	7KC	TM2	23/32	13/32	
TOR 899	3,000	370	9.5	80	2.5KC	TO	1 1/4	5/8	
TOR 799	3,000	370	9.5	80	2.5KC	TM	1 5/16	23/32	.173
TOR 922	3,000	116	15	160	2KC	TO	1 15/16	7/8	
TOR 7122	3,000	116	15	160	2KC	TM	2	1	.173
TOR 900	4,000	435	8.2	60	2.5KC	TO	1 1/4	5/8	
TOR 7100	4,000	435	8.2	60	2.5KC	TM	1 5/16	23/32	.173
TOR 923	4,000	175	13	140	3KC	TO	1 15/16	7/8	
TOR 7123	4,000	175	13	140	3KC	TM	2	1	.173
TOR 7427	5,000#	2,400	3*	50	5KC	TM2	23/32	13/32	
TOR 901	5,000	645	7.4	60	2.5KC	TO	1 1/4	5/8	
TOR 7101	5,000	645	7.4	60	2.5KC	TM	1 5/16	23/32	.173
TOR 965	5,000	350	8	120	2KC	TO	1 15/16	7/8	
TOR 7384	5,000	350	8	120	2KC	TM	2	1	.173
TOR 924	5,000	200	11.6	140	2KC	TO	1 15/16	7/8	
TOR 7124	5,000	200	11.6	140	2KC	TM	2	1	.173

Molded And Plastic Coated Toroid Inductors

Part No.	Inductance In MH ± 2%	Resistance In Ohms	MADC For 5% Ind. Drop	Typical Q @	Typical Center Frequency	Mtg. Type	Dimensions Diameter	Dimensions Height	Dimensions Hole Dia.
TOR 979	5,000	140	15	140	1.5KC	TO	2 7/16	1	
TOR 7412	5,000	140	15	140	1.5KC	TM	2 7/8	1 3/8	.173
TOR 902	7,000	780	6.2	60	2.8KC	TO	1 1/4	5/8	
TOR 7102	7,000	780	6.2	60	2.8KC	TM	1 5/16	23/32	.173
TOR 925	7,000	310	10	140	2KC	TO	1 15/16	7/8	
TOR 7125	7,000	310	10	140	2KC	TM	2	1	.173
TOR 966	7,500	525	8	110	1.8KC	TO	1 15/16	7/8	
TOR 7385	7,500	525	8	110	1.8KC	TM	2	1	.173
TOR 903	10,000	1,100	5.2	70	1.8KC	TO	1 1/4	5/8	
TOR 7103	10,000	1,100	5.2	70	1.8KC	TM	1 5/16	23/32	.173
TOR 967	10,000	600	6	90	1.5KC	TO	1 15/16	7/8	
TOR 7386	10,000	600	6	90	1.5KC	TM	2	1	.173
TOR 926	10,000	350	8.2	70	1KC	TO	1 15/16	7/8	
TOR 7126	10,000	350	8.2	70	1KC	TM	2	1	.173
TOR 980	10,000	270	9	100	1KC	TO	2 7/16	1	
TOR 7413	10,000	270	9	100	1KC	TM	2 7/8	1 3/8	.173
TOR 968	15,000	900	5	80	1KC	TO	1 15/16	7/8	
TOR 7387	15,000	900	5	80	1KC	TM	2	1	.173
TOR 981	15,000	430	7	90	.7KC	TO	2 7/16	1	
TOR 7414	15,000	430	7	90	.7KC	TM	2 7/8	1 3/8	.173
TOR 927	20,000	950	5.8	60	1KC	TO	1 15/16	7/8	
TOR 7127	20,000	950	5.8	60	1KC	TM	2	1	.173
TOR 969	25,000	1,500	4	70	.8KC	TO	1 13/16	7/8	
TOR 7388	25,000	1,500	4	70	.8KC	TM	2	1	.173
TOR 982	25,000	850	6	80	.8KC	TO	2 7/16	1	
TOR 7415	25,000	850	6	80	.8KC	TM	2 7/8	1 3/8	.173
TOR 928	30,000	1,250	4.7	60	.9KC	TO	1 15/16	7/8	
TOR 7128	30,000	1,250	4.7	60	.9KC	TM	2	1	.173
TOR 929	40,000	2,000	4.1	40	.6KC	TO	1 15/16	7/8	
TOR 7129	40,000	2,000	4.1	40	.6KC	TM	2	1	.173
TOR 983	50,000	1,500	3	65	.5KC	TO	2 7/16	1	
TOR 7416	50,000	1,500	3	65	.5KC	TM	2 7/8	1 3/8	.173

Encased Shielded Toroid Inductors

These high grade toroid wound coils have been designed and built to meet MIL-T-27B, TF4RX20YY specifications. They have excellent stability over a wide temperature and voltage range....low hum pickup....high Q....plus or minus 1% inductance tolerance.

Part No.	Inductance In MH ± 1%	Resistance In Ohms ±20	MADC For 5% Inductance Drop	Typical Q @	Typical Center Frequency	Case Size
TOR 7294	1	1.4	110	120	60KC	TH1
TOR 7302	1	1.4	110	120	60KC	TH9
TOR 7239	1	.76	820*	180	50KC	TH5
TOR 7230	1	.25	1,350*	260	25KC	TH2
TOR 7295	2	2.5	95	120	75KC	TH1
TOR 7303	2	2.5	95	120	75KC	TH9
TOR 7240	2	1.6	585*	180	50KC	TH5
TOR 7357	2	.56	368	160	20KC	TH6
TOR 7231	2.5	.5	850*	260	25KC	TH2
TOR 7241	3	2.4	475*	180	50KC	TH5
TOR 7328	3	.73	157	110	18KC	TH4
TOR 7238	4	.7	160*	140	10KC	TH3
TOR 7296	5	6	40	110	50KC	TH1
TOR 7304	5	6	40	110	50KC	TH9
TOR 7242	5	4.1	360*	150	50KC	TH5
TOR 7264	5	2.4	80	90	18KC	TH1
TOR 7274	5	2.4	80	90	18KC	TH9
TOR 7145	5	1.3	150*	120	10KC	TH3
TOR 7232	5	1.25	600*	260	25KC	TH2
TOR 7329	5	1.1	121	110	15KC	TH4
TOR 7358	5	1.1	306	180	22KC	TH6
TOR 7341	5	.9	233	160	10KC	TH6
TOR 7212	5	.51	400*	130	4KC	TH2
TOR 7243	7	5.2	300*	170	40KC	TH5
TOR 7130	7	1.2	100*	140	9KC	TH3
TOR 7174	7	.61	255*	160	7KC	TH5
TOR 7193	7CT	.7	255*	160	7KC	TH5
TOR 7297	10	12	30	110	45KC	TH1
TOR 7305	10	12	30	110	45KC	TH9
TOR 7265	10	5	50	85	18KC	TH1
TOR 7275	10	5	50	85	18KC	TH9
TOR 7233	10	3.1	425*	260	25KC	TH2
TOR 7146	10	2.5	111*	115	10KC	TH3
TOR 7330	10	2.1	86	130	12KC	TH4
TOR 7359	10	2	217	180	19KC	TH4
TOR 7243	10	1.3	165	155	9KC	TH4
TOR 7162	10	.31	400*	240	5KC	TH1
TOR 7150	10	.31	415*	210	3KC	TH7
TOR 7244	12	6.7	245*	180	40KC	TH5
TOR 7131	12	2.1	100*	130	7KC	TH3
TOR 7194	12CT	1.31	205*	160	7KC	TH5
TOR 7175	12	1.21	205*	160	7KC	TH5
TOR 7213	12.5	.95	262*	140	4KC	TH2
TOR 7298	15	18	20	110	50KC	TH1
TOR 7306	15	18	20	110	50KC	TH9
TOR 7266	15	8	40	85	15KC	TH1
TOR 7276	15	8	40	85	15KC	TH9
TOR 7331	15	3.1	70	130	11KC	TH5
TOR 7343	15	1.6	134	160	10KC	TH3
TOR 7245	20	12	180*	170	40KC	TH5
TOR 7234	20	4.9	302*	250	25KC	TH2
TOR 7132	20	3	80*	125	10KC	TH4
TOR 7195	20CT	2	150*	120	4KC	TH2
TOR 7176	20	1.8	150*	120	4KC	TH3
TOR 7214	20	1.7	205*	140	4KC	TH5
TOR 7299	25	30	18	98	40KC	TH1
TOR 7307	25	30	18	98	40KC	TH9
TOR 7355	25	6.5	140	200	15KC	TH5
TOR 7332	25	4.8	54	100	11KC	TH3
TOR 7325	25	2.8	150	145	8KC	TH4
TOR 7366	25	1.5	220	200	7KC	TH5
TOR 7389	25	.85	200	250	4KC	TH2
TOR 7267	30	17	30	90	18KC	TH1
TOR 7277	30	17	30	90	18KC	TH9
TOR 7246	30	17	150*	150	40KC	TH5
TOR 7133	30	4.9	63*	130	10KC	TH3
TOR 7196	30CT	3	125*	160	8KC	TH4
TOR 7177	30	2.6	120*	160	8KC	TH4
TOR 7215	30	2.4	165*	130	4KC	TH2
TOR 7151	30	.95	240*	210	3KC	TH2
TOR 7163	30	.91	255*	240	4KC	TH2
TOR 7300	50	52	15	90	30KC	TH1
TOR 7308	50	52	15	90	30KC	TH9
TOR 7268	50	28	20	90	18KC	TH1
TOR 7278	50	28	20	90	18KC	TH9
TOR 7147	50	14.5	51*	120	10KC	TH3
TOR 7333	50	11	98	100	11KC	TH4
TOR 7336	50	11	100	160	11KC	TH6
TOR 7134	50	8.1	50*	140	9KC	TH3
TOR 7345	50	5.5	7.4	160	10KC	TH3
TOR 7197	50CT	5	100*	160	9KC	TH3
TOR 7178	50	4	100*	160	9KC	TH3
TOR 7216	50	3.5	130*	140	4KC	TH2
TOR 7377	50	2.5	116	200	5KC	TH2
TOR 7390	50	1.5	130	240	4KC	TH2
TOR 7135	70	12.5	40*	140	10KC	TH3
TOR 7198	70CT	7	81*	160	5KC	TH2
TOR 7179	70	6	81*	160	5KC	TH2
TOR 7164	70	2.3	175*	240	4KC	TH2
TOR 7152	70	2.3	175*	210	3KC	TH2
TOR 7217	80	6	101*	130	4KC	TH2

* Maximum current rating
\# Inductance tolerance ± 1%

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For Mounting Illustrations, Cross References and Pricing Information See Pages 1518-1530

Encased Shielded Toroid Inductors

Part No.	Inductance In MH ±1%	Resistance In Ohms ± 20	MADC For 5% Inductance Drop	Typical Q @	Typical Center Frequency	Case Size
TOR 7301	100	115	30	80	20KC	TH1
TOR 7309	100	115	30	80	20KC	TH9
TOR 7269	100	50	18	85	15KC	TH1
TOR 7279	100	50	18	85	15KC	TH9
TOR 7148	100	25	35*	115	10KC	TH3
TOR 7362	100	24	68	140	7KC	TH6
TOR 7318	100	22	30	120	10KC	TH4
TOR 7136	100	18	36*	140	7KC	TH3
TOR 7346	100	13	52	150	7KC	TH6
TOR 7378	100	5	82	190	9KC	TH11
TOR 7391	100	2.8	100	220	7KC	TH10
TOR 7199	120CT	12	61*	160	5KC	TH5
TOR 7180	120	10	61*	160	5KC	TH5
TOR 7165	120	3.7	125*	240	4KC	TH12
TOR 7153	120	3.7	125*	210	3KC	TH7
TOR 7218	125	9.2	86*	130	4KC	TH2
TOR 7319	150	34	23	130	10KC	TH4
TOR 7137	150	28	30*	140	10KC	TH3
TOR 7326	150	17	60	150	7KC	TH6
TOR 7392	150	4	70	220	3KC	TH10
TOR 7149	200	52	26*	115	9KC	TH3
TOR 7200	200CT	21	51*	160	5KC	TH5
TOR 7181	200	16	51*	160	5KC	TH5
TOR 7219	200	14.5	66*	130	3.75KC	TH2
TOR 7270	250	130	12	85	12KC	TH1
TOR 7280	250	130	12	85	12KC	TH9
TOR 7363	256	64	43	100	7KC	TH6
TOR 7320	250	55	20	120	10KC	TH4
TOR 7138	250	42	23*	120	5KC	TH3
TOR 7348	250	33	33	140	7KC	TH6
TOR 7367	250	15	40	190	7KC	TH11
TOR 7393	250	7	55	220	3KC	TH10
TOR 7201	300CT	31	41*	160	5KC	TH5
TOR 7182	300	26	41*	160	5KC	TH5
TOR 7220	300	25.5	51*	130	4KC	TH2
TOR 7139	400	70	18*	120	5KC	TH3
TOR 7271	500	290	8	80	12KC	TH1
TOR 7281	500	290	8	80	12KC	TH9
TOR 7364	500	108	31	80	5KC	TH6
TOR 7321	500	95	15	100	7KC	TH4
TOR 7349	500	63.5	23	120	4KC	TH6
TOR 7202	500CT	50	30*	130	4KC	TH5
TOR 7183	500	40	30*	130	4KC	TH5
TOR 7221	500	38	41*	130	4KC	TH2
TOR 7380	500	19	37	180	3KC	TH11
TOR 7166	500	16	61*	240	4KC	TH12
TOR 7154	500	15	61*	210	3KC	TH7
TOR 7394	500	15	38	200	2KC	TH10
TOR 7140	600	103	15*	110	5KC	TH3
TOR 7203	700CT	75	25*	130	4KC	TH5
TOR 7184	700	60	25*	155	5KC	TH5
TOR 7222	750	55	37*	160	4KC	TH2
TOR 7141	900	165	12*	110	5KC	TH3
TOR 7272	1,000	530	5.5	60	7KC	TH1
TOR 7282	1,000	530	5.5	60	7KC	TH9
TOR 7365	1,000	230	22	50	3KC	TH6
TOR 7322	1,000	210	25	80	5KC	TH4
TOR 7350	1,000	128	16.5	80	3KC	TH6
TOR 7204	1,000CT	105	20*	130	4KC	TH5
TOR 7185	1,000	85	20*	120	4KC	TH5
TOR 7368	1,000	60	20	160	2KC	TH11
TOR 7395	1,000	27	50	200	2KC	TH10
TOR 7167	1,000	27	41*	180	2KC	TH12
TOR 7155	1,000	26	41*	210	3KC	TH7
TOR 7223	1,250	95	27*	130	4KC	TH2
TOR 7273	1,500	825	3	60	7KC	TH1
TOR 7283	1,500	825	3	60	7KC	TH9
TOR 7323	1,500	335	6	80	5KC	TH4
TOR 7142	1,500	265	10*	110	5KC	TH3
TOR 7351	1,500	200	13.5	80	2.5KC	TH6
TOR 7205	1,500CT	160	18*	110	4KC	TH5
TOR 7186	1,500	135	18*	120	3KC	TH5
TOR 7369	1,500	90	30	140	2.5KC	TH11
TOR 7396	1,500	40	33	200	3KC	TH10
TOR 7143	2,000	380	9*	110	5KC	TH3
TOR 7224	2,000	155	19*	120	4KC	TH2
TOR 7168	2,000	65	30*	180	2.5KC	TH12
TOR 7156	2,000	60	30*	210	3KC	TH7
TOR 7324	2,500	550	5	80	5KC	TH4
TOR 7327	2,500	275	10	85	3KC	TH6
TOR 7206	2,500CT	270	14*	125	4KC	TH5
TOR 7187	2,500	220	14*	120	4KC	TH5
TOR 7370	2,500	150	15	140	2.5KC	TH11
TOR 7397	2,500	70	18	200	3KC	TH10
TOR 7144	2,800	550	8*	110	5KC	TH3
TOR 7225	3,000	255	15*	130	4KC	TH2
TOR 7169	3,500	105	22*	180	2KC	TH12
TOR 7157	3,500	104	22*	210	3KC	TH7
TOR 7247	4,000	855	5.1*	110	5KC	TH3
TOR 7207	4,000CT	430	10*	130	4KC	TH5
TOR 7188	4,000	330	10	120	3KC	TH5
TOR 7353	5,000	645	7.4	60	2.5KC	TH6
TOR 7226	5,000	400	14	130	4KC	TH2
TOR 7371	5,000	350	8	120	2KC	TH11
TOR 7398	5,000	140	15	140	1.5KC	TH10
TOR 7208	6,000CT	650	9.5*	130	4KC	TH5
TOR 7189	6,000	505	9.5*	130	4KC	TH5
TOR 7227	7,500	620	10*	140	4KC	TH2
TOR 7372	7,500	525	8	110	1.8KC	TH11
TOR 7170	7,500	235	16*	180	2.5KC	TH12
TOR 7158	7,500	225	16*	210	3KC	TH7
TOR 7354	10,000	1,100	5.2	70	1.8KC	TH6
TOR 7209	10,000CT	1,050	7.2*	130	4KC	TH5
TOR 7190	10,000	850	7.2*	120	3KC	TH5
TOR 7228	10,000	750	8.5*	140	4KC	TH2
TOR 7373	10,000	600	5	90	1.5KC	TH11
TOR 7399	10,000	270	9	100	1KC	TH10
TOR 7171	12,000	380	11.5*	180	2.5KC	TH12
TOR 7159	12,000	360	11.5*	210	3KC	TH7
TOR 7210	15,000CT	1,750	5.1*	130	4KC	TH5
TOR 7191	15,000	1,345	5.1*	120	3KC	TH5
TOR 7229	15,000	1,120	8.2*	140	4KC	TH2
TOR 7374	15,000	900	5	80	1KC	TH11
TOR 7400	15,000	430	7	90	.7KC	TH10
TOR 7160	18,000	480	9.5*	210	3KC	TH7
TOR 7172	18,000	470	9.5*	180	2.5KC	TH12
TOR 7211	22,000CT	2,500	4*	120	4KC	TH5
TOR 7192	22,000	2,000	4*	118	3KC	TH5
TOR 7375	25,000	1,500	4	70	.8KC	TH11
TOR 7401	25,000	850	6	80	.8KC	TH10
TOR 7161	25,000	685	8*	210	3KC	TH7
TOR 7173	25,000	675	8*	180	2KC	TH12
TOR 7248	35,000CT	4,000	3*	130	4KC	TH5
TOR 7235	35,000	3,250	3*	120	3KC	TH5
TOR 7236	40,000	1,050	6*	180	2.5KC	TH12
TOR 7402	50,000	1,500	3	65	.5KC	TH10
TOR 7237	60,000	1,690	4*	180	2.5KC	TH12

* Maximum current rating

Chokes

IN ORDER OF MADC

Part No.	Inductance Henrys	Inductance MADC	DC Res. In Ohms	Test Volts RMS	✱ Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
26C40	1.5	10	95	2,500	BAH	1 3/4	1 1/4	2 1/8	1 1/8	.5
20C157	10	10	700	1,000	BAH	1 3/8	3/4	1 5/8	13/16	.05
20C112	40	10	1,200	3,000	CHV	1 1/4 x 1 3/16	2 1/4	1 7/8	1 1/4	.75
25C38	.8*	15	135	500	TTV-1	2	1 3/4	2 3/8	1 1/2	.5
20C102	2	15	70	1,500	BAH	1 3/4	1 3/16	2 3/16	1 1/4	.4
25C39	2.4*	15	280	500	TTV-1	2	1 3/4	2 3/8	1 1/2	.5
20C43	20	15	900	2,500	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.75
20C51	35	15	1,850	2,500	BAH	2	1 3/8	2 3/8	1 1/4	.5
20C04	50	15	3,500	1,500	BAH	2	1 3/8	2 3/8	1 1/2	.5
25C63	250	15	5,000	1,750	NTV	2 3/32 x 2 3/32	3 1/4	2 9/16	2 9/16	2.5
20C05	15	26	1,000	1,000	BAH	1 3/4	1 3/16	2 1/16	1 1/4	.21
20C36	15	30	630	2,500	BAH	2 3/8	1 11/16	2 7/8	1 1/2	.75
25C81	30	30	800	1,500	KTH-B	2 7/8 x 2 3/8	2 5/16	3 3/8	1 15/16	1.5
20C159	22	35	405	1,600	FGV	2 3/8	2 3/8	2 3/4	2 1/8	1.5
20C44	30	35	700	2,500	BAH	2 13/16	2	3 1/4	1 3/4	1.0
20C113	1	40	170	500	BAH	2	1 3/8	2 3/8	1 1/4	.5
20C114	4	40	219	500	BAV	2 1/8	2	2 5/8	1 5/8	.75
20C35	8	40	250	1,500	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.75
20C52	8	40	450	2,500	BAH	2	1 3/8	2 3/8	1 1/4	.5
20C45	12	40	400	2,500	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.75
20C46	15	40	400	2,500	BAH	2 13/16	2	3 1/4	1 3/4	1.0
25C25	15	40	475	2,500	TAV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16	1.5
25C49	15	40	475	2,500	TTV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16	1.5
20C37	20	40	850	1,500	BAH	2 13/16	2	3 5/16	1 5/8	1
20C116	3.5	50	200	1,500	BAH	2	1 3/8	2 3/8	1 1/4	.5
20C82	3.5	50	200	2,500	BHH	2 3/8	1 5/8	2 7/8	1 1/2	.75
26C42	4.5	50	200	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	.8
20C47	4.5	50	300	2,500	BAH	2	1 3/8	2 3/8	1 3/8	.5
20C83	6	50	300	2,500	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.75
20C84	7	50	550	2,500	BAH	2	1 3/8	2 3/8	1 3/8	.5
20C117	8.5	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	.8
20C81	8.5	50	400	2,500	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.75
20C66	9	50	500	2,500	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.75
26C87	16	50	580	2,500	BAH	2 13/16	2	3 1/4	2 1/8	1.2
25C64	75	50	2,200	1,750	NTV	2 3/32 x 2 3/32	3 1/4	2 9/16	2 9/16	2.5
20C59	7	55	200	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	.75
25C26	10	55	230	2,500	TAV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16	1.75
25C50	10	55	230	2,500	TTV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16	1.75
25C27	15	55	420	2,500	TAV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16	2
25C51	15	55	420	2,500	TTV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16	2
20C103	5	60	260	2,000	BAH	2 3/8	1 5/8	2 13/16	1 3/4	.6
25C82	12	60	250	1,500	KTH	2 7/8 x 2 3/8	2 5/16	3 3/8	1 15/16	1.5
20C85	13	65	500	2,500	BAH	2 13/16	2	3 1/4	1 3/4	1.2
26C84	9	70	270	2,500	BGH	2 13/16	2	3 1/4	2 1/8	1.5
26C82	3.2	75	120	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	.75
20C65	6	75	200	2,500	BAV	2 3/8	2 3/8	2 7/8	2	1
20C166	8	75	290	1,500	CHL	1 3/16 x 1 1/2	2 1/16	2 5/16	1 3/4	1.0
20C120	10	75	250	2,000	BAH	2 13/16	2	3 1/16	1 3/4	.8
26C86	15	75	400	2,500	BAH	3 1/8	2 1/4	3 3/4	2 5/8	1.5
25C83	25	75	350	1,500	KTH	3 5/8 x 3 1/8	2 15/16	4 1/8	2 5/16	3
20C48	8	80	250	2,500	BAH	2 13/16	2	3 1/4	2 1/8	1.5
20C58	12	80	375	2,500	BAH	2 13/16	2	3 1/4	2 1/8	1.5
20C71	16	80	360	2,500	GGV	2 x 1 11/16	3 3/16	2 5/8	2 5/8	2.5
20C86	20	80	350	2,500	BAH	3 1/8	2 1/4	3 3/4	2 1/4	1.5
20C87	8	85	250	2,500	BAH	3 1/8	2 1/4	3 3/4	2 1/4	1.5
25C28	10	85	175	2,500	TAV	1 3/4 x 2 11/16	3 5/16	3	2 1/2	2.5
25C52	10	85	175	2,500	TTV	1 3/4 x 2 11/16	3 5/16	3	2 1/2	2.5
25C29	15	85	285	2,500	TAV	1 3/4 x 2 11/16	3 5/16	3	2 1/2	2.75
25C53	15	85	285	2,500	TTV	1 3/4 x 2 11/16	3 5/16	3	2 1/2	2.75
20C07	4	90	100	1,500	BAH	2 13/16	2	3 5/16	1 3/4	1
20C06	10	90	270	1,000	BAH	2 13/16	2	3 5/16	2	1.3
20C62	.2 to 1.5	100	95	2,700	BAH	2 13/16	2	3 1/4	2	1.25
20C123	2	100	100	500	BAH	2	1 3/8	2 3/8	1 1/4	.5
20C88	5	100	300	3,000	BAH	2 13/16	2	3 1/4	1 3/4	1.2
20C67	5	100	300	2,500	TAV	2 3/8 x 1 1/2	2 3/4	2 1/4	2 11/16	1.5
20C38	14	100	450	1,500	BAH	3 1/8	2 5/16	3 3/4	1 5/8	1.5
25C84	20	100	350	1,500	KTH	3 5/8 x 3 1/8	2 15/16	4 1/8	2 5/16	3
25C62	30	100	400	1,750	NTV	2 3/8 x 2 3/8	3 3/4	3	3	3.5
25C30	8	105	100	2,500	TAV	2 x 3 1/8	3 1/2	2 7/8	3 1/2	3.75
25C54	8	105	100	2,500	TTV	2 x 3 1/8	3 1/2	2 7/8	3 1/2	3.75
25C31	12	105	170	2,500	TAV	2 x 3 1/8	3 1/2	2 7/8	3 1/2	4
25C55	12	105	170	2,500	TTV	2 x 3 1/8	3 1/2	2 7/8	3 1/2	4
20C08	6	110	160	1,500	BAH	3 1/8	2 5/16	3 3/4	2	1.5
26C85	10.5	110	225	3,000	BAH	3 9/16	2 5/8	3 1/2	4	1.75
20C89	12	110	250	2,500	GGV	2 x 1 11/16	3 1/8	3	2 5/8	2.5
20C90	8	120	350	2,500	BAH	3 5/8	2 5/8	4	2 1/8	1.5
26C83	7	125	300	2,500	BAH	2 13/16	2	3 1/4	2 1/8	1.5
20C09	9	125	250	1,000	BAH	3 1/8	2 5/16	3 3/4	2	1.5
26C88	2.5	130	100	2,500	BAH	2 13/16	2	3 1/4 *	1 3/4	1.2
20C64	4	130	100	2,500	BAH	3 1/8	2 1/4	3 3/4	2 5/8	1.5
20C91	8	130	110	2,500	GGV	2 x 1 15/16	3 p/8	3	2 3/4	2.5
20C124	10	130	125	2,700	GGV	2 1/4 x 2	3 1/2	2 13/16	3 1/8	2.8
20C162	1.5	150	67	750	BAH	2 3/8	1 5/8	2 13/16	2	.5
26C89	2.3	150	60	2,500	BAH	2 13/16	2	3 1/4	1 3/4	1
20C68	7	150	200	2,500	BAH	3 9/16	2 5/8	4	2 1/4	2.2
25C92	7	150	170	1,500	TAV	1 3/4 x 2 11/16	3	3 1/2	3	2.3
20C92	7.5	150	160	2,500	GGV	2 x 1 15/16	3 1/8	3	2 3/4	2.3
20C54	8	150	145	2,700	GGV	2 x 1 3/4	3 1/8	2 5/8	2 5/8	2.2
20C54P	8	150	145	2,700	WAV	2 3/4 x 2 3/8	4 3/8	3	3 3/8	3
25C32	8	150	100	2,500	TAV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5.25
25C56	8	150	100	2,500	TTV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5.25
25C65	12	150	110	2,500	NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5
25C33	12	150	150	2,500	TAV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5.5
25C57	12	150	150	2,500	TTV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5.5
25C75	10	160	246	2,700	WTV	3 1/8 x 3 5/8	4 3/16	3 1/4	2 7/8	8.5
20C12	3	160	75	1,500	BAH	3 1/8	2 5/16	3 3/4	2 1/8	1.75
20C11	6	160	165	1,500	BAH	3 1/8	2 5/16	3 3/4	2 1/8	1.75
20C10	6	160	165	1,500	GGV	1 3/4 x 1 3/4	2 25/32	2 11/32	2 1/2	2
20C93	4	175	100	3,000	GGV	2 x 1 11/16	3 1/8	3	2 5/8	2.5
25C85	6	175	90	1,500	KTH	3 1/8 x 3 5/8	2 15/16	4 1/8	2 5/16	3
20C125	.1	200	21	500	BAH	1 3/4	1 3/16	2 1/8	1	.3
20C126	.63	200	42	500	BAH	2	1 3/8	2 3/8	1 1/4	.5
26C41	1.5	200	90	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	.75
26C43	2	200	50	2,500	BAH	2 13/16	2	3 1/8	1 5/8	1
26C94	2	200	60	2,500	BAH	3 1/8	2 1/4	3 3/8	2 1/4	1.5
20C49	4.5	200	58	2,500	BAH	3 5/8	2 5/8	4	2 1/8	2.5
20C94	4.5	200	80	3,000	GGV	2 1/4 x 2	3 5/8	3	3 1/8	3.5
20C105	5	200	90	5,000	GGV	2 1/2 x 2 3/16	4	3 1/4	3 3/8	4.5
20C55	6	200	75	2,500	GGV	2 x 2 1/4	3 1/8	2 7/8	3 1/4	3.5
20C55P	6	200	75	2,500	WAV	3 1/8 x 3 5/8	4 7/8	4 1/4	3 3/4	5
20C14	6	200	150	1,500	BAH	3 9/16	2 5/8	4	2 1/4	2.3
20C13	6	200	150	1,500	GGV	2 x 1 7/8	3 3/32	2 21/32	2 5/8	2.5
20C95	8	200	125	3,000	GGV	2 1/4 x 2	3 5/8	3	3 1/8	3.5
25C34	8	200	85	2,500	TAV	3 7/8 x 2 3/4	4 1/4	3 5/8	4 7/16	7
25C58	8	200	85	2,500	TTV	3 7/8 x 2 3/4	4 1/4	3 5/8	4 7/16	7
20C96	8.5	200	120	3,000	LAV	3 1/2 x 2 1/4	3 7/8	3 1/8	3	4.5
26C45	10	200	140	3,000	GGV	2 7/8 x 2 1/4	3 1/2	2 7/8	4 1/8	4.9
25C61	10	200	110	1,750	NTV	2 11/16 x 2 11/16	4 1/8	3 7/16	3 7/16	5
25C35	12	200	140	2,500	TAV	3 7/8 x 2 3/4	4 1/4	3 5/8	4 7/16	7
25C59	12	200	140	2,500	TTV	3 7/8 x 2 3/4	4 1/4	3 5/8	4 7/16	7
20C97	15	200	150	5,000	GGV	3 x 2 9/16	4 3/4	4	3 3/4	5.5
20C127	20	200	56	3,000	GGV	3 x 4 13/16	4 5/8	3 3/4	5 7/8	15
25C87	6	225	100	2,700	KTH	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
26C76	1	240	50	1,500	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.75
20C129	12	240	126	2,400	GUV	3 x 3	4 5/8	3 3/4	4 1/8	7
20C16	4	250	100	1,500	BAH	3 9/16	2 5/8	4	2 1/4	2.3
26C90	4	250	60	3,000	GGV	2 1/4 x 2 3/8	3 5/8	3	3 1/2	4.3
20C98	4	250	60	3,000	LAV	2 1/4 x 2 1/2	3 1/2	2 7/8	3 1/8	4.25
20C15	4	250	100	1,500	GGV	2 x 1 7/8	3 1/8	2 11/16	2 5/8	3
20C130	4.5	250	100	1,000	LHH	2 1/8 x 2 1/2	2 5/8	3 1/8	2 1/4	3.2
20C131	5	250	70	3,000	GGV	2 x 2	3 1/8	2 11/16	2 7/8	3
20C56	8	250	60	3,500	GGV	2 1/2 x 3	3 7/8	3 1/2	4 1/4	6.7
20C56P	8	250	60	3,500	WTV	3 1/8 x 3 5/8	4 7/8	4 1/4	3 3/4	8.5
25C36	8	250	90	2,500	TAV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	10.5
25C60	8	250	90	2,500	TTV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	10.5
20C132	12	250	100	2,250	GGV	2 1/2 x 2 3/4	3 7/8	3 1/8	3 7/8	5
25C66	12	250	100	3,000	NSV	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2	11

* High Q Choke, minimum Q is 20 for 0 up to 15 MADC
** Case with Terminals on Top
\#\# Encapsulated

For Mounting Illustrations, Cross References and Pricing Information See Pages 1518-1530

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Filament Transformers with Single Secondary

Part No.	Primary Voltage	Secondary Volts	Secondary Amps	Test Volts RMS (Sec.)	★Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
21F15	117	7.5CT	4	2,500	BAV	2 13/16	2 3/4	3 3/8	2 1/8	2
21F45	117	7.5CT	4	2,500	LHV	2 x 2 1/8	3 1/8	2 7/8	2 1/8	2.7
21F110	107/117	7.5CT	5	2,500	GGV	2 1/4 x 1 7/8	3 5/8	3	3	3.4
25F71	115/230	7.5CT	5	2,500	TTV	2 x 3 1/8	3 1/2	2 7/8	3 1/2	3.25
21F78	117	7.5CT/ 6.3CT	8	3,000	LAV	2 1/4 x 2 5/16	3 1/2	2 7/8	2 13/16	3.65
21F16	117	7.5CT	8	2,500	CAV	2 x 2	3 1/8	2 3/4	2 1/2	3.25
21F62	117	7.5CT	8	2,500	LAV	2 1/2 x 2 3/8	3 7/8	3 1/8	2 7/8	4.7
21F46	107/117	7.5CT	8	2,500	GGV	2 1/2 x 2 3/16	3 7/8	3 1/4	3 3/8	4.7
25F82	105/115/ 210/220/230	7.5/ 6.3	10	4,000	NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5
21F17	117	7.5CT	12	2,500	CAV	2 1/4 x 2 1/4	3 1/2	2 7/8	3 1/4	5
25F72	115/230	7.5CT	12	2,500	TTV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6.5
21F111	107/117	7.5CT	21	2,500	GGV	2 3/4 x 3	4 1/2	3 3/4	4	8
21F79	117	25CT&.3CT	25	3,000	LHV	3 x 3 1/16	4 5/8	3 13/16	3 7/16	7.5
25F18	115/230	7.5CT	25	2,500	TTV	2 1/2 x 4 3/4	5 5/16	4 9/16	5 1/4	12
21F26	115/230	7.5CT	51	9,000	CTH	3 5/8 x 4 1/16	4 1/8	4 3/8	4 7/8	15
25F17	115/230	7.75CT	51	2,500	TSV	4 1/4 x 6	7 1/16	6 1/8	6 1/2	29
21F61	117	10.0CT	4	2,500	LHV	2 1/4 x 2 1/8	3 1/2	2 7/8	2 5/8	3.25
25F73	115/230	10.0CT	4	2,500	TTV	2 x 3 1/8	3 1/2	2 7/8	3 1/2	3.25
21F18	117	10.0CT	5	2,500	CAV	2 x 1 3/4	3 1/8	2 1/4	2 1/2	2.25
25F95	220(a)	10CT	5	1,500	TAV	2 x 3 1/8	3 1/2	3 1/2	2 25/32	3
21F47	107/117	10.0CT	5	2,500	GGV	2 1/2 x 1 15/16	3 7/8	3 1/4	3 1/8	4
25F74	115/230	10.0CT	6.5	2,500	TTV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5
21F28	117	10.0CT	8	2,500	CAV	2 1/2 x 2 3/8	3 7/8	3 1/8	3 1/8	4.9
21F29	107/117	10.0CT	8	2,500	GGV	2 1/2 x 2 7/16	3 7/8	3 1/4	3 5/8	5.2
21F112	117	10.0CT	10	2,000	GGV	2 1/2 x 2 7/16	3 7/8	3 1/4	3 5/8	5.2
25F75	115/230	10.0CT	10	2,500	TTV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6.5
25F29	105/115	10CT	10	3,000	KTH	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
25F83	105/115/ 210/220/230	10.0	10	4,000	NTV	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2	11
21F48	107/117	10.0CT	12	7,500	KTV	2 3/4 x 6	5 1/8	4 1/4	8 1/2	14.7
21F68	115	10CT/ 11CT/ 12CT	11	3,000	LAV	2 3/4 x 2 9/16	4 3/8	3 1/2	3 1/16	6.5
21F146	117	10.0	15	2,500	CAV	2 3/4 x 2 3/8	4 3/16	3 7/16	3	5
21F147	210/220/230	10.0CT	23.5	10,000	CTH	3 3/4 x 3 1/4	3 13/16	4 1/2	3 3/4	12
21F113	107/117	11.0CT	10	2,500	GGV	3 x 2 7/16	4 3/4	4	3 1/2	7.7
21F49	107/117	11.0CT	10	7,500	KTV	2 3/4 x 6	5 1/8	4 1/4	8 1/2	13
25F84	105/115/ 210/220/230	11/12/ 14	10	4,000	NTV	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2	11
26F70	6.3	12.6 or 6.3	1 1.2	5,000	BAH	2 13/16	2	3 1/4	2	1.25
26F67	117	12.6CT	2	2,500	BAH	2 13/16	2	3 1/4	2	1.25
21F81	117	12.6CT	3	2,500	BAH	3 1/8	2 1/4	3 5/8	2 1/8	1.6
21F50	117	12.6CT	3	2,500	LAV	2 x 2 1/16	3	2 1/2	2 7/8	3.5
21F52	117	12.6 or 25.2	7 3.5	2,500	GGV	2 1/4 x 2 5/8	3 5/8	3	3 1/2	5
26F68	117	24.0	1	2,500	BAH	2 13/16	2	3 1/4	2	1.5
21F84	117	24.0CT	1	2,500	BAH	2 13/16	2	3 1/4	2	1.5
21F98	117	24.0CT or 12	1 2	2,500	BAH	3 1/8	2 5/16	3 3/4	2 1/8	1.5
21F97	117	24.0CT or 12	2 4	1,500	BAH	3 9/16	2 11/16	4	2 5/8	2.5
21F153	117	24.0CT	10	1,500	CAV	3 x 2 3/4	4 9/16	3 3/4	3 1/4	7.5
21F51	117	25.2	1	2,500	BAH	2 13/16	2	3 1/4	2	1.5
21F83	117	25.2CT	2	1,500	BAH	3 9/16	2 9/16	4	2 1/4	2.2
21F114	117	25.2CT	3	2,500	BAH	3 9/16	2 9/16	4	2 1/4	2.2
21F100	117*	26.0CT	.04	2,500	BAH	1 3/4	1 1/4	2 1/8	1 3/4	.25
21F101	117*	26.0CT	.25	2,500	BAH	2 3/8	1 11/16	2 7/8	1 5/8	.75
21F27	117	26.5CT	.6	7,500	BAH	2 13/16	2	3 1/4	2 1/8	1.6
21F82	117	26.8CT	1	1,500	BAH	2 13/16	2	3 1/4	2	1.6
21F66	230(a)	26.8CT	1	1,000	BAH	2 13/16	2	3 1/16	2 1/8	1.3
21F99	117	36.0CT or 18	1.3 2.6	1,500	BAH	3 9/16	2 5/8	4	2 5/8	2.5

Filament Transformers with Multiple Secondary 50/60 CYCLES

Part No.	Primary Voltage	Secondary Volts	Secondary Amps	Test Volts RMS (Sec.)	★ Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
21F53	117	2.5CT 5.0CT	6 3	1,500 1,500	LAV	2 x 2	3	2 1/2	2 1/2	2.5
21F14	117	2.5 or 5 or 6.3	2.5	1,600	BAH	2 13/16	2	3 1/4	1 3/4	1.5
21F115	117	2.5CT 5.0CT 6.3CT	3.5 3 3	2,500 2,500 2,500	GGV	2 1/4 x 2	3 5/8	3	3 1/8	3.7
21F116	117	2.5 5.0CT 5.0 6.3CT	3 2 3 3	2,500 2,500 2,500 2,500	LHV	2 1/4 x 2 1/8	3 1/2	2 7/8	2 3/4	3.4
25F31	105/115	2.5CT 2.5CT 5.0CT	5 5 6	3,000 3,000 3,000	KTH	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
25F35	105/115	2.5CT 2.5CT 2.5CT	6 6 12	10,000 10,000 10,000	KTH	4 27/32 x 3 25/32	4 5/8	4 5/8	5 1/2	8
21F85	117	2.5CT 10.0CT	10 10	7,500 1,500	LAV	2 3/4 x 2 9/16	4 3/4	3 1/2	3 1/16	6.2
21F22	117	5.0 7.5 or 6.3 or 5.0	3 6	2,500 2,500	GGV	2 x 2 1/2	3 7/8	3 1/4	3 1/4	5.5
21F54	117	5.0CT 5.0CT	3 3	2,500 2,500	BAV	2 13/16	2 3/4	3 1/4	2 1/2	1.7
25F38	105/115	5.0CT 5.0CT 5.0CT	3 3 6	5,000	KTH	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
25F93	105/115/125	5.0CT 5.0CT 5.0CT	3 3 6	5,000 5,000 5,000	TTV	2 3/4 x 3 7/8	4 5/16	4 7/16	3 11/16	7
25F33	105/115	5.0CT 6.3CT 7.5CT	3 4 5	3,000	KTH	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
25F32	105/115	5.0CT 6.3CT	6 5	3,000	KTH	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
25F25	105/115	5.0 to 5.25CT	13	5,000	KTH	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
25F27	105/115	5.0 to 5.25CT	22	10,000	KTH	4 27/32 x 3 25/32	4 5/8	4 5/8	5 1/2	8
25F86	105/115/125	5.0 6.3CT	2 2.5	2,500 2,500	TTV	2 11/16 x 1 3/4	3 5/16	3	2 1/2	2.75
25F88	105/115/125	5.0 6.3CT	3 5	2,500 2,500	TTV	3 1/8 x 2	3 9/16	3 1/2	2 7/8	3.5
26F61	117	5.0CT 6.3	3 3.6	2,500 2,500	BAH	3 9/16	2 1/2	4	2 1/8	2.5
21F55	117	5.0CT 6.3CT	3 6	2,500 2,500	GGV	2 1/2 x 2 1/16	3 7/8	3 1/4	3 1/4	4
21F23	117	5.0CT 6.3CT	6 6	2,500 2,500	GGV	2 1/2 x 2 1/4	3 7/8	3 1/4	3 3/8	4.8
21F56	107/117	5.0CT 6.3CT	6 6	1,765 1,765	GGV	2 1/2 x 2 3/16	3 7/8	3 1/4	3 3/8	4.8
21F86	115	5.0CT 6.3CT	3 8	2,500 2,500	GGV	2 1/4 x 2 1/8	3 1/2	3	3 1/4	4
21F117	107/117	5.0CT 6.3CT	4 3.6	2,500 2,500	GGV	2 1/4 x 2 1/8	3 5/8	3	3 1/4	4
25F90	105/115/125	5.0 6.3CT 6.3CT	3 1 5	2,500 2,500 2,500	TTV	3 1/2 x 2 1/4	4	4	3 1/4	4.25
25F89	105/115/125	5.0 6.3CT 6.3CT	3 3 3	2,500 2,500 2,500	TTV	3 1/2 x 2 1/4	4	4	3 1/4	4.75
21F57	117	5.0CT 7.5CT	3 3.25	2,500 2,500	GGV	2 1/2 x 1 15/16	3 7/8	3 1/4	3 1/4	3
21F118	117	5.0 5.0 6.3CT 7.5/ 6.3CT	3 3 4 3	2,500 2,500 2,500 2,500	LHH	2 13/16 x 2 7/16	2 7/8	2 7/8	3 3/8	4.7

* Primary tapped for −6%, +6% and +12% Secondary Voltages
Industrial Rating — Use 10 Amps. for Military Rating
† Secondary voltage varied by means of a Primary Tap

Filament Transformers with Multiple Secondary 50/60 CYCLES

Part No.	Primary Voltage	Secondary Volts	Secondary Amps*	Test Volts RMS (Sec)	★ Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
21F89	115	5.0 5.0CT 6.3CT 6.3 6.3	4 2 5 5 1	1,500 1,500 1,500 1,500 1,500	GGV	2 1/2 x 2 5/8	3 7/8	3 9/32	3 1/2	6
25F87	105/115/125	5.0 12.6CT	2 1.25	2,500 2,500	TTV	2 11/16 x 1 3/4	3 5/16	3	2 1/2	2.75
25F26	115	6.3CT 6.3CT	.2 .2	1,500 1,500	UTV	1 5/32 x 1 5/32	2	1 1/2	1 1/2	.5
21F161	107/117	6.3 6.3	.6 .6	7,500 7,500	BAH	3 1/8	2 1/4	3 11/16	2	1.5
25F36	115	6.3 6.3	.6 .6	1,500	KTH	2 3/8 x 2	1 7/8	2 13/16	1 3/4	1
21F134	117	6.3 .078	1 5	1,000	BAV	2 3/8	1 5/8	2 13/16	1 3/8	.5
21F88	115	6.3 6.3 6.3 6.3CT	1.75 1.75 1.75 1.75	1,500 1,500 1,500 1,500	GGV	2 x 2 1/4	3 1/8	2 5/8	3	3.5
26F63	117	6.3 6.3	3 3	5,000 5,000	BAV	3 1/8	3	3 5/8	2 1/2	2
21F87	117	6.3CT 6.3CT	3 3	1,500 1,500	GGV	2 x 1 7/8	3 3/32	2 21/32	2 5/8	2.5
25F91	105/115/125	6.3CT 6.3CT	3 3	2,500 2,500	TTV	3 1/8 x 2	3 9/16	3 1/2	2 7/8	3.5
21F24	117	6.3 6.3 6.3 6.3	3 3 3 3	2,500 2,500 2,500 2,500	GGV	2 1/2 x 2 1/4	3 7/8	3 1/4	3 3/8	5
25F97	105/115/ 210/220/ 230	6.3 6.3	5 5	2,000	NTV	2 3/8	3 3/4	3	3	3.5
25F34	105/115	6.3CT 6.3CT	5 5	3,000	KTH	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
26F69	117	6.3 6.3	3 6	1,600 1,600	HKT	2 1/4 x 2 13/16	3 1/4	3 3/8	2 7/8	3
21F119	117	6.3CT 6.3CT	6 6	2,500 2,500	GGV	2 1/2 x 2 3/16	3 7/8	3 1/8	3 1/2	4.8
25F92	105/115/125	6.3CT 6.3CT	6 6	2,500 2,500	TTV	3 7/8 x 2 3/4	4 5/16	4 7/16	3 11/16	6.5
25F28	105/115	6.3CT 7.5CT	10 10	3,000	KTH	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
21F19	117	10.0CT 11.0CT	12 11	2,500 2,500	CAV	2 1/2 x 2 1/4	3 7/8	3 1/8	2 7/8	6
25F37	115	12.6 12.6	2 2	1,500	KTH	3 5/8 x 3 1/8	2 15/16	4 1/8	2 5/16	3
21F90	115	12.6 12.6CT	2.5 2.5	1,500 1,500	GGV	2 1/4 x 2	3 1/2	3	3 1/8	3.7
21F91	105/115/125	12.6 12.6CT	5 5	2,500 2,500	GGV	2 1/2 x 2 5/8	3 7/8	3 7/32	3 1/2	6
25F30	105/115/	11/12/14CT	10	5,000	KTH	4 27/32 x 3 25/32	4 5/8	4 5/8	5 1/2	8
25F85	105/115/ 210/220/230	14/11/10 14/11/10	10 10	4,000 4,000	NTV	4 1/8 x 4 1/8	5 1/2	5 1/8	5 1/8	15.5
26F64	117†	25† 6.3† 6.3	.320 6 1.2	1,500 1,500 1,500	GGV	2 x 1 3/4	3 1/8	2 5/8	2 3/4	3.5

‡‡‡ Industrial Rating — Use 7 Amps. for Military Rating
† Autoformer Winding
‡‡ Industrial Rating — Use 2 Amps. for Military Rating
** Industrial Rating — Use 6 Amps. for Military Rating
(g) Both winding rated 7 Amps. for Industrial applications
‡ Two units may be scott connected to provide two
* Industrial Rating — Use .6 Amps. for Military Rating
(c) Static Shielded

Power Transformers

PRIMARY 117 VOLTS 50/60 CYCLES

Part No.	Notes	Plate Supply Volts	Plate Supply MADC	Rectifier Fil. Volts	Rectifier Fil. Amps.	Other Fil. Volts	Other Fil. Amps.	★ Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
25R50	1	Any DC voltage from 15 to 100 volts ±6% @ 250madc						NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5
25R51	1	Any DC voltage from 75 to 400 volts ±6% @ 250madc						NTV	4 1/8 x 4 1/8	5 1/2	5 1/8	5 1/8	15.5
24R105	2	30-0-30	2.5A			6.3 6.3	1.5 1.5	GGV	2 3/4 x 2 11/16	4 5/16	3 5/8	3 15/16	6
24R104	2	40-0-40	2 A			6.3 6.3	1.5 1.5	GGV	2 3/4 x 2 13/16	4 5/16	3 5/8	4 1/16	6.5
24R103	2	50-0-50	1.6A			6.3 6.3	1.5 1.5	GGV	2 3/4 x 2 11/16	4 5/16	3 5/8	3 15/16	6
24R115		62-0-62	30			12.6CT	.8	BAH	2 13/16	2	3 1/4	1 3/4	.7
24R102	2	100-0-100	800			6.3 6.3	2 2	GGV	2 3/4 x 2 15/16	4 5/16	3 5/8	4 3/16	6.9
24R70		115-0-115	40			6.3CT	1.5	GGV	1 3/4 x 1 5/8	2 3/4	2 11/32	2 3/8	1.75
24R116		120-0-120	75			6.3	2	GGV	1 3/4 x 1 3/4	2 5/8	2 3/16	2 1/2	1.5
24R108		120-0-120	250	5	3			GGV	2 1/2 x 1 15/16	4	3 1/4	3 1/8	4.2
24R68		125-0-125	22			6.3 15.5-12.6	.8 .6	AGF	2 3/16 x 1 3/4	1 7/8	2 5/8	2 3/16	1.75
22R39		125-0-125	25			6.3	1	BAV	2 3/8	2 3/8	2 7/8	1 3/4	1.0
22R135	5	125-0-125	25			6.3	1	BAV	2 3/8	2 3/8	2 27/32	1 3/4	.8
25R55	8,h	150-0-150 1800 (h) 1800 (h)	100 4 4			6.3CT 6.3CT	5 3	TTV	3 7/8 x 2 3/4	4 1/4	4 7/16	3 5/8	3.5
24R101	2	150-0-150	600			6.3 6.3	2.5 2.5	GGV	2 3/4 x 3 1/16	4 5/16	3 5/8	4 5/16	7.1
22R38		180-0-180	42			6.3	2.8	AGF	1 3/4 x 2 1/4	2 3/4	2 5/8	2 1/4	1.8
25R21		180-160-140-120-0-120-140-160-180	150	5	3			TAV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5
25R42		180-160-140-120-0-120-140-160-180	150	5	3			TTV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5
25R22	5	180-160-140-120-0-120-140-160-180	150	5	3			TAV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5
25R43	5	180-160-140 120-0-120-140-160-180	150	5	3			TTV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5
22R95		190-160-0-160-190	70			6.3CT 6.3	3 .6	AGF	2 1/2 x 2	1 3/4	3	2 1/2	2.75
22R94		190-160-0-160-190	70			6.3CT 6.3	3 .6	GGV	2 x 1 7/8	3 3/32	2 21/32	2 5/8	2.75
24R100	2	200-0-200	400			6.3 6.3	3 3	GGV	2 3/4 x 3 1/16	4 5/16	3 5/8	4 5/16	7.1
24R46	Bias Supply	200-170-130-90-0-90-130-170-200	200	5	3			GTV	2 1/2 x 2 3/16	4	3 1/4	3 5/8	4.9
25R44		220-0-220	15	6.3CT	.6	6.3CT	1.2	UTV	1 3/8 x 1 13/16	3 1/8	1 15/16	2 3/8	2
24R10		220-0-220	50	6.3	.6	25.2	.5	GGV	2 x 1 9/16	3 3/16	2 5/8	2 5/8	2.2
24R82	1	220-110-0-110-220	160	5	3			GGV	2 1/4 x 2 1/8	3 1/2	3	3 1/4	4
26R81		220-0-220 130-0-130	330 220	5	3	6.3 6.3	6.5 6.5	AGF	3 x 3 3/4	4 7/8	3 3/4	4 1/2	10.5
25R01		225-0-225	40	5	2	6.3CT	2	TAV	2 x 3 1/8	3 1/2	2 7/8	3 1/2	3.2
25R23		225-0-225	40	5	2	6.3CT	2	TTV	2 x 3 1/8	3 1/2	2 7/8	3 1/2	3.2
26R63		225-0-225	90	5	2	6.3	5.15	AGF	2 1/4 x 2 13/16	3 3/4	2 13/16	3 3/8	4.5
24R11		230-0-230	50			6.3	2.5	AGF	2 x 2 1/2	2 5/8	3	2 1/2	2.2
24R11U		230-0-230	50			6.3	2.5	GGV	2 x 1 9/16	3 3/16	2 5/8	2 5/8	2.2
26R09		230-0-230	300	5	6	6.3 6.3 6.3	10 2.5 1.2	AGF	3 3/4 x 3	3 3/8	4 1/2	3 3/4	12
24R117	b	235-0-235	600	5	6			CAH	2 13/16 x 5 3/4	2 7/8	3 3/8	6	12
24R00		240-0-240	40	5	2	6.3CT	2	AGF	2 x 2 1/2	2 5/8	3	2 1/2	2
24R00U		240-0-240	40	5	2	6.3CT	2	GGV	2 x 1 5/8	3 1/8	2 5/8	2 5/8	2
24R11B	8	240-0-240	40	5	2	6.3CT	2	GGV	2 x 1 5/8	3 1/8	2 5/8	2 5/8	2

1 MADC rating for choke input filter. For Capacitor input filter divide MADC rating by 1.30
2 Refer to the Silicon Rectifier page at the end of this section for complete voltage and circuit details
3 MADC rating for bridge rectifier circuits. Reduce secondary current 10% for 50 cycle operation
4 The ratings listed here are for industrial applications. For MIL-T-27B ratings refer to the green section of this catalog
5 Pri. 230 Volts 50/60 Cycles 8 Pri. 115/230 Volts 50/60 Cycles 18 Pri. 115 Volts @ 400 Cycles
(h) Half-Wave Application * Static Shielded

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For Mounting Illustrations, Cross References and Pricing Information See Pages 1518-1530

Chokes

Part No.	Inductance Henrys	Inductance MADC	DC Res. In Ohms	Test Volts RMS	★Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
25C40	65	250	200	5,000	TSV	5 x 7	8	7 7/8	7 1/16	41
26C77	.7	290	30	1,500	BAH	2 3/8	1 5/8	2 13/16	1 1/2	.75
20C60	.2 to 1.5	300	47	9,000	KTV	3 1/8 x 2 5/8	4 1/2	3 1/2	4 3/8	7
20C29	.05 to 1 Tapped	300	40	5,000	BHH	3 9/16	2 5/8	4	2 1/4	2
26C80	.5	300	30	1,500	BAH	2	1 3/8	2 3/8	1 1/2	.5
20C133	.5	300	5	1,000	CAV	2 1/4 x 2 1/8	3 7/16	2 13/16	3	3.5
26C93	1	300	45	2,500	BAH	3 1/8	2 1/4	3 3/4	2 1/4	1.7
26C44	1	300	60	2,500	BAH	2 13/16	2	3 1/4	2 1/8	1.5
26C91	2.8	300	60	2,500	BAH	3 9/16	2 5/8	2 1/4	4	2.5
20C134	6	300	68	1,500	GGV	2 1/2 x 2 1/2	3 7/8	3 1/8	3 5/8	4.5
25C48	6	300	35	7,500	TYV	3 1/2 x 5 3/8	6 1/16	5 1/16	5 7/8	16.5
20C17	8	300	90	2,500	GGV	2 1/2 x 2 3/4	3 7/8	3 9/32	3 5/8	6.3
20C69	8	300	80	3,000	GGV	3 x 2 13/16	4 3/4	4	3 7/8	7.8
20C106	8	300	80	3,000	GTV	3 x 2 13/16	4 3/4	4	3 7/8	7.8
20C70	8	300	80	3,000	CAV	3 x 2 1/2	4 5/8	3 1/2	3 3/4	7.3
25C37	8	300	60	3,500	TAV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	12.5
25C43	8	300	60	3,500	TTV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	12.5
25C89	8	300	100	4,000	KTH	4 27/32 x 4 15/32	4 5/8	4 5/8	5 1/2	8
20C18	10	300	105	3,000	GGV	2 3/4 x 3	4 1/4	3 5/8	4 1/8	7.75
25C47	10	300	40	7,500	TYV	6 x 4 1/4	7 1/16	6 1/8	6 1/2	22
20C19	2.6	310	60	1,500	GGV	2 x 2 3/8	3 1/8	2 11/16	3 1/8	3.6
26C79	.6	350	35	1,500	BAH	2 3/8	1 5/8	2 13/16	1 1/2	.6
26C78	1	350	35	1,500	BAH	2 13/16	2	3 5/16	2	1.35
20C154	5	350	60	3,500	GGV	2 1/2 x 3	3 3/4	3 1/8	4 1/8	6
20C20	8	350	105	5,000	GGV-2	3 x 2 7/8	4 5/8	3 15/16	4	8
25C67	10	350	90	5,000	NTV	4 1/8 x 4 1/8	5 1/2	5 1/8	5 1/8	15.5
20C99	15	350	150	5,000	GGV	3 x 4 1/16	4 3/4	4	5 1/4	11
26C92	.8	375	25	2,500	BAH	3 1/8	2 5/16	3 11/16	2	1.5
20C21	1.5	375	50	1,500	BAH	3 1/8	2 5/16	3 11/16	2	1.5
26C95	2.75	380	46	2,500	BAH	3 9/16	2 5/8	4	2	2.5
20C22	6	400	60	300	GGV	3 x 3 3/4	4 5/8	3 15/16	4 1/2	10.5
20C107	7.5	400	60	5,000	GTV	3 x 3 13/16	4 3/4	4	5 1/8	11.8
25C91	8	400	60	5,000	KTH-G	4 25/32 x 4 3/4	4 5/8	5 3/8	5 3/8	12
25C41	50	400	200	10,000	PUV	4 9/32 x 9 1/8	9 5/8	7 9/16	9 7/8	50
20C135	1	500	10	1,000	CAV	2 x 2	3 1/16	2 1/2	2 1/2	2.4
25C46	6	500	35	9,000	PUH	4 3/4 x 5 1/2	7	6 5/16	7 1/2	35
20C23	10	500	65	3,000	GGV	3 1/2 x 4 1/8	5 5/16	4 1/2	5 1/8	16.5
20C24	10	500	65	5,000	GGV-2	3 1/2 x 4 1/8	5 5/16	4 1/2	5 1/8	17.75
25C68	10	500	52	7,000	NSV-13	4 7/8 x 4 7/8	7	5 3/4	5 3/4	22
20C57	10	500	65	7,000	PUV	7 x 2 3/4	6	4 3/4	7 3/4	25
25C45	10	500	40	9,000	PUH	6 1/4 x 4 3/4	7	7 1/2	7 1/8	35
25C94	8	550	60	6,000	KTH-G	4 25/32 x 4 3/4	4 5/8	5 3/8	5 3/8	12
TR 152	.012	600	.58	500	BAH	1 3/4	1 3/16	2	1 1/16	.2
20C136	.16	600	6	1,000	BAH	2 3/8	1 5/8	2 13/16	1 5/8	.8
20C137	.25	600	8	1,000	BAH	2 13/16	2	3 1/4	2 1/8	1.5
26C81	.32	600	10	1,500	BAH	2 13/16	2"	3 1/4	2	1.3
20C138	.12	675	3.6	1,500	BHH	2 13/16	2	3 1/4	1 3/4	1
25C44	6	700	35	10,000	PUH	4 3/4 x 5 5/16	7	7 1/2	6 7/8	35
20C139	10	700	40	10,000	CTH	5 5/16 x 4	5 3/8	6 3/16	4	15
20C164	.5	750	10	1,500	CAV	2 x 2	3	2 1/2	2 1/4	2.1
20C140	.15	800	2.3	1,000	BAV	2 13/16	2 11/16	3 5/16	2 1/8	1.5
TR 153	.003	1 A.	.25	1,000	BCH	1 1/4 x 7/16	1 1/4	1 1/2	1	.6
TR 154	.011	1 A.	.75	1,000	BCH	1 1/4 x 7/16	1 1/4	1 1/2	1	.6
20C141	.16	1 A.	3.6	1,000	BAH	3 1/8	2 1/4	3 11/16	2	1.5
20C142	.25	1 A.	6.5	1,000	BAH	3 9/16	2 1/2	4	2 1/4	2.5
20C143	.5	1 A.	10	1,000	CAV	2 1/2 x 2 1/8	3 13/16	3 1/8	2 5/8	4
20C144	5	1 A.	24	3,500	CTV	4 1/4 x 6 3/8	6 7/16	5 1/4	7 3/8	33
20C145	8	1 A.	70	5,000	CTV	4 1/4 x 5 3/8	6 7/16	5 1/4	6 3/8	29
25C77	10	1 A.	40	9,000	PUV	2 11/16 x 10 5/8	6	4 3/4	11 1/2	40
20C146	2.5	1.5 A.	20	2,000	CAV	5 5/16 x 4 1/2	8 9/16	6 3/16	5 1/2	34
TR 155	.008	1.9 A.	.5	500	BAH	1 3/4	1 3/16	2	1 1/8	.25
TR 156	.005	2 A.	.33	500	BAH	1 3/4	1 3/16	2	7/8	.2
TR 157	.005	2 A.	.35	500	BAH	1 3/8	3/4	1 5/8	3/4	.05
TR 158	.005	2 A.	.33	500	BAV	1 1/2	1 7/16	1 7/8	1 1/8	.17
20C00	.035	2 A.	.75	1,500	LHH	2 3/16 x 2	2 3/8	2 5/8	2 3/4	1.9
20C147	.04	2 A.	1.0	500	BAH	3 1/8	2 1/4	3 11/16	2	1.5
20C148	.5	2.5 A.	3.5	1,500	CAV	3 1/4 x 2 1/2	5	4 1/16	3 1/2	10
TR 159	.003	3 A.	.22	500	BAH	1 3/8	3/4	1 5/8	3/4	.05
20C150	.085	3 A.	.25	1,500	CAV	3 1/4 x 3 5/8	5	4 1/16	5	13.5
20C151	.087	3 A.	.372	1,500	CAH	3 3/4 x 4	3 13/16	4 1/2	4 1/2	12.5
20C01	.025	4 A.	.425	1,500	LHH	2 13/16 x 2 1/8	3	3 3/8	2 7/8	3.4
20C02	.01	8 A.	.15	1,500	LHH	3 1/8 x 2 1/2	3 1/4	3 3/4	3 3/16	5.3
20C153	1	9 A.	1	2,700	PUV	4 9/32 x 4 3/8	9 5/8	7 9/16	13	70
20C03	.01	12.5 A.	.11	1,500	LHH	3 7/16 x 2 3/8	3 1/2	4 1/8	3 1/16	5.9
20C160	.05	15 A.	.01	500	HFF	2 x 2 1/2	2 3/8	3	2 1/2	2.6
20C100	.005	22.5	.03	1,500	LHH	3 3/4 x 3 1/2	3 7/8	4 1/2	4 1/2	11.9

Dual Winding Chokes

LISTED IN ORDER OF MADC

Part No.	Series Inductance Henrys	Series Inductance MADC	Parallel Inductance Henrys	Parallel Inductance MADC	Total D.C.Res.	Test Volts RMS	★Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D
25C06	250	5	65	10	6,000	500	UTV	1 5/32 x 1 5/32	2	1 1/2	1 1/2
25C07	60	15	15	30	2,000	500	UTV	1 5/32 x 1 5/32	2	1 1/2	1 1/2
25C79	1.75/7	17.5	.45/1.8	35	.036	1,500	NSV-10	3 x 3	4 1/2	3 3/4	3 3/4
25C05	1	20	.25	40	60	500	RTV	11/16	1 3/16	7/8 Dia.	
25C09	4	50	1	100	100.	500	UTV	1 5/32 x 1 5/32	2	1 1/2	1 1/2
25C04	60 MH	80	15 MH	160	4	500	RTV	11/16	1 3/16	7/8 Dia.	
20C163	11.5	110			550	6,500	PUV	6 11/16 x 2 11/16	6	4 3/4	7 1/4
25C08	240 MH	200	60 MH	400	6	500	UTV	1 5/32 x 1 5/32	2	1 1/2	1 1/2
20C25	300 MH	1 A.	75 MH	2 A.	3	1,500	LAV	2 1/4 x 2 11/16	3 1/2	2 7/8	3 3/16
20C26	80 MH	2.5 A.	20 MH	5 A.	.61	1,500	LAV	2 1/2 x 3 1/16	3 13/16	3 3/16	3 9/16
20C27	32 MH	5 A.	8 MH	10 A.	.19	1,500	LAV	2 3/4 x 3 1/16	4 1/4	3 1/2	3 9/16
25C78	10/40	6A.	2.5/10	12 A.	.25	1,500	NTV-9	2 11/16 x 2 11/16	4 1/8	3 7/16	3 7/16
20C28	24 MH	10 A.	6 MH	20 A.	.1	1,500	LAV	2 3/4 x 4 1/2	5 5/16	4 9/16	5 1/2

Swinging Chokes

Part No.	Inductance Henrys	Inductance MADC	D.C. Res. In Ohms	Test Volts RMS	Mtg. Type	Mtgs. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
25C79	1.75-7	17.5-1.75	.036	1,500	NTV-10	3 x 3	4 1/2	3 3/4	3 3/4	6.5
20C75	4-14	150-15	125	2,000	GGV	2 x 1 9/16	3 1/8	2 5/8	2 1/2	2.5
25C69	5-25	150-15	110	2, 500	NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5
20C76	2-12	175-17.5	100	3,000	GGV	2 x 1 11/16	3 1/8	2 5/8	2 5/8	2.5
25C86	4-20	175-17.5	90	1,500	KTH-D	3 5/8 x 3 1/8	2 15/16	4 1/8	2 5/16	3
20C77	2-12	200-20	80	3,000	GGV	2 1/16 x 2 1/4	3 5/8	3	3 1/8	3.5
20C108	2-12	200-20	90	5,000	GGV	2 1/2 x 2 3/16	4	3 1/4	3 3/8	4.5
20C39	3-15	200-20	90	1,500	BAH	3 9/16	2 5/8	4 1/8	2 7/16	2.5
20C30	5-25	200-20	150	2,500	GGV	2 1/4 x 2 3/8	3 1/2	3	3 1/2	4.6
25C88	4-20	225-22.5	100	2,700	KTH-E	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
20C109	2-12	250-25	60	3,000	LHV	2 1/4 x 2 1/2	3 1/2	2 7/8	3 1/8	4.3
20C78	2-12	250-25	60	3,000	GGV	2 1/4 x 2 3/8	3 5/8	3	3 1/2	4.25
20C72	4-16	250-25	130	3,000	GGV	2 1/2 x 2 1/2	3 7/8	3 1/4	3 3/4	6
20C155	5-25	250-25	100	2,000	GGV	2 1/2 x 2 3/8	3 7/8	3 1/8	3 1/2	5
25C70	5-25	250-25	100	3,000	NTV	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2	11
20C110	4-20	300-30	80	3,000	LAV	3 x 2 1/2	4 5/8	3 3/4	3 1/2	7.2
20C79	4-20	300-30	80	3,000	GGV	3 x 2 13/16	4 3/4	4	3 7/8	8
25C90	4-20	300-30	100	4,000	KTH-F	4 27/32 x 3 25/32	4 5/8	4 5/8	5 1/2	8
20C31	5-25	300-30	105	3,000	GGV	2 3/4 x 3	4 1/4	3 5/8	4 1/8	7.5
20C32	5-25	300-35	105	5,000	GGV-2	3 x 2 7/8	4 5/8	3 15/16	4	8
20C80	5-15	350-35	100	5,000	GGV	3 x 2 9/16	4 3/4	4	3 3/4	8
25C71	5-25	350-35	90	5,000	NTV	4 1/8 x 4 1/8	5 1/2	5 1/8	5 1/8	15.5
25C93	4-20	400-40	60	5,000	KTH-G	4 25/32 x 4 3/4	4 5/8	5 3/8	5 3/8	12
20C33	4-20	400-40	65	3,000	GGV	3 x 3 3/4	4 5/8	3 15/16	4 1/2	10.5
20C41	5-25	500-50	65	3,000	GGV	3 1/2 x 4 1/8	5 5/16	4 1/2	5 1/8	16.75
20C34	5-25	500-50	65	5,000	GGV-2	3 1/2 x 4 1/8	5 5/16	4 1/2	5 1/8	17
25C72	5-25	500-50	52	7,000	NTV	4 7/8 x 4 7/8	7	5 3/4	5 3/4	22
25C95	4-20	550-55	60	6,000	KTH-G	4 25/32 x 4 3/4	4 5/8	5 3/8	5 3/8	12
25C76	5-25	1A.-.1A.	40	9,000	PUV	2 11/16 x 10 5/8	6	4 3/4	11 1/2	42
25C96	10-45 MH	1.75-.175	.5	500	KTH-A	2 3/8 x 2	1 7/8	2 13/16	1 3/8	1
25C97	8-100 MH* 2-25 MH#	2.5-.25A. 5-.5A.	.6 .15	1,500	KTH-C	3 1/4 x 2 3/4	2 1/2	3 3/4	2 5/32	2
20C40	8-100 MH* 2-25 MH#	2.5A.-.25O 5A.-.500	.6 .16	1,500	BAH	3 1/8	2 5/16	3 3/4	2	1.5
25C73	10-100 MH* 2.5-25 MH#	2.5A.-.250 5A.-.500	.6 .15	1,500	NTV	2 3/16 x 2 3/16	3 1/4	2 9/16	2 9/16	2.5
25C78	10-40 MH* 2.5-10 MH#	6A. 12A.	.25 .06	1,500	NTV-9	2 11/16 x 2 11/16	4 1/8	3 7/16	3 7/16	5

Filament Transformers with Single Secondary

50/60 cycles

Part No.	Primary Voltage	Secondary Volts	Secondary Amps.	Test Volts RMS (Sec.)	★Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
21F34	117	2.5	1.5	2,500	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.7
21F35	117	2.5CT	2.5	2,500	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.7
25F94	107/117	2.5CT	2.5	2,500	TAV	2 3/8 x 1 1/2	2 11/16	2 3/4	2 1/4	1.5
21F120	117	2.5CT	3	1,500	BAH	2 3/8	1 5/8	2 7/8	1 3/4	.6
21F00	117	2.5CT	5	2,500	BAV	2 3/8	2 3/8	2 7/8	1 3/4	1
21F31	117	2.5CT	5	7,500	BAV	2 13/16	2 11/16	3 5/16	2 1/4	1.5
21F130	100/115/200/220	2.5CT	5	20,000	CAV	3 1/4 x 2 3/4	4 7/8	4 1/8	2 3/4	3.5
25F56	115/230	2.5CT	5.25	3,500	TTV	2 11/16 x 1 3/4	3 1/8	3	2 1/2	2
21F92	117	2.5CT	6	1,500	BAH	2 13/16	2	3 5/16	1 7/8	1
21F102	107/117	2.5CT	6	2,500	GGV	2 x 1 7/16	3 3/16	2 5/8	2 3/8	2.2
25F20	105/115	2.5CT	10	1,500	KTH-C	3 1/4 x 2 3/4	2 1/2	3 3/4	2 5/32	2
21F93	117	2.5CT	10	1,500	BAH	3 1/8	2 5/16	3 3/4	2 1/8	1.5
21F01	117	2.5CT	10	2,500	BAV	2 13/16	2 11/16	3 5/16	2	1.5
21F103	107/117	2.5CT	10	7,500	BAV	3 1/8	3 1/8	3 5/8	2 1/2	2.5
21F32	107/117	2.5CT	10	2,500	GGV	2 x 1 3/4	3 1/8	2 5/8	2 5/8	2.5
25F57	115/230	2.5CT	10	2,500	TTV	3 1/8 x 2	3 1/2	2 7/8	3 1/2	3
25F79	105/115/ 220/230	2.5CT	10	6,000	NTV	2 11/16 x 2 11/16	4 1/8	3 7/16	3 7/16	5
21F02P	117	2.5CT	10	7,500	WAV	2 3/8 x 2 3/4	4 1/4	3	3 3/8	8.5
21F02	117	2.5CT	10	10,000	CAV	2 x 1 3/4	3 1/8	2 1/2	2 1/4	2.75
21F58	117	2.5CT	10	10,000	LHV	2 1/4 x 1 7/8	3 1/2	2 7/8	2 1/2	2.5
25F23	105/115	2.5CT	10	10,000	KTH-E	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
25F80	105/115/210/ 220/230	2.5CT	10	11,000	NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5
25F59	115/230	2.5CT	15	9,000	TTV	3 7/8 x 2 3/4	4 1/4	3 5/8	4 7/16	6
21F121	117	2.5	16	500	BAH	3 1/8	2 1/4	3 11/16	2 1/8	1.7
25F24	105/115	2.5CT	20	10,000	KTH-E	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
21F122	117	2.5	60	1,500	CTH	4 1/16 x 2 1/8	4 1/8	4 7/8	2 1/2	5
21F123	117	5.0CT	2.5	7,500	BAH	3 9/16	2 1/2	4	2 1/4	2
21F94	117	5.0CT	3	1,500	BAH	2 13/16	2	3 5/16	2	1.3
21F03	117	5.0CT	3	2,500	BAV	2 3/8	2 3/8	2 7/8	1 3/4	1
21F104	117	5.0CT	3	2,500	LHV	2 x 1 5/8	3 1/8	2 1/2	2 1/2	1.8
21F36	117	5.0CT	3	5,000	GGV	2 x 1 1/2	3 1/8	2 5/8	2 1/2	2.5
21F05	117	5.0CT	3	10,000	CAV	2 x 1 3/4	3 1/8	2 1/4	2 1/2	2.5
25F21	105/115	5.0CT	4	2,500	KTH-C	3 1/4 x 2 3/4	2 1/2	3 3/4	2 5/32	2
25F60	115/230	5.0CT	4	2,500	TTV	1 3/4 x 2 11/16	3 1/8	2 1/2	3	2.25
21F60	117	5.0CT	6	1,500	BAH	3 1/8	2 1/4	3 11/16	2 1/8	1.7
21F105	107/117	5.0CT	6	2,000	BAV	2 11/16	2 5/8	3 5/16	2 1/4	2
21F37	117	5.0CT	6	2,500	LHV	2 x 2	3 1/8	2 1/2	2 1/2	2.25
21F133	105	5.0	6.5	35,500	CTV	6 7/8 x 3 5/8	9 1/4	7 5/8	4 1/2	32
25F39	125/135/230	5.0CT	7.5	15,000	PUV	2 3/16 x 5 5/8	5 3/16	4 1/16	6 1/8	9
21F63	117	5.0CT	8	2,500	BAH	3 9/16	2 9/16	4	2 1/4	2.5
21F04	117	5.0CT	8	2,500	CAV	2 x 1 3/4	3 1/8	2 1/4	2 1/2	2.5
21F13	117	5.0CT	10	2,500	CAV	2 x 2 3/8	3 1/8	2 7/8	2 1/2	3
27F51	115/230	5.0CT	10	2,500	HA	2 19/64 x 1 55/64	4 1/4	2 5/8	3 1/16	3.5
25F61	115/230	5.0CT	10	2,500	TTV	2 x 3 1/8	3 1/2	3 1/2	2 7/8	3.5
25F62	115/230	5.0CT	10	10,000	TTV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6
21F124	230	5.0CT	10	11,000	LTH	3 3/4 x 2 1/8	3 7/8	4 1/2	3 1/4	6
21F125	117	5.0CT	10	40,000	LTV-1	2 7/8 x 5 9/16	7	6 5/8	3 5/8	7.2
21F06	117	5.0CT	13	2,500	CAV	2 x 2	3 1/8	2 1/2	2 1/2	3.25
21F38	107/117	5.0CT	14	10,000	KTV	2 3/4 x 6	5 1/8	4 5/8	8 1/2	12.5
26F66	117	5.0CT	15	2,500	LAV	2 x 2 1/4	3 1/8	2 1/2	2 7/8	3.5
21F20	117	5.0CT	15	10,000	CAV	2 1/2 x 3	4 5/8	3 3/4	3 1/4	6.75
21F126	220	5.0CT	15	10,000	CAV	2 1/2 x 3	4 5/8	3 3/4	3 1/4	6.75
21F20P	115	5.0CT	15	10,000	WAV	3 3/4 x 4 5/8	5 3/4	4 5/8	5 3/8	13
25F63	115/230	5.0CT	20	2,500	TTV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6.5
25F64	115/230	5.0CT	20	10,000	TTV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	13
21F07	117	5.0CT	21	2,500	CAV	2 1/4 x 2 1/2	3 7/8	2 3/8	2 5/8	5
21F39	107/117	5.0CT	22	10,000	KTV	2 3/4 x 6	5 1/8	4 5/8	8 1/2	13.5
25F81	105/115 210/220/230	5.0	25	11,000	NTV	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2	11
21F07A	117	5.0CT	29	2,500	CAV	2 1/2 x 2 1/2	3 7/8	3 1/8	3 1/8	5.5
21F33	110/115/120	5.0CT	30	2,500	GTV	2 1/2 x 3 1/8	3 7/8	3 3/16	4 7/8	6.2
25F65	115/230	5.0CT	30	2,500	TTV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	10.5
25F66	115/230	5.0CT	30	2,500	TSV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	10.5
21F128	230	5.0CT	30	11,000	LTH	3 3/4 x 3	3 7/8	4 1/2	4	9
21F129	117	5.0	100	1,500	LAH	4 15/16 x 3 3/8	4 5/16	5 3/4	4 3/4	13
21F64	117	5.2CT	13	1,500	GGV	2 1/4 x 2 1/4	3 1/2	3	3 3/8	4.25
21F65	117	5.2CT	13	1,500	LAV	2 1/4 x 2 1/2	3 7/16	2 13/16	2 15/16	4
21F67	117	5.2CT	24	1,500	LAV	2 1/2 x 3/16	3 13/16	3 3/16	3 7/16	6.75
21F73	117‡	6.0CT/ 6.3CT	6	2,000	BAH	3 9/16	2 9/16	4	2 1/4	2.5
21F75	117‡	6.0CT/ 6.3CT	11	3,000	LAV	2 1/4 x 2 7/16	3 1/2	2 7/8	2 15/16	4
21F109	117‡	6.0CT 6.5CT/ 7.0CT	13 A.	2,000	LHV	2 1/4 x 2 11/16	3 3/8	2 13/16	3 3/8	4.5
21FT06	115(a)	6.3	.5	1,500	BAH	2	1 3/8	2 3/8	1 1/4	.3
21F127	250(a)	6.3	.6	1,500	BAH	2	1 3/8	2 3/8	1 1/4	.3
21F21	117	6.3	.6	2,500	BAH	2	1 3/8	2 3/8	1 1/4	.75
25F19	117	6.3	.6	3,500	TAV	1 1/2 x 2 3/8	2 7/8	2 11/16	2 1/4	2
21F08	117	6.3CT	1	2,500	BAV	2	2	2 3/8	1 1/2	.7
21F131	220	6.3CT	1	2,500	BAV	2	2	2 3/8	1 1/2	.7
21F182	117	6.3	1	1,780	BAV	2 1/32	2	2 3/8	1 7/16	.7
21F140	117(a)	6.3CT	1.2	1,700	BAV	2 3/8	1 5/8	2 7/8	1 5/8	1.8
21F09	117	6.3CT	1.2	2,500	BAH	2 3/8	1 5/8	1 5/8	2 7/8	1
25F77	117	6.3CT	1.2	2,500	NTV	1 1/2 x 1 1/2	2 1/2	1 13/16	1 13/16	1
26F60	117	6.3	1.2	5,000	BAH	2 13/16	2	3 1/4	2	1.25
26F65	6.3	6.3	1.2	5,000	BAH	2 13/16	2	3 1/4	2	1.25
25F67	115/230	6.3CT	1.5	2,500	TTV	1 1/2 x 2 3/8	2 3/4	2 1/4	2 11/16	1
25F22	105/115	6.3CT	3	1,500	KTH-C	3 1/4 x 2 3/4	2 1/2	3 3/4	2 5/32	2
21F69	117	6.3/5	2	5,000

Power Transformers

PRIMARY 117 VOLTS 50/60 CYCLES

Part No.	Notes	Plate Supply Volts	Plate Supply MADC	Rectifier Fil. Volts	Rectifier Fil. Amps.	Other Fil. Volts	Other Fil. Amps.	★Mtg. Type	Mtg. Center	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
24R16		240-0-240	50			6.3	2.5	GGV	2 x 1 9/16	3 1/8	2 5/8	2 5/8	2
24R19		240-0-240	55	5	2	6.3CT	2	AGF	2 x 2 1/2	2 3/4	2 1/2	3	2.5
24R19U		240-0-240	55	5	2	6.3CT	2	GGV	2 x 1 11/16	3 1/8	2 5/8	2 3/4	2.5
24R88		240-0-240	60			6.3CT	2.75	AGF	1 15/16	2 3/4	2 3/16	2 11/16	2.3
24R12		240-0-240	70			6.3	3	AGF	2 x 2 1/2	2 7/8	2 1/2	3	2.6
24R12U		240-0-240	70			6.3	3	GGV	2 1 13/16	3 1/8	2 1/2	2 7/8	2.6
24R116	R	240-0-240	70			6.3	3	GGV	2 x 2	3 1/8	2 1/2	3	2.8
24R154	8	240-0-240	120			6.3CT	1.5	GGV	2 x 2 3/16	3	2 1/2	3 1/8	2.5
24R120		240-0-240	125	5	2	6.3	5	AGF	3 1/8 x 2 1/2	3 1/4	3 3/4	3 1/8	4
24R89		250-0-250	10	6.3	.6	6.3	1.2	FGV	2 3/8	2 1/4	2 7/8	2 1/8	1
24R90		250-0-250	20	6.3	.6	6.3	1.2	FGV	2 13/16	2 5/8	3 1/4	2 1/4	1.5
24R69		250-0-250	20			6.3	2	GGV	1 3/4 x 1 3/4	2 3/4	2 3/8	2 1/2	1.7
22R08		250-0-250	40	5	2	2.5CT	4	AGF	2 x 2 1/2	2 1/2	2 1/2	3	1.7
22R00		250-0-250	40	5	2	6.3CT	2	AGF	2 x 2 1/2	2 1/2	3	2 1/2	2
22R124		250-0-250	40	5	2	6.3CT	2	BAH	3 9/16	2 1/2	4	2 5/8	1
24R121	8	250-0-250	40	5	2	6.3CT	2	GGV	2 x 1 5/8	3 1/8	2 1/2	2 1/2	2
24R50		250-0-250	40			6.3CT	2	GGV	1 3/4 x 1 1/2	2 3/4	2 3/8	2 1/4	1.5
24R51		250-0-250	40			6.3CT	2	AGF	2 3/16 x 1 3/4	1 1/2	2 5/8	2 3/8	1.5
24R09		250-0-250	70	5	2	6.3CT	2.5	AGF	2 x 2 1/16	2 1/2	3	2 1/2	3.2
24R09U		250-0-250	70	5	2	6.3CT	2.5	GGV	2 x 2 1/16	3 1/8	2 5/8	3 1/8	3.2
26R33		250-0-250 or 300-0-300	280 250	5 5	3 3	6.3 6.3	5 5	AGF	3 x 3 3/4	4 1/2	3 3/4	4 1/2	11
26R109		250-0-250	300	5/3	3.8	6.3	10	GGV	2 1/2 x 2 11/16	3 7/8	3 1/8	3 15/16	4.5
26R110		250-0-250	300	5/3	3.8	6.3	11	GGV	2 3/4 x 2 5/8	4 1/8	3 7/16	3 5/8	5
26R111		250-0-250	280	5/3	3.8	6.3	10	AGF	3 7/16 x 2 3/4	2 15/16	4 1/8	3 7/16	5
24R122		250-0-250	300	5	6			GGV	3 x 2 1/16	4 5/8	3 3/4	3 7/8	7
26R112		255-0-255	300	5/3	3.8	6.3	10	GGV	2 1 4 x 2 7/8	3 1/2	2 13/16	4	6
26R113		255-0-255	300	5/3	3.8	6.3	10	AGF	3 5/16 x 2 11/16	2 5/8	3 3/4	3 1/8	6
26R114		255-0-255	300	5/3	3.8	6.3	10	GGH	3 5/16 x 3 3/16	3 1/8	3 3/4	3 3/4	6
26R31		260-0-260	90			6.3	4	AGF	2 1/4 x 2 13/16	3 1/2	2 5/8	3 3/8	3.5
26R31U		260-0-260	90			6.3	4	GGV	2 x 2 1/4	3 1/8	2 5/8	3 1/8	3.5
26R142	8	260-0-260	90			6.3CT	3.5	GGV	2 x 2 7/16	3 1/8	2 5/8	3 1/4	3.5
24R13		260-0-260	90	5	2	6.3CT	3	AGF	2 1/4 x 2 13/16	3 5/8	2 7/8	3 1/8	4
24R13U		260-0-260	90	5	2	6.3CT	3	GGV	2 1/4 x 2 1/4	3 1/2	2 7/8	3 5/8	4
24R123	8	260-0-260	90	5	2	6.3CT	3	GGV	2 1/4 x 2 1/4	3 1/2	2 7/8	3 5/8	4
26R36		260-0-260	150	5	5	6.3	5	AGF	2 1/2 x 3 1/8	3 3/4	3 1/8	3 3/4	4.2
26R143	8	260-0-260	150	5	5	6.3	5	AGF	2 1/2 x 3 1/8	3 3/4	3 1/8	3 3/4	4.2
26R10		260-0-260	270	5	3	6.3	10	AGF	3 x 3 3/4	2 5/8	3 3/4	4 1/2	8.7
26R52		260-0-260	380	5CT	6	12.6CT	6.4	GRV-1	3 x 5 1/2	6	3 3/4	5 1/2	11
26R126		262.5-0-262.5	300	5	3	6.3	10	AGF	2 1/4 x 2 13/16	2 7/8	3 3/8	2 13/16	4
24R81		262.5-0-262.5	90	5	2	6.3CT	5	AGF	2 1/4 x 2 13/16	1 7/8	3 3/8	2 13/16	3.2
22R97		262.5-0-262.5	90	5	2	6.3CT	5	AGF	2 1/4 x 2 13/16	2 3/8	3 3/8	2 13/16	4.5
24R80		262.5-0-262.5	90	5	2	6.3CT	5	GGV	2 1/4 x 2	3 1/2	3	3 1/8	3.2
22R96		262.5-0-262.5	90	5	2	6.3CT	5	GGV	2 1/4 x 2 1/2	3 1/2	3	3 5/8	4.5
26R48		265-0-265	228	5	3	12.6CT	5.5	AGF	2 1/2 x 3 1/8	3 7/8	3 1/8	3 3/4	5
26R59		265-0-265	300	5	6	12.6CT	6	GRV-1	3 x 5 1/2	6	3 3/4	5 1/2	11
26R88		265-0-265	300	5	6	6.3 6.3 6.3	5 6 1.2	AGF	3 x 3 3/4	5	3 3/4	4 1/2	11
26R47		268-0-268	260	5	3	6.3	10.5	AGF	2 1/2 x 3 1/8	3	3 1/8	3 3/4	5
26R53		268-0-268	260	5	3	6.3	8	GGV	2 3/4 x 2 15/16	4 1/4	3 7/16	4	6.2
25R02		270-0-270	55	5	2	6.3CT	2	TAV	2 x 3 1/8	3 1/2	2 7/8	3 1/2	3.5
25R24		270-0-270	55	5	2	6.3CT	2	TTV	2 x 3 1/8	3 1/2	2 7/8	3 1/2	3.5
24R20		270-0-270	120	5	3	6.3CT	3.5	AGF	2 1/2 x 3 1/8	3 1/2	3 1/8	3 3/4	5
24R20U		270-0-270	120	5	3	6.3CT	3.5	GGV	2 1/2 x 2 3/16	3 7/8	3 1/8	3 1/2	5
26R44		270-0-270	200	5	3	6.3	8.5	AGF	2 11/16 x 3 5/16	4 1/4	3 1/8	3 3/4	6.2
26R49		270-0-270	200	5	3	12.6CT	4.5	AGF	2 1/2 x 3 1/8	3 5/8	3 1/8	3 3/4	5
26R115		270-0-270	280	5/3	3.8	6.3	9	GGV	2 1/2 x 2 5/8	3 3/4	3 1/8	4 1/8	5.5
26R118		270-0-270	300	5/3	3.8	6.3	10	GGV	2 1/4 x 3 1/4	3 1/2	3 13/16	4 3/8	5.5
26R116		270-0-270	300	5/3	3.8	6.3	10	AGF	3 5/16 x 2 11/16	2 9/16	3 3/4	3 1/8	5.5
26R117		270-0-270	300	5/3	3.8	12.6CT	6	AGF	3 5/16 x 2 11/16	2 3/4	3 3/4	3 1/8	5.7
26R119		272.5-0-272.5	280	5/3	3.8	6.3	11	GGV	2 3/4 x 2 3/4	4 1/8	3 7/16	3 1/2	5.7
26R120		272.5-0-272.5	300	5/3	3.8	6.3	10	AGF	3 7/16 x 2 3/4	2 5/8	4 1/8	3 7/16	5.7
25R45		275-0-275	35	6.3CT	.6	6.3CT	2	UTV	2 x 2 3/4	3 1/2	2 13/16	3 9/16	5
22R09		275-0-275	50	5	2	2.5CT	7.5	AGF	2 x 2 1/2	2 5/8	2 1/2	3	2
22R01		275-0-275	50	5	2	6.3CT	2.5	AGF	2 x 2 1/2	2 1/2	3	2 1/2	2.2
22R101	8	275-0-275	50	5	2	6.3CT	2.5	AGF	2 x 2 1/2	2 1/2	3	2 1/2	2.2
22R30		275-0-275	50	5	2	6.3CT	2.5	GGV	2 x 2 1/4	3 1/8	2 5/8	3 1/8	2.2
22R98		275-0-275	110	5	2	6.3CT	5	GGV	2 1/2 x 2 1/4	3 7/8	3 1/4	3 1/8	4.5
24R56		275-0-275	110	5	2	6.3CT	5	GGV	2 1/4 x 2 1/8	3 1/2	3	3 1/4	3.7
22R99		275-0-275	110	5	2	6.3CT	5	AGF	3 1/8 x 2 1/2	2 1/4	3 3/4	3 1/8	4.5
24R57		275-0-275	110	5	2	6.3CT	5	AGF	2 13/16 x 2 1/4	2	3 3/8	2 13/16	3.7
26R41		275-0-275	220	5	3	6.3 7	8.5 .47	AGF	3 x 3 11/16	3 3/4	3 7/16	4 1/8	5
26R11		275-0-275	270	5	3	6.3	10	AGF	3 x 3 3/4	2 3/4	4 1/2	3 3/4	9
26R77		275-0-275	270	5	3	6.3	10	AGF	2 3/4 x 3 7/16	3 1/8	4 1/8	3 7/16	9
26R43		275-0-275	275	5	3	12.6CT	6	GGV	2 1/2 x 3 1/8	3 3/4	3 1/8	4 3/8	7
26R121		275-0-275	300	5	6	6.3 6.3 6.3	8 5 2	AGF GGV GGH	3 1/8 x 2 1/2 2 1/2 x 3 3/8 2 1/2 x 3 3/8	3 13/16 3 3/4 3 1/8	3 3/4 3 1/8 3 3/4	3 1/8 4 3/4 4 3/8	7.5
26R56		275-0-275	310	5CT	3	6.3	12.6	ARF	3 5/16 x 4 1/16	5	3 3/4	4 1/2	8.2
26R79		275-0-275	350	5CT	6	6.3 6.3 6.3	8 6 2	AGF	3 x 3 3/4	3 3/8	4 1/2	3 3/4	12
26R80		275-0-275	350	5CT	6	6.3 6.3 6.3	8 6 2	ARF-1	3 x 3 3/4	3 3/8	4 1/2	3 3/4	12
26R58		276-0-276	315	5	6	6.3	11.5	AGF	3 3/16 x 4 1/16	5	3 3/4	4 1/2	8.2
26R50		279-0-279	265	5	5	6.3 6.3 6.3	7.1 1.2 .9	AGF	3 x 3 3/4	4 3/4	3 3/4	4 1/2	8
24R125		280-0-280	35			6.3CT	2.5	AGF	1 3/4 x 2 3/16	2 11/16	2 5/8	2 3/16	1.8
24R32		280-0-280	50	5	2	6.3 6.3	1.5 .6	AGF	2 x 2 1/2	3	2 1/2	3	3.5
26R89		280-0-280	260	5	3	6.3 6.3 6.3	8 1.5 1.2	ARF	3 x 3 3/4	5 1/8	4 1/2	3 3/4	11.2
26R90		280-0-280	260	5	3	6.3 6.3 6.3	8 1.5 1.2	AGF	3 x 3 3/4	5	4 1/2	3 3/4	11
26R122		280-0-280	280	5	3	6.3	9.5	AGF GGV GGH	3 1/8 x 2 1/2 2 1/2 x 2 5/16 2 1/2 x 2 5/16	3 1/16 3 3/4 3 1/8	3 3/4 3 1/8 3 3/4	3 1/8 3 11/16 3 11/16	7
26R123		280-0-280	300	5	4	6.3	10	GGV	3 11/16 x 3 3/16	3 3/4	3 1/8	3 7/8	7
26R72		280-0-280	400	5	6	6.3 6.3	4.5 8.5	AGF	3 3/16 x 4 1/16	6	3 13/16	4 3/4	13
26R51		281-0-281	250	5	3	6.3	9.5	LGH	2 3/8 x 2 1/2	4	3 7/16	4 1/8	6.2
26R61		282-0-282	240	5	3	6.3	8.7	AGF	3 3/16 x 4 1/16	4 1/4	3 3/4	4 1/2	6.5
26R124		285-0-285	300	5	3.8	12.6CT	5.2	GGV	2 1/2 x 2 3/4	3 3/4	3 1/8	3 5/8	7
26R125		285-0-285	300	5	3.8	12.6CT	5.2	AGF	2 5/16 x 2 11/16	2 3/4	3 3/4	3 1/8	7
24R127		288-0-288	25			6.3	2.7	BAH	3 1/8	2 1/4	3 5/8	2	1.3
26R98		290-0-290	200	5CT	3	6.3 6.4	1.2 8.4	ARF	2 3/4 x 3 7/16	4 9/16	3 7/16	4 1/8	6
26R12		290-0-290	270	5	3	6.3	10	AGF	3 x 3 3/4	2 7/8	4 1/2	3 3/4	9
26R127		290-0-290	300	5/3	3.8	6.3	10	GGV	2 3/4 x 2 3/4	3 3/4	3 1/8	4	7.5
26R128		290-0-290	300	5	3.8	6.3	10	AGF	3 5/16 x 2 11/16	2 13/16	3 3/4	3 1/8	7.5
26R129		290-0-290	300	5/3	3.8	6.3	10	GGH	3 5/16 x 3 9/16 or 2 1/2 x 3 9/16	3 1/8	3 3/4	4	7.5
26R130		290-0-290	300	5/3	3.8	6.3	11	GGH	3 7/16 x 2 5/8 or 3 7/16 x 3 1/4	3 7/16	4 1/8	3 1/2	7.6
26R40		292-0-292	285	5	3	6.3	8.5	AGF	2 3/4 x 3 7/16	4 3/8	3 1/2	4 1/8	7.3
26R131		292-0-292	280	5/3	3.8	6.3	10	GGV	2 3/4 x 3 1/16	4 1/8	3 7/16	4 1/8	7
26R132		292-0-292	300	5/3	3.8	6.3	11	AGF	3 7/16 x 2 3/4	2 3/4	4 1/8	3 7/16	7
26R137		295-0-295	225	5CT	3	6.3 6.3	11.4 .9	ARF	3 5/16 x 4 1/16	4 5/8	3 3/4	4 1/2	10
26R100		295-0-295	350	5	6	6.3 6.3 6.3	8 5 2	AGF	3 x 3 3/4	3 5/8	3 3/4	4 1/2	12
26R101		295-0-295	350	5	6	6.3 6.3 6.3	8 5 2	ARF-1	3 x 3 3/4	3 5/8	3 3/4	4 1/2	12
22R92		300-0-300	50	5	2	6.3CT	2	GGV	2 x 1 7/8	3 1/8	2 5/8	2 5/8	2.7
24R54		300-0-300	50	5	2	6.3CT	2	GGV	2 x 1 3/4	3 1/8	2 5/8	2 1/2	2
24R43		300-0-300	50	5	2	6.3CT	2.7	GGV	2 x 1 3/4	3 1/8	2 5/8	2 13/16	2.7
22R122		300-0-300*				6.3CT 6.3 6.3	1.2 2 1	GGV	2 x 2 3/16	3	2 1/2	3	2.5
22R93		300-0-300	50	5	2	6.3CT	2	AGF	2 x 2 1/2	1 3/4	2 1/2	3	2.7
24R55		300-0-300	50	5	2	6.3CT	2	AGF	2 x 2 1/2	2	2 1/2	3	2
25R03		300-0-300	60	5	2	6.3CT	3	TAV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	4.5
25R26		300-0-300	60	5	2	6.3CT	3	TTV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	4.5
22R90		300-0-300	65			6.3CT	2.7	GGV	2 x 1 7/8	3 1/8	2 5/8	2 5/8	2.7
22R91		300-0-300	65			6.3CT	2.7	AGF	2 x 2 1/2	1 3/4	3	2 1/2	2.7
24R53		300-0-300	65			6.3CT	2.7	AGF	2 x 2 1/2	1 5/8	3	2 1/2	2

Power Transformers

Part No.	Notes	Plate Supply Volts	Plate Supply MADC	Rectifier Fil. Volts	Rectifier Fil. Amps.	Other Fil. Volts	Other Fil. Amps.	★Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
24R52		300-0-300	65			6.3CT	2.7	GGV	2 x 1 3/4	3 1/8	2 5/8	2 1/2	2
24R96		300-0-300	65			6.3CT	2.7	GGV	2 x 1 3/4	3 1/8	2 5/8	2 1/2	2.7
22R02		300-0-300	70	5	2	6.3CT	3	AGF	2 x 2 1/2	3 1/8	2 1/2	3	2.7
22R102	8	300-0-300	70	5	2	6.3CT	3	AGF	2 x 2 1/2	3 1/4	2 1/2	3	2.7
22R103		300-0-300	70	5	2	6.3CT	3	GGV	2 x 2	3 1/8	2 1/2	2 7/8	2.7
24R21		300-0-300	70	5	3	6.3CT	3	AGF	2 1/4 x 2 13/16	3 1/4	2 13/16	3 3/8	4
24R21U		300-0-300	70	5	3	6.3CT	3	GGV	2 1/4 x 2 3/16	3 5/8	3	3 1/4	4
22R120		300-0-300	75			6.3/ 12.6/ 18.9/25	.65	GGV	2 1/8 x 2 1/4	3 3/8	2 13/16	3 1/4	2.8
22R04		300-0-300	90	5	2	6.3CT	3.5	AGF	2 1/4 x 2 7/8	3 1/4	2 13/16	3 3/8	3
22R121	h	300-0-300* 1000 (h)	110 2	5CT	2	2.5 6.3CT 6.3	1.75 5 .75	AGF	2 1/2 x 3 1/8	3 3/8	3 3/4	3 1/8	3.2
22R05		300-0-300	120	5	3	6.3CT	5	AGF	2 1/2 x 3 1/8	3 5/8	3 1/8	3 3/4	4.2
22R105	8	300-0-300	120	5	3	6.3CT	5	AGF	2 1/2 x 3 1/8	3 1/2	3 1/8	3 3/4	4.2
22R05U		300-0-300	120	5	3	6.3CT	5	GGV	2 1/2 x 2 9/16	3 7/8	3 1/4	3 3/8	4.2
22R104	8	300-0-300	120	5	3	6.3CT	5	GGV	2 1/2 x 2 9/16	3 7/8	3 1/4	3 3/8	4.2
24R83		300-150-0-150-300	175	5	4			GGV	2 1/2 x 2 3/4	3 7/8	3 1/4	3 5/8	6
26R71		300-0-300	230	5	3	6.3	9	AGF	2 3/4 x 3 7/16	4 1/4	3 7/16	4 1/8	8
26R91		300-0-300	250	5	3	6.3 6.3	11.7 1.2	AGF	2 3/4 x 3 7/16	4 7/8	3 7/16	4 1/8	9.5
26R33		300-0-300 or 250-0-250	250 280	5	3	6.3 6.3	5 5	AGF	3 x 3 3/4	4 1/2	3 3/4	4 1/2	11
26R08		300-0-300	270	5	3	6.3 6.3 6.3	5 5 1.2	AGF	3 x 3 3/4	4 1/4	3 3/4	4 1/2	11
26R136		300-0-300	325	5	6	6.3 6.3	8.8 1.5	AGF	3 5/16 x 4 1/16	5 1/8	3 3/4	4 1/2	13
26R34		300-0-300	340	5	6	6.3 6.3 6.3	10.2 1.2 1.2	ARF-1	3 x 3 3/4	5 1/2	3 3/4	4 1/2	13
26R92		300-0-300	400	5	6	6.3 6.3 6.3	10 4.5 1.2	AGF	3 x 3 3/4	5 3/8	3 3/4	4 1/2	13.5
26R42		306-0-306	460	5	6	6.3 4.6	11.4 .150	AGF	3 1/2 x 4 3/8	4 3/4	4 3/8	5 1/4	11.5
26R138		310-0-310	240	5	3	6.3 6.3	6.4 3	ARF	3 5/16 x 4 1/16	4 1/2	3 3/4	4 1/2	9
26R135		315-0-315	225	5	3	6.3	8.25	ARF	3 5/16 x 4 1/16	4 1/2	3 3/4	4 1/2	9
26R93		315-0-315	310	5	6	6.3 6.3 6.3 6.3	6 6 1.2 1	AGF	3 x 3 3/4	5	3 3/4	4 1/2	11
22R131	8,h	320-0-320* 1600 (h)	75 2			2.5 6.3	1.75 5	GGV	2 3/4 x 2 1/2	3 3/4	3 1/8	3 1/2	4.7
24R37		320-0-320	150	5	3	6.3 6.3 6.3	3 8 1	GGV	3 x 3 3/16	4 3/4	4	4 1/4	9.5
26R24		322-0-322 205-0-205	180 70	5CT	3	6.3 6.3	10 3	ARF	3 x 3 3/4	4 3/4	3 3/4	4 1/2	11.2
22R13		325-0-325	40	5	2	2.5	4	AGF	2 x 2 1/2	2 3/4	2 1/2	3	2.5
24R01		325-0-325	40	5	2	6.3CT	2	AGF	2 x 2 1/2	2 7/8	2 1/2	3	2.5
24R12B	8	325-0-325	40	5	2	6.3CT	2	AGF	2 x 2 1/2	2 7/8	2 1/2	3	2.5
24R01U		325-0-325	40	5	2	6.3CT	2	GGV	2 x 2 1/2	3 1/8	2 5/8	2 5/8	2.5
24R08		325-0-325	55	5	2	6.3CT	2	AGF	2 x 2 1/2	3 1/8	3	2 1/2	3.2
24R08U		325-0-325	55	5	2	6.3CT	2	GGV	2 x 2	3 1/8	2 1/2	3 1/8	3.2
24R139	h	325-0-325 1200 (h)	60 4			1.25 6.3CT 6.3	.2 3 .6	GGV	2 1/2 x 2 11/16	3 3/4	3 1/8	4	4.7
24R17		325-0-325	70	5	3	6.3	3.5	AGF	2 x 2 1/2	3 3/8	3	2 1/2	3.2
22R37		325-0-325	80	5	2	6.3 6.3	1.2 .3	AGF	2 x 2 1/2	3 1/2	3	2 1/2	3.5
22R10		325-0-325	85	5	2	2.5CT 2.5CT	9 3.5	AGF	2 1/2 x 3 1/8	3 3/8	3 1/8	3 3/4	3.2
24R146	h,k	325-0-325 300	100 50	5	2	12.6 16	.6 .1	CHV	2 1/2 x 2 3/8	3 3/4	3 1/8	2 1/2	4.2
22R11		325-0-325	120	5	3	2.5CT 2.5CT	5 12.5	AGF	2 1/2 x 3 1/8	4 1/8	3 1/8	3 3/4	5.5
22R14		325-0-325 77V. Bias Tap	135	5 5	3 2	6.3CT 6.3CT	2 4	WAV	3 3/4 x 4 5/8	5 3/4	4 5/8	5 5/8	12.7
22R06		325-0-325	150	5	3	6.3CT	5	AGF	2 1/2 x 3 1/8	3 3/4	3 1/8	3 3/4	5.5
22R106	8	325-0-325	150	5	3	6.3CT	5	GGV	2 1/2 x 2 5/8	3 7/8	3 1/8	3 3/4	5.5
24R87	1	325-0-325	150	5	3	6.3CT	5	GGV	2 1/2 x 2 9/16	4	3 1/8	3 3/4	5.8
24R129	8	325-0-325	225	5	2	6.3CT	2	GGV	2 x 2	3 1/8	2 1/2	3	2.4
26R04		325-0-325	240	5	3	6.3 6.3 6.3	9 1.2 9	AGF	3 x 3 3/4	3 11/16	4 1/2	3 3/4	13
26R07		325-0-325	240	5	3	6.3 6.3 6.3	9 1.2 .9	ARF	3 x 3 3/4	3 11/16	4 1/2	3 3/4	13
26R45		328-0-328	270	5	3	12.6CT	5.25	GGV-1	3 x 4 7/16	4 5/8	3 3/4	4 13/16	8
25R05		330-0-330	85	5	2	6.3CT	3	TAV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6
25R28		330-0-330	85	5	2	6.3CT	3	TTV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6
24R130		330-0-330	90	5	2	6.3	1.5	AGF	2 1/4 x 2 13/16	4 3/16	3 3/8	2 13/16	4.5
26R102		330-0-330	270	5	6	6.3 6.3	9.35 1.2	GGV	3 x 3 5/8	4 5/8	4	4 3/4	10
25R04		335-0-335	70	5	2	6.3CT	3	TAV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	4.5
25R27		335-0-335	70	5	2	6.3CT	3	TTV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	4.5
26R64		335-0-335	175	5	2	6.3 6.3	7 1.2	GGV	3 x 2 13/16	4 5/8	3 3/

Power Transformers

Part No.	Notes	Plate Supply Volts	Plate Supply MADC	Rectifier Fil. Volts	Rectifier Fil. Amps.	Other Fil. Volts	Other Fil. Amps.	★Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
22R108	8	350-0-350	90	5CT	3	2.5CT	3.5	GGV	2 1/4 x 2 5/8	3 1/2	2 7/8	3 3/4	4.5
22R109		350-0-350	90	5	3	6.3CT	3.5	GGV	2 3/4 x 2 5/16	4 1/4	2 3/16	3 1/2	4.4
22R32		350-0-350	110	5CT	2	6.3CT 6.3CT	3 3	GGV	2 1/2 x 2 3/4	3 7/8	3 1/4	4	5.8
22R110	8	350-0-350	110	5CT	2	6.3CT 6.3CT	3 3	GGV	2 1/2 x 2 3/4	3 7/8	3 1/4	4	5.8
22R15		350-0-350	110	5CT	2	6.3CT 6.3CT	3 3	WAV	3 1/2 x 3 5/8	5 1/2	4 1/8	4 1/4	8.1
22R111	6	350-0-350	110	5CT	3	6.3CT	4.5	GGV	3 x 2 5/16	4 5/8	3 3/4	3 3/8	4.5
24R134		350-0-350	110			6.3CT 12.6	5 2.4	GGV	2 1/2 x 2 3/4	3 7/8	3 1/8	3 7/8	5.5
24R36		350-0-350	120	5CT	3	2.5CT 2.5CT	3.5 12.5	AGF	2 3/4 x 3 7/16	3 5/8	3 7/16	4 1/8	5.5
24R05		350-0-350	120	5	3	6.3CT	4.7	AGF	2 1/2 x 3 1/8	4 1/8	3 1/8	3 3/4	5.7
24R05U		350-0-350	120	5	3	6.3CT	4.7	GGV	2 3/4 x 2 1/2	3 7/8	3 1/4	3 7/8	5.7
24R135	8	350-0-350	120	5	3	6.3CT	4.7	GGV	2 3/4 x 2 1/2	3 7/8	3 1/4	3 7/8	5.7
24R18		350-0-350	150	5	3	6.3	6.5	GGV	2 1/2 x 2 7/8	3 7/8	4 1/4	4 1/8	6
24R60		350-0-350	160	5	3	6.3CT	5	GGV	2 1/2 x 2 5/8	3 7/8	3 9/32	3 1/2	5.7
24R61		350-0-350	160	5	3	6.3CT	5	AGF	3 1/8 x 2 1/2	2 5/8	3 3/4	3 1/8	5.6
24R98		350-0-350	175	5 5	3 2	6.3 6.3	7 .9	AGF	3 x 3 3/4	4 1/8	3 3/4	4 1/2	8.5
26R74		350-0-350 220-0-220	180 70	5	3	6.3 6.3	10 2	AGF	3 x 3 3/4	4 3/4	3 3/4	4 1/2	11.5
22R07		350-0-350	200	5	3	6.3CT	6	AGF	3 x 3 3/4	3 7/8	3 3/4	4 1/2	7
22R88		350-0-350	200	5	3	6.3CT	8	AGF	3 7/16 x 2 3/4	3 1/8	4 1/8	3 7/16	8
22R107	8	350-0-350	200	5	3	6.3CT	6	AGF	3 x 3 3/4	3 7/8	3 3/4	4 1/2	7
24R65		350-0-350	200	5	3	6.3CT	8	AGF	3 7/16 x 2 3/4	2 7/8	4 1/8	3 7/16	8
22R87		350-0-350	200	5	3	6.3CT	8	GGV	2 3/4 x 3 1/4	4 1/4	3 5/8	4 3/8	8
22R112		350-0-350	200	5	3	6.3CT	6	GGV	3 x 2 9/16	4 5/8	3 3/4	3 5/8	7
24R64		350-0-350	200	5	3	6.3CT	8	GGV	2 3/4 x 3	4 1/4	3 5/8	4 1/8	8
26R99		350-0-350	200	5	3	6.3 6.3 6.3	6 4 2	AGF	3 x 3 3/4	2 5/8	3 3/4	4 1/2	9
26R25U		350-0-350	200	5 5	3 3	6.3 6.3	7 .6	GGV	3 x 3 3/4	4 5/8	3 7/8	4 7/8	11.2
26R20		350-0-350	225	5CT	3	6.3 6.3	10.7 2.7	ARF	3 x 3 3/4	4 3/4	3 3/4	4 1/2	11.5
26R21		350-0-350	225	5	3	6.3 6.3	10 2.7	AGF	3 x 3 3/4	4 3/4	3 3/4	4 1/2	11.5
26R69		350-0-350	270	5 5	2 6	6.3 6.3	7.8 1.6	AGF	3 x 3 3/4	5 1/4	3 3/4	4 1/2	13.1
26R54		356-0-356 268-0-268	180 148	5 5	3 3	12.6CT	6	GGV	3 x 4	4 1/2	3 3/4	5	11.6
26R73		356-0-356	295	5 5	2 6	12.6	5	AGF	3 3/16 x 4 1/16	6 5/8	3 13/16	4 3/4	17.2
26R62		356-0-356	458	5	6	6.3 6.3	14.5 2	VAV	3 5/16 x 4 1/16	4 3/4	4 7/8	4	11
22R31		360-0-360	80	5	2	6.3CT	2.5	GGV	2 x 2 3/4	3 1/8	2 9/16	4	4
24R22		360-0-360	120	5	3	6.3CT	3.5	AGF	2 1/2 x 3 1/8	3 3/4	3 1/8	3 3/4	5.5
24R22U		360-0-360	120	5	3	6.3CT	3.5	GGV	2 1/2 x 2 7/16	3 7/8	3 1/4	3 3/4	5.5
26R23		360-0-360	180	5	3	6.3	9	AGF	2 3/4 x 3 1/2	4 1/4	3 1/2	4 1/8	8
26R22		360-0-360	180	5CT	3	6.3	9	ARF	2 3/4 x 3 1/2	4 1/4	3 1/2	4 1/8	8
26R82		360-0-360 165-0-165	185 65	5	3	6.45	12	AGF	3 x 3 3/4	4 1/4	3 3/4	4 1/2	9.6
26R96	12	360-0-360 165-0-165	185	5	3	6.3	12	AGF	3 x 3 3/4	4 3/8	3 3/4	4 1/2	10.5
26R65		360-0-360	200	5	3	6.3 6.3	1.2 7.75	AGF	3 3/16 x 4 1/16	5 9/16	3 13/16	4 3/4	10
26R141		360-0-360 220-0-220	220 110	5 5	2 3	12.6CT	5.8	GGV	3 x 3 7/8	4 7/8	3 3/4	5 1/4	11.5
26R17		360-0-360	250	5 5	3 3	6.3 6.3	9 3	AGF	3 x 3 3/4	5 1/8	3 3/4	4 1/2	11
26R15		360-0-360	250	5 5	3 3	6.3 6.3	9 3	AGF	3 x 3 3/4	5 1/8	3 3/4	4 1/2	11
26R68		360-0-360	250	5 5	2 3	6.3 6.3	8 .6	AGF	3 3/16 x 4 1/16	5 5/16	3 3/4	4 1/2	11.5
26R134		360-0-360	260	5 5	6 2	6.3	8.85	AGF	3 3/16 x 4 1/16	5 1/2	3 3/4	4 1/2	13
26R35		360-0-360	270	5 5	3 3	6.3 6.3 6.3 6.3	4.5 4.5 1.6 2.5	AGF	3 x 3 3/4	4 1/4	3 3/4	4 1/2	10
22R116		360-0-360 80V. Bias Tap	300	5	3	6.3	4	HHF	2 3/4 x 3 7/16	3 3/16	3 7/16	4 7/8	7.8
26R16		362-0-362	295	5 5	2 6	12.6CT	5	AGF	3 x 3 3/4	4 3/4	3 3/4	4 1/2	10.7
24R94		365-0-365 200-0-200	210 90	5 5	2 6	6.3 6.3	5 5	AGF	3 x 3 3/4	5 7/8	3 3/4	4 1/2	16
26R133		365-0-365	270	5	6	6.7	4.5	AGF	3 3/16 x 4 1/16	4 7/8	3 3/4	4 1/2	10
26R01		367.5-0-367.5	275	5 6.3/5	6 2	6.3CT	8.5	AGF	3 x 3 3/4	3 7/8	3 3/4	4 1/2	13
25R09		370-0-370	150	5	3	6.3CT 6.3CT	4 1	TAV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	11.5
25R32		370-0-370	150	5	3	6.3CT 6.3CT	4 1	TTV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	11.5
26R83		370-0-370	190	5	3	6.3 6.3	7.75 1.2	AGF	3 x 3 3/4	4 9/16	3 3/4	4 1/2	10.8
26R46		370-0-370	190	5	3	6.3 6.3	7.9 1.2	AGF	3 3/16 x 4 1/16	5 3/16	3 3/4	4 1/2	11.2
24R24		370-0-370	275	5CT	3	6.3CT	7	AGF	3 x 3 3/4	4 1/4	3 3/4	4 1/2	9.5
25R08		375-0-375	120	5	3	6.3CT	4	TAV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	9.5
25R31		375-0-375	120	5	3	6.3CT	4	TTV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	9.5
24R06		375-0-375	150	5	3	6.3CT	4.7	AGF	2 3/4 x 3 1/2	3 7/8	3 7/8	4 1/8	6.2
24R06U		375-0-375	150	5	3	6.3CT	4.7	GGV	2 3/4 x 2 7/8	4 1/4	3 1/2	4	6.2
24R137		375-0-375	150	5	3	6.3CT	4.7	GGV	2 3/4 x 2 7/8	4 1/4	3 1/2	4	6.2
24R138		375-0-375	150	5	3	12.6CT	2.5	AGF	2 3/4 x 3 7/16	3 7/8	3 1/2	4	5.5
22R17		375-0-375	160	5	3	12.6CT	3.5	WAV	3 3/4 x 4 5/8	5 3/4	4 5/8	5 3/8	12.2
22R33		375-0-375	160	5	3	6.3CT	5	GGV	2 7/8 x 3	4 5/8	3 7/8	4	7.5
22R68		375-0-80-375	160	5	3	6.3CT 2.5CT	5 5	GGV	2 3/4 x 3 1/8	4 1/4	3 5/8	4 1/4	7.2
26R18		375-0-375 325-0-325	170 130	5 5 5 2	3 3	12.6CT 6.3	5 2.6	AGF	3 x 3 3/4	4 3/4	3 3/4	4 1/2	11.5
24R48		375-0-375	175	5	3	6.3CT	8	GGV	2 3/4 x 3 1/4	4 1/4	3 5/8	4 3/8	8.5
24R62		375-0-375	175	5	3	6.3CT	8	GGV	2 3/4 x 2 7/8	4 1/4	3 5/8	4	7.4
24R49		375-0-375	175	5	3	6.3CT	8	AGF	3 7/16 x 2 3/4	3 1/8	4 1/8	3 7/16	8.5
24R63		375-0-375	175	5	3	6.3CT	8	AGF	3 7/16 x 2 3/4	2 3/4	4 1/8	3 7/16	7.4
24R95		375-0-375	180	5CT	3	6.3CT 2.5CT	3.3 5	AGF	2 3/4 x 3 7/16	3 3/8	4 1/8	3 7/16	8.2
22R66		375-80-0-375	200	5	3	6.3CT 2.5CT	6 10	GGV	3 x 3 3/8	4 5/8	4	4 1/2	9
26R84		375-0-375	205	5 5	3 2	6.3	5.6	AGF	3 x 3 3/4	4 1/4	3 3/4	4 1/2	9.1
26R85		375-0-375	225	5CT	3	6.3 6.3	9 2	ARF	3 x 3 3/4	5	3 3/4	4 1/2	10.5
26R66		378-0-378	205	5	3	6.3 6.3	9.5 1.2	GGV	3 x 3 9/16	4 5/8	3 3/4	4 5/8	10.8
22R118		380-0-380*	125	5	3	6.3CT	2.85	GGV	2 3/4 x 3	4 1/8	3 1/2	4 1/8	4.9
22R125		380-0-380	150	5 5	2 2			HKF	2 3/4 x 3 7/16	2 9/16	4 1/8	3 7/16	4.7
26R97		380-0-380	180	5	3	6.3	9	ARF	2 3/4 x 3 7/16	5 1/2	3 7/16	4 1/8	9.7
26R86		380-0-380	220	5	3	6.3 6.3 6.3	7 5 1.2	GGV	3 x 3 9/16	4 3/4	4	4 3/4	10.5
26R95		380-0-380	250	5	3	6.3 6.3 6.3	7 5 1.2	AGF	3 x 3 3/4	5	3 3/4	4 1/2	10.5
22R126		380-0-380 35V. Bias Tap	340 25	5	6	6.3CT	5.6	GGV	3 x 3 3/4	4 1/2	3 3/4	4 7/8	10.5
24R42		385-0-385	160	5	3	6.3CT	5	AGF	2 1/2 x 3 1/8	4 5/16	3 3/4	3 1/8	7
26R87		385-0-385 235-0-235	195 105	5 5 5 2	2 3	6.3 6.3	7.65 .6	AGF	3 x 3 3/4	4 3/4	3 3/4	4 1/2	11
25R10		385-0-385	200	5	3	6.3CT 6.3CT	4.5 1	TAV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	12
25R33		385-0-385	200	5	3	6.3CT 6.3CT	4.5 1	TTV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	12
22R34		385-0-385	225	5	3	6.3	5	GGV	3 x 3 5/16	4 5/8	3 7/8	4 3/8	9.2
22R113	8	385-0-385	225	5	3	6.3	5	GGV	3 x 3 5/16	4 5/8	3 7/8	4 3/8	9.2
26R67		385-0-385	230	5 5	3 2	6.3	9	AGF	3 3/16 x 4 1/16	5 9/16	3 13/16	4 3/4	12
26R140		385-0-385	230	5 5	3 2	6.3 6.45	1.2 7.4	AGF	3 3/16 x 4 1/16	5 9/16	3 3/4	4 1/2	13
26R103		388-0-388	275	5	6	6.3 6.3	8.5 1.2	GGV	3 x 4 1/8	4 3/4	3 7/8	5 1/4	10

Power Transformers

PRIMARY 117 VOLTS 50/60 CYCLES

Part No.	Notes	Plate Supply Volts	Plate Supply MADC	Rectifier Fil. Volts	Rectifier Fil. Amps.	Other Fil. Volts	Other Fil. Amps.	★Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
26R104		388-0-388	230	5 6.3/5	3 2	6.3	9	AGF	3 x 3 3/4	3 7/16	3 3/4	4 1/2	10
26R02		390-0-390 or 220-0-220	300	5 5 5	3 3 2	6.3 6.3	8.5 3.5	AGF	3 x 3 3/4	5	3 3/4	4 1/2	14
26R27U		390-0-390 325-0-325	160 130	5 5 5	3 3 3	6.3 6.3	8 4	AGF	3 x 3 3/4	4 5/8	3 3/4	4 1/2	12
26R05		395-0-395 or 325-0-325	310	5 5	3 2	6.3 6.3	5 5	AGF	3 x 3 3/4	4 1/8	3 3/4	4 1/2	11
26R06		395-0-395 or 325-0-325	310	5 5	3 2	6.3 6.3 6.3	5 5 2.6	GGV	3 x 4 3/8	4 3/4	3 7/8	5 1/2	13
24R66		400-0-400	30	5	2	6.3 6.3	1.2 1.2	GGV	2 x 2 3/8	3 1/8	2 5/8	3 1/8	3
24R76		400-0-400 and 800	30 5	5 5	2 2	6.3CT 6.3 6.3	3 1 .6	HKF	3 1/8 x 2 1/4	2 5/8	3 3/4	3 1/8	4.5
24R78	13	400-0-400 and 650	70 3	1.25	.3	6.3CT 6.3	3.5 .6	GGV	2 1/4 x 2 5/8	3 1/2	3	3 3/4	5
24R35		400-0-400	110	5CT	3	2.5CT 2.5CT	3.5 15	AGF	2 1/2 x 3 1/8	3 3/8	3 1/8	3 3/4	5.5
24R140		400-0-400	125	5	2	6.3CT	2.5	GGV	2 1/2 x 2 3/8	3 7/8	3 1/8	3 1/2	4.2
24R45		400-0-400	140	5	3	6.3CT	4	GGV	2 3/4 x 2 1/2	4 1/4	3 5/8	3 5/8	5.7
24R26		400-0-400	175	5	3	6.3	4.5	AGF	3 x 3 3/4	3 7/8	3 3/4	4 1/2	8
24R26U		400-0-400	175	5	3	6.3	4.5	GGV	3 x 2 13/16	4 3/4	4	4	8
24R38		400-0-400 80V. Bias Tap	175	5CT	3	2.5 6.3CT 6.3CT	1.75 2.5 2.5	GGV	3 x 2 13/16	4 3/4	4	3 7/8	8.2
26R139		400-0-400 330-0-330	180 180	5 5	3 3			GGV	3 x 3 1/2	4 5/8	3 3/4	4 3/4	11
24R07		400-0-400	200	5	3	6.3CT	5	AGF	3 x 3 3/4	4 1/2	3 3/4	4 1/2	9.2
24R142	8	400-0-400	200	5	3	6.3CT	5	AGF	3 x 3 3/4	4 1/2	3 3/4	4 1/2	9.2
24R07U		400-0-400	200	5	3	6.3CT	5	GGV	3 x 3 3/8	4 5/8	3 3/4	4 1/2	9.2
24R141	8	400-0-400	200	5	3	6.3CT	5	GGV	3 x 3 3/8	4 5/8	3 3/4	4 1/2	9.2
24R39		400-0-400	200	5	3	6.3CT 18) 24) 50 W. 50)	5.3	AGF	3 x 3 3/4	4 1/8	3 3/4	4 1/2	7.7
26R19		400-0-400 212-0-212	220 90	5 5	3 2	6.3 6.3	10 2.6	AGF	3 x 3 3/4	4 3/4	3 3/4	4 1/2	11.7
26R75		400-0-400 212-0-212	220 90	5 5 5	3 3 2	6.3 6.3	10 2.6	AGF	3 x 3 3/4	5 1/4	3 3/4	4 1/2	11.9
24R03		400-0-400	250	5	4	6.3CT	5	GGV	3 x 3 5/16	4 5/8	3 7/8	4 3/8	8
24R143	8	400-0-400	250	5	4	6.3CT	5	GGV	3 x 3 5/16	4 5/8	3 7/8	4 3/8	8
25R11		400-80-0-80-400	250	5 5	6 2	6.3CT	7	TAV	3 1/2 x 5 3/8	6 1/16	5 1/16	5 7/8	15
25R34		400-80-0-80-400	250	5 5	6 2	6.3CT	7	TTV	3 1/2 x 5 3/8	6 1/16	5 1/16	5 7/8	15
22R64		400-0-400	300	5	6	6.3CT	6	GGV	3 x 3 3/8	4 5/8	4	4 1/2	11
22R65		400-0-400	300	5	6	6.3CT	6	AGF	3 x 3 3/4	4 1/4	3 3/4	4 1/2	11
26R26U		400-0-400	300	5	3 6	12.6CT	10	GGV	3 1/2 x 4 1/4	5 1/2	4 5/8	5 3/4	10.2
22R35		400-0-400	340	5	6	6.3CT	7	GGV	3 x 4	4 5/8	3 7/8	5 1/4	12.5
22R114	8	400-0-400	340	5	6	6.3CT	7	GGV	3 x 4	4 5/8	3 7/8	5 1/4	12.5
22R59		400-0-400	500	5	6	6.3CT 6.3	7 3	GGV	3 1/2 x 4 5/8	5 5/16	4 1/2	5 5/8	19
25R59		410-0-410	70			6.3	1	RTV	2 1/8 x 2 1/8	3 17/32	2 15/16	Dia.	1.8
26R00		420-0-420 360-0-360 300-0-300	295	5 5	6 3	6.3 6.3 6.3 6.3	3 3 3 3	AGF	3 x 3 3/4	5	3 3/4	4 1/2	11
26R76		420-0-420 365-0-365 300-0-300 185-0-185	300	5 5	6 4	6.3 6.3 6.3 6.3	4 4 3 1.2	AGF	3 x 3 3/4	5 1/8	3 3/4	4 1/2	13
25R12		425-0-425	70	5	2	6.3CT	3	TAV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	4.5
25R35		425-0-425	70	5	2	6.3CT	3	TTV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	4.5
25R76	1	425-0-425	70	5	2	6.3CT	3	JA	2 5/8 x 2 1/8	4 7/8	3 1/16	3 9/16	4.5
25R46		435-365-0-365-435 125-0-125	125 25	5 5	3 2	6.3CT 2.5CT	3 5	NTV	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2	6.5
24R14		435-0-435 80V. Bias Tap	250	5 6.3/5	3 3	6.3CT 2.5	3 10	GGV	3 x 3 13/16	4 5/8	3 13/16	4 7/8	11.8
24R15		438-0-438	185	5	3	6.3 6.3	4 3	GGV	3 x 3 3/8	4 5/8	3 7/8	4 1/2	9.5
25R13		440-0-440	50	5	2	6.3CT	3	TAV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6
25R36		440-0-440	50	5	2	6.3CT	3	TTV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6
22R45		440-0-440	59	6.3 6.3	.6 .3	6.3 6.3	.9 3	GGV	2 1/2 x 2 1/4	3 7/8	3 1/4	3 1/8	4.5
24R75		440-0-440 1250	125 5	5 5	3 3	6.3 2.5 2.5	.6 1.75 1.75	HKF	3 7/16 x 2 3/4	3 1/4	4 3/16	3 1/2	7.5
24R25		440-0-440	130	5	3	6.3CT	3.5	GGV	2 3/4 x 2 13/16	4 1/4	3 1/2	4 1/8	7
22R49		440-360-0-360-440	157	5	3	6.3CT 6.3 6.3	8 3 1	GGV	3 x 3 5/8	4 5/8	4	4 3/4	12
25R14		440-0-440	165	5	3	6.3 6.3 6.3 6.3	7.5 3 3 .6	TTV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	12
25R16		450-0-450	60	5	2	6.3CT	3.4	TAV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6.5
25R37		450-0-450	60	5	2	6.3CT	3.4	TTV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6.5
22R130	h	450-0-450 800 (h)	125 2	5	3	2.5 2.5 6.3 6.3	1.75 1.75 6.25 .6	GGV	3 x 4	4 1/2	3 3/4	4 7/8	12.1
25R15		450-0-450	200	5	2	6.3 6.3 6.3	4 4 .6	TTV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	12
26R30U		450-0-450 325-0-325	240 200	5 5 5	3 3 3	6.3 6.3 6.3	6 6 2.6	GGV	3 5/8 x 3 7/8	6	4 3/4	5 7/8	16
22R60		450-0-450	250	5	4	6.3CT 6.3	2 4	GGV	3 x 3 5/8	4 5/8	4	4 3/4	12
24R150		450-0-450	250			18	.65	CAV	2 1/2 x 3	3 3/4	3 1/8	3 1/2	6
25R52	1	490-400-0-400-490	175	5	3	2.5CT 6.3CT	6 4	KTH-F	4 27/32 x 3 25/32	4 5/8	4 5/8	5 1/2	8
25R17		500-0-500	70	5	3	6.3CT	4	TAV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	9.5
25R38		500-0-500	70	5	3	6.3CT	4	TTV	2 1/2 x 4 3/4	5 5/16	4 1/2	5 1/4	9.5
25R47	1	500-0-500 and 80-0-80	250 100	5 5	3 2	6.3CT 6.3CT/ 2.5CT	4 3	NTV	4 1/8 x 4 1/8	5 1/2	5 1/8	5 1/8	15
25R49	1	500-400-0-400-500 80-0-80	500 100	5 5	6 2	6.3CT 6.3CT	5 3	NTV-3	4 7/8	7	5 3/4	5 3/4	22
25R18		510-0-510	85	5	3	6.3CT 6.3CT	4 1	TAV	2 1/2 x 4 3/8	5 5/16	4 1/2	5 1/4	11.5
25R39		510-0-510	85	5	3	6.3CT 6.3CT	4 1	TTV	2 1/2 x 4 3/8	5 5/16	4 1/2	5 1/4	11.5
25R19		520-0-520	115	5	3	6.3CT 6.3CT	4.5 1	TAV	2 1/2 x 4 3/8	5 5/16	4 1/2	5 1/4	11.5
25R40		520-0-520	115	5	3	6.3CT 6.3CT	4.5 1	TTV	2 1/2 x 4 3/8	5 5/16	4 1/2	5 1/4	11.5
25R53	1	525-425-0-425-525	250	5	3	6.3CT 6.3CT	3 3	KTH-F	4 27/32 x 3 25/32	4 5/8	4 5/8	5 1/2	8
25R20		550-370-75-0-75-370-550	175	5	6	6.3CT 6.3CT	5 1	TAV	3 1/2 x 5 3/8	6 1/16	5 1/16	5 7/8	17.5
25R41		550-370-75-0-75-370-550	175	5	6	6.3CT 6.3CT	5 1	TTV	3 1/2 x 5 3/8	6 1/16	5 1/16	5 7/8	17.5
24R84		550-0-550	250	5	4			GGV	3 x 2 7/8	4 5/8	3 15/16	4	8
26R145		560-0-560*	300	5	3	6.3 6.3 6.3	.6 1.2 10.5	AGF	4 1/16 x 3 3/16	2 7/16

Power Transformers

PRIMARY 117 VOLTS 50/60 CYCLES

Part No.	Notes	Plate Supply Volts	Plate Supply MADC	Rectifier Fil. Volts	Rectifier Fil. Amps.	Other Fil. Volts	Other Fil. Amps.	Mtg.* Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
25R60	1	600-0-600	200	5	3	6.3CT 6.3 7.5	2 3 3	KTH-F	4 27/32 x 3 25/32	4 5/8	4 5/8	5 1/2	8
22R36		600-0-600	200	5	3	6.3	5	GGV	3 x 3 3/8	4 5/8	3 7/8	4 1/2	9.5
24R27		600-0-600	200	5	3	6.3 6.3	3 3	GGV	3 x 3 1/16	4 5/8	3 7/8	4 1/4	8.5
25R48		600-525-0-525-600	200	5	3	6.3CT 7.5CT/6.3CT	3 3 4	NTV	4 1/8 x 4 1/8	5 1/2	5 1/8	5 1/8	15.5
25R61	1	600-525-0-525-600	300	5	6	6.3CT 6.3 7.5	3 3 3	KTH-G	4 25/32 x 4 3/4	4 5/8	5 3/8	5 3/8	12
24R85		617-0-617	250	5	4			GGV	3 x 3 1/8	4 5/8	4	4 1/4	9
24R86		617-0-617	500	5	6			GGV	3 1/2 x 4 5/8	5 5/16	4 1/2	5 5/8	20
22R51		625-0-625	236	5	6	6.3CT 6.3 6.3	8 3 3	GGV	3 1/2 x 4 5/8	5 5/16	4 1/2	5 5/8	20
22R56		625-0-625 and 130	278 50	5	4	6.3 6.3 6.3	4 1 1	GGV	3 1/2 x 4 5/8	5 5/16	4 1/2	5 5/8	20
22R58		750-0-750	315	5	6	6.3 6.3	8 3	GGV	3 1/2 x 6 1/8	4 1/2	5 5/16	7 1/8	30

Half-Wave-Power Transformers

PRIMARY 117 VOLTS 50/60 CYCLES

Part No.	Notes	Plate Wave Volts	Plate Wave MADC	Filament Supply Volts	Filament Supply Amps.	★Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
25R54	23	30	50	6.3CT 35	.2(RMS) 1	KAV	2 3/8 x 2 3/16	2 5/16	3 1/4	2 3/4	
22R129	18 Bias Supply	7.5 36 50 300	100AC 100AC 150AC 10AC			FGV	2 3/8 x 21/32	2 3/8	2 7/8	1 7/8	.75
24R145		85	300	6.3 6.3 6.3 6.3	6.6 3 5 6.3	HFF	3 x 3 3/4	2 5/16	4 1/2	3 3/4	7
26R55		96	145	6.3	6.45	AGF	2 3/16	3 1/8	2 1/2	3	2.6
24R144	23	100 300 Full Wave 15 Full Wave	100 500 600			HFF	3 x 3 3/4	2 15/16	4 1/2	3 3/4	2.5
24R72		117	15	6.3	.6	BAH	2 3/8	1 5/8	2 13/16	1 5/8	1
26R32		117	20	6.3CT	.7	BGV	2	2	1 5/8	2 1/2	1
26R144		117	70	6.3	.7	BGV	2 1/8	2	2 5/8	1 5/8	1
22R134		117*	100	6.3	1.1	BHH	3 1/8	2 1/4	3 11/16	2 1/4	2.1
26R14		117	200	6.3 6.3 6.3	4.5 4 2	AGF	2 3/4 x 2 1/2	3 1/2	3 1/2	4 1/8	5.2
24R155	26	117	400(RMS)	6.3 6.3 24	.1 5 1	GGV	2 1/2 x 1 3/4	3 7/8	3 1/8	3 7/8	4.6

Half-Wave Power Transformers

PRIMARY 117 VOLTS 50/60 CYCLES

Part No.	Notes	Plate Supply Volts	Plate Supply MADC	Filament Supply Volts	Filament Supply Amps.	★Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
26R106		117/110	900	6.3	10	AGF	2 13/16 x 2 1/4	2 5/8	3 3/8	2 13/16	4
26R105		117/110	900	6.3	10	GGH	3 5/16 x 3 3/16 or 2 1/2 x 3 3/16	3 1/8	3 3/4	3 3/4	4
26R37		125	15	6.3	.6	BAV	2	2	2 3/8	1 3/8	.7
26R38		125	50	6.3	2	BAH	3 1/8	2 1/4	3 1/4	2 1/8	1.5
26R107		127/115	1,000	12.6CT 12.6CT 6.3 6.3	5 2 10 2	AGF GGV GGH	3 1/8 x 2 1/2 2 1/2 x 2 1/8 2 1/2 x 2 1/8	3 1/2 3 3/4 3 1/8	3 3/4 3 1/8 3 3/4	3 1/8 3 1/2 3 1/2	6
24R111		128	300	6.3	2.5	GGV	2 x 1 13/16	3 1/8	2 1/2	2 7/8	2.2
24R73		130	20	0-15-225-30	.6	GGV	1 3/4 x 2	2 3/4	2 3/8	2 3/4	2
24R67		135	15	6.3	.9	HFF	1 1/4	1 3/4	1 7/8	1 9/16	1
24R71		135	50	6.3	1.5	BAH	3 1/8	2 1/4	3 3/4	2 1/8	1.5
24R74		135	200	6.3CT	5.5	AGF	2 13/16 x 2 1/4	1 7/8	3 3/4	2 13/16	2.5
26R13		140/117	300	6.3 6.3 6.3	9 2 1	AGF	3 x 3 3/4	3 7/8	3 3/4	4 1/2	7.5
26R108		140/127/115	1,000	6.3 6.3 12.6CT	6 6 2	AGF CGV GGH	2 1/4 x 2 13/16 2 1/4 x 2 1/8 2 1/8 x 2 13/16	3 1/8 3 1/2 3	3 3/8 2 13/16 3 3/8	2 13/16 3 1/8 3 1/8	6
26R60		150	25	6.3	.5	BGV	2	2	1 3/4	2 1/2	.7
22R12		150	50	6.3	1.5	BAH	3 1/8	2 1/4	2	3 3/4	1.5
22R21	11	170/160/150	500 250 MA Doubler	6.3CT	6	GGV	2 3/4 x 3 3/4	4 1/4	3 5/8	4 7/8	9
26R39		184 Tap 92	260 .6			AGF	1 3/4 x 2 3/16	2 3/4	2 3/16	2 5/8	2
22R03	14	180 177	500 5 (Bias)	6.3 6.3	5.5 5.5	GGH	3 3/4 x 4 3/8	3 15/16	4 5/8	5 1/2	17
22R120		220 Autoformer on Primary	8.5	6.0	.3	BAH	2 3/8	1 5/8	2 13/16	1 3/4	.5
24R146	k	300 325-0-325 8-0-8	50 100 100	5 12.6	2 .6	CHV	2 1/2 x 2 3/8	3 3/4	3 1/8	2 1/2	4.2
24R112		320	13 Plus 50 MA (RMS)	6.3	.6	BHV	2 3/8	2 3/8	2 7/8	1 3/4	1
24R113	8	550	25	6.3 6.3	1.5 1.5	AGF	2 x 2 1/2	2 3/4	3	2 1/2	2
24R109	15	550 55	30 60	6.3 6.3	.9 .6	DAF		2 1/4	2 5/8	2 3/16	1.4
22R133		800 Tap 500	40 Total	6/9/12	2	BAH	3 9/16	2 1/2	4	2 5/8	1.7
24R149	27	950	20			BAV	2 13/16	2 11/16	3 5/16	2 1/8	1.5
22R121		1,000* 300-0-300	2 110	2.5 5CT 6.3 6.3CT	1.75 2 .75 5	AGF	2 1/2 x 3 1/8	3 3/8	3 3/4	3 1/8	7
24R152		1,000*	4			BAV	2 13/16	2 11/16	3 5/16	2 1/8	.9
24R151		1,000	30			DHF	2 x 2 1/2	1 7/8	3	2 1/2	2.1
24R148		1,100	.5	6.3	.75	BAV	3 1/8	2 1/4	3 11/16	2 1/4	1.5
24R139		1,200 325-0-325	4	1.25 6.3 6.3CT	.2 .6 3	GGV	2 1/2 x 2 11/16	3 3/4	3 1/8	4	6.2
24R31		1,500	10	2.5 2.5	1.75 2.1	GGV	2 1/2 x 2 1/16	3 7/16	3 1/4	3 1/4	4
24R28		1,600	2	2/1.25 6.3 6.3	1.75 .3 .3	GGV	2 1/2 x 2 1/16	3 7/8	3 1/4	3 1/4	4
24R77		1,600	3	2.5-5-6.3 2.5-5-6.3	1 3	HKF	2 1/2 x 2	2 3/8	3 1/16	2 9/16	3.5
22R131	8,h	1,600* 320-0-320	2 75	2.5 6.3	1.75 5	GGV	2 3/4 x 2 1/2	3 3/4	3 1/8	3 1/2	4.7
26R28U		1,750	2	2.5 6.3/2.5	2 2	GGV	2 x 2	3 1/8	2 5/8	2 7/8	2.6
22R40		1,800	2	2.5 2.5 or 6.3	1.8 2.2 .6	GGV	2 1/2 x 1/2	3 7/8	3 1/4	3 3/4	5
24R91		1,800	4	2.5	1.75	GGV	2 x 2	3 1/8	2 5/8	2 7/8	2.7
24R153	5	1,800	4	2.5	1.75	GGV	2 x 2	3 1/8	2 5/8	2 7/8	2.7
25R55	8	1,800* 1,800 150-0-150	4 4 100	6.3CT 6.3CT	5 3	TTV	3 7/8 x 2 3/4	4 1/4	4 7/16	3 5/8	3.5
24R79	16	1,825 180 117	3 475(RMS) 200(RMS)	6.3CT 1.25	5.65 .2	GGV	2 1/2 x 3 3/4	3 7/8	3 1/4	4 5/8	7.5
22R42		1,880	1.5	2.5	1.75	BAH	3 5/8	2 1/2	2 5/8	4	2
24R92		2,400	5	2.5	1.75	GGV	2 3/4 x 2 3/4	4 1/4	3 1/2	3 7/8	5.6
24R30		2,400	5	2.5 2.5	2 2	GGV	2 3/4 x 2 11/16	4 1/4	3 1/4	3 3/4	5.5
22R127		2,500	1.16			BAH	3 9/16	2 1/2	4	2 5/8	1.8
26R29U		2,500	5	2.5 6.3/2.5	2 3	GGV	2 1/4 x 2 1/2	3 7/8	3 1/4	3 1/2	4.6

Half-Wave-Power Transformers

PRIMARY 117 VOLTS 50/60 CYCLES

Part No.	Notes	Plate Wave Volts	Plate Wave MADC	Filament Supply Volts	Filament Supply Amps	★Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
22R119		2,700*	2	1.25 or 2 6.3 6.3	1.75 .6 .6	GGV	2 1/2 x 2 1/4	3 3/4	3 1/8	2 1/2	3.5
24R29		2,700	2	2/1.75 6.3 6.3	1.75 .3 .3	GGV	2 1/2 x 2 1/4	3 7/8	3 1/4	3 1/2	4.6

1 MADC rating for choke input filter. For capacitor input filter divide MADC rating by 1.30
4 The ratings listed here are for industrial applications. For MIL-T-27B rating refer to the green section of this catalog
5 Pri. 230 Volts 50/60 Cycles 6 Pri. 105/115/125 Volts 54/64 Cycles 8 Primary 115/230 Volts 50/60 Cycles
10 Pri. 105/115/125 Volts 380/1000 Cycles
11 Primary 107/117 Volts 50/60 Cycles
14 500 MA Rating is for use in doubler circuit
15 Exact replacement for Solar Model CF-160 Condenser Tester. Use original mounting brackets
16 Exact replacement for Heathkit Model OP-1 Scope. To replace complete power transformer use 21F68 and 24R79
17 Highly shielded scope transformer
18 Primary 115 V. @ 400 Cycles
19 Voltage Doubler Application
20 Primary 110 V. @ 60 Cycles.
21 Ratings for Full Wave Bridge Choke input application.
22 Unit also has Autoformer taps of: 15V @ 10 MA; 10V. @ 250 MA; 10V. @ 250 MA; 15V @ 10 MA
23 Bridge Application
24 Primary 110/112/115/117/120 V. @ 60 Cycles
25 Secondary tap 625 V. @ 5 MADC
26 Primary 110/125 @ 50/60 Cycles
27 Primary 125 V. 50/60 Cycles
(h) Half-Wave Application
(k) Primary 120/130/140/150 @ 60 Cycles

Photoflash Transformers

Part No.	Primary Volts	Secondary Voltage	Secondary MADC	Filament Volts	Filament Amps.	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
22R41	4 V DC Vibrator	450 V DC or 900 V DC in Doubler Ckt.	16 8			BAV	2 3/8	2 3/8	2 1/8	2 7/8	1
22R42	117 @ 60 CPS	1,880	1.5	2.5	1.75	BAH	3 5/8	2 1/2	2 5/8	4	2
22R43	117 @ 60 CPS or 4 V DC Vibrator	1,100 or 2,200 V in Doubler Ckt.	4			BAV	2 13/16	2 3/4	2 1/8	3 3/8	2
22R24	117 @ 60 CPS or 6 V DC Vibrator	350-0-350	135	6.3 With 117 V. Only	4.7	GGV	3 x 3 1/8	4 5/8	3 7/8	4 1/4	8.75
22R46	117 @ 60 CPS or 6 or 12 V DC Vibrator	350-0-350	135	6.3 6.3	3 3	GGV	3 x 3	4 5/8	3 7/8	4	8.7
24R107	105/115/125 60 CPS	Charges up to 1,050 MFD to 450 Volts DC				BAV	2 3/8	2 5/16	2 15/16	2	1.4
22R47	115 60 CPS	Charges up to 100 MFD to 2,200 Volts DC				KTH	3 1/4	2 1/2	3 3/4	2 5/32	2
22R44	Discharge From 200 Volt Condenser	15 KV Peak				Single Hole Mounting		1 1/2	1 1/8	2 1/4	.2
22R48	Discharge From 200 Volt Condenser	15KV Peak				Phenolic Tube		3 long	7/8 Dia.		.2
22R115	Photoflash trigger coil for 450 V flash tube Replaces GE 86G41							3.41 long	9/16 Dia.		

Converter-Photoflash Transformers

Part No.	Primary	Secondary	Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D
25R58	Discharge for .25 MFD at 225 or 250 Volts DC Trigger Type Transformer	6 KV Peak	RTV		15/16	7/8 Dia.	
25R57	4.5 V DC (Inverter Type)	Output to Feed 25R56	RTV	11/16	1 3/16	7/8 Dia.	
25R56	115 V. 50/60 CPS or 4.5 Volts DC. Battery switched with 25R57 Inverter.	400 Volts DC from Voltage Doubler Circuit.	KTH-A	2 3/8	1 7/8	2 13/16	1 3/4

Low Voltage Rectifier Transformers

50/60 Cycles

Part No.	Primary Voltage	Secondary AC Voltage	Secondary AC Amps	★ Mtg. Type	Mtg. Centers	Dimensions H	Dimensions W	Dimensions D	Wt. Lbs.
23V103	115	6.3/13/19.5/26	3	LAV	2 1/4 x 2 3/16	3 1/2	2 7/8	2 11/16	3.5
23V106	115	8/9‡ 8.9‡	2 2	LAV	2 x 2 1/16	3 1/8	2 9/16	2 9/16	2.3
23V107	115	7/8/9	7	LAV	2 1/4 x 2 3/16	3 1/8	2 7/8	2 11/16	3.5
23V109	115	9CT‡ 9‡ 9‡ 9‡	3.5 3.5 3.5 3.5	LAV	2 1/2 x 2 7/16	3 13/16	3 3/16	2 15/16	5
23V108	105/115/125	9‡ 9‡ 9‡ 9‡	10 10 10 10	LAV	3 x 4 9/16	4 5/8	3 13/16	5 1/16	16
23V208	115	9.5	13.8	CAV	2 1/2 x 2 1/8	3 13/16	3 1/8	2 5/8	4
23V115	115 •	10/20CT/40CT	.035	BAH	2	1 3/8	2 3/8	1 3/8	.5
23V116	115 •	10/20CT/40CT	.1	BAH	2 3/8	1 5/8	2 13/16	1 5/8	.7
23V117	115 •	10/20CT/40CT	.3	BAH	3 1/8	2 9/32	3 11/16	2	1.5
23V118	115 •	10/20CT/40CT	.75	BAH	3 9/16	2 5/8	4	2 1/4	2.4
23V119	115 •	10/20CT/40CT	1	GGV	2 x 2 1/4	3 1/4	2 11/16	3	3.25
23V114	115/230	12CT 12CT	10	GGV▲	3 x 3 5/8	4 5/8	3 15/16	4 3/4	12.7
23V113	115	12/13.5/15/16.5/18 12/13.5/15/16.5/18	20 20	LAV	2 3/4 x 4 1/2	5 3/8	4 7/16	4 3/4	25
23V121	115	13/18‡ 13/18‡	.900 .900	GGV	1 15/16 x 2	3 1/8	3	2 1/2	2.75
23V47	115	13‡ 13‡	3 3	LAH	2 13/16 x 2 1/8	2 13/16	3 3/8	2 3/4	3.2
23V207	230	15.2‡	7	CAH	3 1/8 x 1 3/4	3 3/16	3 3/4	2 1/4	3.2
23V100	115	17/18	3	LAV	1 5/8 x 2 3/8	3 1/8	2 9/16	2 13/16	3.2
23V101	115	17/18	6	LAV	2 1/2 x 2 11/16	3 13/16	3 5/16	3 3/16	5.5
25V06	115	17/21.5‡ 17/21.5‡	1.5 1.5	NTV NTV	2 11/16 x 2 11/16	4 1/8	3 7/16	3 7/16	5
25V34	115	17/21.5‡ 17/21.5‡	1.5 1.5	KTH-E	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
23V210	115	18.4CT	.9	BAH	2 13/16 x 2	2	3 1/16	1 3/4	.75
23V104	115	24/27/30/33/36	3	LAV	2 1/2 x 2 11/16	3 13/16	3 3/16	3 3/16	5.65
23V105	110/120	24/27/30/33/36	8	LAV	3 x 3 5/16	4 5/8	3 13/16	3 13/16	10.75
23V112	115	24/26/28/30	15	LHV	3 3/4 x 4 9/16	3 13/16	4 5/8	5 1/16	18.5
23V167	115	24	20	PUV	2 3/16 x 7	5 1/4	4 1/16	7 1/2	18
23V211	115	25.6	2	GGV	2 x 2 3/16	3 1/8	2 5/8	3 1/8	3
23V162	117	27.5CT	25MA	BAV	1 1/2	1 3/8	1 7/8	1 1/4	.75
23V212	115	26CT	2.5	BAV	3 1/8	3 1/16	3 5/8	2 1/4	2
23V214	115	32CT	2	LAH	2 13/16 x 2	2 7/8	3 3/8	2 1/4	2.5
25V35	115	34/43‡ 34/43‡	4.5 4.5	KTH-H	6 3/32 x 4 19/32	5 7/8	5 3/8	6 3/4	21
25V07	115 •	34/43‡ 34/43‡	4.5 4.5	NTV	4 7/8 x 4 7/8	7	5 3/4	5 3/4	22
23V102	115	36‡ 36‡	3 3	LAV	3 x 3 1/16	4 5/8	3 13/16	3 9/16	9.75
23V184	115	37.5CT	500MA	GGH	2 1/2 x 2 1/4	2 1/2	3	3 1/4	3.5
23V187	115/230	40CT	100MA	BAH	2 3/8	1 5/8	2 13/16	2	.6
23V171	115	50	50MA	BHH	2 3/8	1 5/8	2 13/16	2	.6
23V215	115	64CT	.9	BAH	3 9/16	2 1/2	4	2 1/4	1.75
23V89	115	72CT	.075	BAH	2 3/8	1 5/8	2 13/16	1 5/8	.6
23V68	115	77 Autoformer	8	GGV	3 1/16 x 3	4 5/8	3 3/4	4 1/4	6.75
23V122	115	80CT	1.2	GGV	2 1/2 x 2 3/8	3 1/2	2 7/8	3 1/2	4.5
23V216	115	92CT	1	LAH	2 1/8 x 2 1/2	2 5/8	3	2 7/8	2.3
23V188	105/115/125	125CT	300MA	BGH	3 9/16	2 1/2	4	2 3/4	1.8
23V110	110/120	140/150/160	.75	LAV	2 1/2 x 2 13/16	3 13/16	3 3/16	3 5/16	5.8
23V111	110/120	140/150/150	2.5	LAV	3 1/2 x 4	5 3/8	4 7/16	5	19
23V69	115	154 Autoformer	4	GGV	2 9/16 x 3	4 5/8	3 3/4	3 5/8	5
23V150	95/105/115/125	240CT	300MA	LAH	2 x 3 3/4	3 7/8	4 1/2	2 1/2	4.5
23V161	95/105/115/125	240CT	300MA	LAV	2 1/8 x 3	4 1/2	3 7/8	2 1/2	4.5

▲ Top chassis mounting – lead holes on side of shield • Primary tapped to produce lower secondary voltages

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For Mounting Illustrations, Cross References and Pricing Information See Pages 1518-1530

Multi-Tapped-Low Voltage Rectifier

SELENIUM OR SILICON RECTIFIERS
PRIMARY 117 VOLT 50/60 CYCLES

Each Selenium Rectifier Transformer listed in this section has terminal numbering and winding arrangement as shown in schematics. Primary connections are made to terminals 1, 2, 3, 4, 5, 6 and 7. The winding connected to terminals 5, 6 and 7 is a separate isolated primary winding, designed for the purpose of extending the voltage range of the transformer. This is accomplished by connecting the winding in series aiding or in series bucking with terminals 2, 3 or 4. Two identical secondary windings are connected to terminals 8 and 9 and to 10 and 11. Complete connection data supplied with each unit.

Part No.	Rectifier Circuit	Secondary AC Volts (Approx.)	OUTPUT* Res. or Ind. Load DC Volts	DCA	Capacitive Load DC Volts	DCA	Recommended Capacitor	Mtg. Centers
23V60	Full Wave Bridge	11.7 to 29.4 11.1 to 28.5 Height	3.3 to 11.2 7.4 to 23.0 3 1/8 Width	2 1.25 2 1/2	3.5 to 13.8 8.7 to 30.0 Depth 3 3/8	2 1.25 Weight	1,000 MFD 500 MFD 2.5	2 x 2 1/8
23V61	Full Wave Bridge	12.2 to 29.7 12.2 to 29.7 Height	3.7 to 11.1 8.9 to 24.3 3 5/8 Width	4 2 2 7/8	4 to 14.7 10.8 to 33 Depth 3 1/2	4 2 Weight	2,000 MFD 1,000 MFD 3.8	2 1/4 x 2 3/8
23V62	Full Wave Bridge	11.7 to 29.2 11.8 to 29.2 Height	4.3 to 12 8.8 to 24 4 Width	3 1/4	4.5 to 14.5 11.4 to 32.4 Depth 4 1/8	8 4 Weight	4,000 MFD 2,000 MFD 6.1	2 1/2 x 2 7/8
23V63	Full Wave Bridge	12.0 to 29.8 12.0 to 29.6 Height	3.4 to 11.5 8.4 to 24 4 1/4 Width	12 3 7/16	3.9 to 14.4 10 to 32 Depth 5 1/8	12 6 Weight	6,000 MFD 3,000 MFD 9.1	2 3/4 x 3 1/4
23V64	Full Wave Bridge	12.2 to 29.7 12.1 to 29.2 Height	3.9 to 11.4 8.7 to 23.7 4 3/4 Width	15 8 3 3/4	4.4 to 14.8 10.4 to 32.5 Depth 5 1/4	15 8 Weight	7,500 MFD 4,000 MFD 12.6	2 15/16 x 3 3/4
23V66	Full Wave Bridge	12.2 to 29.1 12.2 to 29.0 Height	3.9 to 11.4 8.6 to 23.5 5 3/8 Width	22.5 12.0 4 3/8	4 to 14.3 10.8 to 33 Depth 6 3/8	22.5 12.0 Weight	11,250 MFD 6,000 MFD 20.5	3 1/2 x 4 1/4
23V65	Bridge	25 to 53.5 Height	8 to 44 5 3/8 Width	8 4 3/8	25 to 63 Depth 7 1/2	8 Weight	4,000 MFD 26	3 1/2 x 5 1/4
23V67	Bridge	25 to 53 Height	18 to 43.5 7 1/8 Width	12 5 5/8	24 to 60 Depth 6 1/4	12 Weight	6,000 MFD 23	4 5/8 x 5 1/2

* DC Voltages may vary slightly from those shown due to rectifier voltage drops, lead loses and capacitor value used.

Low Voltage Control

Part No.	VA Output	Primary Voltage	Secondary Voltage	Secondary Amps.	✱Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
23V153	.5	115**	24	40MA	DAF		7/8	3/4	1	.1
23V141	1.2	115	12	100MA	BAH	1 3/4	1 3/16	2 1/8	1	.2
23V179	2	115	21	95MA	BAH	2	1 3/8	2 3/8	1 5/8	.5
23V182	2	440	21	95MA	BAH	2	1 3/8	2 3/8	1 5/8	.5
23V154	3.1	115**	24	130MA	BGH	2	1 3/8	2 3/8	1 3/8	.5
23V170	3.1	115	25	125MA	BGH	2	1 3/8	2 3/8	1 3/4	.5
23V174	3.4	117	13.5	250MA	BAH	2	1 3/8	2 3/8	1 5/8	.5
23V175	4	117	16 or 19	250 or 125MA	BHH	2	1 3/8	2 3/8	1 5/8	.5
23V178	4	250	16 or 19	250 or 125MA	BHH	2	1 3/8	2 3/8	1 5/8	.5
23V147	4.5	115**	20	225MA	BAH	2 3/8	1 5/8	2 13/16	1 5/8	.5
23V98	4.8	220	6	800MA	BHH	2 13/16	2	3 1/16	2	1.2
23V99	5	115	20	250MA	BAH	2 3/8	1 5/8	2 13/16	1 3/4	.8
23V172	5.6	115**	28	200MA	BAV	2 3/8	2 3/8	2 7/8	2 1/8	1.2
23V132	6	115	6	1	BHH	2 13/16	2	3 1/16	2 1/8	1.3
23V123	6	115/230	12	500MA	BAV	2	2	2 5/8	1 3/4	1
23V136	7.4	117	21	3.5	LAH	2 1/4 x 2 13/16	2 25/32	3 3/8	2 5/8	1.5
23V156	9.6	220**	24	400MA	BAV	2 1/8	2	2 5/8	1 5/8	.5
23V139	9.6	440	24	400MA	BAV	2 3/8	2 3/8	2 27/32	1 3/4	1
23V155	10	115	24	417MA	BAV	2 3/8	2 3/8	2 7/8	1 3/4	.8
23V157	10	115/230	24	417MA	BAH	2 3/8	1 5/8	2 13/16	1 7/8	.5
23V193	10	110/220	35	286MA	BAH	2 13/16	2	3 1/16	2 1/8	1.3
23V50	12	115/230	6 12	2 or 4	BHV	2 3/8	2 3/8	2 7/8	2	.75
23V225	14.5	110/115**	4/6.75/7.25	2	BAH	2 13/16	2	3 1/8	2 1/8	1.5
23V158	14.5	115	24	600MA	BAH	2 13/16	2	3 1/8	1 3/4	1.2
23V168	15	115	25	600MA	BAV	2 3/8	2 3/8	2 7/8	1 3/4	.8
21F27	16	115	26.5CT	600MA	BAH	2 13/16	2	3 1/4	2 1/8	1.6
23V51	24	115/230	6 or 12	4 2	BHV	2 13/16	3 5/8	3 3/8	2 1/4	1.5
21F68	24	115	24	1	BAH	2 13/16	2	3 1/4	2	1.3
21F84	24	115	24CT	1	BAH	2 13/16	2	3 1/4	2	1.3
23V160	24	115	24	1	BGH	2 13/16	2	3 1/4	1 7/8	1.3
23V197	24	220	24	1	BGH	2 13/16	2	3 1/4	2	1.2
23V159	24	110/220	24	1	BAH	2 13/16	2	3 1/4	1 7/8	1.3
23V134	25	115	1	25	CAV	2 x 1 3/4	3	2 1/2	2 1/2	2
25V31	25	115	12.6	2.18	TTV	1 3/4 x 2 11/16	3 1/8	3	2 9/16	3
21F51	25.2	115	25.2	1	BAH	2 13/16	2	3 1/4	2	1.3
23V176	25.6	220**	32	800MA	BAH	3 1/8	2 1/4	3 11/16	2 1/8	1.7
21F82	26.8	115	26.8CT	1	BAH	2 13/16	2	3 1/4	2	1.3
23V226	36	115	6/12/18/24	1.5	BAH	3 1/8	2 1/4	3 11/16	2 1/8	1.5
23V163	36	115	24	1.5	BAH	2 13/16	2 11/16	3 5/16	2 1/4	1.3
25V30	36	100/110/125	60	600MA	TSV	2 x 3 1/8	3 1/2	3 1/2	2 25/32	1.8
23V223	40■	100/115/125	6/10/15/20/25	1.6 Max.■	BGH	3 9/16	2 1/2	4	2 1/2	2
23V03	48	115	4/8/12/16/20/24	2 Max.■	BAH	3 1/8	2 1/4	3 11/16	2 1/2	1.7
23V224	48	115**	12 12	2 2	BAH	3 1/8	2 1/4	3 11/16	2 1/8	1.5
23V52	48	115/230	12 or 24	4 2	BHV	3 1/8	3 1/8	3 5/8	2 3/8	2
23V192	48	115	24 24	1 1	BAH	3 9/16	2 1/2	4	2 5/8	2.2
23V40	50	115	4/8/12/16/24	2.08 Max.■	GTV	2 1/4 x 1 7/8	3 9/16	3	3 1/2	3
23V142	50	220	12	4.16	BAV	3 1/8	3 1/16	3 5/8	2 1/4	2
23V144	50	120	16	3.12	CAH	2 13/16 x 2 7/8	2 7/8	3 3/8	2 1/4	3
23V165	50	220	24	2.08	GGV	2 x 2 1/4	3 1/2	2 7/8	3 1/4	2.8
23V166	50	440	24	2.08	GGV	2 x 2 1/4	3 1/2	2 7/8	3 1/4	2.8
25V32	50	440	20/24/28	1.785	KAV	6 3/8 x 2 13/16	4 3/16	7 1/8	4 1/16	2
21F83	50	115	25.2CT	2	BAH	3 9/16	2 5/8	4	2 1/4	2.2
23V177	54	440	32	1.56	CAV	2 1/4 x 2	3 7/16	2 13/16	2 1/2	3.4
23V151	80	115/230	22.6	3.5	LAV	2 x 2 1/4	3 1/16	2 1/2	2 1/4	3
23V152	80	230	22.8	3.5	GGV	2 1/4 x 2	3 1/2	2 7/8	3 1/4	3
23V04	96	115	4/8/12/16/20/24	4 Max.■	LAV	2 1/4 x 2 1/16	3 1/2	2 7/8	2 9/16	3.1
23V53	96	115/230	12 or 24	8 4	CHV	2 3/8 x 2 1/4	3 3/8	2 7/8	3	3.5
23V41	100	115	4/8/12/16/24	4.2 Max.■	GTV	2 1/2 x 2 1/8	4	3 1/4	4	5
23V145	100	115	16	6.25	CAH	3 1/8 x 2	3 1/8	3 3/4	2 1/2	3.5
23V183	108	115/230	13.5 13.5	4 4	CHV	2 3/8 x 2 1/4	3 3/8	2 13/16	2 7/8	3.5
23V148	120	115	20	6	GGV	2 1/2 x 2 5/8	3 7/8	3 1/8	3 3/4	5
25V33	150	230	20/24/28	5.36	KAV	8 3/8 x 2 13/16	4 3/4	9 1/8	4 3/4	12
23V146	180	115	18	10	CTH	3 7/16 x 2 3/8	3 1/2	4 1/8	3 1/2	6
23V218	190	115/230	7.5/12.5	15	CAV	2 1/2 x 2 1/4	3 7/8	3 1/8	2 3/4	4.5
23V54	192	115/230	12 or 24	16 8	CHV	2 7/8 x 2 3/4	4 1/8	3 1/2	3 1/2	8
25V21	200	115	16/18/20	10	KTV	4 1/16 x 3 5/16	5 1/2	5 1/16	4 5/16	11
23V140	210	220/440	2.5 110	40 1	CAV	3 1/4 x 3 3/8	5	4 1/16	4	10
23V137	215	105/125	15 13.2	2 14	LAH	2 1/4 x 3 1/8	3 1/16	3 3/4	2 5/8	3
23V186	230	117	24 31.5	2.34 5.55	DAF	2 3/4 x 3 7/16	3	4 1/8	3 7/16	8
23V143	240	115	12	20	GGV	3 x 3 5/8	4 5/8	3 3/4	4 3/4	10
23V42	250	115	4/8/12/16/24	10.5 Max.■	GTV	3 x 3 1/4	4 5/8	4	5	10
23V181	250	115	48	5.2	CTH	3 3/4 x 2 3/4	3 7/8	4 1/2	3 3/8	7
25V29	250	230	20/24/28	8.92	KAV	8 3/8 x 2 13/16	4 3/4	9 1/8	4 11/16	11.7
23V180	430	115	36	12	CTH	4 1/16 x 3 3/8	4 1/8	4 7/8	4	14
25V28	500	115	20/24/28	17.9	KAV	10 3/16 x 4 1/4	5 3/4	11	5 7/8	17
23V185	570	117/208/230	24† 26/39/52/# 65/78/91 104/117/130	1 3/3.3/6/ 3.9/3.9/3.9/ 3.9/3.9/4.2	LHH	3 3/4 x 3 3/8	3 3/4	4 1/2	4 3/8	10.7
23V221	1,200	115	4§ 8 16 20	150 Max.§ 150 Max. 75 Max. 20 Max.	CTH	6 x 4 1/4	6 1/2	5 5/16	7	37
23V138	1,200	115	8	150	CAH	7 3/4 x 4 1/8	6 1/2	8 3/4	6 1/4	21
23V222	1,900	115/230	8§ 16 32 64 128	180 Max.§ 100 Max. 30 Max. 30 Max. 10 Max.	CTH	8 x 5	7 5/8	9	6	54

■ Maximum current may be increased 40% when using any of the 3 low voltage taps.
† Isolated winding
§ Any combination of the given voltages and currents may be used as long as the total VA does not exceed the rated VA
# Any combination may be used
● Unit has internal 80° C Thermal cutout for maximum protection
‡ Encapsulated to meet MIL-T27B

Automation Control

These units have been ruggedized to provide trouble-free performance for high speed automatic assembly equipment. Particularly well adapted to relays and pilot lamps.

Part No.	VA Rating	Secondary Parallel	Secondary Series	Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
23V50	12	6V @ 2A	12V @ 1A	BHV	2 3/8	2 3/8	2 7/8	2	.75
23V51	24	6V @ 4A	12V @ 2A	BHV	2 7/8	3 3/8	3 3/8	2 1/4	1.5
23V52	48	12V @ 4A	24V @ 2A	BHV	3 1/8	3 5/8	2 3/8	2	2
23V53	96	12V @ 8A	24V @ 4A	CHV	2 3/8 x 2 1/4	3 3/8	2 7/8	3	3.5
23V54	192	12V @ 16A	24V @ 8A	CHV	2 7/8 x 2 3/4	4 1/8	3 1/2	3 1/2	8

Control Service Transformers

*D-11 — MOUNTING
DOUBLE WOUND 50/60 CYCLES

WIRING DIAGRAMS AND INSTRUCTIONS are furnished with each unit. The 24 Volt and 32 Volt secondary leads have individual grommets for each stranded lead. All primary and 115 Volt secondary leads are brought out through a threaded pipe nipple for attaching conduit or a bushing.

APPLICATIONS: small motors and pumps; oil burner controls; signaling systems; solenoids and relays; burglar alarms; heating elements; control systems; switchboards and panels; pilot lights; electrically operated valves for controlling the flow of gas or liquids

Part No.	VA Output	Primary Voltage	Secondary Voltage	Wiring Diagram	Mtg. Centers D	E	Dimensions A	B	C	Wt. Lbs.
G 326	25	115	24	S-5	2 1/8	1 3/8	3 1/4	2 1/2	2 11/16	2
G 327	50	115	24	S-5	2 1/8	1 7/8	3 1/4	2 1/2	3 1/4	2.75
G 328	75	115	24	S-5	2 5/8	2 1/8	4 1/8	3 1/4	3 1/2	4.25
G 329	100	115	24	S-5	2 5/8	2 1/4	4 1/8	3 1/4	3 5/8	5
G 330	150	115	24	S-5	3	2 1/2	4 15/16	3 15/16	4 3/16	8.25
G 331	250	115	24	S-5	3	3 1/4	4 15/16	3 15/16	4 15/16	9.5
G 332	50	115	32	S-5	2 1/8	1 7/8	3 1/4	2 1/2	3 1/4	2.75
G333	100	115	32	S-5	2 5/8	2 1/4	4 1/8	3 1/4	3 9/16	5
G 334	150	115	32	S-5	3	2 1/8	4 15/16	3 15/16	4 3/16	8.25
G 335	250	115	32	S-5	3	3 1/4	4 15/16	3 15/16	4 15/16	9.5
G 351	75	115/230	24	S-5	2 3/8	3 1/8	3 3/4	2 3/4	3 1/16	2.75
G336	25	230/460	115	S-6	2 1/8	1 3/8	3 1/4	2 1/2	2 11/16	2
G337	50	230/460	115	S-6	2 1/8	2 1/8	3 1/4	2 1/2	3 7/16	3.25
G 338	75	230/460	115	S-6	3 1/4	2	3 1/2	3 7/8	3 7/16	4.25
G 339	100	230/460	115	S-6	3 1/4	2 3/8	3 1/2	3 7/8	3 13/16	5.5
G 340	150	230/460	115	S-6	3	2 1/2	4 15/16	3 15/16	4 3/16	8
G 341	250	230/460	115	S-6	3	3 1/4	4 15/16	3 15/16	4 15/16	11
G 350	500	220/440	110	S-6	5 1/8	3 1/8	4 1/8	7 5/8	4 1/4	13
G 349	500	550	110	S-6	5 1/8	3 1/8	4 1/8	7 5/8	4 1/4	13

Signaling and Power Circuit Transformers

50/60 CYCLES

Part No.	VA Output	Primary Voltage	Secondary Voltage	Secondary Amps	✱Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
23V226	36	115	6/12/18/24	1.5	BAH	3 1/8	2 1/4	3 11/16	2 1/8	1.5
23V223	40■	100/115/125	6/10/15/20/25	1.6 Max.■	BGH	3 9/16	2 1/2	4	2 1/2	2
23V03	48	115	4/8/12/16/20/24	2 Max.■	BAH	3 1/8	2 1/4	3 11/16	2 1/2	1.7
23V40	50	115	4/8/12/16/24	2.08 Max.■	GTV	2 1/4 x 1 7/8	3 9/16	3	3 1/2	3
23V04	96	115	4/8/12/16/20/24	4 Max.■	LAV	2 1/4 x 2 1/16	3 1/2	2 7/8	2 9/16	3.1
23V41	100	115	4/8/12/16/24	4.2 Max.■	GTV	2 1/2 x 2 1/8	4	3 1/4	4	5
23V42	250	115	4/8/12/16/24	10.5 Max.■	GTV	3 x 3 1/4	4 5/8	4	5	10
23V221	1,200	115	4§ 8 16 20	150 Max.§ 150 Max. 75 Max. 20 Max.	CTH	6 x 4 1/4	6 1/2	5 5/16	7	37
23V222	1,900	115/220	8§ 16 32 64 128	180 Max.§ 100 Max. 30 Max. 30 Max. 10 Max.		8 x 5	7 5/8	9	6	54

Multi-Purpose 1:1:1:1 Isolation Control

50/60 CYCLES

This series has four isolated windings with seven possible combinations: for step-up, step-down, and isolation applications in industrial, home or laboratory use. They are particulasy well adapted to 220-volt line step-down to provide 115-volt power source to operate machine tools and other automated equipment.

Part No.	VA Output	Primary Voltage	Secondary Voltage	✱Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
23V34	50	115/230	115/230	CTH	2 1/2 x 2 1/8	2 5/8	3	3 5/8	2.75
23V35	100	115/230	115/230	CTH	3 1/8 x 2 1/8	3 1/4	3 3/4	2 7/8	5
23V36	200	115/230	115/230	CTH	3 3/4 x 2 3/4	2 7/8	4 1/2	3 5/8	9
23V37	300	115/230	115/230	CTH	4 1/8 x 2 7/8	4 1/8	4 7/8	3 3/4	11
23V38	500	115/230	115/230	CTH	4 1/8 x 4 1/8	4 1/8	4 7/8	5	17
23V39	1,000	115/230	115/230	CTH	5 3/8 x 4 1/2	5 3/8	6 3/8	5 1/2	23
23V197	2,500	115/230	115/230	CTH	8 x 4 1/2	7 5/8	9	5 1/2	40

Isolation Transformers

50/60 CYCLES

Isolation control transformers provide 115 Volts power or lighting within machine tools or other automated equipment from various line voltages from 115 Volts to 600 Volts. They also permit direct grounded lighting systems or control circuits independent of power distribution grounds for greater operator safety. For complete specifications of 400 Cycle isolation transformers refer to the green section of this catalog.

Part No.	VA Output	Primary Voltage	Secondary Voltage	★ Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
23V189	10	115	115	BHH	2 13/16	2	3 1/16	2 1/8	1
23V190	10	230	230	BHH	2 13/16	2	3 1/16	2 1/8	1
23V149	10	230	230	BAV	2 3/8	2 3/8	2 27/32	1 3/4	.8
25V22	15	440	115	KAV	6 3/8 x 2 9/16 to 3 1/8	4 5/32	7 1/8	4 11/16	2
23V195	20	440	110	BAH	2 13/16	2	3 3/16	2 1/8	1
23V17	35	115	115	BAH	3 1/8	2 1/4	3 13/16	2 1/4	1.75
23V86	40	110-120	110-120	GMV	2 x 1 7/8	3 1/8	2 5/8	3 1/8	4
23V80	40	115/230	115	BAH	3 1/8	2 1/4	3 13/16	2 1/2	1.75
23V45	50	115	115	GMV	2 1/2 x 1 15/16	3 7/8	3 1/4	3 1/4	4.25
25V16	50	105/115/125	115 or 125/115/105 With 115 V. Pri.	TMV*	2 3/4 x 3 7/8	2 3/4	3 11/16	4 7/16	5
23V198	50	115/230/460	115	CTH	2 1/2 x 2 1/8	2 5/8	3	2 3/8	2.6
23V95	50	230/440	115	GGV	2 x 1 3/4	3 3/32	2 5/8	2 1/2	2.3
23V23	50	240/480	120/240	KAV	6 3/8 x 2 9/16 to 3 1/8	4 5/32	7 1/8	4 11/16	2.75
25V24	50	560/600	110/220	KAV	6 3/8 x 2 9/16 to 3 1/8	4 5/32	7 1/8	4 11/16	2.5
23V18	80	115	115	GGV	2 1/2 x 2 5/16	3 7/8	3 3/16	3 1/2	5
23V48	100	115	115	GMV	3 x 2 7/16	4 3/4	3 7/8	3 1/2	6.5
23V25	100	105/115/125	115	GMV	2 3/4 x 3 1/16	4 1/4	3 1/2	3 7/8	6.2
23V87	100	110/120	110/120	GMV	2 1/2 x 2 3/8	3 7/8	3 3/4	3 1/4	6
25V17	100	105/115/125	115 or 125/115/105 With 115 V. Pri.	TMV*	2 1/2 x 4 3/4	5 5/16	4 9/16	5 1/4	8.5
23V128	100	210/230/250	115	GMV*	3 x 2 9/16	4 3/4	4	3 3/4	7.3
25V25	100	440	115	KAV	8 3/8 x 2 9/16 to 3 1/8	4 3/4	9 1/8	4 11/16	6
23V169	150	115	57.5/115††	GGV	2 1/2 x 3	3 7/8	3 9/32	3 7/8	7
23V49	150	115	115	GMV	3 x 2 9/16	4 3/4	3 7/8	3 3/4	7
25V18	150	105/115/125	115 or 125/115/105 With 115 V. Pri.	TMV*	3 1/2 x 5 3/8	6 1/16	5 7/8	5 5/16	12.5
23V59	150	115	115/230	GGV	2 1/2 x 3	3 7/8	3 9/32	3 7/8	7
23V74	150	115/230	115	GGV	2 1/2 x 3	3 7/8	3 9/32	3 7/8	7
23V96	150	220/440	115	GGV	2 1/2 x 2 1/2	3 7/8	3 9/32	3 3/8	5.5
25V26	150	440	115	KAV	8 3/8 x 2 9/16 to 3 1/8	4 3/4	9 1/8	4 11/16	6
23V199	150	200/220/380/400/440/500/550	125	CAH	3 7/16 x 2 1/2	3 1/2	4 1/8	3	6
25V20	175	115	115	TMV	2 1/2 x 4 3/4	5 5/16	5 1/4	4 9/16	9
23V33	185	115	115	GMV	2 3/4 x 3 11/16	4 1/4	3 1/2	4 3/4	7
23V58	250	115	115	GMV	3 x 3 9/16	4 3/4	3 7/8	5 3/4	12.5
23V126	250	115	125/115/105	GMV*	3 x 4 5/16	4 3/4	4	5 3/8	14.2
25V19	250	105/115/125	115 or 125/115/105 With 115 V. Pri.	TMV*	3 1/2 x 5 3/8	6 1/16	5 7/8	5 5/16	18.2
23V94	250	115/230	115	GGV	3 x 3 5/8	4 5/8	3 15/16	4 3/4	11
23V90	250	220	220	GMV	3 x 3 1/2	4 5/8	3 7/8	4 7/8	12
23V129	250	210/230/250	115	GMV*	3 x 4 5/16	4 3/4	4	5 3/8	14.2
25V27	250	440	115	KAV	8 3/8 x 2 9/16 to 3 1/8	4 3/4	9 1/8	4 11/16	12
23V26	300	105/115/125	115	PUV	2 3/4 x 6 1/4	6	4 3/4	7 1/8	18

For Mounting Illustrations, Cross References and Pricing Information See Pages 1518-1530

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Isolation Transformers

50/60 CYCLES

Part No.	VA Output	Primary Voltage	Secondary Voltage	★ Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt Lbs
23V133	300	220/440	115	GGV	3 x 3 3/8	4 5/8	3 15/16	4 1/2	10.2
23V19	350	115	105/115/125	GMV	3 1/2 x 3 7/8	5 3/8	4 1/2	5 3/4	13
23V28	500	105/115/125	115	GMV	4 5/8 x 4 1/4	6 3/8	5 3/8	7 5/8	22
23V130	500	210/230/250	115	GMV*	4 5/8 x 4 1/4	7 3/4	5 5/8	7 1/2	29.5
23V44	600	115	115	GMV	3 x 6	4 5/8	3 7/8	6 1/4	16
23V27	1,000	105/115/125	115	HV*	4 5/8 x 5 3/4	9 7/8	6 3/4	6 1/4	38
23V88	1,200	110/120	110/120	GMV	3 5/8 x 6 5/8	5 7/8	9 1/2	6 1/2	50

† Ultrashielded - epoxy potted with leads
* Complete with tap switch
†† Split winding
# Has octagon outlet box for house wiring connections

Autoformers

50/60 Cycles

These Autoformers provide a smaller and more economical method of changing from 115 to 220 or 220 to 115 Volts. They provide correct line voltages for machine tool control units such as sequence timers, solenoids and lighting systems.

Part No.	VA Output	Primary Voltage	Secondary Voltage	Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
23V191	40	220	115	GMV	2 x 1 7/16	3 1/2	2 11/16	2 7/16	2.2
23V79	50	230	115	BAH	3 1/8	2 1/4	3 5/8	2	1.5
25V10	50	220/250	110/125	TMV	2 x 3 1/8	3 9/16	3 1/2	2 7/8	2.7
23V70	65	230	115	GMV	2 x 1 11/16	3 1/16	2 1/2	2 3/4	2.7
23V202	80	115	230	CAV	1 3/4 x 2 1/4	2 5/8	2 3/16	2 7/8	2
23V81	85	220/240	110/120	GMV	2 x 1 7/8	3 1/8	2 5/8	2 7/8	4
23V21	100	220/250	110/125	GMV	2 1/2 x 1 3/4	3 7/8	3 1/4	2 7/8	3
23V71	100	230	115	GMV	2 x 2 1/4	3 1/2	3	3 1/8	3.7
25V11	100	220/250	110/125	TMV	2 3/4 x 3 7/8	4 5/16	3 11/16	4 7/16	6.5
23V82	125	220/240	110/120	GMV	2 1/16 x 2 1/4	3 1/2	3	3 1/2	4
23V22	150	220/250	110/125	GMV	2 x 2 1/2	3 7/8	3 1/4	3 1/8	4
25V12	150	220/250	110/125	TMV	2 1/2 x 4 3/4	5 5/16	4 9/16	5 1/4	9
23V83	175	220/240	110/120	GMV	2 1/2 x 2 1/4	3 7/8	3 1/4	3 3/4	5.5
23V131	250	115	190/220	LHH	2 7/16 x 3 7/16	3 5/8	4 1/8	3	6
23V23	250	220/250	110/125	GMV	3 x 2 3/8	4 5/8	3 7/8	3 1/2	6.2
23V72	250	230	115	GMV	2 3/4 x 2 7/8	4 1/4	3 7/8	3 1/2	7
25V13	250	220/250	110/125	TMV	2 1/2 x 4 3/4	5 5/16	4 9/16	5 1/4	8.7
23V20	300	230	115	GMV	3 x 3 1/16	4 5/8	3 7/8	4 1/8	10
23V24	500	220/250	110/125	GMV	3 x 3 3/8	4 5/8	3 7/8	4 1/2	10.2
25V14	500	220/250	110/125	TMV	3 1/2 x 5 3/8	6 1/16	5 7/8	5 5/16	14.5
23V78	600	230	115	GMV	3 x 3 7/8	4 5/8	4	5	12
23V73	1,000	230	115	GMV	3 1/2 x 4 1/4	5 1/4	4 3/8	5 3/4	19.5
23V32	1,000	220/250	110/125	JUV	4 1/4 x 3 1/2	6 5/8	5	6 5/8	20
25V15	1,000	220/250	110/125	TMV	4 1/4 x 6	7 1/16	6 1/8	6 1/2	22
23V201	1,000	120	440	GGV	3 7/16 x 5 5/8	5 3/4	4 1/4	7 1/2	25
23V84	1,200	220/240	110/120	GMV	3 x 5 1/2	4 5/8	3 7/8	6 7/8	18
23V120	2,000	230	115	GMV	3 1/2 x 6 7/8	5 5/16	4 1/2	7 7/8	33
23V85	2,500	220/240	110/120	JUV	3 7/8 x 9 7/8	6 3/4	4 3/4	10 1/2	30
23V200	3,000	230	115	JUV	4 1/4 x 6	6 3/8	5 5/16	7 5/8	40
23V46	3,000	208 or 230	230 or 208	GMH	2 1/2 x 3 3/4	4	4 1/2	6	10

Has octagon outlet box for house wiring connections.
▲ VA Ratings are for industrial applications

Line Voltage Regulators-Autoformers

50/60 CYCLES

Part No.	VA Output	Primary Voltage	Secondary Voltage	Mtg. Type	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
23V91	85††	105/115/125/135/ 150/210/230/250	115	GMV*	2 1/4 x 2 1/4	3 1/2	3	4 5/8	4.5
23V77	150	95/105/115/125/ 135	115	BHH	3 9/16	2 5/8	4	2 1/4	2.2
23V92	150††	105/115/125/135/ 150/210/230/250	115	GMV*	2 1/2 x 2 1/2	4	3 1/4	4 3/4	5.5
23V76	350	95/100/105/110/ 115/120/125/130	115	GMV*	2 3/4 x 2	4 1/4	3 5/8	3 1/4	4.2
23V93	350	85/90/95/100/105/ 110/115/120/125	115	GMV*	2 1/2 x 2 3/4	4	3 1/4	5	5
23V203	125	115	90/95/100/105/110/ 115/120/125/150/ 155/160	LHH	3 1/8 x 3	3 1/8	3 3/4	3 1/4	6
25V01	150	115	25/55/75/95/100/ 105/110/115/120/ 125/130	NTV	2 11/16 x 2 11/16	4 1/8	3 7/16	3 7/16	5
25V02	250	115	25/55/75/95/100/ 105/110/115/120/ 125/130	NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5
23V204	250	230	180/190/200/210/ 230/240/250/290/ 300/310	CHH	3 7/16 x 2 3/8	3 1/2	4 1/8	3 1/2	7.5
25V03	500	115	25/55/75/95/100/ 105/110/115/120/ 125/130	NTV	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2	11
23V205	500	230	180/190/200/210/ 230/240/250/290/ 300/310	LHH	4 1/16 x 3 1/2	4 1/8	4 7/8	4 1/2	13.5
25V04	1,000	115	25/55/75/95/100/ 105/110/115/120/ 125/130	NTV	4 1/8 x 4 1/8	5 1/2	5 1/8	5 1/8	15.5
25V05	2,000	115	25/55/75/95/100/ 105/110/115/120/ 125/130	NTV	4 7/8 x 4 7/8	7	5 3/4	5 3/4	22

MTG. TYPE — GMV WITH METER

Line Voltage Regulators-Isolation

Part No.	VA Output	Input Voltage 50/60 Cycle	Output Voltage	Mtg. Centers	Dimensions H	W	D	Wt. Lbs.
23V55	150	95/100/105/110/115/120/125/130	115	3 x 4 1/4	4 5/8	3 15/16	5 3/8	7
23V57	350	95/100/105/110/115/120/125/130	115	3 x 6 5/8	4 5/8	3 15/16	7 3/4	17

Varivolt Isolation Transformers

COMPLETE WITH TAP SWITCH TO COVER 95 TO 145 V. RANGE

Part No.	Output Range on 117 Volt Line	VA Output (Resistive Load)	Dimensions H	W	D	Wt. Lbs.
23V56	95-145	500	7 1/4	5 7/8	8	25
23V75	95-145	150	5 1/4	6	4 13/16	12

Line Voltage Regulators-Autoformers-With Meter

These Line Voltage Regulators provide the correct voltage to radios, TV Sets, air conditioners, refrigerators, deep freezers, automatic washers and many other appliances, even with variation in line voltage of 65-75-90-100-115-130 or 145 volts. They are also useful in altering the 115 volt line above and below the line voltage. An output receptacle and volt meter are internally connected to the 115 volt tap. All units are supplied with 6 ft. line cord and plug. All units have GMV Type Mounting with Meters.

Part No.	VA Output	Input Voltage 50/60 Cycle	Output Voltage	Mtg. Centers	Dimensions H	W	D	Wt. Lbs
23V11	150	65/75/90/100/115/130/145	115	3 x 4 5/16	5 1/8	3 7/8	5 3/8	6.4
23V12	350	65/75/90/100/115/130/145	115	3 x 5 1/16	5 1/2	3 7/8	6 1/8	10.5
23V13	500	65/75/90/100/115/130/145	115	3 x 5 13/16	5 1/2	3 7/8	6 7/8	13
23V07	500	95/100/105/110/115/120/125/130	115	3 x 4 1/8	4 5/8	3 15/16	5 1/4	7.25
23V14	750	65/75/90/100/115/130/145	115	3 1/2 x 6 5/8	6 5/16	4 1/2	8 1/8	19
23V09	1,100	65/75/90/100/115/130/145	115	3 1/2 x 7 3/4	6 5/16	4 1/2	10	25
23V08	1,200	230	†	3 x 9 1/8	4 5/8	3 15/16	10 1/4	21

Dry Type - Distribution

INDOOR — SINGLE PHASE — DOUBLE WOUND — 50/60 CYCLES
D-1 MOUNTING.

DRY TYPE GENERAL PURPOSE TRANSFORMERS are supplied in either double winding isolation or single winding auto-transformer types for 50/60 CPS applications. Either type may be used single phase or connected in a group of three for three phase. All units are Class B insulation for 80°C rise except the units marked (§) Class A for 55°C rise.
CASE AND JUNCTION BOX. A stamped steel case encloses the entire coil assembly and presents an attractive appearance. The junction box is an integrated part of the case and provides easy access and wiring to the individually marked primary and secondary leads. Knock outs are provided on the junction box for attaching conduit or bushings.
WIRING DIAGRAMS AND INSTRUCTIONS are furnished with each unit. On the inside of the junction box cover, a decal shows the schematic diagram and ratings of each transformer.
APPLICATIONS
1. To provide 120 Volt Lighting or 120/240 Volt Power from 240-480-600 Volt distribution circuits.
2. To insulate or isolate lighting circuits from power circuits allowing the use of grounded or ungrounded circuits independent of power or other lighting circuit grounds.
3. The auto-transformers provide a smaller and more economical method of voltage changing. These auto-transformers may be used to obtain 120 Volts from a 240 Volt circuit, to establish a neutral ground from a 240 Volt circuit, or to balance the 120/240 Volt loading on a three phase line to obtain lower demand billing by the utility company.

Part No.	VA Output	Primary Voltage	Secondary Voltage	Wiring Diagram	Mtg. Centers D	E	Dimensions A	B	C	Wt. Lbs
G-301	50§	230/460	115/230	S-1	5 3/8	2 1/2	6 1/4	3 3/16	3	3.5
G-302	50§	575	115/230	S-2	5 3/8	2 1/2	6 1/4	3 3/16	3	3.5
G-303	75§	230/460	115/230	S-1	5 3/4	2 1/2	6 1/2	3 3/16	3	4
G-304	75§	575	115/230	S-2	5 3/4	2 1/2	6 1/2	3 3/16	3	4
G-305	100	240/480	120/240	S-1	6	2 1/2	6 13/16	3 3/16	3	5
G-306	100	600	120/240	S-2	6	2 1/2	6 13/16	3 3/16	3	3.5
G-307	150	240/480	120/240	S-1	6 3/8	3 1/4	7 3/8	3 7/8	3 1/2	6
G-308	150	600	120/240	S-2	6 3/8	3 1/4	7 3/8	3 7/8	3 1/2	6
G-309	250	240/480	120/240	S-1	7	3 1/4	8	3 7/8	3 1/2	8
G-310	250	600	120/240	S-2	7	3 1/4	8	3 7/8	3 1/2	8
G-311	500	240/480	120/240	S-1	8 7/8	3 7/8	10	4 11/16	4 9/32	15
G-312	500	600	120/240	S-2	8 7/8	3 7/8	10	4 11/16	4 9/32	15
G-313	750	240/480	120/240	S-1	10 7/8	3 7/8	12	4 11/16	4 9/32	20
G-314	750	600	120/240	S-2	10 7/8	3 7/8	12	4 11/16	4 9/32	20
G-315	1,000	240/480	120/240	S-1	8 3/4	4 1/2	10 1/4	5 1/2	4 7/8	29
G-316	1,000	480*	120/240	S-3	8 3/4	4 1/2	10 1/4	5 1/2	4 7/8	29
G-317	1,000	600*	120/240	S-3	8 3/4	4 1/2	10 1/4	5 1/2	4 7/8	29

Dry Type - Distribution

INDOOR — SINGLE PHASE — AUTOFORMERS — 50/60 CYCLES
D-1 MOUNTING.

Part No.	VA Output	Primary Voltage	Secondary Voltage	Wiring Diagram	Mtg. Centers D	E	Dimensions A	B	C	Wt Lbs.
G-318	100§	115/230	115/230	S-4	5 1/8	2 1/2	5 7/8	3 7/16	3	3
G-319	150§	115/230	115/230	S-4	5 3/4	2 1/2	6 1/2	3 3/16	3	4
G-320	250§	115/230	115/230	S-4	6 5/8	3 1/4	7 5/8	3 7/8	3 1/2	7
G-321	500§	115/230	115/230	S-4	9 1/4	3 7/8	10 3/8	4 11/16	4 9/32	15
G-322	750	120/240	120/240	S-4	7 7/8	3 1/4	8 7/8	3 7/8	3 1/2	9.5
G-323	1,000	120/240	120/240	S-4	8 5/8	3 7/8	9 3/4	4 11/16	4 9/32	12.5
G-324	1,500	120/240	120/240	S-4	9 7/8	3 7/8	11	4 11/16	4 9/32	17
G-325	2,000	120/240	120/240	S-4	8 3/8	4 1/2	9 3/4	5 1/2	4 7/8	23

Control Transformers - Machine Tool Type

MACHINE TOOL TYPE CONTROL TRANSFORMERS are double winding isolation type for 50/60 CPS applications. They feature rugged design, compactness, and low regulation at economical prices.
WIRING DIAGRAMS AND INSTRUCTIONS are furnished with each unit.
Screw terminals are provided to facilitate wiring connections.
APPLICATIONS
1. To provide 115 Volt Power or Lighting within machine tools or other equipment from 230/460 Volt power circuits.
2. To permit direct grounding lighting or control circuits independent of power distribution grounds for greater operator safety.

Part No.	VA Output	Primary Voltage	Secondary Voltage	Wiring Diagram	Mtg. Centers D	E	Dimensions A	B	C	Wt Lbs
G-342	50	230/460	115	S-6	3 1/8	1 1/2	3 3/16	3 3/4	3 3/16	3
G-343	75	230/460	115	S-6	3 1/8	1 3/4	3 3/16	3 3/4	3 7/16	4
G-344	150	230/460	115	S-6	3 3/4	2 3/8	3 7/8	4 5/8	3 15/16	7
G-345	300	230/460	115	S-6	3 3/4	4	3 7/8	4 5/8	5 9/16	13
G-346	500	230/460	115	S-6	4 3/8	3 9/16	4 13/16	5 1/4	5	13
G-347	750	230/460	115	S-6	4 3/8	5	4 13/16	5 1/4	6 7/16	21
G-348	1,000	230/460	115	S-6	5 1/2	3 1/2	6 1/8	6 3/4	5 7/8	26

* 2 — 5% Taps FCBN (Full Capacity Below Normal Voltage)

THORDARSON MEISSNER

ALSO MANUFACTURES A COMPLETE LINE OF

TIME CYCLE CONTROLLERS, PROGRAMMERS, SEQUENCE TIMERS,

LIMIT SWITCHES AND MERCURY SWITCHES.

CATALOG AVAILABLE UPON REQUEST.

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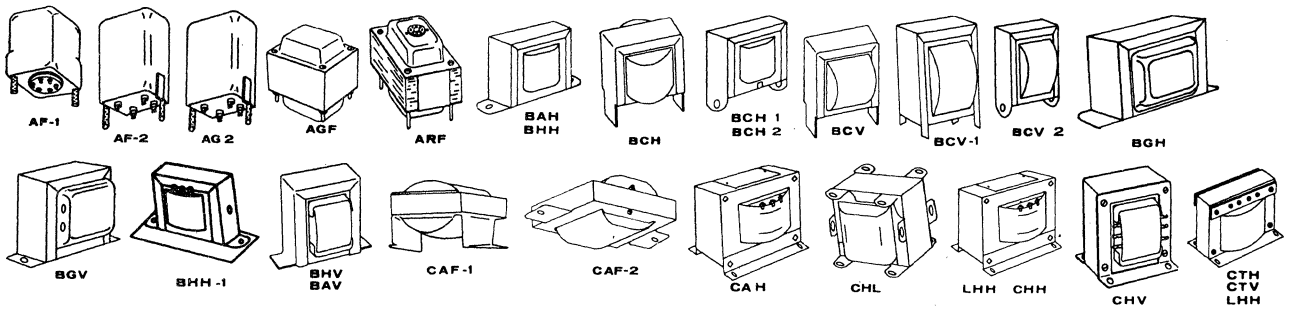
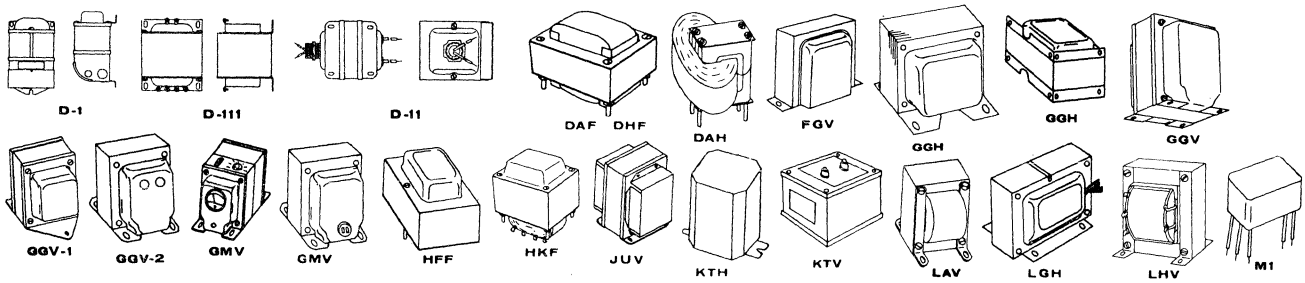
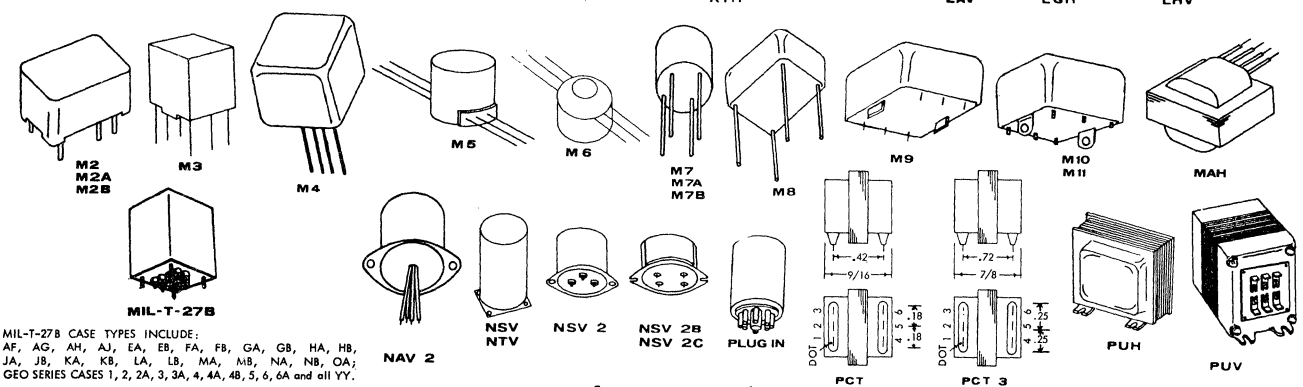
For Mounting Illustrations, Cross References and Pricing Information See Pages 1518-1530

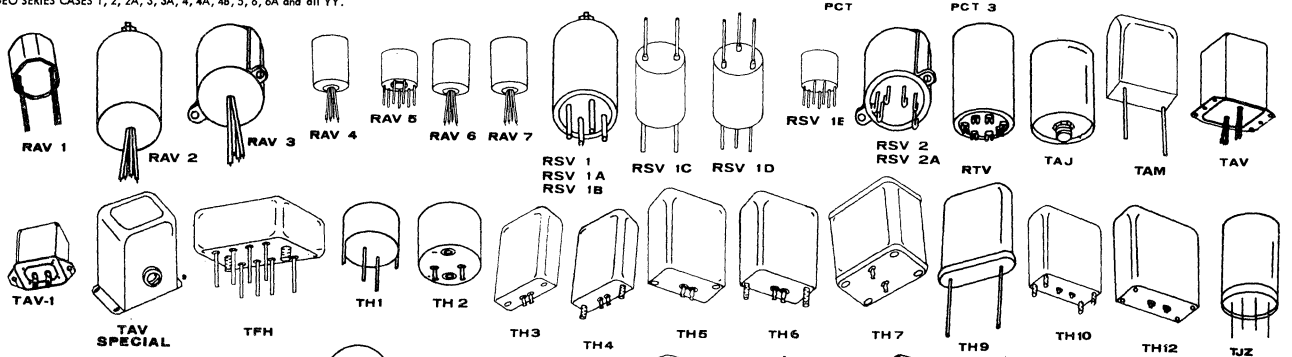
Mounting Illustrations

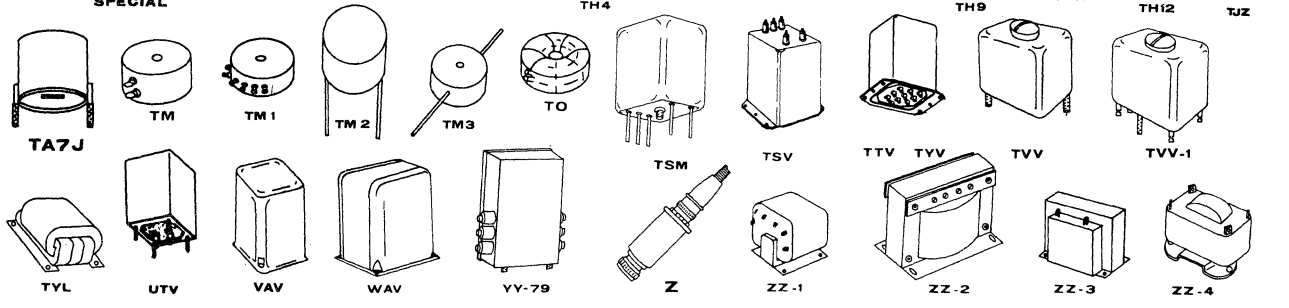






MIL-T-27B CASE TYPES INCLUDE:
AF, AG, AH, AJ, EA, EB, FA, FB, GA, GB, HA, HB, JA, JB, KA, KB, LA, LB, MA, MB, NA, NB, OA; GEO SERIES CASES 1, 2, 2A, 3, 3A, 4, 4A, 4B, 5, 6, 6A and all YY.





For Cross References and Pricing Information See Pages 1519-1530
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A

PART NO.	LIST	INDUSTRIAL NET NET and 1 to 4	5 to 49	50 to 99	100 to 499
25A01		30.00	25.50	24.00	22.00
25A02		34.50	29.32	27.60	25.30
25A03		30.00	25.50	24.00	22.00
25A04		30.00	25.50	24.00	22.00
25A05		54.00	45.90	43.20	39.60
25A06		24.00	20.40	19.20	17.60
25A07		37.50	31.90	30.00	27.50
25A08		37.50	31.90	30.00	27.50
25A09		45.00	38.25	36.00	33.00
25A10		24.00	20.40	19.20	17.60
25A11		45.00	38.25	36.00	33.00
25A12		24.00	20.40	19.20	17.60
25A13		24.00	20.40	19.20	17.60
25A14		45.00	38.25	36.00	33.00
25A15		45.00	38.25	36.00	33.00
25A16		13.50	11.46	10.80	9.90
25A17		13.50	11.46	10.80	9.90
25A18		13.50	11.46	10.80	9.90
25A19		24.00	20.40	19.20	17.60
25A20		8.70	7.39	6.95	6.38
25A21		9.73	8.26	7.78	6.78
25A22		11.10	9.43	8.87	8.13
25A23		16.50	14.02	13.20	12.10
25A24		6.00	5.10	4.80	4.18
25A25		16.50	14.02	13.20	12.10
25A26		6.00	5.10	4.80	4.18
25A27		7.05	6.00	5.64	4.91
25A28		7.05	6.00	5.64	4.91
25A29		6.75	5.73	5.40	4.70
25A30		7.05	6.00	5.64	4.91
25A31		7.05	6.00	5.64	4.91
25A32		6.75	5.73	5.40	4.70
25A33		9.15	7.78	7.33	6.38
25A34		7.50	6.38	6.00	5.22
25A35		6.00	5.10	4.80	4.18
25A36		6.00	5.10	4.80	4.18
25A37		6.75	5.73	5.40	4.70
25A38		6.75	5.73	5.40	4.70
25A39		6.75	5.73	5.40	4.70
25A40		7.05	6.00	5.64	4.91
25A41		7.05	6.00	5.64	4.91
25A42		7.35	6.24	5.88	5.12
25A43		7.65	6.50	6.12	5.33
25A44		7.65	6.50	6.12	5.33
25A45		7.95	6.76	6.36	5.54
25A46		7.65	6.50	6.12	5.33
25A47		7.65	6.50	6.12	5.33
25A48		7.65	6.50	6.12	5.33
25A49		7.65	6.50	6.12	5.33
25A50		8.10	6.88	6.48	5.64
25A51		8.10	6.88	6.48	5.64
25A52		7.65	6.50	6.12	5.33
25A53		8.10	6.88	6.48	5.64
25A54		8.10	6.88	6.48	5.64
25A55		7.65	6.50	6.12	5.33
25A56		7.50	6.38	6.00	5.22
25A57		8.10	6.88	6.48	5.64
25A58		12.00	10.20	9.60	8.36
25A59		10.80	9.18	8.64	7.52
25A60		10.80	9.18	8.64	7.52
25A61		10.80	9.18	8.64	7.52
25A62		10.05	8.54	8.04	7.00
25A63		13.50	11.47	10.80	9.41
25A64		9.00	7.65	7.20	6.27
25A65		10.80	9.18	8.64	7.52
25A66		10.80	9.18	8.64	7.52
25A67		9.15	7.78	7.33	6.38
25A68		9.00	7.65	7.20	6.27
25A69		8.70	7.40	6.96	6.05
25A70		8.70	7.40	6.96	6.05
25A71		8.40	7.14	6.72	5.85
25A72		15.75	13.39	12.60	10.97
25A73		15.75	13.39	12.60	10.97
25A74		19.95	16.96	15.96	13.90
25A75		16.20	13.77	12.96	11.28
25A76		13.50	11.47	10.80	9.41
25A77		17.85	15.17	14.28	12.44
25A78		17.85	15.17	14.28	12.44
25A79		18.90	16.06	15.12	13.17
25A80		13.50	11.47	10.80	9.41
25A81		15.90	13.51	12.72	11.08
25A82		17.10	14.54	13.68	11.91
25A83		24.75	21.04	19.80	17.24
25A84		15.00	12.75	12.00	10.45
25A85		9.00	7.65	7.20	6.27
25A86		9.00	7.65	7.20	6.27
25A87		9.45	8.03	7.56	6.58
25A88		8.10	6.88	6.48	5.64
25A89		9.00	7.65	7.20	6.27
25A90		12.15	10.33	9.72	8.46
25A91		12.00	10.20	9.60	8.36
25A92		7.65	6.50	6.12	5.33
25A93		8.10	6.88	6.48	5.64
25A94		8.10	6.88	6.48	5.64
25A95		9.00	7.65	7.20	6.27
25A96		18.00	15.30	14.40	13.20
25A97		18.00	15.30	14.40	13.20
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25A99		7.05	6.00	5.64	4.91
25A100		8.10	6.88	6.48	5.64
25A101		7.50	6.37	6.00	5.22
25A102		10.20	8.67	8.16	7.48
25A103		9.45	8.03	7.56	6.92
25A104		10.05	8.54	8.04	7.00
25A105		7.50	6.37	6.00	5.22
25A106		5.70	4.84	4.56	4.18
25A107		6.75	5.73	5.40	4.70
25A108		8.86	7.53	7.80	6.49
25A109		6.75	5.73	5.40	4.70
25A110		8.10	6.88	6.48	5.64
25A111		7.94	6.75	6.36	5.82
25A112		10.50	8.92	8.40	7.70
25A113		8.86	7.53	7.10	6.49
25A114		13.20	11.22	10.55	9.68
25A115		18.60	15.80	14.86	13.64
25A116		15.30	13.00	12.24	11.22
25A117		12.75	10.84	10.20	9.35
25A118		12.75	10.84	10.20	9.35
25A119		8.10	6.88	6.48	5.94
25A120		7.20	6.12	5.76	5.02
25A121		4.05	3.44	3.24	2.97
25A122		4.05	3.44	3.24	2.97
25A123		4.20	3.57	3.36	3.08
25A124		24.00	20.40	19.20	17.60
25A125		24.00	20.40	19.20	17.60
25A126		37.20	31.90	30.00	27.50
25A127		13.50	11.48	10.80	9.90
25A128		7.05	6.00	5.64	4.91
25A129		12.00	10.20	9.60	8.80
25A130		60.00	51.00	48.00	41.80
25A131		18.00	15.30	14.40	13.20
25A132		39.00	33.10	31.20	28.60
25A133		75.00	63.75	60.00	55.00
25A134		63.00	53.55	50.40	46.20
25A135		9.00	7.65	7.20	6.27
25A136		22.00	18.80	17.70	15.40
25A137		22.50	19.13	18.00	16.50
25A138		13.50	11.46	10.80	9.39
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25A140		22.00	18.80	17.70	15.40
25A141		24.00	20.40	19.20	16.70
25A142		21.00	17.85	16.80	14.60
25A143		21.00	17.85	16.80	14.60
25A144		24.00	20.40	19.20	16.70
25A145		21.00	17.85	16.80	14.60
25A146		30.00	25.50	24.00	20.90
25A147		21.00	17.85	16.80	14.60
25A148		21.00	17.85	16.80	14.60
25A149		24.00	20.40	19.20	16.70
25A150		30.00	25.50	24.00	20.90
25A151		21.00	17.85	16.80	14.60
25A152		24.00	20.40	19.20	16.70
25A153		54.00	45.90	43.20	37.60
25A154		7.20	6.12	5.76	5.02
25A155		19.00	16.00	15.10	13.09
25A156		24.00	20.40	19.20	16.72
25A157		21.00	17.85	16.80	14.60
25A158		30.00	25.50	24.00	20.90
25A159		4.20	3.57	3.36	2.93
25A160		5.40	4.59	4.32	3.76
25A161		4.05	3.44	3.24	2.83
25A162		4.80	4.08	3.84	3.34
25A163		4.05	3.44	3.24	2.83
25A164		1.20	1.02	.96	.84
25A165		.19	.17	.16	.14
25A166		2.40	2.04	1.92	1.67
25A167		1.22	1.04	.98	.85
25A168		5.80	4.94	4.64	4.03
25A169		5.80	4.94	4.64	4.03
25A170		6.75	5.74	5.40	4.68
25A171		6.75	5.74	5.40	4.68
25A173		7.96	6.77	6.37	5.56
25A174		6.48	5.51	5.18	4.50
25A175		7.29	6.19	5.83	5.06
25A176		7.02	5.97	5.62	4.87
25A177		7.15	6.09	5.72	4.96
25A178		7.15	6.09	5.72	4.96
25A179		7.29	6.19	5.83	5.06
25A180		7.29	6.19	5.83	5.06
25A181		7.02	5.97	5.62	4.87
25A182		7.29	6.19	5.83	5.06
25A183		7.29	6.19	5.83	5.06
25A184		7.56	6.42	6.05	5.24
25A185		7.42	6.31	5.94	5.15
25A186		6.61	5.63	5.29	4.59
25A187		7.42	6.31	5.94	5.15
25A188		7.15	6.09	5.72	4.96
25A190		7.29	6.19	5.83	5.06
25A191		7.29	6.19	5.83	5.06
25A192		7.42	6.31	5.94	5.15
25A193		7.02	5.97	5.62	4.87
25A194		7.15	6.09	5.72	4.96
25A195		7.42	6.31	5.94	5.15
25A196		7.42	6.31	5.94	5.15
25A197		7.69	6.54	6.16	5.34
25A198		7.56	6.42	6.05	5.24
25A199		7.56	6.42	6.05	5.24
25A200		7.15	6.09	5.72	4.96
25A201		7.42	6.31	5.94	5.15
25A202		7.29	6.19	5.83	5.06
25A203		7.42	6.31	5.94	5.15
25A204		7.02	5.97	5.62	4.87
25A205		7.29	6.19	5.83	5.06
25A206		7.15	6.09	5.72	4.96
25A207		12.42	10.56	9.94	8.65
25A208		12.42	10.56	9.94	8.65
25A209		12.82	10.90	10.26	8.93
25A210		12.28	9.45	8.84	8.56
27A01		14.25	12.11	11.40	9.97
27A02		12.75	10.83	10.20	8.88
27A03		12.75	10.83	10.20	8.88
27A04		18.00	15.30	14.40	13.20
27A05		30.00	25.50	24.00	22.00
27A06		24.00	20.40	19.20	17.60
27A07		24.00	20.40	19.20	17.60
27A08		30.00	25.50	24.00	22.00
27A09		16.20	13.77	12.96	11.28
27A10		13.50	11.47	10.80	9.40
27A11		17.70	15.05	14.25	12.96
27A12		26.25	22.30	21.00	19.25
27A13		24.75	21.03	19.80	18.25
27A14		20.25	17.21	16.20	14.85
27A15		12.30	10.45	9.84	9.02
27A16		7.50	6.37	6.00	5.22
27A17		6.75	5.73	5.40	4.70
27A18		6.75	5.73	5.40	4.70
27A19		6.75	5.73	5.40	4.70
27A20		8.10	6.88	6.48	5.64
27A21		8.70	7.39	6.96	6.06
27A22		15.75	13.40	12.60	11.55
27A23		7.05	6.00	5.64	4.91
27A24		7.05	6.00	5.64	4.91
27A25		7.35	6.24	5.88	5.12
27A26		9.15	7.78	7.33	6.38
27A27		7.50	6.37	6.00	5.22
27A28		7.35	6.24	5.88	5.12
27A29		15.75	13.40	12.60	11.55
27A30		7.50	6.37	6.00	5.72
27A32		8.10	6.88	6.48	5.64
27A33		8.10	6.88	6.48	5.64
27A34		8.10	6.88	6.48	5.64
27A35		7.35	6.24	5.88	5.12
27A36		8.85	7.58	7.08	6.16
27A37		8.10	6.88	6.48	5.64
27A38		7.80	6.63	6.24	5.44
27A39		7.80	6.63	6.24	5.44
27A40		7.95	6.76	6.36	5.54
27A41		7.80	6.63	6.24	5.44
27A42		7.80	6.63	6.24	5.44
27A43		14.85	12.60	11.90	10.35
27A44		13.50	11.47	10.80	9.40
27A45		16.20	13.77	12.96	11.28
27A46		13.50	11.47	10.80	9.40
27A47		13.50	11.47	10.80	9.40
27A48		15.60	13.26	12.48	10.86
27A50		8.10	6.88	6.48	5.64
27A51		9.90	8.41	7.92	7.26
27A52		6.15	5.23	4.92	4.51
27A53		7.35	6.24	5.88	5.12
27A54		8.10	6.88	6.48	5.64
27A55		7.50	6.37	6.00	5.22
27A56		7.50	6.37	6.00	5.22
27A57		7.50	6.37	6.00	5.22
27A58		7.20	6.12	5.76	5.01
27A59		7.20	6.12	5.76	5.01
27A60		9.30	7.90	7.44	6.82
27A61		6.60	5.61	5.28	4.59
27A62		6.75	5.73	5.40	4.70
27A63		6.45	5.49	5.16	4.50
27A64		7.05	6.00	5.64	4.91
27A65		11.00	9.47	9.12	8.36
27A66		12.75	10.83	10.20	9.35
27A67		12.75	10.83	10.20	9.35
27A68		7.20	6.12	5.76	5.02
27A69		7.50	6.37	6.00	5.22
27A70		25.50	21.67	20.40	18.70
27A71		19.20	16.32	15.36	14.08
27A72		27.75	23.58	22.20	20.34
27A73		25.20	21.42	20.16	18.46
27A74		23.40	19.90	18.72	17.16
27A75		24.60	20.90	19.69	18.05
27A76		25.20	21.42	20.16	18.46
27A77		19.20	16.32	15.36	14.08
27A78		19.20	16.32	15.36	14.08
27A79		17.40	14.80	13.92	12.76
27A80		18.60	15.87	14.88	13.64
27A81		11.70	9.95	9.36	8.59
27A82		12.00	10.20	9.60	8.80
27A83		12.00	10.20	9.60	8.80
27A84		12.00	10.20	9.60	8.80
27A85		11.25	9.56	9.00	8.25
27A86		11.70	9.95	9.36	8.59
27A87		12.00	10.20	9.60	8.80
27A88		12.00	10.20	9.60	8.80
27A89		12.75	10.84	10.20	9.35
27A90		12.75	10.84	10.20	9.35
27A91		12.75	10.84	10.20	9.35
27A92		12.60	10.71	10.08	9.24
27A93		12.60	10.71	10.08	9.24
27A94		10.50	8.92	8.40	7.70
27A95		10.80	9.17	8.63	7.91
27A96		10.50	8.92	8.40	7.70
27A97		10.50	8.92	8.40	7.70
27A98		10.50	8.92	8.40	7.70
27A99		11.00	10.45	9.90	9.35
27A107		7.50	6.37	6.00	5.50
27A108		7.50	6.37	6.00	5.50
27A109		6.60	5.60	5.28	4.84
27A110		6.15	5.23	4.92	4.52
27A111		6.90	5.86	5.52	5.06
27A112		6.90	5.86	5.52	5.06
27A113		15.00	12.75	12.00	11.00
27A114		15.00	12.75	12.00	11.00
27A115		15.00	12.75	12.00	11.00
27A116		15.00	12.75	12.00	11.00
27A117		15.00	12.75	12.00	11.00
27A118		15.00	12.75	12.00	11.00
27A119		15.00	12.75	12.00	11.00
27A120		23.25	19.75	18.60	17.05
27A121		23.55	20.01	18.84	17.27
27A122		27.00	22.95	21.60	19.80
27A123		24.75	21.03	19.80	18.15
27A124		20.25	17.21	16.20	14.85
27A125		16.50	14.02	13.20	12.10
27A126		18.00	15.30	14.40	13.20
27A127		9.45	8.03	7.56	6.92
27A129		15.00	12.75	12.00	11.00
27A130		15.00	12.75	12.00	11.00
27A131		18.00	15.30	14.40	13.20
27A132		8.10	6.88	6.48	5.94
27A133		9.00	7.65	7.20	6.60
27A134		13.50	11.46	10.80	9.90
27A135		18.00	15.30	14.40	13.20
27A136		18.00	15.30	14.40	13.20
27A137		37.50	31.90	30.00	27.50
27A138		15.00	12.75	12.00	11.00
27A139		18.00	15.30	14.40	13.20
27A140		15.00	12.75	12.00	11.00
27A141		54.00	45.90	43.20	39.60
27A142		54.00	45.90	43.20	39.60
27A143		30.00	25.50	24.00	22.00
27A144		45.00	38.20	36.00	33.00
27A145		45.00	38.20	36.00	33.00
27A146		39.00	33.20	31.20	28.60
27A147		18.00	15.30	14.40	13.20
27A148		7.50	6.38	6.00	5.23
27A149		7.50	6.38	6.00	5.23
27A150		18.00	15.30	14.40	12.54
27A151		25.50	21.68	20.40	17.76
27A152		16.80	14.30	13.40	11.66
27A153		7.30	6.21	5.85	5.09
27A154		6.88	5.66	5.32	4.80
27A155		6.61	5.62	5.29	4.61
27A156		5.67	4.83	4.53	3.95
27A157		7.00	5.95	5.60	4.88
27A158		6.07	5.17	4.87	5.28
27A159		6.88	5.66	5.32	4.80
27A160		7.30	6.21	5.85	5.09
27A161		6.48	5.51	5.19	4.51
27A162		6.88	5.66	5.32	4.80
27A163		5.67	4.83	4.53	3.95
27A164		6.61	5.62	5.29	4.61
27A165		5.80	4.93	4.64	4.05
27A166		5.94	5.06	4.77	4.14
27A167		5.13	4.37	4.12	3.58
27A168		5.26	4.48	4.22	3.67
27A169		5.53	4.71	4.44	3.86
27A170		5.00	4.25	4.00	3.60
27A171		6.48	5.51	5.19	4.51
27A172		5.67	4.83	4.53	3.95
27A173		6.48	5.51	5.19	4.51
27A174		5.94	5.06	4.77	4.14
27A175		6.61	5.62	5.29	4.61
27A176		6.21	5.28	4.97	4.33
27A177		6.21	5.28	4.97	4.33
27A178		6.07	5.17	4.87	4.24
27A179		7.56	6.42	6.06	5.27
27A180		6.61	5.62	5.29	4.61
27A181		6.75	5.73	5.39	4.70
27A182		6.48	5.51	5.19	4.51
27A183		7.70	6.55	6.16	5.40
27A184		7.83	6.66	6.27	5.46
27A185		7.56	6.42	6.06	5.27
27A186		6.61	5.62	5.29	4.61
27A187		6.75	5.73	5.39	4.70
27A188		7.70	6.55	6.16	5.40
27A189		7.56	6.42	6.06	5.27
27A190		7.70	6.55	6.16	5.40
27A191		6.88	5.66	5.32	4.80
27A192		6.48	5.51	5.19	4.51
27A193		7.00	5.95	5.60	4.88
27A194		7.56	6.42	6.06	5.27
27A195		7.29	6.21	5.85	5.09
27A196		7.70	6.55	6.16	5.40
27A197		6.75	5.73	5.39	4.70
27A198		7.70	6.55	6.16	5.40
27A199		7.02	5.97	5.62	4.87
27A200		6.88	5.86	5.51	4.78
27A201		7.56	6.42	6.05	5.24
27A202		7.70	6.55	6.16	5.40
27A203		7.70	6.55	6.16	5.40
27A204		7.56	6.42	6.04	5.27
27A205		7.43	6.22	5.95	5.17
27A206		7.70	6.55	6.16	5.40
27A207		7.70	6.55	6.16	5.40
27A208		7.83	6.66	6.27	5.46
27A209		8.27	7.43	7.01	6.12
27A210		8.64	7.35	6.92	6.02
27A211		8.77	7.45	7.01	6.12
27A212		7.96	6.76	6.36	5.55
27A213		7.56	6.42	6.06	5.27
27A214		8.10	6.89	6.48	5.64
27A215		8.64	7.35	6.92	6.02
27A216		8.37	7.11	6.69	5.83
27A217		8.77	7.45	7.01	6.12
27A218		7.83	6.66	6.27	5.46
27A219		8.77	7.45	7.01	6.12
27A220		8.10	6.89	6.48	5.64
27A221		7.97	6.77	6.37	5.56
27A222		8.64	7.35	6.92	6.02
27A223		8.77	7.45	7.01	6.12
27A224		8.77	7.45	7.01	6.12
27A225		8.64	7.35	6.92	6.02
27A226		8.51	7.23	6.81	5.94
27A227		8.77	7.45	7.01	6.12
27A228		6.07	5.17	4.86	4.22
27A229		6.61	5.63	5.29	4.59
27A230		6.75	5.74	5.40	4.68
27A231		6.34	5.40	5.08	4.40
27A232		6.75	5.74	5.40	4.68
27A233		5.40	4.59	4.32	3.75
27A234		5.94	5.05	4.75	4.12
27A235		6.34	5.40	5.08	4.40
27A236		6.07	5.17	4.86	4.22
27A237		6.34	5.40	5.08	4.40
27A238		5.67	4.82	4.54	3.94
27A239		6.07	5.17	4.86	4.22
27A240		6.21	5.28	4.97	4.31
27A241		6.34	5.40	5.08	4.40
27A242		6.07	5.17	4.86	4.22
27A243		5.94	5.05	4.75	4.12
27A244		6.48	5.51	5.18	4.50
27A245		7.02	5.97	5.62	4.87
27A246		7.42	6.31	5.94	5.15
27A247		7.15	6.09	5.72	4.96
27A248		7.42	6.31	5.94	5.15
27A249		6.75	5.74	5.40	4.68
27A250		6.75	5.74	5.40	4.68
27A251		7.15	6.09	5.72	4.96
27A252		7.29	6.19	5.83	5.06
27A253		7.42	6.31	5.94	5.15
27A254		7.15	6.09	5.72	4.96
27A255		7.02	5.97	5.62	4.87
27A256		8.91	7.57	7.13	6.18
27A257		9.32	8.83	8.46	6.50
27A258		8.91	7.57	7.13	6.18
27A259		7.69	6.54	6.16	5.34
27A260		7.69	6.54	6.16	5.34
27A261		8.50	7.23	6.80	5.90
27A262		8.77	7.45	7.01	6.12
27A263		9.45	8.03	7.65	6.58
27A264		9.45	8.03	7.65	6.58
27A265		9.72	8.27	7.78	6.77
27A266		9.45	8.03	7.65	6.58
27A267		9.45	8.03	7.65	6.58
27A269		8.95	7.61	7.16	6.26
27A270		8.37	7.11	6.70	5.80
27A271		8.10	6.88	6.48	5.62
27A272		6.88	5.86	5.51	4.78
27A273		7.96	6.77	6.37	5.52
27A274		8.64	7.34	6.91	5.99
27A275		8.64	7.34	6.91	5.99
27A276		8.64	7.34	6.91	5.99
27A277		8.37	7.11	6.70	5.80
27A278		8.37	7.11	6.70	5.80
27A279		8.10	6.88	6.48	5.62
27A280		8.91	7.57	7.13	6.18
27A281		9.18	7.80	7.34	6.40
27A282		8.77	7.45	7.01	6.12
27A283		7.69	6.54	6.16	5.34
27A284		7.69	6.54	6.16	5.34
27A285		8.50	7.23	6.80

PART NO.	LIST	INDUSTRIAL NET 1 to 4	5 to 49	50 to 99	100 to 499
27A341		8.91	7.57	7.13	6.18
27A342		8.77	7.45	7.01	6.12
27A343		8.10	6.89	6.48	5.64
27A344		7.43	6.22	5.95	5.17
27A345		6.48	5.51	5.19	4.51
27A346		6.21	5.28	4.97	4.33
27A347		8.10	6.89	6.48	5.62
27A348		8.10	6.89	6.48	5.62
27A349		5.67	4.83	4.53	3.95
27A350		6.75	5.74	5.40	4.68
27A351		5.67	4.83	4.53	3.95

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PART NO.	LIST	INDUSTRIAL NET 1 to 4	5 to 49	50 to 99	100 to 499
20C00	5.00	3.00	2.55	2.40	2.20
20C01	9.00	5.40	4.59	4.32	3.96
20C02	12.25	7.35	6.30	5.88	5.39
20C03	13.75	8.25	7.01	6.60	6.05
20C04	3.40	2.04	1.75	1.65	1.43
20C05	2.66	1.60	1.35	1.30	1.17
20C06	4.10	2.46	2.09	1.96	1.80
20C07	3.75	2.25	1.92	1.80	1.65
20C08	4.50	2.70	2.30	2.16	1.98
20C09	4.50	2.70	2.30	2.16	1.98
20C10	7.02	4.05	3.44	3.24	2.97
20C11	5.35	3.21	2.72	2.56	2.23
20C12	4.75	2.85	2.42	2.28	2.09
20C13	7.75	4.65	3.95	3.72	3.41
20C14	5.75	3.45	2.93	2.76	2.53
20C15	7.75	4.65	3.95	3.72	3.41
20C16	5.75	3.45	2.93	2.76	2.53
20C17	14.00	8.40	7.14	6.72	6.16
20C18	18.00	10.80	9.18	8.64	7.92
20C19	9.00	5.40	4.59	4.32	3.96
20C20		10.80	9.18	8.64	7.92
20C21	4.50	2.70	2.30	2.16	1.98
20C22		11.10	9.44	8.88	8.14
20C23		19.50	16.58	15.60	14.30
20C24		45.00	38.25	36.00	33.00
20C25		6.60	5.60	5.28	4.84
20C26	15.00	9.00	7.65	7.20	6.60
20C27		11.25	9.56	9.00	8.24
20C28		33.75	28.68	27.00	24.75
20C29		5.40	4.59	4.32	3.96
20C30		6.60	5.60	5.28	4.84
20C31		10.50	8.92	8.40	7.70
20C32		11.25	9.56	9.00	8.24
20C33		13.50	11.47	10.80	9.90
20C34		30.00	25.50	24.00	22.00
20C35	2.90	1.75	1.40	1.30	1.20
20C36	2.90	1.75	1.40	1.30	1.20
20C37	3.10	2.04	1.75	1.65	1.43
20C38	4.50	2.70	2.30	2.15	1.87
20C39		3.21	2.72	2.56	2.23
20C40		3.75	3.19	3.00	2.61
20C41		27.00	22.95	21.60	19.80
20C42		6.00	5.10	4.80	4.40
20C43		1.80	1.53	1.44	1.32
20C44		6.00	5.10	4.80	4.40
20C45	4.25	2.55	2.17	2.04	1.87
20C46	7.50	4.50	4.00	3.80	3.30
20C47	2.00	1.20	1.02	.96	.88
20C48	3.75	2.25	1.92	1.80	1.65
20C49	5.75	3.45	2.93	2.76	2.41
20C50	4.50	2.70	2.30	2.16	1.98
20C51	3.00	1.80	1.53	1.44	1.32
20C52	2.65	1.60	1.35	1.30	1.17
20C53	3.75	2.25	1.85	1.75	1.65
20C54	6.75	4.05	3.44	3.24	2.97
20C54P		6.00	5.10	4.80	4.40
20C55	15.00	9.00	7.65	7.20	6.60
20C55P		6.00	5.10	4.80	4.40
20C56	17.50	10.50	8.92	8.40	7.70
20C56P		10.50	8.92	8.40	7.70
20C57		60.00	51.00	48.00	44.00
20C58	5.00	3.00	2.55	2.40	2.20
20C59	3.00	1.80	1.53	1.44	1.32
20C60		18.00	15.30	14.40	13.20
20C61		18.00	15.30	14.40	13.20
20C62	6.75	4.05	3.44	3.24	2.97
20C63		3.45	2.93	2.76	2.53
20C64	3.75	2.25	1.92	1.80	1.65
20C65	3.75	2.25	1.92	1.80	1.65
20C66	3.00	1.80	1.53	1.44	1.32
20C67	5.00	3.00	2.55	2.40	2.20
20C68	5.50	3.30	2.80	2.64	2.42
20C69	17.50	10.50	8.92	8.40	7.70
20C70	17.50	10.50	8.92	8.40	7.70
20C71	6.50	3.90	3.30	3.10	2.86
20C72		11.25	9.56	9.00	8.24
20C73		32.10	27.20	25.60	22.30
20C74	14.25	8.55	7.26	6.84	6.26
20C75		3.60	3.00	2.80	2.64
20C76		3.75	3.20	3.00	2.75
20C77		5.10	4.33	4.08	3.74
20C78		5.70	4.85	4.55	4.20
20C79		10.50	8.92	8.40	7.70
20C80		18.00	15.30	14.40	13.20
20C81	3.00	1.80	1.53	1.44	1.32
20C82	3.00	1.80	1.53	1.44	1.32
20C83	4.00	2.40	2.04	1.92	1.76
20C84	2.35	1.41	1.20	1.13	1.03
20C85	4.00	2.40	2.04	1.92	1.76
20C86	7.50	4.50	4.00	3.80	3.30
20C87	7.50	4.50	4.00	3.80	3.30
20C88	7.50	4.50	4.00	3.80	3.30
20C89	8.00	4.80	4.08	3.80	3.15
20C90	8.10	4.86	4.10	3.80	3.60
20C91	8.10	4.86	4.10	3.80	3.60
20C92	10.00	6.00	5.10	4.80	4.40
20C93	6.25	3.75	3.20	3.00	2.75
20C94	7.50	4.50	4.00	3.80	3.30
20C95	15.00	9.00	7.65	7.20	6.60
20C96		6.00	5.10	4.80	4.40
20C97		9.00	7.65	7.20	6.60
20C98		6.00	5.10	4.80	4.40
20C99		13.50	11.47	10.80	9.90
20C100	21.00	12.60	10.70	10.08	9.24
20C102	2.50	1.50	1.28	1.20	1.10
20C103		10.50	8.92	8.40	7.70
20C105	9.00	5.40	4.59	4.32	3.96
20C106	15.50	9.30	7.90	7.44	6.82
20C107	21.00	12.60	10.70	10.08	9.24
20C108	8.75	5.25	4.46	4.20	3.85
20C109	9.00	5.40	4.59	4.32	3.96
20C110	15.00	9.00	7.65	7.20	6.60
20C111		3.00	2.55	2.40	2.20
20C112		6.75	5.73	5.40	4.70
20C113		1.50	1.28	1.20	1.10
20C114		1.50	1.28	1.20	1.10
20C116		1.50	1.28	1.20	1.10
20C117		3.00	2.55	2.40	2.20
20C120		3.00	2.55	2.40	2.20
20C123		1.50	1.28	1.20	1.10
20C124		4.80	4.08	3.84	3.52
20C125		1.50	1.28	1.20	1.10
20C126		1.50	1.28	1.20	1.10
20C127		18.00	15.30	14.40	13.20
20C129		18.00	15.30	14.40	13.20
20C130		8.40	7.14	6.72	6.16
20C131		9.30	7.90	7.44	6.82
20C132		8.70	7.40	6.96	6.38
20C133		6.60	5.61	5.28	4.84
20C134		6.60	5.61	5.28	4.84
20C135		12.00	10.20	9.60	8.36
20C136		1.50	1.28	1.20	1.10
20C137		1.80	1.53	1.44	1.32
20C138		3.00	2.55	2.40	2.20
20C139		30.00	25.50	24.00	22.00
20C140		3.00	2.55	2.40	2.20
20C141		3.00	2.55	2.40	2.20
20C142		4.20	3.57	3.36	3.08
20C143		18.00	15.30	14.40	13.20
20C144		60.00	51.00	48.00	41.80
20C145		60.00	51.00	48.00	41.80
20C146		60.00	51.00	48.00	41.80
20C147		4.50	3.82	3.60	3.30
20C148		15.00	12.75	12.00	11.00
20C150		36.00	30.60	28.80	26.40
20C151		15.00	12.75	12.00	11.00
20C152		10.50	8.92	8.40	7.70
20C153		190.00	160.00	151.00	138.00
20C154		30.00	25.50	24.00	22.00
20C155		9.30	7.90	7.44	6.82
20C157		37.50	31.90	30.00	27.50
20C158		18.00	15.30	14.40	13.20
20C159		18.00	15.30	14.40	13.20
20C160		18.00	15.30	14.40	13.20
20C161		1.65	1.38	1.30	1.21
20C162		45.00	38.25	36.00	33.00
20C163		75.00	63.80	60.00	52.20
20C164		11.10	9.43	8.87	8.13
20C165		15.00	12.75	12.00	11.00
20C166		2.37	2.01	1.89	1.74
20C167		4.95	4.21	3.96	3.63
25C01		5.64	4.79	4.51	3.92
25C02		4.59	3.90	3.67	3.20
25C03		4.59	3.90	3.67	3.20
25C04		4.59	3.90	3.67	3.20
25C05		4.59	3.90	3.67	3.20
25C06		9.18	7.80	7.34	6.40
25C07		6.00	5.10	4.80	4.18
25C08		5.70	4.84	4.56	3.97
25C09		6.00	5.10	4.80	4.18
25C10		10.50	8.92	8.40	7.70
25C25		4.60	3.90	3.67	3.20
25C26		3.90	3.32	3.12	2.86
25C27		6.90	5.87	5.52	5.06
25C28		6.30	5.36	5.04	4.39
25C29		4.05	3.44	3.24	2.97
25C30		6.30	5.36	5.04	4.39
25C31		10.50	8.92	8.40	7.70
25C32		10.50	8.92	8.40	7.70
25C33		8.40	7.14	6.72	6.16
25C34		10.50	8.92	8.40	7.70
25C35		7.20	6.12	5.76	5.02
25C36		8.40	7.14	6.72	6.16
25C37		15.00	12.75	12.00	11.00
25C38		8.10	6.88	6.48	5.64
25C39		8.40	7.14	6.72	6.16
25C40		75.00	63.80	60.00	55.00
25C41		75.00	63.80	60.00	55.00
25C42		150.00	127.50	120.00	110.00
25C43		12.00	10.20	9.60	8.36
25C44		75.00	63.80	60.00	55.00
25C45		75.00	63.80	60.00	55.00
25C46		60.00	51.00	48.00	44.00
25C47		39.00	33.20	31.20	28.60
25C48		39.00	33.20	31.20	28.60
25C49		3.90	3.32	3.12	2.86
25C50		4.65	3.95	3.72	3.41
25C51		7.20	6.12	5.76	5.28
25C52		6.00	5.10	4.80	4.40
25C53		6.00	5.10	4.80	4.40
25C54		6.30	5.36	5.04	4.62
25C55		6.00	5.10	4.80	4.40
25C56		7.50	6.38	6.00	5.50
25C57		7.20	6.12	5.76	5.28
25C58		6.90	5.87	5.52	5.06
25C59		11.25	9.60	9.00	8.25
25C60		8.40	7.14	6.72	6.16
25C61		7.20	6.12	5.76	5.02
25C62		6.30	5.36	5.04	4.39
25C63		5.40	4.59	4.32	3.76
25C64		6.75	5.73	5.40	4.70
25C65		8.10	6.88	6.48	5.64
25C66		12.00	10.20	9.60	8.36
25C67		13.50	11.47	10.80	9.40
25C68		24.00	20.40	19.20	16.72
25C69		8.10	6.88	6.48	5.64
25C70		12.00	10.20	9.60	8.36
25C71		13.50	11.47	10.80	9.40
25C72		24.30	20.65	19.44	16.92
25C73		10.20	8.67	8.16	7.11
25C74		4.05	3.44	3.24	2.82
25C75		60.00	51.00	48.00	44.00
25C76		48.00	40.80	38.40	33.44
25C77		48.00	40.80	38.40	33.44
25C78		11.40	9.67	9.12	7.94
25C79		13.50	11.47	10.80	9.40
25C80		4.50	3.82	3.60	3.14
25C81		3.60	3.06	2.88	2.51
25C82		3.60	3.06	2.88	2.51
25C83		4.60	3.90	3.67	3.20
25C84		5.85	4.97	4.68	4.07
25C85		4.50	3.82	3.60	3.14
25C86		4.50	3.82	3.60	3.14
25C87		6.15	5.23	4.92	4.28
25C88		6.15	5.23	4.92	4.28
25C89		8.40	7.14	6.72	5.85
25C90		8.40	7.14	6.72	5.85
25C91		10.80	9.18	8.64	7.52
25C92		4.05	3.44	3.24	2.97
25C93		10.80	9.18	8.64	7.52
25C94		13.50	11.47	10.80	9.40
25C95		13.50	11.47	10.80	9.40
25C96		3.45	2.93	2.76	2.53
25C97		5.40	4.59	4.32	3.76
25C98		6.75	5.74	5.40	4.68
26C40	1.75	1.05	.90	.84	.77
26C41	2.63	1.58	1.34	1.26	1.16
26C42	2.50	1.50	1.28	1.20	1.10
26C43	4.00	2.40	2.04	1.92	1.76
26C44	5.00	3.00	2.55	2.40	2.20
26C45	10.50	6.30	5.35	5.04	4.62
26C76	3.25	1.95	1.65	1.55	1.43
26C77	2.75	1.65	1.39	1.30	1.21
26C78	5.34	3.20	2.72	2.56	2.35
26C79	3.37	2.02	1.72	1.62	1.49
26C80	3.05	1.83	1.56	1.47	1.35
26C81	3.87	2.32	1.98	1.86	1.71
26C82	2.90	1.74	1.48	1.39	1.27
26C83	5.00	3.00	2.55	2.40	2.20
26C84	5.50	3.30	2.80	2.64	2.42
26C85	6.00	3.60	3.06	2.88	2.64
26C86	4.00	2.40	2.00	1.90	1.75
26C87	3.40	2.02	1.72	1.62	1.49
26C88	3.40	2.02	1.72	1.62	1.49
26C89	3.40	2.02	1.72	1.62	1.49
26C90	12.50	7.50	6.38	6.00	5.50
26C91	5.50	3.30	2.80	2.64	2.42
26C92	5.50	3.30	2.80	2.64	2.42
26C93	4.00	2.40	2.00	1.90	1.75
26C94	4.00	2.40	2.00	1.90	1.75
26C95	15.00	9.00	7.65	7.20	6.60
27C01		11.25	9.60	9.00	8.25
27C02		13.50	11.47	10.80	9.40
27C03		24.00	20.40	19.20	16.72
27C04		16.50	14.05	13.20	12.10
27C05		24.00	20.40	19.20	16.72
27C06		30.00	25.50	24.00	22.00
27C07		30.00	25.50	24.00	22.00
27C08		34.00	30.40	28.80	26.40
27C09		48.00	40.80	38.40	33.44
27C10		75.00	63.75	60.00	55.00
27C11		12.00	10.20	9.60	8.36
27C12		6.00	5.10	4.80	4.40
27C13		6.00	5.10	4.80	4.40
27C14		7.05	5.99	5.64	5.17
27C15		7.05	5.99	5.64	5.17
27C16		12.00	10.20	9.60	8.36
27C17		7.50	6.38	6.00	5.50
27C18		24.00	20.40	19.20	16.72
27C19		10.20	8.67	8.16	7.11
27C20		13.50	11.47	10.80	9.90
27C21		11.55	9.82	9.24	8.05
27C22		12.75	10.83	10.20	9.35
27C23		12.00	10.20	9.50	8.80
27C24		15.00	12.75	12.00	11.00
27C25		18.00	15.30	14.40	13.20
27C26		8.10	6.88	6.48	5.94
27C27		12.00	10.20	9.60	8.36
27C28		12.00	10.20	9.60	8.36
27C29		8.25	7.01	6.60	6.05
27C30		12.00	10.20	9.60	8.36
27C31		11.40	9.69	9.12	8.36
27C32		7.50	6.37	6.00	5.22
27C33		10.20	8.67	8.16	7.47
27C34		11.85	10.07	9.48	8.69
27C35		10.50	8.92	8.40	7.70
27C36		23.40	19.89	18.72	17.16
27C37		6.75	5.73	5.40	4.70
27C38		6.15	5.23	4.92	4.28
27C39		5.40	4.59	4.32	3.76
27C40		5.40	4.59	4.32	3.76
27C41		5.40	4.59	4.32	3.76
27C42		5.40	4.59	4.32	3.76
27C43		5.40	4.59	4.32	3.76
27C44		9.75	8.29	7.78	6.79
27C45		6.60	5.61	5.28	4.60
27C46		6.75	5.73	5.40	4.70
27C47		6.60	5.61	5.28	4.60
27C48		8.10	6.88	6.48	5.64
27C49		15.75	13.39	12.60	10.97
27C50		21.60	18.36	17.28	15.05
27C51		24.30	20.65	19.44	16.93
27C52		32.25	27.41	25.80	22.47
27C53		6.00	5.10	4.80	4.18
27C54		6.75	5.73	5.40	4.70
27C55		7.50	6.37	6.00	5.22
27C56		9.15	7.78	7.33	6.38
27C57		13.50	11.47	10.80	9.41
27C58		11.40	9.69	9.12	7.94
27C59		18.90	16.06	15.12	13.17
27C60		8.70	7.39	6.96	6.06
27C61		9.73	8.26	7.78	6.78
27C62		5.70	4.84	4.56	3.97
27C63		7.20	6.12	5.76	5.24
27C64		6.15	5.23	4.92	4.51
27C65		6.15	5.23	4.92	4.51
27C66		6.75	5.74	5.40	4.95
27C67		11.25	9.56	9.00	8.25
27C68		11.40	9.69	9.12	8.36
27C70		7.35	6.24	5.88	5.39
27C71		8.10	6.88	6.48	5.94
27C72		10.95	9.31	8.76	8.03
27C73		9.30	7.90	7.44	6.82
27C74		13.50	11.47	10.80	9.90
27C75		11.10	9.44	8.88	8.14
27C76		16.50	14.05	13.20	12.10
27C79		5.70	4.84	4.56	4.18
27C80		4.80	4.08	3.84	3.52
27C81		4.80	4.08	3.84	3.52
27C82		4.80	4.08	3.84	3.52
27C83		4.80	4.08	3.84	3.52
27C84		4.80	4.08	3.84	3.52
27C85		8.40	7.14	6.72	6.16
27C86		8.40	7.14	6.72	6.16
27C87		8.40	7.14	6.72	6.16
27C88		8.40	7.14	6.72	6.16
27C89		8.40	7.14	6.72	6.16
27C90		8.40	7.14	6.72	6.16
27C91		8.40	7.14	6.72	6.16
27C92		9.75	8.29	7.80	7.15
27C93		9.60	8.16	7.68	7.04
27C94		10.65	9.05	8.52	7.81
27C95		13.50	11.47	10.80	9.40
27C96		15.00	12.75	12.00	11.00
27C97		15.00	12.75	12.00	11.00
27C98		14.55	12.37	11.64	10.73
27C99		18.45	15.68	14.76	13.53
27C100		8.25	7.01	6.60	6.05
27C101		7.65	6.50	6.12	5.61
27C102		7.35	6.24	5.88	5.39
27C103		7.95	6.76	6.36	5.83
27C104		8.60	7.30	6.88	6.31
27C105		5.82	4.95	4.60	4.26
27C106		5.85	4.97	4.68	4.29
27C107		6.90	5.87	5.52	5.06
27C108		6.90	5.87	5.52	5.06
27C109		8.55	7.26	6.84	6.26
27C110		10.05	8.54	8.04	7.37
27C111		30.00	25.50	24.00	22.00
27C112		9.90	8.41	7.92	7.26
27C113		9.90	8.41	7.92	7.26
27C114		10.20	8.67	8.16	7.48
27C115		11.40	9.67	9.12	8.36
27C116		10.50	8.92	8.40	7.70
27C117		11.40	9.67	9.12	8.36
27C118		12.00	10.20	9.60	8.80
27C119		18.00	15.30	14.40	13.20
27C120		10.50	8.92	8.40	7.70
27C121		11.40	9.67	9.12	8.36
27C122		9.60	8.16	7.68	7.04
27C123		7.20	6.12	5.76	5.28
27C124		15.00	12.75	12.00	11.00
27C125		15.00	12.75	12.00	11.00
27C126		18.00	15.30	14.40	13.20
27C127		10.20	8.67	8.16	7.48
27C128		6.00	5.10	4.80	4.40
27C129		15.00	12.75	12.00	11.00
27C130		15.00	12.75	12.00	11.00
27C131		15.00	12.75	12.00	11.00
27C133		18.00	15.30	14.40	13.20
27C134		18.00	15.30	14.40	13.20
27C135		18.00	15.30	14.40	13.20
27C136		18.00	15.30	14.40	13.20
27C137		18.00	15.30	14.40	13.20
27C138		18.00	15.30	14.40	13.20
27C139		18.00	15.30	14.40	13.20
27C140		93.00	79.00	74.00	68.00
27C141		18.00	15.30	14.40	13.20
27C142		8.40	7.14	6.72	6.16
27C143		13.50	11.47	10.80	9.40
27C144		18.00	15.30	14.40	13.20
27C145		18.00	15.30	14.40	13.20
27C146		18.00	15.30	14.40	13.20
27C147		18.00	15.30	14.40	13.20
27C148		72.00	61.20	57.60	52.40
27C149		9.90	8.41	7.92	7.26
27C150		15.00	12.75	12.00	11.00
27C151		15.00	12.75	12.00	11.00
27C152		18.00	15.30	14.40	13.20
27C153		8.25	7.01	6.60	6.05
27C154		5.25	4.46	4.20	3.66
27C155		48.00	40.80	38.40	35.20
27C156		30.00	25.50	24.00	21.00
27C157		42.00	35.70	33.60	30.80
27C158		10.50	8.92	8.40	7.70
27C159		24.00	20.40	19.20	17.60
27C160		28.50	24.22	22.80	20.90
27C161		24.00	20.40	19.20	17.60
27C162		24.00	20.40	19.20	17.60
27C163		24.00	20.40	19.20	17.60
27C164		24.00	20.40	19.20	17.60
27C165		45.00	38.20	36.00	33.30
27C166		90.00	76.50	72.00	66.00
27C167		45.00	38.20	36.00	33.30
27C168		40.50	34.40	32.40	29.70
27C169		67.50	57.30	54.00	47.00
27C170		18.00	15.30	14.40	13.20
27C171		54.00	45.90	43.20	39.60
27C172		13.50	11.46	10.80	9.90
27C173		21.00	17.85	16.80	15.40
27C174		45.00	38.20	36.00	33.30
27C175		15.00	12.75	12.00	11.00
27C176		40.50	34.40	32.40	28.16
27C178		45.00	38.20	36.00	33.30
27C179		67.50	57.30	54.00	47.00
27C180		8.10	6.88	6.48	5.65
27C181		8.10	6.88	6.48	5.65
27C182		8.10	6.88	6.48	5.65
27C183		8.10	6.88	6.48	5.65
27C184		8.10	6.88	6.48	5.65
27C185		8.10	6.88	6.48	5.65
27C186		8.70	7.39	6.95	6.05
27C187		8.70	7.39	6.95	6.05
27C188		9.00	7.65

PART NO.	LIST	INDUSTRIAL NET NET and 1 to 4	5 to 49	50 to 99	100 to 499
27C254		7.56	6.42	6.04	5.52
27C257		7.29	6.21	5.85	5.08
27C258		7.29	6.21	5.85	5.08
27C259		7.56	6.42	6.04	5.52
27C260		7.56	6.42	6.04	5.52
27C261		7.83	6.66	6.27	5.46
27C262		8.10	6.89	6.48	5.64
27C263		7.83	6.66	6.27	5.46
27C264		8.10	6.89	6.48	5.64
27C265		5.70	4.85	4.56	3.97
27C266		5.70	4.85	4.56	3.97
27C267		5.70	4.85	4.56	3.97
27C268		5.70	4.85	4.56	3.97
27C269		5.70	4.85	4.56	3.97
27C270		6.00	5.10	4.80	4.18
27C271		6.00	5.10	4.80	4.18
27C272		6.00	5.10	4.80	4.18
27C273		6.00	5.10	4.80	4.18
27C275		6.48	5.52	5.20	4.51
27C276		6.48	5.52	5.20	4.51
27C287		10.80	9.18	8.56	7.52
27C288		10.80	9.18	8.56	7.52
27C289		10.80	9.18	8.56	7.52
27C290		10.80	9.18	8.56	7.52
27C291		10.80	9.18	8.56	7.52
27C292		10.80	9.18	8.56	7.52
27C293		11.60	9.86	9.28	8.10
27C294		11.60	9.86	9.28	8.10
27C295		11.60	9.86	9.28	8.10
27C296		11.90	10.11	9.51	8.31
27C297		12.96	11.01	10.36	9.03
27C298		14.30	12.16	11.45	10.03
27C300		27.00	22.95	21.60	18.80
27C301		27.00	22.95	21.60	18.80
27C302		27.00	22.95	21.60	18.80
27C303		27.00	22.95	21.60	18.80
27C304		27.00	22.95	21.60	18.80
27C305		27.00	22.95	21.60	18.80
27C306		27.00	22.95	21.60	18.80
27C307		27.00	22.95	21.60	18.80
27C308		27.00	22.95	21.60	18.80
27C309		27.00	22.95	21.60	18.80
27C310		27.00	22.95	21.60	18.80
27C311		27.00	22.95	21.60	18.80
27C312		27.00	22.95	21.60	18.80
27C313		32.40	27.54	25.92	22.57
27C314		32.40	27.54	25.92	22.57
27C315		32.40	27.54	25.92	22.57
27C316		28.35	24.10	22.69	19.75
27C317		28.35	24.10	22.69	19.75
27C318		28.35	24.10	22.69	19.75
27C319		28.35	24.10	22.69	19.75
27C320		28.35	24.10	22.69	19.75
27C321		28.35	24.10	22.69	19.75
27C322		28.35	24.10	22.69	19.75
27C323		28.35	24.10	22.69	19.75
27C324		28.35	24.10	22.69	19.75
27C325		28.35	24.10	22.69	19.75
27C326		28.35	24.10	22.69	19.75
27C327		28.35	24.10	22.69	19.75
27C328		28.35	24.10	22.69	19.75
27C329		28.35	24.10	22.69	19.75
27C330		28.35	24.10	22.69	19.75
27C331		28.35	24.10	22.69	19.75
27C332		28.35	24.10	22.69	19.75
27C333		28.35	24.10	22.69	19.75
27C334		28.35	24.10	22.69	19.75
27C335		27.00	22.95	21.60	18.80
27C336		27.00	22.95	21.60	18.80
27C337		35.10	29.85	28.10	24.50
27C338		35.10	29.85	28.10	24.50
27C339		35.10	29.85	28.10	24.50
27C340		35.10	29.85	28.10	24.50
27C341		28.35	24.10	22.69	19.75
27C342		28.35	24.10	22.69	19.75
27C343		28.35	24.10	22.69	19.75
27C344		28.35	24.10	22.69	19.75
27C345		28.35	24.10	22.69	19.75
27C346		28.35	24.10	22.69	19.75
27C347		28.35	24.10	22.69	19.75
27C348		28.35	24.10	22.69	19.75
27C349		24.30	20.70	19.42	16.95
27C350		24.30	20.70	19.42	16.95
27C351		24.30	20.70	19.42	16.95
27C352		24.30	20.70	19.42	16.95
27C353		24.30	20.70	19.42	16.95
27C354		24.30	20.70	19.42	16.95
27C355		27.00	22.95	21.60	18.80
27C356		27.00	22.95	21.60	18.80
27C357		27.00	22.95	21.60	18.80
27C358		27.00	22.95	21.60	18.80
27C359		27.00	22.95	21.60	18.80
27C360		27.00	22.95	21.60	18.80
27C361		27.00	22.95	21.60	18.80
27C362		27.00	22.95	21.60	18.80
27C363		35.10	29.85	28.10	24.50
27C364		35.10	29.85	28.10	24.50
27C365		35.10	29.85	28.10	24.50
27C366		35.10	29.85	28.10	24.50
27C367		35.10	29.85	28.10	24.50
27C368		35.10	29.85	28.10	24.50
27C369		35.10	29.85	28.10	24.50
27C370		35.10	29.85	28.10	24.50
27C371		35.10	29.85	28.10	24.50
27C372		35.10	29.85	28.10	24.50
27C373		35.10	29.85	28.10	24.50
27C374		37.80	32.13	30.24	26.35
27C375		37.80	32.13	30.24	26.35
27C376		37.80	32.13	30.24	26.35
27C377		37.80	32.13	30.24	26.35
27C378		37.80	32.13	30.24	26.35
27C379		37.80	32.13	30.24	26.35
27C380		37.80	32.13	30.24	26.35
27C381		37.80	32.13	30.24	26.35
27C382		37.80	32.13	30.24	26.35
27C383		37.80	32.13	30.24	26.35
27C384		37.80	32.13	30.24	26.35
27C385		37.80	32.13	30.24	26.35
27C386		32.40	27.54	25.94	22.57
27C387		27.00	22.95	21.60	18.81
27C388		27.00	22.95	21.60	18.81
27C389		27.00	22.95	21.60	18.81
27C390		27.00	22.95	21.60	18.81
27C391		27.00	22.95	21.60	18.81
27C392		27.00	22.95	21.60	18.81
27C393		24.30	20.66	19.45	16.93
27C394		24.30	20.66	19.45	16.93
27C395		24.30	20.66	19.45	16.93
27C396		24.30	20.66	19.45	16.93
27C397		24.30	20.66	19.45	16.93
27C398		24.30	20.66	19.45	16.93
27C399		24.30	20.66	19.45	16.93
27C400		24.30	20.66	19.45	16.93
27C401		24.30	20.66	19.45	16.93
27C402		24.30	20.66	19.45	16.93
27C403		24.30	20.66	19.45	16.93
27C404		24.30	20.66	19.45	16.93
27C405		24.30	20.66	19.45	16.93
27C406		24.30	20.66	19.45	16.93
27C407		24.30	20.66	19.45	16.93
27C408		24.30	20.66	19.45	16.93
27C409		28.35	24.10	22.69	19.75
27C410		28.35	24.10	22.69	19.75
27C411		28.35	24.10	22.69	19.75
27C412		27.00	22.95	21.60	18.81
27C413		27.00	22.95	21.60	18.81
27C414		54.00	45.90	43.20	37.62
27C415		28.35	24.10	22.69	19.75
27C416		28.35	24.10	22.69	19.75
27C417		27.00	22.95	21.60	18.81
27C418		27.00	22.95	21.60	18.81
27C419		27.00	22.95	21.60	18.81
27C420		27.00	22.95	21.60	18.81
27C421		35.10	29.86	28.10	24.45
27C422		35.10	29.86	28.10	24.45
27C423		35.10	29.86	28.10	24.45
27C424		35.10	29.86	28.10	24.45
27C425		35.10	29.86	28.10	24.45
27C426		35.10	29.86	28.10	24.45
27C427		35.10	29.86	28.10	24.45
27C428		35.10	29.86	28.10	24.45
27C429		35.10	29.86	28.10	24.45
27C430		35.10	29.86	28.10	24.45
27C431		35.10	29.86	28.10	24.45
27C432		37.80	32.13	30.24	26.34
27C433		37.80	32.13	30.24	26.34
27C435		37.80	32.13	30.24	26.34
27C436		37.80	32.13	30.24	26.34
27C437		37.80	32.13	30.24	26.34
27C438		37.80	32.13	30.24	26.34
27C439		37.80	32.13	30.24	26.34
27C440		37.80	32.13	30.24	26.34
27C441		37.80	32.13	30.24	26.34
27C442		37.80	32.13	30.24	26.34
27C443		37.80	32.13	30.24	26.34
27C444		37.80	32.13	30.24	26.34
27C445		53.40	45.39	42.72	37.20
27C446		53.40	45.39	42.72	37.20
27C447		7.42	6.31	5.94	5.15
27C500		11.34	9.65	9.09	7.90
27C501		11.34	9.65	9.09	7.90
27C502		12.15	10.32	9.71	8.47
27C503		11.34	9.65	9.09	7.90
27C504		12.15	10.32	9.71	8.47
27C505		5.13	4.37	4.12	3.58
27C506		4.32	3.68	3.47	3.01
27C507		6.48	5.51	5.19	4.51
27C508		5.67	4.82	4.54	3.94
27C509		7.56	6.42	6.05	5.24
27C510		7.42	6.31	5.94	5.15
27C511		4.72	4.02	3.79	3.29
27C512		4.05	3.45	3.25	2.85
27C513		4.59	3.89	3.51	3.20
27C514		6.21	5.28	4.97	4.33
27C515		7.30	6.21	5.85	5.09

D

27D30		12.75	10.83	10.20	9.35
27D31		12.75	10.83	10.20	9.35
27D32		8.70	7.40	6.96	6.38
27D33		9.30	7.90	7.44	6.82
27D34		12.75	10.83	10.20	9.35
27D35		12.75	10.83	10.20	9.35
27D36		10.50	8.92	8.40	7.70
27D37		6.60	5.61	5.28	4.84
27D38		6.60	5.61	5.28	4.84
27D39		6.60	5.61	5.28	4.84
27D40		6.48	5.51	5.19	4.51
27D41		5.40	4.59	4.32	3.76
27D42		6.21	5.28	4.97	4.33
27D43		6.21	5.28	4.97	4.33
27D44		6.48	5.51	5.19	4.51
27D45		5.53	4.71	4.44	3.86
27D46		6.21	5.28	4.97	4.33
27D47		4.86	4.14	3.90	3.39
27D48		5.40	4.59	4.32	3.76
27D49		5.00	4.20	4.00	3.50
27D50		6.07	5.17	4.87	4.24
27D51		10.12	8.62	8.10	7.06
27D52		11.07	9.42	8.86	7.71
27D53		13.36	11.46	10.70	9.32
27D54		13.36	11.46	10.70	9.32
27D55		8.50	7.23	6.80	5.90

F

21F00	5.50	3.30	2.80	2.64	2.42
21F01	8.75	5.25	4.46	4.20	3.85
21F02	8.75	5.25	4.46	4.20	3.85
21F02P		8.40	7.14	6.72	6.16
21F03	6.75	4.05	3.44	3.24	2.97
21F04		5.25	4.46	4.20	3.85
21F05		6.75	5.74	5.40	4.95
21F06		8.40	7.14	6.72	6.16
21F07		6.75	5.74	5.40	4.95
21F07A		12.75	10.83	10.20	9.35
21F08	3.16	1.90	1.60	1.51	1.38
21F09	3.16	1.90	1.60	1.51	1.38
21F10	4.55	2.73	2.32	2.18	2.00
21F11	8.75	5.25	4.46	4.20	3.85
21F12	9.50	5.70	4.84	4.56	4.18
21F13		4.53	3.85	3.62	3.32
21F14		4.20	3.57	3.36	3.08
21F15		3.90	3.30	3.10	2.90
21F16	12.50	7.50	6.38	6.00	5.50
21F17	14.00	8.40	7.14	6.72	6.16
21F18	8.75	5.25	4.46	4.20	3.85
21F19	16.80	10.20	8.67	8.16	7.47
21F20		9.00	7.65	7.20	6.66
21F20P		24.00	20.40	19.20	17.60
21F21	2.80	1.68	1.43	1.34	1.23
21F22		6.00	5.10	4.80	4.18
21F23		7.80	6.63	6.24	5.72
21F24		7.50	6.38	6.00	5.50
21F25		9.00	7.65	7.20	6.60
21F26		30.00	25.50	24.00	22.00
21F27	6.50	3.90	3.31	3.12	2.86
21F28		6.75	5.73	5.40	4.95
21F29		6.00	5.10	4.80	4.18
21F30		11.10	9.43	8.87	8.13
21F31		4.05	3.44	3.24	2.97
21F32		3.60	3.06	2.88	2.64
21F33		12.75	10.85	10.20	9.34
21F34		3.00	2.55	2.40	2.20
21F35		4.05	3.44	3.24	2.97
21F36		4.80	4.08	3.84	3.52
21F37		4.80	4.08	3.84	3.52
21F38		18.45	15.68	14.76	13.53
21F39		27.00	22.95	21.60	19.80
21F40		3.45	2.93	2.76	2.53
21F41		4.38	3.72	3.50	3.21
21F42		6.00	5.10	4.80	4.18
21F43		7.50	6.38	6.00	5.22
21F44		3.90	3.31	3.12	2.86
21F45		3.00	2.55	2.40	2.20
21F45A		8.70	7.39	6.95	6.38
21F47		7.50	6.38	6.00	5.22
21F48		24.00	20.40	19.20	17.60
21F49		24.00	20.40	19.20	17.60
21F50		6.00	5.10	4.80	4.18
21F51	5.00	3.00	2.55	2.40	2.20
21F52		9.00	7.65	7.20	6.60
21F53		6.00	5.10	4.80	4.18
21F54		6.00	5.10	4.80	4.18
21F55		7.20	6.12	5.76	5.28
21F56		6.75	5.74	5.40	4.95
21F57		7.50	6.38	6.00	5.50
21F58		5.40	4.59	4.32	3.96
21F59		6.75	5.73	5.40	4.70
21F60		4.50	3.82	3.60	3.33
21F61		4.89	4.16	3.91	3.58
21F62		5.85	4.97	4.68	4.29
21F63	7.00	4.20	3.57	3.36	3.08
21F64	12.25	7.35	6.24	5.88	5.39
21F65	10.95	6.57	5.58	5.26	4.82
21F66		5.25	4.46	4.20	3.85
21F67	15.00	9.00	7.65	7.20	6.60
21F68	16.25	9.75	8.26	7.78	6.78
21F69	6.50	3.90	3.31	3.12	2.86
21F70	8.00	4.80	4.08	3.84	3.52
21F71	5.75	3.45	2.93	2.76	2.53
21F72	6.50	3.90	3.31	3.12	2.86
21F73	6.50	3.90	3.31	3.12	2.86
21F74	10.00	6.00	5.10	4.80	4.18
21F75	10.50	6.30	5.36	5.04	4.62
21F76	17.25	10.35	8.80	8.28	7.59
21F77	17.50	10.50	8.92	8.40	7.70
21F78	10.00	6.00	5.10	4.80	4.18
21F79	22.25	13.35	11.35	10.68	9.79
21F80		11.10	9.43	8.87	8.13
21F81		3.20	2.72	2.56	2.35
21F82		3.00	2.55	2.40	2.20
21F83		3.90	3.31	3.12	2.86
21F84		3.00	2.55	2.40	2.20
21F85		8.70	7.39	6.96	6.38
21F86		7.50	6.38	6.00	5.22
21F87		4.80	4.08	3.84	3.52
21F88		5.40	4.59	4.32	3.96
21F89		9.75	8.29	7.80	7.15
21F90		6.00	5.10	4.80	4.18
21F91		10.50	8.92	8.40	7.70
21F92		3.00	2.55	2.40	2.09
21F93		3.45	2.93	2.76	2.40
21F94		2.58	2.19	2.06	1.80
21F95		3.63	3.09	2.90	2.53
21F96		4.29	3.65	3.43	2.99
21F97		4.59	3.90	3.67	3.20
21F98		4.05	3.44	3.24	2.82
21F99		4.59	3.90	3.67	3.20
21F100		3.00	2.55	2.40	2.09
21F101		3.38	2.87	2.70	2.35
21F102		4.08	3.47	3.26	2.99
21F103		3.24	2.75	2.59	2.38
21F104		3.45	2.93	2.76	2.53
21F105		3.45	2.93	2.76	2.53
21F106		30.00	25.50	24.00	22.00
21F107		3.75	3.19	3.00	2.75
21F108		4.50	3.82	3.60	3.30
21F109		6.30	5.36	5.04	4.62
21F110		5.40	4.59	4.32	3.96
21F111		10.20	8.67	8.16	7.47
21F112		7.05	5.99	5.64	5.17
21F113		8.07	6.86	6.45	5.92
21F114		4.20	3.57	3.36	3.08
21F115		6.30	5.36	5.04	4.62
21F116		6.15	5.23	4.92	4.51
21F117		6.30	5.36	5.04	4.62
21F118		7.50	6.38	6.00	5.50
21F119		6.75	5.74	5.40	4.95
21F120		2.40	2.04	1.92	1.67
21F121		4.50	3.82	3.60	3.30
21F122		18.00	15.30	14.40	13.20
21F123		4.50	3.82	3.60	3.30
21F124		4.50	3.82	3.60	3.30
21F125		18.00	15.30	14.40	13.20
21F126		12.00	10.20	9.60	8.80
21F127		4.50	3.82	3.60	3.33
21F128		15.00	12.75	12.00	11.00
21F129		21.00	17.50	16.80	15.40
21F130		45.00	38.25	36.00	33.30
21F131		10.50	8.92	8.40	7.70
21F132		4.80	4.08	3.84	3.52
21F133		52.50	44.60	42.00	38.50
21F134		18.00	15.30	14.40	13.20
21F135		3.00	2.55	2.40	2.20
21F136		10.50	8.92	8.40	7.70
21F137		6.00	5.10	4.80	4.40
21F138		18.00	15.30	14.40	13.20
21F139		18.00	15.30	14.40	13.20
21F140		3.00	2.55	2.40	2.20
21F141		30.00	25.50	24.00	22.00
21F146		16.50	14.02	13.20	12.10
21F147		18.00	15.30	14.40	13.20
21F153		18.00	15.30	14.40	13.20
21F161		9.00	7.65	7.20	6.60
25F18		21.75	18.49	17.40	15.95
25F19		5.25	4.46	4.20	3.85
25F20		5.85	4.90	4.65	4.07
25F21		5.10	4.33	4.08	3.55
25F22		4.85	4.10	3.80	3.41
25F23		8.10	6.88	6.48	5.64
25F24		9.00	7.65	7.20	5.61
25F25		8.10	6.88	6.48	5.64
25F26		9.00	7.65	7.20	6.27
25F27		12.00	10.20	9.60	8.36
25F28		9.00	7.65	7.20	6.27
25F29		8.10	6.88	6.48	5.64
25F30		12.00	10.20	9.60	8.36
25F31		9.00	7.65	7.20	6.27
25F32		9.00	7.65	7.20	6.27
25F33		9.45	8.03	7.56	6.58
25F34		9.00	7.65	7.20	6.27
25F35		13.50	11.46	10.80	9.40
25F36		5.40	4.59	4.32	3.76
25F37		8.10	6.88	6.48	5.64
25F38		10.50	8.92	8.40	7.28
25F39		36.00	30.60	28.80	26.40
25F42		52.50	44.60	42.00	38.50
25F56		6.00	5.10	4.80	4.18
25F57		10.50	8.92	8.40	7.70
25F58		10.50	8.92	8.40	7.70
25F59		21.00	17.85	16.80	15.40
25F60		5.40	4.59	4.32	3.96
25F61		13.50	11.46	10.80	9.90
25F62		24.00	20.40	19.20	17.60
25F63		10.50	8.92	8.40	7.70
25F64		21.00	17.85	16.80	15.40
25F65		18.90	16.06	15.12	13.86
25F66		27.00	22.95	21.60	19.80
25F67		11.10	9.43	8.87	8.13
25F68		6.75	5.73	5.40	4.70
25F69		10.50	8.92	8.40	7.70
25F70		12.00	10.20	9.60	8.80
25F71		6.00	5.10	4.80	4.18
25F72		16.50	14.03	13.20	12.10
25F73		13.50	11.46	10.80	9.90
25F74		10.50	8.92	8.40	7.70
25F75		15.75	13.40	12.60	11.55
25F77		9.45	8.03	7.56	6.93
25F78		8.10	6.88	6.48	5.64
25F79		9.30	7.90	7.44	6.48
25F80		13.50	11.47	10.80	9.41
25F81		16.20	13.77	12.96	11.28
25F82		13.50	11.47	10.80	9.41
25F83		13.50	11.47	10.80	9.41
25F84		16.20	13.77	12.96	11.28
25F85		21.60	18.36	17.28	15.05
25F86		14.55	12.37	11.64	10.73
25F87		12.30	10.46	9.84	9.02
25F88		14.70	12.65	11.76	10.78
25F89		16.95	14.41	13.56	12.43
25F90		18.00	15.30	14.40	13.20
25F91		15.00	12.75	12.00	11.00
25F92		16.80	14.28	13.44	12.32
25F93		20.25	17.21	16.20	14.85
25F94		3.90	3.32	3.12	2.86
25F95		45.00	38.20	36.00	33.30
25F96		8.70	7.39	6.95	6.05
25F97		11.10	9.43	8.87	7.70
26F60	5.00	3.00	2.55	2.40	2.20
26F61	11.70	6.00	5.10	4.80	4.40
26F63	8.75	5.25	4.44	4.16	3.85
26F64	12.00	7.20	6.12	5.76	5.28
26F65	4.50	2.70	2.30	2.13	1.87
26F66	10.00	6.00	5.10	4.80	4.40
26F67	5.60	3.35	2.69	2.47	2.31
26F68	7.00	4.20	3.57	3.36	2.75
26F69	9.00	5.40	4.59	4.32	3.96
26F70	5.00	3.00	2.55	2.40	2.20
27F01		10.35	8.80	8.28	7.59
27F02		16.35	13.90	13.08	11.99
27F03		22.10	18.79	18.48	16.94
27F04		17.40	14.79	13.92	12.76
27F05		19.50	16.58	15.60	14.30
27F06		12.00	10.20	9.60	8.80
27F07		14.70	12.65	11.76	10.78
27F08		13.80	11.73	11.04	10.12
27F09		15.60	13.26	12.48	11.44
27F10		17.40	14.79	13.92	12.76
27F11		18.90	16.06	15.12	13.86
27F12		20.40	17.34	16.32	14.96
27F13		18.00	15.30	14.40	13.20
27F14		10.20	8.67	8.16	7.48
27F15		14.40	12.24	11.52	10.56
27F16		13.50	11.47	10.80	9.90
27F17		15.75	13.39	12.60	11.55
27F18		17.70	15.58	14.16	12.98
27F19		24.00	20.40	19.20	17.60
27F20		14.40	12.24	11.52	10.56
27F21		16.80	14.28	13.44	12.32
27F22		24.00	20.40	19.20	17.60
27F23		21.90	18.62	17.52	16.06
27F24		12.60	10.70	10.08	9.24
27F25		13.50	11.47	10.80	9.90
27F26		24.00	20.40	19.20	17.60
27F27		24.00	20.40	19.20	17.60
27F28		12.60	10.70	10.08	9.24
27F29		14.70	12.65	11.76	10.78
27F30		20.70	17

PART NO.	LIST	INDUSTRIAL NET NET and 1 to 4	5 to 49	50 to 99	100 to 499
27F91		12.60	10.70	10.08	9.24
27F92		14.10	11.99	11.28	10.34
27F93		13.50	11.47	10.80	9.90
27F94		16.05	13.64	12.84	11.77
27F95		15.90	13.51	12.72	11.66
27F96		17.55	14.92	14.04	12.87
27F97		23.25	19.76	18.60	17.05
27F98		28.50	24.22	22.80	20.90
27F99		16.20	13.77	12.96	11.88
27F100		24.00	20.40	19.20	17.60
27F101		30.00	25.50	24.00	22.00
27F102		15.00	12.75	12.00	11.00
27F103		13.20	11.22	10.56	9.68
27F104		15.60	13.26	12.48	11.44
27F105		13.20	11.22	10.56	9.68
27F106		14.70	12.65	11.76	10.78
27F107		15.00	12.75	12.00	11.00
27F108		19.50	16.58	15.60	14.30
27F109		45.00	38.20	36.00	33.30
27F110		30.00	25.50	24.00	22.00
27F111		45.00	38.20	36.00	33.30
27F112		18.00	15.30	14.40	13.20
27F113		45.00	38.20	36.00	33.30
27F114		45.00	38.20	36.00	33.30
27F115		75.00	63.80	60.00	52.20
27F116		6.75	5.73	5.40	4.70
27F117		24.00	20.40	19.20	17.60
27F118		75.00	63.80	60.00	52.20
27F119		75.00	63.80	60.00	52.20
27F120		18.00	15.30	14.40	13.20
21F121		15.00	12.75	12.00	11.00
27F122		15.00	12.75	12.00	11.00
27F123		75.00	63.80	60.00	52.20
27F124		10.50	8.92	8.40	7.70
27F125		10.50	8.92	8.40	7.70
27F126		37.50	31.90	30.00	27.50
27F127		30.00	25.50	24.00	22.00
27F128		24.00	20.40	19.20	17.60
27F129		18.00	15.30	14.40	13.20
27F130		15.00	12.75	12.00	11.00
27F131		30.00	25.50	24.00	22.00
27F132		36.00	30.60	28.80	26.40
27F133		48.00	40.80	38.40	35.20
27F134		18.00	15.30	14.40	13.20
27F135		8.10	6.88	6.48	5.64
27F136		10.80	9.17	8.63	7.51
27F137		13.50	11.47	10.80	9.40

G

G 301		7.32	6.95	6.59	6.22
G 302		7.63	7.25	6.87	6.48
G 303		8.54	8.12	7.69	7.27
G 304		8.92	8.47	8.02	7.57
G 305		9.34	8.87	8.41	7.93
G306		9.74	9.25	8.77	8.27
G 307		11.00	10.45	9.90	9.35
G 308		11.47	10.90	10.32	9.75
G 309		13.18	12.52	11.96	11.30
G 310		14.32	13.60	12.88	12.16
G 311		18.59	17.66	16.73	15.80
G 312		19.38	18.41	17.44	16.47
G 313		23.38	22.21	21.04	19.87
G 314		24.41	23.19	21.97	20.75
G 315		30.00	28.50	27.00	25.50
G 316		30.00	28.50	27.00	25.50
G 317		31.18	29.62	28.06	26.50
G 318		7.32	6.95	6.58	6.21
G 319		8.54	8.11	7.68	7.25
G 320		11.00	10.45	9.90	9.35
G 321		12.23	11.62	11.01	10.40
G 322		14.41	13.69	12.97	12.25
G 323		16.59	15.77	14.95	14.13
G 324		20.86	19.82	18.78	17.74
G 325		26.77	25.43	24.09	22.75
G 326		3.62	3.44	3.26	3.08
G 327		4.15	3.94	3.73	3.53
G 328		4.86	4.62	4.37	4.13
G 329		5.31	5.04	4.78	4.51
G 330		6.26	5.95	5.63	5.32
G 331		7.79	7.40	7.01	6.62
G 332		4.15	3.94	3.74	3.53
G 333		5.31	5.04	4.78	4.51
G 334		6.26	5.95	5.63	5.32
G 335		7.79	7.40	7.01	6.62
G 336		3.60	3.42	3.24	3.06
G 337		4.13	3.92	3.72	3.61
G 338		4.82	4.58	4.34	4.10
G 339		5.27	5.01	4.74	4.48
G 340		6.21	5.90	5.59	5.28
G 341		7.44	7.07	6.70	6.32
G 342		6.45	6.13	5.80	5.48
G 343		7.41	7.04	6.67	6.30
G 344		8.62	8.19	7.76	7.13
G 345		13.33	12.66	11.98	11.33
G 346		17.64	16.76	15.88	14.99
G 347		24.26	23.05	21.83	20.62
G 348		28.55	27.12	25.70	24.27
G349		24.00	20.40	19.20	17.60
G 350		24.00	20.40	19.20	17.60
G 351		24.00	20.40	19.20	17.60
GEO 1		$17.55	$14.92	$14.04	$12.87
GEO 2		22.05	18.74	17.64	16.17
GEO 3		22.50	19.15	18.00	16.50
GEO 4		22.05	18.74	17.64	16.17
GEO 5		19.05	16.19	15.24	13.97
GEO 6		19.05	16.19	15.24	13.97
GEO 7		25.20	21.42	20.16	18.48
GEO 8		19.05	16.19	15.24	13.97
GEO 9		25.20	21.42	20.16	18.48
GEO 10		18.00	15.30	14.40	13.20
GEO 11		17.55	14.92	14.04	12.87
GEO 12		30.00	25.50	24.00	22.00
GEO 13		22.50	19.15	18.00	16.50
GEO 14		19.50	16.58	15.60	14.30
GEO 15		17.55	14.92	14.04	12.87
GEO 16		17.55	14.92	14.04	12.87
GEO 17		17.25	14.66	13.80	12.65
GEO 18		17.25	14.66	13.80	12.65
GEO 19		17.25	14.66	13.80	12.65
GEO 20		17.25	14.66	13.80	12.65
GEO 21		17.55	14.92	14.04	12.87
GEO 22		17.55	14.92	14.04	12.87
GEO 23		19.05	18.74	17.64	16.17
GEO 24		19.05	18.74	17.64	16.17
GEO 25		25.05	21.29	20.04	18.37
GEO 26		19.05	16.19	15.24	13.97
GEO 27		15.00	12.75	12.00	11.00
GEO 28		14.70	12.65	11.76	10.78
GEO 29		17.55	14.92	14.04	12.87
GEO 30		16.95	14.41	13.56	12.43
GEO 31		16.95	14.41	13.56	12.43
GEO 32		17.55	14.92	14.04	12.87
GEO 33		17.55	14.92	14.04	12.87
GEO 34		17.55	14.92	14.04	12.87
GEO 35		17.55	14.92	14.04	12.87
GEO 36		18.60	15.81	14.88	13.64
GEO 37		18.60	15.81	14.88	13.64
GEO 38		18.60	15.81	14.88	13.64
GEO 39		18.60	15.81	14.88	13.64
GEO 40		23.25	19.76	18.60	17.05
GEO 41		15.00	12.75	12.00	11.00
GEO 42		14.70	12.65	11.76	10.78
GEO 43		14.70	12.65	11.76	10.78
GEO 44		17.55	14.92	14.04	12.87
GEO 45		17.55	14.92	14.04	12.87
GEO 46		16.95	14.41	13.56	12.43
GEO 47		16.95	14.41	13.56	12.43
GEO 48		17.55	14.92	14.04	12.87
GEO 49		19.05	16.19	15.24	13.97
GEO 50		22.50	19.15	18.00	16.50
GEO 51		18.45	15.68	14.76	13.53
GEO 52		18.45	15.68	14.76	13.53
GEO 53		18.30	15.55	14.64	13.42
GEO 54		18.30	15.55	14.64	13.42
GEO 55		18.30	15.55	14.64	13.42
GEO 56		21.75	18.49	17.40	15.95
GEO 57		19.05	16.19	15.24	13.97
GEO 58		19.05	16.19	15.24	13.97
GEO 59		19.80	16.83	15.84	14.52
GEO 60		22.50	19.15	18.00	16.50
GEO 61		18.00	15.30	14.40	13.20
GEO 62		18.00	15.30	14.40	13.20
GEO 63		15.75	13.39	12.60	11.55
GEO 64		17.25	14.66	13.80	12.65
GEO 65		17.25	14.66	13.80	12.65
GEO 66		16.95	14.41	13.56	12.43
GEO 67		16.95	14.41	13.56	12.43
GEO 68		21.00	17.85	16.80	15.40
GEO 69		21.00	17.85	16.80	15.40
GEO 70		23.25	19.76	18.60	17.05
GEO 71		28.05	23.84	22.44	20.57
GEO 72		21.00	17.85	16.80	15.40
GEO 73		21.00	17.85	16.80	15.40
GEO 74		21.00	17.85	16.80	15.40
GEO 75		21.00	17.85	16.80	15.40
GEO 76		21.00	17.85	16.80	15.40
GEO 77		21.00	17.85	16.80	15.40
GEO 78		18.00	15.30	14.40	13.20
GEO 79		21.75	18.49	17.40	15.95
GEO 80		18.00	15.30	14.40	13.20
GEO 81		16.05	13.64	12.84	11.77
GEO 82		21.90	18.62	17.52	16.06
GEO 83		23.25	19.76	18.60	17.05
GEO 84		24.00	20.40	19.20	17.60
GEO 85		23.25	19.76	18.60	17.05
GEO 86		23.25	19.76	18.60	17.05
GEO 87		23.25	19.76	18.60	17.05

M

MIT 1		9.00	7.65	7.20	6.60
MIT 2		9.00	7.65	7.20	6.60
MIT 3		13.50	11.47	10.80	9.90
MIT 4		7.50	6.38	6.00	5.50
MIT 5		9.00	7.65	7.20	6.60
MIT 6		12.00	10.20	9.60	8.80
MIT 7		7.50	6.38	6.00	5.50
MIT 8		7.50	6.38	6.00	5.50
MIT 9		12.00	10.20	9.60	8.80
MIT 10		7.50	6.38	6.00	5.50
MIT 11		7.50	6.38	6.00	5.50
MIT 12		12.00	10.20	9.60	8.80
MIT 13		9.00	7.65	7.20	6.60
MIT 14		10.50	8.92	8.40	7.70
MIT 15		13.50	11.47	10.80	9.90
MIT 16		7.50	6.38	6.00	5.50
MIT 17		7.50	6.38	6.00	5.50
MIT 18		12.00	10.20	9.60	8.80
MIT 19		6.30	5.36	5.04	4.62
MIT 20		10.50	8.92	8.40	7.70
MIT 21		9.00	7.65	7.20	6.60
MIT 22		9.00	7.65	7.20	6.60
MIT 23		12.00	10.20	9.60	8.80
MIT 24		6.60	5.61	5.28	4.84
MIT 25		7.50	6.38	6.00	5.50
MIT 26		12.00	10.20	9.00	8.80
MIT 27		6.00	5.10	4.80	4.40
MIT 28		7.50	6.38	6.00	5.50
MIT 29		12.00	10.20	9.60	8.80
MIT 30		9.00	7.65	7.20	6.60
MIT 31		9.00	7.65	7.20	6.60
MIT 32		13.50	11.48	10.80	9.90
MIT 33		6.90	5.87	5.52	5.06
MIT 34		7.50	6.38	6.00	5.50
MIT 35		12.00	10.20	9.60	8.80
MIT 36		7.50	6.38	6.00	5.50
MIT 37		9.00	7.65	7.20	6.60
MIT 38		12.00	10.20	9.60	8.80
MIT 39		6.00	5.10	4.80	4.40
MIT 40		10.50	8.92	8.40	7.70
MIT 41		7.50	6.38	6.00	5.50
MIT 42		7.50	6.38	6.00	5.50
MIT 43		10.50	8.92	8.40	7.70
MIT 44		6.50	5.79	5.40	4.95
MIT 45		8.25	7.01	6.60	6.05
MIT 46		11.25	9.56	9.00	8.25
MIT 47		6.00	5.10	4.80	4.40
MIT 48		7.50	6.38	6.00	5.50
MIT 49		9.75	8.29	7.80	7.15
MIT 50		7.50	6.38	6.00	5.50
MIT 51		9.00	7.65	7.20	6.60
MIT 52		12.00	10.20	9.60	8.80
MIT 53		7.50	6.38	6.00	5.50
MIT 54		9.00	7.65	7.20	6.60
MIT 55		10.50	8.92	8.40	7.70
MIT 56		7.50	6.38	6.00	5.50
MIT 57		7.50	6.38	6.00	5.50
MIT 58		10.50	8.92	8.40	7.70
MIT 59		7.50	6.38	6.00	5.50
MIT 60		7.50	6.38	6.00	5.50
MIT 61		10.50	8.92	8.40	7.70
MIT 62		7.50	6.38	6.00	5.50
MIT 63		7.50	6.38	6.00	5.50
MIT 64		9.00	7.65	7.20	6.60
MIT 65		6.00	5.10	4.80	4.40
MIT 66		9.00	7.65	7.20	6.60
MIT 67		4.05	3.44	3.24	2.82
MIT 68		7.50	6.38	6.00	5.50
MIT 69		7.50	6.38	6.00	5.50
MIT 70		4.50	3.82	3.60	3.14
MIT 71		7.50	6.38	6.00	5.50
MIT 72		7.50	6.38	6.00	5.50
MIT 73		3.75	3.19	3.00	2.61
MIT 74		7.50	6.38	6.00	5.50
MIT 75		7.50	6.38	6.00	5.50
MIT 76		3.45	2.93	2.76	2.40
MIT 77		7.50	6.38	6.00	5.50
MIT 78		7.50	6.38	6.00	5.50
MIT 79		3.75	3.19	3.00	2.61
MIT 80		6.75	5.74	5.40	4.95
MIT 81		8.25	7.01	6.60	6.05
MIT 82		3.60	3.06	2.88	2.64
MIT 83		6.75	5.74	5.40	4.95
MIT 84		9.00	7.65	7.20	6.60
MIT 85		6.75	5.74	5.40	4.95
MIT 86		7.80	6.63	6.24	5.72
MIT 87		9.00	7.65	7.20	6.60
MIT 88		6.00	5.10	4.80	4.40
MIT 89		6.75	5.74	5.40	4.95
MIT 90		7.50	6.38	6.00	5.50
MIT 91		6.00	5.10	4.80	4.40
MIT 92		7.50	6.38	6.00	5.50
MIT 93		9.00	7.65	7.20	6.60
MIT 94		3.60	3.06	2.88	2.64
MIT 95		7.50	6.38	6.00	5.50
MIT 96		9.00	7.65	7.20	6.60
MIT 97		7.50	6.38	6.00	5.50
MIT 98		7.50	6.38	6.00	5.50
MIT 99		9.00	7.65	7.20	6.60
MIT 100		3.00	2.55	2.40	2.20
MIT 101		6.00	5.10	4.80	4.40
MIT 102		6.00	5.10	4.80	4.40
MIT 103		9.00	7.65	7.20	6.60
MIT 104		9.00	7.65	7.20	6.60
MIT 105		10.50	8.93	8.40	7.70
MIT 106		9.00	7.65	7.20	6.60
MIT 107		8.25	7.01	6.60	6.05
MIT 108		10.50	8.93	8.40	7.70
MIT 109		6.90	5.87	5.52	5.06
MIT 110		7.50	6.38	6.00	5.50
MIT 111		9.00	7.65	7.20	6.60
MIT 112		5.40	4.59	4.32	3.96
MIT 113		6.00	5.10	4.80	4.40
MIT 114		7.50	6.38	6.00	5.50
MIT 115		6.90	5.87	5.52	5.06
MIT 116		7.50	6.38	6.00	5.50
MIT 117		9.00	7.65	7.20	6.60
MIT 118		8.10	6.88	6.48	5.94
MIT 119		8.10	6.88	6.48	5.94
MIT 120		10.50	8.93	8.40	7.70
MIT 121		7.50	6.38	6.00	5.50
MIT 122		7.50	6.38	6.00	5.50
MIT 123		10.50	8.93	8.40	7.70
MIT 124		7.50	6.38	6.00	5.50
MIT 125		9.00	7.65	7.20	6.60
MIT 126		10.50	8.93	8.40	7.70
MIT 127		6.90	5.87	5.52	5.06
MIT 128		9.00	7.65	7.20	6.60
MIT 129		9.00	7.65	7.20	6.60
MIT 130		4.50	3.82	3.60	3.30
MIT 131		6.00	5.10	4.80	4.40
MIT 132		7.50	6.38	6.00	5.50
MIT 133		7.50	6.38	6.00	5.50
MIT 134		7.50	6.38	6.00	5.50
MIT 135		9.00	7.65	7.20	6.60
MIT 136		7.50	6.38	6.00	5.50
MIT 137		9.00	7.65	7.20	6.60
MIT 138		10.50	8.93	8.40	7.70
MIT 139		2.70	2.30	2.16	1.88
MIT 140		2.70	2.30	2.16	1.88
MIT 141		3.30	2.80	2.64	2.30
MIT 142		3.00	2.55	2.40	2.09
MIT 143		2.94	2.50	2.35	2.05
MIT 144		2.94	2.50	2.35	2.05
MIT 145		2.70	2.30	2.16	1.88
MIT 146		3.60	3.06	2.88	2.51
MIT 147		3.30	2.80	2.64	2.42
MIT 148		3.45	2.93	2.76	2.53
MIT 149		3.30	2.80	2.64	2.42
MIT 150		3.30	2.80	2.64	2.42
MIT 151		2.70	2.30	2.16	1.98
MIT 152		2.70	2.30	2.16	1.98
MIT 153		3.75	3.19	3.00	2.75
MIT 154		3.75	3.19	3.00	2.75
MIT 155		3.75	3.19	3.00	2.75
MIT 156		3.75	3.19	3.00	2.75
MIT 157		3.60	3.06	2.88	2.64
MIT 158		3.75	3.19	3.00	2.75
MIT 159		3.45	2.93	2.76	2.53
MIT 160		3.60	3.06	2.88	2.64
MIT 161		3.60	3.06	2.88	2.64
MIT 162		3.60	3.06	2.88	2.64
MIT 163		3.45	2.93	2.76	2.53
MIT 164		3.60	3.06	2.88	2.64
MIT 165		3.45	2.93	2.76	2.53
MIT 166		3.60	3.06	2.88	2.64
MIT 167		3.60	3.06	2.88	2.64
MIT 168		3.00	2.55	2.40	2.20
MIT 169		4.05	3.45	3.25	2.85
MIT 170		4.32	3.68	3.47	3.01
MIT 171		3.78	3.21	3.02	2.64
MIT 172		3.65	3.11	2.93	2.55
MIT 173		3.65	3.11	2.93	2.55
MIT 174		3.78	3.21	3.02	2.62
MIT 175		2.97	2.52	2.37	2.07
MIT 176		3.91	3.32	3.12	2.73
MIT 177		3.51	2.98	2.80	2.44
MIT 178		3.51	2.98	2.80	2.44
MIT 179		3.51	2.98	2.80	2.44
MIT 180		2.97	2.52	2.37	2.07
MIT 181		3.91	3.32	3.12	2.73
MIT 182		3.64	3.10	2.92	2.54
MIT 183		3.78	3.21	3.02	2.63
MIT 184		3.51	2.98	2.81	2.44
MIT 185		3.10	2.64	2.48	2.16
MIT 186		3.10	2.64	2.48	2.16
MIT 187		3.24	2.75	2.59	2.26
MIT 188		3.37	2.87	2.70	2.35
MIT 189		3.37	2.87	2.70	2.35
MIT 190		3.37	2.87	2.70	2.35
MIT 191		3.51	2.98	2.81	2.44
MIT 192		3.37	2.87	2.70	2.35
MIT 193		3.37	2.87	2.70	2.35
MIT 194		2.97	2.53	2.38	2.07
MIT 196		3.51	2.98	2.81	2.44
MIT 197		3.24	2.75	2.59	2.26
MIT 200		6.00	5.10	4.80	4.18
MIT 201		5.40	4.59	4.32	3.76
MIT 202		4.80	4.08	3.84	3.34
MIT 203		4.80	4.08	3.84	3.34
MIT 204		4.80	4.08	3.84	3.34
MIT 205		4.80	4.08	3.84	3.34
MIT 206		5.40	4.59	4.32	3.76
MIT 207		6.00	5.10	4.80	4.18
MIT 208		4.35	3.70	3.48	3.03
MIT 209		5.94	5.05	4.75	4.14
MIT 210		6.00	5.10	4.80	4.18
MIT 211		6.00	5.10	4.80	4.18
MIT 212		5.10	4.33	4.08	3.55
MIT 213		5.10	4.33	4.08	3.55
MIT 214		5.40	4.59	4.32	3.76
MIT 215		5.40	4.59	4.32	3.76
MIT 216		5.40	4.59	4.32	3.76
MIT 217		5.40	4.59	4.32	3.76
MIT 218		5.70	4.84	4.56	3.97
MIT 219		5.40	4.59	4.32	3.76
MIT 220		5.40	4.59	4.32	3.76
MIT 221		5.40	4.59	4.32	3.76
MIT 222		5.40	4.59	4.32	3.76
MIT 223		6.15	5.23	4.92	4.28
MIT 224		6.75	5.73	5.40	4.70
MIT 225		6.45	5.49	5.16	4.50
MIT 226		5.10	4.33	4.08	3.55
MIT 227		4.35	3.70	3.48	3.03
MIT 228		4.35	3.70	3.48	3.03
MIT 229		5.10	4.33	4.08	3.55
MIT 230		5.10	4.33	4.08	3.55
MIT 231		5.40	4.59	4.32	3.76
MIT 232		5.40	4.59	4.32	3.76
MIT 233		5.40	4.59	4.32	3.76
MIT 234		5.40	4.59	4.32	3.76
MIT 235		5.55	4.72	4.44	3.87
MIT 236		6.75	5.74	5.40	4.70
MIT 237		7.05	6.00	5.64	4.91
MIT 238		7.05	6.00	5.64	4.91
MIT 239		7.05	6.00	5.64	4.91
MIT 240		7.50	6.38	6.00	5.22
MIT 241		6.75	5.74	5.40	4.70
MIT 242		6.75	5.74	5.40	4.70
MIT 243		6.75	5.74	5.40	4.70
MIT 244		6.75	5.74	5.40	4.70
MIT 245		6.90	5.87	5.52	4.81
MIT 246		7.65	6.50	6.12	5.33
MIT 247		7.35	6.24	5.88	5.12
MIT 248		7.20	6.12	5.76	5.02
MIT 249		7.20	6.12	5.76	5.02
MIT 250		5.25	4.46	4.20	3.66
MIT 251		6.00	5.10	4.80	4.18
MIT 252		5.40	4.59	4.32	3.76
MIT 253		6.15	5.23	4.92	4.28
MIT 254		5.40	4.59	4.32	3.76
MIT 255		4.86	4.14	3.88	3.38
MIT 256		4.86	4.14	3.88	3.38
MIT 257		4.86	4.14	3.88	3.38
MIT 258		4.32	3.68	3.47	3.03
MIT 259		6.00	5.10	4.80	4.18
MIT 260		6.00	5.10	4.80	4.18
MIT 261		5.40	4.59	4.32	3.76
MIT 262		5.40	4.59	4.32	3.76
MIT 263		5.40	4.59	4.32	3.76
MIT 264		6.48	5.51	5.18	4.50
MIT 265		5.13	4.36	4.10	3.56
MIT 266		4.32	3.68	3.47	3.03
MIT 267		4.32	3.68	3.47	3.03
MIT 268		6.75	5.74	5.40	4.69
MIT 269		7.00	5.95	5.60	4.88
MIT 270		7.00	5.95	5.60	4.88
MIT 271		6.75	5.74	5.40	4.69
MIT 272		6.75	5.74	5.40	4.69
MIT 273		6.75	5.74	5.40	4.69
MIT 274		7.00	5.95	5.60	4.88
MIT 275		7.00	5.95	5.60	4.88
MIT 276		5.40	4.59	4.32	3.76
MIT 277		5.40	4.59	4.32	3.76
MIT 278		5.40	4.59	4.32	3.76
MIT 279		6.21	5.28	4.97	4.33
MIT 280		7.56	6.42	6.04	5.26
MIT 281		6.48	5.52	5.20	4.51
MIT 282		7.56	6.42	6.04	5.26
MIT 283		7.56	6.42	6.04	5.26
MIT 284		6.21	5.28	4.97	4.33
MIT 285		6.48	5.52	5.20	4.51
MIT 286		6.21	5.28	4.97	4.33
MIT 287		6.48	5.52	5.20	4.51
MIT 288		7.83	6.66	6.27	5.45

PART NO.	LIST	INDUSTRIAL NET NET and 1 to 4	5 to 49	50 to 99	100 to 499
22R02	12.50	7.50	6.38	6.00	5.50
22R03	39.50	21.00	17.85	16.80	15.40
22R04	12.50	7.50	6.38	6.00	5.50
22R05	17.00	10.20	7.65	7.20	6.60
22R05U	17.00	10.20	7.65	7.20	6.60
22R06	16.25	9.75	9.27	7.80	7.15
22R07	21.00	12.60	10.70	10.00	9.30
22R08	10.00	6.00	5.10	4.80	4.00
22R09	11.00	6.60	5.60	5.10	4.20
22R10	17.00	10.20	7.65	7.20	6.60
22R11	17.50	10.50	8.90	8.40	7.70
22R12	8.00	4.80	4.10	3.80	3.60
22R13	8.00	4.80	4.10	3.80	3.60
22R14	31.25	18.75	15.94	15.00	13.75
22R15	25.00	15.00	12.75	12.00	11.00
22R16	20.00	12.00	10.30	9.60	8.80
22R17	25.00	15.00	12.75	12.00	11.00
22R18	9.50	5.70	4.85	4.60	4.20
22R19	10.00	6.00	5.10	4.80	4.40
22R20	10.00	6.00	5.10	4.80	4.40
22R21	22.50	13.50	11.50	10.80	9.90
22R22	9.50	5.70	4.85	4.60	4.18
22R23	7.50	4.50	3.80	3.60	3.30
22R24	17.50	10.50	8.90	8.40	7.70
22R25	7.50	4.50	3.80	3.60	3.30
22R26	10.00	6.00	5.10	4.80	4.40
22R27	8.25	5.05	4.25	4.00	3.70
22R28	10.90	6.50	5.50	5.20	4.30
22R29	10.00	6.00	5.10	4.80	4.40
22R30	11.00	6.60	5.70	5.30	4.90
22R31	17.50	10.50	8.90	8.40	7.70
22R32	17.00	10.20	8.70	8.00	7.50
22R33	22.50	13.50	11.40	10.80	9.90
22R34	25.00	15.00	12.75	12.00	11.00
22R35	28.50	17.10	14.50	13.70	12.60
22R36	25.00	15.00	12.75	12.00	11.00
22R37	12.50	7.50	6.40	6.00	5.50
22R38	11.50	6.90	5.90	5.50	5.10
22R39	4.25	2.55	2.16	2.04	1.87
22R40	20.00	12.00	10.20	9.60	8.80
22R41	7.50	4.50	3.80	3.60	3.30
22R42	12.50	7.50	6.40	6.00	5.50
22R43	17.50	10.50	8.90	8.40	7.70
22R44	10.00	6.00	5.10	4.80	4.40
22R45	17.50	10.50	8.90	8.40	7.70
22R46	20.00	12.00	10.20	9.60	8.80
22R47	12.50	7.50	6.38	6.00	5.22
22R48	9.00	5.40	4.60	4.30	4.00
22R49	27.50	16.50	14.00	13.20	12.10
22R50	10.00	6.00	5.10	4.80	4.40
22R51	37.51	22.50	19.13	18.00	16.50
22R52	6.25	3.75	3.18	3.00	2.75
22R53	11.25	6.75	5.75	5.40	4.95
22R54	10.00	6.00	5.10	4.80	4.40
22R55	5.00	3.00	2.55	2.40	2.20
22R56	40.00	24.00	20.40	19.20	17.60
22R57	5.00	3.00	2.55	2.40	2.00
22R58	50.00	30.00	25.50	24.00	22.00
22R59	37.50	22.50	19.13	18.00	16.50
22R60	27.00	16.20	13.75	12.96	11.88
22R61	5.75	3.45	2.95	2.75	2.55
22R63	11.25	6.75	5.74	5.40	4.95
22R64	25.00	15.00	12.75	12.00	11.00
22R65	25.00	15.00	12.75	12.00	11.00
22R66	25.00	15.00	12.75	12.00	11.00
22R67	7.75	4.65	3.95	3.70	3.40
22R68	22.50	13.50	11.48	10.80	9.90
22R69	6.50	3.90	3.30	3.10	2.85
22R70	8.00	4.80	4.00	3.50	3.00
22R71	10.00	6.00	5.10	4.80	4.40
22R72	6.25	3.75	3.18	3.00	2.75
22R73	7.75	4.65	3.95	3.70	3.40
22R74	7.50	4.50	3.80	3.60	3.30
22R75	8.25	4.95	4.15	3.80	3.60
22R76	8.25	4.95	4.15	3.80	3.60
22R77	10.00	6.00	5.10	4.80	4.40
22R78	10.00	6.00	5.10	4.80	4.40
22R79	7.00	4.20	3.60	3.35	3.10
22R80	7.50	4.50	3.80	3.60	3.30
22R81	10.00	6.00	5.10	4.80	4.40
22R82	15.00	9.00	7.65	7.20	6.60
22R83	15.00	9.00	7.65	7.20	6.60
22R84	10.00	6.00	5.10	4.80	4.40
22R85	10.00	6.00	5.10	4.80	4.40
22R86	10.00	6.00	5.10	4.80	4.40
22R87	18.25	10.95	9.31	8.76	8.03
22R88	20.00	12.00	10.20	9.60	8.80
22R89	12.50	7.50	6.40	6.00	5.50
22R90	10.00	6.00	5.10	4.80	4.40
22R91	10.00	6.00	5.10	4.80	4.40
22R92	11.00	6.60	5.60	5.30	4.90
22R93	11.00	6.60	5.60	5.30	4.90
22R94	11.00	6.60	5.60	5.30	4.90
22R95	11.00	6.60	5.60	5.30	4.90
22R96	15.00	9.00	7.65	7.20	6.60
22R97	12.50	7.50	6.40	6.00	5.50
22R98	15.00	9.00	7.65	7.20	6.60
22R99	15.00	9.00	7.65	7.20	6.60
22R101		12.00	10.20	9.60	8.80
22R102		12.75	10.83	10.20	9.35
22R103		12.00	10.20	9.60	8.80
22R104		12.75	10.83	10.20	9.35
22R105		15.00	12.75	12.00	11.00
22R106		12.75	10.83	10.20	9.35
22R107		12.75	10.83	10.20	9.35
22R108		12.00	10.20	9.60	8.80
22R109	11.00	6.60	5.60	5.25	4.90
22R110		15.00	12.75	12.00	11.00
22R111	17.50	10.50	8.90	8.40	7.70
22R112		15.00	12.75	12.00	11.00
22R113		15.00	12.75	12.00	11.00
22R114		18.00	15.30	14.40	13.20
22R115	3.00	1.80	1.53	1.44	1.32
22R116	31.00	18.60	15.81	14.88	12.96
22R118		18.00	15.30	14.40	13.20
22R119		24.00	20.40	19.20	17.60
22R120		4.50	3.82	3.60	3.33
22R121		18.00	15.30	14.40	13.20
22R122		30.00	25.50	24.00	22.00
22R123		60.00	51.00	48.00	41.80
22R124		7.50	6.38	6.00	5.22
22R125		30.00	25.50	24.00	22.00
22R126		30.00	25.50	24.00	22.00
22R127		18.00	15.30	14.40	13.20
22R128		18.00	15.30	14.40	13.20
22R129		52.50	44.60	42.00	38.50
22R130		52.50	44.60	42.00	38.50
22R131		18.00	15.30	14.40	13.20
22R132		6.75	5.73	5.40	4.70
22R133		6.75	5.73	5.40	4.70
22R134		6.75	5.73	5.40	4.70
22R135		6.75	5.73	5.40	4.70
24R00	8.25	4.95	4.21	3.96	3.63
24R00U	8.00	4.86	4.08	3.84	3.52
24R01	8.25	4.95	4.21	3.96	3.63
24R01U	8.25	4.95	4.21	3.96	3.63
24R02	10.85	6.51	5.53	5.21	4.77
24R02U	10.85	6.51	5.53	5.21	4.77
24R03	20.00	12.00	10.20	9.60	8.80
24R04	11.75	7.05	5.99	5.64	5.17
24R04U	11.75	7.05	5.99	5.64	5.17
24R05	12.75	7.65	6.50	6.12	5.61
24R05U	12.75	7.65	6.50	6.12	5.61
24R06	18.00	10.80	9.18	8.64	7.92
24R06U	18.00	10.80	9.18	8.64	7.92
24R07	18.00	10.80	9.18	8.64	7.92
24R07U	18.00	10.80	9.18	8.64	7.92
24R08	8.75	5.25	4.46	4.20	3.85
24R08U	8.75	5.25	4.46	4.20	3.85
24R09	9.25	5.55	4.72	4.44	4.07
24R09U	9.25	5.55	4.72	4.44	4.07
24R10	9.25	5.55	4.72	4.44	4.07
24R11	6.75	4.05	3.44	3.24	2.97
24R11U	6.75	4.05	3.44	3.24	2.97
24R12	8.00	4.80	4.08	3.84	3.52
24R12U	8.00	4.80	4.08	3.84	3.52
24R13	10.25	6.15	5.23	4.92	4.51
24R13U	10.25	6.15	5.23	4.92	4.51
24R14	21.25	12.75	10.83	10.20	9.35
24R15	21.75	13.05	10.59	10.44	9.57
24R16	7.25	4.35	3.70	3.48	3.19
24R17	12.25	7.35	6.24	5.88	5.39
24R18	17.50	10.50	8.93	8.40	7.70
24R19	8.00	4.80	4.08	3.84	3.52
24R19U	8.00	4.80	4.08	3.84	3.52
24R20	12.25	7.35	6.24	5.88	5.39
24R20U	12.25	7.35	6.24	5.88	5.39
24R21	10.75	6.45	5.48	5.16	4.73
24R21U	10.75	6.45	5.48	5.18	4.73
24R22	13.50	8.10	6.88	6.48	5.94
24R22U	13.00	7.80	6.63	6.24	5.72
24R23	17.50	10.50	8.93	8.40	7.70
24R24	18.75	11.25	9.56	9.00	8.25
24R25	15.00	9.00	7.65	7.20	6.60
24R26	16.25	9.75	8.29	7.80	7.15
24R26U	16.25	9.75	8.29	7.80	7.15
24R27	19.75	11.85	10.07	9.48	8.69
24R28	22.50	13.50	11.48	10.80	9.90
24R29	25.00	15.00	12.75	12.00	11.00
24R30		9.45	8.03	7.56	6.93
24R31		18.75	15.94	15.00	13.75
24R32		18.75	15.94	15.00	13.75
24R33		6.30	5.36	5.04	4.62
24R34		7.20	6.12	5.76	5.28
24R35		9.15	7.78	7.33	6.71
24R36		9.75	8.29	7.80	7.15
24R37	31.25	18.75	15.94	15.00	13.75
24R38		11.10	9.44	8.88	8.14
24R39		12.00	10.20	9.60	8.80
24R40		6.75	5.74	5.40	4.70
24R40U		6.75	5.74	5.40	4.70
24R41		6.75	5.74	5.40	4.70
24R42		10.20	8.67	8.16	7.11
24R43		6.45	5.48	5.16	4.50
24R44		6.75	5.74	5.40	4.70
24R45		10.50	8.93	8.40	7.70
24R46		9.32	7.93	7.46	6.57
24R48		11.10	9.44	8.88	8.14
24R49		11.25	9.56	9.00	8.25
24R50		4.50	3.82	3.60	3.30
24R51		5.10	4.33	4.08	3.74
24R52		6.00	5.10	4.80	4.40
24R53		6.00	5.10	4.80	4.40
24R54		6.60	5.60	5.25	4.90
24R55		6.00	5.40	5.25	4.90
24R56		7.35	6.24	5.88	5.39
24R57		7.20	6.12	5.76	5.28
24R58		6.90	5.87	5.52	5.06
24R59		6.75	5.74	5.40	4.95
24R60		9.75	8.29	7.80	7.15
24R61		9.75	8.29	7.80	7.15
24R62		10.50	8.93	8.40	7.70
24R63		10.50	8.93	8.40	7.70
24R64		10.95	9.31	8.76	8.03
24R65		10.95	9.31	8.76	8.03
24R66		7.65	6.50	6.12	5.61
24R67		3.60	3.06	2.88	2.64
24R68		5.25	4.46	4.20	3.85
24R69		5.25	4.46	4.20	3.85
24R70		5.10	4.33	4.08	3.74
24R71		4.35	3.70	3.48	3.19
24R72		3.60	3.06	2.88	2.64
24R73		5.25	4.46	4.20	3.85
24R74		6.75	5.74	5.40	4.95
24R75		13.50	11.48	10.80	9.90
24R76		12.00	10.20	9.60	8.80
24R77		8.40	7.14	6.72	6.16
24R78		12.75	10.83	10.20	9.35
24R79		13.50	11.48	10.80	9.90
24R80		10.50	8.93	8.40	7.70
24R81		6.60	5.61	5.28	4.84
24R82		8.10	6.88	6.48	5.94
24R83		10.50	8.93	8.40	7.70
24R84		10.50	8.93	8.40	7.70
24R85		12.45	10.52	9.96	9.13
24R86		21.60	18.36	17.28	15.40
24R87		7.50	6.38	6.00	5.50
24R88		4.50	3.82	3.60	3.30
24R89		3.75	3.19	3.00	2.75
24R90		3.90	3.32	3.12	2.86
24R91		10.50	8.93	8.40	7.70
24R92		13.50	11.48	10.80	9.90
24R93		6.75	5.74	5.40	4.95
24R94		18.75	15.94	15.00	13.75
24R95		9.75	8.29	7.80	7.15
24R96		5.25	4.46	4.20	3.85
24R97		16.50	14.03	13.20	12.10
24R98		10.50	8.93	8.40	7.70
24R100		10.95	9.31	8.76	8.03
24R101		10.95	9.31	8.76	8.03
24R102		10.95	9.31	8.76	8.03
24R103		9.45	8.03	7.56	6.93
24R104		10.50	8.93	8.40	7.70
24R105		10.50	8.93	8.40	7.70
24R107		2.90	2.30	2.16	1.98
24R108		6.30	5.36	5.04	4.62
24R109		4.35	3.70	3.48	3.19
24R111		6.00	5.10	4.80	4.40
24R112		6.00	5.10	4.80	4.40
24R113		6.30	5.36	5.04	4.62
24R115	5.00	3.00	2.55	2.40	2.20
24R116	15.50	9.30	7.90	7.44	6.82
24R117		18.00	15.30	14.40	13.20
24R118		9.30	7.90	7.44	6.82
24R119		6.30	5.36	5.04	4.62
24R120	13.00	7.80	6.63	6.04	5.72
24R121		7.80	6.63	6.04	5.72
24R122	25.00	15.00	12.75	12.00	11.00
24R123		9.30	7.90	7.44	6.82
24R125	10.00	6.00	5.10	4.80	4.40
24R127		6.00	5.10	4.80	4.40
24R128		9.60	8.16	7.68	7.04
24R129		9.60	8.16	7.68	7.04
24R130		9.30	7.90	7.44	6.82
24R131		9.30	7.90	7.44	6.82
24R132		9.60	8.16	7.68	7.04
24R134		18.00	15.30	14.40	13.20
24R135		18.00	15.30	14.40	13.20
24R137		15.00	12.75	12.00	11.00
24R138		15.00	12.75	12.00	11.00
24R139		45.00	38.20	36.00	33.30
24R140		15.00	12.75	12.00	11.00
24R141		18.00	15.30	14.40	13.20
24R142		18.00	15.30	14.40	13.20
24R143		18.00	15.30	14.40	13.20
24R144		75.00	63.80	60.00	52.20
24R145		13.50	11.47	10.80	9.90
24R146		42.00	35.70	33.60	30.80
24R147		30.00	25.50	24.00	22.00
24R148		24.00	20.40	19.20	17.60
24R149		18.00	15.30	14.40	13.20
24R150		45.00	38.20	36.00	33.30
24R151		7.50	6.38	6.00	5.22
24R152		18.00	15.30	14.40	13.20
24R153		45.00	38.20	36.00	33.30
24R154		24.00	20.40	19.20	17.60
24R155		24.00	20.40	19.20	17.60
24R156		24.00	20.40	19.20	17.60
25R01		12.00	10.20	9.60	8.80
25R02		12.00	10.20	9.60	8.80
25R03		11.25	9.56	9.00	8.25
25R04		11.25	9.56	9.00	8.25
25R05		10.50	8.93	8.40	7.70
25R06		10.50	8.93	8.40	7.70
25R07		10.50	8.93	8.40	7.70
25R08		15.00	12.75	12.00	11.00
25R09		18.00	15.30	14.40	13.20
25R10		18.00	15.30	14.40	13.20
25R11		20.25	17.21	16.20	14.85
25R12		10.00	9.18	8.64	7.53
25R12		9.75	8.29	7.80	7.15
25R14		30.00	25.50	24.00	22.00
25R15		30.00	25.50	24.00	22.00
25R16		12.00	10.20	9.60	8.80
25R17		13.50	11.48	10.80	9.90
25R18		18.00	15.30	14.40	13.20
25R19		20.25	17.21	16.20	14.85
25R20		26.25	22.31	21.00	19.25
25R21		15.00	12.75	12.00	11.00
25R22		12.00	10.20	9.60	8.80
25R23		12.00	10.20	9.60	8.80
25R24		12.00	10.20	9.60	8.80
25R26		16.50	14.03	13.20	12.10
25R27		15.00	12.75	12.00	11.00
25R28		15.00	12.75	12.00	11.00
25R29		18.00	15.30	14.40	13.20
25R30		15.00	12.75	12.00	11.00
25R31		20.25	17.21	16.20	14.85
25R32		25.50	21.68	20.40	18.70
25R33		25.50	21.68	20.40	18.70
25R34		30.00	25.50	24.00	22.00
25R35		15.00	12.75	12.00	11.00
25R36		16.50	14.03	13.20	12.10
25R37		17.25	14.66	13.80	12.65
25R38		21.60	18.36	17.38	15.40
25R39		25.50	21.68	20.40	18.70
25R40		30.00	25.50	24.00	22.00
25R41		30.00	25.50	24.00	22.00
25R42		16.50	14.03	13.20	12.10
25R43		16.50	14.03	13.20	12.10
25R44		10.80	9.18	8.64	7.53
25R45		10.80	9.18	8.64	7.53
25R46		18.90	16.06	15.12	13.17
25R47		22.50	19.13	18.00	15.67
25R48		22.50	19.13	18.00	15.67
25R49		32.00	27.00	25.00	22.00
25R50		12.90	10.97	10.32	8.99
25R51		18.90	16.06	15.12	13.17
25R52		15.00	12.75	12.00	10.45
25R53		16.50	14.00	13.20	11.50
25R54		9.00	7.65	7.20	6.60
25R55		30.00	25.50	24.00	22.00
25R56		7.50	6.38	6.00	5.22
25R57		4.65	3.95	3.72	3.24
25R58		3.27	2.80	2.62	2.28
25R59		60.00	51.00	48.00	44.00
25R60		16.50	14.00	13.20	11.50
25R61		17.40	14.80	13.92	12.96
26R00	25.00	15.00			
26R01	29.50	16.80			
26R02	37.50	22.50			
26R03	27.00	16.20			
26R04	30.00	18.00			
26R05	38.50	23.10			
26R06	38.00	22.80			
26R07	33.00	19.80			
26R08	27.00	16.20			
26R09	30.00	18.00			
26R10	24.00	14.40			
26R11	25.00	15.00			
26R12	25.00	15.00			
26R13	22.00	13.20			
26R14	22.00	13.20			
26R15	34.00	20.40			
26R16	25.00	15.00			
26R17	34.00	20.40			
26R18	35.00	21.00			
26R19	33.00	19.80			
26R20	34.00	20.40			
26R21	30.00	18.00			
26R22	25.00	15.00			
26R23	25.00	15.00			
26R24	33.00	19.80			
26R25U	24.00	14.40			
26R26U	37.50	22.50			
26R27U	30.00	18.00			
26R28U	17.50	10.50			
26R29U	21.00	12.60			
26R30U	34.00	20.40			
26R31	11.90	7.14			
26R31U	11.40	6.84			
26R32	7.70	4.62			
26R33	27.80	16.68			
26R34	40.00	24.00			
26R35	32.00	19.20			
26R36	15.00	9.00			
26R37	4.20	2.50			
26R38	6.80	4.08			
26R39	10.50	6.30			
26R40	30.00	18.00			
26R41	25.00	15.00			
26R42	21.00	12.60			
26R43	30.00	18.00			
26R44	23.50	14.10			
26R45	21.00	12.60			
26R46	30.00	18.00			
26R47	25.00	15.00			
26R48	25.00	15.00			
26R49	25.00	15.00			
26R50	28.50	17.10			
26R51	25.00	15.00			
26R52	25.00	15.00			
26R53	25.00	15.00			
26R54	25.00	15.00			
26R55	17.50	10.50			
26R56	25.00	15.00			
26R57	30.00	18.00			
26R58	33.20	19.92			
26R59	30.00	18.00			
26R60	6.00	3.60			
26R61	30.00	18.00			
26R62	50.00	30.00			
26R63	13.00	7.80			
26R64	24.00	14.40			
26R65	28.30	16.98			
26R66	30.00	18.00			
26R67	31.60	18.90			
26R68	25.00	15.00			
26R69	29.80	17.85			
26R70	35.00	21.00			
26R72	35.00	21.00			
26R73	35.80	21.48			
26R74	30.00	18.00			
26R75	37.40	22.44			
26R76	40.00	24.00			
26R77	25.00	15.00			
26R78	25.00	15.00			
26R79	32.50	19.50			
26R80	34.70	20.82			
26R81	31.30	18.78			
26R82	27.50	16.50			
26R83	25.00	15.00			
26R84	21.00	12.60			
26R85	25.00	15.00			
26R86	30.00	18.00			
26R87	25.00	15.00			
26R88	30.00	18.00			
26R89	36.00	21.60			
26R90	31.00	18.60			
26R91	31.00	18.60			
26R92	34.70	20.82			
26R93	31.30	18.78			
26R94	38.50	23.10			
26R95	30.00	18.00			
26R96	30.00	18.00			
26R97	25.00	15.00			
26R98	28.50	17.10			
26R99	28.00	16.80			
26R100	33.00	19.80			
26R101	35.00	21.00			
26R102	28.00	16.80			
26R103	31.00	18.60			
26R104	31.00	18.60			
26R105	23.00	13.80			
26R106	23.50	14.10			
26R107	22.50	13.50			
26R108	20.00	12.00			
26R109	24.00	14.40			
26R110	25.00	15.00			
26R111	25.00	15.00			
26R112	25.00	15.00			
26R113	25.00	15.00			
26R114	25.00	15.00			
26R115	25.00	15.00			
26R116	25.00	15.00			
26R117	26.00	15.60			
26R118	25.00	15.00			
26R119	25.00	15.00			
26R120	26.00	15.60			
26R121	31.00	18.60			
26R122	22.50	13.50			
26R123	25.00	15.00			
26R124	25.00	15.00			
26R125	25.00	15.00			
26R126	25.00	15.00			
26R127	25.00	15.00			
26R128	26.00	15.60			
26R129	25.00	15.00			
26R130	26.00	15.60			
26R131	24.00	14.40			
26R132	26.00	15.60			
26R133	26.50	15.90			
26R134	30.90	18.54			
26R135	23.90	14.34			
26R136	28.90	17.34			
26R137	25.30	15.18			
26R138	24.00	14.40			
26R139	28.80	17.28			
26R140	33.20	19.92			
26R141	29.80	17.85			
26R142	14.00	8.40			
26R143

PART NO.	LIST	INDUSTRIAL NET and 1 to 4	5 to 49	50 to 99	100 to 499
27R37		45.00	38.25	36.00	33.00
27R38		13.50	11.48	10.80	9.90
27R39		13.05	10.59	10.44	9.57
27R40		15.00	12.75	12.00	11.00
27R41		15.00	12.75	12.00	11.00
27R42		15.75	13.39	12.60	11.55
27R43		16.80	14.28	13.44	12.32
27R44		18.00	15.30	14.40	13.20
27R45		19.50	16.58	15.60	14.30
27R46		20.25	17.21	16.20	14.85
27R47		24.75	21.04	19.80	18.15
27R48		27.00	22.95	21.60	19.80
27R49		33.75	28.68	27.00	24.75
27R50		18.00	15.30	14.40	13.20
27R51		18.00	15.30	14.40	13.20
27R52		20.25	17.21	16.20	14.85
27R53		18.75	15.94	15.00	13.75
27R54		20.25	17.21	16.20	14.85
27R55		30.00	25.50	24.00	22.00
27R56		30.00	25.50	24.00	22.00
27R57		39.00	33.00	31.00	28.60
27R58		30.00	25.50	24.00	22.00
27R59		27.00	22.95	21.60	19.80
27R60		18.00	15.30	14.40	13.20
27R61		36.00	30.60	28.80	26.40
27R62		15.75	13.39	12.60	11.55
27R63		12.00	10.20	9.60	8.80
27R64		13.50	11.47	10.80	9.90
27R65		14.40	12.24	11.52	10.56
27R66		20.10	17.09	16.08	14.00
27R67		16.50	14.03	13.20	12.10
27R68		16.50	14.03	13.20	12.10
27R69		16.50	14.03	13.20	12.10
27R70		24.00	20.40	19.20	17.60
27R71		19.50	16.58	15.60	14.30
27R72		30.00	25.50	24.00	22.00
27R73		30.00	25.50	24.00	22.00
27R74		30.00	25.50	24.00	22.00
27R75		18.00	15.30	14.40	13.20
27R76		18.00	15.30	14.40	13.20
27R77		18.00	15.30	14.40	13.20
27R78		18.00	15.30	14.40	13.20
27R79		30.00	25.50	24.00	22.00
27R80		30.00	25.50	24.00	22.00
27R81		30.00	25.50	24.00	22.00
27R82		39.00	33.00	31.00	28.60
27R83		33.00	27.05	26.40	24.20
27R84		30.00	25.50	24.00	22.00
27R85		24.00	20.40	19.20	17.60
27R86		18.75	15.94	15.00	13.07
27R87		20.10	17.09	16.08	14.00
27R88		24.00	20.40	19.20	17.60
27R89		30.00	25.50	24.00	22.00
27R90		30.45	25.88	24.36	21.21
27R91		18.75	15.94	15.00	13.07
27R92		23.55	20.02	18.84	16.41
27R93		33.75	28.68	27.00	23.50
27R94		22.20	18.87	17.76	16.28
27R95		22.50	19.13	18.00	16.50
27R96		30.00	25.50	24.00	22.00
27R97		60.00	51.00	48.00	44.00
27R98		39.00	33.20	31.20	28.60
27R99		60.00	51.00	48.00	44.00
27R100		24.00	20.40	19.20	17.60
27R101		24.00	20.40	19.20	17.60
27R102		24.00	20.40	19.20	17.60
27R103		24.00	20.40	19.20	17.60
27R104		23.25	19.76	18.60	17.05
27R105		23.70	20.15	18.96	17.38
27R106		22.10	18.79	18.48	16.94
27R107		20.25	17.21	16.20	14.85
27R108		24.90	21.17	19.92	18.22
27R109		25.50	21.68	20.40	18.70
27R110		27.75	23.59	22.20	20.35
27R111		35.25	29.96	28.20	25.85
27R112		46.50	39.53	37.20	34.10
27R113		45.00	38.25	36.00	33.00
27R114		18.75	15.94	15.00	13.75
27R115		21.75	18.48	17.40	15.95
27R116		27.00	22.95	21.60	19.80
27R117		45.00	38.25	36.00	33.00
27R118		43.50	36.98	34.80	31.90
27R119		63.00	53.55	50.40	46.20
27R121		30.00	25.50	24.00	22.00
27R122		42.00	35.70	33.60	30.80
27R123		42.00	35.70	33.60	30.80
27R124		18.00	15.30	14.40	13.20
27R128		18.00	15.30	14.40	13.20
27R128		15.00	12.75	12.00	11.00
27R129		18.00	15.30	14.40	13.20
27R131		30.00	25.50	24.00	22.00
27R132		30.00	25.50	24.00	22.00
27R133		30.00	25.50	24.00	22.00
27R134		30.00	25.50	24.00	22.00
27R135		27.50	19.10	18.00	16.50
27R136		45.00	38.20	36.00	33.30
27R137		70.50	60.00	56.40	49.10
27R138		40.50	34.40	32.40	29.70
27R139		24.00	20.40	19.20	17.60
27R140		60.00	51.00	48.00	41.80
27R141		60.00	51.00	48.00	41.80
27R142		60.00	51.00	48.00	41.80
27R143		60.00	51.00	48.00	41.80
27R144		90.00	76.50	72.00	66.00
27R145		60.00	51.00	48.00	41.80
27R146		37.50	31.90	30.00	27.50
27R147		45.00	38.20	36.00	33.30
27R148		60.00	51.00	48.00	41.80
27R149		60.00	51.00	48.00	41.80
27R150		60.00	51.00	48.00	41.80
27R151		60.00	51.00	48.00	41.80
27R152		60.00	51.00	48.00	41.80
27R153		60.00	51.00	48.00	41.80
27R154		24.00	20.40	19.20	17.60
27R155		15.75	13.40	12.60	11.55
27R156		45.00	38.20	36.00	33.30
27R157		45.00	38.20	36.00	33.30
27R158		45.00	38.20	36.00	33.30
27R159		60.00	51.00	48.00	41.80
27R160		21.00	17.85	16.80	15.40
27R161		26.25	22.30	21.00	19.25
27R162		45.00	38.20	36.00	33.30
27R163		45.00	38.20	36.00	33.30
27R164		24.03	20.43	19.23	16.74
27R165		24.03	20.43	19.23	16.74
27R166		22.41	19.05	17.93	15.62
27R167		10.66	9.07	8.54	7.44

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PART NO.	LIST	INDUSTRIAL NET and 1 to 4	5 to 49	50 to 99	100 to 499
22501		10.50	6.30	5.36	5.04	4.62
22502		12.50	7.50	6.38	6.00	5.50
22503		16.25	9.75	8.29	7.80	7.15
22504		12.50	7.50	6.38	6.00	5.50
22505		13.75	8.25	7.01	6.60	6.05
22506		22.50	13.50	11.48	10.80	9.90
22507		22.50	13.50	11.48	10.80	9.90
22508		20.00	12.00	10.20	9.60	8.80
22509		25.00	15.00	12.75	12.00	11.00
22510		30.00	18.00	15.30	14.40	13.20
22511		22.50	13.50	11.48	10.80	9.90
22512		30.00	18.00	15.30	14.40	13.20
22513		36.25	21.75	18.48	17.40	15.95
22514		50.00	30.00	25.50	24.00	22.00
22515		8.50	5.10	4.33	4.08	3.74
22516		6.00	3.60	3.07	2.88	2.64
22517		6.25	3.75	3.19	3.00	2.75
22518		6.00	3.60	3.06	2.88	2.64
22519		7.50	4.50	3.82	3.60	3.30
22520		2.75	1.65	1.40	1.32	1.21
22521		6.00	3.60	3.07	2.88	2.64
22522		3.00	1.80	1.53	1.44	1.25
22523		3.00	1.80	1.53	1.44	1.25
22524		3.00	1.80	1.53	1.44	1.25
22525		3.00	1.80	1.53	1.44	1.25
22526		3.00	1.80	1.53	1.44	1.25
22527		3.00	1.80	1.53	1.44	1.25
22528		3.00	1.80	1.53	1.44	1.25
22529		3.00	1.80	1.53	1.44	1.25
22530		3.00	1.80	1.53	1.44	1.25
22531		3.00	1.80	1.53	1.44	1.25
22532		3.00	1.80	1.53	1.44	1.25
22533		3.00	1.80	1.53	1.44	1.25
22534		3.25	1.95	1.65	1.55	1.43
22535		3.50	2.10	1.78	1.68	1.54
22536		3.25	1.95	1.65	1.55	1.43
22537		3.25	1.95	1.65	1.55	1.43
22538		3.75	2.25	1.91	1.80	1.65
22539		25.00	15.00	12.75	12.00	11.00
22541		20.00	12.00	10.20	9.60	8.80
22542		20.00	12.00	10.20	9.60	8.80
22543		37.50	22.50	19.13	18.00	16.50
22544		11.25	6.75	5.74	5.40	4.95
22545		2.75	1.65	1.40	1.32	1.21
22546		5.00	3.00	2.55	2.40	2.20
22547		3.60	2.16	1.84	1.73	1.58
22548		4.00	2.40	2.04	1.92	1.76
22549		22.50	13.50	11.48	10.80	9.90
22550		3.50	2.10	1.78	1.68	1.54
22551		7.00	4.20	3.57	3.36	3.08
22552		5.50	3.30	2.80	2.64	2.42
22553		25.00	15.00	12.75	12.00	11.00
22554		7.50	4.50	3.83	3.60	3.30
22555		7.50	4.50	3.83	3.60	3.30
22556		5.50	3.30	2.80	2.64	2.42
22557		6.00	3.60	3.06	2.88	2.64
22558		5.50	3.30	2.80	2.64	2.42
22559		5.50	3.30	2.80	2.64	2.42
22560		5.50	3.30	2.80	2.64	2.42
22561		5.00	3.00	2.55	2.40	2.20
22562		6.25	3.75	3.19	3.00	2.75
22563		18.75	11.25	9.56	9.00	8.25
22564		9.50	5.70	4.84	4.56	3.97
22565		23.75	14.25	12.11	11.40	10.45
22566		11.25	6.75	5.74	5.40	4.95
22567		25.00	15.00	12.75	12.00	11.00
22568		12.50	7.50	6.38	6.00	5.50
22569		12.50	7.50	6.38	6.00	5.50
22570		7.50	4.50	3.82	3.60	3.30
22571		10.00	6.00	5.10	4.80	4.40
22572		10.00	6.00	5.10	4.80	4.40
22573		6.25	3.75	3.19	3.00	2.75
22574		11.00	6.60	5.61	5.28	4.84
22575		5.00	3.00	2.55	2.40	2.20
22576		7.50	4.50	3.82	3.60	3.30
22577		7.25	4.35	3.70	3.48	3.19
22578		25.00	15.00	12.75	12.00	11.00
22579		7.50	4.50	3.82	3.60	3.30
22580		7.00	4.20	3.57	3.36	3.08
22581		3.00	1.80	1.53	1.44	1.25
22582		7.75	4.65	3.95	3.72	3.41
22583		8.00	4.80	4.08	3.84	3.52
22584		8.00	4.80	4.08	3.84	3.52
22585		8.00	4.80	4.08	3.84	3.52
22586		4.00	2.40	2.04	1.92	1.76
22587		8.00	4.80	4.08	3.84	3.52
22588		8.00	4.80	4.08	3.84	3.52
22589		8.00	4.80	4.08	3.84	3.52
22590		8.00	4.80	4.08	3.84	3.52
22591		5.50	3.30	2.80	2.64	2.42
22592		25.00	15.00	12.75	12.00	11.00
22593		15.00	9.00	7.65	7.20	6.60
22594		15.00	9.00	7.65	7.20	6.60
22595		12.50	7.50	6.38	6.00	5.50
22596		16.25	9.75	8.29	7.80	7.15
22597		15.00	9.00	7.65	7.20	6.60
22598		16.25	9.75	8.29	7.80	7.15
22599		5.00	3.00	2.55	2.40	2.20
225100		3.00	1.80	1.53	1.44	1.25
225101		3.00	1.80	1.53	1.44	1.25
225102		3.50	2.10	1.78	1.68	1.54
225103		3.00	1.80	1.53	1.44	1.25
225104		8.00	4.80	4.08	3.84	3.52
225105		15.00	9.00	7.65	7.20	6.60
225106		18.75	11.25	9.56	9.00	8.25
225107		18.75	11.25	9.56	9.00	8.25
225108		25.00	15.00	12.75	12.00	11.00
225109		6.10	3.66	3.12	2.94	2.68
225116		8.00	4.80	4.08	3.84	3.52
225118		2.50	1.50	1.27	1.20	1.10
225119		4.00	2.40	2.04	1.92	1.76
225120			22.50	19.13	18.00	16.50
225121			22.50	19.13	18.00	16.50
225122			30.00	25.50	24.00	22.00
225123			30.00	25.50	24.00	22.00
225124			22.50	19.13	18.00	16.50
225125			22.50	19.13	18.00	16.50
225126			22.50	19.13	18.00	16.50
225127			22.50	19.13	18.00	16.50
24500		6.65	3.99	3.38	3.19	2.92
24501		5.00	3.00	2.55	2.40	2.20
24502		5.25	3.15	2.68	2.52	2.19
24504		4.25	2.55	2.17	2.04	1.87
24505		5.50	3.30	2.80	2.64	2.42
24506		5.00	3.00	2.55	2.40	2.20
24507		6.00	3.60	3.07	2.88	2.64
24508		5.00	3.00	2.55	2.40	2.20
24509		6.00	3.60	3.06	2.88	2.64
24510		4.25	2.55	2.17	2.04	1.87
24511		5.00	3.00	2.55	2.40	2.20
24512		6.00	3.60	3.07	2.88	2.64
24513		5.00	3.00	2.55	2.40	2.20
24514		6.00	3.60	3.07	2.88	2.64
24515		10.00	6.00	5.10	4.80	4.40
24516		6.00	3.60	3.07	2.88	2.64
24517		6.00	3.60	3.07	2.88	2.64
24518		12.50	7.50	6.38	6.00	5.50
24519		5.00	3.00	2.55	2.40	2.20
24520		3.75	2.25	1.91	1.80	1.65
24521		5.00	3.00	2.55	2.40	2.20
24522		7.50	4.50	3.83	3.60	3.30
24523		5.50	3.30	2.80	2.64	2.42
24524		3.85	2.30	1.95	1.84	1.70
24525		7.50	4.50	3.82	3.60	3.30
24526		4.00	2.40	2.04	1.92	1.76
24527		6.00	3.60	3.06	2.88	2.64
24528		3.75	2.25	1.91	1.80	1.65
24529		3.75	2.25	1.91	1.80	1.65
24530		3.00	1.80	1.53	1.44	1.32
24531		3.00	1.80	1.53	1.44	1.32
24532		3.00	1.80	1.53	1.44	1.32
24533		3.00	1.80	1.53	1.44	1.32
24534		3.00	1.80	1.53	1.44	1.32
24535		3.00	1.80	1.53	1.44	1.32
24536		3.00	1.80	1.53	1.44	1.32
24537		3.00	1.80	1.53	1.44	1.32
24538		3.00	1.80	1.53	1.44	1.32
24539		3.00	1.80	1.53	1.44	1.32
24540		3.00	1.80	1.53	1.44	1.32
24541		7.50	4.50	3.83	3.60	3.30
24542		7.70	4.62	3.93	3.70	3.40
24543		7.50	4.50	3.83	3.60	3.30
24544		7.50	4.50	3.83	3.60	3.30
24545		5.00	3.00	2.55	2.40	2.20
24546		4.35	2.55	2.17	2.04	1.87
24547		5.00	3.00	2.55	2.40	2.20
24548		2.00	1.20	1.02	.96	.88
24549		2.00	1.20	1.02	.96	.88
24550		2.25	1.35	1.15	1.08	.99
24550A		3.50	2.10	1.78	1.68	1.54
24551		2.15	1.30	1.10	1.04	.95
24551A		3.25	1.95	1.65	1.55	1.43
24552		2.25	1.35	1.15	1.08	.99
24553		2.00	1.20	1.02	.96	.88
24554		2.30	1.38	1.17	1.10	1.01
24555		6.50	3.90	3.30	3.12	2.86
24556		3.90	2.34	1.98	1.87	1.72
24557		12.50	7.50	6.37	6.00	5.50
24558		9.50	5.70	4.85	4.56	4.18
24559		3.50	2.10	1.78	1.68	1.54
24560		4.25	2.55	2.17	2.04	1.87
24561		4.25	2.55	2.17	2.04	1.87
24562		9.50	5.70	4.85	4.56	4.18
24563		3.80	2.28	1.94	1.82	1.67
24564		5.00	3.00	2.55	2.40	2.20
24566		6.00	3.60	3.07	2.88	2.64
24567		6.75	3.45	2.73	2.76	2.53
24570		15.00	9.00	7.65	7.20	6.60
24571		5.05	3.03	2.58	2.42	2.22
24572		7.15	4.29	3.65	3.42	3.15
24573		6.00	3.60	3.06	2.88	2.64
24574		4.10	2.46	2.09	1.96	1.80
24575		2.55	1.53	1.30	1.22	1.12
24576		5.50	3.30	2.80	2.64	2.44
24577		10.50	6.30	5.35	5.04	4.62
24578		3.25	1.95	1.65	1.56	1.43
24579		15.00	9.00	7.65	7.20	6.60
24580		2.50	1.50	1.28	1.20	1.10
24581		2.50	1.50	1.28	1.20	1.10
24582		2.50	1.50	1.28	1.20	1.10
24583		2.80	1.68	1.43	1.34	1.23
24584		3.00	1.80	1.53	1.44	1.25
24585		2.75	1.65	1.40	1.32	1.21
24586		7.70	4.62	3.93	3.70	3.40
24587		3.00	1.80	1.53	1.44	1.32
24588		5.00	3.00	2.55	2.40	2.20
24589		3.00	1.80	1.53	1.44	1.32
24590		4.00	2.40	2.04	1.92	1.76
24591		7.50	4.50	3.83	3.60	3.30
24592		5.00	3.00	2.55	2.40	2.20
24593		3.75	2.25	1.91	1.80	1.65
24594		2.50	1.50	1.27	1.20	1.10
24595		3.00	1.80	1.53	1.44	1.32
24596		3.50	2.10	1.78	1.68	1.54
24597		3.00	1.80	1.53	1.44	1.32
24598		2.50	1.50	1.28	1.20	1.10
24599		2.80	1.68	1.43	1.34	1.23
245100		5.00	3.00	2.55	2.40	2.20
245101		6.00	3.60	3.06	2.88	2.64
245102		6.50	3.90	3.32	3.12	2.86
245103		9.00	5.40	4.60	4.32	3.96
245104		9.00	5.40	4.60	4.32	3.96
245105		7.50	4.50	3.83	3.60	3.30
245106		15.00	9.00	7.65	7.20	6.60
245107		7.00	4.20	3.57	3.36	3.08
245108		15.00	9.00	7.65	7.20	6.60
245109		4.50	2.70	2.30	2.15	1.98
245110		4.25	2.55	2.17	2.04	1.87
245111		8.50	5.10	4.33	4.08	3.74
245112		4.25	2.55	2.17	2.04	1.87
245113		7.15	4.29	3.65	3.42	3.15
245114		4.25	2.55	2.17	2.04	1.87
245115		3.50	2.10	1.78	1.68	1.54
245116		2.50	1.50	1.28	1.20	1.10
245117		10.00	6.00	5.10	4.80	4.40
245119		11.25	6.75	5.74	5.40	4.95
245120		3.00	1.80	1.53	1.44	1.25
245121		13.75	8.25	7.01	6.60	6.05
245122		4.00	2.40	2.04	1.92	1.76
245123		6.00	3.60	3.06	2.88	2.64
245124		5.00	3.00	2.55	2.40	2.20
245125		4.25	2.55	2.17	2.04	1.87
245126		3.25	1.95	1.65	1.55	1.43
245133			6.00	5.10	4.80	4.40
245134			6.00	5.10	4.80	4.40
245136		15.00	9.00	7.65	7.20	6.60
245137		20.00	12.00	10.20	9.60	8.80
245138		20.00	12.00	10.20	9.60	8.80
245139		20.00	12.00	10.20	9.60	8.80
245140		25.00	15.00	12.75	12.00	11.00
245141		25.00	15.00	12.75	12.00	11.00
245142		30.00	18.00	15.30	14.40	13.20
245143			6.00	5.10	4.80	4.40
245144			6.00	5.10	4.80	4.40
245145			5.10	4.33	4.08	3.74
245146		4.50	2.70	2.30	2.16	1.98
245147		4.73	2.84	2.42	2.28	2.08
245148		20.00	12.00	10.20	9.60	8.80
25501			7.02	5.96	5.62	4.90
25502			7.02	5.96	5.62	4.90
25503			7.50	6.38	6.00	5.23
25504			5.70	4.85	4.56	3.96
25505			4.80	4.08	3.84	3.35
25506			5.10	4.32	4.08	3.55
25507			8.10	6.88	6.48	5.65
25508			8.10	6.88	6.48	5.65
25509			8.10	6.88	6.48	5.65
25510			9.00	7.65	7.20	6.27
25511			9.00	7.65	7.20	6.27
25512			11.55	9.82	9.24	8.03
25513			10.80	9.20	8.60	7.52
25514			9.15	7.78	7.32	6.37
25515			16.20	13.77	12.96	11.29
25516			18.90	16.07	15.12	13.17
25517			18.90	16.07	15.12	13.17
25518			15.15	12.88	12.12	10.54
25519			15.15	12.88	12.12	10.54
25520			16.20	13.77	12.96	11.29
25521			7.02	5.96	5.62	4.90
25522			8.10	6.88	6.48	5.65
25523			13.50	11.48	10.80	9.90
25524			18.00	15.30	14.40	13.20
25525			18.00	15.30	14.40	13.20
25526			30.00	25.50	24.00	22.00
25527			30.00	25.50	24.00	22.00
25528			30.00	25.50	24.00	22.00
25529			30.00	25.50	24.00	22.00
25530			30.00	25.50	24.00	22.00
25531			22.50	19.12	18.00	16.50
25532			18.00	15.30	14.40	13.20
25533			10.80	9.20	8.60	7.52
25534			10.50	8.93	8.40	7.70
25535			15.00	12.75	12.00	11.00
25536			10.50	8.93	8.40	7.70
25537			18.00	15.30	14.40	13.20
25538			7.50	6.38	6.00	5.50
25539			7.02	5.96	5.62	4.90
25540			15.00	12.75	12.00	11.00
25541			15.00	12.75	12.00	11.00
25542			22.50	19.12	18.00	16.50
25543			10.80	9.20	8.60	7.92
25544			9.75	8.29	7.80	7.15
25545			10.80	9.20	8.60	7.52
25546			10.80	9.20	8.60	7.52
25547			10.80	9.20	8.60	7.52
25548			10.80	9.20	8.60	7.52
25549			12.60	10.71	10.08	8.78
25550			13.50	11.48	10.80	9.41
25551			21.60	18.36	17.28	15.05
25552			12.00	10.20	9.60	8.36
25553			12.90	10.97	10.32	8.90
25554			18.90	16.06	15.12	13.17
25555			7.05	6.00	5.64	4.91
25556			7.30	6.21	5.84	5.09
25557			8.10	6.88	6.48	5.65
25558			9.45	8.03

PART NO.	LIST	INDUSTRIAL NET NET and 1 to 4	5 to 49	50 to 99	100 to 499
27526		13.50	11.48	10.80	9.41
27527		18.00	15.50	14.40	13.20
27528		12.00	10.20	9.60	8.80
27529		10.80	9.20	8.60	7.52
27530		11.55	9.82	9.24	8.03
27531		8.40	7.14	6.72	5.85
27535		8.10	6.88	6.48	5.65
27536		8.10	6.88	6.48	5.65
27537		7.50	6.38	6.00	5.23
27538		7.20	6.12	5.76	5.24
27539		7.80	6.43	6.04	5.72
27540		7.20	6.12	5.76	5.24
27541		5.85	4.97	4.68	4.07
27542		5.85	4.97	4.68	4.07
27543		5.85	4.97	4.68	4.07
27544		6.00	5.10	4.80	4.40
27545		6.00	5.10	4.80	4.40
27546		6.00	5.10	4.80	4.40
27547		7.50	6.38	6.00	5.23
27548		7.50	6.38	6.00	5.23
27549		7.02	5.96	5.62	4.90
27550		6.30	5.36	5.04	4.62
27551		7.20	6.12	5.76	5.24
27552		7.02	5.96	5.62	4.90
27553		7.20	6.12	5.76	5.74
27554		18.90	16.06	15.12	13.17
27555		18.75	15.94	15.00	13.75
27556		21.00	17.85	16.80	15.40
27557		21.00	17.85	16.80	15.40
27558		21.00	17.85	16.80	15.40
27559		21.00	17.85	16.80	15.40
27560		21.00	17.85	16.80	15.40
27561		27.00	22.95	21.60	19.80
27562		27.00	22.95	21.60	19.80
27563		27.00	22.95	21.60	19.80
27564		27.00	22.95	21.60	19.80
27565		27.00	22.95	21.60	19.80
27566		39.00	33.15	31.20	28.60
27567		39.00	33.15	31.20	28.60
27568		39.00	33.15	31.20	28.60
27569		13.20	11.22	10.56	9.68
27570		13.20	11.22	10.56	9.68
27571		15.00	12.75	12.00	11.00
27572		18.90	16.06	15.12	13.86
27573		16.50	14.02	13.20	12.10
27574		18.75	15.94	15.00	13.75
27575		21.00	17.85	16.80	15.40
27576		25.50	21.67	20.40	18.70
27577		22.50	19.12	18.00	16.50
27578		21.00	17.85	16.80	15.40
27579		27.00	22.95	21.60	19.80
27580		12.00	10.20	9.60	8.80
27581		12.00	10.20	9.60	8.80
27582		12.00	10.20	9.60	8.80
27583		12.00	10.20	9.60	8.80
27584		12.00	10.20	9.60	8.80
27585		12.00	10.20	9.60	8.80
27586		10.80	9.20	8.60	7.52
27587		10.80	9.20	8.60	7.52
27588		5.70	4.85	4.56	4.18
27589		5.70	4.85	4.56	4.18
27590		5.40	4.59	4.32	3.96
27591		5.40	4.59	4.32	3.96
27592		6.00	5.20	4.80	4.40
27593		5.70	4.85	4.56	4.18
27594		5.70	4.85	4.56	4.18
27595		5.70	4.85	4.56	4.18
27596		6.00	5.20	4.80	4.40
27597		6.00	5.20	4.80	4.40
27598		6.00	5.20	4.80	4.40
27599		5.70	4.85	4.56	4.18
275100		5.70	4.85	4.56	4.18
275101		6.00	5.20	4.80	4.40
275102		6.00	5.20	4.80	4.40
275103		5.70	4.85	4.56	4.18
275104		5.70	4.85	4.56	4.18
275105		5.70	4.85	4.56	4.18
275106		6.00	5.20	4.80	4.40
275107		6.00	5.20	4.80	4.40
275108		6.00	5.20	4.80	4.40
275109		6.30	5.36	5.04	4.62
275110		7.50	6.38	6.00	5.50
275111		7.02	5.96	5.62	5.15
275112		12.00	10.20	9.60	8.80
275113		15.00	12.75	12.00	11.00
275114		15.00	12.75	12.00	11.00
275115		12.90	10.96	10.32	9.48
275116		12.90	10.96	10.32	9.48
275117		14.40	12.24	11.52	10.56
275118		15.00	12.75	12.00	11.00
275119		21.00	17.85	16.80	15.40
275120		21.00	17.85	16.80	15.40
275121		30.00	25.50	24.00	22.00
275122		12.00	10.20	9.60	8.80
275123		13.50	11.48	10.80	9.90
275124		36.00	30.60	28.80	26.40
275125		12.75	10.83	10.20	9.35
275126		9.60	8.16	7.68	7.04
275127		39.00	33.15	31.20	28.60
275128		22.50	19.12	18.00	16.50
275129		39.00	33.15	31.20	28.60
275130		27.00	22.95	21.60	19.80
275131		15.00	12.75	12.00	11.00
275132		27.00	22.95	21.60	19.80
275133		12.00	10.20	9.90	8.80
275134		39.00	33.15	31.20	28.60
275135		25.50	21.67	20.40	18.70
275136		7.00	5.95	5.60	4.88
275137		5.67	4.83	4.53	3.95
275138		5.13	4.37	4.12	3.58
275139		5.26	4.48	4.22	3.67
275140		4.45	3.79	3.57	3.10
275141		4.45	3.79	3.57	3.10
275142		4.45	3.79	3.57	3.10
275143		4.72	4.02	3.79	3.29
275144		4.86	4.14	3.90	3.39
275145		4.86	4.14	3.90	3.39
275146		5.00	4.25	4.00	3.60
275147		5.13	4.37	4.12	3.58
275148		5.13	4.37	4.12	3.58
275149		6.34	5.29	5.08	4.42
275150		6.48	5.51	5.19	4.51
275151		5.80	4.93	4.64	4.05
275152		7.42	6.31	5.94	5.17
275153		7.56	6.42	6.06	5.27
275154		6.88	5.66	5.32	4.80
275155		7.15	6.09	5.61	4.98
275156		6.61	5.63	5.29	4.61
275157		6.75	5.73	5.39	4.70
275158		8.23	7.00	6.59	5.74
275159		7.70	6.55	6.16	5.38
275160		7.83	6.66	6.27	5.46
275161		7.43	6.22	5.95	5.17
275162		7.83	6.66	6.27	5.46
275163		7.83	6.66	6.27	5.46
275164		6.21	5.28	4.97	4.33
275165		6.21	5.28	4.97	4.33
275166		6.34	5.40	5.08	4.40
275167		8.10	6.89	6.48	5.62
275168		8.10	6.89	6.48	5.62
275169		8.10	6.89	6.48	5.62
275170		6.48	5.51	5.19	4.51
275171		6.07	5.17	4.86	4.22
275172		6.21	5.28	4.97	4.31
275173		5.80	4.94	4.64	4.03
275174		5.40	4.59	4.32	3.75
275175		5.53	4.71	4.43	3.84
275176		6.88	5.86	5.51	4.78
275177		6.48	5.51	5.18	4.50
275178		6.61	5.63	5.29	4.59
275179		8.37	7.11	6.70	5.80
275180		8.37	7.11	6.70	5.80
275181		8.50	7.23	6.80	5.90
275182		7.83	6.65	6.26	5.43
275183		8.37	7.11	6.70	5.80
275184		7.56	6.42	6.05	5.24
275185		7.56	6.42	6.05	5.24
275186		7.69	6.54	6.16	5.34
275187		7.02	5.97	5.62	4.87
275188		7.56	6.42	6.05	5.24
275189		8.37	7.11	6.70	5.80
275190		8.37	7.11	6.70	5.80
275191		8.37	7.11	6.70	5.80
275192		7.56	6.42	6.05	5.24
275193		7.56	6.42	6.05	5.24
275194		7.56	6.42	6.05	5.24
275195		8.64	7.34	6.91	5.99
275196		8.64	7.34	6.91	5.99
275197		8.77	7.46	7.02	6.08
275198		8.10	6.88	6.48	5.62
275199		8.64	7.34	6.91	5.99
275200		8.64	7.34	6.91	5.99
275201		8.64	7.34	6.91	5.99
275202		8.64	7.34	6.91	5.99
275203		10.26	8.72	8.18	7.16
275204		9.99	8.48	8.00	6.95
275205		10.53	8.95	8.42	7.34
275206		10.39	9.85	8.33	7.25
275207		13.09	11.14	10.49	9.13
275208		10.12	8.61	8.10	7.05
275209		13.09	11.14	10.49	9.13
275210		8.24	7.01	6.60	5.75
275211		10.80	9.13	8.64	7.52
275212		8.37	7.11	6.70	5.83
275213		13.09	11.14	10.49	9.13

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PART NO.	LIST	INDUSTRIAL NET NET and 1 to 4	5 to 49	50 to 99	100 to 499
TOR 700		5.40	4.60	4.32	3.96
TOR 701		5.40	4.60	4.32	3.96
TOR 702		5.40	4.60	4.32	3.96
TOR 703		5.40	4.60	4.32	3.96
TOR 704		5.40	4.60	4.32	3.96
TOR 705		5.40	4.60	4.32	3.96
TOR 706		5.55	4.72	4.44	4.07
TOR 707		5.55	4.72	4.44	4.07
TOR 708		5.70	4.85	4.56	4.18
TOR 709		5.70	4.85	4.56	4.18
TOR 710		5.70	4.85	4.56	4.18
TOR 711		5.70	4.85	4.56	4.18
TOR 712		5.70	4.85	4.56	4.18
TOR 713		5.85	4.97	4.68	4.29
TOR 714		5.85	4.97	4.68	4.29
TOR 715		5.85	4.97	4.68	4.29
TOR 716		5.85	4.97	4.68	4.29
TOR 717		6.00	5.10	4.80	4.40
TOR 718		6.00	5.10	4.80	4.40
TOR 719		6.15	5.23	4.92	4.51
TOR 720		6.15	5.23	4.92	4.51
TOR 721		6.30	5.36	5.04	4.62
TOR 722		6.60	5.61	5.28	4.84
TOR 723		7.20	6.12	5.76	5.24
TOR 724		5.55	4.72	4.44	4.07
TOR 725		5.55	4.72	4.44	4.07
TOR 726		5.55	4.72	4.44	4.07
TOR 727		5.55	4.72	4.44	4.07
TOR 728		5.55	4.72	4.44	4.07
TOR 729		5.55	4.72	4.44	4.07
TOR 730		5.55	4.72	4.44	4.07
TOR 731		5.55	4.72	4.44	4.07
TOR 732		5.70	4.85	4.56	4.18
TOR 733		5.70	4.85	4.56	4.18
TOR 734		5.85	4.97	4.68	4.29
TOR 735		5.85	4.97	4.68	4.29
TOR 736		5.85	4.97	4.68	4.29
TOR 737		5.85	4.97	4.68	4.29
TOR 738		5.85	4.97	4.68	4.29
TOR 739		5.85	4.97	4.68	4.29
TOR 740		6.00	5.10	4.80	4.40
TOR 741		6.00	5.10	4.80	4.40
TOR 742		6.00	5.10	4.80	4.40
TOR 743		6.00	5.10	4.80	4.40
TOR 744		6.00	5.10	4.80	4.40
TOR 745		6.15	5.23	4.92	4.51
TOR 746		6.15	5.23	4.92	4.51
TOR 747		6.30	5.36	5.04	4.62
TOR 748		5.40	4.60	4.32	3.96
TOR 749		5.40	4.60	4.32	3.96
TOR 750		5.40	4.60	4.32	3.96
TOR 751		5.10	4.33	4.08	3.74
TOR 752		5.10	4.33	4.08	3.74
TOR 753		5.10	4.33	4.08	3.74
TOR 754		4.50	3.82	3.60	3.30
TOR 755		4.50	3.82	3.60	3.30
TOR 756		5.40	4.60	4.32	3.96
TOR 757		4.50	3.82	3.60	3.30
TOR 758		5.40	4.60	4.72	3.96
TOR 759		5.40	4.60	4.72	3.96
TOR 760		5.40	4.60	4.72	3.96
TOR 761		4.50	3.82	3.60	3.30
TOR 762		5.40	4.60	4.32	3.96
TOR 763		5.40	4.60	4.32	3.96
TOR 764		4.50	3.82	3.60	3.30
TOR 765		5.40	4.60	4.32	3.96
TOR 766		5.10	4.33	4.08	3.74
TOR 767		5.55	4.72	4.44	4.07
TOR 768		5.55	4.72	4.44	4.07
TOR 769		5.55	4.72	4.44	4.07
TOR 770		5.25	4.46	4.20	3.85
TOR 771		5.85	4.97	4.68	4.29
TOR 772		6.00	5.10	4.80	4.40
TOR 773		7.80	6.43	6.04	5.72
TOR 774		5.25	4.46	4.20	3.85
TOR 775		5.55	4.72	4.44	4.07
TOR 776		5.55	4.72	4.44	4.07
TOR 777		5.55	4.72	4.44	4.07
TOR 778		5.55	4.72	4.44	4.07
TOR 779		5.55	4.72	4.44	4.07
TOR 780		5.70	4.85	4.56	4.18
TOR 781		5.70	4.85	4.56	4.18
TOR 782		5.70	4.85	4.56	4.18
TOR 783		5.85	4.97	4.68	4.29
TOR 784		5.85	4.97	4.68	4.29
TOR 785		5.85	4.97	4.68	4.29
TOR 786		5.85	4.97	4.68	4.29
TOR 787		6.00	5.10	4.80	4.40
TOR 788		6.00	5.10	4.80	4.40
TOR 789		6.00	5.10	4.80	4.40
TOR 790		6.00	5.10	4.80	4.40
TOR 791		6.15	5.23	4.92	4.51
TOR 792		6.15	5.23	4.92	4.51
TOR 793		6.15	5.23	4.92	4.51
TOR 794		6.15	5.23	4.92	4.51
TOR 795		6.30	5.36	5.04	4.62
TOR 796		6.30	5.36	5.04	4.62
TOR 797		6.60	5.61	5.28	4.84
TOR 798		6.60	5.61	5.28	4.84
TOR 799		6.60	5.61	5.28	4.84
TOR 800		3.75	3.19	3.00	2.75
TOR 801		3.75	3.19	3.00	2.75
TOR 802		3.75	3.19	3.00	2.75
TOR 803		3.75	3.19	3.00	2.75
TOR 804		3.75	3.19	3.00	2.75
TOR 805		3.75	3.19	3.00	2.75
TOR 806		3.75	3.19	3.00	2.75
TOR 807		4.05	3.45	3.24	2.97
TOR 808		4.05	3.45	3.24	2.97
TOR 809		4.05	3.45	3.24	2.97
TOR 810		4.05	3.45	3.24	2.97
TOR 811		4.05	3.45	3.24	2.97
TOR 812		4.05	3.45	3.24	2.97
TOR 813		4.20	3.57	3.36	3.08
TOR 814		4.20	3.57	3.36	3.08
TOR 815		4.20	3.57	3.36	3.08
TOR 816		4.20	3.57	3.36	3.08
TOR 817		4.20	3.57	3.36	3.08
TOR 818		4.20	3.57	3.36	3.08
TOR 819		4.50	3.82	3.60	3.30
TOR 820		4.50	3.82	3.60	3.30
TOR 821		4.50	3.82	3.60	3.30
TOR 822		5.10	4.33	4.08	3.74
TOR 823		5.55	4.72	4.44	4.07
TOR 824		3.75	3.19	3.00	2.75
TOR 825		3.75	3.19	3.00	2.75
TOR 826		3.75	3.19	3.00	2.75
TOR 827		3.75	3.19	3.00	2.75
TOR 828		3.75	3.19	3.00	2.75
TOR 829		3.75	3.19	3.00	2.75
TOR 830		3.75	3.19	3.00	2.75
TOR 831		3.75	3.19	3.00	2.75
TOR 832		4.05	3.45	3.24	2.97
TOR 833		4.05	3.45	3.24	2.97
TOR 834		4.05	3.45	3.24	2.97
TOR 835		4.05	3.45	3.24	2.97
TOR 836		4.05	3.45	3.24	2.97
TOR 837		4.20	3.57	3.36	3.08
TOR 838		4.20	3.57	3.36	3.08
TOR 839		4.20	3.57	3.36	3.08
TOR 840		4.20	3.57	3.36	3.08
TOR 841		4.20	3.57	3.36	3.08
TOR 842		4.50	3.82	3.60	3.30
TOR 843		4.50	3.82	3.60	3.30
TOR 844		4.50	3.82	3.60	3.30
TOR 845		4.50	3.82	3.60	3.30
TOR 846		4.50	3.82	3.60	3.30
TOR 847		4.50	3.82	3.60	3.30
TOR 848		3.60	3.06	2.88	2.64
TOR 849		3.60	3.06	2.88	2.64
TOR 850		3.60	3.06	2.88	2.64
TOR 851		3.60	3.06	2.88	2.64
TOR 852		3.60	3.06	2.88	2.64
TOR 853		3.60	3.06	2.88	2.64
TOR 855		3.60	3.06	2.88	2.64
TOR 856		3.60	3.06	2.88	2.64
TOR 857		3.60	3.06	2.88	2.64
TOR 858		3.60	3.06	2.88	2.64
TOR 859		3.60	3.06	2.88	2.64
TOR 860		3.60	3.06	2.88	2.64
TOR 861		3.60	3.06	2.88	2.64
TOR 862		3.60	3.06	2.88	2.64
TOR 864		3.60	3.06	2.88	2.64
TOR 865		3.60	3.06	2.88	2.64
TOR 866		3.60	3.06	2.88	2.64
TOR 867		3.75	3.19	3.00	2.75
TOR 868		3.75	3.19	3.00	2.75
TOR 869		4.05	3.45	3.24	2.97
TOR 870		4.05	3.45	3.24	2.97
TOR 871		4.20	3.57	3.36	3.08
TOR 872		4.50	3.82	3.60	3.30
TOR 874		4.50	3.82	3.60	3.30
TOR 875		3.75	3.19	3.00	2.75
TOR 876		3.75	3.19	3.00	2.75
TOR 877		3.75	3.19	3.00	2.75
TOR 878		3.75	3.19	3.00	2.75
TOR 879		3.75	3.19	3.00	2.75
TOR 880		4.05	3.45	3.24	2.97
TOR 881		4.05	3.45	3.24	2.97
TOR 882		4.05	3.45	3.24	2.97
TOR 883		4.05	3.45	3.24	2.97
TOR 884		4.05	3.45	3.24	2.97
TOR 885		4.05	3.45	3.24	2.97
TOR 886		4.05	3.45	3.24	2.97
TOR 887		4.20	3.57	3.36	3.08
TOR 888		4.20	3.57	3.36	3.08
TOR 889		4.20	3.57	3.36	3.08
TOR 890		4.20	3.57	3.36	3.08
TOR 891		4.50	3.82	3.60	3.30
TOR 892		4.50	3.82	3.60	3.30
TOR 893		4.50	3.82	3.60	3.30
TOR 894		4.50	3.82	3.60	3.30
TOR 895		4.50	3.82	3.60	3.30
TOR 896		4.50	3.82	3.60	3.30
TOR 897		4.50	3.82	3.60	3.30
TOR 898		4.80	4.08	3.84	3.52
TOR 899		4.80	4.08	3.84	3.52
TOR 900		4.80	4.08	3.84	3.52
TOR 901		5.10	4.33	4.08	3.74
TOR 902		5.55	4.72	4.44	4.07
TOR 903		6.15	5.23	4.92	4.51
TOR 904		5.70	4.85	4.56	4.18
TOR 905		5.70	4.85	4.56	4.18
TOR 906		5.85	4.97	4.68	4.29
TOR 907		5.85	4.97	4.68	4.29
TOR 908		5.85	4.97	4.68	4.29
TOR 909		6.00	5.10	4.80	4.40
TOR 910		6.00	5.10	4.80	4.40
TOR 911		6.15	5.23	4.92	4.51
TOR 912		6.15	5.23	4.92	4.51
TOR 913		6.15	5.23	4.92	4.51
TOR 914		6.15	5.23	4.92	4.51
TOR 915		6.30	5.36	5.04	4.62
TOR 916		6.30	5.36	5.04	4.62
TOR 917		6.60	5.61	5.28	4.84
TOR 918		6.60	5.61	5.28	4.84
TOR 919		6.60	5.61	5.28	4.84
TOR 920		7.20	6.12	5.76	5.24
TOR 921		7.20	6.12	5.76	5.24
TOR 922		7.20	6.12	5.76	5.24
TOR 923		7.80	6.43	6.04	5.72
TOR 924		7.80	6.43	6.04	5.72
TOR 925		8.10	6.88	6.48	5.94
TOR 926		8.40	7.14	6.72	6.16
TOR 927		8.70	7.40	6.96	6.38
TOR 928		9.60	8.16	7.68	7.04
TOR 929		10.20	8.67	8.16	7.48
TOR 930		3.91	3.33	3.13	2.72
TOR 931		3.91	3.33	3.13	2.72
TOR 932		4.05	3.44	3.24	2.82
TOR 933		4.18	3.56	3.25	2.91
TOR 934		4.32	3.67	3.46	3.00
TOR 935		4.45	3.79	3.56	3.10
TOR 936		4.59	3.90	3.67	3.19
TOR 937		4.86	4.13	3.84	3.38
TOR 938		5.53	4.71	4.43	3.84
TOR 939		5.67	4.82	4.54	3.94
TOR 940		4.32	3.67	3.46	3.00
TOR 941		4.32	3.67	3.46	3.00
TOR 942		4.59	3.90	3.67	3.19
TOR 943		4.72	4.02	3.78	3.28
TOR 944		4.86	4.13	3.89	3.38
TOR 945		5.13	4.36	4.10	3.56
TOR 946		5.67	4.82	4.54	3.94
TOR 947		5.80	4.94	4.64	4.03
TOR 948		6.88	5.86	5.51	4.78
TOR 949		3.91	3.33	3.13	2.72
TOR 950		4.05	3.44	3.24	2.82
TOR 951		4.32	3.67	3.46	3.00
TOR 952		4.59	3.90	3.67	3.19
TOR 953		5.26	4.48	4.21	3.66
TOR 954		6.07	5.17	5.86	4.22
TOR 955		4.18	3.56	3.35	2.91
TOR 956		4.45	3.79	3.56	3.10
TOR 957		5.40	4.59	4.32	3.75
TOR 958		4.86	4.13	3.89	3.38
TOR 959		4.99	4.25	4.00	3.47
TOR 960		6.21	5.28	4.97	4.31
TOR 961		6.61	5.63	5.29	4.59
TOR 962		7.02	5.97	5.62	4.87
TOR 963		7.29	6.19	5.83	5.06
TOR 964		7.83	6.65	6.26	5.43
TOR 965		8.50	7.23	6.80	5.90
TOR 966		9.05	7.79	7.25	6.31
TOR 967		9.99	8.49	8.00	6.96
TOR 968		10.80	9.18	8.64	7.52
TOR 969		11.74	9.98	9.40	8.19
TOR 970		9.72	8.26	7.77	6.74
TOR 971		9.85	8.38	7.89	6.87
TOR 972		10.12	8.60	8.09	7.08
TOR 973		10.53	8.95	8.42	7.33
TOR 974		10.80	9.18	8.64	7.52
TOR 975		10.66	9.06	8.54	7.43
TOR 976		10.93	9.30	8.75	7.63
TOR 977		11.20	9.52	8.96	7.81
TOR 978		11.74	9.98	9.40	8.19
TOR 979		11.74	9.98	9.40	8.19
TOR 980		12.82	10.90	10.26	8.93
TOR 981		13.77	11.70	11.00	9.58
TOR 982		14.85	12.62	11.88	10.34
TOR 983		19.98	16.97	15.97	13.92
TOR 7100		6.60	5.61	5.28	4.84
TOR 7101		6.60	5.61	5.28	4.84
TOR 7102		7.20	6.12	5.76	5.24
TOR 7103		6.60	5.61	5.28	4.84
TOR 7104		7.80	6.43	6.04	5.72
TOR 7105		7.80	6.43	6.04	5.72
TOR 7106		7.80	6.43	6.04	5.72
TOR 7107		7.80	6.43	6.04	5.72
TOR 7108		7.80	6.43	6.04	5.72
TOR 7109		7.80	6.43

PART NO.	LIST	INDUSTRIAL NET NET and 1 to 4	5 to 49	50 to 99	100 to 499
TOR 7177		7.50	6.37	6.00	5.22
TOR 7178		7.80	6.63	6.24	5.44
TOR 7179		8.10	6.88	6.48	5.64
TOR 7180		8.10	6.88	6.48	5.64
TOR 7181		8.70	7.39	6.96	6.06
TOR 7182		8.85	7.58	7.08	6.16
TOR 7183		9.00	7.65	7.20	6.27
TOR 7184		9.45	8.03	7.56	6.58
TOR 7185		9.45	8.03	7.56	6.58
TOR 7186		10.00	8.50	8.00	7.00
TOR 7187		10.20	8.67	8.16	7.11
TOR 7188		10.80	9.17	8.63	7.51
TOR 7189		11.70	9.95	9.36	8.16
TOR 7190		12.45	10.59	9.96	8.66
TOR 7191		13.50	11.47	10.80	9.40
TOR 7192		16.20	11.77	12.96	11.28
TOR 7193		8.10	6.88	6.48	5.64
TOR 7194		8.40	7.14	6.72	5.85
TOR 7195		8.70	7.40	6.96	6.06
TOR 7196		9.00	7.65	7.20	6.27
TOR 7197		9.00	7.65	7.20	6.27
TOR 7198		9.45	8.03	7.56	6.58
TOR 7199		9.45	8.03	7.56	6.58
TOR 7200		10.20	8.67	8.16	7.11
TOR 7201		10.20	8.67	8.16	7.11
TOR 7202		10.50	8.92	8.40	7.32
TOR 7203		10.80	9.17	8.63	7.49
TOR 7204		11.10	9.43	8.87	7.72
TOR 7205		11.40	9.67	9.12	7.94
TOR 7206		11.40	9.67	9.12	7.94
TOR 7207		12.00	10.20	9.60	8.36
TOR 7208		13.50	11.46	10.80	9.41
TOR 7209		14.55	12.37	11.64	10.14
TOR 7210		15.60	13.76	12.48	10.87
TOR 7211		18.90	16.06	15.12	13.17
TOR 7212		6.75	5.74	5.40	4.71
TOR 7213		7.20	6.12	5.76	5.02
TOR 7214		7.20	6.12	5.76	5.02
TOR 7215		7.50	6.38	6.00	5.23
TOR 7216		7.80	6.63	6.24	5.45
TOR 7217		8.10	6.88	6.48	5.64
TOR 7218		8.10	6.88	6.48	5.64
TOR 7219		8.70	7.39	6.96	6.06
TOR 7220		8.70	7.39	6.06	6.06
TOR 7221		9.00	7.65	7.20	6.27
TOR 7222		9.00	7.65	7.20	6.27
TOR 7223		9.75	8.29	7.80	6.80
TOR 7224		10.50	8.93	8.40	7.32
TOR 7225		11.40	10.90	10.30	9.46
TOR 7226		12.60	10.70	10.08	8.77
TOR 7227		13.50	11.47	10.80	9.39
TOR 7228		14.55	12.35	11.65	10.12
TOR 7229		15.00	12.75	12.00	10.45
TOR 7230		14.10	11.99	11.28	9.82
TOR 7231		15.00	12.75	12.00	10.45
TOR 7232		16.50	14.02	13.20	11.50
TOR 7233		18.00	15.30	14.40	12.54
TOR 7234		21.75	18.49	17.40	15.16
TOR 7235		18.60	15.81	14.88	12.96
TOR 7236		18.90	16.06	15.12	13.17
TOR 7237		21.60	18.32	17.28	15.04
TOR 7238		6.21	5.59	5.03	4.33
TOR 7239		13.00	11.05	10.40	9.06
TOR 7240		13.50	11.46	10.80	9.40
TOR 7241		13.50	11.46	10.80	9.40
TOR 7242		14.85	12.60	11.90	10.35
TOR 7243		15.00	12.75	12.00	10.45
TOR 7244		7.35	6.24	5.88	5.12
TOR 7245		19.20	16.32	15.36	13.37
TOR 7246		20.60	17.51	16.48	14.37
TOR 7247		12.15	10.32	9.71	8.44
TOR 7248		21.00	17.85	16.80	14.63
TOR 7249		6.75	5.74	5.40	4.68
TOR 7250		6.75	5.74	5.40	4.68
TOR 7251		7.02	5.97	5.62	4.87
TOR 7252		7.02	5.97	5.62	4.87
TOR 7253		7.29	6.19	5.83	6.06
TOR 7254		7.29	6.19	5.83	5.06
TOR 7255		7.56	6.42	6.05	5.24
TOR 7256		7.56	6.24	6.05	5.24
TOR 7257		7.29	6.19	5.83	5.06
TOR 7258		7.29	6.19	5.83	5.06
TOR 7259		7.56	6.42	6.05	5.24
TOR 7260		7.56	6.42	6.05	5.24
TOR 7261		7.83	6.65	6.26	5.43
TOR 7262		7.83	6.65	6.26	5.43
TOR 7263		8.10	6.88	6.48	5.64
TOR 7264		6.75	5.74	5.40	4.68
TOR 7265		6.75	5.74	5.40	4.68
TOR 7266		6.88	5.86	5.51	4.78
TOR 7267		7.02	5.97	5.62	4.87
TOR 7268		7.15	6.09	5.72	4.86
TOR 7269		7.56	6.42	6.05	5.24
TOR 7270		7.56	6.42	6.05	5.24
TOR 7271		8.23	7.00	6.59	5.71
TOR 7272		8.64	7.34	6.91	5.99
TOR 7273		9.18	7.82	7.36	6.39
TOR 7274		6.75	5.74	5.40	4.68
TOR 7275		6.75	5.74	5.40	4.68
TOR 7276		6.88	5.86	5.51	4.78
TOR 7277		7.02	5.97	5.62	4.87
TOR 7278		7.15	6.09	5.72	4.96
TOR 7279		7.56	6.42	6.05	5.24
TOR 7280		7.56	6.42	6.05	5.24
TOR 7281		8.23	7.00	6.59	5.71
TOR 7282		8.64	7.34	6.91	5.99
TOR 7283		9.18	7.82	7.36	6.39
TOR 7284		5.13	4.36	4.10	3.56
TOR 7285		5.13	4.36	4.10	3.56
TOR 7286		5.26	4.48	4.21	3.66
TOR 7287		5.53	4.71	4.43	3.84
TOR 7288		5.67	4.82	4.54	3.94
TOR 7289		5.80	4.94	4.64	4.03
TOR 7290		5.94	5.05	4.75	4.12
TOR 7291		6.48	5.51	5.18	4.50
TOR 7292		7.15	6.09	5.72	4.96
TOR 7293		7.83	6.65	6.26	5.43
TOR 7294		7.29	6.19	5.83	5.06
TOR 7295		7.29	6.19	5.83	5.06
TOR 7296		7.42	6.31	5.94	5.15
TOR 7297		7.42	6.31	5.94	5.15
TOR 7298		7.56	6.42	6.05	5.24
TOR 7299		7.69	6.54	6.16	5.34
TOR 7300		8.64	7.34	6.91	5.99
TOR 7301		8.91	7.57	7.13	6.18
TOR 7302		7.29	6.19	5.83	5.06
TOR 7303		7.29	6.19	5.83	5.06
TOR 7304		7.42	6.31	5.94	5.15
TOR 7305		7.42	6.31	5.94	5.15
TOR 7306		7.56	6.42	6.05	5.24
TOR 7307		7.69	6.54	6.16	5.34
TOR 7308		8.64	7.34	6.91	5.99
TOR 7309		8.91	7.57	7.13	6.18
TOR 7310		5.80	4.94	4.64	4.03
TOR 7311		5.80	4.94	4.64	4.03
TOR 7312		5.94	5.05	4.75	4.12
TOR 7313		6.07	5.17	4.86	4.22
TOR 7314		6.21	5.28	4.97	4.31
TOR 7315		6.34	5.40	5.08	4.40
TOR 7316		6.61	5.63	5.29	4.59
TOR 7317		7.15	6.09	5.72	4.96
TOR 7318		6.88	5.86	5.51	4.78
TOR 7319		7.02	5.97	5.62	4.87
TOR 7320		7.42	6.31	5.94	5.15
TOR 7321		7.69	6.54	6.16	5.34
TOR 7322		8.10	6.88	6.48	5.64
TOR 7323		8.50	7.23	6.80	5.91
TOR 7324		9.72	8.26	7.78	6.77
TOR 7325		6.75	5.74	5.40	4.68
TOR 7326		7.69	6.54	6.16	5.34
TOR 7327		9.05	7.68	7.23	6.30
TOR 7328		6.07	5.17	4.86	4.22
TOR 7329		6.07	5.17	4.86	4.22
TOR 7330		6.07	5.17	4.86	4.22
TOR 7331		6.07	5.17	4.86	4.22
TOR 7332		6.48	5.51	5.18	4.50
TOR 7333		6.48	5.51	5.18	4.50
TOR 7334		5.13	4.36	4.10	3.56
TOR 7335		5.26	4.48	4.21	3.66
TOR 7336		5.40	4.59	4.32	3.75
TOR 7337		5.67	4.82	4.54	3.94
TOR 7338		6.07	5.17	4.86	4.22
TOR 7339		6.61	5.63	5.29	4.59
TOR 7340		7.83	6.65	6.26	5.43
TOR 7341		6.34	5.40	5.08	4.40
TOR 7342		6.48	5.51	5.18	4.50
TOR 7343		6.61	5.63	5.29	4.59
TOR 7344		5.53	4.71	4.43	3.84
TOR 7345		7.02	5.97	5.62	4.87
TOR 7346		7.56	6.42	6.05	5.24
TOR 7347		5.94	5.05	4.75	4.12
TOR 7348		7.96	6.77	6.37	5.52
TOR 7349		8.23	7.00	6.59	5.71
TOR 7350		8.64	7.34	6.91	5.99
TOR 7351		8.77	7.46	7.02	6.08
TOR 7352		6.75	5.74	5.40	4.68
TOR 7353		9.95	8.49	7.98	6.96
TOR 7354		11.20	9.52	8.95	7.80
TOR 7355		7.96	6.77	6.37	5.52
TOR 7356		8.10	6.88	6.48	5.64
TOR 7357		7.42	6.31	5.94	5.15
TOR 7358		7.56	6.42	6.05	5.24
TOR 7359		7.69	6.54	6.16	5.34
TOR 7360		6.07	5.17	4.86	4.22
TOR 7361		6.21	5.28	4.97	4.31
TOR 7362		8.10	6.88	6.48	5.64
TOR 7363		8.37	7.11	6.70	5.80
TOR 7364		8.64	7.34	6.91	5.99
TOR 7365		9.58	8.14	7.67	6.68
TOR 7366		9.32	7.91	7.46	6.50
TOR 7367		9.45	8.15	7.57	6.57
TOR 7368		10.26	8.72	8.22	7.15
TOR 7369		10.53	8.95	8.43	7.34
TOR 7370		11.07	9.41	8.87	7.72
TOR 7371		11.88	10.10	9.52	8.28
TOR 7372		12.69	10.78	10.16	8.84
TOR 7373		13.50	11.47	10.80	9.40
TOR 7374		10.80	9.18	8.64	7.52
TOR 7375		15.80	13.42	12.65	11.02
TOR 7376		7.70	6.54	6.16	5.34
TOR 7377		9.45	8.03	7.57	6.59
TOR 7378		9.58	8.16	7.66	6.68
TOR 7379		8.24	7.00	6.59	5.71
TOR 7380		9.85	8.38	7.89	6.86
TOR 7381		8.91	7.57	7.13	6.18
TOR 7382		9.18	7.80	7.36	6.40
TOR 7383		9.45	8.03	7.56	6.68
TOR 7384		9.99	8.49	7.99	6.96
TOR 7385		10.80	9.18	8.64	7.52
TOR 7386		11.61	9.87	9.28	8.09
TOR 7387		12.42	10.55	9.94	8.65
TOR 7388		13.90	11.82	11.12	9.64
TOR 7389		12.15	10.33	9.73	8.47
TOR 7390		12.28	10.44	9.83	8.56
TOR 7391		12.55	10.66	10.05	8.75
TOR 7392		12.82	10.90	10.26	8.93
TOR 7393		13.09	11.13	10.49	9.13
TOR 7394		13.36	11.35	10.70	9.35
TOR 7395		13.63	11.59	10.93	9.50
TOR 7396		13.90	11.83	11.11	9.69
TOR 7397		14.44	12.27	11.56	10.08
TOR 7398		14.98	12.74	11.98	10.45
TOR 7399		15.53	13.12	12.43	10.82
TOR 7400		16.47	14.00	13.17	11.50
TOR 7401		17.55	14.92	14.05	12.23
TOR 7402		22.48	19.21	18.16	15.81
TOR 7403		11.34	9.60	9.08	7.90
TOR 7404		11.47	9.76	9.18	8.00
TOR 7405		11.74	9.98	9.40	8.18
TOR 7406		12.28	10.44	9.83	8.56
TOR 7407		12.55	10.67	10.05	8.75
TOR 7408		11.74	9.98	9.40	8.18
TOR 7409		12.55	10.67	10.05	8.75
TOR 7410		12.82	10.90	10.26	8.93
TOR 7411		13.36	11.36	10.70	9.31
TOR 7412		13.50	11.48	10.80	9.41
TOR 7413		14.58	12.40	11.66	10.16
TOR 7414		15.53	13.20	12.43	10.82
TOR 7415		16.61	14.11	13.30	11.57
TOR 7416		21.74	18.47	17.40	15.10
TOR 7417		8.10	6.88	6.48	5.64
TOR 7418		6.48	5.51	5.18	4.41
TOR 7419		6.75	5.72	5.38	4.70
TOR 7420		6.75	5.72	5.38	4.70
TOR 7421		7.56	6.42	6.04	5.27
TOR 7422		7.56	6.42	6.04	5.27
TOR 7423		7.83	6.66	6.27	5.46
TOR 7424		8.37	7.11	6.09	5.84
TOR 7425		9.72	8.27	7.79	6.78
TOR 7426		10.50	8.93	8.41	7.32
TOR 7427		12.15	10.32	9.71	8.47
TR 1	5.00	3.00	2.55	2.40	2.20
TR 2	5.00	3.00	2.55	2.40	2.20
TR 3	5.00	3.00	2.55	2.40	2.20
TR 4	5.00	3.00	2.55	2.40	2.20
TR 5	5.00	3.00	2.55	2.40	2.20
TR 6	5.00	3.00	2.55	2.40	2.20
TR 7	5.00	3.00	2.55	2.40	2.20
TR 8	5.50	3.30	2.80	2.64	2.42
TR 9	5.50	3.30	2.80	2.64	2.42
TR 10	5.00	3.00	2.55	2.40	2.20
TR 11	5.00	3.00	2.55	2.40	2.20
TR 12	5.00	3.00	2.55	2.40	2.20
TR 13	5.50	3.30	2.80	2.64	2.42
TR 14	5.50	3.30	2.80	2.64	2.42
TR 15	5.50	3.30	2.80	2.64	2.42
TR 16	5.50	3.30	2.80	2.64	2.42
TR 17	5.00	3.00	2.55	2.40	2.20
TR 18	5.00	3.00	2.55	2.40	2.20
TR 19	5.00	3.00	2.55	2.40	2.20
TR 20	5.00	3.00	2.55	2.40	2.20
TR 21	5.50	3.30	2.80	2.64	2.42
TR 22	5.50	3.30	2.80	2.64	2.42
TR 23	5.00	3.00	2.55	2.40	2.20
TR 24	5.50	3.30	2.80	2.64	2.42
TR 25	5.50	3.30	2.80	2.64	2.42
TR 26	5.00	3.00	2.55	2.40	2.20
TR 27	5.00	3.00	2.55	2.40	2.20
TR 28	5.00	3.00	2.55	2.40	2.20
TR 29	5.00	3.00	2.55	2.40	2.20
TR 30	5.50	3.30	2.80	2.64	2.42
TR 31	5.50	3.30	2.80	2.64	2.42
TR 32	5.50	3.30	2.80	2.64	2.42
TR 33	5.00	3.00	2.55	2.40	2.20
TR 34	5.00	3.00	2.55	2.40	2.20
TR 35	6.00	3.60	3.06	2.88	2.64
TR 36	6.00	3.60	3.06	2.88	2.64
TR 37	6.00	3.60	3.06	2.88	2.64
TR 38	6.50	3.90	3.32	3.12	2.86
TR 39	6.00	3.60	3.06	2.88	2.64
TR 40	6.50	3.90	3.32	3.12	2.86
TR 41	6.00	3.60	3.06	2.88	2.64
TR 42	6.00	3.60	3.00	2.88	2.64
TR 43	6.00	3.60	3.06	2.88	2.64
TR 44	6.00	3.60	3.06	2.88	2.64
TR 45	6.50	3.90	3.32	3.12	2.86
TR 46	6.50	3.90	3.32	3.12	2.86
TR 47	6.50	3.90	3.32	3.12	2.86
TR 48	6.50	3.90	3.32	3.12	2.86
TR 49	6.00	3.60	3.06	2.88	2.64
TR 50	6.00	3.60	3.06	2.88	2.64
TR 51	6.50	3.90	3.32	3.12	2.86
TR 52	6.50	3.90	3.32	3.12	2.86
TR 53	6.50	3.90	3.32	3.12	2.86
TR 54	6.50	3.90	3.32	3.12	2.86
TR 55	6.50	3.90	3.32	3.12	2.86
TR 56	6.50	3.90	3.32	3.12	2.86
TR 57	6.50	3.90	3.32	3.12	2.86
TR 58	5.50	3.30	2.80	2.64	2.42
TR 59	6.50	3.90	3.32	3.12	2.86
TR 60	6.50	3.90	3.32	3.12	2.86
TR 61	3.50	2.10	1.79	1.68	1.54
TR 62	3.50	2.10	1.79	1.68	1.54
TR 63	5.00	3.00	2.55	2.40	2.20
TR 64	3.50	2.10	1.79	1.68	1.54
TR 65	3.50	2.10	1.79	1.68	1.54
TR 66	3.50	2.10	1.79	1.68	1.54
TR 67	6.50	3.90	3.32	3.12	2.86
TR 68	10.00	6.00	5.20	4.80	4.40
TR 70	18.00	10.80	9.18	8.64	7.92
TR 71	18.00	10.80	9.18	8.64	7.92
TR 72	35.00	21.00	17.85	16.80	15.40
TR 73	50.00	30.00	25.50	24.00	22.00
TR 74	18.00	10.80	9.18	8.64	7.92
TR 75	30.00	18.00	15.30	14.40	13.20
TR 76	18.00	10.80	9.18	8.64	7.92
TR 77	18.00	10.80	9.18	8.64	7.92
TR 78	10.00	6.00	5.20	4.80	4.40
TR 79	18.00	10.80	9.18	8.64	7.92
TR 80	18.00	10.80	9.18	8.64	7.92
TR 81	30.00	18.00	15.30	14.40	13.20
TR 82	18.00	10.80	9.18	8.64	7.92
TR 83	18.00	10.80	9.18	8.64	7.92
TR 84	50.00	30.00	25.50	24.00	22.00
TR 85	30.00	18.00	15.30	14.40	13.20
TR 86	15.00	9.00	7.65	7.20	6.60
TR 87	30.00	18.00	15.30	14.40	13.20
TR 88	18.00	10.80	9.18	8.64	7.92
TR 89	18.00	10.80	9.18	8.64	7.92
TR 90	18.00	10.80	9.18	8.64	7.92
TR 91	30.00	18.00	15.30	14.40	13.20
TR 92	30.00	18.00	15.30	14.40	13.20
TR 93	50.00	30.00	25.50	24.00	22.00
TR 94	50.00	30.00	25.50	24.00	22.00
TR 95	50.00	30.00	25.50	24.00	22.00
TR 96	50.00	30.00	25.50	24.00	22.00
TR 97	30.00	18.00	15.30	14.40	13.20
TR 98	30.00	18.00	15.30	14.40	13.20
TR 99	30.00	18.00	15.30	14.40	13.20
TR 101	6.00	3.60	3.06	2.88	2.64
TR 102	6.00	3.60	3.06	2.88	2.64
TR 103	6.00	3.60	3.06	2.88	2.64
TR 104	6.00	3.60	3.06	2.88	2.64
TR 105	6.00	3.60	3.06	2.88	2.64
TR 106	6.00	3.60	3.06	2.88	2.64
TR 107	6.00	3.60	3.06	2.88	2.64
TR 108	6.00	3.60	3.06	2.88	2.64
TR 109	6.00	3.60	3.06	2.88	2.64
TR 110	6.00	3.60	3.06	2.88	2.64
TR 111	6.00	3.60	3.06	2.88	2.64
TR 112	6.00	3.60	3.06	2.88	2.64
TR 113	6.00	3.60	3.06	2.88	2.64
TR 114	6.00	3.60	3.06	2.88	2.64
TR 115	6.00	3.60	3.06	2.88	2.64
TR 116	6.50	3.90	3.32	3.12	2.86
TR 117	5.50	3.30	2.80	2.64	2.42
TR 118	5.50	3.30	2.80	2.64	2.42
TR 119	5.50	3.30	2.80	2.64	2.42
TR 120	15.00	9.00	7.65	7.20	6.60
TR 121	11.00	6.60	5.61	5.28	4.84
TR 122	11.00	6.60	5.61	5.28	4.84
TR 123	11.00	6.60	5.61	5.28	4.84
TR 124	11.00	6.60	5.61	5.28	4.84
TR 125	11.00	6.60	5.61	5.28	4.84
TR 126	11.00	6.60	5.61	5.28	4.84
TR 127	11.00	6.60	5.61	5.28	4.84
TR 128	10.00	6.00	5.20	4.80	4.40
TR 129	10.00	6.00	5.20	4.80	4.40
TR 130	11.00	6.60	5.61	5.28	4.84
TR 131	11.00	6.60	5.61	5.28	4.84
TR 132	11.00	6.60	5.61	5.28	4.84
TR 133	11.00	6.60	5.61	5.28	4.84
TR 134	11.00	6.60	5.61	5.28	4.84
TR 135	11.00	6.60	5.61	5.28	4.84
TR 136	11.00	6.60	5.61	5.28	4.84
TR 137	11.00	6.60	5.61	5.28	4.84
TR 138	11.00	6.60	5.61	5.28	4.84
TR 139	11.00	6.60	5.61	5.28	4.84
TR 140	11.00	6.60	5.61	5.28	4.84
TR 141	9.00	5.40	4.60	4.32	3.96
TR 142	12.00	7.20	6.12	5.76	5.28
TR 143	12.00	7.20	6.12	5.76	5.28
TR 144	10.00	6.00	5.20	4.80	4.40
TR 145	11.00	6.60	5.61	5.28	4.84
TR 146	11.00	6.60	5.61	5.28	4.84
TR 147	9.00	5.40	4.60	4.32	3.96
TR 148	7.50	4.50	3.82	3.60	3.30
TR 149	7.50	4.50	3.82	3.60	3.30
TR 150	7.50	4.50	3.82	3.60	3.30
TR 151	10.00	6.00	5.20	4.80	4.40
TR 152	5.00	3.00	2.55	2.40	2.20
TR 153	2.25	1.35	1.14	1.08	1.00
TR 154	2.25	1.35	1.14	1.08	1.00
TR 155	5.00	3.00	2.55	2.40	2.20
TR 156	5.00	3.00	2.55	2.40	2.20
TR 157	5.00	3.00	2.55	2.40	2.20
TR 158	5.00	3.00	2.55	2.40	2.20
TR 159	5.00	3.00	2.55	2.40	2.20
TR 160	5.00	3.00	2.55	2.40	2.20
TR 161	5.00	3.00	2.55	2.40	2.20
TR 162	5.00	3.00	2.55	2.40	2.20
TR 163	5.00	3.00	2.55	2.40	2.20
TR 164	5.00	3.00	2.55	2.40	2.20
TR 165	5.00	3.00	2.55	2.40	2.20
TR 166	5.00	3.00	2.55	2.40	2.20
TR 167	5.00	3.00	2.55	2.40	2.20
TR 168	5.00	3.00	2.55	2.40	2.20
TR 169	5.00	3.00	2.55	2.40	2.20
TR 170	5.00	3.00	2.55	2.40	2.20
TR 171	5.00	3.00	2.55	2.40	2.20
TR 172	5.00	3.00	2.55	2.40	2.20
TR 173	5.00	3.00	2.55	2.40	2.20
TR 174	7.50	4.50	3.82	3.60	3.30
TR 175	5.00	3.00	2.55	2.40	2.20
TR 176	5.00	3.00	2.55	2.40	2.20
TR 177	5.00	3.00	2.55	2.40	2.20
TR 178	5.00	3.00	2.55	2.40	2.20
TR 179	3.00	1.80	1.53	1.44	1.32
TR 180	5.00	3.00	2.55	2.40	2.20
TR 181	5.00	3.00	2.55	2.40	2.20
TR 182	5.00	3.00	2.55	2.40	2.20
TR 183	5.00	3.00	2.55	2.40	2.20
TR 184	5.00	3.00	2.55	2.40	2.20
TR 185	5.00	3.00	2.55	2.40	2.20
TR 186	3.00	1.80	1.53	1.44	1.32
TR 187	5.00	3.00	2.55	2.40	2.20
TR 188	5.00	3.00	2.55	2.40	2.20
TR 189	5.00	3.00	2.55	2.40

PART NO.	LIST	INDUSTRIAL NET NET and 1 to 4	5 to 49	50 to 99	100 to 499
TR 304	3.80	2.10	1.79	1.68	1.54
TR 305	2.50	1.50	1.28	1.20	1.10
TR 306	2.50	1.50	1.28	1.20	1.10
TR 307	7.50	4.50	3.85	3.60	3.14
TR 308	6.00	3.60	3.06	2.88	2.64
TR 309	7.00	4.20	3.57	3.36	3.08
TR 311	6.00	3.60	3.06	2.88	2.64
TR 312	6.00	3.60	3.06	2.88	2.64
TR 313	6.00	3.60	3.06	2.88	2.64
TR 314	6.00	3.60	3.06	2.88	2.64
TR 315	6.00	3.60	3.06	2.88	2.64
TR 316	6.00	3.60	3.06	2.88	2.64
TR 317	6.00	3.60	3.06	2.88	2.64
TR 318	6.60	3.96	3.36	3.16	2.90
TR 319	6.60	3.96	3.36	3.16	2.90
TR 320	6.00	3.00	3.06	2.88	2.64
TR 321	6.00	3.60	3.06	2.88	2.64
TR 322	6.00	3.60	3.06	2.88	2.64
TR 323	6.60	3.96	3.36	3.13	2.90
TR 324	6.60	3.96	3.36	3.16	2.90
TR 325	6.60	3.96	3.36	3.16	2.90
TR 326	6.60	3.96	3.36	3.16	2.90
TR 327	6.00	3.60	3.06	2.88	2.64
TR 328	6.00	3.60	3.06	2.88	2.64
TR 329	6.00	3.60	3.06	2.88	2.64
TR 330	6.00	3.60	3.06	2.88	2.64
TR 331	6.60	3.96	3.36	3.16	2.90
TR 332	6.60	3.96	3.36	3.16	2.90
TR 333	6.00	3.60	3.06	2.88	2.64
TR 334	6.60	3.96	3.36	3.16	2.90
TR 335	6.60	3.96	3.36	3.16	2.90
TR 336	6.00	3.60	3.06	2.88	2.64
TR 337	6.00	3.60	3.06	2.88	2.64
TR 338	6.00	3.60	3.06	2.88	2.64
TR 339	6.00	3.60	3.06	2.88	2.64
TR 340	6.60	3.96	3.36	3.16	2.90
TR 341	6.60	3.96	3.36	3.16	2.90
TR 342	6.60	3.96	3.36	3.16	2.90
TR 343	6.00	3.60	3.06	2.88	2.64
TR 344	6.00	3.60	3.06	2.88	2.64
TR 345	6.60	3.96	3.36	3.16	2.90
TR 346	6.60	3.96	3.36	3.16	2.90
TR 347	6.25	3.75	3.19	3.00	2.75
TR 348	6.00	3.60	3.06	2.88	2.64
TR 349	6.00	3.60	3.06	2.88	2.64
TR 350	5.00	3.00	2.55	2.40	2.20
TR 351	6.00	3.60	3.06	2.88	2.64
TR 352	.50	.30	.25	.24	.22
TR 353	.50	.30	.25	.24	.22
TR 354		8.70	7.39	6.95	6.38
TR 355		11.10	9.43	8.87	8.13
TR 356		4.50	3.85	3.60	3.14
TR 357		3.00	2.55	2.40	2.09
TR 358		3.75	3.19	3.00	2.62
TR 359		3.75	3.19	3.00	2.62
TR 360		10.80	9.18	8.64	7.92
TR 361		15.00	12.75	12.00	11.00
TR 362		5.40	4.59	4.32	3.76
TR 363		4.18	3.55	3.33	2.90
TR 364		3.51	2.98	2.80	2.44
TR 365		3.78	3.21	3.02	2.63
TR 366		45.00	38.50	36.00	31.40
TR 367		12.00	10.20	9.60	8.80
TR 368		21.00	17.90	16.80	15.40
TR 369		21.00	17.90	16.80	15.40
TR 370		9.00	7.65	7.20	6.60
TR 371		21.00	17.90	16.80	15.40
TR 372		4.50	3.85	3.60	3.14
TR 373		3.60	3.06	2.88	2.64
TR 374		3.60	3.06	2.88	2.64
TR 375		3.37	2.86	2.69	2.35
TR 376		4.18	3.55	3.33	2.90
TR 377		3.24	2.76	2.60	2.26
TR 378		4.32	3.68	3.47	3.01
TR 379		3.91	3.32	3.12	2.73
TR 380		3.91	3.32	3.12	2.73
TR 381		4.05	3.45	3.25	2.85
TR 382		4.45	3.79	3.57	3.10
TR 383		3.78	3.21	3.02	2.64
TR 384		5.13	4.37	4.12	3.58
TR 385		4.05	3.45	3.25	2.85
TR 386		5.13	4.37	4.12	3.58
TR 387		4.18	3.55	3.33	2.90
TR 388		5.26	4.48	4.22	3.67
TR 389		3.78	3.21	3.02	2.64
TR 390		3.91	3.32	3.12	2.73
TR 391		3.91	3.32	3.12	2.73
TR 392		4.18	3.55	3.33	2.90
TR 393		3.65	3.11	2.93	2.55
TR 394		4.05	3.45	3.25	2.85
TR 395		4.18	3.55	3.33	2.90
TR 396		4.05	3.45	3.25	2.85
TR 397		5.40	4.59	4.32	3.76
TR 398		4.05	3.45	3.25	2.85
TR 399		3.51	2.99	2.82	2.44
TR 400		3.65	3.11	2.93	2.55
TR 401		4.32	3.68	3.47	3.01
TR 402		3.91	3.32	3.12	2.73
TR 403		4.05	3.45	3.25	2.83
TR 404		4.18	3.55	3.34	2.93
TR 405		3.78	3.22	3.02	2.64
TR 406		3.10	2.65	2.50	3.14
TR 407		3.91	3.32	3.12	2.73
TR 408		3.51	2.99	2.82	2.44
TR 409		3.65	3.11	2.93	2.55
TR 410		4.05	3.45	3.25	2.83
TR 411		4.05	3.45	3.25	2.83
TR 412		4.18	3.55	3.34	2.93
TR 413		3.65	3.11	2.93	2.55
TR 414		4.18	3.55	3.34	2.93
TR 415		3.91	3.33	3.13	2.72
TR 416		3.78	3.21	3.02	2.63
TR 417		4.05	3.44	3.24	2.82
TR 418		4.18	3.55	3.34	2.93
TR 419		4.18	3.55	3.34	2.93
TR 420		4.05	3.44	3.24	2.82
TR 421		3.91	3.33	3.13	2.72
TR 422		4.18	3.56	3.35	2.91
TR 423		3.51	2.98	2.81	2.44
TR 424		4.05	3.44	3.24	2.82
TR 425		4.45	3.79	3.56	3.10
TR 426		3.91	3.33	3.13	2.72
TR 427		4.18	3.56	3.35	2.91
TR 428		4.45	3.79	3.56	3.10
TR 429		3.78	3.21	3.02	2.63
TR 430		3.78	3.21	3.02	2.63
TR 431		3.51	2.98	2.81	2.44
TR 432		3.64	3.10	2.92	2.54
TR 433		4.18	3.55	3.33	2.90
TR 434		4.32	3.67	3.46	3.00
TR 435		4.45	3.79	3.56	3.10
TR 436		4.18	3.55	3.33	2.90
TR 437		4.05	3.44	3.24	2.82
TR 438		3.78	3.21	3.02	2.63
TR 439		3.51	2.98	2.81	2.44
TR 440		3.51	2.98	2.81	2.44
TR 441		3.51	2.98	2.81	2.44
TR 442		3.64	3.10	2.92	2.54
TR 443		3.64	3.10	2.92	2.54
TR 444		3.78	3.21	3.02	2.63
TR 445		3.78	3.21	3.02	2.63
TR 446		3.51	2.98	2.81	2.44
TR 447		3.78	3.21	3.02	2.63
TR 448		3.51	2.98	2.81	2.44
TR 449		3.64	3.10	2.92	2.54
TR 450		3.24	2.75	2.59	2.25
TR 451		3.51	2.98	2.81	2.44
TR 452		3.78	3.21	3.02	2.63
TR 453		4.05	3.44	3.24	2.82
TR 454		3.91	3.33	3.13	2.72
TR 455		3.91	3.33	3.13	2.72
TR 456		3.51	2.98	2.81	2.44
TR 457		3.51	2.98	2.81	2.44
TR 458		3.78	3.21	3.02	2.63
TR 459		3.64	3.10	2.92	2.54
TR 460		3.51	2.98	2.81	2.44
TR 461		3.51	2.98	2.81	2.44
TR 462		4.99	4.25	4.00	3.47
TR 463		4.86	4.13	3.89	3.38
TR 464		4.72	4.02	3.78	3.28
TR 465		4.59	3.90	3.67	3.19
TR 466		.90	.77	.72	.66
TR 467		5.55	4.62	4.44	4.07
TR 468		3.81	3.24	3.05	2.79
TR 469		6.30	5.36	5.04	4.62
TR 470		4.35	3.68	3.47	3.19
TR 471		3.81	3.24	3.05	2.79

V

PART NO.	LIST	INDUSTRIAL NET NET and 1 to 4	5 to 49	50 to 99	100 to 499
23V03	7.50	4.50	3.82	3.60	3.30
23V04	13.50	8.10	6.88	6.48	5.94
23V07	35.00	21.00	17.85	16.80	15.40
23V08	50.00	30.00	25.50	24.00	20.90
23V09	50.00	30.00	25.50	24.00	20.90
23V11	20.00	12.00	10.20	9.60	8.80
23V12	33.75	20.25	17.17	16.16	14.85
23V13	25.00	15.00	12.75	12.00	11.00
23V14	55.00	33.00	27.05	25.40	24.20
23V17	7.50	4.50	3.82	3.60	3.30
23V18	12.00	7.20	6.12	5.76	5.28
23V19	35.00	21.00	17.85	16.80	15.40
23V20	20.00	12.00	10.20	9.60	8.80
23V21	12.00	7.20	6.12	5.76	5.24
23V22	14.50	8.70	7.40	6.96	6.38
23V23	19.00	11.40	9.67	9.12	8.36
23V24	25.00	15.00	12.75	12.00	11.00
23V25	25.00	15.00	12.75	12.00	11.00
23V26	60.00	36.00	30.60	28.80	26.40
23V27	102.50	61.50	52.30	49.20	45.10
23V28	60.00	36.00	30.60	28.80	26.40
23V32	60.00	36.00	30.60	28.80	26.40
23V33	30.00	18.00	15.30	14.40	13.20
23V34	15.50	9.30	7.90	7.44	6.82
23V35	20.00	12.00	10.20	9.60	8.80
23V36	25.00	15.00	12.75	12.00	11.00
23V37	35.00	21.00	17.85	16.80	15.40
23V38	45.00	27.00	22.95	21.60	19.80
23V39	80.00	48.00	40.80	38.40	35.20
23V40	17.50	10.50	8.92	8.40	7.70
23V41	14.00	8.40	7.14	6.72	6.16
23V42	22.50	13.50	11.48	10.80	9.90
23V44	37.50	22.50	19.13	18.00	16.50
23V45	12.50	7.50	6.38	6.00	5.50
23V46	27.50	16.50	14.62	13.20	11.50
23V47	10.50	6.30	5.36	5.04	4.62
23V48	25.00	15.00	12.75	12.00	11.00
23V49	20.00	12.00	10.20	9.60	8.80
23V50	6.25	3.75	3.19	3.00	2.75
23V51	9.00	5.40	4.60	4.32	3.96
23V52	9.00	5.40	4.60	4.32	3.96
23V53	15.50	9.30	7.90	7.44	6.82
23V54	25.00	15.00	12.75	12.00	11.00
23V55	37.50	22.50	19.13	18.00	16.50
23V56	80.00	48.00	40.80	38.40	35.20
23V57	45.00	27.00	22.95	21.60	19.80
23V58	30.00	18.00	15.30	14.40	13.20
23V59	17.50	10.50	8.92	8.40	7.70
23V60	10.00	6.00	5.10	4.80	4.40
23V61	10.00	6.00	5.10	4.80	4.40
23V62	17.50	10.50	8.92	8.40	7.70
23V63	20.00	12.00	10.20	9.60	8.80
23V64	25.00	15.00	12.75	12.00	11.00
23V65	50.00	30.00	25.50	24.00	22.00
23V66	33.75	20.25	17.17	16.16	14.85
23V67	60.00	36.00	30.60	28.80	26.40
23V68	25.00	15.00	12.75	12.00	11.00
23V69	25.00	15.00	12.75	12.00	11.00
23V70	22.50	13.50	11.48	10.80	9.90
23V71	22.50	13.50	11.48	10.80	9.90
23V72	17.50	10.50	8.92	8.40	7.70
23V73		36.00	30.60	28.50	26.40
23V74	15.50	9.30	7.90	7.44	6.82
23V75	30.00	18.00	15.30	14.40	13.20
23V76	20.00	12.00	10.20	9.60	8.80
23V77	8.75	5.25	4.46	4.20	3.85
23V78	25.00	15.00	12.75	12.00	11.00
23V79	5.00	3.00	2.55	2.40	2.20
23V80	8.00	4.80	4.08	3.84	3.52
23V81	11.50	6.30	5.36	5.04	4.62
23V82	10.00	6.00	5.10	4.80	4.40
23V83	10.00	6.00	5.10	4.80	4.40
23V84		21.00	17.85	16.80	15.40
23V85		40.50	34.43	32.40	29.70
23V86	11.00	6.60	5.61	5.28	4.84
23V87	13.50	8.10	6.88	6.48	5.75
23V88		37.50	31.90	30.00	27.50
23V89	6.00	3.60	3.06	2.88	2.64
23V90	22.50	13.50	11.48	10.80	9.50
23V91		9.30	7.90	7.44	6.49
23V92		10.50	8.92	8.40	7.31
23V93	17.50	10.50	8.92	8.40	7.31
23V94	25.00	15.00	12.75	12.00	11.00
23V95	11.00	6.60	5.61	5.28	4.84
23V96	15.50	9.30	7.90	7.44	6.82
23V97		3.60	3.06	2.88	2.64
23V98		4.50	3.85	3.60	3.14
23V99		5.40	4.59	4.32	3.96
23V100	9.25	5.55	4.72	4.44	4.07
23V101	12.00	7.20	6.12	5.76	5.24
23V102	20.00	12.00	10.20	9.60	8.80
23V103	10.00	6.00	5.10	4.80	4.40
23V104	14.50	8.70	7.40	6.96	6.38
23V105	25.00	15.00	12.75	12.00	11.00
23V106	9.25	5.55	4.72	4.44	4.07
23V107	10.00	6.00	5.10	4.80	4.40
23V108	27.50	16.50	14.02	13.20	12.10
23V109	15.50	9.30	7.90	7.44	6.82
23V110	12.50	7.50	6.38	6.00	5.50
23V111	37.50	22.50	19.13	18.00	16.50
23V112	37.50	22.50	19.13	18.00	16.50
23V113	62.50	37.50	31.90	30.00	27.50
23V114	27.50	16.50	14.02	13.20	12.10
23V115	5.00	3.00	2.55	2.40	2.20
23V116	5.00	3.00	2.55	2.40	2.20
23V117	6.00	3.60	3.06	2.88	2.64
23V118	8.50	5.10	4.33	4.08	3.74
23V119	12.00	7.20	6.12	5.76	5.24
23V120		48.00	40.80	38.40	35.20
23V121	6.75	4.05	3.45	3.24	2.97
23V122	8.75	5.25	4.46	4.20	3.85
23V123		2.04	1.73	1.63	1.49
23V126	27.50	16.50	14.02	13.20	12.10
23V128	19.00	11.40	9.67	9.12	8.36
23V129	30.00	18.00	15.30	14.40	13.20
23V130	70.00	42.00	35.70	33.60	30.80
23V131		45.00	38.25	36.00	33.00
23V132		10.50	8.92	8.40	7.70
23V133	17.50	10.50	8.92	8.40	7.70
23V134	7.50	4.50	3.82	3.60	3.30
23V136		10.50	8.92	8.40	7.70
23V137		24.00	20.40	19.20	17.60
23V138	62.50	37.50	31.90	30.00	27.50
23V139		24.00	20.40	19.20	17.60
23V140		60.00	51.00	48.00	41.80
23V141	5.00	3.00	2.55	2.40	2.20
23V142	13.00	7.80	6.43	6.04	5.72
23V143	25.00	15.00	12.75	12.00	11.00
23V144	12.00	7.20	6.12	5.76	5.24
23V145	12.00	7.20	6.12	5.76	5.24
23V146	14.00	8.40	7.14	6.72	6.16
23V147	5.00	3.00	2.55	2.40	2.20
23V148	10.00	6.00	5.10	4.80	4.40
23V149		10.50	8.92	8.40	7.70
23V150		28.50	24.22	22.80	20.90
23V151	10.00	6.00	5.10	4.80	4.40
23V152	10.00	6.00	5.10	4.80	4.40
23V153	10.00	6.00	5.10	4.80	4.40
23V154	5.00	3.00	2.55	2.40	2.20
23V155	5.00	3.00	2.55	2.40	2.20
23V156	5.00	3.00	2.55	2.40	2.20
23V157	6.00	3.60	3.06	2.88	2.64
23V158	5.00	3.00	2.55	2.40	2.20
23V159	6.00	3.60	3.06	2.88	2.64
23V160	5.00	3.00	2.55	2.40	2.20
23V161		26.25	22.30	21.00	19.25
23V162		21.00	17.85	16.80	15.40
23V163	6.00	3.60	3.06	2.88	2.64
23V165	10.00	6.00	5.10	4.80	4.40
23V166	10.00	6.00	5.10	4.80	4.40
23V167	60.00	36.00	30.60	28.80	26.40
23V168	5.00	3.00	2.55	2.40	2.20
23V169	15.15	9.45	8.03	7.55	6.93
23V170		18.00	15.30	14.40	13.20
23V172	5.00	3.00	2.55	2.40	2.20
23V174		24.00	20.40	19.20	17.60
23V175		24.00	20.40	19.20	17.60
23V176	5.00	3.00	2.55	2.40	2.20
23V177	9.00	5.40	4.60	4.32	3.96
23V178		45.00	38.25	36.00	33.00
23V179		45.00	38.25	36.00	33.00
23V180	25.00	15.00	12.75	12.00	11.00
23V181	20.00	12.00	10.20	9.60	8.80
23V182		45.00	38.25	36.00	33.00
23V183		45.00	38.25	36.00	33.00
23V184		45.00	38.25	36.00	33.00
23V185		45.00	38.25	36.00	33.00
23V186		45.00	38.25	36.00	33.00
23V187		3.15	2.69	2.53	2.31
23V188		6.75	5.73	5.40	4.70
23V189		3.00	2.55	2.40	2.20
23V190		3.00	2.55	2.40	2.20
23V191		5.85	4.98	4.67	4.29
23V192		4.50	3.82	3.60	3.33
23V193		3.00	2.55	2.40	2.20
23V195	6.00	3.60	3.06	2.88	2.64
23V197	100.00	60.00	51.00	48.00	44.00
23V198	12.00	7.20	6.12	5.76	5.24
23V199	21.25	12.75	10.83	10.20	9.35
23V200	100.00	60.00	51.00	48.00	44.00
23V201	60.00	36.00	30.60	28.50	26.40
23V202	16.00	9.60	8.16	7.68	7.04
23V203	20.00	12.00	10.20	9.60	8.80
23V204	25.00	15.00	12.75	12.00	11.00
23V205	50.00	30.00	25.50	24.00	22.00
23V206		75.00	63.75	60.00	52.25
23V207	10.50	6.30	5.36	5.04	4.62
23V208	11.00	6.60	5.61	5.28	4.84
23V210	5.00	3.00	2.55	2.40	2.20
23V211	10.00	6.00	5.10	4.80	4.40
23V212	7.50	4.50	3.82	3.60	3.30
23V214	8.75	5.25	4.46	4.20	3.85
23V215	8.75	5.25	4.46	4.20	3.85
23V216	11.00	6.60	5.61	5.28	4.84
23V218	14.50	8.70	7.40	6.96	6.38
23V221	95.00	57.00	48.50	45.60	42.00
23V222	135.00	81.00	68.80	64.80	59.40
23V223	10.00	6.00	5.10	4.80	4.40
23V224	6.00	3.60	3.06	2.88	2.64
23V225	13.00	7.80	6.43	6.04	5.72
23V226	6.00	3.60	3.06	2.88	2.64
25V01		10.50	8.92	8.40	7.70
25V02		12.00	10.20	9.60	8.80
25V03		16.50	14.02	13.20	11.50
25V04		18.90	16.07	15.12	13.20
25V05		33.00	28.05	26.40	23.00
25V06		16.50	14.02	13.20	11.50
25V07		37.50	31.90	30.00	27.50
25V10		4.80	4.08	3.84	3.52
25V11		6.15	5.23	4.92	4.51
25V12		8.10	6.88	6.48	5.94
25V13		9.60	8.16	7.68	7.04
25V14		15.00	12.75	12.00	11.00
25V15		21.00	17.85	16.80	15.40
25V16		9.60	8.16	7.68	7.04
25V17		12.00	10.20	9.60	8.80
25V18		15.00	12.75	12.00	11.00
25V19		18.00	15.30	14.40	13.20
25V20		15.00	12.75	12.00	11.00
25V21		36.00	30.60	28.80	26.40
25V22		12.75	10.83	10.20	9.35
25V23		12.75	10.83	10.20	9.35
25V24		12.75	10.83	10.20	9.35
25V25		12.75	10.83	10.20	9.35
25V26		15.00	12.75	12.00	11.00
25V27		15.00	12.75	12.00	11.00
25V28		60.00	51.00	48.00	41.80
25V29		24.00	20.40	19.20	17.60
25V30		67.50	57.30	54.00	47.00
25V31		45.00	38.20	36.00	33.30
25V32		90.00	76.50	72.00	66.00
25V33		60.00	51.00	48.00	41.80
25V34		9.00	7.65	7.20	6.27
25V35		27.00	23.00	21.60	18.80
27V13		14.58	12.39	11.67	10.16
27V14		10.12	8.61	8.10	7.05
27V15		8.77	7.46	7.02	6.08
27V16		11.88	10.10	9.52	8.28
27V17		30.00	25.50	24.00	22.00
27V18		30.00	25.50	24.00	22.00
27V19		54.00	46.00	43.20	39.60
27V20		30.00	25.50	24.00	22.00
27V21		36.00	30.60	28.80	26.40
27V22		45.00	38.20	36.00	33.00
27V23		15.00	12.75	12.00	11.00
27V24		45.00	38.20	36.00	33.00
27V25		51.00	43.30	40.80	37.40
27V28		15.00	12.75	12.00	11.00
27V31		10.20	8.67	8.16	7.48
27V32		30.00	25.50	24.00	22.00
27V33		13.50	11.47	10.80	9.40
27V34		14.44	12.28	11.56	10.08
27V35		14.04	11.94	11.24	9.78
27V36		9.99	8.50	8.00	6.96
27V37		9.45	8.03	7.55	6.59
27V38		24.16	20.53	19.34	16.87
27V39		22.41	19.05	17.93	15.64
27V40		16.60	14.10	13.28	11.56
27V41		13.23	11.25	10.59	9.21
27V42		8.64	7.34	6.91	5.99
27V43		30.00	25.50	24.00	22.00
27V44		18.00	15.30	14.40	13.20
27V45		24.00	20.40	19.20	17.60
27V46		30.00	25.50	24.00	22.00
27V47		18.00	15.30	14.40	13.20
27V48		24.00	20.40	19.20	17.60
27V49		30.00	25.50	24.00	22.00
27V50		30.00	25.50	24.00	21.00
27V51		31.50	26.80	25.20	22.00
27V52		42.00	35.70	33.60	29.26
27V53		63.00	53.00	50.00	44.00
27V54		12.00	10.20	9.60	8.80
27V55		12.00	10.20	9.60	8.80
27V56		15.00	12.75	12.00	11.00
27V57		19.50	16.57	15.60	14.30
27V58		22.50	19.13	18.00	16.50
27V60		10.50	8.92	8.40	7.70
27V61		12.00	10.20	9.60	8.36
27V62		12.90	10.97	10.32	9.00
27V63		18.00	15.30	14.40	12.30
27V64		25.50	21.68	20.40	18.70

TRIAD to THORDARSON MEISSNER (T-M)

Cross Reference To Competitor

XR-64-T5

Competitor	T-M
A-1X	20A35
A-4X	20A08
A-5X	20A09
A-6X	20A12
A-7J	20A15
A-9J	25A100
A-10J	25A101
A-11J	25A102
A-12J	25A103
A-13J	25A104
A-21X	20A80
A-23X	24S80
A-31X	20A18
A-33X	20A22
A-35A	20A23 *
A-39A	20A13
A-40J	25A110
A-41J	25A111
A-42Z	20A14
A-50J	25S68
A-51X	22S75
A-52J	25A105
A-53X	24S114
A-55J	25S69
A-56J	25S67
A-57J	25A112
A-58J	25A109
A-64J	25A106
A-65J	25S70
A-66J	25S71
A-67J	25A113
A-68J	25S72
A-69J	25S73
A-70J	25A107
A-77J	25C10
A-78J	25S74
A-79J	25A108
A-81X	20D88
A-83X	20D89
A-85X	20D86
A-200P	25A114
A-202P	25A115
C-1X	20C05
C-2X	20C102
C-3X	20C66
C-4X	20C47
C-5X	20C53
C-6X	20C59††
C-7X	20C06
C-8X	20C48
C-9X	20C07
C-10X	20C09
C-11X	20C08
C-12A	20C10
C-12X	20C11
C-13X	20C12
C-14A	20C13
C-14X	20C14
C-15A	20C15
C-15X	20C16
C-16A	26C45
C-17X	26C93
C-18A	20C17
C-19A	20C18
C-20A	20C22
C-21X	26C43
C-22A	20C23
C-23X	26C44†††
C-24X	26C76
C-25A	20C19
C-26X	20C62
C-27X	26C77
C-28X	26C78
C-29X	20C21
C-30X	20C04
C-31A	20C30
C-32AL	20C32
C-33A	20C31
C-34X	26C79
C-35A	20C33
C-36X	26C80
C-38AL	20C34
C-39A	20C41
C-40X	26C81
C-42AL	20C20
C-43X	20C29
C-45AL	20C24
C-47U	20C25
C-48U	20C26
C-49U	20C27
C-80U	20C28
EA-001	TOR 848
EA-001A	TOR 748
EA-002	TOR 849
EA-002A	TOR 749
EA-003	TOR 850
EA-003A	TOR 750
EA-004	TOR 851
EA-004A	TOR 751
EA-005	TOR 852
EA-005A	TOR 752
EA-007	TOR 853
EA-007A	TOR 753
EA-010	TOR 855
EA-010A	TOR 755
EA-015	TOR 856
EA-015A	TOR 756
EA-020	TOR 857
EA-020A	TOR 757
EA-025	TOR 858
EA-025A	TOR 758
EA-030	TOR 859
EA-030A	TOR 759
EA-040	TOR 860
EA-040A	TOR 760
EA-050	TOR 861
EA-050A	TOR 761
EA-070	TOR 862
EA-070A	TOR 762
EA-100	TOR 864
EA-100A	TOR 764
EA-150	TOR 865
EA-150A	TOR 765
EA-200	TOR 866
EA-200A	TOR 766
EA-250	TOR 867
EA-250A	TOR 767
EA-300	TOR 868
EA-300A	TOR 768
EA-400	TOR 869
EA-400A	TOR 769
EA-500	TOR 870
EA-500A	TOR 770
EA-600	TOR 871
EA-600A	TOR 771
EA-700	TOR 872
EA-700A	TOR 772
EA-1000	TOR 874
EA-1000A	TOR 774
EC-001	TOR 875
EC-001A	TOR 775
EC-002	TOR 876
EC-002A	TOR 776
EC-003	TOR 877
EC-003A	TOR 777
EC-004	TOR 878
EC-004A	TOR 778
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EC-005A	TOR 779
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EC-010A	TOR 781
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EC-015A	TOR 782
EC-020	TOR 883
EC-020A	TOR 783
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EC-030A	TOR 784
EC-040	TOR 885
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EC-050A	TOR 786
EC-070	TOR 887
EC-070A	TOR 787
EC-100	TOR 888
EC-100A	TOR 788
EC-200	TOR 889
EC-200A	TOR 789
EC-250	TOR 890
EC-250A	TOR 790
EC-300	TOR 891
EC-300A	TOR 791
EC-400	TOR 892
EC-400A	TOR 792
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EC-500A	TOR 793
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EC-600A	TOR 794
EC-700	TOR 895
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EC-4000	TOR 900
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EC-5000	TOR 901
EC-5000A	TOR 7101
EC-7000	TOR 902
EC-7000A	TOR 7102
EC-10000	TOR 903
EC-10000A	TOR 7103
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EK-020	TOR 905
EK-020A	TOR 7105
EK-030	TOR 906
EK-030A	TOR 7106
EK-040	TOR 907
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EK-080	TOR 910
EK-080A	TOR 7110
EK-100	TOR 911
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EK-150	TOR 913
EK-150A	TOR 7113
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EK-250	TOR 915
EK-250A	TOR 7115
EK-300	TOR 916
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EK-400	TOR 917
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EK-700A	TOR 7119
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EK-40000	TOR 929
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EM-003	TOR 802
EM-003A	TOR 702
EM-004	TOR 803
EM-004A	TOR 703
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EM-007	TOR 805
EM-007A	TOR 705
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EM-050	TOR 812
EM-050A	TOR 712
EM-060	TOR 813
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EM-150	TOR 816
EM-150A	TOR 716
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EM-400	TOR 820
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EM-500	TOR 821
EM-500A	TOR 721
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EM-700A	TOR 722
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ET-003A	TOR 726
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ET-060	TOR 837
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ET-070A	TOR 738
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ET-500	TOR 845
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ET-1000	TOR-847
ET-1000A	TOR 747
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F-3X	21F93
F-5U	21F02
F-6X	21F92
F-7X	21F94
F-8X	21F60
F-9A	21F64
F-9U	21F65
F-10U	21F20
F-11U	21F67
F-12X	21F63
F-13X	21F21
F-14X	21F09
F-15U	26F66
F-16X	21F10
F-17U	21F76
F-18A	21F42*
F-18X	21F72*
F-19X	21F73
F-20U	21F75
F-21A	21F74
F-22A	21F77
F-23U	21F28*
F-24U	21F78
F-25X	26F67▲
F-26X	21F81
F-27U	21F85
F-28U	21F79
F-29U	21F68
F-30A	21F86
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F-36A	21F24
F-38A	21F89
F-40X	21F82
F-41X	21F83
F-42A	21F90
F-43X	21F71
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F-49U	23V102
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F-80U	23V113
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F-84AC	23V114
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F-91X	23V117
F-92A	23V119
F-93X	23V118
F-94X	23V115
F-102X	23V03
F-104U	23V04
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G-3	GEO 3
G-2H3	GEO 74
G-4	GEO 4
G-4H3	GEO 75
G-5	GEO 5
G-5TS	GEO 76
G-7	GEO 6
G-8	GEO 7
G-9	GEO 8
G-10	GEO 9
G-12	GEO 10
G-14	GEO 11
G-15	GEO 12
G-16	GEO 13
G-17	GEO 14
G-18	GEO 78
G-18TS	GEO 79
G-19	GEO 80
G-20H	GEO 68
G-21	GEO 69
G-22	GEO 71
G-22H	GEO 70
G-23	GEO 72
G-25	GEO 73
G-30	GEO 81
G-30TS	GEO 82
G-31	GEO 22
G-32	GEO 23
G-33	GEO 24
G-34	GEO 25
G-36	GEO 27
G-36TS	GEO 83
G-40	GEO 26
G-40TS	GEO 84
G-48	GEO 28
G-48TS	GEO 85
G-51	GEO 34
G-51A	GEO 35
G-52	GEO 36
G-53	GEO 37
G-53A	GEO 38
G-54	GEO 39
G-57	GEO 41
G-58	GEO 40
G-64	GEO 42
G-65	GEO 43
G-72	GEO 49
G-74	GEO 50
G-80	GEO 56
G-84	GEO 57
G-85	GEO 58
G-92	GEO 59
G-101	GEO 15
G-101TS	GEO 77
G-150	GEO 44
G-155	GEO 45
G-183	GEO 60
G-201	GEO 16
G-235	GEO 29
G-250	GEO 44
G-255	GEO 45
G-266	GEO 51
G-274	GEO 52
G-275	GEO 53
G-276	GEO 54
G-284	GEO 61
G-285	GEO 62
G-301	GEO 17
G-306	GEO 18
G-313	GEO 19
G-315	GEO 20
G-335	GEO 30
G-336	GEO 31
G-350	GEO 46
G-355	GEO 47
G-388	GEO 64
G-389	GEO 65
G-391	GEO 66
G-394	GEO 67
G-401	GEO 21
G-435	GEO 32
G-435TS	GEO 86
G-437	GEO 33
G-437TS	GEO 87
G-455	GEO 48
G-475	GEO 55
G-493	GEO 63
HC-25	27V47
HC-115	27V48
HC-300	27V49
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HS-3	27A72
HS-4	27A73
HS-5	27A75
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HS-11	27A71
HS-14	27A14
HS-15	27A74
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HS-25	27A78
HS-27	27A11
HS-29	27A12
HSM-31	27A80
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HSM-189	27S62
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HSM-192	27S67
HSM-193	27S68
HSM-200	27R18
HSM-201	27R19
HSM-203	27R24
HSM-205	27R61
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HSM-216	27R29
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HSM-237	27F07
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HSM-239	27F09
HSM-240	27F10
HSM-241	27R26
HSM-245	27R28
HS-247	27R30
HSM-270	27V44
HSM-271	27V45
HSM-272	27V46
HS-273P	25A116
HSM-301	27C35
HSM-302	27C12**
HS-303	27C33
HSM-305	27C72
HSM-307	27C74
HSM-309	27C20***
HSM-315	27C76
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HS-331	27C70
HS-333	27C71
HS-335	27C73
HS-339	27C75
HS-341	27C34
HS-401	27R62
HS-402	27R31
HS-405	27R32
HS-407	27R33
HS-409	27R34
HS-413	27R35
HS-415	27R36
HS-417	27R37
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HS-427	27F60
HS-433	27F17
HS-435	27F18
HS-436	27F14
HS-438	27F16
HS-441	27F19
HS-442	27F21
HS-443	27F20
HS-444	27F22
HS-445	27F15
HS-470	27V54
HS-471	27V55
HS-472	27V56
HS-474	27V57
HS-475	27V58
JAF-1	27A81
JAF-2	27A82
JAF-3	27A83
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JAF-35	27A93
JAF-101	27C67
JAF-102	27C68
JO-21	27S27
JO-22	27S28
JZ-1	27A94
JZ-5	27A95
JZ-7	27A96
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JZ-15	27A98
JZ-25	27S86
JZ-26	27S87
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M-4Z	21M55
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M-7AL	21M77
M-12AL	21M62A
M-16AL	21M61A
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N-4M	23V82
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N-35M	23V76
N-50M	23V07
N-51X	23V17
N-52M	23V57
N-53M	23V18
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N-56M	23V55
N-57M	23V44*
N-62AC	23V39*
N-64AC	23V38*
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N-67A	23V74
N-68X	23V80
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N-469A	23V95
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N-471A	23V133
P-1A	24R82
P-3A	24R83
P-5A	24R84
P-7A	24R85
P-9A	24R86
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P-17AL	21P92
PR-21AL	21P72
P-213AL	21P66
P-215AL	21P67
P-216AL	21P68
P-217AL	21P69
P-218AL	21P70
P-220AL	21P71
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R-3A	24R69
R-4A	24R11U ††
R-4B	24R11 ††
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R-5B	22R91
R-6A	24R19U
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R-7B	22R93
R-8A	24R09U
R-8B	24R09
R-9A	24R21U
R-9B	24R21
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R-12A	22R98
R-12B	22R99
R-14A	24R05U
R-14B	24R05
R-16A	24R18 ■
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R-24B	22R65
R-25A	22R59
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R-27A	22R58
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R-30X	24R71
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R-36BC	26R35
R-37BC	26R01
R-38A	26R86 §§
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R-39BC	26R91
R-40BC	26R02
R-41C	24R75
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R-43C	24R77
R-44BS	26R98 ¢
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R-94H	22R03
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R-130HA	26R114
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R-132BC	26R111
R-133A	26R115
R-134A	26R127
R-135BC	26R120
R-136BC	26R132
R-137HA	26R130
R-138A	26R110
R-139A	26R118
R-675A	26R102
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S-3X	24S51
S-4X	22S38
S-5X	22S35
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S-8X	24S82
S-8Z	24S81
S-9X	26S48 †
S-9Z	26S48
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S-11X	24S83
S-11Z	24S84
S-12X	24S53 ¢
S-12Z	26S58
S-13X	22S29
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S-15X	24S56 66
S-16X	22S22
S-17X	24S98
S-18X	26S48 ¢
S-18Z	22S36
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S-41X	22S31
S-41Z	22S32
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S-46A	24S108
S-47Z	24S71
S-48X	22S25
S-48Z	22S26
S-49X	22S33
S-50X	22S34
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S-52X	22S73
S-53X	24S06 #
S-54X	24S61 #
S-55X	24S14 #
S-55Z	26S46
S-56Z	22S79
S-57Z	24S14 #
S-59Z	22S89
S-60A	24S57
S-61Z	24S55 #
S-62X	22S61
S-63X	24S04 #
S-64X	22S47 ¢
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S-67X	26S50
S-68Z	22S52
S-69Z	22S54
S-70Z	24S100
S-71Z	24S102
S-72Z	24S107
S-73X	24S74 ‡‡‡
SR-74K	24S104
S-75K	24S106
S-76Z	22S104
S-77U	22S105
S-78Z	24S101
S-79Z	24S105
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S-130Z	24S112
S-131X	24S109
S-132X	24S110
S-133Z	24S111
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SP-15	27A112
SP-20	27D37
SP-21	27D38
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SP-63	27S107
SP-64	27S108
SP-65	27S109
SP-66	27S110
SP-67	27S111
SP-106	27C79
SP-107	27C80
SP-108	27C81
SP-117	27C82
SP-118	27C83
SP-128	27C84
T-1X	MIT 153
T-2X	MIT 154
T-3X	MIT 155
T-5X	MIT 156
T-11X	MIT 157
T-12X	MIT 158
T-13X	MIT 159
T-14X	MIT 160
T-15X	MIT 161
T-20X	MIT 162
T-21X	MIT 94
T-22X	MIT 163
T-23X	MIT 164
T-24X	TR 235
T-25X	MIT 165
T-26X	TR 236
T-31X	MIT 166
T-32X	TR 237
T-33X	MIT 167
T-34X	TR 240
T-35X	TR 241
T-41X	TR 238
T-42X	TR 239
T-101X	MIT 100
T-102X	MIT 168
TY-23X	TR 242
TY-24X	TR 243
TY-25X	TR 244
TY-26X	TR 245
TY-27XT	TR 233
TY-28XT	TR 232
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TY-40X	TR 253
TY-41X	TR 254
TY-42X	TR 255
TY-43X	TR 256
TY-44X	TR 116
TY-45X	TR 114
TY-46X	TR 257
TY-47X	TR-258
TY-48X	TR 111
TY-49X	TR 259
TY-50X	TR 24 ¢
TY-51X	TR 260
TY-52X	TR 261
TY-53X	TR 194
TY-54X	TR 262
TY-55X	TR 263
TY-56X	TR 264
TY-57X	TR 265
TY-58X	TR 21 ¢
TY-59X	TR 266
TY-60X	TR 267
TY-61X	TR 195
TY-62X	TR 268
TY-63X	TR 196
TY-64X	TR 58
TY-65Z	TR 197
TY-66A	TR 198
TY-67A	TR 199
TY-68S	TR 78
TY-69S	TR 83
TY-70S	TR 85
TY-71S	TR 87
TY-74S	TR 95
TY-75A	TR 355
TY-76A	TR 354
TY-78	TR 269
TY-79	TR 270
TY-80	TR 271
TY-81	TR 272
TY-82	TR 273
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TY-84	TR 275
TY-88	TR 276
TY-89	TR 277
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TY-91	TR 279
TY-92	TR 280
TY-93	TR 281
TY-94	TR 282
TY-99	TR 283
TY-100	TR 284
TY-101	TR 285
TY-102	TR 286
TY-462	TR 288
TY-468	TR 287
TZ-1	MIT 147
TZ-2XT	MIT 148
TZ-5	MIT 149
TZ-7	TR 226
TZ-13	MIT 150
TZ-15	TR 227
TZ-17XT	TR 228
TZ-24XT	TR 228
TZ-25	MIT 151
TZ-26	TR 234
TZ-29XT	TR 230
TZ-32XT	TR 231
TZ-103XT	MIT 152

†† The C-6X is rated at 5H @ 65MADC @ 330 Ohms, while the 20C59 is rated at 7H @ 55MADC @ 200 Ohms. The inductance of the 20C59 will be approximately 6H at the 65MADC level.

††† The C-23X is rated at 1.2H @ 260MADC @ 45 Ohms while the 26C44 is rated at 1H @ 300MADC @ 60 Ohms. The inductance of the 26C44 will be approximately 1.2H @ the 260MADC level.

‡ Competitor's replacement information differs from T-M recommendation. Please consult T-M replacement guide for recommended flyback replacements.

** The HSM-302 is rated at 14H @ 20MADC, 560 Ohms, while the 27C12 is rated at 15H @ 20MADC, 680 Ohms.

*** The HSM-309 is rated at 9H @ 150MADC, 115 Ohms, while the 27C20 is r

UNITED TRANSFORMER CORP. to THORDARSON MEISSNER (T-M)

Cross Reference To Competitor

XR-64-U5

PART NUMBER Competitor	T-M
A-10	25A58
A-11	25A59
A-12	25A18*
A-15	25A64
A-16	25A20
A-17	25A65
A-18	25A21
A-19	25A66
A-20	25A22*
A-21	25A60
A-22	25S10
A-23	25S11
A-24	25S12
A-25	25S13
A-26	25S33*
A-27	25A61
A-28	25S14
A-30	25C06
A-32	25C07
A-33	25A166
A-34	25A67
A-35	25A68
A-36	25A69
A-37	25A70
A-38	25A71
A-39	25A62
A-40	25F26
A-41	25C08
A-42	25C09
A-43	25A63
A-44	25A135
A-45	25S85
A-46	25A138
A-47	25A139
BMI-30	27C386
BMI-50	27C387
BMI-60	27C300
BMI-90	27C388
BMI-100	27C301
BMI-120	27C302
BMI-150	27C389
BMI-200	27C390
BMI-240	27C391
BMI-400	27C303
BMI-500	27C304
BMI-750	27C305
BMI-800	27C392
BMI-1000	27C306
BMI-1500	27C307
BMI-2000	27C308
BMI-3000	27C309
BMI-4000	27C310
BMI-5000	27C311
BMI-10000	27C312
BML-400	27C335
BML-1000	27C336
BPH-50000	27C393
BPH-100000	27C394
BPM-400	27C349
BPM-440	27C395
BPM-500	27C396
BPM-600	27C397
BPM-750	27C350
BPM-800	27C398
BPM-1000	27C351
BPM-1200	27C399
BPM-1500	27C352
BPM-1600	27C400
BPM-2000	27C353
BPM-2500	27C401
BPM-3000	27C402
BPM-3200	27C403
BPM-4000	27C404
BPM-4800	27C405
BPM-5000	27C406
BPM-6400	27C407
BPM-8000	27C408
BPM-10000	27C354
BTI-60	27C313
BTI-100	27C314
BTI-120	27C315
CAT-15	25S56
CAT-20	25S55
CAT-25	25A128
CAT-30	25A99
CAT-40	25A98
CG-1C	25C76
CG-1S	25C77
CG-2L6	25S49
CG-15	25S45
CG-16	25S46
CG-19	25S47
CG-20	25S50
CG-21	25S51
CG-30	25V06
CG-31	25V07
CG-32	25F77
CG-33	25F78
CG-34	25F79
CG-35	25F96
CG-36	25F97
CG-40	25C61
CG-44	25C62
CG-45	25C63
CG-48C	25C64
CG-51AX	25D59
CG-53AX	25D60
CG-59AX	25D61
CG-100	25C65
CG-101	25C69
CG-102	25C66
CG-103	25C70
CG-104	25C67
CG-105	25C71
CG-108	25C68
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CG-112	25C78
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CG-132	25A86
CG-133	25A87
CG-134	25A88
CG-135	25A89
CG-136	25A91
CG-137	25A92
CG-140	25S21
CG-141	25S22
CG-233	25A93
CG-235	25A90
CG-300	25P65
CG-300W	25P92
CG-301	25P66
CG-301W	25P93
CG-302	25P67
CG-302W	25P94
CG-303	25P68
CG-303W	25P95
CG-304	25P69
CG-304W	25P70
CG-305	25P71
CG-305W	25P72
CG-306	25P73
CG-306W	25P74
CG-307	25P75
CG-308	25P76
CG-309	25P77
CG-310	25P78
CG-311	25P79
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CG-312	25P81
CG-315	25R50
CG-316	25R51
CG-333	25A94
CG-422	25R46
CG-428	25R47
CG-429	25R48
CG-431	25R49
CG-433	25A95
CG-710	25S48
CGU-1	25D62
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CGU-4	25S90
CGU-5	25S91
CGU-6	25S92
CGU-7	25S93
CGU-8	25S94
CGU-9	25S95
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CVA-2	25V02
CVA-3	25V03
CVA-4	25V04
CVA-5	25V05
CVL-1	25S57
CVL-2	25S58
CVL-3	25S59
CVM-0	25M81
CVM-1	25M82
CVM-2	25M83
CVM-3	25M84
CVM-4	25M85
CVM-5	25M86
CVP-1	25S52
CVP-2	25S53
CVP-3	25S54
CVP-4	25S86
CVP-5	25S87
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DI-T283	MIT 293
DI-T288	MIT 294
DI-TSH	MIT 295
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DO-T410	MIT 298
DO-T420	MIT 299
DO-T500	MIT 200
DO-TSH	MIT 300
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FHA-25	27A35
FHI-3	27C39
FHI-7	27C40
FHI-11	27C41
FT-1	21F120
FT-2	21F09
FT-3	21F92
FT-4	21F10
FT-5	21F93
FT-6	21F94*
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FT-12	21F99
FT-13	21F100
FT-14	21F101
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H-147	27V73
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H-168	27C55
H-170	27C56
H-171	27C57
H-172	27C58
H-173	27C59
H-174	27C233
H-194	27R13
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H-222	27C42
H-224	27C43
H-225	27A149
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H-284	27C45
H-286	27C46
H-290	27A150
H-291	27A151
H-295	27A152
H-300	27C62
H-461	PUL 23
H-501	PUL 24
H-531	PUL 25
H-561	PUL 26
H-611	PUL 36
H-641	PUL 37
H-671	PUL 38
H-915	27V60
H-925	27V61
H-935	27V62
H-965	27V66
HA-100	25A72
HA-100X	25A73
HA-101	25A74
HA-101X	25A75
HA-103A	25A76
HA-104	25A80
HA-105	25A81
HA-106	25A82
HA-107	25A83
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HA-108X	25A78
HA-113	25S15
HA-114	25S16
HA-130X	25A79
HA-133	25S17
HA-134	25S18
HA-135	25S19
HA-136	25S20
HA-137	25A84
HIT-1	27V50
HIT-2	27V52
HIT-3	27V53
HIT-15	27V51
HIT-450	27V43
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HMI-100	27C410
HMI-200	27C316
HMI-300	27C411
HMI-400	27C317
HMI-500	27C318
HMI-800	27C319
HMI-1000	27C320
HMI-2000	27C321
HMI-3000	27C322
HML-200	27C337
HML-300	27C338
HML-500	27C339
HML-1000	27C340
HP-122	25R44
HP-123	25R45
HPM-500	27C361
HPM-1000	27C362
HPM-1500	27C412
HPM-4000	27C413
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HQA-2	TOR 7213
HQA-3	TOR 7214
HQA-4	TOR 7215
HQA-5	TOR 7216
HQA-6	TOR 7217
HQA-7	TOR 7218
HQA-8	TOR 7219
HQA-9	TOR 7220
HQA-10	TOR 7221
HQA-11	TOR 7222
HQA-12	TOR 7223
HQA-13	TOR 7224
HQA-14	TOR 7225
HQA-15	TOR 7226
HQA-16	TOR 7227
HQA-17	TOR 7228
HQA-18	TOR 7229
HQB-1	TOR 7150
HQB-2	TOR 7151
HQB-3	TOR 7152
HQB-4	TOR 7153
HQB-5	TOR 7154
HQB-6	TOR 7155
HQB-7	TOR 7156
HQB-8	TOR 7157
HQB-9	TOR 7158
HQB-10	TOR 7159
HQB-11	TOR 7160
HQB-12	TOR 7161
HQC-1	TOR 7230
HQC-2	TOR 7231
HQC-3	TOR 7232
HQC-4	TOR 7233
HQC-5	TOR 7234
HQE-1	TOR 7145
HQE-2	TOR 7146
HQE-3	TOR 7147
HQE-4	TOR 7148
HQE-5	TOR 7149
HVC-1	27C180
HVC-2	27C181
HVC-3	27C182
HVC-4	27C183
HVC-5	27C184
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HVV-.04	27C289
HVV-.1	27C290
HVV-.25	27C292
HVV-.6	27C291
HVV-1.5	27C293
HVV-4	27C294
HVV-10	27C295
HVV-25	27C296
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HVV-150	27C298
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LPM-300	27C417
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LPM-1000	27C357
LPM-1500	27C274
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LS-12X	25A142
LS-14X	25A143
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LS-25	25A152
LS-26	25A144
LS-27	25S96
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MET-430	27F81
MET-435	27F136
MET-440	27F137
MET-455	27V82
MET-465	27V83
MET-475	27V84
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MH-4	TOR 7260
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MH-6	TOR 7262
MH-7	TOR 7263
MH-8	TOR 7417
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ML-1	27C237
ML-2	27C238
ML-3	27C239
ML-4	27C242
ML-5	27C241
ML-6	27C240
ML-7	27C243
ML-8	27C244
ML-9	27C246
ML-10	27C245
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MNF-7.35	27C431
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MNF-14.5	27C432
MNF-22	27C435
MNF-30	27C436
MNF-40	27C437
MNF-52.5	27C438
MNF-70	27C439
MO-.1	27C265
MO-.15	27C267
MO-.3	27C266
MO-.5	27C269
MO-1	27C268
MO-2	27C270
MO-5	27C271
MO-7.5	27C273
MO-20*	27C272
MO-50	27C275
MO-100	27C276
MQA-1	TOR 7174
MQA-2	TOR 7175
MQA-3	TOR 7176
MQA-4	TOR 7177
MQA-5	TOR 7178
MQA-6	TOR 7179
MQA-7	TOR 7180
MQA-8	TOR 7181
MQA-9	TOR 7182
MQA-10	TOR 7183
MQA-11	TOR 7184
MQA-12	TOR 7185
MQA-13	TOR 7186
MQA-14	TOR 7187
MQA-15	TOR 7188
MQA-16	TOR 7189
MQA-17	TOR 7190
MQA-18	TOR 7191
MQA-19	TOR 7192
MQA-20	TOR 7235
MQB-1	TOR 7162
MQB-2	TOR 7163
MQB-3	TOR 7164
MQB-4	TOR 7165
MQB-5	TOR 7166
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MQB-8	TOR 7169
MQB-9	TOR 7170
MQB-10	TOR 7171
MQB-11	TOR 7172
MQB-12	TOR 7173
MQB-13	TOR 7236
MQB-14	TOR 7237
MQD-0	TOR 7239
MQD-1	TOR 7240
MQD-2	TOR 7241
MQD-3	TOR 7242
MQD-4	TOR 7243
MQD-5	TOR 7244
MQD-6	TOR 7245
MQD-7	TOR 7246
MQE-0	TOR 7238
MQE-1	TOR 7130
MQE-2	TOR 7131
MQE-3	TOR 7132
MQE-4	TOR 7133
MQE-5	TOR 7134
MQE-6	TOR 7135
MQE-7	TOR 7136
MQE-8	TOR 7137
MQE-9	TOR 7138
MQE-10	TOR 7139
MQE-11	TOR 7140
MQE-12	**TOR 7141**
MQE-13	**TOR 7142**
MQE-14	**TOR 7143**
MQE-15	**TOR 7144**
MQE-16	**TOR 7247**
MQL-0	**27C225**
MQL-1	**27C226**
MQL-2	**27C227**
MQL-3	**27C228**
MQL-4	**27C229**
MQL-5	**27C230**
MQM-2	**27C500**
MQM-16	**27C501**
MQM-40	**27C503**
MQM-300	**27C502**
MQM-600	**27C504**
MW-.05	**TOR 7418**
MW-.10	**TOR 7419**
MW-.25	**TOR 7420**
MW-.5	**TOR 7421**
MW-.75	**TOR 7422**
MW-1	**TOR 7423**
MW-1.2	**TOR 7424**
MW-2	**TOR 7425**
MW-3	**TOR 7426**
MW-5	**TOR 7427**
MWF-22	**27C440**
MWF-30	**27C442**
MWF-40	**27C441**
MWF-52.5	**27C443**
MWF-70	**27C444**
N-583A	**27F36**
N-584A	**27F37**
N-585A	**27F38**
N-586A	**27F39**
N-587A	**27F40**
N-588A	**27F41**
N-589A	**27F42**
N-590A	**27F43**
N-591A	**27F44**
N-592A	**27F45**
N-593A	**27R86**
N-594A	**27R87**
N-595A	**27R88**
N-596A	**27R89**
N-597A	**27R90**
N-598A	**27R91**
N-599A	**27R92**
N-600A	**27R93**
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O-2	25A28
O-3	25A29
O-4	25A35
O-5	25A36
O-6	25A37
O-7	25A38
O-8	25S01
O-9	25S02
O-10	25S03
O-11	25A30
O-12	25A31
O-13	25C01
O-14	25A32
O-15	25A39
O-16	25A33
O-17	25A164
O-18	25A40
O-19	25A41
O-20	25S04
O-21	25S05
O-22	25S06
O-23	25C02
O-24	25C03
O-25	25A34
O-26	25A42
O-27	25A43
O-28	25A44
O-29	25A45
O-30	25A46
O-31	25A47
O-32	25A48
O-33	25A49
O-34	25C04
O-36	25C05
O-37	25A154
O-38	25S114
O-BR	25A165
P-1	25A50
P-2	25A51
P-3	25A52
P-6	25A55
P-7	25A56
P-8	25S07
P-9	25S08
P-10	25S09
P-11	25A53
P-12	25A54
P-15	25A57
P-16	27A99
PF-1	22R47
PF-3	22R48
PF-5	25R56
PF-6	25R57
PF-7	25R58
PIP-1	PUL 39
PIP-2	PUL 40
PIP-3	PUL 41
PIP-4	PUL 42
PIP-5	PUL 43
PIP-6	PUL 44
PIP-7	PUL 45
PIP-8	PUL 46
PIP-9	PUL 47
PIP-10	PUL 48
PIP-11	PUL 49
PIP-12	PUL 50
PLF-25	27C445
PLP-13	27C446
R-14	20C35
R-15	20C45
R-16	20C36
R-17	20C37
R-18	20C48
R-19	20C38
R-20	20C49
R-21	20C39
R-41	23V81
R-42	23V82
R-43	23V83
R-44	23V72*
R-45	23V24
R-46	23V84
R-47	23V91
R-48	23V92
R-49	23V93
R-55	20C47
R-64	23V85
R-72	23V86
R-73	23V87
R-74	23V58
R-75	23V44
R-76	23V88
R-77	23V206
R-78	23V11*
R-79	23V12*
R-80	23V13*
R-81	23V09*
R-86	23V08
R-97	23V90
R-101	22R01
R-102	24R41
R-103	24R04
R-104	24R05
R-105	24R42
R-110	24R43
R-111	24R44
R-112	24R05U*
R-113	24R07U*
R-220	20C40
S-1	25A159
S-2	25A160
S-3	25A161
S-5	25A162
S-6	25A163
S-8	25D65
S-9	25D66
S-10	25D67
S-11	25S61
S-12	25S62
S-13	25S63
S-14	25S64
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S-16	25S66
S-17	25S88
S-18	25M88
S-19	25M89
S-20	25M90
S-21	25M91
S-22	25M92
S-23	25C74
S-24	25C80
S-25	25C81
S-26	25C82
S-27	25C83
S-28	25C84
S-29	25C85
S-30	25C86
S-31	25C87
S-32	25C88
S-33	25C89
S-34	25C90
S-35	25C91
S-36	25C93
S-37	25C94
S-38	25C95
S-39	25R52
S-40	25R53
S-41	25R60
S-42	25R61
S-44	25P56
S-45	25P57
S-46	25P58
S-47	25P59
S-48	25P60
S-49	25P61
S-50	25P62
S-51	25P63
S-52	25P64
S-53	25F20
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S-57	25F23
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S-70	25F34
S-71	25F35
S-72	25F38
S-75	25F36
S-76	25F37
S-77	25V34
S-78	25V35
S-80	25C96
S-81	25C97
SC-3	23V40
SC-4	23V41
SC-5	23V42
SML-70	27A69
SO-1	MIT 141
SO-2	MIT 142
SO-3	MIT 143
SO-4	MIT 144
SO-5	MIT 145
SO-6	MIT 146
SO-7	TR 218
SO-8	TR 219
SO-9	TR 220
SO-10	TR 221
SO-11	TR 222
SO-12	TR 223
SO-13	TR 224
SO-14	TR 225
SO-15	TR 359
SO-16	TR 358
SO-17	TR 357
SO-2P	27A62
SO-3P	27S49
SO-5P	27C66
SO-7P	27A63
SO-8P	27A64
SO-9P	27S52
SO-14P	27A68
SO-15P	27A148
SO-17P	27C234
SO-CH	TR 352
SSO-1	MIT 67
SSO-2	MIT 70
SSO-3	MIT 73¢
SSO-4	MIT 76
SSO-5	MIT 82
SSO-6	MIT 79¢
SSO-7	TR 200
SSO-8	TR 201
SSO-9	TR 202
SSO-10	TR 203
SSO-11	TR 204
SSO-12	TR 205
SSO-13	TR 206
SSO-14	TR 207
SSO-15	TR 208
SSO-16	TR 209
SSO-17	TR 210
SSO-18	TR 211
SSO-19	TR 212
SSO-20	TR 213
SSO-21	TR 214
SSO-22	TR 215
SSO-23	MIT 139
SSO-24	MIT 140
SSO-25	TR 216
SSO-26	TR 217
SSO-27	TR 356
SSO-3P	27S37
SSO-5P	27C63
SSO-8P	27A53
SSO-14P	27A55
SSO-15P	27A56
SSO-19P	27S47
SSO-20P	27S48
SSO-21P

UNITED TRANSFORMER CORP. to THORDARSON MEISSNER (T-M)

Cross Reference To Competor

XR-64-U5

PART NUMBER Competitor	T-M	PART NUMBER Competitor	T-M	PART NUMBER Competitor	T-M	PART NUMBER Competitor	T-M	PART NUMBER Competitor	T-M	PART NUMBER Competitor	T-M
VIC-17	27C219	VIC-22	27C224	W-786	27A03	W-790	27S05	Z-850	27C03	Z-854	27C07
VIC-18	27C220	W-783	27A01	W-787	27S02	W-791	27S06	Z-851	27C04	Z-855	27C08
VIC-19	27C221	W-784	27S01	W-788	27S03	Z-848	27C01	Z-852	27C05	Z-856	27C09
VIC-20	27C222	W-785	27A02	W-789	27S04	Z-849	27C02	Z-853	27C06	Z-857	27C10
VIC-21	27C223										

CHICAGO - STANCOR Industrial Transformers to THORDARSON MEISSNER (T-M)

XR-64-C5

1BC-150	25R21	BM-1	25M78	FH-210H	27F26	PCR-120	25R17	PSD-25	25D56
1BH-150	27R60	BM-2	25M80	FH-215H	27F27	PCR-150	25R18	PSD-100	25D57
1BS-150	25R42	BM-4	25M79	FH-510H	27F30	PCR-200	25R19	PSO-80	25S40
2BC-150	25R22	BO-1	25S23 *	FH-520HB	27F31	PCR-300	25R20	PSO-150	25S41
2BS-150	25R43	BO-2	25S24 *	FH-610	27F92	PCT-14	27A107	PSO-200	25S42
4FH-63	27F105	BO-5	25S25 *	FH-615	27F32	PCT-15	27A108	PSR-55	25R30
4FH-65	27F106	BO-6	25S26 *	FMS-1	27F94	PCT-17	27A109	PSR-70	25R35
4FH-610	27F107	BO-9	25S27 *	FMS-2	27F95	PCT-21	27A110	PSR-85	25R36
4FH-620	27F108	BO-10	25S28 *	FMS-3	27F96	PCT-23	27A111	PSR-105	25R37
4FMS-63	27F102	BO-11	25S29 *	FMS-4	27F97	PCT-25	27A112	PSR-120	25R38
4FMS-65	27F60	BO-12	25S30 *	FMS-5	27F98	PCT-30	27D37	PSR-150	25R39
4FMS-122	27F104	BO-13	25S31 *	FMS-6	27F99	PCT-31	27D38	PSR-200	25R40
4FMS-610	27F61	BO-14	25S75	FMS-7	27F100	PCT-39	27D39	PSR-300	25R41
4FMS-620	27F62	BO-15	25S76	FMS-8	27F101	PCT-43	27S89	R-63	25C48
4FMS-1208	27F103	BOH-1	27S117	FMS-23	27F36	PCT-54	27S95	R-65	25C46
4FMS-2415	27F16	BOH-2	27S118	FMS-53	27F38	PCT-60	27S100	R-67	25C44
4IMS-40	27V54	BOH-4	27S119	FMS-62	27F40	PCT-61	27S101	R-103	25C47
4IMS-160	27V56	BOH-5	27S120	FMS-65	27F41	PCT-62	27S102	R-105	25C45
4PHC-55	27R114	BOH-9	27S121	FMS-210	27F37	PCT-70	27S104	RC-1055	25C26
4PHC-70	27R115	BR-1	25C40	FMS-210H	27F44	PCT-71	27S105	RC-1085	25C28
4PHC-120	27R116	CDC-1	25D52	FMS-510	27F39	PCT-76	27S110	RC-1540	25C25
4PHC-165	27R117	CDS-1	25D58	FMS-510H	27F45	PCT-77	27S111	RC-1555	25C27
4PHC-200A	27R118	CDH-1	27D35	FMS-610	27F42	PCT-116	27C79	RC-1585	25C29
4PHR-300	27R119	CIC-1	25A23	FMS-620	27F43	PCT-117	27C80	RC-8105	25C30
4PMS-40	27R106	CIC-2	25A24	HF-20	25A08	PCT-118	27C81	RC-8150	25C32
4PMS-55	27R107	CIH-1	27A126	HF-20X	25A09	PCT-128	27C83	RC-8200	25C34
4PMS-70	27R108	CIH-2	27A127	HF-22	25A10	PHC-10	27R38	RC-8250	25C36
4PMS-85	27R109	CIS-1	25A25	HF-22X	25A11	PHC-20	27R39	RC-8300	25C37
4PMS-105	27R110	CIS-2	25A26	HF-29	25A11	PHC-40	27R40	RC-12105	25C31
4PMS-120	27R96	CMS-1	25M76	HF-31	25A13	PHC-55	27R41	RC-12150	25C33
4PMS-150	27R111	CMS-3	25M77	HF-32	25A14	PHC-60	27R42	RC-12200	25C35
4PMS-165	27R112	COC-1	25S38	HF-40	25A15	PHC-70	27R43	RH-1055	27C88
4PMS-200A	27R113	COC-2	25S39	HP3-140	27V18	PHC-85	27R44	RH-1085	27C90
4PMS-300	27R99	COH-1	27S122	HRP-400	27R100	PHC-105	27R45	RH-1510	27C85
4RH-255	27C105	COH-2	27S123	HRP-600	27R101	PHC-120	27R46	RH-1520	27C86
4RH-270	27C106	COS-1	25S43	HRP-800	27R102	PHC-150	27R47	RH-1540	27C87
4RH-2120	27C107	COS-2	25S44	HRP-1600	27R103	PHC-165	27R58	RH-1585	27C89
4RH-2165	27C108	DCT-1	TR-82 Δ	HRP-2000	27R104	PHC-200	27R48	RH-1585	27C91
4RH-2200	27C109	DCT-2	TR-92 Δ	HRP-2500	27R105	PHC-200A	27R59	RH-8105	27C92
4RH-2300	27C110	F-1	25F86	IS-50	25V16	PHC-250	27R49	RH-8150	27C94
4RMS-240	27C100	F-2	25F87	IS-100	25V17	PHD-10	27D30	RH-8200	27C96
4RMS-255	27C26	F-3	25F88	IS-150	25V18	PHD-25	27D31	RH-8250	27C98
4RMS-270	27C101	F-4	25F89	IS-250	25V19	PHD-100	27D34 §	RH-8300	27C99
4RMS-285	27C102	F-5	25F90	LPF-1	20C73 ‡	PHO-80	27S12 §§	RH-12105	27C93
4RMS-2105	27C103	F-6	25F91	NSI-1	25C38	PHO-150	27S13	RH-12150	27C95
4RMS-2120	27C28	F-7	25F92	NSI-2	25C39	PHO-200	27S14	RH-12200	27C97
4RMS-2150	27C104	F-8	25F93	P-45	25P82	PHR-55	27R50	RP-400	24R100
4RMS-2165	27C29	F-25	25F56	P-67	25P83	PHR-70	27R51	RP-600	24R101
4RMS-2200	27C30	F-54	25F60	P-107	25P84	PHR-85	27R52	RP-800	24R102
4RMS-2300	27C31	F-58	25F61	P-1240	25P85	PHR-105	27R53	RP-1600	24R103
4RMS-3120	27C73	F-63	25F68	P-1512	25P86	PHR-120	27R54	RP-2000	24R104
AMS-1	27A01	F-65	25F69	P-2126	25P88	PHR-150	27R55	RP-2500	24R105
AMS-2	27S01	F-75	25F71	P-2520	25P87	PHR-200	27R56	RS-1055	25C50
AMS-3	27A02	F-104	25F73	P-3025	25P89	PHR-300	27R57	RS-1085	25C52
AMS-4	27A03	F-106	25F74	P-4353	25P90	PMS-70	27R86	RS-1540	25C49
AMS-5	27S02	F-210	25F57	PCC-40	25R01	PMS-70A	27R87	RS-1555	25C51
AMS-6	27S03	F-210H	25F58	PCC-55	25R02	PMS-150	27R88	RS-1585	25C53
AMS-7	27S04	F-215H	25F59	PCC-60	25R03	PMS-175	27R89	RS-8105	25C54
AMS-8	27S05	F-510H	25F62	PCC-70	25R04	PMS-250	27R90	RS-8150	25C56
AMS-9	27S06	F-516	25F63	PCC-85	25R05	PMS-350	27R91	RS-8200	25C58
BD-1	25D53	F-520HB	25F64	PCC-105	25R06	PMS-550	27R92	RS-8250	25C60
BD-2	25D54	F-530	25F65	PCC-120	25R08	PMS-800	27R93	RS-8300	25C43
BI-1	25A01 *	F-530BX	25F66	PCC-150	25R09	PSC-40	25R23	RS-12105	25C55
BI-2	25A02 *	F-610	25F70	PCC-200	25R10	PSC-55	25R24	RS-12150	25C57
BI-3	25A03 *	F-615	25F67	PCC-250	25R11	PSC-60	25R26	RS-12200	25C59
BI-4	25A04 *	F-712	25F72	PCD-10	25D49	PSC-70	25R27	SD-50	25V10
BI-5	25A05 *	F-725	25F18	PCD-25	25D50	PSC-85	25R28	SD-100	25V11
BI-6	25A06 *	F-1010	25F75	PCD-100	25D51	PSC-105	25R29	SD-150	25V12
BI-7	25A07 *	FH-25	27F24	PCO-80	25S35	PSC-120	25R31	SD-250	25V13
BIH-1	27A120	FH-54	27F28	PCO-150	25S36	PSC-150	25R32	SD-500	25V14
BIH-4	27A121	FH-58	27F29	PCO-200	25S37	PSC-165	25R14	SD-1000	25V15
BIH-6	27A122	FH-63	27F90	PCR-55	25R07	PSC-200	25R33	SPCT-10	TR 466
BIH-7	27A123	FH-65	27F91	PCR-70	25R12	PSC-205	25R15	SR-300	20C60 ‡
BIH-8	27A124	FH-104	27F93	PCR-85	25R13	PSC-250	25R34	SR-500	20C61 ‡
BIH-10	27A125	FH-210	27F25	PCR-105	25R16	PSD-10	25D55		

STANCOR to THORDARSON MEISSNER (T-M)

XR-64-S5

A-52C	20A16	A-3812	21M59	A-3883	24S45	A-4744	20A04 (m)	A-8094	22S21
A-53	20A45	A-3817	21M55	A-3885	24S121	A-4745	20A17 *	A-8095	24S24
A-53C	20A18	A-3818	24S00	A-3891	21M60A	A-4747	20A30	A-8096	24S21
A-62C	20A49	A-3823	24S06	A-3892	21M71	A-4748	20A35	A-8097	24S22
A-63C	20A93	A-3825	24S63	A-3893	21M61A	A-4749	22S51	A-8098	24S117
A-64C	20A48	A-3829	21M69	A-3894	21M72	A-4752	20D31	A-8099	24S126
A-73C	20A22	A-3830	24S55 #	A-3898	21M64	A-4765	20D32	A-8101	24S75
A-2203	24S115	A-3831	24S56	A-3899	21M65	A-4770	22S116	A-8102	24S71
A-2312	26S47	A-3833	20A42	A-4212	20D80 (a)	A-4773	20A24 *	A-8103	24S72
A-2313	24S96	A-3836	22S119	A-4292	20D21	A-4774	20A19 (n)	A-8104	22S109
A-2855	26S46 #	A-3837	24S76	A-4350	20A07	A-4778	20A01	A-8105	24S74
A-3250	24S27	A-3839	25S78	A-4351	25A121	A-4779	20A00	A-8109	24S01 (w)
A-3304	24S58	A-3841	22S77	A-4352	20A31	A-4780	20A11	C-1001	26C85
A-3307	24S119	A-3842	24S25	A-4407	20D20	A-7947	24S46	C-1002	26C86
A-3310	24S91	A-3845	21M67	A-4420	20A28	A-7949	24S47	C-1003	26C87
A-3311	22S64	A-3849	24S64	A-4430	24S120	A-8050	22S106	C-1080	20C82
A-3327	24S99	A-3850	24S08 #	A-4431	24S116	A-8051	22S107	C-1215	20C66
A-3328	24S48	A-3851	24S77	A-4432	24S122	A-8052	22S41	C-1227	20C59 (p)
A-3329	24S49	A-3852	24S12 #	A-4702	20D30	A-8053	22S63	C-1277	20C59 (r)
A-3330	24S85	A-3856	24S04	A-4703	20D81 *	A-8054	22S69	C-1279	20C81
A-3332	24S53	A-3857	24S59	A-4705	20A32	A-8056	22S67	C-1325	26C42
A-3335	24S19 (z)	A-3870	24S14 #	A-4706	20A33	A-8072	22S65	C-1333	20C81
A-3336	24S89	A-3871	21M63	A-4708	20A21	A-8080	24S125	C-1355	20C166
A-3337	24S92*	A-3872	25S77	A-4709	25A123	A-8081	24S124	C-1400	20C76
A-3496	22S48	A-3876	24S50	A-4711	20A101	A-8082	24S123	C-1401	20C77
A-3800	22S71	A-3877	24S51	A-4713	20D23	A-8090	22S118	C-1402	20C78
A-3801	24S57	A-3878	24S52	A-4719	25A122	A-8091	22S81	C-1403	20C31
A-3802	24S79	A-3879	24S98	A-4723	20D89	A-8092	26S49	C-1404	20C33 *
A-3808	21M51	A-3881	24S54	A-4742	20A36	A-8093	24S56 §	C-1410	20C93
								C-1411	20C94
								C-1412	26C90
								C-1413	20C106
								C-1414	20C107
								C-1415	25C46 (s)
								C-1420	20C71
								C-1421	20C54
								C-1515	20C43
								C-1645	20C108
								C-1646	20C105
								C-1702	20C109
								C-1703	20C98
								C-1706	20C47
								C-1707	20C84
								C-1708	20C85
								C-1709	20C48
								C-1710	20C68
								C-1718	20C75
								C-1720	20C110
								C-1721	20C96
								C-1722	20C70
								C-1723	20C47
								C-2301	20C63
								C-2303	26C88
								C-2304	26C89
								C-2305	20C67
								C-2307	20C79
								C-2308	20C69
								C-2309	20C64

PART NUMBER Competitor	T-M
C-2317	20C167
C-2318	20C52
C-2325	26C94
C-2326	26C93
C-2327	26C41
C-2328	26C92
C-2332-1	20C74 ‡
C-2334	26C91
C-2335	25C92
C-2340	20C73 ‡
C-2343	26C77
C-2344	26C40
C-2345	20C50
C-2346	20C51
C-2685	20C00
C-2686	20C01
C-2687	20C02
C-2688	20C03
C-2689	20C100
C-2690	20C25
C-2691	20C26
C-2704	20C09
C-2705	26C45
C-2706	20C19
C-2707	20C102
C-2708	26C81
P-1834-3	21F30
P-3020	21F113
P-3024	21F32
P-3026	21F36 (v)
P-3060	21F58
P-3062	21F37
P-3064	21F59
P-4004	24R38
P-4019	21F41
P-4022	21F56
P-4026	21F34
P-4047	24R93
P-4063	22R18
P-4064	22R77
P-4065	22R78
P-4082	25F94
P-4083	21F102
P-4086	21F38
P-4088	21F104
P-4089	21F42
P-4091	21F110
P-4096	21F47
P-4097	21F29
P-5000	21F04 (b)
P-5002	21F48
P-5008	21F117
P-5009	21F55
P-5014	21F107
P-5015	21F45
P-5016	21F61
P-5059	24R23
P-5062	23V81
P-5063	23V21
P-5064	23V22
P-5065	23V20
P-6001	22R13
P-6007	24R35
P-6008	24R95
P-6010	24R01 (c)
P-6011	24R02
P-6012	24R04
P-6013	24R05
P-6014	24R06
P-6119	22R02 (e)
P-6124	23V73
P-6125	23V27
P-6131	22R19
P-6133	21F31
P-6134	21F09
P-6135	21F13
P-6137	21F65*
P-6138	21F62
P-6139	21F28
P-6141	23V24
P-6143	24R25
P-6144	21F115
P-6146	24R108
P-6160	23V25
P-6161	23V126
P-6166	22R24 (f)
P-6287	23V191
P-6298	23V28
P-6301	22R55
P-6302	21F39
P-6308	21F43
P-6309	21F25
P-6315	24R24
P-6317	24R46
P-6333	21F118
P-6338	21F116
P-6348	24R88
P-6358	24R96
P-6371	25V20
P-6375	23V50
P-6376	23V51
P-6377	23V52
P-6378	23V53
P-6379	23V54
P-6383	23V128
P-6385	23V129
P-6387	23V130
P-6410	23V45
P-6415	23V19
P-6425	24R107
P-6426	22R115
P-6428	21F88*
P-6429	21F24 (t)
P-6430	21F87
P-6431	21F119
P-6432	21F07
P-6433	26F66
P-6454	21F103
P-6455	21F105
P-6456	21F72
P-6457	21F111

PART NUMBER Competitor	T-M
P-6458	21F18
P-6459	24R109
P-6461	21F112
P-6462	21F108
P-6463	21F109
P-6464	21F74
P-6465	21F21 (bb)
P-6466	21F10
P-6467	21F94
P-6468	21F33*
P-6469	21F51
P-6470	22R25
P-6471	22R67
P-6472	22R73
P-6473	22R75
P-6474	22R76
P-6476	22R27
P-6477	22R57
P-6479	22R69
P-6481	22R69
P-6482	22R89
P-6484	22R75
P-6486	22R28
P-6487	22R23
P-6488	22R61
P-6489	22R52
P-6491	22R61
P-6492	21F33*
P-6496	22R46 (g)
P-8028	21P79 *
P-8034	21P77
P-8035	21P96 *
P-8040	21P51
P-8041	21P52
P-8042	21P53
P-8130	26F67
P-8150	24R91 (d)
P-8151	24R30
P-8154	26R84
P-8155	26R63
P-8156	26R73
P-8157	26R87
P-8158	26R14
P-8159	26R68
P-8160	26R82
P-8161	26R67
P-8162	26R97
P-8163	26R65
P-8164	26R71
P-8165	26R74
P-8166	26R70
P-8167	26R72
P-8168	26R81
P-8169	26R95
P-8170	26R86
P-8171	26R85
P-8172	26R44
P-8173	24R89
P-8174	24R90
P-8175	24R21U
P-8176	22R32
P-8177	22R05U
P-8178	22R40
P-8179	24R77
P-8181	26R60
P-8190	26F60
P-8191	26F65
P-8193	23V101
P-8194	23V102
P-8195	TR-294
P-8196	23V122
P-8331	26R138
P-8332	26R50
P-8333	26R137
P-8334	26R88 (x)
P-8335	26R136
P-8336	26R13 (j)
P-8337	26R135
P-8338	26R93 (y)
P-8339	26R45
P-8340	26R57
P-8341	26R54 *
P-8342	26R01 (h)
P-8343	26R141
P-8345	26R21
P-8346	26R139
P-8347	26R140
P-8348	26R133
P-8349	26R134
P-8350	26R69
P-8351	26R15
P-8352	26R33 (k)
P-8353	26R59
P-8355	26R51
P-8356	26R51
P-8357	21F114
P-8358	21F81
P-8359	22R94
P-8360	24R15
PA-8421	26R38
PC-8301	21P73
PC-8302	21P76
PC-8303	21P80
PC-8304	21P84
PC-8305	21P86
PC-8401	24R00U
PC-8402	24R19U
PC-8403	24R09U
PC-8404	24R13U
PC-8405	24R20U
PC-8406	24R01U
PC-8407	24R08U
PC-8408	24R02U
PC-8409	24R40U
PC-8410	24R22U
PC-8411	24R06U
PC-8412	24R07U
PC-8413	24R03
PC-8414	24R27
PC-8417	24R10
PC-8418	24R11U
PC-8419	24R12U
PC-8420	26R31U
PC-8422	24R87
PM-8401	24R00
PM-8402	24R19
PM-8403	24R09
PM-8404	24R13
PM-8405	24R20
PM-8406	24R01
PM-8407	24R08
PM-8408	24R02
PM-8409	24R40
PM-8410	24R22
PM-8411	24R06
PM-8412	24R07
PM-8418	24R11
PM-8419	24R12
PM-8420	26R31
PM-8422	22R06
PM-8423	22R04
PS-8415	26R37
PS-8416	22R39
PSU-3000	23V46
PT-8311	21P88
PT-8312	21P90
PT-8313	21P92
PT-8314	21P94
PT-8315	21P95
PV-6441	23V11
PV-6442	23V12
PV-6443	23V13
PV-6444	23V14
RT-201	23V60
RT-202	23V61
RT-204	23V62
RT-206	23V63
RT-208	23V64
RT-408	23V65
RT-2012	23V66
RT-4012	23V67
RTC-8611	HS-2
RTC-8612	HS-3
RTC-8613	HS-9
RTC-8617	HS-1
RTC-8623	HS-5
RTC-8628	WC-18
RTC-8629	WC-19
RTC-8630	HS-6
TA-1	TR-295
TA-2	TR-296
TA-3	TR-257 †
TA-4	TR-259 †
TA-5	TR-238 †
TA-6	TR-260 †
TA-7	TR-195 †
TA-8	TR-299
TA-9	TR-116
TA-10	TR-258
TA-11	TR-196
TA-12	TR-300
TA-13	TR-301
TA-14	25S81
TA-15	TR-305
TA-16	TR-306
TA-17	TR-307
TA-18	TR-34 ★
TA-19	TR-12
TA-20	TR-101
TA-21	TR-102
TA-22	TR-11
TA-23	TR-103
TA-24	TR-26 ★
TA-25	TR-104
TA-26	TR-105
TA-27	TR-106
TA-28	TR-4
TA-29	TR-107
TA-30	TR-2
TA-31	TR-3
TA-32	TR-108
TA-33	TR-109
TA-34	TR-23 ★
TA-35	TR-7
TA-36	TR-6
TA-37	TR-19
TA-38	TR-5
TA-39	TR-111
TA-40	TR-112
TA-41	TR-113
TA-42	TR-114
TA-43	TR-115
TA-44	TR-117
TA-45	TR-118
TA-46	TR-24
TA-47	TR-119
TA-48	TR-179
TA-50	TR-163
TA-51	TR-186
TA-52	TR-1
TA-53	TR-10
TA-54	TR-17
TA-55	TR-36
TA-56	TR-60
TA-57	TR-63
TA-58	TR-65
TA-59	TR-66
TA-60	TR-67
TA-61	TR-303
TA-62	TR-304
TA-63	TR-261
TC-1	TR-153
TC-2	TR-154
TP-1	23V121
TP-2	23V116
TP-3	23V117
TP-4	23V118(aa)

§ The PHD-100 unit is in an MIL-YY case while the 27D34 is in an MIL-FA case.
§§ The PHO-80 unit is in an MIL-YY case while the 27S12 is in an MIL-JA case.
Δ Transistor Power Supply Transformers—Voltage and Power output ratings are the same; however, circuit details may differ slightly.
‡ Electrical and Mechanical differences exist between these units.
* Mounting dimensions for the competitor's unit are not the same as the T-M units.
# Universal output transformer-The impedance range of these transformers differ slightly.
§ The 24S56 has an additional 2 & 8 Ohm tap.
(a) The 20D80 has an additional 2:1 Turns Ratio Tap.
(b) The P-5000 is rated at 5 Volts CT @ 6 Amps. while the 21F04 is rated at 5 Volts CT @ 8 Amps. Mounting dimensions of the competitor's unit are not the same as the T-M unit.
(c) The P-6010 is rated at 5 Volts @ 3 Amps. while the 24R01 is rated at 5 Volts @ 2 Amps.
(d) The P-8150 is rated at 1550 Volts @ 1.5MADC - case mounting, while the 24R91 is rated at 1800 Volts @ 4MADC - GGV type mounting.
(e) The P-6119 is rated at 300-0-300 at 55MADC while the 22R02 is rated at 300-0-300 at 70MADC.
(f) The P-6166 is rated at 6.3 Volts @ 2.25 Amps. while the 22R24 is rated at 6.3 Volts @ 4.7 Amps. Mounting dimensions are not the same as the T-M unit.
(g) The P-6496 is rated at 12.6 Volts CT @ 2 Amps. while the 22R46 has 2 - 6.3 Volts @ 3 Amps. Windings, which may be connected in Series for 12.6 Volts CT @ 3 Amps. The 22R46 also has a 6 Volt DC Primary Tap.
(h) The 26R01 has a 5 Volt Tap on the 6.3 Volt damper winding.
(i) The P-8336 high voltage is rated at 117 Volts @ 280MADC while the 26R13 high voltage is rated at 140 Volts tapped @ 117 Volts @ 300MADC.
(k) The 26R33 has an additional high voltage tap and an additional 5 Volts @ 3 Amps. winding.
(m) The 20A04 has an additional 6 Ohm Tap.
(n) The A-4774 has a split center tapped secondary while the 20A19 has a secondary center tap but it is not split. A-4774 unit mounted in a vertical channel frame - T-M mounted in a horizontal channel frame but both units have the same mounting dimensions.
(p) The C-1227 has a DC Resistance of 350 Ohms while the 20C59 has a DC Resistance of 200 Ohms.
(r) The C-1277 is rated at 300 Ohms DC Resistance while the 20C59 has a DC Resistance of 200 Ohms.
(s) The C-1415 is rated at 75 Ohms and 7500 Volt test while the 25C46 is rated at 35 Ohms and 9000 Volt test. Mounting dimensions of the competitor's unit are not the same as the T-M unit.
(t) The P-6429 has one of its four secondary windings center tapped, the 21F24 has no center tapped winding.
(v) The P-3026 has an additional low voltage primary tap.
(w) The 24S01 has 2 additional voltage taps.
(x) The P-8334 is rated 6.3 Volts @ 8.5 Amps. while the 26R88 is rated at 6.3 Volts @ 6 Amps.
(y) The P-8338 is rated at 6.7 Volts @ 10 Amps. while the 26R93 has two 6.3 Volts @ 6 Amps. windings that may be connected in parallel to get 6.3 Volts @ 12 Amps. The 26R93 also has an additional 6.3 Volts @ 1 Amp. winding.
(z) The 24S19 has an additional 16 Ohm tap.
(aa) The TP-4 is mounted with coil shields while the 23V118 is mounted with a channel frame.
† Transistor Transformers. Power ratings are different.
★ Transistor Transformers. DC Resistance values are different.

For Mounting Illustrations and Pricing Information See Pages 1518-1527

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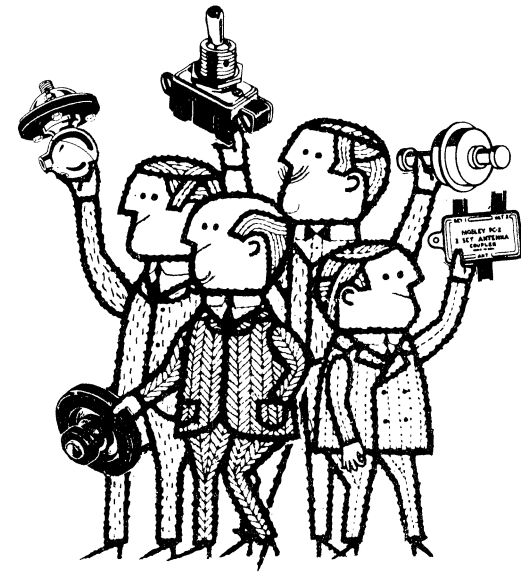

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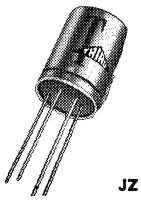
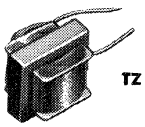
MINIATURES

†† JAF SERIES — Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	Max. Level-DBM	Freq. Resp.	** MTG.
JAF-1‡	600/250/50	50000	0	60-15000	AF
JAF-2‡	600/250/50	250000	0	100-15000	AF
JAF-3	600/250/50	60000 CT.	0	60-15000	AF
JAF-5‡	30/12/4	50000	0	50-15000	AF
JAF-11	15000	50000	10	60-15000	AF
JAF-12	15000	60000 CT.	10	250-15000	AF
JAF-13	15000 (3 Ma.)	95000 CT.	10	250-15000	AF
JAF-14‡	200	½ megohm	10	350-5000	AF
JAF-15	15000	1 megohm	10	300-3000	AF
JAF-21	15000	600/250/50	10	60-15000	AF
JAF-22	15000 (3 Ma.)	600/250/50	10	350-7000	AF
JAF-23	20000 CT.	600/250/50	10	60-15000	AF
JAF-24	10000 CT.	2000 CT.	10	50-20000	AF
JAF-25	12000CT.(2 Ma.)	600 CT./150	12	50-15000	AF
JAF-26	50000CT.(.5Ma.)	600 CT./150	10	100-15000	AF
JAF-31‡	600/250/50	600/250/50	10	60-15000	AF
JAF-32	1500 CT. (2Ma.)	600 CT./150	14	20-20000	AF
JAF-33‡	5000 CT.	5000 CT.	10	60-15000	AF
JAF-34	500 CT.	500 CT./125	14	50-20000	AF
JAF-35	600 CT.	2000 CT./500	14	50-20000	AF
JAF-101	50 h.-.75 Ma.				AF
JAF-102	6 HY.—3 MA. or 4 HY.—6 Ma.				



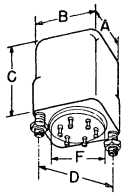
JZ



TZ

SUB-MINIATURE AUDIO — Hermetically Sealed

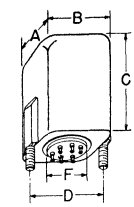
Type No.	Primary Impedance	Secondary Impedance	DC Res. Ohms (Approx.) Pri.	Sec.	** Case
JZ-1	600/250/50	60000	350	4100	JZ
JZ-5	30/12/4	50000	11.5	3800	JZ
JZ-7	30/12/4	1000	12	480	JZ
JZ-13	15000 (1. Ma.)	135000 CT.	1150	4400	JZ
JZ-15	20000 (.5 Ma.)	1200/600/100	2700	350	JZ
JZ-25	10000 (1 Ma.)	200	1500	120	JZ
JZ-26	1000 (5 Ma.)	50	355	30	JZ



AF
AJ

SUB-MINIATURE AUDIO — Open Frame

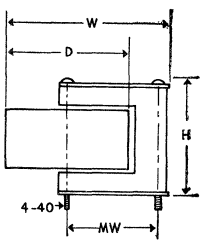
Type No.	Primary Impedance	Secondary Impedance	DC Res. Ohms (Approx.) Pri.	Sec.
TZ-1	600/250/50	60000	350	4100
TZ-2XT	200 CT.	200000	35	5000
TZ-5	30/12/4	50000	6	3500
TZ-7	30/12/4	1000	5	480
TZ-13	15000 (1 Ma.)	135000 CT.	985	4400
TZ-15	20000 (.5 Ma.)	1200/600/100	2700	350
TZ-24XT	25000 CT.	500 CT.	2000	60
TZ-17XT	10000 CT.	2000 CT	1000	250
TZ-29XT	10000 CT.	10,000 CT	1100	1400
TZ-25	10000 1 Ma.)	200	1500	120
TZ-32XT	1500 CT.	600 CT./150	160	65
TZ-26	1000 (5 Ma.)	50	355	20
TZ-28	600	50	95	11
TZ-103XT	4 Hy. or 1 Hy.	—	400	—
T-41X	1000 (10 Ma.)	200 CT.	430	130
T-42X	9800 (2 Ma.)	16	855	1.7
TY-44X	1000 (10 Ma.)	16/8/4	180	3.8
TY-47X	2000 CT.(10 Ma.)	16/8/4	260	4



AG
AH

TRANSFORMERS FOR TRANSISTOR POWER SUPPLIES

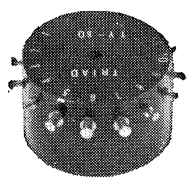
Type No.	D.C. Volts Out of Rect.	D.C. Ma. Max.	Dimensions—Inches H	W	D	MW
TY-68S	250	65	1¾	1¾	1 11/32	1½
TY-69S	300	100	1⅞	2⅜	1⅞	1½
TY-70S	325	150	2	2⅜	2 7/16	1½
TY-71S	375	200	2	2⅜	2 7/16	1½
TY-74S	600	200	2	4⅛	3	3¾



TY-S

EPOXY MOLDED TOROIDAL TYPE

Type No.	D.C. Source Volts	D.C. Volts Out Of Rectifier	D.C. Ma. Max.	Dimension—Inches Dia.	Ht.	Wt. Lbs.
TY-78	12.6	250/125	100	1¾	1 1/16	.35
TY-79	12.6	300/150	200	1¾	1	.35
TY-80	12.6	325/162.5	150	1¾	1	.35
TY-81	12.6	375/187.5	200	2	1	.50
TY-82	12.6	450/225	150	2	1	.50
TY-83	12.6	500/250	250	2¾	1⅜	.85
TY-84	12.6	600/300	200	2¾	1⅜	1.00
TY-85	12.6	600/300	350	2⅞	2½	2.00
•TY-86	12.6	425/212.5	350	2¾	1⅜	1.00
TY-88	28	250/125	80	1 5/16	5/16	.25
TY-89	28	300/150	100	1¾	1 1/16	.35
TY-90	28	325/162.5	200	1¾	1	.35
TY-91	28	375/187.5	200	2	1	.50
TY-92	28	450/225	200	2	1	.50
TY-93	28	500/250	250	2¾	1⅜	.85
TY-94	28	600/300	200	2¾	1⅜	1.00
TY-99	6.3	300/150	100	1¾	1	.35
TY-100	6.3	325/162.5	150	2	1	.50
TY-101	6.3	375/187.5	200	2¾	1⅜	1.00
TY-102	6.3	450/225	150	2¾	1⅜	1.00



TY-MOLDED

‡Static Shield •New item

†† MINIATURE AUDIO — "Trijets"

Type No.	Primary Impedance	Secondary Impedance	Max. Level-DBM	Freq. Resp.
T-1X‡	600/250/50	50000	0	60-15000
T-2X‡	600/250/50	250000	0	100-15000
T-3X	600/250/50	60000 CT.	0	60-15000
T-5X‡	30/12/4	50000	0	50-15000
T-11X	15000	50000	10	60-15000
T-12X	15000	60000 CT.	10	60-15000
T-13X	15000 (3 Ma.)	950000 CT.	10	250-15000
T-14X‡	200	500000	10	200-10000
T-15X	15000	1 Megohm	10	150-15000
T-20X	15000	600/250/50	10	60-15000
T-21X	3000	50	10	100-15000
T-22X	15000 (3 Ma.)	600/250/50	10	100-50000
T-23X	2000 CT.	600/250/50	10	40-30000
T-24X	10000 CT.	2000 CT.	10	50-20000
T-25X	12000 CT.(2 Ma.)	600 CT. 150	10	50-16000
T-26X	50000 CT.(.5 Ma.)	600 CT./150	10	100-15000
T-31X‡	600/250/50	600/250/50	10	50-15000
T-32X	1500 CT. (2 Ma.)	600 CT./150	13	50-20000
T-33X‡	5000 CT.	5000 CT.	10	60-15000
T-34X	500 CT.	500 CT./125	13	50-20000
T-35X	600 CT.	2000 CT./500	13	50-20000
T-101X	50 henries @ .75 Ma.			
T-102X	6 Hy.-3 Ma. or 4 Hy.-6 Ma.			

††Low frequency loss will result from DC in windings other than where specified.

**See Case Chart on Triad Page 15

MINIATURES

TRANSISTOR TRANSFORMERS

Type No.	Primary Matching Impedance	Primary Current MA	Secondary Matching Impedance	Maximum Level
TY-23X	50000	.5	500 CT.	100 MW
TY-24X	50000	.5	3000 CT.	200 MW
TY-25X	100000	.5	200 CT.	200 MW
TY-26X	100000	.5	3000 CT.	200 MW
TY-27XT	500 CT.	2	500 CT.	10 MW
TY-28XT	500 CT.	2	200 CT.	10 MW
TY-29X	24 CT.	500	8/4	8W
TY-30X	100 CT.	100	8/4	2W
TY-31X	200 CT.	50	8/4	2W
TY-32X	200 CT.	2	2000 CT.	200 MW
TY-33X	400 CT.	5	16/8/4	200 MW
TY-34X	400 CT.	5	2000 CT.	200 MW
TY-35X	500 CT.	2	150 CT.	100 MW
TY-36X	2000	2	1500 CT.	200 MW
TY-37X	2000 CT.	4	8000 CT.	200 MW
TY-38X	3000 CT.	4	1000 CT.	200 MW
TY-39X	4000 CT.		16/8/4	200 MW
TY-40X	5000	1	200 CT.	100 MW
TY-41X	16000	1	4000	100 MW
TY-42X	20000	.5	8/4	100 MW
TY-43X	20000	.5	800 CT.	100 MW
TY-44X	1000	10	16/8/4	200 MW

Continued on TRIAD Page 2

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MINIATURES (Continued)

Type No.	Primary Matching Impedance	Primary Current MA	Secondary Matching Impedance	Maximum Level
TY-45X	500 CT.	5	16/8/4	200 MW
TY-46X	100	100	1000 CT.	1 W
TY-47X	2000 CT.	10	16/8/4	200 MW
TY-48X	100 CT.	40	16/8/4	.5 W
TY-49X	500 CT.	12	5000 CT.	1 W
TY-50X	125000	0	2000 CT.	40 MW
TY-51X	2000 CT.	10	200 CT.	100 MW
TY-52X	20000 CT.	1	2000 CT.	200 MW
TY-53X	200 CT.	10	400 CT.	6 W
TY-54X	15000	1.5	200 CT.	200 MW
TY-55X	2000 CT.	2	500 CT.	200 MW
TY-56X	10000	1	2000 CT.	200 MW
TY-57X	250 CT.	10	16/8/4	200 MW
TY-58X	125 CT.	15	8/4	200 MW
TY-59X	5000 CT.	1	50000 CT.	200 MW
TY-60X	200000	0	1000	100 MW
TY-61X	100	100	100 CT.	4 W
TY-62X	10000	2	4	100 MW
TY-63X	48 CT.	275	16/8	8 W
TY-64X	32 CT.	575	16/8/4	10 W
TY-65Z	32 CT.	575	6K/4K/3K	10 W
TY-66A	6 CT.	5A	6K/4K/3K	40 W
TY-67A	6 CT.	5A	16/8/4	40 W

†† JO SERIES — Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	Max. Level-DBM	Freq. Resp.	Case
JO-1	600/250/50	50000	0	60-15000	JOA
JO-2	600/250/50	250000	0	60-15000	JOA
JO-3	600/250/50	60000 CT.	0	50150000	JOA
JO-5	30/12/4	50000	0	50-12000	JOA
JO-11	15000	60000	10	50-15000	JOB
JO-12	15000	60000 CT.	10	50-15000	JOB
JO-13	15000-3 Ma.	95000 CT.	10	50-15000	JOB
JO-21	15000	600/250/50	10	20-20000	JOB
JO-22	15000-3 Ma.	600/250/50	10	100-10000	JOB
JO-23	20000 CT.	600/250/50	10	40-30000	JOB
JO-31	600/250/50	600/250/50	10	40-20000	JOB
JO-101	50 h.-2 Ma.				JOB

DC TO AC TRANSISTOR TRANSFORMERS

Type	Primary	Secondary		
TY-75A	12v	115v	60cps	115 watts
TY-76A	12v	115v	60cps	60 watts
TY-468	28v	115v	400cps	60 watts
TY-462	12v	115v	400cps	60 watts

DC TO DC CONVERTER TRANSFORMERS
For use in blocking oscillator type power supplies

No. Type	L.	W.	H.	Mtg. Centers	*Typical Operation Input	Output
TY-200X	1⅝	⅞	13/16	1⅜	3VDC @ 20 Ma.	1050VDC @ 25 μa
TY-201TZ	½	1/16	7/16	—	4VDC @ 15 Ma.	500VDC @ 50 μa
TY202X	1⅝	⅞	13/16	1⅜	3VDC @ 45 Ma.	550VDC @ 80 μa

POWER COMPONENTS
HERMETICALLY SEALED

Combined PLATE and FILAMENT Transformers
Primary 115V — 50/60 cycle

Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Filaments	F Dim. (Min.) Inches	Case
HSM-200	120	100	6.3 CT.-1.6A.	1	FA
HSM-201	500 CT.	20	6.3 CT.-2A.	1 1/16	GA
HSM-202	120	20	6.3 CT.-.6A.	1 5/16	EA
HSM-203	600 CT.	50	6.3 CT.-2.5A. 5 -2A.	1 1/16	JB
HSM-205	700 CT.	70	6.3 CT.-3A. 5 -3A.	1 1/16	JA
HSM-207	700 CT.	120	6.3 CT.-5A. 5 -3A.	1 1/16	KA
HSM-208	626 CT.	200	6.3/5.0-3A. 6.3 CT. 5	1 1/16	KA
HSM-241	700 CT.- 70V. bias.tap.	150	6.3 CT.-6A. 6.3-V. -2A. 5 -3A.	1 1/16	LA
HSM-212	1000/ 800 CT.	190 (ch. in.) 150 (cd. in.)	6.3/5-4A. 6.3 CT.-4A. 6.3 V-4A.	1 1/16	FA
HSM-245	800/ 700 CT. 70 V. bias tap.	200	6.3 CT.-6A. 6.3-V. -4A. 5 -6A.	1 1/16	MA
HSM-216	1000/ 800 CT.	254 (ch. in.) 200 (cd. in.)	6.3/5-4A. 6.3 CT.-5A. 6.3-5A.	1 1/16	MA
HS-247	800/ 700 CT. 70 V. bias tap.	300	6.3 CT.-8A. 6.3-V. -4A. 5 -6A.	1 1/16	GP-15
HSM-218	1000/ 800 CT.	300 (ch. in.) 235 (cd. in.)	6.3/5-6A. 6.3 CT.-6A. 6.3-6A.	1 1/16	GP-15
HSM-219	(115/ 230 pri.) 760/ 1600 CT.	40/230 (ch.input)		Spcl.	GP-15

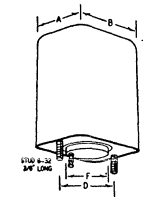
All types electrostatically shielded
GP-15 dimens. 4¾" x 5⅞" x 6⅝" high. Wt. approx. 22 lbs.
Mtg. centers 3¾" x 4⅞".

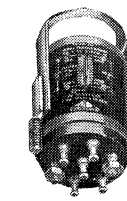
Combined PLATE and FILAMENT Transformers
Primary 115V—400 cycle to operate 380 to 1500 cycles

Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Filaments	Insul. Test Volt.	F Dim. (Min.) Inches	Case
HS-402	475 CT.	20	6.3 CT.-1.5A.	1500	13/16	AJ
HS-401	500 CT.	40	6.3 CT.-1A. 6.3-1A	1500	1	EB
HS-400	125	25	6.3 CT.-8A.	1500	29/32	AH
HS-404	500 CT.	120	6.3 CT.-3A. 6.3/5.0-3A.	1500	15/16	FA
HS-405	600 CT.	70	6.3 CT.-2A. 6.3-2A. *6.3-2A.	1500	1 1/16	GA
HS-407	600 CT.	120	6.3 CT.-3.5A. 6.3-3.5A. *6.3/5-3A.	1500	1 1/16	JB
HS-409	700 CT.	150	6.3 CT.-4A. *6.3/5-3A.	1500	1 1/16	HA
HS-413	450 CT.	200	6.3 CT.-6A. 6.3 -6A. *6.3/5-4A.	1500	1 1/16	JA
HS-415	800/ 600 CT.	200	63. CT.-6A. 6.3-6A. 6.3/5-6A.	2500	1 1/16	KB
HS-417	800/ 600 CT.	300	6.3 CT.-6A. 6.3-6A. 6.3/5-6A.	2500	1 1/16	LA

* Tapped for 5 volt rectifier use. All types electrostatically shielded.

HS Series





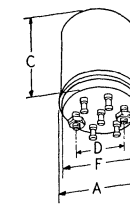
JO Series

SOLID STATE LOW-VOLTAGE TRANSFORMER
Primary 10/115/125 volts — 50/60 cycles

Type No.	Secondary AC Volts	Secondary RMS Amps	Rectifier Circuit CT. Full Wave	Rectifier Circuit Bridge FW	Case
•HSM-248	35 CT.	3	14.5v	29v	KA

AUDIO INTERSTAGE Transformers

Type No.	Primary Imped.	Turn Ratio	Freq. Resp.	Power Output	Shld'g	Case
HS-23	15000	1:2.7	20-20000	40 MW	P-3	GP-4
HS-25	15000	1:2.72 overall	20-20000	75 MW	P-1	GP-4
HS-35	15000	1:2.72 overall	20-20000	26 MW	P-1	GP-2
HS-27	20000/ 5000	1:1.72 overall	20-20000	130 MW	P-1	GP-4
HS-29	20000/ 5000	1:2 overall	20-20000	30 MW	P-5	GP-4
HSM-31	20000/ 5000	1:1 or 2:1	20-20000	3 W		FA
HS-32	15000 (6 Ma.)	1:2 overall	20-15000	200 MW	P-1	GP-5



•New item

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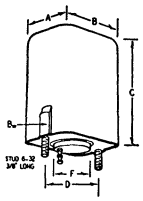
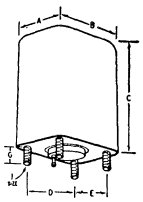
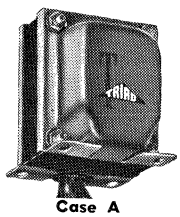


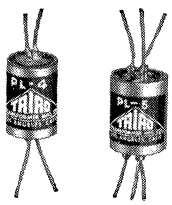
GP 1, 2, 3



MIL-T-27A CASE

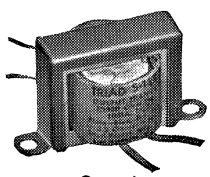


Case A

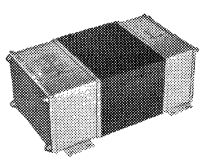


PL-4 PL-5

PL-6



Case X



Case SC

POWER OUTPUT to Line and VC. Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	Max. Level-Watts	Freq. Resp.	** Case
HS-71	10000 (10 Ma.)	600/150	2	150-15000	AH-2
HS-73	5000 (40 Ma.)	500/250/ 16/8/4	5	70-15000	AJ-2
HS-75	1000 CT. (50 Ma. bal.)	500/250/ 16/8/4	10	100-25000	EB
HS-77	9000 CT. (120 Ma. bal.)	500/250/ 16/8/4	25	70-20000	GA

LOW LEVEL AUDIO

AUDIO INPUT TRANSFORMERS Hermetically Sealed

Type No.	Primary Imped.	Turn Ratio	Freq. Resp.	Power Output MW	Shld'g	** Case
HS-1	600*/250*/ 150/62.5	1:11.3	20-20000	10	P-5	GP-4
HS-11	Same as above				P-1	GP-2
HS-3	600*/250*/ 150/62.5	1:14 overall	20-20000	10	P-5	GP-4
HS-4	Same as above				P-3	GP-4
HS-14	Same as above				P-1	GP-3
HS-15	600*/250*/ 150/62.5 (10 Ma.)	1:8 overall	30-20000	100	P-3	GP-5
HS-5	30	1:65.7	40-12000	1	P-5	GP-4
■HS-8	600*/250** 150/62.5	1:14 overall	20-20000	100	P-1	GP-4

*Balanced center tap.

OUTPUT, MIXING, MATCHING, BRIDGING

Type No.	Primary Imped.	Secondary Impedance	Freq. Resp.	Power Output MW	Shld'g	** Case
HS-50	15000	600*/250*/ 150/62.5	20-20000	400	P-3	GP-4
HS-60	15000	600*/350*/ 150/62.5	20-20000	20	P-1	GP-4
HS-61	15000 (5 Ma.)	600*/250*/ 150/6.25	40-15000	200	P-1	GP-5
HS-52	20000 CT./ 5000	600*/250*/ 150/6.25	20-20000	400	P-1	GP-4
HS-54	20000 CT./ 5000	600*/250*/ 150/6.25	20-20000	30	P-5	GP-4
HS-56	600*/250*/ 150*62.5	600*/250*/ 150/6.25	10-30000	100	P-3	GP-4
HS-66	600*/250*/ 150*62.5	600*/250*/ 150/6.25	10-30000	100	P-1	GP-3
HS-58	600*/250*/ 150*62.5	600*/250*/ 150/6.25	20-30000	50	P-3H	GP-5

* Balanced center tap.

POWER COMPONENTS

Type No.	Primary Volts	Secondary Volts	Secondary Amperes	Insulation Test Voltage	** Case
HSM-223	115	6.3	0.6	1500	AJ-2
HSM-225	105-115-125	6.3 CT.	2	1500	EA
HSM-226	105-115-125	6.3 CT.	3.6	1500	FA
HSM-224	105-115-125	6.3 CT.	5.5	2500	HB
HSM-234	105-115-125	†6.3 CT. 6.3	10 10	2500	KA
HSM-227	105-115-125	†6.3 CT. 6.3	3 3	2500	GA
HSM-229	105-115-125	6.3 CT.	8	2500	JB
HSM-233	105-115-125	12.6 CT.	.8	1500	EA
HSM-237	105-115-125	12.6 CT.	2	2000	FA
HSM-230	105-115-125	24 CT.	0.8	1500	FA
HSM-239	105-115-125	24 CT.	1.5	2500	GA
HSM-240	115/230	†12.6 CT. †12.6	1.5 1.5	2500	GA
HSM-236	105-115-125	†12.6 CT. 12.6	2 2	2500	JB
HSM-228	105-115-125	†6.3 CT. 6.3	6 6	2500	JA
HSM-231	105-115-125	6.3 CT. 5 CT.	5 3	2500	JB
HSM-235	105-115-125	2.5 CT. 10 CT.	10 10	7500 2500	MA

† Series or parallel connections.

** See case chart Triad Page 15.

■Discontinued item. Available until supply is exhausted

POWER COMPONENTS (cont.)

HSM-238	105-115-125	†26 CT. †26	2 2	2500	JA

FILAMENT Transformers, 380/1500 cycle

Type No.	Primary Volts	Secondary Volts	Secondary Amperes	Insulation Test Voltage	** Case
HS-436	115	6.3 CT.	1	1500	AH
HS-425	105-115-125	6.3 CT.	2	1500	AJ-2
HS-427	105-115-125	6.3 CT.	5	2500	EA
HS-445	105-115-125	24 CT.	3	2500	EA
HS-438	105-115-125	24 CT.	1.5	1500	EA
HS-433	105-115-125	*6.3 CT. *6.3	5 5	2500	FA
HS-435	105-115-125	*6.3 CT. *6.3 †6.3/5	3.5 3.5 3	2000	FA
HS-441	105-115-125	*5 CT. *5 2.5 CT.	10 10 10	2000 7500	HA
HS-443	105-115-125	*12.6 CT. *12.6	0.8 0.8	1500	AJ-2
HS-442△	57.5-99.7-115-120 Single phase.	*12.6 CT. *12.6	2 2	1500	EA
HS-444△	57.5-99.7-115-120	*26 CT. *26 CT.	2 2	2000	FA

△ Two Units can be used, 115 volt 3 phase to 26 volt 2 phase, Scott-connected. * Series or parallel connection. † 5 volt tap for filament type rectifiers.

HIGH FIDELITY OUTPUT

HIGH LEVEL OUTPUT — Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	Freq. Resp.	Max. Level Watts	F Di. Min. In.	** Case
HSM-79	20000 CT. (20 Ma.) or 5000 (40 Ma.)	16/8/4	40-20000	5	1 7/16	FA
HSM-80	20000 CT. (20 Ma.) or 5000 (40 Ma.)	600/ 250 CT. or 150/62.5	40-20000	5	1 7/16	FA
HSM-81	8000 CT. Split primary.	16/8/4	7-50000	15	1 7/16	JB
HSM-82	8000 CT.	600/ 250/125	7-50000	15	1 7/16	JB
HSM-181	8000/ 2000 CT. Split primary.	16/8/4	7-50000	15	1 7/16	JB
HSM-182	8000/ 2000 CT. Split primary.	600/ 250/125	7-50000	15	1 7/16	JB
HSM-84	5000 CT.	16/8/4	15-30000	20	1 7/16	JB
HSM-184	8000	16/8/4	10-50000	25	1 7/16	KB
HSM-189	10000/ 2500 CT. Split primary.	16/8/4	7-50000	25	1 7/16	KB
HSM-190	10000/ 2500 CT. Split primary.	500/ 250/125	7-50000	25	1 7/16	KB
HSM-186	6600 CT. or 1650 CT. Split primary.	16/8/4	7-50000	25	1 7/16	KB
HSM-187	6600 CT. or 1650 CT. Split primary.	500/ 250/125 250/125	7-50000	25	1 7/16	KB

(Continued on next page.)

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HIGH FIDELITY OUTPUT (cont.)

HSM-94	4500 CT.	16/8/4	7-50000	55	1⅞6	LA
HSM-192	4000 CT. or 1000/445 CT. Split primary.	16/8/4	7-50000	65	1⅞6	LA
■HSM-193	4000 CT. or 1000/445 CT. Split primary.	500/150/125	7-50000	65	1⅞6	LA

HIGH LEVEL OUTPUT

Type No.	Primary Impedance	Secondary Impedance	Output Watts
S-34X	4000 CT.	32/16/8	7.5
S-31A	8000 CT.	16/8/4	15
S-32A	8000 CT.	500/250/125	15
†S-142A	8000 CT.	16/8/4	15
S-35A	5000 CT.	16/8/4	20
S-36A	5000 CT.	500/250/125	20
†S-144A	8000 CT.	16/8/4	25
†S-146A	6600 CT.	16/8/4	25
†S-148A	10000 CT.	16/8/4	25
S-42A	4500 CT.	16/8/4	50
†S-152A	4000 CT.	16/8/4	65
SR-45Z*	4000/2000/1000/500	16/8/4	10
S-46A	2000/1000/500/250	16/8/4	20
†SX-201	3300 ohms CT.	4-8-16 ohms	10-15
†SX-202	4500 ohms CT.	4-8-16 ohms	10-15
SX-203	5000 ohms	4-8-16 ohms	5-7
SX-204	5000 ohms CT.	4-8-16 ohms	10-15
SX-205	6600 ohms CT.	4-8-16 ohms	10-15
†SX-206	6600 ohms CT.	4-8-16 ohms	10-15
†SX-207	8000 ohms CT.	4-8-16 ohms	10-15
SX-208	8000 ohms CT.	4-8-16 ohms	10-15

† Williamson type circuit. Proper taps on primary for screen operation, leads out both end bells.
* Replaces S-45Z.

LINE POWER

ISOLATION Transformers, 50/60 cycles

(See Triad page 6 for 380/1500 cycle isolation transformers)

Type No.	V. A. Output	Input Volts	Output Volts
N-51X	35	115	115
N-68X	50	230/115	115
N-53M	85	115	115
N-54M	150	115	115
N-67A	150	230/115	115
N-55M	250	115	115
N-66A	250	230/115	115
N-57M	500	115	115
N-59M	1000	115	115
†N-52M	350	95 to 130 (in 5V steps)	115
†N-56M	150	95 to 130 (in 5V. steps)	115
	†With switch and meter for primary voltage control. Detachable cord.		
N-469A	50	460/230	115
N-470A	150	460/230	115
N-471A	300	460/230	115

CONSTANT VOLTAGE TRANSFORMERS

Type No.	Rating V. A.	Input Volts	Output Volts
K-100	30	95-130	117
K-101	60	95-130	117
K-102	120	95-130	117

STEPDOWN Autoformers, 50/60 cycles

Type No.	V. A. Output	Input Volts	Output Volts
N-1X	50	230	115
N-3M	85	230	115
N-4M	150	230	115
N-5M	250	230	115
N-7M	600	230	115
N-9M	1250	230	115
N-11M	2000	230	115
N-34X	150	95/105/115/125/135	115
†N-35M	250	95 to 130 (in 5V. steps)	115
†N-50M	500	95 to 130 (in 5V. steps) With switch and meter.	115

† M case with switch for primary voltage control and detachable cord.

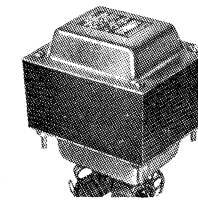
Note: Last letter of Type No. denotes case style.

■Discontinued item. Available until supply is exhausted.

FILTER REACTORS

Type No.	Current DC Ma.	Inductance *Henries	Resistance Ohms	Insulation Test Voltage
HSM-301	20	30	1000	1500
HSM-302	20	14	560	1500
HS-331	40	4	375	1500
HS-303	50	12	385	1500
HS-333	70	3	225	1500
HSM-305	70	15	300	2500
HS-335	120	3	150	1500
HSM-307	120	15	185	2500
HSM-309	150	9	115	2500
HS-339	200	3	105	2000
HSM-315	200	10	100	2500
HS-341	300	2	48	2000
HSM-319	300	10	85	2500

Minimum Inductance—20%

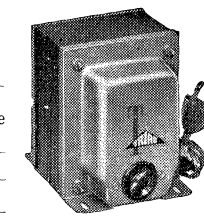


Case B

PULSE TRANSFORMERS
BLOCKING OSCILLATOR TYPE

Type No.	Pulse Voltage per Winding	Pulse Duration—us	Load Impedance —Ohms
PL-4	100-100	.54 to .66	500*
***PL-5**	100-100-100	.36 to .54	2000*
PL-6	100-100-100	.36 to .54	2000*

* As blocking oscillator in Triad circuit. Can be used with lower impedances and higher peak power at lower duty cycle.

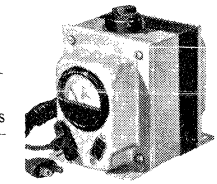


Case M

HIGH SPEED FERRITE TOROIDAL CORE LOW POWER

Type No.	Turns Ratio	Pulse Width μ Sec.	Rise Time μ Sec.	Repetition Rate	Suggested Load Ohms	Volts
PL-80E PL-80H PL-80P	1-1	.07	.03	1-2 Mc	200	15
PL-81E PL-81H PL-81P	2-1	.07	.03	1-2 Mc	200	20
PL-82E PL-82H PL-82P	3-1	.08	.03	1-2 Mc	100	15
PL-83E PL-83H PL-83P	4-1	.08	.03	1-2 Mc	100	15
PL-84E PL-84H PL-84P	5-1	.08	.03	1-2 Mc	100	15

The letter "H" indicates Hermetically Sealed, the letter "P" indicates Miniature Plug-in and the letter "E" indicates Epoxy Molded.

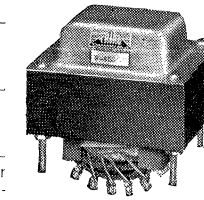


Case M with Meter

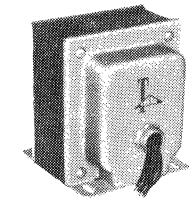
LOW SPEED SILICON CORE LOW POWER

Type No.	Pulse Voltage per Winding	Pulse Duration—μ Sec.	Load Impedance —Ohms
■PL-124E PL-124H	300-300-300	.6 to 5	150
PL-140E PL-140H PL-140M	100-400-100	.6 to 5	175
PL-139E PL-139H PL-139M	100-100	.3 to 1.5	250
PL-146E PL-146H PL-146M	300-300	.6 to 5	250

Letter "M" indicates MIL type case. For pulse types only.



Case C



Case AC

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TRIAD DISTRIBUTOR DIVISION

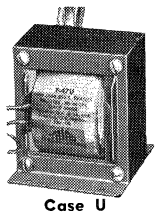
A DIVISION OF LITTON INDUSTRIES

Instrument POWER SUPPLY Transformers

For PREAMPLIFIERS, VTVM, etc.

Primary 115 volts — 60 cycles

Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Filament Windings Volts and Amperes
R-68A	800 CT.	30	5V.-2A, 6.3V-1.2A, 6.3V-1.2A.
R-2C	135	15	6.3V-.9A.
R-23B	250 CT.	22	6.3-.8A. 15.5/12.6V-.6A.
R-3A	500 CT.	20	6.3V CT.-2A.
R-29A	230 CT.	40	6.3V.CT.-1.5A.
R-30X	135	50	6.3V.-1.5A.
R-54X	115	15	6.3V.-.6A.
R-56A	130	20	0/15/22.5/30V-.6A.
R-73B	135	200	6.3V CT.-5.5A.



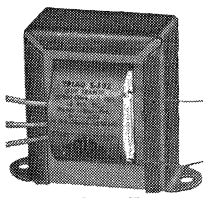
Case U

For CATHODE RAY Tubes

Primary 115 volts — 60 cycles

Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Filament Windings Volts and Amperes	
R-41C	440-0-440-1250.	125/5	*6.3V.-.6A. †2.5V.-1.75A. 5V.-3A.	†2.5V.-1.75A. 5V.-3A.
R-45C	400-0-400-800.	30/5	*6.3V.-.6A. 6.3 CT.-3A. †5V.-2A	6.3V.-1A. 5V.-2A.
R-43C	1600	3	*6.3/5/2.5V.-1A. †6.3/5/2.5V.-3A.	

* Static shielded and insulated for full plate voltage.
† Insulated for full plate voltage.



Case Z

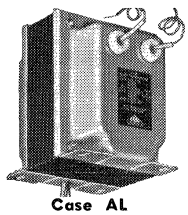
For REGULATED POWER SUPPLIES

Primary 115 volts — 60 cycles

Type No.	Plate Supply AC Volts	Plate Supply DC Ma. Choke Input	Filament Windings Volts and Amperes	
R-70A	880 CT.	75	6.3V.-.6A. 6.3V.-.3A.	6.3V.-.9A. 6.3V.-3A.
R-26A	880-720 CT.	200	6.3 CT.-8A. 6.3V.-1A.	6.3V.-3A. 5V.-3A.
R-28A	1250 CT.	300	6.3 CT.-8A. 6.3V.-3A.	6.3V.-3A. 5V.-6A.
R-46A	1250 CT. 130 (Bias winding)	350	5V.-4A.	6.3V.-4A. 6.3V.-1A. 6.3V.-1A.

R-46A will supply 550 V. D.C. using 2 5R4G rectifier tubes, choke input. Will also supply 130 V. for bias using Selenuim rectifier. Sufficient filament windings to regulate screen voltages.

R-27A	1500 CT.	400	5V.-6A.	6.3V.-3A. 6.3V.-8A.



Case AL

UNIVERSAL

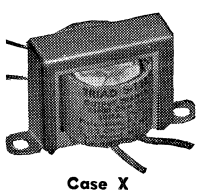
Isolation, Autoformer, Voltage Control 50/60CPS

Type No.	V.A. (Isolation)	V.A. (Autoformer)
N-64AC	500	1000
N-62AC	1000	2000
N-60SC	2000	4000

SOLID STATE RECTIFIER POWER TRANSFORMERS

Primary 117 volts — 50/60 cycles

Type No.	Secondary No. 1 Volts	Secondary No. 1 MADC	Secondary No. 2 Volts @ A		Secondary No. 3 Volts @ A		Mounting Centers
R200A	200-0-200	400	6.3	3	6.3	3	2¾x3 1/16
R201A	150-0-150	600	6.3	2.5	6.3	2.5	2¾x3 1/16
R202A	100-0-100	800	6.3	2	6.3	2	2¾x2 15/16
R-203A	50-0-50	1600	6.3	1.5	6.3	1.5	2¾x2 11/16
R-204A	40-0-40	2000	6.3	1.5	6.3	1.5	2¾x2 13/16
R-205A	30-0-30	2500	6.3	1.5	6.3	1.5	2¾x2 11/16



Case X

SELENIUM RECTIFIER Transformers Primary 60 cycles

These transformers are for use with Selenium rectifiers. Rectifiers *not* included.

Type No.	Primary Volts	Secondary AC Volts	Secondary Amperes RMS	Half Wave Volts DC	Full Wave Volts DC
F-47U	115	17-18	3	6-7	13-14
F-48U	115	17-18	6	6-7	13-14
F-49U	115	36 36	3 3	13	26
F-60U	115	6.5-13-19.5-26	3 (int.)	9	18
F-61U	115	24-27-30 33-36	3	13	26
F-67U	110-120	24-27-30-33-36	8	13	26
F-63U	115	8-9 8-9	2 2		6-7
F-64U	115	7-8-9	7		6-7
F-62U	105-115-125	9-9-9-9	10 ea. wdg.		6-7 ea. wdg.
F-68U	115	9 CT. 9 9 9	3.5 3.5 3.5 3.5		6-7 ea. wdg.
F-65U	110-120	140-150-160	.75	60	115
F-66U	110-120	140-150-160	2.5	60	115
F-79U	115	24-26-28-30	15	11.4	22.8
F-80U	tapped for mult. sec.	12 to 18 or 24 to 36CT	40 20	—	13
F-84AC	230-115	24CT or 12CT	10 20	—	8.5
F-90X	115 tapped	40CT-20CT-10	100ma	15	30
F-91X	115 tapped	40CT-20CT-10	300ma	15	30
F-92A	115 tapped	40CT-20CT-10	1 amp	15	30
R-93A	115	6.3CT (voltage doubler circuit) 150-160-170	6 (500ma)	65	120
F-93X	115V tapped	40CT-20CT-10	750ma	15	30
F-94X	115X tapped	40CT-20CT-10	35ma	15	30

FILAMENT Transformers, Single Secondary

Primary 115 volts — 60 cycles

Type No.	Secondary Volts	Secondary Amperes	Test Volts
F-1X	2.5 CT.	3	1500
F-72Z	2.5 CT.	5	7500
F-6X	2.5 CT.	6	2500
F-3X	2.5 CT.	10	3000
F-5U	2.5 CT.	10	7500
F-71U	2.5 CT.	10	10000
F-7X	5 CT.	3	1500
F-8X	5 CT.	6	1500
F-12X	5 CT.	8	2500
F-9A	5.2 CT.	13	1500
F-10U	5 CT.	14	10000
F-9U	5.2 CT.	13	1500
F-15U	5 CT.	15	3000
F-11U	5.2 CT.	24	1500
F-13X	6.3	.6	1500
F-14X	6.3 CT.	1.2	2500
†F-52X	6.3	1.2	5000
†F-51X	6.3/5	2	5000
†F-53X	6.3	4	5000
F-16X	6.3 CT.	3	2500
F-18X	6.3 CT.	6	1500
F-18A	6.3 CT.	6	1500
F-19X	6.3/6 CT.	6	2000
F-21A	6.3 CT.	10	1500
F-20U	6.3/6 CT.	11	3000
F-22A	6.3 CT.	20	2000
F-24U	7.5/6.3 CT.	8	3000
F-28U	7.5/6.3 CT.	25	3000
F-23U	10 CT.	7	1500
F-29U	12/11/10 CT.	11	3000
F-25X	12.6 CT.	1.5	1500

(Continued on next page.)

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TRIAD DISTRIBUTOR DIVISION

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F-44X	12.6 CT.	2	1500
F-26X	12.6 CT.	2.5	1500
F-45X	24 CT	1	1500
F-41X	25.2 CT.	2	1500
F-40X	26.8 CT	1	1500
F-50X	Filament line transformer Pri. 6.3V/5V Sec. 6.3/5V 2A		5000
F-83A	12.6 CT. 12.6 CT.	5 5	1500

† Low capacity—High voltage for damper tube operation.

CHOKES

SWINGING FILTER REACTORS

Type No.	Inductance Henries	Current Ma.	Resistance Ohms	Test Volts RMS
C-31A	25/5	20/200	150	2500
C-33A	25/5	30/300	105	3000
C-32AL	20/4	35/350	105	5000
C-35A	20/4	40/400	65	3000
C-39A	25/5	50/500	65	3000
C-38AL	25/5	50/500	65	5000

SMOOTHING FILTER REACTORS

Type No.	Inductance Henries	Current Ma.	Resistance Ohms	Test Volts RMS
C-30X	50	15	3500	1500
C-2X	2	15	70	1500
C-1X	15	20	1000	1500
C-3X	10	50	500	1500
C-4X	4	50	360	1500
C-6X	5	65	330	1500
C-5X	12	75	390	1500
C-8X	7	75	240	1500
C-7X	10	90	270	1500
C-9X	4	90	100	1500
C-11X	6	110	160	1500
C-10X	9	125	250	1500
C-12X	6	160	165	1500
C-12A	6	160	165	1500
C-13X	3	160	75	1500
C-14X	6	200	150	1500
C-14A	6	200	150	1500
C-16A	10	200	150	2500
C-21X	1.5	225	65	1500
C-15X	4	250	100	1500
C-15A	4	250	100	1500
C-23X	1.2	260	45	1500
C-24X	1	240	50	1500
C-27X	.7	290	25	1500
C-36X	.5	300	30	1500
C-17X	1.5	300	40	1500
C-18A	8	300	90	2500
C-19A	10	300	105	3000
C-25A	2.6	310	60	1500
C-42AL	8	350	105	5000
C-34X	.6	350	35	1500
C-28X	1	350	35	1500
C-29X	1.5	375	50	1500
C-20A	6	400	60	3000
C-22A	10	500	65	3000
C-45AL	10	500	65	5000
C-40X	.32	600	10	1500
C-47U	.3-.075	1A-2A	3-.75	1500
C-48U	.08-.02	2.5A-5A	.57-.143	1500
C-49U	.032-.008	5A-10A	.19-.05	1500
C-80U	.024-.006	20A-40A	.096-.024	1500

ISOLATION Transformers

Primary 115V—400 cycle to operate 380 to 1500 cycles

Type No.	Secondary Volts	Amp.	V. A.	F Dim. (Min.) Inches	Case
HS-470	115	.35	40	1	EA
HS-471	115	.7	80	1	FA
HS-472	115	1.4	160	1	GA
HS-474	115	2.6	300	1	JA
HS-475	115	4.4	500	1	KA

60 cycle — hermetically sealed

Type No.	secondary volts	amp.	V.A.	F dim. (Min.) inches	Case
HSM-270	105-115-125	.4	50	1	JB
HSM-271	105-115-125	1	125	1	KA
HSM-272	105-115-125	2	250	1 7/16	NB

All isolation transformers electrostatically shielded.

FILAMENT Transformers, Multiple Secondary

Primary 115 volts — 60 cycles

Type No.	Secondary Volts and Amperes		Test Volts RMS
F-27U	10 CT.-10A.	2.5 CT.-10A.	1500 7500
F-30A	5 CT.-3A.	6.3 CT.-8A.	1500
F-32A	6.3 CT.-3A.	6.3 CT.-3A.	1500
F-34A	6.3 CT.-1.75A. 6.3V.-1.75A.	6.3V.-1.75A. 6.3V.-1.75A.	1500
F-36A	6.3 CT.-3.5A. 6.3V.-3.5A.	6.3V.-3.5A. 6.3V.-3.5A.	1500
F-38A	6.3 CT.-5A. 6.3V.-1A. 5V.-4A.	6.3V.-5A. 5 CT.-2A.	1500
F-42A	12.6 CT.-2.5A.	12.6-2.5A.	1500

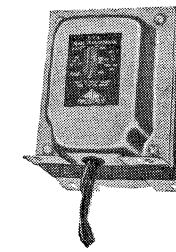
AUDIO INPUT TRANSFORMERS

Low Level Input

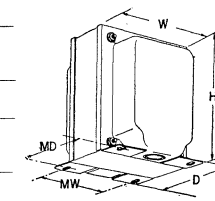
Type No.	Application	Frequency Response	Primary Impedance	Turn Ratio
A-9J	line or mike to grid	30-15000	600/250/50	12
A-10J	line to grid	30-15000	600/150 split wdgs.	10.5
A-11J	line or mike to grid 60-80DB shielding	30-15000	600/250/50	10
A-12J	same as A-11J	30-15000	600 CT./150 split windings	10
A-13J	line to transistor or line to line (70 db Shldg)	30-15000	600/300/ 200 CT./110/50 split windings	1
A-40J	par. fed 6J5 or 6SN7 plate to P.P. grids	30-15000	15000	2.76
A-41J	same as A-40J 8ma DC in primary	30-15000	15000	2.3
A-50J	pp plates to voice coil	30-15000	10000 CT.	35.3
A-52J	line or transistor to line or transistor	30-15000	500/CT./125 20 MA. D.C. Split Winding	2
A-55J	par. fed 6J5 or 6SN7 to line	30-15000	15000	5
A-56J	lin or transistor to Voice Coil	30-15000	500 CT./125 20 MA. D.C. Split Winding	5.6
A-58J	pp plates or transistors to line or transistors	30-15000	10000 CT./2500 Split Winding	2.24
A-64J	line or transistor to transistor	30-15000	100 CT.*25 30 MA. D.C. Split Winding	1.58
A-65J	par. fed 6J5 or 6SN7 to line	30-15000	15000 CT.	5
A-66J	same as A-65J— 5 ma DC in primary	40-15000	15000	5
A-67J	line to line	30-15000	600 CT./150 split windings	1
A-68J	pp plate to line 4 ma DC in primary	30-15000	15000 CT.	5
A-69J	pp plates or bridging to line 3 MA. D.C. in Primary	30-15000	25,000 CT./ 6250 Split Winding	7.1
A-70J	line or transistor to line or transistor	30-15000	500 CT./125 15 MA. D.C. Split Winding	2.24
A-77J	Audio choke — dual winding	250 henries - 5 ma DC 62.5 henries - 10 ma DC		
A-78J	output pp transistors to line	30-15000	2000CT	1.82
A-79J	Transistor interstage 10ma in primary	20-15000	1000	2.2

Line or Microphone to Grid

Type No.	Application	Frequency Response	Primary Impedance	Turn Ratio
A-1X	Line or single button mike to grid.	100-15000	100	31.4
A-3X	Line or D.B. mike to grid.	200-10000	400 CT.	22.1
A-4X	Line to grid.	100-20000	500/200/ 67.5 CT.	12
A-5X	Single button mike to p.p. grids—Hi-gain.	100-15000	100	84
A-6X	Speaker V.C. to grid	150-20000	8/3.2	79
A-7J	Voice coil to grid	150-10000	3.2	124



Case A



Case A

Triad J Series offers flexibility enabling your amplifiers to exceed broadcast standards. Although economy in construction has cut costs, these transformers approach and closely approximate performance characteristics found in more costly hermetically sealed parts. Single hole mounting provides for rotation for maximum reduction of hum . . . alloy shielding gives you 40-60 db hum reduction (60-80 db in Types A-11J & A-12J) . . . you can obtain wide frequency ranges . . . flexible leads facilitate ease in mounting . . . input units are electrostatically and magnetically shielded . . . light weight and encased in Triad's satin smooth baked gray enamel cases, 1 3/8" diameter, 1 3/4" above chassis . . . legible circuit diagrams are permanently affixed to every case.

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TRIAD DISTRIBUTOR DIVISION

A DIVISION OF LITTON INDUSTRIES

AUDIO OUTPUT TRANSFORMERS
Line to Voice Coil

Type No.	Primary Impedance	Output Imped.	Output Watts	Freq. Resp.
S-23X	50 (autoformer).	3.2	1	100-8000
S-26X	500/50 (autoformer).	3.2	4	100-8000
S-65X	500	8/4	5	100-10000
S-66X	500 (autoformer).	16/8/4	3	100-10000
S-76Z	250/125/62.5/31	16/8/4	10	40-15000
S-77U	500 CT./125 split wdgs.	32/16/8/ 4/2	30	40-15000

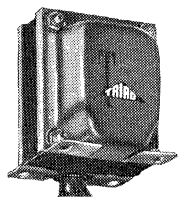
POWER

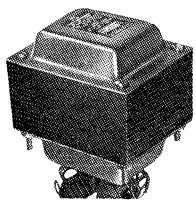
Combined PLATE and FILAMENT Transformers
Primary 115 volts — 60 cycles

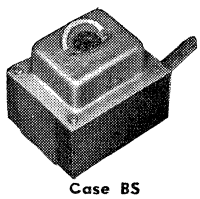
Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Rect. Fil. Volts	Rect. Fil. Amp.	Other Fil. Volts	Other Fil. Amp.
R-22A	380/320 CT.	70	6.3	.6	6.3 CT.	3
R-22B	380/320 CT.	70	6.3	.6	6.3 CT.	3
R-4A	500 CT.	40			6.3 CT.	2
R-4B	500 CT.	40			6.3 CT.	2
R-5A	600 CT.	65			6.3 CT.	2.7
R-5B	600 CT.	65			6.3 CT.	2.7
R-6A	480 CT.	50	5	2	6.3 CT.	2
R-6B	480 CT.	50	5	2	6.3 CT.	2
R-7A	600 CT.	50	5	2	6.3 CT.	2
R-7B	600 CT.	50	5	2	6.3 CT.	2
R-8A	500 CT.	75	5	2	6.3 CT.	2.5
R-8B	500 CT.	75	5	2	6.3 CT.	2.5
R-9A	600 CT.	75	5	2	6.3 CT.	3
R-9B	600 CT.	75	5	2	6.3 CT.	3
R-10A	525 CT.	90	5	2	6.3 CT.	5
R-10B	525 CT.	90	5	2	6.3 CT.	5
R-11A	700 CT.	90	5	2	6.3 CT.	3.5
R-11B	700 CT.	90	5	2	6.3 CT.	3.5
R-12A	550 CT.	110	5	2	6.3 CT.	5
R-12B	550 CT.	110	5	2	6.3 CT.	5
R-14A	700 CT.	125	5	3	6.3 CT.	4.5
R-14B	700 CT.	125	5	3	6.3 CT.	4.5
R-16A	700 CT.	160	5	3	6.3 CT.	5
R-16B	700 CT.	160	5	3	6.3 CT.	5
R-17A	750 CT. 80 Tap	160	5	3	6.3 CT. 2.5 CT.	5 5
R-18A	750 CT.	175	5	3	6.3 CT.	8
R-18B	750 CT.	175	5	3	6.3 CT.	8
R-19A	750 CT. 80 Tap	200	5	3	6.3 CT. 2.5 CT.	6 10
R-20A	700 CT.	200	5	3	6.3 CT.	8
R-20B	700 CT.	200	5	3	6.3 CT.	8
R-72A	800 CT.	140	5	3	6.3 CT.	4
R-21A	800 CT.	200	5	3	6.3 CT.	6
R-21B	800 CT.	200	5	3	6.3 CT.	6
R-24A	800 CT.	300	5	6	6.3 CT.	6
R-24B	800 CT.	300	5	6	6.3 CT.	6
R-25A	800 CT.	500	5	6	6.3 6.3 CT.	3 7
R-58A	875 CT.	185	5	3	6.3 6.3	4 3
R-71A	900 CT.	250	5 CT.	4	6.3 CT. 6.3	2 4
R-93A	150-160-170	500 250	Silicon Rectifier Voltage doubler		6.3 CT.	6

Combined PLATE and FILAMENT Transformers "100" Series

Never have the outstanding features of Triad Combined Plate and Filament Power Transformers been available at such realistic costs. No quality or performance requirement has been overlooked... specify Triad and be certain. Shielding, impregnation, chatter freedom ... to Triad's demanding quality control standards.


Case A


Case B


Case BS

PRIMARY 115 VOLTS 60 CYCLES

Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Rect. Filaments Volts	Rect. Filaments Amp.	Other Filaments Volts	Other Filaments Amp.	Case Dim. H	Case Dim. W	Case Dim. D	Mtg. Dim. MW	Mtg. Dim. MD	Wt. Lbs.
R-104A	500 C.T.	40			6.3 V.C.T.	2	2¾	2⅜	2¼	1¾	1½	1.55
R-104B	500 C.T.	40			6.3 V.C.T.	2	1⅝	2¾	2¼	2 3/16	1¾	1.55
R-105A	600 C.T.	65			6.3 V.C.T.	2.7	3⅛	2⅝	2½	2	1¾	2
R-105B	600 C.T.	65			6.3 V.C.T.	2.7	1¾	3 1/16	2⅝	2½	2	2
R-106A	480 C.T.	50	5	2	6.3 V.C.T.	2	3⅛	2⅝	2⅜	2	1⅝	2.05
R-106B	480 C.T.	50	5	2	6.3 V.C.T	2	1⅝	3 1/16	2⅝	2½	2	2.05
R-107A	600 C.T.	50	5	2	6.3 V.C.T.	2	3⅛	2⅝	2½	2	1¾	2.35
R-107B	600 C.T.	50	5	2	6.3 V.C.T	2	1¾	3 1/16	2⅝	2½	2	2.35
R-108A	500 C.T.	75	5	2	6.3 V.C.T.	2.5	3⅛	2⅝	2⅝	2	1⅞	2.4
R-108B	500 C.T.	75	5	2	6.3 V.C.T.	2.5	1⅞	3 1/16	2⅝	2½	2	2.4
R-109A	600 C.T.	75	5	2	6.3 V.C.T.	3	3½	3	2⅞	2¼	1¾	2.9
R-109B	600 C.T.	75	5	2	6.3 V.C.T.	3	1¾	3 7/16	2⅞	2 13/16	2¼	2.9
R-110A	525 C.T.	90	5	2	6.3 V.C.T.	5	3½	3	3¼	2¼	2	3.25
R-110B	525 C.T.	90	5	2	6.3 V.C.T.	5	2	3 7/16	2⅞	2 13/16	2¼	3.25
R-111A	700 C.T.	90	5	3	6.3 V.C.T.	3.5	3½	3	3¼	2¼	2	3.55
R-111B	700 C.T.	90	5	3	6.3 V.C.T.	3.5	2	3 7/16	2⅞	2 13/16	2¼	3.55
R-112A	550 C.T.	110	5	2	6.3 V.C.T.	5	3½	3	3⅜	2¼	2⅛	3.7
R-112B	550 C.T.	110	5	2	6.3 V.C.T	5	2⅛	3 7/16	2⅞	2 13/16	2¼	3.7
R-113A	650 C.T.	40	5	2	6.3 V.C.T.	2	3⅛	2⅝	2¾	2	1¾	2.3
R-113B	650 C.T.	40	5	2	6.3 V.C.T.	2	2	3	2½	2½	2	2.3
R-114A	700 C.T.	125	5	3	6.3 V.C.T.	4.5	3⅞	3¼	3¼	2½	2⅜	4.7
R-114B	700 C.T.	125	5	3	6.3 V.C.T.	4.5	2½	3¾	3⅛	3⅛	2½	4.7
R-115A	680 C.T.	70	5	2	6.3 V.C.T.	2.5	3⅝	3	3⅜	2¼	2⅛	3.5
R-115B	680 C.T.	70	5	2	6.3 V.C.T.	2.5	2	3 7/16	2⅞	2 13/16	2¼	3.5
R-116A	700 C.T.	160	5	3	6.3 V.C.T.	5	3⅞	3¼	3⅝	2½	2⅝	5.65
R-116B	700 C.T.	160	5	3	6.3 V.C.T.	5	2⅝	3¾	3⅛	3⅛	2½	5.65
R-118A	750 C.T.	175	5	3	6.3 V.C.T.	8	4¼	3⅝	4	2¾	2⅞	7.45
R-118B	750 C.T.	175	5	3	6.3 V.C.T.	8	2⅞	4⅛	3½	3 7/16	2¾	7.45
R-120A	700 C.T.	200	5	3	6.3 V.C.T.	8	4¼	3⅝	4⅛	2¾	2⅞	8.25
R-120B	700 C.T.	200	5	3	6.3 V.C.T.	8	3	4⅛	3½	3 7/16	2¾	8.25
R-121A	800 C.T.	200	5	3	6.3 V.C.T.	6	4¼	3⅝	4⅜	2¾	3¼	8.25
R-121B	800 C.T.	200	5	3	6.3 V.C.T.	6	3¼	4⅛	3½	3 7/16	2¾	8.25

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TRIAD DISTRIBUTOR DIVISION

A DIVISION OF LITTON INDUSTRIES

PLATE POWER Transformers
Primary 115 volts — 50/60 cycles

Type No.	Secondary Volts AC	DC	Sec. D.C. Ma. CCS	ICAS	Rect. Fil.
P-1A	440/220 CT.	180/90	160	190	5V-3A
P-3A	600/300 CT.	250/125	300	360	5V-4A
P-5A°	1100 CT.	400	250	300	5V-4A
P-7A°	1235 CT.	500	250	300	5V-4A
P-9A	1235 CT.	500	500	600	5V-6A
P-11A°	1455 CT.	600	250	300	
P-213AL*†	1780 CT.	750	250	300	
§P-14A	1780 CT.	750/600	250	300	
P-215AL*†	2340 CT.	1000	250	300	
P-216AL*†	2430 CT.	1000	500	600	
P-217AL*†	2880 CT.	1250	250	300	
P218AL*†	2880 CT.	1250	500	600	
P-220AL*†	3300 CT.	1500	350	420	
PR-21AL	3300 CT.	1500	500	600	

† Plate leads out side of case for 866 rectifiers.
§ Tapped Pri. to produce the lower D.C. voltage.
*Prl. is 230/115V.
°60 cycle only.

TELEVISION COMPONENTS

Replacement POWER Transformers, Combined Plate and Filament

Electrostatically shielded. Primary 115 volts 60 cycles.

Type No.	Plate Supply AC Volts	DC Ma.	Filaments — Volts and Amperes	
R-37BC	735 V.C.T.	275	5V.—6A.	6.3V.—8.5A. 6.3V./5V.—2A.*
R-38A	750 V.C.T.	225	5V.—3A.	6.3V.—10A. 6.3V.—1.2A.* 6.3V.—2.5A.
R-38BC				
R-39BC	640 V.C.T.	225	5V.—3A.	6.3V.—10A. 6.3V.—1.2A.*
R-40BC	780/440 V.C.T.	300	5V.—3A. 5V.—3A. 5V.—2A.	6.3V.—8.5A. 6.3V.—3.5A.
R-42BC	675 V.C.T.	185	5V.—3A.	6.3V.—7A. 6.3V.—2A.*
R-49BS	650 V.C.T.	240	5V.—3A.	6.3V.—9A. 6.3V.—0.9A. 6.3V.—1.2A.*
R-49BC				
R-50A	790/650 V.C.T.	310	5V.—3A. 5V.—3A. 5V.—2A.	6.3V.—5A. 6.3V.—5A. 6.3V.—2.6A.
R-50BC				
R-51BC	505 V.C.T.	320	5V.—6A.	6.3V.—5A. 6.3V.—5A. 6.3V.—1.2A.*
R-52BC	600 V.C.T.	270	5V.—3A.	6.3V.—5A. 6.3V.—5A. 6.3V.—1.2A.*
R-60BC	460 V.C.T.	300	5V.—6A.	6.3V.—10A. 6.3V.—1.2A.* 6.3V.—2.5A.
R-61BC	560 V.C.T.	275	5V.—6A.	6.3V.—6A. 6.3V.—6A. 6.3V.—1.2A.*
R-62BC	680 V.C.T.	290	5V.—6A.	6.3V.—10A. 6.3V.—1.5A. 6.3V.—1.2A.*
R-64BC	520 V.C.T.	270	5V.—3A.	6.3V.—10A.
R-65BC	550 V.C.T.	270	5V. —3A.	6.3V. —10A.
R-66BC	580 V.C.T.	270	5V. —3A.	6.3V. —10A.
R-67BC	600 V.C.T.	250	5V. —3A.	6.3V. —9A.
R-69BC	550 V.C.T.	270	5V. —3A.	6.3V. —10A.
R-74BC	680 V.C.T.	190	6.3V.—7.8A. 6.3V.—1.2A.	5V.—3A. (damper wdg)
R-75BA	560 .C.T.	280	5V.—3A.	6.3V.—9.5A.
R-79BA	127V.	1000	6.3V.-2A 6.3V.-10A.	12.6V.-2A 12.6V.CT.-2A.
R-80BA	500V.CT.	300	5V.-6A 6.3V.-2.0A	6.3V.-8A 6.3V.-5A
R-86BA	117/129*141 multi-purpose	1000	6.3V.-6A 6.3V.-6A	12.6V.CT.-2A

* Less than 100 m.m.f.d. capacity to ground and insulated for high voltage damper tube.
Height of transformers in BC cases is measured from chassis line to top of case. Copper shading ring on all BC cases to reduce external magnetic field.

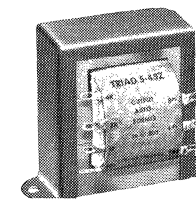
Note: Last letter of Type No. denotes case style.

AUDIO

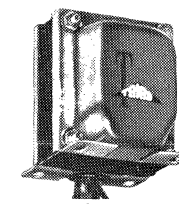
Triad Replacement Output Transformers furnish a wide range of size and mounting characteristics . . . specifically engineered for mounting in precise location in chassis. Climatite treated . . . manufactured to exacting quality standards of more costly types . . . progressively designed for advanced circuitry and audio tubes . . . total complete coverage over impedance and wattage ranges . . . Triad units provide finest response in minimum space . . . and outlive all others.

REPLACEMENT OUTPUT TRANSFORMERS
Single Tube To Standard Voice Coil 3-4 Ohms

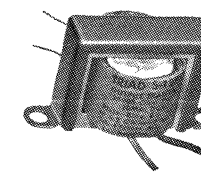
Type No.	Primary Impedance	D.C. Ma	Audio Watt
S-20X	2000	50	2-3
S-20Z	2000	50	2-3
S-2X	2000	55	3-5
S-12X	2500	50	2-3
S-12Z	2500	50	2-3
S-1X	2500	60	3-5
S-16X	3000 5% Tap	50	2-3
S-30X	3000	60	3-5
S-67X	3200	60	4-6
S-4X	3000	70	5-8
S-14Z	4000	50	2-3
S-41X	4000	50	3-5
S-41Z	4000	50	3-5
S-6X	5000	35	2-3
S-6Z	5000	35	2-3
S-3X	5000	40	3-5
S-5X	5000	50	5-8
S-5Z	5000	50	5-8
S-48X	6500	35	2-3
S-48Z	6500	35	2-3
S-49X	6500	35	3-5
S-7X	7500	30	3-5
S-9X	7500	50	5-8
S-9Z	7500	50	5-8
S-8X	8000	30	2-3
S-8Z	8000	30	2-3
S18X	8000	45	4-6
S-18Z	8000	45	4-6
S-11X	10000	30	2-3
S-11Z	10000	30	2-3
S-17X	10000	30	3-5
S-10X	10000	45	4-6
S-40X	14000	5.5	¼
S-38X	16000	15	2-3
S-38Z	16000	15	2-3
S-37X	25000	4.0	¼
S-13X	25000	10	2-3
S-13Z	25000	10	2-3



Case Z



Case A



Case X

REPLACEMENT PUSH-PULL OUTPUT TRANSFORMERS
Push-Pull Tubes To Voice Coil 3-4 Ohms

Type No.	Impedance	D.C. MA. Each Side	Audio Watts
S-39X	12000 CT.	30	3-4
S-64X	6000 CT.	40	4-6
S-15X	10000 CT.	35	7-10
S-19Z	10000 CT.	50	10-14
S-68Z	3000/3800 CT.	90	15-18
S-69Z	5000 CT.	60	15-18
S-21A	8000 CT.	55	15-18
S-21Z	8000 CT.	55	15-18

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TRIAD DISTRIBUTOR DIVISION

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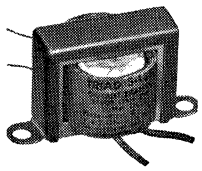
AUDIO

LOW LEVEL OUTPUT Transformers

Type No.	Application	Freq. Resp.	Pri. Imped.	Second. Imped.
A-51X	Tube to line.	300-3000	7000	50
A-53X	Single or p.p. tubes to line.	70-7000	18000 CT.	600/250/50
A-54X	P.P. Tubes to V.C.	150-30000	7700 CT.	8/4
A-55J	Parallel-fed 6J5 or 6SN7 to line. 45 db. shielding	30-15000	15000	600/250/50
A-65J	Parallel-fed 6J5 or 6SN7 to line. 45 db. shielding.	30-15000	15000	600/150 Split winding
S-58X	Line to line.	300-3000	600/150	600/150 —Split windings—
A-67J	Line to line. 45 db. shielding.	30-15000	600/150	600/150 —Split windings—



Case X

SPLATTER Chokes

Type No.	Inductance Henries	Current Ma.	Res. Ohms	Wt. Lbs.
C-26X	Tapped to 1.5	100	95	1¼
C-43X	Tapped .05 to 1	300	40	2

Case J

UNIVERSAL OUTPUT Transformers

Single Or Push-Pull Tubes To Voice Coil

Type No.	Application	Impedance	DC MA	Audio Watts
S-62X	Single or P.p. plates	2000-10000	30	2
S-52X	Single or p.p. plates	4000-24000	30	4
S-51X	Single or p.p. plates	4000-14000	35	5
S-63X	Single or p.p. plates	1500- 7000	50	6
S-54X	Single	1500- 5000	70	8
S-53X	Single or p.p. plates	4000-14000	40	8
S-55X	P.p. plates	4000-14000	40	10
S-55Z	P.p. plates	4000-14000	40	10
S-56Z	Single	1500- 6000	85	12
S-59Z	P.p. plates	1500- 4000	65	15
S-57Z	P.p. plates	4000-14000	55	15
S-61Z	P.p. plates	4000-10000	60	20

Case P

PLUG-IN INPUT Transformers

Type No.	Application	Pri. Imped.	Second Imped.	Freq. Resp.	Shld'g
■A-200P	Line to mike to grid.	200/50 CT. △	36,000	30-20000	70 db.
A-202P	Same as above.	200/50 CT. △	36,000	20-20000	90 db.
HS-273P	Same as above	200/50 CT. △	80,000	30-30000	70 db.
A-210P	Stereo Isolation	1:1 ratio	30,000	20-20000	45 db.

△ Split Winding

INTERSTAGE Transformers

Plate to Grid

Type No.	Application	Freq. Resp.	Pri. Imped.	Second Imped.	Ratio
A-31X	Plate to single or p.p. grids	300-3000	10000	90000CT	1 : 3
A-33X	Plate to single or p.p. grids	70-7000	10000	90000CT	1 : 3
A-42Z	Multi-ratio single or p.p. plates to single or p.p. grids.	70-7000	15000 CT.	135000C.T. or 33750	1 : 1.5 1 : 3 1 : 6
A-35A	Plate to single or p.p. grids	50-10000	10000	90000CT	1 : 3
A-39A	P.p. plates to p.p. grids	50-10000	20000 CT.	45000CT	1 : 1.5
A-40J	Parallel-fed 6J5 or 6SN7. Plate to p.p. grid 45 db. shielding.	30-15000	15000	115000CT	1 : 2.76

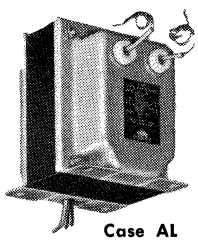
MODULATION Transformers

Tube to RF Load

Type No.	Primary	Freq. Resp.	Secondary Impedance	Secondary Ma.	Aud. Wtts.
TY-65Z	32 CT. (575 Ma.) (Transistor use)	70-15000	3000-4000-6000	100	10
M-4Z	5000 (Auto-former).	300-3000	6750 4	100 (total)	10
M-5Z	5000 (Auto-former).	300-3000	6750 4	165 (total)	20
M-1X	10000 CT. for 19, 1J6, 6N7, 6A6, etc.	300-3000	5000-8000-10000	50	5
M-3X	10000 CT. for 6N7, 6A6, 6F6's, etc.	300-3000	3000-5000-8000	100	20
TY-66A	6 CT. (5A) (Transistor use)	300-3000	3000-4000-6000	200	40
†M-74L	4250 CT. for 807's	300-3000	3000-5000-8000	200	60
M-15A	Multi-match	300-3000	4000 to 20000	150	30
†M-12AL	Multi-match	300-3000	4000 to 20000	300	125

DRIVER Transformers

Type No.	Driver Tubes	Output Tubes	Frequency Response	Ratio Primary ½ Sec.	Primary D.C. Ma.
A-81X	30, 1H4, etc.	19, 30's, 1J6, etc.	200-20,000	2.66:1	15
A-83X	6F6, 42, 45, etc.	6L6, 6F6, 6V6, 807, etc.	70-7000	1.33:1	40
A-85X	6F6, 42, 45, etc.	6L6, 6F6, 6V6, 807, etc.	50-10000	2.66:1	40
A-89A	P.p. plates to class B or AB grids— Universal 15 watt.	Any class B or AB tubes. 100-500 watts output	50-10000	3.1 or 1.8:1	100 per side
TY-61X	Transistor use		70-10000	1:0.5	100



Case AL

■Discontinued item. Available until supply is exhausted

†Plate leads out side

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TRIAD DISTRIBUTOR DIVISION

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OUTPUT Transformers
Tube to Voice Coil and Line

Type No.	Tubes	Pri. Imped.	Sec. Imped.	DC Pri.	Audio Watts
S-27A	2A3, 6A3, 6B4, 6L6, 6U6, 6Y6, 12A5, 25B6, 35B5, 50A5.	2500	500/16/8/4	80	8
S-28X	2A5, 6AC5, 6B5, 6F6, 6K6, 7B5, 14A5, 25AC5.	7500	500/16/8/4	40	5
S-29X	6AQ5, 6AS5, 6V6, 7C5, 25A6, 25B5, 25L6, 25N6, 35A5, 35L6.	5000	500/16/8/4	45	5
S-22A	P.p. 2A3, 6B4, 6A5, 6L6, etc.	5000 CT.	500/16/8/4	100 (bal.)	15
S-24A	P.p. 6V6, 7C5, 6K6, 6F6, etc.	8000 CT.	500/16/8/4	80 (bal.)	15
S-60A	P.p. 6L6, 5881, 807, etc.	6600 CT.	500/250/16/8/4	120 (bal.)	35

70.7 volt Line to Voice Coil

Type No.	Primary Impedance	Sec. Imped.	Output Watts	Freq. Resp.
S-70Z	Autoformer 16000/8000/4000/2000/1000.	8/4	5	40-15000
S-71Z	Autoformer 4000/2000/1000/500.	16/8/4	10	40-20000
S-25Z	Autoformer 4000/2000/1000/500.	8/4	10	30-20000
SR-45Z	Autoformer 4000/2000/1000/500.	16/8/4	10	20-20000
SR-74K	Weatherproof autoformer 4000/2000/1000/500.	16/8/4	10	20-20000
S-72Z	Autoformer 2000/1000/500/250.	16/8/4	20	40-20000

70.7 volt Line to Voice Coil (Cont.)

Type No.	Primary Impedance	Sec. Imped.	Output Watts	Freq. Resp.
S-46A	Autoformer 2000/1000/500/250.	16/8/4	20	20-20000
S-75K	Weatherproof autoformer 2000/1000/500/250.	16/8/4	20	20-20000
S-78Z	Isolation 4000/2000/1000/500.	16/8/4	10	40-20000
S-79Z	Isolation 2000/1000/500/250.	16/8/4	20	40-20000
S-47Z	10K/5K/2.5K/1250/625	16/8/4	8	20-20000
S-73X	Isolation 16K/8K/4K/2K/1K	16/8/4	5	40-15000

25 VOLT LINE TRANSFORMERS

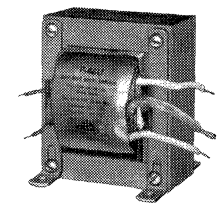
Type No.	Primary Matching Impedance	Secondary Load Impedance	Output Watts
S-131X	1250/625/312	8/4	2
S-132X	1000/500/250/125	16/8/4	5
S-133Z	500/250/125/62.5	16/8/4	10

MATCHING TRANSFORMERS FOR 25 OR 70.7 VOLT LINE

S-129Z	70.7V line to 25V line or, 25V line to 70.7V line	30	20-15000
S-130Z	70.7V line to 25V line or, 25V line to 70.7V line	10	20-15000

Special TRANSCEIVER Transformers
(Voice Frequencies)

Type No.	Application	Primary Impedance	Secondary Impedance
A-21X	S.B. mike or plate to grid (2 primaries)	100 10000	100000
A-23X	Tube to line and hi-impedance phones.	10000	50 and 2000



Case U

INSTRUMENTATION GEOFORMERS

LOW FREQUENCY TRANSISTOR TRANSFORMERS

Type No.	Impedance Ohms Pri.	Impedance Ohms Sec.	Turns Ratio	Min. pri. Ind. @ 100MV—60 cy. With No Unbalanced D.C. Current	D. C. Resistance (Ohms) Pri.	D. C. Resistance (Ohms) Sec	Frequency Response in Cycles Primary Signal of 1 Volt Unbalanced D.C. Secondary Current of 1 Ma. —3DB	1 Ma. —1DB	2 Ma. —3DB	2 Ma. —1DB	3 Ma. —3DB	3 Ma. —1DB	5 Ma. —3DB	5 Ma. —1DB	Shielding	Case Mtg.	Wt.
G-18	1000 or 250	125 or 31	2:83:1	60.	500	44	5 to 20000	8 to 7000	5 to 20000	8 to 7000	6 to 20000	9 to 7000	7 to 20000	10 to 7000	P1-H	GP-1F	3.2 oz.
G-19	1000 or 250	1000 or 250	1:1	65.	540	230	12 to 7000	15 to 3800	12 to 7000	15 to 3800	12 to 7000	15 to 3800	20 to 7000	40 to 3800	P1-H	GP-2L	5¼ oz.
G-30	1000 CT.	2500 CT.	1:1.58	20.	350	1800	20 to 8000	40 to 4200	22 to 8000	45 to 4200	40 to 8000	75 to 4200	70 to 8000	160 to 4200	P1	GP-1F	3.2 oz.

CHOPPER INPUT TRANSFORMERS

Triad Chopper Input Transformers provide exceedingly close balance between the two halves of the primary winding . . . minimum noise in microvolt ranges of input signals is assured with Triad's special core treatment techniques. For demanding transistor and tube applications, Triad's special design capabilities have an outstanding record. For special applications, consult Triad.

Type No.	Turns Ratio	Minimum Primary Inductance @ 1V—60	Maximum Primary Volts @ 60	Primary Matching Impedance In Ohms	Secondary Matching Impedance In Ohms	D.C. Resistance Primary In Ohms	D.C. Resistance Secondary In Ohms	Stray Fields Shield	Case and Mounting	Weight
G-20‡ G-20H‡	1:8	120 h.	25	10,000 CT or 2500	640,000 CT	370	21,000	P5-H P1-H	GP-4T GP-2L	11½ oz. 5¼ oz.
G-21‡ G-21TS‡	4:1	1200 h.	84	20,000 CT	12,500 CT	4000	1300	P1-H P5-H	GP-2L GP-4T	5¼ oz. 11½ oz.
G-22H‡ G-22‡	1:4	1000 h.	90	50,000 CT	800,000 CT	2200	19,000	P1-H P5-H	GP-3R GP-5W	7¾ oz. 1 lb.
G-23‡ G-23TS‡	6.32:1	1000 h.	75	40,000 CT	1000 CT	4400	160	P1-H P5-H	GP-2L GP-4T	5¼ oz. 11½ oz.
G-24‡	1:1	400 h. Low capacity coupling less than .02 μμF between windings.	19.5	40,000 CT	40,000 CT	1625	1625	P5	GP-5S	1 lb.
G-25‡ G-25TS‡	2:1	800 h.	70	40,000 CT or 10,000 CT	10,000 CT	3200	2200	P1-H P5-H	GP-2L GP-4T	5¼ oz. 11½ oz.

‡Static Shield

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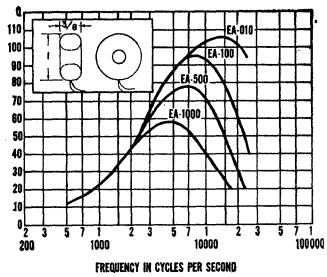
TOROIDS

Triad toroids may be ordered with standard leads in strong plastic coating, or epoxy molded encapsulated per Specification MIL-T-27A; TF5RX20ZZ. To specify molded toroids with gold-plated fixed terminals, an "A" should be added to the full type number; for example, EM-001A.

A

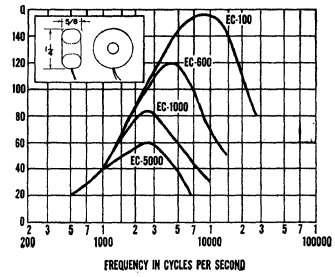
TOROIDS

EA SERIES



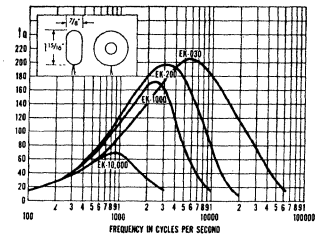
Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
EA-001	1 mh	.40	270
EA-002	2 mh	.58	192
EA-003	3 mh	.73	157
EA-004	4 mh	.85	135
EA-005	5 mh	1.20	121
EA-007	7 mh	1.42	102
EA-010	10 mh	2.20	86
EA-015	15 mh	3.40	70
EA-020	20 mh	5.05	60
EA-025	25 mh	5.80	54
EA-030	30 mh	7.90	50
EA-040	40 mh	11.40	43
EA-050	50 mh	12.80	38
EA-070	70 mh	19.00	32
EA-100	100 mh	30.00	27
EA-150	150 mh	46.00	22
EA-200	200 mh	52.00	19
EA-250	250 mh	73.00	17
EA-300	300 mh	80.00	16
EA-400	400 mh	115.00	14
EA-500	500 mh	126.00	12
EA-600	600 mh	178.00	11
EA-700	700 mh	193.00	10
EA-1000	1000 mh	297.00	8.6

EC SERIES



Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
EC-001	1 mh	.40	520
EC-002	2 mh	.56	368
EC-003	3 mh	.70	300
EC-004	4 mh	.82	260
EC-005	5 mh	.92	233
EC-007	7 mh	1.05	195
EC-010	10 mh	1.30	165
EC-015	15 mh	1.60	134
EC-020	20 mh	1.85	116
EC-030	30 mh	2.85	95
EC-040	40 mh	4.20	82
EC-050	50 mh	4.60	74
EC-070	70 mh	4.60	74
EC-100	100 mh	8.00	52
EC-200	200 mh	25.00	37
EC-250	250 mh	28.00	33
EC-300	300 mh	38.20	30
EC-400	400 mh	44.00	26
EC-500	500 mh	63.50	23
EC-600	600 mh	71.00	21
EC-700	700 mh	80.00	19.5
EC-1000	1000 mh	113.00	16.5
EC-1500	1500 mh	175.00	13.5
EC-2000	2000 mh	243.00	11.6
EC-3000	3000 mh	370.00	9.5
EC-4000	4000 mh	435.00	6.2
EC-5000	5000 mh	645.00	7.4
EC-7000	7000 mh	780.00	6.2
EC-10000	10000 mh	1190.00	5.2

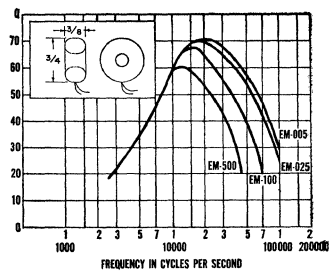
EK SERIES



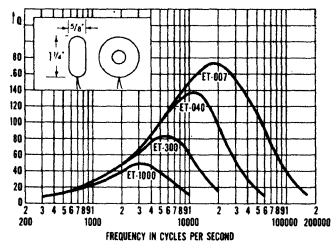
Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
EK-010	10 mh	.92	262
EK-020	20 mh	1.30	184
EK-030	30 mh	1.65	150
EK-040	40 mh	1.90	130
EK-050	50 mh	3.50	116
EK-060	60 mh	4.00	106
EK-080	80 mh	4.60	92
EK-100	100 mh	5.20	82
EK-120	120 mh	5.50	75
EK-150	150 mh	6.20	67
EK-200	200 mh	7.50	58
EK-250	250 mh	10.30	52
EK-300	300 mh	12.00	47
EK-400	400 mh	16.50	41
EK-500	500 mh	23.60	37
EK-700	700 mh	30.00	31
EK-1000	1000 mh	45.00	26
EK-2000	2000 mh	100.00	18.4
EK-3000	3000 mh	151	15
EK-4000	4000 mh	175	13
EK-5000	5000 mh	250	11.6
EK-7000	7000 mh	380	9.8
EK-10000	10000 mh	500	8.2
EK-20000	20000 mh	1000	5.8
EK-30000	30000 mh	1500	4.1
EK-40000	40000 mh	1850	4.1

Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
EM-001	1 mh	2.8	150
EM-002	2 mh	4.1	108
EM-003	3 mh	5.1	87
EM-004	4 mh	6.0	76
EM-005	5 mh	6.8	68
EM-007	7 mh	8.2	57
EM-010	10 mh	10	48
EM-015	15 mh	12.5	39
EM-020	20 mh	14.5	34
EM-025	25 mh	16.5	30
EM-030	30 mh	18	27.6
EM-040	40 mh	27	24
EM-050	50 mh	30	22
EM-060	60 mh	40	19.5
EM-070	70 mh	43	18
EM-100	100 mh	66	15
EM-150	150 mh	100	12.5
EM-200	200 mh	115	11
EM-250	250 mh	167	9.6
EM-300	300 mh	180	8.8
EM-400	400 mh	265	7.6
EM-500	500 mh	295	7
EM-700	700 mh	440	5.8
EM-1000	1000 mh	650	4.8

EM SERIES



ET SERIES



Type No.	Ind.	Res Ohms Approx.	D.C.-Ma. for 5% Ind. drop
ET-001	1 mh	.57	680
ET-002	2 mh	.82	480
ET-003	3 mh	.98	396
ET-004	4 mh	1.10	342
ET-005	5 mh	1.35	306
ET-007	7 mh	1.50	260
ET-010	10 mh	2	217
ET-015	15 mh	3	177
ET-020	20 mh	4.3	153
ET-025	25 mh	4.8	137
ET-030	30 mh	6.9	125
ET-040	40 mh	7.2	108
ET-050	50 mh	8	97
ET-060	60 mh	15.5	88
ET-070	70 mh	16.8	82
ET-100	100 mh	26.0	68
ET-150	150 mh	38.5	56
ET-200	200 mh	44.5	48
ET-250	250 mh	64	43
ET-300	300 mh	72	40
ET-400	400 mh	103	34
ET-500	500 mh	118	31
ET-700	700 mh	173	26
ET-1000	1000 mh	245	22

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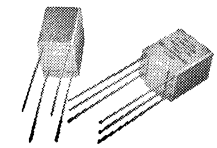
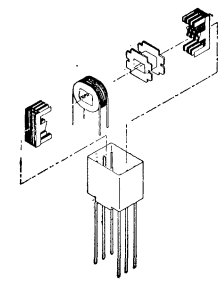
RED SPEC TRANSISTOR TRANSFORMERS

Type No.	Application Type	MIL-T-27A Designation	Primary Impedance	D.C. Res. Pri. Ohms	Max. Unbal. Pri. D.C. Ma.	Secondary Impedance	Max. Power MW
SP-4	Input	TF5RX16ZZ	200000 c.t.	5300	0	1000 c.t.	10
SP-5	Input	TF5RX16ZZ	50000 c.t.	3800	0	1000 c.t.	25
SP-7	Input	TF5RX16ZZ	200000	5300	0	1000	10
SP-11	Interstage	TF5RX13ZZ	25000	1700	.5	1000	40
SP-13	Interstage	TF5RX13ZZ	25000 c.t.	1700	.5	1000 c.t.	40
SP-15	Interstage	TF5RX13ZZ	10000 c.t.	1050	1	1500 c.t.	50
SP-20	Driver	TF5RX13ZZ	10000 c.t.	1050	1	1200 c.t.	50
SP-21	Driver	TF5RX13ZZ	10000 c.t.	1050	1	2000 c.t.	50
SP-22	Driver	TF5SX13ZZ	10000	1050	1	2000 c.t./500†	50
SP-29	Driver	TF5RX13ZZ	10000 c.t.	1050	1	500 c.t.	50
*SP-32	Output	TF5RX17ZZ	500	60	3	50	50
SP-33	Output	TF5RX17ZZ	1000	145	3	50	50
SP-34	Output	TF5RX17ZZ	600	70	3	3.2	50
SP-35	Output	TF5RX13ZZ	1200	120	2	3.2	50
SP-36	Output	TF5RX13ZZ	10000	1160	1	3.2	50
SP-42	Output	TF5RX17ZZ	150 c.t.	18	10	12	50
SP-43	Output	TF5RX17ZZ	300 c.t.	38	7	12	50
SP-44	Output	TF5RX17ZZ	600 c.t.	75	4.5	12	50
SP-46	Output	TF5RX17ZZ	1000 c.t.	120	3.5	12	50
SP-47	Output	TF5RX13ZZ	1500 c.t.	180	3	12	50
SP-47	Output	TF5RX13ZZ	7500 c.t.	820	1	12	50
SP-49	Output	TF5RX17ZZ	300 c.t.	37	7	600	50
SP-50	Output	TF5RX17ZZ	500 c.t.	60	3	600	50
SP-51	Output	TF5RX17ZZ	900 c.t.	100	4	600	50
SP-52	Output	TF5RX13ZZ	1500 c.t.	170	3	600	50
SP-59	Output	TF5RX17ZZ	120 c.t.	15	10	3.2	50
SP-60	Output	TF5RX17ZZ	320 c.t.	40	6	3.2	50
SP-61	Output	TF5RX17ZZ	600 c.t.	70	4.5	3.2	50
SP-62	Output	TF5RX17ZZ	800 c.t.	100	4	3.2	50
SP-63	Output	TF5RX13ZZ	1200 c.t.	125	3	3.2	50
SP-64	Output	TF5RX13ZZ	1600 c.t.	190	2.5	3.2	50
SP-65	Output	TF5RX13ZZ	8000 c.t.	820	1	3.2	50
SP-66	Output Isolation	TF5RX13ZZ	10000 c.t.	1000	1	10000 c.t.	50
SP-67	Output Isolation	TF5RX17ZZ	600 c.t.	73	3	600 CT.	50
SP-68	Output Isolation	TF5SX13ZZ	10000	1000	1	10000 c.t./2500†	50
SP-69	Output Isolation	TF5SX17ZZ	600	72	3	600 c.t./150†	50
SP-106	Choke	TF5RX20ZZ	6 hy.	1700	2		
SP-107	Choke	TF5RX20ZZ	1.25 hy.	180	2		
SP-108	Choke	TF5RX20ZZ	3.5 hy.	1100	2		
SP-117	Choke	TF5RX20ZZ	.9HY	110	2	—	—
SP-118	Choke	TF5RX20ZZ	.3 hy.	42	4		
SP-128	Choke	TF5RX20ZZ	.1HY	15	5	—	—
SP-310	Magnetic shielding case						

CT For Center Tap. †Split secondary





Sub-miniature Encapsulated TOROIDAL INDUCTORS

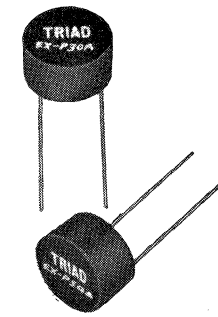
Triad sub-miniature toroidal inductors, designed for quick, easy printed-circuit board mounting, are now stocked for immediate delivery in a range of standard ratings from 50 micro-henries to 500 milli-henries. Many uses, especially in airborne telemetering applications incorporating Triad's sub-miniature filters FL-384 through FL-388. Case size of units is 7/16 inch diameter by 1/4 inch high. Providing an optimum combination of high Q and extremely small-size, this series is ideal for printed board, transistor or vacuum tube application.

Triad sub-miniature inductors are toroidally wound on permalloy powdered cores. Encapsulated in high temperature epoxy resin. Weldable or solderable leads of gold plated nickel alloy. Highly resistant to severe acceleration, shock or vibration. Manufactured to MIL-T-27A, Grade 5 Class S (MIL type TF5SX20ZZ).

NOTE: Ma. DC maximum is for approximately 5% drop in inductance. Those figures marked * will give less than 5% inductance drop but should not be exceeded under operating conditions.

Inductance tolerance of EX-P05A through EX-P50A is ±5%; EX-001A through EX-500A is ±2%.

Cat. No.	Inductance (0 DC)	DCR (ohms) ±25%	Maximum Ma. DC
EX-P05A	50 μh	1.0	150*
EX-P10A	100 μh	1.4	150*
EX-P20A	200 μh	1.9	150*
EX-P30A	300 μh	2.3	150*
EX-P50A	500 μh	3.0	150*
EX-001A	1 mh	4.3	150*
EX-002A	2 mh	8	110
EX-003A	3 mh	6.5	60
EX-005A	5 mh	11	47
EX-010A	10 mh	15.6	33
EX-020A	20 mh	28	23
EX-030A	30 mh	42	19
EX-050A	50 mh	48	14
EX-100A	100 mh	86	10
EX-200A	200 mh	139	6
EX-300A	300 mh	206	5
EX-400A	400 mh	310	4.5
EX-500A	500 mh	415	4



Prices subject to change without notice. Net prices shown for 1-9 quantity. For 1 to 249 pieces, see your stocking Triad Distributor for quantity discount schedule. For 250 or more pieces, contact your Triad Representative or call the factory.

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TRIAD DISTRIBUTOR DIVISION

A DIVISION OF LITTON INDUSTRIES

PRICE INDEX BY TYPE NUMBER

Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price
A-1X	2.23	A-200P	15.00	D-62	5.82	D-163	6.62	D-629	3.57	EC-700	4.95	EM-025A	5.57	EX-400A	8.70
A-3X	2.62	A-202P	20.85	D-63	6.40	D-164	7.05	D-630	7.68	EC-700A	6.73	EM-030	4.55	EX-500A	8.70
A-4X	2.67	A210P	10.86	D-64	7.50	D-165	7.41	D-631	7.86	EC-1000	5.27	EM-030A	6.02	F-1X	2.77
A-5X	2.97	A-300X	5.00	D-65	8.44	D-166	6.45	D-632	7.86	EC-1000A	6.77	EM-040	4.98	F-X3	4.55
A-6X	2.57	A-301X	4.40	D-66	9.60	D-167	6.10	D-638	7.72	EC-1500	5.44	EM-040A	6.43	F-5U	6.38
A-7J	4.78	A-302X	4.35	D-67	11.65	D-168	5.35	EA-001	3.45	EC-1500A	7.10	EM-050	4.55	F-6X	3.78
A-9J	8.67	A-304X	3.80	D-68	9.05	D-169	8.40	EA-001A	5.07	EC-2000	5.50	EM-050A	6.02	F-7X	3.57
A-10J	7.68	A-305X	3.60	D-69	7.28	D-170	6.77	EA-002	3.60	EC-2000A	7.15	EM-060	4.48	F-8X	5.39
A-11J	10.90	C-1X	1.87	D-70	8.40	D-171	7.33	EA-002A	5.00	EC-3000	5.90	EM-060A	5.93	F-9A	8.89
A-12J	9.52	C-2X	1.65	D-71	7.20	D-172	8.49	EA-003	3.52	EC-3000A	7.60	EM-070	5.32	F-9U	7.93
A-13J	10.12	C-3X	2.10	D-72	7.50	D-173	6.77	EA-003A	5.12	EC-4000	5.32	EH-070A	6.43	F-10U	10.07
A-21X	2.77	C-4X	1.77	D-73R	8.57	D-174	7.60	EA-004	3.68	EC-4000A	7.10	EM-100	5.33	F-11U	10.50
A-23X	2.85	C-5X	2.34	D-74	7.14	D-175	8.40	EA-004A	5.35	EC-5000	5.02	EM-100A	7.15	F-12X	4.62
A-31X	2.73	C-6X	2.04	D-75	8.40	D-176	2.85	EA-005	3.82	EC-5000A	6.78	EM-150	4.18	F-13X	2.45
A-33X	3.88	C-7X	2.67	D-76R	8.22	D-177	7.50	EA-005A	5.47	EC-7000	4.83	EM-150A	5.57	F-14X	2.85
A-35A	6.18	C-8X	2.50	D-77R	8.22	D-178	7.83	EA-007	4.35	EC-7000A	6.77	EM-200	5.50	F-15U	7.00
A-39A	6.22	C-9X	2.34	D-78	6.96	D-179	6.88	EA-007A	4.35	EC-10000	8.69	EM-200A	7.95	F-16X	4.73
A-40J	8.44	C-10X	3.21	D-79	7.57	D-180	7.88	EA-10	3.78	EC-10000A	10.49	EM-250	4.40	F-17U	11.74
A-41J	9.15	C-11X	3.18	D-80	7.95	D-181	9.49	EA-010A	5.32	EK-010	6.15	EM-250A	5.73	F-18A	7.05
A-42J	9.15	C-12A	5.00	D-81	7.27	D-182	7.20	EA-015	3.83	EK-010A	8.90	EM-300	5.17	F-18X	5.02
A-42Z	3.60	C-12X	3.39	D-82	9.32	D-183	8.40	EA-015A	5.45	EK-020	6.40	EM-300A	6.55	F-19X	4.23
A-50J	6.55	C-13X	3.24	D-83R	5.95	D-184	8.22	EA-020	3.17	EK-020A	9.17	EM-400	5.93	F-20U	7.82
A-51X	2.22	C-14A	5.43	D-84	9.35	D-185	8.70	EA-020A	5.12	EK-030	6.27	EM-400A	7.38	F-21A	9.00
A-52J	7.73	C-14X	3.33	D-85	9.44	D-186	7.80	EA-025	3.88	EK-030A	9.02	EM-500	4.73	F-22A	12.50
A-53X	3.18	C-15A	5.25	D-86	9.77	D-187	7.65	EA-025A	5.60	EK-040	6.67	EM-500A	6.15	F-23U	7.77
A54X	2.73	C-15X	3.68	D-87	8.18	D-188R	7.88	EA-030	3.35	EK-040A	9.24	EM-700	5.93	F-24U	6.68
A-55J	8.00	C-16A	7.68	D-88	7.40	D-189	9.05	EA-030A	5.38	EK-050	6.27	EM-700A	7.60	F-25X	3.17
A56J	7.15	C-17X	2.93	D-89R	9.55	D-190 Kit	7.73	EA-040	3.40	EK-050A	9.02	EM-1000	5.62	F-26X	3.65
A-58J	7.73	C-18A	8.49	D-90	8.45	D-191	8.60	EA-040A	5.55	EK-060	7.15	EM-1000A	6.90	F-27U	11.39
A-64J	5.95	C-19A	11.57	D-91	6.99	D-192	6.98	EA-050A	5.48	EK-060A	9.95	ET-001	4.27	F-28U	14.65
A-65J	8.89	C-20A	12.12	D-92	6.78	D-193	9.32	EA-050	3.45	EK-080	7.17	ET-001A	5.68	F-29U	11.52
A-66J	8.94	C-21X	2.38	D-93	6.17	D-194	7.20	EA-070	3.57	EK-080A	7.28	ET-002	4.27	F-30A	8.49
A-67J	8.90	C-22A	19.74	D-94R	7.50	D-195	6.50	EA-070A	6.40	EK-100	7.07	ET-002A	7.23	F-32A	5.82
A-68J	9.07	C-23X	2.48	D-95	7.20	D-196	6.57	EA-100	3.65	EK-100A	9.95	ET-003	4.00	F-34A	8.67
A-69J	8.34	C-24X	2.02	D-96	7.50	D-197	6.33	EA-100A	5.67	EK-120	7.62	ET-003A	5.50	F-36A	10.27
A-70J	7.15	C-25A	6.10	D-97R	6.82	D-198	6.67	EA-150	3.18	EK-120A	11.07	ET-004	4.27	F-38A	11.94
A-75J	7.73	C-26X	3.55	D-98R	10.57	D-199	7.35	EA-150A	5.10	EK-150	6.73	ET-004A	5.32	F-40X	3.39
A-77J	8.90	C-27X	2.10	D-99	7.35	D-200	6.68	EA-200	4.15	EK-150A	9.14	ET-005	3.40	F-41X	4.43
A-78J	8.90	C-28X	3.57	D-100	7.22	D-201	6.67	EA-200A	6.17	EK-200	7.14	ET-005A	5.43	F-42A	6.77
A-79J	8.60	C-29X	2.93	D-101	7.27	D-202	6.98	EA-250	4.44	EK-200A	9.99	ET-007	4.23	F-43X	3.84
A-81X	2.62	C-30X	2.17	D-102	7.65	D-203	6.27	EA-250A	6.62	EK-250	7.24	ET-007A	5.60	F-44X	3.32
A-83X	2.58	C-31A	7.12	D-103	7.50	D-204	6.38	EA-300	4.44	EK-250A	9.84	ET-010	5.02	F-45X	3.39
A-85X	3.06	C-32AL	11.57	D-104	6.30	D-205	6.67	EA-300A	6.22	EK-300	7.50	ET-010A	6.37	F-47U	6.30
A-89A	6.33	C-33A	10.34	D-105	8.90	D-206	7.65	EA-400	5.90	EK-300A	10.32	ET-015	3.65	F-48U	9.02
A-91A	8.45	C-34X	2.02	■D-106	6.78	D-207	7.92	EA-400A	7.95	EK-400	7.50	ET-015A	5.33	F-49U	13.55
A-95X	2.57	C-35A	12.00	D-107	8.44	D-208	6.88	EA-500	5.33	EK-400A	10.30	ET-020	3.77	F-50X	4.88
A-96X	3.67	C-36X	1.82	D-108	9.90	D-209	8.00	EA-500A	7.27	EK-500	5.85	ET-020A	5.12	F-51X	4.55
A-97K	4.28	C-38AL	21.62	D-109	6.90	D-210	6.67	EA-600	3.32	EK-500A	8.22	ET-025	3.68	F-52X	3.67
A-97X	2.38	C-39A	21.25	D-110	8.28	D-211	7.60	EA-600A	5.18	EK-700	5.78	ET-025A	5.45	F-53X	5.48
A-97Z	2.50	C-40X	2.67	D-111	8.10	D-212	7.41	EA-700	5.32	EK-700A	8.45	ET-030	5.98	F-60U	6.15
A-97Y	5.78	C-42AL	9.52	D-112	7.68	D-213	7.86	EA-700A	7.27	EK-1000	7.72	ET-030A	7.35	F-61U	9.27
A-98K	5.10	C-43X	4.77	D-113	8.57	D-214	8.94	EA-1000	4.37	EK-1000A	10.49	ET-040	3.78	F-62U	23.49
A-98X	2.68	C45AL	30.74	D-115R	7.17	D-215	8.34	EA-1000A	5.95	EK-1500	7.17	ET-040A	5.38	F-63U	6.43
A-99X	3.90	C-47U	7.48	D-114	8.44	D-216	8.94	EC-001	3.60	EK-1500A	10.39	ET-050	3.78	F-64U	6.57
A-101U	5.32	C-48U	9.55	D-116	10.94	D-217	6.57	EC-001A	5.10	EK-2000	7.88	ET-050A	5.48	F-65U	8.79
A-102X	3.40	C-49U	12.65	D-117	7.02	D-218	8.94	EC-002	3.72	EK-2000A	10.34	ET-060	3.83	F-66U	27.60
A-103X	3.93	C-80U	34.52	D-118R	7.65	D-219	8.94	EC-002A	5.33	EK-3000	6.52	ET-060A	5.55	F-67U	17.72
A-104X	3.87	CE-1	10.50	D-119	8.07	D-220	7.50	EC-003	3.78	EK-3000A	9.62	ET-070	3.48	F-68U	9.50
A-105X	3.93	CE-4	12.50	D-120	7.65	D-221	8.10	EC-003A	5.35	EK-4000	7.15	ET-070A	5.32	F-71U	5.15
A-107X	4.74	CL-1	.60	D-121	7.72	D-222	8.10	EC-004	3.83	EK-4000A	9.52	ET-100	4.87	F-72Z	4.52
A-108X	3.72	D-2	6.90	D-122	7.10	D-300	11.79	EC-004A	5.45	EK-5000	9.17	ET-100A	5.83	F-79U	24.74
A-109X	3.72	D-11	10.22	D-123	7.88	D-301	11.55	EC-005	4.02	EK-5000A	9.84	ET-150	4.55	F-80U	39.31
A-110X	3.57	D-14R	7.28	D-124	6.67	D-302	11.79	EC-005A	5.50	EK-7000	7.15	ET-150A	6.38	F-83A	10.84
A-111X	2.73	D-19	7.23	D-125	8.94	D-303	9.79	EC-007	4.00	EK-7000A	9.55	ET-200	4.65	F-84AC	20.27
A-112X	3.68	DA-20	3.93	D-126	9.17	D-304	11.55	EC-007A	5.62	EK-10000	9.67	ET-200A	6.43	F-90X	3.40
A-113X	2.98	D-22	7.80	D-127	7.44	D-601	7.80	EC-010	4.15	EK-10000A	12.69	ET-250	4.65	F-91X	4.00
A-113Z	3.43	■D-26	7.35	D-128	2.38	D-602	7.52	EC-010A	5.37	EK-20000	12.15	ET-250A	6.43	F-92A	7.73
A-114X	4.78	D-27	7.14	D-129	6.82	D-603	7.65	EC-015	4.60	EK-20000A	15.34	ET-300	4.00	F-93X	5.48
A-115X	3.40	D-28	6.57	D-130R	4.77	D-604	7.65	EC-015A	5.83	EK-25000	8.94	ET-300A	5.68	F-94X	3.22
A-115Z	3.40	■D-33	7.14	D-131	7.80	D-605	11.07	EC-020	4.67	EK-25000A	10.60	ET-400	4.00	F-102X	4.77
A-116X	3.82	■D-35	8.40	D-132	7.77	D-606	6.98	EC-020A	6.10	EK-30000	12.02	ET-400A	5.68	F-104U	9.15
A-117X	3.67	DA-36	3.77	D-133	7.72	D-607	8.28	EC-030	4.07	EK-30000A	15.22	ET-500	4.07	FL-381	3.90
A-118X	3.65	DA-37	2.49	D-134	8.94	D-608	7.50	EC-030A	5.45	EK-40000	9.05	ET-500A	5.67	FL-384	62.25
A-119X	3.23	D-40	9.95	D-135	2.02	D-609	6.82	EC-040	4.23	EM-001	4.34	ET-700	4.15	FL-385	61.42
A-120X	2.40	D-41	8.62	D-136	5.23	D-610	7.80	EC-040A	6.02	EK-40000A	11.44	ET-700A	5.83	FL-386	61.42
A-120Z	2.57	D-42	7.40	D-137	7.23	D-611	7.93	EC-050	4.60	EM-001A	5.68	ET-1000	5.27	FL-387	61.42
A-122X	2.16	D-44	6.65	D-138	7.68	D-612	7.80	EC-050A	6.38	EM-002	4.34	ET-1000A	7.00	FL-388	63.62
A-122Z	2.16	D-45R	6.40	D-139	6.18	D-613	7.77	EC-070	4.62	EM-002A	5.85	EX-P05A	8.10	FL-389	41.39
A-131X	3.67	D-46	9.32	D-141	7.50	D-614	8.34	EC-070A	6.40	EM-003	4.34	EX-P10A	8.10	G-2	24.53
A-132X	3.55	D-47R	7.50	D-142	12.89	D-615	6.68	EC-100	4.87	EM-003A	5.68	EX-P20A	8.10	G-2H3	23.65
A-133X	3.52	D-48	7.12	D-143	8.60	D-616	7.82	EC-100A	6.55	EM-004	3.93	EX-P30A	8.10	G-4	24.53
A-134X	4.50	■D-49	9.32	D-151R	6.45	D-617	8.40	EC-200	4.38	EM-004A	5.23	EX-P50A	8.10	G-4H3	23.65
A-135X	4.00	D-50	7.82	D-152	8.35	D-618	8.57	EC-200A	6.22	EM-005	4.48	EX-001A	8.10	G-5	21.20
A-136X	3.00	D-52	4.98	D-135 Kit	8.44	D-619	7.22	EC-250	4.23	EM-005A	5.95	EX-002A	8.10	G-5TS	28.90
A-137X	3.09	D-53	5.07	D-154	7.68	D-620	6.50	EC-250A	5.98	EM-007	4.44	EX-003A	7.50	G-7	21.20
A-138X	3.51	D-54	5.10	D-155	5.83	D-621	7.80	EC-300	4.77	EM-007A	5.67	EX-005A	7.50	G-8	28.07
A-139X	4.23	D-55	9.55	D-156	9.35	D-622	8.70	EC-300A	5.35	EM-010	4.50	EX-010A	7.80	G-9	21.20
A-140X	3.87	D-56	8.07	D-157	8.07	D-623	7.52	EC-400	3.95	EM-010A	5.55	EX-020A	7.80	G-10	28.07
A-141X	3.22	D-57	9.15	D-158	4.88	D-624	6.17	EC-400A	7.17	EM-015	4.17	EX-030A	7.80	G-12	20.00
A-142X	3.51	D-58	6.63	D-159	6.68	D-625	6.82	EC-500	4.62	EM-015A	5.67	EX-030A	7.80	G-14	19.60
A-143X	4.28	D-59	6.85	D-160	6.55	D-626	7.20	EC-500A	6.40	EM-020	5.12	EX-050A	8.10	G-14TS	24.53
A-144X	4.00	D-60R	6.43	D-161	7.50	D-627	7.90	EC-600	5.33	EM-020A	5.93	EX-100A	8.10	G-17	21.76
A-146X	3.84	D-61	5.55	D-162	9.15	D-628	7.68	EC-600A	6.88	EM-025	4.12	EX-200A	8.70	G-18	20.00
												EX-300A	8.70	G-18TS	24.40

†New item ■Discontinued item. Available until supply is exhausted

Prices subject to change without notice. Net prices shown for 1-9 quantity. For 1 to 249 pieces, see your stocking Triad Distributor for quantity discount schedule. For 250 or more pieces, contact your Triad Representative or call the factory.

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TRIAD DISTRIBUTOR DIVISION

A DIVISION OF LITTON INDUSTRIES

PRICE INDEX BY TYPE NUMBER

Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price
G-19	20.00	G-394	18.91	HSM-207	26.40	HS-475	25.62	N-35M	15.79	PL-82E	11.39	R-38A	18.18	R-111B	8.34
G-19TS	24.53	G-401	19.60	HSM-208	27.90	JAF-1	13.21	N-50M	23.94	PL-82H	12.69	R-38BC	20.45	R-112A	8.34
G-20	28.90	G-435	19.60	HSM-212	34.56	JAF-2	13.74	N-51X	4.17	PL-82P	12.02	R-39A	18.05	R-112B	8.23
G-20H	23.65	G-534TS	25.85	HSM-216	40.50	JAF-3	13.74	N-52M	28.07	PL-83E	12.17	R-39BC	18.90	R-113A	7.57
G-21	23.65	G-437	19.60	HSM-281	54.60	JAF-5	13.74	N-35M	15.79	PL-83H	12.92	R-40BC	23.65	R-113B	7.72
G-21TS	28.90	G-437TS	25.85	HSM-219	49.95	JAF-11	12.84	N-50M	23.94	PL-83P	12.27	R-41C	15.12	R-114A	9.95
G-22	31.22	G-455	19.60	HSM-223	11.61	JF-12	13.21	N-52M	28.07	PL-84E	11.82	R-42BC	14.49	R-114B	9.95
G-22H	25.85	G-475	20.32	HSM-224	18.32	JAF-13	13.74	N-51X	4.17	PL-84H	13.07	R-43C	12.22	R-115A	7.80
G-23	23.65	G-493	17.65	HSM-225	14.28	JAF-14	13.74	N-53M	9.32	PL-84P	12.42	R-45C	13.47	R-115B	7.68
G-23TS	28.90	G-500	32.80	HSM-226	16.32	JAF-15	13.74	N-54M	12.69	PL-124E	11.39	R-46A	25.12	R-116A	11.07
G-24	37.83	G-501	32.80	HSM-227	19.44	JAF-21	13.21	N-55M	17.82	PL-124H	12.77	R-49BC	20.32	R-116B	11.07
G-25	23.65	G-502	32.80	HSM-228	23.19	JAF-22	13.21	N-56M	34.27	PL-139E	9.80	R-49BS	21.27	R-118A	12.35
G-25TS	28.90	GF-600	36.84	HSM-229	21.96	JAF-23	13.74	N-57M	35.84	PL-139H	10.88	R-50A	26.06	R-118B	12.45
G-30	17.89	GF-601	47.87	HSM-230	15.72	JAF-24	14.30	N-59M	48.66	PL-139M	11.75	R-50BC	24.60	R-120A	12.45
G-30TS	24.40	GF-602	33.25	HSM-231	20.64	JAF-25	14.15	N60SC	104.79	PL-140E	11.39	R-51BC	14.17	R-120B	12.74
G-31	19.60	HC-25	21.25	HSM-232	22.41	JAF-26	14.30	N-62AC	54.30	PL-140H	12.77	R-52BC	17.15	R-121A	13.34
G-32	24.53	HC-115	29.25	HSM-233	14.00	JAF-31	14.18	N-64AC	27.39	PL-139E	9.80	R-54X	4.35	R-121B	11.65
G-33	21.20	HC-300	38.10	HSM-234	25.80	JAF-32	14.10	N-66A	15.22	PL-139H	10.88	R-56A	6.23	R-112A	15.19
G-34	27.89	HS-1	28.58	HSM-235	33.30	JAF-33	14.18	N-67A	10.39	PL-139M	11.75	R-58A	15.49	R-123HA	12.60
G-36	16.81	HS-3	31.10	HSM-236	21.54	JAF-34	14.10	N-68X	5.67	PL140E	11.39	R-60BC	20.39	R-124BC	11.90
G-36TS	25.85	HS-4	28.40	HSM-237	16.49	JAF-35	14.10	N-73A	10.60	PL-140H	12.77	R-61BC	22.29	R-125BC	15.15
G-40	21.20	HS-5	27.55	HSM-238	24.58	JAF-101	12.61	N-74A	10.45	PL-140M	13.85	R-62BC	26.82	R-126A	15.44
G-40TS	26.89	HS-8	28.58	HSM-239	18.00	JAF-102	12.70	N-469A	6.05	PL-146E	11.39	R-63BC	16.15	R-127A	15.07
G-48	16.39	HS-11	21.68	HSM-240	19.44	JO-1	13.38	N-470A	8.91	PL-146H	12.72	R-64BC	14.58	R-128BC	16.17
G-48TS	25.85	HS-14	22.52	HSM-241	33.00	JO-2	13.92	N-471A	12.15	PL-146M	13.84	R-65BC	14.35	R-129BC	15.22
G-51	19.60	HS-15	26.65	HSM-245	39.90	JO-3	14.04	NM-1	.60	R-2C	4.50	R-66BC	16.02	R-131A	17.02
G-51A	19.60	HS-23	21.73	HS-247	45.99	JO-5	13.92	NM-2	.72	R-3A	6.28	R-67BC	16.15	R-132BC	15.55
G-52	20.80	HS-25	21.73	HSM-248	26.10	JO-11	13.32	NW-3	.78	R-4A	6.15	R-68A	9.00	R-133A	14.62
G-53	20.80	HS-27	19.70	HSM-270	20.52	JO-12	13.74	NW-4	.78	R-4B	6.33	R-69BC	16.07	R-134A	14.50
G-53A	20.80	HS-29	27.50	HSM-271	26.10	JO-13	13.74	NW-5	.78	R-5A	7.40	R-70A	11.10	R-135BC	15.60
G-54	20.80	HSM-31	21.08	HSM-272	36.96	JO-21	13.74	NW-6	.72	R-5B	7.45	R-71A	17.72	R-136BC	15.84
G-57	16.81	HS-32	27.50	HS-273P	17.10	JO-22	13.74	NW-7	.60	R-6A	7.17	R-72A	11.77	R-138A	15.74
G-58	25.85	HS-35	19.51	HSM-301	11.82	JO-23	13.92	NW--10	.60	R-6B	7.50	R-73B	7.45	R-139A	15.45
G-64	16.39	HS-50	23.23	HSM-302	11.04	J-31	13.98	NW-11	.78	R-7A	8.44	R-74BC	17.99	R-200A	13.38
G-65	16.39	HS-52	24.02	HS-303	11.34	JO-101	12.60	NW-18	.60	R-7B	8.44	R-75BA/BC	16.07	R-201A	13.35
G-72	21.20	HS-54	28.58	HSM-305	12.24	JZ-1	11.79	NW-19	.60	R-8A	8.28	R-76BC	17.92	R-202A	13.31
G-80	24.58	HS-56	25.82	HSM-307	15.15	JZ-5	12.13	NW-22	.82	R-8B	8.34	R-77BC	19.50	R-203A	11.82
G-84	21.20	HS-58	30.32	HSM-309	16.32	JZ-7	11.79	NW-21	.67	R-9A	8.67	R-77BS	21.45	R-204A	12.87
G-85	21.20	HS-60	19.51	HSM-315	18.84	JZ-13	11.79	NW-23	.72	R-9B	9.05	R-78BC	16.90	R-205A	12.91
G-92	22.06	HS-61	20.65	HSM-319	26.01	JZ-15	11.79	NW-24	.72	R-10A	10.69	R-79BA	13.19	R-675A	17.57
G-101	19.60	HS-66	23.18	HS-331	8.16	JZ-25	11.47	NW-25	.67	R-10B	9.27	R-80BA/BC	18.84	S-1X	1.98
G-101TS	23.65	HS-71	14.41	HS-333	9.09	JZ-26	11.47	P-1A	9.12	R-11A	10.34	R-81BC	21.44	S-2X	2.45
G-135	19.60	HS-73	15.43	HS-335	11.49	K-20 Kit	4.50	P-3A	11.74	R-11B	10.22	R-81BS	21.42	S-3X	2.38
G-135	19.60	HS-75	18.19	HS-339	12.48	K-100	20.00	P-5A	12.50	R-12A	10.67	R-83A	14.24	S-4X	2.57
G-155	19.60	HS-77	21.20	HS-341	13.32	K-101	25.00	P-7A	14.65	R-12B	10.72	R-84K	6.15	S-5X	2.62
G-183	24.92	HSM-79	19.51	HS-400	13.31	K-102	33.00	P-9A	25.46	R-14A	12.40	R-85A	15.99	S-5Z	2.72
G-201	19.60	HSM-80	21.31	HS-401	17.64	M-1X	2.52	P-11A	12.50	R-14B	11.45	R-86BA	12.48	S-6X	1.98
G-202	20.00	HSM-81	23.60	HS-402	15.96	M-3X	4.50	P-14A	19.12	R-16A	13.00	R-87BC	14.64	S-6Z	2.17
G-235	19.60	HSM-82	23.60	HS-404	21.00	M-4Z	2.22	P-15AL	22.12	R-16B	13.69	R-88A	15.79	S-7X	2.02
G-250	19.60	HSM-84	23.60	HS-405	21.90	M-5Z	4.11	P-16AL	45.60	R-17A	15.39	R-89BC	16.15	S-8X	1.90
G-255	19.60	HSM-85	23.60	HS-407	26.34	M-6X	4.77	P-17AL	25.22	R-18A	12.66	R-90BC	16.07	S-8X	2.02
G-266	20.50	HSM-91	39.33	HS-409	22.38	M-7AL	11.22	P-18AL	52.20	R-18B	13.79	R-91HA	13.95	S-9X	2.33
G-274	20.41	HSM-94	43.65	HS-413	27.30	M-8AL	14.77	P-20AL	51.75	R-19A	17.94	R-92A	13.57	S-9Z	2.62
G-275	20.50	HSM-95	43.65	HS-415	34.20	M-12AL	17.89	PR-21AL	50.67	R-20A	12.50	■R-93A	16.17	S-11X	1.98
G-276	20.50	HS-97	82.26	HS-417	37.44	M-15A	9.05	P-213AL	19.50	R-20B	13.52	R-94H	26.11	S-11Z	2.10
G-283	24.92	HSM-181	23.60	HS-425	13.32	M-16AL	11.34	P-215AL	21.65	R-21A	15.82	R-104A	5.48	S-12X	1.90
G-284	20.00	HSM-182	23.60	HS-427	16.02	MB-20	.72	P-216AL	43.32	R-21B	14.79	R-104B	5.78	S-12Z	1.90
G-285	20.00	HSM-184	30.02	HS-433	17.76	MB-31	.45	P-217AL	24.67	R-22A	7.52	R-105A	6.90	S-13X	2.27
G-301	19.30	HSM-186	30.02	HS-435	19.86	MK-1	3.95	P-218AL	48.30	R-22B	7.85	R-105B	7.02	S-13Z	2.27
G-306	19.30	HSM-187	30.02	HS-436	11.40	MK-2	3.95	P-220AL	41.68	R-23B	6.15	R-106A	6.33	S-14Z	2.02
G-313	19.30	HSM-189	30.02	HS-438	16.38	MK-3	4.95	PL-4	10.68	R-24A	16.74	R-106B	6.65	S-15X	2.73
G-315	19.30	HSM-192	45.04	HS-441	27.15	MK-4	4.95	PL-5	12.14	R-24B	16.57	R-107A	7.60	S-10X	2.23
G-335	18.91	HSM-190	30.02	HS-442	19.08	N-1X	3.43	PL-6	12.14	R-25A	25.34	R-107B	7.62	S-16X	2.02
G-336	18.91	HSM-193	45.04	HS-443	16.08	N-3M	7.82	PL-10	1.78	R-26A	18.90	R-108A	7.28	S-17X	2.10
G-350	18.91	HSM-200	16.98	HS-444	26.70	N-4M	7.88	PL-80E	10.94	R-27A	37.29	R-108B	7.40	S-18X	2.33
G-355	18.91	HSM-201	21.66	HS-445	16.22	N-5M	11.55	PL-80H	12.14	R-28A	25.86	R-109A	9.17	S-18Z	2.35
G-388	19.30	HSM-202	14.75	HS-470	13.74	N-7M	18.52	PL-80P	11.52	R-29A	5.50	R-109B	7.17	S-19Z	3.12
G-389	19.30	HSM-203	22.86	HS-471	14.82	N-9M	36.33	PL-81E	11.47	R-30X	4.89	R-110A	11.82	S-20X	1.85
G-391	18.91	HSM-205	24.42	HS-472	18.60	N-11M	50.59	PL-81H	12.25	■R-35A	16.85	R-110B	8.85	S-20Z	1.85
				HS-474	22.85	N-34X	6.07	PL-81P	11.67	R-37BC	21.94	R-111A	8.34	S-21A	4.72

†New item ■Discontinued item. Available until supply is exhausted

Prices subject to change without notice. Net prices shown for 1-9 quantity. For 1 to 249 pieces, see your stocking Triad Distributor for quantity discount schedule. For 250 or more pieces, contact your Triad Representative or call the factory.

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TRIAD DISTRIBUTOR DIVISION

A DIVISION OF LITTON INDUSTRIES

PRICE INDEX BY TYPE NUMBER

Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price
S-21Z	4.05	S-64X	2.40	SP-36	6.32	T-14X	4.00	TY-44X	4.23	TY-92	15.50	WLC-8A	1.80	Y-41	6.90
S-22A	6.27	S-65X	2.57	SP-42	7.00	T-15X	4.11	TY-45X	4.78	TY-93	18.07	WLC-9	1.88	Y-41-2	8.55
S-23X	2.15	S-66X	2.57	SP-43	6.50	T-20X	3.68	TY-46X	2.45	TY-94	15.96	WLC-10	1.59	Y-41-3	7.68
S-24A	6.77	S-67X	2.27	SP-44	7.02	T-21X	3.45	TY-47X	4.67	TY-99	13.45	WLC-11	2.05	Y-42-2	8.73
S-25Z	4.52	S-68Z	3.78	SP-46	7.12	T-22X	3.45	TY-48X	4.50	TY-100	20.62	WLC-12	1.38	Y-43	6.98
S-26X	2.22	S-69Z	5.35	SP-47	7.38	T-23X	4.48	TY-49X	3.28	TY-101	19.67	WLC-17	1.41	Y-43-1	7.73
S-27A	5.85	S-70Z	3.83	SP-48	6.82	T-24X	3.72	TY-50X	6.28	TY-102	18.90	WLC-21	1.33	Y-44	5.95
S-28X	3.90	S-71Z	5.10	SP-49	5.38	T-25X	3.35	TY-51X	4.85	TY-200X	5.55	WLC-23	1.33	Y-44-1	8.10
S-29X	4.50	S-72Z	4.20	SP-50	6.67	T-26X	3.40	TY-52X	5.35	TY-201TZ	5.25	WLC-25	1.52	Y-45	7.27
S-30X	2.10	S-73X	4.00	SP-51	6.28	T-31X	4.23	TY-53X	3.67	TY-202A	5.10	WLC-26	1.62	Y-45-2	8.12
S-31A	6.85	SR-74K	6.45	SP-52	8.10	T-32X	3.45	TY-54X	5.00	TY-462	16.32	WLC-29	1.85	Y-46	5.95
S-32A	8.82	S-75K	11.32	SP-59	6.88	T-33X	4.90	TY-55X	4.73	TY-468	12.35	WLC-30	1.68	Y-46-3	7.57
S-34X	4.73	S-76Z	5.23	SP-60	7.00	T-34X	3.19	TY-56X	4.12	TZ-1	4.62	WLC-31	1.88	Y-47	5.98
S-35A	8.32	S-77U	11.32	SP-62	6.84	T-35X	3.68	TY-57X	4.55	TZ-2XT	5.83	Y-12	6.52	Y-48	6.40
S-36A	9.32	S-78Z	4.85	SP-63	6.28	T-41X	3.90	TY-58X	4.07	TZ-5	4.98	Y-12-1	7.23	Y-48-3	7.48
S-37X	5.07	S-79Z	5.32	SP-64	6.43	T-42X	3.90	TY-59X	5.83	TZ-7	3.95	Y-12-3	7.23	Y-49	7.68
S-38X	2.15	S-129Z	4.95	SP-65	7.50	T-101X	2.62	TY-60X	4.50	TZ-13	6.17	Y-17	6.33	Y-49-1	8.28
S-38Z	2.15	S-130Z	3.23	SP-66	7.68	T-102X	2.38	TY-61X	2.72	TZ-15	5.00	Y-17-1	7.15	Y-60	8.94
S-39X	2.40	S-131X	2.82	SP-67	6.90	TY-1XT	2.10	TY-62X	3.55	TZ-17XT	4.60	Y-17-2	8.55	Y-60-1	11.55
S-40X	4.60	S-132X	2.93	SP-68	7.95	TY-2Z	2.97	TY-63X	3.82	TZ-24XT	4.98	Y-17-3	7.00	Y-60-2	9.77
S-41X	2.05	S-133X	5.90	SP-69	7.18	TY-3XT	2.79	TY-64X	5.95	TZ-25	4.27	Y-19	6.78	Y-62	8.94
S-41Z	2.05	S-142A	11.17	SP-106	5.83	TY-4XT	2.10	TY-65Z	2.83	TZ-26	3.67	Y-19-1	6.82	Y-64	7.15
S-42A	15.19	S-144A	15.24	SP-107	5.34	TY-16XT	1.35	TY-66A	8.94	TZ-28	3.67	Y-19-3	6.82	Y-64-1	9.52
SR-45Z	6.79	S-146A	14.84	SP-108	5.90	TY-17XT	1.23	TY-67A	9.24	TZ-29XT	4.77	Y-20	6.78	Y-66-1	8.60
S-46A	9.67	S-148A	13.69	SP-117	4.88	TY-23X	5.00	TY-68S	5.50	TZ-32XT	5.02	Y-20-2	7.35	Y-70	8.94
S-47Z	3.84	S-149A	22.62	SP-118	5.68	TY-24X	3.23	TY-69S	9.49	TZ-103XT	3.00	Y-20-3	6.77	Y-70-1	9.52
S-48X	2.00	S-152A	19.05	SP-128	4.48	TY-25X	6.22	TY-70S	10.44	V-21	5.23	Y-21	6.27	Y-72-1	9.32
S-49X	2.12	S-154A	23.82	SP-310	.84	TY-26X	5.22	TY-71S	9.19	V-21B	5.39	Y-21-1	6.93	Y-81-3	10.02
S-50X	2.27	S-156A	16.50	SX-201	7.44	TY-28XT	4.28	TY-74S	8.94	V-21K	9.19	Y-21-3	7.05	Y-82-1	7.60
S-51X	3.77	S-158A	32.74	SX-202	7.41	TY-27XT	4.12	TY-75A	12.82	V-21Z	5.38	Y-22	6.78	Y-83-1	9.25
S-52X	4.38	SP-4	8.17	SX-203	7.26	TY-29X	3.68	TY-76A	9.60	V-23	5.50	Y-22-1	7.23	YC-1	.60
S-53X	3.93	SP-5	8.12	SX-204	7.44	TY-30X	2.98	TY-78	14.72	V-23B	6.65	Y-22-3	6.78	YC-110	.75
S-54X	4.52	SP-7	7.50	SX-205	7.50	TY31X	2.73	TY-79	15.34	V-23K	8.34	Y-24	6.57	YC-111	.75
S-55X	4.17	SP-11	7.00	SX-206	7.59	TY-32X	2.95	TY-80	15.94	V-23Z	5.67	Y-24-3	7.00	YC-112	.75
S-55Z	4.12	SP-15	7.48	SX-207	7.62	TY-33X	3.90	TY-81	15.19	VR-30Z	4.15	Y-25	5.83	YC-300-1	23.10
S-56Z	5.27	SP-20	7.27	SX-208	7.50	TY-34X	3.12	TY-82	15.27	V-31	4.47	Y-25-1	6.45	YT-101	9.50
S-57Z	5.39	SP-21	7.48	T-1X	4.98	TY-35X	3.17	TY-83	18.34	V-31K	6.96	Y-25-3	6.33	YT-102-2	9.80
S-58X	2.50	SP-22	7.77	T-2X	3.95	TY-36X	3.33	TY-84	15.84	WC-13	1.32	Y-26-2	6.68	YT-103-1	11.00
S-59Z	5.72	SP-29	7.50	T-3X	4.55	TY-37X	3.99	TY-85	28.20	WLC-3	1.33	Y-28	6.62	13500	6.85
S-60A	10.24	SP-32	6.34	T-5X	4.07	TY-38X	3.99	TY-86	19.75	WLC-4	1.32	Y-28-3	6.78	13510	6.85
S-61Z	5.39	SP-33	6.82	T-11X	3.57	TY-39X	5.15	TY-88	11.10	WLC-5	1.33	Y-30G	8.94	13750	3.92
S-62X	4.17	SP-34	6.55	T-12X	3.88	TY-40X	3.75	TY-89	13.72	WLC-6	1.32	Y-31G	8.94	13751	3.92
S-63X	3.05	SP-35	6.65	T-13X	3.72	TY-41X	3.84	TY-90	16.00	WLC-7	1.35	Y-40	6.78	13800	1.40
						TL-42X	4.40	TY-91	15.60	WLC-8	1.80	Y-40-3	7.65	13801	1.40

TRIAD CASES

	GB	HA	HB	JA	JB	KA	KB
A	2 3/8	2 5/8	2 5/8	3 1/16	3 1/16	3 3/8	3 3/8
B	2 3/4	3 1/16	3 1/16	3 9/16	3 9/16	3 15/16	3 15/16
C	2 13/16	4 1/4	3 3/16	4 7/8	3 7/8	5 1/4	4 5/16
D	2 1/8	2 19/64	2 19/64	2 5/8	2 5/8	3	3
E	1 3/4	1 55/64	1 55/64	2 1/8	2 1/8	2 7/16	2 7/16
G	3/8	3/8	3/8	3/8	3/8	1/2	1/2
I	6-32	8-32	8-32	8-32	8-32	10-32	10-32
Wt. (avg.) lbs.	1 3/4	2 1/2	2 1/4	4 1/2	4	7 3/4	7

	LA	LB	MA	MB	NA	NB
A	3 11/16	3 11/16	4	4	4 5/16	4 5/16
B	4 5/16	4 5/16	4 11/16	4 11/16	5 1/16	5 1/16
C	5 9/16	4 1/2	6	4 13/16	6 13/16	5 1/2
D	3 5/16	3 5/16	3 11/16	3 11/16	4 1/16	4 1/16
E	2 11/16	2 11/16	3	3	3 5/16	3 5/16
G	1/2	1/2	5/8	5/8	5/8	5/8
I	10-32	10-32	1/4-20	1/4-20	1/4-20	1/4-20
Wt. (avg.) lbs.	9 1/4	8 1/2	13 1/2	12 1/2	18	16

	AH	AJ	EA	EB	FA	FB	GA
A	1 5/16	1 5/8	1 13/16	1 13/16	2 1/16	2 1/16	2 3/8
B	1 5/16	1 5/8	1 15/16	1 15/16	2 5/16	2 5/16	2 3/4
C	1 3/4	2 3/8	2 3/4	2 7/16	3 1/8	2 1/2	3 13/16
D	1 1/4	1 3/16	1 3/8	1 3/8	1 11/16	1 11/16	2 1/8
E		1 3/16	1 1/4	1 1/4	1 7/16	1 7/16	1 3/4
G	3/8	3/8	3/8	3/8	3/8	3/8	3/8
I	6-32	6-32	6-32	6-32	6-32	6-32	6-32
Wt. (avg.) lbs.	4 oz.	9 oz.	1	15 oz.	1 3/4	1 1/2	2

	AF	AG	AH-2	AJ-2	JZ*†
A	3/4	1	1-5/16	1-5/8	9/16 dia.
B	3/4	1	1-5/16	1-5/8	Round
*†Bw	1-3/64	1-3/32	1-11/32		
C	1-1/8	1-3/8	1-3/4	2-3/8	25/32
D	*27/32	*1-1/32	*1-11/32	*1-5/8	
F	5/8	3/4	7/8	7/8	
I	4/40	6/32	6/32	6/32	
Unit	1-1/4	2-1/2	5-1/4	11	.5
Wt.	oz.	oz.	oz.	oz.	oz.

* Not in conformance with MIL-T-27A.
† Not in conformance with MIL-T-27

	GP-1	GP-2	GP-3	GP-4	GP-5
A	7/8	1 1/16	1 1/4	1 7/16	1 5/8
B	1 1/16	1 1/4	1 1/2	1 3/4	2
Bw	1 1/16	1 11/32	1 9/16		
C	1 11/16	2 1/4	2 3/8	2 1/2	2 3/4
D	1 3/32	1 3/16	1 15/32	1 1/2	1 1/2
F	3/4	3/4	15/16	15/16	15/16
Wt.	3 oz.	5 1/2 oz.	8 oz.	12 oz.	17 oz.

	JOA	JOB
A	15/16 dia.	15/16 dia.
B	Round	Round
C	1 13/32	1 25/32
D	9/16	9/16
F	7/8	7/8
Unit Wt.	2 oz.	2 1/2 oz.

SHIELDING

P-1—One nickel alloy high permeability shield — 45db. reduction in pickup.
P-3—Two nickel alloy shields interleaved with one heavy copper shading ring — 70db. reduction in pickup.
P-5—Three nickel alloy shields interleaved with two heavy copper shading rings— 95 db. reduction in pickup.

Prices subject to change without notice. Net prices shown for 1-9 quantity. For 1 to 249 pieces, see your stocking Triad Distributor for quantity discount schedule. For 250 or more pieces, contact your Triad Representative or call the factory.

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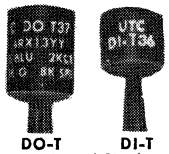
TRANSISTOR TRANSFORMERS *Hermetically sealed to MIL-T-27B*

DO-T* AND DI-T* TRANSISTOR TRANSFORMERS



DO-T DI-T
(Actual Size)

Revolutionary transistor transformers hermetically sealed to MIL-T-27B specs. Plastic insulated solderable leads, firmly anchored to withstand 10 pound pull. Ideal for printed circuits. DO-T: 5/16" dia. x 13/32" long, wt., 1/10 oz. DI-T: 5/16" dia. x 1/4" long, wt., 1/15 oz. these compact units provide frequency response, high efficiency and low distortion. U.S. Pat. No. 2,949,591

DO-T Type	DI-T Type	Net Each	Application	Pri. Imped., Ohms	Sec. Imped. Ohms
DO-T1	DI-T1	$6.00	a	20K/30K, 0.5 ma	800/1200
DO-T2	DI-T2	5.40	b	500/600, 3 ma	50/60
DO-T3	DI-T3	5.40	b	1K/1.2K, 3 ma	50/60
DO-T4	.....	5.40	b	600, 3 ma	3.2
DO-T5	DI-T5	5.40	b	1.2K, 2 ma	3.2
DO-T6	.....	6.00	b	10K, 1 ma	3.2
DO-T7	.....	6.60	c	200K	1K
DO-T8	DI-T8	4.80	d	3.5 hys. @ 2 ma	2.5 hys.‡‡
DO-T9	DI-T9	6.60	e	10K/12K, 1 ma	500/600 CT
DO-T10	DI-T10	6.60	f	10K/12.5K, 1 ma	1.2K-1.5K CT
DO-T11	DI-T11	6.60	f	10K/12.5K, 1 ma	2K/2.5K CT
DO-T12	.....	5.70	b	150/200 CT, 10 ma	12/16
DO-T13	.....	5.70	b	300/400 CT, 7 ma	12/16
DO-T14	.....	6.00	b	600/800 CT, 5 ma	12/16
DO-T15	.....	6.00	b	800/1070 CT, 4 ma	12/16
DO-T16	.....	6.00	b	1K/1330 CT, 3.5 ma	12/16
DO-T17	.....	6.00	b	1.5K/2K CT, 3 ma	12/16
DO-T18	.....	6.30	b	7.5K/10K CT, 1 ma	12/16
DO-T19	DI-T19	6.00	b	300 CT, 7 ma	600
DO-T20	DI-T20	6.00	b	500 CT, 5.5 ma	600
DO-T21	DI-T21	6.00	b	900 CT, 4 ma	600
DO-T22	DI-T22	6.00	b	1500 CT, 3 ma	600
DO-T23	DI-T23	6.90	a	20K/30K CT, .5 ma	0.8K/1.2K CT
DO-T24	.....	7.50	c	200K CT	1K CT
DO-T25	DI-T25	7.20	a	10K/12K CT, 1 ma	1.5K/1.8K CT
DO-T26	DI-T26	5.70	d†	6 hys. @ 2 ma	4.5 hys.‡‡
DO-T27	DI-T27	4.80	d‡	1.25 hys. @ 2 ma	0.9 hy.‡‡
DO-T28	DI-T28	4.80	d§	0.3 hy. @ 4 ma	0.1 hy.‡‡
DO-T29	.....	5.70	b	120/150 CT, 10 ma	3.2/4
DO-T30	.....	5.70	b	320/400 CT, 7 ma	3.2/4
DO-T31	.....	6.00	b	640/800 CT, 5 ma	3.2/4
DO-T32	.....	6.00	b	800/1K CT, 4 ma	3.2/4
DO-T33	.....	6.00	b	1060/1330 CT, 3.5 ma	3.2/4
DO-T34	.....	6.00	b	1.6K/2K CT, 3 ma	3.2/4
DO-T35	.....	6.30	b	8K/10K CT, 1 ma	3.2/4
DO-T36	DI-T36	7.50	a	10K/12K CT, 1 ma	10K/12K CT
DO-T37	DI-T37	7.80	a	2K/2.5K CT, 3 ma	8K/10K Split
DO-T38	DI-T38	7.80	a	10K/12K CT, 1 ma	2K/2.4 Split
DO-T39	.....	7.80	a	20K/30K CT, .5 ma	1K/1.5K Split
DO-T40	.....	8.40	a	40K/50K CT, .25 ma	400/500 Split
DO-T41	DI-T41	7.50	a	400/500 CT, 8/6 ma	400/500 Split
DO-T42	.....	7.50	a	400/500 CT, 8/6 ma	120/150 Split
DO-T43	DI-T43	7.50	a	400/500 CT, 8/6 ma	40/50 Split
DO-T44	DI-T44	7.50	a	80/100 CT, 12/10 ma	32/40 Split
DO-T45	.....	7.80	a	1K/1.25K CT, 3.5 ma	16K/20K Split
DO-T46	.....	8.40	c	100K CT	500 CT
DO-T47	.....	8.10	a	9K/10K, 1 ma	9K/10K CT
DO-T48	.....	7.80	a	8K/10K, 1 ma	1.2K/1.5K CT
DO-T49	.....	7.80	d§§	Series—.075 hys @ 10 ma, 10.5Ω Parallel—.018 hys @ 20 ma, 2.6Ω	
DO-T50	.....	5.70	d§§	Series—20 hys @ 1 ma, 5100Ω Parallel—5 hys @ 2 ma, 1275Ω	
DO-T51	DI-T51	7.80	a	2K/2.5K CT, 3 ma	2K/2.5 K split
DO-T52	DI-T51	7.80	a	4K/5K CT, 2 ma	8K/10K CT
DO-T400	.....	6.60	h	28V, 380-1 KC	6.3 V, 60 ma
DO-T410	.....	7.80	h	28V, 380-1 KC	Two 6.3 V, 30 ma
DO-T420	.....	7.80	h	28V, 380-1 KC	28 V, 10 ma
DO-TSH	DI-TSH	.90		High mu shield and cover; 25 db	

•630 ohms. †2100 ohms. ‡100 ohms. §25 ohms.
‡‡DI-T primary impedance. §§2 Wdgs.
a—Interstage; b—Output; c—Input; d—Inductor; e—Driver or Output; f—Driver; g—matching; h—Power Unit.

NEW DI-T200* SERIES TRANSISTOR TRANSFORMERS

These revolutionary transistor transformers embody the same rugged reliable construction afforded by the unique winding techniques and physical construction found in the DO-T & DI-T transformers. DI-T200 series differ by having straight pin, 1" long, .017 d. Dumet wire, gold plated leads.
To MIL-T-27B, size 5/16 x 3/8", wt. 1/15 oz. U.S. Pat. No. 2,949,591

Type No.	Application	Pri. Imped., Ohms	Sec. Imped., Ohms	Net Each
DI-T225	Interstage	80 CT 100 CT	32 Split 40 Split	$8.40
DI-T230	Output or Matching	300 CT	600 Split	7.20
DI-T235	Interstage	400 CT 500 CT	40 Split 50 Split	8.40
DI-T240	Interstage or Output (Ratio 2:1:1)	400 CT 500 CT	400 Split 500 Split	8.40
DI-T245	Output or Matching	500 CT 600 CT	50 CT 60 CT	6.90
DI-T250	Output or Mixing	500 CT	600 CT	7.20
DI-T255	Output or Matching	1,000 CT 1,200 CT	50 CT 60 CT	6.90
DI-T260	Output	1,500 CT	600 CT	7.20
DI-T265	Isolation or Interstage	2,000 CT 2,500 CT	8,000 Split 10,000 Split	8.70
DI-T270	Output or Driver	10,000 CT 12,000 CT	500 CT 600 CT	7.80
DI-T273	Output or Driver	10,000 CT 12,500 CT	1,200 CT 1,500 CT	7.80
DI-T276	Interstage or Driver	10,000 CT 12,000 CT	2,000 CT 2,400 CT	7.80
DI-T278	Interstage or Driver	10,000 CT 12,500 CT	2,000 Split 2,500 Split	8.70
DI-T283	Isolation or Interstage	10,000 CT 12,000 CT	10,000 CT 12,000 CT	8.40
DI-T288	Interstage or Driver	20,000 CT 30,000 CT	800 CT 1,200 CT	8.10
DI-T204	Split Inductor (2 wdgs)	Series: .1 hy @ 4 ma DC, 25Ω Parallel: .025 hy @ 8 ma DC, 6Ω		6.00
DI-T208	Split Inductor (2 wdgs)	Series: .9 hy @ 2 ma DC, 105Ω Parallel: .2 hy @ 4 ma DC, 26Ω		6.00
DI-T212	Split Inductor (2 wdgs)	Series: 2.5 hy @ 2 ma DC, 630Ω Parallel: .6 hy @ 4 ma DC, 157Ω		6.00
DI-T216	Split Inductor (2 wdgs)	Series: 4.5 hy @ 2 ma DC, 2300Ω Parallel: 1.1 hy @ 4 ma DC, 575Ω		6.90
DI-T200SH	Drawn Hipermalloy shield provides 15 to 20 db shielding through side of case			.75

NEW PIL* ULTRAMINIATURE AUDIO INDUCTORS

The new PIL series constitutes the smallest audio inductors available. These units are metal encased, ruggedized manufactured and guaranteed to MIL-T-27B. They are MIL Type TF4RX-20YY. Physical construction is that of the PIP (DO-T, DI-T) units shown on this page.

Type No.	Con-nection	Ind.Hys. Min @ IV, 1KC	DC ma	DCR Ohms
PIL-5	Series	.12	0	43
	Parallel	.03	0	10.7
	Series	.10	10	
	Parallel	.025	10	
PIL-8	Series	.32	0	115
	Parallel	.08	0	28
	Series	.16	10	
	Parallel	.06	10	
PIL-12	Series	.8	0	300
	Parallel	.2	0	75
	Series	.4	5	
	Parallel	.15	5	

5/16" Dia. x 5/16" high Wt. 1/20 oz.

PIP* SERIES TRANSISTOR PULSE TRANSFORMERS

UTC's PIP series of subminiature transistor type pulse transformers is designed to give a maximum of component density in equipments, their configuration being especially compatible with transistors. The design is based on the UTC DO-T and DI-T series to impart exceptional reliability. PIP-1 through PIP-9 have a ratio of 4:4:1, PIP-10 through PIP-12 have a ratio of 5:3:1. All units are checked and adjusted in a transistor test circuit to give the required pulse width.

Hermetically sealed, manufactured & guaranteed to MIL-T-20138B by full environmental testing . . . all units, completely METAL CASED, MIL type TP6RX4410CZ. See UTC page 6 for other miniature pulse transformers.

All Units Individually Adjusted to Parameters Shown in Table

U.S. Pat. No. 2,949,591

5/16" Dia. x 3/16" high
Weight 1/20 oz.

Type No.	APPROX. DCR, OHMS 1-Brn 2-Rd	3-Org 4-Yel	5-Grn 6-Blu	BLOCKING OSCILLATOR PULSE Width µSec.	Rise Time	% Over Shoot	Droop %	% Back Swing	COUPLING CIRCUIT CHARACTERISTICS P Width µSec.	Volt Out	Rise Time	% Over Shoot	Droop %	Back Swing	Imp. in, out,	Net Each
PIP-1	.18	.20	.07	.05	.02	0	0	37	.05	9	.018	0	0	12	50	$6.00
PIP-2	.47	.56	.17	.1	.025	0	0	25	.1	8	.02	0	0	5	50	6.00
PIP-3	1.01	1.25	.37	.2	.030	2	0	15	.2	7	.035	0	0	5	100	6.00
PIP-4	1.5	1.85	.54	.5	.05	0	0	15	.5	7	.06	0	0	0	100	6.00
PIP-5	2.45	3.1	.9	1	.08	0	0	14	1	6.8	.15	0	0	5	100	6.00
PIP-6	3.0	3.7	1.1	2	.10	0	0	15	2	6.6	.18	0	2	10	100	6.00
PIP-7	4.9	6.05	1.8	3	.20	0	0	14	3	6.8	.20	0	2	10	100	6.00
PIP-8	8.0	9.7	2.9	5	.30	0	0	3	5	7.9	.22	0	13	25	200	6.00
PIP-9	13.1	15.9	4.7	10	.35	0	5	12	10	6.5	.4	0	15	20	200	6.00
PIP-10	.55	.41	.15	.1	.01	0	0	20	.1	8	.01	0	0	5	140/50	6.00
PIP-11	2.9	2.2	.82	1	.02	4	4	6	1	6.6	.05	0	6	12	280/100	6.00
PIP-12	9.4	7.1	2.6	5	.05	0	12	12	5	8	.09	2	12	25	560/200	6.00
PIP-100	Transistor pulse transformer kit, consisting of PIP-1 thru PIP-9 in plastic case.															51.00
PIP-SH	Drawn Hipermalloy shield and cover for PIP's provides 20 to 30 db shielding.															.90

UTC PAGE 1. *UTC Trade Mark. All Product Lines or Type Designations are UTC Trade Marks. Specify by Trade Mark to assure UTC high quality and reliability. © 1964 United Transformer Corp., New York, N. Y.

Net

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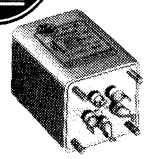
TRANSISTOR TRANSFORMERS *Hermetically sealed to MIL-T-27B*

TRANSISTOR SUPPLY TRANSFORMERS



Primary 115V. 50/60 cycles (tapped on H-143 thru H-146 for dual secondary voltages). DC ratings are approximate, based on silicon bridge rectifier (except H-141, H-142 also shown F.W.CT.). Choke input DCV is based on 10% voltage drop in choke. Condenser value, C, is in 1000 mfd. H-141, H-142, H-147 listing under "Secs in parallel" is single winding. All units MIL type TF4RX02.

Type No.	Sec. V Rms	Sec. A Rms	Sec. in Parallel: Choke DCV	Input DCA	Cond. DVC	Input DCA	C	Sec. in Series: Choke DCV	Input DCA	Cond. DVC	Input DCA	C	MIL Case	Net Each
H-141	20 CT	.3	16.5	.3	26	.2	.2						EB	$10.20
			8	.43	12	.3	.5							
°H-142	20 CT	.6	16.5	.6	26	.4	.4						EA	12.90
			9	.85	13	.6	1							
H-143	17/21.5	1.5	14/17.5	3	18.5/25	2	1	28/35	1.5	43/56	1	.5	HA	18.60
	17/21.5	1.5												
H-144	17/21.5	4	14/17.5	8	18.5/25	5	2	28/35	4	43/56	2.5	1	LA	30.00
	17/21.5	4												
H-145	17/21.5	9	14/17.5	18	18.5/25	12	6	28/35	9	43/56	6	4	RC-175	45.90
	17/21.5	9												
H-146	34/43	4.5	28/35	9	43/56	6	4	56/70	4.5	85/110	3	1	UTC Pg. 9	45.90
	34/43	4.5												
H-147	10	20	8.2	20	10	13	12						KA	27.00

UNIVERSAL TRANSISTOR SUPPLY TRANSFORMERS

Low Voltage DC Supply
Telephone Supply
Bias Supply
Battery Chargers
Plating Rectifiers

UTC universal transistor supply transformers are high reliability units in drawn MIL cases. Primary tapes can modify nom. AC voltages by −6%, +6%, and +12%. The capacitor following the rectifier affects the DC voltage.

PRIMARY 115 VOLTS, 50/60 CYCLES
NOMINAL SEC. VOLTS, 8.25 to 40.5

Type No.	MIL DC Range	Indust. DC Range	MIL CASE	Net Each
H-915	6V-.065A to 53V-.02A	6V-.085A to 53V-.025A	AH	$11.70
H-925	6V-.22A to 53V-.07A	6V-.28A to 53V-.085A	AJ	12.90
H-935	6V-1.2A to 53V-4A	6V-1.52A to 53V-.48A	FA	14.40
H-94	6V-3A to 53V-1A	6V-3.8A to 53V-1.2A	HA	19.80
H-95	6V-7.5A to 53V-2.5A	6V-9A to 53V-3A	KA	28.80
H-96	6V-18A to 53V-6A	6V-23A to 53V-7.5A	OA	48.00

PRIMARY 115 VOLTS, 50/60 CYCLES
NOMINAL SEC. VOLTS, 16.5 TO 81

H-965	12V-1.5A to 106V-.5A	12V-1.9A to 106V-.6A	HA	20.40

NEW 400-CYCLE MET* TYPES

PRIMARY 115 VOLTS, 400 CPS.
NOMINAL SEC., 8.25-40.5 VOLTS

MET 455	6V-1.2A to 53V-.4A	6V-1.52A to 53V-.48A	AJ	$12.90
MET 465	6V-3A to 53V-.4A	6V-3.8A to 53V-1.2A	FA	14.40
MET 475	6V-7.5A to 53V-2.5A	6V-9A to 53V-3A	HA	20.40

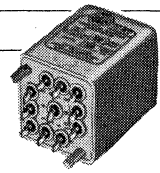
400 CYCLE MOLDED TYPES

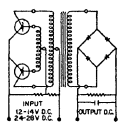
Primary 105/115 Volts 380-1000 Cycles. Sec: 6.3 VCT 2500V RMS Test — MOLDED 400 CYCLE TYPE TF5SX01ZZ

Type No.	Sec. Amp.	L In.	W In.	H In.	Wt. Lbs.	Net Each
H-101	3.5	1 25/32	1 31/32	2	.3	$14.10
H-102	5.5	1 3/4	2	2 1/4	.44	15.00
H-103	10	2 5/16	2 1/8	2 1/2	.8	17.40
H-104	25	2 7/8	2 1/2	3 1/32	1.5	21.90
H-118	.3	Sub ounces mold see pg. 10				9.00

TRANSISTOR INVERTER TRANSFORMERS

High reliability (layer insulated) types providing high efficiency in small size. Units are in drawn MIL cases. Circuit details supplied with transformer. With 6 V. input instead of 12 V., output voltage is halved, current rating remains the same.





FOR 12/14 OR 24/48 VOLT BATTERY

Type No.	DC output, when used in circut shown	MIL Case	Net Each
H-97	250V.-60MA	AH	$14.70
H-98	375V.-100MA	AJ	15.90
H-99	425V.-175MA	FA	20.40
H-100	550V.-200MA	GB	21.00

IMMEDIATE DELIVERY ON ALL ITEMS FROM STOCK

NEW MET* 400-CYCLE SERIES

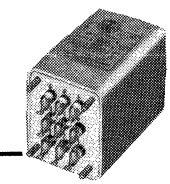
Type No.	MIL Type	Sec. Volt	Amps. (MIL)	Amps. (Indust.)	Sec. Test V.RMS	MIL Case	Net Each
MET-410#	TF4SX01YY 400 cy. pri.	6.3	.6	.75	500	RC-25	$ 7.80
MET-420	TF4SX01AH 3800-1000 cy.‡	6.3CT	2	2.5	1500	AH	9.60
MET-430†	TF4SX01FA 400 cycles§	12.6CT 12.6	2 2	2.5 2.5	1500	FA	18.00
MET-435	TF4SX01FA 380-1000 cy.‡	6.3CT	10	12	2500	FA	12.00
MET-440	TR4SX01GB 380-1000 cy.‡	6.3CT 6.3CT	6 6	7 7	2500	GB	15.00

†Two MET-430's, Scott-connected, provide 26v., 2-phase from 115 v., 3-phase 400 cps input. Replaces former No. H-139. ‡105/115/125 v. primary. §57.5/99.7/115 v. primary. #Replaces former No. H-140.

HERMETIC SEALED TRANSISTOR/FILAMENT SUPPLY TRANSFORMER

Primary: 105/115/210/220 volts, 50/60 cycles, except H-130, H-137, H-138, H-104 (115v.) and H-131 (115/220v.) Suited to 400/100 cycle service. H-128: 6½" x 5½" x 7¾" h. (wt. 34 lbs.) H-129: 6½" x 5½" x 7¾" h. (wt. 28 lbs.)

METAL CASED TF4 TYPE



MIL T-27B RATINGS IN REGULAR TYPE, INDUSTRIAL RATINGS IN BOLD TYPE

Type No.	MIL Type	Sec. Volts	Amps. (MIL)	Amps. (Indust.)	Sec. Test V. RMS	MIL Case	Net Each
H-119	TF4RX01AH	6.3CT	.3	.38	1500	AH	$ 8.40
H-120	TF4RX01GB	2.5	10	12	4000	GB	13.80
H-121	TF4RX01JB	2.5	10	12	10000	JB	18.00
H-122	TF4RX01KB	2.5	20	26	10000	KB	21.00
H-123	TF4RX01NB	2.5	5	7.5	10000	NB	36.00
		2.5	5	7.5			
		2.5	10	15			
H-124	TF4RX01FB	5	3	3	2000	FB	12.00
H-125	TF4RX01KB	5	10	12	10000	KB	21.00
H-126	TF4RX01LA	5	20	25	10000	LA	27.00
H-127	TF4RX01NA Term. Opp. Mtg.	5	20	30	21000	NA	45.00
H-128	TF4RX01YY Term. Opp. Mtg.	5	60	75	21000		81.00
H-129	TF4RX01YY	5	10	12	21000		90.00
	Term. Opp. Mtg.	5	10	12			
		5	20	24			
H-130	TF4RX01AJ	6.3CT	.6	.75	1500	AJ	9.00
H-131	TF4RX01FB	6.3CT	2	2.5	2500	FB	12.00
H-132	TF4RX01JA	6.3CT	6	7	2500	JA	19.20
		6.3CT	6	7			
H-133	TF4RX01HB	6.3CT	7	8	2500	HB	15.00
H-134	TF4RX01HA	6.3CT	10	12	2500	HA	16.80
H-135	TF4RX01JB	10 CT	10	13	2500	JB	21.00
H-136	TF4RX01LA	14, 12, 11 CT	10	14	2500	LA	27.00
H-137	TF4RX01EB	6.3	.6	.75	1500	EB	12.00
		6.3	.6	.75			
H-138	TF4RX01GA	12.6	2	2.5	1500	GA	19.50
		12.6	2	2.5			
		400 CYCLE TYPE					
H-139*	TF4RX01FA	12.6CT	2	2.5	1500	FA	18.00
	Pri. 400 cyc. 57.5,99.7,115V	12.6	2	2.5			
H-140	TF4RX01YY Pri. 400 Cyc.	6.3	.6	.75	500	RC-25 UTC Pg. 5	7.80

*Two H-139's Scott connected provide 26 volt two phase from 115V. three phase 400 cycle input.

 *UTC Trade Mark. All Product Lines or Type Designations are UTC Trade Marks. Specify by Trade Mark to assure UTC high quality and reliability. © 1964 United Transformer Corp., New York, N. Y.

TRANSISTOR TRANSFORMERS
(Commercial Types)
& M-S Transformers & Inductors

TRANSISTOR TRANSFORMERS *(Commercial Type)*

NEW CAT★ TRANSISTOR IMPEDANCE TYPES

All units in RC-50 case. Frequency range, ±2 db, 50-15,000 cps. Power level 1 watt except CAT-15, 5 watts.

UTC Type	Application	Imped. Ohms	Primary Unbal. Ma DC	Secondary Imped., Ohms	Net Each
CAT-15	Output	48/12 spl.	750•	16 spl./8/4	$8.10
CAT-20	Istg./outp.	500/125 spl.	20	16/4 split	7.80
CAT-25	Isol./outp.	500/125 spl.	20	500/125 spl.	7.80
CAT-30	Input/istg.	500/125 spl.	20	2K/500 split	7.80
CAT-40	Istg./outp.	10K/2.5K spl.	8	2K/500 split	7.80

•Balance. ★Trade mark.

CHANNEL FRAME FILAMENT/TRANSISTOR TRANSFORMERS
Pri. 115 V. 50/60 Cycles—Test Volts RMS: 1500

Type No.	Secondary	W	D	H	M	Lbs.	Net Each
FT-1	2.5 VCT-3A	2⅞	1⅝	1 11/16	2⅜	¾	$4.05
FT-2	6.3 VCT-1.2A	2⅞	1⅝	1 11/16	2⅜	¾	3.90
FT-3	2.5 VCT-6A	3 5/16	1⅞	2	2 13/16	1	4.50
FT-4	5.3 VCT-3A	3 5/16	1⅞	2	2 13/16	1	4.50
FT-5	2.5 VCT-10A	3¾	2⅛	2 5/16	3⅛	1½	4.65
FT-6	5 VCT-3A	3¾	2⅛	2 5/16	3⅛	1½	4.65
FT-7	7.5 VCT-3A	3¾	2⅛	2 5/16	3⅛	1½	4.65
FT-8	6.3 VCT-8A	4	2½	2⅝	3 5/16	2½	5.40
FT-10	24 VCT-2A or 12V-4A	4	2⅝	2 11/16	3 5/16	2½	5.55
FT-11	24 VCT-1A or 12 V-2A	3¾	2⅛	2 5/16	3⅛	1½	4.95
FT-12	36 VCT-1.3A or 18 V-2.6A	4	2⅝	2⅝	3 5/16	2½	5.55

Taps on pri. of FT-13, FT-14 & FT-15 to modify sec. nominal V, −6% +6%, +12%

FT-13	26 VCT-.04A	2⅛	1⅜	1¼	1¾	¼	$4.20
FT-14	26 VCT-.25A	2⅛	1⅝	1 11/16	2⅜	¾	4.50
FT-15	48VCT-1A	4	2½	2⅝	3 5/16	2½	6.30

TRANSISTOR/FILAMENT TRANSFORMERS
Pri. 115 x 50/60 Cycles; Bridge Rectifier
S-77, S-78 & S-79 Tapped For Dual Secondary Voltages

UTC Type	DCV	DCA	Case No. See Page 11	Net Each
S-75	5.2/14	1.2/.4	G-1	6.00
S-76	10/26	4/1.4	G-4	9.00
S-77	14/56	3/1	G-5	10.20
S-78	28/110	9/3	G-10	30.00
S-79	32/120	3/1	G-7	18.00

CIRCUIT DEVELOPMENT TRANSFORMERS FOR TRANSISTORS

The UTC LABoratory circuit development transformers aid the designer in selecting optimum impedances for best power and distortion results from his transistor circuit.

LAB-5
20 Cycles to 20kc
Up to 50mw Continuous

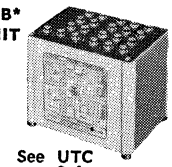
Pri Imp. Ω	Sec. Imp. Ω
125	125
200 split	200 split
500 split	500 split
2000 split	2000 split

Net Each: $48.00

LAB-10 units in LS-1 case

LAB-20 units in LS-3 case

LAB* UNIT



See UTC page 8 for dimensions Terminal board as shown above

LAB-10
20 Cycles to 20kc
Up to 1W Continuous

Pri. Imp. Ω Range	Pri. to Sec. Ratio	Sec. Imp. Ω Range
1900 Ω to 14,400 Ω	20:1 or 10:1	19 Ω to 36 Ω
925 Ω to 7600 Ω	10:1 or 5:1	37 Ω to 76 Ω

Net Each: $30.00

LAB-20
20 Cycles to 20kc
Up to 50W Continuous

Pri. Imp. Ω	Sec. Imp.
6, 12, 24, 40, 54, 70,	4, 8, 16, 64

Net Each: $60.00

TRANSISTOR/FILAMENT SUPPLY TRANSFORMERS
Primary 115 volts 50/60 cycles

Type No.	Sec. V RMS	Sec. A RMS	In Parallel Choke in DCV	In Parallel Choke in DCA	In Parallel C in DCV	In Parallel C in DCA	In Series Choke in DCV	In Series Choke in DCA	In Series C in DCV	In Series C in DCA	Case No. See Pg. 9	Net Each
CG-30	17/21.5 17/21.5	1.5 1.5	14/17.5	3	18.5/25	2	28/35	1.5	43/56	1	RC-112	$18.90
CG-31	34/43 34/43	4.5 4.5	28/35	9	43/56	6	56/70	4.5	85/110	3	RC-175	42.00
CG-32	6.3VCT	1.2									RC-62	10.50

FILAMENT/TRANSISTOR SUPPLY TRANSFORMERS

Primary 105, 115, 210, 220, 230 volts, 50/60 cycles, except CG-34 . . . 105, 115, 220, 230. These transformers may be used on 25 to 43 cycles if 220 volt primary is used on 110 volts. Secondary voltage is simultaneously reduced to half.

Type No.	Sec. Volts C.T.	Sec. Amp.	Working Voltage	Sec. Test Volts RMS	Case No. See Page 9	Net Each
CG-33	6.3	4	500	2000	RC-75	$ 9.00
CG-34	2.5	10	2500	6000	RC-112	10.20
CG-35	6.3	6	500	2000	RC-87	9.60
CG-36	6.3/6.3	5/5	500	2000	RC-100	13.50
CG-120	2.5	10	5000	11000	RC-125	15.00
CG-121	5	25	5000	11000	RC-150	18.00
CG-122	7.5/6.3	10	1500	4000	RC-125	15.00
CG-124	10	10	1500	4000	RC-150	15.00
CG-125	14/12/11	10	1500	4000	RC-150	18.00
CG-126	14/11/10 14/11/10	10	1500	4000	RC-152	24.00

RC CASE
See Pg. 9

MILITARY STANDARD TRANSFORMERS AND INDUCTORS

Hermetically Sealed To MIL-T-27B Specifications

Made and guaranteed to meet MIL-T-27B by full environmental testing.

FILAMENT, POWER, PLATE TRANSFORMERS

Primary 105/115/125 v., 54/66 cycles. Current ratings are for high voltage secondary DC, choke input filter. For condenser input, reduce by 70%. All units are MIL grade 4, ruggedized; equally usable where grade 1 is specified. Electrostatically shielded.

UTC Type	MS No.	MIL Type TF4RX-	Secondary Rating	MIL Case	Net Each
N-583A	90016-2	01EB002	2.5 v.-3 a.; 1000 WV	EB	$10.20
N-584A	90017-2	01GB003	2.5 v.-10 a.; 1000 WV	GB	14.10
N-585A	90018-2	01FB004	5 v.-3 a.; 1000 WV	FB	11.10
N-586A	90019-2	01HB005	5 v.-10 a.; 1000 WV	HB	15.30
N-587A	90020-2	01FB006	6.3 v.-2 a.; 1000 WV	FB	11.10
N-588A	90021-2	01GB007	6.3 v.-5 a.; 1000 WV	GB	12.90
N-589A	90022-2	01JB008	6.3 v.-10 a.; 1000 WV	JB	17.70
N-590A	90023-2	01KB009	6.3 v.-20 a.; 1000 WV	KB	22.50
N-591A	90024-2	01JB012	2.5 v.-10 a.; 6300 WV	JB	18.00
N-592A	90025-2	01KB013	5 v.-10 a.; 6300 WV	KB	21.00
N-593A	90026-2	03HA001	200-100-0-100-200, 70 ma; 6.3/5 v.-2 a.; 6.3 v.-3 a.	HA	20.70
N-594A	90027-2	03JB002	325-0-325, 70 ma; 6.3/5 v.-2 a.; 6.3 v.-4 a.	JB	22.35
N-595A	90028-2	03KB006	325-0-325, 150 ma; 5 v.-3 a.; 6.3 v.-5 a.	KB	25.35
N-596A	90029-2	03LB003	400-0-400, 175 ma; 5 v.-3 a.; 6.3 v.-8 a.	LB	27.30
N-597A	90030-2	03MB004	450-0-450, 250 ma; 5 v.-3 a.; 6.3 v.-8 a.	MB	33.90
N-598A	90031-2	02KB001	350-0-350, 250 ma	KB	19.80
N-599A	90032-2	02LB002	550-0-550, 250 ma	LB	26.85
N-600A	90036-2	02NB003	800-0-800, 250 ma	NB	37.50

AUDIO TRANSFORMERS

Frequency response 300-10,000 cps, ±2 db. Split 600-ohm units provides for 600 ohms CT and 1500 ohms. Electrostatic shielding provided on W-784, W-785 and W-786. No. W-783 has center-tapped secondary for 90K CT or 22.5K CT. All units in AJ case. Wt., 0.6 lb.

UTC Type	MS No.	MIL Type TF1RX-	#	Pri. Ohms	Pri. DC Ma., Unbal.	Sec. Ohms	Net Each
W-783	90000-1	15AJ001	a	10K CT	10	90K spl.	$15.90
W-784	90001-1	16AJ002	b	600 spl.	.....	4/8/16	14.70
W-785	90002-1	10AJ001	c	600 spl.	.....	135K CT	14.10
W-786	90003-1	16AJ001	d	600 spl.	.....	600 spl.	14.10
W-787	90004-1	13AJ001	e	7.6K/4.8K	40	600 spl.	12.75
W-788	90005-1	13AJ002	f	7.6K/4.8K	40	4/8/16	12.90
W-789	90006-1	13AJ003	g‡	15K CT	10	600 spl.	12.45
W-790	90007-1	13AJ004	g+	24K CT	20†	600 spl.	12.90
W-791	90008-1	13AJ005	g#	60K CT	20+	600 spl.	12.45

Use: a—PP plates to pp grids, 15 dbm level. b—Line to VC, 2 watts. c—Line to pp grids, 15 dbm. d—Line to line, 15 dbm. e—Plate to line, 2 watts. f—Plate to VC, 2 watts. g—PP plates to line. †Balanced. ‡2 watts. +1 watt. #0.5 watt.

INDUCTORS

Two windings for series or parallel connection. Inductance shown for series connection. All but Z-847 are standard MIL case types. Rated 3500 WVDC, unless otherwise noted.

UTC Type	MS No.	MIL Type	Induct. Hy.	Ma DC	DCR Ohms	MIL Case	Net Each
Z-848•	90009-1	04FA001■	16	80	645	FA	$11.40
Z-849•	90010-1	04GA002■	25	80	670	GA	14.10
Z-850•	90011-1	04HA003■	40	80	1020	HA	21.30
Z-851†	90013-1	04HA005■	16	125	330	HA	16.50
Z-852†	90014-1	04JB006■	25	125	460	JB	24.30
Z-853	90037-1	04KA007■	40	125	535	KA	29.40
Z-854	75000-2	04LA009•	16	200	180	LA	31.50
Z-855	75001-2	04MA010•	25	200	210	MA	36.90
Z-856	75002-2	04NA012•	16	315	105	NA	43.20
Z-857	75003-2	04YY013•	25	315	150	YY	75.00

•1000 WVDC. †2000 WVDC. ■TF1RX-. •TF4RX.

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Net

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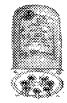
HERMETIC COMPONENTS *Hermetically sealed to MIL-T-27B*

HERMETIC AUDIO UNITS

RC-25


RC-50

FH

SM

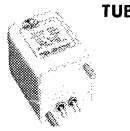
These extremely compact units are proved to specifications of MIL-T-27B. **Response & level ratings:** RC-25: Similar to Ouncers for case (1 13/32" x 61/64" x 1 7/16" h. 1.5 oz.). RC-50: Similar to ultra compact units for case (1 5/8" x 1 5/8" x 2 5/16" h. 8 oz.). SM: Similar to SSO units for case (1 1/16" x 1 1/2" x 29/32" h. 0.8 oz.). FH: 27/32" x 23/32" x 9/16", h. .8 oz.

UTC Type	Application	Pri. Imped., Ohms	Sec. Imped., Ohms	#	Net Each
H-1	Line to grid	50, 200 CT, 500 CT	50K	a	$9.00
H-2	Mike to grid	82, 50 ma	135K	a	9.90
H-3	Pl. to grid	15K	60K	a	7.80
H-4	Pl. to grid	15K, 4 ma	60K	a	7.80
H-5	Pl. to p-p	15K	95K CT	a	8.40
H-6	Pl. to p-p	15K, 4 ma	95K split	a	10.20
H-7	Pl. to line	20K CT, 4 ma	150/600	a	9.60
H-8	Mixing	150/600	600 CT	a	9.00
H-9	Input	150/600	1 meg.	a	9.00
H-10	Pl. to grid	10K	1 meg.	a	8.40
H-11	Reactor: 300 hys, 50 hys @ 3 ma, 600 ohms			a	7.50
H-12	Line to p-p	50, 200 CT, 500 CT	50K CT	a	9.60
H-13	Interstage	10K/2.5K split	2K/.5K split	a	9.00
H-14	Interstage	10K/2.5K split	4K/1K split	a	9.00
H-15	Tr. to line	1.5K CT	500/125 split	a	9.00
H-16	Tr. to V.C.	2K/4K CT	8/16	a	9.00
H-17	Tr. Input	600/150 split	2K/500 split	a	8.70
H-18	Tr. Interstage	10K CT	500/125 split	a	8.70
H-19A	Input*	250 CT/500 CT	50K/100 CT	b	16.50
H-20	Interstage	15K split	80K split	b	15.00
H-21	Pl. to p-p	15K, 8 ma	80K split	b	18.00
H-219	Tr. Interstage	50K CT	500/125 split	a	9.00
H-22	Pl. to line	15K, 8 ma	50/200, 125/500	b	15.90
H-220	Tr. Interstage	500/125 split	500/125 split	a	8.70
H-221	Tr. Interstage	500/125 split	150/37.5 split	a	8.70
H-222	Split Inductor:	Series: 60 Mhy-80 ma, 4 ohms Parallel: 15 Mhy-160 ma, 1 ohm		a	6.00
H-224	Split Inductor:	Series: 1 Hy-20 ma, 60 ohms Parallel: .25 Hy-40 ma, 15 ohms		a	6.00
H-225	Tr. interstage	100/25 split	40/10 split	a	8.70
H-23	P-p to line	30K split	50/200, 125/500	b	16.20
H-24	Inductor: 250 hys. @ 5 mat, 65 hys. @ 10 mat			b	10.80
H-25	Mixing	500 CT	125/500	b	15.00
H-26	Interstage	10K/2.5K split	2K/500 split	b	15.00
H-27	Tr.to V.C.	500 CT	16/4 split	b	15.00
H-280	Interstage	200 CT	400 split	b	12.00
H-281	Tr. to V.C.§	48 CT	16, 8, 4	b	12.00
H-282	Tr. to V.C.††	20 CT	16, 8, 4	c	12.60
H-283	Mixing/ Matching	50, 125/150 200/250, 333 500/600	50, 125/150, 200/250, 333 500/600	b	17.40
H-284	Split Inductor:	Series: 4 Hys-50 ma, 100 ohms Parallel: 1 Hy-100 ma, 25 ohms		b	7.20
H-286	Split Inductor:	Series: 40 Hys-15 ma, 1000 ohms Parallel: 10 Hys-30 ma, 250 ohms		b	7.50
H-290	Shld. chopper	2500 e. s.	100K	b	19.80
H-291	Max. shld. chop.	2000/500 e. s.	312K	c	28.80
H-295	Shld. chopper	10K/2.5K e. s.	50K	f	18.00
H-30	Input	50	62,500	d	8.40
H-31	Pl. to grid	10K	90K	d	8.40
H-32	Pl. to line	10K, 3 ma	200	d	8.40
H-33	Output	30K, 1 ma	50	d	8.40
H-35	Inductor: 100 hys., 50 hys. @ 1 ma, 4400 ohms			d	6.90
H-36	Interstage	25K, 0.5 ma	1K	d	7.50
H-37A	Tr. output	500 CT	50	d	7.50
H-38	Interstage	10K CT, 2 ma	1.2K CT	d	7.50
H-39	Interstage	10K CT, 2 ma	2K CT	d	7.50
H-40A	Tr. output	500 CT	600 CT	d	7.50
H-41A	Tr. output	1500 CT	600 CT	d	8.40
H-42A	Isol./Tr. inter.	10K CT	10K CT	d	8.40
FHA-15	Tr. Interstage	10K CT/2.5K split	200 CT/50 split	e	8.10
FHA-25	Tr. Interstage	20K CT/5K split	800 CT/200 split	e	8.10
FHI-3	Split Inductor:	Series: 60 Mhys-32 ma, 6 ohms Parallel: 15 Mhys-64 ma, 1.5 ohms		e	6.00
FHI-7	Split Inductor:	Series: 1 Hy-8 ma, 100 ohms Parallel: .25 Hy-16 ma, 25 ohms		e	6.00
FHI-11	Split Inductor:	Series: 2.4 Hys-2 ma, 160 ohms Parallel: .6 Hys-4 ma, 40 ohms		e	6.00

*Has 75 db shielding. †6000 ohms. ‡1500 ohms. §5 watts. ††10 watts.

#Case: a—RC-25. b—RC-50. c—RC-62. d—SM. e—FH. f—RC-37. (See above & pg. 9)

HERMETIC SEALED FILTER INDUCTORS TUBE and TRANSISTOR TYPE


METAL CASED TF4 TYPE
H-70 thru H-79, H-164 thru H-173

MOLDED MIL TYPE TF5SX04ZZ
H-105 thru H-109 & H-300

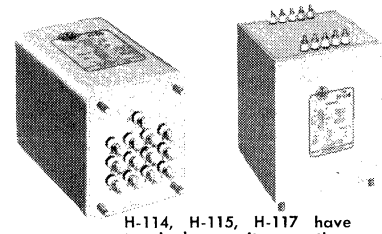
The multiple ratings for the "H" series of filter chokes suit these units for the complete gamut of military and industrial applications. Transistor supply units are swinging type to enhance regulation. H-79 terminals opposite mounting.
*Relates to ripple voltage, in input filter circuits only.

Type No.	Ind. Hys.	@	MA DC	Res. Ohms	Max. DCV* Ch. Input	Test V. RMS	MIL Case	Net Each
H-70	20		20	925	350	1000	AH	$ 7.20
H-71	20		40	350	500	2500	FB	8.40
H-72	13		70	215	500	2500	GB	9.00
H-73	11		100	150	700	2500	HB	11.40
H-74	11		150	135	700	2500	JB	12.90
H-75	11		200	90	700	2500	KB	17.40
H-76	11		200	85	1500	4500	LB	24.00
H-77	10		300	60	2000	5500	MB	27.00
H-78	7		400	48	2500	7000	OA	34.50
H-79	7		800	20	3000	9000	7x7x8	90.00
H-164 †	45‡		35	1.2		500	AG	6.60
(2 wdgs.) *	11.25‡		70	.295				
H-166 †	125‡		50	1.2		500	AH	7.50
(2 wdgs.) *	31‡		100	.3				
H-168 †	68‡		100	.8		750	AJ	8.40
(2 wdgs.)*	17‡		200	.2				
H170 †	.18		125	.6		1000	GB	10.20
(2 wdgs.) *	.045		250	.15				
H-171 †	9‡		.75A	.03		1000	JA	15.00
(2 wdgs.) *	2.25‡		1.5A	.0075				
H-172 †	70‡		.25A	.22		1000	HA	12.60
(2 wdgs.) *	17.5‡		.5A	.055				
H-173 †	90‡		.5A	.15		1000	KA	21.00
(2 wdgs.) *	22.5‡		1A	.038				

Type No.	Inductance Henries @ DC MA	DCR Ohms	Test Volts	L	W	H	Wgt. Lbs.	Net Each
H-105	2.5 @ 25 MA	225	1000	1¼	5/16	5/16	.1	$ 5.70
H-106	2.25 @ 60 MA	110	1000	1⅝	1⅝	1⅜	.28	6.00
H-107	2 @ 120 MA	55	2500	2⅛	1¾	1 33/64	.9	7.50
H-108	2 @ 220 MA	35	2500	2⅞	2½	2 17/32	1.7	9.60
H-109†	.2 @ 150 MA	.6	750	2⅞	2½	2 17/32	1.7	10.80
(2 wdgs.)*	.06 @ 250 MA	.15						
H-300 †	1 @ 5 MA	40	500	1	¾	23/32	0.5	6.30
(2 wdgs.)*	.25 @ 10 MA	10						

†Split winding in series *Split winding in parallel
‡Rated in millihenries

HERMETIC SEALED POWER and PLATE TRANSFORMERS


H-114, H-115, H-117 have terminals opposite mounting.

Power transformers: primary 115V, 60 cycles suited to 50*-1000 cycles service. Plate transformers: primary 105/115/210/220 volts, 50/60 cycles. "L" ratings are choke input . . . "C" ratings are condenser input. H-80 thru H-197 MIL type TF4RX03, H-110 thru H-117 MIL type TF4RX02. The tapped high voltage winding provides either of two secondary voltages for greatest versatility. The power transformer listings indicate DC voltages and permissible currents for both choke and condenser input filters, as well as for military and industrial applications.

"W" suffix units designed for full wave center tap and full wave bridge application. Center tap of secondary may be disconnected from ground.

MIL-T-27B Ratings in Regular Type, **Industrial Ratings in Bold Type**

Type No.	HV Sec. C. T.	DC	Approx. Volts	DC MA	Fil. Wdg.	DC	Approx. Volts	DC MA	Fil. Wdg.	MIL Case	Net Each
H-80	450	C	240	30	6.3VCT-2A	C	215	38	6.3VCT-2.5A	FA	$12.90
	500	L	170	95		L	160	110			
H-81		C	270	55	6.3VCT-3A	C	245	75	6.3VCT-3A	HA	18.00
	550	L	200	85	5V-2A	L	180	105	5V-2A		
		C	310	50		C	280	65			
	550	L	180	145		L	160	190			
H-82		C	290	90	6.3VCT-4A	C	270	115	6.3VCT-4.5A	JB	20.40
	600	L	215	135	5V-2A	L	190	180	5V-2A		
		C	330	85		C	315	100			
	600	L	215	165		L	200	210			
H-83		C	315	100	6.3V-5A	C	320	120	6.3V-6A	JA	21.00
	670	L	250	150	5V-2A	L	230	200	5V-2A		
		C	400	90		C	380	110			
	700	L	245	225		L	240	255			
H-84		C	390	135	6.3V-5A	C	375	160	6.3V-6A	KA	26.40
	750	L	275	205	6.3V-1A	L	270	230	6.3V-1.5A		
		C	430	125	5V-3A	C	410	150	5V-4A		
	700	L	245	300		L	230	370			
H-85		C	390	190	6.3V-6A	C	355	230	6.3V-6A	LA	30.00
	750	L	270	280	6.3V-1.5A	L	250	350	6.3V-2A		
		C	425	170	5V-3A	C	395	210	5V-4A		
	720	L	270	310		L	250	360			
H-86		C	425	180	6.3V-6A	C	395	225	6.3V-7.5A	MB	30.90
	790	L	295	300	6.3V-2A	L	280	350	6.3V-2A		
		C	475	160	5V-3A	C	440	210	5V-4A		
	730	L	245	420		L	230	515			
H-87		C	390	275	6.3V-6A	C	390	300	6.3V-6A	NB	36.00
	800	L	275	400	6.3V-2A	L	275	480	6.3V-2A		
		C	440	250	5V-4A	C	430	290	5V-6A		
	850	L	305	430		L	275	550			
H-89		C	460	280	6.3V-8A	C	445	340	6.3V-10A	OA	49.50
	1050	L	400	400	6.3V-4A	L	370	500	6.3V-5A		
		C	600	260	5V-6A	C	575	320	5V-6A		
	900	L	340	200	6.3V-5A	L	330	220	6.3V-6A	KA	27.00
H-91	1000	L	390	190	6.3V-1A 5V-3A	L	385	195	6.3V-1.5A 5V-4A		
H-92	900	L	340	265	6.3V-6A	L	330	310	6.3V-8A	MB	33.00
	1050	L	400	240	6.3V-2A 5V-4A	L	395	290	6.3V-2A 5V-4A		
H-93	1000	L	370	300	6.3V-8A	L	340	390	6.3V-10A	OA	49.50
	1200	L	465	265	6.3V-4A 5V-6A	L	455	350	6.3V-5A 5V-6A		
H-194**	200	L	170	140	6.3V-3.5A	L	160	155	6.3V-4A	HA	21.00
		C	275	85		C	260	95			
	235	L	200	125		L	190	135			
		C	325	75		C	310	85			
H-195**	215	L	185	285	6.3V-5A	L	175	300			
		C	300	180		C	285	195	6.3V-6A	JA	24.00
	265	L	230	240		L	220	255			
		C	375	150		C	360	165			
H-196**	230	L	200	445	6.3V-5A	L	190	480			
		C	320	280	6.3V-1.5A	C	300	300	6.3V-6A	KA	30.00
	285	L	250	380		L	240	420	6.3V-2A		
		C	400	235		C	380	260			
H-197**	260	L	230	500	6.3V-6A	L	220	550			
		C	360	320	6.3V-2A	C	340	350	6.3V-7A	MB	42.00
	320	L	280	420		L	270	470	6.3V-2A		
		C	450	260		C	430	290			
H-198 Highly shielded Scope transformer	No CT 800 1600 2400		1000 2000 3000	5 5 5	1.25 V—.2A connected to one end of HV winding. 6.3 V—.6A 5.2 KV RMS test voltage					HA	27.00
H-110	1050	L	365	300		L	400			MB	27.00
	1200	L	430	275		L	385				
H-110W‡		L	730	210		L	280				29.70
		L	860	190		L	265				
H-111	1050	L	415	500		L	600			NA	33.00
	1200	L	480	450		L	550				
H-111W‡		L	830	350		L	420				36.00
		L	960	310		L	380				
H-112	1500	L	615	320		L	385			NA	36.00
	1900	L	790	275		L	330				•
H-112W‡		L	1230	220		L	270				39.60
		L	1580	190		L	230				
H-113	2500	L	1050	310		L	375			†	54.00
	3000	L	1275	275		L	330				
H-114	2500	L	1050	475		L	525			‡	81.00
	3000	L	1265	425		L	475				
H-115	3500	L	1500	275		L	375			‡	81.00
	4400	L	1900	235		L	320				
H-117	5000	L	2125	950		L	1150			††	291.00
	6000	L	2550	850		L	1050				

*For 50 cycles, secondary current ratings reduced by 10%.
**DC ratings for bridge rectifier circuits.
†6x5⅛x6¾, ‡6¾x6½x8, ††11x11x14¾
‡ New full wave bridge rectifier types

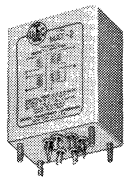
IMMEDIATE DELIVER ON ALL UTC STOCK ITEMS

 *UTC Trade Mark. All Product Lines or Type Designations are UTC Trade Marks. Specify by Trade Mark to assure UTC high quality and reliability. © 1964 United Transformer Corp., New York, N. Y.

HERMETIC COMPONENTS *Hermetically sealed to MIL-T-27B*

MAT* MAGNETIC AMPLIFIERS FOR SERVO MOTOR APPLICATIONS

VACUUM TUBE TYPE



The MAT 1-4 Magnetic Amplifiers are exceptionally stable units designed for the control of 2 phase, 115V., 400 cycle servo motors. They are compact . . . hermetically sealed . . . maanetically shielded . . . and meet MIL-T-27B and MIL-E-5400 Specifications. The output is sinusoidal, amplitude variable, and phase reversible. Control is provided by a dual triode such as 12AU7 operating with a plate voltage of 115 volts, 400 cycles, or higher. The signal to the triode grids can be polarity reversible DC or phase reversible 400 cycles with or without suppressed carrier modulation. These units eliminate DC power requirements as well as temperature sensitive dry disc rectifiers. The high input impedance provides minimum loading on sensing elements and high power gain. Ringing at low load level has been reduced to a minimum through high internal damping factors. The power output figures are conservative . . . power gain of the *Magnetic Structure* is approximately 40 . . . response time approximately 7.5 milliseconds. The maximum null voltage is 3 volts RMS. For single phase supply voltage the load capacitor should effect 90° phase shift with motor load . . . for 3 phase, 30° phase shift.

Type No.	MAT-1	MAT-2	MAT-3	MAT-4
230 Volt Supply				
Power output	4 W.	8 W.	11 W.	18 W.
RL, ohms	3300	1600	1200	720
CL, mfd., approx.	.2	.3	.5	.7
115 Volt Supply				
Power output	2 W.	4 W.	6 W.	9 W.
RL, ohms	6500	3300	2200	1450
CL, mfd.	.13	.2	.3	.45
Reson. Freq.	40 cyc.	35 cyc.	35 cyc.	20 cyc.
Log-Decr.	.18	.23	.03	.65
Cont. Wdg. Res.	6200 ohms	8450 ohms	4750 ohms	5650 ohms
Case, Length, in.	1¼	1½	1¾	2⅛
Width, In.	1 15/16	2⅛	2½	3⅛
Height, In.	2⅜	2¾	2 15/16	3⅜
Mtg. Dim., In.	13/16 x 1½	1 x 1⅝	1⅛ x 1⅞	1½ x 2½
Studs, stainless	4-40	6-32	8-32	8-32
Cutout, in.	1	1	1	1
Unit Weight, lbs.	.67	1.1	1.7	2.75
Net Each	**$27.00**	**$30.00**	**$36.00**	**$39.00**

MAT-5 115V.-400 cyc. to 460 VCT; provides 230V. 48 MA DC or 460V. 24 MA DC. RC-37 Case (UTC pg. 9). MIL type TF4SY02YY. **Net Each $10.80**

MAT-6 Input . . . 10,000 ohms pri. . . . 1:15 C.T. ratio . . . phase shift under 1°. . . . RC-25 case (UTC pg. 5). MIL- type TF4RX10YY. **Net Each $9.00**

TRANSISTOR TYPE

UTC transistor MAT units are identical to their vacuum tube counterparts, but designed for low impedance control. The input transformer may be chosen by impedance ratio rather than precise rated impedance.

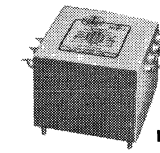
Type No.	MAT-7	MAT-8	MAT-9	MAT-10	MAT-60
Power output	4 W.	8 W.	11 W.	18 W.	50 W.
RL, ohms	3300	1600	1200	720	260
CL, mfd approx.	.2	.3	.5	.7	.7
Cont. Wind. Res.	38Ω	52Ω	30Ω	36Ω	50
Case Length, In.	2 5/16	2½	2¾	2 23/32	MIL MB
Width, In.	1 13/16	2¼	2½	2 23/32	
Height, In.	1 17/32	1 11/16	2	2¼	
Mtg. Dim., In.	1⅜ x 1⅞	1 13/16 x 2	1 15/16 x 2 5/16	2⅜ x 2⅜	60 cycle type
Studs, stainless	4-40	6-32	8-32	8-32	
Cutout, In.	1	1	1	1	
Weights, lbs.	.65	1.1	1.7	2.75	
Net Each	**$25.80**	**$28.80**	**$34.50**	**$37.50**	**$54.00**

MAT-11 115V.-400 cyc. to two 28 Volt .2A windings for 56 VCT-.2A or 28 V- .4 A. RC-37 (UTC pg. 9) case. MIL type. TF4SY02YY. **Net Each $10.05**

MAT-65 115V. 60 cyc. to 8.5 VCT @ 500 ma & 63 VCT @ 300 ma. FA case. MIL Type TF4SX02FA. **Net Each 12.60**

ULTRASHIELDED POWER-LINE ISOLATION TRANSFORMERS

Simllates battery operation for critical circuits requiring extreme isolation from power line.



HIT*

Designed to give the ultimate in isolation, for line-powered equipment, which formerly could only be obtained from battery power. The effective capacity coupling between primary and secondary windings is less than 0.1 MMFD. For this purpose shields are individually terminated to allow maximum flexibility. Input and output terminals are brought out on opposite sides of a special housing in order to maintain the excellent isolation between line and load.

MIL-T-27B Ratings in Regular Type
Industrial Ratings in Bold Type
Primary 115 V 50/60 Cycles

Type No.	Power Watts	Power Watts	Case Size	Net Each
HIT-1	50	**60**	4 1/32 x 4 1/32 x 3 1/32"	**$33.00**
HIT-15	120	**150**	5 17/32 x 5 x 3 1/2"	**39.00**
HIT-2	160	**200**	5 17/32 x 5 17/32 x 4 17/32"	**48.00**
HIT-3	400	**480**	8 x 6 17/32 x 5 17/32"	**69.00**
HIT-4	1000	**1200**	9 x 7 1/2 x 7 1/2"	**120.00**
HIT-450†	80	**100**	4 1/32 x 4 1/32 x 3 1/32"	**33.00**

†Primary, 115v. 400 cps. Secondary, 115 volts.

PRECISION MINIATURE WIDE APPLICATION PULSE TRANSFORMERS

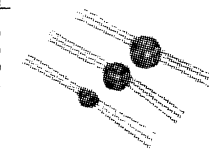
UTC miniature, wound core, pulse transformers are individually precision adjusted in standard test circuits to close tolerances. They are high reliability units, hermetically sealed by vacuum molding and suited for service from −70° C. to +130° C. Wound core structure provides excellent temperature stability (unlike ferrite). Designs are high inductance type to provide minimum of droop and assure true pulse width. H-45 thru H-57 ratio 1:1:1. H-60 thru H-69 ratio 4:4:1. Others ratio 5:3:1.

See PIP pulse units on UTC page 1

ALL UNITS INDIVIDUALLY ADJUSTED TO PARAMETERS SHOWN IN TABLES

TRANSISTOR PULSE TRANSFORMERS

Type No.	APPROX. DCR, OHMS 1-2	3-4	5-6	BLOCKING OSCILLATOR PULSE Width μ Sec.	Rise Time	% Over Shoot	% Droop	% Back Swing	COUPLING CIRCUIT CHARACTERISTICS P Width μ Sec.	Volts Out	Rise Time	% Over Shoot	% Droop	% Back Swing	Imp. in, out, ohms	Net Each
H-60	.124	.14	.05	.05	.016	0	0	30	.05	9.3	.012	0	0	20	50	**$ 6.60**
H-61	.41	.48	.19	.1	.016	0	0	30	.1	8.2	.021	0	0	15	50	**6.60**
H-62	.78	.94	.33	.2	.022	0	0	18	.2	7.4	.034	0	5	12	100	**6.60**
H-63	1.86	2.26	.70	.5	.027	2	10	20	.5	7.5	.045	0	20	25	100	**6.60**
H-64	3.73	4.4	1.33	1	.033	0	12	25	1	7	.078	0	15	23	100	**6.60**
H-65	6.2	7.3	2.22	2	.066	0	15	25	2	5.6	.14	0	10	20	100	**7.50**
H-66	10.2	12	3.6	3	.087	0	18	30	3	6.8	.17	0	10	20	100	**7.50**
H-67	14.5	17.5	5.14	5	.097	0	23	28	5	7.9	.2	0	18	28	200	**7.50**
H-68	42.3	52.1	14.8	10	.14	0	15	28	10	6.5	.4	0	15	30	200	**7.50**
H-611	.426	.32	.132	.1	.018	8	0	12	.1	8.2	.02	0	0	30	140/50	**6.60**
H-641	5	3.6	1.4	1	.04	0	10	10	1	7	.07	0	20	30	280/100	**6.60**
H-671	21	16	6	5	.08	0	14	12	5	8	.2	0	25	30	560/200	**7.50**
H-69	Transistor pulse tranformer kit, consists of H-60 thru H-68 in plastic case.															**60.00**



Size & weight of H-60 thru H-68 same as H-45.

VACUUM TUBE PULSE TRANSFORMERS

Type No.	APPROX. DCR, OHMS 1-2	3-4	5-6	BLOCKING OSCILLATOR PULSE Width μ Sec.	Rise Time	% Over Shoot	% Droop	% Back Swing	COUPLING CIRCUIT CHARACTERISTICS P Width μ Sec.	Volts Out	Rise Time	% Over Shoot	% Droop	% Back Swing	DIMENSIONS Imp.in, out, ohms	L In.	W In.	Wt. Grams	Net Each
H-45	3	3.5	4	.05	.022	0	20	10	.05	17	.01	20	0	35	250	3/8	3/8	1	**$ 6.75**
H-46	5.5	6.5	7	.10	.024	0	25	10	.10	19	.01	30	10	50	250	3/8	3/8	1	**6.75**
H-47	3.7	4.0	4	.20	.026	0	25	8	.20	18	.01	30	15	65	500	9/16	9/16	4	**6.00**
H-48	5.5	5.8	6	.50	.03	0	20	5	.50	20	.01	30	20	65	500	9/16	9/16	4	**6.00**
H-49	8	8.5	9	1	.04	0	20	10	1	24	.02	15	15	65	500	9/16	9/16	4	**6.00**
H-50	20	21	22	2	.05	0	20	10	2	27	.05	10	15	35	500	9/16	9/16	4	**6.00**
H-51	28	31	33	3	.10	1	20	8	3	26	.07	10	10	35	500	9/16	9/16	4	**6.00**
H-52	36	41	44	5	.13	1	25	8	5	23	.15	10	10	45	1000	9/16	9/16	4	**6.00**
H-53	37	44	49	7	.28	0	25	8	7	24	.20	10	10	50	1000	5/8	5/8	6	**6.00**
H-54	50	58	67	10	.30	0	20	8	10	24	.25	10	10	50	1000	5/8	5/8	6	**6.30**
H-55	78	96	112	16	.75	0	20	10	16	23	.40	5	15	20	1000	5/8	5/8	6	**6.30**
H-56	93	116	138	20	1.25	0	25	10	20	23	.6	5	10	10	1000	5/8	5/8	6	**6.30**
H-57	104	135	165	25	2.0	0	30	10	25	24	1.5	5	10	10	1000	5/8	5/8	6	**6.30**
H-461	9.6	6.4	2.5	.1	.025	0	0	8	.1	19	.02	3	5	20	700/250	3/8	3/8	1	**6.75**
H-501	30	20	7	2	.08	0	12	5	2	27	.06	12	15	35	1400/500	9/16	9/16	4	**6.00**
H-531	66	47	17	7	.32	0	12	3	7	24	.23	12	10	40	2800/1000	5/8	5/8	6	**6.00**
H-561	180	142	53	20	1.75	0	13	5	20	23	.7	5	10	10	2800/1000	5/8	5/8	6	**6.30**
H-58	Pulse transformer kit. Consisting of H-45 thru H-57 in a partitioned plastic case.																		**75.00**

*UTC Trade Mark. All Product Lines or Type Designations are UTC Trade Marks. Specify by Trade Mark to assure UTC high quality and reliability. © 1964 United Transformer Corp., New York, N. Y.

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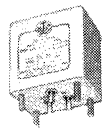
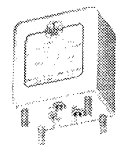
ELECTRIC WAVE FILTERS *Manufactured to MIL-F-18327B*



BM & LM Series



HM Series

INTERSTAGE AND LINE FILTERS

Available in stock frequencies listed below (numerical part of type number is cutoff frequency in cps). Compact shielded cases hermetically sealed to MIL-T-27B specs. BMI, LMI, BML cases: 1 3/16" x 1 11/16" x 1 5/8" h.; wt., 6 oz. HMI, HML, LML cases: 1 3/16" x 1 11/16" x 2 1/2" h.; wt., 9 oz. The BMI filters are band pass interstage units designed to operate between a vacuum tube plate (or 10,000 ohms) and a grid. They provide a gain of 2 at center frequency. BTI units are same as BMI, but 10,000 ohms output.

BML band pass filters, similarly, work into a grid, but have an input impedance of 500/600 ohms. They provide a gain of 9.

HMI filters are high pass interstage units.

LMI filters are low pass interstage units.

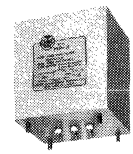
HML filter are high pass with input and output impedance of 500/600 ohms.

LML filters are low pass filters with input and output impedance of 500/600 ohms.

LLP low frequency low pass filter, loss of less than 40 db at 20 cycles. Source & load 100K ohms.

UTC Type	Net Ea.	UTC Type	Net Ea.	UTC Type	Net Ea.
BMI-30	$36.00	LMI-200	$31.50	HMI-800	$31.50
BMI-50	30.00	LMI-400	31.50	HMI-1000	31.50
BMI-60	30.00	LMI-500	31.50	HMI-2000	31.50
BMI-90	30.00	LMI-800	31.50	HMI-3000	31.50
BMI-100	30.00	LMI-1000	31.50	BML-400	30.00
BMI-120	30.00	LMI-1500	31.50	BML-1000	30.00
BMI-150	30.00	LMI-2000	31.50	HML-200	39.00
BMI-200	30.00	LMI-2500	31.50	HML-300	39.00
BMI-240	30.00	LMI-3000	31.50	HML-500	39.00
BMI-300	30.00	LMI-4000	31.50	HML-1000	39.00
BMI-400	30.00	LMI-5000	31.50	LML-1000	31.50
BMI-500	30.00	LMI-10000	31.50	LML-1500	31.50
BMI-750	30.00	BTI-60	36.00	LML-2000	31.50
BMI-800	30.00	BTI-100	36.00	LML-2500	31.50
BMI-1000	30.00	BTI-120	36.00	LML-3000	31.50
BMI-1500	30.00	HMI-50	31.50	LML-4000	31.50
BMI-2000	30.00	HMI-100	31.50	LML-8000	31.50
BMI-3000	30.00	HMI-200	31.50	LML-10000	31.50
BMI-4000	30.00	HMI-300	31.50	LML-12000	31.50
BMI-5000	30.00	HMI-400	31.50	LLP-10	60.00
BMI-10000	30.00	HMI-500	31.50		
LMI-100	31.50				

NEW 400-CYCLE 115 V. LINE FILTERS

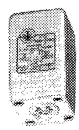


Intended for use on 115 v., 400 cps line to eliminate harmonic distortion.

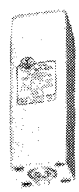
UTC No. PLF-25 — Gives 150 v. output into 500 ohm load with ±1 db, 375-425 cps. Will attenuate 800 cycles by 30 db; 1200 cycles and higher by at least 50 db. MIL type, FR4RX11NB. Meets MIL-F-18327B. Size 4 5/16" w. x 5 1/16" d. x 5 1/2" h. Weight, 10 lbs. Net Each $66.00

UTC No. PLP-13 — Eliminates harmonic distortion, rejects 60 and 120 cycles, and gives zero phase shift at 400 cycles. Operating into 1000 ohm load, provides 115 v. output at 400 cycles, within ±1 db, 375-425 cycles. Attenuates 800 cycles by 15 db; 1200 cps by 45 db; above 1200 cps by at least 35 db; 120 cps by 20 db; and, 60 cps by 30 db. MIL type FR4RX22-LB; meets MIL-F-18327B specifications. Size, 3 11/16" w. x 4 5/16" d. x 4 1/2" h. Weight, 6½ lbs. Net Each $66.00

TELEGRAPH TONE CHANNEL FILTERS



TGT CASE
1½ x 1½ x 2½
Mtg 1 1/16 x 1 1/16"
Screws 6-32
Weight .....8 oz.



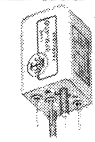
TGR CASE
1½ x 1½ x 4¼
Mtg 1 1/16 x 1 1/16"
Screws 6-32
Weight ....15 oz.

UTC band pass filters for mutiplex transmitting and receiving provide maximum stability in miniature sizes. Stock filters cover all standard transmit and receive bands. All units employ 7 terminal header matching subminiature 7 pin socket.

TGR (receiving) & TGT (transmitting) filters are 600 ohms in and out. They are down less than 3 db at ± 42.5 cycles from center frequency. TGR units are down more than 30 db at ± 170 cycles. Attenuation is greater than 15 db at adjacent channel crossover. TGT units are down more than 16 db at ± 170 cycles. Attenuation is greater than 7.5 db at adjacent channel crossover. *All units are MIL type FR4RX-22YY.*

IMMEDIATE DELIVERY ON ALL ITEMS

UTC Type	Net Each	Center Frequency (Cyc.)	UTC Type	Net Each
TGT-425	$42.00	425	TGR-425	$72.00
TGT-595	42.00	595	TGR-595	72.00
TGT-765	42.00	765	TGR-765	72.00
TGT-935	42.00	935	TGR-935	72.00
TGT-1105	36.00	1105	TGR-1105	63.00
TGT-1275	36.00	1275	TGR-1275	63.00
TGT-1445	36.00	1445	TGR-1445	63.00
TGT-1615	36.00	1615	TGR-1615	63.00
TGT-1785	33.00	1785	TGR-1785	60.00
TGT-1955	33.00	1955	TGR-1955	60.00
TGT-2125	33.00	2125	TGR-2125	60.00
TGT-2295	33.00	2295	TGR-2295	60.00
TGT-2465	30.00	2465	TGR-2465	57.00
TGT-2635	30.00	2635	TGR-2635	57.00
TGT-2805	30.00	2805	TGR-2805	57.00
TGT-2975	30.00	2975	TGR-2975	57.00
TGT-3145	30.00	3145	TGR-3145	57.00
TGT-3315	30.00	3315	TGR-3315	57.00

BPM  **MINIFILTERS*** HPM & LPM

These units provide almost the same characteristics as the standard interstage units listed to the left, although extremely miniaturized. Hermetically sealed to MIL-T-27B specs. B type case: ¾" x ¾" x 1 1/8" h.; wt., 1 oz. H and L cases: 1" x 1" x 1 3/8" h.; wt., 2¼ oz. Cutoff frequencies in cps indicated by type number.

BPM units (BAND PASS) have 2:1 gain. Attenuation is approximately 2 db ±3% from center frequency, and 35 db per octave as shown. Input 10,000 ohms, output to grid, tapped for 10,000 ohms to provide for transistor circuits. For tube circuits continuity is on grid side, for transistor use continuity is on input side.

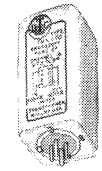
BPH units (BAND PASS) attenuation less than 3 db ±5% from center frequency, and 40 db per octave. Source and load 500 ohms.

HPM units (HIGH PASS) are down less than 6 db at cutoff frequency, and more than 30 db at .67 cutoff frequency, 40 db at .6 cutoff frequency. Input and output 10,000 ohms.

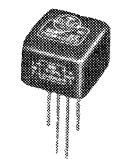
LPM units (LOW PASS) are down less than 6 db at cutoff frequency, and more than 30 db at 1.5 cutoff frequency, 40 db at 1.65 cutoff frequency. Input and output 10,000 ohms.

UTC Type	Net. Ea.	UTC Type	Net. Ea.	UTC Type	Net. Ea.
BPH-50000	$27.00	BPM-2500	$27.00	HPM-1500	$30.00
BPH-100000	27.00	BPM-3000	27.00	HPM-4000	30.00
BPM-400	27.00	BPM-3200	27.00	LPM-200	30.00
BPM-440	27.00			LPM-300	30.00
BPM-500	27.00	BPM-4000	27.00	LPM-500	30.00
BPM-600	27.00	BPM-4800	27.00	LPM-1000	30.00
BPM-750	27.00	BPM-5000	27.00	LPM-1500	30.00
BPM-800	27.00	BPM-6000	27.00	LPM-2000	30.00
BPM-1000	27.00	BPM-6400	27.00	LPM-3000	30.00
BPM-1200	27.00	BPM-8000	27.00	LPM-5000	30.00
BPM-1500	27.00	BPM-10000	27.00	LPM-6000	30.00
BPM-1600	27.00	BPM-20000	27.00	LPM-8000	30.00
BPM-1800	27.00	HPM-500	30.00	LPM-10000	30.00
BPM-2000	27.00	HPM-1000	30.00	LPM-15000	30.00

TELEMETERING BAND PASS FILTERS



TMN-.4 thru TMN-1.7
1 1/16 x 1 3/32 x 2"
Weight 3.5 oz.
TMN-2.3 thru TMW-70
2 3/32 x 2 3/32 x 1 3/8"
Weight 1.2 oz.



MNF-.4 thru MNF-5.4
1 3/16" Sq. x ½" high
Weight 1 oz.
MNF-7.35 thru MWF-70
2 3/32" Sq. x ½" high
Weight 1/3 oz.

Both TMN and TMW types are designed for 100 K input and output impedance and have an insertion loss of less than 6 db. Four pin hermetic header matches small Winchester socket.

TMN filters are down less than 3 db at ± 7.5% of center frequency. They are down more than 18 db at ± 25% of center frequency. Attenuation is greater than 40 db beyond 1.75 Fc and .58 Fc.

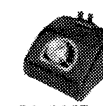
TMW filters are down less than 3 db at ± 15% of center frequency. They are down more than 20 db at ± 50% of center frequency. Attenuation is greater than 40 db beyond 2.5 Fc and .4 Fc.

MNF and MWF (Minifilter) provide same performance as filters described above but are extremely miniaturized. Slanted toward use with transistors. Pin terminals ideally suited for printed circuits.

UTC Type	Net Each	Center Frequ'cy KC	Band Width±	UTC Type	Net Each
TMN- .4	$39.00	.4	7½%	MNF- .4	$39.00
TMN- .56	39.00	.56	7½%	MNF- .56	39.00
TMN- .73	39.00	.73	7½%	MNF- .73	39.00
TMN- .96	39.00	.96	7½%	MNF- .96	39.00
TMN-1.3	39.00	1.3	7½%	MNF-1.3	39.00
TMN-1.7	39.00	1.7	7½%	MNF-1.7	39.00
TMN-2.3	39.00	2.3	7½%	MNF-2.3	39.00
TMN-3.0	39.00	3.0	7½%	MNF-3.0	39.00
TMN-3.9	39.00	3.9	7½%	MNF-3.9	39.00
TMN-5.4	39.00	5.4	7½%	MNF-5.4	39.00
TMN-7.35	39.00	7.35	7½%	MNF-7.35	39.00
TMN-10.5	42.00	10.5	7½%	MNF-10.5	42.00
TMN-14.5	42.00	14.5	7½%	MNF-14.5	42.00
TMN-22	42.00	22	7½%	MNF-22	42.00
TMN-30	42.00	30	7½%	MNF-30	42.00
TMN-40	42.00	40	7½%	MNF-40	42.00
TMN-52.5	42.00	52.5	7½%	MNF-52.5	42.00
TMN-70	42.00	70	7½%	MNF-70	42.00
TMW-22	42.00	22	15%	MWF-22	42.00
TMW-30	42.00	30	15%	MWF-30	42.00
TMW-40	42.00	40	15%	MWF-40	42.00
TMW-52.5	42.00	52.5	15%	MWF-52.5	42.00
TMW-70	42.00	70	15%	MWF-70	42.00

HIGH Q PRECISION INDUCTANCE DECADE

Invaluable instruments for design and experimental work with tuned circuits, wave filters, and equalizers. The low hum pickup toroid coils employ a new permalloy dust core which, combined with special winding methods, provides very high Q, excellent voltage and temperature stability, and high self resonance frequency. The inductance values are laboratory adjusted to better than 1% precision, with calibration noted on base.



DI CASE
Length .....4½'
Width .....4 3/8'
Height .....2 5/8'
Weight .....2 lbs

Type No.	Induct. Henries	Optimum Range	Max. Q	Max. ACMA	Ins. Test Volts RMS	Net Each
DI-1	10 x .01	2-60 KC	200	500	500	$42.00
DI-2	10 x .1	.25-20 KC	200	150	500	54.00
DI-3	10 x 1	.25-10 KC	200	50	500	57.00
DI-4	10 x 10	.2-1.5 KC	100	15	500	72.00

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HIGH Q COILS & INDUCTORS

MINIDUCTORS *

All these ultracompact high Q units are grade 5, hermetically sealed to (MIL-T-27B). All give extra temperature stability rated at 1%, −55° C to +100° C.

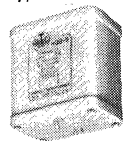
MM—Ultraminiature epoxy molded toroidal inductors with pin terminals for printed circuit application. Maximum Q at 30 KC. 7/16 dia. x 1/4"; wt. .07 oz.
MH—Ultraminiature epoxy molded toroidal inductors similar to MM except maximum Q at 100 KC. Size & wt. as MM.
ML—Ultraminiature hipermalloy cased inductors with epoxy board and pin terminals for printed circuit application. Maximum Q at 800 cps to 2 KC, depending on inductance. 7/16 x 31/64 x 9/16"; wt. .2 oz.
MO—Miniature epoxy molded inductors with pin terminals for printed circuit application. Maximum Q at 600 cps to 1500 cps depending on inductance. 3/4 x 1 1/16 x 1 3/16"; wt. 1 oz.
MW—Miniature epoxy molded toroidal inductors with pin terminals for printed circuit application. Maximum Q at 5 to 10 KC. 23/32 dia. x 1 3/32"; wt. .25 oz.

UTC Type	Induct., Hys.	Net Each	UTC Type	Induct., Hys.	Net Each	UTC Type	Induct., Hys.	Net Each
ML-0	.15	$ 8.40	MM-6	.03	$ 8.10	MO-2	2	$ 6.60
ML-1	.25	8.40	MM-7	.06	8.40	MO-5	5	6.60
ML-2	.40	8.40	MM-8	.12	8.40	MO-7.5	7.5	6.60
ML-3	.70	8.40	MH-1	.0006	8.10	MO-20	20	6.60
ML-4	1.4	8.40	MH-2	.0015	8.10	MO-50	50	7.20
ML-5	2.5	8.40	MH-3	.0025	8.40	MO-100	100	7.20
ML-6	4.0	8.40	MH-4	.006	8.40	MW-.05	.05	7.20
ML-7	6.0	8.40	MH-5	.01	8.70	MW-.10	.10	7.50
ML-8	10	8.40	MH-6	.015	8.70	MW-.25	.25	7.50
ML-9	25	8.70	MH-7	.025	9.00	MW-.5	.5	7.80
ML-10	60	9.90	MH-8	.04	9.00	MW-.75	.75	8.40
MM-1	.003	7.50	MO-.1	.1	6.30	MW-1	1	8.70
MM-2	.005	7.50	MO-.15	.15	6.30	MW-1.2	1.2	9.30
MM-3	.008	7.80	MI-.3	.3	6.30	MW-2	2	10.80
MM-4	.0125	7.80	MO-.5	.5	6.30	MW-3	3	11.70
MM-5	.02	8.10	MO-1	1	6.30	MW-5	5	13.50

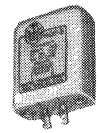
HIGH Q TOROID INDUCTORS

Favorites for over fifteen years, UTC HQ Toroids are only excelled by the preferred new "M" series. As typical Q curves show, HQ coils are available for application from 100 cycles to 100 KC. Adjusted to 1%, the inductance is virtually independent of frequency, temperature, and vibration. Voltage stability is excellent, and shielding case assures 80 db coupling attenuation. Hermetically to MIL-T-27B. All units MIL type TF4RX-20YY.

HQA and HQC CASE
Diamter 1 13/16"
Height 1 3/16"
Mounting 1 1/8"
Screws 6-32
Cutout 9/16 x 1 3/16"
Weight 5 oz.



HBQ CASE
Length 2 5/8"
Width 1 5/8"
Height 2 5/8"
Mounting 1 11/64 x 2 11/64"
Screws 6-32
Cutout 9/16 x 1 1/8"
Weight 14 oz.

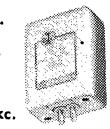


HQE CASE
Length 1 1/16"
Widtth 1/2"
Height 1 7/32"
Mounting 3/4"
Screws 4-40
Cutout 5/16 x 1/2"
Weight 1.5 oz.

Type No.	Inductance (O DC)		DC MA Max.	Net Each	Type No.	Inductance (O DC)		DC MA Max.	Net Each
HQA-1	5	mhy.	400	$7.50	HQB-1	10	mhy.	410	$15.00
HQA-2	12.5	mhy.	260	7.80	HQB-2	30	mhy.	240	15.30
HQA-3	20	mhy.	200	8.10	HQB-3	70	mhy.	170	15.90
HQA-4	30	mhy.	160	8.40	HQB-4	120	mhy.	120	16.80
HQA-5	50	mhy.	130	8.70	HQB-5	.5	hy.	60	17.40
HQA-6	80	mhy.	100	9.00	HQB-6	1	hy.	41	18.00
HQA-7	125	mhy.	85	9.00	HQB-7	2	hy.	30	18.90
HQA-8	200	mhy.	65	9.60	HQB-8	3.5	hy.	22	19.80
HQA-9	300	mhy.	50	9.60	HQB-9	7.5	hy.	16	21.00
HQA-10	.5	hy.	40	9.90	HQB-10	12	hy.	11	21.90
HQA-11	.75	hy.	35	9.90	HQB-11	18	hy.	9	22.80
HQA-12	1.25	hy.	26	10.80	HQB-12	25	hy.	8	24.00
HQA-13	2	hy.	20	11.40	HQC-1	1	mhy.	1350	15.60
HQA-14	3	hy.	16	12.90	HQC-2	2.5	mhy.	850	16.80
HQA-15	5	hy.	13	13.80	HQC-3	5	mhy.	600	18.00
HQA-16	7.5	hy.	10	15.00	HQC-4	10	mhy.	420	19.80
HQA-17	10	hy.	9	15.90	HQC-5	20	mhy.	300	24.00
HQA-18	15	hy.	8	16.80	HQE-1	5	mhy.	155	7.80
					HQE-2	10	mhy.	110	7.80
					HQE-3	50	mhy.	50	8.10
					HQE-4	100	mhy.	35	8.40
					HQE-5	200	mhy.	25	8.70

HERMETIC "M" TYPE TOROIDS

UTC permalloy dust toroids provide highest Q factor with miniaturized dimensions. Lab adjusted to 1% tolerance and sealed to MIL-T-27B specs. Magnetic case plus toroid provide 80 db shielding.

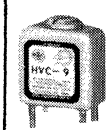


Type
MQA 40 at 500 cps, 160 at 5 kc, approx, 40 at 20 kc. SIZE (1 1/16" x 1 9/32" x 1 23/32" h.; wt. 4 oz.)
MQB 40 at 250 cps, 250 at 3 kc, approx. 40 at 20 kc. SIZE 1 3/16" x 2 3/16" x 2 13/16" h.; wt. 14 oz.
MQD 40 at 5 kc, 185 at 50 kc, approx. 40 at 300 kc. SIZE 1 1/16" x 1 9/32" x 1 23/32" h.; wt. 4 oz.
MQE 20 at 600 cps, 140 at 10 kc, approx. 40 at 40 kc. SIZE 1/2" x 1 1/16" x 1 7/32" h.; wt. 1.5 oz.

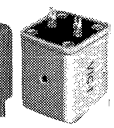
TQA units are similar to MQA but center tapped for ocillator application, etc. Net each: TQA-1 thru TQA-15, $1.50 more than MQA's; TQA-16, 14.70; TQA-17, 15.90; TQA-18, 17.40; TQA-19, 21.00; TQA-20, 23.40.

UTC Type	Ind., Hys.	Net Each	UTC Type	Ind., Hys.	Net Each	UTC Type	Ind., Hys.	Net Each
MQA-1	.007	$ 7.50	MQB-1	.010	$12.90	MQD-6	.020	$21.00
MQA-2	.012	7.80	MQB-2	.030	13.20	MQD-7	.030	22.80
MQA-3	.020	8.10	MQB-3	.070	13.50	MQE-0	.004	6.90
MQA-4	.030	8.40	MQB-4	.120	13.80	MQE-1	.007	7.20
MQA-5	.050	8.70	MQB-5	.50	14.10	MQE-2	.012	7.50
MQA-6	.070	9.00	MQB-6	1.0	14.40	MQE-3	.020	7.80
MQA-7	.120	9.30	MQB-7	2.0	14.70	MQE-4	.030	7.80
MQA-8	.20	9.60	MQB-8	3.5	15.00	MQE-5	.050	8.10
MQA-9	.30	9.90	MQB-9	7.5	15.90	MQE-6	.070	8.40
MQA-10	.50	10.20	MQB-10	12	16.80	MQE-7	.100	8.40
MQA-11	.70	10.50	MQB-11	18	18.00	MQE-8	.150	8.70
MQA-12	1.0	10.80	MQB-12	25	19.20	MQE-9	.250	8.70
MQA-13	1.5	11.10	MQB-13	40.0	21.00	MQE-10	.40	9.00
MQA-14	2.5	11.40	MQB-14	60.0	24.00	MQE-11	.60	9.00
MQA-15	4.0	12.00	MQD-0	.001	14.50	MQE-12	.90	9.30
MQA-16	6.0	12.90	MQD-1	.002	15.00	MQE-13	1.5	9.90
MQA-17	10.0	13.80	MQD-2	.003	15.60	MQE-14	2.0	10.80
MQA-18	15.0	15.00	MQD-3	.005	16.20	MQE-15	2.8	12.00
MQA-19	22.0	18.00	MQD-4	.007	16.80	MQE-16	4.0	13.50
MQA-20	35.0	20.70	MQD-5	.012	18.00			

VARIDUCTORS



HVC & HVV



VIC

These variable inductors are ideal for use in tuned circuits, equalizers, oscillators, etc. TYPE HVC:—Gives highest Q and stability; adjustable −70% to +200% of mean value. Hermetically sealed to MIL-T-27B.

HVV Types: For precise matching; vernier inductance variation ±10% of nominal value. Offer high Q over a wide frequency range and high temperature stability.

VIC:—Adjustable −45% to +85% of mean value.

Size: HVC, TVC and HVV types, 1 1/8" lg. x 25/32" w. x 1 7/32" h.; weight 2 oz. VIC type, 1 11/32" lg. x 1 1/4" w. x 1 1/16" h.; weight 5 1/2 oz. HVC, TVC, U.S. Pat. No. 2,879,489; HVV, Pat. Pend.

TVC type inductors are identical to HVC units, but provide taps at 30% and 50% of total turns — ideal for oscillator circuits, etc. HVC & TVC, U. S. Pat. No. 2,879,489

UTC Type	Mean Hys.	DC Ma.	Net Each	UTC Type	Mean Hys.	DC Ma.	Net Each
HVC-1	.006	100	9.00	TVC-6	.6	15	11.10
HVC-2	.015	60	9.00	TVC-7	1.5	10	11.70
HVC-3	.040	40	9.00	TVC-8	4	7	11.70
HVC-4	.1	30	9.00	TVC-9	10	5	11.70
HVC-5	.25	20	9.00	TVC-10	25	3.5	12.90
HVC-6	.6	15	9.00	TVC-11	60	2	14.10
HVC-7	1.5	10	9.60	TVC-12	150	1.5	15.30
HVC-8	4	7	9.60				
HVC-9	10	5	9.60	VIC-1	.0085	75	6.60
HVC-10	25	3.5	9.90	VIC-2	.013	60	6.60
HVC-11	60	2	10.80	VIC-3	.021	50	6.60
HVC-12	150	1.5	12.00	VIC-4	.034	40	6.60
HVV-.006	.006	200	12.00	VIC-5	.053	35	6.60
HVV-.015	.015	120	12.00	VIC-6	.084	30	6.60
HVV-.04	.04	80	12.00	VIC-7	.13	25	6.60
HVV-.1	.10	50	12.00	VIC-8	.21	21	6.90
HVV-.25	.25	30	12.00	VIC-9	.34	18	6.90
HVV-.6	.6	20	12.00	VIC-10	.54	15	6.90
HVV-1.5	1.5	13	12.90	VIC-11	.85	12	6.90
HVV-4	4	6	12.90	VIC-12	1.3	10	7.20
HVV-10	10	4.5	12.90	VIC-13	2.2	8	7.20
HVV-25	25	3	13.20	VIC-14	3.4	7	7.20
HVV-60	60	2	14.40	VIC-15	5.4	6	7.50
HVV-150	150	1.3	15.90	VIC-16	8.5	5	7.50
				VIC-17	13	4	7.50
TVC-1	.006	100	11.10	VIC-18	21	3.5	7.80
TVC-2	.015	60	11.10	VIC-19	33	3	7.80
TVC-3	.040	40	11.10	VIC-20	52	2	8.40
TVC-4	.1	30	11.10	VIC-21	83	1.5	9.00
TVC-5	.25	20	11.10	VIC-22	130	1	12.00

LOW FREQUENCY HIGH Q COILS

MQL TYPES

All these units of MIL type TF4RX20YY induct value to 2% tolerance at 1v., 60 cycles. Exceptional Q and stability, inductance swing less than 3.5% from −55°C to +85°C. The case, sealed hermetically to MIL-T-27B is 1 13/16" dia. 2 1/2" h. Either transformer, parallel, series or center type connections are permitted due to dual windings to 4 terminals. Mounting 1 1/8" sq. with a 6-32 screw. Cutout 1 1/2" dia wt. 1 lb.

Type No.	Hys. (0 DC) Series	Parallel	Net Each	Type No.	Hys. (0 DC) Series	Parallel	Net Each
MQL-0	1	.25	$30.00	MQL-3	200	50	$30.00
MQL-1	10	2.5	30.00	MQL-4	400	100	31.50
MQL-2	20	5	30.00	MQL-5	2500	625	33.00

MQM TYPES

Designed for high Q at low frequencies. Structure provides exceptional stability, adjusted to 2% at 1V. 60 cycles. Inductance variation less than 2% from −55°C to +130°C. Made to MIL-T-27B, MIL type TF4SX20YY. Size 1 5/16" d x 1 5/8" h., cutout: 1" d., wt. 5 oz.

Type No.	Series Hy (0 DC)	Parallel Hy (0 DC)	Series DCRΩ ±20%	Net Each
MQM-2	2	.5	21	$12.60
MQM-16	16	4	143	12.60
MQM-40	40	10	368	12.60
MQM-300	300	75	3700	13.50
MQM-600	600	150	5720	13.50

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Net

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HI-FI & BROADCASTING COMPONENTS

ULTRACOMPACT* HI-FI AUDIOS

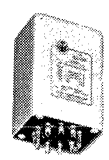
Small light weight, wide range units. Level +15 dbm except where otherwise noted. Top and bottom mounting. Die cast case, 1½" x 1½" x 2" h. Weight, ½ lb.

UTC Type	Application	Primary Impedance, Ohms	Sec. Imped., Ohms	#	Net Each
A-10	Input	50, 125/150, 200/250, 333, 500/600	50K split	a	$13.20
A-11	Shield. Input	50, 200, 500	50K CT	a	12.00
A-12	Input	Same as A-10	80K split	a	12.00
A-15	Interstage*	10K/2.5K split**	2K/500 sp.	c	9.90
A-16	Pl. to grid	15K	60K	a	9.90
A-17	Pl. to grid	15K, 8 ma	60K	c	12.00
A-18	Pl. to p-p	15K split	80K split	a	12.00
A-19	Pl. to p-p	15K, 8 ma	80K split	c	12.00
A-20	Mixing	Same as A-10	Same as pri.	d	14.40
A-21	Shield Mixing	50, 200/250, 500/600	Same as pri.	e	12.00
A-22	Tr. to line*	500 CT	500/125 spl.	c	9.90
A-23	Tr. to V.C.*	500 CT	16/4 split	c	9.90
A-24	Pl. to line	15K split	See A-10 pri.	f	12.90
A-25	Pl. to line	15K, 8 ma	See A-10 pri.	c	12.00
A-26	P-p to line	30K CT	See A-10 pri.	f	13.20
A-27	Input	100K split	See A-10 pri.	b	12.00
A-28	Tr. to V.C.	48 CT, 5 w.	16 (split), 8, 4	c	10.20
A-34		25K/6250 split	500/125 split	b	10.20
A-35	Transistor	10K/2.5K split	500/125 split	b	9.90
A-36	Interstage	500/125 split	150/37.5 split	c	9.60
A-37		500/125 split	50/12.5 split	c	9.60
A-38		100/25 split	40/10 split	c	9.30
A-39	line to transist.	600/150 split	2K/500 split	a	11.10
A-30	Inductor: 250 hys. @ 5 ma†; 65 hys @ 10 ma‡				10.20
A-32 (2-wdgs.)	Split Filter Inductor	Series: 60 Hys @ 15 ma, 2000 ohms Parallel: 15 Hys @ 30 ma, 500 ohms			6.60
A-33	Hipermalloy shield fits A units 20 db				2.70
A-40	Power transformer: 115v 60 cycles to two 6.3 CT—.2A Secs.				9.90
A-41 (2-wdgs.)	Split Filter Inductor	Series: 240 Mhy @ .2A, 6 ohms Parallel: 60 Mhy @ .4A, 1.50 ohms			6.30
A-42 (2-wdgs.)	Split Filter Inductor	Series: 4 hys-50 ma, 100 ohms Parallel: 1 hy-100 ma, 25 ohms			6.60
A-43	Matching to 2 simult. lines or Tr.	600/150 split	(2) 600/150 split	g	14.10
A-44	l'stge/output	4K/1K split, 12 ma	600/150 spl.	b	9.90
A-45	Spkr. match	4, 8, 16	4 w. max lvl.	c	6.60
A-46	Chopper	10K/2.5K	500		15.00
A-47	3-wdg. hybrd.	500/600CT	2 x 500/600CT		15.00

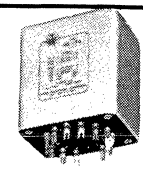
*+30 dbm. †6K ohms. ‡1.5K ohms. §2K ohms. ††500 ohms. **8 ma.
#Frequency response (±2 db), cps: a—20-20,000. b—30-20,000. c—40-20,000. d—10-50,000. e—30-30,000. f—20-40,000. g—20-30,000.

HIPERMALLOY* TRANSFORMERS

Hipermalloy audio and power transformers are specifically designed for portable and compact service. High fidelity though light in weight and dependable. The frequency characteristic of the Hipermalloy audio units is uniform from 30 to 20,000 cycles. They incorporate a Hipermalloy nickel iron core and hum balanced coil structure. The rugged die cast case is of high conductivity alloy finished in grey, arranged for mounting with the terminals either up or down. DC in Primary shown is maximum unbalanced.



TYPE H-2 CASE
Length ..... 3⅝"
Width .....2¹³⁄₁₆"
Height ..... 3½"
Mounting 2 x 2¾"
Screws 6-32
Cutout 2¹¹⁄₁₆" dia.
Unit Wt. ..5 lbs.



TYPE H-1 CASE
Length ..... 2⅜"
Width .....1¹⁵⁄₁₆"
Height ..... 3½"
Mount 1⅜ x 1¹³⁄₁₆"
Screws 6-32
Cutout 1¹³⁄₁₆" dia.
Unit Wt. ..2 lbs.

LOW IMPEDANCE TO GRID AND MIXING TRANSFORMERS
Units Housed in Type H-1 Case

UTC Type	Applica-tion	Primary Imped. Ohms	Sec. Imped. Ohms	Level dbm	Net Each
HA-100	Line to grid	50, 125/150, 200, 250, 333, 500/600	60K split	+18	$17.40
HA-100X	As above but multiple alloy shields for low hum pick up			+16	17.40
HA-101	Line to grids	Same as HA-100	120K split	+18	22.20
HA-101X	As above but muliple alloy shields for low hum pickup		80K split	+16	18.00
HA-103A	Mike/mixer to grid	2.5, 5.5, 10, 15, 22, 30, 38, 60	60K split 60K split	+18	15.00
HA-108*	Mixing	Same as HA-100	Same as Pri	+20	19.80
HA-108X*	As above but multiple alloy shields for low hum pick up			+18	19.80
HA-130X	Line to grids.	30, 50, 200, 250	60K Split	+18	21.00

INTERSTAGE AUDIO TRANSFORMERS
Units Housed in Type H-1 Case, except HA-107: in H-2 Case

UTC Type	Applica-tion	Primary Imped. Ohms	Sec. Imped. Ohms	Level Mw.	Net Each
HA-104	Pl. to grids	15K split	95K	100	$15.00
HA-105	Pl. to grid	15K	60K	100	21.00
HA-106	Pl. to grids	15K split	135K	100	18.90
HA-107	Pl's. to grids	30K	80K	600	27.00
HA-137	Pl's. to grids	30K	68K	100	16.80

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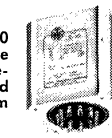
LINEAR STANDARD* TRANSFORMERS



Guaranteed frequency response of ±1 db 20-20,000 cps, ±1 db 7-50,000 cps on high level units, make these ideal transformers for uniform frequency response and low distortion. High efficiency and dependability through shielding. Top and bottom mounting.

LOW LEVEL TRANSFORMERS

Type LS-1 case, 2⅝" x 3⅛" x 3¼" h. Suffix X indicates multiple alloy shield. Weight, 3 lbs.

UTC Type	Application	Pri. Imp., Ohms	Sec. mp., Ohms	Level, dbm	Net Each
LS-10	Input	50, 125/150, 200, 250, 333, 500/600	60K split	+19	$24.00
LS-10X	Input	As above	50K	+17	24.00
LS-12	Input	As above	120K split	+19	27.00
LS-12X	Input	As above	80K split	+17	24.00
LS-30	Mixing	As above	Same as pri.	+23	24.00
LS-30X	Mixing	As above	Same as pri.	+20	27.00
LS-19	Pl. to grids	15K	95K	+20	19.50
LS-21	Pl. to p-p	15K	135K split	+20	24.00
LS-40	Pl. to p-p	15K, 8 ma	135K split	+20	33.00
LS-25	P-P to p-p	30K split	50K split	+23	27.00
LS-27	Pl. to line	15K, 8 ma	See LS-10 pri.	+23	24.00
LS-50	Pl. to line	15K	See LS-10 pri.	+23	24.00
LS-51	P-p to line	30K split	See LS-10 pri.	+24	27.00
LS-14X	Lo-Z to grids	2.5, 5.5, 10, 15, 22, 30, 38, 60	50K	+17	24.00
LS-26	Line to grids	5K	60K	+23	27.00
LS-31	Line to line	30, 50, 200,250	See LS-10 pri.	+23	24.00
LS-32	Lo-Z to line	Same as LS-14X	See LS-10 pri.	+23	33.00
LS-68	Matching to 2 Simult. lines or Tr.	600/150 split	(2) 600/150 split	+15	24.00
LS-150	Line to line	4K	See LS-10 pri.	+23	21.00
LS-151	Line to line	16K	See LS-10 pri.	+26	21.00
LS-140	70 db hybrid	500/600 split	Same as pri.	+18	27.00
LS-141	Hybrid †	500/600 split	Same as pri.	+18	21.00

† Has 3 sets of coils.

HIGH LEVEL TRANSFORMERS

Sizes: LS-33, -34, -35, -47, -52, -54, -55, -56, -61, -63, 3½" x 4⁷⁄₁₆" x 4¾₁₆" h. (Wt., 7½ lbs.). LS-6L1, -6L4, -48, -58, -65, -666, -667, 5" x 5¹³⁄₁₆" x 4¹¹⁄₁₆" h. (Wt., 15 lbs.). LS-691, 13" x 15¾" x 24" h. (Wt. 370 lbs.). LS-692, 13" x 15¾" x 28" h. (Wt. 520 lbs.).

UTC Type	Application	Pri. Imped., Ohms	#	Level Watts	Net Each
LS-33	Matching	50, 125/150, 200, 250, 333, 500/600	a	20	$24.00
LS-34	Matching	As above	a	40	33.00
LS-47	Driver	5K	i	20	24.00
LS-48	Driver	12K	j	40	60.00
LS-6L1	P-p output	9K	b	30	36.00
LS-6L4	P-p output	4,500/3,800	b	55	66.00
LS-58	P-p output	2.5K/1.5K	b	40	57.00
LS-52	P-p output	8000	b	20	24.00
LS-55	P-p output	5K/3K split	b	20	24.00
LS-61	P-p output	10K/6K split	b	20	24.00
LS-54	P-p output	8000	c	20	21.00
LS-57	P-p output	5K/3K split	c	20	21.00
LS-63	P-p output	10K/6K split	c	20	21.00
LS-56	P-p output	5K/3K split	d	20	27.00
LS-35	EL-34's†	5K CT 43% taps	e	35	24.00
LS-65	6550's†	3.3K CT 40% taps	e	60	42.00
LS-666	P-p transistor	8 split	f	50	21.00
LS-667	P-p transistor	8 split	e	50	21.00
LS-691	Modulation	10,400	g	1,000	600.00
LS-692	Modulation	4,750	h	2,500	930.00

† With feedback. #Secondary Impedance: a—1.2, 2.5, 5, 7.5, 10, 15, 20, 30, 50, 125/150, 200/250, 333, 500/600 ohms. b—500, 333, 250/200, 125, 50, 30, 20, 10, 7.5, 5, 2.5, 1.2 ohms. c—30, 20, 15, 10, 7.5, 5, 2.5, 1.2 ohms. d—6K, 5K, 4K, 1.8K, 1.5K, 1K, 30, 20, 15, 10, 7.5, 5, 2.5, 1.2 ohms. e—4, 8, 16 ohms. f—500 ohms split. g—4.5K, 4K, 3.5K, 2.75K, 2K. h—2.5K, 2K, 1.75K, 1.5K, 1.25K. i—Pri./½ Sec. 3.2:1. j—Pri./½ Sec. 5.1:1.

Continued from bottom of previous column

PLATE TO LINE TRANSFORMERS
Units Housed in Type H-1 Case

UTC Type	Application	Prim. Imped. Ohms	Sec. Imped. Ohms	Level Mw	Net Each
HA-113	to multiple line	15K split	50, 125/150, 200, 250, 333, 500/600	125	$18.00
HA-114	Lo-Z to multi-line	30K		200	21.00
HA-133	to multi-line	15K split		160	21.00

OUTPUT TRANSFORMERS
Units Housed in Type H-2 Case

UTC Type	Applica-tion	Prim. Imped. Ohms	Sec. Imped. Ohms	Level Watts	Net Each
HA-134	P-p to line	5K/9.4K	50, 125/150, 200, 250, 330, 500/600	15	$16.80
HA-135	P-p to V.C.	3K/5K	30, 20, 15, 10, 7.5, 5, 2.5, 1.2	18	16.80
HA-136	5881's screen-taps	6.6K	4, 8, 16	20	18.00

POWER TRANSFORMERS
Units Housed: HP-122 in Type H-1 Case; HP-123 in Type H-2 Case

UTC Type	Applica-tion	Psi. Volt 50/60u	Hi-Volt	Fil. Wind	Net Each
HP-122	Pre-amp	115	220-O-220 15 Ma	6.3 V.C.T.—.6A 6.3 V.C.T.—1.2A	$12.00
HP-123	Pre-amp or Tuner	115	275-O-275 35 Ma	6.3 V.C.T.—.6A 6.3 V.C.T.—2A	12.00

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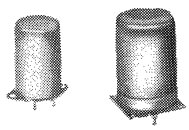
COMMERCIAL GRADE COMPONENTS

DIMENSIONS, COMMERCIAL GRADE "RC" CASE



Performance insured during constant usage due to the ruggedness of this vacuum impregnated component with special sealing compound. Case, finished in light gray enamel, is ready for mounting on chassis. (All audio components linear).

Case No.	Base Dim.(Sq.)	Mounting Dim. (Sq.)	Ht., +1/8, −1/16	Cutout Dia.	Unit Wt. (Lbs.)
RC-37	1 3/8	1 1/8	1 5/8	1 1/4	.35
RC-50	1 5/8	1 5/16	2 1/4	1 1/2	1/2
RC-62	1 13/16	1 1/2	2 1/2	1 1/2	1
RC-75	2 3/16	1 13/16	2 7/8	1 7/8	1 1/2
RC-87	2 9/16	2 3/32	3 1/4	2	2 1/2
RC-100	3	2 3/8	3 3/4	2 5/8	3 1/2
RC-112	3 7/16	2 11/16	4 1/8	2 7/8	5
RC-125	3 3/4	3	4 1/2	3	6 1/2
RC-150	4 1/2	3 9/16	5 1/2	3 3/4	11
RC-152	5 1/8	4 1/8	5 1/2	4	15 1/2
RC-175	5 3/4	4 7/8	7	4	22

SWINGING INPUT AND FILTER INDUCTORS

UTC Type	Induct. Henries	DC MA	DC Res. Ohms	Test Volts	Case No.	Net Each
CG-40	10	200	110	1750	RC-112	$ 8.10
CG-44	30	100	400	1750	RC-100	6.90
CG-45	250	15	5000	1750	RC-87	6.00
CG-48C	75	50	2200	1750	RC-87	7.50
CG-100	12	150	110	2500	RC-125	9.00
CG-102	12	250	100	3000	RC-150	13.20
CG-104	10	350	90	5000	RC-152	15.00
CG-108	10	500	52	7000	RC-175	27.00
CG-1S	10	1000	40	9000	11 1/2 x 4 3/4 x 6 7/8 H. Wt., 40 lbs.	54.00
CG-101	25/5	150	110	2500	RC-125	9.00
CG-103	25/5	250	100	3000	RC-150	13.20
CG-105	25/5	350	90	5000	RC-152	15.00
CG-109	25/5	500	52	7000	RC-175	27.00
CG-111§ (2 wdgs)‡	100/10mh 25/2.5mh	2.5a. .5a.	.6 .15	1500	RC-87	11.40
CG-112§ (2 wdgs)‡	40/10mh 10/2.5mh	6 a. 12 a.	.24 .06	1500	RC-112	12.60
CG-113§ (2 wdgs)‡	7/1.75mh 1.8/.45mh	17.5a. 35 a.	.036 .009	1500	RC-125	14.70
CG-1C	25/5	1000	40	9000	11 1/2 x 4 3/4 x 6 7/8 H. Wt., 40 lbs.	54.00

§ Split winding in series. †Wt., 40 lbs. ‡Split winding in parallel.

PLATE TRANSFORMERS

Primaries for 105, 115, 220, 230 volts; 50/60 cycles. For reduced power, secondary can be cut in half, using 220 v. primary on 110 volts; may be used on 25 to 43 cycles in this case. "W" suffix units designed for full wave center tap and full wave bridge application. Center tap may be disconnected from ground.

UTC Type	High Voltage	DC Volts	Case No.	Net Each
CG-300	625-515-0-515-625	500/400	RC-150	$16.20
CG-300W	625-515-0-515-625	1000/800	RC-150	17.70
CG-301	580-530-300-0-300-530-580	475/425/250	RC-152	24.00
CG-301W	580-530-300-0-300-530-580	950/850/500	RC-152	26.40
CG-302	950-750-0-750-950	760/610	RC-175	30.00
CG-302W	950-750-0-750-950	1520/1220	RC-175	33.00
CG-303	1500-1235-400-0-400-1235-1500	1250/1000 300	RC-175	36.00
CG-303W	1500-1235-400-0-400-1235-1500	2500/2000 600	RC-175	39.60

POWER AND BIAS TRANSFORMERS

Primary 115 volts, 50/60 cycles. DCMA is for choke input; reduce 70% for condenser input. Filament 1 is 5 volts, 3 amps., and Filament 2 is 5 volts, 2 amps., except as otherwise noted.

UTC Type	High Voltage	DC Ma	Filament 3	Filament 4	Case No.	Net Each
CG-422	435-365-0-365-435 125-0-125	125 25	6.3 VCT-3A	2.5 VCT-5A	RC-150	$21.00
CG-428	500-0-500 80-0-80	250 100	6.3 VCT-4A	6.3 VCT-3A, tapped 2.5 VCT-3A	RC-152	24.90
CG-429*	600-525-0-525-600	250	7.5 VCT-3A, tapped 6.3 VCT-4A		RC-152	24.90
CG-431†	500-400-0-400-500 80-0-80	500 100	6.3 VCT-5A	6.3 VCT-3A	RC-175	36.00
CG-315	Tapped for any DC voltage from 15 to 100 volts within 6%—250 MA				RC-125	14.40
CG-316	Tapped for any DC voltage from 75 to 400 volts within 6%—250 MA				RC-152	21.00

*Filament 2 is 6.3 VCT-3A. †Filament 1 is 5V-6A.

AUDIO UNITS

UTC Type	Use †	Pri. Imped., Ohms	Level	Case RC-	Net Each
CG-131	a	15K	+28 dbm	50	$ 9.90
CG-132	b	15K	+30 dbm	62	9.90
CG-133	c	30K CT	+32 dbm	75	10.50
CG-134	d	50, 200, 500	+30 dbm	50	9.00
CG-135	e	50, 200, 500	+30 dbm	50	9.90
CG-235	f	50, 200, 500	+28 dbm	75	12.00
CG-136	g	15K, 50, 200	+30 dbm	62	13.20
CG-137	h	50, 200, 500	+28 dbm	50	8.40
CG-140	i	15K	+30 dbm	50	7.80
CG-141	j	30K CT	+32 dbm	50	9.00
CG-233	k	30K CT	+35 dbm	87	9.00
CG-333	k	30K CT	+35 dbm	87	9.00
CG-433	k	5K CT	10 w.	100	9.90
CG-15	l	8K CT	20 w.	100	12.00
CG-16	l	3K/5K CT	20 w.	100	12.00
CG-19	l	6K/10K CT	20 w.	100	12.00
CG-710	l	14K/20K CT	20 w.	100	12.00
CG-2L6	l	9K CT	30 w.	125	13.80
CG-20	m	5K CT, 43% screen taps	25 w.	125	15.00
CG-21	m	3.3K CT, 40% screen taps	50 w.	150	24.00
CVP-1	n	3K/5K/6K/8K/10K/14K CT	12 w.	100	13.20
CVP-2	n	"	30 w.	125	14.40
CVP-3	n	"	60 w.	150	21.00
CVP-4	n	"	125 w.	152	24.00
CVP-5	n	"	300 w.	175	39.00
CVL-1	p	500	15 w.	87	9.00
CVL-2	p	500	40 w.	125	10.50
CVL-3	p	500	75 w.	150	15.00
CVM-0	q	Any Class B	12 w.	100	10.50
CVM-1	q	"	30 w.	125	13.80
CVM-2	q	"	60 w.	150	18.00
CVM-3	q	"	125 w.	152	21.00
CVM-4	q	"	300 w.	175	39.00
CVM-5	q	"	600 w.	†	105.00
CG-51AX	r	15K	5 w.	87	9.00
CG-53AX	r	3K/10K/ CT	20 w.	112	10.50
CG-59AX	r	50, 200, 500	20 w.	112	10.80

† 7" x 12" x 9"; Wt., 60 lbs. †a—Pl. to grid. b—Pl. to 2 grids. c—2 pl. to 2 grids. d—Input, humbucking. e—P-p input, humbucking. f—Input, mag. shielded. g—Dual input, humbucking. h—Mixing. i—Pl. to line. j—P-p to line. k—Driver. l—Output. m—Feedback output. n—Universal output. p—Universal matching. q—Universal modulator. r—Universal driver.

END CASTING UNITS

See note on "W" suffix units under plate transformers.

UCT Type	High Volt	DC Volt	L	W	H	Wt. Lbs.	Net Each
CG-304	1500-1235-0-1235-1500	1.25K	1K	14 5/8	8 1/2	10 3/8 100	$141.00
CG-304W†	1500-1235-0-1235-1500	2.5K	2K	14 5/8	8 1/2	10 3/8 100	156.00
CG-305	2400-1750-0-1750-2400	2K	1.5K	10 1/2	4 3/4	6 7/8 50	63.00
CG-305W†	2400-1750-0-1750-2400	4K	3K	10 1/2	4 3/4	6 7/8 50	69.00
CG-306	as above	2K	1.5K	13 7/8	8 1/2	10 3/8 100	150.00
CG-306W†	as above	4K	3K	13 7/8	8 1/2	10 3/8 100	165.00
CG-307	3500-3000-2400-0-2400-3000-3500	3K 2K	2.5K	13 5/8	8 1/2	10 3/8 90	138.00
CG-308	as CG-307	3K 2K	2.5K	15 1/8	8 1/2	10 3/8 125	162.00
CG-309	as CG-307	3K 2K	2.5K	21	10	13 1/4 253	360.00
CG-310	4600-4050-3500-0-3500-4050-4600	4K 3K	3.5K	17 1/4	10	13 1/4 150	309.00
CG-311	1500-1235-0-1235-1500	1.25K	1K	10 1/2	4 3/4	6 7/8 50	66.00
CG-311W†	1500-1235-0-1235-1500	2.5K	2K	10 1/2	4 3/4	6 7/8 50	69.00
CG-312	1800-1500-0-1500-1800	1.5K	1.25K	10 1/2	4 3/4	6 7/8 38	66.00

† Full Wave Bridge Rectifier types.

VARIPOWER* AUTOFORMERS

Simultaneous control of filament, plate and line voltage. Filament voltage control within 2 1/2%. Output voltage from 0 to 130 volts. 50/60 cycles. Taps at 25, 55, 75, 95, 100, 105, 110, 115, 120, 125, and 130 volts.

UTC Type	Watts Output	Case No.	Net Each	UTC Type	Watts Output	Case No.	Net Each
CVA-1	150	RC-112	$12.00	CVA-4	1000	RC-152	$21.00
CVA-2	250	RC-125	14.10	CVA-5	2000	RC-175	36.00
CVA-3	500	RC-150	18.00				

UTC PAGE 9. *UTC Trade Mark. All Product Lines or Type Designations are UTC Trade Marks. Specify by Trade Mark to assure UTC high quality and reliability. © 1964 United Transformer Corp., New York, N. Y.

Net

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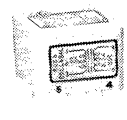
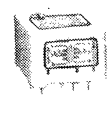
MINIATURE, OUNCER, SUBOUNCER & SUB-SUBOUNCER UNITS

SUBOUNCER*& SUB-SUBOUNCER*AUDIO TRANSFORMERS
TRANSISTOR & TUBE TYPES HERMETICALLY SEALED

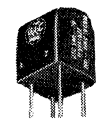
TO MIL-T-27B



SO-#P UNIT
Dim. ¾×1×2 3/32"
Pin Length ¼"
Wt. .....05 lb.



SSO-#P UNIT
Dim. ¾×⅞×5/16"
Pin Length ¼"
Wt. .....04 lb.



SML-70
1/16×31/64×5/16"
Wt. .2 oz.

UTC SSO-#P and SO-#P units are ideal miniaturized components having high efficiency and wide frequency response. Special nickel iron core materials and winding methods provide exceptional performance and reliability.

These units are vacuum molded to MIL Grade 5. They employ 50 mil deeply anchored pin terminals ideally suited for printed circuit and transistor application. Terminals are strong enough to support these light weight units.

The UTC SML-70 is an ultra miniature transformer providing high shielding, extremely low insertion loss with wide band response, 200 cycles to 20 kc. These units are provided with pin terminals (.025 dia.) strong enough to support the unit and are ideal for printed circuits.

PRINTED CIRCUIT AUDIO UNIT — HIPERMALLOY SHIELD CASE

Type No.	Application	Pri. Imp. ohms	Sec. Imp. ohms	Net Each
SML-70	Input or Chopper Service	200K	1K	$8.40

MIL TYPE: TF5RX16ZZ.

PRINTED CIRCUIT MOLDED TYPES TO MIL GRADE 5

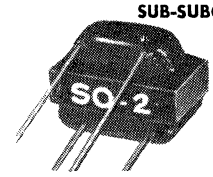
Type No.	Application	Pri. Imp. ohms	Sec. Imp. ohms	Net Each
SO-2P	Interstage/3:1	10K	90K	$6.90
SO-3P*	Plate to Line	10K	200	6.90
		25K	500	
SO-5P	Inductor: 40 hy at 1 ma, 2675 ohms, series; 4 hy at 4 ma, 670 ohms, parallel;			6.90
SO-7P*	Transistor	20K	800	6.60
	Interstage	30K	1200	
SO-8P	Transistor to PP Sec.	10K	2000 CT	7.50
SO-9P	PP Transistor to V.C.	500 CT	3.2	7.50
SO-14P	Transistor	80 CT	32 Split	7.80
	Interstage	100 CT	40 Split	
SO-15P	Tr. output	600 CT	600 Split	7.80
SO-17P	Inductor: 16 hy at 2 ma, 1.1K ohms, series; 4 hy at 4 ma, 275 ohms, parallel;			6.90

MIL TYPES: TF5RX13ZZ: SO-3P, SO-7P, SO-8P; TF5RX15ZZ: SO-2P; TF5RX17ZZ: SO-9P, SO-14P, SO-15P, SO-17P; TF5RX20ZZ: SO-5P.

SSO-3P	Plate to line	10K	200	$7.20
		25K		
SSO-5P	Inductor: 100 hy at 0 ma, 4.4K ohms, series; 25 hy at 0 ma, 1.1K ohms, parallel			6.90
SSO-8P	Transistor to pp sec.	10K	2000 CT	7.20
SSO-14P	Transistor	10K CT	200 CT	7.50
	Interstage	25K CT	500 CT	
SSO-15P	Transistor	20K CT	800 CT	7.50
	Interstage	30K CT	1200 CT	
SSO-19P	Output matching	500 CT	600 CT	7.20
SSO-20P	Output	1.5K CT	600 CT	7.20
SSO-21P	Crystal/Chopper	200K CT	1000 CT	8.10
SSO-22P	Interstage	10K CT	1500 CT	7.20
		12K CT	1800 CT	
SSO-23P	Inductor: 8 hy at 2 ma, 600 ohms, series; 2 hy at 4 ma, 150 ohms, parallel			6.90
SSO-24P	Inductor: 3.5 hy at 2 ma, 160 ohms, series; 0.9 hy at 4 ma, 40 ohms, parallel			6.90
SSO-25P	Transistor	10K CT	10K/	8.10
	Interstage		2.5K spl.	
SSO-27P	Tr. Output	4K CT 2.5 ma	600 spl.	8.10

MIL TYPES: TF5RX13ZZ: SSO-3P, SSO-8P, SSO-14P, SSO-15P, SSO-22P, SSO-25P, SSO-27P; TF5RX16ZZ: SSO-21P; TF5RX17ZZ: SSO-19P, SSO-20P; TF5RX20ZZ: SSO-5P, SSO-23P, SSO-24P.

SUB-SUBOUNCERS*AND SUBOUNCERS*



Lead mounted (channel available as separate item) miniature nickel iron core units for transistor or vacuum tube circuits. Plastic mounted leads. SSO Sub-Subouncers: Approx. 2 db, 140-10,000 cps; +20 VU except inputs +7 VU. (7/16" x ¾" x 43/64"; wt., .02 lb.) SO Subouncers: Approx. 2 db., 100-10,000 cps; +24 VU except inputs +10 VU. (1 9/32" x 43/64" x ⅞"; wt., .03 lbs.)

UTC SSO-	Net Each	Application	Pri. Imp., Ohms	Sec. Imp., Ohms	UTC SO-	Net Each
1	$4.50	Input	50/200	62.5K/250K	1	$3.60
2	4.80	Interstage	10K, .25 ma	90K	2	3.30
3	4.20	Pl. to line	10K/25K, 1.5 ma	200/500	3	3.30
4	3.90	Output	30K, 1 ma	50	4	3.30
5	3.90	Inductor:	50 hys. @ 1 ma	4400 ohms#	5‡	3.00
6	4.20	Output	100K, .5 ma	60	6	3.90
7	3.30	Tr. intrstg.	20K/30K†	80/1200	7	3.00
8	3.90	Tr. intrstg.	10K, 1 ma	2K CT	8	3.60
9	3.00	Tr. to V.C.	10K, 2 ma	16	.....	.....
.....	.....	Tr. to V.C.	500 CT	3.2	9	3.60
10	3.00	Tr. to V.C.	10K, 2 ma	3.2	.....	.....
.....	.....	Tr. to V.C.	2K/4K CT	8/16	10	3.60
11	3.00	Tr. Output	500/600§	50/60	.....	.....
.....	.....	Transist. Int.	400/500 CT	400/500 Split	11	4.20
12	3.00	Tr. Output	1K/1.2K††	50/60	.....	.....
.....	.....	Transist. Int.	400/500 CT	120/150 Split	12	4.20
13	4.50	Input	200K	1K	.....	.....
.....	.....	Transist. Int.	400/500 CT	40/50 Split	13	4.20
14	4.20	Tr. intrstg.	10K/25K CT	200/500 CT	.....	.....
.....	.....	Transist. Int.	80/100 CT	32/40 Split	14	4.20
15	4.20	Tr. intrstg.	20K/30K CT	.8K/1.2K CT	.....	.....
.....	.....	Tr. output	600 CT, 5 ma	600 Split	15	4.20
16	3.00	Tr. output	1.2K/1.5K††	3.2/4	.....	.....
.....	.....	Tr. intrstg.	2.5K CT, 4 ma	2500 Split	16	4.20
17	3.30	Output	10K/12.5K**	500/600 CT	.....	.....
.....	.....	Inductor: 16 hy at 2ma, 1.1K ohms, series; 4 hy at 4 ma, 275 ohms, parallel			17	3.30
18	3.30	Output	7.5K/9.4K CT	3.2/4	.....	.....
19	3.30	Matching	500 CT	600 CT	.....	.....
20	3.30	Output	1.5K CT	600 CT	.....	.....
21	4.80	Chopper	200K CT	1K CT	.....	.....
22	3.90	Tr. intrstg.	10K/12K CT	1.5K/1.8K CT	.....	.....
23	3.00	Inductor: 4 hys @ 5 ma, 650 ohms				
24	3.00	Inductor: 1.5 hys. @ 5 ma, 160 ohms				
25	5.10	Transist. Int.	10K/12K CT	10K/12 CT	.....	.....
26	5.10	Transist. Int.	40K/50K CT	400/500 Split	.....	.....
27	5.10	Tr. output	4K CT, 2.5 ma	600 Split	.....	.....
CH	.30	Mounting channel for any of above			CH	.30

†0.5 ma. ‡Resis., 2675 ohms. §3.5 ma. **2 ma. ††3 ma. #DC resis.

OUNCER*AUDIO UNITS
Standard and Plug-in Types

UTC ouncer components provide wide range ±1 db, 30 to 20,000 cps (except Nos. 0-14 and 0-15). In compact ⅞" dia. case. No. 0-16 has heavy shielding (case 1 1/16" dia.). P-16 has 9 pin plug (1 3/16" dia.). Wt., 4 oz. max.

UTC No.	Net Each	Application	Pri. Imped., Ohms	Sec. Imped., Ohms	UTC No.	Net Each
O-1	$7.80	Input	50, 200, 500	50K	P-1	$9.00
O-2	7.80	P-p input	50, 200, 500	50K CT	P-2	9.00
O-3	7.50	Input	7.5/30	50K	P-3	8.40
O-4	6.60	Pl. to grid	15K	60K	.....	.....
O-5	6.60	Pl. to grid	15K, 2 ma	60K	.....	.....
O-6	7.50	Pl. to p-p	15K	95K CT	P-6	8.40
O-7	7.50	Pl. to p-p	15K, 2 ma	95K CT	P-7	8.40
O-8	7.80	Pl. to line	15K	50, 200, 500	P-8	9.00
O-9	7.80	Pl. to line	15K, 2 ma	50, 200, 500	P-9	9.00
O-10	8.40	P-p to line	30K CT	50, 200, 500	P-10	9.00
O-11	7.80	Cryst. out.	50K	50, 200, 500	P-11	9.00
O-12	7.80	Mixing	50, 200, 500	50, 200, 500	P-12	9.00
O-13	6.30	Inductor	300 Hys-0 ma; 6000 ohms		.....	.....
O-14	7.50	50:1 input	200	500K	.....	.....
O-15	7.50	10:1 P/G	15K	1 meg.	P-15	9.00
O-16	10.20	Shld. input	250 CT	50K	P-16	11.40
O-17	1.50	Hipermailoy shield, 25 db, for Ouncers			.....	.....
O-18	7.80	Tr. intrstg.	10K split	2K split	.....	.....
O-19	7.80	Tr. intrstg.	10K split	4K split	.....	.....
O-20	6.30	Tr. to line	1.5K CT	500 split	.....	.....
O-21	5.40	Tr. to V.C.	2K/4K CT	8/16	.....	.....
O-22	5.40	Tr. to V.C.	500/400 CT	4/3.2	.....	.....
O-23	5.10	Inductor 7 Hys-3 ma; 230 ohms			.....	.....
O-24	5.10	Inductor 1.6 Hys-3 ma; 25 ohms			.....	.....
O-25	8.10	Transist. Input	600/150 split	2K/500 split	.....	.....
O-26	8.10	Transist. Int.	10K CT 4 ma.	10K CT	.....	.....
O-27	8.40	Transist. Int.	10K CT 4 ma.	500/125 split	.....	.....
O-28	8.40	Transist. Int.	50K CT. 2 ma.	500/125 split	.....	.....
O-29	8.70	Transist. Int. or chopper	100K CT 1 ma.	500/125 split	.....	.....
O-30	8.10	Transist. Int.	500/125 split	500/125 split	.....	.....
O-31	8.10	Transist. Int.	500/125 split	150/37.5 split	.....	.....
O-32	8.10	Transist. Int.	500/125 split	50/12.5 split	.....	.....
O-33	8.10	Transist. Int.	100/25 split	40/10 split	.....	.....
O-34	5.10	Split Inductor	Series: 60 Mhy-80 ma; 4 ohms Parallel: 15 Mhy-160 ma; 1 ohm		.....	.....
O-36	5.10	Split Inductor	Series: 1 Hy-20 ma; 60 ohms Parallel: .25 Hy-40 ma; 15 ohms		.....	.....
O-37	8.10	Tr. to line	4K/1K spl., 4 ma	650/150 split	....	
O-38	5.10	Spkr. match	0, 4, 8, 16 ODC		....	....
O-BR	.21	Mounting U-bracket for ouncers				....

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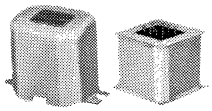
AMATEUR & PUBLIC ADDRESS TRANSFORMERS "S"* SERIES

DIMENSIONS, SPECIAL SERIES TRANSFORMERS



G-1 thru G-4 G-5 thru G-12

UTC Special Series transformers are specifically designed for amateur and popular-priced PA service. These units are finished in a rich, commercial type medium gray enamel. A recessed terminal strip is provided, permitting above chassis or breadboard wiring in addition to standard chassis type.

G-CASE SIZES

Case	Height, In.	Width, In.	Depth, In.	Wt., Lbs.
G-1	1 7/8	2 13/16	1 3/4	1
G-2	2 5/16	3 3/8	1 15/16	1 1/2
G-3	2 1/2	3 3/4	2 5/32	2
G-4	2 13/16	4 1/8	2 5/16	3
G-5	3 3/4	3 1/8	4 1/2	4 1/2
G-7	4 5/8	4 5/8	5 1/2	8
G-8	4 5/8	5 3/8	5 3/8	12
G-9	5 7/8	5 3/8	6 3/4	21
G-10	5 7/8	6 1/8	6 5/8	24
G-11	5 7/8	6 1/2	7 3/8	31
G-12	10 1/4	7 3/8	9 1/4	52

INPUT AND DRIVER TRANSFORMERS

Type UTC	Application	Ratio Pri. to Sec.	Level	Case	Net Each
S-1	Plate to grid	1:3 1/2	+30 dbm	G-2	$4.80
S-2	Plate to p-p grids	1:4†	+30 dbm	G-2	6.00
S-3	Pl. to 1 or 2 grids	1:4†	+25 dbm	G-1	4.50
S-5	Line to grid, humbkg.	1:16	+30 dbm	G-2	5.10
S-6	Line to grid, compact	1:16	+25 dbm	G-1	4.50
S-8	Driver pl. to p-p	2.66:1, 5:1†	5 w.	G-3	6.60
S-9	Driver p-p to p-p	2.66:1, 3.6:1 5:1†	20 w.	G-4	8.70
S-10	Driver p-p to p-p	2.25:1†	5 w.	G-3	6.60

†Center tapped.

MATCHING, OUTPUT AND MODULATION UNITS

UTC Type	Application	Pri. Imped., Ohms	†	Level, Watts	Case	Net Each
S-11	Pl. to line	15K	a	.25	G-2	$5.10
S-12	Line to V.C.	.5K/2K/4K	b	15	G-2	5.40
S-13	Line to V.C.	.5K/2K/4K	b	30	G-4	7.80
S-14	Output	2.5K/4K/7K/10K	c	10	G-2	6.60
S-15	PP output	4K/5K/10K CT	c	12	G-2	7.20
S-16	PP output	3K/6K/9/10K CT	c	30	G-4	8.40
S-17	PP output	3.8K/4.5/5K CT	c	55	G-5	12.00
S-18	Univ. modul.	Any Class B	d	12	G-3	7.20
S-19	Univ. modul.	Any Class B	d	30	G-4	9.30
S-20	Univ. modul.	Any Class B	d	55	G-5	15.00
S-21	Univ. modul.	Any Class B	d	110	G-7	21.00
S-22	Univ. modul.	Any Class B	d	250	G-9	33.00

†Secondary Impedance: a—200/500 ohms. b—2, 4, 8, 15 ohms. c—2, 8, 15, 500 ohms. d—Any Class C.

FILTER, SWINGING AND AUDIO INDUCTORS

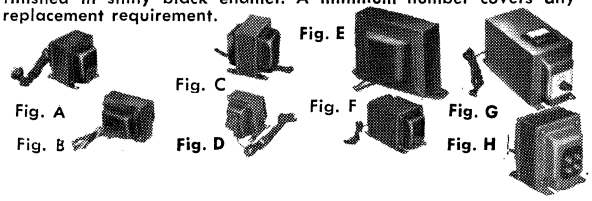
Type	Henries	Ma. DC	Ohms	Insul.	Case	Net Each
S-23§	300	5	5000	1500 v.	G-2	$4.50
S-24‡	500	3	6000	1500 v.	G-2	5.10
S-25	30	30	800	1500 v.	G-2	3.90
S-26	12	60	250	1500 v.	G-2	3.90
S-27	25	75	350	1500 v.	G-4	5.10
S-28	20	100	350	1500 v.	G-4	6.30
S-29	6	175	90	1500 v.	G-4	5.10
S-30†	4/20	175	90	1500 v.	G-4	5.10
S-31	6	225	100	2700 v.	G-5	6.90
S-32†	4/20	225	100	2700 v.	G-5	6.90
S-33	8	300	100	4000 v.	G-7	9.30
S-34†	4/20	300	100	4000 v.	G-7	9.60
S-35	8	400	60	5000 v.	G-8	12.00
S-36†	4/20	400	60	5000 v.	G-8	12.00
S-37	8	550	60	6000 v.	G-8	15.00
S-38†	4/20	550	60	6000 v.	G-8	15.00
S-80	50/10 Mhy	1.75A	.5	500 v.	G-1	3.90
S-81 (2Wdgs)	100/8 Mhy 25/2 Mhy	2.5A 5A	.6 .15	1500 v.	G-3	6.00

§Audio. ‡P.P. Audio C. T. †Swinging.

Information on components in this box listed on UTC page 12.

REPLACEMENT TYPE COMPONENTS

The shells and brackets of these vacuum sealed components are finished in shiny black enamel. A minimum number covers any replacement requirement.



FILAMENT TRANSFORMERS

Primary Tapped 105, 115 Volts, 50-60 Cy.

UTC Type	Secondary Volts	Secondary Current	Insulation	Case No.	Net Each
S-53	2.5 VCT	10 Amp	1500 V	G-3	$6.30
S-54	5 VCT	4 Amp	2500 V	G-3	5.70
S-55	6.3 VCT	3 Amp	1500 V	G-3	5.40
S-57	2.5 VCT	10 Amp	10000 V	G-5	9.00
S-58	2.5 VCT	20 Amp	10000 V	G-5	9.90
S-59	5 to 5.25 VCT	13 Amp	5000 V	G-5	9.30
S-60	5 to 5.25 VCT	22 Amp	10000 V	G-7	13.20
S-61	7.5 VCT tapped 6.3 VCT	10 Amp	3000 V	G-5	10.20
S-62	10 VCT	10 Amp	3000 V	G-5	9.30
S-63	14 VCT tapped 12 VCT & 11 VCT	10 Amp	5000 V	G-7	13.20

Type	Filament 1	Filament 2	Filament 3	Case	Net
‡S-64	2.5 VCT-5A	2.5 VCT-5A	5 VCT-6A	G-5	$10.80
‡S-67	5 VCT-6A	6.3 VCT-54		G-5	10.20
‡S-68	5 VCT-3A	6.3 VCT-4A	7.5 VCT-5A	G-5	10.50
‡S-70	6.3 VCT-5A	6.3 VCT-5A	.....	G-5	10.20
§S-71	2.5 VCT 6A	2.5 VCT-6A	2.5 VCT-12A	G-7	15.00
†S-72	5 VCT-3A	5 VCT-3A	5 VCT-6A	G-5	11.40

§Insulation 10,000 v. †Insulation 5000 v. ‡Insulation 3000 v.

COMBINED PLATE AND FILAMENT TRANSFORMERS

Primary 115 V., 50-60 Cy.

UTC Type	Voltage	DC V.	Rect. Fil.	Filament No. 1	Filament No. 2	Case No.	Net Each
S-39	490-400-0-400-490 175 ma	400/310	5V-3A	2.5 VCT-6A	6.3 VCT-4A	G-7	$16.50
S-40	525-425-0-425-525 250 ma	400/310	5V-3A	6.3 VCT 3A	6.3 VCT-3A	G-7	18.00
S-41	600-0-600 200 ma	475	5 V-3A	7.5 V tapped 6.3 V-3A	6.3 VCT-2A	G-7	18.00
S-42	600-525-0-525-600 300 ma	480/400	5 V-6A	7.5 V tapped 6.3 V-3A	6.3 VCT-3A	G-7	19.50

PLATE AND BIAS TRANSFORMERS

Primary 115 V. 50/06 Cycles

UTC Type	2.5 VCT-12A High Voltage	DC Voltages†	DC Ma	Case	Net Each
S-44	575-525-0-525-575	470/430	500	G-9	$25.80
S-45	900-750-0-750-900	750/620	200	G-8	21.00
S-46	1000-750-0-750-1000	820/600	300	G-9	24.00
S-47	1500-1250-1000-0-1000-1250-1500	1275/1050/825	300	G-10	33.00
S-48	1500-1250-1000-0-1000-1250-1500	1300/1075/850	500	G-11	39.00
S-49	2100-1800-1500-0-1500-1800-2100	1815/1540/1275	300	G-11	36.00
S-50	3000-2500-0-2500-3000	2625/2175	300	G-12	60.00
S-51	Any bias voltage from 15 to 100 ± 6%		200	G-5	12.00
S-52	Any bias voltage from 75 to 400 ± 6%		200	G-7	15.60

†Based on two section filter for 200 ma. and 300 ma. units. Single section filter for 500 ma. units, both choke input.

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TRANSFORMERS FOR INDUSTRY WIDE APPLICATIONS

DOUBLE SHELL POWER TRANSFORMERS (FIG. B SEE PG. 11)

Rectifier filaments 5 volts, 3 amps except R-101, 2 amps.

UTC Type	High V.	DC Ma.	Amplifier Filament	Overall Height	Wt., Lbs.	Net Each
R-101	275-0-275	50	6.3 v. CT-2.7A	3"	2½	$ 8.70
R-102	350-0-350	70	6.3 v. CT-3A	3⅝"	3½	10.20
R-103	350-0-350	90	6.3 v. CT-3.5A	3 15/16"	4½	10.35
R-104	350-0-350	120	6.3 v. CT-5A	3⅞"	5½	11.10
R-105	385-0-385	160	6.3 v. CT-5A	4 5/16"	7	12.00

VERTICAL SHELL POWER TRANSFORMERS (FIG. C SEE PG. 11)

Rectifier filaments 5 volts, 3 amps., except R-110, 2 amps.

R-110	300-0-300	50	6.3 v. CT-2.7A	3¼"	2½	$ 8.70
R-111	350-0-350	70	6.3 v. CT-3A	3¼"	3½	10.20
R-112	350-0-350	120	6.3 v. CT-5A	4"	5½	11.10
R-113	400-0-400	200	6.3 v. CT-6A	4⅝"	8	14.10

CHANNEL FRAME FILTER INDUCTORS (FIG. E SEE PG. 11)

Inductance Shown is at Rated D.C.M.A.—Test Volts RMS: 1500

Type No.	Induct. Hys.	Current	Resist. Ohms	Dimensions, in. W	D	H	M	Wt. Lbs.	Net Each
R-55	6	40MA	300	2⅜	1⅜	1⅜	2	½	$1.65
R-14	8	40MA	250	2⅞	1½	1 11/16	2⅜	¾	1.95
R-15	12	30MA	450	2⅞	1½	1 11/16	2⅜	¾	1.95
R-16	15	30MA	630	2⅞	1½	1 11/16	2⅜	¾	1.95
R-17	20	40MA	850	3 5/16	1⅝	2	2 13/16	1	2.25
R-18	8	80MA	250	3 9/32	1⅝	2	2 13/16	1	2.52
R-19	14	100MA	450	3¾	1⅞	2 5/16	3⅛	1½	3.00
R-20	5	200MA	90	4⅛	2¼	2⅝	3 9/16	2½	3.60
R-21	15/3	200MA	90	4⅛	2¼	2⅝	3 9/16	2½	3.60
R-220	100/8 Mhy.	2.5A	.6	3¾	2	2 5/16	3⅛	1½	4.20
	25/2 Mhy.	5A	.16						

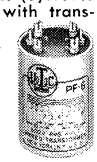
PHOTOFLASH TRANSFORMERS

STANDARD 982

Can be used for either standard (Amglo type) or trigger (Sylvania type) multiple flash tubes. Circuit details included with transformer.

PF-1 Primary for 115 volts, 50/60 cycles. Secondaries for power supply delivering 2200 volts DC to condenser up to 100 Mfd. Compound sealed in G-3 (Pg. 11) case 2⅛ x 2¾ (3¾ including flanges) x 2½ inches high. Weight 2 lbs. **Net Each $8.40**

PF-3 Trigger Transformer 15 KV peak. ⅞ O.D.x3 long. Weight 2 oz. **Net each: $6.00**



PF-6

TRANSISTOR TYPE

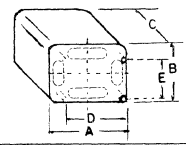
These are miniaturized light weight units for transistor type photoflash supply.

PF-5 Primary for 115 volts. 50/60 cycles or for 4½ V. battery switched by PF-6 inverter transformer. Output delivers 400 V. DC when used in voltage doubler circuit to charge photoflash capacitor (typically 40 watt-Sec.). G-1 case (Pg. 11)
Net each: $8.40

PF-6 Inverter transformer transforms 4½ V. DC from battery to input for PF-5 stepup transformer. Cuncer case (Pg. 11)
Net each: $5.10

PF-7 Trigger transformer. Shorting .25 mfd. capacitor (charged to approx. 225 V. DC) across terminals 1-2 produces 6 KV pulse at terminal 3 for triggering flash tube. ⅞" Dia. x 15/16"; Wt. ½ oz. **Net each: $3.60**

MIL-T-27B CASE SIZES



MIL Case	Size, Inches: A	B	C	D	E	Mtg. Studs
AF	¾	¾	1⅛	Diag.	5/16	4-40 x 3/8
AG	1	1	1⅜	Diag.	¾	4-40 x 3/8
AH	1 5/16	1 5/16	1¾	Diag.	1¼	6-32 x 3/8
AJ	1⅝	1⅝	2⅜	1 3/16	1 3/16	6-32 x 3/8
EA	1 15/16	1 13/16	2¾	1⅜	1¼	6-32 x 3/8
EB	1 15/16	1 13/16	2 7/16	1⅜	1¼	6-32 x 3/8
FA	2 5/16	2 1/16	3⅛	1 11/16	1 7/16	6-32 x 3/8
FB	2 5/16	2 1/16	2½	1 11/16	1 7/16	6-32 x 3/8
GA	2¾	2⅜	3 13/16	2⅛	1¾	6-32 x 3/8
GB	2¾	2⅜	2 13/16	2⅛	1¾	6-32 x 3/8
HA	3 1/16	2⅝	4¼	2 19/64	1 55/64	8-32 x 3/8
HB	3 1/16	2⅝	3 3/16	2 19/64	1 55/64	8-32 x 3/8
JA	3 3/16	3 1/16	4⅞	2⅝	2⅛	8-32 x 3/8
JB	3 3/16	3 1/16	3⅞	2⅝	2⅛	8-32 x 3/8
KA	3 15/16	3⅜	5¼	3	2 7/16	10-32 x ½
KB	3 15/16	3⅜	4 5/16	3	2 7/16	10-32 x ½
LA	4 5/16	3 11/16	5 5/16	3 5/16	2 11/16	10-32 x ½
LB	4 5/16	3 11/16	4½	3 5/16	2 11/16	10-32 x ½
MA	4 11/16	4	6	3 11/16	3	¼-20 x ⅝
MB	4 11/16	4	4 15/16	3 11/16	3	¼-20 x ⅝
NA	5 1/16	4 5/16	6 13/16	4 1/16	3 5/16	¼-20 x ⅝
NB	5 1/16	4 5/16	5½	4 1/16	3 5/16	¼-20 x ⅝
OA	5½	4½	6¾	3¾	3	¼-20 x ⅝

STEP-DOWN AUTO-TRANSFORMERS (FIG. A SEE PG. 11)

With 6-ft. cord and female receptacle, except R-64; 220/240 to 110/120 v., 50/60 cps.

UTC Type	Rating	Size, Inches L.	W.	H.	Wt., Lbs.	Net Each
R-41	85 watt capacity	3 3/16	2⅝	3⅛	4	$6.75
R-42	125 watt capacity	3½	3	3½	5	7.65
R-43	175 watt capacity	3¾	3¼	3⅞	5½	8.40
R-44	250 watt capacity	4⅜	3¼	3⅞	6½	11.10
R-45	500 watt capacity	4⅝	3⅞	4⅝	12	12.00
R-46	1200 watt capacity	6⅞	3⅞	4⅝	18	24.00
R-64	2500 watts, no cord	10½	4¾	6¾	30	57.00

ISOLATION TRANSFORMERS (FIG. F SEE PG. 11)

Ideal for isolating line noise. AC-DC sets, etc. Excellent electrostatic shielding 1500 volt breakdown test. Six foot cord and female receptacle, except R-77.

Primary 110-120 volts 50/60 cycles—Secondary 110-120 volts
Except R-97 220 volt Primary—120 volt Sec.

Type No.	Rating Watts	L	W	H	Mtg. Dim.	Wgt. Lbs.	Net Each
R-72	40	3⅛	2⅝	3⅛	2x1 7/8	4	$ 7.20
R-73	100	3¾	3¼	3⅞	2½x2⅜	6	10.50
R-74	250	4⅞	3⅞	4⅝	3x3½	12	18.00
R-75	600	7⅜	3⅞	4⅝	3x5⅞	20	24.00
R-76	1200	8½	4½	6⅛	3⅝x6⅝	30	57.00
R-77	2500	12	7	9	6x11	70	99.00
R-97	250	4⅞	3⅞	4⅝	3x3½	12	15.00

LINE VOLTAGE ADJUSTERS WITH METER (FIG. G SEE PG. 11)

The perfect answer to abnormal or fluctuating line voltage. Adjust switch so that meter reads at red line and you know that your equipment is working at correct voltage. These units combine a tapped auto-transformer with a switch and meter in a compact, rugged assembly. The nine tap switch provides for line voltage of 60 to 140 volts on 115 volt output models and 160 to 240 volts on 230 volt output model. All units are designed for 50/60 cycles service and come complete with 6 foot input cord and plug and outlet receptacle.

Type No.	Primary Voltages	Sec. Volts	Watts Ratings	L	W	H	Wgt. Lbs.	Net Each
R-78	†	115	150	7	4	4¾	6	$17.70
R-79	†	115	300	7	4	4¾	9	18.90
R-80	†	115	600	10¼	4	4¾	13	22.80
R-81	†	115	1200	10¼	4	4¾	21	33.00
R-86	‡	230	1200	10¼	4	4¾	21	33.00

† 60, 70, 80, 90, 100, 110, 120, 130, 140
‡ 160, 170, 180, 190, 200, 210, 220, 230, 240

EXPORT VOLTAGE ADAPTER (FIG. D SEE PG. 11)

Complete with cord and plug and special locking switch providing for line voltages of 105, 115, 125, 135, 150, 210, 230, 250 volts; 42 to 60 cycles. Output voltage 115.

Type No.	Rating Watts	L	W	H	Mtg. Dim.	Wgt. Lbs.	Net Each
R-47	85	4⅝	3	3½	2¼x2¼	4½	$10.20
R-48	150	4¾	3¼	4	2½x2½	5½	11.70

TV VOLTAGE REGULATOR (FIG. D SEE PG. 11)

Complete with cord, plug, and special locking switch. Permits operation of 115 volt 50/60 cycle TV sets on line voltages of 85, 90, 95, 100, 105, 110, 120, 125 V.

Type No.	Rating Watts	L	W	H	Mtg. Dim.	Wgt. Lbs.	Net Each
R-49	350	5	3¼	4	2½x2¾	5	$12.00

SIGNALLING AND CONTROL TRANSFORMERS (FIG. H SEE PG. 11)

Primary 110-120 volts, 50/60 cycles—Secondary
4/8/12/16/20/24 volts

High power transformers suitable for operating relays, sirens horns, gongs, etc. from 115 V. 50/60 cycle line. These units have four secondary terminals providing 4, 8, 12, 16, 20 and 24 volt output. The volt ampere rating is based on the 24 volt secondary tap with corresponding reduction at the lower voltages. Underwriters' approved primary leads are employed, and screw-type binding posts.

Type No.	Rating Watts	L	W	H	Mtg. Dim.	Wgt. Lbs.	Net Each
SC-3	50	3	3 1/16	3 9/16	1¾x2¼	3	$8.40
SC-4	100	3¼	3 1/16	4	2⅛x2½	5	9.90
SC-5	250	4	4⅜	4¾	3 5/16x3	10	14.40

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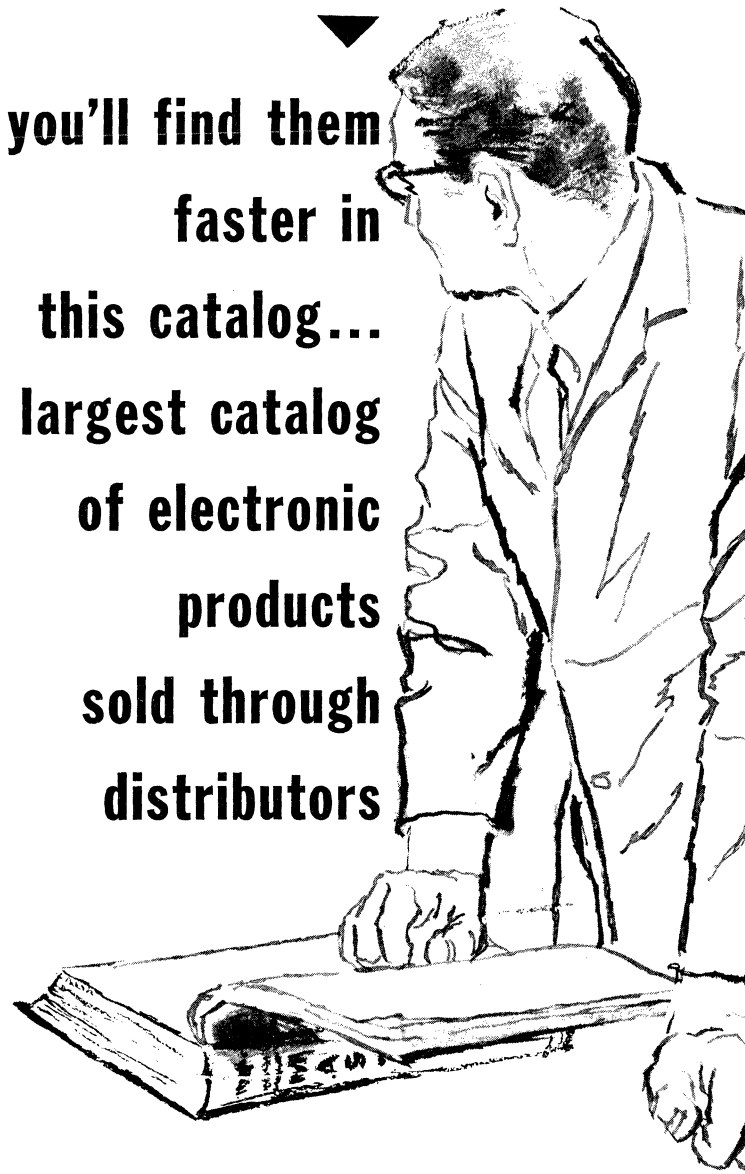

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Amperex Industrial, Communication,

TUBE TYPE
0A2
0B2
0E3
0G3
1A3/DA90
1AB6
1AC6
1AH5
1AJ4
1AN5
1B3GT
1CP31/DH3-91
1G3GT/1BG3GT
1L4/DF92
1M3/DM70
1N3/DM71
1R5/DK91
1S2A/DY87
1S5/DAF91
1T4/DF91
1U4
1U5/DAF92
1X2B
2D21
2ER5/XC95
2FY5/XC97
2GK5
3AMP1/DG7-32
3A4/DL93
3A5/DC90
3AU6
3BU8
3B28
3BKP2/DN7-78
3BKP7/DP7-78
3BKP11/DB7-78
3BKP31/DH7-78
3BYP2/DN7-11
3BYP7/DP7-11
3BYP11/DB7-11
3BYP31/DH7-11
3BZ6
3CA/DL96
3CB6
3EH7/XF183
3EJ7/XF184
3ER5
3GK5
3HA5/LC900
3Q4/DL95
3S4/DL92
3V4/DL94
3-400Z
4-65A
4-125A
4-250A
4-400A
4B32
4BL8/XCF80
4C35
4CX250B
4CX250F
4CX250R
4EH7
4EJ7
4ES8
4ES8/XCC189
4GK5
4HA5/PC900
4X150A
4X150D
4X250B
4X250F
4X500A
5AQ4
5AR4/GZ34
5BHP2
5BHP7
5BHP31
5C22
5EJP31/D13-22GH
5AQ4
5R4GY
5R4GYB
5U8
5U9/LCF201
5V9/LCH200
5X9/LCF200
5Z4G
6AB8
6AJ8/ECH81
6AK5/EF95
6AK5W
6AK8
6AL3/EY88

TUBE TYPE
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6AL5W
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6AM6
6AQ5/EL90
6AQ5/EL90MP
6AQ5A
6AQ8/ECC85
6AT6/EBC90
6AU4GTA
6AU6/EF94
6AU6A
6AV6/EBC91
6AX4GT
6AX4GTB
6BA6/EF93
6BD7A
6BE6/EK90
6BE7
6BH6
6BJ6
6BL8/ECF80
6BM8/ECL82
6BQ5/EL84
6BQ5/EL84MP
6BR5/EM80
6BT4
6BX6/EF80
6BY7
6BZ6
6CA4/E281
6CA7/EL34
6CA7/EL34MP
6CD7/EM34
6CG7
6CJ5
6CJ6
6CK5
6CK6
6CM4/EC86
6CM5
6CM6
6CQ6
6CS6/EH90
6CT7
6CU7
6CV7
6CW5/EL86
6CW7
6DA5/EM81
6DA6/EF89
6DC8/EBF89
6DE6
6DJ8/ECC88
6DL4/EC88
6DL5
6DL5MP
6DR8
6DS8
6DT6
6DX8/ECL84
6DY5
6EH7/EF183
6EJ7/EF184
6ER5/EC95
6ES6
6ES8/ECC189
6ET6
6EU7
6FG6/EM84
6FY5/EC97
6GB5/EL500
6GJ7/ECF801
6GK5
6GK6
6GM8/ECC86
6GV8/ECL85
6GW8/ECL86
6HA5/EC900
6HG8/ECF86
6HU6/EM87
6J6/ECC91
6JX8/ECH84
6LN8/LCF80
6N3
6N8
6Q4/EC80
6R3/EY81
6R4/EC81
6S2
6S2A
6S4A
6SN7GTB
6U3
6U8

TUBE TYPE
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6V4/EZ80
6V9/ECH200
6W4GT
6X2
6X4/EZ90
6X9/ECF200
6Y9/EFL200
7AN7
7AU7
7C24
7DJ8
7HG8/PCF86
8BQ5/XL84
8CW5/XL86
8GJ7/PCF801
8U9/PCF201
8X9/PCF200
9A8/PCF80
9AB4
9AK8
9AQ8/PCC85
9V9/PCH200
9GV8/XCL85
9U8/PCF82
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10DX8/LCL84
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12AT7/ECC81
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12AU7/ECC82
12AU7A
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12AX4GTB
12AX7/ECC83
12AX7A
12BL6
12DS7
12DS7A
12S7
12SN7GTA
12X4/HZ90
13GB5/XL500
14K7
14L7
14GW8
15A6
15CW5/PL84
15DQ8/PCL84
16A5
16A8/PCL82
16AQ3/XY88
16GK6
16Y9/PFL200
17EW8/HCC85
17Z3
18GU8
19AU4
19AU4GTA
19BR5
19D8
19X3
19Y3
21A6
25E5
25L6GT
27GB5/PL500
30A5
31A3
35L6GT
38A3
45A5
45B5/UL84
45B5/UL84MP
50BM8/UCL82
50BM8/UCL82MP
51UVP
52AVP
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53UVP
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56AVP
56CVP
56UVP
57AVP
58AVP
59UVP

TUBE TYPE
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85A1/OE3
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90NB4/700V
90NB4/900V
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100CB
100HB
100LB
100NB/700V
100NB/900V
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120NB/700V
120NB/900V
150AVP
150B2/6354
150CVP
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150N/900V
150NB/700V
150NB/900V
150UVP
152AVP
152UVP
153AVP
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155N
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161G
171G
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200HB
200LB
200N
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200NB/900V
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833A
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5654/6AK5W
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5666
5667
5684/C3JA
5685/C6JA
5726/6AL5W
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6360 MIL
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6689

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6884
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6907 USAF
6922
6922 USN
6922M
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7709
7710
7714
7722/E280F
7737
7737M
7737 USN
7753
7788
7788 USN
7800
7804
7805
7806
7807
7854
7899
7900
7983
7986/5866A
808AX
8020AX
8032
8042
8078
8108/EC157
8116
8117
8118
8163
8177
8179
8228
8233
8254
8268
8269

AMPEREX ELECTRONIC CORPORATION
Hicksville, Long Island, New York 11802

Amperex®

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and Receiving Tubes. . . .

TUBE TYPE

8270
8300
8348
8408
8416
8436/EC158
8453/Z550M
8457
8458
8463
8482
8483
8505
8509
18503
18504
18505
18506
18508
18509
18510
18515
18516
18517
18518
18522
18526
18529
18536
18550
18552
55850AM
55850S

Alpha-Numeral Listing

AB2
ABC1
ABL1
AF3
AF7
AK2
AL1
AL4
AX50
AX105/FG105
AX260
AX5842
AZ1
AZ4
AZ11
AZ12
AZ31
AZ41
AZ50
C3J
C3JA
C6JA
C8
C10
C12
CBL1
CF3
CF7
CF50
CK1
CL4
CY1
CY2
D10-11BE
D10-11GH
D10-11GM
D10-11GP
D10-12BE
D10-12GH
D10-12GM
D10-12GP
D13-BE
D13-15GH
D13-15GM
D13-15GP
D13-16BE
D13-16GH
D13-16GP
D13-17BE
D13-17GH
D13-17GP
D13-19BE
D13-19GH
D13-19GM
D13-19GP

TUBE TYPE

D13-20BE
D13-21BE
D13-21GH
D13-21GM
D13-21GP
D13-22GH/5EJP31
D13-23GH
D13-24BE
D13-26GH
DA90
DAC21
DAF40
DAF41
DAF91
DAF92
DAF96
DB7-11/3BYP11
DB7-78/3BKP11
DC70/6375
DC90
DCC90/3A5
DF21
DF22
DF91
DF92/1L4
DF96
DF97
DF904
DG7-31
DG7-32/3AMP1
DH3-91/1CP31
DH7-11/3BYP31
DH7-78/3BKP31
DH13-10
DK21
DK40
DK91
DK92
DK96
DL21
DL41
DL92
DL93/3A4
DL94
DL95
DL96
DLL21
DM70
DM70/1M3
DM71
DM71/1N3
DN7-11/3BYP2
DN7-78/3BKP2
DP7-11/3BYP7
DP7-78/3BKP7
DY86
DY87
DY87/1S2A
E1T/6370
E10-10BE
E10-10GH
E10-10GM
E10-10GP
E10-12BE
E10-12GH
E10-12GM
E10-12GP
E55L/8233
E80CC/6085
E80CF/7643
E80F/6084
E80L/6227
E80T/6218
E81CC/6201
E81L/6686
E83F/6689
E84L/7320
E88CC/6922
E90CC/5920
E90F/7693
E91H/6687
E91AA/5726
E91N/5727
E92CC
E95F/5654
E99F/7694
E130L/7534
E180CC/7062
E180F/6688
E182CC/7119
E182F/5847
E186F/7737
E280F/7722
EA50

TUBE TYPE

EA52/6923
EA53
EAA91
EAA91/6AL5
EABC80
EAF42
EB34
EB41
EB91
EBC3
EBC33
EBC41
EBC81
EBC90/6AT6
EBC91/6AV6
EBF2
EBF32
EBF35
EBF80
EBF83
EBF89
EBF89/6DC8
EBL1
EBL21
EC50
EC80
EC80/6Q4
EC81
EC81/6R4
EC86
EC86/6CM4
EC88
EC88/6DL4
EC90
EC91
EC92
EC95
EC95/6ER5
EC97
EC97/6FY5
EC157/8108
EC158/8436
EC900
EC900/6HA5
EC1000/8254
EC2000
ECC32
ECC33
ECC34
ECC35
ECC40
ECC81
ECC81/12AT7
ECC82
ECC82/12AU7
ECC83
ECC83/12AX7
ECC84
ECC85
ECC85/6AQ8
ECC86
ECC86/6GM8
ECC88
ECC88/6DJ8
ECC91
ECC91/6J6
ECC189
ECC189/6ES8
ECC2000
ECF1
ECF80
ECF80/6BL8
ECF82
ECF86
ECF86/6HGH
ECF200
ECF201
ECF801
ECF801/6GJ7
ECH3
ECH4
ECH21
ECH35
ECH41
ECH42
ECH81
ECH81/6AJ8
ECH83
ECH84
ECH84/6JX8
ECH200
ECL11
ECL80
ECL82

TUBE TYPE

ECL82/6BM8
ECL83
ECL84
ECL84/6DX8
ECL85
ECL85/6GV8
ECL86
ECL86/6GW8
EEP1
EF6(N)
EF9
EF22
EF36
EF37A
EF39
EF40
EF41
EF42
EF43
EF50
EF55
EF80
EF80/6BX6
EF83
EF85
EF86
EF86/6267
EF89
EF89/6DA6
EF91
EF92
EF93
EF93/6BA6
EF94
EF94/6AU6
EF95
EF97
EF98
EF183
EF183/6EH7
EF184
EF184/6EJ7
EFF51
EFL200
EFM1
EFM11
EFP60
EH90
EK2
EK90
EK90/6BE6
EL2
EL3(N)
EL5
EL6
EL11
EL12
EL33
EL34
EL34MP
EL34/6CA7
EL34/6CA7MP
EL36
EL37
EL37MP
EL38
EL41
EL42
EL50
EL51
EL60
EL81
EL82
EL83
EL84
EL84MP
EL84/6BQ5
EL84/6BQ5MP
EL85
EL86
EL86/6CW5
EL90
EL90MP
EL91
EL95
EL95MP
EL500
EL500/6GB5
EL821
EL822
EM1
EM4
EM34
EM34/6CD7

TUBE TYPE

EM80
EM81
EM81/6DA5
EM84
EM84/6FG6
EM87
EM87/6HU6
EQ80
EY51
EY80
EY81
EY81/6B3
EY82
EY86
EY87
EY88
EY88/6AL3
EZ22
EZ40
EZ41
EZ80
EZ80/6V4
EZ81
EZ81/6CA4
EZ90
EZ90/6X4
FG17
FG95
FG105
GZ30
GZ32
GZ33
GZ34
GZ34/5AR4
HBC90
HBC91
HCC85
HCC85/17EW8
HCH81
HF93
HF94
HF200
HF300
HK90
HL92
HL94
HY90
HZ90
LC900
LCF80
LCF86
LCF200
LCF201
LCF801
LCH200
LCL84
LFL200
LL86
PABC80
PC900
PCC84
PCC85
PCC85/9AQ8
PCC88
PCC189
PCF80
PCF80/9A8
PCF82
PCF86
PCF86/7HG8
PCF200
PCF201
PCF801
PCH200
PCL82
PCL84
PCL85
PCL86
PE06/40E
PF86
PFL200
PL21
PL36
PL81
PL82
PL83
PL84
PL84/15CW5
PL500
PL500/27GB5
PY80
PY81
PY82
PY88

TUBE TYPE

TBL2/400
TBL2/500
U30
UABC80
UAF42
UB41
UBC41
UBC81
UBF80
UBF89
UBL1
UBL21
UC92
UCC85
UCH4
UCH21
UCH41
UCH42
UCH81
UCL11
UCL82
UCL82MP
UCL82/50BM8
UCL83
UF21
UF41
UF42
UF43
UF80
UF85
UF86
UF89
UL41
UL44
UL84
UL84MP
UL84/45B5
UM4
UM80
UY1(N)
UY11
UY41
UY42
UY82
UY85
VC25/20
VC25/32
VC50/20
VC50/32
VC100/20
VC100/32
VC250/32
XC95
XC95/2ER5
XC97
XC97/2FY5
XCC189/4ES8
XCF80
XCL85
XF183
XF183/3EH7
XF184
XF184/3EJ7
XL84
XL84/8BQ5
XL86
XL500
XP1000
XP1002
XP1004
XP1010
XP1011
XP1020
XP1030
XP1031
XP1032
XP1040
XP1110
XP1111
XP1112
XP1113
XY88
XY88/16AQ3
Z70U/7710
Z70W/7709
Z71U/7711
Z303C
Z502S
Z550M/8453
Z803U/6779
Z805U/7714
Z900T/5823
ZB3200
ZZ1000/8228

AMPEREX ELECTRONIC CORPORATION
Hicksville, Long Island, New York 11802

Amperex

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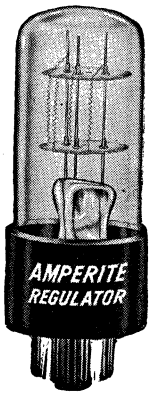
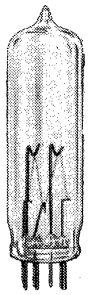
AUTOMATIC AMPERITE REGULATOR

BALLAST TUBE FOR AUTOMATIC REGULATION OF CURRENT AND VOLTAGE



STANDARD



MINIATURE

AUTOMATIC REGULATION

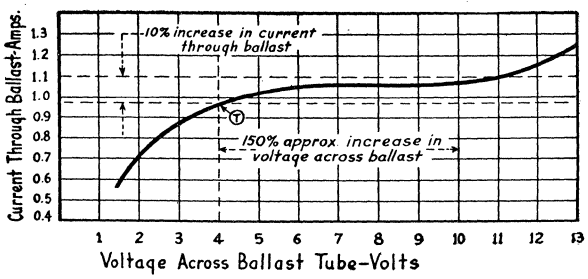
WHAT IT IS

The *AMPERITE Ballast-Regulating Tube* is an automatic *"rheostat"* designed to keep the current in a circuit at a definite value, for example, 0.5 amp.

Should the supply voltage increase, the *Amperite* will automatically increase in resistance enough to take up the increase in supply voltage — keeping the voltage on the load constant. It consists of an iron wire *hermetically sealed* in a bulb containing *hydrogen* or *helium* — the two gases with the *highest heat conductivity*. Its regulating action is based on the high temperature co-efficient of resistance of the iron wire and the rapid cooling of *hydrogen* or *helium* gas.

Being a constant current device, the *AMPERITE Ballast-Regulating Tube* can be used only to regulate a constant load—fixed wattage. Thermostatic relays can sometimes be included in these regulators to reduce initial surge.

We strongly recommend that you send us your specifications on special problems, and let us recommend the BALLAST TUBE you need.



T = Threshold Current & Voltage

Characteristic curve of a typical Amperite. Approximate curve of any other Amperite can be obtained by multiplying or dividing the current or voltage scale by any number.

Standard Types of Amperite Ballast Tubes ..... Net $1.80
Amperite NE70V Neon Lamp ..... Net $1.80

D6-1E	1H20	*3T4	4A10	6-3	7-4	9-4A	12-4
*D6T4	1H22	*3T4A	4-12	6-4	**7TF4	9-7	12-7
**D6TK7	**2TK7	**3TF4A	4H3	6-4A	7A10	9-8	12A10
**D6TF10	2A10	**3TF4	4H4	6-4B	7-11	9A10	12-11
**D6TF30	2A12	**3TFV4	4H4C	*6T4	**7HTF2	10T1	13-4
D7-20	2A20	3V4	**4HTF4	*6T4F	**7HTF3	**10TF2	15-2
D7H4	*2HT2	3-7	**4HTF7	**6TF4	**7HTF4	10-3	15-4
*D7HT4	2H4	**3TF7	4H10	6-7	7H4	10-4A	16-4
*D7HT11	*2HT4	3A10	4H11	**6TF7	7H4B	10-4B	17-3
1A10	**2HTF4	3-11	5E1	6-8B	7H7	10-4C	20-3
**1TF10	2H10	3H11	**5TF2	6A10	7H11	10-4D	20-4
1-15	3-2	*3T11	5-4	6-11	**8TF2	10-4E	22-4
*1HT2	**3TF2	3TF11	**5TF4	6-12	8-3B	10A10	24-3
*1HT4	**3TK2	**3TF12	5A10	6-13	8-4	10A12	34-2
1H10	3-4	3-14	5-11	6A15	8A10	10-25	35-4
**1HTF10	3H-1-7	3-16	5-16	6-36	**9TF2	11-3	40-6E
*1HT11	3H4	3A20	5H3	6H4	9-3	11-4	41-7E
**1HTF11	**3HTF4	3H-25	5H4	**6HTF4	9-4	11A10	55-1
		3-38A	5H10	6H6		11-11	55-4
		3-50A	5H11				

*T denotes T5½ bulb-7 pin miniature, e.g., 3T4.
*TF denotes T6½ bulb-9 pin miniature, e.g., 3TF4.
Base Wiring: Octal, 7 and 9 pin miniature—prongs 2-7.

AMPERITE NEON LAMP
TYPE NE70V Net $1.80

GENERAL ADVANTAGES:

• Light, compact • No moving parts • Rugged; will withstand vibration of 10G. minimum • Hermetically sealed; not affected by altitude or humidity changes • Can be changed as easily as a radio tube • Operates equally well on A.C. or D.C. • Inexpensive

CAPACITIES AVAILABLE

Current values of 60 ma. to 5 amps; threshold voltage 0.4 to 40 V. Maximum dissipation per AMPERITE 50w per tube (ST19 bulb). Any number of AMPERITES with the same voltage range can be operated in parallel. AMPERITES should not be used in series.

AGEING

AMPERITE Ballast Tubes may change approximately up to 3% in current if aged for 4 to 8 hours, at maximum voltage. They will change very little thereafter.

LIFE EXPECTANCY

Average life if operated as recommended ..... **2000 Hours**
If operated continuously at maximum voltage ..... **1000 Hours**
If operated continuously at 80% maximum voltage ..... **5000 Hours**
If filament is operated below glow point ..... **5000 Hours up**

In operation, the *Amperite* filament starts to glow at one point; as the voltage is increased, the glow spreads over the entire filament. Like incandescent lamps, turning *Amperite* on and off reduces its life, especially if operating near its maximum voltage.

TIME LAG CHARACTERISTICS

Time lag encountered in an *Amperite Ballast Tube* depends upon the wattage consumed by the ballast and the size of the bulb. Where the wattage is small for the size of the bulb, the action can be made practically instantaneous — less than 1 second. In such cases the bulb will remain at practically ambient temperature. When the wattage is high enough to heat the bulb to a temperature uncomfortable to the hand (160°F) the lag might be as much as several minutes for final readings—but normally reaches within 90% of final readings within a few seconds.

AMPERITE NUMBERING SYSTEM

In general, the AMPERITE number approximately denotes the current—voltage threshold value. For example:

Amperite Number	3-4	3H4	10-7	12-11	12H11
Threshold Current	0.3	0.35	1.0	1.2	1.25
Threshold Voltage	4.0	4.0	7.0	11.0	11.0

We strongly recommend that you send us your specifications on special problems, and let us recommend the BALLAST TUBE you need.

Net
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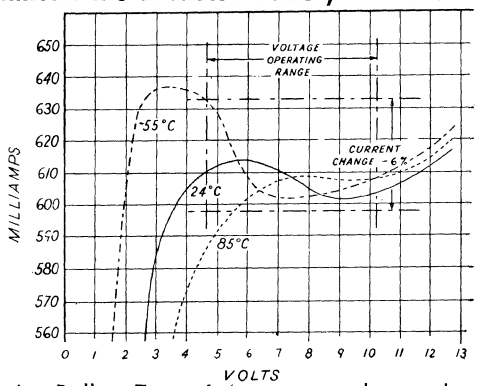
AUTOMATIC AMPERITE REGULATOR

BALLAST TUBE FOR AUTOMATIC REGULATION OF CURRENT AND VOLTAGE

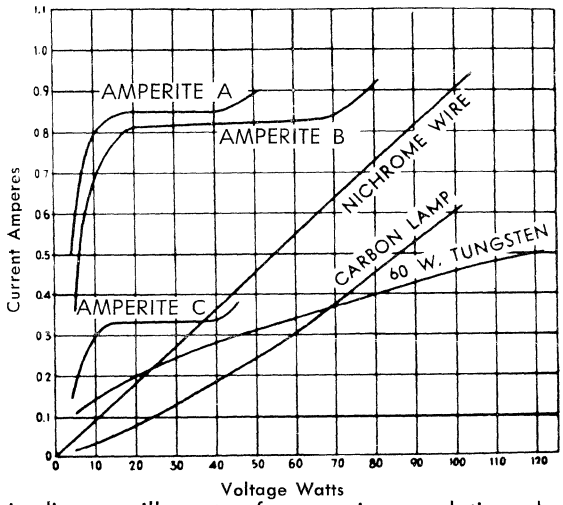
AMBIENT EFFECTS

Ambient temperature variation of −50° to +70° C will change the current value of an *Amperite* approximately 2% on regulating portion of curve as shown directly below. Being hermetically sealed the *Amperite* is not affected by altitude or humidity changes.

We strongly recommend that you send us your specifications on special problems, and let us recommend the BALLAST TUBE you need.



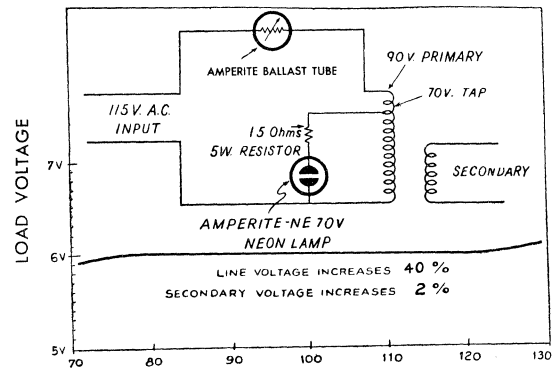
Amperite Ballast-Type 6-4 current voltage characteristic under ambient conditions of −55°, 24°, and 85° C. The percentage change with ambient is approximately the same with all type *Amperite* ballasts.



This diagram illustrates far superior regulating characteristics of the *Amperite* Ballast-Regulating Tube. ***STANDARD SIZES available for various wattage consumption . . . For good regulation, a bulb should not be required to dissipate more than 50% of maximum wattage.***

BATTERY CHARGING AND DISCHARGING

Amperite Ballast Tubes are very successfully used for keeping the current constant in charging and discharging batteries. Any number of *Amperites* of the same voltage range can be placed in parallel to obtain proper current. The current can be kept to ± 1%. Advise voltage variation and currents desired.



A light, compact, and inexpensive method of obtaining close regulation is to use an *Amperite Ballast Tube* with an *Amperite* Neon Lamp — type NE70V. Base octal-base wiring prongs 2-5. One NE70V is used for all loads up to 100W

POWER SUPPLIES

We strongly recommend, for any particular application, to fill in and return one of our special problem sheets (ASP 343) and permit us to recommend the most suitable AMPERITE.

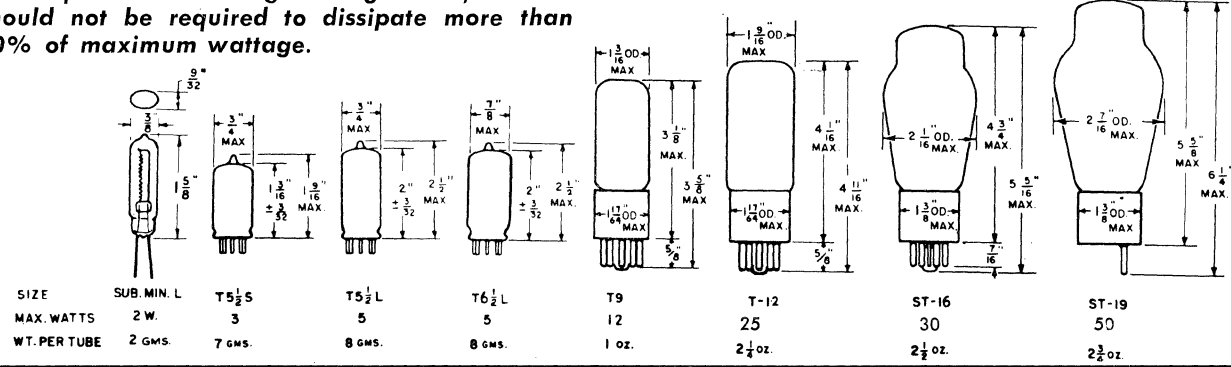
POWER SUPPLY	Dry Cells	6 Volts	12 Volts	26 Volts	115 Volts
Supply Variation	2.2-3.0V	5.5-7.5V	11.4-13.8V	22.0-30.0V	105-125V
Desired on Load	1.8-2.0V	3.9-4.1V	6.1- 6.4V	12.4-12.8V	90- 95V
Required on AMPERITE	0.4-1.0V	1.6-3.4V	5.3- 7.4V	9.6-19.2V	15- 30V
Current Variation	.29-.32a	.29-.32a	.29- .32a	.29- .32a	29-.32a

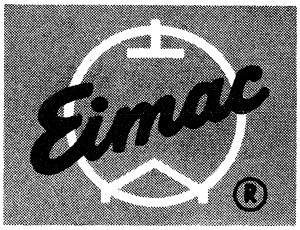
The above chart shows the maximum load voltage for the give supply to obtain ± 2% current regulation on load. Better regulatio is obtainable by increasing the voltage across the AMPERITI Up to a point, the higher the percentage of the supply voltage take up by the AMPERITE, the better the regulation.

Radio tube filament loads — have low cold resistance which caus a high initial surge. For such loads we recommend a bleeder of 2 to 50% prox. of load and the corresponding AMPERITE. e.

FILAMENT LOAD	USE AMPERITE	TOTAL CURRENT
0.3a	4HTF4	0.45a
0.6a	8-4	0.8a
0.7a	9H4	0.95a

On Radio tube filament loads the bleeder will also improve the regulatic





EIMAC POWER GRID TUBES and Accessories

(24 hour factory delivery on most distributor orders)

At Eimac you'll find the most complete line of power grid tubes available today: triodes, tetrodes, pulse modulators, diodes, zero-bias tubes, ceramic tubes, glass tubes, air cooled, water cooled and vapor cooled tubes. And there are more to come! Continuing Eimac projects are ever increasing the scope of power grid tube capabilities.

Tube Type	User Price	Socket Type	Socket Price	Chimney Type	Chimney Price
2-01C	$ 18.00	None	$	None	$ ....
2-25A	24.00	E F Johnson No. 122-224	....	None	....
2-50A	27.00	E F Johnson No. 122-224	....	None	....
2-150D	44.50	E F Johnson No. 123-211	....	None	....
2-240A	50.00	E F Johnson No. 123-211	....	None	....
2-450A	138.00	E F Johnson No. 124-214	....	None	....
2-2000A	250.00	E F Johnson No. 124-214	....	None	....
2C39A	20.75	Jettron No. 76-020	....	None	....
2C39WA	29.00	Jettron No. 76-020	....	None	....
2X1000A	144.00	E F Johnson No. 122-244	....	None	....
2X3000F	168.00	None	....	None	....
322	26.00	Jettron No. 76-020	....	None	....
3C24	16.00	E F Johnson No. 122-224	....	None	....
3CPN10A5/7815	32.00	Jettron No. 76-020	....	None	....
3CPX100A5/7815R	32.00	Jettron No. 76-020	....	None	....
3CV30,000A3	710.00	SK-1300	64.50	None	....
3CW20,000A1	560.00	SK-1300	64.50	None	....
3CW20,000A3	560.00	SK-1300	64.50	None	....
3CW20,000A7	710.00	SK-1300	64.50	None	....
3CW25,000A3	625.00	SK-1300	64.50	None	....
3CX100A5/7289	31.00	Jettron No. 76-020	....	None	....
3CX100F5/8250	34.00	Jettron No. 76-020	....	None	....
3CX1000A7/8283	194.00	SK-860	38.00	SK-816	7.00
		SK-870	40.00	SK-816	7.00
3CX10,000A1/8158	490.00	SK-1300	64.50	SK-1306	6.50
3CX10,000A3/8159	490.00	SK-1300	64.50	SK-1306	6.50
3CX10,000A7/8160	650.00	SK-1300	64.50	SK-1306	6.50
3CX15,000A3	600.00	SK-1300	64.50	SK-1306	6.50
3W5000A1/8240	280.00	None	....	None	....
3W5000A3/8242	245.00	None	....	None	....
3W5000F1/8241	260.00	None	....	None	....
3W5000F3/8243	250.00	None	....	None	....
X2500A3/8161	200.00	None	....	None	....
CX2500A3	205.00	None	....	None	....
X2500F3/8251	205.00	None	....	None	....
CX2500F3	210.00	None	....	None	....
X3000A1/8238	210.00	None	....	None	....
X3000A7	290.00	None	....	None	....
X3000F1/8239	220.00	None	....	None	....
X3000F7/8162	260.00	None	....	None	....
400Z/8163	34.00	SK-410	6.50	SK-416	6.50
1000Z/8164	119.00	SK-510	6.50	SK-516	12.00
5A/8165	27.00	E F Johnson No. 122-101	....	None	....
125A	36.00	SK-400	17.50	SK-406	6.50
		SK-410	6.50	SK-406	6.50
250A	46.50	SK-400	17.50	SK-406	6.50
		SK-410	6.50	SK-406	6.50
400A/8438	48.00	SK-400	17.50	SK-406	6.50
		SK-410	6.50	SK-406	6.50
4-1000A/8166	$ 131.50	SK-500	$ 24.30	SK-506	$12.00
		SK-510	6.50	SK-506	12.00
4CN15A	58.50	SK-700	36.40	SK-606	0.75
		SK-740	10.70	None	....
4CN15L	90.00	None	....	None	....
4CPX250K	68.50	None	....	None	....
4CS100L	100.00	None	....	None	....
4CV8000A	470.00	SK-1490	88.50	None	....
4CV20,000A	590.00	SK-310	....	None	....
4CV35,000A	825.00	SK-310	....	None	....
4CV100,000C/8351	2,350.00	SK-1510	250.00	None	....
4CW2000A/8244	220.00	SK-800B	54.00	None	....
		SK-810	56.00	None	....
		SK-890	65.00	None	....
4CW10,000A	610.00	SK-300	103.00	SK-306	6.50
				SK-316	9.65
4CW50,000C/8350	2,100.00	SK-1500	220.00	None	....
4CX125C	61.50	SK-700	36.40	SK-606	0.75
		SK-740	10.70	None	....
4CX125F	123.50	SK-710	36.40	None	....
		SK-740	10.70	None	....
4CX250B/7203	35.75	*See SK-600 Series Socket listing			
4CX250F/7204	39.00	*See SK-600 Series Socket listing			
4CX250K/8245	64.00	None	....	None	....
4CX250L	92.50	None	....	None	....
4CX250M/8246	92.50	None	....	None	....
4CX250R/7580W	45.00	*See SK-600 Series Socket listing			
4CX300A/8167	58.50	SK-710	36.40	SK-606	0.75
		SK-760	10.70	None	....
		SK-770	10.70	None	....
4CX300Y	105.00	SK-711A	25.70	SK-606	0.75
		SK-760	10.70	None	....
		SK-770	10.70	None	....
4CX350A/8321	55.50	*See SK-600 Series Socket listing			
4CX350F/8322	60.00	*See SK-600 Series Socket listing			
4CX600A	430.00	None	....	None	....
4CX1000A/8168	181.00	SK-800B	54.00	SK-806	8.50
		SK-810	56.00	SK-806	8.50
		SK-890	65.00	SK-806	8.50
4CX1000K/8352	218.00	SK-820	178.00	SK-806	8.50
		SK-830	178.00	SK-806	8.50
4CX3000A/8169	420.00	SK-1400A	107.00	SK-1406	6.50
		SK-1470A	107.00	SK-1406	6.50
4CX5000A/8170	495.00	SK-300	103.00	SK-306	6.50
				SK-316	9.65
4CX5000R/8170W	705.00	SK-300A	103.00	SK-306	6.50
				SK-316	9.65
4CX10,000D/8171	550.00	SK-300A	103.00	SK-306	6.50
				SK-316	9.65
4CX15,000A/8281	695.00	SK-300A	103.00	SK-306	6.50
				SK-316	9.65
				SK-1306	6.50
4CX35,000C/8349	1,765.00	SK-1500	220.00	None	....
4E27A/5-125B	45.00	E F Johnson No. 122-237	....	None	....
4PR60B/8252	107.00	E F Johnson No. 122-234	....	None	....
4PR65A/8187	43.00	E F Johnson No. 122-101	....	None	....
4PR125A/8247	57.00	SK-400	17.50	SK-406	6.50
		SK-410	6.50	SK-406	6.50
4PR250C/8248	188.00	SK-400	17.50	SK-406	6.50
		SK-410	6.50	SK-406	6.50
4PR400A/8188	$ 64.00	SK-400	$ 17.50	SK-406	$ 6.50
		SK-410	6.50	SK-406	6.50
4PR1000A/8189	156.00	SK-500	24.30	SK-506	12.00
		SK-510	6.50	SK-506	12.00
4W300B/8249	57.00	*See SK-600 Series Socket listing			
4W20,000A/8173	1,950.00	None	....	None	....
4X150A/7034	23.25	*See SK-600 Series Socket listing			
4X150D/7035	27.90	*See SK-600 Series Socket listing			
4X150G/8172	58.00	None	....	None	....
4X150R/8296	45.50	*See SK-600 Series Socket listing			

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Tube Type	User Price	Socket Type	Socket Price	Chimney Type	Chimney Price
4X150S/8297	48.50	*See SK-600 Series Socket listing			
4X250B	35.75	*See SK-600 Series Socket listing			
4X250F	36.50	*See SK-600 Series Socket listing			
4X500A	127.50	SK-900	68.50	SK-906	15.00
6C21	93.00	E F Johnson No. 123-211	....	None	....
25T	28.50	E F Johnson No. 122-224	....	None	....
35T	33.00	E F Johnson No. 122-224	....	None	....
35TG	36.00	E F Johnson No. 122-224	....	None	....
75TH	43.00	E F Johnson No. 122-224	....	None	....
75TL	43.00	E F Johnson No. 122-224	....	None	....
100IG	107.00	None	....	None	....
100TH	23.50	E F Johnson No. 122-224	....	None	....
100TL	23.50	E F Johnson No. 122-224	....	None	....
152TH	93.00	E F Johnson No. 124-213	....	None	....
152TL	125.00	E F Johnson No. 124-213	....	None	....
250R	36.00	E F Johnson No. 123-211	....	None	....
250TH	38.50	E F Johnson No. 123-211	....	None	....
250TL	38.50	E F Johnson No. 123-211	....	None	....
253	37.00	E F Johnson No. 123-211	....	None	....
304TH	75.00	E F Johnson No. 124-213	....	None	....
304TL	75.00	E F Johnson No. 124-213	....	None	....
450TH	85.00	E F Johnson No. 123-211	....	None	....
450TL	85.00	E F Johnson No. 123-211	....	None	....
592/3-200A3	46.00	None	....	None	....
750TL	169.00	E F Johnson No. 124-214	....	None	....
1000T	169.00	E F Johnson No. 123-211	....	None	....
1500T	320.00	E F Johnson No. 124-214	....	None	....
2000T	425.00	E F Johnson No. 124-214	....	None	....
5867A	30.60	SK-410	6.50	SK-416	6.50
7034/4X150A	23.25	*See SK-600 Series Socket listing			
7035/4X150D	27.90	*See SK-600 Series Socket listing			
7203/4CX250B	35.75	*See SK-600 Series Socket listing			
7204/4CX250F	39.00	*See SK-600 Series Socket listing			
7211	110.00	Jettron No. 76-020	....	None	....
7289/3CX100A5	31.00	Jettron No. 76-020	....	None	....
7580W/4CX250R	45.00	*See SK-600 Series Socket listing			
7698	110.00	Jettron No. 76-020	....	None	....
7815/3CPN10A5	32.00	Jettron No. 76-020	....	None	....
7815R/3CPX100A5	32.00	Jettron No. 76-020	....	None	....
7843	60.00	None	....	None	....
8020 (100R)	16.00	E F Johnson No. 122-224	....	None	....
8158/3CX10,000A1	490.00	SK-1300	64.50	SK-1306	6.50
8159/3CX10,000A3	490.00	SK-1300	64.50	SK-1306	6.50
8160/3CX10,000A7	650.00	SK-1300	64.50	SK-1306	6.50
8161/3X2500A3	200.00	None	....	None	....
8162/3X3000F7	260.00	None	....	None	....
8163/3-400Z	34.00	SK-410	6.50	SK-416	6.50
8164/3-1000Z	119.00	SK-510	6.50	SK-516	12.00
8165/4-65A	27.00	E F Johnson No. 122-101	....	None	....
8166/4-1000A	131.50	SK-500	24.30	SK-506	12.00
		SK-510	6.50	SK-506	12.00
8167/4CX300A	58.50	SK-710	36.40	SK-606	0.75
		SK-760	10.70	None	....
		SK-770	10.70	None	....
8168/4CX1000A	181.00	SK-800B	54.00	SK-806	8.50
		SK-810	56.00	SK-806	8.50
		SK-890	65.00	SK-806	8.50
8169/4CX3000A	420.00	SK-1400A	107.00	SK-1406	6.50
		SK-1470A	107.00	SK-1406	6.50

Tube Type	User Price	Socket Type	Socket Price	Chimney Type	Chimne Pric
8170/4CX5000A	495.00	SK-300	103.00	SK-306	6.5
				SK-316	9.6
8170W/4CX5000R	705.00	SK-300	103.00	SK-306	6.5
				SK-316	9.6
8171/4CX10,000D	$ 550.00	SK-300	$103.00	SK-306	$ 6.5
				SK-316	9.6
8172/4X150G	58.00	None	....	None	...
8173/4W20,000A	1,950.00	None	....	None	...
8187/4PR65A	43.00	E F Johnson No. 122-101	....	None	...
8188/4PR400A	64.00	SK-400	17.50	SK-406	6.5
		SK-410	6.50	SK-406	6.5
8189/4PR1000A	156.00	SK-500	24.30	SK-506	12.0
		SK-510	6.50	SK-506	12.0
8238/3X3000A1	210.00	None	....	None	...
8239/3X3000F1	220.00	None	....	None	...
8240/3W5000A1	280.00	None	....	None	...
8241/3W5000F1	260.00	None	....	None	...
8242/3W5000A3	245.00	None	....	None	...
8243/3W5000F3	250.00	None	....	None	...
8244/4CW2000A	220.00	SK-800B	54.00	None	...
		SK-810	56.00	None	...
		SK-890	65.00	None	...
8245/4CX250K	64.00	None	....	None	...
8246/4CX250M	92.50	None	....	None	...
8247/4PR125A	57.00	SK-400	17.50	SK-406	6.5
		SK-410	6.50	SK-406	6.5
8248/4PR250C	188.00	SK-400	17.50	SK-406	6.5
		SK-410	6.50	SK-406	6.5
8249/4W300B	57.00	*See SK-600 Series Socket listing			
8250/3CX100F5	34.00	Jettron No. 76-020	....	None	...
8251/3X2500F3	205.00	None	....	None	...
8252/4PR60B	107.00	E F Johnson No. 122-234	....	None	...
8281/4CX15,000A	695.00	SK-300A	103.00	SK-306	6.5
				SK-316	9.6
				SK-1306	6.5
8283/3CX1000A7	194.00	SK-860	38.00	SK-816	7.0
		SK-870	40.00	SK-816	7.0
8296/4X150R	45.50	*See SK-600 Series Socket listing			
8297/4X150S	48.50	*See SK-600 Series Socket listing			
8321/4CX350A	55.50	*See SK-600 Series Socket listing			
8322/4CX350F	60.00	*See SK-600 Series Socket listing			
8349/4CX35,000C	1,765.00	SK-1500	220.00	None	...
8350/4CW50,000C	2,100.00	SK-1500	220.00	None	...
8351/4CV100,000C	2,350.00	SK-1510	250.00	None	...
8352/4CX1000K	218.00	SK-820	178.00	SK-806	8.5
		SK-830	178.00	SK-806	8.5
8438/4-400A	48.00	SK-400	17.50	SK-406	6.5
		SK-410	6.50	SK-406	6.5
KY21A	26.75	E F Johnson No. 122-225	....	None	...
RX21A	25.75	E F Johnson No. 122-225	....	None	...

***SK-600 Series Socket Listing**

For the following tubes, use the socket and chimney schedule shown below:

Tubes	Socket Type	Socket Price	Chimney Type	Chimne Pric
4X150A/7034				
4X150D/7035				
4X150R/8296				
4X150S/8297				
4X250B	SK-600	$ 11.50	SK-606	$ 0.7
4X250F	SK-600A	12.00	SK-606	0.7
4CX250B/7203	SK-610	11.50	SK-606	0.7
4CX250F/7204	SK-620	12.50	SK-626	0.7
4CX250R/7580W			SK-636B	11.0
4CX350A/8321	SK-620A	15.00	SK-626	0.7
4CX350F/8322			SK-636B	11.0
4W300B/8249	SK-630	12.50	SK-626	0.7
7203/4CX250B			SK-636B	11.0
7204/4CX250F	SK-630A	15.10	SK-626	0.7
7580W/4CX250R			SK-636B	11.0
8321/4CX350A	SK-640	7.50	SK-606	0.7
8322/4CX350F	SK-650	8.50	None	...
8249/4W300B	SK-655	7.00	SK-626	0.7
7034/4X150A				
7035/4X150D				
8296/4X150R				
8297/4X150S				

Prices subject to change without notice. Write for complete specifications on any tube to: Power Grid Tube Marketing, EITEL-McCULLOUGH, INC., San Carlos, California.

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Electrons Industrial Control Tubes

Ready Reference Data for Reliable, Temperature Free Thyratron and Rectifier Tubes.

TYPE	OTHER DESIG NATIONS	DESCRIPTION	MAX. CONTINUOUS AVERAGE DC ANODE CURRENT (AMPS)	OSCILLOGRAPH PEAK ANODE CURRENT CONTINUOUSLY RECURRING (AMPS)	MAX. INSTANTANEOUS PEAK FORWARD VOLTAGE	MAX. INSTANTANEOUS PEAK INVERSE VOLTAGE
RECTIFIERS Xenon-Filled						
EL 1C	3B22	Full Wave. A4-10 Base. Single End.	1.0	4.0		725
EL 3B	6013	Half Wave. A4-10 Base. Anode Cap.	2.5	20		920
EL 3C	4B24	Full Wave. A4-81 Base. Single End.	2.5	10		725
EL 3C/L	6982	Full Wave. Lug Type Base. Single End.	2.5	10		725
EL 6B	5892	Half Wave. A4-81 Base. Anode Cap.	6.4	77		920
EL 6B/L	6983	Half Wave. Lug Type Base. Anode Cap.	6.4	77		920
EL 6C		Full Wave. A4-81 Base. Single End	6.4	25.6		725
EL 6F	6015	Half Wave. Panel Mounted. Flexible Leads	6.4	77		920
EL 16F		Half Wave. Panel Mounted. Flexible Leads	16	96		620
THYRATRONS Xenon-Filled						
EL C1B	3C31	A4-10 Base. Anode Cap.	1.0	8.0	525	700
EL C1B/A	5664	A4-10 Base. Anode Cap.	1.0	8.0	750	1250
EL C1K	6014	A4-10 Base. Single End	1.0	8.0	1000	1250
EL C1K/B	7319	A4-10 Base. Single End.	1.0	8.0	2000	2000
EL C3J	5632	A4-10 Base. Anode Cap.	2.5	30	900	1250
EL C3J/A	5684	A4-10 Base. Anode Cap.	2.5	30	1000	1250
EL C3J/L	7216	Lug Type Base. Anode Cap.	2.5	30	900	1250
EL C3J/AL	7556	Lug Type Base. Anode Cap.	2.5	30	1000	1250
EL C4H-1		A4-81 Base. Anode Cap.	4.0	50	1700	1700
EL C4H-2		Panel Mounted. Anode Cap.	4.0	50	1700	1700
EL C4H-3		Lug Type Base. Anode Cap.	4.0	50	1700	1700
EL C4H-4		Panel Mounted. Flexible Leads	4.0	50	1700	1700
EL C4H-5		Lug Type Base. Flexible Lead.	4.0	50	1700	1700
EL C6C	6987	#4310 Base. Anode Cap.	6.4	77	2000	4000
EL C6H-1		A4-81 Base. Anode Cap.	6.4	80	1700	1700
EL C6H-2		Panel Mounted. Anode Cap .	6.4	80	1700	1700
EL C6H-3		Lug Type Base. Anode Cap.	6.4	80	1700	1700
EL C6H-4		Panel Mounted. Flexible Leads.	6.4	80	1700	1700
EL C6H-5		Lug Type Base. Flexible Lead.	6.4	80	1700	1700
EL C6J	5C21	A4-81 Base. Anode Cap.	6.4	77	750	1250
EL C6J/A	5685	A4-81 Base. Anode Cap.	6.4	77	1000	1250
EL C6J/F	6860	Panel Mounted. Anode Cap.	6.4	77	1000	1250
EL C6J/L	6988	Lug Type Base. Anode Cap.	6.4	77	750	1250
EL C6J/K	6864	A4-81 Base. Anode Cap.	6.4	77	1000	1250
EL C6J/KF	6871	Panel Mounted. Flexible Leads.	6.4	77	1000	1250
EL C6J/KL	6989	Lug Type Base. Anode Cap.	6.4	77	1000	1250
EL C16J	5665	Panel Mounted. Flexible Leads.	16.0	160	1000	1250
EL C16H		Panel Mounted. Flexible Leads.	16.0	160	1700	1700

ELECTRONS COMPANY
A Unit of General Signal Corporation
Newark, New Jersey

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PRICES

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DISCOUNTS

Trade discounts apply in most cases
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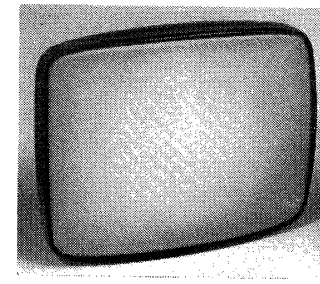
ORDERING

Since previous editions of The MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.

TV PICTURE TUBES

GE ELECTRONICS

	Tube Type	List Price‡
★	5TP4	$60.00
	8AP4A	19.00
	9QP4A	36.00
	10BP4A	Use SG-10FP4A
	10FP4A	Use SG-10FP4A
★	SG-10FP4A	39.00
★	11AP4	49.20
★	12KP4A	Use SG-12KP4A
★	SG-12KP4A	39.00
	12LP4A	Use SG-12KP4A
	12TP4	Use SG-12KP4A
★	14AJP4	Use SG-14AJP4
★	SG-14AJP4	40.00
★	14ASP4	Use SG-14AJP4
★	14ATP4	40.00
★	14AUP4	40.00
★	14AVP4	Use SG-14AJP4
	14BAP4	Use SG-14QP4A
	14BP4	Use SG-14CP4A
★	14BP4A	Use SG-14CP4A
	14CP4	Use SG-14CP4A
★	14CP4A	Use SG-14CP4A
★	SG-14CP4A	40.00
	14DP4	Use SG-14CP4A
	14EP4	Use SG-14CP4A
	14HP4	Use SG-14QP4A
	14NP4	Use SG-14WP4
★	14NP4A	Use SG-14WP4
	14AP4	Use SG-14QP4A
★	14QP4A	Use SG-14QP4A
★	SG-14QP4A	40.00
	14RP4	Use SG-14WP4
★	14RP4A	Use SG-14WP4
★	14SP4	Use SG-14WP4
★	14WP4	Use SG-14WP4
★	SG-14WP4	40.00
★	14XP4	40.00
★	14ZP4	Use SG-14WP4
	16AP4A	39.75
★	16ASP4	60.55
	16AZP4	66.00
★	16ATP4	57.80
★	16BUP4	72.00
★	16BVP4	58.00
	16DP4A	41.35
	16GP4	39.90
	16GP4B	39.90
	16KP4	Use SG-16KP4A
★	16KP4A	Use SG-16KP4A
★	SG-16KP4A	39.00
	16LP4A/ZP4	43.00
	16QP4	Use SG-16KP4A
	16RP4	Use SG-16KP4A
★	16RP4A	Use SG-16KP4A
	16TP4	Use SG-16KP4A
	16UP4	Use SG-16KP4A
	16WP4A	43.00
	16ZP4	Use SG-16KP4A
	16ZP4	Use 16LP4A/ZP4
	17AP4	Use SG-17BP4B
	17ATP4	Use SG-17BJP4
★	17ATP4A	Use SG-17BJP4
	17AVP4	Use SG-17BJP4
★	17AVP4A	Use SG-17BJP4
★	17BJP4	Use SG-17BJP4
★	SG-17BJP4	39.00
	17BP4	Use SG-17BP4B
	17BP4A	Use SG-17BP4B
★	17BP4B	Use SG-17BP4B
★	SG-17BP4B	37.50
	17BP4C	Use SG-17BP4B
★	17BRP4	Use 17DSP4
★	17BUP4	Use SG-17BJP4
★	17BVP4	Use SG-17BWP4
★	17BWP4	Use SG-17BWP4
★	SG-17BWP4	44.90
★	17BZP4	Use 17DSP4
★	17CAP4	Use 17DSP4
★	17CBP4	Use SG-17BJP4
★	17CDP4	52.00
★	17CFP4	39.00
★	17CKP4	Use 17DSP4
★	SG-17CKP4	44.90
★	17CLP4	Use SG-17BJP4
★	17CP4	40.00
★	17CRP4	39.00
★	17CSP4	Use SG-17BWP4
★	17CTP4	44.90
★	17CWP4	Use 17DSP4
★	17DAP4	52.00
★	17DKP4/DTP4	44.90
★	17DLP4	44.90
★	17DQP4	44.90
★	17DRP4	52.00
★	17DSP4	44.90
★	17DTP4	Use 17DKP4/DTP4
★	17DZP4/DZP4	44.90
	17FP4/FP4A	37.30
	17GP4	44.00
	17HP4	Use SG-17HP4B
	17HP4A	Use SG-17HP4B
★	17HP4B	Use SG-17HP4B
★	SG-17HP4B	$37.30
	17JP4	Use SG-17BP4B
	17LP4	Use SG-17LP4A
★	17LP4A	Use SG-17LP4A
★	SG-17LP4A	34.20
	17QP4	Use SG-17QP4A
★	17QP4A	Use SG-17QP4A
★	SG-17QP4A	37.30
	17RP4	Use SG-17HP4B
★	17RP4C	Use SG-17HP4B
	17TP4	46.50
	17UP4	Use SG-17QP4A
	17VP4	Use SG-17LP4A
★	17VP4B	Use SG-17LP4A
	17YP4	Use SG-17QP4A
★	19ABP4	54.00
★	19ACP4	Use 19CFP4
★	19AFP4	59.05
★	19AHP4	50.00
★	19AJP4	50.00
	19AP4A	46.75
	19AP4B	54.00
★	19ARP4	Use 19AFP4
★	19AUP4	Use 19AFP4
★	19AVP4	50.00
★	19AXP4/AYP4	50.00
★	19BDP4	50.00
★	19BHP4	50.00
★	19BLP4	50.00
★	19BMP4	Use 19AFP4
★	19BNP4	Use 19BQP4
★	19BQP4	59.50
★	19BTP4/YP4	50.00
★	19BVP4	Use 19AVP4
★	19CFP4	50.00
★	19CHP4	Use 19CFP4
★	19CKP4	Use 19CFP4
★	19CUP4	55.40
★	19DEP4	55.40
★	19DFP4	55.00
★	19DUP4	63.00
★	19DVP4	55.40
★	19DZP4	55.40
★	19ECP4	68.00
★	19XP4	Use 19AVP4
★	19YP4	Use 19BTP4/YP4
★	19ZP4	Use 19BHP4
	20CP4	Use SG-20CP4D
	20CP4A	Use SG-20CP4D
★	20CP4B	Use SG-20CP4D
	20CP4C	Use SG-20CP4D
★	20CP4D	Use SG-20CP4D
★	SG-20CP4D	49.00
	20DP4	Use SG-20CP4D
	20DP4A	Use SG-20CP4D
★	20DP4B	Use SG-20CP4D
★	20DP4C	Use SG-20CP4D
	20HP4	Use SG-20HP4D
	20HP4A	Use SG-20HP4D
	20HP4B	Use SG-20HP4D
★	20HP4C	Use SG-20HP4D
★	20HP4D	Use SG-20HP4D
★	SG-20HP4D	49.00
	20LP4	Use SG-20HP4D
	20MP4	Use SG-20HP4D
	21ACP4	Use SG-21ACP4A
★	21ACP4A	Use SG-21ACP4A
★	SG-21ACP4A	45.90
	21AFP4	Use SG-21YP4A
	21ALP4	Use SG-21FLP4
★	21ALP4A	Use SG-21FLP4
★	21ALP4B	Use SG-21FLP4
	21AMP4	Use SG-21ACP4A
★	21AMP4A	Use SG-21ACP4A
★	21AMP23A	Use SG-21ACP4A
	21ANP4	Use SG-21FLP4
★	21ANP4A	Use SG-21FLP4
	21AP4	58.00
	21AQP4	Use SG-21ACP4A
★	21AQP4A	Use SG-21ACP4A
	21ASP4	Use SG-21XP4A
★	21ATP4	Use SG-21FLP4
★	21ATP4A	Use SG-21FLP4
	21ATP4B	Use SG-21FLP4
	21AUP4	Use SG-21AUP4B
★	21AUP4A	Use SG-21AUP4B
★	21AUP4B	Use SG-21AUP4B
★	SG-21AUP4B	49.50
	21AVP4	Use SG-21AUP4B
★	21AVP4A	Use SG-21AUP4B
★	21AVP4B	Use SG-21AUP4B
★	21AWP4	Use SG-AWP4
★	SG-21AWP4	45.90
	21AXP22A(Color)	127.00
	21AYP4	Use SG-21XP4A
★	21BAP4	Use SG-21FLP4
★	21BCP4	Use SG-21YP4A



General Electric TV picture tubes feature many multipurpose designs that replace several of the most commonly used types. Each SG type replaces a number of other types, as shown in the tables.

All material and parts used in the manufacture of General Electric picture tubes are new except for the envelope (and screen and aperture mask assembly in the case of color tubes) which, prior to re-use, have been inspected and tested to meet our high quality standards.

	Tube Type	List Price‡
★	21BDP4	Use SG-21AUP4B
★	21BNP4	Use SG-21FLP4
★	21BSP4	Use SG-21ACP4
★	21BTP4	Use SG-21FLP4
★	21CBP4	Use SG-21FLP4
★	21CBP4A	Use SG-21FLP4
★	21CEP4/CEP4A/DFP4	Use SG-21FLP4 $50.00
★	21CMP4	Use SG-21FLP4
★	21CQP4	50.00
★	21CVP4	Use SG-21FLP4
★	21CWP4	Use SG-21FLP4 45.90
★	21CYP22A(Color)	127.00
★	21CZP4	Use SG-21DEP4A
★	21DAP4	Use SG-21DEP4A
★	21DEP4/DEP4A	Use SG-21DEP4A
★	SG-21DEP4A	50.00
★	21DFP4	Use 21CEP4/CEP4A/DFP4
★	21DHP4	50.00
★	21DLP4/DQP4	45.90
★	21DNP4	Use SG-21FLP4
★	21DQP4	Use 21DLP4/DQP4
★	21DSP4	Use 21CXP4/DSP4
★	21EAP4	Use 21FDP4
★	21EMP4	Use 21EQP4
	21EP4	Use SG-21EP4B
	21EP4A	Use SG-21EP4B
★	21EP4B	Use SG-21EP4B
★	SG-21EP4B	43.15
★	21EQP4	50.00
★	21ESP4	50.00
★	21EVP4	63.00
	21FB22(Color)	135.00
★	21FD4	63.00
	21FJP22(Color)	148.00
★	21FLP4	Use SG-21FLP4
★	21FMP4	45.90
	21MP4	50.00
	21FP4	Use SG-21FP4C
	21FP4A	Use SG-21FP4C
★	21FP4C	Use SG-21FP4C
★	SG-21FP4C	45.90
	21WP4	59.00
★	21WP4A	Use SG-21WP4A
★	SG-21WP4A	Use SG-21WP4A
★	21WPH4A	45.90
	21XP4A	Use SG-21XP4A
★	21XP4A	Use SG-21XP4A
★	SG-21XP4A	45.90
	21YP4	Use SG-21YP4A
★	21YP4A	Use SG-21YP4A
★	SG-21YP4A	44.80
	21ZP4	Use SG-21ZP4B
	21ZP4A	Use SG-21ZP4B
★	21ZP4B	Use SG-21ZP4B
★	SG-21ZP4B	44.80
★	23AFP4	Use 23BTP4
★	23AHP4	61.00
★	23ANP4	Use 23BKP4
★	23ASP4	61.00
★	23ATP4	Use 23BKP4
★	23AVP4	Use 23CP4
★	23AUP4	Use 23AHP4
★	23AWP4/BJP4	61.00
★	23BDP4	Use 23BTP4
★	23BGP4	Use 23BHP4
★	23BHP4	70.50
★	23BJP4	Use 23AWP4/BJP4
★	23BKP4	70.50
★	23BLP4	Use 23BKP4
★	23BMP4	Use 23BTP4
★	23BNP4	$68.75
★	23BQP4	68.75
★	23BTP4	68.75
★	23BVP4	68.75
	23CBP4	Use 23BQP4
★	23CP4	68.75
★	23CP4A	Use 23CP4
★	23CZP4	Use 23AHP4
★	23DBP4	61.00
★	23DKP4	68.75
★	23DLP4	68.75
★	23DQP4	80.25
★	23DSP4A	78.00
★	23DWP4	78.00
★	23DYP4	70.20
★	23EP4	68.75
★	23ESP4	82.50
★	23FP4	Use 23FP4A
★	23FP4A	61.00
★	23GP4	Use 23CP4
★	23HP4	Use 23CP4
★	23JP4	68.75
★	23KP4/KP4A	61.00
★	23MP4	Use 23FP4A
★	23MP4A	Use 23FP4A
★	23NP4	61.00
★	23TP4	68.75
★	23UP4	68.75
★	23WP4	Use 23FP4A
★	23XP4	Use 23BTP4
★	23YP4	Use 23BTP4
★	23ZP4	68.75
★	24ADP4	Use SG-24CP4A
★	24AEP4	Use SG-24AEP4
★	SG-24AEP4	65.90
★	24AHP4/ALP4	72.00
★	24AJP4	65.90
★	24ALP4	Use 24AHP4/ALP4
★	24ANP4	Use SG-24AEP4
★	24AUP4	65.90
★	24AVP4	Use 24BEP4
★	24BEP4	85.00
	24CP4	Use SG-24CP4A
★	24CP4A	Use SG-24CP4A
★	SG-24CP4A	65.90
	24DP4	Use SG-24AEP4
★	24DP4A	Use SG-24AEP4
	24QP4	Use SG-24CP4A
★	24TP4	Use SG-24CP4A
	24VP4	Use SG-24CP4A
★	24VP4A	Use SG-24CP4A
	24XP4	Use SG-24CP4A
★	24YP4	Use SG-24AEP4
★	24ZP4	Use SG-24AEP4
★	27EP4	Use SG-27RP4
	27GP4	Use SG-27RP4
★	27LP4	96.40
	27NP4	Use SG-27RP4
★	27RP4	Use SG-27RP4
★	SG-27RP4	96.40
★	27XP4	96.40

★ Black-Daylight aluminized tube.
‡ Manufacturer's suggested list price, subject to change without notice.

GENERAL ELECTRIC

Trade Discount Applies To List Prices Only
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ELECTRONICS

RECEIVING TUBES

Type	List Price‡
0Z4	$2.45
0Z4A(N)	2.15
0Z4G	2.60
1A7GT	5.75
1AD2*	3.00
1AX2	3.05
1B3GT	2.90
1DN5	3.65
1G3GT/1B3GT	2.90
1H2	3.05
1H5GT	4.15
1J3	2.90
1K3	2.90
1L4(N)	3.20
1L6	6.85
1LA6	6.20
1LH4	8.10
1LN5	8.20
1N2A	4.65
1R5	3.05
1S2A	3.10
1S4	4.35
1S5	2.90
1T4	2.90
1U4	2.90
1U5	2.65
1V2	2.10
1X2A/B	3.05
2A3	10.50
2AF4A	4.10
2AF4B	4.10
2AH2*	3.20
2AS2*	3.20
2BN4A	2.55
2CW4	4.45
2CY5	3.05
2DS4	4.50
2DV4	6.30
2DZ4	4.10
2EN5	3.40
2ER5	3.55
2FH5	3.05
2FQ5A	4.05
2FS5	5.15
2FY5	2.80
2GK5	4.05
2GU5	4.35
2HK5	4.50
3A2	4.85
3A3	3.40
3AF4A	4.10
3AF4B	4.10
3AL5	2.05
3AT2*	3.20
3AU6	2.35
3AV6	1.90
3B2	10.35
3BC5	2.35
3BE6	2.25
3BN4	3.10
3BN6	3.75
3BU8	3.35
3BY6	2.90
3BZ6	2.30
3CB6	2.30
3CE5/3BC5	2.35
3CF6	2.70
3CS6	2.65
3CY5	3.25
3DG4	3.65
3DK6	2.45
3DT6	2.20
3DZ4	4.10
3EA5	3.75
3EH7	3.80
3EJ7	3.80
3ER5	3.55
3FS5	4.60
3GK5	4.15
3GS8/3BU8	3.35
3HA5	4.10
3HM5	4.10
3Q4	3.55
3Q5GT	5.70
3S4	3.20
3V4	2.50
4AU6	2.35
4BC8	4.10
4BL8/XCF80	2.55
4BN6	3.85
4BQ7A	4.00
4BS8	3.90
4BU8	3.35
4BZ6	2.25
4BZ7	4.05
4CB6	2.30
4CE5	2.35
4CS6	2.35
4CY5	2.85
4DE6	2.65
4DK6	2.45
4DT6	2.20
4EH7	3.80
4EJ7	3.80
4ES8	4.65
4EW6	2.65
4GK5	4.15
4GS8/4BU8	3.35
4GZ5	2.40
4HA5	4.10
4HA7*	$3.20
4HS8	3.20
5AM8	3.55
5AN8	4.00
5AQ5	2.35
5AR4	4.50
5AS4A	3.30
5AS8	4.15
5AT8	3.70
5AU4	3.40
5AV8	4.10
5AZ4	5.65
5B8	5.30
5BC3	2.80
5BE8	3.35
5BK7A	3.40
5BQ7A	4.00
5BR8	4.25
5BT8	3.30
5BW8	3.40
5CG8	3.35
5CL8A	3.50
5CM8	3.80
5CQ8	4.10
5CZ5	4.35
5DH8	5.00
5DJ4	2.65
5EA8	3.35
5ES8	5.80
5EU8	3.35
5EW6	2.65
5FG7	2.80
5FV8	3.15
5GH8	3.95
5GX6	2.65
5HG8	4.45
5J6	2.85
5T8	3.65
5U4GB	2.10
5U8	3.35
5V3	3.85
5V4GA	3.80
5V6GT	2.45
5X8	3.45
5Y3GT	1.75
5Y4GA	2.55
5Y4GT	2.65
5Z3	3.30
6A7	8.55
6A8	6.90
6AB4	2.15
6AC7	5.55
6AC7Y(N)	5.80
6AF3	2.90
6AF4	4.00
6AF4A	4.00
6AF11*	5.05
6AG5	2.75
6AG7	6.25
6AG11*	3.90
6AH4GT	3.45
6AH6	4.70
6AK5(N)	4.30
6AL3	2.95
6AL5	1.85
6AL7GT(N)	5.75
6AL11*	4.40
6AM4	5.90
6AM8A	3.45
6AN4	6.55
6AN8A	4.00
6AQ5A	2.15
6AQ6	2.60
6AQ7GT	4.00
6AQ8	3.20
6AR5	2.60
6AR8	5.15
6AR11*	4.35
6AS5	2.90
6AS8	3.80
6AS11*	5.05
6AT6	1.90
6AT8A	3.80
6AU4GTA	3.60
6AU5GT	4.30
6AU6A	2.10
6AU8A	3.80
6AV5GA	4.25
6AV6	1.65
6AV11*	3.95
6AW8A	3.75
6AX3*	2.70
6AX4GTB	2.65
6AX5GT	3.10
6AX8	3.70
6AY3	2.80
6AY11*	3.90
6AZ8	5.55
6B8	7.30
6B10*	3.55
6BA6	2.00
6BA7	5.95
6BA8A	3.90
6BA11*	3.70
6BC5	2.35
6BC7	3.80
6BC8	4.00
6BD6	2.45
6BD11*	5.15
6BE3*	3.00
6BE6	$2.20
6BF5	3.55
6BF6	1.90
6BF8	4.35
6BF11*	4.80
6BG6GA	6.50
6BH6	2.70
6BH8	3.65
6BH11*	4.15
6BJ3*	2.65
6BJ6	2.60
6BJ6A	2.70
6BJ7	3.15
6BJ8	3.50
6BK4	8.00
6BK5	3.70
6BK7B	3.40
6BL7GTA	4.05
6BL8	3.95
6BM8	3.05
6BN4	2.65
6BN6	3.20
6BN8	3.55
6BQ5	2.40
6BQ6GA	4.35
6BQ6GTB	4.35
6BQ7A	3.95
6BR8A	3.80
6BS8	3.75
6BU8	3.10
6BV8	3.20
6BW4	2.90
6BW8	3.55
6BX7GT	4.35
6BY5GA	5.10
6BY6	2.65
6BY8	2.65
6BZ6	2.25
6BZ7	4.00
6BZ8	4.45
6C4	1.85
6C5	4.30
6C9	5.80
6C10*	3.95
6CA4	2.10
6CA5	3.20
6CA7(N)	5.20
6BC5A	8.60
6CB6A	2.25
6CD6GA	5.80
6CE5/6BC5	2.35
6CF6	2.55
6CG7	2.45
6CG8A	3.30
6CH8	5.20
6CK4	3.40
6CL5	9.60
6CL6	3.75
6CL8A	3.35
6CM6	3.30
6CM7	2.90
6CM8	4.25
6CN7	2.90
6CQ4	3.20
6CQ8	3.50
6CR6	2.40
6CS6	2.65
6CS7	3.00
6CU5	2.65
6CU6	4.35
6CU8	4.35
6CW4	4.45
6CW5	3.60
6CX8	3.85
6CY5	2.80
6CY7	3.20
6CZ5	4.10
6D10*	4.10
6DA4	3.10
6DA5(N)	2.80
6DB5	5.30
6DC8	3.25
6DE4	2.85
6DE6	2.55
6DE7	3.40
6DG6GT	2.50
6DJ8	5.00
6DK6	2.35
6DM4	2.85
6DN6	7.45
6DN7	3.55
6DQ4	2.65
6DQ5	8.35
6DQ6A	4.15
6DQ6B	4.15
6DR7	3.65
6DS4	4.45
6DS5	3.50
6DT5	3.75
6DT6	2.15
6DT6A	2.15
6DT8	3.80
6DV4	7.00
6DW4	3.75
6DW5	4.05
6DX8	3.25
6DZ4	4.00
6DZ7	8.45
6E5(N)	5.10
6EA5	3.80
6EA7	$3.80
6EA8	3.20
6EB5	4.90
6EB8	4.25
6EH5	3.05
6EH7	4.10
6EH8	3.60
6EJ7	3.80
6EM5	3.40
6EM7	5.10
6EQ7	2.90
6ER5	3.80
6ES5	3.05
6ES8	5.80
6ET7	4.25
6EU7	2.70
6EU8	3.30
6EV5	3.00
6EV7	2.90
6EW6	2.50
6EW7	4.05
6EX6	8.00
6EY6	3.40
6EZ5	3.60
6EZ8	3.80
6F5	4.60
6F6	5.90
6F6GT	5.90
6FD6	3.80
6FD7	4.65
6FG5	5.20
6FG6(N)	3.25
6FG7	2.90
6FH5	2.90
6FJ7*	3.70
6FM7*	3.50
6FM8	3.00
6FQ5	4.10
6FQ7	2.30
6FS5	4.35
6FV6	3.95
6FV8	3.15
6FW5	4.10
6FY5	2.90
6FY7*	3.40
6G11*	4.35
6GC5	4.25
6GE5*	4.10
6GF5*	3.70
6GF7	5.15
6GH8	3.20
6GJ7	3.65
6GK5	4.10
6GK6	3.05
6GL7	5.10
6GM5	2.70
6GM6	2.70
6GM8/ECC86	4.65
6GN8	3.95
6GU5	4.35
6GU7	3.40
6GV5*	4.40
6GW6	4.15
6GW8	3.20
6GX6	2.50
6GY5*	4.90
6GY6	2.50
6GY8	3.80
6GZ5	2.90
6H6	4.00
6HA5/ECC900	4.05
6HA6	4.75
6HB5*	4.45
6HB6	4.75
6HD5*	5.70
6HE5*	3.95
6HF5*	7.80
6HF8	3.95
6HG8	4.35
6HJ8	3.35
6HK5	4.75
6HM5/6HA5	4.10
6HS6	2.90
6HS8	3.20
6HZ6	2.65
6HZ8	5.80
6J5	3.65
6J6	2.80
6J7	5.00
6J10*	5.30
6J11*	4.80
6JC6	4.00
6JE6	9.05
6JC8	3.05
6JE8	3.95
6JH6	2.60
6JH8	4.35
6JK8	4.30
6JN8	3.90
6JS6	2.75
6JU8	3.20
6JV8	4.25
6JZ8*	3.75
6K6GT	2.65
6K7	4.95
6K8	7.55
6K11/6Q11*	3.90
6KA8	4.10
6KR8	4.50
6KT8	$3.80
6KZ8	2.80
6L6(N)	8.65
6LGC(N)	4.35
6LB8	5.75
6M3	12.05
6M11*	4.85
6N7	5.10
6Q7	5.35
6S4A	2.50
6S8GT	4.45
6SA7	4.30
6SB7Y	6.35
6SC7	4.50
6SF5	3.75
6SF7	6.30
6SG7	4.65
6SH7	4.65
6SJ7	4.15
6SK7	4.25
6SL7GT	3.55
6SN7GTB	2.60
6SQ7	3.75
6SR7	3.90
6SS7	5.50
6T4	5.45
6T8A	3.40
6T9*	3.65
6T10*	4.50
6U5/6G5(N)	5.55
6U8A	3.30
6U10*	3.90
6V3A	4.85
6V4	1.60
6V6	6.80
6V6GT	2.15
6V6GTA	2.15
6VGTY(N)	2.85
6W4GT	2.45
6W4GTA	2.45
6W6GT	2.85
6X4	1.65
6X5GT	2.10
6X8A	3.50
6Y6G	3.45
6Y6GT	3.45
7A4	7.55
7A6	7.45
7A7	7.60
7A8	8.30
7AF7	6.00
7AG7	8.40
7AU7	2.60
7B5	8.85
7B6	5.60
7B7	8.10
7C5	3.50
7C6	7.75
7C7	3.60
7EY6	3.20
7F7	8.00
7F8	8.80
7GV7	4.15
7HG8/PCF86	3.35
7N7	7.55
7S7	6.85
7X7	8.10
7Y4	7.15
7Z4	6.90
8AU8	4.10
8AW8A	3.65
8B10*	3.55
8BQ5	2.90
8CG7	2.50
8CM7	2.80
8CN7	2.80
8CS7	3.30
8CX8	4.35
8EB8	4.00
8EM5	3.45
8ET7	4.40
8FQ7	2.75
8GJ7	3.45
8GN8	3.95
8JV8	3.80
9A8/PCF80	4.00
9AU7	2.80
9BR7	3.35
9CL8	3.15
9GV8	4.00
9KZ8	2.55
9U8A	3.30
10AL11*	4.45
10C8	4.25
10DE7	3.40
10EG7	4.65
10EW7	4.15
10GN8	3.80
10HF8	4.95
10JY8	3.90
10KR8	4.50
11AR11*	4.35
11CY7	3.25
11JE8	4.10
12AB5	3.50
12AC6	2.20
12AD6	2.40
12AE6A	2.45
12AE7	4.15
12AF3	4.10
12AF6	$2.80
12AJ6	2.55
12AL5	1.90
12AL8	6.60
12AL11*	4.45
12AQ5	2.40
12AT6	1.90
12AT7	3.05
12AU6	2.15
12AU7	2.45
12AU7A	2.45
12AV5GA	4.10
12AV6	1.65
12AV7	3.55
12AW6	3.30
12AX3*	2.75
12AX4GTB	2.70
12AX7	2.55
12AZ7A	2.75
12B4A	2.85
12BA6	1.65
12BA7	5.95
12BD6	2.45
12BE3*	2.80
12BE6	1.75
12BF6	2.20
12BH7A	3.05
12BK5	4.00
12BL6	2.65
12BN6	3.90
12BQ6GA	4.50
12BQ6GTB	4.50
12BR7	3.20
12BT3*	2.90
12BV7	3.50
12BW4	2.90
12BY7A	3.20
12BZ7	4.45
12C5	2.45
12CA5	2.80
12CN5	3.45
12CR6	2.75
12CT8	4.30
12CU5/12C5	2.45
12CU6	4.50
12CX6	2.90
12D4	2.80
12DB5	2.80
12DE8	3.35
12DK7	2.95
12DL8	6.20
12DQ6B	4.25
12DQ7	3.45
12DS7	3.95
12DT5	3.30
12DT8	3.75
12DU7	4.65
12DV7	3.65
12DV8	3.80
12DW7	3.25
12DW8	3.55
12DY8	8.45
12DZ6/-12EA6	2.80
12EA6	2.80
12ED5	2.85
12EG6	3.20
12EK6	2.90
12EM6	3.15
12EN6	3.05
12EQ7	2.90
12EZ6	2.30
12F8	3.40
12FK6	2.30
12FM6	2.30
12FQ8(N)	3.20
12FR8	4.80
12FX8A	4.10
12GA6	2.55
12GC6	4.20
12GE5*	3.80
12GN7	4.80
12H6	3.95
12J5	3.95
12J8	4.65
12JN8	3.90
12K5	3.65
12K7GT	7.05
12L6GT	2.80
12R5	3.10
12SA7	$4.30
12SC7	5.50
12SF5	4.25
12SF7	6.60
12SG7	4.65
12SH7	6.05
12SJ7	4.20
12SK7	3.95
12SL7GT	3.75
12SN7GTA	2.70
12SQ7	3.75
12SR7	5.75
12V6GT	2.90
12W6GT	3.20
12X4	1.95
13DE7	3.00
13DR7	3.40
13EM7/15EA7	4.75
13FD7	4.85
13GB5	3.55
13J10*	5.35
14A7	5.95
14AF7	6.05
14B6	5.60
14GT8	3.20
14J8	3.00
14Q7	6.20
15AF11*	5.05
15BD11	5.15
15CW5/PL84	2.80
15DQ8	3.75
15EA7	4.25
15EW6	2.80
15FM7*	3.65
15FY7*	3.45
15HB6	4.10
15LE8	8.10
16A8	3.70
16AQ3/XY88	2.80
16GK6	3.20
16GY5	4.95
17AV5GA	3.75
17AX3*	2.75
17AX4GT	2.70
17AY3	3.35
17BE3*	3.05
17BF11*	4.85
17C9	7.60
17CU5	2.45
17D4	2.75
17DE4	3.35
17DM4	3.20
17DQ6A	4.20
17DQ6B	4.20
17EW8	2.80
17GE5*	4.15
17GV5*	4.45
17GW6	4.25
17H3	2.50
17JM6	4.45
17JZ8*	3.80
18A5	4.10
18FW6	2.15
18FX6	2.35
18FY6	1.90
19AU4GTA	3.45
19BG6GA	6.50
19CL8A	3.50
19EA8	3.45
19EZ8	3.80
19HV8	3.80
19J6	3.15
19JN8	3.20
19KG8	2.80
19T8	3.55
19X8	4.35
20EZ7	4.15
21EX6	5.70
21GY5*	4.95
21HB5	4.60
21HJ5*	6.25
22BW3*	3.25
22DE4	3.10
23Z9	5.05
25AV5GA	4.35
25AX4GT	2.85
25BK5	3.65
25BQ6GA	4.60
25BQ6GTB	4.60
25C5	2.15
25CA5	$3.10
25CD6GB	5.85
25DK4	1.75
25DN6	6.35
25EC6	5.70
25EH5	2.50
25F5	4.10
25L6GT	2.65
25W4GT	2.70
25W6GT	3.25
25Z5	4.60
25Z6GT	3.05
27GB5/-PL500	3.95
29GK6	3.80
30AG11*	3.95
32ET5A	2.55
33GT7*	7.40
33GY7*	6.45
33JV6	4.50
EL-34/-6CA7(N)	5.20
34GD5	2.35
35A5	6.00
35B5	3.40
35C5	2.15
35DZ8	3.45
35EH5	2.30
35GL6	2.50
35TB8	4.55
35L6GT	2.45
35W4	1.10
35Y4	4.80
35Z3	5.00
35Z5GT	1.85
36AM3A	1.65
38HE7	7.10
42	5.15
45B5/UL84	3.00
50A5	6.25
50B5	2.80
50C5	2.15
50DC4	1.90
50EH5	2.30
50FE5	4.35
50HC6	2.30
50HK6	2.30
50L6GT	2.55
50X6	6.25
50Y6GT	4.60
50Y7GT	4.50
60FX5	2.80
75	6.80
80	4.25
ECF80/6BL8	3.95
EZ80/6V4	1.60
XCF80/4BL8	2.55
EM81/-6DA5(N)	2.80
ECL82/6BM8	3.05
84/6Z4	2.60
EM84/-6FG6(N)	3.25
ECC85/6AQ8	3.20
HCC85/-17EW8	2.80
ECL86/6GW8	3.20
117L7/M7GT	10.15
117N7GT	13.65
117Z3	4.35

* Compactron type.

‡ Manufacturer's suggested list price; subject to change without notice.

(N) Non-taxable.

GENERAL ELECTRIC

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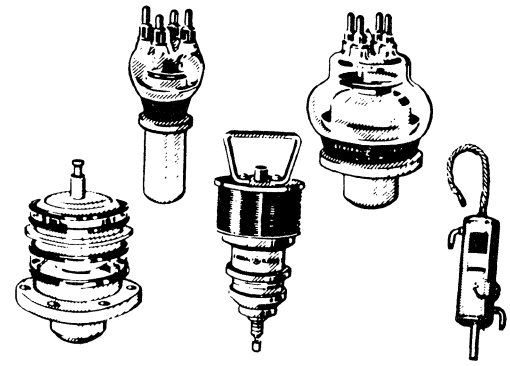
Trade Discount Applies To List Prices Only

INDUSTRIAL TUBES

- CATHODE-RAY
- FIVE-STAR
- MILITARY
- POWER
- COMMUNICATION
- TRANSMITTING



G-E Type	Price Each¶
OA2†	$ 1.50
OA3†	1.55
OA4G†	1.90
OB2†	1.45
OB3†	2.35
OC3†	1.50
OD3†	1.45
1AD4†	2.80
1D21/SN4	7.80
C1K	Use GL-6014/C1K
GL-1L21	25.00
GL-1L36	18.50
1L38	33.25
1P39	2.80
1P40	3.85
2B22■	31.00
GL-2B23	70.00
2C‡	6.90
C6M	56.00
2C39A	20.75
2C39B	32.15
2C39WA	32.15
2C40	28.00
2C40A■	34.00
2C42■	27.10
2C43■	27.20
2C46■	29.50
2D21†	1.30
2D21W	Use 5727/2D21W
2E26†	3.85
GL-2H21	288.00
2X2A†	3.30
3B24W	11.25
3B28	6.30
3C23■	11.98
3CX100A5	32.00
KC-4	Use GL-5575/100
4-65A	28.50
4-250A/5D22	46.50
4-400A	51.00
4-1000A	143.00
4D21/4-125A	37.80
4X150A	26.25
4X500A	125.60
5AHP7A	47.00
5AUP24‡	160.00
5R4GYA†■	2.05
5RGYB†	2.05
5Y3WGTB (6087/-5Y3WGTB)■	5.75
FA-6	Use GL-5627
6AC7WA†■	5.70
6AL5W	Use 5726/6AL5W
6AK5W	Use 5654/6AK5W
6AK5WB†■	5.45
6AK6†	1.40
6AN5†	4.20
6AS6†	3.45
6AS6W	Use 5725/6AS6W
6A57GA†	4.95
6AU6WB†	Use 6136/6AU6WB
6BA6W	Use 5749/6BA6W
6BE6W	Use 5750/6BE6W
6C4WA†■	3.15
6D4†	2.85
6DJ8†	2.40
6J4†	4.20
6SK7WA†■	2.85
6X4W†	1.60
6X4WA†	Use 6202/6X4WA

G-E Type	Price Each¶
GL-7C29	$ 189.50
GL-7D21	735.00
7RP4	64.00
PJ-8	Use GL-5556
8D21‡	1985.00
12A6†	3.10
12AT7WB	Use 6201/12AT7WB
12AY7†■	2.45
FA-13	Use GL-5628
C16J	Use GL-5665/C16J
FG-17	Use GL-5557
PJ-23	Use GL-868
FG-27A	52.00
28D7	4.95
FG-32	Use GL-5558
FG-33	Use GL-5720
FG-41	Use GL-5830
B-47	Use GL-5623
FG-57	Use GL-5559
FG-67	Use GL-5728
FG-81A	32.50
83†	1.75
FG-95	Use GL-5560/FG-95
FG-97	62.00
FG-98A	77.00
100TH‡	23.60
FG-104	Use GL5561
FG-105	59.00
FG-154	108.00
FG-172■	122.00
FG-280	105.00
393A■	13.25
407A†	5.90
408A†	4.95
GL-411	478.75
GL-414	254.00
GL-415	Use GL-5550
502A	2.30
GL-506	Use GL-6228
575A■	21.50
627‡	31.50
672A	42.50
673	21.50
678	50.75
740	Use GL-6856/740
760	Use GL-6858/760
760P	Use GL-6859/760P
805	22.10
807†■	2.95
809†	7.95
810	26.95
811A†	6.90
812A†	6.90
813	24.10
815	29.35
816	3.10
828	32.95
829B	20.00
830B‡	17.35
832A	16.70
833A	56.00
836	11.10
GL-838	20.00
845	25.00
GL-851	717.00
GL-857B	218.50
862A	1775.00
866A	2.80
868/PJ-23	4.50
GL-869B	138.00

G-E Type	Price Each¶
GL-870A■	$ 1982.00
872A/872	9.90
GL-880	610.00
884†	2.30
889A	250.00
892	345.00
892R	440.00
GL-893AR‡	1260.00
920‡	7.30
923	3.40
927	4.25
929	2.35
930	3.80
931A	12.25
1612†	5.00
1614†	4.90
1619†‡	5.70
1620†	7.55
2050†	2.40
2050A	2.25
GL-5513	572.00
GL-5518	1275.00
5528†	56.00
GL-5544	32.50
GL-5549	653.50
GL-5550	49.00
GL-5551A	65.00
GL-5551A/P	65.00
GL-5552A	99.00
GL-5552A/P	99.00
GL-5553B	245.00
GL-5553B/P	245.00
GL-5554	215.00
GL-55555	316.00
GL-5556	47.50
5557■	9.50
5558	17.50
5559■	23.00
5560■	33.00
5561	59.00
5563A	51.25
GL-5564	850.00
GL-5575/100/616	250.00
GL-5593	310.00
5610‡	1.05
GL-5623	30.00
GL-5627	80.00
GL-5628	60.00
GL-5630	1900.00
5632/C3J	13.80
5636†*■	6.10
5642†§	3.85
5651†	1.78
5654/6AK5W†*■	2.45
5662†‡	1.45
5663†■	2.10
5665/C16J	56.90
5670†*■	2.45
GL-5674	225.00
5675‡	16.75
5681	2060.00
5686†*■	3.40
5687†*■	4.00
5687WA†■	5.70
5691†	8.75
5692†	8.25
5693†	6.60
5696A†	2.05
5702WA*	6.50
5702WB*	9.55

G-E Type	Price Each¶
5703WA*	$ 7.10
5703WB*	8.80
5718†*■	3.65
5719†*■	3.15
GL-5720/FG-33	34.75
5725/6AS6W†*■	3.15
5726/6AL5W†*■	1.55
5727/2A21W†*■	2.90
GL-5728	74.00
5736	213.00
5744WA*	7.10
5744WB*	9.00
5749/6BA6W†*■	2.20
5750/6BE6W†*■	3.45
5751†*■	2.55
5751WA†*■	2.95
5762/7C24	255.00
5763†	2.55
GL-5779	200.00
GL-5788	500.00
5814A†*■	2.35
5814WB†*■	6.25
GL-5820A	1100.00
GL-5822A	116.00
5823†	1.75
5824†	3.60
GL-5830	504.00
5840†*■	5.35
5844†*	2.30
5855	85.00
5879†	1.85
5881†	3.50
5886†	5.00
5894	26.10
5896†*■	3.75
5899†*■	5.50
5902†*■	4.80
5963†■	1.50
5964†	1.55
5965A†*	1.90
GL-5973	495.00
5998A†	12.20
6005/6AQ5W†*■	3.95
6011/710	13.00
6012†	7.65
GL-6014/C1K	12.90
6019	751.75
6021†*■	3.50
GL-6039	1590.00
6046†	1.55
6072A†*■	3.90
6080†■	5.35
6087/5Y3WGTB†*	5.75
6100†*	2.50
6111†*■	3.70
6112†*■	4.10
6134†	5.70
6135†*■	2.40
6136/6AUGW/B†*■	2.70
6137/6SK7WA†	2.85
6146A†	4.35
6161	132.00
6166A	Use 9007/6166A
GL-6183	Use GL-6942
6189/12AU7WA†■	3.65
6197†	2.65
6198A	185.00
6201/12AT7WB†*■	2.55
6202/6X4WA*■	2.85
6203†*■	4.10

¶ Manufacturer's suggested price.
* Five-Star Types
† Industrial Receiving Type.
■ Available to MIL specifications.

‡ Discontinued Type; available while stock lasts.
§ Subject to F.E.T.
#Coated plates.

Net
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INDUSTRIAL TUBES (Cont'd)

ELECTRONICS

G-E Type	Price Each¶
6205†*■	$ 5.35
6206†*■	7.25
6211A†*	2.35
6216†*■	3.47
6222†*	7.35
GL-6228/GL-506	3695.25
GL-6251	2555.00
6265†*	4.10
GL-6283	500.00
6299■	56.00
6336A†	19.40
GL-6346	70.00
6350†	2.35
6360†	4.95
6286†*■	7.40
6397†	8.30
6414†*■	3.65
6427	895.00
6442■	39.25
6463†	1.90
6485†	2.05
GL-6512	285.00
GL-6513	382.00
GL-6514	525.00
GL-6515	960.00
6550†	4.30
GL-6621	10.35
6660†	1.10
6661†	1.40
6662†	1.35
6663†	1.00
6664†	1.15
6669†	1.15
6676†	1.20
6677†	1.90
6678†	1.70
6679†	1.55
6680†	1.30
6681†	1.30
6688A†*	8.75

G-E Type	Price Each¶
6771	$ 71.90
6807	29.30
6808	30.50
6809	31.00
6814†*■	5.05
6829†*■	6.10
GL-6848	1840.00
6856/740	20.80
6858/760	28.10
6859/760P	29.80
GL-6878	3060.00
6883†	4.55
6894	25.50
6897■	32.15
6907	27.00
6919†*	1.35
6942	960.00
7007/6166A■	1050.00
7034/4X150A	25.00
7036†*	1.50
GL-7038	185.00
7044	3.20
7054†	1.55
7056†	1.20
7057†	1.95
7058†	1.30
7059†	1.75
7061†	1.30
7077	33.75
GL-7151	750.00
7167†	2.00•
GL-7171	81.50
7226	315.00
7233†	2.40
7239†*	6.25
7262A	250.00
7263A	430.00
7266■	29.70
7289■	32.15
7293	1300.00

G-E Type	Price Each¶
7296	$ 41.85
7325	185.00
7370	10.80
7391	67.00
GL-7399	520.00
7427†	2.65
7462	33.75
7468	33.75
7518/710L	17.00
7588	74.25
7625	33.75
GL-7629A	1800.00
7644	65.00
GL-7669	65.00
GL-7669/P	65.00
GL-7670	77.20
GL-7671	99.00
GL-7671/P	99.00
GL-7672	116.00
GL-7673	245.00
GL-7673/P	245.00
GL-7681	155.00
7697	185.00
7701†	3.00•
GL-7703	190.00
7716†	1.75
7717/6CY5†	1.40
7720	33.75
7724/14GT8†	1.50
7725	13.50
7726	16.30
7735A	185.00
7736	850.00
7768	77.50
7784	65.00
7815	39.25
7815R	39.25
7841	29.70
7861†*	3.50
7913	91.80

G-E Type	Price Each¶
GL-7964	$ 85.00
7984	5.35
GL-7985	1740.00
GL-7998	155.00
8005†	17.85
8008	9.90
GL-8020	24.00
8068	3.60
8081	35.10
8082	35.10
8083	35.10
GL-8092A	1975.00
GL-8093	1350.00
8102†	1.45
8106†	1.55
8113*	6.45
8156	4.10
GL-8205	825.00
GL-8360	77.20
GL-8465	500.00
GL-8466	535.00
8507	250.00
8511	315.00
8541	310.00
9001†	5.40
9002†	4.85
9003†	5.40

MC LEOD GAGE PARTS

N-24900 AAG1	$320.00
N-24900 AAG2	325.00
N-24900 AEG1	98.00
N-24900 AEG2	103.00

¶ Manufacturer's suggested price.
* Five-Star Types.
† Industrial Receiving Type.
■ Available to MIL specifications.
• List Price.
Coated plates.

RADIATOR CREDITS. Contingent on purchase of a new tube. Radiator must be returned prepaid to General Electric Company, Schenectady, N. Y.

G-E Type	Radiator Credit	Salvage Credit	Crate Credit
GL-891R	$20.00	.....	None
GL-892R	20.00	.....	None
GL-5681	.....	$150.00	None
GL-7007/6166A	25.00	.....	None

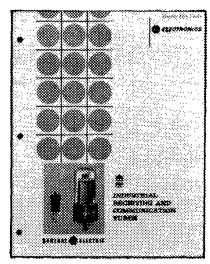
THERMOSTAT KITS FOR IGNITRON

Kit No.	Price, Each¶
N-15272AA	$ 7.30
N-15273AA	5.15
N-15286AA	9.30
N-15287AA	8.00

NEW G-E INDUSTRIAL TUBE CATALOGS

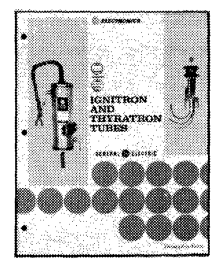
ETI-719D 25¢

Alpha-numerical listing of G-E replacements for nearly 3,000 types of industrial tubes.



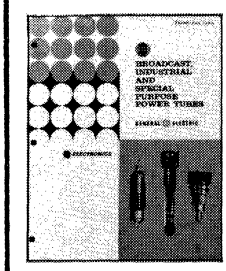
ETI-2387A 25¢

Complete specifications of G-E industrial receiving, communications, 5-Star and ceramic receiving tubes.



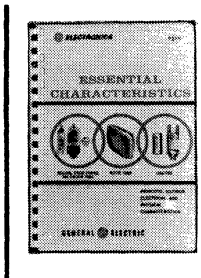
ETI-2388A 25¢

Specifications and data on 80 types of G-E Ignitrons and Thyratrons, plus operating guide.



ETI-2389A 25¢

Lists 125 special-purpose and broadcast power tubes and rectifiers, including installation information.



ETR-15L $1.50

Lists all receiving, TV picture, 5-Star, and small special-purpose tubes, and G-E capacitors.

These Catalogs Are Available From Your General Electric Tube Distributor

GENERAL ELECTRIC

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Mullard

PREFERRED ENTERTAINMENT RECEIVING TUBES

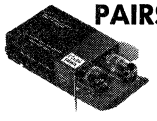
For • High-Fidelity • AM-FM • Television • Industry • Foreign Replacement

Mullard electron tubes, universally recognized for their advanced designs and reliability, offer a comprehensive range of tubes for High-Fidelity, AM-FM, Television, and Industrial Applications. The vast manufacturing resources of the Mullard organization, including the world's most modern research laboratories, is your assurance of guaranteed tube design advantages for maximum performance in electronic equipment.

Tube Type	Cross Ref.	List Price	Tube Type	Cross Ref.	List Price	Tube Type	List Price
DAF96	1AH5	$ 3.15	HBC91	12AV6	$1.70	6C4	1.85
DK96	1AB6	3.40	HCC85	17EW8	2.80	6CA4	2.05
DM70	1M3	2.05	HF93	12BA6	2.10	6CA7	5.10
DM71	1N3	2.15	HK90	12BE6	2.20	6CB6	2.25
DY87	1S2A	2.75	HL92	50C5	2.20	6CD7	3.95
EABC80	6AK8	3.55	HY90	35W4	1.45	6CM4	5.70
EB91	6AL5	1.85	KT66		7.35	6CW5	2.60
EBC90	6AT6	1.80	KT88		11.20	6DA5	2.75
EBC91	6AV6	1.60	LC900	3HA5	2.50	6DA6	3.05
EBF80	6N8	3.10	LCF801	5GJ7	3.05	6DC8	3.20
EBF83	6DR8	3.60	LF183	4EH7	2.40	6DJ8	4.20
EBF89	6DC8	3.20	LF184	4EJ7	2.40	6DL4	5.55
EC80	6Q4	6.80	PC900	4HA5	2.50	6DL5	2.30
EC81	6R4	5.15	PCC85	9AQ8	3.00	6DR8	3.60
EC86	6CM4	5.70	PCC88	7DJ8	4.65	6DX8	3.10
EC88	6DL4	5.55	PCF80	9A8	2.55	6EB8	4.20
EC90	6C4	1.85	PCF86	7HG8	2.90	6EH7	2.40
EC92	6AB4	2.45	PCF801	8GJ7	3.05	6EJ7	2.40
EC95	6ER5	2.45	PCL82	16A8	4.45	6EM5	3.40
EC97	6FY5	2.80	PCL84	15DQ8	4.10	6ER5	2.45
EC900	6HA5	2.50	PCL85	18GV8	2.80	6ES8	4.10
ECC33		5.90	PCL86	14GW8	3.25	6EU7	2.75
ECC81	12AT7	3.05	PL36	25E5	6.10	6FG6	3.00
ECC82	12AU7	2.45	PL81	21A6	4.55	6FY5	2.80
ECC83	12AX7	2.55	PL84	15CW5	2.60	6GB5	3.90
ECC85	6AQ8	3.15	PL500	27GB5	3.90	6GK5	2.50
ECC86	6GM8	4.55	PY81	17Z3	3.45	6GJ7	3.05
ECC88	6DJ8	4.20	PY88	30AE3	2.20	6GM8	4.55
ECC91	6J6	2.80	UBF80	17C8	3.50	6GV8	2.80
ECC189	6ES8	4.10	UCL82	50BM8	3.00	6GW8	3.20
ECF80	6BL8	2.55	UL84	45B5	2.85	6HA5	2.50
ECF82	6U8	3.30	UY85	38A3	1.65	6HG8	2.90
ECF86	6HG8	2.90	XC95	2ER5	2.10	6HU6	3.25
ECF801	6GJ7	3.05	XC97	2FY5	2.80	6J6	2.80
ECH81	6AJ8	2.95	XC900	2HA5	2.50	6JX8	2.80
ECH84	6JX8	2.85	XCF80	4BL8	3.60	6Q4	6.90
ECL80	6AB8	3.40	XCF801	4GJ7	3.05	6R3	2.70
ECL82	6BM8	3.05	XL84	8BQ5	2.40	6R4	5.15
ECL84	6DX8	3.10	XY88	16AQ3	2.80	6T8A	3.40
ECL85	6GV8	2.80	1M3		2.05	6U8	3.30
ECL86	6GW8	3.20	1N3		2.15	6V4	1.60
EF80	6BX6	3.20	1S2A		2.75	6W4GT	2.40
EF85	6BY7	3.25	2ER5		2.10	6W6GT	2.85
EF86	6267	2.70	2GK5		2.50	6X4	1.65
EF89	6DA6	3.05	2HA5		2.50	7HG8	2.90
EF91	6AM6	3.30	3GK5		2.50	8BQ5	2.40
EF92	6CQ6	3.70	3HA5		2.50	8GJ7	3.05
EF93	6BA6	2.00	4BL8		3.60	9A8	2.55
EF94	6AU6	2.10	4EH7		2.40	9AQ8	3.00
EF95	6AK5	4.40	4EJ7		2.40	12AT7	3.05
EF183	6EH7	2.40	4HA5		2.50	12AU7	2.45
EF184	6EJ7	2.40	5AR4		4.50	12AV6	1.70
EK90	6BE6	2.25	5GJ7		3.05	12AX7	2.55
EL34	6CA7	5.10	6AB4		2.45	12BA6	2.10
EL37		6.65	6AB8		3.40	12BE6	2.20
EL41	6CK5	6.65	6AF4A		4.00	14GW8	3.25
EL81	6CJ6	4.35	6AJ8		2.95	15CW5	2.60
EL84	6BQ5	3.25	6AK5		4.40	15DQ8	4.10
EL85	6BN5	5.80	6AK8		3.55	16A8	4.45
EL86	6CW5	2.60	6AL3		2.85	16AQ3	2.80
EL90	6AQ5	2.25	6AL5		1.85	17EW8	2.80
EL91	6AM5	3.30	6AM5		3.30	17Z3	3.45
EL95	6DL5	2.30	6AM6		3.30	18GV8	2.80
EL500	6GB5	3.90	6AQ5		2.25	21A6	4.55
ELL80		4.50	6AQ8		3.15	25E5	6.10
EM34	6CD7	3.95	6AT6		1.80	27GB5	3.90
EM81	6DA5	2.75	6AU6		2.10	30AE3	2.20
EM84	6FG6	3.00	6AV6		1.60	35W4	1.45
EM87	6HU6	3.25	6BA6		2.00	45B5	2.85
EY81	6R3	2.70	6BE6		2.25	50BM8	3.00
EY88	6AL3	2.85	6BL8		2.55	50C5	2.20
EZ80	6V4	1.60	6BM8		3.05	6267	2.70
EZ81	6CA4	2.05	6BQ5		2.40	7025	2.90
EZ90	6X4	1.65	6BX6		3.20	7189	2.85
GZ30	5Z4G	5.30	6BY7		3.25	7247	3.05
GZ32	5AQ4	4.70	6BZ6		2.30		
GZ34	5AR4	4.50					

Laboratory-Balanced

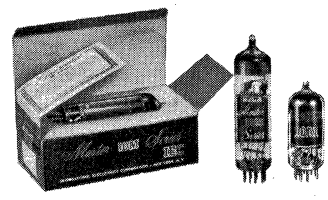
MATCHED PAIRS



For Optimum Performance Of Hi-Fidelity Equipment

Tube Type	Cross Reference	List Price
ECL82MP	6BM8MP	$ 7.15
ECL86MP	6GW8MP	7.45
EL34MP	6CA7MP	11.65
EL37MP		13.90
EL84MP	6BQ5MP	5.35
EL86MP	6CW5MP	6.50
EL90MP	6AQ5MP	5.35
EL95MP	6DL5MP	5.35
KT66MP		16.00
KT88MP		23.90
UCL82MP	50BM8MP	7.15
UL84MP	45B5MP	5.95
7189MP		6.95

Master 10M Series

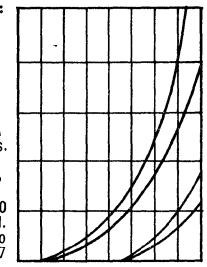


- **TUBE-TO-TUBE UNIFORMITY**
- **SECTION-TO-SECTION UNIFORMITY**
- **LONG LIFE**
- **GUARANTEED PERFORMANCE**
- **FOR THE BALANCE ORIGINALLY DESIGNED INTO THE CIRCUIT**

A selected series of individually laboratory-tested tubes, ideal for today's technically-advanced and exacting electronic equipment . . . meets more stringent requirements . . . individual foam cushion packaging for protection during handling and shipping. Each Master 10M tube guaranteed for 10,000 hours of effective performance within two years from date of purchase. Recommended for the full range of electronic equipment.

TYPICAL TEST SPECIFICATIONS 12AT7 DOUBLE TRIODE

TEST CONDITIONS:
Vf 12.6 V
Va 250 V
Vg -2 V
LIMIT EACH TRIODE
Ia Min. 8.8 Ma
Max. 12 Ma
Igi Less than 7 μA
Ia Triode No. 1 vs. Triode No. 2 Less than 15% deviation.
Cutoff less than 20 μA with 8V on grid.
Insulation heater to cathode less than 7 μA.



Insulation heater to cathode less than 7 μA.
Insulation heater positive, cathode negative with 125 V on plate: Less than 20 μA.

HUM AND MICROPHONICS

Check to close parameters special test specifications and circuits to be given upon request.
Typical Ia curves with voltage ratings from 100 to 250 V.

Tube Type	Suggested Resale Price	Tube Type	Suggested Resale Price
6AB8	$ 2.75	12AX7A	2.20
6AJ8	2.65	12DW7	$2.55
6AK5	3.25	15CW5	2.50
6AK8	2.80	6267	2.50
6AL5	2.00	7025	2.35
6AQ5	2.15	7247	2.55
6AQ5A	2.15	EABC80/6AK8	2.80
6AQ8	2.40	EB91/6AL5	2.00
6AT6	2.00	EBC90/6AT6	2.00
6AU6	2.05	EBC91/6AV6	1.95
6AU6A	2.05	EBF89/6DC8	2.65
6AV6	1.95	EC90/6C4	2.85
6BA6	2.00	EC95/6ER5	2.40
6BE6	2.10	EC97/6FY5	2.35
6BL8	3.05	EOC81/12AT7	2.55
6BQ5	2.15	ECC82/12AU7	2.20
6BQ5A	2.15	ECC83/12AX7	2.20
6C4	2.85	ECC85/6AQ8	2.40
6DA6	2.55	ECC88/6DJ8	3.00
6DC8	2.65	ECC91/6J6	2.55
6DJ8	3.00	ECC189/6ES8	3.50
6DL5	2.55	ECF80/6BL8	3.05
6DX8	2.85	ECF86/6HG8	3.00
6EH7	2.60	ECH81/6AJ8	2.65
6EJ7	2.60	ECL80/6AB8	2.75
6ER5	2.40	ECL84/6DX8	2.85
6ES8	3.50	EF86/6267	2.50
6EU7	2.35	EF89/6DA6	2.55
6FY5	2.35	EF93/6BA6	2.00
6GK5	2.40	EF94/6AU6	2.05
6HG8	3.00	EF95/6AK5	3.25
6J6	2.55	EF183/6EH7	2.60
6J6A	2.55	EF184/6EJ7	2.60
6T8A	2.80	EK90/6BE6	2.10
7HG8	2.65	EL84/6BQ5	2.15
9A8	3.25	EL90/6AQ5	2.15
12AT7	2.55	EL95/6DL5	2.55
12AU7	2.20	HBC91/12AV6	1.95
12AU7A	2.20	PCF80/9A8	3.25
12AV6	1.95	PCF86/7HG8	2.65
12AX7	2.20	PL84/15CW5	2.50

Mullard

INDUSTRIAL TUBES

An extensive range of over 700 dependable Special Purpose Tubes for virtually every industrial application, including Cathode Ray Tubes, Image Converter Tubes, Photosensitive Devices, Counting Tubes, Indicator Tubes, Electrometer Tubes, Trigger Tubes, Voltage Reference Tubes, High Voltage Rectifiers, Thyratrons, Power Triodes and Tetrodes, Microwave Tubes, etc. Each tube reflects traditional MULLARD quality construction . . . for example . . .

Tube Type	Cross Reference	Sugg. Res. Price	Tube Type	Cross Reference	Sugg. Res. Price
AW17-20		$ 95.00	Z803U	6779	$ 4.50
BPY10		5.50	Z900T	5823	3.00
DH3-91	1CP1	14.50	OA2	150C4	1.26
DN13-78	5BHP2	73.00	OA2WA	M8223	3.70
DM160	6977	2.50	OB2	108C1	1.32
EIT	6370	16.50	OB2WA	M8224	6.50
E55L	8233	13.25	OC3		1.46
E80CC	6085	3.00	OD3		1.44
E80CF	7643	3.60	OE3	85A1	2.50
E80F	6084	3.00	OG3	85A2	2.30
E80L	6227	3.05	1CP1/1CP31	DH3-91	14.50
E81L	6686	4.10	2D21	EN91	1.29
E83F	6689	3.60	5BHP2	DN13-78	73.00
E88CC	6922	4.75	6D4	EN93	9.25
E88CC/01		6.00	6J4WA	M8248	5.60
E90CC	5920	2.40	12AT7WA	M8162	3.25
E91H	6687	1.30	58CG		7.00
E92CC		2.00	58CV		7.00
E180CC	7062	2.10	61SV		22.00
E180F	6688	6.80	75CL		5.70
E182CC	7119	2.95	83A1	7980	5.50
E810F	7788	10.50	85A1	OE3	2.50
EA52	6923	11.00	85A2	OG3	2.30
EA76	6489	5.40	90AG		15.00
EC70	6778	8.95	90AV		15.00
EC71	5718	8.10	90CG		6.50
EL360		7.95	90CV		6.50
EN32	6574	8.00	90C1		3.50
EN91	2D21	1.29	108C1	OB2	1.32
EN93	6D4	9.25	150B2	6354	2.55
ET51	6700	66.50	150B3		5.45
JP92.5	7028	135.00	150C4	OA2	1.26
M8079	6058	4.20	807	QV05-25	2.95
M8080	6C4WA	7.25	866A	RG3-250	2.65
	6100		5544	XR1-3200	32.50
M8081	6J6WA	5.35	5545	XR1-6400	29.30
	6101		5559	XG1-2500	23.00
M8082	6516	5.75	5718	EC71	8.10
M8083	6064	4.75	5725	M8196/ 6AS6W	8.50
M8091	6443	6.50	5727	M8204/ 2D21W	2.50
M8096	6062	7.60	5783WA	M8190/85A3	14.00
M8097		10.50	5802	ME1401/ 4065	14.40
M8098		7.50		Z900T	3.00
M8099		10.50	5823	TD03-10/ EL55	33.75
	6AK5W		5861	M8136/ 12AU7WA	10.00
M8100	6096	4.35	5886	ME1403/4068	21.50
	5654		5894	QQV06-40A	25.00
M8136	12AU7WA		5920	E90CC	2.40
	6189	10.00	6057	M8137	6.50
M8137	6057	6.50	6058	M8079	4.20
M8161	6065	5.85	6064	M8083	4.75
M8162	12AT7WA	3.25	6065	M8161	5.85
M8163		7.95	6076	QY5-3000A	305.00
M8190	5783WA	14.00	6079	QY5-500	60.00
M8195	185A3	6.00	6084	E80F	3.00
M8196	6AS6W/5725	8.50	6085	E80CC	3.00
M8204	2D21W/5727	2.50	6096/5654	M8100/ 6AK5W	4.35
M8206		7.50	6097/5726	M8212/ 6AL5W	1.90
M8207		12.00	6100	M8080/ 6C4WA	7.25
M8212/ 6AL5W	6097	1.90	6101	M8081/ 6J6WA	5.35
M8223	OA2WA	3.70	6146	QV06-20	4.35
M8224	OB2WA	6.50	6155	QY3-125	36.00
M8225		6.00	6156	QY4-250	46.50
M8248	6J4WA	5.60	6189	M8136/ 12AU7WA	10.00
ME1400		6.70	6211		2.35
ME1401/4065	5802	14.40	6227	E80L	3.05
ME1402/ 4066		29.50	6252	QQV03-20A	25.00
ME1403/ 4068	5886	21.50	6360	QQV03-10	5.15
ME1404/ 4069		13.85	6370	EIT	16.50
ORP10		88.00	6443	M8091	6.50
OCP71		5.50	6489	EA76	5.40
QQV02-6	6939	12.00	6516	M8082	5.75
QQV03-10	6360	5.15	6574	EN32	8.00
QQV03-20A	6252	25.00	6686	E81L	4.10
QQV06-40A	5894	25.00	6687	E91H	1.30
QV05-25	807	2.95	6688	E180F	6.80
QV06-20	6146	4.35	6689	E83F	3.60
QY3-125	6155	36.00	6700	ET51	66.50
QY4-250	6156	46.50	6778	EC70	8.95
QY5-500	6079	60.00	6779	Z803U	4.50
QY5-3000A	6076	305.00	6807	XR1-6400A	71.85
RG1-240A		12.50	6922	E88CC	4.75
RG3-200		15.65	6923	EA52	11.00
RG3-250	866A	2.65	6939	QQV02-6	12.00
RG3-1250		40.50	6977	DM160	2.50
RG4-1250		41.50	7028	JP9-2.5	135.00
TD03-5		45.00	7062	E180CC	2.10
TD03-10	5861	33.75	7119	E182CC	2.95
TD03-10E		39.50	7643	E80CF	3.60
XG1-2500	5559	23.00	7710	Z700U	1.50
XR1-3200	5544	32.50	7788	E810F	10.50
XR1-3200A	7981	71.85	7981	XR1-3200A	71.85
XR1-6400	5545	29.30	8233	E55L	13.25
XR16400A	6807	71.85			
Z502S		16.00			
Z700U	7710	1.50			

IEC *International Electronics Corporation* / *Melville, L. I., N. Y.*

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- COMPLETE SPECIFICATIONS ON OVER 75 TUBES
- DETAILED ILLUSTRATIONS
- COMPLETE PRICE SCHEDULE
- INCLUDES BASE DIAGRAMS

MARSHALL PRECISIONEERED TYPES

0A2WA	Voltage Regulator, Ruggedized
0A3/VR75	Voltage Regulator
0A3A	Voltage Regulator
0A3W	Voltage Regulator, Ruggedized
0B3/VR9D	Voltage Regulator
0B3A	Voltage Regulator
0B3W	Voltage Regulator, Ruggedized
0C3/VR105	Voltage Regulator
0C3A	Voltage Regulator
0C3W	Voltage Regulator, Ruggedized
0D3/VR150	Voltage Regulator
0D3A	Voltage Regulator
0D3W	Voltage Regulator
2B23	High Vacuum, Low Current Diode
3B28	Xenon Half Wave Rectifier
3C23	Argon, Mercury Vapor Thyratron
4B32	Half Wave Gas Rectifier
HF300	Triode Power Amplifier
323B	Grid Controlled Rectifier, Gas & Mercury
393A	Grid Controlled Rectifier
394A	Grid Controlled Rectifier, Gas & Mercury
811A	Triode Power Amplifier
812A	Triode Power Amplifier
ME811A	Triode Power Amplifier (Special)
ME812A	Triode Power Amplifier (Special)
816	Half Wave, Mercury Vapor Rectifier
826	Power Triode
826WA	Power Triode (Ruggedized)
836	Half Wave Rectifier
866A	Half Wave, Mercury Vapor Rectifier
866JR	Half Wave, Mercury Vapor Rectifier
872A	Half Wave Rectifier, Mercury Vapor
872AX	Ultra-Reliable Version of 872A
873	Grid Controlled Rectifier, Mercury Vapor
5557/FG17	Grid Controlled Rectifier, Mercury Vapor
5847/404A	Miniature Broad Band Pentode

LEWIS and KAUFMAN, Ltd. LONG LIFE TYPES

6901	Thyratron, Gas & Mercury Vapor
741C	Thyratron, Gas
8008	Rectifier, Mercury Vapor
3B24W	Half Wave High Vacuum Rectifier
3B24WA	Half Wave High Vacuum Rectifier, Ruggedized
3C24/24G	Medium MU Power Triode
4D21/4-125A	Beam Power Tetrode
4E27/8001	Power Pentode
4E27A/5-125B	Power Pentode
5D21	Pulse Amplifier Tetrode
25T	Medium MU Power Triode
100R	High Voltage Medium Current Rectifier
100TH	High MU Medium Power Triode
100TL	Low MU Medium Power Triode
250R	High Voltage Medium Current Rectifier
250TH	High Mu Power Triode
250TL	Low MU Power Triode
253	High Vacuum High Current Rectifier
254	Medium MU Triode
254W	Ultra-Reliable Version of 254
254WA	Ultra-Reliable Version of 254 (Ruggedized)
LK300	Triode Power Amplifier
543	High Vacuum High Voltage Rectifier, Ruggedized
705A	High Vacuum Half Wave Rectifier
705WA	High Vacuum Half Wave Rectifier, Ruggedized
715C	Pulse Amplifier Tetrode
719A	High Vacuum High Voltage Clipper Diode
LK811A	Triode Power Amplifier (Special)
LK812A	Triode Power Amplifier (Special)
3200	Transmitting Triode
8020	High Voltage Medium Current Rectifier
8020WB	High Voltage Med. Current Rectifier (Ruggedized)
UH50	Medium MU Power Triode

Specifications: Detailed data sheets are available on request. All types listed are manufactured to conform with applicable MIL-E-1 specifications.
Prices, Terms, Delivery & Transportation Information: Available at our plant. Most types are in stock. Large quantity discount price schedules are in effect.
Technical Assistance: The Marshall engineering staff is available for consultation in regard to application and/or developmental problems.
Marshall is a prime contractor for U.S. government agencies and all branches of the Armed Forces.

* REGISTERED U.S. PAT. OFF.

VOLTAGE REGULATOR ■ VOLTAGE REGULATOR RUGGEDIZED ■ ARGON MERCURY VAPOR THYRATRON ■ GRID CONTROLLED RECTIFIER, GAS AND MERCURY ■ MERCURY RECTIFIER ■ GAS MERCURY VAPOR THYRATRON ■ XENON HALF WAVE RECTIFIER ■ MERCURY VAPOR RECTIFIER ■ TRANSMITTING TYPES ■ PULSE MODULATORS

MARSHALL ELECTRONICS COMPANY

Manufacturers of Precisioneered Electron Tubes

AND

LEWIS and KAUFMAN, Ltd. *LOS GATOS BRAND ELECTRON TUBES

INDUSTRIAL, COMMUNICATIONS AND MILITARY TYPES

NEWARK, NEW JERSEY

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NATIONAL®

ELECTRONIC CONTROL DEVICES FOR INDUSTRY

Ignitrons, Rectifier Tubes, Thyratrons, Silicon Devices and Readout Tubes

IGNITRONS

Type Number	Maximum Demand	Net Selling Price	Type Number	Maximum Demand	Net Selling Price	Type Number	Maximum Demand	Net Selling Price
NL-1005A	600 Kva	$ 65.00	NL-1051A*	600 Kva	$ 65.00	NL-1081*	1000 Kva	$ 75.00
NL-1009A	1700 Kva	155.00	NL-1052A*	1200 Kva	99.00	NL-1082*	2000 Kva	107.00
NL-1011A	600 Kva	65.00	NL-1053A	3000 Kva	284.00	NL-1091*	1000 Kva	75.00
NL-1012A	1200 Kva	99.00	NL-1054A	4800 Kva	750.00	NL-1092*	2000 Kva	107.00
NL-1013A	2400 Kva	245.00	NL-1059	100K Amps	333.00	NL-5550	300 Kva	49.00
NL-1014A	4800 Kva	750.00	NL-1061*	600 Kva	65.00	NL-5553B*	2400 Kva	245.00
NL-1016A	1700 Kva	155.00	NL-1062*	1200 Kva	99.00	NL-5553BL	2400 Kva	245.00
NL-1022A	1200 Amps	116.00	NL-1063	3000 Kva	284.00	NL-5555	1200 Amps	316.00
NL-1036	35K Amps	98.00	NL-1064	4800 Kva	825.00	NL-5555A	1200 Amps	316.00
NL-1037	100K Amps	134.00	NL-1066*	2000 Amps	77.20	NL-7673*	2400 Kva	245.00
NL-1038	100K Amps	333.00	NL-1068*	1200 Amps	116.00	NL-7703	100K Amps	190.00
NL-1039	100K Amps	132.00	NL-1069	1700 Kva	155.00	NL-7703H	100K Amps	190.00

THYRATRONS

Type Number	DC Output Amperes	Net Selling Price	Type Number	DC Output Amperes	Net Selling Price	Type Number	DC Output Amperes	Net Selling Price
NL-C3J/L	2.5	$15.25	NL-710A/7725	2.5	$13.50	NL-5559/FG57	2.5	$23.00
NL-C3J/AL	2.5	16.00	NL-710AL	2.5	16.30	NL-5560/FG-95	2.5	33.00
NL-C3J/AL-Ne	2.5	18.40	NL-710L/7518	2.5	15.25	NL-5632/C3J	2.5	13.80
NL-3C23	1.5	11.98	NL-714	1	10.00	NL-5563A	1.6	50.00
NL-C6J†§	6.4	28.10	NL-716	1	12.50	NL-5665/C16J	18	52.50
NL-C6J/K†	6.4	28.30	NL-718	18	64.00	NL-5684/C3J/A	2.5	14.50
NL-C6J/K-Ne	6.4	32.50	NL-732	30	120.00	NL-5684-Ne	2.5	16.70
NL-KY21A	.75	26.75	NL-734/5544§	3.2	22.50	NL-5684A-Ne	2.5	17.90
FG-105	0.25	59.00	NL-740/6856†§	4	20.80	NL-6014/C1K	1	13.10
NL-632B	2.5	33.00	NL-760†§	6.4	28.10	NL-6989/C6J/KL	6.4	29.45
NL-678	1.6	49.00	NL-770L†	10.0	45.25	NL-6989-Ne	6.4	33.90
NL-710/6011	2.5	13.00	NL-5557/FG17/715	1	9.50	NL-7556A-Ne	2.5	19.60

FULL AND HALF WAVE RECTIFIERS

Type Number	DC Output Amperes	Net Selling Price	Type Number	DC Output Amperes	Net Selling Price	Type Number	DC Output Amperes	Net Selling Price
NL-RX21A	.75	$25.75	NL-623	15	$13.35	NL-869B/L	5	$138.00
NL-575A	2.5	20.15	NL-635/7019†§	6.4	13.00	NL-5558/FG32	2.5	17.50
NL-604§	2.5	11.80	NL-643	15	13.50	NL-6894	2.5	25.00
NL-606§	6.4	21.40	NL-649/5834	2	10.20	NL-6895	2.5	25.00
NL-610/7723	2.5	11.40	NL-660†§	6.4	13.00	NL-7723-Ne	2.5	13.10
NL-615	2.5	10.05	NL-664L†	10	26.00	NL-7786-Ne	6.4	15.50
NL-617	5	15.00	NL-673	2.5	20.15			
NL-619	6	10.00	NL-869B	5	138.00			

STUD MOUNTED SILICON CONTROLLED RECTIFIERS

11 Amp r. m. s.				16 Amp r. m. s.			35 Amp r. m. s.		
Type Number	V_{FOM}	PRV	Net Selling Price	Type Number	PRV	Net Selling Price	Type Number	PRV	Net Selling Price
NL-510-3	800V	100	$32.00	NL-2N1842	25	$ 7.75	NL-2N681	25	$ 8.65
NL-510-4	1000V	100	42.00	NL-2N1843	50	8.50	NL-2N682	50	9.40
NL-510-6	1200V	100	68.00	NL-2N1844	100	9.45	NL-2N683	100	10.50
NL-511-3	800V	800	38.00	NL-2N1845	150	11.50	NL-2N684	150	12.75
NL-511-4	1000V	1000	62.00	NL-2N1846	200	13.50	NL-2N685	200	15.00
NL-511-6	1200V	1200	93.00	NL-2N1847	250	16.15	NL-2N686	250	18.00
				NL-2N1848	300	18.75	NL-2N687	300	21.00
				NL-2N1849	400	23.65	NL-2N688	400	26.25
				NL-2N1850	500	27.00	NL-2N689	500	31.90
				NL-516M	600	30.00	NL-2N690	600	37.50
				NL-516S	700	32.25	NL-2N691	700	42.75
				NL-516N	800	36.00	NL-2N692	800	48.00

READOUT TUBES

Type Number	Character Size	Net Selling Price	Type Number	Character Size	Net Selling Price	Type Number	Character Size	Net Selling Price
NL-4021	0.3″	$33.00	NL-7009	0.3″	$19.00	NL-8421/5092	0.6″	$15.75
NL-4031	0.3″	33.00	NL-7094	2.0″	45.00	NL-8423/6091	0.8″	20.00
NL-5991	0.6″	16.75	NL-7153	0.8″	14.50	NL-50911	0.6″	15.75
NL-5992	0.6″	16.75	NL-7977/4032	0.3″	33.00			
NL-6844A	0.6″	11.00	NL-8091	1.375″	30.00			

WRITE FOR INDIVIDUAL DATA SHEETS FOR DETAILED RATINGS

NOTES: * Plastic coated version available, indicated by the addition of the suffix letter P.
† Available with bracket base for panel mounting, designated by the addition of suffix letter P.
§ Available with lug base, designated by the addition of suffix letter L.

NATIONAL ELECTRONICS INC.

GENEVA • ILLINOIS • U.S.A.

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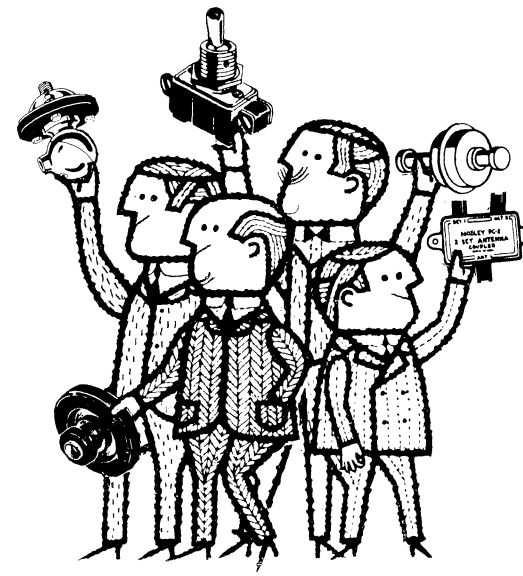

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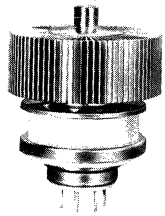
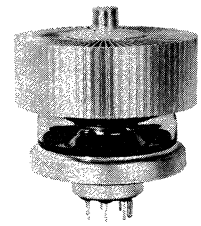
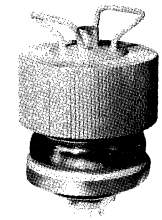
PL-6775



PL-8432



PL-8295/PL-172



PL-195

PL-175A

PENTA POWER TUBES

Beam Pentodes • Tetrodes • Triodes • Vacuum Switches

Proven reliability, long life, and high efficiency are the resultant effects of "extra care" production and test methods employed by Penta in the manufacture of power tubes. Enjoy all of the benefits that hundreds of power tube users and equipment manufacturers receive by specifying Penta Power Tubes.

POWER TUBES

Type	Fil. Volt.	Fil. Current Amps.	Plate Diss. Max. W.	Plate Volt. Max.	Plate Current Ma., Max.	Screen Voltage Max.	Price
BEAM PENTODES							
PL-4E27A	5.0	7.5	125	4,000	200	750	$ 45.00
PL-172 (See PL-8295/PL-172)							
PL-175A	5.0	14.5	400	4,000	350	800	$ 50.00
PL-177A	6.0	3.2	75	2,000	175	600	$ 29.00
PL-177WA	6.0	3.2	75	2,000	175	600	$ 33.50
PL-195	6.0	17.0	4000	5,000	2000	1000	$350.00
PL-210	6.0	85.0	5000	7,500	2500	1500	$475.00
PL-6549	6.0	3.2	75	2,000	175	600	$ 29.00
PL-8295/PL-172	6.0	8.2	1000	3,000	1000	600	$142.00
PL-8295A	6.0	8.2	1000	3,000	1000	600	$152.00
PL-8432	6.0	8.2	1000	3,000	1000	600	$152.00
PL-8576/PL-264	6.0	17.0	3000	5,000	2000	1000	$370.00
POWER TETRODES							
PL-4-65A (See PL-8165/4-65A)							
PL-4-125A (See PL-4D21 (4-125A))							
PL-4-250A (See PL-5D22 (4-250A))							
PL-4-400A (See PL-8438/4-400A)							
PL-4-1000 (See PL-8166/4-1000A)							
PL-4D21 (4-125A)	5.0	6.5	125	3,000	225	600	$ 36.00
PL-4D21A	5.0	6.5	175	3,000	225	600	$ 37.50
PL-4X500A	5.0	13.5	500	4,000	350	500	$125.00
PL-5D22 (4-250A)	5.0	14.5	250	4,000	350	800	$ 46.50
PL-6775	5.0	14.5	400	4,000	350	800	$ 50.00
PL-8165/4-65A	6.0	3.5	65	2,000	150	600	$ 27.00
PL-8166/4-1000A	7.5	21.0	1000	6,000	700	1000	$132.00
PL-8438/4-400A	5.0	14.5	400	4,000	350	800	$ 48.00
PULSE TETRODES							
PL-8187/4PR65A	6.0	3.5	65	15,000	1a. pk.	2,000	$ 43.00
PL-8188/4PR400A	5.0	14.5	400	20,000	4a. pk.	2,500	$ 64.00

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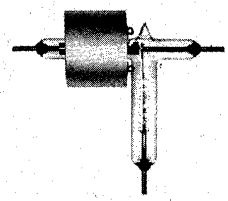
POWER TUBES Cont'd

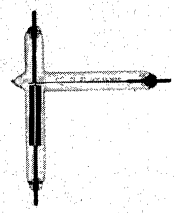
	Fil. Volt.	Fil. Current Amps.	Plate Diss. Max. W.	Plate Volt. Max.	Plate Current Ma., Max.	μ	Price
POWER TRIODES							
PL-254W	5.0	7.5	100	4,000	225	25	$ 25.00
PL-6569	5.0	14.5	250	4,000	300	45	$ 37.50
PL-6580	5.0	14.5	400	4,000	350	45	$ 45.00
HIGH-VOLTAGE RECTIFIER							
PL-250R	5.0	10.5	....	60,000	250	....	$ 36.00

PL-177A

VACUUM SWITCHES

Type	Voltage, Maximum	Current Max. Ampere AC or DC	Current Max. Ampere Pulse	Coil	Price
PL-R1	21,000	6	150	Not supplied; requires 1100 ampere-turns	$33.00
PL-169A	21,000	30	500	Not supplied; requires 1900 ampere-turns	$40.00
PL-186	21,000	6	—	Not supplied; requires 1000 ampere-turns	$38.00
PL 187	21,000	30	500	Integral; 28 V, 500 Ma., D-C	$58.00
PL-190	21,000	6	150	Integral; 28 V, 250 Ma., D-C	$58.00
PL-191	21,000	6	—	Not supplied; requires 1000 ampere-turns	$28.00



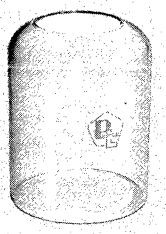


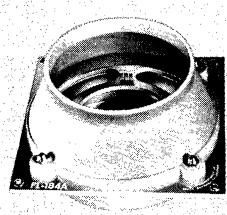
Penta vacuum switches are single-pole, double-throw switches enclosed in evacuated glass envelopes. They are ideal for use wherever compact, fast-acting relays are required to switch high-voltage circuits under a wide range of ambient atmospheric conditions, including explosive atmospheres, and in other applications where exposed-contact relays would be unsuitable.

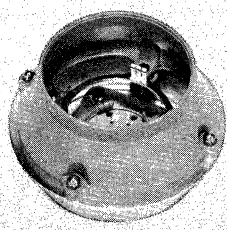
These vacuum switches are operated by external actuating coils, which are excited by direct current and designed so that the soft-iron pole piece and the armature assembly enclosed in the envelope act to complete the magnetic circuit.

ACCESSORIES

Type	Description	Price
PL-C1	Glass chimney for PL-8438/4-400A, PL-175A, PL-6580, PL-6775.	$ 6.50
PL-C184	Plastic chimney, only for PL-8295/172 and PL-8295A. Same chimney as used on PL-184 and PL-184A sockets (see below).	$ 5.00
PL-C205	Chimney only (for PL-195 and PL-210). Same chimney as used on PL-205A and PL-261A sockets (see below).	$12.00
PL-C209	Chimney only (for PL-8432). Same chimney as used on PL-209A socket (see below).	$ 6.50
PL-C265	Chimney only (for PL-8576/PL-264). Same chimney as used on PL-265A socket (see below).	$12.00
PL-184	Socket for PL-8295/172 and PL-8295A, including the chimney; built-in screen-grid and suppressor-grid by-pass capacitors. Includes contact provisions for all base pins and screen-grid and suppressor-grid ring terminals. Provides proper air distribution for correct tube cooling at full plate dissipation rating.	$53.00
PL-184A	Socket for PL-8295/172 and PL-8295A, including the chimney. Same as socket PL-184 (above), except that suppressor-grid contacts are grounded.	$48.00
PL-205A	Socket for PL-195. Includes chimney, built-in screen-grid by-pass capacitors. Suppressor-grid contacts grounded. Provides proper distribution of air for correct cooling of tube at full plate dissipation.	$60.00
PL-209A	Socket for PL-8432. Includes chimney, screen-grid by-pass capacitors. Suppressor-grid contacts grounded. Distributes air for adequate cooling at full rated plate dissipation.	$48.00
PL-261A	Socket for PL-210. Same features as PL-205A socket (above), similar in appearance.	$60.00
PL-265A	Socket for PL-8576/PL-264. Includes chimney, screen-grid by-pass capacitors. Provides for correct distribution of air for proper tube cooling at full rated plate dissipation.	$48.00







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RCA ELECTRON TUBES

ENTERTAINMENT RECEIVING TYPES

PRICE SCHEDULE • JULY 1964

RCA Type	List Price*
0Z4	$2.40
0Z4A	2.15
0Z4G	2.60
1A3	6.55
1A5GT	4.25
1A7GT	5.75
1AX2	3.05
1B3GT	2.90
1C5GT	5.30
1DN5	3.65
1G3GT/ 1B3GT	2.90
1H5GT	4.15
1J3	2.90
1K3	2.90
1L4 (see industrial type)	
1L6	6.80
1LA6	6.20
1LB4	8.65
1LC6	8.30
1LD5	8.40
1LE3	7.00
1LG5	6.80
1LH4	8.05
1LN5	8.15
1N2A	4.65
1N5GT	5.20
1R5	3.05
1S4	4.35
1S5	2.90
1T4	2.90
1U4	2.90
1U5	2.65
1V	5.85
1V2	2.10
1X2A; B	ea. 3.05
2A3	10.50
2AF4B	4.05
2BN4A	2.55
2CW4	4.45
2CY5	3.05
2DS4	4.45
2EN5	3.40
2ER5	3.50
2FH5	3.05
2GK5	4.05
2GU5	4.35
3A2	4.85
3A3	3.40
3AF4A	4.05
3AL5	2.05
3AU6	2.35
3AV6	1.90
3B2	9.85
3BA6	2.50
3BC5	2.35
3BE6	2.25
3BN4A	3.05
3BN6	3.85
3BU8	3.10
3BY6	2.60
3BZ6	2.30
3CA3	3.40
3CB6	2.30
3CE5	2.35
3CF6	2.70
3CS6	2.45
3CY5	3.05
3DG4	3.40
3DK6	2.40
3DT6A	2.20
3EA5	2.85
3ER5	3.50
3GK5	4.05
3GS8/ 3BU8	3.10
3LF4	6.40
3Q4	3.55
3Q5GT	5.65
3S4	3.20
3V4	2.50
4AU6	2.35
4AV6	1.85
4BC5	2.35
4BC8	4.05
4BL8	2.55
4BN6	3.85
4BQ7A	4.20
4BS8	3.85
4BU8	3.10
4BZ6	2.25
4BZ7	4.05
4CB6	2.30
4CS6	2.35
4CY5	2.85
4DE6	2.65
4DK6	2.40
4DT6A	2.25
4EH7,4EJ7	ea. 3.80
4ES8	4.60
4EW6	2.65
4GS8/ 4BU8	3.10
4HT6	2.40
5AM8	3.55
5AN8	4.00
5AQ5	2.20
5AS4A	2.65
5AS8	4.15
5AT8	$3.65
5AU4	3.40
5AV8	4.05
5AW4	2.80
5AZ4	5.65
5B8	5.30
5BC3	2.30
5BE8	3.30
5BK7A	3.40
5BQ7A	4.05
5BR8	3.65
5BT8	3.30
5BW8	3.40
5CG8	3.35
5CL8A	3.35
5CM8	3.80
5CQ8	3.95
5CZ5	4.35
5DH8	5.10
5DJ4	2.65
5EA8	3.15
5EU8	3.35
5EW6	2.65
5FG7	2.75
5FV8	3.15
5GH8	3.95
5GM6	2.65
5GX6	2.35
5J6	2.85
5T4	12.10
5T8	3.40
5U4G;GB	ea. 2.10
5U8	3.30
5V3A	3.85
5V4GA	3.50
5V6GT	2.40
5X4G	3.35
5X8	3.45
5Y3GT	1.75
5Y4GA	2.60
5Y4GT	2.65
5Z3	3.30
5Z4	8.35
6A7	8.50
6A8	6.85
6A8G*	8.60
6A8GT	8.60
6AB4	2.15
6AB5/ 6N5	8.05
6AB7	8.25
6AC5GT	6.25
6AC7	5.10
6AD7G	9.40
6AF3	2.90
6AF4	4.00
6AF4A	4.00
6AF6G	6.20
6AG5	2.75
6AG7	6.20
6AH4GT	3.45
6AH6	4.70
6AK5	4.40
6AK6	(see industrial type)
6AL3	2.75
6AL5	1.85
6AL7GT	5.75
6AM4	5.90
6AM8A	3.45
6AN4	6.55
6AN8A	4.00
6AQ5A	2.15
6AQ6	2.60
6AQ7GT	4.00
6AQ8	3.15
6AR5	2.65
6AS5	2.40
6AS8	3.80
6AT6	1.90
6AT8A	3.80
6AU4GTA	3.60
6AU5GT	4.30
6AU6A	2.10
6AU8A	3.50
6AV5GA	4.20
6AV6	1.65
6AW8A	3.70
6AX3	2.70
6AX4GT;B	ea. 2.65
6AX5GT	3.10
6AX8	3.70
6AY3	2.75
6AZ8	5.55
6B8	7.30
6BA3	2.75
6BA6	2.00
6BA7	5.95
6BA8A	3.85
6BC4	5.35
6BC5	2.55
6BC7	3.80
6BC8	4.00
6BD6	2.45
6BE6	2.20
6BF5	3.55
6BF6	1.80
6BG6G	6.80
6BH3	2.95
6BH6	2.70
6BH8	$3.65
6BJ6	2.60
6BJ7	3.15
6BJ8	3.50
6BK4	8.00
6BK5	3.70
6BK7B	3.40
6BL7GTA	3.95
6BL8	3.95
6BM8/ECL82	3.05
6BN4A	2.50
6BN6	3.20
6BN8	3.05
6BQ5	2.40
6BQ6GTB/ 6CU6	4.35
6BQ7A	3.95
6BR8A	3.65
6BS8	3.75
6BU8	2.80
6BV8	3.15
6BW4	2.90
6BW8	3.50
6BX7GT	4.35
6BY5GA	5.10
6BY6	2.50
6BY8	2.65
6BZ6	2.25
6BZ7	4.00
6BZ8	4.45
6C4	1.85
6C5	4.25
6C6	8.30
6C8G	8.55
6CA4	2.10
6CA5	3.15
6CB5A	8.25
6CB6A	2.25
6CD6GA	5.80
6CE5	2.35
6CF6	2.55
6CG7	2.45
6CG8A	3.30
6CH8	5.20
6CK4	3.00
6CL6	3.75
6CL8A	3.15
6CM6	3.30
6CM7	2.90
6CM8	4.25
6CN7	2.90
6CQ4	3.00
6CQ8	3.50
6CR6	2.40
6CS6	2.35
6CS7	2.95
6CU5	2.35
6CU6 (See 6BQ6GTB/ 6CU6)	
6CU8	4.15
6CW4	4.45
6CX8	3.85
6CY5	2.85
6CY7	3.20
6CZ5	4.10
6D6	7.80
6DA4	2.70
6DB5	5.30
6DC6	3.40
6DC8	3.20
6DE4	2.85
6DE6	2.55
6DE7	3.40
6DG6GT	2.55
6DK6	2.35
6DN6	7.45
6DN7	3.50
6DQ5	8.35
6DQ6A*	4.15
6DQ6B	4.15
6DR7	3.40
6DS4	4.45
6DS5	3.20
6DT5	3.25
6DT6A	2.15
6DT8	3.80
6DW4	3.70
6DW5	4.05
6DX8	3.10
6DZ7	8.45
6E5	4.90
6EA5	3.80
6EA7	3.80
6EA8	3.20
6EB8	4.00
6EH5	2.90
6EH7	3.80
6EH8	3.15
6EJ7	3.80
6EM5	3.40
6EM7	5.10
6EQ7	2.90
6ER5	3.50
6ES5	3.05
6ES8	5.80
6EU7	2.70
6EU8	3.30
6EV5	3.00
6EV7	2.50
6EW6	$2.50
6EW7	3.90
6EX6	7.25
6EY6	3.40
6EZ5	3.60
6EZ8	3.80
6F5	4.60
6F6;6F6G	5.85
6F6GT	5.85
6F7	11.70
6F8G	8.95
6FA7	2.90
6FD7	5.05
6FG6 (See EM84/6FG6)	
6FG7	2.90
6FH5	2.55
6FH8	3.65
6FM8	3.00
6FQ5A	4.05
6FQ7	2.30
6FS5	3.05
6FV6	3.55
6FV8	3.15
6FW5	4.10
6FW8*	9.20
6G6G	7.20
6GB5	3.95
6GC5	3.20
6GH8	3.15
6GJ5	4.55
6GK5	4.05
6GK6	2.75
6GM5	3.20
6GM6	2.40
6GN8	3.70
6GT5	4.20
6GV8	3.30
6GW6	4.15
6GW8/ECL86	3.20
6GX6;Y6	ea. 2.30
6GY8	3.80
6GZ5	2.90
6H6	4.00
6HB6	3.10
6HB7	3.20
6HF8	3.95
6HG5	2.15
6HJ8	3.30
6HM5/6HA5	4.05
6HS6	2.50
6HS8	3.20
6HZ8	4.50
6J5;GT	ea. 3.65
6J6A	2.80
6J7;GT	4.95
6JC8	3.05
6JG6	6.05
6JH8	4.35
6JT6	5.10
6JU8	2.95
6K6GT	2.65
6K7;GT	4.95
6K8	7.50
6K11	3.85
6KA8	3.80
6KU8	5.10
6KY8	7.70
6KZ8	2.75
6L6	8.60
6L6GC	4.20
6L7	7.35
6LF8	3.70
6N5 (See 6AB5/6N5)	
6N7	5.00
6N7GT	5.00
6Q7	5.30
6Q7GT	5.65
6R7	5.45
6S4A	2.45
6S7	7.20
6S8GT	4.40
6SA7	4.30
6SA7GT	4.30
6SB7Y	6.30
6SC7	4.20
6SF5	3.70
6SF5GT	3.20
6SF7	6.25
6SG7	4.60
6SH7	4.45
6SJ7	4.15
6SJ7GT	4.15
6SK7	3.95
6SK7GT	3.95
6SL7GT	3.50
6SN7GTB	2.60
6SQ7	3.75
6SQ7GT	3.80
6SR7	3.90
6SS7	5.50
6T4	5.45
6T8A	3.40
6U5	5.55
6U8A	3.30
6U10	3.85
6V3A	4.55
6V6	6.75
6V6GTA	2.20
6W4GT	$2.40
6W6GT	2.85
6X4	1.65
6X5GT	2.10
6X8	3.15
6Y6G	4.30
6Y6GA	4.30
6Z4 (See 84/6Z4)	
7A4	7.50
7A5	6.00
7A6	7.40
7A7	7.55
7A8	8.25
7AF7	6.60
7AG7	8.40
7AH7	6.40
7AU7	2.60
7B4	7.20
7B5	8.85
7B6	5.60
7B7	8.10
7B8	5.95
7C5	3.50
7C6	7.75
7C7	3.60
7E7	6.70
7EY6	3.15
7F7	7.95
7F8	8.75
7G7	6.40
7H7	6.40
7J7	7.25
7K7	8.60
7N7	7.55
7Q7	6.20
7R7	6.65
7V7	4.90
7W7	7.00
7X7	8.10
7Y4	7.15
7Z4	6.90
8AU8	4.05
8AW8A	3.70
8BA8A	3.65
8BH8	3.55
8BN8	3.25
8BQ5	2.90
8CG7	2.50
8CM7	2.90
8CN7	2.80
8CW5	2.95
8CX8	3.90
8EB5	3.75
8EM5	3.45
8ET7	4.40
8FQ7	2.75
8GN8	3.75
8KA8	3.85
9A8	3.95
9AU7	2.80
9BR7	3.35
9CL8	3.15
9U8A	3.55
10C8	4.25
10DE7	3.40
10DR7	4.20
10EG7	4.60
10EM7	4.75
10HF8	4.65
11CY7	3.25
12A8GT	8.85
12AB5	3.50
12AC6	2.20
12AD6	2.40
12AE6A	2.05
12AE7	3.75
12AF3	2.90
12AF6	2.75
12AH7GT	5.55
12AJ6	2.55
12AL5	1.90
12AL8	6.55
12AQ5	2.60
12AT6	1.85
12AT7	3.05
12AU6	2.15
12AU7A	2.45
12AV5GA	3.85
12AV6	1.65
12AV7	3.55
12AW6	3.30
12AX4GTA*	2.70
12AX4GTB	2.70
12AX7; 7A	ea. 2.55
12AY3	2.80
12AY7	4.75
12AZ7A	3.05
12B4A	2.70
12BA6	1.65
12BA7	5.95
12BD6	2.45
12BE6	1.75
12BF6	2.20
12BH7A	3.05
12BK5	4.00
12BL6	2.65
12BQ6GTB/ 12CU6	4.45
12BR7	3.20
12BT3	$2.90
12BV7	3.50
12BW4	2.90
12BY7A	3.05
12BZ6	2.25
12BZ7	4.40
12C5 (See 12CU5/12C5)	
12C8	9.70
12CA5	2.85
12CN5	3.45
12CR6	2.65
12CT8	4.25
12CU5/ 12C5	2.45
12CU6 (See 12BQ6GTB/ 12CU6)	
12CX6	2.90
12D4	2.75
12DB5	2.75
12DE8	3.30
12DK6	2.40
12DK7	2.95
12DL8	5.80
12DQ6A*	4.20
12DQ6B	4.20
12DQ7	3.45
12DS7	3.95
12DT5	3.05
12DT8	3.80
12DU7	4.05
12DV8	3.55
12DW7	3.25
12DY8	4.60
12DZ6	2.55
12EA6	2.65
12EC8	3.60
12ED5	2.85
12EG6	3.20
12EH5	2.90
12EK6	2.90
12EL6	2.00
12EN6	3.05
12EQ7	2.90
12F8	2.75
12FK6	2.10
12FM6	2.00
12FQ8	3.20
12FR8	4.80
12FV7	3.65
12FX8	3.80
12GA6	2.55
12GC6	4.20
12GJ5	4.60
12GT5	4.25
12H6	3.95
12J5GT	4.35
12J7GT	7.40
12J8	4.60
12JT6	5.10
12K5	3.35
12K7GT	7.00
12K8	8.70
12L6GT	2.75
12Q7GT	5.80
12R5	3.10
12SA7	4.30
12SA7GT	4.30
12SC7	5.50
12SF5	4.10
12SF7	6.60
12SG7	4.65
12SH7	5.75
12SJ7	4.20
12SK7	3.95
12SK7GT	3.95
12SL7GT	3.75
12SN7GTA	2.70
12SQ7	3.75
12SQ7GT	3.75
12SR7	5.45
12U7	2.65
12V6GT	2.40
12W6GT	3.00
12X4	1.90
13DE7	3.40
13DR7	3.40
13EM7	4.75
13FD7	5.35
14A7	5.90
14AF7	6.05
14B6	5.60
14C7	6.60
14F7	8.95
14F8	6.70
14GT8	3.20
14Q7	6.20
14R7	7.20
15HB6	3.30
16GK6	2.80
17AX4GT	2.70
17AY3	2.80
17BH3	3.05
17BQ6GTB	5.55
17C9	6.15
17D4	2.75
17DE4; M4	ea. 3.40
17DQ6A (2/62)	4.25
17DQ6B	$4.20
17GJ5	4.60
17GT5	4.25
17GW6	4.25
17H3	2.50
17JG6	6.10
18A5	4.15
18FW6	2.15
18FX6	2.15
18FY6	1.65
18GD6A	2.15
19AU4	3.50
19AU4GTA	3.45
19BG6GA	6.50
19CL8A	3.50
19EA8	3.40
19HS6	2.55
19J6	3.95
19T8	3.50
19X8	4.35
20EZ7	3.65
22BH3	3.05
22DE4	3.10
24A	6.60
25AV5GA	4.25
25AX4GT	2.90
25BK5	3.65
25BQ6GTB/ 25CU6	4.65
25C5	2.15
25CA5	3.10
25CD6GB	5.85
25CU6 (See 25BQ6GTB/ 25CU6)	
25DN6	6.80
25EC6	5.70
25EH5	2.30
25L6	8.85
25L6GT	2.65
25W4GT	2.70
25Z5	4.60
25Z6GT	3.05
27	5.40
32ET5	2.20
33GY7	6.40
34GD5	2.10
34GD5A	2.10
35A5	6.00
35B5	3.40
35C5	2.15
35DZ8	3.45
35EH5	2.30
35GL6	2.50
35L6GT	2.40
35W4	1.10
35Y4	4.80
35Z3	5.00
35Z4GT	2.70
35Z5GT	1.85
36AM3A	1.60
41	5.80
42	5.15
43	7.60
47	9.15
50A5	6.25
50B5	2.95
50C5	2.15
50DC4	1.90
50EH5	2.30
50FE5	3.65
50FK5	2.30
50L6GT	2.55
50X6	6.20
50Y6GT	4.60
50Y7GT	4.50
60FX5	2.50
70L7GT	10.15
75	6.80
78	7.20
80	4.20
84/6Z4	3.65
117L7GT/ 117M7GT	10.15
117M7GT (See 117L7GT/ 117M7GT)	
117N7GT	13.60
117P7GT	13.60
117Z3	4.35
117Z6GT	7.10
5879	3.75
5881	6.40
6973	4.50
7025	2.95
7027A	6.60
7189	2.85
7199	3.70
7247	3.05
7408	2.15
7543	3.10
7591	2.95
7695	4.40
7868	3.30
EM84/6FG6	3.25

*Optional. Prices include Federal Excise tax where applicable. All prices subject to change or withdrawal without notice.

Trade Discount Applies To List Prices Only

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RCA PICTURE TUBES

June 1, 1964

RCA SILVERAMA
Black & White Picture Tubes

All materials and parts used in the manufacture of RCA Silverama Picture Tubes are new except for the envelope which, prior to re-use, was carefully inspected to meet the standards of the original new envelope.

RCA COLORAMA
Color Picture Tubes

RCA Colorama Picture Tubes contain used materials which, prior to re-use, are carefully inspected to meet RCA's high quality standards.

RCA SILVERAMA BLACK & WHITE
LIST PRICE* SCHEDULE —

RCA TYPE	OPTIONAL LIST PRICE
5TP4	$87.00
7JP4	34.75
8DP4	37.50
9QP4A	44.75
10BP4A	43.00
10BP4C	use 10FP4A
10BP4D	use 10FP4A
10CP4	use 10FP4A
10EP4	use 10BP4A
10FP4A	45.75
12JP4	use 12KP4A
12KP4A	44.75
12LP4A	use 12KP4A
12LP4C	use 12KP4A
12QP4	use 12KP4A
12QP4A	use 12KP4A
12TP4	use 12KP4A
12ZP4	use 12KP4A
12ZP4A	use 12KP4A
14ATP4	42.00
14BP4	use 14EP4
14BP4A	use 14EP4
14CP4	use 14EP4
14CP4A	use 14EP4
14DP4	use 14EP4
14EP4	42.00
14HP4	use 14QP4B
14NP4	use 14WP4
14NP4A	use 14WP4
14QP4A	use 14QP4B
14QP4B	44.00
14RP4	use 14WP4
14RP4A	use 14WP4
14SP4	use 14WP4
14WP4	46.75
14ZP4	use 14WP4
16AP4A	41.25
16AYP4	45.75
16CP4	use 16LP4A
16DP4A	28.75
16GP4B	40.50
16KP4	use 16RP4A
16KP4A	use 16RP4A
16LP4A	32.50
16QP4	use 16RP4A
16RP4A	44.00
16SP4A	use 16WP4A
16TP4	44.00
16UP4	use 16RP4A
16VP4	use 16WP4A
16WP4A	47.75
16XP4	use 16RP4A
16YP4	use 16WP4A
16ZP4	use 16LP4A
17AP4	use 17BP4D
17ATP4	use 17BJP4
17ATP4A	use 17BJP4
17AVP4	use 17BJP4
17AVP4A	use 17BJP4
17BP4B	use 17BP4D
17BP4D	37.25
17BJP4	40.00
17BRP4	use 17DSP4
17BUP4	use 17BJP4
17BVP4	use 17CSP4
17BWP4	use 17CSP4
17BZP4	use 17DSP4
17CP4	40.00
17CAP4	use 17DSP4
17CBP4	use 17BJP4
17CDP4	55.50
17CFP4	40.00
17CKP4	use 17DSP4
17CLP4	use 17BJP4
17CSP4	44.75
17CWP4	use 17DSP4
17CYP4	50.75
17DAP4	53.25
17DKP4	44.75
17DLP4	use 17DSP4
17DQP4	44.00
17DRP4	52.50
17DSP4	44.00
17DTP4	use 17DKP4
17DXP4	44.00
17DZP4	use 17DXP4
17GP4	44.00
17HP4B	use 17HP4C
17HP4C	37.25
17JP4	use 17BP4D
17LP4A	use 17LP4B
17LP4B	36.25
17QP4A	use 17QP4B
17QP4B	37.25
17RP4	use 17HP4C
17RP4C	use 17HP4C
17TP4	31.50
17UP4	use 17QP4B
17VP4	use 17LP4B
17VP4B	use 17LP4B
17YP4	use 17QP4B
19AP4B	55.25
19ABP4	55.25
19AFP4	use 19AUP4
19AHP4	49.50
19ACP4	use 19CHP4
19AJP4	49.50
19AUP4	59.25
19AVP4	49.50
19AXP4	use 19AYP4
19AYP4	49.50
19BDP4	49.50
19BLP4	use 19AVP4
19BTP4	49.50
19BVP4	use 19AVP4
19BWP4	use 19AYP4
19CFP4	use 19CHP4
19CHP4	49.50
19CKP4	use 19CHP4
19CMP4	49.50
19DQP4	53.50
19DWP4	use 19DQP4
19XP4	use 19AVP4
19YP4	use 19BTP4
19ZP4	use 19AVP4
20CP4	use 20DP4D
20CP4A	use 20DP4D
20CP4B	use 20DP4D
20CP4C	use 20DP4D
20CP4D	use 20DP4D
20DP4C	use 20DP4D
20DP4D	51.50
20HP4D	use 20HP4E
20HP4E	51.50
20LP4	use 20HP4E
20MP4	use 20HP4E
21AP4	64.75
21ACP4	use 21AMP4B
21ACP4A	use 21AMP4B
21AFP4	use 21YP4B
21ALP4	use 21CBP4A
21ALP4A	use 21CBP4A
21ALP4B	use 21CBP4A
21AMP4A	use 21AMP4B
21AMP4B	40.00
21ANP4	use 21CBP4A
21ANP4A	use 21CBP4A
21AQP4	use 21AMP4B
21AQP4A	use 21AMP4B
21ASP4	use 21XP4A
21ATP4	use 21CBP4A
21ATP4A	use 21CBP4A
21ATP4B	use 21CBP4A
21AUP4	use 21AVP4C
21AUP4A	use 21AVP4C
21AUP4B	use 21AVP4C
21AVP4B	use 21AVP4C
21AVP4C	45.75
21AWP4	use 21AWP4A
21AWP4A	45.75
21AYP4	use 21XP4A
21BAP4	use 21CBP4A
21BNP4	use 21CBP4A
21BSP4	use 21AMP4B
21BTP4	use 21CBP4A
21CBP4A	40.00
21CEP4	use 21DFP4
21CEP4A	use 21DFP4
21CMP4	use 21CBP4A
21CQP4	51.50
21CUP4	use 21AMP4B
21CVP4	use 21CBP4A
21CWP4	use 21CBP4A
21CXP4	use 21DSP4
21CZP4	use 21DEP4A
21DAP4	use 21DEP4A
21DEP4A	51.50
21DFP4	51.50
21DHP4	48.25
21DLP4	45.75
21DMP4	use 21FAP4
21DNP4	use 21CBP4A
21DQP4	use 21DLP4
21DSP4	45.75
21EP4B	use 21EP4C
21EP4C	45.75
21EAP4	use 21FDP4
21EMP4	use 21EQP4
21EQP4	51.50
21ESP4	use 21FAP4
21EVP4	62.00
21FP4C	use 21FP4D
21FP4D	45.75
21FAP4	51.50
21FDP4	62.00
21FLP4	use 21CBP4A
21MP4	67.75
21WP4A	47.25
21XP4A	47.25
21YP4A	use 21YP4B
21YP4B	39.25
21ZP4B	use 21ZP4C
21ZP4C	39.25
23AFP4	use 23YP4
23AHP4	61.00
23ALP4	61.00
23ANP4	use 23BLP4
23ASP4	61.00
23ATP4	use 23BLP4
23AUP4	use 23AHP4
23AVP4	use 23CP4
23AWP4	use 23BJP4
23BDP4	use 23YP4
23BGP4	68.75
23BHP4	use 23BGP4
23BJP4	61.00
23BKP4	use 23BLP4
23BLP4	70.50
23BNP4	use 23CP4
23BQP4	use 23CBP4
23BTP4	23YP4
23BVP4	use 23YP4
23CP4	68.75
23CBP4	70.50
23CQP4	61.00
23DAP4	64.75
23DBP4	61.00
23DLP4	use 23ENP4
23EP4	68.75
23ENP4	63.00
23FBP4	66.75
23FP4A	61.00
23GP4	use 23CP4
23HP4	use 23CP4
23JP4	68.75
23KP4	use 23FP4A
23KP4A	use 23FP4A
23MP4	use 23FP4A
23MP4A	use 23FP4A
23NP4	61.00
23UP4	use 23CBP4
23WP4	use 23FP4A
23XP4	use 23YP4
23YP4	68.75
24ADP4	use 24CP4B
24AEP4	67.25
24AHP4	71.75
24ALP4	use 24AHP4
24ANP4	use 24AEP4
24ATP4	84.75
24AUP4	67.25
24AVP4	use 24BEP4
24BAP4	90.75
24BEP4	84.75
24CP4A	use 24CP4B
24CP4B	67.25
24DP4	use 24AEP4
24DP4A	use 24AEP4
24QP4	use 24CP4B
24TP4	use 24CP4B
24VP4	use 24CP4B
24VP4A	use 24CP4B
24XP4	use 24CP4B
24YP4	use 24AEP4
24ZP4	use 24AEP4
27EP4	use 27RP4A
27GP4	use 27RP4A
27MP4	114.25
27NP4	use 27RP4A
27RP4	use 27RP4A
27RP4A	111.50

RCA COLORAMA PICTURE TUBES
LIST PRICE* SCHEDULE —

RCA TYPE	OPTIONAL LIST PRICE
15GP22	Price on Request
21AXP22	use 21AXP22A
21AXP22A	130.00
21CYP22	use 21CYP22A
21CYP22A	$120.00
21FBP22	130.00
21FJP22	147.00
21FKP22	use 21FJP22

*Optional. Prices include Federal Excise tax where applicable. All prices subject to change or withdrawal without notice.

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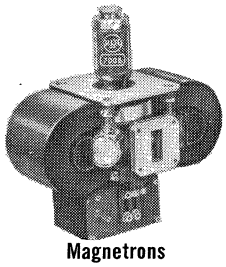
RCA ELECTRON TUBES
FOR INDUSTRY AND COMMUNICATIONS

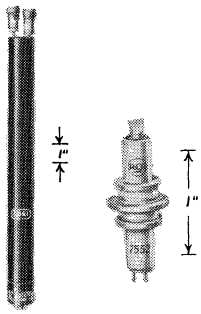
RESALE PRICE SCHEDULE • AUGUST 1, 1964

POWER/MICROWAVE/PHOTOSENSITIVE/CAMERA/DISPLAY/INDUSTRIAL RECEIVING

MICROWAVE DEVICES

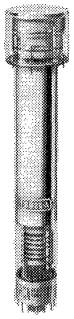


Magnetrons



Traveling Wave — Pencil

CAMERA & DISPLAY



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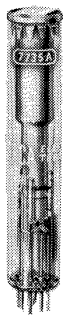

Vidicons

RCA POWER TUBES

RCA VACUUM POWER TUBES FOR CW APPLICATIONS

RCA Type	Dist. Resale Price Optional
2C39A	$20.75
2C39WA	25.00
2C40	29.30
2C40A	34.00
2C43	26.95
2E24	5.85
2E26	3.75
4-125A/4D21	36.00
4-250A/5D22	46.50
4E27A/5-125B	45.00
4X500A	128.50
9C21	1,610.00
9C25	1,690.00
207	330.00
801A	13.00
802	13.00
805	22.10
807	3.00
809	8.15
810	26.95
811A	6.90
812A	6.90
813	23.15
814	28.35
815	28.35
827R	370.00
828	32.95
829B	19.00
832A	15.90
833A	53.65
834	21.70
837	10.60
845	25.00
880	660.00
889A	235.00
889RA	430.00
891	342.00
891R	540.00
892	342.00
892R	535.00
1624	6.80
1625	4.75
2029	7875.00
4602	P
4604	8.00
4615	75.00
5556	39.00
5671	1,760.00
5713	340.00
5762/7C24	230.00
5770	1,250.00
5771	675.00
5786	220.00
6146	4.35
6146A	4.35
6146B/8298A	5.20
6146W/7212	6.75
6155	36.00
6156	46.50
6159	4.80
6159W/7357	6.90
6161	125.00
6166	735.00
6166A/7007	1,020.00
6524	19.30
6806	69.75
6816	52.90
6850	19.30
6883	4.45
6883B/8032A/8552	5.40
6884	60.00
6893	4.15
6897	32.15
7034/4X150A	25.00
7035/4X150D	27.90
7094	32.25
7203/4CX250B	35.75
7204/4CX250F	39.35
7213	465.00
7271	27.70
7457	65.25
7580	45.05
7650	290.00
7801	95.00
7842	65.25
7843	52.50
7844	52.00
7870	$95.00
8000	24.40
8005	17.85
8032	4.95
8072	18.75
8121	25.90
8122	31.60
8165/4-65A	27.00
8166/4-1000A	132.00
8168/4CX1000A	181.00
8170/4CX5000A	495.00
8226	83.00
8239/3X3000F1	215.00
8437	1950.00
8438/4-400A	48.00

RCA VACUUM POWER TUBES FOR RF-PULSE APPLICATIONS

RCA Type	Dist. Resale Price Optional
2C40A	34.00
2041	7825.00
4605V2	8090.00
4612	63,890.00
4616	11,225.00
4617	57,225.00
4622	70.00
5946	125.00
7214	490.00
7649	70.00
7651	305.00
7835	47,475.00
8184	1,890.00
8227	90.10

RCA HARD-TUBE MODULATORS

RCA Type	Dist. Resale Price Optional
3E29	21.35
4610	21.35
6293	5.95

RCA VACUUM POWER TUBES FOR SPECIAL APPLICATIONS

RCA Type	Dist. Resale Price Optional
3C33	29.30
4600A	330.00
4614	310.00

RCA RECTIFIERS
VACUUM TYPES — Half-Wave Types

RCA Type	Dist. Resale Price Optional
2X2A	3.35
579B	20.50
836	11.10
1616	14.15
5825	22.90
8013A	17.05
8020	16.00

MERCURY-VAPOR TYPES — Half-Wave Types (except as noted)

RCA Type	Dist. Resale Price Optional
575A	20.15
604/7014	11.80
615/7018	9.75
635/7019	13.00
635L/7020	13.50
673	20.15
816	2.95
857B	218.50
866A	2.65
869B	138.00
872A	9.90
4620	218.50
5558	17.50
5561	59.00
6894	25.00
6895	25.00
8008	9.90

GAS TYPES — Half-Wave Types

RCA Type	Dist. Resale Price Optional
3B25	8.50
3B28	6.00

RCA IGNITRONS

RCA Type	Dist. Resale Price Optional
5550	49.00
5551A	65.00
5552A	99.00
5553B	245.00

RCA THYRATRONS
TRIODES (Mercury-Vapor Types)— For Control Service (except as noted)

RCA Type	Dist. Resale Price Optional
3C23	$11.98
627	31.50
676	63.80
677	63.80
710/6011	13.00
714/7021	9.50
716/6855	12.50
760/6858	28.10
5557	9.50
5559	23.00
5563A	50.00

TRIODES (Gas Types)— For Control Service (except as noted)

RCA Type	Dist. Resale Price Optional
3D22A	28.00
629	18.25
6130/3C45	14.00
C1K/6014	13.10
C3J/5632	13.80
C3JA/5684	14.50
C3JL	15.25
C6J/5C21	28.10
C6JA/5685	29.00
C16J/5665	52.50

TETRODES
(Mercury-Vapor Types)— For Control Service (except as noted)

RCA Type	Dist. Resale Price Optional
105	59.00
172	122.00
632B	33.00
672A	39.85
5560	33.00

RCA MICROWAVE TUBES

RCA MAGNETRONS (For Pulsed-Oscillator Service)

RCA Type	Dist. Resale Price Optional
6521	700.00
7008	1110.00
6865-A	1,590.00
4011-A	1,585.00

RCA TRAVELING-WAVE TUBES

RCA Type	Dist. Resale Price Optional
4012	1,425.00
4013	1,425.00
4015	3160.00
4017	1340.00
4019	1725.00
4020	2845.00
4021	2635.00
6861	955.00
7642	1265.00

RCA PENCIL TUBES

RCA Type	Dist. Resale Price Optional
4037	20.50
4046	58.00
5675	8.95
5876	8.60
5876A	23.10
5893	20.75
6173	13.35
6263A	13.05
6264A	13.85
6562/5794A	6.80
7533	6.80
7552	47.70
7553	57.10
7554	46.10

RCA PHOTOSENSITIVE TUBES & DEVICES

RCA PHOTOCONDUCTIVE CELLS

RCA Type	Dist. Resale Price Optional
SQ2500	1.55
SQ2501	2.85
SQ2502	2.85
SQ2504	1.55
SQ2505	1.50
SQ2506	1.65
SQ2508	1.90
SQ2509	1.00
SQ2514	13.20
4402	2.30
4403	1.50
4404	1.45
4413	2.65
4423	1.65
4424	$1.75
4425	1.65
4448	1.55
4453	1.60
7163	1.55

RCA PHOTOJUNCTION CELLS

RCA Type	Dist. Resale Price Optional
4420	6.40
SQ2516	10.00

RCA PHOTOVOLTAIC CELLS

RCA Type	Dist. Resale Price Optional
SL2205	10.30
SL2206	14.30

RCA PHOTOTUBES
SINGLE- AND TWIN-UNIT TYPES — Gas Types

RCA Type	Dist. Resale Price Optional
1P29	5.60
1P37	4.50
1P40	3.45
1P41	3.75
868	4.45
918	5.25
920	6.25
921	3.45
923	3.15
927	3.60
928	6.60
930	3.65
4409	5.00
5581	3.45
5582	5.40
5583	4.80
5584	7.15
6405/1640	7.85
6953	4.45

SINGLE AND TWIN-UNIT TYPES — Vacuum Tubes

RCA Type	Dist. Resale Price Optional
1P39	2.10
1P42	13.95
917	7.00
919	7.15
922	3.30
925	4.15
926	3.75
929	2.10
934	4.15
935	11.90
5652	6.25
5653	2.80
6570	9.00
7043	4.40

RCA MULTIPLIER PHOTOTUBES

RCA Type	Dist. Resale Price Optional
1P21	54.50
1P22	15.80
1P28	21.60
931-A	12.40
2020	85.00
2067	155.00
4438	105.00
4439	105.00
4440	105.00
4441	155.00
4441A	320.00
4459	490.00
4460	205.00
4461	260.00
4463	310.00
4464	340.00
4465	420.00
5819	64.25
6199	47.30
6217	72.00
6328	13.65
6342-A	57.20
6472	14.75
6655-A	54.35
6810-A	195.00
6903	370.00
7029	605.00
7046	570.00
7102	110.00
7117	12.65
7200	205.00
7264	265.00
7265	375.00
7326	410.00
7746	200.00
7764	125.00
7767	120.00
7850	240.00
8053	107.25
8054	125.00
8055	170.00

P—Price and Delivery on Request

Net

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RCA ELECTRON TUBES
FOR INDUSTRY AND COMMUNICATIONS

RESALE PRICE SCHEDULE • AUGUST 1, 1964

POWER/MICROWAVE/PHOTOSENSITIVE/CAMERA/DISPLAY/INDUSTRIAL RECEIVING

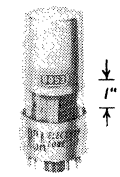
RCA CAMERA & DISPLAY TUBES

RCA Type	Dist. Resale Price Optional
RCA IMAGE ORTHICONS	
8092-A	$1,870.00
8093-A	1,320.00
7293-A	1,300.00
5820-A	1,100.00
7513	1,320.00
7513/V1*	1,400.00
4401/V1	1,320.00
4414/7611	1620.00
4415**	1,400.00
4416**	1,400.00
7295-B	1,440.00
7389-B	1,440.00
7629-A	1,700.00
RCA MONOSCOPES	
2F21	275.00
1699	P
RCA VIDICONS	
2048-A	720.00
4427	585.00
6326	515.00
7038	185.00
7262-A	250.00
7263-A	430.00
7697	185.00
7735-A	185.00
8051	575.00
8507	25.00
8480	820.00
8521	575.00
RCA IMAGE-CONVERTER TUBES	
4449	1,650.00
4449A	1585.00
6032-A	170.00
6381	P
6914	130.00
6914-A	150.00
6929	P
7404	370.00
RCA CATHODE-RAY TUBES OSCILLOGRAPH TYPES	
1EP1	25.75
1EP11	28.10
2AP1-A	17.70
2BP1	20.15
2BP11	21.60
3AP1-A	22.75
3AQP1	23.10
3BP1-A	18.50
3JP1	23.20
3KP1	21.90
3RP1	13.20
3RP1-A	23.35
3WP1	28.30
5ABP1	34.00
5ADP1	34.00
5BP1-A	35.05
5CP1-A	24.30
5UP1	13.25
5UP7	26.25
7MP7	40.45
7VP1	25.30
7VP31	24.85
902-A	21.45
TRANSCRIBER KINESCOPE	
5WP11	99.40
VIEW-FINDER KINESCOPES	
5FP4-A	27.75
MONITOR KINESCOPES	
7TP4	$75.80
8HP4	48.30
8NP4	24.70
8QP4	35.05
14BAP4	36.25
17DWP4	37.30
21EYP4	31.85
PROJECTION KINESCOPES	
5AZP4	127.00
7NP4	1,085.00
7WP4	1,110.00
FLYING-SPOT CATHODE-RAY TUBES	
5AUP24	150.00
5WP15	99.40
5ZP16	92.25
4452	90.00
STORAGE TUBES COMPUTER STORAGE TUBE	
Primary-Current-Modulation Type	
6571	77.95
DISPLAY STORAGE TUBES	
Direct-View Types	
2053	P
4412	3240.00
4454	1,135.00
6866	1,280.00
7183	1050.00
7268	P
7315	925.00
RADECHON	
Single Beam, Barrier-Grid Type	
1858	430.00
6499	360.00
GRAPHECHON	
Scan-Conversion Type	
7539	1,720.00

RECEIVING TYPE TUBES FOR INDUSTRY AND COMMUNICATIONS

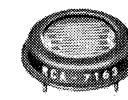
RCA Type	Dist. Resale Price Optional
Beam Deflection	
7360	3.77
Beam Power	
Subminiature:	
5902	4.80
Miniature:	
5686	3.37
5763	2.53
6005	3.93
6005/6AQ5W	3.95
6005/6AQ5W/6095	3.95
6417	3.04
6669/6AQ5A	1.12
7061	1.29
7551	3.49
7558	3.49
7905	3.85
Other Air-Cooled Types:	
12A6	3.36
1614	4.93
1619	5.67
1622	4.85
1631	3.45
Diodes, Misc.	
9005	8.05
9006	2.70
Glow-Discharge	
0A2	1.32
0A3	1.54
0A3A	1.54
0A4G	1.86
0B2	1.37
0C2	1.50
0C3	1.50
0C3A	1.50
0D3	1.44
0D3A	1.44
1C21	$4.15
991	.87
5651	1.78
5651A	1.78
5651WA	3.80
5823	1.72
6072	3.90
6073	3.00
6073/0A2	3.35
6074	3.45
6074/0B2	3.70
6626/0A2WA	3.35
Pentodes	
Subminiature:	
5636	6.10
5639	5.25
5840	5.35
5899	5.55
6205	6.40
6206	7.25
Miniature:	
1L4	1.37
3A4	1.25
6AK6	1.40
6AS6	3.43
6AU6WA	2.70
6AU6WB	2.70
26A6	3.70
5618	6.75
5654	2.41
5654/6AK5W	2.45
5654/6AK5W/6096	4.35
5725	3.15
5749	2.20
5749/6BA6W	2.20
5847/404A	9.55
6136	2.70
6186	3.85
6186/6AG5WA	3.85
6189/12AU7WA	3.70
6197	2.30
6660/6BA6	1.08
6661/6BH6	1.39
6662/6BJ6	1.34
6676/6CB6A	1.16
6677/6CL6	1.86
7054	1.54
7056	1.02
8077/7054	1.53
9001	5.38
9003	5.38
Acorn:	
959	13.85
Other Air-Cooled Types:	
6AC7W	4.20
6AG7Y	2.80
1613	3.00
1620	7.55
1621	3.50
5693	6.60
Rectifiers	
Vacuum:	
83	1.89
5R4GYB	2.03
6X4W	1.60
5642	3.82
Tetrodes	
Nuvistor:	
7587	5.20
Thyratrons	
Gas:	
2D21	1.29
2D21W	2.90
884	2.28
502A	2.28
2050	2.37
2050A	2.21
5696	2.05
5727	2.90
5727/2D21W	2.90
6012	7.65
Triodes	
Subminiature:	
5718	3.65
5719	3.15
6814	5.90
Miniature:	
6J4	$4.19
6J4WA	5.60
6J6WA	5.35
6664/6AB4	1.12
9002	4.14
Nuvistor:	
7586	3.35
7895	3.35
8056	5.00
8058	13.25
8203	3.80
8393	3.60
Acorn:	
6F4	13.10
6L4	8.40
955	7.05
Twin Diodes	
5726	1.55
5726/6AL5W	1.55
5726/6AL5W/6097	1.55
5896	3.80
6663/6AL5	.98
6887	1.25
7055	1.00
TWIN PENTODES	
6939	11.90
TWIN TRIODES	
3A5	2.03
6AS7G	4.93
12AT7WA	2.53
12AT7WB	2.53
12SX7GT	2.53
1635	3.82
5670	2.45
5670WA	2.45
5687	4.05
5691	8.75
5692	8.25
5751	2.55
5751WA	2.55
5814A	2.35
5814WA	2.40
5842/417A	7.35
5963	1.36
5964	1.55
5965	1.92
6021	3.50
6072	3.90
6080	5.33
6080WA	10.80
6082	5.60
6101	5.35
6101/6J6WA	5.35
6111	3.70
6112	4.15
6189/12AU7WA	3.70
6201	2.95
6211	2.15
6336A	19.04
6350	1.85
6386	7.38
6679/12AT7	1.53
6680/12AU7A	1.26
6681/12AX7A	1.29
6922	4.87
7044	2.70
7057	1.95
7058	1.29
7898	1.34
TWIN DIODE TRIODES AND TRIODE PENTODES	
12SW7	1.49
26C6	3.05
6678/6U8A	1.67
7059	1.72
7060	1.85
MISCELLANEOUS TYPES	
2K26	65.00
12SY7	2.67
26D6	3.05
1612	5.77
1629	1.86
5734	22.05
5750	3.45
5915	1.62
6550	4.59
7724/14GT8	1.48

PHOTOSENSITIVE



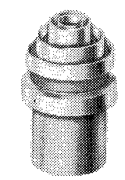
Multiplier

Phototubes

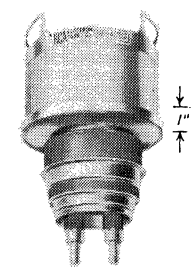


Photocells

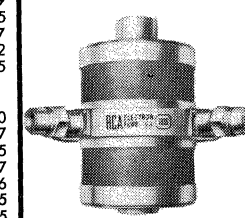
POWER TUBES



Small



Large



Super

*Available in matched sets of three **Available as matched set of three—two 4415's, one 4416

P—Price and Delivery on Reque

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Net

SYLVANIA INDUSTRIAL PRODUCTS

Type	Sugg. User Price
*OA2	$ 1.32
GB-OA2WA	3.35
OA3	1.54
*OA4G	1.86
OA5	6.96
*OB2	1.37
*OB2WA	2.40
GB-OB2WA	2.40
*OB3	2.35
*OC3	1.50
*OD3	1.44
OZ4A	1.20
VG1A	32.60
C1K/6014	12.90
1P39	2.10
1P40	3.45
2-01C	18.00
2-25A	24.00
2-150D	44.50
*2C36	36.90
2C37	37.50
2C39A	20.75
2C39B	32.15
2C39WA	32.00
2C40	29.30
2C43	26.95
2C51	3.65
2D21	1.25
2D21W (See 5727/2D21W)	
2E24	5.20
2E26	3.75
*2J42	185.00
2X2A	3.35
3-400Z (See 8163/3-400Z)	
3A5	2.03
3B28	6.00
3C23	11.98
3CPN10A5 (See 7815/3CPN10A5)	
3CX100A5 (See 7289/3CX100A5)	
3E29	20.85
C3J/5632	X
C3J/A/5684	X
3W5000F3 (See 8243/3W5000F3)	
3X2500A3 (See 8161/3X2500A3)	
3X2500F3 (See 8251/3X2500F3)	
3X3000A1	210.00
3X3000F1 (See 8239/3X3000F1)	
4-65A (See 8165/4-65A)	
4-125A	36.00
4-250A	46.50
4-400A	48.00
4-1000A (See 8166/4-1000A)	
4CX250B (See 7203/4CX250B)	
4CX250F (See 7204/4CX250F)	
4CX250K (See 8245/4CX250K)	
4CX250M (See 8246/4CX250M)	
4CX300A (See 8167/4CX300A)	
4CX1000A (See 8168/4CX1000A)	
4CX5000A (See 8170/4CX5000A)	
4E27A/5-125B	45.00
4PR60B (See 8252/4PR60B)	
4W300B (See 8249/4W300B)	
4W20,000A (See 8173/4W20,000A)	
4X150A (See 7034/4X150A)	
4X150D (See 7035/4X150D)	
4X250B	35.75
4X500A	127.50
5C21 (See C6J/5C21)	
5R4GYB	2.03
*5Y3WGTA	4.05
GB-5Y3WGTA	4.05
6AD4 (t)	3.70
*6AH6WA	9.15
*6AJ5	3.85
6AK5W (See 5654/6AK5W)	
6AL5W (See 5726/6AL5W)	
*6AN5WA	10.80
6AQ5W (See 6005/6AQ5W)	
6AS6	3.43
6AS6W (See 5725/6AS6W)	
6AS7G	$4.93
*6AU6WA	2.70
*6AU6WB	2.70
6BA6W (See 5749/6BA6W)	
*6BF7W	4.20
*6C4W	1.55
*6C4WA	3.15
*6D4	2.85
6DJ8 (Receiving Type)	
6J4	4.19
*6J4WA	5.60
GB-6J4WA	5.60
C6J/A/5685	X
*6J6WA	5.35
6J7 (See 1620/6J7)	
*6SJ7WGT	2.70
*6SL7WGT	3.15
GB-6SL7WGT	3.15
*6SN7WGT	2.35
GB-6SN7WGT	2.35
*6SN7WGTA	4.90
*6V6GTY	1.45
*6X4W	1.60
*6X4WA	2.85
GB-6X4WA	2.85
*6X5WGT	1.55
GB-6X5WGT	1.55
*7AK7	8.15
GB-7AK7	8.15
*7F8W	7.05
PCK-10	9.95
*12AT7WA	2.55
*12AT7WB	2.55
12AU7WA (See 6189/12AU7WA)	
12AY7	2.45
C16J/5665	52.50
RX21A	25.75
25T	28.50
*28D7	4.95
S28D7	4.95
*28D7W	10.75
FG-95 (See 5560/FG-95)	
100 (See 5575/100)	
100TH	23.50
102A	174.00
200 (See 5576/200)	
250TH	38.50
304TH	75.00
304TL	75.00
GB-407A	5.90
GB-408A	4.95
450TL	85.00
481B	10.90
502A	2.30
575A‡	20.15
579B	20.50
592/3-200A3	46.00
604	11.80
604L	13.00
SYT-620B	650.00
615	9.75
627	31.50
629	18.25
632B	33.00
635	13.00
635L	13.50
642	17.00
652 (See 5551A/652)	
672A	39.85
673	20.15
678	49.50
710 (See 6011/710)	
760	28.10
760L	29.40
807‡	3.00
810	26.95
811A	6.90
812A	6.90
813	23.15
815	28.35
816	2.95
828	32.95
829B	19.00
832A	15.90
833A‡	53.65
866A	2.65
869B‡	138.00
872A	9.90
884	2.28
889RA (See 5667/889RA)	
921	3.50
922	3.25
923	3.40
927	4.25
929	2.35
930	3.65
931A	12.15
1000T	169.00
R1111	12.70
R1111M	26.00
1218A	5.00
GB-1219/5670	$3.70
GB-1220/5654	3.05
1222A	2.45
1229	5.35
GB-1252/6U8A	2.00
SY1301	198.00
SY1301A	248.00
1500T	320.00
1616	13.90
1624	6.25
2050	2.37
2050A	2.21
CT4251	11.10
SYT-4260	1065.00
SYT-4260C	1100.00
SYT-4261	1065.00
SYT-4267	1065.00
SYT-4268	1065.00
SYT-4268C	1100.00
SYT-4273	1250.00
SYT-4273C	1285.00
SYT-4278	1250.00
SYT-4278C	1285.00
SYT-4281	1250.00
SYT-4282	1250.00
5530	402.00
5530-H	402.00
5531	795.00
5541	670.00
5551A/652	65.00
5552A	99.00
5557‡	9.50
5558	17.50
5559‡	23.00
5560/FG95‡	33.00
5575/100	225.00
5576/200	245.00
5604	570.00
5606	305.00
5632 (See C3J/5632)	
*5636	6.75
*5636A	6.75
*5639	6.55
*5639A	6.55
*5641	**7.55**
*5641A	7.55
5642 (t) (Receiving Type)	
*5643	9.05
*5644	9.90
*5644A	9.90
*5647	8.65
*5647A	8.65
5651	1.90
*5651WA	3.75
GB-5654	2.45
*5654/6AK5W	2.45
5658	660.00
5665 (See C16J/5665)	
5667 (889RA)‡	430.00
5668	350.00
5669	515.00
*5670	2.45
GB-5670	2.45
*5670WA	2.45
5684 (See C3J/A/5684)	
5685 (See C6J/A/5685)	
GB-5687	4.00
*5687WA	5.66
*5692	8.25
5693	6.60
5696	2.05
*5718	4.00
*5718A	4.00
*5719	3.50
*5719A	3.50
5722	6.60
GB-5725	3.15
*5725/6AS6W	3.15
GB-5726	1.55
*5726/6AL5W	1.55
*5726/6AL5W/6097	1.55
GB-5727	2.90
*5727/2D21W	2.90
5736	205.00
GB-5749	2.20
*5749/6BA6W	2.20
GB-5750	3.45
*5750/6BE6W	3.45
*5751	2.55
GB-5751	2.55
*5751WA	2.55
•5763	2.53
5767	30.25
*5768	31.15
5796	17.25
*5814A	2.35
GB-5814A	2.35
*5814WA	2.35
5820A	1100.00
*5823	1.72
*5840	$ 5.85
*5840A	5.85
5845	9.95
5879	1.95
5881	3.50
5894	25.00
*5896	4.15
*5896A	4.15
*5899	6.05
*5899A	6.05
*5902	5.25
*5902A	5.25
*5903	7.45
*5904	7.90
*5905	8.40
*5906	8.40
*5907	8.40
*5908	9.80
5916	9.80
*5931	6.80
GB-5931	6.80
*5932	11.30
GB-5932	11.30
*5933	12.35
GB-5933	12.35
*5933WA	16.50
5934	22.00
*5963	1.34
5964	1.54
5965	1.95
5966	42.00
*5977	6.55
*5977A	6.55
*5987	11.10
5996	210.00
GB-6005	3.95
*6005/6AQ5W	3.95
6005/6AQ5W/6095	3.95
6011/710	13.00
6012	7.65
6014 (See C1K/6014)	
*6021	3.50
*6021A	3.50
6027	160.00
*6028	4.95
*6080	5.33
GB-6080	5.33
*6080WA	10.80
6097 (See 5726/6AL5W/6097)	
GB-6101	5.35
*6110	8.05
*6111	**5.05**
*6111A	5.05
*6112	4.10
*6112A	4.10
*6135	2.40
GB-6135	2.40
GB-6136	2.90
•6146A	4.35
6146B/8298A	5.20
•6159	4.80
•6159A	4.80
GB-6186	3.85
*6186/6AG5WA	3.85
GB-6189	3.70
*6189/12AU7WA	3.70
*6197	2.48
GB-6201	2.55
*6205	5.90
*6205A	5.90
*6206	8.00
*6206A	8.00
6211	1.95
*6216	4.15
6257	330.00
*6308	8.25
6350	1.85
*6352	9.85
•6360	4.95
6421	525.00
6421-F	545.00
6423-F	605.00
6425-F	675.00
6476A	14.95
6481	30.25
6483	3.09
6503	60.50
6550	4.95
•6660/6BA6	1.01
•6661/6BH6	1.34
•6662/6BJ6	1.29
•6663/6AL5	.92
•6669/6AQ5A	1.06
•6676/6CB6A	1.06
•6677/6CL6	1.85
•6678/6U8A	1.62
•6679/12AT7	1.50
•6680/12AU7	1.22
•6681/12AX7	1.26
*6788	10.85
6802	15.70
6807	29.40
*6832	20.65
6879	$13.37
•6883	4.45
•6883A	4.45
6897	32.15
6909	11.43
6910	13.37
6922	4.95
6939	12.45
*6943	11.10
*6944	11.10
*6945	11.10
*6946	10.85
*6947	11.35
*6948	11.35
6973 (t) (Receiving Type)	
6977	2.50
7006	1110.00
7007	1020.00
7025 (t) (Receiving Type)	
7034/4X150A	25.00
7035/4X150D	27.90
7044	3.20
•7054	1.45
•7055	1.00
•7056	1.20
•7057	1.95
•7058	1.30
•7059	1.75
•7060	2.05
•7061	1.30
*7137	7.10
7155	13.37
•7167	1.45
7199 (t) (Receiving Type)	
7203/4CX250B	39.00
7204/4CX250F	39.00
•7258	2.75
7289/3CX100A5	31.00
7325	185.00
GB-7327	12.45
GB-7550	13.25
7738	2.80
*7759	7.35
*7760	15.25
*7761	7.40
*7762	7.40
7803	2.55
7815/3CPN10A5	32.00
*7887	6.70
*7888	5.25
*7889	6.70
7962	7.50
7963	7.50
8008	9.90
8035	11.10
*8064	7.50
8070	7.50
8071	7.50
8100	1.40
8103	7.50
8142	1.40
8143	1.40
8161/3X2500A3	200.00
8163/3-400Z	34.00
8165/4-65A	27.00
8166/4-1000A	131.50
8167/4CX300A	58.50
8168/4CX100A	181.00
8170/4CX5000A	495.00
8173/4W20,000A	1950.00
8186	10.75
8210	10.75
8239/3X3000F1	220.00
8243/3W2500F3	250.00
8245/4CX250K	64.00
8246/4CX250M	92.50
8249/4W300B	57.00
8251/3X2500F3	205.00
8252/4PR60B	107.00
8298A (See 6146B/8298A)	
8345	1.40
8346	1.40
8347	1.40
8353	11.10
9001	5.40
9003	5.40
70780	.65
7460-0008	1.20

KLYSTRONS

SK-113	$195.00
SK-114	195.00
SK-115	195.00

Net

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SYLVANIA INDUSTRIAL PRODUCTS

Type	Sugg. User Price
KLYSTRONS (con't.)	
SK-220A-G	$140.00
SK-220Z	315.00
SK-221A	160.00
SK-221B-G	145.00
SK-221H	205.00
SK-221K	160.00
SK-222A-G	145.00
SK-222Z	320.00
SYK-720A-G	145.00
SYK-720Z	325.00
SYK-722A-G	150.00
SYK-722Z	330.00
K-839B (t)	195.00
K-841B (t)	195.00
K-4008	195.00
K-4009	195.00
K-4010	195.00
K-4011	205.00
K-4012	195.00
K-4013	195.00
K-4014	195.00
K-4015	195.00
6468	195.00
6469	195.00
6470	195.00
*6BL6	40.00
*6BM6	50.00
*6BM6A	50.00
*5836	69.00
*5837	69.00
MICROWAVE DIODES	
1N21	$ .68
1N21A	.68
1N21B	.68
1N21BM	1.69
1N21BR	1.02
1N21BMR	2.04
1N21C	1.02
1N21CM	2.43
1N21CR	1.41
1N21CMR	3.07
1N21D	2.45
1N21DM	6.13
1N21DR	3.68
1N21DMR	7.35
1N23	.67
1N23A	.67
1N23B	.67
1N23BM	1.69
1N23BR	1.02
1N23BMR	2.04
1N23C	1.02
1N23CM	2.43
1N23CR	1.41
1N23CMR	3.07
1N23D	2.45
1N23DM	6.13
1N23DR	3.68
1N23DMR	7.35
SPECIAL LAMP PRODUCTS	
Glow Modulators	
GM514	$59.60
GM514C	69.60
R1130B	20.80
R1131C	19.60
R1166	20.00
R1168	24.50
R1169	21.90
Strobotrons	
1D21/SN4	7.30
SN5	12.80
SA309	20.40
SA309A	21.30
S413	15.30
SS501	29.30
S696	23.70
S836	17.00
S840	$ 20.40
S841	20.40
S844	20.40
S852	17.00
R4350	29.70
Flash Tubes	
FT118	9.00
FT218	9.10
R4306	9.90
R4307	5.60
R4307C	5.60
R4319	8.70
R4329	9.60
R4330	29.10
R4336	36.00
R4337	49.00
R4340	60.50
Mite-T-Lites	
ML202A	1.10
INDUSTRIAL and MILITARY CATHODE RAY TUBES	
2AP1A	$ 19.30
2BP1	20.60
2BP11	22.25
*3ACP1A	43.40
*3ACP2A	43.40
*3ACP7A	43.40
*3ACP11A	43.40
3ACP12A	43.40
*3ADP1	61.60
3ADP2	61.60
3ADP7	61.60
3ADP11	61.60
3ASP1	38.40
3ASP2	38.40
3ASP7	38.40
3ASP11	38.40
3BEP1	43.20
*3BGP1	49.25
3BGP2	49.25
3BGP7	49.25
3BGP11	49.25
3BMP1	55.95
3BMP2	55.95
3BMP7	57.90
3BMP11	57.90
3BMP12	57.90
*3BP1A	29.80
*3FP7A	31.00
*3JP1	30.75
*3JP2	30.75
*3JP7	30.75
*3JP12	37.40
*3KP1	28.55
3KP7	30.35
3KP11	30.35
3KP16	50.15
3MP1	25.90
*3RP1	24.65
3RP1A	32.00
3RP4	27.20
3SP1	34.45
*3SP1M	34.45
3SP2	34.45
3SP5	34.45
3SP11	34.45
3WP1	33.35
*3WP1M	33.35
3WP2	33.35
3WP11	33.35
*4MP1	63.35
4VP2	62.00
5ABP1	37.85
5ABP1A	40.75
5ABP4	40.20
5ABP4A	40.80
5ABP7	40.20
5ABP7A	40.80
5ABP11	$40.80
5ABP11A	43.75
5ABP31A	43.75
*5ADP1	37.85
5ADP1A	40.75
*5ADP2	37.85
5ADP2A	40.75
*5ADP7	40.20
5ADP7A	40.80
5ADP11	40.80
5ADP11A	43.75
5ADP31A	43.75
*5AHP4A	53.20
*5AHP7	37.85
*5AHP7A	45.95
5AHP14	37.85
5AHP14A	46.50
5AHP19	37.85
5AHP19A	46.50
5AMP1	53.00
*5AMP1A	56.55
5AMP2	53.00
*5AMP2A	56.55
5AMP7	56.55
*5AMP7A	71.90
5AMP11	56.55
*5AMP11A	71.90
5AQP1	44.00
5AQP1A	47.50
5AQP2	44.90
5AQP2A	47.50
*5AQP7	47.50
5AQP7A	47.70
5AQP11	47.50
5AQP11A	47.70
5AUP24	166.30
5AXP4	27.25
5BCP1	81.00
5BCP4	81.00
*5BCP7	81.00
5BCP11	81.00
5BGP1	75.00
5BGP2	75.00
5BGP5	75.00
5BGP7	75.00
5BGP11	75.00
SBGP15	75.00
5BHP1	92.50
5BHP1A	92.50
5BHP2	92.50
*5BHP2A	92.50
5BHP7	92.50
5BHP7A	92.50
5BHP11	92.50
5BHP11A	92.50
5BHP15	92.50
5BHP15A	92.50
5BNP16	34.45
*5BP1A	33.55
5BRP1	55.35
5BRP4	55.35
5BRP7	55.35
5BRP11	55.35
*5CP1A	35.90
*5CP1B	38.85
*5CP7A	35.90
5CP11A	35.90
*5CP12	35.90
5CVP1	169.70
5CVP7	169.70
5CVP19	169.70
5DEP1	31.70
5DEP2	31.70
5DEP7	31.70
5DEP11	31.70
5DKP4	33.65
5DKP11	33.65
5DKP15	33.65
5DKP16	33.65
5DKP24	33.65
5DLP4	$ 33.65
5FP4A	31.15
*5FP7A	32.95
5FP11A	39.55
*5FP14A	32.25
5RP1A	169.70
5RP2A	169.70
5RP4A	169.70
5RP5A	169.70
5RP7A	169.70
5RP11A	169.70
*5UP1	28.90
5UP7	29.05
5UP11	28.90
5WP11	105.35
5WP15	105.35
5ZP15	109.75
5ZP16	109.75
5ZP24	109.75
7ABP7	55.45
*7ABP7A	57.65
7ABP14	49.00
7ABP14A	69.80
7ABP19	70.25
7ABP19A	69.80
7AEP1	48.45
7AEP2	48.45
*7AEP7	48.45
7AEP11	48.45
7AQP4	63.85
7AQP7	63.85
7AQP16	63.85
7AQP19	63.85
7AQP25	63.85
7AUP4	63.85
7AUP7	63.85
7BP2A	49.95
*7BP7A	43.00
7JP1/7VP1	36.30
7JP7	36.95
7MP7	40.80
7MP14	45.15
7UP7	47.50
7UP25	47.50
8CP1	47.50
8CP2	47.50
8CP7	47.50
8CP11	47.50
8DP4	31.70
8FP4	51.25
8KP4	33.65
8XP4	30.75
8YP4	32.95
*10AKP7	54.90
*10ANP4	89.80
10ANP7	89.80
*10ANP7M	89.80
10ANP16	89.80
10ANP19	89.80
10ANP25	89.80
10KP7	46.35
*10KP7A	51.65
10KP7B	56.95
10NP11	148.50
10SP4	$ 77.25
10VP7	83.80
10VP15	83.80
*10WP7	36.60
10WP7A	38.00
10WP14	60.90
10WP14A	70.90
10WP19	60.90
10WP19A	70.90
12ABP7	71.30
*12ABP7A	56.80
12ABP14	69.85
12ABP14A	81.40
12ABP19	81.40
12ABP19A	89.80
*12DP7A	67.95
*12DP7C	79.85
12SP7	46.80
12SP7B	51.20
*12SP7D	55.60
14BAP4	37.25
16AMP7	350.00
17DWP4	25.65
21EYP4	33.30
SC-2558-P1	118.55
SC-2558-P4	118.55
SC-2558-P7	118.55
SC-2782	X
SC-2809	X
SC-2812-P1	47.50
SC-2830-P1	53.35
SC-2854	58.25
SC-3016-P11	69.85
SC-3037-P7	85.00
SC-3042-P1	68.55
SC-3061-P1	X
SC-3090	X
SC-3093 (Monoscope)	
SC-3116-P1	110.00
SC-3116-P2	110.00
SC-3116-P5	110.00
SC-3116-P7	110.00
SC-3116-P11	110.00
SC-3116-P15	110.00
SC-3168	X
SC-3179-P7	332.50
SC-3180-P7	332.50
ST-3183	X
SC-3185	X
SC-3195	X
SC-3301-P1	110.00
SC-3301-P2	110.00
SC-3301-P5	110.00
SC-3301-P7	110.00
SC-3301-P11	110.00
SC-3301-P15	110.00
SC-3377	X
SC-3397	X
SC-3399	X
SC-3511	X
SC-3525	X
SC-3557	X
SC-3561	X
SC-3814	X

Types listed in Bold Face are Sylvania Gold Brand Tubes.

GB-Manufactured to Commercial and Industrial Specifications.

• Tubes are "Communications Quality" types.

* Indicates Military Type Approval.

(t) Federal Excise Tax included in price. (All other types nontaxable.)

‡ These tubes may be of foreign manufacture and, in many cases, manufactured by the foreign affiliate of Sylvania Electric Products Inc.

X Price quoted upon request.

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The fully comprehensive Tung-Sol line of electron tubes fills virtually every requirement . . . from the most exacting military and industrial applications to the peak quality demands of modern entertainment electronics. A quality control network that's unparalleled plus unexcelled production know-how assure that high-volume production units exhibit the same superior performance and full-life dependability as the engineering samples.

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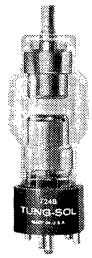
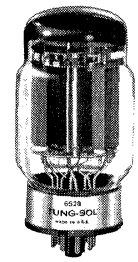


VACUUM PULSE TUBES
Types available: 3D21WB, 6293, 6293W, 6889, 7248, 7403.

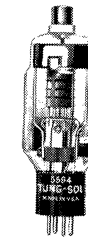
INDICATOR TUBES
Types available: 6977, 7323, 7400, 7401, 7813.

TRANSMITTING TUBES
Types available: 2E22, 5675, 5894, 6146, 6146W, 6159, 6159W, 6360, 6883, 6907, 8032, 8149, 8150, 8236.

RECTIFIERS
Types available: 1Z2, 3B24WA, 3B25, 3B28, 3B29, 5R4WGA, 5R4WGB, 6H6WGT, 6X4WA, 6X4W, 25Z6WGT, 26Z5W, 583, 5517, 5726/6AL5W, 5829WA, 576A.



POWER TRIODES
Types available: 5998, 6AS7G, 6080, 6080WA, 6080WB, 6082, 6082WA, 6082WB, 6336A, 6394A, 6520, 6528, 6877, 7105, 7236, 7241, 7242, 7802, 7802WA, 7802WB, 8193.



THYRATRONS
Types available: 2A4G, 2D21, 2050, 2050W, 3C23, 323B, 393A, 394A, 395A, 885, 5594, 5643, 5663, 5696, 5727, 6D4, 6012, 6901, 7410.

VOLTAGE REGULATORS
Types available: OA2, OB2WA, OB2, OC3W, OD3W, 5787, 5787WA, 6073, 6074, 6542, 7099, 8068.

CLIPPER TUBES
Types available: 8191, 8192, 8036, 7390, 8326, 7890, 8301.

VOLTAGE REFERENCE TUBES
Types available: 5651, 5651WA, 5783, 5783WA, OG3.

POWER PENTODES
Types available: 2E22, 26E6WG, 3A4, 5A6, 5881, 6AR6, 6098/6AR6WA, 6L6GC, 6L6WGB, 6216, 6327. 6384, 6550, 6889, 7189, 7581, 7591, 7867.

TELEPHONE TUBES
Types available: 313C, 338A, 393A, 394A, 395A, 407A, 408A, 426A, 5842/417A, 5847/404A, 6028.

PENTODES
Types available: 1AD4, 404A, 5636, 5639, 5654/6AK5W, 6AH6WA, 6AU6WB, 5672, 5678, 5702WA, 5702WB, 5725/6AS6W, 5749/6BA6W, 5784WB, 6AJ5, 6AK5WB, 6AS6, 5840, 5875, 5902, 6028, 6088, 6136, 6205, 6245.

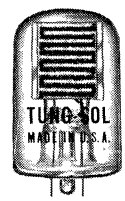
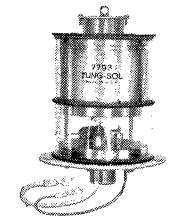


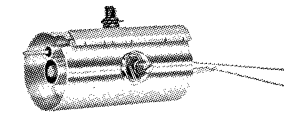
PHOTO DEVICES
Types available: 8049, 8217.



HYDROGEN DIODES
Types available: 7789, 7790, 7791, 7792, 7793, 8434, 8435.

TWIN TRIODES
Types available: 6SU7GTY, 2C51, 12AT7WA, 12AY7, 5670, 5687, 5687WA, 5718, 5719, 5744WB, 5751, 5751WA, 5814A, 5814WB, 6021, 6111, 6112, 6188/6SU7WGT, 7370, 6SN7WGTA.

HYDROGEN THYRATRONS
Types available: 1257, 1257A, 1258, 5948A, 5949A, 6587, 7190, 7191, 7191A, 7192, 7240, 7871, 7872, 8097, 8253.



PENCIL TUBES
Types available: 6263A, 6264A, 6562, 7533.

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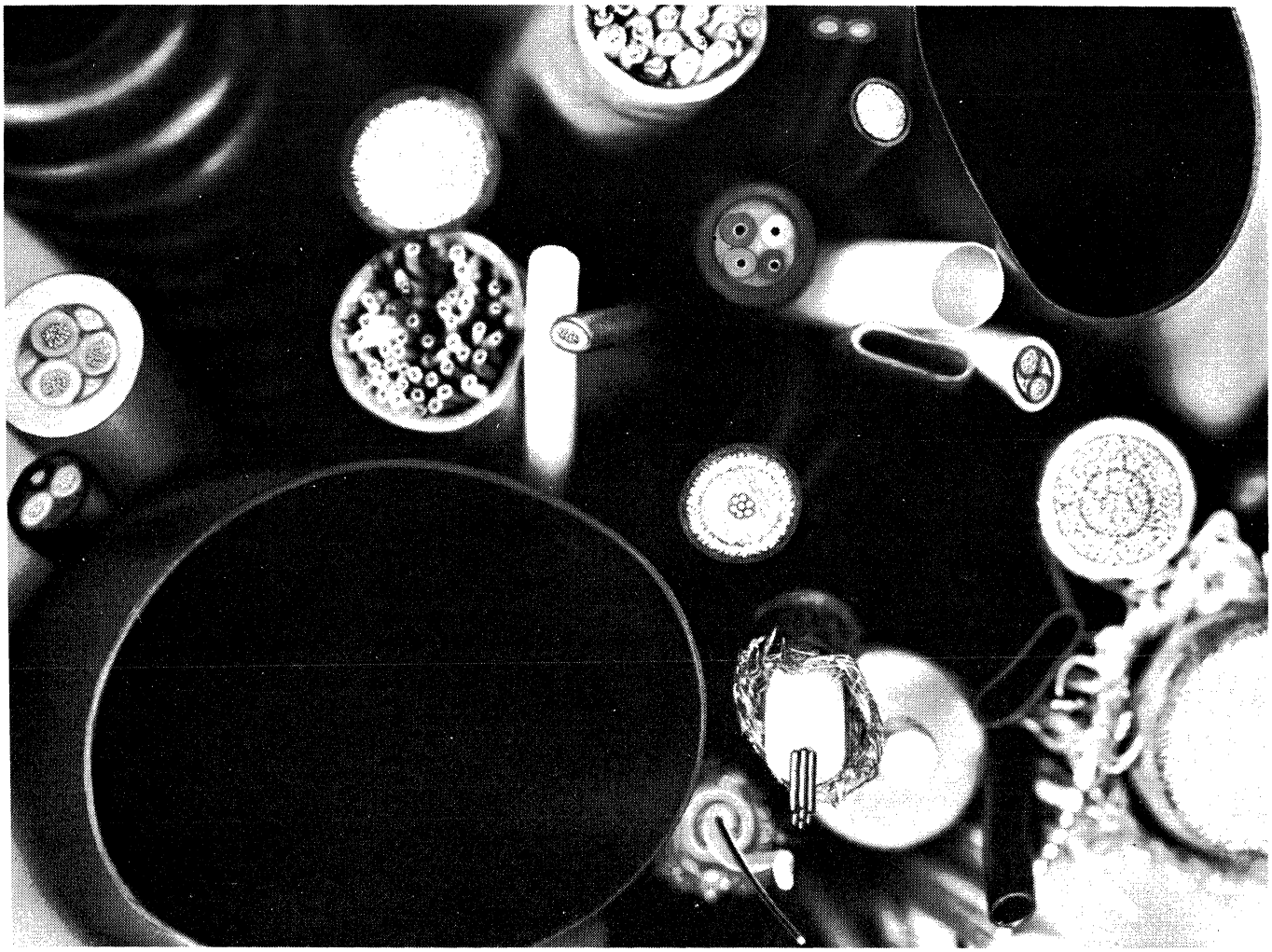

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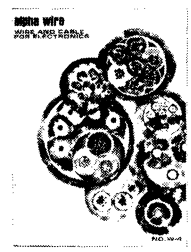

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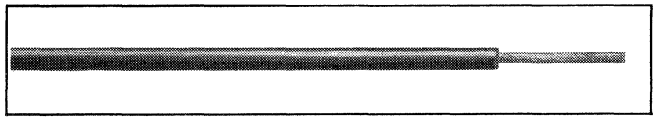


MIL-W-76B-PLASTIC WIRE

TYPE MW—UNCOVERED PLASTIC

DESCRIPTION: Solid or extra flexible stranded tinned copper, color coded **medium wall** polyvinylchloride insulation. The stranded conductor has an extra tight lay to prevent springing open when stripped.

CHARACTERISTICS: Temperature rating —40°C to +80°C, Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

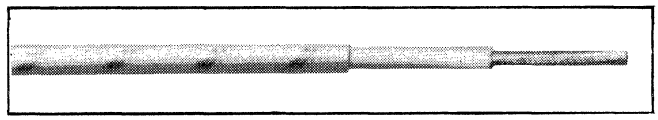
STRANDED

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLORS
1550	MW-C 24(7)U	24	7/32	.016"	.059"	1-30 AS LISTED BELOW
1551	MW-C 22(7)U	22	7/30	.016"	.064"	
1553	MW-C 20(10)U	20	10/30	.016"	.073"	
1555	MW-C 18(16)U	18	16/30	.016"	.084"	
1557	MW-C 16(26)U	16	26/30	.016"	.095"	
1559	MW-C 14(41)U	14	41/30	.016"	.110"	
1560	MW-C 12(65)U	12	65/30	.016"	.125"	

SOLID

1561/24	MW-C 24(1)U	24	1	.016"	.055"	1-30 AS LISTED BELOW
1561	MW-C 22(1)U	22	1	.016"	.060"	
1563	MW-C 20(1)U	20	1	.016"	.066"	
1565	MW-C 18(1)U	18	1	.016"	.074"	
1567	MW-C 16(1)U	16	1	.016"	.083"	

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED



MIL-W-76B-PLASTIC WIRE

TYPE MW—GLASS BRAID

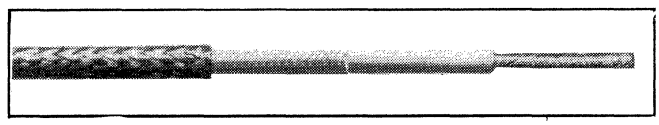
DESCRIPTION: Extra flexible stranded tinned copper, white **medium wall** polyvinylchloride insulation, color coded flame retardant lacquered glass braid overall. The stranded conductor has an extra tight lay to prevent springing open when stripped.

CHARACTERISTICS: Temperature rating —40°C to +80°C, Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLORS
1590	MW-C 22(7)B	22	7/30	.016"	.080"	1-19 as listed below
1591	MW-C 20(10)B	20	10/30	.016"	.090"	1-19 as listed below
1592	MW-C 18(16)B	18	16/30	.016"	.100"	1-19 as listed below
1593	MW-C 16(26)B	16	26/30	.016"	.115"	1-19 as listed below
1594	MW-C 14(41)B	14	41/30	.016"	.125"	1 & 11-19 as listed below
1595	MW-C 12(65)B	12	65/30	.016"	.140"	1 & 11-19 as listed below

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

*Other solid colors and striped combinations available to order.



MIL-W-76B-PLASTIC WIRE

TYPE MW—GLASS BRAID—SHIELDED

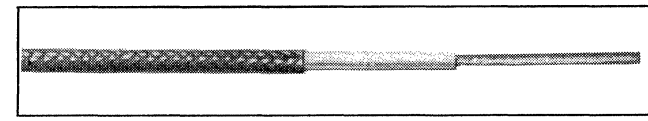
DESCRIPTION: Extra flexible stranded tinned copper, white medium wall polyvinylchloride insulation, white flame retardant lacquered glass braided with tinned copper shield overall, 80% coverage. The stranded conductor has an extra tight lay to prevent springing open when stripped.

CHARACTERISTICS: Temperature rating —40°C to +80°C, Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLOR
1194/24	MW-C 24(7)BS	24	7/32	.016"	.090"	White
1194/22†	MW-C 22(7)BS	22	7/30	.016"	.095"	White
1194†	MW-C 20(10)BS	20	10/30	.016"	.108"	White
1196†	MW-C 18(16)BS	18	16/30	.016"	.124"	White
1197†	MW-C 16(26)BS	16	26/30	.016"	.133"	White
1198†	MW-C 14(41)BS	14	41/30	.016"	.144"	White
1199†	MW-C 12(65)BS	12	65/30	.016"	.168"	White

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

*Other solid colors and striped combinations available to order.
†1194/22 to 1199 formerly 1361 to 1365



MIL-W-76B-PLASTIC WIRE

TYPE MW—SHIELDED

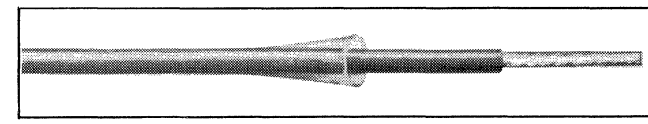
DESCRIPTION: Extra flexible stranded tinned copper, color coded **medium wall** polyvinylchloride insulation, braided tinned copper shield overall, 80% coverage. Stranded conductor has an extra tight lay to prevent springing open when stripped.

CHARACTERISTICS: Temperature rating —40°C to +80°C, Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLORS
1350	MW-C 24(7)S	24	7/32	.016"	.075"	White
1351	MW-C 22(7)S	22	7/30	.016"	.085"	White
1352	MW-C 20(10)S	20	10/30	.016"	.095"	White
1353	MW-C 18(16)S	18	16/30	.016"	.105"	White
1354	MW-C 16(26)S	16	26/30	.016"	.115"	White
1355	MW-C 14(41)S	14	41/30	.016"	.130"	White
1356	MW-C 12(65)S	12	65/30	.016"	.145"	White

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

*Other solid colors and stripe combinations available to orde



MIL-W-76B-PLASTIC WIRE

TYPE MW—NYLON JACKET

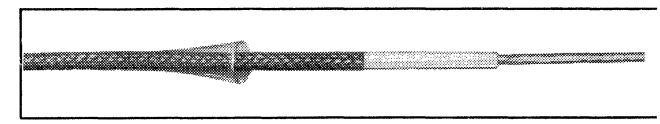
DESCRIPTION: Extra flexible stranded tinned copper, color coded **medium wall** polyvinylchloride insulation, clear nylon (polyamide) jacket overall. Stranded conductor has an extra tight lay to prevent springing open when stripped.

CHARACTERISTICS: Temperature rating —40°C to +90°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICK.	NOM. O.D.	* STOCK COLORS
1503	MW-C 24(7)J	24	7/32	.016"	.002"	.065"	1-19 as listed below
1504	MW-C 22(7)J	22	7/30	.016"	.003"	.072"	1-19 as listed below
1505	MW-C 20(10)J	20	10/30	.016"	.003"	.079"	1-19 as listed below
1506	MW-C 18(16)J	18	16/30	.016"	.003"	.090"	1-19 as listed below
1507	MW-C 16(26)J	16	26/30	.016"	.004"	.103"	1-19 as listed below
1508	MW-C 14(41)J	14	41/30	.016"	.004"	.118"	1-6 as listed below
1509	MW-C 12(65)J	12	65/30	.016"	.005"	.135"	1-3 as listed below

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

*Other solid colors an striped combination available to order.



MIL-W-76B-PLASTIC WIRE

TYPE MW—SHIELDED—NYLON JACKET

DESCRIPTION: Stranded tinned copper, white **medium** wall polyvinylchloride insulation, braided tinned copper shield, 80% minimum coverage, clear nylon (polyamide) jacket overall.

CHARACTERISTICS: Temperature rating —40° to +90°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
1370	MW-C 24(7)SJ	24	7/32	.016"	.005"	.091"
1371	MW-C 22(7)SJ	22	7/30	.016"	.005"	.100"
1372	MW-C 20(7)SJ	20	7/28	.016"	.005"	.105"
1373	MW-C 18(19)SJ	18	19/30	.016"	.005"	.115"
1374	MW-C 16(19)SJ	16	19/29	.016"	.005"	.125"
1375	MW-C 14(19)SJ	14	19/27	.016"	.005"	.138"
1376	MW-C 12(19)SJ	12	19/25	.016"	.005"	.156"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

*** STOCK COLORS**

1—White	7—Brown	13—White/Green	19—White/Violet	25—White/Black/Oran
2—Black	8—Orange	14—White/Yellow	20—White/Black/Red	26—White/Black/Gray
3—Red	9—Gray (slate)	15—White/Blue	21—White/Black/Green	27—White/Black/Viole
4—Green	10—Violet (purple)	16—White/Brown	22—White/Black/Yellow	28—Tan
5—Yellow	11—White/Black	17—White/Orange	23—White/Black/Blue	29—Pink
6—Light Blue	12—White/Red	18—White/Gray	24—White/Black/Brown	30—Dark Blue

*Other striped color combinations available to order.

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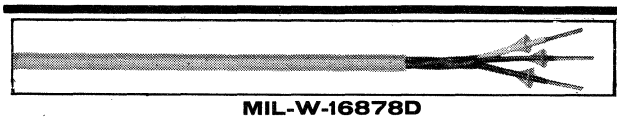


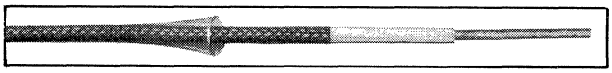
MIL-W-16878D
MULTI-CONDUCTOR CABLE
TYPE B – NYLON SHIELDED-PLASTIC JACKET

DESCRIPTION: Each conductor stranded tinned copper, .010" polyvinylchloride insulation, color coded, clear nylon (polyamide) jacket, conductors cabled, braided tinned copper shield 90% coverage, **white** polyvinylchloride jacket overall.

CHARACTERISTICS: Temperature rating −55°C to +105°C. Voltage rating 600 volts, resistant to acids, alkalis, oil, flame, moisture, fungus, solvents.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. NYLON THICKNESS	NOM. OVERALL JACKET	NOM. O.D.
3210	1	24	19/36	.010"	.003"	.016"	.092"
3211	2	24	19/36	.010"	.003"	.016"	.152"
3212	3	24	19/36	.010"	.003"	.016"	.161"
3220	1	22	19/34	.010"	.003"	.016"	.100"
3221	2	22	19/34	.010"	.003"	.016"	.168"
3222	3	22	19/34	.010"	.003"	.017"	.178"
3230	1	20	19/32	.010"	.003"	.016"	.106"
3231	2	20	19/32	.010"	.003"	.019"	.186"
3232	3	20	19/32	.010"	.003"	.019"	.196"
3240	1	18	19/30	.010"	.003"	.012"	.120"
3241	2	18	19/30	.010"	.003"	.021"	.210"
3242	3	18	19/30	.010"	.003"	.022"	.227"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.,
COLOR CODE OF CONDUCTORS: 1—White 2—Black 3—Red



MIL-W-16878D PLASTIC WIRE
TYPE C – SHIELDED – NYLON JACKET

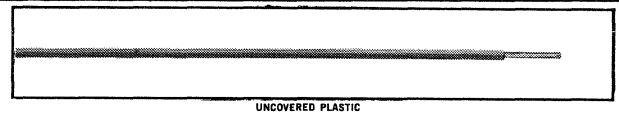
DESCRIPTION: Stranded tinned copper, **white** .016" polyvinylchloride insulation, braided tinned copper shield, 90% coverage, clear nylon (polyamide) jacket overall (which can be striped to order for color identification).

CHARACTERISTICS: Temperature rating —55°C. to +115°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

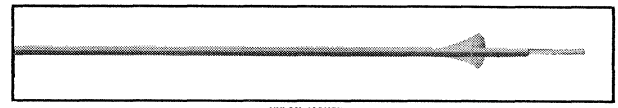
ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL JKT. THICKNESS	NOMINAL O.D.
1470	C-24	24	7/32	.016"	.005"	.091"
1471	C-22	22	7/30	.016"	.005"	.098"
1472	C-20	20	7/28	.016"	.005"	.105"
1473	C-18	18	19/30	.016"	.005"	.115"
1474	C-16	16	19/29	.016"	.005"	.125"
1475	C-14	14	19/27	.016"	.005"	.142"
1476	C-12	12	19/25	.016"	.005"	.156"

STANDARD SPOOL PUT-UP:
1470-1473—100 FT., 500 FT., 1000 FT., 5000 FT.
1474-1476—100 FT., 500 FT., 1000 FT., 3000 FT.

ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED.



UNCOVERED PLASTIC



NYLON JACKET

MIL-W-16878D PLASTIC WIRE
TYPE C – UNCOVERED PLASTIC

DESCRIPTION: Stranded tinned copper, color coded .016" polyvinylchloride insulation.

CHARACTERISTICS: Temperature rating —55°C to +105°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLORS
1610	C-24	24	16/36	.016"	.058"	1-19 as listed below
1830	C-24	24	7/32	.016"	.058"	1-19 as listed below
1831	C-22	22	7/30	.016"	.064"	1-19 as listed below
1832	C-20	20	7/28	.016"	.072"	1-19 as listed below
1833	C-18	18	7/26	.016"	.082"	1-19 as listed below
1834	C-16	16	19/29	.016"	.091"	1 & 11-19 as listed below
1835	C-14	14	19/27	.016"	.105"	1 & 11-19 as listed below
1836	C-12	12	19/25	.016"	.124"	1 & 11-19 as listed below

STANDARD SPOOL PUT-UP: 1610-1833—100 FT., 500 FT., 1000 FT., 5000 FT. 1834-1836—100 FT., 500 FT., 1000 FT., 3000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED

TYPE C – NYLON JACKET

DESCRIPTION: Stranded tinned copper, color coded .016" polyvinylchloride insulation, clear nylon (polyamide) jacket overall.

CHARACTERISTICS: Temperature rating —55°C to +115°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICK.	NOMINAL O.D.	* STOCK COLORS
1840	C-24	24	7/32	.016"	.002"	.065"	1-19 as listed below
1841	C-22	22	7/30	.016"	.003"	.072"	1-19 as listed below
1842	C-20	20	7/28	.016"	.003"	.079"	1-19 as listed below
1843	C-18	18	7/26	.016"	.003"	.090"	1-19 as listed below
1844	C-16	16	19/29	.016"	.004"	.099"	1 & 11-19 as listed below
1845	C-14	14	19/27	.016"	.004"	.114"	1 & 11-19 as listed below
1846	C-12	12	19/25	.016"	.005"	.135"	1 & 11-19 as listed below

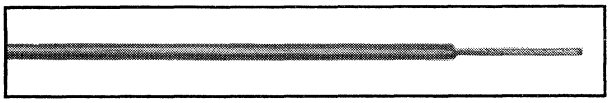
*** STOCK COLORS**

1—White	11—White/Black
2—Black	12—White/Red
3—Red	13—White/Green
4—Green	14—White/Yellow
5—Yellow	15—White/Blue
6—Light Blue	16—White/Brown
7—Brown	17—White/Orange
8—Orange	18—White/Gray
9—Gray (slate)	19—White/Violet
10—Violet (purple)	

*Other solid and striped combinations available to order.

STANDARD SPOOL PUT-UP: 1840-1843—100 FT., 500 FT., 1000 FT., 5000 FT. 1844-1846—100 FT., 500 FT., 1000 FT., 3000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED

MIL-W-16878 D -PLASTIC WIRE



TYPE B – UNCOVERED PLASTIC
REGULAR TINNED COPPER CONDUCTOR

DESCRIPTION: Stranded tinned copper, color coded. .010" polyvinylchloride insulation.

CHARACTERISTICS: Temperature rating, —55°C to 105°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents, and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.
1850	B-32	32	7/40	.010"	.028"
1851	B-30	30	7/38	.010"	.032"
1852	B-28	28	7/36	.010"	.034"
1853	B-26	26	7/34	.010"	.038"
1854	B-24	24	7/32	.010"	.043"
1854/19	B-24	24	19/36	.010"	.043"
1855	B-22	22	7/30	.010"	.050"
1855/19	B-22	22	19/34	.010"	.050"
1856	B-20	20	7/28	.010"	.058"
1856/19	B-20	20	19/32	.010"	.058"
1857	B-18	18	7/26	.010"	.068"
1857/19	B-18	18	19/30	.010"	.068"
1858/19	B-16	16	19/29	.010"	.077"
1859/19	B-14	14	19/27	.010"	.091"

STOCK COLORS
1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

Standard Put-Ups
#1850 and #1851 —100, 500, 1000 ft. spools
#1852 thru #1857/19 —100, 500, 1000, 5000 ft. spools
#1858/19 and #1859/19—100, 500, 1000, 3000 ft. spools

ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED.

TYPE B – NYLON JACKET
REGULAR TINNED COPPER CONDUCTOR

DESCRIPTION: Stranded tinned copper, color coded. .010" polyvinylchloride insulation, clear nylon (polyamide) jacket overall.

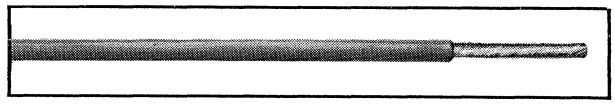
CHARACTERISTICS: Temperature rating, —55°C to 115°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1860	B-32	32	7/40	.010"	.003"	.035"
1861	B-30	30	7/38	.010"	.003"	.039"
1862	B-28	28	7/36	.010"	.003"	.041"
1863	B-26	26	7/34	.010"	.003"	.044"
1864	B-24	24	7/32	.010"	.003"	.049"
1864/19	B-24	24	19/36	.010"	.003"	.049"
1865	B-22	22	7/30	.010"	.003"	.056"
1865/19	B-22	22	19/34	.010"	.003"	.056"
1866	B-20	20	7/28	.010"	.003"	.064"
1866/19	B-20	20	19/32	.010"	.003"	.064"
1867	B-18	18	7/26	.010"	.003"	.074"
1867/19	B-18	18	19/30	.010"	.003"	.074"
1868/19	B-16	16	19/29	.010"	.003"	.085"
1869/19	B-14	14	19/27	.010"	.004"	.099"

STOCK COLORS
1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

Standard Put-Ups
#1860 and #1861 —100, 500, 1000 ft. spools
#1862 thru #1867/19 —100, 500, 1000, 5000 ft. spools
#1868/19 and #1869/19—100, 500, 1000, 3000 ft. spools

ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED.



TYPE C – UNCOVERED PLASTIC

DESCRIPTION: Stranded tinned copper, color coded .016" polyvinychloride insulation.

CHARACTERISTICS: Temperature rating —55°C to +105°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLORS
1610	C-24	24	16/36	.016"	.058"	1-19 as listed below
1830	C-24	24	7/32	.016"	.058"	1-19 as listed below
1831	C-22	22	7/30	.016"	.064"	1-19 as listed below
1832	C-20	20	7/28	.016"	.072"	1-19 as listed below
1833	C-18	18	7/26	.016"	.082"	1-19 as listed below
1834	C-16	16	19/29	.016"	.091"	
1835	C-14	14	19/27	.016"	.105"	1 & 11-19 as listed below
1836	C-12	12	19/25	.016"	.124"	

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

TYPE C – NYLON JACKET

DESCRIPTION: Stranded tinned copper, color coded .016" polyvinylchloride insulation, clear nylon (polyamide) jacket overall.

CHARACTERISTICS: Temperature rating —55°C to +115°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICK.	NOMINAL O.D.	* STOCK COLORS
1840	C-24	24	7/32	.016"	.002"	.065"	1-19 as listed below
1841	C-22	22	7/30	.016"	.003"	.072"	1-19 as listed below
1842	C-20	20	7/28	.016"	.003"	.079"	1-19 as listed below
1843	C-18	18	7/26	.016"	.003"	.090"	1-19 as listed below
1844	C-16	16	19/29	.016"	.004"	.099"	
1845	C-14	14	19/27	.016"	.004"	.114"	1 & 11-19 as listed below
1846	C-12	12	19/25	.016"	.005"	.135"	

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

TYPE C – SHIELDED – NYLON JACKET

DESCRIPTION: Stranded tinned copper, **white** .016" polyvinylchloride insulation, braided tinned copper shield, 90% coverage, clear nylon (polyamide) jacket (which can be striped to order for color identification) overall.

CHARACTERISTICS: Temperature rating —55°C. to +115°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOMINAL WALL THICKNESS	NOMINAL JACKET THICKNESS	NOMINAL O.D.
1470	24	7/32	.016"	.005"	.091"
1471	22	7/30	.016"	.005"	.098"
1472	20	7/28	.016"	.005"	.105"
1473	18	19/30	.016"	.005"	.115"
1474	16	19/29	.016"	.005"	.125"
1475	14	19/27	.016"	.005"	.138"
1476	12	19/25	.016"	.005"	.156"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED.

*** STOCK COLORS**

1—White	5—Yellow	9—Gray (slate)	12—White/Red	16—White/Brown
2—Black	6—Light Blue	10—Violet (purple)	13—White/Green	17—White/Orange
3—Red	7—Brown	11—White/Black	14—White/Yellow	18—White/Gray
4—Green	8—Orange		15—White/Blue	19—White/Violet

*Other solid and striped combinations available to order.

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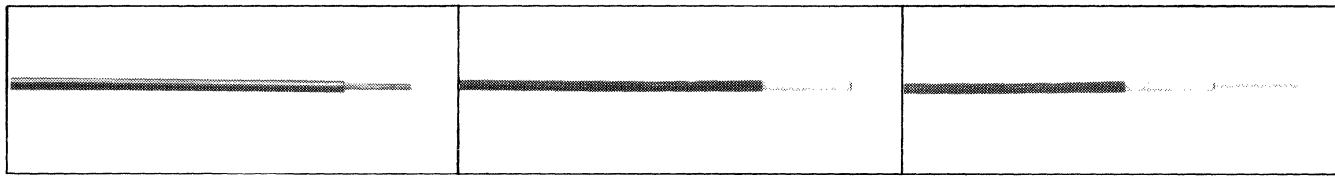

HOOK-UP WIRE | SEMI-RIGID BUSINESS MACHINE WIRE | COTTON BRAID HOOK-UP WIRE

U.L. HOOK-UP WIRE

DESCRIPTION: Stranded tinned copper, color coded polyvinylchloride insulation.
CHARACTERISTICS: Temperature rating (—10°C to +80°C, 300V) (—10°C to +105°C, 600V)
Resistant to acids, alkalis, oil, flame, moisture and fungus.

300 VOLT 80°C—STYLE No. 1007

ALPHA NO.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.
3050	24	7/32	.016″	.057″
3051	22	7/30	.016″	.065″
3053	20	10/30	.016″	.071″
3055	18	16/30	.016″	.080″
3057	16	26/30	.016″	.095″

STANDARD SPOOL PUT-UP:
3050-3055—100 FT., 500 FT., 1000 FT., 000 FT.
3057—100 FT., 500 FT., 1000 FT., 3000 FT.

***STOCK COLORS**

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

*Other striped color combinations to order

600 VOLT* 105°C—STYLE No. 1015

ALPHA NO.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.
3071	22	7/30	.032″	.095″
3073	20	10/30	.032″	.102″
3075	18	16/30	.032″	.112″
3077	16	26/30	.032″	.125″
3079	14	41/30	.032″	.142″

STANDARD SPOOL PUT-UP:
3071-3075—100 FT., 500 FT., 1000 FT., 5000 FT.
3077-3079—100 FT., 500 FT., 1000 FT., 3000 FT.
*Also C.S.A. approved 600 volt 90°C type TR-32

***STOCK COLORS**

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)

*Other striped color combinations to order

U.L. SEMI-RIGID BUSINESS MACHINE WIRE

DESCRIPTION: Stranded tinned copper, color coded semi-rigid polyvinylchloride insulation.
CHARACTERISTICS: Temperature rating —10°C to +80°C, 300 volts in business machine or electronic computers only.

300 VOLT 80°C—STYLE No. 1061

ALPHA NO.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.
3250	24	7/32	.009″	.042″
3251	22	7/30	.009″	.048″
3252	20	7/28	.009″	.056″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT. 5000 FT.

STOCK COLORS

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Blue
7—Brown
8—Orange
9—Gray
10—Violet

*Other striped color combinations available to order.

U.L. COTTON BRAID HOOK-UP WIRE

DESCRIPTION: Stranded tinned copper, white polyvinylchloride insulation, lacquered cotton braid overall.
CHARACTERISTICS: Temperature rating —10°C to +90°C, *600 volts in electronic circuits, 300 volts for other applications.

ALPHA NO.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.
1480	22	7/30	.016″	.090″
1481	20	10/30	.016″	.100″
1482	18	16/30	.016″	.110″
1483	16	26/30	.016″	.125″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED.

STOCK COLORS

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Blue
7—Brown
8—Orange
9—Gray
10—Violet

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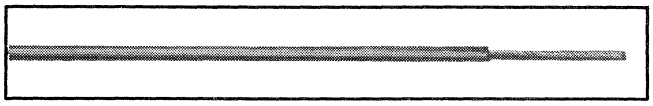
See Last Two ALPHA Pages For Complete Price List



MIL-W-16878C-TEFLON† WIRE 260°C
TYPE E–EXTRUDED (600 VOLTS)

DESCRIPTION: Single conductor stranded silver plated copper, .010" TFE Teflon insulation.

CHARACTERISTICS: Temperature rating –65°C. to +260°C. Voltage rating 600 volts. Resistant to acid, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.	*STOCK COLORS
2850	E-32	32	7/40	.029"	1-19 as listed
2851	E-30	30	7/38	.032"	1-19 as listed
2852	E-28	28	7/36	.036"	1-19 as listed
2853	E-26	26	7/34	.040"	1-19 as listed
2854	E-24	24	19/36	.045"	1-19 as listed
2855	E-22	22	19/34	.051"	1-19 as listed
2856	E-20	20	19/32	.059"	1-19 as listed
2857	E-18	18	19/30	.070"	1-19 as listed
2858	E-16	16	19/29	.083"	1-19 as listed
2859	E-14	14	19/27	.097"	1-6 & 11-19 as listed
2859/12	E-12	12	19/25	.113"	1 & 11-19 as listed
2859/10	E-10	10	37/26	.134"	1 & 11-19 as listed

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT AND STRIPPED.

*** STOCK COLORS**

1—White, 2—Black, 3—Red, 4—Green, 5—Yellow, 6—Light Blue, 7—Brown, 8—Orange, 9—Gray (slate), 10—Violet (purple), 11—White/Black, 12—White/Red, 13—White/Green, 14—White/Yellow, 15—White/Blue, 16—White/Brown, 17—White/Orange, 18—White/Gray, 19—White/Violet

* Other solid colors and striped combinations available to order.

TYPE E–SPIRAL WRAPPED (600 VOLTS)

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.
2883	E-26	26	7/34	.040"
2884	E-24	24	19/36	.045"
2885	E-22	22	19/34	.051"
2886	E-20	20	19/32	.059"
2887	E-18	18	19/30	.070"

*** STOCK COLORS**
1—White, 2—Black, 3—Red, 4—Green, 5—Yellow, 6—Light Blue, 7—Brown, 8—Orange, 9—Gray (slate), 10—Violet (purple)
*Other solid colors and striped combinations available to order.

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT AND STRIPPED.

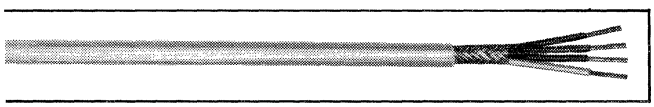
TYPE EE–EXTRUDED (1000 VOLTS)

DESCRIPTION: Single conductor stranded silver plated copper, .016" TFE extruded Teflon insulation.

CHARACTERISTICS: Temperature rating –60°C. to +260°C. Voltage rating 1000 volts. Resistant to acid, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.	*STOCK COLORS
2874	EE-24	24	19/36	.055"	1—White
2875	EE-22	22	19/34	.062"	11—White/Black
2876	EE-20	20	19/32	.070"	12—White/Red
2877	EE-18	18	19/30	.080"	13—White/Green
2878	EE-16	16	19/29	.089"	14—White/Yellow
2879	EE-14	14	19/27	.106"	15—White/Blue
2879/12	EE-12	12	19/25	.124"	16—White/Brown
2879/10	EE-10	10	37/26	.145"	17—White/Orange
2879/8	EE-8	8	133/29	.210"	18—White/Gray
					19—White/Violet

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT AND STRIPPED.



TEFLON FEP EXTRUDED JACKET OVER SHIELD

DESCRIPTION: Each conductor stranded silver plated copper, Type E extruded TFE insulation color coded, cabled, braided silver plated copper shield 90% coverage, extruded FEP white Teflon jacket overall.

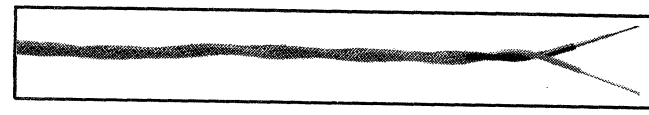
CHARACTERISTICS: Temperature rating –65°C to +200°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus. Extruded FEP Teflon jacket is tough and abrasion resistant.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.	NOM. CAP. IN MMF SHIELD TO COND.	NOM. CAP. IN MMF COND. TO COND.
2831	1	24	19/36	.010"	.010"	.085"	45	—
2831/2	2	24	19/36	.010"	.010"	.130"	35	25
2831/3	3	24	19/36	.010"	.010"	.135"	35	20
2834	1	22	19/34	.010"	.010"	.091"	55	—
2834/2	2	22	19/34	.010"	.014"	.150"	45	25
2834/3	3	22	19/34	.010"	.014"	.158"	35	25
2837	1	20	19/32	.010"	.010"	.100"	55	—
2837/2	2	20	19/32	.010"	.014"	.168"	95	25
2837/3	3	20	19/32	.010"	.014"	.178"	85	25
2839	1	18	19/30	.010"	.010"	.110"	70	—
2839/2	2	18	19/30	.010"	.014"	.188"	60	35
2839/3	3	18	19/30	.010"	.018"	.207"	60	35

TANDARD SPOOL PUT-UP
00 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS 1—White, 2—Black, 3—Red

Other solid colors and striped combinations available to order.



MIL-W-16878C
SHIELDED TEFLON† CABLES

DESCRIPTION: Each conductor stranded silver plated copper, type E extruded TFE .010" insulation, braided silver plated copper shield over conductor(s), 90% coverage. When covered, either a Teflon impregnated fiberglass braid or a .010" Teflon fused tape jacket overall.

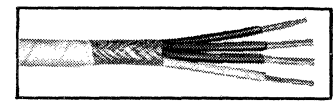
CHARACTERISTICS: Temperature rating –65°C. to +260°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

NO OUTER COVERING OVER SHIELD

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.
2809	1	24	19/36	.069"
2809/2	2	24	19/36	.112"
2809/3	3	24	19/36	.120"
2809/4	4	24	19/36	.132"
2812	1	22	19/34	.075"
2812/2	2	22	19/34	.124"
2812/3	3	22	19/34	.132"
2812/4	4	22	19/34	.146"
2815	1	20	19/32	.083"
2815/2	2	20	19/32	.142"
2815/3	3	20	19/32	.151"
2815/4	4	20	19/32	.168"
2818	1	18	19/30	.093"
2818/2	2	18	19/30	.162"
2818/3	3	18	19/30	.172"
2818/4	4	18	19/30	.192"

COLOR CODE OF CONDUCTORS
1—White, 2—Black, 3—Red, 4—Green

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

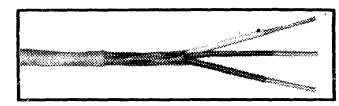


TEFLON TAPE WRAP JACKET OVER SHIELD

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.
2821	1	24	19/36	.084"
2821/2	2	24	19/36	.128"
2821/3	3	24	19/36	.135"
2821/4	4	24	19/36	.148"
2824	1	22	19/34	.090"
2824/2	2	22	19/34	.140"
2824/3	3	22	19/34	.148"
2824/4	4	22	19/34	.162"
2827	1	20	19/32	.099"
2827/2	2	20	19/32	.158"
2827/3	3	20	19/32	.167"
2827/4	4	20	19/32	.184"
2829	1	18	19/30	.109"
2829/2	2	18	19/30	.178"
2829/3	3	18	19/30	.189"
2829/4	4	18	19/30	.208"

COLOR CODE OF CONDUCTORS
1 White, 2 Black, 3 Red, 4 Green

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.



TEFLON IMPREGNATED BRAID OVER SHIELD

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.
2811	1	24	19/36	.081"
2811/2	2	24	19/36	.126"
2811/3	3	24	19/36	.133"
2811/4	4	24	19/36	.144"
2814	1	22	19/34	.088"
2814/2	2	22	19/34	.137"
2814/3	3	22	19/34	.144"
2814/4	4	22	19/34	.158"
2817	1	20	19/32	.097"
2817/2	2	20	19/32	.154"
2817/3	3	20	19/32	.163"
2817/4	4	20	19/32	.180"
2819	1	18	19/30	.106"
2819/2	2	18	19/30	.174"
2819/3	3	18	19/30	.185"
2819/4	4	18	19/30	.205"

COLOR CODE OF CONDUCTORS
1—White, 2—Black, 3—Red, 4—Green

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

†T.M. DuPont

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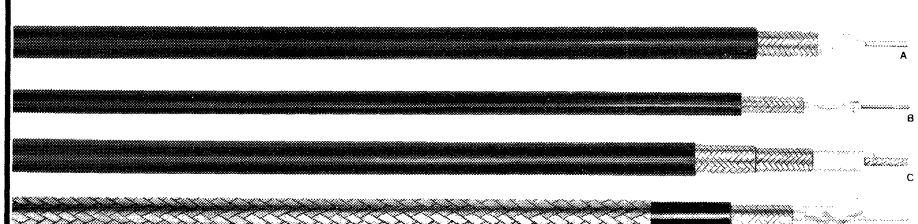
See Last Two ALPHA Pages For Complete Price List

COAXIAL CABLES

TYPE RG

MANUFACTURED TO MEET ALL MILITARY SPECIFICATIONS

RG CABLE TYPE		5B/U	8/U	8A/U	9B/U	10A/U	11/U	11A/U	13A/U	14A/U	17A/U	18A/U	55B/U	58/U	58A/U	58C/U	59/U	59A/U	59B/U	62/U	62A/U	63B/U	71B/U	79B/U	174/U	212/U	213/U	214/U	215/U	218/U	219/U	223/U
ALPHA PART NO.		800	803	804	805	806	807	808	810	811	812	813	817	818	819	820	821	822	823	824	846	847	841	848	827	829	830	831	832	835	836	837
ILLUSTRATION FACING PAGE		E	A	A	E	F	A	A	E	E	A	F	E	A	A	A	A	A	A	B	B	B	C	D	A	E	A	E	F	A	F	E
INNER CONDUCTOR	MAT.*	SC	C	C	SC	C	TC	TC	TC	C	C	C	SC	C	TC	TC	CW	CW	CW	CW	CW	CW	CW	CW	CW	SC	C	SC	C	C	C	SC
	STRAND	1	7 .0285	7 .0285	7 .0285	7 .0285	7 .0159	7 .0159	7 .0159	1	1	1	1	1	19 .0071	19 .0071	1	1	1	1	1	1	1	1	7 .0063	1	7 .0296	7 .0296	7 .0296	1	1	1
	O. D.	.051	.086	.0285	.086	.086	.048	.048	.048	.102	.188	.188	.032	.032	.0375	.0375	.0253	.023	.023	.025	.025	.0253	.025	.025	.019	.056	.090	.090	.090	.195	.195	.036
DIELECTRIC	MAT.*	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE
	O. D.	.185	.295	.295	.285	.295	.295	.292	.290	.383	.695	.695	.121	.121	.120	.120	.150	.150	.150	.151	.151	.295	.151	.295	.060	.189	.292	.292	.292	.690	.690	.120
SHIELDS	INNER	SC	C	C	SC	C	C	C	C	C	C	C	TC	C	TC	TC	C	C	C	C	C	C	C	C	TC	SC	C	SC	C	C	C	SC
	OUTER	SC	—	—	SC	—	—	—	C	C	—	—	TC	—	—	—	—	—	—	—	—	—	TC	—	—	SC	—	SC	—	—	—	SC
	O. D.	.260	.340	.340	.355	.340	.340	.340	.355	.463	.760	.760	.176	.150	.150	.150	.191	.191	.191	.191	.191	.340	.208	.340	.069	.265	.340	.360	.340	.760	.760	.176
JACKET	MAT.*	NCV	V	NCV	NCV	NCV	V	NCV	NCV	NCV	NCV	NCV	PE	V	V	NCV	V	NCV	NCV	V	NCV	NCV	PE	NCV	V	NCV	NCV	NCV	NCV	NCV	NCV	NCV
	O. D.	.335	.415	.415	.430	.415	.415	.412	.430	.558	.885	.885	.206	.200	.199	.199	.250	.246	.246	.250	.249	.415	.250	.415	.105	.336	.412	.432	.412	.880	.880	.216
ARMOR (.0126 ALUM. WIRE)		—	—	—	—	.475	—	—	—	—	—	.945	—	—	—	—	—	—	—	—	—	—	—	.475	—	—	—	—	—	—	.945	—
OPR VOLTS RMS		3000	4000	4000	4000	4000	4000	4000	4000	5500	11000	11000	1900	1900	1900	1900	2300	2300	2300	750	750	1000	750	1000	—	3000	4000	4000	4000	11000	11000	1900
LBS. PER MFT.		83	99	99	126	121	89	89	114	201	446	496	32	24	25	25	36	36	36	34	34	78	42	122	—	85	100	129	122	457	507	36
NOM. IMPED. OHMS		50 O	52 O	52 O	50 O	52 O	75 □	75 □	74 □	52 O	52 O	52 O	53.5 O	53.5 O	50 O	50 O	73 □	75 □	75 □	93 ■	93 ■	125 ●	93 ■	125 ●	50 O	50 O	50 O	50 O	50 O	50 O	50 O	50 O
CAP. MMF/FT.		29.5	29.5	29.5	30	29.5	20.5	20.5	20.5	29.5	29.5	29.5	28.5	28.5	29.5	29.5	21	20.5	20.5	13.5	13.5	10	13.5	10	30	29.5	30.5	30.5	30.5	30	30	30
ATTEN. (db/100 ft.) FREQ. IN MEGS.	10	.65	.56	.56	.45	.56	.65	.65	.65	.28	.23	.23	1.3	1.4	1.6	1.6	1.1	1.1	1.1	.82	.82	.60	.82	.60	—	.65	.56	.45	.56	.225	.225	1.3
	50	1.6	1.35	1.35	1.26	1.35	1.5	1.5	1.5	.85	.60	.60	3.2	3.5	4.1	4.1	2.7	2.7	2.7	1.9	1.9	1.4	1.9	1.4	—	1.6	1.35	1.26	1.35	.60	.60	3.2
	100	2.4	2.1	2.1	2.3	2.1	2.15	2.15	2.15	1.5	.95	.95	4.8	5.3	6.2	6.2	4.0	4.0	4.0	2.7	2.7	2.0	2.7	2.0	—	2.4	2.1	2.3	2.1	.95	.95	4.8
	200	3.6	3.1	3.1	3.4	3.1	3.2	3.2	3.2	2.3	1.5	1.5	7.0	8.3	9.2	9.2	5.7	5.7	5.7	3.9	3.9	2.9	3.9	2.9	—	3.6	3.1	3.4	3.1	1.5	1.5	7.0
	400	5.2	5.0	5.0	5.2	5.0	4.7	4.7	4.7	3.5	2.4	2.4	10.5	11.5	14.0	14.0	8.5	8.5	8.5	5.8	5.8	4.1	5.8	4.1	2.0	5.2	5.0	5.2	5.0	2.4	2.4	10.5
	600	6.6	6.5	6.5	6.5	6.5	6.0	6.0	6.0	4.4	3.2	3.2	13.0	17.8	17.5	17.5	10.8	10.8	10.8	7.0	7.0	5.1	7.0	5.1	—	6.6	6.5	6.5	6.5	3.2	3.2	13.0
	1000	8.8	8.8	8.8	9.0	8.8	8.2	8.2	8.2	6.0	4.5	4.5	17	20	23.5	23.5	14.0	14.0	14.0	9.0	9.0	6.5	9.0	6.5	—	8.8	8.8	9.0	8.8	4.5	4.5	17.0
	3000	16.7	17.5	17.5	17	17.5	18	18	18	11.7	9.5	9.5	32	40	45	45	26	26	26	17	17	11.3	17	11.3	—	16.7	17.5	17	16.7	9.5	9.5	32
VP %		65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	84	84	84	84	84	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9



*MATERIAL
SC—Silver Plated Copper
C—Bare Copper
PE—Polyethylene
NCV—Non-Contaminating Vinyl
V—Polyvinylchloride
TC—Tinned Copper
CW—Copperweld

O OHMS UP TO AND INCLUDING 55

□ OHMS FROM 56 THROUGH 80

■ OHMS FROM 81 THROUGH 100

● OHMS FROM 101 THROUGH 200

ALL DIMENSIONS ARE MAXIMUM

SHIELDED MICROPHONE CABLE

PLASTIC JACKET—STANDARD DUTY

DESCRIPTION

1702-1706: Single conductor, stranded tinned copper, white polyethylene insulation, braided or spiral wrapped tinned copper shield, gray polyvinychloride jacket overall.

1709-1715: Each conductor stranded tinned copper, color coded polyethylene insulation, cabled with fillers, textile wrap, braided or spiral wrapped tinned copper shield, gray polyvinylchloride jacket overall.

APPLICATIONS

1702-1706: All high impedance microphones, lapel, ribbon, velocity, crystal contact, Hi-Fi interconnecting cables.

1709-1715: All low impedance microphones — carbon, condenser, dynamic.

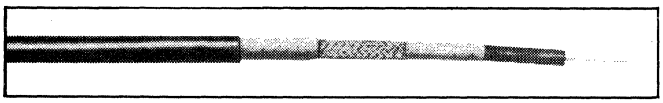
ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	* CAPACITY NOM./FT.	TYPE OF SHIELD	NOMINAL JACKET	NOM. O.D.
1702	1	26	3/34† 4/34†	.016″	38 mmf.	Spiral Wrapped	.020″	.110″
1703	1	24	10/34	.020″	35 mmf.	Braided	.030″	.145″
1704	1	24	10/34	.040″	23 mmf.	Braided	.030″	.200″
1705	1	24	10/34	.016″	45 mmf.	Spiral Wrapped	.020″	.110″
1706	1	20	26/34	.030″	36 mmf.	Braided	.030″	.175″
1709	2	24	10/34	.016″	38 mmf.	Spiral Wrapped	.030″	.190″
1710	2	22	16/34	.025″	31 mmf.	Braided	.030″	.235″
1712	2	20	26/34	.014″	45 mmf.	Braided	.030″	.245″

* Between one conductor and remaining conductors connected to shield.
† Three strands of tinned copper and four strands of tinned copperweld.

1702-1706 COLOR CODE OF CONDUCTOR: 1—White

1709-1715 COLOR CODE OF CONDUCTORS: 1—White 2—Black 3—Red 4—Green

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.



SHIELDED MICROPHONE CABLE

RUBBER AND NEOPRENE JACKETS

DESCRIPTION: Each conductor stranded tinned copper, color coded rubber insulation, cotton wrap, braided tinned copper shield, cotton wrap, tough black rubber or neoprene jacket overall.

APPLICATIONS: 1248-1449: All high impedance microphone, broadcast and heavy duty studio use, communication and audio systems.

1250-1450/16: All low impedance microphone, broadcast and heavy duty studio use. Can also be used for control circuits, video and audio interconnection cable, and as electronic power cables.

CHARACTERISTICS: Suggested operating temperature: −20°C to +60°C.

Rubber jacketed cable suited for standard duty indoor use.

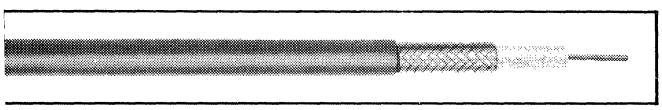
Neoprene jacketed cable suited for heavy duty outdoor use and direct burial. Will resist oil, acid, sunlight, ageing and abrasion.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	TYPE OF JKT.	*NOM. CAP. MMF/FT.	NOM. O.D.
1248†	1	20	26/34	.025″	.030″	Rubber	97	.175″
1249	1	20	26/34	.040″	.035″	Rubber	60	.230″
1249/18	1	18	41/34	.040″	.035″	Rubber	69	.240″
1449	1	18	41/34	.040″	.035″	Neoprene	69	.240″
1250	2	20	26/34	.020″	.035″	Rubber	68	.270″
1250/18	2	18	41/34	.020″	.035″	Rubber	78	.295″
1450	2	18	41/34	.020″	.035″	Neoprene	78	.295″
1450/16	2	16	65/34	.025″	.035″	Neoprene	82	.335″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

* Between one conductor and remaining conductors (if any) connected to shield.
† Mylar wrap under tinned copper shield.

COLOR CODE OF CONDUCTORS 1—Black 2—White



LOW CAPACITANCE SHIELDED MICROPHONE CABLE

CELLULAR FOAM POLYETHYLENE INSULATION—PLASTIC JACKET

DESCRIPTION: Single conductor, stranded tinned copper, white foam polyethylene insulation, braided tinned copper shield, chrome gray polyvinylchloride jacket.

Two conductors, stranded tinned copper, color coded foam polyethylene insulation, 1 white and 1 black, cabled with fillers, textile wrap, braided tinned copper shield, chrome gray polyvinylchloride jacket.

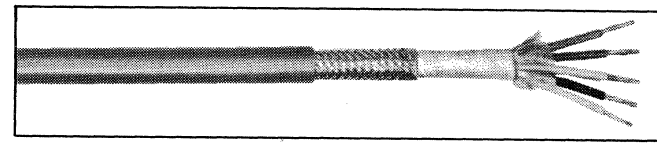
CHARACTERISTICS: Suggested operating temperature: −20°C to +60°C. Low loss foam polyethylene provides lower capacitance and attenuation than standard solid polyethylene microphone cables, thereby increasing the effective length of usable cable without loss of signal.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	*CAPACITY NOM./FT.	NOM. JKT. THICKNESS	NOM. O.D.
2310	1	26	3/34† 4/34†	.016″	30 mmf	.020″	.115″
2311	1	24	10/34	.035″	20 mmf	.030″	.180″
2312	1	24	10/34	.055″	15 mmf	.030″	.225″
2323	2	22	16/34	.035″	11 mmf	.030″	.300″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

Between one conductor and remaining conductors connected to shield.
Three strands of tinned copper and four strands of tinned copperweld.

COLOR CODE OF CONDUCTORS 1—White 2—Black



SHIELDED CONTROL CABLE

GENERAL PURPOSE MULTI-CONDUCTOR PLASTIC JACKETED CABLE

DESCRIPTION: Each conductor, stranded tinned copper, color coded, polyethylene insulation, cabled with fillers where necessary, rayon wrap, braided tinned copper shield, chrome gray polyvinylchloride jacket overall.

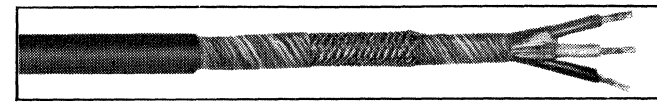
CHARACTERISTICS: Suggested Operating Temperature: −20°C to +60°C. Suggested Operating Voltage: 600 Volts.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1712	2	20	26/34	.014″	.030″	.230″
1713	3	20	26/34	.014″	.035″	.250″
1715	4	20	26/34	.014″	.035″	.260″
1716	5	20	26/34	.014″	.035″	.275″
1717	6	20	26/34	.014″	.035″	.300″
1719	8	20	26/34	.014″	.035″	.330″
1721	10	20	26/34	.014″	.035″	.375″
1723	12	20	26/34	.014″	.035″	.380″
1726	15	20	26/34	.014″	.035″	.410″
1728	20	20	26/34	.014″	.035″	.455″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—Black	5—Yellow	9—Slate	13—White/Green	17—White/Purple
2—White	6—Blue	10—Purple	14—White/Yellow	18—White/Slate
3—Red	7—Brown	11—White/Black	15—White/Blue	19—Black/Red
4—Green	8—Orange	12—White/Red	16—White/Brown	20—Black/Yellow



SHIELDED CONTROL CABLE

GENERAL PURPOSE MULTI-CONDUCTOR RUBBER INSULATED AND RUBBER JACKET

DESCRIPTION: Each conductor, stranded tinned copper, color coded rubber insulation, cabled with fillers where necessary, cotton wrap, braided tinned copper shield, cotton wrap, tough black rubber jacket overall.

CHARACTERISTICS: Suggested Operating Temperature: −20°C to +60°C.

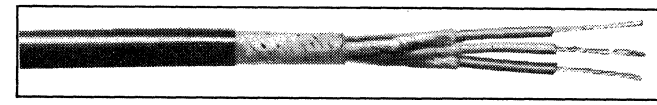
APPLICATIONS: Cables are extremely flexible for control circuits, video and audio interconnecting cable, broadcast and heavy duty studio use.

SHIELDED MULTI-CONDUCTOR CABLE

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1250/18	2	18	41/34	.020″	.035″	.295″
1250	2	20	26/34	.020″	.035″	.270″
1251	3	20	26/34	.020″	.035″	.285″
1252	4	20	26/34	.020″	.035″	.305″
1253	5	20	26/34	.020″	.035″	.330″
1254	6	20	26/34	.020″	.035″	.345″
1255	7	20	26/34	.020″	.035″	.355″
1255/8	8	20	26/34	.020″	.035″	.385″
1255/10	10	20	26/34	.020″	.035″	.440″
1255/12	12	20	26/34	.020″	.065″	.525″
1255/15	15	20	26/34	.020″	.065″	.595″
1255/20	20	20	26/34	.020″	.065″	.660″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

See color code of conductors below.



UNSHIELDED CONTROL CABLE

GENERAL PURPOSE MULTI-CONDUCTOR RUBBER INSULATED AND RUBBER JACKET

DESCRIPTION: Each conductor stranded tinned copper, color coded rubber insulation, cabled with fillers, where necessary, cotton wrap, tough black rubber jacket overall.

CHARACTERISTICS: Suggested operating temperature −20°C to +60°C.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1244	2	20	26/34	.020″	.035″	.240″
1245	3	20	26/34	.020″	.035″	.255″
1246	4	20	26/34	.020″	.035″	.275″
1247	5	20	26/34	.020″	.035″	.300″
1247/6	6	20	26/34	.020″	.035″	.315″
1247/7	7	20	26/34	.020″	.035″	.325″
1247/8	8	20	26/34	.020″	.035″	.360″
1247/10	10	20	26/34	.020″	.035″	.410″
1247/12	12	20	26/34	.020″	.035″	.435″
1247/15	15	20	26/34	.020″	.035″	.505″
1247/20	20	20	26/34	.020″	.035″	.570″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—Black	5—Yellow	9—Slate	13—White/Green (Braid)	17—White/Purple (Braid)
2—White	6—Blue	10—Purple	14—White/Yellow (Braid)	18—White/Slate (Braid)
3—Red	7—Brown	11—White/Black (Braid)	15—White/Blue (Braid)	19—Black/Red (Braid)
4—Green	8—Orange	12—White/Red (Braid)	16—White/Brown (Braid)	20—Black/Yellow (Braid)

See Last Two ALPHA Pages For Complete Price List
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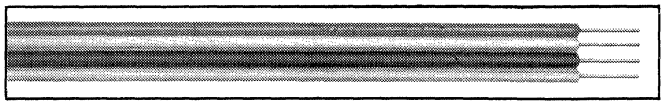


FLAT RIBBON CABLE

MULTI-CONDUCTOR—PLASTIC INSULATION CONDUCTORS PER MIL-W-16878D, TYPE C

DESCRIPTION: Each conductor stranded tinned copper, color coded .016" polyvinyl-chloride insulation, conductors bonded together to form flat ribbon cable.

CHARACTERISTICS: Temperature rating -55°C to +105°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents, and fungus.

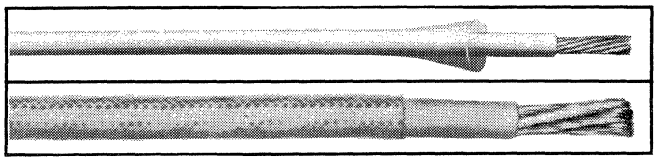
APPLICATIONS: Saves time, weight, and space on circuit connections, interconnecting assemblies and systems, wiring harnesses for racks, sliding drawer and drop panels. Conductors fully color coded and easily separated for neat terminations.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.
3504	4	22	7/30	.016"	.065" x .260"
3508	8	22	7/30	.016"	.065" x .520"
3512	12	22	7/30	.016"	.065" x .780"
3516	16	22	7/30	.016"	.065" x 1.040"
3520	20	22	7/30	.016"	.065" x 1.300"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

STOCK COLORS

1—White	11—White/Black
2—Black	12—White/Red
3—Red	13—White/Green
4—Green	14—White/Yellow
5—Yellow	15—White/Blue
6—Light Blue	16—White/Brown
7—Brown	17—White/Orange
8—Orange	18—White/Gray
9—Gray (slate)	19—White/Violet
10—Violet (purple)	20—White/Black/Red



MIL-W-5086A & MIL-C-7078A

AIRCRAFT WIRE FOR ELECTRICAL SYSTEMS

DESCRIPTION:

MIL-W-5086A—Type I —AN-22 thru AN-12—Single conductor stranded tinned copper, white polyvinylchloride insulation, clear nylon (polyamide) jacket overall.

MIL-W-5086A—Type II—AN-22 thru AN-12—Single conductor stranded tinned copper, white polyvinylchloride insulation, white glass braid, clear nylon (polyamide) jacket overall.

MIL-W-5086A—Type II—AN-10 thru AN-00—Single conductor stranded tinned copper, white polyvinylchloride insulation, white glass braid, flame retardant nylon lacquered nylon braid overall.

MIL-C-7078A—Type I —Single conductor stranded tinned copper, white polyvinylchloride insulation, clear nylon jacket, braided tinned copper shield overall, 85% coverage.

CHARACTERISTICS: Temperature rating: —55°C. to +105°C. Voltage Rating: 600 volts. Resists effects of water, oil, aircraft fuels, hydraulic fluid, skydral, ethyleneglycol, alcohol, dilute acids, alkalis, fungus and abrasion.

UNSHIELDED (MIL-W-5086A) TYPE I

ALPHA NO.	MIL TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOMINAL O.D.
1381	AN-22	22	19/34	.068"
1382	AN-20	20	19/32	.078"
1383	AN-18	18	19/30	.088"
1384	AN-16	16	19/29	.098"
1385	AN-14	14	19/27	.117"
1386	AN-12	12	19/25	.137"

UNSHIELDED (MIL-W-5086A) TYPE II

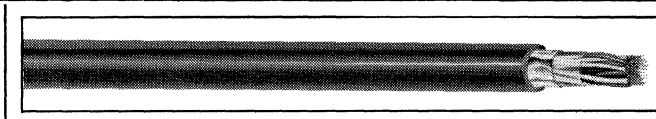
1341†	AN-22	22	19/34	.075"
1342†	AN-20	20	19/32	.085"
1343†	AN-18	18	19/30	.095"
1344†	AN-16	16	19/29	.105"
1345†	AN-14	14	19/27	.125"
1346†	AN-12	12	19/25	.143"
1387	AN-10	10	49/27	.189"
1388	AN-8	8	133/29	.240"
1389	AN-6	6	133/27	.293"
1389/4	AN-4	4	133/25	.355"
1389/2	AN-2	2	665/30	.425"
1389/0	AN-0	0	1045/30	.525"
1389/00	AN-00	00	1330/30	.590"

†1341 to 1346 formerly 2381 to 2386

SHIELDED (MIL-C-7078A) TYPE I

1391	AN-22	22	19/34	.100"
1392	AN-20	20	19/32	.110"
1393	AN-18	18	19/30	.125"
1394	AN-16	16	19/29	.140"
1395	AN-14	14	19/27	.155"
1396	AN-12	12	19/25	.165"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED



TELEMETERING & SUPERVISORY SHIELDED CONTROL CABLE

DESCRIPTION: Each conductor, bare solid copper, .015" high molecular weight polyethylene insulation, color coded, twisted into pairs, cabled with a non-hygroscopic binder tape .008" aluminum shield, black polyethylene jacket overall. Operating voltage 300 volts.

APPLICATIONS: Remote control of rocket recording data and test-firing control, transmission of signals which telemeter temperature, voltage pressure, etc. control of multiple circuits, measuring devices, quality control equipment, radar antenna. For aerial, duct and conduit installations.

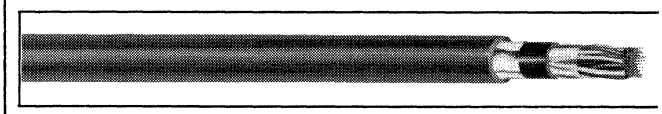
22 AWG SOLID

ALPHA NO.	NO. OF PAIRS	NOM. INSUL. THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.	APPROX. LBS./M
3706	6	.015"	.045"	.47"	108
3712	12	.015"	.060"	.59"	171
3718	18	.015"	.060"	.67"	210
3725	25	.015"	.060"	.76"	266
3750	50	.015"	.060"	1.10"	510

19 AWG SOLID

3806	6	.015"	.045"	.52"	140
3812	12	.015"	.060"	.66"	232
3818	18	.015"	.060"	.76"	301
3825	25	.015"	.060"	.92"	426
3850	50	.015"	.060"	1.20"	767

STANDARD SPOOL PUT-UP:
CUT TO SPECIFIC LENGTHS
COLOR CODE: SEE BELOW.



HEAVY DUTY TELEMETERING & SUPERVISORY SHIELDED CONTROL CABLE

DESCRIPTION: Each conductor, bare solid copper, .015" high molecular weight polyethylene insulation, color coded, twisted into pairs, cabled with a non-hygroscopic binder tape, inner black polyethylene jacket, .005" copper shield, outside black polyethylene jacket overall. Operating voltage 300 volts.

APPLICATIONS: Same as above control cables except this cable has a **double jacket** which provides additional mechanical protection and high dielectric strength between paired conductor and shield. For direct burial installations.

22 AWG SOLID

ALPHA NO.	NO. OF PAIRS	NOM. INSUL. THICKNESS	NOM. JKT. THICKNESS INNER	NOM. JKT. THICKNESS OUTER	NOM. O.D.	APPRO LBS./M
3906	6	.015"	.047"	.045"	.57"	149
3912	12	.015"	.047"	.060"	.69"	226
3918	18	.015"	.047"	.060"	.77"	281
3925	25	.015"	.047"	.080"	.92"	374
3950	50	.015"	.047"	.080"	1.20"	645

19 AWG SOLID

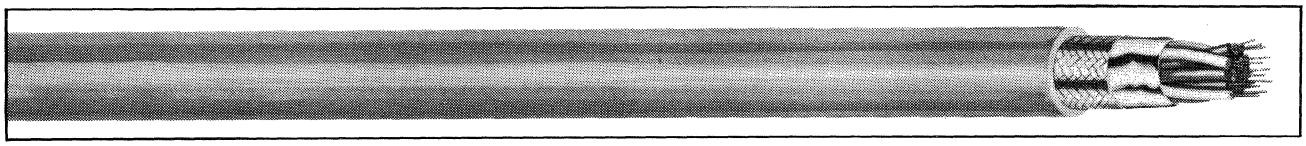
4006	6	.015"	.047"	.060"	.62"	200
4012	12	.015"	.047"	.060"	.76"	297
4018	18	.015"	.047"	.060"	.92"	415
4025	25	.015"	.047"	.080"	1.00"	558
4050	50	.015"	.047"	.080"	1.30"	929

STANDARD SPOOL PUT-UP: CUT TO SPECIFIC LENGTHS.

COLOR CODE OF CONDUCTORS

Pair No.	COND. A Tip	COND. B Ring	Pair No.	COND. A Tip	COND. B Ring	Pair No.	COND. A Tip	COND. Ring
1	White	Blue	9	Red	Brown	18	Yellow	Gree
2	White	Orange	10	Red	Slate	19	Yellow	Brow
3	White	Green	11	Black	Blue	20	Yellow	Slate
4	White	Brown	12	Black	Orange	21	Violet	Blue
5	White	Slate	13	Black	Green	22	Violet	Oran
6	Red	Blue	14	Black	Brown	23	Violet	Gree
7	Red	Orange	15	Black	Slate	24	Violet	Brow
8	Red	Green	16	Yellow	Blue	25	Violet	Slate
			17	Yellow	Orange			

Cables with 25 pairs or less as shown in table.
For 50 pair cable, color code is repeated with a colored binder over each group, 1-25 pair, covered with white-blue binder, 25-50 pair, covered with white-orange binder.



CONTROL AND INSTRUMENTATION CABLE

MULTI-CONDUCTOR SHIELDED PLASTIC JACKET PER MIL-W-16878D

DESCRIPTION: Each conductor stranded tinned copper. Color coded, polyvinylchloride insulation, cabled, mylar wrap. Braided tinned copper shield 90% coverage, chrome gray polyvinylchloride jacket overall.

CHARACTERISTICS: Temperature rating −55°C to +105°C. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

APPLICATIONS: Interconnecting cables for electronic equipment, instrumentation and control cable, telemetry data, remote control of sensitive recording instruments.

MINIATURE SHIELDED CONTROL CABLE— 300 VOLT

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JACKET	NOM. O.D.
3302	2	B-28	7/36	.010″	.012″	.125″
3303	3	B-28	7/36	.010″	.012″	.130″
3304	4	B-28	7/36	.010″	.012″	.140″
3306	6	B-28	7/36	.010″	.015″	.170″
3308	8	B-28	7/36	.010″	.015″	.175″
3310	10	B-28	7/36	.010″	.018″	.210″
3312	12	B-28	7/36	.010″	.018″	.215″
3315	15	B-28	7/36	.010″	.020″	.230″
3320	20	B-28	7/36	.010″	.022″	.260″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

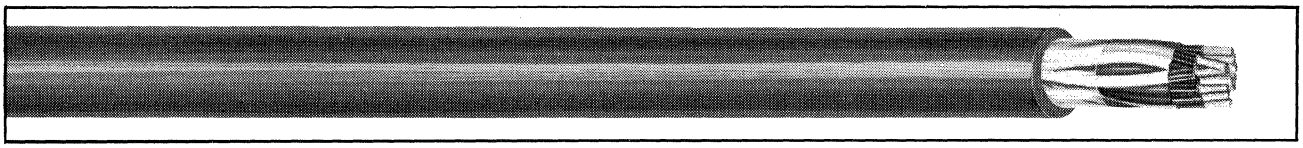
HEAVY DUTY SHIELDED CONTROL CABLE— 1000 VOLT

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JACKET	NOM. O.D.
3405	5	C-18	19/30	.016″	.025″	.300″
3410	10	C-18	19/30	.016″	.035″	.405″
3415	15	C-18	19/30	.016″	.040″	.470″
3420	20	C-18	19/30	.016″	.045″	.530″
3430	30	C-18	19/30	.016″	.055″	.650″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—Black
2—White
3—Red
4—Green
5—Orange
6—Blue
7—White/Black
8—Red/Black
9—Green/Black
10—Orange/Black
11—Blue/Black
12—Black/White
13—Red/White
14—Green/White
15—Blue/White
16—Black/Red
17—White/Red
18—Orange/Red
19—Blue/Red
20—Red/Green
21—Orange/Green
22—Black/White/Red
23—White/Black/Red
24—Red/Black/White
25—Green/Black/White
26—Orange/Black/White
27—Blue/Black/White
28—Black/Red/Green
29—White/Red/Green
30—Red/Black/Green



UNSHIELDED STATION CONTROL CABLE

HEAVY-DUTY MULTI-CONDUCTOR PLASTIC JACKET—600 VOLTS

DESCRIPTION: Each conductor, stranded bare copper, .020″ polyethylene insulation, .010″ polyvinylchloride jacket over each conductor, color coded, cabled with fillers where necessary, moisture resistant tape, black polyvinylchloride jacket overall. 600 volt operating voltage.

APPLICATIONS: Remote control of automatic electrical equipment, recording and relaying devices, telemetering, switchgear operations and indicators, substation operation, temperature voltage, pressure and motor control, dimensional tolerance on automatic quality control.

16 GAUGE — 26/30 BARE COPPER

ALPHA NO.	NO. OF COND.	NOM. JKT. THICKNESS	NOM. O.D.
4102	2	.045″	.360″
4103	3	.045″	.480″
4105	5	.045″	.520″
4106	6	.045″	.550″
4107	7	.045″	.570″
4108	8	.045″	.590″
4110	10	.045″	.620″
4112	12	.045″	.660″
4114	14	.045″	.690″
4116	16	.045″	.750″

ALPHA NO.	NO. OF COND.	NOM. JKT. THICKNESS	NOM. O.D.
4119	19	.060″	.800″
4121	21	.060″	.810″
4122	22	.060″	.880″
4124	24	.060″	.930″
4126	26	.060″	.990″
4130	30	.060″	1.01″
4137	37	.060″	1.09″
4140	40	.060″	1.16″
4150	50	.080″	1.22″
4160	60	.080″	1.32″

14 GAUGE — 7/22 BARE COPPER

4202	2 Twin	.045″	*
4203	3 Rd.	.045″	.390″
4204	4	.045″	.425″
4205	5	.045″	.462″
4206	6	.045″	.481″
4207	7	.045″	.502″
4208	8	.060″	.556″
4209	9	.060″	.622″
4210	10	.060″	.657″
4212	12	.060″	.696″

4214	14	.060″	.744″
4216	16	.060″	.798″
4219	19	.060″	.861″
4224	24	.080″	.947″
4227	27	.080″	1.002″
4230	30	.080″	1.110″
4234	34	.080″	1.118″
4237	37	.080″	1.124″
4240	40	.080″	1.290″

12 GAUGE — 7/20 BARE COPPER

4302	2 Twin	.045″	**
4303	3 Rd.	.045″	.431″
4304	4	.045″	.471″
4305	5	.045″	.523″
4306	6	.045″	.564″
4307	7	.060″	.599″
4308	8	.060″	.644″
4309	9	.060″	.690″
4310	10	.060″	.727″
4312	12	.060″	.775″
4314	14	.060″	.807″

4315	15	.060″	.832″
4316	16	.060″	.901″
4318	18	.080″	.928″
4319	19	.080″	.943″
4320	20	.080″	.966″
4322	22	.080″	1.01″
4325	25	.080″	1.09″
4327	27	.080″	1.129″
4330	30	.080″	1.168″
4334	34	.080″	1.201″
4337	37	.080″	1.257″

STANDARD SPOOL PUT-UP: CUT TO SPECIFIC LENGTHS.

*FLAT DIMENSION .233″ x .366″
**FLAT DIMENSION .252″ x .404″

COLOR CODE: The color code of neoprene jacketed control cables conforms to IPCEA standards either with full color code or surface printed with color name and number.

See Last Two ALPHA Pages For Complete Price List

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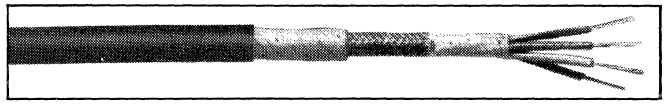


SHIELDED CONTROL CABLE

HEAVY-DUTY MULTI-CONDUCTOR RUGGED NEOPRENE JACKET

DESCRIPTION: Each conductor stranded tinned copper, color coded rubber insulation, cabled with fillers where necessary, cotton wrap, braided tinned copper shield, cotton wrap, rugged black neoprene jacket overall.

CHARACTERISTICS: Operating Temperature: 20°C to +60°C.

#18 GAUGE CABLE

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1450	2	18	41/34	.020″	.035″	.295″
1451	3	18	41/34	.020″	.035″	.305″
1452	4	18	41/34	.020″	.035″	.330″
1454	6	18	41/34	.020″	.035″	.370″
1456	8	18	41/34	.020″	.035″	.420″
1458	10	18	41/34	.020″	.035″	.480″
1459	12	18	41/34	.020″	.065″	.555″
1459/15	15	18	41/34	.020″	.065″	.640″
1459/20	20	18	41/34	.020″	.065″	.730″

#16 GAUGE CABLE

1450/16	2	16	65/34	.025″	.035″	.335″
1451/16	3	16	65/34	.025″	.035″	.355″
1452/16	4	16	65/34	.025″	.035″	.385″
1454/16	6	16	65/34	.025″	.040″	.445″
1456/16	8	16	65/34	.025″	.040″	.510″
1458/16	10	16	65/34	.025″	.040″	.575″

#14 GAUGE CABLE

1400	2	14	41/30	.030″	.040″	.395″
1401	3	14	41/30	.030″	.040″	.425″
1402	4	14	41/30	.030″	.040″	.455″
1404	6	14	41/30	.030″	.040″	.515″

#12 GAUGE CABLE

1410	2	12	65/30	.030″	.040″	.440″
1411	3	12	65/30	.030″	.040″	.465″
1412	4	12	65/30	.030″	.040″	.505″

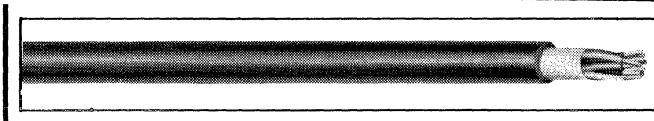
#10 GAUGE CABLE

1420	2	10	105/30	.030″	.040″	.495″
1421	3	10	105/30	.030″	.040″	.520″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—Black	11—White/Black (Braid)
2—White	12—White/Red (Braid)
3—Red	13—White/Green (Braid)
4—Green	14—White/Yellow (Braid)
5—Yellow	15—White/Blue (Braid)
6—Blue	16—White/Brown (Braid)
7—Brown	17—White/Purple (Braid)
8—Orange	18—White/Slate (Braid)
9—Slate	19—Black/Red (Braid)
10—Purple	20—Black/Yellow (Braid)



UNSHIELDED CONTROL CABLE

HEAVY-DUTY MULTI-CONDUCTOR RUGGED NEOPRENE JACKET—600 VOLTS

DESCRIPTION: Each conductor stranded bare copper, color coded rubber insulation, cabled with fillers where necessary, wrap over conductors, heavy duty black neoprene jacket overall. 600 volt operating voltage.

APPLICATIONS: Remote control of automatic electrical equipment and sub-stations, telemetering, voltage pressure and motor control, signal transmission. Flexible heavy duty neoprene jacketed cable, recommended for outside installation, cable resists oil, ozone, sunlight, moisture, abrasion and impact.

18 GAUGE #41/34 BARE COPPER — 1/32″ INSULATION THICKNESS

ALPHA NO.	NO. OF COND.	NOM. JKT. THICKNESS	NOM. O.D.
4505	5	.045″	.500″
4506	6	.045″	.540″
4507	7	.045″	.580″
4508	8	.060″	.610″
4509	9	.060″	.640″
4510	10	.060″	.730″
4514	14	.060″	.810″

ALPHA NO.	NO. OF COND.	NOM. JKT. THICKNESS	NOM. O.D.
4520	20	.060″	.965′
4526	26	.080″	1.04″
4530	30	.080″	1.10″
4540	40	.080″	1.25″
4550	50	.080″	1.35″
4560	60	.080″	1.50″

16 GAUGE #65/34 BARE COPPER — 1/32″ INSULATION THICKNESS

4605	5	.045″	.530″
4606	6	.045″	.580″
4607	7	.045″	.620″
4608	8	.060″	.660″
4610	10	.060″	.790″
4612	12	.060″	.811″
4614	14	.060″	.844″
4616	16	.060″	.875″
4619	19	.060″	.995″
4620	20	.060″	1.02″

4622	22	.080″	1.065
4624	24	.080″	1.11″
4626	26	.080″	1.156
4630	30	.080″	1.194
4637	37	.080″	1.29(
4640	40	.080″	1.34(
4644	44	.080″	1.42(
4650	50	.080″	1.52(
4660	60	.080″	1.61(

14 GAUGE #105/34 BARE COPPER — 3/64″ INSULATION THICKNESS

4705	5	.095″	.700″
4706	6	.095″	.765″
4707	7	.095″	.820″
4708	8	.095″	.882″

4709	9	.095″	.93(
4710	10	.095″	.97(
4712	12	.110″	1.01

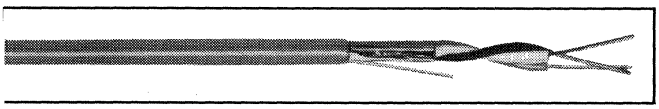
12 GAUGE #165/34 BARE COPPER — 3/64″ INSULATION THICKNESS

4805	5	.095″	.760″
4806	6	.095″	.810″
4807	7	.095″	.870″
4808	8	.110″	.945″
4809	9	.110″	1.02″

4810	10	.110″	1.1(
4812	12	.110″	1.2
4816	16	.110″	1.3(
4818	18	.125″	1.5(

STANDARD SPOOL PUT-UP: CUT TO SPECIFIC LENGTHS.

COLOR CODE: The color code of neoprene jacketed control cables conforms to IPCEA standards ei with full color code or surface printed with color name and number.



SHIELDED PLASTIC JACKETED CABLE

MYLAR SUPPORTED ALUMINUM FOIL SHIELD

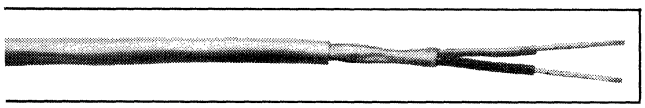
DESCRIPTION: Each conductor stranded tinned copper, color coded polyethylene insulation, conductors cabled, wrapped mylar supported aluminum foil shield, 100% coverage with drain wire laid parallel, aluminum foil facing outward to provide maximum grounding contact, chrome gray polyvinylchloride jacket overall.

CHARACTERISTICS: Suggested operating temperature: −20°C to +60°C. Suggested operating voltage: 400 volts. Shielded cable with a mylar laminated aluminum foil is lighter in weight, reduces cable diameter, and provides 100% shield coverage at audio and radio frequencies. Drain wire facilitates quick and easy shield termination to ground.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
2402	2	22	7/30	.016″	.020″	.195″
2403	3	22	7/30	.016″	.020″	.210″
2404	4	22	7/30	.016″	.020″	.225″
2412	2	20	10/30	.016″	.020″	.210″
2413	3	20	10/30	.016″	.020″	.225″
2414	4	20	10/30	.016″	.020″	.240″
2422	2	18	16/30	.016″	.020″	.230″
2423	3	18	16/30	.016″	.020″	.245″
2424	4	18	16/30	.016″	.020″	.265″
2432	2	16	26/30	.016″	.020″	.255″
2433	3	16	26/30	.016″	.020″	.275″
2442	2	14	41/30	.016″	.020″	.290″
2443	3	14	41/30	.016″	.020″	.310″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS: 1—Black 2—Red 3—White 4—Green



SHIELDED PLASTIC JACKETED CABLE

SPIRAL WRAPPED COPPER SHIELD

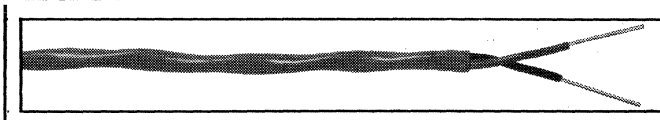
DESCRIPTION: Each conductor stranded or solid tinned copper, color coded polyvinylchloride insulation, conductors twisted, spiral wrapped copper shield, gray polyvinylchloride jacket overall. **Nominal jacket thickness .020″.**

CHARACTERISTICS: Use of spiral shield makes pigtailing off extremely simple and fast. Excellent for production line work. Provides close to 100% shielded coverage for audio and RF frequencies.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.	SUGG. WORKING VOLTAGE
55	2	22	Solid	.016″	.170″	350V
54 1	1	22	7 30	.016″	.115″	350V
54	2	22	7 30	.016″	.175″	350V
54 3	3	22	7 30	.016″	.190″	350V
54 4	4	22	7 30	.016″	.200″	350V
54 6	6	22	7 30	.016″	.235″	350V
56 1	1	20	10 30	.016″	.130″	350V
56	2	20	10 30	.016″	.195″	350V
56 3	3	20	10 30	.016″	.210″	350V
56 4	4	20	10 30	.016″	.225″	350V

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.	SUGG. WORKING VOLTAGE
2256 6	6	20	10 30	.016″	.265″	350V
2258 1	1	18	16 30	.016″	.135″	350V
2258	2	18	16 30	.016″	.230″	350V
2258 3	3	18	16 30	.016″	.235″	350V
2258 4	4	18	16 30	.016″	.245″	350V
2260	2	16	26 30	.016″	.240″	350V
2260 3	3	16	26 30	.016″	.245″	350V
2265	2	14	41 30	.020″	.285″	450V
2265 3	3	14	41 30	.020″	.290″	450V
2268	2	12	65 30	.020″	.325″	450V
2268 3	3	12	65 30	.020″	.330″	450V

DARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.
R CODE OF CONDUCTORS
ck 2—Red 3—White 4—Green 5—Yellow 6—Blue



UNSHIELDED AUDIO CABLE

MULTI-CONDUCTOR—PLASTIC JACKET

DESCRIPTION: Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted, gray polyvinylchloride jacket overall. Suitable for outdoor installations.

APPLICATIONS: Intercoms. Interconnecting cables. Remote control circuits. Telephones. Telemetering connecting cable. "Baby Sitter" intercom.

CHARACTERISTICS: Suggested Operating Temperature: −20°C to +60°C. Suggested Operating Voltage: 300 volts.

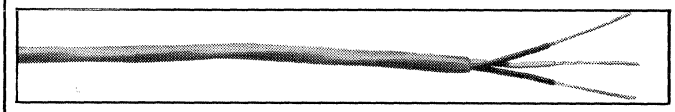
STRANDED CONDUCTORS

ALPHA NO.	NO.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.	COLOR CODE OF CONDUCTORS
1897	2	18	16/30	.016″	.020″	.200″	1—Black 2—Red
1898	3	18	16/30	.016″	.020″	.210″	3—White 4—Green
1898/4	4	18	16/30	.016″	.020″	.240″	5—Orange 6—Blue
1898/6	6	18	16/30	.016″	.020″	.290″	7—Brown 8—Yellow
1898/8	8	18	16/30	.016″	.025″	.315″	9—Purple 10—Slate
1898/10	10	18	16/30	.016″	.025″	.370″	11—Pink 12—Tan
1898/12	12	18	16/30	.016″	.025″	.385″	

SOLID CONDUCTORS

ALPHA NO.	CONDUCTOR NO.	CONDUCTOR SIZE	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.	COLOR CODE OF CONDUCTORS
1797	2	18	.016″	.020″	.190″	1—Black 2—Red
1798	3	18	.016″	.020″	.200″	3—White 4—Green
1798/4	4	18	.016″	.020″	.220″	5—Orange 6—Blue
1798/5	5	18	.016″	.020″	.235″	
1798/6	6	18	.016″	.020″	.265″	

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.,



UNSHIELDED AUDIO CABLE

MULTI-CONDUCTOR—PLASTIC JACKET

DESCRIPTION: Each conductor stranded tinned copper, color coded polyvinylchloride insulation, conductors twisted, gray polyvinylchloride jacket overall. Suitable for outdoor installations.

APPLICATIONS: Unbalanced intercom systems. Low voltage relay control cable. P.A. systems. Electronic computer cable.

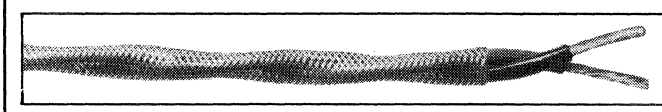
CHARACTERISTICS: Suggested Operating Temperature: 20°C to 60°C. Suggested Operating Voltage: 200 volts.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1172	2	22	7/30	.010″	.020″	.140″
1173	3	22	7/30	.010″	.020″	.145″
1174	4	22	7/30	.010″	.020″	.170″
1175	5	22	7/30	.010″	.020″	.175″
1176	6	22	7/30	.010″	.020″	.185″
1177	7	22	7/30	.010″	.020″	.190″
1178	8	22	7/30	.010″	.020″	.200″
1179	9	22	7/30	.010″	.020″	.225″
1180	10	22	7/30	.010″	.020″	.235″
1181	12	22	7/30	.010″	.020″	.255″
1181/15	15	22	7/30	.010″	.020″	.280″
1181/20	20	22	7/30	.010″	.020″	.310″
1181/25	25	22	7/30	.010″	.020″	.340″
1181/30	30	22	7/30	.010″	.020″	.365″
1181/40	40	22	7/30	.010″	.025″	.425″
1181/50	50	22	7/30	.010″	.035″	.500″
1181/60	60	22	7/30	.010″	.035″	.530″

COLOR CODE OF CONDUCTORS

1—Black	21—White/Brown	41—White/Green/Red
2—Red	22—White/Orange	42—White/Green/Green
3—White	23—White/Gray	43—White/Green/Blue
4—Green	24—White/Violet	44—White/Green/Brown
5—Orange	25—White/Black/Red	45—White/Green/Purple
6—Blue	26—White/Black/Green	46—White/Blue/Black
7—Brown	27—White/Black/Yellow	47—White/Blue/Red
8—Yellow	28—White/Black/Blue	48—White/Blue/Green
9—Purple	29—White/Black/Brown	49—White/Blue/Blue
10—Slate	30—White/Black/Orange	50—White/Blue/Brown
11—Pink	31—White/Black/Slate	51—White/Blue/Purple
12—Tan	32—White/Black/Purple	52—White/Brown/Black
13—Red/Green	33—White/Black/Black	53—White/Brown/Red
14—Red/Yellow	34—White/Red/Black	54—White/Brown/Green
15—Red/Black	35—White/Red/Red	55—White/Brown/Blue
16—White/Black	36—White/Red/Green	56—White/Brown/Brown
17—White/Red	37—White/Red/Blue	57—White/Brown/Purple
18—White/Green	38—White/Red/Brown	58—White/Purple/Red
19—White/Yellow	39—White/Red/Purple	59—White/Purple/Green
20—White/Blue	40—White/Green/Black	60—White/Purple/Blue

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.



SHIELDED AUDIO CABLE

2 CONDUCTOR—NO OUTER JACKET

DESCRIPTION: Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted, braided tinned copper shield overall.

APPLICATIONS: For public address and sound systems. Transmission line. Industrial paging and call systems. Recording equipment. Hospital and school sound installations. Broadcast and audio cable. Rack and panel wiring.

CHARACTERISTICS: Suggested Operating Temperature: −20°C to +60°C.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.	SUGG. OPER. VOLTAGE
1261/26	2	26	7/34	.010″	.095″	200V
1261	2	24	16/36	.016″	.125″	350V
1256/22V	2	22	7/30	.016″	.140″	350V
1256V	2	20	10/30	.016″	.155″	350V
1259V*	2	18	16/30	.016″	.170″	350V
1260V	2	16	26/30	.020″	.210″	450V
1260/14	2	14	41/30	.020″	.225″	450V
1260/12	2	12	65/30	.025″	.295″	600V

COLOR CODE OF CONDUCTORS
1—Black
2—Red

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

* 22 AWG solid tinned copper ground wire under braided copper shield.

See Last Two ALPHA Pages For Complete Price List

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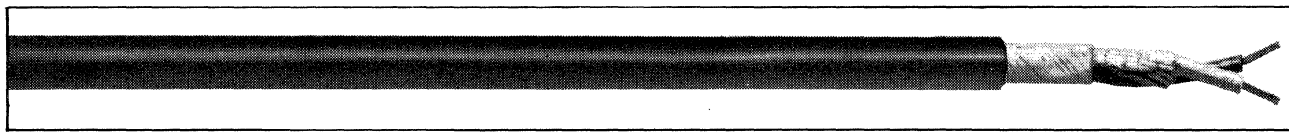


SERVICE & POWER CORDS
U.L. APPROVED

DESCRIPTION: RUBBER PORTABLE CORDS, TYPE SV, SJ, & S
Each conductor stranded bare copper, separator, color coded rubber insulation, cabled with fillers, separator, tough black rubber jacket overall.

NEOPRENE PORTABLE CORDS, TYPE SVO, SJO, & SO
Each conductor stranded bare copper, separator, color coded, rubber insulation cabled with fillers, separator, black neoprene jacket overall. Oil, grease, ozone, acid, moisture resistant.

†**YELLOW PORTABLE CORDS, TYPE SVTO, SJTO, & STO**
Each conductor, stranded bare copper, oil resistant polyvinylchloride insulation, cabled with fillers, separator, plastic jacket overall. Resistant to oil, acid, moisture, abrasion resistant, easy to clean.

CHARACTERISTICS & APPLICATIONS: Suggested Operating Temperatures: −20°C to +60°C.

U.L. TYPE	TYPE OF USAGE	VOLTAGE RATING
SV, SVO, SVTO	Light appliances such as fans, mixers, and office equipment.	300V
SJ, SJO, SJTO	Medium appliances, small motors, tools, amplifiers, speakers.	600V
S, SO, STO	Heavy duty equipment, generators, heaters, tools, air-conditioners.	600V

RUBBER PORTABLE CORD 300 VOLT

ALPHA NO.	TYPE	NO. OF COND.	COND. SIZE	NOM. THICKNESS INS.	NOM. THICKNESS JKT.	CURRENT CARRYING CAPACITY IN AMPS	NOM. O.D.
1951	SV	2	18	.016″	.032″	7	.250″
1952	SJ	2	18	.032″	.032″	7	.305″
1952/3	SJ	3	18	.032″	.032″	7	.330″
1952/4	SJ	4	18	.032″	.032″	6	.370″
1953	SJ	2	16	.032″	.032″	10	.330″
1953/3	SJ	3	16	.032″	.032″	10	.360″
1953/4	SJ	4	16	.032″	.032″	8	.400″

NEOPRENE PORTABLE CORD 300 VOLT

1931	SVO	2	18	.016″	.032″	7	.250″
1932	SJO	2	18	.032″	.032″	7	.305″
1932/3	SJO	3	18	.032″	.032″	7	.330″
1932/4	SJO	4	18	.032″	.032″	6	.370″
1933	SJO	2	16	.032″	.032″	10	.330″
1933/3	SJO	3	16	.032″	.032″	10	.360″
1933/4	SJO	4	16	.032″	.032″	8	.400″

PLASTIC PORTABLE CORD 300 VOLT

1991	SVTO	2	18	.016″	.032″	7	.250″
1992	SJTO	2	18	.032″	.032″	7	.305″
1992/3	SJTO	3	18	.032″	.032″	7	.330″
1992/4	SJTO	4	18	.032″	.032″	6	.370″
1993	SJTO	2	16	.032″	.032″	10	.330″
1993/3	SJTO	3	16	.032″	.032″	10	.360″
1993/4	SJTO	4	16	.032″	.032″	8	.400″

† As a safety feature jacket color is yellow for maximum visibility.

STANDARD SPOOL PUT-UP: 50 FT., 100 FT., 250 FT.
COLOR CODE OF CONDUCTORS: 1—White 2—Black 3—Green 4—Red

SERVICE & POWER CORDS
U.L. APPROVED

RUBBER 600 VOLT PORTABLE CORD

ALPHA NO.	TYPE	NO. OF COND.	COND. SIZE	NOM. THICKNESS INS.	NOM. THICKNESS JKT.	CURRENT CARRYING CAPACITY IN AMPS	NOM. O.D.
1954	S	2	18	.030″	.060″	7	.390″
1954/3	S	3	18	.030″	.060″	7	.405″
1958/3	S	4	18	.030″	.060″	6	.435″
1955	S	2	16	.030″	.060″	10	.405″
1955/3	S	3	16	.030″	.060″	10	.430″
1955/4	S	4	16	.030″	.060″	8	.485″
1956	S	2	14	.045″	.075″	15	.530″
1956/3	S	3	14	.045″	.075″	15	.560″
1956/4	S	4	14	.045″	.075″	12	.605″
1957	S	2	12	.045″	.090″	20	.600″
1957/3	S	3	12	.045″	.090″	20	.635″
1957/4	S	4	12	.045″	.090″	16	.665″
1958	S	2	10	.045″	.090″	25	.640″
1954/4	S	3	10	.045″	.090″	25	.690″
1958/4	S	4	10	.045″	.090″	20	.745″
1959		2	*8	.050″	.090″	35	.700″
1959/3		3	*8	.050″	.090″	35	.750″
1959/4		4	*8	.050″	.090″	28	.820″
1960		2	*6	.050″	.090″	45	.820″
1960/3		3	*6	.050″	.090″	45	.885″
1960/4		4	*6	.050″	.090″	36	.975″

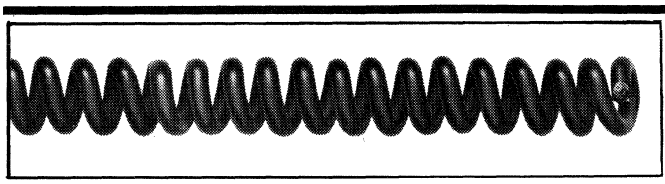
NEOPRENE 600 VOLT PORTABLE CORD

1934	SO	2	18	.030″	.060″	7	.390″
1934/3	SO	3	18	.030″	.060″	7	.405″
1934/4	SO	4	18	.030″	.060″	6	.435″
1935	SO	2	16	.030″	.060″	10	.405″
1935/3	SO	3	16	.030″	.060″	10	.430″
1935/4	SO	4	16	.030″	.060″	8	.485″
1936	SO	2	14	.045″	.075″	15	.530″
1936/3	SO	3	14	.045″	.075″	15	.560″
1936/4	SO	4	14	.045″	.075″	12	.605″
1937	SO	2	12	.045″	.090″	20	.600″
1937/3	SO	3	12	.045″	.090″	20	.635″
1937/4	SO	4	12	.045″	.090″	16	.665″
1938	SO	2	10	.045″	.090″	25	.640″
1938/3	SO	3	10	.045″	.090″	25	.690″
1938/4	SO	4	10	.045″	.090″	20	.745″
1939		2	*8	.050″	.090″	35	.700″
1939/3		3	*8	.050″	.090″	35	.750″
1939/4		4	*8	.050″	.090″	28	.820″
1940		2	*6	.050″	.090″	45	.820″
1940/3		3	*6	.050″	.090″	45	.885″
1940/4		4	*6	.050″	.090″	36	.975″

PLASTIC 600 VOLT PORTABLE CORD

1994	STO	2	18	.030″	.060″	7	.390″
1994/3	STO	3	18	.030″	.060″	7	.405″
1994/4	STO	4	18	.030″	.060″	6	.435″
1995	STO	2	16	.030″	.060″	10	.405″
1995/3	STO	3	16	.030″	.060″	10	.430″
1995/4	STO	4	16	.030″	.060″	8	.485″
1996	STO	2	14	.045″	.075″	15	.530″
1996/3	STO	3	14	.045″	.075″	15	.560″
1996/4	STO	4	14	.045″	.075″	12	.605″
1997	STO	2	12	.045″	.090″	20	.600″
1997/3	STO	3	12	.045″	.090″	20	.635″
1997/4	STO	4	12	.045″	.090″	16	.665″
1998	STO	2	10	.045″	.090″	25	.640″
1998/3	STO	3	10	.045″	.090″	25	.690″
1998/4	STO	4	10	.045″	.090″	20	.745″

*Not listed by Underwriters Laboratories
STANDARD SPOOL PUT-UP: 50 FT., 100 FT., 250 FT.,
COLOR CODE OF CONDUCTORS 1—White 2—Black 3—Green 4—Red



RETRACTILE COIL CORDS

POWER CORDS—NEOPRENE JACKET U.L. APPROVED

RETRACTED LENGTHS 2 & 4 FEET—EXTENDED LENGTHS 12 & 25 FEET

DESCRIPTION: Long-lasting service is assured with this quality multi-conductor power cord. Each conductor is stranded copper, with rubber installation, and a rugged weather and oil resistant neoprene jacket overall.

APPLICATION: Used on electric tools, portable drills, soldering wires, electrical appliances, household appliances, etc., to eliminate loose hanging wires and to prevent wires from tangling and twisting.

CHARACTERISTICS: Suggested operating temperature: -20°C to +60°C.

ALPHA NO. 2 FT. LGTHS.	4 FT. LGTHS.	1 FT. LGTHS.	NO. OF CONDS.	CONDUCTOR SIZE	STRAND	U.L. TYPE	AMP RATING	VOLT RATING	NOM. COIL O.D.	NOM. O.D CORD
660/2	660/4	660/1	2	18	41/34	SVO	7	300	7/8"	.260"
760/2	760/4		3	18	41/34	SVO	7	300	1"	.275"
661/2	661/4	661/1	2	18	41/34	SJO	7	300	1-3/16"	.320"
662/2	662/4	662/1	3	18	41/34	SJO	7	300	1-3/8"	.350"
663/2	663/4		4*	18	41/34	SJO	5.6	300	1-7/16"	.385"
762/2	762/4		3	18	41/34	SO	7	600	1-5/8"	.405"
763/2	763/4		4*	18	41/34	SO	5.6	600	1-5/8"	.435"
664/2	664/4	664/1	2	16	65/34	SJO	10	300	1-3/8"	.360"
665/2	665/4	665/1	3	16	65/34	SJO	10	300	1-7/16"	.390"
666/2	666/4		4*	16	65/34	SJO	8	300	1-1/2"	.425"
670/2	670/4		3	16	41/34	SO	10	600	1-13/16"	.470"
671/2	671/4		4*	16	65/34	SO	8	600	1-7/8"	.500"
672/2	672/4		2	14	41/30	SO	15	600	2-1/8"	.540"
673/2	673/4		3	14	41/30	SO	15	600	2-1/8"	.560"
674/2	674/4		4*	14	41/30	SO	12	600	2-1/4"	.605"
675/2	675/4		2	12	65/30	SO	20	600	2-1/4"	.605"
676/2	676/4		3	12	65/30	SO	20	600	2-3/8"	.635"
677/2	677/4		4*	12	65/30	SO	16	600	2-3/8"	.678"

COLOR CODE OF CONDUCTORS
1—Black 2—White 3—Green 4—Red

*If all four conductors normally carry current, amp rating is as shown. If one lead is used as a ground, amp rating is the same as 2 and 3 conductor cords.

†A 12" retracted length with a 12" straight lead on each end for easy stripping and termination. Cord extends to approximately 6 feet.

RETRACTILE POWER CORD SETS U.L. APPROVED

RETRACTED LENGTH 18"—EXTENDED LENGTH 7½ FEET

DESCRIPTION: Coiled power cord with a sturdy molded male plug on one end. On the other end we have removed a portion of the neoprene jacket, exposed the conductors and stripped them for easy termination. Operating voltage, 300 volts.

APPLICATION: Same as power cords, but with a plug on one end.

ALPHA NO.	NO. OF CONDS.	CONDUCTOR SIZE	STRAND	U.L. TYPE	NOM. COIL O.D.	NOM. O.D. CORD
654	2	18	41/34	SVO	7/8"	.260"
655	2	18	41/34	SJO	1-3/16"	.320"
656	3	18	41/34	SJO	1-3/8"	.350"
657	2	16	65/34	SJO	1-3/8"	.360"
658	3	16	65/34	SJO	1-7/16"	.390"

COLOR CODE OF CONDUCTORS
1—Black 2—White 3—Green

RETRACTILE TEST LEAD WIRE

RETRACTED LENGTH 12"—EXTENDED LENGTH 6 FEET

DESCRIPTION: A high grade quality rubber insulation for maximum flex life extruded over a single conductor of extra flexible tinned copper which gives long life to this retractile test lead wire. Available in a 12" retracted length with a 6" straight lead on each end, the cord extends to approximately 6 feet.

ALPHA NO.	CONDUCTOR SIZE	STRAND	AMP. RATED	VOLT RATING	NOM. COIL O.D.	NOM. O.D. CORD	COLOR CODE
650	20	41/36	4	5,000	¾"	.165"	Black-Red

COLOR CODE
SPECIFY BLACK OR RED.

RETRACTILE COIL CORDS

RETRACTILE COMMUNICATION COIL CORDS

RETRACTED LENGTHS 2 & 4 FEET—EXTENDED LENGTHS 12 & 25 FEET

DESCRIPTION: Multi-conductor communication cord manufactured with extra flexible #23 AWG-21/36 tinned soft cadmium copper for maximum flex life. Insulated with rubber for communication circuits of maximum 120 working volts. The overall jacket is a specially compounded cured neoprene jacket giving long life to the retractile cord.

APPLICATION: Used in communication equipment, such as telephone car carriers, mobile radio equipment, ham operations, head sets, citizen band units and radio transmitter to receiver head sets, communication cords eliminate hazards and inconveniences caused by tangled straight cords.

ALPHA NO. 2 FT. LGTHS.	4 FT. LGTHS.	NO. OF CONDS.	CONDUCTOR SIZE	STRAND	AMP RATING	VOLTAGE RATING	NOM. COIL O.D.	CORD O.D.	COLOR CODE OF CONDUCTORS
680/2	680/4	2	23	21/36	1	120	3/4"	.215"	1—Black
681/2	681/4	3	23	21/36	1	120	13/16"	.220"	2—White
682/2	682/4	4	23	21/36	1	120	15/16"	.250"	3—Red
683/2	683/4	5	23	21/36	1	120	1-1/16"	.285"	4—Green
684/2	684/4	6	23	21/36	1	120	1-1/8"	.305"	5—Blue
685/2	685/4	7	23	21/36	1	120	1-1/4"	.320"	6—Yellow 7—Brown

RETRACTILE COMMUNICATION CORDS (SHIELDED)

RETRACTED LENGTHS 2 & 4 FEET—EXTENDED LENGTHS 12 & 25 FEET

DESCRIPTION: Same as above, except that shielded conductors are individually shielded with a cadmium copper shield to eliminate external electrical interference. Shield can be pigtailed for direct soldering connections.

APPLICATION: When shielded communication cords are needed.

ALPHA NO. 2 FT. LGTHS.	4 FT. LGTHS.	NO. OF CONDS.	CONDUCTOR SIZE	STRAND	VOLTAGE RATING	SHIELDING	NOM. COIL O.D.	NOM. O.D. CORD	COLOR CODE OF CONDUCTORS
690/2	690/4	1	24	41/40	75	Shielded	5/16"	.160"	White
692/2	692/4	2	1-23 1-24	21/36 41/40	120 75	Unshielded Shielded	7/16"	.240"	Black White
694/2	694/4	3	2-23 1-24	21/36 41/40	120 75	Unshielded Shielded	7/16"	.240"	Black & Red White
696/2	696/4	4	2-23 2-24	21/36 41/40	120 75	Unshielded Individually Shielded	1"	.270"	Red & Black White & Green

RETRACTILE COMMUNICATION CORDS

PREPARED FOR EASY INSTALLATION AND REPLACEMENT

RETRACTED LENGTH 12"—EXTENDED LENGTH 6 FEET

DESCRIPTION: Same as communication cords except each end is prepared as indicated.

ALPHA NO.	NO. OF CONDS.	AWG	NOM. COIL O.D.	NOM. CORD O.D.	PREPARATION
686	3	23-21/36	13/16"	.220"	**1 end:** total length 1½". Conductors stripped and tinned. **Other end:** total length 1½" jacket removed.
687	4	23-21/36	15/16"	.250"	**1 end:** total length 1". Conductors stripped and tinned. **Other end:** total length 1½" jacket removed.
688	5	23-21/36	1-1/16"	.285"	**1 end:** total length 4½". Conductors stripped and tinned. **Other end:** total length 4½" conductors stripped and tinned.

MINIATURE RETRACTILE COMMUNICATIONS CORDS

RETRACTED LENGTH 2 FEET—EXTENDED LENGTH 10 FEET

DESCRIPTION: A small diameter plastic cord with stranded tinned copper conductors for maximum flexibility, insulated and jacketed with polyvinylchloride. Each cord is available in a 2 ft. retracted length with a 6" straight lead on each end and extends to approximately 10 feet.

APPLICATION: For low voltage power and communication equipment where miniaturization is required due to space and weight limitations.

ALPHA NO.	NO. OF CONDS.	CONDUCTOR SIZE	STRAND	AMP RATING	VOLT RATING	NOM. COIL O.D.	NOM. CORD O.D.
651	2	28	19/40	0.5	100	½"	.135"
652	4	28	19/40	0.5	100	½"	.150"

COLOR CODE OF CONDUCTORS
1—Black 2—White 3—Green 4—Red

For 3 conductor, use 4 conductor with one lead unused

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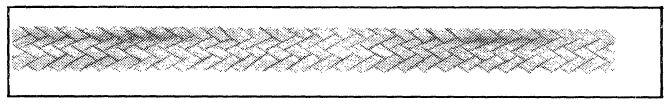


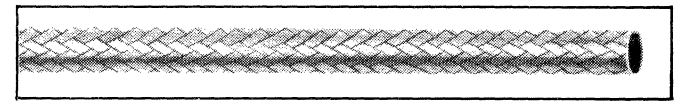
FLAT BRAID

DESCRIPTION: A woven braid, composed of tinned copper strands, which is rolled flat at time of manufacture to a specific width depending upon construction.

APPLICATIONS: Flat braid is usually employed for its current carrying capacity and its extreme flexibility. It is generally used as a high current conductor at low voltages. Battery grounding is typical of this application. It is also used as a bonding strap in vehicles and aircraft to help eliminate ignition interference. Because of its extreme flexibility it can be used in confined areas or as electrical connections on moving parts.

ALPHA NO.	NOMINAL FLAT WIDTH	NOM. THICKNESS	BRAID CONSTRUCTION AWG OF INDIV. ENDS	CARRIERS	TOTAL NO. OF INDIV. ENDS	APPROX. AWG EQUIV.	NOM. CIRCULAR MILLS	*CURRENT CARRYING CAPACITY	PUT-UP CODE
1221	.025	.015"	36	8	8	27	200	4.0 AMPS	1 thru 5
1222	1/32"	.020"	36	16	16	24	400	6.0 "	1 thru 5
1223	3/64"	.020"	36	24	24	22	600	7.0 "	1 thru 5
1224	3/32"	.020"	36	16	48	19	1200	11.0 "	1 thru 5
1229	1/8"	.020"	36	24	72	18	1800	16.0 "	1 thru 5
1230	3/16"	.020"	36	24	120	15	3000	25.0 "	1 thru 5
1231	1/4"	.030"	36	24	168	14	4200	32.0 "	1 thru 5
1232	3/8"	.030"	36	48	288	12	7200	46.0 "	1 thru 5
1233/2	1/2"	.030"	36	48	384	10	9600	53.0 "	1 thru 5
1233	5/8"	.030"	36	48	384	10	9600	53.0 "	1 thru 5
1234	3/4"	.040"	36	48	832	7	20800	85.0 "	1 thru 5
1235	1"	.045"	36	48	832	7	20800	85.0 "	1 thru 5
1239	1-3/8"	.050"	36	48	832	7	20800	85.0 "	1 thru 5
1240	1-1/2"	.060"	30	48	528	3	53064	150.0 "	1 thru 3
1241	1-3/4"	.080"	30	48	1248	00	125424	280.0 "	1 thru 3
1242	2"	.120"	30	48	1536	000	154368	310.0 "	1 thru 3
1242/1	2-1/4"	.150"	30	48	1680	000	168840	320.0 "	1 & 2
1242/2	2-1/2"	.170"	30	48	1920	000	192000	340.0 "	1 & 2
1242/3	2-3/4"	.180"	30	48	2160	0000	216000	370.0 "	1 & 2
1242/4	3"	.200"	30	48	2256	0000	225000	390.0 "	1 & 2

PUT-UP CODE 1—50 Ft. 2—100 Ft. 3—250 Ft. 4—500 Ft. 5—1000 Ft.



OVAL COMMERCIAL BRAID

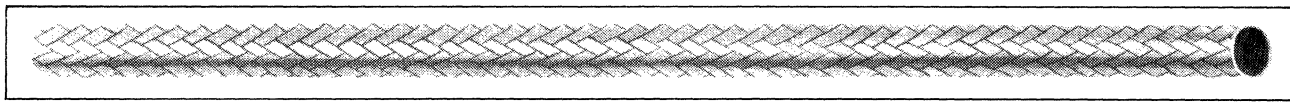
DESCRIPTION: A woven tinned copper braid which is left in the tubular configuration as it leaves the braiding equipment. It is manufactured to a specific inside diameter but because of its extreme flexibility cannot maintain its completely round shape and becomes oval.

APPLICATIONS: Oval braid is used as an electrostatic shield to cover a conductor, a series of conductors, a cable, or other components. It is specifically constructed and left in its tubular or oval form so that it can easily be slipped over wire, cable, or other components for which shielding is required.

ALPHA NO.	NOM. I.D. WHEN ROUNDED	BRAID CONSTRUCTION AWG OF INDIV. ENDS	CARRIERS	TOTAL NO. OF INDIV. ENDS	APPROX. AWG EQUIV.	NOM. CIRCULAR MILLS	*CURRENT CARRYING CAPACITY	PUT-UP CODE
2130	1/32"	34	24	24	20	954	9.0 AMPS	1 thru 5
2132	1/16"	34	16	32	19	1192	11.0 "	1 thru 5
2134	7/64"	34	16	64	16	2544	20.0 "	1 thru 5
2136	1/8"	34	24	72	15	2862	25.0 "	1 thru 5
2138	11/64"	34	24	120	14	4770	32.0 "	1 thru 5
2140	3/16"	34	24	144	13	5724	38.0 "	1 thru 4
2142	1/4"	34	24	168	12	6678	41.0 "	1 thru 4
2144	3/8"	34	24	192	11	7632	46.0 "	1 thru 4
2146	1/2"	34	48	336	9	13356	62.0 "	1 thru 3
2148	5/8"	34	48	384	8	14264	64.0 "	1 thru 3
2150	11/16"	34	48	480	7	19080	81.0 "	1 thru 3
2152	25/32"	34	48	528	7	20988	85.0 "	1 thru 3

PUT-UP CODE 1—50 Ft. 2—100 Ft. 3—250 Ft. 4—500 Ft. 5—1000 Ft.

*Values shown are for bare cable in free air at 30°C (86°F) and intended as a reference guide onl
Actual values will depend on permissible temperature rise, permissible voltage drop and other co
ditions of service.



TINNED COPPER TUBULAR BRAID TO MIL SPEC QQ-B-575

DESCRIPTION: A woven tinned copper braid which is manufactured completely round as outlined in Mil Spec QQ-B-575. Each strand of the braid is soft drawn tinned copper wire. The braid is self-supporting and maintains its round configuration. The percentage of shielding coverage is 95% or more when placed over a mandrel of an equivalent diameter to the inside braid diameter.

APPLICATIONS: Maximum shielding against electrostatic interference for wires, cables and other components. Also as a protective covering against mechanical abrasion and stresses.

ALPHA NO.	NOM. I.D. WHEN ROUNDED	BRAID CONSTRUCTION AWG EACH END	CARRIERS	TOTAL NO. OF INDIV. ENDS	APPROX. AWG EQUIV.	NOM. CIRCULAR MILLS	*CURRENT CARRYING CAPACITY	PUT-UP CODE
2160	1/32"	36	24	24	22	600	7.0 AMPS	1-3
2162	1/16"	36	24	48	19	1200	11.0 "	1-3
2163	5/64"	36	24	72	18	1800	16.0 "	1-3
2164	7/64"	36	24	96	16	2400	19.0 "	1-3
2166	1/8"	36	24	120	15	3000	25.0 "	1-3
2167	5/32"	36	24	240	12	6000	40.0 "	1-3
2168	11/64"	36	24	168	14	4200	32.0 "	1-3
2170	13/64"	34	24	192	11	7630	46.0 "	1-2
2171	1/4"	36	24	384	10	9600	53.0 "	1-2
2171/1	9/32"	30	24	120	9	12060	60.0 "	1-2
2172	3/8"	36	48	384	10	9600	53.0 "	1-2
2173	7/16"	30	24	240	6	24120	90.0 "	1-2
2174	1/2"	36	48	528	9	13200	62.0 "	1-2
2175	9/16"	30	48	480	3	48240	145.0 "	1-2
2175/1	21/32"	30	48	768	1	77180	190.0 "	1-2
2176	25/32"	36	48	864	7	21600	88.0 "	1-2

PUT-UP CODE: 1—50 Ft. 2—100 Ft. 3—250 Ft.

EXTRA LARGE TINNED COPPER TUBULAR BRAID

DESCRIPTION: These tubular braids manufactured to standards of QQ-B-575 although these sizes are not listed in the specification.

ALPHA NO.	NOM. I.D. WHEN ROUNDED	AWG OF INDIV. ENDS	BRAID CONSTRUCTION CARRIERS	TOTAL NO. OF INDIV. ENDS	APPROX. AWG EQUIV.	NOM. CIRCULAR MILLS	*CURRENT CARRYING CAPACITY	PUT-UP CODE
2177	7/8"	30	48	336	5	33700	100.0	1 & 2
2178	1"	30	48	384	4	38600	120.0	1 & 2
2179	1-1/8"	30	48	432	4	43330	130.0	1 & 2
2180	1-1/4"	30	48	480	3	48150	145.0	1 & 2
2181	1-3/8"	30	48	528	3	53000	150.0	1 & 2
2182	1-1/2"	30	48	576	2	57775	165.0	1 & 2

PUT-UP CODE: 1—50 Ft., 2—100 Ft.

SILVER PLATED TUBULAR BRAID CONSTRUCTION TO MIL SPEC QQ-B-575

DESCRIPTION: A woven silver plated copper braid which is manufactured completely round as outlined in Mil Spec QQ-B-575. Each strand of the braid is soft drawn silver plated copper wire. The braid is self-supporting and maintains its round configuration. The percentage of shielding coverage is 95% or more when placed over a mandrel of an equivalent diameter to the inside braid diameter. Silver plated braid is used where a high operating temperature (200°C) and corrosion resistance is required.

ALPHA NO.	NOM. I.D. WHEN ROUNDED	BRAID CONSTRUCTION AWG OF INDIV. ENDS	CARRIERS	TOTAL NO. OF INDIV. ENDS	APPROX. AWG EQUIV.	NOM. CIRCULAR MILLS	*CURRENT CARRYING CAPACITY	PUT CODE
2190	1/32"	36	24	24	22	600	7.0	1-
2191	1/16"	36	24	48	19	1200	11.0	1-
2192	5/64"	36	24	72	18	1800	16.0	1-
2193	7/64"	36	24	96	16	2400	19.0	1-
2194	1/8"	36	24	120	15	3000	25.0	1-
2195	5/32"	36	24	240	12	6000	40.0	1-
2196	11/64"	36	24	168	14	4200	32.0	1-
2197	13/64"	34	24	192	11	7640	46.0	1 &
2198	1/4"	36	24	384	10	9600	53.0	1 &

PUT-UP CODE: 1—50 Ft. 2—100 Ft. 3—250 Ft

*Values shown are for bare cable in free air at 30°C (86°F) and intended as a reference guide only. Actual values will depend on permissible temperature rise, permissible voltage drop and other conditions of service.

ALPHLEX® TUBING SECTION

PLASTIC TUBING (PVC-105)

Dielectric Strength	Temp. Rating	Low Temp. Flexibility	Flammability	Tensile Strength	Ultimate Elongation	Insulation Resistance	Fungi Resistance	Oil Resistance	Corrosion & Abrasion Resistance	Applicable Specifications
800 V/MIL	105°C	—30°C	Non-Flammable	2500 PSI	300%	Over 1,000,000 Megs.	Yes	Remains Flexible Indefinitely	Excellent	MIL-I-631C ASTM-D876 ASTM-D922

Standard Colors

#24 thru #12 —Clear, Black, Yellow, Red, Blue, Brown, Green, White, Orange

#11 thru #2 —Clear, Black, Yellow, Red, Green, White

#1 thru 2½" —Clear, Black

Standard Put-Ups

#24 thru #15 —1,000 ft. spools
#14 thru #5 — 500 ft. spools
#4 thru 3/8" — 250 ft. coils
7/16" thru 5/8" — 100 ft. coils
3/4" & larger — 50 ft. coils

APPLICATIONS

Alphlex® PVC-105 Plastic Tubing is designed and manufactured specifically for electronic, aircraft and electrical applications involving temperatures as high as 105°C. It conforms to Specification MIL-I-631C, Type F, Form U, Grade C, Class I, Category I.

DESCRIPTION

PVC-105's exceptional integration of desirable qualities endows it with excellent versatility and durability. Its dielectric strength is high and remains unaffected by increasing temperature throughout its range. It displays high resistance to the agents of heat, oil, chemicals, corrosion, fungi and even abrasion with no loss in tensile strength, non-flammability—or flexibility.

Under all the above adverse conditions, PVC-105 will retain its ability to hug and protect irregular-shaped objects, will "snake" beautifully, and will always be easy to handle.

To achieve this combination of advantages, special care is taken in the making of PVC-105. It is compounded with only first-grade quality non-migratory resinous type plasticizers. From laboratory to production line, from raw material to finished product, strict quality control prevails. Behind it are the same engineering and production know-how that have made the name Alpha famous in the electronics industry.

As with all Alpha and Alphlex items, PVC-105 is "IN STOCK" for immediate delivery, and can be supplied to desired lengths as well as standard spools.

For your special problems, please call on us for consultation and recommendations—no obligation, of course.

ALPHA NO.	SIZE	NOM. INSIDE DIAMETER	NOM. WALL THICKNESS
PVC-105/24	24	.022"	.013"
PVC-105/22	22	.027"	.012"
PVC-105/20	20	.034"	.016"
PVC-105/19	19	.038"	.016"
PVC-105/18	18	.042"	.016"
PVC-105/17	17	.047"	.016"
PVC-105/16	16	.053"	.016"
PVC-105/15	15	.059"	.016"
PVC-105/14	14	.066"	.016"
PVC-105/13	13	.076"	.016"
PVC-105/12	12	.085"	.016"
PVC-105/11	11	.095"	.016"
PVC-105/10	10	.106"	.016"
PVC-105/9	9	.118"	.020"
PVC-105/8	8	.133"	.020"
PVC-105/7	7	.148"	.020"
PVC-105/6	6	.166"	.020"
PVC-105/5	5	.186"	.020"
PVC-105/4	4	.208"	.020"
PVC-105/3	3	.234"	.020"

ALPHA NO.	SIZE	NOM. INSIDE DIAMETER	NOM. WALL THICKNESS
PVC-105/2	2	.263"	.020"
PVC-105/1	1	.294"	.020"
PVC-105/0	0	.330"	.020"
PVC-105/3/16"	3/16"	.312"	.025"
PVC-105/3/8"	3/8"	.375"	.025"
PVC-105/7/16"	7/16"	.438"	.025"
PVC-105/1/2"	1/2"	.500"	.025"
PVC-105/9/16"	9/16"	.562"	.030"
PVC-105/5/8"	5/8"	.625"	.030"
PVC-105/3/4"	3/4"	.750"	.035"
PVC-105/7/8"	7/8"	.875"	.035"
PVC-105/1"	1"	1.000"	.035"
PVC-105/1 1/8"	1 1/8"	1.125"	.035"
PVC-105/1 1/4"	1 1/4"	1.250"	.040"
PVC-105/1 3/8"	1 3/8"	1.375"	.040"
PVC-105/1 1/2"	1 1/2"	1.500"	.045"
PVC-105/1 3/4"	1 3/4"	1.750"	.055"
PVC-105/2"	2"	2.000"	.060"
PVC-105/2 1/4"	2 1/4"	2.250"	.065"
PVC-105/2 1/2"	2 1/2"	2.500"	.070"

NOTE: PVC-105 manufactured under the recognition component section of UL is available to order.

TEFLON® EXTRUDED TUBING (TFT-200)
(THIN WALL)

DESCRIPTION

ALPHLEX® THIN WALL TEFLON TUBING, a high temperature insulation (designated by A.I.E.E. for continuous operation at 220°C minimum), while classified as a thermoplastic resin, does not melt and flow as do conventional thermoplastic materials.

APPLICATIONS

Because of its combination of electrical, chemical and mechanical properties, **ALPHLEX TEFLON** is unmatched by any other type tubing for use in electrical applications at high frequencies and temperatures. As a thin, flexible insulation, it permits miniaturization and compactness of design heretofore impossible.

Dielectric Strength	Temp. Rating	Low Temp. Flexibility	Flammability	Tensile Strength	Ultimate Elongation	Fungi & Oil Resistance	Corrosion & Abrasion Resistance	Applicable Specifications
500-1000 V/MIL	250°C	—90°C	Non-Flammable	1500-3000 PSI	100-200%	Excellent	Excellent	ASTM

ALPHA NO.	SIZE	NOM. INSIDE DIAMETER	NOM. WALL THICKNESS
TFT-200/30	30	.012"	.009"
TFT-200/28	28	.015"	.009"
TFT-200/26	26	.018"	.010"
TFT-200/24	24	.022"	.010"
TFT-200/22	22	.027"	.010"
TFT-200/20	20	.034"	.012"
TFT-200/19	19	.038"	.012"
TFT-200/18	18	.042"	.012"
TFT-200/17	17	.047"	.012"
TFT-200/16	16	.053"	.012"
TFT-200/15	15	.059"	.012"
TFT-200/14	14	.066"	.012"
TFT-200/13	13	.076"	.012"

ALPHA NO.	SIZE	NOM. INSIDE DIAMETER	NOM. WALL THICKNESS
TFT-200/12	12	.085"	.012"
TFT-200/11	11	.095"	.012"
TFT-200/10	10	.106"	.012"
TFT-200/9	9	.118"	.015"
TFT-200/8	8	.133"	.015"
TFT-200/7	7	.148"	.015"
TFT-200/6	6	.166"	.015"
TFT-200/5	5	.186"	.015"
TFT-200/4	4	.208"	.015"
TFT-200/3	3	.234"	.015"
TFT-200/2	2	.263"	.015"
TFT-200/1	1	.294"	.015"
TFT-200/0	0	.330"	.015"

Sizes	Standard Colors		Standard Put-Ups
#30-#15 Inclusive	Natural Yellow	Black Red	1000 ft. Spools or 10-100 ft. Spools per 1000 ft. Box
#14-#8 Inclusive	Natural Yellow	Black Red	500 ft. Spools or 5-100 ft. Spools per 500 ft. Box
#7-#0 Inclusive	Natural		Random Lengths Packed in 100 ft. Coils or 36" Lengths

See Last Two ALPHA Pages For Complete Price List
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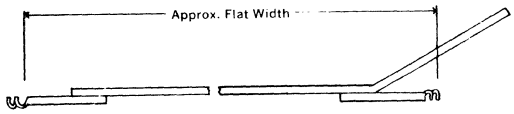
ALPHLEX® ZIPPER TUBING

DESCRIPTION Alphlex Zipper Tubing is the all purpose modern way to harness, cover and protect cables. Just zip to close — and zip to reopen. If you wish, it may be permanently sealed with PB-200 Special Compound Liquid Sealer. Alphlex Zipper Tubing is strong, flexible, durable, and offers new freedom in design, production and repair.

APPLICATIONS To shield, to harness wire, to custom-cable to any length, to enclose, to encase, to identify (such as cable markers), to protect, to replace worn jackets.

TYPES OF ZIPPER TUBING

TYPE	MATERIAL	WALL THICKNESS (Inches)	OPER. TEMP.	APPLICATIONS	STOCK COLORS	STANDARD PUT-UPS
ZIP-31	Polyvinyl-chloride made from MIL-I-631 D, GRADE C Materials	.020	−20° C to 105 C	All Purpose Type	Clear Black Yellow	25' 50' 100' 25' 50' 100' 25' 50' 100'
ZIP-31M	Polyvinyl-chloride made from MIL-I-631 D, GRADE C Materials	.040	−20° C to 105° C	Heavy Duty Constructions	Clear Black	100' 100'
ZIP-44	Polyvinyl-chloride made from MIL-I-7444 B Materials	.020	−67° C to 70° C	Extreme Flexibility, Low Temperature & Aircraft industry	Clear Black	100' 100'
ZIP-50	Polyvinyl-chloride "sandwich" of aluminum foil laminated between two sheets of polyvinyl	.040	−20° C to 105° C	100% RF shielding	Silver-Grey	100'



ZIPPER SPECIFICATIONS FOR ALL TYPES OF ALPHLEX ZIPPER TUBING

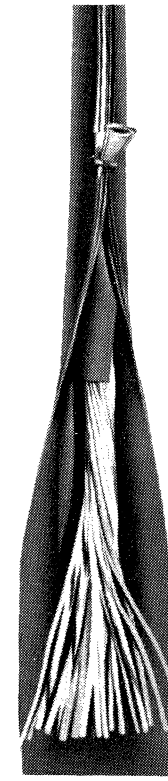
Material	**Polyvinylchloride**	Cold Brittleness	**−86° C**
Track Thickness (when closed)	**.095"**	Fungus-proof	**will not support fungus**
Dielectric Strength, V/mil	**759**	Flammability	**self-extinguishing**
Tensile Strength P.S.I.	**3810**	Lateral Pull Strength (unsealed)	**42.7 pounds/inch**
Ultimate Elongation	**255%**	Lateral Pull Strength (permanently sealed)	**59.8 pounds/inch**
Operating Temperature, Upper Limit	**106° C**	Standard Colors	**Black, Clear, Yellow**

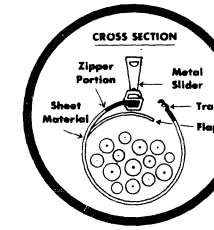
Contrasting color combinations of zipper and body are available to order. The zipper portion can be supplied in any of the following colors: Black, Yellow, Clear, Blue, White, Brown, Purple, Red, Orange, Green, Slate.

STANDARD SIZES FOR ALL ZIPPER TUBING

Zipper Tubing Inside Diameter	Approx. Flat Width (From track to track — excluding flap)
*¼"	1 3/16"
*3/8"	1 5/8"
½"	2"
5/8"	2 3/8"
¾"	2 3/4"
7/8"	3 1/8"
1"	3 5/8"
1 1/8"	3 15/16"
1¼"	4 1/8"
1½"	4 7/8"
1¾"	5 5/8"
2"	6 3/8"

*Because of small Inside Diameter, these sizes cannot be closed by using the slider. The tracks must be closed by manual pressure.





HOW TO ORDER
Select the type of Zipper Tubing desired from the chart and the required Inside Diameter. When ordering, request as follows: For example, ZIP-31 Tubing in 5/8" Inside Diameter order — ZIP-31 — 5/8.

ALPHLEX® ELECTRONIC LACING CORDS AND TAPES

MIL-T-713A NYLON TWISTED CORD

ALPHA NO.	CLASS	TYPE	BREAKING STRENGTH	FINISH	NOMINAL DIAMETER	STOCK COLORS	YARDS PER POUND	STANDARD PUT-UP
LC-113	I	P Twine	70 lbs.	MW	.050"	Wh., Blk.	560	8 oz. spls.
LC-114	II	P Twine	48 lbs.	MW	.035"	Wh., Blk.	750	8 oz. spls.
LC-115	III	P Twine	32 lbs.	MW	.030"	Wh., Blk.	1180	8 oz. spls.

MIL-T-713A NYLON FLAT BRAIDED TAPE

ALPHA NO.	CLASS	TYPE	BREAKING STRENGTH	NOMINAL WIDTH	NOMINAL THICKNESS	FINISH	STOCK COLORS	STANDARD PUT-UP
LC-136	II	P Tape	50 lbs.	.090" (3/32")	.014"	MW	Wh., Blk.	500 yd. spls.

NYLON FLAT BRAIDED TAPE

ALPHA NO.	WIDTH	THICKNESS	TENSILE STRENGTH	FINISH	STOCK COLORS	STANDARD PUT-UP
LC-132	3/32"	.014"	50 lbs.	GE	Wh., Blk.	500 yd. tubes
LC-134	1/16"	.010"	30 lbs.	MW	Wh., Blk.	500 yd. spls.
LC-136	3/32"	.014"	50 lbs.	MW	Wh., Blk.	500 yd. spls.
LC-140	3/32"	.014"	50 lbs.	SR	Wh., Blk.	500 yd. spls.
LC-143	3/32"	.014"	50 lbs.	AM	Wh., Blk.	500 yd. spls.

DACRON FLAT BRAIDED TAPE

ALPHA NO.	WIDTH	THICKNESS	TENSILE STRENGTH	FINISH	STOCK COLORS	STANDARD PUT-UP
LC-158	3/32"	.014"	50 lbs.	GE	Wh., Blk.	500 yd. tubes
LC-162	3/32"	.014"	50 lbs.	MW	Wh., Blk.	500 yd. spls.

Other materials, finishes and sizes available to order.

TYPES OF LACING CORD

flat braided tape This construction was develo to prevent the "cold flow" that often is encounte in wire having plastic or rubber insulations. It been specifically designed to create a wider con area with the insulation, so that it does not away from the contact point. It is considerably n flexible and easier on the user's hands and is rec mended for all types of harness work. Flat t do not appreciatively increase the diameter the cable.

round twisted cord Available in various strands thicknesses to produce different tensile streng This type, while it may be used for plastic and ru insulated wire, is particularly suited for v having a secondary insulation or those utilizi textile as an insulating material.

MATERIALS

nylon Synthetic fiber resistant to: fungus, fl acids, abrasion. Excellent tensile strength, weight, small size.

dacron A synthetic fiber which retains all the a characteristics of Nylon plus: less elongation, b resistance to acids, no appreciable discolor

FINISHES

ge synthetic rubber-like resin
mw micro-crystalline wax
am thermoplastic synthetic resin
sr fungistatic synthetic rubber

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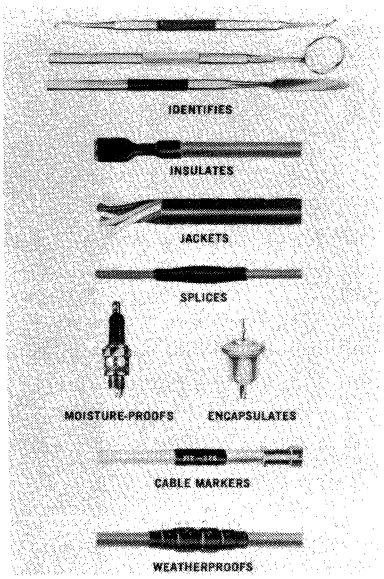
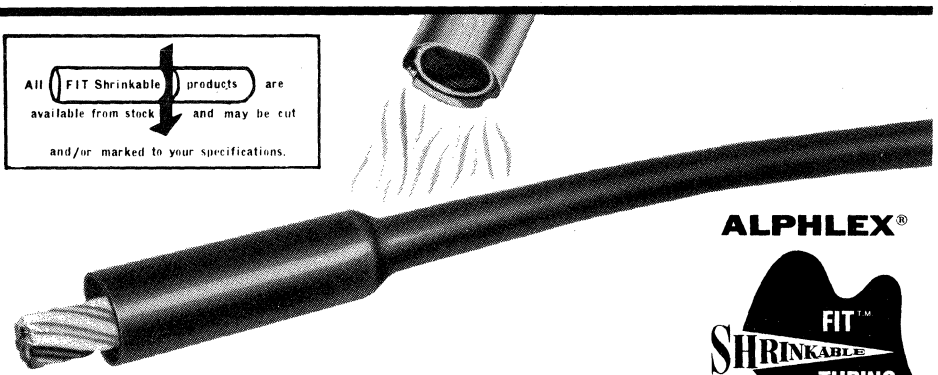
See Last Two ALPHA Pages For Complete Price List

ALPHA WIRE CORPORATION

A host of electronic, electrical, medical, laboratory, automotive and aircraft applications. FIT Tubing displays high resistance to heat, oils, moisture, chemicals, acid, corrosion, fungi and abrasion.



All FIT Shrinkable products are available from stock and may be cut and/or marked to your specifications.



ALPHLEX®

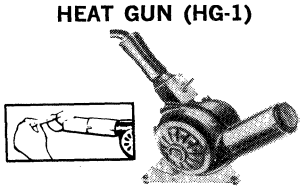
FIT™ SHRINKABLE TUBING WITH CONTROLLED SHRINKAGE

New Alphlex all-purpose FIT Shrinkable Tubing shrinks in seconds when heated, forming a permanent tight-fitting mechanical bond even over irregularly shaped materials. Shrinkage is predetermined.

TYPES OF FIT™ SHRINKABLE PRODUCTS

FIT-221	An excellent all-purpose polyolefin tubing, Shrinkage Ratio — 2:1 (50% shrinkage).
FIT-105	A shrinkable polyvinylchloride with all the advantages of PVC plus the convenience factors of Shrinkable Tubing. Recommended as a superior quality, economical material for cabling and jacketing. Shrinkage Ratio 2:1 (50% shrinkage).
FIT-295	An extremely tough, semi-rigid abrasion resistant tubing with unusual mechanical strength. Recommended for jacket-termination, connection, or splice that is subject to mechanical stress. Shrinkage Ratio 2:1 (50% shrinkage).
FIT-Cap	Electrical insulating, flame-resistant sealed wire and cable terminations. Answers the need for a strong, space-saving, lightweight end cap for splices and cables. Shrinkage Ratio 2:1 (50% shrinkage).
FIT-Mrk	FIT-Markers are pre-cut and stamped wire markers made of a flexible abrasion-proof, durable polyolefin tubing. Shrinkage Ratio 2:1 (50% shrinkage).

HEAT GUN (HG-1)



FIT - KIT
An ideal laboratory / prototype / production kit. A selection of 6-inch lengths of FIT-221; FIT-295, FIT-105, FIT-Caps and FIT-Markers in a handy plastic case, each type in its separate compartment. Includes a wide variety of sizes and colors.

6" PACKAGED ASSORTMENTS
FIT-221 — assorted sizes and colors per box — contains an assortment of 6" lengths in various sizes and colors. Every length identified as to size and supplied in Black, White, Red, Yellow, Blue, and Clear.

ALPHLEX NUMBER		TUBING SIZE RANGE	LENGTHS PER BOX
FIT-221	MS-1	3/64" thru 3/16"	30
FIT-221	MS-2	1/4" thru 3/4"	16
FIT-221	MS-3	1" thru #4	10

IRRADIATED POLYOLEFIN TUBING The All-Purpose Shrinkable Tubing **FIT-221** Shrinkage Ratio 2:1 (50% shrinkage).

DIMENSIONS CHART

ALPHLEX NO. FIT-221	EQUIVALENT TO FIT-275/270	SIZE	MIN. I.D. BEFORE SHRINKAGE (inches)	RECOVERED I.D. AFTER SHRINKAGE (inches)	RECOVERED NOM. WALL THICKNESS (inches)	STND. 4' TOT. FTG.	PKG.* LGTHS. NO. OF LGTHS.	STND. 6" TOT. FTG.	PKG.* LGTHS. NO. OF LGTHS.
FIT-221-3/64"	FIT-275-24	3/64	.046	.023	.016	100'	25	20'	40
FIT-221-1/16"	FIT-275-22, 20	1/16	.063	.031	.017	100'	25	18'	36
FIT-221-3/32"	FIT-275-18, 16	3/32	.093	.046	.020	100'	25	16'	32
FIT-221-1/8"	FIT-275-14	1/8	.125	.062	.020	100'	25	14'	28
FIT-221-3/16"	FIT-275-12, 10	3/16	.187	.093	.020	100'	25	12'	24
FIT-221-1/4"	FIT-275-8	1/4	.250	.125	.025	100'	25	10'	20
FIT-221-3/8"	FIT-275-6, 4	3/8	.375	.187	.025	100'	25	8'	16
FIT-221-1/2"	FIT-275-2, 5/16"	1/2	.500	.250	.025	20'	5	7'	14
FIT-221-3/4"	FIT-275-3/8", 7/16"	3/4	.750	.375	.030	20'	5	6'	12
FIT-221-1"	FIT-225-1/2", 5/8"	1	1.000	.500	.035	20'	5	4'	8
FIT-221-1 1/2"	FIT-275-3/4", 7/8"	1 1/2	1.500	.750	.040	20'	5	2.5'	5
FIT-221-2"	FIT-275-1", 1 1/4"	2	2.000	1.000	.045	20'	5	1.5'	3
FIT-221-3"	FIT-275-1 1/2", 1 3/4"	3	3.000	1.500	.050	8'	2	1'	2
FIT-221-4"	FIT-275-2"	4	4.000	2.000	.055	8'	2	.5'	1

STOCK COLORS — Black, White, Red, Yellow, Blue, and Clear

STANDARD PACKAGE FIT-221 Tubing is available ONLY in the specified packages. When ordering, indicate package desired (6 inches or 4 foot).

See Last Two ALPHA Pages For Complete Price List
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IRRADIATED POLYVINYLCHLORIDE TUBING Highly Flexible — Ideal for Cable Jacketing

FIT-105 Shrinkage Ratio 2:1 (50% Shrinkage)

ALPHLEX NO. (BLACK ONLY)	SIZE (Inches)	MINIMUM I.D. BEFORE SHRINKING (Inches)	RECOVERED I.D. AFTER SHRINKING (Inches)	NOMINAL WALL THICKNESS (Inches)	STANDARD PUT-UP (Feet)
FIT-105-3/64	3/64	.046	.023	.020	25, 100, 500
FIT-105-1/16	1/16	.062	.031	.020	25, 100, 500
FIT-105-3/32	3/32	.093	.046	.020	25, 100, 200
FIT-105-1/8	1/8	.125	.062	.020	25, 100, 200
FIT-105-3/16	3/16	.187	.093	.025	25, 100, 200
FIT-105-1/4	1/4	.250	.125	.025	25, 100, 200
FIT-105-3/8	3/8	.375	.187	.030	25, 100, 200
FIT-105-1/2	1/2	.500	.250	.030	25, 100
FIT-105-3/4	3/4	.775	.375	.035	25, 100
FIT-105-1	1	1.000	.500	.040	25, 100
FIT-105-1 1/2	1 1/2	1.500	.750	.045	25, 100
FIT-105-2	2	2.000	1.000	.050	10, 25, 50

FIT-105-MS PACKAGED ASSORTMENTS

Contains an assortment of 6" lengths in various sizes. Every length identified as to size and supplied in black only.

ALPHLEX NO.	TUBING SIZE RANGE	LENGTHS PER BOX
FIT-105-MS-1	3/64" thru 1/4" (6 sizes)	10 lengths per size (60 lengths)
FIT-105-MS-2	3/8" thru 1" (4 sizes)	10 lengths per size (40 lengths)
FIT-105-MS-3	1 1/2" and 2" (2 sizes)	7 lengths per size (14 lengths)

IRRADIATED POLYOLEFIN SEMI-RIGID TUBING For Maximum Strength At All Stress Points

FIT-295 Shrinkage Ratio 2:1 (50% Shrinkage)

ALPHLEX PART NUMBER FIT-295 COLORED	*STOCK COLORS	SIZE (Inches)	MINIMUM I.D. BEFORE SHRINKING (Inches)	RECOV'D I.D. AFTER SHRINKING (Inches)	NOMINAL WALL THICKNESS (Inches)	STANDARD PACKAGE* 2 Foot Lengths Tot. Ftg.	No. Lgths.	STANDARD PACKAGE* 6 Inch Lengths Tot. Ftg.	No. Lgths.
FIT-295-3/64	Yellow	3/64	.046	.023	.020	100'	50	20'	40
FIT-295-1/16	White	1/16	.063	.032	.020	100'	50	18'	36
FIT-295-3/32	Blue	3/32	.093	.045	.020	100'	50	16'	32
FIT-295-1/8	Red	1/8	.125	.063	.020	100'	50	14'	28
FIT-295-3/16	Green	3/16	.187	.093	.025	100'	50	12'	24
FIT-295-1/4	Slate	1/4	.250	.125	.025	100'	50	10'	20
FIT-295-3/8	Brown	3/8	.375	.187	.030	100'	50	8'	16
FIT-295-1/2	Black	1/2	.500	.250	.030	20'	10	7'	14
FIT-295-3/4	White	3/4	.750	.375	.040	20'	10	6'	12
FIT-295-1	Red	1	1.000	.500	.050	20'	10	4'	8

PACKAGED ASSORTMENTS FIT-295-MS

Contains an assortment of 6" lengths in various sizes. Every length identified as to size.

ALPHLEX NO.	TUBING SIZE RANGE	LENGTHS PER BOX
FIT-295-MS-1	3/64" thru 1/4" (6 sizes)	5 lengths per size (30 lengths)
FIT-295-MS-2	3/8" thru 1" (4 sizes)	6 lengths per size (24 lengths)

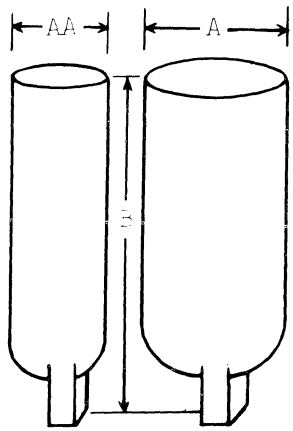
***STANDARD PACKAGE**
295 Tubing is available only in the specified standard packages. When ordering, indicate package desired (6 Inch or 2 Foot)

***Each size available in "Clear."**

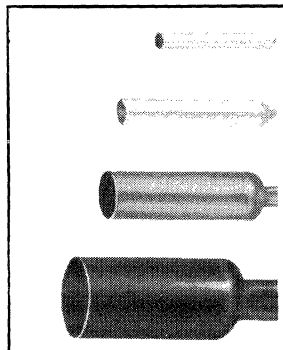
FIT-CAPS — SHRINKABLE WIRE TERMINATION CAPS An Irradiated Semi-Rigid Polyolefin Product

Shrinkage Ratio 2:1 (50% Shrinkage)

DIMENSION CHART



Actual Size



Alphlex No.	A Minimum I.D. Before Shrinking (Inches)	AA Recovered I.D. After Shrinking (Inches)	Nominal Wall Thickness (Inches)	B Nominal Length (Inches)	Stock Colors	Standard Package Put-Up (Pieces)
CAP-1	.063	.025	.016	3/4	White	100 or 1000
CAP-2	.125	.050	.020	1	Red	100 or 1000
CAP-3	.250	.100	.025	1	Slate	100 or 1000
CAP-4	.500	.200	.030	1 1/4	Black	100 or 1000

FIT-CAP ASSORTMENT CAP-A contains 10 each of the 4 sizes of shrinkable wire termination caps. Packed in a handy transparent plastic storage box.

FIT-MARKERS — SHRINKABLE WIRE MARKERS

An Irradiated Flexible Polyolefin Product
Shrinkage Ratio 2:1 (50% Shrinkage)

Alphlex No.	O.D. of Wire to be Identified (Inches)	Minimum I.D. Before Shrinking (Inches)	Recovered I.D. After Shrinking (Inches)	Nominal Wall Thickness (Inches)	Marker Length Before Shrinkage (Inches)	Stock Color
MRK-A	.049-.065	.098	.049	.016	3/4	Black
MRK-B	.066-.095	.122	.061	.016	3/4	Black
MRK-C	.096-.150	.178	.089	.016	3/4	Black

FIT-MARKER ASSORTMENTS Contains a selection of markers printed in numerical or alphabetical sequence.

Alphlex No.	Minimum I.D. Before Shrinking (Inches)	Printing On Markers	Standard Package *2 of each number †4 of each letter	Stock Color
MRK-A-NS	.098	1-50	100*	Black
MRK-B-NS	.122	1-50	100*	Black
MRK-C-NS	.178	1-50	100*	Black
MRK-A-LS	.098	A-Z	100†	Black
MRK-B-LS	.122	A-Z	100†	Black
MRK-C-LS	.178	A-Z	100†	Black

HOW TO ORDER

1. Determine O.D. of wire to be identified.
2. Select recommended size and part number from chart above.
3. To order, add number or letter to be printed on marker as suffix to the Alpha part number: For example: To order FIT-Markers printed with number "22", for use on wire with O.D. of .075, order: MRK-B-22.

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See Last Two ALPHA Pages For Complete Price List

ALPHA WIRE PRICE LIST

Number	Sug. Resale Ea. 1000′
112	$13.50
136	9.00
286	15.75
289	23.25
292	52.50
292/6	130.20
292/8	81.45
295	10.50
296	7.50
297	4.80
298	3.53
299	3.15
299/1	2.85
299/2	2.78
299/3	2.78
600	.63
602	.72
604	.95
606	.77
608	.84
610	.84
612	.96
615	.81
616	1.04
618	1.11
619	1.25
620	.72
622	.81
624	.93
626	2.16
628	1.04
630	3.30
632	4.20
634	7.80
636	1.29
638	2.63
639	5.40
640	2.34
642	4.05
644	6.30
645	1.35
646	1.65
647	1.95
648	2.40
649	2.85
650	.89
651	2.70
652	3.38
654	3.15
655	3.75
656	5.70
657	4.05
658	6.15
660/4	6.00
660/2	3.38
660/1	1.80
661/4	6.75
661/2	3.75
661/1	2.10
662/4	8.70
662/2	4.65
662/1	2.63
663/4	10.50
663/2	5.55
664/4	8.63
664/2	4.35
664/1	2.55
665/4	11.25
665/2	5.85
665/1	2.85
666/4	13.80
666/2	7.50
670/4	15.60
670/2	8.40
671/4	17.40
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672/4	17.25
672/2	9.38
673/4	19.50
673/2	10.50
674/4	22.50
674/2	12.00
675/4	26.40
675/2	13.95
675/4	33.30
675/2	17.40
677/4	37.05
677/2	19.28
681/4	5.40
681/2	3.30
682/4	6.30
682/2	3.75
684/4	7.35
684/2	4.28
684/4	9.90
685/2	5.55
685/4	12.30
685/2	6.90
685/4	13.80
685/2	7.65
	2.48
	4.05
	4.50
685/4	8.25
690/2	4.73
692/4	11.40
692/2	6.30
694/4	16.20
694/2	8.70
696/4	18.75
696/2	9.98
760/4	9.30
760/2	5.25
762/4	15.90
762/2	8.55
763/4	17.85
763/2	9.60
1100	27.45
1101	38.40
1102	51.15
1105	46.20
1106	54.60
1107	64.20
1110	57.75
1115	19.50
1116	29.40
1120	49.20
1121	58.65
1122	74.40
1150	14.93
1153	18.75
1156	36.00
1157	24.75
1159	33.45
1160	44.10
1161	60.00
1163	93.60
1164	132.60
1172	16.50
1173	18.75
1174	24.75
1175	30.00
1176	46.50
1177	52.50
1178	58.50
1179	64.50
1180	66.00
1181	70.50
1181/15	207.00
1181/20	270.00
1181/25	337.50
1181/30	405.00
1182	36.00
1183	53.40
1184	65.40
1185	84.60
1186	108.60
1187	126.00
1188	147.00
1189	190.00
1190	204.00
1192	240.00
1192/15	315.00
1192/20	435.00
1194	36.00
1194/22	33.00
1194/24	32.25
1196	39.00
1197	51.00
1198	58.50
1199	78.00
1200	28.35
1201	39.75
1221	25.50
1222	26.10
12223	28.65
1224	33.60
1229	37.20
1230	41.25
1231	57.30
1232	93.00
1233	130.20
1233/2	123.00
1234	294.00
1235	315.00
1239	360.00
1243	34.50
1243/5	90.60
1244	75.90
1245	82.80
1246	99.00
1247	126.00
1247/6	153.00
1247/7	168.00
1247/8	186.00
1247/10	315.00
1247/12	435.00
1248	77.25
1249	78.00
1249/18	117.00
1250	84.75
1250/18	135.00
1251	90.00
1252	105.00
1253	135.00
1254	165.00
1255	180.00
1255/8	192.00
1255/10	420.00
1255/12	585.00
1256/22V	37.20
1256V	46.20
1259V	66.00
1260V	73.50
1260/12	240.00
1260/14	122.40
1261	48.60
1261/26	51.15
1300	12.75
1302	23.25
1304	32.25
1307	55.50
1307/7	76.20
1307/9	77.25
1308/11	105.00
1309	118.50
1309/15	133.50
1310	189.00
1313	247.50
1313/31	585.00
1313/41	840.00
1314	1080.00
1316	23.40
1317	52.35
1318	63.75
1319	69.00
1320	72.75
1322	75.00
1323	108.00
1327	180.00
1327/19	297.00
1328	315.00
1329	337.50
1329/31	870.00
1329/41	1185.00
1330	1380.00
1332	37.50
1341	18.00
1343	24.30
1344	28.13
1345	34.50
1346	48.00
1350	20.40
1351	21.60
1352	24.00
1353	28.50
1354	38.25
1355	45.00
1356	60.00
1370	30.75
1371	31.50
1372	33.00
1373	37.50
1374	49.50
1375	75.00
1376	126.00
1381	12.75
1382	14.10
1383	16.95
1384	20.25
1385	27.00
1386	37.50
1387	82.50
1388	180.00
1389	240.00
1389/4	330.00
1389/2	465.00
1389/0	750.00
1389/00	960.00
1391	27.00
1392	30.00
1393	33.00
1394	39.00
1395	49.50
1396	63.00
1400	345.00
1401	427.50
1402	510.00
1404	720.00
1410	588.00
1411	735.00
1412	918.00
1420	765.00
1421	960.00
1449	123.75
1450	159.00
1450/16	267.00
1451	255.00
1451/16	330.00
1452	318.00
1452/16	378.00
1454	465.00
1454/16	591.00
1456	615.00
1456/16	744.00
1458	774.00
1458/16	1125.00
1459	1080.00
1459/15	1290.00
1459/20	1440.00
1470	39.00
1471	42.00
1472	45.60
1473	54.75
1474	66.30
1475	91.20
1476	144.00
1480	10.35
1481	11.55
1482	15.00
1483	19.80
1503	9.75
1504	10.20
1505	12.60
1506	18.75
1507	24.00
1508	31.50
1509	46.50
1550	6.45
1551	7.50
1553	9.90
1555	14.25
1557	21.00
1559	32.10
1560	52.50
1561	6.15
1561/24	6.00
1563	8.25
1565	12.00
1567	16.95
1571	9.60
1573	11.25
1575	15.00
1577	19.50
1579	36.00
1590	15.75
1591	19.50
1592	24.00
1593	29.25
1594	34.50
1595	60.00
1598	99.00
1599	165.00
1599/6	222.00
1610	9.75
1632	19.50
1635	21.00
1636	22.50
1638	39.00
1639	27.00
1640	26.40
1641	30.90
1642	47.25
1643	37.20
1644	58.13
1645	90.00
1646	51.60
1647	74.40
1648	103.20
1651	45.00
1653	75.00
1655	195.00
1657	240.00
1660	76.50
1661	81.75
1662	122.25
1663	93.75
1664	183.75
1665	202.50
1666	127.50
1667	168.75
1668	213.75
1670	8.25
1671	9.75
1672	13.50
1675	8.10
1676	8.10
1677	8.25
1678	8.40
1679	9.00
1680	10.35
1685	5.25
1686	4.95
1687	5.40
1688	5.85
1689	6.23
1690	6.75
1702	28.50
1703	27.75
1704	37.50
1705	31.50
1706	57.60
1709	66.90
1710	54.75
1712	69.00
1713	72.00
1715	84.00
1716	94.50
1717	187.50
1719	234.00
1721	292.50
1723	441.00
1726	720.00
1728	855.00
1735	38.10
1736	42.00
1737	55.50
1738	72.60
1740	43.05
1741	57.45
1742	72.75
1743	105.90
1745	50.70
1746	69.45
1747	100.20
1747/4	138.75
1748	101.25
1749	138.75
1750	135.00
1751	192.75
1760	210.00
1761	288.00
1775	36.00
1779	57.15
1783	68.40
1793	18.00
1794	27.75
1794/4	39.60
1795	33.00
1796	47.70
1796/4	56.25
1797	38.70
1798	52.35
1798/4	69.30
1798/5	90.60
1798/6	108.60
1799	66.90
1799/3	81.60
1799/4	112.50
1830	8.40
1831	9.60
1832	11.40
1833	15.00
1834	19.50
1835	28.35
1836	49.50
1840	13.50
1841	13.50
1842	16.50
1843	18.30
1844	24.00
1845	36.00
1846	63.75
1850	9.75
1851	7.80
1852	6.75
1853	8.10
1854	6.98
1854/19	8.63
1855	7.65
1855/19	8.93
1856	8.25
1856/19	10.58
1857	10.20
1857/19	11.93
1858/19	12.98
1859/19	33.00
1860	11.10
1861	10.50
1862	9.90
1863	10.43
1864	9.38
1864/19	11.48
1865	10.43
1865/19	13.13
1866	11.18
1866/19	13.28
1867	14.03
1867/19	15.98
1868/19	17.18
1869/19	37.50
1870	15.45
1871	16.50
1872	19.50
1873	24.00
1874	36.00
1875	40.50
1876	64.50
1877	84.00
1878	195.00
1879	240.00
1880	21.90
1881	25.20
1882	28.65
1883	36.00
1884	51.00
1885	63.00
1886	91.50
1887	126.00
1888	246.00
1889	330.00
1891	108.00
1891/3	147.00
1892	153.00
1892/3	225.00
1893	22.80
1894	33.00
1894/4	45.75
1895	27.90
1896	54.15
1896/4	72.00
1897	39.90
1898	70.20
1898/4	102.15
1898/6	148.50
1898/8	199.35
1898/12	297.00
1899	54.15
1899/3	107.40
1899/4	147.60
1900	13.50
1901	18.90
1903	18.15
1904	29.25
1906	28.20
1907	41.25
1909	49.50
1910	72.00
1912	15.75
1913	25.50
1915	20.25
1916	27.00
1918	23.40
1919	34.95
1921	27.30
1922	40.05
1924	30.60
1925	57.45
1927	64.20
1928	111.00
1931†††	18.00
1932†††	23.10
1932/3†††	28.13
1932/4†††	42.15
1933†††	28.05
1933/3†††	39.30
1933/4†††	57.45
1934†††	37.05
1934/3†††	45.00
1934/4†††	56.25
1935†††	39.60
1935/3†††	57.00
1935/4†††	69.15
1936†††	67.05
1936/3†††	82.50
1936/4†††	99.00
1937†††	78.15
1937/3†††	105.00
1937/4†††	129.00
1938†††	104.25
1938/3†††	135.00
1938/4†††	168.75
1939†††	187.50
1939/3†††	262.50
1939/4†††	345.00
1940†††	270.00
1940/3†††	360.00
1940/4†††	435.00
1944	9.00
1945	10.13
1946	14.40
1947	17.10
1951†††	11.25
1952	13.50
1952/3†††	24.90
1952/4†††	40.13
1953†††	16.88
1953/3†††	36.90
1953/4†††	54.30
1954†††	33.00
1954/3†††	42.30
1954/4†††	54.15
1955†††	36.00
1955/3†††	52.50
1955/4†††	66.30
1956†††	60.00
1956/3†††	78.00
1956/4†††	96.00
1957†††	73.50
1957/3†††	98.10
1957/4†††	123.00
1958†††	99.60
1958/3†††	129.30
1958/4†††	159.60
1959†††	180.00
1959/3†††	240.00
1959/4†††	315.00
1960†††	252.00
1960/3†††	337.50
1960/4†††	390.00
1979	28.50
1967	27.00
1977	21.00
1978	36.00
1991†††	16.50
1992†††	21.00
1992/3†††	23.25
1992/4†††	39.00
1993†††	24.00
1993/3†††	33.00
1993/4†††	51.30
1994†††	30.15
1994/3†††	39.45
1994/4†††	53.10
1995†††	33.75
1995/3†††	49.50
1995/4†††	63.90
1996†††	55.05
1996/3†††	74.70
1996/4†††	93.00
1997†††	70.95
1997/3†††	93.60
1997/4†††	120.75
1998†††	93.00
1998/3†††	126.00
1998/4†††	148.50
2130	18.75
2132	30.00
2134	45.75
2136	57.00
2138	69.75
2140°°	39.15
2142°°	46.50
2144°°	54.00
2146†††	54.00
2148†††	58.13
2150†††	71.25
2152†††	78.00
2160†††	6.00
2162†††	10.50
2163†††	12.45
2164†††	15.90
2166†††	16.50
2167†††	30.00
2168†††	22.50
2170**	13.05
2171**	15.75
2171/1**	18.00
2172**	18.30
2173**	26.70
2174**	27.00
2175**	48.75
2175/1**	75.75
2176**	36.30
2177**	52.50
2178**	58.50
2179**	63.00
2180**	72.00
2181**	81.00
2182**	88.50
2190†††	10.35
2191†††	20.25
2192†††	27.00
2193†††	37.50
2194†††	40.50
2195†††	75.00
2196†††	56.25
2197**	45.15
2198**	56.25
2254	27.00
2254/1	25.20
2254/3	42.00
2254/4	67.50
2254/6	105.00
2255	24.00
2256	33.00
2256/1	28.65
2256/3	46.50
2256/4	99.00
2256/6	133.50
2258	40.25
2258/1	33.75
2258/3	50.40
2258/4	114.00
2260	54.00
2260/3	108.00
2265	112.50
2265/3	190.50
2268	204.00
2268/3	315.00
2310	40.50
2311	48.60
2312	62.40
2323	108.75
2402	24.00
2403	30.00

Standard Put-Ups are 1000 feet except as indicated by the following symbols:
‖ lb., § 5 lb., # 10 lb., ↓ ¼ lb., ⊸ ½ lb., °° 500′, ††† 250′, ** 100′, ***50′, x 500 yards.

Net

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ALPHA WIRE PRICE LIST

Number	Sug. Resale Ea. 1000′
2404	54.00
2412	30.00
2413	37.50
2414	69.00
2422	35.25
2423	47.25
2424	78.00
2432	72.00
2433	96.00
2442	104.10
2443	137.70
2809	147.00
2809/2	315.00
2809/3	458.55
2809/4	585.00
2811	252.00
2811/2	395.63
2811/3	525.00
2811/4	690.00
2812	165.00
2812/2	352.50
2812/3	510.00
2812/4	644.25
2814	270.00
2814/2	435.00
2814/3	570.00
2814/4	749.25
2815	198.00
2815/2	456.00
2815/3	600.00
2815/4	795.00
2817	332.25
2817/2	537.75
2817/3	734.25
2817/4	975.00
2818	240.00
2818/2	562.50
2818/3	690.00
2818/4	930.00
2819	351.00
2819/2	623.40
2819/3	810.00
2819/4	1095.00
2821	330.00
2821/2	555.00
2821/3	822.00
2821/4	975.00
2824	375.00
2824/2	681.00
2824/3	900.00
2824/4	1170.00
2827	435.00
2827/2	780.00
2827/3	1065.00
2827/4	1335.00
2829	522.00
2829/2	855.00
2829/3	1140.00
2829/4	1470.00
2831	297.00
2831/2	501.00
2831/3	739.50
2834	337.50
2834/2	613.50
2834/3	810.00
2837	391.50
2837/2	702.00
2837/3	960.00
2839	471.00
2839/2	771.00
2839/3	1026.00
2850	64.50
2851	69.00
2852	72.00
2853	73.50
2854	80.25
2855	93.00
2856	120.00
2857	143.10
2858	187.50
2859	240.00
2859/10	585.00
2859/12	369.00
2874	85.50
2875	99.75
2876	126.90
2877	148.50
2878	202.50
2879	270.00
2879/8	1260.00
2879/10	705.00
2879/12	420.00
2883	96.00
2884	99.00
2885	111.00
2886	144.00
2887	177.00
3050	4.95
3051	5.70
3053	6.98
3055	9.00
3057	11.85
3071	9.00
3073	9.90
3075	12.00
3077	16.05
3079	21.75
3154	8.55
3155	10.05
3156	13.88
3157	19.65
3210	51.00
3211	76.05
3212	102.90
3220	49.50
3221	83.10
3222	114.30
3230	56.25
3231	93.75
3232	127.50
3240	57.30
3241	111.00
3242	147.90
3250	6.60
3251	7.20
3252	9.60
3302	76.50
3303	99.60
3304	117.00
3306	144.00
3308	171.00
3310	207.00
3312	240.00
3315	288.00
3320	382.50
3405	285.00
3410	486.00
3415	672.00
3420	870.00
3430	1260.00
3504	76.50
3508	140.40
3512	232.20
3516	309.00
3520	381.00
3600	16.80
3602	23.55
3604	33.75
3606	48.75
3608	96.00
3610	141.00
3618	43.50
3620	55.20
3622	72.00
3630	63.00
3632	67.50
3634	55.50
3636	54.00
3706ϕ	.60
3712ϕ	.81
3718ϕ	.99
3725ϕ	1.20
3750ϕ	2.04
3806ϕ	.75
3812ϕ	1.02
3818ϕ	1.29
3825ϕ	1.62
3850ϕ	2.76
3906ϕ	.75
3912ϕ	.96
3918ϕ	1.20
3925ϕ	1.44
3950ϕ	2.28
4006ϕ	.87
4012ϕ	1.20
4018ϕ	1.50
4025ϕ	1.83
4050ϕ	3.09
4102ϕ	.27
4103ϕ	.54
4105ϕ	.66
4106ϕ	.72
4107ϕ	.81
4108ϕ	.90
4110ϕ	.99
4112ϕ	1.20
4114ϕ	1.35
4116ϕ	1.50
4119ϕ	1.68
4121ϕ	1.92
4122ϕ	2.01
4124ϕ	2.07
4126ϕ	2.28
4130ϕ	2.58
4137ϕ	2.85
4140ϕ	3.15
4150ϕ	3.90
4160ϕ	4.80
4202ϕ	.33
4203ϕ	.54
4204ϕ	.66
4205ϕ	.84
4206ϕ	.87
4207ϕ	.90
4208ϕ	1.05
4209ϕ	1.20
4210ϕ	1.32
4212ϕ	1.56
4214ϕ	1.89
4216ϕ	2.13
4219ϕ	2.34
4224ϕ	3.24
4227ϕ	3.45
4230ϕ	3.84
4234ϕ	4.32
4237ϕ	4.53
4240ϕ	5.85
4302ϕ	.39
4303ϕ	.60
4304ϕ	.72
4305ϕ	.96
4306ϕ	1.11
4307ϕ	1.23
4308ϕ	1.43
4309ϕ	1.50
4310ϕ	1.68
4312ϕ	2.04
4314ϕ	2.19
4315ϕ	2.70
4316ϕ	2.82
4318ϕ	2.99
4319ϕ	3.08
4320ϕ	3.30
4322ϕ	3.60
4325ϕ	4.17
4327ϕ	4.49
4330ϕ	4.80
4334ϕ	5.40
4337ϕ	5.93
4505ϕ	.75
4506ϕ	.89
4507ϕ	1.02
4508ϕ	1.17
4509ϕ	1.35
4510ϕ	1.53
4514ϕ	2.04
4520ϕ	2.79
4526ϕ	3.81
4530ϕ	4.41
4540ϕ	6.18
4550ϕ	7.65
4560ϕ	8.61
4605ϕ	.84
4606ϕ	.96
4607ϕ	1.14
4608ϕ	1.35
4610ϕ	1.71
4612ϕ	2.04
4614ϕ	2.37
4616ϕ	2.58
4619ϕ	3.21
4620ϕ	3.33
4622ϕ	3.60
4624ϕ	4.08
4626ϕ	4.41
4630ϕ	5.16
4637ϕ	6.51
4640ϕ	7.20
4644ϕ	8.10
4650ϕ	8.85
4660ϕ	10.50
4705ϕ	1.23
4706ϕ	1.50
4707ϕ	1.62
4708ϕ	2.01
4709ϕ	2.28
4710ϕ	2.49
4712ϕ	2.94
4805ϕ	1.50
4806ϕ	1.71
4807ϕ	1.92
4808ϕ	2.19
4809ϕ	2.58
4810ϕ	2.82
4812ϕ	3.36
4816ϕ	4.23
4818ϕ	4.74

SERIES "5000" PLASTIC HOOK-UP WIRE

Number	Sug. Resale Ea. 1000′
5110	5.25
5111	5.85
5113	7.13
5115	9.08
5117	12.90
5119	17.25
5120	24.00
5121	4.50
5123	5.40
5125	7.50
5127	10.13
5150	9.00
5152	12.75
5153	13.88

SERIES "5000" TEFLON HOOK-UP WIRE

Number	Sug. Resale Ea. 1000′
5851	36.00
5852	38.10
5853	40.20
5854	42.75
5855	46.50
5856	54.00
5857	75.60
5858	90.00

MAGNET WIRE

Number	Sug. Resale Ea. 1000′
PE-44□	15.00
PE-42□	9.00
PE-40□	6.00
PE-38□	4.20
PE-36§	14.25
PE-34§	12.75
PE-32#	22.50
PE-30#	19.50
PE-28#	17.55
PE-26#	17.25
PE-24#	15.00
PE-22#	14.25
PE-20#	13.95
PE-18#	13.80
PE-16#	13.65
PE-14#	13.50
PE-12#	13.35
PE-10#	13.20

TEFLON MAGNET WIRE

Number	Sug. Resale Ea. 1000′
ST-44 ⬇	18.75
ST-43 ⬇	16.80
ST-42 ⬇	14.93
ST-41 ⬇	13.13
ST-40 ⬇	11.03
ST-39 ⬇	9.30
ST-38 ⬬	14.93
ST-37 ⬬	12.15
ST-36 ⬬	9.98
ST-35 ⬬	8.63
ST-34 ⬬	7.65
ST-33 ⬬	6.45
ST-32 ⬬	5.93
ST-31 ⬬	5.70
ST-30 ⬬	5.55

HEAT SHRINKABLE TUBING

(500-999′ per 100′)

Number	Sug. Resale Ea. 1000′
FIT-105-3/64″	9.15
FIT-105-1/16″	9.50
FIT-105-3/32″	10.90
FIT-105-1/8″	11.50
FIT-105-3/16″	13.90
FIT-105-1/4″	17.25
FIT-105-3/8″	19.00
FIT-105-1/2″	20.75
FIT-105-3/4″	27.75
FIT-105-1″	40.00
FIT-105-1-1/2″	65.75
FIT-105-2″***	56.60

ALPHLEX TUBING TYPE PIF-130

Number	Sug. Resale Ea. 1000′
PIF-130-24	26.00
PIF-130-22	27.50
PIF-130-20	28.00
PIF-130-19	28.00
PIF-130-18	28.50
PIF-130-17	28.50
PIF-130-15°°	20.75
PIF-130-14°°	20.50
PIF-130-13°°	21.75
PIF-130-12°°	22.00
PIF-130-11°°	23.75
PIF-130-10°°	25.00
PIF-130-9°°	26.00
PIF-130-8°°	27.75
PIF-130-7†††	18.58
PIF-130-6†††	19.80
PIF-130-5†††	22.10
PIF-130-4†††	24.35
PIF-130-3†††	27.23
PIF-130-2†††	30.95
PIF-130-1**	14.12
PIF-130-0**	16.50
PIF-130-3/8″**	21.05
PIF-130-7/16″**	27.89
PIF-130-1/2″**	36.39
PIF-130-5/8″**	43.89
PIF-130-3/4″**	53.72
PIF-130-7/8″**	65.76
PIF-130-1″**	79.37

COAXIAL CABLES

Number	Sug. Resale Ea. 1000′
800	172.00
803	78.00
804	86.40
805	241.20
806	150.00
807	69.60
808	80.40
810	124.80
811	192.00
812	360.00
813	480.00
817	55.20
818	28.80
819	31.20
820	33.60
821	29.40
822	34.80
823	35.40
824	33.00
827	21.60
829	168.00
830	86.40
831	234.00
832	144.00
835	360.00
836	480.00
837	84.00
841	59.40
846	36.00
847	87.60
848	132.00
F-606	33.30
2987	134.60
2988	132.00
2995	229.70
2996	90.50

ALPHLEX TUBING Fit-Caps and Markers

Number	Sug. Resale Ea. 1000′
CAP-1	35.50
CAP-2	44.00
CAP-3	54.00
CAP-4	66.80

SHIELD-TAPE

Number	Sug. Resale Ea. 1000′
ASF-1-1/4″**	7.50
ASF-1-5/8″**	9.00
ASF-2-1/4***	13.50
ASF-3-1/4″**	18.00
ASF-4″**	22.50
ASF-4-1/2″**	27.00

"ALMAG" MAGNET WIRE HEAVY FORMVAR

Number	Sug. Resale Ea. 1000′
HF-10#	13.65
HF-12#	13.80
HF-14#	13.95
HF-16#	14.10
HF-18#	14.25
HF-20#	14.25
HF-22#	14.70
HF-24#	15.45
HF-26#	16.95
HF-28#	18.75
HF-30#	21.75
HF-32#	24.00
HF-34§	13.95
HF-36§	18.00
HF-38□	5.03
HF-40□	7.28
HF-42□	11.10
HF-44□	15.30

TEFLON THIN WALL TUBING— (500′-1000′) 100′ Spools

Number	Sug. Resale Ea. 1000′
TFT-200-30	9.00
TFT-200-28	8.00
TFT-200-26	7.70
TFT-200-24	7.70
TFT-200-22	9.50
TFT-200-20	12.00
TFT-200-19	12.50
TFT-200-18	12.90
TFT-200-17	14.18
TFT-200-16	14.53
TFT-200-15	14.58
TFT-200-14	16.04
TFT-200-13	17.17
TFT-200-12	18.48
TFT-200-11	20.45
TFT-200-10	22.04
TFT-200-9	24.95
TFT-200-1/8″	25.88
TFT-200-8	27.52
TFT-200-7	29.45

100′ Coils (Random Lengths)

Number	Sug. Resale Ea. 1000′
TFT-200-6	31.82
TFT-200-5	34.85
TFT-200-4	38.10
TFT-200-3	41.74
TFT-200-2	48.13
TFT-200-1	52.71
TFT-200-0	59.14

TEFLON STANDARD WALL TUBING 100′ Spool

Number	Sug. Resale Ea. 1000′
TFT-250-24	10.01
TFT-250-22	11.23
TFT-250-20	15.19
TFT-250-19	16.31
TFT-250-18	18.70
TFT-250-17	20.39
TFT-250-16	21.78
TFT-250-15	22.26
TFT-250-14	24.03
TFT-250-13	25.33
TFT-250-12	27.41
TFT-250-11	30.43

100′ Coil

Number	Sug. Resale Ea. 1000′
TFT-250-10	33.02
TFT-250-9	45.86
TFT-250-8	47.43
TFT-250-7	49.56
TFT-250-6	53.55
TFT-250-5	58.99
TFT-250-4	64.09
TFT-250-3	70.89
TFT-250-2	73.14
TFT-250-1	81.26
TFT-250-0	91.38

ALPHLEX PLASTIC TUBING (TYPE PVC-105)

Number	Sug. Resale Ea. 1000′
PVC-105-24	13.00
PVC-105-22	13.10
PVC-105-20	13.50
PVC-105-19	13.50
PVC-105-18	13.80
PVC-105-17	14.00
PVC-105-16	14.60
PVC-105-15	14.90
PVC-105-14°°	9.95
PVC-105-13°°	10.20
PVC-105-12°°	10.70
PVC-105-11°°	11.05
PVC-105-10°°	11.55
PVC-105-9°°	15.70
PVC-105-8°°	16.95
PVC-105-7°°	18.10
PVC-105-6°°	19.55
PVC-105-5°°	21.15
PVC-105-4†††	13.75
PVC-105-3†††	14.70
PVC-105-2†††	16.03
PVC-105-1†††	17.30
PVC-105-0†††	18.70
PVC-105-5/16″†††	22.30
PVC-105-3/8″†††	25.78
PVC-105-7/16″**	11.58
PVC-105-1/2″**	12.77
PVC-105-9/16″**	17.00
PVC-105-5/8″**	14.38
PVC-105-3/4″***	12.67
PVC-105-7/8″***	14.25
PVC-105-1″***	15.92
PVC-105-1-1/8″***	20.88
PVC-105-1-1/4″***	22.07
PVC-105-1-3/8″***	23.59
PVC-105-1-1/2″***	28.60
PVC-105-1-3/4″***	36.66
PVC-105-2***	49.00
PVC-105-2-1/4″***	58.26
PVC-105-2-1/2″***	69.07

LACING CORDS

Number	Sug. Resale Ea. 1000′
LC-113	
White⬬	4.73
Black⬬	5.51
LC-114	
White⬬	4.73
Black⬬	5.51
LC-115	
White⬬	4.73
Black⬬	5.51
LC-132	
Whitex	8.45
Blackx	9.14
LC134	
Whitex	5.41
Blackx	6.09
LC-136	
Whitex	8.45
Blackx	9.14
LC-140	
Whitex	8.45
Blackx	9.14
LC-143	
Whitex	8.45
Blackx	9.14
LC-158	
Whitex	8.45
Blackx	9.14
LC-162	
Whitex	8.45
Blackx	9.14

ALPHLEX ZIPPER TUBING — 20 MI (TYPE ZIP-31) (100′-499′— 100′ Spools)

Number	Sug. Resale Ea. 1000′
ZIP-31-1/4″	36.0
IP-31-3/8″	37.0
ZIP-31-1/2″	37.5
ZIP-31-5/8″	38.0
ZIP-31-3/4″	38.5
ZIP-31-7/8″	39.5
ZIP-31-1″	40.0
ZIP-31-1-1/8″	41.5
ZIP-31-1-1/4″	42.0
ZIP-31-1-1/2″	43.5
(1/63)	45.0
ZIP-31-2″	46.0

ALPHLEX ZIPPER TUBING — 40 MI (TYPE 31M) (100′ Spools)

Number	Sug. Resale Ea. 1000′
ZIP-31M-1/4″	42.
ZIP-31M-3/8″	42.
ZIP-31M-1/2″	43.
ZIP-31M-5/8″	43.
ZIP-31M-3/4″	44.
ZIP-31M-7/8″	44.
ZIP-31M-1″	44.
ZIP-31M-1-1/8″	47.
ZIP-31M-1-1/4″	48.
ZIP-31M-1-1/2″	49.
(1/63)	51.
ZIP-31M-2″	52

ALPHLEX ZIPPE TUBING (Low Tem 20 MIL (TYPE ZIP-44) (100′ Spools)

Number	Sug. Resale Ea. 1000′
ZIP-44-1/4″	37
ZIP-44-3/8″	37
ZIP-44-1/2″	39
ZIP-44-5/8″	42
ZIP-44-3/4″	44
ZIP-44-7/8″	47
ZIP-44-1″	49
ZIP-44-1-1/8″	51
ZIP-44-1-1/4″	54
ZIP-44-1-1/2″	58
ZIP-44-1-3/4″	62
ZIP-44-2″	67

ALPHLEX SHIELD ZIPPER TUBIN (TYPE ZIP-50) (100′ Spools)

Number	Sug. Resale Ea. 1000′
ZIP-50-1/4″	4
ZIP-50-3/8″	4
ZIP-50-1/2″	4
ZIP-50-5/8″	5
ZIP-50-3/4″	5
ZIP-50-7/8″	5
ZIP-50-1″	6
ZIP-50-1-1/8″	6
ZIP-50-1-1/4″	6
ZIP-50-1-1/2″	7
ZIP-50-1-3/4″	7
ZIP-50-2″	8

All Standard Put-Ups are 1000 feet except as Indicated by the following symbols:
□ 1 lb., § 5 lb., # 10 lb., ⬇ ¼ lb., ⬬ ½ lb., °° 500′, ††† 250′, ** 100′, ***50′, x 500 yards. ϕ per foot 1-99′

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Reference —
Bulletin E 64 P — 1D
Effective Aug. 3, 1964

Trade Number		Lgth. in Ft.	Sug. Resale Price Each
8000-50			.83
8000-75			1.13
8000-100			1.45
8000-1000			13.50
8002-50			.60
8002-75	(TBO)		.75
8002-100			.98
8002-1000	(Obs)		9.00
8008-100			2.55
8008-200			4.65
8008-500			10.90
8009-100			1.73
8009-200			3.30
8009-500			7.35
8011-100			2.35
8012-100			1.58
8012-1000			12.15
8013-100			1.20
8013-1000			8.40
8014-25			.53
8014-500			3.00
8018-50			.98
8018-500			7.65
8019-100			.83
8019-1000			5.40
8020-100			.68
8020-1000			4.15
8021-100			.60
8021-1000			3.55
8022-100			.60
8022-1000			3.15
8023-100			.60
8023-1000			2.85
8024-100			.60
8024-1000			2.80
8025-100			.60
8025-1000			2.48
8026-100	(TBO)		.50
8026-1000	(TBO)		2.25
8027-100	(TBO)		.50
8027-1000	(TBO)		2.25
8127-10	(TBO)		.38
8127-500	(Obs)		5.25
8200-100	(Obs)		1.65
8200-500	(Obs)		6.45
8200-1000	(Obs)		12.15
8205-25	(TBO)		.83
8205-100			2.50
8205-500			9.75
8205-1000			19.15M′
8206-15	(Obs)		.75
8206-50	(Obs)		2.03
8206-100	(Obs)		3.60
8206-250	(Obs)		7.90
8208-15	(TBO)		1.17
8208-50	(TBO)		3.25
8208-100			5.95
8208-500			25.50
8208-1000			51.00M′
8209-500			27.75
8209-1000			54.00M′
8210-100			5.65
8210-250			13.50
8210-500	(Obs)		27.00
8211-500			42.00M′
8211-1000			42.00M′
8211-2000			42.00M′
8212-500			42.00M′
8212-1000			42.00M′
8212-2000			42.00M′
8213-500			102.00M′
8213-1000			102.00M′
8213-2000			102.00M′
8214-100			12.00
8214-500			114.00M′
8214-1000			114.00M′
8215-100			10.20
8215-500			94.50M′
8215-1000			94.50M′
216-100	(RG-174/U)		3.00
216-500	(RG-174/U)		24.00M′
216-1000	(RG-174/U)		24.00M′
8217-100			4.95
8217-500			42.00M′
8217-1000			42.00M′
8222-100			1.65
8222-500			7.50
8225-25			.72
8225-50			1.13
8225-75			1.43
8225-100			1.65
8225-250			4.05
8225-500			7.50
8225-1000			14.95
8226-25			.72
8226-50			1.13
8226-75			1.43
8226-100			1.65
8227-100	(Obs)		9.00
8227-500			87.00M′
8230-25			.84
8230-50			1.28
8230-75			1.70
8230-100			2.13
*8230-250			5.25
8230-500			10.20
8230-1000			19.20
8232-500			87.00M′
8232-1000			87.00M′
8232-2000			87.00M′
8233-500			165.00M′
8233-1000			165.00M′
8233-2000			165.00M′
8235-100			4.80
8235-500			21.00
8237-100	(RG-8/U)		11.40
8237-250	(RG-8/U)		97.50M′
8237-500	(RG-8/U)		97.50M′
8237-1000	(RG-8/U)		97.50M′
8238-100	(RG-11/U)		10.80
8238-250	(RG11/U)		99.00M′
8238-500	(RG-11/U)		99.00M′
8238-1000	(RG-11/U)		99.00M′
8238-1500	(RG-11/U)	(TBO)	99.00M′
8239-500	(RG-54A/U)		67.50M′
8239-1000	(RG-54A/U)		67.50M′
8240-25	(RG-58/U)		1.50
8240-50	(RG-58/U)		2.40
8240-100	(RG-58/U)		4.20
8240-250	(RG-58/U)		36.00M′
8240-500	(RG-58/U)		36.00M′
8240-1000	(RG-58/U)		36.00M′
8241-25	(RG-59/U)		1.73
8241-50	(RG-59/U)		2.70
8241-100	(RG-59/U)		4.95
8241-250	(RG-59/U)		45.00M′
8241-500	(RG-59/U)		42.00M′
8241-1000	(RG-59/U)		42.00M′
8242-100	(RG-9/U)		27.00
8242-1000	(RG-9/U)		270.00M′
*8243-500	(RG-9B/U)		340.50M′
*8243-1000	(RG-9B/U)		340.50M′
8245-500	(RG-55/U)		61.50M′
8245-1000	(RG-55/U)		61.50M′
8254-100	(RG-62/U)		5.25
8254-500	(RG-62/U)		46.50M′
8254-1000	(RG-62/U)		46.50M′
*8255-500	(RG-62B/U)		54.00M′
*8255-1000	(RG-62B/U)		54.00M′
8257-500	(RG-71/U)		67.50M′
8257-1000	(RG-71/U)		67.50M′
*8258-500	(RG-71B/U)		67.50M′
*8258-1000	(RG-71B/U)		67.50M′
8259-25	(RG-58A/U)		1.73
8259-50	(RG-58A/U)		3.70
8259-100	(RG-58A/U)		5.05
8259-500	(RG-58A/U)		40.50M′
8259-1000	(RG-58A/U)		40.50M′
8261-100	(RG-11A/U)		11.10
8261-500	(RG-11A/U)		103.50M′
8261-1000	(RG-11A/U)		103.50M′
8262-500	(RG-58C/U)		42.00M′
8262-1000	(RG-58C/U)		42.00M′
8263-500	(RG-59B/U)		45.00M′
8263-1000	(RG-59B/U)		45.00M′
8264-500	(RG-5A/U)		246.00M′
8264-1000	(RG-5A/U)		246.00M′
*8265-100	(RG-178B/U)		12.00
*8265-500	(RG-178B/U)		111.00M′
*8266-100	(RG-180B/U)		33.75
*8266-500	(RG-180B/U)		300.00M′
8267-500	(RG-213/U)		111.00M′
8267-1000	(RG-213/U)		111.00M′
*8268-500	(RG-214/U)		352.50M′
*8268-1000	(RG-214/U)		352.50M′
*8269-100	(RG-188A/U)		22.50
*8269-500	(RG-188A/U)		202.50M′
*8270-100	(RG-196A/U)		18.00
*8270-500	(RG-196A/U)		148.50M′
8275-50			2.40
8275-75			3.45
8275-100			4.28
*8275-250			10.75
8275-500			21.40
8275-1000			42.00
*8279-100			8.40
*8279-250			19.50
*8279-500			72.00M′
8280 §(Cut to customer's specified length Maximum 1500′)			600.00M′
8281-500			142.50M′
8281-1000			142.50M′
8282 §(Cut to customer's specified length Maximum 2000′)			270.00M′
8283 §(Cut to customer's specified length Maximum 1000′)			2250.00M′
8284 §(Cut to custmer's specified length Maximum 1000′)			750.00M′
8285-50			2.85
8285-75			4.20
8285-100			5.40
*8285-250			13.50
8285-500			25.50
8285-1000			51.00
*8299-25	6.25 (25 per box)		3.75 (25 per box)
8300-25	† Solid▲		1.90
8300-50	† Solid▲ (TBO)		3.00
8300-100	†•Solid▲		4.75
8300-250	†•Solid▲ (TBO)		47.25M′
8300-500	†•Solid▲		41.25M′
8300-1000	†•Solid▲		40.50M′
8300-1000	†•Striped▲		49.50M′
8301-25	† Solid▲		1.90
8301-50	† Solid▲ (TBO)		3.00
8301-100	†•Solid▲		4.90
8301-250	†•Solid▲ (TBO)		48.75M′
8301-500	†•Solid▲		43.50M′
8301-1000	†•Solid▲		42.75M′
8301-1000	†•Striped▲		51.75M′
8302-25	† Solid▲		1.90
8302-50	† Solid▲ (TBO)		3.15
8302-100	†•Solid▲		5.05
8302-250	†•Solid▲ (TBO)		49.50M′
8302-500	†•Solid▲		45.00M′
8302-1000	†•Solid▲		44.25M′
8302-1000	†•Striped▲		53.25M′
8303-25	† Solid▲		2.10
8303-50	† Solid▲ (TBO)		3.30
8303-100	†•Solid▲		6.00
8303-250	†•Solid▲ (TBO)		55.50M′
8303-500	†•Solid▲		52.50M′
8303-1000	†•Solid▲		51.75M′
8303-1000	†•Striped▲		60.75M′
8304-25	† Solid▲		2.05
8304-50	† Solid▲ (TBO)		3.25
8304-100	†•Solid▲		5.40
8304-250	†•Solid▲ (TBO)		53.25M′
8304-500	†•Solid▲		49.50M′
8304-1000	†•Solid▲		48.75M′
8304-1000	†•Striped▲		55.75M′
8305-25	† Solid▲		2.25
8305-50	† Solid▲ (TBO)		4.00
8305-100	†•Solid▲		6.55
8305-250	†•Solid▲ (TBO)		63.00M′
8305-500	†•Solid▲		57.75M′
8305-1000	†•Solid▲		57.00M′
8305-1000	†•Striped		66.00M′
8306-25	† Solid▲		2.40
8306-50	† Solid▲ (TBO)		4.15
8306-100	†•Solid▲		6.85
8306-250	†•Solid▲ (TBO)		66.75M′
8306-500	†•Solid▲		63.00M′
8306-1000	†•Solid▲		62.25M′
8306-1000	†•Striped▲		71.25M′
8307-25	† Solid▲		2.65
8307-50	† Solid▲ (TBO)		4.80
8307-100	†•Solid▲		8.10
8307-250	†•Solid▲ (TBO)		78.85M′
8307-500	†•Solid▲		75.00M′
8307-1000	†•Solid▲		74.25M′
8307-1000	†•Striped▲		83.25M′
8308-25	† Solid▲		2.70
8308-50	† Solid▲ (TBO)		4.80
8308-100	†•Solid▲		7.90
8308-250	†•Solid▲ (TBO)		78.75M′
8308-500	†•Solid▲		72.00M′
8308-1000	†•Solid▲		71.25M′
8308-1000	†•Striped▲		80.25M′
8309-25	† Solid▲		3.15
8309-50	† Solid▲ (TBO)		5.85
8309-100	†•Solid▲		9.90
8309-250	†•Solid▲ (TBO)		98.75M′
8309-500	†•Solid▲		91.50M′
8309-1000	†•Solid▲		90.75M′
8309-1000	†•Striped▲		99.75M′
8310-25	† Solid▲		4.15
8310-50	† Solid▲ (TBO)		7.50
8310-100	†•Solid▲		12.00
8310-250	†•Solid▲ (TBO)		126.00M′
8310-500	†•Solid▲		114.00M′
8310-1000	†•Solid▲		112.50M′
8310-1000	†•Striped▲		121.50M′
8320-25	† Solid▲ (TBO)		2.40
8320-50	† Solid▲		3.90
8320-100	†•Solid▲ (TBO)		7.50
8320-250	†•Solid▲		69.00M′
8320-500	†•Solid▲ (TBO)		65.25M′
8320-1000	†•Solid▲ (TBO)		64.50M′
8320-1000	†•Striped▲ (TBO)		73.50M′
8321-25	† Solid▲ (TBO)		2.40
8321-50	† Solid▲ (TBO)		3.90
8321-100	†•Solid▲ (TBO)		7.50
8321-250	†•Solid▲ (TBO)		64.50M′
8321-500	†•Solid▲ (TBO)		60.75M′
8321-1000	†•Solid▲ (TBO)		60.00M′
8321-1000	†•Striped▲ (TBO)		69.00M′
8322-25	† Solid▲		2.25
8322-50	† Solid▲ (TBO)		3.85
8322-100	†•Solid▲		7.15
8322-250	†•Solid▲ (TBO)		63.00M′
8322-500	†•Solid▲		60.75M′
8322-1000	†•Solid▲		60.00M′
8322-1000	†•Striped▲		69.00M′
8323-25	† Solid▲		2.55
8323-50	† Solid▲ (TBO)		4.50
8323-100	†•Solid▲		7.50
8323-250	†•Solid▲ (TBO)		73.15M′
8323-500	†•Solid▲		67.50M′
8323-1000	†•Solid▲		66.75M′
8323-1000	†•Striped▲		75.75M′
8324-25	† Solid▲		2.50
8324-50	† Solid▲ (TBO)		4.50
8324-100	†•Solid▲		7.50
8324-250	†•Solid▲ (TBO)		72.00M′
8324-500	†•Solid▲		66.75M′
8324-1000	†•Solid▲		66.00M′
8324-1000	†•Striped▲		75.00M′
8325-25	† Solid▲		2.65
8325-50	† Solid▲ (TBO)		4.50
8325-100	†•Solid▲		7.65
8325-250	†•Solid▲ (TBO)		75.75M′
8325-500	†•Solid▲		69.00M′
8325-1000	†•Solid▲		68.25M′
8325-1000	†•Striped▲		77.25M′
8326-25	† Solid▲		2.80
8326-50	† Solid▲ (TBO)		4.95
8326-100	†•Solid▲		8.35
8326-250	†•Solid▲ (TBO)		81.90M′
8326-500	†•Solid▲		76.50M′
8326-1000	†•Solid▲		75.75M′
8326-1000	†•Striped▲		84.75M′
8327-25	† Solid▲		3.15
8327-50	† Solid▲ (TBO)		5.40
8327-100	†•Solid▲		9.40
8327-250	†•Solid▲ (TBO)		92.25M′
8327-500	†•Solid▲		87.75M′
8327-1000	†•Solid▲		87.00M′
8327-1000	†•Striped▲		96.00M′
8328-25	† Solid▲		3.15
8328-50	† Solid▲ (TBO)		5.40
8328-100	†•Solid▲		9.15
8328-250	†•Solid▲		92.25M′
8328-500	†•Solid▲		85.50M′
8328-1000	†•Solid▲		84.75M′
8328-1000	†•Striped▲		93.75M′
8329-25	† Solid▲		3.75
8329-50	† Solid▲ (TBO)		6.90
8329-100	†•Solid▲		12.00
8329-250	†•Solid▲ (TBO)		118.50M′
8329-500	†•Solid▲		109.50M′
8329-1000	†•Solid▲		108.75M′
8329-1000	†•Striped▲		117.75M′
8330-25	† Solid▲		4.50
8330-50	† Solid▲ (TBO)		9.00
8330-100	†•Solid▲		13.50
8330-250	†•Solid▲ (TBO)		144.75M′
8330-500	†•Solid▲		127.50M′
8330-1000	†•Solid▲		126.00M′
8330-1000	†•Striped▲		136.50M′
*8390-25			9.00
*8390-100			33.75
*8390-500			337.50M′
*8391-25			11.25
*8391-100			42.00
*8391-500			420.00M′
*8392-25			13.50
*8392-100			50.25
*8392-500			502.50M′
8401-15			1.01
8401-25			1.31
8401-50			2.35
8401-100			4.30
8401-250			9.00
8401-500			18.00
8403-15			1.58
8403-50			4.35
8403-100			8.05
8403-250			18.75
8403-500			36.00
8403-1000			72.00
8404-15			1.95
8404-100			9.00
8404-250			21.75
8404-500			42.00
8404-1000			84.00
8405-250			24.75
8405-500			47.25
8405-1000			94.50
8406-100			9.30
8406-250			22.50
8406-500			45.00
8407-100			19.50
8407-250			189.00M′
8409			.98
8410-15	(TBO)		1.65
8410-25			2.50
8410-50			4.35
8410-100			7.95
8410-250			18.75
8410-500			37.50
8411-15			.83
8411-25			1.13
8411-50			1.75
8411-100			3.15
8411-250			6.70
8411-500			13.25
8412-15	(TBO)		1.65
8412-25			2.65
8412-50			4.75
8412-100			8.80
8412-250			20.25
8412-500			40.50
8413-15			1.65
8413-25			2.35
8413-50			4.20
8413-100			7.65
8413-250			18.00
8413-500			36.00
8414-50			4.50
8414-500			37.50
8415			1.30
8416-15			1.13
8416-25			1.43
8416-50			2.65
8416-100			4.50
8416-250			10.50
8417-15			.90

Net

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BELDEN • PRICE LIST

Reference —
Bulletin E 64 P — 1D
Effective Aug. 3, 1964

Trade Number Lgth. in Ft.	Sug. Resale Price Each
8417-25	1.20
8417-50	1.95
8417-100	3.70
8417-250	7.95
8418-100	19.50
8418-250	48.00
8419-10	.85
8419-25	1.45
8419-250	10.50
8420-15	1.50
8420-25	2.25
8420-50	3.40
8420-100	6.40
8420-250	16.50
8420-500	30.00
8421-15	.98
8421-25	1.20
8421-50	2.35
8421-100	3.75
8421-250	8.50
8422-15	1.20
8422-25	1.90
8422-50	3.25
8422-100	5.85
8422-250	13.15
8422-500	26.25
8423-15	2.03
8423-50	5.20
8423-100	9.75
8423-250	22.50
8423-500	45.00
8423-1000	90.00
8424-15	2.25
8424-50	6.00
8424-100	11.25
8424-250	27.00
8424-500	52.50
8424-1000	105.00
8425-100	13.20
8425-250	32.25
8426-100	15.75
8426-250	39.45
8427-100	17.25
8427-250	42.00
8428-100	11.25
8428-500	53.25
8429-10	.68
8429-25	1.08
8429-250	7.65
8430-10	.53
8430-25	.68
8430-250	4.20
8431-10	.60
8431-15	.75
8431-25	1.13
8431-100	3.45
8431-500	16.05
8432-500 (Obs)	29.25
8432-1000 (Obs)	58.50M′
8434-100	4.65
8434-500	22.50
8434-1000	45.00M′
8436-500	45.00M′
8436-1000	45.00M′
8437-500	36.00M′
8437-1000	36.00M′
8440-500 (TBO) Use 8450	42.00M′
8440-1000 (TBO) or 8451	42.00M′
8441-100	4.50
8441-500	21.00
8441-1000	42.00M′
8442-500	16.50M′
8442-1000	16.50M′
8443-25	.98
8443-100	2.48
8443-500	9.40
8443-1000	18.75M′
8444-25	1.13
8444-100	3.00
8444-500	12.40
8444-1000	24.75M′
8445-25	1.20
8445-100	3.70
8445-500	15.00
8445-1000	30.00M′
8446-15	1.13
8446-100	5.40
8446-500	23.25
8446-1000	46.50M′
8447-15 (Obs)	1.15
8447-100	6.15
8447-500	26.25
8447-1000	52.50M′
8448-15	1.28
8448-100	6.40
8448-500	29.25
8448-1000	58.50M′
8449-15	1.43
8449-100	7.15
8449-500	32.25
8449-1000	64.50M′
8450-100	3.00
8450-500	11.25
8450-1000	22.50M′
8451-100	3.40
8451-500	14.25
8451-1000	28.50M′
8452-15 (TBO)	1.13
8452-25	1.65
8452-50	2.80
8452-100	4.80
8452-250	11.25
8452-500	21.00
8452-1000	42.00
8453-15 (TBO)	1.35
8453-50	3.15
8453-100	6.30
8453-500	31.50
8454-15 (TBO)	1.65
8454-50	4.05
8454-100	7.20
8454-500	34.50
8454-1000	69.00M′
8455-100	7.50
8455-250	75.00M′
8456-100	7.05
8456-500	66.00M′
8456-1000	66.00M′
8457-100	7.50
8457-500	70.50M′
8457-1000	70.50M′
*8458-100	13.50
*8458-500	60.00
*8458-1000	120.00M′
*8459-100	21.00
*8459-500	93.75
*8459-1000	187.50M′
8460-100	2.50
8460-500	9.90
8460-1000	19.20M′
8461-100	3.45
8461-500	13.80
8461-1000	27.00M′
8462-25 †	1.05
8462-100 †	2.96
8462-250 †	6.75
*8463-50	1.95
*8463-100	3.40
*8463-500	15.75
8464-50	1.75
8464-75	2.35
8464-100	2.95
8464-500	12.40
8464-1000	24.75
8465-100	6.00
8465-500	27.75
8465-1000	55.00M′
*8446-100	16.50
*8466-500	76.50
*8466-1000	153.00M′
8467-100	8.25
8467-500	36.75
8467-1000	73.50M′
*8468-100	24.00
*8468-500	108.75
*8468-1000	217.50M′
8469-100	11.25
8469-500	48.75
8469-1000	97.50M′
8470-500	24.00M′
8470-1000	24.00M′
8471-500	34.20M′
8471-1000	34.20M′
8472-25	2.10
8472-50 (Obs)	3.75
8472-100	7.15
8472-250	67.50M′
8473-500	55.50M′
8473-1000	55.50M′
8474-100	9.00
8474-250	85.50M′
8475-100	4.50
8475-500	40.50M′
8476-100	6.00
8476-500	55.50M′
8478-25 (TBO)	1.65
8478-100	5.40
8478-250	13.50
8478-1000	49.50M′
8481-100	1.50
8481-500	4.95
8481-1000	9.00M′
8482-100	1.80
8482-500	6.60
8482-1000	12.00M′
8483-100	2.25
8483-500	9.30
8483-1000	17.25M′
8484-100	3.15
8484-500	13.15
8484-1000	26.25M′
8485-100	3.70
8485-500	17.00
8485-1000	34.00M′
8486-500	16.95M′
8486-1000	16.95M′
8487-500	23.10M′
8487-1000	23.10M′
8488-100	4.50
8488-500	20.25
8488-1000	40.50M′
8491	1.58
8492-100 † (Obs)	1.80
8492-500 † (Obs)	7.15
8492-1000†	13.90M′
8493-1000	21.00M′
8494	1.44
8495	1.22
8496 (TBO)	1.35
8497	1.35
8498	.98
8499	.90
8500-100 † Solid	1.65
8500-500 † Solid	6.90
8500-1000† Solid	13.00
8500-100 † Striped‡	1.77
8500-50 † Striped‡ (TBO)	7.50
8500-1000 Striped‡	14.10
8501-100 † Solid	1.38
8501-500 † Solid	5.40
8501-1000† Solid	10.20
8501-100 † Striped‡	1.50
8501-500 † Striped‡ (TBO)	6.00
8501-1000† Striped‡	11.35
8502-100 † Solid	1.29
8502-500 † Solid	4.50
8502-1000† Solid	8.25
8502-100 † Etriped‡	1.41
8502-500 † Striped‡ (TBO)	5.10
8502-1000† Striped‡	9.40
8503-100 † Solid	1.16
8503-500 † Solid	4.20
8503-1000† Solid	7.65
8503-100 † Striped‡	1.28
8503-500 † Striped‡	4.80
8503-1000† Striped‡	8.80
8504-100 † Solid	1.11
8504-500 † Solid	3.85
8504-1000† Solid	7.00
8504-100 † Striped‡	1.23
8504-500 † Striped‡	4.45
8504-1000† Striped‡	8.10
8505-100 † Solid	1.15
8505-500 † Solid	4.35
8505-1000† Solid	8.10
8505-100 † Striped‡	1.28
8505-500 † Striped‡ (TBO)	4.95
8505-1000† Striped‡	9.25
8506-100 † Solid	1.80
8506-1000† Solid	11.95
8506-100 † Striped‡	1.92
8506-1000† Striped‡	13.05
8507-100 † Solid	1.43
8507-1000† Solid	10.60
8507-100 † Striped‡	1.55
8507-1000† Striped‡	11.70
8508-100 † Solid	1.40
8508-1000† Solid	8.95
8508-100 † Striped‡	1.52
8508-1000† Striped‡	10.05
8509-100 † Solid	1.28
8509-1000† Solid	8.65
8509-100 † Striped‡	1.40
8509-1000† Striped‡	9.75
8510-100 † Solid	2.10
8510-500 † Solid (TBO)	8.95
8510-1000† Solid	17.20
8510-100 † Striped‡	2.22
8510-500 † Etriped‡ (TBO)	9.55
8510-1000† Striped‡	18.30
8511-100 † Solid	1.80
8511-500 † Solid (TBO)	7.35
8511-1000† Solid	14.05
8511-1000† Striped‡	1.92
8511-500 † Striped‡ (TBO)	7.95
8511-1000† Striped‡	15.15
8512-100 † Solid	1.50
8512-500 † Solid (TBO)	5.85
8512-1000† Solid	11.20
8512-100 † Striped‡	1.62
8512-500 † Striped‡ (TBO)	6.45
8512-1000† Striped‡	12.30
8513-100 † Solid	1.43
8513-500 † Solid (TBO)	5.55
8513-1000† Solid	10.45
8513-100 † Striped‡	1.55
8513-500 † Striped‡ (TBO)	6.15
8513-1000† Striped‡	11.55
8514-100 † Solid	1.32
8514-500 † Solid (TBO)	4.95
8514-1000† Solid	9.40
8514-100 † Striped‡	1.44
8514-500 † Striped‡ (TBO)	5.55
8514-1000† Striped‡	10.50
8515-100 † Solid	1.41
8515-500 † Solid (TBO)	5.48
8515-1000† Solid	10.45
8515-100 † Striped‡	1.53
8515-500 † Striped‡ (TBO)	6.10
8515-1000† Striped‡	11.55
8516-100 † Solid	2.03
8516-1000† Solid	15.60
8516-100 † Striped‡	2.15
8516-1000† Striped‡	17.10
8517-100 † Solid	1.73
8517-1000† Solid	13.30
8517-100 † Striped‡	1.85
8517-1000† Striped‡	14.40
8518-100 † Solid	1.71
8518-1000† Solid	13.15
8518-100 † Strpied‡	1.83
8518-1000† Striped‡	14.25
8519-100 † Solid	1.52
8519-1000† Solid	11.50
8519-100 † Striped‡	1.64
8519-1000† Striped‡	12.60
8520-100 † Solid	2.03
8520-500 † Solid	9.55
8520-1000† Solid	17.50
8520-100 † Striped‡	2.15
8520-500 † Striped‡	10.15
8520-1000† Striped‡	18.40
8421-100 † Solid	1.80
8521-500 † Solid	6.70
8521-1000† Solid	12.90
8521-100 † Striped‡	1.92
8521-500 † Striped‡	7.30
8521-1000† Striped‡	14.05
8522-25 † Solid	.60
8522-100 † Solid	1.38
8522-500 † Solid	4.80
8522-1000† Solid	9.10
8522-100 † Striped‡	1.50
8522-500 † Striped‡	5.40
8522-1000† Striped‡	10.20
8523-25 † Solid	.54
8523-100 † Solid	1.17
8523-500 † Solid	3.90
8523-1000† Solid	7.15
8523-100 † Striped‡	1.29
8523-500 † Striped‡	4.50
8523-1000† Striped‡	8.25
8524-25 † Solid	.47
8524-100 † Solid	.98
8524-500 † Solid	3.25
8524-1000† Solid	5.85
8524-100 † Striped‡	1.10
8524-500 † Striped‡	3.85
8524-1000† Striped‡	7.00
8525-100 † Solid	1.01
8525-500 † Solid	2.95
8525-1000† Solid	5.25
8525-100 † Striped‡	1.13
8525-500 † Striped‡	3.55
8525-1000† Striped‡	6.40
8527-100 † Solid	3.15
8527-500 † Solid	12.75
8527-1000† Solid	24.00
8527-100 † Striped‡	3.30
8527-500 † Striped‡ (TBO)	13.35
8527-1000† Striped‡	24.15
8528-100 † Solid	1.20
8528-500 † Solid	4.05
8528-1000† Solid	7.50
8528-100 † Striped‡	1.32
8528-500 † Striped‡ (TBO)	4.65
8528-1000† Striped‡	8.65
8529-25 † Solid	.47
8529-100 † Solid	.96
8529-500 † Solid	3.00
8529-1000† Solid	5.40
8529-100 † Striped‡	1.08
8529-500 † Striped‡	3.60
8529-1000† Striped‡	6.55
8530-25 † Solid	.45
8530-100 † Solid	.83
8530-500 † Solid	2.55
8530-1000† Solid	4.50
8530-100 † Striped‡	.95
8530-500 † Striped‡	3.15
8530-1000† Striped‡	5.65
8531-100 † Solid	1.43
8531-500 † Solid	5.25
8531-1000† Solid	10.15
8531-100 † Striped‡	1.55
8531-500 † Striped‡ (TBO)	5.85
8531-1000† Striped‡	11.25
8532-100 † Solid	5.10
8532-500 † Solid (TBO)	22.50
8532-1000† Solid	43.50
8533-100 † Solid	3.75
8533-500 † Solid (TBO)	16.50
8533-1000† Solid	30.00
8534-100 † Solid	2.70
8534-500 † Solid (TBO)	12.00
8534-1000† Solid	22.50
8534-100 † Striped‡	2.85
8534-500 † Striped‡ (TBO)	12.60
8534-1000† Striped‡	23.65
8535-100 † Solid	2.25
8535-500 † Solid (TBO)	8.25
8535-1000† Solid	15.00
8535-100 † Striped‡	2.37
8535-500 † Striped‡ (TBO)	8.95
8535-1000† Striped‡	16.15
8536-100 † Solid	1.65
8536-500 † Solid (TBO)	6.45
8536-1000† Solid	12.00
8436-100 † Striped‡	1.77
8536-500 † Striped‡ (TBO)	7.05
8536-1000† Striped‡	13.15
8537-100 † Solid	1.50
8537-500 † Solid (TBO)	5.50
8537-1000† Solid	9.55
8537-100 † Striped‡	1.62
8537-500 † Striped‡ (TBO)	6.10
8537-1000† Striped‡	10.65
*8538-100 † Solid	.87
*8538-500 † Solid	2.35
*8538-1000‡ Solid	4.00
*8538-100 † Striped‡	.99
*8538-500 † Striped‡	2.95
*8538-1000† Striped‡	5.10
8541-100	1.88
8541-500 (TBO)	6.60
8541-1000	12.75
8542-100	2.05
8542-500 (TBO)	7.65
8542-1000	14.10
8543-100	2.35
8543-500 (TBO)	9.00
8543-1000	16.95
8544-100	2.55
8544-500 (TBO)	10.50
8544-1000	20.25
8545-100	3.30
8545-500	14.25
8545-1000	27.00
8546-100	4.50
8546-500	19.50
8546-1000	37.50
8547-100	75.00
8547-500 (TBO)	375.00
8547-1000 (TBO)	750.00
8548-100	60.00
8548-500 (TBO)	300.00
8548-100 (TBO)	600.00
8549-100	42.00
8549-500 (TBO)	210.00
8549-1000 (TBO)	420.00
8550-100	30.00
8550-500	150.00
8550-1000 (TBO)	300.00
8551-100	22.50
8551-500	112.50
8551-1000 (TBO)	225.00
8552-100	16.50
8552-500	82.50
8552-1000 (TBO)	165.00
8553-100	9.00

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BELDEN • PRICE LIST

Reference —
Bulletin E 64 P — 1D
Effective Aug. 3, 1964

Trade Number Lgth. in Ft.	Sug. Resale Price Each
8553-500	42.00
8553-1000	82.50
8554-100	5.25
8554-500	22.50
8554-1000	44.25
8555-100	3.75
8555-500	17.25
8555-1000	33.75
8556-100	3.25
8556-500 (TBO)	13.65
8556-1000	26.65
8557-100	3.00
8557-500 (TBO)	12.00
8557-1000	22.95
8558-100	2.55
8558-500 (TBO)	10.20
8558-1000	19.50
8559-100	2.50
8559-500 (TBO)	9.00
8559-1000	16.50
8561-100 †	5.25
8561-500 † (TBO)	22.50
8561-1000†	42.00
8562-100 †	3.75
8562-500 † (TBO)	18.00
8562-1000†	33.00
8563-100 †	3.40
8563-500 † (TBO)	14.65
8563-1000†	27.75
8564-100 †	2.63
8564-500 † (TBO)	12.00
8564-1000†	22.50
8565-100 †	2.25
8565-500 † (TBO)	9.75
8565-1000†	18.00
8566-100 †	1.80
8566-500 † (TBO)	8.10
8566-1000†	15.00
8567-100 † Solid	1.05
8567-500 † Solid (TBO)	4.15
8567-1000† Solid	6.75
8567-100 † Striped‡	1.17
8567-500 † Striped‡ (TBO)	4.75
8567-1000† Striped‡	7.90
8568-100 † Solid	.90
8568-500 † Solid (TBO)	3.00
8568-1000† Solid	5.65
8568-100 † Striped‡	1.02
8568-500 † Striped‡ (TBO)	3.60
8568-1000† Striped‡	6.75
8469-100 † Solid	.90
8569-500 † Solid (TBO)	3.00
8569-1000† Solid	4.95
8569-100 † Striped‡	1.02
8569-500 † Striped‡ (TBO)	3.60
8569-1000† Striped‡	6.10
8570-100 † Solid	.90
8570-500 † Solid (TBO)	3.00
8570-1000† Solid	5.40
8570-100 † Striped‡	1.02
8570-500 † Striped‡ (TBO)	3.60
8570-1000† Striped‡	6.55
8571-100 † Solid	.89
8571-500 † Solid (TBO)	2.70
8571-1000† Solid	4.95
8571-100 † Striped‡	1.01
8571-500 † Striped‡ (TBO)	3.30
8571-1000† Striped‡	6.10
8572-100 † Solid	.87
8572-500 † Solid (TBO)	2.80
8572-1000† Solid	5.25
8573 (TBO)	1.50 (per box)
8574-100 † Solid	1.50
8574-500 † Solid (TBO)	5.40
8574-1000† Solid	10.35
8574-100 † Striped‡	1.62
8574-500 † Striped‡ (TBO)	6.00
8574-1000† Striped‡	11.50
8575-100 † Solid	1.35
8575-500 † Solid (TBO)	4.75
8575-1000† Solid	9.00
8575-100 † Striped‡	1.47
8575-500 † Striped‡	5.35
8575-1000† Striped‡	10.15
8576-100 † Solid	1.28
8576-500 † Solid (TBO)	4.50
8576-1000† Solid	8.40
8576-100 † Striped†	1.40
8576-500 † Striped‡ (TBO)	5.10
8576-1000† Striped‡	9.55
8577-100 † Solid	1.28
8577-500 † Solid (TBO)	4.35
8577-1000‡ Solid	8.25
8577-100 † Striped‡	1.40
8577-500 † Striped‡ (TBO)	4.95
8577-1000† Striped‡	9.40
8578-100 † Solid	1.28
8578-500 † Solid (TBO)	4.35
8578-1000† Solid	8.10
8578-100 † Striped†	1.40
8578-500 † Striped‡ (TBO)	4.95
8578-1000† Striped‡	9.25
8579-100 † Solid	1.20
8579-500 † Solid (TBO)	4.35
8579-1000† Solid	8.10
8580-100 † Solid	22.50
8580-500 † Solid	97.50
8580-1000† Solid (TBO)	195.00
8581-100 † Solid	19.50
8581-500 † Solid	90.00
8581-1000† Solid (TBO)	180.00
8582-100 † Solid	6.75
8582-500 † Solid (TBO)	30.00
8582-1000, Solid	60.00
8583-100 † Solid	4.50
8583-500 † Solid (TBO)	20.25
8583-1000† Solid	40.50
8584-100 † Solid	4.05
8584-500 † Solid (TBO)	16.50
8584-1000† Solid	33.00
8585-100 † Solid	2.25
8585-500 † Solid (TBO)	8.25
8585-1000† Solid	16.50
8586-100 † Solid	1.88
8586-500 † Solid (TBO)	6.00
8586-1000† Solid	12.00
8587-100 † Solid	1.28
8587-500 † Solid (TBO)	5.25
8587-1000† Solid	10.50
8588-100 † Solid	1.13
8588-500 † Solid (TBO)	4.15
8588-1000† Solid	8.25
8589-100	21.75
8589-500	105.00
8589-1000† (TBO)	210.00
8590-100	16.50
8590-500	78.00
8590-1000† (TBO)	156.00
8591-100 †	9.00
8591-500 † (TBO)	39.75
8591-1000†	79.50
8594-100 † Solid	1.28
8594-500 † Solid (TBO)	5.95
8594-1000† Solid	9.90
8594-100 † Striped‡ (TBO)	1.40
8594-500 † Striped‡ (TBO)	6.55
8594-1000† Striped‡ (TBO)	11.05
8595-100 † Solid	1.35
8595-500 † Solid (TBO)	5.70
8595-1000† Solid	10.50
8596-100 † Solid	1.38
8596-500 † Solid (TBO)	6.60
8596-1000† Solid	11.10
8597-100 † Solid	1.05
8597-500 † Solid (TBO)	3.75
8597-1000† Solid	6.75
8597-100 † Striped‡ (TBO)	1.17
8597-500 † Striped‡ (TBO)	4.35
8597-1000† Striped‡ (TBO)	7.90
8598-100 † Solid	1.13
8598-500 † Solid (TBO)	4.35
8598-1000† Solid	7.80
8599-100 † Solid	1.35
8599-500 † Solid (TBO)	5.25
8599-1000† Solid	9.75
8601	.98
8602	1.47
8603	1.50
8604	2.33
*8620-100	8.25
*8620-500	72.00M'
*8620-1000	72.00M'
*8621-100	13.50
*8621-500	127.50M'
*8621-1000	127.50M'
*8622-100	24.00
*8622-500	217.50M'
*8622-1000	217.50M'
*8623-100	33.00
*8623-500	300.00M'
*8623-1000	300.00M'
*8624-100	39.00
*8624-500	367.50M'
*8624-1000	367.50M'
*8627-100	13.90
*8627-500	129.00M'
*8627-1000	129.00M'
*8628-100	24.00
*8628-500	217.50M'
*8623-1000	217.50M'
*8629-100	42.00
*8629-500	390.00M'
*8629-1000	390.00M'
8640-250	6.00
8640-500	22.50M'
8642-250	16.50
8642-500	61.50M'
8660-10	.60
8660-50	1.65
8660-250	7.20
8661-10	.83
8661-50	2.55
8661-250•	11.50
8662-10	1.80
8662-50	7.35
8662-250•	36.00
8663-10	.81
8663-50	2.40
8663-250	11.35
8666-100	5.85
8668-10	.78
8668-50	2.06
8668-250	9.00
8669-10	1.28
8669-50	5.50
8669-250•	24.90
8670-10	2.40
8670-50	10.65
8670-250•	51.30
8671-10	2.25
8671-50	10.15
8671-250•	48.75
8672-10	1.60
8672-50	6.70
8672-250•	30.75
8673-100	7.50
8673-500	72.00M'
8674-10	.56
8674-50	1.35
8674-250	6.00
8675-100	6.00
8675-500	55.20M'
8676-10	.50
8676-50	.90
8676-250	4.20
8677-100	4.60
8677-500	43.50M'
8978-100	16.65
*8678-500	156.75M'
8680-100	14.40
8681-100	10.35
8682-100	5.25
8683-100	3.75
8684-100	2.65
8685-100	2.05
*8690-100	9.00
*8690-500	38.25
*8690-1000	75.00M'
*8691-100	17.25
*8691-500	78.75
*8691-1000	157.50M'
*8692-100	24.00
*8692-500	232.50M'
*8692-1000	232.50M'
8700-25	1.43
8700-50	2.35
8700-100	4.15
8700-250	37.50M'
8701-100	2.05
8701-500	7.50
8701-1000	14.25M'
*8719-500	52.50M'
*8719-1000	52.50M'
*8720-500	79.50M'
*8720-1000	79.50M'
8722-500	48.00M'
8722-1000	48.00M'
8723-100	4.65
8723-500	40.50M'
8723-1000	40.50M'
8724-500	40.50M'
8724-1000	40.50M'
*8725-500	165.00M'
*8725-1000	165.00M'
*8726-100	14.40
*8726-500	129.00M'
*8726-1000	129.00M'
*8727-100	30.00
*8727-500	292.50M'
*8727-1000	292.50M'
8731-500	28.50M'
8731-1000	28.50M'
8732-100	4.75
8732-500	42.75M'
8732-1000	42.75M'
8733-100	4.50
8733-500	40.50M'
8733-1000	40.50M'
8734-100	3.75
8734-500	17.25
8734-1000	34.50M'
8735-15	.98
8735-50	2.40
8735-100	4.30
8735-500	19.15
8735-1000	38.25M'
8737-100	3.40
8737-500	13.50
8737-1000	27.00M'
8738-100 (Obs)	2.55
8738-500 (Obs)	10.50
8738-1000	21.00M'
8739-100	2.95
8739-500	12.00
8739-1000	24.00M'
8740-100	1.80
8740-500	6.60
8740-1000	12.75M'
8741-100	3.00
8741-500	12.00
8741-1000	23.25M'
8742-100	3.90
8742-500	16.50
8742-1000	32.25M'
8743-100	6.30
8743-500	27.75
8743-1000	55.50M'
8744-100	8.50
8744-500	38.65
8744-1000	77.25M'
8745-100	13.95
8745-500	67.50
8745-1000	133.50M'
8746 §(Cut to customer's specified length maximum 1500')	247.50M'
8747-100	8.25
8747-500	37.50
8747-1000	75.00M'
8748-100	11.40
8748-500	54.00
8748-1000	108.00M'
8749-100	19.50
8749-500	90.00
8749-1000	180.00M'
8750 §(Cut to customer's specified length maximum 1500')	337.50M'
8751 §(Cut to customer's specified length maximum 1500')	735.00M'
8753-100	10.95
8753-500	52.50
8753-1000	105.00M'
8754-100	12.40
8754-500	59.25
8754-1000	118.50M'
8755-100 (Obs)	19.50
8755-500	92.25
8755-1000	184.50M'
8756-100 (Obs)	23.25
8756-500	108.00
8756-1000	216.00M'
8757-500	41.25M'
8757-1000	41.25M'
8758-100	3.15
8758-500	13.90
8758-1000	27.75M'
8759-100	3.75
8759-500	16.50
8759-1000	33.00M'
8760-500	35.25M'
8760-1000	35.25M'
8761-500	24.00M'
8761-1000	24.00M'
8762-100	3.45
8762-500	15.00
8762-1000	30.00M'
8763-500	38.25M'
8763-1000	38.25M'
8764-100	18.00
8764-500	180.00M'
8764-1000	180.00M'
8765-100	21.60
8765-500	216.00M'
8765-1000	216.00M'
8766-100	28.50
8766-500	285.00M'
8766-1000	285.00M'
8767-100	6.60
8767-500	66.00M'
8767-1000	66.00M'
8768-100	12.90
8768-500	129.00M'
8768-1000	129.00M'
8769-100	49.50
8769-500	495.00M'
8769-1000	495.00M'
8770-500	47.25M'
8770-1000	47.25M'
8771-500	30.00M'
8771-1000	30.00M'
8772-500	37.50M'
8772-1000	37.50M'
8773 §(Cut to customer's specified length maximum 1000')	748.50M'
8774-100	23.40
8774-500	234.00M'
8774-1000	234.00M'
8775-100	27.45
8775-500	274.50M'
8775-1000	274.50M'
8776-100	35.40
8776-500	354.00M'
8776-1000	354.00M'
8777-100	8.65
8777-500	86.25M'
8777-1000	86.25M'
8778-100	16.50
8778-500	165.00M'
8778-1000	165.00M'
8779-500	49.50M'
8779-1000	49.50M'
8780-100	5.70
8780-500	27.00
8780-1000	54.00M'
8781-100	1.50
8781-500	4.20
8781-1000	7.65M'
8782-25	.60
8782-50	.90
8782-100	1.35
8782-500	9.00M'
8782-1000	9.00M'
8783-100	4.50
8783-500	42.00M'
8784-500	87.00M'
8786-100	5.75
8786-500	55.50M'
8787-500	117.00M'
8788-500	67.50M'
8789-500	19.35
8789-1000	38.70M'
8790-100	4.45
8790-500	20.00
8790-1000	40.00M'
8791-100	5.40
8791-500	25.20
8791-1000	50.40M'
8792-100 (TBO)	22.50
8792-500 (TBO)	225.00M'
8792-100 (TBO)	225.00M'
8793 §(Cut to customer's specified length maximum 1000') (TBO)	465.00M'
8794-500	18.75M'
8794-1000	18.75M'
8799-500 (Obs)	43.50M'
8799-1000 (Obs)	43.50M'
8800	.83
8817-100	.60
8818	5.04

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Reference —
Bulletin E 64 P — 1D
Effective Aug. 3, 1964

Trade Number Lgth. in Ft.	Sug. Resale Price Each
8819	8.10
8820	5.04
8821	8.25
8822	4.70
8823	4.80
8824	4.32
8825	7.63
8826	7.48
8827	8.55
8850-100	6.75
8850-500 (TBO)	29.25
8850-1000 (TBO)	58.50
8851-100	5.25
8851-500 (TBO)	23.25
8851-1000 (TBO)	46.50
8852-100	4.50
8852-500	18.75
8852-1000 (TBO)	37.50
8853-100	3.90
8853-500 (TBO)	16.50
8853-1000	33.00
8854-100	3.75
8854-500 (TBO)	15.00
8854-1000	30.00
8855-100	3.40
8855-500 (TBO)	13.50
8855-1000	27.00
8858-100	7.50
8858-500 (TBO)	35.65
8858-1000	71.25
8859-100	5.40
8859-500 (TBO)	27.00
8859-1000	54.00
8860-100	4.65
8860-500 (TBO)	23.25
8860-1000	46.50
8861-100	4.15
8861-500 (TBO)	18.75
8861-1000	37.50
8862-100	3.75
8862-500 (TBO)	16.90
8862-1000	33.75
8863-100	3.40
8863-500 (TBO)	15.75
8863-1000	31.50
8868-25	.98
8868-100	2.40
8868-500	9.45
8869-25	.83
8869-100	1.95
8869-500	7.50
8870-100	30.00
*8873-1	.47
*8873-100	.30
8874	.54
8875	.41
8878	2.85 pr
8879	1.28 pr
8880-100 †	5.25
8880-500 † (TBO)	24.00
8880-1000†	48.00
8881-100 †	4.50
8881-500 † (TBO)	20.25
88881-1000†	40.50
8882-100 †	2.80
8882-500 † (TBO)	13.50
8882-1000†	27.00
8883-100 †	2.25
8883-500 † (TBO)	9.75
8883-1000†	19.50
8884-100 †	3.75
8884-500 † (TBO)	17.25
8884-1000†	34.50
8885-15	.90
8885-25	1.13
8885-100	3.15
8885-500	29.25M'
8886-100 †	2.65
8886-500 † (TBO)	11.25
8886-1000†	22.50
8887-100 †	2.25
8887-500 † (TBO)	9.75
8887-1000†	19.50
8888-25 †	1.05
8888-100 †	2.40
8888-250 †	5.25
8889-1	.42
8889-100	.27
*8890-25 †	.83
*8890-100 †	1.88
*8890-500 †	7.35
8892-100	4.50
8892-500	18.75
8892-1000	37.50
8893-100	3.60
8893-500	15.75
8893-1000	31.50
8894-100	5.25
8894-500 (TBO)	24.75
8894-1000	49.50
8895-1	.44
8895-100	.23
8896-100	3.75
8896-500	16.50
8896-1000	33.00
8897-500	13.50
8897-1000	27.00
8898-10 †	.98
8898-25 †	1.80
8898-100 †	4.65
8898-500 †	19.50
8899-10 †	.68
8899-14	.75
8899-25 †	1.05
8899-100 †	3.00
8899-500 †	12.00
8899-1000†	22.50
8916-100 †	2.70
8916-500 †	10.90
8917-100 †	2.03
8917-500 †	8.05
8918-100 †	1.65
8918-1000†	12.00
8919-100 †	1.34
8919-1000†	9.90
8920-100 †	1.23
8920-1000†	9.00
8933-100 †	3.45
8933-500 †	15.75
8934-100 †	2.25
8934-500 †	9.90
8935-100 †	1.88
8935-1000†	15.00
8936-100 †	1.50
8936-1000†	11.55
8937-100 †	1.38
8937-1000†	10.35
8938-100 †	2.95
8938-500 † (Obs)	12.90
8941-25 †	.63
8941-100 †	1.62
8941-1000†	12.00
8942-100 †	2.20
8942-1000†	18.75
8943-25 †	.63
8943-100 †	1.65
8943-1000†	12.80
8945-25 † (Obs)	.60
8945-100 †	1.73
8945-1000†	14.20
8947-25 † (Obs)	.63
8947-100 †	1.88
8947-1000†	15.90
8950-100 † Solid	3.00
8950-500 † Solid (TBO)	11.25
8950-1000† Solid	22.50
8950-100 † Striped‡	3.15
8950-500 † Striped‡ (TBO)	11.85
8950-1000† Striped‡	23.65
8951-100 † Solid	2.18
8951-500 † Solid (TBO)	9.00
8951-1000† Solid	18.00
8951-100 † Striped‡	2.30
8951-500 † Striped‡ (TBO)	9.60
8951-1000† Striped‡	19.15
8952-100 † Solid	1.65
8952-500 † Solid (TBO)	6.75
8952-1000† Solid	13.50
8952-100 † Striped‡	1.77
(TBO)	
8952-500 † Striped‡	7.35
8952-1000† Striped‡	14.65
8953-100 † Solid	1.50
8953-500 † Solid (TBO)	5.85
8953-1000† Solid	11.40
8953-100 † Striped‡	1.62
8953-500 † Striped‡ (TBO)	6.45
8953-1000† Striped‡	12.55
8954-100 † Solid	1.43
8954-500 † Solid (TBO)	4.80
8954-1000† Solid	9.60
8954-100 † Striped‡	1.55
8954-500 † Striped‡ (TBO)	5.40
8954-1000† Striped‡	10.75
8955-100 † Solid	1.35
8955-500 † Solid (TBO)	4.20
8955-1000† Solid	8.40
8955-100 † Striped‡	1.47
8955-500 † Striped‡ (TBO)	4.80
8955-1000† Striped‡	9.55
8956-100 † Solid	3.15
8956-500 † Solid (TBO)	13.50
8956-1000† Solid	27.00
8956-100 † Striped‡	3.30
8956-500 † Striped‡ (TBO)	14.10
8956-1000† Striped‡	28.15
8957-100 † Solid	2.55
8957-500 † Solid (TBO)	12.00
8957-1000† Solid	24.00
8957-100 † Striped‡	2.67
8957-500 † Striped‡ (TBO)	12.60
8957-1000† Striped‡	25.15
8958-100 † Solid	2.18
8958-500 † Solid (TBO)	9.15
8958-1000† Solid	18.30
8958-100 † Striped‡	2.30
8958-500 † Striped‡ (TBO)	9.75
8958-1000† Striped‡	19.45
8959-100 † Solid	1.95
8959-500 † Solid (TBO)	8.25
8959-1000† Solid	16.50
8959-100 † Striped‡	2.07
8959-500 † Striped‡ (TBO)	8.85
8959-1000† Striped‡	17.65
8960-100 † Solid	1.95
8960-500 † Solid (TBO)	6.75
8960-1000† Solid	13.50
8960-100 † Striped‡	2.07
8960-500 † Striped‡ (TBO)	7.35
8960-1000† Striped‡	14.65
8961-100 † Solid	1.80
8961-500 † Solid (TBO)	6.75
8961-1000† Solid	13.50
8961-100 † Striped‡	1.92
8961-500 † Striped‡ (TBO)	7.35
8961-1000† Striped‡	14.65
8963-100 Solid	21.00
8963-500 Solid	105.00
8963-1000† Solid (TBO)	210.00
8963-100 † Striped‡ (TBO)	21.15
8963-500 † Striped‡ (TBO)	105.60
8963-1000† Striped‡ (TBO)	211.15
8964-100 Solid	18.45
8964-500 Solid	92.25
8964-1000† Solid (TBO)	184.50
8964-100 † Striped‡ (TBO)	18.60
8964-500 † Striped‡ (TBO)	92.85
8964-1000† Striped‡ (TBO)	185.65
8965-100 Solid	6.00
8965-500 † Solid (TBO)	30.00
8965-1000 Solid	60.00
8965-100 † Striped‡ (TBO)	6.15
8965-500 † Striped‡ (TBO)	30.60
8965-1000† Striped‡ (TBO)	61.15
8966-100 Solid	4.80
8966-500 † Solid (TBO)	24.00
8966-1000 Solid	48.00
8966-100 † Striped‡ (TBO)	4.95
8966-500 † Striped‡ (TBO)	24.60
8966-1000† Striped‡ (TBO)	49.15
8967-100 Solid	3.40
8967-500 † Solid (TBO)	15.00
8967-1000 Solid	30.00
8967-100 † Striped‡ (TBO)	3.50
8967-500 † Striped‡ (TBO)	15.60
8967-1000† Striped‡ (TBO)	31.15
8968-100 Solid	3.00
8968-500 † Solid (TBO)	14.25
8968-1000 Solid	28.50
8968-100 † Striped‡ (TBO)	3.15
8968-500 † Striped‡ (TBO)	14.85
8968-1000† Striped‡ (TBO)	29.65
8969-100 † Solid	2.25
8969-500 † Solid (TBO)	9.75
8969-1000† Solid	19.50
8969-100 † Striped‡ (TBO)	2.37
8969-500 † Striped‡ (TBO)	10.35
8969-1000† Striped‡ (TBO)	20.65
8970-100 † Solid	2.10
8970-500 † Solid (TBO)	8.25
8970-1000† Solid	16.50
8970-100 † Striped‡ (TBO)	2.25
8970-500 † Striped‡ (TBO)	8.85
8970-1000† Striped‡ (TBO)	17.65
8971-100 † Solid	1.80
8971-500 † Solid (TBO)	7.15
8971-1000† Solid	14.25
8971-100 † Striped‡ (TBO)	1.92
8971-500 † Striped‡ (TBO)	7.75
8971-1000† Striped‡ (TBO)	15.40
8972-100 † Solid (TBO)	1.75
8972-500 † Solid (TBO)	6.75
8972-1000† Solid (TBO)	13.50
8972-100 † Striped‡ (TBO)	1.85
8972-500 † Striped‡ (TBO)	7.35
8972-1000† Striped‡ (TBO)	14.65

BELDENAMEL (Magnet Wire)

Size	Trade Number	Suggested Dealer Price Each
	¼ LB. SPOOLS	
28	8040	.75
30	8041	.83
32	8042	.90
34	8043	.98
36	8044	1.05
38	8045	1.20
40	8046	1.65
	½ LB. SPOOLS	
14	8047	.90
16	8048	.90
18	8049	.90
20	8050	.90
22	8051	.90
24	8052	.98
26	8053	1.05
28	8054	1.05
30	8055	1.20
32	8056	1.35
34	8057	1.50
36	8058	1.65

HNC NYLCLAD

Size	Trade Number	Suggested Dealer Price Each
	½ LB. SPOOLS	
14	8059	.90
16	8060	.90
18	8061	.90
20	8062	.90
22	8063	.90
24	8064	.98
26	8065	1.05
28	8066	1.13
30	8067	1.28
32	8068	1.35
34	8069	1.50
36	8070	1.95
38	8071	2.48
40	8072	3.45
	1 LB. SPOOLS	
14	8073	1.43
16	8074	1.43
18	8075	1.43
20	8076	1.43
22	8077	1.50
24	8078	1.58
26	8079	1.73
28	8080	1.95
30	8081	2.25
32	8082	2.48
34	8083	2.92
36	8084	3.75
38	8085	5.05
40	8086	7.30

* New Item † Specify Color (TBO) To Be Obsoleted. (Obs) Obsolete.
ALL SPOOLS ARE ONE PIECE UNLESS OTHERWISE INDICATED BY (•).
• Spools may contain more than one piece, minimum length of any one piece is 25 ft.
When priced per M ft. length may vary ± 10% from length shown; all other lengths are exact.
§ Cut to Customer's Specified Length subject to available stock lengths—minimum length 25'; 25' to 199', plus 25', minus 0; 200' or over, plus 50', minus 0.
‡ (Vinyl Hook-up Wire) Prices apply to standard stock colors as listed in our current catalog and to non-stock striped colors over stock solid colors in quantities o 10,000' or more. Non-stock striped colors over stock solid colors in quantities of 1000' to 9999', add pro-rata set-up charge of $3.00 per color combination Minimum order 1000' per special stripe combination. Special stripe colors in any quantity will be subject to 2 piece put-up and plus or minus 10% per spool.
▲ (Teflon Hook-up Wire) Prices apply to any striped color combination in quantities of 1000' or more. Minimum order 1000' per stripe color combination. Stripin adders do not apply to braided tracers—Write for prices on non-stock tracer colors.

Prices Subject to Change Without Notice

Belden
electronic wire

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Chicago, U.S.A.
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Belden

BELDFOIL†† *The Total Shield*

Since Belden introduced Beldfoil in 1957, this 100% shield has won the reputation as "The Total Shield."

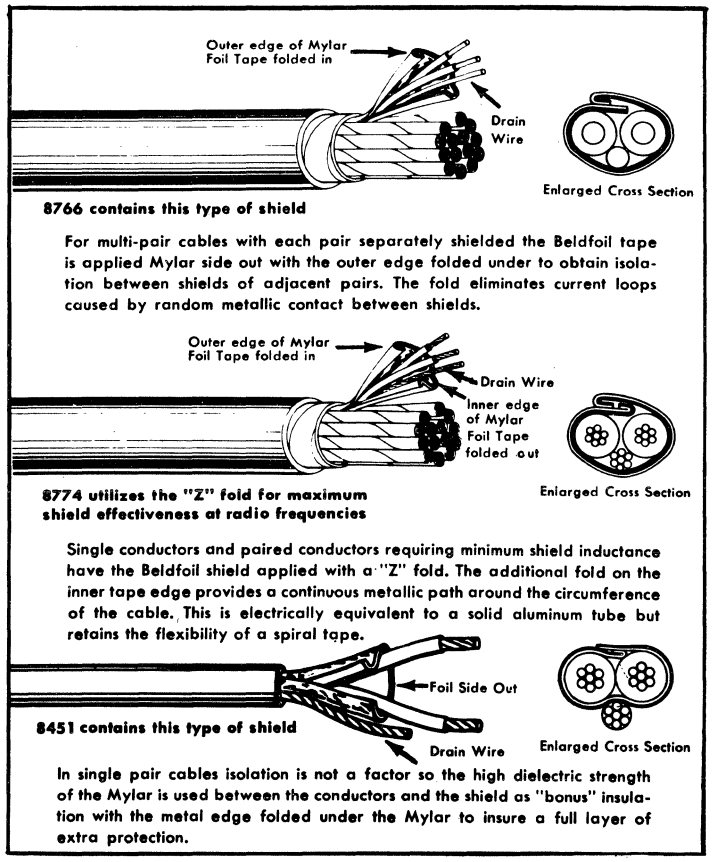
For critically sensitive circuit applications the combination of 100% shield coverage and the exclusive Belden fold (U.S. Patent 3,032,604) proves superior to previously available shields in guarding against cross talk and spurious signal impulses.

The benefits of Beldfoil include:

1) Increased electrical integrity.
2) Reduction of cross talk to unmeasurable levels.
3) Reduced weight and space requirements.
4) Easier and faster shield terminations.
5) Reduced costs.

The basic Beldfoil tape is .00035" thick rolled aluminum foil per ASTM B373-61T laminated to a .0005" thick sheet of high dielectric strength DuPont Mylar♦ per MIL-I-631D, Type G, Form F, by means of a high strength color code adhesive for circuit identification.

The exclusive Belden fold is used in several ways to give added value to the cable:



8766 contains this type of shield

For multi-pair cables with each pair separately shielded the Beldfoil tape is applied Mylar side out with the outer edge folded under to obtain isolation between shields of adjacent pairs. The fold eliminates current loops caused by random metallic contact between shields.

8774 utilizes the "Z" fold for maximum shield effectiveness at radio frequencies

Single conductors and paired conductors requiring minimum shield inductance have the Beldfoil shield applied with a "Z" fold. The additional fold on the inner tape edge provides a continuous metallic path around the circumference of the cable. This is electrically equivalent to a solid aluminum tube but retains the flexibility of a spiral tape.

8451 contains this type of shield

In single pair cables isolation is not a factor so the high dielectric strength of the Mylar is used between the conductors and the shield as "bonus" insulation with the metal edge folded under the Mylar to insure a full layer of extra protection.

All Beldfoil shields include a drain wire for ease of termination. This drain wire is in intimate contact with the foil throughout the length of the cable.

††*Belden trademark—Reg. U.S. Pat. Off.*

♦ *Du Pont trademark*

BELDEN PAGE 2

See Prices on four pages at front of Belden listing
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shielded sound and broadcast audio cables | **Belden**

GRAY HORIZONTAL PANEL INDICATES THAT THE BELDFOIL SHIELDED CABLES ARE ALSO RECOMMENDED FOR INSTRUMENTATION APPLICATIONS

TWO CONDUCTOR SHIELDED CABLES

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Nom. *Cap. (mmf ft)	Nom. **Cap. (mmf ft)	Suggested Working Voltage	Standard Spool Lengths in ft
With JACKET BELDFOIL©	8640	26 (Solid)	.002	.020	.089	Red, Clear	100	80	140	100	250, 500
		*Solid copper, BELDSOL†† (solderable—no stripping required) insulated BELDFOIL aluminum-Mylar shield, 30 AWG solid tinned Copperweld▲ ground drain wire, **WHITE** vinyl jacket. Maximum operating temperature 105° C. Ideal for Instrumentation and Audio Console Work where Subminiaturization is Required.*									
BELDFOIL© Miniature Broadcast Audio Cable	8450	22 (Solid)	.006	.018	.118	Blk, Red	100	40	76	200	100, 500, 1000
	8451	22 (7x30)	.008	.020	.135	Blk, Red	100	34	67	200	100, 500, 1000
		*Tinned copper, Polypropylene insulated, conductors cabled, stranded tinned copper ground drain wire, BELDFOIL aluminum-Mylar shield, paper wrap, **BLACK** or **GRAY** vinyl jacket.* **Belden's Miniature Type Broadcast Audio Cable occupies ½ to ⅔ less space than required by Standard Broadcast Audio Cables. The Beldfoil Shield combines high cable reliability with ease of termination.**									
BELDFOIL©	8761	22 (7x30)	.014	.025	.167	Blk, Wht	100	24	47	350	500, 1000
	8762	20 (7x28)	.014	.028	.196	Blk, Wht	100	27	49	350	100, 500, 1000
	8760	18 (16x30)	.018	.028	.222	Blk, Wht	100	24	44	450	500, 1000
	NEW 8719	16 (19x29)	.025	.030	.274	Blk, Wht	100	24	47	600	500, 1000
	NEW 8720	14 (19x27)	.032	.035	.340	Blk, Wht	100	24	47	750	500, 1000
		Tinned copper polyethylene insulated, BELDFOIL aluminum-Mylar shield, stranded tinned copper ground drain wire, (22 AWG for 8761, and 20 AWG for 8760 and 8762, 18 AWG for 8719, 16 AWG for 8720), chrome vinyl jacket.									
	8739	22 (Solid)	.015	.025	.160	Blk, Red	94.0	38	66	350	100, 500, 1000
	8737	22 (7x30)	.015	.025	.170	Blk, Red	89.3	40	70	350	100, 500, 1000
	8759	20 (7x28)	.015	.025	.195	Blk, Red	81.0	47	79	350	100, 500, 1000
	8790	18 (7x26)	.020	.028	.231	Red, Wht	76.5	53	92	450	100, 500, 1000
	8780	16 (19x29)	.023	.030	.266	Blk, Wht	84.1	57	98	450	100, 500, 1000
		Tinned copper, vinyl insulated, tinned copper spiral wrapped shield, chrome vinyl jacket.									
High Temperature	NEW 8390	22 (19x34)	.015	.015	.180	Blk, Wht	90	23	40	1000	25, 100, 500
		Stranded tinned copper, FEP teflon■ insulated, cabled tinned copper braid shield, white FEP teflon jacket. **200° C maximum operating temperature**									
	8208	18 (16x30)	.020	.025	.255	Red, Wht	69	46	77	200	100, 500, 1000
		Tinned copper, rubber insulated, braided tinned copper shield, chrome vinyl jacket.									
ABC Type Broadcast Audio Cable	8436	22 (Solid)	.016	.025	.190	Blk, Red	89.3	31	52	100	500, 1000
		Tinned copper, Celanese† wrap, Celanese braid lacquered, conductors cabled, solid tinned copper drain wire, tinned copper spiral wrapped shield, black vinyl jacket.									
CBS Type Broadcast Audio Cable	8437	22 (Solid)	.015	.025	.200	Blk, Red	88	48	85	200	500, 1000
	8441	22 (16x34)	.015	.025	.210	Blk, Red	88	49	86	200	100, 500, 1000
		Tinned copper, vinyl insulated, conductors cabled, solid tinned copper drain wire, tinned copper braid shield, black vinyl jacket.									
With Cotton Braid	8209	18 (16x30)	.020	—	.258	Red, Wht	69	51	89	200	500, 1000
		Tinned copper, rubber insulated, braided tinned copper shield, white cotton braid, treated for weather resistance.									
Without JACKET	8738	22 (Solid)	.015	—	.130	Blk, Red	72.8	35	61	350	1000
	8758	20 (7x28)	.015	—	.165	Blk, Red	63.8	42	72	350	100, 500, 1000
	8789	18 (7x26)	.020	—	.204	Blk, Wht	74	50	89	450	500, 1000
	8779	16 (19x29)	.023	—	.225	Blk, Wht	83	63	112	600	500, 1000
		Tinned copper, vinyl insulated, braided tinned copper shield.									

**Capacitance between conductors.*
***Capacitance between 1 conductor and other conductor connected to shield.*
©Belden U.S. Patent 3,032,604.
†Trademark of Celanese Corp.
††Belden trademark—Reg. U.S. Pat. Off.
▲Trademark of Copperweld Steel Co.
■DuPont Tradename for fluorocarbon resins.

For underground burial recommendations of all types of vinyl jacketed cables, please write for Bulletin #6 Electronic Wire Section.

BELDEN PAGE 3

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See Prices on four pages at front of Belden listing

Belden | shielded instrumentation, strain gauge, sound and audio cables

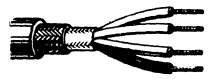
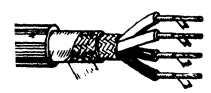
GRAY HORIZONTAL PANEL INDICATES THAT THE BELDFOIL SHIELDED CABLES ARE ALSO RECOMMENDED FOR INSTRUMENTATION APPLICATIONS

THREE CONDUCTOR SHIELDED

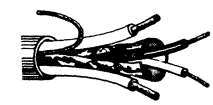
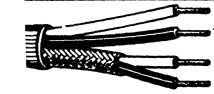
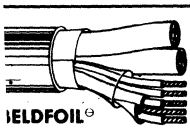
Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Nom. *Cap. (mmf ft)	Nom. **Cap. (mmf ft)	Suggested Working Voltage	Standard Spool Lengths in ft
	8731	22 (Solid)	.015	.025	.178	Blk, Red, Wht	76.2	36	63	350	500, 1000
	8791	18 (7x26)	.020	.028	.236	Blk, Red, Wht	78.2	47	84	450	100, 500, 1000
	Tinned copper, vinyl insulated, conductors cabled, tinned copper spiral wrapped shield, chrome vinyl jacket.										
BELDFOIL⊖	8771	22 (7x30)	.014	.025	.175	Blk, Red, Wht	100	23	41	350	500, 1000
	8772	20 (7x28)	.014	.028	.200	Blk, Red, Wht	100	27	51	350	500, 1000
	8770	18 (16x30)	.018	.028	.236	Blk, Red, Wht	100	24	48	450	500, 1000
	Tinned copper, polyethylene insulated, conductors cabled, BELDFOIL aluminum-Mylar shield, stranded tinned copper ground drain wire (22 AWG for 8771, and 20 AWG for 8770 and 8772), chrome vinyl jacket.										
	8735	22 (7x30)	.015	.025	.199	Blk, Red, Wht	70	34	60	350	15, 50, 100, 500, 1000
	Tinned copper, vinyl insulated, conductors cabled, tinned copper braid shield, chrome vinyl jacket.										
	NEW 8391	22 (19x34)	.015	.015	.190	Blk, Red, Wht	90	20	35	1000	25 100 500
	HIGH TEMPERATURE *Stranded tinned copper, FEP teflon insulated, cabled, tinned copper braid shield, white FEP teflon jacket. 200°C maximum operating temperature.*										

QUADS AND MULTIPLE QUADS

STRAIN GAUGE CABLES

Description	Trade Number	No. of Cond.	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Nom. *Cap. (mmf ft)	Nom. **Cap. (mmf ft)	Suggested Working Voltage	Standard Spool Lengths in ft
BELDFOIL⊖	8434	4	25 (7x33) 3 copper 4 copper-weld	.013	.020	.179	Red, Blk, Grn, Wht	100	25	40	400	100, 500, 1000
	Tinned copper, polyethylene insulated, black and red conductors under BELDFOIL aluminum-Mylar shield, stranded ground wire, green and white conductors under over-all BELDFOIL aluminum-Mylar shield, chrome vinyl jacket.											
	8723	4	22 (7x30) copper	.008	.019	.165	Red, Blk, Grn, Wht	100	35	62	400	100, 500, 1000
	Tinned copper, polypropylene insulated, black and red under a BELDFOIL aluminum-Mylar shield. Green and white under a BELDFOIL aluminum-Mylar shield, each pair separate, stranded tinned copper drain wire, chrome vinyl jacket.											
	8404	4	20 (26x34)	.015	.033	.255	Red, Blk, Grn, Wht	87	25	45	600	15, 100, 250, 500, 1000
	Tinned copper, polyethylene insulated, cabled, rayon braid, tinned copper braid shield, chrome vinyl jacket.											
	8407	4	16 (65x34)	.032	.043	.422	Red, Blk, Grn, Wht	84	37	65	600	100, 250
	Tinned copper, separator, rubber insulated, cabled, rayon braid, tinned copper braid shield, cotton wrap, black neoprene jacket.											
	8424	4	20 (26x34)	.020	.040	.295	Red, Blk, Grn, Wht	83.5	55	95	600	15, 50, 100, 250, 500, 1000
	Tinned copper, cotton wrap, rubber insulated, rayon braid, tinned copper braid shield, cotton wrap, black rubber jacket.											
	NEW 8392	4	22 (19x34)	.015	.015	.205	Red, Blk, Grn, Wht	90	20	35	1000	25 100 500
	HIGH TEMPERATURE *Stranded tinned copper, FEP teflon insulated, cabled, tinned copper braid shield, white FEP teflon jacket. 200°C maximum operating temperature.*											

AUDIO AND SOUND CABLES

 BELDFOIL⊖	8724	2 shielded 2 unshielded	22 (7x30) 22 (7x30)	.008 .008	.019	.165	Red, Blk, Grn, Wht	100	34	67	200	500, 1000
	8722	2 shielded 2 unshielded	20 (7x28) 20 (7x28)	.015 .015	.028	.260	Red, Blk, Grn, Wht	100	60	99	350	500, 1000
	Tinned copper, 8722 vinyl insulated, 8724 polypropylene insulated, BELDFOIL aluminum-Mylar shield over 2 conductors, stranded tinned copper ground drain wire (22 AWG for 8722 and 24 AWG for 8724), chrome vinyl jacket.											
	8732	2 shielded 2 unshielded	22 (7x30) 22 (7x30)	.015 .015	.030	188x.296	Blk, Wht Blk, Wht	62	21	37	350	100, 500, 1000
	Tinned copper, polyethylene insulated, tinned copper braid shield over 2 conductors, chrome vinyl jacket.											
 ELDFOIL⊖	NEW 8726	12	22 (7x30)	.008	.035	.330	Red, Blk, Grn, Wht	100	34	67	200	100 500 1000
	NEW 8727	28	22 (7x30)	.008	.040	.450	Red, Blk, Grn, Wht	100	34	67	200	100 500 1000

22 AWG tinned copper, polypropylene insulation, cabled in quads, BELDFOIL shield over black and red conductors, 24 AWG stranded tinned copper drain wire, clear Mylar tape over entire quad, shields color coded, chrome vinyl jacket.

⊖*Belden U.S. Patent 3,032,604*

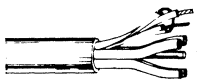
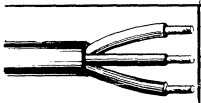
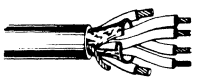
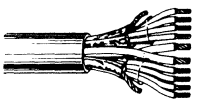
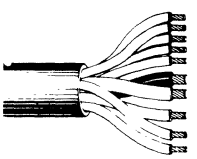
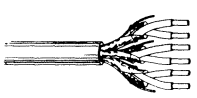
BELDEN PAGE 4

 See Prices on four pages at front of Belden listing © U.C.P., Inc.

multi-purpose and special audio and sound cables | **Belden**

GRAY HORIZONTAL PANEL INDICATES THAT THE BELDFOIL SHIELDED CABLES ARE ALSO RECOMMENDED FOR INSTRUMENTATION APPLICATIONS

SPECIAL AUDIO AND SOUND CABLES

Description	Trade Number	No. of Cond.	AWG & (Stranding)	Cond. Color Coding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	Suggested Working Voltage	Nom. *Cap. (mmf ft)	Nom. **Cap. (mmf ft)	Standard Spool Lengths in ft
	8734	1 shielded 2 unshielded	22 (7x30) 22 (7x30)	Wht Blk, Red	.015 .015	.025	.194	82	350	—	79	100, 500, 1000
		Tinned copper, vinyl insulated, tinned copper braid shield over 1 conductor, 3 conductors cabled, chrome vinyl jacket.										
BELDFOIL	**8763**	2 shielded 1 unshielded	20 (7x28) 20 (7x28)	Blk, Red Wht	.014 .014	.028	.210	100	350	26	48	500, 1000
		Tinned copper, polyethylene insulated, BELDFOIL aluminum-Mylar shield over 2 conductors, #20 stranded tinned copper ground drain wire, chrome vinyl jacket.										
BELDFOIL	**8733**	3 shielded	22 (7x30)	Blk, Red, White	.014	.030	.205	100	350	—	51	100, 500, 1000
		Tinned copper, polyethylene insulated, each conductor separately BELDFOIL aluminum-Mylar shielded. Ground wire for each conductor is tinned cadmium bronze ribbon under BELDFOIL "Z" fold, chrome vinyl jacket.										
 BELDFOIL	**8788**	3 shielded 2 unshielded	22 (7x30)	Blk, Red, Grn, Yel, Blue	.015	.028	.236	100	350	—	125	500
		Tinned copper, vinyl insulated, 3 conductors each separately BELDFOIL shielded, ground drain wire for each conductor is tinned cadmium bronze ribbon under BELDFOIL "Z" fold, 2 conductors unshielded, cabled around a vinyl filler, chrome vinyl jacket.										
	**8783**	3 (3 unshielded)	1-20 (10x30) 2-16 (26x30)	Blue, Grn, Org	.020 .020	.025	.250	—	450	—	—	100, 500
		Tinned copper, vinyl insulated, conductors cabled, chrome vinyl jacket.										
 BELDFOIL	**8786**	6 (2 unshielded) (4 shielded)	22 (7x30) 24 (7x32)	Blu, Wht Blk, Grn, Red, Yel	.015 .015	.028	.256	100	350	—	—	100, 500
		Tinned copper, vinyl insulated, 4 conductors twisted under BELDFOIL aluminum—Mylar shield, 2 conductors unshielded, 22 AWG drain wire, chrome vinyl jacket.										
 BELDFOIL	**8787**	10 (4 shielded) (4 shielded) (2 unshielded)	24 (7x32) 24 (7x32) 22 (7x30)	Gry, Wht, Blu, Grn Red, Brn, Yel, Org Wht, Blu	.012 .012 .015	.030	.290	100	350	—	—	500
		Tinned copper, 22 AWG conductors vinyl insulated, 24 AWG conductors polyethylene insulated, cabled in 2 quads, each with transparent Mylar tape wrap, 24 AWG tinned copper ground wire. Red BELDFOIL shield over one quad, green BELDFOIL shield over the other quad, plus 2 unshielded conductors, chrome vinyl jacket.										
	**8784**	10 (10 unshielded)	2-16 (26x30) 1-20 (10x30) 7-22 (7x30)	Blk, Wht Gray Red, Grn, Org, Yel, Blu, Purple Brown	.016 .018 .013	.040	.295	—	300	—	—	500
		Tinned copper, vinyl insulated, conductors cabled vinyl jacket.										
 BELDFOIL	**8640**	2	26 (Solid) 1 Pair	Red, Clear	.002	.020	.089	100	100	80	140	250, 500
	8642	6	26 (Solid) 3 Pair	Red, Clear	.002	.025	.140	100	100	80	140	250, 500
		Solid copper, BELDSOL†† (solderable—no stripping required), BELDFOIL aluminum-Mylar shield on each pair, red, brown, orange textile marker and isolating Mylar tape for each pair on 8642, Copperweld ground drain wire, WHITE vinyl jacket. **Ideal for Instrumentation and audio console work where subminiaturization is required. 105° C maximum operating temperature.** **Belden U.S. Patent 3,032,604. ††Belden Trademark—Reg. U.S. Pat. Off.*										

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See Prices on four pages at front of Belden listing

Belden

miniature coaxial and shielded paired instrumentation and sound cables

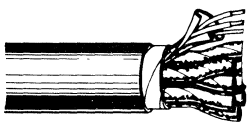
COLOR CODING FOR PAIRED CABLES

GRAY HORIZONTAL PANEL INDICATES THAT THE BELDFOIL SHIELDED CABLES ARE ALSO RECOMMENDED FOR INSTRUMENTATION APPLICATIONS

Pair Number	Color Combination	Pair Number	Color Combination	Pair Number	Color Combination
1	Black paired with Red	10	Red paired with Blue	19	White paired with Blue
2	Black paired with White	11	Red paired with Yellow	20	White paired with Yellow
3	Black paired with Green	12	Red paired with Brown	21	White paired with Brown
4	Black paired with Blue	13	Red paired with Orange	22	White paired with Orange
5	Black paired with Yellow	14	Green paired with White	23	Blue paired with Yellow
6	Black paired with Brown	15	Green paired with Blue	24	Blue paired with Brown
7	Black paired with Orange	16	Green paired with Yellow	25	Blue paired with Orange
8	Red paired with White	17	Green paired with Brown	26	Brown paired with Yellow
9	Red paired with Green	18	Green paired with Orange	27	Brown paired with Orange

MULTIPLE PAIR INDIVIDUALLY SHIELDED AUDIO AND SOUND CABLES

22 GAUGE VINYL INSULATION



BELDFOIL℮

Trade Number	No. of Pairs	Stranding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Nom. *Cap. (mmf ft)	Nom. **Cap. (mmf ft)	Standard Spool Lengths in ft
8767	3	Solid	.013	.030	.270	40	77	100, 500, 1000
8768	6	Solid	.013	.037	.394	40	77	100, 500, 1000
8764	9	Solid	.013	.040	.425	40	77	100, 500, 1000
8765	11	Solid	.013	.040	.485	40	77	100, 500, 1000
8766	15	Solid	.013	.045	.510	40	77	100, 500, 1000

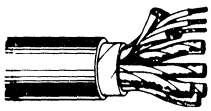
#22 tinned copper, vinyl insulated, cabled in pairs, each pair and its ground wire under BELDFOIL aluminum-Mylar shield, over-all chrome vinyl jacket. 300 Volts suggested working voltage.

Insulation resistance between shields . . . . . 100 megohms/M'
Capacitance between adjacent shields . . . . . 115 mmf/ft
Voltage breakdown between adjacent shields . . . . . 1500 volts
Working voltage between adjacent shields . . . . . 50 volts

Vinyl insulation is used for ease of stripping and soldering. Recommended for audio frequency applications requiring excellent circuit isolation. Maximum operating temperature 80°C.

MULTIPLE PAIR INDIVIDUALLY SHIELDED AUDIO AND DATA CABLES

22 GAUGE POLYPROPYLENE INSULATION



BELDFOIL℮

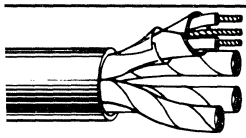
Trade Number	No of Pairs	Stranding	Insulation Thickness (Inch)	Jacket Thickness (inch)	Nom. O.D. (Inch)	Nom. *Cap. (mmf ft)	Nom. **Cap. (mmf ft)	Standard Spool Lengths in ft
8777	3	(7x30)	.010	.030	.270	30	55	100, 500, 1000
8778	6	(7x30)	.010	.037	.394	30	55	100, 500, 1000
8774	9	(7x30)	.010	.040	.425	30	55	100, 500, 1000
8775	11	(7x30)	.010	.040	.485	30	55	100, 500, 1000
8776	15	(7x30)	.010	.045	.510	30	55	100, 500, 1000
8769	19	(7x30)	.010	.055	.620	30	55	100, 500, 1000
8773	27	(7x30)	.010	.070	.760	30	55	§Cut to customer's specified length. Maximum length 1000

#22 gauge tinned copper, polypropylene insulated, cabled in pairs, each pair and its ground wire under "Z" fold BELDFOIL aluminum-Mylar shield, over-all chrome vinyl jacket. 300 volts suggested working voltage.

Insulation resistance between shields . . . 100 megohms/M'
Capacitance between adjacent shields . . . . . 115 mmf/ft
Voltage breakdown between adjacent shields . . . 1500 volts
Working voltage between adjacent shields . . . . . 50 volts

Recommended for audio, pulse, and radio frequency applications requiring superior circuit isolation. Polypropylene insulation is used for excellent high frequency properties and mechanical toughness. Maximum operating temperature 105°C.

SPECIAL INSTRUMENTATION CABLES



BELDFOIL℮

Trade Number	AWG & (Standing)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Nom. *Cap. (mmf ft)	Nom. **Cap. (mmf ft)	Suggested Working Voltage	Standard Spool Lengths in ft
8700	28 (Solid) Coaxial	.005	.008	.054	Black	80	48		100	25, 50, 100, 250
Solid tinned copper, polypropylene insulation, copper braid, black vinyl jacket. **May be steam sterilized for medical research.**										
NEW 8725	4 pairs 20 (7x28)	.015	.030	.360	Red, Blk Grn, Wht Wht/Red Wht/Blk Wht/Grn Wht/Yel	100	27	49	400	500 1000

Tinned copper conductors, Polypropylene insulated, four groups of two conductors with #22 AWG drain wire. Each group individually BELDFOIL shielded with Mylar tape wrap, chrome vinyl jacket. 105°C Maximum operating temperature.

*Capacitance between conductors.

**Capacitance between 1 conductor and other conductor connected to shield.

Belden U.S. Patent 3,032,604.

§Minimum length 25'
25' to 199', plus 25', minus 0.
200' or over, plus 50', minus 0.

BELDEN PAGE 6

See Prices on four pages at front of Belden listing

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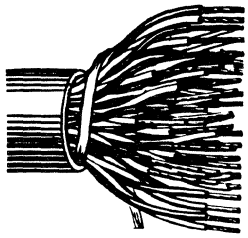
unshielded paired sound cables | **Belden**

MULTIPLE PAIR UNSHIELDED SOUND CABLES

TYPICAL APPLICATIONS: Balanced line sound systems.

Made with 80°C vinyl plastic compounds for high dielectric strength and the best physical properties, such as free stripping, small diameter, and tear resistance. It also resists the effects of water, sun, oil, grease, and ozone. The conductors are paired with a short-lay twist for conductor balance, providing a quiet circuit, free from cross talk.

1 to 27 Pairs	Trade Number	No. of Pairs	AWG & Stranding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Suggested Working Voltage	Standard Spool Lengths in ft
ALL CONSTRUCTIONS: *Tinned copper, vinyl insulated cabled in pairs, chrome vinyl jacket.*	**8740**	1	22 Solid	.015	.025	.150	200	100, 500, 1000
	8741	2	22 Solid	.015	.028	.201	200	100, 500, 1000
	8742	3	22 Solid	.015	.030	.240	200	100, 500, 1000
	NEW 8690	3	18 (16x30)	.018	.037	.362	400	100, 500, 1000
	8757	4	22 Solid	.015	.030	.255	200	500, 1000
	8743	6	22 Solid	.010	.035	.305	200	100, 500, 1000
	8747	6	22 (7x30)	.010	.035	.340	200	100, 500, 1000
	NEW 8691	6	18 (16x30)	.018	.045	.550	400	100, 500, 1000
	8744	9	22 Solid	.010	.037	.354	200	100, 500, 1000
	8748	9	22 (7x30)	.010	.037	.389	200	100, 500, 1000
	NEW 8692	9	18 (16x30)	.018	.055	.638	400	100, 500, 1000
	8753	11	22 Solid	.010	.037	.384	200	100, 500, 1000
	**8754**	13	22 Solid	.010	.037	.409	200	100, 500, 1000
	8745	15	22 Solid	.010	.040	.420	200	100, 500, 1000
	8749	15	22 (7x30)	.010	.040	.425	200	100, 500, 1000
	8755	19	22 Solid	.010	.040	.480	200	500, 1000
	8756	23	22 Solid	.010	.040	.510	200	500, 1000
	8746	27	22 Solid	.010	.045	.550	200	§Cut to customer's specified length. Maximum length 1500'
	8750	27	22 (7x30)	.010	.045	.595	200	§Cut to customer's specified length. Maximum length 1500'

For color coding please refer to page 6

51 PAIR CABLE

Description	Trade Number	No. of Pairs	Conductors	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom O.D (Inch)	Standard Spool Lengths in ft
	8751	51	Solid Tinned Copper	.010	.050	.725	§Cut to customer's specified length. Maximum length 1500'

#22 tinned copper, vinyl insulated, cabled in pairs, BELDFOIL aluminum-Mylar shield over cabled pairs, #22 (7x30) stranded ground drain wire, chrome vinyl jacket. 200 Volts suggested working voltage. Color coding available on request.

§Minimum length 25'. 25' to 199', plus 25', minus 0. 200' or over, plus 50', minus 0.

For color coding information on 8751 write for Technical Data Electronic Wire Section SO-4

BELDEN PAGE 7

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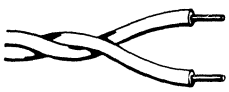
See Prices on four pages at front of Belden listing

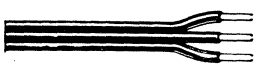
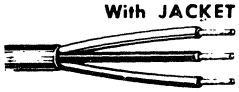
Belden | two and three conductor unshielded cables

TWO CONDUCTOR UNSHIELDED CABLES

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Conductor Color Coding	Nominal O.D. (Inch)	Suggested Working Voltage	Standard Spool Lengths in ft
Copper, vinyl insulated, PARALLEL	**8781**	22 (Solid)	.016	—	Chrome 1 condr. tinned	.060x .120	100	100, 500, 1000
	8782	24 (7x32)	.017	—	Chrome, Sand, Clear White, 1 condr. tinned	.058x .115	300	25, 50, 100, 500, 1000
Without JACKET	**8481**	22 (Solid)	.015	—	Brn, Tan	.112	350	100, 500, 1000
	8482	19 (Solid)	.015	—	Brn, Tan	.130	350	100, 500, 1000
	**8492**	19 (Solid)	.025	—	Brown or White 1 condr. tinned	.170	600	1000
	8460	18 (7x26) tinned	.020	—	Blk, Wht	.175	450	100, 500, 1000
Copper, vinyl insulated, TWISTED.	**8470**	16 (19x29) tinned	.023	—	Blk, Wht	.195	600	500, 1000
With JACKET	**8740**	22 (Solid) tinned	.015	.025	Blk, Red	.150	200	100, 500, 1000
	8442	22 (7x30) tinned	.015	.025	Blk, Red	.165	350	500, 1000
SOLID	**8205**	20 (10x30) tinned	.018	.025	Blk, Red	.190	350	100, 500, 1000
	8486	19 (Solid)	.015	.025	Brn, Tan	.162	350	500, 1000
	8461	18 (7x26) tinned	.020	.028	Blk, Wht	.226	450	100, 500, 1000
STRANDED	**8471**	16 (19x29) tinned	.023	.030	Blk, Wht	.256	600	500, 1000
Copper, vinyl insulated, CABLED, chrome vinyl jacket.	**8473**	14 (19x27) tinned	.031	.035	Blk, Wht	.332	600	500, 1000

For additional 2 conductor cables see PORTABLE CORDAGE on page 12, and DUPLEX PRIMARY WIRE on page 26

THREE CONDUCTOR UNSHIELDED CABLES

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Conductor Color Coding	Nominal O.D. (Inch)	Suggested Working Voltage	Standard Spool Lengths in ft
	**8701**	22 (Solid)	.016	—	Chrome 1 condr. tinned	.060x .190	100	100, 500, 1000
	8475	16 (19x29) bare	.023	—	Wht, Brn, Red	.102x .295	300	100, 500
Copper, vinyl insulated, PARALLEL								
Without JACKET	**8483**	19 (Solid)	.015	—	Brn, Gray, Tan	.132	350	100, 500, 1000
	8493	19 (Solid)	.025	—	Brn, 1 condr. tinned, 1 condr. insulation is ribbed	.170	600	1000
Bare copper, vinyl insulated, CABLED								
With JACKET	**8443**	22 (7x30) tinned	.010	.025	Blk, Grn, Red	.150	200	25, 100, 500, 1000
	**8487**	19 (Solid) bare	.015	.025	Brn, Gray, Tan	.180	350	500, 1000
Copper, vinyl insulated, CABLED, chrome vinyl jacket.								

For additional 3 conductor cables see PORTABLE CORDAGE on pages 12.

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MULTIPLE CONDUCTOR CONTROL AND AUDIO CABLES (NOT PAIRED)

Description and Gauge	Trade Number	No. of Cond.	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Color Code or Chart No	Standard Spool Lengths in ft.
Bare copper, polyethylene insulated, cabled, rose gray vinyl jacket	**8794**	3	22 (Solid)	.016	.022	.168	Red, Grn, Yellow	500, 1000
			Triplet telephone cable					
All Constructions: *Tinned copper, vinyl plastic insulated, cabled, vinyl jacket.* **22 GAUGE**	**8443**	3	22 (7x30)	.010	.025	.150	1	25, 100, 500, 1000
	8444	4	22 (7x30)	.010	.025	.168	1	25, 100, 500, 1000
	8445	5	22 (7x30)	.010	.025	.180	1	25, 100, 500, 1000
	8456	10	22 (7x30)	.010	.030	.260	1	100, 500, 1000
	8457	12	22 (7x30)	.010	.030	.260	1	100, 500, 1000
200 Volts suggested working voltage.	**NEW 8458**	15	22 (7x30)	.010	.040	.320	2	100, 500, 1000
COMBINATION GAUGES 18 & 22	**NEW 8459**	25	22 (7x30)	.010	.040	.370	2	100, 500, 1000
	8446	6	4-22 (7x30) 2-18 (16x30)	.010 .018	.025	.222	1	15, 100, 500, 1000
	8447	7	5-22 (7x30) 2-18 (16x30)	.010 .018	.028	.246	1	100, 500, 1000
	8448	8	6-22 (7x30) 2-18 (16x30)	.010 .018	.028	.250	1	15, 100, 500, 1000
	8449	9	7-22 (7x30) 2-18 (16x30)	.010 .018	.028	.261	1	15, 100, 500, 1000
18 GAUGE	**8465**	5	18 (16x30)	.018	.030	.272	1	100, 500, 1000
	8467	7	18 (16x30)	.018	.035	.320	1	100, 500, 1000
	8469	9	18 (16x30)	.018	.035	.375	1	100, 500, 1000
	NEW 8466	12	18 (16x30)	.018	.040	.402	2	100, 500, 1000
400 Volts suggested working voltage.	**NEW 8468**	15	18 (16x30)	.018	.045	.490	2	100, 500, 1000
16 & 14 GAUGE	**NEW 8620**	4	16 (19x29)	.030	.045	.375	2	100, 500, 1000
	NEW 8621	7	16 (19x29)	.030	.045	.455	2	100, 500, 1000
	NEW 8622	12	16 (19x29)	.030	.060	.600	2	100, 500, 1000
	NEW 8623	15	16 (19x29)	.030	.060	.650	2	100, 500, 1000
	NEW 8624	19	16 (19x29)	.030	.065	.715	2	100, 500, 1000
	NEW 8627	4	14 (19x27)	.045	.045	.495	2	100, 500, 1000
600 Volts suggested working voltage.	**NEW 8628**	7	14 (19x27)	.045	.060	.630	2	100, 500, 1000
	NEW 8629	12	14 (19x27)	.045	.065	.820	2	100, 500, 1000

For 22 AWG and 18 AWG Combinations—22 AWG is rated at 200 volts and 18 AWG is rated at 400 volts.

COLOR CODE
Chart No. 1

Conductor	Color
1st	Black
2nd	Red
3rd	Green
4th	White
5th	Brown
6th	Blue
7th	Orange
8th	Yellow
9th	Purple
10th	Gray
11th	Pink
12th	Tan

18 Gauge conductors in cables 8446 through 8449 are Black and Red.

IPCEA COLOR CODE
(Insulated Power Cable Engineers Association)
Chart No. 2

Conductor	Color	Conductor	Color	Conductor	Color
1st	Black	9th	Green/Black	17th	White/Red
2nd	White	10th	Orange/Black	18th	Orange/Red
3rd	Red	11th	Blue/Black	19th	Blue/Red
4th	Green	12th	Black/White	20th	Red/Green
5th	Orange	13th	Red/White	21st	Orange/Green
6th	Blue	14th	Green/White	22nd	Blk/Wht/Red
7th	White/Black	15th	Blue/White	23rd	Wht/Blk/Red
8th	Red/Black	16th	Black/Red	24th	Red/Blk/Wht
				25th	Grn/Blk/Wht

BELDEN PAGE 9

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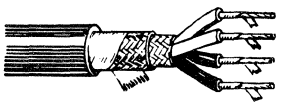
See Prices on four pages at front of Belden listing

Belden

rubber and plastic microphone and shielded power supply cables

RUBBER AND NEOPRENE MICROPHONE AND SHIELDED POWER SUPPLY CABLES

Description	Trade Number	No. of Cond.	AWG (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	Suggested Working Voltage	Impedance (Ohms)	Cap. (mmf/ft)	Cap. (mmf/ft)	Standard Spool Lengths in ft
SINGLE CONDUCTOR	**8410**	1	25(7x33)	.063	.025	.245	80	3000	52	—	33	25, 50, 100, 250, 500
	3 strands copper, 4 strands Copperweld tinned, cellulose yarn braid, rubber insulated, rayon braid, tinned copper braid shield, cellulose yarn wrap, black rubber jacket.											
MINIATURE	**8413**	2	24(45x40)	.019	.025	.190	100	300	—	38	71	15, 25, 50, 100, 250, 500
	8406	3	24(45x40)	.019	.025	.223	100	300	—	43	76	100, 250, 500
	Tinned cadmium bronze, cotton serve, rubber insulated, cabled with fillers, conductive textile serve, tinned copper braid shield, cotton serve, black rubber jacket.											
MULTIPLE CONDUCTOR  Tinned copper, cotton wrap, rubber insulated, rayon braid, tinned copper braid shield, cotton wrap, black rubber jacket.	**8412**	2	20(26x34)	.020	.043	.268	84	600	—	42	68	25, 50, 100, 250, 500
	8423	3	20(26x34)	.020	.040	.277	84	600	—	50	85	15, 50, 100, 250, 500, 1000
	8424	4	20(26x34)	.020	.040	.295	83.5	600	—	55	95	15, 50, 100, 250, 500, 1000
	8425	5	20(26x34)	.020	.040	.323	76	600	—	44	80	100, 250
	8426	6	20(26x34)	.020	.040	.349	90	600	—	40	78	100, 250
	8427	7	20(26x34)	.020	.043	.360	90	600	—	40	75	100, 250
	8418	8	20(26x34)	.020	.043	.386	92	600	—	42	75	100, 250
	8428	2	18(41x34)	.022	.038	.295	91	600	—	47	80	100, 500
NEOPRENE HEAVY DUTY	**8407**	4	16(65x34)	.032	.043	.422	84	600	—	37	65	100, 250
	Tinned copper, separator, rubber insulated, cabled, rayon braid, tinned copper braid shield, cotton wrap, black neoprene jacket.											
EXTRA LIMP	**8414**	2	20(26x34)	.020	.043	.256	100	600	—	45	80	50, 500
	Tinned copper, cotton wrap, rubber insulated, cabled, conductive textile wrapped shield, stranded ground wire, black rubber jacket. **Recommended for desk microphone and applications under 20 ft. For studio application use 8412 and 8413.**											

VINYL MICROPHONE AND SHIELDED POWER SUPPLY CABLES

Description	Trade Number	No. of Cond.	AWG (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	Suggested Working Voltage	Impedance (Ohms)	Cap. (mmf/ft)	Cap. (mmf/ft)	Standard Spool Lengths in ft
SINGLE CONDUCTOR	**8411**	1	25(7x33)	.020	.020	.144	72	3500	52	—	34	15, 25, 50, 100, 250, 500
	8401	1	25(7x33)	.043	.025	.200	74	5000	57	—	25	15, 25, 50, 100, 250, 500
	3 strands copper, 4 strands Copperweld, tinned, cellulose yarn braid, polyethylene insulated, tinned copper braid shield, chrome vinyl jacket.											
MINIATURE	**8420**	2	24(45x40)	.015	.020	.185	77	500	—	22	40	15, 25, 50, 100, 250, 500
	Tinned cadmium bronze, cotton wrap, polyethylene insulated, cabled with fillers, rayon braid, tinned copper braid shield, chrome vinyl jacket.											
MULTIPLE CONDUCTOR Tinned copper, polyethylene insulated, cabled, rayon braid, tinned copper braid shield, chrome vinyl jacket.	**8422**	2	22(16x34)	.023	.023	.231	87	1000	—	18	32	15, 25, 50, 100, 250, 500
	8403	3	20(26x34)	.015	.033	.244	89	600	—	25	45	15, 50, 100, 250, 500, 1000
	8404	4	20(26x34)	.015	.033	.255	87	600	—	25	45	15, 100, 250, 500, 1000
	8405	5	20(26x34)	.015	.035	.275	83	600	—	25	45	250, 500, 1000

Color coding of individual conductors for cables on this page and coiled microphone cables on page 11: (1) White, (2) Black, (3) Red, (4) Green, (5) Blue, (6) Brown, (7) Yellow, (8) Orange.

**Capacitance between conductors.* ***Capacitance between 1 conductor and remaining conductors (if any) connected to shield.*

BELDEN PAGE 10

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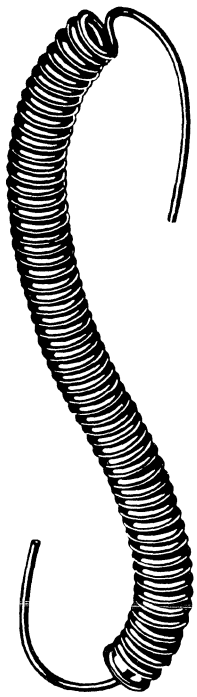
retractile (coiled) cables and cords | **Belden**

NEOPRENE RETRACTILE (COILED) MICROPHONE CABLES



Description	Trade Number	No. of Cond.	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Nom. Coil O.D. (Inch)	Percent Shield Coverage	***Cap. (mmf cord)	Retracted Length	Practical Extended Length	Standard Put-Up
	8409	4 unshielded	28 (7x36)	.005	.050	.165	9/16	No shield	—	12"	6'	1
		Tinned copper, nylon insulated, neoprene jacket.										
	8415	4 unshielded	23 (21x36)	.020	.055	.250	7/8	No shield	—	11½"	6'	1
	8499	1 shielded	24 (45x40)	.019	.043	.160	11/16	80	285	7½"	4'	1
	8497	3 1 shielded 2 unshielded	23 (21x36)	.020	.046	.250	9/8	100	480	11½"	6'	1
	8491	4 2 individually shielded 2 unshielded	23 (21x36)	.020	.050	.300	1 1/16	100	480	12"	6'	1
		Tinned cadmium bronze, rubber insulated, paper tape wrap, black neoprene jacket. 8499 has a spiral tinned copper shield. 8497 and 8491 have a double BELDFOIL tape shield with a (21x36) tinned cadmium bronze drain wire for each shield conductor.										

VINYL RETRACTILE (COILED) MICROPHONE CABLES

Trade Number	No. of Cond.	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Nom. Coil O.D. (Inch)	Percent Shield Coverage	***Cap. (mmf cord)	Retracted Length	Practical Extended Length	Standard Put-Up
8498	1 shielded	24 (45x40)	.019	.060	.195	11/16	80	285	7½"	3½'	1
	Tinned cadmium bronze, rubber insulated, over-all vinyl jacket. 8498 has a spiral tinned copper shield.										

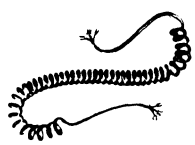
NEOPRENE RETRACTILE (COILED) POWER CONTROL CABLES

Longer lengths are available on request.

TYPICAL APPLICATIONS
Hams
Citizen Band
Hand Mikes
Desk Mikes
Language Labs
Mobile Controls
Mobile Communications
Industry Applications

Trade Number	No. of Cond.	UL Type	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Nom. Coil O.D. (Inch)	Retracted Length	Practical Extended Length	Standard Put-Up
8601	2	SVO	18 (41x34)	.016	.045	.270	1	12"	6'	1 in bag
8602	3	SJO	18 (41x34)	.031	.045	.360	1 3/8	12"	6'	1 in bag
8603	3	SJO	16 (65x34)	.031	.045	.370	1 1/2	12"	6'	1 in bag
8604	3	SJO	16 (65x34)	.031	.045	.370	1 1/2	24"	12'	1 in bag
	Bare copper, paper wrap, rubber insulation, cabled with fillers, paper tape wrap, black neoprene jacket. 6" straight portion each end. Jacket removed 1 1/2" each end.									

VINYL RETRACTILE (COILED) TELEPHONE CORDS



Description	Trade Number	No. of Cond.	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Nom. Coil O.D. (Inch)	Retracted Length	Practical Extended Length	Standard Put-Up
	8495	3	23 (21x36)	.020	.041	.220	7/8	10"	4½'	1
	8494	4	23 (21x36)	.020	.043	.245	7/8	10"	4½'	1
	Bare cadmium bronze, vinyl insulated, cabled, paper wrapped, black vinyl jacket. 8494 one end stripped 7 3/4", spade terminals attached and hook strain relief clamped over jacket. Other end stripped 6 1/4" and spade terminals attached. 8495 one end stripped 2 3/4", spade terminals attached and hook strain relief clamped over jacket. Other end stripped 3 7/16" and spade terminals attached.									

RUBBER—PLASTIC—NEOPRENE

PLASTIC CABLES RECOMMENDED FOR: Lower capacitance, lower loss, greater ozone and oil resistance, lighter weight, smaller diameter.
RUBBER CABLES RECOMMENDED FOR: Greater abrasion and impact resistance, and extra limpness so cable will lie flat on stage or studio floor.
NEOPRENE CABLES RECOMMENDED FOR: Outside use, cold weather applications. Resistant to effects of sun, oil, and ozone.

***Capacitance of shielded conductor. *Belden U.S. Patent 3,032,604.*

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See Prices on four pages at front of Belden listing

Belden

phonograph, hi-fi and stereo cables
portable cordage and test prod wire

HI-FI AND STEREO CABLES

Description	Trade Number	No. of Cond.	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Nom. Cap. between condrs. (mmf ft)	Nom. Cap. condr. to other condr. & shield (mmf ft)	Standard Spool Lengths in ft
Phono Pick-Up Arm Cables *Tinned copper, vinyl insulated, twisted pair.*	**8430**	2	32 (7x40)	.009	—	.050	Blk, Red	21	—	10, 25, 250
	→	4	Use two 8430s for maximum channel isolation, one for each channel.							
Tinned copper, vinyl insulated, twisted pair, tinned copper braid shield.	**8429**	2	32 (7x40)	.009	—	.057	Blk, Red	22	38	10, 25, 250
	8419	3	32 (7x40)	.009	—	.067	Blk, Red, Wht	30	50	10, 25, 250
	→	4	Use two 8429s for maximum channel isolation, one for each channel.							
	8431	1	24 (16x36)	.015	—	.095	—	96	—	10, 15, 25 100, 500
			Tinned copper, rubber insulated, tinned copper braid shield, brown cotton braid.							
Hi-Fi Connecting Cable	**8421**	1	25 (7x33)	.025	.025	.180	—	18	—	15, 25, 50, 100, 250
			3 strands tinned copper and 4 tinned Copperweld, cellular polyethylene insulated, tinned copper spiral wrapped shield, chrome vinyl jacket.							
Dual Channel Audio Cable for stereo and language labs	**8416**	2	25 (7x33)	.018	.020	.106 x .213	1 Wht 1 Red	35 each channel	—	15, 25, 50, 100, 250
			3 strands tinned copper and 4 tinned Copperweld, polyethylene insulated, individual tinned copper spiral wrapped shield, chrome vinyl jacket, polarity rib on red conductor.							
BELDFOIL Miniature Audio Connecting Cable totally shielded	**8417**	1	25 (7x33)	.020	.026	.140	Chrome	25	—	15, 25, 50, 100, 250
			3 strands tinned copper and 4 tinned Copperweld, cellular polyethylene insulated double BELDFOIL aluminum-Mylar shield, inner shield "Z" folded 26 AWG stranded tinned copper ground drain wire, chrome vinyl jacket.							

RUBBER-VINYL MULTI-CONDUCTOR PORTABLE CORDAGE—300V-60C

Description	Trade Number	U.L. Type	Insulation	No. of Conductors	AWG & Stranding	Insulation Thickness (Inch)	Conductor Coding	Jacket Thickness (Inch)	Nominal O.D. (Inch)	Color	Standard Spool Lengths in ft
	8462	SP-1	Rubber	2	18 (41x34) Tinned	.031	Polarity Ribbed	—	.123 x .223	Brown or Ivory	25, 100, 250
	8888	SPT-1	Vinyl	2	18 (41x34)	.031	Polarity Ribbed	—	.110 x .207	Brn, Ivory, or Gray	25, 100, 250
			Two conductors, stranded copper, parallel, insulated with one conductor polarity ribbed.								
Stranded copper, rubber insulated, cabled with fillers, rubber jacket	**8452**	SV	Rubber	2	18 (41x34)	.016	Blk, Wht	.031	.245	Black	25, 50, 100, 250, 500, 1000
	8478	SJ	Rubber	2	18 (41x34)	.031	Blk, Wht	.031	.298	Black	100, 250, 1000
	8472	SJ	Rubber	2	16 (65x34)	.031	Blk, Wht	.031	.325	Black	25, 100, 250
	8474	—	Rubber	2	14 (41x30)	.031	Blk, Wht	.035	.360	Black	100, 250
	8453	SV	Rubber	3	18 (41x34) Tinned	.016	Blk, Wht, Green	.031	.265	Black	50, 100, 500
	8454	—	Rubber	4	18 (41x34) Tinned	.016	Blk, Wht, Brn, Red	.031	.265	Black	50, 100, 500, 1000
	8455	—	Rubber	5	3—20 (26x34) 2—18 (41x34) Tinned	.015 .015	Brn, Grn, White Blk, Red	.031	.280	Black	100, 250

TEST PROD WIRE

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Breakdown Voltage	Suggested Working Voltage	Standard Package	Standard Spool Lengths in ft.
Tinned copper, separater, rubber insulated, red or black.	**8899**	18 (65x36)	.045	.144	20,000	5,000	—	10, 14*, 25, 100, 500, 1000 *7′ of red and 7′ of black.
	8897	18 (65x36)	.045	.144	20,000	5,000	—	500, 1000
			Manufactured per MIL-W-13169					
	8898	18 (65x36)	.088	.230	29,000	10,000	—	10, 25, 100, 500
Miniature	**NEW 8890**	24 (45x40)	.019	.066	10,000	1,000	—	25, 100, 500
		Stranded tinned copper, cotton separator, rubber insulated, red or black.						
COILED With Prods	**8878**	20 (42x36)	.063	.173	20,000	5,000	1 pair Red and Black	—
		Tinned copper, rubber insulated, red or black. Retracted length 8″. Stretches to 5′.						
Without Prods	**8879**	20 (42x36)	.063	.173	20,000	5,000	1 pair Red and Black	—
		Tinned copper, rubber insulated, red or black. Retracted length 8″. Stretches to 5′.						

(1) Belden U.S. Patent 3,032,604

BELDEN PAGE 12

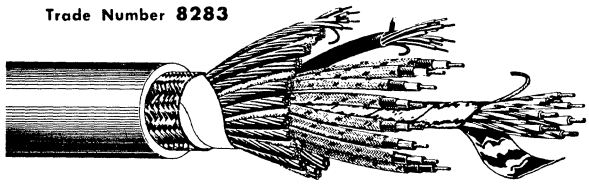
 See Prices on four pages at front of Belden listing © U.C.P., Inc.

tv camera cable and 75 ohm video cables | Belden

TV CAMERA CABLES

Belden TV Broadcasting and closed circuit TV Camera Cables are precision engineered to assure reliable performance and long service life. In addition to lighter weight, greater flexibility, and easier termination these cables are designed to maintain high conductor insulation resistance regardless of changes in ambient temperatures.

Trade Number 8283

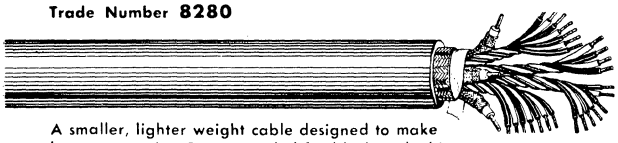


Designed to meet the critical electrical and physical requirements necessary for color television broadcast applications.

82 Conductor TV Color Camera Cable

4-14 AWG (19x27) tinned copper, vinyl plastic insulated, color coded
3-16 AWG (26x30) tinned copper, vinyl plastic insulated, color coded
BELDFOIL aluminum-Mylar wrapped shield around the above 7 conductors cabled with stranded tinned copper drain wire
8 coaxial cables. Nom. impedance 53.5 ohms, color coded
67-22 AWG (7x30) tinned copper, vinyl plastic insulated, color coded, 7 under conductive textile shield with stranded ground wire
Tinned copper braid shield
Chrome vinyl plastic jacket. 1.22" Nom. O.D.
§Cut to customer's specified length.
Maximum length 1000'

Trade Number 8280

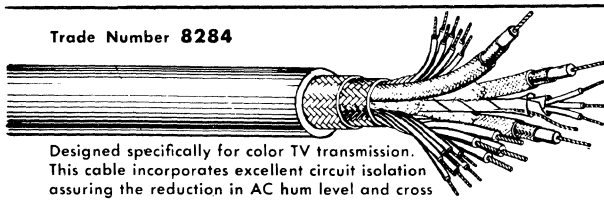


A smaller, lighter weight cable designed to make long runs easier. Recommended for black and white (Monochrome) systems.

28 Conductor TV Camera Cable

4-18 AWG (16x30) tinned copper, vinyl insulated, color coded
21-22 AWG (7x30) tinned copper, vinyl insulated, cabled in 3 groups of 7, color coded
3 coaxial cables. Nom. impedance 51 ohms, color coded
Tinned copper braid shield
Chrome vinyl jacket. .750" Nom. O.D.
§Cut to customer's specified length.
Maximum length 1500'

Trade Number 8284

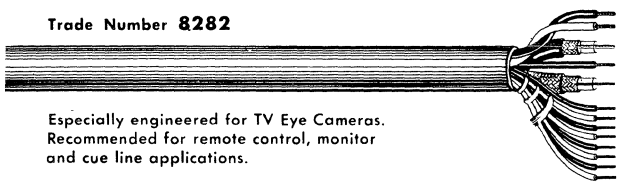


Designed specifically for color TV transmission. This cable incorporates excellent circuit isolation assuring the reduction in AC hum level and cross talk essential for color TV broadcasting.

24 Conductor TV Camera Cable

17-22 AWG (7x30) tinned copper, vinyl insulated, color coded
3 under BELDFOIL shield with stranded drain wire
4-16 AWG (26x30) tinned copper, vinyl insulated, color coded
3 coaxial cables. Nom. impedance 53.5 ohms, color coded
Tinned copper braid shield
Heavy cotton braid
Chrome vinyl plastic jacket. .800" Nom. O.D.
§Cut to customer's specified length.
Maximum length 1000'

Trade Number 8282



Especially engineered for TV Eye Cameras. Recommended for remote control, monitor and cue line applications.

13 Conductor TV Eye Cable

9-22 AWG (7x30) tinned copper, vinyl insulated, color coded
2-18 AWG (16x30) tinned stranded copper conductor vinyl insulated. Black and Red
1-RG-58A/U cable 50-ohm coax
1-72-ohm coax, stranded conductor, Mylar tape wrapped
Chrome vinyl jacket. .470" Nom. O.D.
§Cut to customer's specified length.
Maximum length 2000'

This series of cables is also recommended as interconnecting cables in complex electronic applications. Each cable contains coaxial cables for RF and Video signals, pulse voltages or high voltage lines as well as many conductor groups for control and power circuits.

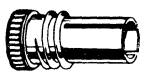
§Minimum length 25'. 25' to 199', plus 25', minus 0. 200' or over, plus 50, minus 0.

75 OHM PRECISION VIDEO CABLE

TYPICAL APPLICATIONS: Video signal transmission in color and monochrome TV studios. Provides high quality carrier of video signal with superior picture definition and eliminates problems of periodicity. Cable is manufactured with rigid control of concentricity and all dimensional tolerances. The black polyethylene jacket is manufactured with a non-contaminating, non-migratory compound. 100% SWEEP TESTED.

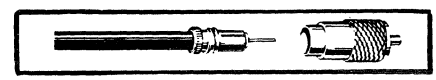
Description	Trade Number	AWG & (Stranding) Material	Nom. O.D. (Inch)	Percent Shield Coverage	Nom. Impedance (Ohms)	Nom. Velocity of Propagation	Nom. Cap. (mmf/ft)	Nom. Attenuation mc	Nom. Attenuation db	Standard Spool Lengths in ft
	8281	20 (Solid) copper	.304	96.4	75	66%	21.	5 10 20 100 300 500 700	.55 .8 1.3 2.7 5.1 6.8 8.4	500, 1000
Conductor, polyethylene insulated, tinned copper double braid shield, black polyethylene jacket.										
Miniature	**NEW 8279**	23 (7x31) Tinned compacted conductor	.242	96	75	66%	21.	.5 10 20 100 300 500 700	1.0 1.4 2.0 4.4 7.6 9.8 11.5	100, 250, 500

Compacted conductor, polyethylene insulated, tinned copper braid shield, black polyethylene jacket. Fits RG 59/U connectors. Compacted conductor combines impedance uniformity of solid conductor and "nick-resistance" of stranded conductor.



For Use on 8281 Only

NEW 8299 Adapter for use with PL-259 connector. 25 in a box.



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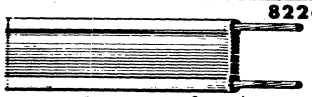
See Prices on four pages at front of Belden listing

Belden | 300 ohm transmission line cables

TWIN LEAD WIRES

Description & Trade Number	AWG & (Stranding)	Color	Nom. O.D. (Inch)	Nom. Velocity of Propagation	Nom. Capacitance (mmf/ft)	Nom. Attenuation per 100′ mc	Nom. Attenuation per 100′ db	Standard Package Lengths in ft
Permohm★ 8285 *Copperweld, 2 conductors parallel, orange polyethylene insulation and web between conductors, cellular polyethylene oval jacket.*	22 (7x30)	Brown	.255 x .468	73.3%	5.3	100 300 500 700 900	1.4 2.8 3.8 4.8 5.6	50, 75, 100 coils in counter dispenser 250, 500 coils 1000 spool
	PERMOHM Encapsulated twin lead for strong, clear signals on all channels despite salt spray, industrial contamination, rain, ice and fringe area reception. An excellent color, UHF or VHF cable. **First choice for all weather, all channel T.V. reception**							
Celluline★★ 8275 *Copperweld; 2 conductors parallel, polyethylene jacket with inert gas filled unicellular polyethylene core.*	20 (7x28)	Brown	.300 x .400	80%	4.6	100 200 300 400 500 700 900	1.05 1.64 2.12 2.5 2.98 3.62 4.3	50, 75, 100 coils in counter dispenser 250, 500 1000 spools
	CELLULINE Maintains uniform electrical characteristics by eliminating all possible moisture between conductors. Installation is easier as no end-sealing is necessary. Losses are lower because of its lower dielectric constant (1.5). *The thick outer wall of brown polyethylene protects the cable from abrasion and sun damage, and the round shape offers less wind resistance. The result is a longer lasting, more efficient line which helps maintain a strong UHF or VHF reception for black and white or color.*							
8235 *Bare copper, 2 conductors parallel, polyethylene insulated.*	18 (7x26)	Brown	.185 x .520	77%	5.0	100 200 300 400 500 700 900	.85 1.35 1.80 2.20 2.60 3.25 3.85	100 coil 500 spool
	Amateur transmitting and receiving twin lead—1KW(RF) rated.							
Weldohm†† 8230 *Copperweld; 2 conductors parallel, polyethylene insulated.*	20 (7x28)	Brown	.072 x .400	80%	4.4	100 200 300 400 500 700 900	1.1 1.7 2.2 2.7 3.1 3.7 4.5	25, 50, 75, 100 pancake coils in a sleeve 250, 500 1000 spools
	WELDOHM This cable is 1½ times STRONGER and has 2½ times more FLEX LIFE than equivalent twin lead with all copper conductors, without changing the RF electrical characteristics. Tests prove its superior resistance to the pulling, whipping, and twisting that is so important to a long lasting installation.							
8225 *Bare copper, 2 conductors parallel, polyethylene insulated.*	20 (7x28)	Brown	.058 x .400	80%	4.4	100 200 300 400 500 700 900	1.1 1.7 2.2 2.7 3.1 3.7 4.5	25, 50, 75, 100 pancake coils in a sleeve 250, 500 1000 spools
	Brown polyethylene for the best weathering.							
8226  *Bare copper, 2 conductors parallel, polyethylene insulated.*	20 (7x28)	Ivory	.058 x .400	80%	4.4	Same as 8225		25, 50, 75, 100 pancake coils in a sleeve
	Recommended for indoor use.							

†† *Belden Trademark Reg. U.S. Pat. Off.*

★*Belden Trademark, Reg. U.S. Pat. Off., and Belden U.S. Pat. 2,782,251.*

★★*Belden Trademark, Reg. U.S. Pat. Off., and Belden U.S. Pat. 2,814,666.*

BELDEN MERCHANDISERS

WITH TERMINALS

10 Pancake Coils per Box

300 ohm Line Package Coils
8225
8226 (New Indoor Ivory)
8230 (Weldohm)
Put-ups 25′, 50′, 75′, 100′
Antenna Rotor Cables
8464 (4 conductor, flat)
Put-ups 50′, 75′, 100′
NEW 8463 (5 conductor, flat).
Put-ups 50′, 100′

300 ohm Line Coils
8275 (Celluline)
8285 (Permohm)
Put-ups 50′, 75′, 100′

10 Coils per box

BELDEN PAGE 14

 See Prices on four pages at front of Belden listing © U.C.P., Inc.

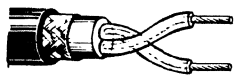
transmission line cables
and antenna rotor cables

Belden

72 OHM TRANSMISSION LINE CABLES

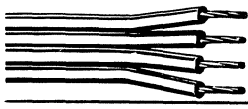
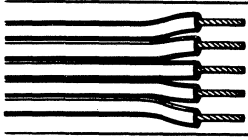
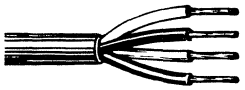
Description	Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Nom. Velocity of Propagation	Nom. Capacitance (mmf ft)	Nom. Attenuation per 100' mc	Nom. Attenuation per 100' db	Standard Spool Lengths in ft
72 OHM LINE	**8222**	20 (7x28)	.075 x .128	69%	20.3	100 200 300 400	7.7 11.0 13.6 15.9	100, 500
		Bare copper, 2 conductors parallel, brown polyethylene insulated.						
72 OHM 1 KW (RF) RATED	**8210**	13 (7x21)	.166 x .278	68%	21.0	100 200 300 400 500 700 900	3.8 6.0 7.8 9.3 11.0 13.7 16.0	100, 250
		Bare copper, 2 conductors parallel, brown polyethylene insulated.						

SHIELDED 100 OHM TRANSMISSION LINE

Description	Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Nom. Velocity of Propagation	Percent Shield Coverage	Nom. Capacitance (mmf ft)	Nom. Attenuation per 100' mc	Nom. Attenuation per 100' db	Standard Spool Lengths in ft
	**8227**	20 (7x28)	.325	62%	83	15.5	100 200 300 400	4.1 6.4 8.4 10.2	500

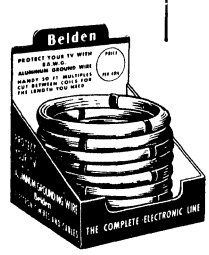
One conductor tinned, one bare copper, polyethylene insulated, cabled, polyethylene jacket, tinned copper braid shield, black vinyl jacket.
This shielded transmission line offers low-loss signal transmission which remains unaffected by outside signals or noise fields. Recommended for RF applications requiring a cross-talk free, balanced operation.

ANTENNA ROTOR CABLE

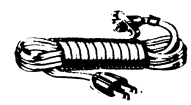
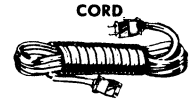
Description	Trade Number	No. of Cond.	AWG & (Stranding)	Cond. Coding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Suggested Working Voltage	Standard Package Lengths in ft
	**8464**	4	20 (7x28)	1 cond. tinned and insulation ribbed	—	—	.070 x .390	200	50, 75, 100 pancake coils 500, 1000 spools
		Bare copper, parallel, chrome vinyl insulated.							
	**NEW 8463**	5	20 (7x28)	1 cond. tinned	—	—	.070 x .375	200	50, 100 pancake coils 500, spools
		Bare copper, parallel, brown polyethylene insulated. Suggested working voltage 200 volts.							
	**8484**	4	20 (7x28)	Blk, Grn, Red, Wht	.010	.020	.180	200	100, 500, 1000 spools
	8485	5	20 (7x28)	Blk, Grn, Red, Wht, Yel	.010	.020	.190	200	100, 500, 1000 spools
Bare copper, vinyl insulated, cabled, chrome vinyl jacket.	**8488**	8	22 (7x30)	Blk, Blu, Brn, Grn, Org, Red, Wht, Yel	.010	.020	.205	200	100, 500, 1000 spools

ALUMINUM GROUND WIRE

Packaged in counter dispensers of 10-50' connected coils, or spools of 500 ft. Wire on spools is marked every 100' for easy measuring.

Description	Trade Number	Nom. O.D. (Inch)	Standard Package Lengths in ft
	**8018**	.128	500 in 10-50 connected coils 500 spools
	8 AWG solid, soft annealed aluminum		

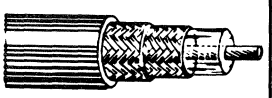
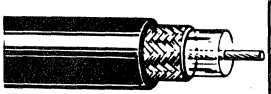
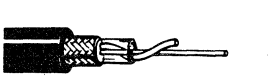
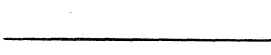
TV AND CHEATER CORDS

Description	Trade Number	Length in ft.	Standard Package
CHEATER CORDS 	**8874**	6	1 in polyethylene bag with description.
	SP-1 brown rubber parallel cord with male plug and TV connector.		
	8895	6	1 in polyethylene bag with description. 100 bulk hanked.
	8889	9	
	SPT-1 brown plastic parallel cord with male plug and TV connector.		
Polarized	**NEW 8873**	6	1 in polyethylene bag with description. 100 bulk hanked.
	SPT-1 brown plastic parallel cord with Polarized male plug and TV connector.		
CHEATER EXTENSION CORD 	**8875**	6	1 in polyethylene bag with description.
	SPT-1 red plastic parallel cord with male and female TV connectors.		

BELDEN PAGE 15

Belden | RG/U, transmission line cables

RG/U CABLES

Description	Trade Number	RG No.	AWG & (Stranding) Material	Insulation	No. of Shields & Material	Jacket	Nom. O.D. (Inch)	Nom. Imp. (Ohms)	Nom. Vel. of Prop.	Nom. Cap. (mmf ft.)	Nom. Attenuation per 100' mc	Nom. Attenuation per 100' db	Standard Spool Lengths in ft.
	8264 **JAN-C-17A**	5A/U	16 (Solid) silver coated copper	Polyethylene	2 silver-coated copper	Gray non-contaminating vinyl	.328	50	66%	28.5	100 200 400	2.40 3.50 5.25	500 1000
	8237 **JAN-C-17A**	8/U	13 (7x21) bare copper	Polyethylene	1 bare copper	Black vinyl	.405	52	66%	29.5	100 200 400	2.10 3.30 4.50	100 250, 500 1000
	**8242** **JAN-C-17A**	9/U	13 (7x21) silver coated copper	Polyethylene	2 inner-silver-coated outer-bare copper	Gray non-contaminating vinyl	.420	51	66%	30.0	100 200 400	2.10 3.30 4.50	100 1000
	NEW 8243 **MIL-C-17D**	9B/U	13 (7x21) silver coated copper	Polyethylene	2 silver coated copper	Black non-contaminating vinyl	.420	50	66%	30.0	100 200 400	2.10 3.30 4.50	500 1000
	**8238** **JAN-C-17A**	11/U	18 (7x26) tinned copper	Polyethylene	1 bare copper	Black vinyl	.405	75	66%	20.5	100 200 400	1.90 2.85 4.35	100 250, 500 1000
	8261 **MIL-C-17D**	11A/U	18 (7x26) tinned copper	Polyethylene	1 bare copper	Black non-contaminating vinyl	.405	75	66%	20.5	100 200 400	1.90 2.85 4.35	100 500 1000
	8239 **JAN-C-17A**	54A/U	18 (7x.0152) bare copper	Polyethylene	1 tinned copper	Clear polyethylene	.245	58	66%	26.5	100 200 400	3.10 4.40 6.70	500 1000
	8245 **JAN-C-17A**	55/U	20 (Solid) bare copper	Polyethylene	2 tinned copper	Clear polyethylene	.201	53.5	66%	28.5	100 200 400	4.10 6.20 9.50	500 1000
	8240 **JAN-C-17A**	58/U	20 (Solid) bare copper	Polyethylene	1 tinned copper	Black vinyl	.195	53.5	66%	28.5	100 200 400	4.10 6.20 9.50	25, 50, 100 250, 500 1000
	8259 **JAN-C-17A**	58A/U	20(19x.0071) tinned copper	Polyethylene	1 tinned copper	Black vinyl	.195	50	66%	30.8	100 200 400	5.30 8.20 12.60	25, 50 100, 500 1000
	8262 **MIL-C-17D**	58C/U	20(19x.0071) tinned copper	Polyethylene	1 tinned copper	Black non-contaminating vinyl	.195	50	66%	28.5	100 200 400	5.30 8.20 12.60	500 1000
	8241 **JAN-C-17A**	59/U	22 bare Copperweld	Polyethylene	1 bare copper	Black vinyl	.242	73	66%	21.0	100 200 400	3.75 5.60 8.30	25, 50, 100 250, 500 1000
	8263 **MIL-C-17D**	59B/U	.023 bare Copperweld	Polyethylene	1 bare copper	Black non-contaminating vinyl	.242	75	66%	20.5	100 200 400	3.75 5.60 8.30	500 1000
	**8254** **JAN-C-17A**	62/U	22 bare Copperweld	Semi-solid Polyethylene	1 bare copper	Black vinyl	.242	93	84%	13.5	100 200 400	3.10 4.40 6.30	100 500 1000
	NEW 8255 **MIL-C-17-D**	62B/U	24 (7x32) bare Copperweld	Semi-solid Polyethylene	1 bare copper	Black non-contaminating vinyl	.242	93	84%	13.5	100 200 400	3.10 4.40 6.30	500 1000
	8257 **JAN-C-17A**	71/U	22 bare Copperweld	Semi-solid Polyethylene	2 tinned copper	Clear Polyethylene	.245	93	84%	13.5	100 200 400	3.10 4.40 6.30	500 1000
	NEW 8258 **MIL-C-17-D**	71B/U	22 bare Copperweld	Semi-solid Polyethylene	2 tinned copper	Black non-contaminating vinyl	.245	93	84%	13.5	100 200 400	3.10 4.40 6.30	500 1000
	**8216** **Navy Drawing RE-49B716**	174/U	7x34 bare Copperweld	Polyethylene	1 tinned copper	Black vinyl	.100	50	65.5%	30.4	100 200 400	8.8 13.0 20.0	100 500 1000

Manufactured to current Government specifications and subsequent revisions.

BELDEN PAGE 16

See Prices on four pages at front of Belden listing

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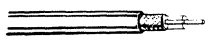
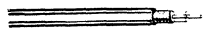
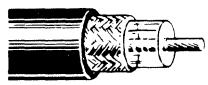
RG/U, transmission line cables | Belden

RG/U CABLES

Description	Trade Number	RG No.	AWG & Stranding) Material	Insulation	No. of Shields & Material	Jacket	Nom. O.D. (Inch)	Nom. Imp. (Ohms)	Nom. Vel. of Prop.	Nom. Cap. (mmf ft.)	Nom. Attenuation per 100' mc	Nom. Attenuation per 100' db	Standard Spool Lengths in ft.
	NEW 8265 MIL-C-17-D	178B/U	30 (7x38) Silver coated Copper-weld	TFE TEFLON	1 Silver coated copper	Brown FEP TEFLON	.072	50	69.5	29	400	29.0 Max.	100 500
	NEW 8266 MIL-C-17-D	180B/U	30 (7x38) Silver coated Copper-weld	TFE TEFLON	1 Silver coated copper	Brown FEP TEFLON	.142	95	69.5	15	400	17.0 Max.	100 500
	**NEW 8269 MIL-C-17-D**	188A/U	26 (7x.0067) Silver coated Copper-weld	TFE TEFLON	1 Silver coated copper	White TFE TEFLON	.106	50	69.5	29	400	20.0 Max.	100 500
	**NEW 8270 MIL-C-17-D**	196A/U	30 (7x38) Silver coated Copper-weld	TFE TEFLON	1 Silver coated copper	White TFE TEFLON	.076	50	69.5	29	400	29.0 Max.	100 500
	**8267 MIL-C-17-D**	213/U	13 (7x21) bare copper	Poly-ethylene	1 bare copper	Black non-contaminating vinyl	.405	50	66%	28.5	100 200 400	2.10 3.30 4.50	500 1000
	NEW 8268 MIL-C-17-D	214/U	13 (7x.0296) Silver coated copper	Poly-ethylene	2 Silver coated copper	Black non-contaminating vinyl	.425	50	66%	30	100 200 400	2.10 3.30 4.50	500 1000

REQUEST QUOTATIONS ON PRODUCTION QUANTITIES OF RG/U CABLES NOT LISTED.

RG/U COAXIAL CABLES

Belden's RG/U cables are manufactured and laboratory tested in accordance with existing military specifications. These cables combine low capacitance and low attenuation. The virgin polyethylene insulation assures constant electrical characteristics regardless of changes in frequency or temperature.

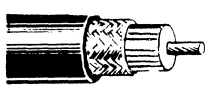
A variety of available jacket types include abrasion resistant polyethylene, polyvinylchloride (recommended for chemical and weather resistance) and a special non-contaminating vinyl compounded for applications above 3000 megacycles.

Typical applications: Flexible test leads, patch cords and high voltage leads (consult applicable Mil Spec for dielectric rating of individual RG/U types). Excellent for audio applications.

Note: Maximum temperature rating of polyethylene is 80°C (176°F). The polyethylene insulation begins to soften above this temperature.

Manufactured to current Government specifications and subsequent revisions.

FOAM CORE RG-8/U TYPE TRANSMISSION LINE

Description	Trade Number	AWG & (Stranding) Material	Percent Shield Coverage	Nom. O.D. (Inch)	Nom. Impedance (Ohms)	Nom. Velocity of Propagation	Nom. Cap. (mmf ft)	Nom. Attenuation per 100' mc	Nom. Attenuation per 100' db	Standard Spool Lengths in ft.
	**8214**	11 (7x19)	96.8	.403	50	78%	26	50 100 200 300 400	1.20 1.80 2.60 3.30 3.80	100 500 1000
Conductor, cellular polyethylene insulated, bare copper braid shield, black vinyl jacket.										

Foam core RG-8 U type—for use in citizens' band and amateur radio as a 50 ohm antenna cable.

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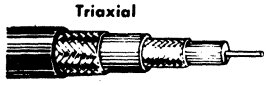
See Prices on four pages at front of Belden listing

Belden | tv distribution cables and high voltage cables

COMMUNITY ANTENNA AND CLOSED CIRCUIT TV CABLES

ALL CABLES IN THIS GROUP ARE SWEEP TESTED

Description	Trade Number	AWG & (Stranding) Material	Percent Shield Coverage	Nom. O.D. (Inch)	Nom. Impedance (Ohms)	Nom. Velocity of Propagation	Nom. Cap. (mmf/ft)	Nom. Attenuation per 100 mc	Nom. Attenuation per 100 db	Standard Spool Lengths in ft
Conductor, cellular polyethylene insulated, bare copper braid shield, polyethylene jacket (except 8217 extra limp vinyl jacket).	**8211** Black	22 (Solid) Copperweld	94.6	.242	80	78%	16.3	50 100 200 300 400	2.4 3.4 4.8 5.8 6.7	500, 1000, 2000
		Fits the same connectors as RG-59/U *Foam core RG-59/U type*								
	8212 Black	20 (Solid) Copperweld	94.6	.242	75	78%	17.3	50 100 200 300 400	2.3 3.2 4.5 5.5 6.3	500, 1000, 2000
		Foam core RG-59/U type								
	8217 White	22 (Solid) Copperweld	94.6	.242	80	78%	16.3	50 100 200 300 400	2.4 3.4 4.8 5.8 6.7	100, 500, 1000
		Fits the same connectors as RG-59/U *Foam core RG-59/U type*								
	8213 Black	14 (Solid) copper	96.8	.405	75	78%	17.3	50 100 200 300 400	1.0 1.5 2.3 2.9 3.4	500, 1000, 2000
		Foam core RG-11/U type								
Conductor, cellular polyethylene insulated, two bare copper braid shields, black polyethylene jacket.	**8215** Black	21 (Solid) Copperweld	96.6 (inner shield)	.332	75	66%	20.5	50 100 200 300 400	2.0 2.9 4.3 5.4 6.5	100, 500, 1000
		RG-6A/U type								
Triaxial  *Conductor, cellular polyethylene insulated, bare copper braid shield, polyethylene insulated, bare copper braid shield, black polyethylene jacket.*	**8232** Black	20 (Solid) Copperweld	94.6 (inner shield)	.315	75	78%	17.3	50 100 200 300 400	2.3 3.2 4.5 5.5 6.3	500, 1000, 2000
	8233 Black	14 (Solid) copper	82.5 (inner shield)	.475	75	78%	17.3	50 100 200 300 400	1.0 1.5 2.3 2.9 3.4	500, 1000, 2000

SWEEP TESTING

For satisfactory transmission of a signal through a cable at any frequency, Belden Sweep Tests every length of its Community TV Cables at all channels in the VHF Frequency range on an oscilloscope.

Sweep Testing, performed by trained technicians using the most modern equipment, prevents unsatisfactory program reception due to imperfections in the cable acting as "Filter Traps" at some frequencies.

The black polyethylene jackets on Belden numbers 8211, 8212, 8213, 8215, 8232, and 8233 are manufactured with a noncontaminating, nonmigratory compound specially formulated for superior weather resistance.

HIGH VOLTAGE CATHODE-RAY TUBE LEAD

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Jacket Color	Breakdown Voltage	Suggested Working Voltage	Standard Spool Lengths in ft
Tinned copper, conductive polyethylene, polyethylene insulated, vinyl jacket.	**8868**	22 (7x30)	.045	.015	.150	Red	50,000	25,000	25, 100, 500
	8869	22 (7x30)	.030	.015	.120	Blk	35,000	17,000	25, 100, 500
		8869 for use with non-conductive ceramic flyback cores.							

60 KV D.C. HIGH VOLTAGE CABLE

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Jacket Color	Breakdown Voltage	Suggested Working Voltage	Standard Spool Lengths in ft
	8870	22 (Solid) Copperweld	.142	.020	.440	Black	160,000 D.C.	60,000 D.C.	100
		Solid Copperweld, conductive polyethylene, polyethylene insulation, tinned copper braid equipotential sheath, black polyethylene jacket.							

Conductive polyethylene over inner conductor combined with a copper wire braid over the dielectric provides uniform distribution of voltage stress. Consult Belden Engineering Department for AC or pulse applications.

See Prices on four pages at front of Belden listing

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mil-w-16878d vinyl plastic | **Belden**

TYPE B—VINYL—600V—105C

Tinned copper, vinyl insulated.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
8599	B-32	32(7x40)	.010	.029	1 thru 10	—	1 thru 10
8598	B-30	30(7x38)	.010	.032	1 thru 10	—	1 thru 10
8597	B-28	28(7x36)	.010	.035	1 thru 10	—	1 thru 10
8505	B-26	26(7x34)	.010	.039	1 thru 10 14 thru 22	1 thru 10 —	1 thru 10 14 thru 22
8509	B-24	24(19x36)	.010	.045	9, 14 thru 22	—	9, 14 thru 22
8504	B-24	24(7x32)	.010	.044	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8508	B-22	22(19x34)	.010	.051	9, 14 thru 22	—	9, 14 thru 22
8503	B-22	22(7x30)	.010	.050	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8507	B-20	20(19x32)	.010	.059	9, 14 thru 22	—	9, 14 thru 22
8502	B-20	20(7x28)	.010	.058	1 thru 10 14 thru 22	1 thru 10 —	1 thru 10 14 thru 22
8506	B-18	18(19x30)	.010	.069	9, 14 thru 22	—	9, 14 thru 22
8501	B-18	18(7x26)	.010	.068	1 thru 10 14 thru 22	1 thru 10 —	1 thru 10 14 thru 22
8500	B-16	16(19x29)	.010	.077	1 thru 10 14 thru 22	1 thru 10 —	1 thru 10 14 thru 22

Stock Colors

1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Light Blue
7 Violet (purple)
8 Gray (slate)
9 White
10 Black
14 White/Black
15 White/Red
16 White/Green
17 White/Yellow
18 White/Blue
19 White/Brown
20 White/Orange
21 White/Gray
22 White/Violet

TYPE B—VINYL-NYLON JACKET—600V—115C

Tinned copper, vinyl insulated, nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools	
					100′	1000′
8596	B-32	32(7x40)	.010	.035	1 thru 10	1 thru 10
8595	B-30	30(7x38)	.010	.038	1 thru 10	1 thru 10
8594	B-28	28(7x36)	.010	.041	1 thru 10	1 thru 10
8515	B-26	26(7x34)	.010	.045	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8519	B-24	24(19x36)	.010	.051	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8514	B-24	24(7x32)	.010	.050	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8518	B-22	22(19x34)	.010	.057	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8513	B-22	22(7x30)	.010	.056	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8517	B-20	20(19x32)	.010	.065	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8512	B-20	20(7x28)	.010	.064	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8516	B-18	18(19x30)	.010	.075	9, 14 thru 22	9, 14 thru 22
8511	B-18	18(7x26)	.010	.074	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8510	B-16	16(19x29)	.010	.083	1 thru 10 14 thru 22	1 thru 10 14 thru 22

Stock Colors

1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Light Blue
7 Violet (purple)
8 Gray (slate)
9 White
10 Black
14 White/Black
15 White/Red
16 White/Green
17 White/Yellow
18 White/Blue
19 White/Brown
20 White/Orange
21 White/Gray
22 White/Violet

Manufactured to current Government specifications and subsequent revisions.

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See Prices on four pages at front of Belden listing

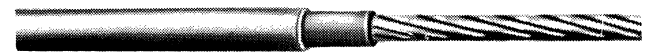
Belden | mil-w-16878d vinyl plastic and teflon

TYPE C—VINYL & VINYL-NYLON—1000V

VINYL

Tinned copper, vinyl insulated

VINYL-NYLON



Tinned copper, vinyl insulated, Nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Type	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Temperature Rating	Stock Colors on Standard Spools 100′	Stock Colors on Standard Spools 1000′
8955	C-24	24(7x32)	Vinyl	.018	.058	105C	9, 14 thru 22	9, 14 thru 22
8961	C-24	24(7x32)	Vinyl-Nylon	.018	.064	115C	9, 14 thru 22	9, 14 thru 22
8954	C-22	22(7x30)	Vinyl	.018	.064	105C	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8960	C-22	22(7x30)	Vinyl-Nylon	.018	.070	115C	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8953	C-20	20(7x28)	Vinyl	.018	.072	105C	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8959	C-20	20(7x28)	Vinyl-Nylon	.018	.078	115C	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8952	C-18	18(7x26)	Vinyl	.018	.082	105C	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8958	C-18	18(7x26)	Vinyl-Nylon	.018	.089	115C	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8951	C-16	16(19x29)	Vinyl	.018	.091	105C	9, 14 thru 22	9, 14 thru 22
8957	C-16	16(19x29)	Vinyl-Nylon	.018	.098	115C	9, 14 thru 22	9, 14 thru 22
8950	C-14	14(19x27)	Vinyl	.018	.105	105C	9, 14 thru 22	9, 14 thru 22
8956	C-14	14(19x27)	Vinyl-Nylon	.018	.114	115C	9, 14 thru 22	9, 14 thru 22

Stock Colors

1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Light Blue
7 Violet (purple
8 Gray (slate)
9 White
10 Black
14 White Black
15 White Red
16 White Green
17 White Yellow
18 White Blue
19 White Brown
20 White Orange
21 White Gray
22 White Violet

TYPE D-VINYL—3000V—105C

Tinned copper, vinyl insulated.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	Stock Colors on Standard Spools 500′	Stock Colors on Standard Spools 1000′
8971	D-22	22(7x30)	.030	.090	1 thru 10	—	1 thru 10
8970	D-20	20(7x28)	.030	.098	1 thru 10	—	1 thru 10
8969	D-18	18(7x26)	.030	.108	1 thru 10	—	1 thru 10
8968	D-16	16(19x29)	.030	.117	9	—	9
8967	D-14	14(19x27)	.030	.131	9	—	9
8966	D-12	12(19x25)	.035	.160	9	—	9
8965	D-10	10(37x26)	.035	.178	9	—	9
8964	D-8	8(133x29)	.040	.245	9	9	—
8963	D-6	6(133x27)	.040	.290	9	9	—

Stock Colors

1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Light Blue
7 Violet (purple)
8 Gray (slate)
9 White
10 Black
14 White Black
15 White Red
16 White Green
17 White Yellow
18 White Blue
19 White Brown
20 White Orange
21 White Gray
22 White Violet

TYPE E—TFE TEFLON —600V—200C TYPE EE—TFE TEFLON—1000V—200C

TYPE E 600V—200C

TYPE EE 1000V—200C

Concentrically stranded silver coated copper conductor, extruded TFE Teflon insulated

Trade Number	Type Designation	AWG & (Stranding)	Nom. O.D. (Inch)
8300	E-30	30(7x38)	.033
8301	E-28	28(7x36)	.036
8302	E-26	26(7x34)	.041
8303	E-24	24(19x36)	.046
8304	E-24	24(7x32)	.045
8305	E-22	22(7x30)	.051
8306	E-22	22(19x34)	.052
8307	E-20	20(19x32)	.060
8308	E-20	20(7x28)	.059
8309	E-18	18(19x30)	.071
8310	E-16	16(19x29)	.080

Trade Number	Type Designation	AWG & (Stranding)	Nom. O.D. (Inch)
8322	EE-26	26(7x34)	.047
8323	EE-24	24(19x36)	.053
8324	EE-24	24(7x32)	.054
8325	EE-22	22(7x30)	.058
8326	EE-22	22(19x34)	.060
8327	EE-20	20(19x32)	.068
8328	EE-20	20(7x28)	.066
8329	EE-18	18(19x30)	.079
8330	EE-16	16(19x29)	.086

Stock Colors

ALL CONSTRUCTIONS:
25, 100, 500 and 1000 ft. spools available in colors 1 thru 10

1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Light Blue
7 Violet (purple)
8 Gray (slate)
9 White
10 Black

Color striping available on 1,000 ft. minimum per item each color.

Manufactured to current Government specifications and subsequent revisions.

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mil-w-76b vinyl plastic | **Belden**

TYPE MW—VINYL & VINYL-NYLON—1000 V

VINYL

Tinned copper, vinyl insulated, medium wall. The extruded vinyl insulation is flame and ozone resistant and is inert to most chemicals, oils, and solvents.

VINYL-NYLON

Tinned copper, vinyl insulated. Medium wall, clear nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Type	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Temperature Rating	Stock Colors on Standard Spools 25′	100′	500′	1000′
8525	MW-C-24-(7)-U	24(7x32)	Vinyl	.017	.058	80C	—	1 thru 30	1 thru 22	1 thru 30
8538	MW-C-24-(1)-U	24(Solid)	Vinyl	.017	.054	80C	—	1 thru 30	1 thru 22	1 thru 30
8524	MW-C-22-(7)-U	22(7x30)	Vinyl	.017	.064	80C	1 thru 13	1 thru 30	1 thru 30	1 thru 30
8530	MW-C-22-(1)-U	22(Solid)	Vinyl	.017	.059	80C	1 thru 13	1 thru 30	1 htru 30	1 thru 30
8537	MW-C-22-(7)-J	22(7x30)	Vinyl-Nylon	.017	.069	90C	—	1 thru 10 14 thru 22	—	1 thru 10 14 thru 22
8523	MW-C-20-(10)-U	20(10x30)	Vinyl	.017	.070	80C	1 thru 13	1 thru 30	1 thru 30	1 thru 30
8529	MW-C-20-(1)-U	20(Solid)	Vinyl	.017	.066	80C	1 thru 13	1 thru 30	1 thru 22	1 thru 30
8536	MW-C-20-(10)-J	20(10x30)	Vinyl-Nylon	.017	.076	90C	—	1 thru 10 14 thru 22	—	1 thru 10 14 thru 22
8522	MW-C-18-(16)-U	18(16x30)	Vinyl	.017	.080	80C	1 thru 13	1 thru 30	1 thru 30	1 thru 30
8528	MW-C-18-(1)-U	18(Solid)	Vinyl	.017	.074	80C	—	1 thru 30	1 thru 13	1 thru 30
8535	MW-C-18-(16)-J	18(16x30)	Vinyl-Nylon	.017	.086	90C	—	1 thru 10 14 thru 22	—	1 thru 10 14 thru 22
8521	MW-C-16-(26)-U	16(26x30)	Vinyl	.019	.098	80C	—	1 thru 30	1 thru 22	1 thru 30
8531	MW-C-16-(1)-U	16(Solid)	Vinyl	.017	.085	80C	—	1 thru 30	1 thru 10	1 thru 30
8534	MW-C-16-(26)-J	16(26x30)	Vinyl-Nylon	.019	.106	90C	—	1 thru 10 14 thru 22	—	1 thru 10 14 thru 22
8520	MW-C-14-(41)-U	14(41x30)	Vinyl	.020	.111	80C	—	1 thru 30	1 thru 22	1 thru 30
8533	MW-C-14-(41)-J	14(41x30)	Vinyl-Nylon	.020	.119	90C	—	1, 3, 4, 5, 9, 10	—	1, 3, 4, 5, 9, 10
8527	MW-C-12-(65)-U	12(65x30)	Vinyl	.020	.130	80C	—	1 thru 30	1 thru 10	1 thru 30
8532	MW-C-12-(65)-J	12(65x30)	Vinyl-Nylon	.020	.139	90C	—	2, 9, 10	—	2, 9, 10

Stock Colors

First color in stripe combination is body color and second or third colors are stripes. (White/Black/Red).

1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Light Blue
7 Violet (purple)
8 Gray (slate)
9 White
10 Black
11 Tan
12 Pink
13 Dark Blue
14 White/Black
15 White/Red
16 White/Green
17 White/Yellow
18 White/Blue
19 White/Brown
20 White/Orange
21 White/Gray
22 White/Violet
23 White/Black/Red
24 White/Black/Green
25 White/Black/Yellow
26 White/Black/Blue
27 White/Black/Brown
28 White/Black/Orange
29 White/Black/Gray
30 White/Black/Violet

TYPE MW—SHIELDED—WITH & WITHOUT NYLON JACKET —1000V—80C

WITH JACKET

Tinned copper, vinyl insulation. Medium wall, tinned copper shield, nylon jacket.

WITHOUT JACKET

Tinned copper, vinyl insulation. Medium wall, tinned copper shield overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100	500	1000
8887	MW-C-24-(7)-S	24(7x32)	.017	None	.082	1 thru 10	—	1 thru 10
8883	MW-C-22-(7)-S	22(7x30)	.017	None	.088	1 thru 10	—	1 thru 10
8893	MW-C-22-(7)-SJ	22(7x30)	.017	Nylon	.096	9	9	9
8886	MW-C-20-(10)-S	20(10x30)	.017	None	.096	1 thru 10	—	1 thru 10
8896	MW-C-20-(10)-SJ	20(10x30)	.017	Nylon	.105	9	9	9
8882	MW-C-18-(16)-S	18(16x30)	.017	None	.105	1 thru 10	—	1 thru 10
8892	MW-C-18-(16)-SJ	18(16x30)	.017	Nylon	.114	9	9	9
8884	MW-C-16-(26)-S	16(26x30)	.019	None	.122	1 thru 10	—	1 thru 10
8894	MW-C-16-(26)-SJ	16(26x30)	.019	Nylon	.132	9	—	9
8881	MW-C-14-(41)-S	14(41x30)	.020	None	.135	9, 10	—	9, 10
8880	MW-C-12-(65)-S	12(65x30)	.020	None	.154	9, 10	—	9, 10

Stock Colors

1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Light Blue
7 Violet (purple)
8 Gray (slate)
9 White
10 Black

Manufactured to current Government specifications and subsequent revisions.

BELDEN PAGE 21

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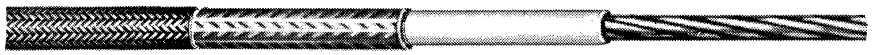
See Prices on four pages at front of Belden listing

Belden | mil-w-76b vinyl plastic

TYPE MW-GLASS BRAID-SHIELDED—1000V—80C

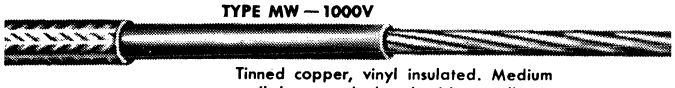


Tinned copper, vinyl insulated. Medium wall, lacquered glass braid, tinned copper shield overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		Stock Color
					100	1000	
8863	MW-C-22(7)-BS	22(7x30)	.017	.102	9	9	White only (9)
8862	MW-C-20(10)-BS	20(10x30)	.017	.110	9	9	
8861	MW-C-18(16)-BS	18(16x30)	.017	.119	9	9	
8860	MW-C-16(26)-BS	16(26x30)	.019	.136	9	9	
8859	MW-C-14(41)-BS	14(41x30)	.020	.149	9	9	
8858	MW-C-12(65)-BS	12(65x30)	.020	.168	9	9	

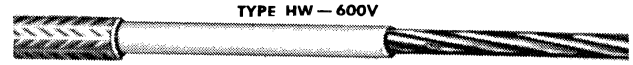
TYPE MW & HW VINYL—GLASS BRAID (OVERALL)—80C

TYPE MW — 1000V



Tinned copper, vinyl insulated. Medium wall, lacquered glass braid overall.

TYPE HW — 600V



Tinned copper, vinyl insulated. Heavy wall, lacquered glass braid.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Voltage Rating	Stock Colors on Standard Spools			Stock Colors
						100	500	1000	
8566	MW-C-22(7)-B	22(7x30)	.017	.078	1000V	1 thru 10	—	1 thru 10	1 Brown 2 Red 3 Orange 4 Yellow 5 Green 6 Light Blue 7 Violet (purple) 8 Gray (slate) 9 White 10 Black 124 White/Brown 125 White/Red 126 White/Orange 127 White/Yellow 128 White/Green 129 White/Blue 130 White/Violet 131 White/Gray 132 White/Black
8565	MW-C-20(10)-B	20(10x30)	.017	.086	1000V	1 thru 10	—	1 thru 10	
8564	MW-C-18(16)-B	18(16x30)	.017	.095	1000V	1 thru 10 124 thru 132	— —	1 thru 10 124 thru 132	
8563	MW-C-16(26)-B	16(26x30)	.019	.112	1000V	1 thru 10 124 thru 132	— —	1 thru 10 124 thru 132	
8562	MW-C-14(41)-B	14(41x30)	.020	.125	1000V	9, 124 thru 132	— —	9, 124 thru 132	
8561	MW-C-12(65)-B	12(65x30)	.020	.144	1000V	9, 125, 132	—	9, 125, 132	
8591	HW-C-10(105)-B	10(105x30)	.048	.238	600V	9, 125, 132	—	9, 125, 132	
8590	HW-C-8(133)-B	8(133x29)	.048	.279	600V	9	9	—	
8589	HW-C-6(133)-B	6(133x27)	.048	.328	600V	9	9	—	

TYPE LW—VINYL & VINYL-NYLON—300V

VINYL

Tinned copper, vinyl insulated. Light wall.

VINYL-NYLON

Tinned copper, vinyl insulated. Light wall, clear nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Type	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Temperature Rating	Stock Colors on Standard Spools		Stock Colors
							100	1000	
8572	LW-C-30(7)-U	30(7x38)	Vinyl	.011	.034	80C	1 thru 10	1 thru 10	1 Brown 2 Red 3 Orange 4 Yellow 5 Green 6 Light Blue 7 Violet (purple) 8 Gray (slate) 9 White 10 Black 14 White/Black 15 White/Red 16 White/Green 17 White/Yellow 18 White/Blue 19 White/Brown 20 White/Orange 21 White/Gray 22 White/Violet
8579	LW-C-30(7)-J	30(7x38)	Vinyl-Nylon	.011	.039	90C	1 thru 10	1 thru 10	
8571	LW-C-28(7)-U	28(7x36)	Vinyl	.011	.037	80C	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8578	LW-C-28(7)-J	28(7x36)	Vinyl-Nylon	.011	.042	90C	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8570	LW-C-26(7)-U	26(7x34)	Vinyl	.011	.041	80C	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8577	LW-C-26(7)-J	26(7x34)	Vinyl-Nylon	.011	.046	90C	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8569	LW-C-24(7)-U	24(7x32)	Vinyl	.011	.046	80C	1 thru 19	1 thru 19	
8576	LW-C-24(7)-J	24(7x32)	Vinyl-Nylon	.011	.051	90C	1 thru 19	1 thru 19	
8568	LW-C-22(7)-U	22(7x30)	Vinyl	.012	.054	80C	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8575	LW-C-22(7)-J	22(7x30)	Vinyl-Nylon	.012	.059	90C	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8567	LW-C-20(10)-U	20(10x30)	Vinyl	.012	.060	80C	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8574	LW-C-20(10)-J	20(10x30)	Vinyl-Nylon	.012	.065	90C	1 thru 10 14 thru 22	1 thru 10 14 thru 22	

Manufactured to current Government specifications and subsequent revisions.

BELDEN PAGE 22

See Prices on four pages at front of Belden listing

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mil-w-76b vinyl plastic
mil-w-5086a & mil-w-7078a aircraft wire

Belden

TYPE HW—VINYL—Gauges 16-22 2500V, Gauges 6-14 600V—80C

Tinned copper, vinyl insulated. Heavy wall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
8588	HW-C-22(7)-U	22(7x30)	.034	.098	1 thru 10	—	1 thru 10
8587	HW-C-20(7)-U	20(10x30)	.034	.104	1 thru 10	—	1 thru 10
8586	HW-C-18(16)-U	18(16x30)	.034	.115	1 thru 10	—	1 thru 10
8585	HW-C-16(19)-U	16(26x30)	.034	.128	2, 9, 10	—	2, 9, 10
8584	HW-C-14(19)-U	14(41x30)	.048	.171	2, 9, 10	—	2, 9, 10
8583	HW-C-12(19)-U	12(65x30)	.048	.191	2, 9, 10	—	2, 9, 10
8582	HW-C-10(37)-U	10(105x30)	.048	.220	2, 9, 10	—	2, 9, 10
8581	HW-C-8(127)-U	8(133x29)	.048	.261	2, 9, 10	2, 9, 10	—
8580	HW-C-6(127)-U	6(133x27)	.048	.310	2, 9, 10	2, 9, 10	—

Stock Colors

1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Light Blue
7 Violet (purple)
8 Gray (slate)
9 White
10 Black

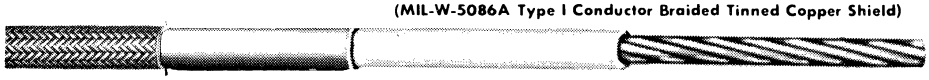
MIL-W-5086A—TYPES 1 & 2—600V

UNSHIELDED

Trade Number	MIL Type Designation	AWG & (Stranding)	Nom. O.D. (Inch)	Spec. Type	Stock Colors on Standard Spools 100′	500′	1000′	Stock Color
8541	AN-22	22(19x34)	.068	No. 1	9	—	9	White only (9)
8542	AN-20	20(19x32)	.078	No. 1	9	—	9	**Additional Description**
8543	AN-18	18(19x30)	.088	No. 1	9	—	9	**MIL-W-5086A-Type I AN-22 thru AN-12.** Stranded tinned copper, white vinyl, clear nylon jacket insulation.
8544	AN-16	16(19x29)	.098	No. 1	9	—	9	
8545	AN-14	14(19x27)	.117	No. 1	9	9	9	
8546	AN-12	12(19x25)	.137	No. 1	9	9	9	
8559	AN-22	22(19x34)	.075	No. 2	9	—	9	**MIL-W-5086A-Type II AN-22 thru AN-12** Stranded tinned copper, white vinyl insulation, saturated glass braid, clear nylon jacket.
8558	AN-20	20(19x32)	.085	No. 2	9	—	9	
8557	AN-18	18(19x30)	.095	No. 2	9	—	9	
8556	AN-16	16(19x29)	.105	No. 2	9	—	9	
8555	AN-14	14(19x27)	.125	No. 2	9	9	9	
8554	AN-12	12(19x25)	.143	No. 2	9	9	9	
8553	AN-10	10(49x27)	.190	No. 2	9	9	9	**MIL-W-5086A-Type II AN-10 thru AN-00** Stranded tinned copper, white vinyl insulation, saturated glass braid, nylon braid, nylon lacquer.
8552	AN-8	8(133x29)	.240	No. 2	9	9	—	
8551	AN-6	6(133x27)	.293	No. 2	9	9	—	
8550	AN-4	4(133x25)	.355	No. 2	9	9	—	
8549	AN-2	2(665x30)	.425	No. 2	9	—	—	
8548	AN-0	0(1045x30)	.525	No. 2	9	—	—	
8547	AN-00	00(1330x30)	.590	No. 2	9	—	—	

MIL-C-7078A—TYPE 1—600 VOLT

(MIL-W-5086A Type I Conductor Braided Tinned Copper Shield)



Trade Number	MIL Type Designation	AWG & (Stranding)	Nom. O.D. (Inch)	Spec. Type	Stock Colors on Standard Spools 100	500	1000	Stock Color
8855	AN-22	22(19x34)	.092	No. 1	9	—	9	**White only (9)**
8854	AN-20	20(19x32)	.102	No. 1	9	—	9	**Additional Description**
8853	AN-18	18(19x30)	.112	No. 1	9	—	9	Stranded tinned copper, white vinyl insulation, nylon jacket, braided tinned copper shield.
8852	AN-16	16(19x29)	.122	No. 1	9	9	—	
8851	AN-14	14(19x27)	.141	No. 1	9	—	—	
8850	AN-12	12(19x25)	.156	No. 1	9	—	—	

Manufactured to current Government specifications and subsequent revisions

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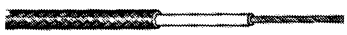
Belden

hook-up and lead wires—grid wire
shielding and bonding cable—bus bar wire

UL TYPE HOOK-UP AND LEAD WIRES

UL-600V-90C (CSA-TYPE TRB)



Tinned copper, vinyl insulated, cotton braid, lacquered

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors	Standard Spool Lengths in ft
8937	22(7x30)	.016	.091	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8936	20(10x30)	.017	.098	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8935	18(16x30)	.017	.113	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8934	16(26x30)	.017	.126	1, 2, 3, 4, 5, 9, 10, 13	100, 500
8933	14(41x30)	.031	.177	1, 2, 3, 4, 5, 9, 10, 13	100, 500

For color coding see Page 25.

UL rated 600V for electronic circuits only—300V for other applications.

UL-600V-105C (CSA-600V-TYPE TEW)

Tinned copper, vinyl insulated.

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors	Standard Spool Lengths in ft
8920	22(7x30)	.031	.095	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8919	20(10x30)	.031	.102	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8918	18(16x30)	.031	.112	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8917	16(26x30)	.031	.126	1, 2, 3, 4, 5, 9, 10, 13	100, 500
8916	14(41x30)	.031	.141	1, 2, 3, 4, 5, 9, 10, 13	100, 500

For color coding see Page 25.

UL rated 2500 volts peak for electronic circuits.

GRID WIRE

Description	Trade Number	AWG & Stranding	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Suggested Working Voltage	Breakdown Voltage	Nom. Cap. (mmf/ft)	Standard Spool Lengths in ft
	8885	20(10x30)	.015	.117	300	4000	80	15, 25, 100, 500

Tinned copper, rubber insulated, cellulose acetate braid, lacquered, tinned copper braid shield.

SHIELDING AND BONDING CABLES

Can be manufactured to conform to QQB575.
Braided tinned copper.
Standard Spool: 10, 50, 250 feet

Trade Number	Stranding	Approx. Cir. Mil. Area	Nom. I.D. (Inch)	Approx. Flat Dimension (Inch)
8676	16x36	400	1/32	.025x .035
8674	24x36	600	3/64	.030x .045
8660	96x34	3,800	1/8	.050x .150
8668	120x34	4,700	11/64	.060x .205
8663	168x34	6,700	1/4	.060x .275
8661	192x34	7,600	3/8	.060x .310
8669	336x34	13,300	1/2	.060x .520
8672	528x36	13,200	5/8	.040x .580
8662	576x34	22,900	25/32	.100x .590
8670	480x30	48,000	3/4	.125x .750
8671	832x36	20,800	1	.050x1.000

This braided cable will provide approximately 90% shield coverage when applied over the recommended diameter.
For additional sizes, see current BRAIDED AND STRANDED COPPER CABLE CATALOG.

BUS BAR WIRE

Made in accordance with Federal Spec QQ-W-343.

Solid tinned copper.
Standard Spool: 100, 1000 feet

Trade Number	AWG	Nom. O.D. (Inch)	Circular Mil. Area
8027	34	.006	39.7
8026	32	.008	64.0
8025	30	.010	100.0
8024	28	.012	159.0
8023	26	.016	253.0
8022	24	.020	404.0
8021	22	.025	640.0
8020	20	.032	1020.0
8019	18	.040	1620.0
8013	16	.050	2580.0
8012	14	.064	4110.0
8011	12	.080	6530.0

8011 Available in 100' spool only.
8026 and 8027 Available in 1000' spool only.

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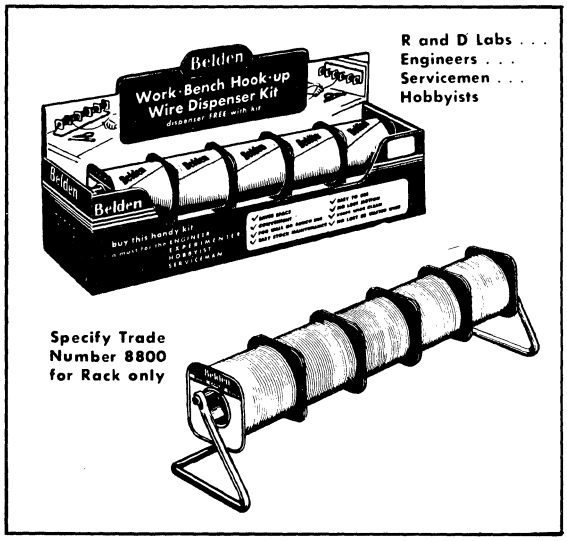
KITS—HOOK-UP WIRE ON RACKS



Each kit contains an assortment of Hook-Up Wire colors and types plus a portable metal dispenser rack for workbench or wall mounting. The dispenser rack provides a complete, compact, and convenient wire department for every working area.

Trade Number	No. of Spools	Spool Lengths	Type of Wire	Colors in Kit
8818	8	25'	20 solid, cellulose acetate (8941-25)	1, 2, 3, 4, 5, 6, 9, 10
8819	5	100'	20 solid, cellulose acetate (8941-100)	2, 5, 6, 9, 10
8820	8	25'	20 stranded, cellulose acetate (8943-25)	1, 2, 3, 4, 5, 6 9, 10
8821	5	100'	20 stranded, cellulose acetate (8943-100)	2, 5, 6, 9, 10
8822	10	25'	20 solid, Type MW vinyl (8529-25)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10
8823	5	100'	20 solid, Type MW vinyl (8529-100)	2, 5, 6, 9, 10
8824	8	25'	20 stranded, Type MW vinyl (8523-25)	1, 2, 3, 4, 5, 6, 9, 10
8825	5	100'	20 stranded, MIL-W-16878D vinyl (8507-100)	9, 14, 15, 16, 17
8826	5	100'	22 stranded, MIL-W-16878D vinyl (8508-100)	9, 14, 15, 16, 17
8827	5	100'	22 stranded, MIL-W-16878D vinyl-nylon (8518-100)	2, 5, 6, 9, 10

See opposite column for color coding.

†† *Belden Trademark Reg. U.S. Pat. Off.*

GENERAL-PURPOSE HOOK-UP WIRES

Tinned copper, cellulose acetate wrap, cellulose acetate braid lacquered.
Nom. d-c Insulation Resistance 200 megohms ft. Nom. Breakdown Voltage—1000.

Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Stock Colors	Standard Spool Lengths in ft
8941	20(Solid)	.072	1, 2, 3, 4, 5, 6, 9, 10 2, 4, 5, 6, 9, 10	25 100, 1000
8943	20(10x30)	.076	1, 2, 3, 4, 5, 6, 9, 10 2, 4, 5, 6, 9, 10 2, 4, 5, 6, 10	25 100 1000
8945	18(Solid)	.080	2, 4, 5, 6, 9, 10 10	100 1000
8947	18(16x30)	.087	2, 4, 5, 6, 9, 10 10	100 1000
8942	16(26x30)	.099	2, 10	100, 1000
8938	14(41x30)	.115	2, 10	100

STOCK COLORS

First color in stripe combination is body color and second or third colors are stripes (White Black Red)

1	Brown	7	Violet (purple)	13	Dark Blue
2	Red	8	Gray (slate)	14	White Black
3	Orange	9	White	15	White Red
4	Yellow	10	Black	16	White Green
5	Green	11	Tan	17	White Yellow
6	Light Blue	12	Pink		

ANTENNA WIRE

Stranded bare copper.

Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Standard Spool Lengths in ft
8002	16(7x24)	.060	50, 75, 100
8000	14(7x22)	.076	50, 75, 100, 1000

Copper, HF Formvar insulated.

8009	14(Solid)	.067	100, 200, 500
8008	12(Solid)	.084	100, 200, 500

INDOOR ANTENNA WIRE

Tinned copper, chrome vinyl insulated.

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft
8014	25(13x36)	.010	.044	25, 500

LITZ WIRE

Copper, Celenamel†† insulated, nylon wrap.

Trade Number	Stranding	Nom. O.D. (Inch)	Standard Spool Lengths in ft
8817	5x44	.008	100

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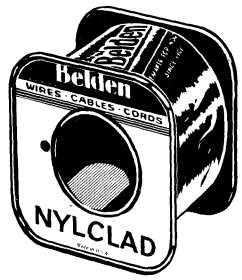
Belden

magnet wire
mobile communications cable
for marine and automotive



Nylclad magnet wire combines the most desirable features of Formvar with the well-known toughness and solvent resistance of Nylon enamel.

For difficult and exacting windings, these plus values may represent the difference between low and high rejections.

Nylclad will out-perform all other A.I.E.E., Class A, film-coated wires with respect to: (1) ability to withstand winding abuse and forming operations; (2) resistance to the solvent action of insulating varnishes and all types of thinners; (3) resistance to softening at elevated temperatures; (4) solvent crazing; (5) windability.

BELDENAMEL††

Size	¼ Pound Spool		½ Pound Spool		Turns per Linear Inch	Turns per Square Inch
	Trade Number	Approx. Length (Feet)	Trade Number	Approx. Length (Feet)		
14			**8047**	40	15.2	231
16			**8048**	63	19.1	365
18			**8049**	100	23.9	571
20			**8050**	160	29.9	894
22			**8051**	254	37.4	1399
24			**8052**	404	46.9	2200
26			**8053**	645	59.0	3481
28	**8040**	510	**8054**	1020	73.8	5446
30	**8041**	807	**8055**	1615	92.2	8501
32	**8042**	1257	**8056**	2515	114.0	12996
34	**8043**	2030	**8057**	4060	144.0	20736
36	**8044**	3200	**8058**	6400	180.0	32400
38	**8045**	5070			225.0	50625
40	**8046**	8050			290.0	84100

NYLCLAD††

Size	½ Pound Spool		1 Pound Spool		Turns per Linear Inch	Turns per Square Inch
	Trade Number	Approx. Length (Feet)	Trade Number	Approx. Length (Feet)		
14	**8059**	40	**8073**	80	14.9	222
16	**8060**	63	**8074**	126	18.6	346
18	**8061**	100	**8075**	199	23.2	538
20	**8062**	157	**8076**	315	28.9	835
22	**8063**	250	**8077**	501	36.0	1296
24	**8064**	396	**8078**	793	44.7	1998
26	**8065**	630	**8079**	1260	55.7	3102
28	**8066**	995	**8080**	1990	69.4	4816
30	**8067**	1570	**8081**	3140	86.2	7430
32	**8068**	2440	**8082**	4880	106.0	11236
34	**8069**	3930	**8083**	7860	133.0	17689
36	**8070**	6200	**8084**	12400	167.0	27889
38	**8071**	9700	**8085**	19400	206.0	42436
40	**8072**	16050	**8086**	32100	263.0	69169

PRIMARY WIRE—MARINE AND AUTO

S.A.E. TYPE G.P.T.

Bare copper, vinyl insulated.

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Color	Standard Spool
8685	16 (19x29)	.023	.102	Black	100
8684	14 (19x27)	.023	.117	Green	100
8683	12 (19x25)	.026	.142	Red	100
8682	10 (19x23)	.031	.175	White	100
8681	8 (19x21)	.037	.219	Chrome	100
8680	6 (37x21)	.043	.290	Chrome	100

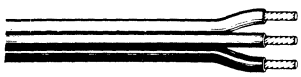
DUPLEX PRIMARY WIRE

Tinned copper, vinyl insulated, conductors parallel, chrome vinyl jacket.

Standard Spools: 100 and 500 feet

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Color Coding
8677	16 (19x29)	.032	.022	.164 x .276	Brn, Red
8675	14 (19x27)	.037	.022	.189 x .326	Brn, Red
8673	12 (19x25)	.040	.022	.213 x .384	Brn, Red
NEW 8678	10 (19x23)	.040	.025	.243 x .436	Brn, Red

3 & 4 CONDUCTOR PARALLEL BONDED PRIMARY WIRE

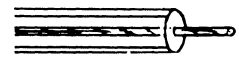


Bare copper, vinyl insulated.

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Color Coding	Standard Spool
8475	16-3 19x29	.023	.102x .295	Wht Brn Red	100, 500
8476	16-4 19x29	.023	.102x .400	Wht/Brn Yel/Grn	100, 500

Conforms to SAE and Outboard Industries Association Color Coding for boat trailers.

7 MM IGNITION WIRE



Tinned Copperweld, POLYSIL†† clear plastic insulation.

Standard Spool: 100 feet

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Color
8666	20 (7x28)	.121	.278	Clear

†† *Belden Trademark Reg. U.S. Pat. Off.*

BELDEN PAGE 26

 See Prices on four pages at front of Belden listing © U.C.P., Inc.

PRICES

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INSULATING TUBING & SLEEVING

BIRACO, BIRFLEX, VINYL COATED FIBERGLASS

BIRACO PLASTIC TUBING

UL APPROVED FOR 105° C. OPERATION — MEETS MIL-I-631C SPECS.

A quality plastic Vinyl tubing designed for electronic and electrical insulation work. Has high dielectric strength, extreme flexibility, non-flammability, abrasion resistance, impervious to oil, water, alkalies, alcohol, solvents, etc., high heat stability and resistance to aging. Meets all A.S.T.M. specifications, Mil. Spec. (Type F, Form U, Grades A and C, Class 2, Category 1).

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The Birnbach Line of insulated sleeving and tubing is the basic quality line designed for the rigid performance requirements of the Aircraft, Electrical and Electronic Industries.

Meets or exceeds the required Mil Specifications and ASTM and NEMA standards. We invite your inquiries on special problems and requirements.

BIRACO TUBING

Put up on convenient 100' Spools or Coils.

LONGER LENGTHS AVAILABLE

Cat. No.	B & S Gauge Size No.	Approx. I.D.	Lgth. Spool
308BC..	24...	.022"...	100'
311BC..	22...	.027"...	100'
313BC..	20...	.034"...	100'
314BC..	18...	.042"...	100'
315BC..	16...	.053"...	100'
316BC..	14...	.066"...	100'
317BC..	12...	.085"...	100'
325BC..	10...	.106"...	100'
318BC..	8...	.135"...	100'
326BC..	6...	.166"...	100'
319BC..	4...	.208"...	100'
320BC..	2...	.263"...	100'
321BC.	5/16"..	.3125"..	100'
322BC..	⅜"..	.375"...	100'
323BC..	½"..	.500"...	100'
324BC..	⅝"..	.625"...	100'
*327BC..	¾"..	.750"...	100'
*360BC..	⅞"..	.875"...	100'
*361BC..	1"..	1.000"...	100'
*362BC..	1¼"..	1.250"...	50'
*363BC..	1½"..	1.500"...	50'
*328BC..	1¾"..	1.750"...	100'
*329BC..	2"..	2.000"...	50'
*364BC..	2¼"..	2.250"...	100'
*365BC..	2½"..	2.500"...	100'

SPECIAL SPOOLS BIRACO TUBING

36" Lgths.	Cat. No.'s B & S Gauge Spool No.	Spec. Size No.	Approx. I.D.	Lgth. Spool
.....	308B	24	.022"	25'
.....	311B	22	.027"	25'
313...	313B	20	.034"	25'
314...	314B	18	.042"	25'
315...	315B	16	.053"	25'
316...	316B	14	.066"	25'
317...	317B	12	.085"	25'
325...	325B	10	.106"	15'
318...	318B	8	.135"	15'
326...	326B	6	.166"	15'
319...	319B	4	.208"	10'
320...	320B	2	.263"	10'
321...	——	5/16	.3125"	—
322...	——	⅜	.375"	—
323...	——	½	.500"	—
324...	——	⅝	.625"	—

Standard package 36" lengths 25 each color:

In addition to Spools and Coils noted above the standard packaging is as follows on stock colors.

#24 Thru #15 .....1,000' Soft Wound Spools

#14 Thru #8 .....500' Soft Wound Spools

#7 Thru #2 .....250'

#1 and larger .....100' coils

COLORS AVAILABLE FROM STOCK:
Black, Red, Green, White, Yellow, Blue, Brown, Orange, Clear.

*Cat. Nos. 360BC, 361BC, 362BC, 363BC, 364BC, 328BC, 329BC, 365BC available in **Black, White and Clear** from stock.

DIMENSIONAL TOLERANCES OF BIRACO

Sz.	Approx. I.D., Ins.	ASTM Tolerances, Ins.	Wall Thickness Inches
24	.022	.020 — .027	.012±.002
22	.027	.025 — .032	.012±.002
20	.034	.032 — .039	.016±.003
19	.038	.044 — .036	.016±.003
18	.042	.040 — .049	.016±.003
17	.047	.054 — .045	.016±.003
16	.053	.051 — .061	.016±.003
15	.059	.067 — .057	.016±.003
14	.066	.064 — .072	.016±.003
13	.076	.080 — .072	.016±.003
12	.085	.081 — .089	.016±.003
11	.095	.101 — .091	.016±.003
10	.106	.102 — .112	.016±.003
9	.118	.124 — .114	.020±.003
8	.133	.129 — .141	.020±.003
7	.148	.158 — .144	.020±.003
6	.166	.162 — .178	.020±.003
5	.186	.198 — .182	.020±.003
4	.208	.204 — .224	.020±.003
3	.234	.249 — .229	.020±.003
2	.263	.258 — .278	.020±.003
1	.294	.311 — .289	.020±.003
0	.330	.347 — .325	.020±.003
5/16	.315	.3125— .334	.025±.003
⅜	.375	.375 — .399	.025±.003
7/16	.438	.462 — .438	.025±.003
½	.500	.500 — .524	.025±.003
9/16	.562	.592 — .562	.030±.003
⅝	.625	.625 — .655	.030±.005
¾"	.750	.750 — .786	.035±.005
⅞	.875	.875 — .911	.035±.005
1"	1.000	1.000 — 1.036	.035±.005
1¼"	1.250	1.250 —1.286	.040±.005
1½"	1.500	1.500 —1.536	.045±.005
1¾"	1.750	1.812 —1.750	.055±.008
2"	2.000	2.000 —2.070	.060±.010
2¼"	2.250	2.250 —2.330	.065±.010
2½"	2.500	2.500 —2.590	.070±.010

TABLE OF PHYSICAL & ELECTRICAL PROPERTIES

BIRACO TUBING

Tensile Strength—2500 Psi (Minimum Average)

Flammability—Non-Flammable

Ultimate Elongation—340%

Recommended for Temperatures to—105° C

Cold Bend— -40° C.

Dielectric Strength .020" Wall—800 V/Mil

Varnish Baking—Good

Water Absorption

Weight Increase (1 Week)—0.1%

Fungi Resistance-Yes

Oil Resistance—Indefinitely flexible when immersed in oil

Insulation Resistance — over 1,000,000 megohms.

ALL THE ABOVE TUBING CAN BE ORDERED CUT AND MARKED TO YOUR SPECIFICATIONS

BIRFLEX VINYL COATED FIBERGLASS TUBING

(ASTM, NEMA Grade B-B-1) MEETS MIL-1-3190 B SPECS.

Quality Electronic and Electrical Tubing. It is Class B Insulation that combines the best featues of the inorganic fiberglass base sleeving with heat resistant, flexible plastic insulation. The plastic compound provides the highest electrical properties, heat stability (130° C.), flexibility and toughness. Meets performance requirements of specs. MIL-1-3190 B, NEMA VSI. ASTM D 372.

SPECIAL SPOOLS VINYL COATED FIBERGLASS

Cat. No.	B & S Gauge Size	Apx. I.D.	Lgth. Spool
291V	20	.034	25'
293V	18	.042	25'
294V	16	.053	25'
295V	14	.066	25'
300V	12	.085	25'
307V	10	.106	20'
301V	8	.135	15'
302V	6	.166	10'
305V	4	.208	10'
306V	2	.263	10'

*VINYL COATED FIBERGLASS

30" Lengths

Cat. No.	B & S Gauge Size	Apx. I.D.
291....	20	.034
293....	18	.042
294....	16	.053
295....	14	.066
300....	12	.085
307....	10	.106
301....	8	.135
302....	6	.166
297....	3/16	.208
298....	1/4	.263

36" Lengths

*303...	5/16	.3125
*304...	3/8	.375
*299...	1/2	.500
*296...	5/8	.625

*VINYL COATED FIBERGLASS

Put up on convenient 100' Spools or Coils.

Cat. No.	B & S Gauge Size	Apx. I.D.	Lgth Spool
289VC	24	.022	100'
290VC	22	.027	100'
291VC	20	.034	100
293VC	18	.042	100'
294VC	16	.053	100'
295VC	14	.066	100'
300VC	12	.085	100'
307VC	10	.106	100'
301VC	8	.135	100'
302VC	6	.166	100'
305VC	4	.208	100'
306VC	2	.263	100'
*303VC	5/16	.3125	100'
*304VC	⅜	.375	100'
*299VC	½	.500	100'
*296VC	⅝	.625	100'

DIMENSIONAL TOLERANCES OF VINYL COATED FIBERGLASS

BIRFLEX 130

Size	Apx. I.D.	N.E.M.A. Tolerances Inches
24	.022	.020-.027
22	.027	.025-.032
20	.034	.032-.039
18	.042	.040-.049
16	.053	.051-.061
14	.066	.064-.072
12	.085	.081-.089
10	.106	.102-.112
8	.133	.129-.141
6	.166	.162-.178
5/16, 4	.208	.204-.224
¼, 2	.263	.258-.278
5/16	.3125	.312-.328
⅜	.375	.375-.399
½	.500	.500-.524
⅝	.625	.625-.655

PHYSICAL & ELECTRICAL PROPERTIES BIRFLEX VINYL COATED FIBERGLASS

Class B

Grade B-1

Dielectric Strength.....4000 V.

Temperature Rating.....130° C.

Low Temp. Flexibility.....—30° C.

Non-Flammable

Ins. Resistance.....Over 1,000,000 MEGS.

Corrosion Resistance .....Excellent

Oil Resistance .....Good

In addition to Spools and Coils noted above the standard packaging is as follows on stock colors.

#24 Thru #15 .....1,000' Soft Wound Spools

#14 Thru #8 .....500' Soft Wound Spools

#7 Thru #2 .....250'

#1 and larger.....100' coils

COLORS:
Black, Red, White, Yellow, Brown, Orange, Green, Blue, Gray, Purple

Additional Sizes Available

Other types of Biraco, Birflex, Birflex Tubing and sleeving available. Write for new Comprehensive Catalog on Tubing and Sleeving.

ALL THE ABOVE TUBING CAN BE ORDERED CUT AND MARKED TO YOUR SPECIFICATIONS

See Pages 1660-1665 for Birnbach Prices for Above Items

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Birnbach

NEW THIN WALL BIRFLON T-500 TEFLON* SPAGHETTI TUBING

Birflon T-500 Tubing is extruded from DuPont Tetrafluoroethylene Resin. Used in electronic and electrical equipment for connection of components. Its flexibility, ease of handling has established it as the best and most popular insulation sheathing. This high temperature Class C insulation does not melt and flow as the conventional thermoplastic materials. Birflon T-500 Teflon has unique electrical, chemical and mechanical properties unmatched by any other type tubing for use in applications requiring high frequencies and high temperatures. Because of Teflon's continuous service temperature of 250° C., which is more than 100° C. above other materials, the soldering technique is simplified since "Teflon" is not harmed by the hot barrel of the soldering iron — therefore, the assembly of aircraft, missile and electronic communication equipment is greatly speeded up. Thin Wall flexible Teflon Tubing can be processed easily into flexible and rigid printed circuits. As a thin, flexible insulation, it permits miniaturization and compactness of design never before possible.

TABLE OF PROPERTIES

Test	ASTM Method	Result
Tensile Strength, 73°F.	D638-52T	1500-3000 Lb/Sq. In.
Elongation, 73°F.	D638-52T	100-200%
Deformation Under Load—122°F.		
1200 Lb/Sq. In., 24 Hrs.	D621-51	4-8%
2000 Lb/Sq. In., 24 Hrs.	D621-51	25%
Hardness Durometer	D676-49T	D50-D65
Heat Distortion Temp., 66 Lb/Sq. In.	D648B-45T	250°F.
Dielectric Strength, .080"	D149-44	400-500 V/MIL
Surface Arc-Resistance	D495-48T	Sec.
Volume Resistivity	D257-52T	10^{15} Ohm-CM
Surface Resistivity, 100% R.H.	D257-52T	$3.6x10^{6}$ Megohms
Dielectric Constant, 60 to 10^{8} Cycles	D150-54T	2.00
Power Factor, 60 to 10^{8} Cycles	D150-54T	0.0003
Specific Gravity	D792-50	2.1-2.2

Thin Wall Birflon T-500 Teflon* Tubing Dimensional Specifications

AWG Size	Nom. O.D.	Nom. I.D.	Nom. Wall Thickness	AWG Size	Nom. O.D.	Nom. I.D.	Nom. Wall Thickness
32	.028"	.011"	.0085"	7	.178"	.148"	.015"
30	.030"	.012"	.009"	6	.196"	.166"	.015"
28	.033"	.015"	.009"	5	.216"	.186"	.015"
26	.038"	.018"	.010"	4	.238"	.208"	.015"
24	.042"	.022"	.010"	3	.264"	.234"	.015"
22	.047"	.027"	.010"	2	.293"	.263"	.015"
20	.058"	.034"	.012"	1	.324"	.294"	.015"
19	.062"	.038"	.012"	0	.360"	.330"	.015"
18	.066"	.042"	.012"	3/8"	.430"	.390"	.020"
17	.071"	.047"	.012"	7/16"	.493"	.453"	.020"
16	.077"	.053"	.012"	1/2"	.565"	.515"	.025"
15	.083"	.059"	.012"	9/16"	.633"	.583"	.025"
14	.090"	.066"	.012"	5/8"	.700"	.640"	.030"
13	.100"	.076"	.012"	3/4"	.825"	.765"	.030"
12	.109"	.085"	.012"	7/8"	.950"	.895"	.030"
11	.119"	.095"	.012"	1"	1.085"	1.025"	.030"
10	.130"	.106"	.012"	1⅛"	1.210"	1.150"	.030"
9	.148"	.118"	.015"	1¼"	1.335"	1.275"	.030"
8	.163"	.133"	.015"				

Tolerance — Nos. 32 thru 0 — ± .003" on Wall
Tolerance — Nos. ⅜" thru 1¼" — .020" on I.D., .006" on Wall

ADDITIONAL ADVANTAGES OF BIRFLON T-500 TEFLON*

- **ELECTRICAL:** Low power factor, low dielectric constant, high volume and surface resistivity, good dielectric strength (500 to 1000 volts/MIL) constant over wide ranges of temperatures and frequencies. Dielectric constant of 2.0 and dissipation factor of 0.0002 are lowest of any solid dielectric.
- **THERMAL:** No change of electrical properties with temperature (25°C. to 250°C.) or frequency (60 CPS to 100 MC). Class C insulation — capable of continuous service at temperatures to 250° C. Has color stability.
- **TOUGHNESS AND FLEXIBILITY:** Has high impact strength. Is tough and flexible over the broad temperature range of —90° C. to 250°C. Service range —320°F. to 500° F.
- **CHEMICAL INERTNESS:** Completely inert to all chemicals and solvents except molten alkali metals and fluorine at elevated temperatures and pressures. Non-corrosive to all metals.
- **MOISTURE ABSORPTION:** Zero moisture absorption. Completely sun and weather resistant.
- **NON-FLAMMABLE** • **LOWEST COEFFICIENT OF FRICTION**
- **FUNGI RESISTANCE:** Inert to all fungi growths.
- **SIZES:** Birflon T-500 Teflon Tubing available in sizes to fit B & S gauge wires. Thin wall available from stock, in sizes No. 32 thru 1¼" I.D. Additional sizes and wall thicknesses made to order.

Birflon T-500 is made from high molecular weight virgin "Teflon" and meets AMS 3651B, 3653B, 3654, 3655, MIL-C-17B and MIL-I-22129B.

NOTE: When cutting Teflon Tubing, use single edge razor blade for clean unpinched cut.
"Teflon"* DuPont Trade Name for Tetrafluoroethylene Resin

NO EXTRA CHARGE FOR SOLID COLORS
SMALL PIECE CUTTING AVAILABLE TO ORDER

STOCK COLORS: Natural, Red, Black, Blue, Brown, Green, Orange, Yellow, Gray, Violet, White. Nos. 8020 thru 8029 available in Natural. Additional Colors, Sizes Made To Order

Teflon Tubing can be ordered cut to your specifications.

Tracer Colors Available
We Invite Your Inquiries For Your Special Requirements

WIRE — CABLE — TUBING DIVISION

NEW THIN WALL BIRFLON T-500 TEFLON* SPAGHETTI TUBING

Cat. No.	Spool or Coil Put-Up	B & S Size No.
8013	*1000'	32
8013	500'	32
8013	100'	32
8014	*1000'	30
8014	500'	30
8014	100'	30
8015	*1000'	28
8015	500'	28
8015	100'	28
8016	*1000'	26
8016	500'	26
8016	100'	26
8000	*1000'	24
8000	500'	24
8000	100'	24
8000	50'	24
8000	25'	24
8001	*1000'	22
8001	500'	22
8001	100'	22
8001	50'	22
8001	25'	22
8002	*1000'	20
8002	500'	20
8002	100'	20
8002	50'	20
8002	25'	20

Cat. No.	Spool or Coil Put-Up	B & S Size No.
8003	*1000'	18
8003	500'	18
8003	100'	18
8003	50'	18
8003	25'	18
8004	*1000'	16
8004	500'	16
8004	100'	16
8004	50'	16
8004	25'	16
8005	1000'	14
8005	* 500'	14
8005	100'	14
8005	50'	14
8005	25'	14
8006	1000'	12
8006	* 500'	12
8006	100'	12
8006	50'	12
8006	25'	12
8007	1000'	10
8007	* 500'	10
8007	100'	10
8007	50'	10
8007	25'	10
8008	1000'	8
8008	* 500'	8
8008	100'	8
8008	50'	8
8008	25'	8

Cat. No.	Spool or Coil Put-Up	B & S Size No.
8009	1000'	6
8009	* 500'	6
8009	100'	6
8009	50'	6
8009	25'	6
8010	1000'	4
8010	500'	4
8010	* 100'	4
8010	50'	4
8010	25'	4
8011	1000'	2
8011	500'	2
8011	* 100'	2
8011	50'	2
8011	25'	2
8012	1000'	0
8012	500'	0
8012	* 100'	0
8012	50'	0
8012	25'	0
8020	1000'	3/8"
8020	500'	3/8"
8020	* 100'	3/8"
8020	50'	3/8"
8021	1000'	7/16"
8021	500'	7/16"
8021	* 100'	7/16"
8021	50'	7/16"
8022	1000'	1/2"
8022	500'	1/2"
8022	* 100'	1/2"
8022	50'	1/2"
8022	25'	1/2"

IN RANDOM LENGTHS

Cat. No.	Spool or Coil Put-Up	Nom. I.D.
8023	1000'	9/16"
8023	500'	9/16"
8023	* 100'	9/16"
8023	50'	9/16"
8023	25'	9/16"
8024	1000'	5/8"
8024	500'	5/8"
8024	* 100'	5/8"
8024	50'	5/8"
8024	25'	5/8"
8025	1000'	3/4"
8025	500'	3/4"
8025	* 100'	3/4"
8025	50'	3/4"
8025	25'	3/4"
8026	1000'	7/8"
8026	500'	7/8"
8026	* 100'	7/8"
8026	50'	7/8"
8026	25'	7/8"
8027	1000'	1"
8027	500'	1"
8027	* 100'	1"
8027	50'	1"
8027	25'	1"
8028	1000'	1⅛"
8028	500'	1⅛"
8028	* 100'	1⅛"
8028	50'	1⅛"
8028	25'	1⅛"
8029	1000'	1¼"
8029	500'	1¼"
8029	* 100'	1¼"
8029	50'	1¼"
8029	25'	1¼"

IN RANDOM LENGTHS

*PREFERRED PUT-UP

Extruded virgin Teflon rod sizes ⅛" thru 3⅛" diam. available. Also "O" rings, washers, bails, etc.

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See Pages 1660-1665 for Birnbach Prices for Above Items

Birnbach

BIRACO • BIRFLON HEAT SHRINKABLE PLASTIC TUBING

BIRNBACH HEAT SHRINK POLYVINYL CHLORIDE PLASTIC TUBING
NEW ALL PURPOSE TUBING WITH CONTROLLED SHRINKAGE

Series SK265 covers heat shrinkable PVC polyvinyl chloride plastic tubing. This flexible, electrical insulating tubing is extruded and its expansion is arrived at thru a patented secondary operation which builds a memory into the material. The memory is activated via the application of heat at approximately 130°C (266°F). The thinner the wall, the faster the shrinkage. The heavier the wall, the slower the shrinkage. In each case, the diameter is reduced to a pre-determined size upon the application of heat and will maintain strength, insulating properties and form stability.

Material is SK265 PVC (Polyvinylchloride), flame resistant, self-extinguishing, dimensions as supplied in its expanded stage and after its recovery, with application of heat in excess of 130°C (266°F) shall be in accordance with noted table. Longitudinal shrink shall not be greater than 10%.

- NEW ALL PURPOSE TUBING—HAS CONTROLLED SHRINKAGE.
- SHRINKS IN SECONDS.
- FORMS A PERMANENT, TIGHT MECHANICAL BOND.
- PVC (POLYVINYLCHLORIDE).

SK 265 PVC TUBING PROPERTIES CHART

	RATING	TEST
TENSILE STRENGTH	2960 PSI	ASTM D-876-59-T
ULTIMATE ELONGATION	200%	ASTM D-876-59-T
BRITTLENESS TEMPERATURE	—34° C.	ASTM D-746-57-T MIL-1-631 D, 4. 6. 12
SPECIFIC GRAVITY	1.34	ASTM D-792-60 T
WATER ABSORPTION	0.06% 24 Hours	ASTM D-570-57-T Proc. A
DIELECTRIC STRENGTH	1050 Volts/Mil	ASTM D-149-55 T
VOLUME RESISTIVITY	5.2 x 10^{14} Ohm-cm	ASTM D-257-58 MIL-1-631 D 4. 6. 13
FUNGUS RESISTIVITY	0-1	MIL-1-631 D 3. 5. 7 and 4. 6. 16
FLAMMABILITY	Self-Extinguishing	ASTM D-876-60 T MIL-1-631 D, 4. 6. 13
FLEXIBILITY AFTER HEAT AGING 200 Hrs. a 100° C. BEND OVER 1/8" MANDREL	GOOD	
CORROSION ON COPPER, BRASS AND ALUMINUM AFTER 14 DAYS a 100° C.	EXCELLENT	MIL-1-7444 B

CHEMICAL RESISTANCE CHART

FUEL JP-4 MIL-J-5624	EXCELLENT
AVIATION GASOLINE 100/130 MIL-G-5572	EXCELLENT
HYDRAULIC OIL MIL-O-5606	EXCELLENT
HYDROCHLORIC ACID 35%	EXCELLENT
WATER	EXCELLENT
SODIUM CHLORIDE 5%	EXCELLENT
ALKALIS	EXCELLENT

*NOTE: SK265 PVC tubing is unsuitable in contact with organic solvents.

SK265 PVC tubing has a higher resistance to oils than low density Polyethylene.

BIRFLON SHRINK SERIES TE TUBING
HEAT SHRINKABLE TEFLON* TUBING

Is a Class C material modified from polytetrafluorethylene. The tubing will shrink when heated to 621 F. (It should be heated until it turns semi-transparent, then the heating process immediately stopped. Overheating can cause splitting, therefore trial and error testing is recommended to establish the proper time and temperature for each application.) Correct procedure will result in a snug-fitting insulating wrap possessing hi-heat resistance, superior chemical resistance, and excellent electrical characteristics. The tubing is available in a full range of colors.

* Dupont Polytetrafluoroethelene

SK621 TEFLON TUBING PROPERTIES CHART

	TE SERIES Shrinkable "Teflon"
DIELECTRIC STRENGTH (20 Mil Wall)	850 Volts/Mil
DIELECTRIC CONSTANT	2.2
POWER FACTOR	.00
VOLUME RESISTIVITY	10^{17} Ohms/CM
FUNGUS RESISTANCE	Inert
FLAMMABILITY	Will Not Support Combustion
FUEL and OIL RESISTANCE	Superior
HYDRAULIC FLUID RESISTANCE	Superior
SOLVENT RESISTANCE	Superior
ACID and ALKALI RESISTANCE	Superior
CORROSION RESISTANCE	Excellent
TENSILE STRENGTH	5000-7500 PSI
ULTIMATE ELONGATION	300-500%
WATER ABSORPTION	NIl
LOW TEMPERATURE BRITTLE POINT	—66°F
HARDNESS	98 Shore A
SPECIFIC GRAVITY	2.2

HAG-12 Hot Air Gun For PVC Series
HAG-13 Hot Air Gun For TE Series

The quickest and most versatile method for applying heat is the hot air gun noted herein. Also, use of an oven, radiant heat, dipping in hot liquids, or using a soldering iron or the flame of a match.

HEAT SHRINKABLE POLYVINYL TUBING DIMENSION CHART

Cat. No.	Sizes For AWG	Min. I.D. Before Shrinking	Recovered Dimensions After Shrinking: Enclosable Diam Range (Inches)	Recovered Dimensions After Shrinking: Nom. Wall Thickness
SK 265-24-26	24-26	.035"	.016- .030	.012"
SK 265-19-22	19-22	.046"	.025- .041	.016"
SK 265-17-19	17-19	.057"	.036- .052	.016"
SK-265-15-16	15-16	.069"	.046- .064	.016"
SK 265-14-15	14-15	.080"	.056- .075	.016"
SK 265-12-13	12-13	.098"	.067- .093	.016"
SK 265-10-11	10-11	.123"	.090- .118	.016"
SK 265-8-9	8-9	.153"	.111- .148	.020"
SK-265-6-7	6-7	.192"	.137- .185	.020"
SK 265-4-5	4-5	.236"	.175- .210	.020"
SK 265-2-3	2-3	.275"	.210- .238	.020"
SK 265-0-1	0-1	.315"	.238- .290	.020"
SK 265-0	0	.393"	.290- .342	.020"
SK 265-3/8	3/8"	.433"	.342- .381	.020"
SK 265-7/16	7/16"	.511"	.381- .435	.020"
SK 265-1/2	1/2"	.610"	.475- .540	.020"
SK 265-5/8	5/8"	.728"	.540- .710	.020"
SK 265-3/4	3/4"	1.043"	.710- .944	.020"
SK 265-1"	1"	1.377"	.905-1.338	.030"
SK 265-1 1/2"	1 1/2"	1.929"	1.299-1.889	.030"
SK 265-2"	2"	2.598"	1.771-2.559	.030"

SIZES 24-26, 19-22, 17-19, 15-16, 14-15, 12-13, 10-11, 8-9, 6-7
AVAILABLE ON 25', 50', 100', 500', 1,000' PUT-UPS
STOCK COLORS: BLACK, WHITE, CLEAR, RED, YELLOW

SIZES: 4-5, 2-3, 0-1, 0 ON 25', 50', 100', 200' PUT-UPS
3/8 THRU 1" ON 50', 100', PUT-UPS
1 1/2 AND 2" ON 50', PUT-UPS
STOCK COLORS: BLACK, CLEAR ADDITIONAL COLORS AVAILABLE

HEAT SHRINKABLE TEFLON TUBING DIMENSIONS—BIRFLON SHRINK SERIES TE TUBING

Birnbach No.	Nominal Tubing Size	Minimum Expanded 1D	Recovered Dimensions: Maximum 1D (1)	Recovered Dimensions: Wall Thickness (2)
SK-621-26	26	.046"	.022"	.009"
SK-621-24	24*	.050"	.027"	.010"
SK-621-22	22*	.055"	.032"	.010"
SK-621-20	20*	.060"	.039"	.012"
SK-621-19	19	.065"	.043"	.012"
SK-621-18	18*	.076"	.049"	.012"
SK-621-17	17	.085"	.054"	.012"
SK-621-16	16*	.093"	.061"	.012"
SK-621-15	15	.110"	.067"	.012"
SK-621-14	14*	.120"	.072"	.012"
SK-621-13	13	.140"	.080"	.012"
SK-621-12	12*	.150"	.089"	.012"
SK-621-11	11	.170"	.101"	.012"
SK-621-10	10*	.191"	.112"	.012"
SK-621-9	9	.205"	.124"	.015"
SK-621-8	8*	.240"	.141"	.015"
SK-621-7	7	.270"	.158"	.015"
SK-621-6	6*	.302"	.178"	.015"
SK-621-5	5	.320"	.198"	.015"
SP-621-4	4*	.348"	.224"	.015"
SP-621-3	3	.360"	.249"	.015"
SK-621-2	2*	.375"	.278"	.015"
SK-621-1	1	.385"	.311"	.015"
SK-621-0	0*	.400"	.347"	.015"
SK-621-3/8	3/8"*	.560"	.399"	.020"
SK-621-7/16	7/16"*	.655"	.462"	.020"
SK-621-1/2	1/2"*	.750"	.524"	.020"

Standard Package—100 Feet
Standard Put-up—36" Straight Lengths—One Foot Minimums
Wall Tolerances: 26 thru 22 ± .002
20 thru 10 ± .003
9 thru 0 ± .004

(1) Tubings made to Military Standards for American Wire Gages will return within the tolerances for that gage number.
(2) Nominal wall thickness after heating. Expanded wall thickness will be 20% to 30% less.
(*) Stock Sizes

See Pages 1660-1665 for Birnbach Prices for Above Items
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Birnbach

SHIELDING BRAID • BUS BAR
INSULATED COPPER • BRONZE • COPPERWELD

BIRNBACH

TUBULAR BRAID PER MIL SPEC. QQ-B-575

Manufactured completely round as noted in MIL Spec. QQ-B-575, this tinned copper shielded braid has self-supporting characteristics which enables it to maintain its round shape. The shielding coverage percentage is 95% or more. This tubular braid is used in military applications where maximum shielding against electrostatic interference is indicated. In addition, it is used as a protective covering against mechanical abrasion and stresses for the wires, cables and other components.

Cat. No.	Nom. Inside Diam. When Rounded	Construction Total No. Of Wires	Carriers	AWG of Indiv. Wires	Approx. AWG Equiv.	Nom. Circular Mils	*Current Carrying Cap.
2250-1/32	1/32"	24	24	#36	#22	640	7.0 amps.
2250-1/16	1/16"	48	24	#36	#19	1,290	11.0 amps.
2250-5/64	5/64"	72	24	#36	#17	1,900	18.0 amps.
2250-7/64	7/64"	96	24	#36	#16	2,500	22.0 amps.
2250-1/8	1/8"	120	24	#36	#15	3,260	28.0 amps.
2250-5/32	5/32"	240	24	#36	#12	6,200	39.0 amps.
2250-11/64	11/64"	168	24	#36	#14	4,500	32.0 amps.
2250-3/16	3/16"	192	24	#36	#13	5,100	35.0 amps.
2250-13/64	13/64"	312	24	#36	#11	8,200	46.0 amps.
2250-1/4	1/4"	384	24	#36	#10	10,400	53.0 amps.
2250-3/8	3/8"	384	48	#36	#10	10,400	53.0 amps.
2250-1/2	1/2"	528	48	#36	# 9	13,200	70.0 amps.
2250-9/16	9/16"	528	48	#36	# 9	13,200	70.0 amps.
2250-11/16	11/16"	720	48	#36	# 7	19,000	82.0 amps.
2250-25/32	25/32"	864	48	#36	# 7	21,750	85.0 amps.
2250-13/16	13/16"	864	48	#36	# 7	21,750	85.0 amps.

STANDARD SPOOL PUT-UP: 50 ft., 100 ft., 250 ft.
LARGER SPOOLS AVAILABLE—ADVISE

*Values based on copper in free air at 65°F.
Additional constructions and variations made to order. Also available in silver plated copper, bare copper and stainless steel.

TINNED COPPER SHIELDING

Used for shielding and bonding on aircraft, marine and auto radio wires and cables. Shields speaker leads, lead-ins, amplifier wires. Extremely flexible, slides over wires and cables.

DESCRIPTION:

No. 853 thru 856/7—Composed of extremely flexible fine soft annealed copper tinned wires closely woven, braided and **Rolled Flat.**

No. 860—Composed of extremely flexible fine soft annealed copper wires closely woven, braided and **Rolled Flat.**

TINNED

Cat. No.	Size & No. of Wires	Inside Diam. Flattened	Approx. O.D. Flattened	Spool
853	12 x 2/36	1/32"	3/64"	1000'
854	12 x 2/36	3/64"	1/16"	1000'
855	16 x 3/36	1/16"	5/64"	50'
858	24 x 5/36	1/8"	5/32"	50'
859	24 x 5/36	3/16"	7/32"	50'
863	24 x 7/36	1/4"	9/32"	50'
864	48 x 4/36	3/8"	15/32"	50'
868	48 x 7/36	1/2"	19/32"	50'
865	48 x 8/36	5/8"	23/32"	50'
865/1	48 x 11/36	3/4"	13/16"	50'
857	48 x 19/36	25/32"	27/32"	50'
856	48 x 19/36	1"	1-1/16"	50'
856/1	48 x 19/36	1-3/8"	1-7/16"	50'
856/2	48 x 19/36	1-1/2"	1-9/16"	50'
856/3	48 x 27/30	1-3/4"	1-7/8"	50'
856/4	48 x 32/30	2"	2-1/4"	50'
856/6	48 x 45/30	2-1/2"	2-3/4"	50'
856/7	48 x 64/30	3"	3-1/4"	50'

BARE

860	24 x 10/36	1/4"	50'

For longer lengths and alternate put-ups—Specify.

BARE COPPER WIRE
(Soft Drawn)
QQ—W—341A specifications

Cat. No.	Put-Up	SOLID Size AWG	Area Circular Mils	O.D.
1560	100' Coil	8	16,510	.1285"
1562	100' Coil	10	10,380	.102"
1563	1000' Spool	10	10,380	.102"
1566	100' Coil	12	6,530	.081"
1567	1000' Spool	12	6,530	.081"
1570	100' Coil	14	4,107	.064"
1571	1000' Spool	14	4,107	.064"
1574	100' Coil	16	2,583	.051"
1575	1000' Spool	16	2,583	.051"

SOLID ENAMEL COPPER WIRE

Cat. No.	Put-Up	Size AWG	O.D.
497	100' Coil	10	.103"
1497	1000' Spool	10	.103"
492	100' Coil	12	.083"
492A	150' Coil	12	.083"
492B	200' Coil	12	.083"
1492	1000' Spool	12	.083"
490	100' Coil	14	.066"
490A	150' Coil	14	.066"
490B	200' Coil	14	.066"
1490	1000' Spool	14	.066"

TINNED COPPER WIRE • SOLID SOFT BRAND

Pure Electrolytic, Copper, annealed, tinned for quick soldering

MIL—W—3861 type S, ASTM—B—33 specifications, QQ—W—343 type S

Cat. No.	Put-Up	Size AWG	Area Circular Mils	O.D.
1433/4	100' Coil	4	41,704	.204"
1433/6	100' Coil	6	26,250	.162"
1433	100' Coil	8	16,510	.129"
1402	100' Coil	10	10,380	.103"
1403	1000' Spool	10	10,380	.103"
1406	100' Coil	12	6,530	.082"
1407	1000' Spool	12	6,530	.082"
1410	100' Coil	14	4,107	.065"
1411	1000' Spool	14	4,107	.065"
1414	100' Coil	16	2,583	.051"
1415	1000' Spool	16	2,583	.051"
1418	100' Coil	18	1,624	.040"
1419	1000' Spool	18	1,624	.040"
1422	100' Coil	20	1,022	.033"
1423	1000' Spool	20	1,022	.033"
1434	1000' Spool	22	624.4	.025"
1424	1000' Spool	24	404.0	.020"
1426	1000' Spool	26	254.1	.016"
1428	1000' Spool	28	159.8	.013"
1430	1000' Spool	30	100.5	.010"
1430/32	1000' Spool	32	63.21	.008"
1430/34	1000' Spool	34	39.75	.006"
1430/36	1000' Spool	36	25.00	.005"
1430/38	1000' Spool	38	15.72	.004"

SOLID—STRANDED
STRANDED TINNED COPPER WIRE

Cat. No.	Put-Up	Size AWG	Strand	O.D.
495	100' Coil	12	7/20	.102"
1671	100' Coil	14	7/22	.076"
1638	1000' Spool	14	7/22	.076"
1674	100' Coil	15	7/23	.069"
1633	1000' Spool	15	7/23	.069"
1628	1000' Spool	16	7/24	.062"

#1671 meets H4.4—1940 type W—
Also available in stranded bare.

JUMPER CABLE
PURE ELECTROLYTIC, COPPER, annealed, tinned for quick soldering MIL-W-3861 Type B, ASTM-B-33 Specifications

Cat. No.	Class Descr.	Size AWG	Strand	O.D.
1622	K	22	7/30	.030"
1620	K	20	10/30	.037"
1618	K	18	16/30	.045"
1616	K	16	26/30	.059"
1614	K	14	41/30	.073"
1612	K	12	65/30	.091"

See Magnet Wire Section For Additional Sizes

BUS BAR WIRE (Hard Drawn)

QQ—W—343 type S

For hooking up all types of transmitters, especially ultra short wave equipment. All bus wire is made of hard drawn copper, tinned, straightened, and cut in 2 ft. lengths.

MIL—W—3861 type S, ASTM—B—33, ASTM—B—246—51 specifications

Cat. No.	No.		
2010	10	Round	Tinned
2012	12	Square	Tinned
2013	12	Round	Tinned
2014	14	Square	Tinned
2015	14	Round	Tinned
2016	16	Round	Tinned
2018	18	Round	Tinned

(100 to Std. Package)

SILICON BRONZE AERIAL WIRE

Especially designed for ships, airports, short wave and transmitting antennas where high tensile strength and resistance to corrosive elements are important.

Cat. No.	Put-Up	Size AWG	Strand	Breaking Strength	O.D.
529*	100'	4	7/12	3670 lbs.	.240"
528*	100'	6	7/14	2140 lbs.	.190"
527	100'	8	7/16	1600 lbs.	.150"
499	100'	10	7/18	1000 lbs.	.122"
524	100'	12	7/20	650 lbs.	.100"
526	100'	14	7/22	420 lbs.	.075"

#528 and #499 meets MIL—W—13074; #524 meets MIL—W—13276

For longer lengths and alternate put-ups—Specify.

* 1000 feet on deposit reels

COPPERWELD ENAMEL ANTENNA WIRE

Used where high tensile strength is required as short wave and transmitting aerials. Has low R resistance and is ideal for transmitting doublet and directional antennas. Will maintain frequency characteristics because of its stretchless qualities.

ENAMEL

Cat. No.	Put-Up	Size AWG	Tensile Strength	O.D.
710-100	100' Spool	10	1130 lbs.	.103"
710-250	250' Spool	10	1130 lbs.	.103"
710-500	500' Spool	10	1130 lbs.	.103"
710-1000	1000' Spool	10	1130 lbs.	.103"
710-2500	2500' Spool	10	1130 lbs.	.103"
712-100	100' Coil	12	720 lbs.	.082"
712-250	250' Coil	12	720 lbs.	.082"
712-500	500' Spool	12	720 lbs.	.082"
712-1000	1000' Spool	12	720 lbs.	.082"
712-2500	2500' Spool	12	720 lbs.	.082"
714-100	100' Coil	14	400 lbs.	.065"
714-250	250' Spool	14	400 lbs.	.065"
714-500	500' Spool	14	400 lbs.	.065"
714-1000	1000' Spool	14	400 lbs.	.065"
714-2500	2500' Spool	14	400 lbs.	.065"

STRANDED SIZE COPPER WIRE

Cat. No.	Put-Up	Size AWG	Str.	O.D.
493	100'	12	7/20	.10
1670	100'	14	7/22	.07
1639	1000'	14	7/22	.07
1673	100'	15	7/23	.06
1634	1000'	15	7/23	.06
1680	100'	16	7/24	.06
1647	1000'	16	7/24	.06
681	100'	18	7/26	.05
1648	1000'	18	7/26	.05
700	100'	19	7/27	.04
1741	1000'	19	7/27	.04

PUT-UP: 100' COIL 1000' SPO

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See Pages 1660-1665 for Birnbach Prices for Above Items

Birnbach

GOV'T. SPEC HOOK-UP WIRE • MIL-W-1687D SPEC WIRE • TEFLON* CABLES

BIRNBACH

SPECIFICATION MIL-W-16878D TYPE E—600 VOLT

HIGH TEMPERATURE RATING —90° TO +250°C

Chemically inert, non-flammable, excellent flexibility, easy stripping, high dielectric strength, unaffected by fungus. Exceeds Class H insulation requirements. Unaffected by high or low temperature. Outstanding for its dependability and long life under all operating conditions indoors or outdoors. Teflon permits miniaturization and compactness in electronic designs of sub-miniature components, computers, UHF equip., slip ring assemblies, leads to hermetically sealed and potted components, telemetering equip. and guided missiles. Nom. wall .010". TFE extruded.

DESCRIPTION: Single conductor silver plated copper wire concentrically stranded and insulated with extruded or Teflon insulation.

Cat. No.	Size AWG	Mil Type Designation	Strand	Diam. Over Insulation Max.
8532	32	E-32	7/40	.033"
8530	30	E-30	7/38	.036"
8528	28	E-28	7/36	.039"
8526	26	E-26	7/34	.043"
8524	24	E-24	19/36	.048"
8522	22	E-22	19/34	.054"
8520	20	E-20	19/32	.062"
8518	18	E-18	19/30	.074"
8516	16	E-16	19/29	.087"
8514	14	E-14	19/27	.097"
8512	12	E-12	19/25	.120"
8510	10	E-10	37/26	.139"

***Duponts Tetrafluoroethylene Resin. Cat. Nos. 8534 thru 8552 available Per MIL-W-7139A TEFLON AIRCRAFT SPEC./Per MIL-W-27300A (USAF), also NAS-703 Cable conforming to MIL-C-27500 SPEC.**

STD. PUT-UP: 100 ft., 500 ft., 1000 ft.

Colors: Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray, White. Additional special custom constructions available to order. Wrapped extruded with or without shielding, glass braid, silicone and in miniature multi-conductors. Price and delivery on request.

MIL-W-16878D TEFLON* WIRE

TYPE EE—EXTRUDED (1000 VOLTS) MIL-W-16878D

DESCRIPTION: Single conductor silver plated copper wire concentrically stranded and insulated with .016" TFE extruded TEFLON* insulation. Temperature rating —90°C to +260°C 1000 volts.

Cat. No.	Mil Type Designation	Size AWG	Strand	Nom. O.D.
9524	EE-24	24	19/36	.055"
9522	EE-22	22	19/34	.062"
9520	EE-20	20	19/32	.070"
9518	EE-18	18	19/30	.080"
9516	EE-16	16	19/29	.089"
9514	EE-14	14	19/27	.106"
9512	EE-12	12	19/25	.124"
9510	EE-10	10	37/26	.145"
9508	EE-8	8	133/29	.210"

STANDARD SPOOL PUT-UP: 250 ft. 500 ft., 1000 ft.

STOCK COLORS: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow, 6—Blue, 7—Brown, 8—Orange, 9—Gray (Slate), 10—Violet (Purple).

*TEFLON—Dupont

SUBMINIATURE TEFLON* HOOK-UP WIRE

PER MIL-W-16878D TYPE ET 250 VOLTS, 200°C

This new exceptionally thin miniature hook-up wire is suitable in miniature slip ring asemblies, as interconnecting wire between wafers in micro-miniature electronic circuitry, instrument wire, medical wire, subminiature thermo-couple lead wire, strain gauge wire, etc. Provides lighter weight, greater flexibility and hi temperature resistance. Size Nos. 32 thru 20 conform to MIL-W-16878D type ET 250 volts, 200°C.

Cat. No.	Mil Type Designation	AWG Size	Strand	Nom. O.D.
8550/36	———	36	7/44	.018"
8550/34	———	34	7/42	.020"
8550/32	ET-32	32	7/40	.021"
8550/30	ET-30	30	7/38	.024"
8550/28	ET-28	28	7/36	.027"
8550/26	ET-26	26	7/34	.031"
8550/24	ET-24	24	7/32	.036"
8550/22	ET-22	22	7/30	.042"
8550/20	ET-20	20	7/28	.049"

STANDARD SPOOL PUT-UPS: 500 ft., 1000 ft.

MIL-W-7139B

600 VOLTS TEMPERATURE RATING +200°C to +260°C

CLASS 1

SILVER COATED COPPER CONDUCTOR FOR +200°C OPERATION

CLASS 2

NICKEL COATED COPPER CONDUCTOR FOR +260°C OPERATION

Cat. No. Class 1	Cat. No. Class 2	Size AWG	Strand	Nom. O.D.
8700-22	8701-22	22	19/34	.085"
8700-20	8701-20	20	19/32	.095"
8700-18	8701-18	18	19/30	.110"
8700-16	8701-16	16	19/29	.130"
8700-14	8701-14	14	19/27	.143"
8700-12	8701-12	12	19/25	.163"

ADDITIONAL SIZES AVAILABLE

STANDARD SPOOL PUT-UPS: 500 ft., 1000 ft.

STANDARD COLOR: Class 1, White/ Blue Tracer
Class 2 White/Orange Tracer

SHIELDED AND UNSHIELDED TEFLON* CABLES

TO MIL-W-16878D

DESCRIPTION: One or more conductors, each conductor silver plated concentrically stranded copper wire, Type E Extruded TFE .010" insulation. When shielded, braided silver plated copper shield over conductor(s), 90% shield coverage. When covered, either a TEFLON* impregnated fiberglass braid or a .010" TEFLON* fused, double reversed tape jacket overall. Temperature —65° to +260°C. Voltage rating 600V. Fungus, solvent, moisture, flame, acid, alkali and oil resistant.

TEFLON* IMPREGNATED FIBERGLASS BRAID OVER SHIELD

Cat. No.	Conds.	AWG Size	Strand	Nom. O.D.	Cat. No.	Conds.	AWG Size	Strand	Nom. O.D.
8706	1	24	19/36	.081"	8712	1	20	19/32	.093"
8706/2	2	24	19/36	.126"	8712/2	2	20	19/32	.154"
8706/3	3	24	19/36	.133"	8712/3	3	20	19/32	.163"
8706/4	4	24	19/36	.144"	8712/4	4	20	19/32	.180"
8706/5	5	24	19/36	.156"	8712/5	5	20	19/32	.195"
8709	1	22	19/34	.088"	8715	1	18	19/32	.097"
8709/2	2	22	19/34	.137"	8715/2	2	18	19/30	.162"
8709/3	3	22	19/34	.144"	8715/3	3	18	19/30	.172"
8709/4	4	22	19/34	.158"	8715/4	4	18	19/30	.192"
8709/5	5	22	19/34	.172"	8715/5	5	18	19/30	.207"

STD. PUT-UP: 250 ft., 500 ft., 1000 ft.

CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow.

TEFLON* TAPE WRAP JACKET OVER SHIELD

Cat. No.	Conds.	AWG Size	Strand	Nom. O.D.
8521	1	24	19/36	.084"
8521/2	2	24	19/36	.128"
8521/3	3	24	19/36	.135"
8521/4	4	24	19/36	.148"
8521/5	5	24	19/36	.162"
8523	1	22	19/34	.090"
8523/2	2	22	19/34	.140"
8523/3	3	22	19/34	.148"
8523/4	4	22	19/34	.162"
8523/5	5	22	19/34	.183"
8525	1	20	19/32	.099"
8525/2	2	20	19/32	.158"
8525/3	3	20	19/32	.167"
8525/4	4	20	19/32	.184"
8525/5	5	20	19/32	.204"
8527	1	18	19/30	.109"
8527/2	2	18	19/30	.178"
8527/3	3	18	19/30	.189"
8527/4	4	18	19/30	.208"
8527/5	5	18	19/30	.230"

STD. PUT-UP: 250 ft., 500 ft., 1000 ft.

CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow.

SHIELDED BRAID OVERALL

Cat. No.	Conds.	AWG Size	Strand	Nom. O.D.
8704	1	24	19/36	.068"
8704/2	2	24	19/36	.112"
8704/3	3	24	19/36	.120"
8704/4	4	24	19/36	.132"
8704/5	5	24	19/36	.140"
8707	1	22	19/34	.075"
8707/2	2	22	19/34	.124"
8707/3	3	22	19/34	.132"
8707/4	4	22	19/34	.146"
8707/5	5	22	19/34	.154"
8710	1	20	19/32	.082"
8710/2	2	20	19/32	.142"
8710/3	3	20	19/32	.151"
8710/4	4	20	19/32	.168"
8710/5	5	20	19/32	.180"
8713	1	18	19/30	.093"
8713/2	2	18	19/30	.162"
8713/3	3	18	19/30	.172"
8713/4	4	18	19/30	.191"
8713/5	5	18	19/30	.210"

STD. PUT-UP: 250 ft., 500 ft., 1000 ft.

CONDUCTOR COLOR CODE: 1—White, 2—Black 3—Red, 4—Green, 5—Yellow.

NO SHIELD—TEFLON* IMPREGNATED FIBERGLASS

Cat. No.	Conds.	AWG Size	Strand	Nom. O.D.
8705	1	24	19/36	.044"
8705/2	2	24	19/36	.088"
8705/3	3	24	19/36	.096"
8705/4	4	24	19/36	.108"
8705/5	5	24	19/36	.116"
8708	1	22	19/34	.051"
8708/2	2	22	19/34	.100"
8708/3	3	22	19/34	.108"
8708/4	4	22	19/34	.122"
8708/5	5	22	19/34	.131"
8711	1	20	19/32	.058"
8711/2	2	20	19/32	.118"
8711/3	3	20	19/32	.127"
8711/4	4	20	19/32	.144"
8711/5	5	20	19/32	.156"
8714	1	18	19/30	.069"
8714/2	2	18	19/30	.138"
8714/3	3	18	19/30	.148"
8714/4	4	18	19/30	.167"
8714/5	5	18	19/30	.186"

STD. PUT-UP: 250 ft., 500 ft., 1000 ft.

CONDUCTOR COLOR CODE: 1—White, 2—Black 3—Red, 4—Green, 5—Yellow.

See Pages 1660-1665 for Birnbach Prices for Above Items

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Birnbach

MIL-W-1687D HOOK-UP WIRE
MIL-W-76B HOOK-UP WIRE

PLASTIC HOOK-UP WIRE
SPECIFICATION MIL-W-16878D
TYPE B—HIGH TEMPERATURE VINYL
600 VOLT

Suitable for general purpose wiring for miniature high temperature hook-ups in aircraft, electronic instruments, devices, etc., where excellent resistance to moisture and solvents may be required.

DESCRIPTION: One conductor stranded tinned copper with rated —55°C to +105°C high temperature thermoplastic light wall insulation. The letter "N" after Catalog Number designates clear Nylon Jacket overall. 115°C. Nom. Wall .010".

Cat. No.	Mil-W-16878D Type Designation	Size AWG	Conductor Strand	Nom. O.D.
7190	B-32	32	7/40	.028"
7191	B-30	30	7/38	.030"
7192	B-28	28	7/36	.033"
7193	B-26	26	7/34	.037"
7194	B-24	24	7/32	.043"
7195	B-22	22	7/30	.048"
7196	B-20	20	7/28	.057"
7197	B-18	18	7/26	.067"
7198	B-16	16	19/29	.077"

STD. PUT-UP 100'-1000'

TYPE B—NYLON JACKET
NYLON JACKET THICKNESS: 32-20 .002, 18-16 .003

7190N	1000'	B-32	32	7/40	.010"	600	.032"
7191N	1000'	B-30	30	7/38	.010"	600	.036"
7192N	1000'	B-28	28	7/36	.010"	600	.039"
7193N	1000'	B-26	26	7/34	.010"	600	.042"
7194N	1000'	B-24	24	7/32	.010"	600	.047"
7195N	1000'	B-22	22	7/30	.010"	600	.053"
7196N	1000'	B-20	20	7/28	.010"	600	.065"
7197N	1000'	B-18	18	7/26	.010"	600	.075"
7198N	1000'	B-16	16	19/29	.010"	600	.085"

STD. PUT-UP 1000 FT.

STOCK COLORS: Black, Red, Brown, Blue, Orange, White, Yellow, Green, Gray, Purple

White/Black	White/Yellow	White/Orange
White/Red	White/Blue	White/Gray
White/Green	White/Brown	White/Violet

SPECIFICATION MIL-W-16878D
TYPE C—HIGH TEMPERATURE—VINYL JACKET
1000 VOLT

DESCRIPTION: One Conductor Similar to Type B—Heavier Wall Hi-Temp Thermoplastic Insulation. Nom. Wall .016".

Cat. No.	Mil-W-16878C Type Designation	Size AWG	Minimum Strand	Nom. O.D.
7170	C-24	24	7/32	.058"
7171	C-22	22	7/30	.064"
7172	C-20	20	7/28	.073"
7173	C-18	18	7/26	.085"
7174	C-16	16	19/29	.095"
7175	C-14	14	19/27	.109"

TYPE C—NYLON JACKET
NYLON JACKET THICKNESS: 24 .002, 22, 20. 18 .003,16-14 .004

7170N	C-24	24	7/32	.065"
7171N	C-22	22	7/30	.072"
7172N	C-20	20	7/28	.079"
7173N	C-18	18	7/26	.090"
7174N	C-16	16	19/29	.099"
7175N	C-14	14	19/27	.114"

STOCK COLORS: Black, Red, Brown, Blue, Orange, White, Yellow, Green, Gray, Purple. Also available in tracer colors. Additional types available to order.

STD. PUT-UP 100 FT.-1000 FT.

SPECIFICATION MIL-W-16878D
TYPE D—HIGH TEMPERATURE—VINYL—3000 VOLTS

DESCRIPTION: One Conductor Stranded Similar to Type C—Heavier Wall Hi-Temp Thermoplastic Insulation. Nom. Wall 24 thru 14 .032, 12 thru 6 .040.

Cat. No.	Mil-W-16878D Type Designation	Size AWG	Cond. Strand	Nom. O.D.
7180	D-24	24	7/32	.084"
7181	D-22	22	7/30	.089"
7182	D-20	20	10/30	.097"
7183	D-18	18	16/30	.107"
7184	D-16	16	26/30	.116"
7185	D-14	14	41/30	.130"
7186	D-12	12	65/30	.163"
7187	D-10	10	105/30	.182"
7188	D- 8	8	133/29	.247"
7189	D- 6	6	133/27	.291"

MIL-W-16878B Type D Available with Nylon Jacket.

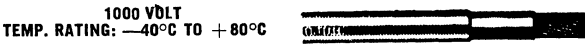
STD. PUT-UP 100 FT.-1000 FT.

ALL WIRES ON THIS PAGE CAN BE ORDERED CUT AND STRIPPED TO YOUR SPECIFICATIONS.

SPECIFICATION MIL-W-76B TYPE MW
(Medium Wall) PLASTIC HOOK-UP WIRE
TYPE MW 1000 VOLTS (Fungus Proof)
SUPERSEDES JAN-C-76 TYPE SRIR

1000 VOLT

TEMP. RATING: —40°C TO +80°C



STRANDED

Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. Wall	Nom. O.D.
7024	1000'	24	MW-C 24(16)U	16/36	.015"	.074"
7024-S	1000'	24	MW-C 24(16)U	16/36	.015"	.085"
7001	1000'	22	MW-C 22(7)U	7/30	.017"	.085"
*†7001-S	1000'	22	MW-C 22(7)U	7/30	.017"	.098"
7003	1000'	20	MW-C 20(10)U	10/30	.017"	.114"
*†7003-S	1000'	20	MW-C 20(10)U	10/30	.017"	.132"
7005	1000'	18	MW-C 18(16)U	16/30	.017"	.055"
*7005-S	1000'	18	MW-C 18(16)U	16/30	.017"	.055"
7007	1000'	16	MW-C 16(26)U	26/30	.017"	.066"
7009	1000'	14	MW-C 14(41)U	41/30	.017"	.066"
7011	1000'	12	MW-C 12(65)U	65/30	.017"	.074"
			SOLID			
7000	1000'	22	MW-C 22(1)U	1	.017"	.061"
7002	1000'	20	MW-C 20(1)U	1	.017"	.068"
7004	1000'	18	MW-C 18(1)U	1	.017"	.075"

STD. PUT-UP 100 FT.-1000 FT.

STOCK COLORS: White, Yellow, Lt. Blue, Black, Violet (purple), Blue, Brown, Lt. Green, Pink, Red, Green, Tan, Orange, Gray (slate).

***SINGLE SPIRAL TRACER COLORS AVAILABLE:**

White/Black	White/Orange	White/Blue
White/Brown	White/Yellow	White/Purple
White/Red	White/Green	White/Gray

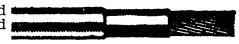
†DOUBLE SPIRAL TRACER COLORS AVAILABLE:

White/Black/Red	White/Black/Blue	White/Black/Gray
White/Black/Green	White/Black/Brown	White/Black/Purple
White/Black/Yellow	White/Black/Orange	

Additional spiral tracer combination available, to order, for all numbers.

SPECIFICATION MIL-W-76B TYPE MW
(Medium Wall)—NYLON JACKET 1000 VOLT
(Fungus Proof)
(Supersedes Jan-C-76 Types SRIR and WL Nylon Jacket)

DESCRIPTION: One conductor stranded tinned copper with thermoplastic insulation and extruded nylon jacket overall.



TEMP. RATING: —40°C TO +90°C

Cat. No.	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. Wall	Nom. O.D.
7224	24	MW-C 24(16)J	16/36	.015"	.068"
*7222	22	MW-C 22(7)J	7/30	.017"	.075"
*7220	20	MW-C 20(10)J	10/30	.017"	.087"
*7218	18	MW-C 18(16)J	16/30	.017"	.100"
7216	16	MW-C 16(26)J	26/30	.017"	.122"
7214	14	MW-C 14(41)J	41/30	.017"	.122"
7212	12	MW-C 12(65)J	65/30	.017"	.140"
7210	10	HW-C 10(105)J	105/30	.045"	.240"

STD. PUT-UP 100 FT.-1000 FT.

NYLON JACKET THICKNESS: #24 .002; 22, 20, 18 .003; 16, 14 .004; 12 .005; 10 .007.

STOCK COLORS: White, Orange, Purple, Black, Yellow, Gray, Brown, Green, Red, Blue.

White/Black	White/Yellow	White/Gray	White/Black/Green
White/Brown	White/Green	White/Black/Red	White/Black/Orange
White/Red	White/Blue	White/Black/Yellow	White/Black/Brown
White/Orange	White/Purple	White/Black/Blue	White/Black/Gray

*In addition Nos. 7218, 7220, 7222, available in Red/Black and Black/White. Nos. 7212. 7210 available solid colors only.

SPECIFICATION MIL-W-76B
TYPE MW (Medium Wall)—GLASS BRAID 1000 VOLTS
(Supersedes Jan-C-76 Types SRIR and WL Glass Braid)

DESCRIPTION: One conductor stranded tinned copper with thermoplastic insulation and lacquered glass braid overall.

Nom. Wall 1.017"

TEMP. RATING: —40°C TO +80°

Cat No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. O.D.
7022	100'-1000'	22	MW-C 22(7)B	7/30	.079"
7020	100'-1000'	20	MW-C 20(10)B	10/30	.084"
7018	100'-1000'	18	MW-C 18(16)B	16/30	.100"
7016	100'-1000'	16	MW-C 16(26)B	26/30	.116"
*7014	100'-1000'	14	MW-C 14(41)B	41/30	.129"
*7012	100'-1000'	12	MW-C 12(65)B	65/30	.149"

STOCK COLORS: White, Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray, White/Brown, White/Black, White/Orange, White/Yellow, White/ Green, White/Blue, White/Red, White/Gray, White/Purple, White/Black/Red, White/Black/Yellow, White/Black/Blue, White/Black/Green, White/Black/Orange, White/Black/Brown, White/Black/Gray. *Nos. 7014, 7012, available stock in solid colors.

TYPE HW (Heavy Wall)—GLASS BRAID
(Supersedes Jan-C-76 Type SRHV—Glass Braid)

TEMP. RATING: —40°C TO +80° C **NOM. WALL .045"**

Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. O.D.
7010	100'-1000'	10	HW-C 10(105)B	105/30	.237"
7008	100'-1000'	8	HW-C 8(133)B	133/29	.293"
7006	100'-1000'	6	HW-C 6(133)B	133/27	.340"

STOCK COLORS: White, Black. Also multi-conductors can be formed to order twisted, shielded with or without plastic jacket overall.

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See Pages 1660-1665 for Birnbach Prices for Above Items

Birnbach

MIL-W-76B, MIL-W-1687D WIRE • CABLE
HIGH TEMP. COAX CABLES PER MIL-C-17C

BIRNBACH

SPECIFICATION MIL-W-76B
TYPE HW (Heavy Wall)—2500 VOLTS (Fungus Proof)

600 VOLTS SIZES—14 through 6—(Supersedes Jan-C-76 Type SRHV)—Temp. Rating—40°C to 80°C
Nom. Wall Size—22 through 16 .033: Size 14 through 6 .045

DESCRIPTION: Similar to type MW. One conductor stranded tinned copper with larger wall of primary thermoplastic insulation to take 2500 V RMS.

Cat. No.	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. O.D.
7322	22	HW-C 22(7)U	7/30	.105″
7320	20	HW-C 20(10)U	10/30	.112″
7318	18	HW-C 18(16)U	16/30	.122″
7316	16	HW-C 16(26)U	26/30	.135″
7314	14	HW-C 14(41)U	41/30	.175″
7312	12	HW-C 12(65)U	65/30	.195″
*7013	10	HW-C 10(105)U	105/30	.217″
*7015	8	HW-C 8(133)U	133/29	.268″
*7017	6	HW-C 6(133)U	133/27	.315″

STD. PUT-UP 100′-1000′

STOCK COLORS: White, Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray. Additional sizes, colors available to order.

SPECIFICATION MIL-W-76B TYPE LW (Light Wall) TYPE LW—LW—VINYL TYPE LW—LW—NYLON 300 VOLTS

DESCRIPTION: One conductor stranded tinned copper with light wall of primary thermoplastic insulation. Nom. Wall .010″.
TEMP. RATING —40°C TO +80°C

Cat. No.	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. O.D.
7330	30	LW-C 30(7)U	7/38	.033″
7328	28	LW-C 28(7)U	7/36	.035″
7326	26	LW-C 26(10)U	10/36	.040″
7324	24	LW-C 24(7)U	7/32	.044″
7324/22	22	LW-C 22(7)U	7/30	.050″
7324/20	20	LW-C 20(7)U	7/28	.060″

Cat. No.	Size AWG	Mil-W-76B Type Designation	Nom. Wall	Nom O.D.
7330N	30	LW-C 30(7)J	7/38	.036″
7328N	28	LW-C 28(7)J	7/36	.039″
7326N	26	LW-C 26(7)J	7/34	.042″
7324N	24	LW-C 24(7)J	7/32	.047″
7324/20N	20	LW-C 22(7)U	7/30	.053″
7324/22N	22	LW-C 20(7)U	7/28	.065″

MIL-W-16878D
TYPE C—SHIELDED 1000 V

DESCRIPTION: Stranded tinned copper, .016″ wall white polyvinyl-chloride insulation, braided tinned copper shield overall temp. rating —55°C to +105°C 1000 volts.

Cat. No.	Size AWG	Min. Strand	Nom. Wall	Nom. O.D.
7178/24	24	7/32	.016″	.075″
7178/22	22	7/30	.016″	.085″
7178/20	20	7/28	.016″	.095″
7178/18	18	7/26	.016″	.105″
7178/16	16	19/26	.016″	.115″

STD. PUT-UP: 1000 FT.

MIL-W-16878D
TYPE C—SHIELDED—VINYL JACKET 1000V

DESCRIPTION: Stranded tinned copper, .016″ wall white with polyvinylchloride insulation braided tinned copper shield with polyvinylchloride jacket overall. Resistant to acids, oil, alkalies, flame, fungus, solvents, moisture. Temp. rating —55°C to +105°C.

Cat. No.	Size AWG	Min. Strand	Nom. Wall	Nom. O.D.
7179/24	24	7/32	.016″	.094″
7179/22	22	7/30	.016″	.104″
7179/20	20	7/28	.016″	.112″
7179/18	18	7/26	.016″	.120″
7179/16	16	19/29	.016″	.133″

STD. PUT-UP: 1000 FT.

BIRNBACH COAXIAL CABLES WITH HIGH TEMPERATURE TEFLON* CORE DIELECTRIC
MEETS MIL-C-17C

These Teflon* Core Dielectric Co-Axial Cables combine both miniaturization and hi-temperature qualities. The Teflon Jackets are weatherproof, resistant to fuels and are extremely flexible.

Birnbach No.	Military Number RG/U Type	Ohms	Jkt. Mtl.	Cap. MMF/Ft.	Dielectric Material	Inner Conductor	Shield	O.D. Inches	Max. Oper. Volts RMS	Nom. Atten. DB/100 Ft. 400 Mc	RG/U Type
B161/U	161/U	70	Black Nylon	20	Teflon	7/38 Silvered Cad. Bronze	Silver Covered Copper	.082	1000	17.4	161/U
B178/U	178/U	50	Kel-F	28.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.075	1000	28.0	178/U
B178A/U	178A/U	50	Kel-F	28.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.075	1000	28.0	178A/U
B178B/U	178B/U	50	FEP Teflon	28.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.075	1000	28.0	178B/U
B179/U	179B/U	70	Kel-F	19.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.090	1200	16.0	179/U
B179A/U	179A/U	75	Kel-F	19.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.105	1200	16.0	179A/U
B179B/U	179B/U	75	FEP Teflon	19.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.105	1200	16.0	179B/U
B180/U	180/U	93	Kel-F	15.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.141	1500	11.0	180/U
B180A/U	180A/U	95	Kel-F	15.0	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.145	1500	11.0	180A/U
B180B/U	180B/U	95	FEP Teflon	15.0	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.145	1500	11.0	180B/U
B187/U	187/U	75	TFE	19.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.110	1200	16.0	187/U
B187A/U	187A/U	75	Teflon	19.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.110	1200	16.0	187A/U
B188/U	188/U	50	TFE Teflon	29.0	Teflon	7/.0067 Silvered Copperweld	Silver Covered Copper	.110	1200	16.7	188/U
B188A/U	188A/U	50	TFE Teflon	29.0	Teflon	7/.0067 Silvered Copperweld	Silver Covered Copper	.110	1200	16.7	188A/U
B195/U	195/U	95	TFE Teflon	15.0	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.155	1500	11.0	195/U
B195A/U	195A/U	95	TFE Teflon	15.0	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.155	1500	11.0	195A/U
B196/U	196/U	50	TFE Teflon	28.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.080	1000	28.0	196/U
B196A/U	196A/U	50	TFE Teflon	28.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.080	1000	28.0	196A/U
B316/U	316/U	50	FEP Teflon	29.0	Teflon	7/.0067 Silvered Copperweld	Silver Covered Copper	.110	1200	16.7	316/U

STD. PUT-UP: 500 Ft., 1000 Ft. *TEFLON—DUPONT

See Pages 1660-1665 for Birnbach Prices for Above Items
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Birnbach

SHIELDED PLASTIC HOOK-UP WIRE MIL-W-76B • SHIELDED • NYLON VINYL JACKETS • AIRCRAFT PLASTIC HOOK-UP WIRE MIL-W-5086A, MIL-C-7078A

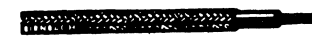
BIRNBACH

SHIELDED PLASTIC HOOK-UP WIRE

SPECIFICATION MIL-W-76B TEMPERATURE RATING: —40°C TO +80°C TYPE MW (Medium Wall) — SHIELDED

DESCR.: One conductor stranded tinned copper with thermoplastic insulation and tinned copper shielded braid overall.

(Supersedes Jan-C-76 Type SRIR Shielded)



Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Minimum Strand	Nom. Wall	Volt Rating	Nom. O.D.
7074	1000′	24	MW-C 24(16)S	16/36	.015″	1000	.074″
7074-1	100′	24	MW-C 24(16)S	16/36	.015″	1000	.074″
7072	1000′	22	MW-C 22(7)S	7/30	.017″	1000	.084″
7072-1	100′	22	MW-C 22(7)S	7/30	.017″	1000	.084″
7070	1000′	20	MW-C 20(10)S	10/30	.017″	1000	.094″
7070-1	100′	20	MW-C 20(10)S	10/30	.017″	1000	.094″
7068	1000′	18	MW-C 18(16)S	16/30	.017″	1000	.106″
7068-1	100′	18	MW-C 18(16)S	16/30	.017″	1000	.106″
7067	1000′	16	MW-C 16(26)S	26/30	.017″	1000	.121″
7067-1	100′	16	MW-C 16(26)S	26/30	.017″	1000	.121″
*7066	1000′	14	MW-C 14(41)S	41/30	.017″	1000	.137″
*7065	1000′	12	MW-C 12(65)S	65/30	.017″	1000	.155″

STOCK COLORS: (Underneath Shield) Black, White, Red, Yellow, Brown, Green, Blue, Gray. *Nos. 7066, 7065, available from stock in Black, White or Red

ALL WIRES ON THIS PAGE CAN BE ORDERED CUT AND STRIPPED TO YOUR SPECIFICATIONS.

Also multiconductor can be formed to order twisted shielded, with or without plastic Jacket overall.

SHIELDED PLASTIC HOOK-UP WIRE

SPECIFICATION MIL-W-76B TYPE MW—SHIELDED—NYLON JACKET

DESCRIPTION: One conductor stranded tinned copper, white medium wall polyvinyl chloride insulation, shielded tinned copper braid, minimum 80% coverage, clear nylon (polymide) jacket overall. Temperature rating —40° to +90°C. Resistant to acids, alkalis, oil, flame, moisture, fungus.

Cat.No.	Spool	Size AWG	MIL-W-76A Type Designation	Strand	Nom. Wall	Volt Rating	Nom. OD.
7074J	1000′	24	MW-C24(16)SJ	16/36	.015″	1000	.091″
7072J	1000′	22	MW-C22(7)SJ	7/30	.017″	1000	.100″
7070J	1000′	20	MW-C20(10)SJ	10/30	.017″	1000	.105″
7068J	1000′	18	MW-C18(16)SJ	16/30	.017″	1000	.115″
7067J	1000′	16	MW-C16(26)SJ	26/30	.017″	1000	.125″
7066J	1000′	14	MW-C14(41)SJ	41/30	.017″	1000	.138″
7065J	1000′	12	MW-C12(65)SJ	65/30	.017″	1000	.160″

Additional colors available to order.

SPECIFICATION MIL-W-76B TYPE MW—SHIELDED—VINYL JACKET

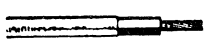
DESCRIPTION: One conductor stranded tinned copper, white mediun wall polyvinyl chloride insulation, shielded tinned copper braid, mini mum 80% coverage, black PVC (polyvinylchloride) jacket overall Temperature rating —40° to +90°C. Resistant to acids, alkalis oil, flame, moisture, fungus.

Cat.No.	Spool	Size AWG	MIL-W-76A Type Designation	Strand	Nom. Wall	Volt Rating	Nom. OD.
7074VJ	1000′	24	MW-C24(16)SJ	16/36	.015″	1000	.095″
7072VJ	1000′	22	MW-C22(7)SJ	7/30	.017″	1000	.105″
7070VJ	1000′	20	MW-C20(10)SJ	10/30	.017″	1000	.112″
7068VJ	1000′	18	MW-C18(16)SJ	16/30	.017″	1000	.120″
7067VJ	1000′	16	MW-C16(26)SJ	26/30	.017″	1000	.133″
7066VJ	1000′	14	MW-C14(41)SJ	41/30	.017″	1000	.148″
7065VJ	1000′	12	MW-C12(65)SJ	65/30	.017″	1000	.170″

Additional colors available to order.

AIRCRAFT PLASTIC HOOK-UP WIRE

SPECIFICATIONS MIL-W-5086A and MIL-C-7078A (105°C Rating)



No. 7351

Used where a single conductor, 600-volt insulated wire, is required. This aircraft electrical wire is resistant to effects of salt water, oils, aircraft engine fuels, alcohol, fungus, heat, cold, salt water, abrasion, meets -65°F temperature test.

DESCRIPTION: Type 1 MIL-W-5086A One conductor stranded tinned copper with plastic insulation, nylon jacket overall. **Type 2 MIL-W-5086A**—one conductor stranded tinned copper, plastic insulation, nylon lacquered glass braid. Color: White.

NYLON JACKET

No. 7371

MIL-W-5086A UNSHIELDED (Supersedes AN-J-C-48A) 600 Volt Rating

Cat. No.	Size AWG	Mil. Type	Type	Cond. Strand.	Nom. O.D.	Cat. No.	Size AWG	Mil. Type	Type	Cond. Strand.	Nom. O.D.
7351	22	AN-22	No. 1	19/34	070″	7365/2	2	AN-2	No. 2	665/30	412″
7353	20	AN-20	No. 1	19/32	080″	7365/0	0	AN-0	No. 2	1045/30	518″
7355	18	AN-18	No. 1	19/30	090″	7365/00	00	AN-00	No. 2	1330/30	588″
7357	16	AN-16	No. 1	19/29	100″	7351 NB	22	AN-22	No. 2	19/34	068″
7359	14	AN-14	No. 1	19/27	125″	7353 NB	20	AN-20	No. 2	19/32	078″
7361	12	AN-12	No. 1	19/25	140″	7355 NB	18	AN-18	No. 2	19/30	088″
7363	8	AN-8	No. 2	133/29	240″	7357 NB	16	AN-16	No. 2	19/29	098″
7364	6	AN-6	No. 2	133/27	297″	7359 NB	14	AN-14	No. 2	19/27	117″
7365	4	AN-4	No. 2	133/25	355″	7361 NB	12	AN-12	No. 2	19/25	137″
						7362 NB	10	AN-10	No. 2	49/27	189″

MIL-C-7078A SHIELDED (Supersedes An-C-168)

7371	22	AN-22	No. 1	19/34	100″	7374	16	AN-16	No. 1	19/29	139″
7372	20	AN-20	No. 1	19/32	110″	7375	14	AN-14	No. 1	19/27	158″
7373	18	AN-18	No. 1	19/30	124″	7376	12	AN-12	No. 1	19/25	177″

DESCRIPTION: One conductor stranded tinned copper with plastic insulation, nylon jacket with tinned copper shielded braid overall. Color: White under shield 1,000′ Spools. Additional types to order.

ALL WIRE ON THIS PAGE CAN BE CUT AND STRIPPED TO YOUR SPECIFICATION

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See Pages 1660-1665 for Birnbach Prices for Above Items

Birnbach — HIGH VOLTAGE, SILICONE HOOK-UP WIRE

KEL-F HOOK-UP, CATHODE RAY, 105° UL

200° C. BIRSIL SILICONE RUBBER HOOK-UP LEAD WIRE 600 VOLT

This Birsil Silicone Rubber Hook up lead wire withstands extreme temperature range and flexibility from —104° C. to +400° F. with retention of physical properties and is highly resistant to flex cracking at temperature extremes; fungus resistant; corona resistant; engineered for high-heat and hi-frequency applications; low power factor; acid-alkali-oil resistant; low dielectric constant; insulation appproaching mica. Approved by U. L. but consumer must apply for Underwriter's Laboratories approval for individual product.

Cat. No.	Spool	Size AWG	Strand	Nom. Ins. Wall	Volt Rating	Breakdown Voltage AC	Nom. O.D.
7622	1000′	22	7/30	1/32″	600	11,500	105″
7622-1	100′	22	7/30	1/32″	600	11,500	105″
7620	1000′	20	10/30	1/32″	600	18,000	121″
7620-1	100′	20	10/30	1/32″	600	18,000	121″
7618	1000′	18	16/30	1/32″	600	21,000	128″
7618-1	100′	18	16/30	1/32″	600	21,000	128″
7616	1000′	16	26/30	1/32″	600	20,000	144″
7616-1	100′	16	26/30	1/32″	600	20,000	144″
7614	1000′	14	41/30	1/32″	600	15,500	165″
7614-1	100′	14	41/30	1/32″	600	15,500	165″
7612	1000′	12	65/30	1/32″	600	14,500	185″
7612-1	100′	12	65/30	1/32″	600	14,500	185″
7610	1000′	10	65/28	3/64″	600	20,000	240″
7610-1	100′	10	65/28	3/64″	600	20.000	240″
7608	1000′	8	84/27	1/16″	2300		320″

Additional sizes and colors available to order. **Types F and FF per MIL-W-16878D available to order.**

DESCRIPTION:

One conductor, tinned copper strands, silicone rubber insulation, glass braid, lacquered. Color: White.

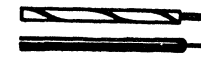
STD. PUT-UP 100 FT.-1000 FT.

BIRFLENE* KEL-F HOOK-UP WIRE

—125° C. to +175° C. MEETS MIL-W-12349-SPEC

PERFORMANCE SPECIFICATIONS:
Continuous: —60° to +175° C. **Operating Voltage:** 1000 volts RMS. **Spark Test:** 7500 volts. **Dielectric Strength:** 5000 volts at 60° C. for 1 minute. **Insulation Resistance:** Greater than 5000 Meg Ohms/1000 Ft. at 60° C. **Moisture Absorption:** Nil. **Flammability:** Non-flammable. **Resistance to Chemicals:** All solvents and acids. **Aging:** Outdoor, 1 year; no detectable change.

Cat. No.	Spool	Size AWG	Strand	Nom. Ins. Wall	Nom. O.D.
7130	1000′	30	7/38	.006″	.029″
7130-1	100′	30	7/38	.006″	.029″
7128	1000′	28	7/36	.006″	.032″
7128-1	100′	28	7/36	.006″	.032″
7126	1000′	26	7/34	.008″	.037″
7126-1	100′	26	7/34	.008″	.037″
7124	1000′	24	7/32	.008″	.043″
7124-1	100′	24	7/32	.008″	.043″
7122	1000′	22	7/30	.008″	.050″
7122-1	100′	22	7/30	.008″	.050″
7120	1000′	20	7/28	.010″	.060″
7120-1	100′	20	7/28	.010″	.060″
7118	1000′	18	16/30	.010″	.070″
7118-1	100′	18	16/30	.010″	.070″
7116	1000′	16	19/29	.010″	.079″
7116-1	100′	16	19/29	.010″	.079″



DESCRIPTION:

One conductor silver plated copper stranded, insulation — Monochloro-trifluoroethylene (Birflene Kel-F).

COLORS: White, Red, Green, Gray, Black, Orange, Dk. Blue, Lt. Blue, Brown, Yellow, Purple

Available in Spiral Tracers.

*Made with Kellogg Co. Kel-F or Bakelite Co. Fluorothene.

HI-VOLTAGE and CATHODE RAY CABLE

Used for 10,000, 20,000, 40,000, 60,000 volt applications as for cathode ray tubes in TV receivers, oscilloscopes and other electronic devices. Has dielectric constant of 2.7 and power factor of .002. Shielded Hi-Voltage type used to shield RF radiation in X-Ray, diathermy, medical equipment, and in transmitters.

Cat. No.	Spool	Size AWG	Strand	Nom. Ins. Wall	Suggested Working Voltage	Nom. O.D.
UNSHIELDED						
7402	1000′	20	10/30	.047″	10,000	.125″
7402-1	100′	20	10/30	.047″	10,000	.125″
7412	1000′	20	10/30	.068″	20,000	.169″
7412-1	100′	20	10/30	.068″	20,000	.169″
7418	1000′	18	16/30	.047″	10,000	.135″
7418-1	100′	18	16/30	.047″	10,000	.135″
7428	1000′	18	16/30	.069″	20,000	.179″
7428-1	100′	18	16/30	.069″	20,000	.179″
7448	1000′	18	16/30	.095″	40,000	.231″
7448-1	100′	18	16/30	.095″	40,000	.231″
7449	1000′	18	16/30	.123″	60,000	.285″
7449-1	100′	18	16/30	.123″	60,000	.285″
SHIELDED						
7458	1000′	18	16/30	.095″	40,000	.256″
7458-1	100′	18	16/30	.095″	40,000	.256″

DESCRIPTION:

One conductor stranded copper tinned rulan (flame retarding type) polyethylene insulation. Available white/red tracer. Temp. Rating: 105°C

Shielded: Same as above with tinned copper braided shield overall.

Special constructions available to order.

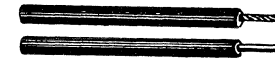
PLASTIC INSULATED HOOK-UP WIRE

Designed for the chassis, sub-chassis wiring of radio and television receivers and transmitters inside or outside the chassis. UL approved for 105° C. (221° F.) operating temperature.

105° C. — 600 VOLT RATING UL APPROVED (CSA 600V-90°C)

Cat. No.	Spool	AWG	Stranding	Nom. Wall	Volt. Breakdown	DC Ins. Res. Megs./Ft.	Max. O.D.
7201	1000′	22	7/30	.032″	18000	5000	.100″
7201-1	100′	22	7/30	.032″	18000	5000	.100″
7203	1000′	20	10/30	.032″	18000	5000	.104″
7203-1	100′	20	10/30	.032″	18000	5000	.104″
7205	1000′	18	16/30	.032″	18000	5000	.112″
7205-1	100′	18	16/30	.032″	18000	5000	.112″
7207	1000′	16	26/30	.032″	18000	5000	.129″
7207-1	100′	16	26/30	.032″	18000	5000	.129″
7202	1000′	22	Solid	.032″	18000	5000	.095″
7202-1	100′	22	Solid	.032″	18000	5000	.095″
7204	1000′	20	Solid	.032″	18000	5000	.102″
7204-1	100′	20	Solid	.032″	18000	5000	.102″

COLORS: Black, Red, Green, Yellow, Blue, Brown, White, Orange, Gray, Purple



DESCRIPTION:

One Conductor stranded annealed copper tinned, plastic insulation.

ALL WIRES ON THIS PAGE CAN BE ORDERED CUT & STRIPPED TO YOUR SPECIFICATIONS.
Also multi-conductors can be formed to order twisted, shielded with or without plastic jacket overall.

See Pages 1660-1665 for Birnbach Prices for Above Items

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Birnbach

MINIATURE, SUBMINIATURE, HIGH TEMP.
SHIELDED & MULTICONDUCTOR

BIRNBACH

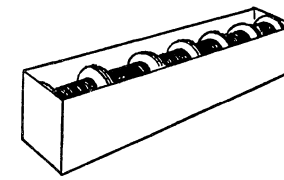
MINIATURIZATION HOOK-UP WIRE and CABLE

HIGH TEMPERATURE 105°C. — UNSHIELDED — ONE CONDUCTOR

Used in miniaturized equipment Phono-pickup lead computers transistor circuits, electro-medical and electro therapeutic apparatus, instrumentation projects, miniaturization programs, where fine sizes are required with high operating temperature.
For "Lab" requirements Miniaturization Hook-Up Wire and Cable assortments—WRITE for information.

Cat. No	Spool	No. of Cond.	Size AWG	Conductor Strand	Nom. Wall	Nom. O.D.
7534	1000′	1	34	4/40	.010″	.027″
7534-500	500′	1	34	4/40	.010″	.027″
7532	1000′	1	32	7/40	.010″	.029″
7532-500	500′	1	32	7/40	.010″	.029″
7530	1000′	1	30	7/38	.010″	.030″
7530-500	500′	1	30	7/38	.010″	.030″
7529	1000′	1	29	5/36	.010″	.030″
7529-500	500′	1	29	5/36	.010″	.030″
7528-	1000′	1	28	7/36	.010″	.035″
7528-500	500′	1	28	7/36	.010″	.035″
7527	1000′	1	27	7/35	.010″	.037″
7527-500	500′	1	27	7/35	.010″	.037″
7526	1000′	1	26	10/36	.010″	.038″
7526-500	500′	1	26	10/36	.010″	.038″
7524	1000′	1	24	16/36	.015″	.055″
7524-500	500′	1	24	16/36	.015″	.055″

STOCK COLORS: Black, Red, Green, Yellow, Blue, Brown, White, Orange, Gray, Purple

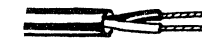


DESCRIPTION:

One conductor stranded tinned copper with 105°C. high temperature thermoplastic insulation overall.

SUB-MINIATURE — MULTI-CONDUCTOR CABLE — (Super Flexible)

DESCRIPTION: Multi-Cond. tinned copper stranded 105° C high temperature P.V.C. thermoplastic insulation. When jacketed clear P.V.C. thermoplastic used over cabled wire.



NO OUTER JACKET

Cat. No.	Spool	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall	Nom. O.D.
7652	1000′	2	30	7/38	.010″	.059″
7652	500′	2	30	7/38	.010″	.059″
7653	1000′	3	30	7/38	.010″	.065″
7653	500′	3	30	7/38	.010″	.065″
7654	1000′	4	30	7/38	.010″	.072″
7654	500′	4	30	7/38	.010″	.072″

CONDUCTOR COLOR CODE CHART:
1 Black, 2 White, 3 Red, 4 Green

CLEAR VINYL JACKET OVERALL

Cat. No.	Spool	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall Jacket	Nom. O.D.
7668	1000′	2	28	7/36	.010″	.079″
7668	500′	2	28	7/36	.010″	.079″
7669	1000′	3	28	7/36	.010″	.086″
7669	500′	3	28	7/36	.010″	.086″
7670	1000′	4	28	7/36	.010″	.095″
7670	500′	4	28	7/36	.010″	.095″

CONDUCTOR COLOR CODE CHART:
1 Black, 2 White, 3 Red, 4 Green

SUB-MINIATURE — SHIELDED HOOK-UP WIRE — (Super Flexible)

Cat. No	Spool	No. of Cond.	Size AWG	Conductor Strand	Nom. Wall	Nom. O.D.
7538	1000′	1	30	7/38	.010″	.053″
7538	500′	1	30	7/38	.010″	.053″
7535	1000′	1	28	7/36	.010″	.058″
7535	500′	1	28	7/36	.010″	.058″
7537	1000′	1	26	10/36	.010″	.061″
7537	500′	1	26	10/36	.010″	.061″
7536	1000′	1	24	16/36	.015″	.075″
7536	500′	1	24	16/36	.015″	.075″

STOCK COLOR: White (under shield)

DESCRIPTION:

One or multi-conductor stranded tinned copper with 105°C. high temperature thermoplastic insulation and tinned copper shielded braid overall.

SUB-MINIATURE — MULTI-CONDUCTOR CABLE SHIELDED — (Super Flexible)

DESCRIPTION: Multi-conductor, tinned copper stranded 105° C high temperature P.V.C. thermoplastic insulation, tinned copper shield. When jacketed clear P.V.C. Thermoplastic jacket used over tinned copper shield.

NO OUTER JACKET

Cat. No.	Spool	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall	Nom. O.D.
7542	1000′	2	24	16/36	.015″	.114″
7542/3	1000′	3	24	16/36	.015″	.123″
7542/4	1000′	4	24	16/36	.015″	.144″

CONDUCTOR COLOR CODE CHART:
1 Black, 2 White, 3 Red, 4 Green

CLEAR VINYL JACKET OVERALL

Cat. No.	Spool	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall Jacket	Nom. O.D.
7552	1000′	2	28	7/36	.010″	.137″
7552/3	1000′	3	28	7/36	.010″	.145″
7552/4	1000′	4	28	7/36	.010″	.163″

CONDUCTOR COLOR CODE CHART:
1 Black, 2 White, 3 Red, 4 Green

ALL WIRES ON THIS PAGE CAN BE ORDERED CUT & STRIPPED TO YOUR SPECIFICATIONS.
Also multi-conductors can be formed to order twisted, shielded with or without plastic jacket overall.

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See Pages 1660-1665 for Birnbach Prices for Above Items

Birnbach

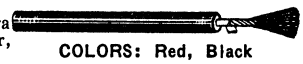
KINKLESS TEST LEAD WIRE — SHIELDED CABLE
PHONO PICKUP WIRE — SERVICE and POWER CORDS

KINKLESS TEST LEAD WIRE

Used with portable test equipment; as tested, leads in analyzers, oscillators, instruments; wherever extreme flexibility and limpness is required. Has excellent dielectric properties.

DESCRIPTION:

Nos. 61, 62—#20—41/36 extra flexible annealed tinned copper, stranded.



COLORS: Red, Black

Nos. 66, 67—#18—65/36 extra flexible annealed tinned copper stranded; paper serve; 3/64" special low capacity rubber, wax finish.

Cat. No.	Spool	Size AWG	Strand	Ins.	Puncture Voltage	Nom. O.D.
61	100'	20	41/36	3/64"	20,000 Volts	.137"
62	500'	20	41/36	3/64"	20,000 Volts	.137"
66	100'	18	65/36	3/64"	22,000 Volts	.145"
67	500'	18	65/36	3/64"	22,000 Volts	.145"

Types WS-16/U Black, WS-17/U Red, per MIL-W-13169 Specification available same construction as Birnbach #67 except compound per specification.

HEAVY DUTY HI-VOLTAGE TYPE

DESCRIPTION:

Nos. 68, 69—#18—65/36 extra flexible annealed tinned copper; stranded; paper serve; 5/64" special low capacity rubber, wax finish.

Used for oscillators, analyzers, TV, therapeutic instruments, etc.; wherever an extremely flexible high voltage lead is indicated.

Cat. No.	Spool	Size AWG	Strand	Ins.	Puncture Voltage	Nom. O.D.
68	100'	18	65/36	5/64"	29,000 Volts	.210"
69	500'	18	65/36	5/64"	29,000 Volts	.210"

For longer lengths and alternate put-ups—Specify.

SHIELDED PHONO WIRE

Used where small diameter, limpness and extreme flexibility is necessary as for phono pickup arms and grid wire.

DESCRIPTION:

#1822—Single Conductor #22-7/30 Tinned Copper Strands, Vinyl plastic insulation, close tinned copper shield braided overall.

#1824—Single Conductor #24-16/36 Extremely Flexible Tinned Copper Strands, special plastic insulation, close tinned copper shield braided overall.

#1825—Same construction as #1824 except with fine cotton braid overall.

See Page 11 for miniature and subminiature shielded wires suitable for wiring phono arm from cartridge to amplifier.

TINNED COPPER SHIELD OVERALL

Cat. No.	Spool	Strand	Cond.	Size AWG	Insul.	Nom. O.D.
1824	500'	1	24	16/36	.010"	.080"
1824M	1000'	1	24	16/36	.010"	.080"
1822	100'	1	22	7/30	.010"	.080"
1822B	500'	1	22	7/30	.015"	.090"
1822C	1000'	1	22	7/30	.015"	.090"

COTTON BRAID OVER SHIELD

1825	500'	1	24	16/36	.010"	.095"
1825M	1000'	1	24	16/36	.010"	.095"

For longer lengths and alternate put-ups—Specify.

SHIELDED GRID LEAD WIRE

Used to reduce loss in grid lead use, also to reduce interference caused by motors, high tension wires, X-ray machines, etc.

DESCRIPTION:

#820—Single Conductor #20—10/30, #818—16/30 Stranded Tinned Copper, low loss rubber insulation, cotton braid lacquered, closely woven tinned copper shield overall.

Cat. No.	Spool	Size AWG	Strand	Ins. Under Shield	Cap./Ft. Mmf.	Nom. O.D.
820	100'	20	10/30	.085"	70	.140"
818	100'	18	16/30	.085"	75	.150"

For longer lengths and alternate put-ups—Specify.

7MM HIGH TENSION CABLE

Used as hi voltage leads in electronic equipment and instruments, photo electric cell leads, automotive, etc.

DESCRIPTION:

#1600 — Unshielded One Conductor

No. 1600

#16-19/29 stranded tinned copper wire, rubber insulation, cotton braid highly lacquered.

DESCRIPTION:

#781 — Shielded Same construction as #1600 plus a closely woven tinned copper shield overall.

No. 781

Cat. No.	Spool	Size AWG	Strand	Insul.	Nom. O.D.
1600	100'	16	19/29	3/32"	.275"
781	100'	16	19/29	3/32"	.295"

Used for auto and aircraft ignition systems where grounding is required for elimination of interference.

For longer lengths and alternate put-ups—specify.

New Plastic Kinkless Test Lead Wire

New formulation vinyl compound insulation allows maximum flexibility; rough treatment; extreme variation in climatic conditions; excellent abrasion resistance; greater temperature stability from —80°C to +115°C; fungus resistant; self extinguishing-flame proof; smooth surface. Resists exposure to gasoline and oil.

DESCRIPTION: one conductor tinned copper stranded, special formulation vinyl insulation. **COLORS:** Black, Red, Yellow, Green, White, Blue.

Cat. No.	Size AWG	Strand.	Ins.	Nom. O.D.
1922	22	26/36	.032"	.100"
1920	20	26/34	.032"	.104"
1918	18	65/36	.032"	.112"
1916	16	65/34	.032"	.129"

Standard Package: 100', 500', 1000' spools.

For portable test equipment; as test leads for instrumentation exceeds the requirements for Mil-I-3930A type JP(PVC). It is superior to synthetic rubber spec MIL-R-6855 Class II Grade 60.

HI VOLTAGE LACQUERED WIRE

Used as primary wiring as for automobiles, tail, dashboard, horn, etc. Instrument leads, high voltage and primary voltage requirements

DESCRIPTION:

One Conductor tinned copper annealed stranded, rubber insulation, highly lacquered braid, oil, heat, and moisture resistant.

Cat. No.	Spool	Size AWG	Strand	Ins.	Puncture V.	Nom. O.D.
2818	100'	18	16/30	.022"	9500	.117"
2816	100'	16	19/29	.022"	9500	.127"
2814	100'	14	19/27	.022"	9500	.148"
2812	100'	12	19/25	.027"	9500	.171"
2810	100'	10	19/23	.031"	9500	.202"

For longer lengths and alternate put-ups—Specify.

LACQUERED HOOK-UP WIRE

Used in transformers, amplifiers, hook-ups, leads, etc. Strips easily for soldering.

DESCRIPTION:

No. 3462—#20-10/30 **Single Conductor** stranded tinned copper, low loss free stripping rubber insulation, cotton braid highly lacquered.

No. 3600—#18-16/30 **Single Conductor** stranded tinned copper, 1/32" low loss free stripping rubber insulation, rayon braid highly lacquered.

Cat. No.	Spool	Size AWG	Strand	Insul.	Punct. Volt.	DC Ins. Res./Ft. Meg.	Nom. O.D.
3461	100'	20	10/30	1/64"	7000	390	.090"
3462	500'	20	10/30	1/64"	7000	390	.090"
3460	100'	18	16/30	1/32"	9000	460	.125"
3600	500'	18	16/30	1/32"	9000	460	.125"

COLORS: Black, Red, Green, Yellow, Brown, Blue, White, Orange, Grey, Purple.

For longer lengths and alternate put-ups—Specify.

SHIELDED HOOK-UP & LEAD-IN WIRE

Used to prevent and reduce interference caused by motors, hi-tension cables, X-ray machines and various units radiating electrical impulses. Useful in grid circuits.

TINNED COPPER SHIELD OVER RUBBER INSULATION

DESCRIPTION:

Single Conductor, Tinned Copper Stranded, low loss rubber insulation, closely woven tinned copper shield overall.

Cat. No.	Spool	Size AWG	Strand	Ins.	Cap./Ft. Mmf.	Nom. O.D.
810	500'	20	10/30	.015"	105	.095"
803	250'	18	16/30	.015"	125	.125"
802	250'	16	26/30	.031"	90	.145"

TINNED COPPER SHIELD OVER LACQUERED BRAID

DESCRIPTION:

Single Conductor, Tinned Copper Stranded, low loss Vinyl insulation, highly lacquered glass braid, closely woven tinned copper shield overall.

Cat. No.	Spool	Size AWG	Strand.	Wall Thickness	Nom. O.D.
831	1000'	22	7/30	.016"	.095"
832	1000'	20	10/30	.016"	.105"
833	1000'	18	16/30	.016"	.125"
834	1000'	16	26/30	.016"	.135"
835	1000'	14	41/30	.016"	.155"
835/12	1000'	12	65/30	.016"	.175"
835/10	1000'	10	105/30	.025"	.200"

For longer lengths and alternate put-ups—Specify.

See Pages 1660-1665 for Birnbach Prices for Above Items

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Birnbach

RETRACTILE KINKLESS POWER COMMUNICATION CORDS

This series of Birnbach Coiled Kinkless Retractile Cords are permanently coiled into a spring-like shape without the use of metal springs or elastic bands. They have inherent "Recovery" properties. These Retractile cords extend approximately six times its retracted length, returning to its exact original shape and length when released. Always as long as you need them and no longer, they will not kink, tangle, trail, knot or dangle on the floor or bench and cause accidents. Useful wherever cords or cables must change length or position.

RETRACTILE (KINKLESS) POWER CORDS RUBBER, NEOPRENE AND PLASTIC — UL AND CSA APPROVED

DESCRIPTION: Multi conductor power cords, each conductor stranded copper, tough neoprene jacket overall UL and CSA approved. Available from stock in indicated lengths, can be cut to desired length.

Cat.No.	Retracted Length	Approx. Length Ext.	No. Conds.	Size AWG	Strand	UL Type	AMP Rating	Volt Rating	Coil Nom. O.D.	Cord. Nom. O.D.
886	36″	18 Ft.	2	18	41/34	SVO	7	300	7/8″	.250″
886/3	48″	18 Ft.	3	18	41/34	SVO	7	300	1″	.275″
887	36″	18 Ft.	2	18	41/34	SVT	7	300	7/8″	.250″
889	36″	18 Ft.	2	18	41/34	SJO	7	300	1 3/16″	.310″
890	36″	18 Ft.	2	18	41/34	SJT	7	300	1 3/16″	.310″
889/3	36″	18 Ft.	3	18	41/34	SJO	7	300	1 3/8″	.330″
889/4	36″	18 Ft.	4	18	41/34	SJO	5.6	300	1 7/16″	.360″
889/5	48″	25 Ft.	5	18	41/34	—	5.6	300	1 3/4″	.440″
889/7	48″	25 Ft.	7	18	41/34	—	5.6	300	1 7/8″	.500″
891	36″	18 Ft.	2	16	65/34	SJO	10	300	1 3/8″	.330″
891/3	36″	18 Ft.	3	16	65/34	SJO	10	300	1 7/16″	.365″
891/4	36″	18 Ft.	4	16	65/34	SJO	8	300	1 5/8″	.395″
891/5	48″	25 Ft.	5	16	65/34	—	8	600	2″	.540″
891/6	48″	25 Ft.	6	16	65/34	—	8	600	2 1/8″	.550″
891/7	48″	25 Ft.	7	6/16	#16-65/34	—	#16-8	600	2 1/4″	.600″
				1/14	#14-41/30	—	#14-12			
893	36″	18 Ft.	2	14	41/30	SO	15	600	2″	.535″
893/3	36″	18 Ft.	3	14	41/30	SO	15	600	2 1/8″	.560″
893/4	36″	18 Ft.	4	14	41/30	SO	12	600	2 1/4″	.605″
894	36″	18 Ft.	2	12	65/30	SO	20	600	2 1/4″	.605″
894/3	36″	18 Ft.	3	12	65/30	SO	20	600	2 3/8″	.635″
894/4	36″	18 Ft.	4	12	65/30	SO	16	600	2 1/2″	.665″
894/6	48″	25 Ft.	6	2-12	#12-65/30	—	#12-17	600	2 1/4″	.605″
				4-18	#18-41/34	—	#18-6			
894/7	48″	25 Ft.	7	12	65/30	—	16	600	2 5/8″	.775″

Additional conductors and sizes available — Std. Pkg. 5

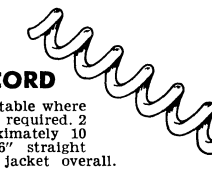
CONDUCTOR COLOR CODING: 1-Black, 2 White, 3-Green, 4-Red, 5-Blue, 6-Brown, 7-Yellow

RETRACTILE TEST LEAD WIRE

Stretch coiled kinkless test lead wire description. 12″ coil—stretches to approx. 6 feet. One conductor #20 stranded copper rubber insulation .165 O.D. Colors: Red, Black. Coil O.D. 3/4″.

Cat. No.				Std. Pkge.
64	12″	Retracted—Approx. 6′	Extended	6
65	24″	Retracted—Approx. 12′	Extended	6

BIRNBACH MINIATURE RETRACTILE CORD



This small size is suitable where compact equipment is required. 2 ft. retracted, approximately 10 ft. extended with 6″ straight ends. Black plastic jacket overall.

Nom. Cond. resistance: .07 OHMS per linear foot (approx. .6 OHMS per retracted ft.)

Maximum working voltage: 100; current capacity 1/2 amp.

Cat. No.	No. of Conds.	Size AWG	Strand	Coil O.D.	Cond. O.D.	Std. Pkg.
875/28	2	28	19/40TC	1/2″	.135	10
877/28	4	28	19/40TC	1/2″	.150	10

Conductor color code: 1-Black, 2-White, 3-Red, 4-Green. For 3 conductors, use 4 cond. and cut one dead.

RETRACTILE (KINKLESS) POWER CORD SETS

Excellent for portable use. All mobile equipment and office equipment wherever the device application is synonymous with repetitive movement. The "Answer" to most tough hazard problems.

2 and 3 conductors SVO and SJO Retractile Kinkless Neoprene Service Cord Sets with Molded Male Plug one end, other end stripped for application. Adds reliability, compactness and portability.

Standard Package—10

Cat. No.	Retracted Length	Approx. Length Extended	Conds.	Size AWG	UL Type	Strand	Coil O.D.
880	18″	9 FT.	2	18	SVO	41/34	1″
881	18″	9 FT.	2	18	SJO	41/34	1 1/4″
881/3	18″	9 FT.	3	18	SJO	41/34	1 1/2″
882	18″	9 FT.	2	16	SJO	65/34	1 1/2″
882/3	18″	9 FT.	3	16	SJO	65/34	1 1/2″

CONDUCTOR COLOR CODING: 1-Black, 2-White, 3-Green

RETRACTILE COILED COMMUNICATION CORD

Multi-conductors stranded communication cord No. 23 AWG. Tinned copper wire neoprene or Geon plastic jacketed. Long lengths can be cut to exact requirement. Adds product reliability. Useful wherever cords must change length or position. Nom. cond. resistance .022 ohms per linear foot, .185 ohms per retracted foot. Maximum working voltage 120 volts. Current carrying capacity 1 ampere.

Cat. No.	Retracted Length	Approx. Length Extended	Conds.	Size AWG	Strand	Coil O.D.	O.D.
875	36″	18 Ft.	2	23	21/36	3/4″	.200″
876	36″	18 Ft.	3	23	21/36	3/4″	.210″
877	36″	18 Ft.	4	23	21/36	13/16″	.240″
878	36″	18 Ft.	5	23	21/36	1″	.285″
878/6	36″	18 Ft.	6	23	21/36	1 1/8″	.305″
878/7	36″	18 Ft.	7	23	21/36	1 1/4″	.320″
878/8	48″	25 Ft.	8	23	21/36	1 3/32″	.360″
878/10	48″	25 Ft.	10	23	21/36	1 3/32″	.380″
878/12	48″	25 Ft.	12	23	21/36	1 3/32″	.410″
878/15	48″	25 Ft.	15	23	21/36	1 3/32″	.470″
878/37	48″	25 Ft.	37	23	21/36	2 1/2″	.680″

CONDUCTOR COLOR CODING: 1-Black, 2-White, 3-Red, 4-Green, 5-Blue, 6-Yellow, 7-Brown, 8-Orange, 9-White/Black Tracer, 10-White/Red Tracer, 11-White/Green Tracer, 12-White/Blue Tracer, 13-White/Yellow Tracer, 14-White/Brown Tracer, 15-White/Orange Tracer.

RETRACTILE (KINKLESS) COILED SHIELDED COMMUNICATION CORDS

DESCRIPTION: Single and multi-conductor shielded microphone cable neoprene or geon plastic jacketed. This cable remains nea and compact with no danger of tripping or of the wire becoming entangled in equipment. Also suitable for stereo and additiona speaker extensions. Shield can be pigtailed for soldering. No. 24 AWG Str. is 41/40 tinned soft cad. copper: No. 23 has 21/3 tinned soft cad. copper. Spiral wrapped tinned soft copper shielding.

Cat. No.	Retr. Length	Approx. Length Extended	Cond.	Size AWG	Coil O.D.	Nom. O.D.	Maximum Working Voltage	Capacitance MMF Lin. Ft.	Capacitance MMF Retr. Ft.	Std. Pkg.
895	48″	25′	1	No. 24 Shielded	5/8″	.160″	75	56	440	10
895A	12″	6′	1	No. 24 Shielded	5/8″	.160″	75	56	440	10
895B	6″	3′	1	No. 24 Shielded	5/8″	.160″	75	56	440	10
896	48″	25′	2	1-No. 23 1-No. 24 Shielded	7/8″	.200″	#23-120 #24- 75	56	450	10
896A	12″	6′	2	1-No. 23 1-No. 24 Shielded	7/8″	.200″	#23-120 #24- 75	56	450	10
897	48″	25′	3	2-No. 23 1-No. 24 Shielded	7/8″	.240″	#23-120 #24- 75	56	450	10
897A	12″	6′	3	2-No. 23 1-No. 24 Shielded	7/8″	.240″	#23-120 #24- 75	56	450	10
899	48″	25′	2	2-No. 24 Shielded	7/8″	.210″	75	56	450	10
899A	12″	6′	2	2-No. 24 Shielded	7/8″	.210″	75	56	450	10
898	48″	25′	4	2-No. 23 2-No. 24 Shielded	1″	.270″	#23-120 #24- 75	56	460	10
898A	12″	6′	4	2-No. 23 2-No. 24 Shielded	1″	.270″	#23-120 #24- 75	56	460	10

Additional conductors and sizes available — CONDUCTORS ARE COLOR CODED.

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See Pages 1660-1665 for Birnbach Prices for Above Items

Birnbach

SUPER HEAVY DUTY RETRACTILE POWER CORDS
CONTROL • STEREO • SPEAKER CABLE

NEW Sound Cable with "VI-CON" Shield

"VI-CON" Shield is the new Birnbach conductive vinyl plastic shield that provides:

● HI-FLEXIBILITY ● LONG FLEX LIFE ● EASY WORKING ● 100% SHIELDING COVERAGE

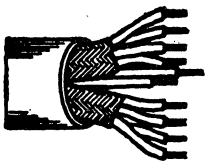
No. 24 Solid Tinned ground wire used for ground termination

Cat. No.	Spool	Conds.	AWG Size No.	Strand	Nom. O.D.
1812	500′	2	22	7/30	.160
1313	500′	2	20	7/28	.190
1814	500′	2	18	16/30	.220

STEREO VOLUME CONTROL CABLE

ESPECIALLY DESIGNED FOR STEREO COIN OPERATED MACHINES

Description: Ten conductors containing 2 quads individually shielded with tinned copper braid; 2 conductors not shielded; chrome vinyl jacket overall.



4 Shielded #24 (7 x 32)
4 Shielded #24 (7 x 32)
2 Unshielded #22 (7 x 30)

Cat. No.	Spool	Nom. Jacket	Nom. O.D.
4520	500′	.025″	.325″

CONDUCTOR COLOR CODE: GRAY, WHITE, BLUE, GREEN (SHIELDED), RED, BROWN, YELLOW, ORANGE (SHIELDED), WHITE, BLUE (UNSHIELDED)

JUKE BOX SPEAKER CABLE

Small, compact diamter. Useful. Practical. Ideal for rear auto speaker extension cable

DESCRIPTION:

Composed of 7 strand #32-1 Bare—copper conductor, 1 tinned copper conductor, 2 conductors parallel chrome vinyl plastic insulation.

Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. O.D.
4500	1000′	2	24	7/32	.015″	.058″ x .115″

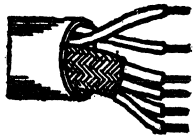
Additional colors available to order.

SHIELDED JUKE BOX CONTROL CABLE

DESCRIPTION.

5 Conductor cable. Three cond. twisted color coded, black, green red with tinned copper shielded braid overall. Two conductor twisted color coded blue, yellow and chrome vinyl jacket overall.

6 Conductor Cable: 4 cond. twisted tinned copper shielded braid, conductor color code black, green, red, yellow; 2 cond. unshielded color code white, blue.



Cat. No.	Spool	Conds.	Size AWG #22	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
4515	500′	5	3 (shielded)	7/30	.015″	.020″	.200″x.300″
			2 (unshielded)				
4516	500′	6	2 unshielded #22 (7 x 30)		.015″	.025″	.205″x.310″
			4 shielded #24 (7 x 32)				

JUKE BOX CONTROL CABLE

Used as replacement cable in Juke Boxes.

DESCRIPTION:

Two Conductors #16 stranded vinyl insulation tinned copper, color coded green-orange. One conductor #20 stranded tinned copper, vinyl insulation. Color coded Blue; 3 conductors cable with .020″ chrome vinyl plastic jacket overall.

Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
510	500′	3	2—#16	26/30	.020″	.020″	.240″
			1—#20	10/30	.020″		

BIRNBACH RETRACTILE SUPER HEAVY DUTY POWER CORDS

GUARANTEED TO RETRACT FOR 4 YEARS

MILITARY INDUSTRIAL

●

Especially desirable in the maintenance of *industrial automation* equipment, refrigerated trucks and trailers, mass assembly and production equipment, plane maintenance, control cable for cherry pickers, magnetic cranes, standby power distribution, heavy duty machinery.

Useful whenever and wherever a tougher, more rugged heavy duty power cable is indicated as in foundries, aboard ships, reelins on overhead cranes and hoists, tanks, plug-in power for refrigeration and immersion heaters, etc. Usable around salt water, chemicals and many other areas which makes the use of reels undesirable.

AWG SIZES 12, 14, 16 3 and 4 COND.

THIS IS A NEW CORD and should not be confused with cords of lesser quality.

These cords are Bureau of Mines, C. S. A. (Canada), U. S. Coast Guard, UL and Army/Navy approved.

BB CAT. NO.	CONDS.	SIZE AWG	STRAND	NOM. JKT. THKNS.	NOM. O.D.
1300	3	16	65/34	7/64″	.505″
1300/4	4	16	65/34	7/64″	.535″
1301	3	14	41/30	7/64″	.620″
1301/4	4	14	41/30	7/64″	.660″
1302	3	12	65/30	8/64″	.715″
1302/4	4	12	65/30	8/64″	.770″

NEW STEREO MONAURAL WIRE AND CABLE

The following items were specifically developed for use in recording and playback equipment including all stereo cartridges; ceramic, magnetic, crystal and tone arms. Designed for extremely low hum and noise pickup. Individual conductors are #32 AWG, 7 strands #40 AWG tinned copper, .010″ wall. Special formulation PVC +80° C to —40° C operation allowing ease of stripping and soldering. When shielded #40 AWG tinned copper, 30% coverage for maximum flexibility, minimum weight and diameter and for quick pushback.

TWISTED—UNSHIELDED

Cat. No.	Spool	Cond.	Size AWG	Strand	Nom. Wall	Nom. O.D.
7571	1000′	1	32	7/40	.010″	.028″
7571	500′	1	32	7/40	.010″	.028″
7572	1000′	2	32	7/40	.010″	.047″
7572	500′	2	32	7/40	.010″	.047″
7573	1000′	3	32	7/40	.010″	.053″
7573	500′	3	32	7/40	.010″	.053″
7574	1000′	4	32	7/40	.010″	.061″
7574	500′	4	32	7/40	.010″	.061″
7575	1000′	5	32	7/40	.010″	.069″
7575	500′	5	32	7/40	.010″	.069″

TWISTED—SHIELDED

Cat. No.	Spool	Cond.	Size AWG	Strand	Nom. Wall	Nom. O.D.
7581	1000′	1	32	7/40	.010″	.040″
7581	500′	1	32	7″40	.010″	.040″
7582	1000′	2	32	7/40	.010″	.067″
7582	500′	2	32	7/40	.010″	.067″
7583	1000′	3	32	7/40	.010″	.072″
7583	500′	3	32	7/40	.010″	.072″
7584	1000′	4	32	7/40	.010″	.080″
7584	500′	4	32	7/40	.010″	.080″
7585	1000′	5	32	7/40	.010″	.089″
7585	500′	5	32	7/40	.010″	.089″
7580	1000′	2	32 (Ind. Shielded)	7/40	.010″	.080″

CONDUCTOR COLOR CODE: 1-WHITE, 2-RED, 3-BLACK, 4-GREEN, 5-YELLOW

See Pages 1660-1665 for Birnbach Prices for Above Items

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Birnbach

RUBBER AND NEOPRENE POWER SUPPLY CABLE MICROPHONE • MULTI-CONDUCTOR • UL-MIL SPEC

BIRNBACH

RUBBER MICROPHONE CABLE

Especially Designed for Heavy Studio Use

RUBBER CRYSTAL MICROPHONE CABLE

Designed for long service life and low loss. Use with crystal, ribbon, dynamic and velocity microphones and photoelectric cells. Birnbach #1870 is used widely for lapel microphones and phono pick ups.

DESCRIPTION:

Single Conductor, 26 Strands

#34 extra flexible tinned copper, special low loss rubber compound, tinned copper braid shield, cotton wrap, tough black rubber jacket overall.

Cat. No.	Spool	Cond.	Size No. Awg.	Stranding	Nom. Cap./Ft.	Nom. O.D.
870	100′	1	20	26/34	40 Mmf	.175″
1870	250′	1	20	26/34	40 Mmf	.175″
872	100′	1	20	26/34	30 Mmf	.245″
1872	250′	1	20	26/34	30 Mmf	.245″

RUBBER OR NEOPRENE MICROPHONE CABLE

DESCRIPTION:

Each Conductor, extra flexible stranded tinned copper, insulated with a .002″ wall special low capacity rubber, color coded, conductors twisted, filler cotton wrap, tinned copper braided shield, cotton wrap with tough weatherproof black rubber or neoprene jacket overall.

Nos. 772 to 778

Used for indoor and outdoor crystal, carbon and condenser microphones and for public address systems.

RUBBER JACKET

Cat. No.	Size Spool	Cond.	Awg.	Strand.	Nom. Cap. Between 1-Cond. & Shield	Nom. Cap. Between 1-Cond. & Others Connected to Shield	Nom. Cap. Between 1-Cond. & Others	Nom. O.D.
772	100′	2	20	26/34	65 Mmf	68 Mmf	43 Mmf	.280″
1772	250′	2	20	26/34	65 Mmf	68 Mmf	43 Mmf	.280″
772/18	100′	2	18	41/34	70 Mmf	73 Mmf	48 Mmf	.300″
773	100′	3	20	26/34	68 Mmf	72 Mmf	55 Mmf	.290″
1773	250′	3	20	26/34	68 Mmf	72 Mmf	55 Mmf	.290″
773/18	100′	3	18	41/34	68 Mmf	72 Mmf	55 Mmf	.350″
774	100′	4	20	26/34	68 Mmf	74 Mmf	57 Mmf	.300″
1774	250′	4	20	26/34	68 Mmf	74 Mmf	57 Mmf	.300″
774/18	250′	4	18	41/34	68 Mmf	74 Mmf	57 Mmf	.335″
775	100′	5	20	26/34	70 Mmf	76 Mmf	58 Mmf	.330″
1775	250′	5	20	26/34	70 Mmf	76 Mmf	58 Mmf	.330″
776	100′	6	20	26/34	71 Mmf	80 Mmf	60 Mmf	.350″
1776	250′	6	20	26/34	71 Mmf	80 Mmf	60 Mmf	.350″
777	100′	7	20	26/34	72 Mmf	85 Mmf	62 Mmf	.365″
1777	250′	7	20	26/34	72 Mmf	85 Mmf	62 Mmf	.365″
778	100′	8	20	26/34	74 Mmf	90 Mmf	65 Mmf	.390″
778/10	100′	10	20	26/34	75 Mmf	92 Mmf	67 Mmf	.440″
778/12	250′	12	20	26/34	77 Mmf	93 Mmf	69 Mmf	.575″

For longer lengths and alternate put-ups—Specify.

NEOPRENE JACKET

No.	Spool	Cond.	Size AWG	Strand.	Wall Thickness	Nom. Jacket	Nom. O.D.
1781	500′	1	18	41/34	.040″	.030″	.250″
1782	500′	2	18	41/34	.020″	.035″	.305″
1785	500′	3	18	41/34	.020″	.035″	.325″
1784	500′	4	18	41/34	.020″	.035″	.335″
1786	500′	6	18	41/34	.020″	.035″	.430″

MICROPHONE CABLE COLOR CODE CHART

1—Black	5—Yellow	9—Purple
2—White	6—Blue	10—Slate
3—Red	7—Brown	11—White/Blk. (Braid)
4—Green	8—Orange	12—White/Red (Braid)

See our pages covering retractile cords and cables.

RUBBER & NEOPRENE SERVICE CORD

(HEAVY DUTY) — UL APPROVED

For power line requirement where rough usage is indicated as for amplifiers, sound systems, speakers, vacuum cleaners, washing machines, trouble lights, refrigerators, etc. Color coded. Underwriters approved. Neoprene construction recommended for equipment exposed to oil, acids, outdoor use, direct burial, etc.

Each conductor, copper conductor, paper separator, color coded, rubber insulation, filler, separator, tough rubber or neoprene jacket.

RUBBER Cat. No.	U/L Type	NEOPRENE Cat. No.	U/L Type	Std. Put-ups	Conds.	Size No. AWG.	Strand	Amp Rating	Volt Rating	Nom. O.D.
701	SV	690	SVO	250′	2	18	41/34	7	300	.250″
*701/3	SV	690/3	SVO	250′	3	18	41/34	7	300	.265″
574	SJ	691	SJO	250′	2	18	41/34	7	300	.300″
575	SJ	692	SJO	250′	3	18	41/34	7	300	.330″
575/4	SJ	692/4	SJO	250′	4	18	41/34	7	300	.360″
578	SJ	693	SJO	250′	2	16	65/34	10	300	.325″
578/3	SJ	693/3	SJO	250′	3	16	65/34	10	300	.365″
578/4	SJ	693/4	SJO	250′	4	16	65/34	10	300	.395″
702	S	694	SO	250′	2	18	16/30	7	600	.390″
702/3	S	694/3	SO	250′	3	18	16/30	7	600	.405″
702/4	S	694/4	SO	250′	4	18	16/30	7	600	.435″
703	S	695	SO	250′	2	16	26/30	10	600	.410″
703/3	S	695/3	SO	250′	3	16	26/30	10	600	.430″
703/4	S	695/4	SO	250′	4	16	26/30	10	600	.485″
704	S	696	SO	250′	2	14	41/30	15	600	.540″
704/3	S	696/3	SO	250′	3	14	41/30	15	600	.560″
704/4	S	696/4	SO	250′	4	14	41/30	15	600	.605″
705	S	697	SO	250′	2	12	65/30	20	600	.605″
705/3	S	697/3	SO	250′	3	12	65/30	20	600	.635″
705/4	S	697/4	SO	250′	4	12	65/30	20	600	.665″
706	S	698	SO	250′	2	10	103/30	25	600	.640″
706/3	S	698/3	SO	250′	3	10	103/30	25	600	.690″
706/4	S	698/4	SO	250′	4	10	103/30	25	600	.745″

Additional Conductors Available

* 701/3 has tinned copper wire

CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Green, 4—Red

SERVICE CORD PER MIL-C-3432B SPEC

WITH CERTIFICATION — INSPECTION AVAILABLE

Cat. No.	MIL Type	Spec. Designation	Conds.	Awg. Size	Spec. No.	Nom. OD
M-218	CO-02	MGF	2	18	MIL-C-3432A	.300″
H-218	CO-02	HGF	2	18	MIL-C-3432A	.380″
L-218	CO-02	LGF	2	18	MIL-C-3432A	.250″
H-216	CO-02	HGF	2	16	MIL-C-3432A	.405″
M-216	CO-02	MGF	2	16	MIL-C-3432A	.338″
M-214	CO-02	MGF	2	14	MIL-C-3432A	.400″
H-214	CO-02	HGF	2	14	MIL-C-3432A	.535″
M-318	CO-03	MGF	3	18	MIL-C-3432A	.330″
M-316	CO-03	MGF	3	16	MIL-C-3432A	.375″
H-312	CO-03	HOE	3	12	MIL-C-3432A	.635″

ADDITIONAL NUMBERS AVAILABLE — YOUR INQUIRIES INVITED

RUBBER JACKETED MULTI-CONDUCTOR CABLE (NOT SHIELDED)

Used for permanent or portable P.A. systems, sound recording, indoor or outdoor speakers, interconnecting cable for all electronic uses.

Each conductor, extra flexible stranded tinned copper, insulated with a .022″ wall, special low capacity rubber, color coded, conductors twisted, filler, cotton wrap with tough weatherproof blac rubber jacket overall.

CONDUCTOR COLOR CODE CHART

1—Black	5—Yellow	9—Purple
2—White	6—Blue	10—Slate
3—Red	7—Brown	11—White/Blk. (Braid)
4—Green	8—Orange	12—White/Red (Braid)

Cat. No.	Spool	Cond.	Size No. AWG	Strand	Cap. Bet. 1 Cond. & Others	Nom. O.D.
788	100′	2	20	26/34	40 Mmf	.275
789	250′	2	20	26/34	40 Mmf	.275
790	100′	3	20	26/34	50 Mmf	.285
791	250′	3	20	26/34	50 Mmf	.285
792	100′	4	20	26/34	53 Mmf	.305
793	250′	4	20	26/34	53 Mmf	.305
794	100′	5	20	26/34	56 Mmf	.335
795	250′	5	20	26/34	56 Mmf	.335
796	100′	6	20	26/34	58 Mmf	.355
797	250′	6	20	26/34	58 Mmf	.355
798	100′	7	20	26/34	60 Mmf	.370
749	100′	8	20	26/34	63 Mmf	.395
749/10	100′	10	20	26/34	65 Mmf	.435
749/12	100′	12	20	26/34	67 Mmf	.540

For longer lengths and alternate put-ups—Specify

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See Pages 1660-1665 for Birnbach Prices for Above Items

Birnbach

SHIELDED MULTI-CONDUCTORS • MICROPHONE INTERCOM • MULTI-PAIR • ARMORED CABLE

2 CONDUCTOR SHIELDED

Used for transmission line, P. A. and sound systems, school, hospital sound installations, industrial paging systems, broadcast and audio cable, paging and rack panel wiring.

DESCRIPTION:
Each conductor copper tinned, plastic insulation, color coded twisted, tinned copper shield overall.

Cat. No.	Spool	Conds.	Size AWG	Strand	Insul.	NOM O.D.
826/30	500′	2	30	7/38	.010″	.085″
826/28	500′	2	28	7/36	.010″	.090″
826/26	500′	2	26	7/34	.010″	.100″
826	500′	2	24	19/36	.015″	.120″
825	500′	2	22	7/30	.017″	.140″
972S	500′	2	20	10/30	.017″	.155″
827	500′	2	18	16/30	.017″	.180″
828	500′	2	16	26/30	.020″	.210″
829	500′	2	14	41/30	.020″	.235″
830	500′	2	12	65/30	.025″	.295″
830/10	500′	2	10	105/30	.025″	.375″

3 CONDUCTOR SHIELDED

973S	500′	3	20	10/30	.017″	.192″

2 CONDUCTOR SHIELDED WAXED COTTON BRAID OVER SHIELD

972B	500′	2	20	10/30	.017″	.180″

SOLID CONDUCTORS

1701	500′	2	22 Solid	1	.017″	.135″
1702	500′	2	20 Solid	1	.017″	.145″
1703	500′	2	18 Solid	1	.017″	.170″

CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White

Microphone Cables with Birnbach's NEW • "VI-CON" SHIELD

HI-FLEXIBILITY • LONG FLEX LIFE • EASY WORKING

This series of cable is Birnbach's new outstanding shield in combination with vinyl plastic that is conductive thereby providing 100% shield coverage. Easy handling; lighter in weight than comparative types; extremely flexible; #24 Stranded Bare Tinned Wire is used for grounding termination; this is in continuous contact with the "Vi-Con" Shield.

Cat. No.	Spool	Cond.	Size No. AWG	Stranding	Nom. O.D.
1800	500′	1	25	7/33	.125″
1801	500′	1	25	7/33	.160″
1802	500′	2	22	16/34	.225″

SHIELDED MULTI-CONDUCTOR CABLE

Used indoors for permanent or portable work to prevent interference pickup on P.A. systems, recording equipment, photo electric circuits, etc.

DESCRIPTION:
Each Conductor #20 10/30 Stranded Tinned Copper, 1/64″ pvc wall, waxed cotton braid color coded, twisted conductors, tinned copper shield overall. No. 1972 with cotton braid overall.

Nos. 972 to 978

Cat. No.	Spool	Conds.	Size AWG	Strand	Insul.	Cap/Ft. Bet. Cond. & Shield	Cap/Ft. Bet. Conds.	Nom. O.D.
972	100′	2	20	10/30	.064	65 Mmf	43 Mmf	.215″
973	100′	3	20	10/30	.064	68 Mmf	55 Mmf	.220″
974	100′	4	20	10/30	.064	69 Mmf	57 Mmf	.250″
975	100′	5	20	10/30	.064	70 Mmf	58 Mmf	.280″
976	100′	6	20	10/30	.064	71 Mmf	60 Mmf	.290″
977	100′	7	20	10/30	.064	72 Mmf	62 Mmf	.315″
978	100′	8	20	10/30	.064	74 Mmf	65 Mmf	.350″
1972	100′	2	20	10/30	.064	65 Mmf	43 Mmf	.225″

CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White, 4—Green, 5—Brown, 6—Yellow, 7—Blue, 8—Orange

SHIELDED TWO WIRE SPEAKER CABLE

For master control sound systems, photo electric circuits, P.A. systems, etc.

TINNED COPPER SHIELD, PAPER WRAP OVERALL — No. 972A

Cat. No.	Spool	Strand	Insul.	Cap/Ft. Bet. Cond. & Shield	Cap/Ft. Bet. Conds.	O.D.
972A	500′	16/30	1/32	65	43	.250″

WAXED COTTON BRAID OVER SHIELD

1972A	500′	16/30	1/32	65	43	.275″

CONDUCTOR COLOR CODE: Black and Red
For longer lengths and alternate put-ups—Specify.

Multiple Pair Individually Shielded Intercom Cable

eful where several mikes are operated from a single cable. This series is lpful in reducing the bulk of required cables.
ESCRIPTION: Multi-pairs #22 solid tinned copper, vinyl insulated .013″)led in pairs. Each pair and ground wire is under aluminum foil mylar shield rall grey vinyl jacket; Nom. Cap. between Conds. 40Mmft/ft; Nom. Cap. between Cond. and others connected to shield—77Mmf/ft.
Additional Variations in construction available to order.

t. No.	Spool	Pairs	Cond.	Nom. Jkt.	Nom O.D.
00/3	500′	3	6	.030	.298
00/6	500′	6	12	.037	.394
00/9	500′	9	18	.040	.425
00/11	500′	11	22	.040	.485
00/15	500′	15	30	.045	.510
00/19	500′	19	38	.055	.678
00/27	500′	27	54	.070	.860

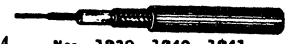
4800/19 and 4800/27 is #22 strand 7/30 with .015 wall.

PLASTIC MICROPHONE CABLE

Designed to stand up under physical abuse and is resistant to oil, moisture and aging for long life. These cables have low capacitance, high insulation resistance and low attenuation at audio frequencies. Will not stain or mark.
#1839 is used for high impedance microphone, lapel, contact, crystal, ribbon, velocity and Hi-Fi interconnecting cable.
#1840 is used for high impedance lapel microphones.
#1841 is used for crystal, ribbon and other impedance microphones.
Above recommended for Hi-Fi installations because of low loss and low capacitance.

PLASTIC — ONE-CONDUCTOR MICROPHONE CABLE

DESCRIPTION:
Single Conductor Stranded
3 strands #33 copper tinned, and 4 strands #33 (steel-tinned 1840 and 1841) cellulose yarn braid, Polyethylene insulation, tinned copper shielded braid, with chrome vinyl plastic jacket overall.



Nos. 1839, 1840, 1841

Cat. No.	Spool	Cond.	Size No. Awg.	Stranding	Nom. Cap./Ft.	Nom. O.D.
1839	500′	1	20	26/34	89MMF	.175″
1840	500′	1	25	7/38*	84MMF	.144″
1841	500′	1	25	7/38*	85MMF	.200″

*3X33 Copper, 4X33 Steel (All tinned)

SPIRAL SHIELDED MICROPHONE CABLE

Constructed with tinned copper spiral wrapped concentric shield. Extremely flexible, smaller size.

Cat. No.	Spool	Cond.	Size No. Awg.	Stranding	Nom. Cap./Ft.	Nom. O.D.
1835	500′	1	25	7/33	25MMF	.159″
1836	500′	1	25	7/33	33MMF	.125″

PLASTIC — MULTI-CONDUCTOR MICROPHONE CABLE

DESCRIPTION: Each conductor tinned copper, Polyethylene insulation — color coded. Multi conductors are cushioned with fillers, cotton wrapped under tinned copper shield, chrome vinyl jacket overall.

Cat. No.	Spool	Cond.	Size No. Awg.	Stranding	Nom. Cap./Ft.	Nom. O.D.
1842	500′	2	22	16/34	31MMF	.231″
1842/24	500′	2	24	10/34	38MMF	.190″
1843	500′	3	20	26/34	39MMF	.250″
1844	500′	4	20	26/34	43MMF	.255″
1845	500′	5	20	26/34	48MMF	.275″
1846	500′	6	20	26/34	54MMF	.300″
1846/8	500′	8	20	26/34	57MMF	.330″
1846/10	500′	10	20	26/30	60MMF	.375″

CONDUCTOR COLOR CODE: 1-White, 2-Black, 3-Red, 4-Green, 5-Yellow, 6-Blue, 7-Brown, 8-Orange, 9-Purple, 10-Slate

PLASTIC INTER-COM CABLE

4 CONDUCTORS (2 Shielded — 2 Unshielded)

Widely used for wiring from station to station where a shielded twisted pair is indicated in order to eliminate cross talk.

DESCRIPTION:
No. 925 — 4 conductors #22 7/30 stranded tinned copper, vinyl plastic insulation color coded, tinned copper shield over one pair (2 cond.) One pair (2 cond.) unshielded. Tubed gray vinyl jacket overall.

CONDUCTOR COLOR CODE: Black/white shielded, Black/red unshielded

Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	O.D.
925	500′	4	22	7/30	.016″	.020″	.310″

3 CONDUCTORS (1 Shielded — 2 Unshielded)

Widely used for wiring from station to station where a single shielded conductor is indicated in order to eliminate cross talk.

DESCRIPTION:
No. 924 — 3 conductors #22 7/30 stranded tinned copper, vinyl, plastic insulation color coded, tinned copper shield over one conductor, tubed gray vinyl jacket overall.

Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	O.D.
924	500′	3	22	7/30	.016″	.020″	.205″

CONDUCTOR COLOR CODE: Black/red unshielded — White shielded

ARMORED INDUSTRIAL CABLE

Used for P.A. systems on speaker extensions, oil burner installations, auto wiring, etc.

Two Conductors Parallel #18 16/30 Stranded Tinned Copper, rubber insulation, lacquered cotton braid color coded, spiral galvanized steel armor overall.

Cat. No.	Spool	Size AWG	Strand	O.D.
1111	250′	18	16/30	.155″ x .240″
1112	500′	18	16/30	.155″ x .240″
1113	1000′	18	16/30	.155″ x .240″

See Pages 1660-1665 for Birnbach Prices for Above Items

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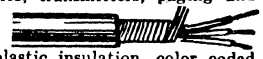
Birnbach

BROADCAST • AUDIO • STRAIN GAUGE CABLE
SHIELDED • MULTI-CONDUCTOR CABLES

SPIRAL WRAPPED SHIELDED AUDIO and MULTI-CONDUCTOR CABLE

Plastic Jacketed—with Spiral wrapped copper shield

Designed for P. A. and sound systems, installations in schools, hospitals, and institutions, recording studios, transmitters, paging and call systems.



DESCRIPTION:
Each conductor copper tinned, 1/64 plastic insulation, color coded, twisted, spiral wrapped tinned copper shield, gray plastic jacket overall.

Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	O.D.
941	500′	2	22	7/30	.017″	.020″	.171″
941/1	500′	1	22	7/30	.017″	.020″	.120″
941/3	500′	3	22	7/30	.017″	.020″	.190″
941/4	500′	4	22	7/30	.017″	.020″	.205″
950	500′	2	22	1	.017″	.020″	.169″
942	500′	2	20	10/30	.017″	.020″	.190″
942/1	500′	1	20	10/30	.017″	.020″	.129″
943	500′	3	20	10/30	.017″	.020″	.208″
944	500′	4	20	10/30	.017″	.020″	.222″
947	500′	2	18	16/30	.017″	.020″	.230″
947/3	500′	3	18	16/30	.017″	.020″	.228″
948	500′	2	16	26/30	.017″	.020″	.250″

CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White, 4—Green

SHIELDED PLASTIC JACKETED CABLE WITH ALUMINUM MYLAR* FOIL SHIELD

This cable is extremely light in weight and provides 100% shield coverage at audio and radio frequencies.

DESCRIPTION: Each conductor tinned copper, color coded polyethylene insulation, twisted with #22 7/30 stranded tinned copper drain wire, aluminum Mylar* foil shield, gray polyvinylchloride jacket overall.

Cat. No.	No. of Conductors	AWG Size	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
1890	2	22	7/30	.015″	.020″	.165″
1890/3	3	22	7/30	.015″	.020″	.175″
1891	2	20	10/30	.015″	.020″	.180″
1891/3	3	20	10/30	.015″	.020″	.190″
1892	2	18	16/30	.017″	.020″	.220″
1892/3	3	18	16/30	.017″	.020″	.230″

STANDARD SPOOL PUT-UP: 500 ft., 1000 ft.

CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White

*Mylar-Dupont

Multi-Conductor Flexible Cable

PLASTIC INSULATED — Cotton Braid Overall

DESCRIPTION:
Each Conductor, #20—10/30 Tinned Copper Stranded, 1/64″ plastic insulated, cotton braid, color coded, conductors twisted, closely woven brown cotton braid overall.

Used for multiple circuit hookups, connecting speakers, remote control units, analyzers, etc.

Cat. No.	Spool	Conds.	Size AWG	Strand	Ins.	Nom. O.D.
172	100′	2	20	10/30	1/64″	.205″
173	100′	3	20	10/30	1/64″	.245″
174	100′	4	20	10/30	1/64″	.265″
175	100′	5	20	10/30	1/64″	.290″
176	100′	6	20	10/30	1/64″	.310″
177	100′	7	20	10/30	1/64″	.325″
178	100′	8	20	10/30	1/64″	.360″
179	100′	9	20	10/30	1/64″	.395″
180	100′	10	20	10/30	1/64″	.425″
182	100′	12	20	10/30	1/64″	.440″

CONDUCTOR COLOR CODE:

1—Black	5—Orange	9—White/Black Tracer
2—White	6—Blue	10—Red/Black Tracer
3—Red	7—Brown	11—Green/Black Tracer
4—Green	8—Yellow	12—Orange/Black Tracer

Twisted Pair Transmission Cable

WEATHERPROOF BRAID

DESCRIPTION:
No. 952—Two Conductors, #22-7/30 Tinned Copper Stranded, special low loss rubber insulation, color coded, twisted conductors, cotton braid overall with rugged weatherproof finish.

No. 919, 920—Two Conductors, #18-16/30 Tinned Copper Stranded, same construction as above.
Used for low loss transmission coupling between antenna and receiver as doublet twisted lead-in wire for inter-com. setup.

Cat. No.	Spool	Size AWG	Strand	Insul.	Nom. O.D.
952	500′	22	7/32	1/32″	.180″
919	500′	18	16/30	1/32″	.195″
920	1000′	18	16/30	1/32″	.195″

For longer lengths and alternate put-ups—Specify.

SHIELDED PLASTIC JACKETED CABLE BRAIDED COPPER SHIELD

Designed for P.A. and sound systems, installations in schools, hospitals and institutions, transmittters, recording studios, electronic circuits, etc. The construction of the shield allows ease of pigtail soldering and the shield provides additional strength for the cable.

DESCRIPTION: Each conductor tinned copper, polyvinylchloride insulation color coded, twisted, braided copper tinned shield, gray polyvinylchloride jacket overall. Cables suitable for outdoor installations.

STRANDED

Cat. No.	No. of Conductors	AWG Size	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
1790	2	22	7/30	.017″	.020″	.175″
1790/3	3	22	7/30	.017″	.020″	.195″
1791	2	20	10/30	.017″	.020″	.195″
1791/3	3	20	10/30	.017″	.020″	.215″
1792	2	18	16/30	.017″	.020″	.235″
1792/3	3	18	16/30	.017″	.020″	.245″
1793	2	16	26/30	.017″	.020″	.265″
1794	2	14	41/30	.020″	.020″	.290″

SOLID

DESCRIPTION: Same as above using solid conductors with black PVC jacket overall.

*1797	2	22	1	.017″	.020″	.170″
1798	2	20	1	.017″	.020″	.195″
1799	2	18	1	.017″	.020″	.220″

*No. 22 solid T.C. ground wire under braided copper shield

St. Put-up: 500 ft., 1000 ft.

CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White

STRAIN GAUGE CABLE

DESCRIPTION: Tinned conductors, plastic insulation, 2 pairs—4 cond., aluminum Mylar shields, stranded copper tinned ground wire, polyvinylchloride gray jacket overall.

Cat. No.	No. of Cond.	AWG	Strand	Nom. Insul.	Nom. Jacket	Cap. Nom/Ft.	Nom. O.D.
1717	4	25	7/33 3 copper 4 copperweld	.013″	.020″	25	.169″

Polyethylene insulated, black and red conductors under aluminum Mylar shield. Str. grd. wire, green and white conductors under overall aluminum Mylar shield, gray vinyl jacket.

St. Put-up: 500 ft., 1000 ft.

1718	4	22	7/30	.008″	.020″	35	.165″

Polypropylene insulated black and red under aluminum Mylar shield, green and white under aluminum Mylar shield (separate pairs), stranded ground wire, gray vinyl jacket overall.
St. Put-up: 500 ft., 1000 ft.

SHIELDED BROADCAST AUDIO CABLE

Designed to provide maximum performance on all equipment. Conductors twisted correctly assures quiet, clear operation which eliminates interference and cross talk. Used by Broadcast studios, for P. A. and sound systems, rack wiring, etc.

DESCRIPTION:

#938—#22 Solid Tinned Copper Conductor, enameled, heavy cellulose acetate yarn wrap, cotton braid waxed; cabled with #22 AWG solid tinned copper wire laid parallel to twisted pair under tinned copper braid shield; tubed-on Vinyl plastic jacket overall.

No. 938
CBS, ABC TYPE

#939—#22-7/30 Stranded Tinned Copper, plastic insulation, color coded, twisted, copper braid shield, tubed-on Vinyl plastic jacket overall.

No. 939

#940—2 Conductors #22 solid plastic insulation, color coded, twisted with #22 AWG solid tinned copper ground wire under tinned copper shield with vinyl plastic jacket overall.

No. 940

#940/1 same construction as **#940** however with tinned copper spiral wrapped shield.
#822 and #824 have solid enameled copper wire, cotton wrap, cotton braid waxed twisted pair, bare copper braid overall.

Nos. 822 and 824

No. Cat.	Spool	Conds.	AWG Size No.	Strand	O.D Nom
938	500′	2	22	Solid	210′
939	500′	2	22	7/30	170′
940	500′	2	22	Solid	160′
940/1	500′	2	22	Solid	160′
822	500′	2	22	Solid	125′
824	500′	2	19	Solid	145′
927	500′	2	20	Solid	210′
928	500′	2	18	Solid	220′

CONDUCTOR COLOR CODE: Black and Red
For larger lengths and alternate put-ups—Specify.

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See Pages 1660-1665 for Birnbach Prices for Above Items

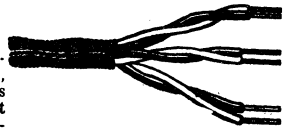
Birnbach

INTER-COM • MULTI-COND • AUDIO • INDUSTRIAL TWISTED PAIRS

BIRNBACH

PLASTIC INTERCOMMUNICATING CABLES TWISTED PAIRS—SOLID CONDUCTORS

DESCRIPTION:
Each Conductor #22 Solid Copper Tinned, .010" Wall Vinyl Plastic Insulation, conductors color coded, twisted pairs cabled, tubed gray Vinyl plastic jacket overall. Suitable for outdoor installations.



No. 4701 to 4729

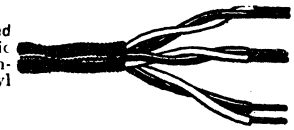
Cat. No.	Spool	Pairs	Cond.	Size No. AWG	Nom. Jkt.	Nom. O.D.
4701	500'	1	2	22 Solid	.020"	.145"
4702	500'	2	4	22 Solid	.020"	.205"
4703	500'	3	6	22 Solid	.020"	.215"
4706	500'	6	12	22 Solid	.020"	.250"
4709	500'	9	18	22 Solid	.020"	.310"
4711	500'	11	22	22 Solid	.020"	.350"
4711/13	500'	13	26	22 Solid	.025"	.385"
4715	500'	15	30	22 Solid	.025"	.390"
4716	500'	16	32	22 Solid	.025"	.405"
4727	500'	27	54	22 Solid	.035"	.495"
4727/31	500'	31	62	22 Solid	.035"	.555"
4727/41	500'	41	82	22 Solid	.035"	.630"
4729	500'	51	102	22 Solid	.045"	.750"
4729/76*	500'	76	152	22 Solid	.070"	.970"
4729/101*	500'	101	202	22 Solid	.080"	1.140"

* Bare copper conductors.

For longer lengths and alternate put-ups—Specify.

TWISTED PAIRS—STRANDED CONDUCTORS

DESCRIPTION:
Each Conductor #22 7/30 Stranded Tinned Copper, .010" Vinyl plastic insulation, twisted pairs cabled, conductors color coded, tubed gray Vinyl plastic jacket overall.

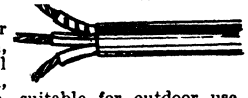


Cat. No.	Spool	Pairs	Cond.	Size No. AWG	Strand	Nom. O.D.
4731	500'	1	2	22	7/30	.145"
4732	500'	2	4	22	7/30	.210"
4733	500'	3	6	22	7/30	.225"
4734	500'	4	8	22	7/30	.235"
4735	500'	5	10	22	7/30	.245"
4736	500'	6	12	22	7/30	.270"
4739	500'	9	18	22	7/30	.325"
4745	500'	15	30	22	7/30	.455"
4747	500'	27	54	22	7/30	.570"

For longer lengths and alternate put-ups—Specify.

MULTI-CONDUCTOR FLEXIBLE CABLE

DESCRIPTION:
Each conductor #22 7/30 tinned copper stranded 1/64" thermoplastic insulation, color coded, conductors twisted, gray vinyl plastic jacket overall. Used for signal, P.A. systems. Electronic computer cable, suitable for outdoor use.



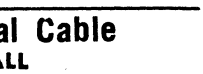
Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
156	500'	2	22	7/30	.010"	.020"	.140"
157	500'	3	22	7/30	.010"	.020"	.145"
158	500'	4	22	7/30	.010"	.020"	.170"
159	500'	5	22	7/30	.010"	.020"	.175"
160	500'	6	22	7/30	.010"	.020"	.185"
161	500'	7	22	7/30	.010"	.020"	.190"
162	250'	8	22	7/30	.010"	.020"	.200"
163	250'	9	22	7/30	.010"	.020"	.225"
164	250'	10	22	7/30	.010"	.020"	.235"
165	250'	12	22	7/30	.010"	.020"	.255"
165/15	250'	15	22	7/30	.010"	.020"	.280"
165/20	250'	20	22	7/30	.010"	.020"	.310"

CONDUCTOR COLOR CODE:
1—Black 2—Red 3—White 4—Green 5—Orange 6—Blue 7—Brown 8—Yellow 9—Violet 10—Slate 11—Pink 12—Tan 13—Red/Green 14—Red/Yellow 15—Red/Black

Multi-Conductor Industrial Cable

PLASTIC JACKET OVERALL

DESCRIPTION:
#18 solid tinned copper plastic insulation, color coded, twisted conductors. Gray vinyl jacket overall. Used for inter-com systems, speaker cable, alarm, signal, P. A. systems, thermostats, remote control circuits. Suitable for outdoor installations.



Cat. No.	Spool	Conds.	Size AWG	Insul.	Jacket	O.D.
4752	500'	2	18 solid	.017"	.020"	.185"
4753	500'	3	18 solid	.017"	.020"	.190"
4754	500'	4	18 solid	.017"	.020"	.235"
4755	500'	5	18 solid	.017"	.020"	.240"
4756	500'	6	18 solid	.017"	.020"	.275"

CONDUCTOR COLOR CODE:
1—Black, 2—Red, 3—White, 4—Green, 5—Orange, 6—Blue

Unshielded Audio Cable Stranded and Solid Cond. (2 & 3)

Widely used for connecting sound and inter-com systems, audio hookups, indoors—outdoors. Telephones, telemetering connections. For Baby Sitter Intercoms.

FOR INDOOR USE Without Outer Jacket

DESCRIPTION:
Stranded & Solid Tinned Copper Conductors, vinyl plastic insulation, color coded, conductors twisted.

Cat. No.	Spool	Conds.	Size AWG		Nom. Insul.	Nom. O.D.
931	1000'	2	22 Solid		.016"	.100"
933	1000'	3	22 Solid		.016"	.115"
981	1000'	2	20 Solid		.016"	.120"
983	1000'	3	20 Solid		.016"	.140"
985	1000'	2	18 Solid		.016"	.145"
987	1000'	3	18 Solid		.016"	.155"
989	1000'	2	16 Solid		.016"	.175"
989/3	1000'	3	16 Solid		.016"	.190"
990	1000'	2	22 Stranded	7/30	.016"	.125"
990/3	1000'	3	22 Stranded	7/30	.016"	.140"
991	1000'	2	20 Stranded	10/30	.016"	.145"
991/3	1000'	3	20 Stranded	10/30	.016"	.160"
992	1000'	2	18 Stranded	16/30	.016"	.165"
992/3	1000'	3	18 Stranded	16/30	.016"	.180"
993	1000'	2	16 Stranded	26/30	.016"	.190"
993/3	1000'	3	16 Stranded	26/30	.016"	.210"
994	1000'	2	14 Stranded	41/30	.016"	.220"
994/3	1000'	3	14 Stranded	41/30	.016"	.240"
995	1000'	2	12 Stranded	65/30	.016"	.250"
995/3	1000'	3	12 Stranded	65/30	.016"	.275"

CONDUCTOR COLOR CODE: 1—Brown 2—Tan 3—Gray

FOR OUTDOOR USE With Plastic Jacket Overall

DESCRIPTION:
Solid and Stranded Tinned Copper Conductors, vinyl plastic insulation, color coded, conductors twisted with weatherproof plastic jacket overall.

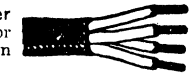
Cat. No.	Spool	Conds.	Size AWG		Insul.	Jacket	O.D.
932	1000'	2	22 solid		.010"	.020"	.125"
934	1000'	3	22 solid		.010"	.020"	.130"
934/4	1000'	4	22 solid		.010"	.020"	.150"
982	1000'	2	20 solid		.016"	.020"	.170"
984	1000'	3	20 solid		.016"	.020"	.180"
984/4	1000'	4	20 solid		.016"	.020"	.200"
986	1000'	2	18 solid		.016"	.020"	.185"
988	1000'	3	18 solid		.016"	.020"	.190"
988/4	1000'	4	18 solid		.016"	.020"	.220"
988/5	1000'	5	18 solid		.016"	.020"	.235"
988/6	1000'	6	18 solid		.016"	.020"	.265"
921	1000'	2	22 Stranded	7/30	.010"	.020"	.130"
921/3	1000'	3	22 Stranded	7/30	.010"	.020"	.140"
921/4	1000'	4	22 Stranded	7/30	.010"	.020"	.165"
922	1000'	2	20 Stranded	10/30	.016"	.020"	.175"
922/3	1000'	3	20 Stranded	10/30	.016"	.022"	.185"
922/4	1000'	4	20 Stranded	10/30	.016"	.020"	.195"
923	1000'	2	18 Stranded	16/30	.016"	.020"	.195"
923/3	1000'	3	18 Stranded	16/30	.016"	.020"	.205"
923/4	1000'	4	18 Stranded	16/30	.016"	.020"	.235"
926	1000'	2	16 Stranded	26/30	.016"	.020"	.220"
926/3	1000'	3	16 Stranded	26/30	.016"	.020"	.245"
926/4	1000'	4	16 Stranded	26/30	.016"	.020"	.270"

For longer lengths and alternate put-ups—Specify.

CONDUCTOR COLOR CODE: 1-Black, 2-Red, 3-White, 4-Green.

THERMO-PLASTIC INSULATED — Cotton Braid Overall

Each Conductor #22 — 7/30 Tinned Copper Stranded, 1/64" Thermoplastic insulation, color coded, conductors twisted, closely woven brown cotton braid overall.



Cat. No.	Spool	Conds.	Size AWG	Strand	Ins.	Nom. O.D.
263	100'	3	22	7/30	1/64"	.160"
264	100'	4	22	7/30	1/64"	.170"
265	100'	5	22	7/30	1/64"	.195"
266	100'	6	22	7/30	1/64"	.210"
267	100'	7	22	7/30	1/64"	.230"
268	100'	8	22	7/30	1/64"	.245"
269	100'	9	22	7/30	1/64"	.260"
270	100'	10	22	7/30	1/64"	.295"
272	100'	12	22	7/30	1/64"	.325"

For longer lengths and alternate put-ups—Specify.

CONDUCTOR COLOR CODE: 1—Black, 2—White, 3—Red, 4—Green, 5—Orange, 6—Blue, 7—Brown, 8—Yellow, 9—Purple, 10—Pink, 11—Gray, 12—Dk. Blue

See Pages 1660-1665 for Birnbach Prices for Above Items

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Birnbach

CORD SETS • COAX CABLE
COMMUNITY COAX • DIATHERMY • LAMP CORD

HEAVY DUTY SERVICE CORD

CSA APPROVED — (HEAVY DUTY) — UL APPROVED

Used for heavy duty replacement on refrigerators, washing machines, machinery, tools and electronic devices.

DESCRIPTION:
Two and Three Conductors, Stranded Bare Copper, cotton serve, rubber insulation, jute filler, cotton wrap, tough rubber jacket overall, molded plug one end, free end stripped and tinned for easy attachment—Hankd.
No. 346 and 347 Same as above with 3 prong plug.

Cat. No.	Length Ft.	Conds.	Size AWG	Type	Strand	O.D.	Std. Pkg.
348	8	2	16	S.J.	65/34	.325"	25
346	8	3	16	S.J.	65/34	.355"	25
347	8	3	18	S.J.	41/34	.330"	25
309	9	2	18	S.V.	41/34	.250"	25
312	12	2	18	S.V.	41/34	.250"	25
309/3	9	3	18	S.V.	41/34	.265"	25
312	12	2	18	S.V.	41/34	.250"	25

TV POWER SUPPLY CORD—UL APPROVED

Used extensively as replacement of damaged or worn out TV cords.

DESCRIPTION:
Six Foot Rip Strip TV U.L. Approved Safety Cord. 2-cond. No. 18 SP-1 (POSJ) brown rubber cord with molded male plug and TV molded-on connector on other end.

Cat. No.		Std. Pkg.
815	Television Power Supply Cord ..... 6 Feet	100

SERVICE LINE CORDS—UL APPROVED

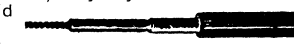
An all purpose approved power supply cord for radios, record players, lamps, and small appliances.

DESCRIPTION:
Two Conductors Rubber Parallel SP-1 (POSJ) with Molded-on Male Plug, double brass blades, conductor end striped and tinned, hanked. Available in Black and Brown.

Cat. No.	Lgth. Ft.	Conds.	Size No. AWG	Strand	Nom. O.D.	Std. Pkg.
816	6	2	18	41/34	130" x .235"	100
817	7½	2	18	41/34	130" x .235"	100
819	10	2	18	41/34	130" x .235"	50

RG/U COAXIAL TRANSMISSION CABLE

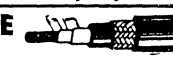
DESCRIPTION: One and Two Conductor, Polyethylene plastic insulation, copper braid shield, plastic jacket overall.



Cat. No.	Spool	Type	Nom. Imped.	Nom. Mmfd./ Ft.	Size AWG	Strand	Nom. O.D.
901	500'	RG-8/U	52	29.5	13	7/21 Bare	.405"
902	500'	RG-9/U	51	30	13	7/21S	.420"
903	500'	RG-11/U	75	20.5	18	7/26 Tinned	.405"
904F	500'	RG-11/U	75	16.5	15	Solid	.405"
904DS	500'	RG-11/U	75	20.5	18	7/26T	.470"
904DSF	500'	RG-11/U	75	16.5	15	Solid	.470"
912	500'	RG-22/U	95.0	16.0	18	2 Cond. 7/.0152	.405"
907	1000'	RG-29/U	53.5	28.5	20	Solid	.174"
909	1000'	RG-54A/U	58	26.5	18	7/.0152	.250"
905	1000'	RG-58A/U	50	29.0	20	19/.0068 Tinned	.195"
906	1000'	RG-58/U	53.5	28.5	20	Solid	.195"
910	1000'	RG-59/U	73	21.0	22	Solid Copperweld	.242"
914	1000'	RG-62/U	93	13.5	22	Solid	.242"
916	1000'	RG-108/U	78	23.5	20	2 Cond. 7/28T	.235"

Additional RG numbers available including double shields, non-contaminating jackets—all conforming to MIL-C-17B specifications. Also, "TEFLON" dielectrics available for hi. temp. miniaturization.
No. 904F is RG-11/U with Poly-cell foam; No. 904 DSF has double shield Poly-cell dielectric constant of 1.50 solid Polyethylene 2.25.

DIATHERMY CABLE



Cat. No.	Spool	Size AWG	Strand	Ins.	Nom. O.D.
756	100'	14	104/34	3/64"	.300"
757	1000'	14	104/34	3/64"	.300"

RIP-STRIP LAMP CORD

TYPE SP-1 (POSJ-64) — TYPE SPT-1 (POT) — UL APPROVED

All purpose approved cords SP-1 (rubber) SPT-1 (Plastic) for line cord on lamps, radios, clocks, small electronic instruments and appliances:
DESCRIPTION:
Two Conductors Parallel, #18—41/34 Extra Flexible Copper, rubber or plastic jacket slit for easy separation.

Cat. No.	Spool	Cond.	Size AWG	Strand	Insul.	Type	UL Type	Nom. O.D.
570	100'	2	18	41/34	Rubber	SP-1	(POSJ)	.130" x .235"
572	250'	2	18	41/34	Rubber	SP-1	(POSJ)	.130" x .235"
573	500'	2	18	41/34	Rubber	SP-1	(POSJ)	.130" x .235"
569	500'	2	18	41/34	Plastic	SPT-1	(POT)	.130" x .235"

Colors: (Rubber) Brown, Black, White.
(Plastic) Brown, Black, Ivory, Gray, Pink, Light Blue, Yellow, Green.

BIRNBACH COMMUNITY TV COAXIAL CABLES

New, developed for industry where weight, lower attenuation and superior performance are paramount. New cellular polyethylene construction offers low loss and light weight to community TV use. Note supported numbers—ideal for long lengths and self supporting. Hi-molecular weight 'poly' jacketing assures longer life and all weather conditions.

C=Copper
CC=2 Copper
CW=Copperweld
PE=Polyethylene
PEC=Cellular Polyethylene
BV=Black Vinyl
CSB=Copper Strip Braid
HMW=High Molecular Weight Polyethylene

Cat. No.	R.G. No.	A.W.G.	Cond. Material	Insulation	Shield	Jkt.	O.D.	Nom. Impedance	Nom. Velocity of Propagation	Nom. Capacitance	Nom. Attenuation per 100' Chan.	db.
4901	59/U	22 Sol.	C.W.	PE	C	BV or HMW	.246	75	78%	16.2	2 4	2.7 2.9
4902	59/U Supported	22 Sol.	C.W.	PE	C	BV or HMW	.246	75	78%	16.2	6 8	3.2 5.0
4903	59/U Double	22 Sol.	C.W.	PE	CC	BV or HMW	.300	75	78%	16.2	10 12	5.2 5.4
4904	59/U Celluar	20 Sol.	C	PEC	C	BV or HMW	.246	75	78%	17.3	2 4 6 8 10 12	1.6 1.8 1.9 3.2 3.4 3.5
STANDARD SPOOL PUT-UPS: 500 Ft., 1000 Ft. In addition, all are available on continuous length reels of 3000 feet or more.												
4905	11/U Cellular	14 Sol.	C	PEC	C	HMW	.410	75	78%	17.3	2 4	1.1 1.2
4906	11/U Supported	14 Sol.	C	PEC	C	HMW	.410	75	78%	17.3	6 8	1.3 2.1
4907	11/U Double Cellular	14 Sol.	C	PEC	CC	HMW	.470	75	78%	17.3	10 12	2.1 2.2
4908	11/U Double Supported	14 Sol.	C	PEC	CC	HMW	.470	75	78%	17.3		
4909	11/U Cellular	14 Sol.	C	PEC	CSB	HMW	.410	75	78%	17.3	6 13	1. 2.
4910	11/U Double Cellular	14 Sol.	C	PEC	CSB	HMW	.410	75	78%	17.3		
4912	Cellular	12 Sol.	C	PEC	CSB	HMW	.460	75	78%	17.3	6	1.
4913	Double Cellular	12 Sol.	C	PEC	CSB	HMW	.460	75	78%	17.3	13	1.
4915	Cellular	9 Sol.	C	PEC	CSB	HMW	.637	75	78%	17.3	6	.
4916	Double Cellular	9 Sol.	C	PEC	CSB	HMW	.637	75	78%	17.3	13	1.

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See Pages 1660-1665 for Birnbach Prices for Above Items

Birnbach

MAGNET WIRE • SLIPBACK WIRE TINNED COPPER • ROTOR CABLE

BIRNBACH

MAGNET WIRE PER MIL-W-583B

HEAVY FORMVAR (HF) TYPE, T2

Single conductor round bare copper, baked film insulation from a varnish based on a vinyl acetal resin. 105°C.

Cat. No.	Size B&S	Nom. O.D.
BHF-10	10	.1056″
BHF-12	12	.0842″
BHF-14	14	.0673″
BHF-16	16	.0539″
BHF-18	18	.0432″
BHF-20	20	.0346″
BHF-22	22	.0277″
BHF-24	24	.0224″
BHF-26	26	.0180″
BHF-28	28	.0144″
BHF-30	30	.0116″
BHF-32	32	.0095″
BHF-34	34	.0075″
BHF-36	36	.0060″
BHF-38	38	.0049″
BHF-40	40	.0038″
BHF-42	42	.0032″
BHF-44	44	.0026″

PLAIN ENAMEL (PE) TYPE T

Single conductor round bare copper covered with a continuous insulating film of enamel. 105°C.

Cat. No.	Size B&S	Nom. O.D.
BPE-10	10	.1037″
BPE-12	12	.0825″
BPE-14	14	.0657″
BPE-16	16	.0522″
BPE-18	18	.0416″
BPE-20	20	.0332″
BPE-22	22	.0266″
BPE-24	24	.0212″
BPE-26	26	.0169″
BPE-28	28	.0135″
BPE-30	30	.0108″
BPE-32	32	.0087″
BPE-34	34	.0069″
BPE-36	36	.0055″
BPE-38	38	.0044″
BPE-40	40	.0034″
BPE-42	42	.0028″
BPE-44	44	.0023″

STANDARD PUT-UP: ¼ lb., ½ lb., 1 lb., 5 lbs., 10 lbs.
Sizes 38, 40, 42, 44 largest put-up 1 lb.
Sizes 34, 36 largest put-up 5 lbs.

SOLID TINNED (SOFT DRAWN) SYMBOL TC

Specification MIL-W-3861 Type S, QQ-W-343 Type S, ASTM-B-33

Cat. No.	Size B&S	Nom. O.D.
ST-10	10	.103″
ST-12	12	.082″
ST-14	14	.065″
ST-16	16	.051″
ST-18	18	.040″
ST-20	20	.033″
ST-22	22	.025″
ST-24	24	.020″
ST-26	26	.016″
ST-28	28	.013″
ST-30	30	.010″
ST-32	32	.008″
ST-34	34	.006″
ST-36	36	.005″
ST-38	38	.004″
ST-40	40	.003″

STANDARD PUT-UP: ¼ lb., ½ lb., 1 lb., 5 lbs., 10 lbs.
Sizes 34, 36 largest put-up 5 lbs.
Sizes 38, 40, 42, 44 largest put-up 1 lb.

TINNED COPPER WIRE—BUS BAR

Pure Electrolytic, Copper, annealed, tinned for quick soldering
MIL—W—3861 type S, ASTM—B—33 specifications, QQ—W—343 type S

Cat. No.	Put-Up	Size AWG	Area Circular Mills	O.D.
1433/4	100′ Coil	4	41,704	.204″
1433/6	100′ Coil	6	26,250	.162″
1433	100′ Coil	8	16,510	.129″
1402	100′ Coil	10	10,380	.103″
1403	1000′ Spool	10	10,380	.103″
1406	100′ Coil	12	6,530	.082″
1407	1000′ Spool	12	6,530	.082″
1410	100′ Coil	14	4,107	.065″
1411	1000′ Spool	14	4,107	.065″
1414	100′ Coil	16	2,583	.051″
1415	1000′ Spool	16	2,583	.051″
1418	100′ Coil	18	1,624	.040″
1419	1000′ Spool	18	1,624	.040″
1422	100′ Coil	20	1,022	.033″
1423	1000′ Spool	20	1,022	.033″
1434	1000′ Spool	22	624.4	.025″
1424	1000′ Spool	24	404.0	.020″
1426	1000′ Spool	26	254.1	.016″
1428	1000′ Spool	28	159.8	.013″
1430	1000′ Spool	30	100.5	.010″
1430/32	1000′ Spool	32	63.21	.008″
1430/34	1000′ Spool	34	39.75	.006″
1430/36	1000′ Spool	36	25.00	.005″
1430/38	1000′ Spool	38	15.72	.004″

See Magnet Wire Section For Additional Sizes

DOUBLE NYLON (DN)

Single conductor round bare copper covered with double nylon insulation overall. Type F-2.

Cat. No.	Size B&S	Nom. O.D.
BDN-10	10	.109″
BDN-12	12	.086″
BDN-14	14	.069″
BDN-16	16	.056″
BDN-18	18	.045″
BDN-20	20	.037″
BDN-22	22	.030″
BDN-24	24	.024″
BDN-26	26	.020″
BDN-28	28	.017″
BDN-30	30	.014″
BDN-32	32	.012″
BDN-34	34	.010″
BDN-36	36	.009″
BDN-38	38	.008″
BDN-40	40	.007″

DOUBLE COTTON (DC)

Single conductor round bare copper covered with double cotton insulation overall. Type C-2.

Cat. No.	Size B&S	Nom. O.D.
BDC-10	10	.113″
BDC-12	12	.091″
BDC-14	14	.074″
BDC-16	16	.060″
BDC-18	18	.050″
BDC-20	20	.041″
BDC-22	22	.034″
BDC-24	24	.029″
BDC-26	26	.024″
BDC-28	28	.020″
BDC-30	30	.017″
BDC-32	32	.015″
BDC-34	34	.014″
BDC-36	36	.012″
BDC-38	38	.011″
BDC-40	40	.01″

STANDARD PUT-UP: ¼ lb., ½ lb., 1 lb., 5 lbs., 10 lbs.
Sizes 34, 36 largest put-up 5 lbs.
Sizes 38, 40, 42, 44 largest put-up 1 lb.

BIRNBACH DOUBLE BRAID SLIPBACK HOOK-UP WIRE

Has a double cotton braid over the conductor, brightly color coded, saturated with paraffin. This construction will not cause the cotton insulation to fray or bunch up when pushed back. Has high dielectric strength and will withstand all climatic changes without breakdown. Tinned copper wire.

COLORS:
Black, Red, Blue, Yellow, Green, White, Brown, Orange

SOLID

Cat. No.	Put-Up	Size	Strands	Puncture V. 60-cy. AC	O.D.
380	100′ Spool	20	Solid	2000	.090″
382	100′ Spool	18	Solid	2100	.098″
384	100′ Coil	16	Solid	2100	.108″
386	100′ Spool	14	Solid	2100	.122″
388	100′ Spool	12	Solid	2200	.135″
580	1000′ Spool	20	Solid	2000	.090″
582	1000′ Spool	18	Solid	2100	.098″
584	1000′ Spool	16	Solid	2100	.108″
586	1000′ Spool	14	Solid	2100	.122″
588	1000′ Spool	12	Solid	2200	.135″

STRANDED

381	100′ Spool	20	10/30	2100	.093″
383	100′ Spool	18	16/30	2200	.103″
385	100′ Spool	16	26/30	2200	.118″
387	100′ Spool	14	41/30	2200	.135″
389	100′ Spool	12	65/30	2300	.155″
581	1000′ Spool	20	10/30	2100	.093″
583	1000′ Spool	18	16/30	2200	.103″
585	1000′ Spool	16	26/30	2200	.118″
587	1000′ Spool	14	41/30	2200	.135″
589	1000′ Spool	12	65/30	2300	.155″

BIRNBACH BIRNTEX SLIPBACK WIRE

This wire is constructed of quality materials and carefully insulated with a cotton wrap over which a cotton braid is closely woven, and then saturated with paraffin. Pushes back easily. Tinned copper wire.

SOLID

Cat. No.	Put-Up	Size	Strands	Puncture V. 60-cy. AC	O.D.
72	100′ Spool	22	Solid	1500	.060″
76	1000′ Spool	22	Solid	1500	.060″
85	100′ Spool	20	Solid	1500	.065″
86	100′ Spool	18	Solid	1500	.075″
92	1000′ Spool	20	Solid	1500	.065″
94	1000′ Spool	18	Solid	1500	.075″

STRANDED

73	100′ Spool	22	7/30	1500	.065″
77	1000′ Spool	22	7/30	1500	.065″
85	100′ Spool	20	10/30	1500	.070″
87	100′ Spool	18	16/30	1500	.080″
93	1000′ Spool	20	10/30	1500	.070″
95	1000′ Spool	18	16/30	1500	.080″

COLORS: Blue, Black, Red, Yellow, Green, White, Brown, Orange

ANTENNA CONTROL ROTOR CABLE

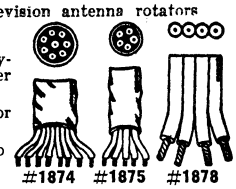
Developed for remote control of television antenna rotators

DESCRIPTION:

#1874—4 Conductors flat parallel polyethylene plastic insulation — One outer conductor tinned, balance bare copper.

#1875 — 5 Conductors twisted, color coded. Vinyl plastic jacket overall.

#1878 — 8 Conductors twisted, colo coded. Vinyl plastic jacket overall.



Cat. No.	Spool	Cond.	Size AWG	Strand	Nom. O.D.
1874	1000′	4	20	7/28	.072″ x .390″
1874A	500′	4	20	7/28	.072″ x .390″
1875	1000′	5	20	7/28	.180″
1875A	500′	5	20	7/28	.180″
1878	1000′	8	22	7/30	.205″
1878A	500′	8	22	7/30	.205″

CONDUCTOR COLOR CODE CHART FOR #1875, #1878

1—Black 2—White 3—Red 4—Green 5—Yellow 6—Blue 7—Brown 8—Orange

See Pages 1660-1665 for Birnbach Prices for Above Items

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Birnbach

LACINE CORD AND TAPES • CABLE AND TUBING CLAMPS • WIRE TIES

LACING CORD/TAPE TO MEET MIL-T-713A TYPE P*

FLAT BRAIDED LACING TAPE

NYLON

Flat braided Hi-Tenacity Nylon Fiber impregnated with (MW) microcrystalline fungicidal wax. Engineered to stay flat. Distributes stress evenly over a wide area. Resistant to fungus, flame, abrasion, acids. Will not cut or damage insulation. Has strength, toughness and stability.

Put up on 500 yards per tube.

Cat. No.		Class	Width	Thickness	Test Lbs.	Yard/Lb.
1035	Natural White	—	.200"	.014"	150	250
1035B	Black	—	.200"	.014"	150	250
1036	Natural White	1	.120"	.014"	80	550
1036B	Black	1	.120"	.014"	80	550
1037	Natural White	2*	.090"	.014"	50	750
1037B	Black	2*	.090"	.014"	50	750
1038	Natural White	3	.062"	.010"	30	1500
1038B	Black	3	.062"	.010"	30	1500
1039	Natural White	4	.046"	.010"	15	2400
1039B	Black	4	.046"	.010"	15	2400

DACRON

Flat Braided Hi-Tenacity Dacron Fiber impregnated with special non-slip fungicidal finish. Will not cut or damage insulation. Engineered to stay flat—for strength, toughness, stability. Will not cut insulation.

Put up on 500 yards per tube.

Cat. No.		Width	Thickness	Test Lbs.	Yard/Lb.
1041	Natural White	.120"	.014"	80	450
1041B	Black	.120"	.014"	80	450
1042	Natural White	.090"	.014"	48	600
1042B	Black	.090"	.014"	48	600
1043	Natural White	.060"	.010"	35	850
1043B	Black	.060"	.010"	35	850
1044	Natural White	.046"	.010"	25	1100
1044B	Black	.046"	.010"	25	1100

TEFLON-FIBERGLASS

Flat Braided Fiberglass, teflon coated and bonded for hi-temperature applications (550°F). Engineered to stay flat —for strength, toughness and stability. Teflon finish increases tensile strength and abrasion resistant surface. Will not cut or damage insulation. Color White.

Put up on 500 yards per spool.

Cat. No.	Width	Thickness	Test Lbs.	Yard/Lb.
1045	.170"	.025"	150	200
1046	.120"	.020"	90	200
1047	.080"	.020"	70	280

TEFLON

Flat Braided Teflon for hi-temperature applications (550°F.) Engineered to stay flat. Will not cut or damage insulation. Color: Brown.

Put up on 500 yards per spool.

Cat. No.	Width	Thickness	Test Lbs.	Yard/Lb.
1048	.100"	.016"	35	325
1049	.075"	.010"	15	700

ROUND NYLON LACING CORDS

This nylon lacing cord manufactured to meet Spec. MIL-T-713A Type P, Composition P, Classes 3, 2, 1. Wax finished—compounded with a fungicide to resist mildew.

Put up on 1 lb. Tubes.

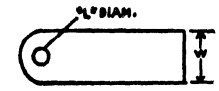
	Cat. Nos. Color Natural	Cat. Nos. Color Black	Yds.	Diam.	Breaking Strength
Class 1	1070	1070B	600	.039"	70 Lbs.
Class 2	1071	1071B	800	.029"	48 Lbs.
Class 3	1072	1072B	1140	.025"	32 Lbs.
Class 4	1072/1	1072/1B	2400	.020"	20 Lbs.

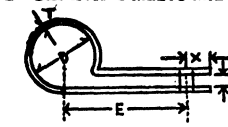
ROUND LINEN LACING CORDS

This linen lacing cord is made from pure flax treated with microcrystalline wax compounded with fungicide to resist mildew. The twelve, eight and six ply cord meet Spec. MIL-T-713A Type N, Classes 1, 2 and 3 respectively. Color: Natural. Also available in Black in 1 lb. Tubes.

4 oz. Tube Cat. No.	Yds.	8 oz. Tube Cat. No.	Yds.	1 lb. Tubes. Cat. No. Natural	Cat. No. Black	Yds.	Class	Ply	Diam.	Lb. Test
1073	210	1074	425	1075	1075B	850	—	4	.036"	22
1076	150	1077	300	1078	1078B	600	3	6	.044"	33
1082	115	1083	235	1084	1084B	470	2	8	.051"	50
1079	100	1080	200	1081	1081B	400	—	9	.054"	56
1085	75	1086	150	1087	1087B	300	1	12	.063"	72

NYLON CABLE AND TUBING CLAMPS MEETS MIL-P-20693A





MADE OF DUPONT NYLON FORMULA FM 10001 (Zytel 101)

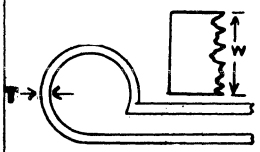
Used as a clamp, strain relief, clip hanger, fastener, strap, these nylon cable clamps are light and tough. Have smooth, non-abrasive surfaces, rounded edges will not chafe conductors or cause shorts or grounds in cable. Insoluble in solvents, oils, gasoline, alcohol, hydraulic fluids, alkalies, acids. Temperature resistant from —60°F to +300°F. Do not support combustion. Moisture and heat resistant. Inside matte finish surfaces prevent slippage under vibration and are self aligning when tightened by screw. Snaps onto cable. Meets MIL-P-20693A specs. Fungus resistant.

Cat. No.	Put-Up	To Fit Size	D	E	W	T	L	X	A
725	100	1/8"	.125	.316	3/8	.050	.177	.227	.062
726	100	3/16"	.187	.378	3/8	.050	.177	.277	.062
727	100	1/4"	.250	.409	3/8	.050	.177	.227	.062
728	100	5/16"	.312	.441	3/8	.050	.177	.277	.062
729	100	3/8"	.375	.471	3/8	.050	.177	.277	.062
730	100	7/16"	.437	.519	3/8	.050	.177	.277	.062
731	100	1/2"	.500	.550	3/8	.050	.177	.277	.062
731A	100	9/16"	.563	.625	1/2	.060	.177	.227	.062
732	100	5/8"	.625	.634	1/2	.060	.177	.227	.062
732A	100	11/16"	.687	.752	1/2	.060	.177	.227	.062
733	100	3/4"	.750	.718	1/2	.060	.177	.227	.062
734	100	7/8"	.875	.760	1/2	.060	.177	.227	.062
735	100	1"	1.000	.802	1/2	.060	.177	.227	.062
736	100	1 1/8"	1.125	.968	1/2	.062	.204	.250	.125
737	100	1 1/4"	1.250	1.156	1/2	.062	.204	.250	.125
738	100	1 1/2"	1.500	1.188	5/8	.070	.204	.250	.125

ETHYL CELLULOSE PLASTIC CABLE & TUBING CLAMPS

Recommended for general use. They withstand age, shock and vibration. Moisture and corrosion. This tough, lightweight and durable clamp withstands temperatures from —60° to +175°F. Approved 7-21-44 Army-Navy aeronautical AN-742. Approved for inside-outside, hi-tension, primary and secondary. Standard pkge. 100, 1000.

Cat. No.	To Fit Size	D	E	W	T	L	X	A
715	1/8"	.125	.325	1/2	.060	.204	7/32	.062
715A	3/16"	.188	.390	1/2	.060	.204	7/32	.062
715B	1/4"	.250	.421	1/2	.060	.204	7/32	.062
715C	5/16"	.313	.457	1/2	.060	.204	7/32	.062
715D	3/8"	.375	.483	1/2	.060	.204	7/32	.062
715E	7/16"	.438	.531	1/2	.060	.204	7/32	.062
716	1/2"	.500	.562	1/2	.060	.204	7/32	.062
716A	9/16"	.563	.625	1/2	.060	.204	7/32	.062
716B	5/8"	.625	.610	1/2	.060	.204	7/32	.062
716C	11/16"	.688	.666	1/2	.060	.204	7/32	.062
716D	3/4"	.750	.766	1/2	.060	.204	7/32	.062
716E	7/8"	.875	.813	1/2	.060	.204	7/32	.062
717	1"	1.000	.906	1/2	.060	.204	7/32	.062
717A	1 1/8"	1.125	.969	1/2	.060	.204	7/32	.062
717B	1 1/4"	1.250	1.156	1/2	.060	.204	7/32	.062
717C	1 1/2"	1.5	1.0625	5/8	.070	.204	7/32	.062
717D	2"	2.0	1.313	5/8	.070	.204	7/32	.062
717E	2 1/2"	2.5	1.563	5/8	.070	.204	7/32	.062

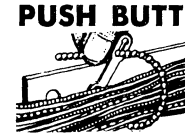


BIRNBACH ALUMINUM CABLE AND TUBING CLAMPS

These Tube Clamps are made of hard drawn aluminum and are found to be extremely desirable when mounting resonant lines, or elements of directive beam antennas. The 1/8" thru 5/8" clamps have a clearance for No. 10 Screw. The 3/4" to the 1 1/4" clamps have a clearance for 1/4" bolts.

Cat. No.	To Fit Tube	Width "W"	Length "L"	Thickness "T"	Std Pkg
51A	1/8"	1/2"	13/16"	.050"	10
51	1/4"	1/2"	7/8"	.050"	10
52	5/16"	1/2"	15/16"	.050"	10
53	3/8"	1/2"	1"	.050"	10
54	1/2"	1/2"	1 1/8"	.050"	10
54A	5/8"	1/2"	1 1/4"	.050"	5
55	3/4"	3/4"	1 5/16"	.090"	5
57	7/8"	3/4"	1 5/8"	.090"	5
56	1"	3/4"	1 3/4"	.090"	5
56A	1 1/8"	3/4"	1 7/8"	.090"	5
56B	1 1/4"	3/4"	2"	.090"	5

PUSH BUTTON WIRE TIES (PAT. PENDING)



Push Button Wire Ties useful for harnessing wires fas saves labor; eliminates screws and usual time requir for string tying. Measures 4 1/2" in length and is adjus able to 30 different diameters. Insert the tie in the ho for anchoring; wires can be replaced or added by loose ing the tie and pulling tight again. Constructed of tou Polyethylene; chemically inert, heat resistant; breaki point 45 to 95 lbs. Push button ties are designed to fit a .250"—.265" hole in .031 to .140 thick panel.

Cat. No.	Color (Specify)	Std. Pkg.
PBT-4	Red, Blue, Yellow	100, 1000

MATERIAL CONFORMS TO SPEC. LP 590

Birnbach PRICE LIST

Cat. No.	Sug'd Resale
OO	11.10 C
1-50	.40 ea.
1	.79 ea.
1	6.44 M
2	.40 ea.
2	.79 ea.
2	6.44 M
3-50	.40 ea.
3	.79 ea.
3	6.44 M
3	6.44 M
3A	6.44 M
4	24.75 M
5	33.00 M
6	6.30 C
8	6.30 C
10	7.50 C
11	9.00 C
15	4.62 C
16	16.50 C
17	36.00 C
18	60.00 C
19	.27 ea.
20	.54 ea.
20 A	.45 ea.
21-35	.40 ea.
21	.99 C
21	8.25 M
22-15	.40 ea.
22	2.11 C
22	19.47 M
23	9.60 C
24	10.20 C
26	10.20 C
27	6.60. C
27-C	12.60 C
27-R	11.70 C
28	6.60. C
29	10.20 C
30	21.69 C
31	7.50 C
31-FB	3.90 C
31-MG/C	7.80 C
31-MG/S	6.60 C
31-C	12.60 C
31 MC	9.00 C
31 MB	6.60 C
31 MS	8.40 C
31-R	6.60 C
31-S	9.60 C
32	1.80 C
32 A	1.35 C
33	8.40 C
34	.90 ea.
35	.90 ea.
36	.90 ea.
37	.90 ea.
38	.90 ea.
39	.90 ea.
40	.90 ea.
41	.90 ea.
45	.90 ea.
47	.90 ea.
49	.90 ea.
51	10.50 C
51-A	10.50 C
52	10.50 C
53	10.50 C
54	10.50 C
54 A	10.80 C
55	12.00 C
56	13.50 C
6 A	18.00 C
6 B	19.50 C
7	13.50 C
8	.96 ea.
9	1.20 ea.
1	2.40 ea.
2	10.50 ea.
2	21.00 ea.
4	.84 ea.
5	1.50 ea.
6	3.30 ea.
7	15.30 ea.
7	30.60 ea.
8	4.50 ea.
9	21.00 ea.
9	42.00 ea.
2	1.74 ea.
3	2.04 ea.
6	15.60 ea.
7	17.70 ea.
4	2.04 ea.
5	2.25 ea.
5	2.40 ea.
87	2.70 ea.
92	17.70 ea.
93	19.80 ea.
94	21.60 ea.
95	24.00 ea.
96-40	.40 ea.
96	.79 ea.
96	7.10 M
97-40	.40 ea.
97	.79 ea.
97	7.10 M
98-35	.40 ea.
98	.99 ea.
98	8.25 M
99-35	.40 ea.
99	.92 ea.
99	8.25 M
100-20	.40 ea.
100	1.48 ea.
100	13.20 M
102	.60 ea.
103	.60 ea.
104	.99 ea.
105	.99 ea.
106	.60 ea.
107	.99 ea.
108	1.38 ea.
109	1.80 ea.
113	75.00 C
114	6.60 C
115	7.20 C
116	7.80 C
117	16.50 C
118	15.00 C
119	13.20 C
120	1.80 ea.
121	.36 ea.
122	.54 ea.
123	.60 ea.
124	.69 ea.
125	1.80 ea.
126	1.50 ea.
127	1.80 ea.
128	2.22 ea.
130	.42 ea.
131	.51 ea.
132	.24 ea.
133	.27 ea.
134	.36 ea.
135	.27 ea.
136	.21 ea.
140-4	9.00 M
140-6	9.00 M
140-8	9.00 M
140-10	9.00 M
140-14	10.00 M
141-4	9.00 M
141-6	9.00 M
141-8	9.00 M
142-4	9.00 M
142-6	9.00 M
142-8	9.00 M
143-4	9.00 M
143-6	9.00 M
143-8	9.00 M
144-4	9.00 M
144-6	9.00 M
144-8	9.00 M
144-10	9.00 M
145-4	9.00 M
145-6	9.00 M
145-8	9.00 M
146-4	9.00 M
146-6	9.00 M
146-8	9.00 M
149	4.50 ea.
151	.39 ea.
155 H	27.00 ea.
156	10.80 ea.
157	15.00 ea.
158	19.50 ea.
159	24.75 ea.
160	30.00 ea.
161	33.00 ea.
162	18.00 ea.
163	21.00 ea.
164	24.00 ea.
165	28.50 ea.
165/15	39.60 ea.
166	1.32 ea.
172	5.10 ea.
172	25.50 ea.
172	51.00 ea.
173	7.05 ea.
173	35.25 ea.
173	70.50 ea.
174	9.60 ea.
174	48.00 ea.
174	96.00 ea.
175	11.25 ea.
175	56.25 ea.
175	112.50 ea.
176	12.60 ea.
176	63.00 ea.
176	126.00 ea.
177	13.90 ea.
178	19.50 ea.
179	22.50 ea.
180	24.00 ea.
182	28.80 ea.
184	16.20 C
185	13.80 C
186	15.00 C
193	9.00 M
194	9.00 M
195	9.00 M
196	10.80 M
197	10.80 M
200	6.00 M
201-35	.40 ea.
201-100	.92 ea.
201-1000	8.25 M
202	5.10 M
203	.39 ea.
203-A	2.25 ea.
203-H	2.25 ea.
204	.39 ea.
204-A	2.25 ea.
204 H	2.25 ea.
205	.39 ea.
205 H	2.25 ea.
206	.39 ea.
206-A	2.25 ea.
206-H	2.25 ea.
207	.39 ea.
207-H	2.25 ea.
208	.39 ea.
208 H	2.25 ea.
209	.39 ea.
209 H	2.25 ea.
212 A	2.25 ea.
220	4.80 ea.
220 A	4.05 ea.
221	1.08 ea.
221 A	.84 ea.
231-MC	21.00 C
232-FC	31.80 C
233-CC	22.80 C
234-CLC	36.00 C
239-FC2	3.72 ea.
245-MFC	3.72 ea.
246	24.00 C
248	4.80 C
248 S	4.80 C
249	6.60 C
251	48.00 C
252	72.00 C
257	30.00 C
258	34.20 C
259	36.00 C
260	45.00 C
263	5.40 ea.
263	26.70 ea.
263	53.40 ea.
264	6.96 ea.
264	34.50 ea.
264	69.00 ea.
265	41.70 ea.
265	83.40 ea.
265	8.40 ea.
266	9.78 ea.
266	48.60 ea.
266	97.20 ea.
267	11.10 ea.
267	54.60 ea.
267	109.20 ea.
268	12.30 ea.
268	61.20 ea.
268	122.40 ea.
269	14.25 ea.
269	70.95 ea.
269	141.90 ea.
270	15.75 ea.
270	78.45 ea.
270	156.90 ea.
272	19.53 ea.
272	97.35 ea.
272	194.70 ea.
273	36.00 C
275	42.00 C
276	42.00 C
278	24.00 C
279	18.00 C
287	.29 ea.
288	7.35 ea.
289 VC	4.32 ea.
290 VC	4.38 ea.
291	.18 ea.
291 V	1.38 ea.
291 VC	4.80 ea.
293	.18 ea.
293 V	1.41 ea.
293 VC	5.10 ea.
294	.18 ea.
294 V	1.44 ea.
294 VC	5.40 ea.
295	.18 ea.
295 V	1.47 ea.
295 VC	5.55 ea.
296	1.50 ea.
296 VC	45.00 ea.
297	.36 ea.
298	.42 ea.
299	1.26 ea.
299 VC	39.00 ea.
300	.18 ea.
300 V	1.53 ea.
300 VC	6.00 ea.
301	.30 ea.
301 V	1.41 ea.
301 VC	7.95 ea.
302	.33 ea.
302 V	1.11 ea.
302 VC	9.60 ea.
303	.54 ea.
303 VC	18.00 ea.
304	.66 ea.
304 VC	22.80 ea.
305 V	1.26 ea.
305 VC	10.50 ea.
306 V	1.35 ea.
306 VC	13.20 ea.
307	.24 ea.
307 V	1.35 ea.
307 VC	6.60 ea.
308 B	.45 ea.
308 BC	1.65 ea.
309	.96 ea.
309/3	1.35 ea.
309/3	1.32 ea.
309/3	1.20 ea.
310	10.80 C
310 B	21.00 C
310 C	13.80 C
310 S	11.40 C
311 B	.45 ea.
311 BC	1.65 ea.
312	1.08 ea.
313	.10 ea.
313 B	.45 ea.
313 BC	1.65 ea.
314	.10 ea.
314 B	.45 ea.
314 BC	1.65 ea.
315	.11 ea.
315 B	.45 ea.
315 BC	1.65 ea.
316	.11 ea.
316 B	.48 ea.
316 BC	1.80 ea.
317	.11 ea.
317 B	.48 ea.
317 BC	1.80 ea.
318	.24 ea.
318 B	.45 ea.
318 BC	2.82 ea.
319	.27 ea.
319 B	.45 ea.
319 BC	4.05 ea.
320	.30 ea.
320 B	.45 ea.
320 BC	4.05 ea.
321	.36 ea.
321 BC	5.10 ea.
322	.39 ea.
322 BC	8.40 ea.
323	.60 ea.
323 BC	13.50 ea.
324	.66 ea.
324 BC	16.50 ea.
325	.21 ea.
325 B	.45 ea.
325 BC	2.64 ea.
326	.24 ea.
326 B	.45 ea.
326 BC	3.00 ea.
327 BC	17.40 ea.
328 BC	48.00 ea.
329 BC	64.95 ea.
330	15.00 C
330 A	13.20 C
331	15.00 C
331 A	10.20 C
332	10.80 C
332 A	1.20 C
333	16.20 C
334	33.00 C
335	39.00 C
336	39.00 C
337	42.00 C
340	6.60 C
341	39.00 C
341 B	60.00 C
342	285.00 C
342 B	315.00 C
343	.36 ea.
344	.33 ea.
345	.36 ea.
346	1.56 ea.
347	1.50 ea.
348	1.20 ea.
350	1.20 ea.
351	1.20 ea.
352	1.20 ea.
353	1.20 ea.
354	6.00 ea.
359	1.20 ea.
360 BC	19.50 ea.
361 BC	21.00 ea.
362 BC	13.50 ea.
363 BC	18.00 ea.
364 BC	76.50 ea.
365 BC	90.00 ea.
366	10.20 C
367	13.20 C
368	1.50 C
369	1.50 C
370	3.00 C
371	1.80 C
372	1.50 C
373	3.90 C
377	.29 ea.
378	.38 ea.
379	.41 ea.
380	2.34 ea.
381	2.55 ea.
382	2.70 ea.
383	2.85 ea.
384	3.15 ea.
385	3.48 ea.
386	4.26 ea.
387	5.10 ea.
388	6.84 ea.
389	7.20 ea.
391	15.00 C
392	46.20 C
392 A	33.00 C
392 B	66.00 C
393	42.00 C
393 A	42.00 C
394	30.00 C
395	30.00 C
396	30.00 C
396 B	54.00 C
397	33.00 C
397 B	57.00 C
398	30.00 C
398 B	51.00 C
399	30.00 C
399 A	33.00 C
400	15.00 C
400 A	15.00 C
400 B	24.00 C
401	15.00 C
401 B	24.00 C
402	2.64 C
402 A	3.30 C
402 B	6.90 C
403	10.20 C
404	21.00 C
404 A	18.00 C
404-B	27.00 C
404 BC	36.00 C
404 CB	30.00 C
404 S	18.00 C
405	.099 ea.
406	13.20 C
407	13.20 C
408	1.89 ea.
409	15.00 C
410	.33 ea.
411	.79 ea.
412	19.80 C
413	1.05 ea.
414	15.00 C
415	15.00 C
416	13.20 C
417	.33 ea.
418	.36 ea.
419	24.00 C
420	.87 ea.
421	.87 ea.
422	.87 ea.
423	.87 ea.
426	16.20 C
426 A	16.20 C
430	.24 ea.
431	3.12 ea.
431 J	.45 ea.
432	.51 ea.
432 J	1.05 ea.
433	1.20 ea.
433 J	1.65 ea.
434	2.10 ea.
435	1.59 ea.
436	.36 ea.
437	.39 ea.
438	.45 ea.
439	.24 ea.
440	15.00 C
440 A	17.40 C
440 B	15.00 C
440 C	23.40 C
440 D	27.00 C
440 E	27.60 C
440 F	29.40 C
441	12.00 C
441 A	12.00 C
441 B	12.00 C
442	15.00 C
442 A	15.90 C
443	15.00 C
443 A	16.50 C
444	16.20 C
444 A	15.00 C
444 B	16.50 C
444 C	23.40 C
445	15.00 C
445 A	15.00 C
445 B	18.00 C
445 C	25.50 C
445 D	20.40 C
445 E	33.00 C
445 F	27.60 C
445 G	36.00 C
446	27.60 C
446 A	21.00 C
446 B	21.00 C
446 C	22.50 C
447	27.60 C
447 B	38.40 C
447 D	47.40 C
447 E	57.00 C
448	36.00 C
449	52.50 C
450	.35 ea.
450 J	.43 ea.
451	.43 ea.
451 J	.46 ea.
452	.46 ea.
452 J	.60 ea.
453	.82 ea.
453 J	.95 ea.
454	1.08 ea.
454 J	1.28 ea.
455	18.00 C
455 BC	24.00 C
457	.45 ea.
458	.19 ea.
462	.16 ea.
463	.30 ea.
464	.24 ea.
465	18.00 C
465 B	30.00 C
466	18.00 C
466 A	24.00 C
467	30.00 C
467 B	42.00 C
468	.33 ea.
469	.36 ea.
470	.60 ea.
471	.84 ea.
472	.27 ea.
473	.14 ea.
474	.12 ea.
475	.88 ea.
476	.66 ea.
478	.27 ea.
478 J	.32 ea.
479	.47 ea.
479 J	.57 ea.
490	1.89 ea.
490	18.90 ea.
490 A	2.83 ea.
490 B	3.78 ea.
492	2.76 ea.
492	27.60 ea.
492 A	4.14 ea.
492 B	5.52 ea.
493	2.70 ea.
493	27.00 ea.
495	3.00 ea.
495	30.00 ea.
497	4.74 ea.
497	47.40 ea.
499	8.76 ea.
499	83.40 ea.
501	2.85 ea.
503	2.34 ea.
505	2.25 ea.
506	.23 ea.
507	.24 ea.
508	.25 ea.
510	.24 ea.
510-01	.24 ea.
510-01	.24 ea.
510-02	.24 ea.
510-02	.24 ea.
511	.24 ea.
511-01	.24 ea.
511-01	.24 ea.
511-02	.24 ea.
511-02	.24 ea.
512	.24 ea.
512-01	.24 ea.
512-01	.24 ea.
514	.23 ea.
515	.23 ea.
516	.25 ea.
517	.24 ea.
517	.24 ea.
518	.24 ea.
519	.25 ea.
520	.29 ea.
521	.30 ea.
522	.34 ea.
523	.45 ea.
524	6.00 ea.
524	56.10 ea.
525-01	.24 ea.
525-01	.24 ea.
525-02	.24 ea.
525-03	.24 ea.
526	4.50 ea.
526	40.95 ea.
527	13.05 ea.
527	126.75 ea.
528	19.50 ea.
528	191.40 ea.
529	30.96 ea.
529	293.40 ea.
531	16.20 C
531 A	24.00 C
532	16.20 C
533	16.20 C
534	16.20 C
535	16.20 C
536	16.20 C
537	16.20 C
538	19.80 C
538 A	18.00 C
539	19.80 C
540	.20 ea.
541	.40 ea.
542	.30 ea.
543	.15 ea.
544	.30 ea.
545	.36 ea.
546	24.00 C
546 A	.24 ea.
547	33.00 C
550	.15 ea.

Net

U.C.P., Inc.

Birnbach PRICE LIST

Cat. No.	Sug'd Resale
550 A	.15 ea.
550 B	.18 ea.
550 C	.18 ea.
551	.33 ea.
552	.39 ea.
553	.45 ea.
554	.60 ea.
555	1.50 ea.
556	1.17 ea.
557	1.50 ea.
558	.57 ea.
559	.87 ea.
559 A	.48 ea.
560	1.50 ea.
561	1.50 ea.
562	3.96 ea.
564	2.91 ea.
569	12.60 ea.
570	3.36 ea.
572	7.80 ea
573	15.00 ea.
574	15.15 ea.
575	21.60 ea.
575/4	38.22 ea.
578	20.40 ea.
578/3	27.90 ea.
578/4D	44.10 ea.
580	21.15 ea.
581	23.15 ea.
582	24.45 ea.
583	26.16 ea.
584	27.96 ea.
585	35.22 ea.
586	35.22 ea.
587	39.96 ea.
588	63.36 ea.
589	70.32 ea.
590	18.00 C
591	21.00 C
592	18.00 C
593	.90 C
595	15.00 C
597	7.20 C
598	6.60 C
600	13.20 C
603	24.00 C
604	18.00 C
605	24.00 C
606	18.00 C
607	54.00 C
608	60.00 C
609	66.00 C
610	72.00 C
611	13.50 C
613	9.00 C
616	.84 ea.
617	18.00 C
618	1.35 ea.
619	.27 ea.
621	.21 ea.
625	13.80 C
628	
631	15.00 C
632	15.00 C
633	15.00 C
634	15.00 C
635	15.00 C
636	15.00 C
650	.30 ea.
653-8	.87 ea.
653-12	.93 ea.
653-24	.99 ea.
653-36	1.05 ea.
655-8	.90 ea.
655-12	.90 ea.
655-24	.96 ea.
655-36	1.02 ea.
657-8	.54 ea
657-12	.60 ea.
657-24	.66 ea.
657-36	.72 ea.
657-48	.78 ea.
663	13.68 C
664	11.70 C
666	11.10 C
667	27.00 C
668	.21 ea.
669	10.80 C
675	57.00 C
676	63.00 C
677	72.00 C
678	81.00 C
681 C	.87 ea.
690	16.20 ea.
690/3	25.20 ea.
691	19.50 ea.
692	27.00 ea.
692/4	41.70 ea.
693	25.05 ea.
693/3	31.50 ea.
693/4	49.20 ea.
694	31.50 ea.
694/3	37.50 ea.
694/4	57.00 ea.
695	35.40 ea.
695/3	45.54 ea.
695/4	68.40 ea.
696	51.00 ea.
696/3	73.20 ea.
696/4	104.10 ea.
697	73.50 ea.
697/3	91.50 ea.
697/4	132.00 ea.
698	97.50 ea.
698/3	136.50 ea.
698/4	167.40 ea.
700	.75 ea.
701	12.60 ea.
701/3	20.70 ea.
702	26.40 ea.
702/3	37.20 ea.
702/4	51.00 ea.
703	30.00 ea.
703/3	45.00 ea.
703/4	60.00 ea.
704	47.70 ea.
704/3	70.50 ea.
704/4	102.00 ea.
705	67.50 ea.
705/3	96.00 ea.
705/4	120.00 ea.
706	94.80 ea.
706/3	126.00 ea.
706/4	147.00 ea.
710 C	7.80 ea.
710 D	19.20 ea.
710 E	38.40 ea.
710 M	73.20 ea.
710 F	180.00 ea.
712 C	5.10 ea.
712 D	12.00 ea.
712 E	24.00 ea.
712 M	46.80 ea.
712 F	116.25 ea.
714 C	3.06 ea.
714 D	7.50 ea.
714 E	15.00 ea.
714 M	29.10 ea.
714 F	71.10 ea.
715	2.34 C
715	19.20 M
715 A	2.40 C
715 A	19.80 M
715 B	2.58 C
715 B	21.60 M
715 C	2.85 C
715 C	24.00 M
715 D	3.00 C
715 D	25.20 M
715 E	3.30 C
715 E	27.60 M
716	3.60 C
716	30.00 M
716 A	4.20 C
716 A	34.20 M
716 B	4.50 C
716 B	39.60 M
716 C	4.80 C
716 C	42.60 M
716 D	5.10 C
716 D	44.40 M
716 E	5.40 C
716 E	48.00 M
717	5.70 C
717	51.60 M
717 A	6.00 C
717 A	54.60 M
717 B	6.30 C
717 B	58.20 M
717 C	13.50 C
717 C	108.00 M
717 D	14.70 C
717 D	120.00 M
717 E	16.80 C
717 E	144.00 M
725	3.60 C
725	16.50 5C
725	30.00 M
726	3.90 C
726	17.70 5C
726	31.80 M
727	4.20 C
727	19.50 5C
727	34.80 M
728	4.65 C
728	21.30 5C
728	38.40 M
729	4.80 C
729	22.05 5C
729	40.20 M
730	5.10 C
730	23.70 5C
730	42.60 M
731	5.40 C
731	24.90 5C
731	45.00 M
731 A	6.60 C
732	7.20 C
732	34.50 5C
732	65.40 M
732 A	7.50 C
733	8.10 C
733	39.00 5C
733	75.00 M
734	8.70 C
734	43.20 5C
734	81.00 M
735	10.20 C
735	49.20 5C
735	95.40 M
736	12.00 C
736	54.00 5C
736	108.00 M
737	13.80 C
737	60.00 5C
737	120.00 M
738	28.80 C
738	129.00 5C
738	258.00 M
749	20.70 ea.
749	99.00 ea.
749	198.00 ea.
749/10	33.00 ea.
749/10	128.25 ea.
749/10	255.00 ea.
749/12	380.10 ea.
749/12	190.56 ea.
749/12	38.79 ea.
756	13.50 ea.
756	66.00 ea.
756	120.80 ea.
757	126.00 ea.
762	12.00 C
763-3	18.00 C
763-5	22.80 C
763-7	51.00 C
764	.21 ea.
765	.54 ea.
766	.35 ea.
766 J	.53 ea.
772 C	8.85 ea.
772 D	21.45 ea.
772 E	42.75 ea.
772 M	85.50 ea.
772/18	12.00 ea.
772/18	27.40 ea.
772/18	57.00 ea.
772/18	114.00 ea.
773	10.20 ea.
773	25.50 ea.
773	50.10 ea.
773	100.20 ea.
773/18	18.75 ea.
773/18	45.90 ea.
773/18	90.00 ea.
773/18	180.00 ea.
774	12.60 ea.
774	29.70 ea.
774	58.50 ea.
774	117.00 ea.
774/18	20.70 ea.
774/18	51.00 ea.
774/18	102.00 ea.
774/18	202.80 ea.
775	15.60 ea.
775	36.00 ea.
775	72.00 ea.
775	144.00 ea.
775/18	30.00 ea.
776	18.60 ea.
776	43.80 ea.
776	87.00 ea.
776	174.00 ea.
777	20.40 ea.
777	48.00 ea.
777	95.70 ea.
777	191.40 ea.
778	24.00 ea.
778	58.50 ea.
778	117.00 ea.
778	231.00 ea.
778/10	33.00 ea.
778/10	84.00 ea.
778/10	165.00 ea.
778/10	327.00 ea.
781	14.10 ea.
778/12	460.35 ea.
778/12	231.84 ea.
778/12	
778/12	46.86 ea.
786	19.80 ea.
787	28.50 ea.
788	7.50 ea.
788	18.30 ea.
788	36.00 ea.
788	72.00 ea.
789	18.30 ea.
790	8.55 ea.
790	21.15 ea.
790	41.40 ea.
790	82.80 ea.
791	21.15 ea.
792	10.44 ea.
792	25.50 ea.
792	50.10 ea.
792	100.20 ea.
793	25.50 ea.
794	12.39 ea.
794	30.39 ea.
794	60.00 ea.
794	120.00 ea.
795	30.39 ea.
796	15.90 ea.
796	37.80 ea.
796	75.00 ea.
796	149.10 ea.
797	37.80 ea.
798	19.50 ea.
798	47.64 ea.
798	93.75 ea.
798	187.50 ea.
799	12.00 ea.
800	16.50 ea.
802	15.84 ea.
803	13.20 ea.
810	23.40 ea.
811	1.35 ea.
812	45.00 C
813	10.05 C
814	10.80 C
814 T	.54 ea.
815	.50 ea.
816	.34 ea.
817	.43 ea.
818	0.76 ea.
818	43.80 ea.
818	87.60 ea.
819	.45 ea.
820	7.59 ea.
820	37.95 ea.
820	75.90 ea.
822	26.40 ea.
824	31.35 ea.
825	18.96 ea.
826	45.00 ea.
826/26	24.00 ea.
826/28	25.50 ea.
826/30	26.40 ea.
827	30.00 ea.
828	44.40 ea.
829	54.60 ea.
830	96.00 ea.
830/10	147.00 ea.
831	4.95 ea.
831	21.00 ea.
831	42.00 ea.
832	4.80 ea.
832	23.10 ea.
832	46.20 ea.
833	5.40 ea.
833	26.25 ea.
833	52.50 ea.
834	6.60 ea.
834	31.50 ea.
834	63.00 ea.
835	..8.40 ea.
835/10	195.00 ea.
835/12	129.00 ea.
835	39.60 ea.
835	78.00 ea.
853	3.15 ea.
853	15.00 ea.
853	29.10 ea.
854	3.15 ea.
854	15.00 ea.
854	29.10 ea.
855/50	1.75 ea.
855	3.30 ea.
855	15.39 ea.
855	30.00 ea.
856/50	15.00 ea.
856	29.10 ea.
856	144.60 ea.
856	297.10 ea.
856/1-50	16.80 ea.
856/1	32.40 ea.
856/1	159.00 ea.
856/1	315.00 ea.
856/2-50	28.20 ea.
856/2	54.30 ea.
856/2	316.00 ea.
856/2	426.00 ea
856/3-50	42.30 ea.
856/3	84.15 ea.
856/3	210.00 ea.
856/3	420.00 ea.
856/3	840.00 ea.
856/4-50	51.90 ea.
856/4	103.65 ea.
856/ 4	258.90 ea.
856/4	517.20 ea.
856/4	1034.10 ea.
856/6-50	79.20 ea.
856/6	156.00 ea.
856/6	774.00 ea.
856/6	1545.00 ea.
856/7	1140.00 ea.
856/7	2250.00 ea.
856/7-50	128.40 ea.
856/7	234.00 ea.
857-50	14.40 ea.
857	28.20 ea.
857	139.00 ea.
857	277.80 ea.
858-50	1.95 ea.
858	3.90 ea.
858	18.30 ea.
858	36.60 ea.
859-50	2.10 ea.
859	4.05 ea.
859	19.80 ea.
859	38.70 ea.
860-50	2.67 ea.
860	5.34 ea.
860	26.55 ea.
860	53.10 ea.
863-50	3.15 ea.
863	6.30 ea.
863	30.00 ea.
863	60.00 ea.
864-50	4.95 ea.
864	9.90 ea.
864	48.00 ea.
864	96.00 ea.
865-50	6.90 ea.
865	13.80 ea.
865	66.00 ea.
865	132.00 ea.
865/1-50	14.40 ea.
865/1	27.90 ea.
865/1	138.00 ea.
865/1	274.80 ea.
866	.159 ea.
866 J	.21 ea.
866 SJ	.49 ea.
867	.25 ea
867 J	.32 ea.
868-50	6.00 ea.
868	11.85 ea.
868	57.60 ea.
868	115.20 ea.
870	6.60 ea.
870	15.90 ea.
870	31.50 ea.
870	61.80 ea.
872	8.10 ea.
872	19.50 ea.
872	38.28 ea.
872	76.20 ea.
875/28	2.70 ea.
875	2.70 ea.
876	3.30 ea.
877/28	4.05 ea.
877	4.05 ea.
878	4.80 ea.
878/6	6.66 ea.
878/7	8.70 ea.
878/8	18.00 ea.
878/10	21.00 ea.
878/12	28.50 ea.
878/15	31.20 ea.
880	3.30 ea.
881	3.75 ea.
881/3	5.49 ea.
882	4.05 ea.
882/3	6.06 ea.
886	4.65 ea.
886/3	9.00 ea.
887	4.35 ea.
'889	5.28 ea.
889/3	6.90 ea.
889/4	7.77 ea.
889/5	12.00 ea.
889/7	18.30 ea.
890	5.70 ea.
891	6 66 ea.
891/3	8.55 ea.
891/4	9.75 ea.
891/5	)
891/6	ON REQUEST
891/7	)
893	13.05 ea.
893/3	15.00 ea.
893/4	16.50 ea.
894	19.80 ea.
894/3	24.00 ea.
894/4	28 20 ea.
894/6	ON REQUEST
894/7	107.70 ea.
895	7.65 ea.
895 A	2.10 ea.
895 B	1.20 ea.
896	15.90 ea.
896 A	4.50 ea.
897	16.65 ea.
897 A	4.65 ea.
898	17.10 ea.
898 A	5.22 ea.
899	16.95 ea.
899 A	6.75 ea.
901	81.00 ea.
902	120.00 ea.
903	75.00 ea.
904 F	78.00 ea.
904 DS	120.00 ea.
904 DSF	126.00 ea.
905	58.35 ea.
906	58.20 ea.
907	66.00 ea.
909	100.50 ea.
910	58.20 ea.
912	126.00 ea.
914	90.00 ea.
916	120.00 ea.
919	27.00 ea.
920	54.00 ea.
921	26.10 ea.
921/3	40.20 ea.
921/4	54.00 M
922/4	51.00 M
923/4	67.50 M
922	35.70 ea.
922/3	53.10 ea.
923	5.70 ea.
923	27.00 ea.
923	46.50 ea.
923/3	72.00 ea.
924	5.10 ea.
924	24.00 ea.
924	47.40 ea.
925	6.75 ea.
925	31.80 ea.
925	63.00 ea.
927	36.00 ea.
928	39.60 ea.
926/3	51.00 M
926/2	69.00 M
926/4	87.00 M
931-	2.25 ea.
931	6.60 ea.
931	12.60 ea.
932	10.50 ea.
932	21.00 ea.
933	11.25 ea.
933	22.50 ea.
933-	2.37 ea.
934	14.10 ea.
934	28.20 ea.
934/4	34.50 M
935	9.00 ea.
935	18.00 ea.
936	9.00 ea.
936	18.00 ea.
938	6.90 ea.
938	29.28 ea.
938	58.41 ea.
939	5.55 ea.
939	25.50 ea.
939	52.50 ea.
940	26.70 ea.
940/1	21.00 ea.
941	15.60 ea.
941/1	14.40 ea.
941/3	24.00 ea.
941/4	38.25 ea.
942	19.50 ea.
942/1	17.85 ea.
943	27.00 ea.
944	46.20 ea.
947	31.50 ea.
947/3	33.00 ea.
948	43.50 ea.
950	13.20 ea.
952	19.50 ea.
963	8.40 C
964	11.70 C
965	.12 ea.
966	.12 ea.
966 J	.16 ea.
967	27.00 C
972	9.30 ea.
972 A	10.50 ea.
972 A	45.60 ea
972 A	90.00 ea
972 B	9.15 ea
972	45.30 ea
972	90.00 ea
972 S	7.50 ea
972 S	33.00 ea
972 S	66.00 ea
973	10.80 ea
973 S	8.40 ea
973 S	39.60 ea
973 S	79.20 ea
974	13.80 ea
975	18.90 ea
976	20.70 ea
977	24.60 ea
978	27.60 ea
981	19.68 ea
982	25.50 ea
983	29.70 ea
984	38.70 ea
984/4	
985	25.50 ea
986	31.80 ea
987	38.10 ea
988	44.70 ea
988/4	58.80 M
988/5	69.00 M
988/6	83.40 M
989	40.50 ea
989/3	53.70 ea
990	16.50 ea
990/3	24.60 ea
991	21.90 ea
991/3	32.10 ea
992	29.40 ea
992/3	45.00 ea
993	43.50 ea
993/3	66.00 ea
994	65.40 ea
994/3	96.00 ea
995	93.00 ea
995/3	144.00 ea
1017-10	.40 ea
1017	1.54 ea
1017	23.10
1035	33.00
1035 B	36.00
1036	15.00
1036 B	18.00
1037	10.50
1037 B	13.50
1038	10.50
1038 B	13.50
1039	10.50

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Birnbach PRICE LIST

Cat. No.	Sug'd Resale
1039 B	13.50 ea.
1041	19.50 ea.
1041 B	22.50 ea.
1042	13.89 ea.
1042 B	16.89 ea.
1043	13.89 ea.
1043 B	16.89 ea.
1044	13.89 ea.
1044 B	16.89 ea.
1045	120.00 ea.
1046	90.00 ea.
1047	63.00 ea.
1048	162.00 ea.
1049	90.00 ea.
1050	1.50 ea.
1051	2.70 ea.
1052	21.00 ea.
1053	.45 ea.
1054	.84 ea.
1055	1.65 ea.
1056	12.60 ea.
1057	.87 ea.
1058	1.74 ea.
1059	3.00 ea.
1060	24.00 ea.
1065-3	.72 ea.
1065-4	.84 ea.
1065-6	.87 ea.
1068	15.00 C
1070	9.00 ea.
1070 B	10.80 ea.
1071	9.00 ea.
1071 B	11.10 ea.
1072	9.60 ea.
1072 B	11.40 ea.
1072/1	11.10 ea.
1072/1B	11.85 ea.
1073	1.77 ea.
1074	3.09 ea.
1075	5.85 ea.
1075 B	6.00 ea.
1076	1.65 ea.
1077	2.85 ea.
1078	5.40 ea.
1078 B	6.00 ea.
1079	1.77 ea.
1080	2.85 ea.
1081	5.40 ea.
1081 B	6.00 ea.
1082	1.77 ea.
1083	2.85 ea.
1084	5.40 ea.
1084 B	6.00 ea.
1085	1.77 ea.
1086	2.85 ea
1087	5.40 ea.
1087 B	6.00 ea.
101	3.00 ea.
111	22.50 ea.
112	45.00 ea.
113	87.00 ea.
120	3.30 C
121	1.80 C
122	3.60 C
123	1.50 C
124	1.50 C
125	3.30 C
125 T	3.90 C
126	4.35 C
126 T	4.95 C
127	5.28 C
127 T	6.00 C
128	6.30 C
128 T	7.20 C
129	7.20 C
129 T	8.25 C
130	3.30 C
130 T	3.90 C
131	4.35 C
131 T	4.95 C
132	5.28 C
132 T	6.00 C
133	6.30 C
133 T	7.20 C
134	7.20 C
134 T	8.25 C
135	5.28 C
136	6.30 C
137	7.20 C
138	8.25 C
139	9.30 C
140	5.28 C
1141	6.30 C
1142	7.20 C
1143	8.25 C
1144	9.30 C
1145	3.90 C
1146	4.95 C
1147	6.00 C
1148	7.20 C
1149	3.90 C
1150	4.95 C
1151	6.00 C
1152	7.20 C
1153	.90 C
1154	1.08 C
1155	1.20 C
1156	1.35 C
1157	1.50 C
1160	.21 ea.
1161	.24 ea.
1162	.27 ea.
1163	.30 ea.
1164	.21 ea.
1165	.24 ea.
1166	.27 ea.
1167	.30 ea.
1168	.18 ea.
1169	.15 ea.
1170	.168 ea.
1171	.168 ea.
1172	.18 ea.
1173	.21 ea.
1174	.24 ea.
1175	.27 ea.
1177	.252 ea.
1179	36.00 C
1180	30.00 C
1182	36.00 C
1184	33.00 C
1190	39.00 C
1192	54.00 C
1194	42.00 C
1220	9.60 ea.
1220 A	7.50 ea.
1260	15.00 C
1261	15.00 C
1262	15.00 C
1263	26.40 C
1264	30.00 C
1265	36.00 C
1266	41.40 C
1300	18.62 ea.
1300/4	32.40 ea.
1301	38.40 ea.
1301/4	45.00 ea.
1302	51.00 ea.
1302/4	52.50 ea.
1352	2.40 C
1352 A	2.70 C
1352 B	3.30 C
1352 C	3.15 C
1353	3.30 C
1353 A	3.90 C
1354	3.90 C
1354 A	4.14 C
1354 B	4.50 C
1355	5.25 C
1355 A	5.25 C
1355 B	5.70 C
1356	6.00 C
1356 A	6.16 C
1356 B	6.60 C
1357	6.60 C
1358	6.60 C
1359	7.80 C
1360	8.10 C
1372	7.80 C
1373	10.80 C
1374	13.20 C
1375	18.00 C
1376	21.00 C
1377	22.80 C
1378	25.20 C
1379	26.40 C
1380	28.80 C
1382	1.80 C
1382 A	1.95 C
1382 B	2.34 C
1382 C	3.33 C
1383	2.40 C
1383 A	2.40 C
1384	3.30 C
1384 A	3.54 C
1384 B	3.66 C
1385	4.20 C
1385 A	4.20 C
1385 B	4.35 C
1386	4.95 C
1386 A	5.40 C
1386 B	6.45 C
1387	6.45 C
1388	5.85 C
1389	6.45 C
1390	6.57 C
1402	4.74 ea.
1403	43.50 ea.
1406	2.50 ea.
1407	24.00 ea.
1410	1.74 ea.
1411	15 75 ea.
1414	1.20 ea.
1415	10 65 ea.
1418	7.95 ea.
1419	.93 ea.
1422	.66 ea.
1423	4.98 ea.
1424	3 60 ea.
1426	3.48 ea.
1428	3.36 ea.
1430	3.15 ea.
1430/32	3.23..ea.
1430/34	3.15 ea.
1430/36	3.07 ea.
1430/38	3.00 ea.
1433 C	7.20 ea.
1433 M	67 50 ea.
1433/4	18.00 ea.
1433/4	174 00 ea.
1433/6	11.40 ea.
1433/6	111.00 ea.
1434	3 75 ea.
1490	18.90 ea
1492	27.60 ea.
1497	47.40 ea.
1516	17.10 ea.
1560	8.91 ea.
1560	89.10 ea.
1562	4.59 ea.
1563	42.00 ea.
1566	2.91 ea.
1567	27.60 ea.
1570	1.98 ea.
1571	18.00 ea.
1574	1.29 ea.
1575	11.58 ea.
1600	8.85 ea.
1600	88.20 ea.
1612	39.00 ea.
1614	24.00 ea.
1616	15.00 ea.
1618	9.45 ea.
1620	6.24 ea.
1622	4.95 ea.
1628	12.90 ea.
1633	16.20 ea.
1634	13.50 ea.
1638	20.10 ea.
1639	16.35 ea.
1647	10.29 ea.
1648	9.15 ea.
1670	1.80 ea.
1671	2.16 ea.
1673	1.41 ea.
1674	1.65 ea.
1680	1.14 ea.
1701	16.95 ea.
1702	19.80 ea.
1703	25.20 ea.
1716	25.20 ea.
1717	69.66 ea.
1718	51.54 ea.
1741	7.50 ea.
1772	21.45 ea.
1773	25.50 ea.
1774	29.70 ea.
1775	36.00 ea.
1776	43.80 ea.
1777	48.00 ea.
1781	58.80 ea.
1782	82.80 ea.
1783	117.30 ea.
1784	134.16 ea.
1786	233.70 ea.
1790	50.01 M
1790/3	62.52 M
1791	55.83 M
1791/3	69.99 M
1792	66.66 M
1792/3	75.00 M
1793	83.34 M
1794	116.70 M
1797	48.00 M
1798	54.00 M
1799	72.00 M
1800	19.50 ea.
1801	22.50 ea.
1802	36.00 ea.
1812	29.40 ea.
1813	32.40 ea.
1814	41.97 ea.
1822	4.26 ea.
1822 B	18.90 ea.
1822 C	35.28 ea.
1824	3.45 ea.
1824	16.50 ea.
1824	32.40 ea.
1825	3.60 ea.
1825	17.40 ea.
1825	33.90 ea.
1835	19.20 ea.
1836	14.10 ea.
1839	27.00 ea.
1839	54.00 ea.
1840	4.20 ea.
1840	20.04 ea.
1840	40.04 ea.
1841	5.55 ea.
1841	26.40 ea.
1841	52.80 ea.
1842	7.80 ea.
1842	37.80 ea.
1842	75.60 ea.
1843	10.50 ea.
1843	49.50 ea.
1843	99.00 ea.
1844	10.20 ea.
1844	50.40 ea.
1844	100 20 ea.
1845	66.00 ea.
1845	129.00 ea.
1846	90.00 ea.
1846	180 00 ea.
1846/8	114.00 ea.
1846/10	138.00 ea.
1870	15.90 ea.
1872	19.50 ea.
1874	41.40 ea.
1874 A	21.66 ea.
1875	51.66 ea.
1875 A	27.00 ea.
1878	66.00 ea.
1878 A	35.01 ea.
1890	34.50 M
1890/3	45.84 M
1891	42.51 M
1891/3	52.92 M
1892	54.18 M
1892/3	69.99 M
1916	5.55 ea.
1916	25.35 ea.
1916	49.50 ea.
1918	3.60 ea.
1918	16.65 ea.
1918	32.10 ea.
1920	3.15 ea.
1920	14.85 ea.
1920	28.50 ea.
1922	2.55 ea.
1922	11.85 ea.
1922	22.50 ea.
1963	3.60 C
1964	6.00 C
1965	6.00 C
1967	12.00 C
1968	6.00 C
1972	12.00 ea.
1972	29.40 ea.
1972	58 35 ea.
1972	116.70 ea.
1972 A	13.20 ea.
1972 A	64.20 ea.
1972 A	128.10 ea.
2000	9.00 ea.
2010	9.18 ea.
2012	7.62 ea.
2013	6.54 ea.
2014	5.94 ea.
2015	4.86 ea.
2016	3.96 ea.
2018	3.75 ea.
2020	3.60 ea.
2022	3.45 ea.
2025-25'	.81 ea.
2050-50'	1.50 ea.
2051	2.70 ea.
2052	16.80 ea.
2100	.99 ea.
2125	.27 ea.
2250-1/32	3.15 C
2250-1/16	3.36 C
2250-5/64	4.05 C
2250-7/64	4.95 C
2250-1/8	4.80 C
2250-5/32	8.88 C
2250-11/64	6.75 C
2250-3/16	7.95 C
2250-13/64	11.85 C
2250-1/4	13.50 C
2250-3/8	13.80 C
2250-1/2	20.85 C
2250-9/16	20.91 C
2250-11/16	24.00 C
2250-25/32	27.90 C
2250-13/16	27.90 C
2250-3/4	31.65 C
2250-1	37.50 C
2318	10.80 ea.
2500	4.50 ea.
2611	.34 ea.
2617	35.00 C
2650	27.00 C
2810	9.41 ea.
2810	49.05 ea.
2812	6.30 ea.
2812	31.20 ea.
2814	4.38 ea.
2814	21.60 ea.
2816	3.63 ea.
2816	18.00 ea.
2818	3.00 ea.
2818	14.70 ea.
3025	.81 ea.
3050	1.50 ea.
3051	2.70 ea.
3052	16.80 ea.
3460	3.14 ea.
3461	2.31 ea.
3462	10.89 ea.
3600	14.85 ea.
4025	.51 ea.
4050	.96 ea.
4051	1.68 ea.
4052	15.00 ea.
4125	.30 ea.
4125 J	.35 ea.
4175	.69 ea.
4175 J	.99 ea.
4176	.44 ea.
4176 J	.58 ea.
4200	.204 ea.
4200	180.00 M
4201	.58 ea.
4201	510.00 M
4202	.96 ea.
4202	858.00 M
4203	3.24 ea.
4204	.174 ea.
4204	158.40 M
4205	.195 ea.
4205	178.20 M
4206	.174 ea.
4206	158.40 M
4207	.27 ea.
4207	243.00 M
4208	110.00 ea.
4208	1080.00 M
4209	2.76 ea.
4215	.072 ea.
4215	66.00 M
4233	.69 ea.
4234	.75 ea.
4235	1.77 ea.
4236	1.95 ea.
4237	2.07 ea.
4238	2.70 ea.
4275	.42 ea.
4275 J	.70 ea.
4276	.90 ea.
4276 J	1.05 ea.
4450	.83 ea.
4450 J	1.08 ea.
4451	.70 ea.
4451 J	.93 ea.
4452	1.29 ea.
4452 J	1.50 ea.
4500	12.60 ea.
4510	24.00 ea.
4515	27.54 ea.
4516	37.50 ea.
4520	129.00 ea.
4701	2.40 ea.
4701	10.50 ea.
4701	19.50 ea.
4702	3.60 ea.
4702	15.00 ea.
4702	30.00 ea.
4703	4.80 ea.
4703	21.00 ea.
4703	42.00 ea.
4706	8.40 ea.
4706	42.00 ea.
4706	82.50 ea.
4709	13.50 ea.
4709	60.00 ea.
4709	120.00 ea.
4711	17.40 ea.
4711	82.80 ea.
4711	159.00 ea.
4711/13	83.40 ea.
4715	18.00 ea.
4715	87.00 ea.
4715	174.00 ea.
4716	21.75 ea.
4716	102.00 ea.
4716	204.00 ea.
4727	31.05 ea.
4727	155.25 ea.
4727	309.00 ea.
4727/31	219.00 ea.
4727/41	291.00 ea.
4729	414.00 ea.
4729/76	792.00 ea.
4729/101	1005.00 ea.
4731	3.30 ea.
4731	11.76 ea.
4731	23.40 ea.
4732	4.86 ea.
4732	22.50 ea.
4732	45.00 ea.
4733	6.36 ea.
4733	30.00 ea.
4733	60.00 ea.
4734	8.10 ea.
4734	37.50 ea.
4734	75 00 ea.
4735	10.56 ea.
4735	51.00 ea.
4735	102.00 ea.
4736	13.20 ea.
4736	60.00 ea.
4736	120.00 ea.
4739	15.60 ea.
4739	75.60 ea.
4739	151.50 ea.
4745	21.60 ea.
4745	105.00 ea.
4745	210.00 ea.
4747	43.50 ea.
4747	210.00 ea.
4747	420.00 ea.
4752	3.75 ea.
4752	16.50 ea.
4752	33.00 ea.
4753	4.80 ea.
4753	23.10 ea.
4753	46.20 ea.
4754	6.45 ea.
4754	30.60 ea.
4754	60 00 ea.
4755	8.10 ea.
4755	39.00 ea.
4755	78.00 ea.
4756	9.60 ea.
4756	45.60 ea.
4756	91.20 ea.
4800/3	45.00 ea.
4800/6	81.60 ea.
4800/9	167.00 ea.
4800/11	151.50 ea.
4800/15	202.50 ea.
4800/19	276.00 ea.
4800/27	396.00 ea.
4901	PRICE ON REQUEST
4901	
4902	
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4912	
4912	
4913	
4913	
4915	
4915	
4916	
4916	
5000	.99 ea.
5002	1.06 ea.
5003	1.44 ea.
5004	.45 ea.
5005	.51 ea.
5006	.90 ea.
5007	.54 ea.
5008	.75 ea.
5009	.90 ea.
5010	2.55 ea.
5011	2.55 ea.
5012	3.60 ea.
5013	3.60 ea.
5051	.33 ea.
5052	.36 ea.
5053	.30 ea.
5050	.21 ea.
5070	.30 ea.
5071	.30 ea.
5075	.18 ea.
5076	.18 ea.
5080	.30 ea.
5081	.30 ea.
5085	.30 ea.
5086	.30 ea.
5090	.33 ea.
5091	.33 ea.
5095	.22 ea.
5096	.21 ea.
5105	.27 ea.
5106	.36 ea.
5110	.36 ea.
5111	.36 ea.
5130	.12 ea.
5131	.12 ea.
5132	.15 ea.
5133	.15 ea.
5134	.15 ea.
5140	.15 ea.
5141	.24 ea.
5142	.15 ea.
5143	.36 ea.
5160	.14 ea.
5161	.15 ea.
5165	.18 ea.
5166	.18 ea.
5170	.30 ea.
5171	.18 ea.
5180	.33 ea.
5181	.33 ea.
5185	.18 ea.
5190	.10 ea.
5191	.10 ea.
5195	.33 ea.
5200	.33 ea.
5201	.33 ea.
5300	.69 ea.
5301	.81 ea.
5302	.87 ea.
5303	.93 ea.
5304	1.26 ea.
5305	1.38 ea.
5306	1.44 ea.
5307	1.56 ea.
5308	.84 ea.
5309	.96 ea.
5310	1.11 ea.
5311	1.65 ea.
5312	1.89 ea.
5313	2.01 ea.
5314	.69 ea.
5315	.81 ea.

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Cat. No.	Sug'd Resale
5316	1.05 ea.
5317	1.23 ea.
5318	2.19 ea.
5319	2.70 ea.
5320	.81 ea.
5321	.96 ea.
5322	1.26 ea.
5323	1.56 ea.
5324	2.55 ea.
5325	3.24 ea.
5326	.96 ea.
5327	1.08 ea.
5328	1.08 ea.
5329	.81 ea.
5330	1.26 ea.
5331	2.70 ea.
5332	.96 ea.
5333	1.56 ea.
5334	3.24 ea.
5335	.84 ea.
5336	.96 ea.
5337	.48 ea.
5338	.54 ea.
5339	.36 ea.
5340	.39 ea.
5341	1.32 ea.
5342	1.32 ea.
5343	2.31 ea.
5344	2.31 ea.
5345	3.24 ea.
5346	4.29 ea.
5347	5.16 ea.
5360	1.68 ea.
5361	1.86 ea.
5362	1.86 ea.
5363	2.04 ea.
5364	2.04 ea.
5365	2.19 ea.
5366	2.19 ea.
5367	2.19 ea.
5370	1.26 ea.
5371	1.38 ea.
5372	1.38 ea.
5373	1.47 ea.
5374	1.47 ea.
5375	1.62 ea.
5376	1.62 ea.
5377	1.62 ea.
5380	2.25 ea.
5381	2.70 ea.
5382	2.70 ea.
5383	2.70 ea.
5384	2.70 ea.
5385	2.94 ea.
5386	2.94 ea.
5387	2.94 ea.
5390	1.50 ea.
5391	1.68 ea.
5391	1.68 ea.
5392	1.68 ea.
5393	1.68 ea.
5394	1.95 ea.
5395	1.95 ea.
5396	1.95 ea.
5400	3.87 ea.
5401	4.62 ea.
5402	4.62 ea.
5410	4.98 ea.
5411	4.44 ea.
5412	6.69 ea.
5413	6.24 ea.
5414	5.67 ea.
5415	6.24 ea.
5416	5.67 ea.
5417	7.47 ea.
5418	7.47 ea.
5420	4.95 ea.
5421	4.56 ea.
5422	6.18 ea.
5423	5.61 ea.
5424	6.18 ea.
5425	5.61 ea.
5426	6.69 ea.
5427	6.33 ea.
5428	6.69 ea.
5429	6.33 ea.
5430	7.44 ea.
5431	6.90 ea.
5432	7.44 ea.
5433	6.90 ea.
5434	7.44 ea.
5435	6.90 ea.
5460	9.45 ea.
5461	9.45 ea.
5462	9.45 ea.
5463	9.45 ea.
5464	9.45 ea.
5465	9.45 ea.
5466	9.45 ea.
5470	12.90 ea.
5471	12.90 ea.
5472	12.90 ea.
5473	12.90 ea.
5474	12.90 ea.
5475	12.90 ea.
5476	12.90 ea.
5480 K1	6.06 ea.
5480 K2	6.84 ea.
5480 K3	6.84 ea.
5480 K4	6.06 ea.
5480 K5	6.06 ea.
5480 K6	6.84 ea.
5480 K7	6.06 ea.
5481 K1	7.56 ea.
5481 K2	8.82 ea.
5481 K3	8.82 ea.
5481 K4	7.56 ea.
5481 K5	7.56 ea.
5481 K6	8.82 ea.
5481 K7	7.56 ea.
6100	.39 ea.
6102	.42 ea.
6103	.50 ea.
6104	.53 ea.
6105	1.86 ea.
6110	1.32 ea.
6111	1.50 ea.
6112	1.89 ea.
6113	2.07 ea.
6114	.21 ea.
6115	.21 ea.
6180	.75 ea.
6184	1.35 ea.
6184 A	1.35 ea.
6185	1.56 ea.
6185 A	1.56 ea.
6186	1.86 ea.
6190	1.11 ea.
6191	1.11 ea.
6192	1.29 ea.
6193	1.68 ea.
6194	1.68 ea.
6195	1.86 ea.
6200	.69 ea.
6201	.84 ea.
6202	.87 ea.
6202 A	.93 ea.
6203	1.08 ea.
6204	1.26 ea.
6205	1.44 ea.
6206	1.44 ea.
6207	1.59 ea.
6208	.05 ea.
6208 A	.05 ea.
6210	.87 ea.
6211	1.17 ea.
6212	1.05 ea.
6213	1.38 ea.
6214	1.44 ea.
6215	1.74 ea.
6216	1.62 ea.
6217	1.98 ea.
6220	.69 ea.
6221	.87 ea.
6221 A	.93 ea.
6222	1.26 ea.
6223	1.44 ea.
6224	.96 ea.
6225	1.32 ea.
6225 A	1.32 ea.
6225 B	1.32 ea.
6225 C	1.32 ea.
6226	1.98 ea.
6227	4.89 ea.
6228	7.53 ea.
6229	10.05 ea.
6230	.75 ea.
6231	1.86 ea.
6231 A	1.86 ea.
6231 B	2.07 ea.
6232	.24 ea.
6233	.77 ea.
6234	.83 ea.
6235	1.07 ea.
6236	1.43 ea.
6238	1.98 ea.
6238 B	2.10 ea.
6238 C	2.10 ea.
6238 D	1.98 ea.
6239	6.00 C
6240	1.50 ea.
6241	1.32 ea.
6242	2.07 ea.
6244	.78 ea.
6244 A	.78 ea.
6244 B	.99 ea.
6244 C	.99 ea.
6244 D	1.02 ea.
6244 E	1.02 ea.
6245	.15 ea.
6245 S	24.00 C
6246	.15 ea.
6246 S	28.80 C
6247	.22 ea.
6248	.22 ea.
6249	1.47 ea.
6250	1.23 ea.
6251	1.40 ea.
6251 C	1.62 ea.
6251 V	1.44 ea.
6252	1.77 ea.
6252 M	2.13 ea.
6253	1.92 ea.
6261	1.68 ea.
6262	1.89 ea.
6263	2.07 ea.
6270	1.26 ea.
6271	1.47 ea.
6272	1.50 ea.
6273	1.68 ea.
6274	1.68 ea.
6280	.93 ea.
6280 A	.93 ea.
6281	1.11 ea.
6281 A	1.50 ea.
6282	1.35 ea.
6282 A	1.89 ea.
6283	1.56 ea.
6283 A	2.07 ea.
6284	1.14 ea.
6300	3.75 M
6301	4.05 M
6302	4.20 M
6303	4.86 M
6304	4.20 M
6305	4.50 M
6306	5.10 M
6307	4.44 M
6307	4.44 M
6308	4.44 M
6309	5.04 M
6310	19.20 M
6311	39.00 M
6312	6.30 M
6313	6.45 M
6314	6.90 M
6315	8.70 M
6316	15.60 M
6317	17.40 M
6318	19.20 M
6318 A	22.95 M
6319	23.10 M
6319 A	43.80 M
6320	31.20 M
6320 A	57.00 M
6320 B	72.00 M
6320 C	81.60 M
6321	3.75 M
6322	4.05 M
6323	4.35 M
6324	4.80 M
6325	5.19 M
6326	5.58 M
6330	5.40 M
6331	5.40 M
6332	5.16 M
6333	5.28 M
6334	5.82 M
6335	6.90 M
6336	15.00 M
6337	16.50 M
6337 A	15.00 M
6338	18.00 M
6339	30.00 M
6350	6.00 M
6350 A	6.00 M
6351	6.00 M
6351 A	6.00 M
6352	6.00 M
6352 A	6.00 M
6353	6.60 M
6353 A	6.60 M
6354	8.10 M
6354 A	8.10 M
6355	4.95 M
6356	4.62 M
6357	4.62 M
6358	3.30 M
6359	3.30 M
6360	3.45 M
6361	3.60 M
6362	4.65 M
6363	7.80 M
6400	6.00 M
6401	7.20 M
6402	7.95 M
6403	9.60 M
6404	11.70 M
6405	8.40 M
6406	8.40 M
6407	9.00 M
6408	9.90 M
6409	11.40 M
6410	15.84 M
6410 A	17.70 M
6411	18.00 M
6412	20.10 M
6413	11.70 M
6414	12.90 M
6415	15.00 M
6416	17.10 M
6417	21.00 M
6418	21.60 M
6420	4.05 M
6421	4.38 M
6422	4.65 M
6423	4.95 M
6424	5.25 M
6425	6.00 M
6426	5.01 M
6427	4.96 M
6428	5.76 M
6429	6.00 M
6430	6.69 M
6431	7.59 M
6432	9.90 M
6433	5.76 M
6434	6.00 M
6435	6.72 M
6436	7.50 M
6437	7.95 M
6438	9.00 M
6439	11.40 M
6440	6.18 M
6441	7.20 M
6442	6.18 M
6443	9.90 M
6444	11.10 M
6445	9.54 M
6446	12.60 M
6447	16.50 M
6448	5.25 M
6449	5.55 M
6450	5.75 M
6461	2.38 Gr.
6462	2.94 Gr.
6463	3.30 Gr.
6464	4.59 Gr.
6465	5.13 Gr.
6466	5.64 Gr.
6470	1.38 Gr.
6471	1.50 Gr.
6472	1.56 Gr.
6473	1.32 Gr.
6474	1.80 Gr.
6475	2.22 Gr.
6476	2.40 Gr.
6477	1.98 Gr.
6478	1.98 Gr.
6479	2.88 M
6480	3.30 M
6480 A	2.88 M
6481	3.60 M
6482	5.46 M
6483	9.00 M
6484	2.97 M
6485	2.79 M
6486	3.12 M
6487	3.12 M
6488	4.50 M
6490	3.30 M
6491	3.30 M
6492	3.60 M
6493	4.65 M
6494	7.80 M
6494/1	7.80 M
6494/2	7.80 M
6500	1.20 Gr.
6501	1.50 Gr.
6502	1.65 Gr.
6503	1.83 Gr.
6504	2.01 Gr.
6505	2.16 Gr.
6506	2.34 Gr.
6507	2.55 Gr.
6510	1.65 Gr.
6511	1.68 Gr.
6512	1.92 Gr.
6513	1.92 Gr.
6514	1.92 Gr.
6515	2.01 Gr.
6516	2.10 Gr.
6517	2.16 Gr.
6518	1.92 Gr.
6519	2.34 Gr.
6540	1.83 Gr.
6541	1.59 Gr.
6542	2.25 Gr.
6543	2.34 Gr.
6549	21.00 M
6549 A	21.00 M
6549 B	22.20 M
6549 C	24.00 M
6549 D	27.00 M
6550	3.78 C
6550	33.90 M
6551	3.78 C
6551	33.90 M
6551 A	3.78 C
6551 A	33.90 M
6552	3.45 C
6552	31.20 M
6552 A	3.45 C
6552 A	31.20 M
6552 B	3.45 C
6552 B	31.20 M
6553	3.36 C
6553	30.60 M
6554	3.36 C
6554	30.60 M
6555	3.36 C
6555	30.60 M
6556	3.36 C
6556	30.60 M
6557	3.45 C
6557	31.20 M
6558	3.45 C
6558	31.20 M
6559	3.45 C
6559	31.20 M
6560	3.45 C
6560	31.20 M
6561	19.20 C
6561	177.60 M
6562	3.45 C
6562	31.20 M
6563	3.45 C
6563	31.20 M
6564	3.45 C
6564	31.20 M
6565	3.45 C
6565	31.20 M
6566	3.45 C
6566	31.20 M
6567	3.45 C
6567	31.20 M
6568	3.45 C
6568	31.20 M
6569	3.45 C
6569	31.20 M
6570	18.60 C
6570	177.00 M
6571	18.60 C
6571	177.00 M
6572	3.60 C
6572	33.60 M
6572 A	4.05 C
6572 A	33.60 M
6572 B	4.05 C
6572 B	33.60 M
6573	5.10 C
6573	42.00 M
6573 A	5.10 C
6573 A	42.00 M
6574	13.50 C
6574	117.90 M
6575	16.20 C
6575	147.00 M
6576	16.20 C
6576	147.00 M
6577	16.35 C
6577	143.40 M
6578	21.00 C
6578	195.00 M
6579	21.00 C
6579	195.00 M
6585	7.50 C
6585	60.00 M
6586	7.50 C
6586	60.00 M
6587	7.50 C
6587	60.00 M
6588	7.20 C
6588	57.00 M
6589	7.50 C
6589	60.00 M
6590	7.65 C
6590	63.00 M
6592	1.80 C
6592	15.00 M
6593	1.80 C
6593	15.00 M
6594	1.86 C
6594	15.60 M
6595	2.04 C
6595	16.80 M
6596	2.22 C
6596	18.00 M
6597	3.00 C
6597	26.40 M
6600	3.60 M
6601	4.20 M
6602	4.80 M
6603	5.85 M
6604	4.80 M
6605	5.85 M
6606	6.15 M
6607	7.35 M
6608	5.85 M
6609	6.15 M
6610	7.20 M
6611	7.20 M
6611 A	8.70 M
6612	6.60 M
6613	6.60 M
6614	7.20 M
6640	3.60 C
6640	32.40 M
6640 A	3.60 C
6640 A	32.40 M
6640 B	3.60 C
6640 B	32.40 M
6641	3.75 C
6641	33.30 M
6641 A	3.75 C
6641 A	33.30 M
6641 B	3.75 C
6641 B	33.30 M
6643	3.30 C
6643	30.00 M
6643 A	3.30 C
6643 A	30.00 M
6643 B	3.30 C
6643 B	30.00 M
6644	3.36 C
6644	30.60 M
6644 A	3.36 C
6644 A	30.60 M
6644 B	3.36 C
6644 B	30.60 M
6646	3.36 C
6646	30.60 M
6646 A	3.36 C
6646 A	30.60 M
6646 B	3.36 C
6646 B	30.60 M
6648	3.57 C
6648	31.80 M
6648 A	3.57 C
6648 A	31.80 M
6648 B	3.57 C
6648 B	31.80 M
6650	3.36 C
6650	30.60 M
6650 A	3.36 C
6650 A	30.60 M
6650 B	3.36 C
6650 B	30.60 M
7000	6.36 ea.
7000	.80 ea.
7001	7.98 ea.
7001-1	.96 ea.
7001-S	9.09 ea.
7001-1S	1.03 ea.
7002	8.49 ea.
7002-1	1.02 ea.
7003	10.38 ea.
7003-1	1.20 ea.
7003-S	11.49 ea.
7003-1S	1.27 ea.
7004	12.00 ea.
7004-1	1.38 ea.
7005	14.64 ea.
7005-1	1.63 ea.
7005-S	15.75 ea.
7005-1S	1.70 ea.
7006	294.00 ea.
7006-1	30.00 ea.
7007	21.48 ea.
7007-1	2.31 ea.
7008	209.70 ea.
7008-1	21.00 ea.
7009	32.40 ea.
7009-1	3.39 ea.
7010	121.65 ea.
7010-1	12.54 ea.
7011	54.00 ea.
7011-1	5.55 ea.
7012	66.00 ea.
7012-1	7.50 ea.
7013	109.35 ea.
7013-1	11.28 ea.
7014	36.63 ea.
7014-1	4.17 ea.
7015	192.00 ea.
7015-1	19.50 ea.
7016	30.81 ea.
7016-1	3.75 ea.
7017	269.40 ea.
7017-1	27.00 ea.
7018	24.42 ea.
7018-1	2.58 ea.
7020	19.32 ea.
7020-1	2.07 ea.
7022	15.90 ea.
7022-1	1.74 ea.
7024	9.00 ea.
7024-1	1.02 ea.
7024-S	10.20 ea.
7024-1S	1.20 ea.
7032	.57 ea.
7033	3.57 ea.
7034	9.00 C
7036	6.00 C
7037	6.00 C
7038	5.40 C
7061	.93 ea.
7062	1.80 ea.
7063	8.40 ea.
7064	15.00 ea.
7065	99.00 ea.
7065-1	10.50 ea.
7065 J	102.00 ea.
7065 VJ	102.00 ea.
7066	69.00 ea.
7066-1	6.93 ea.
7066 J	79.50
7066 VJ	79.50
7067	51.00 ea.
7067-1	5.34 ea.
7067 J	63.00
7067 VJ	63.00
7068	42.00 ea.
7068-1	4.14
7068 J	52.50
7068 VJ	52.50
7070	35.10
7070-1	3.99
7070 J	42.00
7070 VJ	42.00
7072	30.00
7072-1	3.60
7072 J	40.80
7072 VJ	40.80
7074	29.70
7074-1	3.30

Birnbach PRICE LIST

Cat. No.	Sug'd Resale
7074 J	40.50 ea.
7074 VJ	40.50 ea.
7116	168.00 ea.
7116-1	18.60 ea.
7118	135.00 ea.
7118-1	15.00 ea.
7120	111.00 ea.
7120-1	12.30 ea.
7122	75.00 ea.
7122-1	8.25 ea.
7124	66.00 ea.
7124-1	7.26 ea.
7126	60.00 ea.
7126-1	6 60 ea.
7128	45.00 ea.
7128-1	5.10 ea.
7130	44.40 ea.
7130-1	5.04 ea.
7170	8.34 ea.
7170-1	.96 ea.
7170-N	11.88 ea.
7171	9.60 ea.
7171-1	1.11 ea.
7171 N	13.50 ea.
7172	12.00 ea.
7172-1	1.38 ea.
7172 N	16.74 ea.
7173	16 65 ea.
7173-1	1.80 ea.
7173 N	21.18 ea.
7174	20.10 ea.
7174-1	2 19 ea.
7174-N	27.00 ea.
7175	31.65 ea.
7175-1	3.33 ea.
7175 N	40.74 ea.
7178/24-24	30.00 M
7178/22-22	33.00 M
7178/20-20	36.00 M
7178/18-18	39.00 M
7178/16-16	45.90 M
7179/24-24	33.00 M
7179/22-22	39.00 M
7179/20-20	42.00 M
7179/18-18	45.90 M
7179/16-16	57.90 M
180	12.00 ea.
180-1	1.44 ea.
181	14 70 ea.
181-1	1.62 ea.
182	17.70 ea.
182-1	1.92 ea.
183	21.00 ea.
183-1	2.40 ea.
184	25.50 ea.
184-1	2.70 ea.
185	38.40 ea.
185-1	4.14 ea.
186	58.65 ea.
187	75.00 ea.
188	150.00 ea.
189	204.00 ea.
190	10.14 ea.
190-1	1.32 ea.
190 N	12.30 ea.
191	9.30 ea.
191	1.23 ea.
191 N	11.64 ea.
192	8.88 ea.
192-1	1.14 ea.
192 N	10.98 ea.
193	8.97 ea.
193-1	1.26 ea.
193 N	11.52 ea.
194	7.74 ea.
194-1	1.17 ea.
194 N	10.38 ea.
195	8.70 ea.
195-1	1.26 ea.
195 N	11.55 ea.
196	10.32 ea.
196	1.41 ea.
196 N	12.36 ea.
197	13.32 ea.
197-1	1.50 ea.
197 N	16.17 ea.
198	18.57 ea.
198-1	1.95 ea.
198 N	20.55 ea.
201	15.90 ea.
201-1	1.86 ea.
202	14.25 ea.
202-1	1.65 ea.
203	18.15 ea.
7203-1	2.19 ea.
7204	16.05 ea.
7204-1	1 89 ea.
7205	23.55 ea.
7205-1	2.76 ea.
7207	31.65 ea.
7207-1	3.60 ea.
7210	105.00 ea.
7210-1	12.30 ea.
7212	70 20 ea.
7212-1	7.26 ea.
7214	44.10 ea.
7214-1	4.80 ea.
7216	30 30 ea.
7216-1	3.60 ea.
7218	23.70 ea.
7218-1	2.70 ea.
7220	18 00 ea.
7220-1	2.10 ea.
7222	15.00 ea.
7222-1	1.65 ea.
7224	17.40 ea.
7224-1	1.95 ea.
7312	70.95 ea.
7312-1	7.59 ea.
7314	54.00 ea.
7314-1	5.70 ea.
7316	34.50 ea.
7316-1	3.60 ea.
7318	24.00 ea.
7318-1	2 61 ea.
7320	18.90 ea.
7320-1	2.01 ea.
7322	15.75 ea.
7322-1	1.71 ea.
7324	8.70 ea.
7324-1	1.26 ea.
7324 N	10.92 ea.
7324/22	11.19 ea.
7324/22N	11.70 ea.
7324/20	11.70 ea.
7324/20N	12.30 ea.
7326	9.15 ea.
7326-1	1.32 ea.
7326 N	9 99 ea.
7328	8.91 ea.
7328-1	1.14 ea.
7328 N	10.98 ea.
7330	9.30 ea.
7330-1	1.23 ea.
7330 N	11.70 ea.
7351	12.90 ea.
7351-1	1.83 ea.
7351 NB	18.32 ea.
7351-1 NB	2.09 ea.
7353	14.66 ea.
7353-1	2 00 ea.
7353 NB	19.98 ea.
7353-1 NB	2.16 ea.
7355	19.65 ea.
7355-1	2 33 ea.
7355 NB	25.47 ea.
7355-1 NB	2.67 ea.
7357	23.15 ea.
7357-1	2.67 ea.
7357 NB	27.81 ea.
7357-1 NB	3.17 ea.
7359	41.63 ea.
7359-1	4.50 ea.
7359 NB	39.96 ea.
7359-1 NB	4.17 ea.
7361	64.44 ea.
7361-1	6.99 ea.
7361 NB	54.12 ea.
7361-1 NB	5.84 ea.
7362 NB	91.58 ea.
7362-1 NB	9.99 ea.
7363	166.50 ea.
7363-1	18.32 ea.
7364	266.40 ea.
7364-1	28.31 ea.
7365	349.65 ea.
7365-1	36.63 ea.
7365/2	516.15 ea.
7365/2	54.95 ea.
7365/0	949.05 ea.
7365/0	99.96 ea.
7365/00	1098.90 ea.
7365/00	116.55 ea.
7371	45.00 ea.
7371-1	4.98 ea.
7372-1	6.00 ea.
7372	51.00 ea.
7373	55.50 ea.
7373-1	5.70 ea.
7374	74.85 ea.
7374-1	8.70 ea.
7375	91.56 ea.
7376	106.50 ea.
7389-A	151.50 ea.
7390	915.00 ea.
7390 D	87.00 ea.
7398-1 M	21.00 ea.
7398-2 M	105.00 ea.
7398-3 M	35.40 ea.
7400	375.00 ea.
7400 D	27.00 ea.
7402	25.05 ea.
7402-1	2.70 ea.
7412	34.20 ea.
7412-1	3.60 ea.
7418	36.30 ea.
7418-1	4.02 ea.
7428	56.10 ea.
7428-1	5.94 ea.
7448	67.50 ea.
7448-1	6.90 ea.
7449	81.00 ea.
7449-1	10.50 ea.
7458	126.00 ea.
7458-1	13.20 ea.
7524	8.70 ea.
7524	4.50 ea.
7526	8.10 ea.
7526	4.20 ea.
7527	7.80 ea.
7527	4.05 ea.
7528	7.50 ea.
7528	3.90 ea.
7529	10.80 ea.
7529	5.70 ea.
7530	7.20 ea.
7530	3.75 ea.
7532	9.00 ea.
7532	4.65 ea.
7534	10.80 ea.
7534	5.70 ea.
7535	36.00 ea.
7535	18.30 ea.
7536	39.00 ea.
7536	19.95 ea.
7537	37.50 ea.
7537	19.20 ea.
7538	35.40 ea.
7538	18.00 ea.
7542	42.00 ea.
7542/3	52.50 ea.
7542/4	63.00 ea.
7552	45.90 ea.
7552/3	58.50 ea.
7552/4	69.60 ea.
7571	5.40 ea.
7571	9.45 ea.
7572	15.00 ea.
7572	28.65 ea.
7573	22.05 ea.
7573	42.60 ea.
7574	27.90 ea.
7574	54.30 ea.
7575	43.50 ea.
7575	78.00 ea.
7580	81.60 ea.
7581	18.90 ea.
7581	36.00 ea.
7582	27.75 ea.
7582	58.80 ea.
7583	34.95 ea.
7583	66.00 ea.
7584	41.10 ea.
7584	78.00 ea.
7585	56.40 ea.
7585	107.40 ea.
7610	330.00 ea.
7610-1	36.00 ea.
7612	192.00 ea.
7612-1	21.00 ea.
7614	150.00 ea.
7614-1	16.50 ea.
7616	117.00 ea.
7616-1	13.50 ea.
7618	99.00 ea.
7618-1	10.50 ea.
762C	85.50 ea.
7620-1	9.45 ea.
7622	75.00 ea.
7622-1	8.10 ea.
7652	22.20 ea.
7652	11.40 ea.
7653	39.00 ea.
7653	19.80 ea.
7654	51.00 ea.
7654	25.80 ea.
7668	21.00 ea.
7668	10.65 ea.
7669	30.00 ea.
7669	15.00 ea.
7670	36.00 ea.
7670	18.00 ea.
8000	84.00 ea.
8000	42.00 ea.
8000	9.60 ea.
8000	6.00 ea.
8000	3.60 ea.
8001	101.40 ea.
8001	51.00 ea.
8001	10.50 ea.
8001	6.00 ea.
8001	3.90 ea.
8002	130.50 ea.
8002	65.40 ea.
8002	13.50 ea.
8002	7.50 ea.
8002	4.80 ea.
8003	150.00 ea.
8003	75.60 ea.
8003	15.60 ea.
8003	9.00 ea.
8003	6.00 ea.
8004	175.50 ea.
8004	88.20 ea.
8004	18.00 ea.
8004	10.20 ea.
8004	7.80 ea.
8005	193.50 ea.
8005	97.20 ea.
8005	20.40 ea.
8005	12.00 ea.
8005	9.30 ea.
8006	228.00 ea.
8006	114.60 ea.
8006	25.20 ea.
8006	15.00 ea.
8006	10.80 ea.
8007	258.00 ea.
8007	129.60 ea.
8007	30.00 ea.
8007	18.00 ea.
8007	12.30 ea.
8008	386.00 ea.
8008	193.80 ea.
8008	45.00 ea.
8008	24.00 ea.
8008	19.50 ea.
8009	459.00 ea.
8009	229.80 ea.
8009	55.20 ea.
8009	29.70 ea.
8009	24.00 ea.
8010	562.50 ea.
8010	281.40 ea.
8010	66.00 ea.
8010	36.60 ea.
8010	27.90 ea.
8011	699.00 ea.
8011	349.80 ea.
8011	75.00 ea.
8011	45.00 ea.
8011	33.60 ea.
8012	862.20 ea.
8012	431.40 ea.
8012	96.00 ea.
8012	55.50 ea.
8012	39.00 ea.
8013	93.30 ea.
8013	48.33 ea.
8013	10.20 ea.
8014	93.30 ea.
8014	48.33 ea.
8014	10.20 ea.
8015	88.20 ea.
8015	44.40 ea.
8015	9.00 ea.
8016	84.00 ea.
8016	42.60 ea.
8016	8.85 ea.
8020	1800.00 ea.
8020	900.00 ea.
8020	186.00 ea.
8020	99.00 ea.
8021	2100 00 ea.
8021	1050.00 ea.
8021	216.00 ea.
8021	114.00 ea.
8022	2850.00 ea.
8022	1425.00 ea.
8022	291.00 ea.
8022	151.50 ea.
8022	76.50 ea.
8023	3300.00 ea.
8023	1650.00 ea.
8023	336.00 ea.
8023	174.00 ea.
8023	87.90 ea.
8024	4080.00 ea.
8024	2040.00 ea.
8024	414.00 ea.
8024	213.00 ea.
8024	107.10 ea.
8025	4860.00 ea.
8025	2430.00 ea.
8025	492.00 ea.
8025	252.00 ea.
8025	126.90 ea.
8026	5205.00 ea.
8026	2602.50 ea.
8026	526.00 ea.
8026	269.25 ea.
8026	135.30 ea.
8027	6750.00 ea.
8027	3375.00 ea.
8027	681.30 ea.
8027	346.65 ea.
8027	174.00 ea.
8028	6990.00 ea.
8028	3495.00 ea.
8028	705.00 ea.
8028	358.50 ea.
8028	180.00 ea.
8029	7740.00 ea.
8029	3870.00 ea.
8029	780.00 ea.
8029	396.00 ea.
8029	198.90 ea.
8510	52.50 ea.
8512	300.00 ea.
8512-1	36.00 ea.
8514	210.00 ea.
8514-1	24.60 ea.
8516	144.00 ea.
8516-1	18.00 ea.
8518	126.00 ea.
8518-1	15.00 ea.
8520	93.00 ea.
8520-1	12.60 ea.
8521	330.00 M
8521/2	510.00 M
8521/3	630.00 M
8521/4	750.00 M
8521/5	870.00 M
8522	66.00 ea.
8522-1	9.60 ea.
8523	375.00 M
8523/2	555.00 M
8523/3	714.00 M
8523/4	855.00 M
8523/5	990.00 M
8524	60.00 ea.
8524-1	8.40 ea.
8525	405.00 M
8525/2	705.00 M
8525/3	870.00 M
8525/4	1150.00 M
8525/5	1224.00 M
8526	52.50 ea.
8526-1	5.70 ea.
8527	435.00 M
8527/2	795.00 M
8527/3	945.00 M
8527/4	1320.00 M
8527/5	1530.00 M
8528	48.00 ea.
8528-1	5.40 ea.
8530	48.00 ea.
8530-1	5.40 ea.
8532	48.00 ea.
8532-1	5.40 ea.
8534	255.00 ea.
8534-1	30.00 ea.
8536	225.00 ea.
8536-1	27.00 ea.
8538	150.00 ea.
8538-1	27.00 ea.
8540	120.00 ea.
8540-1	15.00 ea.
8542	156.00 ea.
8542-1	17.10 ea.
8544	135.00 ea.
8544-1	14.40 ea.
8546	105.00 ea.
8546-1	12.30 ea.
8548	93.00 ea.
8548-1	10.80 ea.
8550	87.00 ea.
8550/20	75.00 M
8550/20	75.00 M
8550/22	54.00 M
8550/22	54.00 M
8550/24	46.50 M
8550/26	46.50 M
8550/26	45.00 M
8550/26	45.00 M
8550/28	43.50 M
8550/28	43.50 M
8550/30	43.50 M
8550/30	43.50 M
8550/32	45.90 M
8550/32	45.90 M
8550/34	105.00 M
8550/34	105.00 M
8550/36	124.80 M
8550/36	124.80 M
8550-1	10.50 ea.
8552	87.00 ea.
8552-1	10.50 ea.
8704	144.00 ea.
8704/2	252.00 ea.
8704/3	342.00 ea.
8704/4	450.00 ea.
8704/5	576.00 ea.
8705	138.00 ea.
8705/2	306.00 ea.
8705/3	366.00 ea.
8705/4	504.00 ea.
8705/5	612.00 ea.
8706	192.00 ea.
8706/2	378.00 ea.
8706/3	504.00 ea.
8706/4	612.00 ea.
8706/5	720.00 ea.
8707	162.00 ea.
8707/2	288.00 ea.
8707/3	396.00 ea.
8707/4	510.00 ea.
8707/5	630.00 ea.
8708	177.00 ea.
8708/2	300.00 ea.
8708/3	414.00 ea.
8708/4	576.00 ea.
8708/5	720.00 ea.
8709	231.00 ea.
8709/2	306.00 ea.
8709/3	576.00 ea.
8709/4	630.00 ea.
8709/5	831.00 ea.
8710	156.00 ea.
8710/2	306.00 ea.
8710/3	540.00 ea.
8710/4	648.00 ea.
8710/5	792.00 ea.
8711	231.00 ea.
8711/2	405.00 ea.
8711/3	552.00 ea.
8711/4	717.00 ea.
8711/5	900.00 ea.
8712	240.00 ea.
8712/2	390.00 ea.
8712/3	585.00 ea.
8712/4	756.00 ea.
8712/5	945.00 ea.
8713	225.00 ea.
8713/2	435.00 ea.
8713/3	597.00 ea.
8713/4	765.00 ea.
8713/5	990.00 ea.
8714	255.00 ea.
8714/2	465.00 ea.
8714/3	645.00 ea.
8714/4	810.00 ea.
8714/5	1005.00 ea.
8715	336.00 ea.
8715/2	585.00 ea
8715/3	780.00 ea.
8715/4	975 00 ea.
8715/5	1200.00 ea.
9510	627.00 ea.
9510	598.50 ea.
9510	570.00 ea.
9512	363.00 ea.
9512	346.00 ea.
9512	330.00 ea.
9514	264.00 ea.
9514	252.00 ea.
9514	240.00 ea.
9516	174.90 ea.
9516	166.95 ea.
9516	159.00 ea.
9518	141.90 ea.
9518	134.50 ea.
9518	129.00 ea.
9520	115.50 ea.
9520	110.25 ea.
9520	105.00 ea.
9522	89.10 ea.
9522	85.05 ea.
9522	81.00 ea.
9524	79.20 ea.
9524	75.60 ea.
9524	72.00 ea.
D-50	3.60 M
Spool Special	.61 ea.
Spool Special	.61 ea.
BHF-10-¼	.53 ea.
BHF-12-¼	.54 ea.
BHF-14-¼	.54 ea.
BHF-16-¼	.55 ea.
BHF-18-¼	.57 ea.
BHF-20-¼	.59 ea.
BHF-22-¼	.60 ea.
BHF-24-¼	.63 ea.
BHF-26-¼	.66 ea.
BHF-28-¼	.72 ea.
BHF-30-¼	.75 ea.
BHF-32-¼	.90 ea.
BHF-34-¼	1.02 ea.
BHF-36-¼	1.17 ea.
BHF-38-¼	1.41 ea.
BHF-40-¼	1.83 ea.
BHF-42-¼	2.40 ea.
BHF-44-¼	4.17 ea.
BHF-10-½	.87 ea.
BHF-12-½	.88 ea.
BHF-14-½	.88 ea.
BHF-16-½	.90 ea.
BHF-18-½	1.01 ea.
BHF-20-½	1.07 ea.
BHF-22-½	1.08 ea.
BHF-24-½	1.14 ea.
BHF-26-½	1.26 ea.
BHF-28-½	1.38 ea.
BHF-30-½	1.44 ea.
BHF-32-½	1.74 ea.
BHF-34-½	1.95 ea.
BHF-36-½	2.28 ea.
BHF-38-½	2.84 ea.
BHF-40-½	3.48 ea.
BHF-42-½	4.62 ea.
BHF-44-½	7.95 ea.
BHF-10-1	1.61 ea.
BHF-12-1	1.61 ea.
BHF-14-1	1.62 ea.
BHF-16-1	1.65 ea.
BHF-18-1	1.80 ea.
BHF-20-1	1.89 ea.
BHF-22-1	2.04 ea.
BHF-24-1	2.16 ea.
BHF-26-1	2.34 ea.
BHF-28-1	2.55 ea.
BHF-30-1	2.70 ea.
BHF-32-1	3.30 ea.
BHF-34-1	3.75 ea.
BHF-36-1	4.35 ea.
BHF-38-1	5.10 ea.
BHF-40-1	6.75 ea.
BHF-42-1	8.70 ea.
BHF-44-1	15.15 ea.
BPE-10-¼	.41 ea.
BPE-12-¼	.41 ea.
BPE-14-¼	.42 ea.
BPE-16-¼	.43 ea.
BPE-18-¼	.43 ea.
BPE-20-¼	.44 ea.
BPE-22-¼	.48 ea.
BPE-24-¼	.48 ea.
BPE-26-¼	.49 ea.
BPE-28-¼	.52 ea.
BPE-30-¼	.53 ea.
BPE-32-¼	.57 ea.
BPE-34-¼	.60 ea.

Net

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Birnbach PRICE LIST

Cat. No.	Sug'd Resale
952A	72.00 ea.
D-50	3.60 M
Spool Special	.61 ea.
Spool Special	.61 ea.
BHF-10-1/4	.53 ea.
BHF-12-1/4	.54 ea.
BHF-14-1/4	.54 ea.
BHF-16-1/4	.55 ea.
BHF-18-1/4	.57 ea.
BHF-20-1/4	.59 ea.
BHF-22-1/4	.60 ea.
BHF-24-1/4	.63 ea.
BHF-26-1/4	.66 ea.
BHF-28-1/4	.72 ea.
BHF-30-1/4	.75 ea.
BHF-32-1/4	.90 ea.
BHF-34-1/4	1.02 ea.
BHF-36-1/4	1.17 ea.
BHF-38-1/4	1.41 ea.
BHF-40-1/4	1.83 ea.
BHF-42-1/4	2.40 ea.
BHF-44-1/4	4.17 ea.
BHF-10-1/2	.87 ea.
BHF-12-1/2	.88 ea.
BHF-14-1/2	.88 ea.
BHF-16-1/2	.90 ea.
BHF-18-1/2	1.01 ea.
BHF-20-1/2	1.07 ea.
BHF-22-1/2	1.08 ea.
BHF-24-1/2	1.14 ea.
BHF-26-1/2	1.26 ea.
BHF-28-1/2	1.38 ea.
BHF-30-1/2	1.44 ea.
BHF-32-1/2	1.74 ea.
BHF-34-1/2	1.95 ea.
BHF-36-1/2	2.28 ea.
BHF-38-1/2	2.84 ea.
BHF-40-1/2	3.48 ea.
BHF-42-1/2	4.62 ea.
BHF-44-1/2	7.95 ea.
BHF-10-1	1.61 ea.
BHF-12-1	1.61 ea.
BHF-14-1	1.62 ea.
BHF-16-1	1.65 ea.
BHF-18-1	1.80 ea.
BHF-20-1	1.89 ea.
BHF-22-1	2.04 ea.
BHF-24-1	2.16 ea.
BHF-26-1	2.34 ea.
BHF-28-1	2.55 ea.
BHF-30-1	2.70 ea.
BHF-32-1	3.30 ea.
BHF-34-1	3.75 ea.
BHF-36-1	4.35 ea.
BHF-38-1	5.10 ea.
BHF-40-1	6.75 ea.
BHF-42-1	8.70 ea.
BHF-44-1	15.15 ea.
BPE-10-1/4	.41 ea.
BPE-12-1/4	.41 ea.
BPE-14-1/4	.42 ea.
BPE-16-1/4	.43 ea.
BPE-18-1/4	.43 ea.
BPE-20-1/4	.44 ea.
BPE-22-1/4	.48 ea.
BPE-24-1/4	.48 ea.
BPE-26-1/4	.49 ea.
BPE-28-1/4	.52 ea.
BPE-30-1/4	.53 ea.
BPE-32-1/4	.57 ea.
BPE-34-1/4	.60 ea.
BPE-36-1/4	.66 ea.
BPE-38-1/4	.78 ea.
BPE-40-1/4	1.02 ea.
BPE-42-1/4	2.40 ea.
BPE-44-1/4	3.35 ea.
BPE-10-1/2	.75 ea.
BPE-12-1/2	.76 ea.
BPE-14-1/2	.77 ea.
BPE-16-1/2	.77 ea.
BPE-18-1/2	.77 ea.
BPE-20-1/2	.78 ea.
BPE-22-1/2	.81 ea.
BPE-24-1/2	.84 ea.
BPE-26-1/2	.87 ea.
BPE-28-1/2	.93 ea.
BPE-30-1/2	.96 ea.
BPE-32-1/2	1.02 ea.
BPE-34-1/2	1.11 ea.
BPE-36-1/2	1.23 ea.
BPE-38-1/2	1.56 ea.
BPE-40-1/2	2.04 ea.
BPE-42-1/2	4.59 ea.
BPE-44-1/2	6.54 ea.
BPE-10-1	1.41 ea.
BPE-12-1	1.41 ea.
BPE-14-1	1.42 ea.
BPE-16-1	1.42 ea.
BPE-18-1	1.43 ea.
BPE-20-1	1.50 ea.
BPE-22-1	1.59 ea.
BPE-24-1	1.62 ea.
BPE-26-1	1.71 ea.
BPE-28-1	1.80 ea.
BPE-30-1	1.86 ea.
BPE-32-1	1.98 ea.
BPE-34-1	2.16 ea.
BPE-36-1	2.46 ea.
BPE-38-1	2.97 ea.
BPE-40-1	4.05 ea.
BPE-42-1	9.00 ea.
BPE-44-1	13.50 ea.
BST-10-1/4	.41 ea.
BST-12-1/4	.41 ea.
BST-14-1/4	.42 ea.
BST-16-1/4	.43 ea.
BST-18-1/4	.43 ea.
BST-20-1/4	.44 ea.
BST-22-1/4	.48 ea.
BST-24-1/4	.48 ea.
BST-26-1/4	.49 ea.
BST-28-1/4	.52 ea.
BST-30-1/4	.53 ea.
BST-32-1/4	.57 ea.
BST-34-1/4	.60 ea.
BST-36-1/4	.66 ea.
BST-38-1/4	.78 ea.
BST-40-1/4	1.02 ea.
BST-42-1/4	2.40 ea.
BST-44-1/4	3.39 ea
BST-10-1/2	.75 ea.
BST-12-1/2	.76 ea.
BST-14-1/2	.77 ea.
BST-16-1/2	.77 ea.
BST-18-1/2	.77 ea.
BST-20-1/2	.78 ea.
BST-22-1/2	.81 ea.
BST-24-1/2	.84 ea.
BST-26-1/2	.87 ea.
BST-28-1/2	.93 ea.
BST-30-1/2	.96 ea.
BST-32-1/2	1.02 ea.
BST-34-1/2	1.11 ea.
BST-36-1/2	1.23 ea.
BST-38-1/2	1.56 ea.
BST-40-1/2	2.04 ea.
BST-42-1/2	4.59 ea.
BST-44-1/2	6.54 ea.
BST-10-1	1.41 ea.
BST-12-1	1.41 ea.
BST-14-1	1.42 ea.
BST-16-1	1.42 ea.
BST-18-1	1.43 ea.
BST-20-1	1.50 ea.
BST-22-1	1.59 ea.
BST-24-1	1.62 ea.
BST-26-1	1.71 ea.
BST-28-1	1.80 ea.
BST-30-1	1.86 ea.
BST-32-1	1.98 ea.
BST-34-1	2.16 ea.
BST-36-1	2.46 ea.
BST-38-1	2.97 ea.
BST-40-1	4.05 ea.
BST-42-1	9.00 ea.
BST-44-1	13.50 ea.
BDN-12-1/4	.79 ea.
BDN-14-1/4	.83 ea.
BDN-16-1/4	.94 ea.
BDN-18-1/4	1.01 ea.
BDN-20-1/4	1.15 ea.
BDN-22-1/4	1.33 ea.
BDN-24-1/4	1.44 ea.
BDN-26-1/4	1.73 ea.
BDN-28-1/4	1.87 ea.
BDN-30-1/4	2.23 ea.
BDN-32-1/4	2.81 ea.
BDN-34-1/4	3.89 ea.
BDN-36-1/4	6.48 ea.
BDN-38-1/4	9.00 ea.
BDN-40-1/4	15.98 ea.
BDN-12-1/2	1.51 ea.
BDN-14-1/2	1.55 ea.
BDN-16-1/2	1.73 ea.
BDN-18-1/2	1.91 ea.
BDN-20-1/2	2.20 ea.
BDN-22-1/2	2.45 ea.
BDN-24-1/2	2.74 ea.
BDN-26-1/2	3.31 ea.
BDN-28-1/2	3.60 ea.
BDN-30-1/2	4.25 ea.
BDN-32-1/2	5.40 ea.
BDN-34-1/2	7.62 ea.
BDN-36-1/2	12.60 ea.
BDN-38-1/2	17.46 ea.
BDN-40-1/2	30.36 ea.
BDN-12-1	2.88 ea.
BDN-14-1	2.95 ea.
BDN-16-1	3.06 ea.
BDN-18-1	3.35 ea.
BDN-20-1	3.96 ea.
BDN-22-1	4.32 ea.
BDN-24-1	5.40 ea.
BDN-26-1	6.66 ea.
BDN-28-1	7.20 ea.
BDN-30-1	8.28 ea.
BDN-32-1	10.72 ea.
BDN-34-1	14.98 ea.
BDN-36-1	24.48 ea.
BDN-38-1	33.48 ea.
BDN-40-1	59.04 ea.
BDC-10-1/4	.61 ea.
BDC-12-1/4	.61 ea.
BDC-14-1/4	.62 ea.
BDC-16-1/4	.65 ea.
BDC-18-1/4	.71 ea
BDC-20-1/4	.80 ea.
BDC-22-1/4	.90 ea.
BDC-24-1/4	1.00 ea.
BDC-26-1/4	1.12 ea.
BDC-28-1/4	1.30 ea.
BDC-30-1/4	1.58 ea.
BDC-32-1/4	1.91 ea.
BDC-34-1/4	2.81 ea.
BDC-36-1/4	3.28 ea.
BDC-38-1/4	5.76 ea.
BDC-40-1/4	8.28 ea.
BDC-10-1/2	.96 ea.
BDC-12-1/2	.96 ea.
BDC-14-1/2	.97 ea.
BDC-16-1/2	1.02 ea.
BDC-18-1/2	1.14 ea.
BDC-20-1/2	1.38 ea.
BDC-22-1/2	1.58 ea.
BDC-24-1/2	1.69 ea.
BDC-26-1/2	1.98 ea.
BDC-28-1/2	2.52 ea.
BDC-30-1/2	3.02 ea.
BDC-32-1/2	3.60 ea.
BDC-34-1/2	5.22 ea.
BDC-36-1/2	6.28 ea.
BDC-38-1/2	9.43 ea.
BDC-40-1/2	14.11 ea.
BDC-10-1	1.68 ea.
BDC-12-1	1.68 ea.
BDC-14-1	1.80 ea.
BDC-16-1	1.95 ea.
BDC-18-1	2.16 ea.
BDC-20-1	2.50 ea.
BDC-22-1	2.99 ea.
BDC-24-1	3.31 ea.
BDC-26-1	3.78 ea.
BDC-28-1	4.68 ea.
BDC-30-1	5.58 ea.
BDC-32-1	6.84 ea.
BDC-34-1	9.72 ea.
BDC-36-1	11.79 ea.
BDC-38-1	17.64 ea.
BDC-40-1	26.21 ea.
C-1001-1	.12 ea.
C-1001-2	.13 ea.
C-1001-3	.13 ea.
C-1001-4	.21 ea.
D-50	3.60 M
GL-1-100'	3.30 ea.
GL-1-500'	16 35 ea.
GL-1-1000'	32.40 ea.
GL-1-2500'	80.40 ea.
GL-2-100'	6.45 ea.
GL-2-500'	31.98 ea.
GL-2-1000'	63.60 ea.
GL-2-2500'	158.40 ea.
GL-3-100'	12.24 ea.
GL-3-500'	61.38 ea.
GL-3-1000'	122.40 ea.
GL-3-2500'	305.40 ea.
HAG-12	41.25 ea.
HAG-1	5.70 ea.
HAG-13	52.00 ea.
H-214	200.00 ea.
M-214	162.50 ea.
H-216	145.00 ea.
M-216	95.00 ea.
H-218	125.00 ea.
L-218	70.00 ea.
M-218	91.50 ea.
H-312	395.00 ea.
M-316	155.00 ea.
M-318	137.50 ea.
P-1315-AB	.81 ea.
P-1315-CCE	1.21 ea.
P-1315-CCT	1.21 ea.
P-1315-FHE	1.01 ea.
P-1315-FHT	1.01 ea.
P-1315-SB	1.21 ea.
P-1318-AB	1.01 ea.
P-1318-CCE	1.43 ea.
P-1318-CCT	1.43 ea.
P-1318-FHE	1.22 ea.
P-1318-FHT	1.23 ea.
P-1318-SB	1.57 ea.
P-1321-AB	1.26 ea.
P-1321-CCE	1.72 ea.
P-1321-CCT	1.72 ea.
P-1321-FHE	1.46 ea.
P-1321-FHT	1.46 ea.
P-1321-SB	1.77 ea.
P-1324-AB	1.56 ea.
P-1324-CCE	2.00 ea.
P-1324-CCT	2.00 ea.
P-1324-FHE	1.78 ea.
P-1324-FHT	1.78 ea.
P-1324-SB	2.11 ea.
P-1327-AB	1.84 ea.
P-1327-CCE	2.28 ea.
P-1327-CCT	2.28 ea.
P-1327-FHE	2.04 ea.
P-1327-FHT	2.04 ea.
P-1327-SB	2.34 ea.
P-1330-AB	2.10 ea.
P-1330-CCE	2.62 ea.
P-1330-CCT	2.62 ea.
P-1330-FHE	2.42 ea.
P-1330-FHT	2.42 ea.
P-1330-SB	2.70 ea.
P-1333-AB	2.38 ea.
P-1333-CCE	2.86 ea.
P-1333-CCT	2.86 ea.
P-1333-FHE	2.73 ea.
P-1333-FHT	2.73 ea.
P-1333-SB	2.96 ea.
PBT-4	2.52 ea.
PBT-4	20.85 ea.
R-100	3.36 M
S-1315-AB	.94 ea.
S-1315-CCE	1.34 ea.
S-1315-CCT	1.34 ea.
S-1315-FHE	1.14 ea.
S-1315-FHT	1.14 ea.
S-1315-SB	1.37 ea.
S-1318-AB	1.13 ea.
S-1318-CCE	1.56 ea.
S-1318-CCT	1.56 ea.
S-1318-FHE	1.35 ea.
S-1318-FHT	1.35 ea.
S-1318-SB	1.64 ea.
S-1321-AB	1.40 ea.
S-1321-CCE	1.79 ea.
S-1321-CCT	1.79 ea.
S-1321-FHE	1.58 ea.
S-1321-FHT	1.58 ea.
S-1321-SB	1.91 ea.
S-1324-AB	1.67 ea.
S-1324-CCE	2.12 ea.
S-1324-CCT	2.12 ea.
S-1324-FHE	1.90 ea.
S-1324-FHT	1.90 ea.
S-1324-SB	2.24 ea.
S-1327-AB	1.95 ea.
S-1327-CCE	2.39 ea.
S-1327-CCT	2.39 ea.
S-1327-FHE	2.23 ea.
S-1327-FHT	2.23 ea.
S-1327-SB	2.51 ea.
S-1330-AB	2.26 ea.
S-1330-CCE	2.78 ea.
S-1330-CCT	2.78 ea.
S-1330-FHE	2.57 ea.
S-1330-FHT	2.57 ea.
S-1330-SB	2.85 ea.
S-1333-AB	2.50 ea.
S-1333-CCE	2.99 ea.
S-1333-CCT	2.99 ea.
S-1333-FHE	2.81 ea.
S-1333-FHT	2.81 ea.
S-1333-SB	3.12 ea.
T-6	12.00 C
T-8	24.00 C
T-10	8.25 C
T-14	.42 ea.
T-14A	.48 ea.
T-15	15.00 C
T-16	15.00 C
T-16A	15.00 C
TK-1	55.05 ea.
TK-2	50.55 ea.
SK-165-3/64	7.20 C
SK-265-1/16	7.50 C
SK-265-3/32	8.40 C
SK-265-1/8	8.85 C
SK-265-3/16	11.25 C
SK-265-1/4	13.20 C
SK-265-3/8	15.90 C
SK-265-1/2	19.20 C
SK-265-3/4	25.95 C
SK-265-1	36.00 C
SK-275-24	16.00 C
SK-275-22	16.70 C
SK-275-20	17.50 C
SK-275-18	19.15 C
SK-275-16	20.75 C
SK-275-14	22.70 C
SK-275-12	24.90 C
SK-275-10	27.25 C
SK-275-8	31.80 C
SK-275-6	34.30 C
SK-275-4	37.30 C
SK-275-2	40.95 C
SK-275-2	8.20
SK-275-5/16	44.55 C
SK-275-5/16	8.90
SK-275-3/8	55.50 C
SK-275-3/8	11.10
SK-275-7/16	70.40 C
SK-275-7/16	14.10
SK-275-1/2	81.45 C
SK-275-1/2	16.30
SK-275-5/8	97.00 C
SK-275-5/8	19.40
SK-275-3/4	115.40 C
SK-275-3/4	23.10
SK-275-7/8	136.50 C
SK-275-7/8	27.30
SK-275-1	161.00 C
SK-276-1	32.20
SK-621-22	37.50 C
SK-621-20	45.75 C
SK-621-19	50.10 C
SK-621-18	52.50 C
SK-621-17	54.00 C
SK-621-16	55.50 C
SK-621-15	60.84 C
SK-621-14	64.17 C
SK-621-13	70.00 C
SK-621-12	73.25 C
SK-621-11	79.17 C
SK-621-10	150.00 C
SK-621-9	116.67 C
SK-621-8	142.50 C
SK-621-7	145.83 C
SK-621-6	159.00 C
SK-621-5	179.16 C
SK-621-4	189.00 C
SK-621-3	212.49 C
SK-621-2	225.00 C
SK-621-1	330.00 C
SK-621-0	367.50 C
SK-621-3/8	4.80 ft.
SK-621-7/16	5.40 ft
SK-621-1/2	6.24 ft
Special Spools	.61 e

(c) U.C.P., Inc.

Net

PRICES

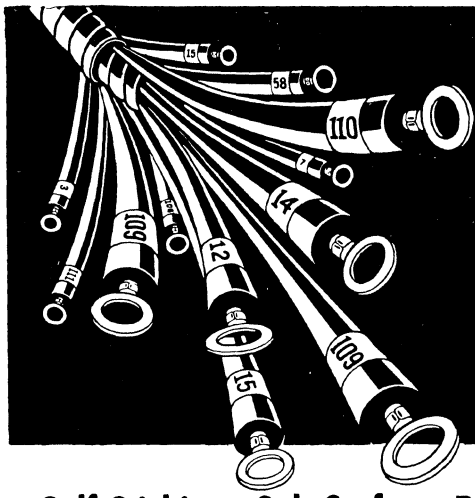
Prices in this *MASTER* should not be considered as final.
Inquire about latest prices and delivery.

DISCOUNTS

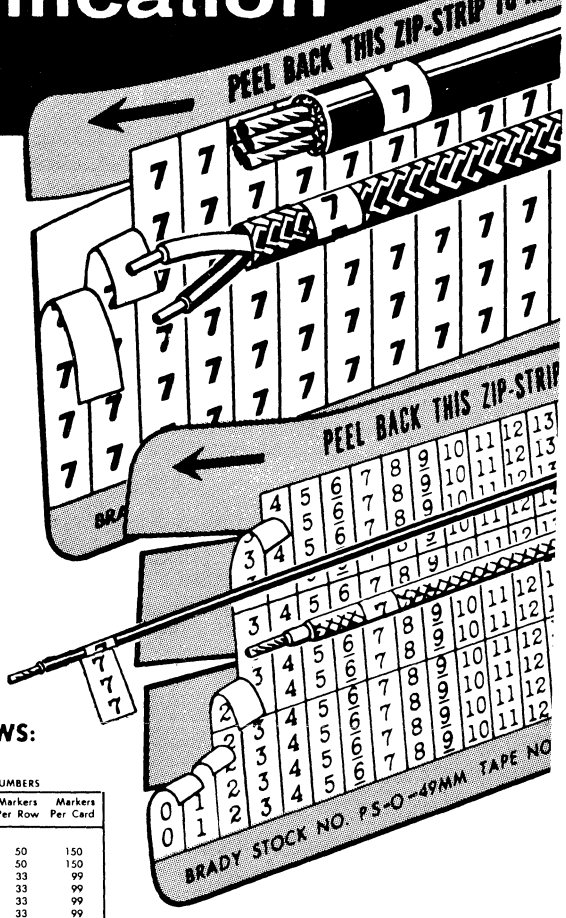
Trade discounts apply in most cases
where *list prices* are shown.

ORDERING

Since previous editions of The MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.



BRADY Self-Sticking electronic product identification



Self-Sticking, Sub-Surface Printed Perma-Shield WIRE MARKERS Tell Which Wire Goes Where . . . PERMANENTLY!

Mark with Brady B-600 and you mark for the operational life of your equipment.

The legend on Brady B-600 Wire Markers is protected by tough, glass-clear Mylar.* Brady's exclusive sub-surface printing process deposits number, letter or symbol on the *underside* of the Mylar. Even hardest handling and abrasion can't deface the legend. It stays sharp and clear *permanently.*

Brady B-600 Markers resist heat to 400° F. . . . repel dirt, detergents, chemicals and moisture like no other markers you can buy. Numbers, Letters, Symbols in sizes 1½" long for wires under .425" o.d.; ¾" long for wires under .250" o.d.; and ½" long for miniature wires under .150" o.d. IN STOCK for immediate delivery.

ONLY BRADY SELF-STICKING WIRE MARKERS CAN BE MANUALLY AND MACHINE APPLIED.

*DuPont's Reg. T.M.

BRADY B-600 WIRE MARKERS ARE STOCKED AS FOLLOWS:

STOCK LIST — 1/2" Long Miniature Markers

SOLID NUMBERS

Brady Stock No.	Printing on Markers	Markers Per Row	Markers Per Card
(All markers on each card the same)			
MM-0	0	50	150
MM-1	1	50	150
MM-2	2	50	150
and so on thru			
MM-99	99	50	150
MM-100	100	33	99
MM-101	101	33	99
and so on thru			
MM-497	497	33	99
MM-498	498	33	99
MM-499	499	33	99
MM-500	500	33	99

SOLID CAPITAL LETTERS

Brady Stock No.	Printing on Markers	Markers Per Row	Markers Per Card
(All markers on each card same)			
MM-A-CAP	A	50	150
MM-B-CAP	B	50	150
MM-C-CAP	C	50	150
and so on thru			
MM-Z-CAP	Z	50	150

COMBINATION PACS
1 Card each of Solid Numbers or Letters per Pac

Stock No.	Assortment	Cards in Pac
CPC-MM-1-25	Solid Numbers 1 thru 25	25
CPC-MM-26-50	Solid Numbers 26 thru 50	25
CPC-MM-51-75	Solid Numbers 51 thru 75	25
CPC-MM-76-100	Solid Numbers 76 thru 100	26
and so on thru		
CPC-MM-476-500	Solid Numbers 476 thru 500	25
CPC-MM-A-Z	Solid Letters A thru Z	26

CONSECUTIVE NUMBERS

Brady Stock No.	Printing on Markers	Markers Per Row	Markers Per Card
(3 complete sets per card)			
MM-0-49	0 thru 49	50	150
MM-50-99	50 thru 99	50	150
MM-100-132	100 thru 132	33	99
MM-133-165	133 thru 165	33	99
MM-166-198	166 thru 198	33	99
MM-199-231	199 thru 231	33	99
MM-232-264	232 thru 264	33	99
MM-265-297	265 thru 297	33	99
MM-298-330	298 thru 330	33	99
MM-331-363	331 thru 363	33	99
MM-364-396	364 thru 396	33	99
MM-397-429	397 thru 429	33	99
MM-430-462	430 thru 462	33	99
MM-463-495	463 thru 495	33	99

Write for Brady Bulletin 130 for complete list of stock items, prices and free testing samples.

STOCK LIST — 3/4" Long and 1-1/2" Long Standard Markers

SOLID NUMBER CARDS

Brady Stock No.	Printing on Each Marker	No. of Markers on Each Card ¾"	No. of Markers on Each Card 1½"
VP-0	0	72	36
VP-1	1	72	36
VP-2	2	72	36
VP-3	3	72	36
and so on thru			
VP-97	97	72	36
VP-98	98	72	36
VP-99	99	72	36
VP-100	100	50	25
and so on thru			
VP-300	300	50	25
VP-301	301	50	25
VP-302	302	50	25
and so on thru			
VP-499	499	50	25
VP-500	500	50	25

SOLID LETTER CARDS

Brady Stock No.	Printing on Each Marker	No. of Markers on Each Card ¾"	No. of Markers on Each Card 1½"
VP-A	A	72	36
VP-B	B	72	36
VP-C	C	72	36
and so on thru			
VP-Z	Z	72	36

COMBINATION PACS
1 Card each of Solid Numbers or Letters per Pac

BRADY Stock No.	Assortment Solid Cards	No. of Cards in Each Pac
CPC-VP-1-25	1-25	25
CPC-VP-26-50	26-50	25
CPC-VP-51-75	51-75	25
CPC-VP-76-100	76-100	25
and so on thru		
CPC-VP-476-500	476-500	25
CPC-VP-A-Z	A-Z	26

CONSECUTIVE NUMBER CARDS

Brady Stock No.	Printing on Markers	No. of Markers of Each No. on Each Card ¾"	No. of Markers of Each No. on Each Card 1½"
CONSECUTIVE NUMBER CARDS			
VP-1-33	1-33	2	1
VP-34-66	34-66	2	1
VP-67-99	67-99	2	1
VP-100-124	100-124	2	1
VP-125-149	125-149	2	1
VP-150-174	150-174	2	1
and so on thru			
VP-475-499	475-499	2	1
CONSECUTIVE LETTER CARDS			
VP-A-Z-CAP	A-Z	2	1
CONSECUTIVE D.C. MOTOR GENERATOR MARKERS			
VP-AFS	A1, A2, F1, F2, S1, S2,	12	6

SOLID MACHINE TOOL SYMBOLS

Brady Stock No.	Printing on Each Marker	No. of Markers on Each Card ¾"	No. of Markers on Each Card 1½"
VP-1T1	1T1	50	25
VP-1T2	1T2	50	25
VP-1T3	1T3	50	25
VP-2T1	2T1	50	25
VP-2T2	2T2	50	25
VP-2T3	2T3	50	25
VP-3T1	3T1	50	25
VP-3T2	3T2	50	25
VP-3T3	3T3	50	25
VP-4T1	4T1	50	25
VP-4T2	4T2	50	25
VP-4T3	4T3	50	25
VP-5T1	5T1	50	25
VP-5T2	5T2	50	25
VP-5T3	5T3	50	25
VP-6T1	6T1	50	25
VP-6T2	6T2	50	25
VP-6T3	6T3	50	25
VP-7T1	7T1	50	25
VP-7T2	7T2	50	25
VP-7T3	7T3	50	25

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PRICE PER 100 CARDS

	½" long Miniature Markers	1½" or ¾" long Wire Markers
25 to 99 Cards	$27.00/C	$20.00/C
100 to 499 Cards	21.60/C	16.00/C
500 to 999 Cards	18.90/C	14.00/C
1000 to 2499 Cards	17.55/C	13.00/C
2500 to 4999 Cards	16.88/C	12.50/C
5000 to 9999 Cards	16.20/C	12.00/C

W. H. BRADY CO.

MILWAUKEE

Manufacturers of Quality Pressure-Sensitive Industrial Tape Products, Self-Bonding Nameplates, Automatic Machines for Dispensing Labels, Nameplates, Masks and Tape. Est. 1914

Columbia

PERMALINE TV TRANSMISSION LINES

It is now over ten years since Columbia introduced Permaline television transmission line, the only television wire available today with a written guarantee against deterioration. In all this time we have yet to replace one single foot of this wire for reasons of deterioration, proving beyond all doubt that Permaline insulation has no equal for long life under the most severe atmospheric conditions.

Permaline is a high molecular weight polyethylene containing a very small percentage of carbon black to provide maximum resistance to the ultra violet rays in sunlight which has been proven the chief factor in the deterioration of ordinary television wire.

Electrical characteristics of Permaline are very similar to brown polyethylene television lines, but as there is no deterioration attenuation remains constant instead of increasing as is the case with brown polyethylene which becomes brittle and cracks. Remember it is not how THICK but how GOOD!

25 YEAR WARRANTY

80 Mil 20 Ga. Str. PERMALINE Television Transmission Line
.080 x .395

CAT NO.		Net
5050M	1,000 Ft. Metal Spool	22.72
5050D	500 Ft. Metal Spool	11.74
5050C	100 Ft. Coil } 12 coils come packed in FREE counter	2.48
5050S	65 Ft. Coil } display	1.70
5050R	35 Ft. Coil	.98

15 YEAR WARRANTY

50 Mil 20 Ga. Str. PERMALINE Television Transmission Line
.050 x .385

		Net
5150M	1,000 Ft. Metal Spool	17.67
5150D	500 Ft. Metal Spool	9.16
5150C	100 Ft. Coil } 12 coils come packed in FREE counter	2.05
5150S	65 Ft. Coil } display	1.40
5150R	35 Ft. Coil	.82

Highly resistant to:

• SUNLIGHT • MOISTURE • FAR BELOW ZERO TEMP. • CHEMICAL FUMES • OIL REFINERY FUMES • SALT AIR & SALT SPRAY • ABRASION

Tensile Strength — 2300 lbs. per Sq. In.

Separate Warranty Certificate with every spool or package of Permaline Television Transmission Line.

PERMALINE VHF-UHF TV TRANSMISSION LINE

Since the introduction of this cable in May, 1956 it has been proven beyond any doubt that this cable has no equal for reliability over the entire range of VHF and UHF channels under the most adverse conditions, such as salt spray, sunlight, extremes of heat and cold, stress cracking, chemical fumes, whipping in high winds, etc. In many areas throughout the country where other cables have failed due to salt deposits on transmission lines, this cable has given satisfactory reception at all times. Foam polyethylene tubes provide excellent low loss dielectric and require no sealing. 22 gauge solid copperweld conductors mean high tensile strength so necessary where whipping of cable is a problem. Heavy duty jacket of high molecular weight BLACK PERMALINE POLYETHYLENE is a protection against all hazards. We believe this is the finest all-purpose television transmission line available today. Impedance is 270 ohms, nominal attenuation is 3.2 D/B at 500 M/C and 4.6 D/B at 900 M/C. Cable size is approximately .295 x .402.

15 Year Written Guarantee Certificate

CAT. NO.		Net
5684C	100 Ft. Carton	6.95
5684D	500 Ft. Spool	32.71
5684M	1000 Ft. Spool	63.57

PERMAFOAM LOW LOSS COAXIAL CABLES

PERMAFOAM is a new type of coaxial cable for television systems, communication work, and all other co-ax applications. A foam polyethylene dielectric replaces the conventional solid polyethylene thus providing far lower capacity and attenuation. In fact, attenuation is approximately 25% lower than standard coaxial cables of same type. Overall jacket is our PERMALINE high molecular weight polyethylene. This non-contaminating jacket is unaffected by salt air, chemical fumes, damp rot, fungus, acids, alkalis, etc., and is remarkably resistant to all extreme weather conditions. Moisture resistance is so high that this insulation is now used on submarine cables. Will withstand severe temperature extremes and is immune to the deteriorating effects of sunlight and other ultra violet. Note: In addition to the PERMAFOAM cables listed below, any other RG U cable is available with a foam polyethylene dielectric on special order.

PERMAFOAM 72-75 OHM COAXIAL CABLE

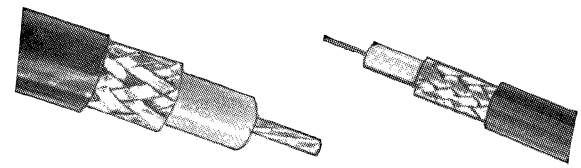
R.G. No.	Nom. Imp.	Attenuation 100 Ft. 100 MC	Wire Size	O.D.	Spool Size	Cat. No.	Net
RG 59 U	73	2.95 DB.	22 Cpwld.	.240	500 Ft.	5035D	26.92
					1000 Ft.	5035M	52.97
RG 11 U	75	1.50 DB.	14 Solid	.405	500 Ft.	5025D	63.32
					1000 Ft.	5025M	124.60

PERMAFOAM 52-53 OHM COAXIAL CABLE

R.G. No.	Nom. Imp.	Attenuation 100 Ft. 100 MC	Wire Size	O.D.	Spool Size	Cat. No.	Net
RG 58 U	53	3.10 DB.	20 Solid	.195	100 Ft.	5045C	5.63
					500 Ft.	5045D	26.68
					1000 Ft.	5045M	52.06
RG 8 U	52	1.50 DB.	7/21	.405	100 Ft.	5015C	15.62
					500 Ft.	5015D	74.59
					1000 Ft.	5015M	146.21
RG 17 U	52	.712 DB.	5 Solid	.870	100 Ft.	5090C	63.74
					500 Ft.	5090D	311.21
					1000 Ft.	5090M	620.39

COLUMBIA STANDARD COAXIAL CABLES

Premium quality standard coaxial cable. Meets all specifications. Black vinyl jacket.



R.G. No.	Nom. Imp.	Nom. Mmfd. Ft.	Wire Size	Overall Jacket	Spool Size	Cat. No.	Net
RG 59 U	73.0	21.0	22 C Weld	Black Vinyl .240 O.D.	100 Ft.	1104C	5.48
					500 Ft.	1104D	26.06
					1000 Ft.	1104M	51.27
RG 8 U	52.0	29.5	7/21	Black Vinyl .405 O.D.	100 Ft.	1154C	13.76
					500 Ft.	1154D	67.21
					1000 Ft.	1154M	132.36
RG 11 U	75.0	20.5	7/26	Black Vinyl .405 O.D.	100 Ft.	1160C	13.26
					500 Ft.	1160D	63.31
					1000 Ft.	1160M	124.61
RG 58 U	53.5	28.5	20 Ga.	Black Vinyl .195 O.D.	100 Ft.	1166C	5.35
					500 Ft.	1166D	25.18
					1000 Ft.	1166M	49.45
RG 58 A/U	50.0	29.0	19/.0068	Black Vinyl .159 O.D.	100 Ft.	1178C	5.85
					500 Ft.	1178D	27.94
					1000 Ft.	1178M	54.94

Long Lengths of Any Co-ax Available Upon Request

WRITE TO YOUR LOCAL PARTS DISTRIBUTOR FOR COMPLETELY ILLUSTRATED COLUMBIA WIRE & SUPPLY CO. CATALOG

Net

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Columbia

FLEXFOAM ULTRA LOW CAPACITANCE MICROPHONE CABLES — EXCLUSIVE WITH COLUMBIA

Another Columbia first is a complete line of microphone cables with capacity as much as 35% lower than the best regular microphone cables available today. This drastic lowering of capacity has been made possible by the use of foamed polyethylene as the inner dielectric instead of solid polyethylene as normally used. This low capacitance means that lengths of microphone cable can be increased as much as 50%. These cables are also ideal for Hi-Fi and high quality sound work because of the extremely low attenuation, particularly at the higher audio-frequencies. The use of a special flexible vinyl as an outer jacket provides flexibility practically as good as rubber yet has much greater abrasion resistance. Color—Grey.

Also available in high gloss gleaming white jackets.

FLEXFOAM MIKE CABLE WITH BRAIDED SHIELD

		Per Ft.	250 Ft. Spool	Net	500 Ft. Spool	Net
Crystal Size	(.190" O.D.)	16 MMF	No. 1399T	11.90	1399D	23.18
Lapel Size	(.140" O.D.)	19 MMF	No. 1379T	9.02	1379D	17.57

FLEXFOAM MIKE CABLE WITH SPIRAL SHIELD

Crystal Size	(.190" O.D.)	16 MMF	No. 1389T	11.07	1389D	21.54
Lapel Size	(.140" O.D.)	19 MMF	No. 1369T	8.29	1369D	16.12
Miniature	(.085" O.D.)	35 MMF	No. 1359T	6.11	1359D	11.72

TWO CONDUCTOR PLASTIC MICROPHONE CABLE — .230 O.D. T/C BRAID SHIELD

				Net
250 Ft. Spool	22 Ga.	16/34 Stranding	1322T	18.78
500 Ft. Spool	22 Ga.	16/34 Stranding	1322D	36.83

Nominal Capacitance 30 MMF Per Ft. Between 1 Cond. and Remaining Cond. Connected to Shield

ECONOMY SPIRAL SHIELDED MICROPHONE CABLES

Plastic insulated with wrapped concentric spiral shield for more effective shielding. Cables are more flexible and of smaller size.

CRYSTAL MICROPHONE CABLE .160 O.D.

25 Ga. 7 x 33 Str.

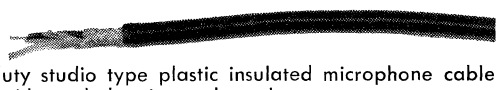
CAT. NO.			Net
1314T	250 Ft. Spool	Nominal Cap. 25 MMF Per Ft.	9.92
1314D	500 Ft. Spool	Nominal Cap. 25 MMF Per Ft.	19.36

LAPEL MICROPHONE CABLE .125 O.D.

25 Ga. 7 x 33 Str.

1366T	250 Ft. Spool	Nominal Cap. 33 MMF Per Ft.	7.31
1366M	250 Ft. Spool	Nominal Cap. 33 MMF Per Ft.	29.59

HEAVY DUTY MICROPHONE CABLE



Heavy duty studio type plastic insulated microphone cable that will withstand abrasion and rough usage.

18 Ga. Str. 41 x 34 Tinned Copper Conductors.
Jute Fillers T/C Shield
.295 O.D.

		CAT. NO.	Net
100 Ft. Spool	Color—Black	3302C	10.77
500 Ft. Spool	Color—Black	3302D	51.43

Nominal Capacitance 75 MMF. Per Ft.

Also available with bright red jackets for easy identification.

H'VY GAUGE JUKE BOX-H.F. SPKR CABLE

FOR LONG RUNS—LESS LOSS

This cable is similar to the 24 ga. juke box speaker cable listed in our general catalog, except that the 21 ga. conductors in this cable reduce the line loss to exactly half. Ridge in insulation over one conductor plus one tinned and one bare conductor provide double indication of polarity.

COLORS: Clear, Grey, Brown, White, Clear Gold

.180" x .090"
2 COND. 21 GA. STR. 10/31

		Net
No. 1360C	100 Ft. Spool	1.64
No. 1360D	500 Ft. Spool	7.40
No. 1360M	1000 Ft. Spool	14.27

COLUMBIA *SUPER-FLEX*

ULTRA FLEXIBLE FOAM COAXIAL CABLES

We believe Super-Flex Coaxial Cables are the finest available today — not only because of their appearance and flexibility, but because they actually out-perform any similar type of coaxial cable in use today. Cables feature High Gloss Non Contaminating Jackets and have a primary insulation of foam Polyethylene to reduce attenuation as much as 25% over regular types of coaxial cables. In addition to the above features Super-Flex Coaxial Cables will not become rigid in severe cold. Can be used with standard connectors. Ideal for citizens band and amateur use. Perfect for master television systems due to the wide range of colors available. Standard stock colors are: Black-White-Silver or Beige. Other colors to special order with a minimum of 5000 ft. of a color.

SUPER-FLEX RG 8/U 52 OHM IMPEDANCE

19/.020 Conductor. Insulation Foam Poly Dielectric

Cat. No.					Net
1198C	100 Ft.	RG 8/U	Super-Flex	.405 O.D.	15.95
1198D	500 Ft.	RG 8/U	Super-Flex	.405 O.D.	76.22
1198M	1000 Ft.	RG 8/U	Super-Flex	.405 O.D.	151.13

Cap. 22.1 MMFD Per Ft.

Attenuation 1.50 DB Per 100 Ft. at 100 MC.

SUPER-FLEX RG 58 A/U 50 OHM IMPEDANCE

19/.0068 Conductor. Insulation Foam Poly Dielectric

1188C	100 Ft.	RG 58 A/U	Super-Flex	.195 O.D.	6.47
1188D	500 Ft.	RG 58 A/U	Super-Flex	.195 O.D.	29.63
1188M	1000 Ft.	RG 58 A/U	Super-Flex	.195 O.D.	58.12

Cap. 22.9 MMFD Per Ft.

Attenuation 4.25 DB Per 100 Ft. at 100 MC.

SUPER-FLEX RG 59/U 73 OHM IMPEDANCE

22 Solid Copperweld Conductor. Insulation Foam Poly Dielectric

1135C	100 Ft.	RG 59/U	Super-Flex	.242 O.D.	6.23
1135D	500 Ft.	RG 59/U	Super-Flex	.242 O.D.	28.52
1135M	1000 Ft.	RG 59/U	Super-Flex	.242 O.D.	56.12

Cap. 16.6 MMFD Ft.

Attenuation 2.95 DB Per 100 Ft. at 100 MC

Super-Flex RG 59/U is also available with a 7/31 stranded conductor to provide still more flexibility. Center conductor can be used only with Pin Type Fittings such as used to plug into wall plates for Master Television Systems.

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© U.C.P., Inc.

Net

CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

See Following Pages for Specifications — CHICAGO, ILLINOIS

PRICE LIST

No.	Unit Pkg. or Length	Net Price Each
637	100′	1.25
637	500′	5.60
637	1000′	10.00
642	100′	1.50
642	500′	6.35
642	1000′	11.00
647	100′	1.85
647	500′	8.50
647	1000′	15.75
667	100′	1.35
667	500′	6.35
667	1000′	12.00
672	100′	1.65
672	500′	7.80
672	1000′	13.75
677	100′	2.10
677	500′	9.35
677	1000′	16.75
707	100′	.70
707	500′	3.00
707	1000′	4.65
717	100′	.90
717	500′	4.15
717	1000′	7.65
727	100′	1.20
727	500′	5.70
727	1000′	10.25
737	100′	.80
737	500′	3.90
737	1000′	7.15
747	100′	1.05
747	500′	4.95
747	1000′	9.30
757	100′	1.45
757	500′	6.90
757	1000′	13.00
801	25′	.30
801	100′	.90
801	500′	4.15
801	1000′	7.85
811	25′	.35
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811	1000′	9.00
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821	500′	4.85
821	1000′	9.00
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841	1000′	14.00
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851	1000′	12.35
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856	100′	1.85
856	500′	7.65
856	1000′	14.50
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861	500′	9.90
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866	500′	7.65
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1387	500′	12.38
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1501	1000′	189.00
1502	100′	22.13
1502	250′	211.50
1502	500′	210.00
1502	1000′	210.00

2000 Series
See Consolidated Page 5

3815	100′	1.05
3815	1000′	9.00
3816	100′	.75
3816	1000′	6.75
3817	100′	.54
3817	1000′	4.13
3818	100′	.48
3818	1000′	3.38
3819	100′	.38
3819	1000′	2.63
3821	100′	1.47
3821	1000′	13.20
3831	100′	2.03
3831	1000′	20.25
3841	100′	4.20
3841	1000′	39.00
3845	100′	6.45
3845	1000′	60.00
3846	100′	.36
3846	1000′	2.48
3847	100′	.35
3847	1000′	2.33
3848	100′	.33
3848	1000′	2.18
4072	25′	.72
4072	50′	1.35
4072	100′	2.70
4072	250′	23.63M′
4072	500′	23.25M′
4072	1000′	23.25M′
4074	25′	1.65
4074	50′	3.15
4074	100′	5.75
4074	250′	55.00M′
4074	500′	54.00M′
4074	1000′	53.00M′
4077	25′	.60
4077	50′	1.20
4077	100′	2.32
4077	250′	18.00M′
4077	500′	17.90M′
4077	1000′	17.50M′
4079	25′	1.75
4079	50′	2.45
4079	100′	4.50
4079	250′	43.50M′
4079	500′	42.75M′
4079	1000′	42.00M′
4087	100′	6.65
4087	250′	64.25M′
4092	100′	5.75
4092	250′	54.35M′
4202	25′	1.20
4202	50′	2.25
4202	100′	4.45
4202	250′	40.25M′
4207	25′	1.50
4207	50′	2.55
4207	100′	4.90
4207	250′	44.50M′
4212	25′	2.15
4212	50′	3.45
4212	100′	7.70
4212	250′	72.50M′
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4217	25′	1.80
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4224	25′	4.20
4224	50′	8.25
4224	100′	16.20
4224	250′	150.00M′
4227	25′	2.45
4227	50′	4.45
4227	100′	8.35
4227	250′	79.25M′
4232	25′	3.20
4232	50′	6.00
4232	100′	11.50
4232	250′	110.50M′
4234	25′	4.72
4234	50′	9.00
4234	100′	16.95
4234	250′	165.00M′
4237	25′	3.00
4237	50′	5.40
4237	100′	10.30
4237	250′	98.55M′
4242	25′	3.97
4242	50′	7.50
4242	100′	14.00
4242	250′	135.95M′
4244	25′	5.75
4244	50′	10.80
4244	100′	20.70
4244	250′	202.50M′
4247	25′	3.90
4247	50′	7.45
4247	100′	13.95
4247	250′	135.00M′
4252	25′	5.85
4252	50′	11.30
4252	100′	21.60
4252	250′	211.90M′
4254	25′	7.15
4254	50′	15.75
4254	100′	30.45
4254	250′	300.00M′
4257	25′	6.20
4257	50′	12.00
4257	100′	22.50
4257	250′	225.00M′

For Single Spiral Stripe No. 637-876 Incl., add $1.50 per 1,000 ft.—Minimum quantity 1,000′ per Color.

CONSOLIDATED WIRE PAGE 1

Net

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

See Following Pages for Specifications

CHICAGO, ILLINOIS

No.	Unit Pkg. or Length	Net Price Each
4262	25′	7.50
4262	50′	14.25
4262	100′	27.20
4262	250′	267.75M′
4264	25′	9.95
4264	50′	19.05
4264	100′	37.20
4264	250′	367.50M′
4267	25′	7.50
4267	50′	14.25
4267	100′	27.75
4267	250′	267.25M′
4272	25′	9.35
4272	50′	17.50
4272	100′	32.55
4272	250′	321.15
4274	25′	12.00
4274	50′	22.75
4274	100′	44.25
4274	250′	435.00M′
4307	25′	1.72
4307	50′	3.15
4307	100′	6.00
4307	250′	54.00M′
4312	25′	2.10
4312	50′	3.90
4312	100′	7.50
4312	250′	71.75M′
4314	25′	3.67
4314	50′	7.05
4314	100′	13.70
4314	250′	134.60M′
4317	25′	2.02
4317	50′	3.67
4317	100′	7.05
4317	250′	64.50M′
4322	25′	2.78
4322	50′	5.25
4322	100′	10.20
4322	250′	97.50M′
4324	25′	4.27
4324	50′	8.15
4324	100′	16.12
4324	250′	157.50M′
4327	25′	2.70
4327	50′	5.10
4327	100′	9.80
4327	250′	95.25M′
4332	25′	3.30
4332	50′	6.20
4332	100′	12.20
4332	250′	119.25M′
4334	25′	5.10
4334	50′	9.60
4334	100′	18.65
4334	250′	184.10M′
4337	25′	3.00
4337	50′	5.70
4337	100′	11.10
4337	250′	108.00M′
4342	25′	4.05
4342	50′	7.65
4342	100′	15.00
4342	250′	145.85M′
4344	25′	5.85
4344	50′	11.40
4344	100′	22.50
4344	250′	222.00M′
4347	25′	3.85
4347	50′	7.49
4347	100′	19.65
4347	250′	163.85M′
4352	25′	6.20
4352	50′	12.00
4352	100′	23.75
4352	250′	234.35M′
4354	25′	8.77
4354	50′	17.17
4354	100′	33.98
4354	250′	336.75M′
4357	25′	7.05
4357	50′	12.90
4357	100′	23.75
4357	250′	234.00M′
4362	25′	8.49
4362	50′	15.83
4362	100′	30.38
4362	250′	241.75M′
4364	25′	11.85
4364	50′	22.50
4364	100′	43.88
4364	250′	276.25M′
4367	25′	9.07
4367	50′	16.87
4367	100′	32.62
4367	250′	314.25M′
4372	25′	12.15
4372	50′	23.02
4372	100′	45.00
4372	250′	435.00M′
4374	25′	14.40
4374	50′	27.60
4374	100′	54.93
4374	250′	527.50M′
4401	100′	53.25M′
4401	500′	51.75M′
4401	1000′	48.75M′
4402	100′	57.75M′
4402	500′	54.00M′
4402	1000′	51.75M′
4405	100′	45.00M′
4405	500′	43.50M′
4405	1000′	41.25M′
4415	100′	117.75M′
4415	500′	116.25M′
4415	1000′	114.00M′
4419	100′	114.00M′
4419	500′	111.00M′
4419	1000′	108.00M′
4431	100′	120.00M′
4431	500′	117.75M′
4431	1000′	112.50M′
4432	100′	262.50M′
4432	500′	255.00M′
4432	1000′	247.50M′
4433	100′	183.00M′
4433	500′	179.25M′
4433	1000′	171.75M′
4434	100′	112.50M′
4434	500′	109.87M′
4434	1000′	105.00M′
4435	100′	135.00M′
4435	500′	133.50M′
4435	1000′	130.50M′
4436	100′	279.75M′
4436	500′	276.75M′
4436	1000′	264.75M′
4437	100′	342.00M′
4437	500′	336.00M′
4437	1000′	322.50M′
4438	100′	361.50M′
4438	500′	358.50M′
4438	1000′	342.00M′
4439	100′	234.00M′
4439	500′	229.50M′
4439	1000′	217.50M′
4440	100′	129.00M′
4440	500′	127.50M′
4440	1000′	124.50M′
4441	100′	225.00M′
4441	500′	222.00M′
4441	1000′	212.25M′
4442	100′	177.25M′
4442	500′	175.05M′
4442	1000′	168.00M′
4443	100′	195.00M′
4443	500′	192.00M′
4443	1000′	183.75M′
4444	100′	255.00M′
4444	500′	252.00M′
4444	1000′	241.50M′
4445	100′	300.00M′
4445	500′	297.00M′
4445	1000′	283.50M′
4446	100′	54.25M′
4446	500′	53.25M′
4446	1000′	51.00M′
4447	100′	87.75M′
4447	500′	86.25M′
4447	1000′	83.25M′
4448	100′	120.00M′
4448	500′	118.50M′
4448	1000′	115.50M′
4449	100′	51.00M′
4449	500′	49.50M′
4449	1000′	47.62M′
4450	100′	56.25M′
4450	500′	54.37M′
4450	1000′	53.62M′
4451	100′	62.25M′
4451	500′	60.75M′
4451	1000′	59.25M′
4452	100′	57.00M′
4452	500′	55.50M′
4452	1000′	52.50M′
4453	100′	63.75M′
4453	500′	63.00M′
4453	1000′	61.50M′
4454	100′	117.75M′
4454	500′	116.25M′
4454	1000′	113.25M′
4455	100′	150.00M′
4455	500′	147.25M′
4455	1000′	138.75M′
4456	100′	94.50M′
4456	500′	93.00M′
4456	1000′	90.00M′
4457	100′	52.50M′
4457	500′	51.00M′
4457	1000′	48.75M′
4459	100′	45.75M′
4459	500′	44.62M′
4459	1000′	42.37M′
4460	100′	103.50M′
4460	500′	102.00M′
4460	1000′	100.50M′
4461	100′	172.50M′
4461	500′	171.00M′
4461	1000′	168.00M′
4462	100′	243.00M′
4462	500′	240.00M′
4462	1000′	238.5M′
4463	100′	126.62M′
4463	500′	123.27M′
4463	1000′	118.87M′
4464	100′	72.75M′
4464	500′	71.25M′
4464	1000′	68.25M′
4465	100′	78.75M′
4465	500′	77.25M′
4465	1000′	74.62M′
4466	100′	101.75M′
4466	500′	99.75M′
4466	1000′	96.75M′
4467	100′	300.00M′
4467	1000′	262.50M′
4468	100′	300.00M′
4468	1000′	262.50M′
4469	100′	102.00M′
4469	500′	100.50M′
4469	1000′	90.00M′
4470	100′	62.25M′
4470	500′	60.75M′
4470	1000′	59.25M′
4471	100′	142.50M′
4471	500′	138.75M′
4471	1000′	135.00M′
4472	100′	64.50M′
4472	500′	63.75M′
4472	1000′	62.25M′
4473	100′	892.50M′
4473	500′	825.38M′
4473	1000′	825.00M′
4474	100′	56.25M′
4474	500′	52.50M′
4474	1000′	51.00M′
4475	100′	275.63M′
4475	500′	262.50M′
4475	1000′	256.50M′
4482	500′	577.50M′
4482	1000′	534.00M′
4483	500′	792.00M′
4483	1000′	729.00M′
4484	500′	91.13M′
4484	1000′	84.75M′
4485	500′	96.00M′
4485	1000′	90.00M′
4486	500′	496.50M′
4486	1000′	472.50M′
4487	500′	277.50M′
4487	1000′	264.00M′
4488	500′	243.75M′
4488	1000′	236.25M′
4489	500′	127.50M′
4489	1000′	126.00M′
4490	500′	337.50M′
4490	1000′	330.00M′
4491	500′	180.00M′
4491	1000′	177.00M′
4492	500′	292.50M′
4492	1000′	277.50M′
4493	500′	587.25M′
4493	1000′	548.25M′
4494	500′	795.00M′
4494	1000′	766.50M′
4495	500′	281.25M′
4495	1000′	273.75M′
4496	500′	134.00M′
4496	1000′	128.25M′
4497	500′	240.00M′
4497	1000′	232.50M′
4500	100′	1.28
4500	500′	9.98M′
4500	1000′	9.98M′
4503	100′	1.65
4503	500′	14.70M′
4503	1000′	14.70M′
4504	100′	1.73
4504	500′	14.15M′
4504	1000′	14.15M′
4506	100′	1.87
4506	500′	15.25M′
4506	1000′	15.25M′
4507	100′	3.00
4507	500′	28.85M′
4507	1000′	28.85M′
4508	100′	1.85
4508	500′	14.85M′
4508	1000′	14.85M′
4509	100′	2.70
4509	500′	24.30M′
4509	1000′	24.30M′
4510	100′	2.60
4510	500′	20.50M′
4510	1000′	20.50M′
4515	100′	2.62
4515	500′	23.50M′
4515	1000′	23.50M′
4521	100′	4.20
4521	500′	40.50M′
4521	1000′	39.75M′
4523	100′	5.62
4523	500′	52.50M′
4523	1000′	52.50M′
4527	100′	2.25
4527	500′	19.00M′
4527	1000′	19.00M′
5103	1000′	32.62M′
5123	500′	41.25M′
5123	1000′	40.50M′
5124	500′	54.00M′
5124	1000′	53.25M′
5135	500′	50.25M′
5135	1000′	50.25M′
5201	100′	1.65
5201	500′	6.60
5201	1000′	13.20M′
5205	100′	2.78
5205	500′	12.38
5205	1000′	24.75M′
5211	100′	3.82
5211	500′	17.25
5211	1000′	33.75M′
5221	100′	5.47
5221	500′	25.13
5221	1000′	50.25M′
5226	100′	5.55
5226	500′	26.25
5226	1000′	52.50M′
5231	100′	9.37
5231	500′	45.00
5231	1000′	90.00M′
5236	100′	9.75
5236	500′	47.25
5236	1000′	94.50M′
5241	100′	7.95
5241	500′	37.50
5241	1000′	75.00M′
5251	100′	10.95
5251	500′	54.75
5251	1000′	109.50M′
5271	100′	13.88
5271	500′	67.50
5271	1000′	135.00M′
5286	100′	25.50
5286	500′	127.50
5286	1000′	255.00M′
5400	10′	.30
5400	25′	.65
5400	100′	2.15
5400	500′	9.00
5400	1000′	18.00M′
5401	10′	.35
5401	25′	.75
5401	100′	2.33
5401	500′	9.75
5401	1000′	19.50M′
5406	25′	.90
5406	100′	2.85
5406	500′	12.75
5406	1000′	25.00
5411	25′	1.05
5411	100′	3.45
5411	500′	15.75
5411	1000′	31.50
5416	15′	.90
5416	100′	4.88
5416	500′	22.85
5416	1000′	45.75M′
5421	15′	.98
5421	100′	5.25
5421	500′	24.75
5421	1000′	49.50
5426	15′	1.05
5426	100′	5.62
5426	500′	26.25
5426	1000′	52.50M′
5431	15′	1.13
5431	100′	6.23
5431	500′	29.25
5431	1000′	58.50M′
5434	100′	8.25
5434	500′	37.50
5434	1000′	75.00M′
5501	100′	3.00
5501	500′	13.50
5501	1000′	25.62M′
5506	100′	4.50
5506	500′	20.25
5506	1000′	40.50M′
5511	100′	2.93
5511	500′	12.20
5511	1000′	24.45
5516	100′	4.50
5516	500′	21.45
5516	1000′	42.75
5521	100′	4.35
5521	500′	19.50
5521	1000′	39.00M′
5526	100′	3.38
5526	500′	16.50
5526	1000′	32.25
5531	100′	6.53
5531	500′	30.00
5531	1000′	60.00M′
5536	100′	4.50
5536	500′	21.00
5536	1000′	42.00M′
5538	100′	4.65
5538	500′	22.50
5538	1000′	45.00M′
5541	50′	3.08
5541	100′	5.63
5541	500′	27.00
5541	1000′	52.50M′
5543	100′	3.90
5543	500′	16.50
5543	1000′	33.00M′
5547	25′	.35
5547	50′	.68
5547	100′	1.28
5547	250′	3.20
5547	500′	8.55M′
5547	1000′	8.25M′
5551	10′	.45
5551	25′	.90
5551	50′	1.50
5551	100′	2.85
5551	500′	12.75
5551	1000′	25.50M′
5556	100′	1.50
5556	500′	6.53
5556	1000′	12.53M′
5561	100′	1.95
5561	500′	9.38
5561	1000′	18.00M′
5566	500′	15.60
5566	1000′	30.75M′
5568	100′	3.30
5568	250′	8.25
5568	500′	15.00
5568	1000′	30.00M′
5569	50′	2.25
5569	100′	4.25
5569	500′	19.10
5569	1000′	38.00M′
5601	100′	6.68
5601	250′	62.25M
5606	100′	13.13
5606	250′	126.38M
6006		204.25M
6012		295.20M
6018		382.50M
6025		478.50M
6050		897.75M
6075		1264.50M
6100		1608.38M
6150		2310.00M
6200		2988.75M
6300		4992.38M
6400		6277.13M

CONSOLIDATED WIRE PAGE 2

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CONSOLIDATED

CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG — CHICAGO, ILLINOIS

RG TYPE COAXIAL CABLES

Non-Contaminating Low Temp. Black Jacket		Vinyl & Poly. Jackets					Shields							
Number RG-/U	Cat. Number	No. RG/U	Cat. No.	Armor O.D.	Jacket O.D.	Vinyl Jacket	Outer	Inner	Dielectric O.D.	Center Conductor	V.P. %	Cap. Mmfd. /Ft.	Max. Oper. Volts Rms.	Nom. Imp. Ohms
		5	4431		.332	Black	C	C	185	16	65.9	28.5	3000	52.5
5B	4432				.332	Black	S	S	.185	.053S	65.9	29.5	3000	50
6A	4433				.332	Black	C	S	.185	21CW	65.9	20.	2700	75
		7	4434		.370	Black	—	C	.250**	19	84	12.5	1000	97
		8	4415		.405	Black	—	C	.285	7/21	65.9	29.5	4000	52
8A	4435				.405	Black	—	C	.285	7/.0296	65.9	30.5	4000	52
		9	4436		.420	Grey	C	S	.280	7/21S	65.9	30	4000	51
9A	4437				.420	Grey	S	S	.280	7/21S	65.9	30	4000	51
9B	4438				.425	Black	S	S	.285	7/.0296S	65.9	30.5	4000	50
10A	4439			.475	.405	Black	—	C	.285	7/.0296	65.9	30.5	4000	50
		11	4419		.405	Black	—	C	.285	7/26T	65.9	20.5	4000	75
11A	4440				.405	Black	—	C	.285	7/26T	65.9	20.5	4000	75
12A	4441			.475	.405	Black	—	C	.285	7/26T	65.9	20.5	4000	75
		13	4442		.425	Black	C	C	.285	7/26T	65.9	20.5	4000	75
13A	4443				.425	Black	C	C	.285	7/26T	65.9	20.5	4000	75
14A	4467				.545	Grey	C	C	.370	10	65.9	29.5	5500	52
14A	4468				.545	Black	C	C	.370	.106	65.9	30	5500	52
17A	4482				.870	Black	—	C	.680	.188C	65.9	29.5	11000	52
18A	4483			.945	.870	Black	—	C	.680	.188C	65.9	29.5	11000	52
		21	4444		.322	Grey	S	S	.185	16N	65.9	29	2700	53
21A	4445				.332	Black	S	S	.185	.053N	65.9	30	2700	50
		22	4471		.405	Black	—	T	.285	Two 7/.0152	65.9	16	1000	95
22B	4475				.420	Black	T	T	.285	Two 7/.0152	65.9	16	1000	95
		29	4446		.184	Poly	—	T	.116	20	65.9	28.5	1900	53.5
		54A	4469		.250	Poly	—	T	.178	7/.0152	65.9	26.5	3000	58
		55	4447		.206	Poly	T	T	.116	20	65.9	28.5	1900	53.5
55A	4448				.216	Black	S	S	.116	.035S	65.9	29.5	1900	50
55B	4484				.206	Black	T	T	.116	20S	65.9	28.5	1900	53.5
		58	4405		.195	Black	—	T	.116	20	65.9	28.5	1900	53.5
58A	4449				.195	Black	—	T	.116	19/.0071T	65.9	29.5	1900	50
58B	4474				.195	Black	—	T	.116	20	65.9	28.5	1900	53.5
58C	4450				.195	Black	—	T	.116	19/.0071T	65.9	29.5	1900	50
		59	4401		.242	Black	—	C	.146	22CW	65.9	21	2300	73
		59	4402		.242	Grey	—	C	.146	22CW	65.9	21	2300	73
59A	4451				.242	Black	—	C	.146	.023CW	65.9	20.5	2300	75
59B	4470				.242	Black	—	C	.146	.023CW	65.9	20.5	2300	75
		62	4452		.242	Black	—	C	.146**	22CW	84	13.5	750	93
62A	4453				.242	Black	—	C	.146**	22CW	84	13.5	750	93
62B	4472				.242	Black	—	C	.146	22CW	84	13.5	750	93
		63	4454		.405	Black	—	C	.285**	22CW	84	10	1000	125
63B	4455				.405	Black	—	C	.285**	22CW	84	10	1000	125
65A	4473				.405	Black	—	C	.340	32F	65	44	3000	950
		71	4456		.250	Poly	T	T or C	.146**	22CW	84	13.5	750	93
71A	4466				.245	Black	T	T or C	.146**	22CW	84	13.5	750	93
71B	4485				.250	Black	T	C	.146	22CW	84	13.5	750	93
74A	4486			.615	.545	Black	C	C	.370	10C	65.9	29.5	7000	52
79B	4487			.475	.405	Black	—	C	.285	22CW	84	10	1000	125
		108	4464		.235	Black	—	T	.079 ea.	Two 7/28T	68	23.5	1000	78
108A	4465				.235	Black	—	T	.079 ea.	Two .7/28T	65.9	23.5	1000	78
122	4457				.160	Black	—	T	.096	27/36T	65.9	29.5	1900	50
212	4488				.332	Black	S	S	.185	.0556S	65.9	29.5	3000	50
213	4489				.405	Black	—	C	.285	7X.0296C	65.9	29.5	5000	50
214	4490				.425	Black	S	S	.285	7X.0296C	65.9	29.5	5000	50
215	4497				.475	Black	—	C	.285	7/.029C	65.9	29.5	4000	50
216	4491				.425	Black	C	C	.285	7X26TC	65.9	20.5	5000	75
217	4492				.545	Black	C	C	.370	.106C	65.9	29.5	7000	50
218	4493				.870	Black	—	C	.680	.195C	65.9	29.5	11000	50
219	4494			.945	.870	Black	—	C	.680	.195C	65.9	29.5	11000	50
222	4495				.332	Black	S	S	.185	.0556N	65.9	29.0	2700	50
223	4496				.216	Black	S	S	.116	.035S	65.9	29.5	1900	50

**Semi-Solid Dielectric N—Nichrome C—Cooper S—Silvered Copper CW—Copperweld T—Tinned Cooper F—Formvar

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG — CHICAGO, ILLINOIS

RG TYPE COAXIAL CABLES

MINIATURE COAXIAL CABLE

Non-Contaminating Low Temp. Black Jacket		Vinyl & Poly. Jackets												
Number RG/U	Cat. Number	Cat. No.	No. RG/U	Armor O.D.	Jacket O.D.	Vinyl Jacket	Shields Outer	Shields Inner	Dielectric O.D.	Center Conductor	V.P. %	Cap. Mmfd. /Ft.	Max. Oper. Volts Rms.	Nom. Imp. Ohms
		4459	174		.105	Black	—		.060**	7/.0063CW		30		50

**Semi-Solid Dielectric N—Nichrome C—Copper S—Silvered Copper CW—Copperweld T—Tinned Copper F—Formvar

FOAM POLYETHYLENE COAXIAL CABLE

		8	**4477**		.405	Black	—	C	.285	7/19C	80	24.5	1500	50
11	**4476**				.405	Black	—	C	.285	14C	80	16.5	3000	75
		58	**4498**		.195	Black	—	T	.116	20C	80	28.5	1900	53.5
		59	**4478**		.195	Black	—	C	.107	22CW	80	17	500	72
62	**4479**				.242	Black	—	C	.146	.023CW	80	14.5	700	93
11	**4480**				.406	Black	C	C	.285	14C	80	16.5	3000	75
59	**4481**				.242	Black	C	C	.107	.107	80	17	500	72

**Semi-Solid Dielectric N—Nichrome C—Copper S—Silvered Copper CW—Copperweld T—Tinned Copper F—Formvar

TRIAXIAL CABLE DOUBLE SHIELD DOUBLE JACKET

RG/U Type	Cat. No.	Impedance in Ohms	Jacket Diameter	Vinyl Jacket	Shields 1st	Shields 2nd	O. D. Dielectric	Inner Conductor	V. P. %	Cap. MMFD/Ft.	Max. Oper. Volts-RMS
Triaxial 58A	**4463**	50	.285	Black	T	T	.116	19 .0071T	65.9	28.5	1,900
Triaxial 59	**4460**	73	.242	Black	C	C	.146	22CW	65.9	21.0	2,300
Triaxial 11	**4461**	75	.460	Black	C	C	.285	7 26T	65.9	20.5	4,000
Triaxial 8	**4462**	52	.490	Black	C	C	.285	7 21C	65.9	29.5	4,000

**Semi-Solid Dielectric N—Nichrome C—Copper S—Silvered Copper CW—Copperweld T—Tinned Copper F—Formvar

TEFLON COAXIAL CABLE

Number RG/U	Cat. Number	Inner Conductor	Dielectric Material	Nominal Diameter of Dielectric (inch)	Type of Shielding Braids	Protective Covering	Nominal Over-all Diameter (inch)	Nominal Capacitance (mmfd/ft.)	Maximum Operating Voltage (Volts rms)	Nominal Impedance (Ohms)
87A	**4701**	7/.032 Silver Covered Copper	F-1	.280	Silver Coated Copper Double Braid	V	.425	29.5	5000	50
94	**4702**	19/.0225 Silver Covered Copper	F-2	.292	Copper Double Braid	V	.445	29.0	7000	50
94A	**4703**	19/.0254 Silver Plated Copper	F-2	.370	Copper Double Braid	V	.500	27.0	7000	50
115	**4704**	7/.028 Silver Covered Copper	F-2	.250	Silver Coated Copper Double Braid	V	.375	29.5	5000	50
115A	**4705**	7/.028 Silver Covered Copper	F-2	.255	Silver Coated Copper Double Braid	V	.415	29.5	4000	50
116	**4706**	7/.032 Silver Covered Copper	F-1	.280	Silver Coated Copper Double Braid	V with armor	.490	29.5	5000	50
117	**4707**	.188 Copper	F-1	.620	Copper Single Braid	V	.730	29.0	7000	50
117A	**4708**	.188 Copper	F-1	.620	Copper Single Braid	V	.730	—	7000	50
118	**4709**	.188 Copper	F-1	.620	Copper Single Braid	V with armor	.795	29.0	7000	50
118A	**4710**	.188 Copper	F-1	.620	Copper Single Braid	V with armor	.780	—	7000	50
119	**4711**	.102 Copper	F-1	.332	Copper Double Braid	V	.465	29.0	6000	50
120	**4712**	.102 Copper	F-1	.332	Copper Double Braid	V with armor	.525	29.0	6000	50
126	**4713**	7/.0203 Karma or Equal	F-1	.185	Karma or Equal Single Braid	V	.280	29.0	3000	50
140	**4714**	.025 Silver Coated Copper Steel	F-1	.146	Silver Coated Copper Single Braid	V	.233	21.0	2300	75
141	**4715**	.0359 Silver Plated Copper Weld	F-1	.116	Silver Coated Copper Single Braid	V	.190	28.5	1900	50
141A	**4716**	.039 Silver Covered Copper Steel	F-1	.116	Silver Coated Copper Single Braid	V	.190	28.5	1900	50
142	**4717**	.0359 Silver Covered Copper Steel	F-1	.116	Silver Coated Copper Double Braid	V	.206	28.5	1900	50
142A	**4718**	.039 Silver Covered Copper Steel	F-1	.116	Silver Coated Copper Double Braid	V	.206	28.5	1900	50

Continued on following page

F-1—Solid Teflon F-2—Taped Teflon F-3—Air Spaced Teflon

V—High Temperature Lacquer Impregnated Fiberglass Braid with Teflon Tape Between Shield and Jacket

VI—Polyester Fiber Impregnated with High Temperature Lacquer over Wrapped or Extruded Silicone Impregnated Fiberglass

IIA—Low Temperature Black Polyvinylchloride Non-Contaminating

FEP—Flourinated Ethylene Propylene Copolymar, 200° Teflon

TFE—Tetraflouride Ethylene Propylene Copolymar, 250°C Teflon

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CONSOLIDATED

CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG — CHICAGO, ILLINOIS

TEFLON COAXIAL CABLE

Number RG/U	Cat. Number	Inner Conductor	Dielectric Material	Nominal Diameter of Dielectric (inch)	Type of Shielding Braids	Protective Covering	Nominal Over-all Diameter (inch)	Nominal Capacitance (mmfd/ft.)	Maximum Operating Voltage (Volts rms)	Nominal Impedance (Ohms)
142B	**4719**	.039 Silver Covered Copper Steel	F-1	.116	Silver Coated Copper Double Braid	FEP	.195	28.5	1900	50
143	**4720**	.057 Silver Plated Copper Weld	F-1	.185	Silver Coated Copper Double Braid	V	.325	28.5	3000	50
143A	**4721**	.059 Silver Covered Copper Steel	F-1	.185	Silver Coated Copper Double Braid	V	.325	28.5	3000	50
144	**4722**	7/.0179 Silver Covered Copper Steel	F-1	.285	Silver Coated Copper Single Braid	V	.410	20.5	5000	75
146	**4723**	.007 Copper Covered Steel	F-3	.285	Copper Single Braid	V	.375	6.0	1000	190
161	**4724**	7/38 Silver Plated Cadmium Bronze	F-1	.057	Single Silver Copper	Extruded Black Nylon	.090	20.0	1000	70
165	**4725**	7/.032 Silver Covered Copper	F-1	.285	Silver Covered Copper Single Braid	V	.410	—	5000	50
166	**4726**	7/.032 Silver Covered Copper	F-1	.285	Silver Covered Copper Single Braid	V with armor	.460	—	5000	50
178	**4727**	7/.0039 Silver Plated Copper Weld	F-1	.036	Silver Plated Copper Single Braid	KEL-F	.079	27.9	1000	50
178A	**4728**	7/.004 Silver Covered Copper Steel	F-1	.034	Silver Plated Copper Single Braid	KEL-F	.075	27.9	1000	50
178B	**4729**	7/.004 Silver Covered Copper Steel	F-1	.034	Silver Covered Copper Single Braid	FEP	.075	—	1000	50
179A	**4730**	7/.004 Silver Covered Copper Steel	F-1	.063	Silver Plated Copper Single Braid	KEL-F	.105	20.0	1200	75
179B	**4731**	7/.004 Silver Covered Copper Steel	F-1	.063	Silver Covered Copper Single Braid	FEP	.105	—	1200	75
180	**4732**	7/.0039 Silver Plated Copper Weld	F-1	.103	Silver Plated Copper Single Braid	KEL-F	.141	15.3	1500	93
180A	**4733**	7/.004 Silver Covered Copper Steel	F-1	.102	Silver Plated Copper Single Braid	KEL-F	.145	14.5	1500	95
180B	**4734**	7/.004 Silver Covered Copper Steel	F-1	.102	Silver Covered Copper Single Braid	FEP	.145	—	1500	95
187	**4735**	7/.004 Silver Covered Copper Steel	F-1	.060	Silver Covered Copper Single Braid	Teflon	.110	—	1200	75
187A	**4736**	7/.004 Silver Covered Copper Steel	F-1	.060	Silver Covered Copper Single Braid	TFE	.110	—	1200	75
188	**4737**	7/.0067 Silver Covered Copper Steel	F-1	.060	Silver Covered Copper Single Braid	Teflon	.110	—	1200	50
188A	**4738**	7/.0067 Silver Covered Copper Steel	F-1	.060	Silver Covered Copper Single Braid	TFE	.110	—	1200	50
195	**4739**	7/.004 Silver Covered Copper Steel	F-1	.102	Silver Covered Copper Single Braid	Teflon	.155	—	1500	95
195A	**4740**	7/.004 Silver Covered Copper Steel	F-1	.102	Silver Covered Copper Single Braid	TFE	.155	—	1500	95
196	**4741**	7/.004 Silver Covered Copper Steel	F-1	.034	Silver Covered Copper Single Braid	Teflon	.080	—	1000	50
196A	**4742**	7/.004 Silver Covered Copper Steel	F-1	.034	Silver Covered Copper Single Braid	TFE	.080	—	1000	50
209	**4743**	19/.037 Silver Covered Copper	F-3	.500	Silver Covered Copper Double Braid	VI	.750	—	3200	50
210	**4744**	.0253 Silver Covered Copper Steel	F-3	.146	Silver Covered Copper Single Braid	V	.242	14.5	750	93
211	**4745**	.190 Copper	F-1	.620	Copper Single Braid	V	.730	—	7000	50
211A	**4746**	.190 Copper	F-1	.620	Copper Single Braid	V	.730	—	7000	50
225	**4747**	7/.0312 Silver Covered Copper	F-1	.285	Silver Covered Copper Double Braid	V	.430	—	5000	50
226	**4748**	19/.0254 Silver Covered Copper	F-2	.370	Copper Double Braid	V	.500	—	7000	50
227	**4749**	7/.0312 Silver Covered Copper	F-1	.285	Silver Covered Copper Double Braid	V with armor	.490	—	5000	50
228	**4750**	.190 Copper	F-1	.620	Copper Single Braid	V with armor	.795	—	7000	50
228A	**4751**	.190 Copper	F-1	.620	Copper Single Braid	V with armor	.795	—	7000	50
235	**4752**	7/.028 Copper	F-2	.255	Silver Covered Copper Double Braid	VI	.490	—	5000	50
280	**4753**	.1144 Copper	F-2	.327	Silver Covered Copper Double Braid	IIA	.480	27.5	4000	50
281	**4754**	19/.0378 Silver Covered Copper	F-2	.500	Silver Covered Copper Double Braid	VI	.750	29.5	4000	50
301	**4755**	7/.0203 Karma	F-1	.185	Karma Single Braid	FEP	.245	29.0	3000	50
302	**4756**	.025 Silver Covered Copper Steel	F-1	.146	Silver Covered Copper Single Braid	FEP	.206	21.0	2300	75
303	**4757**	.039 Silver Covered Copper Steel	F-1	.116	Silver Covered Copper Single Braid	FEP	.170	28.5	1900	50
304	**4758**	.059 Silver Covered Copper Steel	F-1	.185	Silver Covered Copper Double Braid	FEP	.280	28.5	3000	50
316	**4759**	7/.0067 Silver Covered Copper Steel	F-1	.060	Silver Covered Copper Single Braid	FEP	.102	—	1200	50

F-1—Solid Teflon F-2—Taped Teflon F-3—Air Spaced Teflon

V—High Temperature Lacquer Impregnated Fiberglass Braid with Teflon Tape Between Shield and Jacket

VI—Polyester Fiber Impregnated with High Temperature Lacquer over Wrapped or Extruded Silicone Impregnated Fiberglass

IIA—Low Temperature Black Polyvinylchloride Non-Contaminating

FEP—Flourinated Ethylene Propylene Copolymar, 200° Teflon

TFE—Tetraflouride Ethylene Propylene Copolymar, 250°C Teflon

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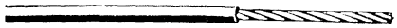
CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG — CHICAGO, ILLINOIS

MIL-W-76

TYPE MW-VINYL — 1000V — 80C



Tinned copper, vinyl insulated, medium wall. The polyvinylchloride insulation is flame and ozone resistant and is inert to most chemicals, oils, and solvents.

STRANDED CONDUCTOR

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9001	MW-C-24-(7)-U	24(7x32)	.017	.058	As Listed	As Listed	As Listed
9002	MW-C-22-(7)-U	22(7x30)	.017	.064	As Listed	As Listed	As Listed
9003	MW-C-20-(10)-U	20(10x30)	.017	.070	As Listed	As Listed	As Listed
9004	MW-C-18-(16)-U	18(16x30)	.017	.080	As Listed	As Listed	As Listed
9005	MW-C-16-(26)-U	16(26x30)	.019	.098	As Listed	As Listed	As Listed
9006	MW-C-14-(41)-U	14(41x30)	.020	.111	As Listed	As Listed	As Listed
9007	MW-C-12-(65)-U	12(65x30)	.020	.130	As Listed	As Listed	As Listed

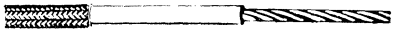
SOLID CONDUCTOR

9010	MW-C-22-(1)-U	22 (Solid)	.017	.059	As Listed	As Listed	As Listed
9011	MW-C-20-(1)-U	20 (Solid)	.017	.066	As Listed	As Listed	As Listed
9012	MW-C-18-(1)-U	18 (Solid)	.017	.074	As Listed	As Listed	As Listed
9013	MW-C-16-(1)-U	16 (Solid)	.017	.085	As Listed	As Listed	As Listed

Stock Colors*

0	Black	**92**	White/Red
1	Brown	**93**	White/Orange
2	Red	**94**	White/Yellow
3	Orange	**95**	White/Green
4	Yellow	**96**	White/Blue
5	Green	**97**	White/Violet
6	Dark Blue	**98**	White/Gray
7	Violet (Purple)	**901**	White/Black/Brown
8	Gray (Slate)	**902**	White/Black/Red
9	White	**908**	White/Black/Orange
11	Tan	**904**	White/Black/Yellow
12	Pink	**905**	White/Black/Green
13	Light Blue	**906**	White/Black/Blue
90	White/Black	**907**	White/Black/Violet
91	White/Brown	**908**	White/Black/Gray

TYPE MW-SHIELDED — 1000V — 80C



Tinned copper, polyvinylchloride insulation. Medium wall, tinned copper shield overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9014	MW-C-24-(7)-S	24(7x32)	.017	.082	As Listed	As Listed	As Listed
9015	MW-C-22-(7)-S	22(7x30)	.017	.088	As Listed	As Listed	As Listed
9016	MW-C-20-(10)-S	20(10x30)	.017	.094	As Listed	As Listed	As Listed
9017	MW-C-18-(16)-S	18(16x30)	.017	.104	As Listed	As Listed	As Listed
9018	MW-C-16-(26)-S	16(26x30)	.019	.122	As Listed	As Listed	As Listed
9019	MW-C-14-(41)-S	14(41x30)	.020	.135	0, 2, 9	0, 2, 9	0, 2, 9
9020	MW-C-12-(65)-S	12(65x30)	.020	.154	0, 2, 9	0, 2, 9	0, 2, 9

Stock Colors*

0	Black	**5**	Green
1	Brown	**6**	Dark Blue
2	Red	**7**	Violet (Purple)
3	Orange	**8**	Gray (Slate)
4	Yellow	**9**	White

TYPE MW-SHIELDED — NYLON JACKET — 1000V — 80C

Tinned copper, polyvinylchloride insulation. Medium wall, tinned copper shield, nylon jacket.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9021	MW-C-22-(7)-SJ	22(7x30)	.017	.095	9	9	9
9022	MW-C-20-(7)-SJ	20(10x30)	.017	.101	9	9	9
9023	MW-C-18-(16)-SJ	18(16x30)	.017	.112	9	9	9
9024	MW-C-16-(19)-SJ	16(26x30)	.019	.131	9	9	9

Stock Color*

9 Vinyl insulation. **White** only.

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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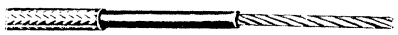
CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG — CHICAGO, ILLINOIS

MIL-W-76

TYPE MW-GLASS BRAID — 1000V — 80C



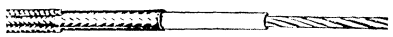
Tinned copper, polyvinylchloride insulated. Medium wall, lacquered glass braid overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
9025	MW-C-22(7)-B	22(7x30)	.017	.076	As Listed	As Listed	As Listed
9026	MW-C-20(10)-B	20(10x30)	.017	.084	As Listed	As Listed	As Listed
9027	MW-C-18(16)-B	18(16x30)	.017	.094	As Listed	As Listed	As Listed
9028	MW-C-16(26)-B	16(26x30)	.019	.112	As Listed	As Listed	As Listed
9029	MW-C-14(41)-B	14(41x30)	.020	.125	9,90thru98	9,90thru98	9,90thru98
9030	MW-C-12(65)-B	12(65x30)	.020	.144	9, 90, 92	9, 90, 92	9, 90, 92

Stock Colors*

0 Black	**90** White/Black
1 Brown	**91** White/Brown
2 Red	**92** White/Red
3 Orange	**93** White/Orange
4 Yellow	**94** White/Yellow
5 Green	**95** White/Green
6 Dark Blue	**96** White/Blue
7 Violet (Purple)	**97** White/Violet
8 Gray (Slate)	**98** White/Gray
9 White	

TYPE MW-GLASS BRAID-SHIELDED — 1000V — 80C



Tinned copper, polyvinylchloride insulated. Medium wall, lacquered glass braid, tinned copper shield overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
9031	MW-C-22(7)-BS	22(7x30)	.017	.102	9	9	9
9032	MW-C-20(7)-BS	20(10x30)	.017	.108	9	9	9
9033	MW-C-18(16)-BS	18(16x30)	.017	.118	9	9	9
9034	MW-C-16(19)-BS	16(26x30)	.019	.136	9	9	9
9035	MW-C-14(19)-BS	14(41x30)	.020	.149	9	9	9
9036	MW-C-12(19)-BS	12(65x30)	.020	.168	9	9	9

Stock Color*

9 Vinyl insulation. **White** only.

TYPE MW — NYLON JACKET — 1000V — 90C

Tinned copper, polyvinylchloride insulated. Medium wall, clear nylon jacket overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
9037	MW-C-22(7)-J	22(7x30)	.017	.069	As Listed	As Listed	As Listed
9038	MW-C-20(10)-J	20(10x30)	.017	.075	As Listed	As Listed	As Listed
9039	MW-C-18(16)-J	18(16x30)	.017	.086	As Listed	As Listed	As Listed
9040	MW-C-16(26)-J	16(26x30)	.019	.106	As Listed	As Listed	As Listed
9041	MW-C-14(41)-J	14(41x30)	.020	.118	0, 1, 3, 4 5, 9	0, 1, 3, 4 5, 9	0, 1, 3, 4 5, 9
9042	MW-C-12(65)-J	12(65x30)	.020	.139	0, 1, 3, 4, 5, 9	0, 1, 3, 4 5, 9	0, 1, 3, 4 5, 9

Stock Colors*

0 Black	**90** White/Black
1 Brown	**91** White/Brown
2 Red	**92** White/Red
3 Orange	**93** White/Orange
4 Yellow	**94** White/Yellow
5 Green	**95** White/Green
6 Dark Blue	**96** White/Blue
7 Violet (Purple)	**97** White/Violet
8 Gray (Slate)	**98** White/Gray
9 White	

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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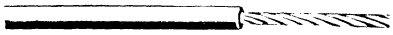
CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG — CHICAGO, ILLINOIS

MIL-W-76

TYPE HW — VINYL — Gauges 16-22 2500V, Gauges 6-14 600—80C



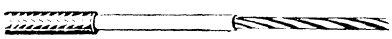
Tinned copper, polyvinylchloride insulated. Heavy wall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9100	HW-C-22(7)-U	22(7x30)	.034	.098	As Listed	As Listed	As Listed
9101	HW-C-20(10)-U	20(10x30)	.034	.104	As Listed	As Listed	As Listed
9102	HW-C-18(16)-U	18(16x30)	.034	.114	As Listed	As Listed	As Listed
9103	HW-C-16(26)-U	16(26x30)	.034	.128	0, 2, 9	0, 2, 9	0, 2, 9
9104	HW-C-14(41)-U	14(41x30)	.048	.171	0, 2, 9	0, 2, 9	0, 2, 9
9105	HW-C-12(65)-U	12(65x30)	.048	.191	0, 2, 9	0, 2, 9	0, 2, 9
9106	HW-C-10(105)-U	10(105x30)	.048	.214	0, 2, 9	0, 2, 9	0, 2, 9
9107	HW-C-8(133)-U	8(133x29)	.048	.261	0, 2, 9	0, 2, 9	0, 2, 9
9108	HW-C-6(133)-U	6(133x27)	.048	.296	0, 2, 9	0, 2, 9	0, 2, 9

Stock Colors*

0 Black
1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Dark Blue
7 Violet (Purple)
8 Gray (Slate)
9 White

TYPE HW — GLASS BRAID — 600V — 80C



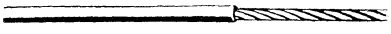
Tinned copper, polyvinylchloride insulated. Heavy wall, lacquered glass braid.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9110	HW-C-10(105)-B	10(105x30)	.048	.232	As Listed	As Listed	As Listed
9111	HW-C-8(133)-B	8(133x29)	.048	.279	As Listed	As Listed	As Listed
9112	HW-C-6(133)-B	6(133x27)	.048	.314	As Listed	As Listed	As Listed

Stock Colors*

9 White
90 White/Black
92 White/Red

TYPE LW — VINYL — 300V — 80C



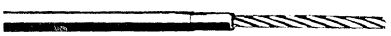
Tinned copper, polyvinylchloride insulated. Light wall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9200	LW-C-30(7)-U	30(7x38)	.011	.034	0 thru 9	0 thru 9	0 thru 9
9201	LW-C-28(7)-U	26(7x36)	.011	.037	As Listed	As Listed	As Listed
9202	LW-C-26(7)-U	26(7x34)	.011	.041	As Listed	As Listed	As Listed
9203	LW-C-24(7)-U	24(7x32)	.011	.046	As Listed	As Listed	As Listed
9204	LW-C-22(7)-U	22(7x30)	.012	.054	As Listed	As Listed	As Listed
9205	LW-C-20(10)-U	20(10x30)	.012	.060	As Listed	As Listed	As Listed

Stock Colors*

0 Black
1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Dark Blue
7 Violet (Purple)
8 Gray (Slate)
9 White
90 White/Black
91 White/Brown
92 White/Red
93 White/Orange
94 White/Yellow
95 White/Green
96 White/Blue
97 White/Violet
98 White/Gray

TYPE LW — NYLON JACKET — 300V — 90C



Tinned copper, polyvinylchloride insulated. Light wall, clear nylon jacket overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9210	LW-C-30(7)-J	30(7x38)	.011	.039	0 thru 9	0 thru 9	0 thru 9
9211	LW-C-28(7)-J	28(7x36)	.011	.042	As Listed	As Listed	As Listed
9212	LW-C-26(7)-J	26(7x34)	.011	.046	As Listed	As Listed	As Listed
9213	LW-C-24(7)-J	24(7x32)	.011	.051	As Listed	As Listed	As Listed
9214	LW-C-22(7)-J	22(7x30)	.012	.059	As Listed	As Listed	As Listed
9215	LW-C-20(10)-J	20(10x30)	.012	.065	As Listed	As Listed	As Listed

Stock Colors*

0 Black
1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Dark Blue
7 Violet (Purple)
8 Gray (Slate)
9 White
90 White/Black
91 White/Brown
92 White/Red
93 White/Orange
94 White/Yellow
95 White/Green
96 White/Blue
97 White/Violet
98 White/Gray

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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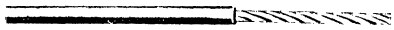
CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG — CHICAGO, ILLINOIS

MIL-W-16878

TYPE B — VINYL — 600V — 105C



Tinned copper, polyvinylchloride insulated.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9300	B-32	32(7x40)	.010	.029	0 thru 9	0 thru 9	0 thru 9
9301	B-30	30(7x38)	.010	.032	0 thru 9	0 thru 9	0 thru 9
9302	B-28	28(7x36)	.010	.035	0 thru 9 90 thru 98	0 thru 9 90 thru 98	0 thru 9 90 thru 98
9303	B-26	26(7x34)	.010	.039	0 thru 9 90 thru 98	0 thru 9 90 thru 98	0 thru 9 90 thru 98
9304	B-24	24(19x36)	.010	.045	9,90thru98	9,90thru98	9,90thru98
9305	B-24	24(7x32)	.010	.044	As Listed	As Listed	As Listed
9306	B-22	22(19x34)	.010	.051	9,90thru98	9,90thru98	9,90thru98
9307	B-22	22(7x30)	.010	.050	As Listed	As Listed	As Listed
9308	B-20	20(19x32)	.010	.059	9,90thru98	9,90thru98	9,90thru98
9309	B-20	20(7x28)	.010	.058	As Listed	As Listed	As Listed
9310	B-18	18(19x30)	.010	.069	9,90thru98	9,90thru98	9,90thru98
9311	B-18	18(7x26)	.010	.068	0 thru 9 90 thru 98	0 thru 9 90 thru 98	0 thru 9 90 thru 98
9312	B-16	16(19x29)	.010	.077	0 thru 9 90 thru 98	0 thru 9 90 thru 98	0 thru 9 90 thru 98

Stock Colors*

0 Black	90 White/Black
1 Brown	91 White/Brown
2 Red	92 White/Red
3 Orange	93 White/Orange
4 Yellow	94 White/Yellow
5 Green	95 White/Green
6 Dark Blue	96 White/Blue
7 Violet (Purple)	97 White/Violet
8 Gray (Slate)	98 White/Gray
9 White	
11 Tan	
12 Pink	
13 Light Blue	

TYPE B — VINYL-NYLON JACKET — 600V — 115C

Tinned copper, polyvinylchloride insulated, nylon jacket overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9313	B-32	32(7x40)	.010	.035	0 thru 9	0 thru 9	0 thru 9
9314	B-30	30(7x38)	.010	.038	0 thru 9	0 thru 9	0 thru 9
9315	B-28	28(7x36)	.010	.041	As Listed	As Listed	As Listed
9316	B-26	26(7x34)	.010	.045	As Listed	As Listed	As Listed
9317	B-24	24(19x36)	.010	.051	As Listed	As Listed	As Listed
9318	B-24	24(7x32)	.010	.050	As Listed	As Listed	As Listed
9319	B-22	22(19x34)	.010	.057	As Listed	As Listed	As Listed
9320	B-22	22(7x30)	.010	.056	As Listed	As Listed	As Listed
9321	B-20	20(19x32)	.010	.065	As Listed	As Listed	As Listed
9322	B-20	20(7x28)	.010	.064	As Listed	As Listed	As Listed
9323	B-18	18(19x30)	.010	.075	9,90thru98	9,90thru98	9,90thru98
9324	B-18	18(7x26)	.010	.074	As Listed	As Listed	As Listed
9325	B-16	16(19x29)	.010	.083	As Listed	As Listed	As Listed

Stock Colors*

0 Black	90 White/Black
1 Brown	91 White/Brown
2 Red	92 White/Red
3 Orange	93 White/Orange
4 Yellow	94 White/Yellow
5 Green	95 White/Green
6 Dark Blue	96 White/Blue
7 Violet (Purple)	97 White/Violet
8 Gray (Slate)	98 White/Gray
9 White	

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG — CHICAGO, ILLINOIS

MIL-W-16878

TYPE C VINYL — 1000V — 105C

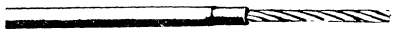
Tinned copper, polyvinylchloride insulated.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9400	C-24	24(7x32)	.018	.060	9,90thru98	9,90thru98	9,90thru98
9401	C-22	22(7x30)	.018	.066	As Listed	As Listed	As Listed
9402	C-20	20(7x28)	.018	.074	As Listed	As Listed	As Listed
9403	C-18	18(7x26)	.018	.084	As Listed	As Listed	As Listed
9404	C-16	16(19x29)	.018	.093	9,90thru98	9,90thru98	9,90thru98
9405	C-14	14(19x27)	.018	.107	9,90thru98	9,90thru98	9,90thru98

Stock Colors*

0 Black	**90** White/Black
1 Brown	**91** White/Brown
2 Red	**92** White/Red
3 Orange	**93** White/Orange
4 Yellow	**94** White/Yellow
5 Green	**95** White/Green
6 Dark Blue	**96** White/Blue
7 Violet (Purple)	**97** White/Violet
8 Gray (Slate)	**98** White/Gray
9 White	

TYPE C — VINYL-NYLON JACKET — 1000V — 115C



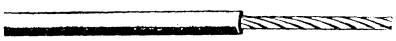
Tinned copper, polyvinylchloride insulated, nylon jacket overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9410	C-24	24(7x32)	.018	.066	9,90thru98	9,90thru98	9,90thru98
9411	C-22	22(7x30)	.018	.072	As Listed	As Listed	As Listed
9412	C-20	20(7x28)	.018	.080	As Listed	As Listed	As Listed
9413	C-18	18(7x26)	.018	.091	As Listed	As Listed	As Listed
9414	C-16	16(19x29)	.018	.100	9,90thru98	9,90thru98	9,90thru98
9415	C-14	14(19x27)	.018	.114	9,90thru98	9,90thru98	9,90thru98

Stock Colors*

0 Black	**90** White/Black
1 Brown	**91** White/Brown
2 Red	**92** White/Red
3 Orange	**93** White/Orange
4 Yellow	**94** White/Yellow
5 Green	**95** White/Green
6 Dark Blue	**96** White/Blue
7 Violet (Purple)	**97** White/Violet
8 Gray (Slate)	**98** White/Gray
9 White	

TYPE D — VINYL — 3000V — 105C



Tinned copper, polyvinylchloride insulated.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9500	D-24	24(7x32)	.030	.084	9,90thru98	9,90thru98	9,90thru98
9501	D-22	22(7x30)	.030	.090	As Listed	As Listed	As Listed
9502	D-20	20(7x28)	.030	.098	As Listed	As Listed	As Listed
9503	D-18	18(7x26)	.030	.108	As Listed	As Listed	As Listed
9504	D-16	16(19x29)	.030	.117	9,90thru98	9,90thru98	9,90thru98
9505	D-14	14(19x27)	.030	.131	9,90thru98	9,90thru98	9,90thru98
9506	D-12	12(19x25)	.035	.160	9,90thru98	9,90thru98	9,90thru98
9507	D-10	10(37x26)	.035	.181	9,90thru98	9,90thru98	9,90thru98
9508	D- 8	8(133x29)	.040	.245	9,90thru98	9,90thru98	9,90thru98
9509	D- 6	6(133x27)	.040	.290	9,90thru98	9,90thru98	9,90thru98

Stock Colors*

0 Black	**90** White/Black
1 Brown	**91** White/Brown
2 Red	**92** White/Red
3 Orange	**93** White/Orange
4 Yellow	**94** White/Yellow
5 Green	**95** White/Green
6 Dark Blue	**96** White/Blue
7 Violet (Purple)	**98** White/Gray
8 Gray (Slate)	
9 White	

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG — CHICAGO, ILLINOIS

MIL-W-5086A

AIRCRAFT WIRE & CABLE

TYPES 1 & 2 — 600V

UNSHIELDED

Catalog Number	MIL Type Designation	Size & (Stranding)	Nom. O.D.	Spec. Type	Stock Colors on Standard Spools 100′	500′	1000′
9700	AN-22	22(19x34)	.068	No. 1	9	9	9
9701	AN-20	20(19x32)	.078	No. 1	9	9	9
9702	AN-18	18(19x30)	.088	No. 1	9	9	9
9703	AN-16	16(19x29)	.098	No. 1	9	9	9
9704	AN-14	14(19x27)	.117	No. 1	9	9	9
9705	AN-12	12(19x25)	.137	No. 1	9	9	9
9706	AN-22	22(19x34)	.075	No. 2	9	9	9
9707	AN-20	20(19x32)	.085	No. 2	9	9	9
9708	AN-18	18(19x30)	.095	No. 2	9	9	9
9709	AN-16	16(19x29)	.105	No. 2	9	9	9
9710	AN-14	14(19x27)	.125	No. 2	9	9	9
9711	AN-12	12(19x25)	.143	No. 2	9	9	9
9713	AN-10	10(49x27)	.189	No. 2	9	9	9
9714	AN-8	8(133x29)	.240	No. 2	9	9	9
9715	AN-6	6(133x27)	.293	No. 2	9	9	9
9716	AN-4	4(133x25)	.355	No. 2	9	9	9
9717	AN-2	2(665x30)	.425	No. 2	9	9	9
9718	AN-0	0(1045x30)	.525	No. 2	9	9	9
9719	AN-00	00(1330x30)	.590	No. 2	9	9	9

Stock Color*

White only (9)

Additional Description

MIL-W-5086A-Type I
AN-22 thru AN-12.
Stranded tinned copper, white polyvinylchloride clear nylon jacket insulation.

MIL-W-5086A-Type II
AN-22 thru AN-12
Stranded tinned copper, white polyvinylchloride insulation, saturated glass braid, clear nylon jacket.

MIL-W-5086A-Type II
AN-10 thru AN-00
Stranded tinned copper, white polyvinylchloride insulation, saturated glass braid, nylon braid, nylon lacquer.

MIL-C-7078A — TYPE 1 — 600 VOLT

(MIL-W-5086A Type I Conductor Braided Tinned Copper Shield)

SHIELDED

Catalog Number	MIL Type Designation	Size & (Stranding)	Nom. O.D.	Spec. Type	Stock Colors on Standard Spools 100′	500′	1000′
9720	AN-22	22(10x34)	.092	No. 1	9	9	9
9721	AN-20	20(19x32)	.102	No. 1	9	9	9
9722	AN-18	18(19x30)	.112	No. 1	9	9	9
9723	AN-16	16(19x29)	.122	No. 1	9	9	9
9724	AN-14	14(19x27)	.141	No. 1	9	9	9
9725	AN-12	12(19x25)	.161	No. 1	9	9	9

Stock Color*

White only (9)

Additional Description
Stranded tinned copper, white polyvinylchloride insulation, nylon jacket, braided tinned copper shield.

Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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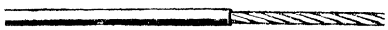
CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG — CHICAGO, ILLINOIS

MIL-W-16878-D

TYPE E — TFE TEFLON — 600V — 200C



Concentrically stranded silver coated copper conductor, extruded TFE Teflon insulated.

Catalog Number	Type Designation	Size & (Stranding)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9600	E-32	32(7x40)	.032	As Listed	As Listed	As Listed
9601	E-30	30(7x38)	.032	As Listed	As Listed	As Listed
9602	E-28	28(7x36)	.035	As Listed	As Listed	As Listed
9603	E-26	26(19x38)	.039	As Listed	As Listed	As Listed
9604	E-26	26(7x34)	.039	As Listed	As Listed	As Listed
9605	E-24	24(19x36)	.044	As Listed	As Listed	As Listed
9606	E-24	24(7x32)	.044	As Listed	As Listed	As Listed
9607	E-22	22(19x34)	.050	As Listed	As Listed	As Listed
9608	E-22	22(7x30)	.050	As Listed	As Listed	As Listed
9609	E-20	20(19x32)	.058	As Listed	As Listed	As Listed
9610	E-20	20(7x28)	.058	As Listed	As Listed	As Listed
9611	E-18	18(19x30)	.069	As Listed	As Listed	As Listed
9612	E-18	18(7x26)	.069	As Listed	As Listed	As Listed
9613	E-16	16(19x29)	.080	As Listed	As Listed	As Listed
9614	E-14	14(19x27)	.095	As Listed	As Listed	As Listed
9615	E-12	12(19x25)	.115	As Listed	As Listed	As Listed
9616	E-10	10(37x26)	.131	As Listed	As Listed	As Listed

Stock Colors*

0 Black	**5** Green
1 Brown	**6** Dark Blue
2 Red	**7** Violet (Purple)
3 Orange	**8** Gray (Slate)
4 Yellow	**9** White

NOTE: Tracer colors available upon customer request. Minimum quantity 500 feet.

TYPE EE — TFE TEFLON — 1000V — 200C

Concentrically stranded silver coated copper conductor, extruded TFE Teflon insulated.

Catalog Number	Type Designation	Size & (Stranding)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9620	EE-32	32(7x40)	.042	As Listed	As Listed	As Listed
9621	EE-30	30(7x38)	.042	As Listed	As Listed	As Listed
9622	EE-28	28(7x36)	.045	As Listed	As Listed	As Listed
9623	EE-26	26(19x38)	.049	As Listed	As Listed	As Listed
9624	EE-26	26(7x34)	.049	As Listed	As Listed	As Listed
9625	EE-24	24(19x36)	.054	As Listed	As Listed	As Listed
9626	EE-24	24(7x32)	.054	As Listed	As Listed	As Listed
9627	EE-22	22(19x34)	.060	As Listed	As Listed	As Listed
9628	EE-22	22(7x30)	.060	As Listed	As Listed	As Listed
9629	EE-20	20(19x32)	.068	As Listed	As Listed	As Listed
9630	EE-20	20(7x28)	.068	As Listed	As Listed	As Listed
9631	EE-18	18(19x30)	.079	As Listed	As Listed	As Listed
9632	EE-18	18(7x26)	.079	As Listed	As Listed	As Listed
9633	EE-16	16(19x29)	.089	As Listed	As Listed	As Listed
9634	EE-14	14(19x27)	.110	As Listed	As Listed	As Listed
9635	EE-12	12(19x25)	.129	As Listed	As Listed	As Listed
9636	EE-10	10(37x26)	.149	As Listed	As Listed	As Listed

Stock Colors*

0 Black	**5** Green
1 Brown	**6** Dark Blue
2 Red	**7** Violet (Purple)
3 Orange	**8** Gray (Slate)
4 Yellow	**9** White

NOTE: Tracer colors available upon customer request. Minimum quantity 500 feet.

ROME SYNTHINOL

UL TYPE HOOK-UP AND LEAD WIRES

UL-300V-80C

Catalog Number	Size Awg.	Stranding	Nom. Ins. Thckns.	Volts	Max. Dia. Inches
801	22	Solid	1/64	300	.065
811	20	Solid	1/64	300	.071
841	18	Solid	1/64	300	.080
821	22	7 x No. 30	1/64	300	.069
831	20	10 x No. 30	1/64	300	.078
846	18	16 x No. 30	1/64	300	.085
881	20—2 condr. Black & Red	10 x No. 30	.025	300	.170

UL-600V-105C (CSA 600V-90C)

Catalog Number	Size Awg.	Stranding	Nom. Ins. Thckns.	Volts	Max. Dia. Inches
851	22	Solid	1/32	600	.097
856	20	Solid	1/32	600	.104
861	18	Solid	1/32	600	.112
866	22	7 x No. 30	1/32	600	.102
871	20	10 x No. 30	1/32	600	.110
876	18	16 x No. 30	1/32	600	.119

Colors: Black, Blue, Brown, Green, Orange, Pink, Purple, Red, Slate, White, Yellow

STANDARD SPOOL PUT-UP: 25 FT., 100 FT., 500 FT., 1000 FT.

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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CONSOLIDATED

CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG — CHICAGO, ILLINOIS

SHIELDED TEFLON CABLES
MIL-W-16878

Each conductor stranded silver plated copper Type E extruded Teflon .010" insulation—90% braided silver copper shield, also supplied with either a Teflon impregnated Fiberglass braid or Teflon fused tape overall jacket.

Temperature rating —65°C to +260°C. Voltage rating 600 volts.

NO OUTER COVERING OVER SHIELD

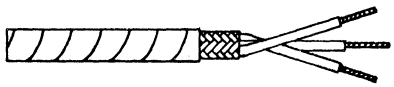
Catalog Number	No. of Cond.	Size & Stranding	Nom. O.D. (Inch)
9800	1	24(19x36)	.069
9801	2	24(19x36)	.112
9802	3	24(19x36)	.120
9803	4	24(19x36)	.132
9804	1	22(19x34)	.075
9805	2	22(19x34)	.124
9806	3	22(19x34)	.132
9807	4	22(19x34)	.146
9808	1	20(19x32)	.083
9809	2	20(19x32)	.142
9810	3	20(19x32)	.151
9811	4	20(19x32)	.168
9812	1	18(19x30)	.093
9813	2	18(19x30)	.162
9814	3	18(19x30)	.172
9815	4	18(19x30)	.192

STOCK COLORS

Catalog Numbers 9800 thru 9855

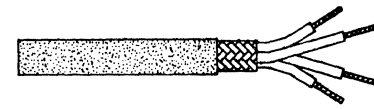
Specify color coding when ordering.

Standard spool put up Catalog Numbers 9800 thru 9855: 100 ft., 500 ft., 1000 ft.



TEFLON TAPE WRAP JACKET OVER SHIELD

Catalog Number	No. of Cond.	Size & Stranding	Nom. O.D. (Inch)
9820	1	24(19x36)	.084
9821	2	24(19x36)	.128
9822	3	24(19x36)	.135
9823	4	24(19x36)	.148
9824	1	22(19x34)	.090
9825	2	22(19x34)	.140
9826	3	22(19x34)	.148
9827	4	22(19x34)	.162
9828	1	20(19x32)	.099
9829	2	20(19x32)	.158
9830	3	20(19x32)	.167
9831	4	20(19x32)	.184
9832	1	18(19x30)	.109
9833	2	18(19x30)	.178
9834	3	18(19x30)	.189
9835	4	18(19x30)	.208



TEFLON IMPREGNATED BRAID OVER SHIELD

Catalog Number	No. of Cond.	Size & Stranding	Nom. O.D. (Inch)
9840	1	24(19x36)	.081
9841	2	24(19x36)	.126
9842	3	24(19x36)	.133
9843	4	24(19x36)	.144
9844	1	22(19x34)	.088
9845	2	22(19x34)	.137
9846	3	22(19x34)	.144
9847	4	22(19x34)	.158
9848	1	20(19x32)	.097
9849	2	20(19x32)	.154
9850	3	20(19x32)	.163
9851	4	20(19x32)	.180
9852	1	18(19x30)	.106
9853	2	18(19x30)	.174
9854	3	18(19x30)	.185
9855	4	18(19x30)	.205

Stock Color Numbers in accordance to Military Type Designation and E.I.A. Color Coding.

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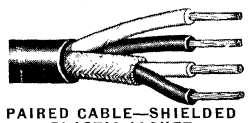
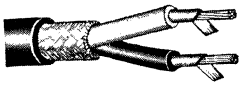
CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG — CHICAGO, ILLINOIS

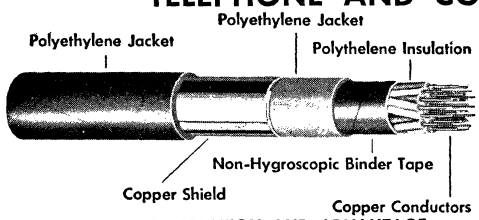
INTERCOMMUNICATING AND SOUND SYSTEM CABLES

STANDARD SPOOL PUT-UP: 10 FT., 25 FT., 50 FT., 100 FT., 500 FT., 1000 FT.

	NO.	TYPE	Size & Stranding	INSULATION THICKNESS (INCHES)	SPECIFICATION AND GENERAL APPLICATION	NOMINAL DIAMETER (INCHES)
STATION-TO-STATION EXTENSION WIRING SHIELDED	5501	2 Condr.	22 Solid	.015	Tinned copper vinyl plastic insulation, wires twisted together condr. red 1 condr. black—closely woven braided tinned copper shield.	.110
	5506	3 Condr.	22 Solid	.015	Same as 5501+condr. red—1 condr. black—1 condr. blue.	.145
	5521	2 Condr.	20 Solid	.015	Tinned copper vinyl plastic insulation, wires twisted together—1 condr. red—1 condr. black—closely woven braided tinned copper shield.	.155
EXTENSION WIRING SHIELDED—PLASTIC JACKET	5511	2 Condr	22 Solid	.015	Tinned copper vinyl plastic insulation, wires twisted together—1 condr. red—1 condr. black—and a **spiral** tinned copper shield with .020" tubed gray vinyl plastic jacket.	.170
 PAIRED CABLE—SHIELDED PLASTIC JACKET	5516	2 Pair 4 Condr	22 7x30	.015	Stranded tinned copper vinyl plastic insulation. 2 pair cabled (4 conductors—1 pair black & white with braided tinned copper shield—1 pair black & brown unshielded—both pair bunched and .020" gray vinyl plastic jacket overall.	.168x.276
EXTENSION-SPEAKERS SHIELDED FOR LONG RUNS	5526	2 Condr.	20 10x30	.015	Tinned copper vinyl plastic insulation, wires twisted together—1 condr. red—1 condr. black—closely woven tinned copper shield.	.215
	5531	3 Condr.	20 10x30	.015	Same as 5526—1 condr. red—1 condr. black—1 condr. blue.	.230
	5536	2 Condr.	18 16x30	.015	Stranded tinned copper vinyl plastic insulation, wires twisted together, 1 condr. red—1 condr. white, closely woven braided tinned copper shield.	.235
 EXPANSION-SPEAKERS SHIELDED—PLASTIC JACKET	5568	2 Condr.	22 7x30	.015	Tinned copper vinyl plastic insulation. 2 condrs.—cabled black and red—tinned copper **spiral** wrapped shield .023" chrome vinyl plastic jacket.	.166
	5569	3 Condr.	22 7x30	.015	Tinned copper vinyl plastic insulation, 3 condrs.—cabled black, red, whiet—tinned copper spiral shield —chrome vinyl plastic jacket.	.193
	5538	2 Condr.	18 16x30	.015	Stranded tinned copper vinyl plastic insulation, wires twisted together. 1 condr. red. 1 condr. white. **Spiral** tinned copper shield and .020" gray vinyl plastic jacket overall.	.225
	5543	2 Condr.	20 10x30	.015	Same as 5538 1 condr. Red. 1 condr. Black.	.185
	5541	2 Condr.	18 16x30	.015	Stranded tinned copper vinyl plastic insulation, wires twisted together. 1 condr. red—1 condr. white, closely woven braided tinned copper shield and .020" gray vinyl plastic jacket overall.	.260
JUKE BOX SPEAKER CABLE	5547	2 Condr.	24 7x32	.015	Stranded 1 condr. bare copper—1 condr. tinned copper —2 condrs. parallel gray vinyl plastic insulation. Colors—brown, clear, gray, white.	.058x.115
HIGH IMPEDANCE LAPEL MICROPHONES	5551	1 Condr.	24 16x34	.020	Stranded tinned copper polyethylene insulation closely woven braided tinned copper shield with .020" gray vinyl jacket.	.125
INTER COMMUNICATING SOUND SYSTEM	5556	2 Condr.	19 Solid	.015	Bare copper vinyl plastic insulation, wires twisted together—1 condr. brown—1 condr. tan.	.115
	5561	3 Condr.	19 Solid	.015	Same as 5556—1 condr. brown—1 condr. tan—1 condr. gray.	.132
INTER COMMUNICATING WEATHER-PROOF	5566	2 Condr.	22 Solid	.015	Bare copper .015 rubber insulation with a black cotton braid weatherproof finish. Conductors coded for easy identification. Ideal for exterior or interior communication installations.	.131x.203

TELEPHONE AND COMMUNICATION CABLE DIRECT BURIAL TYPE

FULLY COLOR CODED



GENERAL APPLICATION AND ADVANTAGE

APPLICATION: Communication and Telephone Cable for use in **direct burial installations** provides a high quality product similar to that used for aerial and duct systems, but with the addition of protective armoring. This minimizes the possibility of damage to the cable from rodents and insects and, correctly installed, reduces the dangers to the cable from sharp stones and other hazards of underground burial installations.

ADVANTAGE: The lightweight, but rugged construction of direct burial Communication and Telephone Cable permits fast and economical underground installation of communication systems with the assurance of dependable and enduring service. This is made possible through utilization of the same high quality polyethylene compounds that are used in its counterpart for aerial and duct type installations, with the added protection of copper armoring tapes and a durable, high-molecular weight, polyethylene jacket.

SPECIFICATIONS

Solid bare annealed copper 22 Awg. gauge conductors; thin wall, color coded, polyethylene insulation; conductors twisted to form pairs with symmetrically varying lays to minimize cross-talk; cabled (for 6 thru 50 pairs) by stranding pairs in concentric layers, or (for 75 thru 400 pairs) by stranding pairs into concentrically formed units, which are in turn cabled to form the complete assembly; non-hygroscopic binder tape furnishing high dielectric strength between shield and individual conductors; continuous copper shielding tape; high-molecular weight, polyethlene jacket.

NO.	NO. OF PAIRS	NO. OF COND.	COND. SIZE	NOMINAL JACKET THICKNESS, MILS		NOMINAL O. D. (Inches)
				INNER	OUTER	
6006	6	12	22 Solid	40	40	.430
6012	12	24	22 Solid	40	40	.500
6018	18	36	22 Solid	40	40	.560
6025	25	50	22 Solid	40	40	.630
6050	50	100	22 Solid	40	40	.820
6075	75	150	22 Solid	50	50	.990
6100	100	200	22 Solid	50	50	1.20
6150	150	300	22 Solid	50	50	1.30
6200	200	400	22 Solid	50	50	1.50
6300	300	600	22 Solid	50	60	1.80
6400	400	800	22 Solid	50	60	2.00

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG — CHICAGO, ILLINOIS

PAIRED PLASTIC CONDUCTORS

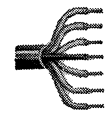
SPECIFICATIONS AND GENERAL APPLICATIONS Tinned copper conductor .010" vinyl plastic insulation. Cabled .202" gray vinyl plastic Jacket overall

NO.	TYPE	SIZE AND STRANDING	NOMINAL DIAMETER (Inches)
5201	1 Pr. 2 Condr.	22 Solid	.145
5205	2 Pr. 4 Condr.	22 Solid	.190
5211	3 Pr. 6 Condr.	22 Solid	.230
5221	5 Pr. 10 Condr.	22 Solid	.250
5226	6 Pr. 12 Condr.	22 Solid	.265
5231	7 Pr. 14 Condr.	22 Solid	.280
5236	8 Pr. 16 Condr.	22 Solid	.300
5241	9 Pr. 18 Condr.	22 Solid	.320
5251	11 Pr. 22 Condr.	22 Solid	.360
5271	15 Pr. 30 Condr.	22 Solid	.390
5286	27 Pr. 54 Condr.	22 Solid	.510

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

MULTIPLE CONDUCTORS FULLY COLOR CODED

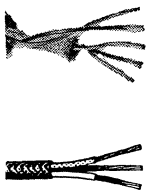
SIZE & STRANDING 22 - 7x30 SPECIFICATION AND GENERAL APPLICATION Tinned copper conductor .010" vinyl plastic insulation. Cabled .020" gray vinyl plastic Jacket overall



NO.	TYPE		NOMINAL DIAMETER (Inches)
5400	2 Condr.	22 / 7x30	.130
5401	3 Condr.	22 / 7x30	.140
5406	4 Condr.	22 / 7x30	.158
5411	5 Condr.	22 / 7x30	.170
5416	6 Condr.	22 / 7x30	.212
5421	7 Condr.	22 / 7x30	.230
5426	8 Condr.	22 / 7x30	.235
5431	9 Condr.	22	.245
5434	12 Condr.	22 / 7x30	.250

STANDARD SPOOL PUT-UP: 10 FT., 15 FT., 25 FT., 100 FT., 500 FT., 1000 FT.

PHONOGRAPH MULTIPLE CABLE STANDARD SPOOL PUT-UP: 500 FT., 1000 FT.



TYPE No.	SIZE	SPECIAL USE	SPECIFICATIONS	STRANDING	FINISHED O.D. (Inches)
5103	3-22	Same as 5030	3 condrs. No. 22 with 1/64" thermoplastic insulation, all individually color coded. All conductors grouped into cable form with a treated cotton braid overall lacquered.	7 x 30	.125
5123	2-16 1-18	Same as 5030	2 condrs. No. 16 1/64" thermoplatic insulation. 1 condr. No. 18 1/32" thermoplastic insulation, all individually color coded. All conductors grouped into cable form with gray vinyl plastic jacket.	2-26 x 30 1-16 x 30	.215
5135	22 5 condr.	Same as 5030	5 condr. No. 22 with 1/64" thermoplastic insulation; 3 condr. twisted together with a braided tinned copper shield; 2 condr. twisted; all condr. grouped into cable form with a brown cotton braid overall.	5-7 x 30	.225
5124	4-18	Same as 5030	No. 18 solid 4 condr. color coded gray plastic jacket overall.	Solid	.225

MICROPHONE CABLE

CONDUCTOR COLOR CHART: 1—Black; 2—White; 3—Red; 4—Green; 5—Yellow; 6—Blue; 7—Brown.

STANDARD SPOOL PUT-UP: 9 FT., 10 FT., 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

SHIELDED; Weatherproof rubber jacket for all microphone or weatherproof extension work. (Longer continuous lengths if desired.)

No.	TYPE	SIZE	SPECIAL USE	SPECIFICATIONS	STRANDING	FINISHED O.D. (Inches)	NOMINAL CAPACITY per ft. (mmf)
1461	1 conductor	22	Lapel microphone	Tinned copper polyethylene insulation with a closely woven tinned copper shield. Grey vinyl plastic jacket.	16 x 34	.125	34.
1457	1 conductor	22	Crystal, Ribbon and other high Impedance microphones	Same as 1461 except heavier polyethylene insulation on conductor.	16 x 34 26 x 34	.200 .175	25. 40.
1458	2 conductor	22	Low impedance microphones	Tinned copper conductors polyethylene insulation conductors; black and white. Cabled with fillers closely woven tinned copper shield. Gray vinyl plastic jacket.	16 x 34	.231	32.
1459	1 conductor	20	Lapel microphone	Tinned Copper Wire, with polyethylene to .087" O.D. with a closely woven tinned copper shielded braid, and a heavy black plastic jacket overall.	26 x 34	.240	33.
1460	1 conductor	20	Crystal microphone	Tinned copper, yarn serve; wall of live rubber; tinned copper braid shield; rubber jacket overall.	26 x 34	.240	68.
1462	2 conductor	20	Carbon microphones	Same as 1460; color coded	00 x 00	.268	
1456	2 conductor	18	Heavy duty studio cable	Same as 1460; color coded	41 x 34	.295	80.
1463	3 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.277	85.
1464	4 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.295	95.
1465	5 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.323	
1466	6 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.350	
1467	7 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.360	
1455	8 conductor	20	Same as 1465	Same as 2460; color coded	26 x 34	.386	

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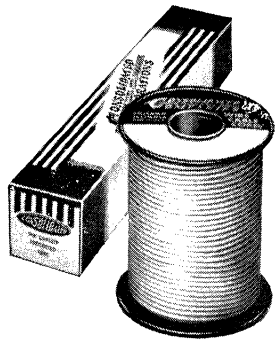
CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS
SEND FOR COMPLETE CATALOG CHICAGO, ILLINOIS



MAGNET WIRE

Popular, profitable specialty wire packaged for easy selling in radio-electrical, department, specialty and hardware stores. Wide variety of sizes and insulations. Keeps stock in perfect order, always saleable. Supplied on Spool as shown and in Heavier Weights for whatever weight desired. Here is a handy and convenient way to stock small quantities of wire. It prevents wire from matting or tangling.

No. 2000 VARIOUS OTHER INSULATIONS

Film	Technical Classification
ENAMEL—oleoresinous	
FORMVAR—poly vinyl acetal	
SODEREZE—polyurethane	
THERMALEZE—epoxide polyester	
NYFORM—formvar, nylon sheath	
NYLON	
BONDEZE	
GRIPEZE	
LECTRON—acrylic	
ISONSEL—terephthalic polyester	
ALKANVAR—terephthalic polyester	
SYLKYD ENAMELED	
COTTON AND COMBINATIONS	
SILK AND COMBINATIONS	
CELANESE AND COMBINATIONS	
GLASS AND COMBINATIONS	
PAPER AND COMBINATIONS	

Larger Quantities At Same Per Pound List

SPECIAL MAGNET WIRES

In addition to the standard listing shown here, we maintain an extensive stock of all other sizes in round, rectangular and square magnet wire.

PLAIN ENAMEL MAGNET WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.45	$0.75	$1.39
15	.45	.80	1.46
16	.50	.84	1.42
17	.50	.87	1.44
18	.50	.89	1.45
19	.55	.92	1.49
20	.55	.94	1.50
21	.55	.95	1.59
22	.55	.97	1.70
23	.58	.99	1.75
24	.60	1.00	1.87
25	.65	1.10	1.95
26	.65	1.10	2.03
27	.70	1.15	2.14
28	.73	1.20	2.25
29	.75	1.25	2.30
30	.80	1.30	2.35
31	.89	1.35	2.45
32	.90	1.40	2.50
33	.95	1.50	2.65
34	1.00	1.70	2.75
35	1.09	1.84	3.14
36	1.29	2.00	3.50
37	1.45	2.25	4.00
38	1.70	2.50	4.50
39	1.87	3.00	5.00
40	2.50	3.75	6.00
41	3.00	5.63	8.48
42	3.48	6.60	12.89
43	4.35	8.25	15.75
44	4.88	9.38	18.45

SINGLE FORMVAR MAGNET WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.66	$1.12	$2.07
15	.66	1.20	2.10
16	.75	1.25	2.14
17	.75	1.30	2.15
18	.75	1.34	2.17
19	.83	1.39	2.23
20	.83	1.40	2.25
21	.83	1.42	2.37
22	.83	1.45	2.56
23	.89	1.49	2.62
24	.90	1.50	2.80
25	.97	1.65	2.92
26	.99	1.65	3.05
27	1.05	1.74	3.20
28	1.10	1.80	3.37
29	1.14	1.87	3.46
30	1.20	1.95	3.52
31	1.34	2.02	3.67
32	1.35	2.10	3.75
33	1.42	2.25	3.95
34	1.50	2.55	4.12
35	1.64	2.81	4.70
36	1.92	3.00	5.26
37	2.17	3.37	6.00
38	2.55	3.75	6.76
39	2.80	4.50	7.50
40	3.75	5.64	9.00
41	3.75	6.75	12.60
42	4.28	7.40	13.43
43	5.18	7.88	14.25
44	6.60	11.70	22.58

HEAVY FORMVAR MAGNET WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.73	$1.24	$2.27
15	.73	1.34	2.33
16	.84	1.39	2.35
17	.84	1.44	2.37
18	.84	1.47	2.39
19	.92	1.52	2.45
20	.92	1.54	2.51
21	.92	1.55	2.61
22	.92	1.60	2.80
23	.97	1.64	2.87
24	1.00	1.65	3.07
25	1.15	1.97	3.50
26	1.19	1.98	3.64
27	1.25	2.07	3.84
28	1.34	2.15	4.04
29	1.37	2.24	4.14
30	1.44	2.34	4.22
31	1.67	2.52	4.58
32	1.69	2.63	4.67
33	1.77	2.81	4.94
34	1.87	3.19	5.16
35	2.04	3.46	5.88
36	2.39	3.75	6.58
37	2.72	4.20	7.50
38	3.17	4.69	8.45
39	3.50	5.64	9.38
40	4.69	7.04	11.27
41	5.18	7.59	13.65
42	5.78	8.15	14.72
43	6.00	8.63	15.08
44	7.43	11.40	23.33

DOUBLE COTTON COVERED MAGNET WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.55	$0.95	$1.87
15	.58	.98	1.90
16	.60	1.00	1.95
17	.60	1.05	2.00
18	.60	1.10	2.05
19	.65	1.15	2.28
20	.65	1.25	2.34
21	.77	1.34	2.50
22	.82	1.39	2.64
23	.88	1.50	2.75
24	.94	1.60	3.00
25	.95	1.65	3.14
26	1.00	1.75	3.39
27	1.15	1.89	3.64
28	1.20	2.14	4.00
29	1.30	2.39	4.50
30	1.32	2.50	4.75
31	1.50	2.75	5.00
32	1.75	3.00	5.64
33	1.89	3.37	6.25
34	2.14	3.89	7.00
35	2.39	4.25	7.50
36	2.75	4.89	8.65
37	2.25	6.25	11.40
38	4.75	8.65	16.50
39	6.00	11.50	20.00
40	8.00	15.00	28.15

BARE COPPER WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.53	$0.97	$1.54
15	.57	1.00	1.60
16	.60	1.10	1.83
17	.52	1.12	1.87
18	.63	1.14	1.90
19	.65	1.17	1.95
20	.67	1.20	2.00
21	.68	1.20	2.07
22	.70	1.24	2.14
23	.70	1.27	2.17
24	.70	1.30	2.20
25	.72	1.30	2.20
26	.73	1.34	2.27
27	.75	1.37	2.30
28	.77	1.40	2.40
29	.77	1.42	2.47
30	.77	1.42	2.47
31	.77	1.44	2.53
32	.77	1.44	2.60
33	.78	1.47	2.68
34	.80	1.50	2.77
35	.82	1.55	2.90
36	.84	1.60	3.04
37	.92	1.75	3.22
38	1.00	1.90	3.40
39	1.02	1.97	3.45
40	1.04	2.04	3.50

TINNED COPPER WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.67	$1.13	$1.75
15	.73	1.27	1.92
16	.80	1.40	2.00
17	.84	1.44	2.03
18	.87	1.47	2.08
19	.90	1.50	2.12
20	.94	1.53	2.17
21	.95	1.53	2.24
22	.97	1.57	2.30
23	.98	1.58	2.34
24	1.00	1.60	2.37
25	1.00	1.60	2.37
26	1.00	1.60	2.37
27	1.05	1.67	2.64
28	1.10	1.75	2.90
29	1.13	1.84	2.94
30	1.17	1.92	2.97
31	1.20	2.00	3.04
32	1.24	2.09	3.10
33	1.27	2.17	3.19
34	1.30	2.25	3.27
35	1.32	2.30	3.40
36	1.34	2.34	3.54
37	1.36	2.42	3.72
38	1.38	2.50	3.90
39	1.39	2.50	3.95
40	1.40	2.67	4.00

BARE NICKEL CHROMIUM WIRE

No. 2000

Recommended for electrical heating appliances and other devices where the highest quality in performance is required, whose operating temperatures do not exceed 1850° F. Particularly suited for heavy duty rheostats and controls which require compact resistance.

ON PROTECTA-METAL SPOOLS

Size	1 Oz.	¼ Lb.	1 Lb.
14	....	$1.52	$5.56
15	....	1.56	5.65
16	....	1.58	5.73
17	....	1.63	5.80
18	....	1.67	5.87
19	....	1.71	6.02
20	$0.67	1.76	6.17
21	.71	1.85	6.49
22	.72	1.93	6.79
23	.74	2.08	7.44
24	.76	2.22	8.09
25	.82	2.37	8.74
26	.87	2.53	9.39
27	.89	2.57	9.96
28	$0.92	$2.84	$10.53
29	1.00	2.98	11.18
30	1.09	3.11	11.83
31	1.14	3.28	12.28
32	1.18	3.43	12.73
33	1.31	3.79	14.73
34	1.44	4.16	16.73
35	1.58	4.55	17.71
36	1.71	4.94	18.69
37	2.22	6.50	23.86
38	2.74	8.05	29.03
39	2.86	8.39	31.62
40	2.98	8.95	34.20

CONSOLIDATED WIRE PAGE 16

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG — CHICAGO, ILLINOIS

MULTIPLE CONDUCTOR COTTON BRAIDED CABLE

FOR SPEAKERS, TESTERS, BATTERY HOOK-UP, ETC.

SPECIFICATIONS: Tinned flexible copper; colored plastic insulation; bunched individual conductors; heavy brown cotton braid overall; color coded. Size 20; Stranding 10x30; Insulation Thickness 1/64".

TYPE NO.	TYPE	FINISHED O.D. (Inches)	TYPE NO.	TYPE	FINISHED O.D. (Inches)
1481	1 condr.	.150	1487	7 condr.	.275
1482	2 condr.	.175	1488	8 condr.	.300
1483	3 condr.	.200	1489	9 condr.	.310
1484	4 condr.	.275	1490	10 condr.	.325
1485	5 condr.	.250	1494	11 condr.	.335
1486	6 condr.	.260	1495	12 condr.	.350

MULTIPLE CONDUCTOR TINNED COPPER SHIELD CABLE

SPECIFICATIONS: Tinned flexible copper, 912E20, Stranding 10x30—1/64" plastic Insulation, color coded, Braided tinned copper shield.

TYPE NO.	TYPE	FINISHED O.D. (Inches)
1471	1 conductor	.110
1472	2 conductors	.190
1473	3 conductors	.200
1474	4 conductors	.220
1475	5 conductors	.235
1476	6 conductors	.250
1477	7 conductors	.265

ANALYZER CABLE

SPECIFICATIONS: Extra flexible tinned copper; plastic insulation; color coded; Brown cotton braid overall.

	TYPE	SIZE	STRAND-ING	INSULATION THICKNESS (Inches)	FINISHED O.D. (Inches)
1501	8 condr.	2-14	41 x 30	1/64	.300
		6-18	16 x 30		
1502	9 condr.	2-14	41 x 30	1/64	.320
		7-18	16 x 30		

TEST PROD WIRE

Specially Constructed High Grade Wire For Use On Laboratory Test Equipment, Bench Analyzers, Etc.

SPECIFICATIONS: Extra flexible tinned copper; cotton wrap; red or black; rubber insulation.

1001	5,000 volts	20	41 x 36	.043	.140
1006	10,000 volts	18	65 x 36	.088	.230

SHIELDING AND BONDING CABLE

DESIGNED FOR SHIELDING INSULATED WIRES AND CABLES . . . BONDING AND MANY OTHER USES

STANDARD SPOOL PUT-UP: 50 FT., 100 FT., 250 FT., 1000 FT.

NO.	APPROX. I. D.	SIZE & NUMBER OF WIRES	APPROX. AWG.	CARRYING CAPACITY IN AMPERES
1386	1/32"	24 x 36	24	7
1387	3/64"	24 x 36	23	7
1388	3/32"	48 x 36	19	12
1389	7/64"	72 x 36	18	14
1390	1/8"	96 x 36	18	15
1391	3/16"	120 x 36	15	23
1392	1/4"	168 x 36	14	30
1393	3/8"	288 x 36	11	50
1394	1/2"	386 x 36	10	55
1395	5/8"	396 x 36	10	61
1396	3/4"	832 x 36	7	80
1397	25/32"	832 x 36	7	80
1398	1"	832 x 36	7	84
1399	1 3/8"	912 x 36	7	105

TINNED COPPER BUS BAR WIRE

SOLID SOFT DRAWN COPPER AND BRIGHTLY TINNED FOR ALL TYPES OF SOLDERING CONNECTIONS AND OTHER APPLICATIONS

STANDARD SPOOL PUT-UP: 100 FT., 1000 FT.

NO.	NOMINAL DIAMETER	SIZE SOLID	CIRCULAR MIL. AREA
3845	.129"	8	16510
3841	.102"	10	10380
3831	.082"	12	6530
3821	.064"	14	4110
3815	.051"	16	2583
3816	.040"	18	1624
3817	.032"	20	1022
3818	.025"	22	642
3819	.020"	24	404
3846	.016"	26	254.1
3847	.013"	28	159.8
3848	.010"	30	100.5

LEAD COVERED CABLE

FOR FREEDOM FROM INTERFERENCE, CORROSION AND DAMPNESS.

SPECIFICATIONS: Tinned copper wire; heavy rubber insulation and cotton braid; heavy lead shield.

1453	2 cond.	18	Solid	1/32	240 x .200
1454	3 cond.	18	Solid	1/32	.420

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG

CHICAGO, ILLINOIS

ELECTRICAL CORDAGES
UNDERWRITERS APPROVED

SUPPLIED ON ATTRACTIVE TRI-COLOR LITHOGRAPHED METAL SPOOLS

RUBBER HANDYCORD CENTERSTRIP

PLASTIC HANDYCORD CENTERSTRIP

RUBBER SHEATHED SERVICE CORD
UNDERWRITERS APPROVED

SPECIFICATIONS AND APPLICATION

Extra flexible bare copper cotton served. 1/32" rubber insulation color coded conductors cabled with fillers, cotton wrap and black, tough rubber jacket.

For all electronic equipment, household appliances, garden and power tools.

NEOPRENE SHEATHED SERVICE CORD
UNDERWRITERS APPROVED

SPECIFICATIONS AND APPLICATION

Same specifications as 4200 Series except black Neoprene jacket.

For all types of equipment exposed to oils, acid and excessive moisture.

HEATER CORD

Colors: Black and White Marker.

STANDARD SPOOL PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000FF.

NO.	NO. OF COND.	SIZE AWG.	U. L. TYPE	STRAND-ING	NOM. INS. THICKNESS	NOM. O. D.
4072	2	18	SP(P.O.S.J.)	41 x 34	1/64"	.235 x .130
4074	2	16	SP(P.O.S.J.)	65 x 34	1/32"	.300 x .160

Colors: Black, Brown, White, Gray.

STANDARD SPOOL PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

4077	2	18	SPT(P.O.T.)	41 x 34	1/64"	.235 x .130
4079	2	16	SPT(P.O.T.)	65 x 34	1/32"	.300 x .160

Colors: Black, Brown, White, Gray.

STANDARD PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT.

NO.	NO. OF COND.	SIZE AWG.	U. L. TYPE	CURRENT CARRYING CAPACITY	VOLTAGE RATING	NOM. O. D.
4202	2	18	SV	5 Amps.	300	.250"
4207	2	18	SJ	5 Amps.	300	.310"
4212	3	18	SJ	5 Amps.	300	.345"
4214	4	18	SJ	5 Amps.	300	.360"
4217	2	16	SJ	7 Amps.	300	.340"
4222	3	16	SJ	7 Amps.	300	.375"
4224	4	16	SJ	7 Amps.	600	.395"
4227	2	18	S	5 Amps.	600	.390"
4232	3	18	S	5 Amps.	600	.405"
4234	4	18	S	5 Amps.	600	.435"
4237	2	16	S	7 Amps.	600	.410"
4242	3	16	S	7 Amps.	600	.430"
4244	4	16	S	7 Amps.	600	.485"
4247	2	14	S	15 Amps.	600	.540"
4252	3	14	S	15 Amps.	600	.560"
4254	4	14	S	15 Amps.	600	.605"
4257	2	12	S			
4262	3	12	S	20 Amps.	600	.635"
4264	4	12	S	20 Amps.	600	.665"
4267	2	10	S	25 Amps.	600	.640"
4272	3	10	S	25 Amps.	600	.690"
4274	4	10		25 Amps.	600	.745"

STANDARD PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT.

4307	2	18	SJO	5 Amps.	300	.310"
4312	3	18	SJO	5 Amps.	300	.345"
4314	4	18	SJO	5 Amps.	300	.360"
4317	2	16	SJO	7 Amps.	300	.340"
4322	3	16	SJO	7 Amps.	300	.375"
4324	4	16	SO	7 Amps.	600	.395"
4327	2	18	SO	5 Amps.	600	.390"
4332	3	18	SO	5 Amps.	600	.405"
4334	4	18	SO	5 Amps.	600	.435"
4337	2	16	SO	7 Amps.	600	.410"
4342	3	16	SO	7 Amps.	600	.430"
4344	4	16	SO	7 Amps.	600	.485"
4347	2	14	SO	15 Amps.	600	.540"
4352	3	14	SO	15 Amps.	600	.560"
4354	4	14	SO	15 Amps.	600	.605"
4357	2	12	SO	20 Amps.	600	.605"
4362	3	12	SO	20 Amps.	600	.635"
4364	4	12	SO	20 Amps.	600	.665"
4367	2	10	SO	25 Amps.	600	.640"
4372	3	10	SO	25 Amps.	600	.690"
4374	4	10	SO	25 Amps.	600	.745"

STANDARD SPOOL PUT-UP: 100 FT., 250 FT.

NO.	NO. OF COND.	SIZE AWG.	U. L. TYPE	STRAND-ING	NOM. INS. THICKNESS	NOM. O. D.
4087	2	16	HPD	65 x 34	1/32"	.275
4092	2	18	HPD	41 x 34	1/32"	.250

CONSOLIDATED WIRE PAGE 18

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DABURN ELECTRONICS & CABLE CORP.
WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

DAFLEX PLASTIC TUBING

105°C POLYVINYLCHLORIDE (PVC)

Specifically compounded vinyl resins for superior all around performance. UL approved for 105°C, conforms to Spec MIL-I-631D Type F, Form U, Grades A and C. Class 2, Category 1. Resistant to heat, oil, water, chemical corrosion, fungi and aging. Very hi abrasion resistance. Will retain its flexibility. Suitable for covering and protecting wires and cables. Designed for electrical, electronic and aircraft applications. Non-flammable. Meets ASTM—D876, ASTM—D922.

DABURN Cat. No.	Size	Nom. I.D.	Specify Std. Put-Up, Length, Spool or Coil
808	24	.022″	— , 25′, 100′, 1000′
811	22	.027″	— , 25′, 100′, 1000′
813	20	.034″	36″, 25′, 100′, 1000′
814	18	.042″	36″, 25′, 100′, 1000′
815	16	.053″	36″, 25′, 100′, 1000′
816	14	.066″	36″, 25′, 100′, 500′
817	12	.085″	36″, 25′, 100′, 500′
825	10	.106″	36″, 15′, 100′, 500′
818	8	.135″	36″, 15′, 100′, 500′
826	6	.166″	36″, 15′, 100′, 250′
819	4	.208″	36″, 10′, 100′, 250′
820	2	.263″	36″, 10′, 100′, 250′
821	5/16″	.3125″	36″, — , 100′, 250′
822	3/8″	.375″	36″, — , 100′, 250′
823	1/2″	.500″	36″, — , 100′, 250′
824	5/8″	.625″	36″, — , 100′, —
827	3/4″	.750″	— , — , 100′, —
860	7/8″	.875″	— , — , 100′, —
861	1″	1.000″	— , — , 50′, —
862	1 1/4″	1.250″	— , — , 50′, —
863	1 1/2″	1.500″	— , — , 50′, —
828	1 3/4″	1.750″	— , — , 50′, —
829	2″	2.000″	— , — , 50′, —
864	2 1/4″	2.250″	— , — , 50′, —
865	2 1/2″	2.500″	— , — , 50′, —

COLORS AVAILABLE FROM STOCK

Sizes #24 thru 2: Clear, Black, White, Yellow, Red, Green, Brown, Blue, Orange.
Sizes 5/16″ thru 3/4″: Clear, Black, Yellow, Red, Green.
Sizes 7/8″ thru 2 1/2″: Clear, Black.

DIMENSIONAL TOLERANCES OF DAFLEX 105

Sz.	Approx. I.D., Ins.	ASTM Tolerance, Ins.		Wall Thickness Inches
24	.022	.020	.027	.012±.002
22	.027	.025	.032	.012±.002
20	.034	.032	.039	.016±.003
19	.038	.044	.036	.016±.003
18	.042	.040	.049	.016±.003
17	.047	.054	.045	.016±.003
16	.053	.051	.061	.016±.003
15	.059	.067	.057	.016±.003
14	.066	.064	.072	.016±.003
13	.076	.080	.072	.016±.003
12	.085	.081	.089	.016±.003
11	.095	.101	.091	.016±.003
9	.118	.124	.114	.020±.003
8	.133	.129	.141	.020±.003
7	.148	.158	.144	.020±.003
6	.166	.162	.178	.020±.003
5	.186	.198	.182	.020±.003
4	.208	.204	.224	.020±.003
3	.234	.249	.229	.020±.003
2	.263	.258	.278	.020±.003
1	.294	.311	.289	.020±.003
0	.330	.347	.325	.020±.003
5/16″	.315	.3125	.334	.025±.003
3/8″	.375	.375	.399	.025±.003
7/16″	.438	.462	.438	.025±.003
1/2″	.500	.500	.524	.025±.003
9/16″	.562	.592	.562	.030±.003
5/8″	.625	.625	.655	.030±.005
3/4″	.750	.750	.186	.035±.005
7/8″	.875	.875	.911	.035±.005
1″	1.000	1.000	1.036	.035±.005
1 1/8″	1.125	1.125	1.161	.035±.005
1 1/4″	1.250	1.250	1.286	.040±.005
1 3/8″	1.375	1.375	1.411	.040±.005
1 1/2″	1.500	1.500	1.536	.045±.005
1 3/4″	1.750	1.812	1.750	.055±.008
2″	2.000	2.000	2.070	.060±.010
2 1/4″	2.250	2.250	2.330	.065±.010
2 1/2″	2.500	2.500	2.590	.070±.010

PROPERTIES OF DAFLEX-105 TUBING

Recommended for Temperatures to
105°C

Low Temperature Flexibility to
−30°C

Dielectric Strength — .020″ Wall
800 V/MIL

Dielectric Constant
6.0

Tensile Strength — Min. (PSI)
2700

Ultimate Elongation
300%

Oil Resistance
Excellent

Fungus Resistance
Excellent

Flammability
Self Extinguishing

ALL THE ABOVE TUBING CAN BE ORDERED CUT AND MARKED TO YOUR SPECIFICATIONS

DAFLEX VINYL COATED FIBERGLASS TUBING 130°C

MEETS MIL-I-3190B SPECS (ASTM, NEMA GRADE B-B-1)

DAFLEX 130 is recommended for continuous temperatures up to 130°C. Constructed to provide a tough, flexible, heat resistant tubing. Made from an inorganic fiberglass base sleeving with heat resistant plastic coating, extremely flexible tough plastic insulation. Will not support combustion. Meets MIL-I-3190B, NEMA VSI ASTM D372.

DABURN Cat. No.	Size	Nom. I.D.	Specify Std. Put-Up, Length, Spool or Coil
889	24	.022″	— , — , 100′, 1000′
890	22	.027″	— , — , 100′, 1000′
891	20	.034″	30″, 25′, 100′, 1000′
893	18	.042″	30″, 25′, 100′, 1000′
894	16	.053″	30″, 25′, 100′, 1000′
895	14	.066″	30″, 25′, 100′, 500′
800	12	.085″	30″, 25′, 100′, 500′
807	10	.106″	30″, 20′, 100′, 500′
801	8	.135″	30″, 15′, 100′, 500′
802	6	.166″	30″, 10′, 100′, 250′
805	4	.208″	30″, 10′, 100′, 250′
806	2	.263″	30″, 10′, 100′, 250′
803	5/16″	.3125″	36″, — , 100′, —
804	3/8″	.375″	36″, — , 100′, —
899	1/2″	.500″	36″, — , 100′, —
896	5/8″	.625″	36″, — , 100′, —

COLORS AVAILABLE FROM STOCK

#24 thru #2: Black, Red, Green, Yellow, Brown, Blue. **5/16″ thru 1″:** Black.

DIMENSIONAL TOLERANCES OF VINYL COATED FIBERGLASS DAFLEX 130

Size	Approx. I.D.	N.E.M.A. Tolerances Inches
24	.022	.020-.027
22	.027	.025-.032
20	.034	.032-.039
18	.042	.040-.049
16	.053	.051-.061
14	.066	.064-.072
12	.085	.081-.089
10	.106	.102-.112
8	.133	.129-.141
6	.166	.162-.178
5/16, 4	.208	.204-.224
1/4, 2	.263	.258-.278
5/16	.3125	.312-.328
3/8	.375	.375-.399
1/2	.500	.500-.524
5/8	.625	.625-.655

PROPERTIES OF DAFLEX 130 VINYL COATED FIBERGLASS

Recommended for Temperatures to
130°C
Max. Low Temperature Flexibility
−20°C
Dielectric Strength
4000 V/MIL
Dielectric Constant
7.0
Tensile Strength — Min. (PSI)
1500
Ultimate Elongation
350%
Will not support Combustion, Abrasion, Oil, Chemical Corrosion Resistance
Excellent
Fungus Resistance
Good
Gamma Radiation Dosage to 25%
10^9
Degradation ERGS/GRAM
Color Stability even on Prolonged Baking at Elevated Temperatures

Net
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DABURN

DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

DAFLON TEFLON* SPAGHETTI TUBING

Daflon 500 and 550 tubing is extruded from Dupont tetrafluoroethylene resin and is unmatched by any other tubing for use in applications for hi frequencies and hi temperatures. Rated for continuous operation of 250°C it retains its toughness and flexibility thruout. Has high resistance to fatigue and stresses. Will not shrink back during soldering operation. Non-flammable, flexible, it permits miniaturization of design and compactness. Lowest coefficient of friction. Inert to all fungus growth. Conforms to MIL-I-22129C Spec.

TABLE OF PROPERTIES

Test	ASTM Method	Result
Tensile Strength, 73°F.	D638-52T	1500-300 Lb/Sq. In.
Elongation, 73°F.	D638-52T	100-200%
Deformation Under Load—122°F. 1200 Lb/Sq. In., 24 Hrs. 2000 Lb/Sq. In., 24 Hrs.	 D621-51 D621-51	 4-8% 25%
Hardness Durometer	D676-49T	D50-D65
Heat Distortion Temp., 6 Lb/Sq. In.	D648B-45T	250°C
Dielectric Strength, .080"	D149-44	400-500 V/MIL
Surface Arc-Resistance	D495-48T	Sec.
Volume Resistivity	D257-52T	10^{15} Ohm-CM
Surface Resistivity, 100% R.H.	D257-52T	$3.6x10^{6}$ Megohms
Dielectric Constant, 60 to 10^{8} Cycles	D150-54T	2.00
Power Factor, 60 to 10^{8} Cycles	D150-54T	0.0003
Specific Gravity	D792-50	2.1-2.2

DAFLON THIN WALL TEFLON® TUBING (DTT-500)

DAFLON No.	Size	Nom. I.D.	Nom. Wall Thickness	Specify Std. Put-Up Spool or Coil
DTT 500-32	32	.011"	.0085"	100', 500', 1000'
DTT 500-30	30	.012½	.009"	100', 500', 1000'
DTT 500-28	28	.015"	.009"	100', 500', 1000'
DTT 500-26	26	.018"	.010"	100', 500', 1000'
DTT 500-24	20	.022"	.010"	25', 50', 100', 500', 1000'
DTT 500-22	22	.027"	.010"	25', 50', 100', 500', 1000'
DTT 500-20	20	.034"	.012"	25', 50', 100', 500', 1000'
DTT 500-19	19	.038"	.012"	100', 500', 1000'
DTT 500-18	18	.042"	.012"	25', 50', 100', 500', 1000'
DTT 500-17	17	.047"	.012"	100', 500', 1000'
DTT 500-16	16	.053"	.012"	25', 50', 100', 500', 1000'
DTT 500-15	15	.059"	.012"	100', 500', 1000'
DTT 500-14	14	.066"	.012"	25', 50', 100', 500', 1000'
DTT 500-13	13	.076"	.012"	100', 500', 1000'
DTT 500-12	12	.085"	.012"	25', 50', 100', 500', 1000'
DTT 500-11	11	.095"	.012"	100', 500', 1000'
DTT 500-10	10	.106"	.012"	25', 50', 100', 500', 1000'
DTT 500-9	9	.118"	.015"	100', 500', 1000'*
DTT 500-8	8	.133"	.015"	25', 50', 100', 500', 1000'*
DTT 500-7	7	.148"	.015"	100', 500', 1000'*
DTT 500-6	6	.166"	.015"	25', 50', 100', 500', 1000'*
DTT 500-5	5	.186"	.015"	100', 500', 1000'*
DTT-500-4	4	.208"	.015"	25', 50', 100', 500', 1000'*
DTT 500-3	3	.234"	.015"	100', 500', 1000'*
DTT 500-2	2	.263"	.015"	25', 50', 100', 500', 1000'*
DTT 500-1	1	.294"	.015"	100', 500', 1000'*
DTT 500-0	0	.330"	.015"	25', 50', 100', 500', 1000'*
DTT 500-3/8	3/8	.390"	.020"	50', 100'*
DDT 500-7/16	7/16	.453"	.020"	50', 100'*
DTT 500-1/2	1/2	.515"	.025"	25', 50', 100'*
DTT 500-9/16	9/16	.583"	.025"	25', 50', 100'*
DTT 500-5/8	5/8	.640"	.030"	25', 50', 100'*
DTT 500-3/4	3/4	.765"	.030"	25', 50', 100'*
DTT 500-7/8	7/8	.895"	.030"	25', 50', 100'*
DTT 500-1	1	1.025"	.030"	25', 50', 100'*
DTT 500-1 1/8	1 1/8	1.150"	.030"	25', 50', 100'*
DTT 500-1 1/4	1 1/4	1.275"	.030"	25', 50', 100'*

*Random Lengths in Coils.

STOCK COLORS AVAILABLE: Natural, Red, Black, Yellow, Blue, Brown, Green, Orange, Gray, Violet, White.

If no color is specified, natural will be supplied.

SMALL PIECE CUTTING AVAILABLE TO ORDER

STOCK COLORS: Natural, Red, Black, Blue, Brown, Green, Orange, Yellow, Gray, Violet, White.

Nos. **DTT500-3/8** thru **1 1/4"** available in Natural. Additional Colors, Sizes Made to Order.

Teflon Tubing can be ordered cut to your specifications.

•

Tracer Colors Available

•

We Invite Your Inquiries For Your Special Requirements.

•

WIRE — CABLE — TUBING DIVISION

PROPERTIES OF DAFLON 500 & 550 TEFLON TUBING

Continuous Service to	250°C
Low Temperature Flexibility	−90°C
Dielectric Strength Color Stability Dielectric Constant	2.0
Dielectric Strength.	500 to 1000 V/MIl
Fungus, Oil, Chemical Corrosion	Completely Inert

DAFLON STANDARD WALL TEFLON® TUBING (DTT-550)

FOR USE WHERE GREATER MECHANICAL STRENGTH IS INDICATED

DAFLON No.	Nom. Size	Nom. I.D.	Nom. Wall Thickness	Std. Put-U Spool or Co
DTT 550-24	24	.022"	.012"	100'
DTT 550-22	22	.027"	.012"	100'
DTT 550-20	20	.034"	.016"	100'
DTT 550-19	19	.038"	.016"	100'
DTT 550-18	18	.042"	.016"	100'
DTT 550-17	17	.047"	.016"	100'
DTT 550-16	16	.053"	.016"	100'
DTT 550-15	15	.059"	.016"	100'
DTT 550-14	14	.066"	.016"	100'
DTT 550-13	13	.076"	.016"	100'
DTT 550-12	12	.085"	.016"	100'
DTT 550-11	11	.095"	.016"	100'
DTT 550-10	10	.106"	.016"	100'
DTT 550-9	9	.118"	.020"	100'*
DTT 550-8	8	.133"	.020"	100'*
DTT 550-7	7	.148"	.020"	100'*
DDT 550-6	6	.166"	.020"	100'*
DTT 550-5	5	.186"	.020"	100'*
DTT 550-4	4	.208"	.020"	100'*
DTT 550-3	3	.234"	.020"	100'*
DTT-550-2	2	.263"	.020"	100'*
DTT 550-1	1	.294"	.020"	100'*
DTT 550-0	0	.330"	.020"	100'*

STOCK COLORS: Natural
Available All Other Colors.

*Random Lengths in Coi
Made from Hi Molecular Weight Virgin "TEFLON."

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DABURN

DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

DAFLEX - DAFLON HEAT SHRINKABLE TUBING

IRRADIATED POLYOLEFIN TUBING

Shrinkage Ratio: 2:1 (50%)

DAFLEX SH-275 (colored) and **SH-270** (clear) Series are an irradiated, thermally stable Class B (130°C) material extruded from specially formulated polymers. Comes thru in expanded sizes. It insulates, jackets, splices, encapsulates, weatherproofs components, connectors, cables or other irregular shapes.

When exposed to heat (235°F) the tubing shrinks 50% in diameter, 5% longitudinal contraction, forming a tough, smooth insulating covering with excellent chemical and oil resistant properties and electrical characteristics. Meets or exceeds requirements of MIL-I-23053 (WEP) Class I.

Colored DAFLEX SH-275	Clear DAFLEX SH-270	Equiv. I.D. AWG	As Supplied Expanded I.D.	Max. Recovered I.D.	Recovered Nom. Wall	Standard Package
SH-275-1/32"	SH-270-1/32"	22-20	.063"	.031"	.016"	100', 250'
SH-275-3/64"	SH-270-3/64"	18-16	.093"	.046"	.020"	100', 250'
SH-275-1/16"	SH-270-1/16"	14	.125"	.062"	.020"	100', 250'
SH-275-3/32"	SH-270-3/32"	12-10	.187"	.093"	.020"	100', 250'
SH-275-1/8"	SH-270-1/8"	8	.250"	.125"	.025"	100', 250'

Colored DAFLEX SH-275	Clear DAFLEX SH-270	Equiv. I.D. AWG	As Supplied Expanded I.D.	Recovered I.D. Max.	Nom. Wall Recovered	Standard Package
SH-275-5/32"	SH-270-5/32"	6	.312"	.156"	.025"	100', 250'
SH-275-3/16"	SH-270-3/16"	4	.375"	.187"	.025"	100', 250'
SH-275-1/4"	SH-270-1/4"	2	.500"	.250"	.025"	100'
SH-275-3/8"	SH-270-3/8"	3/8	.750"	.375"	.030"	100'
SH-275-1/2"	SH-270-1/2"	1/2	1.000"	.500"	.035"	100'

Order by Cat. No. and I.D. AWG Size • **SH-275 STOCK COLORS:** Black, White, Red. • **SH-270 STOCK COLOR:** Clear.

SPECIFICATIONS

All Tests Made on Tubing in Recovered Dimension

Continuous Operating Temperature	135°C	
Longitudinal Change	5% Max.	
Tensile Strength	1500 PSI Min.	
Ultimate Elongation	200% Min.	
Special Gravity	1.29 Max.	(SH-270) 1.01 Max.
Low Temperature Flexibility (−54°C)	No Cracking	No Cracking
Shrinkage Ratio	2:1 (50%)	2:1 (50%)

Dielectric Strength	500 V/MIL Min.	500 V/MIL Min
Dielectric Constant	2.87 Max.	2.47 Max.
Corrosive Resistance	Non-Corrosive	
Resistance to Soldering Iron	Excellent	
Fuel, Oil, Solvent, Acid, Alkali, Hydraulic Fluid Resistance	Excellent	

HEAT SHRINKABLE TEFLON* TUBING

DAFLON SH-400 (FEP)

Made with Modified TEFLON* FEP will shrink over inserted objects upon exposure to moderate heat. Heretofore, many joints, parts, components, devices could not be protected because of hi temperature required for shrinkage; Can now use this FEP TEFLON* which has a continuous service temperature of 400°F. Will shrink at 300°F. Supplied in natural color. Complete shrinkage at 350°F. Now, many heat sensitive products can use the permanent protection of TEFLON.* Will not burn or support flame, long lengths available. Extruded.

DABURN No.	Size	I.D.	Min. Exp. I.D.	Max. I.D.	Wall Thickness
SH-400-24	24	.023"	.031"	.027"	.008"
SH-400-22	22	.028"	.036"	.032"	.008"
SH-400-20	20	.034"	.045"	.039"	.008"
SH-400-18	18	.042"	.060"	.049"	.008"
SH-400-16	16	.053"	.075"	.061"	.009"
SH-400-14	14	.066"	.092"	.072"	.009"
SH-400-12	12	.085"	.115"	.089"	.009"
SH-400-10	10	.108"	.141"	.114"	.010"
SH-400-9	9	.118"	.158"	.124"	.010"
SH-400-8	8	.136"	.180"	.143"	.010"
SH-400-7	7	.148"	.197"	.158"	.011"
SH-400-6	6	.170"	.225"	.180"	.011"
SH-400-5	5	.186"	.248"	.198"	.011"
SH-400-4	4	.214"	.290"	.226"	.011"
SH-400-3	3	.234"	.310"	.249"	.011"
SH-400-2	2	.268"	.365"	.280"	.012"
SH-400-1	1	.294"	.400"	.311"	.012"
SH-400-0	0	.366"	.440"	.349"	.012"
SH-400-3/8	3/8"	.375"	.500"	.383"	.015"
SH-400-7/16	7/16"	.437"	.580"	.448"	.020"
SH-400-1/2	1/2"	.500"	.666"	.510"	.020"
SH-400-5/8	5/8"	.625"	.830"	.637"	.025"
SH-400-3/4	3/4"	.750"	1.000"	.764"	.030"
SH-400-7/8	7/8"	.875"	1.170"	.891"	.035"
SH-400-1	1"	1.000"	1.330"	1.020"	.035"

STANDARD PACKAGE: 100 Ft. * DUPONT

Daburn No. HG2 — Heat Gun for **SH-275** and **SH-270** Series.

DAFLON SHRINK SERIES SH-621

TFE TUBING MIL-I-23053 (WEP) Class 2

DAFLON No.	Nominal Tubing Size	Minimum Expanded ID	Recovered Dimensions Maximum ID (1)	Recovered Dimensions Wall Thickness (2)
SH-621-26	26	.046"	.022"	.009"
SH-621-24	24*	.050"	.027"	.010"
SH-621-22	22*	.055"	.032"	.010"
SH-621-20	20*	.060"	.039"	.012"
SH-621-19	19	.065"	.043"	.012"
SH-621-18	18*	.076"	.049"	.012"
SH-621-17	17	.085"	.054"	.012"
SH-621-16	16*	.093"	.061"	.012"
SH-621-15	15	.110"	.067"	.012"
SH-621-14	14*	.120"	.072"	.012"
SH-621-13	13	.140"	.080"	.012"
SH-621-12	12*	.150"	.089"	.012"
SH-621-11	11	.170"	.101"	.012"
SH-621-10	10*	.191"	.112"	.012"
SH-621-9	9	.205"	.124"	.015"
SH-621-8	8*	.240"	.141"	.015"
SH-621-7	7	.270"	.158"	.015"
SH-621-6	6*	.302"	.178"	.015"
SH-621-5	5	.320"	.198"	.015"
SH-621-4	4*	.348"	.224"	.015"
SH-621-3	3	.360"	.249"	.015"
SH-621-2	2*	.375"	.278"	.015"
SH-621-1	1	.385"	.311"	.015"
SH-621-0	0*	.400"	.347"	.015"
SH-621-3/8	3/8"*	.560"	.399"	.020"
SH-621-7/16	7/16"*	.655"	.462"	.020"
SH-621-1/2	1/2"*	.750"	.524"	.020"

STANDARD PACKAGE: 100 Feet.
STANDARD PUT-UP: 36" Straight Lengths — One Foot Minimums.
WALL TOLERANCES: 26 thru 22 ± .002; 20 thru 10 ± .003; 9 thru 0 ± .004.
(1) Tubing made to Military Standards for American Wire Gages will return within the tolerances for that gage number.
(2) Nominal wall thickness after heating. Expanded wall thickness will be 20% to 30% less.
(*) Stock Sizes.

Daburn No. HG3 — Heat Gun for **SH-400** and **SH-621** Series.

Net

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DABURN

DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

TUBULAR BRAID PER MIL SPEC QQ-B-575

Tinned copper shielded braid mf'd completely round per Mil Spec QQ-B-575. Maintains its round configuration. Shielding coverage is 95% or more. Used in military applications where maximum shielding is required against electrostatic interference. Useful against mechanical abrasion and stresses for cables — as grounding cable.

DABURN No.	Nom. Inside Diam. When Rounded	Construction Total No. of Wires	Carriers	AWG of Indiv. Wires	Approx. AWG Equiv.	Nom. Circular Mils	*Current Carrying Cap.
2350-1/32	1/32"	24	24	#36	#22	640	7.0 amps.
2350-1/16	1/16"	48	24	#36	#19	1,290	11.0 amps.
2350-5/64	5/64"	72	24	#36	#17	1,900	18.0 amps.
2350-7/64	7/64"	96	24	#36	#16	2,500	22.0 amps.
2350-1/8	1/8"	120	24	#36	#15	3,260	28.0 amps.
2350-5/32	5/32"	240	24	#36	#12	6,200	39.0 amps.
2350-11/64	11/64"	168	24	#36	#14	4,500	32.0 amps.
2350-3/16	3/16"	192	24	#36	#13	5,100	35.0 amps.
2350-13/64	13/64"	312	24	#36	#11	8,200	46.0 amps.
2350-1/4	1/4"	384	24	#36	#10	10,400	53.0 amps.
2350-9/32	9/32"	120	24	#30	# 9	12,060	60.0 amps.
2350-3/8	3/8"	384	48	#36	#10	10,400	53.0 amps.
2350-7/16	7/16"	240	24	#30	# 6	24,120	90.0 amps.
2350-1/2	1/2"	528	48	#36	# 9	13,200	70.0 amps.
2350-9/16	9/16"	528	48	#36	# 9	13,200	70.0 amps.
2350-11/16	11/16"	720	48	#36	# 7	19,000	82.0 amps.
2350-25/32	25/32"	864	48	#36	# 7	21,750	85.0 amps.
2350-13/16	13/16"	864	48	#36	# 7	21,750	85.0 amps.
2350-7/8	7/8"	336	48	#30	# 5	33,700	100.0 amps.
2350-1	1"	384	48	#30	# 4	38,600	120.0 amps.
2350-1 1/8	1 1/8"	432	48	#30	# 4	43,330	130.0 amps.
2350-1 1/4	1 1/4"	480	48	#30	# 3	48,150	145.0 amps.
2350-1 3/8	1 3/8"	528	48	#30	# 3	53,000	150.0 amps.
2350-1 1/2	1 1/2"	576	48	#30	# 2	57,775	165.0 amps.

STANDARD SPOOL PUT-UP: 50 Ft., 100 Ft., 250 Ft.
Larger Spools Available — Advise.

*Values based on copper in free air at 65°F.
Additional constructions and variations made to order. Also available in silver plated copper, bare copper and stainless steel.

BARE COPPER WIRE (Soft Drawn)

QQ—W—341A SPECIFICATIONS SOLID

DABURN No.	Size AWG	Area Circular Mils	O.D.
2375/8	8	16,510	.1285"
2375/10	10	10,380	.102"
2375/12	12	6,530	.081"
2375/14	14	4,107	.064"
2375/16	16	2,583	.051"

STANDARD PUT-UP: 100 Ft., 1000 Ft.

SOLID FORMVAR COPPER WIRE

DABURN No.	Size AWG	O.D.
2380/10	10	.103"
2380/12	12	.083"
2380/14	14	.066"

STANDARD PUT-UP: 100 Ft., 150 Ft., 200 Ft., 1000 Ft.

TINNED COPPER WIRE

Pure Electrolytic, Copper, annealed, tinned for quick soldering—Solid Soft Drawn
MIL—W—3861 Type S, ASTM—B—33 Specifications, QQ—W—343 Type S

DABURN No.	Size AWG	Area Circ. Mils	O.D.	DABURN No.	Size AWG	Area Circ. Mils	O.D.
2360/4	4	41,704	.204"	2360/18	18	1,624	.040"
2360/6	6	26,250	.162"	2360/20	20	1,022	.033"
2360/8	8	16,510	.129"	*2360/22	22	624.4	.025"
2360/10	10	10,380	.103"	*2360/24	24	404.0	.020"
2360/12	12	6,530	.082"	*2360/26	26	254.1	.016"
2360/14	14	4,107	.065"	*2360/28	28	159.8	.013"
2360/16	16	2,583	.051"	*2360/30	30	100.5	.010"

STANDARD PUT-UP: 100 Ft., 1000 Ft. See Magnet Wire Section For Additional Sizes

JUMPER CABLE

Pure Electrolytic, Copper, annealed, tinned for quick soldering
MIL—W—3861 Type B, ASTM—B—33 Specifications

DABURN No.	Class Descr.	Size AWG	Strand	O.D.	DABURN No.	Class Descr.	Size AWG	Strand	O.D.
2384/22	K	22	7/30	.030"	2384/16	K	16	26/30	.059"
2384/20	K	20	10/30	.037"	2384/14	K	14	41/30	.073"
2384/18	K	18	16/30	.045"	2384/12	K	12	65/30	.091"

STANDARD PUT-UP: 1000 Ft.

BUS BAR WIRE (Hard Drawn)

QQ—W—343 Type S

For hooking up all types of transmitters, especially ultra short wave equipment. All bus wire is made of hard drawn copper, tinned, straightened, and cut in 2 ft. lengths.

MIL—W—3861 Types S, ASTM—B—33, ASTM—B—246—51 Specifications

DABURN No.	Nom. Circ. Mil Area	Size	Nom. O.D.
2362/10	10,380	10	.103"
2362/12	6,530	12	.082"
2362/14	4,107	14	.065"
2362/16	2,583	16	.051"
2362/18	1,642	18	.040"
2362/20	1,022	20	.033"
2362/22	624	22	.025"

STANDARD PUT-UP: 100 Per Package in two foot lengths.

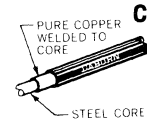
SILICON BRONZE AERIAL WIRE

Especially designed for ships, airports, short wave and transmitting antennas where high tensile strength and resistance to the elements are important.

DABURN No.	Size AWG	Strand	Breaking Strength	O.D.
2364/4	4	7/12	3670 lbs.	.240"
2364/6	6	7/14	2140 lbs.	.190"
2364/8	8	7/16	1600 lbs.	.150"
2364/10	10	7/18	1000 lbs.	.122"
2364/12	12	7/20	650 lbs.	.100"
2364/14	14	7/22	420 lbs.	.075"

STANDARD PUT-UP: 100 Ft., 500 Ft., 1000 Ft.
2364/10 and **2364/6** meets MIL-W-13074, **2364/12** meets MIL-W-13276 Specs.

COPPERWELD ANTENNA WIRE



Used where high tensile strength is required as for short wave and transmitting aerials. Has low R.F. resistance and is ideal for transmitting doublet and directional antennas. Will maintain frequency characteristics because of its stretchless qualities. 40% conductivity.

DABURN No.	Size AWG	Tensile Strength	O.D.
2382/10	10	1130 lbs.	.103"
2382/12	12	720 lbs.	.082"
2382/14	14	400 lbs.	.065"

STANDARD PUT-UP: 100 Ft., 250 Ft., 500 Ft., 1000 Ft., 2500 Ft.

STRANDED BARE COPPER WIRE

DABURN No.	Size AWG	Strand	O.D.
2366/12	12	7/20	.100"
2366/14	14	7/22	.075"
2366/16	16	7/24	.060"
2366/18	18	7/26	.050"
2366/19	19	7/27	.041"

PUT-UP: 100 Ft., 1000 Ft. Spool.

TINNED COPPER SHIELDING

Soft annealed tinned copper woven braid, rolled flat at time of manufacture. It is extremely flexible. Used as battery grounding, bonding strap for aircraft, vehicles, marine equipment. Eliminates ignition interference and moving parts Slides over wire and cables.

DABURN No.	Size of Wires	Indiv. Wires AWG	Flattened I.D.	Flattened O.D.
2355-1/32	12 x 2	36	1/32"	3/64"
2355-3/64	12 x 2	36	3/64"	1/16"
2355-1/16	16 x 3	36	1/16"	5/64"
2355-1/8	24 x 5	36	1/8"	5/32"
2355-3/16	24 x 5	36	3/16"	7/32"
2355-1/4	24 x 7	36	1/4"	9/32"
2355-3/8	48 x 4	36	3/8"	15/32"
2355-1/2	48 x 7	36	1/2"	19/32"
2355-5/8	48 x 8	36	5/8"	23/32"
2355-3/4	48 x 11	36	3/4"	13/16"
2355-25/32	48 x 19	36	25/32"	27/32"
2355-1	48 x 19	36	1"	1 1/16"
2355-1 3/8	48 x 19	36	1 3/8"	1 7/16"
2355-1 1/2	48 x 19	36	1 1/2"	1 9/16"
2355-1 3/4	48 x 27	30	1 3/4"	1 7/8"
2355-2	48 x 32	30	2"	2 1/4"
2355-2 1/4	48 x 35	30	2 1/4"	2 1/2"
2355-2 1/2	48 x 45	30	2 1/2"	2 3/4"
2355-3	48 x 64	30	3"	3 1/4"

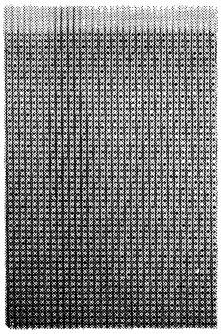
STANDARD SPOOL PUT-UP: 50 Ft., 100 Ft., 500 Ft., 1000 Ft.

DABURN

DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

NOW BUILD YOUR OWN PRINTED CIRCUIT with versatile Vero board*



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FOR THE LAB, TECHNICIAN,
EXPERIMENTER, RESEARCHER, DESIGNER

NOW make your own printed circuit board faster—cheaper with the versatile Daburn-Veroboard. There is no time lost. As easy as 1-2-3, you have a finished printed circuit. Components are easily inserted and soldered. Components can be added or removed — circuits modified or changed easily and quickly by using the Daburn-Veroboard, the spot face cutter and component jig.

Available from stock in two sizes. Boards can be cut easily by scoring to conform to your exact requirement.

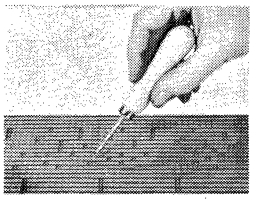
DABURN-VEROBOARD NO.	NO.	SIZE OR TYPE	RESALE NET EA.
15-01		RE 1 BOARD 4.8″ x 18″	7.95
15-02		RE 2 BOARD 4.8″ x 5.8″	2.95
		ACCESSORIES	
15-11		DESIGN SHEETS	.75
15-12		SPOT FACE CUTTERS	1.95
15-13		COMPONENT JIG	1.75
15-14		NUMERICAL TAPE (1 TO 30) 36 YDS.	1.95
15-14A		NUMERICAL TAPE (1 TO 90) 36 YDS.	1.95
15-15		ALPHABETICAL TAPE 36 YDS.	1.95

STANDARD PKG. 6
IN STOCK FOR IMMEDIATE SHIPMENT

ALL YOU NEED IS—

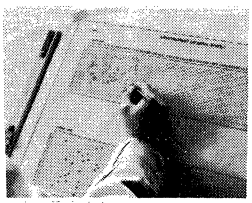
• VEROBOARD

Available 4.8″ x 18″ and 4.8″ x 5.8″



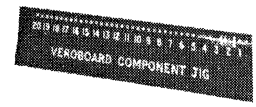
• SPOT-FACE CUTTER—

To break copperstrips and form a circuit.



• DESIGN SHEET—

Printed replica of the VEROBOARD for layout.



• VERO COMPONENT JIG—

Accurately forms component leads to fit VEROBOARD.

4.8 x 18 full inches — cut off the size you need. Good for 5 or more circuit boards.

Used by design engineers in 18 countries VEROBOARD gives you a finished printed circuit — not just a breadboard.

No expensive terminals and tools required — just insert components and solder.

Add or remove components — modify or change your circuits — FREELY!

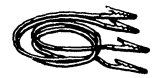
Over 4000 holes and continuous parallel strips form the logical printed wiring board for all applications.

Ideal for any circuit-amplifiers, intercoms, IF, RF, transceiver, diode cards, experimental or transistor radio.

*Patented

TEST LEADS

ALLIGATOR CLIP TEST LEADS



Black and red kinkless test lead wire with steel cadmium plated clips at each end.

DABURN No.	Wire Length	Pkg. Std.
17-275	12″	12
17-276	24″	12
17-277	36″	12
17-278	48″	12

TEST LEADS

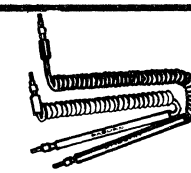
INSULATED ALLIGATOR CLIPS

lack and red kinkless test lead wire with steel, cadmium plated clips; nyl plastic boot.

DABURN No.	Wire Length	Pkg. Std.
17-280	12″	12
17-281	24″	12
17-282	36″	12
17-283	48″	12

TEST LEADS

RETRACTILE KINKLESS WIRE

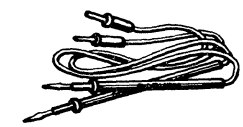


Black and red wire.

DABURN No.	Description	Std. Pkg.
17-364	Solderless Phone Tip, Retractile Wire, Solderless Prod	10

TEST LEADS

NEEDLEPOINT AND SOLDERLESS



Black and red kinkless test lead wire, handles as specified.

DABURN No.	Description	Std. Pkg.
17-308	Pencil Type Bakelite, 6″ Handles	10
17-360	Deluxe Solderless Prod, 5″ Handles	25
17-361	Deluxe Needlepoint Prod, 5″ Handles	25
17-320	Needlepoint Prods, 4″ Handles	25
17-322	Solderless Prods, 4″ Handles	25

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DABURN

DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

TYPE E — 600 VOLTS

SPEC. MIL-W-16878D

High Temperature Rating —90°C to +250°C

Single conductor, stranded silver plated copper, .010" TFE Teflon® insulation. Acid, alkalis, oil, flame, moisture, fungus, solvent resistant.

DABURN Extruded Cat. No.	DABURN Wrapped Cat. No.	Size MIL Type Designation	Strand	Max. Diam. Over Insul.
2401	—	E-32	7/40	.033"
2402	—	E-30	7/38	.036"
2403	2415/28	E-28	7/36	.039"
2404	2415/26	E-26	7/34	.043"
2405	2415/24	E-24	19/36	.048"
2406	2415/22	E-22	19/34	.054"
2407	2415/20	E-20	19/32	.062"
2408	2515/18	E-18	19/30	.074"
2409	—	E-16	19/29	.087"
2409/14	—	E-14	19/27	.097"
2409/12	—	E-12	19/25	.120"
2409/10	—	E-10	37/26	.139"

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray, White. Additional special custom constructions available to order. Wrapped extruded with or without shielding, glass braid, silicone and in miniature multi-conductors. Price and delivery on request.

TEFLON* WIRE

MIL-W-16878D — TYPE EE

Extruded (1000 Volts) MIL-W-16878D

DESCRIPTION: Single conductor silver plated copper wire concentrically stranded and insulated with .016 TFE extruded TEFLON* insulation.

TEMPERATURE RATING: —90°C to +260°C, 1000 volts.

DABURN Cat. No.	Mil Type Designation	Size AWG	Strand	Nom. O.D.
2428/24	EE-24	24	19/36	.055"
2428/22	EE-22	22	19/34	.062"
2428/20	EE-20	20	19/32	.070"
2428/18	EE-18	18	19/30	.080"
2428/16	EE-16	16	19/29	.089"
2428/14	EE-14	14	19/27	.106"
2428/12	EE-12	12	19/25	.124"
2428/10	EE-10	10	37/26	.145"
2428/8	EE-8	8	133/29	.210"

STANDARD SPOOL PUT-UP: 250 Ft., 500 Ft., 1000 Ft.

STOCK COLORS: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow, 6—Blue, 7—Brown, 8—Orange, 9—Gray (Slate), 10—Violet (Purple). *TEFLON—Dupont

MIL-W-7139B

CLASS 1: 600V Silver Coated Copper Conductor for +200°C Operation.
CLASS 2: 600V nickel Coated Copper Conductor for +260°C Operation.

DABURN Cat. No. Class 1	DABURN Cat. No. Class 2	Size AWG	Strand	Nom. O.D.
2426-22	2425-22	22	19/34	.085"
2426-20	2425-20	20	19/32	.095"
2426-18	2425-18	18	19/30	.110"
2426-16	2425-16	16	19/29	.130"
2426-14	2425-14	14	19/27	.143"
2426-12	2425-12	12	19/25	.163"

STANDARD SPOOL PUT-UPS: 500 Ft., 1000 Ft.

STANDARD COLOR: Class: 1 — White/Blue Tracer; Class 2 — White/Orange Tracer. ADDITIONAL SIZES AVAILABLE.

SUBMINIATURE TEFLON* HOOK-UP WIRE

PER MIL-W-16878D — TYPE ET — 250 VOLTS, 200°C

Thin miniature hook-up wire is suitable in miniature slip ring assemblies, as interconnecting wire between wafers in microminiature electronic circuitry, instrument wire, medical wire, subminiature thermo-couple lead wire, strain gauge wire, etc. Provides lighter weight, greater flexibility and hi temperature resistance. Size Nos. 32 thru 20 conform to MIL-W-16878D type ET 250 volts, 200°C. Silver plated copper conductor.

DABURN Cat. No.	Mil Type	AWG Size	Strand	Nom. O.D.
2427/36	—	36	7/44	.018"
2427/34	—	34	7/42	.020"
2427/32	ET-32	32	7/40	.021"
2427/30	ET-30	30	7/38	.024"
2427/28	ET-28	28	7/36	.027"
2427/26	ET-26	26	7/34	.031"
2427/24	ET-24	24	7/32	.036"
2427/22	ET-22	22	7/30	.042"
2427/20	ET-20	20	7/28	.049"

STANDARD SPOOL PUT-UPS: 500 Ft., 1000 Ft.

TEFLON* CABLES — Shielded and Unshielded

TO MIL-W-16878D

DESCRIPTION: One or more conductors, each conductor silver plated concentrically stranded copper wire, Type E Extruded TFE .010" insulation. When shielded, braided silver plated copper shield over conductor(s), 90% shield coverage. When covered, either a TEFLON* impregnated fiberglass braid or a .010" TEFLON* fused, double reversed tape jacket overall. Fungus, solvent, moisture, flame, acid, alkali and oil resistant Multiconductors are twisted.

TEMPERATURE RATING: —65°C to +260°C. **VOLTAGE RATING:** 600 Volts

TEFLON* IMPREGNATED BRAID OVER SHIELD

Daburn No.	Conds.	AWG Size	Strand	Nom. O.D.	Daburn No.	Conds.	AWG Size	Strand	Nom. O.D.
2445	1	24	19/36	.081"	2447	1	20	19/32	.093"
2445/2	2	24	19/36	.126"	2447/2	2	20	19/32	.154"
2445/3	3	24	19/36	.133"	2447/3	3	20	19/32	.163"
2445/4	4	24	19/36	.144"	2447/4	4	20	19/32	.180"
2445/5	5	24	19/36	.156"	2447/5	5	20	19/32	.195"
2446	1	22	19/34	.088"	2448	1	18	19/30	.097"
2446/2	2	22	19/34	.137"	2448/2	2	18	19/30	.162"
2446/3	3	22	19/34	.144"	2448/3	3	18	19/30	.172"
2446/4	4	22	19/34	.158"	2448/4	4	18	19/30	.192"
2446/5	5	22	19/34	.172"	2448/5	5	18	19/30	.207"

STANDARD SPOOL PUT-UPS: 250 Ft., 500 Ft., 1000 Ft.
CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow.

TEFLON* TAPE WRAP JACKET OVER SHIELD

Daburn No.	Conds.	AWG Size	Strand	Nom. O.D.	Daburn No.	Conds.	AWG Size	Strand	Nom. O.D.
2455	1	24	19/36	.084"	2457	1	20	19/32	.099"
2455/2	2	24	19/36	.128"	2457/2	2	20	19/32	.158"
2455/3	3	24	19/36	.135"	2457/3	3	20	19/32	.167"
2455/4	4	24	19/36	.148"	2457/4	4	20	19/32	.184"
2455/5	5	24	19/36	.162"	2457/5	5	20	19/32	.204"
2456	1	22	19/34	.090"	2458	1	18	19/30	.109"
2456/2	2	22	19/34	.140"	2458/2	2	18	19/30	.178"
2456/3	3	22	19/34	.148"	2458/3	3	18	19/30	.189"
2456/4	4	22	19/34	.162"	2458/4	4	18	19/30	.208"
2456/5	5	22	19/34	.183"	2458/5	5	18	19/30	.230"

STANDARD SPOOL PUT-UPS: 250 Ft., 500 Ft., 1000 Ft.
CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow.

SHIELDED BRAID OVERALL

Daburn Cat. No.	Conds.	AWG Size	Strand	Nom. O.D.	Daburn Cat. No.	Conds.	AWG Size	Strand	Nom. O.D.
2435	1	24	19/36	.068"	2437	1	20	19/32	.082"
2435/2	2	24	19/36	.112"	2437/2	2	20	19/32	.142"
2435/3	3	24	19/36	.120"	2437/3	3	20	19/32	.151"
2435/4	4	24	19/36	.132"	2437/4	4	20	19/32	.168"
2435/5	5	24	19/36	.140"	2437/5	5	20	19/32	.180"
2436	1	22	19/34	.075"	2438	1	18	19/30	.093"
2436/2	2	22	19/34	.124"	2438/2	2	18	19/30	.162"
2436/3	3	22	19/34	.132"	2438/3	3	18	19/30	.172"
2436/4	4	22	19/34	.146"	2438/4	4	18	19/30	.191"
2436/5	5	22	19/34	.154"	2438/5	5	18	19/30	.210"

STANDARD SPOOL PUT-UPS: 250 Ft., 500 Ft., 1000 Ft.
CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow.

NO SHIELD—TEFLON* IMPREGNATED FIBERGLASS

DABURN Cat. No.	Conds.	AWG Size	Strand	Nom. O.D.
2465	1	24	19/36	.044"
2465/2	2	24	19/36	.088"
2465/3	3	24	19/36	.096"
2465/4	4	24	19/36	.108"
2465/5	5	24	19/36	.116"
2466	1	22	19/34	.051"
2466/2	2	22	19/34	.100"
2466/3	3	22	19/34	.108"
2466/4	4	22	19/34	.122"
2466/5	5	22	19/34	.131"
2467	1	20	19/32	.058"
2467/2	2	20	19/32	.118"
2467/3	3	20	19/32	.127"
2467/4	4	20	19/32	.144"
2467/5	5	20	19/32	.156"
2468	1	18	19/30	.069"
2468/2	2	18	19/30	.138"
2468/3	3	18	19/30	.148"
2468/4	4	18	19/30	.167"
2468/5	5	18	19/30	.186"

STANDARD SPOOL PUT-UPS: 250 Ft., 500 Ft., 1000 Ft.
CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow.

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DABURN

DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

PLASTIC HOOK-UP WIRE

TYPE B — HIGH TEMPERATURE VINYL
SPECIFICATION MIL-W-16878D
600 VOLT

DESCRIPTION: One conductor stranded tinned copper with rated −55°C to +105°C high temperature thermoplastic light wall insulation.

DABURN Cat. No.	Mil-W-16878D Type Designation	Size AWG	Conductor Strand	Nom. O.D.
2500/32	B-32	32	7/40	.028″
2500/30	B-30	30	7/38	.030″
2500/28	B-28	28	7/36	.033″
2500/26	B-26	26	7/34	.037″
2500/24	B-24	24	7/32	.043″
2500/22	B-22	22	7/30	.048″
2500/20	B-20	20	7/28	.057″
2500/18	B-18	18	7/26	.067″
2500/16	B-16	16	19/29	.077″
2500/14	B-14	14	19/27	.091″

STD. PUT-UP: 100′-1000′.

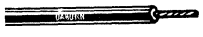
TYPE B — NYLON JACKET
NYLON JACKET THICKNESS: 32-20 .002, 18-16 .003

2510/32	B-32	32	7/40	.032″
2510/30	B-30	30	7/38	.036″
2510/28	B-28	28	7/36	.039″
2510/26	B-26	26	7/34	.042″
2510/24	B-24	24	7/32	.047″
2510/22	B-22	22	7/30	.053″
2510/20	B-20	20	7/28	.065″
2510/18	B-18	18	7/26	.075″
2510/16	B-16	16	19/29	.085″
2510/14	B-14	14	19/27	.099″

STD. PUT-UP: 1000 Ft.
STOCK COLORS: Black, Red, Brown, Blue, Orange, White Yellow, Green Gray, Purple.

White/Black	White/Yellow	White/Orange
White/Red	White/Blue	White/Gray
White/Green	White/Brown	White/Violet

TYPE C — HIGH TEMPERATURE — VINYL JACKET
SPECIFICATION MIL-W-16878D
1000 VOLT



DESCRIPTION: One conductor similar to Type B—heavier wall hi-temp thermoplastic insulation Nom. wall .016″.

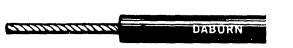
DABURN Cat. No.	Mil-W-16878D Type Designation	Size AWG	Minimum Strand	Nom. O.D.
2515/24	C-24	24	7/32	.058″
2516	C-24	24	16/36	.059″
2515/22	C-22	22	7/30	.064″
2515/20	C-20	20	7/28	.079″
2515/18	C-18	18	7/26	.090″
2515/16	C-16	16	19/29	.099″
2515/14	C-14	14	19/27	.114″
2515/12	C-12	12	19/25	.135″

TYPE C — NYLON JACKET
NYLON JACKET THICKNESS: 24 .002, 22-18 .003, 16-14 .004

2520/24	C-24	24	7/32	.065″
2520/22	C-22	22	7/30	.064″
2520/20	C-20	20	7/28	.079″
2520/18	C-18	18	7/26	.090″
2520/16	C-16	16	19/29	.099″
2520/14	C-14	14	19/27	.114″
2520/12	C-12	12	19/25	.135″

STOCK COLORS: Black, Red, Brown, Blue, Orange, White, Yellow, Green, Gray, Purple. Also available in tracer colors. Additional types available to order.
STD. PUT-UP: 100 Ft.-1000 Ft.

TYPE D — HIGH TEMPERATURE — VINYL — 3000 VOLTS
SPECIFICATION MIL-W-16878D



DESCRIPTION: One conductor stranded similar to Type C—heavier wall hi-temp thermoplastic insulation. Nom. wall 24 thru 14 .032, 12 thru 6 .040.

DABURN Cat. No.	Mil-W-16878D Type Designation	Size AWG	Conductor Strand	Nom. O.D.
2525/24	D-24	24	7/32	.084″
2525/22	D-22	22	7/30	.089″
2525/20	D-20	20	10/30	.097″
2525/18	D-18	18	16/30	.107″
2525/16	D-16	16	26/30	.116″
2525/14	D-14	14	41/30	.130″
2525/12	D-12	12	65/30	.163″
2525/10	D-10	10	105/30	.182″
2525/8	D- 8	8	133/29	.247″
2525/6	D- 6	6	133/27	.291″

MIL-W-16878B Type D Available with Nylon Jacket.
STD. PUT-UP: 100 Ft.,-1000 Ft.

ALL WIRES ON THIS PAGE CAN BE ORDERED CUT AND STRIPPED TO YOUR SPECIFICATIONS.

PLASTIC HOOK-UP WIRE (Medium Wall)

1000 VOLTS (Fungus Proof)
SPEC. MIL-W-76B

1000 VOLT
TEMP. RATING: −40°C to +80°C.

STRANDED

DABURN Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. Wall	Nom. O.D.
2555/24	1000′	24	MW-C 24(7)U	7/32	.015″	.059″
2556	1000′	24	MW-C 24(16)U	16/36	.015″	.059″
†*2555/22	1000′	22	MW-C 22(7)U	7/30	.017″	.065″
†*2555/20	1000′	20	MW-C 20(10)U	10/30	.017″	.074″
†*2555/18	1000′	18	MW-C18(16)U	16/30	.017″	.085″
2555/16	1000′	16	MW-C 16(26)U	26/30	.017″	.096″
2555/14	1000′	14	MW-C 14(41)U	41/30	.017″	.110″
2555/12	1000′	12	MW-C 12(65)U	65/30	.017″	.130″

SOLID

2560/22	1000′	22	MW-C 22(1)U	1	.017″	.060″
2560/20	1000′	20	MW-C 20(1)U	1	.017″	.066″
2560/18	1000′	18	MW-C 18(1)U	1	.017″	.074″

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.
STOCK COLORS: White, Yellow, Lt. Blue, Black, Violet (purple), Blue, Brown, Lt. Green, Pink, Red, Green, Tan, Orange, Gray (slate).
***SINGLE SPIRAL TRACER COLORS AVAILABLE:** White/Black, White/Brown White/Red, White/Orange, White/Yellow, White/Green, White/Blue, White/Purple, White/Gray.
†**DOUBLE SPIRAL TRACER COLORS AVAILABLE:** White/Black/Red, White/Black/Green, White/Black/Yellow, White/Black/Blue, White/Black/Brown, White/Black/Orange, White/Black/Gray, White/Black/Purple.
Additional spiral tracer combination available, to order, for all numbers

1000 VOLT — NYLON JACKET (Medium Wall)
SPEC. MIL-W-76B TYPE MW
(Fungus Proof)

DESCRIPTION: One conductor stranded tinned copper with thermoplastic insulation and extruded nylon jacket overall.

TEMPERATURE RATING: −40°C to +90°C.

DABURN Cat. No.	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. Wall	Nom. O.D.
2565/24	24	MW-C 24(16)J	16/36	.015″	.068″
2565/22	22	MW-C 22(7)J	7/30	.017″	.075″
2565/20	20	MW-C 20(10)J	10/30	.017″	.087″
2565/18	18	MW-C 18(16)J	16/30	.017″	.100″
2565/16	16	MW-C 16(26)J	26/30	.017″	.122″
2565/14	14	MW-C 14(41)J	41/30	.017″	.122″
2565/12	12	MW-C 12(65)J	65/30	.017″	.140″
2565/10	10	MW-C 10(105)J	105/30	.045″	.240″

STD. PUT-UP: 100 Ft.-1000Ft.
NYLON JACKET THICKNESS: #24 .002; 22, 20, 18 .003; 16, 14 .004; 12 .005; 10 .007.
STOCK COLORS: White, Orange, Purple, Black, Yellow, Gray, Brown, Green, Red, Blue. White/Black, White/Brown, White/Red, White/Orange, White/Yellow, White/Green, White/Blue, White/Purple, White/Gray, White/Black/Red, White/Black/Yellow, White/Black/Blue, White/Black/Green, White/Black/Orange, White/Black/Brown, White/Black/Gray.
Nos. 2565/12 and /10 available solid colors only.

1000 VOLTS GLASS BRAID (Medium Wall) TYPE MW
SPEC. MIL-W-76B

DESCRIPTION: One conductor stranded tinned copper with thermoplastic insulation and lacquered glass braid overall.
TEMPERATURE RATING: −40°C to +80°C. **NOM. WALL:** .017″

DABURN Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. O.D.
2570/22	100′-1000′	22	MW-C 22(7)B	7/30	.079″
2570/20	100′-1000′	20	MW-C 20(10)B	10/30	.084″
2570/18	100′-1000′	18	MW-C 18(16)B	16/30	.100″
2570/16	100′-1000′	16	MW-C 16(26)B	26/30	.116″
*2570/14	100′-1000′	14	MW-C 14(41)B	41/30	.129″
*2570/12	100′-1000′	12	MW-C 12(65)B	65/30	.149″

STOCK COLORS: White, Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray, White/Brown, White/Black, White/Orange, White/Yellow, White/Green, White/Blue, White/Red, White/Gray, White/Purple, White/Black/Red, White/Black/Yellow, White/Black/Blue, White/Black/Green, White/Black/Orange, White/Black/Brown, White/Black/Gray. *Nos. 2570/14 and /12, available stock in solid colors.

GLASS BRAID — TYPE HW (Heavy Wall)

TEMPERATURE RATING: −40°C to +80°C. **NOM WALL:** .045″.

DABURN Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. O.D.
2575/10	100′-1000′	10	HW-C 10(105)B	105/30	.237″
2575/8	100′-1000′	8	HW-C 8(133)B	133/29	.293″
2575/6	100′-1000′	6	HW-C 6(133)B	133/27	.340″

STOCK COLORS: White, Black. Also multi-conductors can be formed to order twisted, shielded with or without plastic jacket overall.

Net

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2500 VOLTS (Fungus Proof) — TYPE HW (Heavy Wall)

SPEC. MIL-W-76B

600 VOLTS SIZES — 14 through 6 —.(Supersedes Jan-C-76 Type SRHV) — TEMP. RATING —40°C to 80°C.
NOM. WALL SIZE: — 22 through 16 .033: Size 14 through 6 .045

DESCRIPTION: Similar to type MW. One conductor stranded tinned copper with larger walls of primary thermoplastic insulation to take 2500 V RMS.

DABURN No.	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. O.D.
2580/22	22	HW-C 22(7)U	7/30	.105″
2580/20	20	HW-C 20(10)U	10/30	.112″
2580/18	18	HW-C 18(16)U	16/30	.122″
2580/16	16	HW-C 16(26)U	26/30	.135″
2580/14	14	HW-C 14(41)U	41/30	.175″

DABURN No.	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. O.D.
2580/12	12	HW-C 12(65)U	65/30	.195″
2580/10	10	HW-C 10(105)U	105/30	.217″
2580/8	8	HW-C 8(133)U	133/29	.268″
2580/6	6	HW-C 6(133)U	133/27	.315″

STD. PUT-UP: 100-1000 Ft.

STOCK COLORS: White, Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray, Additional sizes, colors available to order.

300 VOLTS — TYPE LW (Light Wall)

SPEC. MIL-W-76B

DESCRIPTION: One conductor stranded tinned copper with light wall of primary thermoplastic insulation. Nom. Wall .010″.

TEMPERATURE RATING: —40°C to +80°C.

DABURN No.	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. O.D.
2585/30	30	LW-C 30(7)U	7/38	.033″
2585/28	28	LW-C 28(7)U	7/36	.035″
2585/26	26	LW-C 26(10)U	10/36	.040″
2585/24	24	LW-C 24(7)U	7/32	.044″
2585/22	22	LW-C 22(7)U	7/30	.050″
2585/20	20	LW-C 20(7)U	7/28	.060″

DABURN No.	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. O.D.
2590/30	30	LW-C 30(7)J	7/38	.036″
2590/28	28	LW-C 28(7)J	7/36	.039″
2590/26	26	LW-C 26(7)J	7/34	.042″
2590/24	24	LW-C 24(7)J	7/32	.047″
2590/20	20	LW-C 22(7)U	7/30	.053″
2590/22	22	LW-C 20(7)U	7/28	.065″

1000 VOLTS — TYPE C — SHIELDED

SPEC. MIL-W-16878D

DESCRIPTION: Stranded tinned copper, .061″ wall white polyvinylchloride insulation, braided tinned copper shield overall temp. rating —55°C to +105°C 1000 volts.

DABURN No.	Size AWG	Min. Strand	Nom. Wall	Nom. O.D.
2530/24	24	7/32	.016″	.075″
2530/22	22	7/30	.016″	.085″
2530/20	20	7/28	.016″	.095″
2530/18	18	7/26	.016″	.105″
2530/16	16	19/26	.016″	.115″

STD. PUT-UP: 1000 Ft.

1000 VOLTS — TYPE C

SHIELDED WITH VINYL JACKET — SPEC. MIL-W-16878D

DESCRIPTION: Stranded tinned copper, .016″ wall white with polyvinylchloride insulation braided tinned copper shield with polyvinylchloride jacket overall. Resistant to acids, oils, alkalies, flame, fungus, solvents, moisture. Temp. rating —55°C to +105°C.

DABURN No.	Size AWG	Min. Strand	Nom. Wall	Nom. O.D.
2535/24	24	7/32	.016″	.094″
2535/22	22	7/30	.016″	.104″
2535/20	20	7/28	.016″	.112″
2535/18	18	7/26	.016″	.120″
2535/16	16	19/29	.016″	.133″

STD. PUT-UP: 1000 Ft.

DABURN COAXIAL CABLES WITH HIGH TEMPERATURE TEFLON* CORE DIELECTRIC

MEETS MIL-C-17C

These Teflon* Core Dielectric Co-Axial Cables combine both miniaturization and hi-temperature qualities. The Teflon Jackets are weatherproof, resistant to fuels and are extremely flexible.

DABURN No.	Military Number RG/U Type	Ohms	Jkt. Mtl.	Cap. MMFT/Ft.	Dielectric Material	Inner Conductor	Shield	O.D. Inches	Max. Oper. Volts RMS	Nom. Atten. DB/100Ft. 400 Mc	RG/U Type
D187A/U	187A/U	75	Teflon	19.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.110	1200	16.0	187A/U
D188/U	188/U	50	TFE Teflon	29.0	Teflon	7/.0067 Silvered Copperweld	Silver Covered Copper	.110	1200	16.7	188/U
D188A/U	188A/U	50	TFE Teflon	29.0	Teflon	7/.0067 Silvered Copperweld	Silver Covered Copper	.110	1200	16.7	188A/U
D195/U	195/U	95	TFE Teflon	15.0	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.155	1500	11.0	195/U
D195A/U	195A/U	95	TFE Teflon	15.0	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.155	1500	11.0	195A/U
D196/U	196/U	50	TFE Teflon	28.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.080	1000	28.0	196/U
D196A/U	196A/U	50	TFE Teflon	28.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.080	1000	28.0	196A/U

STANDARD PUT-UP: 500 Ft., 1000 Ft. *TEFLON—DUPONT

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SHIELDED PLASTIC HOOK-UP WIRE

1000 VOLT — TYPE MW (Medium Wall) SHIELDED — SPEC. MIL-W-76B
TEMPERATURE RATING —40°C TO +80°C

DESCRIPTION: One conductor stranded tinned copper with thermoplastic insulation and tinned copper shielded braid overall.

DABURN Cat. No.	Size AWG	MIL-W-76B Type Designation	Strand	Nom. Wall	Nom. O.D.
2592/24	24	MW-C24(7)S	7/32	.015″	.074″
2593	24	MW-C24(16)S	16/36	.015″	.075″
2592/22	22	MW-C22(7)S	7/30	.017″	.084″
2592/20	20	MW-C20(10)S	10/30	.017″	.094″
2592/18	18	MW-C18(16)S	16/30	.017″	.106″
2592/16	16	MW-C16(26)S	26/30	.017″	.121″
2592/14	14	MW-C14(41)S	41/30	.017″	.137″
2592/12	12	MW-C12(65)S	65/30	.017″	.155″

STOCK COLORS: (Underneath Shield) Black, White, Red, Yellow, Brown, Green, Blue, Gray. Nos. 2592/14 and /12, available from stock in Black, White or Red.
STANDARD PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

Also multiconductors can be formed to order twisted shielded, with or without plastic Jacket overall.

SHIELDED PLASTIC HOOK-UP WIRE

TYPE MW — SHIELDED — NYLON JACKET
SPEC. MIL-W-76B

DESCRIPTION: One conductor stranded tinned copper, white medium wall polyvinyl chloride insulation, shielded tinned copper braid, minimum 80% coverage, clear nylon (polymide) jacket overall. Resistant to acids, alkalis, oil, flame, moisture, fungus.
TEMPERATURE RATING: —40°C to +90°C.

DABURN Cat. No.	Size AWG	MIL-W-76A Type Designation	Strand	Nom. Wall	Nom. O.D.
2595/24	24	MW-C24(16)SJ	16/36	.015″	.091″
2595/22	22	MW-C22(7)SJ	7/30	.017″	.100″
2595/20	20	MW-C20(10)SJ	10/30	.017″	.105″
2595/18	18	MW-C18(16)SJ	16/30	.017″	.115″
2595/16	16	MW-C16(26)SJ	26/30	.017″	.125″
2595/14	14	MW-C14(41)SJ	41/30	.017″	.138″
2595/12	12	MW-C12(65)SJ	65/30	.017″	.160″

Additional colors available to order.
STANDARD PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

TYPE MW — SHIELDED — VINYL JACKET
SPEC. MIL-W-76B

DESCRIPTION: One conductor stranded tinned copper, white medium wall polyvinyl chloride insulation, shielded tinned copper braid, minimum 80% coverage, black PVC (polyvinylchloride) jacket overall. Resistant to acids, alkalis, oil, flame, moisture, fungus.
TEMPERATURE RATING: —40°C to +90°C.

DABURN Cat. No.	Size AWG	MIL-W-76A Type Designation	Strand	Nom. Wall	Nom. O.D.
2597/24	24	MW-C24(16)SJ	16/36	.015″	.095″
2597/22	22	MW-C22(7)SJ	7/30	.017″	.105″
2597/20	20	MW-C20(10)SJ	10/30	.017″	.112″
2597/18	18	MW-C18(16)SJ	16/30	.017″	.120″
2597/16	16	MW-C16(26)SJ	26/30	.017″	.133″
2597/14	14	MW-C14(41)SJ	41/30	.017″	.148″
2597/12	12	MW-C12(65)SJ	65/30	.017″	.170″

Additional colors available to order.
STANDARD PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

AIRCRAFT PLASTIC HOOK-UP WIRE

SPECIFICATIONS MIL-W-5086A and MIL-C-7078A (105°C Rating) — **NYLON JACKET**

DESCRIPTION: Type 1 MIL-W-5086A — one conductor stranded tinned copper with plastic insulation nylon jacket overall. **Type 2 MIL-W-5086A** — one conductor stranded tinned copper, plastic insulation, nylon lacquered glass braid. Color: White.

MIL-W-5086A UNSHIELDED (Supersedes AN-J-C-48A)

DABURN Cat. No.	Mil. Type	Type	Cond. Strand.	Nom. O.D.
2601/22	AN-22	No. 1	19/34	.070″
2601/20	AN-20	No. 1	19/32	.080″
2601/18	AN-18	No. 1	19/30	.090″
2601/16	AN-16	No. 1	19/29	.125″
2601/14	AN-14	No. 1	19/27	.125″
2601/12	AN-12	No. 1	19/25	.140″
2602/22	AN-22	No. 2	19/34	.068″
2602/20	AN-20	No. 2	19/32	.078″
2602/18	AN-18	No. 2	19/30	.088″
2602/16	AN-16	No. 2	19/29	.098″
2602/14	AN-14	No. 2	19/27	.117″
2602/12	AN-12	No. 2	19/25	.137″
2602/10	AN-10	No. 2	49/27	.189″
2602/8	AN-8	No. 2	133/29	.240″
2602/6	AN-6	No. 2	133/27	.297″
2602/4	AN-4	No. 2	133/25	.355″
2602/2	AN-2	No. 2	665/30	.412″
2602/0	AN-0	No. 2	1045/30	.518″
2602/00	AN-00	No. 2	1330/30	.588″

STANDARD PUT-UP: 100 Ft., 1000 Ft.

MIL-C-7078A SHIELDED (Supersedes AN-C-168)

DESCRIPTION: One conductor stranded tinned copper with plastic insulation, nylon jacket with tinned copper shielded braid overall. Color: White under shield. Additional types to order.

DABURN Cat. No.	Size AWG	Mil. Type	Type	Cond. Strand.	Nom. O.D.
2605/22	22	AN-22	No. 1	19/34	.100″
2605/20	20	AN-20	No. 1	19/32	.110″
2605/18	18	AN-18	No. 1	19/30	.124″
2605/16	16	AN-16	No. 1	19/29	.139″
2605/14	14	AN-14	No. 1	19/27	.158″
2605/12	12	AN-12	No. 1	19/25	.177″

STANDARD PUT-UP: 100 Ft., 1000 Ft.

ALL WIRE ON THIS PAGE CAN BE CUT AND STRIPPED TO YOUR SPECIFICATION.

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DABURN ELECTRONICS & CABLE CORP.

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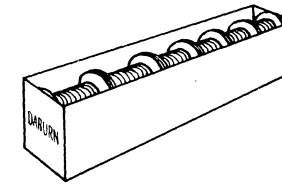
MINIATURIZATION HOOK-UP WIRE AND CABLE

UNSHIELDED — ONE CONDUCTOR 105°C

Used as lead computers, transistor circuits, instruments — where fine sizes are required with high temperature conditions. One conductor stranded tinned copper, 105°C vinyl resin overall.

DABURN No.	Conductor	Size	Strand	Nom. Wall	Nom. O.D.
2670/32	1	32	7/40	.010″	.029″
2670/30	1	30	7/38	.010″	.030″
2670/28	1	28	7/36	.010″	.035″
2670/26	1	26	10/36	.010″	.038″
2670/24	1	24	16/36	.015″	.055″

STD. PUT-UP: 500 Ft., 1000 Ft.
STOCK COLORS: Black, Red, Green, Yellow, Blue, Brown, White, Orange, Gray, Purple.



DESCRIPTION:
One conductor stranded tinned copper with 105°C. high temperature thermoplastic insulation overall.

MULTI CONDUCTOR CABLE

SUB-MINIATURE • NOT SHIELDED • FLEXIBLE

TINNED COPPER CONDUCTORS

Suggested Operating Temp.: −55°C to +105°C

TWISTED — NO OUTER JACKET

DABORN No.	Cond.	Size	Strand	Wall Nom.	O.D. Nom.
2672	2	30	7/38	.010″	.058″
2672/3	3	30	7/38	.010″	.064″
2672/4	4	30	7/38	.010″	.072″

CONDUCTOR COLOR CODE: 1—Black, 2—White, 3—Red, 4—Green.
STD. PUT-UP: 500 Ft., 1000 Ft.

TWISTED — CLEAR VINYL JACKET OVERALL

DABORN No.	Cond.	Size	Strand	Wall Nom.	O.D. Nom.
2674	2	28	7/36	.010″	.079″
2674/3	3	28	7/36	.010″	.086″
2674/4	4	28	7/36	.010″	.095″

CONDUCTOR COLOR CODE: 1—Black, 2—White, 3—Red, 4—Green.
STD. PUT-UP: 500 Ft., 1000 Ft.

SHIELDED HOOK-UP WIRE

SUB-MINIATURE • SUPER FLEXIBLE

One conductor stranded tinned copper, 105°C vinyl resin overall.

DABURN No.	Conductor	Size	Strand	Nom. Wall	Nom. O.D.
2682	1	30	7/38	.010″	.052″
2684	1	28	7/36	.010″	.057″
2686	1	26	10/36	.010″	.060″
2688	1	24	16/36	.010″	.073″

STOCK COLOR: White (Under Shield) **STD. PUT-UP:** 500 Ft., 1000 Ft.

DESCRIPTION:
One conductor stranded tinned copper with 105°C. high temperature thermoplastic insulation and tinned copper shielded braid overall.

SHIELDED MULTI-CONDUCTOR CABLE

SUB-MINIATURE • SUPER FLEXIBLE

TINNED COPPER CONDUCTORS

Suggested Operating Temp.: −55°C to +105°C

TWISTED — SHIELDED — NO OUTER JACKET

DABURN No.	Cond.	Size	Strand	Nom. Wall	Nom. O.D.
2676	2	24	16/36	.015″	.114″
2676/3	3	24	16/36	.015″	.123″
2676/4	4	24	16/36	.015″	.144″

CONDUCTOR COLOR CODE: 1—Black, 2—White, 3—Red, 4—Green.
STD. PUT-UP: 500 Ft., 1000 Ft.

TWISTED — SHIELDED — CLEAR VINYL JACKET OVERAL

DABURN No.	Cond.	Size	Strand	Wall Nom.	O.D. Nom.
2678	2	28	7/36	.010″	.137″
2678/3	3	28	7/36	.010″	.163″
2678/4	4	28	7/36	.010″	.163″

CONDUCTOR COLOR CODE: 1—Black, 2—White, 3—Red, 4—Green.
STD. PUT-UP: 500 Ft., 1000 Ft.

NOTE: Multi-conductors can be formed to order twisted, shielded with or without plastic jacket overall.

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600 VOLT — SILICONE RUBBER LEAD WIRE — 200°C

FLEXIBILITY FROM −104°C TO +400°F

Suitable for high-heat and hi-frequency applications. Resistant to acid, alkali, oil. Retains physical properties under extremes. Low power factor, low dielectric constant. Tinned copper, stranded, silicone rubber insulation, glass braid, lacquered. Color: White.

DESCRIPTION:

One conductor, tinned copper strands, silicone rubber insulation, glass braid, lacquered. Color:

DABURN No.	Size	Strand	Nom. Ins. Wall	Nom. O.D.
2625/22	22	7/30	1/32″	.105″
2625/20	20	10/30	1/32″	.121″
2625/18	18	16/30	1/32″	.128″
2625/16	16	26/30	1/32″	.144″
2625/14	14	41/30	1/32″	.165″
2625/12	12	65/30	1/32″	.185″
2625/10	10	65/28	3/64″	.240″
2625/8	8	84/27	1/16″	.320″

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

SEMI-RIGID BUSINESS MACHINE WIRE — U.L.

300 VOLT 80°C

Stranded tinned copper, color coded semi-rigid polyvinylchloride insulation. Has Temperature Rating of −10°C to +80°C, 300 volts in electronic computers or business machines only.

DESCRIPTION:

One Conductor stranded tinned copper, semi-rigid PVC.

DABURN No.	Size	Strand	Nom. Ins. Wall	Nom. O.D.
2660/24	24	7/32	.009″	.041″
2660/22	22	7/30	.009″	.048″
2660/20	20	7/28	.009″	.056″

STD. PUT-UP: 500 Ft., 1000 Ft.

HI-VOLTAGE CABLE

One conductor, stranded copper tinned, rulan — frame retardant — polyethylene insulation, braided tinned copper overall when shielded. Used as hi-voltage leads in electronic equipment to minimize RF radiation in equipment.

DESCRIPTION:

One conductor stranded copper tinned rulan (flame retarding type) polyethylene insulation. Available white/red tracer. Temp. Rating: 105°C.

Shielded: Same as above with tinned copper braided shield overall.

Special constructions available to order.

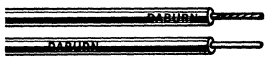
			UNSHIELDED			
DABURN No.	Size AWG	Strand	Nom. Ins. Wall	Voltage Breakdown AC	DC	Nom. O.D.
2642	20	10/30	.047″	5,000	10,000	.125″
2643	20	10/30	.068″	10,000	20,000	.168″
2644	18	16/30	.047″	5,000	10,000	.134″
2645	18	16/30	.068″	10,000	20,000	.178″
2648	18	16/30	.095″	16,000	40,000	.235″
2649	18	16/30	.124″	26,000	60,000	.280″
			SHIELDED			
2655	18	16/30	.095″	16,000	40,000	.255″

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

PLASTIC HOOK-UP WIRE

600 VOLT UL APPROVED — 105°C (CSA 600V — 90°C)

Resistant to acids, alkalis, oil, flame, fungus and moisture. Temperature Rating: −10°C to +105°C.



DESCRIPTION:

One Conductor stranded annealed copper tinned, plastic insulation.

		STRANDED		
DABURN No.	Size	Strand	Nom. Ins. Wall	Nom. O.D.
2630	22	7/30	.032″	.098″
2631	20	10/30	.032″	.104″
2632	18	16/30	.032″	.112″
2633	16	26/30	.032″	.126″
2633/14	14	41/30	.032″	.142″
		SOLID		
2635/22	22	7/30	.032″	.095″
2635/20	20	10/30	.032″	.102″

COLORS: Black, Red, Green, Yellow, Blue, Brown, White, Orange, Gray, Purple.
STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

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TEST LEAD WIRE

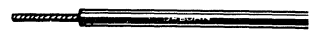
Suitable as Test Lead Wire in analyzers, instruments, oscillators, meters, etc. Wherever extra flexibility and limpness is necessary. Single conductor, extra flexible stranded soft tinned copper, separator, wall color coded rubber, smooth wax finish.

OPERATING TEMPERATURE: −20°C to +60°C.

DABURN No.	Size	Strand	Insul. Wall Nom.	Nom. O.D.
2715	20	41/36	3/64"	.137"
2716	18	65/36	3/64"	.145"
***2718**	18	65/36	3/64"	.145"

*Types WS-16/U Black, WS17/U Red Per MIL-W-13169.
STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

PLASTIC KINKLESS TEST LEAD WIRE



Soft formulation vinyl for maximum flexibility. Temperature stability from −80°C to +115°C. Exceed requirements for MIL-I-3930A Type JP (PVC). Suitable for test leads, etc. Resistant to gasoline and oil. Excellent abrasion Resistance.

DESCRIPTION: One conductor tinned copper stranded, special formulation vinyl insulation — smooth surface.

OPERATING TEMPERATURE: −80°C to+115°C.

COLORS: Black, Red, Yellow, Green, White, Blue.

DABURN No.	Size	Strand	Ins.	Nom. O.D.
2722/22	22	26/36	.032"	.100"
2722/20	20	26/34	.032"	.104"
2722/18	18	65/36	.032"	.112"
2722/16	16	65/34	.032"	.129"

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

7MM HIGH TENSION CABLE

#2730 — unshielded one conductor, insulation, cotton braid highly lacquered. **#2737** — same construction as above plus a closely woven tinned copper shielded braid overall.

DABURN No.	Size	Strand	Insul.	O.D.
2730	16	19/29	3/32"	.275"
2737 (Shielded)	16	19/29	3/32"	.295"

STD. PUT-UP: 100 Ft., 500 Ft.
Suitable for auto and aircraft ignition systems where grounding is indicated.

HI VOLTAGE LACQUERED WIRE

Primary wire for autos, aircraft, hi-voltage instrument leads. Resistant to acid, grease, oil, gasoline, moisture.

DABURN No.	Size	Strand	Ins.	Nom. O.D.
2725/18	18	16/30	.022"	.115"
2725/16	16	19/29	.022"	.125"
2725/14	14	19/27	.022"	.146"
2725/12	12	19/25	.027"	.171"
2725/10	10	19/23	.031"	.202"

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

SHIELDED PHONO WIRE

Suitable where small diameter, limpness and extreme flexibility is necessary as for phono pickups, stereo, etc.

OPERATING TEMPERATURE: −20°C to+60°C.

DABURN No.	Tinned Size	Copper Shield Strand	Overall Insul. Wall	Nom. O.D.
2737	24	16/36	.010"	.075"
2738	22	7/30	.010"	.080"
COTTON BRAID OVER SHIELD				
2739	24	16/36	.010"	.095"

STD. PUT-UP: 100 Ft., 500 Ft.

SHIELDED HOOK-UP WIRE

One conductor, tinned copper stranded, polyvinylchloride insulation, lacquered glass braid, overall tinned copper shielded braid.

Operating Temp.: −20°C to +60°C.

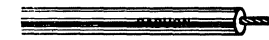
DABURN No.	Size	Strand	Nom. Wall	Nom. O.D.
2727/22	22	7/30	.016"	.095"
2727/20	20	10/30	.016"	.105"
2727/18	18	16/30	.016"	.125"
2727/16	16	26/30	.016"	.135"
2727/14	14	41/30	.016"	.155"
2727/12	12	65/30	.016"	.175"
2727/10	10	105/30	.025"	.200"

STD. PUT-UP: 1000 Ft.

MARINE & AUTOMOTIVE WIRE & CABLE

SINGLE CONDUCTOR — PRIMARY WIRE

Type G.P.T. — SAE Type II



This wire is resistant to grease, oil, acid, gasoline and ageing. Single conductor, stranded bare copper, color coded (PVC) Polyvinylchloride insulation.

DABURN No.	Size	Strand	Nom. Wall	Nom. O.D.	Stock Color
2710/16	16	19/29	.023"	.100"	Black
2710/14	14	19/27	.023"	.122"	Green
2710/12	12	19/25	.026"	.146"	Red
2710/10	10	19/23	.031"	.181"	White
2710/8	8	65/26	.040"	.227"	Red
2710/6	6	49/23	.049"	.280"	Red

STD. PUT-UP: 500 Ft., 1000 Ft.

DUPLEX PRIMARY WIRE

Two conductors, each stranded bare copper, color coded (PVC) polyvinylchloride insulation; 1 black, 1 white; conductors laid parallel, heavy duty chrome vinyl jacket overall.

DABURN No.	Size	Strand	Nom. Wall	Nom. Jacket	Nom. O.D.
2712/16	16	19/29	.023"	.032"	.169"x.276"
2712/14	14	19/27	.023"	.032"	.184"x.308"
2712/12	12	19/25	.026"	.032"	.207"x.358"

STD. PUT-UP: 500 Ft., 1000 Ft.

DABURN

DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

AUDIO CABLE — SHIELDED 2 CONDUCTOR SHIELDED

NO OUTER JACKET

Each conductor copper tinned, plastic insulation, color coded, twisted, tinned copper shield. Suitable for sound systems, industrial paging systems, broadcast-audio cable, rack panel wiring, etc.
OPERATING TEMPERATURE: −20°C to +60°C.

DABURN Cat. No.	Conds.	Size AWG.	Strand	Nom. Wall	Nom. O.D.	Nom. Operating Voltage
2902/30	2	30	7/38	.010″	.085″	200V
2902/28	2	28	7/36	.010″	.090″	200V
2902/26	2	26	7/34	.010″	.095″	200V
2902/24	2	24	16/36	.017″	.120″	350V
2902/22	2	22	7/30	.017″	.140″	350V
2902/20	2	20	10/30	.017″	.155″	350V
2902/18	2	18	16/30	.017″	.170″	350V
2902/16	2	16	26/30	.020″	.210″	450V
2902/14	2	14	41/30	.020″	.225″	450V
2902/12	2	12	65/30	.025″	.295″	600V
2902/10	2	10	105/30	.025″	.375″	600V

STD. PUT-UP: 100 Ft., 250 Ft., 500 Ft., 1000 Ft.
CONDUCTOR COLOR CODE: 1—Black, 2—Red.

INTERCOM CABLE

INDIVIDUALLY SHIELDED MULTIPLE PAIR

This construction reduces the bulk in required cables. Multipaired #22 solid tinned copper, vinyl insulated .013″, cabled in pairs. Aluminum foil mylar shield over each pair and ground, overall grey vinyl jacket. Nom. Cap between Conds. 40 MMF/Ft. Nom. Cap. between 1 Cond. and others connected to shield — 77 MMF/Ft.

DABURN Cat. No.	Pairs	Conds.	Nom. Jacket	Nom. O.D.
2930/3	3	6	.030″	.298″
2930/6	6	12	.037″	.394″
2930/9	9	18	.040″	.425″
2930/11	11	22	.040″	.485″
2930/15	15	30	.045″	.510″
2930/19	19	38	.055″	.678″
2930/27	27	54	.070″	.860″

STD. PUT-UP: 500 Ft.
Variations Available to Order.

ALUMINUM MYLAR FOIL SHIELD PLASTIC JACKETED CABLE

Extremely light in weight, provides 100% shield coverage — small diameters. Each cond. tinned copper, stranded color coded polyethylene insulation, twisted, drain wire, aluminum mylar foil shield, gray polyvinylchloride jacket overall. Drain wire provides quick and easy grounding.
OPERATING TEMPERATURE: −20°C to +60°C. **OPERATING VOLTAGE:** 400 Volts.

DABURN Cat. No.	Cond.	Size	Strand	Nom. Wall	Nom. Jacket	Nom. O.D.
2960	2	22	7/30	.015″	.020″	.168″
2960/3	3	22	7/30	.015″	.020″	.185″
2960/4	4	22	7/30	.015″	.020″	.205″
2961	2	20	7/30	.015″	.020″	.185″
2961/3	3	20	7/30	.015″	.020″	.205″
2961/4	4	20	7/30	.015″	.020″	.225″
2962	2	18	16/30	.017″	.020″	.220″
2962/3	3	18	16/30	.017″	.020″	.235″
2962/4	4	18	16/30	.017″	.020″	.255″
2963	2	16	26/30	.017″	.020″	.255″
2963/3	3	16	26/30	.017″	.020″	.275″
2964	2	14	41/30	.017″	.020″	.295″
2964/3	3	14	41/30	.017″	.020″	.305″

STD. PUT-UP: 500 Ft., 1000 Ft.
CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White, 4—Green.

PLASTIC INTER-COM CABLE

Station to station wiring to eliminate cross-talk. Each conductor tinned copper stranded, color coded PVC, T.C. braid, shield where indicated, paired, grey polyvinylchloride jacket overall.
2935 — Suitable for unbalanced systems.
2935/4 — Suitable for balanced systems.
2935/5 — Suitable for coin oeprated phonographs.
OPERATING VOLTAGE: 350 Volts.
OPERATING TEMPERATURE: −20°C to +60°C.

DABURN Cat. No.	Cond.	Size	Strand	No. Cond. Shield	Nom. Wall	Nom. Jacket	O.D.
2935	3	22	7/30	1	.016″	.020″	.200″
2935/4	4	22	7/30	2	.016″	.020″	.180″x.285″
2935/5	5	22	7/30	3	.016″	.020″	.200″x.300″

CONDUCTOR COLOR CODE:
2935 — White — shielded; Black, Red — unshielded
2935/4 — Black, White — shielded; Black, Red — unshielded.
2935/5 — Black, White, Red — shielded; Black, Red — unshielded.

SHIELDED PLASTIC MICROPHONE CABLE

Will withstand abuse and is resistant to oil, moisture, aging. Have low capacitance, Hi insulation resistance and low attenuation. Will not strain or mark.
2772 — For hi impedance microphone
2774 — For hi impedance lapel mikes.
2774 — For crystal, ribbon, etc. Mikes all are suitable for hi-fi interconnecting cables.
OPERATING TEMPERATURE: −20°C to +60°C.

PLASTIC — ONE CONDUCTOR SHIELDED CABLE

DABURN Cat. No.	Cond.	Size	Strand	Nom. Cap./Ft.	Sug. Work Voltage	Nom. O.D.
2772	1	20	26/34	36 MMF	4000	.175″
2773	1	25	7/33*	34 MMF	3500	.144″
2774	1	25	7/33*	23 MMF	5000	.190″

* 3 strands tinned copper, 4 strands tinned copperweld.

SPIRAL WRAPPED SHIELDED MICROPHONE CABLE

Uses tinned copper spiral shield — for ease in soldering — extremely flexible.

2770	1	25	7/33	23 MMF	3000	.159″
2771	1	25	7/33	33 MMF	1000	.110″

MULTI-CONDUCTOR MICROPHONE AND CONTROL CABLE

PLASTIC JACKET

Each conductor tinned copper, polyethylene insulation — color coded., twisted, tinned copper braid shield, vinyl jacket overall.

2782	2	22	16/34	31 MMF	1000	.231″
2782/20	2	20	26/34	45 MMF	600	.240″

DABURN Cat. No.	Cond.	Size	Strand	Nom. Wall	Nom. Jacket	Nom. O.D.
2783	3	20	26/34	.014″	.030″	.250″
2784	4	20	26/34	.014″	.035″	.260″
2785	5	20	26/34	.014″	.035″	.275″
2786	6	20	26/34	.014″	.035″	.300″
2786/8	8	20	26/34	.014″	.035″	.330″
2786/10	10	20	26/34	.014″	.035″	.375″

STD. PUT-UP: 100 Ft., 250 Ft., 500 Ft., 1000 Ft.
CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow, 6—Blue, 7—Brown, 8—Orange, 9—Purple, 10—Slate.

PLASTIC JACKETED AUDIO AND MULTI-COND. CABLE

SPIRAL WRAPPED COPPER SHIELD

Suitable for P.A. and sound systems, schools hospitals, institutions, recording studios, paging and call systems. Each conductor copper tinned, plastic insulation, color coded, twisted, spiral wrapped tinned, copper shield, gray plastic jacke..
Simplifies pigtailing. Provides almost 100% shielding coverage.

DABURN Cat. No.	Cond.	Size	Strand	Nom. Insul.	Nom. Jacket	Sug. Working Voltage	Nom. O.D.
2950	2	22	7/30	.017″	.020″	350V	.170″
2050/1	1	22	7/30	.017″	.020″	350V	.115″
2950/3	3	22	7/30	.017″	.020″	350V	.190″
2950/4	4	22	7/30	.017″	.020″	350V	.200″
2950/6	6	22	7/30	.017″	.020″	350V	.235″
2949	2	22	1	.017″	.020″	350V	.170″
2952	2	20	10/30	.017″	.020″	350V	.190″
2952/1	1	20	10/30	.017″	.020″	350V	.129″
2952/3	3	20	10/30	.017″	.020″	350V	.205″
2952/4	4	20	10/30	.017″	.020″	350V	.222″
2952/6	6	20	10/30	.017″	.020″	350V	.260″
2953	2	18	16/30	.017″	.020″	350V	.230″
2953/1	1	18	16/30	.017″	.020″	350V	.133″
2953/3	3	18	16/30	.017″	.020″	350V	.230″
2953/4	4	18	16/30	.017″	.020″	350V	.245″
2954	2	16	26/30	.017″	.020″	350V	.235″
2954/3	3	16	26/30	.017″	.020″	350V	.245″
2954/4	4	16	26/30	.017″	.020″	350V	.255″
2955	2	14	41/30	.020″	.025″	450V	.285″
2955/3	3	14	41/30	.020″	.025″	450V	.292″
2955/4	4	14	41/30	.020″	.025″	450V	.310″
2956/3	3	12	41/30	.020″	.025″	450V	.335″

STD. PUT-UP: 250 Ft., 500 Ft., 1000 Ft.
CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White, 4—Green.

ARMORED CABLE — INDUSTRIAL

Two conductors — suitable for P.A. systems on speaker extensions, oil burner installations, etc. — parallel, color coded conductors, spiral galvanized steel armor overall.

DABURN Cat. No.	Cond.	Size	Strand	Nom. O.D.
2932	2	18	16/30	.155″x.240″

STD. PUT-UP: 250 Ft., 500 Ft., 1000 Ft.

Net

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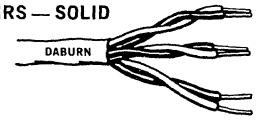
DABURN

DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

PLASTIC INTERCOMMUNICATION CABLES

TWISTED PAIRS — SOLID



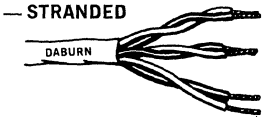
Each Cond. #22 **Solid** Tinned Copper, .010" wall (Operating Temp. −20°C to +60°C). Vinyl plastic insulation, conductors color coded, twisted pairs, cabled, gray vinyl jacket overall. Suitable for outdoor installations.
Operating Voltage: 200 Volts.

DABURN No.	Parts	Cond.	Size	Nom. Jacket	Nom. O.D.
3000	1	2	22 Solid	.020"	.130"
3000/2	2	4	22 Solid	.020"	.205"
3000/3	3	6	22 Solid	.020"	.215"
3000/6	6	12	22 Solid	.020"	.275"
3000/9	9	18	22 Solid	.020"	.310"
3000/11	11	22	22 Solid	.020"	.340"
3000/13	13	26	22 Solid	.025"	.385"
3000/15	15	30	22 Solid	.025"	.390"
3000/16	16	32	22 Solid	.025"	.415"
3000/27	27	54	22 Solid	.035"	.505"
3000/31	31	62	22 Solid	.035"	.555"
3000/41	41	82	22 Solid	.035"	.630"
3000/51	51	102	22 Solid	.045"	.735"
3000/76	76	152	22 Solid	.070"	.970"
3000/101	101	202	22 Solid	.080"	1.140"

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

PLASTIC INTERCOMMUNICATION CABLES

TWISTED PAIRS — STRANDED



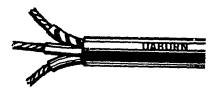
Each Cond. #22 7/30 Tinned Copper., .010" wall vinyl plastic insulation, conductors color coded, twisted pairs, cabled, gray vinyl jacket overall. Suitable outdoor installations.
Operating Voltage: 200 Volts.
Operating Temp.: −20°C to +60°C.

DABURN No.	Parts	Cond.	Size	Strand	Nom. O.D.
3002	1	2	22	7/30	.145"
3002/2	2	4	22	7/30	.210"
3002/3	3	6	22	7/30	.225"
3002/4	4	8	22	7/30	.235"
3002/5	5	10	22	7/30	.245"
3002/6	6	12	22	7/30	.290"
3002/9	9	18	22	7/30	.350"
3002/15	15	30	22	7/30	.455"
3002/27	27	54	22	7/30	.570"

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

MULTI-CONDUCTOR — PLASTIC JACKET

UNSHIELDED AUDIO — FLEXIBLE



Each Cond. #22 7/30 Tinned Copper, stranded, .010" wall plastic insulation, color coded, twisted, gray vinyl jacket overall. Suitable for signal, P.A. systems, computer cable—for outdoor use.
OPERATING VOLTAGE: 200 Volts.
OPERATING TEMPERATURES: −20°C to +60°C.

DABURN No.	Cond.	Size	Strand	Nom. Wall	Nom. Jacket	Nom. O.D.
3054/2	2	22	7/30	.010"	.020"	.140"
3054/3	3	22	7/30	.010"	.020"	.145"
3054/4	4	22	7/30	.010"	.020"	.170"
3054/5	5	22	7/30	.010"	.020"	.175"
3054/6	6	22	7/30	.010"	.020"	.185"
3054/7	7	22	7/30	.010"	.020"	.190"
3054/8	8	22	7/30	.010"	.020"	.200"
3054/9	9	22	7/30	.010"	.020"	.225"
3054/10	10	22	7/30	.010"	.020"	.235"
3054/12	12	22	7/30	.010"	.020"	.255"
3054/15	15	22	7/30	.010"	.020"	.280"
3054/20	20	22	7/30	.010"	.020"	.310"
3054/25	25	22	7/30	.010"	.020"	.340"
3054/30	30	22	7/30	.010"	.020"	.365"

CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White, 4—Green, 5—Orange, 6—Blue, 7—Brown, 8—Yellow, 9—Violet, 10—Slate, 11—Pink, 12—Tan, 13—Red/Green, 14—Red/Yellow, 15—Red/Black.

SHIELDED CABLE

PLASTIC JACKETED — BRAIDED COPPER SHIELD

Suitable for P.A. and sound systems, installation in schools, hospitals and institutions, transmitters, electronic circuits, etc. Construction allows ease of pigtailing. Shield provides additional strength for cable. Each conductor tinned copper, PVC insulation, color coded, twisted, braided T-C shield, gray PVC jacket overall. Suitable for outdoor installations.
OPERATING TEMPERATURE: −20°C to +60°C.

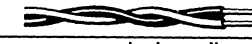
DABURN No.	Cond.	Size	Strand	Nom. Wall	Nom. Jacket	Nom. O.D.
2970	2	22	7/30	.017"	.020"	.175"
2970/3	3	22	7/30	.017"	.020"	.195"
2971	2	20	10/30	.017"	.020"	.195"
2971/3	3	20	10/30	.017"	.020"	.215"
2972	2	18	16/30	.017"	.020"	.235"
2972/3	3	18	16/30	.017"	.020"	.245"
2974	2	16	26/30	.017"	.020"	.255"
2975	2	14	41/30	.020"	.020"	.290"

CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White.
STD. PUT-UP: 500 Ft., 1000 Ft.

UNSHIELDED AUDIO CABLE

SOLID AND STRANDED CONDUCTORS (2 & 3)

FOR INDOOR USE — NO OUTER JACKET



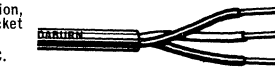
Tinned copper, vinyl plastic insulation, color coded, conductors twisted.

DABURN No.	Cond.	Size	Strand	Insul. Wall	Nom. O.D.
3004	2	22 Solid	1	.016"	.100"
3004/3	3	22 Solid	1	.016"	.115"
3005	2	20 Solid	1	.016"	.120"
3005/3	3	20 Solid	1	.016"	.140"
3006	2	18 Solid	1	.016"	.145"
3006/3	3	18 Solid	1	.016"	.155"
3007	2	16 Solid	1	.016"	.175"
3007/3	3	16 Solid	1	.016"	.190"
3011	2	22 Stranded	7/30	.016"	.125"
3011/3	3	22 Stranded	7/30	.016"	.140"
3012	2	20 Stranded	10/30	.016"	.145"
3012/3	3	20 Stranded	10/30	.016"	.160"
3013	2	18 Stranded	16/30	.016"	.165"
3013/3	3	18 Stranded	16/30	.016"	.180"
3014	2	16 Stranded	26/30	.016"	.190"
3014/3	3	16 Stranded	26/30	.016"	.210"
3015	2	14 Stranded	41/30	.016"	.220"
3015/3	3	14 Stranded	41/30	.016"	.240"
3016	2	12 Stranded	65/30	.016"	.250"
3016/3	3	12 Stranded	65/30	.016"	.275"

CONDUCTOR COLOR CODE: 1—Brown, 2—Tan, 3—Gray.
STD. PUT-UP: 1000 Ft.

PLASTIC JACKET OVERALL

FOR OUTDOOR USE



Tinned copper, vinyl plastic insulation, color coded, twisted, plastic jacket overall.
Operating Temp.: −20°C to +60°C.
Operating Voltage: 350 Volts.

DABURN No.	Cond.	Size	Strand	Nom. Wall	Jacket	Nom. O.D.
3020	2	22	1	.010"	.020"	.125"
3020/3	3	22	1	.010"	.020"	.130"
3020/4	4	22	1	.010"	.020"	.150"
3021	2	20	1	.016"	.020"	.170"
3021/3	3	20	1	.016"	.020"	.180"
3021/4	4	20	1	.016"	.020"	.200"
3022	2	18	1	.016"	.020"	.185"
3022/3	3	18	1	.016"	.020"	.190"
3022/4	4	18	1	.016"	.020"	.220"
3022/5	5	18	1	.016"	.020"	.235"
3022/6	6	18	1	.016"	.020"	.265"
3027	2	22	7/30	.010"	.020"	.130"
3027/3	3	22	7/30	.010"	.020"	.140"
3027/4	4	22	7/30	.010"	.020"	.165"
3028	2	20	10/30	.016"	.020"	.175"
3028/3	3	20	10/30	.016"	.020"	.185"
3028/4	4	20	10/30	.016"	.020"	.195"
3029	2	18	16/30	.016"	.020"	.195"
3029/3	3	18	16/30	.016"	.020"	.205"
3029/4	4	18	16/30	.016"	.020"	.235"
3030	2	16	26/30	.016"	.020"	.220"
3030/3	3	16	26/30	.016"	.020"	.245"
3030/4	4	16	26/30	.016"	.020"	.270"
3031	2	14	41/30	.016"	.020"	.260"
3031/3	3	14	41/30	.016"	.020"	.280"

STD. PUT-UP: 1000 Ft.
CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White, 4—Green.

MULTI-CONDUCTOR INDUSTRIAL AUDIO CABLE

UNSHIELDED (Operating Temperature: −20°C to +60°C)

PLASTIC JACKET OVERALL

#18 Solid Tinned Copper, PVC insulation, color coded, twisted, gray vinyl jacket overall. Suitable for speaker cable, alarm, signal, remote control systems, thermostat. Suitable outdoor installations.

DABURN No.	Cond.	Size	Nom. Wall	Jacket	O.D.
3006/2	2	18 Solid	.017"	.020"	.185"
3006/3	3	18 Solid	.017"	.020"	.190"
3006/4	4	18 Solid	.017"	.020"	.235"
3006/5	5	18 Solid	.017"	.020"	.240"
3006/6	6	18 Solid	.017"	.020"	.275"

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.
CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White, 5—Orange, 6—Blue.

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DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

Long Lasting Service — useful wherever cords must change length or position. Extend to approximately six times its retracted length. Returns to its original shape or length when released. Eliminates tangling, twisting or knots. Cords are UL and CSA approved.

RETRACTILE COILED CORDS

POWER CORDS — RETRACTED LENGTHS: 1, 2, 3 & 4 FT. • EXTENDED LENGTHS: 6, 12, 18 & 25 FT.

UL APPROVED — NEOPRENE JACKETED CORD

Operating Temperature: −20°C to +60°C

DABURN CAT NOS. 4 Ft.† Lgth.	3 Ft. Lgth.	2 Ft. Lgth.	1 Ft. Lgth.	No. Conds.	Size	Strand	*UL Type	Amps	Volt Rating	Coil Nom. O.D.	Cord Nom. O.D.
986-4	986-3	986-2	986-1	2	18	41/34	SVO	7	300	7/8″	.250″
986/3-4	986/3-3	986/3-2	986/3-1	3	18	41/34	SVO	7	300	1″	.275″
989-4	989-3	989-2	989-1	2	18	41/34	SJO	7	300	1 3/16″	.310″
989/3-4	989/3-3	989/3-2	989/3-1	3	18	41/34	SJO	7	300	1 3/8″	.330″
989/4-4	989/4-3	989/4-2	989/4-1	4	18	41/34	SJO	5.6	300	1 7/16″	.360″
989/5-4	—	989/5-2	—	5	18	41/34	—	5.6	300	1 3/4″	.440″
989/7-4	—	989/7-2	—	7	18	41/34	—	5.6	300	1 7/8″	.500″
991-4	991-3	991-2	991-1	2	16	65/34	SJO	10	300	1 3/8″	.330″
991/3-4	991/3-3	991/3-2	991/3-1	3	16	65/34	SJO	10	300	1 7/16″	.365″
991/4-4	—	991/4-2	—	4	16	65/34	SJO	8	300	1 5/8″	.395″
991/5-4	—	991/5-2	—	5	16	65/34	—	8	600	2″	.540″
991/6-4	—	991/6-2	—	6	16	65/34	—	8	600	2 1/8″	.550″
991/7-4	—	991/7-2	—	7	6/16 1/14	#16-65/34 #14-41/30	—	#16-8 #14-12	600	2 1/4″	.600″
993-4	—	993-2	—	2	14	41/30	SO	15	600	2″	.535″
993/3-4	—	993/3-2	—	3	14	41/30	SO	15	600	2 1/8″	.560″
993/4-4	—	993/4-2	—	4	14	41/30	SO	12	600	2 1/4″	.605″
994-4	—	994-2	—	2	12	65/30	SO	20	600	2 1/4″	.605″
994/3-4	—	994/3-2	—	3	12	65/30	SO	20	600	2 3/8″	.635″
994/4-4	—	994/4-2	—	4	12	65/30	SO	16	600	2 1/2″	.665″
994/6-4	—	994/6-2	—	6	2-12 4-18	#12-65/30 #18-41/34	—	#12-17 #18-6	600	2 1/4″	.605″
994/7-4	—	994/7-2	—	7	12	65/30	—	16	600	2 5/8″	.775″

* Wherever UL type is shown, approved by CSA Testing Laboratories.
† Preferred Put-up.

CONDUCTOR COLOR CODE: 1-Black, 2-White, 3-Green, 4-Red, 5-Blue 6-Brown, 7-Yellow.

Std. Pkg. 5

DABURN MINIATURE RETRACTILE COMMUNICATION CORDS

2 Feet Retracted — 10 Ft. Extended

Miniature size. Suitable for compact equipment. Black plastic jacket overall. Operating Temperature: −20°C to +60°C. Std. Pkg. 10

DABURN No.	Conds.	Size	Strand	Coil O.D.	Cond. O.D.
975/28	2	28	19/40 T.C.	1/2″	.135″
977/28	4	28	19/40 T.C.	1/2″	.150″

RETRACTILE TEST LEAD WIRE

Stretch coiled kinkless test lead wire description. 12″ coil — stretches to approx. 6 feet. One conductor #20 stranded copper rubber insulation .165 O.D. Colors: Red, Black. Coil O.D. 3/4″.

DABURN No.	Lgth.	Size	Strand	Coil O.D.	Cord O.D.
981	12″	20	41/36	3/4″	.165″
982	24″	20	41/36	3/4″	.165″

12″ Extends Approx. 6 Ft.
24″ Extends Approx. 12 Ft.

Specify Color, Red or Black
Std. Pkg. 6

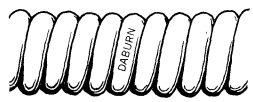
UL APPROVED RETRACTILE POWER CORD SETS

18″ Retracted — Approx. 9 Ft. Extended — 300V — UL Approved

For portable use. Mobile and office equipment. Neoprene jacketed cord sets with molded male plug on one end.
OPERATING VOLTAGE 300 VOLTS

DABURN Cat. No.	Conds.	AWG Size	Strand	Type UL	Coil O.D.	Cord O.D.
980	2	18	41/34	SVO	7/8″	.250″
980/3	3	18	41/34	SVO	1″	.275″
981	2	18	41/34	SJO	1 3/16″	.310″
981/3	3	18	41/34	SJO	1 3/8″	.330″
982	2	16	65/34	SJO	1 3/8″	.330″
982/3	3	16	65/34	SJO	1 7/16″	.365″

CONDUCTOR COLOR CODE: 1-Black, 2-White, 3-Green. Std. Pkg. 10



RETRACTILE COMMUNICATION COIL CORDS

RETRACTED LENGTHS 2, 3 & 4 FT. — EXTENDED LENGTHS 12, 18 & 25 FT.

Multi-conductors stranded extra flexible #23 AWG 21/36 tinned soft copper for long flex life, Neoprene or "Danyon" plastic jacketed cable for long life. 120 volt working, current carrying capacity 1 ampere. Nom. cond. resist. .022 ohms per linear foot., .185 ohms per retracted foot.
For communication equip. such as ham operations, telephone car carriers, radio equip., head sets, etc.

Operating Temperature: −20°C to +60°C

DABURN CAT. NOS. 4 Ft.*	3 Ft.	2 Ft.	No. Conds.	Size	Strand	Nom. Coil O.D.	Nom. Cord O.D.
975-4	975-3	975-2	2	23	21/36	3/4″	.200″
976-4	976-3	976-2	3	23	21/36	13/16″	.210″
977-4	977-3	977-2	4	23	21/36	7/8″	.240″
978-4	978-3	978-2	5	23	21/36	1″	.285″
978/6-4	978/6-3	978/6-2	6	23	21/36	1 1/8″	.305″
978/7-4	978/7-3	978/7-2	7	23	21/36	1 1/4″	.320″

Operating Temperature: −20°C to +60°C

DABURN CAT. NOS. 4 Ft.*	3 Ft.	2 Ft.	No. Conds.	Size	Strand	Nom. Coil O.D.	Nom. Cord O.D.
978/8-4	—	978/8-2	8	23	21/36	1 3/32″	.360″
978/10-4	—	978/10-2	10	23	21/36	1 5/32″	.380″
978/12-4	—	978/12-2	12	23	21/36	1 7/32″	.410″
978/15-4	—	978/15-2	15	23	21/36	1 9/32″	.470″
978/37-4	—	978/37-2	37	23	21/36	2 1/32″	.680″

CONDUCTOR COLOR CODING: 1-Black, 2-White, 3-Red, 4-Green, 5-Blue, 6-Yellow, 7-Brown, 8-Orange, 9-White / Black Tracer, 10-White / Red Tracer, 11-White / Green Tracer, 12-White/Blue Tracer, 13-White/Yellow Tracer, 14-White/Brown Tracer, 15-White / Orange Tracer. *Preferred Put-Up. Std. Pkg. 5

SHIELDED RETRACTILE COMMUNICATION CORDS

RETRACTED LENGTHS 1, 2 & 4 FT.—EXTENDED LENGTHS 6, 12 & 25 FT.

Single and multi-cond. Shielded mike cables Neoprene or "Danyon" plastic jacketed shielded conductors are individually shielded. Shield can be pigtailed for soldering. Safe — Reliable.

OPERATING TEMPERATURE: −20°C TO +60°C

DABURN CAT. NOS. 4 Ft. L'gth.	2 Ft. L'gth.	1 Ft. L'gth.	No. Conds.	Size	Strand	Nom. Coil O.D.	Nom. Cord O.D.	Volt Rating	CAPACITANCE MMF Lin. Ft.	CAPACITANCE MMF Retr. Ft.
995-4†	995-2	995-1	1	24 Shielded	41/40	5/8″	.160″	75	56	440
996-4	996-2	996-1	2	1-23 1-24 Shielded	21/36 41/40	7/8″	.210″	#23-120 #24-75	56	450
997-4	997-2	997-1	3	2-23 1-24 Shielded	21/36 41/40	7/8″	.240″	#23-120 #24-75	56	450
999-4	999-2	999-1	2	2-24 Shielded	41/40	7/8″	.210″	75	56	450
998-4	998-2	998-1	4	2-23 2-24 Shielded	21/36 41/40	1″	.270″	#23-120 #24-75	56	460

† Preferred Put-Up

Conductors are Color Coded. **Std. Pkg. 10**

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DABURN

DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

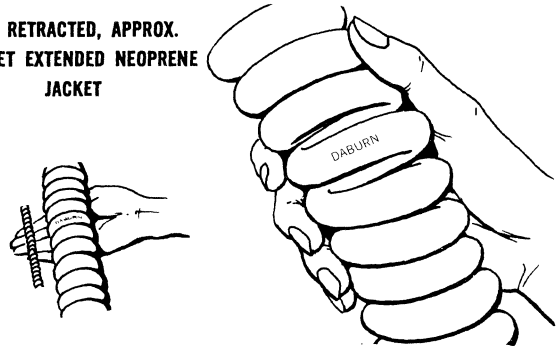
RETRACTILE

"SUPA" HEAVY DUTY POWER CORDS

with a

GUARANTEED 4 YEAR RETRACTABILITY

48" RETRACTED, APPROX.
25 FEET EXTENDED NEOPRENE JACKET



SUGGESTED OPERATING TEMPERATURE: −20°C to +60°C.

Suitable for maintenance of industrial automation equip., refrigerated trucks, mass production, cherry pickers, magnetic cranes, standby power distribution. Wherever a tougher requirement is indicated. Std. Pkg. 6

DABURN Cat. No.	No. Cond.	Size	Stranding	Nom. Jacket Thickness	Nom. Cord O.D.
960	3	16	65/34	7/64"	.505"
960/4	4	16	65/34	7/64"	.535"
961	3	14	41/30	7/64"	.620"
961/4	4	14	41/30	7/64"	.660"
962	3	12	65/30	8/64"	.715"
962/4	4	12	65/30	8/64"	.770"

RETRACTILE COMMUNICATION CORD

PREPARED

Retracted length 12" — extended length 6 feet.

Same as our regular communication cord but each end is prepared as shown.

Daburn No.	No. Cond.	Size & Strand	Coil O.D.	Cord O.D.	PREPARED
966	3	#23-21/36	13/16"	.220"	**1 END:** L'gth 1½". Conductor stripped and tinned. Other end: Total L'gth 1½" jacket removed.
967	4	#23-21/36	15/16"	.250"	**1 END:** Total length 1". Conductors stripped and tinned. Other end: Total lgth 1½" jacket removed.
968	5	#23-21/36	1-1/16"	.285"	**1 END:** Total l'gth 4⅛". Conductors stripped and tinned. Other end: Total l'gth 4⅛" conds. stripped and tinned.

Std. Pkg. 10

HI-FI STEREO

Interconnecting Cable — Phono Wire

Extremely flexible. Designed for low hum and noise pickup. Special PVC formulation −40°C to +80°C operation.

TWISTED — UNSHIELDED

DABURN No.	Cond.	Size	Strand	Nom. Wall	Nom. O.D.
2742	2	32	7/40	.010"	.047"
2743	3	32	7/40	.010"	.053"
2744	4	32	7/40	.010"	.061"
TWISTED — SHIELDED					
2746	2	32	7/40	.010"	.067"
2747	3	32	7/40	.010"	.072"
2748	4	32	7/40	.010"	.080"
2751	2	32	7/40	.010"	.080"

STD. PUT-UP: 500 Ft., 1000 Ft. **#2751** Individually Shielded.
CONDUCTOR COLOR CODE: 1-White, 2-Red, 3-Black, 4-Green.

RUBBER & NEOPRENE PORTABLE CORD

UL APPROVED — 300 AND 600 VOLT

For power line requirement where rough usage is indicated as for amplifiers, sound systems, speakers, vacuum cleaners, washing machines, trouble lights, refrigerators, etc. Color coded. Underwriters approved. Neoprene construction recommended for equipment exposed to oil, acids, outdoor use, direct burial, etc.

SUGGESTED OPERATING TEMPERATURE: −20°C to +60°C.

Each conductor, copper conductor, paper separator, color coded, rubber insulation, filler, separator, tough rubber or neoprene jacket, black.

RUBBER DABURN No.	UL Type	NEOPRENE DABURN No.	UL Type	Conds. No.	Size	Strand	Amp. Rating	Volt Rating	Nom. O.D.
2860	SV	2890	SVO	2	18	41/34	7	300	.250"
2860/3	SV	2890/3	SVO	3	18	41/34	7	300	.265"
2861	SJ	2891	SJO	2	18	41/34	7	300	.300"
2861/3	SJ	2891/3	SJO	3	18	41/34	7	300	.330"
2861/4	SJ	2891/4	SJO	4	18	41/34	6	300	.360"
2862	SJ	2892	SJO	2	16	65/34	10	300	.325"
2862/3	SJ	2292/3	SJO	3	16	65/34	10	300	.365"
2862/4	SJ	2892/4	SJO	4	16	65/34	8	300	.395"
2863	S	2893	SO	2	18	16/30	7	600	.390"
2863/3	S	2893/3	SO	3	18	16/30	7	600	.405"
2863/4	S	2893/4	SO	4	18	16/30	6	600	.435"
2864	S	2894	SO	2	16	26/30	10	600	.410"
2864/3	S	2894/3	SO	3	16	26/30	10	600	.430"
2864/4	S	2894/4	SO	4	16	26/36	8	600	.485"
2865	S	2895	SO	2	14	41/30	15	600	.540"
2865/3	S	2895/3	SO	3	14	41/30	15	600	.560"
2865/4	S	2895/4	SO	4	14	41/30	12	600	.605"
2866	S	2896	SO	2	12	65/30	20	600	.605"
2866/3	S	2896/3	SO	3	12	65/30	20	600	.635"
2866/4	S	2896/4	SO	4	12	65/30	16	600	.665"
2867	S	2897	SO	2	10	105/30	25	600	.640"
2867/3	S	2897/3	SO	3	10	105/30	25	600	.690"
2867/4	S	2897/4	SO	4	10	105/30	20	600	.745"
2868		2898		2	8†	133/29	35	600	.700"
2868/3		2898/3		3	8†	133/29	35	600	.750"
2868/4		2898/4		4	8†	133/29	28	600	.820"

Additional conductors and sizes available † Not listed by UL.
CONDUCTOR COLOR CODE: 1-White, 2-Black, 3-Green, 4-Red.
STD. PUT-UP: 250 FT.

SPEC MIL-C-3432B SERVICE CORD

DABURN Cat. No.	MIL Type	Spec. Design.	Conds.	Size	Spec. No.	Nom. O.D.
2812	CO-02	MGF	2	18	MIL-C-3432B	.300"
2813	CO-02	HGF	2	18	MIL-C-3432B	.380"
2814	CO-02	LGF	2	18	MIL-C-3432B	.250"
2815	CO-02	HGF	2	16	MIL-C-3432B	.405"
2816	CO-02	MGF	2	16	MIL-C-3432B	.338"
2817	CO-02	MGF	2	14	MIL-C-3432B	.400"
2818	CO-02	HGF	2	14	MIL-C-3432B	.535"
2919	CO-03	MGF	3	18	MIL-C-3432B	.330"
2820	CO-03	MGF	3	16	MIL-C-3432B	.375"
2821	CO-03	HOE	3	12	MIL-C-3432B	.635"

Additional Numbers Available — Your Inquiries Invited

CONTROL CABLE (unshielded)

MULTI-CONDUCTOR RUBBER JACKETED — GENERAL PURPOSE

SUGGESTED OPERATING TEMPERATURE: −20°C to +60°C.

Used for permanent or portable P.A. systems, sound recording, indoor or outdoor speaker, interconnecting cable for all electronic uses.

Each conductor, extra flexible stranded tinned copper, insulated with a .022" wall, special low capacity rubber, color coded, conductors twisted, filler, cotton wrap with tough weatherproof black rubber jacket overall.

DABURN Cat. No.	Cond.	Size	Strand	Nom. O.D.
2802	2	20	26/34	.240"
2803	3	20	26/34	.255"
2804	4	20	26/34	.275"
2805	5	20	26/34	.300"
2806	6	20	26/34	.315"
2807	7	20	26/34	.325"
2808	8	20	26/34	.360"
2808/10	10	20	26/34	.410"
2808/12	12	20	26/34	.435"

For longer lengths and alternate Put-Ups — Specify

STD. PUT-UP: 100 Ft., 250 Ft., 500 Ft., 1000 Ft.
CONDUCTOR COLOR CODE: 1-Black, 2-White, 3-Red, 4-Green, 5-Yellow, 6-Blue, 7-Brown, 8-Orange, 9-Purple, 10-Slate, 11-Wh/Blk (Braid), 12-Wh/Red (Braid).

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Net

DABURN ELECTRONICS & CABLE CORP.

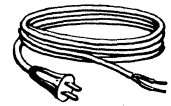
WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

SERVICE CORD — HEAVY DUTY

UL APPROVED — CSA APPROVED

Suitable for replacement on machinery, tools, refrigerators, electronic devices.

DESCRIPTION: Two and three conductors, stranded bare copper, serve, rubber insulation, filler, wrap, tough black rubber jacket overall. Molded plug one end, free end stripped and tinned — Hanked.



VOLTAGE RATING: 300V

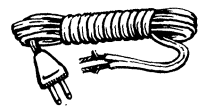
DABURN No.	Cord L'gth.Ft.	Cond.	Size	Strand	Type	Amp Rating	Cord O.D.
1980	8	2	16	65/34	SJ	10	.325″
1980/3	8	3	16	65/34	SJ	10	.355″
1982/3	8	3	18	41/34	SJ	7	.330″
1984	9	2	18	41/34	SV	7	.245″
1984/3	9	3	18	41/34	SV	7	.265″

Std. Pkg. 25

UL APPROVED — SERVICE LINE CORD

Use as an all purpose power supply cord for small appliances, lamps, radios, etc.

DESCRIPTION: Two conductors parallel SP-1 (POSJ) with molded-on male plug, double brass blades, conductor end stripped and tinned — Hanked. Available in black and brown.



DABURN No.	L'gth	Cond.	Size	Strand	Nom. O.D.	Std. Pkg.
1987	6	2	18	41/34	130″ x .235″	50
1988	7½	2	18	41/34	130″ x .235″	50

UL APPROVED — TV POWER SUPPLY CORD

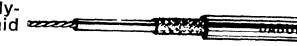
Replacement of damaged or worn ou TV cord.

DESCRIPTION: Six foot, 2 cond #18 SP-1 (POSJ) brown cord with molded male plug and TV molded connector on other end.

DABURN No.		Std. Pkg.
9-45	Television Power Supply Cord — 6 feet	25

RG/U COAXIAL CABLE

DESCRIPTION: One conductor, polyethylene insulation, copper braid shield, plastic jacket overall.



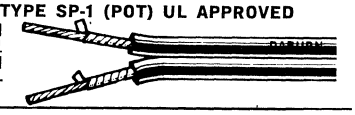
DABURN No.	Spool	Type	Nom. Imp.	Size	Nom. MMFD/ FT.	Strand	O.D.
1925	500′	RG-8/U	52	13	29.5	7/21 Bare	.405″
1926	500′	RG-9/U	51	13	30.0	7/21 S	.420″
1927	500′	RG-11/U	75	18	20.5	7/26 Tinned	.405″
1928	1000′	RG-58A/U	50	20	29.0	19/.0068 Tinned	.195″
1929	1000′	RG-58/U	53.5	20	28.5	Solid	.195″
1930	1000′	RG-59/U	73	22	21.0	Solid C.W.	.242″
1931	1000′	RG-62/U	93	22	13.5	Solid	.242″

Additional RG numbers available conforming to MIL-C-17B Specs.

LAMP CORD

TYPES SP-1 (POSJ-64) — TYPE SP-1 (POT) UL APPROVED

An all purpose approved cord both SP-1 (rubber) and SPT-1 (Plastic) for lamps, radios and small instruments and appliances.



DABURN No.	Cond.	Size	Strand	Insul.	Type	UL Type	Nom. O.D.
1990	2	18	41/34	Rubber	SP-1	POSJ	.130″x.235″
1991	2	18	41/34	Plastic	SPT-1	POT	.130″x.225″

STD. PUT-UP: 100 Ft., 250 Ft., 500 Ft., 1000 Ft.
COLORS: (Rubber) Brown, Black, White.
(Plastic) Brown, Black, Ivory, Gray, Pink, Light Blue, Yellow, Green.

DABURN MAGNET WIRE — Per MIL-W-583B Spec.

DESCRIPTION: Plain Enamel — Single conductor round bare copper covered with a continuous insulating film of enamel. 105°C, Type T per MIL-W-583B.

DESCRIPTION: Heavy Formvar: — Single conductor round baked copper, baked film insulation from varnish base on a vinyl acetal resin. 105C°C, Type T2 per MIL-W-583B.

DESCRIPTION: Single conductor soft drawn annealed copper tinned per Spec MIL-W-3861 Type S, QQ-W-343 Type S, ASTM-B-33.

PLAIN ENAMEL (PE)

DABURN No.	Size	Nom. O.D.
DPE-10	10	.1037″
DPE-12	12	.0825″
DPE-14	14	.0657″
DPE-16	16	.0522″
DPE-18	18	.0416″
DPE-20	20	.0332″
DPE-22	22	.0266″
DPE-24	24	.0212″
DPE-26	26	.0169″
DPE-28	28	.0135″
DPE-30	30	.0108″
DPE-32	32	.0087″
DPE-34	34	.0069″
DPE-36	36	.0055″
DPE-38	38	.0044″
DPE-40	40	.0034″
DPE-42	42	.0028″
DPE-44	44	.0023″

HEAVY FORMVAR (HF)

DABURN No.	Size	Nom. O.D.
DHF-10	10	.1056″
DHF-12	12	.0842″
DHF-14	14	.0673″
DHF-16	16	.0539″
DHF-18	18	.0432″
DHF-20	20	.0346″
DHF-22	22	.0277″
DHF-24	24	.0224″
DHF-26	26	.0180″
DHF-28	28	.0144″
DHF-30	30	.0116″
DHF-32	32	.0095″
DHF-34	34	.0075″
DHF-36	36	.0060″
DHF-38	38	.0049″
DHF-40	40	.0038″
DHF-42	42	.0032″
DHF-44	44	.0026″

TINNED COPPER (TC)

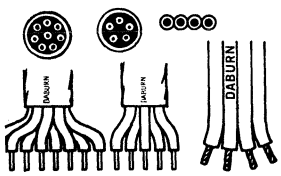
DABURN No.	Size	Nom. O.D.
DTC-10	10	.103″
DTC-12	12	.082″
DTC-14	14	.065″
DTC-16	16	.051″
DTC-18	18	.040″
DTC-20	20	.033″
DTC-22	22	.025″
DTC-24	24	.020″
DTC-26	26	.016″
DTC-28	28	.013″
DTC-30	30	.010″
DTC-32	32	.008″
DTC-34	34	.006″
DTC-36	36	.005″
DTC-38	38	.004″
DTC-40	40	.003″

STANDARD PUT-UP: ¼ lb., ½ lb., 1 lb., 5 lbs., 10 lbs. **SIZES:** 34, 36. Largest Put-up 5 lbs

SIZES: 38, 40, 42, 44. Largest Put-up 1 lb.

ANTENNA CONTROL ROTOR CABLE

USEFUL FOR TV ANTENNA ROTATORS, ETC.



#1907 — 4 cond. flat parallel polyethylene plastic insulation — one outer conductor tinned, balance bare copper.

#1908 — 5 cond. twisted, color coded, vinyl plastic jacket overall.

#1909 — 8 cond. twisted, color coded vinyl plastic jacket overall.

DABURN No.	Cond.	Size	Strand	Nom. O.D.
1907	4	20	7/28	.072″ x .390″
1908	5	20	7/28	.180″
1909	8	22	7/30	.205″

CONDUCTOR COLOR CHART FOR #1908, 1909
1-Black, 2-White, 3-Red, 4-Green, 5-Yellow, 6-Blue, 7-Brown, 8-Orange.
STD. PUT-UP: 500 Ft., 1000 Ft.

© U.C.P., Inc.

DABURN

DABURN ELECTRONICS & CABLE CORP.

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

DAFLEX® ELECTRONIC LACING CORDS AND TAPES

LACING CORD-TAPE TO MEET MIL-T-713A TYPE P*

NYLON FLAT BRAIDED LACING TAPE

Nylon fiber flat braided impregnated with MW microcrystalline fungicidal wax. Stays flat. Designed to create a wider contact to distribute the stress. Flexible. Won't slip when knotted. Resistant to fungus, flame, abrasion, acids.

DABURN No.	Color	Class	Nom. Width	Nom. Thickness	Tensile Strength	Standard Put-Up Tubes
2035	Natural White	—	.200″	.014″	150 lbs.	500 yd.
2035B	Black	—	.200″	.014″	150 lbs.	500 yd.
2036	Natural White	1	.120″	.014″	80 lbs.	500 yd.
2036B	Black	1	.120″	.014″	80 lbs.	500 yd.
2037	Natural White	2*	.090″	.014″	50 lbs.	500 yd.
2037B	Black	2*	.090″	.014″	50 lbs.	500 yd.
2038	Natural White	3	.062″	.010″	30 lbs.	500 yd.
2038B	Black	3	.062″	.010″	30 lbs.	500 yd.

DACRON FLAT BRAIDED LACING TAPE

Dacron fiber flat braided impregnated with non-slip fungicidal finish. Will not cut or damage insulation. Stays at. Has all characteristics of nylon with elongation, better resistance to acids.

DABURN No.	Color	Nom. Width	Thickness Nom.	Strength Tensile	Standard Put-Up Tubes
2041	Natural White	.120″	.014″	80	500 yd.
2041B	Black	.120″	.014″	80	500 yd.
2042	Natural White	.090″	.014″	48	500 yd.
2042B	Black	.090″	.014″	48	500 yd.
2043	Natural White	.060″	.010″	35	500 yd.
2043B	Black	.060″	.010″	35	500 yd.
2044	Natural White	.046″	.010″	25	500 yd.
2044B	Black	.046″	.010″	25	500 yd.

TEFLON* FIBERGLASS FLAT BRAIDED LACING TAPE

Teflon coated fiberglass flat braided lacing tape bonded for high temp. operations (550°F). Stays flat — for strength, stability. Teflon finish increases strength and abrasion resistant surface. Will not cut or damage insulation.

DABURN No.	Color	Nom. Width	Thickness Nom.	lbs. Test	Standard Put-Up Tubes
2045	White	.170″	.025″	150	500 yd.
2046	White	.120″	.020″	90	500 yd.
2047	White	.080″	.020″	70	500 yd.

TEFLON* FLAT BRAIDED LACING TAPE

for high temperature operations (550°F)

DABURN No.	Color	Nom. Width	Nom. Thickness	Test lbs.	Standard Put-Up Tubes
2048	Brown	.100″	.016″	35	500 yd.
2049	Brown	.075″	.010″	15	500 yd.

ROUND TWISTED NYLON LACING CORD

Manufactured to meet MIL-T-713A Type P specification, Composition P, Classes 3, 2, 1. Wax finish — compounded with fungicide to resist mildew. Easy to tie.

PUT-UP ON 1 LB. TUBES

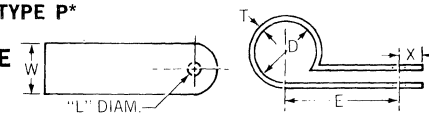
DABURN No.	Color	Class	Tensile Strength	Nom. Diam.	Yds. Per Tube
2070	Natural	1	70 lbs.	.039″	600
2070B	Black	1	70 lbs.	.039″	600
2071	Natural	2	48 lbs.	.029″	800
2071B	Black	2	48 lbs.	.029″	800
2072	Natural	3	32 lbs.	.025″	1140
2072B	Black	3	32 lbs.	.025″	1140
2072/1	Natural	4	20 lbs.	.020″	2400
2072/1B	Black	4	20 lbs.	.020″	2400

ROUND TWISTED LINEN LACING CORD

Manufactured from pure flax treated with microcrystalline wax compounded with fungicide to resist mildew. Classes 1, 2, 3 meet MIL-T-713A Type N specifications.

4 OZ. TUBE DABURN No.	Yds.	8 OZ. TUBE DABURN No.	Yds.	1 LB. TUBES DABURN No. Nat.	DABURN No. Blk.	Yds.	Class	Ply	Diam.	Lb. Test
2073	210	2074	425	2075	2075B	850	—	4	.036″	22
2076	150	2077	300	2078	2078B	600	3	6	.044″	33
2082	115	2083	235	2084	2084B	470	2	8	.051″	50
2079	100	2080	200	2081	2081B	400	—	9	.054″	56
2085	75	2086	150	2087	2087B	300	1	12	.063″	72

NYLON CABLE CLAMPS



MADE OF DU PONT "ZYTEL" 101 NYLON RESIN

Meets MIL-P-26093A and MIL-P-17091A Amend. 2

Light and tough these nylon cable clamps are used as a clamp, strain relief, clip hanger, fastener or strap. Smooth non-abrasive surfaces, rounded edges will not cause shorts or grounds in cable. Insoluble in solvents, gasoline, oils, hydraulic fluids, alcohol, acids, alkalies. Temperature range −60°F to +300°F. Does not support combustion. Inside matte finish. Prevents slippage and is self aligning. Snaps on cable. Meets MIL-P-20693A specs. fungus resistant.

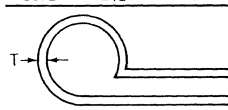
DABURN No.	To Fit Size	D	E	W	T	H	X
625	1/8″	.125	.316	3/8	.050	.177	.227
626	3/16″	.187	.378	3/8	.050	.177	.277
627	1/4″	.250	.409	3/8	.050	.177	.227
628	5/16″	.312	.441	3/8	.050	.177	.277
629	3/8″	.375	.471	3/8	.050	.177	.277
630	7/16″	.437	.519	3/8	.050	.177	.277
631	1/2″	.500	.550	3/8	.050	.177	.277
631A	9/16″	.563	.625	1/2	.060	.177	.227
632	5/8″	.625	.634	1/2	.060	.177	.227
632A	11/16″	.687	.752	1/2	.060	.177	.227
633	3/4″	.750	.718	1/2	.060	.177	.227
634	7/8″	.875	.760	1/2	.060	.177	.227
635	1″	1.000	.802	1/2	.060	.177	.227
636	1 1/8″	1.125	.968	1/2	.062	.204	.250
637	1 1/4″	1.250	1.156	1/2	.062	.204	.250
638	1 1/2″	1.500	1.188	5/8	.070	.204	.250

Std. Pkg. 100, 500, 1000

ETHYL CELLULOSE CABLE CLAMPS

Ethocel recommended for general use. Combines light weight and chemical resistance with excellent shock resisting properties in temp. range from −40°F to +185°F. Approved 7-21-44 Army-Navy Aeronautical AN-742. Also made to meet MIL STD. 242A (Ships). Suitable indoor-outdoor. Std. Pkg. 100, 1000.

DABURN No.	To Fit Size	D	E	W	T	H	X
615	1/8″	.125	.325	1/2	.060	.204	7/32
615A	3/16″	.188	.390	1/2	.060	.204	7/32
615B	1/4″	.250	.421	1/2	.060	.204	7/32
615C	5/16″	.313	.457	1/2	.060	.204	7/32
615D	3/8″	.375	.483	1/2	.060	.204	7/32
615E	7/16″	.438	.531	1/2	.060	.204	7/32
616	1/2″	.500	.562	1/2	.060	.204	7/32
616A	9/16″	.563	.625	1/2	.060	.204	7/32
616B	5/8″	.625	.610	1/2	.060	.204	7/32
616C	11/16″	.688	.666	1/2	.060	.204	7/32
616D	3/4″	.750	.766	1/2	.060	.204	7/32
616E	7/8″	.875	.813	1/2	.060	.204	7/32
617	1″	1.000	.906	1/2	.060	.204	7/32
617A	1 1/8″	1.125	.969	1/2	.060	.204	7/32
617B	1 1/4″	1.250	1.156	1/2	.060	.204	7/32
617C	1 1/2″	1.5	1.0625	5/8	.070	.204	7/32
617D	2″	2.0	1.313	5/8	.070	.204	7/32
617E	2 1/2″	2.5	1.563	5/8	.070	.204	7/32

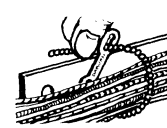


DABURN ALUMINUM CABLE CLAMPS

Made of hard drawn aluminum, light weight. Useful when mounting resonant lines, elements for beams, etc. Strong, durable, rust-proof.

DABURN No.	To Fit Size	Width	Length	Thickness	Clearance Hole For	Std. Pkg.
651A	1/8″	1/2″	13/16″	.050″	10	100
651	1/4″	1/2″	7/8″	.050″	10	100
652	5/16″	1/2″	15/16″	.050″	10	100
653	3/8″	1/2″	1″	.050″	10	100
654	1/2″	1/2″	1 1/8″	.050″	10	100
654S	1/2″	1/2″	1 1/2″	.050″	10	100
654A	5/8″	1/2″	1 1/4″	.050″	10	50
655	3/4″	3/4″	1 5/16″	.090″	1/4-20	50
657	7/8″	3/4″	1 5/8″	.090″	1/4-20	50
656	1″	3/4″	1 3/4″	.090″	1/4-20	50
656A	1 1/8″	3/4″	1 7/8″	.090″	1/4-20	50
656B	1 1/4″	3/4″	2″	.090″	1/4-20	50

DABURN PUSH BUTTON WIRE TIES



Push button wire ties for harnessing wire. 4 1/2″ in length, each tie is adjustable to 30 different diameters. Made of strong polyethylene, it is inert chemically and heat resistant. Breaking strength 45 to 95 lbs. After the tie is placed in hole for anchoring, wires can be replaced or added by loosening tie and pulling tight again. Designed to fit .250″ - .265″ hole in a .031″ to .140″ thick panel. Material conforms to Spec. LP590.

DABURN No.	(Specify Color)	Std. Pkg.
601-4	Red, Blue, Yellow	100, 1000

SPIRAL WRAP FOR HARNESSING AVAILABLE. WRITE FOR BROCHURE.

© U.C.P., Inc.

ELECTROVERT INC.

COMPONENTS AND EQUIPMENT DIVISION

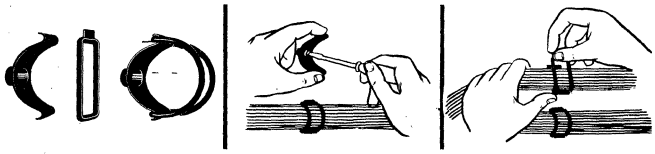
New York, N. Y.

Insuloid cradleclip®

• Electrical switchgear, switchboard, instrument & control panels • Electrical equipment • Chassis-mounted components & wiring • Cable runs in buildings • Fuel, lubricant, coolant & hydraulic fluid line installations • Chemical tubing & piping installations.

FOR SUPPORTED WIRING

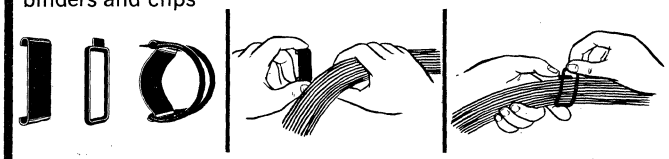
cradles and clips



Just screw cradle to panel, position cables in cradle and hook on clip of required size, as shown.

FOR UNSUPPORTED WIRING

binders and clips



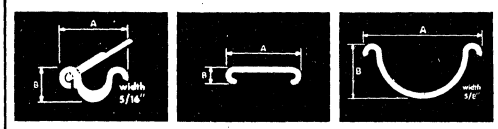
CRADLES

C0 N0 Miniature with captive clip

C1, C2, C3

C1-M C2-M C3 M molded in cadmium-plated, chromate-treated nut to take 6/32 thread bolts

BINDERS



B0 N0 Miniature with captive clip

B1

B2, B12

CLIPS

N0 miniature (for replacement)

N1. N3, N5, N7

MATERIALS

Cradles and Binders are molded from special nylon (Zytel 105). Extensible Clips are available in Neoprene, Butyl, Viton and Silicone rubber. N0 available in Neoprene only. Temperature range—76°F to +250°F.

DIMENSIONS AND WEIGHTS

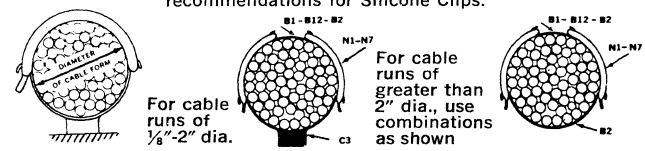
Type & Size	Dimensions (") A	B	Wt/M (1000) pcs (approx.)	Net Cost Per M
Cradles				
C0	.500	.335	8.2 oz	27.95
C1	.937	.562	3 lbs, 8 oz	35.75
C1-M	"	"	8 lbs	55.25
C2	1.375	.750	4 lbs, 5 oz	40.30
C2-M	"	"	9 lbs, 14 oz	61.75
C3	1.875	1.000	5 lbs, 14 oz	44.85
C3-M	"	"	10 lbs, 10 oz.	68.25
Binders				
B0	.500	.250	7.2 oz	27.95
B1	.875	.187	1 lb, 9 oz	20.15
B12	.937	.400	2 lbs, 7 oz.	27.95
B2	1.875	.812	4 lbs, 13 oz	38.35
Clips				
N0	.340	.500	3.8 oz	20.15
N1	.500	.937	2 lbs, 2 oz	13.65
N3	1.000	1.000	3 lbs, 13 oz	19.50
N5	1.750	1.000	5 lbs, 7 oz	23.40
N7	2.562	1.000	7 lbs, 7 oz	27.30

Standard pack: 500. Packed in polyethylene bags in cardboard cartons.

RECOMMENDED COMBINATIONS

DIAMETER OF CABLE FORM	SUPPORTED* WIRING Cradle Clip		UNSUPPORTED* WIRING Binder Clip	
1/8" - 5/16"	C0	N0	B0	N0
1/4" - 3/8"	C1	N1	B1	N1
1/2" - 11/16"	C1	N3	B1	N5
11/16" - 15/16"	C2	N3	B12	N3
15/16" - 1 1/16"	C2	N5	B12	N5
1" - 1 1/4"	C3	N3	B2	N3
1 1/4" - 1 1/2"	C3	N5	B2	N5
1 1/2" - 2"	C3	N7	B2	N7

*for Neoprene, Butyl and Viton Clips. Ask for special recommendations for Silicone Clips.

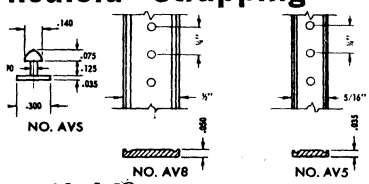


For cable runs of 1/8"-2" dia.

For cable runs of greater than 2" dia., use combinations as shown

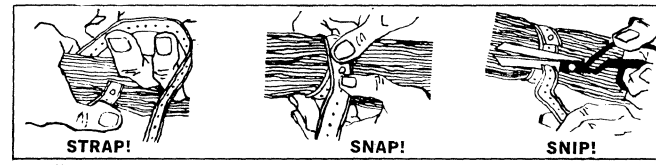
nsuloid® Strapping

The lowest cost, quality wire and cable tying system available to the electrical and electronics field today!



Material: PVC (Polyvinylchloride); extremely strong; temperature range —26°F to +180°F.

Packing: strap, 75 ft. coil boxed; or 500 or 1000 ft. coils on reels. Studs, 1000 per box.



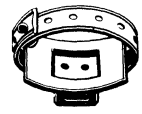
Installation: Stud is inserted in end of strap extending from dispenser carton; strap is then passed under and around wire bringing it back, under tension, over stud again. Strap is then cut at next hole. This operation should be repeated approximately every 6 inches or as required.

Type	75' Roll	500' Roll	1000' Roll	AVS Studs (1M/Box)
AV5	$1.46	$8.78	$16.25	Black-Blunted $3.25
AV8	2.44	14.63	27.63	White-Pointed 5.52

Strap Saddle 35.75/M

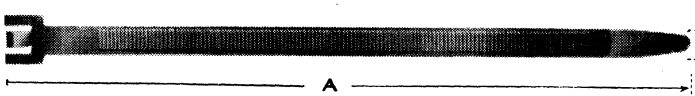
nsuloid® strap saddle

arness in combination with INSULOID Strapng. Wire bundle is laid into Strap Saddle hich has been fastened to panel. Required ngth of Strapping is threaded through both ings of saddle. Strapping is then fastened. ISULOID Strap Saddle is a nylon molding. emperature range: —76°F to +250°F.

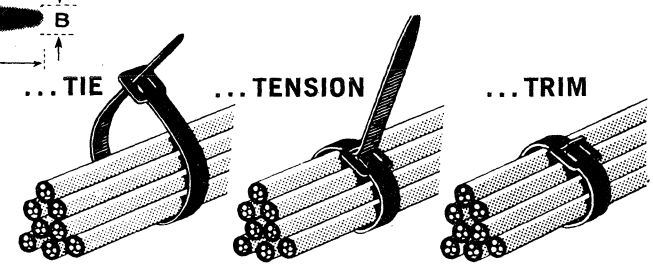


nsuloop cable tie

Simplest binding system available . . . one component . . . molded of flexible nylon . . . strong, virtually indestructible.



Ref.	A	B	Thickness	To Accommodate Cable Runs From Dia.	To Dia.	Net Cost Per M
LK1	3"	3/16"	3/64"	3/16"	9/16"	24.70
LK2	4 11/16"	3/16"	3/64"	3/16"	1 1/16"	29.25
LK3	9"	3/8"	1/16"	3/4"	2 1/4"	74.75



Net

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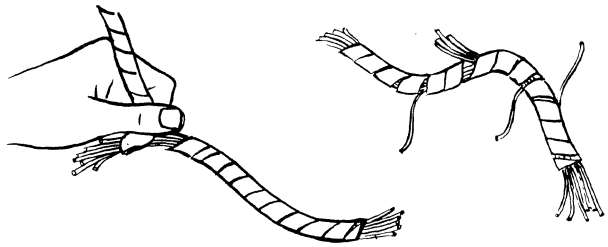
ELECTROVERT INC.

COMPONENTS AND EQUIPMENT DIVISION
New York, N. Y.

Beta Spiroband

Reduces inventory costs • Three standard materials — natural polyethylene, ultraviolet resistant, fire resistant • Three diameters, each for application to a wide range of bundle sizes.



Spiroband	Outside Diameter	Wall Thickness	Length of Std. Coil	Net Cost Per Coil
½	.500	.062	25 ft.	2.21
¼	.250	.045	100 ft.	3.64
⅛	.125	.032	100 ft.	2.05

MATERIAL	Natural Polyethylene—DFD-2005
PROPERTIES	Brittleness (D746) −85°C = −121°F Dielectric constant (D150—23°C) 2.27
SPECIFICATIONS	ASTM: D1248-58T, Type 1, Class A, Grade 4
	Federal: L-P-590, Type II, Grade 4
	REA: PE-23

MATERIAL SPECIFICATIONS

Natural Polyethylene: (grade specification shown in table at right) color is clear.

Ultraviolet Resistant: basically same as above with additives to withstand ultraviolet rays which color material black.

Fire Resistant: as above, but with additive which colors material bone white.

Beta "Z" markers

PERMANENT • RELIABLE • DURABLE

SPECIFICATIONS

Cat.*	Recommended for Wires/Cables of O.D.	Length	Thickness	NET COST/PKG Pkgs/50	Pkgs/500
22	.045″-.065″	.140″	.055″	.45	3.90
20	.066″-.085″	.140″	.050″	.45	3.90
18	.086″-.115″	.140″	.040″	.45	3.90
16	.110″-.135″	.140″	.030″	.45	3.90
14	.130″-.160″	.160″	.040″	.45	3.90
12	.150″-.175″	.160″	.045″	.45	3.90
10	.170″-.195″	.160″	.045″	.46	4.00
9	.190″-.215″	.160″	.050″	.47	4.06
8	.210″-.250″	.190″	.055″	.48	4.23
7	.245″-.295″	.190″	.055″	.55	4.88
6	.290″-.360″	.224″	.060″	.62	5.69
4-1	.355″-.460″	.224″	.060″	.72	6.66

Combination of 2— 25% overcharge **Combination of 4—100% overcharge**
Combination of 3— 50% overcharge **Combination of 5—125% overcharge**

Colors: White with black markings (Standard color). Black with white markings, Blue, Green, Yellow, Red with black markings.

Material: PVC MIL-1-631C, Type F, Form U, Grade a & b, Class I, Category 1, finish: glossy. Specific gravity: 1.21. Hardness (shore A): 73 av. Tensile Strength: 2600 psi. av. Ultimate Elongation: 350% av. Dielectric Strength (20 mil specimen): 750 volts/mil. Cold Brittle Temp. (50% non-failure): —65° F.

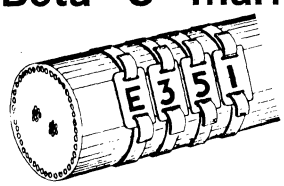
Markings: Single: numerals 0-9, letters A to Z, symbols +, —, ~, ±. Multiple: any 2, 3, 4 or 5 unit combinations of above.

Packing: Coil of 50 single markers, one size, color and character per polyethylene covered cards. Coil of 500, as above, on self-servicing reels. Coil of 500 multiple markers, one color, sizes 22, 20, 18, 16, 14, 12, 10, 9 or 8. Coil of 250 multiple markers, sizes 7, 6 or 4-1.

Min. Quantity: per size, and character: 50 single white, 500 multiple, 500 colored.

Min. Order: 500 markers.

Beta "S" markers for cables with O.D. of more than .500".



Strap-on-marker: Size: ⅜″ x 5/16″ x .040″, material P.V.C., colors and material same as BETA "Z". Markings: 0-9, A-Z, +, —, ~, ±.

Application Strip: PVC—covered aluminum, 4 mm wide 0.6 mm thick.

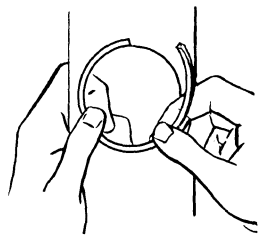
Min. Quantity: Per size, color and character: 5 markers.

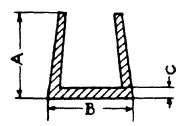
Min. Order: 500 Markers, 165′ coil of strip.

Packing: Markers, 50 per indicator card pouch strips in 165′ coils.

Strip Wire Clip .....$5.43 per 100 linear ft. (shipped in 165′ coils
Markers 13.00/M

Beta grommet strip with the "Snip-n-Fit" feature





U-shaped, strip-type grommeting material can be cut to size, provides smooth surface around edge of any hole and features quick, simple application. No adhesive or special tools required.

...offers the advantage of one strip only for applications to: round holes; square holes; rectangular holes; oval holes.

MATERIAL				Natural Polyethylene—DFD-2005		
PROPERTIES				Brittleness (D746) −85°C = −121°F Dielectric constant (D150—23°C) 2.27		
SIZE	A	B	C	APPLICATION	PACKAGING	NET/
2	.120	.100	.035	20 Ga. and smaller	75′ coils	2.9
3	.150	.150	.035	18 to 12 gauge	75′ coils	3.2
4	.150	.200	.045	11 to 8 gauge	75′ coils	3.9
5	.190	.280	.045	8 Ga. to 3/16″ thick	75′ coils	6.8
6	.250	.375	.062	3/16″ to ¼″ thick	50′ coils	6.5

Specifications: ASTM: D-1248-58T, Type 1, Class A, Grade 4. Federal: L-P-590, Type II, Grade 4. REA: PE-23. MIL-C-17C, Cable, radio frequency, coaxial, dual coaxial, twin conductor and twin lead. MIL-W-76B, Insulated hookup wire. MIL-C-915A, Electrical cable for shipboard use.

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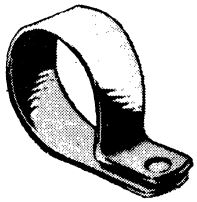
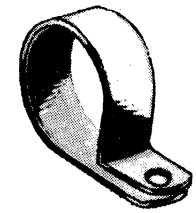
Net

GC ELECTRONICS ELECTROCRAFT COMPONENTS

ELECTROCRAFT PLASTIC CABLE CLAMPS



Electrocraft Cable Clamps are used for fastening cables, harnesses, tubing, etc. Lightweight, durable, with excellent electrical and mechanical properties. Two materials: (1) Ethyl Cellulose, for normal industrial and commercial uses—where temperatures range from —40° F. to 185° F. (2) Nyon (Zytel), for extreme durability and high resistance to temperature (—60° F. to 300° F.) and most chemicals.



ETHYL CELLULOSE CABLE CLAMPS
Transparent (light yellowish) plastic. Meets specifications AN742. Plastic thickness is .063".

NYLON (ZYTEL) CABLE CLAMPS
Natural color (translucent white) Nylon. Thickness is .050" on ½" dia. and smaller clamps, .060" on 5/16" and larger.

ETHYL CELLULOSE CLAMPS

For Cable O.D.	Cat. No.	Net Per C	Cat. No.	Net Per M
1/8"	34-300C	$2.33	34-300-M	$19.80
3/16"	34-304C	2.40	34-304-M	19.92
1/4"	34-308C	2.58	34-308-M	21.97
5/16"	34-312C	2.85	34-312-M	24.23
3/8"	34-316C	3.00	34-316-M	25.50
7/16"	34-320C	3.30	34-320-M	27.83
1/2"	34-324C	3.60	34-324-M	29.63
9/16"	34-328C	4.20	34-328-M	34.68
19/32"	34-332C	4.50	34-332-M	36.00
5/8"	34-336C	4.80	34-336-M	39.83
11/16"	34-340C	5.10	34-340-M	42.71
3/4"	34-344C	5.40	34-344-M	44.76
7/8"	34-348C	5.70	34-348-M	48.36
1"	34-352C	6.00	34-352-M	51.60
1 1/8"	34-356C	6.30	34-356-M	55.08
1 1/4"	34-358C	6.60	34-358-M	58.20

NYLON (ZYTEL) CLAMPS

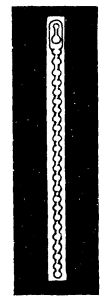
For Cable O.D.	Cat. No.	Net Per C	Cat. No.	Net Per M
1/8"	34-370C	$3.60	34-370-M	$30.00
3/16"	34-374C	3.93	34-374-M	31.77
1/4"	34-378C	4.17	34-378-M	34.73
5/16"	34-382C	4.68	34-382-M	38.37
3/8"	34-386C	4.83	34-386-M	40.32
7/16"	34-390C	5.13	34-390-M	42.63
1/2"	34-394C	5.47	34-394-M	45.38
9/16"	34-398C	6.72	34-398-M	62.26
5/8"	34-402C	7.50	34-402-M	65.63
11/16"	34-406C	7.80	34-406-M	77.33
3/4"	34-410C	8.40	34-410-M	75.00
7/8"	34-414C	9.00	34-414-M	81.00
1"	34-418C	10.50	34-418-M	96.00

SEND TODAY FOR NEW free GC Catalog . . . shows all GC quality products.

WIRE and CABLE TIES

PLASTIC

Tough and flexible. Chemically inert. Available in Red, Yellow, or Blue in three different lengths. Smart looking... a compliment to any assembly. Special SNAP BUTTON model holds wire and cable bundles to walls, chassis, cabinets, fire walls etc.



Part No.	Description	Net	Part No.	Box of 1000*
34-432	4-1/4" Red	.98 #	34-432-M	11.10
34-436	4-1/4" Yellow	.98 #	34-436-M	11.10
34-440	4-1/4" Blue	.98 #	34-440-M	11.10
34-444-M	10" Red (available in 1000 lots only)			21.60
34-448-M	10" Yellow			21.60
34-452-M	10" Blue			21.60
34-449-M	12" Yellow			24.90
34-450-M	12" Red			24.90
34-451-M	12" Blue			24.90
34-454-M	4-1/4" Snap-in plastic Red +			13.95
34-456-M	4-1/4" Snap-in plastic Yellow +			13.95
34-458-M	4-1/4" Snap-in plastic Blue +			13.95

Package of 40
* Write for Prices on quantities of 10,000 and up.

+ Pat. Pending

NYLON

Heavy duty, extra tough. All types are available in natural white only. Nylon withstands extreme temperature. Chemically inert.

Part No.	Description	Net Box of 1000*
34-442-M	4-1/4"	14.90
34-460-M	10"	33.85

SPECIAL CABLE TIES
Special sizes and colors, even styles of cable ties are available in large quantities. Write or call your specifications today.

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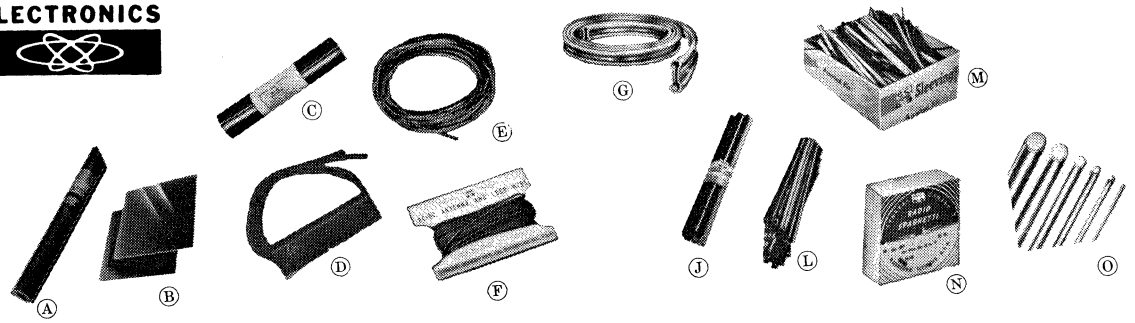
GC ELECTRONICS ELECTRONIC COMPONENTS



(A) G-C INSULATING CAMBRIC—Dry yellow varnished cambric for field coils, transformers, chokes, resistors, motors, etc.

Cat. No. 549 .010"—Roll over 210 sq. in. Net $ **.78**

(B) G-C LAMINATED PHENOLIC PLASTIC PANELS—Black laminated panels. 1/16" thick stock. Black color.

Cat. No. 590 6"x6"x1/16" Net $ **.42**
591 6"x12"x1/16" **.82**
592 12"x12"x1/16" **1.58**

(C) G-C FYBEROID FISH PAPER—Fish paper has many uses around the shops for repair jobs where electrical insulation is required.

Cat. No. 560 .010"-240 sq. in. roll Net $ **.50**

(D) G-C BATTERY CONNECTOR STRIP—Used for connecting 67½ volt "B" batteries, such as Eveready 455, 466; Burgess XX30, XX45.

Cat. No. 8115 Net $ **.18**

(E) G-C SHIELDED PHONO PICK-UP WIRE—Handy packages of shielded phono pick-up wire, very handy for new installations or replacements.

Cat. No. 1738-E Envelope Net $ **.38**

(F) G-C AC-DC INDOOR ANTENNA WIRE—Antenna lead wire for indoor type AC-DC sets. Flexible copper wire covered with brown plastic insulation.

Cat. No. 840 25 Ft. coil Net $ **.37**

(G) G-C 300-OHM LINE PROTECTIVE TUBING—Clear plastic tubing will fit over 300-ohm flat lines and will protect the line from grounding and rubbing on corners of buildings, eaves, etc. It actually protects and waterproofs the line.

Cat. No. 625 Box of 8 ft. Net $ **.75**
626 250 ft. coil **15.90**
627 1000 ft. **59.33**

(J) G-C GENFLEX PLASTIC TUBING—High grade extremely flexible plastic tubing for radio and electronic insulation work. Highly resistant to cold or heat. High dielectric strength, average 8,000 volts. Colors: Black, Red, Green and Clear (Specify Color).

Cat. No. 603 18 B-S Gauge, .042 I.D., 20 ft. Package Net $ **.82**
605 16 B-S Gauge, .053 I.D., 20 ft. Package Net $ **.82**
607 14 B-S Gauge, .066 I.D. 20 ft. Package Net $ **.82**
609 12 B-S Gauge, .085 I.D., 20 ft. Package Net $ **.82**
611 10 B-S Gauge, .106 I.D., 15 ft. Package Net $ **.82**
613 8 B-S Gauge, .133 I.D., 15 ft. Package Net $ **.82**
616 6 B-S Gauge, .166 I.D., 10 ft. Package Net $ **.82**
617 4 B-S Gauge, .208 I.D., 10 ft. Package Net $ **.82**
620 2 B-S Gauge, .263 I.D., 10 ft. Package Net $ **.82**

G-C PLASTIC TUBING KITS — Handy kits of assorted colors and sizes. Ideal for experimenters and servicemen.

Cat. No. 635 Kit of 25 ft. assorted. Sizes 18 to 10 Genflex Tubing. Net $ **.82**

(L) G-C ASSORTED SPAGHETTI KIT—An assortment of 7½" lengths of spaghetti sleeving. 26 lengths to the kit. Sizes include from No. 17 wire to 3/8" I.D.

Cat. No. 550 Kit of 26 Lengths. Net $ **.40**

(M) SPAGHETTI AND SLEEVING ASSORTMENT—A variety of sizes and colors are included of high grade varnish tubing. Put up in attractive box.

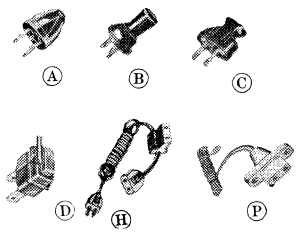
Cat. No. 551 Net $ **.90**

(N) G-C SPAGHETTI IN BOXES—Best grade varnished tubing put in convenient 20-ft. lengths. Will fit wire from No. 12 to No. 18. Colors: Black, Red, Yellow, Green and Blue.

Cat. No. 499 Net $ **1.67**

(O) G-C RADIO SPAGHETTI—High grade spaghetti for radio-television work. Average dielectric strength 4000 volts. Very flexible. Smoothly coated with best grades of varnish. Material is approved by A. S. T. M. Colors: Black, Brown, Red, Green and Yellow (Specify Color). 30" Lengths.

Cat. No. 500 No. 20, fit 20 wire Net $ **.15**
503 No. 17, fit 18 wire $ **.17**
506 No. 14, fit 14 wire $ **.17**
508 No. 12, fit 12 wire $ **.17**
512 1/8" I.D. $ **.23**
515 3/16" I.D. $ **.25**
518 1/4" I.D. $ **.40**
521 3/8" I.D. (resist. size) $ **.63**
522 7/16" I.D. Red & Black $ **.73**
523 1/2" I.D. Red & Black **$1.03**



(A) G-C STREAMLINE ATTACHMENT CAP—Made of rubber. Brass blades. Spring type. U.L. approved.

Cat. No. 865 Net $ **.23**

(B) G-C SPRING ACTION CAP—Heavy-duty type. Made of rubber. Brass blades. U.L. approved.

Cat. No. 861 Net $ **.17**

(C) G-C SPRING ACTION CAP—Flat plastic type. Brass blades. U.L. approved. Cat. No. 860 Net $ **.17**

(D) G-C ANGLE PLUG—Plastic angle plug that assembles in a jiffy. It has no screws and requires no soldering.

Cat. No. 8360-E Brown Net $ **.30**
8361-E Ivory **.30**

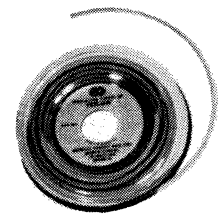
(E) SERVICEMAN'S CHEATER CORD—Special "cheater cord" for extending the standard interlock safety cord supplied with the TV set.

Cat. No. 8948 Net $ **.87**

(F) INTERLOCK CABLE CORD—Replacement cord for RCA, Philco, G-E, Admiral and others.

Cat. No. 8200 Reg. TV Cord Net $ **.48**
8201 Spec. Zenith Cord **.70**

NEW G-C INSULATING TUBING OF TEFLON*



—Exceptionally tough and flexible. Withstands temperatures from 450° below zero F. to 500° above zero F. Will not melt near solder joints. Outstanding dielectric properties—zero moisture absorption. Chemically inert. Completely weatherproof. Wires can be inserted much more easily than in any other tubing.

*Registered trademark Du Pont Co.

Part No.	Feet Per Spool	Color	Gauge	I.D. (Inches)	Wall Thickness	Net Per Spool
7980-7	10	Nat	24	.022	.010	$ 1.33
7980-7C	100	Nat	24	.022	.010	11.83
7980-1	10	Red	24	.022	.010	1.33
7980-1C	100	Red	24	.022	.010	11.83
7980-4	10	Blue	24	.022	.010	1.33
7980-4C	100	Blue	24	.022	.010	11.83
7981-7	10	Nat	22	.027	.012	1.47
7981-7C	100	Nat	22	.027	.012	13.26
7981-1	10	Red	22	.027	.012	1.47
7981-1C	100	Red	22	.027	.012	13.26
7981-4	10	Blue	22	.027	.012	1.47
7981-4C	100	Blue	22	.027	.012	13.26
7982-7	10	Nat	20	.034	.012	1.83
7982-7C	100	Nat	20	.034	.012	18.27
7982-1	10	Red	20	.034	.012	1.83
7982-1C	100	Blue	20	.034	.012	18.27
7982-4	10	Nat	18	.042	.012	1.83
7982-4C	100	Blue	20	.034	.012	18.27
7983-7	10	Red	20	.034	.012	2.23
7983-7C	100	Nat	18	.042	.012	20.88
7983-1	10	Red	18	.042	.012	2.23
7983-1C	100	Red	18	.042	.012	20.88
7983-4	10	Blue	18	.042	.012	2.23
7983-4C	100	Blue	18	.042	.012	20.88
7984-7	10	Nat	16	.053	.012	2.65
7984-7C	100	Nat	16	.053	.012	25.02
7984-1	10	Red	16	.053	.012	2.65
7984-1C	100	Red	16	.053	.012	25.02
7984-4	10	Blue	16	.053	.012	2.65
7984-4C	100	Blue	16	.053	.012	25.02
7985-7	10	Nat	14	.066	.012	2.92
7985-7C	100	Nat	14	.066	.012	28.38
7985-1	10	Red	14	.066	.012	2.92
7985-1C	100	Red	14	.066	.012	28.38
7985-4	10	Blue	14	.066	.012	2.92
7985-4C	100	Blue	14	.066	.012	28.38
7986-7	5	Nat	12	.085	.014	1.83
7986-7C	100	Nat	12	.085	.014	34.28
7986-1	5	Red	12	.085	.014	1.83
7986-1C	100	Red	12	.085	.014	34.28
7986-4	5	Blue	12	.085	.014	1.83
7986-4C	100	Blue	12	.085	.014	34.28
7987-7	5	Nat	10	.106	.014	2.17
7987-7C	100	Nat	10	.106	.014	41.58
7987-1	5	Red	10	.106	.014	2.17
7987-1C	100	Red	10	.106	.014	41.58
7987-4	5	Blue	10	.106	.014	2.17
7987-4C	100	Blue	10	.106	.014	41.58

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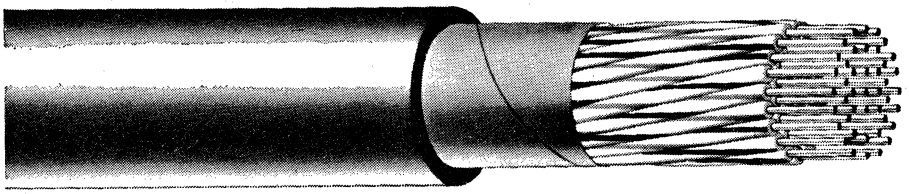

In Stock MIL-SPEC

Multiple Conductor Cables!

National Wire & Cable Corporation manufactures a complete line of multiple conductor control cables. Conductors are of tinned copper strand with primary insulation for use up to 105°C per MIL-W-16878D Type C. Insulated for 1000 volts working voltage. Conductors are color coded using 10 standard basic colors, plus spiral tracers on white per MIL-STD. 122.

All conductors are planetary cabled and contra-helically laid with a Mylar tape serve over the cable bundle. The overall jacket is a 105°C black Thermoplastic or may be Neoprene to MIL-R-6855 Class 2 Grade 60 specification.

SHIELDED CABLES

National Multiple Conductor SHIELDED CABLES are to the same specifications as above with addition of tinned copper braided shield over cable complex with 85-90% coverage to MIL-C-7078A. STANDARD PUT-UPS: 500 ft. and 1000 ft. No-deposit reels.

TECHNICAL DATA (all cables)

Insulation Breakdown Voltage:	Greater than 8000 volts AC RMS, 60 cps.
Capacitance:	Nominal capacitance from a wire to all else in the cable ranges from 40 to 65 mmfd per ft., @ 1000 cps; dependent on cable construction.
Insulation Leakage Res.:	200. megohms/1000 ft. min. at 500 VDC from any conductor to all else in cable.
Sheath Leakage Res.:	10. megohms/1000 ft. min. at 500 VDC from overall shield through sheath to outside world.
Useable Temp. Range:	Suitable for continuous use from +105°C to −55°C.
Cold Bending Capability:	All cables are suitable for flexing to a circle diam. of approx. 6 cable diameters from +105°C to −20°C; Recommended flex diameter should be greater than 20 cable diam. for flexing at −40°C., or for continuous flexing service to −55°C, specify our neoprene sheath, in lieu of plastic sheath.

MULTI-CONDUCTOR STOCK CABLES

Conductor sizes 22, 20, 18, 16, 14 & 12 gauge. 22 AWG is 7 strand. All others 19 strand.

UNSHIELDED

PART NO.	NO. COND.	COND. AWG	JKT. THICK	CABLE O.D.	WEIGHT PER M'
NW-722 J	7	22	.040	.295	40 Lbs.
NW-1222J	12	22	.050	.390	70 Lbs.
NW-1922J	19	22	.060	.460	110 Lbs.
NW-2722J	27	22	.060	.530	160 Lbs.
NW-3722J	37	22	.060	.600	200 Lbs.
NW-4822J	48	22	.060	.670	245 Lbs.
NW-6022J	60	22	.060	.730	300 Lbs.
NW-7222J	72	22	.060	.775	360 Lbs.
NW-8822J	88	22	.060	.835	425 Lbs.
NW-10222J	102	22	.060	.880	485 Lbs.
NW-720 J	7	20	.040	.300	50 Lbs.
NW-1220J	12	20	.050	.400	105 Lbs.
NW-1920J	19	20	.060	.470	160 Lbs.
NW-2720J	27	20	.060	.560	210 Lbs.
NW-3720J	37	20	.060	.610	280 Lbs.
NW-4820J	48	20	.060	.700	360 Lbs.
NW-6020J	60	20	.060	.750	435 Lbs.
NW-7220J	72	20	.060	.840	485 Lbs.
NW-8820J	88	20	.060	.900	580 Lbs.
NW-1022J	102	20	.060	.975	670 Lbs.
NW-718 J	7	18	.040	.350	75 Lbs.
NW-1218J	12	18	.050	.460	135 Lbs.
NW-1918J	19	18	.060	.560	225 Lbs.
NW-2718J	27	18	.060	.650	300 Lbs.
NW-3718J	37	18	.060	.730	390 Lbs.
NW-4818J	48	18	.060	.820	510 Lbs.
NW-6018J	60	18	.060	.900	600 Lbs.
NW-7218J	72	18	.060	1.100	720 Lbs.
NW-716 J	7	16	.040	.370	95 Lbs.
NW-1216J	12	16	.050	.500	155 Lbs.
NW-1916J	19	16	.060	.600	230 Lbs.
NW-2716J	27	16	.060	.700	320 Lbs.
NW-3716J	37	16	.060	.785	430 Lbs.
NW-4816J	48	16	.060	.900	625 Lbs.
NW-6016J	60	16	.060	.980	750 Lbs.
NW-714 J	7	14	.050	.450	150 Lbs.
NW-1214J	12	14	.050	.560	240 Lbs.
NW-1914J	19	14	.060	.675	370 Lbs.
NW-2714J	27	14	.060	.800	515 Lbs.
NW-512 J	5	12	.050	.480	175 Lbs.
NW-712 J	7	12	.050	.525	225 Lbs.
NW-1212J	12	12	.060	.700	375 Lbs.
NW-1912J	19	12	.060	.820	560 Lbs.

OVERALL SHIELDED

PART NO.	NO. COND	COND AWG	T.C. SHIELD	JKT. THICK	CABLE O.D.	WEIGHT PER M'
NW-722 SJ	7	22	No. 36	.040	.320	55 Lbs.
NW-1222SJ	12	22	No. 34	.050	.420	90 Lbs.
NW-1922SJ	19	22	No. 34	.060	.490	145 Lbs.
NW-2722SJ	27	22	No. 34	.060	.560	200 Lbs.
NW-3722SJ	37	22	No. 34	.060	.630	245 Lbs.
NW-4822SJ	48	22	No. 34	.060	.700	300 Lbs.
NW-6022SJ	60	22	No. 34	.060	.760	355 Lbs.
NW-7222SJ	72	22	No. 34	.060	.810	425 Lbs.
NW-8822SJ	88	22	No. 34	.060	.870	500 Lbs.
NW-1022SJ	102	22	No. 34	.060	.915	560 Lbs.
NW-720 SJ	7	20	No. 34	.040	.335	68 Lbs.
NW-1220SJ	12	20	No. 34	.050	.435	125 Lbs.
NW-1920SJ	19	20	No. 34	.060	.500	195 Lbs.
NW-2720SP	27	20	No. 34	.060	.595	250 Lbs.
NW-3720SJ	37	20	No. 34	.050	.650	325 Lbs.
NW-4820SJ	48	20	No. 34	.060	.735	415 Lbs.
NW-6020SJ	60	20	No. 34	.060	.785	500 Lbs.
NW-7220SJ	72	20	No. 34	.060	.875	555 Lbs.
NW-8820SJ	88	20	No. 34	.060	.935	660 Lbs.
NW-10220SJ	102	20	No. 34	.060	1.010	750 Lbs.
NW-718 SJ	7	18	No. 34	.040	.380	95 Lbs.
NW-1218SJ	12	18	No. 34	.050	.490	170 Lbs.
NW-1918SJ	19	18	No. 34	.060	.590	265 Lbs.
NW-2718SJ	27	18	No. 34	.060	.680	350 Lbs.
NW-3718SJ	37	18	No. 34	.060	.760	445 Lbs.
NW-4818SJ	48	18	No. 34	.060	.850	575 Lbs.
NW-6018SJ	60	18	No. 34	.060	.935	680 Lbs.
NW-7218SJ	72	18	No. 34	.060	1.135	820 Lbs.
NW-716 SJ	7	16	No. 34	.040	.400	125 Lbs.
NW-1216SJ	12	16	No. 34	.050	.535	195 Lbs.
NW-1916SJ	19	16	No. 34	.060	.635	275 Lbs.
NW-2716SJ	27	16	No. 34	.060	.735	375 Lbs.
NW-3716SJ	37	16	No. 34	.060	.820	500 Lbs.
NW-4816SJ	48	16	No. 34	.060	.935	700 Lbs.
NW-6016SJ	60	16	No. 34	.060	1.015	830 Lbs.
NW-714 SJ	7	14	No. 34	.050	.485	180 Lbs.
NW-1214SJ	12	14	No. 34	.050	.600	280 Lbs.
NW-1914SJ	19	14	No. 34	.060	.710	420 Lbs.
NW-2714SJ	27	14	No. 34	.060	.835	575 Lbs.
NW-512 SJ	5	12	No. 34	.050	.515	210 Lbs.
NW-712 SJ	7	12	No. 34	.050	.560	265 Lbs.
NW-1212SJ	12	12	No. 34	.060	.735	430 Lbs.
NW-1912SJ	19	12	No. 34	.060	.850	625 Lbs.

NATIONAL WIRE & CABLE CORP.

Dept. REM SERVICE DIVISION
LOS ANGELES, CALIF.

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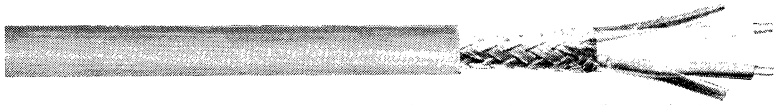
MIL-W-16878 TYPE B NYLON SHIELDED AND JACKETED WIRE



Thermoplastic Jacket Overall | Color: White | Braided Tinned Copper Shield | Nylon Jacket | Thermoplastic Insulation | Stranded Tinned Copper

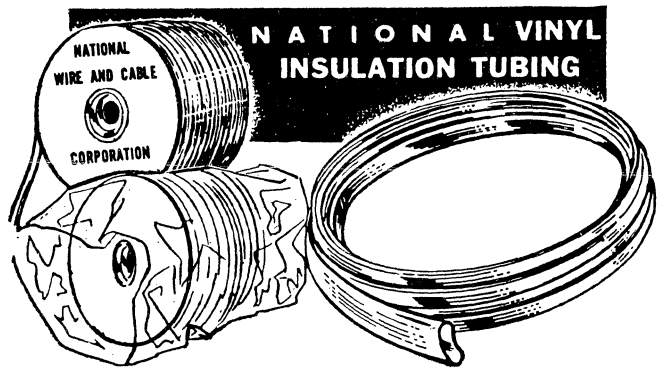
SINGLE CONDUCTOR

Gauge of Conductors	National Catalog Number	No. of Strands Per Cond.	Ga. of Strands	Nom. Diam. Overall Wire (Inches)	Nominal Values of Capacitance Per Foot		Nom. Wt. Per 1000 Ft. (Lbs.)
					Wire-Wire MMF/FT	Wire-Shield MMF/FT	
24	NB1936N1SJ	19	36	.091		70.5	16.9
22	NB1934N1SJ	19	34	.099		102.1	18.7
20	NB1932N1SJ	19	32	.109		113.4	21.1
18	NB1930N1SJ	19	30	.123		118.9	24.6
16	NB1929N1SJ	19	29	.134		123.6	27.7

TWO CONDUCTOR

Gauge of Conductors	National Catalog Number	No. of Strands Per Cond.	Ga. of Strands	Nom. Diam. Overall Wire (Inches)	Nominal Values of Capacitance Per Foot		Nom. Wt. Per 1000 Ft. (Lbs.)
					Wire-Wire MMF/FT	Wire-Shield MMF/FT	
24	NB1936N2SJ	19	36	.151	35.1	59.5	24.4
22	NB1934N2SJ	19	34	.166	40.0	61.3	28.4
20	NB1932N2SJ	19	32	.186	47.6	74.9	32.3
18	NB1930N2SJ	19	30	.214	57.6	97.4	40.0
16	NB1929N2SJ	19	29	.236	62.7	106.2	46.1

FOR LOW-CAPACITANCE INSTRUMENT CABLES SEE OUR AD IN EEM SECTION 6000.



INSULATION

EXTRUDED VINYL AND TEFLON TUBING

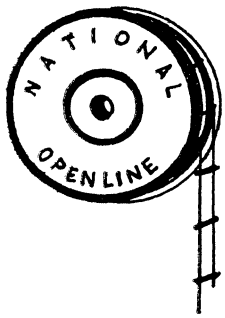
SIZES: #24 through 2½" Diam.

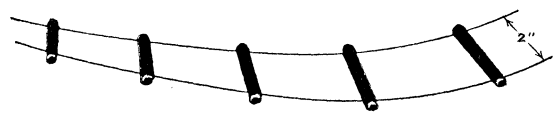
PUT-UP: #24 to ⅜" on spools, completely sealed in plastic wrapping. Size 7/16" to 2½" in tied coils.

SPEC. Vinyl +105°C to —32°C Type: MIL-I-631C, ASTM-D922 Grade C

GRADES: Vinyl + 80°C to —55°C Type: MIL-I-7444B, MIL-I-22076

Teflon +250°C to —55°C Type: MIL-I-22129B (#20 to #2)





NATIONAL OPENLINE

DESIGNED FOR COMMERCIAL TV DISTRIBUTION SYSTEMS AND RF POWER TRANSMISSION

Specifications: two inch spacing between conductors . . . 12 gauge copperweld . . . 470 ohm impedance . . . attenuation: 150 mc 0.25 DB PER 100 FEET, AT 30 mc 0.1 DB PER 100 FEET. Velocity factor 0.975 . . . copperweld steel for maximum strength and electrical stability, and to insure permanent uniform performance . . . Spreaders are brown polystyrene, spaced at average five foot intervals, staggered slightly to avoid spurious resonances.

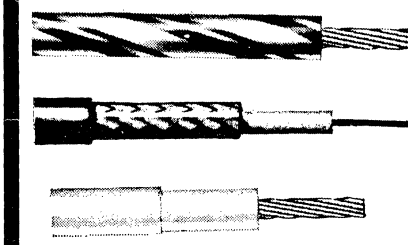
Also 1" & ½" copper line for TV leadin Formvar coated.

COMPLETE WIRE AND CABLE INVENTORY ALWAYS AVAILABLE FOR IMMEDIATE SHIPMENT!

National Wire and Cable Corporation maintains one of the largest and most complete stocks of electronic and aircraft wire and cable in the nation. **Total footage of floor stocks exceeds 50 million feet!**

Your immediate source for "MIL and Jan-Spec" wires, coaxial cables and vinyl sleeving.

Special color coded. shielded and jacketed combinations of hook-up wire and multi conductor cables can be made to your specifications and delivered promptly without delay.



IN STOCK!

MIL-W-76 A
MW, HW, LW

MIL-W-16878/D
B, BN, C, CN, D, DN

E, EE, K, KK

J, JN

NAS -702
CLASS A, B, C

MIL-W-5086 A
Type I, II, III

MIL-C-7078/A
Type I, II, III

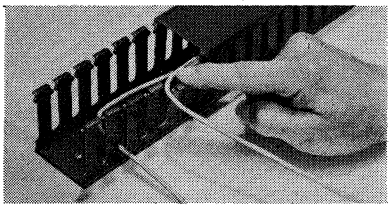
JAN-C-76
SRIR, SRHV

FOR COMPLETE INFORMATION AND PRICES, PHONE, WRITE OR WIRE NATIONAL.

NATIONAL WIRE & CABLE CORP.

Dept. REM SERVICE DIVISION
LOS ANGELES, CALIF.

PANDUIT® wiring components



PANDUCT® PLASTIC WIRING DUCT

CORNER STRIP

Catalog Number	Approx. Shipping Weight per 100'	Price Per Foot (Standard Length: 5 ft.)			
		Under 100'	100'-499'	500'-999'	100' & over
CS-1	15 lbs.	$.29	$.25	$.24	$.23

PLASTIC RIVETS

Catalog No.	Price Per 100		
	0-999	1000-9999	10M & Over
NR-1	$2.00	$1.80	$1.60

Type E—Open Slot

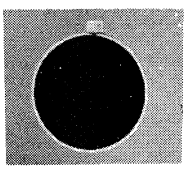
(Assembly — Includes Duct and Cover)									
Catalog Assembly Number			Nominal Width	Nominal Height	Approx. Shpg. Wt. per 100 ft.	Price/Foot (Includes Duct and Cover)			
Open* Slot	Wire Hole	Closed Slot				Under 100 ft.	100 to 999 ft.	1000 to 2499 ft.	Nominal Size
E .5 x .5	None	None	½"	½"	15 lbs.	.48	.38	.34	.5 x .5
E .5 x .62	None	None	½"	⅝"	16 lbs.	.50	.40	.37	.5 x .62
E .5 x 1	None	None	½"	1"	20 lbs.	.54	.43	.40	.5 x 1
E .5 x 1.25	None	None	½"	1¼"	20 lbs.	.60	.47	.43	.5 x 1.25
E .5 x 1.75	None	None	½"	1¼"	20 lbs.	.62	.50	.46	.5 x 1.75
E .75 x .75	None	None	¾"	¾"	20 lbs.	.54	.43	.40	.75 x .75
E .75 x 1	None	None	¾"	1"	22 lbs.	.55	.44	.41	.75 x 1
E .75 x 1.5	None	None	¾"	1½"	25 lbs.	.63	.50	.46	.75 x 1.5
E .75 x 2	None	None	¾"	2"	29 lbs.	.75	.60	.55	.75 x 2
E 1 x 1	D 1 x 1	C 1 x 1	1"	1"	25 lbs.	.57	.46	.42	1 x 1
E 1 x 1.5	None	None	1"	1½"	27 lbs.	.72	.58	.53	1 x 1.5
E 1 x 2	D 1 x 2	C 1 x 2	1"	2"	30 lbs.	.76	.61	.56	1 x 2
E 1 x 3	D 1 x 3	C 1 x 3	1"	3"	35 lbs.	.93	.74	.68	1 x 3
E 1.5 x .5	None	None	1½"	½"	25 lbs.	.60	.47	.43	1.5 x .5
E 1.5 x 1.5	None	None	1½"	1½"	30 lbs.	.78	.63	.57	1.5x 1.5
E 1.5 x 2	D 1.5 x 2	C 1.5 x 2	1½"	2"	30 lbs.	.84	.67	.61	1.5 x 2
E 1.5 x 3	D 1.5 x 3	C 1.5 x 3	1½"	3"	40 lbs.	1.02	.82	.75	1.5 x 3
E 1.5 x 4	D 1.5 x 4	None	1½"	4"	50 lbs.	1.26	1.01	.93	1.5 x 4
E 2 x 1	D 2 x 1	C 2 x 1	2"	1"	30 lbs.	.80	.64	.58	2 x 1
E 2 x 2	D 2 x 2	C 2 x 2	2"	2"	35 lbs.	.93	.74	.68	2 x 2
E 2 x 3	D 2 x 3	C 2 x 3	2"	3"	50 lbs.	1.08	.86	.79	2 x 3
E 2 x 4	D 2 x 4	None	2"	4"	60 lbs.	1.34	1.07	.98	2 x 4
E 2.5 x 3	D 2.5 x 3	C 2.5 x 3	2½"	3"	55 lbs.	1.17	.94	.87	2.5 x 3
E 3 x 1	D 3 x 1	C 3 x 1	3"	1"	35 lbs.	1.00	.80	.74	3 x 1
E 3 x 2	D 3 x 2	C 3 x 2	3"	2"	50 lbs.	1.07	.85	.78	3 x 2
E 3 x 3	D 3 x 3	C 3 x 3	3"	3"	60 lbs.	1.23	.98	.90	3 x 3
E 3 x 4	D 3 x 4	None	3"	4"	70 lbs.	1.46	1.17	1.07	3 x 4
E 4 x 1.5	None	None	4"	1½"	55 lbs.	1.19	.95	.88	4 x 1.5
E 4 x 2	D 4 x 2	None	4"	2"	60 lbs.	1.21	.97	.89	4 x 2
E 4 x 3	D 4 x 3	None	4"	3"	70 lbs.	1.38	1.10	1.01	4 x 3
E 4 x 4	D 4 x 4	None	4"	4"	80 lbs.	1.56	1.24	1.14	4 x 4

OTE: Standard Length: 6 ft. Other lengths available. Standard Colors: Dark Gray & White — Light Gray and Black available. Standard mounting holes: No charge Supplied only if specified. See duct catalog for dimensions.

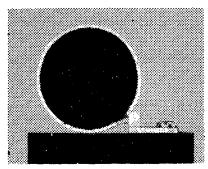
OTE: Total length of all sizes of duct of each order, ordered for shipment at one time to one location, determines quantity discount. *U. S. Pat. No. 3,024,301

CABLE TIES AND CLAMPS

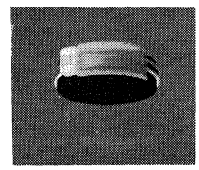
STA-STRAP® (Permanent) — LOK-STRAP® (Releasable)



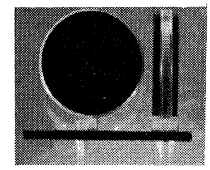
SST—Tie



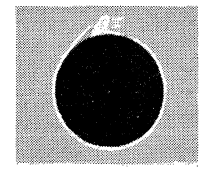
SSC—Clamp



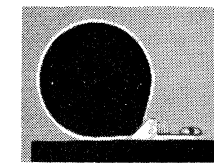
SSM—Marker



SSP—Push



LST—Tie



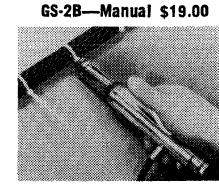
LSC—Clamp

Catalog Number	Maximum Bundle Diameter	Approx. Shpg. Wt. Per 100	Price/100 Less Than 100	Unit Pkg.	Price Per 100 Base Price 100-400	Price Per 100 500	Catalog Number
SST-1	¾"	4 oz.	$ 4.40	100	$ 3.60	$ 2.85	SST-1
SST-2	1¾"	5 oz.	5.40	100	4.30	3.40	SST-2
SST-4	4"	9 oz.	12.25	100	9.80	7.80	SST-4
SST-4H	4"	19 oz.	18.25	100	14.50	11.50	SST-4H
SSC-2	1¾"	6 oz.	6.15	100	4.90	3.90	SSC-2
SSC-4	4"	10 oz.	13.50	100	10.80	8.60	SSC-4
SSC-4H	4"	20 oz.	21.25	100	17.00	13.60	SSC-4H
SSM-2	1¾"	6 oz.	10.75	100	8.60	6.80	SSM-2
SSM-4	4"	10 oz.	17.65	100	14.10	11.20	SSM-4
SSP-2	1¾"	6 oz.	6.15	100	4.90	3.90	SSP-2
LST-2	1¾"	6 oz.	8.65	100	6.90	5.45	LST-2
LST-4	4"	10 oz.	15.00	100	12.00	9.45	LST-4
LSC-2	1¾"	7 oz.	9.35	100	7.45	5.90	LSC-2
TM-1	Miniature	2 oz.	3.75	100	3.00	2.40	TM-1
TM-2	Standard	3 oz.	3.75	100	3.00	2.40	TM-2
TM-3	Heavy	4 oz.	8.65	100	6.90	5.45	TM-3
TA-1	Standard	3 oz.	3.75	100	3.00	2.40	TA-1
TA-2	Standard	4 oz.	4.40	100	3.60	2.85	TA-2

INSTALLATION TOOLS

TS-2B—Manual $19.00

GS-2B—Manual $19.00



ATS-2B—Pneumatic $183.00

rge Quantities — Bulk Packed
otation Basis
lors: Standard - Natural Nylon White
Other Colors - 10% additional price

Terms: Net, 30 days
Minimum Order $10.00
Delivery: F.O.B. Tinley Park, Illinois
All prices subject to change without notice

ANDUIT CORP. • TINLEY PARK, ILL. 60477

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Trade Discount Applies To List Prices Only

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saxton
WIRE & CABLE DIVISION

HOOK-UP WIRE
PLASTIC TYPE

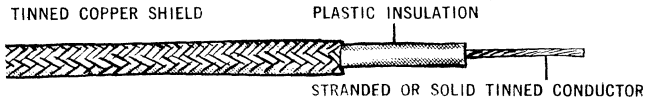
SOLID CONDUCTOR

Saxton Number	—Conductor— Size	Stranding	Insulation Thickness	Nominal O.D.	Net Price Per M'
1AD22	22	solid	.016"	.061"	$5.48
1AD20	20	solid	.016"	.064"	6.90
1AD18	18	solid	.016"	.072"	9.15

STRANDED CONDUCTOR

Saxton Number	—Conductor— Size	Stranding	Insulation Thickness	Nominal O.D.	Net Price Per M'
1A24	24	7 x 32	.016"	.056"	$5.25
1A22	22	7 x 30	.016"	.062"	5.93
1A20	20	10 x 30	.016"	.067"	7.43
1A18	18	16 x 30	.016"	.077"	9.89
1A16	16	26 x 30	.016"	.092"	16.50
1A14	14	41 x 30	.016"	.106"	21.00

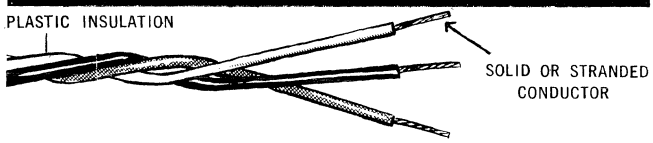
SHIELDED HOOK-UP WIRE
PLASTIC TYPE



STRANDED CONDUCTOR

Saxton Number	—Conductor— Size	Stranding	Insulation Thickness	Nominal O.D.	Net Price Per M'
1AS22	22	7 x 30	.016"	.090"	$27.75
1AS20	20	10 x 30	.016"	.100"	30.00
1AS18	18	16 x 30	.016"	.120"	33.75
1AS16	16	26 x 30	.016"	.130"	39.00
1AS14	14	41 x 30	.016"	.150"	54.75
1AS12	12	65 x 30	.016"	.170"	87.75
1AS10	10	105 x 30	.025"	.195"	157.50

UNSHIELDED AUDIO CABLE
2 AND 3-CONDUCTOR • NO OUTER JACKET



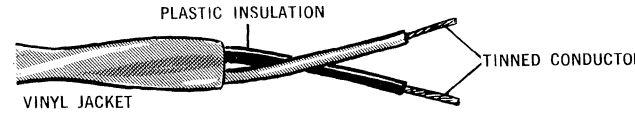
SOLID CONDUCTOR

Saxton Number	—Conductor— No.	Size	Stranding	Insulation Thickness	Nom. O.D.	Price Per M'
2AD22	2	22	solid	.016"	.100"	$11.25
3AD22	3	22	solid	.016"	.115"	15.75
2AD20	2	20	solid	.016"	.120"	17.78
3AD20	3	20	solid	.016"	.135"	25.80
2AD18	2	18	solid	.016"	.145"	21.38
3AD18	3	18	solid	.016"	.160"	33.75
2AD16	2	16	solid	.016"	.175"	35.25
3AD16	3	16	solid	.016"	.190"	50.10

STRANDED CONDUCTOR

Saxton Number	—Conductor— No.	Size	Stranding	Insulation Thickness	Nom. O.D.	Price Per M'
2A22	2	22	7 x 30	.016"	.125"	$14.03
3A22	3	22	7 x 30	.016"	.140"	20.63
2A20	2	20	10 x 30	.016"	.145"	19.13
3A20	3	20	10 x 30	.016"	.160"	27.90
2A18	2	18	16 x 30	.016"	.165"	21.90
3A18	3	18	16 x 30	.016"	.180"	39.00
2A16	2	16	26 x 30	.016"	.190"	37.35
3A16	3	16	26 x 30	.016"	.210"	54.75

MULTI-CONDUCTOR JACKETED CABLE
.020"-WALL PLASTIC JACKET



SOLID CONDUCTOR

Saxton Number	—Conductor— No.	Awg	Stranding	Insulation Thickness	Nom. O.D.	Price Per M'
2JD22	2	22	solid	.015"	.140"	$16.13
3JD22	3	22	solid	.015"	.150"	23.25
4JD22	4	22	solid	.015"	.170"	27.00
5JD22	5	22	solid	.015"	.185"	32.40
6JD22	6	22	solid	.015"	.190"	45.75
7JD22	7	22	solid	.015"	.200"	52.50
8JD22	8	22	solid	.015"	.210"	58.13
9JD22	9	22	solid	.015"	.240"	64.13
10JD22	10	22	solid	.015"	.250"	79.13
12JD22	12	22	solid	.015"	.270"	101.63
15JD22	15	22	solid	.015"	.300"	127.13
2JD20	2	20	solid	.015"	.155"	21.75
3JD20	3	20	solid	.015"	.165"	38.25
4JD20	4	20	solid	.015"	.195"	47.25
5JD20	5	20	solid	.015"	.220"	56.25
6JD20	6	20	solid	.015"	.230"	74.25
7JD20	7	20	solid	.015"	.240"	92.25
8JD20	8	20	solid	.015"	.285"	110.25
9JD20	9	20	solid	.015"	.300"	124.25
10JD20	10	20	solid	.015"	.315"	142.50
12JD20	12	20	solid	.015"	.330"	165.00
15JD20	15	20	solid	.015"	.345"	210.00
20JD20	20	20	solid	.015"	.400"	280.88
2JD18	2	18	solid	.015"	.188"	27.75
3JD18	3	18	solid	.015"	.208"	42.00
4JD18	4	18	solid	.015"	.223"	59.40
5JD18	5	18	solid	.015"	.233"	76.28
6JD18	6	18	solid	.015"	.263"	92.78

STRANDED CONDUCTOR

Saxton Number	—Conductor— No.	Awg	Stranding	Insulation Thickness	Nom. O.D.	Price Per M
2J22	2	22	7 x 30	.015"	.145"	$19.13
3J22	3	22	7 x 30	.015"	.160"	23.40
4J22	4	22	7 x 30	.015"	.185"	27.45
5J22	5	22	7 x 30	.015"	.190"	32.05
6J22	6	22	7 x 30	.015"	.195"	49.88
7J22	7	22	7 x 30	.015"	.215"	56.25
8J22	8	22	7 x 30	.015"	.225"	59.25
9J22	9	22	7 x 30	.015"	.245"	64.50
10J22	10	22	7 x 30	.015"	.260"	81.00
12J22	12	22	7 x 30	.015"	.285"	105.00
15J22	15	22	7 x 30	.015"	.340"	130.88
2J20	2	20	10 x 30	.015"	.175"	22.13
3J20	3	20	10 x 30	.015"	.185"	39.00
4J20	4	20	10 x 30	.015"	.205"	48.75
5J20	5	20	10 x 30	.015"	.230"	58.88
6J20	6	20	10 x 30	.015"	.250"	78.00
7J20	7	20	10 x 30	.015"	.260"	96.00
8J20	8	20	10 x 30	.015"	.305"	114.00
9J20	9	20	10 x 30	.015"	.320"	125.00
10J20	10	20	10 x 30	.015"	.325"	142.63
12J20	12	20	10 x 30	.015"	.345"	165.75
15J20	15	20	10 x 30	.015"	.365"	213.75
20J20	20	20	10 x 30	.015"	.420"	285.00
2J18	2	18	16 x 30	.015"	.210"	28.50
3J18	3	18	16 x 30	.015"	.230"	48.75
4J18	4	18	16 x 30	.015"	.245"	60.00
5J18	5	18	16 x 30	.015"	.260"	78.75
6J18	6	18	16 x 30	.015"	.275"	96.00

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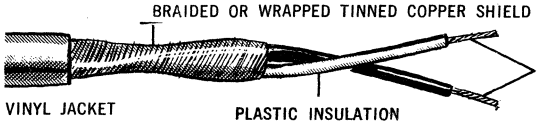
Net

saxton
WIRE & CABLE DIVISION

MULTI-CONDUCTOR SHIELDED CABLE*
.020"-WALL PLASTIC JACKET



Saxton Number	Type Shield	—Conductors— No.	Awg	Stranding	Insul. Thick.	Jacket Thick.	Nom. O.D.	Net Price Per M'
1SSJ22	wrap	1	22	7 x 30	.016"	.020"	.135"	$27.63
2SSJ22	wrap	2	22	7 x 30	.016"	.020"	.175"	33.00
2SSJD22	wrap	2	22	solid	.016"	.020"	.170"	28.88
2SSJ20	wrap	2	20	10 x 30	.016"	.020"	.195"	37.50
3SSJ20	wrap	3	20	10 x 30	.016"	.020"	.210"	54.00
4SSJ20	wrap	4	20	10 x 30	.016"	.020"	.225"	83.00
2SSJ18	wrap	2	18	16 x 30	.016"	.020"	.230"	45.38
2SSJ16	wrap	2	16	26 x 30	.016"	.020"	.250"	75.00
2SJ22	braid	2	22	7 x 30	.016"	.020"	.183"	38.63
2SJ20	braid	2	20	10 x 30	.016"	.020"	.195"	48.75
2SJ18	braid	2	18	16 x 30	.016"	.020"	.235"	56.25

*Bare conductors available. For additional constructions see Audio Cable Section.

INTERCOM CABLE
TWISTED PAIRS WITH PLASTIC JACKET

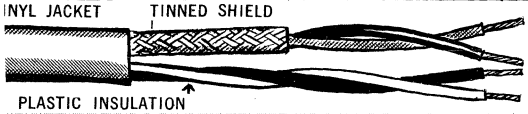
SOLID CONDUCTOR

Saxton Number	Number Pairs	—Conductors— No.	Awg	Stranding	Insul. Thick.	Jacket Thick.	Nom. O.D.	Net Price Per M'
2PD22	1	2	22	solid	.015"	.020"	.128"	$13.65
4PD22	2	4	22	solid	.015"	.020"	.205"	25.13
6PD22	3	6	22	solid	.015"	.020"	.230"	34.73
12PD22	6	12	22	solid	.015"	.020"	.330"	56.25
14PD22	7	14	22	solid	.015"	.020"	.345"	74.25
18PD22	9	18	22	solid	.015"	.020"	.370"	77.70
22PD22	11	22	22	solid	.015"	.020"	.385"	109.50
26PD22	13	26	22	solid	.015"	.025"	.415"	108.75
30PD22	15	30	22	solid	.015"	.025"	.450"	140.25
32PD22	16	32	22	solid	.015"	.025"	.470"	175.50
54PD22	27	54	22	solid	.015"	.035"	.605"	255.00
62PD22	31	62	22	solid	.015"	.035"	.630"	423.00
82PD22	41	82	22	solid	.015"	.035"	.710"	570.00
102PD22	51	102	22	solid	.015"	.045"	.845"	897.00

STRANDED CONDUCTOR

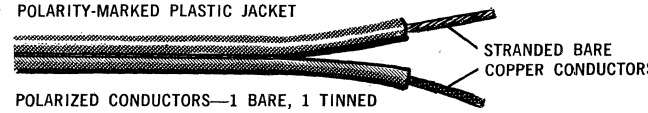
Saxton Number	Number Pairs	—Conductors— No.	Awg	Stranding	Insul. Thick.	Jacket Thick.	Nom. O.D.	Net Price Per M'
2P22	1	2	22	7 x 30	.015"	.020"	.155"	$22.13
4P22	2	4	22	7 x 30	.015"	.020"	.220"	35.85
6P22	3	6	22	7 x 30	.015"	.020"	.245"	52.50
8P22	4	8	22	7 x 30	.015"	.020"	.275"	68.63
10P22	5	10	22	7 x 30	.015"	.020"	.320"	73.65
12P22	6	12	22	7 x 30	.015"	.020"	.340"	79.13
18P22	9	18	22	7 x 30	.015"	.020"	.375"	113.10
22P22	11	22	22	7 x 30	.015"	.020"	.415"	146.25
30P22	15	30	22	7 x 30	.015"	.025"	.485"	182.55
54P22	27	54	22	7 x 30	.015"	.035"	.645"	345.00

AUDIO CABLE
COMBINATION SHIELDED & JACKETED



Saxton No.	No.	Conductors AWG	Stranding	Insltn. Thckns.	Jacket Thckns.	Nom. O.D.	Price Per M'
2SJ22	4	22	7 x 30	.016"	.020"	.315"	$50.25
		(Two conductors shielded, two unshielded)					
S2J22	3	22	7 x 30	.016"	.020"	.200"	37.35
		(One conductor shielded, two unshielded)					

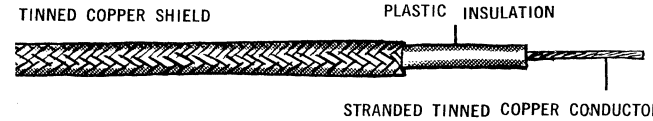
E-Z ZIP-CORD—LAMP-CORD
PLASTIC TYPE • 2 & 3-CONDUCTOR



Saxton No.	No.	Conductors AWG	Stranding	UL Type	Wall Thckns.	Nominal O.D.	Price Per M'
2F24*	2	24	7 x 32	—	.016"	.061" x .137"	see below
2F20**	2	20	10 x 30	—	.016"	.105" x .210"	see below
2F18	2	18	41 x 34	SPT-1	.016"	.130" x .215"	$18.90
2F18B	2	18	41 x 34	SPT-2	.032"	.150" x .285"	30.75
2F16	2	16	65 x 34	SPT-2	.032"	.160" x .300"	43.50
3F24	3	24	7 x 32	—	.032"	.061" x .204"	15.00

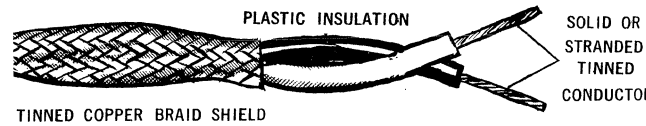
*2F24—clear—$10.35 Colors—$9.53
**2F20—clear— 18.00 Colors—14.63

PHONO WIRE
1 AND 2-CONDUCTOR • SHIELDED, UNJACKETED



Saxton No.	No.	Conductors AWG	Stranding	Insltn. Thckns.	Nom. O.D.	Net Price Per M'
1S24	1	24	16 x 36	.016"	.080"	$27.00
2S24	2	24	16 x 36	.016"	.125"	32.63

AUDIO CABLE
2-CONDUCTOR SHIELDED, UNJACKETED



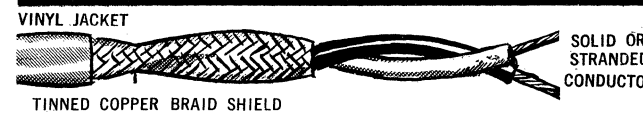
SOLID CONDUCTOR

Saxton No.	No.	Conductors AWG	Stranding	Insltn. Thckns.	Nom. O.D.	Net Price Per M'
2SD22	2	22	solid	.016"	.132"	$28.88
2SD20	2	20	solid	.016"	.148"	32.18
2SD18	2	18	solid	.016"	.175"	43.13

STRANDED CONDUCTOR

2S24	2	24	16 x 36	.016"	.125"	$32.63
2S22	2	22	7 x 30	.016"	.140"	33.75
2S20	2	20	10 x 30	.016"	.155"	36.75
2S18	2	18	16 x 30	.016"	.170"	47.25
2S16	2	16	26 x 30	.020"	.210"	71.50
2S14	2	14	41 x 30	.020"	.225"	102.00
2S12	2	12	65 x 30	.025"	.295"	173.35

AUDIO CABLE
2-CONDUCTOR • SHIELDED & JACKETED



SOLID CONDUCTOR

Saxton No.	No.	Conductors AWG	Stranding	Insltn. Thckns.	Jacket Thckns.	Nom. O.D.	Net Price Per M'
2SDJ22	2	22	solid	.016"	.020"	.172"	$33.75
2SDJ20	2	20	solid	.016"	.020"	.208"	36.00
2SDJ18	2	18	solid	.016"	.020"	.218"	45.90

STRANDED CONDUCTOR

2SJ22	2	22	7 x 30	.016"	.020"	.183"	37.88
2SJ20	2	20	10 x 30	.016"	.020"	.195"	48.38
2SJ18	2	18	16 x 30	.016"	.020"	.235"	54.60

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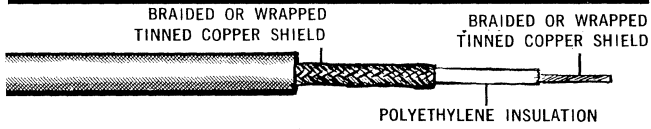
saxton
WIRE & CABLE DIVISION

AUDIO CABLE
LOW LOSS MICROPHONE & INPUT



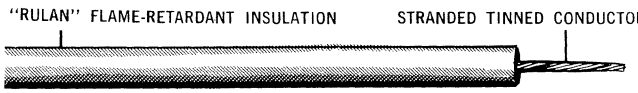
Saxton No.	Nom. Cap./ft.	Shield Type	Conductors No.	AWG	Strdg.	Insl. Th.	Jkt. Th.	Nom. O.D.	Price Per M'
1SSJC26	36 mmf.	wrap	1	26	7x34 cprwld.	.016"	.020"	.125"	$26.63
1SJC24	35 mmf.	braid	1	24	10x34	.016"	.030"	.145"	27.08
1SJC24A	23 mmf.	braid	1	24	10x34	.040"	.030"	.200"	35.85
1SJC20	36 mmf.	braid	1	20	26x34	.030"	.030"	.175"	49.50
2SJC20	31 mmf.	braid	2	20	16x34	.025"	.030"	.230"	51.90
3SJC20	34 mmf.	braid	3	20	26x34	.025"	.035"	.290"	66.00
4SJC20	36 mmf.	braid	4	20	26x34	.025"	.035"	.315"	84.00
5SJC20	45 mmf.	braid	5	20	26x34	.025"	.035"	.340"	99.00
6SJC20	51 mmf.	braid	6	20	26x34	.025"	.035"	.365"	156.00

TEST LEAD WIRE
SUPER-FLEXIBLE VINYL INSULATION*

Saxton No.	Type	Conductors AWG	Strndg.	Wall Thkns.	Brkdwn. Voltage	Nom. O.D.	Net Pr. Per M'
1C20	Standard	20	41 x 36	.040"	5,000	.120"	$14.33
1C20A	Standard	20	41 x 36	.044"	8,500	.130"	14.70
1C20B	Standard	20	41 x 36	.047"	10,000	.135"	16.50
1C18	Standard	18	41 x 34	.047"	12,000	.140"	19.88
1C18A	Hvy.Duty	18	41 x 34	.109"	22,000	.245"	29.40
1C20R*	Standard	20	41 x 36	.040"	5,000	.120"	16.88
1C18R*	Standard	18	41 x 34	.045"	5,000	.138"	20.25

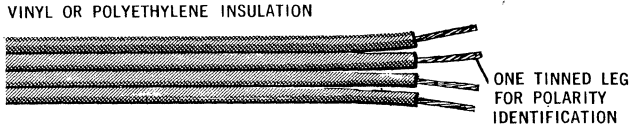
*Rubber, Also available to MIL-spec from stock. ALL TEST PROD WIRES RED or BLACK. Other colors available.

HIGH VOLTAGE WIRE
FLAME-RETARDANT RULAN INSULATION



Saxton No.	Type	Conductors AWG	Strndg.	Wall Thkns.	Brkdwn. Voltage	Nom. O.D.	Net Pr. Per M'
1R20	unshielded	20	10 x 30	.047"	10,000	.120"	$19.13
1R20A	unshielded	20	10 x 30	.063"	20,000	.170"	29.63
1R18	unshielded	18	16 x 30	.095"	40,000	.240"	57.00
1RS18	shielded	18	16 x 30	.075"	20,000	.243"	93.75

ROTOR CABLE
LOW LOSS FLAT TYPE
(round construction also available)



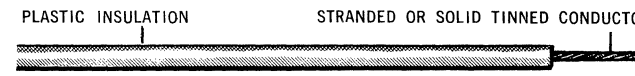
Saxton No.	Conductors No.	AWG	Strndg.	Insulation Material	Nominal O.D.	Net Price Per M'
4FC2	4	22	7 x 30	polyethylene	.085 x .360"	$17.48
4FC2A	4	22	7 x 30	polyvinyl chlrd.	.090 x .430"	18.75
4FC3	4	20	10 x 30	polyethylene	.085 x .360"	20.18
4FC3A	4	20	10 x 30	polyvinyl chlrd.	.090 x .430"	22.28
5FC3	5	20	7 x 28	polyethylene	.095 x .485"	24.55

MIL-C-3432 • MIL-C-3884
WITH CERTIFICATION • PRICES ON REQUEST

Saxton No.	Specfctn.	Desgntn.	Construction	Specification Number	Nom. O.D.
2M18	CO-02	MGF	2/18 SJO (shielded)	MIL-C-3432A	0.375
2M18A	CO-02	MGF	2/18	MIL-C-3432B	0.300
2M18B	CO-02	HGF	2/18	MIL-C-3432B	0.380
2M18C	CO-02	LGF	2/18	MIL-C-3432B	0.250
2M16	CO-02	HGF	2/16	MIL-C-3432B	0.405
2M16A	CO-02	MGF	2/16	MIL-C-3432B	0.338
2M14	CO-02	MGF	2/14	MIL-C-3432B	0.400
2M14A	CO-02	HGF	2/14	MIL-C-3432B	0.535
3M18	CO-03	MGF	3/18	MIL-C-3432B	0.330
3M16	CO-03	MGF	3/16 SJO (shielded)	MIL-C-3432	0.360
3M16A	CO-03	MGF	3/16	MIL-C-3432B	0.375
3M12	CO-03	HOE	3/12	MIL-C-3432B	0.635
5M20	CO-05	MGF	5/20	MIL-C-3432B	0.400
2M18D	COS		2/18	MIL-C-3884	0.290
3M18A	COS		3/18	MIL-C-3884	0.290
2M20	COS		2/20	MIL-C-3884	0.280
3M20	COS		3/20	MIL-C-3884	0.280

Saxton stocks a complete inventory of MIL-C-3432A and MIL-3884. Only the most popular types are listed here. We invite your inquiry on these and others.

MIL-W-76B
WITH CERTIFICATION
TYPE MW—Uncovered Plastic, Medium Wall, 1000V. Rating



SOLID CONDUCTOR

Saxton No.	Specification Designation	AWG	Insltn. Thkns.	Nom. O.D.	Net Price Per M'
1MD22	MW-C 22(1)U	22	.016"	.061"	$5.63
1MD20	MW-C 20(1)U	20	.016"	.064"	7.95
1MD18	MW-C 18(1)U	18	.016"	.072"	10.80
1MD16	MW-C 16(1)U	16	.016"	.083"	15.75

STRANDED CONDUCTOR
SPECIAL QUANTITY PRICES

Saxton No.	Specification Designation	Conductor AWG	Strndg.	Insltn. Thkns.	Nom. O.D.	Net Pr. Per M'
1M24	MW-C 24(7)U	24	7 x 32	.016"	.056"	$6.1
1M22	MW-C 22(7)U	22	7 x 30	.016"	.062"	7.1
1M20	MW-C 20(10)U	20	10 x 30	.016"	.067"	9.5
1M18	MW-C 18(16)U	18	16 x 30	.016"	.077"	13.2
1M16	MW-C 16(26)U	16	26 x 30	.016"	.092"	19.6
1M14	MW-C 14(41)U	14	41 x 30	.016"	.106"	29.5
1M12	MW-C 12(65)U	12	65 x 30	.016"	.127"	49.5

TYPE HW—Uncovered Plastic, Heavy Wall

Saxton No.	Specification Designation	Conductor AWG	Strndg.	Insltn. Thkns.	Nom. O.D.	Net P Per M
1M22A	HW-C 22(7)U	22	7 x 30	.032"	.094"	$14.6
1M20A	HW-C 20(10)U	20	10 x 30	.032"	.099"	18.0
1M18A	HW-C 18(16)U	18	16 x 30	.032"	.109"	24.0
1M16A	HW-C 16(26)U	16	26 x 30	.032"	.122"	34.8
1M14A	HW-C 14(41)U	14	41 x 30	.045"	.165"	56.2
1M12A	HW-C 12(65)U	12	65 x 30	.045"	.185"	76.5

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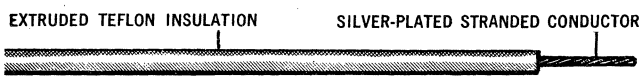
saxton
WIRE & CABLE DIVISION

LARGE STOCK IRRADIATED POLYOLEFIN WIRE

MIL-W-16878C
WITH CERTIFICATION • SPECIAL QUANTITY PRICES

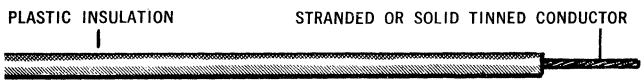


TYPE E—Extruded Teflon, 600 V. Rating

1M30E	E-30	30	7 x 38	.010"	.033"	$52.13
1M28E	E-28	28	7 x 36	.010"	.036"	50.25
1M26E	E-26	26	7 x 34	.010"	.041"	48.75
1M24E	E-24	24	19 x 36	.010"	.046"	52.88
1M22E	E-22	22	19 x 34	.010"	.052"	63.00
1M20E	E-20	20	19 x 32	.010"	.060"	75.75
1M18E	E-18	18	19 x 30	.010"	.072"	96.00
1M16E	E-16	16	19 x 29	.010"	.084"	135.00
1M14E	E-14	14	19 x 27	.010"	.098"	207.75

TYPE EE—Extruded Teflon, 1000 V. Rating

1M30EE	EE-30	30	7 x 38	.015"	.043"	$61.50
1M28EE	EE-28	28	7 x 36	.015"	.046"	66.00
1M26EE	EE-26	26	7 x 34	.015"	.050"	58.50
1M24EE	EE-24	24	19 x 36	.015"	.056"	68.25
1M22EE	EE-22	22	19 x 34	.015"	.062"	72.30
1M20EE	EE-20	20	19 x 32	.015"	.070"	93.75
1M18EE	EE-18	18	19 x 30	.015"	.081"	114.75
1M16EE	EE-16	16	19 x 29	.015"	.090"	163.88
1M14EE	EE-14	14	19 x 27	.015"	.104"	231.00



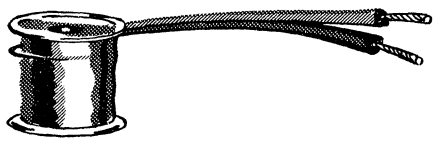
TYPE C—Uncovered Plastic, 1000 V. Rating

Saxton No.	Specification Designation	Conductor AWG	Conductor Strndg.	Insltn. Thkns.	Nom. O.D.	Net Pr. Per M'
1M22C	C-22	22	7 x 30	.016"	.065"	$9.75
1M20C	C-20	20	7 x 28	.016"	.073"	12.73
1M18C	C-18	18	7 x 26	.016"	.081"	16.80
1M16C	C-16	16	19 x 29	.016"	.092"	21.53
1M14C	C-14	14	19 x 27	.016"	.103"	33.98

TYPE D—Uncovered Plastic, 3000 V. Rating

1M22D	D-22	22	7 x 30	.032"	.097"	$16.05
1M20D	D-20	20	7 x 28	.032"	.105"	19.50
1M18D	D-18	18	7 x 26	.032"	.113"	24.38
1M16D	D-16	16	19 x 29	.032"	.124"	28.88
1M14D	D-14	14	19 x 27	.032"	.135"	42.75

SAXTON ZIP-CORD
IDEAL FOR ELECTRICAL LEADS



00-PACK ZIP-CORD—18 AND 20-GAUGE

Convenient 100-ft. spools of parallel wire for speaker extensions, amp wiring, etc. in Black, brown, white, grey and clear.

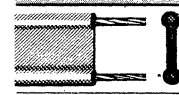
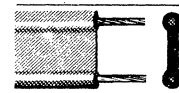
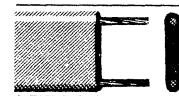
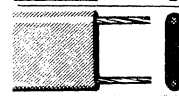
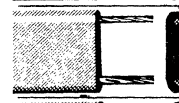
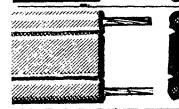
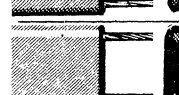
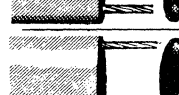
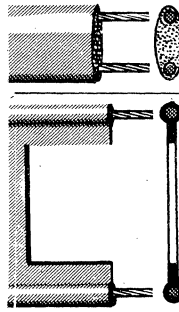
axton No. 1055HP (20-gauge, choice of color) ---------- 100-ft.-- $1.98
axton No. 1555HP (18-gauge, choice of color) ---------- 100-ft.-- 2.49
axton No. 1055HC (20-gauge, clear, polarized) ---------- 75-ft.-- 1.98

MINIATURE 24-GAUGE ZIP-CORD

xtremely flexible, polarized parallel wire for low voltage use and peaker wire. In brown, black, blue, green, white, grey and clear.

axton No. 2F24C/500—500-ft. roll, clear ---------- $ 5.25
axton No. 2F24C/1000—1000-ft. roll, clear ---------- 10.35
axton No. 2F24/500—500 ft. roll, color ---------- 4.95
axton No. 2F24/1000—1000-ft. roll, color ---------- 9.75
axton No. 1159HP—80-ft. minispools, color ---------- 1.29

300-OHM TWIN LEAD
VHF-UHF TRANSMISSION LINE**

	Catalog Number	Name	Stranding	Nom. Size Web Width	Net Price Per M'
	TL-40	economy	7	0.040 x 0.0375	$ 8.18*
	TL-55	signal sender	7	0.055 x 0.385	8.93*
	TL-80	trophy line	10	0.080 x 0.385	10.43*
	TL-100	crusader	10	0.093 x 0.355	10.43*
	TL-100DL	top notch	10	0.095 x 0.383	11.18*
	TL-100EZ	E-Z Strip	10	0.080 x 0.370	11.25*
	TL-100SDL	double ten	20	0.100 x 0.400	15.38
	18/125	brown or gold	41	0.125 x 0.415	23.63
	TTL-16	tubular	7	0.160x0.445	19.50†
	1016	spongee	10	0.305x0.425	34.50
	INS-500	ins. open wire	41	0.075 x 0.975	39.75

**For shielded Twin Lead (#1118) or SeaCoaster marine type (#1017), see Saxton Page 10.
*For Clear, Silver or Gold, add $1.67 per M' to net price.
50'—Add $2.50 per M' to net.
75'—Add $2.09 per M' to net.
100'—Add $1.67 per M' to net.

SPECIAL TWIN LEAD TYPES

PK-10-100††	—	10	0.100x0.395	9.62*
PK-20-100††	—	20	0.100x0.395	13.15*

† 22 ga.
†† No Hanks

UNINSULATED TINNED COPPER

SOLID CONDUCTOR

Saxton Number	Awg No.	Net Price Per M'
ADT38	38	$2.73
ADT36	36	2.87
ADT34	34	3.22
ADT32	32	3.28
ADT30	30	3.33
ADT28	28	3.40
ADT26	26	3.45
ADT24	24	3.62
ADT22	22	4.01
ADT20	20	$4.75
ADT18	18	6.53
ADT16	16	9.70
ADT14	14	14.03
ADT12	12	20.40
ADT10	10	45.75
ADT8	8	68.25
ADT6	6	110.40

STRANDED

Sax. No.	Awg No.	Strand-ing	Net Price Per M'
AT24	24	7x32	$ 4.22
AT22	22	7x30	4.91
AT20	20	10x30	6.21
AT18	18	16x30	8.93
AT16	16	26x30	13.84
AT14	14	41x30	19.50
AT12	12	65x30	27.00

Net
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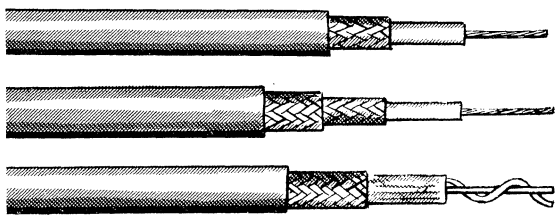
saxton
WIRE & CABLE DIVISION

LARGE STOCK IRRADIATED POLYOLEFIN WIRE

COAXIAL CABLE

COMMERCIAL TYPES

Quotations on cable to MIL-C-17B specifications on request. Quotations on RG-8/U and RG-11/U with 15 AWG solid copperweld conductor on request.

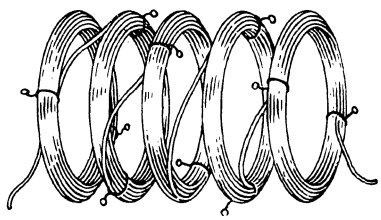


Saxton Number	Type Desig.	Insulation Type	Nom. Imp. (Ohms)	Nom. O.D.	Jacket	Description	Net Price Per M'
1X14	K-14	A reg.	72	.870	non-cont. PVC.	comm. TV cable	$488.00
1X8*	RG-8/U	A reg.	52	.405	black PE	gen'l purpose	121.41
1X8A	RG-8/U	A foam	52	.405	black PVC	—	124.13
1X8B*	RG-8A/U	A reg.	50	.405	non-cont. PE	—	135.75
1X11*	RG-11/U	A reg.	75	.405	black PVC	TV & comm.	108.00
1X11A	RG-11/U	A foam	75	.405	black PVC	—	108.75
1X11B*	RG-11A/U	A reg.	75	.405	non-cont. PE	—	121.50
1X11C	RG-11/UDS	B reg.	75	.465	black PVC	double-shielded	175.50
1X58*†	RG-58/U	A reg.	53.5	.195	black PVC	20 AWG solid B.C.	47.03
1X58A	RG-58A/U	A reg.	52	.195	black PVC	19/.0071 TC	47.83
1X58B*	RG-58C/U	A reg.	50	.195	non-cont. blk PE	19/.0071 TC	54.00
1X59*	RG-59/U	A reg.	73	.242	black PVC	TV cable	46.50
1X59A	RG-59/UDS	B reg.	73	.285	black PVC	double-shielded	84.75
1X59B*	RG-59/U	A foam	73	.242	black PVC	TV cable	47.25
1X59C	RG-59/U	A reg.	50	.170	black PVC	miniature "59/U"	38.25
1X59D	RG-59A/U	A reg.	75	.242	non-cont. blk PE	.023 copper-weld	48.75
1X62	RG-62/U	C reg.	93	.242	black PVC	small size low cap.	54.75

*Available in 100-ft. lengths.
Add 10% for low-loss PE foam dielectric.
†Add 10%.

UNINSULATED COPPERWELD

40% COPPERWELD CONDUCTOR • NON-STRETCH • HARD-DRAWN



Saxton Number	Awg	Nom. O.D.	Net Price 1M' Spools	75' Interconnected	100' Interconnected
5300	18 solid	.0403	$ 4.80	$ .44	$ .55
5301	16 solid	.0508	11.40	—	—
5302	14 solid	.0641	18.23	1.49	1.89
5303	12 solid	.0808	24.38	1.89	2.50
5304	10 solid	.1019	29.25	—	—
5305	8 solid	.1285	48.75	—	—
5306	6 solid	.1620	80.63	—	—

Saxton Copperweld available on 1M' spools. Nos. 5300 to 5303 also in 50' & 100' interconnected coils of 1M' total.

GUY WIRE & MESSENGER CABLE

HEAVY GALVANIZED STEEL, ALUMINUM & COPPERWELD

Saxton No.	Spec. Desig.	Stranding	Material	Test Strgth. —P.S.I.	Strength Yield Per C Ft.	Net Price 1M Ft. Spools
5100	GW-4/20	4 x 20	hvy. galv. steel	215	4%	$ 4.88
5101	GW-6/20	6 x 20	hvy. galv. steel	335	3.6%	6.23
5102	GW-7/20	7 x 20	hvy. galv. steel	418	2.8%	7.28
5103	GW-6/18	6 x 18	hvy. galv. steel	515	3%	9.38
5104	GW-7/18	7 x 18	hvy. galv. steel	585	3%	10.88
5105	AL-7/18	7 x 18	EC quality aluminum, aircraft temper	370	4.5%	20.25
5106	ASL-7/18	6 x 18 alum. 1 x 18 steel	EC quality aluminum, aircraft temper	410	3.5%	20.03
5107*	CO-6/20	6 x 20	30% copper-weld	600	2.7%	26.63
5109*	CO-8/18	8 x 18	30% copper-weld	1450	1.8%	57.38
5110*	CO-3/18	3 x 18	30% copper-weld	550	2.5%	18.83
5111	GW-12/20	12 x 20	hvy. galv. steel	655	—	18.53
5112	Tiller Cable	7 x 7 (49 str.)	3/32" cable vinyl jacket 3/16" O.D.	2100	—	71.25

*50' and 100' interconnected coils are standard. 500' or 1000' spools available.

ANTENNA WIRE

Saxton Number	Stranding	Material	Packing	Net Price Per M'
1275	solid	#12 AWG enameled solid copper	1M' interconnected coils of 100' ea.	$26.25
1280	solid	#14 AWG enameled solid copper	1M' interconnected coils of 100' ea.	18.00
1286/50	7 x 22	bare copper	1000' interconnected coils of 50' ea.	15.85
1286/100	7 x 22	bare copper	1M' interconnected coils of 100' ea.	15.25
1288/50	7 x 24	bare copper	1M' interconnected coils of 50' ea.	13.15
1288/100	7 x 24	bare copper	1M' interconnected coils of 100' ea.	11.95
1289	7 x 26	bare copper	1M' interconnected coils of 50' ea.	12.15

ALUMINUM GROUND WIRE

1240/1M	—	#8 AWG solid dead soft alum.	1000-ft. spool	$13.28
1240/50	—	#8 AWG solid dead soft alum.	1M' interconnected coils of 50' ea.	14.60
1240/100	—	#8 AWG solid dead soft alum.	1M' interconnected coils of 100' ea.	14.00
1255/1M	—	#6 AWG solid dead soft alum.	1000-ft. spool	25.35
1255/50	—	#6 AWG solid dead soft alum.	1M' interconnected coils of 50' ea.	27.00
1255/100	—	#6 AWG solid dead soft alum.	1M' interconnected coils of 100' ea.	25.50

SAXTON STOCKS AND FABRICATES CABLES UNDER THE FOLLOWING MIL SPECIFICATIONS—

MIL-C-3432 (CO-O constructions)
MIL-C-5756B
MIL-C-3884
MIL-S-2486
MIL-C-10392
MIL-B-10255
MIL-W-13169
MIL-W-7139A
MIL-C-13077
MIL-W-5086A
MIL-W-16878C
MIL-W-76B
MIL-W-16878C Teflon
EXTRA LOW LOSS OPEN WIRE TRANSMISSION LINE plus . . . MANY OTHER TYPES

Whether your order is large or small, you get special service from Saxto

© U.C.P., Inc.

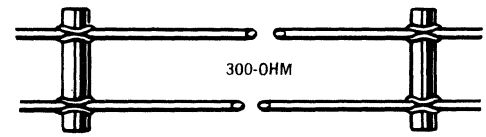
saxton
WIRE & CABLE DIVISION

OPEN WIRE TRANSMISSION LINE

LOW LOSS AIR DIELECTRIC • 300-OHM • BULK QUANTITIES

Saxton Number	Conductor	Spacing	Imped.	Awg No.	Insul. Spac.	Net Price Per M'	Net Price Per 100'
2500	40% copperweld	1"	450-ohm	18	6"	$25.13*	$2.55
2501	40% copperweld	1"	450-ohm	18	12"	21.14*	—
2502	40% copperweld	7/16"	300-ohm	18	6"	25.13*	2.55
2507	solid copper	1"	450-ohm	18	6"	31.50*	—
2515	solid copper Formvar	1"	450-ohm	18	6"	33.38*	—
2517	solid copper Formvar	7/16"	300-ohm	18	6"	33.38*	—
2520	solid copper Formvar	1"	450-ohm	16	6"	42.75*	—
2525	40% copperweld	2"	475-ohm	14	random spaced	60.98*	—
2526	40% copperweld	2"	450-ohm	12	random spaced	73.88*	—

MAX. SPOOL: 6" spacing, 500 ft.; 12" spacing, 1000 ft.; 300-ohm, 500 ft.
*500' spool standard. 100' & 250' slightly higher.



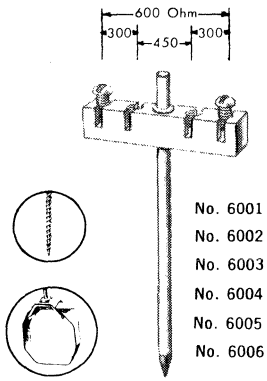
CHARACTERISTIC CHART TRANSMISSION LINE LOSS DB LOSS PER 100 FT.

	100 MC		500 MC		1000 MC	
Type	Wet	Dry	Wet	Dry	Wet	Dry
300 Ohm Open Wire	1.20	0.40	2.30	.80	1.9	1.8
450 Ohm Open Wire		0.35		.78		1.1
*Two Inch Spaced Open Wire		.19		.42		.89
300 Ohm Tubular	2.8	1.1	6.8	3.1	10.2	4.8
300 Ohm Flat	7.6	1.5	20.0	3.2	30.0	5.0
RG-59U		3.8		9.4		14.2
RG-11U		1.8		5.0		7.6

* CHARACTERISTIC IMPEDANCE. IMPEDANCE WILL VARY WITH WIRE SIZES USED

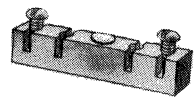
OPEN LINE ACCESSORIES

STAND-OFFS & STRESS INSULATORS



No. 6001
No. 6002
No. 6003
No. 6004
No. 6005
No. 6006

#6000



BLOCKS ONLY WITHOUT DRIVE-IN HARDWARE

Complete with 2 plated screws for use as spacer blocks in making your own open line installations.
Saxton No. 6000
Net Price ..... .11½ ea.

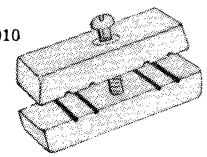
Especially designed for use with open line transmission wire installations. Tighten screws after pulling wire taut. For use as spacer, partially tighten set-screws. This permits movement of wire in the slots and avoids potential wire breaks. Use outside slots for 600-ohm wire. The "Tappee" Stand-off Insulator is good for community installations where random spacing of open line is desirable to avoid tuned circuits. Ideal also for use as anchor point or spacer for "fence wire" installations. "Tappee" permits inexpensive, time and labor-saving, trouble-free installations, and is made for use with No. 12 thru No. 18-gauge wire. Hardware constructed of double-dip galvanized steel; block is high impact polystyrene.

Saxton Number	Description	Net Price Ea.
6001	5½" nail type	$.12¾
6003	5" wood screw type	.13½
6004	7½" wood screw type	.15
6005	5" pole clamp type	.16½
6006	7½" pole clamp type	.18
6007	INS-500 type	.29

OPEN LINE ACCESSORIES

STRESS INSULATORS AND BLOCKS

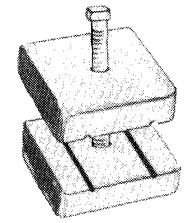
#6010



HEAVY DUTY OPEN LINE STRESS INSULATORS

Plastic blocks, slotted on either one or two-inch centers, for taking up slack or as anchor points in open line installations. Complete with plated screw.
Saxton No. 6010
Net Price ..... .60 ea.

#6011



12 AWG INSULATOR

Same as Saxton No. 6010. Has 2-inch spacing for #12 AWG wires. Insulators for other gauges available on special order only.
Saxton No. 6011,
Net Price ..... .87 ea.

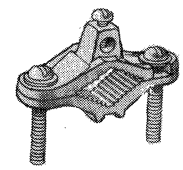
SEE PAGE 4 FOR INSULATED OPEN WIRE TYPE INS-500.

ANTENNA ACCESSORIES

SPECIAL HARDWARE

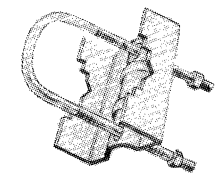
GROUND MAST CLAMPS

Saxton No. 1100,
Net Price ..... .42 ea.



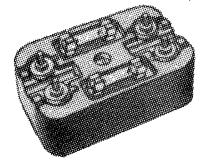
U-BOLTS AND SADDLES

Saxton No. 1103,
Net Price ..... .23 ea.
Also available without saddle



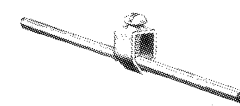
LIGHTNING ARRESTORS

(externally fused)
Saxton No. 1098,
Net Price ..... $1.73 ea.



GROUND RODS

Four-foot overall length.
Saxton No. 1064,
Net Price ..... .52½ ea.



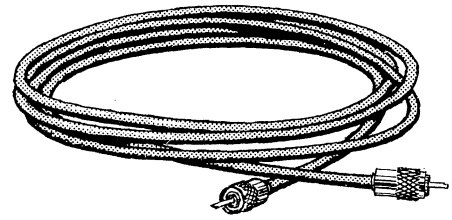
ANTENNA WINDOW STRAPS

Saxton No. 1126,
Net Price ..... .20 ea.

Net
© U.C.P., Inc.

saxton
WIRE & CABLE DIVISION

COAXIAL CABLE ASSEMBLIES
FOR CITIZEN'S BAND



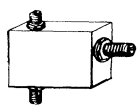
BAG-PACKED

Saxton Number	Length	Type	Description	Price
800	10′	RG8U	Has PL259 on one end, two terminating spade lugs on the other	$3.50
801	10′	RG8U	Same as #800 except PL259 to PL259	3.99
802	15′	RG8U	Has PL259 on one end, two terminating spade lugs on the other	3.99
803	15′	RG8U	Same as #802 except PL259 on both ends	4.50
804	20′	RG8U	Has PL259 on one end and two terminating spade lugs on the other	4.75
805	20′	RG8U	Same as #804 except PL259 to PL259	5.25
806	10′	RG58U	Has PL259 and UG175U reducer on one end, two univ. terminating lugs on other end	$2.20
807	10′	RG58U	Same as #806 except PL259 and UG175U reducer at both ends	2.60
808	15′	RG58U	Has PL259 and UG175U reducer on one end, two univ. type terminating lugs on other end	2.50
809	15′	RG58U	Same as #808 except PL259 and UG175U reducers are at both ends	3.25

BUBBLE-PACKED

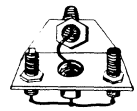
810	20′	RG58U	Has PL259 and UG175U reducer on one end, two univ. type terminating lugs on other end	2.75
811	20′	RG58U	Same as #810 except PL259 and UG175U reducers are at both ends	3.25

ISOLATION NETWORKS

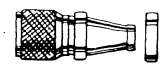


Type	Net Price
UG88U	$ .81
UG88EU	.99
CW123AU	.45
UG175U	.15
UG176U	.15

SOLDERLESS COAXIAL CONNECTORS
ADAPTERS & FITTERS, "F" AND "C" SERIES

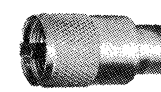


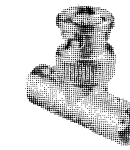
Type	Net Price
SO239	$ .56
PL258	1.14
PL259	.56
UG273AU	1.41
UG274AU	2.88
UG274BU	4.50



Type	Net Price
UG306AU	$2.40
UG306BU	2.64
M359-A	2.76
UG710BU	5.70
MX1142/U	.90

CONNECTORS
UHF - BNC





NEW SOLDERLESS COAX. CONNEC.

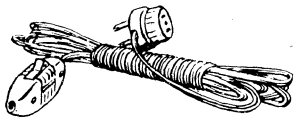
C52	48c	F59	48
C61	48c	F61	55
C81	57c	F81	69

LINE TAPS ALSO AVAILABLE—
Attenuation: color-coded in red, yellow, green and blue.

CUSTOM CABLES—Available with any combination of fittings or connectors

ATTRACTIVELY BUBBLE-PACKED ITEMS- See Page 9 for Complete Listing

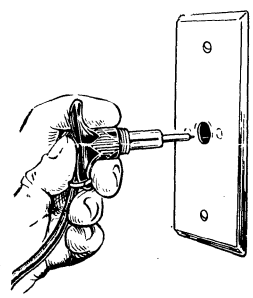
REMOTE APPLIANCE CORD Plug & Switch



15-ft. of 18 ga. heavy duty line cord with heavy duty on-off switch & plug. Save steps: control appliances, TV, and other devices from a distance. Quickly installed, easily operated.

Saxton No. S203 ..... **$1.89 ea.**

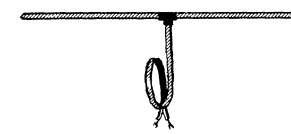
SAXTON "SAFE-PULL"
PLUG-IN DEVICE FOR MASTER TV SYSTEMS



Designed to prevent needless, costly service calls due to broken or shorted leads. Simplifies room maintenance and cleaning. Replaces Motorola plug in common use. Comes complete with 10′ or 20′ low-loss coaxial cable and standard spade lug terminations. Crimping tool available as P/N SP-50.

Saxton No. S205 (10-ft.) ... per set **$2.49**
Saxton No. S206 (20-ft.) ... per set **2.98**

TV-FM INDOOR ANTENNA



300-ohm Folded Dipole with 42
lugged lead-in. Center tap pr
tected in durable molded plasti
housing. Use for FM or TV receive
Easily concealed.
Saxton No. S306 ..... **$1.1**

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Net

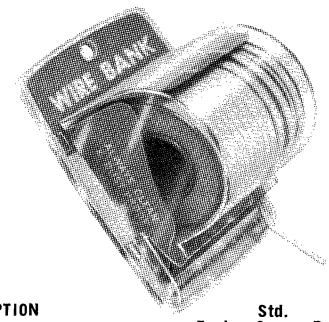
saxton
WIRE & CABLE DIVISION

PACKAGED WIRE SPECIALS

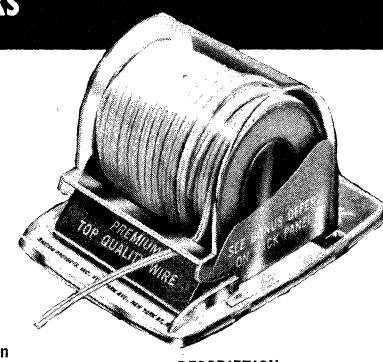
Designed for use at the workbench, in the laboratory, on the production line, in the home . . . wherever small lengths are useful. The unusual Saxton packaging offers maximum convenience, and clean, handy lengths of a wide assortment of standard wires at inexpensive, economical prices.

WIRE BANKS

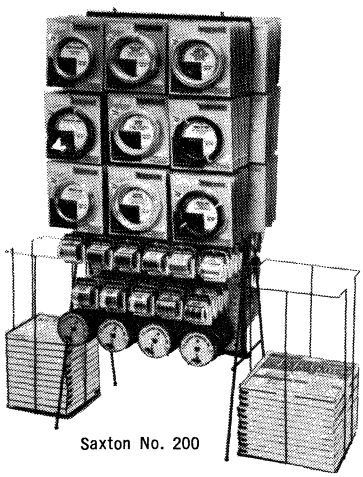
UNI-SPOOLS



TRI-SPOOLS



Saxton Cat. No.	DESCRIPTION	Feet	Std. Case	Price
WIRE BANK—UNI SPOOL "WS" SERIES				
WS-100	Cable — Miniature parallel—24 Ga.—Available in Black, Brown, Clear, Grey and White	53	36	$1.19
WS-101	Microphone cable—Lapel	22	36	1.19
WS-108	Audio cable—Wrap shield—Easily pigtailed	23	36	1.19
WS-112	Phono or grid wire—Shielded—Single conductor	30	36	1.19
WS-113	Hi voltage wire—20 KV rating—Flame retardent	21	36	1.19
WS-115	Hook up wire—18 Ga. solid	60	36	1.19
WS-115B	Hook up wire—18 Ga. stranded	57	36	1.19
WS-116	Hook up wire—20 Ga. solid	80	36	1.19
WS-116B	Hook up wire—20 Ga. stranded	75	36	1.19
WS-117	Hook up wire—22 Ga. solid	100	36	1.19
WS-117B	Hook up wire—22 Ga. stranded	90	36	1.19
WS-118	Bell wire—18 Ga.	63	36	1.19
WS-122	Test Prod wire—Red—Plastic	25	36	1.19
WS-122A	Test Prod wire—Red—Rubber—Extra flexible	20	36	1.19
WS-123	Test Prod wire—Black—Plastic	25	36	1.19
WS-123A	Test Prod wire—Black—Rubber—Extra flexible	20	36	1.19
WS-156	Three conductor, clear, miniature, parallel cable speaker extensions—Stereo and Monaural—Low voltage applications	40	36	1.19
WS-162	Magnet wire for the hobbyist—22 Ga.	114	36	1.19
WS-163	Magnet wire for the hobbyist—24 Ga.	153	36	1.19
WS-164	Magnet wire for the hobbyist—26 Ga.	243	36	1.19
WS-165	Magnet wire for the hobbyist—16 Ga.	24	36	1.19
WS-166	Magnet wire for the hobbyist—18 Ga.	39	36	1.19
WS-167	Magnet wire for the hobbyist—20 Ga.	60	36	1.19
WIRE BANK—TRI-SPOOL "WBS" SERIES				
WBS-100	Speaker extension cable—Miniature parallel—24 Ga. 3 colors—Low voltage applications	60	36	$1.19
WBS-115	Hook up wire—3 colors—18 Ga. solid—Hi quality	57	36	1.19
WBS-115B	Hook up wire—3 colors—18 Ga. stranded—Hi quality	54	36	1.19
WBS-116	Hook up wire—3 colors—20 Ga. solid—Hi quality	66	36	1.19
WBS-116B	Hook up wire—3 colors—20 Ga. stranded Hi quality	72	36	1.19
WBS-117	Hook up wire—3 colors—22 Ga. solid—Hi quality	90	36	1.19
WBS-117B	Hook up wire—3 colors—22 Ga. stranded—Hi quality	81	36	1.19
WBS-119	Hook up wire—3 colors—24 Ga. solid—Hi quality	120	36	1.19
WBS-120	Hook up wire—3 colors—24 Ga. stranded—Hi quality	105	36	1.19
WBS-121	Bell Wire—3 colors—22 Ga.—Hi quality	75	36	1.19
WBS-122	Test Prod wire—Plastic—3 colors	30	36	1.19
WBS-123	Test Prod wire—Rubber—Extra flexible—3 colors	27	36	1.19
WBS-129	Bell wire—3 colors—20 Ga.—Hi quality	60	36	1.19
WBS-131	Bell wire—3 colors—18 Ga.—Hi quality	54	36	1.19
WBS-165	Magnet wire—3 sizes—22 Ga.—24 Ga.—26 Ga.—School experiments—Coils—Home & shop bench—Thousands of uses	Lib. Qty.	36	1.19
WBS-166	Magnet wire—3 sizes—18 Ga.—20 Ga.—22 Ga. — School experiments—Coils—Home & shop bench—Thousands of uses	Lib. Qty.	36	1.19
WBS-167	Magnet wire—3 sizes—24 Ga.—26 Ga.—28 Ga.—School experiments—Coils—Home & shop bench—Thousands of uses	Lib. Qty.	36	1.19
WBS-168	Home or shop assortment of solder—60/40—40/60—50/50 Resin core. 60/40—Printed circuit, etc. 50/50—Chassis work, etc. 40/60—General utility work, etc. Ideal shop or home assortment	Lib. Qty.	36	1.19
WBS-170	Phono pickup wire—Stereo arm assortment	Lib. Qty.	36	1.19
WBS-172	Bus wire—Tinned—20 Ga.—22 Ga.—24 Ga. — Electrical or electronic applications — Highly conductive—Easily soldered—Home or factory bench	108	36	1.19
WBS-175	Hook up wire—Nylon—assortment—Hi Temp	60	36	1.19
WBS-180	High temperature wire—Teflon coated—asstd. colors—3 pkgs.	75	36	1.98



Saxton No. 200

SELF-SERVICE WIRE DEPARTMENT

Choose the floor display that best suits your operation, for increased sales and greater profit. Saxton packaged wire products stay clean, neat, saleable . . . save on storage and selling time. See your Saxton representative for details.

THE "CONCORD" Group

Attractive heavy duty rotating floor display available in three product groupings. Four-sided modern design. Dimensions: 27-inches wide x 63" high.
Saxton No. 8000, 8100, 8200
Retail value, approx. **$460.00**

THE "LEXINGTON" Group

Self-selling island floor display built for long use complete with a wide assortment of popular Saxton wire products. Takes up little space, offers big returns. Dimensions: 2-ft. wide x 4-ft. high.
Saxton No. 200
Retail value, approx. **$430.00**

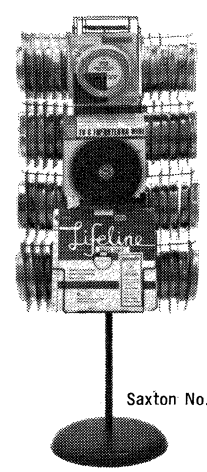
THE "MADISON" Group

A wide variety of Saxton wire products on a compact, sturdy island floor display. Dimensions: 4-ft. wide x 4-ft. high, including side wings. Saxton No. 375 .....
Retail value, approx. **$750.00**

THE "REVERE" Group

A complete wire products department on one space-saving island floor display. Has side wings and bottom shelf. Dimensions: 4-ft. wide x 4-ft. high. Saxton No. 500
Retail value, approx. **$1000.00**

CHOICE OF WIRE PRODUCTS MAY EFFECT DISTRIBUTOR COST.



Saxton No. 8000

Net

© U.C.P., Inc.

saxton
WIRE & CABLE DIVISION

WINDOW-PAKS

*Special purpose cable

Saxton Window-Paks have made it feasible and profitable to move wire *up front* with other prime, fast-moving merchandise. Ideal for every serviceman, technician, engineer, student and "ham", Window-Paks are designed to keep wire tangle-free and clean—*ready for immediate use*. Over fifty constructions are listed here, for every requirement.

Saxton Cat. No.	DESCRIPTION	Feet	Std. Case	Price
	WINDOW-PAK "S" SERIES			
S-92B	Hook up wire—Tinned copper—Stranded—12 Ga. Power supply and filament leads—General purpose—Heavy duty	15	30	$1.19
S-93B	Hook up wire—Tinned copper—Stranded—14 Ga. Power supply and filament leads—General purpose—Heavy duty	17	30	1.19
S-94B	Hook up wire—Tinned copper—Stranded—16 Ga. Power supply and filament leads—General purpose—Heavy duty	23	30	1.19
S-95	Ignition wire for Auto, Boat or Model Airplane	20	20	1.19
S-96	Audio cable—Shielded—2 cond.—22 Ga. w/jacket. General purpose	16	30	1.19
S-98	Mike cable—2 cond. Low impedance. Hi quality Audio cable	18	20	1.19
S-102	Intercom wire—2 cond.—no jacket. (Excellent thermostat wire)	60	20	1.19
S-103	Intercom wire—2 cond.—w/jacket. (Excellent thermostat wire)	35	20	1.19
S-104	Intercom wire—3 cond. no jacket. (Excellent thermostat wire)	40	20	1.19
S-105	Intercom wire—3 cond. w/jacket. (Excellent thermostat wire)	28	20	1.19
S-106	Microphone cable—single cond.—Low capacitance—Hi impedance—Heavy duty	20	20	1.19
S-107	Zip cord—Vinyl—2 cond.—18 Ga. Lamp cord. Available in Brown, Gray and White	30	20	1.19
S-109	Zip cord — Rubber — Extra flexible — Lamp cord. Oil-resistant. Available in Brown and White	25	20	1.19
S-110	Guy wire—Galvanized steel—4 strand—Rust resistant. Garden, house or boat use	120	20	1.19
S-111	Speaker cable—Clear plastic—Polarized—Heavy duty. Also may be used for lamp wiring	30	20	1.19
S-124	Antenna wire—Copper—7/22—Prestretched—Heavy duty.	50	30	1.19
S-126	Antenna wire—Copper—7/26—Prestretched	70	30	1.19
S-127	Guy wire — Aluminum—Rustproof—Will not stain wood or masonry. Guying and general utility	40	20	1.19
S-128	Guy wire—Steel—6 strand—20 Ga—Bright galvanized—Rust resistant	100	20	1.19
S-130	Ground wire—Aluminum—Dead soft #8 AWG solid—General utility	40	20	1.19
S-134	Guy wire—Aluminum—Plastic coated—Flexible — Splinter free — Weather resistant — Non-corrosive—Long lasting—Ideal guy wire	30	20	1.19
S-135	Copperweld wire—Hard drawn—Hi conductivity antenna wire—18 Ga.—Non-stretch—General Utility — House — Farm — Garden—Electric fences—Seeded lawn protection—Do it yourself projects	100	30	1.19
S-138	Coaxial cable—RG58U—52 Ohm—for CB—HAM—Fixed or mobile use	20	20	1.19
S-139	Coaxial cable — RG59U—72 Ohm—Antenna leads	20	20	1.19
S-147*	Telephone extension kit—Color coded—4 conductor wire—with plug & jack	25	20	3.25
S-148	Microphone Cable—3 conductor—One lead shielded—2 leads unshielded—Ideal for push to talk microphone application	16	20	1.19

Saxton Cat. No.	DESCRIPTION	Feet	Std. Case	Price
S-149*	Telephone extension cord—4 conductor—Std. 4-pin moulded plug and jack—adds mobility to phone or intercom	25	20	$3.49
S-160	Television wire — Twin lead — 300 Ohm — Crystal clear—Highly efficient for indoor use — Assumes the color of any surface against which it is installed—Intercom or speaker extensions	40	20	1.19
S-161	4 conductor wire — Excellent for thermostat or intercom hookup—Toys—Kits—Electric trains, etc.	21	30	1.19
S-200*	Appliance cord — Accordion type — Space saver — with lugs — flexible rubber — For toasters, irons, percolators, etc. UL approved	6	20	1.19
S-201*	Appliance cord — Accordion type — Space saver—Flexible rubber—For toasters, irons, percolators, etc. UL approved	6	20	1.1
S-202*	Extension cord—Electric—Accordion type—Space saver—With cube tap—UL approved	6	20	1.1
S-203*	Lazy bones—On/off appliance control for T.V., radio, fan, lamp, heater, percolator	15	20	1.8
S-204*	Aerial kit — For improved broadcast and shortwave reception	—	20	2.6
S-205*	Safe-pull—Improved type of plug-in device for master T.V. antenna system. Replaces popular motorola type plug	10	20	2.4
S-206*	Safe pull—Improved type of plug-in device for master T.V. antenna system. Replaces popular motorola type plug	20	20	2.9
S-207*	Stereo harness—Efficient hook up of stereo speaker systems—Approximately 40 feet of separation	—	20	1.7
S-208*	Retractile coiled cord—Microphone cable—1 shielded—2 unshielded	6	30	2.3
S-209*	Retractile coiled cord—Microphone cable—1 shielded—3 unshielded	6	30	3.1
S-211*	Aerial kit—Deluxe—For improved broadcast and shortwave reception—Heavy duty antenna wire & heavy duty lead-in wire	—	20	3.
S-301*	Test leads—3 color coded—30" leads with alligator clips attached at both ends—For all automotive and household use	—	20	1.
S-306*	FM antenna—Folded Di-Pole—Ideal for FM multiples—Improves reception	—	20	1.
S-810*	Citizen Band extension—RG58/U with PL-259 and UG-175/U reducer 1 end and 2 universal terminating lugs other end	20	20	2.
S-811*	Citizen Band extension—RG58/U with PL-259 and UG-175/U at both ends	20	20	3
	TWIN LEAD WINDOW-PAK			
TS-25	Twin Lead—300 Ohm—For improved FM or TV reception. Brown, Clear, Gold & Silver	25	20	
TS-50	Twin Lead—300 Ohm—For improved FM or TV reception. Brown, Clear, Gold & Silver	50	20	1
TS-75	Twin Lead—300 Ohm—as above	75	20	1
TS-100	Twin Lead—300 Ohm—For improved FM or TV reception. Brown, Clear, Gold & Silver	100	20	1

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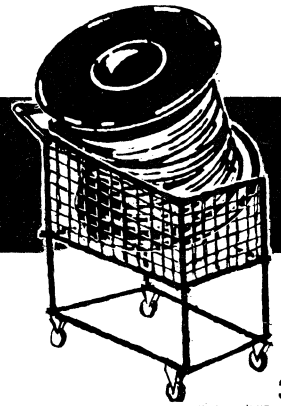
Net



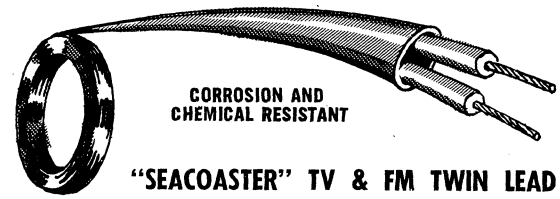
SAXTON SPECIAL PRODUCT SECTION

SHIELDED 300-OHM TWIN LEAD

Saxton No. 1118—Each conductor #20AWG. Features abrasion-proof Vinyl jacket. Delivers noise-free signal on FM, FM Multiplex, TV. Also available in 72-ohm type.

100-ft. coil **$9.95**

1000-ft. spool **86.93**



"SEACOASTER" TV & FM TWIN LEAD

Designed to resist air-borne corrosives and chemical reactions. 300-ohm 20 gauge (7 x 28) copper conductors encased in low loss PE foam and tough, brown outer jacket.

Saxton No. 1017—100-ft. coil. **$4.49**

Saxton No. 1017—1000-ft. spool **44.63**

TELEPHONE WIRE

Saxton No. TW-199—2-conductor, stranded for indoor or outdoor use.

100-ft. coil **$2.09**

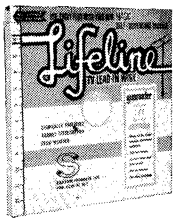
HEAVY DUTY SHIELDED IGNITION WIRE

Saxton No. 1S98—For ham or CB applications. Reduces noise.

15-ft. coil **$1.25**

DISPENSER-PACKAGED TRANSMISSION LINE

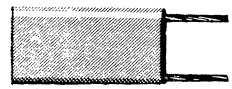
FINEST QUALITY "LIFELINE" SERIES



Tangle-free, dust-proof, economical packages

SPECIAL DISPENSER PACKAGE

LIFELINE TWIN LEAD

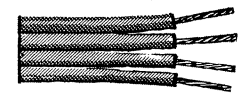


Full size, heavy duty deluxe twin lead constructed of the finest materials. Chemically protected against deterioration. In Magic Dispenser.

Saxton LTL (100-ft.), Brown $2.95

Saxton LTLC (100-ft.), Clear 3.49

LIFELINE "100" ROTOR CABLE



Extra heavy duty 4-conductor rotor cable. Superior quality. One leg polarized for easy reference. Sold in exclusive Magic dispenser carton.

Saxton L4FC (100-ft.), Brown **$3.59**

LOW LOSS UHF LIFELINE TUBULAR TWIN LEAD

Heavy duty brown PE designed for UHF use. 20-gauge.

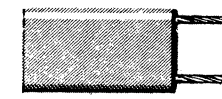
Saxton No. TTL (100-ft. coil) **$2.95**

Saxton No. TTL1M (1000-ft. coil) **$23.50**

LOW LOSS LIFELINE "SPONGEE" TWIN LEAD

Designed especially for UHF, "Spongee" provides stronger signals on VHF. 300-ohm 20-ga. stranded copper conductors encased in porous, low loss PE foam. Low cost economy type available on special request.

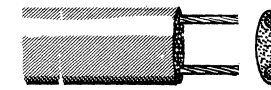
ECONOMY TWIN LEAD



Fine quality twin lead constructed of 55 mil dia. with 7 strand, 22-ga. copper wire.

Saxton ETL (100-ft. Dispenser Pkg.) Brown, $1.89

Saxton ETLC (100-ft. Dispenser Pkg.) Clear, 2.19



Saxton No. 1016/100 (100-ft. coil) **$3.59**

Saxton No. 1016/1M (1000-ft. spool) **$34.50**

6-PAK TAPE STORAGE CASE

Sturdily constructed, indexed Tape Storage Case designed for bookshelf. Compartmented to accommodate six 7-inch reels, boxes and cans. Covered with attractive simulated leather.

Saxton No. RT-706 ..... ea. **99c**

Complete unit. Includes above Case plus six Saxton No. 1231 Tape Cans.

Saxton No. RT-707 ..... **$2.89**

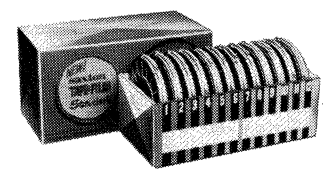
TAPE REELS

5" and 7" warp-proof, clear Polystyrene reels, individually boxed.

Saxton No. TR-5—
5-inch **39c ea.**

Saxton No. TR-7—
7-inch ..... **49c ea.**

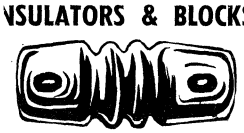
Film & Recording Tape STORAGE CHEST



Saxton No. 1230—Complete with 12 Swivel-locked, dust-proof storage cans. Insures moisture and dust-free storage of valuable tape and film. Attractive indexed storage chest. High-impact Styrene containers accommodate 5" and 7" tape or 8mm film **$4.98**

Saxton No. 1231—Individual containers, each 49c

INSULATORS & BLOCKS



Saxton No. 1154
Net Price ..... **10c** ea.

Doublet type antenna insulator, white glazed. Excellent electrical characteristics, high tensile strength. Dim.: 4½" x 2¾".

Saxton No. 1155 ..... **32c**

Airplane type "egg" insulator. Low air resistance, high tensile strength, white porcelain glaze. 2" long.

Saxton No. 1156 ..... **10c**

Transposition block with porcelain glaze finish. Use with many types of doublet antennae.

Saxton No. 1157 ..... **32c**

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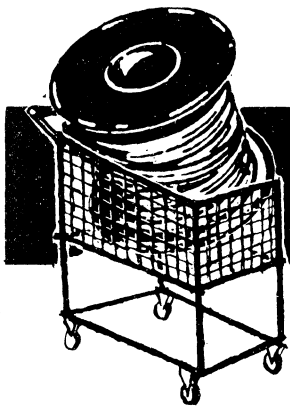
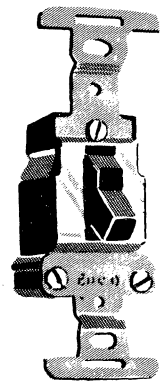


SAXTON SPECIAL PRODUCT SECTION

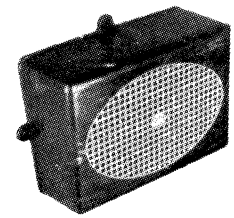
DELAYED ACTION • COMMERCIAL SAFETY SWITCH



Switch "off" and the lamp goes out SIXTY SECONDS LATER! Allows sufficient time to reach destination SAFELY. Replaces present wall switch in seconds. Ideal for Home, Farm or Cottage. Fully guaranteed and UL Approved.

Saxton No. S560 (Ivory) or
Saxton No. S561 (Brown) **$2.98**

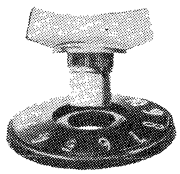
PATIO SPEAKER BAFFLE



Made of unbreakable, high impact styrene. Mahogany color only. Complete with hardware and mounting instructions. Use as 6" x 9" speaker for paging, monitoring, as patio and stereo extensions, or as extension speaker anywhere. **$2.98**

6" x 9" SPEAKER—Complete with volume control and knob, baffle and instructions
Saxton No. B1206 ..... **$4.98**

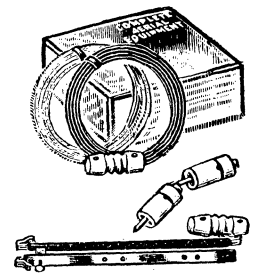
"UNI-GRIP" UNIVERSAL TV KNOB



REPLACES THOUSANDS OF LOST, OBSOLETE OR UNAVAILABLE TV KNOBS
New "UNI-GRIP" universal TV knob fits more than 90% of all TV sets! Accommodates all half-round, flat or double-slotted shafts. Choice of two types for protruding or recessed tuner shafts. EASILY INSTALLED! Sets include 2 keys and 2 skirts for channel selector and on-off volume control.

Saxton No. UK-S1 (short shaft, UHF) $3.95
Saxton No. UK-S2 (short shaft, VHF) 3.95
Saxton No. UK-L1 (long shaft, UHF) 3.95
Saxton No. UK-L2 (long shaft, VHF) 3.95

SHORT-WAVE ANTENNA KITS

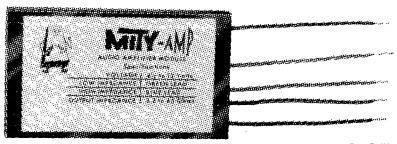


Designed for efficient operation with all receivers.

Saxton No. 4300—Short-wave kit includes 66' heavy duty antenna wire; one transposition block; 50' heavy duty twisted lead cable; two insulators; two window straps and two nail knobs **$4.98**

ALL KITS INCLUDE COMPLETE INSTRUCTIONS
SEE SAXTON PAGE 9 FOR STANDARD AND DELUXE KITS

"MITY-AMP" 2-WATT AUDIO AMPLIFIER



MA-100 **9.95**

MA-101—2.5 Watt "Mity-Amp". Dim.: 2⅝"Lx 1¾"Wx½"D **$11.95**

OTHER AMPLIFIER TYPES AVAILABLE

COMPLETELY EPOXY ENCAPSULATED MODULE
Shock-proof • Water & Moisture-proof • Dirt & Dust-proof

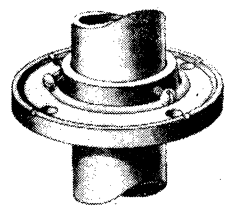
FEATURES
* SPACE-SAVING—2" x 3½" x ⅞"
* HI-FI AMPLIFIER—20 cy. to 15KC ±db at 1-watt level
* LIGHTWEIGHT—Weighs total of 6 ounces
* RUGGED—Unconditionally guaranteed. Shock, moisture and dust-proof
* EASY TO INSTALL & USE—Hooked up in minutes. Simple instructions make unit functional immediately.
* ECONOMICAL—Low in price, big in performance. Long, trouble-free life. Total power requirement 6 or 12 volts.
* PORTABLE—Operates on auto or boat battery
* VERSATILE—Uses limited only by your ingenuity. Ideal for p. a. system, phono amplifier, stereo, intercom, signal tracer, modulation, tape monitor, etc.

SPECIFICATIONS
1. INPUT VOLTAGE REQUIRED TO DRIVE FULL POWER—.5 Volts
2. POWER REQUIREMENTS—6 to 12 volts at 300 to 700 ma. Current determined by speaker voice coil impedance.
3. FREQUENCY RESPONSE—20 cy. to 15 KC ±2 db at 1 watt level.
4. INPUT IMPEDANCE—45 ohms to 50K ohms.
5. OUTPUT IMPEDANCE—3.2 to 45 ohms.
6. WEIGHT—Six ounces.
7. OVERALL SIZE—2" x 3½" x ⅞".
8. HIGHLY SHOCKPROOF — Unaffected by dust, dirt or moisture. Operable under water.
9. GUARANTEED AGAINST DEFECTS.

TV ANTENNA MATCHING BALUN COILS

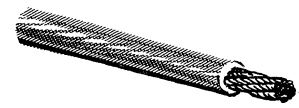
Efficiently matches 72 to 150 ohms; 72 to 450 ohms; 150 to 300 ohms; 150 to 450 ohms; 300 to 450 ohms and 75 to 300 ohms. Eliminates standing waves. Use as set coupler, impedance transformer or for line matching, etc. Instructions included. **Available in bulk.**
Saxton No. 1121 pair, **99c**

FLOATING GUY RINGS



Cast aluminum, two-piece floating guy ring. Fits most masts up to 1½" dia. Individually packed, complete with hardware, in plastic bags.
Saxton No. 1099 ..... **74c**

Heavy Duty Super Guy Wire and MESSENGER CABLE



Super flexible (49-strand wire rope), galvanized steel wire. 2100-lb. breaking strength. Has clear vinyl jacket. Ideal for tiller or boat rudder cable.
Saxton No. 5112—
(100-ft. coil) **$7.25**

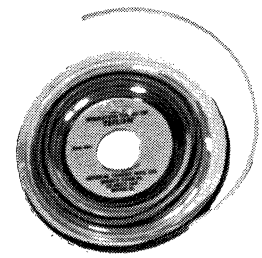
FIBRE GLASS GUY LINE

Non-radiating, non-absorbing, high strength "wireless" guy wire i vinyl jacket. 500-lb test strengt 100-ft. coil.
Saxton No. 7000 ..... **$2.1**

SUPER-STRONG FIBRE GLASS GUY WIRE
Same as above but in grey vin jacket. 1000-lb. tensile strengt 100-ft. coil.
Saxton No. 7002 ..... $4.

Walsco ELECTRONICS INSULATING TUBING

WALSCO INSULATING TUBING OF TEFLON



TEFLON "spaghetti" has unsurpassed electrical and mechanical qualities. Withstands temperatures from 450° below zero F. to 500° above zero F. Will not melt near solder joints. Outstanding dialectric properties—zero moisture absorption. Chemically inert. Completely weatherproof. A big feature is the low co-efficient of friction.

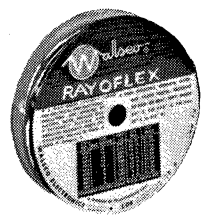
Part No.	Feet Per Spool*	Color	Gauge	I.D. (Inches)	Wall Thickness	Net Per Spool
690-1	10	Nat	24	.022	.010	$ 1.33
690-1C	100	Nat	24	.022	.010	11.83
690-4	10	Red	24	.022	.010	1.33
690-4C	100	Red	24	.022	.010	11.83
690-5	10	Blue	24	.022	.010	1.33
690-5C	100	Blue	24	.022	.010	11.83
691-1	10	Nat	22	.027	0.12	1.47
691-1C	100	Nat	22	.027	.012	13.26
691-4	10	Red	22	.027	.012	1.47
691-4C	100	Red	22	.027	.012	13.26
691-5	10	Blue	22	.027	.012	1.47
691-5C	100	Blue	22	.027	.012	13.26
692-1	10	Nat	20	.034	.012	1.83
692-1C	100	Nat	20	.034	.012	18.27
692-4	10	Red	20	.034	.012	1.83
692-4C	100	Red	20	.034	.012	18.27
692-5	10	Blue	20	.034	.012	1.83
692-5C	10	Blue	20	.034	.012	18.27
693-1	10	Nat	18	.042	.012	2.23
693-1C	100	Blue	18	.042	.012	20.88
693-4	10	Red	18	.042	.012	2.23
693-4C	100	Red	18	.042	.012	20.88
693-5	10	Blue	18	.042	.012	2.23
693-5C	100	Blue	18	.042	.012	20.88
694-1	10	Nat	16	.053	.012	2.65
694-1C	100	Nat	16	.053	.012	25.02
694-4	10	Red	16	.053	.012	2.65
694-4C	100	Red	16	.053	.012	25.02
694-5	10	Blue	16	.053	.012	2.65
694-5C	100	Blue	16	.053	.012	25.02
695-1	10	Nat.	14	.066	.012	2.92
695-1C	100	Nat	14	.066	.012	28.38
695-4	10	Red	14	.066	.012	2.92
695-4C	100	Red	14	.066	.012	28.38
695-5	10	Blue	14	.066	.012	2.92
695-5C	100	Blue	14	.066	.012	28.38
696-1	5	Nat	12	.085	.014	1.83
696-1C	100	Nat	12	.085	.014	34.28
696-4	5	Red	12	.085	.014	1.83
696-4C	100	Red	12	.085	.014	34.28
696-5	5	Blue	12	.085	.014	1.83
696-5C	100	Blue	12	.085	.014	34.28
697-1	5	Nat	10	.106	.014	2.17
697-1C	100	Nat	10	.106	.014	41.58
697-4	5	Red	10	.106	.014	2.17
697-4C	100	Red	10	.106	.014	41.58
697-5	5	Blue	10	.106	.014	2.17
697-5C	100	Blue	10	.106	.014	41.58

Std. Pack 10′ and 5′ Spools: 12
Std. Pack 100′ Spools: 1

* BULK PRICES QUOTED ON REQUEST

WALSCO RAYOFLEX

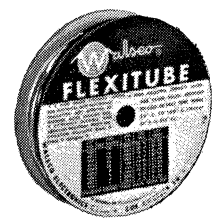
For the serviceman and industrial user of insulated tubing. Rayoflex combines the mechanical strength of fiberglas with the protective properties of synthetic lacquer to produce a tough, rugged insulating tubing. Rayoflex is more flexible and less affected by aging than conventional varnished tubing. Rayoflex is smooth inside and out making the insertion of wires, etc., very easy. Has a dielectric strength of 4,000 to 5,000 volts. Meets MIL-I-3190. Sizes up to #6 are packed on a handy spool.



Net per spool $ .82

Cat. No.	Size B&S Gauge No.	Approx. I.D. Inches	mm	Quantity Per Spool
630-(color)	18	.042	1	10 ft.
631-(color)	15	.059	1.5	8 ft.
632-(color)	12	.085	2	8 ft.
633-(color)	9	.118	3	5 ft.
634-(color)	6	.166	4	5 ft.

AVAILABLE IN BLACK, RED, BLUE and YELLOW COLORS. To specify COLOR add suffix to above catalog number as follows: -R3 for Black, -R4 for Red, -R5 for Blue, -R6 for Yellow. Example: — 630-R3 is 18 gauge, Black.



WALSCO FLEXITUBE

Walsco Flexitube is the ideal supplemental insulation for most electronic and electrical applications. Flexitube is impervious to water, oil, alcohol, most acids and alkalies. Has an outstanding dielectric strength of 15,000 volts (average) before breakdown. Is not affected by temperature extremes.

Net per spool $ .82

Cat. No.	Size B&S Gauge No.	Approx. I.D. Inches	mm	Quantity Per Spool
600-(color)	18	.042	1	20 ft.
601-(color)	16	.053	1.4	20 ft.
602-(color)	14	.066	1.6	18 ft.
603-(color)	12	.085	2	16 ft.
604-(color)	10	.106	2.7	14 ft.
605-(color)	8	.133	3.5	12 ft.
606-(color)	6	.166	4	10 ft.
607-(color)	4	.208	5	6 ft.
608-(color)	2	.263	6.5	6 ft.

AVAILABLE IN CLEAR, GREEN, BLACK and RED COLORS. To specify COLOR add suffix to above catalog number as follows: -01 for Clear, -02 for Green, -03 for Black and -04 for Red. Example: 600-01 for 18 gauge, Clear.

Net

© U.C.P., Inc.

E-Z CODE *self-adhering* electronic WIRE MARKERS

IDENTIFY WIRE AND CABLES OF ANY SIZE

Identification applied around-the-wire without ever touching adhesive side of marker . . . "with E-Z-Codes you grab the tab—not the adhesive" . . . Available in popular Vari-Temp cloth listed below, Aluminum-foil, Vinyl-plastic, Polyester-film. Ask for complete Westline stock list (form EZ8-1) of thousands of markers . . . specials available too.

Better Stick with E-Z Codes

VARI-TEMP CLOTH MARKERS (WBC)

PRINTING ON MARKER	MARKERS PER CARD ¾"	MARKERS PER CARD 1½"
NUMBERS ALL THE SAME		
0	72	36
1	72	36
2	72	36
and so on thru		
98	72	36
99	72	36
100	52	26
and so on thru		
598	52	26
599	52	26
600	52	26
CAPITAL LETTERS		
A	72	36
B	72	36
and so on thru		
Y	72	36
Z	72	36

PRINTING ON MARKER	MARKERS PER CARD ¾"	MARKERS PER CARD 1½"
NUMBERS IN SEQUENCE		
1-33	66	33
34-66	66	33
67-99	66	33
and so on thru		
225-249	50	25
250-274	50	25
275-299	50	25
and so on thru		
1975-1999	50	25
NUMBERS IN REPEATED SEQUENCE		
0-9	60	30
0-10	66	33
1-3	72	36
1-4	72	36
1-5	70	35
1-6	72	36

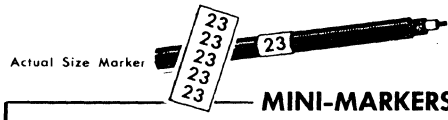
PRINTING ON MARKER	MARKERS PER CARD ¾"	MARKERS PER CARD 1½"
cont'd.		
1-8	64	32
1-9	72	36
1-10	66	33
1-12	64	32
1-18	72	36
19-36	72	36
LETTERS IN REPEATED SEQUENCE		
A-Z plus A-J	72	36
A-Z plus 0-9	72	36
A-E	70	35
F-J	70	35
K-O	70	35
P-T	70	35
U-Z	72	36

NET PRICES

QUANTITY	VARI-TEMP (WBC) CLOTH
30-99 cards	$20.00/c
100-499 cards	16.00/c
500-999 cards	14.00/c
1000-2499 cards	13.00/c
2500-4999 cards	12.50/c
5000-9999 cards	12.00/c

over 10,000 write for quotation
Specify 1½" or ¾" marker length

Also available: Numbers repeated, Letters in Sequence, lower case letters, Color Codes, Colors with numbers, Symbol, phase & cycle markers, etc.



½" long stock marker for miniature wires under 5/32" O.D.

Legend appears five times for maximum "around-the-wire" visibility.

MINI-MARKERS (Miniature) WBC

NUMBERS ALL THE SAME	
0	100 markers per card
1	100 markers per card
and so on thru	
99	100 markers per card
100	66 markers per card
and so on thru	
250	66 markers per card
LETTERS ALL THE SAME	
A	100 markers per card
B	100 markers per card
and so on thru	
Z	100 markers per card

NUMBERS IN SEQUENCE	
0-49	100 markers per card
50-99	100 markers per card
100-132	66 markers per card
133-165	66 markers per card
166-198	66 markers per card
199-231	66 markers per card
232-264	66 markers per card
265-297	66 markers per card

COMBINATION CARD

Two rows: Each row consisting of one marker A thru Z and 0 thru 15 and FIL, GRD, B+, PRI, SEC, PLA. (96 markers per card).

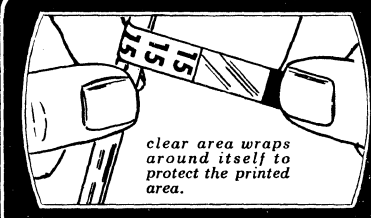
NET PRICES

QUANTITY	MINI-MARKERS (WBC)
30-99 cards	$18.00/c
100-499 cards	14.40/c
500-999 cards	12.60/c
1000-2499 cards	11.70/c
2500-4999 cards	11.25/c
5000-9999 cards	10.80/c

over 10,000 write for quote
½" long marker

Also available: Sub-Miniature Markers from stock—write for form #EZ8-1.

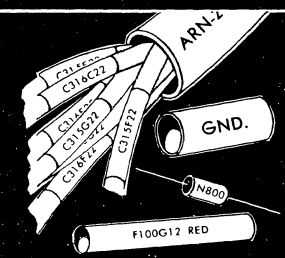
Better Stick with E-Z Codes



SELF-LAMINATING Wire Markers

Designed to resist oils, grease, chemicals, fluids, foreign matter. Available in variety of printed and blank "write-on" type markers.

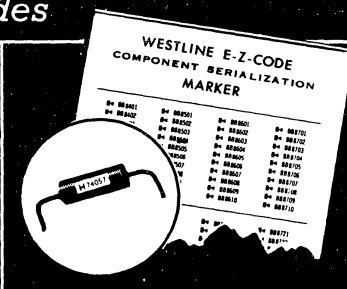
Free samples, literature write for Form #SL4-6



SHUR-CODE Pre-printed Sleeving

Printed insulation sleeving that is slipped over wires, cables, harnesses for permanent identification. Standard and Special materials meet mil spec.

Free samples, literature write for Form #051258



COMPONENT SERIALIZATION Micro-miniature Markers

Designed to identify miniature components. Available in any combination of codes. Self-adhering markers are ready for application. Meets mil spec.

Free samples, literature write for Form #CS1060

— Distributorships Available —

WESTLINE E-Z-CODE® DIVISION

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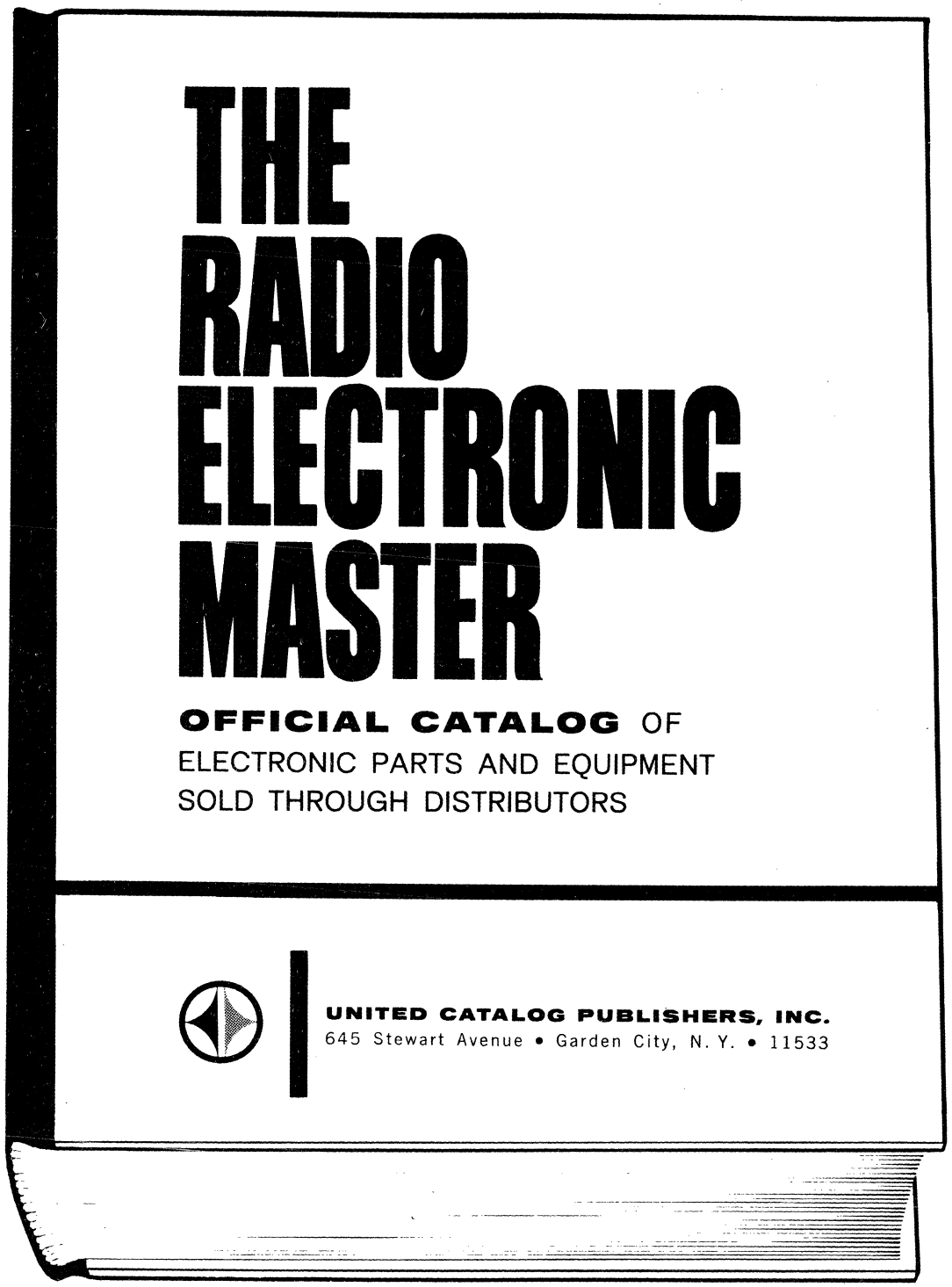

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